THIS FILM MAY NOT BE USED TO REPRODUCE ADDITIONAL FILM COPIES

Use of this film in reproduction is limited to individual page reprints when occasional demands require paper copies for use and study.

Micro Photo Inc.

OFFICIAL GAZETTE

UNITED STATES PATENT OFFICE

VOL. 242 - 243

SEPT. - OCT.

1917

MICRO PHOTO INC.
CLEVELAND, OHIO

OFFICIAL GAZETTE

OF THE

UNITED STATES PATENT OFFICE.

VOLUME CCXLII.

SEPTEMBER,

1917.

WASHINGTON
GOVERNMENT PRINTING OFFICE
1918

ERRATA.

1,240,236, page 547, strike out all after number—heading and claims—and insert the word WITHDRAWN.

1,241,140, page 860, claim 22, line 9, beginning with the word "said," second occurrence, strike out all to and including the word "position," line 10.

1,240,884, page xxi, index, September 25, 1917, Internal-combustion engine, W. Schenker, O. G. page, for "881" read 781.

VOL. 242.

CONTENTS.

	Page.
PATENTS AND DESIGNS GRANTED, September 4, 11, 18, 25	3, 259, 523, 735
TRADE-MARKS PUBLISHED AND REGISTERED, September 4, 11, 18, 25	237, 497, 731, 977
LABELS AND PRINTS REGISTERED, September 4, 11, 18, 25	252, 514, 748, 991
DECISIONS OF THE COMMISSIONER OF PATENTS, September 4, 11, 18, 25	253, 515, 749, 993
INDEX TO THE DECISIONS OF THE COMMISSIONER OF PATENTS	997
ALPHABETICAL LIST OF PATENTEES AND INVENTIONS	1

ANNOUNCEMENTS.

	Page.
ADVERSE DECISIONS IN INTERFERENCE—	
Baker, No. 1,123,065	257
Carman, No. 1,123,242	1
Draughon, No. 1,195,567	521
Huff, No. 1,207,759	521
Lindquist, No. 1,146,889	257
O'Neil, No. 1,166,926	257
Reynolds, No. 1,147,437	521
APPLICATIONS—	
Condition of pending	2, 258, 522, 754
BRIEFS IN APPEALED CASES	257
DISCLAIMERS—	
Down, Thomas Macready	521
Jones, William	521
EXAMINERS' LETTERS AND AMENDMENTS	1
FOREIGN PATENTS—	
Rule 29	1
FOREIGN PATENT LAWS—	
Union of South Africa	996
INTERFERENCE NOTICES—	
Garvy Company, The	1, 257
George, Philip T., Jr	753
Nethery, Wilmot B	753
Preston, John N	1, 257
INTERNATIONAL CONVENTION FOR THE PROTECTION OF INDUSTRIAL PROPERTY—	
Morocco	752
LIBERTY LOAN—	
Notice relative to second issue	1, 257, 521, 753
PATENTS—	
List of adjudicated	521, 753

INDEX

TO THE

DECISIONS OF THE COMMISSIONER OF PATENTS AND OF THE UNITED STATES COURTS.

SEPTEMBER, 1917.

[Decisions of the Court of Appeals of the District of Columbia are indicated by a star (*) and of the United States Circuit Court of Appeals by the letter d.]

TABLE OF CASES.

	Page.
*Aufiero v. Monnot	750
Campbell v. Dyson v. Dunham	253
*Coffin Redington Co. v. Turner	751
Herber. *Ex parte*	749
*Herber. *In re*	749
*Macwilliam v. President Suspender Company	255
*Minor. *In re*	993
dNorth American Chemical Co. v. Keno Supply Co	515
*Vreeland. *In re*	995

SUBJECT-MATTER INDEX.

	Page.
*Construction of claims, anticipation, *in re* Minor	993
In re Herber	749
*Comparison with reference shows nothing patentable, *in re* Vreeland	995
dReference to specification for explanation frequently necessary, North American Chemical Co. v. Keno Supply Co	515
Substitution of equivalents, *ex parte* Herber	749
*Interdependent claims, where three claims are old and the devices therein are claimed only in combination with devices of a fourth claim, if this claim falls the other claims fall therewith, *in re* Minor	993
Interference, effect of dissolution, Campbell v. Dyson v. Dunham	253
Where interference between two parties is dissolved because one party has no right to make claim and another party has made some of the claims before dissolution of interference, the right of the third party to make such claims is not *res adjudicata*, Campbell v. Dyson v. Dunham	253
Interference proceedings, not for the purpose of determining patentability, Campbell v. Dyson v. Dunham	253
*Invention, change in degree only, not new result, *in re* Minor	993
*Judicial notice, fact that devices of the same character are old and in great variety will be noticed in sustaining rulings of Patent Office in rejection of claims, *in re* Minor	993
dParticular patents, Arnold, No. 808,227, shoe-filling machine, void for lack of invention, not infringed, North American Chemical Co. v. Keno Supply Co	515
dThoma, No. 808,224, process of filling shoe-bottoms, void for lack of invention, North American Chemical Co. v. Keno Supply Co	515
dParticular patents, etc.—continued.	
dThoma, No. 832,002, shoe-bottom filler, valid and infringed, North American Chemical Co. v. Keno Supply Co	515
*Reduction to practice, delay in filing application, Aufiero v. Monnot	750
Second interference, previous interference terminated without final hearing does not work estoppel against contest as to priority by common assignee, Campbell v. Dyson v. Dunham	253
*Substitution of parts not invention, *in re* Minor	993
*Trade-marks, bill in equity not maintained unless use of mark has been honest and free from false and fraudulent representation, Coffin Redington Co. v. Turner	751
*Conveyance of business carries with it trade-mark used in connection therewith whether mentioned in the instrument or not, Macwilliam v. President Suspender Company	255
*Owner of mark who grants right to use to another by license or sale and abandons it himself cannot deprive that other of the use or set up adverse use, Macwilliam v. President Suspender Company	255
*Rights acquired by license, Macwilliam v. President Suspender Company	255
*Where the mark itself is not deceptive, but the accompanying statements are, registration on the ground of prior use should be denied, Coffin Redington Co. v. Turner	751

DIGEST

OF THE

DECISIONS OF THE COMMISSIONER OF PATENTS AND OF THE UNITED STATES COURTS.

SEPTEMBER, 1917.

[Decisions of the Court of Appeals of the District of Columbia are indicated by a star (*) and of the United States Circuit Court of Appeals by the letter ª.]

ABANDONMENT OF TRADE-MARK.

See Right to Use Trade-Mark.

ANTICIPATION.

See Construction of Claims, 2, 3, 4.

BILL IN EQUITY.

See Registration of Trade-Marks, 1.

COMBINATION.

See Interdependent Claims.

CONCEPTION OF INVENTION.

See Reduction to Practice.

CONSTRUCTION OF CLAIMS.

1. REFERENCE TO SPECIFICATION.
Claims in a patent are frequently explained and must necessarily be explained by reference to the specification; but claims which are lacking in the definiteness or clearness required by statute cannot be thus made good.
[ª North American Chemical Co. *v.* Keno Supply Co., 515.

2. PATENTABILITY—SUBSTITUTION OF EQUIVALENTS—CRACKING OIL.
Claims for a method of cracking oil by the direct application of heat thereto *Held* unpatentable over a reference disclosing a similar method in which another well-known way of heating the oil is used.
[*Ex parte* Herber, 749.

3. SAME—INVENTION—SEPARATING OIL.
The appealed claims compared with the reference Forward, 1,189,083, and *Held* to be completely anticipated thereby.
[**In re* Herber, 749.

4. SAME—ANTICIPATION.
Claims for a can-opener the distinctive features of which were a curved forward cutting edge related both in construction and position to a pivot edge or fixed axis of revolution as described and a spherically-shaped blade positioned as described with relation to the pivot edge or fixed axis of revolution were *Held* anticipated by a French patent for a can-opener describing a blade always forming a constant angle with the cover of the can, whatever the inclination of the handle, and pointing out how to plot a tool mathematically, so as to bring about this relation of the parts, and a British patent describing a can-opener with a curved cutting edge, but with a fixed pivot to form a fulcrum and to grip the edge of the tin can or box to "facilitate the feed" of the knife.
[**In re* Minor, 906.

5. SAME—INVENTION—RADIOTELEGRAPHY.
The appealed claims compared with the reference Fessenden, No. 1,050,441, and *Held* to involve no patentable novelty.
[*In re* Vreeland, 906.

DECEPTIVE TRADE-MARK.

See Registration of Trade-Marks, 2.

DELAY IN FILING APPLICATIONS.

INTERFERENCE—REDUCTION TO PRACTICE.
Where A. reduced to practice in July, 1910, in the presence of several witnesses under no injunction of secrecy, and thereafter exhibited the invention to R., with a view to having it exploited, the mere fact that he delayed the filing of his application until June 12, 1912, is not sufficient to deprive him of the fruits of his discovery where there is no evidence that he was induced to file because of any activity on the part of another; nor are there any circumstances tending to impugn his good faith in any way. (*Gairman* v. *Gillette*, 165 O. G., 344; 36 App. D. C., 440; *Hubbard* v. *Bey*, 195 O. G., 818; 40 App. D. C., 577; *Stewart* v. *Thomas*, 202 O. G., 1263; 42 App. D. C., 222; *Piermann* v. *Chisholm*, 226 O. G., 1106; 44 App. D. C., 460.)
[*Auflero *v.* Monnot, 750.

DISCLOSURE OF INVENTION.

See Reduction to Practice.

DISSOLUTION OF INTERFERENCE.

See Interference, 1, 4.

EQUIVALENTS.

See Construction of Claims, 2.

ESTOPPEL.

See Interference, 4.

FINAL HEARING.

See Interference, 4.

FORMER DECISIONS CITED.

See Delay in Filing Applications; Reduction to Practice; Registration of Trade-Marks, 1.

FRAUD.

See Registration of Trade-Marks, 1.

INDEFINITENESS.

See Construction of Claims, 1.

INFRINGEMENT.

See Particular Patents, 1, 3.

INTERDEPENDENT CLAIMS.

COMBINATION.
Where an applicant concedes that certain devices described in three of his claims are old and states that they are claimed only in combination with the devices of a fourth claim and that claim is rejected, the other three claims fall with it.
[**In re* Minor, 906.

INTERFERENCE.

See Delay in Filing Applications; Reduction to Practice.

1. SECOND DECLARATION.
Where an interference declared between parties K. and D. was dissolved on the ground that K. had no right to make a claim suggested to him by the Office, and C., also assignor to the assignee of K., had before the dissolution made some of the claims of the issue, *Held* that the right of C. to make the claim was not *res adjudicata* by reason of the dissolution of the first interference.
[Campbell *v.* Dyson *v.* Dunham, 253.

2. PURPOSE—NOT TO DETERMINE PATENTABILITY.
An interference is not a proceeding to determine whether the parties have a right to a patent. It starts with the assumption that both parties have a clear right to a patent except for the simultaneous claim of the other. [Id.

3. DISSOLUTION—EFFECT OF.
The dissolution of an interference on the ground that one of the parties has no right to make any of the claims of the issue is merely a ruling that it was a mistake to declare the interference as to that party. [Id.

4. SAME—SAME.
A previous interference which terminated without final hearing and decided nothing more than that one of the parties thereto did not have the invention in issue does not work estoppel against a common assignee to contest priority with the successful party on the basis of another application which prior to the termination of the prior interference contained claims corresponding to the issue thereof and a request to be included therein. [Id.

INVENTION.

See Construction of Claims, 2, 3, 5; Particular Patents, 1, 2.

1. SUBSTITUTION OF PARTS.
It is not invention to merely make a selection of old parts which bear substantially the same relation to the operation of a tool that they did to tools in which they were used separately before the supposed invention. [*In re* Minor, 993.

2. SAME—DEGREE.
No new result is attained by a can-opener because it has a longer cut than one already patented, where the latter cuts more rapidly, as the entire operation of opening a can may be effected as quickly by one as the other. [*Id.

3. JUDICIAL NOTICE.
Tool-handles designed to fit the hands are very old and of infinite variety, and the court will take judicial notice of that fact in sustaining a ruling of the Patent Office rejecting a claim for a handle of a can-opener so shaped as to fit the hand and to make it light in weight. [*Id.

JUDICIAL NOTICE.

See Invention, 3.

LICENSE.

See Opposition to Registration of Trade-Marks; Registration of Trade-Marks.

NEW RESULTS.

See Invention, 1.

OLD DEVICES.

See Interdependent Claims; Invention.

OPPOSITION TO REGISTRATION OF TRADE-MARKS.

See Right to Use Trade-Mark.

SUSTAINED—"PRESIDENT" FOR SUSPENDERS.
Where appellant, being owner of a patent and engaged in manufacturing suspenders thereunder and having adopted and used as a trade-mark thereon the word "President" on a colored banner, granted to the predecessor of appellee an exclusive license under the patent and agreed to transfer and turn over the good-will of his business and all orders he had or might thereafter have for said suspenders, the license to continue during the life of the patent, and at request of licensee registered the trade-mark, *Held* when appellee's right to continue business became absolute with the expiration of the patent it had acquired a title to the use of the mark of which it could not be divested by appellant and that the opposition to appellant's application for registration filed June 26, 1914, must be sustained.
[*Macwilliam *v.* President Suspender Company, 255.

PARTICULAR PATENTS.

1. ARNOLD—NO. 808,227—SHOE-FILLING APPARATUS—VALIDITY AND INFRINGEMENT.
The Arnold patent, No. 808,227, for a shoe-filling apparatus, *Held* void for lack of invention and also not infringed.
[d North American Chemical Co. *v.* Keno Supply Co., 515.

2. THOMA—NO. 808,224—PROCESS OF FILLING SHOE-BOTTOMS—INVENTION.
The Thoma patent, No. 808,224, for the art of filling shoes, *Held* void for lack of invention. [d Id.

3. THOMA—NO. 832,002—SHOE-BOTTOM FILLER—INFRINGEMENT.
A decree affirmed which holds valid and infringed the Thoma patent, No. 832,002, for a shoe-bottom filler. [d Id.

PATENTABILITY.

See Construction of Claims; Interference, 2; Invention.

PRIOR INTERFERENCE.

See Interference, 4.

PRIOR USE.

See Registration of Trade-Marks, 2.

REDUCTION TO PRACTICE.

See Delay in Filing Applications.

INTERFERENCE—TEST.
Where A.'s conception and disclosure of the invention on May 23, 1909, is conceded, and where A., assisted by a mechanic, commenced early in 1910 a horn embodying the invention, completing the same in May or June of that year, and where this horn was satisfactorily and successfully operated in July, 1910, in the presence of four witnesses and shown to be a practical automobile-horn so far as sound production is concerned, and where the count of the issue does not define the invention either as an automobile-horn or as a device adapted for use on an automobile, *Held* that this test amounted to a reduction to practice, according to prior rulings of this court. (See *Stanbon* v. *Howe*, 153 O. G., 823; 34 App. D. C., 418; *Gaisman* v. *Gillette*, 165 O. G., 244; 36 App. D. C., 440; *Hopkins* v. *Peters*, 199 O. G., 1243; 41 App. D. C., 302; *Manly* v. *Janney*, 235 O. G., 325; 45 App. D. C., 516.)
[*Anfiero *v.* Monnot, 750.

REFERENCES.

See Construction of Claims, 2, 3, 5.

REGISTRATION OF TRADE-MARKS.

1. MISREPRESENTATIONS.
"One cannot maintain a bill in equity for the protection of a trade-mark unless his own use of the mark has been honest and free from false and fraudulent representations touching the article sold under the mark; and it is the duty of the Patent Office to refuse registration to one whose use of the mark has been of such a character that a court of equity would, upon the foregoing principle, deny him protection," (citing *Levy* v. *Uri*, 135 O. G., 1363; 31 App. D. C., 441.)
[*Coffin Redington Co. *v.* Turner, 751.

2. SAME—PRIOR USE.
Where appellee's labels stated that the face-cream to which they were applied were purely vegetable and would remove freckles or wrinkles, but upon examination she persistently refused to state whether the cream did not contain mineral ingredients and whether she had any ground for believing it would remove freckles or wrinkles, *Held* her refusal fairly shows the statement concerning the removal of wrinkles and freckles to have been made without regard to their truth and justifies the finding that it was not purely vegetable and *Held* that while the mark or name was not itself deceptive the accompanying statements were and the registration on the ground of prior use should have been denied.
[*Id.

REJECTION OF CLAIMS.

See Interdependent Claims; Invention, 3.

RES ADJUDICATA.

See Interference, 1

RIGHT TO MAKE CLAIMS.

See Interference, 1, 3.

RIGHT TO PATENT.

See Interference, 2.

RIGHT TO USE TRADE-MARK.

See Opposition to Registration of Trade-Marks.

1. LICENSE TO USE—RIGHT ACQUIRED EXCLUSIVE.
Where owner of a trade-mark grants the right to another, either by sale or license, to use the mark on goods with which its use is connected and abandons its use himself, he cannot afterward either deprive his assignee of the right to its use or set up an adverse use. [*Macwilliam *v.* President Suspender Company, 255.

2. SALE OF BUSINESS—CARRIES TRADE-MARK.
It is well settled that the conveyance of a business with its good-will, either by sale or license, carries with it a trade-mark used in connection therewith, whether expressly mentioned in the instrument or not. [*Id.

SALE OF BUSINESS.

See Opposition to Registration of Trade-Marks; Registration of Trade-Marks.

SECOND INTERFERENCE.

See Interference, 1.

SPECIFICATIONS.

See Construction of Claims, 1

SUBSTITUTION OF PARTS.

See Invention, 1.

TEST.

See Reduction to Practice.

TITLE TO TRADE-MARK.

See Opposition to Registration of Trade-Marks; Right to Use Trade-Mark.

TRADE-MARKS.

See Opposition to Registration of Trade-Marks; Registration of Trade-Marks; Right to Use Trade-Mark.

VALID PATENTS.

See Particular Patents, 3.

VOID PATENTS.

See Particular Patents, 1, 2.

WITNESSES.

See Delay in Filing Applications; Reduction to Practice.

Patents Nos. 1,238,729 to 1,239,440.

THE OFFICIAL GAZETTE

OF THE

United States Patent Office.

Vol. 242—No. 1. TUESDAY, SEPTEMBER 4, 1917. Price—$5 per year.

The OFFICIAL GAZETTE is mailed under the direction of the Superintendent of Documents, Government Printing Office, to whom all subscriptions should be made payable and all communications respecting the Gazette should be addressed. Issued weekly. Subscriptions, $5.00 per annum; single numbers, 10 cents each.

Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

CONTENTS.

	Page.
Issue of September 4, 1917	1
Adverse Decisions in Interference	1
Interference Notices	1
Examiners' Letters and Amendments	1
Foreign Patents	2
Applications Under Examination	3
Patents Granted	230
Reissues	231
Designs	237
Trade-Marks—Registration Applied for	249
Trade-Mark Registrations Granted	252
Labels and Prints	252
Commissioner's Decisions—	
Campbell v. Dyson v. Dunham	253
Decisions of the U. S. Courts—	
Macwilliam v. President Suspender Company	255

Issue of September 4, 1917.

Patents	712—No.	1,238,729 to No.	1,239,440, inclusive.
Designs	28—No.	51,221 to No.	51,248, inclusive.
Trade-Marks	88—No.	118,370 to No.	118,457, inclusive.
Labels	16—No.	20,262 to No.	20,277, inclusive.
Prints	1—No.	4,788.	
Reissues	1—No.	14,348.	
Total	846		

"Shall we be more tender with our dollars than with the lives of our sons?"—W. G. McAdoo, Secretary of the Treasury.

SAVE YOUR MONEY

to

BUY A U. S. GOVERNMENT BOND

of the

SECOND LIBERTY LOAN

of 1917

To Help Your Country and Yourself.

Adverse Decisions in Interference.

PATENT NO. 1,123,242.

On July 6, 1917, a decision was rendered that James A. Carman was not the first inventor of the subject-matter covered by claims 1 and 2 of his Patent No. 1,123,242, subject, "Safety-razor-blade-sharpening holder," and no appeal having been taken within the time allowed such decision has become final.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., August 18, 1917.

The Garvy Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Gasau-Thompson Company, of No. 124 Atlantic avenue, Brooklyn, N. Y., for registration of a trade-mark and trade-mark registered December 27, 1904, No. 48,935, to The Garvy Company, of Chicago, Ill., and a notice of such declaration sent by registered mail to said The Garvy Company at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said The Garvy Company, its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD,
Acting Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., August 18, 1917.

John N. Preston, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of William B. Coates, Jr., of Lynn, Mass., for registration of a trade-mark and trade-mark registered May 11, 1897, No. 29,998, to John N. Preston, of Pawtucket, R. I., and a notice of such declaration sent by registered mail to said John N. Preston at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said John N. Preston, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD,
Acting Commissioner.

Examiners' Letters and Amendments.

Examiners are directed to recite in each letter in an application the date of the action by the applicant to which it is a reply, and applicants are requested to indicate in their actions on an application the date of the last Office letter.

Foreign Patents.

RULE 29. The receipt of Letters Patent from a foreign government will not prevent the inventor from obtaining a patent in the United States, unless the application on which the foreign patent was granted was filed more than twelve months prior to the filing of the application in this country, in which case no patent shall be granted in this country.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business August 31, 1917.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended	
314	1. Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Railway Gates; Planting; Scattering Unloaders; Trees, Plants, and Flowers.	June 15	June 26	326
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	May 9	June 30	368
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Founding; Metallurgical Apparatus; Metallurgy; Plastic Metal Working.	July 11	July 20	115
234	4. Conveyors; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Pushing and Pulling Implements, Railway Mail Delivery; Store-Service; Traversing Hoists.	July 25	July 16	182
167	5. Bookbinding; Harvesters; Jewelry; Music	Mar. 30	June 1	319
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Substance Preparation.	Mar. 26	June 8	434
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes	Feb. 7	June 19	810
131	8. Beds; Chairs; Flexible-Sheet Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Apr. 19	July 2	795
142	9. Air and Gas Pumps; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps	Mar. 22	July 8	511
235	10. Carriages and Wagons	Apr. 6	July 30	824
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Spring Devices; Whips and Whip Apparatus.	June 4	Aug. 2	221
324	12. Journal-Boxes, Pulleys, and Shafting; Machine Elements	Apr. 18	May 25	716
329	13. Ammunition and Explosive Charge, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	May 14	July 26	555
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Apr. 26	May 31	270
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabric and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	July 17	July 30	273
109	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony	Mar. 9	July 24	451
303	17. Ornamentation; Paper Manufactures; Printing; Type Casting; Sheet Material Associating or Folding; Sheet Feeding or Delivering; Type Setting.	June 29	Aug. 1	125
327	18. Fluid-Pressure Regulators; Injectors and Ejectors; Liquid Heaters and Vaporizers; Lubrication; Miscellaneous Heat-Engine Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	June 14	July 19	308
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels	Mar. 27	June 8	485
179	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Aug. 2	Aug. 1	288
182	21. Brakes and Gins; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Mar. 12	June 13	329
249	22. Aeronautics; Ammunition and Explosive Devices; Firearms; Ordnance	Apr. 16	June 15	281
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	Mar. 20	Dec. 15	363
144	24. Apparel; Apparel Apparatus; Sewing-Machines; Garment Supporters	July 9	July 16	299
315	25. Agitating; Butchering; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separation.	July 31	July 7	110
105	26. Electricity, Generation; Motive Power	Feb. 13	Mar. 10	611
378	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus	June 16	July 24	313
63	28. Internal-Combustion Engines	May 15	July 2	536
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking Tools.	May 28	July 11	287
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines	June 23	July 14	358
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Sugar and Salt.	June 2	July 17	199
278	32. Dispensing Beverages; Dispensing; Gas and Liquid Contact Apparatus; Heat Exchange; Packaging Liquids; Refrigeration.	Mar. 1	July 3	982
70	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	June 22	July 17	283
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling Stock; Railway Ties and Fasteners.	Mar. 8	July 6	191
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign-Exhibiting; Signals; Toilet	Apr. 16	June 20	493
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography; Force Measuring	May 18	July 16	638
107	37. Electric Lamps; Electricity, Circuit Makers and Breakers; Electricity, Conduits; Electricity, General Applications.	Apr. 13	June 15	629
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells	Aug. 7	Aug. 1	133
321	39. Water Distribution; Multiple Valves	Apr. 2	May 7	388
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	June 15	Aug. 14	413
123	41. Railway Draft Appliances; Resilient Tires and Wheels	May 18	July 5	451
244	42. Electricity, Conductors; Railway Signaling; Electricity-Transmission to Vehicles	Mar. 20	June 13	681
253	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers, Sewerage; Surgery; Water Purification.	July 23	Aug. 3	180
283	44. Air-guns, Catapults, and Targets; Boats and Buoys; Marine Propulsion; Ships	May 18	July 31	480

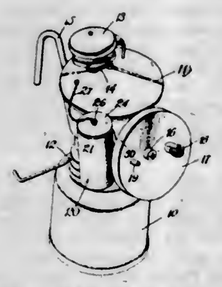
Oldest new case, Feb. 7; oldest amended, Dec. 16.
Total number of applications awaiting action..... 18,003

248	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	June 20	July 28	1009
	Designs	Aug. 2	Aug. 16	199
	Labels and Prints	Aug. 22	Aug. 28	43

PATENTS

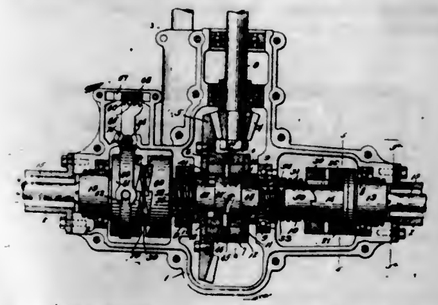
GRANTED SEPTEMBER 4, 1917.

1,238,729. ACETYLENE MINER'S LAMP. ALLEN F. Adams, Madrid, Iowa. Filed Sept. 6, 1916. Serial No. 118,746. (Cl. 48—23.)



An attachment for acetylene miners' lamps including a casing adapted for connnection to the exterior of a miner's lamp, the casing being open at one end, a closure for such end of the casing having a flange projecting within the casing, a plug of absorbent material secured to the closure by the flange and projecting into the casing, and a pipe leading from the casing with one end covered by the plug and the opposite end adapted to receive a burner.

1,238,730. COMPENSATING-DRIVING MECHANISM. JOHN D. ALLEN, Philadelphia, Pa. Filed Apr. 28, 1916. Serial No. 94,120. (Cl. 74—7.)



1. In a mechanism of the class described, the combination with a driving shaft and a member to be driven thereby, of an over-riding clutch connecting the same, a driving gear mounted on said shaft so as to be capable of a limited turning movement thereon, a second clutch to connect said member to said shaft, and connections between said gear and said second clutch such that the latter is thrown into and out of engagement by the said turning movement of the gear.

2. In a driving mechanism for motor vehicles, the combination with the wheel shafts and the power shaft, of automatic means for connecting the latter to both the wheel shafts for forward drive, and means, operated automatically by the reversal of the power shaft, to connect one only of the wheel shafts thereto for reverse drive.

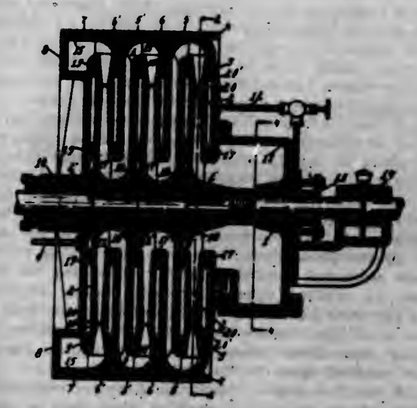
3. In a driving mechanism for motor vehicles, the combination with the wheel shafts and the driving shaft, of means connecting the wheel shafts to said driving shaft for forward drive while permitting either wheel shaft to turn faster than said shaft, a driving gear mounted on said driving shaft so as to have a limited turning motion thereon, a clutch for connecting one only of the wheel shafts to said driving shaft for reverse drive, and connections between said gear and said clutch whereby the latter is thrown into engagement when the gear is reversed or the shaft runs faster than the gear.

4. A driving mechanism for motor vehicles, comprising the combination, with the fixed hollow axle of the vehicle, of a hollow driving shaft journaled therein, a driving gear having a limited turning movement on said shaft, overriding clutches connecting said shaft to the wheels, a reverse clutch member slidably keyed within said shaft, a coöperating clutch member connected to one of the wheels, and connections whereby the turning movement of the gear on the shaft slides said clutch member into and out of engagement.

5. A driving mechanism for motor vehicles, comprising a driving shaft, ratchet clutches connecting the same to the wheels for forward drive, a driving gear mounted on said shaft and capable of a limited turning movement thereon, and additional means to clutch said shaft to one of the wheels on reverse drive, said means being automatically thrown into and out of operative position by the said turning movement of the gear on the shaft.

[Claims 6 to 17 not printed in the Gazette.]

1,238,731. CENTRIFUGAL PUMP. GEORGE H. ANDERSON, Battle Creek, Mich. Filed Nov. 29, 1915. Serial No. 64,146. (Cl. 253—188.)



1. In a centrifugal pump, an impeller with suitable shaft for rotating the same, provided with concentric annular saw-tooth shaped projecting bearing portions and annular V-shaped peripheral grooves, casing members with annular saw-tooth packing members corresponding to the annular saw-tooth bearing portions on said impeller and spaced therefrom, and a diffusion vane with projecting portions corresponding with and coacting with the peripheral grooves in the said impeller, coacting for the purpose specified.

2. In a centrifugal pump, an impeller with an annular V-shaped peripheral groove, a suitable casing therefor conformed to coact with the sides thereof and form bear-

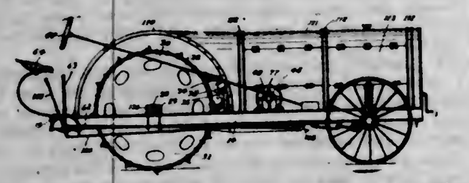
ings, and a diffusion vane with projecting portion corresponding with and coacting with the V-shaped peripheral groove in the said impeller, the openings in said impeller and diffuser being of substantially the same width as specified.

4. In a centrifugal pump, an impeller with suitable shaft for rotating the same, provided with annular saw-tooth shaped projecting bearing portions, casing members with annular saw-tooth packing members corresponding to the annular saw-tooth bearing portions on said impeller and adjustable toward and away from the projecting portions of said impeller, coacting for the purpose specified.

7. In a centrifugal pump, a shaft, an impeller provided with a hub mounted upon said shaft, the faces of said impeller and said hub being provided with concentric annular saw-toothed projecting bearing portions, annular casing members provided with annular saw-toothed members corresponding to, coacting with the annular saw-toothed bearing portions of said impeller and hub and spaced therefrom, the inner edges of said casing members being spaced from said hub.

[Claims 3, 5, and 6 not printed in the Gazette.]

1,238,732. TRACTION-ENGINE. GEORGE C. ANDREWS, Minneapolis, Minn. Filed Aug. 21, 1914. Serial No. 857,853. (Cl. 21—114.)



1. A traction engine comprising a rear frame section formed of interconnected parallel side bars, a single traction wheel having its axle journaled upon said bars and disposed between the same for supporting and driving the rear frame, a front frame section comprising interconnected parallel side members, said front section being of less width than the rear section and connected therewith, a front axle having steering wheels connected therewith directly supporting the front frame, an explosive engine supported upon the front frame with the axis of its crank shaft disposed along the center line of the traction engine, and driving connections from said engine to the traction wheel mounted upon the rear frame.

2. A traction engine comprising a rear frame section formed of interconnected parallel side bars, a single traction wheel having its axle journaled upon said bars and disposed between the same for supporting and driving the rear frame, a front frame section comprising interconnected parallel side members, said front section being of less width than the rear section and connected therewith in the plane thereof, a front axle having steering wheels connected therewith directly supporting the front frame, an opposed cylinder explosive engine supported upon the front frame with the axis of its crank shaft disposed along the center line of the traction engine, and driving connections from said engine to the traction wheel mounted upon the rear frame.

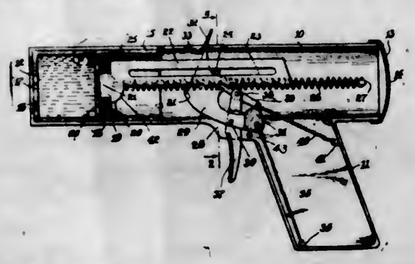
3. A traction engine comprising a rear frame section formed of interconnected parallel side bars, a single traction wheel having its axle journaled upon said bars and disposed between the same for supporting and driving the rear frame, a front frame section comprising interconnected side members, said front section being of less width than the rear section and connected therewith, a front axle having steering wheels connected therewith, means supporting said front frame upon the front axle for relative oscillation of said axle and frame in a vertical plane, an opposed cylinder explosive engine supported upon the front frame with the axis of its crank shaft disposed along the center line of the traction engine, a friction disk upon said crank shaft adjacent the point of junction of said front and rear frame sections, a drive shaft and connections therefrom on the rear frame sections for operating the traction wheel, and a friction wheel on the drive shaft coöperating with the friction disk.

4. A traction engine comprising a rear frame section formed of interconnected parallel side bars, a single traction wheel having its axle journaled upon said bars and disposed between the same for supporting and driving the rear frame, a front frame section comprising interconnected side members, said front section being of less width than the rear section and connected therewith, a front axle having steering wheels connected therewith, means supporting said front frame upon the front axle for relative oscillation of said axle and frame in a vertical plane, an opposed cylinder explosive engine supported upon the front frame with the axis of its crank shaft disposed along the center line of the traction engine, a friction disk upon said crank shaft adjacent the point of junction of said front and rear frame sections, a drive shaft and connections therefrom on the rear frame section for operating the traction wheel, a friction wheel on the drive shaft coöperating with the friction disk, and means for moving the drive shaft bodily along the rear frame members to force the friction wheel against the friction disk.

5. A traction engine comprising a frame formed of interconnected parallel side bars, a single traction wheel having its axle journaled upon said bars and disposed between the same for supporting the rear of the frame and driving the same, an explosive engine supported upon the front of the frame with the axis of its crank shaft disposed along the center line of the traction engine, a friction disk upon said crank shaft midway between said frame bars, a drive shaft and connections therefrom supported on said frame bars for operating the traction wheel, a friction wheel on the drive shaft coöperating with the friction disk, and means for moving the drive shaft bodily along the rear frame members to force the friction wheel against the friction disk.

[Claims 6 and 7 not printed in the Gazette.]

1,238,733. LIQUID-PISTOL. THOMAS RAYMOND ARDEN, Brooklyn, N. Y., assignor to M. Gropper & Sons, Brooklyn, N. Y., a Firm consisting of Harry Gropper and Abraham S. Gropper. Filed Sept. 16, 1916. Serial No. 120,458. (Cl. 42—56.)



1. In a toy of the character described, the combination of a barrel, a cell fixed therein and adapted to receive a quantity of liquid, a plunger reciprocable in said cell, means having a normal tendency to retract the plunger in the cell, and means for protracting said plunger in a step by step movement to eject liquid intermittently from the cell.

2. In a toy of the character described, the combination of a barrel, a liquid-receiving cell fixed therein having a constricted opening in a wall thereof, a plunger movable in said cell, means tending normally to retract the plunger in the cell, and means for protracting the plunger in a step by step movement in the cell to eject liquid therefrom intermittently through said constricted opening.

3. In a toy of the character described, the combination of a barrel, a cell fixed therein and adapted to receive a quantity of liquid, a plunger reciprocable in said cell, a spring tending normally to retract the plunger in the cell, and means for protracting said plunger in a step by step movement in the cell against the action of said spring.

4. In a toy of the character described, the combination of a barrel adapted to receive a quantity of liquid, a plunger reciprocable in said barrel, means tending normally to retract the plunger in the barrel, and means including a rack and pawl for protracting the plunger in a step by step movement in the barrel.

5. In a toy of the character described, the combination of a barrel adapted to receive a quantity of liquid, a plunger reciprocable in said barrel, a spring having a normal tendency to retract the plunger in the barrel, and means including a rack and pawl for protracting the plunger in the barrel against the action of the spring.

[Claims 6 to 10 not printed in the Gazette.]

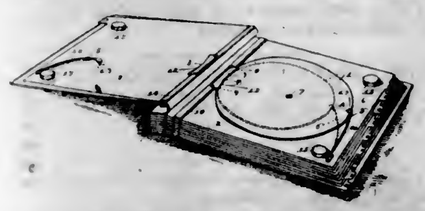
1,238,734. PROCESS OF MAKING LAMPBLACK AND HYDROCHLORIC ACID. CHARLES C. AVERILL, Trees, La. Filed Apr. 6, 1917. Serial No. 160,142. (Cl. 134—60.)

1. The process of producing lamp-black which consists in burning a hydrocarbon, in an atmosphere of chlorin gas, collecting the carbon, and drawing off the hydrochloric acid.

2. The process of producing lamp-black which consists in burning natural gas in an atmosphere of chlorin gas, allowing the carbon to settle, and drawing off the hydrochloric acid.

3. The process of producing lamp-black which consists in burning a hydrocarbon in an atmosphere of chlorin gas, in a closed chamber from which air is excluded, allowing the carbon to settle, and drawing off the hydrochloric acid.

1,238,735. HOLDER FOR PHONOGRAPH-RECORDS. JOHN B. BARLOW, Walker township, Kent county, Mich. Filed Mar. 28, 1917. Serial No. 157,867. (Cl. 129—20.)

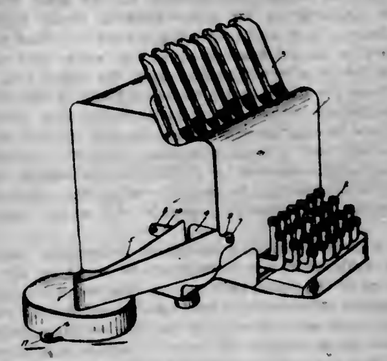


4. In a device of the character described; a base; means for holding a phonograph record on the base comprising, a first member extending outwardly from the face of the base and adapted to engage such record at points an angular distance apart on one side thereof, and a second member spring-pressed toward the first member parallel to the face of the base and adapted to yieldingly hold such record at a point on its opposite side from which point a straight line projected through such record's center passes between the points of the first member's engagement; said members having overhanging portions adapted to extend over the outer flat surface of such record; and filler members extending upwardly from the face of the base to a greater distance than said holding members extend upwardly therefrom.

[Claims 1 to 6 not printed in the Gazette.]

1,238,736. COIN-DELIVERY MEANS FOR CHANGE-MAKING MACHINES AND THE LIKE. GLENN J. BARRETT, Grand Rapids, Mich., assignor to Barrett Changer Co., Chicago, Ill., a Corporation of Illinois. Filed Oct. 18, 1915. Serial No. 56,546. (Cl. 133—4.)

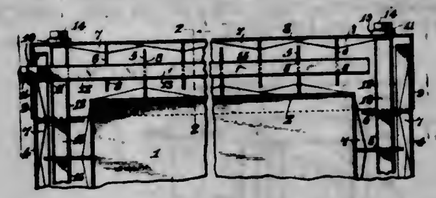
1. A coin delivery means comprising a chute of curved form with bottom curved in cross section at varying angles gradually decreasing to zero at the discharge end to correspond the angle of the coins and their even delivery, a curved wall at the discharge end of the chute with an outlet opening at the bottom, and a tray disposed beneath the chute to receive the coins.



2. A coin delivery means comprising a chute having bottom and sides curving downwardly and laterally, the bottom of said chute having a pronounced inclination toward the inner side thereof at its entrance end, the inclination gradually decreasing toward its delivery end until at its delivery end the bottom of the chute is horizontal, the sides of said chute being extended beyond the bottom thereof and curved to form a coin arresting means and a coin delivery aperture, and a tray disposed beneath the chute with a forwardly and downwardly sloping bottom.

3. A coin delivery means comprising a chute having bottom and sides curving downwardly and laterally, the bottom of said chute having a pronounced inclination toward the inner side thereof at its entrance end, the inclination gradually decreasing toward its delivery end until at its delivery end the bottom of the chute is horizontal, the sides of said chute being extended beyond the bottom thereof and curved to form a coin arresting means and a coin delivery aperture.

1,238,737. HEAT-INSULATING STRUCTURE. THOMAS R. BEGGS, New York, N. Y. Filed Sept. 28, 1916. Serial No. 122,695. (Cl. 220—138.)



1. A heat insulating structure having inner and outer walls relatively movable one with respect to the other, each wall having ribs or webs thereon projecting toward the other wall and of less extent of projection than the spacing of the walls apart in the installed structure, the webs or ribs of one wall alternating with and spaced from those of the other, and spreading means traversing all the webs and movable in the webs to separate the walls and lock them in the separated position.

2. A heat insulating structure having inner and outer walls relatively movable one with respect to the other, each wall having ribs or webs thereon projecting toward the outer wall and of less extent of projection than the spacing of the walls apart in the installed structure, the webs or ribs of one wall alternating with and spaced from those of the other, and spreading means traversing all the webs and movable in the webs to separate the walls and lock them in the separated position, the locking means

having those portions engaging the webs of minute area as compared with the cross-sectional area of either the webs or walls.

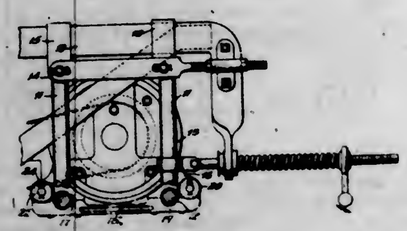
3. A heat insulating structure having inner and outer walls confining an air space between them, reinforcing members on each wall projecting toward the other wall and located in the air space between the walls, said reinforcing members alternating one with the other and spaced one from the other and also overlapping in the direction of projection toward the opposite walls, said reinforcing members having passages therethrough in line one with the other, and a locking member extending through the passages and movable in a direction to engage opposite walls of alternating passages to bring the passages into alinement and thereby separate the walls correspondingly.

4. A heat insulating structure comprising inner and outer walls with reinforcing ribs or webs on the facing surfaces of the walls, said ribs or webs being extended and in parallel relation with the webs provided with passages in line with each other with the line of passages perpendicular to the lengths of the webs, and a locking member extending through the passages and movable to engage alternately opposite edges of the passages to force one wall away from the other and to lock the walls in the spread position.

5. A heat insulating structure comprising inner and outer walls with reinforcing ribs or webs on the facing surfaces of the walls, said ribs or webs being extended and in parallel relation, with the webs provided with passages in line with each other with the line of passages perpendicular to the lengths of the webs, and a locking member extending through the passages and movable to engage alternately opposite edges of the passages to force one wall away from the other and to lock the walls in the spread position, said locking member comprising a rotatable bar with opposite sides flattened, the passages through the webs being arranged to permit the introduction of the bar with the flattened portions substantially parallel with the inner and outer walls, and said bar on rotation engaging alternately opposite edges of the passages through the alternating webs to aline the passages and thereby spread the walls.

[Claims 6 to 8 not printed in the Gazette.]

1,238,738. FOOT-CAP. WILLIAM L. BLISS, Niagara Falls, N. Y., assignor, by mesne assignments, to U. S. Light & Heat Corporation, Niagara Falls, N. Y., a Corporation of New York. Filed May 28, 1914. Serial No. 841,471. (Cl. 105—238.)



1. In a combination, a generator, and a foot cap hingedly secured thereto.

2. In a combination, a generator, a support therefor, and means hinged to the generator and coöperating with said support for securing said generator to said support.

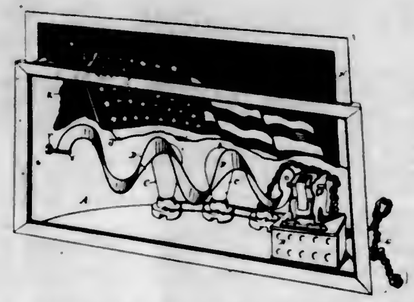
3. In combination, a generator suspension, a generator supported thereon, and means hinged to the generator and coöperating with said suspension for securing said generator to said suspension.

4. In combination, a car-lighting generator having a pair of oppositely arranged supporting elements adapted to rest on supporting members, a foot cap hingedly secured to said generator and adapted to coöperate with said supporting members to maintain said generator supporting elements in engagement with said supporting members.

5. In combination, a car-lighting generator having a plurality of supporting elements adapted to rest on supporting cross bars, a foot cap for maintaining the supporting elements in proper alinement on said cross bars, said foot cap being hingedly secured to said generator.

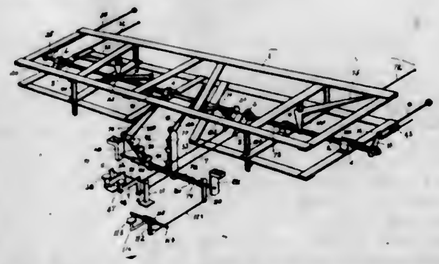
[Claims 6 to 8 not printed in the Gazette.]

1,238,739. ILLUMINATED DISPLAY APPARATUS. FREDERICK C. BOWDIDGE and PRESTON C. MCMULLEN, Albany, N. Y. Filed July 28, 1916. Serial No. 111,795. (Cl. 40—139.)



A regulator for a motor and means for causing an optical illusion in an illuminating sign, comprising a spiral strip cut from a thin metallic disk in the form of a spiral; the centrally disposed portion forming an end of the spiral adapted to be attached to a motor; the spiral drawn out lengthwise and the end, opposite that secured to the motor, fastened to a spindle; a motor; a spindle; a boss in which the spindle is mounted; a frame carrying said boss; a transparent plate with a picture thereon placed in the frame; and an electric lamp within the frame, said spiral strip being between the lamp and the transparent plate, substantially as described.

1,238,740. DOOR-OPERATING MECHANISM. ARTHUR R. BOXALL, Rome, N. Y. Filed Oct. 18, 1916. Serial No. 126,420. (Cl. 268—5.)

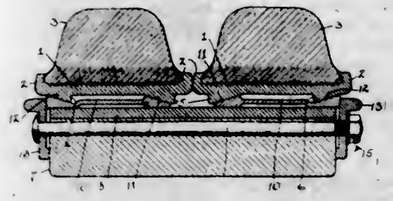


1. In a door operating mechanism, a door, means for opening said door, a door closing shaft, means for rotating said shaft, an arm loosely mounted on said shaft, means connecting said arm to the door, means on said arm for connecting it to the shaft, and means operated by the door connection when the door is nearing opened position to actuate the last named means to connect the arm to the shaft, whereby to close the door.

3. In a door operating mechanism, a door, means for opening the door, a door closing shaft, means for rotating it, an arm loosely mounted on said shaft, means connecting said arm to the door, a plunger on said arm, means operated by the door connection when the door is nearing opened position to operate the plunger to connect the arm to the shaft and means for disconnecting the plunger from the shaft when the door is closed.

[Claims 2 and 4 not printed in the Gazette.]

1,238,741. VEHICLE-WHEEL. RICHARD S. BRYANT, Cleveland, Ohio, assignor to The Standard Welding Company, Cleveland, Ohio, a Corporation of Ohio. Filed Nov. 24, 1914. Serial No. 873,839. (Cl. 152—7.)



1. In a vehicle wheel, the combination with the wheel body; of two tire-supporting rims adapted to be loosely fitted in laterally abutting relation on said body, each of said rims being provided on its inner face with a pair of spaced ribs having beveled faces inclining toward the adjacent side of said body; two transversely split wedge-rings adapted to be interposed between said body and said rims, respectively, each of said rings having a pair of spaced beveled faces complementary to those of the ribs on the corresponding rim; and means adapted to force said rings toward each other.

2. In a vehicle wheel, the combination with the wheel body; of two tire-supporting rims adapted to be loosely fitted in laterally abutting relation on said body, each of said rims being provided on its inner face with a pair of spaced ribs having beveled faces inclining toward the adjacent side of said body; two transversely split wedge-rings adapted to be interposed between said body and said rims, respectively, each of said rings having a pair of spaced beveled faces complementary to those of the ribs on the corresponding rim; flanges on the respective sides of said body adapted to press against the adjacent wedge-ring; and means adapted to draw said flanges toward said body.

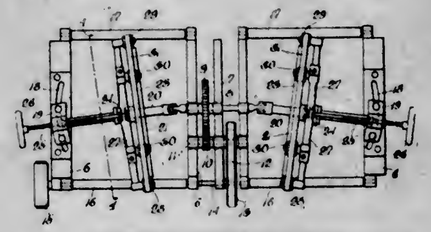
3. In a vehicle wheel, the combination with the wheel body; of two tire-supporting rims adapted to be loosely fitted in laterally abutting relation on said body, each of said rims being provided on its inner face with a pair of spaced ribs having beveled faces inclining toward the adjacent side of said body; two transversely split wedge-rings adapted to be interposed between said body and said rims, respectively, each of said rings having a pair of spaced beveled faces complementary to those of the ribs on the corresponding rim, and means adapted to force said rings toward each other.

4. In a vehicle wheel, the combination with the wheel body; of two tire-supporting rims adapted to be loosely fitted in laterally abutting relation on said body; a pair of spaced ribs detachably engaging the inner face of each of said rims, said ribs having beveled faces inclining toward the adjacent side of said body; two transversely split wedge-rings adapted to be interposed between said body and said rims, respectively, each of said rings having a pair of spaced beveled faces complementary to those of the ribs on the corresponding rim; and means adapted to force said rings toward each other.

5. In a vehicle wheel, the combination with the wheel body; of two tire-supporting rims adapted to be loosely fitted in laterally abutting relation on said body, each of said rims being formed with transversely spaced, circumferentially extending grooves near its respective edges, ribs respectively detachably engaging such grooves in each rim and having beveled faces inclining toward the adjacent side of said body; two transversely split wedge-rings adapted to be interposed between said body and said rims, respectively, each of said rings having a pair of spaced beveled faces complementary to those of the ribs on the corresponding rim; and means adapted to force said rings toward each other.

[Claims 6 to 8 not printed in the Gazette.]

1,238,742. MACHINE FOR STRETCHING FELT. JAMES A. BUTLER, Wollaston, Mass., assignor to Industrial Service and Equipment Company, a Corporation of Massachusetts. Filed Jan. 31, 1916. Serial No. 75,368. (Cl. 26—8.)

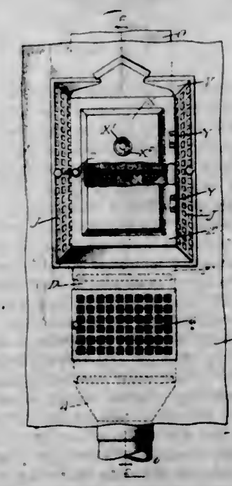


1. An apparatus of the nature described comprising a frame having a centrally disposed horizontal drive shaft, shaft elements coupled to the ends of said shaft for universal adjustment, slidable adjustable blocks carrying the outer ends of said shaft elements, pulleys on said shaft elements having flanges, and belts and carriers therefor coöperating with said pulley flanges to grip between said belts and the faces of said pulleys the fabric to be stretched and to bend said fabric over said flange.

2. An apparatus of the nature described comprising a frame, a pair of shafts mounted in said frame to swing and rotate, a pulley slidable on each said shaft, means to slidably adjust said pulley, arms extending from said means, a traveling belt sustained by members of said arms and having a bearing against said pulley, and means to drive said shaft.

3. An apparatus of the nature described comprising a frame, a shaft journaled in said frame, means to drive said shaft, a pair of shafts pivotally connected with said first shaft and having their free ends journaled in bearing members adjustable transversely of the axis of said first shaft, pulleys slidable on and rotatable with said pivoted shafts, said pulleys having flanges having projecting members, frames slidable on said pivoted shafts and engaged with said pulleys, said latter frames having arms, guides on said arms, belts on said guides and having bearing against said pulley flanges, and means to adjust said slidable frames.

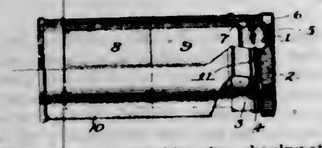
1,238,743. WARMING-OVEN. ALBERT CARO, Maywood, Ill. Filed Feb. 12, 1916. Serial No. 78,032. (Cl. 126—17.)



In a device of the kind described, a hollow walled compartment open at its front adapted to be mounted in a

wall and adapted to be connected at its lower end to a hot air pipe by which hot air can flow into the said hollow walls, said compartment projecting outward beyond the face of the wall, a door frame adapted for telescopic engagement with the projecting part of said compartment, a door carried thereby for closing the front of said compartment; openings at the sides of said frame for permitting outflow of hot air and communication between the space beneath said openings and the hollow walls of said compartment to which hot air can flow from said hollow walls out through said openings.

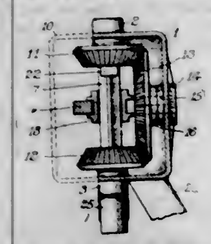
1,238,744. HOLDER FOR SHAVING-STICKS. HENRY AUCHINCLOSS COLGATE, West Orange, N. J. Filed Apr. 24, 1917. Serial No. 164,159. (Cl. 206—56.)



1. In a container and holder for shaving-sticks, the combination of a tubular casing closed at one end and having a thread formed thereon at its opposite end; and a combined closure and holder, embodying a cap formed from a single piece of metal, cup-shaped in form and having an enlarged head with an exteriorly formed screw-thread next adjacent said head, and a cup-shaped member mounted in said cap the circumferential wall whereof is provided with a broad screw adapted to embed itself in the end of a stick of soap turned into said screw member, the upper edge of the cap being turned or spun inwardly over the upper edge of the cup-shaped member.

[Claims 2 to 3 not printed in the Gazette.]

1,238,745. WRINGER-REVERSING-GEAR BOX. WALTER J. CONLON, Chicago, Ill. Filed May 2, 1914. Serial No. 835,782. (Cl. 74—59.)



1. In a mechanism of the class described, a hollow unitary casing, a shaft member having a circular bearing portion and a squared portion, said squared portion having a screw threaded socket therein, a second shaft member having screw threads to engage said socket and having a bearing portion, said shaft members projecting through and having bearings in two sides of said casing, driving gears loosely mounted on said bearing portions and held against endwise motion between said squared portion and said casing, a clutch slidably mounted on said squared portion and adapted to connect said gears with said shaft members, a driven shaft, and a gear on said driven shaft constantly meshing with said first named gears.

2. In apparatus of the class described, a casing, a driving shaft projecting through and having bearing portions in said casing and an enlarged portion between said bearing portions, a driving member mounted on one of said portions, a screw threaded joint between said enlarged portion and one of the bearing portions, and a driven member operatively connected with said driving member.

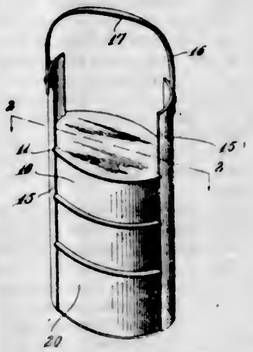
3. In a mechanism of the class described, a unitary casing provided with bearings, a driving shaft projecting through and having bearings in said casing, said shaft comprising a rectangular portion and two circular bearing portions, driving pinions loosely mounted on said circular portions and held against endwise motion between the casing and the rectangular portion, and a sliding clutch member mounted on said squared portion and sliding into engagement with said pinions, a driven shaft, a gear on said driven shaft meshing with said pinion, and a detachable joint between one of said circular portions and the rectangular portion.

4. In combination, a driving shaft having a circular portion and a non-circular portion, a pinion on said circular portion, a clutch member on said non-circular portion for engaging said pinion, an intermediate shaft, a gear on said intermediate shaft meshing with said pinion, and an independently supported driven shaft having a squared end extending into an axial pocket in said intermediate shaft.

5. In combination, a casing, a driving shaft bearing in said casing and having a circular portion and a non-circular portion, a pinion on said circular portion, a clutch member on said non-circular portion for engaging said pinion, an intermediate shaft bearing in said casing, a gear on said intermediate shaft meshing with said pinion, and an independently supported driven shaft having a squared end extending into an axial pocket in said intermediate shaft.

[Claim 6 not printed in the Gazette.]

1,238,746. NESTED LUNCH-CONTAINER. STANISLAW COZEL, Wilmington, Del. Filed Oct. 11, 1916. Serial No. 124,937. (Cl. 126,261.)



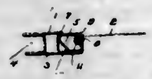
1. In a device of the class described, the combination with a plurality of cylindrical metallic vessels, covers suited to each of said vessels, said covers having a depending annular flange engaged within the vessels, a pair of parallel disposed upright support plates adapted to embrace said vessels, means for holding said plates in operative position, and means combined with said covers engageable with said plates, whereby the vessels are prevented from displacement.

3. In a device of the class described, the combination with a pair of oppositely disposed, upright support plates, means for engaging said plates at their upper ends, said engaging means being also used as a conveying means, a heat conveying chamber removably engageable between said upright support plates at the lower ends thereof, a plurality of cylindrical vessels adapted to nest one above the other over said heating means, between said upright support plates and means engaged with said vessels whereby they are prevented from displacement.

[Claim 2 not printed in the Gazette.]

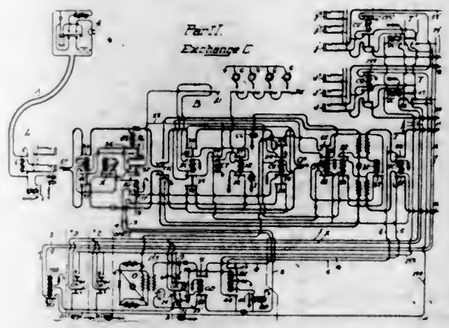
1,238,747. WIRE SCREEN. WILLIAM D. CRAMER, Philadelphia, Pa. Filed July 1, 1916. Serial No. 107,155. (Cl. 156—38.)

A window screen, comprising a rectangular frame provided with a groove in the face of the members thereof adjacent to their inner edges, a beading on the inner wall of the groove projecting outwardly, a flange on the opposite wall projecting inwardly, key members comprising U-shaped strips of spring metal having a U-shaped longi-



tudinally extending clip on one edge adapted when assembled to embrace said beading and clamp a wire cloth stretched between said frame members while the body portion of the strip engages said flange.

1,238,748. MULTI-EXCHANGE TELEPHONE SYSTEM. HIRAM D. CURRIER, Chicago, and RICHARD I. UTTER, Oak Park, Ill., assignors to Kellogg Switchboard and Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 26, 1914. Serial No. 879,068. (Cl. 179—49.)



1. A telephone system including two telephone exchanges each having telephone lines terminating at operators' positions thereat and cord circuits interconnecting the lines, groups of outgoing trunk circuits at each exchange having outgoing terminals distributed before the operators' positions thereat, each group terminating at its incoming end at a single operator's position, an operator's telephone at each operator's position, an outgoing orderwire for each set of outgoing trunks connected to orderwire keys distributed among the operators' positions having access to the corresponding group of trunks, a busy signal for each key and an incoming orderwire for connecting the incoming ends of each group of trunks to the corresponding operator's telephone.

2. A telephone system including two telephone exchanges each having telephone lines terminating at operators' positions thereat and cord circuits for interconnecting the lines, groups of outgoing trunk circuits at each exchange having outgoing terminals distributed before the operators' positions thereat, each group terminating at its incoming end at a single operator's position, an operator's telephone at each operator's position, an outgoing orderwire for each set of outgoing trunks connected to orderwire keys distributed among the operators' positions having access to the corresponding group of trunks, a busy signal for each key, an incoming orderwire for connecting the incoming ends of each group of trunks to the corresponding operator's telephone, and means whereby when an operator actuates an orderwire key to connect her telephone with an outgoing orderwire a busy signal is operated at each other orderwire key corresponding to the used orderwire.

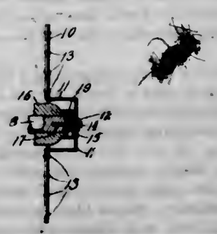
3. A telephone system including two telephone exchanges each having telephone lines terminating at operators' positions thereat and cord circuits for interconnecting the lines, groups of outgoing trunk circuits at each exchange having outgoing terminals distributed before the operators' positions thereat, each group terminating at its incoming end at a single operator's position, an operator's telephone at each operator's position, an outgoing orderwire for each set of outgoing trunks connected to orderwire keys distributed among the operators' positions having access to the corresponding group of trunks, a busy signal for each key, an incoming orderwire for connecting the incoming ends of each group of trunks to the corresponding operator's telephone, means whereby when an operator actuates an orderwire key to connect her telephone with an outgoing orderwire a busy signal is operated at each other orderwire key corresponding to the used orderwire, and means whereby when an operator has her telephone connected with one of her cord circuits in answering a call, the busy signals corresponding to the keys at the outgoing ends of the group of trunks extending to her position are operated.

4. A telephone system including two telephone exchanges each having telephone lines terminating at operators' positions thereat and cord circuits for interconnecting the lines, groups of outgoing trunk circuits at each exchange having outgoing terminals distributed before the operators' positions thereat, each group terminating at its incoming end at a single operator's position, an operator's telephone at each operator's position, an outgoing orderwire for each set of outgoing trunks connected to orderwire keys distributed among the operators' positions having access to the corresponding group of trunks, a busy signal for each key, an incoming orderwire for connecting the incoming ends of each group of trunks to the corresponding operator's telephone, means whereby when an operator actuates an orderwire key to connect her telephone with an outgoing orderwire a busy signal is operated at each other orderwire key corresponding to the used orderwire, and means whereby when an operator has her telephone connected with one of her cord circuits in answering a call, the busy signals corresponding to the keys at the outgoing ends of the group of trunks extending to her position are operated.

5. A telephone system including telephone exchanges, telephone lines terminating at operators' positions in each of said exchanges with cord circuits for interconnecting said lines, a group of outgoing trunk circuits at one of said exchanges having outgoing terminals accessible from different operators' positions thereat, an operator's telephone at each position of said exchange, an order wire key at each position of said exchange common to the cord circuits thereat and connections controlled thereby for connecting the corresponding operator's telephone with said trunks, and an operator's telephone at the distant exchange normally in circuit relation with said trunks whereby the operators in the first exchange may communicate with the distant exchange operator over said trunks.

[Claims 6 to 26 not printed in the Gazette.]

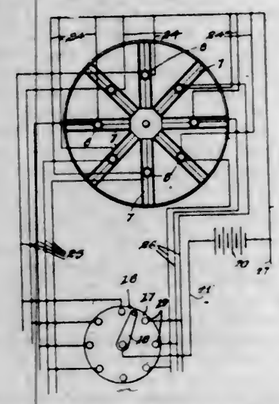
1,238,749. WAGON-SIGN. JOHN D. DIFFENBAUGH, Monmouth, Ill. Filed July 15, 1916. Serial No. 109,560. (Cl. 40—129.)



The combination with an axle having an integral spindle provided with a threaded opening leading from its outer end of a supporting wheel rotatably mounted upon said axle, a securing nut for the wheel upon the outer end of the spindle, a sign positioned in front of the spoke portion of the wheel, a securing bolt for the sign screwed into the threaded opening of the axle and having a head at its outer end engaging the sign, and a clamping nut upon the securing bolt for clamping the sign between the clamping nut and the head of the bolt and holding the sign in spaced relation to the wheel and holding the sign against movement.

FAY, OBERLIN & FAY
PATENT LAW

1,238,750. VEHICLE-SIGNAL. SAMUEL F. DOUGLASS, Fairie du Rocher, Ill., assignor to Vehicle Signal Company, a Corporation of Arizona. Filed Mar. 5, 1914. Serial No. 822,726. (Cl. 40—132.)



In a vehicle signal, a casing, a plate within said casing and having a plurality of radial slots therein, means for holding the plate in position, a plurality of elongated reflectors arranged within the casing and in rear of the plate and alining with the slots in the plate and each of the reflectors consisting of a rear wall and outwardly diverging side walls, elements extending through one of the walls of the casing and through the rear walls of the reflectors for holding the reflectors in operative position within the casing, and lamps supported by the elements.

1,238,751. SAFETY-RAZOR. JAMES J. FITZGERALD, Pittsburgh, Pa. Filed Aug. 28, 1913. Serial No. 787,223. (Cl. 30—12.)



1. A safety razor comprising a holder, a handle, means integral with the inner face of the holder for permanently connecting the handle thereto, said means permitting of the handle rotating independently of the holder, a blade adapted to be positioned against the holder and surrounding said means, said means preventing shifting of the blade with respect to the holder, a guard, and means integral with the guard and operatively engaging with the handle for clamping the guard and blade against said holder.

2. A safety razor comprising a holder, a handle provided with threads and a head, means integral with the inner face of the holder and overlapping said head for permanently connecting the head to the handle and for further permitting of the handle rotating independently of the holder, a blade surrounding said means and positioned against the said holder and maintained from rotating with respect to the holder by said means, a guard arranged against said blade, and means integral with the guard and engaging with the threads of the handle for clamping the blade and guard against the holder.

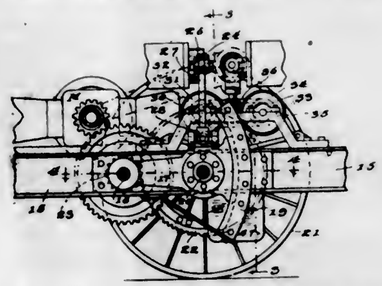
3. A safety razor comprising a holder, a handle, means projecting from the inner face of the holder for permanently connecting the handle to the holder and permitting of the handle shifting therein, a blade surrounding said means and positioned against the inner face of the holder and prevented from turning by said means, a guard, and means engaging with the handle for clamping the guard and blade against the said holder.

4. A safety razor comprising a holder, a rotatable handle permanently connected to the inner face thereof, a blade, a guard, and means for clamping the blade and guard against the inner face of said holder, said holder having its inner face formed with a substantially oval-shaped boss, said blade having a corresponding orifice receiving said boss to prevent the casual turning of the blade.

5. A safety razor comprising a holder, a blade, a handle permanently connected to the inner face of said holder, and allowed to rotate independently of the holder and a means in connection therewith to clamp the blade against the inner face of the holder, said means of connection being counterbored and screw-threaded upon said handle, said holder having its inner face formed with a substantially oval-shaped boss and said blade having a corresponding orifice receiving said boss, the counterbore of said means of connection providing clearance for said boss as the blade is clamped against the inner face of the holder.

[Claim 6 not printed in the Gazette.]

1,238,752. TRACTOR. JESSE D. FLORY, Camden, Ohio. Filed Dec. 8, 1916. Serial No. 135,844. (Cl. 180—41.)



1. A tractor frame, ground wheel carrying cranks at opposite sides thereof, motor driven means for actuating the cranks at the two sides of the tractor frame simultaneously in opposite directions, and means including a pendulum for governing the motion and the direction of movement of said actuating means.

2. A tractor frame, ground wheels at opposite sides of said frame, means for supporting the ground wheels for vertical movement relatively to the frame, motor driven means for simultaneously moving the ground wheels at the two sides of the frame vertically in opposite directions, and means including a pendulum for governing the motion and the direction of movement of said motor driven means.

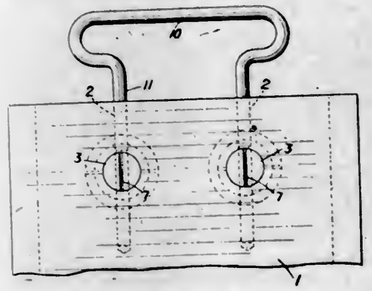
3. A tractor frame, ground wheels at the two sides thereof supported for vertical movement relatively to the frame, motor driven means including a segment rack and a worm meshing therewith to effect vertical adjustment of the ground wheels and to secure the same in adjusted position relatively to the frame, and means including a pendulum for governing the motion and the direction of movement of the worm shaft meshing with the segment rack.

7. A tractor frame, a motor driven counter shaft thereon, cranks supported at the two sides of the tractor frame for rotation about the axis of the counter shaft, ground wheels carried by said cranks, intermeshing gear wheels on the counter shaft and on the ground wheels, and means for swinging the cranks in opposite directions to effect vertical adjustment of the ground wheels relatively to the tractor frame, said means including a pair of worm gears, a constantly driven worm shaft swingingly supported therebetween, and means for moving said worm shaft from neutral into mesh with one of the worm gears.

10. A tractor having ground wheels supported for vertical movement with respect to the tractor frame, motor driven means for effecting adjustment simultaneously in opposite directions of the ground wheels at the two sides of the tractor frame, and means for starting and stopping and for governing the direction of rotation of the motor driven means, said means including a pendulum supported for transverse swinging movement and whereby the starting, stopping and direction of rotation of the motor driven means are automatically governed.

[Claims 4 to 6, 8, 9, and 11 to 19 not printed in the Gazette.]

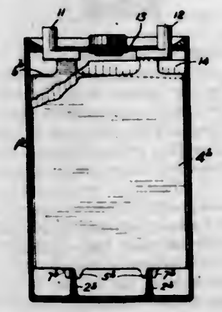
1,238,753. HANDLE FOR BATTERY-BOXES AND MEANS FOR LOCKING SAME. BRUCE FORD, Philadelphia, Pa. Filed Apr. 19, 1913. Serial No. 762,194. (Cl. 16—10.)



1. In a box the combination of a box wall, a handle having two straight arms parallel with the wall, and a pair of threadedly coöperating socket and nut-members arranged through the wall and whereof the socket member of each pair is provided with an opening through which one handle arm passes and is movable in respect to the box wall to clamp the arm in respect to the box wall and the wall of the opening.

2. In a box the combination of an integral box-wall having vertical openings in it arranged between its inside and outside faces, a handle having a bale above the top of the box and having two arms arranged in said openings, and threaded nuts and coöperating sockets arranged through the wall of the box, said sockets having openings the walls of which clamp the arms in respect to the box wall, substantially as described.

1,238,754. SECONDARY OR STORAGE BATTERY. BRUCE FORD, Philadelphia, Pa. Filed Feb. 3, 1915. Serial No. 5,827. (Cl. 204—29.)

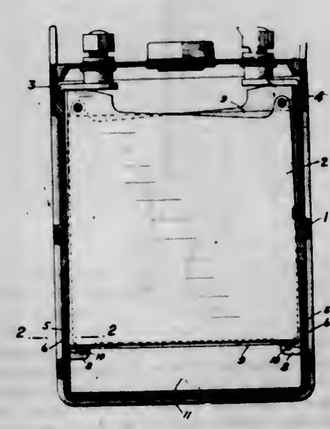


1. In a storage battery the combination of a container provided with a rib upstanding from its bottom, and plates provided with projections extending from their bottoms one of which those appertaining to plates of one sign engage one face only of the rib and those appertaining to plates of the other sign engage the other face only of the rib substantially as described.

2. In a storage battery the combination of a container provided with a rib upstanding from its bottom, plates shorter than the container and provided with projections extending from their bottoms and of which those appertaining to plates of one polarity engage one face of the rib and those appertaining to plates of the other polarity engage the other face of the rib, and separators wider than the plates and extending beyond the same.

3. In a storage battery the combination of a container having a ribbed bottom providing separate sediment spaces, and plates of different polarity provided with projections engaging the ribbed portion of the container, the projections of unlike polarity being in different sediment spaces.

1,238,755. SECONDARY OR STORAGE BATTERY. BRUCE FORD, Philadelphia, Pa. Filed Feb. 3, 1915. Serial No. 5,828. (Cl. 204—29.)



1. In a storage battery the combination of plates of opposite polarity, feet projecting laterally from the plates of one polarity beyond the side edges thereof and below the lower edges of the plates of opposite polarity, and separators having their lower edges extending below the lower edges of the last mentioned plates, substantially as described.

2. In a storage battery the combination of a container, plates of opposite polarity suspended therein and provided respectively with lateral and downward projections arranged at different levels and adapted to abut upon the walls of the container, the downward projections engaging the walls of the container below the bottoms of the plates of opposite polarity, substantially as described.

3. In a storage battery the combination of plates of opposite polarity, feet projecting laterally from the plates of one polarity beyond the side edges thereof and below the lower edges of the plates of opposite polarity, separators having their lower edges extending below the lower edges of the last mentioned plates, and rods through the feet to support the separators.

1,238,756. TRANSPLANTING DEVICE. JOSEPH W. FRITTS, Bradford, Pa. Filed Aug. 29, 1916. Serial No. 117,454. (Cl. 111—4.)

1. A transplanting device comprising a body portion, a spade carried thereby, and means for supporting a plant attached to the body portion, said means comprising two interlocking trough-shaped members.

2. A transplanting device comprising a body portion, a spade carried thereby, a trough-shaped member attached to the body portion and extending longitudinally thereof, and a member slidably mounted on the trough-shaped member.

4. A transplanting device comprising a body portion, a spade carried by one end, an operating handle carried by the other end and means for supporting a plant attached to the body portion, said means comprising two trough-shaped members having interlocking beads on their edges.

7. A transplanting device comprising a rod, a spade carried by one end thereof, an operating handle carried

by the other end thereof, a trough-shaped member attached to the said rod, the said spade and trough-shaped member so attached to the rod that they are positioned on opposite sides thereof, and a second trough-shaped member slidably mounted on the first-mentioned trough-shaped member.

9. A transplanting device comprising a rod, a spade attached to one end thereof, said spade comprising a hollow conical portion having its upper edge bent to form a lateral flange, an operating handle carried by the other end of the rod and a trough-shaped member attached to



the rod and extending longitudinally thereof and of a length to reach from the lateral flange on the spade to the lower end of the operating handle, said trough-shaped member having a beading formed on each of its longitudinally extending edges, and a second trough-shaped member having the same cross-section as the first mentioned trough-shaped member provided with grooves on its edges adapted to fit upon the beads formed on the edges of the first mentioned trough-shaped member.

[Claims 3, 5, 6, and 8 not printed in the Gazette.]

1,238,757. ROTARY DRILL. LEVI S. GARDNER, Cedar Grove, La. Filed Feb. 28, 1913. Serial No. 751,216. (Cl. 255—75.)



1. In a device of the character described, a stock, a bit in the form of a cone whose angle is greater than a right angle and whose face is roughened, and means for revolubly mounting the bit on the stock so as to bring one of the elements of the cone horizontal and radial to the axis of the stock, said means being constructed and arranged to permit the bit to move bodily a limited distance in the direction of its own axis.

2. In a device of the character described, a stock, a bit in the form of a cone having a roughened surface, means for revolubly mounting the bit on the stock so as to bring one of the elements of the cone horizontal and radial to the axis of the stock, the base of the bit being hollowed out in the shape of a frustum of a cone having its elements parallel with the face of the bit, and a bearing post on the stock engaging with the element of the inner conical surface lying directly above the aforesaid horizontal cone element.

3. In a device of the character described, a stock, a bit in the form of a cone having a roughened surface, means for revolubly mounting the bit on the stock so as to bring one of the elements of the cone horizontal and radial to the axis of the stock, the base of the bit being hollowed out in the shape of a frustum of a cone having its elements parallel with those of the conical face of the bit, and a rolling bearing member between the stock and the element of the inner conical surface which is horizontal and radial to the axis of the stock.

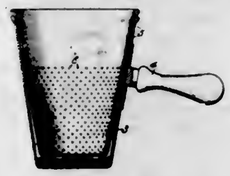
4. In a device of the character described, a stock, a bit in the form of a cone having a roughened face, and means for mounting the bit on the stock so as to make it revoluble about its own axis arranged at an angle with the horizontal equal to the angle between it and an element of the cone and permit a limited bodily axial movement of the bit from a working position to an idle position in which it lies nearer the axis of the stock than in said working position.

5. In a device of the character described, a stock, a bit in the form of a cone having a roughened surface, a stem at the axis of the bit, a diagonal bearing in the stock for receiving the stem and revolubly supporting the bit in a position in which one of the elements of its surface lies horizontal, said stem and said bearing having engaging shoulders arranged at right angles to the axis of the bit, and means for affording the bit a limited axial movement to bring said shoulders out of engagement with each other.

[Claims 6 and 7 not printed in the Gazette.]

1,238,758. [WITHDRAWN.]

1,238,759. DEVICE FOR PREPARING INFUSIONS. ANTONIO IZIDRO GONSALVES, Funchal, Madeira Islands. Filed Aug. 11, 1916. Serial No. 114,363. (Cl. 53—3.)

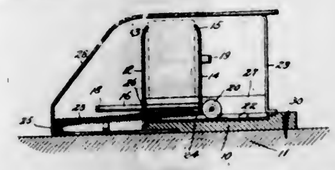


The herein described infusion device, comprising an outer spoutless conical receptacle having a flat bottom adapted to receive the matter to be infused, and an inner conical receptacle unattached to the outer receptacle and having a flat bottom and perforations in its sides and bottom, the inner receptacle being of slightly less height and of a greater taper than the outer receptacle, so that when it is placed in the outer receptacle it will extend to within a short distance of the bottom of said outer receptacle and will be held therein by friction at the upper ends of the receptacles and form a tight joint at said upper ends with a gradually decreasing space between them, whereby the infused liquid can be poured from the inner receptacle and the residue will be retained in the outer receptacle.

1,238,760. METHOD OF DAMP-PROOFING BURIAL-VAULTS. ANDREW W. GRAHAM, Buffalo, N. Y., assignor of one-half to Ellis M. Treat, Pittsburgh, Pa. Filed Mar. 27, 1916. Serial No. 87,095. (Cl. 91—68.)

The method of rendering burial vaults impervious to moisture which consists in coating the walls of the vault with damp-proofing material, closing the vault hermetically, and thereafter filling the closed vault with fluid under pressure whereby to drive the damp-proofing materials outwardly into said walls.

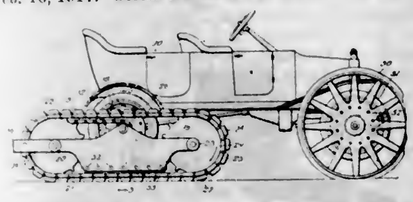
1,238,761. ARTICLE-HOLDING DEVICE. GUST GUMMERSON, Iron Mountain, Mich. Filed Jan. 2, 1917. Serial No. 140,215. (Cl. 232—33.)



1. In a device of the kind described, the combination with a base adapted to be secured in position, a fixed abutment at one end of said base and projecting perpendicularly thereto at one side, a movable abutment adapted to cooperate with the fixed abutment for holding articles therebetween, resilient means for normally maintaining the movable abutment in contact with the fixed abutment, guide bars on the movable abutment passing through openings in the fixed abutment, and a fixed rail on the base at each side of the movable abutment to guide said abutment and also to support the articles held between said abutments.

[Claim 2 not printed in the Gazette.]

1,238,762. ATTACHABLE TRACTOR FOR AUTOMOBILES. HARRY D. HAPEMAN, La Grange, Ill. Filed Feb. 16, 1917. Serial No. 148,954. (Cl. 180—9.)



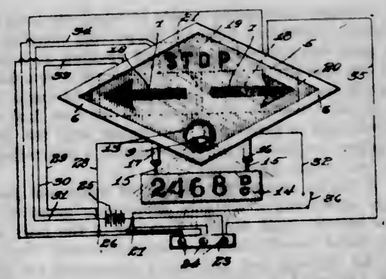
1. A tractor for attachment to a power driven vehicle having a frame and driven axle, said tractor comprising an extension shaft coaxial with an end of the driven axle, means connected with the vehicle for supporting the shaft, a connection between the shaft and axle, a tractor frame journaled on the shaft, an endless link belt carried by the tractor frame, and a driving connection between the link belt and shaft.

2. A tractor attachment for a power driven vehicle having a driven axle, an axle housing, and wheels on the ends of the axle, said attachment comprising a frame connected with the axle housing and projecting axially beyond the wheels, extension shafts coaxial with the driven axle and journaled in the ends of the frame, means connecting the wheels with the shafts, tractor frames journaled on the shafts, an endless link belt in each tractor frame, and driving connections between the shafts and link belt.

3. A pair of organized caterpillar tractors, each comprising two frame plates; a pair of spaced-apart sprocket wheels rotatably supported in each end of the frame; a pair of tractor chains having tractor shoes secured thereto, supported on said wheels; an extension axle, located in said frame between said pairs of sprocket wheels, upon which the tractor is pivoted; means to connect said extension axle to the driving axle of an automobile, and a frame for supporting the rear end of the automobile with its wheels free of the ground, and for holding said tractors in spaced-apart relation.

4. A pair of organized caterpillar tractors each comprising two frame plates; a pair of spaced apart sprocket wheels rotatably supported in each end of the frame; a pair of tractor chains having tractor shoes secured thereto at intervals, supported on said wheels; an extension axle, located in said frame between said pair of sprocket wheels, upon which the tractor is pivoted; a speed-reducing driving means connecting one pair of said sprocket wheels with the said extension axle; means to connect the said extension axle to the driving axle of an automobile and a frame for supporting the rear end of an automobile with its wheels free of the ground, and for holding the said tractors in spaced-apart relation.

1,238,763. DIRECTION-INDICATOR. ALFRED M. HARRIS, Detroit, Mich., assignor of three-eighths to Joseph J. Sullivan, Detroit, Mich. Filed Jan. 14, 1916. Serial No. 72,155. (Cl. 40—131.)



1. A signal comprising a transparent plate having indicia thereon and also provided with an opening, illuminating means for the transparent plate, a second plate mounted below the transparent plate and also having indicia thereon, and a reflector positioned in the opening in the transparent plate to project light rays upon the second mentioned plate.

2. A signal comprising a transparent plate having indicia thereon and further provided with an opening, a casing positioned behind the transparent plate and carrying illuminating means, a second plate mounted below the transparent plate and also having indicia thereon, and a reflector extending through the opening to project light rays upon the second mentioned plate.

3. A signal comprising a transparent plate having indicia thereon and further provided with an opening, a casing positioned behind the transparent plate and carrying illuminating means, means connected with the bracket and projecting through the opening, a reflector also carried by the bracket, and a license plate disposed below the reflector.

1,238,764. CAR-COUPLING. CLAY N. HEADDING, Chehalis, Wash., assignor of one-third to George A. Hansen, Centralia, Wash., and one-sixth to Charles B. Headding and one-sixth to Newton J. Headding, Chehalis, Wash. Filed Aug. 17, 1916. Serial No. 115,430. (Cl. 213—51.)



In a coupling, a draw head having a mouth provided with outwardly flaring side walls, alining vertical openings within the area of said mouth above and below the same, an internal chamber in the rear of said mouth having an elevated ledge or shelf in the rear portion thereof, and a narrow slot extending between the upper of said vertical openings and said chamber, a pin of round cross section movable through said openings, a pin supporting head arranged within said chamber, said head having its forward portion of greater vertical depth than its rear portion and provided with a central forwardly projecting rib which extends through said slot for engagement under said pin when the latter is elevated, the rear portion of said head engaging said shelf, and means for supporting said head in the pin-supporting position thereof in a forwardly and downwardly inclined position.

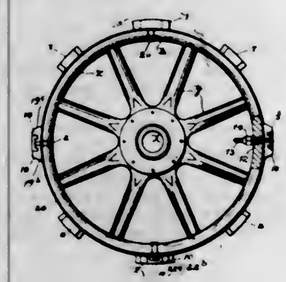
1,238,765. CLAMP FOR ANTISKID DEVICES. GEORGE T. HECKMANN, St. Louis, Mo. Filed Aug. 4, 1916. Serial No. 113,128. (Cl. 24—263.)



1. A clamp comprising a pair of separable jaws adapted to jointly embrace a suitable supporting member, one of said jaws being provided with an opening at a point beyond the opposite jaw when the jaws are assembled, a finger projecting from the opposite jaw and having a terminal bent to be recived by the opening of the first jaw whereby a closed loop is formed by said finger with the first jaw, and means for holding the jaws against a separating movement when once assembled.

2. A clamp comprising a pair of separable jaws conjointly embracing a suitable supporting member, an enlarged hollow shank formed with one of the jaws, a cylindrical shank terminating in a screw-threaded stem formed with the opposite jaw and freely traversing the enlarged shank aforesaid, a finger on said opposite jaw disposed parallel to the axis of the cylindrical shank and receivable by an opening or socket formed in the adjacent wall of the enlarged shank of the first jaw for locking the opposite jaw against rotary displacement, and a securing nut on the screw-threaded stem of the cylindrical shank of the opposite jaw operating to be driven against the adjacent wall of the enlarged shank of the first jaw for clamping the jaws together.

1,238,766. RIM FOR VEHICLE-WHEELS AND MEANS FOR SECURING IT. THEODORE HEINZERLING, Brooklyn, N. Y. Filed June 7, 1916. Serial No. 102,121. (Cl. 152—21.)



1. A device of the character described including a plurality of tapered blocks secured to the felly of a wheel each said block being provided with a keyway and a T shaped key adapted to pass through said felly and to be rotatably engaged in said keyway.

2. A lock for rims comprising a plurality of blocks each provided with one-half of a circular keyway and a key having a center post and two projecting arms adapted to be rotated and engaged into the two parts of said keyway to lock said blocks together.

3. A lock for rims comprising a plurality of similarly tapered blocks secured to said rim and to a felly each said block being provided with a portion of a keyway, a key passing through and rotatable in said felly, said key having a key shaped inner portion and a locking nut and flattened operating nut, said nuts comprising means for rotating said key shaped portion into said keyway and for retaining it therein and a stop within said keyway for limiting the movement of said key shaped portion.

1,238,767. HIGH CHAIR. FREDERICK W. HERMAN, Jr., Salina, Kans. Filed Apr. 15, 1916. Serial No. 91,309. (Cl. 155—12.)

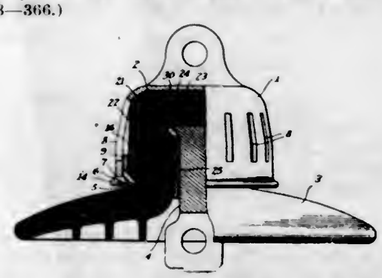


4. In a device of the character described, a seat having a cut-out portion hinged thereto and adapted to drop perpendicularly to shorten the seat, and means for releasably securing said cut-out portion to the fixed portion of the seat in a horizontal plane.

5. In a device of the character described, the combination of a chair frame, a seat composed of two sections one rigidly secured to the frame, the other adapted to be moved in a vertical direction, and two foot-rests attached to said frame and projecting in opposite directions in horizontal planes.

[Claims 1 to 3, 6, and 7 not printed in the Gazette.]

1,238,768. INSULATOR. GREGORY C. HILL, Victor, N. Y. Filed Mar. 3, 1917. Serial No. 152,207. (Cl. 173—366.)



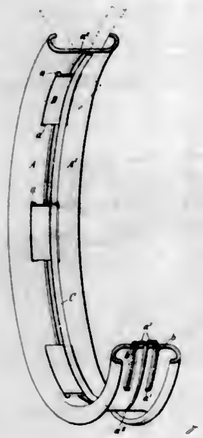
1. In an insulator, two members one of which has a pocket receiving a portion of the other, at least one of said members being formed of insulating material and having an annular shoulder, a ring arranged to move axially between said members after the latter have been fitted together and having a plurality of bendable tongues, and means for bending said tongues on said axial movement of the ring to move the tongues into engagement with the annular shoulder so that the two insulating members may be held together.

5. In an insulator, two members one of which has a pocket receiving a portion of the other, at least one of said members being formed of insulating material and each of said members having an annular shoulder, and a split ring arranged to move axially between said members after the latter have been fitted together, the ends of the split portion of the ring interlocking to prevent relative movement between said ends during the axial movement of the ring, and said ring having a portion which engages the shoulder on one of said members on the axial movement of the ring to move said portion into engagement with the other member so that the two members may be held together.

11. In an insulator, a cap member with an internal annular shoulder, an insulating member having a central portion received within said cap member and provided with an annular groove, and a ring surrounding said central portion to one side of said groove and having portions extending into the groove and coöperating with the internal annular shoulder on the cap member to lock the two members together.

[Claims 2 to 4, 6 to 10, 12, and 13 not printed in the Gazette.]

1,238,769. TIRE-CARRYING RIM. ERNEST HOPKINSON, East Orange, N. J. Filed Oct. 14, 1911. Serial No. 654,587. (Cl. 152—21.)



1. A tire-carrying rim divided longitudinally into two similar members having marginal tire retaining portions, whose combined interior width when forced together is less than the normal outside width of the corresponding fastening portions of a tire when inflated thereon and said members are separated, and a plurality of integral coupling pieces having undercut ends adapted to engage corresponding edges formed on the interior of said rim members to hold said members normally spaced part against lateral pressure of the tire when inflated and capable of removal only when the rim members are moved toward each other.

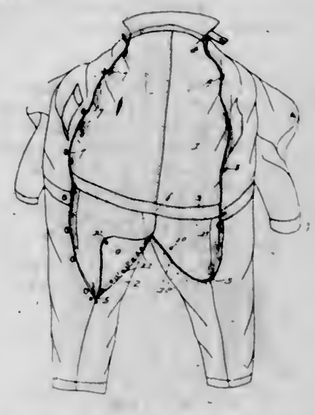
2. A tire-carrying rim divided longitudinally into two similar members having marginal tire retaining portions, each of which is provided with a plurality of slots, the combined interior width of said members when forced together being less than the normal outside width of the corresponding fastening portions of a tire when inflated thereon and said members are separated, and a plurality of integral coupling pieces having undercut ends adapted to engage the edges of opposed slots in the rim members to hold said members normally spaced apart against the lateral pressure of a tire when inflated and capable of removal only when the rim members are moved toward each other.

3. In combination with a longitudinally divided tire rim having coupling-engaging means on the inner sides of the sections thereof, inextensible coupling members adapted to engage said means when said sections are normally separated by the inflation of a tire, and a resilient band connecting said coupling members and adapted to hold the same temporarily in position prior to the inflation of the tire.

4. In combination with a longitudinally divided tire rim having coupling-engaging means on the inner sides of the sections thereof, inextensible hooked coupling members adapted to engage said means when said sections are normally separated by the inflation of a tire, and a resilient band connecting said coupling members and adapted to hold the same temporarily in position prior to the inflation of the tire.

5. In combination with a longitudinally divided tire rim having slots in the cylindrical portions thereof, inextensible hooked coupling members adapted to engage the inner edges of said slots when said sections are normally separated by the inflation of a tire, and a resilient band connecting said coupling members and adapted to hold the same temporarily in position prior to the inflation of the tire.

1,238,770. ONE-PIECE GARMENT. ALVIN EMANUEL HOSTETLER and WILLIAM EMERTT RICHARDS, Hutchinson, Kans. Filed May 10, 1917. Serial No. 167,784. (Cl. 2—144.)



A union oversuit consisting of body and trousers portions, the trousers portion having a crotch open from the waist-band at the rear to the waist-band at the front, a flap secured along one edge to the adjacent portion of one leg of the trousers at the crotch, means for securing said edge to the adjacent portion of the other leg of the trousers, said flap adapted to fold within the trousers and to be affixed to the inner face of the rear portion of the leg opposite that to which it is attached.

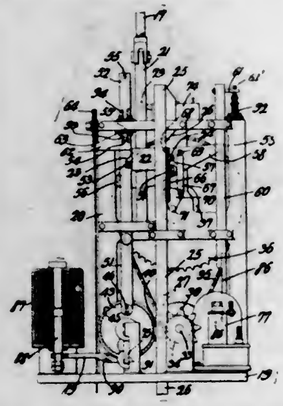
1,238,771. HUMIDIFIER FOR HOT-AIR FURNACES. GEORGE W. HOWES, Dowagiac, Mich., assignor to The Beckwith Company, Dowagiac, Mich. Filed Mar. 7, 1917. Serial No. 153,042. (Cl. 126—113.)



1. In a structure of the class described, the combination with a hot air furnace comprising an air chamber, a water pan mounted therein and an ash pit, of means automatically supplying water to said water pan and maintaining it at substantially constant level, means for supplying water to said water pan independently of said automatic means, manually operable means for controlling the flow of water to said last named supply means, an overflow pipe connecting said water pan with said ash pit, and means for preventing gases and dust from escaping from said ash pit through said overflow pipe into said air chamber, substantially as described.

2. In a structure of the class described, the combination with a hot air furnace comprising an air chamber, a water pan mounted therein and an ash pit, of means automatically supplying water to said water pan and maintaining it at a substantially constant level, an overflow pipe connecting said water pan with said ash pit, and means for preventing gases and dust from escaping from said ash pit through said overflow pipe into said air chamber, substantially as described.

1,238,772. RAILWAY-SIGNAL. ROBERT F. HUDSON, Richmond, Va., assignor, by mesne assignments, to Hudson Railway Signal Company, Inc., Richmond, Va. Filed May 25, 1914. Serial No. 840,905. (Cl. 246—34.)



1. In a railway signal mechanism, signal controlling means normally in one position and biased to move to another position, train actuated means normally holding said means and adapted when actuated by a train to release the signal controlling means, actuating means operable for causing the signal controlling means to move from its normal to its other position and for returning the signal controlling means to normal position, means for normally locking said actuating means in either of two positions, whereby when the actuating means is in one position it will when moved return the signal controlling means and when the actuating means is in the other position it will when moved cause the signal controlling means to move from its normal to its other position if it has not already done so, and train controlled means for moving said locking means to releasing position.

2. In a railway signal mechanism, signal controlling means normally in one position and biased to move to another position, actuating means operable when in one position to return the signal controlling means to normal position and when in another position to cause the signal controlling means to move from its normal to its other position, means for normally locking said actuating means in either position, and train controlled means for moving the locking means to releasing position.

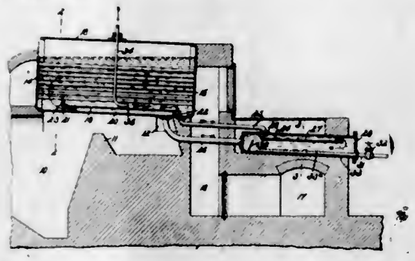
3. In a railway signal mechanism, signal controlling means, train actuated means coöperable therewith whereby when the train actuated means is operated the signal controlling means is moved from one position to another, actuating means for returning the signal controlling means, means for normally locking the actuating means, train controlled means for moving the locking means to releasing position, and means whereby when the train actuated means is operated it operates the actuating means to store reserve power therein.

4. In a railway signal mechanism, signal controlling means normally in one position and movable when released to another position, train actuated means operable for releasing said means, actuating means operable for returning the signal controlling means, means for normally locking the actuating means, train controlled means for moving the locking means to releasing position, and means whereby when the train actuated means is operated it operates the actuating means to store reserve power therein.

5. In a railway signal mechanism, signal controlling means normally in one position and movable when released to another position, actuating means operable for returning the signal controlling means and for releasing it, means for normally locking said actuating means to either return or release the signal operating means, train controlled means for moving the locking means to releasing position to either return or release the signal controlling means, and train actuated means for operating the actuating means to store reserve power therein.

[Claims 6 to 20 not printed in the Gazette.]

1,238,773. CIRCULATING AND PROTECTIVE MEANS FOR STEAM-BOILERS. FRANCISCO ILLESCAS, Mexico, Mexico. Filed May 31, 1916. Serial No. 100,780. (Cl. 122—408.)



1. The combination with a steam boiler having a partition adjacent to the bottom of the boiler, forming a water-circulating space beneath said partition, said space being closed at one end and open at the opposite end, of a mud drum, an outlet from the interior of the boiler independent of said circulating space and connecting with the said drum, and a return connection from the said drum to the said circulating space of the boiler.

2. The combination with a steam boiler having a partition adjacent to the bottom of the boiler, forming a water-circulating space beneath said partition, said space being closed at one end and open at the opposite end, of a mud drum, an outlet from the interior of the boiler independent of said circulating space and connecting with the said drum, and a return connection from the said drum to the said circulating space of the boiler; together with a feed water pipe terminating adjacent to the said partition and having the inner end thereof disposed toward the said outlet.

3. The combination with a steam boiler, of a mud drum, and circulating connections between the said boiler and drum, the connections leading from the boiler to the drum being of less diameter than the return connection from the drum to the boiler; together with a partition in the boiler at the bottom, the said return connection leading to the space beneath the partition.

4. The combination with a steam boiler, a partition therein adjacent to the bottom forming a water circulating space longitudinally of the boiler beneath the said partition, the said space being closed at one end and open at the other, a mud drum, a pipe leading from the boiler to the said drum independently of said circulating space of the boiler, a return connection from the drum to the said water circulating space of the boiler, and a partition in the drum and forming a water passage longitudinally thereof near the top, the said pipe leading from the boiler to the drum connecting with the said water passage of the drum near one end, said passage being in communication at its opposite end with the interior of the drum, and the said return connection leading from the opposite end of the drum beneath the partition of the boiler.

5. The combination with a steam boiler, a partition therein adjacent to the bottom forming a water circulating space longitudinally of the boiler beneath the said partition, the said space being closed at one end and open at the other, a mud drum, a pipe leading from the boiler to the said drum independently of said circulating space of the boiler, a return connection from the drum to the said water circulating space of the boiler, and a partition in the drum and forming a water passage longitudinally thereof near the top, the said pipe leading from the boiler to the drum connecting with the said water passage of the drum near one end, said passage being in communication at its opposite end with the interior of the drum, and the said return connection leading from the opposite end of the drum beneath the partition of the boiler; together with a transverse partition in the drum rising from the bottom thereof adjacent to the said return connection.

[Claim 6 not printed in the Gazette.]

1,238,774. CATALYZER FOR HYDROGENATING OILS AND THE LIKE. MARTIN HILL ITTNER, Jersey City, N. J. Filed May 14, 1914. Serial No. 838,478. (Cl. 23—28.)

1. A catalyzer, comprising a catalytic material associated with charcoal impregnated with a catalytically activating inorganic compound; substantially as described.

3. A catalyzer, comprising a catalytic metal having a surface coating of catalytic oxid, associated with charcoal impregnated with a catalytically activating inorganic compound; substantially as described.

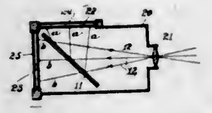
5. A catalyzer, comprising nickel, having a surface coating of a low oxid of nickel, associated with charcoal impregnated with a catalytically activating inorganic compound; substantially as described.

7. A catalyzer, comprising as one of its elements, charcoal made catalytically active by impregnation with a silicate.

10. A catalyzer, comprising as one of its elements, charcoal impregnated with a catalytically activating oxygen compound of aluminum.

[Claims 2, 4, 6, 8, and 9 not printed in the Gazette.]

1,238,775. COLOR PHOTOGRAPHY. FREDERIC E. IVES, Woodcliff-on-Hudson, N. J. Filed Mar. 11, 1914. Serial No. 823,840. (Cl. 95—2.)



1. A color-photography apparatus including in combination with the image-forming means or lens, a dichroically color-selective transparent reflector interposed inclinedly in the light path, and means for positioning image surfaces at optically opposite sides of said reflector.

2. A color-photography apparatus including in combination with the image-forming means or lens, an optically accurate dichroically color selective transparent reflector consisting of a glass base provided with a superficial dichroic layer interposed inclinedly in the light path, and means for positioning suitable image surfaces at optically opposite sides of said reflector.

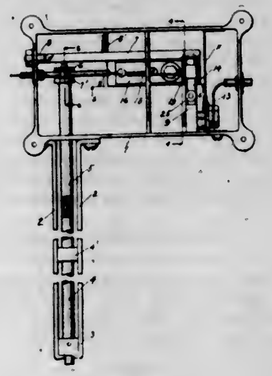
3. A color-photography apparatus including in combination with the image-forming means or lens, an optically accurate dichroically color selective transparent reflector consisting of a glass base provided with a superficial dichroic layer interposed inclinedly in the light path, and means for positioning suitable image surfaces at optically opposite sides of said reflector; said reflector having as to the predominant colors transmitting and reflecting capacities suitably related to the color degrees respectively of the image surfaces.

4. A color-photography camera including in combination with the image-forming means or lens, a dichroically color selective transparent reflector interposed inclinedly in the light path, means for positioning suitable sensitive surfaces at optically opposite sides of said reflector, and color modifying means interposed between the dichroic reflector and sensitive surface.

5. A color-photography camera including in combination with the image-forming means or lens, a dichroically color selective transparent reflector consisting of a glass base provided with a superficial dichroic layer exposed at the first face of said plate and interposed inclinedly in the light path, and means for positioning at optically opposite sides of said reflector sensitive surfaces responsive to the colors predominantly transmitted and reflected respectively by said dichroic reflector.

[Claims 6 and 7 not printed in the Gazette.]

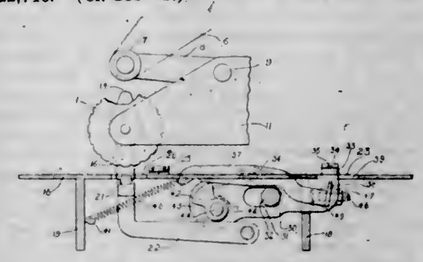
1,238,776. THERMOSTATIC TRIP-SWITCH DEVICE. JESSE JACKSON, Kokomo, Ind., assignor to Globe Stove & Range Company, Kokomo, Mich. Filed Sept. 24, 1915. Serial No. 52,496. (Cl. 200—31.)



1. In an automatic thermostatic switch trip device, the combination with the thermostat rod, a pivoted latch lever to coöperate with said thermostat rod, a catch with a pivot disposed within a slot for adjustment to coöperate with said latch, a contact switch for closing the electric heating circuit, a setting lever pivoted thereto and pivotally connected to said adjustable catch for regulating the position thereof to set the same to be released at a predetermined point, an actuating spring on said adjusting lever for putting tension on the said switch whereby it would be actuated when released, a suitable scale for accurately positioning the said setting lever, all coacting substantially as described and for the purpose specified.

[Claims 2 and 3 not printed in the Gazette.]

1,238,777. SLIP PRINTING AND FEEDING MECHANISM FOR ACCOUNTING-MACHINES. MAX JACOB, Berlin, Germany, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio. (Incorporated in 1906.) Filed Mar. 5, 1914. Serial No. 822,746. (Cl. 235—3.)



1. In a printing mechanism, the combination with a plurality of type carriers for printing on a detail strip; of a special type carrier for also printing on the detail strip and constructed to be moved out of printing position by the insertion of a slip.

2. In a printing mechanism, the combination with a plurality of type carriers for printing on a detail strip; of a special type carrier for also printing on the detail strip and constructed to be moved out of printing posi-

tion by the insertion of a slip; and a spring for holding the special type carrier in printing position when a slip is not in the machine.

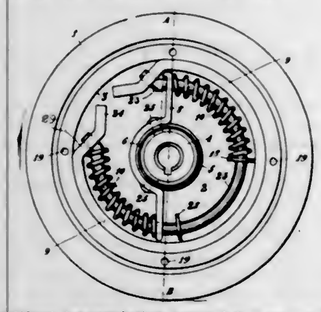
3. In a printing mechanism, the combination with a plurality of type carriers for printing on a detail strip; of a special type carrier for also printing on the detail strip and constructed to be moved out of printing position by the insertion of a slip; and a spring for holding said special type carrier out of printing position when a slip is in the machine.

4. In a printing mechanism, the combination with a plurality of type carriers for printing on a detail strip; of a special type carrier for also printing on the detail strip and constructed to be moved out of printing position by the insertion of a slip; means for holding the special type carrier in printing position when a slip is not in the machine; and means for holding it out of printing position when a slip is in the machine.

5. In a printing mechanism, the combination with a plurality of type carriers for printing on a detail strip and on inserted slips; of a special type carrier for printing on the detail strip and movable in the direction of the printing line out of printing position by the insertion of a slip.

[Claims 6 to 18 not printed in the Gazette.]

1,238,778. TRANSMISSION FOR MOTOR-DRIVEN VEHICLES. EMIL ALFRED JERN, Gefle, Sweden, assignor to Per Holmstrand, Gefle, Sweden. Filed Dec. 22, 1916. Serial No. 138,463. (Cl. 74—29.)



1. A resilient transmission comprising in combination a driving wheel having an interior cylindrical surface, a spring member frictionally engaging said cylindrical surface, a driven member coaxial with said wheel, and a resilient coupling between said spring member and said driven member.

2. A resilient transmission comprising in combination a driving wheel having a hub and an interior cylindrical surface, a spring member frictionally engaging said cylindrical surface, a driven member coaxial with said wheel and mounted on said hub, and a resilient coupling between said spring member and said driven member.

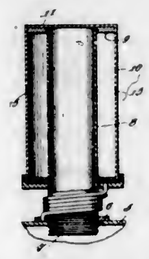
4. In transmitting devices for motor driven vehicles the combination of a driving wheel rotated positively from the motor, a driven member loosely mounted on the shaft of said wheel and forming a part of the device for transmitting movement from the said wheel to one of the vehicle wheels, a spring member held by its tension into frictional engagement with the said driving wheel, and a yielding coupling between said spring member and the said driven member.

5. In transmitting devices for motor driven vehicles the combination of a driving wheel rotated positively from the motor, a driven member loosely mounted on the shaft of said wheel and forming a part of the device for transmitting movement from the said wheel to one of the vehicle wheels, a spring member held by its tension into frictional engagement with the said driving wheel, shoulders on said spring member and said driven member, and coil springs between the shoulders on the spring member on the one side and the shoulders on the driving member on the other side.

7. In transmitting devices for motor driven vehicles the combination of a driving wheel rotated positively from the motor, a driven member loosely mounted on the shaft of said wheel and forming a part of the device for transmitting movement from the said wheel to one of the vehicle wheels, a spring member held by its tension into frictional engagement with the said driving wheel, said spring member consisting of two parts, the one surrounding the other, coil springs encircling the inner one of said two parts, and shoulders on said spring member and said driven member, the ends of the said coil springs abutting against said shoulders.

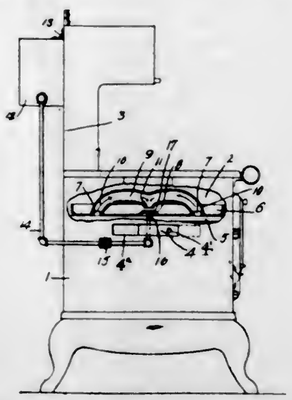
[Claims 3 and 6 not printed in the Gazette.]

1,238,779. BLOW-OFF VALVE. ALBERT H. JOHNSON, Glens Falls, N. Y. Filed May 6, 1915. Serial No. 26,376. (Cl. 137—53.)



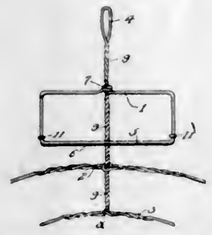
In a blow-off valve, a hollow stem connected at one end to a container for fluids under pressure, a piston disk screwed on the other end of said stem, a cylindrical casing having a removable head sliding on said stem and having fluid-tight connection therewith, said casing having fluid-tight connection with said piston disk, outlet apertures being formed in the casing a predetermined distance below its upper closed end, and a calibrated contractile spring surrounding said stem and connected at one end to said casing and at its other end to the container and normally holding said casing downwardly with its piston disk in contact with its closed upper end but yielding under pressure within the container to allow the fluid to escape through the hollow stem and apertures.

1,238,780. OIL-BURNER. CYRUS C. JOHNSON, McPherson, Kans. Filed Feb. 12, 1917. Serial No. 148,107. (Cl. 158—91.)



A hydrocarbon burner embodying a fuel-containing pan having a flat bottom and an upturned marginal rim, the pan bottom having upstanding collars within the rim and a dome intermediate said collars, an air flue having downwardly extending ends fitted upon said collars and a depending air outlet nozzle intermediate its ends immediately above said dome, and a fuel supply pipe terminating at said dome for supplying fuel thereonto.

1,238,781. GARMENT-HANGER. OSCAR J. JOHNSON, Cloquet, Minn. Filed Dec. 1, 1916. Serial No. 134,352. (Cl. 211—13.)

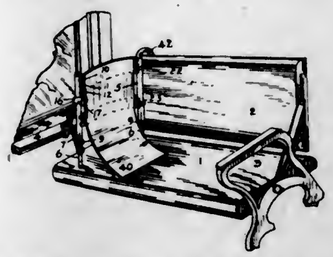


1. A garment hanger formed from a single piece of material bent back upon itself intermediate its length and twisted to form a shank and two sides which latter are bent laterally in opposite directions from the shank to form registering frames, each side being returned to and engaged about the shank to form a separate independently movable frame piece, said material being extended downwardly to form a garment supporting member, said frame pieces being inclined relative to the shank to be offset from said member.

2. A garment hanger formed from a single piece of material bent back upon itself to provide a supporting loop at its upper end, the side pieces being twisted to form a shank and then bent laterally in opposite directions and backwardly at an angle to form opposing clamping frames and to engage about the shank, each frame from the shank throughout its entirety being relatively movable with respect to the other frame, said side pieces being then carried downwardly together from said shank to form a second shank from which the side pieces extend laterally to form diametrically opposite supporting arms, said second shank being formed with an offset portion immediately above the arms.

3. A garment hanger formed from a single length of wire bent back upon itself intermediate its length to provide a supporting loop, the side pieces thus formed being twisted together and carried downwardly a suitable distance, then each piece being bent laterally in opposite directions then downwardly and transversely across to the opposite side, then upwardly and back about the twisted portion to form corresponding rectangular frame pieces, the side pieces being then carried downwardly together and twisted, then bent laterally and back upon themselves to form diametrically opposite arms, and clamping rings slidably mounted upon the sides of the frame pieces for imparting clamping action to said pieces when an article is received therebetween.

1,238,782. BODY-REST. MELVIN W. KAYE, Monaca, Pa. Filed Jan. 30, 1917. Serial No. 145,349. (Cl. 155—26.)



1. A rest for the purpose set forth comprising a pair of extensible uprights, curved brace members detachably connected with said uprights for maintaining them in spaced relation with respect to each other, and an element adapted to be detachably connected to an anchoring device and further detachably connected near the upper and the lower end of the upright.

3. A rest for the purpose set forth comprising a pair of extensible uprights, curved brace members detachably connected with said uprights for maintaining them in spaced relation with respect to each other, and an element adapted to be detachably connected to an anchoring device and further detachably connected near the upper and the lower end of an upright, and a crook detachably connected to the upper end of one of said uprights, said anchoring element including an extensible rod.

6. A device for the purpose set forth comprising a pair of uprights, brace members detachably connected with said uprights for maintaining them in spaced relation with respect to each other, a brace element including an upper and a lower rod hinged together, means carried by an upright and by said upper rod for detachably connecting said rod to the upper portion of said upright, means carried by the lower rod for detachably clamping it near the lower end of said upright, and means carried by the lower end of the upper rod for anchoring said brace member, and a crook capable of being carried by the upper end of either of said uprights for connecting the upright with the back of a seat.

[Claims 2, 4, 5, 7, and 8 not printed in the Gazette.]

1,238,783. BALL-BEARING. EUGEN KAYSER, Berlin, Germany, assignor to The Hess-Bright Manufacturing Company, Philadelphia, Pa. Filed Dec. 26, 1907, Serial No. 408,011. Renewed Feb. 14, 1917. Serial No. 148,593. (Cl. 64—36.)



In an antifriction bearing, the combination of inner and outer casing members and intermediate balls, one of said casing members comprising a continuous ring of reduced cross section and of freely deformable elastic material, said ring having on its face a relatively deep ball groove, forming a ball track continuous and uninterrupted throughout the ring, and capable of resisting heavy axial thrusts in both directions, and a stiff reinforcing ring of relatively greater cross sectional area, firmly applied to the deformable ring and serving to maintain the circular shape of the latter.

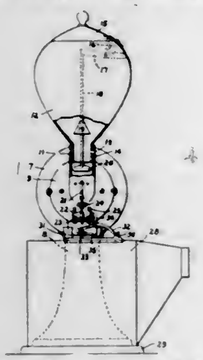
1,238,784. GRINDING-MILL. WILLIAM J. KEARY, Schenectady, N. Y. Filed June 25, 1917. Serial No. 176,720. (Cl. 83—18.)

1. In a grinding mill, the combination of a grinding means, a motor for driving it, means actuated by the opening of the mill to receive material for starting the motor, and means actuated by the removal of ground material from the mill to stop the motor.

2. In a grinding mill, the combination of a grinding means, a motor for driving it, a controller for the motor, a device actuated by the opening of the mill to receive material for causing the controller to start the motor, and a device actuated by the removal of ground material from the mill to cause the controller to stop the motor.

10. In a grinding mill, the combination of a grinding means, an electric motor for driving the means, a switch for the motor, a latch which normally holds the switch open, means for releasing the latch, a device for moving the switch into reëngagement with the latch after each operation, a catch for holding the device out of action, and a receiver for material from the mill which releases the device when moved outwardly and resets it and the catch when returned to place.

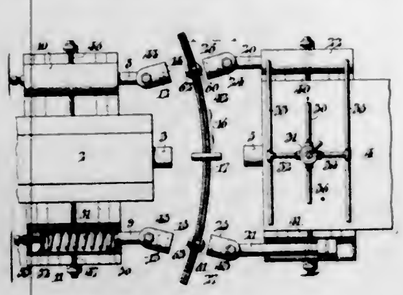
14. In a grinding mill, the combination of grinding means, a driving motor therefor, a hopper having a hinged cover, a valve in the outlet of the hopper, an actuator for the valve which is moved by the cover in opening and closing, a switch for the motor that is biased to close, a



releasing device for the switch controlled by the actuator, a switch opening and resetting means, and a receiver for ground material which by its movements controls said means.

[Claims 3 to 9 and 11 to 13 not printed in the Gazette.]

1,238,785. RIVETING-MACHINE. FRANCIS P. KENNEY and WILLIAM J. ELLIOTT, Philadelphia, Pa. Filed June 27, 1916. Serial No. 106,113. (Cl. 78—42.)



1. In a riveting machine, the combination of a movable die and a stationary die; means connected with both of said dies adapted to coöperate to engage the work, whereby the work is properly centered in relation to said die.

2. In a riveting machine, the combination of a movable die and a stationary die, means coöperating with said stationary die for spacing the work therefrom, and means coöperating with both of said dies for centering the work between the stationary and movable dies.

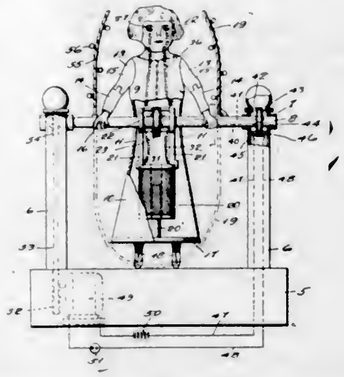
3. In a riveting machine, the combination of a movable die and a stationary die, means coöperating with said dies adapted to engage rivet heads in the work whereby the work is properly centered between the stationary and movable dies.

4. In a riveting machine, the combination of a stationary die and a movable die, a plunger mounted adjacent said stationary die adapted to engage a rivet head in the work to be riveted, whereby the work is properly centered and spaced from said stationary die.

5. In a riveting machine, the combination of a stationary die and a movable die, a plunger mounted adjacent said stationary die adapted to engage a rivet head in the work to be riveted, whereby the work is properly spaced from said stationary die, and means for cushioning said plunger.

[Claims 6 to 18 not printed in the Gazette.]

1,238,786. DANCING DOLL. JOSEPH KERSHAW, Joplin, Mo. Filed Nov. 14, 1916. Serial No. 131,307. (Cl. 46—40.)



2. A mechanical doll of the character described, comprising a support, a doll connected with the support in a manner to be vertically moved with relation to the support, an electrically operated device arranged within the doll and suspended from the support and connected with the doll and adapted to raise it upon being energized, and means to energize the electrically operated device.

4. In a mechanical doll of the character described, a base, a support connected with the base, a doll having feet arranged in proximity to the base and having a substantially vertical elongated opening formed in the upper portion thereof, a rotatable shaft carried by the support and extending through the elongated opening, an electrically operated device arranged within the doll and suspended from the rotatable shaft and adapted to elevate the doll upon being energized, means to energize the electrically operated device comprising apparatus carried by the shaft and rotated thereby, an approximately U-shaped member carried by the shaft to rotate therewith and to pass between the base and the feet of the doll, and means to drive the shaft.

7. A mechanical doll of the character described, comprising a support, an approximately horizontal shaft connected therewith, a doll comprising a body portion having slidable connection with the shaft to be moved vertically with relation thereto, and having arms provided with elbow joints connected with the body portion and pivotally connected with the shaft, and means to raise and lower the doll with relation to the shaft.

[Claims 1, 3, 5, and 6 not printed in the Gazette.]

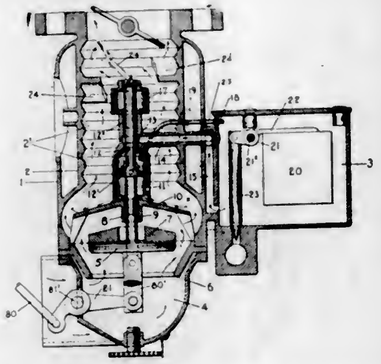
1,238,787. CARBURETER. WELLINGTON P. KIDDER, Boston, Mass. Filed Apr. 4, 1914. Serial No. 829,693. (Cl. 261—50.)

1. In a carbureter having an air intake, a fuel discharge in opposition thereto, an air valve for said air intake and a fuel valve for said fuel discharge, both valves on the same valve stem, and a plurality of umbrella fuel spreader flanges in the path of said fuel discharge.

2. In a carbureter having an air intake, a fuel discharge in opposition thereto, an air valve for said air intake and a fuel valve for said fuel discharge, both valves on the same valve stem, and a plurality of umbrella fuel spreader flanges in the path of said fuel discharge and above said air valve.

3. In a carbureter, a casing having an air intake, a discharge for fuel in said casing, a valve stem passing through said fuel discharge opening, a taper valve on said stem seating in said opening, an air valve on said stem controlling the passage of air through said air intake, a guide for said valve stem above and below said fuel intake, a bell crowned cylinder below said fuel intake and inclosing a part of said valve stem, a spreader flange on said valve stem beneath said fuel intake, a spreader flange beneath said bell crowned cylinder and overlying said air valve and means in the path of the mixture for imparting to the mixture a whirling action as it feeds to the engine.

Y OBERLIN & FAY
PATENT LAW
WASHINGTON, D. C.

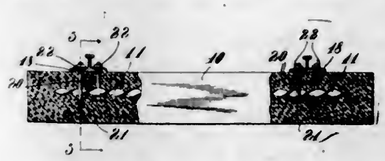


4. In a carbureter a casing having a primary air intake, a discharge for fuel in said casing, a valve stem passing through said fuel discharge opening, a taper valve on said stem seating in said opening, an air valve on said stem below said taper valve controlling the passage of air through said air intake, a guide for said valve stem above and below said fuel intake, a bell crowned cylinder below said fuel intake and inclosing a part of said valve stem, a spreader flange on said valve stem beneath said fuel intake, a spreader flange beneath said bell crowned cylinder and overlying said air valve and inclined fins in the path of the mixture for imparting to the mixture a whirling action as it feeds to the engine.

5. In a carbureter, a mixing chamber, a casing fixed therein and having an extension providing a fuel inlet passage, said extension constituting a means fixing the casing in said chamber and terminating in a vertically disposed guide, and a valve stem in said guide having a valve thereon controlling the discharge of fuel through said passage.

[Claims 6 to 8 not printed in the Gazette.]

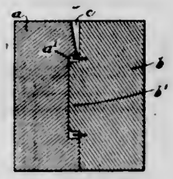
1,238,788. RAILROAD-TIE. WILLIM KLIMAS, Paterson, N. J. Filed Dec. 30, 1916. Serial No. 139,845. (Cl. 238—3.)



In a railway tie, the combination with a concrete block, having parallel surfaces, of a helically twisted reinforcing element midway and longitudinally in said block, bolts receivable in openings formed in said block, an angular projection formed with the inserted end of each of said bolts, said projections being engageable with said reinforcing element, blocks inserted in the mentioned openings adapted to hold said bolts in adjusted position, and raised elements formed on the upper surface of said block contiguous to said holes.

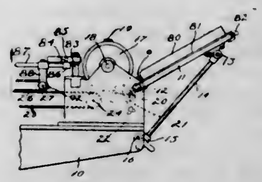
1,238,789. METHOD OR ART OF MAKING COMMERCIAL CASTINGS. JOHN KRALUND, Brooklyn, N. Y., assignor to Doehler Die Casting Company, a Corporation of New York. Filed Jan. 8, 1916. Serial No. 70,917. (Cl. 22—196.)

1. The method or art of making commercial castings consisting in forming a pattern by forcing molten material having a low fusing point into a metal mold or die, the cavity of which corresponds with the casing to be made, forming a mold by inclosing the pattern so made in the mass of plastic material, subjecting the low fusing material of said pattern through said plastic material to heat at a temperature sufficient to fuse the material of said pattern, causing said material to flow from within said mass of plastic material while in the molten state and thereafter filling said plastic mold with molten metal having a fusing point comparatively higher than that forming said pattern whereby a finished casting is produced and removing the plastic material from about said finished casting.



2. The method or art of making commercial castings consisting in forming a pattern corresponding in contour with the casting to be made and having an integral sprue thereon, by forcing molten material having a low fusing point into a metal mold or die under sufficient pressure to insure the filling of said mold or die and the desired density in the pattern, forming a mold by inclosing the pattern so made in a mass of plastic material, subjecting the low fusing material of said pattern through said plastic material to heat at a temperature sufficient to fuse the material of said pattern, and causing said material to flow from within said mass of plastic material while in the molten state and thereafter filling said plastic mold with molten metal having a fusing point comparatively higher than that forming said pattern whereby a finished casting is produced, and removing the plastic material from about said finished casting.

1,238,790. FEED MECHANISM FOR BLANK-TREATING MACHINES. LEON E. LA BOMBARD, Chelsea, Mass., and MELVIN H. SIDEBOTHAM, Nashua, N. H., assignors to Elie W. Labombarde, Nashua, N. H. Original application filed June 5, 1913, Serial No. 771,848. Divided and this application filed May 15, 1916. Serial No. 97,573. (Cl. 101—36.)



1. A rotary feeder for blanks having a gage and a friction member adjustable relatively to said gage, and a relatively stationary surface adjacent said rotary feeder.

2. A combing wheel feeder having an annular gage and a radially adjustable friction member adjacent said gage, in combination with a relatively stationary surface spaced from the feeder to permit the passage of blanks one at a time.

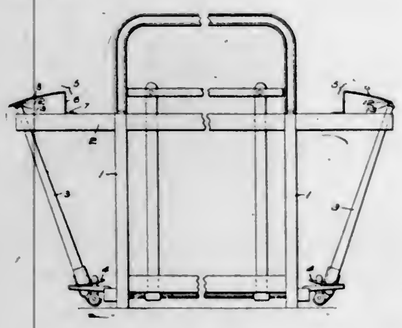
3. A combing wheel feeder comprising a pair of disks and a radially adjustable friction member between said disks, in combination with a relatively stationary surface spaced from the feeder to permit the passage of blanks one at a time.

4. A combing wheel feeder having a plurality of adjustable segments and an elastic ring having a friction surface mounted on said segments, in combination with a relatively stationary surface spaced from the feeder to permit the passage of blanks one at a time.

5. A combing wheel feeder having a plurality of adjustable segments, and an elastic ring having a friction surface mounted on said segments, said wheel having edge portions at the sides of the ring of less diameter than said ring.

[Claims 6 to 10 not printed in the Gazette.]

1,238,791. PICKER-CHECK. JAMES K. LANNING, Fall River, Mass. Filed Aug. 16, 1915. Serial No. 45,624. (Cl. 139—22.)



1. In a loom, a lay, a picker stick and a frictionally acting picker check therefor comprising a member operatively positioned to engage the top of the picker stick in the outward throw thereof, said check being normally positioned in substantial parallelism with the path of the top of the picker stick and adapted to be flexed by said picker stick in the outward movement thereof.

2. In a loom, a lay, a picker stick and a frictionally acting picker check therefor comprising a member mounted upon the lay and positioned operatively to engage the top of the picker stick in the outward throw thereof, said check normally having a position slightly non-concentric to the center of motion of the picker stick.

3. In a loom, a lay, a picker stick and a frictionally acting check therefor comprising a member operatively positioned to engage the top of the picker stick in the outward throw thereof, said check being so normally positioned when the picker stick is out of engagement therewith, that the stick initially engages the said check with a wiping action.

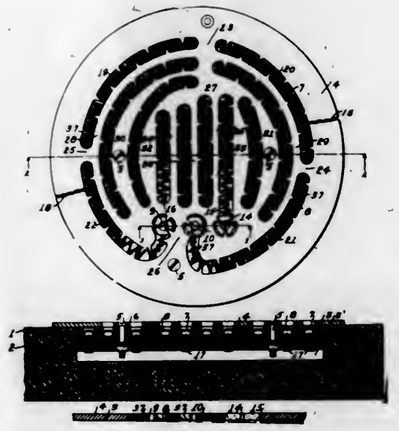
4. In a loom, a lay, a picker stick and a frictionally acting picker check therefor comprising a member positioned operatively to engage the top of the picker stick in the outward throw thereof, said member having substantially the same fixed position both when the picker stick is in engagement therewith, and when it is out of engagement therewith.

5. In a loom, a lay, a picker stick and a frictionally acting picker check therefor, comprising a cap piece mounted upon the top of the picker stick, and a member mounted upon the lay and positioned to engage said cap piece during the outward throw of the stick.

[Claims 6 to 12 not printed in the Gazette.]

1,238,792. ELECTRIC HOT-PLATE OR HEAT UNIT. MAURICE E. LOUTH and JESSE JACKSON, Kokomo, Ind., assignors to The Globe Stove & Range Company, Kokomo, Ind. Filed July 28, 1915. Serial No. 42,403. (Cl. 219—37.)

1. In an electric heat unit, the combination of an insulator plate with suitable grooves in the face thereof, heating coils disposed in said grooves, a metallic shield plate disposed over said insulator plate with a broad rim extending into a flange beyond said insulator plate, with radial slots therein and slots corresponding to the grooves in said plate, bolts through the said shield plate and insulator plate disposed in slots in said insulator plate to permit expansion and contraction, means for retaining the coils in said grooves, terminal pins projecting downwardly from the under surface of said insulator plate and connected to the terminals of said heating coils, a base with an opening in its top to receive said insulator plate and engage the flange, and sockets in the base portion to receive said terminal pins, as specified.



2. In an electric heat unit, the combination of an insulator plate with suitable grooves in the face thereof for receiving the heating coils, one of which grooves is toward the periphery and the other of which is within the outer groove with its central portion looped back and forth somewhat in the form of a grid, a plurality of heating coils disposed and retained within the said grooves with suitable terminal connections whereby the same can be thrown in singly or together, the outer coil having the greater resistance, a metallic shield plate disposed over the said insulator plate with a broad rim extending into a flange beyond said insulator plate and with radial slots on opposite sides of said grid part, peripheral segmental slots corresponding to the peripheral grooves in the plate beneath and central bars with connections to the peripheral flange at intervals, whereby said bars form slots segmental in form and form a grid-like structure corresponding to the grooves at the center of the insulator plate, with connecting portions toward the ends of said grooves and connecting portions from the sides of the outer bars to the flange rim toward each side in proximity to the radial slots therein.

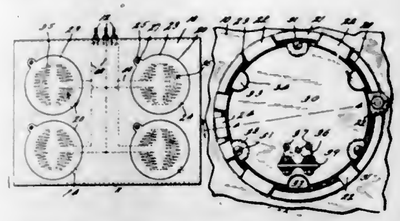
3. In an electric heating unit, the combination of an insulator plate with a suitable groove in the face thereof, a heating coil disposed in said groove, and a metallic shield plate disposed over said insulator plate with slots therein corresponding to the said groove and alternately projecting fingers on opposite sides of said slots to shield the coils without material obstruction of radiation therefrom, as specified.

4. In an electric heat unit, the combination of an insulator plate with a suitable groove in the face thereof, a heating coil disposed in said groove, and a metallic shield plate disposed over said insulator plate with a slot corresponding to the said groove and with a broad rim extending into a supporting flange beyond the said insulator plate, said rim having radial slots therein, as specified.

5. In an electric heat unit, the combination of an insulator plate with a groove in the face thereof, a heating coil in said groove, and a metallic shield plate over said insulator plate with slots corresponding to the said groove and extending beyond the insulator plate and serving as a support therefor, as specified.

[Claim 6 not printed in the Gazette.]

1,238,793. ELECTRIC HEAT-STORAGE HEATING UNIT. MAURICE E. LOUTH and JESSE JACKSON, Kokomo, Ind., assignors to The Globe Stove & Range Company, Kokomo, Ind. Filed Sept. 13, 1915. Serial No. 50,401. (Cl. 219—37.)



1. A heating unit, comprising a metal slide plate having a plurality of slip connection terminals at one edge for removeable engagement with coöperating terminals, said slide plate being provided with a hole, a sub-unit mounted in such hole and having a finger which projects under the edge of the hole and a second finger which is displaced from the first and projects over the edge of such hole, and means for fastening said second finger to said plate, said sub-unit having a heating winding which is connected to said slip connection terminals.

2. A heating unit, comprising a metal plate, said plate being provided with a hole, a sub-unit mounted in such hole and having a finger which projects under the edge of the hole and a second finger which is displaced from the first and projects over the edge of such hole, and means for fastening said second finger to said plate, said sub-unit having a heating winding.

3. An electric heating unit, comprising a plate provided with a hole and with lugs which project inward from the edge of such hole, and a sub-unit which fits in said hole and rests on said lugs, said sub-unit being provided with one finger which projects under the edge of the hole and another finger which is spaced from the first and projects over the edge of such hole, said sub-unit being provided with a heating winding, and means for fastening one of said fingers to said plate.

4. An electric heating unit, comprising a plate provided with a hole and with lugs which project inward from the edge of such hole, and a sub-unit which fits in said hole and rests on said lugs, said sub-unit being provided with one finger which projects under the edge of the hole and another finger which is spaced from the first and projects over the edge of such hole, said sub-unit being provided with a heating winding.

5. A heating unit, comprising a plate having a hole, and a sub-unit which comprises a top plate and a bottom plate with a heating winding between them and releasable means for fastening said two plates together and clamping the heating winding in place, said top plate being removably mounted in said hole flush with the top of said plate.

[Claims 6 and 7 not printed in the Gazette.]

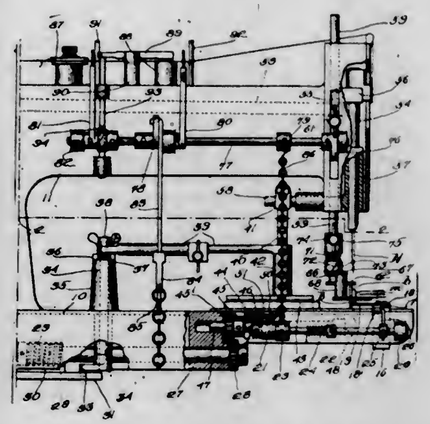
1,238,794. SEWING-MACHINE. ROBERT L. LYONS, Waltham, Mass., assignor to Frederick Osann Company, New York, N. Y., a Corporation of New York. Filed Apr. 8, 1912. Serial No. 689,220. (Cl. 112—33.)

1. A single thread sewing machine comprising a needle and a looper, complemental button holding means, and means for cutting a thread at a point intermediate said button holding means.

2. A single thread sewing machine comprising a needle and a looper, complemental button holding means, and a thread cutter movably mounted to cut a thread at a point intermediate said button holding means.

3. A single thread sewing machine comprising a needle and a looper, complemental button holding means, means for sustaining fabric above one of said button holding means, and a thread cutter adapted to engage the thread to be cut below the fabric sustaining means.

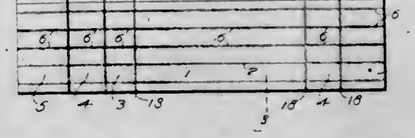
4. A sewing machine comprising means for holding a button, means for sustaining fabric laterally from said button and above one edge of the button, means for forming a group of securing stitches through said button and fabric and forming knotting loops in the thread, means for drawing said loops tight between the fabric and the button, and means for cutting said knotted thread.



5. A sewing machine comprising stitch forming means, complemental means for holding a button in a vertical position, a thread cutter, and a support for said thread cutter adjustably mounted to adjust said thread cutter relative to the diametrical center of said button.

[Claims 6 to 18 not printed in the Gazette.]

1,238,795. SYSTEM OF RULING. JOHN JUSTIN MCCARTHY, Ouray, Colo. Filed Feb. 15, 1916. Serial No. 78,424. (Cl. 101—400.)



1 A printing system for ruled forms, comprising a series of body units and a series of heading units, all of the units being of the same height and all of the body units having one dimension equal and the said units having printing ribs on their upper faces extending transverse to the equal axes and spaced apart at equal distances from each other and adapted to aline on all of the units when the said units are arranged end to end with their equal axes parallel, each of the heading units being of the same length as one of the body units and adapted to fit against the said body unit at one side edge thereof, and having a printing rib spaced at the same distance from the adjacent rib of the adjacent unit as the spacing of the ribs from each other on the unit, each of the heading units having a recess or cutaway portion in the side edge remote from the first-named unit for receiving a heading, and rules between the units for printing lines transverse to the ribs.

2. A printing system for ruled forms, comprising a series of body units of equal height and having one dimension equal, and varying in the other dimensions by certain predetermined values, said units having elevated printing ribs on their upper faces extending transverse to the equal axes and spaced at equal distances from each other and adapted to aline on all the units when the said units are in register with their equal axes parallel, and a series of heading units, one heading unit being provided for each

width of body unit and being of the same width as the body unit, and having an elevated printing rib spaced apart at the same distance as the ribs of the body unit when the heading unit is in place, each heading unit having a cut away portion for reciving a heading.

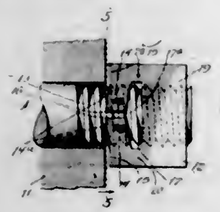
3. In a printing system for ruled forms, a series of heading units of the same height and of equal width and each having in one side edge a recess for receiving a set up heading, each of the said units bearing on its upper face an elevated longitudinally extending printing rib and the ribs alining when the units are placed end to end in register.

4. A printing system for ruled forms, comprising a series of body units and a series of heading units, all of the units being of the same height and each of the body units having one dimension equal and varying in the other dimension by certain predetermined values, said units having elevated spaced printing ribs on their upper faces alining when the units are placed in register, the heading units having recesses for receiving set-up headings.

5. A printing system for ruled forms, comprising body units and heading units of equal height and having elevated printing ribs on their upper faces alining when the units are arranged in a certain definite relation to form printed lines, said units being of various size and bearing certain predetermined relations with respect to each other, the heading units having recesses for receiving set-up headings.

[Claims 6 to 8 not printed in the Gazette.]

1,238,796. NUT-LOCK. WILLIAM R. MCCOLLOM, Chicago, Ill. Filed Dec. 26, 1916. Serial No. 138,730. (Cl. 151—21.)



1. A nut lock, comprising a nut body formed with a plurality of bendable lugs extending toward the center of the nut, said lugs being located on that side of the nut which contains its bearing face, the bearing face of said lugs being of arched formation, and said body and lugs being internally screw threaded.

2. A nut lock, comprising a nut body formed with a plurality of oppositely disposed, bendable lugs, projecting toward the middle of the nut from two of its opposite sides, said lugs being located on that side of the nut which contains its bearing face, and being arched toward the middle of the nut, the body and lugs being internally screw threaded.

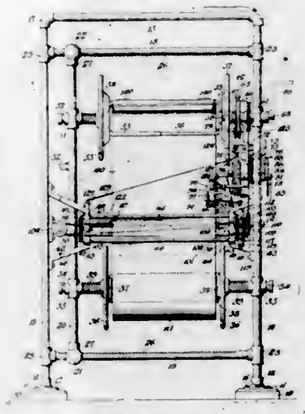
3. A nut lock comprising a nut body having oppositely disposed, bendable lugs, projecting toward the middle of the nut, said lugs having arched bearing surfaces and the nut body and lugs being internally screw threaded.

4. A lock nut, comprising a body portion, oppositely disposed, bendable lugs projecting inwardly from the edges of the nut, said lugs being spaced from the body and connected therewith by integral connecting portions, the lugs being located on the bearing side of the nut and being arched toward the middle of the nut, and there being flat bearing faces adjacent said lugs.

1,238,797. PAINT COMPOSITION. THOMAS MCCONNELL, Hawera, New Zealand, assignor to William Dawson Murray, Hawera, New Zealand. Filed Sept. 15, 1915. Serial No. 50,874. (Cl. 134—50.)

A paint composition comprising 2 pounds of paint body material; 2 to 2½ pints of boiled oil, and 5 to 5½ pints of blood.

1,238,798. CLOTH-MEASURING MACHINE. GEORGE F. MANSFIELD, Pascagoula, Miss., assignor of one-half to Frank H. Lewis, Pascagoula, Miss. Filed Feb. 18, 1916. Serial No. 79,151. (Cl. 33—131.)



1. A machine as specified provided with a frame having upper and lower transverse braces, an upright in one side of the frame engaging the braces to guide the upright in its transverse adjustment in the frame, a latch in each end of the upright for interlocking engagement with said braces to hold the upright from movement when adjusted, and means carried by the upright to be engaged by the hand to retract the latches and permit adjustment of the upright.

2. A machine as specified provided with a frame having upper and lower transverse braces provided with rack teeth, an upright in the frame at one side thereof having heads upon its opposite ends for engagement about said braces to guide the upright in its transverse adjustment in the frame, a latch in each end of the upright for interlocking engagement with said racks to hold the upright from movement when adjusted, and a pair of thumb levers projecting laterally from the upright, and having connection with said latches to retract the same and permit of the adjustment of the upright.

3. In a machine as specified, a frame, a bolt support in the lower end of the frame, a reel in the top of the frame adapted to receive the cloth from the bolt, operating means normally engaging the reel to turn it and rewind the bolt, a measuring device between the bolt support and the reel for engagement with the cloth to measure it, a cutting device between the bolt support and the reel, and shiftable means between the operating means and the cutting device and having connection with the measuring means whereby upon the rewinding of a predetermined length of the cloth the shifting means is adapted to shift the operating means from the reel to the cutting mechanism and cause the latter to sever the cloth.

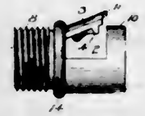
4. In a machine as specified, a frame, a bolt support in the frame, a reel in the frame adapted to receive cloth from the bolt to rewind the cloth, operating means for engagement with the reel to turn the latter, a pair of bars fixed in the frame and extending across one side of the cloth, a second pair of bars adjustably mounted in the frame against the opposite side of the cloth and adapted for movement toward and from the fixed bars to clamp the cloth thereagainst, cutting mechanism mounted on the fixed bars for severing the cloth when stretched thereover, and shifting means connected to the operating means and having connection with said second bars and with said cutting mechanism to clamp the cloth between the pairs of bars and sever the cloth between the fixed bars.

5. In a machine as specified, a pair of standards, a cross piece joining the upper ends of the standards, vertically spaced apart brace bars joining the standards and having racks upon their inner opposite faces, an upright slidably connected at its opposite ends to said braces and adapted for movement transversely in the frame, latches

in the ends of the upright for engagement with said racks to lock the upright in adjusted position, springs in the opposite ends of the upright to normally urge the latches against said racks, rods extending inwardly from the latches, blocks slidably mounted in the upright at an intermediate portion thereof and having connection with said rods, thumb latches carried by the blocks and projecting laterally from the upright for engagement with the fingers to draw the blocks together and retract said latches, upper and lower spindles carried in one of said standards, and opposed upper and lower spindles carried in said adjustable upright, said spindles being adapted to support a bolt of cloth, said upright being adjustable to admit cloth of different widths in the frame.

[Claims 6 to 16 not printed in the Gazette.]

1,238,799. CONNECTOR FOR FLEXIBLE ARMORED CONDUCTORS. LOUIS MARCHAND, Jr., Pittsburgh, Pa. Filed Jan. 30, 1915. Serial No. 5,281. (Cl. 247—1.)



1. A connector for flexible armored conductors comprising a tubular body portion adapted to surround an armored cable and having a radial opening therein intermediate its ends leaving an arcuate strip extending along the outer edge of the opening, a locking tongue of less width than the said radial opening integral with said body and extending from the body at one edge of the opening toward another edge thereof and having a projection adapted to enter the groove of the armored cable.

2. A connector for flexible armored conductors, comprising a tubular body adapted to receive a grooved armored cable, said body having a radial opening intermediate its ends, and an integral tongue extending from the body at one edge of the opening toward another edge thereof and having a projection adapted to enter the groove of the armored cable, the tongue having a projection adapted to overlie the material of the body at the last-named edge of the opening.

1,238,800. COMPUTING DEVICE. WILLIAM H. MATTHEWS, Dayton, Ohio. Filed Dec. 17, 1915. Serial No. 67,302. (Cl. 235—61.)



1. In a computing device, a chart having a table of figures arranged in predetermined relation and also having two sets of figures arranged in predetermined relation to each other and to the figures of said table, and a device adapted to be moved over said chart and having parts to indicate selected figures in the respective sets of figures and having another part arranged in a normally fixed position relatively to the first-mentioned parts to indicate in said table a figure which will represent the result of a computation involving the selected figures in said sets of figures.

2. In a computing device a chart having thereon a plurality of figures and an indicating device mounted for bodily movement over said chart, said indicating device having two indicating parts rigidly secured thereto and arranged to be adjusted by the bodily movement of said indicating device to indicate, respectively, figures on said chart, said indicating device also having a third indicating part adapted to be adjusted by the bodily movement of said indicating device to indicate a figure on said chart representing the result of a computation involving the figures indicated by the first-mentioned parts.

3. In a computing device a chart having a table of figures, and also having two sets of figures arranged side by side, an indicating device mounted on said chart for sliding movement between said sets of figures and having pivotal movement in a plane parallel with the face of said chart, said indicating device having parts rigidly secured thereto and arranged to be moved by the combined sliding and pivotal movement of said indicating device into positions to indicate figures in the respective sets of figures, said indicating device also having a third indicating part arranged to be adjusted by the movement of said indicating device to indicate a figure in said table of figures representing the result of a computation involving the figures indicated by the first-mentioned parts.

4. In a computing device, a chart, having a table of figures arranged in predetermined relation, and also having two sets of figures arranged in predetermined relation to each other and to the figures of said table, a device mounted on said chart for both sliding and pivotal movement and having two parts rigidly connected one to the other and adapted to be adjusted by the combined sliding and pivotal movement of said device to indicate selected figures in the respective sets of figures, and having another part arranged in a normally fixed position relative to the first-mentioned parts to indicate in said table a figure representing the result of a computation involving figures selected from said sets of figures.

5. In a computing device, a chart having a table of figures arranged in predetermined relation, and also having two sets of figures arranged in substantially parallel rows and in predetermined relation to each other and to the figures of said table, and an indicating device slidably mounted on said chart for bodily movement along a line extending between said sets of figures and having pivotal movement about an axis remote from said table of figures, said indicating device having parts arranged on opposite sides thereof to indicate selected figures in the respective sets of figures and having a part at that end remote from said axis to indicate in said table a figure representing the result of a computation involving figures selected from said sets of figures.

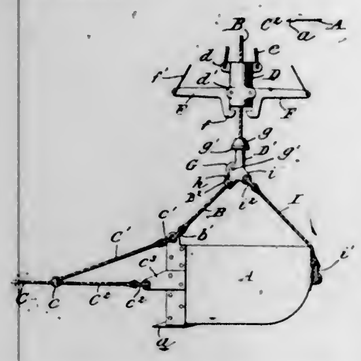
[Claims 6 to 20 not printed in the Gazette.]

1,238,801. EXCAVATING SYSTEM. CHARLES A. MORRIS, Montclair, N. J.; Clara R. Morris, executrix of said Charles A. Morris, deceased, assignor to The Hayward Company, New York, N. Y., a Corporation of New York. Filed Aug. 11, 1913. Serial No. 784,120. (Cl. 37—19.)

1. In a device of the class described, the combination with a load carrier, of a suspending member, means connecting said suspending member with one part of the load carrier, a hoist line attached to another part of the load carrier and free to run relatively to the suspending member, means for retaining the suspending member at a fixed height, and a stop separate from the load carrier for limiting the hoisting movement of the hoist line relatively to the suspending member so that tension on the hoist line retains the load carrier in a hoisted and non-dumping position, said load carrier being dumped by relaxing tension on the hoist line.

2. In an excavating apparatus, the combination with a scraper, of a suspended stop device embodying two co-operating members and a locking device, a bridle attached to the scraper and to one of said members, and a hoist line

running freely through the members of said stop device and attached to the scraper, said hoist line coöperating with the bridle in retaining the scraper in a non-dumping position and operating by slack in the line to drop the scraper point downward.



3. In an excavating apparatus, the combination with a scraper, of a two-part suspending mechanism, one of said parts being connected with the scraper for movement therewith and means for effecting a locking engagement between the two parts of said suspending mechanism so as to suspend the scraper in a dumping position and at a predetermined height, and a hoist line attached to said scraper and having a running connection with said suspending mechanism, said scraper being retained in a hoisted non-dumping position by maintaining tension on said hoist line.

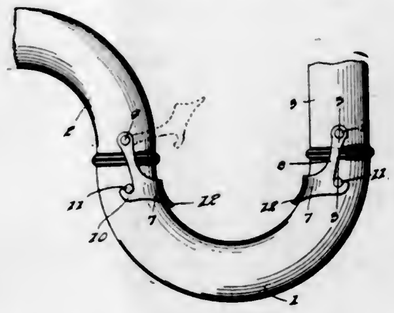
4. In an excavating apparatus, the combination with a scraper, of a suspending bridle connected with an end portion of the scraper, a hoist line, means for connecting said hoist line with the opposite end portion of the scraper, said hoist line and the bridle coöperating in retaining the scraper in a non-dumping position by maintaining tension on the hoist line, means operable by a relaxation of tension on the hoist line for effecting a variation in the relative lengths of the bridle and the hoist line to dump the hoisted scraper point downward, and a drag line connected to the forward part of the scraper, said drag line operating to control the suspended scraper so as to preclude undue swaying thereof.

5. In an excavating apparatus, the combination with a scraper provided with a cutting edge, and a haul line connected with said scraper, of a scraper suspending member, a second scraper suspending member normally connected with the rear of said scraper, means for locking the second suspending member to the first suspending member, and a hoist line attached to the front of the scraper and having running engagement with the first and second named suspending members, said hoist line being under tension for hoisting the scraper and for effecting the locking engagement of the first suspending member with the second suspending member and said hoist line being free by slackening tension thereon to run freely with respect to the first and second suspending members in dumping the scraper.

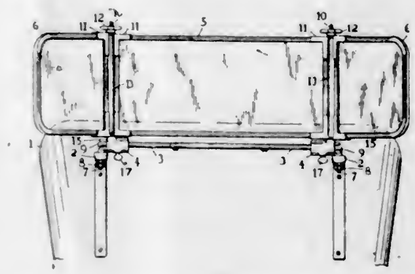
[Claims 6 to 21 not printed in the Gazette.]

1,238,802. TRAP FOR SINKS, &c. AUGUST A. NAGEL, Antioch, Cal. Filed July 13, 1914. Serial No. 850,756. (Cl. 137—28.)

A trap for sinks comprising a substantially U-shaped pipe and a pair of companion pipes, annular flanges formed on the ends of the pipes and adapted to coöperate with each other in forming annular grooves to receive gaskets to establish water tight connection between the U-shaped pipe and the companion pipes, oppositely disposed lugs formed on the ends of said pipes, a pair of substantially U-shaped locking members having their arm portions pivoted to the lugs upon the companion pipes and having their web portions disposed against the inner curve of the U-shaped pipe, and curved fingers formed on the arm portions of the locking members and adapted to receive the lugs on the U-shaped pipe to cause a tight connection between the pipes.



1,238,803. WIND-SHIELD FOR AUTOMOBILES. THEODORE B. NISBET, Irvington, N. Y. Filed Nov. 7, 1914. Serial No. 870,718. (Cl. 21—148.)



1. The combination of a pair of relatively movable rods each of which is pivoted to move in a horizontal plane and capable of being brought into an overlapping position, sleeves slidably mounted upon the rods and movable longitudinally thereof, a wind-shield with hinge ears, hinge pins for engaging the hinge ears supported by and relatively movable with respect to the sleeves whereby the wind-shield with the sleeves may be folded around the rods when they are in approximate alinement, substantially as described.

2. The combination of a pair of relatively movable rods each of which is pivoted to move in a horizontal plane and capable of being brought into an overlapping position, sleeves slidably mounted upon the rods and movable longitudinally thereof, a wind-shield with hinge ears and hinge pins for engaging the hinge ears supported by the sleeves, the hinge pins being sufficiently flexible to permit the wind-shield to be folded around the rods when they are in approximate alinement, substantially as described.

4. The combination of a pair of relatively movable rods each of which is pivoted to move in a horizontal plane and capable of being brought into an overlapping position, sleeves slidably mounted upon the rods and movable longitudinally thereof, a wind-shield comprising a main shield and a plurality of auxiliary shields, hinges connecting the main shield with the auxiliary shield comprising wing members and connecting pins, tubes located between the co-functioning hinges and surrounding the pins, the pins being supported by and relatively movable with respect to the said sleeves whereby the wind-shield with the sleeves may be folded around the rods when they are in approximate alinement, substantially as described.

[Claim 3 not printed in the Gazette.]

1,238,804. GLOVE. EDWIN C. OSTERMANN, Milwaukee, Wis., assignor to Fried. Ostermann, Meyer Co., Milwaukee, Wis. Filed May 4, 1914. Serial No. 836,323. (Cl. 2—9.)



A seamless palm glove comprising a blank including a palm and front finger and thumb portions formed from a single piece, a second blank including a back portion and two outer finger portions formed from a single piece, individual back middle finger pieces of sufficient width to extend between the fingers at their inner ends, said inner ends being V-shaped and secured together at their forward portion and the said back portion of the second blank being provided at its outer end with a pair of V-shaped slits for securement of the inner portion of the V-shaped ends of said back middle finger pieces, and a back piece secured to the thumb portion of the first blank and to the back portion of the second blank to define a thumb, substantially as described.

1,238,805. MINERAL-SURFACED ROOFING MATERIAL. FREDERICK C. OVERBURY, Hillsdale, N. J., assignor, by mesne assignments, to The Flintkote Company, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 20, 1917. Serial No. 143,502. (Cl. 91—68.)

1. A weatherproof roofing fabric, having a bituminous coating and a layer of crushed mineral partially embeded therein, and having a film of dextrin on said crushed mineral.

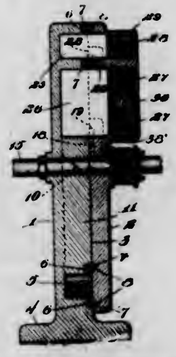
2. The hereindescribed process which consists in treating the crushed-mineral face of a mineral-surfaced roofing fabric with a liquid containing dextrin, to leave a film of dextrin thereon.

3. The hereindescribed process which consists in treating the crushed-mineral face of a mineral-surfaced roofing fabric with an aqueous solution of dextrin to leave a film of dextrin thereon.

4. The hereindescribed process which consists in treating the crushed-mineral face of a mineral-surfaced roofing fabric with an aqueous solution of dextrin, and a preservative for the dextrin to leave a film of dextrin thereon.

1,238,806. ROTARY INTERNAL-COMBUSTION ENGINE. ALBERT E. PAINTER and WATERFIELD PAINTER, Reno, Nev. Filed June 30, 1916. Serial No. 106,893. (Cl. 123—16.)

1. An engine embodying in combination with a supporting base, a stationary member, and a rotor arranged side by side and both of circular formation, the rotor being provided with a plane inner face, and the stationary member being formed in its inner face with an annular combustion chamber and an arcuate compression chamber, a stationary abutment in the combustion chamber having an inclined face, a power abutment slidable transversely of and carried by the rotor and working in said combustion chamber, a compressing abutment slidable transversely of the rotor and working in said compression chamber, a tubular engine shaft on which said rotor is mounted movable transversely, said tubular shaft forming an intake conduit for the explosive mixture, and the rotor being formed with a passage leading from the bore of said shaft to a port in the inner face of the rotor, and also formed with a passage having inlet and outlet orifices arranged respectively to communicate with the compression and combustion chambers.



2. An engine embodying in combination with a supporting base, a stationary member, and a rotor arranged side by side and both of circular formation, the rotor being provided with a plane inner face, and the stationary member being formed in its inner face with an annular combustion chamber and an arcuate compression chamber, a stationary abutment in the combustion chamber having an inclined face, a power abutment slidable transversely of and carried by the rotor and working in said combustion chamber, a compressing abutment slidable transversely of the rotor and working in said compression chamber, a tubular engine shaft on which said rotor is mounted movable transversely, said tubular shaft forming an intake conduit for the explosive mixture, and the rotor being formed with a passage leading from the bore of said shaft to a port in the inner face of the rotor, and also formed with a passage having inlet and outlet orifices arranged respectively to communicate with the compression and combustion chambers, and compression retaining rings concentric with said shaft, arranged at the outer and inner sides of the combustion chamber, and working in annular grooves in the meeting faces of the stationary member and rotor.

3. An engine embodying in combination with a supporting base, a stationary member and a rotor arranged side by side and both of circular formation, the rotor being provided with a plane inner face, and the stationary member being formed in its inner face with an annular combustion chamber and an arcuate compression chamber, a stationary abutment in the combustion chamber having an inclined face, a power abutment slidable transversely of and carried by the rotor and working in said combustion chamber, a compressing abutment slidable transversely of the rotor and working in said compression chamber, a tubular engine shaft on which said rotor is mounted movable transversely, said tubular shaft forming an intake conduit for the explosive mixture, and the rotor being formed with a passage leading from the bore of said shaft to a port in the inner face of the rotor, and also formed with a passage having inlet and outlet orifices arranged respectively to communicate with the compression and combustion chambers, compression retaining rings concentric with said shaft, arranged at the outer and inner sides of the combustion chamber, and working in annular grooves in the meeting faces of the stationary member and the rotor, and expansion compensating means for holding the rotor yieldingly against the stationary member.

4. An engine embodying in combination with a supporting base, a stationary member and a rotor arranged side by side and both of circular formation, the rotor being provided with a plane inner face, and the stationary member being formed in its inner face with an annular combustion

chamber and an arcuate compression chamber, a stationary abutment in the combustion chamber having an inclined face, a power abutment slidable transversely of and carried by the rotor and working in said combustion chamber, a compressing abutment slidable transversely of the rotor and working in said compression chamber, a tubular engine shaft on which said rotor is mounted movable transversely, said tubular shaft forming an intake conduit for the explosive mixture, and the rotor being formed with a passage leading from the bore of said shaft to a port in the inner face of the rotor, and also formed with a passage having inlet and outlet orifices arranged respectively to communicate with the compression and combustion chambers, compression retaining rings concentric with said shaft, arranged at the outer and inner sides of the combustion chamber, and working in annular grooves in the meeting faces of the stationary member and rotor, expansion compensating means for holding the rotor yieldingly against the stationary member, and means of creating a spark in the combustion chamber to start explosion and an exhaust port for release of burned gas.

1,238,807. ELECTRIC HOT-PLATE OR HEATING UNIT. JAMES C. PATTEN, Kokomo, Ind., assignor to Globe Stove & Range Company, Kokomo, Ind. Filed Oct. 4, 1915. Serial No. 53,912. (Cl. 219—37.)



1. In an electric heat unit, the combination of an insulator plate with suitable grooves in the upper face thereof, a heating coil means disposed in the said grooves, a metallic top shield plate disposed over the insulator plate, slotted to expose the coils and concave at the center on its upper surface to conform to the convexity of any vessel thereon, an asbestos packing around the said insulator plate, a metal bottom shield around the bottom of said packing, a plurality of screws disposed through the said top plate and insulator means and bottom metal shield, coacting for the purpose specified.

2. In an electric heat unit, the combination of an insulator plate with suitable grooves in the upper face thereof, a heating coil means disposed in the said grooves, a metallic top shield plate disposed over the insulator plate, slotted to expose the coils and concave at the center on its upper surface to conform to the convexity of any vessel placed thereon, an asbestos packing around the said insulator plate, a plurality of screws disposed through the said top plate and insulator means, coacting for the purpose specified.

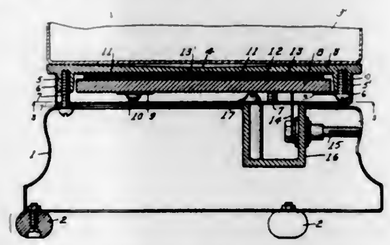
3. In an electric heat unit, the combination of an insulator plate with suitable grooves in the upper face thereof, a heating coil means disposed in the said grooves, a metallic top shield plate disposed over the insulator plate, slotted to expose the coils and concave at the center on its upper surface to conform to the convexity of any vessel placed thereon, a plurality of screws disposed through the said top plate and insulator means, coacting for the purpose specified.

4. In an electric heat unit, the combination of an insulator plate with suitable grooves in the upper face thereof, a heating coil means disposed in the said grooves, a metallic top shield plate disposed over the insulator plate, slotted to expose the coils, an asbestos packing around the said insulator plate, a metal bottom shield around the bottom of said packing, a plurality of screws disposed through the said top plate and insulator means and bottom metal shield, coacting for the purpose specified.

5. In an electric heat unit, the combination of an insulator plate with suitable grooves in the upper face thereof, a heating coil means disposed in the said grooves, a metallic top shield plate disposed over the insulator plate, slotted to expose the coils, an asbestos packing around the said insulator plate, a plurality of screws disposed through the said top plate and insulator means, coacting for the purpose specified.

[Claims 6 to 11 not printed in the Gazette.]

1,238,808. ELECTRIC HOT-PLATE OR HEATING UNIT. JAMES C. PATTEN, Kokomo, Ind., assignor to Globe Stove & Range Co., Kokomo, Ind. Filed Nov. 12, 1915. Serial No. 61,047. (Cl. 219—37.)

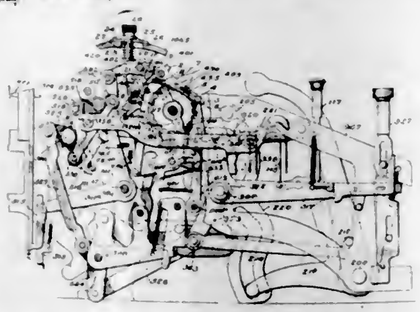


1. In an electric heat unit, the combination of a suitable electric heating means, an imperforate top shield plate concaved on its upper surface inclosing the same, a bottom plate for supporting the said electric heating means, and a flat bottomed sheet metal vessel supported on said top shield plate.

2. In an electric heat unit, the combination of a suitable electric heating means, an imperforate top shield plate concaved on its upper surface inclosing the same, and a flat bottomed sheet metal vessel supported on said top shield plate.

3. In an electric heat unit, the combination of a suitable electric heating means, an imperforate top shield plate concaved on its upper surface inclosing the same, a bottom plate for supporting the said electric heating means, and a flat bottomed vessel supported on said top shield plate.

1,238,809. CALCULATING-MACHINE. ARTHUR PENTECOST, East Orange, N. J., assignor to The Adder Machine Company, Wilkes-Barre, Pa., a Corporation of Pennsylvania. Filed July 8, 1916. Serial No. 108,187. (Cl. 235—60.)



1. The combination in a calculating machine, including a series of counters; and a printing mechanism; of means controlled from the printing mechanism to effect a step by step rotation of one of the counters at each printing operation, for item counting.

2. The combination in a calculating machine, including a series of denominational counters; and groups of printing members corresponding with the denominational counters; of means controlled by the group of printing members of a predetermined denomination to effect a step by step actuation of one of the counters at each operation of the denominational group, for item counting.

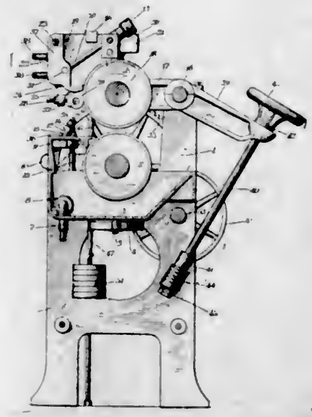
3. The combination in a calculating machine, with a keyboard; a series of counters, carrying mechanisms therefor; and a series of groups of printing members corresponding with the counters, and controlled from the keyboard; of a trip mechanism to release one of the carrying mechanisms to register a count of items on one of the counters; and means controlled by one of the groups of printing members to effect the operation of the trip mechanism.

6. In a calculating machine, the combination with a keyboard; a series of counters; carrying mechanisms therefor; and a printer section; of a printer-controlled means to utilize one or more of the counters for item counting, comprising a trip member to release one of the carrying mechanisms; and an actuator driven from the printer section and connected to the trip member.

10. In a calculating machine, the combination with a series of counters; carrying mechanisms therefor; a keyboard; and printing mechanism, including hammers, controlled from the keyboard; of means to utilize a portion of the counters for the automatic counting of items, comprising a shiftable member operable to trip one of the carrying mechanisms upon each printing operation; and total key-controlled means effective to lock the shiftable member out of operation when taking a total or clearing the machine.

[Claims 4, 5, 7 to 9, and 11 to 25 not printed in the Gazette.]

1,238,810. GLUE-SPREADER. FRANK G. PERKINS, deceased, Lansdale, Pa., by Gertrude S. Perkins, executrix, Lansdale, Pa., assignor to Perkins Glue Co., a Corporation of Pennsylvania. Filed Mar. 13, 1911. Serial No. 614,038. (Cl. 91—51.)



1. In a glue spreader, a main frame, a lower glue roll journaled in said frame, a glue trough below said roll, a pivoted scraper for said glue roll, a stop and set screw for limiting the downward movement of the scraper toward the roll, said scraper having a forked portion, a swinging arm having its axis in the main frame and arranged to engage said forked portion, a nut on said arm arranged to engage said forked portion to hold the scraper in place, a pivotally mounted frame, an upper glue roll journaled in said last mentioned frame, a glue trough for the upper roll secured to said last mentioned frame, a pivotally mounted scraper for the upper glue roll, a stop and set screw for limiting the movement of said last mentioned scraper toward the upper glue roll, a forked portion on said last mentioned frame, an arm swinging on said scraper at one end and engaging said forked portion at the other end, a nut on said arm for holding the arm and upper scraper in position, an arm carried by said pivotally mounted frame, a rod extending from a point on the main frame to said last mentioned arm and a nut on said rod adjacent said arm for moving the arm to raise or lower the upper glue roll.

2. In a glue spreader, a main frame, a glue roll journaled in said frame, a glue trough beneath said roll, a pivotally mounted scraper for said roll, a stop and cooperating set screw for limiting the movement of the scraper toward the roll, a forked member and a swinging arm carrying a nut both coöperating with said forked member to hold the scraper toward said glue roll.

3. In a glue spreader, a frame, a glue applying roll journaled in said frame, a glue trough for said roll, a scraper for said roll having a normally fixed edge for scraping surplus glue from said roll, so as to leave the desired amount of glue on the roll to apply to the material to be glued, means pivotally mounting said scraper on the frame, a screw for adjusting the movement of the scraper edge toward the roll, a stop coöperating with said set screw for positively limiting the movement of the scraper edge toward the roll, and means, as a nut for moving said scraper edge into position toward the roll by a wedge or cam action.

4. In a glue spreader, a frame, a glue roll journaled in said frame, a glue trough adjacent said roll for feeding glue thereto, a movable scraper for the glue roll, a forked member, and a swinging arm and an abutment on said arm both coöperating with said forked member to hold the scraper toward the glue roll.

5. In a glue spreader, a frame, a glue roll journaled in said frame, a glue trough adjacent said roll for feeding glue thereto, a movable scraper for the glue roll, a forked member, a swinging arm and a nut on said arm cooperating with said forked member to hold the scraper toward the glue roll, said arm being pivotally mounted on the frame and said forked member being on the scraper.

[Claims 6 to 15 not printed in the Gazette.]

1,238,811. CABLE-SOCKET. JAMES A. PHILLIPS, Drumright, Okla. Filed June 13, 1916. Serial No. 103,399. (Cl. 24—125.)

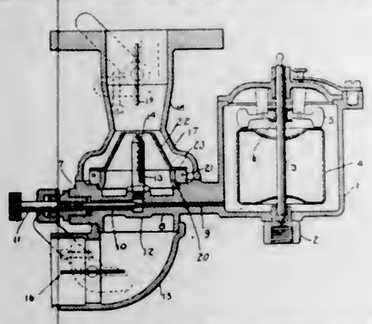


A cable socket comprising a body threaded over a portion of its length, a pair of tapering jaw-members, one of which is formed integral with the socket body and extending from the threaded portion thereof, the other jaw member being separable, the opposed faces of the jaw members extending in parallel lines and having registering grooves extending longitudinally thereof, the jaw-member carried by the socket body having a V-shaped pocket formed in the clamping face thereof adjacent the inner end of the jaw, said socket member having a lug forming the rear wall of the pocket, said lug also being spaced away from the socket-body, the resultant space mutilating the screw threads of said socket head, the opposed face of the other jaw member being cut-away to be complementally formed relative to the pocket of the coöperating jaw, and to receive said lug whereby an equilateral triangular pocket is formed, the separable jaw-member having its larger end provided with a threaded lug received within said space coöperating with the threads on the socket body to porvide a continuous thread, and an interiorly threaded casing mounted on the jaws and engaged with the threads of the socket member.

1,238,812. CARBURETER. SIDNEY L. PICARD, Detroit, Mich., assignor of one-half to Alfred P. Chambe, Detroit, Mich. Filed Aug. 7, 1915. Serial No. 44,218. (Cl. 261—53.)

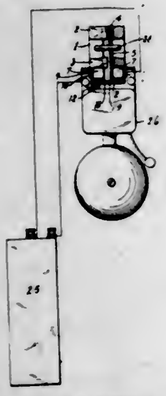
In a carbureter having a base and a gasolene discharge nozzle, a collar set in the base and provided with apertured lugs above the base, and opposing frusto-conical

shaped shutters pivotally connected to the apertured lugs of said collar and having lateral portions resting normally on the apertured lugs of said collar, said shutters



having the upper ends thereof in proximity to the discharge orifice of said nozzle and adapted to automatically restrict the passage around said nozzle.

1,238,813. FIRE-ALARM MECHANISM. OTTO POENISCH, West Allis, Wis. Filed Mar. 8, 1915. Serial No. 12,772. (Cl. 200—33.)

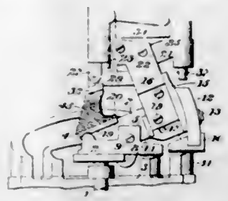


2. The combination of a supporting bracket provided with a resilient electrical switch, a shelf pivotally supported from said bracket and having an arm adapted to engage and lift said resilient switch, a weight adapted to swing said shelf into a position for actuating said switch to circuit closing position, said weight being normally supported from said shelf by a supporting member adapted to yield when subjected to a predetermined degree of heat, said bracket being adapted to coöperate with said supporting member in normally holding the weight in shelf actuating position and the weight in circuit breaking position.

3. The combination with a bracket, including a weight guided but otherwise unsupported by said bracket, a pivotal oscillatory member suspended from said bracket and having an aperture at one side thereof through which said weight may drop, a supporting member mounted upon said oscillatory member in a position to support the weight in normal relation to said bracket, said supporting member crossing the opening in the oscillatory member and being adapted to yield under a predetermined degree of heat, an electrical circuit, a resilient switch controlling said circuit, and means connected with said oscillatory member for holding the switch in circuit breaking position under the pressure of the weight exerted upon the oscillatory member through said supporting member, said resilient switch being adapted to automatically move to circuit closing position when relieved from the pressure of the weight.

[Claim 1 not printed in the Gazette.]

1,238,814. MACHINE FOR MAKING WOODEN HEELS FOR BOOTS AND SHOES AND THE LIKE. JOHN G. POOL, Lynn, Mass. Original application filed May 15, 1915, Serial No. 28,465. Divided and this application filed Nov. 15, 1915, Serial No. 61,682. Renewed Aug. 10, 1916. Serial No. 114,302. (Cl. 12—87.)



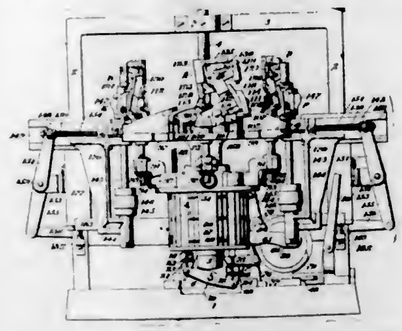
1. The combination of a jack-lever having a work-rest, a jack-head carried by said lever, a clamping-shoe carried by the jack-head and alined with the work-rest, a clamping-bar connected with said clamping-shoe, means to yieldingly support said clamping-bar, and a clamping-lever for operating said bar and through it the shoe.

2. The combination of a jack-lever having a work-rest, a jack-head carried by said lever, a clamping-shoe carried by the jack-head and alined with the work-rest, a floating bodily-movable clamping-bar connected with said clamping-shoe at one end, a yielding support for said bar at that end, a recoil device connected with the other end of said bar and responding to accidental variation in the height of the blank under the shoe, and a clamping-lever for actuating said bar.

3. The combination of a jack-lever having a work-rest, a jack-head carried by said lever, a clamping-shoe carried by the jack-head and alined with the work-rest, a clamping-bar connected with said clamping-shoe at one end, a recoil device connected with the other end of said bar, a clamping-lever for actuating said bar, and a bar-lifting spring interposed between the jack-head and the clamping-bar.

[Claims 4 to 6 not printed in the Gazette.]

1,238,815. MACHINE FOR MAKING HEELS FOR BOOTS AND SHOES AND THE LIKE. JOHN GEORGE POOL, Lynn, Mass. Continuation of application Serial No. 28,465, filed May 15, 1915. This application filed July 22, 1916. Serial No. 110,745. (Cl. 12—87.)



1. In a machine for making heels for boots and shoes, a jack carrier having an intermittent rotary movement in one direction, a pair of rotary cutters or cutter-heads and means to move them toward and from the jack carrier, a jack mounted upon the jack carrier and having an axial rotation on said jack carrier, and means to automatically control the several movements, so that when the machine is running the said jack presents its contained blank to the first of the pair of cutters and rotates it from breast to back as the blank is in cutting relation to said cutter and while the carrier is stationary, the cutter upon completion of its work being moved away from the jack and the carrier resuming its rotation and the jack completing its axial rotation in the same direction, the carrier moving the jack to the second cutter of the pair of cutters and stopping so as to present the opposite or uncut side of the blank to said second cutter, the jack then rotating upon its axis in the opposite direction to permit the cutting of the then uncut side of the blank from breast to back, the jack and cutter then moving out of operative relation while the jack continues its rotation in the same direction and the carrier resumes its rotation for a definite period, and the carrier and jack stopping to permit the discharge of the heel and the insertion of a fresh blank upon which a like series of operations is performed.

2. In a machine for making heels for boots and shoes, a jack carrier having an intermittent rotary movement in one direction, a pair of rotary cutters and means to move them toward and from the jack carrier, a plurality of jacks mounted upon the jack carrier and having reversible axial rotation thereon, and means to automatically control the several movements, so that when the machine is running each of said jacks may be supplied in turn with a blank while the carrier and that particular jack are at rest, the several jacks in succession being presented to the first of the pair of cutters, each jack being rotated upon its axis while so presented and while the carrier is at rest so as to effect the cutting of one side of its blank from breast to back, the cutter upon completion of its work being moved away from the jack and the carrier resuming its rotation and the jack completing its axial rotation in the same direction, the carrier moving the jack to the second cutter of the pair of cutters and stopping so as to present the opposite or uncut side of the blank to said second cutter, the jack then rotating upon its axis in the opposite direction to permit the cutting of the then uncut side of the blank from breast to back, the jack and cutter then moving out of operative relation while the jack continues its rotation in the same direction and the carrier resumes its rotation for a definite period, and the carrier and jack stopping to permit the discharge of the heel and the insertion of a fresh blank upon which a like series of operations is performed, the jacks being simultaneously advanced one interval at a time and each of the jacks having similar motions and performing all of the functions described in regular consecutive sequence.

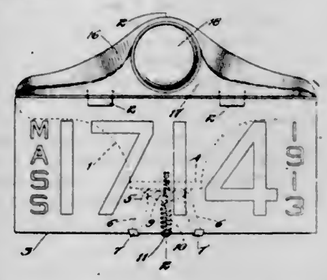
3. The combination with a stationary reaction device, of a jack-carrier, means to move it intermittently through predetermined arcs, a jack carried by said jack-carrier and capable of reversible axial rotation thereon, means by which the jack as it occupies a predetermined relative position on the jack-carrier may be axially rotated in one direction and means by which it may be axially rotated in the opposite direction as it occupies another predetermined relative position on the jack-carrier while the jack-carrier is at rest, and means controlled by the stationary reaction device to effect a further rotation of the jack in the immediately preceding direction for repositioning the jack while the jack-carrier is in motion.

4. The combination with a stationary cam, of a jack-carrier, means to move it intermittently through predetermined arcs, a jack carried by said jack-carrier and capable of rotary reciprocating motion thereon on its axis, and means for axially rotating said jack periodically while the jack-carrier is at rest and for effecting a repositioning of the jack while the jack-carrier is in motion.

5. The combination with an always stationary reaction device, of a jack-carrier, means to move it intermittently through predetermined arcs, a jack carried by said jack-carrier and capable of reversible axial rotation thereon, means by which the jack as it occupies a predetermined relative position on the jack-carrier may be axially rotated in the desired direction while the jack-carrier is at rest, and means controlled by the stationary reaction device to effect a repositioning of the jack while the jack-carrier is in motion.

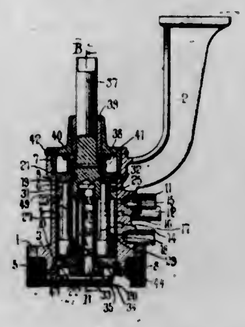
[Claims 6 to 47 not printed in the Gazette.]

1,238,816. HOLDER FOR TAIL-LIGHTS AND NUMBER-PLATES FOR AUTOMOBILES. ELMER E. POOLE, Boston, Mass. Filed July 14, 1915. Serial No. 39,907. (Cl. 40—131.)



A holder for a tail light and number plate having a body portion, a clip projecting from the body portion to engage over the top edge of a number plate, a hanger secured to the lower part of the body of the holder having at its lower end hooks which are adapted to engage the lower edge of the number plate, means for adjusting said hanger at different elevations and of drawing it up so that the hooks which engage the lower edge of the number plate will draw up the number plate and clamp it firmly against the said top engaging clips, the body portion having a projection from the face thereof which causes the number plate to stand in a plane inclined to a vertical plane, and the upper portion of the holder having a lamp holding portion which is adapted to hold a lamp in position projecting out beyond the plane of the number plate.

1,238,817. OIL-PUMP. FINLEY R. PORTER, Port Jefferson, N. Y., assignor to Finley Robertson Porter Company, Inc., Port Jefferson, N. Y., a Corporation of Delaware. Filed Apr. 12, 1916. Serial No. 90,662. (Cl. 103—44.)



1. In an oil pump, the combination with rotary means to pump the oil by centrifugal action at high speeds, of means carried thereby to pump the oil positively at low speeds.

2. In an oil pump, the combination with rotary means to pump the oil by centrifugal action at high speeds, of reciprocating means carried thereby to pump the oil positively at low speeds.

3. In an oil pump, the combination with rotary means to pump the oil by centrifugal action at high speeds, of means carried thereby to pump the oil positively at low speeds and inlet and outlet ports arranged, respectively, nearer to and farther away from the axis of rotation of the rotary means.

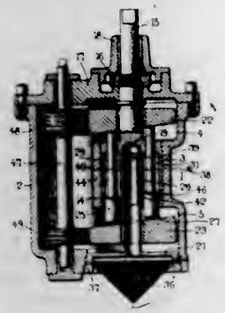
4. In an oil pump, the combination with rotary means to pump the oil by centrifugal action at high speeds, of reciprocating means carried thereby to pump the oil positively at low speeds and inlet and outlet ports ar-

ranged, respectively, nearer to and farther away from the axis of rotation of the rotary means.

5. In an oil pump, the combination with a rotary element to pump the oil by centrifugal action at high speeds, of a plurality of reciprocating elements carried thereby to pump the oil positively at low speeds and inlet and outlet ports arranged, respectively, nearer to and farther away from the axis of rotation of the rotary element.

[Claims 6 to 9 not printed in the Gazette.]

1,238,818. OIL-PUMP. FINLEY R. PORTER, Port Jefferson, N. Y., assignor to Finley Robertson Porter Company, Inc., Port Jefferson, N. Y., a Corporation of Delaware. Filed Nov. 14, 1916. Serial No. 131,255. (Cl. 184—33.)



1. In an oil pump, means to pump the oil positively at low speeds and by centrifugal action at high speeds, and adjusting means for regulating the amount of oil pumped.

2. In an oil pump, means to pump the oil positively at low speeds, means to pump the oil by centrifugal action at high speeds, and adjusting means for regulating the amount of oil pumped.

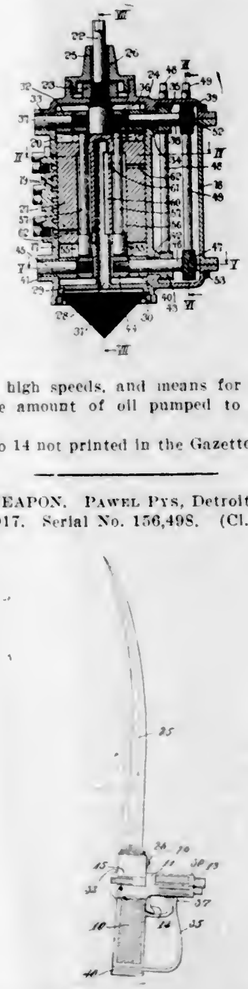
3. In an oil pump, reciprocating means to pump the oil positively at low speeds, means to pump the oil by centrifugal action at high speeds, and adjusting means for regulating the amount of oil pumped.

4. In an oil pump, means to pump the oil to different points postively at low speeds, rotary means to pump the oil to said different points by centrifugal action at high speeds, and means for independently regulating the amount of oil pumped to said different points.

5. In an oil pump, reciprocating means to pump the oil to different points positively at low speeds, rotary means to pump the oil to said different points by centrifugal action at high speeds, and means for independently regulating the amount of oil pumped to said different points.

[Claims 6 to 14 not printed in the Gazette.]

1,238,820. WEAPON. PAWEL PYS, Detroit, Mich. Filed Mar. 21, 1917. Serial No. 156,498. (Cl. 42—53.)



1. The combination with an automatic pistol, of a body block extending oppositely to the handle thereof, said body block being internally recessed, a blade having a shank suited to be received in the mentioned recess, and means for clamping said shank rigidly within the said body block.

[Claims 2 and 3 not printed in the Gazette.]

1,238,819. OIL-PUMP. FINLEY R. PORTER, Port Jefferson, N. Y., assignor to Finley Robertson Porter Company, Inc., Port Jefferson, N. Y., a Corporation of Delaware. Filed Nov. 22, 1916. Serial No. 132,818. (Cl. 184—33.)

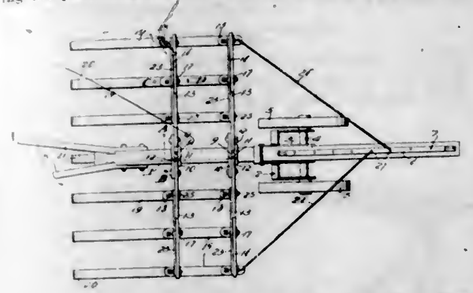
1. In an oil pump, means to pump the oil to different points positively at low speeds, and by centrifugal action at high speeds, and means for independently regulating the amount of oil pumped to said different points.

2. In an oil pump, means to pump the oil to different points positively at low speeds, means to pump the oil to said different points by centrifugal action at high speeds and means for independently regulating the amount of oil pumped to said different points.

3. In an oil pump, reciprocating means to pump the oil to different points positively at low speeds, means to pump the oil to said different points by centrifugal action at high speeds, and means for independently regulating the amount of oil pumped to said different points.

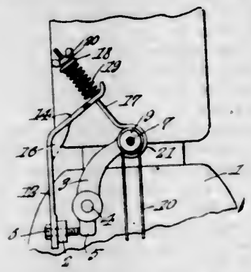
1,238,821. CULTIVATOR. WALTER M. REYNOLDS, Hattiesburg, Miss., assignor of one-half to James B. Merkel, Hattiesburg, Miss. Filed June 21, 1916. Serial No 105,023. (Cl. 97—10.)

1. A cultivator, comprising a beam, yokes pivotally secured to the beam, standards rising from the yokes, arms extending from the standards, parallelograms pivotally secured to the yokes, feet secured to the parallelograms, cultivator teeth secured to the feet, links connecting the parallelograms to the arms for adjusting the parallelograms about horizontal axes, and means for adjusting the parallelograms about vertical axes.



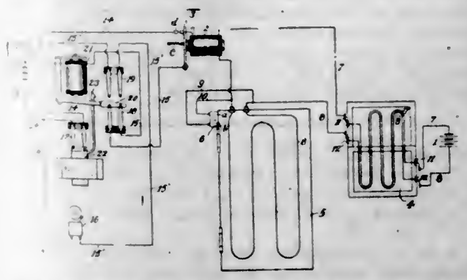
[Claim 2 not printed in the Gazette.]

1,238,822. AUTOMOBILE-FAN-BELT TIGHTENER. WALTER M. REYNOLDS, Hattiesburg, Miss. Filed Sept. 7, 1916. Serial No. 118,922. (Cl. 64—5.)



The combination with a lug, a bracket pivoted adjacent to said lug, and having a bearing at its free end, a shaft journaled in said bearing, a belt connected to the shaft, and an adjusting screw carried by the lug to limit the movement of said bracket, of an upstanding bracket secured to said lug by said screw, and having its upper portion extending at an obtuse angle and overhanging the first mentioned bracket, a rod slidable loosely through said overhanging portion and having a hook at one end rotatably embracing said bearing, an adjustable member upon the rod, and a spring between said adjustable member and overhanging portion to pull the first mentioned bracket toward said overhanging portion.

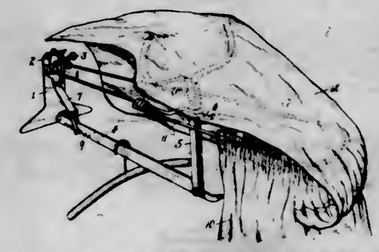
1,238,823. PROTECTIVE BURGLARY-ALARM FOR BUILDINGS, &c. PETER ROEDER, Brooklyn, N. Y. Filed Mar. 2, 1916. Serial No. 81,570. (Cl. 177—314.)



protective burglar alarm system comprising a circuit including closure-means provided with a like conductor thereon so disposed that the movethereof when the said circuit is closed effects a break therein, a shunt circuit in proximity to said closure means, a switch adapted to divert the current from said closure means and the screen-like conductor thereon through said shunt circuit, whereby the latter is closed while said closure-means is still open, said switch including two movable elements one only of which is adapted to be depressed automatically by movement of said closure means against the same during the closing thereof and the movement of said switch thereby effecting a diversion of the current through a screen-like conductor on said closure-means, a relay-circuit including a battery, conductors connecting the same with a second electromagnet, and an alarm circuit, including an alarm, adapted to be closed by the movement of the armature of the electro-magnet in said relay circuit.

[Claim 2 not printed in the Gazette.]

1,238,824. CLOTHES-RACK. STANLEY T. RONDA, Toledo, Ohio. Filed Dec. 1, 1916. Serial No. 134,397. (Cl 45—118.)



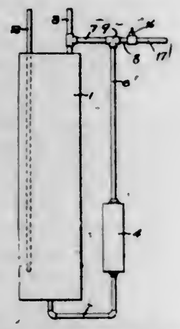
1. In combination, a wall plate having its upper edge provided with an opening, an article supporting bar pivotally projecting forward from said plate below said opening, and a tongue adjustably projecting upward from said bar and having its upper end provided with an opening for engaging over a supporting member with which the lower end wall of the plate opening has upward engagement and also projecting at its upper end through the plate opening and at the rear of the top wall of such opening.

2. In combination, a wall plate having its upper end provided with an opening and forwardly angled below the top wall of such opening, a bar pivotally projecting forward from the plate below said opening and having its lower edge notched, and a member having an opening in its lower end for slidingly receiving said bar with its lower wall in notch engaging position and having an opening in its upper end for engaging over a supporting nail or the like with which the lower end wall of said plate opening has upward engagement, the upper end of said member being prolonged and adapted to project into the plate opening at the rear of its upper wall when said member and plate are in engagement with a supporting nail.

1,238,825. MEANS FOR PREVENTING BOILER EXPLOSIONS, LEAKAGE, &c. LOUIS S. ROSS, Newtonville, Mass. Filed Feb. 11, 1916. Serial No. 77,765. (Cl. 236—16.)

1. In combination, a boiler having a circulation pipe exterior to the boiler, a heater interposed in said pipe, a hot water outlet pipe leading from said boiler and in communication with said circulation pipe, said pipes together constituting hot water piping, and a fusible plug located exterior to the shell or wall of the boiler and in said hot water piping and constantly exposed at one side to and in constant, direct contact with the hot water exterior to the boiler and adapted to be fused by excess temperature of the hot water with which it is in direct contact, and a pipe leading from said plug and in communication beyond said plug with the outer air, thereby to relieve boiler pressure upon fusing of said plug, said plug being normally exposed to the outer air.

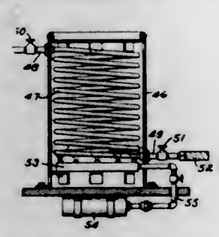
3. In combination, a boiler, a hot water pipe leading therefrom, and a fusible plug in said pipe and constantly exposed at one side to the water in said pipe, the latter having an interior groove and the plug having a portion



extending into said groove, thereby preventing leakage and exposed at the other side to the open air, thereby relieving boiler pressure upon fusing of the plug.

[Claims 2 and 4 not printed in the Gazette.]

1,238,826. APPARATUS FOR THAWING HYDRANTS. LOUIS S. ROSS, Newtonville, Mass. Filed June 3, 1916. Serial No. 101,640. (Cl. 137—72.)



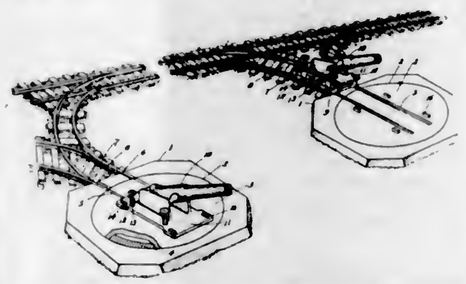
1. In combination, a motor fire apparatus having a rear step and a hydrant thawing device secured to the top of said step, said device having a water receptacle, a gas heater in operative relation thereto, a gas reservoir in communication with the heater and attached to the under side of said step, means for discharging heated water from the receptacle, and a flexible connection for introducing the discharged heated water into a water hydrant.

2. In combination, a motor fire apparatus having a rear step and a hydrant thawing device secured to the top of said step, said device being of general cylindrical form and comprising a casing having a water receptacle therein, upright tubes extending through said casing, a superheater within said casing below said receptacle and in communication with the latter, a burner within the casing below the superheater, a gas reservoir attached to the under side of the said step and in communication with said burner, and a flexible connection in communication with said superheater and adapted to be inserted into a water hydrant.

3. A hydrant thawing device adapted for attachment to a vehicle, said device being of general column-like upright form and having a water receptacle, means for heating the water therein including a gas reservoir having means for attachment to a vehicle, a superheater, means for discharging the heated water from the receptacle, and a flexible connection from said discharging means for introduring the heated water into a water hydrant.

4. A hydrant thawing device comprising a water receptacle provided at its base with means for attaching it to a vehicle, means for generating superheated steam from the water and including a burner and a reservoir in communication therewith, said reservoir having means for attaching it directly to said vehicle, means for discharging the superheated steam from the receptacle, and means for introducing the discharged superheated steam into a water hydrant at or near the valve mechanism thereof.

1,238,827. METHOD OF AND APPARATUS FOR DEFENSE. DANIEL G. SAUNDERS, Jr., Kansas City, Mo. Filed Mar. 22, 1916. Serial No. 85,834. (Cl. 89—40.)



1. In an apparatus of the class described, a foundation comprising an element for revolubly supporting a gun carriage, a railway track on the foundation, a railway track leading to and coöperative with the foundation track, a truck movable over said tracks, a gun carriage separate from and adapted for transport on the truck, and means for lifting the gun carriage from the truck to permit removal of the truck and lowering of the carriage onto the foundation.

2. In an apparatus of the class described, a foundation comprising an element for revolubly supporting a gun carriage, a railway track on the foundation, a railway track leading to and coöperative with the foundation track, a truck movable over said tracks, a gun carriage separate from and adapted for transport on the truck, means for lifting the gun carriage from the truck to permit removal of the truck and lowering of the carriage onto the foundation, and ground means coöperative with the litfing means to center the gun carriage relative to the foundation when the carriage is lowered thereonto.

3. The combination with a foundation, having a platform bed downset therein and having a trackway opening through one edge into the bed, a gun platform adapted for rotation in said bed, tracks at the bottom of said bed and extending through said trackway, and a track leading to the track in the foundation trackway.

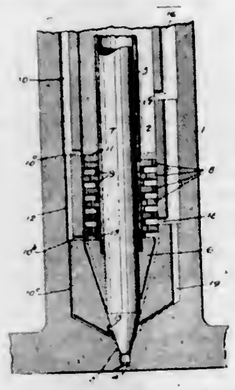
4. The combination with a foundation, of a platform rotatably mounted in the foundation, tracks on the foundation and platform adapted for coextension, a track leading to the foundation track, a gun carriage, trucks supporting said gun carriage and adapted for travel over said tracks, and jacks for raising the carriage from and lowering the same onto the platform and trucks.

5. The combination with a foundation, having a circular bed, of a platform rotatably mounted in said bed, tracks sunk in the foundation and platform and adapted for coextension, a track leading to the foundation tracks, trucks movable over the said tracks, a gun carriage adapted for removable support on said trucks, and jacks on the carriage for raising the gun carriage from said trucks and lowering the same onto said platform.

1,238,828. FUEL-INJECTOR. WALTER SCHENKER, Winterthur, Switzerland, assignor to Busch-Sulzer Bros.-Diesel Engine Company, St. Louis, Mo., a Corporation of Missouri. Filed Feb. 6, 1913. Serial No. 746,521. (Cl. 123—127.)

1. In a fuel injection valve for combustion engines, a valve casing providing a valve seat and an interior valve chamber, fuel-atomizing means therein comprising a series of members providing a staggered passage for air and fuel, a valve plug member coöperating with the valve seat, means for introducing fuel into the valve chamber at different locations in the said staggered passage, and chan-

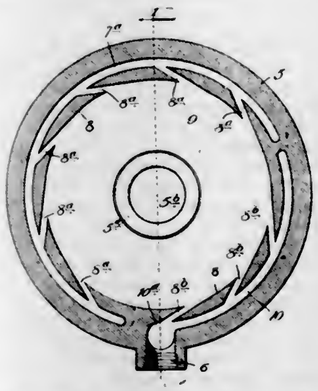
nels for conducting compressed air to each of said locations in the staggered passage, the fuel and air being conducted separately to said locations.



2. In a fuel injection valve for combustion engines, a valve casing having a chamber containing atomizing means and means for leading compressed air and fuel to the said chamber, a single valve plug member controlling the admission of atomized fuel from said chamber to the cylinder, a fuel pocket near the exit of the valve casing, said pocket being normally closed and isolated from the atomizing chamber by the single valve plug member, and separate channels for leading compressed air and fuel to said pocket.

[Claims 3 to 7 not printed in the Gazette.]

1,238,829. SEPARATOR. JOSEPH SCHNEIBLE, Chicago, Ill. Filed Dec. 5, 1914. Serial No. 875,600. (Cl. 183—79.)

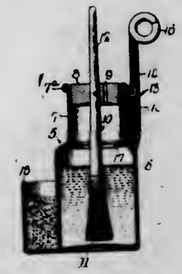


1. In a separator of the character described for separating oil and steam for example, in combination, a casing provided with an intake, a circumferential wall within and spaced from the casing forming an inner circular separating chamber, said wall containing a plurality of substantially tangential inlets for the passage of steam and oil therethrough to the inner chamber and reversely arranged tangential outlets from said chamber for the discharge of oil, and a delivery nipple projecting centrally into said chamber.

2. In a separator of the character described, in combination, a casing provided with an intake, a circumferential wall within and spaced from the casing and forming therewith a receiving chamber and a collecting chamber divided therefrom and provided with an exit port, said wall forming an inner circular separating chamber communicating through a plurality of reversely arranged inlet and outlet ports in said wall, and a delivery nipple extending centrally into the separating chamber whereby the matter to be treated enters the separating chamber through the several tangential inlet ports to circulate vortically about the delivery nipple and throw out by centrifugal force the heavier particles through the tangential outlets to the collecting chamber.

3. In a separator of the character described, in combination, a casing provided with an intake, a circumferential wall within and spaced from the casing and forming therewith a receiving chamber and a collecting chamber divided therefrom and provided with an exit port, said wall forming an inner circular separating chamber and containing a plurality of tangential inlets leading from the receiving chamber and a plurality of reversely arranged tangential outlets leading from the separating chamber to the collecting chamber, a delivery nipple extending centrally into the separating chamber and a shield extending about the mouth of said nipple whereby the matter to be treated entering from the receiving chamber into the separating chamber is caused to circulate rapidly about the delivery nipple and throw the heavier matter out centrifugally through the tangential outlet ports to the collecting chamber and allow the lighter material to pass out centrally through the delivery nipple.

1,238,830. CONTAINER. AUGUST G. F. SCHUSTER and IVER R. JOHNSON, Chicago, Ill. Filed Jan. 10, 1916. Serial No. 71,278. (Cl. 91—66.)



1. A device of the kind described comprising a tubular body member of flexible di-electric material open at one end to provide a mouth, a removable stopper for said mouth, said stopper including a brush adapted to extend into the interior of the container and a handle for said container, said handle having a hook formed on its free end.

2. A device of the kind described comprising a tubular body member of a yielding insulating material open at one end to provide a mouth, a removable stopper for said mouth, said stopper having an aperture therethrough and including a brush adapted to extend into the interior of the container and a handle fixed to said body, said handle having a looped coil at its free end.

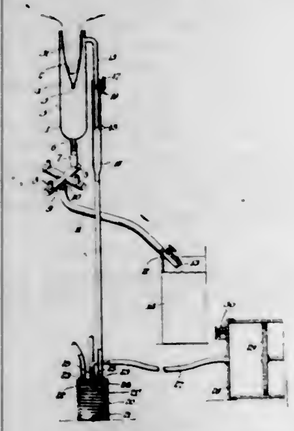
3. A device of the kind described comprising a tubular body member of a yielding insulating material, said body being reduced in diameter at one end to provide an open mouthed neck, a splash shoulder formed on the interior of the body adjacent the neck, a removable stopper for the open mouth of the neck and a handle for said body, said handle having a stiffening core of wire and a looped coil at one end.

4. A device of the kind described comprising a tubular body member of yielding insulating material, open at one end to provide a mouth, a removable stopper adapted to close the open mouth of said body, a substantially flexible handle fixed to said body, said handle having a hook formed on its free end and an open top pocket member fixed to the exterior of said body.

5. A device of the kind described comprising a tubular body member of rubber, said body being reduced at its top in diameter to provide an open mouthed neck, a splash

shoulder formed on the interior of the body at the junction of said body and neck, a removable stopper adapted to close the open mouth of the neck, said stopper being apertured and provided with a brush extending beyond both ends of said stopper, a handle member having a metallic core fixed to said body, said handle having a looped coil at its free end and an auxiliary pocket fixed to the body diametrically opposite the handle.

1,238,831. METHOD AND APPARATUS FOR MILKING. DAVID TOWNSEND SHARPLES, West Chester, Pa. Filed Aug. 9, 1916. Serial No. 113,846. (Cl. 31—98.)



1. The method of milking which consists in applying a sucking or exhausting action and traction to the teat and alternately therewith compressing the same.

4. The mechanism for milking which comprises means for applying compression to the teat and producing an upward thrust against the udder alternately with applying a sucking or exhausting action and traction to the teat.

6. The mechanism for milking which comprises a teat cup, means for applying pressure and suction alternately thereto, and means whereby said suction applies weight to the cup.

7. The mechanism for milking which comprises a teat cup, a chambered device having relatively movable parts, normally supported independently of the animal, a duct connecting said teat cup and device, and means for alternately exhausting and applying pressure in said parts to effect the relative movement thereof.

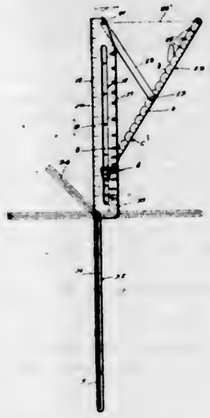
12. The mechanism for milking which comprises a teat cup provided with a perforated flexible member forming two compartments therein, one of said compartments adapted for receiving a teat, and a milk conduit and a pneumatic line connected with the other of said compartments, said milk conduit provided with a check valve and said pneumtic line comprising a collapsible device having relatively movable parts, a spring for normally separating said parts, and a conduit adjustable in length and flexibly connected with one of said parts.

[Claims 2, 3, 5, and 8 to 11 not printed in the Gazette.]

1,238,832. FOLDING COMBINATION POCKET-SQUARE. FITZ GERALD SHELBY and PERRY OLMSTED, Los Angeles, Cal. Filed Mar. 23, 1914. Serial No. 826,567. (Cl. 33—42.)

1. In an instrument of the character described, a beam having a longitudinal slot, a slide movable along the slot, an extensible marker support comprising pivoted arms, including an arm connected at one end to the slide, and a second arm pivoted at one end to the beam adjacent one end of the beam and pivoted to said first named arm midway between the ends thereof, and a marker carried by one of the arms of the support and movable in a line at right angles to the beam when the support is extended or collapsed, said beam being composed of upper and lower plates which receive said support between them when the support is collapsed.

2. In an instrument of the character described, a beam composed of top and bottom walls and spacing means between the two walls, the upper wall having a longitudinal slot, a slide movable along the slot between the upper and lower walls, an extensible marker support comprising pivoted arms including an arm extending into the space between the upper and lower walls and connected at one end to the slide, a second arm extending into the space between the upper and lower walls and pivoted at one end to the beam and pivoted to said first named arm midway between the ends thereof, and a marker carried by one of the arms of the support and movable in a line at right angles to the beam when the support is extended or collapsed.

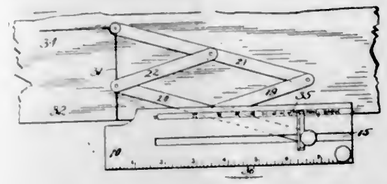


3. In an instrument of the character described, a beam composed of upper and lower plates, and spacing means between the plates, said upper plate having a longitudinal slot, a slide movable along the same, an extensible marker support carrying a marker which moves at right angles to the beam when the support is extended or collapsed, said marker support being, when collapsed, received between said plates and including two arms, one pivoted to the beam and to the other arm, and the latter being pivoted to said slide.

4. In an instrument of the character described, a beam composed of upper and lower plates, and spacing means between the plates, said upper plate having a longitudinal slot, a slide movable along the same, an extensible marker support carrying a marker which moves at right angles to the beam when the support is extended or collapsed, said marker support being, when collapsed, received between said plates and including two arms, one pivoted to the beam and to the other arm, and the latter being pivoted to said slide, the upper plate having scale graduations for indicating the position of one of the arms with reference to the beam, and an indicator carried by the slide and coöperating with said scale graduations.

5. In an instrument of the character described, a beam composed of upper and lower plates, and spacing means between the plates, said upper plate having a longitudinal slot, a slide movable along the same, an extensible marker support carrying a marker which moves at right angles to the beam when the support is extended or collapsed, said marker support being, when collapsed, received between said plates and including two arms, one pivoted to the beam and to the other arm, and the latter being pivoted to said slide, the lower plate being provided with a longitudinal extension carrying a spirit level and adapted to form a shoulder parallel to the front edge of the beam.

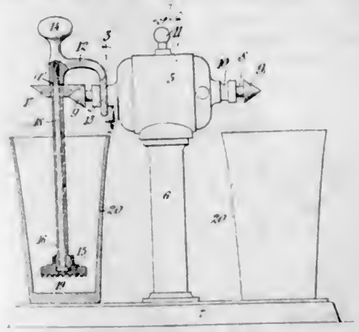
1,238,833. COMPUTING FOLDING SQUARE. FITZ GERALD SHELBY and PERRY OLMSTED, Los Angeles, Cal. Filed Feb. 15, 1915. Serial No. 8,429. (Cl. 33—32.)



1. In a folding square, a beam or body, an extensible marker support comprising a plurality of arms pivotally connected in the form of a lazy-tong construction, the inner ends of two of the arms being connected to the beam, one pivotally connected to a fixed point, and the other having a sliding connection with the beam and adapted to travel in a path in line with said fixed point, and another of said arms having a marking point located opposite said fixed pivoted point and movable in a line at right angles to the beam when the support is extended or collapsed, said beam being composed of upper and lower plates between which the support is received when collapsed.

2. In a folding square, a beam or body, an extensible member comprising a plurality of pivotally-connected arms in the form of a lazy-tong construction, the inner end of one of the arms being pivoted to the beam or body, and the inner end of another of said arms having a sliding connection with said beam or body, a scale graduated to indicate angles which one of said arms may make with respect to an edge of said beam or body, an indicator coöperating with said scale and operatively-connected with said extensible member, and a spirit level carried by said beam or body to indicate the position of a part thereof with reference to the horizontal.

1,238,834. OPERATING DEVICE FOR MIXING-MACHINES. WILLIAM GENTRY SHELTON, New York, N. Y. Filed May 21, 1917. Serial No. 169,812. (Cl. 74—26.)



1. The combination with a frame having means for detachably engaging a support, of a spindle carried by the frame, a sleeve mounted upon such spindle and adapted to carry a tool, and a friction driving wheel fast with the said sleeve.

2. The combination with a friction driving pulley, of a frame adapted to be detachably supported adjacent said pulley, a tool carried by such frame, and a friction driving pulley fast with such tool and adapted to engage the said driving pulley.

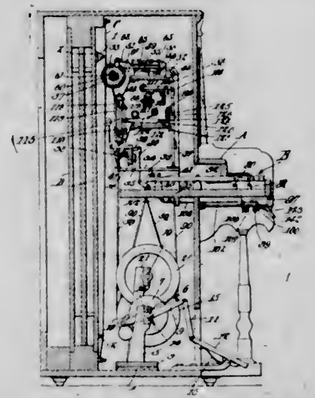
3. The combination with a friction driving pulley, of a tool, a driven pulley connected to such tool, a frame carrying the said tool, and means for detachably supporting the frame with said tool in its operative position and the said pulleys in frictional engagement.

4. The combination with a work holder, a casing mounted adjacent thereto, an electric motor in said casing and provided with a shaft, and a friction driving wheel mounted upon said shaft, the casing adjacent said pulley being provided with a hub having a neck provided with flattened sides, of a frame, a spindle carried by the frame, a sleeve surrounding the said spindle, a tool carried by the outer end of said sleeve, and a driven wheel carried by the inner end of the said sleeve adapted to engage the said driving wheel, the frame having a forked end for engaging the said neck and adapted to maintain its position thereon by gravity and hold the said wheels in driving engagement, and the tool in working position in relation to the work holder.

8. A mixer comprising a frame having means for engaging a support, a spindle carried by such frame and having a head at its free end, the frame being provided adjacent the spindle with a shoulder, a sleeve mounted upon said spindle and located between the head and the said shoulder, a pulley mounted upon the sleeve adjacent the said face, and a work performing member carried by the sleeve and incasing the said head.

[Claims 4 to 6 not printed in the Gazette.]

1,238,835. VIOLIN-PIANO. ERICK SILEN, Mayger, Oreg. Filed Sept. 24, 1915. Serial No. 52,422. (Cl. 84—46.)



1. In an instrument of the class described, a string, a shaft, mechanism for rotating the shaft, a bowing disk secured to and revoluble with the shaft and comprising a plurality of nested flexible members, the periphery of the disk being beveled, and means for flexing the disk to shift the beveled periphery of the disk into parallelism and engagement with the string, said disk contacting with the string throughout the width of the periphery of the disk.

2. An instrument of the class described including a string, a bowing disk, a key, a rod movable by the key, means operated by the rod for flexing the disk into contact with the string, means for rotating the disk, a resonant member, means for vibrating the same, a flexible connection between said vibrating means and the rod, and means for tightening said flexible connection to shift the vibrating means out of normal position.

3. In an instrument of the class described, a string, a key, a rod actuated by the key, means controlled by the rod for vibrating the string, a resonant element, a hammer for sounding said element, a flexible connection between said hammer and the rod, said connection permitting movement of the rod independently of said hammer, and means for tightening the connection to shift the hammer.

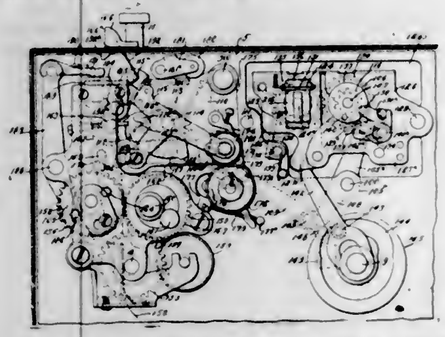
4. In an instrument of the class described, the combination with a string, a bowing element adjacent thereto, a key, a rod actuated by the key, and means operated by the rod for shifting the bowing element into active position relative to the string to sound the string, a resonant element, a hammer adjacent thereto, a flexible connection between said hammer and the rod, a lever, means upon the rod for engagement by the lever when said rod is elevated, a corrugated roller mounted for rotation between said

lever and the hammer, means for shifting said roller upwardly and downwardly, means for rotating the roller when in any of its positions, and means upon the lever and hammer respectively for engagement by the roller when moved to its raised or lowered position respectively, and means for tightening the connection between the hammer and the rod to lift the hammer toward the roller.

5. The combination with a key, a rod actuated thereby, a resonant element, and a hammer, of a support carried by the rod, a flexible connection between the rod and the hammer, said connection engaging the support, a slidably mounted deflecting finger normally overhanging a portion of said connection, and means for shifting said finger to tighten the connection.

[Claims 6 to 10 not printed in the Gazette.]

1,238,836. TICKET-ISSUING MACHINE. FRANCESCO SKERL, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (Incorporated in 1906.) Filed May 16, 1913. Serial No. 767,972. (Cl. 194—79.)



1. In a machine of the class described, the combination with a main operating mechanism; of coin receptacles; a ticket issuing mechanism adapted to issue tickets of different denominations and including a movable member whose position determines the denomination of the ticket to be issued; and manipulative means coöperating with coins placed in the receptacle to differentially position said movable member.

2. In a machine of the class described, the combination with a ticket issuing device adapted to issue tickets of different denominations; of operating means therefor; coin receptacles; and manipulative means coöperating with coins inserted into said receptacle to determine the denomination of the ticket to be issued by said device.

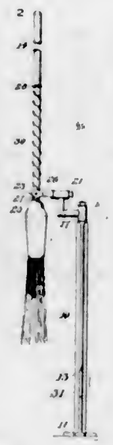
3. In a machine of the class described, the combination with a ticket issuing device adapted to issue tickets of different denominations; operating means therefor; a series of coin receptacles; and a single manipulative device coöperating with coins inserted into the receptacles to determine the denomination of the ticket to be issued by said device.

4. In a machine of the class described, the combination with a ticket issuing device adapted to issue a ticket of one of several denominations; of operating means therefor; a series of coin slots and a single manipulative device coöperating with coins inserted into the slots for controlling said issuing device and said operating means whereby said operating means causes said ticket issuing device to issue a ticket of the same value as the coin inserted into the machine.

5. In a ticket issuing machine the combination with a ticket issuing device adapted to issue tickets of different denominations; of a series of coin slots; a manipulative device coöperating with the coins inserted into said slots and a member differentially positioned by the manipulative device; and connections between said member and said issuing device whereby the differential movement of the member determines the value of the ticket to be issued.

[Claims 6 to 40 not printed in the Gazette.]

1,238,837. SHOE-CLEANING APPARATUS. JOSEPH K. SKINDER, Bridgeport, Conn. Filed Feb. 1, 1917. Serial No. 145,981. (Cl. 15—2.)

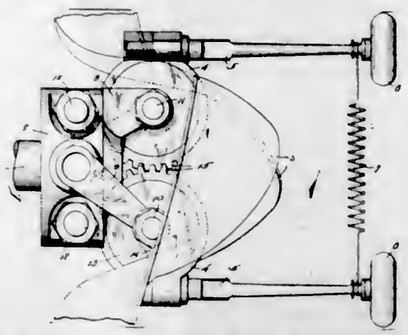


1. A device of the class described comprising a standard, a broom having its handle mounted for universal movement thereon and being movable relative thereto, and automatic elevating means for the broom when depressed.

2. A device of the class described comprising a standard, an angle bracket revolubly journaled thereon, a fork having its shank journaled in the said bracket, a broom trunnioned in the said fork and movable relative to the bracket, and automatic elevating means for the said broom including a ring horizontally fixed to the broom and a coil spring surrounding the broom handle between the ring and fork.

[Claim 3 not printed in the Gazette.]

1,238,838. AIR-PROPELLER. THOMAS B. SLATE, Washington, D. C., assignor to American Mechanical Improvement Company, Washington, D. C. Filed Nov. 25, 1916. Serial No. 133,367. (Cl. 170—162.)

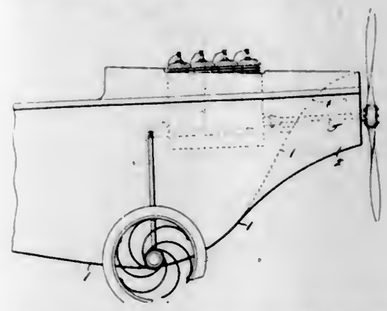


2. A governor-controlled propeller comprising governor-controlled blades offset at right angles to the propeller shaft and mounted to operate in opposite directions to each other for changing the pitch of the blades while in motion, and having no other movable parts than the propeller blades, the governor mechanism being directly connected to the blades and operating as a part thereof.

6. As a new article of manufacture in a device of the class described, a governor device comprising a weight, an arm, a band to which the arm is engaged, and means on the governor band operatively connecting it with a corresponding governor element, substantially as set forth.

[Claims 1 and 3 to 5 not printed in the Gazette.]

1,238,839. AERO-VEHICLE BODY. THOMAS B. SLATE, Washington, D. C., assignor to American Mechanical Improvement Company, Washington, D. C. Filed Nov. 25, 1916. Serial No. 133,368. (Cl. 244—30.)



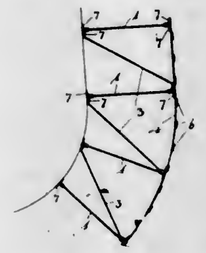
1. The combination of an aeroplane body for heavier-than-air machines, a displacing member forming the front wall of the body, and side wall extensions projecting in front of and beyond the displacing member, whereby to displace the air from directly in front of the machine in a downward direction to the bottom of the machine.

3. An aeroplane body for heavier-than-air machines having a declining S-shaped displacing member, the upper end of said member being disposed approximately at the forward top end of the aeroplane body and displacing to sufficient depth to allow comfortable seating capacity for occupants within the body of the aeroplane.

4. An aero-vehicle body having its top of such height as to substantially protect the occupants from passing air and having a declining S-shaped displacing member, said member having its upper end approximately at the upper forward end of the aero-plane body and displacing to sufficient depth to allow comfortable seating capacity for occupants within the body of the aero-vehicle whereby to protect them from air currents.

[Claim 2 not printed in the Gazette.]

1,238,840. SHIP-ARMOR. JOHN H. SMITH, Los Angeles, Cal. Filed Mar. 15, 1917. Serial No. 154,972. (Cl. 114—240.)



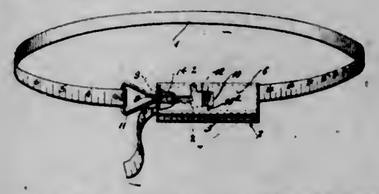
1. A ship armor of the type described comprising interconnected steel rails forming a frame or screen of substantially square holes, and distance bars secured to the ship sides with one end and with the other end to the frame or screen, forming spring-like members between the frame or screen and the ship.

2. A ship armor of the type described comprising a suitable number of distance bars attached to the ship's sides projecting off the ship, and a steel frame or screen secured to the ends of the distance bars, the steel frame or screen and the distance bars consisting of flat steel bars with bearing capacity.

3. A ship armor of the type described comprising a suitable number of distance bars connected to the sides of the ship projecting off the ship, and a frame or screen of cross-bars secured to the farther ends of the distance bars, the bars in this device having sharp edges projecting toward the front and rear of the ship for reducing the resistance in the water, all substantially as and for the purpose described.

[Claim 2 not printed in the Gazette.]

1,238,841. TAPE-MEASURE ATTACHMENT. CLARENCE A. SNIDER, Indianapolis, Ind. Filed Sept. 8, 1915. Serial No. 48,886. (Cl. 33—179.)



1. In an indicator for tape measures, the combination of a housing, a flexible measuring element adapted to pass therethrough, a guide plate carried by the housing, said guide plate being provided with a sight opening, a closure plate slidably connected to the casing for closing said sight opening at times, and means connected with the flexible measuring element and with said closure plate for opening and closing the sight opening.

2. In an indicator for tape measures, the combination of a housing constructed of a sheet of bendable metal formed to provide a protecting and guiding plate, said plate having a sight aperture therein, a closure for said aperture, the plate and housing being adapted to receive a tape measure therebetween, one end of the tape being connected with said closure.

3. In an indicator for tape measures, the combination of housing having one wall thereof extended to provide a protecting plate arranged in spaced relation thereto, said plate having a guide flange thereon and a sight aperture therein, a closure plate, a spring pressed rod associated therewith, said rod having one extremity thereof connected with one extremity of a tape measure, the opposite extremity of said tape measure being receivable under the protecting plate whereby to be partially exposed through the sight aperture at times.

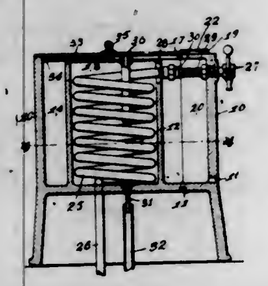
4. An indicating device for tape measures constructed from a single strip of bendable metal formed to provide a housing, one wall of said housing being laterally extended and bent into parallel relation to the adjacent wall of said housing to provide a guide plate, said guide plate having a sight aperture therein, a closure for said aperture slidable under said guide plate, resilient means associated with the closure for normally maintaining the same in closed position, said closure having connection with one extremity of a tape measure, the opposite extremity of the tape measure being receivable under the guide plate whereby to be partially exposed through said aperture at times.

5. An indicating device for tape measures constructed of a single strip of bendable metal formed to provide a housing, one wall of said housing being laterally extended and bent into parallel relation with the adjacent wall of the housing to provide a guide plate, said guide plate having a sight opening therein, a slidable closure for said opening arranged under said guide plate, a looped rod connected with said closure, a spring engaged with the rod for normally maintaining the slidable closure in closed position, the looped end of said rod being engaged with one extremity of a tape measure the opposite extremity of said tape measure being adapted to be received between the guide plate and housing whereby a portion thereof will be exposed through said aperture, at times.

1,238,842. COMBINED BEVERAGE AND WATER COOLER AND DISPENSER. ALBERT H. SPELLMEYER, St. Louis, Mo. Filed Aug. 17, 1916. Serial No. 115,401. (Cl. 225—28.)

1. A combined beverage and water cooler and dispenser, comprising a middle cooling chamber, a water dispensing

chamber surrounding the cooling chamber, and syrup receptacles within the water chamber and spaced from the cooling chamber, and arranged for contact with water in said water chamber.



2. A beverage and water cooler and dispenser, comprising a unitary ceramic structure having an ice chamber, a water chamber surrounding the ice chamber, syrup receptacles within the water chamber and spaced from the ice chamber and each other, said receptacles having a wall coincident with the outer wall of the water chamber and said receptacles extending to the top of the dispenser, and a bottle neck receiving gasket in the top of each receptacle having a vent therein.

1,238,943. FAUCET. ALBERT H. SPELLMEYER, St. Louis, Mo. Filed Nov. 17, 1916. Serial No. 131,975. (Cl. 137—7.)



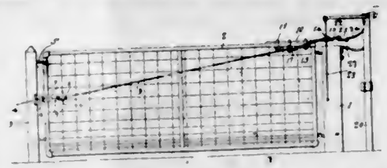
1. A faucet comprising a shell provided with an inlet and an outlet port, the wall of the shell surrounding the outlet port being provided with a circular depression and a sharp edge whereby dripping of the faucet is prevented, said shell being further provided with a tapering bore intersecting the outlet port and adjacent the mouth thereof, a tapering plug located in said bore, a handle for rotating said plug and means for limiting the rotary movement of said plug.

2. A faucet comprising a shell provided with an inlet port and an outlet port, said outlet port being surrounded with a wall provided with a curved circular depression and a downwardly projecting sharpened edge, said shell being further provided with a tapering bore adjacent the mouth of the discharge outlet, a tapering cut-off plug located in said bore, means carried by the plug and shell for limiting the rotary movement of the former and a handle for operating said plug.

3. A faucet comprising a shell provided with an inlet and outlet port, said outlet port being provided with a discharging mouth having a sharpened edge, and a tapering cut-off plug mounted in the shell and located adjacent the discharging mouth of the outlet port.

1,238,844. GATE-OPERATING MECHANISM. RAYMOND ARCHIE SUMMERS, Reeds, Mo. Filed Feb. 10, 1917. Serial No. 147,799. (Cl. 39—36.)

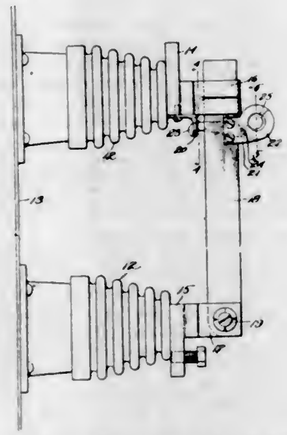
2. A gate operating mechanism comprising a pair of relatively spaced posts, a gate hinged to one of said posts, a keeper secured to the other post, a latch carried by the gate and normally engaging the keeper, an arm secured to the gate, a triangular shaped plate pivoted to said arm, means for connecting the triangular shaped plate to the latch, a link connecting the triangular shaped plate, an operating rod journaled adjacent one of the posts, a curved arm secured to the operating rod and to the link, and



means for operating the operating rod to open and close the gate.

[Claim 1 not printed in the Gazette.]

1,238,845. LOCKING-SWITCH. PEDER C. THONER, Everett, Mass. Filed Oct. 30, 1914. Serial No. 869,408. (Cl. 175—282.)

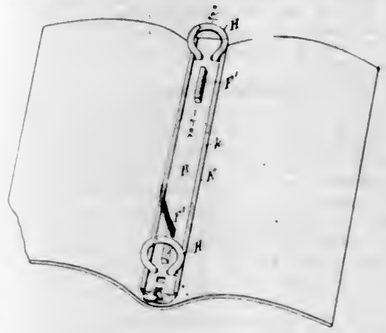


An electric switch comprising a pair of posts, a switch blade pivotally connected to one of the posts, said blade being provided with an eye to be engaged by an operating implement, a catch lug secured to the other post, switch jaws adjacent said catch lug, a bar pivotally connected with the blade and having one end hook-shaped to engage said catch lug and having its other end overlapping said eye, a spring to hold the bar normally in position for its hook to engage the catch lug, said overlapping end having an inner wall curved to a substantially semi-cylindrical form, the said curved wall being nearer the axial center of the eye than the inner wall of the eye and of shorter radius than the radius of the adjacent wall of the eye, whereby the switch blade may be unlocked and opened by an operating implement inserted in said eye and pulled downwardly, whether the switch is attached to a wall or to a ceiling.

1,238,846. LOOSE-LEAF BINDER. CLARENCE D. TRUSSELL, Poughkeepsie, N. Y., assignor to Trussell Manufacturing Company, Poughkeepsie, N. Y., a Corporation of New York. Filed Nov. 17, 1916. Serial No. 131,814. (Cl. 129—24.)

1. A loose leaf binder comprising a flat supporting plate, and hook plates pivotally connected thereto adjacent their outer edges and having near their meeting edges projections adapted to extend through the plane of said supporting plate and movable to either side of the plane of said pivots, the projections on said respective hook plates being resiliently connected to hold the hook-plates in open or closed positions.

3. A loose leaf binder comprising a flat supporting plate, hook plates having lugs adjacent their outer edges entering perforations adjacent the outer edges of said supporting plate and providing pivotal supports for said hook plates in said supporting plate, said respective hook plates having projections adapted to extend through said supporting plate past the plane of said pivots, and springs between the projections on said respective hook plates.



7. A loose leaf binder comprising a flat supporting plate, hook plates pivotally mounted at their outer edges in said supporting plate, said respective hook plates having projections adapted to extend through the body of said supporting plate, and a spring rod between the ends of said respective projections adapted to pass to one side or the other of a line between said pivots as the hooks are open or closed.

10. A loose leaf binder comprising a flat supporting plate, and hook plates pivotally connected thereto adjacent their outer edges and having near their meeting edges projections adapted to extend up through the plane of the supporting plate, and the supporting plate formed with integral housings to receive said projections.

20. A loose leaf binding mechanism, comprising a binding plate, a cover and means for attaching them together comprising a hub adapted to be located on the outside of said cover, and having flanges adapted to pass through said cover, and lugs on said flanges adapted to be bent over against said binding plate.

[Claims 2, 4 to 6, 8, 9, 11 to 19, and 21 to 24 not printed in the Gazette.]

1,238,847. CHAIN. ANTHONY VANDERVELD, Grand Rapids, Mich., assignor to Grand Rapids Show Case Company, Grand Rapids, Mich., a Corporation of Michigan. Filed June 12, 1916. Serial No. 103,218. (Cl. 59—78.)

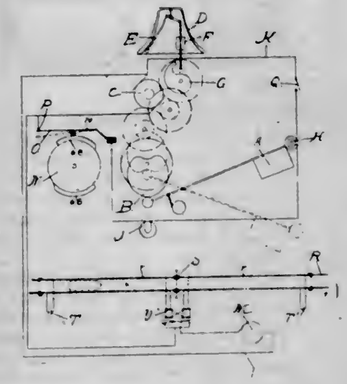


In a chain, a plurality of links each formed from wire and having an enlarged head with an opening therethrough, a length of said wire extending from one side of the head and bent outwardly at an angle for a distance and then turned to form a pintle, said links being positioned end to end with the pintle at the end of one link entering the opening in the head of the adjacent link and permanently connected with said head, the pintles being located at right angles to the length of the chain and the heads parallel to the length of the chain.

1,238,848. HIGHWAY SIGNALING APPARATUS. EUGENE W. VOGEL, Oak Park, Ill., assignor to Chicago Railway Signal and Supply Company, Carpentersville, Ill., a Corporation of Illinois. Filed Aug. 3, 1914. Serial No. 854,779. (Cl. 177—288.)

1. In a highway signaling apparatus, the combination with a support, of a danger flag which projects laterally from said support, means for vibrating said flag, an electric signal lamp, and means for causing the same to be illuminated in flashes during the period of each vibration of the flag.

2. In a highway signaling apparatus, the combination with a support, of a danger flag which projects laterally from said support, a bell, a motor, and cam mechanism driven thereby at different speeds for vibrating said flag and ringing said bell.



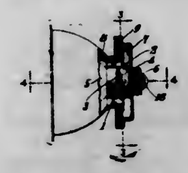
3. In a highway signaling apparatus, the combination with a danger flag disposed in a substantially horizontal position, a bell and an electric signal lamp, of a motor, and mechanism driven by said motor for imparting a series of vibrating movements to the flag, sounding the bell and making and breaking the lamp circuit a plurality of times during each cycle of operation of the flag.

4. In a highway signaling apparatus, the combination with a danger flag disposed in a substantially horizontal position, a bell and an electric signal lamp carried by said flag, of a motor, and mechanism driven by said motor for imparting a series of vibrating movements to the flag, sounding the bell and making and breaking the lamp circuit a plurality of times during each cycle of operation of the flag.

5. In a highway signaling apparatus, the combination with a casing, of a danger flag fulcrumed on said casing, a motor in said casing, a cam to vibrate said flag, a reducing train between said motor and said cam, a bell, and a cam driven by said motor at a different speed from said first mentioned cam for operating the bell.

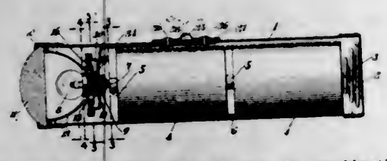
[Claims 6 to 24 not printed in the Gazette.]

1,238,849. LAMP-SOCKET. GEORGE W. WACKER, Rutherford, N. J., assignor to National Carbon Company, New York, N. Y., a Corporation of New Jersey. Filed Apr. 22, 1916. Serial No. 92,846. (Cl. 173—328.)



A cylindrical lamp-socket having a smooth wall and a slot therein inclined at the pitch angle of the screw-groove in a lamp base, and a resilient split ring having an arcuate portion closely embracing and fitting the outside of the socket and having a segment which enters and completely traverses said slot in position to enter and press upon said screw-groove of the lamp base when inserted into the socket, whereby the resilient ring is secured on the socket and the lamp base is secured in the socket.

1,238,850. PORTABLE ELECTRIC LIGHT. GEORGE W. WACKER, Rutherford, N. J., assignor to National Carbon Company, New York, N. Y., a Corporation of New Jersey. Filed Apr. 22, 1916. Serial No. 92,847. (Cl. 240—8.5.)



1. A portable electric light having, in combination, a conductive reflector provided with a socket-receiving opening, a conductive lamp socket in the opening and spaced out of contact with the reflector, and an annular insulating disk supporting the lamp socket on the reflector in insulated relation therewith and to the inner edge of which the reflector is secured and to the outer edge of which the lamp socket is secured.

2. A portable electric light having, in combination, a conductive reflector, an annular insulating disk engaged at its inner edge by and supported upon the reflector, a conductive contact plate engaging the outer edge of the insulating disk and supported thereon, and a conductive lamp socket carried by the contact plate in spaced relation to the reflector.

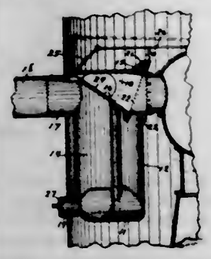
3. A portable electric light having, in combination, a conductive reflector provided with a socket-receiving opening, an annular insulating disk upon the inner edge of which the inner edge of the reflector is turned over to grip the insulating disk, a conductive contact plate turned over upon and gripping the outer edge of the insulating disk, and a conductive lamp socket carried by the contact plate and projecting into the socket-receiving opening of the reflector in spaced relation to the reflector.

4. A portable electric light having, in combination, a conductive reflector, an annulus of insulating material having opposite edges upon one of which the reflector is turned over and grips, and a conductive lamp socket having a contact flange turned over upon and gripping the other edge of the insulating annulus.

5. A portable electric light having, in combination, a conductive reflector provided with a socket-receiving opening, an annulus of insulating material having opposite edges upon one of which the inner edge of the reflector is turned over and grips, a conductive contact plate turned over upon and gripping the other edge of the insulating annulus, and a conductive lamp socket carried by the contact plate and projecting into the socket-receiving opening of the reflector in spaced relation to the reflector.

[Claim 6 not printed in the Gazette.]

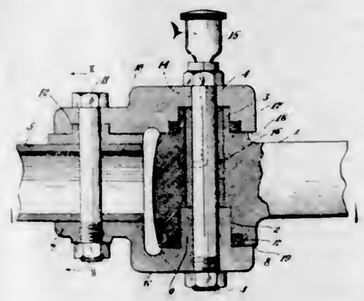
1,238,851. RADIATOR FOR HOT-AIR FURNACES. OLIVER H. WALLEN, Marshalltown, Iowa. Filed Oct. 30, 1916. Serial No. 128,511. (Cl. 257—168.)



1. A radiator, comprising a head chamber, a base chamber, side chambers communicating between end portions of the head and base chambers, a central chamber communicating between the head and base chambers between the side chambers, ingress and egress openings on opposite sides of the head chamber adjacent to the central chamber, and a damper controlling the communication of the central and head chambers, said damper when open affording a direct communication from said ingress to said egress opening, and when closed causing a divided communication from said ingress opening through said side chambers, thence through said central chamber to said egress opening.

2. A radiator comprising a head chamber having a joint member and an egress collar oppositely arranged laterally of its central portion, and also having an inclined damper seat between said point member and collar, a base chamber spaced from the head chamber, side chambers connecting end portions of the head and base chambers, a central chamber located between the side chambers and connecting central portions of the head and base chambers through said inclined seat, a damper mounted for oscillation in said head chamber and adapted to rest on said seat at times, and a cleanout member communicating with said base chamber.

1,238,852. STEERING-KNUCKLE JOINT. JAMES WALTERS, Cass City, Mich. Filed Apr. 11, 1917. Serial No. 161,108. (Cl. 74—17.)



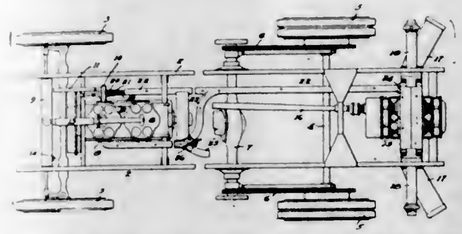
1. A steering knuckle joint for automobiles, comprising a steering arm having a bearing head longitudinally apertured to receive a stud and counterbored at the lower portion, a cross arm, a fitting secured on the cross arm having a bracket adapted to engage into the counterbored recess of the head, a cap interlocking the upper portion of the fitting with the upper portion of the head, means for securing the cap in position on the cross arm, and a bearing stud passing through the cap, head and bracket.

3. A steering knuckle joint comprising a steering arm having a longitudinally apertured head recessed at the lower end and provided with an upwardly extending bearing boss, a cross arm, a fitting on the cross arm having a bracket on which the head is rotatably secured, the bracket entering the recessed portion thereof, the upper part of the fitting having a boss, a cap engaging over the boss of the fitting and over the upper boss of the head, means for securing the cap and fitting to the cross arm, and a bearing stud extending through the cap, head and bracket, the cap overhanging the head and the head overhanging the bracket together with dust proof members interposed in the bearing joints.

[Claims 2, 4, and 5 not printed in the Gazette.]

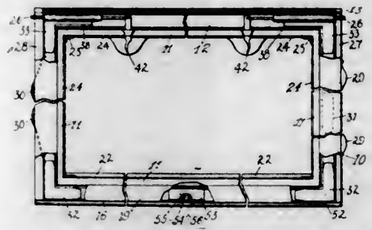
1,238,853. FIRE-ENGINE. CHARLES P. WATEROUS, St. Paul, Minn., assignor to Waterous Engine Works Company, St. Paul, Minn., a Corporation of Minnesota. Filed Apr. 19, 1916. Serial No. 92,265. (Cl. 123—170.)

1. The combination, with an internal combustion engine having a water circulating system and an overflow therefor, of a pump having a driving connection with said engine, a comparatively small water supply pipe leading from said pump to said circulating system for delivering continuously a supply of cool water thereto, a sleeve encircling said pipe and spaced therefrom and closed at one end and communicating at the other end with the jacket of said pump, a pipe leading from the engine exhaust and communicating with said sleeve and having a branch pipe therein, and a valve mounted to direct the exhaust through said pipe into said sleeve or divert it from said pipe into said branch pipe.



2. A fire engine truck having an internal combustion engine mounted on the forward portion thereof and a water pump mounted on the rear portion of said truck, said engine having a water circulating system and overflow therefor, a comparatively small pipe leading from said pump to the supply pipe of said circulating system for delivering cool water from said pump to said system, a sleeve encircling said pipe and spaced therefrom and having a pipe connection with the engine exhaust, and means for controlling the delivery of the exhaust to said sleeve.

1,238,854. SHEET-METAL WINDOW-SCREEN FOR RAILWAY-CARS. WILLIAM W. WATSON, Jamestown, N. Y. Filed Mar. 26, 1917. Serial No. 157,358. (Cl. 156—14.)



1. In a window screen, a sheet metal frame comprising tubular side and end pieces, said side and end pieces mitered at the corners and attached to one another, extensions on said side and end pieces at the inner corners to interlappingly attach them to one another and brace said inner corners, screen wire, and means for attaching said screen wire to said frame.

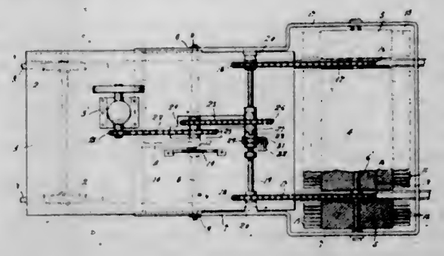
3. In a window screen, a sheet metal frame comprising tubular side and end pieces, a flange along the inner edges of said side and end pieces to form a groove, screen fabric, a filling strip for attaching said fabric in said groove, and interlapping extensions on the ends of said flanges welded to one another at each corner to brace and strengthen the inner corners of said frame.

5. In combination with a tubular frame corner, a corner brace comprising a T-shaped metal plate, the central portion of said T-shaped metal plate folded in a tube and [illegible] wing portions interfolded in a tube at an angle to [illegible] central portion, said tubes forming a corner brace [illegible] fitting within the ends of the adjacent tubular frame

[illegible] a window screen, a sheet metal frame having [illegible] frame sides, a channel strip within the lower [illegible] frame side, partially cutaway strips cut from said [illegible] strip and the adjacent frame side interfolded to [illegible] osswise brace having openings on each side there- [illegible] ive an operating hook over said brace through [illegible] ings.

[illegible] 2, 4, 6 to 8, and 10 to 13 not printed in the

1,238,855. RAILWAY-TRACK WEED-CUTTER. GEORGE S. WEBSTER, Mason City, Iowa. Filed Feb. 11, 1916. Serial No. 77,608. (Cl. 104—65.)



1. A railway track weed cutter comprising a truck, a vertically adjustable brush supporting frame carried by said truck, a brush shaft carried by said frame, cylindrical spring-toothed brushes secured to said shaft, working, one between said rails and the other outside of the rail and adapted to clear the rails, a motor on said truck, a driving element on said brush shaft between said inside and outside brushes, and driving connections between said motor and the said driving element, a portion of the said driving connection overlying one of the rails.

2. A railway track weed cutter comprising a truck, a vertically adjustable brush supporting frame carried by said truck, a vertically movable transverse brush shaft carried by said frame, cylindrical spring toothed brushes secured to said shaft, working, one between the rails, and the other outside of the rails and spaced to clear the rails, sprockets secured to said brush shaft in the spaces between said brushes, a motor, and driving connections between said motor and brush shaft, including sprocket chains running over said sprockets.

3. A railway track weed cutter comprising a truck, a vertically adjustable brush supporting frame carried by said truck, a vertically movable transverse brush shaft carried by said frame, cylindrical spring toothed brushes secured to said shaft, working one between the rails, and the other outside of the rails and spaced to clear the rails, a sprocket secured to said brush shaft in a space between brushes, a counter shaft mounted on said vertically adjustable frame, a sprocket on said counter shaft, a sprocket chain running over the said two noted sprockets, a motor on said truck and connections between said motor and counter shaft including a clutch.

1,238,856. SHOE AND THE METHOD OF MAKING THE SAME. THOMAS F. WHELAN, East Orange, N. J., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 24, 1916. Serial No. 86,417. (Cl. 12—146.)



1. A shoe with the counter portion of its upper formed of two side pieces having their rear ends extended beyond the longitudinal median line of the counter to overlap with the overlapping portions convexed vertically of the counter to form on the inner face of the counter a concave heel-gripping pocket and stitched together with their edges in parallelism.

2. A shoe with the counter portion of its upper formed of two side pieces having the edges of their rear ends convex and extended beyond the longitudinal median line of the counter to overlap and stitched together with their edges in parallelism.

3. A shoe with the counter portion of its upper formed of two side pieces having their rear ends provided with

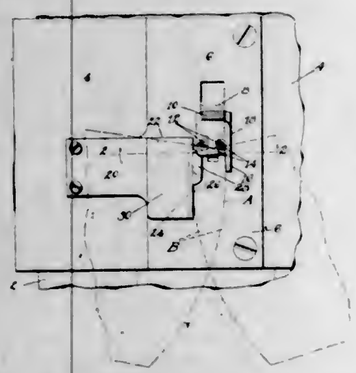
convex edges of a curvature in excess of the vertical curvature of the rear end face of the heel and extended beyond the longitudinal median line of the counter to overlap, and stitched together with their rear convex edges in parallelism.

4. A shoe with the counter portion of its upper formed of two side pieces having their rear ends extended beyond the longitudinal median line of the counter to overlap and having their overlapped ends stitched together with the edges in parallelism and with the overlapping portions convexed both vertically and laterally of the counter to form on the inner face of the counter a concaved heel-gripping pocket.

5. A shoe with the counter portion of its upper formed of two side pieces having their rear ends formed to extend beyond the longitudinal median line of the counter to overlap with the overlapping portions convexed vertically of the counter to form a heel-gripping pocket and with the overlapped ends stitched together with their edges in parallelism by two lines of stitches extending along and adjacent to said edges and forming an upright back seam.

[Claims 6 to 14 not printed in the Gazette.]

1,238,857. LAP-SEAMING MECHANISM. WILLIAM T. BENJAMIN, Newark, N. J., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 24, 1916. Serial No. 93,162. (Cl. 112—9.)



1. A lap seaming mechanism having, in combination, a stitching mechanism, a presser foot and a coöperating member constructed to present spaced work edge guides arranged to guide the edges of overlapped pieces of work along parallel lines, and means to support separate pieces of work with their edges overlapped to coöperate with said guides.

2. A lap seaming mechanism having, in combination, a stitching mechanism, laterally opposed work edge guides having parallel guiding surfaces positioned in different horizontal planes and arranged to guide overlapped plies of work to the stitching mechanism with their overlapping edges in parallelism, means to support the plies in overlapped relation, with their overlapped edges in the horizontal planes of their edge guides, and means bodily yielding upwardly from the lower ply, arranged and operative to maintain the overlapped edge of said lower ply in flat condition as it is fed to the stitching mechanism.

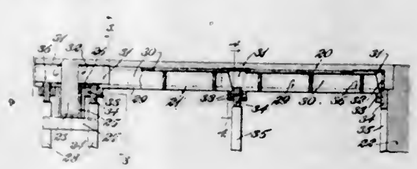
4. A lap seaming mechanism having, in combination, a stitching mechanism, laterally spaced work edge guides having parallel guiding surfaces positioned in different horizontal planes and arranged to guide the edges of overlapped plies of work to the stitching mechanism with said overlapping edges in parallelism, means to support upper and lower plies in overlapped relation with their overlapping edges in the horizontal planes of their respective edge guides and to maintain the overlapped edge of the lower ply in flat condition as it is fed to the stitching mechanism, the support for the upper ply having a supporting surface inclined to enable the operator to position the overlapping edge of the upper ply in the horizontal plane of its edge guide as it is fed to the stitching mechanism.

12. A lap seaming mechanism having, in combination, a stationary work support, a stitching mechanism including a feeding dog, and a presser foot vertically movable toward and from said support and feeding dog provided with laterally spaced needle guides and having a work edge guiding surface on one side of the presser foot and spaced laterally from the needle guides, a guide member stationary relative to the presser foot provided with a second work edge guiding surface laterally spaced from and parallel to the first edge guiding surface and in a horizontal plane to engage the edge of work positioned on said stationary support and extending transversely beneath the presser foot and itself having a work supporting face concaved laterally of the edge guiding surface and extending transversely of and beneath the presser foot into the horizontal plane of the edge guiding surface of the presser foot in the lowered operative position of the presser foot.

15. A lap seaming mechanism having, in combination, a table, a presser foot having a needle guide and presenting for engagement with an upper ply of the work a lateral edge-guiding face extending a substantial distance in front and in the rear of the needle guide, and a depressible arm overlying the table and presenting for engagement with the lower ply of the work a lateral edge-guiding face which also extends in front and in rear of the needle guide and is parallel with the edge-guiding face on the presser foot.

[Claims 3, 5 to 11, 13, 14, and 16 to 20 not printed in the Gazette.]

1,238,858. APPARATUS FOR CONSTRUCTING RIBBED CONCRETE FLOORS. ARTHUR J. WIDMER, Webster Groves, Mo., assignor, by mesne assignments, to Widmer Engineering Company, St. Louis, Mo., a Corporation of Missouri. Filed Dec. 1, 1916. Serial No. 134,288. (Cl. 25—131.5.)



1. In apparatus for constructing ribbed concrete floors, joists extending crosswise of the ribs and with their tops even with the under sides of the ribs to support them, sections of forms for the ribs and floor arranged between said joists with their ends supported therefrom, the ends of said sections being spaced apart leaving gaps over said joists, and short sections separable from said forms covering said gaps.

2. In apparatus for constructing ribbed concrete floors, joists extending crosswise of the ribs and with their tops even with the under side of the ribs to support them, stringers detachably secured alongside of said joists, sections of forms for the ribs and floor arranged between said joists and supported on said stringers the ends of said forms being spaced apart leaving gaps over said joists, and short sections separable from said forms covering said gaps.

3. Apparatus for constructing ribbed concrete floors comprising a joist extending crosswise of the ribs, the top of the joist supporting the under sides of the ribs, forms arranged on each side of the joist at right angles thereto and projecting above the joist between the ribs, said forms being spaced apart at their ends with the joist between them, and shields arranged over the joist and forming continuations of the forms across the spaces between their ends.

4. Apparatus for constructing ribbed concrete floors comprising a joist extending crosswise beneath the ribs, the top of the joist supporting the under sides of the ribs, floor forms arranged on each side of the joist and projecting above the joist between the ribs, said floor forms being spaced apart at their ends with the joist between them, soffit boards arranged beneath the ribs and spaced from the joist at their ends, and shields arranged over the joist and forming continuations of the floor forms across the spaces between their ends, said shields having portions underlying the bottoms of the ribs and resting upon the top of the joist for bridging the spaces between the ends of the soffit boards.

5. Apparatus for constructing ribbed concrete floors comprising a joist extending crosswise of the ribs, the top of the joist supporting the under sides of the ribs, floor forms arranged on each side of the joist and projecting above the joist between the ribs, stringers for supporting the ends of said floor forms, and means for removably securing said stringers to said joist, said means being arranged over the joists in the spaces between the ribs.

[Claims 6 to 12 not printed in the Gazette.]

1,238,859. TIRE-CHAIN LOCK. MARK A. WIGHTMAN, Prattsburg, N. Y. Filed Feb. 13, 1917. Serial No. 148,459. (Cl. 24—241.)



3. A tire chain lock, including a body portion adapted to be secured to one end of the chain, and means for receiving the other end of the chain and locking it onto the body portion said means being adapted to tighten the chain as the locking means is operated.

5. A tire chain lock, including a body portion adapted to be secured to one end of the chain, said body having a circular seat provided with a throat way and locking recesses, a locking disk rotatably mounted in the circular seat being provided with a peripheral recess, guide plates eccentrically mounted on the locking disk and having recesses coinciding with the recess in the locking disk, said guide plates serving to hold the locking disks in position in the circular recess, and a shield fulcrumed on the body portion having a resilient end for covering the throat way.

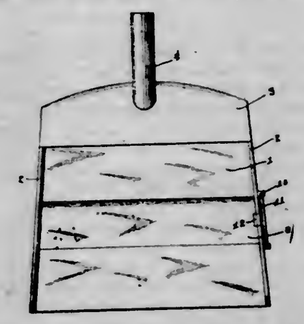
6. A tire chain lock including a body having a seat communicating with a pair of recesses, a locking member movable in the seat and adapted to receive a chain link and convey the link to one or the other of the recesses, and a guide plate mounted on the locking member for engaging and binding the link.

[Claims 1, 2, and 4 not printed in the Gazette.]

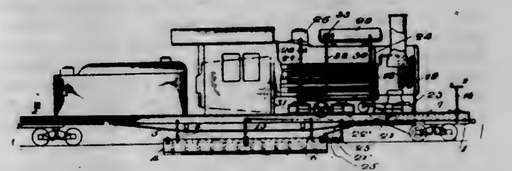
1,238,860. DUST-PAN. ALBERT W. WILLIAMS and WILLIAM O. DE KINES, St. Louis, Mo. Filed Aug. 9, 1915. Serial No. 44,576. (Cl. 65—20.)

1. A dust pan comprising a substantially flat bottom wall, two opposing side walls connected to the bottom wall, a rear wall arranged to extend over the bottom wall to provide a pocket between the latter and itself, a trough depending from the bottom wall and extending transversely thereof from side wall to side wall and arranged between said pocket and the front edge of the dust pan, said trough being closed at one end, and a slidable door [illegible] for closing the other end of the trough, whereby [illegible] and heavy particles of dust and dirt will drop to [illegible] through when brushed thereon and the larger and [illegible] particles will be carried farther back and lodged [illegible] pocket.

[illegible] dust pan comprising a bottom wall, two opposing [illegible]s and a rear wall, said bottom wall having a [illegible] opening therein extending from side wall to side wall and intermediate the back wall of the front edge of said bottom wall, a trough member depending from the edges of said opening, guide members carried at one end of the trough, and an end wall for the trough slidably disposed in the guide members to provide a door for opening and closing the trough so as to facilitate emptying of the latter, the other end of the trough being closed.



1,238,861. WEED-DESTROYER. HARRY M. WILLIAMS and JOHN W. DEAN, Little Rock, Ark. Filed June 25, 1917. Serial No. 176,759. (Cl. 104—58.)



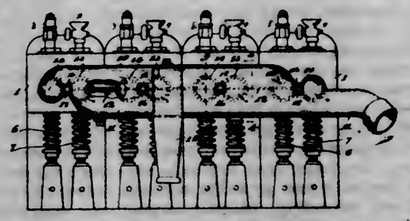
1. In a device of the class described, a body mounted upon wheels, means for projecting downwardly therefrom jets of fluid, and means for superheating said fluid before reaching said projecting means, substantially as described.

3. A device of the class described comprising a body mounted upon wheels, hingedly mounted depending plates arranged transversely thereof and means intermediate said plates for projecting jets of superheated fluid downwardly, substantially as described.

7. A device of the class described comprising a body mounted upon wheels a boiler, means for propelling said wheeled body, an air tank, a superheater, means on said body for projecting jets of superheated fluid downwardly and means for connecting said boiler or said air tank to said superheater as desired, substantially as described.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,238,862. MOTOR-CAR MANIFOLD. MARTIN L. WILLIAMS, South Bend, Ind., assignor, by mesne assignments, to Gillette Motors Company, Chicago, Ill., a Corporation of West Virginia. Filed Aug. 4, 1913, Serial No. 782,812. Renewed Feb. 8, 1917. Serial No. 147,492. (Cl. 123—52.)



1. In a gas engine, the combination with a plurality of cylinders, of a manifold construction therefor com-

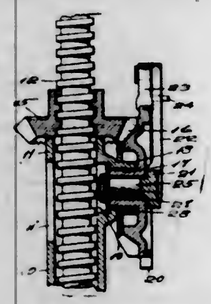
prising inlet and exhaust manifolds lying along side of each other and divided by a partition wall, conduits leading alternately from the intake and exhaust manifolds to the inlet and exhaust ports of the cylinders, lying substantially in the same horizontal planes and formed by staggering said partition wall.

2. In a gas engine, the combination with a plurality of cylinders, of a manifold construction therefor comprising inlet and exhaust manifolds lying alongside of one another and divided by a single partition wall, conduits arranged in pairs adjacent each other and leading alternately from the intake and exhaust manifolds to the inlet and exhaust ports of the cylinders, said conduits lying in the same horizontal planes and formed by staggering the single partition wall.

3. In a gas engine, the combination with a plurality of cylinders, of a manifold construction therefor, comprising inlet and exhaust manifolds lying alongside of one another and divided by a single partition wall, conduits leading to the intake manifold and conduits leading to the exhaust manifold, said conduits being formed by staggering the single partition wall.

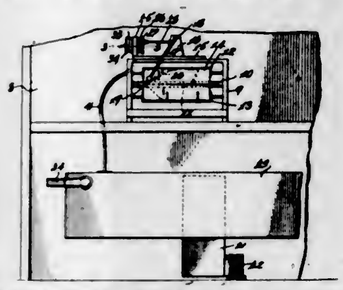
4. The combination with an internal combustion engine provided with a plurality of cylinders having valve controlled inlet and exhaust ports, of a manifold associated with the cylinders and arranged at one side of the same and comprising elongated inlet and exhaust chambers lying along side of each other, the major portions of their walls being non-opposed and exposed to the atmosphere and their minor portions throughout the major portions of their length being in close-juxta-position, whereby heat will be transferred from the exhaust to the mixture within the inlet chamber, said manifold having a plurality of inlets and outlets leading from the non-opposed sides of said chambers, said inlets and outlets being substantially in alinement and coöperating with the valve controlled inlet and exhaust ports of the engine cylinders.

1,238,863. JACK. LE ROY WILLOUR, Ashland, Ohio, assignor to The Ashland Products Co., Ashland, Ohio, a Corporation of Ohio. Filed Mar. 14, 1917. Serial No. 154,858. (Cl. 254—103.)



In a jack of the character described; the combination with a hollow standard provided near its upper end with an approximately horizontal bearing-sleeve cast integral therewith, said standard having an interior chamber at the base of the bearing-sleeve, forming therewith an interior shoulder; a lift screw mounted to move longitudinally within the hollow standard; an approximately horizontal bevel-gear carried by the screw and adapted to effect its longitudinal movement; an approximately vertical bevel-gear having an inwardly projecting tubular hub formed integral therewith and entering the bearing-sleeve to be pivotally supported thereby; an operating lever arranged outwardly of and near the approximately vertical bevel-gear, and having a stub-shaft formed integral therewith and pivotally mounted within the tubular hub and projecting inwardly beyond the same; and a member carried by the inner end of the stub-shaft, arranged within the interior chamber, and extending radially outwardly beyond the tubular hub and disposed to contact with the interior shoulder thus serving to retain the stub-shaft in place.

1,238,864. EXPRESSION-INDICATOR FOR MUSICAL INSTRUMENTS. LUMAN B. WING, Brooklyn, N. Y. Filed Nov. 11, 1916. Serial No. 130,689. (Cl. 84—48.)



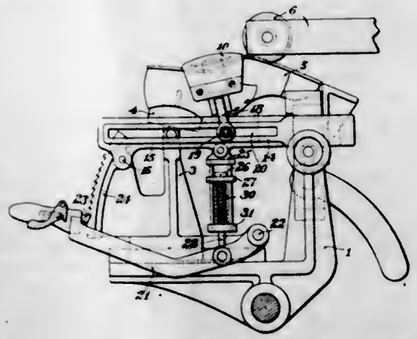
1. In an automatic musical instrument, the combination with the exhaust bellows, of a traveling music-sheet, an indicator movable laterally with respect to the sheet, and a plurality of coacting contractible means each under different spring tensions connected with said indicator and said bellows whereby varying air tension in said bellows moves the indicator across the sheet.

2. In an automatic musical instrument, the combination with the exhaust bellows, of a traveling music-sheet having an expression line thereon, an indicator movable laterally with respect to the sheet to follow said expression line, and a plurality of coacting contractible means each under different spring tensions connected with said indicator and said bellows whereby varying air tension in said bellows moves the indicator across the sheet.

3. In an automatic musical instrument, the combination with the exhaust bellows, of a traveling music sheet, an indicator movable laternlly with respect to the sheet, a resiliently contractible pneumatic connected with said indicator, a second resiliently contractible pneumatic communicating with said first pneumatic and said exhaust bellows, whereby varying air tension in said bellows moves the indicator across the sheet.

[Claims 4 to 10 not printed in the Gazette.]

1,238,865. LEVELING-MACHINE. ERASTUS E. WINKLEY, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Nov. 12, 1914. Serial No. 871,706. (Cl. 12—34.)



1. A leveling machine, comprising a shoe supporting jack having a toe post and a heel post, a strap arranged to engage with the shank portion of a shoe sole, an actuating member, and connections between the shank strap and the actuating member having provision for adjustment in a direction lengthwise of the jack.

2. A leveling machine, comprising a shoe supporting jack having a toe post and a heel post, a pressure bar, a shank strap connected to the pressure bar and adjustable lengthwise of the bar, means for securing the shank strap in adjusted position on the bar, and means for locking the bar in an operative position to press the strap in engagement with the sole.

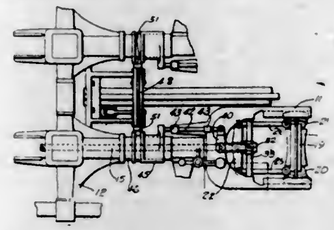
3. A leveling machine, comprising a shoe supporting jack comprising a toe post and a heel post, a shank strap, a pressure bar fulcrumed at its rear end upon the heel post, an actuating lever fulcrumed at its front end upon the heel post, and yielding connections between the actuating lever and pressure bar.

4. A leveling machine, comprising a shoe supporting jack comprising a toe post and a heel post, a slotted bar pivoted upon the jack, a shank strap passing over the shoe sole and adjustably connected to the bar, having provision for movement lengthwise of the bar and means for securing the shank strap in adjusted position on the bar.

5. A leveling machine, comprising a shoe supporting jack comprising a toe post and a heel post, a pivoted bar, a shank strap connected to the bar, an actuating lever, and yielding connections between the actuating lever and bar.

[Claim 6 not printed in the Gazette.]

1,238,866. LEVELING-MACHINE. ERASTUS E. WINKLEY, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 8, 1916. Serial No. 96,076. (Cl. 12—34.)



1. A sole leveling machine, having, in combination, a leveling roll, a shoe supporting jack, means for changing the relative longitudinal position of the roll and jack, and mechanism for automatically inclining the roll relative to the direction of travel constructed and arranged to position the roll with the axis of rotation substantially parallel to the ball line when the roll passes thereover.

2. A sole leveling machine, having, in combination, a leveling roll, a shoe supporting jack, means for changing the relative longitudinal position of the roll and jack, and mechanism for automatically inclining the roll relative to the direction of travel during the continued movement of the roll lengthwise of the shoe sole constructed and arranged to position the roll with the axis parallel to the ball line when the roll passes thereover.

3. A sole leveling machine, having, in combination, a leveling roll, a shoe supporting jack, mechanism for changing the relative longitudinal position and lateral inclination of the roll and jack, and mechanism for automatically inclining the roll in opposite directions relative to the direction of travel when operating upon opposite sides of a shoe sole constructed and arranged to position the roll with the axis substantially parallel to that portion of the ball line engaged by the roll as it passes thereover.

4. A sole leveling machine, having, in combination, a leveling roll, a shoe supporting jack, means for changing the relative longitudinal position of the roll and jack, a rotary cam, and operative connections between the cam and roll for automatically inclining the roll relative to the direction of travel to position the roll with the axis substantially parallel with the ball line when the roll passes thereover.

5. A sole leveling machine, having, in combination, a leveling roll, a shoe supporting jack, means for oscillating the jack, a roll carrying head, means for reciprocating the roll in the head, and mechanism for automatically inclining the roll relative to the head constructed and arranged to position the roll with the axis parallel to the ball line of the shoe when passing thereover.

[Claims 6 to 8 not printed in the Gazette.]

1,238,867. BRAKE-SHOE. CHARLES N. WINTER, Roanoke, Va., assignor to The American Brake Shoe and Foundry Company, Wilmington, Del., a Corporation of Delaware. Filed July 9, 1917. Serial No. 179,345. (Cl. 188—82.)

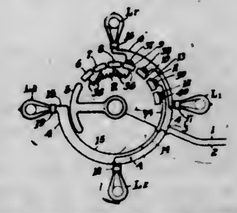


1. A brake shoe consisting of a cast metal body, a reinforcing back anchored thereto having upturned ends located at the extreme ends of the body of the shoe, and end stops formed of the cast metal of the body of the shoe lying wholly in front of and abutting against said upturned ends.

2. A brake shoe consisting of a cast metal body, a reinforcing back anchored thereto and provided with upturned ends at the ends of the body of the shoe, said reinforcing back provided with openings adjacent said upturned ends, the cast metal of the body of the shoe extending through said openings, abutting against said upturned ends and forming end stops.

3. A brake shoe consisting of a cast metal body, a reinforcing back therefor having upturned ends located at the extreme ends of the cast body of the shoe, said reinforcing back provided with transversely elongated openings adjacent said upturned ends, and end stops abutting against and projecting in front of said upturned ends, said end stops formed of the cast metal of the body of the shoe projecting through said openings.

1,238,868. ELECTRIC-LIGHTING APPARATUS. CHARLES WIRT, Philadelphia, Pa., assignor to Wirt Company, Philadelphia, Pa., a Corporation of Maine. Filed Jan. 5, 1915. Serial No. 551. (Cl. 171—97.)



1. A regulable lamp cluster comprising a support, a plurality of lamps, holders carried by said support, lamps for said holders, resistance conductor and a plurality of contact bars embedded in insulating material, a plurality of said contact bars connecting with said resistance, a lamp connected with said resistance, the remainder of said contact bars connecting with the remainder of said lamps, and relatively movable contact mechanism adapted to engage said contacts to vary the resistance in the circuit of a lamp and to bring the remainder of said lamps successively into circuit.

2. A regulable lamp cluster comprising a support, a plurality of lamp holders carried by said support, a resistance conductor, a series of contacts part of which are connected with said resistance conductor and others with said lamps, and relatively movable contact mechanism for engaging said contacts in succession and a plurality of them simultaneously.

3. A resistance conductor and a plurality of contact bars embedded in insulating material, a plurality of said bars connected to said resistance, said contact bars extending through said insulating material and forming con-

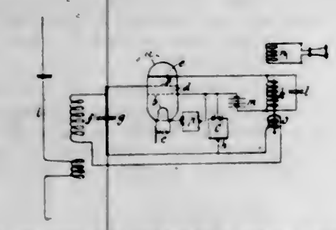
tacts at one end and some of said bars having connectors at the other end, relatively movable contact mechanism adapted to engage the contact ends of said bars, and a plurality of lamps, said contact mechanism controlling the circuit of part of said lamps directly and of the remainder through said resistance.

4. A resistance conductor and a plurality of contact bars embedded in insulating material, a plurality of said bars connected to said resistance, said contact bars extending through said insulating material and forming contacts at one end and some of said bars having connectors at the other end, relatively movable contact mechanism adapted to engage the contact ends of said bars, a plurality of lamps, a supply circuit connection to one terminal of each of said lamps, the other terminals of said lamps connecting with said connector ends of said bars, and a supply circuit connection to said contact mechanism.

5. The combination with an electric lamp, of a stationary mass of insulating material, a resistance conductor embedded in said mass, a plurality of contact bars embedded in said mass, connections from a plurality of said bars to said resistance conductor, a rotatable contact controlling the circuit of said lamp and adapted to engage said bars, a cord actuated member attached to said rotatable contact, and a shell member inclosing said cord actuated member and said contact in a chamber formed by said shell member and said insulating material.

[Claims 6 to 9 not printed in the Gazette.]

1,238,869. VALVE-RECEIVER FOR WIRELESS SIGNALS. GEORGE MAURICE WRIGHT, London, England, assignor to Marconi Wireless Telegraph Company of America, New York, N. Y., a Corporation of New Jersey. Filed Mar. 13, 1917. Serial No. 154,579. (Cl. 250—27.)



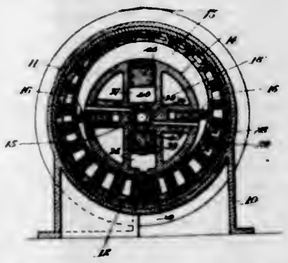
1. A vacuous tube containing a heated filament, a grid of coarse mesh, a second grid of fine mesh disposed between the first mentioned grid and the filament, an anode, an oscillatory circuit connected to the filament and the coarse mesh grid, and a second oscillatory circuit connected to the fine mesh grid and to the anode.

2. A vacuous tube containing a heated filament, a grid of coarse mesh, a second grid of fine mesh disposed between the first mentioned grid and the filament, an anode, an oscillatory circuit connected to the filament and the coarse mesh grid, and a second oscillatory circuit containing a high potential battery, connected to the fine mesh grid and to the anode.

3. A vacuous tube containing a heated filament, a grid of coarse mesh, a second grid of fine mesh disposed between the first mentioned grid and the filament, an anode, an oscillatory circuit connected to the filament and the coarse mesh grid, and a second oscillatory circuit containing a high potential battery, connected to the fine mesh grid and to the anode, the two circuits being inductively coupled exterior of said tube.

4. A vacuous tube containing a heated filament, a grid of coarse mesh, a second grid of fine mesh disposed between the first mentioned grid and the filament, an anode, an oscillatory circuit connected to the filament and the coarse mesh grid, and a second oscillatory circuit containing a high potential battery, connected to the fine mesh grid and to the anode, the two circuits being inductively coupled exterior of said tube, and electrically connected to each other through a battery shunted by a resistance.

1,238,870. ROTARY ENGINE. BENJAMIN F. AUGUSTINE, Buffalo, N. Y. Original application filed July 29, 1912, Serial No. 712,136. Divided and this application filed Dec. 8, 1915. Serial No. 65,774. (Cl. 121—74.)



1. The combination of a cylinder, an abutment in the cylinder having a cylindrical chamber therein, a rotatable piston carrier mounted in said chamber, pistons slidable on the carrier, means for supplying an operating fluid to said chamber to rotate said piston carrier, caps secured to the rotatable piston carrier and telescoping with the ends of the abutment, the exterior of the abutment being constructed to provide fluid receiving pockets between the caps and the abutment, the abutment having ports leading into said pockets, and valves disposed in said ports.

2. A rotary engine including in combination, an abutment having a cylindrical chamber therein, a rotatable member in said chamber, caps connected to said rotatable member and having running contact with the abutment, means for supplying an operating fluid to said chamber for operating the rotatable member, said abutment having pockets formed in its outer face, and valved passages leading from the interior of the abutment to said pockets and operable to permit passage of fluid from said chamber to said pockets and to prevent escape of fluid from the pockets back into the chamber so as to provide and maintain a lubricant support upon which the caps revolve.

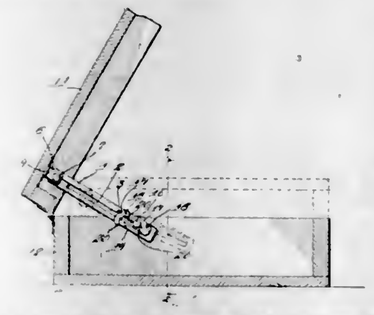
3. The combination of a cylinder, an abutment mounted in the cylinder and having a cylindrical chamber therein, a rotatable member within said chamber, means for supplying an operating fluid to said chamber to rotate the rotatable member, means for utilizing a portion of the operating fluid to create an opposing force on said rotatable member substantially equal to the non-rotating force of the operating fluid against said rotatable member to counterbalance the same, and valved passages between the cylinder and the means for utilizing a portion of the operating fluid for creating the opposing force on said rotatable member.

4. The combination of a cylinder, an abutment in the cylinder having a cylindrical chamber therein, a rotatable piston carrier mounted in said chamber, caps connected to the carrier and telescoping with the ends of the abutment, the abutment and the caps being constructed to provide fluid receiving pockets between the caps and the abutment, and a plurality of independent valved ports establishing communication between said chamber and said pockets to permit passage of fluid from the chamber to said pockets and to prevent escape of fluid from the pockets back into the chamber.

5. The combination of a fixed member having a cylindrical chamber therein, a rotatable member within the fixed member, means for supplying an operating fluid to said chamber to operate the rotatable member, a fluid pressure means to oppose and counterbalance the non-rotating forces of the operating fluid on said rotatable member, and valved passages between the cylinder and said opposing fluid pressure means.

1,238,871. DEVICE FOR HOLDING A COVER OR CHEST-LID. CLARENCE DAVID BARTRAN, Laurel, Miss. Filed Jan. 29, 1916. Serial No. 75,104. (Cl. 217—60.)

1. In a device of the class described, the combination of a support, a stud carried by said support, a lid hingedly mounted upon said support, a bracket carried by said lid, a slide pivotally mounted upon said bracket, said slide provided with a longitudinally extending slot, said stud extending through said slot, said slide provided with a plurality of notches communicating with said slot, each notch having a side extending at a right angle to the upper edge of said slot and an outwardly extending slanting side with respect to the upper edge of said slot, whereby when the stud rests within a selected notch the side of the notch which extends at a right angle to the edge of the slot will bear against the stud for holding said slide against accidental movement whereby the lid will be retained in a set position, the slanting side of the notch permitting the withdrawal of the stud from the notch by the riding of the slide upon the stud, and dogs pivotally mounted upon said slide, said dogs being bent intermediate their ends so as to cause their ends to frictionally bear upon the side portions of said slide, whereby said dogs will be retained in set positions against accidental displacement, said dogs being normally positioned so as to permit said stud to pass into a selected notch as said slide is moved over said stud, said dogs being adapted to be automatically swung by said stud as said slide is being again moved over said stud when said lid or frame is being moved to a closed position.



2. In a device of the class described, the combination of a support, a stud carried by said support, a lid hingedly mounted upon said support, a bracket carried by said lid, a slide pivotally mounted upon said bracket, said slide provided with a longitudinally extending slot, said stud extending through said slot, said slide provided with a plurality of notches communicating with said slot, each notch having a side extending at a right angle to the upper edge of said slot and an outwardly extending slanting side with respect to the upper edge of said slot, whereby when the stud rests within a selected notch the side of the notch which extends at a right angle to the edge of the slot will bear against the stud for holding said slide against accidental movement, whereby the lid will be retained in a set position, the slanting side of the notch permitting the withdrawal of the stud from the notch by the riding of the slide upon the stud, dogs pivotally mounted upon said slide, said dogs being elongated and having pockets formed in their lower portions, thereby forming tripping ends, one dog being pivotally secured adjacent each notch above said slot, said dogs having their upper ends positioned above the slot and their lower tripping ends extending beside said slot when the lid is in a closed position, whereby the pockets of said dogs will be clear of the notches of said slide thereby allowing the stud to move into a selected notch as the lid is being swung to a closed position, and said slide is being drawn along said stud, said stud being adapted to engage the lower tripping end of each dog as said slide is moved over said stud and said stud continues to move past the [illegible] whereby the engagement of the stud with the [illegible] tripping ends of said dogs will cause the dogs to [illegible] upwardly at their upper ends across said slot, [illegible] when it is desired to move said lid to a closed [illegible] said slide may be passed over said stud without [illegible] passing into one of said notches because upon [illegible] ment of the slide to a position where the stud [illegible] notch the dog adjacent the notch will engage the stud and as the dog is swung upwardly at its free end said stud will be directed past the notch until finally the stud has passed the notch, at which time the engagement of the stud with the upper end of the dog will swing the dog upwardly so as to cause the dog to move high enough to free the notch, whereby upon the next movement of the slide in the opposite direction the stud may pass into the notch without interference from the dog.

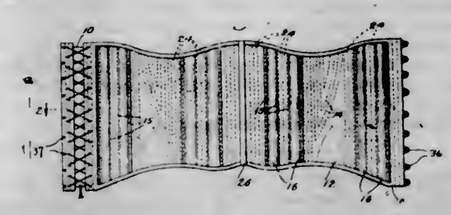
3. In a device of the class described, the combination of a supporting body, a plate carried upon said body, a stud extending from said plate and having a head formed upon its outer end, a lid hingedly mounted upon said body, a bracket fixedly secured to said lid, a slide pivotally secured to said bracket and being provided with a longitudinally extending slot, said slide being further provided with notches communicating with said slot, said stud extending through said slot and being adapted to fit within one of said notches for retaining said lid in an open position when so desired, elongated dogs pivotally mounted off-center upon said slide, said dogs having pockets formed in their lower portions, thereby forming upper and lower tripping ends, said tripping ends being adapted to be engaged by said stud as said slide is moved over said stud into one of said pockets, whereby said dogs will protect said notches so as to prevent the stud from passing into one of said notches as the lid is being moved to a closed position and as said slide is being moved downwardly over said stud, said stud being further adapted to swing said dogs so that upon the upward movement of the slide the stud may move into a desired notch without interference from said dogs, said dogs being bent intermediate their ends so as to cause the ends to frictionally bear upon the side surface of said slide for frictionally retaining said dogs in adjusted set positions.

4. In a device of the class described, the combination of a box having a pivotally mounted lid, a slide pivotally mounted upon said lid, said slide having a slot, said slide having a notch communicating with said slot, a stud carried by said box and projecting through said slot, and a dog pivotally mounted upon said slide adjacent said notch and protruding over said slot, said dog being bent intermediate its ends, whereby its ends will frictionally bind upon said slide for holding said dog against accidental movement.

5. In a device of the class described, the combination of a box having a pivotally mounted lid, a slide pivotally mounted upon said lid, said slide having a slot, said slide having a notch communicating with said slot, a stud carried by said box and projecting through said slot, and a dog pivotally mounted upon said slide adjacent said notch and protruding over said slot, said dog having a notch formed therein thereby forming tripping ends, whereby said stud will engage said ends at intermittent intervals for swinging said dog.

[Claim 6 not printed in the Gazette.]

1,238,872. RADIUM-APPLICATOR. JOHN B. E. BELL, Iola, Colo. Filed June 18, 1915. Serial No. 34,834. (Cl. 128—3.)



A medicinal applicator comprising a fabric adapted to be placed on the body, said fabric having pockets formed therein spaced a material distance apart, radium-bearing mineral being contained in said pockets, and a sheet of lead 17 attached to said fabric and extending

from one pocket to the other on the outer side of said fabric and of said mineral, whereby emanations pass from said mineral to said lead and diffused emanations pass from said lead into the body.

1,238,873. METHOD OF PURIFYING RAW WOOL. GEORGE HILLARD BENJAMIN, New York, N. Y. Filed May 4, 1916. Serial No. 95,350. (Cl. 87—6.)

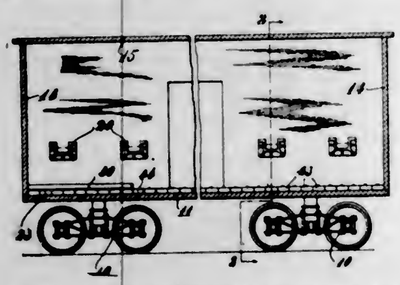
1. The method of purifying raw wool, which consists in first, removing the wool grease by the successive solvent action of a heated oil and of a mixture of benzol and carbon tetrachlorid, and second, the remaining matters by the action of transmitted air currents.

2. The method of purifying raw wool, which consists in first, removing the wool grease by the successive solvent action of a heated oil and of a mixture of benzol and carbon tetrachlorid, and second, the remaining matters by the action of transmitted and heated air currents.

3. The method of purifying raw wool, which consists in first, removing the wool grease by the successive solvent action of a heated oil and of a mixture of benzol and carbon tetrachlorid in the approximate proportions of 90% of the former and 10% of the latter, and second, the remaining matters by the action of transmitted air currents.

4. The method of purifying raw wool, which consists in first, removing the wool grease by the successive solvent action of a heated oil and of a mixture of benzol and carbon tetrachlorid, and second, the remaining matters by the action of transmitted air currents having a range of temperature between 90° and 130° F. and a moisture content of between 25% and 75%.

1,238,874. FREIGHT-CAR CONSTRUCTION. JOSEPH C. BIELA, Chicago, Ill. Filed Feb. 2, 1917. Serial No. 146,195. (Cl. 105—15.)



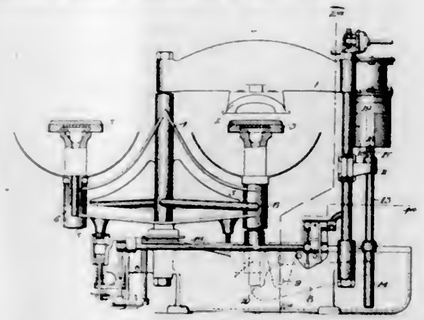
1. A composite car comprising a plurality of brackets rigidly engaged at spaced intervals to the side of the car, a plurality of transverse elements normally forming part of an auxiliary car floor, means for holding said transverse elements in position on the permanent floor, and means by which said elements may be manipulated.

3. In a composite car, the combination with a floor and the sides thereof, brackets rigidly secured at spaced intervals to the interior walls of said sides, an auxiliary floor having a removable section, said section being comprised of separate elements, means for holding said elements normally in connection with the permanent floor of said car, said elements being receptive of said brackets, and means for manipulating said removable floor elements.

[Claim 2 not printed in the Gazette.]

1,238,875. IRONING-MACHINE. GOTTLOB BINDER, Rochester, N. Y., assignor to American Laundry Machinery Company, Rochester, N. Y., a Corporation of New York. Filed May 4, 1914. Serial No. 836,368. (Cl. 68—9.)

1. In an ironing machine, the combination with a stationary bed, of a platen arranged beneath the bed and movable upwardly into engagement with the bed, a support for the platen, a pivotally mounted lever having one end operatively associated with the bottom of said support, a vertically movable frame, a link connecting said frame with the opposite end of said lever, and a fluid pressure controlled member connected to said frame.



2. In an ironing machine, the combination with a stationary bed, of a platen arranged beneath the bed and movable upwardly into engagement with the bed, a support for the platen, a pivotally mounted lever having one end operatively associated with the bottom of said support, a vertically movable frame, a link connecting said frame with the opposite end of the lever, spring controlled devices operating to hold said frame normally elevated, and a fluid pressure controlled member connected to said frame.

1,238,876. REFRIGERATOR-LATCH. HAROLD BLYE, Grand Rapids, Mich. Filed May 17, 1917. Serial No. 169,329. (Cl. 70—49.)



1. In a device of the character described, a housing, a handle pivotally mounted on the housing, an arm on the handle, said arm being provided with a laterally projecting end adapted to engage a keeper, a spring within the housing, a plate between the spring and handle normally forced toward the lever by the spring, and a roller seated in a recess on the inner side of the lever and interposed between the lever and plate, said roller being so positioned with respect to the handle that it moves across the plate on outward movement of the handle, the line of force of the spring passing across the pivotal axis of the handle, substantially as described.

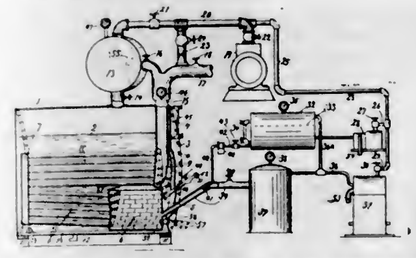
2. In a device of the character described, a pivotally mounted handle, an arm projecting from one end of the handle, said arm having a laterally extending keeper engaging end and spring means associated with the handle for holding it in either of two extreme positions between which it is adapted to move, the line of force of the spring crossing the pivotal axis of the handle as the handle moves from one position to the other.

3. In a device of the character described, a housing, spaced ears projecting from the housing, a handle pivotally mounted between said ears, an arm on the handle at the upper end thereof extending laterally and inwardly and terminating in a lateral keeper engaging end, and

mechanism within the housing associated with the handle for holding it in either of two extreme positions between which it is operable.

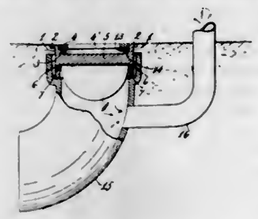
[Claims 4 to 6 not printed in the Gazette.]

1,238,877. STEAM AND GAS BOILER. BOHUMIL BOUDA, Austin, Minn. Filed Jan. 16, 1917. Serial No. 142,673. (Cl. 122—45.)



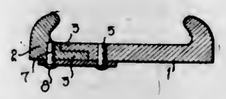
A boiler comprising an outer shell with a removable end plate and rails in the lower part of the shell, and a furnace having wheels standing upon said rails.

1,238,878. GULLET. MARCELINO BRAVO, Habana, Cuba. Filed Mar. 8, 1917. Serial No. 153,440. (Cl. 182—14.)



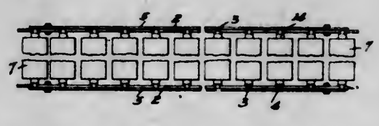
In a gullet of the character described, in combination, a cylindrical casing, a grate resting on said casing, a shaft mounted in said casing underneath of said grate, two semi-circular plates, hinges for said plates mounted on said shaft, and a helical spring wound upon the shaft with its bent ends in contact with the lower face of said plates for holding them in one and the same plane but allowing them to drop upon the trickling of water through said grate, a diametral bar of triangular cross-section integral with said casing and covering the joint between the two hinged plates, a sewer pipe supporting the gullet, and a drain pipe branching off from the sewer pipe for the draining or exhaust and escape of the sewer gases.

1,238,879. WHEEL-RIM. ELBERT BROWN, Tulare, Cal. Filed Mar. 6, 1917. Serial No. 152,819. (Cl. 152—21.)



A tire rim divided circumferentially into two sections, the adjacent margins of the sections being in overlying relation, one of said sections being of a width less than the second section, and coacting fastening means carried by said sections, said fastening means including an arm pivotally engaged with one of the sections adjacent the inner margin thereof, a stud carried by the second section in transverse alinement with the pivot of the arm, said arm being provided with a transversely directed open slot to receive said stud, and a dog pivoted to the second section and adapted to engage the arm for holding said arm in engagement with the stud, a margin of the arm adjacent the closed end of the slot being recessed to receive the free end portion of the dog when the arm is operatively engaged with the stud.

1,238,880. BALL-BEARING FOR GRAVITY-CARRIERS. HERMAN J. BUCK, Ellwood City, Pa., assignor to Mathews Gravity Carrier Company, Ellwood City, Pa., a Corporation. Filed Feb. 3, 1914. Serial No. 816,142. (Cl. 64—36.)



1. In a gravity carrier, the combination, with a rod, of a roll having an anti-friction bearing on said rod, said bearing comprising a sleeve loosely mounted on said rod, a cage carried by said sleeve and having slots to receive lugs provided on said roll for simultaneous rotary movement with said roll, said cage being capable of movement lengthwise of said roll to engage it with said lugs or disengage it therefrom, and bearing balls interposed between said cage and said sleeve.

3. In a gravity carrier, the combination, with a rod, of a tubular roll provided with open ends and having an anti-friction bearing on said rod, said bearing comprising a sleeve loosely mounted on said rod and capable of rotary and longitudinal movement thereon, a cage carried by said sleeve, means connecting said cage and said roll for simultaneous rotation, said cage being capable of movement longitudinally of said roll to engage it therewith or disengage it therefrom, and bearing-balls interposed between said cage and said sleeve.

5. In a gravity carrier, the combination with a rod, of a roll having at each end an anti-friction bearing on said rod, each bearing comprising a sleeve loosely mounted on said rod, and capable of rotary and longitudinal movement thereon, a cage carried by each sleeve, means connecting each cage with said roll for simultaneous rotation, each cage being capable of movement longitudinally of said roll to engage it therewith or disengage it therefrom, and bearing-balls interposed between each cage and the sleeve by which it is carried.

[Claims 2 and 4 not printed in the Gazette.]

1,238,881. HAT SWEAT-BAND. MAURICE A. BUCKINGHAM, Frederick, Md. Filed June 11, 1915. Serial No. 33,581. (Cl. 2—114.)

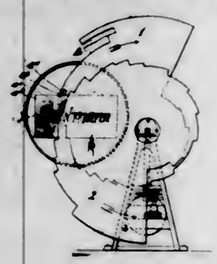


In combination with a hat having apertures formed in the band, adjacent the point of connection thereof with the hat, a plurality of short lengths of soft rubber tubing disposed in the hat and between the crown and sweat band with the openings at one of their ends in communication with the apertures of the sweat band to permit the circulation of air throughout the interior of the hat, and pneumatic cushion members which taper toward both ends from the middle, disposed between the tubing and the sweat band with the ends of said cushion members in overlapping engagement.

1,238,882. ILLUMINATED ADVERTISING APPARATUS. EMIL BUHLMANN, Jr., Dusseldorf, Germany, assignor to The Manager Will Hohner, Trossingen, Germany. Filed Sept. 9, 1913. Serial No. 788,833. (Cl. 40—130.)

1. In a device of the character described, the combination of a screen having script characters thereon compris-

ing lines; a pair of plates adapted to cover said characters, and each plate being adapted for complete, repeated, unreversed continuous rotation, at a constant speed and direction of rotation, the direction of rotation of one plate being opposite to that of the other plate; said plates being progessively cut away at their edges in opposite directions, the cuts having such shape that when said plates are simultaneously rotated with a complete, repeated, unreversed continuous rotation at a constant speed and direction, the direction of rotation of one plate being opposite to that of the other plate, the plates progressively uncover the lines of said characters substantially in the order that the lines are usually made by hand.



2. In a device of the character described, the combination of a screen having script characters thereon comprising lines; a pair of plates adapted to cover said characters, and each plate being adapted for complete, repeated, unreversed continuous rotation, at a constant speed and direction of rotation, the direction of rotation of one plate being opposite to that of the other plate; said plates being progessively cut away at their edges in opposite directions, the cuts having such shape that when said plates are simultaneously rotated with a complete, repeated, unreversed continuous rotation at a constant speed and direction, the direction of rotation of one plate being opposite to that of the other plate, the plates progressively uncover the lines of said characters substantially in the order that the lines are usually made by hand; said plates being adapted to repeatedly progressively uncover said lines and script as above stated an indefinite number of times without changing the constant speed or constant direction of the movement of either of the plates.

3. In a device of the character described, the combination of a screen having script characters thereon comprising lines; a pair of plates adapted to cover said lines, each plate being for complete, unreversed, continuous movement at a constant speed and direction, the direction of movement of one plate being opposite to that of the other plate; said plates being progressively cut away at their edges in opposite directions, the cuts having such a shape that when said plates are simultaneously moved with an unreversed continuous rotation at a constant speed and direction, the direction of movement on one plate being opposite to that of the other plate, the plates progressively uncover the lines of said script substantially in the order that they are usually made by hand.

4. In a device of the character described, the combination of a screen having script characters thereon comprising lines; a pair of plates adapted to cover said lines, each plate being for complete, unreversed, continuous movement at a constant speed and direction, the direction of movement of one plate being opposite to that of the other plate; said plates being progressively cut away at their edges in opposite directions, the cuts having such a shape that when said plates are simultaneously moved with an unreversed continuous movement at a constant speed and direction, the direction of movement on one plate being opposite to that of the other plate, the plates progressively uncover the lines of said script substantially in the order that they are usually made by hand; said plates being adapted to repeatedly progressively uncover said lines and script as above stated an indefinite number of times without changing the constant speed or constant direction of the movement of either of the plates.

5. In a device of the character described, the combination of, a screen having characters thereon; a pair of plates adapted to cover the characters; and means for rotating the plates in opposite directions; said plates being progressively cut away at their edges in opposite directions; one of said plates being provided with an arc-shaped slot between a pair of arc-shaped projections.

[Claim 6 not printed in the Gazette.]

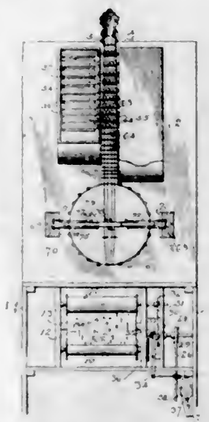
1,238,883. DENTAL TOOL FOR CLEANING TEETH. GILDEROY O. BURLEW, Newark, N. J. Filed May 22, 1914. Serial No. 840,141. (Cl. 51—1.)



1. As an improved article of manufacture a dental tool for cleaning teeth, said tool being formed of soft vulcanized rubber which furs or tears in use, and with a polishing material incorporated in the body of the structure.

2. As an improved article of manufacture a dental tool for cleaning teeth, said tool being formed of soft vulcanized rubber of an even degree of hardness throughout, with a polishing material incorporated in the body and with the body of such substance as to tear and fur under use.

1,238,884. AUTOMATIC PLAYING DEVICE FOR STRINGED INSTRUMENTS. BENJAMIN L. CARTMELL, Dayton, Ohio. Filed Apr. 23, 1915. Serial No. 23,515. (Cl. 84—222.)



1. In an automatic playing apparatus for stringed instruments, a plectrum, a bell crank on which the plectrum is carried capable of both oscillatory and reciprocatory movement in relation with its fulcrum, means for initially oscillating the bell crank to carry the plectrum into the plane of the string and thereafter reciprocating the bell crank to carry the plectrum across the string.

2. In an automatic playing apparatus for stringed instruments, a plectrum, a movable support on which the plectrum is carried capable of both oscillatory and reciprocatory movement, and means affording yielding resistance to the reciprocatory movement of the support greater than the resistance to the oscillatory movement thereof and actuating means therefor.

3. In an automatic playing apparatus for stringed instruments, a plectrum, a movable carrier therefor, a support for the carrier, a connection between the carrier and support in relation with which the carrier is capable of independent oscillatory and reciprocatory movement, an actuator for the carrier connected thereto at a point normally offset in relation with the supporting connection, and means for operatively controlling the actuator.

4. In an automatic playing apparatus for stringed instruments, a plectrum, a movable support, a pivotal connection about which the support is capable of oscillatory movement and in relation with which the support is slidingly adjustable, and means for oscillating the support about said pivotal connection and thereafter sliding the support in relation therewith.

5. In an automatic playing apparatus for stringed instruments, a plectrum, a support therefor having an elongated slot therein, a pivotal stud engaging in the elongated slot, and means for oscillating the support about the pivotal stud and thereafter sliding the support upon said stud within the limits of the slot.

[Claims 6 to 18 not printed in the Gazette.]

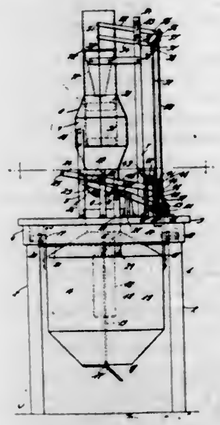
1,238,885. JUNCTION-BOX. ALBERT CHMELA, Newark, N. J., assignor to Splitdorf Electrical Company, Newark, N. J. Filed Jan. 26, 1916. Serial No. 74,420. (Cl. 247—12.)



2. In a device of the class described, the combination of two pieces of insulating material each having a depression at the center adapted to form a recess, a plurality of grooves leading outward from said recess, electrical cables adapted to lie in said grooves and to be joined together within said recess, resilient means adapted to snap over and around said pieces to normally hold said pieces together whereby when said resilient means are forced off the insulating pieces for the purpose of inspecting the joint within the recess they will be supported on said cables, and means on the exterior of said pieces for holding said resilient means in normal operative position.

[Claim 1 not printed in the Gazette.]

1,238,886. AUTOMATIC WEIGHING-MACHINE. WILLIS CLOTHIER, New Castle, Del. Filed Nov. 24, 1916. Serial No. 133,253. (Cl. 73—175.)



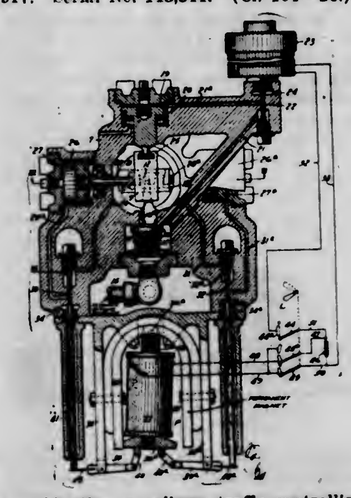
1. A weighing machine including a spout having an opening, a gate for closing said opening, and means movable by impact of the material to be weighed, said means being operative by said material prior to passing out of said opening to effect movement of said gate, substantially as described.

2. A weighing machine including a spout having an opening therein, a gate movable to close said opening, a receptacle for receiving material passing through said spout and opening, means on said receptacle for normally holding the gate open, and means operative by impact of the grain prior to passing out of said opening to move said receptacle downwardly to effect the closing movement of said gate, substantially as described.

7. A weighing machine including a spout having an opening, a gate for closing said opening, a brush, means forming a resilient support for said brush and located within the opening, said brush normally being located between the ends of the path of movement of said gate to permit the inner surface of the front edge portion of the gate to pass by the brush and to be cleaned thereby, substantially as described.

[Claims 3 to 6 and 8 to 17 not printed in the Gazette.]

1,238,887. RAILWAY-TRAFFIC-CONTROLLING APPARATUS. JOHN P. COLEMAN, Edgewood borough, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed Jan. 22, 1917. Serial No. 143,544. (Cl. 104—26.)



1. In combination, a railway traffic controlling device, a fluid pressure motor for operating said device, a valve for controlling the supply of fluid pressure to said motor, fluid pressure means for operating said valve, means for supplying fluid pressure to said first means to cause reverse operations of said valve, and polarized electromagnetic means for controlling said second means.

2. In combination, a railway traffic controlling device, a fluid pressure motor for operating said device, a valve for controlling the supply of fluid pressure to said motor, and polarized electromagnetic means for controlling said valve.

7. In combination, a railway traffic controlling device, a fluid pressure motor for operating said device, two valves for controlling the supply of fluid pressure to said motor to cause reverse movements of said device, electromagnetic means comprising a member movable to one extreme position or another according as said means is energized in one direction or the other, and connections interposed between said member and said valves for positively operating one valve or the other according as said member moves in one direction or the other, said connections being resilient to permit the member to move to its extreme position in the event that the valve positively operated by such movement reaches its operated position before the stroke of said member is completed.

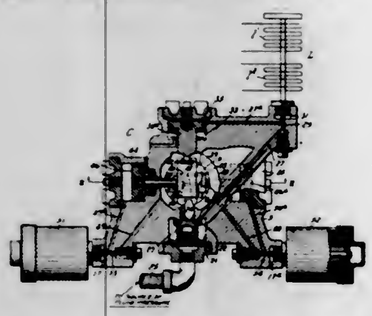
11. In combination, a fluid pressure motor device, two valves for controlling the supply of fluid pressure to said device to cause reverse movements thereof, each valve being biased to one controlling position, a U-shaped permanent magnet, a magnetizable tongue pivotally mounted adjacent the neutral portion of said magnet and having

a pole-piece movable between the two poles of said magnet, a polarizing winding on said tongue, two rocker arms each pivotally mounted intermediate its ends, a stem for each valve in operative relation to the corresponding rocker arm on one side of the pivotal point thereof, and two links each pivotally connected with said tongue and with one of said rocker arms, the pivotal point of said tongue and the two pivotal points of one or the other of said links being nearly in a straight line when the tongue is in such extreme position that the valve corresponding to such link has been operated by said tongue whereby said valve exerts very little force on said tongue tending to move the latter out of such extreme position.

21. In combination, a reversely operable fluid pressure motor, and electromagnetic means for causing operation of said motor in one direction by current of one polarity and for causing reverse operation of the motor by current of reverse polarity.

[Claims 3 to 6, 8 to 10, 12 to 20, and 22 to 28 not printed in the Gazette.]

1,238,888. RAILWAY-TRAFFIC-CONTROLLING APPARATUS. JOHN P. COLEMAN, Edgewood borough, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed Feb. 14, 1917. Serial No. 148,663. (Cl. 104—26.)



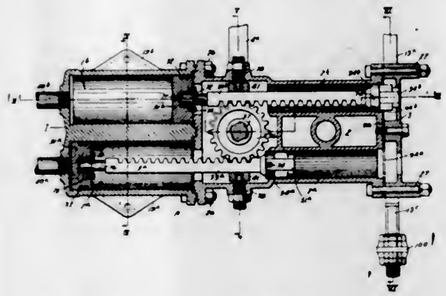
1. In combination, a railway traffic controlling device, a fluid pressure motor for moving said device, two valves controlling said motor to cause reverse movements thereof, two electromagnets, one for each valve, a lever, contacts and connections controlled thereby for energizing one electromagnet or the other, and means controlled jointly by said contacts and connections and by said motor for interrupting the supply of fluid pressure to the motor when the motor and the lever coincide in position.

5. In combination, a railway traffic controlling device, a fluid pressure motor for moving said device, two valves controlling said motor to cause reverse movements thereof, two electromagnets one for each valve, a lever, contacts and connections controlled thereby for energizing one electromagnet or the other, and a lock magnet controlled jointly by said contacts and connections and by said motor for preventing movement of said motor when the motor and the lever coincide in position.

7. In combination, a railway traffic controlling device, a fluid pressure motor for causing reverse movements of said device, a normal and a reverse valve for controlling said motor, a normal and a reverse electromagnet for controlling said two valves respectively, a normal and a reverse wire, and a common wire, one terminal of each electromagnet being constantly connected with said common wire, and the remaining terminals of said normal and reverse magnets being connected with said normal and reverse wires respectively, a source of current one terminal of which is constantly connected with said common wires, a lever, contacts controlled by said lever for connecting the normal or reverse wire with the remaining terminal of said source, a lock magnet comprising two windings, one terminal of one winding being connected with the normal wire and one terminal of the other winding being connected with the reverse wire, and contacts controlled by the motor for connecting the remaining terminal of one of said windings or the other with the common wire according as the motor is in one extreme position or the other, and for connecting both of said last-mentioned terminals with the common wire when the motor occupies an intermediate position, the winding which is thus connected with the common wire when the motor is in an extreme position being the one which is not connected with the source of current through the normal or reverse wire when the lever occupies the corresponding extreme position.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,238,889. RAILWAY-TRAFFIC-CONTROL APPARATUS. JOHN P. COLEMAN, Edgewood borough, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed May 18, 1915. Serial No. 28,840. (Cl. 104—25.)



2. In combination, a railroad traffic controlling device capable of assuming two positions, means for moving said device, said means including two racks and a pinion, and a lock rod connected to said device and adapted to be locked in one position or the other by said racks only when said means and said device occupy corresponding positions.

6. In combination, a pinion, two racks for engaging said pinion, a motor, mechanism intermediate said motor and said racks for driving said racks simultaneously in opposite directions, a railway switch operated by said pinion, and locking means for said switch controlled by said racks.

7. In combination, a railway switch, an operating rod therefor, a pinion for actuating said rod, racks engaging said pinion, a screw for propelling each rack, an electric motor, gears intermediate said motor and said screws and a lock rod for said switch adapted to be locked by said racks.

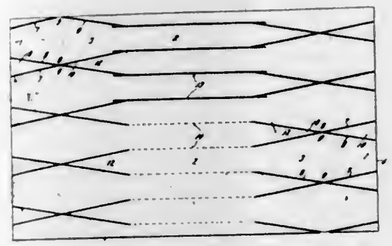
9. In combination, a railway switch, locking means operatively connected therewith and comprising two members one of which is adjustable with respect to the other, mechanism for actuating said switch, and two plungers operated by said mechanism and coacting respectively with said two members of said locking means for locking the switch in extreme positions.

[Claims 1, 3 to 5, and 8 not printed in the Gazette.]

1,238,890. SPOKE-BILLET, ART OF MANUFACTURE AND PRODUCT. RICHARD H. COLEMAN, Eunice, La. Filed Apr. 23, 1917. Serial No. 163,839. (Cl. 144—309.)

1. A method of the character disclosed consisting in making a series of approximately equal length saw cuts into the opposite cross cut ends of a rectangular wood blank and each cut diagonally to the grain of the blank, corresponding to lines arranged in intersecting pairs, and the pairs of a series in definite spaced relation, and those at one end of the blank in a staggered relation to those at the opposite end.

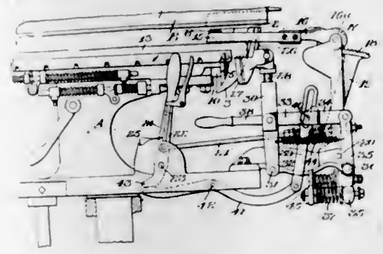
4. An article of manufacture comprising spoke billets arranged in gangs, having their spoke foot portions at opposite ends relatively alternate and united at the intermediate spoke barrel portion.



5. An article of manufacture comprising a spoke billet having miter sawed spoke foot, throat and head portions.

[Claims 2, 3, and 6 to 9 not printed in the Gazette.]

1,238,891. IRONING-MACHINE. FORREST J. COUCH, Rochester, N. Y., assignor to American Laundry Machinery Company, Rochester, N. Y., a Corporation of New York. Filed Apr. 21, 1913. Serial No. 762,492. (Cl. 68—9.)



1. In an ironing machine, the combination with a platen, of a movable presser adapted to be brought into engagement with the platen embodying a bosom board and neck-band clamping devices vertically movable and resiliently supported on the presser, the platen being extended over the neckband clamping devices having a recessed portion to receive and engage the upper surface of the neck-band clamping devices.

2. In an ironing machine, the combination with a platen, of a movable presser adapted to be brought into engagement with the platen embodying a bosom board and neck-band clamping devices vertically movable and resiliently supported on the presser, the platen having a portion arranged to engage the top of the neck-band clamping devices.

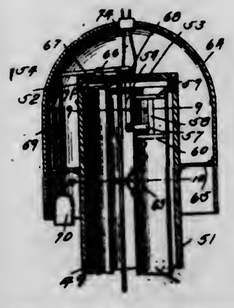
3. In an ironing machine, the combination with a relatively movable platen and presser adapted to be brought into engagement with one another, the presser embodying a bosom board, neck-band clamping devices including a resiliently supported expansible member movable bodily in a vertical direction, and a clamping ring having engagement with the expansible member.

4. In an ironing machine, the combination with a platen, of a movable presser adapted to be brought into engagement with the platen embodying a support, a bosom board movable lengthwise of the support, a pair of expanding members resiliently supported on the bosom board, and movable therewith, a neck-band engaging block resiliently mounted on the support, and a neck-band clamping ring arranged to engage said block.

5. In an ironing machine, the combination with a platen, of a movable presser adapted to be brought into engagement with the platen embodying a bosom board, neck-band clamping devices including an expansible member, and a yoke clamp arranged to engage the bosom board, the yoke clamp and expansible member being yieldable in a vertical plane relatively to the bosom board.

[Claims 6 to 15 not printed in the Gazette.]

1,238,892. SAFETY DEVICE FOR SUBMARINES. JAMES T. DAHL, Seattle, Wash. Filed Apr. 20, 1915. Serial No. 22,619. (Cl. 114—16.5.)



1. A safety device for submarines comprising a pocket adapted to be mounted within the submarine and including a releasable hinged top forming part of the hull, a reel rotatably mounted within the pocket, a buoy loosely disposed in the pocket, a tubular member on the top of the buoy, a bell engaged over the upper end of the tubular member, foul air and fresh air pipes extending through the buoy and the tubular member and having corresponding ends opening through the outer end of the tubular member, a valve for closing and opening said corresponding ends of the pipe, pneumatically operated means for holding said valve closed during the rise of the buoy to the surface of the water and for opening said valve when the buoy is disposed upon the surface of the water, said pipes being connected to the reel, and means for drawing air in the fresh air pipe and for forcing air out of the foul air pipe when the buoy is floating on the surface of the water.

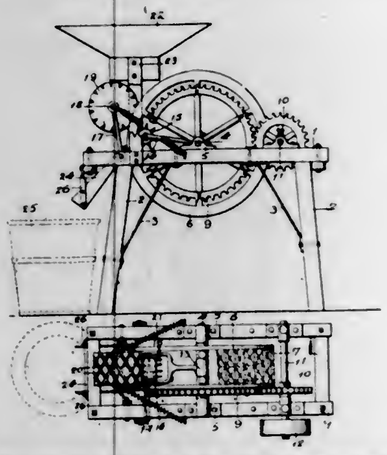
2. A safety device for submarines comprising a pocket adapted to be mounted within the submarine and including a releasable hinged top forming part of the hull, a reel rotatably mounted within the pocket and including a spindle having independent passages opening at corresponding ends of the exterior of the pocket, a buoy loosely disposed within the pocket and adapted to rise to the surface of the water when the top of the pocket is released, means for filling said pocket with water prior to the release of the top, fresh air and foul air pipes connected to the buoy and adapted to have corresponding ends disposed above the surface of the water when the buoy is released from the pocket said pipes being connected at their other corresponding ends to the spindle of the reel in communication with respective passages in said spindle and adapted to be wound upon and unwound from the reel and means for drawing air in the fresh air pipe and forcing air out of the foul air pipe when the buoy is floating on the surface of the water.

1,238,893. POWER POTATO-CUTTER. LE ROY E. DAHLEEN, Yankton, S. D. Filed Feb. 24, 1916. Serial No. 80,264. (Cl. 146—11.)

1. In a cutting machine, a rotary cylindrical supported cutter, a hopper disposed above the cutter, a roller for forcing the contents of the hopper into engagement with the rotary cutter, and a rotatable member having fingers thereon adapted to be engaged with the particles that have been cut and carry them outwardly away from the cutter.

2. In a cutting machine, a support, a rotatable cylindrical cutter mounted thereon, a hopper also mounted on the support and above the cutter, a roller also positioned on the support and below the outlet of the hopper and

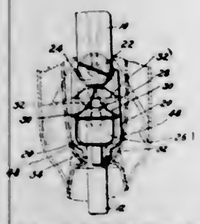
adapted to force the contents of the hopper into engagement with the cutter, and means for ejecting the particles that have been cut from the cutter.



3. In a cutting machine, a support, a rotatable cylindrical cutter mounted thereon, a hopper also mounted on the support and above the cutter, arms pivotally mounted on the support, a roller mounted in the upper extremities of the arms and below the mouth of the hopper, resilient means connected with the arms and urging the roller toward the rotary cutter, and means for ejecting the particles that have been cut from the cutter.

4. In a cutting machine, a support, a shaft mounted on the support, rotary members mounted on the shaft, cutting knives connected with the rotary members, the members having bearing arms formed upon one end thereof and its other end formed with a sleeve, which sleeve being loosely mounted upon the shaft, a rotatably mounted cylinder mounted in the bearing arms, a plurality of fingers extending radially from the cylinder adapted to engage the particles that have been cut to eject the same away from the cutting knives, and means for forcing the particles against the cutting knives.

1,238,894. HEEL-SUPPORT FOR LASTS. HERMAN A. DAVENPORT, Brockton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 12, 1916. Serial No. 71,655. (Cl. 12—126.)



1. A heel support for a last having, in combination, a last block, a spindle on the block, a spreading member pivotally mounted on the block and supported close to the spindle in a position to move outwardly across a last to spread the upper of a shoe upon the last, and means conatructed and arranged to engage the last and move relatively to the spreading member for positively forcing the spreading member away from the spindle when the last is placed on the spindle.

2. A heel support for a last having, in combination, a last block, a spindle on the block, a spreading member mounted on the block and supported close to the spindle in a position to move outwardly across a last to spread the upper of a shoe upon the last, means for positively moving the spreading member away from the spindle in close proximity to the top of the last, and teeth on the spreading member to engage the upper.

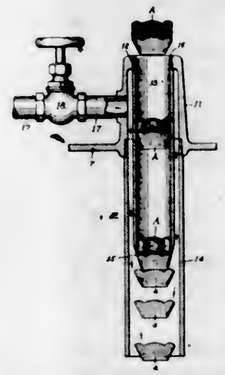
3. A heel support for a last having, in combination, a last block, a spindle fixed in the block, a spreading arm pivotally mounted at each side of the block, and a spreader actuating device for moving the arms apart.

4. A heel support for a last having, in combination, a last block, a spindle fixed in the block, a spreading arm pivotally mounted at each side of the block, means for normally holding the arms close to the spindle, and a spreader for moving the arms apart.

5. A heel support for a last having, in combination, a last block, a spindle fixed in the block, a spreading arm pivotally mounted at each side of the block, and a spreader movably mounted in the block to engage the arms and move them apart.

[Claims 6 to 8 not printed in the Gazette.]

1,238,895. NESTED-CUP SEPARATOR. ARTHUR E. DEMPSEY, Council Bluffs, Iowa. Filed Dec. 2, 1916. Serial No. 134,783. (Cl. 193—10.)



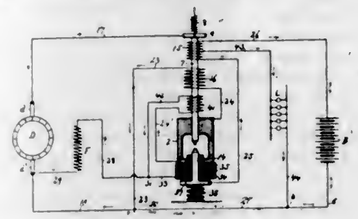
1. In a device of the class described, a feed-tube adapted to slidably transmit nested articles, an aspirator-tube surrounding the discharge end of said feed-tube and spaced therefrom, and means for supplying compressed air to said aspirator-tube to cause a suction of air through the feed-tube.

2. In a device of the class described, a receptacle having a relatively large discharge-passage opening from the upper part thereof, a feed-tube extending into said receptacle and having a mouth opening externally thereto, an aspirator-tube disposed around the inner end of the feed-tube, and means for supplying compressed air to the aspirator-tube, for the purpose set forth.

3. Means for separating nested trunco-conical cups, comprising a tube proportioned internally to slidably transmit nests of the cups, and means for directing a rapid air-current longitudinally of the tube past the end thereof to produce a suction therein and to strip the successive cups from the nest as they engage from the tube.

4. Means for separating nested paper cups, compriaing a receptacle having a relatively large discharge-passage extending from the upper part thereof, a feed-tube extending into the receptacle and adapted to slidably transmit nests of the cups, an aspirator-tube surrounding the inner portion of the feed-tube and spaced therefrom, and means for supplying compressed air to the aspirator-tube so that said air is discharged into the receptacle past the inner end of the feed-tube, thereby causing a suction of air through the latter and delivering to the receptacle a volume of air sufficient to blow the separated cups therefrom through said discharge-passage.

1,238,896. AUTOMATIC REGULATOR FOR COMBINED DYNAMO AND STORAGE-BATTERY CIRCUITS. ALBERT E. DOMAN, Elbridge, N. Y., assignor, by mesne assignments, to Dyneto Electric Corporation, Syracuse, N. Y., a Corporation of New York. Filed Sept. 9, 1911. Serial No. 648,587. (Cl. 171—313.)



1. In combination with a variable speed dynamo having a shunt field winding, a pressure-controlled variable electric resistance in series with said winding, normally separated coöperative contacts for controlling said pressure, a voltage coil connected in the dynamo circuit for closing one contact against the other contact, a storage battery having one pole connected to the dynamo and its other pole connected to said other contact, the last-named connection including therein a current coil coöperating with the first-named contact to assist the voltage coil in holding the contacts closed with greater pressure to increase said resistance when the current of the dynamo exceeds a definite value, and a translating device connected across the dynamo and battery circuits from a point intermediate the ends of said current coil so that when the contacts are closed and the voltage of the dynamo exceeds that of the battery, parts of the dynamo current may charge the battery and operate the translating device, or if the contacts are open, the translating device may be operated by the battery through the included portion of the current coil.

4. The combination with a storage battery and a charging circuit therefor, including a variable speed dynamo and a shunt field winding, of a normally open circuit closer and an electro-magnetic coil, both connected in series in one side of the charging circuit, said coil being arranged to exert its magnetic influence toward closing the circuit closer when energized by the dynamo, a translating device connected from a point intermediate the ends of said coil across the charging circuit, a separate coil connected across said circuit between the circuit closer and dynamo and arranged to exert its influence to close said circuit closer prior to the energizing of the first-named coil, and a variable resistance device electrically connected to said circuit in series with the shunt field winding of the dynamo and controlled by the circuit closer to increase such resistance as the current strength in the coils increases.

[Claims 2, 3, and 5 not printed in the Gazette.]

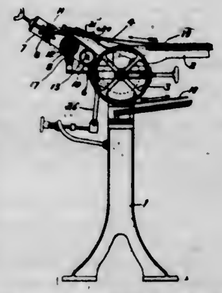
1,238,897. WAXED-PAPER-CLEANING MECHANISM FOR CONFECTIONERY-MACHINES. OTIS EMERSON DUNHAM, Beverly, Mass. Filed May 9, 1917. Serial No. 167,577. (Cl. 107—7.)

1. In a plaque-cleaning machine, the combination, with an endless belt, of means for making a sharp transverse bend in said belt, forming a narrow transverse ledge, and cleaning means disposed in proximity to said ledge.

2. In a plaque-cleaning machine, the combination, with an endless belt, of means for making a sharp transverse bend in said belt, forming a narrow transverse ledge, and a cleaning brush disposed in proximity to said ledge.

3. In a plaque-cleaning machine, the combination, with an endless belt, of means for making a sharp transverse bend in said belt, forming a narrow transverse ledge, cleaning means disposed in proximity to said ledge, and resilient means disposed above said belt, in proximity to said ledge, for pressing the plaques against said belt as they approach said ledge.

8. In a plaque-cleaning machine, the combination, with an endless belt, of means for making a sharp transverse bend in said belt, forming a narrow transverse ledge, cleaning means disposed in proximity to said ledge, and auxiliary cleaning means disposed beneath said belt and bearing thereagainst.



10. In a plaque-cleaning machine, the combination, with an endless belt, of means for making a sharp transverse bend in said belt, forming a narrow transverse ledge, cleaning means disposed in proximity to said ledge, auxiliary cleaning means disposed beneath said belt and comprising a cleaning-roller bearing thereagainst, and a stationary brush bearing against the periphery of said cleaning-roller.

[Claims 3, 4, 6, 7, and 9 not printed in the Gazette.]

1,238,898. DISPLAY DEVICE FOR VEILING AND THE LIKE. GEORGE T. EAGER, Ridgewood, N. J. Filed May 31, 1916. Serial No. 100,775. (Cl. 211—34.)



1. A display device for veiling and the like, comprising a slide adapted to be slidably inserted in a bolt and having an aperture therein, said slide having provisions for receiving a sample of the veiling and for permanently displaying the same over an aperture therein of such dimensions and contour as to permit a human visage to be inspected therethrough, whereby a person may determine the appearance of the veiling when the same is placed in front of a face, and said slide having a back-ground portion adjacent the window aperture to permit an inspection of the veiling against a background, said window aperture and background being relatively so disposed as to permit of concurrent inspection through the window and against the background.

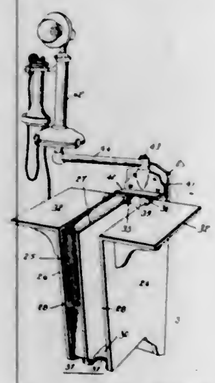
2. A display device for veiling and the like, comprising a slide adapted to be inserted within a bolt carrying a veiling, said slide having an opaque back portion against which the veiling may be inspected and a window aperture through which the veiling may be inspected, said slide having provision to secure the said veil in adjustment over the opaque back portion and window aperture.

3. A display device for veiling and the like, comprising a veil displaying slide adapted to be slid within the bolt carrying the veiling, said slide having an opaque back portion having a representation of a face thereon over which a sample of veiling may be inspected and a window aperture in said slide through which the veiling may be inspected.

4. A display device for veiling and the like, said device comprising, in combination, a member having provision to receive and retain a sample of veiling, a window aperture in said member through which the veiling carried by the member may be inspected, and an opaque back-ground portion on said member and adjacent the window aperture against which the veiling may be inspected, said window aperture and background being relatively so disposed as to permit of concurrent inspection through the window and against the background.

5. A display device for veiling and the like, comprising a slide adapted to be inserted in and removed from a bolt carrying the veiling, said slide having a back portion and a front portion, said back portion having an opaque portion and a window aperture, and the front portion having a window aperture exposing the opaque portion and the aforesaid window in the back portion, said front and back parts of the slide being adapted to receive a piece of veiling therebetween whereby said veiling may be inspected against a background and in front of a mirror substantially as described.

1,238,899. BOOK-HOLDER. OTTO E. ENELL, Jersey City, N. J., assignor, by mesne assignments, to Telephone Directory Cabinet Company, Incorporated, New York, N. Y. Filed Dec. 16, 1914. Serial No. 877,470. (Cl. 45—58.)



1. A device of the character described including rests in vertical alinement with a depending pocket open at top and in front to receive a book when closed, and means for flexibly attaching the latter at its upper inner corner rearwardly of said pocket, permitting the book to be swung up and spread open over the rests.

2. A device of the character described including means for supporting a book in an open condition, spaced members depending intermediately of said supporting means adjacent the sides of the book when closed, the back of the book being turned toward the rear of said members and a movable connection between the upper corner of the back of the book and the rear of said supporting means, permitting the book to be withdrawn forwardly and upwardly to be spread open with its back over the space between the members.

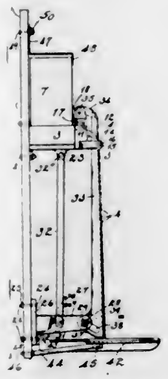
3. A device of the character described including side pieces spaced apart to form a continuous gap in front and at the top adapted to receive a closed book, rests projecting outwardly in opposite directions from the upper part of said side pieces in position to support the book when open, and anchoring means flexibly connecting the upper inner corner of the book in rear of said gap.

4. A book-holder comprising rests separated by a slot and adapted to support a book when open, side pieces depending from the inner edges of said rests spaced to form a gap continuous with said slot affording a pocket for the closed book, and means for pivoting the book at the upper inner corner thereof in the rear of said pocket, permitting its insertion in the combined slot and gap or withdrawal therefrom.

5. A book-holder comprising a divided support adapted to sustain a book in an open condition, side pieces depending from adjacent edges of said support spaced to form a pocket for the book when closed the back of the book being in substantial parallelism with the rear of the pocket, a backing piece constituting a rear closure for the latter projecting thereabove to afford a means of attachment, and means forming a movable connection between the upper corner of the book's back and said backing piece enabling the book to be swung upwardly out of the pocket onto the divided support with its back directly over said pocket.

[Claims 6 to 9 not printed in the Gazette.]

1,238,900. HOG-OILER. GEORGE W. ERICSON, Galesburg, Ill., assignor to William E. Hamerstrom, Galesburg, Ill. Filed July 29, 1915. Serial No. 42,589. (Cl. 119—157.)



1. Combined in an animal oiler, a source of liquid-supply having an outlet immediately above its bottom, a valve-casing communicating therewith and having an outlet, the latter arranged in a higher horizontal plane than the former, a valve fitting snugly in the casing and having an axial opening extending from its top almost to its bottom and adapted to contain a charge of liquid, and having also a transverse inlet and a transverse outlet, the former normally communicating with the source of liquid supply, the bottom of the valve adapted to rise above the first recited outlet, and means actuable by an animal whereby to cause said valve to rise and to discharge the liquid contained in its axial opening into the outlet in the valve casing.

7. A device of the character described including in combination, a support having a receptacle for holding liquid, a rubbing member having an inclined slot at its lower end, a pin connected to said support and passing through said slot whereby the rubbing member has a slidable and pivotal connection with said support whereby it may be raised and swung relative thereto, a vertically movable transfer member for receiving liquid from said receptacle and transferring same to said rubbing member, and connections between said rubbing member and said transfer member for moving the transfer member to liquid-receiving position when the rubbing member is lowered, and for moving the transferring member to discharging position when the rubbing member is raised.

[Claims 2 to 6 and 8 not printed in the Gazette.]

1,238,901. HOT-WATER BANDAGE. CARA S. FERGUSON, Columbus, Ohio, assignor of one-half to I. Lawrence Broadwin, New York, N. Y. Filed Dec. 13, 1916. Serial No. 136,601. (Cl. 128—39.)



A hot water bandage comprising a hollow body, a removable closure for said body, and a plurality of tubes extending longitudinally of the interior of said body and attached to its opposite walls to hold them properly spaced when said body is filled, said tubes being open at their opposite ends and of a length that their ends are also spaced from the ends of said body.

1,238,902. MANUALLY-REMOVABLE BOTTLE-CAP. PHILIP FINKELSTEIN, James City, Pa. Filed Aug. 11, 1916. Serial No. 114,364. (Cl. 215—10.)

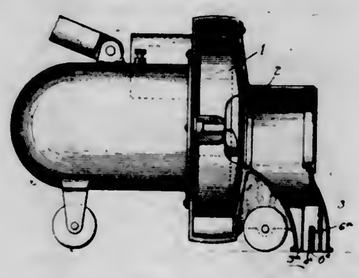


The herein described manually removable bottle cap formed from a single sheet of material and including a top surrounded by crimped side walls, said side walls being provided with integral extensions which normally project downwardly in the plane thereof and fit against the sides of the bottle neck, but are adapted to be bent outwardly into a radial position, said extensions being provided upon opposite edges thereof with longitudinal flanges which extend the full length thereof and are of uniform width, said flanges being returned outwardly into engagement with each other and coöperating with the respective flanges to provide hollow finger pieces which are triangular in cross section and have a uniform cross section throughout their entire length, the lower faces of the finger pieces being flat so as to be readily engaged by the fingers, and the inner ends of the side flanges being formed with seats which are arranged for engagement with the side walls of the cap to provide a stop for the finger piece when it is swung upwardly into operative position.

1,238,903. VACUUM-CLEANER NOZZLE. ALVA J. FISHER, Evanston, Ill., assignor to Hurley Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 22, 1913. Serial No. 756,181. Renewed July 31, 1917. Serial No. 43,030. (Cl. 15—60.)

1. A vacuum cleaner nozzle having an inlet slot, a blade [illegible] a stiff upper portion and a thin, flexible, resilient, [illegible]eous lower portion, said blade mounted in the [illegible] extend lengthwise of the slot, and arranged to [illegible] lower portion from said slot, the lower resilient [illegible] of the blade being of a depth so proportioned to [illegible]idth of the slot on either side thereof that, in [illegible]der friction engagement with a surface the free [illegible] strip cannot meet either edge of the slot.

2. A vacuum cleaner nozzle having an inlet slot, a blade guidedly supported and movable in said nozzle comprising a rubber strip and a metallic stiffener extending along the upper portion of said strip, and spring-means pressing said stiffener outwardly to tend to project the strip-edge from the slot, the unstiffened portion of said strip being resilient and narrow, and the width of said inlet slot being so proportioned thereto that said strip, in bending under frictional engagement with a surface and under spring-pressure, cannot meet either edge of the nozzle-slot.



3. A vacuum cleaner nozzle having an inlet slot and chambers at the ends thereof, a strip extending longitudinally of the slot and having extensions projecting into said chambers and movable therein, said slot being at all times open on both sides of the strip, and springs within said chambers acting upon said extensions and tending to hold the strip projected from the plane of the slot with a yielding pressure.

4. A vacuum cleaner nozzle having an inlet slot and chambers at the ends thereof, a strip of flexible material extending longitudinally of the slot, a metallic binding along the top edge of the strip and having end extensions projecting into said chambers, said slot being at all times open on both sides of the strip, and springs within said chambers acting upon said extensions and tending to hold the strip projected from the plane of the slot with a yielding pressure.

5. A vacuum cleaner nozzle having an inlet slot 3^a and chambers at the ends thereof, plugs 5 closing the lower ends of the chambers, said chambers having vertical slots 4^a, a strip 6 extending longitudinally of slot 3^a and end extensions 6^b passing through the slots 4^a and entering the chambers, followers 8 bearing against such extensions, and springs 7 bearing against the followers and the tops of the chambers.

[Claim 6 not printed in the Gazette.]

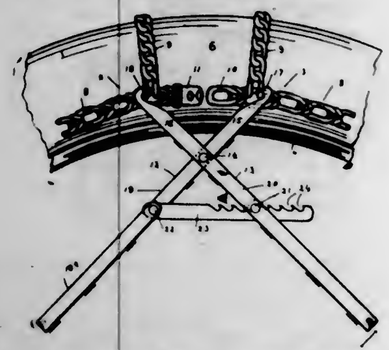
1,238,904. AERIAL CARRIER FOR PHOTOGRAPHIC FILMS. WILLIAM F. FOLMER, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed Apr. 5, 1917. Serial No. 159,850. (Cl. 244—21.)



In an aerial carrier for photographic film spools, the combination with a folding parachute comprising a stem terminating in a spring hook, a web, and spring ribs for expanding the latter adapted to fold under tension to lie

longitudinally of the stem, of an open ended tubular case inclosing the parachute to retain the ribs in folded positions and from which the parachute may be withdrawn by means of its stem, and a fluid tight container adapted to receive the film spool and detachably suspended from the hook of the parachute stem.

1,238,905. CHAIN-TIGHTENER. WILLIAM S. FOSTER, Utica, N. Y., assignor to Foster Brothers Manufacturing Company, Utica, N. Y., a Corporation. Filed Feb. 24, 1916. Serial No. 80,285. (Cl. 254—78.)



In a chain tightener the combination of two crossed levers pivotally connected to each other intermediate their ends and provided at the ends of their shorter arms with hooks facing toward each other, the outer ends of the handle arms of said levers being bent back upon themselves in an open loop with said ends spaced from the straight portion of said handle arms, a pin connecting each of said back-turned ends with the adjacent portion of its handle and a bar pivotally mounted at one end upon one of said pins and being adapted to swing bodily into and be housed within the loop of its handle when not in use and having its free end adapted to swing into the loop of the other handle and toward the pin of said handle and provided with notches on the edge toward said pin whereby said levers may be detachably locked in a plurality of positions, from being drawn apart.

1,238,906. STENCILING. WILLIAM G. FUERTH, Newark, N. J., assignor to Equilibrator Company, Newark, N. J., a Corporation of New Jersey. Filed Nov. 29, 1912. Serial No. 734,027. (Cl. 41—38.5.)

1. The herein-described process of forming and preparing stencils, which consists in coating a sheet of loose texture with fish-isinglass, to fill the pores thereof; and thereafter treating the coated sheet with an emollient containing a hardening agent, to temporarily soften the coating preparatory to writing the stencil thereon, and re-harden it after writing.

2. The herein-described process of forming and preparing stencils, which consists in subjecting a sheet of loose texture, previously coated with fish-isinglass and hardened, to the action of a solution containing an emollient to temporarily soften the coating preparatory to writing the stencil thereon, and also containing a hardening agent to re-harden it after writing to a greater degree than when first hardened.

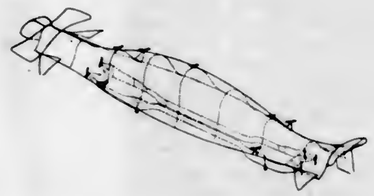
3. The herein-described process of forming and preparing stencils, which consists in successively coating a sheet of loose texture with fish-isinglass, to fill the pores thereof; treating the coated sheet with a hardening agent; and subjecting the sheet so treated to the action of a solution containing an emollient to temporarily soften the coating preparatory to writing the stencil thereon, and also containing an agent to re-harden it after writing to a greater degree than when first hardened.

4. The herein-described process of forming and preparing stencils, which consists in subjecting a sheet of loose texture, previously coated with fish-isinglass and hardened, to the action of a solution containing sulfonated castor oil, glycerin, water, and a hardening agent, to temporarily soften the coating preparatory to writing the stencil thereon, and re-harden it after writing to a greater degree than when first hardened.

5. The herein-described process of forming and preparing stencils, which consists in subjecting a sheet of loose texture, previously coated with fish-isinglass and hardened, to the action of a solution containing sulfonated castor oil, glycerin, water and formaldehyde, to temporarily soften the coating preparatory to writing the stencil thereon, and re-harden it after writing to a greater degree than when first hardened.

[Claims 6 to 13 not printed in the Gazette.]

1,238,907. AEROHYDRO-SHIP. CHARLES E. GORDON, Marlborough, Mass. Filed Mar. 25, 1915. Serial No. 16,983. (Cl. 244—12.)



1. A flying machine embodying in its construction a superstructure relatively rigid in form having downwardly sloping sides to confine air and its upper portion being higher at a point approximately midway between its ends than at any other point, extending thence on a smooth curve downward and then upward to its forward end.

9. In a flying machine, a superstructure or main supporting portion formed with an inner surface adapted to receive air pressure, the opposite edge portions of which are curved downwardly, said superstructure being formed with a contracted forward end and a contracted rear end and its central portion having an undulating outline from front to rear.

18. A flying machine comprising an aeroplane superstructure of greater length than width having its sides carried downward to provide a channel open at both ends to permit free ingress and egress of air, wings laterally extending to opposite sides from the highest part of the rear end of said superstructure, wings beneath the aforesaid wings at approximately the level of the side edges of this part of the superstructure and wings extending laterally from the forward end of the superstructure at the level of the side edges at said forward end.

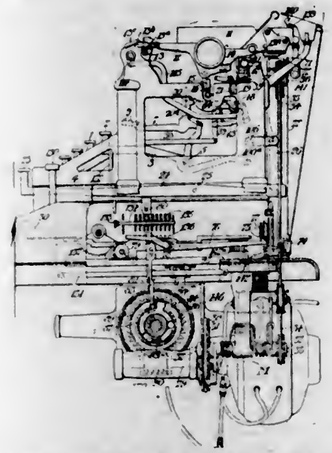
25. In a flying machine, the combination with a main aeroplane superstructure of a forward rudder adjacent to the forward end of said superstructure, a rear rudder adjacent to the rear end of said superstructure, a scoop shaped member connected to the upper edge of the forward rudder and a rigid tail piece connected to the rear end of the superstructure and extending over the rear rudder.

[Claims 2 to 8, 10 to 17, and 19 to 24 not printed in the Gazette.]

1,238,908. TYPE-WRITING MACHINE. FREDERICK A. HART, Newark, N. J., assignor to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Filed Mar. 13, 1914. Serial No. 824,429. (Cl. 197—66.)

1. In a machine of the character described, the combination with a traveling carriage, of a motor for returning the carriage, means dependent upon the operation of the motor to establish the driving relation between the motor and the carriage, and means controlled by the carriage for controlling the effectiveness of said first-mentioned means.

2. In a machine of the class described, the combination with a traveling carriage, of a motor for returning the carriage, connections between the motor and carriage including a clutch, means controlled by the operation of the motor for actuating said clutch to connect the carriage with the motor, and means controlled by the carriage for controlling the effectiveness of said first-mentioned means to actuate said clutch.



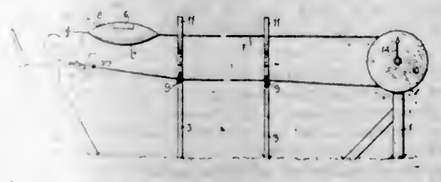
3. In a machine of the class described, the combination with a traveling carriage, of a power motor for returning the carriage, gearing between the motor and carriage including a clutch, means controlled jointly by the carriage and by the operation of the motor for actuating said clutch to connect the carriage with the motor, and means operated by the carriage to automatically start the motor when the carriage completes its forward travel.

4. In a machine of the class described, the combination with a traveling carriage, of an electric motor, a switch in the motor circuit, means operated by the carriage during its forward travel to actuate said switch, and thereby start the motor, driving gearing between the motor and carriage comprising a clutch, and means set by the carriage and operated by the motor to connect the members of said clutch, and thereby establish a driving connection to the carriage.

5. In a machine of the class described, the combination with a traveling carriage, of an electric motor, a switch in the motor circuit, means operated by the carriage during its forward travel to actuate said switch, and thereby start the motor, driving gearing between the motor and carriage comprising a clutch, means set by the carriage and operated by the motor to connect the members of said clutch, and thereby establish a driving connection to the carriage, and means to automatically open said clutch and disconnect the carriage from the motor.

[Claims 6 to 48 not printed in the Gazette.]

1,238,909. CARRIER. JACOB O. HART, Lancaster, Pa. Filed May 9, 1917. Serial No. 167,492. (Cl. 104—146.)



1. [illegible] of the character described comprising a [illegible] spaced supports, sheaves rotatably mounted upon said supports, a carrier, flexible means co-acting with the opposite ends of said carrier and co-acting with the sheaves whereby rotation of one of the sheaves will impart movement to the carrier, and an indicating means carried by one of the sheaves.

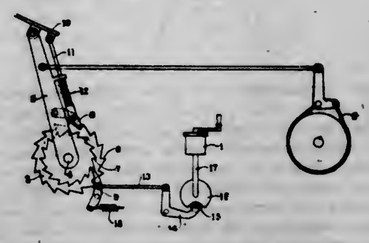
2. A device of the character described comprising a plurality of spaced supports, sheaves rotatably mounted upon said supports, a carrier, flexible means co-acting with the opposite ends of said carrier and co-acting with the sheaves whereby rotation of one of the sheaves will impart movement to the carrier, an indicating means carried by one of the sheaves, and additional means engageable with the flexible means for imparting limited movement to the sheave provided by the indicating means.

3. A device of the character described, comprising a plurality of spaced supports, sheaves rotatably mounted upon certain of said supports, the intermediate supports being provided with guides, a carrier, flexible members secured to opposite ends of said carrier and co-acting with the sheaves whereby rotation of one of the sheaves will impart movement to the carrier; said flexible members being also disposed through the guides of the intermediate supports; and an indicating means carried by one of the sheaves.

4. A device of the character described, comprising a plurality of spaced supports, sheaves rotatably mounted upon certain of said supports, the intermediate supports being provided with guides, a carrier, flexible members secured to opposite ends of said carrier and co-acting with the sheaves whereby rotation of one of the sheaves will impart movement to the carrier, said flexible members being also disposed through the guides of the intermediate supports, an indicating means carried by one of the sheaves, and additional means for imparting limited movement to the sheave provided with the indicating means.

5. A device of the character described, comprising a plurality of spaced supports, sheaves rotatably mounted upon certain of said supports, the intermediate supports being provided with guides, a carrier, flexible members secured to opposite ends of said carrier and co-acting with the sheaves whereby rotation of one of the sheaves will impart movement to the carrier, said flexible members being also disposed through the guides of the intermediate supports, and a flat spring carried by one of the supports and intersecting the line of travel of a flexible member and thruogh which said member is loosely disposed, said spring serving to limit the movement of the carrier in one direction.

1,238,910. VEHICLE-CONTROLLER. CLARK T. HENDERSON, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Dec. 13, 1913. Serial No. 806,395. (Cl. 74—81.)

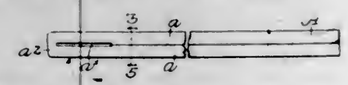


1. In an electric vehicle, in combination, a pivoted brake operating lever, a ratchet member pivoted co-axially with said lever but rotatable independently thereof, a pawl carried by said lever and coöperable with said member to lock the latter against relative movement in one direction, a second pawl coöperable with said member to lock the latter against movement in the other direction, and a power controller for the vehicle acting

through said second pawl to lock and release said member.

2. In an electric vehicle, in combination, a pivoted brake lever, a co-axially pivoted but independently rotatable disk associated therewith, said disk having two sets of oppositely disposed ratchet teeth, a pawl carried by said lever and coöperable with one set of said ratchet teeth to lock said lever against movement relative to said disk in one direction, a second pawl coöperable with the other set of ratchet teeth to lock said disk against movement in the same direction, and a circuit controller for the vehicle governing said second pawl and operable to effect locking of said disk thereby only when the supply circuit of the vehicle is interrupted.

1,238,911. SHEET-METAL FORM FOR ARMATURE-COILS. WILLIAM T. HENSLEY, Connersville, Ind., assignor, by mesne assignments, to Bound Brook Engine & Mfg. Co., a Corporation of Delaware. Filed May 11, 1912. Serial No. 696,608. (Cl. 29—148.)

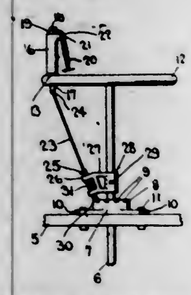


1. As an article of manufacture, a sheet metal blank for making an armature coil, said blank comprising a straight strip of sheet metal divided longitudinally midway between its edges except at one end thereof, the division adjacent this end being wider and forming a slot.

2. As an article of manufacture, a sheet metal blank for making an armature coil, said blank comprising a straight strip of sheet metal divided longitudinally midway between its edges except at one end thereof.

3. As an article of manufacture, a sheet metal form for making an armature coil, said form comprising a straight strip of sheet metal divided longitudinally midway between its edges, except at one end thereof, the division adjacent this end being wider and forming a slot, the divided portions being rounded on their edges.

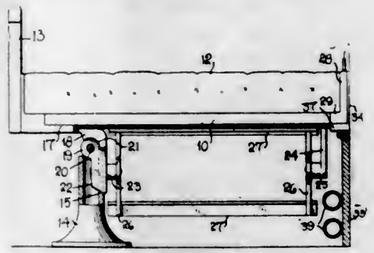
1,238,912. LOCKING DEVICE FOR CRANKS. GEORGE H. HILBERS, Hooper, Nebr. Filed Dec. 7, 1916. Serial No. 135,620. (Cl. 74—39.)



1. The combination in a device such as described, with a shaft, and a crank secured thereto embodying a hollow wrist pin, a rod longitudinally movable within the wrist pin, a rotatable handle carried by the wrist pin, a releasing grip pivoted to the wrist pin, a forked extension provided upon said releasing grip and engaging the rod for moving the same vertically within the hollow wrist pin upon movement of the releasing grip, an operating means supported by the shaft for locking the latter against rotation, and a link connection between the movable rod and locking means.

2. In a device such as described, the combination with a shaft, a hand wheel secured thereto and a wrist pin extending from the hand wheel, said wrist pin having an enlarged head, a handle rotatable upon the wrist pin and having a recess receiving said enlarged head whereby the handle will be supported upon the wrist pin, a rod slidable within said wrist pin and having a head spaced above the upper end of the wrist pin and handle, a releasing grip pivoted upon said handle, a forked extension formed upon the releasing grip and engaging the rod beneath the head thereof whereby upon inward movement of the releasing grip, the rod will be raised within the wrist pin, a crown gear disposed adjacent the shaft, a casting secured to the shaft adjacent the crown gear, a pawl slidable within the casting for engaging the teeth of the crown gear, a spring actuating the pawl, and a link connection between said pawl and operating rod.

1,238,913. RAILWAY-CAR SEAT. FRANK H. HILL and HARVEY JEFFREY, Grand Forks, N. D., assignors of one-third to Oscar Knudson, Grand Forks, N. D. Filed Oct. 28, 1916. Serial No. 128,312. (Cl. 155—2.)



2. In a car structure, a supporting pedestal vertically slotted and having at its upper end laterally spaced pintle barrels, a seat supporting frame having adjacent one end a downwardly extending lug accommodated in said slot when the frame is in a horizontal position, a pintle passing through the upper end of said lug and through the pintle barrels, means upon the wall of the car for supporting the free end of the frame in a horizontal position, a bracket extending downward from the free end of the frame and having an inwardly extending boss, a boss extending inward from the lug, and a foot rest comprising a pair of rocker arms pivoted to said bosses and carrying longitudinally extending foot supporting bars.

[Claim 1 not printed in the Gazette.]

1,238,914. POCKET-RECEPTACLE FOR LIGHTED CIGARS. THOMAS A. HILLIARD, Sioux City, Iowa. Filed Apr. 14, 1916. Serial No. 91,218. (Cl. 206—41.)



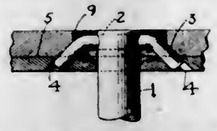
1. A lighted cigar-holder comprising a pouch including front and rear walls of flexible material, having their side and bottom edges joined, the upper edge of the rear wall being extended upwardly a distance above the front wall, and asbestos linings for the walls.

[Claims 2 and 3 not printed in the Gazette.]

1,238,915. SECURING MEANS FOR BOLTS. GEORGE R. HOHORST, New York, N. Y. Filed Jan. 10, 1917. Serial No. 141,585. (Cl. 74—8.)

1. In a device of the character described, the combination of a shaft, a support for the shaft provided with a bearing to receive the shaft and with oblique or diverging channels oppositely disposed about said bearing, and a securing pin engaging said shaft and said channels.

2. In a device of the character described, the combination of a shaft having a transverse aperture therethrough, a support for the shaft provided with a bearing to receive the shaft and oblique or diverging channels oppositely



disposed about said bearing, and a distortable securing pin inserted in said aperture and having its opposite ends engaging said channels.

[Claims 3 and 4 not printed in the Gazette.]

1,238,916. PROCESS OF MAKING METAL-HYDROXID SOLUTIONS. CHARLES P. HOOVER, Columbus, Ohio. Filed Apr. 24, 1917. Serial No. 164,263. (Cl. 23—22.)

1. The process of producing a solution of a desired hydroxid which comprises passing the solution of a different hydroxid through a body of material containing essentially an exchange silicate in which the exchangeable radical is the base the hydroxid of which is desired.

2. The process of producing an alkali-metal hydroxid solution which comprises passing the solution of a different hydroxid through a bed of alkali-metal zeolite.

3. The process of producing a caustic soda solution which comprises passing a clear calcium hydroxid solution through a sodium zeolite filter.

4. The process of producing a sodium hydroxid solution which comprises passing a different hydroxid solution through a sodium zeolite filter until the latter becomes practically inactive through loss of sodium, regenerating the exhausted zeolite by washing it with a sodium chlorid solution, and then continuing the passing of said different hydroxid solution through the regenerated sodium zeolite.

1,238,917. MATERNITY-DRESS. RAY HORWITZ, Cleveland, Ohio. Filed June 4, 1917. Serial No. 172,608. (Cl. 2—145.)

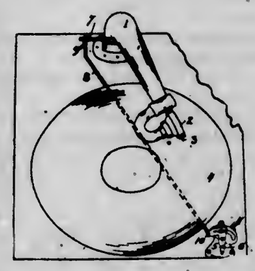


1. In a maternity dress, the combination of a waist and a skirt connected thereto, said skirt and waist being gathered at the waist line thereof, an elastic waist-band secured to and extending around the dress at the waist line, an extensible girdle within said dress at the waist line, which girdle is composed of a plurality of sections of which two sections meet at the front of the dress and are provided with fastening devices, and the other sections are connected together by extensible lacings,—said elastic waist band being disconnected from the girdle at and adjacent the laced gaps between girdle sections, and being connected to said girdle sections at intermediate points, substantially as specified.

2. In a maternity dress, the combination of a waist and a skirt connected thereto, said skirt and waist being gathered at the waist line thereof, an elastic waist-band secured to and extending around the dress at the waist line, an extensible girdle within said dress at the waist line, which girdle is composed of a back section that is connected with the elastic waist-band near the middle of said girdle section and is disconnected from said waist band adjacent the ends of said back girdle section, and two front sections which are connected respectively with the ends of the back girdle section by extensible lacing, the front ends of said front girdle section being provided with fastening devices, and the extensible waist band being connected with the front girdle sections adjacent the front ends thereof and being disconnected from said front girdle sections adjacent the rear ends thereof.

3. In a maternity dress, the combination of a waist and a skirt connected thereto, said skirt and waist being gathered at the waist line thereof, an elastic waist-band secured to and extending around the dress at the waist line, an extensible girdle within said dress at the waist line, which girdle is composed of a back section that is connected with the elastic waist-band near the middle of said girdle section, and is disconnected from said waist band adjacent the ends of said back girdle section, and two front sections which are connected respectively with the ends of the back girdle section by extensible lacings,—the front ends of said front girdle section being provided with fastening devices, and the extensible waist band being connected with the front girdle sections adjacent the front ends thereof and being disconnected from said front girdle sections adjacent the rear ends thereof,—the skirt of said dress with the extensible waist band attached thereto being extended as a free flap beyond the front end of one of the front girdle sections, said flap having a fastening device at its free end and the part of the waist band attached to the other front girdle section having a coöperating fastening device.

1,238,918. DEVICE FOR CONTROLLING THE SPEED OF DISK RECORDS. RICHARD T. HOSKING, Saginaw, Mich. Filed June 1, 1915. Serial No. 31,477. (Cl. 74—45.)



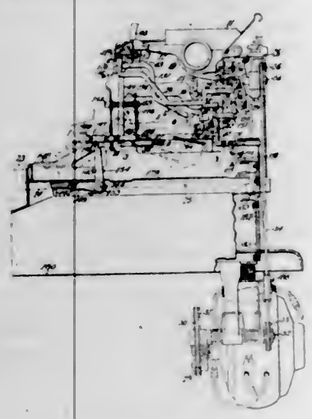
In a graphophone, the combination with the pivotally mounted taper tube carrying the needle, of a radial arm, removably secured to the taper tube, a link connected to said radial arm and extending underneath the disk record of the graphophone, one end of said link being pivotally secured to the actuating member of the speed regulator of the graphophone for the purposes set forth.

1,238,919. TYPE-WRITING MACHINE. RICHARD F. HOYT, Oley, Pa., assignor, by mesne assignments, to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Original application filed Jan. 19, 1915, Serial No. 3,031. Divided and this application filed Mar. 15, 1916. Serial No. 84,254. (Cl. 197—66.)

1. In a machine of the character described, the combination with a carriage, of a motor, a carriage-return driving connection from the motor to the carriage comprising a clutch normally set to render the driving connection inoperative, means normally inoperative for setting the clutch from the motor to render said driving connection operative, a normally inoperative device, having an actuator independent of the carriage mechanism, for rendering the clutch setting means operative, and means operated by the traveling mechanism at or about the time the carriage has completed a predetermined forward travel for delivering said last-named device to its actuator.

7. In a machine of the character described, the combination with a carriage, of a motor, a carriage-return driving connection from the motor to the carriage, a spring

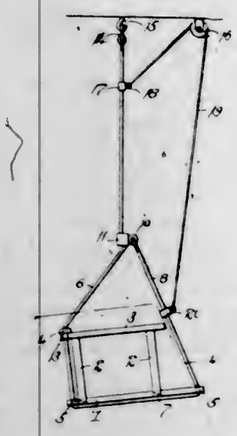
controlled device for establishing a circuit through the motor, and a trip operated by the traveling mechanism at or about the time the carriage has completed a predetermined forward travel for releasing the circuit-establishing device to the action of its spring.



17. In a typewriting machine, the combination with a carriage, of a return mechanism therefor, a rock shaft controlling the actuation of said mechanism, a margin gage, means controlled thereby for rocking said shaft, a margin key, and a lock operated by said key to prevent rocking of said shaft and thereby the actuation of said carriage-returning mechanism.

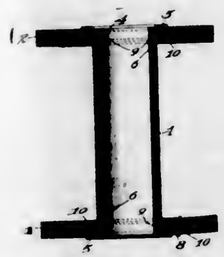
[Claims 2 to 6 and 8 to 16 not printed in the Gazette.]

1,238,920. SWING. JOHN JOCHUMSEN, Independence, Iowa. Filed Sept. 6, 1916. Serial No. 118,691. (Cl. 155—35.)



A swing comprising a seat, ropes provided with suspending means at their upper ends and having their lower ends passed slidably down the back of the seat, across the bottom thereof, and then upwardly in front, sleeves slidably engaged adjustably with the ropes and connected with the lower ends thereof, thimbles carried by the ropes, a bar slidably engaged with the ropes adjacent the seat, pulleys adapted for engagement with a support, and other ropes trained about the pulleys with their upper ends attached to the thimbles and their lower ends connected to said bar.

1,238,921. SPOOL CONSTRUCTION. FREDERICK JOHANNSMEYER, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Jan. 18, 1911. Serial No. 603,290. (Cl. 242—119.)



1. In a spool construction, or the like, in combination, a body portion, a flange member therefor and a device interposed between said body portion and said flange member for securing the same together, said device having a part interlocking with said body portion and secured in interlocking relation therewith by said flange member.

2. In combination, a body portion, a securing device mounted thereon and an end flange member for said body portion, said flange member being adapted to positively lock said device to said body portion and to be itself locked thereto by said device.

3. In a spool construction or the like, in combination, a body portion, a device thereabout having resilient projections extending into said body portions and an end flange member overlapping a portion of said device to lock said projections of the latter in engagement with said body portion, said device having an angularly disposed portion overlying a portion of the outer face of said end flange member to prevent withdrawal of the latter from said body portion.

4. In a spool construction or the like, in combination, a body portion, a member surrounding said body portion, said member being formed in sections, each section having an angularly disposed projection extending into said body portion, and an end flange member fitting over the sections of said member to secure the same to said body portion, each of said sections having an angularly disposed portion engaging the outer face of said flange member to retain said flange member on said body portion.

5. In a spool construction or the like, in combination, a body portion, an end flange member fitting onto said body portion, a plurality of devices contained between said end flange member and said body portion to secure the same together, each having an angularly disposed portion projecting into and held in engagement with said body portion by said end flange member and an angularly disposed portion engaging said end flange member to prevent withdrawal thereof from said body portion.

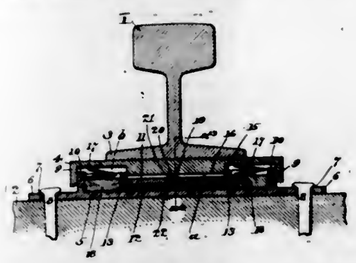
[Claims 6 to 12 not printed in the Gazette.]

1,238,922. RAIL-CONTACTOR. EUGENE C. JOHNSON, Los Angeles, Cal. Filed Aug. 12, 1916. Serial No. 114,560. (Cl. 246—35.)

1. The combination with a rail, of a lower contact plate, an upper contact plate above the lower contact plate and operative by movement of the rail, and means tending to hold the contact plates apart, said means allowing the contact plates to engage one another and to support the load when rolling stock is on the rail.

2. In combination, a box comprising a cover and base in telescopic relation with one another, a rail partly resting on the cover, means yieldingly holding the cover in raised position against the pressure of the rail thereon, and means operative by movement of said cover to close an electric circuit.

3. In combination, a box having two members provided with flanges interfitting one another, means in the box tending to force said members away from one another, and means operative by relative movement of the members toward one another to close an electric circuit.

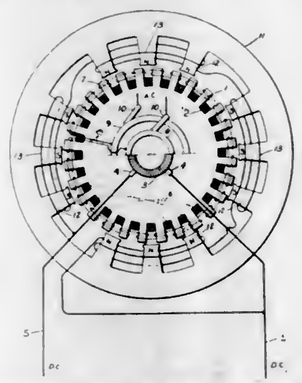


4. In combination, a base, a contact plate insulated from said base, insulation strips surrounding the contact plate and projecting above the upper surface thereof to form a recess, said strips being spaced from the cover, a cover having a second contact plate projecting into the recess and fitting against the inside faces of said insulation strips, and means tending to force the cover and base away from one another.

5. In combination, a base, a contact plate insulated from said base, a cover having a second contact plate, means tending to raise the cover away from the base, there being a recess in one of the contact plates, a leaf spring in the recess of said contact plate, a contact on the other one of said contact plates, and a contact on the leaf spring to engage the contact on the contact plate when the cover is depressed.

[Claims 6 to 8 not printed in the Gazette.]

1,238,923. DYNAMO-ELECTRIC MACHINE. CARLTON L. KENNEDY, South Braintree, Mass., assignor to The Holtzer-Cabot Electric Company, Roxbury, Mass., a Corporation of Massachusetts. Filed Apr. 5, 1916. Serial No. 89,120. (Cl. 171—123.)

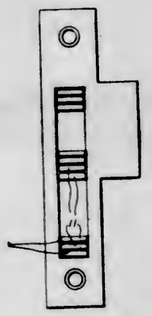


1. A dynamo-electric machine having, in combination, an armature-core; an alternating-current winding thereon arranged for alternate poles; a direct-current winding of even pitch; and a multipolar field-magnet of which each pole is provided with a plurality of polar projections which are spaced with their center-lines at an angular distance equal to that of an even number of armature poles.

2. A dynamo-electric machine having, in combination, an armature-core; an alternating-current winding and a direct-current winding thereon, the former being arranged for alternate poles and the latter being of even pitch; and a multipolar field-magnet of which each pole is provided with a plurality of polar projections, which are spaced with their center-lines at an angular distance equal to that of an even number of armature-poles, while the nearest polar projections of two field-poles of opposite sign are spaced with their center-lines at an angular distance equal to that of an odd number, not less than three, of the armature-poles.

3. A dynamo-electric machine having, in combination, an armature comprising a slotted core, a direct-current winding thereon of even pitch, and an alternating-current winding arranged for like polarity of alternate core-teeth; and a multipolar field magnet of which each pole is provided with a plurality of polar projections which are spaced with their center-lines at an angular distance equal to that of an even number of armature-teeth.

1,238,924. LOCK-KEEPER. GEORGE W. KENNEDY, Columbia, Mo., assignor of one-half to James E. Deaver, Paris, Mo. Filed Dec. 14, 1916. Serial No. 136,995. (Cl. 70—15.)



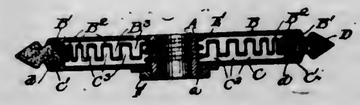
1. A lock keeper having an area at the end of the bolt aperture scored so that portions may be broken out to enlarge the aperture.

2. A lock keeper having an area at each end of the bolt aperture scored, the scores being arranged in rectangular form so that small rectangular pieces may be broken out to lengthen the aperture.

3. A lock keeper having an area at the end of the bolt aperture scored on both sides, the scores being opposite each other and arranged in rectangular form, so that small rectangular pieces may be broken out one at a time.

4. A lock keeper having areas at the ends of the bolt and latch apertures scored, the scores being arranged in rectangular form to enable small rectangular pieces to be broken out one by one as enlargement of the apertures becomes necessary.

1,238,925. BUFFING-WHEEL. ALBERT L. KRAUS, Peabody, Mass., assignor to Albert L. Kraus, Peabody, and Edward L. Millett, Beverly, Mass., Copartners doing business under the firm name and style of Kraus, Millett & Company, Peabody, Mass. Filed Oct. 26, 1915. Serial No. 58,030. (Cl. 51—1.)



1. A buffing wheel comprising a hub, a pair of disks on said hub spaced apart and one at least being movably mounted thereon, said disks having oppositely disposed annular ribs and oppositely disposed annular non-engaging flanges, a buffing strip seated on said flanges and having grooves adapted to receive said ribs, a normally compressed spring between said disks, and a nut threaded on said hub to lock said disks in position with said buffing strip therebetween.

2. A buffing wheel comprising a hub, a pair of disks on said hub spaced apart and one at least being movably mounted thereon, said disks having oppositely disposed annular ribs and oppositely disposed lateral projections spaced apart, the projections of one disk located in the

spaces between the projections of the other disk, a buffing strip seated on said projections and having grooves adapted to receive said ribs, a normally compressed spring between said disks and a nut threaded on said hub to lock said disks in position with said buffing strip therebetween.

3. A buffing wheel comprising a buffing strip of yielding material having a groove whereby said strip can be readily deflected out of the plane of rotation.

4. A buffing wheel comprising a buffing strip of yielding material having a peripheral portion substantially wedge-shaped in cross section, and a groove whereby the strip can be readily deflected out of the plane of rotation.

1,238,926. FAUCET. GEORGE R. LONG, Waterbury, Conn., assignor, by mesne assignments, to Cordley and Hayes, New York, N. Y., a Corporation of New York. Filed Oct. 4, 1915. Serial No. 54,059. (Cl. 137—4.)



1. A faucet body formed of one piece of tubing of substantially the same thickness throughout having at one end a socket integral therewith of relatively large diameter, a main portion of relatively small diameter and an inwardly bent shoulder integral with the body between the socket and the main portion adapted to form a valve seat.

2. A faucet body formed of one piece of tubing of substantially the same thickness throughout having at one end a socket integral therewith of relatively large diameter with a noncircular flange on its free end, a main portion of relatively small diameter and an inwardly bent shoulder integral with the body between the socket and the main portion adapted to form a valve seat.

3. A faucet body formed of one piece of tubing of substantially the same thickness throughout having at one end a socket integral therewith of relatively large diameter, a main portion of relatively small diameter and an inwardly bent shoulder integral with the body between the socket and the main portion adapted to form a valve seat and a second inwardly bent shoulder integral with the body near the outer end of the main portion.

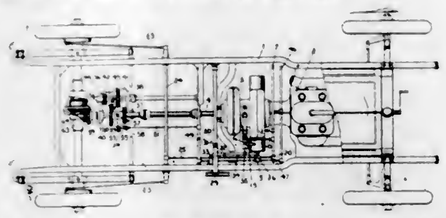
4. A faucet body formed of one piece of tubing of substantially the same thickness throughout having at one end a socket integral therewith of relatively large diameter with a noncircular flange on its free end, a main portion of relatively small diameter and an inwardly bent shoulder integral with the body between the socket and the main portion adapted to form a valve seat, and a second inwardly bent shoulder integral with the body near the outer end of the main portion.

5. A faucet body formed of one piece of tubing of substantially the same thickness throughout having at one end a socket integral therewith of relatively large diameter with a noncircular flange on its free end, a main portion of relatively small diameter and an inwardly bent shoulder integral with the body between the socket and the main portion adapted to form a valve seat, and a second inwardly bent shoulder integral with the body near the outer end of the main portion and a cup having its end reduced in diameter and extending through said second shoulder and having a shoulder therein resting against said second shoulder.

[Claims 6 and 7 not printed in the Gazette.]

1,238,927. POWER-TRANSMISSION DEVICE. CHARLES M. MANLY, Brooklyn, N. Y. Filed Mar. 13, 1911. Serial No. 614,131. Renewed July 10, 1916. Serial No. 108,449. (Cl. 138—22.)

1. In a power transmission mechanism the combination with a hydraulic transmission embodying a variable capacity pump and a motor driven by the fluid therefrom, of a variable speed gear transmission driven by the motor of the hydraulic transmission and operatable to drive the part to be driven at different speeds in the same direction of rotation, substantially as described.



2. In a power transmission mechanism the combination with a hydraulic transmission of a variable speed gear transmission, of means for controlling the hydraulic transmission and means coöperating therewith for controlling said gear transmission, substantially as described.

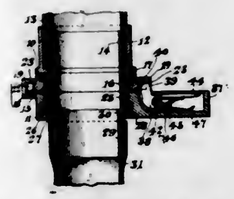
3. In a power transmission mechanism the combination with a variable speed hydraulic transmission embodying a driving member and a driven member of a device to be operated and means for optionally connecting said device directly to the driven member of said transmission or through the medium of a reducing gear, to drive said device in the same direction.

4. In a power transmission mechanism the combination with a variable speed hydraulic transmission embodying a driving member and a driven member and means for varying the driving ratio of said member by imperceptible degrees, of a part to be operated, and means for connecting said part either directly to the said driven member or through the medium of a reducing gear as desired, to drive said device in the same direction.

5. In a power transmission mechanism the combination with a variable speed hydraulic transmission, embodying a variable capacity pump and a motor operated by the fluid pressure from the pump, of a part to be driven, a clutch between the rotatable part of said motor and said part to be driven, a reducing gear between said parts for driving them in the same direction, and means for simultaneously shifting said clutch and gear.

[Claims 6 to 14 not printed in the Gazette.]

1,238,928. HOSE-COUPLING. RANDOLPH N. MARTZ, Frederick, Md., assignor to Charles C. Carty, Frederick, Md. Filed Jan. 27, 1916. Serial No. 74,633. (Cl. 137—28.)



1. In a hose coupling, a section having a keeper thereon open at its opposite ends, a latch carried by the section and having a nose projecting into the keeper midway between its ends, a second section having a lug provided with cam faces on its opposite ends for binding engagement in the opposite ends of the keeper to draw the sections together upon the relative turning of the same, the lug having a second pair of cam faces on its opposite ends and at its inner side for engagement with the opposite sides of said nose to retract the same, said lug also having a notch therein between said second pair of cam faces adapted to receive said nose upon the registry of the latter with the notch.

2. In a hose coupling, a section having a lug with a notch therein, a second section having a keeper with an opening in its wall and adapted to receive the lug, the ends of said sections abutting each other whereby when the sections are rotated relatively to each other around their axis the keeper and lug will interlock clamping the sections against separation, a latch lever pivoted upon the second section and having a nose on its end adapted to project through said opening in the keeper and into said notch in the lug and lock the lug in the keeper, and having a finger portion upon its opposite end by means of which the latch lever may be operated, a cam face on said lug for properly guiding said lever into engagement with said notch, and a spring tending to hold said lever in the notch thereby preventing the relative rotation of the sections.

3. In a hose coupling, a section, a keeper outstanding from the section, a casing carried by the section, a transverse pilot pin in the casing, a latch hinged upon said pin, a nose on said latch adapted to project into said keeper, a finger plate on the outer edge of the latch closing the outer side of the casing, a spring secured to said pivot pin, and engaging at its opposite ends against the inner side of said finger plate and the bottom of said casing to normally extend the latch and hold the nose thereof in the keeper, and a second section adapted to abut the first section, having a lug thereon for engagement in the keeper, and having a cam face to engage the nose of said latch and retract the same against the tension of said spring, said lug having a recess therein adapted to be brought into registry with said nose, whereby said spring is adapted to urge said nose into said recess and interlock the lug with the keeper.

4. The combination with a pair of hose coupling sections, each having projections adapted to interfit upon the relative turning of the sections, of a housing on each section, and a latch mounted in each housing adapted to engage the opposite projection when the projections are interfitted to hold them together, one of said housings extending longitudinally of its section to provide a hand hold to prevent turning of the section, and the other housing projecting radially from its section to provide a hand lever by means of which the section may be rotated.

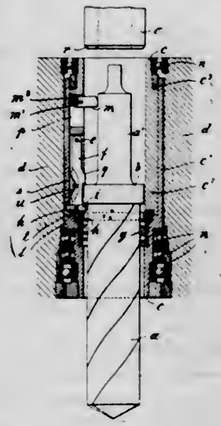
5. The combination with a pair of hose coupling sections, and complemental projections on each of said sections, of housings outstanding from the sections to provide handles therefor by means of which the sections may be turned relatively to each other to interfit the complemental projections and hold the sections together, and to disengage the projections to separate the sections, a spring pressed latch in each housing adapted for engagement with an adjacent pair of the complemental sections when interfitted to hold the same from disengagement, and plates on said latches arranged at the outer sides of said housings for engagement with the fingers when grasping the housings, whereby said plates may be readily depressed to retract the latches from the projections in separating said hose coupling sections.

[Claims 6 and 7 not printed in the Gazette.]

1,238,929. ATTACHMENT FOR METAL-WORKING MACHINES. PAUL MÜLLER, Berlin, Germany. Filed Nov. 26, 1915. Serial No. 63,428. (Cl. 77—25.)

1. In a drilling, boring or similar metal working machine, the combination with the driving spindle, of a rotatable head having bores adapted to receive each tool and also the said driving spindle, permitting the same to be operatively connected to the said tool, and a holding means within each bore, comprising a rotatable cylinder, catches pivoted in recesses of the said cylinder and having projections to engage the said tool for holding it in position ready for the driving spindle to be connected thereto, and springs for holding said catches in operative position.

2. In a drilling, boring or similar metal working machine, the combination with the driving spindle, of a rotatable head having bores adapted to receive each a tool and also the said driving spindle, permitting the same to be operatively connected to the said tool, and a holding means within each bore, comprising a rotatable cylinder, catches pivoted in recesses of the said cylinder and having projections and each a forked end, springs for holding said catches in operative position, and yieldingly mounted plates, located in recesses of said cylinder and having each



a pin in engagement with the forked ends of the said catches, both the catches and the said plates being arranged to hold the tool in position ready for the said driving spindle to be connected thereto.

[Claims 3 to 6 not printed in the Gazette.]

1,238,930. SYNTHETIC PRODUCT RESEMBLING CAOUTCHOUC. EDUARD MÜNCH, Ludwigshafen-on-the-Rhine, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation of Baden. Filed Sept. 26, 1913. Serial No. 791,939. (Cl. 23—24.)

1. The process of improving synthetic products resembling or related to caoutchouc by heating them in a dry state at a temperature above 100° centigrade but below that at which decomposition takes place, while avoiding as far as possible the presence of air, and allowing for the removal of any volatile products given off and thereby causing an alteration in the structure of the initial materials.

2. The process of improving synthetic products resembling or related to caoutchouc by heating them under reduced pressure at a temperature above 100° centigrade but below that at which decomposition takes place, while avoiding as far as possible the presence of air, and allowing for the removal of any volatile products given off and thereby causing an alteration in the structure of the initial materials.

3. The process of improving synthetic products resembling or related to caoutchouc by heating them under reduced pressure in the presence of a suitable nitrogen compound at a temperature above 100° centigrade but below that at which decomposition takes place, while avoiding as far as possible the presence of air, and allowing for the removal of any volatile products given off and thereby causing an alteration in the structure of the initial materials.

4. The process of improving synthetic products resembling or related to caoutchouc by heating them under reduced pressure in the presence of ammonia, while maintaining a reduced pressure at a temperature above 100° centigrade but below that at which decomposition takes place, avoiding as far as possible the presence of air, and allowing for the removal of any volatile products given off and thereby causing an alteration in the structure of the initial materials.

1,238,931. ADJUSTABLE WINDOW-SHADE FIXTURE AND CURTAIN-POLE BRACKET. EDWARD MURRAY, Detroit, Mich. Filed Nov. 2, 1916. Serial No. 129,043. (Cl. 156—24.)



4. In a bracket supporting device, a body portion having a bearing formed thereon, said bearing having a longitudinal groove opening into one side thereof and terminating short of one end of said bearing, said end of said bearing being provided with a notch, a curtain pole bracket having a journal arm adapted to fit in said bearing, and a lug on said journal arm adapted to engage with the end of said groove and the notch to prevent accidental disengagement of said journal arm.

[Claims 1 to 3 not printed in the Gazette.]

1,238,932. ANTHRAQUINONE COMPOUND. PAUL NAWIASKY, Ludwigshafen-on-the-Rhine, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed May 8, 1915. Serial No. 26,845. (Cl. 8—1.)

1. The process of producing anthraquinone compound consisting in reacting on an anthraquinone-beta-sulfonic acid body with an amino compound of the benzene, or naphthalene, series in the presence of strong alkali, until the sulfonic acid residue is essentially split off.

2. The process of producing anthraquinone compounds consisting in reacting on an anthraquinone-beta-sulfonic acid body with an amino compound of the benzene, or naphthalene, series in the presence of strong alkali and an oxidizing agent, until the sulfonic acid residue is essentially split off.

3. The new compounds of the anthracene series being anthraquinone-beta-arylids of the formula:

A—NH—R

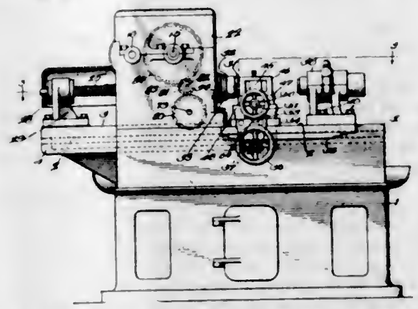
in which A is an anthraquinone residue free from sulfuric acid groups and from hydroxyl groups, while R means an aromatic residue containing less than fourteen carbon atoms, which compounds are insoluble in water, dilute acids and alkalis, soluble in organic solvents and in concentrated sulfuric acid, the solutions in the latter turning, when heated, into blue or bluish violet.

1,238,933. NUT-LOCK. DELANCY ELWOOD NEWCOMB, Sydney, Nova Scotia, Canada. Filed Aug. 25, 1916. Serial No. 116,925. (Cl. 151—53.)



A nut lock of the class described comprising a resilient wire bent in a U-shape having double offset projections in the parallel arms thereof and spaced from the free end, the free ends of the said wire being adapted to embrace the bolt with the said projections located in the bolt hole on diametrically opposite sides of the said bolt, the said U-shaped member being adapted to be bent over to engage the nut, substantially as described.

1,238,934. LATHE. CARL G. OLSON, Chicago, Ill., assignor to Illinois Tool Works, Chicago, Ill., a Corporation of Illinois. Filed Dec. 1, 1916. Serial No. 134,244. (Cl. 82—2.)



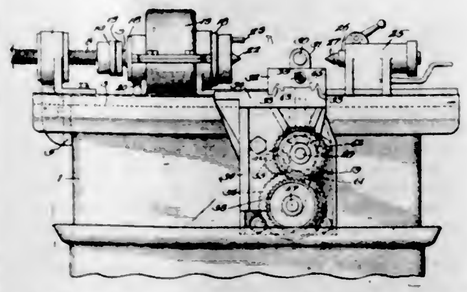
3. A lathe having a main frame, a main carriage slidingly mounted upon said frame, said carriage having a tool carrier at one end and a lead nut at the other, a main spindle for rotating the work, a lead screw in line with the spindle and fastened thereto, the carriage being continuous from the tool carrier to the lead nut, and a stationary bearing between the tool carrier and the lead nut for supporting the main spindle, said bearing being supported from the side of the carriage, and the carriage passing beneath the bearing.

6. A lathe having a stationary frame with a main carriage traveling longitudinally on it, a spindle for rotating the work, a lead screw for causing the carriage to travel, said lead screw rotating in unison with the spindle and being in line therewith, a cross carriage located at the operative end of the main spindle, cam mechanism for producing cross movement of the cross carriage, and a power device common to the main spindle and to the cam mechanism for rotating the main spindle and lead screw and operating the cam mechanism.

10. A lathe having a main spindle for rotating the work, a main carriage traveling parallel to the axis of the work, a lead screw fastened to said main spindle in line therewith, a cross carriage carrying the tool and slidably mounted on the main carriage so as to slide thereon transversely to the axis of the main spindle, a coöperating cam and spring and means for rotating the cam at a definite speed for thereby operating the cross carriage in timed relation with the travel of the main carriage.

[Claims 1, 2, 4, 5, 7 to 9, 11, and 12 not printed in the Gazette.]

1,238,935. LATHE. CARL G. OLSON, Chicago, Ill., assignor to Illinois Tool Works, Chicago, Ill., a Corporation of Illinois. Filed Dec. 1, 1916. Serial No. 134,245. (Cl. 82—2.)

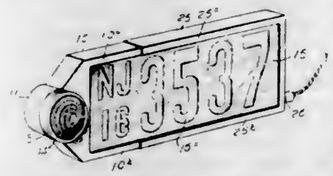


1. A lathe having a main frame, a carriage sliding thereon, a rotatable work holder mounted on said carriage, a non-traveling power device mounted on the main frame, a shaft geared to said work holder and moving in unison with the carriage, said shaft passing through the center of said power device and making sliding connection therewith to be driven thereby, a lead screw coaxial with said work holder and connected thereto, and a stationary lead nut taking said lead screw.

7. A machine tool having an elongated frame, an elongated carriage guided upon and extending from end to end of said frame, said carriage being bifurcated approximately centrally at one end, a standard fastened to the machine frame and passing up through the bifurcation in the carriage, a lead nut at the upper end of said standard, a lead screw working in said nut, a spindle rigidly fastened to said lead screw in line therewith, a work holder fastened to said spindle, actuating means partly on the main frame and partly on the carriage for rotating said spindle and thus also causing the carriage to travel, a cross-carriage for carrying the tool, an eccentric for operating said cross-carriage, and means operating in timed relation with the rotating spindle for rotating said eccentric to move the cross-carriage toward and from the axis of the work.

[Claims 2 to 6 not printed in the Gazette.]

1,238,936. TRANSPARENT LICENSE-TAG AND HOLDER. HOWARD W. PAYNTER, Philadelphia, Pa., assignor of one-half to Herbert A. Paynter, Philadelphia, Pa. Filed Apr. 18, 1916. Serial No. 91,916. (Cl. 40—132.)



1. A device of the character described, consisting of a casing comprising two separable telescoping members having alined openings in the front faces thereof, one member having an interior resilient flange projecting upwardly from its lower wall, and a tubular light conduit secured in the closed end of the second member, the aforesaid resilient flange serving the double function of holding a character sign plate against the front wall of the casing and to hold the light conduit against the rear wall of the casing, said light conduit being removable from the casing with the second member.

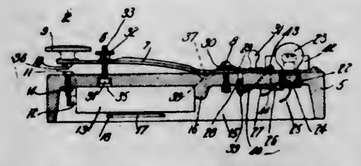
2. A combination tail light, sign plate and holder, consisting of a telescopic casing formed of two telescoping members having vertical and horizontal front flanges, one member having upper and lower interior resilient horizontal flanges to hold a sign plate against the front wall thereof and the other member having an interior resilient vertical flange to bear against one end of such plate, a transparent sign plate held by said flanges and a tubular light conductor conduit held within the casing and against the rear wall thereof by one of the aforesaid interior horizontal flanges.

3. A combination tail light, sign plate, and holder, consisting of a telescopic casing formed of two telescoping members, one member having an integral prolongation at one end and a bull's eye carried thereby, the sign plate constituting approximately the front of the casing, an upstanding resilient flange within the longitudinal front end of the casing, a tubular electric wire conduit mounted within the casing between the aforesaid resilient flange and the back wall, said conduit having illuminating means projecting therefrom behind the sign plate and having one end bent to project to the rear of the bull's eye, a thimble secured to the end of the second member of the casing and projecting from said member, said thimble having an enlarged diameter at its free end to permit freedom of movement of an electric conductor carried by the conduit.

4. A combined tail light sign plate and holder consisting of a telescopic casing formed of two telescoping members, one member having continuous resilient interior horizontal flanges, and the other member having a continuous resilient interior vertical flange and illuminating means within the casing resiliently held against the back of the casing by one of the horizontal resilient flanges, and said resilient flanges also yieldingly holding the sign plate in position against the front face of the casing.

5. A combined tail light, sign plate, and light holder, comprising a casing consisting of two telescoping members having alined openings in their front faces, one member having upper and lower horizontally disposed interior flexible flanges, and the other member having a vertical interior flexible flange, a light carrying conduit held between one of the said horizontally disposed flanges and the rear wall of the casing, and a sign plate held against the front of the casing by said flexible flanges.

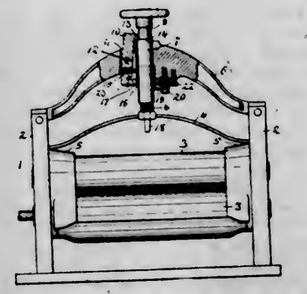
1,238,937. SIGNALING DEVICE. FRANK B. PERRY, Newton Center, Mass. Filed Oct. 10, 1916. Serial No. 124,877. (Cl. 178—115.)



1. A portable signaling instrument having, in combination, a base, a key mounted upon said base, an electric circuit adapted to be opened and closed by said key, a visible signaling member connected with said circuit, an audible signaling member connected with said circuit, and a switch pivotally arranged in electrical contact with said key, adapted to be operated to connect in circuit with said key either said visible member or said audible member.

[Claims 2 and 3 not printed in the Gazette.]

1,238,938. SAFETY DEVICE FOR WRINGERS. ARTHUR H. PETERS, Fort Wayne, Ind., assignor to Horton Manufacturing Company, a Corporation of Indiana. Filed Mar. 20, 1916. Serial No. 85,278. (Cl. 68—32.)

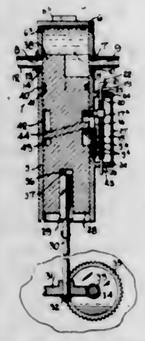


1. In apparatus of the class described, in combination with a wringer having a frame and spring pressed rollers mounted therein, a bracket mounted on the frame, a threaded stud fixed upon the spring of the wringer, a recessed adjusting sleeve extending through the bracket and having threaded relation with the stud, a spring pressed latch adapted to engage the sleeve in the recess thereof, and an operating member adapted to normally hold the latch in engaging position.

5. In apparatus of the class described, a wringer proper including a spring for compressing the rollers thereof, a threaded sleeve engaging the stud, a latch for engaging the sleeve adapted to hold the latter in operative position, an operating member for normally holding the latch into engagement with the sleeve, and springs for holding the operating member into engaging relation with the latch.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,238,939. OIL-PUMP. RAYMOND J. PFLEEGER, Deerfield, N. Y. Filed May 31, 1916. Serial No. 100,828. (Cl. 103—85.)



1. In a pump of the character described, a barrel having inlet and outlet ports, a rotatable piston formed to provide a valve controlling the inlet and outlet ports upon a rotation of the piston, means for constantly rotating the piston in one direction, and means for positively shifting the piston longitudinally alternately in opposite directions and adjustably controlling the length of the piston stroke.

2. In a pump of the character described, a barrel, a rotatable piston mounted therein, means for constantly rotating the piston, means for positively shifting the piston longitudinally in opposite directions alternately, and means for adjustably controlling the length of the stroke of the piston.

3. In a pump, a cylinder having intake and outlet ports, a piston adapted to simultaneously reciprocate and rotate in the cylinder and formed to provide a valve acting to alternately cover and uncover said ports as the piston is rotated, means for positively reciprocating the piston comprising an annular cam and abutments engaging with opposite faces of the cam, said abutments being carried on the cylinder wall, one of said abutments being shiftable toward or from the other abutment, and means exterior to the cylinder wall whereby the movable abutment may be shifted and operatively engaging the movable abutment.

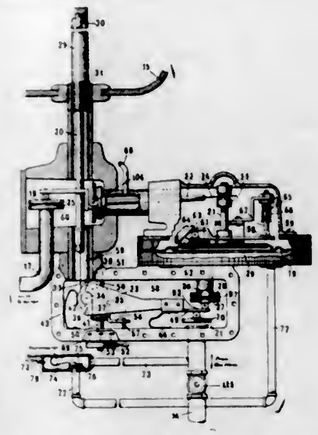
4. In a pump, a cylinder having intake and outlet ports, a piston adapted to simultaneously reciprocate and rotate in the cylinder, and formed to provide a valve acting to alternately cover and uncover said ports, as the piston is rotated, and means for positively reciprocating the piston comprising an annular cam, and means coacting with the cam and engaging with the opposite side faces thereof to thereby cause a reciprocation of the piston, said means including two elements relatively shiftable toward or from each other for a distance equal to the depth of the cam.

5. In a pump, a cylinder having intake and outlet ports, a piston adapted to simultaneously reciprocate and rotate in the cylinder and formed to provide a valve adapted to alternately cover and uncover the ports, and means for causing a reciprocation of the piston including a cam carried on the piston and rotatable therewith, and abutments engaging with opposite faces of the cam and carried on the cylinder wall, said abutments being relatively shiftable toward or from each other for a distance equal to the depth of the cam.

[Claims 6 to 10 not printed in the Gazette.]

1,238,940. FUEL-REGULATOR. HENRY E. REEVE, New York, N. Y. Filed Feb. 11, 1913. Serial No. 747,648. (Cl. 126—351.)

1. In a water heater, a reservoir, a main gas burner for heating the same, pressure actuated means controlling said main burner, thermostatic means subjected to the heat of the reservoir for controlling flow of gas to the main burner, a pilot for the main burner and thermostatic means subjected to the heat of the pilot for controlling flow of actuating fluid to the pressure actuated means which controls the main burner.



2. In a heater regulating system, the combination with the reservoir and a suitable gas burner for heating the same, of a main gas regulating valve, a gas operated diaphragm, a mechanical connection between said diaphragm and said valve, a valve in said diaphragm, a gas supply passage leading to the opposite side of said diaphragm, an auxiliary gas valve for said passage and heat controlled means for operating said auxiliary valve.

3. In a heater regulating system, a reservoir and a suitable gas burner for heating the same, means controlling flow of gas to the burner, a pressure operated device controlling the burner controlling means and arranged when actuated by fluid under pressure to cut off flow of gas to the burner, a thermostatic device controlling flow of fluid under pressure to the pressure operated device and arranged in one position to cut off flow of actuating fluid to said device and means adapted to release the pressure upon the pressure operated device when the flow of actuating fluid thereto is thus cut off.

4. In a gas regulating device, a main gas valve, a diaphragm mechanically connected with said valve and having a gas passage therein, a valve for said passage at one side of said diaphragm and carried by said diaphragm and a heat operated auxiliary valve for controlling the flow of gas to the opposite side of said diaphragm.

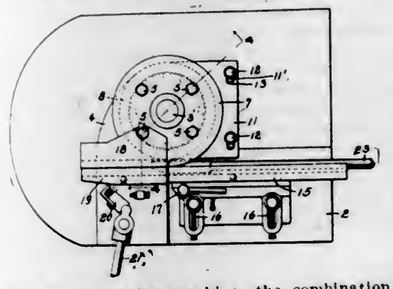
5. In a gas regulating device, a main gas valve, a diaphragm mechanically connected with said valve and having a gas passage therein, a valve for said passage carried by said diaphragm, a heat operated auxiliary valve for controlling the flow of gas to said diaphragm and means for engaging said diaphragm valve to hold it and permit said diaphragm to descend a certain distance independently of such valve.

[Claims 6 to 28 not printed in the Gazette.]

1,238,941. TUBE-BENDING MECHANISM. AUGUSTUS JAMES REYNDERS, Butler, Pa., assignor to Pittsburgh-Hickson Company, Butler, Pa., a Corporation of Pennsylvania. Filed May 16, 1916. Serial No. 97,823. (Cl. 153—40.)

1. In a tube bending machine, the combination of a former consisting of rotating and non-rotating parts arranged adjacent each other and having working faces concentrically curved, and means for securing the tubing to the working face of the rotating portion of the former whereby the tubing is drawn over the working face of the non-rotating former part.

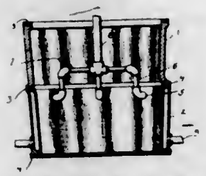
3. In a tube bending machine, the combination of a former consisting of parallel rotating and non-rotating parts arranged adjacent each other and having corresponding convex edges, the non-rotating former part having a guide-forming extension, the convex edges of the former parts and the edge of said guide-forming extension being grooved complementary with the cross-sectional curvature of the tubing, an abutment coöperating with said guide-forming extension to provide a pass for the tubing, said non-rotating former part being adapted to oscillate relatively to the abutment, tension means for holding said guide-forming extension pressed toward the abutment and in close engagement with the tubing, and means for securing the tubing to the rotating portion of the former, whereby the tubing is drawn through said pass and over the grooved edge of the non-rotating former part.



6. In a tube bending machine, the combination of a former consisting of parallel rotating former parts and an interposed ring-like non-rotating part, one of the rotating parts having a circular boss extending through said ring-like part and engaging the other rotating former part, bearing rollers confined by the periphery of said boss and adapted to engage the inner periphery of said ring-like part, securing devices uniting the rotating former parts and confining them and said rollers relative to the non-rotating former part, all of said former parts being correspondingly curved relatively to the axis of the rotation and the edges of said parts grooved complementary with the cross-sectional curvature of the tubing, and means for securing the tubing to the rotating former parts, whereby during the bending operation the tubing is drawn over the grooved edge of the non-rotating former part.

[Claims 2, 4, 5, 7, and 8 not printed in the Gazette.]

1,238,942. FIRE-POT FOR STOVES AND FURNACES. CHARLES A. ROBBINS, Nevada, and JASPER W. JOLLEY, Morral, Ohio. Filed Nov. 25, 1916. Serial No. 133,363. (Cl. 122—20.)



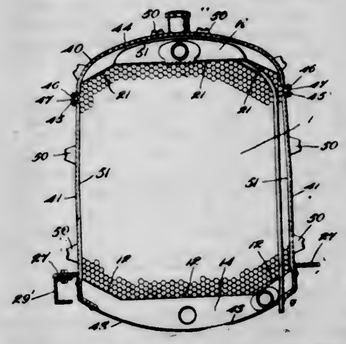
1. A fire pot composed of two correspondingly shaped sections, one of the sections being solid and the other being hollow and having inlet and outlet apertures, said sections being provided at their upper and lower edges with interlocking means whereby either of the said sections may be arranged upon the other to locate the hollow section at the upper or lower portion of the fire pot.

2. A fire pot of the class described comprising two correspondingly shaped reversible sections, one of the sections being solid and the other section being hollow and having inlet and outlet apertures for the circulation of water, said sections being provided at their upper and lower edges with coacting interlocking means of uniform diameter whereby the upper or lower edge of either section may be interlocked with the other section to arrange the hollow section at the upper or lower portion of the fire pot.

3. A fire pot of the class described comprising two correspondingly shaped reversible sections, one of the sections being solid and the other section being hollow and having inlet and outlet apertures for the circulation of water, said sections having meeting upper and lower edges whereby either section may be arranged upon the other to locate the hollow section at the upper or lower portion of the fire pot.

4. A fire pot of the class described comprising two correspondingly shaped reversible sections, one of the sections being solid and the other section being hollow and having inlet and outlet apertures for the circulation of water, said sections having meeting upper and lower edges whereby either section may be arranged upon the other to locate the hollow section at the upper or lower portion of the fire pot, pipes connected with the hollow section at the upper portion of the inner side thereof, a manifold receiving the said pipes and located at the top of the hollow section so as to be subjected to the intense heat of the fire, and a return pipe connection with the hollow section at the lower portion of the exterior of the same.

1,238,943. SUSPENSION FOR RADIATOR-CORES. CHARLES CHRISTOPHER ROBERTS and JOHN EDWARD BARCHEL, Lockport, N. Y., assignors to Harrison Manufacturing Company, Lockport, N. Y., a Corporation of New York. Filed Sept. 21, 1916. Serial No. 121,485. (Cl. 257—125.)



1. In an apparatus of the class described the combination of a cellular radiator core for automobiles; a tank associated with said core; and a hoop under tension surrounding said core and tank, substantially as described.

2. In an apparatus of the class described the combination of a radiator core; top and bottom tanks associated with said core; a hoop under tension surrounding said core and tanks; and means to adjust the tension of said hoop, substantially as described.

3. In an apparatus of the class described the combination of a radiator core; top and bottom tanks rigidly associated with said core; a detachable hoop adapted to be placed under tension surrounding said core and tanks; and means to adjust the tension of said hoop, substantially as described.

4. In an apparatus of the class described the combination of a cellular radiator core for automobiles; top and bottom tanks associated with said core; a readily detachable sectional hoop adapted to be placed under tension surrounding said core and tanks; and means to adjust the tension of said hoop, substantially as described.

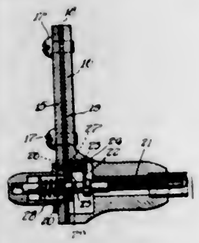
5. In an apparatus of the class described the combination of a cellular radiator core for automobiles; a tank associated with said core; and a hoop under tension provided with suspension means surrounding said core and tank, substantially as described.

1,238,944. LOCKING-VALVE. EDWIN WILLIAM ROGERS and THEODORE C. RIEBE, Chicago, Ill., assignors to Rogers Motor Lock Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 4, 1916. Serial No. 129,486. (Cl. 137—5.)

1. In a locking device, the combination of a casing, a valve, a valve-operating shaft mounted for limited longi-

tudinal movement in said casing, and a spring tending to cause such movement, said shaft having a groove with which a portion of said spring may coöperate in an abnormal position of said shaft, substantially as described.

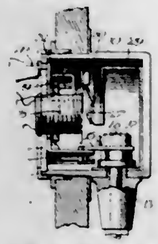
2. In a locking device, the combination of a casing, a shutter mounted therein, a shaft, an arm operatively engaging said shutter, a pin on said arm, said casing having a recess so located as to register with said pin when the shutter is in closed position.



3. In a locking device, the combination of a shutter, a shaft, a crank carried by the shaft, said crank having a projection and being in slidable engagement with the shutter, and means operative upon the severing of the shaft and when the shutter is in closed position for moving said crank and causing the engagement of said projection with a stop whereby said shutter is locked, substantially as described.

4. In a locking device, the combination of a casing, a shutter pivoted therein, a shaft in said casing, an arm on said shaft, a locking pin carried by said arm, said casing having a recess with which said pin is in register in the closed position of said shutter, and a spring tending to move said pin into said recess, said shaft having a peripheral groove with which a portion of said spring may engage when said pin engages said recess, substantially as described.

1,238,945. AUTOMOBILE-LOCK. EDWIN WILLIAM ROGERS and THEODORE C. RIEBE, Chicago, Ill., assignors to Rogers Motor Lock Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 4, 1916. Serial No. 129,487. (Cl. 123—198.)



1. In a locking device, the combination of a casing, a valve operating shaft which terminates in said casing, a lock having a casing, a plate mounted for rotation about said lock casing, a shaft operating lever, an electric contact piece and a dog all carried by said plate, an actuating lever carried by the lock barrel and a spring connecting said actuating lever and said plate, substantially as described.

2. In a device of the class described, the combination of a casing, a valve operating shaft in said casing, a lock barrel, an operating member rotatable about said barrel as an axis, a shaft-operating projection on said member, a locking dog on said member, an arm secured to and projecting laterally from said lock barrel and adapted to actuate said dog, and spring means tending to hold said parts in valve-unlocking position, substantially as described.

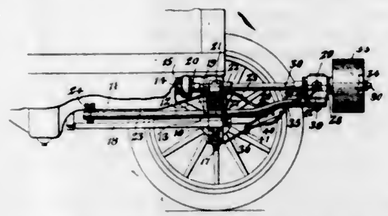
3. In a device of the class described, the combination of a cylindrical casing having an open end, a shaft terminating in said casing, a removable closure for the open end of said casing, a lock carried by said closure, a valve-operating member rotatable about said lock, a pawl pivoted on said operating member, a pawl tripping lever connected to the lock, and spring means tending to hold said parts in valve-unlocking position.

4. In a device of the class described, the combination of a cylindrical casing having an open end, a closure for said open end, a lock, a valve-operating member rotatable about said lock, an electrical contact piece rotatable with said valve-operating member, and spring means for holding said valve-operating member in valve unlocking position, said lock, operating member, contact piece and spring being secured to and removable from the casing with said closure, substantially as described.

5. In a device of the class described, the combination of a casing having an open end, a closure for said open end, a valve-operating shaft terminating in said casing, a pair of electrical contacts within the casing, a lock and a shaft-operating device secured to and removable with said closure, and locking means for securing said closure in said casing, said locking means being operative when said valve-operating mechanism is in closed position, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

1,238,946. BELT ATTACHMENT FOR MOTOR-VEHICLES. WILLIAM SCHLUTER, Parkersburg, Iowa. Filed July 5, 1916. Serial No. 107,672. (Cl. 21—90.)



1. A belt attachment for motor vehicles comprising a frame adapted to fit beneath the forward end of the vehicle and to project forwardly from the same, a drive shaft on the frame in line and for interlocking engagement with the crank shaft of the vehicle motor, a pulley on said drive shaft, anchoring arms on the intermediate portion of the frame for engagement with the vehicle to support the frame, a rest on the rear end of the frame for engagement beneath the vehicle to hold the frame in a substantially horizontal position, and detachable stay rods mounted on the forward end of the frame for engagement with the vehicle to bind the frame thereagainst and hold the drive shaft in engagement with the crank shaft.

2. A belt attachment for motor vehicles comprising a frame adapted for engagement beneath the vehicle between the axle and the spring, a drive shaft mounted on the frame and adapted for interlocking engagement with the shaft of the vehicle motor, supporting means on an intermediate portion of the frame for engagement with the vehicle, means at the rear end of the frame to prevent the latter from swinging about said supporting means, and detachable stay rods on the outer end of the frame for engagement with the vehicle to bind the supporting means and said means against the vehicle and retain the frame in place.

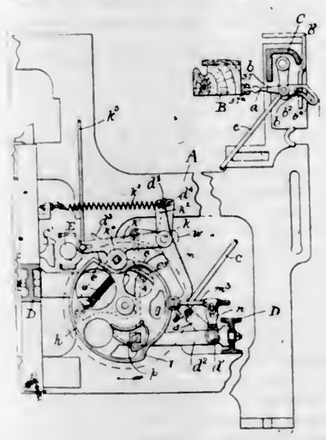
3. In combination with a motor vehicle having a crank shaft with the usual crank handle socket thereon, a stub shaft permanently journaled upon the frame of the vehicle in line with the crank shaft, engaging at one end in said socket and having its outer end projecting beyond the vehicle frame, a second socket on the outer end of said stub shaft beyond the vehicle frame, a supporting frame arranged in a plane beneath the stub shaft and extending forwardly from the vehicle, a bearing on said frame, a drive shaft journaled in the bearing and detachably engaging at its rear end in said second socket and adapted to turn the crank shaft through the stub shaft and means for detachably mounting said supporting frame on the frame of the vehicle, whereby upon the removal of the frame with the drive shaft carried thereby, the crank shaft of the engine may be operated by applying a crank to said second socket.

4. A belt attachment for motor vehicles comprising a frame adapted to fit beneath the forward end of the vehicle and to project forwardly from the same, a drive shaft journaled on the frame at the forward end thereof in line and for interlocking engagement with the crank shaft of the motor vehicle, a pulley on said drive shaft, anchoring arms on the intermediate portion of the frame for engagement with the vehicle to support the frame, and a rest on the rear end of the frame for engagement beneath the vehicle to hold the frame in a substantially horizontal position.

5. A belt attachment for motor vehicles comprising a frame adapted for engagement beneath the vehicle between the axle and the spring, a drive shaft journaled on the frame at the forward end thereof and adapted for interlocking engagement with the shaft of the motor vehicle, supporting means on an intermediate portion of the frame for engagement with the vehicle, and means at the rear of the frame to prevent the latter from swinging about said supporting means.

[Claims 6 to 11 not printed in the Gazette.]

1,238,947. PICK-FINDING MECHANISM FOR LOOMS. GEORGE WILSON SHACKLETON, Braithwaite, Keighley, England, assignor to the Firm of George Hattersley and Sons, Limited, Keighley, England. Filed Apr. 13, 1912. Serial No. 690,605. (Cl. 139—79.)



1. An improvement in looms comprising a controlling rod, mechanism for automatically actuating said rod, a control member for said mechanism, means for actuating said control member to start said mechanism upon failure of a weft thread, means operated by said mechanism for imparting an additional movement to said control member, and stop mechanism actuated by said additional movement.

2. An improvement in looms comprising a controlling rod, a normally stationary cam, a rotating element, a clutch for connecting said cam with said rotating element, means operated by said cam for actuating said rod, a control member for said clutch, means for actuating said control member to operate the clutch upon failure of a weft thread, means operated by said cam for imparting an additional movement to said control member, and stop mechanism actuated by said additional movement.

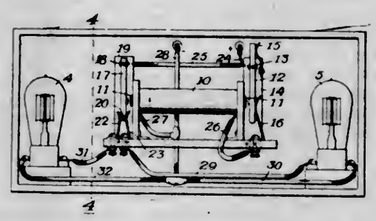
3. An improvement in looms comprising a controlling rod, a normally stationary cam, a rotating element provided with projections, a pivoted clutch lever carried by said cam and positioned to engage said projections, means actuated by said cam for operating said rod, a control member for said lever, means for imparting initial movement to said control member upon failure of a weft thread, means operated by said cam for imparting an additional movement to said control member, and stop mechanism controlled by said additional movement.

4. An improvement in looms comprising a controlling rod, mechanism for actuating said rod, a pivoted bunter controlling said mechanism, means for imparting an initial movement to said bunter to start said mechanism upon failure of a weft thread, means operated by said mechanism for imparting additional movement to said bunter, and stop mechanism operated by said additional movement.

5. An improvement in looms comprising a controlling rod, mechanism for actuating said rod, a movable bunter controlling said mechanism, means for imparting an initial movement to said bunter to start said mechanism upon failure of a weft thread, means for limiting said initial movement, means operated by said mechanism for imparting an additional movement to said bunter, and stop mechanism operated by said additional movement of the bunter.

[Claims 6 and 7 not printed in the Gazette.]

1,238,948. APPARATUS FOR OPERATING FLASH-LIGHTS. HERBERT V. SHEPPARD, Worcester, Mass. Original application filed Mar. 31, 1916, Serial No. 88,140. Divided and this application filed Sept. 18, 1916. Serial No. 119,864. (Cl. 177—346.)



1. In an apparatus of the class described, an electric circuit, an electromagnet included in said circuit, an armature at one end of said magnet, a spring for bringing said armature away from said magnet and into the electric circuit, a second swinging armature included in said circuit and normally held by gravity out of contact with said magnet, and a multiplicity of contact points located in the path of said second swinging armature, and normally out of contact therewith.

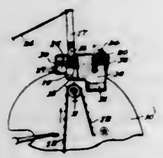
2. In an apparatus of the class described, an electric circuit including an electromagnet, means for alternately breaking the circuit to said magnet, somprising a swinging armature included in said circuit and normally out of contact with said magnet, a spring applied to said swinging armature to force it out of contact with the electromagent, and a contact point in the path of said armature as it is moved by said spring.

3. In an apparatus of the class described, an electric circuit, an electromagnet, means for making and breaking the connection between said electromagnet and said electric circuit, a suspended swinging armature included in said circuit and normally held by gravity in the field of said electromagnet, a pair of contact points one on each side of said swinging armature but spaced therefrom, one of said contact points consisting of a yielding spring by which said armature is thrown against the other contact point.

4. In an apparatus of the class described, an electric circuit, an electromagnet included in said electric circuit, means for automatically breaking the circuit to said electromagnet, an armature included in said circuit, normally held out of contact with said electromagnet but within its field, a spring in the path of said armature as it is moved into contact with said electromagnet, a contact point on the opposite side of said armature but spaced therefrom, a pair of electric lamps included in said circuit, one of said

lamps having electrical connection with said spring and the other of said lamps having electrical connection with said contact point.

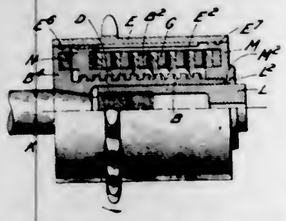
1,238,949. SEPARATING DEVICE. MONTGOMERY SLEETH, Bellevue, Pa., assignor to Fort Pitt Bedding Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Jan. 28, 1916. Serial No. 74,822. (Cl. 83—71.)



The combination with a cotton breaking and mixing machine having a material-conveyer, of means detachably secured thereto for separating iron or steel particles from the material to be carried by said conveyer, said separating means comprising a plurality of electromagnets, a receiver, a rotary brush associated with said receiver, a normally stationary pivoted U-shaped frame for supporting said electromagnets in coöperative relation with said conveyer, means for rocking said frame to bring said electromagnets into coöperative relation with said receiver and into engagement with said rotary brush, whereby the latter brushes the particles from said electromagnets into said receiver, an electric switch controlling the circuit of said electromagnets, and a plunger for actuating said switch, said plunger being disposed in the path of one of the arms of said U-shaped frame so as to be operated thereby when said frame is swung to bring said electromagnets into engagement with said brush.

1,238,950. DRIVING MECHANISM. GEORGE ENOCH STANLEY, Coventry, England. Filed Nov. 28, 1916. Serial No. 133,877. (Cl. 64—13.)

2. In driving mechanism, the combination of a bush,

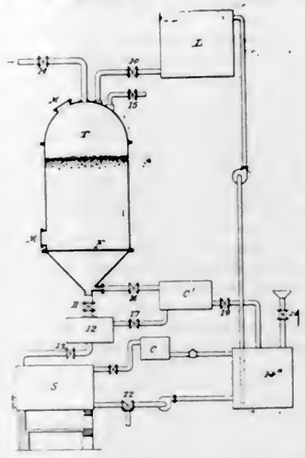


having a thread cut thereon, a nut traveling on said thread, a collar at each end of said bush, a spring between one of said collars and said nut, a sleeve, the said sleeve and said nut having a splined connection, a shaft carrying said bush, and means for attaching said bush to said shaft and removing it therefrom without removing said collars or said sleeve, substantially as set forth.

[Claims 1 and 3 not printed in the Gazette.]

1,238,951. PROCESS OF EXTRACTING METALS FROM ORES. EARL T. STANNARD, Kennecott, Alaska, assignor to Kennecott Copper Corporation, New York, N. Y., a Corporation of New York. Filed Aug. 7, 1916. Serial No. 113,488. (Cl. 75—18.)

1. The process for leaching ores which consists in treating a mass of ore with a volatile or semi-volatile solvent; withdrawing the solvent and recovering the metal therefrom, recovering the volatile reagent from the solvent, passing steam through the charge and washing the metal bearing solutions therefrom by means of the condensate, and thereafter condensing the steam and recovering the reagent entrapped by the steam in its passage through the charge.



2. The herein described process of washing leached ores which consists in passing steam through the leached ore and thereby condensing a part of the steam, continuing the application of steam to the ore until the condensate has thoroughly washed the ore and then condensing the steam which has passed through the ore to recover the reagent which the steam has absorbed from the ore.

4. The herein described process for recovering metals from ores by leaching which consists in treating the ore with a volatile or semi-volatile solvent, removing the solvent from the ore, passing steam through the ore whereby the condensate therefrom washes the ore of the metal bearing solvent, continuing the treatment with steam after the mass of ore is heated and condensation no longer takes place and thereafter condensing the steam to recover the volatile reagent used in leaching.

5. The process of recovering reagents used in leaching from masses of treated ores, which consists in passing steam through the treated ores, washing the ore with the condensate from the said steam, adding the condensate and the metal bearing solutions carried thereby to the previously withdrawn treating solution, then condensing the steam which passes through the ore after the condensation has ceased and then recovering the reagent from the condensed steam.

6. The process of washing leached ores with steam which consists in passing steam through the masses of ores thereby condensing the steam and washing the ore partly with the condensate and partly with the live steam, whereby smaller volumes of stronger leaching solutions may be utilized, substantially as described.

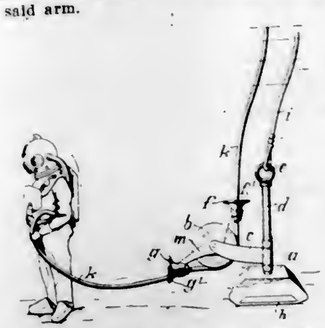
[Claim 3 not printed in the Gazette.]

1,238,952. DIVING-GEAR. HERMANN STELZNER, Lübeck, Germany, assignor to the Firm of Drägerwerk, Heinr. & Bernh. Dräger, Lübeck, Germany. Filed July 6, 1917. Serial No. 179,076. (Cl. 61—7.)

1. A diving gear comprising a weight arranged to be lowered to the bottom of the water, and guiding means for the diving tackle carried by said weight.

3. A diving gear comprising a weight arranged to be lowered to the bottom of the water, an arm pivotally carried by said weight, a guide roller for the diving tackle rotatably mounted on said arm and guiding funnels carried by said arm in coöperative relation to said roller.

4. A diving gear comprising a weight arranged to be lowered to the bottom of the water, a stem extending upwardly from said weight, means connected with said stem for lowering said weight, an arm rotatably mounted on said stem and a guide roller for the diving tackle carried by said arm.



5. A diving gear comprising a weight, means for lowering said weight to the bottom of the water, and foot rests on said weight for the diver whereby said weight may be used as a carrier for the diver.

6. A diving gear comprising a weight arranged to be lowered to the bottom of the water, guiding means for the diving tackle carried by said weight, and guiding funnels carried by said weight in coöperative relation to said guiding means, said funnels comprising sections hinged together and arranged to be opened to receive the diving tackle and closed to guide said tackle to said guiding means.

[Claim 2 not printed in the Gazette.]

1,238,953. SOIL-CULTIVATOR. MATT STROM and ERIC HOGLUND, Duluth, Minn. Filed Apr. 2, 1917. Serial No. 159,229. (Cl. 97—85.)

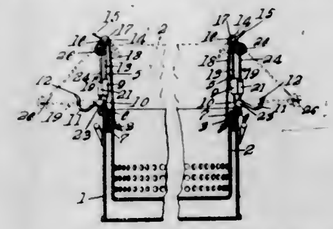


1. A cultivator of the class described, comprising in combination a single two-wheeled axle, a cultivator carrying frame rigidly fixed to and extending rearwardly from said axle, the outermost portion of said frame being bent upwardly forming an obtuse angle therein, a plurality of depending arms fixed to the axle, a second frame extending forwardly of said axle and pivotally carried in the free ends of the arms, braces extending from the angle in the cultivator frame to the free ends of the arms, an arm centrally located upon the axle and extending forwardly at right angles to the first mentioned arms and an operating lever pivotally mounted upon the second frame and connected with the last mentioned arm whereby the cultivator frame is raised or lowered by the rocking of the axle.

2. The combination with a cultivator of the class described, having a cultivator carrying frame rigidly fixed to the vehicle axle, of a second tongue supporting frame pivotally suspended a fixed distance below the axle independently of the first mentioned frame and normally substantially parallel with the cultivator carrying frame and coöperating means carried by the second frame and the axle for changing the angular relation of the frames by [illegible] the axle.

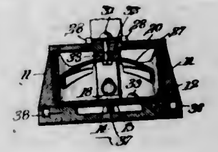
1,238,954. CLOTHES-DRAINER. JOHN P. SUNDIN, Salem, Oreg. Filed Jan. 4, 1917. Serial No. 140,582. (Cl. 68—30.)

1. The combination with a wash boiler and a clothes holder movable therein, of a standard constructed of wire having a lower portion applicable to the wash boiler, an upper fork, coils between said fork and lower portion, and a loop extending from said standard and bent to form a hook-catch, a pair of flexible elements connected to the holder, the upper ends of the arms of said fork having means for guiding said elements, a fulcrum pin extending through said coils, and a lever fulcrumed upon said pin between the coils, said elements being connected to the free end of the lever, and the lever being engageable with said catch when moved downwardly to be held thereby.



2. The combination with a wash boiler and a clothes holder movable therein, of a standard constructed of wire having a lower portion applicable to the wash boiler, an upper fork, coils between said fork and lower portion, a loop extending from said standard and bent to form a hook-catch, the upper ends of the arms of said fork having pairs of spaced coils and yokes connecting said coils, a transverse pin extending through the last mentioned coils, pulley wheels upon said pin within said yokes, a pair of flexible elements extending over said pulley wheels and connected to the holder, a fulcrum pin extending through the first mentioned coils, a lever fulcrumed at one end upon the fulcrum pin between the first mentioned coils, said lever having a fork, the crotch portion of which is engageable with said catch when the lever is swung downwardly, the flexible elements being connected to the ends of the forked arms of the lever, and a handle between and connected to the forked arms of the lever.

1,238,955. SAD-IRON. MONROE SUNSHINE, New York, N. Y. Filed Feb. 11, 1915. Serial No. 7,540. (Cl. 158—23.1.)



1. In a gas iron, the combination with a hollow body portion having an air inlet in its bottom, of a burner in said hollow body, and a removable smoothing base having substantially its entire margin spaced from the body portion to provide a slot for admitting air to said hollow body around the margin above said base.

[Claims 2 to 16 not printed in the Gazette.]

1,238,956. SEED-CORN-TESTING MACHINE. EARL GLENARD TJOSSEM, Des Moines, Iowa. Filed Feb. 21, 1917. Serial No. 150,125. (Cl. 47—30.)

1. A seed corn testing device, comprising a box, a removable cover therefor, a supporting member including a loop adapted to encircle and receive an ear of corn at points spaced from the ends thereof, forwardly projecting members at the ends of said loop, extensions on the forward ends of said members arranged substantially at right-angles to said members and secured to said box.

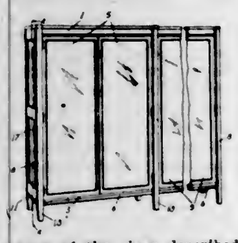
2. A seed corn testing device, comprising a box, a removable cover therefor, a supporting member including a loop adapted to encircle and receive an ear of corn at

points spaced from the ends thereof, forwardly projecting members at the ends of said loop, extensions on the forward ends of said members arranged substantially at



right-angles to said members and secured to said box, and extensions at the end of said first extensions inclined toward said loop.

1,238,957. CABINET. FRED W. TOBEY, Grand Rapids, Mich. Filed Sept. 18, 1916. Serial No. 120,795. (Cl. 45—78.)



1. In a structure of the class described, the combination of a plurality of cabinet units comprising top, bottom and end walls, frames adapted to receive the adjacent ends of a pair of units or the end of a unit and an end panel and comprising uprights, top and bottom rails, and struts disposed centrally on edge below and above said top and bottom rails respectively, said frames being arranged between said units and at the outer ends of the outer units, said units being disposed with their ends in said frames abutting their said struts and being provided with rabbet-like recesses for the said rails, and end panels arranged within the outer frames.

2. In a structure of the class described, the combination of a plurality of cabinet units comprising top, bottom and end walls, frames adapted to receive the adjacent ends of a pair of units or the end of a unit and an end panel and comprising uprights, top and bottom rails, and struts disposed centrally on edge below and above said top and bottom rails respectively, said frames being arranged between said units and at the outer ends of the outer units, said units being disposed with their ends in said frames, and end panels arranged within the outer frames.

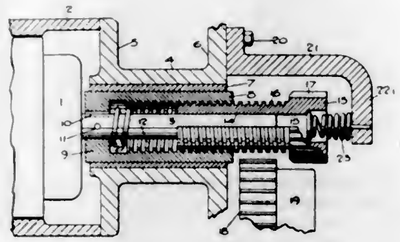
5. In a structure of the class described, the combination of a plurality of cabinet units, frames arranged between said units and at the outer ends of the outer units, and end panels for the outer frames, said units and end panels being interchangeable in said frames.

7. In a structure of the class described, the combination of end frames comprising uprights, top and bottom rails, and struts disposed centrally below and above said top and bottom rails respectively, a unit comprising top, bottom and end walls disposed with its ends in said frames and abutting said struts, and end panels arranged within the frames on the onter sides of said struts.

11. A structure of the class described comprising in combination, a cabinet unit, end frames and end panels, the end frames being adapted to receive on either side a cabinet unit or an end panel, all detachably associated to permit manipulation thereof, for the purpose specified.

[Claims 3, 4, 6, and 8 to 10 not printed in the Gazette.]

1,238,958. ENGINE-STARTING DEVICE. EDWARD J. TOMLINSON, Newark, N. J., assignor to Splitdorf Electrical Company, Newark, N. J. Filed Nov. 11, 1916. Serial No. 130,798. (Cl. 74—7.)



1. An engine starter having in combination with an engine operated member, a motor driven shaft, a driving pinion having an externally threaded sleeve and mounted upon said shaft for longitudinal movement thereon, an internally threaded sleeve secured to said shaft for rotation therewith and coöperating with said externally threaded sleeve to draw the driving pinion into engagement with the engine member, and yielding frictional means coöperating with an annular shoulder on said pinion to hold the same from rotating while passing into said engagement.

2. An engine starter having in combination with an engine operated member, a motor driven shaft, a driving pinion having an externally threaded sleeve and mounted upon said shaft for longitudinal movement thereon, an internally threaded sleeve fastened to said shaft for rotation therewith and coöperating with said externally threaded sleeve to move said pinion into engagement with the engine member, and resilient means adapted to maintain frictional contact with said pinion for the purpose of holding the same from rotating while passing into said engagement.

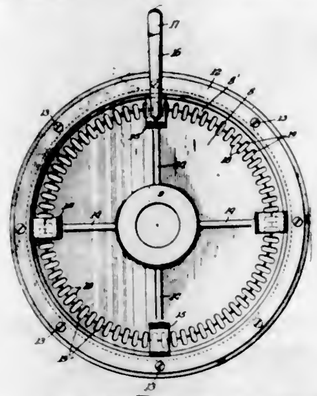
3. An engine starter having in combination with an engine operated member, a motor driven shaft, a hollow driving member having an externally threaded sleeve and mounted upon said shaft for longitudinal movement thereon, an internally threaded sleeve fastened to said shaft to rotate therewith and coöperating with the first said sleeve to move said driving member into engagement with the engine member, an internal annular shoulder on said driving member coöperating with resilient means whereby said driving member is frictionally held from rotation while moving into said engagement with the engine member.

4. An engine starter having in combination with a member operated by the engine, a motor driven shaft, a threaded sleeve secured to said shaft for rotation therewith, a driving member mounted upon said shaft and adapted for axial movement relative thereto, said driving member having a threaded sleeve coöperating with the first said sleeve to move said driving member into engagement with the engine member, a spring adapted to frictionally contact with said driving member to hold the same from rotation while passing into said engagement with the engine member, said first mentioned sleeve serving also as a journal for the motor driven shaft.

5. An engine starter having in combination with a member driven by the engine, a motor driven shaft, an internally threaded sleeve secured to said shaft for rotation therewith, a hollow driving member having an externally threaded sleeve and mounted upon said shaft for axial movement relative thereto, said sleeves coöperating with each other for the purpose of moving said driving member into and out of driving engagement with the engine member, an annular shoulder formed by a counterbore in said driving member, flexible means frictionally engaging said shoulder whereby said driving member is prevented from rotating while passing into and out of said engagement with the engine member.

[Claims 6 to 13 not printed in the Gazette.]

1,238,959. TERMINAL-BENDING TOOL FOR ARMATURES. EDWARD J. TOMLINSON, Dayton, Ohio, assignor to Vincent G. Apple, Dayton, Ohio. Filed Dec. 11, 1916. Serial No. 136,385. (Cl. 81—15.)



1. A tool, of the character described, comprising two concentric, independently rotatable parts, each provided with pluralities of armature-terminal-engaging means, said means, on the two parts, being movable into and out of radial register.

2. A tool of the character described, comprising two concentric, independently rotatable parts, each provided with pluralities of armature-terminal-engaging means, said means, on the two parts, being revoluble in opposite directions into and out of radial register, to circumferentially displace the conducting terminals of an armature.

3. A tool, for bending armature conductor terminals circumferentially, into planes containing appropriate pairs for connection with the armature commutator, which consists of two parts, independently rotatable about a common axis, each part having terminal-engaging means for registering with a number of armature terminals and means to rotate said parts to circumferentially displace said terminals in radial planes for appropriate pairs.

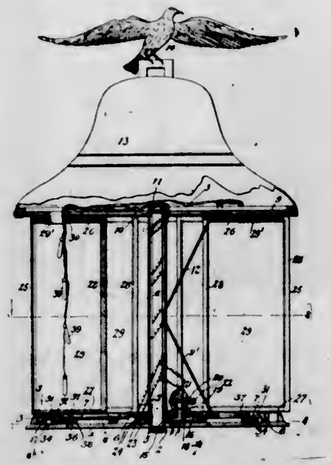
4. A tool, for bending armature conducting terminals circumferentially into planes to contain appropriate pairs for connection with the armature commutator, which consists of two parts, independently rotatable about a common axis, each part having a suitable number of terminal-engaging means for registering with the number of armature terminals, said engaging parts adapted to rigidly hold the extreme ends of said terminals in axial planes, parallel with the armature axis, for connection with commutator segments, and means to rotate said parts to circumferentially displace the intermediate portions of said terminals from initial, axially-parallel planes to lie in spirally arranged planes.

5. A tool, comprising two concentric independently revoluble parts, both parts provided, in their meeting edges with a plurality of registering slots, each of which is designed to receive an armature terminal and to hold the slot-included parts of said terminals in axially parallel planes, and means to relatively rotate said tool-parts to circumferentially displace said terminals, with the axially disposed ends thereof in radial planes to constitute appropriate pairs.

[Claim 6 not printed in the Gazette.]

1,238,960. ADVERTISING DEVICE. MARGARET E. TORRY, Cleveland, Ohio. Filed Aug. 17, 1915. Serial No. 45,911. (Cl. 40—33.)

1. An advertising device comprising a base, a frame rotating on said base, sign cylinders rotating in said frame, pinions mounted on the cylinders, a mutilated gear rim mounted on the base and intermittently and successively engaged first by the pinions of some of said cylinders and then by the pinions of other cylinders, and means for intermittently turning said frame.



2. An advertising device comprising a base, a frame rotating on said base, sign cylinders rotating in said frame, pinions mounted on the cylinders, a mutilated gear rim mounted on the base and intermittently and successively engaged first by the pinions of some of said cylinders and then by the pinions of other cylinders, translucent panes adapted to bear advertising signs arranged in the cylinder walls, means for illuminating the interior of the cylinders, and means for rotating the frame.

3. An advertising device comprising a base, a mast journaled on the base, a moving platform supported by said base and secured to the mast, an upper plate arranged above said platform and secured to the mast, inclined braces connecting said plate and platform with said mast, means for supporting advertising signs between said plate and platform, and means for moving said platform, plate and mast and the parts mounted thereon.

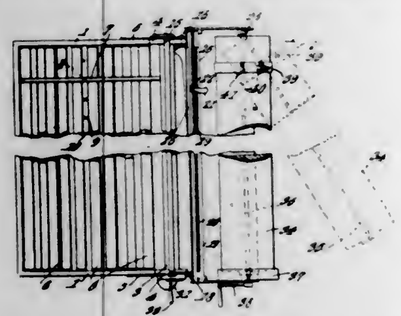
4. An advertising device comprising a rotatable frame, cylinders rotatably mounted in said frame and adapted to carry advertising signs, means for successively moving the frame through a portion of a rotation, and means for automatically turning one half of the number of cylinders on the frame through a partial rotation while the frame is moving through a partial rotation from one position to another.

1,238,961. CLOTH MEASURING AND FOLDING MACHINE. JOHN THOMAS TELLIS, Hope, Ark., assignor of one-half to Robert Munday, Fulton, Ark. Filed Mar. 14, 1916, Serial No. 84,143. Renewed July 13, 1917. Serial No. 180,482. (Cl. 33—130.)

1. A device of the character described embodying a frame having cloth holding means, a winding member having one end hingedly connected to the frame, a rotatable socket member carried by the frame for receiving the free end of said winding member, a slide adjustable upon the winding member, and catches carried by said socket member and slide for attaching the end of the cloth to the winding member.

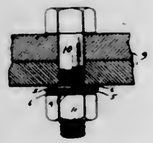
2. A device of the character described embodying a frame having cloth holding means, a block hinged to the frame, a spindle carried by said block, a plate rotatable upon said spindle for winding the cloth thereon, a rotatable elongated socket member carried by the frame and having one end open to receive the free end of said plate, a slide adjustable upon said plate, and cloth engaging catches carried by said socket member and slide.

3. A device of the character described embodying a frame having cloth holding means and a transverse strip over which the cloth passes while being measured, an arm fulcrumed to one side of the frame below said strip and having side pieces extending along the edges of said strip, said side pieces having flanges adapted to clamp the cloth



upon the strip, the arm projecting from said side of the frame toward the opposite side, a cutter movable along the strip between said flanges, operating means carried by that side of the frame opposite the first mentioned side, and a connection between said operating means and arm.

1,238,962. LOCK-WASHER. MYRON A. TWITCHELL, Elk Point, S. D., assignor of one-half to Clarence A. Green, Sioux City, Iowa. Filed July 26, 1916. Serial No. 111,358. (Cl. 151—2.)



1. In a nut-lock, a blank of spring material having a central opening, an inclined side portion, a flat side portion opposite the inclined portion, and an inwardly extending projection at the side of the opening opposite the inclined portion.

2. The combination with a bolt and nut of a pair of washers encircling the bolt and each having an inclined surface adjacent one side, the washers being oppositely faced and the inclined surface of each being engaged by the side of the other opposite its inclined surface.

3. The combination with a bolt and nut of a pair of washers encircling the bolt, each washer having an inclined surface adjacent one side, and a flat side opposite the inclined surface, the washers being oppositely faced and the inclined surface of each engaged by the flat side of the other.

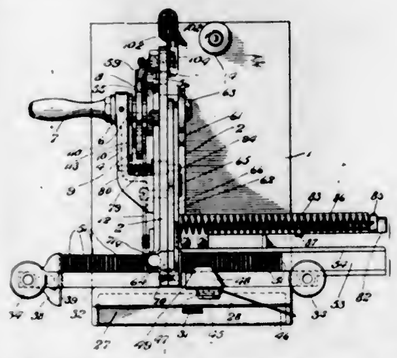
4. The combination with a bolt and nut of a pair of washers encircling the bolt, each washer having an inclined surface adjacent one side, a flat side adjacent the inclined surface and an inwardly-extending projection on the side of the opening opposite the inclined surface, the washers being oppositely faced and the inclined surface of each engaged by the flat side of the other.

5. A lock-washer for a bolt and nut comprising two individual washers, each having an inclined surface adjacent one side, a flat side opposite the inclined surface, and an inwardly-extending projection on the side of the opening opposite the inclined surface, the washers being adapted to be placed on the bolt under the nut, and oppositely faced, with the flat side of each in contact with the inclined surface of the other, whereby the washers will be forced laterally in opposite directions when compressed by the nut.

1,238,963. PROCESS OF PREVENTING FORMATION OF MOISTURE ON THE EXPOSED SURFACE OF TRANSPARENT MEMBERS. ABNER C. URMSTON, Brooklyn, N. Y., assignor of one-half to Ernest Emond and George H. Urmston, Brooklyn, N. Y. Filed Jan. 27, 1915. Serial No. 4,623. (Cl. 134—27.)

The process of preventing the formation of globules of moisture on the exposed surface of transparent members comprising the application of a thin layer of a composition having as its main constituent the juice of tobacco leaves.

1,238,964. BELT-STAPLING MACHINE. ANTHONY VANDERVELD, Grand Rapids, Mich. Filed July 26, 1916. Serial No. 111,471. (Cl. 1—3.)



1. In a machine for setting belt staples having diverging arms terminating in attaching prongs for engagement with the belt, means to hold a belt end, means to affix a belt staple to said belt end with the prongs secured in opposite sides of the belt and the major portion of the staple extending beyond the belt end, and means to move the holding means step by step laterally to position the belt end for successively receiving the staples.

2. In a machine for setting belt staples having diverging arms terminating in attaching prongs for engagement with the belt, means to hold a belt end, means for successively affixing belt staples one at a time to said belt end with the rear curved portions of the staples extending beyond the end of the belt, and means to move said holding means step by step between operations of the staple affixing means to properly position the belt end to receive the staples.

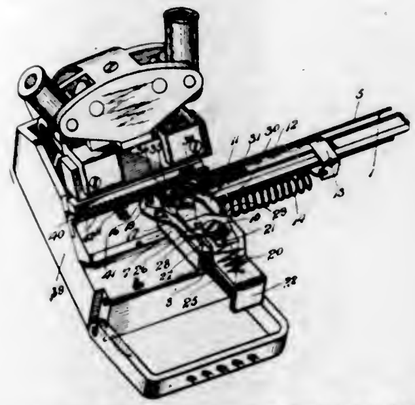
3. In a machine for setting belt staples having diverging arms terminating in attaching prongs for engagement with the belt, means to hold a belt end, means for successively affixing belt staples one at a time to said belt end in parallel relation to each other and with the rear curved portions of the staples extending beyond the end of the belt, and means for successively changing the relative positions of the belt holding means and the staple affixing means whereby the belt may receive the staples in spaced relation to each other.

4. In a machine for setting belt staples having diverging arms terminating in attaching prongs for engagement with the belt, means for holding a belt end, and means for successively affixing staples one at a time to said belt end with the rear curved portions of the staples projecting beyond the same and spacing them apart in parallel relation to each other throughout the width of said belt end.

5. In a machine for setting belt staples having diverging arms terminating in attaching prongs for engagement with the belt, means for holding a belt end, means for moving said holding means step by step in a direction transverse to the length of the belt with intervals of time between steps during which the belt holding means and belt carried thereby are at rest, and means for affixing staples in parallelism in the belt during said periods of rest, substantially as described.

[Claims 6 to 25 not printed in the Gazette.]

1,238,965. TOOL FOR HANDLING BELT-STAPLES. ANTHONY VANDERVELD, Grand Rapids, Mich., assignor to Clipper Belt Lacer Company, a Corporation of Michigan. Filed Sept. 11, 1916. Serial No. 119,385. (Cl. 1—49.)



1. In a device of the character described, a bar having a right angular extension at one end, a block at each side of the extension, a trough-like housing positioned lengthwise of and spaced from the bar, sides extended at right angles from said housing at one end and passing along side the blocks, means securing said sides, blocks and extension together, a spring operated follower located between the bar and housing, a plate slidably mounted on one of said sides of the housing, a plunger connected to the plate and positioned in front of the extension to said bar, an ejecting finger at the end of the plunger, a plate covering the front edges of the blocks and said extension, said plate terminating short of the bend in the housing, and a lever pivotally mounted on the plate and having one end positioned directly in front of the opening between the bar and housing and the other end engaged with an edge of the slidably mounted plate.

2. A device of the character described comprising, a trough-like container for belt staples each formed with a central curved bight and with diverging arms terminating in attaching prongs extending from the bight, ejecting mechanism for ejecting the staples from the container one at a time to a holder having spaced slots for receiving the staples, and means on the device operated by the ejecting mechanism for engaging with said slotted holder to move the device step by step along said holder with successive operations of the ejecting mechanism.

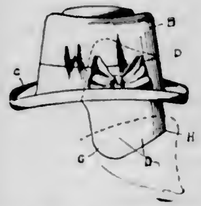
3. A device of the character described comprising, a container for receiving a quantity of belt staples, an ejecting mechanism for ejecting the staples one at a time, and adapted to deliver them to a holder having spaced tongues separated by slots for receiving the staples, and means on the device operated by the movement of the ejecting mechanism for engaging with the tongues of said holder to move the device step by step along the length of said holder with successive operations of the ejecting mechanism.

4. A device of the character described adapted to be applied to a slotted staple holder, said device including means for receiving a quantity of belt staples, an ejecting means manually operable toward the slotted holder for ejecting staples one at a time from the device to said holder, a lever pivotally mounted on the device and having one end bearing against an element of the ejecting means and operable thereby, and means mounted on the opposite end of the lever adapted to engage with the slotted holder to move the device lengthwise thereof step by step with successive operations of the ejecting means.

5. A device of the character described adapted to be applied to a slotted staple holder, said device including a container for a quantity of belt staples, a manually operable ejecting means mounted at one end of the container for ejecting staples from the container one at a time to the slotted holder, means for moving the staples in the container into position to be ejected by the ejecting means, means on the device to engage with the slotted holder, and means operated with the ejecting movement of the ejecting means for actuating said holder engaging means to move the device one step equal to the distance between successive slots with each operation of the ejecting means.

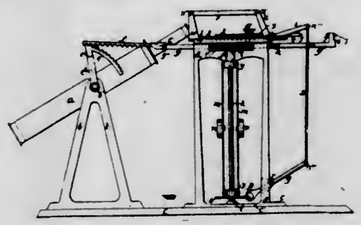
[Claims 6 to 15 not printed in the Gazette.]

1,238,966. HEAD-GEAR. HENRY H. VAUGHAN, Montreal, Quebec, Canada. Filed Mar. 23, 1916. Serial No. 86,295. (Cl. 2—107.)



An article of headwear comprising a crown, a horizontal brim the inner edge of which is turned up within the crown, a sweat-band stitched to the horizontal portion of the brim near the inner edge thereof, a unitary member adapted to be turned to different positions, in one position protecting the neck and ears of the wearer, and in the other position contained within the crown, the protecting member presenting rounded corners of sufficient depth to cover the ears of the wearer and having its lower edge upwardly concaved between the ear portions to co-act with the coat coller, and an attachment band having one edge stitched to the horizontal portion of the brim over the sweat-band and having its opposite edge split and straddling one edge of the protecting member and being stitched thereto.

1,238,967. RANGE-FINDER FOR USE UPON AERIAL VEHICLES OR MACHINES. WILLIAM WAIT, Jr., Peekskill, N. Y. Filed Apr. 24, 1916. Serial No. 93,104. (Cl. 200—27.)



1. In a device of the character described a telescope mounted upon trunnions; a toothed adjustable sector secured to one of the trunnions; a spring governor; a sliding base operative by said governor; a sliding bar on the sliding base adjustable on said sliding base; an electrical contact point on the rear end of the sliding bar; a sliding rack bar beneath the sliding base, a rack on said bar, an electrical contact point on the rear end of said bar in alinement with the contact point on the adjustable bar, the rack on said bar engaging with a pinion on the governor shaft; and a rack pivoted to the forward end of said bar to engage with the sector on the telescope.

2. In a device of the character described, a frame; a sliding base in the top of the frame; a rack bar extended longitudinally through the frame contiguous to and parallel with the sliding base; a spring governor within the frame, a pinion on the governor shaft engaging with the rack bar, a disk slidable on the governor shaft operated by the governor springs, a lever pivoted in the frame en-

gaging with the said disk, a bell crank pivoted to the top of the frame, the outer end of the disk lever connected with one arm of the bell crank, a bracket on the sliding base said bracket connected with an arm of the said bell crank; a longitudinally adjustable sliding bar on the sliding base, an electrical contact point on the rear end of the sliding bar, a pointer on the sliding bar and a scale on the sliding base; an electrical contact point on the rear end of the sliding base the two contact points in alinement one with the other; and means at the forward end of the said rack bar for connecting said bar with a sighting device.

3. In a device of the character described, a frame; a sliding base in the top of the frame; a rack bar extended longitudinally through the frame contiguous to the sliding base; a spring governor within the frame, a pinion on the governor shaft engaged with the rack bar, a disk slidable on the governor shaft operated by the governor, a lever pivoted in the frame engaging with said disk, a bell crank pivoted to the top of the frame, the outer end of the disk lever connected with one end of the bell crank, a bracket on the sliding base said bracket connected with an arm of the bell crank; a longitudinally adjustable sliding bar on the sliding base, an electrical contact point on the rear end of the sliding bar; an electrical contact point on the rear end of the sliding base the two contact points in alinement one with the other; a rack pivoted to the forward end of the said rack bar; and a segment secured to a trunnion of a sighting device for engagement with the said connecting bar.

4. In a device of the character described for timing the dropping of missiles, means for connecting the device with a sighting device comprising the actuating bar, a rack bar pivoted to the actuating bar, and a sector secured to a trunnion of the sighting device, gear teeth on the sector to engage with said rack, the sector connection with the trunnion being adjustable in its length, and a pointer and scale on the adjustable parts.

5. The combination in an instrument as described of a sighting device, a sliding bar constituting a means for effecting an electrical contact, and means for operating said bar by the sighting device, and adjustable means on a sliding base adjacent to said bar for a normally fixed contact, means for changing the fixed contact to a quickly moving contact, comprising a governor, means by which the sliding bar actuates the governor, and lever connecting means between the governor and the said sliding base.

1,238,968. SASH-FASTENER. JULIUS R. WATTS, Atlanta, Ga. Filed Nov. 29, 1916. Serial No. 134,099. (Cl. 16—146.)

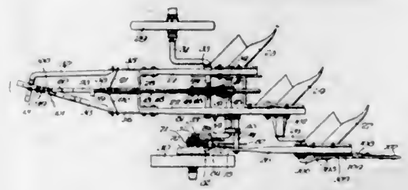


1. A window fastener of the class described, including a base plate, ears formed on the said base plate in spaced relation, a cam pivotally connected to the said ears, the said base plate having a groove formed therein between the said ears terminating adjacent one edge thereof, the said groove having a well therein adjacent the said edge, a latch member including an arm adapted to be seated in the said groove, a heel formed on one end of said arm for engagement in the said well, a pawl extending upwardly from the said base, and a seat formed in one end of the pawl to retain the cam in a locked position.

2. A window fastener of the class described, including a base plate, vertical ears formed on the base plate in spaced relation, the said plate having a groove formed therein between the said ears terminating adjacent one edge thereof, a cam member, an arm extending from the cam member, the end of the said arm being pivotally connected to the said ears, a lip formed on the free end of said arm, the said groove having a well therein adjacent the said edge, a latch member including an arm adapted to be seated in the said groove, a heel formed on one end of the arm and seated in the said well to form a fulcrum for the said latch, a pawl extending vertically of the last mentioned arm adjacent the said heel, a seat formed on the said pawl to engage the said lip and retain the cam in a locked position, and an enlargement formed on the opposite end of the last mentioned arm adapted to engage the first mentioned arm for a purpose specified.

3. A combination of a base plate, vertical ears formed on the base plate in spaced relation, said plate having a groove formed therein between said ears, a well formed in one end of the groove, a latch member seated in said groove, a heel formed on the latch member adapted to be seated in the well, and a cam member having means associated therewith to be engaged by said latch member, said latch having means associated therewith adapted to engage first mentioned means to retain said cam in locked position.

1,238,969. LIGHT-TRACTOR GANG-PLOW. IRA A. WEAVER, Springfield, Ill., assignor, by mesne assignments, to Montgomery Ward & Co. Incorporated, Chicago, Ill., a Corporation of New York. Filed Mar. 22, 1915. Serial No. 16,045. (Cl. 97—36.)



1. In a gang plow, the combination with a plurality of plow units, of an auxiliary effective plow unit arranged as the last of the gang on the land side, means for controlling the several units in unison and while in operation, and means to raise and lower said auxiliary plow unit independently of the other units whereby to vary the number of operative plows in the gang the several units being relatively rigid in use.

3. In a gang plow, the combination with the plow frame, a plurality of plow units, and means for controlling the same in unison while in operation, of an auxiliary plow unit arranged as the last of the gang on the land side, the beam of said unit having a draft connection to the plow frame, a cranked lever suitably fulcrumed with its cranked portion journaled in the beam of the auxiliary unit, a sector carried by the auxiliary unit, and a lever operating handle arranged to engage the sector whereby to sustain the auxiliary unit in an elevated and lowered position independently of the other unit, the several units being relatively rigid in use.

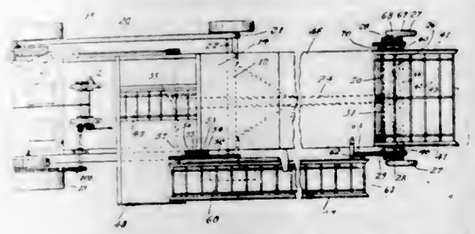
6. In a tractor plow, the combination with carrying wheels, a cranked axle, and plow units mounted on the cranked axle for raising and lowering, of a hitch comprising a draft bar attached to the tractor and pivoted to the plow to provide vertical flexibility, and a tie rod connected at its forward end to the draft bar to provide limited lost motion and at its rear end to the cranked axle whereby to throw the weight of the plows on the draft bar to secure rigidity when the plow units are elevated.

[Claims 2, 4, 5, and 7 not printed in the Gazette.]

1,238,970. AUTOMATIC SHOCK-THRESHING MACHINE. EDWIN M. WHEELOCK, Winona, Minn. Filed May 20, 1912. Serial No. 698,651. Renewed Jan. 29, 1917. Serial No. 145,307. (Cl. 193—14.)

1. In combination, a traveling threshing machine, a platform extending outwardly from the threshing machine, means for lifting shocks from the ground and depositing the same on the platform, and means for conveying the bundles from the platform to the threshing

machine mechanism, said platform providing a support and working space movable with the threshing machine for an operator to effect transference of bundles singly from the point of delivery upon the platform to said conveying means.



2. In combination, a traveling threshing machine, a platform, a conveyer frame pivotally mounted in front of said platform having the lower end thereof in close proximity to the ground and the upper end overlying said platform, an endless conveyer on said frame, a self-feeder on the threshing machine having an endless conveyer, a sloping platform extending to the feeder conveyer, an endless carrier extending from the first named platform above the sloping platform, said first-named platform providing a support and working space movable with the threshing machine for an operator to effect transference of bundles singly from the point of delivery upon the platform to said endless carrier, and means to drive the carrier and first-named conveyer from the threshing machine.

3. In combination, a traveling threshing machine, a platform, means for lifting the shocks from the ground and depositing the same on the platform, a self-feeder on the threshing machine having an endless conveyer, a sloping platform extending to the conveyer, an endless carrier extending from the first-named platform above the sloping platform, said first-named platform providing a support and working space movable with the threshing machine for an operator to effect transference of bundles singly from the point of delivery upon the platform to the conveyer, and means to drive the carrier and first-named conveyer from the threshing machine.

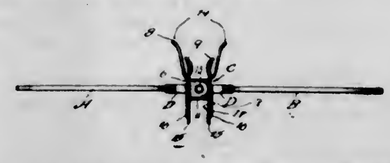
4. In combination, a traveling threshing machine, a platform extending outwardly from the threshing machine, means for lifting the shocks from the ground and depositing the same on the platform, a self-feeder on the threshing machine, a chute sloping downwardly to the self-feeder, and means for conveying bundles from the platform and delivering them to the chute, said platform providing a support and working space movable with the threshing machine for an operator to effect transference of bundles singly from the point of delivery upon the platform to the conveying means.

5. In combination, a traveling threshing machine, a platform extending outwardly from the threshing machine, a conveyer pivotally mounted in front of said platform and supported so that one end overlies the platform and the other is adjacent to the ground, a self-feeder on the threshing machine, a chute sloping downwardly to the [illegible] an endless carrier running from said platform to a point above said chute, said platform providing a support and working space movable with the threshing machine for an operator to effect transference of bundles [illegible] from the point of delivery upon the platform to the conveyer, means to drive the carrier from the feeder, and means to drive the conveyer from the carrier.

[Claims 6 to 9 not printed in the Gazette.]

1,238,971. EYEGLASS-GUARD. ANDREW WICKEY, East [illegible] Ind. Filed Nov. 13, 1916. Serial No. 130,958. (Cl. 2—50.)

1. An eye glass guard, comprising two companion lens [illegible] side members, pivotally secured together, said [illegible] being formed at their upper ends with nose gripping end members and being also formed with finger pieces, whereby said side members may be rocked on the pivot, and a spring having arms engaging said finger pieces acting to spread said arms apart and thereby press together the nose gripping end pieces.

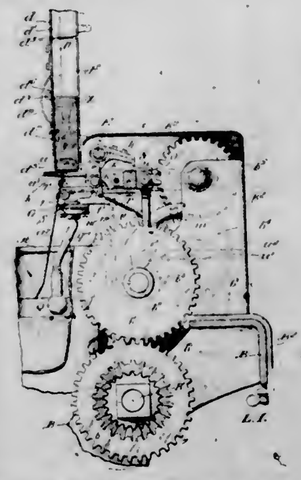


2. An eye glass guard, comprising two companion lens supporting side members pivotally connected together, and formed at their upper ends with nose gripping end portions and at their lower ends with finger pieces, a spring having arms engaging said finger pieces to thereby spread them apart and therewith press together the nose gripping portions, and a saddle pivotally connected with the side members on a pivot coaxial with the pivot of the side members and having a yoke member arranged to straddle the nose of a wearer.

3. An eye glass guard, comprising two companion lens supporting side members, each having top and bottom ears bent at right angles to the plane of the side members, separate pivot connections for the upper ears and lower ears, said side members having at their upper ends nose gripping end portions, and having finger pieces, a spring having two arms pressing against said finger pieces to thereby spread them apart and therewith press together the nose gripping portions, and a saddle carried by the lower pivot member and having a yoke-like member arranged to straddle the nose of a person.

4. A bowless eye glass guard comprising in combination two lens supporting members pivotally secured together, each member being formed with a nose gripping member, and with a finger piece, said nose gripping members being spring-pressed toward each other.

1,238,972. LINE-TYPE-CASTING MACHINE. LLOYD I. WILMANS, Irving, Tex. Filed Jan. 30, 1917. Serial No. 145,389. (Cl. 22—80.)



1. The combination with the melting pot of a line-type casting machine, of means for supplying metal thereto when required comprising a magazine, devices for ejecting metal from the magazine, and thermostatically controlled mechanism for actuating said ejecting devices.

4. The combination with the melting pot of a line-type casting machine, of a magazine for holding slugs of metal to be supplied to the melting pot, a reciprocating

carriage, a toothed ejector shaft pivotally mounted in the carriage, means for holding the ejector shaft in normal position, a dog for preventing the ejector shaft from turning, and thermostatically operated devices for controlling the position of the dog.

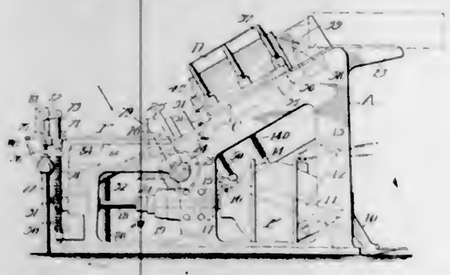
6. The combination with a slugs magazine of an alarm device, and means operated by a decrease of weight of metal in the slugs magazine for actuating said alarm device.

7. The combination with a magazine for holding metal to be supplied to a melting pot, of a finger extending into the lower portion of the magazine and upon which the metal rests, a reciprocating carriage provided with means for ejecting metal from the magazine, and an alarm device supported on the carriage and adapted to be brought into operative connection with said finger when the weight of metal in the magazine is sufficiently diminished.

11. A magazine for holding metal to be fed to a melting pot comprising a front section having rearwardly extending brackets and formed with open bearings, a horizontally arranged shaft extending through said open bearings and provided with reduced or flattened portions, and a rear magazine section provided with brackets pivotally connected with the brackets of the front section and which have open bearings through which said horizontally arranged shaft extends the arrangement being such that when the magazine sections are in a vertical position they are inseparably connected with the shaft but when both magazine sections are moved to a horizontal position they can be separated from the shaft and be withdrawn bodily from the machine.

[Claims 2, 3, 5, 8 to 10, 12, and 13 not printed in the Gazette.]

1,238,973. MACHINE FOR FINISHING AND COOLING STEREOTYPE PRINTING-PLATES. HENRY A. WISE WOOD, New York, N. Y., assignor, by mesne assignments, to Wood Newspaper Machinery Corporation, New York, N. Y., a Corporation of Virginia. Filed June 25, 1912. Serial No. 705,782. Renewed Jan. 31, 1917. Serial No. 145,816. (Cl. 29—21.)



1. In a machine for trimming curved stereotype plates, the combination of means for supporting a plate means for severing the tail from a plate, and means located inside the supporting means for operating said severing means.

2. In a machine for finishing curved stereotype printing plates, the combination with a shaving arch adapted to receive a plate, of means located inside of a plate held in the arch for cutting the tail from the plate.

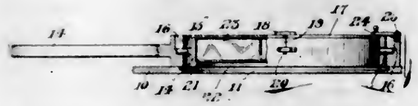
3. In a machine for finishing curved stereotype printing plates, the combination with a shaving arch, of means for cutting the tails from the plates having its cutting edge extending outwardly from the inside thereof, and for simultaneously beveling the end edge of each plate by the tail cutting operation, said means being located inside the plate when held in the arch.

4. In a stereotype plate finishing machine, the combination with an arch adapted to receive a curved stereotype printing plate, of means located in position to come inside a portion of a plate when held in the arch for severing the tail therefrom.

5. In a machine for finishing curved stereotype printing plates, the combination with a shaving arch, of means for cutting the tails from the plates, said means projecting outwardly from the inside of the arch.

[Claims 6 to 62 not printed in the Gazette.]

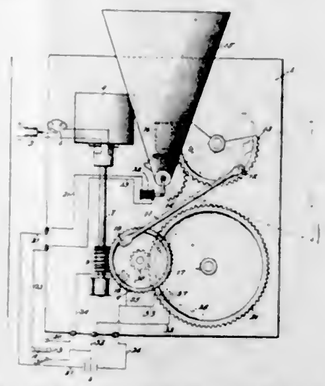
1,238,974. WAFFLE-IRON. BRONISLAWA WISZNIEWSKA, Sault Ste. Marie, Mich. Filed Apr. 17, 1917. Serial No. 162,598. (Cl. 53—10.)



1. A cooking utensil comprising an annulus provided with sockets in its inner circumference opening upwardly upon its upper side, a ring having diametrically projecting trunnions removably journaled in the said sockets, a handle radially projecting from the said annulus outwardly of one of the said sockets, an inwardly projecting flange at the inner bottom edge of the said ring, a dough receiving frame arranged within the ring removably seated upon the said flange, a hinged retaining lid upon the side of said ring opposite the said flange and a retaining catch pivoted to the said annulus.

2. A cooking utensil, including a handled annulus having in its upper inner circumferential surface opposed sockets, a ring having upon its inner circumferential bottom edge a circular flange, said ring having opposed projecting trunnions received within the sockets of said annulus, fastening means between said ring and said annulus, and a dough-receiving receptacle with its bottom edge adapted to rest upon the inner bottom edge flange of said ring, said dough-receiving receptacle being provided with a central chamber and a plurality of supplemental chambers surrounding the aforesaid chamber, the bottom of said dough-receiving receptacle being common to both the central chamber and the plurality of supplemental chambers of said dough-receiving receptacle.

1,238,975. SIGNALING APPARATUS. HENRY R. WORTHINGTON, Dunnfield, N. J. Filed Feb. 26, 1910. Serial No. 546,093. (Cl. 177—337.)



1. In a signaling device, the combination of a sound producing device movably mounted, means for oscillating said device through a predetermined arc of a circle, and means for operating said device while moving in one direction of its oscillation and maintaining the device silent while moving in the other direction of its oscillaton.

2. In signaling apparatus, the combination with a sound-producing device, of a megaphone for directing the sound from such device in a predetermined direction, and means for oscillating said sound-producing device and megaphone through a wide angle and operating said

sound-producing device during such oscillation only for a predetermined arc of movement and while moving in only one direction of its oscillatory movement.

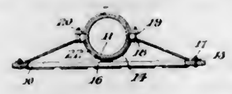
3. In signalling apparatus for ships, the combination with a sound-producing device, of a megaphone associated therewith, automatic means for moving said megaphone and sound-producing device through a wide angle having a definite relation to the longitudinal median line of the ship, and mechanism for effecting the continuous operation of the sound-producing device while the megaphone is moving in a predetermined direction over a predetermined arc of said angle.

4. In a signaling apparatus, the combination with a megaphone, of a sound producing device in connection with the megaphone, means for oscillating said megaphone over a wide angle, and mechanism for effecting the operation of said sound producing device while the megaphone is moving in only one direction of its oscillation, and preventing its operation during movement in the other direction of its oscillation.

5. In signaling apparatus, the combination with a sound-producing device, of electric apparatus for operating said device, a megaphone mounted for oscillatory movement and associated with said sound-producing device, and automatic mechanism for controlling said electric operating apparatus to effect the sounding of said sound-producing device by means of said automatic mechanism while the megaphone is directed in a predetermined direction and moving angularly.

[Claims 6 to 25 not printed in the Gazette.]

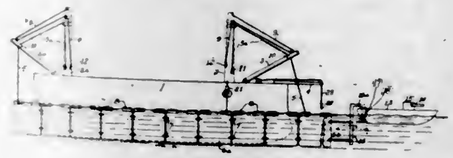
1,238,976. STREET-SIGN SUPPORT. LOUIS J. ZIKA, Cedar Rapids, Iowa. Filed Jan. 27, 1917. Serial No. 144,873. (Cl. 40—145.)



1. A street sign support comprising a substantially W-shaped frame having a central arcuate portion and terminal feet portions, a mounting plate centrally carried transversely of said arcuate portion in the same plane as said feet portions, the said frame having seat portions adjacent the arcuate portion thereof in a plane parallel to the said plate, a collar member adapted for coöperation with said arcuate portion and clamping means between the said collar member and seat portions of the frame.

[Claim 2 not printed in the Gazette.]

1,238,977. TORPEDO-GUARD FOR SHIPS. KNUTE O. ANKER, St. Paul, Minn. Filed May 19, 1917. Serial No. 169,787. (Cl. 114—240.)



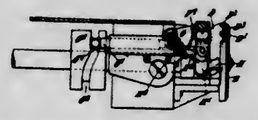
2. The combination with a ship or vessel, of two parallel [illegible] straight but flexible torpedo guards spaced away [illegible] from each side of the vessel, means on the vessel for holding the guards in said spaced relation, a series of [illegible] at the upper edges of said guards, and auxiliary [illegible] driven vessels attached one to the front end of [illegible] ard, said auxiliary vessels being armed and [illegible] achable from the guards, each of said guards [illegible] than the vessel and means at the ends of the [illegible] olding the ends of the guards together and [illegible] the main vessel when the latter is at anchor. [illegible] ot printed in the Gazette.]

1,238,978. LEAD-POINTER. ALEXANDER J. ARTHUR, Fort Dodge, Iowa. Filed Aug. 9, 1915. Serial No. 44,642. (Cl. 120—93.)



In a device of the class described, a pair of opposed blades secured together at one edge and inclined upwardly from their common edge and away from each other, said blades having openings for forming a cutting edge, each blade having at its upper end a flange extending laterally outwardly, said openings extending well into said flanges, opposite flanges secured to the respective blades at one side edge and extending to position for engaging the side edge of the opposite blade.

1,238,979. SEWING-MACHINE. FREDERICK BAKER, Blackheath, England, assignor to Baker Sewing Machine Trust, Limited, London, England. Filed June 20, 1913. Serial No. 774,801. (Cl. 112—5.)



1. In a sewing machine, the combination with an angularly movable loop-drawing device operating to draw out successive loops from the needle thread but allow each loop to be released before its bight has been carried through two right angles of angular movement, of a stationary casing situated laterally with respect to one face of the loop-drawing device, and coöperating means on said casing and loop-drawing device adapted to cause the bight of the loop to pass across the adjacent lateral face of the stationary casing and to be released at the tail of said casing.

2. In a sewing machine, the combination with angularly movable loop drawing means operating to draw out successive loops from the needle thread but allow each loop to be released before its bight has been carried through two right angles of angular movement, of a stationary tension device laterally situated with respect to one face of the plane of movement of the loop drawing means and comprising a casing around and over which the loops pass in being drawn up, and means within the casing for temporarily arresting certain loops while allowing others to pass.

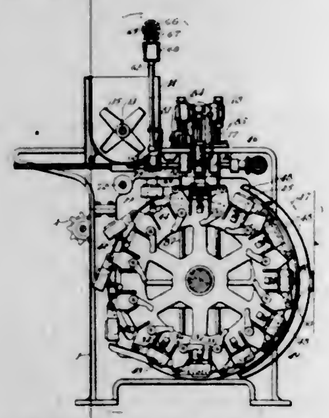
3. In a sewing machine, the combination with an angularly movable loop-drawing device, of a tension device comprising a stationary casing laterally situated with respect to one face of the loop-drawing device, and cooperating parts upon the adjacent lateral faces of the loop-drawing device and the casing adapted to cause the bulging strand of a loop presented by the needle at the commencement of each ascent, to be trapped and the bight of a loop to be drawn out between the said adjacent lateral faces and released at the tail of the stationary casing in a way that permits of the loop being drawn up around and over the same.

4. In a sewing machine, the combination of an angularly movable disk, a tension device comprising a stationary casing located laterally with respect to one face of the disk, and interengaging means adapted to cause the bight of successive loops to pass between the adjacent lateral faces of the disk and the casing and each loop to be released before its bight has been carried through two right angles of angular movement and in a position from which when drawn up it will pass around the casing.

3. In a sewing machine, the combination of an angularly movable disk, a stationary casing located laterally with respect to one face of the disk, and tongue and groove inter-engaging parts on the adjacent faces of the disk and the casing operating to entrap the bulging strand presented by the needle at the commencement of each ascent and draw out the bight of a loop between the aforesaid adjacent lateral faces and release the same before its bight has been carried through two right angles of angular movement.

[Claims 6 to 30 not printed in the Gazette.]

1,238,980. MOLDING-MACHINE FOR PLASTIC MATERIAL. CESARE BARBIERI, Chicago, Ill., assignor to Black Products Co., Riverdale, Ill., a Corporation of Illinois. Filed Nov. 2, 1916. Serial No. 129,098. (Cl. 18—21.)



1. A machine of the class described, comprising a supporting structure, a frame journaled in said supporting structure, means for imparting a step-by-step rotary movement to said frame, a plurality of die holders pivotally supported in said rotary frame, dies mounted in said holders, dies movably mounted in said supporting structure, means for simultaneously feeding a plastic material to one of said die holders and reciprocating said last-mentioned set of dies toward and away from another of said die holders, and cams for maintaining said pivoted die holders in horizontal position during both the feeding and forming operations.

2. In a machine of the class described, a support, a frame rotatably mounted on said support, means for rotating said frame, a plurality of die holders pivotally mounted on said frame, dies in said holders, guides on said support in position to be engaged by said die holders and suitably formed to cause said die holders to maintain a horizontal position during a portion of the rotation of said frame, and means for feeding a plastic material to the dies in said holders and forming articles therein while said die holders are in a horizontal position.

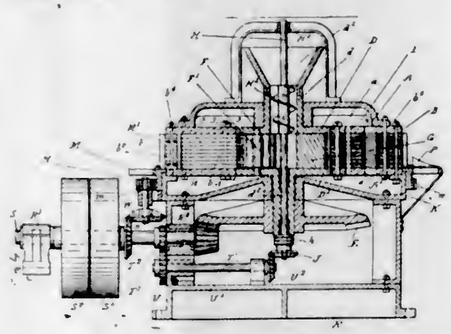
3. A machine of the class described, comprising a supporting structure, a frame journaled in said supporting structure, means for imparting a step-by-step rotary movement in said frame, a plurality of dies pivotally supported in said rotary frame, dies movably mounted in said supporting structure, means for feeding a plastic material to said first-mentioned dies, means for reciprocating said last-mentioned dies toward and away from said first-mentioned dies, and cams for maintaining said pivoted dies in substantially horizontal position during both the feeding and forming operations.

4. A machine of the class described, comprising a supporting structure, a receptacle suitable for receiving a plastic material located in the upper part of said structure, dies movably mounted in said supporting structure, a frame journaled in said supporting structure, means for imparting a step-by-step motion to said frame, a plurality of die holders pivotally mounted on said frame, dies in said holders, said receptacle having outlets for feeding plastic material to the dies in said holders, a roller on each of said die holders, and tracks on said supporting structure in position to engage said rollers and thereby control the oscillation of said die holders with respect to the outlets in said receptacle and said plunger dies.

5. In a machine of the class described, the combination of a die holder having a plurality of dies supported therein, said die holder being formed to provide means for circulating a cooling fluid therethrough and in direct contact with the back of the dies, and means for projecting streams of air against the exposed forming surfaces of said dies.

[Claim 6 not printed in the Gazette.]

1,238,981. PRESS. BERNARD CYRIL BARTON, North Ferriby, England. Filed May 9, 1917. Serial No. 167,497. (Cl. 100—50.)



1. In a press, a stationary drum formed of top and bottom plates and spaced piles of plates arranged between them and provided with outlets for expressed liquid, outlet passages for solid matter being formed between the piles of plates, and the inner ends of the said plates having wheel teeth, a revoluble casing journaled centrally in the said drum, and a toothed compressing wheel journaled eccentrically in the casing and arranged in gear with the said wheel teeth.

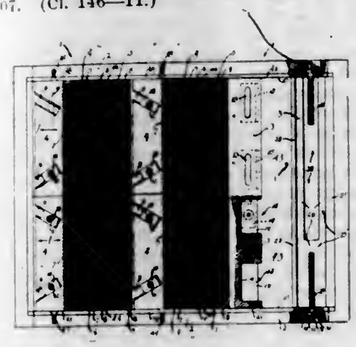
4. In a press, a stationary drum formed of top and bottom plates and spaced piles of plates arranged between them and provided with outlets for expressed liquid, outlet passages for solid matter being formed between the piles of plates, means for forcing the material under pressure from the central part of the drum through the said passages, a knife for cutting the strips of solid material into predetermined lengths as they protrude from the said passages, and means for moving the said knife circumferentially around the said drum.

6. In a press, a stationary drum formed of top and bottom plates and spaced piles of plates arranged between them, outlet passages for solid matter being formed between the piles of plates, the plates of each said pile having vertical holes for the escape of expressed liquid and having also lateral grooves in their adjacent surfaces which form ports at the edges of the plates and which communicate with their said holes, and means for forcing the material under pressure from the central part of the said drum through the said passages.

7. In a press, a stationary drum formed of top and bottom plates and spaced piles of plates arranged between them and provided with outlets for expressed liquid, outlet passages for solid matter being formed between the piles of plates, side pieces secured to certain of the said piles of plates in the outer end portions of the said passages and operating to reduce the area of their delivery ends, and means for forcing the material under pressure from the central part of the said drum through the said passages.

[Claims 2, 3, 5, 8, and 9 not printed in the Gazette.]

1,238,982. BEET-CUTTING MACHINE. ROBAH J. BINKLEY, Pomona, Cal. Filed July 5, 1916. Serial No. 107,567. (Cl. 146—11.)



1. In combination, a removable frame for beet cutting machines, a beet knife fastened to said frame, a guide bar mounted in said frame adjacent the knife, the guiding face of the bar having a definite relation with respect to the plane of the knife, means for raising and lowering the guide bar up and down evenly so as to effect an adjustment between the bar and knife without changing the said relation between the guiding face of the bar and the knife, and means for fastening the bar to the frame.

12. In combination, a removable frame for beet cutting machines, a beet knife fastened to said frame, an elongated guide bar adapted to be adjusted as to height with respect to said frame, means for so adjusting the bar, said means including a wedge, a screw for operating said wedge, said screw being adapted to normally operate and draw said wedge in a direction substantially parallel to the long axis of the guide bar, means for fastening the guide bar to the frame, said last mentioned means including a wedge, and a screw for operating the last said wedge, the last said screw being adapted to operate its wedge in a direction substantially parallel to the direction of operation of the first said wedge.

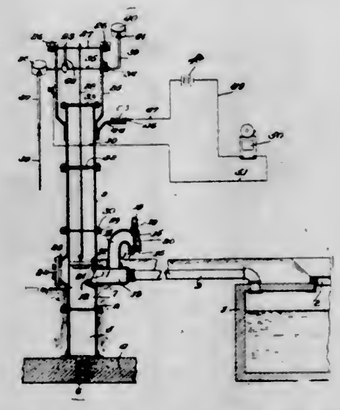
18. In combination, a removable frame for beet cutting machines, a beet knife connected to said frame, a guide bar for said knife, said guide bar also being connected to said knife, said guide bar having two inclined planes for lifting and lowering the bar, said bar also having a relatively narrow shank portion and a third inclined plane between the first two inclined planes, a lifting wedge with an elongated slot running lengthwise thereof, said lifting wedge having two inclined planes for engaging the first two inclined planes of the guide bar for raising and lowering the bar to effect an adjustment between it and the knife, a fastening wedge having an engagement with the frame and extending through said elongated slot in the lifting wedge, said fastening wedge also having two arms with an inclined plane therein, said arms being adapted to reach around the narrow shank portion of the guide bar so as to bring the inclined plane on the arms of the fastening wedge into engagement with the third mentioned inclined plane of the guide bar, and screw means manipulated from the side of the frame for operating said lifting wedge and said fastening wedge.

[Claims 2 to 11 and 13 to 17 not printed in the Gazette.]

1,238,983. SAFETY-VENT FOR CRUDE-OIL-STORAGE TANKS. WILLIAM M. BOWLES, Sapulpa, Okla. Filed Dec. 31, 1915. Serial No. 69,609. (Cl. 220—121.)

1. In a device of the class described, a vent pipe, a valve within the pipe having a normal tendency toward movement to closed position, a pipe leading to and communicating with the said vent pipe, and an auxiliary vent valve arranged within the second-mentioned pipe.

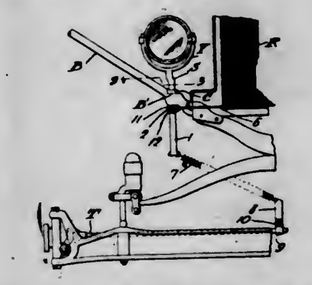
[illegible] device of the class described, a vent pipe, a valve [illegible] pipe having a normal tendency toward move[illegible] closed position, a tank, a valve leading from the tank to the said vent pipe, a branch pipe communicating with the second-mentioned pipe and having an intake end, and a valve normally closing said end of the said vent pipe.



3. In a device of the class described, a vent pipe, a valve within the pipe having a normal tendency to gravitate to closed position, spaced members extending above the upper end of the pipe, a fusible element extending between the spaced members, means imposing a strain upon the said fusible element, and a connecting element connected to the said fusible element and depending therefrom within the said pipe and connected at its lower end to the said valve.

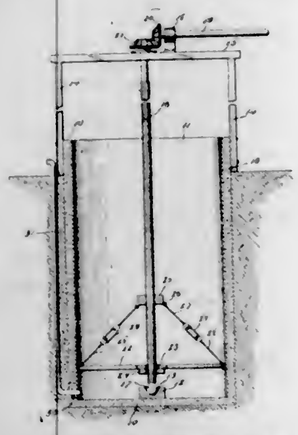
4. In a device of the class described, a vent pipe, a valve within the pipe having a normal tendency toward movement to closed position, means normally holding the valve in open position, a pipe leading to and communicating with the said vent pipe at the point of location of the valve, a branch leading from the last-mentioned pipe and having its end portion overturned and presented downwardly, a valve seat within the end of the said branch, and a valve normally resting upon the said seat and closing the inlet to the said end of the branch.

1,238,984. DIRIGIBLE LAMP FOR AUTOMOBILES. WILLIAM H. BRIGHT, Bedford, Va. Filed June 20, 1916. Serial No. 104,733. (Cl. 240—62.)



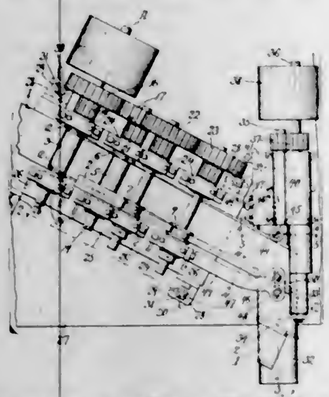
The combination with an automobile having lamp supporting brackets extending laterally from points adjacent the sides of the radiator, a stem mounted for rotation in each bracket, lamp engaging means upon each stem, and a steering rod extending under the radiator for connecting the knuckles of the front wheels, of downwardly and rearwardly extending arms secured to the lower end of each stem and having forwardly extending portions at their upper ends, a rod connecting said forwardly extending portions, fingers adjustably mounted upon the rod and arranged under the radiator, and downwardly converging coiled springs connected to the rear ends of the arms and to the fingers, said springs being arranged normally in the same vertical plane with the rod.

1,238,985. HOISTING MEANS FOR USE IN SILOS. JAMES F. CATRON and JOHN W. WHEELER, Thomas, Okla. Filed Oct. 26, 1914. Serial No. 868,753. (Cl. 214—1.)



In a device of the kind described, a silo, a platform therein, the periphery of said platform engaging the inner wall of said silo, means for moving said platform whereby the contents of said silo can be raised, a pipe adjacent said silo having one end thereof positioned above the surface of the ground and the other end positioned in said silo adjacent the bottom thereof whereby air and water can be fed into said silo beneath said platform.

1,238,986. PROCESS OF MAKING REINFORCED SPIRAL PIPE. FRANK W. COLBY, Chicago, Ill., assignor, by direct and mesne assignments, to Standard Spiral Pipe Works, Chicago, Ill., a Corporation of South Dakota. Filed Nov. 11, 1907, Serial No. 401,583. Renewed Jan. 31, 1917. Serial No. 145,817. (Cl. 113—35.)



1. The process of making a pipe which consists in providing a plurality of strips of material, then bending the edges of said strips, then bringing the edges of the strips into proximity, then positively tucking the bent edges of one strip beneath the bent edges of the other strip and then compressing and flattening said bent interlocking edges as the strips are given a spiral form so as to permanently overlap and interlock them to form a single continuous pipe.

2. The process of making pipe which consists in providing a plurality of flat strips of material and setting said strips in motion at substantially the same speed, then while the strips are in motion bending the edges of one strip in one direction and the edges of the other strip in the opposite direction, then while the strips are still in motion forming them successively into spiral form and positively tucking the bent edges of one strip beneath the bent edges of the other strip and then at a point in advance of the point where the bent edges of one strip are tucked beneath the bent edges of the other strip, flattening said bent edges so as to firmly unite them to form a continuous spiral pipe.

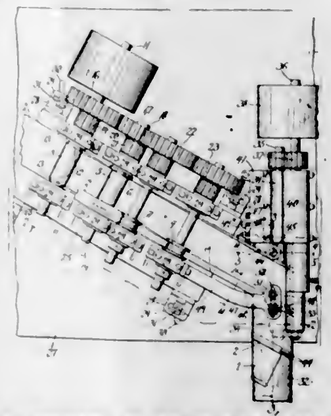
3. The process of making spiral pipe which consists in providing a plurality of flat strips of material, then simultaneously setting said strips in motion, then bending the edges of adjacent strips in opposite directions so that they project at an angle to the middle portions of said strips, then interlocking said bent edges by tucking the bent edges of one strip beneath the bent edges of the other strip and then after the edges of the strips have been thus interlocked flattening said bent edges and forming said strips into spirals so as to form a continuous pipe.

4. The process of making pipe, which consists in providing two strips of material, then bending the edges of one strip in one direction and the edges of the other strip in the opposite direction, then forming a portion of a spiral with one strip and at the same time bending down one of the bent edges thereof, then loosening up said bent edge so as to provide a space between it and the other portion of the strip, then uniting the edges of one strip with the adjacent edges of the other strip and forming both of said strips into spirals.

5. The process of making pipe which consists in providing two strips of material, then simultaneously setting said strips in motion, then bending the edges of said strips while in motion, then positively tucking the bent edges of one strip into the space between the other strip and the bent edges thereof and then forming said strips into a spiral and compressing the bent edges thereof so as to firmly unite the strips together to form a spiral pipe.

[Claims 6 to 9 not printed in the Gazette.]

1,238,987. APPARATUS FOR MAKING REINFORCED SPIRAL PIPE. FRANK W. COLBY, Chicago, Ill., assignor, by direct and mesne assignments, to Standard Spiral Pipe Works, Chicago, Ill., a Corporation of South Dakota. Original application filed Nov. 11, 1907, Serial No. 401,583. Divided and this application filed June 15, 1908, Serial No. 438,518. Renewed Jan. 31, 1917. Serial No. 145,818. (Cl. 113—35.)



1. An apparatus for forming spiral pipe from a plurality of strips of material, comprising a cylindrical device about which the strips are bent in spiral form, means for bending the edges of said strips at an angle to the main body thereof while the strips are moving toward said cylindrical device, an interlocking device in proximity to the surface of said cylindrical device, for engaging the bent edges of one strip and binding them under the bent edges of the other strip while the two strips are in motion, so as to interlock the edges of the two strips, and mechanism separate from said interlocking device, for permanently fastening the interlocking edges of the strips together to form a spiral sealed pressure resisting joint.

2. An apparatus for forming pipe from strips of material comprising a plurality of rollers for bending the edges of the strips, a stationary cylindrical device about which the strips are bent, an interlocking device for positively moving and interlocking the bent edges and uniting rollers beyond the interlocking device about which the bent edges pass so as to be fastened together to form a spiral sealed joint.

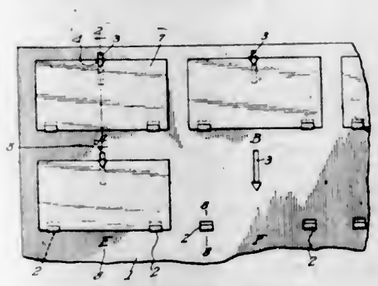
3. An apparatus for forming pipe from strips of material comprising means for bending the edges of said strips, a cylindrical device about which the strips are wrapped, a flattening device for flattening the bent edge of one strip before it passes about the cylindrical device, an interlocking device for interlocking the edges of the strips, a loosening device for loosening the said flattened edge before it reaches the interlocking device and means for compressing the interlocking edges so as to fasten the strips together.

4. An apparatus for forming pipe from a plurality of strips of metal, comprising shaping rollers which bend the edges of the strips, a cylindrical device about which said strips are wrapped, an interlocking device for interlocking the bent edges of the strips, said interlocking device comprising two rollers with their axes at an angle to the axis of said cylindrical device.

5. An apparatus for forming pipe from a plurality of strips of material comprising shaping rollers which bend the edges of the strips, a two-part interlocking device for interlocking such bent edges, a cylindrical device about which said strips are wrapped after the edges have been interlocked so as to form a continuous pipe, means for adjusting the parts of said interlocking device to adapt it to strips of various widths.

[Claims 6 to 16 not printed in the Gazette.]

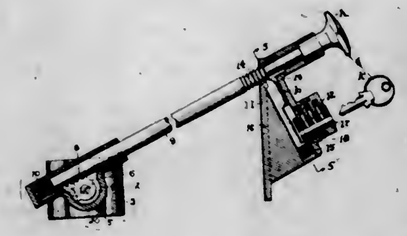
1,238,988. DISPLAY DEVICE. THOMAS F. CONNOR, Decorah, Iowa. Filed Oct. 2, 1915. Serial No. 53,740. (Cl. 40—124.)



1. A device of the kind described, comprising a board of suitable material having card supporting means thereon arranged to engage the lower edges of the cards, and adjustable means for maintaining said cards on said support, comprising an adjustable member for each card extending through the board and engaging at the edge of the card, said member formed with a resilient part arranged to engage with the back face of the board and maintain the card positioned between the member and

[illegible] a display device of the kind described and in combination therewith, a display board provided with card supporting hooks formed integral therewith and slotted [illegible] the hooks, and means arranged to engage a card [illegible] by said hooks, and maintain the same on the [illegible] comprising an adjustable member extended through [illegible] and provided with integrally formed resilient [illegible] the back of the board for maintaining the ad[illegible]ember in operative position.

1,238,989. SHUT-OFF FOR CARBURETERS IN MOTOR-VEHICLES. WALTER J. COOPER, Cleveland, Ohio, assignor of one-half to Michael J. Maruna, Cleveland, Ohio. Filed Dec. 4, 1916. Serial No. 134,808. (Cl. 137—7.)

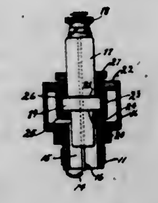


1. In means for controlling the fuel supply of an explosive engine in an automobile, a mounting adapted to be fixed to the dash of the automobile and a key-controlled locking device therewith having a casing pivotally secured to said mounting, a valve-operating rod slidably mounted within said casing in locking relation with said device, in combination with a fuel controlling valve having gear connection with said rod and a box containing said connections adapted to turn to permit different angular adjustments of said rod.

2. In means for controlling the fuel supply of an explosive engine, a fuel-controlling valve and an operating rod having toothed controlling engagement therewith and slidable axially, a bolt adapted to effect self-locking of said rod subsequent to valve-closing movements thereof, a box confining the lower end of said rod and a spring in said box bearing against the end of said rod tending to produce return movement of said rod after an operation thereof, in combination with a fixed support and a casing pivotally mounted therein containing said self locking bolt and key-controlled locking means adapted to engage the end of said self-locking bolt to release the same from engagement with said rod, the said rod being supported in said casing and adjustable therewith.

3. In means for controlling the fuel supply of an explosive engine, a fuel-controlling valve and an operating rod having toothed controlling engagement therewith and slidable axially, in combination with a bolt adapted to effect self-locking of said rod subsequent to valve-closing movements thereof and a spring tending to produce return movement of said rod after an operation thereof, the said means comprising a pivotally mounted casing containing said self locking bolt and a key-controlled locking device adapted to engage the end of said self-locking bolt to release the same from holding engagement with said rod.

1,238,990. SELF-CLEANING SPARK-PLUG. WALTER H. COTTON, Chicago, Ill., assignor to Old Dutch Manufacturing Co., Huron, S. D., a Corporation. Filed Aug. 16, 1916. Serial No. 115,163. (Cl. 123—169.)



1. A spark plug having a metal body and a core of insulating material inclosed in the body, such body being provided with an annular chamber surrounding the core and an outlet, the core and wall of the outlet forming a

restricted annular passage of substantial length, and a pair of coöperating electrodes, one thereof projecting from the core.

2. A spark plug having a chambered body and a tubular neck open at its outer end, the bore of the neck communicating with the chamber of the body and being of less diameter than such chamber, a core of insulating material extending into the bore of the neck and forming with the wall thereof a restricted annular passage of substantial length, and a pair of coöperating terminals one thereof projecting through the core.

3. A spark plug having a hollow metal body open at its inner end, the inner end of the chamber of the body being enlarged, a core of insulating material on the axis of the body and extending a substantial distance into the restricted portion of the body chamber and forming with the wall thereof an annular axially directed passage from the enlarged portion of such chamber, and a pair of coöperating electrodes one thereof projecting from the core.

1,238,991. LEVEL. CHARLES A. CURTIS, Louisville, Ky. Filed Feb. 9, 1917. Serial No. 147,519. (Cl. 33—221.)

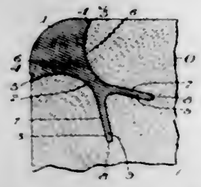


1. A level comprising a chambered stock, a back plate closing said chamber, a tubular post extended into said chamber, a plumb-bob mounted on said post, a spirit level carried by said bob, a scale, the bob having a sight opening through which said scale may be read, and means extended through said post for locking the bob against movement.

5. A level comprising a chambered stock, a back plate, a tubular post extended from said plate into the chamber, a weighted member mounted to swing about said post, a bolt slidably positioned in and extended through said tubular post, a head on said bolt adapted to be engaged with said member, the bolt having a transverse slot near its rear end, a wedge operable in said slot and adapted to slide the bolt backward, and a spring adapted normally to maintain the bolt in its forward position.

[Claims 2 to 4 not printed in the Gazette.]

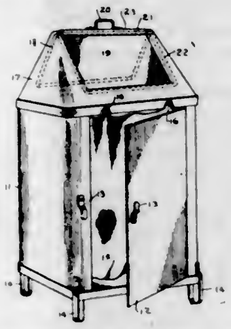
1,238,992. GUARD FOR CEMENT WORK. SAMUEL H. DOLBEAR, San Francisco, Cal. Filed Apr. 28, 1915. Serial No. 24,474. (Cl. 94—2.)



1. A protecting guard for cement work and the like, including an exposable head-portion; a foot-portion comprising two outspreading spaced-apart fork-sections with a V-shaped groove formed therebetween; and a web-portion connecting the head and foot portions and of a thickness substantially less than that of the head-portion; said fork-sections being of a thickness less than that of the web-portion and having their outspread extremities in approximate alinement with the oppositely disposed portions of the curved surfaces of the head portion; the surfaces of the guard between the extremities of the head-portion and the extremities of the fork-sections being curved, continuous and uninterrupted; whereby the guard when embedded in the cement, is embraced at its sides on unangular surfaces that effect no splitting or cracking of the cement.

2. A protecting guard for cement and similar work, including an exposable head-portion having corner-sections, a foot-portion comprising outwardly extending, spaced-apart sections, and formed with an intervening elongated concaved groove and a web-portion connecting the head and foot portions, each side of the guard between the extremity of an outwardly extending section and the corner section of the head-portion being formed with a curved surface of substantial length and a flat surface also of substantial length, said side of the guard presenting a continuous and uninterrupted surface.

1,238,993. SELF-CLOSING RECEPTACLE. ALBERT EDWARDS, Brooklyn, N. Y., assignor to John Simmons Company. Filed June 28, 1916. Serial No. 106,404. (Cl. 220—115.)



1. A self closing receptacle provided with an opening in its upper portion, a wire reinforcing the edges of said opening and having a portion bridging said opening, and a closure pivotally secured on said bridging portion.

2. A self closing receptacle provided with an opening in its upper portion, a member bridging said opening, and a closure having a central portion pivotally secured to said bridging member and having end portions rigid with said central portion, adapted to close said opening when in their normal position, but both of said end portions being free to open either inwardly or outwardly.

3. A self closing receptacle provided with an opening in its upper portion, a member bridging said opening, and a closure having a central portion pivotally secured to said bridging member and having end portions rigid with said central portion, extending downwardly and outwardly therefrom and adapted to close said opening.

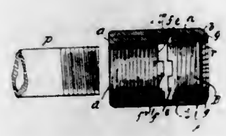
4. A self closing receptacle provided with an opening in its upper portion, a cylindrical member bridging said opening, and a closure comprising a piece of sheet metal or the like having a central portion partly surrounding said bridging member, and having end portions extending outwardly and downwardly therefrom, adapted to close said opening.

5. A self closing receptacle provided with an opening in its upper portion and a closure pivoted horizontally to said receptacle and adapted to close said opening, said closure being provided with portions extending outwardly and downwardly from both sides of said pivotal point.

1,238,994. PIPE-COUPLING. FREDERIC WM. ERICKSON, New York, N. Y. Filed Mar. 21, 1917. Serial No. 156,323. (Cl. 137—28.)

3. A coupling for pipes consisting of two members, one of which incloses the other, the inclosing member having external wrench gripping means, an internal screw-threaded orifice at one end thereof, and a chamber of greater diameter than said orifice at the opposite end partially closed by a lip, an abutment at the juncture

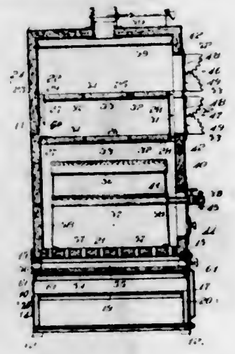
of the orifice and chamber provided with one or more lugs, an inclosed internally threaded thimble within said chamber and movable endwise therein, with means at its inner edge to engage said lugs to interlock the said members.



4. A pipe coupling comprising a single outer member and a single inner member permanently connected and longitudinally movable to a limited degree relatively to said other, said members having internally threaded portions of substantially the same diameter in alinement.

[Claims 1, 2, and 4 not printed in the Gazette.]

1,238,995. COMBINED PORTABLE OVEN AND PROOF-BOX. JOHN FAULDS, Oak Park, Ill., assignor of one-half to John I. Marshall, Chicago, Ill. Filed Apr. 25, 1917. Serial No. 164,353. (Cl. 126—39.)



1. In combination, a proof box having an imperforate flat cover, an oven having horizontal dimensions substantially equal to those of the proof box superimposed upon the proof box, the bottom of the oven being spaced apart from the cover of the proof box to provide a flue space between said parts having a free inlet opening and the bottom of the oven being formed with an opening connecting said flue space with the oven chamber, a gas burner within the oven chamber, and a flue leading out of the oven chamber.

2. In combination, a proof box, a water pan constituting a cover for the proof box and a bake oven superimposed upon the proof box above the said water pan.

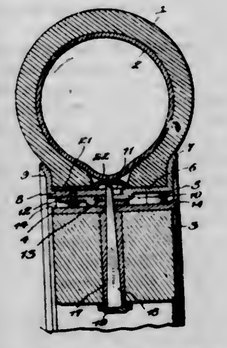
5. In combination, a proof box, a water pan constituting a cover for the proof box, and a bake oven having horizontal dimensions substantially equal to those of the proof box and water pan superimposed upon the proof box above the said water pan.

6. In combination, a proof box, a water pan constituting a cover for the proof box, and a bake oven superimposed upon the proof box above but spaced apart from the said water pan, the bottom of the oven being formed with an opening connecting the space immediately over the water pan with the over chamber.

[Claims 3 and 4 not printed in the Gazette.]

1,238,[illegible]. SECTIONAL RIM. JOHN JOSEPH FOLEY, San [illegible]sco, Cal. Filed Nov. 6, 1916. Serial No. 129,719. [illegible]—21.)

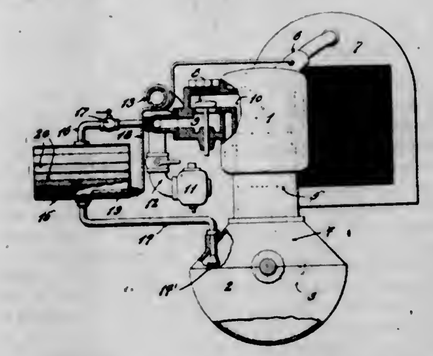
[illegible] sectional rim, sections having outer tire retaining [illegible], one of said sections having its inner marginal portion offset, and the other section overlapping the offset portion, and plates secured to the last mentioned section and also being offset and overlapping the offset portion of the first mentioned section.



2. In a divided rim, a flanged section having its inner marginal portion offset, a second flanged section adapted to overlap the offset of the first section, plates with offset portions carried by the second section, the plates being offset to overlap the offset of the first section, means for securing the sections in relative position with respect to each other, and lugs carried by the sections, respectively, and adapted to bear on a wheel rim.

3. In a divided rim, a flanged section having an offset inner marginal portion, a flanged section overlapping said offset portion, plates carried by the inner face of the last mentioned section and overlapping the offset portion, said portion being held between the second mentioned section and said plates, and bolts passing through the overlapping sections and securing them together.

1,238,997. METHOD OF AND MEANS FOR SUPPLYING FUEL TO INTERNAL-COMBUSTION ENGINES. WILLIAM E. FOWLER, Dixon, Mo., assignor of one-half to James T. Code, Springfield, Mo. Filed July 20, 1916. Serial No. 110,297. (Cl. 123—119.)



1. The method of supplying fuel to internal combustion engines, which comprises conducting fluid from the interior of the crank case at a point above the surface of the lubricating oils therein, to the interior of the combustion chamber of the engine, and also conducting an explosive mixture from another source to said combustion chamber.

2. The method of supplying fuel to internal combustion engines, which comprises conducting an explosive mixture from a carbureter to the combustion chamber of an internal combustion engine, also conducting fluid from the interior of the crank case at a point above the lubricating oil and introducing said fluid into said combustion chamber.

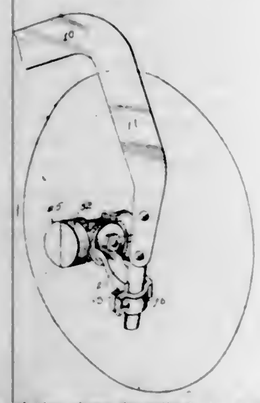
3. The method of supplying fuel to internal combustion engines, which comprises conducting an explosive mixture from a carbureter to the combustion chamber of an internal combustion engine, also conducting fluid from the crank case at a point above the lubricant, mixing said fluid with steam and introducing this mixture into the combustion chamber.

4. An internal combustion engine provided with a lubricant receptacle, a cylinder communicating with said lubricant receptacle, a piston arranged in said cylinder, and two fluid supplying devices for delivering fuel to the combustion chamber of the engine, one of said fuel supplying devices including means for conducting fluid from said lubricant receptacle to the combustion chamber.

5. An internal combustion engine having a crank case adapted to receive lubricating oil, two fuel supplying devices for delivering fluid to the combustion chamber of the engine, only one of said fuel supplying devices including means for conducting fluid from the interior of the crank case to the interior of the combustion chamber, and regulating devices for controlling the flow of fluid from the respective fuel supplying devices to the combustion chamber, said regulating devices being operable independently of each other.

[Claims 6 and 7 not printed in the Gazette.]

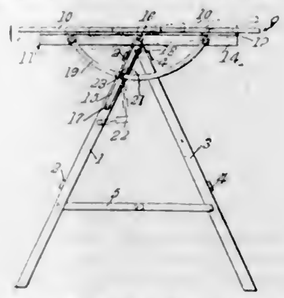
1,238,998. DISK CULTIVATOR ATTACHMENT. CHARLES H. GARDINER, Bouton, Iowa. Filed Feb. 7, 1917. Serial No. 147,234. (Cl. 97—64.)



In a device of the class described, an arm, means for adjustably mounting said arm on an inclined shank for securing said arm in different positions around the shank, said arm being inclined upwardly and away from the shank, a journal device, means for adjustably mounting said journal device on said arm for permitting rotary adjustment of the journal device, a shaft in said journal device, and a disk on said shaft, whereby said first means may be adjusted rotatably around the shank for varying the position of the disk with relation to the path of travel of the machine, and so that said last described means may be arranged for regulating the position of the disk with relation to an upright position in all adjustments of said first means.

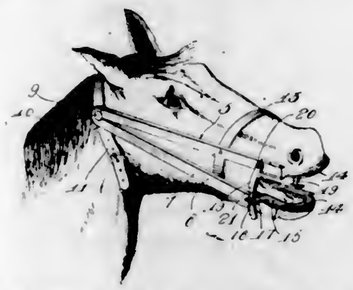
1,238,999. FOLDING TABLE. CHARLIE O. GARMAN, Goshen, Wash. Filed Jan. 4, 1917. Serial No. 140,567. (Cl. 45—74.)

A table comprising a top made up of strips; angle members extended transversely of the strips, each angle member including a depending flange, and a transverse flange secured to the strips and constituting means for holding the strips together to form the top; diverging legs; means for pivotally uniting the legs at their upper ends; hinge bars having their upper ends overlapped upon the depending flanges of the angle members and having their lower ends disposed outside of certain of the legs; means for pivotally connecting the upper ends of the hinge bars with the depending flanges of the angle members; means for pivotally connecting the lower ends of the hinge bars with said legs; arcuate strips having their upper ends secured to the depending flanges of the angle



member, the arcuate strips and the hinge bars being provided with openings; and pins adapted to be inserted into the openings in the hinge bars and in the arcuate strips, and into said legs, to hold the top at adjusted angles with respect to the horizontal.

1,239,000. SPECULUM. CHASE S. GILHOUSEN, Marbleton, Wyo. Filed Sept. 18, 1914. Serial No. 862,373. (Cl. 128—27.)

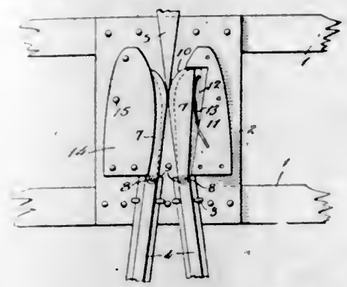


1. In a speculum, pairs of converging side bars, each pair pivoted together at one end and adapted to be placed on opposite sides of an animal's head, a head strap to which the pivot means of said side bars are secured, U-shaped plates adapted to connect the free ends of corresponding bars of said pairs of bars, said connecting plates being widened at their ends to overlap the ends of the bars for connection thereto, lateral extensions on one of said plates at the ends thereof each having an opening therein, and a curved catch having a toothed edge hinged freely on the side bar of each pair opposite the lateral extensions and adapted to move through the openings therein and co-acting with the edges thereof for maintaining the speculum in an open set position.

2. In a speculum, side bars converging the entire length of an animal's head, a head strap, means pivotally connecting pairs of the side bars and securing them to opposite sides of the strap, a nose strap forming an intermediate connection between corresponding bars of opposite pairs, plates carried at the extremities of similar bars of opposite pairs, a slotted extension projecting laterally from each side of one of said plates, and means pivoted to a bar of each pair to coact with a corresponding lateral extension to maintain the speculum in open set position.

1,239,001. SWITCH-FROG. MARK S. GRAVES, North Yakima, Wash. Filed Apr. 15, 1916. Serial No. 91,419. (Cl. 104—98.)

1. A switch frog comprising a base, rails secured to the base, blocks pivotally connected to the tracks, castings secured to the base and provided with cutout portions to receive the blocks, and springs secured to the castings and engaging the pivoted blocks.



2. A switch frog comprising a base plate, rails secured to the base, blocks pivotally connected to the rails, castings secured to the base, springs secured to the castings and engaging the pivoted blocks, and plates secured to the castings.

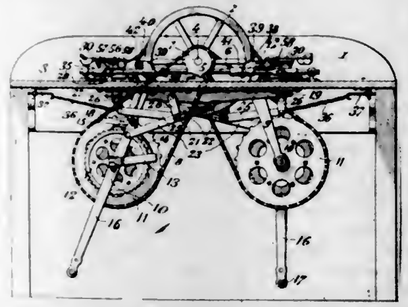
3. A switch frog comprising a base plate, rails secured to the base, blocks pivotally connected to the rails, castings secured to the base and provided with cutout portions, springs secured to the castings and adapted to engage the pivoted blocks, and covering plates secured to the castings.

4. A switch frog including a base, housings mounted on said base, rails secured to the base, and blocks movably connected to said rails and positioned in said housings.

5. A switch frog including a base, housings mounted on said base, rails engaging one end of said housings, springs placed in said housings, and blocks received in said housings and engaged by said springs.

[Claims 6 and 7 not printed in the Gazette.]

1,239,002. CIGAR AND STOGY BUNCHING AND ROLLING MACHINE. JAMES S. HAGGERTY, Mannington, W. Va. Filed Mar. 17, 1916. Serial No. 84,933. (Cl. 131—44.)



1. A tobacco machine including a drum equipped with a flexible apron and means to form a bight in the apron on opposite sides of the drum.

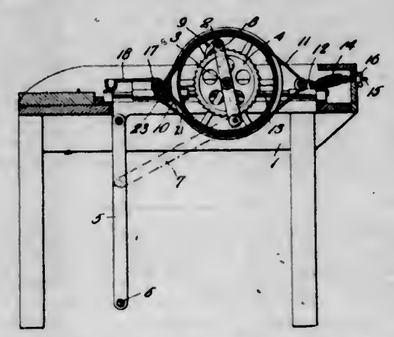
3. A tobacco machine including a rotary member, means carried by the rotary member and flexible thereon to perform forming a "bunch" receiving pocket therein, secondary means to coact with the drum to automatically form the pocket when said secondary means is operated in one direction and automatically opening the pocket when the secondary means is operated in a counter-direction, and mechanism associated with said secondary means for varying the magnitude of the pocket.

4. A tobacco machine including a table, a drum revolutely mounted in the table and equipped with a loosely mounted belt to permit formation of tobacco bunch retaining pockets therein, and means mounted on said table movable to the belt and extending over the margins thereof toward the longitudinal center thereof, to engage the tobacco bunch for regulating the density of the tobacco rolled in said belt.

7. A tobacco machine including a drum, means carried by the drum and flexible on the latter to permit forming a pocket therein, a foot lever in connection with said apron and operable in one direction to form said pocket, means movable by continued operation of said lever, in the same direction, for actuating said apron thereby rolling the contents of said pocket, movement of said lever in a counter direction, opening the pocket.

[Claims 2, 5, 6, and 8 to 10 not printed in the Gazette.]

1,239,003. TOBACCO BUNCHING AND ROLLING MACHINE. JAMES S. HAGGERTY, Mannington, W. Va. Filed Sept. 18, 1916. Serial No. 120,776. (Cl. 131—44.)



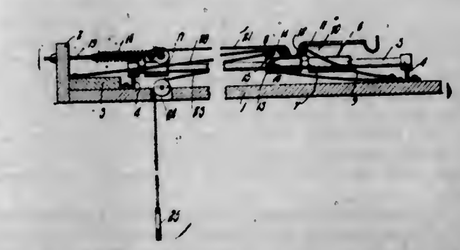
1. A tobacco bunching and rolling machine including a table, a drum in said table, mechanism arranged in said drum whereby the latter may be operated, an apron trained about said drum to receive the tobacco and the latter being rolled by movement of the drum, and a foot operating member depending from said table and in connection with the operating mechanism for actuating the latter.

2. A tobacco bunching and rolling machine including a table equipped with a rotatable drum, an apron trained about said drum, a smoothing plate structure slidably mounted on the table and having a portion thereof engaged with said apron, means slidably mounted on the table and co-acting with said smoothing plate structure to permit flexure of the apron between said means and said smoothing plate structure, and springs connecting said means and smoothing plate structure.

5. A tobacco bunching and rolling machine including a table, a drum mounted in said table, mechanism arranged within said drum whereby the latter may be operated, and an apron trained about said drum to receive tobacco, said tobacco being rolled in the apron by movement of said drum.

[Claims 3 and 4 not printed in the Gazette.]

1,239,004. CIGAR AND STOGY MAKING MACHINE. JAMES S. HAGGERTY, Mannington, W. Va. Filed Nov. 9, 1916. Serial No. 130,430. (Cl. 131—42.)



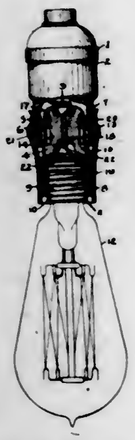
1. A cigar and stogy making machine including a base equipped with a reciprocable carriage, a master belt, the terminals of which are engaged with said base, the body

of the belt being trained through the carriage to insure a smooth even movement thereof, and an apron mounted on the base and flexible in the carriage to form a pocket.

2. A cigar and stogy making machine including a base equipped with horizontal shafts, a bracket movably mounted on the shafts and yieldably engaged with one end of the base, a carriage slidably mounted on the shafts and separable intermediate its ends, an apron, one end of which is engaged with said bracket and the opposite end engaged through the carriage and with said base, said apron being flexible between the separable portions of the carriage, to form a pocket.

3. A cigar and stogy making machine including a base equipped with parallelly arranged shafts, a bracket movably mounted on the shafts and yieldably engaged with one end of the base, a carriage slidably mounted on the shafts and separable intermediate its ends, a belt, one end of which is engaged with one end of the base, and the opposite end passed through said carriage and fixedly engaged with the base, adjacent the opposite end of the latter, to prevent undue movement of the carriage, and an apron, one end of which is engaged with said bracket and the opposite end engaged through the carriage and with said base, said apron being flexible between the separable portions of the carriage, to form a pocket, substantially as set forth.

1,239,005. INCANDESCENT-LAMP-ATTACHING MEMBER. ARTHUR L. HARRIS and EUGENE F. CASANOVA, San Francisco, Cal. Filed May 10, 1916. Serial No. 97,178. (Cl. 173—360.)



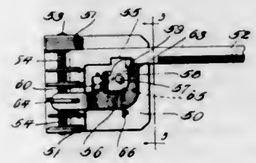
1. An incandescent lamp attaching member comprising a one piece shell having spring means on one end to clamp around an incandescent lamp base and spring means on the other end to fit within a lamp socket, and means carrying a central contact and limiting the inward and outward spring of the second mentioned fingers.

2. An incandescent lamp attaching member comprising a cylindrical one piece shell having a plurality of longitudinally extending spring fingers formed on one end thereof to clamp around the base of an incandescent lamp, and having a plurality of longitudinally extending spring fingers on the other end thereof to fit within and snap into engagement with an incandescent lamp socket, and means carrying a central contact and limiting the inward and outward spring of the second mentioned fingers.

3. An incandescent lamp attaching member comprising a cylindrical one piece shell having a plurality of integral spring fingers extending longitudinally from one end thereof, a core fixed within said body and projecting beyond one end, a head formed on the projecting end of said core having a channel to receive the terminals of the spring fingers and limit their outward movement, and spring means integral on the other end of said body to clamp a lamp.

4. In combination with a lamp socket formed with an external bead, a lamp attaching member having one end removably fitted in the socket, comprising a one piece shell having integral spring fingers formed on the ends thereof and extending longitudinally therefrom, and a core within said shell having a central contact member; and a sleeve encircling said lamp attaching member in close engagement with the lamp receiving end thereof and formed with a recess to receive said bead whereby the sleeve is fixed to the socket.

1,239,006. MUSIC-TURNER. RUFUS A. HARRIS, Salem, Oreg. Filed July 27, 1916. Serial No. 111,702. (Cl. 84—135.)



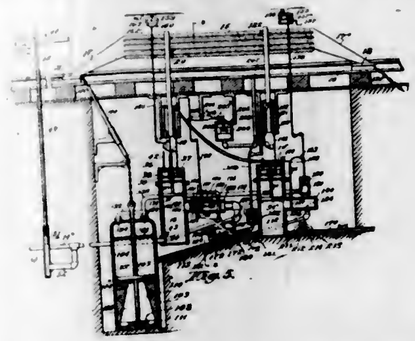
1. A music leaf turner comprising a plurality of horizontally moving leaf turning arms and means for swinging them from one position to another, said arms having vertically extending shoulders at their lower edges, a lever in the form of a plate disposed in a vertical plane beneath the normal position of and parallel with said arms, said lever being mounted pivotally between its ends, a handle extending from one end of said lever, a stop nose rising from and formed integrally with the upper edge of said lever at the other end thereof, a spring for yieldably holding said lever in position to dispose said nose below the path of the arms, a dog in the form of a pivotally mounted plate adjacent one side of said lever, said dog having a beveled nose extending above the aforesaid nose and coöperating with the shoulders of the leaf turning arms, and a spring for holding the dog in normal position and permitting it to yield downwardly when said arms are forced against it by hand in returning them to their initial positions.

2. A music leaf turner comprising a plurality of horizontally moving leaf turning arms and means for swinging them from one position to another, a support in rear of said arms, a pivot pin extending outwardly from said support beneath said arms, a lever in the form of a plate slit horizontally from one end toward the other and having its upper portion above said slit bent rearwardly into spaced relation with its body portion, said rearwardly bent portion and said body portion having openings receiving the aforesaid pin whereby the lever is fulcrumed, the portion of said lever below the aforesaid slit forming a handle for the lever, a sharpened nose formed integrally with and rising from the upper edge of the aforesaid lever, a spring for holding said lever in position to normally dispose said nose below the path of the music turning arms, a stop finger extending outwardly from said upper edge of the lever in spaced relation to the nose thereof, a dog pivotally mounted on the aforesaid pivot pin adjacent the front side of the lever and having a beveled nose coöperating with the aforesaid arms, said lever also having a portion abutting the under side of the aforesaid stop finger, and a coiled spring connecting said dog and said stop finger.

1,239,007. HYDRAULIC MECHANISM FOR RAILWAY DEVICES. LEONARD HEALD, Montreal, Quebec, Canada. Filed Apr. 20, 1914. Serial No. 833,185. (Cl. 246—59.)

1. In a device of the character specified, the combination with a device to be operated, of a hydraulic mechanism operatively connected to said device, a setting device

spaced from the hydraulic mechanism and adapted to set said mechanism in operative position and means for automatically setting such mechanism upon the disorganization or removal of a part or parts of the setting device.



4. In a device of the character specified, the combination with a device to be operated, of a hydraulic mechanism operatively connected to said device, a setting device connected with the hydraulic mechanism and adapted to be operated by a train and means controlled by the train for making the hydraulic mechanism unresponsive to the action of the train upon the setting device.

5. In a device of the character specified the combination with a brake at the side of the track and normally out of the path of the train, of a hydraulic mechanism operatively connected to the brake, a setting device spaced from the hydraulic brake, and adapted to set the brake, such hydraulic brake including means for further setting the brake by engagement of the train with the brake.

8. In a device of the character specified, the combination with a brake at the side of the track and comprising a pair of members normally out of the path of a train and having a movement longitudinally of the track, of brake setting means including a fluid casing located at a distance from the brake; a piston in the casing and adapted to be depressed by a train; a second fluid casing located adjacent to the brake and communicating with the first casing; a piston in the second casing and operatively connected to the brake; and brake applying means including a resistance chamber inclosing a piston, such piston being connected to the brake and adapted to be operated by the longitudinal movement thereof; and a fluid casing communicating with the fluid resistance chamber and having a piston therein operatively connected to the brake.

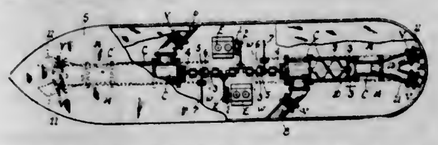
Claims 2, 3, 6, 7, and 9 to 19 not printed in the Gazette.]

1,239,008. ELECTROMAGNETIC WINDING. CLARK T. HENDERSON, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed July 6, 1914. Serial No. 849,301. (Cl. 175—21.)



An electromagnetic winding comprising a conductor wound helically in layers and perforate sheets of insulating material between adjacent layers thereof, the perforations in said sheets of insulation being arranged to form passages radially through said winding to facilitate the circulation thereof.

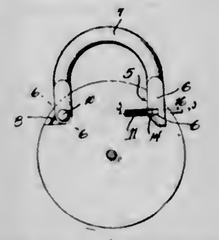
1,239,009. SHIP-PROPELLING APPARATUS. PRESLEY N. HICKS, St. Louis, Mo. Filed July 21, 1916. Serial No. 110,531. (Cl. 115—16.)



1. A ship-propelling apparatus comprising, in combination with a ship, a drive-shaft disposed longitudinally of the ship, screw-shafts beyond each end thereof adapted to be individually coupled thereto, cylinders traversed by said screw-shafts, valve-controlled feed branches leading from the cylinders through the sides of the ship and disposed on opposite sides of the ship, Y-shaped terminals leading from the cylinders and discharging through the walls of the ship on each side of the longitudinal central line of the ship, valves for the branches of said Y-shaped terminals, and means for controlling said valves.

2. In combination with a ship, a centrally and longitudinally disposed drive-shaft, screw-shafts alined therewith at opposite ends thereof, means for coupling the respective screw-shafts to the drive-shaft, cylinders traversed by the screw-shafts, screws on the screw-shafts operating in the cylinders, valve-controlled, parallel feed-branches leading from the cylinders through the sides of the ship, said branches being inclined to the longitudinal axis of the ship and pointing toward the drive-shaft, and disposed on opposite sides of the ship, Y-shaped terminal discharge pipes leading from the cylinders at points beyond the screws, the branches of said terminals discharging a column of water on either side of the longitudinal axis of the ship, valves for said branches, and means for controlling the valves from points adjacent the drive-shaft.

1,239,010. PERMUTATION-LOCK. EDWARD T. HODGES, Haverhill, Mass. Filed Sept. 26, 1916. Serial No. 122,275. (Cl. 70—112.)



1. In a permutation lock, the combination with a circular plate having rotatable disks mounted on each of its side faces, the said disks and the plate having recesses extending at a tangent to their peripheries, a locking dog including a blade received in the recess in the said plate and having its ends projected beyond the sides of the plate, the said disks having annular grooves for receiving the ends of the blade, the said recesses in the disks communicating with the annular grooves whereby the ends of the blade may be extended into the recesses in the disks, resilient means mounted in the recesses in the plate and engageable with the plate to hold the said ends normally in the grooves, and an operating stem carried by the blade, the said plate having an opening for receiving the stem whereby the latter may project beyond the periphery of the plate.

2. In a permutation lock, the combination of a circular plate having rotatable disks mounted on each of its opposite faces, the said disks and the said plate having recesses extending at a tangent to their peripheries, a locking dog including a blade normally disposed in a horizontal plane and having its ends projecting outwardly beyond the recesses in the said circular plate, each of the

said disks having an annular groove for receiving one of the ends of the said blade, the said recesses in the disks communicating with the said annular grooves, a shackle having its end adapted to be moved into the recesses in the said circular plate, the said blade carrying an operating member, the said member being projected outwardly beyond the periphery of the said circular plate, a coil spring engaging the plate for normally holding the said operating member in extended position, and a stem carried by the blade and embraced by the spring.

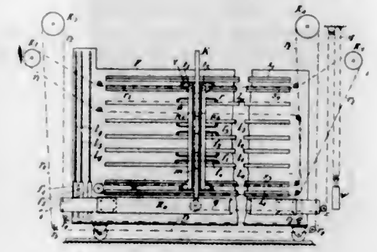
3. In a permutation lock, the combination with a central plate having a recess formed therein and formed at a tangent to the periphery of said plate, disks rotatably mounted on said plate and also provided with recesses disposed at a tangent to the periphery of said disks, said disks and said plate being provided with a plurality of graduations whereby the recesses in said plate and in said disks may be moved into alinement for providing a laterally extending continuous slot of a substantial width, a locking dog comprising a blade adapted to extend into said slot, an operating member integrally formed with the blade and extending through an aperture in the periphery of said plate, a shackle, one end of the shackle being adapted to extend into an enlarged recess in said plate which communicates with the recesses forming said slot, the end of the shackle having a notch for receiving said blade, and resilient means interposed between the end of said slot and the blade of said locking dog.

4. In a permutation lock, the combination with a circular plate, rotatable disks mounted on the opposite faces of the plate, the proximate faces having annular grooves, the said plate and the said disks each having recesses disposed at a tangent and adapted to be transversely alined to establish communication between the said annular grooves, a shackle having one end provided with a notch, the shackle being pivotally mounted for permitting the said notch to be alined with the said recesses, a horizontally disposed blade, a stem projecting from one edge of the blade at the center thereof and into the said recesses in the circular plate, resilient means interposed between the ends of the recesses and the edge of the said blade and embracing the said stem, and an operating member connected to the said blade.

5. In a permutation lock, the combination of a circular plate having recesses formed in its periphery and rotatably carrying a disk on each of its opposite faces, said disks and said plate provided with recesses disposed at a tangent to their peripheries, with a locking dog disposed in one of said recesses and adapted to be manually operated in one direction for movement into said recesses, each of said disks being provided with an annular groove for the reception of the ends of said locking dog when in inoperative position, a shackle having its pivoted end disposed within one of the recesses in said plate, and carrying lugs which project laterally into said annular grooves, the opposite end of said shackle having a notch for the reception of said locking dog, and resilient means for normally holding said locking dog in engagement with said shackle.

1,239,011. AUTOMATIC TELEPHONE-EXCHANGE SYSTEM. CARL AXEL WILHELM HULTMAN, Stockholm, Sweden. Filed May 29, 1914. Serial No. 841,956. (Cl. 179—22.)

1. In a telephone system in combination a plurality of bare wires, a plurality of subscribers' lines connected to said wires, said wires extending along the sides of a space of parallelogrammatic cross-section, switching organs movable along the sides of the said parallelogram and adapted to connect with the wires corresponding to any called subscriber, figure switches connected to said switching organs, and means for connecting said wires being parallel and having such a length that a large number of switching organs may coöperate therewith, said organs being movable perpendicularly into the space outlined by said wires as well along one side thereof, and figure switches for regulating the movement of said switching organs, said figure switches comprising a bank of contacts and means for grounding said contacts in such a manner that the contacts corresponding to the digits of the number of the called subscriber's line shall be grounded prior to operation of the switching organ, whereby neither these wires nor the figure switches will come into speaking-connection with the intermediate wires.



2. In a telephone exchange system, a plurality of lines, contact wires connected to said lines and extending parallelly through a space of a parallelogrammatic cross section, the sets of wires corresponding to the various lines being so arranged as to be identified in a two coördinate system, contact wipers having selective movement transversely to said wires in the two directions of said coördinate system and means for moving said contact wipers.

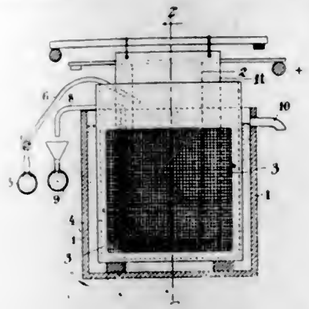
3. In a telephone exchange system, a plurality of outgoing lines of a switching stage, contact wires connected to said lines and extending parallelly through a space of parallelogrammatic cross section, the sets of wires corresponding to the various outgoing lines being so arranged as to be identified in a two coördinate system, a number of incoming lines each adapted to be connected with any of said outgoing lines, a number of switches each connected with one of said incoming lines and having selective movement transversely to said wires in the two directions of said coördinate system and means for operating said switches.

4. In a telephone exchange system a plurality of lines, contact wires connected to said lines and extending parallelly through a space of a parallelogrammatic cross section, the sets of wires corresponding to the various lines being so arranged as to be identified in a two coördinate system, a switch having selective movement transversely to said wires in the two directions of said coördinate system, and means for operating said switch, and a register device governing the movement of said switch.

5. In a telephone exchange system, a plurality of lines, contact wires connected to said lines and extending parallelly through a space of a parallelogrammatic cross section, the sets of wires corresponding to the various lines being so arranged as to be identified in a two coördinate system, a switch having selective movement transversely to said wires in the two directions of said coördinate system, continuously rotating shafts, electro-magnetic clutches, means for moving said switch by operating said clutches and a register device controlling the amount of movement of said switch.

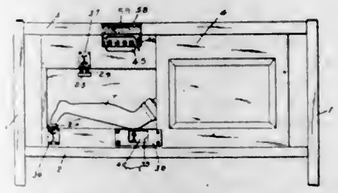
1,239,012. ELECTROLYTIC CELL. NOAK VICTOR HYBINETTE, Christiania, Norway. Filed May 22, 1913. Serial No. 769,211. (Cl. 204—5.)

1. An electrolytic cell for depositing copper from copper sulfate solutions containing iron sulfate, comprising a tank, electrodes suspended therein, a plurality of vessels removably suspended in said tank each having a non-porous portion, and a porous portion separating the anodes from the cathodes, means for supplying cathode solution directly to the cathode chambers, said non-porous portion arranged to maintain the solution under atmospheric pressure in the cathode chambers above the level of the solution in the anode chamber, means for withdrawing solution from the anode chamber and overflow channels passing over the edge of the tank for withdrawing solution from the cathode chambers to remove said solution from electrolytic action.



2. An electrolytic cell for depositing copper from copper sulfate solutions containing iron sulfate, comprising a tank, anodes suspended therein, a plurality of vessels removably suspended in the tank each having a lower porous portion below the top of the tank and an upper non-porous portion extending above the tank, a cathode suspended in each vessel, means for supplying the solution to be electrolyzed directly into said vessels, the non-porous portions of the latter coöperating with the supply means to maintain the level of the solution in the vessels above the level of the solution in the tank, means for regulating the difference between the levels to control the amount of solution passing through the porous portions of the vessels, overflow channels passing over the edge of the tank for withdrawing cathode solution from the vessels, and means for withdrawing anode solution from the tank.

1,239,013. ADVERTISING NOVELTY. ERNEST S. JAROS, Columbus, Ohio, assignor to The United Demonstrating Machine Company, Columbus, Ohio, a Corporation of Ohio. Filed June 10, 1912. Serial No. 702,816. (Cl. 73—51.)



1. An advertising novelty comprising an artificial clothed member, a resiliently mounted wearing element, and means for bringing said member into percussive engagement with said element against the tension of its resilient mounting.

4. An advertising novelty comprising an artificial clothed limb, heel, toe and knee abrading elements, means for moving the heel, toe and knee portions of said limb into percussive contact with their respective abrading elements and means for moving the knee portion over the surface of the knee abrading element while in contact therewith after the percussive action.

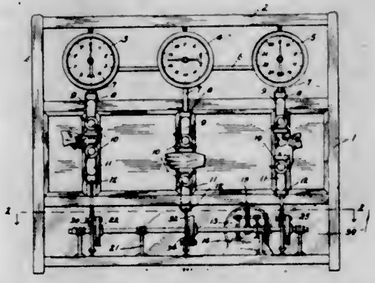
5. An advertising novelty comprising an artificial clothed limb, a casing for said limb, means for moving said limb into contact with said casing, and means for causing relative movement between said limb and said casing while in contact.

12. An advertising novelty comprising means for supporting an article on display, means for imparting a series of percussing actions to said member, supplemental indicating means, and means for rendering said last means operable and automatically effective with the wearing of the article directing attention to the affected parts when such action occurs.

14. An advertising novelty comprising an artificial clothed limb, means for imparting a series of percussive actions to said limb, means for imparting a series of rubbing frictional actions to said limb, supplemental luminous indicating means, means for rendering said luminous means operable for directing attention to said limb when such percussive actions occur, a movable luminous indicator, and means for rendering said indicator operable for directing attention when such frictional action occurs.

[Claims 2, 3, 5 to 7, 9 to 11, 13, 15, and 16 not printed in the Gazette.]

1,239,014. ADVERTISING DEVICE. ERNEST S. JAROS, Columbus, Ohio, assignor to The United Demonstrating Machine Company, Columbus, Ohio, a Corporation of Ohio. Filed Nov. 6, 1912. Serial No. 729,856. (Cl. 73—51.)



1. An advertising device comprising a plurality of scales, means for attaching an article of wearing apparel to each of said scales, said articles being attached in dissimilar positions, and means for automatically and successively subjecting each article of apparel to a stretching action, said means being such that the stretching actions increase in intensity from one of said articles to another.

2. An advertising device comprising a plurality of suspended scales, means for attaching an article of apparel to each of said scales, and means for automatically and successively subjecting each article of apparel to a stretching action.

3. An advertising device comprising a plurality of suspended scales, means for attaching an article of apparel to each of said scales, and means for automatically and successively subjecting each article of apparel to a stretching action, said last means being such that the stretching action of one article is completed before it is instituted for the succeeding article.

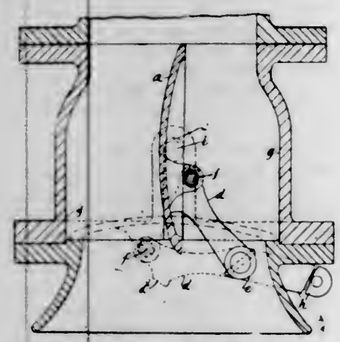
4. An advertising device comprising a plurality of suspended means, means for attaching an article of apparel to each of said scales, means for automatically and successively subjecting each article of apparel to a stretching action, and means for relieving said scales of the weight of said operating means.

5. An advertising device comprising a casing, a plurality of suspended scales, means for attaching an article of apparel to each of said scales, a lever pivoted at its rear end for each of said scales, second attaching means for each of said articles operatively connected to the other ends of said levers, and means for automatically and successively depressing said levers to subject said articles to a stretching action.

1,239,015. DISK VALVE. THOMAS DOW KEY, Alexandria, Egypt. Filed Sept. 15, 1916. Serial No. 120,294. (Cl. 103—66.)

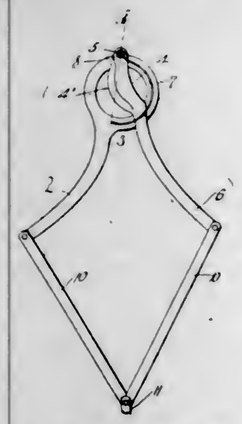
1. A disk valve consisting of the valve body, diametral trunnions integrally formed on the peripheral edge of said body, lugs on the underside of the same, and means connected to said lugs for turning and vertically displacing said valve on its trunnions, as and for the purpose described.

2. A disk valve consisting of the valve body, lugs on the underside and diametral trunnions formed on the edge of the same, guiding means for the trunnions, arms articu-



lated to said lugs, a turning shaft fixed in the arms, bearings for the shaft, an extension of the shaft, and an operating lever fast on same, as and for the purpose described.

1,239,016. DEHORNING IMPLEMENT. JOHN W. KING, Alpha, Idaho. Filed Nov. 28, 1916. Serial No. 133,015. (Cl. 128—27.)



An implement of the character described embodying a ring having an arm extending therefrom, a pivot element carried by the ring opposite to said arm and extending from one side of said ring, a cutter pivotally engaging said pivot element at the outer extremity of the cutter and movable along said side of the ring, and an arcuate wire guide at said side of the ring having one end bent into an eye embracing said pivot element and having its other end bent at an angle toward and engaging within said ring adjacent to said arm.

1,239,017. PHOTOGRAPHIC CAMERA. ROBERT KROEDEL, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed May 5, 1917. Serial No. 166,568. (Cl. 95—31.)

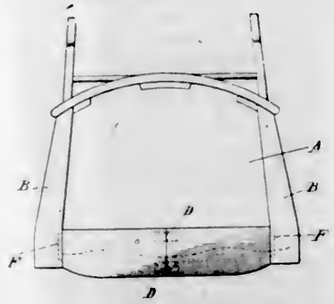
1. The combination with a camera body, of a displaceable back therefor, said back and body being provided with coöperating edge flanges and grooves constituting a light tight joint, one of the said coöperating parts on one member being resilient to act as a spring latch for automatically locking the engaging part on the other member.

2. The combination with a camera body, of a displaceable back therefor, said back and body being provided with coöperating edge flanges and grooves constituting a light tight joint, one of the said coöperating parts on one member being resilient to act as a spring latch for automatically locking the engaging part on the other member, and a releasing button on the member carrying the resilient part controlling the latter.



3. The combination with a camera body having grooves at its sides, an inturned flange at each end, of a displaceable back for the body having flanges coöperating with the side grooves of the latter, a groove in one end coöperating with one end flange of the body and a resilient plate at the other end having an outwardly opening groove provided with a curved lip adapted to act as a latch for automatically locking with the other end flange of the body, the entire flange and groove formation of the two parts constituting a light tight joint between the back and body.

1,239,018. ATTACHMENT FOR CHAIRS. WILLIAM T. LILLY, Glen Morgan, W. Va., assignor of one-fourth to Halleck McGinnis Scott and one-fourth to Cyrus Hudson Meador, Beckley, W. Va. Filed June 5, 1915. Serial No. 32,348. (Cl. 45—58.)

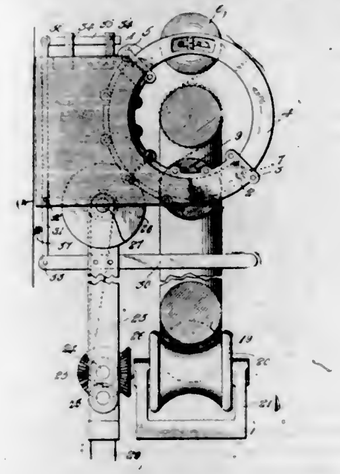


In combination with a chair having arms provided with slots in the inner marginal edges thereof above their transverse centers, boards hinged together end to end, each board having a tongue projecting from the outer end thereof and adapted to engage said slots in the arms, the upper faces of the boards and said arms being flush with one another.

1,239,019. WRAPPING-MACHINE. NAFEW J. LLOYD, Butte, Mont. Filed Dec. 5, 1914. Serial No. 875,686. (Cl. 242—6.)

1. A wrapping machine comprising means for vertically supporting an annular article to be wrapped, means for applying wrapping material to said article and for retaining said article, through the connection established by the wrapping material, in upright vertical position.

2. A wrapping machine comprising means for vertically supporting an annular article to be wrapped, a ring, through the center of which the top of said article is extended, means carried by said ring for wrapping the article, said wrapping material passing from the ring in opposite directions and thereby retaining the article in the center of said ring, and means for rotating said ring.



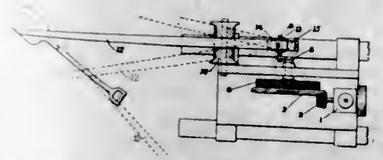
3. A wrapping machine comprising means for rotatably supporting an annular article to be wrapped, a ring encircling the article, rolls of wrapping material carried by said ring for wrapping said article, said wrapping material passing from the ring in opposite directions and thereby laterally supporting said article at its upper portion, and means for rotating said ring.

4. A wrapping machine comprising rotatabe means for vertically supporting an annular article to be wrapped, a ring encircling the article to be wrapped, a plurality of rolls of wrapping material carried by the said ring, the material from the said rollers being extended radially toward the said article and toward opposite sides thereof for connecting the article to the said rollers whereby the material from the rollers may be wound upon the article at the same time preventing movement of the article within the said ring, and means for simultaneously rotating the said ring and the said supporting means.

5. A wrapping machine comprising a plurality of rotatable sheaves for vertically supporting an annular article to be wrapped, a support for said sheaves, bearings mounted on said support, standards pivotally mounted on said bearings, a shaft carried by said standards, means carried by said shaft and the support for said sheaves for rotating one of said sheaves, a sectional ring encircling the article to be wrapped, rotatable means carried by the upper ends of said standards and engaging said ring, and means connecting said first mentioned means with said rotatable means for imparting a rotary motion to said ring.

[Claims 6 to 16 not printed in the Gazette.]

1,239,020. POWER LIFTING-MACHINE. REGINALD N. LOWRY, Mount Lebanon, Pa. Filed Apr. 27, 1916. Serial No. 93,924. (Cl. 74—5.)



1. In a machine of the class described a fulcrum, a working beam supported thereon and free to be lifted therefrom, a hand tool operatively attached to the working beam, and means including a motor for rocking the working beam.

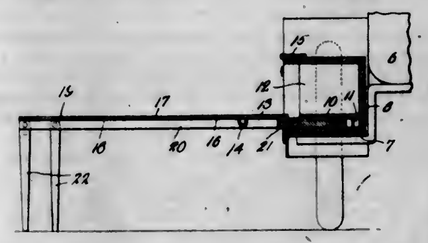
2. In a machine of the class described, a walking beam free to move laterally on its fulcrum, operated by a motor substantially as set forth.

3. In a machine of the class described, a motor operating a walking beam through a gear and crank transmission, the walking beam being operatively connected to the machine with a universal connection and floating on the operating crank.

4. In a machine of the class described, a motor operating a walking beam through a gear and crank transmission, the walking beam being operatively connected to the crank with a universal connection.

5. In a machine of the class described a fulcrum, a walking beam supported thereon, and free to be lifted therefrom, a hand tool operatively attached to the walking beam and means including a motor for rocking the walking beam.

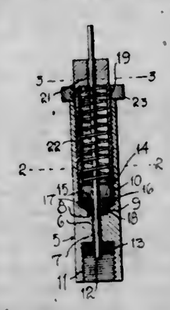
1,239,021. CABINET FOR VEHICLES. ELMER MCBURNEY, Oakland, Cal. Filed Dec. 16, 1916. Serial No. 137,393. (Cl. 190—12.)



3. In combination with a motor vehicle; a cabinet adapted to be secured to the running board thereof, the said cabinet being divided into compartments, a pair of arms hinged at one end within one of said compartments and being capable of being swung outwardly therefrom, a door hinged to said cabinet, and extensible leaves on said door adapted to rest upon said arms.

[Claims 1 and 2 not printed in the Gazette.]

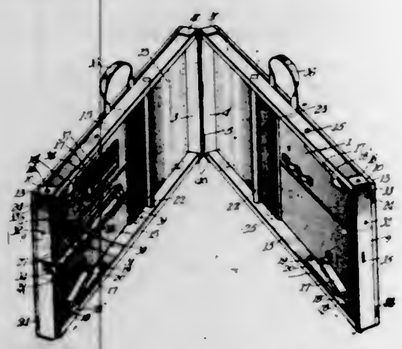
1,239,022. PRESSURE-REGULATING VALVE. LUCIAN B. MCCLEAN, Green Bay, Wis. Filed Mar. 24, 1917. Serial No. 157,200. (Cl. 137—53.)



1. A pressure regulating valve for pneumatic tires including a casing adapted for attachment to a tire valve having an internal valve seat, a rod axially movable through the casing, a valve member fixed on said rod and having a reduced, cylindrical portion, a compressible rubber disk frictionally engaged upon said reduced portion of the valve member, a sleeve threaded in said casing having a head on one end provided with an air relief opening through which the valve rod extends, and a coil spring within said sleeve bearing at one of its ends against the head and at its other end against the valve member to urge the rubber disk into yielding engagement with the valve seat.

[Claim 2 not printed in the Gazette.]

1,239,023. TABLE AND KIT-CARRIER. JOHN W. MCELHINNY, Chicago, Ill., assignor of one-half to William M. Roberts, Oak Park, Ill. Filed Nov. 5, 1915. Serial No. 59,829. (Cl. 190—11.)



1. In a table of the kind described and in combination, a suitable top, consisting of two parts arranged end to end, each provided with a downward projecting flange at each end, the adjacent flanges at the meeting ends of said top parts pivotally secured together, said flanges extending across the parts to the side edges thereof, the ends bent inwardly substantially parallel with the side edges, legs secured to the projecting flanges of the free ends of the top parts, braces connecting said legs with the table top parts, said legs of a length to extend adjacent to the center of the top when folded against the top.

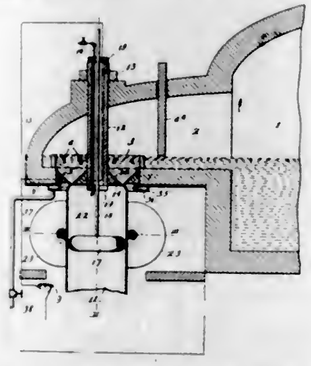
2. In a table of the kind described and in combination, a suitable top, consisting of two parts arranged end to end, each provided with a downward projecting flange at each end, the adjacent flanges at the meeting ends of said top parts pivotally secured together, said flanges extending across the parts to the side edges thereof, the ends bent inwardly substantially parallel with the side edges, legs secured to the projecting flanges of the free ends of the top parts, braces connecting said legs with the table top parts, said legs of a length to extend adjacent to the center of the top when folded against the top and of a width corresponding with the width of said flanges, whereby when the legs are folded against their respective tops, and edge to edge against each other, the parts will constitute a closed case with the top parts at the sides, the legs at the edges and the flanges at the ends, and means for securing said parts in folded positions.

3. In a table of the kind described and in combination, a suitable top consisting of a plurality of parts, two parts arranged end to end, both parts provided with the projecting flange at each end, the adjacent flanges at the meeting ends of said two parts pivotally secured together, said flanges extending across the two parts to the side edges thereof with the ends bent inwardly substantially flush with the edge of the top part, a pair of legs for each part, having their outer ends pivotally secured at the free end of the table top part to said inwardly bent ends, means for bracing said legs in an operative supporting position, said legs foldable against the under side of the top part, whereby the table may be folded with the legs edge to edge between the two top parts, detachable top parts of a size to be contained within the folded table, means for securing the table parts in folded positions, carrying means secured to said table and means arranged on the under side of the table top parts for securing tools thereto.

1,239,024. METHOD OF AND APPARATUS FOR DRAWING GLASS. STEPHEN W. MANNING, Sapulpa, Okla. Filed Apr. 17, 1916. Serial No. 91,616. (Cl. 49—17.1.)

1. In an apparatus of the character described, means for producing a glass tube, and rolls each having a fixed section and a spring pressed axially yieldable section and a flexible covering for the sections adapted to embrace the exterior of said tube and control the drawing of the latter.

2. In an apparatus of the character described, means for producing a glass tube, a pair of oppositely mounted movable rolls adapted to embrace the exterior of said tube and control the drawing of the latter, coil connecting springs common to the pair of rolls and connected at their ends to each roll, and means for driving said rolls in opposite directions.



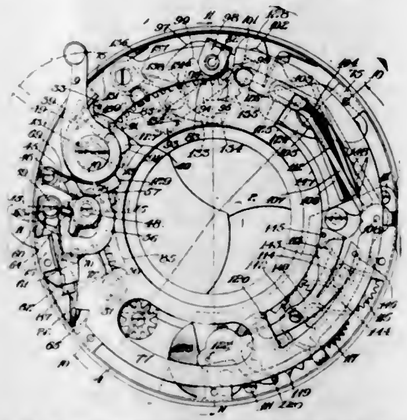
3. In an apparatus of the character described, a source of molten glass, a well communicating with and arranged to one side of the source of molten glass, said well having radial passages, those adjacent the source having a lesser capacity than those remote therefrom.

4. In an apparatus of the character described, a melting furnace having a lateral bay, an outlet provided in the bottom of the bay, and a ring set on edge about the outlet to constitute a well, said ring having a peripheral series of openings, those adjacent the melting furnace being smaller than those on the opposite side of the ring.

5. The hereindescribed method of forming glass cylinders, which consists in drawing the glass from a molten bath and reheating said glass interiorly and exteriorly at the drawing off point.

[Claims 6 and 7 not printed in the Gazette.]

1,239,025. PHOTOGRAPHIC SHUTTER. PAUL J. MARKS, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed Apr. 2, 1917. Serial No. 159,215. (Cl. 95—63.)



1. In a photographic shutter, the combination with a blade mechanism and a pivoted element provided with two abutments on opposite sides of its pivotal center, of a retarding lever adapted for retarding action in both directions of movement, means including a shiftable fulcrum for imparting varying degrees of leverage from the pivoted element to the retarding lever, a driving member for operating the blade mechanism and means for exerting the energy of the driving member against first one abutment of the pivoted element and then the other upon successive operations of the shutter.

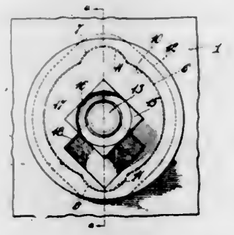
7. In a photographic shutter, the combination with a blade mechanism, a retarding device and a pivoted element operatively connected to the latter and having a retarding action in both directions of movement, said element being provided with two abutments on opposite sides of its pivotal center, of a driving member for operating the blade mechanism, means for exerting the energy of the latter against first one abutment and then the other of the pivoted element and a latch coöperating with the latter during the shifting of said means.

10. In a photographic shutter, the combination with a blade mechanism, a retarding device, a retarding lever coöperating therewith and a driving member for operating the blade mechanism, of a shiftable fulcrum, a pivoted member adapted to impart the energy of the driving member to the retarding lever through said fulcrum and a rotary ring on which the fulcrum is carried to effect its adjustment.

14. In a photographic shutter, the combination with an annular shutter casing, of a blade mechanism, a driving member for operating it, means for varying the action of the driving member on the blade mechanism and a rotary adjusting ring controlling said means supported on the casing walls and carrying a light tube extending through the center of the shutter casing.

[Claims 2 to 6, 8, 9, and 11 to 13 not printed in the Gazette.]

1,239,026. BOILER. EDWARD C. MEIER, Phoenixville, Pa. Filed Aug. 5, 1916. Serial No. 113,219. (Cl. 220—124.)



1. The combination of a boiler plate having a hand hole, a hand hole plate having a flanged portion forming a covering for the hole and engaging the inner surface of the plate adjacent the hole, an integral stem on said hand hole plate, a nut on said stem, a clamping plate having an off-set hole movable over said nut, said clamping plate also having a recess intersecting said hole and movable over said stem behind the nut, said hole having sides in slanting intersection with the recess to guide the stem directly into the latter, said clamping plate having a portion in engagement with the outer surface of the boiler plate and being engaged by the nut, substantially as described.

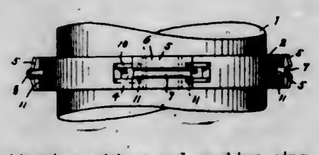
2. The combination of a boiler plate having a hand hole, a hand hole plate having a flanged portion forming a covering for the hole and engaging the inner surface of the plate adjacent the hole, a threaded stem on said hand hole plate, a nut on said stem, a clamping plate having an off-set hole movable over said nut, said clamping plate also having an intersecting recess movable over said stem behind the nut, said clamping plate having a portion in engagement with the outer surface of the plate and being engaged by the nut, said clamping plate having a convex outer surface, said nut having a recessed surface into which a portion of the convex outer surface of the clamping plate extends, substantially as described.

1,239,027. LATHE-CENTER. WALTER Y. MENTZER, Grand Rapids, Mich., assignor to Grand Rapids School Equipment Co., Grand Rapids, Mich. Filed Mar. 1, 1916. Serial No. 81,477. (Cl. 142—58.)



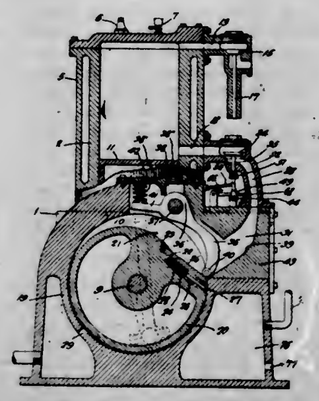
In a lathe center, the combination of a spindle provided with a center pin and spurs, of a collar on said spindle, a guard sleeve slidable on said collar and having an internal annular rib slidable on said spindle, the inner ends of said spurs constituting stops coacting with said rib to limit the outward movement of said guard sleeve and disposed so that when the stops are engaged the guard sleeve projects over the spurs, and a coiled spring arranged within said guard sleeve between said collar and rib to urge the guard sleeve yieldingly outward.

1,239,028. ROD PACKING-RING. CLARENCE E. MOORE, Virginia, Minn. Filed Apr. 9, 1917. Serial No. 160,676. (Cl. 137—116.)



The combination with a rod packing ring comprising a plurality of arcuate sections having slots in the abutting ends thereof, coöperating filler members within the slots and a continuous circumferential spring for holding the members of the ring together, of scarfs formed upon the outer circumferential edges of the slots and terminating short of the open ends thereof, and pins projecting from opposite sides of each end of each filler member and reciprocally engaged within the scarf substantially as and for the purpose described.

1,239,029. COMPOUND ENGINE. AMBROSE MORASKI, Houston, Mo. Filed Mar. 7, 1917. Serial No. 153,096. (Cl. 123—36.)



3. An engine having a cylinder, a piston working therein, said cylinder having an excess expanding gas outlet arranged to be uncovered when the piston reaches the end of its power stroke, a rotor operatively connected with the piston and having a chamber, a casing inclosing

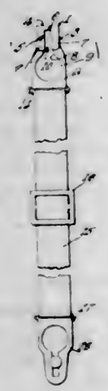
the rotor and having a recess communicating with said outlet, and an oscillatory wing working snugly within said recess and swingable by the impulse of the excessive expanding gas into engagement with the rotor to transmit the impulse thereto.

5. An engine having a cylinder, a piston working therein, said cylinder having an excess expanding gas outlet arranged to be uncovered when the piston reaches the end of its power stroke, a rotor having a chamber, a casing inclosing the rotor, a removable block assembled with said casing and having a recess communicating with said outlet, and an oscillatory wing working snugly within said recess and projectable into the chamber of the rotor.

6. An engine having a cylinder provided with intake and clean out ports and an excess expanding gas outlet, intake and clean out valves for the intake and clean out ports, respectively, a valve for the excess expanding gas outlet, a longitudinally shiftable cam shaft having a single cam for the last mentioned valve and reverse cams for the intake and clean out valves, members operated by said cams for operating the valves, manually operable means for shifting the cam shaft, the cam shaft when in one position rendering the last mentioned valve inoperative, and means for moving said members away from the cams to permit the cam shaft to be shifted.

[Claims 1, 2, 4, and 7 not printed in the Gazette.]

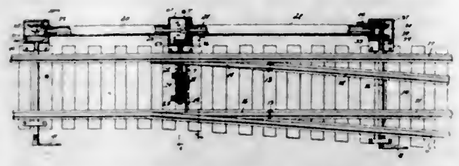
1,239,030. SUPPORTER. WILLIAM B. MUNN, Selma, Ala. Filed Feb. 7, 1917. Serial No. 147,211. (Cl. 241—1.)



In a stocking supporter, a vertical hook comprising a depending shank, a depending bill and a band connecting the shank and the bill, the bill being provided in its lower end with a longitudinal notch extended through the free end of the bill and dividing the bill into longitudinal free ended arms, the notch terminating short of the bend, the shank being provided with an open key hole slot comprising an enlarged portion disposed below the free end of the bill, and an upwardly projecting reduced extension lying directly behind the slot and terminating short of the bend; a depending strap connected with the lower end of the shank; and a stocking grip carried by the strap.

1,239,031. AUTOMATIC RAILWAY-SWITCH. AUGUST NITZSCHE, Monroe township, Madison county, Iowa. Filed May 5, 1917. Serial No. 166,720. (Cl. 104—23.)

1. A switch mechanism comprising a rod designed to be connected with movable switch members, a transverse shaft, means for operatively connecting said shaft with said rod, a shaft designed to be arranged longitudinally of the track, a beveled gear thereon, a beveled gear on said first shaft to mesh with said first beveled gear, transverse shafts spaced from the first transverse shaft, beveled gears on said second shaft adjacent to the respective last described shafts, beveled gears fixed on the last described shafts in mesh with said last described beveled gears, loosely mounted beveled gears on said last described shafts in mesh with the beveled gears on the second shaft, trip levers fixed to said loosely mounted gears, trip levers fixed on said spaced transversely arranged shafts at the opposite ends thereof from the gears thereon.



4. A switch mechanism comprising a rod designed to conct a pair of movable rail members, a shaft, means for operatively connecting said shaft with said rod, a second shaft arranged at right angles to said first shaft, beveled gears on said shafts arranged to mesh with each other, coacting means on said beveled gears whereby when said gears are in one position of their movement one of said beveled gears is locked against rotation until after limited movement of the other beveled gear, and means for operating said second shaft.

[Claims 2 and 3 not printed in the Gazette.]

1,239,032. PLASTER COMPOSITION. CHARLES NOLL, Cleveland, Ohio, assignor of one-third to Edward C. Reader and one-third to Irwin A. Reader, Cleveland, Ohio. Filed Mar. 12, 1917. Serial No. 154,140. (Cl. 106—35.)

1. A composition for making plaster containing slaked lime, clay, silica sand and flour.

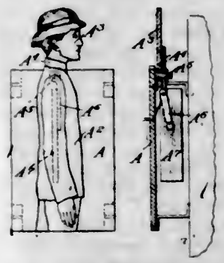
2. A composition for making plaster containing slaked lime, yellow clay, silica sand and rye flour mingled in substantially the following proportions by weight:

Dry slaked lime	15 parts
Dry yellow clay	20 parts
Dry silica sand	60 parts
Dry rye flour	5 parts

7. A plaster containing slaked lime, yellow clay, and silica sand in substantially the proportions specified mingled with a moisture-excluding liquid.

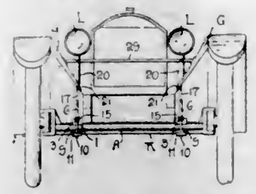
[Claims 3 to 6 and 8 not printed in the Gazette.]

1,239,033. SIGN. HARRY Y. NORWOOD, Rochester, N. Y. Filed Jan. 21, 1914. Serial No. 813,486. (Cl. 46—40.)



In a movable sign, the combination with a stationary back having a figure represented thereon, of a pivotally mounted object portion forming a part of said finger, and a vane connected with the object portion and arranged in rear of the stationary back, said vane acting to balance the object portion and lying normally in an upright or vertical position to be acted upon by air currents and to move freely in opposite directions from said vertical position and effecting a corresponding oscillation of the object portion.

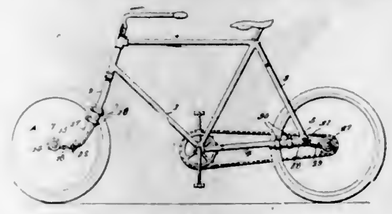
1,239,034. DIRIGIBLE HEADLIGHT. BJORGULO NORSTOG, Watford City, N. D. Filed Feb. 28, 1917. Serial No. 151,518. (Cl. 240—62.)



1. In combination with an axle of a vehicle, clamping members co-acting with said axle, a headed shank disposed through said clamping members, means carried by the shank and co-acting with the clamping members for maintaining said members in operative engagement with the axle, a lamp supporting rod rotatably supported by the headed shank, and means for rotating said rod.

[Claims 2 to 4 not printed in the Gazette.]

1,239,035. SHOCK-ABSORBER ATTACHMENT FOR BICYCLES. EVERETT A. PANGMAN, Gilboa, N. Y. Filed Jan. 16, 1915. Serial No. 2,714. (Cl. 208—94.)



1. In a shock absorber attachment for bicycles, a resilient element for each prong of the front and rear forks comprising superposed resilient plates, means for clamping the plates to the prongs at points substantially intermediate the ends of the prongs, said plates lying in contiguous relation to and in contact with the prongs, means on the extremities of the prongs for securing the plates thereto, and bearings on the free ends of the plates to receive the supporting wheel axles.

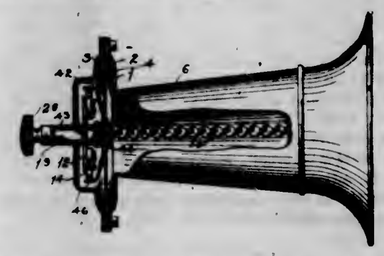
3. In a shock absorber attachment for bicycles, a resilient element for each prong of the front and rear forks comprising superposed resilient plates, means for clamping the plates to the prongs at a point substantially intermediate the ends of the prongs, said plates lying in contiguous relation to and in contact with the prongs with the lower terminals of said plates extended forwardly at points adjacent the extremities of the prongs, means on the extremities of the prongs for securing the plates thereto, and means on the free extremities of the plates for mounting the supporting wheels.

[Claim 2 not printed in the Gazette.]

1,239,036. MECHANICAL HORN. FERDINAND A. PFEIFER, Springfield, Ohio. Filed Oct. 29, 1912. Serial No. 728,335. (Cl. 116—1.)

1. In an acoustic signal apparatus, a resonance chamber, a vibratory diaphragm, a rotary vibrator, an anvil comprising a segment of polygonal formation, the successive faces of which extend in tangential relation to the path of travel of the rotary vibrator and are adapted to be successively engaged by the vibrator in its rotary movement, said anvil being connected with the diaphragm, whereby blows delivered to the anvil will be transmitted to the diaphragm to cause a vibration thereof, substantially as specified.

2. In an acoustic signal apparatus, a resonance chamber, a vibratory diaphragm, a revoluble carrier, a plurality of studs located upon the carrier, an annular contact member engaged over each of the studs the opening of which is of greater diameter than the stud, whereby the contact member will be permitted free movement for a limited distance about the stud, each of the studs being recessed upon its side nearest the axis of the carrier and an expansible annular retaining member common to all the studs expanded into the recesses of several studs to retain the contact members, the construction and arrangement being such that as the carrier is rotated, the contact members will engage the diaphragm.

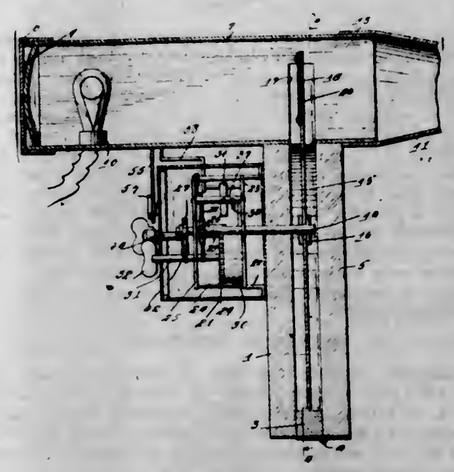


5. In an acoustic signal apparatus, a resonance chamber, a vibratory diaphragm, a rotary vibrator, means to actuate the rotary vibrator, extensions angularly disposed in relation one with the other carried by the diaphragm and projecting tangentially across into the path of the vibrator and adapted to be engaged thereby upon the rotation of the vibrator, substantially as specified.

11. A sounder, a rotary member, an actuating bar capable of both reciprocatory and revoluble movement adapted by its reciprocatory movement to rotate the said rotary vibrator, and means for interengaging the rotary member and the bar as the latter approaches the limit of its stroke whereby the said rotary vibrator and bar will tend to rotate in unison.

[Claims 3, 4, and 6 to 10 not printed in the Gazette.]

1,239,037. ADVERTISING-MACHINE. HENRY E. PHELPS, BERNARD T. KIRK, and JOSEPH COMSTOCK, Rifle, Colo. Filed Nov. 11, 1915. Serial No. 60,927. (Cl. 88—27.)

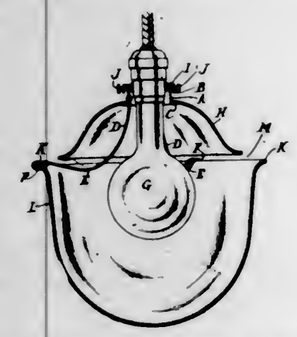


1. In an advertising machine of the class described, the combination of a casing, said casing comprising a rear wall and a forward wall, a base block carried by said walls for retaining said walls in parallel spaced relation, said forward wall being hingedly secured to said base, a tube carried upon said walls, a rotating disk carried between said walls and extending into said tube, said disk being adapted to contain advertising matter, means for reflecting rays of light upon the advertising matter of said disk, means for rotating said disk whereby the sub-

ject-matter of the advertisement may be reflected through said tube upon a screen or curtain carried in front of said tube, said forward wall being capable of being swung to an open position so as to allow said disk to be removed when necessary.

2. In an advertising machine of the class described the combination of a casing comprising a forward wall and a rear wall, said walls being substantially circular in shape and having webs formed upon their lower portions, a base block carried by said webs so as to retain said walls in parallel spaced relation, said walls provided with rectangular pockets in their upper portions, an elongated tube fitting within said pockets, said tube provided with a slot formed in alinement with the inner portions of said walls, a disk positioned within said casing and extending through the slot formed in said tube, means for intermittently rotating said disk, said disk being adapted to carry advertising matter thereon, means for reflecting rays of light upon the advertising matter in said disk whereby the subject-matter of the advertising matter may be thrown upon a screen or curtain carried in front of said tube.

1,239,038. SEMI-INDIRECT-LIGHTING DEVICE. ALFRED S. POWELL, New York, N. Y. Filed Dec. 4, 1916. Serial No. 134,878. (Cl. 240—92.)



A device for semi-indirect lighting by which a glass reflector or shade and a glass diffusing bowl can be supported by metal parts without either glass member being subjected to the weight of the other, said device consisting of an annulus formed at its upper edge with a circumferential indentation constituting a groove to receieve the screws of a supporting gallery or fitter, said annulus having also means at its lower edge to support a centrally apertured reflector or shade by the inner edge thereof; and a plurality of depending arms of stiff spring metal attached to the annulus at their upper ends, said arms extending downwardly and outwardly and having their lower ends bent to form inwardly disposed hooks to engage an outwardly projecting edge on an upwardly open diffusing bowl.

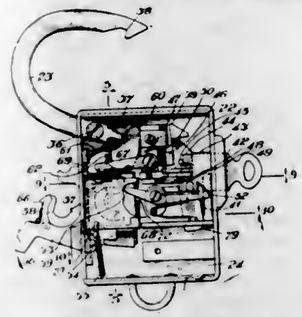
1,239,039. LOCK. CHARLES H. PRINZ, Fruitvale, Cal. Filed Aug. 9, 1916. Serial No. 113,915. (Cl. 194—64.)

1. In a lock, in combination, a locking element, means including a key for holding the locking element in retracted position, and means controllable by a slug for releasing the holding means.

3. In a lock, in combination, a locking element, means including a key for holding the locking element in retracted position, means controllable by a slug for releasing the holding means, an openable slug receptacle, and an independent lock for such receptacle.

7. In a lock, in combination, a hasp, a movable latch for engaging the hasp, slug releasable means for holding the latch out of engaging position, a slug carrier, and means actuated by the hasp for discharging a slug from the carrier.

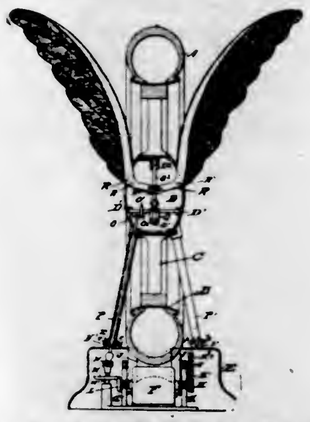
8. In a lock, in combination, a casing, a hasp, a spring latch for engaging the hasp, a key for holding the latch in



disengaging position, and a slug-controlled latch for securing the key in the casing.

[Claims 2, 4 to 6, and 9 not printed in the Gazette.]

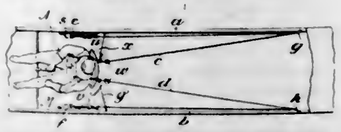
1,239,040. WINDOW-DISPLAY AND ADVERTISING DEVICE. STOYAN K. RADKOFF, Detroit, Mich. Filed Dec. 9, 1916. Serial No. 135,966. (Cl. 40—126.)



1. In a device of the character described, a frame, a driving drum journaled in the frame, adapted to support and rotate a wheel, a motor, means actuated by the motor to operate the driving drum, rocking arms pivoted in the frame adjacent to the hub portion of the wheel, and means driven by said motor adapted to actuate said rocking arms.

[Claims 2 and 3 not printed in the Gazette.]

1,239,041. BELT-SUPPORT FOR AVIATORS. ALLIOTT VERDON ROE, Manchester, England. Filed Sept. 19, 1916. Serial No. 121,017. (Cl. 244—1.)



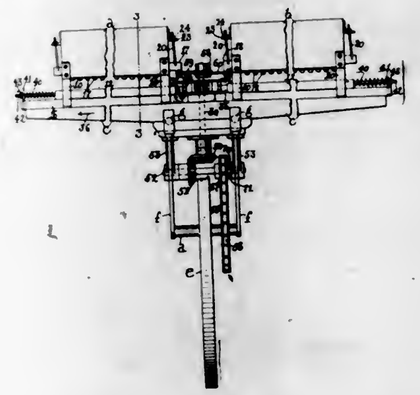
1. An adjustable support for aviators consisting of a belt or harness having a link attached to each end of same, a cable from each said link and an eye-bolt thereon at its other end, means for supporting a bend in each cable whereby it is doubled back toward the aviator, and two or more cleats attached to the aircraft on each side and within easy reach of the aviator to which the said eye bolts are connected.

5. In an adjustable support for aviators the combination with a belt or harness having a link attached to each end of same, of cables detachably connecting the said links with the air craft body, a doubled back length of the belt at each end inclosing the said link, a loop fastening on the loose doubled back end and on the belt respectively, and a pin connecting the loop fastenings.

8. An adjustable support for aviators consisting of a belt or harness having a link attached to each end of same, a cable from each said link and an eye bolt thereon at its other end, means for supporting a bend in each cable whereby it is doubled back toward the aviator, two or more cleats attached to the aircraft on each side and within easy reach of the aviator to which the said eye bolts are connected and an adjustable shoulder strap supporting the said belt, with two or more press button connections between the said shoulder strap and the belt.

[Claims 2 to 4, 6, and 7 not printed in the Gazette.]

1,239,042. APPARATUS FOR APPLYING POWDERED MATERIAL TO PLANTS, &c. EDWIN A. ROGERS, Brunswick, Me. Filed Dec. 30, 1914. Serial No. 879,792. (Cl. 275—2.)

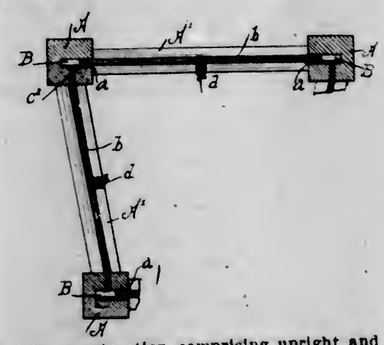


1. In an apparatus of the character described, in combination, a box for containing powdered material having an outlet in its bottom, a valve for controlling said outlet, a screen located below said outlet, a rotatable shaft, means on said shaft for moving said screen in one direction, means independent of said shaft for moving said screen in the opposite direction, and independent means on said shaft for reciprocating said valve, substantially as described.

2. In an apparatus of the character described, in combination, a framework, a box for containing powdered material supported by said framework above the same and provided with an outlet for said powdered material, a reciprocating screen carried by said framework above the same and located between the framework and the outlet for said box, a vertically arranged rotatable shaft carried by said framework and extended above and below the same, disks mounted upon said shaft above said frame-work, a plurality of rollers carried by said disks and spaced apart, a cam attached to said screen coöperating with said rollers, a spring to act on said screen in opposition to said rollers, and means located below said framework for rotating said shaft.

3. In an apparatus of the character described, in combination, a box for containing powdered material having an outlet in its bottom, a valve for controlling said outlet, a screen located below said outlet, a rotatable-shaft, an eccentric on said shaft connected with said valve to reciprocate the same, a device on said shaft for moving said screen in one direction, means for moving the said screen in the opposite direction, and means for suddenly arresting the screen at the end of its movement toward said shaft.

1,239,043. JOINT CONNECTION. ARTHUR B. RUSSELL, Chicago, Ill. Filed June 12, 1916. Serial No. 103,053. (Cl. 20—92.)



1. A joint construction comprising upright and lateral members, some of said lateral members meeting uprights at different angles, coupling members invisibly seated within the upright members, tie rods formed in sections and having one end of each rod engaged in a coupling member, said rods lying parallel with its corresponding lateral member, the meeting ends of the rods extending parallel with any lateral member being connected together to resist strains, substantially as described.

2. A joint construction comprising upright and lateral members, some of said lateral members meeting uprights at different angles, coupling members invisibly seated within the upright members, tie rods formed in sections and having one end of each rod engaged in a coupling member, said rods lying parallel with its corresponding lateral member, the meeting ends of the rods extending parallel with any lateral member, being adjustably connected together to resist strains, substantially as described.

3. A joint construction comprising upright and lateral members, some of said lateral members meeting successive uprights at different angles, coupling members invisibly seated within the upright members, tie rods made in separate sections and having one end of each rod engaged in a coupling member, said rods being bent to lie parallel to the lateral members, the meeting ends of the rods being connected together to resist longitudinal strain as a unit and their sections may not rotate axially independently of each other.

4. A joint construction comprising upright and lateral members, some of said lateral members meeting successive uprights at different angles, coupling members invisibly seated within the upright members, tie rods made in separate sections and having one end of each rod engaged in a coupling member, said rods being bent to lie parallel to the lateral members, the meeting ends of the rods being adjustably secured together at any desired tension and locked against any reverse movement.

1,239,044. REPRODUCER OR SOUND-BOX FOR TALKING-MACHINES. ARTHUR H. RYDER, Brooklyn, N. Y. Filed June 20, 1916. Serial No. 104,660. (Cl. 274—35.)



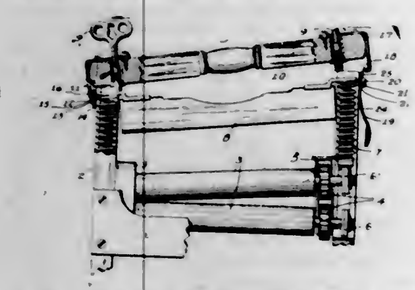
1. In a device of the class described, a box or casing, a diaphragm mounted therein, a needle block pivoted to said casing and provided with oppositely directed members, one of said members being provided with a vibrator

arm which is adapted to operate in connection with said diaphragm, a spring mounted on said block one end of said spring being adapted to operate in connection with said arm and the other end thereof being bent around the other member of said block to form a hook-shaped spring and adjusting nuts mounted on the opposite sides of the hook-shaped spring and the member therebetween whereby the tension of the vibrator arm on the diaphragm may be regulated.

2. In a device of the class described, a box or casing, a diaphragm mounted therein, a needle block pivoted to said casing and provided with oppositely directed members, one of said members being provided with a vibrator arm which is adapted to operate in connection with said diaphragm, a spring mounted on said block one end of said spring being connected with said arm and the other end thereof being bent around the other member of said block to form a hook-shaped spring, a pin mounted in said box or casing and adapted to pass through said last named member of said block and said hook-shaped spring, and means adjustably mounted on said pin on the opposite sides of said hook-shaped spring and said member therebetween for operating said spring to increase or decrease the tension of said arm on said diaphragm.

3. In a device of the class described, a box or casing, a diaphragm mounted therein, a needle block pivoted to said casing and provided with oppositely directed members, a vibrator arm connected with one of said members and adapted to operate in connection with said diaphragm, a spring mounted on said block one end of said spring being forked and connected with said arm and the other end thereof being bent around the other member of said block to form a hook-shaped spring, said last named member and said hook-shaped spring provided with apertures, a pin mounted in said box or casing and adapted to pass through the apertures in said hook-shaped spring and the member therebetween, and adjusting nuts mounted on the opposite sides of said hook-shaped spring and said member for regulating the tension of said arm on said diaphragm.

1,239,045. SAFETY-RELEASE FOR WRINGERS. FREDERICK W. SAUER, Brooklyn, N. Y. Filed Dec. 28, 1916. Serial No. 139,264. (Cl. 68—32.)



1. In a wringer, the combination with a frame, rolls, and a top rail fulcrumed at one end upon the frame, of a tongue projecting from the other end of the top rail alongside the frame and terminating in an inturned tip, and a trigger mounted upon the side of the frame between the same and the tongue and having a recess engaged by said tip, the mounting of the trigger being such as to permit its disengagement from the tip by a blow or pressure exerted toward the frame.

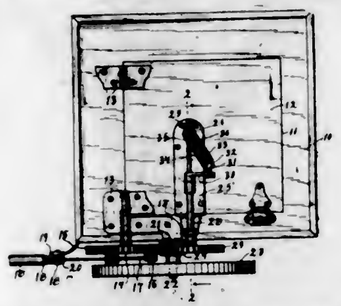
2. In a wringer, the combination with a frame, rolls, and a top rail, of a tongue secured to and extending downward from said top rail, and a tongue-engaging trigger movably mounted upon the frame in such manner as to be released from the tongue by a blow delivered inward toward the frame.

3. In a wringer, the combination with a frame, rolls, and a top rail, of a tongue secured to and extending downward from said top rail and having a shoulder, a trigger plate having a formation intermediate its ends engaging said shoulder, and a fastening passing substantially perpendicularly through the upper part of the trigger into the frame and beneath the head of which the trigger may rock under inward applied pressure or blow upon its lower portion to release the tongue.

4. In a wringer, the combination with a frame, rolls, and a top rail, of a tongue secured to and extending downward from said top rail and having a shoulder, a trigger plate having a formation intermediate its ends engaging said shoulder, and a fastening passing substantially perpendicularly through the upper part of the trigger into the frame and beneath the head of which the trigger may rock under inward applied pressure or blow upon its lower portion to release the tongue, the said fastener having a head convex upon its under side, and the corresponding portion of the trigger plate being curved so as to rock upon the side of the frame.

5. In a wringer, the combination with a frame, rolls and a top rail, of a tongue extending downward from said rail, a trigger engaging said tongue, and means whereby the trigger is fulcrumed upon the frame above its point of engagement with the tongue, the trigger having a stop extension above its fulcrum to bear against the frame.

1,239,046. WASHING-MACHINE MECHANISM. JOHN G. SEELIG, Ripon, Wis. Filed Nov. 30, 1914. Serial No. 874,577. (Cl. 74—14.)



1. A washing machine mechanism, comprising a work shaft, a driving shaft extending at an angle with relation thereto, and having a cranked portion, and a resilient connection between the cranked portion and the work shaft for reciprocating and rocking the work shaft.

2. A washing machine mechanism, comprising a work shaft, a driving shaft extending at an angle with relation thereto, and a resilient and a cranked connection between the two shafts for reciprocating and rocking the work shaft by a rotary movement of the drive shaft.

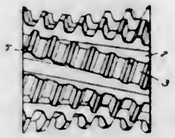
10. A washing machine mechanism, comprising a receptacle provided with an open top and a hinged cover, a vertically extending work shaft carried by the cover, a horizontal shaft carried by the cover and having a cranked arm mounted on its inner end and a gear wheel on its outer end, an arm carried by the work shaft and slidably and resiliently engaged by the crank portion of the cranked arm, said engagement reciprocating the work shaft and imparting a rocking tendency thereto, a driving gear wheel mounted in a position to revolve concentrically with relation to the hinge pintles of the cover and being in constant mesh with the cover gear wheel, a fly wheel mounted on the receptacle and having a gear connection with the driving gear wheel, and means for rotating one of said wheels.

[Claims 3 to 9 not printed in the Gazette.]

1,239,047. METHOD OF MAKING HOBS. FRANK S. SHIELDS, Cleveland, Ohio. Filed July 26, 1909, Serial No. 509,602. Renewed Jan. 8, 1917. Serial No. 141,350. (Cl. 29—103.)

1. The method of making a hob which includes supporting a substantially cylindrical blank, rotating said blank about its longitudinal axis, moving a cutting tool in

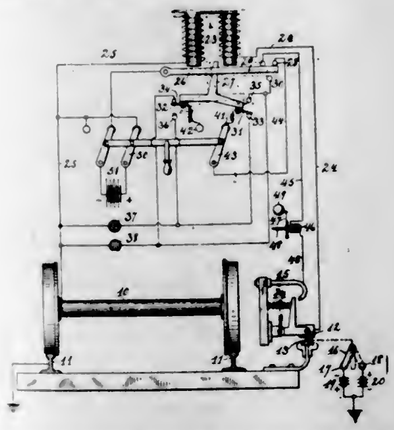
contact with said blank in a straight line at an angle to the said axis and in a plane parallel to a plane containing such axis, and then providing the body thus produced with helically disposed teeth.



2. The method of making a hob which includes supporting a cylindrical blank and a cutting tool in engagement with each other, causing a relative rotary movement between the blank and the tool about the axis of the blank, producing a straight-line contact between the tool and the blank, such line of contact extending at an angle to the axis of the blank and parallel to a plane including such axis, and then providing the body thus produced with helically disposed teeth.

3. The method of making a hob which includes supporting a cylindrical blank and a cutting tool in engagement with each other, causing a relative rotary movement between the blank and the tool about the axis of the blank, producing a straight-line contact between the tool and the blank, such line of contact extending at an angle to the axis of the blank and parallel to a plane including such axis, providing the body thus produced with a helix, and forming teeth by cutting such helix at an angle, said angle being inversely proportional to the pitch or lead of the gear and to the diameter of the hob.

1,239,048. RAILWAY SIGNAL SYSTEM. PAUL J. SIMMEN, Indianapolis, Ind. Filed Sept. 26, 1913. Serial No. 791,989. (Cl. 246—25.)



1. In a signal system for a vehicle moving along a trackway, two signals, a source of electrical current and two armatures on the vehicle, an electromagnet for the armatures, one of said armatures being neutral and the other polarized, a normally closed circuit on the vehicle including the neutral armature, means for intermittently interrupting said circuit during the passage of the vehicle along the trackway, means for maintaining the circuit broken when once so interrupted, and an outside source of electric energy which is adapted to energize the magnet controlling the polarized armature in either of two ways.

2. A signal system for a vehicle comprising two signals [illegible] thereon, two electromagnetically operated devices [illegible] controlling said signals, one of said devices being [illegible] and the other non-polarized, a normally closed [illegible] circuit on the vehicle including the non-polarized [illegible] means along the path of the vehicle energizable [illegible] negatively and deënergizable to control said devices, and an audible signal which is automatically actuated when the vehicle passes said means if the holding circuit becomes deënergized thereby.

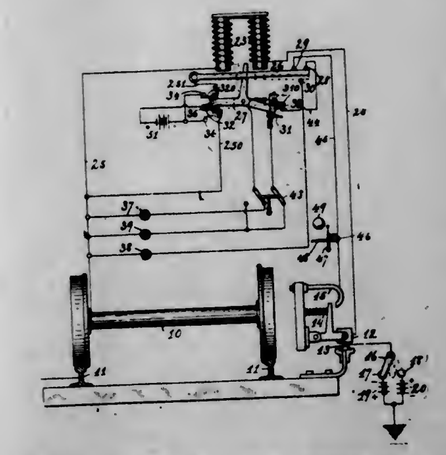
3. A signal system for a vehicle comprising two separately operable signals, electrically operated means for operating either signal including electro-magnetic means having a neutral and a polarized armature, means for energizing the electro-magnetic means in either of two directions to cause the operation of either signal, a normally closed circuit including the neutral armature, and means for maintaining the circuit broken if once interrupted.

4. A signal system for a vehicle comprising two independent signals, electro-magnetic means having a polarized and a neutral armature, and devices operated by the electro-magnetic means accordingly as it is energized in opposite directions to effect the operations of the different signals, a normally closed circuit including a neutral armature, and means for maintaining the circuit broken if once interrupted regardless of any condition or change of condition on the vehicle itself.

5. A signal system for a vehicle comprising a plurality of signals independent of each other, electrical means for actuating the same including a normally closed circuit, a non-polarized device controlling the circuit, means for maintaining the circuit broken if once interrupted and deënergized until reënergized, and mechanism including means along the trackway independent of the traction rails for controlling the circuit.

[Claims 6 to 27 not printed in the Gazette.]

1,239,049. RAILWAY SIGNAL SYSTEM. PAUL J. SIMMEN, Indianapolis, Ind. Filed Sept. 26, 1913. Serial No. 791,990. (Cl. 246—25.)



1. A signal system for a vehicle moving along a trackway, comprising three signals on the vehicle, two electromagnetically operated devices, one being polarized, adapted jointly to control said signals, and means along the trackway electrically energizable and deënergizable to control said devices, and an audible signal which is adapted to be automatically actuated when the vehicle passes the means along the trackway to give warning of a possible change from one of said signals to another of said signals.

2. A signal system for a vehicle moving along a trackway, comprising three signals on the vehicle, two electromagnetically operated devices, one being polarized, adapted jointly to control said signals, and means along the trackway electrically energizable adapted to control said devices and an audible signal adapted to be automatically actuated when such polarity is varied.

3. A signal system for a vehicle moving along a trackway, comprising three signals on the vehicle, two electromagnetically operated devices, one being polarized, adapt-

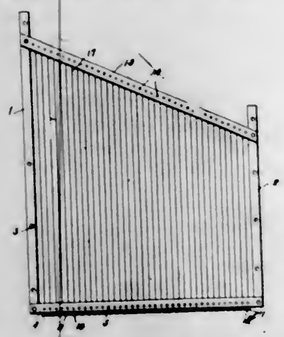
ed jointly to control said signals, means along the trackway energizable either positively or negatively and also deënergizable to control said electro-magnetically operated devices, and an audible signal which is adapted to be automatically actuated when the vehicle passes said means along the trackway to give warning of a possible change from one of said signals.

4. A signal system for a vehicle moving along a trackway, comprising three signals on the vehicle, two electro-magnetically operated devices, one being polarized, adapted jointly to control said signals, means along the trackway energizable either positively or negatively and also deënergizable to control said electro-magnetically operated devices, and an audible signal which is adapted to be automatically actuated when the vehicle passes said means along the trackway and give warning of a possible change to one of said signals.

5. A railway signal system comprising trackside contact mechanism, means for energizing the same and varying its polarity, three signals carried by a vehicle adapted to move on the trackway, means for operating them, including an electro-magnet, which automatically causes the operation of one of the signals when the trackside mechanism carries a positive current, of another of them when it carries a negative current and of the third of them when it is deënergized, in combination with means for automatically operating a fourth signal to give warning of a possible change from one or to any one of the three signals.

[Claims 6 to 20 not printed in the Gazette.]

1,239,050. HARP. ARTHUR B. SMITH, Rosston, Ark. Filed Sept. 8, 1915. Serial No. 49,629. (Cl. 84—14.)



1. A musical instrument of the type described comprising a frame composed of parallel bars, one of which is longer than the other, a connecting bar attached at its ends to the ends of the said parallel bars and disposed at a right angle to the said parallel bars, a second connecting bar attached at its ends to the end portions of the said parallel bars and disposed at an angle to the first-mentioned connecting bar, said connecting bars having openings which register with each other in lines parallel with the parallel bars, string-securing means consisting of hollow conical washers located upon one of the connecting bars, string-tensioning devices located upon the other connecting bar and strings attached to the securing washers and tensioning devices.

2. A musical instrument of the type described comprising parallel bars, connecting bars secured at their ends to the parallel bars, said connecting bars being U-shaped in transverse section, and having openings which register with each other in lines parallel to the parallel bars, string-securing washers located upon one connecting bar, string-tensioning devices applied to the other connecting bar, and strings passing through the openings in the bar carrying the securing washers and connected with the string tensioning devices.

3. A musical instrument of the type described comprising a frame, having opposite bars which are U-shaped in transverse section and which are provided in their side portions with openings, said bars having openings in their intermediate portions, the openings in the intermediate portion of one bar being provided with inwardly disposed tongues, bolts having longitudinally disposed grooves which receive the tongues, nuts screw threaded upon the bolts and bearing against the outer surface of the bar, said bolts having at their ends eyes which are housed between the side portions of the bar to which the bolts are attached, approximately conical hollow string-securing members located between the side portions of the other bar and strings threaded through the said securing members and through the bar upon which the securing members are mounted and connected with the eyes of the bolts.

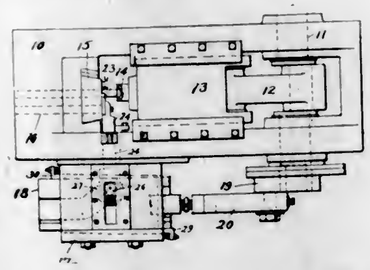
1,239,051. METHOD OF MAKING GLASSWARE. MAURICE A. SMITH, Jeannette, Pa. Filed May 27, 1916. Serial No. 100,345. (Cl. 49—79.)

1. The method of making articles of glassware, consisting in pressing the article with a configuration on the surface thereof, roughing and smoothing the pattern pressed on the article by grinding, and applying an attacking acid to the same.

2. The method of making articles of glassware, consisting in pressing the article with a configuration on the surface thereof, roughing and smoothing the pattern pressed on the surface of the article by grinding, and applying a solution of hydrofluoric and sulfuric acid to the same, and washing the surface with water.

3. The method of making articles of glassware, consisting in pressing the same with a configuration on the surface thereof, subjecting the interior of the article to a hot blast, roughing and smoothing the configuration on the surface of the glass by grinding, applying a protecting coating on the interior, and applying an attacking acid to the roughened and smoothed portion.

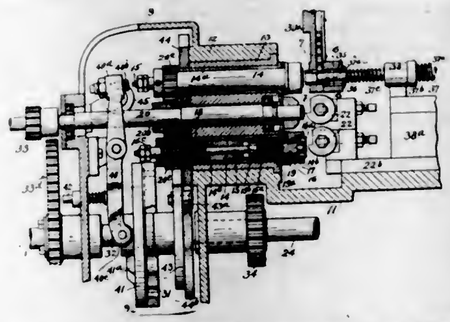
1,239,052. METAL-WORKING MACHINE. ROY H. SMITH, Cleveland, Ohio. Filed Sept. 13, 1911. Serial No. 649,157. (Cl. 10—25.)



1. In a metal working machine of the type wherein stock is fed into the machine and cut into sections, a frame, a stock cutting mechanism comprising a reciprocating cutter, a sliding holder carrying the cutter and arranged for movement transversely of the frame, said holder having at its outer end two rollers, one located centrally or in line with the axis of the holder, and the other at the side of the holder, and a slide provided with two cams, one adapted to engage the central roller so as to move the holder inwardly, and the other to engage the second roller to retract the holder.

2. In a metal working machine of a type wherein stock is fed into the machine and cut into sections, a frame, a stock cutting mechanism comprising a reciprocating cutter, a sliding holder carrying the cutter, said holder having at its outer end two rollers, one located centrally or in alinement with the axis of the holder, and the other at the side of the holder, a slide provided with two cams, one of which is above the other and is adapted to engage the central roller so as to move the cutter and holder inwardly, and the other adapted to engage the second roller to cause the cutter and holder to be retracted, a guideway for the slide, including two adjustable gibs on opposite sides of the slide, one opposite the upper central roller, and the other opposite the lower roller.

1,239,053. METAL-WORKING MACHINE. ROY H. SMITH, Cleveland, Ohio. Filed Sept. 18, 1913. Serial No. 790,385. (Cl. 10—75.)



1. In combination in a metal working machine, a rotary holder for an article to be operated on, a rotary tool and a non-rotary tool, a movable support for the holder, means for continuously rotating the holder in its support, means for rotating said rotary tool, means for intermittently moving said holder support, means for reciprocating the tools, a stationary delivery member for the articles to be operated on and means separate from said tools for inserting an article in the rotating holder.

2. In combination in a metal working machine, a rotary holder for an article to be operated on, a rotary tool and a non-rotary tool, a rotary support for the holder, means for continuously rotating the holder in its support, means for rotating said rotary tool, means for intermittently rotating said holder support, means for reciprocating the tools, a stationary delivery member for the articles to be operated on and means independent of said tools and including a device extending from the delivery member and movable toward and from the holder for inserting an article in the holder while the latter is rotating.

3. In combination in a metal working machine, a rotary turret, a plurality of chucks rotatably supported by the turret, each chuck having a polygonal opening for a blank, a rotary cutting tool, means for continuously rotating the chucks in one direction, means for continuously rotating the tool in the reverse direction, means for intermittently rotating the turret, a stationary delivery member for the blanks to be operated on and means independent of said tool and including a member movable toward and from the end of the delivery member for causing a blank to be shifted from the delivery member into a chuck while the latter is rotating.

4. In combination in a metal working machine, a rotary turret, a plurality of rotary chucks supported by the turret, each chuck having a polygonal opening for a blank, a pair of cutting tools one rotatably mounted, means for rotating the chucks in one direction, means for rotating said rotatably mounted tool in the reverse direction, means for reciprocating both tools towuard and from the turret, means for intermittently turning the turret, a stationary delivery member and means separate from the tools and including a member movable toward and from the end of the delivery member for inserting a blank in a chuck.

5. In combination in a metal working machine, a chuck adapted to receive blanks to be operated on, a stationary blank delivery member, and means for moving blanks toward the chuck and for inserting the same therein comprising a tubular member into which the blanks pass from the delivery member, a reciprocating feeding member extending into said tubular member for moving a blank from the latter into the chuck, and means for reciprocating both the tubular member and the feeding member relative to said delivery member.

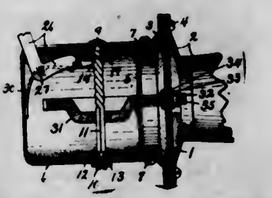
[Claims 6 to 13 not printed in the Gazette.]

1,239,054. ELECTRIC PUSH-BUTTON. WILLIAM SPARKS, Jackson, Mich., assignor to The Sparks-Withington Company, a Corporation of Ohio. Filed Apr. 25, 1913. Serial No. 763,538. (Cl. 200—27.)



A circuit controller comprising a tubular casing having substantially cylindrical portions of different diameters, the portion of lesser diameter formed with its free edge with an outwardly extending flange, a block of insulating material mounted within the portion of larger diameter, a cap telescoping externally with the case and tiltable and rectilinearly movable relatively thereto and having a laterally and inwardly extending flange engaged with the flange upon the case to prevent separation of the case and cap, and normally spaced contacts within the case brought together by relative movement of the cap from its normal position on the case.

1,239,055. OPERATING MECHANISM FOR SIGNALS AND THE LIKE. WILLIAM SPARKS, Jackson, Mich., assignor to The Sparks-Withington Company, a Corporation of Ohio. Original application filed Nov. 14, 1913, Serial No. 800,955. Divided and this application filed June 10, 1914. Serial No. 844,152. (Cl. 74—40.)



1. In a signal, a spiral shaft of angular cross section, a nut having an angular opening substantially fitting the shaft, the faces around the angular opening being beveled progressively from one corner toward the next succeeding corner.

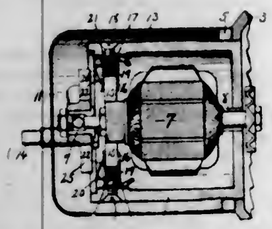
2. In a signal, a spiral shaft of angular cross section, a nut having an angular opening substantially fitting the shaft, the faces around the angular opening being beveled progressively from one corner and at a point adjacent one face to the next succeeding corner and toward the opposite face.

3. In a mechanical movement device, a square shaft having a portion twisted to form spiral pathways, a nut having a square opening adapted to substantially fit the shaft and mounted on the shaft and movable longitudinally of the same, the faces around the square opening in said nut being beveled progressively from one corner and at a point adjacent one face to the next succeeding corner and toward the opposite face.

1,239,056. ELECTRIC MOTOR. WILLIAM SPARKS, Jackson, Mich., assignor to The Sparks-Withington Company, a Corporation of Ohio. Filed Sept. 11, 1914. Serial No. 861,220. (Cl. 200—24.)

1. In a motor, a tubular brush-holder, a brush slidable within and substantially fitting the holder, a spring within the holder at the rear of the brush normally tending to eject the brush from the holder, and a spring finger having a portion positioned between the rear of the holder and said spring and another portion extending outside the

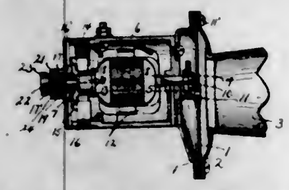
holder and having an end part in contact with the brush in front of the spring for conveying current around the spring.



2. In a motor, a frame, a tubular brush-holder secured to the frame, said holder having a longitudinal slot along one side, a brush slidable within and substantially fitting the holder, a spring at the rear of the brush and normally tending to eject the brush from the holder, and a spring finger having a portion within the holder at the rear of the spring and another portion extending through said slot and provided with an end part in contact with the brush in front of the spring to convey current around the spring.

[Claim 3 not printed in the Gazette.]

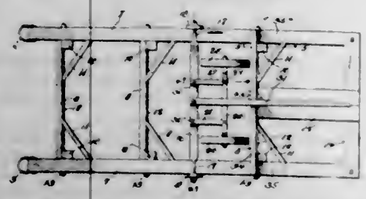
1,239,057. BEARING FOR SHAFTS. WILLIAM SPARKS, Jackson, Mich., assignor to The Sparks-Withington Company, a Corporation of Ohio. Original application filed Oct. 8, 1915, Serial No. 54,735. Divided and this application filed Aug. 14, 1916. Serial No. 114,845. (Cl. 64—25.)



2. In a bearing for shafts, a member having an internally threaded boss, an externally threaded sleeve adjustably engaged with the internally threaded boss, said sleeve provided with a radially and inwardly extending shoulder, a shaft having an end positioned within the sleeve and provided with a radially and outwardly extending shoulder of greater diameter than and adapted to engage the shoulder on the sleeve, an end-thrust member having a threaded relation with the sleeve and adapted to hold the shoulder on the shaft in substantial contact with the shoulder on the sleeve whereby the shaft is caused to move positively in either longitudinal direction in accordance with the movement of the sleeve relatively to the boss.

[Claim 1 not printed in the Gazette.]

1,239,058. LAND-LEVELER. JOHN M. STANDLEY, Logan, Utah. Filed July 14, 1916. Serial No. 109,372. (Cl. 37—5.)

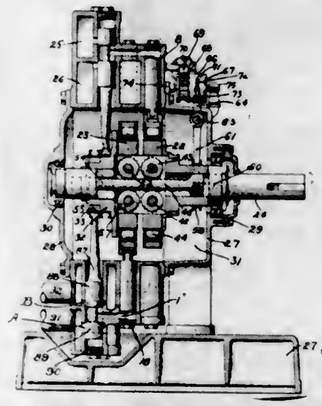


1. In a device of the class described, a scraper frame, retaining loops adjustably mounted upon said frame, a shaft journaled at its ends in said loops, a truck carried by said shaft, and a lever connected at one end on said shaft and resting upon the axle of said truck, substantially as described.

4. In a device of the class described, a pair of side members, scraper beams connecting the side members and arranged in spaced relation therebetween, bolts connecting said side members in the rear of said beams, a truck arranged midway of the front and rear ends of said side members, means for moving said side members relative to said truck, and a supplementary scraper beam in the rear of said truck and extending above said side members, substantially as described.

[Claims 2 and 3 not printed in the Gazette.]

1,239,059. PUMP. AUGUST SUNDH, Hastings-upon-Hudson, N. Y., assignor to Otis Elevator Company, a Corporation of New Jersey. Filed Oct. 13, 1913. Serial No. 794,829. (Cl. 103—85.)



1. A variable stroke pump, a plurality of cylinders arranged in two sets, ports for directing the fluid to and from the cylinders, a shaft, pistons in the cylinders, adjustable means operatively connecting the pistons of each set of cylinders with said shaft, valves for the cylinders, driving means for the valves, and means for varying said adjustable means in both directions from a center so as to vary the direction of flow and amount of fluid pumped by the pistons, and for obtaining an equal and opposite stress on the shaft during the operation of the pump.

2. In a pump of the variable stroke type, two independent groups of cylinders, pistons in the cylinders, a drive shaft, independent means for connecting the pistons of each group with the said shaft, means for varying said connecting means in opposite directions relatively to each other so as to obtain a variable stroke of all of the pistons, said varying means being arranged always to effect equal and opposite stresses on said drive shaft for all positions of the said stroke varying means.

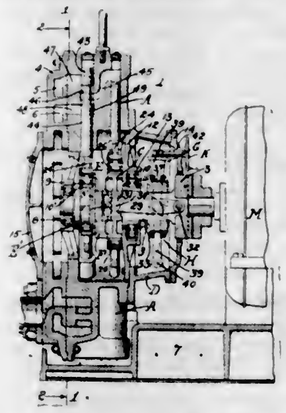
3. A pump comprising a plurality of cylinders each having a piston therein, a shaft, a center shifting device on the shaft connected with said pistons and operable to vary the length of piston stroke from zero to a maximum in both directions, and means to prevent a too sudden reversal of said center shifting mechanism.

4. A pump comprising a plurality of cylinders each having a piston therein, a shaft, a center shifting device on the shaft connected with said pistons and operable to vary the length of piston stroke from zero to a maximum in both directions, and means for maintaining said center shifting device in zero or no stroke position for an appreciable period of time to prevent a too sudden reversal in the flow of the fluid pumped.

5. In a pump, the combination of a plurality of cylinders arranged in two groups, pistons in the cylinders, a drive shaft mechanism connecting said pistons with the drive shaft and consisting of a center shifting device having two independent and conjunctively operated parts, one for the pistons of each group of cylinders, means for controlling said center shifting device and arranged to maintain the same in a position of no stroke of the pistons for an appreciable time during the operation of reversing the stroke of the piston by the center shifting device.

[Claims 6 to 13 not printed in the Gazette.]

1,239,060. VARIABLE-STROKE PUMP. AUGUST SUNDH, Hastings-upon-Hudson, N. Y., assignor to Otis Elevator Company, a Corporation of New Jersey. Filed Mar. 30, 1914. Serial No. 828,190. (Cl. 103—77.)



1. In a variable stroke pump, the combination with a drive shaft, an eccentric on the shaft, a lever pivoted to the shaft and connected by a slidable bearing to the eccentric, and means for operating the lever, said means comprising a collar slidable on the shaft and having an angular slot co-acting with an angular face on the lever.

2. In a center shifting device for pumps, the combination with a drive shaft, an eccentric carried thereby, a lever pivoted in the shaft and connected to the eccentric, a second pivoted member, and a connection between the first named lever and the second member, whereby the degree of movement of the eccentric is multiplied relatively to the degree of movement of the second named pivoted member.

3. In a center shifting device for pumps, the combination with a drive shaft, an eccentric carried thereby, a lever having one end pivoted in the shaft and the other end slidably connected with the eccentric, a slidable collar on the shaft engaging angular surfaces on the lever, said angular surfaces being positioned on the lever to effect a multiplied movement of the eccentric relative to the movement of the collar.

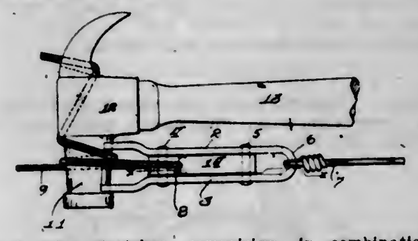
4. In a center shifting device for pumps, the combination with a drive shaft, a center shifting device carried thereby comprising an eccentric, and mechanism comprising a leverage system for operating the eccentric, said leverage being arranged so that the degree of movement of the eccentric is multiplied over the operative motion.

5. In a center shifting device for pumps, the combination with a drive shaft, an eccentric rotatable therewith and movable in a line perpendicular to the axis of the shaft, a lever pivoted at one end to the drive shaft and at the other to a slidable bearing in the eccentric, a collar slidable on the shaft, said collar having an angular [illegible] a bearing on the lever co-acting with the angular [illegible] means to operate the collar in either direction from a center position.

[Claims 6 to 18 not printed in the Gazette.]

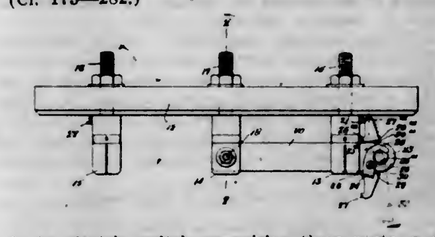
[illegible] WIRE-STRETCHER. REINHART O. TANGEN, [illegible], N. D. Filed Apr. 13, 1916. Serial No. 90,956. [illegible]—134.)

[illegible] wire stretcher, comprising, in combination, a [illegible]ing a pair of side members spaced apart, the ends of said side members having concave edges forming an open journal seat for the rotation of a spindle member for wrapping the end of a wire strand to be tightened, a sheave member arranged between the sides of said frame and around which said end of the strand to be tightened may be looped and a cam member mounted upon said frame and adapted to engage and hold the end of said strand upon said sheave member, after it has been tightened, the opposite end of said frame from that which holds said sheave member being adapted to be engaged with and to hold another end of the wire to be tightened.



2. A wire stretcher, comprising, in combination, a frame constituting a yoke having its sides spaced apart and the extremities of said sides being concave and forming a journal seat for a spindle, a pair of pins securing said sides in spaced relation, a sheave journaled upon one of said pins and a cam movably mounted upon the other of said pins having a surface adapted to coöperate with said sheave to hold the end of a wire in tightened position, said frame having its yoke portion adapted to engage and hold another end of a wire to be tightened.

1,239,062. LOCKING-SWITCH. PEDER C. THONER, Everett, Mass. Filed Dec. 2, 1916. Serial No. 134,611. (Cl. 175—282.)



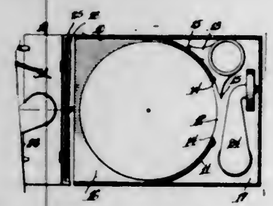
1. An electric switch comprising three posts, a switch blade pivotally connected to the middle of one of the posts, said blade being provided with an opening to be engaged by an operating implement, a catch lug adjacent each of the other posts, switch jaws adjacent each of said catch lugs, a pair of bars pivotally connected to opposite sides of the blade and projecting in opposite directions therefrom, the outer end of each arm being hook-shaped to engage a catch lug and having its other end overlapping said opening, a spring for each bar to hold it normally in position for its hook to engage a catch lug, each of said overlapping ends having an inner wall curved to a substantially semi-cylindrical form, the said curved wall being nearer the axial center of the opening in the blade than the inner wall of said opening and of shorter radius than the radius of the adjacent wall of said opening, whereby the switch blade may be unlocked and opened by an operating implement inserted in said opening and pulled downwardly, whether the switch is attached to a wall or to a ceiling.

2. A locking switch of the character described, comprising a pivoted blade, a contact therefor, a bar pivoted directly to the blade and having one portion provided with a hook in the plane of the blade and having an offset portion adjacent one side of the blade, said offset portion having a curved edge wall to be engaged by an unlocking implement, said bar having two shoulders opposite one edge of the blade to limit the degree of movement

of the bar relatively to the blade, and a fixed catch to coöperate with said hook to hold the blade in coöperation with said contact.

3. A locking switch of the character described, comprising a pivoted blade, a contact therefor, a bar pivoted directly to the blade and having one portion provided with a hook in the plane of the blade and having an offset portion adjacent one side of the blade, said offset portion having a curved edge wall to be engaged by an unlocking implement, said bar having two shoulders opposite one edge of the blade to limit the degree of movement of the bar relatively to the blade, a spring interposed between one of said shoulders and the edge of the blade, and a fixed catch to coöperate with said hook to hold the blade in coöperation with said contact.

1,239,063. TALKING-MACHINE. HENRY H. TOMPKINS, Jr., Jersey City, N. J. Filed May 2, 1916. Serial No. 94,923. (Cl. 274—2.)

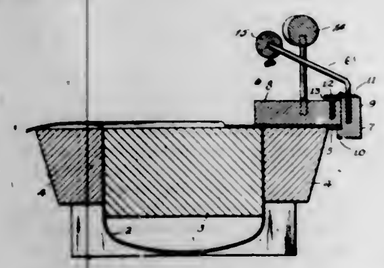


1. A talking machine comprising a casing divided by a vertical partition into a sounding box in which may be stored records and a packing receptacle for receiving the disassembled tone arm and sound passage when the parts are disconnected for transportation, said partition having an opening therethrough, and fastening means on the margin of the opening for engaging the sound passage to retain the same in operative position.

2. A talking machine comprising a casing divided by a semi-circular vertical partition into a sounding box and a packing receptacle, an opening being formed in said partition, a removable sound passage adapted to be fitted to said opening and a separable tone arm mounted on said sound passage, both sound passage and tone arm adapted to be packed when disassembled in said packing receptacle.

[Claims 3 and 4 not printed in the Gazette.]

1,239,064. PROCESS AND APPARATUS FOR MAKING PANAMA HATS. EDMUND VALENTE, New York, N. Y. Filed Oct. 28, 1916. Serial No. 128,171. (Cl. 223—22.)



1. An iron of the character described, comprising a flat body, and an extension piece hinged thereto at one side and projecting below the body and provided with an inward projecting lip affording a curved groove for the reception of the edge of a hat brim.

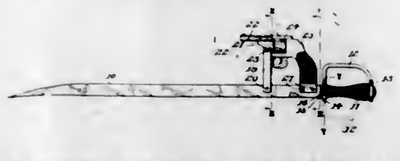
2. An iron of the character described, comprising a flat body, an extension piece hinged thereto at one side and projecting below the body and provided with an inward projecting lip affording a curved groove for the reception of the edge of a hat brim, a main handle on said body, and a supplementary handle on the hinged extension piece extending adjacent the main handle.

3. An iron of the character described, comprising a flat body, an extension piece hinged thereto at one side and projecting below the body and provided with an inward projecting lip affording a curved groove for the reception of the edge of a hat brim, and means for varying the height of the hinged extension piece to change the width of said groove.

4. An iron of the character described, comprising a flat body, an extension piece at one side thereof coöperating with the body to form a groove for the reception of the edge of a hat brim, a hinge connecting said body and extension piece at the top, and adjustment means between one of the leaves of the hinge and the part to which it is secured.

5. An iron of the character described, comprising a flat body, an extension piece at one side thereof coöperating with the body to form a groove for the reception of the edge of a hat brim, a hinge connecting said body and extension piece at the top, a main handle on the body, and a supplementary handle on the extension piece extending into proximity to the main handle.

1,239,065. COMBINED SWORD AND PISTOL. JOE J. WIGIERT, Bremond, Tex., assignor of one-half to Stash Wigiert, Bremond, Tex. Filed June 11, 1917. Serial No. 174,026. (Cl. 42—53.)



1. A combined pistol and sword including a sword blade, a handle carried thereby, a guard for the handle and a pistol attached to the sword blade adjacent the handle, the barrel of the pistol being pivotally supported.

4. A combined pistol and sword including a sword blade, a handle carried thereby, a guard for the handle and a pistol attached to the sword blade adjacent the handle, the guard being of substantial U-shape and having a ring at each end thereof rotatably supported by the sword handle.

7. A combined sword and pistol including a sword blade, handle and guard, a pistol supported by the sword blade adjacent the guard with the stock of the pistol in normal alinement with the guard, the guard being movable to a position remote from the pistol stock to permit an easy grasping of the pistol stock.

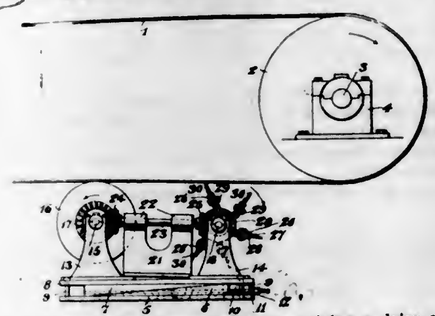
[Claims 2, 3, 5, 6, and 8 not printed in the Gazette.]

1,239,066. CLEANER FOR CONVEYER-BELTS. CONRAD A. WINTERS, Anaconda, Mont. Filed July 27, 1916. Serial No. 111,694. (Cl. 74—21.)

1. A cleaner for conveyer belts, comprising a basic structure individual to the cleaner, a pulley mounted on the basic structure and adapted to engage the under surface of the lower run of the conveyer belt, a beater structure also mounted on the basic structure and provided with beaters for engaging the under surface of the under run of the conveyer belt, and driving connections between the pulleys and beaters.

2. A cleaner for conveyer belts, comprising a basic structure individual to the cleaner and composed of superposed parts with means for controlling the separation of the parts, a pulley mounted on the higher part and adapted to engage the under surface of the lower run of the conveyer belt, and a beater mounted on the higher part of the basic structure and connected to the pulley to be driven by the latter.

3. A cleaner for conveyer belts, comprising a basic structure composed of superposed parts with means for controlling the separation of the parts, a pulley mounted on the higher part and adapted to engage the under surface of the lower run of the conveyer belt, and a beater mounted on the higher part of the basic structure and connected to the pulley to be driven by the latter, the beater comprising a series of blades of flexible material with backing strips of flexible material tending to return the blades to their normal position after being displaced therefrom by engagement with the conveyer belt.

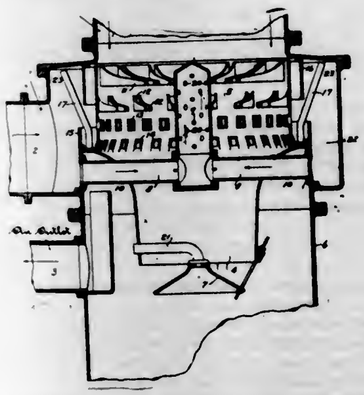


4. A cleaner for conveyer belts, comprising a drive pulley for engaging the under surface of the lower run of a conveyer belt, a beater structure connected to the drive pulley for actuation thereby, and a basic member individual to the cleaner and carrying both the pulley and beater and provided with means for the adjustment of the pulley and beater toward and from the under surface of the lower run of the conveyer belt.

5. A cleaner for conveyer belts, comprising a supporting structure adapted to be placed beneath the lower run of a conveyer belt, said cleaner having a pulley adapted to engage the under surface of the lower run of the conveyer belt for actuation thereby, and a rotative beater connected to the pulley to be driven by the latter, the beater being provided with beater blades of flexible material with each blade having a backing of spring material adapted to yield to the impact of the blade on the conveyer belt and to return the blade to normal position after leaving the conveyer belt.

[Claims 6 and 7 not printed in the Gazette.]

1,239,067. CONDENSER. CHARLES M. YATES, Milwaukee, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis., a Corporation of Delaware. Filed Dec. 24, 1915. Serial No. 68,934. (Cl. 261—113.)



4. In combination, a vertical casing forming a condensing zone, means for injecting water horizontally into said zone toward the center thereof, means for injecting water horizontally into said zone away from the center thereof, means for injecting water into said zone longitudinally thereof, a steam inlet to said zone, and an outlet from said zone.

5. In combination, a vertical cylindrical casing forming a condensing zone, means for injecting streams of water radially and horizontally into said zone toward the center thereof, means for injecting streams of water radially and horizontally into said zone away from the center thereof, a steam inlet adjacent the upper end of said casing, and an outlet adjacent the lower end of said casing.

[Claims 1 to 3 and 6 to 10 not printed in the Gazette.]

1,239,068. VALVE FOR FILLING BOTTLES. CHARLES S. ADAMS, Buffalo, N. Y., assignor to Rice & Adams Corporation, a Corporation of New York. Filed Dec. 2, 1915. Serial No. 64,625. (Cl. 226—12.)



1. A bottle filling valve comprising the combination of upper and lower telescoping tubular members, a spring for positioning the two members relatively, an air tube passing through the two members and having an enlargement at its lower end adapted to coact with the lower end of the lower tubular member, standards extending upwardly from the upper tubular member and formed integral therewith, a ring carried by the upper ends of said standards and formed integral therewith, the air tube passing through the opening in said ring, and a second ring seated upon said ring and provided with a central opening which is open to one side of the ring, said last named ring being adapted to coact with a shoulder on the air tube to support the air tube relatively to said tubular members; substantially as described.

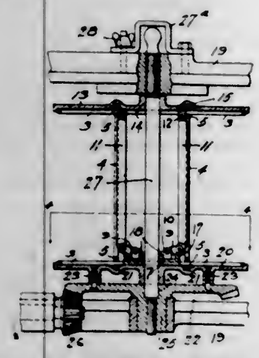
2. A bottle filling valve comprising the combination of upper and lower telescoping tubular members, a spring for positioning the two members relatively, an air tube passing through the two members and having an enlargement at its lower end adapted to coact with the lower end of the lower tubular member, standards extending upwardly from the upper tubular member and formed integral therewith, a ring carried upon the upper ends of the standards and formed integral therewith and having a central opening through which the air tube passes, a detachable ring seated upon said ring, and a peripheral flange on the detachable ring overlapping the edge of the seat for the ring, said detachable ring being slotted from one side to the center thereof to receive the air tube and coact with a shoulder upon the air tube to support the latter relatively to said tubular members; substantially as described.

3. A bottle filling valve comprising the combination of upper and lower telescoping tubular members, a spring for positioning the two members relatively, an air tube passing through the two members and having an enlargement at its lower end adapted to coact with the lower end of the

lower tubular member, standards extending upwardly from the upper tubular member and formed integral therewith, a ring carried by the upper ends of said standards and formed integral therewith, the air tube passing through the opening in said ring, and a second ring seated upon but detachable from said ring and provided with a central opening which is open to one side of the ring, said air tube having a shoulder thereon and the central opening through the first named ring being of such size that the shoulder on the air tube can pass therethrough and the central opening in the said detachable ring being of such size that the shoulder on the air tube cannot pass therethrough; substantially as described.

4. A bottle filling valve comprising the combination of upper and lower telescoping tubular members, a spring for positioning the two members relatively, an air tube passing through the two members and having an enlargement at its lower end adapted to coact with the lower end of the lower tubular member, standards extending upwardly from the upper tubular member and formed integral therewith, a ring located at and integral with the upper ends of the standards and having a central opening through which the air passes, a detachable ring seated upon said ring and having a central opening and a slot extending from the central opening to the periphery of the ring, and a peripheral flange on the detachable ring overlapping the edge of the seat for the ring, said air tube having a shoulder thereon and the central opening through the first named ring being of such size that the shoulder on the air tube can pass therethrough and the central opening in the said detachable ring being of such size that the shoulder on the air tube cannot pass therethrough; substantially as described.

1,239,069. CORE FOR WIRE-REELS. JAMES D. ADAMS and AUGUST G. JOHNSON, Monessen, Pa., assignors to Pittsburgh Steel Co., Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 22, 1913. Serial No. 769,267. (Cl. 242—72.)



1. A core-piece for reels comprising an inner member and an outer member, toggle-fingers connected to said inner member, and arms connected to said toggle-fingers and to said outer member.

2. A core-piece for reels comprising an inner member and an outer member, toggle-fingers connected to said inner member, stops on said inner member in the path of said toggle-fingers, and arms connecting said toggle-fingers with said outer member.

3. A core-piece for reels, comprising an inner member and an outer member, toggle-fingers connected to said inner member having nibs at their inner ends, and arms connected at the outer ends of said toggle-fingers and to said outer member.

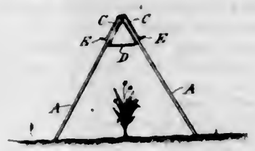
1,239,070. DETACHABLE BUTTON. FREDERICK R. ALDRIDGE, Yonkers, N. Y. Filed Apr. 18, 1917. Serial No. 162,841. (Cl. 24—104.)

2. A detachable button device of the class described, comprising a head portion provided centrally of its back with a neck having a projecting pin provided with a pointed head and a back member comprising a shell-shaped device the back of which is provided with a central opening to receive said pin and its head, said back member being also provided with a radially arranged slide movable through one side part thereof and provided at its inner end with a central longitudinal slot to receive said pin, said back member and said slide being also provided with means for guiding said slide in its inward movement, and means for locking said slide in its innermost position.



[Claim 1 not printed in the Gazette.]

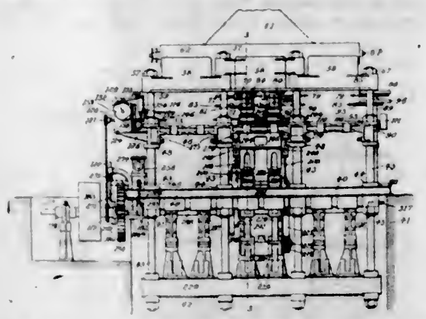
1,239,071. CLAMP FOR PLANT-FORCING DEVICES. CHARLES HENRY ALLENDER, New York, N. Y. Filed June 25, 1915. Serial No. 36,198. (Cl. 24—81.)



1. A spring clamp for the purpose described comprising two separated pairs of upwardly and inwardly inclined clips adapted to straddle the upper edges of glass sheets or plates arranged in inverted V-form, connected inside at their bottoms by transverse members, and outside by longitudinal members adapted to afford convenient grasp for the hand in lifting and carrying the device.

[Claims 2 and 3 not printed in the Gazette.]

1,239,072. BRICK-PRESS. MOÏS H. AVRAM, New York, N. Y., assignor to Standard Silica Brick Machinery Company, Wilmington, Del. Filed Dec. 10, 1914. Serial No. 876,580. (Cl. 25—55.)



1. A brick press, comprising a chute, a conveyer adapted to move material from said chute in a plurality of directions, a series of second chutes with which said conveyer communicates, a measuring device located below each of said second chutes, a miniature mixer located below each measuring device, and a mold coöperating with each mixer.

2. In a brick press, a pair of measuring boxes, slides entering said boxes, a frame carrying said slides, parallel shafts carrying the frame, a traverse connecting said shafts, and means for intermittently reciprocating said traverse.

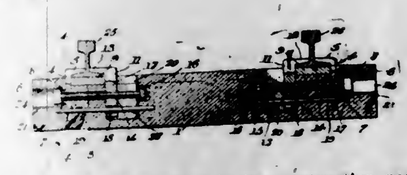
3. In a brick press, a pair of measuring boxes having side openings, slotted plates adjustably secured to the boxes and covering said openings, slides engaging the plate slots, a U-shaped frame carrying said slides, a pair of shafts to which said frame is adjustably secured, a traverse connecting said shafts, and means for intermittently reciprocating said traverse.

4. In a brick press, a measuring device, a miniature mixer, a feed hopper communicating with the measuring device and having a lower apertured cylindrical section that projects into the mixer, stirring blades on said cylindrical hopper-section, means for rotating the hopper, and an intermittently rotating discharge gate at the bottom of the mixer.

5. In a brick press, a rectangular mold table having a chute, a miniature mixer located above the chute, a discharge gate controlling communication between said mixer and chute, and means for intermittently actuating said gate.

[Claims 6 to 28 not printed in the Gazette.]

1,239,073. PLASTIC TIE. SAMUEL V. BACON, Akron, Ohio. Filed Dec. 29, 1916. Serial No. 139,556. (Cl. 238—3.)



1. A concrete tie including in its construction parallel reinforcing bars, a plate including a rail-engaging lip secured to the bars, a rail-engaging member disposed between the bars, and means passing through the plate and co-engaging with the rail engaging member for longitudinally adjusting the latter with respect to the plate.

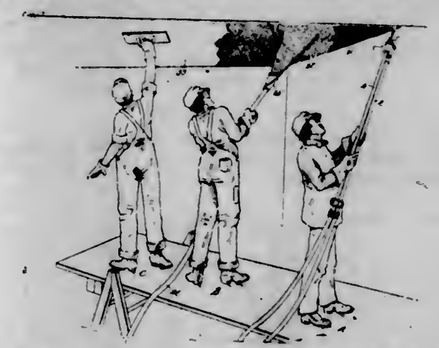
2. A concrete tie including in its construction upper and lower parallel reinforcing bars, a plate including a rail engaging lip adjustably secured to the bars adjacent to the end thereof, a rail-engaging member disposed between the bars, and means passing through the plate and guided by said plate for co-engaging with the said rail engaging member for removably adjusting the latter with respect to the plate.

3. A concrete tie including in its construction upper and lower parallel reinforcing bars, a plate including a rail-engaging lip secured adjacent to the ends of the said bars, a rail receiving cushion member contacting with the plate below the lip thereof and supported upon the upper bars, a rail engaging member disposed between the bars, and means passing through the plate and co-engaging with the rail engaging member for longitudinally adjusting the latter with respect to the plate and with respect to the rail cushion members.

4. A tie having a body constructed of plastic material and having metallic reinforcing rods embedded therein and which are arranged in upper and lower parallel pairs, said rods adjacent to the ends thereof being turned inwardly toward each other and continued longitudinally and the said ends being threaded, a plate at each end of the tie having an inturned rail-engaging lip and provided with openings receiving the threaded ends of the said rods, nuts upon the rods contacting with the opposite faces of the plate, and each of said plates having a central opening, a rail-engaging element including a substantially rectangular body disposed between the rods and arranged one adjacent to each of the referred to plates, the body of each of said rail-engaging members having its upper corner provided with a rail-engaging lip, each of said bodies having a threaded opening, a headed threaded member pasing through the referred to openings in the plates and through the said openings in the rail-engaging members, stop nuts upon the said threaded members, a rail receiving block upon the upper bars and disposed below the lips of the referred to plates, and the body of the tie having openings for the longitudinal movement of the rail-engaging members and having openings in a line with the heads of the threaded members.

5. A concrete tie including in its construction upper and lower parallel reinforcing bars arranged in pairs, a plate including a rail-engaging lip adjustably secured to the rods adjacent to each end of the tie, a rail block supported upon the upper bars and secured by the ties and disposed below the rail engaging lips of the said plates, a rail-engaging member disposed between the bars inwardly of each of the rail blocks, a guide rod connected with each of the referred to plates and passing through openings in the rail-engaging members, said plates having each an opening, a sleeve surrounding the opening and projecting outwardly of the plates, said rail-engaging members having each an opening, and an adjusting element comprising a headed threaded member guided through the sleeve and opening in the plate and engaging with the threads in the opening in the rail-engaging member, and stops for the said threaded members.

1,239,074. PROCESS OF COATING SURFACES. ARTHUR G. BAGNALL and JAMES A. TAYLOR, Cleveland, Ohio, assignors to Charles H. Parkin, Cleveland, Ohio. Filed June 16, 1916. Serial No. 103,949. (Cl. 91—45.)



2. The process of coating a surface with a film of viscous ductile material which consists in drawing said material by air pressure into a film and thereafter forcing said film against said surface by the same air pressure.

5. The process of coating a surface with viscous ductile material which consists of projecting toward said surface under pressure an annular stream of said material, and projecting into said stream at a point between its source and said surface a blast of air also turned toward said surface.

6. The process of coating concrete with a uniformly adhesive layer of viscous material which consists of projecting toward said surface under pressure an annular stream of such material, projecting into said stream at a point between its source and said surface a blast of air whereby a floating film is formed and beaten against the concrete surface, and repeating the addition of such films until a layer of requisite thickness is obtained.

7. The method of forming structural surfaces, which consists in applying to a given surface an adherent material, air blasting upon said layer a coating of a comminuted substance at such a pressure as to embed each particle about half of its depth, and finally applying a final coating to such comminuted substance so applied.

[Claims 1, 3, and 4 not printed in the Gazette.]

1,239,075. NOZZLE FOR APPLYING ADHESIVE COATING MATERIAL. ARTHUR G. BAGNALL and JAMES A. TAYLOR, Cleveland, Ohio, assignors to Charles H. Parkin, Cleveland, Ohio. Filed June 16, 1916. Serial No. 103,950. (Cl. 91—45.)

1. In a device of the character described, a cylindrical hollow body, a laterally projecting hollow nipple carried

thereby and communicating with the interior of said body, a jet tube smaller than the nipple and projecting laterally through said body and centrally through said nipple, a longitudinally adjustable cap carried by said nipple, said jet tube also projecting through said cap, said cap having in its end a central aperture concentric with said tube, means for supplying liquid to the interior of the body, and means for supplying gas under pressure to said jet tube.

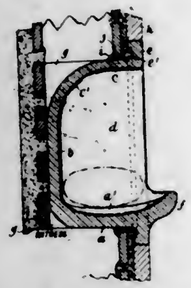


5. In coating apparatus a container for viscous liquid under pressure, a nozzle having an annular discharge orifice communicating with the lower portion of said container and also having a jet passage concentric with and passing through the annular passage and projecting beyond said nozzle, and means for supplying air under pressure to the upper part of said container and to said jet passage in proportion as desired.

6. In a nozzle, a hollow body having oppositely projecting threaded nipples, a hollow handle connected with one of said nipples, a hollow cap adjustably threaded to the opposite nipple, said cap having a central bore, a jet, tube projecting centrally through said bore to a point at least as far as the end of said cap, said tube traversing said body and communicating with said handle through the other nipple, a hose connection carried by said handle, and a flexible conduit communicating with said body.

[Claims 2 to 4 and 7 not printed in the Gazette.]

1,239,076. SOAP-RECEPTACLE. STEPHEN D. BAKER, New York, N. Y. Filed Apr. 3, 1915. Serial No. 19,026. (Cl. 45—28.)

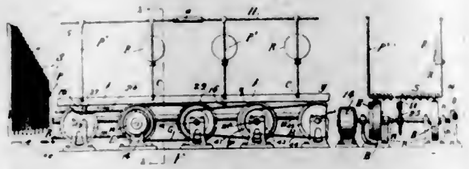


1. A wall receptacle including, integrally formed, a pair of spaced upright substantially rectangular sides, and a concavo-convex receiver-wall open laterally and joining said sides and forming top, bottom and back walls and having its top and back wall portions in part substantially flush with the top and back edges of said sides, respectively, and thereupon merging into each other in a curve of relatively large radius.

2. A receptacle for toilet articles including, integrally formed, a box-like structure having top, back, bottom and two side walls and being open for nearly its full height and width at the front, the bottom having a horizontal under bearing surface and being closed and shallow-concave and said receptacle having its back and top walls merging in a curve of relatively large radius, and a frontal vertical flange having said bottom, top and two side walls merging thereinto.

3. A receptacle for toilet articles including, integrally formed, a pair of spaced upright substantially rectangular sides, and a concavo-convex receiver-wall open laterally and joining said sides and forming top, bottom and back walls and having its top and back wall portions in part substantially flush with the top and back edges of said sides, respectively, and thereupon merging into each other in a curve of relatively large radius.

1,239,077. SYSTEM OF LOCOMOTION. ALEXANDER L. W. BEGG, New York, N. Y. Filed Nov. 13, 1916. Serial No. 131,165. (Cl. 104—165.)



1. In a system of locomotion, a conveyer composed of a series of article-engaging sections that are relatively movable longitudinally as they are bodily advanced, and means for bodily advancing the sections at different relative speeds, each section being composed of a laterally disposed series of bars, which bars project between the bars of adjacent sections, and which intermeshing bars are relatively movable both laterally and longitudinally to permit the conveyer to travel in a laterally deflected path.

2. In a system of locomotion, a conveyer composed of a series of article-engaging sections, each section comprising a laterally disposed series of bars, a pivot rod passing through the bars at one end of each section, each section having the free ends resting on the bar of the adjacent section, permitting the sections to advance at different relative speeds, and means for supporting and advancing the sections.

3. In a system of locomotion, a conveyer composed of a series of article-engaging sections, each section comprising a laterally disposed series of bars, a pivot rod passing through the bars at one end of each section, each section having the free ends resting on the bar of the adjacent section, permitting the sections to advance at different relative speeds, and means for supporting and advancing the sections at different relative speeds.

4. In a system of locomotion, a conveyer composed of a series of article-engaging sections, each section comprising a laterally disposed series of bars, a pivot rod passing through the bars at one end of each section, each section having the free ends resting on the bar of the adjacent section, permitting the sections to advance at different relative speeds, and means for supporting and advancing the sections, the engaging portions of the bars in adjacent sections being also laterally movable to permit the sections to advance in a path deflected laterally.

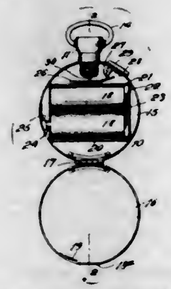
5. In a system of locomotion, a conveyer composed of a series of article-engaging sections, each section comprising a laterally disposed series of bars, a pivot rod passing through the bars at one end of each section, each section having the free ends resting on the bar of the adjacent section, a series of wheels forming a support for the conveyer, and means for driving the wheels at different relative speeds.

[Claims 6 to 23 not printed in the Gazette.]

1,239,078. FLASH-LIGHT. BERNARD BENEDICT, New York, N. Y., assignor to Beacon Miniature Electric Co., Inc., New York, N. Y., a Corporation of New York. Filed Nov. 19, 1915. Serial No. 62,302. (Cl. 240—8.5.)

1. A pocket electric light comprising an electrically conductive casing including two shallow matching shells adapted to be opened one from the other and one of which carries on its side edge a socket for holding a miniature electric lamp having one terminal extended within the casing, means for electrically connecting one pole of the battery with the casing, a spring switch connected with the opposite pole of the battery, and manually operative means on the edge of the casing for controlling the action of said spring switch, said spring switch being adapted when unrestrained to engage the said lamp terminal, and said manually operative means having a non-conducting member extending within the casing for engaging said spring switch and holding it out of contact with the lamp terminal.

2. A pocket electric light comprising a battery-containing casing having opposite circular side parts one of which is adapted to be opened, a stem-forming lamp socket projecting radially from the edge of said casing and adapted to receive an electric lamp, a ring pivoted in the projecting lamp socket, a circuit-controlling spring member adapted when unrestrained to maintain the circuit in closed condition, and a manually actuatable member for holding said spring member at the open circuit position.



3. An electric flash light comprising a casing composed of two shallow matching circular shells adapted to be opened one from the other and one of which carries on its side edge a socket adapted to receive a miniature electric lamp bulb, a battery within said casing having one pole in electric connection with the casing, which is of conducting material, a spring switch connected with the other pole of the battery and adapted when unrestrained to engage one lamp terminal, and manually operative means on the edge of the casing for controlling said spring switch, said manually operative means including a non-conducting member extending within the casing for engaging said spring switch and holding it out of engagement with the lamp terminal.

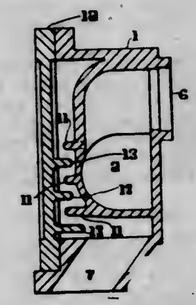
4. An electric flash light comprising a casing composed of two shallow matching shells adapted to be opened one from the other and one of which carries on its side edge a socket holding a miniature electric lamp bulb having one terminal extended within said casing, a battery within said casing comprising a plurality of cells in side by side relation, means for electrically connecting one pole of one of said cells with the casing, which is of conducting material, a spring switch connected with the opposite pole of another of said cells, conducting means connecting the other opposite poles of said cells together, and manually operative means on the edge of the casing for controlling the action of said spring switch, said spring switch being adapted when unrestrained to engage the said lamp terminal, and said manually operative means being a slide having a non-conducting member extending within the casing for engaging said spring switch and holding it out of contact.

5. An electric flash light comprising a casing composed of two shallow matching shells adapted to be opened one from the other and one of which carries on its side edge a socket holding a miniature electric lamp bulb having one terminal extended within said casing, a battery within said casing comprising a plurality of cells in side by side relation, means for electrically connecting one pole of one of said cells with the casing, which is of conducting material, a spring switch connected with the opposite pole of another of said cells, conducting means connecting the other opposite poles of said cells together, and manually operative means on the edge of the casing for controlling the action of said spring switch, said spring switch being adapted when unrestrained to engage the said lamp terminal, and said manually operative means being a slide having a non-conducting member extending within the casing for engaging said spring switch and holding it out of contact.

[Claims 6 to 8 not printed in the Gazette.]

1,239,079. FUEL-VAPORIZER FOR INTERNAL-COMBUSTION ENGINES. CHARLES BINKS, Manchester, England. Filed Apr. 14, 1917. Serial No. 162,150. (Cl. 261—141.)

A fuel vaporizer, comprising an elongated box having an exhaust pipe arranged longitudinally of it and at one side, said box being open in front and having an inlet for the fuel at its lower part below the exhaust pipe and having fuel outlets at its upper part above the exhaust pipe, and said exhaust pipe having longitudinal ribs on its rear side which project toward the open front side of the box, and a cover secured to the box over its open front side and having longitudinal ribs which project rearwardly from it into the spaces between the ribs on the exhaust pipe.



2. A fuel vaporizer for internal combustion engines comprising a box located between the engine and the carbureter and communicating with both, a ribbed exhaust conduit passing through the said box, and a reversible lid having a plain side and a ribbed side, the ribs on the latter being adapted to enter the spaces between the ribs on the said exhaust conduit.

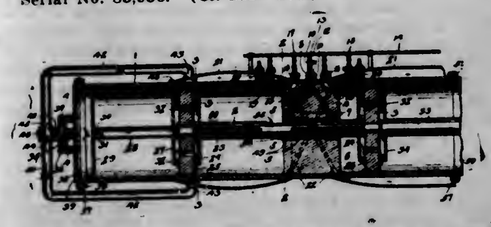
1,239,080. MANUFACTURE OF ULTRAMARINE. LAURENZ BOCK, Bad Homburg Kirdorf, Germany. Filed Jan. 11, 1917. Serial No. 141,806. (Cl. 134—77.)

1. In the manufacture of ultramarine, the improvement which consists in adding to the usual mixture of clay, sodium carbonate and silica, impure sulfur containing tarry substances.

2. In the manufacture of ultramarine, the improvement which consists in adding to the usual mixture of clay, sodium carbonate and silica, impure sulfur containing tarry substances and which is obtained from waste gas purifying masses.

3. In the manufacture of ultramarine, the improvement which consists in adding to the usual mixture of clay, sodium carbonate and silica, impure sulfur containing tarry substances and which is obtained from waste gas purifying masses by utilizing the waste heat of the ultramarine burning furnaces.

1,239,081. INTERNAL-COMBUSTION ENGINE. EARL R. CARLSON, Minneapolis, Minn. Filed Mar. 22, 1916. Serial No. 85,956. (Cl. 123—176.)



1. In an internal combustion engine, the combination of a cylinder, an air jacket surrounding said cylinder, a reciprocatory piston, a piston rod, an air jacket surrounding said piston rod and movable therewith, and air compressing means carried by said piston rod jacket and operating to force air into both of said jackets.

2. In an internal combustion engine, the combination of a cylinder, a reciprocatory piston, a piston rod, an air jacket surrounding said piston rod and including a face of said piston, and air compressing means carried by said piston rod jacket and operating to force air into the same.

3. In an internal combustion engine, the combination of a cylinder, a reciprocatory piston, a piston rod, an

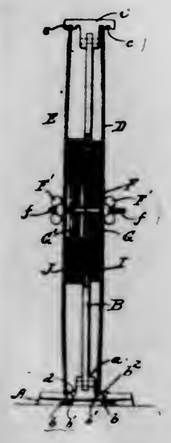
air jacket surrounding said piston rod and including a face of said piston, and an air compressing plunger head carried by said piston rod jacket and operating to force air into the same, a portion of said cylinder forming an air compressing chamber.

4. In an internal combustion engine, the combination of a cylinder, a reciprocatory piston, a piston rod, an air jacket surrounding said piston rod and including the opposite faces of said piston, and air compressing means carried by the piston rod jacket and operating to force air into said jacket.

5. In an internal combustion engine, the combination of a cylinder, a reciprocatory piston, a piston rod, an air jacket surrounding said piston rod and embodying an expanded portion fastened to the piston and including a portion of one face thereof, and air compressing means including a plunger head carried by said jacket.

[Claims 6 to 10 not printed in the Gazette.]

1,239,082. STAND FOR COILED MATERIAL. SPENCER C. CARY, Brooklyn, N. Y., assignor to Cary Manufacturing Company, Brooklyn, N. Y., a Corporation of New York. Filed May 4, 1915. Serial No. 25,699. (Cl. 242—105.)



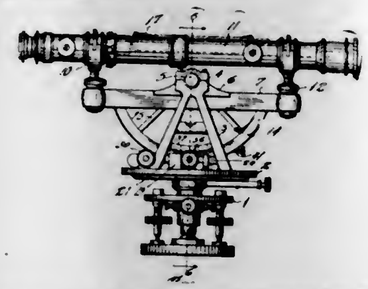
1. A holder for coiled material embodying a base, a top, a member connecting said base and top, means carried by said member for rotatably supporting a coil of material, a retaining member separate from and unattached to said base and top, means for separably and fixedly connecting the respective end portions of the retaining member to the base and the top, and a pressure device positioned intermediate the end portions of the retaining member and operating to deflect said member into contact with the edge portions of the coil of material.

4. A holder for coiled material provided with a plurality of devices for rotatably supporting a similar number of coils of material, and retaining means for said coils of material, each retaining means including coöperating members positioned for frictional contact with the respective edges of each coil and a device whereby pressure is applied to said coil by the action of said coöperating members.

10. A stand for holding coiled material such as box strapping embodying a base, a post in fixed relation to the base, a spindle on said post, a plurality of bendable gripping members positioned at the respective sides of said post and each adapted for frictional contact with an edge portion of the coil of material adapted to be rotatably supported by said spindle, and pressure devices in engagement with said bendable members.

[Claims 2, 3, 5 to 9, and 11 to 14 not printed in the Gazette.]

1,239,083. SURVEYING INSTRUMENT. FRANKLIN S. CLARK, Dallas, Tex. Filed Mar. 15, 1917. Serial No. 155,000. (Cl. 33—70.)



1. In a surveying instrument, the combination with a supporting base, an elongated supporting bar disposed above the base, and a telescope suppofted by the bar longitudinally thereof and above the latter, of a pair of supporting standards mounted on the base and pivotally supporting the bar and telescope from a point intermediate said bar and telescope, whereby said bar and telescope are substantially balanced.

3. In a surveying instrument, a supporting base, standards mounted on the base, a supporting bar disposed between the standards, and a telescope mounted on the bar longitudinally thereof and thereabove, in combination with a shaft member pivotally supporting the bar and telescope for adjustment in a vertical arc and engaging the standards so that the horizontal pivotal axis lies between the bar and telescope.

6. A surveying instrument including a supporting base, an elongated supporting bar pivotally supported on the base, a telescope mounted on the bar longitudinally thereof, a segment rigidly carried by the bar and depending therefrom over the base, and a fastening device carried by the base and engaging the segment.

9. In a surveying instrument, the combination of a supporting plate, a pair of spaced standards mounted on the plate, a horizontal pivot shaft extending between and mounted in the standards, a supporting bar rigidly mounted on the shaft at right angles thereto and depending from said shaft, supports at each end of the supporting bar, a telescope mounted in the end supports of said bar in rigid relation to said bar, a segment depending centrally and longitudinally from the bar and in rigid relation thereto, a fastening device mounted on the supporting plate and arranged to clamp and release the segment, and means for adjusting the device to impart an arcuate movement to the segment to oscillate the telescope in a vertical plane.

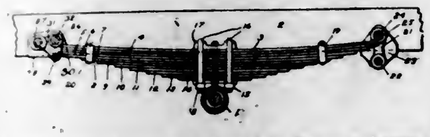
10. In a surveying instrument, the combination with a supporting plate, a supporting bar pivoted on the plate, a telescope mounted on the bar, and a segment depending from the bar, of a clamping and tangential adjusting device including a member mounted on the plate, a clamp arranged to engage the segment and mounted on said member, a tangential screw engaging the member, and means for exerting a tension in opposition to the screw.

[Claims 2, 4, 5, 7, and 8 not printed in the Gazette.]

1,239,084. VEHICLE-SPRING. CHESTER E. CLEMENS and ROYAL K. JOHNSON, Cleveland, Ohio, assignors, by mesne assignments, to The Standard Parts Company, Cleveland, Ohio, a Corporation of Ohio. Filed July 28, 1915. Serial No. 42,267. (Cl. 267—37.)

1. The combination, with a vehicle frame and axle, of a spring comprising a main plate and one or more auxiliary plates extending beyond an end of the main plate, means connecting the spring to the axle, and means connecting an end of the spring to the frame, the last mentioned connecting means comprising an eye on the main plate and an eye on the auxiliary plate adjacent thereto and extending thereheyond, one of such eyes being elongated, and pins extending through said eyes, one of said pins being carried by the frame.

2. The combination, with a vehicle frame and axle, of a spring comprising a main plate and one or more auxiliary plates, means connecting the spring to the axle, and means connecting an end of the spring to the frame, the last mentioned connecting means comprising an eye on the main plate and an eye on the auxiliary plate adjacent thereto, one of such eyes being elongated, and pins extending through said eyes, one of said pins being carried by the frame.



3. The combination, with a vehicle frame and axle, of a spring comprising a main plate and one or more auxiliary plates projecting at one end beyond the corresponding end of the main plate, means connecting the spring to the axle, and means connecting said end of the spring to the frame, the last mentioned means comprising a pair of shackle links pivoted to the frame and having longitudinally spaced pins extending therethrough, said pins extending through eyes on the main plate and on the auxiliary plate adjacent thereto, one of said eyes being elongated.

15. The combination, with a vehicle frame and axle, of a spring comprising a main plate and a plurality of auxiliary plates, means connecting the body portion of the spring to the axle, a pin carried by the frame, a pair of shackle links pivoted to said pin and having toward their free or swinging ends a pair of pins which are spaced respectively longitudinally and vertically from the pivot pin with reference to the length of the spring, an eye on the main plate through which one of the longitudinally spaced pins extends, an eye on the plate adjacent to the main plate through which the other longitudinally spaced pin extends, one of said eyes being elongated, there being one or more auxiliary plates interposed between the last mentioned auxiliary plate and the vertically spaced pin and the distance between such vertically spaced pin and the pin extending through the eye of such auxiliary plate being substantially equal to the aggregate thickness of the interposed ends of the auxiliary plates, whereby, should the connection between one of such connected plates and its pin become inoperative, connection will be established between the plate having the elongated eye and its respective pin and the rotary movement in the shackle will be limited by the ends of the spring interposed between the vertically spaced pin and one of the other pins, and means flexibly connecting the opposite ends of the spring to the frame.

18. In a spring construction, a plurality of superposed leaves, one of which is provided with an eye whereby it may be attached to a supporting member to form the connection therebetween, and auxiliary connecting means between another leaf and the supporting member constructed and arranged to become operative when the connection through said eye is broken.

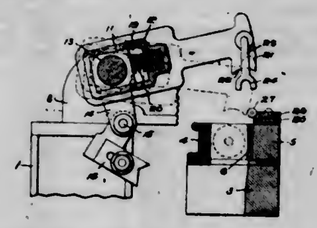
[Claims 4 to 14, 16, 17, 19, and 20 not printed in the Gazette.]

1,239,085. SHUTTLE-TIP. ROGER E. COOLIDGE, Southbridge, Mass., assignor to Litchfield Shuttle Company, Southbridge, Mass., a Corporation of Massachusetts. Filed Aug. 6, 1915. Serial No. 44,096. (Cl. 139—89.)



A shuttle tip comprising a conoidal metallic body having a flat base at right angles to the axis thereof and a central stem extending axially from said body, said stem having a plurality of rolled helical ribs of long spirals presenting oppositely disposed sharp edges.

1,239,086. WEFT-REPLENISHING MECHANISM FOR LOOMS. EDWARD A. CUNNIFF, New Bedford, JOHN V. CUNNIFF, Fall River, and JAMES K. LANNING, Boston, Mass.; said Edward A. Cunniff and said John V. Cunniff assignors to said James K. Lanning. Filed Feb. 14, 1914. Serial No. 818,774. (Cl. 139—85.)



1. A weft replenishing loom having a shuttle box, a magazine, a pusher or hammer to discharge filling carriers from the magazine into a shuttle in said box, means to support said pusher or hammer with capacity to yield laterally of the shuttle box and its contained shuttle and alining means upon the lay positioned to co-act with said pusher or hammer for effecting alinement of the pusher or hammer and the shuttle upon the lay

2. A weft replenishing loom having a shuttle box, a magazine, a pusher or hammer to discharge filling carriers from the magazine into a shuttle in said box, means to impart filling-carrier-transfer movement to said pusher or hammer, means permitting in and out movement thereof in a direction transverse to the direction of the filling-carrier-transfer movement, and means upon the lay to cause said in and out movement, and thereby to effect alinement of said pusher or hammer and the shuttle upon the lay.

3. A weft replenishing loom having a shuttle box, a magazine, a pusher or hammer to discharge filling carriers from the magazine into a shuttle in said box, means to impart filling-carrier-transfer movement to said pusher or hammer supporting means for the pusher or hammer permitting movement to vary the effective length thereof, means automatically and intermittently to elongate said pusher or hammer, and means upon the lay acting in opposition to said last-mentioned means.

4. A weft replenishing loom having a shuttle box, a magazine, a pusher or hammer to discharge filling carriers from the magazine into a shuttle in said box, means to impart filling-carrier-transfer movement to said pusher or hammer, supporting means for the pusher or hammer permitting movement to vary the effective length thereof, and means automatically to vary the length thereof, and means upon the lay acting in opposition to said last-mentioned means.

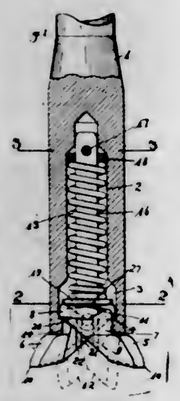
5. A weft replenishing loom having a shuttle box, a magazine, a pusher or hammer to discharge filling carriers from the magazine into a shuttle in said box, yielding means holding the pusher or hammer in extended position and permitting variation in the effective length thereof, and means upon the lay acting in opposition to said holding means.

[Claims 6 to 26 not printed in the Gazette.]

1,239,087. UNDERREAMER. WILLIAM C. CUTLER, North Glendale, Cal. Filed Mar. 6, 1917. Serial No. 152,855. (Cl. 255—78.)

1. In an underreamer a body comprising a full circular bar having from the lower end upwardly a cylindrical main bore, the main bore being enlarged at the lower end for a suitable distance forming a cylindrical bearing surface, the main bore being furthermore enlarged above the cylindrical bearing surface into a cylindrical cavity forming an annular shoulder between the cylindrical bearing surface and the cylindrical cavity, cutters engaging with the body, and operating means disposed between the body and the cutters within the body.

2. In an underreamer a body being of a full circular shape on the outside and having a concentric bore from the lower end upwardly, the bore being enlarged at the lower end for a suitable distance forming a cylindrical bearing surface, the bore being furthermore enlarged above the cylindrical bearing surface forming an annular shoulder above and adjacent to the cylindrical bearing surface in a plane at right angles to the axial line of the underreamer, cutters engaging with the body, and operating means disposed between the body and the cutters within the body.



3. An under-reamer comprising a body having a concentric bore, the bore being enlarged at a suitable distance from the lower end, forming an annular shoulder within the bore, cutters having counter-levers fitting in the bore terminating in projections adapted for engaging with the annular shoulder in the body, and a spring inserted into the bore seating on the counter-levers of the cutters.

4. An under-reamer comprising a body of substantially full circular outside having a recessed center bore, cutters having enlarged ends toward the center engaging with the body adapted for oscillating movement within the recessed bore, and operating means placed above the cutters within the body.

5. An under-reamer comprising a body of substantially circular cross section all over the part of the body inclosing the operating parts of the reamer having a central bore, the bore in the body being enlarged at a suitable distance from the lower end of the body upwardly, cutters having counter-levers projecting centrally and into the bore, the counter-levers terminating in enlarged ends adapted to engage with the body within the enlarged bore for oscillating movement, the cutters having also cutting edges extending outwardly from the center of the body in practically parallel lines with the periphery of the body, and operating means inserted above the counter-levers of the cutters within the body.

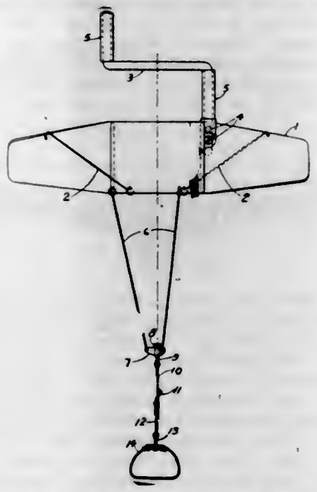
[Claims 6 to 22 not printed in the Gazette.]

1,239,088. SWIMMING APPLIANCE. ROBERT WILLIAM DAVIS, East Orange, N. J. Filed May 2, 1917. Serial No. 165,924. (Cl. 9—18.)

1. In a swimming appliance, a screw propeller having a comparatively large hollow cylindrical hub on whose outside two or more blades are mounted, and to which a crank is fastened for turning same.

2. In a swimming appliance the combination of a screw propeller, a double crank suitable to turn said propeller with both hands, and an axial-tension or thrust rigging provided with means for adjusting its length and suitable to apply the axial-tension of said propeller on swimmer's foot.

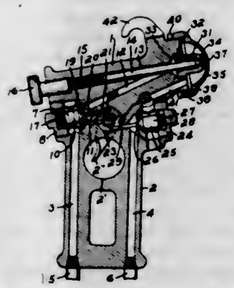
8. In a swimming appliance, a screw propeller consisting of a hollow cylindrical hub and blades on the outside of said hub, a turning crank fastened to the hub and having a portion arranged diametrically of the same, and



loose handles at the opposite ends of said diametrically arranged portion.

[Claims 3 to 7 not printed in the Gazette.]

1,239,089. PROCESS OF APPLYING COATING MATERIAL. HERBERT W. DAY, Wollaston, Mass., assignor to Spray Engineering Company, Boston, Mass., a Corporation of Massachusetts. Filed Dec. 16, 1916. Serial No. 137,435. (Cl. 91—68.)



1. That method of applying coating which comprises conducting by capillarity a film of the coating material into a position substantially transverse to the path of a film breaking and discharging fluid, and effecting the breaking and discharge of said film by the action of said fluid.

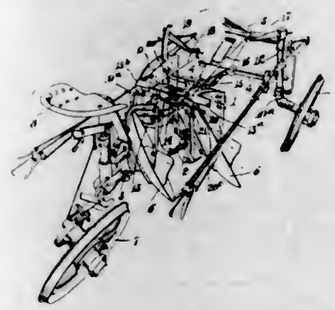
[Claims 2 to 6 not printed in the Gazette.]

1,239,090. WHEELED PLOW, &c. HARRY S. DICKINSON, Moline, Ill., assignor to Moline Plow Company, a Corporation of Illinois. Filed Jan. 26, 1915. Serial No. 4,433. (Cl. 97—75.)

1. In combination with a frame, guiding wheel supports, mounted thereon and movable about upright axes, guide wheels carried by said supports, a plate fixed on the frame and provided in its rear edge with a notch, a horizontal transversely extending foot lever pivoted relatively to the plate and provided with foot rests, connecting means between the foot lever and the respective guide wheel supports adapted by the movements of the foot lever to swing the guide wheel supports about their axes and turn the wheels at angles relatively to the line of draft, and a foot operated locking latch pivoted to the foot lever and formed at its end to ride along the edge

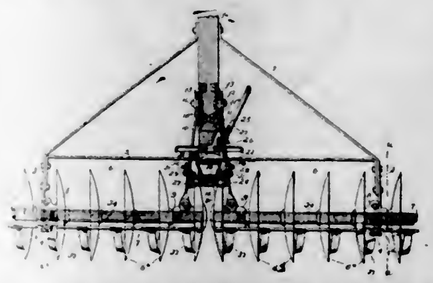
of the plate in the swinging movements of the lever, and spring to automatically engage in the notch in the plate when the wheels straighten out in the line of draft.

2. In combination with a frame, guide wheel supports mounted thereon and rockable about upright axes, guide wheels carried by said supports, a supporting plate fixed to the frame and provided at its forward portion with



oppositely disposed stop devices, a foot lever pivoted to said supporting plate and operatively connected with the guide wheel supports for rocking the latter, and adapted in its two extreme positions to contact with said stop devices and limit the movements of the lever and the connected parts, and a foot operated locking latch mounted on the foot lever and adapted to releasably interlock the said supporting plate.

1,239,091. DISK HARROW. HARRY S. DICKINSON, Moline, Ill., assignor to Moline Plow Company, a Corporation of Illinois. Filed June 5, 1915. Serial No. 32,266. (Cl. 55—81.)



1. In a disk harrow, the combination of a frame provided at its outer ends with rearwardly extending terminal portions having their extremities in the form of hooks with their open sides facing outwardly in opposite directions, disk gangs provided near their outer ends with journals mounted in said hooks; whereby the inner ends of the gangs may shift horizontally fore and aft and may also move up and down, and means for controlling the horizontal movements of the gangs.

2. In a disk harrow, the combination of a frame having rearwardly extending terminal portions provided with vertical transverse slots, disk gangs provided with inner and outer bearings, the said outer bearings extending beneath the terminal portions of the frame respectively, and giving support to the same, vertical journals on the said bearings mounted respectively in said slots, and lateral projections on said outer bearings in position to engage the upper sides of said terminal portions.

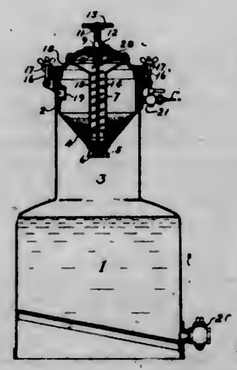
3. In a disk harrow, the combination of a frame, disk gangs mounted therein and movable at their inner ends up and down relatively thereto, a transversely extending member supported by the frame and rockable on a horizontal fore and aft axis, and a spring acting between each end of said member and the adjacent end of each disk

7. In a disk harrow, the combination of a frame, disk gangs mounted thereon and movable up and down at their inner ends, a hand lever pivoted to the frame on a horizontal transverse axis, a rocking member carried by said lever, and a resilient connection between the inner end of each gang and the rocking member.

9. In a disk harrow, the combination of a frame, disk gangs mounted therein and movable up and down at their inner ends, and movable also horizontally at their inner ends in a fore and aft direction, fore and aft extending links connected with said gangs to control their fore and aft movements, two springs acting at their lower ends to apply a downward pressure on said links respectively, and an equalizing member movably sustained by the frame and common to both of said springs, said member being movable in the directing movements of the gangs and being in position to be moved when the springs are compressed on the rise of the gangs and acting when so moved to equalize the pressure of the springs.

[Claims 3, 4, 6, 8, and 10 to 13 not printed in the Gazette.]

1,239,092. GAS-LIGHTING SYSTEM. REGINALD W. EARLE, New York, N. Y., assignor to Katharine F. Goodyear, New York, N. Y. Filed Feb. 29, 1916. Serial No. 81,079. (Cl. 48—191.)



1. An acetylene lighting system, comprising a generator having an automatic pressure controlled material supply adjusted to maintain the gas at a pressure many times as great as the variation required to effect the control of the material supply gas burner, gas conductors connecting said burners to said generator and comprising tubes of relatively small bore and relatively high frictional resistance to the gas flow, and an adjustable restrictor and a gas cock for each burner.

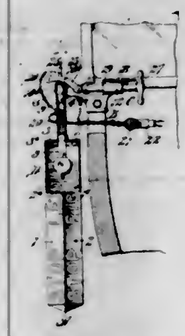
2. An acetylene gas lighting system, comprising a generator having an automatic pressure controlled material supply adjusted to maintain the gas at a minimum pressure many times as great as the maximum pressure variation in the system, a plurality of gas burners, gas conductors connecting said burners to said generator, and an adjustable restrictor and a gas cock for each burner.

3. An acetylene gas lighting system, comprising a generator having an automatic pressure controlled material supply adjusted to maintain the gas at a minimum pressure many times as great as the maximum pressure variation in the system, gas conductors comprising tubes of relatively small bore and relatively high frictional resistance to the gas flow, gas burners, a gas cock for each burner, and means for controlling the pressure of the gas delivered at the burners, said parts being so proportioned and arranged that variations in pressure in the generator are prevented from becoming effective at the burners.

4. An acetylene lighting system, comprising a source of acetylene supply, said supply being subjected to variations in pressure, means operated by the variations in pressure of said source of supply to maintain the acetylene

at a pressure above the atmosphere many times as great as the variations required to operate said means, gas burners and conductors between said burners and said source of supply constructed to prevent said variations in pressure at the source of supply from becoming effective at said burners.

1,239,093. TRAFFIC-DIRECTING SIGNAL FOR VEHICLES. CHARLES G. ETTE, St. Louis, Mo. Filed Mar. 29, 1917. Serial No. 158,200. (Cl. 40—77.)



1. A traffic directing signal for vehicles, comprising a signaling member of substantially tubular form provided with words or symbols arranged in such a manner that similar words or symbols are displayed on the front and rear sides of said member when it is arranged in signaling position, a supporting structure on which said signaling member is pivotally mounted, and a manually-operable means for swinging said member into and out of signaling position and also turning it axially for the purpose described.

3. A traffic directing signal for vehicles, comprising a signaling member of substantially tubular form, a supporting element, a shank on said signaling member pivotally connected to said supporting element and rotatably mounted on the same, and a manually-operable actuating device on said supporting element operatively connected with said shank.

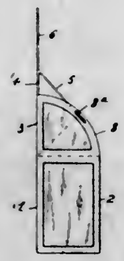
6. A traffic directing signal for vehicles, comprising a signaling member of substantially tubular form, a supporting element, a pivotally mounted bearing on said supporting element, a shank on said signaling member oscillatingly mounted in said bearing and provided at one end with an angularly-disposed arm, an actuating plunger reciprocatingly mounted in said supporting element, and a link connected to said arm and to said actuating plunger.

11. A traffic directing signal for vehicles, comprising a supporting element provided with a rigid bearing and a pivotally mounted bearing, an actuating plunger reciprocatingly mounted in said rigid bearing, a shaft in said pivotally mounted bearing provided with a shoulder that bears against one end of same, an angularly-disposed arm on said shaft, a rigid link connected to said arm and to said plunger, and a signaling member having a substantially tubular-shaped shank connected to said shaft and arranged so that it abuts the opposite end of said pivotally mounted bearing.

[Claims 2, 4, 5, 7 to 10, and 12 not printed in the Gazette.]

1,239,094. VENDING-CARTON. ALBERT T. FISCHER, Cleveland, Ohio. Filed Sept. 5, 1916. Serial No. 118,448. (Cl. 40—7.)

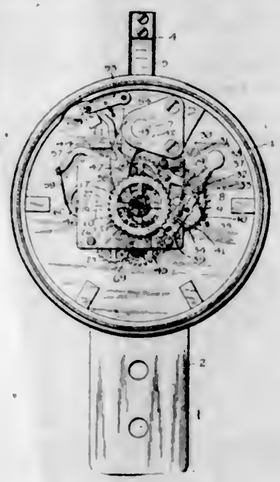
1. A vending carton comprising a body portion adapted to contain the articles to be vended, said body portion having a face; a cover for the carton hinged along the face side thereof, and interdependent advertising matter on the face and cover; foldable connecting pieces between the cover and the carton, said foldable pieces when unfolded, being adapted to maintain the face of the box



and the cover in alinement, thereby rendering the advertising matter on the face and cover continuous.

[Claim 2 not printed in the Gazette.]

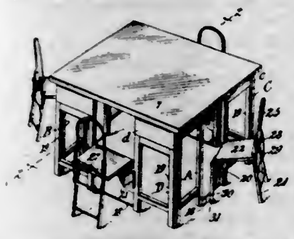
1,239,095. TIME-CONTROLLED FARE-INDICATOR. PABLO FLOUSSFISCH, New York, N. Y. Filed Jan. 25, 1916. Serial No. 74,081. (Cl. 235—30.)



1. In an apparatus of the character described, the combination of driving mechanism, a rotary registering member, a ratchet wheel united with said registering member, a tripping cam driven by the driving mechanism and mounted coaxially with the registering member and its ratchet wheel, a bell crank feed dog carrier having one arm extending into operative relation to said tripping cam, a feed dog pivoted upon its other arm in operative relation to the ratchet wheel united with the registering member, a resetting cam connected with the registering member, a rock member bearing an arm to act upon said resetting cam, and an extra arm united with said bell crank feed dog carrier and extending into position to be likewise operated by said rock member.

2. In an apparatus of the character described, the combination of clock mechanism, clock hands driven thereby through friction connections, a registering disk coaxial with the clock hands, means operated by the clock mechanism for intermittently advancing the registering disk, a ratchet wheel united with the registering disk, a tripping cam coaxial with the hands, disk and ratchet wheel and driven by the clock mechanism, feed mechanism operated by said tripping cam and acting upon said ratchet wheel, resetting cams united with the coaxial hands and registering disk, and means for simultaneously acting upon said resetting cams.

1,239,096. FOLDING FURNITURE. ADAM H. GARRISS, New York, N. Y. Filed Apr. 15, 1916. Serial No. 91,268. (Cl. 45—11.)



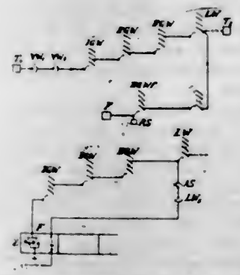
1. In combination, a table top, a plurality of legs each independently pivotally connected thereto, said legs being adapted to fold together upon the under side of the said table top, and folding chairs connected to the said legs, each leg being adapted upon being folded and unfolded, to carry with it its connected chair when the latter is folded.

4. In combination, a table top, leg structures pivotally connected thereto and adapted to fold together at the underside of the said table top, each said leg structure being so located and proportioned that when all are opened the ends of each abut the ends of two others, securing means between said abutting ends, and folding chairs supported by the leg structures, each such chair being adapted to fold into the general plane of its supporting leg structure when the same is in its open and folded positions.

5. In combination, a table provided with legs and a folding chair embodying a front framing member having a hinged connection with one of the said legs, a seat pivoted to said framing member and adapted to be elevated into substantially a vertical plane, a back and a support for the rear of the seat pivoted to the said seat and adapted to fold upon the top of the seat, the folded chair being adapted to swing on its said hinged connection and inclose the said back and support under the table.

[Claims 2, 3, 6, and 7 not printed in the Gazette.]

1,239,097. TELEPHONE SYSTEM. GEORG GRABE, Nikolassee, near Berlin, Germany, assignor to Siemens & Halske, A. G., Berlin, Germany, a Corporation of Germany. Filed Aug. 26, 1913. Serial No. 786,697. (Cl. 179—27.)



1. In a telephone exchange system, subscribers' lines, switches for establishing a preliminary connection between a calling line and a called line, other switches for establishing a talking connection between said calling and said called line, impulse generating means for controlling said first switches, other impulse generating means for controlling said second switches, said second impulse generating means being arranged to send impulses in addition to the impulses of said first impulse generating means.

2. In a telephone exchange system, subscribers' lines, switches for establishing a preliminary connection between a calling line and a called line, other switches for establishing a talking connection between said calling and said called line, impulse generating means for controlling said first switches, other impulse generating means for controlling said second switches, said second impulse generating means being arranged to send impulses in addition to the impulses of said first impulse generating means, both said impulse generating means being components of one apparatus.

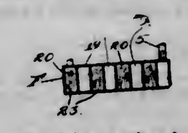
3. In a telephone exchange system, subscribers' lines, switches for establishing a preliminary connection between a calling and a called line, other switches for establishing a talking connection between said calling and said called line, manually adjustable impulse generating devices for controlling said first switches, another impulse generating device associated with said preliminary connection and automatically sending out impulses for controlling said second switches.

4. In a telephone exchange system, subscribers' lines, trunk lines less numerous than said subscribers' lines, switches for establishing a preliminary connection with one of said subscribers' lines, other switches for establishing a talking connection with said desired line, impulse generating devices for controlling said first switches, another impulse generating device for controlling said second switches, said talking connection being branched off from one of said trunk lines, said second impulse generating device being associated with said preliminary connection.

5. In a telephone exchange system, subscribers' lines for ordinary and preferred service, calling stations for preferred service, switches for establishing connections for ordinary service, means for establishing a preliminary connection with one of said subscribers' lines over said switches for ordinary service, other switches for establishing a preferred connection between said one of said subscribers' lines and one of said preferred calling stations.

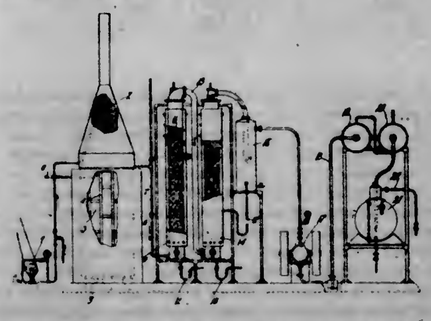
[Claims 6 to 39 not printed in the Gazette.]

1,239,098. APPARATUS FOR CARBURETING AIR. CHARLES N. GRAY, Yankton, S. D. Filed Mar. 4, 1916. Serial No. 82,051. (Cl. 261—102.)



A carbureter comprising a closed tank having a gasolene feed and an air inlet, a gas outlet, and a plurality of spaced absorbent flexible baffle sheets attached along their upper edges to the top of the tank and loosely disposed transversely of the flow of gasolene and air, each of said sheets being provided with a V-slot centrally thereof, said slot extending from the lower edge of the sheet to a point approximately midway of its vertical length.

1,239,099. HYDROCARBON PRODUCT. WILLIAM AUGUSTUS HALL, New York, N. Y. Filed May 7, 1915. Serial No. 26,546. (Cl. 44—8.)



1. A liquid fuel for use in automobile engines having larger fractions boiling at temperatures below 80° C. than any hydrocarbon distillate of the paraffin series with

a similar specific gravity and having an initial boiling point at least as low as that of ordinary gasolene, and a calorific value and specific gravity both higher than that of ordinary gasolene, said fuel being relatively free from liability to pre-ignite.

2. A liquid fuel for use in automobile engines having larger fractions boiling at temperatures below 80° C. than a paraffin hydrocarbon distillate with a similar specific gravity and having an initial boiling point at least as low as ordinary gasolene, and a specific gravity at least as high as ordinary gasolene, said fuel being relatively free from liability to pre-ignite, slow burning but igniting quickly, the fuel before refining being of a yellow color, and when evaporated leaving a dark orange non-drying substance with a strong varnish-like odor, the odor disappearing with the coloration by distilling said fuel with mineral matter of the fullers' earth type, said fuel being distinguishable from a product produced by simply a solution of a gas in a liquid, by no greater loss in fractionation than results from the fractionation of ordinary gasolene.

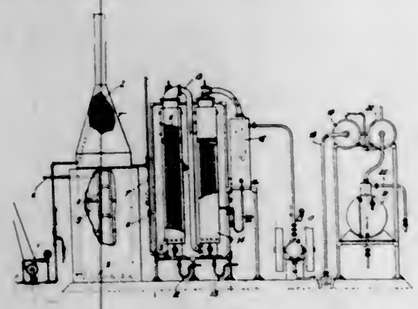
3. A crude motor fuel produced from mineral oil, said fuel having a yellow coloration and peculiar odor and depositing resinous sticky matter on evaporation, the coloring matter and odor being substantially all removable by filtration through fullers' earth, said fuel having a gravity not below about .76, and a calorific value greater than ordinary gasolene.

4. A motor fuel characterized by the properties of slow burning, rapid ignition, flash point and initial boiling point at least as low as those of ordinary gasolene, and having relatively large fractions volatile at low temperature, said fuel having a greater calorific value than ordinary gasolene.

5. A motor fuel containing unsaturated hydrocarbons, said fuel commencing to boil materially below 35° C., not less than about 23% of said spirit being volatile at temperatures below 100° C., said spirit having a specific gravity of not less than .76.

[Claims 6 to 30 not printed in the Gazette.]

1,239,100. LIQUID FUEL. WILLIAM A. HALL, New York, N. Y. Filed May 6, 1915. Serial No. 26,395. (Cl. 44—8.)



1. A water-white liquid fuel having the composition when analyzed of approximately carbon 85.9%, hydrogen 12.76%, having a carbon to hydrogen ratio of about 6.73 to 1, said fuel having a specific gravity of not materially below .76, a materially larger percentage of the same being volatile at 100° C., than would be the case with ordinary gasolene, said fuel containing ethylene hydrocarbons and aromatic hydrocarbons, said fuel being further characterized by the properties of slow burning, rapid ignition, having flash point and initial boiling point at least as low as those of ordinary gasolene and high bromin absorption value, said fuel being substantially free from yellowish, resinous, colloidal matter.

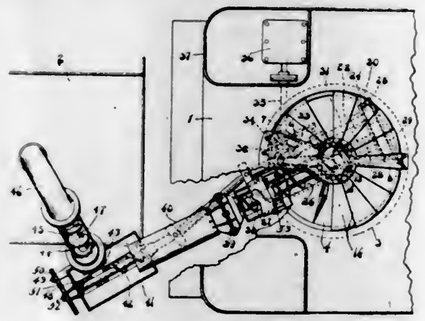
13. A motor fuel, having a boiling point range of at least from 33° C. to 140° C., being substantially water white, free from colloidal, resinous, yellowish matter in solution, and having a carbon to hydrogen ratio of about 6.73 to 1.

19. A motor fuel having substantially the following fractionation table:

Boiling up to	50° C.	2 %
" " "	60° C.	10 %
" " "	70° C.	22 %
" " "	80° C.	35 %
" " "	90° C.	55 %
" " "	100° C.	61 %
" " "	110° C.	71.5%
" " "	120° C.	82 %
" " "	130° C.	89 %
" " "	140° C.	95 %
" " "	150° C, substantially all.	

[Claims 2 to 12 and 14 to 18 not printed in the Gazette.]

1,239,101. LOCOMOTIVE-TENDER STOKER MECHANISM. WILLIAM T. HANNA, Cincinnati, Ohio, assignor to The Mechanical Construction Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Aug. 28, 1913. Serial No. 787,226. (Cl. 193—13.)



1. In a furnace stoker mechanism, the combination in mechanism for feeding fuel to a fuel distributing mechanism, of a fuel supply mechanism comprising a storage hopper and a conveyer hopper, a conveyer trough and a feed screw therein for conveying fuel from said conveyer hopper to said distributing mechanism, said storage hopper having an opening communicating with said conveyer hopper and means to shift said opening relatively to said storage hopper as the fuel recedes from the initial position of said opening.

2. In a furnace stoker mechanism, the combination in mechanism for feeding fuel to a fuel distributing mechanism, of a fuel supply mechanism comprising a storage hopper and a conveyer hopper having means for conveying fuel from said conveyer hopper to said distributing mechanism, the floor of said storage hopper having an opening communicating with said conveyer hopper, a fixed bridging member extending over said opening and a plurality of closer members secured to said bridging member and adapted to be shifted successively to shift the point of communication between said hoppers from one part to another of said storage hopper as the fuel mass is exhausted in the latter.

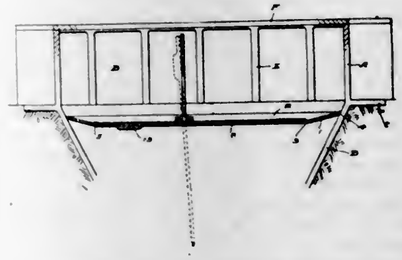
3. In a furnace stoker mechanism, the combination in mechanism for feeding fuel to a fuel distributing mechanism, of a fuel supply mechanism comprising a storage hopper and a conveyer hopper having means for conveying fuel from said conveyer hopper to said distributing mechanism, the floor of said storage hopper having a circular opening therein, a bridging member extending over said opening, a plurality of closer members pivoted to said bridging member and extending to the periphery of said opening, said closer members being adapted to be swung successively to shift the point of communication between said hoppers as the fuel mass in said storage hoppers is exhausted.

4. In a furnace stoker mechanism, the combination in mechanism for feeding fuel to a fuel distributing mechanism, of a fuel supply mechanism comprising a storage hopper and a conveyer hopper having means for conveying fuel from said conveyer hopper to said distributing mechanism, the floor of said hopper having an opening, a bridging member extending over said opening, a plurality of closer members carried by said bridging member adapted normally to close said opening, one or more of said closer members being adapted to be moved beneath said bridging member to open communication between said hoppers, the remaining closer members being adapted to be shifted successively to shift the point of communication between said hoppers from one part to another of said storage hopper as the fuel mass recedes from the successive points of communication.

5. In a furnace stoker mechanism, the combination in mechanism for feeding fuel to a fuel distributing mechanism, of a fuel supply mechanism comprising a storage hopper and a conveyer hopper having means for conveying fuel from said conveyer hopper to said distributing mechanism, the floor of said storage hopper having an opening communicating with said conveyer hopper, a bridging member spanning said opening and affording a foot way thereover, a plurality of closer members supported by said bridging member and resting upon the edge of the said opening, said closer members being adapted to be shifted to open communication between said hoppers at the various points of said floor opening, said shifting of the closer members being adapted to shift the point of communication between said hoppers as the mass of fuel in the storage hopper recedes.

[Claims 6 to 9 not printed in the Gazette.]

1,239,102. CATCH-BASIN OR SEWER-INLET. JAMES R. HARRISON, Peoria, Ill. Filed Sept. 14, 1916. Serial No. 120,021. (Cl. 182—10.)



1. An attachment for catch-basins of the character described, comprising a ring-like member, said member having trunnion seats, a weighted plate having oppositely located trunnions adapted to have a bearing in the trunnion seats in said ring-like member, and an arched member, said member having cap-plates adapted to be attached to said ring-like member and cover said trunnions.

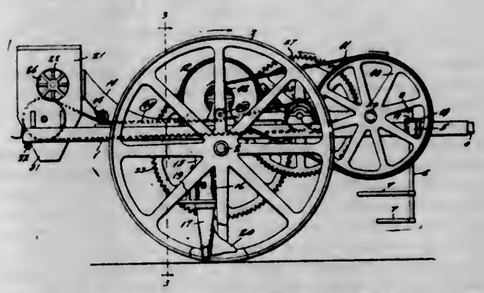
2. An attachment for catch-basins of the character described, comprising a ring-like member, said member having trunnion seats, a weighted plate having oppositely located trunnions adapted to have a bearing in the trunnion seats in said ring-like member and also provided with a lug adapted to engage with said ring-like-member when said plate is in a closed position, cap-plates for the trunnions adapted to be secured to said ring-like-member, and an arched member connected to said cap plates, said arched member adapted to serve as a stop for said weighted plate when swung into open position.

3. An attachment for catch basins of the character described comprising a ring-like-member, a valve plate having a pivotal connection with said ring-like-member and provided with a lug adapted to engage with said ring-like-member when said plate is in a closed position, and an arched member connected to the opposite sides of said ring-like-member, said arched member adapted to serve as a stop for said weighted plate when swung into open position.

4. An attachment for a catch basin having a mouth portion and a depending neck or collar, comprising a ring-like-member adapted to rest within said neck or collar of the basin, a valve plate having a pivotal connection with said ring-like member, and an arched member connected to the opposite sides of said ring-like member having an extension on one side of which is adapted to extend into the mouth of the basin to divide any trash entering the basin with the waste water and to form a stop for said valve plate when in open position.

5. An attachment for catch basins of the character described, comprising a ring like-member provided off center with oppositely located depressions, a valve plate, trunnions located off center and on the opposite sides of said valve plate, said trunnions adapted to have a journal bearing in the depressions in said ring-like member, a weight attached to said valve plate, and an arched member connected to opposite sides of said ring-like-member.

1,239,103. GATHERING AND EXTERMINATING MACHINE. ROBERT J. HAYNES, Razor, Tex. Filed Jan. 30, 1917. Serial No. 145,350. (Cl. 43—1.)



1. In a gathering and exterminating apparatus, the combination of a wheel supported frame, plant agitators depending from the forward end of the frame, a suction fan mounted on the frame, a suction trunk leading from the fan casing, branches leading from the suction trunk, suction boots flexibly connected with the branches and provided with stirrups, an air blast trunk leading from the fan casing, and a grinding device connected with the air blast trunk.

[Claim 2 not printed in the Gazette.]

1,239,104. DETACHABLE BUTTON. CARL OSKAR FRIDOLF HELLSTRÖM, Stockholm, Sweden. Filed July 15, 1914. Serial No. 851,111. (Cl. 24—103.)

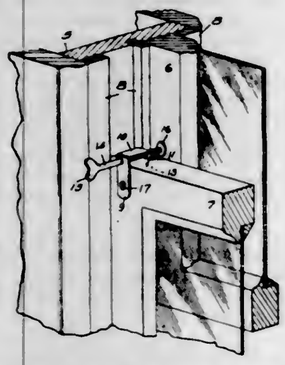


1. In detachable buttons, the combination of a shaft rotatively mounted on the button, bearings for the shaft, said shaft being adapted to slide in said bearings, fastening means on said shaft, which can slide on and rotate with the shaft, a handle provided on the shaft for rotating the same and a slot in the button for receiving said handle on displacing the shaft thereby locking the latter when the fastening means occupies its attaching position, substantially as described.

2. In detachable buttons, the combination of a shaft rotatively mounted on the button, bearings for the shaft, said shaft being adapted to slide in said bearings, fastening means on said shaft which can slide on and rotate with the shaft, a handle provided on the shaft for rotating the same, a slot in the button for receiving said

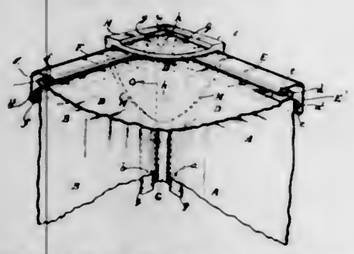
handle on displacing the shaft; thereby preventing the shaft from being rotated, when the fastening means occupies its attaching position, and a retaining means for preventing the shaft from being unintentionally displaced, substantially as described and for the purpose set forth.

1,239,105. SASH-FASTENER. KORNAKICHI HORIKAWA, Seattle, Wash. Filed Mar. 17, 1917. Serial No. 155,923. (Cl. 16—144.)



The combination with a window having an upper and a lower sash of a sash fastener comprising an integral L shaped frame said frame having a longer leg adapted to extend downwardly over the side of said lower sash, a shorter leg adapted to rest upon the top of said lower sash and a top portion connecting said two legs, a barb on said shorter leg portion to project into the top of said sash, a screw threaded spindle extending through said leg portions and disposed between the top of said lower sash and the top portion of said frame and a washer swiveled on the outer end of said spindle to engage with said upper sash and frictionally lock said two sashes.

1,239,106. CASING OR JACKET FOR BOILERS. ROBERT HUTSEL, Kingston-upon-Hull, England, assignor to American Radiator Company, Chicago, Ill., a Corporation of New Jersey. Filed May 3, 1916. Serial No. 95,076. (Cl. 154—44.)



1. A boiler jacket comprising a plurality of sections having vertical and horizontal edges, and locking members engaging said edges to maintain said sections in their assembled positions, certain of said locking members being provided with end portions inclosing the corners of the sections which form the corners of the jacket, substantially as specified.

2. A boiler jacket comprising a plurality of sections having vertical and horizontal edges, and locking members engaging said edges to maintain said sections in their assembled positions, certain of said locking members being provided with end portions inclosing the meeting edges of the corners of the sections which form the corners of the jacket, substantially as specified.

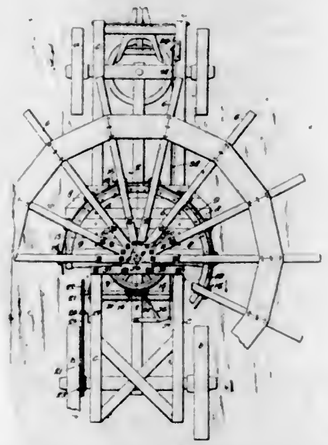
3. A boiler jacket comprising a plurality of vertical and horizontal sections, a locking member slidingly engaging the adjacent edges of certain of said sections and having a permanently formed end portion engaging certain other of said sections to limit the sliding movement of said locking member, substantially as specified.

4. A boiler jacket comprising a plurality of vertical and horizontal sections forming the sides, ends, and top of the jacket, and locking members slidingly engaging the edges of adjacent vertical sections and having permanently formed end portions engaging the top of the jacket to limit the sliding movement of said locking members and to hold them in position, substantially as specified.

5. A locking member for boiler jacket sections comprising a longitudinally extending body portion provided with locking means, and a permanently formed end portion extending transversely with respect to said body portion, substantially as specified.

[Claims 6 and 7 not printed in the Gazette.]

1,239,107. REVOLVING HAY-RACK. COLUMBUS JONES, Washington, Kans. Filed Sept. 9, 1916. Serial No. 119,187. (Cl. 21—74.)



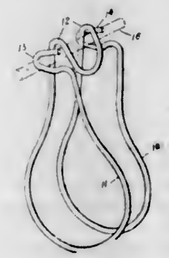
1. The combination with a wheeled truck, said truck including side bearings and transverse bars; of a revolving rack mechanism, said mechanism including a vertically disposed rotary shaft supported between the aforesaid transverse bars, a platform fixedly mounted on the said bars, and an annular trackway on the said platform, the said rack including a head provided with radial extensions, arms secured to the said radial extensions, a roller mounted on some of the arms that engages the trackway on the platform, and a cog gear on the lower end of the rotary shaft; of a transversely disposed shiftable shaft, a transmission worm gear on the said shaft adapted for engaging the cog gear on the rotary shaft, means tending to automatically hold the worm shaft shifted to a position for drawing the worm gear from the shaft cog gear, transmission mechanism that connects the worm gear shaft and one of the rear truck wheels and manually operated means coöperatively combined with the worm shaft and adapted under one adjustment to move and hold the said worm shaft with its worm gear in mesh with the cog gear on the rotary rack.

2. The combination with a wheeled truck, said truck including side bearings and transverse bars; of a revolving rack mechanism, said mechanism including a vertically disposed rotary shaft supported between the aforesaid transverse bars, a platform fixedly mounted on the said bars, and an annular trackway on the said platform, the said rack including a head provided with radial extensions, arms secured to the said radial extensions, a roller mounted on some of the arms that engages the trackway on the platform, and a cog gear on the lower end of the rotary shaft; of a transversely disposed shiftable shaft, a transmission worm gear on the said shaft adapted for engaging the cog gear on the rotary shaft, and

laterally shiftable bearing boxes for the said shaft, means tending to automatically hold the worm shaft shifted to a position for drawing the worm gear from the shaft cog gear, transmission mechanism that connects the worm gear shaft and one of the rear truck wheels and manually operated means coöperatively combined with the worm shaft and adapted under one adjustment to move and hold the said worm shaft with its worm gear in mesh with the cog gear on the rotary rack, said mechanism including a laterally shiftable rod having cam portions for engaging the bearing boxes on the worm shaft and adapted when shifted in one direction to shift the said bearing boxes to move the worm shaft to cause its worm gear to mesh with the gear on the said rack shaft.

3. In a revolving rack of the character described, the combination with a wheeled truck that includes front and back truck wheels, sides beams and cross bars and a sprocket gear secured to one of the rear truck wheels; of a rotary rack mechanism that includes a vertical shaft having a cog gear at the lower end and a head portion provided with radially extended members, arms secured to the said members, a tubular bearing for the rack shaft secured between the cross bars of the truck, a platform mounted on the upper end of the said bearing, a trackway on the platform, roller bearings on the rack arms that engage the said platform trackway, spacers for holding the arms rigidly apart, a power transmission which includes a transversely mounted worm shaft, a drive gear at one end of the said shaft and a chain drive that takes over the said gear and the sprocket gear on the rear truck wheel, the said worm shaft being mounted in bearing boxes, having a limited lateral movement in their supports, means tending to normally move the said boxes and the shaft to disengage the worm on the shaft from the cog gear on the revolving rack, and manually operable means that cooperates with the said worm shaft for shifting the said shaft to bring and hold its worm gear in mesh with the cog gear on the revolving rack.

1,239,108. CABLE-HANGER. JOSEPH KENNEDY, New York, N. Y., assignor to The Clements Company, New York, N. Y., a Corporation of New York. Filed May 8, 1915. Serial No. 26,676. (Cl. 248—33.)

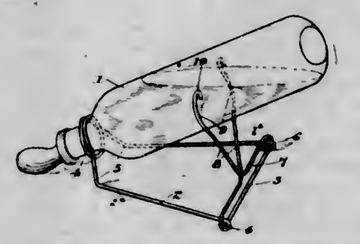


1. A hanger comprising a single piece of resilient wire bent to form a two-part central hook having tapered openings between jaws, adapted to engage the sides of a messenger wire, a pair of loops depending from the parts of the central hook, and end hooks having tapered openings formed in the wire near its respective ends and adapted to engage the messenger wire on the top and bottom.

2. A hanger comprising a single piece of resilient wire bent to form a two-part central hook having tapered openings between jaws, lying in a substantially single longitudinal plane and adapted to engage the sides of a messenger wire, a pair of loops depending from the parts of the central hook and spaced end hooks having tapered openings lying in a substantially transverse plane and shoulders or projections near the openings of the end hooks forming under jaws, formed in the wire near its respective ends and adapted to engage the messenger wire on the top and bottom, said humps being adapted to hold the wire firmly in the transverse hooks.

[Claims 3 to 8 not printed in the Gazette.]

1,239,109. BOTTLE-HOLDER. CHARLES KLAUBERG, New York, N. Y. Filed Oct. 18, 1916. Serial No. 126,273. (Cl. 248—20.)



1. A bottle holder comprising two frames hinged together and adapted to be folded upon one another when not in use, each frame having means for holding a bottle, the means of one frame being resilient and opening at one side to permit the body of the bottle to be inserted and withdrawn.

2. A bottle holder comprising two frames hinged together and adapted to be folded upon one another when not in use, one frame having a ring to engage the neck of a bottle and the other frame having a pair of resilient arms for gripping the body of the bottle.

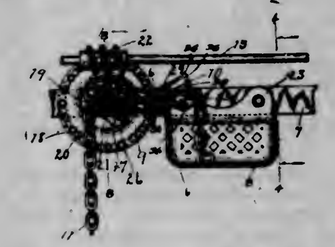
3. A bottle holder comprising two frames of wire, each frame having bottle engaging means, one frame having eyes formed in the wire at one end, and the other frame having a loop pivotally connected to said eyes, whereby one frame may be folded upon the other when the holder is not in use.

4. A bottle holder comprising two frames, each made of a single piece of wire, one frame having the middle portion of the wire bent to form a loop and the ends to form resilient bottle gripping arms, the other frame having the middle portion of the wire coiled to form a ring to encircle the neck of the bottle, and the extremities of said wire being bent to form eyes pivotally connected to the loop of the first frame.

5. A bottle holder comprising two frames hinged together, one frame having a loop and means for engaging the body of a bottle, the other frame having a ring for encircling the neck of the bottle and eyes connected to the loop of the first frame to form the hinge, whereby one frame may be folded upon the other when the holder is not in use.

[Claim 6 not printed in the Gazette.]

1,239,110. HOISTING DEVICE. ALFRED W. KNUTSON, Galesburg, Ill., assignor to Rowe Manufacturing Co., Galesburg, Ill., a Corporation of Illinois. Filed Nov. 15, 1916. Serial No. 131,411. (Cl. 254—176.)



1. In a device of the character described, in combination, supporting bars, hoisting wheels journaled between said bars, each wheel having a central hub, baskets supported between said bars and depending therefrom, a chain guide between the hub of each hoisting wheel and

said baskets, the inner ends of said guides overlying one end of said baskets and secured to said bars, their opposite ends having a part overlying the hubs of said wheels and having a bearing extension conforming to the hubs of the wheels, each guide having transversely disposed grooves to receive the links of chains, the inner ends of the grooves of said guides terminating in enlarged protected guide ways.

2. In a device of the character described, in combination, supporting bars, hoisting wheels journaled between said bars, each wheel formed with flanges spaced upon opposite sides of a central hub, and having beveled surfaces, baskets supported between said bars and depending therefrom, a chain guide between the hub of each hoisting wheel and said baskets, the inner ends of said guides overlying one end of said baskets and secured to said bars, their opposite ends having a part overlying the hubs of said wheels and formed with opposite beveled surfaces matching the beveled surfaces on the flanges of said wheels, and also having a bearing extension conforming to the hubs of the wheels, each guide having transversely disposed grooves to receive the links of chains, the inner ends of the grooves of said guides terminating in enlarged protected guide ways.

3. In a device of the character described, in combination, a pair of wheeled trucks, castings having a swiveled connection with said trucks and depending therefrom, spaced parallel bars, their opposite ends connected with the lower ends of said castings, an operating shaft disposed above said bars and having its opposite ends journaled in said castings, hoisting wheels journaled between said bars near their opposite ends, worm wheels on said shaft meshing with said hoisting wheels, baskets spaced inwardly from said hoisting wheels and secured between and depending from said bars, and chain guides between said hoisting wheels and said baskets, the inner end of each guide overlying one end of a basket and secured to said bars, their opposite ends overlying the hubs of said wheels.

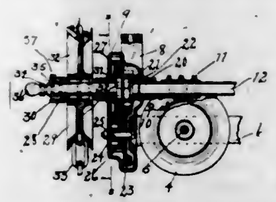
4. In a device of the character described, in combination, a pair of wheeled trucks, castings having a swiveled connection with said trucks and depending therefrom, spaced parallel bars, their opposite ends connected with the lower ends of said castings, an operating shaft disposed above said bars and having its opposite ends journaled in said castings, hoisting wheels journaled between said bars near their opposite ends, worm wheels on said shaft meshing with said hoisting wheels, baskets spaced inwardly from said hoisting wheels and secured between and depending from said bars, chain guides between said hoisting wheels and said baskets, each guide curved throughout its length and having its inner end overlying one end of a basket and secured to said bars, and its opposite end formed with a portion to overlie the hub of a wheel, said guides also provided with transversely disposed grooves extending throughout their length with the inner ends of said grooves terminating in enlarged protected guide ways.

5. In a device of the character described, in combination, a hoisting wheel, a basket, a chain guide formed longitudinally with transversely arranged grooves and having one end overlying the hub of said wheel, its opposite end communicating with said basket, the end portion of said guide communicating with the basket formed with enlarged protected guide ways which enter into, communicate with, and form a part of said grooves.

[Claims 6 to 8 not printed in the Gazette.]

1,239,111. GEARING. ALFRED W. KNUTSON, Galesburg, Ill., assignor to Rowe Manufacturing Co., Galesburg, Ill., a Corporation of Illinois. Filed Nov. 15, 1916. Serial No. 131,412. (Cl. 74—59.)

1. In a device of the character described, in combination, a two-part operating shaft, a gear wheel on each of the matching ends of said shaft parts, the matching faces of said gear wheels having polygonal shaped recesses, one of said shaft parts being movable axially and having a member adapted to be seated in the recess of either of said gear wheels, gearing connecting said gear wheels, and means for operating said axially movable shaft part.



3. In a device of the character described, in combination, axially disposed gear wheels, each having a recess in its matching face, an operating shaft connected to one of said gear wheels, a driving shaft axially movable through said other gear wheel, a member on the inner end of said axially movable shaft and adapted to be seated in the recess of either of said gear wheels to connect the same with said axially movable shaft, interposed gearing connecting said gear wheels, means for operating said axially movable shaft, and means for locking the same in adjusted position.

5. In a device of the character described, in combination, a two part shaft, a housing inclosing the meeting ends of said shaft, a gear wheel in said housing fixed to the inner end of one part of said shaft and having a recess in its face, a gear wheel also in said housing carried on the inner end of the other part of said shaft and having a recess in its face corresponding to the recess in the face of said first mentioned gear wheel, a member on the inner end of said last mentioned part of said shaft adapted to be seated in the recess of either of said gear wheels to connect the same with said part of said shaft having said member, gearing journaled in said housing and connecting said first mentioned gear wheels, said part of said shaft having the member thereon adapted to be moved axially and formed with a pair of annular grooves, means to engage either of said grooves to lock the said part of said shaft in its adjusted positions, an operating wheel on said movable part of said shaft and with which the same has a feathered connection, and means for actuating said operating wheel.

8. In a device of the character described, in combination, a housing, a two-part shaft having their inner ends journaled in said housing and one of said shaft parts being axially movable with respect to the other, a gear wheel on the inner end of each shaft part and within said housing, the gear wheel on the axially movable shaft being normally loose thereon, the other having a fixed relation with its shaft part and both having a recess in their matching faces, a member on the inner end of said axially movable shaft part adapted to be inserted in the recesses of either of said gear wheels, and a train of gear wheels journaled in said housing and connecting the gear wheels on said two-part shaft.

[Claims 2, 4, 6, and 7 not printed in the Gazette.]

1,239,112. PROCESS OF PRODUCING WELL-CLOUDED ENAMELS OR GLAZES BY MEANS OF SUBSTITUTES FOR STANNIC OXID. HEINRICH KRETZER, Wallersheim, near Coblenz, and AUGUST CAPPEL, Coblenz, Germany; said Cappel assignor to said Kretzer. Filed Sept. 9, 1914. Serial No. 860,883. (Cl. 106—36.2.)

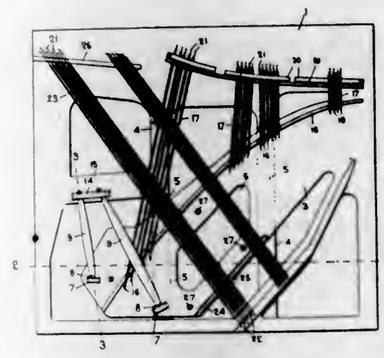
1. In the manufacture of white clouded enamels or glazes by means of opacifiers other than stannic oxid, the improvement which consists in adding the opacifying agents to the enamel proper when being ground in the wet mill only after the milling process has been accomplished for the greater part.

2. In the manufacture of white clouded enamels or glazes by means of opacifiers other than stannic oxid, the improvement which consists in adding to the enamel proper when being ground in the wet mill, the opacifying agents together with such substances as will counteract a transformation of the opacifiers into colloidal forms.

3. In the manufacture of white clouded enamels or glazes by means of opacifiers other than stannic oxid, the improvement which consists in adding to the enamel proper when being ground in the wet mill, the opacifying agents together with substances acting as electrolytes.

4. In the manufacture of white clouded enamels or glazes by means of opacifiers other than stannic oxid, the improvement which consists in adding to the enamel proper when being ground in the wet mill, the opacifying agents together with substances acting as precipitating colloids.

1,239,113. PIANO. ANTON KRIEGHOFF, Boston, Mass., assignor to Anton Krieghoff Company, Boston, Mass., a Corporation of Massachusetts. Filed Sept. 7, 1915. Serial No. 49,145. (Cl. 84—25.)



1. In a musical instrument, a string plate, a sounding-board secured thereto, a relatively flexible section fixedly connected at one end only to said string plate, strings to produce sound vibrations upon actuation, means for causing the string vibrations to be communicated to said section, and means for communicating to the sounding board the vibrations communicated to said section.

2. In a musical instrument, a string plate, a sounding-board secured thereto, a relatively flexible section integral at one end only with said string plate, strings to produce sound vibrations upon actuation, bridges for the strings on said section, and means for connecting said section to the sounding board whereby the vibrations set up in the section are communicated to the sounding-board.

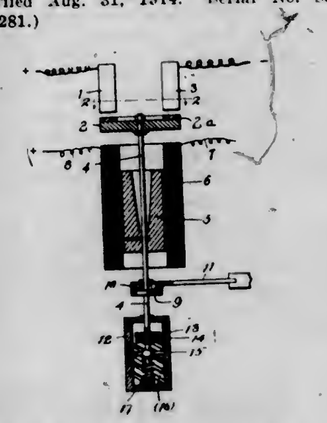
3. In a musical instrument, a string plate, a sounding-board secured thereto, a relatively flexible section fixedly connected at one end only to said string plate, means for bracing the opposite end of the flexible section, strings to produce sound-vibrations upon actuation, bridges for the strings upon said section and means for connecting the section to the sounding-board whereby sound vibrations are communicated from the flexible section to the sounding board.

4. In a musical instrument, a string plate, a sounding-board secured thereto, a substantially diagonally disposed section having one end only integral with the string plate, strings to produce sound vibrations, hitch pins on said section for the treble strings, hitch pins on the string plate for the bass strings, a bridge on the section for the bass strings, and means for communicating the vibrations of the section to the sounding board.

5. In a musical instrument, a string plate, a sounding-board secured thereto, a relatively flexible section integral and connected at one end only to the string plate, yieldably mounted means for bracing the opposite end of said section, strings to produce sound vibrations upon actuation, means for causing the string vibrations to be communicated to said flexible section and sound posts connecting said section and the sounding-board whereby sound vibrations are communicated from the flexible section to the sounding board.

[Claims 6 to 8 not printed in the Gazette.]

1,239,114. CIRCUIT-BREAKER. FRED H. KROGER, Brooklyn, N. Y., assignor to Samuel M. Kintner and Halsey M. Barrett, receivers for National Electric Signaling Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Aug. 31, 1914. Serial No. 859,431. (Cl. 175—281.)



1. An electric switch having fixed contacts, a reciprocatory shaft carrying a member adapted to bridge said fixed contacts, a spring for biasing said shaft to remove the bridging member from the fixed contacts, means connecting said shaft and spring arranged to permit relative rotary movement but preventing relative longitudinal movement therebetween, means for actuating said shaft to close the switch, and rotatable means arranged to produce axial rotation of the shaft during its retracting movement to vary the position of the contact surfaces of the bridging member and also permitting free movement of said shaft in circuit-closing direction.

2. An electric switch having fixed contacts, a member for bridging said contacts, a shaft upon which said member is mounted, an abutment friction disk adjacent one end of said shaft, means for rotating said friction disk as it moves longitudinally in either direction, means tending to bias the friction disk into engagement with the shaft, means for moving said shaft longitudinally in advance of the friction disk to close the switch, and means for moving said shaft in the opposite direction to open the switch and simultaneously cause it to engage the friction disk and thereby cause rotation of the shaft.

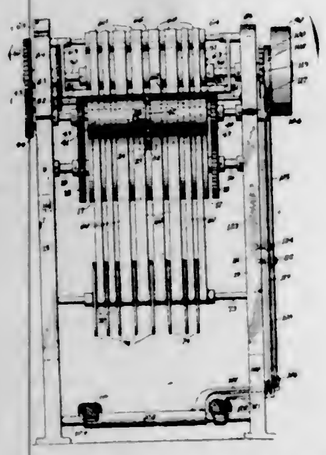
3. An electric switch having a stationary contact, a movable member carrying a contact, coöperating with the stationary contact, means for moving said member to close the switch, and means for biasing said member in the opposite direction to normally maintain the switch open, both of said means being arranged to permit rotative movement of the member, and means normally biased into frictional engagement with said movable member, said latter means being arranged so that it rotates when moved longitudinally, whereby the movable switch member is rotated when moved in a direction to engage said latter means and move the same, said movable member being automatically removed from frictional engagement with the rotary means when moved in the opposite direction due to the retarded longitudinal movement of the rotary means caused by its arrangement for rotary movement.

4. An electric switch having a fixed contact, a movable member carrying a contact adapted to engage said fixed contact, friction means adjacent the member arranged to have both rotary and longitudinal movement and normally biased into engagement with said member, means for moving said member longitudinally at a relatively rapid rate so as to disconnect the member from the friction means and close the switch, said friction means tending to follow said member and subsequently engage the same, and means for moving said shaft in the opposite direction whereby, as the switch is opened, the engagement of the shaft with the friction means causes the shaft to be rotated.

5. An electric switch having a fixed contact, a movable member carrying a contact coöperating with the fixed contact, longitudinally movable means adjacent the movable member arranged to be engaged and moved by said member as it is moved to open the switch, said means being biased to normally engage the movable member, mechanism for causing said means to rotate as it is moved longitudinally, means for moving the movable member longitudinally to close the switch, the mechanism for rotating the means engaging the movable member being arranged to retard the longitudinal movement thereof so that as the movable member is moved it is disengaged from said means and may move freely to close the switch.

[Claims 6 and 7 not printed in the Gazette.]

1,239,115. TOBACCO STRIPPING AND BOOKING MACHINE. BERNARD LIBERMAN, WILLIAM M. REICHART, and JAMES C. WOBENSMITH, Philadelphia, Pa.; said Reichart and said Wobensmith assignors to said Liberman. Filed Aug. 2, 1913. Serial No. 782,586. (Cl. 131—57.)



1. In a device for stemming tobacco the combination of a drum and coöperating belts for clamping the leaf on both sides of the stem and means for then deflecting the stem from the adjacent clamped leaf sections.

2. In a device for stemming tobacco the combination of a drum and coöperating belts for clamping the leaf on both sides of the stem and means for then stripping the stem therefrom.

3. In a device for stemming tobacco the combination of a drum and coöperating belts for clamping the leaf on both sides of the stem and means for then guiding the leaf sections and the stem in divergent paths of travel.

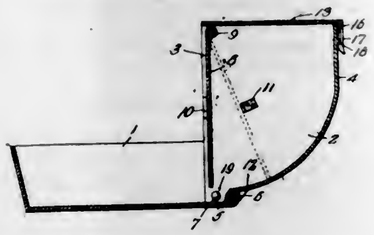
4. In a device for stemming tobacco the combination of a drum and coöperating belts for clamping the leaf on both sides of the stem and means for severing the stem toward the small end or point of the leaf and means for then deflecting the stem from the adjacent clamped leaf sections.

5. In a device for stemming tobacco the combination of a drum and coöperating belts for clamping the leaf on both sides of the stem, means for severing the stem toward the small end or point of the leaf and means for then guiding the leaf with pointed end forward, and the stem in divergent paths of travel.

[Claims 6 to 24 not printed in the Gazette.]

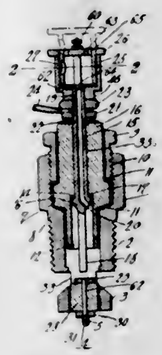
1,239,116. FEED-BOX. AUGUST LINDQUIST, Sisseton, S. D. Filed Sept. 11, 1916. Serial No. 119,568. (Cl. 119—34.)

1. The combination with a feed box having a turned-up flange formed at its open end, a hopper mounted in the open end of the feed box, the end of the bottom wall of the hopper being curved to provide a lip contacting with the upturned flange of the feed box, thereby providing a shelf at the intersection of the feed box and hopper, a swinging closure for the open front of the hopper, the lower marginal edge of the closure being normally disposed in spaced relation to the edge of the said shelf to normally provide a restricted passageway between the interior of the hopper and the feed box.



[Claims 2 and 3 not printed in the Gazette.]

1,239,117. SPARK-PLUG. EDWIN T. MCCALL, Laurinburg, N. C. Filed May 15, 1916. Serial No. 97,587. (Cl. 123—169.)

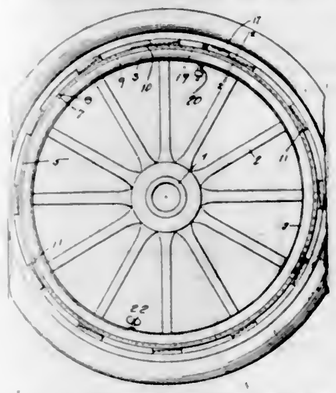


1. A spark plug comprising a body, an annular foot, an arm connecting the body with the foot; a first electrode carried by the foot and extended beneath the foot; a second electrode disposed within the body above the foot; and a striker mounted to reciprocate within the foot, between the electrodes.

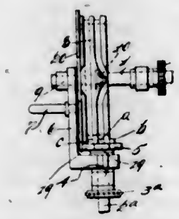
2. A spark plug including a body, an annular foot, an arm connecting the body and the foot; a U-shaped electrode having both of its ends mounted in the foot; a second electrode disposed within the body above the foot; and a striker mounted to reciprocate within the foot between the electrodes, the striker including an insulating element, conducting members adapted to coöperate with the respective electrodes; and a conducting connection uniting the conducting members and passing through the insulating element.

1,239,118. DEMOUNTABLE RIM. HERBERT B. MANNING, Fall River Mills, Cal. Filed Sept. 21, 1915. Serial No. 51,807. (Cl. 152—21.)

In a demountable rim construction the combination with a felly and a band mounted thereon, of a ring slidable upon the band and having a longitudinal slot formed therein, a lug on the band projecting through and above said slot, a plurality of wedge blocks formed at intervals upon the ring, a rim, a plurality of wedge blocks formed upon the inner surface of the rim in opposition to the wedge blocks carried by the ring, and means for securing the ring against movement, said lug forming a stop to the movement of the rim and said ring being adapted to be relatively rotated to lock the ring and rim together when said lug has stopped the rim.



1,239,119. LOCKING DEVICE FOR INTERMITTENT DRIVING MECHANISM. ANTON MEHLFELDER, New York, N. Y. Filed Sept. 12, 1913. Serial No. 789,436. (Cl. 74—41.)



1. The herein described device consisting of a continuously rotating shaft, a cam mounted thereon, an intermittent moving shaft having studs or pins at one end thereof to engage with the cam for the purpose of receiving an intermittent motion from the face of the continuously rotating cam.

2. The herein described device consisting of a continuously rotating shaft, an intermittent moving shaft, a cam mounted on said first mentioned shaft to face with its outer periphery the center of the intermittent shaft, means carried by said intermittent shaft for engaging said cam, and means to tilt said cam without interfering with its regular motion.

3. The herein described device consisting of a continuously rotating shaft, an intermittent moving shaft, a cam mounted on said first mentioned shaft to face with its outer periphery the center of the intermittent shaft, means carried by said intermittent shaft for engaging said cam, and means to tilt said cam without interfering with its regular motion, in combination with a universal joint to connect the continuously rotating shaft with the source of power.

4. The herein described device consisting of a continuously rotating flexible shaft, a cam mounted thereon, an intermittent moving shaft carrying means to engage said cam, a support for said shafts, and means for swinging said shafts to place said intermittent shaft at an angle relative to the continuously rotating shaft without disturbing the engagement between shafts.

5. The combination with a continuously rotating shaft of a second shaft, means actuated by said continuously rotating shaft and engaging said second shaft for intermittently rotating said second shaft, and means for tilting said second shaft relative to said continuously rotating shaft without disturbing the engagement between said shafts.

[Claim 6 not printed in the Gazette.]

1,239,120. FENCE-POST. GEORGE E. MESECAR, Sierra Madre, Cal. Filed Sept. 26, 1916. Serial No. 123,443. (Cl. 256—52.)



1. A sheet metal fence post comprising a recessed outer member having diametrically opposite shoulders extending the entire length thereof, a longitudinal opening between said shoulders and a flange on each side of said opening at right angles to said shoulders, said flanges having diagonally disposed notches formed at intervals therein; and an inner member having a web engaging said shoulders and a flange extending at right angles therefrom intermediate of the flanges on said outer member and provided with a plurality of diagonal notches for registration with and disposed in planes substantially at right angles to the notches in said outer member for receiving and holding the fence wires; and means for locking said inner and outer members together.

2. A sheet metal fence post comprising a semi-cylindrical outer member having diametrically opposite shoulders extending the entire length thereof, a longitudinal opening between said shoulders and a flange on each side of said opening extending at right angles to said shoulders, said flanges having diagonally disposed notches formed at intervals therein; and a sectional inner member having a web engaging said shoulders and a flange extended at right angles therefrom intermediate of the flanges on said outer member and provided with a plurality of diagonal notches for registration with and disposed in planes substantially at right angles to the notches in said outer member for receiving and holding the fence wires; and means for locking said inner and outer members together.

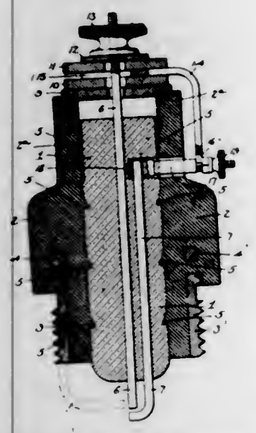
1,239,121. SPARK-PLUG FOR EXPLOSIVE-ENGINES. MARTIN T. MINOGUE, Philadelphia, Pa. Filed June 8, 1916. Serial No. 102,482. (Cl. 123—169.)

1. In a spark plug for explosive engines, a mass of insulating material constituting an integral part of the plug, said mass surrounding the electrode and extending to the casing from which the plug projects, whereby the outer surface of that part of the plug which projects beyond the casing is composed wholly of insulating material.

2. In a spark plug for explosive engines, the combination of a primary or internal insulator surrounding the electrode, with a secondary or external insulator surrounding said primary insulator and consisting of a mass of insulating material extending to the surface of that portion of the engine casing to which the plug is applied, whereby it constitutes the outer surface of all that portion of the plug which projects beyond the engine casing.

3. In a spark plug for explosive engines, a mass of insulating material constituting the external portion of the plug and extending to the engine casing, in combination

with a threaded nipple for screwing into said casing, all that portion of said nipple which projects beyond the casing being embedded in and surrounded by said mass of insulating material.

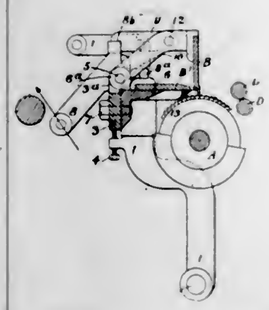


4. A spark plug for explosive engines, said plug having an insulating body and a tubular nipple surrounding the inner end thereof and having a perforated portion embedded in said body of insulating material which also fills said perforations.

5. A spark plug for explosive engines, said plug consisting of a primary insulating member of porcelain and a secondary insulating member surrounding the same and composed of material which is tough and will resist fracture, said secondary member being molded directly onto the primary member.

[Claims 6 to 9 not printed in the Gazette.]

1,239,122. COMBING-MACHINE. JOHN WILLIAM NASMITH, Stockport, England. Filed Aug. 7, 1911. Serial No. 642,724. (Cl. 19—6.)



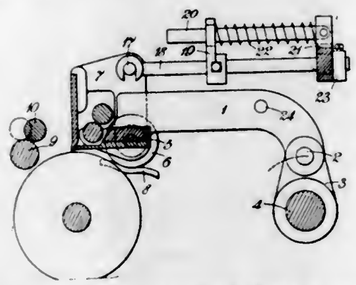
1. As an improvement in combing machines, a pivoted nipper support, a nipper pivotally mounted upon said support and capable of being turned away from the combing cylinder, and means for normally preventing such pivotal movement.

3. As an improvement in combing machines, a nipper support, nipper bridges pivotally mounted upon said support to oscillate on a common axis, nipper jaws carried by the respective nipper bridges, and means for temporarily locking one of said nipper bridges against movement relative to said support.

5. As an improvement in combing machines, a nipper support, nipper bridges pivotally mounted upon said support to oscillate on a common axis, nipper jaws carried by the respective nipper bridges, means for temporarily locking one of said nipper bridges against movement relative to said support, an actuator, and means for normally maintaining an operative connection between the actuator and one of said nipper bridges.

[Claims 2 and 4 not printed in the Gazette.]

1,239,123. COMBING-MACHINE. JOHN WILLIAM NASMITH, Stockport, England. Filed Aug. 7, 1911. Serial No. 642,725. (Cl. 19—6.)

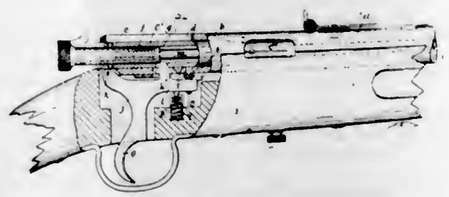


1. In a combing machine provided with the usual combing, feeding and detaching means, a nipper adapted to hold the material during combing, means for actuating the nipper, and means for guiding the nipper during the combing, along a path which changes independently of the movement of the nipper actuating means.

4. In a combing machine provided with the usual combing, feeding and detaching means, a rock shaft, an arm mounted on said rock shaft, a nipper frame pivotally connected at one end to said arm, a nipper carried by the free end of said frame, and means situated between the rock shaft and the nipper for guiding the latter, during the combing, along a path which changes independently of the movement of the nipper actuating means.

[Claims 2 and 3 not printed in the Gazette.]

1,239,124. FIREARM. CHARLES A. NELSON, Utica, N. Y., assignor to Savage Arms Corporation, a Corporation of Delaware. Filed May 15, 1917. Serial No. 168,636. (Cl. 42—16.)



In combination, with a fixed breech-casing including part of a gun, a breech-bolt arranged therein, firing mechanism including a longitudinally movable firing means housed in the breech-bolt and a firing means dogging member movable in said fixed part into and out of dogging relation to said means, and an adjusting screw tapped in said member and having a head abuttable against the breech-casing exteriorly thereof, said breech-casing having a hole registering with the screw-head and means affording access to said hole, on removal of the breech-bolt, to an implement for adjusting said screw.

1,239,125. PROCESS OF OXIDIZING AMMONIA AND CATALYTIC BODIES THEREFOR. CHARLES L. PARSONS, Washington, D. C. Filed Apr. 20, 1917. Serial No. 163,400½. (Cl. 23—1.) (Dedicated to the public.)

2. The process of producing oxids of nitrogen which comprises passing a mixture of ammonia and an oxygen-containing gas over a catalyzer carried on a material containing a phosphate of an alkali earth metal.

4. The process of producing oxids of nitrogen which comprises passing a mixture of ammonia and an oxygen-containing gas over a heated composite material comprising a catalyzer and bone ash as a carrier.

5. The process of producing oxids of nitrogen which comprises passing a mixture of ammonia and an oxygen-containing gas over a heated composite material comprising lead chromate and a carrier which is not substantially chemically affected by lead chromate at a temperature of 1000 deg. C.

6. The process of producing oxids of nitrogen which comprises passing a mixture of ammonia and an oxygen-containing gas over lead chromate carried upon bone ash.

7. As a contact material for use in the oxidation of ammonia a composite material comprising lead chromate and a carrier which is not substantially chemically affected by lead chromate at a low red heat.

[Claims 1, 3, and 8 not printed in the Gazette.]

1,239,126. RELEASING-PENHOLDER. GEORGE W. RAMER, Davis Creek, Cal. Filed Jan. 9, 1917. Serial No. 141,410. (Cl. 120—101.)



1. In a releasing pen holder, the combination with a handle having a ferrule attached to one end thereof and provided with a slot communicating with the free end of the ferrule, and means arranged within the ferrule and adapted to be manually operated for causing the side edges of the slot to be spread apart whereby the pen may be permitted to drop from its position in the end of the said ferrule.

5. In a releasing pen holder, the combination with a handle having a ferrule mounted at one end, the ferrule being provided with a relatively wide slot extending from the open end of the ferrule and slightly flared outwardly at its open end, a sleeve arranged within the end of the ferrule and adapted to engage a pen point embraced by the ferrule, and a clip slightly greater in width than the width of the said slot whereby the edges of the said slot will overlap the edges of the said clip, the said clip being in engagement with the fixed end of the said pen point, and a finger formed at the end of the said clip.

6. A releasing pen holder comprising a ferrule having a handle fixed to one end the said ferrule also having a slot, a clip pivotally mounted and of a width slightly greater than the width of the slot, the clip being mounted to be forced through the slot to distort the open end of the ferrule when the clip is actuated.

[Claims 2 to 4 not printed in the Gazette.]

1,239,127. CHANGER FOR INKING APPARATUS FOR PRINTING-PRESSES. WILLIAM J. RAMSAIER, New York, N. Y. Continuation in part of application Serial No. 101,432, filed June 3, 1916. This application filed July 17, 1916. Serial No. 109,821. (Cl. 101—348.)



...combination of a shaft, an ink distributing roll ... pivoted clamping jaw carried by said shaft and ...th teeth on its outer surface, a locking plate ... teeth adapted to be engaged by the teeth on ...g jaw, and a spring adapted to force the clamp... engagement with the teeth of the locking

2. A changer comprising a changer shaft, a changer roll rotatably mounted thereon, a sleeve secured within said roll to rotate therewith and formed with an internal duplex thread, a crescent switch operating in said thread, a central inwardly extending stem connected to said crescent and projecting into the shaft, a portion of the shaft under said crescent being cut away to form a bearing surface for said crescent and a portion of said shaft being cut away on an arc struck from the center of the stem of the crescent, whereby the crescent ends will contact with the shaft as the said crescent vibrates.

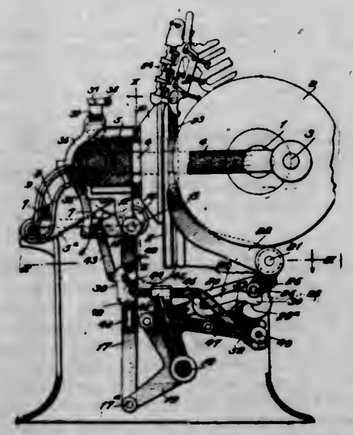
3. A changer comprising a changer shaft, a changer roll rotatably mounted thereon, a sleeve within said roll, means carried by said sleeve adapted to engage the roll to lock the roll and sleeve together, said sleeve being formed with an internal duplex thread, an end ring closing one end of the sleeve, means formed on said ring to engage the sleeve to lock the ring thereto, a locking ring threaded in the end of the changer roll and holding the ring in engagement with the sleeve and a crescent switch pivotally mounted on the shaft and engaging the threads of the sleeve.

4. A changer comprising a changer shaft, a changer roll rotatably mounted thereon, a sleeve within said roll, means carried by said sleeve adapted to engage the roll to lock the roll and sleeve together, said sleeve being formed with an internal duplex thread, an end ring closing one end of the sleeve, means formed on said ring to engage the sleeve to lock the ring thereto, a locking ring threaded in the one end of the changer roll and holding the ring in engagement with the sleeves, a crescent switch pivotally mounted on the shaft and engaging the threads of the sleeve and means for securing the locking sleeve to the end ring.

5. A changer comprising a changer shaft, a changer roll rotatably mounted thereon, a sleeve within said roll, means adapted to engage the roll to lock the roll and sleeve together, said sleeve being formed with an internal duplex thread, an end ring closing one end of the sleeve, means formed on said ring to engage the sleeve to lock the ring thereto, a locking ring threaded in the one end of the changer roll and holding the ring in engagement with the sleeve, a crescent switch pivotally mounted on the shaft and engaging the threads of the sleeves, means for securing the locking sleeve to the end ring, an oil chamber formed within the end ring and the locking ring, and a valved passage in the locking ring communicating with the said oil chamber.

[Claims 6 to 9 not printed in the Gazette.]

1,239,128. PRINTING-PRESS. WILLIAM J. RAMSAIER, New York, N. Y. Filed July 29, 1916. Serial No. 111,999. (Cl. 101—307.)



1. A printing press comprising a printing bed, an inking roller carriage, a bridge, means for rocking said bridge, means for connecting the bridge to the inking roller car-

riage, whereby the said carriage will be moved through the operation of the bridge, a throw-off mechanism connected to the bridge for rendering the printing platen inoperative, a compensating means operated by said throw-off mechanism and automatically maintaining the proper operative relation between the bridge and the carriage operating means, and means operated through the compensating means for disconnecting the bridge from the inking roller carriage when the throw-off mechanism is operated.

2. A printing press comprising a bridge, means for rocking said bridge, a throw-off mechanism, an inking roller carriage, operative means connecting said carriage to the bridge, means for disconnecting the bridge from the inking roller carriage, a movable cam for operating said carriage disconnecting means, and means connecting said cam to the throw-off mechanism whereby the movement of said cam will be controlled through said throw-off mechanism.

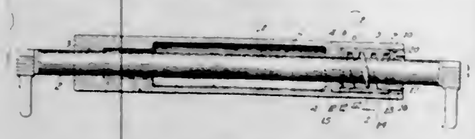
3. A printing press comprising an inking roller carriage, a bridge, means for rocking the bridge, an operating rod connected to the bridge and adapted to be moved vertically as the bridge is rocked, operating means connecting the said rod to the inking roller carriage whereby the rocking of the bridge will move said carriage, means for disconnecting the roller carriage from the operating mechanism, a sliding head mounted on the operating rod, means carried by said head for actuating the carriage disconnecting means, a throw-off mechanism, and means connecting the sliding head to said throw-off mechanism.

4. A printing press comprising a bridge, means for rocking said bridge, an inking roller carriage, a throw-off mechanism connected to the bridge, means for connecting and disconnecting the bridge and the inking roller carriage, a pair of movable cams for operating the said connecting and disconnecting means, and means operatively connecting said cams to the throw-off mechanism whereby the inking roller carriage will be rendered inoperative when the throw-off mechanism is operated, and will be rendered operative when the throw-off mechanism is returned to its normal inoperative position.

5. A printing press comprising a bridge, means for rocking said bridge, a throw-off mechanism, an inking roller carriage, operative means for connecting said carriage to the bridge, a pair of reciprocable rods, means operated by said rods for connecting and disconnecting the bridge and the inking roller carriage, means for operating one of said rods to disconnect the bridge and the inking roller carriage when the throw-off mechanism is operated, and means for operating the other rod to connect the bridge and the inking roller carriage when the throw-off mechanism is returned to its normal inoperative position.

[Claims 6 to 19 not printed in the Gazette.]

1,239,129. INK-DISTRIBUTER. WILLIAM J. RAMSAIER, New York, N. Y. Filed Mar. 23, 1917. Serial No. 156,829. (Cl. 101—348.)

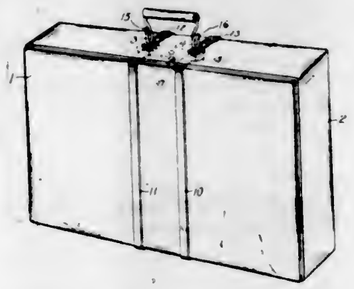


1. In a device of the class described, the combination of a shaft, a crescent switch having a bearing in said shaft, an ink-distributing roll revolubly and slidably mounted on said shaft and formed with a chamber at one end, a sleeve fitting in said chamber and surrounding the shaft, said sleeve being provided with an internal duplex thread in which said crescent switch operates, means engaging complementary grooves in said sleeve and the inner wall of said chamber for locking the sleeve to the roll to rotate therewith, and means for confining the sleeve within said chamber.

15. A changer comprising a changer shaft, a changer roll rotatably mounted on said shaft and formed with a chamber at one end, a sleeve rigidly secured in said chamber and rotating with the changer roll and formed with an internal duplex thread, a closure ring at one end of said sleeve, and a crescent switch on the shaft and operating in the duplex thread.

[Claims 2 to 14 not printed in the Gazette.]

1,239,130. HANDLE ATTACHMENT FOR SUIT-BOXES. JULIUS SCHUMAN, San Francisco, Cal. Filed Nov. 6, 1915. Serial No. 59,988. (Cl. 190—57.)



1. In combination, the upper side of the inner member of a two-member suit box having two holes therethrough, a plate attached on the interior of said upper side of said inner member having two holes registering with said two holes in said inner member, two eyebolts one fastened in each of said registering holes in said plate and inner member the eye ends of which are outside, the upper side of the outer member of said two-member suit box having two slots through which the eye ends of said eyebolts enter when said suit box members are in operative relation, and a handle having hooks removably engaged with said eyebolts.

2. In combination, the upper side of the inner member of a two-member suit box, having two holes therethrough, a plate attached on the interior of said upper side of said inner member having two holes registering with said two holes in said inner member, two eyebolts one fastened in each of said registering holes in said plate and inner member the eye ends of which are outside, the upper side of the outer member of said two-member suit box having two slots through which the eye ends of said eyebolts enter when said suit-box members are in operative relation, two tapes the inner end of each of which is engaged with one of said eye bolts on top of said inner member and the outer end of each of which has a slot engageable with one of said eyebolts on top of said outer member when said members are in operative relation, and a handle having hooks removably engaged with said eyebolts.

3. In combination, the upper side of the inner member of a two-member suit box having two holes therethrough, a plate attached on the interior of said upper side of said inner member having two holes registering with said holes in said inner member, an eyebolt attached to said plate with its eye end extending inward, two eyebolts one fastened in each of said registering holes in said plate and inner member the eye ends of which are outside, the upper side of the outer member of said two-member suit box having two slots through which the eye ends of said eyebolts enter when said suit-box members are in operative relation, and a handle having hooks removably engaged with said eyebolts.

4. A suit box attachment comprising a plate having eye members projecting above and below the same, two of said members being used for connecting the plate to the said box, tapes connected to two of the eye members, said tapes having resilient ends adapted to be passed around the suit box and connected to the eye members, and a handle for surrounding the suit box.

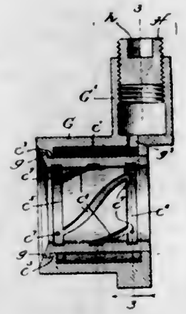
1,239,131. SCREW-DRIVER. IRA D. SHAY, Baltimore, Md. Filed July 25, 1916. Serial No. 111,259. (Cl. 145—50.)

2. A screw-driver, comprising a shank having a series of laterally extended blades arranged circumferentially around the shank, one of the said blades running lengthwise of the shank, the opposite blade crosswise thereof, and the alternate blades obliquely thereto, whereby when the shank is arranged at right angles to the axis of a screw to be turned the said several blades may be successively used one after another to turn the screw one-half turn within a forty-five degree arc of movement of the screw-driver.



[Claims 1 and 3 not printed in the Gazette.]

1,239,132. LUBRICATING-GLAND FOR STUFFING-BOXES. BERT H. SMITH, Fairbury, Nebr., assignor to Willbert Manufacturing Company, Fairbury, Nebr., a Corporation. Filed Dec. 28, 1916. Serial No. 139,323. (Cl. 137—115.)



1. The combination with a stuffing box, of a lubricating gland extending within the outer portion of said stuffing box for holding packing in place about the rod to be lubricated, said gland having an annular chamber therein extending substantially from end to end thereof, the inner wall of said chamber being perforated to permit the passage of grease therethrough and having its inner face provided with grooves for distributing the grease from end to end of said gland, said gland having a grease cup at its outer end and a screw plug in said grease cup for forcing grease into said chamber and through said perforations into said grooves.

2. A lubricating gland adapted to fit within the outer portion of a stuffing box for holding packing in place about the rod to be lubricated, said gland having an interior annular chamber extending substantially from end to end thereof, a bushing interlocked with and adapted to be held in place by said gland, said bushing forming the inner wall of said chamber and having perforations therein for the passage of lubricant and also having lubricant distributing grooves on its inner face, said gland having means for forcing grease from said chamber and through said perforations into said grooves.

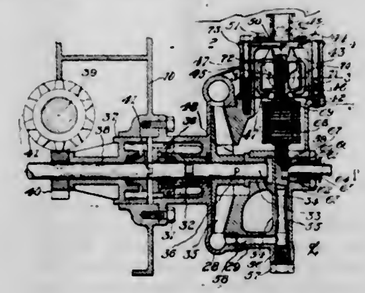
3. A lubricating gland comprising a casting having an interior annular chamber extending substantially from end to end thereof, a removable bushing forming the inner wall of said chamber and extending from end to end of said gland, said bushing having holes therein to permit lubricant to pass from the chamber of the gland to the body to be lubricated, the bushing being interlocked with said gland to hold said bushing against outward movement while leaving it free to be withdrawn from the inner end of the gland.

4. A lubricating gland comprising a casting having an interior annular chamber extending substantially from end to end thereof and provided at its opposite ends with inwardly projecting annular ribs and an interior bushing of anti-friction metal forming the inner wall of said gland, said bushing extending from end to end of the gland and inside of and engaging said annular ribs and being provided with holes to permit the passage through the bushing of lubricant from said chamber.

5. A lubricating gland having its exterior surface shaped to fit within the stuffing box of a cylinder head and having an interior annular chamber extending substantially from end to end thereof, the inner wall of said chamber being perforated to permit the passage of grease therethrough and having its inner face provided with distributing grooves at its opposite ends and with intermediate grooves connecting said distributing grooves.

[Claims 6 to 8 not printed in the Gazette.]

1,239,133. HYDROCARBON-MOTOR. LYLE K. SNELL, Detroit, Mich., assignor to Cadillac Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Nov. 17, 1915. Serial No. 61,899. (Cl. 123—175.)



1. In a liquid chamber provided with an inlet and a drain port, in combination with valves for controlling said ports, of means connecting said valves whereby the inlet port is always opened when said drain port is opened.

5. In a pump chamber, provided with a plurality of intake ports, a discharge port and a drain port, the combination of valves controlling the passage of liquid therethrough, thermal controlled means for operating one of said valves, and manual means for operating the valve controlling the drain port, said manual means also being adapted to control said other valves so that all ports to the chamber are open when said drain port is open.

10. In a liquid chamber having a port, the combination of a valve for said port, a thermostat for operating said valve, means for effecting a relative adjustment between said valve and thermostat and means for adjusting the position of said thermostat.

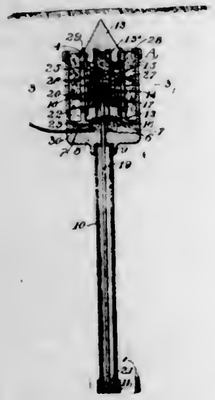
15. In an internal combustion engine, the combination with a cylinder jacket, a radiator, a connection between the radiator inlet and the jacket outlet, a chamber provided with a plurality of inlet ports and a discharge port, and valves for controlling the passage of liquid therethrough, of thermo-controlled means for operating an inlet valve, manually operated means for operating the valve controlling the drain port, said manual means also being adapted to control said other valves, so that all inlet ports in the chamber are open when the discharge port is unrestricted, a connection between the radiator outlet and one of said inlet ports, a by-pass around said radiator

and connected with the other inlet port, and a connection between the chamber and the jacket inlet.

[Claims 2 to 4, 6 to 9, 11 to 14, and 16 to 18 not printed in the Gazette.]

1,239,134. GAS AND SHRAPNEL LAND-MINE. JOHN R. STEEL, San Francisco, Cal. Filed July 5, 1916. Serial No. 107,541. (Cl. 102—2.)

1. A gas and shrapnel land mine, comprising a container having an annular and a central chamber formed therein, together with communicating ports, said central chamber adapted to receive a shrapnel bomb and an explosive charge for its expulsion and said annular chamber adapted to receive a substance which, when ignited, generates and liberates a gas, means for igniting the explosive charge to expel the bomb and to ignite the substance contained in the annular chamber, and means for exploding the bomb after expulsion and at a predetermined elevation.



2. A gas and shrapnel land mine comprising a container having an annular and a central chamber formed therein, together with communicating ports, said central chamber adapted to receive a shrapnel bomb and an explosive charge for its expulsion and said annular chamber adapted to receive a substance which when ignited, generates and liberates a gas, means for igniting the explosive charge to expel the bomb and to ignite the substance contained in the annular chamber, means connecting the bomb with the container to limit the height of projection and to explode the bomb.

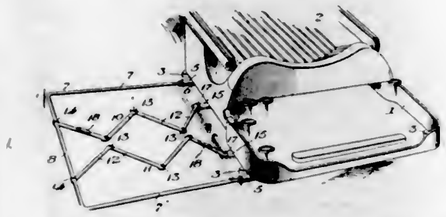
3. A gas and shrapnel land mine comprising a container, having an annular and a central chamber formed therein, together with communicating ports, said central chamber adapted to receive a shrapnel bomb and an explosive charge for its expulsion and said annular chamber adapted to receive a substance which when ignited, generates and liberates a gas, means for igniting the explosive charge to expel the bomb and to ignite the substance contained in the annular chamber and a detonating rod and head connecting the bomb with the container to limit the height of projection and to explode the bomb.

4. A mine comprising a receptacle, having a chamber formed therein to receive a projectile, an explosion chamber formed in the receptacle below the projectile, a gas producing chamber in the receptacle around the projectile, and means whereby on the firing of the mine the projectile is discharged and the contents of the gas producing chamber are liberated.

5. A gas and shrapnel land mine, comprising a container having a chamber formed therein for the reception of a shrapnel bomb, and a chamber for the reception of a substance capable of generating and liberating a gas, means for discharging the bomb, and means for generating and liberating gas after the bomb is discharged.

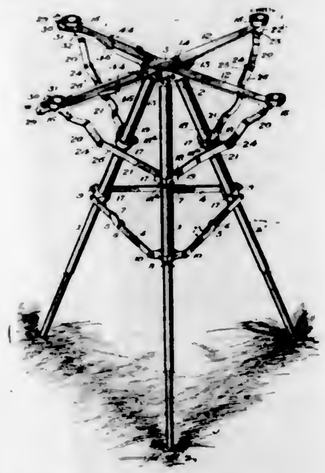
[Claims 6 and 7 not printed in the Gazette.]

1,239,135. EXTENSION-LEAF FOR TYPE-WRITERS. HARRY A. STONE, Philadelphia, Pa., assignor to Folding-Stand Company, Inc., New York, N. Y., a Corporation of New York. Filed May 14, 1913. Serial No. 767,691. Renewed Jan. 22, 1917. Serial No. 143,842. (Cl. 45—90.)



An attachment for a typewriter frame, embodying an extension leaf consisting of slide rods slidably mounted on the frame, and a system of extensible articulated arms movable with the slide rods.

1,239,136. FOLDING TABLE. HARRY A. STONE, Philadelphia, Pa., assignor to Folding-Stand Company, Inc., New York, N. Y., a Corporation of New York. Filed Oct. 20, 1913. Serial No. 796,288. Renewed Jan. 20, 1917. Serial No. 143,506. (Cl. 45—117.)



1. In a folding table, the combination with a head or center member, of foldable supporting legs pivotally connected thereto, a table top composed of foldable arms jointed to the head and adapted to fold alongside the legs and independent foldable braces for each arm composed of sections pivoted to the respective arms and legs and connected by a joint which is adapted to hold the sections in angular relation to each other when extended, said braces being arranged to fold along an outer side of the respective arms to permit the arms to fold close to the legs.

2. In a folding table, the combination with foldable supporting legs arranged as a tripod, of foldable arms constituting a foldable table top, and independent braces interposed between the respective legs and arms, composed of jointed members or parts, one of which has a stop overlapping and engaging the other part of the brace, said braces being arranged to fold along an outer side of the respective arms to permit the arms to fold close to the legs.

3. In a folding table, the combination with an arm forming part of the table top thereof, of an extension leaf composed of articulated sections adapted to fold upon

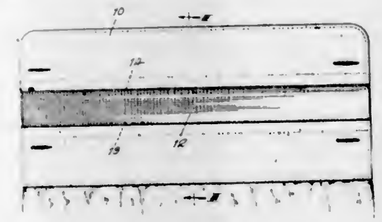
said arm, and a movable retainer carried by said arm which is adapted to be engaged with the extension leaf to hold it upon the arm when the sections of said leaf are folded.

4. In a folding table, the combination with an arm forming part of the table top thereof, of a U-shaped retainer carried by the arm and adapted to swing in relation thereto, and an extension leaf adapted to fold upon said arm and to be held by said U-shaped retainer when folded.

5. In a folding table, the combination with the top thereof comprising foldable arms, of a two-part extension leaf whose parts are pivoted to two of said arms, said parts being adapted to fold on said arms, and stops on the arms adapted to coöperate with the parts of said extension leaf to limit its position when extended.

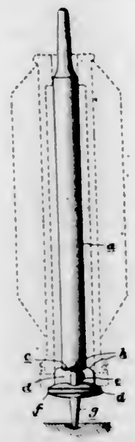
[Claims 6 to 9 not printed in the Gazette.]

1,239,137. SHIRT-CUFF. CORNELIA MCCUE SUSSMAN, Long Branch, N. J. Filed Mar. 21, 1917. Serial No. 156,405. (Cl. 2—79.)



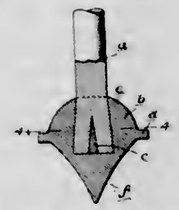
A shirt cuff, comprising a body adapted to be folded so that one of its halves overlaps the other half, and a strip of the same material and of the same pattern as the body arranged thereon so that when folded the strip will provide a wearing surface, and the strip being chain-stitched to the body so as to be removable therefrom.

1,239,138. BOBBIN-SKEWER. ANDREW TAYLOR, Goldville, S. C., assignor to Clinton Cam Company, Clinton, S. C., a Corporation of South Carolina. Filed Feb. 2, 1916. Serial No. 75,706. (Cl. 242—130.)



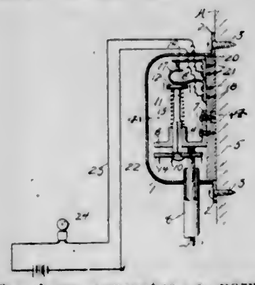
In a skewer, the combination of a wooden staff, a metal [illegible] fitted on the lower end thereof and provided with [illegible] a screw passed through said hole into the part of [illegible] staff inclosed in the socket, said socket being provided [illegible] an integral supporting flange and a depending bearing and also with vertical radial ribs for centering [illegible] spool.

1,239,139. BOBBIN-SKEWER. ANDREW TAYLOR, Goldville, S. C., assignor to Clinton Cam Company, Clinton, S. C., a Corporation of South Carolina. Filed June 12, 1916. Serial No. 103,141. (Cl. 242—130.)



In a skewer, a wooden staff; an all-metal head provided with a downwardly-enlarged socket in its upper side adapted to fit the staff at its upper end; and a wedge-shaped device in the bottom of the socket entering the lower end of the stuff to spread the same to fit the enlarged portion of the socket.

1,239,140. FIRE-ALARM APPARATUS. ALBERTO TORCHIO, Oyster Bay, N. Y. Filed Jan. 12, 1917. Serial No. 142,015. (Cl. 200—33.)



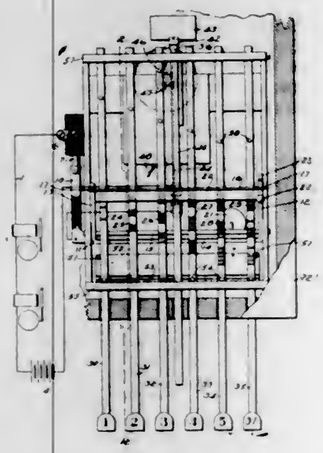
1. In fire-alarm apparatus, a normally-open electric circuit including an audible alarm operable upon closing of the circuit, a stationary electrical contact-carrying member, a spring contact-carrying member normally out of engagement with said stationary contact-carrying member, a movable stem engaging said spring contact-carrying member, a bracket in which said stem is guided in its movements, a base-member carrying said bracket, a plate carried at the lower end of said stem and beneath said bracket, a spring for moving said stem and for thereby flexing said spring-contact carrying member into contact with said stationary contact-carrying member, a shell inclosing said contact-carrying members, the bracket, the plate, and the spring and having an open end closed by said base-member, and a combustible fuse, one end of which is interposed between said plate and said bracket, said fuse projecting through said shell.

[Claims 2 and 3 not printed in the Gazette.]

1,239,141. ELECTRIC SIGNALING APPARATUS. FRANK S. TUCKER, Boston, Mass., assignor of one-half to Edwin P. Severance, Brockton, Mass. Filed Apr. 25, 1913. Serial No. 763,542. (Cl. 177—337.)

1. Electric signaling apparatus having, in combination, an electric circuit including one or more alarm devices, a plurality of independently movable, manually operable actuators which are adapted to be moved singly, controlling means for causing the actuators to return slowly to their original positions, and connections between the actuators and the electric circuit including a movable electric contact, a set of teeth connected to each actuator, and a ratchet for engaging the teeth allowing them to move freely past the ratchet when the actuator is manually moved in one direction, but operating when the actuator is returning to its original position to move the electric contact to cause a predetermined code signal to be produced by the alarm devices.

2. Electric signaling apparatus, having in combination, an electric circuit including one or more alarm devices and a selective signal producing device for controlling said circuit including a plurality of sets of teeth and contacting means coöperating therewith, the teeth of each set being arranged for a distinctive code signal and mechanism including a plurality of independently movable actuators each actuator having one set of teeth carried thereby and manually operable in one direction, means for causing a slow return movement of the actuators, and connections for operating the contact means to close the circuit upon the return movement of an actuator to cause a code signal predetermined by the arrangement of the teeth to be produced by the alarm devices.



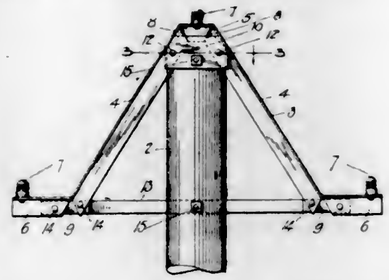
3. Electric signaling apparatus, having in combination, an electric circuit including one or more alarm devices, a plurality of independently movable manually operable actuators adapted to be lifted singly, means for controlling the return movement of the actuators to initial position, connections between the actuators and the circuit for causing predetermined code signals to be produced by the alarm devices upon the return movement of the actuators, and means operated by the control mechanism for opening the electric circuit when an actuator has been returned to initial position.

4. Electric signaling apparatus having, in combination, an electric circuit including one or more alarm devices, a plurality of independently movable, manually operable drop bars adapted to be lifted singly, controlling means for causing the drop bars to return slowly to their original positions after they are lifted, and connections between the drop bars and the electric circuit including a movable electric contact, a set of teeth connected to each drop bar, and a ratchet for engaging the teeth allowing them to move freely when the drop bar is raised but operating when the drop bar descends to move the electric contact and cause a predetermined code signal to be produced by the alarm devices.

5. Electric signaling apparatus having, in combination, an electric circuit including one or more alarm devices, a plurality of independently movable, manually operable drop bars placed side by side, bearing sets of teeth and arranged to be lifted singly, a controller for causing the drop bars to descend slowly after they are raised, a lever bearing a ratchet plate which extends across the drop bars in position to be engaged and moved by the teeth when a bar descends, and an electric contact controlling the electric circuit connected with the lever and moved thereby when a drop bar descends to cause a predetermined code signal to be produced by the alarm devices.

[Claims 6 to 9 not printed in the Gazette.]

1,239,142. CROSS-ARM. EDMOND C. VAN DIEST, Colorado Springs, Colo., assignor to the Associated Engineers Company, a Corporation of Colorado. Filed Dec. 15, 1915. Serial No. 67,008. (Cl. 189—33.)



1. A cross-arm comprising a body element composed of a continuous piece of angle-metal incised at one of its flanges and bent at its points of incision to provide a pair of convergent side-members connected at one of their ends and branch members projecting oppositely at the other ends of the side members, and a brace element secured transversely of the body-element and adapted to embrace a pole against which said body-element is disposed.

2. A cross-arm comprising a body element composed of a continuous piece of angle-metal incised at one of its flanges and bent at its points of incision to provide a pair of convergent side-members connected at one of their ends and branch-members projecting oppositely at the other ends of the side members, a plate reinforcing the side members at the point of their connection, and a brace-element secured transversely of the body-element and adapted to embrace a pole against which said body-element is disposed.

3. A cross-arm comprising a body-element composed of a continuous piece of angle-metal incised at one of its flanges and bent at its points of incision to provide a pair of convergent side-members connected at one of their ends, and branch-members projecting oppositely at the other ends of the side members, and a brace-element secured across the joints between the side-members and the branch members of the body-element and adapted to embrace a pole against which said body-element is disposed.

4. A cross-arm comprising a body-element composed of a continuous piece of angle-metal incised at one of its flanges and bent at its points of incision to provide a pair of convergent side-members, a cross-member connecting the side-members at one of their ends, and branch-members projecting oppositely at the other ends of the side-members, and a brace-element secured across the joints between the side-members and the branch members of the body element and adapted to embrace a pole against which said body-element is disposed.

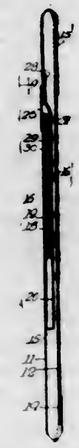
5. A cross-arm comprising a body-element composed of a continuous piece of angle-metal incised at one of its flanges and bent at its points of incision to provide a pair of convergent side-members, a cross-member connecting the side-members at one of their ends, and branch-members projecting oppositely at the other ends of the side-members, a plate secured across the joints between the cross-member and the side-members of the body element, and a brace-element secured across the joints between the side-members and the branch-members of the same and adapted to embrace a pole against which said body-element is disposed.

[Claims 6 to 10 not printed in the Gazette.]

1,239,143. COIN SAVINGS-RECEPTACLE. VANDIVER J. VAN HORN, Chicago, Ill. Filed Aug. 28, 1916. Serial No. 117,145. (Cl. 229—8.5.)

1. In a coin receptacle, the combination of an envelop having a front wall with a coin slot formed therein near the upper end thereof, and a coin chute having relatively

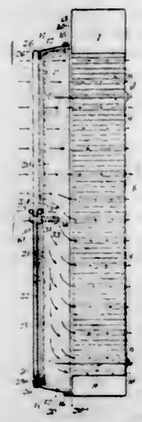
stiff front and back walls, the front wall of the chute being secured to the front wall of the envelop below the slot and the upper end portion of the back wall of the chute being secured to the front wall of the envelop above the slot.



2. In a coin receptacle, a coin trap, comprising a chute made of flexible material divided into a plurality of fingers at its free end, the fixed end communicating with a coin opening in the receptacle and a pair of flexible blades normally in contact and within said chute extending above the fingers and terminating below said coin opening.

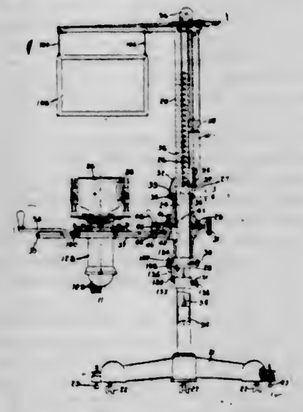
3. In a coin receptacle, a coin trap comprising a flexible chute divided into a plurality of fingers at its free end, the fixed end communicating with a coin opening in the receptacle and a pair of flexible blades normally in contact and within said chute, pointed at their lower ends, extending from a point above the fingers and terminating below said coin opening.

1,239,144. RADIATOR-SHIELD FOR AUTOMOBILES. ALFRED WAGSTAFF, Jr., New York, N. Y. Filed Feb. 24, 1915. Serial No. 10,279. (Cl. 257—132.)



In combination in a radiator shield for automobiles, a [illegible] portion adapted to be connected with such radiators [illegible] portion including an outstanding fixed portion [illegible] be held a substantial distance away from such [illegible] an insulating lining covering substantially the [illegible] face of said shield, a pivotally supported mov[illegible] a pivot connecting the fixed and movable por[illegible] channel-shaped annulus on the fixed portion [illegible] edge portion of the movable portion and [illegible] serve as a guide for said movable portion dur[illegible] thereof on said pivot.

1,239,145. X-RAY APPARATUS. JULIUS B. WANTZ, Chicago, Ill., assignor, by mesne assignments, to Victor Electric Corporation, Chicago, Ill., a Corporation of New York. Filed Jan. 29, 1914. Serial No. 815,201. (Cl. 250—34.)



6. In X-ray apparatus, the combination of an upright support, a laterally-extending member on said support having guide-ways spaced apart, a member engaging said guide-ways and adjustable lengthwise of the latter, a second member axially adjustable on said first named member with said axis at an angle to said guide-ways, and a third member pivotally supported on said second member, for the purpose set forth.

15. In X-ray apparatus, the combination of an upright support, a laterally-extending tube-supporting member mounted on said support to be adjusted up and down thereon and about the latter, and indicator means on said member adjustable about the axis of the latter and coöperating with said support for indicating the height at which said member extends, for the purpose set forth.

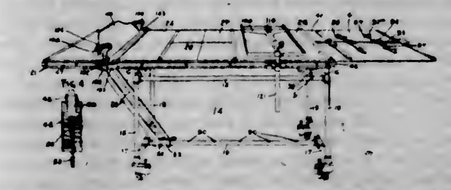
22. In X-ray apparatus, the combination of an X-ray tube holder, a suitably supported ray-confining tube secured to said holder, and a presser member extending across the outer end of said tube and formed of material transparent to X-rays.

24. In X-ray apparatus, the combination of means for supporting an X-ray tube, a relatively stiff finder device, and means for supporting said device on said first-named means to cause said finder device to project in radial direction from said tube.

30. In apparatus of the character set forth, the combination of a support, a fluorescent screen supported thereby to extend at one side of said support, an X-ray tube holder mounted on said support to extend at one side thereof and opposite said screen and having free universal movement in a vertical plane relative to said screen.

[Claims 1 to 5, 7 to 14, 16 to 21, 23, 25 to 29, and 31 to 49 not printed in the Gazette.]

1,239,146. X-RAY TABLE. JULIUS B. WANTZ, Chicago, Ill., assignor, by mesne assignments, to Victor Electric Corporation, Chicago, Ill., a Corporation of New York. Filed Feb. 16, 1914. Serial No. 818,926. (Cl. 250—34.)



1. In apparatus of the character set forth, the combination of a base, a table-top fulcrumed thereon, means for holding said table-top in inclined position on said base, a

plate-carrier movably mounted on said table-top, means for shifting said carrier, cushioning means for said carrier, and means operating automatically to adjust the action of said cushioning means upon the act of moving said table-top to inclined position.

5. In apparatus of the character set forth, the combination of a base, a movably-supported plate-carrier on said base, means for shifting said carrier on said base, and a trigger device for releasably holding said carrier in a predetermined position and in opposition to said means, transferable from one side of said base to the other side thereof.

12. In apparatus of the character set forth, the combination of a base, a table-top thereon, a carriage movably supported on said table-top, and a slide, adapted to have plates applied thereto, telescoping with said carriage.

17. In apparatus of the character set forth, the combination of a base, a table-top thereon, a carriage in the form of a frame telescoping with said table-top, and guided thereon at its edges, and a plate-holding slide telescoping with said carriage.

21. In apparatus of the character set forth, the combination of a table having a longitudinally-extending guide at one side, a block engaging said guide and adjustable lengthwise thereof, an upright vertically adjustable on said block, a head pivotally mounted on said upright, a rod longitudinally adjustable on said head, and a plate-holding member pivotally supported on said rod.

[Claims 2 to 4, 6 to 11, 13 to 16, 18 to 20, and 22 to 30 not printed in the Gazette.]

1,239,147. DRAFT-EQUALIZER. FREDERICK C. WARNE, Mansfield, Ohio, assignor to Roderick Lean Manufacturing Company, Mansfield, Ohio, a Corporation of New Jersey. Filed Nov. 30, 1915. Serial No. 64,228. (Cl. 97—4.)



1. A draft equalizer, comprising a sheave carrying transverse bar, a plurality of depending flexibly connected drop hitch members, a flexible equalizing cable carried by said sheave carrying bar and provided with depending loops extending within said drop hitch members, sheaves carried by said drop hitch members, and floating pulleys carried in said depending loops and provided with draft cables extending over said sheaves in said drop hitch members.

2. In a draft equalizer, the combination with a cultivator frame provided with a transversely extending flexible equalizing cable having depending end and intermediate loops, and flexible draft appliances connected to said end and intermediate loops; of end equalizing cable and sheave carrying extensions detachably connected to said flexible equalizing cable and cultivator frame, respectively, said end equalizing cable extensions being provided with loops connected to said sheave carrying extensions and passing over the sheaves thereof.

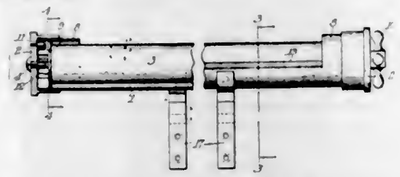
3. In a draft hitch for cultivators, the combination with a cultivator frame provided at its front with a transversely extending sheave carrying bar and drop hitch members, and a flexible equalizing cable and draft cable members carried by said sheave carrying bar and drop hitch members, respectively, in coöperative relation to each other, of bar and equalizing cable extensions connected to said cultivator frame and equalizing cable respectively, said bar extensions being provided with sheaves and said cable extensions being secured to said bar extensions and provided with loops extending over said last mentioned sheaves.

4. A draft equalizer, comprising a transversely extending sheave carrying bar, pivotally mounted drop hitch members extending from the end and intermediate portions of said bar, a transversely extending flexible equalizing cable carried by said sheave carrying bar and provided with depending end and intermediate loops within said drop hitch members, sheaves mounted within the lower ends of said drop hitch members, and floating pulleys mounted in said depending loops and provided with draft cables extending over said sheaves in said drop-hitch members.

5. In a convertible draft equalizer, a sheave carrying bar provided with a flexible equalizing cable provided with a plurality of depending loops, and a plurality of depending movable hitch members provided with sheaves below said depending loops, draft equalizer members carried by said drop hitch members, and floating pulleys mounted in said depending loops and provided with draft cables extending over said sheaves in said drop hitch members; of sheave and loop carrying bar and equalizer cable extensions detachably connected to the ends of said equalizer cable and sheave carrying bar in coöperative relation to the same.

[Claims 6 to 12 not printed in the Gazette.]

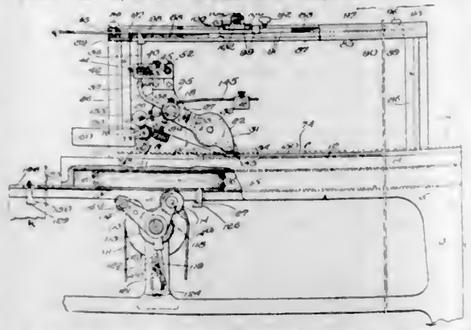
1,239,148. FLY-CATCHER. HERMAN OTTO WENDE, Chicago, Ill. Filed July 24, 1912. Serial No. 711,236. (Cl. 43—22.)



1. An insect trap comprising a trough-shaped body provided with a cylinder at each end, a cap covering the outer end of each cylinder, a trap-cylinder mounted in the trough having its ends extended into said trough-cylinder, each end of the trap-cylinder being provided with a circumferential flange fitting the adjacent trough-cylinder, and bearings for the trap-cylinder beyond said flange.

2. In an insect trap, an elongated trough, said trough being provided with a short cylinder at each end, whose outer end is closed, a cylinder extending the length of said trough and lying within it and having its ends extended into said short cylindrical trough-ends, means for supporting the elongated cylinder within the cylindrical trough ends, means for manually rotating the elongated cylinder, and an insect scraper extending along one edge of the trough.

1,239,149. MACHINE FOR APPLYING METALLIC LEAF. LUCIUS B. WEYMOUTH, Hyde Park, Mass. Filed Oct. 6, 1913. Serial No. 793,512. (Cl. 41—7.)

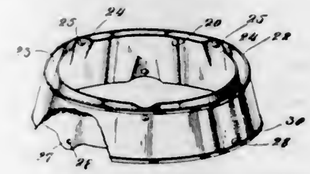


1. A machine for applying metallic leaf comprising a series of traveling pressure applicators, means for supplying metallic leaf thereto, means for traversing said applicators simultaneously, and means irrespective of the distance said applicators are traversed for limiting the traverse strokes of one or more of said applicators.

25. In a machine for applying metallic leaf the combination of a movable carrier, means thereon for supporting a package roll of metallic leaf, with means including a positively driven feed roller carried by said carrier for feeding the paper strip from the package roll to apply the leaf at the same relative speed as the travel of said carrier.

[Claims 2 to 24 not printed in the Gazette.]

1,239,150. GAS-THIMBLE. THEODORE E. WILLIAMS and MARCUS B. BAILEY, New York, N. Y. Filed Dec. 30, 1916. Serial No. 139,718. (Cl. 126—215.)

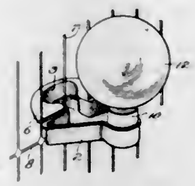


1. In a device of the class described, a pair of spaced concentric rings formed of imperforate sheet metal, and means for securing said rings together both of said rings being open at the top and bottom.

2. In a device of the class described, in combination, a pair of portable plate rings, each presenting open conic frustums, having straight imperforate walls, means for securing said rings rigidly together, and a reinforcing element formed with the outer of said rings.

3. In a device of the class described, an endless imperforate band formed to resemble a conic section, a second imperforate band arranged interiorly of the first named band, ears formed with said second band at the top and bottom thereof, said ears being bent outwardly and contacting with the inner surface of said outer band, means for rigidly engaging said ears to said outer band, and a reinforcing element formed with said outer band, both of said bands being wholly open at the top and bottom and constituting a portable structure.

1,239,151. DRINKING-FOUNTAIN. GEORGE ADAMS WOODS, Winchester, Mass. Filed June 6, 1916. Serial No. 102,080. (Cl. 119—18.)



1. A drinking fountain comprising a trough having two [illegible] portions adapted respectively to be located [illegible] without a bird cage and connected by a relatively narrow neck, with slots extending transversely in [illegible] sections from said neck and passing through [illegible] from top to bottom, the outer ends of said slots open and their inner ends being adapted to receive wires of the cage and lock the trough thereto in operative position, the depth of the inner portion of the trough being such as to permit the latter to be [illegible] from said wires when turned at right angles to [illegible] position, a reservoir carried by the outer [illegible] of the trough and arranged to supply the same [illegible] at a constant level, and means on the trough [illegible] the cage and thereby preventing the trough [illegible]

[illegible] printed in the Gazette.]

1,239,152. ART OF MOLDING. H. WALTER ALEXANDER, Sac City, Iowa, assignor of one-half to B. R. Greenblatt, Omaha, Nebr. Filed Mar. 31, 1916. Serial No. 87,998. (Cl. 22—188.)

1. An improvement in the art of molding, which consists in forming a mold by comminuting a quantity of clay, moistening the same with phosphoric acid, fashioning the same around a pattern, and removing the pattern.

2. An improvement in the art of molding, which consists in the mthod of forming a mold by, first, comminuting a quantity of suitable substance, then, moistening the substance with phosphoric acid, then, fashioning the moistened substance around a pattern, then, removing the pattern and, finally, driving off the volatile content of the phosphoric acid by drying the fashioned composition.

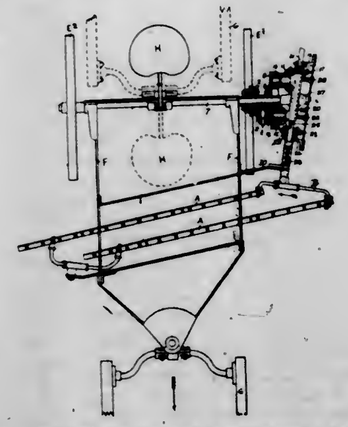
3. An improvement in the art of molding, which consists in forming a mold by, first, pulverizing a quantity of clay, then, moistening the pulverized clay with phosphoric acid, then, fashioning the resultant composition around a pattern, then, removing the pattern and, finally, drying the fashioned composition.

4. An improvement in the art of forming molds, which consists in comminuting a quantity of suitable substance such as clay or steatite, then, moistening the substance with phosphoric acid, then, fashioning the resultant composition and, finally, drying the resultant composition, whereby the volatile content of said acid is driven off through the substance and causes the mold, so formed, to become porous in hardening.

5. An improvement in the art of forming molds, which consists in moistening a quantity of clay with phosphoric acid and permitting it to harden into desired shape by evaporation of the volatile content of the phosphoric acid, whereby the escape of said volatile content from said acid causes said mold to become porous.

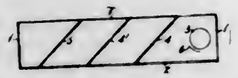
[Claim 6 not printed in the Gazette.]

1,239,153. COMBINED SIDE-DELIVERY HAY RAKE, TEDDER, AND SWATH TURNER. JOSEPH BAMFORD and CYRIL JOSEPH BAMFORD, Uttoxeter, England. Filed June 16, 1915. Serial No. 34,391. (Cl. 56—3.)



A side delivery rake of the type wherein a series of rake bars are carried by and between two eccentrically placed revolving reels or equivalents and have combined rotary and endwise movements imparted to them across the path of the machine the tines always pointing toward the ground at every part of their revolution, each of the said rake bars being formed with a gap or bridge at about its center and above its points of suspension and having tines only at each side of the said gap or bridge to serve for swath turning, in combination with one or more make-up pieces furnished with tines to be fixed to the rake bar across the said bridge or gap to then form a continuous rake bar for side raking or tedding, substantially as set forth.

1,239,154. ILLUMINATED SIGN OR ADVERTISEMENT. WEBSTER JOHN BAVILLE, Holloway, London, England. Filed Sept. 4, 1912. Serial No. 718,440. (Cl. 40—132.)

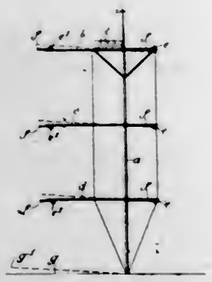


1. A sign or advertisement consisting of a case constructed of opaque material and fitted with a sign-bearing plate, a source of light illuminating the interior of said case, and a plurality of vertically supported and suitably spaced reflecting members arranged at the sides of said source of light and angularly disposed with respect to said sign-bearing plate, said reflecting members comprising partly translucent and partly reflective members.

2. A sign or advertisement consisting of a case constructed of opaque material and fitted with a sign-bearing plate, a source of light illuminating the interior of said case, and a plurality of vertically supported and suitably spaced reflecting members arranged alongside of said source of light and angularly disposed with respect to said sign-bearing plate, said reflecting members consisting of partly translucent and partly reflecting members and a wholly reflecting member.

3. A sign or advertisement consisting of a case constructed of opaque material and fitted with a sign-bearing plate, lamps in the interior of said case, plain reflectors disposed on one side of said lamps, and a plurality of vertically disposed and suitably spaced reflecting members located on the side of the lamps opposite to said plain reflectors and angularly disposed with respect to said sign-bearing plate, said reflecting members consisting of partly translucent and partly reflective members and a wholly reflecting member.

1,239,155. APPARATUS OR DEVICE TO CONTROL SAFE NIGHT LANDING OF AEROPLANES. CLARENCE HARTREE BROCKELBANK, Shoreham-by-Sea, England. Filed Feb. 12, 1917. Serial No. 148,295. (Cl. 33—1.)

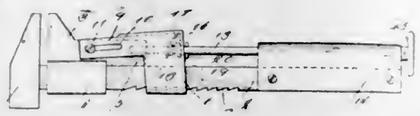


1. Landing appartus for aeroplanes and the like, comprising a mast, a plurality of frames secured to the mast and arranged parallel with the ground at different elevations above the ground, a plurality of lights secured to said frames, the lights of one frame having a color different from the lights of the other frames, and a plurality of screens on each frame coöperating with the respective lights.

[Claims 2 to 5 not printed in the Gazette.]

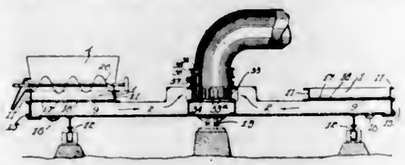
1,239,156. WRENCH. CHARLES MARVIN BROYLES, Wonder, Nev., assignor of one-half to Van Eastland, Chattanooga, Tenn. Filed Jan. 8, 1917. Serial No. 141,212. (Cl. 81—146.)

1. A wrench comprising in combination, a fixed jaw and a shank, a movable jaw slidable upon the shank, a casing surrounding the shank and having a pivotal and slotted connection with the movable jaw, corresponding teeth on the shank and the casing for locking the latter in adjusted position upon the shank, and a stem threaded into the movable jaw, and having a rotary bearing in the casing whereby an adjustment of the movable jaw relative to the casing may be effected.



2. A wrench comprising in combination, a fixed jaw and a shank, a movable jaw slidable upon the shank, a casing surrounding the shank and having a pivotal and slotted connection with the movable jaw, corresponding teeth on the shank and the casing for locking the latter in adjusted position upon the shank, a stem threaded into the movable jaw, and having a rotary bearing in the casing, whereby an adjustment of the movable jaw relative to the casing may be effected, a handle surrounding the shank, and a bearing in said stem for the handle.

1,239,157. PROCESS FOR TREATING ORES. NIELS C. CHRISTENSEN, Jr., Salt Lake City, Utah, assignor, by mesne assignments, to Holt-Christensen Process Company, Salt Lake City, Utah, a Corporation of Utah. Filed Mar. 10, 1915. Serial No. 13,417. (Cl. 75—17.)



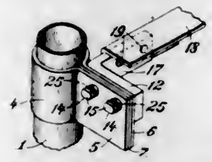
1. In the process of roasting ore, the steps which consist in screening out the coarser particles, and gravel from the roasted ore, spreading a portion of said particles in a uniform bed upon the roaster grate, spreading a moistened mixture of ore and salt and sulfids in a uniform layer upon the above mentioned bed of coarse particles; loosening the layer of moistened ore by disturbing the bed of screened material, heating the upper portions of said moistened layer of ore and igniting the sulfids therein, and roasting said layer by passing a current of air down through it, discharging the roasted mixture and aforementioned coarse bed, screening the coarser particles out of said roasted ore and coarse bed and using a portion of said coarse screenings to make a fresh coarse bed.

2. In the process of roasting, the steps which consists in moistening the mixture of crushed ore and salt and sulfids, continuously spreading a portion of the gravel and coarser particles screened from the roasted ore in a uniform bed upon the roaster grate, continuously spreading a moistened mixture of ore and salt and sulfids in a uniform layer upon said bed of coarse particles, continuously loosening the last mentioned layer of moistened ore by disturbing said bed of screened material, continuously heating the upper portions of said moistened layer for a short time after said layer has been loosened and igniting the sulfids therein, and roasting said layer by continuously passing a current of air down through it, discharging the roasted mixture and aforementioned coarse bed, screening the coarser particles out of said roasted ore and coarse bed, and using a portion of coarse screenings to make a fresh coarse bed.

1,239,158. BED AND OTHER ARTICLE OF FURNITURE. JAMES CLOSE, Newark, N. J., assignor to New Jersey Tube Company, Harrison, N. J., a Corporation of New Jersey. Filed Dec. 15, 1913. Serial No. 806,706. (Cl. 5—55.)

1. In a bed or other article of furniture, a post, a plurality of rails and means for joining them including a

[illegible] supported upon said post, an angle iron, means for permanently securing one of said rails to one of the legs of said angle iron, a plurality of studs securing said angle iron to said bracket, a corresponding plurality of sockets carried by the other of said rails for the reception of said studs, and means for detachably locking said studs against removal from said sockets.



2. In a bed or other article of furniture, a post, a strap surrounding said post, a horizontally disposed angle iron, means for securing one leg of said angle to said strap, said means acting to constrict the strap about the post, a rail and means on the rail adapted to coöperate with said strap for detachably securing said rail to said strap and angle iron.

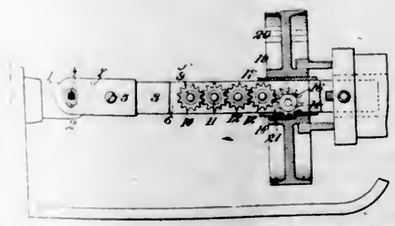
3. In a bed or other article of furniture, a post, a strap surrounding the same having extending ends, a filling-piece adapted to be interposed between said ends having a tongue adapted to enter an opening in said post, means for clamping said projecting ends and tongue together acting to constrict the strap about the post, a rail and means on the rail adapted to coöperate with said strap for detachably securing said rail to the bracket formed by said strap and filling-piece with the rail supported on the adjoining edges of the strap and filling-piece.

4. In a bed or other article of furniture, a post, a strap surrounding the same having projecting ends, a filling-piece adapted to be received between said ends and having a tongue adapted to enter a slot in said post, a stiffening member adjacent to one of said projecting ends and means adapted to clamp said ends, said filling-piece and said stiffening member together and thereby constrict the strap about the post in fixed position with relation thereto.

5. In a bed or other article of furniture, a post, a strap surrounding the same having projecting ends, a filling-piece adapted to be received between said ends and having a tongue entering a slot in said post, a stiffening member in the form of an angle iron having one of its legs adjacent to one of said projecting ends, and a plurality of studs passing through the said projecting ends, filling-piece and adjacent leg to clamp the same together and constrict the strap about the post.

[Claim 6 not printed in the Gazette.]

1,239,159. KEY-SEATING TOOL. GEORGE S. COATS, Visalia, Cal. Filed Apr. 17, 1915. Serial No. 22,099. (Cl. 90—11.)



[illegible] for the purpose described comprising a support adapted to be attached to a carriage, means for connecting said tool to said support, said connecting means being constructed and arranged to permit the tool to move at an angle with relation to said support as said tool is moved forwardly, means for holding the work in alinement with the line of movement of said carriage, a bushing adapted to be placed in the work to receive said tool, the bushing being adapted to rest in the work in alinement with the axis of movement of said carriage, the inner surface of said bushing being inclined to guide the tool at an angle as the tool is moved forwardly therein so that the tool will cut the key seat at an angle in the work.

8. A tool for cutting key seats comprising a body member, cylindrical bushings journaled in said body member, a stud journaled eccentrically in said bushings, a rotary toothed cutter secured on said stud, a pinion meshing with said cutter, means for rotating said pinion to rotate said cutter, said bushing being adapted to be turned in said body member to adjust said cutter to take up wear between the teeth thereof and the teeth of said pinion, and set screws in said body member for engaging said bushings to lock said cutter in adjusted position and means for mounting and actuating said tool so that said cutter will cut a key seat in the work.

[Claims 2, 3, 6, and 7 not printed in the Gazette.]

1,239,160. BITUMINOUS PAVING COMPOSITION AND PROCESS OF MAKING IT. WILLIAM BLACKWELL COWELL, Catford, England. Filed Jan. 24, 1916. Serial No. 73,873. (Cl. 106—31.)

1. Process for the manufacture of a paving or surfacing composition of matter comprising the production of a plastic mixture by mixing maltha with anthracene oil and incorporating hard pitch therewith, heating the said plastic mixture to a temperature of, approximately, 100° C., incorporating with the said plastic mixture a base comprising gypsum, calcium carbonate, and magnesium silicate, while stirring and gradually raising the temperature to approximately, 150° C., adding cement, continuing the stirring, and again raising the temperature to approximately 150° C., substantially as set forth.

5. Process for the manufacture of a paving or surfacing composition comprising the production of a plastic mixture by mixing maltha with anthracene oil in, approximately, the proportions of one and three quarter parts and fifteen and three quarter parts, respectively, and incorporating, approximately, twenty six parts of hard pitch therewith, heating the said plastic mixture to, approximately 100° C., incorporating with the said mixture a base comprising, approximately, nine and a half parts of gypsum, nineteen parts of calcium carbonate and three parts of magnesium silicate, while stirring and gradually raising the temperature to, approximately, 150° C., adding, approximately, eighteen parts of cement and seven parts of gum, continuing the stirring, again raising the temperature to, approximately, 150° C., discontinuing the application of heat and covering the vessel, and allowing the contents of the said vessel to stand for a period of, approximately, an hour and a half during which time the convection currents in the mass keep it in motion, substantially as set forth.

11. A paving or surfacing composition comprising maltha, anthracene oil, hard pitch, gypsum, calcium carbonate, magnesium silicate and cement.

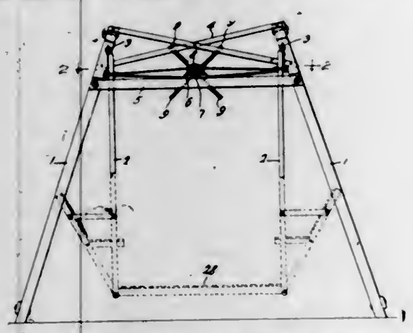
14. A paving or surfacing composition comprising maltha, anthracene oil, hard pitch, gypsum, calcium carbonate, magnesium silicate, cement, gum, and comminuted stone.

15. A paving or surfacing composition comprising approximately one and three quarter parts of maltha, fifteen and three quarter parts of anthracene oil, twenty six parts of hard pitch, nine and one half parts of gypsum,

nineteen parts of calcium carbonate, three parts of magnesium silicate, eighteen parts of cement, seven parts of acaroid resin, and one hundred parts of comminuted stone.

[Claims 2 to 4, 6 to 10, 12, and 13 not printed in the Gazette.]

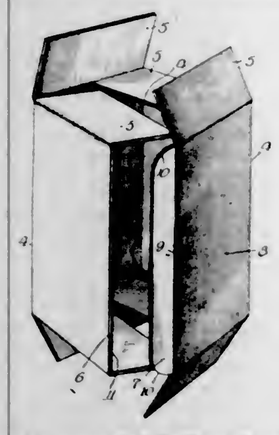
1,239,161. FAN ATTACHMENT FOR SWINGS. ISAAC W. CRABTREE, Cairo, Ill. Filed Sept. 23, 1916. Serial No. 121,793. (Cl. 230—7.)



1. In a fan attachment for swings, pendent swing members, a transverse fan shaft, spools loosely mounted on said shaft one near each end, flexible connections between said pendent members and spools adapted to be oppositely wound upon the latter, and clutch mechanism cooperating with said spools to give constant revolution to said shaft in one direction, said shaft being mounted for endwise movement in its bearings.

[Claim 2 not printed in the Gazette.]

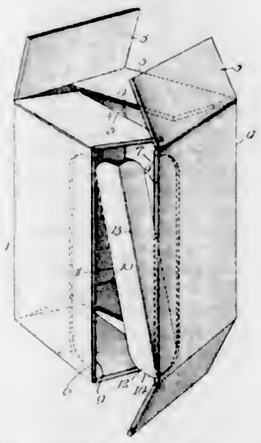
1,239,162. CONTAINER-BODY. WILLIAM J. CULLEN, Joliet, Ill., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 27, 1915. Serial No. 68,695. (Cl. 229—48.)



1. A joint for corrugated fiber board comprising two outer flat layers and an intermediate corrugated layer, which consists of the united ends of two sections of said board one arranged within the other, the corrugated layer of the inner section being left intact, the corrugated layer of the outer section being entirely removed, and the inner faces of the outer flat layers being adhered directly to the outer faces of the inner flat layers.

2. A joint for corrugated fiber board boxes, said board comprising two outer flat layers and an intermediate corrugated layer, which consists of the united portions of two sections of said board one arranged within the other, one section being a flap of said box the corrugated layer of which is left intact, and the other section being a contiguous side the corrugated layer of which is removed where the flap is located, the flat layers of which side embrace the said flap, and the flat layers of said side being adhered directly to the outer faces of the flat layers of the flap.

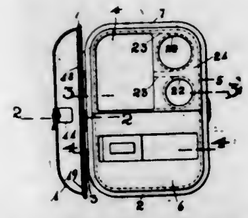
1,239,163. CONTAINER-BODY. WILLIAM J. CULLEN, Joliet, Ill., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 27, 1915. Serial No. 68,697. (Cl. 229—48.)



1. A joint for corrugated fiber board boxes, said board comprising two outer flat layers and an intermediate corrugated layer, which consists of three sections of said board, the intermediate section being a bent flap portion, and the other two sections being contiguous sides of such box, said sides being interlaid with said flap portion by the removal of the corrugated layer from the outer elements of the joint and leaving intact the corrugated layer of the inner elements of the joint, the flat layers of the outer elements being directly adhered to the flat layers of the inner elements.

2. A joint for corrugated fiber board boxes, said board comprising two outer flat layers and an intermediate corrugated layer, which consists of two sections of said board constituting contiguous sides of such box, and a separate intermediate flap portion uniting said sides, the corrugated layer of the said sides being removed where the flap is located, and the corrugated layer of the flap being left intact, and the inner faces of the outer flat layers of said sides being adhered directly to the outer faces of the said flap portion.

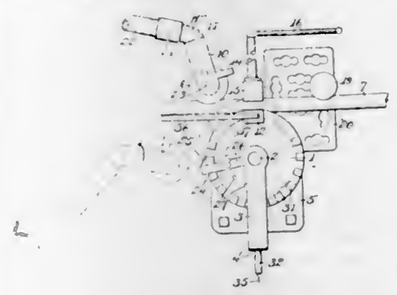
1,239,164. VANITY-CASE. WILLIAM CLIFTON CUTLER, North Glendale, Cal. Filed Dec. 27, 1916. Serial No. 139,105. (Cl. 206—38.)



1. A vanity case comprising two halves hingedly connected having a rim formed on each of the halves, the rim of one half being in a position adjacent to the rim on the other half, a cover plate having a recess on the edge engaging with the rim of one-half of the case forming a closed compartment in that half, a second compartment having also a recess on the edge removably engaging with a part of the rim of the second half of the case forming a mirror holder and powder puff receptacle, and a second cover plate having also a recess on the edge removably engaging with the rest of the rim in said second half of the case forming a compartment for holding cards.

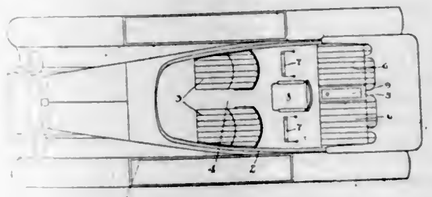
[Claim 2 not printed in the Gazette.]

1,239,165. PIPE-BENDING APPARATUS. RAY L. DAVIS and GUY C. MOYERS, Wheeling, W. Va. Filed June 9, 1916. Serial No. 102,695. (Cl. 153—46.)



A pipe bending apparatus comprising a support, a circumferentially grooved bending wheel rotatable on said support, means for clamping a pipe in the groove of said wheel, means mounted on the axis of said wheel and adapted for movement adjacent to the periphery of the latter whereby the pipe is bent about said periphery, a gage arm rotatable on said axis, a lug-like member carried by said arm disposed in the groove of said wheel and having its outer face disposed tangentially with respect to said groove, said face being adapted to have the pipe abut thereagainst for limiting the bending movement and means for securing said arm in adjusted position.

1,239,166. SEATING FOR VEHICLES. ARTHUR M. DEAN, Cleveland, Ohio, assignor to The Templar Motors Corporation, Cleveland, Ohio, a Corporation of Delaware. Filed June 8, 1917. Serial No. 173,530. (Cl. 21—42.)



1. In a vehicle of the character described, the combination of separate laterally spaced front seats, a rear seat divided into two single seats, and an extra single seat disposed between said front and rear seats and alined with the space between said front seats.

In a vehicle of the character described, the combination of separate laterally spaced front seats, a rear seat [illegible] partition dividing the same into two separate seats, and an extra single seat disposed between said front and rear seats and alined with such partition [illegible] between said front seats.

[illegible] MANUFACTURE OF CANDY. GEORGE F. [illegible], Chicago, Ill. Filed Dec. 15, 1916. Serial No. [illegible]. (Cl. 107—54.)

[illegible]ain described process of forming soft-center confections, the same comprising the formation of a mold cavity in loose granular flavoring material, the filling of said cavity with a molten center the temperature of which will modify the properties of the materials of said center and wall of the mold cavity to effect an adhesion therebetween, substantially as set forth.



2. The herein described process of forming soft-center confections, the same comprising the formation of a mold cavity in loose granular flavoring material, the filling of said cavity with a molten center, and applying a coating of said granular flavoring material to the top surface of the molten center, the temperature of such center being adapted to modify the properties of the materials of said center, top coating and wall of the mold cavity to effect an adhesion therebetween, substantially as set forth.

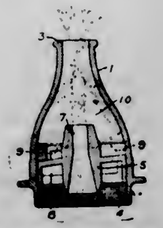
3. The herein described process of forming soft-center confections, the same comprising the formation of a mold cavity in loose granular flavoring material, the filling of said cavity with a molten center the temperature of which will modify the properties of the materials of said center and walls of the mold cavity to effect an adhesion therebetween, and subsequently fusing the external coating thus formed, substantially as set forth.

4. The herein described process of forming soft-center confections, the same comprising the formation of a mold cavity in loose granular flavoring material, the filling of said cavity with a molten center, applying a coating of said granular flavoring material to the top surface of the molten center, the temperature of said center being adapted to modify the properties of the materials of said center, top coating and wall of the mold cavity to effect an adhesion therebetween, and finally fusing the external coating aforesaid, substantially as set forth.

5. The herein described process of forming soft-center confections, the same comprising the formation of a mold cavity in loose granular flavoring material, the filling of said cavity with molten center the temperature of which will modify the properties of the materials of said center and wall of the mold cavity to effect an adhesion therebetween, and the removal of any loose surplus granular material from the article after the same has cooled substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,239,168. METHOD OF DISTRIBUTING LIQUID. AUBREY G. ENEAS, Winthrop, Mass., assignor, by mesne assignments, to Spray Engineering Company, Boston, Mass., a Corporation of Massachusetts. Original application filed Dec. 27, 1909, Serial No. 535,129. Divided and this application filed Apr. 29, 1914. Serial No. 835,221. (Cl. 137—80.)



1, That method of distributing liquid over an extended area which consists in simultaneously producing an inner jet and one or more surrounding jets, in causing the mixture of said jets within a confined space, and the issuance of said jets from said space in a spray of uniform homogeneity.

2. That method of distributing liquid over an extended area which consists in mixing a plurality of jets within a fixed, surrounding, confining wall and in compelling issuance of said mixed jets from said wall in a flaring spray of substantially uniform homogeneity.

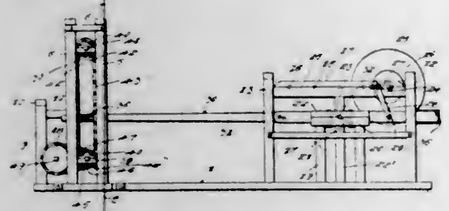
3. That method of distributing liquid over an extended area which consists in mixing an inner and one or more surrounding jets within a fixed, surrounding, confining wall and compelling issuance of said mixed jets from said wall from said confined space in a flaring spray of substantially uniform homogeneity.

4. That method of distributing liquid from an extended area which consists in mixing a plurality of jets within a fixed surrounding confining wall, in introducing air within said confining wall and in compelling issuance of said mixed jets from said wall in a flaring spray of substantially uniform homogeneity.

5. That method of distributing liquid over an extended area which consists in mixing an inner and one or more surrounding jets within a fixed surrounding, confining wall, in introducing air within said confining wall, and in compelling issuance of said mixed jets from said wall in a flaring spray of substantially uniform homogeneity.

[Claim 6 not printed in the Gazette.]

1,239,169. MECHANICAL MOVEMENT. JOHN ESTOCK, Yonkers, N. Y. Filed Oct. 24, 1916. Serial No. 127,368. (Cl. 74—14.)



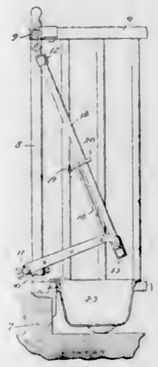
1. A device of the class described comprising a base, a pair of standards extending upwardly from the base near one end thereof, standards extending upwardly from the base near the opposite end, a lever pivoted between the last mentioned standards, a drive wheel operated by the lever, a pair of chains between the first mentioned standards, sprockets supporting the chains, a pin extending between the chains, the lever being provided with a slot to receive the pin whereby upon movement of the chains the lever will be operated and means to adjust the sprockets to control the tension of the chains.

2. In a device of the class described, a substantially rectangular supporting frame, a lever fulcrumed in the frame and extending longitudinally of the same, a driving shaft positioned adjacent to one end of the lever, a prime mover to drive said shaft, a pair of spaced parallel arranged vertically extending chains positioned in rear of said drving shaft and receiving one end of said lever between the same, the end of said lever adjacent to said chains having a slot therein, a pin extending between said chains and through the slot in the lever, means connecting the drive shaft to said chains for operating the same, a driven shaft positioned adjacent the opposite end of the lever, and a crank and pitman connecting the driven shaft with the end of the lever adjacent to the same.

[Claim 3 not printed in the Gazette.]

1,239,170. HOG-PEN. HENRY L. FERRIS, Harvard, Ill., assignor to Hunt-Helm Ferris & Co., Harvard, Ill., a Corporation of Illinois. Filed Nov. 9, 1916. Serial No. 130,431. (Cl. 119—63.)

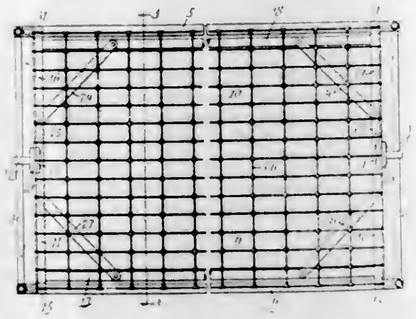
1. In combination, a curb, a frame mounted on the curb, a trough pivoted to the rear of the curb, a guard comprising vertical and top and bottom members and hung from a horizontal pivot in front of the trough and adapted to be swung back over the same to prevent access thereto from the rear and to afford access thereto from the front, and a pivoted arm mounted on the frame and engaging one of the vertical members of the guard on a



vertically movable pivot thereon and arranged to swing past the dead-center when the guard is in its rear position to hold the same.

[Claims 2 to 7 not printed in the Gazette.]

1,239,171. SPRING-BED. JOHN A. FRAIZE, Framingham, Mass. Filed June 21, 1916. Serial No. 105,040. (Cl. 5—65.)

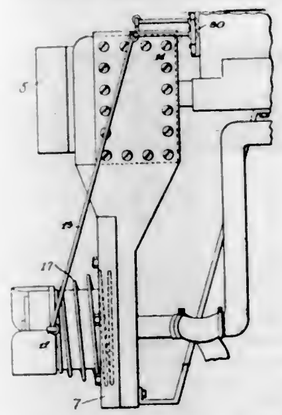


A spring bed having, in combination, two sections hinged together, each section comprising a head rail and a foot rail extending transversely thereof and joined together only by a longitudinal rail adjacent its outer edge, a bed spring fastened to said sections, a T-shaped bracket fastened to the inner ends of the head and foot rails of one of said sections and projecting beneath the head and foot rails of the other of said sections, said brackets being adapted to rest upon the head and foot rails, respectively, of a bedstead and forming supports for said sections.

1,239,172. HOSE-COUPLING FOR RAILWAY AIR-BRAKES. JOSEPH GANUS, Nocatee, Fla. Filed Aug. 14, 1916. Serial No. 114,833. (Cl. 188—13.)

1. In a hose coupling for railway air brake systems, the combination of a rigid support having guide-ways, a member slidably mounted on said guide-ways, manually actuated means for adjusting said member, a spiral spring mounted on said member, and a hose coupling member mounted on said spring to have resilient movement in a plurality of directions, substantially as set forth.

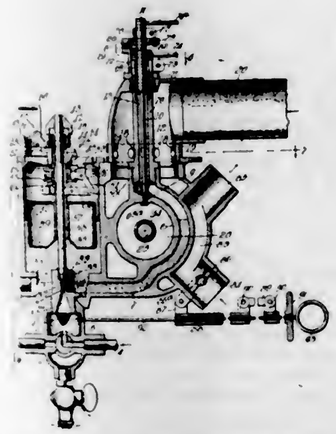
3. In an automatic hose coupling for railway air brake systems, the combination with a car coupling, supports rigidly mounted on the members of said car coupling respectively, members vertically adjustable on said supports and provided with openings, means for adjusting said members, spiral springs seated on said slidable members at said openings, and hose coupling members mounted on said spiral springs respectively to have resilient movement in a plurality of directions, substantially as set forth.



5. In an automatic hose coupling for railway air brake systems, the combination with a car coupling, of supports rigidly mounted on the members of said car coupling respectively, members slidably mounted on said rigid supports and provided with openings, springs mounted on the respective slidable members at said openings, hose coupling members mounted on said springs respectively, valves associated with the hose coupling members, said valves being normally seated and adapted to be reciprocally unseated by mutual contact, and a pipe mounted on each of said hose coupling members adapted to provide an auxiliary air passage for the train pipe system when its respective valve is seated, substantially as set forth.

[Claims 2 and 4 not printed in the Gazette.]

1,239,173. CARBURETER. OSCAR GAVELEK, Chicago, Ill. Filed June 1, 1915. Serial No. 31,552. (Cl. 261—44.)



1. In a carbureter, a receptacle for liquid hydro-carbon adapted to be connected with a source of supply and communicating with a carbureting chamber, a float-actuated valve controlling an inlet for said liquid to said receptacle, a valve-controlled air inlet for said receptacle, and means for manually actuating said valves for simultaneously opening said liquid inlet and closing said air inlet.

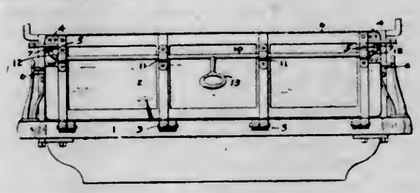
3. In a carbureter, a receptacle for liquid hydro-carbon adapted to be connected with a source of supply and communicating with a carbureting chamber, a float-actuated valve controlling an inlet for said liquid to said receptacle, a valve-controlled air inlet for said receptacle, a valve-stem rigid with respect to both said valves, and means for manually actuating said valves for opening said liquid inlet and closing said air inlet.

4. In a carbureter, a receptacle for hydro-carbon liquid having an inlet for the latter and an air-inlet, valves controlling said respective inlets, a valve-stem common to both thereof, float actuated means associated with said valve-stem for opening the liquid inlet as the liquid level in said receptacle falls, and manually actuable means associated with said valve-stem for opening said liquid inlet and closing said air inlet.

5. In a carbureter, a receptacle for hydro-carbon liquid having an inlet for the latter and an air-inlet, valves controlling said respective inlets, a valve-stem common to both thereof, a collar on said valve-stem, a member longitudinally movable thereon, a spring interposed between said collar and member, and a float associated with the latter for imparting movement thereto against the action of said spring for causing the latter to exert pressure on said valve-stem in a direction to close the inlet for liquid.

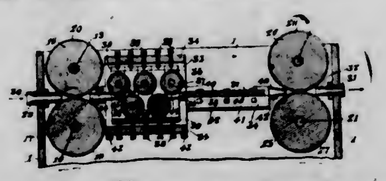
[Claims 6 to 14 not printed in the Gazette.]

1,239,174. END-GATE FOR MOTOR-TRUCKS. BENEDETTO GHEFFOLI, San Anselmo, Cal. Filed Oct. 11, 1915. Serial No. 55,325. (Cl. 21—21.)



An end gate provided with latch plates near its upper corners having guide notches, a binding band surrounding the edge of said gate and closing the open sides of said notches, laterally movable spring latches adapted to project through said notches and engage the plates and thereby lock the gate in closed position, a rock-shaft mounted in bearings across the end of said gate and provided with cam shaped ends adapted to engage laterally the latches and disengage them from the latch plates and further provided with a handle, whereby it may be rocked and the gate pulled open.

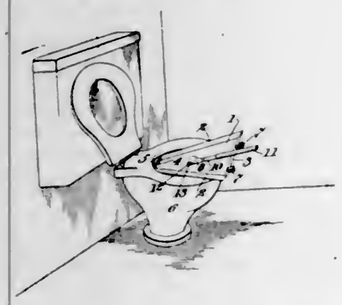
1,239,175. WIRE-STRAIGHTENING MACHINE. ALBERT P. GILBERT, Durham, N. C. Filed Sept. 18, 1916. Serial No. 120,788. (Cl. 140—148.)



A wire straightening machine comprising a casing, a pair of grooved feeding rolls arranged at one end of the casing, a pair of grooved delivery rolls arranged at the other end of the casing, gearing connecting the feeding and delivery rolls to rotate them at the same rate of speed, the delivery rolls being of greater diameter than the receiving rolls, two independent banks of straightening rolls mounted in the casing, one bank being arranged perpendicularly to the other so as to dispose the rolls of one

bank in a horizontal plane and the rolls of the other bank in a vertical plane, each bank of rolls being provided with means for adjusting the rolls individually, a guide tube connecting the banks of rolls, other guide tubes connecting each bank to the receiving and delivery rolls respectively, and supporting guide tubes, one leading into the receiving rolls and the other leading from the delivery rolls.

1,239,176. SANITARY WASHING APPARATUS. HARVEY N. GILBERT, Niagara Falls, N. Y. Filed Dec. 19, 1916. Serial No. 137,750. (Cl. 68—11.)

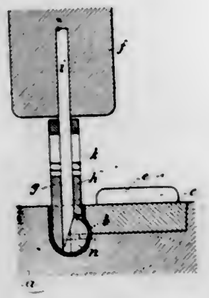


3. A scrubber comprising a hollow head having a laterally extended contracted mouth, a hollow handle adapted to be connected with a fluid supply, a scraper arranged on the head in advance of its mouth and above the same, and an upwardly and forwardly curved shield extending above and beyond the mouth and scraper.

4. A scrubber for washing apparatus, comprising a non-corrosive hollow head having a wide but contracted mouth, a hollow handle adapted to supply washing fluid to the head to be discharged through the mouth, a scraper arranged in advance of the mouth and extending crosswise of the head, and an overhanging shield.

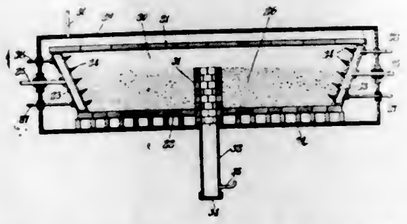
[Claims 1 and 2 not printed in the Gazette.]

1,239,177. DEVICE FOR FORMING SHUTTLES. JOSEF GRANZ, Plauen, Germany. Filed July 8, 1915, Serial No. 38,696. Renewed Jan. 19, 1917. Serial No. 143,418. (Cl. 113—48.)



In a device of the character described, a bottom swage having a cavity of the shape of the swell to be given to the shell, a counter-plate in said cavity, a vertically slidable box, a lateral pin on the lower portion thereof, a top swage laterally movable on said pin, a wedge-shaped member vertically movable in said box and independent thereof with its lower end engageable with said top swage to move it laterally when said top swage has reached the bottom of the cavity, and means for operating said wedge-shaped member.

1,239,178. PROCESS FOR OBTAINING ALKALI-EARTH METALS. WILLIAM M. GROSVENOR, Ridgewood, N. J. Filed Feb. 3, 1916. Serial No. 76,017. (Cl. 204—63.)



1. The improved process of obtaining metallic magnesium which consists in prolonged heating of magnesium oxid containing material nearly to the temperature at which magnesium vapor would be liberated, in a current of inert hydrogen gas to remove volatile impurities therefrom and then heating the material in the presence of a reducing agent, sufficiently to cause magnesium vapor to be liberated but restraining the temperature to a point not far above the temperature at which metallic magnesium is liberated to avoid volatilization of more refractory impurities.

2. The improved process of obtaining metallic magnesium which consists in prolonged heating of magnesium oxid containing material nearly to the temperature at which magnesium vapor would be liberated, in a current of inert gas to remove volatile impurities therefrom and then heating the material in the presence of a reducing agent, sufficiently to cause magnesium vapor to be liberated.

3. The improved process of obtaining metallic magnesium which consists in heating magnesium oxid containing material with a reducing agent nearly to the temperature at which magnesium vapor will be liberated, in an inert atmosphere to remove volatile impurities therefrom, the material being sufficiently basic so that the melting point of the material is raised to a temperature above that at which the magnesium vapor is liberated, and then raising the temperature sufficiently to liberate magnesium vapor without melting the material, and condensing the liberated magnesium vapor while restraining the temperature of the material sufficiently to avoid volatilization of more refractory impurities.

4. The improved process of obtaining metallic magnesium which consists in heating magnesium oxid containing material with a suitable reducing agent nearly to the temperature at which magnesium vapor will be liberated to remove volatile impurities therefrom, the material being sufficiently basic so that the melting point of the material is raised to a temperature above that at which the magnesium vapor is liberated, and then raising the temperature sufficiently to liberate magnesium vapor.

5. The improved process of obtaining metallic magnesium which consists in heating magnesium oxid containing material in an inert atmosphere without substantially liberating magnesium vapor therefrom, to remove volatile impurities from the material and then heating the material in the presence of a suitable reducing agent of the material to liberate magnesium vapor and condensing said vapor to produce metallic magnesium.

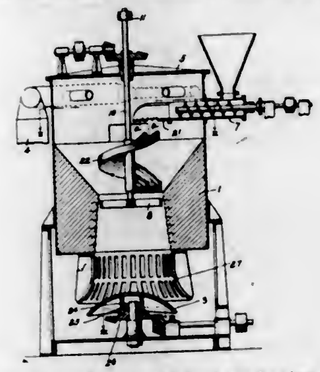
[Claims 6 to 22 not printed in the Gazette.]

1,239,179. MACHINERY FOR AGGLOMERATING ORE. PHILIP O. HARDING, Rancagua, Chile. Filed Jan. 15, 1917. Serial No. 142,449. (Cl. 193—19.)

1. In a sintering machine, the combination of a vertically disposed tubular sintering chamber, of a conveyer arranged above said chamber and provided with a tapered delivery orifice radially arranged and stationary with respect to said chamber, and a spreader arranged beneath said conveyer.

3. In a sintering machine, the combination with a vertically disposed tubular sintering chamber of a feed mecha-

nism provided with a tapered delivery orifice arranged above said chamber and radially with respect thereto and at an interval therefrom, and a rotary chute arranged be-



tween the delivery orifice of said feed mechanism and the upper end of said sintering chamber.

[Claims 2 and 4 not printed in the Gazette.]

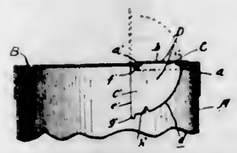
1,239,180. METHOD OF COLORING RUBBER BALLOONS. MARION M. HARRISON, Akron, Ohio. Filed Mar. 7, 1917. Serial No. 153,120. (Cl. 8—5.)

1. The hereindescribed method of coloring rubber balloons and the like which consists in dipping them while on their forms in a solution of an anilin coloring matter in a solvent of rubber.

2. The hereindescribed method of coloring rubber balloons and the like which consists in dipping them while on their forms but after vulcanization in an anilin coloring matter dissolved in a solvent of rubber.

1,239,181. SPOUT ATTACHMENT FOR POWDER-CONTAINING RECEPTACLES. WILLIAM C. HEINDL, East Orange, N. J., assignor to The Whitehead & Hoag Company, Newark, N. J., a Corporation of New Jersey. Filed Jan. 22, 1917. Serial No. 143,712. (Cl. 221—11.)

1. An article of manufacture of the character described comprising in combination a receptacle having an opening in the wall thereof, a portion of the wall projecting inwardly to form a ledge, a spout movably mounted in said opening, said spout having a base of a size to cover said opening and ledge and having pendant side walls extending at substantially right angles to said base, a recess in each side wall at the rear of the base for receiving a wall of said opening, and a notch in the front edge of each side wall of a width sufficient to receive a wall of said opening.



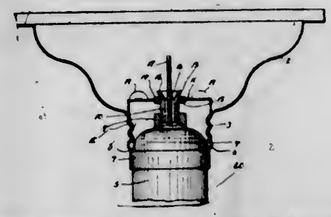
2. An article of manufacture of the character described comprising in combination a receptacle having an opening in the wall thereof, a portion of the wall projecting inwardly to form a ledge, a spout movably mounted in said opening, said spout having a base of a size to cover said opening and ledge and having pendant side walls extending at substantially right angles to said base, a recess in each side wall at the rear of the base for receiving a wall of said opening, a notch in the front edge of each side wall of a width sufficient to receive a wall of said opening, and lugs projecting outwardly from each side wall at the rear of its respective notch for limiting the movement of the spout through the opening in said re-

3. The combination with a receptacle having an opening in the wall thereof, of a spout movably mounted in said opening, said spout comprising a pair of substantially parallel side walls, a base connecting the side walls for a portion of their length, a recess in each side wall at the rear of the base, the upper edge of the side wall at the rear of the base lying in a plane spaced from the plane of the lower surface of the base a distance substantially equal to the thickness of the adjacent wall of the receptacle, said side walls having an arcuate front edge, a notch in the front edge of each side wall, and a lug projecting outwardly from each side wall at the rear of its respective notch.

4. An attachable pouring spout comprising a pair of substantially parallel side walls, a base connecting the side walls for a portion of their length, a recess in each side wall at the rear of the base, said side walls having an arcuate front edge, and a notch in the arcuate edge of each side wall.

5. An attachable pouring spout comprising a pair of substantially parallel side walls, a base connecting the side walls for a portion of their length, a recess in each side wall at the rear of the base, said side walls having an arcuate front edge, a notch in the arcuate edge of each side wall, and a lug on each side wall projecting outwardly therefrom at the rear of its respective notch.

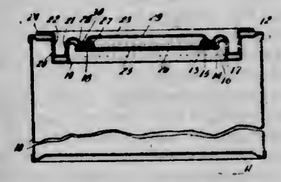
1,239,182. MOUNTING-SHELL FOR INCANDESCENT ELECTRIC LAMPS. EDWIN W. HENGER, Watertown, Conn., assignor to Waterbury Mfg. Co., Waterbury, Conn., a Corporation. Filed Mar. 29, 1917. Serial No. 158,221. (Cl. 240—78.)



2. In a mounting fixture for standard incandescent lamp-sockets, the combination with a shell formed with a threaded, concentric neck to receive the cap of such a socket and to provide a bearing for the same, of a locking-member located within the said neck and engaging with the threads thereof, and a nipple mounted in the said member for the application to it of the threaded bushing forming a part of the cap of the lamp-socket.

[Claims 1, 3, and 4 not printed in the Gazette.]

1,239,183. TRIPLE-SEAL CAN. JOHN G. HODGSON, Maywood, Ill., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Oct. 27, 1913. Serial No. 797,535. (Cl. 220—77.)



1. A container of the character described including, in combination: a body provided with a top having an opening therein, the top having also an internal friction seat wall and a gasket supporting shelf spaced therefrom; a cap having a countersunk central portion and provided also with a peripheral flange; a gasket interposed between said peripheral flange and supporting shelf; and a cover having an external friction seat wall coöperable with the friction seat wall of the top, said cover being

adapted to engage the flange of the cap to firmly press it against the gasket when the cover is forced home, said friction seal walls being smoothly cylindrical, and said cover being the outer securing means of the closure, substantially as specified.

2. A container of the character described including, in combination: a body provided with a top having an opening therein, said top having an upwardly extending inner flange, a gasket supporting shelf and a friction seat wall; a countersunk cap adapted to be loosely seated within said up-turned flange of the top and having also a peripheral flange; a gasket interposed between said peripheral flange and supporting shelf; and a cover having a friction seat wall coöperable with the friction seat wall of the top and provided also with a downwardly extended rib adapted to engage the peripheral flange of the cap to thereby press the latter firmly against the gasket, substantially as specified.

3. A container of the character described including, in combination; a can body provided with a top having an opening therein, said top having an upwardly extended inner flange, horizontal gasket supporting shelf and two spaced substantially vertical friction seat walls; a cap having a countersunk central portion and a peripheral flange, the countersunk portion being adapted to loosely fit within the up-turned inner flange of the top; a gasket interposed between said peripheral flange and supporting shelf; and a cover having two friction seat walls cooperable with the friction seat walls of the top and provided also with a downwardly extended rib adapted to engage the peripheral edge of the cap to thereby press the latter firmly into engagement with the gasket, substantially as specified.

1,239,184. HANDLE. FRANK HARTWELL HOPKINS, Montreal, Quebec, Canada. Filed June 21, 1915. Serial No. 35,339. (Cl. 217—125.)



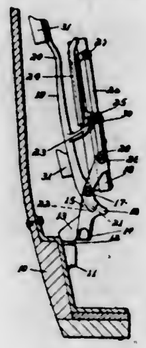
1. A handle for a box consisting of a multiple strand wire member adapted to be attached to the box and a length of soft pliable material wound transversely about said multiple strand wire member and having its ends threaded between the strands thereof.

2. In combination with a multiple strand wire handle for a box, a grip for said handle, consisting of a packing formed of a flat length of flexible material wound transversely over a portion of the handle and cordage whipped transversely over the packing, the windings of such cordage being close together and extending beyond the limits of the packing and the ends of the cordage being threaded between strands of the handle.

3. A handle for a box consisting of a length of multiple strand wire rope which is bent and has the free ends adjacent one another, the strands at one end of the length being hook-jointed with the strands at the other end, connecting the adjacent ends and forming the length into a loop, and a length of flexible material wound transversely about said hook-jointed ends.

1,239,185. FOLDING SEAT. ORMOND E. HUNT, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Nov. 28, 1913. Serial No. 803,541. (Cl. 155—22.)

1. A folding seat comprising a support or bracket, a seat back pivoted thereto, depressions in said bracket, lugs on said seat back operating in said depressions, a seat bottom pivoted to said bracket, arm rests pivoted to said seat back, and means connected with the seat bottom and arm rests for folding said bottom and arm rests.



2. A folding seat comprising a support or bracket, a seat bottom pivoted thereto and adapted to fold from a substantially horizontal position to an upright position, a seat back, arm rests pivoted to the seat back and adapted to fold from a substantially horizontal position to an upright position, and links pivoted at their respective ends to the seat bottom and to the forward part of the arm rests, the parts being so constructed and arranged that in moving to folded position the seat is yieldingly held in folded position by the spring action of the parts themselves.

3. A folding seat comprising a support or bracket, a seat bottom pivoted thereto and adapted to fold from a substantially horizontal position to an upright position, a seat back, arm rests pivoted to the seat back and adapted to fold from a substantially horizontal position to an upright position, and links so pivoted to the seat bottom and arms respectively that the parts form a closed toggle to hold the seat yieldingly in folded position.

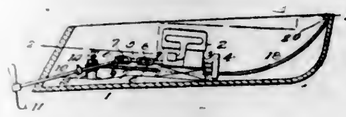
4. A folding seat comprising a support or bracket, a seat bottom pivoted thereto and adapted to fold from a substantially horizontal position to an upright position, a seat back, arm rests pivoted to the seat back and adapted to fold from a substatnially horizontal position to an upright position, and links pivoted at their respective ends to the seat bottom, and to the forward part of the arm rests, the parts being so constructed and arranged that in moving to folded position the forward pivots on the arm rests pass beyond a line drawn through the seat bottom pivot and arm rest rear pivot to thereby yieldably lock the seat in folded position.

5. A folding seat comprising a support or bracket, a seat bottom pivoted thereto and adapted to fold from a substantially horizontal position to an upright position, a seat back, arm rests pivoted to the seat back and adapted to fold from a substantially horizontal position to an upright position, links pivoted at their respective ends to the seat bottom and to the forward part of the arm rests, the parts being so constructed and arranged that in moving to folded position the forward pivots on the arm rests pass beyond a line drawn through the seat bottom pivot and the arm rest rear pivot and the pivot of the link to the seat bottom remains intermediate the bottom pivot and arm rest rear pivot and substantially in alinement with both arm rest pivots, and a stop to limit the folding action of the seat.

[Claim 6 not printed in the Gazette.]

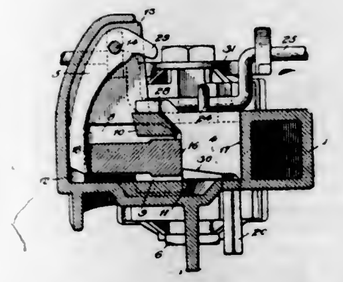
1,239,186. SPEEDER MECHANISM FOR MOTOR-BOATS. WILEY JONES, Westerly, W. Va. Filed Feb. 12, 1917. Serial No. 148,069. (Cl. 115—34.)

1. In a device of the kind described, the combination of a boat, an engine mounted in said boat adapted to revolve a propeller shaft, means interposed between said propeller shaft and the main shaft of said engine whereby said propeller shaft may have horizontal reciprocating movement, cross-arms slidably mounted upon said propeller shaft, a collar adjustably mounted upon said propeller shaft rearwardly of said cross-arms, and forwardly and upwardly extending speed bars mounted at one end to the ends of said arms and at the other end to the prow of the boat.



2. In a speeder mechanism for motor boats, the combination of a boat, an engine mounted in said boat, a main-shaft adapted to be rotated by said engine, a propeller shaft, a coupling connecting said main-shaft and said propeller shaft whereby they may be rotated at an angle to each other, means forming a part of said shafts and said coupling whereby said propeller shaft may have reciprocating movement forwardly and backwardly, means adjustably mounted on said propeller shaft whereby said reciprocating movement forwardly may be regulated, cross-arms slidably mounted about said propeller shaft forwardly of said last-named means, means connected to said cross-arms and to the prow of a boat whereby forward propulsive force will be directed to the prow of the boat.

1,239,187. CAR-COUPLING. WILLIAM KELSO, Pittsburgh, Pa., assignor to The McConway & Torley Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed June 8, 1917. Serial No. 173,565. (Cl. 213—10.)



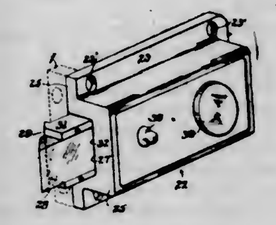
1. In a car coupler, the combination with a coupler head, of a knuckle pivotally mounted thereon, a lock for said knuckle, and a knuckle-opener device mounted on said coupler head, said lock having a lug adapted to engage and actuate said knuckle-opener device, said lug being adapted to engage the top wall of the coupler head to support said lock when in locked position.

3. In a car coupler, the combination with a coupler head provided with a knuckle receiving recess, of a coupler stem extending into a rearwardly open socket in said head and pivotally connected thereto, a knuckle rotatably mounted on said head, and means for locking said knuckle in coupled position, the tail of said knuckle being adapted to overlap a portion of said stem, and said stem receiving socket forming a continuation of the knuckle receiving recess of said head.

4. In a car coupler, the combination with a coupler head provided with a knuckle receiving recess and with a coupler stem receiving socket, of a coupler stem involving [illegible] extending into said socket and pivotally connected to said head, a knuckle pivotally mounted on said head, and means for locking said knuckle in coupled position, said socket forming a continuation of said knuckle receiving recess, and a portion of the tail of said knuckle being adapted to pass between said spaced mem-

[Claims 2 and 5 to 8 not printed in the Gazette.]

1,239,188. LOCK. CHARLES F. KOHLBERGER, New York, N. Y. Filed June 16, 1915. Serial No. 34,336. (Cl. 70—16.)



1. A locking-mechanism, comprising a trough-shaped housing having an opening at one end adapted to inclose the locking-mechanism; a lock-bolt reciprocating in and out of such trough-shaped housing; a flat-bar secured to to the door abutting against the face of the bolt having a top and a bottom-plate projecting over such bolt at the end of the housing, and a locking-recess formed in the back face opposite to the top and bottom plates; and a strike-member coacting with the lock-bolt so as to interlock therewith, having a securing-flange the end of which will lie in the locking-recess of the flat-bar when the bolt is in position in the strike-member.

2. A locking-mechanism, comprising a trough-shaped housing having an opening at one end adapted to inclose the locking-mechanism; a lock-bolt with an inclined contacting slide-face reciprocating in and out of such trough shaped housing; a flat-bar secured to the door abutting against the face of the bolt having a top and a bottom-plate projecting over such bolt at the end of the housing, and a locking recess formed in the back face opposite to the top and bottom-plates; and a strike-member coacting with the lock-bolt so as to interlock therewith having a securing-flange the end of which will lie in the locking-recess of the flat-bar when the lock-bolt is in position in the strike-member.

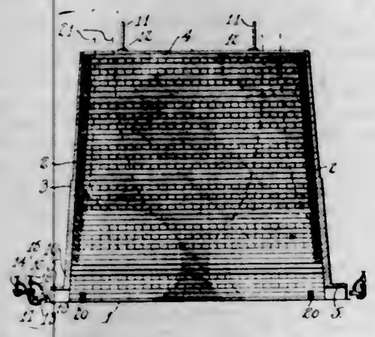
3. A locking-mechanism, comprising a trough-shaped housing having an opening at one end adapted to inclose the locking-mechanism; a lock-bolt with an inclined contacting slide-face reciprocating in and out of such trough shaped housing; a flat-bar secured to the door abutting against the face of the bolt having a top and a bottom-plate projecting over such bolt at the end of the housing, and a locking recess closed at the upper and lower ends, formed in the back face opposite to the top and bottom-plates; and a strike-member coacting with the lock-bolt so as to interlock therewith having a securing-flange the end of which will lie in the locking-recess of the flat-bar when the bolt is in position in the strike-member.

[Claim 4 not printed in the Gazette.]

1,239,189. PROCESS OF BURNING BRICKS. FRANK B. LAMBERT, Chicago, Ill., assignor to Lambert Process Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 20, 1915. Serial No. 15,910. (Cl. 25—157.)

1. The process of burning bricks which consists in setting the same in a kiln to have an internal furnace, then heating the furnace with fuel under forced draft sufficient to create enough pressure in the furnace to expel any air except that introduced for combustion, and at a rate sufficient to evaporate the water in the bricks faster than the kiln draft will carry the same off, thereby causing a damper of steam to form between the heat zone and the exit of the products of combustion, the fire being forced to cause the generation of a zone of incandescence substantially at right angles to the general line of travel of the products of combustion, said zone being brought to the temperature of fusion, then substantially discontinuing the firing by fuel and continuing the forced draft to fill the furnace and to maintain a pressure balance between the inside and the outside of the kiln, thereby moving the zone of incandescence and the blanket of steam ahead of it through the remainder of the kiln.

2. The process of burning bricks which consists of setting the bricks into a kiln, firing said bricks under forced draft the rate of firing being such as to create a slight pressure above atmospheric at the base of the kiln, and of such intensity as to create a zone of incandescence lying at substantially right angles to the general travel of the products of combustion through the kiln, and a body of steam above the zone of incandescene for preserving the heat in that zone, blowing an excess of steam and air into said zone of incandescence to cause the same to move in the general direction of the line of movement of the products of combustion until said zone of incandescence has been caused to travel the entire height of the kiln, and shutting off the fuel prior to the time that the zone of incandescence has traveled the entire height of the kiln.



5. The process of burning bricks which consists in setting the same in a kiln forming internal furnaces and firing said furnaces with fuel under a forced draft sufficient to cause the water smoke and other vapors to move from the stratum adjacent the furnaces at a greater rate than the kiln draft will carry the same off, and directing the fire in said furnaces to extend the heat zone in a substantially isothermal zone across the kiln and heating the bricks in said zone to the temperature of fusion, then substantially discontinuing the firing and continuing the forced draft to drive the blanket of steam forward from adjacent strata and causing said heated zone to travel successively to said strata, to bring to the temperature of fusion the adjacent unburned bricks in said kiln.

7. The process of burning bricks which consists in setting said bricks into a kiln forming furnaces therein, then firing said furnace with liquid fuel by means of a steam jet to create a forced pressure draft, said forced pressure draft being sufficient to cause a pressure inside of said kiln to exclude air therefrom other than that introduced to support combustion of the liquid fuel, said firing causing the water vapor to be driven off from said lower stratum of bricks at a greater speed than is possible for the kiln draft to carry off the same, until a highly heated, substantially isothermal zone is attained in the stratum adjacent said furnace, the bricks adjacent said zone being still at the temperature at which they give off water smoke and other vapors, then substantially discontinuing firing and maintaining the forced pressure draft by discharging jets of steam in said furnace at a rate sufficient to maintain a pressure in said kiln slightly above atmospheric pressure, thereby causing said highly-heated zone to travel from the lower stratum to adjacent higher strata.

[Claims 3, 4, and 6 not printed in the Gazette.]

1,239,190. PAINT COMPOSITION. SAMUEL A. LEAVITT, Appleton, Wis. Filed Mar. 8, 1917. Serial No. 153,429. (Cl. 134—39.)

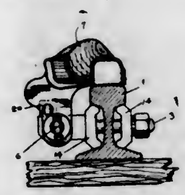
1. A paint composition as described having a base of litharge and in combination with a composition composed of silicious limestone, barytes, and a liquid vehicle therefor.

3. A paint composition as described comprising a mixture of litharge, tripoli, plaster of Paris, linseed oil, and a coloring pigment.

5. A paint composition as described comprising litharge, plaster of Paris, tripoli and lamp black mixed by weight, one quart of linseed oil added to each quarter by weight of the said mixture and a tablespoon and one-half of barytes added to each gallon of said mixture.

[Claims 2 and 4 not printed in the Gazette.]

1,239,191. DEVICE FOR STOPPING AND DERAILING CARS. WELLINGTON B. LEE and MORRIS A. BOSKIN, New York, N. Y. Filed May 12, 1915. Serial No. 27,516. (Cl. 104—127.)



1. A derailing device comprising supporting means adapted to be secured to a rail, a derailing block rotatably mounted upon said supporting means, whereby it may be moved into operative or inoperative position with respect to the rail, and means co-acting with said derailing block and with said supporting means for locking said derailing block against movement when in either one of its said positions, substantially as specified.

2. A derailing device comprising supporting means adapted to be secured to a rail, a derailing block rotatably mounted upon said supporting means, whereby it may be moved into operative or inoperative position with respect to the rail, and means adapted to engage said derailing block and said supporting means for locking said derailing block against movement when in either one of its said positions, substantially as specified.

3. A derailing device comprising supporting means adapted to be secured to a rail, a derailing block rotatably mounted upon said supporting means, whereby it may be moved into operative or inoperative position with respect to the rail, and a member adapted to engage said derailing block and provided with a head adapted to engage said supporting means for locking said derailing block against movement when in either one of its said positions, substantially as specified.

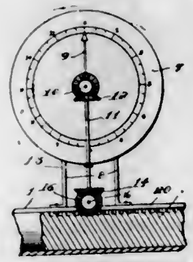
4. A derailing device comprising supporting means adapted to be secured to a rail, a derailing block rotatably mounted upon said supporting means, whereby it may be moved into operative or inoperative position with respect to the rail, a removable locking member adapted to engage said derailing block and said supporting member for locking said derailing block against movement when in either of its said positions, and means for securing said locking member against removal, substantially as specified.

5. A derailing device comprising supporting means adapted to be secured to a rail and provided with upper and lower surfaces, a derailing block rotatably mounted upon said supporting means, whereby it may be moved into operative or inoperative position with respect to the rail, said derailing block being provided with a perforation adapted to lie above the upper surface of said supporting means when said block is in its operative position and to lie below the lower surface of said supporting means when said block is in its inoperative position, and a locking member adapted to be mounted within said perforation and having a portion adapted to engage the upper or lower surface of said supporting means to lock said block against movement when in its operative or inoperative positions, substantially as specified.

1,239,192. RAILWAY-TRACK GAGE. RAYMOND J. LEWIS, Elwood, Ind. Filed June 7, 1916. Serial No. 102,228. (Cl. 33—146.)

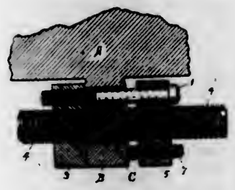
1. A gage for railway tracks including, a pair of telescopically related sections, comprising, a sleeve section

closed at one end, and a rod section slidably mounted therein, a spring member mounted within the sleeve section between the closed end thereof and one end of the rod section, a rack stamped in the rod section, the sleeve section having a slot therein, a shaft rotatably mounted on said sleeve section a bevel gear mounted on the end of said shaft and in mesh with the rack through said slot, a dial, a pair of standards mounted on the sleeve section and supporting the dial, a bevel gear journaled concentrically on said dial, an indicating hand carried by said gear, and means connecting the first mentioned bevel gear and the last mentioned bevel gear for operating said hand for the purpose specified.



2. A gage for railway tracks, including, a pair of telescopically related sections, comprising a tubular sleeve section closed at one end, and a rod section slidably mounted within said sleeve section, object engaging shoes mounted on the free ends of said sections, a spring member mounted within the sleeve section between the closed end thereof and the rod section, a rack stamped in the rod section, an indicating means mounted on said tubular sleeve section, and gearing connecting the said rack and indicating means to operate the same.

1,239,193. FEED-SCREW-ADJUSTING MECHANISM. ARTHUR LINDNER, Richmond, Ind., assignor of one-half to Fred D. Bethard, Richmond, Ind. Filed Aug. 7, 1916. Serial No. 113,447. (Cl. 74—40.)

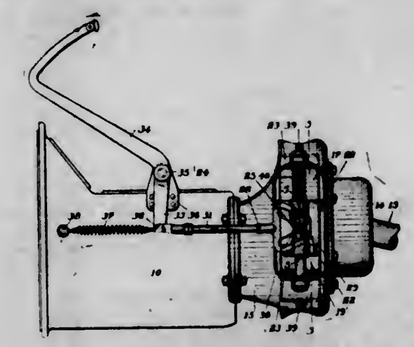


1. A feed-screw adjusting mechanism comprising, in combination with a fixed hanger having a central smooth aperture therethrough, a feed-screw disposed loosely through said aperture and without contact with the hanger, a face nut located on one side of the hanger and normally spaced therefrom, a back nut located on the other side of the hanger and normally in contact with the hanger, the feed-screw being threaded through both of said nuts, a plurality of screws extending loosely through smooth apertures in the face-nut and the hanger with their heads contacting with the outer face of the face-nut and with the other end portions of said screws threaded through apertures in the back nut, a set-screw carried between each two of the main screws and located parallel therewith, the same being threaded through the face nut with their points contacting with the hanger whereby the nuts and the feed-screw are prevented from [illegible] with relation to the hanger and by which back-[illegible] prevented with relation to the feed-screw, all substantially as shown and described.

2. A feed-screw adjusting mechanism, in combination with a hanger having a central aperture therethrough, a feed-screw disposed loosely through said aperture, a face nut located on one side of the hanger, a back nut located on the other side of the hanger, both of said nuts being threaded onto the feed-screw, screws extending in an axial direction through both of said nuts and the hanger and adapted to draw the nuts toward each other, and set-screws extending through one of said nuts and adapted to contact with the hanger to secure the parts in adjusted position, all substantially as set forth.

3. A feed-screw adjusting mechanism, comprising in combination with a hanger having a central aperture therethrough, a feed-screw disposed loosely through said aperture, a face nut located on one side of the hanger, a back nut located on the other side of the hanger, the feed-screw being threaded through both of said nuts, a plurality of screws extending loosely through smooth apertures in the face nut with their heads contacting with the face of the face nut and then extending loosely through smooth apertures in the hanger and with the other end portions of the said screws threaded through apertures in the back nut, and a plurality of set-screws extending through threaded apertures in the face nut with their points adapted to contact with the hanger in order to clamp the back nut against the hanger, all substantially as shown and described and for the purposes set forth.

1,239,194. MOTOR-VEHICLE. ALLEN LOOMIS, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Dec. 9, 1912. Serial No. 735,728. (Cl. 21—8.)



1. In a brake mechanism the combination of a support, a brake drum, a brake band coöperating with said drum, a slide bar on said support adapted to anchor either end of said band, blocks, to which the ends of the brake band are secured, mounted to reciprocate longitudinally of said bar, and means independent of said slide bar for contracting and positively expanding said band relatively to said drum.

2. In a motor vehicle, the combination with the gear casing, the driving shaft projecting therefrom, and the brake drum on said shaft, of a brake band coöperating with said drum, an anchor for said band supported on said casing and adapted to anchor either end of said band, and a device independent of said anchor for positively moving the ends of said band toward and from each other, said device being movably supported between the ends of said band and adapted to swing therewith without affecting the relative position of said ends.

3. In a motor vehicle, the combination with the gear casing, the driving shaft projecting therefrom, and the brake drum on said shaft, an anchor for said band supported on said casing and adapted to anchor either end of said band, and a double wedge shaped cam flexibly supported and adapted to contract the band about said drum.

4. In a brake mechanism the combination of a support, a brake drum, a brake band surrounding said drum, an anchor on said support adapted to hold each end of said band against movement in one direction while permitting it to be moved in the other direction, a device independent

of said anchor for positively moving the ends of said band relative to each other to thereby contract the band about the drum, and means adapted to retract said device to thereby expand said band away from said drum.

5. In a brake mechanism, the combination of a support, a brake drum, a split band cooperating with said drum, a series of adjustable stops adjacent said band and against which said band is adapted to rest when in inoperative position, a member adapted to be inserted between the ends of said band for moving the same against said drum, and a spring adapted to retract said member and move said band into inoperative position against said stops.

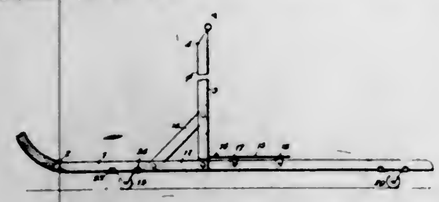
[Claims 6 to 11 not printed in the Gazette.]

1,239,195. COMPOSITION FOR REPAIRING SCORED CYLINDERS. LEONARD LORENTOWICZ, Irvington, N. J. Filed June 13, 1916. Serial No. 103,453. (Cl. 75—1.)



A composition for repairing scored metallic surfaces adapted to be subjected to relatively high temperatures, which consists of block tin, silver and copper, substantially in the proportions described.

1,239,196. COASTER. ERNEST FRED THEODORE LUNDQUIST, Chicago, Ill. Filed Jan. 26, 1917. Serial No. 144,682. (Cl. 21—96.)



1. A runner formed of a T bar having its central flange extending upwardly, the front end of the runner curving upwardly, a foot-plate of sheet metal having a pair of lugs struck up from the metal of the plate and bent down against and secured to the opposite sides of the central flange of the runner, and means for steadying the weight of the operator upon said foot-plate.

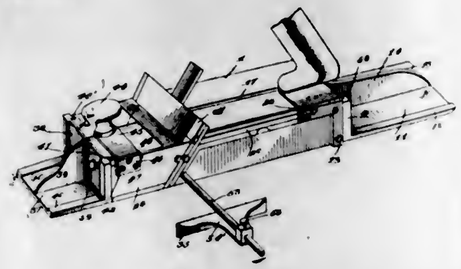
2. A runner formed of a T bar having its central flange extending upwardly, a foot-plate of sheet iron having a pair of lugs struck up from the metal of the foot-plate and bent down against and secured to the opposite sides of the central flange of the runner, and a pair of clips at the front edges of the foot-plate, said lugs projecting up to prevent the foot of the user from sliding off of the plate.

3. In combination, a runner formed of T iron having the central flange extending upwardly, a tiller post extending vertically, said tiller post comprising a vertical T bar having its lower end slotted to straddle the central flange of the runner and having the adjacent central flange of the tiller post offset and secured to the side of the central flange of the runner.

4. In combination, a runner formed of T iron having the central flange extending upwardly, a tiller post extending vertically, said tiller post comprising a vertical T bar having its lower end slotted to straddle the central flange of the runner and having the adjacent central flange of the tiller post offset and secured to the side of the central flange of the runner, a handle of round tubing secured to the side flanges at the top of the tiller post and a diagonal brace of flat iron secured to the central flange of the runner and of the tiller post.

5. In combination, a runner formed of T iron having its central flange facing upwardly a tiller post formed of T iron having its central flange offset and secured to the central flange of the runner and a diagonal brace joining the central flanges of the tiller post and the runner.

1,239,197. COMBINATION CARPENTER'S PLANE. HARRY W. LUSKEY and LAWRENCE C. PAYNE, Pensacola, Fla. Filed May 18, 1916. Serial No. 98,401. (Cl. 145—5.)

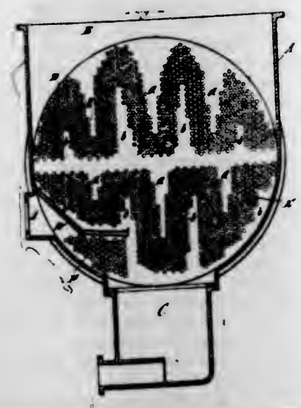


1. In a bench plane including a body portion, the forward and rearward ends of the body being provided with dove-tailed flanges, extension members having complementally formed recesses therein to receive said flanges, the extensions being vertically adjustable relative to the body, and the extensions being adapted to be housed upon the body when detached from the ends.

2. In a bench plane including a body portion, the forward and rearward portions of the body being provided with longitudinally extending slots, extension members detachably associated with the forward and rearward portions of the body, webs formed on each extension member adapted to be received in said slots when the extensions are detached from the forward and rearward portions of the body.

3. In a bench plane including a body portion, the forward and rearward portions of the plane being provided with a longitudinally extending slot, an extension member adapted to be detachably associated with the forward and rearward end portions of the plane, a web formed on said extension member, the sole of the extension member being adapted to be retained in alinement with the sole of the plane when used as extensions, the webs adapted to be received in said slots when the extensions are detached from the ends of the plane, the under surface of the extension soles being adapted to engage the upper surface of the plane.

1,239,198. SURFACE CONDENSER. THOMAS C. MCBRIDE, Philadelphia, Pa. Filed Jan. 14, 1916. Serial No. 72,034. (Cl. 257—43.)



1. In a surface condenser or the like, a nest of tubes arranged to form a plurality of exit lanes for the steam and condensate extending into the nest on the side of the tube nest opposite the steam entrance.

2. In a surface condenser or the like, a nest of tubes having exit lanes for the steam and condensate extending into the nest on the side of the tube nest opposite the steam entrance, and inlet lanes for the steam on the side of the nest at which the steam enters.

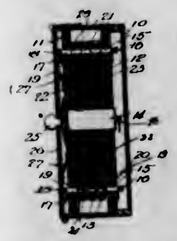
3. In a surface condenser or the like, a nest of tubes having inlet and exit lanes arranged to divide the tube nest into groups of tubes such as to secure the passage of each portion of the steam over substantially the same number of tubes in passing from the inlet to the exit lanes.

4. A surface condenser or the like, having a plurality of nests of tubes arranged one above the other, vertical inlet steam lanes on the side of each nest toward the steam entrance, vertical exit lanes on the side of each nest opposite the steam entrance, each of said lanes extending part way through the nest of tubes and the lanes dividing each nest of tubes into groups separating the inlet and exit lanes in such manner as to secure the passage of each portion of the steam over substantially the same number of tubes in each nest in passing from the inlet to the exit lanes.

5. A surface condenser or the like, having a plurality of nests of tubes arranged one above the other, vertical inlet steam lanes on the side of each nest toward the steam entrance, vertical exit lanes on the side of each nest opposite the steam entrance, each of said lanes extending part way through the nest of tubes and the lanes dividing each nest of tubes into groups separating the inlet and exit lanes in such manner as to secure the passage of each portion of the steam over substantially the same number of tubes in each nest in passing from the inlet to the exit lanes, the exit lanes of the lower nest of tubes being arranged in line with the exit lanes of the upper nest of tubes.

[Claim 6 not printed in the Gazette.]

1,239,199. SWITCH-LOCK. BENJAMIN H. MCNEIL, Chicago, Ill. Filed Mar. 17, 1917. Serial No. 155,496. (Cl. 175—282.)

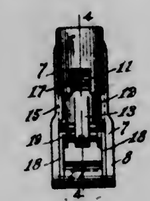


1. An electric switch mechanism comprising a pair of laterally spaced stationary plates having each a series of transverse apertures, conducting plugs interchangeably mounted in the apertures and projecting from the inner faces of the plates, circuit connections with said plugs, a spindle journaled in the plates, a series of disks mounted on the spindle between the plates and insulated from each other, one of the disks being fast on the spindle, means for transmitting motion from said fast disk to the other disks of the series, and conducting plugs projecting from the [illegible] the disks, said disks having each a series of transverse apertures in which the plugs are interchangeably mounted, said plugs being in alinement and in contact when a predetermined relative position of the disks, and the plugs of the end ones of the series of disks then respectively the conducting plugs of the sta-

[illegible] switch mechanism comprising a pair of [illegible] stationary members each having a series [illegible] apertures, conducting plugs interchangeably [illegible] apertures and projecting from the inner [illegible] members, circuit connections with said plugs, [illegible] tively movable members mounted between the stationary members and insulated from each other, said movable members having transverse apertures, conducting plugs interchangeably mounted in the apertures and projecting from the faces of the movable members, said plugs being in alinement and in contact upon a predetermined relative position of the movable members, and the plugs of the end ones of the series of movable members then engaging respectively the conducting plugs of the stationary members, and actuating means for the movable members.

[Claim 3 not printed in the Gazette.]

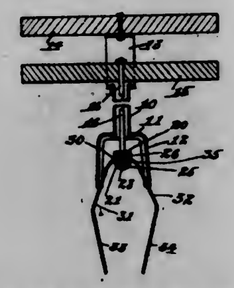
1,239,200. SHOCK-ABSORBER. JEREMONT J. MACBETH, Dayton, Ohio. Filed Apr. 9, 1917. Serial No. 160,587. (Cl. 267—19.)



1. In a device of the character specified, the combination with a vehicle, the spring and the axle thereof, of a spring housing having a yoke extended therefrom, an expansion spring connected to said yoke, a plunger below said spring housing, an arm to which said plunger is pivoted, said arm being connected with the axle, a spring seated upon said plunger and confined within said spring housing, and a pivotal connection between the vehicle spring and said yoke, substantially as specified.

[Claim 2 not printed in the Gazette.]

1,239,201. CUTTING AND CLEANING TOOL. ELIZABETH MACLACHLAN, Elkhart, Ind., assignor to William S. Ferris, Elkhart, Ind. Filed Oct. 14, 1916. Serial No. 125,687. (Cl. 55—65.)



1. In a tool of the class described, the combination of a main hollow body having a pair of fingers, a rod movable through the body, a spring jaw strip, associated with said body fingers and having a curved portion, means carried by said rod engaging the curved portion of said spring jaw strip, said means being curved and of lesser radius than the curved portion of the spring jaw strip.

2. In a tool of the class described, the combination of a main hollow body having a pair of fingers, a rod movable through said body, a U-shaped clip secured to the end of said rod, an arcuate bearing face supported in and spaced from the upper portion of the U-clip and a spring jaw strip having a curved upper portion, passing through the space between said arcuate face end, and the upper portion of said clip, said curved portion having a greater radius than the curved portion of the arcuate bearing face and the said spring jaw strip having outwardly disposed substantially straight portions in engagement with the fingers carried by the body, whereby movement of the clip toward the body causes the spring jaw strip fingers

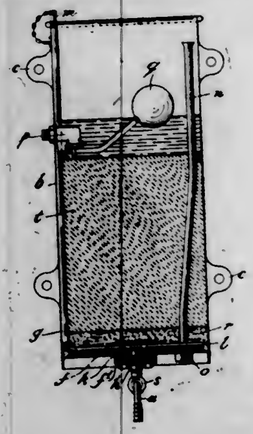
to move together and whereby when released, the outward pressure of the spring jaw strip serves to return the rod and handle to normal position and automatically to discharge any material carried by the spring jaw strip.

3. In a tool of the class described, the combination of a main body having a pair of fingers at one end, a rod, longitudinally movable between said fingers, a U-shaped clip carried by the rod and normally spaced from the juncture of said fingers with the body, a cylinder carried by said U-shaped clip and having its upper portions spaced from the body part of the U-clip, and a spring jaw strip having a curved upper portion passing through the space between said cylinder and U-clip, said cylinder engaging the spring jaw strip and causing the fingers thereof to move together when the said rod is moved and the jaw strip serving to return the parts to normal position and automatically to discharge any material gripped thereby.

4. In a tool of the class described, the combination of a hollow body portion having a pair of fingers, of a rod movable through the body, a spring jaw strip associated with said body fingers and having a curved portion, a cylinder carried by said rod engaging the curved portion of the spring jaw strip, and serving to support it, said cylinder being of lesser radius than the curved portion of the spring jaw strip.

5. In a tool of the class described, the combination of a hollow body, having a pair of fingers, a rod movable through the body, a spring jaw strip associated with said body fingers and having a curved portion, a U-clip carried by said rod, a bolt carried in the U-clip and having a hollow cylinder mounted thereon, said cylinder engaging the curved portion of the spring jaw strip and having a radius less than the radius of the curved portion of the jaw strip.

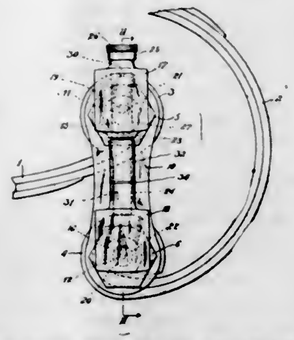
1,239,202. TREATMENT OF WATER FOR SOFTENING; PURIFYING, AND LIKE PURPOSES. HENRY JAMES MAGRATH, Poplar, London, England. Filed Nov. 22, 1916. Serial No. 132,819. (Cl. 210—1.)



1. Apparatus for softening, purifying and otherwise treating water, consisting of a tank, a base-exchanging material in said tank, a ball valve so disposed as normally to maintain a depth of water in the tank above the base-exchanging material, and a single outflow cock having two separate outlet ports, one large and the other comparatively small, said cock being adapted in one position to close both ports, in a second position to be turned to open the large outlet port for the normal flow of treated water, and in a third position beyond the second to open the small outlet port in order to allow of a slow trickling flow at a predetermined rate during regeneration of the base-exchanging material.

[Claims 2 to 4 not printed in the Gazette.]

1,239,203. LUBRICATOR. FRANK ALEXANDER MECKEL, Lakewood, Ohio. Filed Nov. 17, 1916. Serial No. 131,809. (Cl. 267—37.)



1. A lubricator comprising the combination with a pair of shackle bolts, of a pair of reservoirs and an adjustable connection therebetween.

2. A lubricator comprising the combination with a vehicle spring attachment, of a pair of reservoirs each provided with an outlet leading to such attachment and a hollow expansible connection therebetween.

3. A lubricator comprising a pair of reservoirs each provided with an outlet, a duct connecting said reservoirs, and means for varying the length of said duct, one of said reservoirs being also provided with an inlet.

4. A lubricator comprising a pair of reservoirs each provided with an outlet, a duct connecting said reservoirs and extending partly across the interior of one, means for varying the length of said duct, one of said reservoirs being also provided with an inlet, and a cap for said inlet.

5. A lubricator comprising the combination with a vehicle spring, of a pair of reservoirs each having an outlet, and a hollow telescopic connection therebetween, whereby to permit of relative action.

[Claims 6 to 17 not printed in the Gazette.]

1,239,204. RECEPTACLE. FREDERICK P. MEYER, Chicago, Ill., assignor to Kaiser Company, Chicago, Ill., a Corporation of South Dakota. Filed Jan. 29, 1912. Serial No. 674,051. Renewed Dec. 20, 1916. Serial No. 138,107. (Cl. 65—13.)



1. A holder for a paper vessel comprising flexibly connected members, spring members which connect said flexibly connected members, and means for supporting said flexibly connected members in position corresponding to bowed position of said spring members, substantially as described.

2. A receptacle comprising a paper vessel and a holder therefor, said holder comprising flexibly connected members, spring members which connect said flexibly connected members, means for supporting said flexibly connected members in position corresponding to bowed position of said spring members, and means for engaging the top edges of said paper vessel with said spring members, whereby bowing of said spring members will distend the sides of said paper vessel, substantially as described.

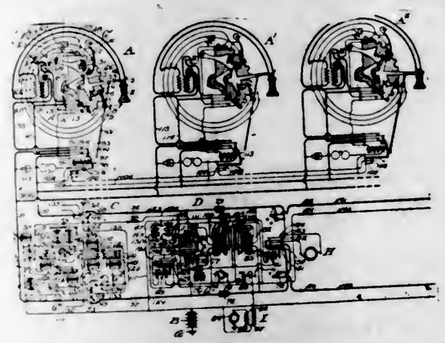
3. A receptacle comprising a paper vessel and a holder therefor, said holder comprising flexibly connected members, spring members which connect said flexibly connected members, means for supporting said flexibly connected members in position corresponding to bowed position of said spring members, and flaps on the upper edges of said vessel adapted to fold over said spring members, whereby bowing of said spring members will distend the sides of said paper vessel, substantially as described.

4. A holder for a paper vessel comprising sections hinged to each other at their lower ends, spring members which connect said hinged members, closed position of said hinged members corresponding to bowed position of said spring members, and means for securing said hinged members in closed position, substantially as described.

5. A holder for a paper vessel comprising flexibly connected members, spring members which connect said flexibly connected members, and means for supporting said flexibly connected members in position corresponding to bowed position of said spring members, said means comprising a guide or guides on one of said holder members, a rod or rods fitted to said guide or guides, a hook or hooks on said rod or rods, and a pin or pins on the other holder member adapted to be engaged by said hook or hooks, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,239,205. TELEPHONE-EXCHANGE SYSTEM. TRYGVE E. MEYER, Chicago, Ill., assignor, by mesne assignments, to Automatic Electric Company, a Corporation of Illinois. Filed Nov. 30, 1907. Serial No. 404,511. (Cl. 179—17.)



1. In a telephone system, a party-line, a telephone and a ground connection for each substation thereon, a relay for each substation, means for energizing the relay when the associated telephone is taken down, means including said relay operated by the taking down of said telephone for preventing the other relays from energizing, said relays when energized serving to connect the telephones with the line, and switching means responsive to electrical impulses through said ground connections.

2. In a telephone system, a party line, a telephone and a calling device for each substation thereon, an individual mechanism for each substation, automatic switches responsive to said calling devices, and means for so operating the mechanism at a substation by taking down the telephone thereof that all other substations are rendered inoperative to either talk or listen or call.

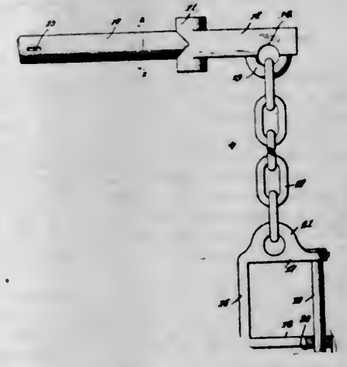
3. In a telephone system, a party-line, a plurality of telephones and hook-switches normally disconnected from both sides of the line at the substations thereof, and relays normally connected with the line and provided with means for connecting the telephones and hook-switches therewith.

4. The combination, in a telephone system, of a party-line, a telephone and a ground connection for each substation thereon, a relay for each substation, means for energizing the relay when the associated telephone is taken down, means operated by the taking down of said telephone for preventing the other relays from energizing, said relays when energized serving to connect the telephones and ground connections with the line, switching means responsive to electrical impulses through said ground connections, and means for supplying current over the subscribers' lines of the system for talking purposes.

5. The combination, in a telephone system, of a party-line, a telephone and a ground connection for each substation thereon, relays serving when energized to connect the telephones and ground connections with the line, there being one relay for each substation, parallel circuits for said relays including said ground connections, means for opening all of said circuits when any telephone is taken down, and means for supplying current over the subscribers' lines of the system for talking purposes.

[Claims 6 to 33 not printed in the Gazette.]

1,239,206. BRAKE-BEAM HANGER. HENRY MILLER, Bristol, Pa. Filed Oct. 10, 1916. Serial No. 124,879. (Cl. 188—70.)



1. A brake beam support comprising a carrying bar provided with a vertically extending shoulder intermediate its length and having its outer end portion provided with a depending eye extending beneath a cutout formed in the outer end portion, a brake beam engaging element, and flexible means connecting the brake beam engaging element with the eye of said carrying bar.

3. A brake beam support comprising a carrying bar provided with an eye adjacent one end, a clamp provided with an eye, and flexible means having one end connected with the eye of said clamp and the second end connected with the eye of said carrying bar.

4. A brake beam support comprising a carrying bar provided with an eye, a clamp having spaced arms, a securing device carried by the arms, an eye extending from one of said arms, and a chain connected with the eye of said carrying bar and with the eye of said arm.

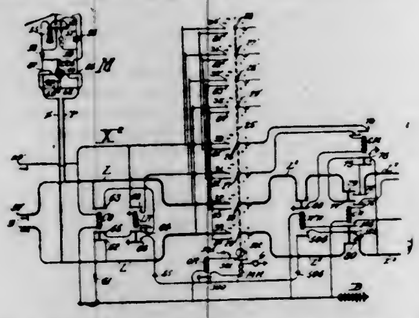
[Claim 2 not printed in the Gazette.]

1,239,207. AUTOMATIC TELEPHONE SYSTEM. GEORGE E. MUELLER, La Grange, Ill., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 5, 1910. Serial No. 547,464. (Cl. 179—18.)

1. A telephone system comprising a plurality of telephone lines, a plurality of line selectors for connecting to and extending the talking circuit of said lines, means including a common driving device operative upon initiation of a call over one of said lines to start all of said selectors to seek connection with said line, and means for stopping one of said line selectors when it has connected with said line, said last means including an electromagnet provided with a locking circuit including mechanism individual to said line.

2. A telephone system comprising a plurality of telephone lines, a plurality of line selectors, each including a set of wipers for connecting to and extending the talking circuit of said lines, means including a common driving device operative upon initiation of a call over one of

said lines for advancing all of said wipers to seek connection with said line, and means for stopping one of said sets of wipers when it has connected with said line, said stopping means including an electromagnet having a locking circuit including a contact individual to said line.



3. A telephone system comprising a plurality of telephone lines, a plurality of line selectors, each including a set of wipers for connecting to and extending the talking circuit of said lines, a common shaft supporting all of said wipers, means operative upon initiation of a call over one of said lines for operating said shaft to advance, all of said wipers to seek connection with said line, and electromagnetic means for stopping one of said sets of wipers when it has connected with said line, said means being provided with a retaining circuit including a wiper of said set of wipers.

4. A telephone system comprising a plurality of telephone lines, a plurality of normally passive line selectors, each including a set of wipers for connecting to and extending the talking circuit of said lines, a common shaft supporting all of said wipers, electromagnetic means effective upon initiation of a call for operating said shaft to advance all of said wipers to seek connection with a calling line, an electromagnet for stopping one of said sets of wipers when it has connected with said line, and a retaining circuit for said electromagnet including a wiper of said set of wipers.

5. A telephone system comprising a plurality of telephone lines, a cut-off relay for each line, a plurality of line selectors, each including a set of wipers for connecting to and extending the talking circuit of said lines, a clutch magnet for each said set of wipers, means operative upon initiation of a call over one of said lines for advancing all of said wipers to seek connection with said line, and means for closing a series circuit through the cut-off relay of said line and one of said clutch magnets when its associated set of wipers have connected to said line.

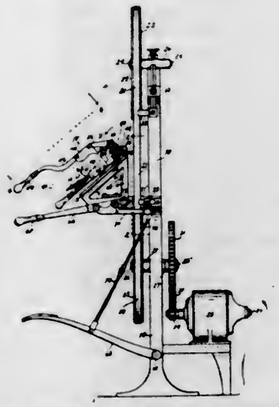
[Claims 6 to 29 not printed in the Gazette.]

1,239,208. HEEL-CUTTING APPARATUS. WILLIAM J. NESBITT, Los Angeles, Cal. Filed Nov. 20, 1916. Serial No. 132,486. (Cl. 12—42.)

1. In heel cutting apparatus, the combination of a stationary frame, a substantially horizontal pivot shaft stationarily mounted on said frame, a frame pivotally mounted on said pivot shaft, a table fastened to the second mentioned frame, a plate movable transversely on said table, and a heel clamping device carried by said plate, substantially as described.

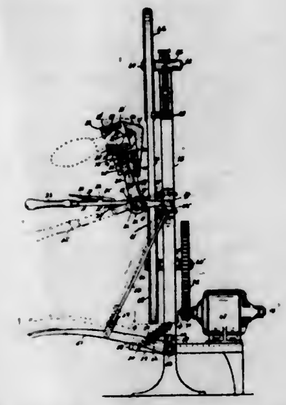
2. In heel cutting apparatus, the combination of a plate, a heel clamping jaw pivotally connected to said plate and having an upwardly extending arm with a bearing therein, a shaft mounted in said bearing, an operating lever mounted on one end of said shaft, and a heel clamping jaw mounted on the other end of said shaft.

3. In heel cutting apparatus, the combination of a movably mounted table, a plate movably mounted on said table, a heel clamping jaw pivotally connected to said plate and having an arm with a bearing therein, a shaft mounted in said bearing, an operating lever mounted on one end of said shaft, and a heel clamping jaw connected to the other end of said shaft.



4. In heel cutting apparatus, the combination of a stationary pivot shaft, a table movably mounted on said stationary pivot shaft, a plate movable transversely on said table, a heel clamping jaw pivotally connected to said plate and having an upwardly extending arm with a bearing therein, a shaft mounted in said bearing, and a heel clamping jaw connected to the last mentioned shaft.

1,239,209. HEEL-CUTTING APPARATUS. WILLIAM J. NESBITT, Los Angeles, Cal. Filed Jan. 11, 1917. Serial No. 141,894. (Cl. 12—42.)



1. Heel cutting apparatus comprising the combination of a substantially horizontal shaft, an arm adjustably mounted on said shaft and provided with a socket, a part adjustably fitted in said socket, and a shoe gripping device adjustably mounted on said part.

2. Heel cutting apparatus comprising the combination of a shaft, an arm having one end thereof adjustably mounted on said shaft and having a socket at its other end, a part adjustably fitted in said socket, a pivot on said part, and a shoe gripping device mounted on said pivot.

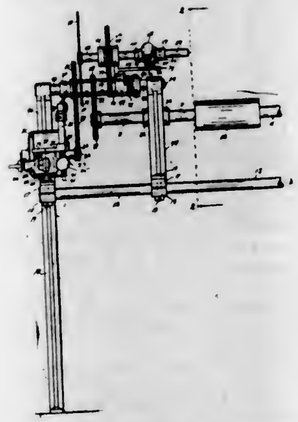
3. Heel cutting apparatus comprising the combination of a shaft, a sleeve slidably fitted on said shaft, an arm pivotally mounted on the sleeve and provided with a socket, a part adjustably fitted in said socket, and a shoe gripping device adjustably mounted on said part.

4. Heel cutting apparatus comprising the combination of a shaft, a sleeve adjustably mounted on said shaft, an arm having a socket at one end thereof and having its other end pivotally connected to said sleeve, a part adjustably fitted in said socket, a pivot on said part, and a shoe gripping device mounted on said pivot.

5. Heel cutting apparatus comprising the combination of a shaft, a sleeve adjustably mounted on said shaft, an arm pivotally mounted on said sleeve, a part adjustably mounted on said arm, a shoe gripping device adjustably mounted on said part and including a movable angular arm, and an angular lever in contact with said angular arm and pivotally mounted on said sleeve.

[Claim 6 not printed in the Gazette.]

1,239,210. HEEL-CUTTING APPARATUS. WILLIAM J. NESBITT, Los Angeles, Cal. Filed Jan. 29, 1917. Serial No. 145,300. (Cl. 12—42.)



1. In heel cutting apparatus, the combination of an adjustable heel clamping device, a pivotally mounted arm, a shaft slidably mounted on said arm, a saw on said shaft, and means including a sprocket wheel feathered on said shaft to drive the shaft.

2. In heel cutting apparatus, the combination of a heel clamping device, a pivotally mounted arm, a saw, a shaft on which the saw is mounted, and means whereby said shaft is slidably mounted on the arm so that the saw can be adjusted transversely toward or away from the heel clamping device.

3. In heel cutting apparatus, the combination of a heel clamping device, a pivotally mounted arm, a spring arm arranged to normally support the first mentioned arm, a saw, and a shaft for the saw journaled adjustably on the first mentioned arm so that the saw can be adjusted transversely toward or away from the heel clamping device.

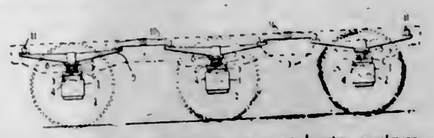
4. In heel cutting apparatus, the combination of a shaft, an arm pivotally mounted on said shaft, a saw, a shaft slidably mounted on said arm and having said saw mounted thereon, a sprocket wheel feathered on the last mentioned shaft, and suitable means to operate the sprocket wheel.

5. In heel cutting apparatus, the combination of a pivotally mounted arm, a saw, a shaft slidably mounted on said arm and having the saw mounted thereon, a sprocket wheel feathered on the shaft, a stop adapted to limit the inward movement of said arm, and a spring arm arranged to normally support the first mentioned arm and move it to raised position.

[Claim 6 not printed in the Gazette.]

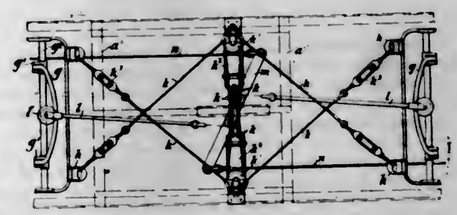
1,239,211. SPRING SUSPENSION FOR RAILWAY-TRUCKS. GEORGE E. PARKS, Detroit, Mich. Filed July 10, 1916. Serial No. 108,300. (Cl. 105—244.)

In a car truck, journal boxes having the upper faces thereof provided with seats, concentric springs on the necks of said journal boxes, caps on said springs, main springs having central portions seated on said caps, and equalizing members between said main springs and pivotally connected to said car truck and having the ends



thereof bearing on the ends of said main springs, and bearing members engaging the outer ends of the endmost main springs and supporting said truck.

1,239,212. AXLE-TRUCK FOR RAILWAY, TRAMWAY, AND LIKE VEHICLES. EDGAR PECKHAM and SIDNEY THOMAS, London, England. Filed June 11, 1914, Serial No. 844,385. Renewed Jan. 30, 1917. Serial No. 145,567. (Cl. 105—137.)



1. In a railway vehicle, the combination with a frame, of two radial trucks, centering means acting upon both trucks, and means whereby when one truck strains such centering means, the other is released from the control thereof.

2. In a railway vehicle, the combination with a frame, of two radial trucks, centering means containing a spring acting upon both trucks, and means for releasing one truck from the action of the spring when the other truck strains it.

3. In a railway vehicle, the combination with a frame and two radial trucks, of common centering means for the trucks, and means for releasing the trailing truck from the control of such centering means when the leading truck takes a curve.

4. In a railway vehicle, the combination with a frame and two radial trucks, of common centering means including a spring acting upon both the trucks, and means for releasing the trailing truck from the control of the spring when the leading truck takes a curve.

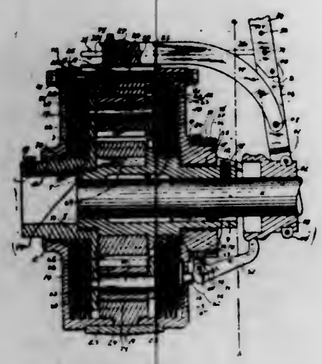
5. In a railway vehicle, the combination with a frame and two radial trucks, of common centering means for the trucks including a compression spring acting upon both trucks, and means for releasing the trailing truck from the control of the spring when the latter is compressed by the leading truck taking a curve.

[Claims 6 to 10 not printed in the Gazette.]

1,239,213. REVERSING MECHANISM. JOSEPH V. PETRELLI, New Haven, Conn. Filed June 8, 1914. Serial No. 843,725. (Cl. 74—34.)

1. In a reversing mechanism, the combination with a case, of an internal gear rigidly connected therewith, a gear-cage located within the said case and comprising inner and outer flanges one of which is formed with an outwardly projecting hub adapted to be rigidly connected with a source of power, a driven gear, pinions carried by the said cage, located between the flanges thereof and interposed between the said internal gear and the said driven gear, friction means co-acting with the cage and the case, whereby the case and cage are constantly driven in the same direction for the forward drive and the cage for the reverse drive, and means for holding the said case and hence the said internal gear, against rota-

tion, whereby the pinions are caused to reversely rotate the driven gear, and hence the driven member, on the reverse drive.



2. In a reversing mechanism, the combination with a case, of an internal gear carried thereby, a gear-cage located within the said case and comprising inner and outer flanges one of which is formed with an outwardly projecting hub adapted to be rigidly connected with a source of power, a driven gear, pinions carried by the said cage located between the flanges thereof and interposed between the said gears, and friction means between the ends of the cage and the case, whereby the cage is constantly driven in the same direction for the forward drive and for the reverse drive, and whereby the forward drive of the mechanism is mainly carried by the said friction means rather than by the gearing when interlocked.

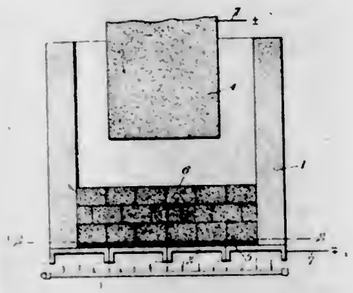
3. In a reversing mechanism, the combination with a case, a gear-cage located within the case, a driving member rigidly connected with the gear-cage for constantly rotating the same in one direction and adapted to be solidly connected with the motive power, a driven member, two sets of friction disks respectively interposed between the gear-cage and case with which the disks are coupled for the rotation of the said case and cage, one set of disks being coupled both with the said gear-case and the said gear-cage, and the other set being coupled both with the said gear-case and the said driven member, and means for simultaneously imposing pressure upon both sets of disks and the ends of the gear-cage, whereby the gear-case is mainly held against rotation by the said disks during the forward drive and the strain removed from the gearing.

4. In a reversing mechanism, the combination with a case, of a driving and a driven member, the latter being adapted to be solidly connected with the source of motive power, a gear-cage located within the case, rigidly connected with the said driving-member and carrying pinions, two sets of friction disks respectively connected with the said driving and driven members for rotation therewith, two sets of friction disks connected with the case for rotation therewith, and arranged in alternation with the disks connected with the said driving and driven members, and means for applying inward pressure to the said disks thus causing the driving and driven members, the case, and the gear-cage to revolve together in the same direction for the forward drive.

5. In a reversing mechanism, the combination with a case, an internal gear carried thereby, a gear-cage located within the said case, a driving member rigid with the gear-cage, projecting outward through the said case and adapted to be solidly attached to a source of power, a driven-member concentric with the gear-cage, a driven-gear carried by the driven-member, two sets of pinions carried by the gear-cage, meshing into each other and interposed between the said internal gear and the said driven gear, and two sets of friction disks interposed between the ends of the case and the cage and constructed and arranged to frictionally couple together the driving and driven-members and the said case during the forward drive and so relieve the strain upon the gearing.

[Claim 6 not printed in the Gazette.]

1,239,214. ELECTRIC FURNACE. EDGAR F. PRICE, Port Chester, N. Y., assignor to Electro Metallurgical Company, New York, N. Y., a Corporation of West Virginia. Filed Feb. 1, 1917. Serial No. 145,870. (Cl. 204—64.)



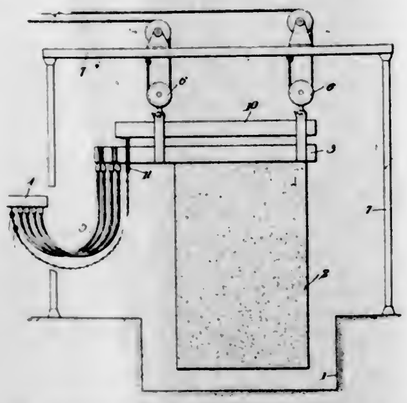
1. In an electric furnace, the combination of a base, a hearth or bed, and a series of overlapping metal sheets interposed between said base and hearth.

2. In an electric furnace, the combination of a cast-metal base, a hearth or bed of carbonaceous material, and a series of overlapping metal sheets interposed between said base and hearth.

3. In an electric furnace, the combination of a segmental metal base, cooling means therefor, a hearth or bed, and a series of overlapping metal sheets interposed between said base and hearth.

4. In an electric furnace, the combination of a segmental base, cooling means therefor, a hearth or bed of carbonaceous material, and a series of overlapping metal sheets interposed between said base and hearth.

1,239,215. ELECTRIC FURNACE. EDGAR F. PRICE, Port Chester, N. Y., assignor to Electro Metallurgical Company, New York, N. Y., a Corporation of West Virginia. Filed Feb. 1, 1917. Serial No. 145,871. (Cl. 204—64.)



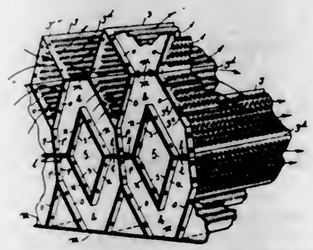
1. In combination with an electric furnace having a movable electrode, a flexible conductor in the circuit leading to said electrode, and a shield disposed between said flexible conductor and the furnace and movable with said conductor.

2. In combination with an electric furnace having a movable electrode, a flexible conductor in the circuit leading to said electrode, and a flexible shield disposed between said flexible conductor and the furnace and movable with said conductor.

3. In combination with an electric furnace having a movable electrode, a flexible conductor in the circuit leading to said electrode, and a shield disposed between said flexible conductor and the furnace, said shield movable with said conductor but insulated therefrom.

4. In combination with an electric furnace having a movable electrode, a flexible conductor in the circuit leading to said electrode, and a flexible shield disposed between said flexible conductor and the furnace, said shield movable with said conductor but insulated therefrom.

1,239,216. GRAIN-DRIER. OLIVER W. RANDOLPH, Toledo, Ohio. Filed Oct. 13, 1916. Serial No. 125,495. (Cl. 34—34.)



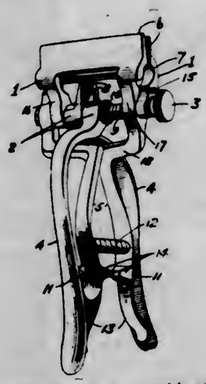
1. In a grain drier, an elongated, rectangular upright hollow drier body, having opposite air inlet and outlet sides provided with corresponding horizontal and vertical parallel rows of equal diamond shaped openings at regular intervals, end plates connecting the inlet and outlet sides, hollow screens, diamond shaped in cross section, extending horizontally through the body of the drier with their ends secured, one in each opposite pair of openings of the sides, and closures for the screens closing each screen at one end, alternate horizontal rows of the screens being closed at the inlet side and open at the outlet side, and alternate horizontal rows being open at their inlet ends and closed at their outlet ends, and means to deliver heated air into the screens that are open at the inlet side of the drier body.

2. In a drier body, an elongated, rectangular, upright, hollow drier body, having opposite and equal air inlet and outlet sides, each provided with a multiplicity of equal diamond shaped openings, arranged at regular intervals in horizontal rows, and with the openings of alternate horizontal rows forming separate and alternate vertical rows, and with the openings of the horizontal and vertical rows leaving intersecting diagonal portions of the sides of equal widths, end plates connecting the inlet and outlet sides, hollow screens diamond shaped in cross section, one extending between each opposite pair of openings in the inlet and outlet sides, and having its end portions fitted and secured to the sides of the openings and forming diagonal intersecting spaces opposite and between the diagonal intersecting side portions of the inlet and outlet sides, closures for the ends of the screens, and closing one end of each screen, each alternate horizontal row of the screens being closed at their ends in the inlet side and open at their ends in the outlet side, and each other horizontal row being closed at their ends in the outlet side and open at their ends in the inlet side, means to deliver heated air into the screens that are open in the inlet side and means to regulate the passing of grain through the drier body.

3. In a grain drier, an upright, elongated, rectangular hollow body comprising opposite equal air inlet and outlet sides, and end plates connecting the sides, said sides being formed of a multiplicity of flanged structural units, adapted when connected side by side by their flanges, in horizontal rows, and the horizontal rows being alternately inverted and connected by their end flanges, to build up the sides and form therein horizontal and vertical rows of diamond shaped openings, with diagonal intersecting portions of the sides of uniform width between the openings, with semi-diamond shaped openings at the ends of alternate horizontal and vertical rows, a multiplicity of hollow screens each formed of a perforated plate of sheet metal bent diamond shaped in cross section, said screens cross connecting the inlet and outlet sides, with their end portions fitted and secured to the flanges of the units forming the diamond shaped openings of the sides, diamond shaped closure units for the ends of the screens, one closure for each screen, said closure units being secured to close the ends of alternate horizontal rows of the screens that are connected to the inlet side, and to close the ends of the other horizontal rows of screens that are secured to the outlet side, means to deliver heated air into the screens that are open in the inlet side, and means to regulate the passage of grain through the drier body.

4. In a grain drier, the combination of an upright, elongated, rectangular drier body, having a pair of opposite sides each provided with a multiplicity of diamond shaped openings opposite the openings of the other, and a multiplicity of hollow screens, each formed of a perforated plate bent diamond shaped at its end portions to fit into and adapted to be secured to the sides of the diamond shaped openings of the sides of the drier body, and having the body portion between its end portions also diamond shaped in cross section excepting that it has a narrow longitudinal opening instead of the lower angle of the end portions.

1,239,217. SAW-SET. AUGUSTINE B. REPETTO, Margate City, N. J. Filed Aug. 25, 1916. Serial No. 116,804. (Cl. 76—64.)



1. A saw-set comprising the combination of concentrically pivoted pairs of spring-opened clamping and setting tongs having their shanks in substantially the same plane and of which the clamping tongs are provided with saw holding lips and the setting tongs are provided with saw sets operatively arranged in respect to the lips, whereby the shanks of the setting tongs constitute handles and operate between them the shanks of the clamping tongs, substantially as described.

2. A saw-set comprising the combination of concentrically pivoted pairs of spring-opened clamping and setting tongs having their shanks in substantially the same plane and of which the clamping tongs are provided with saw holding lips and the setting tongs are provided with saw sets operatively arranged in respect to the lips, and adjustable abutments between the shanks of the respective pairs of tongs, whereby the shanks of the setting tongs constitute handles and operate between them the shanks of the clamping tongs, substantially as described.

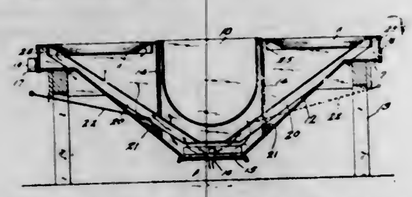
3. A saw-set comprising the combination of concentrically pivoted pairs of spring-opened clamping and setting tongs having their shanks in substantially the same plane and of which the clamping tongs are provided with saw holding lips and the setting tongs are provided with saw

sets operatively arranged in respect to the lips, adjustable abutments between the shanks of the respective pairs of tongs, and stops between the shanks of the clamping tongs, whereby the shanks of the setting tongs constitute handles and operate between them the shanks of the clamping tongs, substantially as described.

4. A saw-set comprising the combination of pairs of spring-opened clamping and setting tongs having their shanks in substantially the same plane and of which the clamping tongs are provided with saw holding lips and the setting tongs are provided with saw sets operatively arranged in respect to the lips, and a pivot pin by which the two pairs of tongs are concentrically pivoted and which has threaded engagement with one element of the pair of setting tongs, substantially as described.

5. A saw-set comprising the combination of a pivot pin, a pair of spring-opened clamping tongs each provided with a clamping lip and with arms spaced apart and extending between the lips and the pin and whereof one is continued beyond the pin and offset to bring the shanks into substantially the same plane, a pair of setting tongs pivoted to said pin and provided with sets arranged in the space between the arms and having their shanks outside of and substantially in the same plane with the shanks of the clamping tongs, and springs and abutments interposed between the shanks of the respective tongs, substantially as described.

1,239,218. CHOCOLATE-HEATER. HUGH R. RICHARDS, Indianapolis, Ind. Filed Oct. 2, 1916. Serial No. 123,207. (Cl. 126—39.)



1. A chocolate table, comprising a casing, a chocolate pot mounted in such casing, a shallow dipping pan also mounted in said casing, a heater mounted in said casing below said chocolate pot, said dipping pan being displaced laterally from the heater, and a flue leading diagonally upward within the casing from said heater to that part of said dipping pan which is remote from the chocolate pot, and a damper in said flue.

2. A chocolate table, comprising a casing, a chocolate pot mounted in such casing, a shallow dipping pan also mounted in said casing, a heater mounted in said casing below said chocolate pot, said dipping pan being displaced laterally from the heater, and a flue leading diagonally upward within the casing from said heater to that part of said dipping pan which is remote from the chocolate pot.

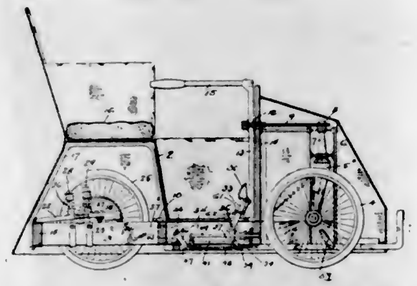
3. A chocolate table, comprising a casing, a chocolate pot mounted in such casing, a shallow dipping pan also mounted in said casing, a heater mounted in said casing below said chocolate pot, and a flue leading from said heater to that part of said dipping pan which is remote from the chocolate pot, said flue being open on its under side and carrying but part of the hot air from the heater.

4. A chocolate table, comprising a casing, a chocolate pot mounted in such casing, a shallow dipping pan also mounted in said casing, a heater mounted in said casing below said chocolate pot, said dipping pan being displaced laterally from the heater, a flue leading diagonally upward within the casing from said heater to that part of said dipping pan which is remote from the chocolate pot, said casing having an air inlet opening below the heater and an air outlet opening beyond the discharge end of said flue, and a damper controlling one of such openings.

5. A chocolate table, comprising a casing, a chocolate pot mounted in such casing, a shallow dipping pan also mounted in said casing, a heater mounted in said casing below said chocolate pot, said dipping pan being displaced laterally from the heater, and a flue leading diagonally upward within the casing from said heater to that part of said dipping pan which is remote from the chocolate pot, said casing having an air inlet opening below the heater and an air outlet opening beyond the discharge end of said flue.

[Claims 6 and 7 not printed in the Gazette.]

1,239,219. MOTOR-VEHICLE. GRAHAME B. RIDLEY, San Francisco, Cal. Filed Dec. 14, 1915. Serial No. 66,750. (Cl. 172—179.)



1. In a motor vehicle, a motor, a motor circuit, a circuit breaker in the motor circuit, a lever, means operative by the first portion of the lever movement for progressively increasing the resistance of said circuit, means operative by a succeeding portion of the lever movement for opening said circuit breaker, and means independent of the motor circuit for opening said circuit breaker.

2. In a motor vehicle, a motor, a motor circuit, a circuit breaker in the motor circuit, a lever, means operative by the first portion of the lever movement for progressively increasing the resistance of said circuit, and means mediately connected to said lever and operative by a succeeding portion of the lever movement for opening said circuit breaker and short-circuiting said motor circuit.

3. In a motor vehicle, a motor, a motor circuit, a circuit breaker in the motor circuit, a lever, means operative by the first portion of the lever movement for progressively increasing the resistance of said circuit, means operative by a succeeding portion of the lever movement for opening said circuit breaker and short-circuiting said motor circuit, and means operative by a final movement of the lever for mechanically braking said vehicle.

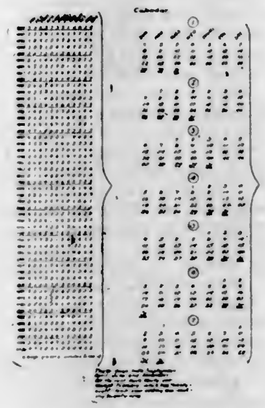
4. In a motor vehicle having a friction brake, a motor, a motor circuit, a circuit breaker in the motor circuit, a lever, means operative by a portion of the lever movement for progressively increasing the resistance of said circuit, means operative by a succeeding movement of the lever for opening said circuit breaker, means operative by a final movement of the lever for setting said friction brake, and means independent of the lever for opening said circuit breaker.

5. In a motor vehicle, a motor, a motor circuit, a controller for said motor, a circuit breaker in the motor circuit, a friction brake and a lever arranged to operate the controller through a portion of its movement, to operate the circuit breaker through its further movement and to operate the friction brake through its final movement.

[Claims 6 and 7 not printed in the Gazette.]

1,239,220. CALENDAR. EPHRAIM H. RODEN, Chicago, Ill. Filed Oct. 6, 1915. Serial No. 54,297. (Cl. 40—123.)

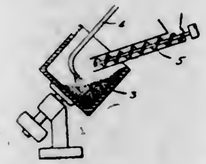
1. A calendar comprising thirteen parallel columns, one of the columns being a column of year dates arranged consecutively with the leap years displayed in a distinctive manner and the other twelve columns being month columns designated January to December month columns respectively and each being made up of seven recurring symbols which have a consecutive relation with each other and relate to the days of the week, said symbols being arranged in consecutive order in each month column except in the January and February month columns where one symbol is dropped from the consecutive order between



each leap year and the year following such leap year and in each of the other ten month columns one symbol is dropped from the regular consecutive order between each leap year and the year previous to such leap year.

[Claim 2 not printed in the Gazette.]

1,239,221. METHOD OF AGGLOMERATING FINELY-DIVIDED MATERIAL. HUGH RODMAN, Edgewood, Pa., assignor to The Rodman Chemical Co., a Corporation of Pennsylvania. Filed Sept. 5, 1916. Serial No. 118,472. (Cl. 18—48.)



1. The method of building up pills or agglomerates which consists in agitating finely divided material and nuclei in a grading device and adding a binding agent only to the smaller of the agglomerates formed.

2. The continuous method of building up pills or agglomerates, which consists in agitating finely divided material and nuclei in a grading device, continuously adding a binding agent to the smaller agglomerates only, and continuously removing the larger agglomerates.

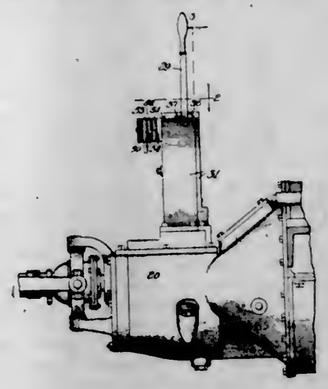
3. The method of building up pills or agglomerates which consists in tumbling finely divided material and nuclei in a tumbling and grading device and adding a binding agent only to the smaller of the agglomerates formed.

4. The continuous method of building up pills or agglomerates which consists in tumbling finely divided material and nuclei in a tumbling and grading device, continuously adding a binding agent to the smaller agglomerates only and continuously removing the larger agglomerates.

5. The method of building up pills or agglomerates which consists in tumbling finely divided material and nuclei in an inclined tumbling and grading device and adding a binding agent to the smaller agglomerates only.

[Claims 6 to 12 not printed in the Gazette.]

1,239,222. PERMUTATION-LOCK. FREDERICK P. ROSBACK, Benton Harbor, Mich. Filed Apr. 9, 1917. Serial No. 160,790. (Cl. 70—53.)



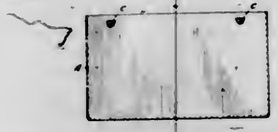
1. Locking mechanism comprising a shiftable member provided with a plurality of lugs, a plurality of independently rotatable telescoped sleeves, disks on said sleeves containing recesses and adapted when said recesses register with said lugs, to permit said shiftable member to be shifted, and when out of registration therewith to prevent movement of said member, means on said sleeves for independently rotating the latter, and a rotatable member telescoped with said sleeves and carrying means for shifting said shiftable member.

2. Locking mechanism comprising a shiftable member provided with a plurality of lugs and a shoulder-surface, a plurality of independently rotatable telescoped members having recesses and adapted when said recesses register with said lugs, to permit said shiftable member to be shifted, and when out of registration therewith to prevent movement of said member, and a rotatable member telescoped with said sleeves and having a surface adapted to engage the said shoulder-surface on said shiftable member, one of said surfaces being of cam form and cooperating with the other of said surfaces and operating to shift said shiftable member upon rotating said last-named member.

3. Locking mechanism comprising a shiftable member provided with a plurality of lugs and a shoulder-surface, a plurality of independently rotatable telescoped members having recesses and adapted when said recesses register with said lugs, to permit said shiftable member to be shifted, and when out of registration therewith to prevent movement of said member, and a rotatable member telescoped with said sleeves and having cam-surfaces thereon spaced apart and cooperating with said shoulder-surface and operating when said rotatable member is rotated in one direction to shift said shiftable member in one direction, and when rotated in the opposite direction to shift said shiftable member in the opposite direction.

4. Locking mechanism comprising a shiftable member provided with a plurality of lugs and a shoulder-surface, a plurality of independently rotatable telescoped members having recesses and adapted when said recesses register with said lugs, to permit said shiftable member to be shifted, and when out of registration therewith to prevent movement of said member, and a rotatable member telescoped with said sleeves and having a disk-portion at one end equipped at its periphery with a segmental flange spaced from the ends of said disk and terminating at its ends in cam-surfaces extending generally in parallel relation with each other, one of said surfaces operating, when said rotatable member is turned in one direction, to force said shiftable member in one direction by engaging with its said shoulder-surface and the other of said cam-surfaces operating in the reverse rotation of said rotatable member to shift said shiftable member in the opposite direction by engaging the said shoulder-surface.

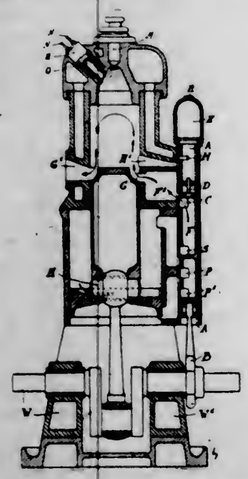
1,239,223. SHEET-METAL HERRING-BOX. CONRAD ROSS, East Orange, N. J., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 25, 1913. Serial No. 786,392. (Cl. 220—10.)



1. A snap closure for boxes consisting of a box body having individual straight incisions and inwardly bent portions along and below said incisions, and a cover having corresponding straight incisions and inwardly bent portions along and below the incisions of the cover, the metal of the inwardly bent portions of the body and cover below the incisions being undivided from and continuous with the sides of the body and cover respectively, the incisions of the cover being arranged to register with those of the box body, so that when the cover is put on the box body the inwardly bent portions of the body and cover lie parallel and the inwardly bent portions of the cover engage under the unbent edges of the incisions in the body, whereby the cover is securely held in place.

2. A snap closure for boxes consisting of the combination of a box body, and a flange cover therefor, the said body and flange of the cover being formed with registering and interlocking substantially straight edges, and the flange of the cover being formed at intervals with vertical spaces separating the flange into independently bendable sections, whereby the cover may be released by bending one or more of said flange sections outwardly.

1,239,224. TWO-STROKE COMBUSTION-ENGINE. CARL RUDQWIST, Munich, Germany. Filed Dec. 10, 1914. Serial No. 876,411. (Cl. 123—71.)



1. In a two stroke cycle combustion engine, the combination of an engine cylinder having a combustion chamber and a pumping chamber therein, a valve casing supported adjacent said engine cylinder and having port openings communicating, respectively, with said combustion chamber and said pumping chamber, a valve slidable in said valve casing, said valve having ports therein adapted to register with the port openings in the casing, means dividing said valve casing into adjacent chambers and permitting passage of air from one chamber to the other in but one direction, and means for reciprocating said valve to successively cause the ports therein to register with the port openings in the valve casing, whereby a charge of scavenging air first passes from one of the chambers in the valve into the combustion chamber and thereafter a second charge of air for admixture with fuel passes from the other chamber in the valve into said combustion chamber.

2. In a two stroke cycle combustion engine, the combustion of an engine cylinder having a combustion chamber and a pumping chamber formed therein, a valve casing supported adjacent said engine cylinder and having air admission port openings in communication with said pumping chamber, said valve casing also having a port opening in communication with said combustion chamber and an intermediate scavenging air port opening therein, a valve slidable in said valve casing and having ports adapted to register, respectively, with the port openings in said valve casing, means dividing said valve casing into adjacent chambers and permitting passage of air from one chamber to the other in but one direction, and means for reciprocating said valve to successively cause the ports therein to register with the port openings in the valve casing, whereby a charge of scavenging air first passes from one of the chambers in the valve into the combustion chamber and thereafter a second charge of air for admixture with fuel passes from the other chamber in the valve into said combustion chamber.

3. In a two stroke cycle combustion engine, the combination of an engine cylinder having a combustion chamber and a pumping chamber therein, a valve casing supported adjacent said engine cylinder, said casing having a pair of air admission port openings therein communicating with said pumping chamber, an intermediate scavenging-air port opening leading to said combustion chamber and an air emission port opening communicating with said combustion chamber, a valve slidable in said casing and having adjacent chambers therein, means for entrapping air in one of said chambers, said valve having ports therein adapted to register, respectively, with the port openings in said valve casing, and means for reciprocating said valve to successively cause the ports therein to register with the port openings in said valve casing, whereby air entering the valve casing through said admission port openings flows through the scavenging-air port opening into the combustion chamber and thereafter the entrapped air flows into said combustion chamber through said air emission port opening.

4. In a two stroke cycle combustion engine, the combination of an engine cylinder having a combustion chamber and a pumping chamber therein, a valve casing supported adjacent said cylinder, a valve in said casing divided into adjacent chambers, means for entrapping air in one of said chambers, there being air passages between said valve casing and said engine cylinder, and means for reciprocating said valve whereby a charge of scavenging air first passes into said combustion chamber and thereafter the entrapped air passes into said combustion chamber to admix with fuel therein.

5. In a two stroke cycle combustion engine, the combination of an engine cylinder having a combustion chamber, a pumping chamber, and an intermediate pressure-reducing chamber therein, a valve casing supported adjacent said cylinder, a valve in said casing divided into adjacent chambers, there being air passages between said valve casing and said engine cylinder, and means for reciprocating said valve whereby a charge of scavenging air first passes through said pressure-reducing chamber into said combustion chamber and thereafter the entrapped air passes into said combustion chamber to admix with fuel therein.

1,239,225. STOPPER. ROBERT WILLIAM SAMPSON, Whitestone, N. Y. Filed Aug. 17, 1916. Serial No. 115,372. (Cl. 215—19.)

1. The combination, in an orifice closer, of a flexible body and unitary, longitudinally acting means for both expanding and contracting the body laterally, as desired.

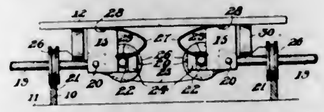
12. The combination, in an orifice closer, of a compressible and expansible body, a rigid shank-engaging element incorporated with each end of the body, the upper of such elements having a screw threaded opening therethrough, and a threaded shank coöperating with said shank-engaging elements to draw them toward each other when it is rotated in one direction and to force them apart when



it is rotated in the other direction and to thereby expand and contract the body as desired and to hold it in the expanded and contracted positions.

[Claims 2 to 11, 13, and 14 not printed in the Gazette.]

1,239,226. COUCH-PLATFORM FOR SHIPS. LOUIS G. SARICH, South Chicago, Ill. Filed May 8, 1917. Serial No. 167,211. (Cl. 114—192.)



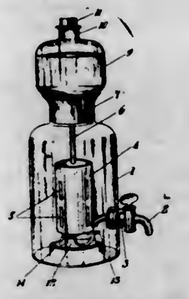
1. A device of the class described comprising a rectangular base having arcuate side and end track portions, a platform, spindles pivotally carried by the platform projecting adjacent the said track portions, and wheels slidably journaled upon the said spindles and mounted upon said track portions.

3. A ship's couch comprising a platform, opposite bolsters carried by the platform, longitudinally and transversely positioned spindles pivoted to the said bolster, arcuate end and side tracks beneath said platform, and grooved wheels upon the said tracks slidably journaled upon said spindles.

5. A device of the class described comprising a rectangular frame having arcuate side and end tracks, a platform, opposite bolsters longitudinally secured beneath said platform having end portions and terminal end blocks, transversely-arranged spindles pivoted in said blocks, longitudinally arranged spindles pivoted in said end portions of the bolster, grooved wheels upon the said spindles shiftably arranged upon the said tracks, bow springs secured between said platform and transverse spindles adjacent said blocks, and leaf springs connected between said platform and longitudinal spindles outwardly of said blocks.

[Claims 2 and 4 not printed in the Gazette.]

1,239,227. APPARATUS FOR IMPREGNATING WATER WITH RADIUM EMANATIONS. SIEGMUND SAUBERMANN, Charlottenburg, Germany. Filed June 27, 1914. Serial No. 847,638. (Cl. 167—9.)



1. A radio active cell comprising a plurality of protective plate members permeable to radium emanations, a radio active substance between said plate members, and a protective wrapping permeable to water inclosing said plate members, and constituting combined retaining means and covering to prevent the escape of said radio active material from said cell.

2. A radio active cell comprising a central core body containing a radio active central member with a protective wrapping, a plurality of radially extending plates about said central body, and an exterior container inclosing said core and radial plates.

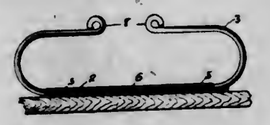
3. A radio active cell comprising a central core body containing a radio active central member with a protective wrapping, a plurality of radially extending plates of material permeable to radium emanations about said central body, an exterior container inclosing said core and radial plates, and a filling of granular material in the space between said radial plates and the wall of said container.

4. In combination, an impregnating receptacle, a radium cell within said receptacle, a supply receptacle, and a communicating tube connecting the interior of said supply receptacle with the interior of said radium cell.

5. In combination, an impregnating receptacle having an opening at the top thereof, a radium cell within said receptacle, a supply receptacle mounted adjacent the top of said impregnating receptacle, and a communicating tube extending through said opening and connecting the interior of said supply receptacle with the interior of said radium cell.

[Claims 6 to 10 not printed in the Gazette.]

1,239,228. UMBRELLA-HOLDER. MAYME SCHULD, Detroit, Mich. Filed July 13, 1916. Serial No. 109,083. (Cl. 45—33.)



An umbrella holder comprising a base plate, a longitudinally grooved spring cover plate adapted to be mounted upon said base plate, an umbrella holding member having a flattened body portion pivotally mounted in said groove and provided with curved ends with rebent extremities, said rebent extremities being spaced apart to receive an umberlla; said plates coacting with the said flattened members to hold the same in angular relation with the plates.

1,239,229. SPRINKLER. LEONARD SHAW, Miami, Fla. Filed Sept. 24, 1914. Serial No. 863,290. (Cl. 137—87.)

1. A sprinkler, comprising a stationary nozzle, and a rotary nozzle in alinement with said stationary nozzle, said rotary nozzle being shaped to cause the same to be balanced, supported and rotated by a jet discharged by said stationary nozzle.

2. A sprinkler, comprising a stationary nozzle arranged to discharge a vertical jet, and a rotary nozzle in alinement with said stationary nozzle and having an outlet orifice for discharging a jet at an angle to the axis of said rotary nozzle, the interior of said rotary nozzle being shaped to cause the same to be balanced and supported by the stream flowing through it, independently of contact between the stationary and rotary nozzles.

3. A sprinkler, comprising a stationary nozzle, a rotary nozzle having a passage therethrough including a throat in alinement with said stationary nozzle and an outlet orifice for discharging a jet at an angle to the axis of said rotary nozzle, the interior of said rotary nozzle being shaped to cause the same to be balanced and supported by the stream flowing through it, independently of contact between the stationary and rotary nozzles.

4. A sprinkler, comprising a stationary nozzle arranged to discharge a vertical jet, and a rotary nozzle having a

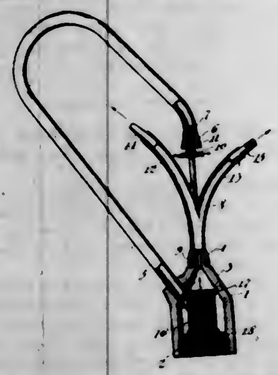
passage therethrough including a throat in alinement with said stationary nozzle, said throat being larger at its lower end than the orifice of said stationary nozzle and said passage being shaped and adapted to cause said rotary nozzle to be supported by the stream discharged by said stationary nozzle without giving rise to back pressure between said nozzles.



5. A sprinkler, comprising a cenverging nozzle arranged to discharge a vertical jet, and a rotary nozzle having a passage therethrough including a throat in alinement with said converging nozzle and having a skirt overhanging said converging nozzle and normally out of contact therewith, said passage being shaped to coact with the jet from said first nozzle to balance said rotary nozzle without causing back pressure between said nozzles.

[Claims 6 to 17 not printed in the Gazette.]

1,239,230. SPRINKLER. LEONARD SHAW, Miami, Fla. Filed Aug. 18, 1915. Serial No. 46,132. (Cl. 137—87.)



1. A sprinkler, comprising a nozzle member having two opposed outlets, and a spraying device located between said outlets for deflecting the fluid streams issuing therefrom, and being suitably shaped to be rotated through the impact of one of said fluid streams.

2. In a sprinkler, a movable spray member and a stationary member for delivering water thereto, said members having surfaces located to coact with such water to produce upward and downward reactions on said movable spray member whereby the latter will be balanced and supported out of contact with said stationary member.

3. In a sprinkler, a stationary member arranged to deliver a vertically directed jet and a movable spray member adapted to be poised on said jet, said members having surfaces coacting with the jet to produce upward and downward reactions whereby said movable member will be supported out of contact with said stationary member.

4. A sprinkler comprising a pair of opposed stationary nozzles, a rotary nozzle member between and in axial alinement with said stationary nozzles, said rotary nozzle member being supported, balanced and rotated by the jets from said stationary nozzles.

5. A sprinkler comprising a rotary nozzle member, and a stationary nozzle member constructed to project fluid streams against opposite surfaces of said rotary member for supporting, balancing and rotating the latter.

[Claims 6 to 13 not printed in the Gazette.]

1,239,231. SUSPENDING APPARATUS FOR GEOGRAPHIC GLOBES. ALBERT S. SMITH, New York, N. Y., assignor to Rand, McNally Company, a Corporation of Illinois. Filed Mar. 26, 1915. Serial No. 17,163. (Cl. 35—5.)



1. In a suspending device for globes, a graduated meridian ring in which the globe is adapted to be pivotally mounted, a segment having a depending hook at each end provided with an upturned lip, said hooks engaging and securely holding the inner periphery of said ring, a pointer for the ring located upon the segment, and rigid means for suspending said segment and means for vertically adjusting said suspending means.

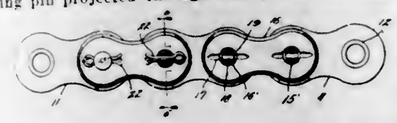
4. A unitary portable apparatus of the character described comprising a globe and meridian ring in which said globe is pivotally mounted, means for suspending said ring comprising a base attachable to a wall, a vertically movable rod adapted to be mounted upon said base and guided thereon, a horizontal arm extending from said rod, swivel connections between said arm and ring, and means mounted on said base for clamping said rod in its adjusted position.

6. In a suspending device for globes, a meridian ring in which the globe is mounted, a segment having a depending hook at each end, said hooks engaging the inner periphery of said ring, a bracket, and means whereby said segment is rotatably connected to said bracket, said means comprising a saddle attached to the segment, an eye integral with said saddle disposed medially at the top thereof, a swivel engaging said eye, and a swivel hook pivoted in said swivel.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,239,232. CHAIN. ARTHUR B. TAYLOR, Detroit, Mich. Filed Dec. 24, 1915. Serial No. 68,465. (Cl. 74—32.)

1. A chain comprising a multiplicity of main links each comprising a pair of rigidly connected side bars, and a plurality of connecting links, each consisting of a side bar, a pair of rigidly connected cross pins journaled in the adjacent ends of two of the first-mentioned links, and a removable side bar, the said removable side bar having formed in its outer face grooves radiating from the perforations and having their deepest portions adjacent the perforations, and the pins of each connecting link extending through and beyond the main links, and the projected ends each having a transverse hole formed therethrough to register with one of the grooves in the removable side bar, and having a transverse notch formed in the circumference of the projected end across the transverse hole and offset relative thereto inwardly beneath the deeper portion of the groove in the removable link, and a retaining pin projected through said groove and hole.



2. A chain comprising a multiplicity of main links each comprising a pair of rigidly connected side bars, and a plurality of connecting links each consisting of a side bar, a pair of rigidly connected cross pins journaled in the adjacent ends of two of the first-mentioned links, and a removable side bar, the said removable side bar having formed in its outer face grooves radiating from the perforations and having their deepest portions adjacent the perforations and shallower portions away from said perforations, and the pins of each connecting link extending through and beyond the main links, and the projected ends each having a transverse hole formed therethrough to register with one of the grooves in the removable side bar, and a retaining pin projected through said groove and hole.

3. A connecting link for chains, comprising a side bar, a transverse pivot pin and a second side bar sleeved over said pivot pin, said second side bar having radiating grooves formed in its outer face adjacent a perforation with the deeper portions of the grooves adjacent the perforation and shallower portions away from said perforation, and the projecting end of the pivot pin having a transverse hole registering with the radiating grooves, and a retaining pin projected through said grooves and hole.

4. A connecting link for chains, comprising a side bar, a transverse pivot pin and a second side bar sleeved over said pivot pin, said second side bar having radiating grooves formed in its outer face adjacent a perforation with the deeper portions of the grooves adjacent the perforation, and the projecting end of the pivot pin having a transverse hole registering with the radiating grooves, and also having a transverse notch formed in the circumference of the projected end across the transverse hole and offset inwardly relative thereto, and a retaining pin projected through said grooves and hole.

1,239,233. SOLDERING-VISE. PAUL W. TROWBRIDGE, Franklin, La. Filed Apr. 1, 1916. Serial No. 88,355. Renewed Feb. 5, 1917. Serial No. 146,859. (Cl. 113—104.)



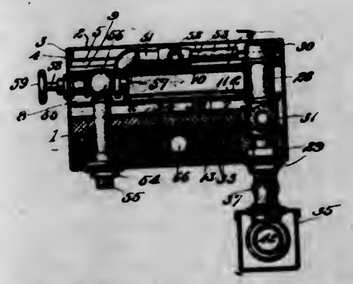
1. In a device of the character described, a rod, a clamp adjustable thereon, a second clamp carried for rotary adjustment by the first mentioned clamp, and an adjustable shank carried by the second mentioned clamp and having means for holding an article, and means engaging the second mentioned clamp for holding it in position relative to the first mentioned clamp, the clamps being so constructed that when said means is tightened, the first mentioned clamp will be held in place upon the rod, and the second mentioned clamp will grip said shank.

2. In a device of the character described, a rod, a clamp adjustable longitudinally and rotatably thereon, a second clamp having a shank journaled in the first mentioned clamp, a nut threaded upon said shank for securing the second mentioned clamp in place relative to the first mentioned clamp and simultaneously securing the first mentioned clamp upon said rod, and a shank carried by the second mentioned clamp for longitudinal and rotary adjustments, the last mentioned shank having means for holding an article, and the second mentioned clamp having means receiving the last mentioned shank and operable to grip the last mentioned shank when the nut is tightened.

3. In a device of the character described, a rod, a clamp fitted thereon having spaced resilient tongues which when pressed toward one another cause the clamp to grip the rod, said tongues having apertures, a head having a shank journaled through said apertures, a nut threaded upon said shank to force said tongues toward one another and to hold said head in position, said head being divided to provide jaws which are forced toward one another when said nut is tightened, and a shank disposed between said jaws to be gripped thereby and having means for holding an article.

4. In a device of the character described, a rod, a clamp slidable and rotatable thereon, having a pair of spaced resilient tongues which when moved toward one another will cause the clamp to grip said rod, said tongues having alining apertures, one aperture being countersunk, a head having a shank projecting through said apertures, said head having a frusto-conical shoulder fitting in said counter-sunk aperture, a nut threaded upon the shank, said head being provided with a slot extending into said shank and providing a pair of resilient jaws, said jaws having complementing grooves arranged at an angle to the axis of said head and shank, and a shank fitting rotatably and slidably between said grooves and having means for holding an article.

1,239,234. CARBURETER. JOHN W. TUMALTY, Chicago, Ill. Filed June 25, 1915. Serial No. 36,289. (Cl. 261—105.)



1. A carbureter comprising a carbureting chamber, means for supplying hydrocarbon and air thereinto, an imperforate permeable partition constructed and arranged to form the upper wall of said chamber and to permit the mixture from said chamber to seep therethrough, a gas collecting dome above said partition, said dome having an outlet and being constructed and arranged to collect and confine the mixture passing off from said chamber through said partition, a second imperforate, permeable partition above said dome, and auxiliary means for supplying air alone above said second partition for seepage therethrough to said gas dome.

2. A carbureter having a pair of spaced imperforate, permeable partitions disposed horizontally and provided with an outlet between said partitions, means for supplying hydrocarbon and air to one space outside of the partitions, means for supplying air alone to the other space outside of the partitions and means for drawing off the mixture from said partitions through said outlet.

3. A carbureter having a pair of spaced imperforate permeable partitions disposed horizontally and subdividing the same into three chambers, means for supplying hydrocarbon fuel and air to one of said chambers, a gas dome arranged in the chamber between said partitions, an auxiliary air distributing pipe arranged in the third chamber and having perforated sections extended within said chamber and means for drawing off the mixture from said dome.

4. A carbureter having a carbureting chamber, a pair of spaced imperforate permeable partitions disposed horizontally above said chamber, a gas dome between said partitions and provided with a perforated bottom of less area than said partitions and spaced from the underlying partition, said dome being provided with an outlet, an auxiliary fluid pipe arranged above the upper partition and having perforated distributing sections extending thereover, and means for supplying hydrocarbon fuel and a fluid to the carbureting chamber.

5. A carbureter having a carbureting chamber, a pair of spaced imperforate permeable partitions disposed horizontally above said chamber, a gas dome between said partitions and provided with a perforated bottom of less area than said partitions and spaced from the underlying partition, a depending flange around the perforated bottom of the gas dome and reaching down to the underlying partition, an outlet communicating with said dome, an auxiliary fluid pipe arranged above the upper partition, and means for supplying hydrocarbon fuel and a fluid to the carbureting chamber.

[Claims 6 and 7 not printed in the Gazette.]

1,239,235. DISPLAY-CARD. EARL UNDERWOOD, New York, N. Y., assignor to the Firm of Krementz & Co., Newark, N. J., a Copartnership consisting of George Krementz and Carl H. Lebkuecher. Filed May 12, 1916. Serial No. 97,020. (Cl. 211—34.)



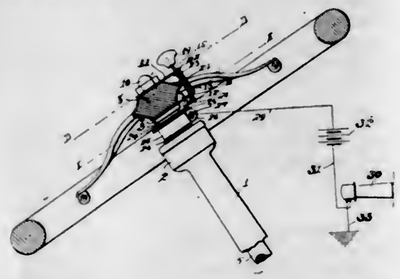
1. A display stand for collar buttons comprising a board body having cavities and a facing sheet having V slots and tongues in front of the cavities, the slots being formed to receive the shanks of the buttons and the tongues being the portions of the facing sheet partially severed by and within the V-slots and adapted to press against the backs of the buttons within the cavities.

2. A holder for collar-buttons comprising a body-portion provided with pockets closed at the bottom, in combination with tongues disposed over said pockets and inclined toward the bottom thereof, the free terminals of said tongues projecting into said pockets.

3. A collar-button holder comprising a sheet having V cuts therein and substantially triangular tongues formed by the portions of the sheet partially severed by and within the V cuts, the divergent ends of the V cuts affording wide entrances to admit the bases of the buttons, which pass behind the sheet, their convergent ends constituting stops cooperative with the shanks of the buttons, and the tongues being adapted to incline rearward from the sheet and to press against the backs of the buttons so as to hold them in place.

1,239,236. ELECTRIC-CIRCUIT CLOSER FOR AUTOMOBILES. GEORGE P. VOIGHT, San Francisco, Cal. Filed Jan. 22, 1917. Serial No. 143,690. (Cl. 200—27.)

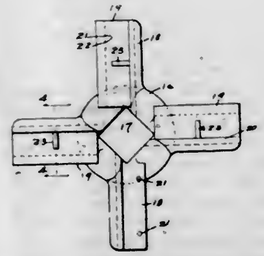
4. The combination with the steering mechanism of an automobile comprising a steering wheel fixedly mounted on the upper end of a steering wheel shaft journaled in a hollow stationary standard, of a circuit closer comprising a stationary contact element forming a switch terminal for an electric circuit which element is insulatingly mounted on the standard adjacent its upper end, a movable contact element forming the other switch terminal of said electric circuit which movable contact element is movably supported by the steering wheel shaft and provided with a section extending above the steering wheel adapted for



engagement by the hand of the operator and provided with a second section extending below the steering wheel and in close relation to the stationary contact element and adapted to engage therewith for closing the circuit, and resilient means supported by said steering wheel and in engagement with said movable contact element for normally holding the latter element out of electrical contact with said stationary contact element.

[Claims 1 to 3 and 5 to 11 not printed in the Gazette.]

1,239,237. MEAT-CUTTING KNIFE. HANS VON WOLFORSDORF, Indianapolis, Ind. Filed Sept. 16, 1916. Serial No. 120,587. (Cl. 17—20.)

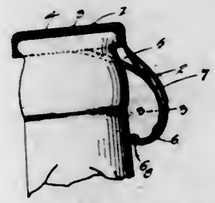


1. In combination with a meat cutting knife including a hub, a knife blade holder extending outwardly therefrom having a flange for forming a groove therein, and a knife blade, of means for preventing the lateral movement of said blade and a removable spring member adapted to be inserted between the blade and flange for removably securing said blade to the holder.

2. In combination with a meat cutting knife including a hub, a knife blade holder extending outwardly therefrom, having a flange for forming a groove therein, and a knife blade, of means for preventing the lateral movement of said blade, and a removable spring member having one end bent so as to overlap the inner edge of said knife blade so as to lie between said flange and blade for removably securing it to the holder.

3. A meat cutting knife including a hub, knife blade holders extending outwardly therefrom and having flanges for forming grooves therein, knife blades, a spring member having one end bent so as to overlap the inner edge of said knife blade so as to lie between said flange and knife blade for removably securing it to said holder, and projections on said knife blade adapted to engage said holder for preventing any lateral play.

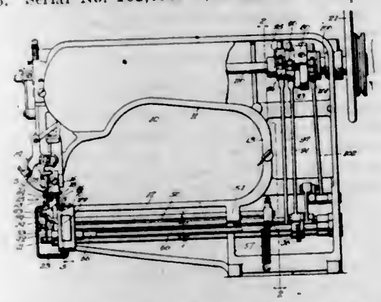
1,239,238. BOTTLE-CAP. ERNEST V. WHITE, Chatham, Ontario, Canada. Filed June 3, 1914. Serial No. 842,636. (Cl. 215—10.)



1. A crown bottle cap having a rigid substantially semi-circular outwardly convex finger loop formed integrally with an extending downwardly from the flange of said cap and bearing at its lower end against the neck of the bottle so as to be braced by the same, whereby accidental displacement and consequent unsealing or leakage through contact is prevented, said loop having its open concave side disposed innermost and forming a lever for removing the cap.

2. A crown bottle cap provided with an integral finger loop connected to the flange of the bottle cap and curved downwardly and inwardly to present an outer convex and an inner concave face and provided with an enlarged terminal portion at its lower end bearing against the side of the bottle neck so that the finger loop is braced by the bottle whereby accidental displacement of the cap and consequent leakage or unsealing through contact is prevented, said loop having a longitudinal rib and the edges of said loop being bent inwardly to reinforce the same, whereby the loop is adapted to operate as a lever for removing the cap.

1,239,239. SEWING-MACHINE WORK-HANDLING MECHANISM. JAMES WHITELAW, St. Louis, Mo. Original application filed Nov. 24, 1913, Serial No. 802,732. Divided and this application filed June 26, 1916. Serial No. 105,799. (Cl. 112—24.)



1. A sewing machine work-handling mechanism, comprising a work-handling plunger, and means to operate said plunger including a torsionally yielding shaft.

2. A sewing machine work-handling mechanism comprising, in combination, a plunger, a movable part carrying said plunger and with respect to which said plunger has a limited range of movement, and operating means for said plunger including a torsionally yielding shaft.

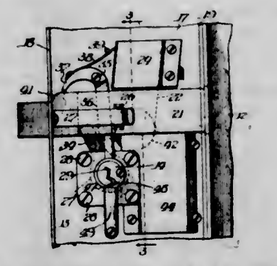
3. A sewing machine work-handling mechanism comprising, in combination, a plunger, means for varying the limit of throw of said plunger, an operating means for said plunger tending to raise the same to a variable position, said operating means comprising a torsionally yielding shaft.

4. A sewing machine work-handling mechanism, the combination with a presser foot, of a feed member, a clamp member, a plunger carried by and movable with respect to said clamp member, yielding means normally pressing said clamp member toward the presser foot, means for imparting fore-and-aft movement to said feed, means for vertically moving alternatively the feed and clamp member comprising a power-applying part, a lever acted upon by said power-applying part having connection with both the feed and clamp member whereby either of the latter may form an abutment against which the lever may act to move the other, and means for imparting movement to the plunger to move it with respect to the clamp.

5. In a work-handling mechanism for blind-stitch sewing machines, the combination with a relatively stationary presser foot of a feed dog, a clamp coöperating therewith against the presser foot, a plunger carried by and bodily movable with said clamp, means for operating the feed dog and clamp arranged to permit their depression out of normal position during the operation of said operating means, and means for moving said plunger with respect to the clamp yieldable to accommodate the variations in bodily position of the plunger caused by said abnormal positions of the clamp.

[Claims 6 to 19 not printed in the Gazette.]

1,239,240. LOCK. EDWARD L. WILLIAMS, Santa Cruz, Cal., assignor, by direct and mesne assignments, to Coin Time Lock Co., Chicago, Ill., a Corporation of Illinois. Filed Jan. 31, 1913. Serial No. 745,312. (Cl. 70—46.)



1. In a lock, the combination of a key operated bolt, means for preventing withdrawal of the key when the bolt is in unlocked position, and means for preventing movement of the bolt from locked to unlocked position until the key has been withdrawn and reinserted in the lock.

2. In a lock, the combination of a key operated bolt, and means rendered operative upon movement of the bolt into locked position and prior to the withdrawal of the key from the lock to prevent unlocking movement of said bolt said means being adapted to be released by the insertion of the key into the lock.

3. In a lock, the combination of a key operated locking bolt, a key-receiving cylinder, connections between the cylinder and said bolt to move said bolt to locking position, means automatically operative to lock the cylinder against rotation when the locking bolt has been moved to locked position thereby preventing rotation of the cylinder until and after the key has been withdrawn, and a key having a device thereon for automatically releasing said last mentioned locking means upon insertion of the key in the cylinder.

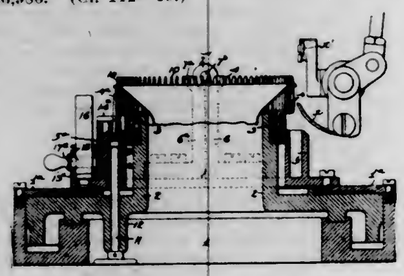
4. In a lock, the combination of a key operated locking bolt, a key receiving cylinder, connections between the cylinder and said bolt whereby the bolt is moved upon rotation of the cylinder, means for preventing rotation of the cylinder in one direction except upon the establishment of an operative connection between the cylinder and the bolt, and means for preventing rotation of the cylinder in the opposite direction to unlock the bolt, said last mentioned means being rendered inoperative upon the insertion of the key in said cylinder.

5. In a lock, the combination of a key operated locking bolt, a pivotally mounted dog adapted to engage with said bolt and prevent its movement, a key receiving cylinder, connections between said cylinder and dog for operating said dog, and a latch, adapted to automatically engage with said cylinder and prevent movement of the cylinder,

the dog and the bolt, when the bolt is in locked position, said latch being unaffected by the withdrawal of the key from the cylinder, but constructed to be released by the reinsertion of the key therein, whereby the lock may be unlocked.

[Claims 6 to 15 not printed in the Gazette.]

1,239,241. MACHINE FOR UNITING KNITTED WEBS. LOUIS N. D. WILLIAMS, Ogontz, Pa. Filed Jan. 20, 1916. Serial No. 73,116. Renewed Feb. 6, 1917. Serial No. 146,986. (Cl. 112—19.)



1. The combination of a set of stitch receiving points, a carrier therefor, a structure separate from said point carrier and comprising two members having hinge connection between them, whereby one part may be folded over the other, and means for transferring stitches from one section of points to the other, said means being carried by that part of the pivot structure which is thus folded.

2. The combination of a set of stitch receiving points, a carrier therefor, a set of stitch transferring points for removing the stitches from one half of the original stitch receiving points, and means for registering said stitch transferring points and the other half of the original stitch receiving points to permit transfer of stitches from one to the other.

3. The combination of a set of stitch receiving points of which one half are shorter than those of the other half, a series of stitch transferring points in registry with the short stitch receiving points and serving to remove the stitches therefrom, and means for bringing said transfer points into registry with the long stitch receiving points to permit transfer of stitches from one to the other.

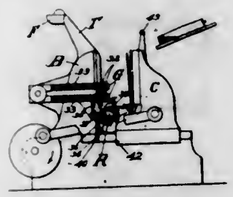
4. The combination, of a circularly disposed series of stitch receiving points, a continuous ring carrier therefor, a semi-circular series of stitch transferring points cooperating with one half of the stitch receiving points of said continuous ring carrier and serving to remove the stitches therefrom, and means for bringing said semi-circular series of stitch transferring points into registry with the other semi-circular series of original stitch receiving points to permit transfer of stitches from one to the other.

5. The combination of a set of stitch receiving points, a carrier therefor, a series of stitch transferring points cooperating with one half of the stitch receiving points and serving to transfer the stitches therefrom, and means for swinging said transfer points over into registry with the opposite half of the original stitch receiving points so that the stitches may be transferred from one to the other.

[Claims 6 to 8 not printed in the Gazette.]

1,239,242. MECHANISM FOR PRINTING FROM INTAGLIO PRINTING-PLATES. HENRY A. WISE WOOD, New York, N. Y., assignor to Wood & Nathan Company, New York, N. Y., a Corporation of New York. Original application filed Sept. 30, 1905, Serial No. 280,752. Divided and this application filed Dec. 8, 1914. Serial No. 876,006. (Cl. 101—163.)

1. In a machine for printing from intaglio printing plates, the combination with a vertical stationary printing plate, of a scraping blade movable upwardly over the surface of said plate to remove surplus ink therefrom on its upward motion.



2. In a mechanism for printing from intaglio printing plates, the combination of a vertical printing member for carrying the printing plate, a scraping blade, means for moving the blade upwardly over the surface of said plate for removing surplus ink therefrom, and a receptacle movable with the blade for receiving the ink from said blade.

3. In a mechanism for printing from intaglio printing plates, the combination of a stationary printing member for carrying the printing plate, an impression member movable toward and from the printing member, an inking mechanism for the plate, and a scraper movable over the surface of the plate on said printing member between the printing and impression members, to remove the surplus ink from the plate.

4. In a mechanism for printing from intaglio printing plates, the combination of a printing member having means for carrying a printing plate, an impression member, means for operating one of said members, an inking mechanism movable over the printing plate between said members when they are separated, and a scraper movable with said inking mechanism for removing the surplus ink from the plate.

5. In a mechanism for printing from intaglio printing plates, the combination of a printing member for carrying an intaglio plate, an inking mechanism movable along said plate, a scraper frame connected with the inking mechanism to be moved thereby, a scraper blade pivoted on said scraper frame, and a spring-pressed hook connected with said frame and having means for holding the blade out of position to contact with the plate.

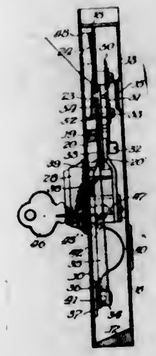
[Claim 6 not printed in the Gazette.]

1,239,243. HOLE-PLUG FOR JUNCTION-BOXES AND SIMILAR STRUCTURES. CHARLES WUENSCH, St. Louis Mo., assignor to Frank Adam Electric Company, St. Louis, Mo., a Corporation of Missouri. Filed Apr. 21, 1916. Serial No. 92,671. (Cl. 247—7.)



A hole plug for structures of the character described, formed from sheet metal and comprising a body portion of substantially the same thickness as the wall in which it is adapted to be arranged and of such size that it will fit freely in a hole in said wall of the same outline and approximate size as said body portion, integral offset ears on said body portion that lap over one face of said wall and prevent said body portion from moving in one direction, and angularly-disposed ears on said body portion that pass through the hole in the wall during the operation of arranging the plug in position and which are adapted to be bent so as to engage the opposite face of said wall and thus retain the body portion in position.

1,239,244. LOCK. AMOS A. WYCKOFF, Santa Cruz, Cal., assignor to Coin Time Lock Co., Chicago, Ill., a Corporation of Illinois. Filed May 3, 1915. Serial No. 25,391. (Cl. 70—46.)



1. In a lock, the combination of a bolt, key-actuating means for operating said bolt, means for engaging said bolt to lock the same in locking position prior to withdrawal of the key, and means disposed in the longitudinal path of movement of the key, whereby said bolt-locking means is released from the bolt by withdrawal and reinsertion of the key in the lock.

2. In a lock, the combination of a bolt, key-actuated means for operating said bolt, means for engaging said bolt to automatically lock the same against retraction immediately upon being moved to locking position, and key-actuated means for withdrawing said bolt-locking means from the bolt upon reinsertion of the key in the lock and prior to rotative movement of the key.

3. In a lock, the combination of a bolt, key-actuated means for operating said bolt, a locking bar adapted to cooperate with said bolt to lock the latter in locking position, a spring for urging said locking bar into locking engagement with said bolt before withdrawal of the key from the lock, and means operated by the key when reinserted in the lock for forcing said locking bar out of locking engagement with said bolt, said means being movable transversely to the direction of movement of the key upon withdrawal of the key from the lock.

4. In a lock, the combination of a bolt, key-actuated means including a cylinder for operating said bolt, a locking bar so mounted as to be movable crosswise of the path of movement of said bolt, a spring tending to project said locking bar across the path of said bolt, and means connected with said bar and positioned to be engaged by a key when said key is inserted into and withdrawn from the cylinder for moving said bar to inoperative position upon insertion of the key and adapted to be depressed by the key upon withdrawal thereof.

5. In a lock, the combination of a bolt, key-actuated means for operating said bolt, a pivoted locking bar the free end of which is movable crosswise of the path of movement of said bolt, a keeper guide for the free end portion of said locking bar, a spring normally tending to swing said locking bar into locking engagement with said bolt, a key having a contact lug intermediate the ends thereof, and a coöperating contact member carried by said locking bar normally projecting across the path of movement of said contact lug when the key is being inserted in the lock, whereby the insertion of the key frees the bolt from said locking bar.

[Claims 6 to 9 not printed in the Gazette.]

1,239,245. EYEGLASS-GUARD. LEO F. ADT, Albany, N. Y. Original application filed Dec. 30, 1909, Serial No. 535,543. Patent No. 1,103,240, dated July 14, 1914. Divided and this application filed July 13, 1912. Serial No. 709,208. (Cl. 88—50.)



1. A nose guard for eyeglasses embodying a supporting arm formed into a forwardly opening adjustable loop having one end connected to an outwardly extending member at the front edge of the nose pad.

2. A nose guard for eyeglasses comprising a nose engaging pad having an arm proceeding outwardly from the forward edge thereof, thence rearwardly, thence forwardly substantially parallel to the rearwardly extending portion to form a forwardly opening adjustable loop.

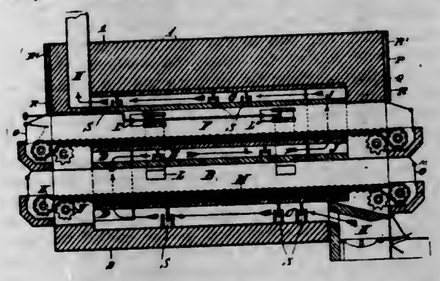
3. A nose guard formed of flat stock embodying a lever having a finger piece at its forward end, a vertically arranged loop at its rear end located substantially in the vertical plane of the lever formed by bends flatwise of the stock, and a nose bearing member having an outwardly extending arm connected to the edge thereof by a bend, said arm being an integral continuation of the loop and a part of a uniformly distortable length of stock comprising the lever, the two arms of the loop, and the said nose bearing arm.

4. A nose guard embodying an integral structure comprising a rearwardly extending supporting arm and upper and lower nose bearing pads, the pads being connected to the arm by a forwardly opening vertically disposed adjustable loop and to each other independently of the arm.

5. A nose guard comprising a nose-engaging member embodying upper and lower nose bearing pads, a lever formed of flat stock having its flat faces horizontally arranged, its forward end provided with a finger piece and a bearing between its ends, and an adjustable and vertically arranged loop connecting the nose engaging member and the lever and located rearwardly of the forward edge of the former, said loop being formed in one piece with the lever, and the bearing pads being connected to each other independently of the said loop.

[Claim 6 not printed in the Gazette.]

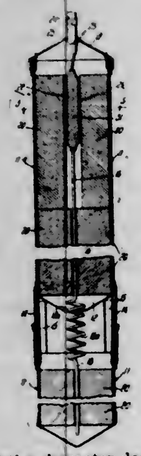
1,239,246. BAKER'S OVEN. CHARLES FREDERICK FOX ALLAN, Sydney, New South Wales, Australia. Filed May 2, 1917. Serial No. 166,048. (Cl. 107—55.)



In a baker's oven, the combination of a lower oven, an upper oven, a fire box, a first heating chamber below the lower oven communicating at one end with the fire box, a second heating chamber above the lower oven and below the upper oven, a third heating chamber above the upper oven, and uptake, flues for connecting the first heating chamber to the second heating chamber and the latter chamber to the third heating chamber and for leading the hot gases in the third heating chamber toward the uptake, the flues and heating chambers being totally out

of communication with the ovens, whereby the products of combustion are kept from the interiors of the ovens but are given an unimpeded passage way from the fire box over the tops and bottoms of the two ovens toward the uptake, flues totally out of communication with the first-mentioned flues and connecting the two ovens, and damper means for the last-mentioned flues whereby the temperatures within the ovens may be equalized irrespective of variations in temperature differences between the three heating chambers; substantially as described.

1,239,247. SUBAQUEOUS-BLASTING SYSTEM. CHARLES H. ALLISON, Glendale, Cal. Filed Apr. 21, 1917. Serial No. 163,600. (Cl. 102—10.)



1. In a device of the character described, in combination with a detonating fuse, a shell having a longitudinal bore adapted to receive one end of the fuse, the fuse being otherwise exterior of the shell, an explosive cap in the shell bore to initiate the detonation of the fuse, and a protective covering around the shell, the cap and said fuse end to protect them against water pressure.

5. In a device of the character described, in combination with a detonating fuse, a shell having a longitudinal bore adapted at one end to receive one end of the detonating fuse, an explosive cap in the bore, and a protective covering of plastic waterproof material around the ends of the shell and extending into the shell bore around the fuse end and around the cap.

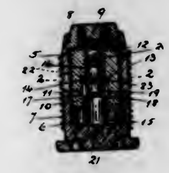
12. In a device of the character described, in combination with a detonating fuse, a shell having a longitudinal bore extending from end to end and adapted at one end to receive one end of the fuse, the walls of the shell being of explosion resisting strength, an open ended explosive cap in the bore near the end receiving the fuse, the end of the fuse being entered into the open end of the cap and being in juxtaposition to the explosive material thereof, an electric cap in the other end of the shell bore in longitudinal juxtaposition to the first mentioned cap, the outer end of the electric cap being somewhat inside the end of the bore, line wires connected to the electric cap firing wires close to the end of the bore, and a protective covering of plastic waterproof material around the ends of the shell and around the wire connections and extending into the bore at both ends and extending around the caps and the end of the fuse, each of the caps comprising a cap shell containing the explosive material, the cap shells being perforated to allow access of exterior pressure to the cap interior through the medium of the plastic material; the plastic material superficially completely covering the first mentioned shell; and a mechanically protective taping around the plastic coating.

17. In a device of the character described, the combination of a fuse embodying a waterproof tubular container closed at one end to prevent entry of water, an explosive cap at the other end of the fuse, and a water proofing covering surrounding the cap and the adjacent end of the fuse.

21. An explosive device for deep water work, embodying in combination a body of explosive unaffected by water pressure, a detonating fuse extending through the body of explosive and closed against water pressure at one end, an explosive cap at the other end of the fuse, and means surrounding the cap and that end of the fuse to protect them against water pressure.

[Claims 2 to 4, 6 to 11, 13 to 16, and 18 to 20 not printed in the Gazette.]

1,239,248. SAFETY-FUSE. ARTHUR S. BALDWIN, Baltimore, Md. Filed Apr. 16, 1917. Serial No. 162,263. (Cl. 102—39.)



1. In a fuse device for shells or projectiles the combination with a case or stock having a chamber therein, of an explosive element; a plunger-body in said chamber which body is provided with a passage with an interior shoulder between its two ends; a firing pin entering the plunger-body passage and extending beyond the shoulder therein; shear means to normally lock the plunger-body and firing pin in a safety position at said interior shoulder, and means on the firing pin to be engaged by the sheared-off portion of the said shear means and lock the body and firing pin in an armed position at said interior shoulder.

3. In a fuse device for shells or projectiles the combination with a case or stock having a chamber therein, of an explosive element; a plunger-body in said chamber,—said plunger-body having communicating central passages of unequal diameters whereby to form a shoulder; a firing pin-body having smaller and larger portions to enter said plunger-body pasages and also having a shoulder thereon, and a shear pin having its ends normally extending crosswise of the larger of the plunger-body passages and engaging the shoulder of the plunger body and said shear pin-ends being compressible at the shoulders on the two bodies on the set-back of the plunger to lock the two bodies together in an armed position.

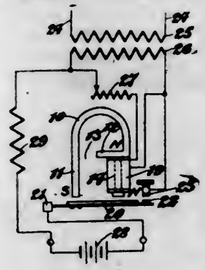
5. In a fuse device for shells or projectiles the combination with a case or stock having a chamber therein, of an explosive element; a plunger-body in said chamber and having central passages of eunequal diameters whereby to form a shoulder,—said body also having an annular channel at said shoulder; a firing pin-body extending into the plunger-body and provided with an annular cavity, and a shear pin extending through the firing pin-body and having its ends projecting beneath the shoulder of the plunger-body and said shear-pipe ends when sheared serving to enter the channel and cavity of the two bodies to lock the same in an armed position.

[Claims 2 and 4 not printed in the Gazette.]

1,239,249. RECTIFIER FOR ALTERNATING CURRENTS. EDWIN C. BALLMAN, Kirkwood, Mo. Filed Aug. 6, 1914. Serial No. 855,380. (Cl. 175—365.)

1. A rectifier for alternating currents, comprising a permanent magnet having means adapted to form a main magnetic path and means adapted to form a shunt magnetic path, means for setting up an alternating flux in said shunt path, and a switching armature adapted to vibrate in said shunt path.

3. A rectifier for alternating currents, comprising a permanent magnet having legs and having a bridge between said legs, adapted to form a main magnetic path and means adapted to form a shunt magnetic path, an alternating current winding arranged to set up an alternating flux in said shunt path, and a switching armature adapted to vibrate in said shunt path.



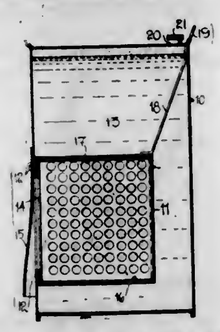
5. A rectifier for alternating currents, comprising, a permanent magnetic circuit member and a core, adapted to form a main magnetic path and means adapted to form a shunt magnetic path traversing said core, an alternating current winding on said core, and a switching armature adapted to vibrate in said shunt path.

6. A rectifier for alternating currents, comprising, a permanent magnet having means adapted to form a main magnetic path and means adapted to form a shunt magnetic path, means for setting up an alternating flux in said shunt path, a switching armature adapted to vibrate in said shunt path, and means for varying the shunt path.

9. A rectifier for alternating currents comprising a magnet constructed to form a gap, a longitudinally slotted core projecting from said magnet to form a shunt path, a winding on said core adapted for connection to a source of alternating current, and a switching armature constructed to vibrate in said path.

[Claims 2, 4, 7, and 8 not printed in the Gazette.]

1,239,250. EVAPORATION-REFRIGERATOR. WORTH R. BARRINGER, Grand Junction, Colo. Filed Aug. 19, 1916. Serial No. 115,857. (Cl. 62—90.)



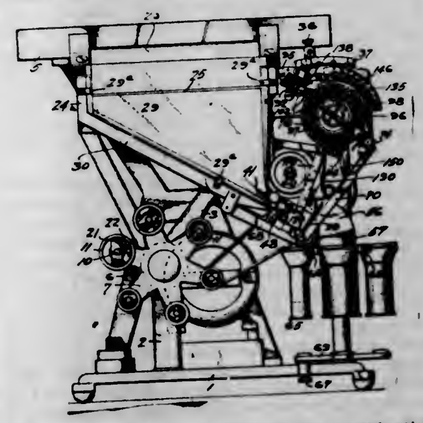
1. A refrigerating device of the character described comprising an outer casing or container of flexible absorbent material having a normally closed opening at one end, a food receptacle disposed within said container and spaced therefrom on all sides but one, this one side of the receptacle and the container having water-tight engagement with each other and being formed to provide an opening whereby access may be had to the receptacle, a cover for said opening, and flexible supporting members operatively engaging the upper end of the outer container and the upper inner end of the receptacle.

2. A refrigerating device of the character described comprising an outer bag-like container of flexible absorbent material, a food receptacle disposed within the container, one wall of the food receptacle being abutted against and having water-tight engagement with one side wall of the container, the last named container and receptacle walls being formed to provide an opening into the receptacle, a cover for said opening, flexible means for supporting the inner end of the receptacle from the upper end of the container and means disposed at the outer end of said container whereby the container may be supported, said flexible supporting means being engaged with the upper end of the container immediately adjacent to the point of attachment of the container supporting means.

3. A refrigerating device of the character described including an outer bag-like container of flexible absorbent material, a receptacle disposed within said container and designed to receive food, one wall of the receptacle being abutted against one wall of the container, said walls being formed with an opening whereby access may be had to the receptacle, a wall of flexible absorbent material surrounding the receptacle, there being a water space between the outer container and said inner wall and receptacle, flexible means for supporting the inner end of the receptacle and wall from the upper end of the container, and means whereby water may be filled into or discharged from the container, the walls of the receptacle being formed of foraminous relatively stiff material.

4. A refrigerating device of the character described comprising an outer container of canvas having an opening in one wall, a receptacle disposed within the container and having an opening in one wall, the open wall of the receptacle having water-tight engagement with the open wall of the container, means for supporting the inner end of the receptacle from the upper end of the container and including flexible elements extending upward from the inner end of said receptacle to the upper end of the container and attached to said upper end, a flexible flap normally closing the opening in the container, means whereby water may be filled into or discharged from the container, and means for supporting the container, said supporting means being attached to the container at points adjacent the point of attachment of said flexible elements.

1,239,251. COIN-HANDLING MACHINE. CHARLES S. BATDORF, Brooklyn, N. Y., assignor to Automatic Coin-Wrapping Machine Company, New York, N. Y., a Corporation of New York. Filed Oct. 22, 1912. Serial No. 727,219. (Cl. 133—8.)



1. In a coin handling machine, the combination with coin feeding means adapted to feed coins of various sizes, including a feed chute, a rotatable support at the end of said feed chute carrying a number of coin guides corresponding respectively in size to the size of the coin to be fed, means on said support for supporting a receptacle within any of said guides, means for indicating the number of coins fed to said receptacle and means to check the feed after a predetermined number of coins have been so fed.

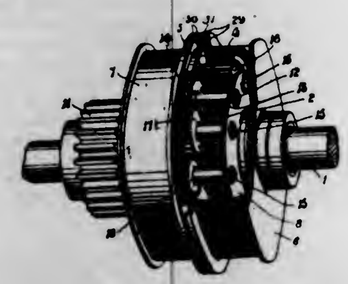
2. In a coin handling machine, the combination with means for feeding coins to a receptacle, of means for

indicating the number of coins fed at any stage of the feed and comprising a rotary indicating disk, means actuated by each coin in its passage through said feeding means to rotate said disk and means interposed between the actuating mechanism and said disk to vary the movement of said disk for each coin fed to vary the count indicated by said disk.

12. In a coin handling machine, the combination with means for feeding coins one by one and delivering the same to a receptacle, of a rotary indicating disk, of a stationary indicating finger cooperating therewith, an actuating shaft for the disk, means operated by the passage of a coin through said feeding means to actuate said shaft, a rack on said disk, a pinion on said shaft adapted to be thrown into and out of operative engagement with said shaft, a coin counting member, and means on said indicating disk to actuate said coin counting member, and means operated by said coin counting member to check the feed of coin after a predetermined number has been fed.

[Claims 3 to 11 not printed in the Gazette.]

1,239,252. CONTROLLING MEANS FOR POWER TRANSMISSION. JOHN G. BAUKAT, Toronto, Ontario, Canada. Filed Dec. 9, 1916. Serial No. 136,042. (Cl. 74—34.)



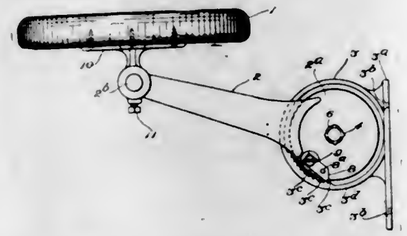
3. In a transmission, a shaft, driving gears keyed to said shaft in juxtaposition, flanged sleeves on opposite sides of said gears, axles connecting the flanges of said sleeves and bridging said gears, pinions carried by said axles and meshing with said gears, a brake drum rotatable upon each of said sleeves and housing said pinions, ring gears carried by said drums and meshing with said pinions, a gear carried by one of said sleeves exterior to the drum, detachable means locking each of said drums against endwise movement upon their respective sleeves, and means to control the rotation of each brake drum.

4. The combination with a planetary transmission having brake drums, of a control means therefor comprising a sleeve, a lever extending laterally from said sleeve to rotate same, means to hold the lever in various positions, an arm extending laterally from said sleeve, near one end, a second arm extending laterally from said sleeve near its opposite end, said arms being disposed at a substantial angle to said first mentioned arm, loops secured to the sleeve in line with the longitudinal axes of the arms, and brake bands connected each at one end to the loops on the sleeve and at the other ends each to an arm, said bands surrounding the brake drums of the transmission whereby when the lever is rocked certain of said drums will be affected.

[Claims 1, 2, and 5 not printed in the Gazette.]

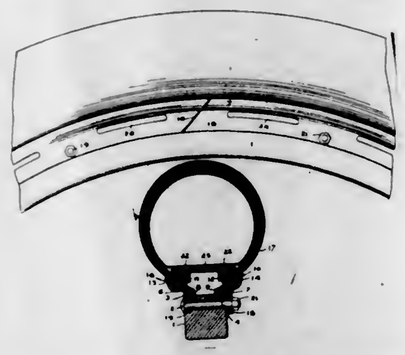
1,239,253. SEAT. VERTRUDE P. BUCK, Boston, Mass., assignor of one-half to Martin A. Hayward, East Bridgewater, Mass.; Theresa L. Buck administratrix of said Vertrude P. Buck, deceased. Filed Nov. 1, 1911. Serial No. 657,946. (Cl. 155—22.)

1. In combination, a seat-supporting arm having a lateral extension, a stand or bracket to which said arm is pivoted so that the seat and arm are capable of swinging in a vertical plane into position for use and into an idle retracted position, respectively, and a seat mounted in an offset relation to the arm upon said lateral extension of said arm, whereby the torsional elasticity of the arm is utilized, said stand or bracket having a stop shoulder which affords a positive support to the seat and arm when in position for use.



2. In combination, a seat-supporting arm having a laterally-offset seat-support and a hub-portion presenting a relatively large lateral bearing surface, a stand or bracket with which said hub-portion is pivotally engaged, said stand or bracket having a bearing surface corresponding to the bearing surface of the arm, said bearing surfaces cooperating with each other to restrain the arm from tipping transversely, a seat adapted to be fixedly arranged at different angles upon the said laterally-offset seat-support of the arm, and means for rigidly supporting the arm in the desired angular position of use.

1,239,254. TIRE-HOLDER. GEORGE GARDNER BUCKLAND, San Francisco, Cal. Filed Apr. 18, 1916. Serial No. 91,899. (Cl. 152—21.)

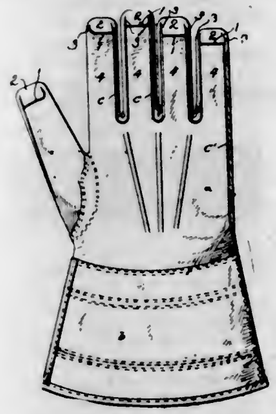


1. Means for attaching a tire to a wheel, comprising the combination of a ring surrounding the wheel, the inner surface of which on one side of the wheel is channel-shaped, an annular channel-shaped tire holder, the inner side of which fits in the channel of said ring, the channel-shaped portion of said tire holder being arranged to receive a base of a tire casing and having formed integral therewith a member extending inwardly around the periphery of the wheel and arranged to contact therewith to secure said member on said wheel, and means for securing the member on the wheel.

[Claims 2 and 3 not printed in the Gazette.]

1,239,255. GLOVE. LUCIUS T. BURROUGHS, La Crosse, Wis. Filed Mar. 13, 1913. Serial No. 754,115. (Cl. 2—9.)

A glove provided with a back, palm and front and back finger portions integrally formed, said glove having finger tips formed integral with the front portion of the fingers and extending over the palms of the fingers to the back of the latter and the back portions of the fingers terminating short of the ends of the same and having their outer edges located at the end edges of the said finger tips, which are connected with the back of the fingers by transverse seams having curved terminal portions spaced from the inner ends of the tips and the inner side of the glove, said fingers being provided with longitudinal seams located in substantially the same plane as the back of the fingers and merging at their outer ends in the curved portions of



the transverse seams at the adjacent ends thereof, said fingers being smooth at opposite sides of their front portions and the front and outer ends of the fingers being seamless whereby the stitches of all of the finger seams will be prevented from coming in contact with an object grasped by the wearer of the glove.

1,239,256. PROCESS OF HYDRATING LIME. WILLIAM E. CARSON, Riverton, Va. Filed Dec. 15, 1916. Serial No. 137,214. (Cl. 222—4.)

1. The process of making highly plastic, dry, hydrated lime which comprises slaking two different portions of lime in the same manner but with different proportions of water, each slaking operation being so conducted as to give a dry hydrated powder, and then mingling the two lots of powder.

2. The process of producing dry, dustless, hydrated lime of great plasticity which comprises mingling comminuted quicklime with enough water to make a slurry or paste thereof and rapidly depositing such slurry or paste as a tall vertical column inclosed by heat retaining and pressure resisting walls, the deposition to be so effected that the top of the mass is kept sealed with the slurry or paste and allowing the mass to stand for a time under its own pressure and without disturbance and mingling the lime so produced with lime made in the same manner but with a different proportion of water.

3. The process of producing hydrated lime of heightened plasticity which comprises slaking two or more lots of lime to produce uniformly slaked products of different grain size and mingling said products.

4. The process of producing dry, dustless, hydrated lime of high plasticity which comprises mingling two or more lots of lime with different proportions of water, the mingling being completed prior to occurrence of a substantial degree of slaking, slaking each such lot in a tall vertical column liquid-sealed at the top and allowed to remain quiescent for at least eight hours and mixing the resultant lots of hydrated lime.

5. The process of producing highly plastic lime which comprises slaking two lots of lime, one such lot containing more magnesia than the other such lot, and after hydration is effected mingling the resulting lots of slaked lime.

[Claims 6 to 12 not printed in the Gazette.]

1,239,257. ELECTRICALLY-HEATED SEAM-RUBBER. EDWIN N. CHANDLER, Braintree, Mass., assignor to Boston Last Company, Boston, Mass., a Corporation of Maine. Original application filed Oct. 7, 1914, Serial No. 865,471. Divided and this application filed May 3, 1917. Serial No. 166,156. (Cl. 219—21.)

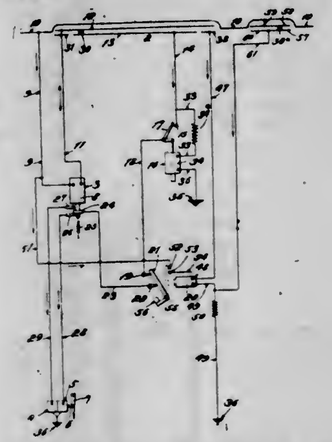


1. A machine for smoothing boot and shoe parts, having a substantially triangular form in cross section with a rounded angle uniting two sides, an electrical heating unit carried by said iron, and a handle insulated from said iron and carrying the supply wires to said unit, whereby the smoothing operation on leather over uneven contours is facilitated.

3. A seam rubbing tool of the kind described, comprising a base member and a removable iron, a universal joint connection for the iron, said iron being formed with a recess to receive a detachable electric heating unit, a handle having tubular conducting means therein for the supply wires for said heating unit with one end of said tube secured to said handle, and the other end having flanges secured to the heating iron, and heat insulating means between the iron and handle.

[Claim 2 not printed in the Gazette.]

1,239,258. AUTOMATIC SWITCHING DEVICE. ROBERT V. CHEATHAM, St. Matthews, and ELMER S. OLMSTED, Louisville, Ky., assignors to Cheatham Electric Switching Device Company, Louisville, Ky., a Corporation of Kentucky. Filed Aug. 31, 1916. Serial No. 117,824. (Cl. 104—198.)



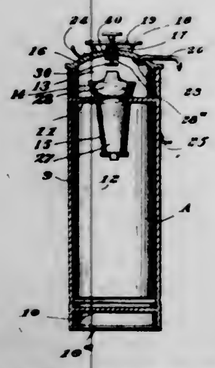
1. In a system of the class described, a trolley wire with two trolley pans placed thereon and spaced apart, one of these trolley pans being placed so that a car passing under the same may have its trolley wheel engage it in time to operate a switch, and the second trolley pan so placed that the switch will be passed by the car before this second trolley pan is engaged, a circuit controller, wires connecting the circuit controller with the first mentioned trolley pan, a double solenoid, a ground for said double solenoid, wiring connecting the double solenoid with the circuit controller, two circuit openers or cut-outs and a ground for each, and wiring connecting said cut-outs with the said trolley pans so that one cut-out is connected with each, all of said parts being arranged and disposed so that when in use the system always works power on and power off the motors of a car using the

same, and so that if this car stands too long in connection with the first trolley pan, a cut-out opens the circuit through the double solenoid, and so that when this car leaves the first trolley pan, no succeeding car can energize a coil of the double solenoid until the first car has engaged the second trolley pan.

2. In a system of the class described, a trolley wire with a trolley pan mounted thereon, a circuit controller, wiring connecting the trolley pan and circuit controller, a double solenoid, wiring connecting the circuit controller and double solenoid, a ground for said double solenoid, a circuit opener, a ground for said circuit opener, a wire connecting said circuit opener with said trolley pan, and a second wire for connecting said circuit opener with said circuit controller, all of said parts being so arranged and disposed that when in use the system always works power on and power off the motors of a car using the same, and so that if this car stands too long in connection with the trolley pan the cut-out opens the circuit through the double solenoid and thereby prevents a coil of the double solenoid from being burned out.

3. In a system of the class described, a trolley wire with two trolley pans spaced apart and placed thereon, one of said trolley pans being so placed that a trolley wheel will engage the same before the car to which the wheel is attached reaches a switch-point, and the other trolley pan being so placed that this car will have passed the switch-point before its trolley wheel engages the second trolley pan, a circuit controller, wiring between the circuit controller and the first mentioned trolley pan, a double solenoid, wiring between the double solenoid and the circuit controller, a ground for said double solenoid, a second ground and a cut-out connected to the second ground and the trolley wire and both trolley pans, suitable wiring, all arranged and disposed so that when in use the system always works power on and power off the motors of a car using the same, the cutout being connected to the two trolley pans so that when this car leaves the first trolley pan, no succeeding car can energize a coil of the double solenoid until the first car has engaged the second trolley pan.

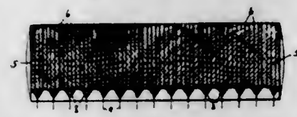
1,239,259. CHEMICAL FIRE-EXTINGUISHER. JOHN SIMMONS CRAWFORD and BYRON MOSES, Ottawa, Ontario, Canada. Filed July 20, 1914. Serial No. 851,954. Renewed Jan. 23, 1917. Serial No. 144,529. (Cl. 169—7.)



1. A chemical fire extinguisher consisting of a body part, a cover through which a spindle extends, a transversely extending member subdividing the body into a lower chamber and an upper chamber, an upwardly extending flange mounted on the upper face of the said transversely extending member, a basket extending downwardly from the lower face of the said transversely extending member, hermetically sealed chemical containers designed to be located in the said basket and in the said flange, and means for sealing the upper chamber from the lower chamber as and for the purpose specified.

2. A chemical fire extinguisher comprising a body portion, a cover through which a spindle passes, a transversely extending member subdividing the body portion into a lower liquid chamber and an upper chamber, an upwardly extending flange mounted on the said transversely extending member, a downwardly disposed basket mounted on the said transversely extending member, hermetically sealed chemical containers placed in the said basket and the said flange, means for sealing the upper chamber from the lower liquid containing chamber, a discharge pipe mounted on the said cover and a perforated plate designed to protect the inner end of the said discharge pipe, as and for the purpose specified.

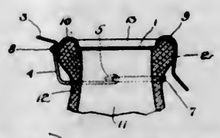
1,239,260. DEVICE FOR RAISING SUNKEN SHIPS. CHARLES H. CURTISS, Detroit, Mich. Filed Feb. 26, 1917. Serial No. 150,866. (Cl. 114—54.)



3. A deflatable bag for raising sunken ships which consists of a water-tight and air-tight cylindrical structure, a saddle extending over said bag and secured thereto, a series of diagonal tension members extending transversely of the saddle from one longitudinal edge to the other, a series of main parallel tension members placed over the diagonal members and extending circumferentially of the air bag from one longitudinal edge of the saddle to the other, and means extending between the opposite ends of each main tension member to transmit the lifting stresses of the bag.

[Claims 1, 2, and 4 not printed in the Gazette.]

1,239,261. BOTTLE-CAP. CHESTER W. DUDLEY, Boston, Mass. Filed Jan. 23, 1915. Serial No. 4,056. (Cl. 215—34.)

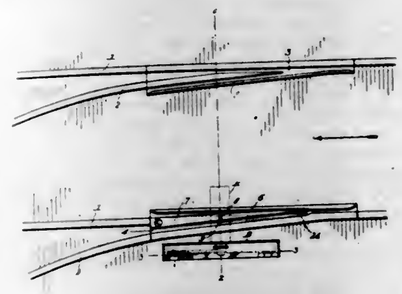


1. A device of the kind described, comprising a hinged metallic cover for bottles, said cover having a spring clasp at one point to fit over the rim of the bottle, and a hinge lug at the opposite side, a metallic hinge clasp having a vertically extending portion adapted to be pivotally attached to the hinge lug of said cap cover, and with horizontal U-shaped spring arms adapted to straddle and partially inclose bottle necks of various sizes with a spring tension and means to retain the grip of said arms on the bottle neck.

2. A device of the kind described, comprising a hinged metallic cover for bottles, said cover having a spring clasp at one point to fit over the rim of the bottle, and a hinge lug at the opposite side, a metallic hinge clasp having a vertically extending portion adapted to be pivotally attached to the hinge lug of said cap cover, and with horizontal U-shaped spring arms adapted to straddle and partially inclose bottle necks of various sizes with a spring tension, the ends of said U-shaped arm being adapted to receive a yielding member to inclose the remaining portion of the bottle neck not clasped by said arms.

1,239,262. SPRING-CONTROLLED SPLIT SWITCH FOR RAILWAY-TRACKS. FRANCIS D. EVANS, Denver, Colo., assignor of one-third to Phillip Alexander Kinzie, Littleton, Colo. Filed Feb. 24, 1917. Serial No. 150,830. (Cl. 104—24.)

1. In a railway track construction, the combination with a pivoted switch, of a rotary member, means slidably but non-rotatably mounted on said rotary means for shifting said switch, and resilient means for controlling the sliding movement of said shifting means in either direction.

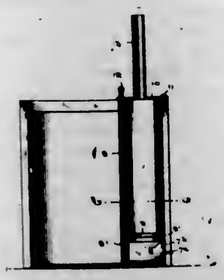


3. In railway track construction, the combination with a pivoted switch, of a rotary shaft and means for operating the same, a cam slidably but non-rotatably mounted on said shaft for shifting said switch in either direction, abutments on said shafts, and expansion springs interposed between said abutments and the ends of said cam for holding said cam under resilient tension in either direction of its movement.

7. In railway track construction, the combination with a pivoted switch, a rotatable shaft, a cam slidably but non-rotatably mounted on said shaft for shifting said switch, and means for resiliently controlling the endwise movement of said cam on said shaft, of a collar rigidly mounted on the shaft having a segmental recess of suitable length concentric with the axis of said collar, and a lever loosely mounted on said shaft adjoining said collar, having a projection which extends into said segmental recess, whereby the lever is permitted a partial rotation in either direction independently of the shaft before the said projection engages either end of said segmental recess, after which further movement of the lever produces a corresponding movement of the shaft.

[Claims 2 and 4 to 6 not printed in the Gazette.]

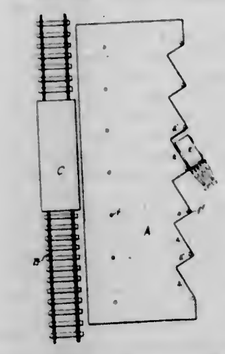
1,239,263. WATER-TANK HEATER. EDWARD A. FILLMAN, Monmouth, Ill. Filed Mar. 2, 1917. Serial No. 152,012. (Cl. 126—367.)



2. The combination of a portable water tank, adapted to water stock; a heater, located wholly within and integral with said tank, adapted for the combustion of solid fuel, and provided with a body composed of three walls, namely, an outer wall of galvanized iron, an inner casing of asbestos and an inner wall of sheet iron; an opening through the wall of said tank and the walls of the heater; a door therefor; and an ash pan attached to the inner face of said door and having a bottom and two side walls only.

[Claim 1 not printed in the Gazette.]

1,239,264. FREIGHT-TERMINAL. BENJAMIN F. FITCH, Evanston, Ill., assignor to The Motor Terminals Company, Cleveland, Ohio, a Corporation of Ohio. Filed July 7, 1917. Serial No. 179,133. (Cl. 104—62.)



1. In a freight terminal, the combination of a raised platform having vehicle spaces on its opposite sides on a lower level, one edge of said platform being indented in a saw-tooth manner by alternately long and short sides.

4. The combination of a raised platform, the edge of the platform on one side being straight, a vehicle runway on the other side of the platform, the edge of the platform on the latter side being made saw-tooth to provide a plurality of pockets, one side of which is materially longer than the other side, the long sides of the various pockets being in parallel planes and the short sides being in parallel planes at right angles to the long sides.

9. The combination of an elvated platform, a railroad track on one side thereof on a lower level, the platform on that side having a continuous vertical wall parallel with the track, a vehicle passageway on the opposite side of the platform, the platform on that side being made into pockets formed by indenting vertical planes in the edge of the platform, which planes are alternately at substantially thirty degrees and sixty degrees to the boundary of the platform on that side, supporting columns carried by the plateform and arranged in pairs laterally opposite each other, one column of each pair being located adjacent to the point of a pocket and the other column standing back a material distance from the continuous edge of the platform on the other side, and a roof supported by said columns and extending on one side substantially as far as the continuous edge of the platform and on the other side materially overhanging said vehicle space.

[Claims 2, 3, and 5 to 8 not printed in the Gazette.]

1,239,265. SAFETY-CLUTCH FOR STARTING EXPLOSIVE-ENGINES. FRANKLIN F. GRANT, San Diego, Cal. Filed Jan. 2, 1917. Serial No. 140,043. (Cl. 74—53.)

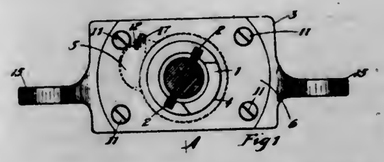


Fig 1

1. In a device of the kind described, a casing having therein a central opening and a chamber off-set from said central opening, and a plurality of lugs for attaching it to a support, a cover-plate provided with a central opening mounted on said casing, means for attaching said cover-plate to said casing in a recess therein, a hollow clutch member revolubly mounted in said casing and said cover-plate, a dog for preventing the revolving of said

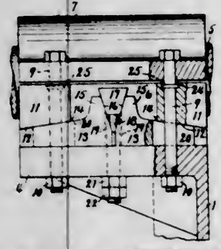
clutch in one direction mounted in said off-set chamber in said casing, a crank provided with a plurality of lugs reciprocally mounted in said clutch in the grooves therein, a spring means mounted on said crank for holding it out of engagement, and a handle means for revolving said crank.

2. In a device of the kind described, the combination with a casing and a cover plate mounted on said casing and the starting crank of an internal combustion engine revolubly mounted in said casing, of a hollow clutch member having an annular projection provided with a toothed surface on its perimeter, a plurality of grooves in its inner wall adapted to engage with projections on said starting crank, a slot in its one end and a projecting bearing on its other end.

3. In a device of the kind described, the combination with a casing and a cover-plate mounted on said casing, and a clutch member having a toothed surface on its perimeter, of a dog provided with a curved tooth surface on one edge adapted to engage with the toothed surface on said clutch, and a plain curved surface on its other edge, mounted in a chamber in said casing in operative connection with said clutch member.

4. A device of the kind described, comprising a casing having a plurality of extending lugs, a central opening and an off-set chamber therein, a cover-plate having a central opening counter-sunk in said casing covering said off-set chamber in said casing, a hollow clutch member having an annular toothed projection and two bearing portions thereon, and a slot in one of said bearing portions, and a plurality of grooves in its inner surface, revolubly mounted in said casing and said cover-plate, a clutch stop member having a curved tooth surface and a curved plain surface mounted in said off-set chamber in said casing, a spring means mounted in said off-set chamber in operative connection with said stop member, a crank reciprocally mounted in said clutch member and adapted to revolve said clutch member wherein said lugs engage, and handle means to facilitate the revolution of said crank and means for connecting the inner end of said crank with the crank shaft of an internal explosion engine.

1,239,266. ADJUSTABLE BEARING. CHARLES W. GRIFFIN, Riegelsville, N. J., assignor to Taylor, Stiles & Company, Riegelsville, N. J., a Corporation of New Jersey. Filed Mar. 8, 1917. Serial No. 153,433. (Cl. 64—52.)



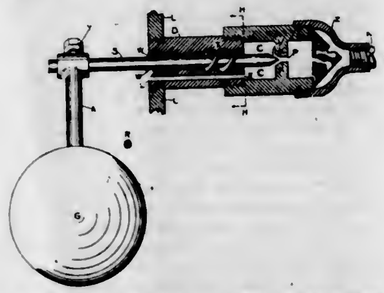
1. The combination, in an adjustable bearing, with a support, of a box having underneath inclined bearing surfaces arranged in pairs on opposite sides of the longitudinal central vertical plane of said box, wedge-blocks interposed between said surfaces and said support, said wedge-blocks being parallel with said plane, bolts having spreader heads which are interposed between said wedge-blocks, there being such a head between the wedge-blocks in each pair, and the shank of each of said bolts passing between the wedge-blocks in each pair and through said support, and nuts on the protruding terminals of said bolts.

3. The combination, in an adjustable bearing, with a support, of a box having wedge-block-contacting surfaces, slotted wedge-blocks interposed between said surfaces and said support, spreaders between said wedge-blocks, said spreaders, when actuated in one direction, being adapted to actuate said wedge-blocks and cause them to elevate said box, bolts passing through the parts of said box that form said wedge-block-contacting surfaces, through the slots in said wedge-blocks, and through said support, and nuts on the protruding terminals of said bolts.

5. The combination, in an adjustable bearing, with a support, of a box provided with laterally-extending lugs having underneath inclined bearing surfaces, said lugs being arranged in pairs, slotted wedge-blocks interposed between said lugs and said support, such wedge-blocks in each pair having, at their adjacent terminals, upwardly-extending projections the inner faces of which are beveled, bolts provided with spreader heads which are interposed between said projections, there being such a head to contact with each pair of said beveled faces, and the shank of each of said bolts passing between the wedge-blocks in each pair and through said support, bolts passing through said lugs, the slots in said wedge-blocks, and said support, and nuts on the protruding terminals of all of said bolts.

[Claims 2 and 4 not printed in the Gazette.]

1,239,267. AUTOMATIC WATER-FEED DEVICE FOR STEAM-GENERATORS, OIL-BURNERS, &c. JOSEPH L. GROVES, Los Angeles, Cal. Filed Nov. 15, 1915. Serial No. 61,708. (Cl. 137—104.)



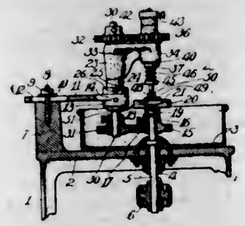
1. A valve of the type described consisting of a body having helical grooves in the wall of the valve-stem opening and a channel parallel to the valve-stem opening, a valve seat spaced from the valve-stem opening within the body, and a stem turnably mounted in the valve-stem opening engaging with the valve seat.

2. An automatic water feed device for the liquid-container in steam generators, oil burners and similar places consisting of a body having means thereon to engage with the liquid container, the said body having also helical grooves in the wall of the valve-stem opening and a channel communicating with the inside of the container, a valve seat formed in the body crosswise to the valve-stem opening spaced from the valve-stem opening forming a chamber between the valve-stem opening and the seat, the said channel communicating with the chamber and the inside of the container, a supply connection formed on the end of the body beyond the valve seat, and a stem turnably mounted in the valve-stem opening engaging with the valve seat between the supply connection and the channel.

3. In a valve of the type described a body having one end constructed to fit engagingly on a liquid container and the other end provided with a supply connection, a bore being provided through the body leading into the liquid container, a valve seat formed on the end of the body near the supply connection spaced from the bore thereby forming a chamber between the bore and the valve seat, the said bore having helical grooves, and a channel within the body sidewise from the bore communicating with the chamber and the inside of the liquid container.

4. In a valve of the type described a body secured to a liquid container projecting off the container, the body having a supply connection at the farther end, a valve seat formed near the supply end crosswise to the body, helical grooves in the wall of the valve-stem opening through the body leading into the liquid container, a float-operated stem turnably mounted in the valve-stem opening engaging with the valve seat and having means to engage with the helical grooves in the valve-stem opening, and a channel communicating with the inside of the liquid-container and the inside of the body when the stem engages with the valve-seat, the channel forming the communication between the inside of the liquid container and the supply connection when the stem is in disengaged position off the valve seat.

1,239,268. TOOL AND WORK HOLDER AND DRIVER. JAMES H. HAMMON, Vincennes, Ind. Filed May 29, 1916. Serial No. 100,656. (Cl. 51—3.)



1. A tool and work holder and driver including a supporting-arm having a bearing-boss and having also a base portion to be secured for support on a main support, a frame member having a journal rotatively mounted in the bearing-boss and having also an arm provided with a journal box, a spindle rotatably mounted in the journal box and provided with a toothed driven wheel for rotating it, a main shaft rotatably mounted in the frame member and extending therethrough and also through the journal thereof, a toothed wheel secured to the main shaft and meshing with the driven wheel, a rotatable toothed driving wheel, and a toothed gear wheel secured to the main shaft and meshing with the driving wheel.

2. A tool and work holder and driver including a supporting-arm having a bearing-boss and having also a base portion to be secured to a main support, a frame member having a cylindrical portion and also an arm provided with a journal box, the cylindrical portion being rotatively supported in the bearing boss, a toothed driven wheel having a hollow journal rotatably mounted in the journal box, a spindle extending through the driven wheel and its journal to be rotated thereby, the spindle being longitudinally-movable and adapted to carry and drive a rotary operating device, a main shaft rotatably mounted in the frame member, a toothed wheel secured to the main shaft and meshing with the driven wheel, and driving means connected with the main shaft.

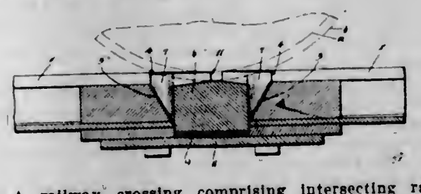
3. A tool and work holder and driver including a supported bearing-boss, a rotatable driving spindle, an extension spindle having a socket connected to the driving spindle and provided with a carrier device, a frame member rotatively mounted in the bearing boss and having an arm thereon and provided with a journal box, a toothed driving wheel secured to the extension spindle, a main shaft rotatably mounted in the frame member, a driven spindle rotatably mounted in the journal box and movable longitudinally therein, a toothed driven wheel for rotating the driven spindle connected with and permitting longitudinal movement of the spindle, a toothed gear wheel secured to the main shaft and meshing with the driven wheel, a toothed gear wheel secured to the main shaft and meshing with the driving wheel, and an operating device secured to the driven spindle.

5. In a tool and work holder and driver, the combination, with a machine frame, a driving spindle on the frame provided with a toothed driving wheel, a carrier device connected with the driving spindle, and an automatic tool-feeding mechanism, of a bearing boss stationarily mounted on the machine frame, a frame member rotatively mounted in and supported by the bearing boss, the frame member having a lateral arm thereon provided with a journal box, a main shaft rotatably mounted in the frame member, a toothed gear wheel secured to the main shaft and meshing with the driving wheel, a driven tool carrying spindle rotatably mounted in the journal box and movable longitudinally therein, a toothed driven wheel connected with the driven spindle for rotating the spindle, a toothed gear wheel secured to the main shaft and meshing with the driven wheel, and means for connecting the tool feeding mechanism with the tool-carrying spindle to longitudinally move the tool-carrying spindle.

6. In a tool and work holder and driver, the combination with a bearing boss, of a hollow frame member having a lateral arm near one end thereof, the member having a cylindrical portion extending from the opposite end thereof that is rotatively mounted in the bearing boss, the arm being provided with a journal box, journal bearings supported in the frame member adjacent to the ends thereof, a main shaft rotatively supported by the journal bearings and provided with a driving device, a toothed driven wheel having a hollow journal rotatably mounted in the journal box, a toothed wheel secured to the main shaft and meshing with the driven wheel, a spindle extending through the driven wheel and its journal to be rotated thereby, the spindle being longitudinally-movable, and means for moving the spindle longitudinally in one direction.

[Claim 4 not printed in the Gazette.]

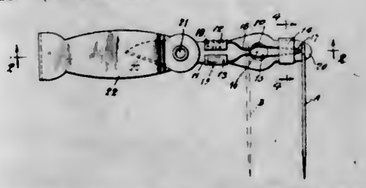
1,239,269. CUSHIONED RAILWAY-CROSSING. PHIL B. HARRIS, Los Angeles, Cal. Filed Nov. 22, 1916. Serial No. 132,729. (Cl. 104—40.)



1. A railway crossing comprising intersecting rails, there being a socket at the intersection of the rails having curved segmental portions and having radially extending portions, an insert shiftable vertically in said socket, said insert having curved segmental portions fitting the curved segmental portions of the socket and having wings extending into the radially extending portions of said socket, and a cushion in the socket beneath the insert.

2. A railway crossing comprising intersecting rails, there being a socket at the intersection of said rails, an insert shiftable vertically in said socket, the rails and insert being provided with alined grooves and the grooves in the insert having their bottom faces aslant upward from the periphery of the insert to the axis thereof, and a yielding non-metallic body in the socket beneath the insert.

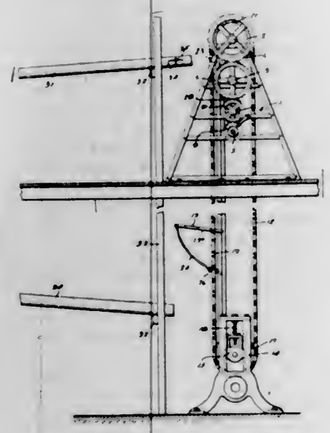
1,239,270. NEEDLE-THREADER. MOSES L. HAWKS, New York, N. Y. Filed Jan. 19, 1917. Serial No. 143,346. (Cl. 223—36.)



1. A needle threading device comprising a supporting member having an aperture through which the thread is passed, a resilient threading loop attached thereto and lying thereupon, and a guard portion extending from one edge of the supporting member and passing over the loop leaving the opposite edge of the support free for the passage of the needle.

[Claims 2 and 3 not printed in the Gazette.]

1,239,271. HOISTING APPARATUS. HARRY HELFENBEIN, Cleveland, Ohio. Filed Feb. 6, 1917. Serial No. 146,901. (Cl. 193—8.)

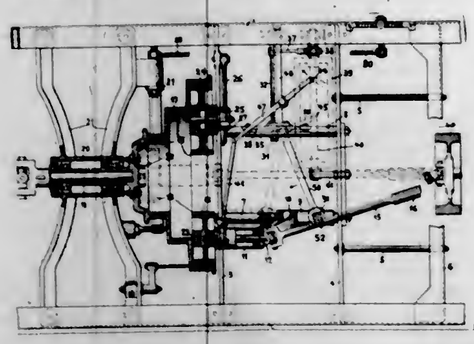


1. In a hoisting apparatus, the combination of a pair of belts, an upright supporting member extending lengthwise beside the belts, and terminating short of the upper end of the belts, and a carrier pivoted to the belts and having a brace pivoted thereto and depending thereunder the lower end of which slides in supporting contact along said member and means carried by the belts to hold the brace in supporting relation to the carrier.

2. In a hoisting apparatus, the combination of a pair of belts, a rigid guiding and supporting structure extending lengthwise between the belts and terminating short of the upper end thereof, and a carrier pivotally connected to the belts and having inwardly extending bars rigid therewith at opposite sides thereof and provided with hooks engaging behind opposite edges of said rigid guide, and also provided with a brace engaging the front side of said structure.

3. In a hoisting apparatus, the combination of a pair of belts, cross rods connecting the belts, a tilting carrier pivoted to one cross rod, and a brace connected to the carrier and having a slot through which another cross rod extends, to limit the tilt of the carrier.

1,239,272. CHANGE-SPEED GEAR. FRITZ HENRIOD-SCHWEIZER, Neuchatel, Switzerland. Filed May 4, 1915. Serial No. 25,872. (Cl. 74—26.)



1. In a change speed gear the combination with the motor shaft and the driven shaft, of a stepped driven member, a driving member, slidable means coupling said driving member to said motor shaft, a slidable support for said driving member adapted to be rocked transversely of its sliding movement, a mechanism adapted to impart a rocking and sliding movement to said driving member for positioning it relative to said stepped driven member to cause the driving member to engage said driven member for the speed desired, and manual means for operating the said mechanism.

2. In a change speed gear the combination with the motor shaft and the driven shaft, of a stepped driven member, a driving member, slidable means coupling said driving member to said motor shaft, a slidable support for said driving member adapted to be rocked transversely of its sliding movement, a mechanism adapted to impart a rocking and sliding movement to said driving member for positioning it relative to said stepped driven member to cause the driving member to engage said driven member for the speed desired, manual means for operating the said mechanism, and means on said driving member to couple it directly with the driven shaft.

3. In a change speed gear the combination with the motor shaft and the driven shaft of a stepped driven member, a driving member, slidable means coupling said driving member to said motor shaft, a slidable support for said driving member adapted to be rocked transversely of its sliding movement, a mechanism adapted to impart a rocking and sliding movement to said driving member for positioning it relative to said stepped driven member to cause the driving member to engage said driven member for the speed desired, manual means for operating the said mechanism, an adjustable pressure member adapted to bear against a step of said stepped driven member to take up the pressure of the said driving member against the said driven member, and means for controlling the position of said pressure member.

5. In a change speed gear, the combination with the motor shaft and the driven shaft, of a stepped pulley secured to said driven shaft, a driving pulley adapted to be brought into engagement with the various steps of said stepped pulley, a slidable connecting rod and universal joints for connecting said driving pulley to the said motor shaft, a slidable support for said driving pulley adapted to rock transversely of its longitudinal movement, a cam roller having two cam grooves, connecting links engaging said grooves and the said support, one for rocking said support transversely and the other for moving it lengthwise to position the driving pulley relative to the steps of the driven pulley for the speed desired, and an operating lever for controlling the movement of said cam roller.

[Claims 4 and 6 to 8 not printed in the Gazette.]

1,239,273. MOLDED ARTICLE AND PROCESS OF MAKING THE SAME. HENRY HICKS HURT, New York, N. Y., assignor to Robeson Process Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 5, 1916. Serial No. 135,155. (Cl. 91—68.)

1. An article composed of granular material bonded and united by a bonding agent comprising clay and a waste sulfite liquor preparation, said article being impregnated with a waxy material.

2. An article composed of granular material bonded and united by a bonding agent comprising a waste sulfite liquor preparation, said article being impregnated with a waxy material.

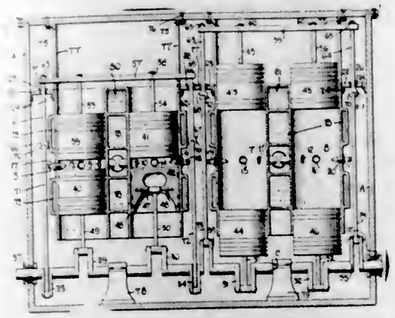
3. An article composed of granular material bonded and united by a bonding agent comprising clay and a waste sulfite liquor preparation, said article being impregnated with wax tailings.

4. An article composed of granular material bonded and united by a bonding agent comprising a waste sulfite liquor preparation, said article being impregnated with wax tailings.

5. The process of making bonded articles which comprises bonding granular material with a bonding agent comprising clay and waste sulfite liquor, drying and impregnating with a waxy material.

[Claims 6 and 7 not printed in the Gazette.]

1,239,274. INTERNAL-COMBUSTION ENGINE. WILLIAM T. INGRAM, Ruleton, Kans. Filed June 24, 1916. Serial No. 105,724. (Cl. 123—52.)

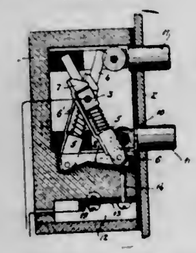


1. In an internal combustion engine, a supporting frame including an upper transverse member, and vertical side members, a plurality of cylinders vertically disposed within the frame and having vertically slotted webs attached at their upper ends to said transverse member, spacing and supporting members disposed between the cylinders and the vertical side members and holding the cylinders in a vertical position, an upper and a lower piston in each cylinder, a crank shaft having a crank for each cylinder thereon, certain of the cranks being connected to the lower pistons, transversely extending yokes operatively connected to the upper pistons and extending through the slots in said webs, and connecting rods operatively connected to and extending between said yokes and certain cranks on the shaft.

2. In an internal combustion engine, a plurality of cylinders arranged in pairs and open at opposite ends, a pair of oppositely disposed pistons in each cylinder, intercommunicating water jackets on the cylinders of each pair of cylinders, each pair of cylinders having upwardly extended slotted webs, brackets connected to and spacing one pair of cylinders from the next adjacent pair, brackets connected to and supporting the end cylinders, a crank shaft having a crank for each cylinder, the cranks for one pair of cylinders extending in an opposite direction to the cranks of another pair of cylinders, a yoke for each pair of cylinders extending through the corresponding slotted webs, a pair of cranks on the crank shaft for each yoke, the cranks for one yoke extending in a direction opposite to the cranks for the other yoke, guide rods extending downward from the ends of each yoke and having sliding engagement through the brackets, and connecting rods connecting the last named cranks to the guide rods, each pair of cylinders having intercommunicating water jackets, the walls of said water jackets of each pair extending between and connecting the pair of cylinders and each cylinder at its middle having intake and outlet ports.

3. In an internal combustion engine, a casing comprising upper, lower and side walls, a crank shaft passing through the lower end of the casing, a plurality of interconnected pairs of cylinders disposed in said casing and having upper and lower ends, each pair of cylinders having upwardly extending webs vertically slotted and attached at their upper ends to the upper wall of the casing, perforated brackets supporting the cylinders from the end walls of the casing and spacing one pair of cylinders from the other, upper and lower pistons disposed in each cylinder, the lower pistons being connected to cranks on the crank shaft, the cranks of one pair of pistons being disposed in a direction opposite to the cranks of the other pair of pistons, a yoke for each pair of cylinders passing through the slotted webs thereof and operatively connected to the upper pistons, a pair of cranks on the crank shaft for each yoke, the cranks for one yoke being disposed in an opposite direction to the cranks for the other yoke, guide rods connected to said yoke, cranks passing through the perforations in the brackets, and connecting rods operatively connected to the yoke, cranks and to the guide rods, each pair of cylinders being formed with surrounding intercommunicating water jackets, the webs of the water jacket between each pair of cylinders being connected to and bracing the cylinders from each other.

1,239,275. CONTROL-SWITCH FOR ELECTRIC LAMPS. ELIOT KEEN, Brooklyn, N. Y., assignor to William P. Dunham, New York, N. Y. Filed Aug. 4, 1915. Serial No. 43,547. (Cl. 175—293.)



1. In combination, a casing one inner side wall of which has the form of a plurality of adjacent inwardly projecting V's, contact strips upon similar limbs of the several V's, switch members pivotally mounted upon a shaft opposite to the V's and parallel to the limbs thereof said members being adapted to be rocked in planes which include the V's so as to contact their ends with the aforesaid contact strips or not as the case may be the members being resiliently contractible between the shaft and said ends, and a single control member operatively connected with each switch member and adapted to successively rock said switch members.

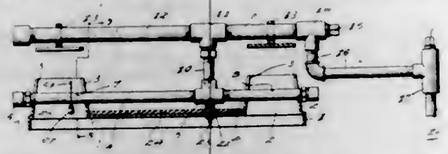
2. In combination, a casing one inner side wall of which has the form of a plurality of adjacent inwardly projecting V's, contact strips upon similar limbs of the several V's, switch members pivotally mounted upon a shaft opposite to the V's and parallel to the limbs thereof said members being adapted to be rocked in planes which include the V's so as to contact their ends with the aforesaid contact strips or not as the case may be the members being resiliently contractible between the shaft and said ends, and a movable control member having a plurality of steps corresponding to the several switch members the axis of the control member being always parallel to the aforesaid shaft and the steps being adapted to successively throw the switch members.

3. In combination, a casing one inner side wall of which has the form of a plurality of adjacent inwardly projecting V's, contact strips upon similar limbs of the several V's, switch members pivotally mounted upon a shaft opposite to the V's and parallel to the limbs thereof said members being adapted to be rocked in planes which include the V's so as to contact their ends with the aforesaid contact strips or not as the case may be the members being resiliently contractible between the shaft and said ends, and a reversible movable control member having two sets of parallel but reversed steps the members of each set corresponding to the several switch members the axis of the control member being always parallel to the aforesaid shaft and the steps being adapted to successively throw the switch members in direct or reverse order according to the direction of movement of the control member.

1,239,276. OIL-BURNER. BURT O. KELLY, Shelby, Mich. Filed Dec. 9, 1916. Serial No. 135,978. (Cl. 158—64.)

1. An oil burner comprising a base, a horizontal pipe carried by said base and having openings to form burners, a vertical pipe connected with the horizontal pipe intermediate its ends, a horizontal arm connected to the vertical pipe and overlying one of the burners for supporting a deflector, a horizontal pipe connected to the vertical pipe for coöperating with the vertical pipe in forming a fuel heating tube partially surrounding one of the burners, and means for supplying fuel to the fuel heating tube.

2. An oil burner comprising a fuel heating tube having openings therein, a T-shaped casing connected with the tube, a fuel supply pipe connected with one of the openings of the casing, a ball located within said casing for



closing the fuel supply pipe when back pressure is caused within the tube, and a screwthreaded plug threaded in the other opening of the casing permitting the ball to be removed and the cleaning of the interior of the casing.

1,239,277. HOLDER FOR PAPER CUPS. JOHN R. KLIN, Dayton, Ohio, assignor to The Germless Paper Cup Company, Dayton, Ohio, a Corporation of Ohio. Filed Nov. 20, 1916. Serial No. 132,367. (Cl. 65—13.)



1. In a holder for paper cups, a main portion of flaring form, and non-elastic engaging surfaces at the extreme lower end thereof arranged to engage the extreme apex and of a conical paper cup by a twisting action of said main portion.

2. In a holder for paper cups, a main portion of flaring form, a base, a neck connecting said base and main portion, said neck being provided with non-elastic engaging surfaces arranged to engage the extreme lower end of a conical paper cup by a twisting action of said holder.

3. In a holder for paper cups, a main portion of flaring form, and screwthreads at the extreme lower end thereof to engage the apex end of a conical paper cup by a twisting action of said main portion.

4. In a holder for paper cups, a main portion of flaring form, a base, and a neck connecting said base and main portion, said neck being provided with a screwthreaded interior for the purpose of engaging the apex end of a conical paper cup by a twisting action of the holder.

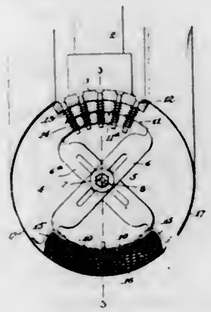
5. In a holder for paper cups, a base, a main portion of flaring form extending up from said base to form a support for a conical paper cup, and screwthreads formed at the juncture of said base and flaring portion to engage the apex end of said conical paper cup.

1,239,278. TIRE. JESSE P. LARRIMER, Brooklyn, N. Y. Filed Nov. 27, 1914. Serial No. 874,215. (Cl. 152—8.)

1. A vehicle tire having a felly-member and a tread, resilient arms interposed between the felly-member and tread, means for frictionally engaging the arms together, and means whereby the arms may move longitudinally relatively to each other.

2. A vehicle tire having a felly-member and a tread, resilient arms interposed between the felly-member and tread, adjustable means for frictionally engaging the arms together, and means whereby the arms may move longitudinally relatively to each other.

3. A vehicle tire having a felly-member and a tread, intersecting resilient arms interposed between the felly-member and tread, a spring for causing frictional engagement between the arms, and means whereby the arms may move longitudinally relatively to each other.

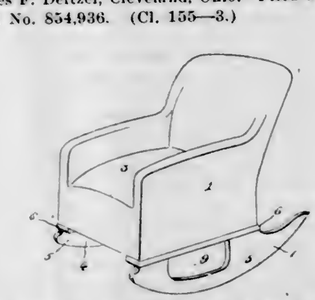


4. A vehicle tire having a felly-member and a tread, crossed arms interposed between the felly-member and tread, slots in the arms, a bolt passing through the slots to secure the arms together, and a spring for causing frictional engagement of the arms.

5. A vehicle tire having a felly member, and a tread, resilient arms rigidly secured to the tread, means for permitting relative longitudinal movement of the arms, and a cushioned connection between each arm and the felly-member.

[Claims 6 to 9 not printed in the Gazette.]

1,239,279. CHAIR. WILLIAM P. LOEBLEIN, Lakewood, Ohio, assignor to Loeblein & Deitzel, a Copartnership consisting of William P. Loeblein, Lakewood, Ohio, and Charles F. Deitzel, Cleveland, Ohio. Filed Aug. 4, 1914. Serial No. 854,936. (Cl. 155—3.)



1. An article of furniture having a base frame including side bars, threaded fastenings depending from a side bar, a sill underlying said side bar and pierced by the fastenings, said sill being wider than the horizontal transverse dimension of the side bar and having its ends underlying and engaging the other side bars at the ends of the side bar to which the sill is connected, nuts on the ends of the fastenings and detachably securing the sill to the side bar and accessible beneath said sill, and floor-engaging supporting means carried by the sills.

2. An article of furniture having a base frame including side bars, threaded fastenings depending from a side bar, a sill underlying said side bar and pierced by the fastenings, said sill being wider than the horizontal transverse dimension of the side bar and having its ends underlying and engaging the other side bars at the ends of the side bars to which the sill is connected, and nuts on the ends of the fastenings and detachably securing the sill to the side bar, legs carried by the sill, and a rocker bar connecting the legs, there being a space bounded by the rocker bar, the legs and the sill, the fastenings being disposed between the legs, and the nuts being accessible in said space beneath said sill.

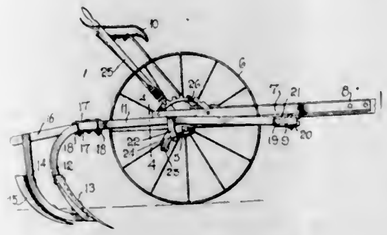
1,239,280. PIN-SETTING MECHANISM. HUGO LOEWENBACH, Milwaukee, Wis. Filed Oct. 21, 1916. Serial No. 126,880. (Cl. 46—54.)



1. A bowling alley including a floor provided with openings, bracket members disposed at the forward ends of said openings, pins having their bottom portions pivoted to said brackets and adapted to seat thereon, said pins being movable into the openings, means limiting downward movement of the pins and means for swinging the pins o upstanding position.

2. A bowling alley including a floor provided with openings, pins having their bottom portions pivotally mounted below the forward ends of the openings, a member movable longitudinally of the alley forwardly of the pins, flexible connections between said pins and said member, said member being resiliently urged to a rearward position and means for moving said member forwardly to raise the pins, comprising a pivoted lever at the forward end of the alley, a link connecting said lever and said member and a spring arm secured at one end and inclined in the path of movement of the lever whereby to abuttingly engage the lever in one limit of its movement.

1,239,281. PLOW. WALTER MENDON MCCAFFERTY, Montrose, Colo. Filed May 12, 1917. Serial No. 168,176. (Cl. 97—36.)



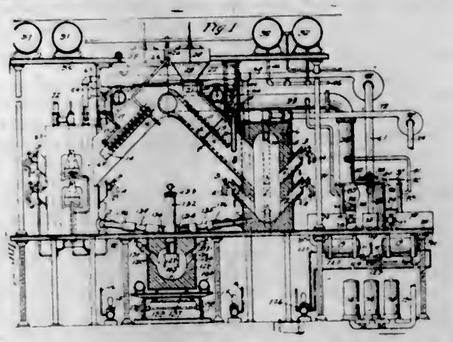
1. In a plow, the combination of a supporting axle and ground wheels revolubly mounted thereon, a transverse beam fixedly connected to the axle in advance of the ground wheels, plow beams extending over the axle and pivotally connected at their forward ends to said first named beam, plows mounted on the rear ends of the latter beams, cams fixed upon the wheel axle and co-acting with the lower edges of the respective beams, depending guides rigidly fixed to the respective beams in which the cams are operatively engaged, and manually operable means for rocking the axle to raise or lower said beams.

[Claim 2 not printed in the Gazette.]

1,239,282. PROCESS FOR THE TREATMENT OF ORES AND SUBSTANCES. FREDERICK L. MCGAHAN, Los Angeles, Cal. Filed Feb. 26, 1914. Serial No. 822,234. (Cl. 75—18.)

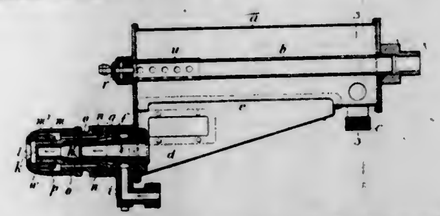
1. The hereindescribed process consisting of smelting ore drawing off the liberated gases, passing the mixture into a condenser whereby a portion is condensed, drawing off the condensed portion, drawing off the remaining gases from the condenser, superheating same and returning them to the smelting chamber.

2. The hereindescribed process consisting of smelting ore drawing off the liberated gases, passing the mixture into a condenser whereby a portion is condensed, drawing off the condensed portion and separating it into its constituent products, drawing off the remaining gases



from the condenser, superheating same and returning them to the smelting chamber.

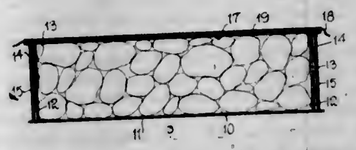
1,239,283. PNEUMATIC APPARATUS FOR APPLYING ROUGH-CAST OR OTHER PLASTER TO THE WALLS OF BUILDINGS OR STRUCTURES OR OTHER SURFACES. JOHN LAYNG MCKIM, London, and JOHN JOHNSTON, Westminster, London, England; said Johnston assignor to said McKim. Filed Mar. 31, 1917. Serial No. 159,022. (Cl. 91—45.)



1. In an apparatus for applying rough cast or other plaster to walls or the like, a cylindrical mixing chamber, a tangential inlet passage for conveying material to said chamber, and a passage for exhausting air from said chamber, whereby the material is drawn into the chamber and whirled about the same to mix said material.

[Claims 2 to 6 not printed in the Gazette.]

1,239,284. BOX. CHARLES S. MCMULLIN, Worcester, Mass. Filed Dec. 11, 1916. Serial No. 136,314. (Cl. 229—45.)

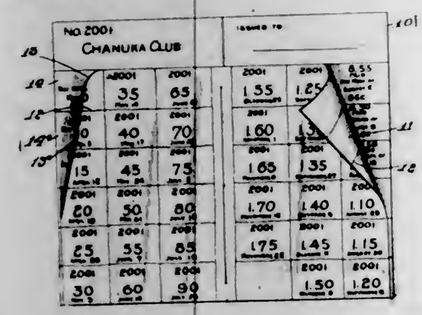


1. A box having a body formed of a bottom and upwardly extending side walls, the bottom extending beyond the side walls and the oppositely disposed side walls of the body having transversely disposed locking strips upon their outer faces, said locking strips being attached each over its entire inside face to the corresponding side wall, said locking strips being spaced from the bottom of the body, and a coacting cover having a top and side walls adapted to telescope over the side walls of the body, the inner faces of the side walls of the cover being provided with transversely extending locking strips, each of said locking strips being attached over its entire inside face to the face of the corresponding side wall, the cover being of such depth as to rest upon the extension of the bottom when the cover is in place, the transversely extending

strips of the cover and the body being of such width as to hold the cover in place against the extension of the bottom, said locking strips upon the cover and the body extending transversely across the entire wall to which the locking strips are applied to thereby reinforce the side walls of the cover and body.

2. A box having a body formed with a bottom and upwardly extending side walls, the bottom extending beyond the side walls, and the oppositely disposed side walls of the body having transversely disposed locking strips upon their outer faces spaced from the bottom of the body, and a coacting cover having a top and side walls adapted to telescope over the side walls of the body, the inner faces of the side walls of the cover being provided with transversely extending strips, the cover being of such depth as to rest upon the extension of the bottom when the cover is in place, the transversely extending strips of the cover and of the body being of such width as to hold the cover in place with its lower margin engaging against the extension of the bottom, the top of the cover being formed of two longitudinally extending sections, a sheet of frangible material applied to said top and holding the sections in the same plane, and a flexible element disposed beneath said frangible sheet and projecting beyond it whereby the frangible sheet may be torn to permit the sections of the cover to be torn.

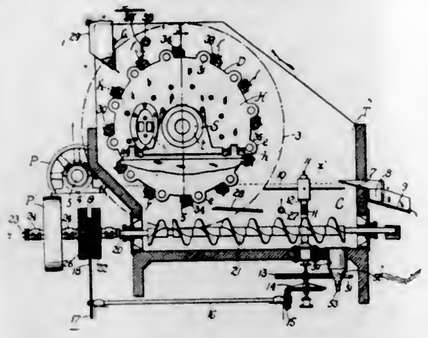
1,239,285. PASS-BOOK. CHARLES LIONEL MARCUS, New York, N. Y. Filed Mar. 29, 1915. Serial No. 17,594. (Cl. 11—19.)



A depositor's pass book adapted to facilitate club banking transactions, comprising a stiff folding cover and a flexible sheet attached to the cover at its mid-width, said sheet being divided into a plurality of detachable coupons, each coupon bearing data identifying the depositor and amount to be deposited and the date on which said deposit is due to serve as the deposit slip and to be retained by the bank when detached and said cover having on the interior face thereof a plurality of printed forms corresponding in size and number to the coupons and disposed directly thereunder so as to be uncovered when the coupons are detached, said forms containing data identifying the amount already deposited to serve as a record of the account, and the amount to be deposited and the deposit period within which said amount is to be deposited on that date to serve as a reminder to the depositor and adapted to be receipted by a bank official.

1,239,286. ROLLER-MILL. FRANK E. MARCY, Salt Lake City, Utah. Filed Aug. 2, 1916. Serial No. 112,747. (Cl. 83—9.)

1. In a mill of the character described, a rotatable drum provided with peripheral openings serving as intake and discharge means for the material, crushing bodies operating in the crushing chamber of the drum, devices in the crushing chamber for lifting the crushing bodies and retaining the same in the chamber with a rotation of the drum in a direction to effect grinding, and suitable formations adjacent the openings operating to direct the crushing bodies through the openings to effect their discharge with a reverse rotation of the drum.



2. In combination with a tank provided at a given point with an overflow, a rotatable drum mounted to operate therein, said drum being provided with a crushing chamber having intake and discharge openings for the material, said drum discharging the crushed material into said tank at a point removed from the overflow from the tank, thereby forming a sorting or classifying compartment for the discharged material adjacent the overflow from the tank, means in said sorting compartment for conveying the coarse sands to the region of the drum, and means on said drum for returning the sands back to the crushing chamber thereof.

3. In combination with a tank provided at a given point with an overflow, a rotatable grinding drum mounted to operate in said tank and discharge thereinto at a point removed from the point of overflow aforesaid, and forming in the tank a sorting compartment between the drum and point of tank overflow, an agitator in said sorting compartment for regulating the character of the material allowed to escape by way of the overflow aforesaid, means for conveying the coarse sands not affected by the agitator back to the drum, and means on the drum for returning said coarse sands to the crushing chamber of the drum for further treatment.

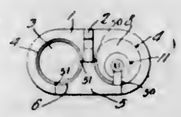
4. In combination with a tank provided at a given point with an overflow for the fines or finished product, a rotatable grinding drum mounted to operate in said tank and discharge thereinto at a point removed from the point of overflow aforesaid, and forming in the tank a sorting compartment between the drum and tank overflow, an agitator in said compartment operating to regulate the size of the particles intended to be removed by way of the overflow, a conveyer for conducting the coarse sands not removed by the overflow to a point adjacent the drum, means on the drum for returning said coarse sands back to the crushing chamber of the drum, and a deflector interposed between the drum and conveyer for receiving the initial discharges from the drum into the tank.

5. In a mill of the character described, a shell section comprising a member disposable lengthwise the periphery of the shell, and provided on one side and along one edge thereof with a rib, or lifter formation facing the axis of the shell, and provided at the opposite edge with a shoe or wing adapted to project beyond the periphery of the shell.

[Claims 6 to 9 not printed in the Gazette.]

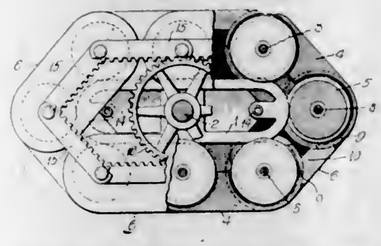
1,239,287. GUN ATTACHMENT. HUGH M. MASTERTON, Paterson, N. J. Filed June 23, 1915. Serial No. 35,901. (Cl. 42—77.)

In a device of the class described, a main barrel; a main extractor operating in the breech of the main barrel, the extractor and the breech of the main barrel being provided with a circumscribing seat; a tubular carrying member mounted in the main barrel and having a parti-circumferential flange received in the seat, the ends of the flange being spaced from the ends of the main extractor to permit the carrying member to be rotated on its axis, the carrying member having an eccentrically disposed opening; an auxiliary barrel mounted in the opening of the carrying



member; means for holding the auxiliary barrel against rotation in the carrying member; and an auxiliary extractor coöperating with the auxiliary barrel, and operated by the main extractor.

1,239,288. BEARING-WHEEL. FRANK J. MINER, Detroit, Mich. Filed May 21, 1917. Serial No. 169,860. (Cl. 21—150.)



1. A bearing wheel for vehicles comprising a track plate, segments having recessed end portions pivoted together in overlapping relation to form an endless tread member encircling the track plate, and spacing wheels mounted in the recesses of the overlapping portions of the segments in rolling contact with the track plate margin.

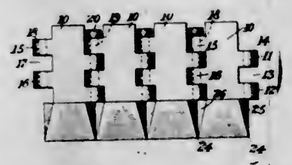
2. A bearing wheel for vehicles comprising a track plate, segments having recessed end portions pivoted together in overlapping relation to form an endless link tread member encircling the track plate, spacing wheels mounted in the recesses of the overlapping portions of the segments in axial coincidence with the pivots thereof and in rolling contact with the track plate margin, and dust guards on the segments filling the intervals between the ends of the segments.

3. A bearing wheel for vehicles comprising a track plate, oppositely disposed segments having recessed end portions pivoted together in overlapping relation to form an endless link tread member encircling said track plate, spacing wheels mounted in the recesses of the segments in axial coincidence with the pivots thereof and in rolling contact with the track plate, and side plates carried by the track plate and housing the latter and adjacent portions of the segments.

4. A bearing wheel for vehicles comprising a track plate, oppositely disposed segments having recessed end portions pivoted together in overlapping relation to form an endless tread member encircling the track plate, spacing wheels in the recesses of the segments at the pivotal points thereof in rolling contact with the track plate, rack links articulating on the pivotal connections of the segments, and a driving gear meshing with the rack links, in concentric relation with the tread member.

5. A bearing wheel comprising a track plate, a set of segments having recessed end portions, a set of segments alternating therewith and having recessed end portions pivoted to the other end portions in overlapping relation thereto, and spacing wheels journaled in the recesses of the segments in axial coincidence with the pivots thereof and in rolling contact with the periphery of the track plate which the articulated segments encircle.

1,239,289. CUTTING-DIE. GABRIEL MINTZ, Brooklyn, N. Y. Filed Mar. 7, 1917. Serial No. 152,976. (Cl. 164—31.)

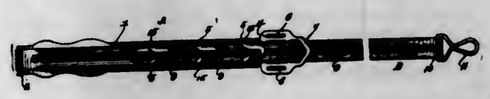


1. In a cutting die, a plurality of relatively narrow interchangeable units each comprising a body portion and a cutting portion having a slightly concavo-convex cutting edge, and means for pivotally connecting the cutting units together at the sides thereof so that the die may be shaped to make a continuous cut of desired configuration.

2. In a cutting die, a plurality of relatively narrow interchangeable similar units each comprising a body portion and a cutting portion having a slightly concavo-convex cutting edge, and means for pivotally connecting the sides of the body members of the units together so that the die may be shaped to make a cut of desired configuration, the corners of the cutting edge of each unit lying in the axes of the pivots by which the unit is connected to the next adjacent units so that the cut made thereby is continuous.

3. In a cutting die, a plurality of relatively short similar units each comprising a body portion and a cutting portion having a slightly concavo-convex cutting edge, lugs on one side of a body portion of each unit, lugs in a staggered relationship on the other side of the body portion of each unit, pivot pins passing through said lugs for connecting the units together, the cutting edge of each unit being so formed that the corners thereof lie in the axes of the pivots by which the said unit is connected to the next adjacent units, and the outer parts of the sides of the cutting portion of each unit being flat and in a plane at right angles to the face of the body member of the unit while the inner parts of the sides of the cutting portion of each unit are tapered from the cutting points so that the units may be turned to a straight line position to make a straight cut and also inwardly to make a curved cut.

1,239,290. HAME-TUG AND TRACE. GEORGE THOMAS MONROE, Alva, Okla. Filed Mar. 23, 1916. Serial No. 86,114. (Cl. 54—33.)



In combination, a tug having an internal reinforcing member carrying a plurality of brackets pivoted equidistantly on said member, the outer transverse portion of each bracket bent centrally and longitudinally to form a loop, and a trace having an internal reinforcing member rigidly mounting trace hooks adapted to engage in the loops of the said brackets.

1,239,291. PROCESS OF MAKING MATERIAL FOR PUNCTURE-PROOF TIRES. GEORGE O. MORSE, Des Moines, Iowa, assignor of one-sixth to Alexander M. Linn, one-sixth to Dwight Jarvis, and one-sixth to William W. Horras. Filed Feb. 7, 1917. Serial No. 147,253. (Cl. 154—14.)

1. The process of making material for puncture proof tires, comprising the weaving together of strips of cotton, the subjecting of said strips to great pressure, and the forcing of rubber into the surfaces of such strips while they are under pressure.

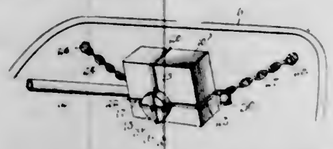
2. The process of making material for puncture proof tires, comprising the weaving together of strips of cotton,

the subjecting of said strips to great pressure, the forcing of rubber into the surfaces of such strips while they are under pressure, the placing of said material in a tire, and the securing of said material to the material of the tire.



3. The process of making material for puncture proof tires and the like, comprising the weaving of strips of cotton into a fabric, the forcing of rubber into the surfaces of said fabric under pressure, the laying of said fabric in a tire, and the compression and vulcanizing of said fabric to the material of the tire.

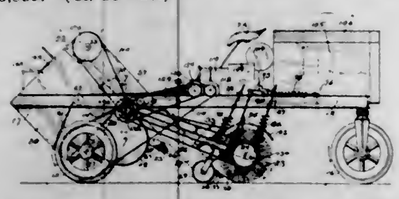
1,239,292. SAFETY-LOCK FOR SWITCH PLUGS OR KEYS OF MOTOR-VEHICLES. ROBERT L. MUNDELL, Albion, Iowa. Filed Jan. 6, 1917. Serial No. 140,998. (Cl. 70—122.)



1. A coil box switch lock, embodying a cover adapted to be placed over the switch, arms connected with the cover and adapted to embrace the coil box, a flexible element connected with one of the arms adjacent one side of the coil box and permanently anchored at a point remote from the box, a second flexible element permanently anchored at a point remote from the box, and a lock proper for detachably securing the second recited element to another of the arms.

2. A coil box switch lock, embodying a cup shaped cover adapted to be placed over and receive the switch key, arms connected with the cover, said arms extending over the face of the coil box, the ends of the arms being deflected to engage the side faces of the box, a flexible element secured to one of the arms and permanently anchored at a point remote from the box, a second flexible element permanently anchored at a point remote from the box, and means for detachably securing the free end of the second recited flexible element to another one of said arms.

1,239,293. STREET-SWEEPING MACHINE. JOHN M. MURPHY, Elgin, Ill. Filed Aug. 21, 1913. Serial No. 785,839. (Cl. 15—17.)



1. In an apparatus of the class described, a dirt pan comprising a plurality of sections each of which is pivotally connected at one end to a carrying member and arranged to have its free end gravitate upon the ground, a rock shaft under the pan sections remote from and parallel to the axis of the pivotal connections of the sections, slotted cam plates rigidly secured to said rock shaft arranged to engage the under sides of said sections, headed bolts depending from the pan sections and extending through the slots in the cam plates whereby the raising of the pan sections is limited, and means for oscillating the rock shaft.

2. In an apparatus of the class described, a truck frame, an inclined elevator mounted on said frame having its upper end pivotally connected to the frame to have its lower end free to move up and down in an arc, a pair of inclined beams having their upper ends pivotally connected to said frame and a sweeper brush rotatably mounted on the lower ends of said beams so that the sweeper brush is free to move up and down in an arc, a rock shaft mounted on said frame provided with a crank arm at each end, flexible connections between the free ends of said crank arms and the lower free ends of said elevator and inclined beams, a third crank arm on said rock shaft, a spring connected between the free end of said third crank arm and the frame to yieldingly hold the rock shaft in a position required to hold the free ends of the elevator and inclined beams in a raised position.

3. In a street sweeping machine, the combination with a supporting frame, of dust collecting means including a brush and a conveyer associated with said brush, said conveyer being pivotally mounted at its upper end and relatively free at its lower end which approximates the surface of the road, means for pivoting the brush relative to the frame, spring supporting means for the brush and free end of the conveyer, a common positive elevating means for the brush and conveyer, said elevating means comprising chains connected to an actuating lever and having branches running to the free end of the conveyer and to the brush, in combination with means for retaining the brush and conveyer in elevated positions comprising a spring and intermediate connections adapted to be thrown to a dead center position, substantially as described.

4. In a street sweeping machine, the combination with a frame having side members, of supporting wheels at the forward end of said frame, a receptacle supported between said frame members at approximately the center of the receptacle, the upper walls of the receptacle converging upwardly and provided with an inlet at the highest point thereof, and the lower walls converging downwardly to a point in advance of the axis of the supporting wheels and adjacent to the ground, the lower portion of the receptacle being provided with a discharge opening and closure therefor, and collecting means adapted to discharge into the inlet of the receptacle.

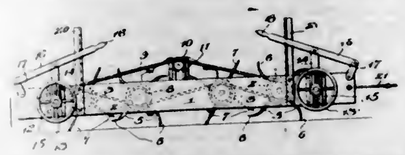
5. In a street sweeping machine, the combination with a frame having side members of supporting wheels at the forward end of said frame, a receptacle supported between said frame members at approximately the center of the receptacle, the upper walls of the receptacle converging upwardly and provided with an inlet at the highest point thereof, and the lower walls converging downwardly to a point in advance of the axis of the supporting wheels and adjacent to the ground, the lower portion of the receptacle being provided with a discharge opening and closure therefor, and collecting means adapted to discharge into the inlet of the receptacle, said collecting means being pivoted at the top of the receptacle and extending downwardly approximately parallel to the adjacent upper wall of the receptacle and to a point near the ground, substantially as described.

[Claims 6 to 23 not printed in the Gazette.]

1,239,294. REVOLVING DRAG. ALMER L. NILSEN, Walford, N. D. Filed Oct. 21, 1916. Serial No. 126,879. (Cl. 55—11.)

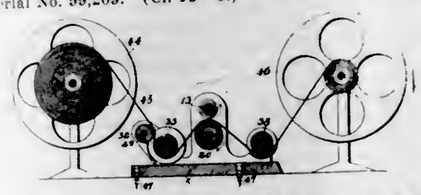
1. In a rotary drag, a frame having side and end frame members, rollers journaled in the side frame members, a sprocket on one end of each roller, an endless chain arranged adjacent the specified side frame member and taking under one sprocket and over the other to reversely drive the rollers, a vertical standard on said side frame member, and a chain adjusting sprocket vertically adjustable on the standard and supporting the chain.

2. In a revolving drag, a frame, spaced pairs of rollers journaled thereon and each comprising a forward drag roller having rearwardly curved teeth and a rear clearer roller having straight teeth, the teeth of each roller being disposed in staggered relation to each other and to the teeth of the companion roller, and both the clearer and



drag rollers operating on the ground, a sprocket on each roller, a chain passing over one sprocket and beneath another sprocket alternately for driving one roller of each pair in a reverse direction from the companion roller, and an idler interposed on the frame between the pairs of rollers.

1,239,295. MOTION-PICTURE-FILM CLEANER. MARCOS EUGENE NOBLE, Elgin, Tex. Filed May 22, 1916. Serial No. 99,209. (Cl. 15—8.)



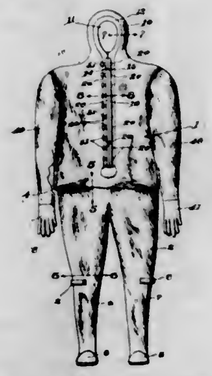
1. A film cleaning device including a base having a forward, a central, and a rear pair of standards rising therefrom, a pair of vertically unalined rollers detachably carried by the forward standards, a pair of vertically alined rollers detachably carried by the central standards, and a roller detachably carried by the rear standard, the rollers adapted to have a film guided between them in such manner as to prevent slack occurring in the film, certain of the rollers having absorbent material wound thereon for removing oil and grease from the film, and means for detachably securing the rollers in place whereby they may readily be removed at will for replenishment.

2. A film cleaner including forward rollers arranged one above the other out of vertical alinement adapted to receive a film between them, one of the rollers being wound with absorbent material, a central pair of rollers arranged in vertical alinement and having rolls of absorbent material wound on them between which the film is adapted to pass, the axis of the lowermost of the central rollers being arranged above the axis of the lowermost roller of the forward rollers, and a rear roller having a roll of absorbent material thereon under which the film is adapted to pass, the rear roller having its axis arranged below the axis of the lowermost of the central pair.

3. A film cleaning device including a standard having a lower roller carried thereby and an upper spring tensioned roller movable toward the lower roller, both of the rollers being wrapped with absorbent material between which the film is adapted to pass, said absorbent material being adapted to be removed from time to time as it becomes soiled, and flanges provided on the lower roller against which flanges the upper roller is adapted to bind when there is but a predetermined amount of material left on the rollers.

1,239,296. LIFE-PRESERVING GARMENT. AUGUST NOGAR, Reading, Pa. Filed Oct. 6, 1916. Serial No. 124,165. (Cl. 9—20.)

1. A life preserving garment constructed of waterproof fabric and having a waist section and a trouser section, a flexible strip connecting said waist section to said trouser section for allowing the waist section to overhang the waist band of the trouser section, said strip being less flexible than the waterproof fabric to form a hinged joint between the waist section and the trouser section.



2. A life preserving garment constructed of waterproof fabric and including a waist portion and a trouser portion, a flexible strip connecting said waist section to said trouser section, said flexible strip being less flexible than the waterproof material, of which said waist and trouser sections are formed to provide a hinged joint between the waist section and the trouser section for allowing the waist section to overhang the waistband of the trouser section, a vest mounted within said waist portion and adjustably connected to said trouser portion, said vest composed of a plurality of flexibly connected sections, each of said sections forming a pocket, and buoyant pillows mounted within said pockets.

3. A life preserving garment constructed of waterproof fabric and having a waist section and a trouser section, a flexible strip connecting said waist section to said trouser section for allowing the waist section to overhang the waist band of the trouser section, a head covering formed upon said waist portion, said head covering having its front open, a strip of soft flexible rubber extending about the edge of the face opening for clinging to the face of the wearer, boots formed upon said leg portions, straps carried by said leg portions, buckles carried by said leg portions, said straps adapted for connection with said buckles for binding the leg portions tightly about the legs of a wearer.

4. In a life preserving garment constructed of waterproof fabric and including a waist portion and a trousers portion, a vest mounted within said waist portion and adjustably connected to said trousers portion, said vest composed of a plurality of flexibly connected sections, each of said sections forming a pocket, and buoyant pillows mounted within said pockets.

5. In a life preserving garment, a vest structure composed of a plurality of sections, each of said sections forming a pocket and being connected to the section next thereto by a flexible portion of waterproof fabric, buoyant cushions mounted within said pockets, and elastic straps attached to the outer surface of said vest for normally holding the facing edges of said sections in engagement and for permitting the sections to be spread apart the length of said flexible connection.

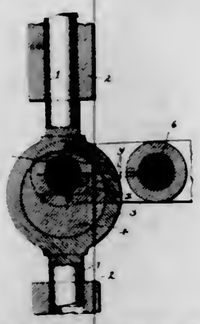
[Claims 6 to 15 not printed in the Gazette.]

1,239,297. LINK-MOTION. BRUNO V. NORDBERG, Milwaukee, Wis. Filed June 11, 1917. Serial No. 174,140. (Cl. 74—14.)

2. In combination with a valve-stem reciprocable in a right line; an included eccentric carried thereby; an actuating lever therefor, the center lines of said valve-stem and the lever standing at right angles to each other; and a pin connecting said lever to the eccentric.

3. In combination with a valve-stem reciprocable in a right line; an eccentric carried thereby; a lever fulcrumed to one side of the stem; and a pin extending

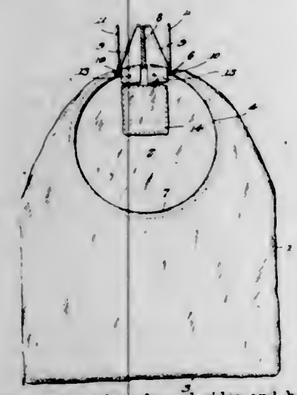
through the eccentric to one side of the center thereof and connected to the adjacent end of the lever.



5. In combination with a member to be actuated, said member having a rectilinear movement; an actuating member having a swinging movement about a fixed fulcrum and standing at substantially right angles to the first-named member; and an ecentric connection between said members.

[Claims 1 and 4 not printed in the Gazette.]

1,239,298. CLOTHES-PIN BAG. ERNEST NORMAN, Lachine, Quebec, Canada. Filed Nov. 18, 1916. Serial No. 132,149. (Cl. 68—11.)



A bag closed at both ends and sides and having an entrance opening in one side near the upper end, and a wire stiffening ring secured to said side and extending around the opening, the wire forming the said ring having upwardly extending intertwisted portions and also having downwardly and outwardly bent portions formed with bights which pass under and around the ring wire and with upwardly extending terminal hooks.

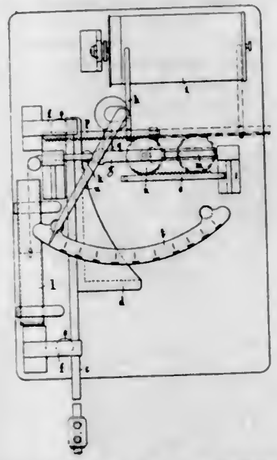
1,239,299. JAR-CLOSURE. CHARLES C. PARKER, Baltimore, Md. Filed Feb. 11, 1916. Serial No. 77,556. (Cl. 215—14.)



1. A jar closure which consists of an inverted cup-shaped plug or stopper having the skirt thereof provided with an outwardly and upwardly extending continuous or unbroken creased flange which produces a contractible circular edge adapted to come in contact with the inner surface of the throat of the jar, combined with a cap adapted to cover the exterior lip of the jar, and to which the stopper is secured, a raisable tongue on the cap and a bulge formed on the crown of the plug upon which the tongue rests, substantially as specified.

2. A jar closure comprising an inverted cup-shaped plug or stopper having the skirt thereof provided with an outwardly and upwardly extending creased flange, adapted for insertion in the throat of the jar, combined with a cap adapted to cover the exterior lip of the jar, the edge having an annular bead which is liquefiable by heat, substantially as and for the purpose specified.

1,239,300. APPARATUS FOR MEASURING AND RECORDING THE QUANTITY OF FLOW OF LIQUIDS. WILLIAM PATERSON, London, England. Filed Mar. 18, 1913. Serial No. 755,066. (Cl. 234—10.)



1. In an apparatus of the character described the combination of a float subject to variations in the level of liquid passing over a weir or through an orifice, a recording cylinder, a marker in contact therewith, a cam for actuating said marker rigidly secured to and movable longitudinally with said float and having a surface of such form that the movement of the marker is directly proportional to the volume of liquid passing, a slidable carriage in contact with said cam, an idle pinion mounted upon said carriage, a fixed rack in engagement with said pinion and an oppositely disposed movable rack also in engagement with said pinion and carrying said marker.

4. In an apparatus of the character described the combination of a float subject to variations in the level of liquid passing over a weir or through an orifice, a slidable carriage upon which is mounted a recording marker, a cam in contact with said carriage rigidly secured to and movable longitudinally with said float and of such a form that the movement of the carriage is directly proportional to the volume of liquid passing, and means for maintaining contact between the carriage and the cam, said means comprising registering mechanism connected with said carriage, a disk mounted upon the shaft of said registering mechanism and a second disk in engagement with the first disk, and means for rotating said second disk at a uniform speed.

[Claims 2 and 3 not printed in the Gazette.]

1,239,301. BULL-HOOK. NELS PEARSON, Deep Bay, British Columbia, Canada. Filed Mar. 17, 1917. Serial No. 155,563. (Cl. 24—242.)

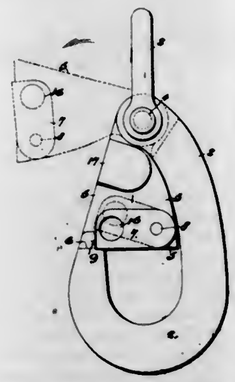
2. A bull hook, comprising in combination, a hook, a retaining member pivotally mounted on the eye of the hook and filling the recess between the eye and the point, a latch, a pivot pin on which said latch is mounted, said latch being chambered from the inner face around said pin, a coil spring within the chamber, one end of which spring is anchored to the retaining member and the other end to the latch member, a recess on the inner face of such latch member intermediate its ends, and a pin projecting from the retaining member into the recess.

4. A bull hook, comprising in combination, a hook, a retaining member pivotally mounted on the eye of the hook and filling the recess between that eye and the point, latches pivotally mounted on the same pin on each side of the retaining member, said latches being chambered from the inner face surrounding the pin, and a coil spring within the chambered recess, one end of which spring is anchored to the retaining member and the other end to the latch member, a recess on the inner face of each latch member intermediate of its ends, and a pin projecting from the retaining member into the recess, and a finger engaging recess on the outer face of each latch adjacent its free end.

5. A bull hook comprising a hook, a retaining member pivotally mounted on the eye of the hook and filling the recess between the eye and the point, the point being slotted to receive said retaining member, said retaining member being in the nature of a thin flat plate, said hook member having its point provided with latch shoulders, latch members independently pivoted to said plate and adapted to drop into engagement with said shoulders, said latch members adapted to lie flatwise against said plate, said latch members having recesses in their surfaces adjacent to the plate, said retaining member having a pin to engage in said surfaces to restrict the pivotal movement of the latch members, concealed springs located in recesses in said latch members and the adjacent retaining member plate, continuously tending to project said latch members to their latching position, substantially as shown and for the purposes described.

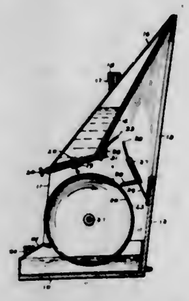
[Claims 1 and 3 not printed in the Gazette.]

1,239,302. INSECT-TRAP. ERNEST E. PEARSON and WILLIAM H. PEARSON, Mitchellville, Iowa. Filed Nov. 9, 1914. Serial No. 871,204. (Cl. 43—32.)



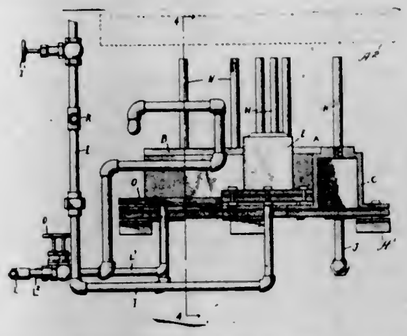
1. In a device of the class described a receptacle having an opening adjacent to the bottom of one side, a roller journaled horizontally therein and adapted to extend through but not fill such opening, a tank disposed within the receptacle and adapted to receive the lower portion of the roller, a second tank disposed above the roller, means disposed above the central part of the roller, for permitting the contents of the second tank to drip upon said roller, a scraper disposed adjacent to the surface of the roller opposite the opening, transparent devices arranged above the scraper adapted to form an apex passage, and means for rotating the roller.

2. In a device of the class described a receptacle having an opening adjacent to the bottom of one side, a roller journaled horizontally therein and adapted to extend through but not fill such opening, a tank disposed within the receptacle and adapted to receive the lower portion of the roller, a second tank disposed above the roller, means disposed above the central part of the roller for permitting the contents of the second tank to drip upon said



roller, a scraper disposed adjacent to the surface of the roller opposite the opening, transparent devices arranged above the scraper adapted to form an apex passage, one of said devices being transparent.

1,239,303. OIL-BURNING HEATER. JAMES E. PERRY, Los Angeles, Cal. Filed July 11, 1916. Serial No. 108,611. (Cl. 122—23.)



A gaseous liquid fuel heating apparatus, comprising two L-shaped tanks and a tank intermediate the same, a valved water pipe connected to one of said L-shaped tanks and through which a supply of water is adapted to circulate, a pipe communicating between the ends of said L-shaped tanks, a valved return water pipe leading from the other of said L-shaped tanks, a valved supply pipe leading to the tank intermediate the L-shaped tanks, a valved exit pipe leading from the intermediate tank, valved communicating pipes intermediate the supply pipes leading to one of said L-shaped tanks and the intermediate tank, and a valved pipe communicating between the return pipes from the other of the said L-shaped tanks and the exit pipe from the intermediate tank.

1,239,304. WATER-GAGE. FRANCIS A. POCOCK, Philadelphia, Pa. Filed Nov. 22, 1913. Serial No. 802,351. (Cl. 73—54.)

1. A sight gage consisting of a slotted metal shield, a lining of mica placed against the inner walls of said shield, a glass tube located within the shield, means for packing the ends of said glass tube, a second glass tube located within the first named glass tube, the ends thereof projecting beyond the ends of the first named glass tube, and means for packing the ends of the second glass tube as specified.

2. In a device of the character stated, a slotted metal tube, a glass tube within said tube and concentric therewith, means for packing said glass tube, another glass tube within the first named glass tube and concentric therewith, means for packing said second glass tube independently of the first named glass tube, means for blowing off surplus pressure between the two glass tubes, consisting of a casing provided with a valve seat in communication with the space between the glasses, a spring actuated valve fitted to its seat and means for drawing said valve off its seat.



3. In a device of the character stated, end members provided with means for attachment to a boiler fixture, one of said end members being provided with an opening, a slotted metal tube mounted in said end members, an outer glass tube mounted in said end members concentric with the metal tube, means for packing said glass tube intermediate its ends, another glass tube mounted in the end members within the first named glass tube and concentric therewith, means for packing said second glass tube intermediate its ends and independent of the first named glass tube, and means mounted in the opening in one of the end members for relieving the pressure between said glass tubes, said means comprising a casing having an outlet and provided with a valve seat, a spring actuated valve plug mounted within said casing and means for drawing said valve plug off its seat.

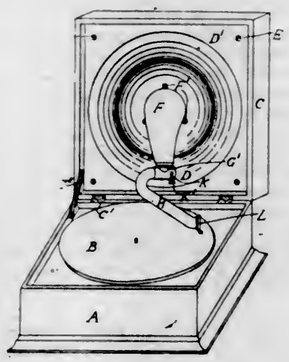
4. In a device of the character stated, end members, a slotted metallic tube mounted in said end members, a plurality of concentric glass tubes of different diameters situated within one another and mounted in the end members, means for independently packing said tubes within the end members intermediate their ends and a transparent tube of greater diameter than the glass tubes mounted within the end members.

5. In a device of the character stated, end members, a slotted metallic tube mounted in said end members, a plurality of concentric glass tubes of different diameters situated within one another and mounted in the end members, means for independently packing said tubes within the end members intermediate their ends, and an unpacked transparent member situated between the glass tubes.

[Claims 6 to 10 not printed in the Gazette.]

1,239,305. TALKING-MACHINE. WILFRED SAMPSON SAMUEL, London, England. Filed Feb. 3, 1915. Serial No. 5,907. (Cl. 274—2.)

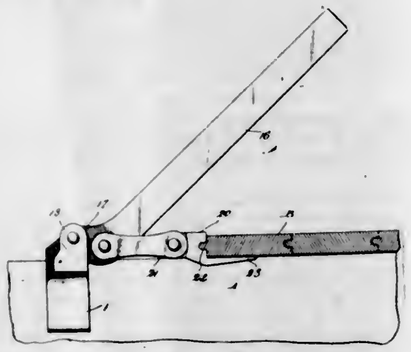
1. In a talking machine of the type referred to, the combination of a casing, a cover hinged thereon, a bowl shaped deflector mounted in said cover and arranged with its axis transverse to said cover, a trumpet secured to said deflector and with one end in alinement with the axis of said deflector, a tone arm universally jointed to



the other end of said trumpet and means for retaining said tone arm within said deflector when required.

[Claims 2 to 4 not printed in the Gazette.]

1,239,306. FLOOR-LAYING TOOL. HARVEY L. SANDERSON, Chewelah, Wash. Filed Aug. 16, 1916. Serial No. 115,261. (Cl. 254—15.)

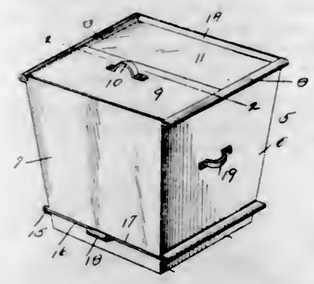


In a device of the class described, a joist engaging clamp including an L-shaped member arranged whereby the short limb is adapted to engage one side of the joist, and the intermediate limb extended transversely across the latter, said longer limb being slotted, a cam-shaped dog pivotally associated with the longer limb, the pivot for said dog being longitudinally adjustable in said slot, spaced parallel apertured lugs projecting from the clamp at the point of juncture of the respective limbs, a lever pivoted between said lugs, a grooved block, and a link having one end pivotally associated with said block and its opposite end pivotally connected with the lever as and for the purpose described.

1,239,307. GARBAGE-CAN. WERNER SCHMID, New York, N. Y. Filed Apr. 12, 1916. Serial No. 90,744. (Cl. 220—115.)

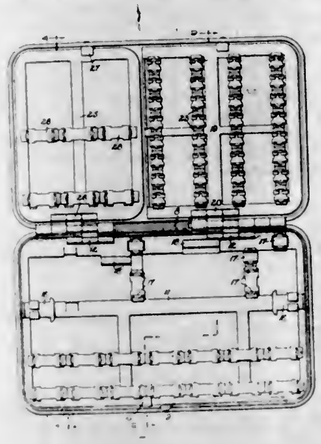
A garbage can, comprising in combination, a receptacle formed of sides and ends, the sides, at their tops and bottoms, being outwardly shaped to form opposing channels, a slide plate entered into the lower opposing channels and forming a removable bottom for the receptacle, a flanged plate secured within the top of the receptacle below the upper channels and partially closing the top

thereof and a second slide plate fitted into the upper channels and slidable on said flanged plate, the end plates



projecting above the channels to provide stops for the second slide plate in its open and closed position.

1,239,308. CASE FOR HYPODERMIC INSTRUMENTS. BLAINE WALTER SCOTT, Nacozari, Mexico. Filed Mar. 31, 1917. Serial No. 158,837. (Cl. 206—43.)



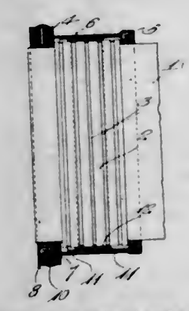
1. A case of the class described comprising two hinged sections, a rack, a double hinge securing the rack to the hinge of the sections so as to normally maintain said rack at the bottom of one of the sections, and movable members adapted to extend from the sides of the rack for engaging said edges of the section whereby said rack may be maintained above the edges of the section substatially as and for the purpose set forth.

4. A case of the class described comprising two hinged sections, a pair of racks in one of said sections, a double hinge securing one of said racks to the hinge of the sections to normally maintain said rack in proximity of the bottom of said section, yielding means for locking said rack to the section in normal position, a double hinge securing the other of said racks to the hinge of the sections to maintain said rack normally midway between the bottom and the edge of said section, yielding means for locking the rack in the normal position, supporting means on both faces of said rack, and a flange on said rack in proximity of the first mentioned rack to prevent interference between the means carried on said racks and whereby any of the racks may be moved independently of the other without interference, and means for facilitating the manipulation of said racks.

7. A case of the class described comprising a pair of hinged sections, a rack, a double hinge securing the rack to the hinge of the sections so as to maintain said rack normally between the bottom and the edges of one of said sections, means for locking the rack in normal position to said sections, and U-shaped clips on both faces of said rack, said clips having lugs at the bottom of the U for engaging the bottom of the U clips disposed on the opposite face of the rack.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,239,309. PROJECTILE-PROTECTOR. WILLIAM L. SECHLER, Braddock, Pa. Filed Jan. 16, 1917. Serial No. 142,783. (Cl. 102—26.)



1. A protector for the packing bands of projectiles comprising a main guard ring to surround the projectile in contact with the rear edge of said packing band, said guard ring being of a thickness to project beyond the periphery of said packing band, an auxiliary guard ring to surround the projectile in contact with the front edge of the packing band, said auxiliary ring being likewise of a thickness to project beyond the periphery of the packing band, and a collar to surround said packing band, the edges of said collar being secured to said main and auxiliary guard rings.

3. A protector for the packing bands of projectiles comprising a main guard ring to surround the projectile in contact with the rear edge of said packing band, said guard ring being of a thickness to project beyond the periphery of said packing band, an auxiliary guard ring to surround the projectile in contact with the front edge of the packing band, said auxiliary ring being likewise of a thickness to project beyond the periphery of the packing band, a collar extending between and secured at its edges to said main and auxiliary guard rings, said collar being adapted to circumscribe said packing band and having an annular hem located between said guard rings, and a circumferentially corrugated cushioning ring of yielding material in said hem.

5. A protector for the packing bands of projectiles comprising a guard ring to surround the projectile in contact with one edge of said packing band, said ring consisting of an annular body with its ends disconnected and a layer of severable material secured to the ends of said body and adapted to be cut adjacent the ends thereof to permit the entire guard ring to expand, and a flexible split collar extending from said guard ring and of a width to totally cover and surround the packing band.

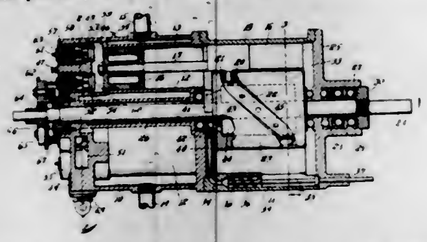
10. A protector for the packing bands of projectiles comprising a guard ring to surround the projectile adjacent said packing band, said guard ring consisting of an annular body composed of a plurality of laminations in the form of split rings, the ends of alternate laminations extending beyond the ends of the intervening laminations to form an endwise separable joint between the two ends of said body, and a strip of severable material secured to the meeting ends of said body and adapted to be cut to permit the guard ring to expand for quick removal from the projectile.

[Claims 2, 4, and 6 to 9 not printed in the Gazette.]

1,239,310. INTERNAL-COMBUSTION ENGINE. WILBUR L. SHEPARD, West Hartford, Conn. Filed Feb. 17, 1916. Serial No. 78,933. (Cl. 121—25.)

1. A casing having a cam chamber, a cam rotatably mounted in said chamber and having a cam groove, and a

reciprocating member having a part projecting into said groove, said cam having a lubricant distributing chamber with ports opening into said groove.



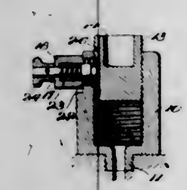
2. A casing having a cam chamber, a cam rotatably mounted in said chamber and having a cam groove, a reciprocating member having a part projecting into said groove, said cam having a lubricant distributing chamber with ports into said groove, an oil chamber, and means for conveying the oil from said oil chamber to said distributing chamber.

3. A casing having a cam chamber, a cam rotatably mounted in said chamber and having a cam groove, a driving member having a part projecting into said groove, said cam having a lubricant distributing chamber with ports into said groove, an oil chamber, and a pump for pumping oil from the oil chamber into said distributing chamber.

4. A casing having a cam chamber, a cam rotatably mounted in said chamber and having a cam groove, a lubricant distributing chamber with ports opening between said distributing chamber and cam groove, an oil chamber, a screw pump located in said oil chamber for pumping oil into said distributing chamber, and a driving member having a part projecting into said cam groove.

5. A casing having a cam chamber therein, a cam located in said chamber and having a distributing chamber, a cam groove and ports opening between said groove and distributing chamber, a collar having a groove registering with ports leading into said distributing chamber, an oil chamber in said casing, a pump located in said oil chamber, a connection between said oil chamber and groove in said collar, and a driving member having a part projecting into said cam groove.

1,239,311. GREASE-CUP. EDWARD L. SHIPP, Princeton, W. Va. Filed Feb. 3, 1917. Serial No. 146,423. (Cl. 184—48.)

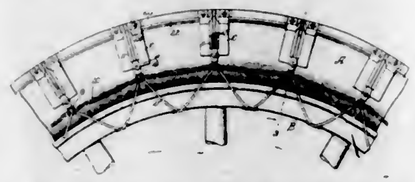


1. A device of the character described including a cup body, a plunger adjustable therein, locking means for holding the plunger at adjustment, and means carried by the plunger and operatively engaged with the said locking means for locking the said locking means upon the cup body.

5. A device of the character described including an interiorly screw threaded cup body, an exteriorly screw threaded plunger adjustable therein, there being a screw threaded bore entering through one side of the cup body with the terminals of the screw threads of the cup body confronting said bore at opposite sides thereof cut away, a casing having an extension screw threaded into said bore, transverse screw threads formed on the inner end of said extension and provided with overhanging terminals engaging in the cut away portions of the said thread terminals with the said transverse threads mating with the threads upon the interior of the cup body to bear between the threads of the plunger, and a locking pin connected to said casing for engagement with the plunger to lock the plunger at adjustment with the plunger acting to lock the casing upon the cup body.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,239,312. GRIP FOR AUTOMOBILE-TIRES. PATRICK SMITH, Foresthill, Cal. Filed Oct. 20, 1916. Serial No. 126,709. (Cl. 152—16.)



A grip attachment for tires comprising spaced transverse curved sections, each section being composed of separate side members and an intermediate member, said members having registering bores and following the curvature of the members, a flexible cable extending through the bores of the respective members in each section, a sleeve rigidly secured to one end of the cable and abutting against the end of the adjacent transverse section, a clamp formed of separable members detachably secured to the opposite end of the cable, and abutting the adjacent end of the section, means to secure the respective curved sections on a tire in spaced relation.

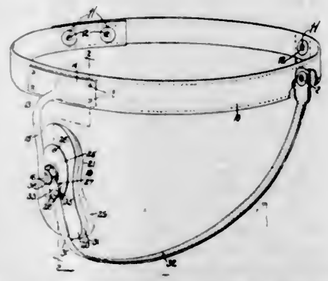
1,239,313. CHEWING-GUM. EDGAR W. SNYDER, Los Angeles, Cal. Filed May 31, 1917. Serial No. 172,015. (Cl. 99—16.)

1. A chewing gum comprising ocotilla gum.

4. A chewing gum comprising, rubber, sugar, ocotilla gum, and extract of licorice.

[Claims 2 and 3 not printed in the Gazette.]

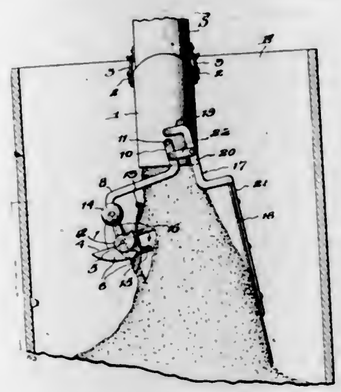
1,239,314. HERNIA-TRUSS. JOHN A. STEINERT, New York, N. Y., assignor of one-half to Jacob G. Petermann, New York, N. Y. Filed June 9, 1917. Serial No. 173,801. (Cl. 128—26.)



1. In a truss of the character set forth, the combination with a belt having means for detachably connecting it around the abdomen and a downwardly projecting hanger firmly secured to the front portion of the belt, of a pad secured to the lower end of the bracket for rotary adjustment in a plane parallel to the abdomen, said pad having an opening therein, an escutcheon covering said opening and having in itself a hole through which the bracket extends into said opening, said escutcheon having a slot formed in its lower portion at one side of the longitudinal median line and communicating with said pad opening, a leg strap having one end extending through said slot into the pad opening and having its opposite end detachably connected to the back portion of the belt, and clamping means carried by that portion of the hanger which projects into the pad to lock the end of the strap in place and the pad from rotation.

2. The herein described hernia truss pad, the same comprising a substantially flat front plate of hard material and provided with a substantially central opening, a back cushion member secured to the rear face of the plate and of relatively soft material, the lower end of the cushion being thicker than the upper end and the lower end of the entire pad being extended laterally from the longitudinal median line of the same toward the central median line of the wearer, and a rigid escutcheon fixed to the outer face of said plate and covering the central opening therein, said outer plate being provided with a central hole and a slot below and at one side of said hole.

1,239,315. ALARM FOR GRAIN-BINS. WILLIAM E. STINE, Padroni, Colo. Filed May 1, 1916. Serial No. 94,795. (Cl. 83—16.)



1. The combination with an inlet spout, of an alarm normally disposed out of the path of flow of material through said spout, and means for automatically moving said alarm beneath the end of the spout to cause the same to be directly actuated by the flow of materials, and for returning the same to its normal position.

2. The combination with a receptacle having an inlet spout, of an alarm normally disposed out of the path of flow of materials through said spout, and means operable by the weight of the excess materials in said receptacle to move said alarm beneath the end of the spout to cause the same to be directly actuated by the flow of materials therethrough.

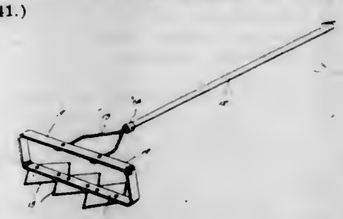
3. The combination with an inlet spout; of a hanger, a propeller rotatably mounted in said hanger, an alarm carried by the hanger and operated by said propeller, and means for moving said propeller beneath said spout, said propeller being actuated by the passage of grain therethrough.

4. The combination with an inlet spout; of a hanger pivoted to said spout, a shaft carried thereby, propeller blades extending from said shaft, an eccentric on one end of said shaft, a sounding device, a striker for actuating said sounding device, a finger extending from said striker for engagement by said eccentric, and means for moving said propeller beneath said spout.

5. The combination with a receptacle having an inlet spout, of an alarm normally disposed out of the path of flow of materials through said spout, and a deflector plate connected to said alarm, said plate being movable laterally by the weight of the excess materials in said receptacle to dispose the alarm beneath the end of the spout to be directly actuated by the flow of material therefrom.

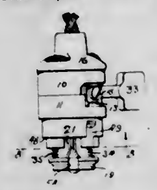
[Claims 6 to 8 not printed in the Gazette.]

1,239,316. WEEDER. SEVERIN B. SVENDSEN, Espanola, Fla. Filed Oct. 5, 1916. Serial No. 123,880. (Cl. 55—41.)



A device of the class described embodying a loop-like frame having parallel portions, a handle connected to one of said portions, and a plurality of angular blades secured to the other of said parallel portions, each blade having a portion projecting beyond the opposite sides of the frame and having its edges sharpened for the purpose set forth.

1,239,317. LAMP-SOCKET. GEORGE B. THOMAS, Bridgeport, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Apr. 6, 1916. Serial No. 89,389. (Cl. 173—328.)



1. An electric lamp socket of the Edi-Swan type having an insulating body, wire terminals thereon, a floating insulating button at the lamp-receiving end of the socket, lamp-engaging contacts thereon, spring means tending to force said button outward, and sliding brush means, affording constant electrical connection between said contacts and wire terminals, irrespective of the position of the floating button.

5. An electric lamp socket of the Edi-Swan type having an insulating body, wire terminals thereon, a floating insulating button at the lamp-receiving end of the socket, lamp-engaging contacts thereon, spring means tending to force said button outward, and means for electrically connecting said contacts and wire terminals, said means comprising a pair of spring forks and a pair of coöperating blades, one pair being electrically connected to the wire terminals and the other pair to the lamp-engaging contacts.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,239,318. MEANS FOR FIXING RAILWAY-LINES. OLINDO VALERI, Turin, Italy. Filed Oct. 18, 1916. Serial No. 126,278. (Cl. 238—6.)



1. The combination of a pair of rails, concrete blocks arranged lengthwise beneath the rails, the bottom of each block inclining from the opposite ends toward the middle, a support for the central portion of each block, and means for securing the rails to the blocks.

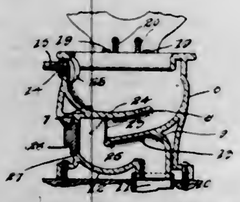
3. The combination of a pair of rails, longitudinal sleepers having bottoms of synclinal form, and foundations of concrete on which the sleepers are supported.

7. The combination of a pair of rails, longitudinal sleepers of synclinal form at their bottoms, cushions of wood on the sleepers on which the rails rest, means for

retaining the rails in position on the sleepers, said means being anchored to the sleepers, tie-rods for connecting adjacent sleepers, adjustable gage-bars clamped to the rails, connections between the tie-rods and the gage-bars, and foundation blocks forming rocking surfaces for the sleepers, one foundation block being provided for each sleeper.

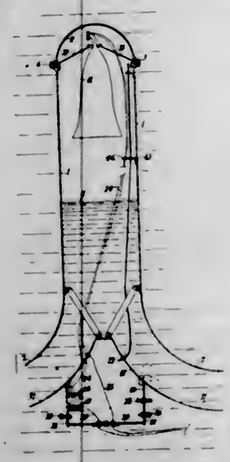
[Claims 2, 4 to 6, and 8 not printed in the Gazette.]

1,239,319. CLOSET-BOWL. GIOSEPE S. VAMPA, New York, N. Y. Filed Apr. 14, 1914. Serial No. 831,798. (Cl. 4—23.)



A closet bowl comprising a hollow body provided at its upper edge with a circular reinforcing flange, a horizontally extending shelf formed intermediate the top and bottom of said bowl, said shelf extending from side to side across the bowl and provided with an elliptical opening at one side thereof, an inwardly extending flange formed at the side wall adjacent the opening and extending under the shelf forming a passage which communicates with the upper side of said shelf, a flap valve closing the outer end of said passage and hingedly secured to the under side of the shelf, the side wall of the body opposite the elliptical opening being provided with an opening which is in direct alinement with the passage which the flap valve closes, a plug for closing said wall opening, a shallow pan formed integrally with the vertical wall immediately beneath the end of said inwardly extending flange, a curved tubular wall extending from the front edge of the pan and from the under side of the said flange to form an outlet opening, and a drain pipe associated with the last named opening.

1,239,320. APPARATUS FOR DETECTING SUBAQUEOUS SOUNDS. FRANÇOIS VAN ESBROECK, London, England, assignor to Edith May Cranston, Southsea, England, and Allen Paull, Kingswood, England. Filed July 31, 1916. Serial No. 112,366. (Cl. 177—352.)



1. An apparatus for detecting subaqueous sounds, comprising a submersible and air-containing vessel of elongate shape so that the air space is of greater height than width, a microphone mounted in the upper portion of the air space of said vessel and a sound-concentrating device leading to said microphone, the mouth of the said sound-concentrating device directly facing, and being exposed to, the waves of sound within the elongate vessel, a receiver, and electrical connections between said receiver and microphone.

2. An apparatus for detecting subaqueous sounds, comprising an air-containing vessel of elongate shape, said vessel adapted to be submerged below the surface of the water in an upright position, a microphone mounted in the upper portion of the air space of said vessel, a receiver at a post remote from the elongate vessel, said receiver being in electrical connection with the mocrophone, and a sound-concentrating device having a mouth directly exposed to the longitudinal waves of sound within the elongate vessel.

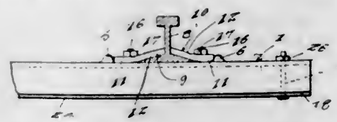
3. In an apparatus for detecting subaqueous sounds, an elongate air-containing and submersible vessel having an air-space of principally cylindrical shape, a transmitter-microphone within the upper portion of the air space of said vessel, a sound-concentrating horn arranged within the said elongate vessel and leading to said microphone, the mouth of said horn being exposed to the longitudinal sound waves within said elongate vessel, a receiver at a listening station, and electrical connections between said microphone and said receiver.

4. In an apparatus for detecting subaqueous sounds, an air-containing vessel of the diving bell type and of elongate shape, a trumpet mouthed bottom to said elongate vessel to allow the entry of water below the air compressed in said vessel, and said vessel including a cylindrical portion, a microphone mounted in the upper part of the air space of said vessel, a sound-concentrating device leading to said microphone, said concentrating device including a horn having its axis arranged approximately co-axial with the axis of said cylindrical portion of the air-containing vessel, and a receiver at a listening post remote from the elongate vessel, said receiver being in electrical connection with the microphone.

5. In an apparatus for detecting subaqueous sounds, an air-containing vessel having an open trumpet-mouthed bottom, a cylindrical middle portion and a domed cap, a microphone mounted within the air space of said vessel, a sound-concentrating device arranged with said air space and leading to said microphone, said concentrating device including a horn having its mouth facing the water at the bottom of the vessel, a receiver upon a listening post remote from the vessel, and electrical connections between said receiver and said microphone.

[Claims 6 to 21 not printed in the Gazette.]

1,239,321. RAIL-FASTENING DEVICE. LORENZO D. VAUGHN and WILLIAM P. SAMPLES, Grafton, W. Va. Filed Feb. 27, 1917. Serial No. 151,270. (Cl. 238—5.)

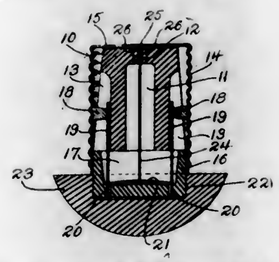


1. A rail tie comprising a body having its upper side provided with a pair of spaced ribs, a pair of rail-clamping plates interposed between the ribs and each having an elongated slot therein, bolts extending through the upper wall of the tie and received by the slots in the rail-clamping plates, nuts fitted on the upper ends of the bolts and adjustable against the rail-clamping plates, one of the rail-clamping plates having one edge thereof provided with an inner bevel, and one of the ribs having its inner face inclined for engaging the beveled edge of the last-mentioned rail-clamping plate, for the purpose specified.

2. A rail tie comprising a body having the upper wall thereof provided with ribs, rail clamping-plates interposed between and engaging the ribs, one of the rail-clamping plates having one edge thereof beveled and the adjacent rib having the inner face thereof inclined for coöperation with the beveled edge on the last-mentioned rail-clamping plate.

[Claim 3 not printed in the Gazette.]

1,239,322. ELECTRIC THERMAL CUT-OUT DEVICE. LOUIS VECCHIO, Albany, N. Y. Filed Dec. 9, 1916. Serial No. 136,009. (Cl. 175—277.)



1. A thermal cut out plug comprising a plug body of insulating material provided at one end with an internal contact plate, a screw shell in circuit with said contact plate, and a removable fusible element having one end in engagement with the contact plate and provided at its other end with an external attaching device engaging the other end of said plug.

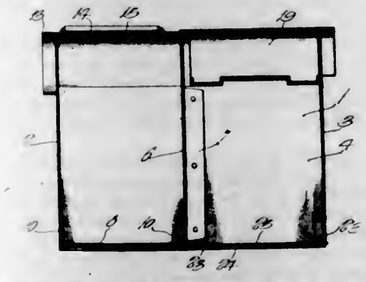
3. A thermal cut out plug comprising a plug body of insulating material provided with a bore, a contact plate positioned opposite one end of said bore, a shell contact in circuit with said contact plate, and a thermal wire extending longitudinally through said bore and having one end abutting said contact plate, the other end of said wire being provided with a button having portions removably embedded within said plug body.

4. In a thermal cut out device, a thermal element comprising a wire provided with a button at one end having prongs shaped to be removably embedded in a body of insulating material.

8. A thermal cut out plug comprising a plug body of insulating material provided with a longitudinal bore, a head provided with a contact plate positioned opposite said bore, a screw shell surrounding said plug and said head, spring arms attached to the head and in circuit with said contact plate, means carried by said shell for engaging said spring arms, and a removable fuse wire having one end abutting against said contact plate and provided at the other end with means for engaging said plug body, said wire extending longitudinally through said bore.

[Claims 2 and 5 to 7 not printed in the Gazette.]

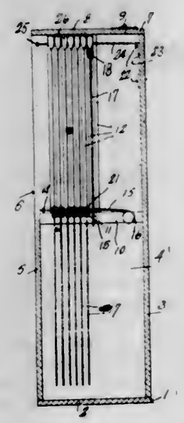
1,239,323. COMBINATION MAIL AND MILK BOX. JOSEPH VIROVATZ, Cudahy, Wis., assignor of one-half to John Kiraly, Cudahy, Wis. Filed Mar. 12, 1917. Serial No. 154,314. (Cl. 232—1.)



1. A combined milk and mail box having its ends, its rear side, the front side of the milk compartment and a partition between the milk and mail compartments stamped from a single sheet of metal and bent into correct relation with said partition located between and parallel with said ends, the rear edge of said partition having a flange secured to said rear side, an arched top for the mail compartment secured to one end of the box and to the partition, an outwardly swinging front for said mail compartment, an upwardly swinging arched top for the milk compartment, and locks for said swinging top and said front of the mail compartment.

[Claim 2 not printed in the Gazette.]

1,239,324. BULLETIN. CHARLES J. WEBB, Russellville, Ark. Filed May 26, 1916. Serial No. 100,138. (Cl. 40—65.)



In a device of the class described, a case including a back and sides; stop cleats extended transversely of the sides and disposed intermediate the top and the bottom of the case; upright guides on the sides of the case and extended downwardly from the top of the case to the cleats; bulletins having end projections slidably received between the guides and adapted to engage the stop cleats when the bulletins are lowered; a latch coacting with one stop cleat and with the projections of all of the bulletins to hold the bulletins in lowered position; a bracket mounted to swing on the back and including a forwardly presented arm lying above the bulletins and below the upper ends of the guides; and gripping means slidable on the arm for engaging any bulletin, the bracket being rotatable to dispose the forwardly presented arm in substantial parallelism to the back of the case, and out of the path of all of the bulletins, whereby all of the bulletins may be lifted vertically, to permit the projections to ride out of engagement with the guides at the upper ends thereof.

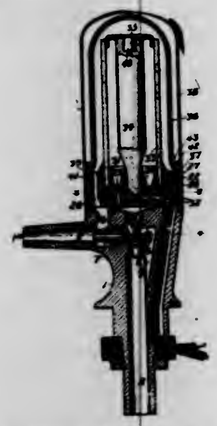
1,239,325. ELECTRIC WATER-HEATER. ERNEST C. WEBSTER, Oakland, Cal., assignor of one-half to Henry Gruenhagen, Oakland, Cal. Filed Sept. 18, 1915. Serial No. 51,433. (Cl. 219—40.)

1. In an electric water heater, the combination of a block of insulating material, a central metallic conductor and a tubular metallic conductor, around which said block is molded, a central electrode, a tubular electrode around said central electrode, said electrodes being secured respectively to said conductors, and a casing around said electrodes, said electrodes being supported only at their lower ends, their upper ends being free.

2. In an electric water heater, the combination of a central electrode, a tubular electrode around the central electrode, metallic conductors connected to the bottoms of said electrodes, and insulating material molded around said conductors.

3. In an electric water heater, the combination of a central electrode, a tubular electrode around the central

electrode, metallic conductors around the electrodes and making water-tight electrical connection with said electrodes, conducting wires connected to said metallic conductors, and insulating material around said metallic conductors, electrodes and electric wires, and making water-tight joints therewith.



4. In an electric water heater, the combination of electrodes extending parallel with each other, an apertured non-conducting body to which said electrodes are secured at one end, an aperture in the body leading into the space between the electrodes, and another aperture leading into the space without the electrodes, and a single piece tubular casing closed at one end, the other end being secured to said body and surrounding all of said apertures.

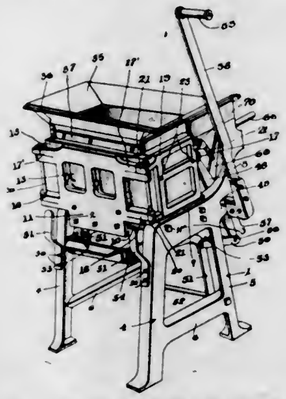
5. In an electric water heater, the combination of electrodes extending parallel with each other, an apertured non-conducting body to which said electrodes are secured at one end, an aperture in the body leading into the space between the electrodes, and another aperture leading into the space without the electrodes, a single piece tubular casing closed at one end, the other end having an outwardly extending flange abutting against said body, a tube surrounding said non-conducting body and having an inwardly extending flange engaging the outwardly extending flange of the casing and provided with means co-acting with said flanges for pressing the casing toward the non-conducting body and a gasket interposed between said flanges.

[Claim 6 not printed in the Gazette.]

1,239,326. BLOCK-MACHINE. CYRUS S. WERT, Kendallville, Ind. Filed Feb. 18, 1916. Serial No. 79,172. (Cl. 25—41.)

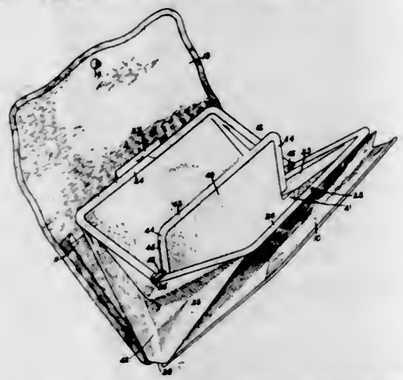
1. In a concrete block forming machine, a supporting structure, a block mold, a platform secured to the upper rear edge of said block mold, a hopper slidably mounted upon said platform for horizontal movement over said mold, a plurality of bars secured to said hopper and extending rearwardly therefrom, a shaft rotatably mounted in said supporting structure below said rearwardly extending bars, operating levers pivotally mounted upon said shaft, links connecting said bars and operating levers together, angled arms operatively connected to said levers for operating said levers upon downward movement of said arms for moving said hopper forwardly over or rearwardly from said mold, a plurality of horizontally disposed coring cylinders for horizontal movement into said mold, arms rigidly mounted upon said shaft and operatively connected to said coring cylinders, and a hand lever secured to the outer ends of said shaft for rotating said shaft for moving said coring cylinders into or out of said mold, as and for the purpose specified.

2. In a concrete block forming machine, a supporting structure, a block mold, a platform secured to the upper rear edge of said block mold, a hopper slidably mounted upon said platform for horizontal movement over said mold, a shaft rotatably mounted in said supporting structure below said mold, means pivotally supported upon said shaft and connected to said hopper for operating the same, a plurality of horizontally disposed coring cylinders positioned to one side of the mold for horizontal



movement into said mold, arms rigidly carried by said shaft and extending upwardly therefrom, and links connecting the upper portion of said arms and said coring cylinders, and a lever secured to the outer end of said shaft for rotating the same, as and for the purpose specified.

1,239,327. HAND-BAG AND SIMILAR ARTICLE. THEODORE R. WEIDEMANN, Jersey City, N. J., assignor to Viola Valerie Roggi, Arlington, N. J. Filed Apr. 5, 1917. Serial No. 159,971. (Cl. 150—29.)

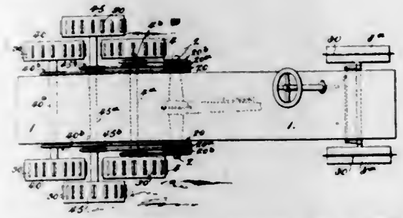


1. A hand bag and similar article provided with a pocket having a frame made of sections having a movable hinge connection to permit of opening and closing the frame, a partition within the pocket intermediate the sides thereof and extending from one end of the pocket to the other end thereof, the partition dividing the pocket into two compartments, and engaging means engaging a part carried by said hinge connection, for holding the partition in central position while the frame is in open position.

4. A hand bag and similar article provided with a pocket having a metallic frame made in sections hinged together, the ends of the pocket being provided with main folds adapted to open and close on opening and closing the said pocket frame, the ends of the pockets having auxiliary central folds intermediate the bottom of the pocket and the pivots of the said pocket frame, a partition extending lengthwise in the said pocket and having its lower edge secured to the bottom of the pocket, the partition having outward extensions at the lower portions of the ends, the said extensions being attached to the said auxiliary central folds, the ends of the partition above the said extensions having upright guide rods, and bearings on the pivots of the said frame and engaging the said guide rods.

[Claims 2 and 3 not printed in the Gazette.]

1,239,328. TRACTOR-ENGINE. GEORGE B. WHITCOMB, Morgan, Oreg. Filed Sept. 11, 1916. Serial No. 119,483. (Cl. 21—114.)



As an improvement in motor vehicles; the combination with the vehicle frame, the motor and the driven jack shaft; of sets of pairs of tractor wheels mounted on the machine frame at the rear of the jack shaft, power transmission connecting the said pairs of wheels and the jack shaft for transmitting motion to all of the wheels in like direction except when turning the wheels, the several pairs of wheels being held in close and staggered relation, several of the pairs of each set of wheels being located in alinement, with one pair of said alining wheels in advance of the remaining set of wheels, and the other pair of said alining wheels located to the rear of the said remaining set of wheels.

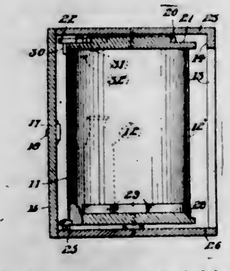
1,239,329. BULLET-PROOF AND LIKE GARMENT AND COVERING FOR HORSES AND ARTICLES EXPOSED TO ACTS OF WARFARE. JOSEPH PERCY WILKS, Uttoxeter, England, assignor of one-half to Wilfrid Hill, Birmingham, England. Filed Mar. 1, 1917. Serial No. 151,830. (Cl. 89—36.)



Bullet proof and like garments or coverings for horses or articles exposed to acts of warfare comprising a base or cover of flexible material to which sets of flaps of flexible material are attached, the flaps in each of said sets being attached at one end only and being attached to said base element at positions substantially close together, the edges of said flap elements, remote from said base element thus terminating substantially together, there being a substantially large number of flap elements in each set, said sets of elements overlapping in such manner that said flexible elements only offer a satisfactory protection all over the surface it is desired to render puncture proof.

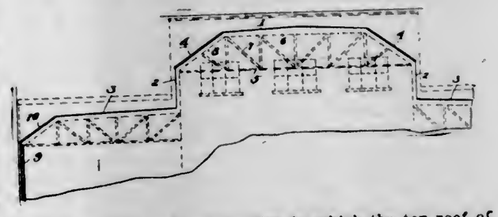
1,239,330. MILK-BOX. FRANK ZBIKOWSKI, Bessemer, Pa. Filed May 7, 1917. Serial No. 166,902. (Cl. 232—41.)

A bottle holder comprising a casing having a receiving opening in one side thereof and a closure door at its opposite side, a cylindrical receiver journaled upright within the casing having a side opening adapted for normal positioning in alinement with the said receiving opening, bottle receiving sockets within the said receiver, projecting teeth arranged adjacent the top of said receiver, an alarm within the casing arranged with its operating lever in the path of movement of the said teeth, pawl and ratchet connections between the said receiver and the casing arranged above the receiver, the said receiver having a peripheral stop notch at the bottom thereof adjacent the opening of



the receiver and a pivoted stop carried by the casing adjacent the hinged door thereof adapted for engagement within said notch.

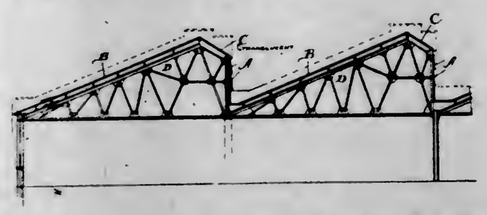
1,239,331. ROOF STRUCTURE. WILLIAM S. J. ZWICK, Cleveland, Ohio, assignor to The Forest City Engineering Company, Cleveland, Ohio, a Corporation of Ohio. Filed Jan. 5, 1917. Serial No. 140,661. (Cl. 108—1.)



1. A monitor roof construction in which the top roof of the monitor comprises a central portion and slanting portions which slant away from the top portion said slanting portion being of translucent material, and side portions which extend substantially vertically with respect to the slanting portions.

2. A monitor roof construction having a central monitor portion and roofs at a lower level than the monitor which extend away from the monitor said monitor having a top roof portion and substantially vertically extending sides which coöperate with the lower roofs, and slanting roof portions which extend between the top roof portion and the sides of the monitor, said slanting roof portion being formed of translucent material, the outer parts of the lower roofs slanting outwardly and below the roof portions to which they are adjacent, the said slanting portions being formed of translucent material.

1,239,332. ROOF STRUCTURE. WILLIAM S. J. ZWICK, Cleveland, Ohio, assignor to The Forest City Engineering Company, Cleveland, Ohio, a Corporation of Ohio. Filed Jan. 5, 1917. Serial No. 140,662. (Cl. 108—1.)

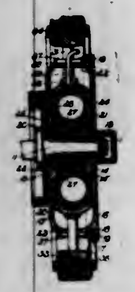


1. In a roof construction of the saw tooth type, a substantially vertical portion and a slanting roof portion and a translucent portion which intersects the slanting portion, and the vertical portion.

2. A roof construction of the saw-tooth type comprises a slanting roof portion and a substantially vertical

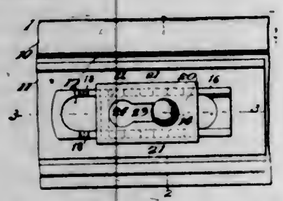
portion with a translucent portion which intersects both the slanting roof portion and the vertical portion and extends at an angle to both said portions.

1,239,333. RESILIENT WHEEL. HIRAM C. ANDERSON, New York, N. Y. Filed Dec. 6, 1916. Serial No. 135,327. (Cl. 152—41.)



The combination of a rigid hollow casing having opposed side sections, provided with spaced parallel walls and inwardly projecting opposed hub portions, the said walls projecting outwardly from the hub portions at right angles to the axis of said hub portions and forming guides, one of said side sections having an outer integral cylindrical portion provided with a flange to which the outer portion of the other side section is bolted, a hub on which said casing is supported, having a flanged cap removably associated therewith and engaging the outer side section to clamp the sections of the casing adjacent their hub portions upon said hub, a pneumatic tube seated within the inner portion of the casing around the said hub portions, a rigid ring within the casing against the outer portion of the said tube, a movable tread member externally of the casing, and spokes extending within the casing from said tread member and secured to said ring.

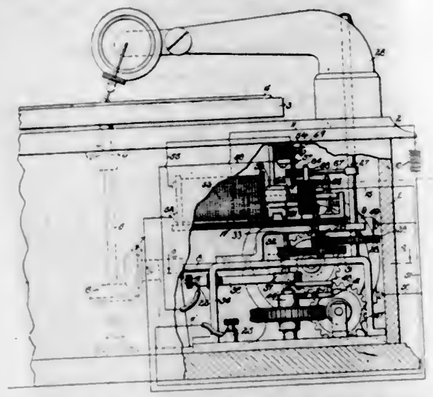
1,239,334. RAIL-JOINT LOCK. PETER H. ANTRIM, Orting, Wash. Filed Oct. 31, 1916. Serial No. 128,757. (Cl. 239—11.)



1. In a device of the class described, a bolt adapted to engage through a structure and having a reduced portion spaced from the free end, a wedge member slotted to receive said bolt and bearing against said structure, and a locking member having a slot to receive the bolt, said slot being reduced at one end to engage the reduced portion of the bolt and with a socket at the inner terminal of the reduced portion of the slot to receive the portion of the bolt which extends in advance of the reduced portion thereof.

2. In a device of the class described, a bolt adapted to engage through a structure and having a reduced portion spaced from the free end, a wedge member slotted to receive said bolt and bearing against the structure, and having a plurality of teeth in spaced relation and a locking member slotted to receive said bolt with a rib to engage in the teeth of the wedge member one at a time, one portion of the slot of the locking member being reduced to receive the reduced portion of the bolt and with a socket at the inner terminal of the reduced portion of the slot to receive the part of the bolt which extends externally of the reduced portion thereof.

1,239,335. AUTOMATIC STOP FOR TALKING MACHINES. LE ROY ARMITAGE, East Orange, N. J. Filed Dec. 14, 1916. Serial No. 136,937. (Cl. 74—46.)



1. In a device of the character described the combination with a talking machine provided with a swinging tone arm, a rotating record table and means for driving the table, said means including an electric motor, of a circuit for said motor provided with switching means, a rotatable arm connected with said motor and rotated thereby, a second rotatable arm arranged adjacent the first mentioned arm, an auxiliary circuit connected to said arm whereby when said arms are in contact said circuit will be closed, a magnet arranged in said auxiliary circuit, means operated by the magnet for opening said switching means when the magnet is energized, a train of gears connected with said second mentioned arm, and means for connecting one of the gears of said train to the swinging tone arm of the talking machine whereby as the tone arm swings said train of gears will be operated and said second mentioned arm will be rotated, the proportion of the gears in said train of gears being such as to cause said second mentioned arm to rotate slightly faster than the first mentioned arm whereby said auxiliary circuit will be maintained open until the tone arm ceases to swing.

2. In a device of the character described, the combination with a talking machine having a swinging tone arm, of an electric motor for driving the moving parts of the talking machine, a switch arranged in the circuit of said electric motor, an auxiliary circuit provided with means for opening said switch when the auxiliary circuit is closed, and means operable by the tone arm for maintaining said auxiliary circuit open until the tone arm has finished its inward travel during the playing of the record.

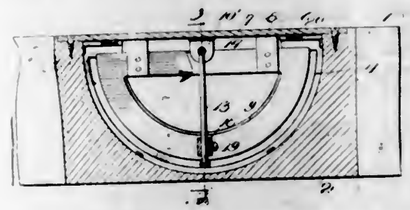
3. In a device of the character described, the combination with a talking machine provided with a swinging arm, of electric means for driving the same, and means operated by said arm for shutting off the power from said driving means, said last mentioned means comprising a rod connected with the swinging arm, a train of gears connected with said rod, a shaft rotated by said train of gears, an insulated sleeve carried by said shaft and rotated thereby, an arm carried by said sleeve, a second arm rotated by the motor used in driving the talking machine, the arrangement of said train of gears being such as to rotate the arm connected with said insulated sleeve faster than the second mentioned arm, an electrical circuit connected with the motor for driving the talking machine, a switch arranged in said circuit, an auxiliary circuit connected with said insulated sleeve and with said second mentioned arm whereby when said arms come into contact said second mentioned circuit will be closed, and a magnet energized by current in said second mentioned circuit, said magnet being connected with said switch and arranged to open the switch when energized.

6. In an electrically driven talking machine provided with a tone arm, an electric motor for driving said talking machine, a circuit for said electric motor, means operated by the tone arm when moved to an inner position for opening said circuit, and means operated by the tone arm when moved to an outer position for automatically closing said circuit.

7. In an electrically driven talking machine provided with a tone arm, a motor for operating said talking machine, a circuit for said motor, said circuit including a switching mechanism formed with a stationary brush and a rockable contact bar, a second circuit including a magnet and a pair of contact arms, means for connecting one of said arms with said motor whereby the same is rotated, means for connecting the other arm with said tone arm, said means including a train of multiple gear of such proportion as to cause the last mentioned arm to rotate slightly faster than the first mentioned arm, a catch for normally holding said contact bar in a position for maintaining the motor circuit closed, an armature operated by said magnet for releasing the catch, and means for moving said contact bar out of engagement with its coacting brush when said catch is released.

[Claims 4 and 5 not printed in the Gazette.]

1,239,336. LEVEL. GEORGE R. BAIR and NORVELLE W. GREENE, Columbus, Kans., assignors of one-third to Charles E. Jones, Columbus, Kans. Filed Nov. 8, 1916. Serial No. 130,206. (Cl. 33—215.)



1. In an instrument of the class described, a stock provided with a recess and in its opposite sides with openings communicating with the recess, a plate closing the top of said recess, spaced scale plates supported beneath the first-mentioned plate and housed within the recess and each having a scale face opposite one of the openings, an indicator arm pivotally mounted beneath the first-mentioned plate for oscillatory movement between the said scale plates, and a cross member at the lower end of the said arm extending beneath the lower edges of the scale plates and having indicator fingers located opposite the scales upon the said plates.

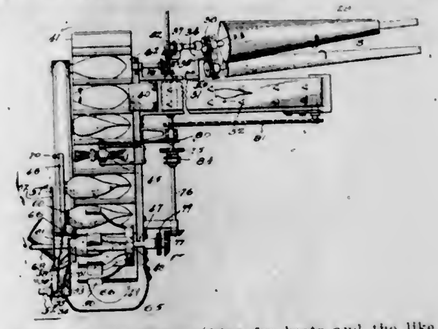
2. In an instrument of the class described, a recessed stock, a plate covering the recess therein, an oscillatory indicator arm mounted for pivotal movement beneath the said plate and within the said recess, and cushioning elements carried by the plate at the ends of the arc described by an abutment portion of the arm.

1,239,337. BEET-HARVESTER. ELMER D. BALL, Logan, Utah. Filed Nov. 22, 1913. Serial No. 802,426. (Cl. 146—11.)

1. In a harvester for beets or the like, the combination of a cutter shaft, a cutter thereon, means for manually adjusting the cutter upon its shaft, a guide positioned in advance of the cutter and movable therewith to indicate cutting position, and a carrier for presenting beets successively to the cutter.

2. In a harvester for beets and the like, the combination of a conveyer to present a series of separate vegetables to be topped, top-cutting means mounted to be freely moved laterally in respect to the conveyer to position said cutting means to top each vegetable in accordance with its peculiarities, and hand controlling means for moving said cutting means rapidly to different cutting positions.

3. In a harvesting machine for beets and the like, the combination of a longitudinal conveyer whereon beets are deposited longitudinally and head-first, a transverse conveyer having pockets in which beets are deposited singly by the longitudinal conveyer, a guide alongside the transverse conveyer, means for moving the heads of the beets against the guide, clamping means acting on the beets in cutting position, a cutter to cut the beets singly while clamped, and means for moving the cutter rapidly from side to side to properly top each beet as it is presented to the cutter in accordance with the amount of top thereon.

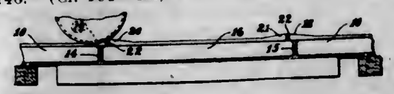


4. In a harvesting machine for beets and the like, the combination of a longitudinal conveyer whereon beets are deposited longitudinally and head-first, a transverse conveyer having pockets in which the beets are deposited singly by the longitudinal conveyer, a guide alongside the transverse conveyer, a rotary positioning device engaging the beets in the pockets to move them into engagement with the guide, a rotary clamping device having yieldable clamps to engage the beets in the pockets when in cutting position, a cutter, and manual means for adjusting the cutter endwise in relation to the beets to remove the proper amount of top from each.

5. In a harvesting machine for beets and the like, the combination of a longitudinal conveyer receiving beets longitudinally and head-first, a topper, means for taking beets from the longitudinal conveyer and presenting them to the topper singly for topping without interference by other of the beets, and means for freely and quickly moving the topper endwise in respect to the beets as they are presented to a cutter to remove the proper amount of top from each.

[Claims 6 and 7 not printed in the Gazette.]

1,239,338. RAILWAY-CROSSING. OLIVER N. BEAM, Los Angeles, Cal., assignor of one-third to James F. Wilhite, Los Angeles, Cal. Filed Mar. 20, 1917. Serial No. 156,146. (Cl. 104—40.)



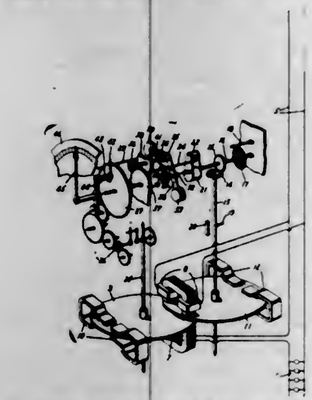
1. A track intersection, comprising pairs of parallel rails intersecting each other, and having flange grooves formed across said rails at their intersections, and means upon the balls of the rails whereby the wheels of a car will be elevated and caused to cross the intersecting rails without striking the flange groove of said intersecting rail.

2. A rail intersection, comprising pairs of parallel rails forming tracks, said tracks intersecting each other and having flange grooves formed across said rails at their intersections, and inclined faces formed upon the balls of said rails adjacent the point of intersection of the rails whereby car wheels passing therealong will be elevated and caused to cross over the intersecting flange groove without noise or jar.

3. A rail intersection, comprising a plurality of rails forming tracks intersecting each other, and inclined elevating faces upon the balls of the rails and formed as continuations of the rails and designed to occur adjacent the intersection of the rails with each other and having flange

grooves formed between said inclined faces and across the intersecting rails, and forming means whereby the wheels of a car may be carried up upon said incline and over the intersecting flange groove and thereafter gradually lowered to the normal face of the rail without jar or noise.

1,239,339. MAXIMUM-DEMAND INDICATOR. JOHN T. BEACHLYN, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Nov. 11, 1913. Serial No. 800,300. (Cl. 171—34.)



1. A maximum demand indicator comprising in combination means for obtaining a measure of the demand made by an electrical installation upon a source of electric energy supply during each of a number of intervals of time, means for indicating the maximum demand so measured during any one of the time intervals, and means included in said first mentioned means whereby a partial measurement occasioned by an interruption of the demand of said installation upon said source for any fraction of the time interval of measurement is continued when said installation again makes a demand upon said source.

2. A maximum demand indicator comprising in combination a watthour meter having a rotatable shaft, a movable member having an initial position and adapted to be operatively connected to said rotatable shaft, means for returning said movable member to its initial position when it has been moved from its initial position a distance which is substantially a measure of the demand made by an electrical installation upon a source of electric energy supply, and means included in said first mentioned means whereby the return of said movable member to its initial position is prevented when the demand of said installation upon said source is interrupted regardless of the length of time such demand remains interrupted.

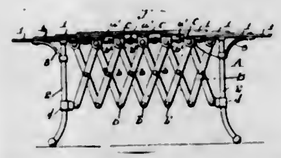
3. A maximum demand indicator comprising in combination a watthour meter having a rotatable shaft, a movable member having an initial position and adapted to be operatively connected to said rotatable shaft, means for returning said movable member to its initial position when it has been moved from its initial position a distance which is substantially a measure of the rate of consumption of energy in an electrical installation, and means included in said first mentioned means whereby said movable member is maintained in the position to which it has been moved by the rotatable shaft when the demand made by said installation upon its source of electric energy supply becomes zero regardless of the length of time such demand remains sero.

4. A maximum demand indicator comprising in combination a watthour meter having a rotatable shaft, a movable member having an initial position and adapted to be operatively connected to said rotatable shaft, means for returning said movable member to its initial position when it has been moved from its initial position a distance which is substantially a measure of the rate of consumption of energy in an electrical installation, and means included in said first mentioned means for preventing the return of the movable member to its initial position when the demand of the installation upon its source of electric energy supply becomes zero provided the distance the movable member has moved from its initial position is insufficient to be substantially a measure of the rate of consumption of energy at the instant before the demand of the installation becomes zero.

5. A maximum demand indicator comprising in combination a movable member having an initial position, means for moving said member, means for returning said member to its initial position when the distance the member has moved from its initial position is substantially a measure of the rate of consumption of energy in an electrical installation, means for preventing the return of the movable member to its initial position when the consumption of energy in the installation is interrupted provided the distance the movable member has moved from its initial position when the energy consumption is interrupted is insufficient to be substantially a measure of the rate of consumption of energy at that instant, and means included in said last mentioned means whereby the movable member must be forwardly moved a predetermined minimum distance after any interruption of the energy consumption before said member can be returned to its initial position.

[Claims 6 to 14 not printed in the Gazette.]

1,239,340. EXTENSION-TABLE. EDWIN BELMORE, Portland, Oreg. Filed July 18, 1913. Serial No. 779,838. Renewed Feb. 8, 1917. Serial No. 147,507. (Cl. 45—9.)



1. An extension table comprising a plurality of leaves arranged to slide one upon the other and two lazy tongs, the one having a horizontal arrangement and the other a vertical arrangement, the pairs of compound levers of the respective lazy tongs being pivotally connected to one another and to the leaves of the table.

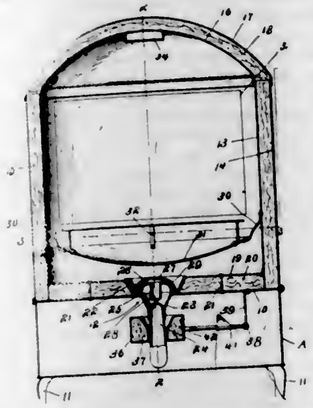
2. An extension table comprising a plurality of leaves arranged to slide one upon the other, a horizontal lazy tongs having its levers pivotally connected to one another and to the leaves, and two vertical lazy tongs arranged at the sides of the horizontal lazy tongs, each of the vertical lazy tongs having its levers pivotally connected to one another and to the leaves of the table.

3. An extension table comprising a plurality of leaves arranged to slide one upon the other, legs attached to the outermost leaves, sleeves slidably mounted upon the legs, a horizontal lazy tongs having its levers pivotally connected to one another and to the leaves, and vertical lazy tongs at the sides of the horizontal lazy tongs and having the upper ends of their levers pivotally connected to the leaves of the table and having the lower ends of the outermost levers pivotally connected to the sleeves mounted upon the said legs.

1,239,341. OVEN. WALTER BIRD, Cincinnati, Ohio. Filed Nov. 7, 1916. Serial No. 130,040. (Cl. 126—39.)

1. An oven having heat insulating walls, and an opening in the bottom thereof for the reception of a burner provided with air intake ports, a removable cover, an insulated cap slidably mounted upon the burner, and means for adjusting the cap to close said ports and prevent the escape of heat from the oven when desired.

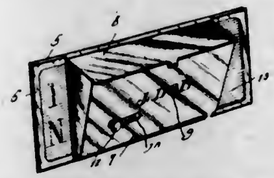
2. An oven having heat insulating walls, and an opening in the bottom for the reception of a burner provided with air intake ports, a removable cover, an exhaust flue arranged within the oven and communicating with the atmosphere, and caps slidably mounted upon the burner and flue respectively for sealing said flue and intake ports of the burner to prevent the escape of heat from the oven when desired.



3. An oven having heat insulating walls, and an opening for the reception of a burner provided with air intake ports, a removable cover, an exhaust flue arranged within the oven and having one end communicating with the atmosphere in juxtaposition with said burner, caps slidably mounted upon the burner and flue respectively, and means for simultaneously adjusting said caps to seal said flue and said intake ports to prevent the escape of heat from the oven.

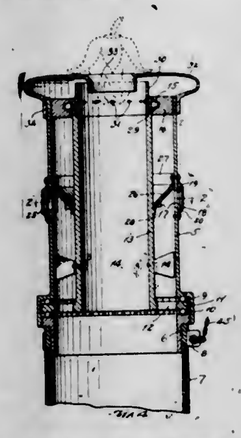
4. An oven having heat insulating walls, and an opening for the reception of a burner provided with air intake ports, a removable cover, an exhaust flue arranged within the oven having one end communicating with the atmosphere, insulated caps slidably mounted upon the burner and flue respectively, a shaft journaled for rotation, arms projecting from said shaft and supporting said cap, a handle for manipulating the shaft to simultaneously adjust said caps for sealing said flue and air intake ports of the burner, and yieldable means engaging said handle to hold the caps fixed in their adjusted position.

1,239,342. INDICATOR FOR MAIL-BOXES. LLOYD C. BLACKBURN, Akron, Ohio. Filed Oct. 16, 1915. Serial No. 56,232. (Cl. 40—65.)



In combination with a receptacle having a closure, of an attaching member of greater length than the receptacle and having side openings, a bead or rim constituting a guideway on the attaching member, the closure being hingedly connected with said rim or bead, a transparent plate mounted beneath the rim in the rear of the said openings, an opaque plate reciprocating in the guideway formed by the rim and having a central opening therein and further provided on its front face adjacent the respective ends with indicia adapted to be alternately moved from a position beneath the receptacle to registry with the side openings so as to be visible therethrough, one of the ends of the attaching member constituting an electric contact support, a shank rotatably mounted in the attaching member, an arm on the inner end of the shank and arranged to engage the edges of the opening in the opaque plate, an actuating knob for rotating the shank to consequently move the opaque plate to engage the contacts for closing an alarm circuit when indicia is displayed through one of the openings and to move out of the circuit closing position when the indicia is visible through the other opening.

1,239,343. COTTON-PICKER NOZZLE. JAMES HENRY C. BOIG, Pasadena, Cal. Filed June 27, 1914. Serial No. 847,678. (Cl. 56—117.)



1. A cotton picker device comprising a rotary suction nozzle and means overhanging the open end of said nozzle, and concentrating the suction for insuring the strong pulling of the cotton from the boll into the nozzle.

5. A cotton picker device comprising a casing, a picker nozzle revolubly mounted therein, a removable picker ring carried by said nozzle and a removable cap carried by said casing and having a cotton introducing passage way for depositing cotton within said picker ring, the said picker ring and the said cap by reason of their removable character being replaceable with picker rings and caps of different shapes to accommodate the picker device to different kinds of cotton and to different circumstances affecting the picking of the cotton.

7. A cotton picker device comprising a casing having air inlet openings in its wall, whereby air may be drawn within the casing under a suction, a damper for controlling the air at said openings, a spring normally holding the damper so that said openings will be unobstructed, a picker nozzle revolubly mounted within the casing but spaced therefrom, vanes carried by said nozzle and arranged in the space between the same and the casing whereby the indrawn air will be caused to rotate the nozzle, the adjustment of the said damper controlling the speed with which the nozzle is rotated, and a cap for directing the cotton picked, within the said nozzle.

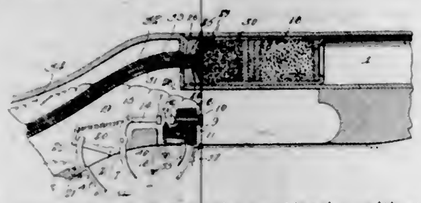
9. A cotton picker device comprising a revoluble picker tube, a casing inclosing the same, a cap member carried by the casing and covering the end of said tube, said cap member having an inlet passage for directing the cotton into the tube, and a plug adapted to close said passage for excluding dirt and foreign materials when the cotton is not being picked.

[Claims 2 to 4, 6, 8, 10, and 11 not printed in the Gazette.]

1,239,344. ELECTRICAL GUN. LEVI M. BOWMAN and WILLIAM A. SMITH, Tulsa, Okla. Filed May 29, 1917. Serial No. 171,697. (Cl. 42—84.)

1. In an electrical gun, the combination, with a gun stock, a gun barrel having a breech, of an electrical battery carried by said stock, an induction coil carried by the stock, a movable contact, a stationary contact, electrical conducting means connecting said stationary contact to said battery, a conductor connecting said movable contact to said induction coil, means for moving said movable contact into engagement with said stationary contact for

closing a circuit through said battery and coil, an insulating plug, and means for moving said insulating plug between said movable contact and said stationary contact for preventing the movable contact from being moved into engagement with the stationary contact.



5. In an electrical gun, the combination with a gun stock, and a gun barrel having a breech, of an electrical battery carried by said stock, an induction coil carried by the stock, a movable contact, a trigger connected to said movable contact for moving the same, a stationary contact, electrical conducting means connecting said stationary contact and said battery, electrical conducting means connecting said battery and said induction coil, electrical conducting means connecting said induction coil and said movable contact whereby a circuit will be closed through said battery and coil upon pivotal movement of said trigger for moving said movable contact into engagement with said stationary contact, means for moving said movable contact out of engagement with the stationary contact upon release of said trigger, an insulating block, a trigger connected to said insulating block for moving the insulating block upwardly between said movable contact and said stationary contact for preventing the movable contact from being moved into engagement with the stationary contact, a shell primer having a metal casing, an insulating plug positioned in said casing, an electrode extending centrally through said plug, conductors leading from said induction coil to said casing and electrode for causing a spark between the casing and electrode upon movement of said movable contact into engagement with said stationary contact, an incandescent light bulb carried by said barrel adjacent its muzzle, an electrical conductor connecting said incandescent light bulb to said battery, and a switch interposed in said last named conductor for controlling the ignition of the light by the current passing from said battery.

[Claims 2 to 4 not printed in the Gazette.]

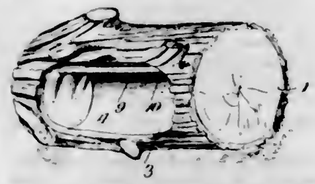
1,239,345. FLUID-COUPLING. DAVID BROWN, Eldorado, Ill. Filed Aug. 25, 1916. Serial No. 116,882. (Cl. 188—13.)



1. In an automatic fluid brake coupling, a casting comprising spaced longitudinal members and transverse members connecting the longitudinal members, one of said longitudinal members having a passage extending therethrough, each of the transverse members having passages communicating with the passage in the said longitudinal member, the other longitudinal member having one of its ends provided with a bell-shaped mouth having a compressible gasket therein and being provided with a passage which communicates with the passage in one of the transverse members, the opposite end of said second mentioned longitudinal member being exteriorly threaded and being provided with a passage communicating with the second transverse member, a valve in the passage of the first mentioned longitudinal member, spring members for forcing the valve in one direction to close the passage in one of the transverse members, a grooved stem for the valve, a shank connected with the stem and projecting through one of the ends of the passages, and said hollow shank having its outer end provided with a cone-shaped nozzle, as and for the purpose set forth.

2. In an automatic fluid brake, two spaced longitudinal pipe members, two spaced transverse pipe members connecting the same, one of said longitudinal pipes having its bore reduced between the said transverse pipe members, providing shoulders one inward of the bores of one of the transverse pipe members and one outward of the bore of the other transverse pipe member, a slidable valve in the larger bore at one of the ends of said longitudinal member and normally closing the bore of one of the transverse pipe members, a spring for this valve, a cap on the end of the pipe member contacted by the spring, a grooved stem for the valve extending through the reduced bore of said pipe member, a hollow shank connected to the end of said stem and projecting through the end of said flexible member, a nozzle member for the shank, a second longitudinal pipe member having its end opposite the nozzle formed with a cone-shaped mouth, and a hollow frusto-conical compressible gasket within the said mouth, as and for the purpose set forth.

1,239,346. GAS-LOG. EUGENE S. BROWN, Oak Station, Pa. Filed Sept. 9, 1915. Serial No. 49,777. (Cl. 126—90.)



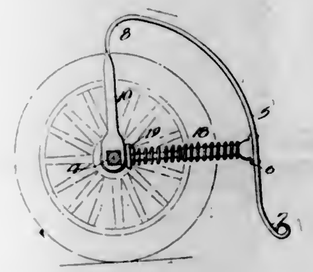
1. A heater comprising a substantially cylindrical casing having its opposite ends closed and provided in one side thereof with a longitudinal opening, a lining member eccentrically mounted within the casing and having an opening registering with the longitudinal opening in said casing, said lining defining an intermediate substantially crescent-shaped heating chamber, there being draft openings formed in the casing and communicating with the heating chamber, a burner extending longitudinally of the lining member, and a deflector secured to the lining member at said burner and having its outer longitudinal edge provided with spaced lugs secured to the inner wall of the casing near the upper wall of the longitudinal opening therein and defining spaced passages communicating with the heating chamber whereby to permit the heated air from said chamber to pass through the passages between the lugs into a room.

2. A heater comprising a substantially cylindrical casing having its opposite ends closed and one side thereof provided with a longitudinal opening, a lining member eccentrically mounted within the casing and defining a substantially crescent-shaped heating member, one longitudinal edge of the lining member being secured to the casing at the lower wall of the opening therein and the other edge of the lining member being spaced from the interior of the casing and terminating short of the upper longitudinal wall of the opening in said casing, there being draft openings formed in the casing at the rear thereof and communicating with the crescent-shaped heating chamber, a burner disposed within and extending longitudinally of the lining member, and a deflector having its intermediate portion secured to the free end of the lining member and one longitudinal edge thereof arranged near the burner, the other longitudinal edge of the deflector being provided with spaced lugs rigidly secured to the inner wall of the casing at the upper wall of the longitudinal opening therein and definitely spaced passages communicating with the interior of the crescent-shaped heating chamber.

3. A heater comprising a substantially cylindrical casing having its opposite ends closed and one side thereof provided with a longitudinally disposed opening, a lining member eccentrically mounted within the casing and having its opposite ends closed and one longitudinal edge thereof secured to the casing at the lower wall of the opening therein and its other edge spaced inwardly from the upper wall of said opening and also from the inner wall of the casing, said lining member defining an intermediate substantially crescent-shaped heating chamber, there being draft openings formed in the casing near the bottom thereof and communicating with the heating chamber, a burner disposed within the lining member and extending longitudinally thereof, and a deflector extending the entire length of the lining member and having its intermediate portion secured to the lining member above the burner and its forward longitudinal edge provided with spaced lugs rigidly secured to the inner wall of the casing at the upper wall of the longitudinal opening therein and defining spaced passages communicating with the crescent-shaped heating chamber.

4. A heater comprising a substantially cylindrical casing having its opposite ends closed and one side wall thereof provided with a longitudinal opening, the bottom of the casing being flat and the rear wall thereof provided with spaced draft openings, a substantially cylindrical lining member eccentrically mounted within the casing and defining a substantially crescent-shaped heating member with which the draft openings communicate, one longitudinal edge of the lining member being secured to the casing at the lower wall of the longitudinal opening therein and the other longitudinal edge of the lining member being spaced from the inner wall of the casing and from the upper longitudinal wall of said opening, the opposite ends of the lining member being closed and spaced from the adjacent ends of the casing to form end chambers, a burner extending longitudinally within the lining member and through both of the end walls thereof, a fuel conductor disposed within one of the end chambers and connected with the burner, and a deflector having its intermediate portion secured to the upper edge of the lining member and its rear edge curved rearwardly and downwardly in the path of the burner, the forward longitudinal edge of the deflector being provided with spaced upstanding lugs secured to the inner wall of the casing at the upper wall of the longitudinal opening therein and defining spaced passages communicating with the crescent-shaped heating chamber.

1,239,347. AUTOMOBILE-WHEEL GUARD. WILLIAM O. BUNNELL and QUINCY A. GATES, Wilkes-Barre, Pa. Filed Sept. 13, 1916. Serial No. 119,872. (Cl. 105—131.)



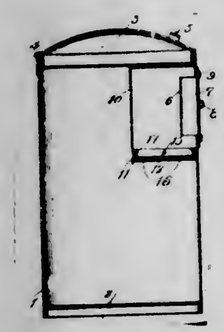
1. In a device of the character described, the combination with an axle having a steering spindle and steering wheel thereon, of a guard composed of a curved body having an arm, said arm connecting to the steering spindle, and shock absorbing means extending between the guard and said spindle.

2. In a device of the character described, the combination with an axle having a pivoted stub portion extending therefrom, a steering wheel on said stub portion, of a guard including a flexible body for disposition in front of the wheel, said body being reduced and twisted to form a supporting arm, said stub axle having a squared shoulder [illegible] engaged by the lower free end of said arm, and a telescopic spring controlled shock absorber interposed between said stub axle and the body of the guard.

3. In a device specified, the combination with a stub axle and steering wheels, said stub axle having a squared shoulder thereon, of a wheel guard composed of a resilient body adapted to be disposed in front of said wheel and having an arm extending downwardly therefrom, said arm being provided with a squared opening to engage the shoulder on the stub axle, a rod and tube telescopically related, said rod and tube being connected to said stub axle and the body of the guard, respectively, and a coil spring element interposed between the stub axle and said body to absorb shocks imparted to the latter.

4. In a wheel guard, a body provided with an arm, said body being curved to provide an object engaging portion, said arm having a spring portion; shock absorbing means interposed between said arm and the body of the guard composed of telescopically related sections, and a coil spring surrounding said sections to absorb shock imparted to the body of the guard.

1,239,348. GARBAGE-RECEPTACLE. WILLIAM O. BUNNELL and QUINCY A. GATES, Wilkes-Barre, Pa. Filed Sept. 13, 1916. Serial No. 119,874. (Cl. 220—115.)



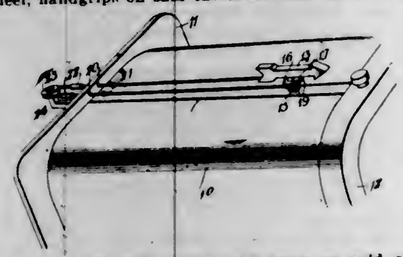
1. In a garbage receptacle the combination of the body having an inlet opening adjacent the upper end thereof, a closure for said opening, a housing in said body communicating with the opening and having an open bottom, a rotatable partition arranged across said open bottom, means for rotating said partition from outside of the body, an offset portion on the lower edge of the housing, and flanges on said partition adapted for engagement with the off-set portion of the housing, and the adjacent wall of the casing when the partition is horizontally disposed to make the device normally air tight.

2. A garbage receptacle of the class described comprising a cylindrical body having an open top, a closure for the same, said body being provided with the supplemental inlet opening adjacent its upper edge, a closure for said inlet slidably mounted on the outer wall of the body, a housing within the body having an open bottom and communicating with the inlet, a rotatable shaft extending through said body, a crank on the outer end of the same, and a partition on said shaft adapted to form a closure for the open bottom of the housing.

1,239,349. DIRECTION-INDICATOR. WILLIAM O. BUNNELL and QUINCY A. GATES, Wilkes-Barre, Pa. Filed Sept. 13, 1916. Serial No. 119,876. (Cl. 116—81.)

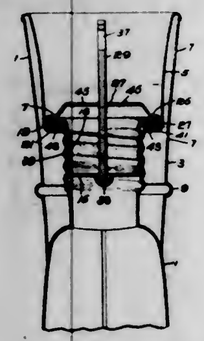
In a direction indicator for automobiles, the combination with a base member adapted to be positioned on the hood of the automobile adjacent the front thereof, a wheel mounted on a vertical axis on said base, an indicator arm carried by said wheel, a bracket secured to the rear side of the dash of said automobile, a pulley mounted on a vertical axis on said bracket, an endless cable trained

over the wheel and pulley and extending through spaced apertures in the dash, means for connecting said cables to the wheel, handgrips on said cables between the dash and



pulley for actuating the same, and stops on said cable adjacent the front of the dash for limiting the movement of the cable in given directions.

1,239,350. HOT-WATER-BOTTLE. ALPHONSO S. CAMPBELL, Medford, Mass. Filed Dec. 23, 1915. Serial No. 68,324. (Cl. 128—39.)



1. A container having a neck comprising an outer, vented wall and an inner wall spaced therefrom formed to present a circumferential seat, in combination with a stopper comprising a body having an outwardly projecting circumferential flange formed to present an annular recess, a packing washer in said recess for engagement with said seat, and a vented cap for said body.

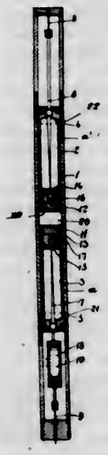
2. A container having a neck comprising an outer vented wall, and an inner wall spaced therefrom formed to present a circumferential seat, in combination with a stopper threaded to said inner wall and having a packing washer adapted for engagement with said seat.

3. A container having a neck comprising an outer well and an inner wall spaced therefrom formed to present a circumfereatial seat, in combination with a stopper having a body threaded to said inner wall, a packing washer embracing said body for engagement with said seat, and a cap for said body, said outer wall and said cap having provision for cooling said washer.

4. A container having a neck comprising an outer wall 3 and an inner wall 5 spaced therefrom to provide a cooling chamber between them, said inner wall being formed to present a circumferential seat 43, in combination with a stopper having a body 11 threaded to said inner wall, a packing washer 21 encircling said body for engagement with said seat, and a handle 29, said neck and stopper having vents 7 and 45 for cooling the parts.

1,239,351. APPARATUS FOR ASCERTAINING THE DIRECTION OF BORE-HOLES. CARL LORENS CARLSON and GUNNAR BERGSTRÖM, Stockholm, Sweden, assignors to Svenska Diamantbergborrningsaktiebolaget, Stockholm, Sweden, a Corporation of Sweden. Filed Nov. 12, 1915. Serial No. 61,125. (Cl. 234—1.)

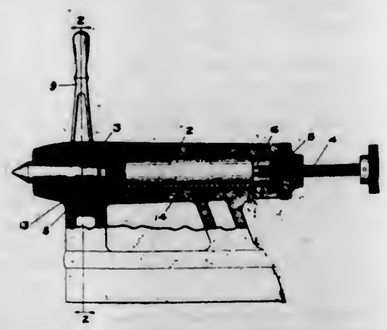
1. An apparatus for ascertaining the direction of bore-holes, comprising a shell adapted to be inserted in a drill-guide, pointers pivotally mounted in said shell, stretching means connecting each of said pointers with a point of the drill-guide situated at a distance from the apparatus, and members provided in the shell and adapted to be moved toward the pointers, so as to receive impressions of the same.



6. An apparatus for ascertaining the direction of bore-holes, comprising a shell adapted to be inserted in a drill-guide, pointers pivotally mounted in said shell, a wire connecting each of said pointers with a point of the drill-guide situated at a distance from the apparatus, pistons provided in the shell and adapted to be moved by means of hydraulic pressure toward the points of the pointers, so as to receive impressions of the same, and a glass tube secured to one of the pointers and containing a glass etching liquid.

[Claims 2 to 5 not printed in the Gazette.]

1,239,352. LATHE-CENTER ADJUSTING AND CLAMPING MEANS. NICHOLAS D. CHARD, Newcastle, Ind. Filed Nov. 13, 1916. Serial No. 131,104. (Cl. 82—31.)



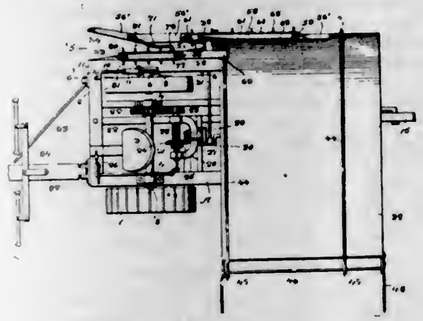
1. In combination with a lathe tail-stock, a spindle mounted therein, a center carried by the spindle, an adjustable screw at the end of the tail-stock having a free bearing against the end of the spindle, means for advancing and retracting the center toward and from the work in a limited range of movement determined by the adjustment of the tail-stock screw, and comprising a shaft, the axis of which is at right angles to the axis of the spindle and which has means of driving connection with said spindle and an operating handle for said shaft movable in a plane at right angles to the shaft axis.

3. In combination with a lathe center, a movable spindle therefor, an advancing and retracting member positively and permanently connected to the spindle, a locking member, and an operating handle connected to the advancing and retracting member to move the center against and from the work and having a positive operating connection with the locking member to lock the center in work engaging position.

9. In combination with a lathe center, mechanism for advancing said lathe center, means for locking said lathe center, a common operating handle, a common member intermediate said handle and said advancing and locking means, a spring-pressed releasable clutch between said member and the advancing mechanism operable to be released by the pressure of the center against the work, and means carried by said member for operating the locking means after said member and the advancing means have been disconnected, said operations being effected by the movement of the operating handle in one direction.

[Claims 2, 4 to 8, and 10 to 13 not printed in the Gazette.]

1,239,353. GREEN-CORN CUTTER. WILLIAM ARTHUR COLLINS, Kewanna, Ind. Filed Nov. 19, 1915. Serial No. 62,398. (Cl. 56—107.)



1. In a machine of the class described, a main frame, a wheel carrying axle supporting the forward portion of said frame, said axle being mounted for rotation, a U-shaped bracket supported on the frame, a counter shaft supported by the bracket and deriving motion from the axle, a shaft supported on the U-shaped bracket at right angles to the counter shaft, and deriving motion from said counter shaft, clutch means whereby the motion may be interrupted, a disk on the shaft that receives motion from the counter shaft, said disk having a wrist pin, a cutting apparatus including a reciprocatory cutter, and a pitman for driving the same, said pitman being connected with the wrist pin, a longitudinally disposed shaft having a crank connected with the wrist pin and driven thereby, and an elevator deriving motion from the longitudinal shaft.

2. In a machine of the class described, a wheel supported main frame, stalk guides supported adjacent to one side of the frame and having forwardly divergent front portions, stationary cutters adjacent to the rearward ends of the stalk guides, a reciprocatory cutter supported for operation in conjunction with the stationary cutters, means for actuating the reciprocatory cutter, said means deriving motion from supporting wheels of the machine and said means including a longitudinally disposed shaft carrying a crank disk, a second longitudinal shaft having a crank engaging the wrist of the crank disk, an elevator including an endless carrier, and shafts over which said carrier is trained, means for transmitting motion to one of said shafts from the second longitudinal shaft, a guide- or reel-board, an endless chain supported adjacent to the upper face of the reel-board and constituting a stalk engaging reel, and means for transmitting motion to said reel from the driven elevator shaft.

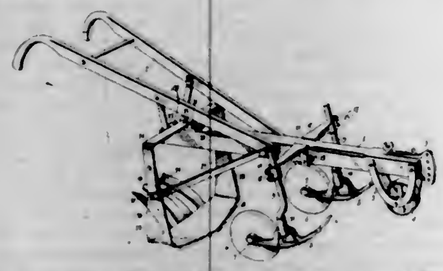
3. In a machine of the class described, a wheel supported main frame, stalk guides supported adjacent to one side of the frame and having forwardly divergent front portions, stationary cutters adjacent to the rearward ends of the stalk guides, a reciprocatory cutter supported for operation in conjunction with the stationary cutters, means for actuating the reciprocatory cutter, said means deriving motion from supporting wheels of the machine and said means including a longitudinally disposed shaft carrying a crank disk, a second longitudinal shaft having a crank engaging the wrist of the crank disk, an elevator including an endless carrier, and shafts a over which said carrier is trained, means for transmitting motion to one of said shafts from the second longitudinal shaft, a horizontally disposed reel-board, an endless chain supported adjacent to the upper face of the reel-board and constituting a stalk engaging reel, and means for transmitting motion to said reel from the driven elevator shaft, said means including an upright shaft, a bearing on the driven elevator shaft in which said upright shaft is stepped, and intermeshing bevel gears on the driven elevator shaft and the upright shaft.

4. In a machine of the class described, a main frame, supporting means for the same including a revolving front axle, ground wheels on said axle and a trailer wheel, cutting apparatus mounted on the frame and including a reciprocatory cutter, means for transmitting motion to said cutter from the front axle, an elevator positioned to the rearward of the cutting apparatus and including a frame extending transversely across the main frame, a driven shaft at the lower end of said frame, an idler shaft at the upper end of the frame, and an endless conveyer guided over the two shafts, stalk guides arranged at the lower end of the elevator forwardly of the cutting apparatus and having forwardly divergent front portions, a horizontally disposed reel-board, an endless conveyer chain or reel chain supported on the guide board, some of the links of said reel chains having stalk engaging prongs, a deflecting arm fixed on the reel board near the front end thereof, said arm extending upwardly and laterally beyond the side edge of the reel board and terminating beyond the prongs, means for driving said chain, an inclined guide board having its low end connected with the forward portion of one of the stalk guides, an endless conveyer chain supported adjacent to the upper face of the inclined guide board, means including a counter shaft for transmitting motion to the said conveyer chain from the driven elevator shaft, and a resilient deflector connected with the other stalk guide and extending in the direction of the conveyer chain.

5. In a machine of the class described, a main frame, supporting means for the same including a revolving front axle, ground wheels on said axle and a trailer wheel, cutting apparatus mounted on the frame and including a reciprocatory cutter, means for transmitting motion to said cutter from the front axle, an elevator positioned to the rearward of the cutting apparatus and including a driven shaft receiving motion from the axle, stalk guides arranged at the lower end of the elevator forwardly of the cutting apparatus and having forwardly divergent front portions, a horizontally disposed reel-board, supporting means for said reel-board including an inclined brace connected at its low end with the forward end of the outermost stalk guide, an endless conveyer chain or reel chain supported on the guide board, some of the links of said reel chains having stalk engaging prongs, a deflecting arm fixed on the reel board near the front end thereof, said arm extending upwardly and laterally beyond the side edge of the reel board and terminating beyond the prongs, means for driving said chain, an inclined guide board having its low end connected with the forward portion of the innermost stalk guide, an endless conveyer chain supported adjacent to the upper face of the inclined guide board, means including a counter shaft for transmitting motion to the said conveyer chain from the driven elevator shaft, and a resilient deflector connected with the inclined brace and extending in the direction of the conveyer chain.

[Claim 6 not printed in the Gazette.]

1,239,354. POTATO-DIGGER. OLIVER CORDREY, Laurel, Del. Filed Nov. 7, 1914. Serial No. 870,904. (Cl. 55—139.)



1. A potato digger comprising, in combination, a frame having a draft device at the forward end thereof, runners connected to and supporting the frame, a scoop, and means for adjusting the inclination of the scoop whereby the latter will maintain an even depth in the soil and the implement will be self-guiding.

2. A potato digger comprising, in combination, a frame having a draft device at the forward end thereof, runners connected to and supporting the frame, a scoop capable of tilting relatively to the frame to vary the angle which it presents to the soil and having a yoke extending up to the frame, a bracket fixed to the frame, a set-screw carried by the bracket and coöperative with the yoke of the scoop to adjust the latter at different inclinations, and means for securing the yoke and bracket in fixed relation to maintain the desired adjustment.

3. In a potato digger, the combination of a beam having a draft device at the forward end thereof, a pair of supporting runners arranged at opposite sides of the beam and independently adjustable vertically with respect thereto, and a scoop attached to the beam in rear of the runners and adjustable to different inclinations relatively to the beam whereby the scoop and the runners may be adjusted to automatically guide the implement.

1,239,355. DEVICE FOR FASTENING SHOE-LACES. WILLIAM H. COWL, San Francisco, Cal. Filed Sept. 16, 1916. Serial No. 120,494. (Cl. 24—121.)



2. A shoe fastener comprising a shank, a substantially triangular-shaped body portion formed on said shank and having a slot therein forming an attaching shank facilitating a connection between the upper and lower portions of the body portion, flanges formed upon the upper and lower portions of the body portion for engaging and gripping a shoe lace, and said upper flange being cut away to facilitate easy insertion of the shoe lace in the slot.

3. A shoe fastener comprising a shank, a triangular shaped body formed on said shank and having a slot intermediate its upper and lower edges and extending from the apex portion to a point on the web portion forming an attaching shank between the upper and lower portions of the body, said slots forming upper and lower flanges for gripping a shoe lace, and a rounded edge formed on the upper portion of the body in a plane above the slot to cause the lace to be guided in said slot.

[Claim 1 not printed in the Gazette.]

1,239,356. GOLF-CLUB SHAFT. JAMES PRINGLE COCHRANE, Edinburgh, and JOHN PATRICK, Leith, Scotland. Filed Oct. 12, 1916. Serial No. 125,263. (Cl. 46—4.)

1. A built-up shaft for golf clubs comprising in combination a flat strip of wood, cane, or the like and a series of segmental sections so arranged that the shaft is flexible substantially in a plane at right angles to the plane of the face of the head and substantially rigid in a plane parallel with the face of the head.

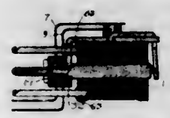


2. A built-up shaft for golf clubs comprising in combination a flat strip of wood, cane or the like and a series of segmental sections so arranged that the shaft is flexible substantially in a plane at right angles to the plane of the face of the head and substantially rigid in a plane parallel with the face of the head, the parts being so shaped that the whole is tapered from the handle end thereof.

3. A built-up shaft for golf clubs comprising in combination a tapered central flat strip of wood, cane, or the like and tapered segments on either side thereof, the flat strip lying in the built-up shaft substantially parallel with the plane of the face of the head of the club.

[Claims 4 to 9 not printed in the Gazette.]

1,239,357. RELAY. HIRAM D. CURRIER and LAWRENCE ERICSON, Chicago, Ill., assignors to Kellogg Switchboard and Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 9, 1915. Serial No. 54,929. (Cl. 175—325.)



1. In a relay, the combination with a heel iron and an armature carried thereby, orifices and coöperating ears provided for said heel iron and said armature, said ears and orifices providing the sole means for maintaining said armature in its pivoted position upon said heel iron.

2. In a relay structure, the combination with a heel iron and an armature carried thereby, an integrally formed ear for said heel iron adapted to fit into an oblong orifice in said armature, an integrally formed ear for said armature adapted to fit into an orifice in said heel iron, said integrally formed ears and orifices holding the armature in a pivoted position upon said heel iron, and said ears and orifices being so positioned that said armature may be raised vertically and removed from its pivoted position.

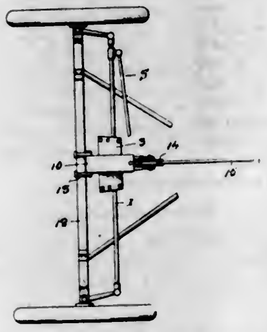
3. A relay structure including an electromagnet provided with a core, an angular heel iron secured to said core and having one limb thereof extending parallel thereto, an angular armature fulcrumed to said heel iron having one of its arms extending across and in front of the core of said electromagnet and its other arm extending back and parallel to the core of said electromagnet, an oblong orifice cut in the first mentioned arm of said armature, a rectangular orifice cut in an arm of said heel iron, a forwardly projecting ear for said heel iron and a downwardly projecting ear for said armature for coöperation with the orifices in said armature and said heel iron respectively, the said projecting ears and orifices forming coöperating means to securely fulcrum the armature in its position upon said heel iron.

4. In a relay, the combination with a magnet structure, of an angular heel piece for said structure provided with an extended ear parallel to the core of the magnet, an armature provided with an integrally formed ear extending at right angles to said core, and orifices cut in said heel iron and said armature adapted to coöperate with the ears of said armature and heel piece, respectively to provide means for securing said armature in its pivoted position upon said heel iron.

5. A relay structure of the class described including a heel iron and an armature, an integrally formed ear for said heel iron, an orifice cut in said heel iron, an integrally formed ear for said armature, an oblong orifice cut in said armature, said heel iron ear and said armature ear being so positioned with relation to the orifices cut in the said armature and heel iron, respectively, that said armature may be raised and removed from its fulcrumed position upon said heel iron.

[Claims 6 to 16 not printed in the Gazette.]

1,239,358. BRAKE. CHARLES J. CUTLER, Butte, Mont. Filed June 20, 1916. Serial No. 104,759. (Cl. 21—197.)



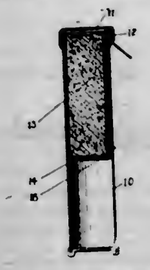
1. In combination with the steering rod of a motor vehicle, a brake block arranged to frictionally engage said rod, a substantially U-shaped resilient member having its central portion secured in fixed relation to a part of the vehicle, and means for forcing the limbs of said resilient member against said brake block, said means including a manually operable cable connected to said limbs.

2. In combination with the steering rod of an automobile, a block frictionally associated with said rod, a substantially U-shaped spring having its central portion secured to a portion of the automobile, and means for forcing the limbs of said spring into frictional engagement with said block, said means including a manually operated cable connected to the limbs.

3. In combination with the steering rod of an automobile, a block frictionally associated with said rod, a substantially U-shaped spring having its central portion secured to a portion of the automobile, a pulley supported by one of the limbs of said spring, and a manually operated cable having a connection with the other limb and passing around said pulley.

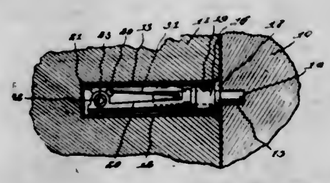
1,239,359. TOBACCO-LIFT. ALBERT J. DANIEL, Boone, Iowa, assignor of one-half to I. M. Allison, Boone, Iowa. Filed Feb. 7, 1917. Serial No. 147,250. (Cl. 206—56.)

1. A tobacco lift comprising a horizontal member, an upright member secured thereto, comprising a narrow strip, said strip for a considerable portion of its length having opposite pairs of notches, said lift being adapted to be used with a tobacco can, having a cover provided with a downwardly-turned rim, the portion of said strip between the successive pairs of notches being of the same length as the width of said downwardly turned rim, the strip being made of such material that it may be readily broken across the line between the notches of each pair.



2. In a device of the class described, the combination of a tobacco receptacle, having a cover provided with a downwardly turned rim adapted to fit on the outside of the receptacle, with a lift comprising a horizontal portion, an upright portion formed of a strip of metal provided with a series of pairs of opposite notches, the portion of the strip between the pairs of notches being substantially the same length as the width of said downwardly extending rim, the strip between said portions having intermediate portions for substantially the same length as the thickness of the wall of said receptacle at its top.

1,239,360. DOOR-LOCK. FRANK DAVIS, North Adams, Mass. Filed June 5, 1917. Serial No. 172,954. (Cl. 16—64.)



1. A lock embodying a casing, a bolt slidable therein, and adapted to be projected beyond one end thereof, a guiding element fitted within the casing and through which said bolt reciprocates, an arm projecting rearwardly from said guiding element, spaced apertured lugs rising from said arm, and constituting bearings, a rotatable element extended through said lugs, a collar fixed upon the rotatable element and journaled between said bearings, and a connection between said collar and the bolt whereby the latter is reciprocated upon rotation of the said element in a reverse direction.

2. A door lock embodying a casing adapted to be fitted within a mortise in said door, a bolt arranged to slide within the casing, a hollow tubular member closing one end of the casing and constituting a guide for the bolt, an arm projecting rearwardly from said guide, said arm being wholly disposed within the casing and spaced therefrom, and means supported upon the extremity of said arm and associated with said bolt for controlling the movements thereof to an active and inactive position.

1,239,361. PIECED OUTER-SOLE. OSCAR C. DAVIS, Brockton, Mass. Filed Nov. 22, 1916. Serial No. 132,787. (Cl. 36—30.)

1. A pieced outer sole comprising a relatively thin sole-shaped veneer piece, including integral fore and shank portions forming the entire exposed bottom surface of the sole, a relatively thick tap piece, and a relatively thick shank piece cemented to said veneer piece and having complemental meeting end faces, united to form a joint which is covered by a portion of said veneer piece, said joint and joint-covering portion being located wholly in a raised portion of the sole which is above the acting tread

face thereof and is not exposed to wear, said veneer constituting a continuous uninterrupted sole face, the fore portion of which is adapted to sustain wear to a limited



extent, the said joint-covering portion of said veneer permanently covering and reinforcing said joint.

[Claim 2 not printed in the Gazette.]

1,239,362. FASTENER. AULD WEINBERG DE MEIR, Providence, R. I. Filed Apr. 7, 1917. Serial No. 160,439. (Cl. 24—101.)



A fastener formed from a single piece of sheet metal and comprising a head having a curved edge, said head being concaved, a shank connected with the intermediate portion of the head and having a section which is disposed approximately at a right angle to the plane in which the edge of the head lies, the free end portion of the said shank being provided with a longitudinally disposed incision which divides the same into legs and the said legs being provided at the inner portions of their free ends with recesses.

1,239,363. STEEL RAIL-TIE. ADOLPH R. DE RYCKE, Kewanee, Ill. Filed Apr. 24, 1917. Serial No. 164,178. (Cl. 238—5.)



1. A metal rail tie comprising a pair of channel members having their flanged faces opposed to define a tubular member open throughout its length, filler blocks disposed within said member adjacent each end thereof, bolts adapted to pass through openings in said filler blocks and said member to hold the parts asociated and rail securing devices engageable with said bolts.

2. A metal rail tie comprising a pair of channel members having their open faces oposed to define a tubular member open throughout its length, filler blocks disposed within said member at each end thereof and having grooves therein to provide drainage vents, bolts adapted to pass through openings in said filler blocks and said member to hold the parts associated and rail securing devices engageable with said bolts.

1,239,364. SHADE AND CURTAIN FIXTURE. ANDREW J. DINKEL and HARRY C. HARTMAN, Clarinda, Iowa. Filed Aug. 30, 1916. Serial No. 117,650. (Cl. 156—23.)



1. A fixture of the class described including tubular telescoping rod sections having the ends thereof returned at the inside, securing brackets on the said returned ends, shade brackets on said returned ends, and a coil spring in said sections, the ends of said spring extending into the returned ends of the rod sections and being secured thereto.

2. A fixture of the class described including tubular telescoping rod sections having the ends thereof returned at the inside, means to secure said sections to a window frame, shade brackets on said returned ends, a coil spring in said sections, the ends of the spring following and extending into the returned ends of the rod sections, and plugs removably entering in the returned ends of the rod sections and connected with the ends of said spring.

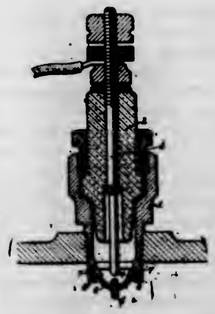
3. A fixture of the class described including telescoping rod sections having the ends thereof returned at the inside toward each other and spaced from the bodies of the rod sections, brackets on said returned ends at the back to secure the same to a window frame, and forwardly extending shade brackets on the said returned ends at the front between the same and the bodies of the rod sections.

4. A fixture of the class described including a rod having the ends thereof returned at the inside toward each other, and spaced from the body of the rod, brackets on said returned ends at the back to secure the same to a window frame, and forwardly extending shade brackets mounted on the returned ends at the front and between same and the body of the rod and slidable on said returned ends to accommodate shade rollers of different lengths.

5. A fixture of the class described including a rod having the ends thereof returned at the inside toward each other and spaced from the body of said rod, brackets on the said returned ends at the back for securing the same to a window frame, longitudinal ribs on the returned ends at the top and bottom and forward of the said brackets, and shade brackets on the said returned ends, said shade brackets having base flanges slidably engaging said ribs and having clearance between the ribs and the first-mentioned brackets.

[Claim 6 not printed in the Gazette.]

1,239,365. SPARK-PLUG. ANDREW J. DINKEL, Clarinda, Iowa, assignor of one-half to Harry C. Hartman, Clarinda, Iowa. Filed Feb. 16, 1917. Serial No. 148,982. (Cl. 123—169.)

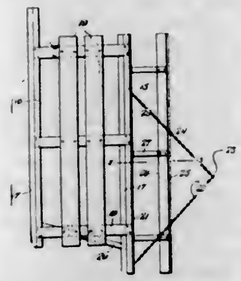


1. A spark plug including a fixed electrode, a movable electrode in the form of a ring, and a support on which the movable electrode is free to rotate or move laterally while being maintained a fixed distance from the fixed electrode.

4. In a spark plug, the combination of a metallic body or shell, a central electrode in the shell, an insulating bushing supporting the central electrode, a metallic support grounded on the shell and having a curved portion concentric with the fixed electrode, a bodily movable electrode on the support, a cleaning device movably mounted on the support and associated with the movable electrode, said cleaning device having a portion extending into the body or shell to clean the same.

[Claims 2, 3, and 5 not printed in the Gazette.]

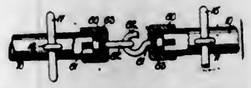
1,239,366. ROAD-DRAG. JOHN DUDEK, Campbell, Nebr. Filed Feb. 16, 1917. Serial No. 149,068. (Cl. 37—5.)



1. In a road drag, a ground engaging crushing element, brackets connected with the front face of said element near the lower edge thereof and extending forwardly with respect thereto, and a substantially horizontal blade supported by said brackets in spaced relation to the crushing element, said blade having its cutting edge approximately in the plane of the bottom face of the crushing element; said blade being adapted to shave or cut the high places in the ground, the material cut by said blade being distributed in front of the crushing element.

2. A road drag having ground engaging front and rear crushing and leveling bars, brackets connected with and extending forwardly with respect to the front crushing bar, eyes on said brackets, a cutting blade having rearwardly extending lugs, means for hingedly connecting the lugs with the eyes on the brackets, thereby sustaining the blade tiltably and in an approximately horizontal position, and means whereby said blade maye be tilted to swing the cutting edge thereof in an upward direction.

1,239,367. DRAFT-BAR. WILLIAM F. DUNN, Talent, Oreg., assignor of one-third to Francis G. Swedenburg, Ashland, Oreg., and one-third to Joe M. Kerby, Talent, Oreg. Filed Nov. 21, 1916. Serial No. 132,587. (Cl. 55—84.)



1. A draft bar, comprising a plurality of tubular metal bars having adjacent ends provided with screw threads, caps screwing on the said threaded ends, hooks on the said caps and hooking one in the other, connecting means held on the said bars and adapted for connection with sections of a harrow, and means held on the said bars and adapted to be connected with the draft devices.

2. A draft bar, comprising a plurality of tubular metal bars having adjacent ends provided with screw threads, caps screwing on the said threaded ends, hooks having threaded shanks mounted to turn in the said caps, nuts screwing on the said shanks within the said caps, connecting means held on the said bars and adapted to be connected with sections of a harrow, and attaching means on the said bars and adapted to be connected with draft devices.

1,239,368. PROCESS OF AND APPARATUS FOR POLISHING EXPLOSIVE POWDER. FRANCIS I. DU PONT, Wilmington, Del., assignor, by direct and mesne assignments, to Ball Grain Explosives Company, Wilmington, Del., a Corporation of Delaware. Filed July 28, 1915. Serial No. 42,266. (Cl. 52—3.)

1. The process of polishing explosive granular powder which consists in distributing the powder longitudinally to form an elongated string, imparting to the powder a movement of rotation on an axis parallel to its forward progressing movement, applying a forward propulsion force directly to the powder throughout only a relatively small part of its length and restricting the advance of the powder at the far end of the string to regulate and maintain its depth.

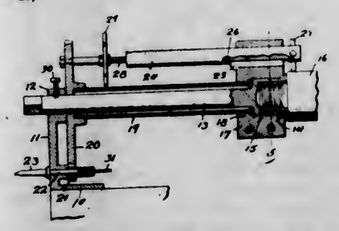


4. The process of polishing explosive granular powder which consists in distributing the powder longitudinally to form a string having a length not less than approximately fourteen times its maximum depth, imparting to the powder a turning movement on an axis parallel to its longitudinal direction of extension, and controlling the desired depth by restricting its longitudinal flow.

8. In an apparatus for polishing explosive powder, the combination with a tube of comparatively great length and small diameter, of means to rotate the tube, feeding means to introduce the powder at one end thereof, propulsion means occupying a relatively short part of the length of the tube and positioned at the inlet end thereof, and means at the discharge end of the tube to regulate the depth of powder therein.

[Claims 2, 3, 5 to 7, and 9 to 11 not printed in the Gazette.]

1,239,369. MACHINE FOR TURNING OFF CRANK-PINS AND LIKE PARTS. JAMES B. EDWARDS, Columbia, S. C., assignor of one-half to Gibbes Machinery Company, Columbia, S. C. Filed Mar. 13, 1914, Serial No. 824,542. Renewed Feb. 2, 1917. Serial No. 146,263. (Cl. 82—4.)



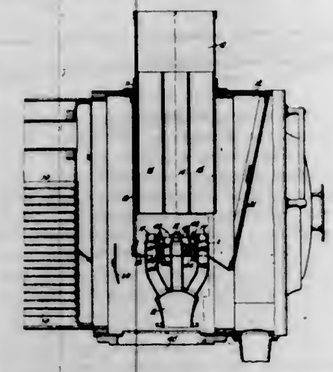
A machine for turning up work comprising a base, a spindle mounted in said base, a tooth wheel rigidly mounted on said spindle, an upright formed on said base, a bearing formed in the upper extremity of said upright and extending transversely thereof, a work engaging member extending through said bearing, a boxing surrounding one end of said work engaging member, a sleeve surrounding said work engaging member and having one extremity thereof connected to said boxing, a second tooth wheel secured to the opposite end of said sleeve and adapted to mesh with the first mentioned wheel, a screw loosely mounted in the second tooth wheel adjacent the outer edge thereof and lying in parallelism with the work engaging member, a star wheel rigidly mounted on said screw, a tool bar mounted in said boxing and having one extremity thereof threadedly receiving said screw, and a tool clamp formed on the free end of said tool bar.

1,239,370. LOCOMOTIVE STACK AND DRAFT DEVICE. WILLIAM ELMER, Buffalo, N. Y. Filed Aug. 30, 1916. Serial No. 117,638. (Cl. 110—151.)

1. A locomotive stack and draft device, including a cylindrical stack provided with a plurality of cylindrical conduits nested within the stack with their axes parallel to the axis of the stack.

4. A locomotive stack and draft device comprising a cylindrical stack provided with a plurality of cylindrical conduits of which one is arranged centrally within the stack and the others grouped around the central one, an exhaust nozzle having a series of independent tips discharging centrally into the entrance ends of the said con-

duits, and an annular steam chamber connected with the live steam of the boiler and arranged concentrically with the said series of nozzle tips, and nozzles extending from



the said steam chamber and discharging upwardly into the lower ends of the said conduits.

[Claims 2 and 3 not printed in the Gazette.]

1,239,371. COMBINED REFLECTOR AND SOURCE OF LIGHT IN THE SAME. HENRY R. EVANS, New York, N. Y. Filed July 20, 1917. Serial No. 181,720. (Cl. 240—41.)



1. In a reflector-lamp the combination of a casing having a concave, optically substantially spherical reflecting surface the area of which is appreciably greater than the reflecting area of half the sphere, and having a light emitting area for the desired beam of light, and a concentrated source of light located centrally of said surface, the source while being concentrated, having sufficient area off the center point to very materially intensify by re-reflected rays the beam of light emitted.

2. In a reflector-lamp the combination of a casing having a concave, optically substantially spherical reflecting surface the area of which is appreciably greater than the reflecting area of half the sphere, and having a light emitting area for the desired beam of light, and a concentrated source of light located centrally of said surface, but with its center located somewhat eccentric to the true center of the reflecting surface so as to substantially increase the rate of "gyration of reflections" of the re-reflected rays.

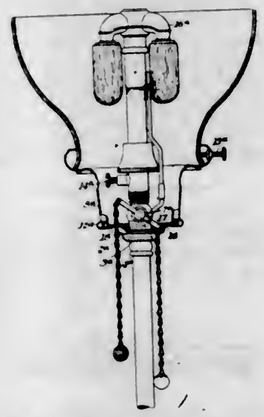
3. In a reflector-lamp the combination of an inclosing casing for a source of light, a concave optically substantially spherical reflecting surface surrounding said source, the area of said reflecting surface being substantially greater than the reflecting area of half the sphere, and having a light emitting area for the desired beam of light, and a concentrated source of light located centrally of said surface and while being concentrated, having sufficient area off the center point to insure the necessary rate of "gyration of reflections" to very materialily intensify by re-reflected rays the beam of light emitted.

9. In a reflector-lamp, the combination of an incandescent electric lamp bulb having an electric light emitting conductor therein, a concave optically substantially spherical reflecting surface surrounding said light conductor, the area of said reflecting surface being substantially greater than the reflecting area of half of the sphere and having a light emitting area for the desired beam of light, said light emitting conductor being arranged to constitute a concentrated source of "open-work" form, and located centrally of said surface, but with its center located a little eccentric to the true center of the reflecting surface so as to substantially increase the rate of the "gyrations of the reflections" of the re-reflected rays.

16. In a reflector-lamp, the combination of a substantially spherical incandescent electric lamp bulb having a reflecting coating extending over the major portion thereof and having a light emitting opening for the desired beam of light, and a light emitting conductor within said bulb arranged to constitute a concentrated source of "open-work" form comprising a plurality of spaced coils of filament lying substantially in the same plane and located centrally of said bulb, but with its center located a little back of the center of the bulb from the opening, to substantially increase the rate of "gyration of reflections" of the reflected rays and to position its image in front of it.

[Claims 4 to 8 and 10 to 15 not printed in the Gazette.]

1,239,372. GLOBE-HOLDER FOR INCANDESCENT GAS-LAMPS. ROBERT E. EWING, Gloucester, N. J., assignor to Welsbach Light Company, Gloucester, N. J., a Corporation of New Jersey. Filed Jan. 6, 1916. Serial No. 70,582. (Cl. 67—94.)

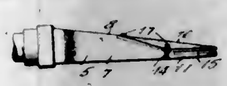


3. In a globe holder for incandescent gas lamps of the inverted type, a valve casing having a valve therein, an upwardly extending Bunsen tube supported on the casing, an adjusting screw extending laterally from the valve casing above the valve for adjusting the jet outlet to the Bunsen tube, a burner head removably supported on the Bunsen tube, a pilot light tube connected to the valve casing below the valve and extending upwardly therefrom, a pilot light adjustment, a valve supporting husk having a plurality of members, the lower member being below the valve casing, means for securing the lower member to the gas pipe, the lower member having a seat for the upper member, the upper member being supported on said seat, said husk inclosing the adjusting screw, valve casing, pilot light and pilot light adjusting screw, there being openings through the husk member for giving access to the adjusting screw and the pilot light adjustment, and means on the upper husk member for supporting a globe; substantially as described.

[Claims 1 and 2 not printed in the Gazette.]

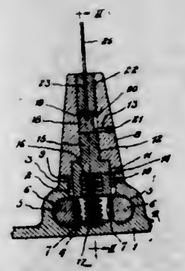
1,239,373. STREET-FLUSHING NOZZLE. CORNELIUS D. FARMER, GEORGE N. FRAZER, Sr., GEORGE N. FRAZER, Jr., and WASH B. FARMER, Eugene, Oreg. Filed Mar. 2, 1916. Serial No. 81,751. (Cl. 137—17.)

1. A nozzle for street cleaning purposes having its front discharge end protruding forwardly at the center and diverging thence toward its sides and having in said discharge end a discharge opening which is narrowest at the apex or center of the discharge end and gradually widens thence toward the opposite sides of the discharge end whereby there is formed a discharge opening in two sections merging at the apex of the discharge opening and widening thence toward their outer ends for securing a discharge laterally to the direction in which the nozzle is faced to wash a pavement from the center or crown thereof down toward its opposite sides, all as and for the purposes set forth.



2. A nozzle comprising a flat lower wall diverging outwardly from the supply end of the nozzle to points adjacent the outlet end thereof and converging sharply from said points to the apex of the nozzle, side walls extending vertically from the diverging portions of the lower walls, an upper wall conforming to the outline of the lower wall, said walls converging from the rear to the front portion of the nozzle, a threaded nipple formed at the rear end of the nozzle with which the upper, lower and side walls merge and front faces formed on the outlet edges of the sharply converging portions of the upper and lower walls thereby lying in angular relation one with the other, the portions of the faces formed on the lower wall being of greatest height at the center or apex of the nozzle and constantly decreasing in height toward the outer ends to provide a discharge opening of constantly increasing width from the apex of the nozzle to the outer ends of the front faces, whereby a sheet of water of constant force and volume will be ejected from the nozzle.

1,239,374. TRANSMISSION-LOCK. FERGUS R. FERGUSON, Cleveland, Ohio. Filed Jan. 2, 1917. Serial No. 140,083. (Cl. 70—126.)

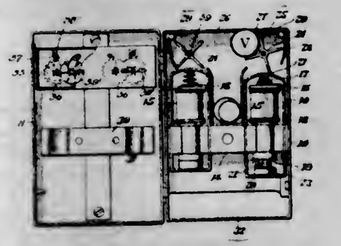


1. A motor transmission lock for motor vehicles having a longitudinally extending actuating member below the floor of the vehicle, comprising a substantially upright plunger for engaging said member so as to prevent its operative movement, a spring acting to move said plunger away from its engaging position, a slotted block movable together with and relative to said plunger and a key lock intersecting and accessible above the floor of the vehicle to co-act with said block for holding such plunger in its engaging position.

2. An automobile motor transmission lock comprising in combination with a pair of tranamission gear shifting rods, of a supporting member, a lock carried thereby and accessible to the driver of the automobile, a key insertible through said lock, a block adapted to be engaged and moved in two directions by said key, said block being formed with a lateral channel opening through the top and bottom thereof, a pin secured to said supporting member and adapted to project into said channel, a plunger adapted to be engaged and moved by said block and to so engage said rods as to preclude the operative movement thereof, and means for returning said plunger to its disengaging position when the parts are unlocked.

3. An automobile transmission lock comprising in combination with a pair of transmission gear shifting rods having opposed grooves, of a supporting member fashioned with a bore enlarged at its lower end, a lock carried thereby and accessible to the driver of the automobile, a key insertible through said lock, a block rotatably mounted in the smaller part of said bore and provided above with a slot for the reception of said key, the latter adapted both to rotate and axially move said block, said block being furthermore formed with a lateral channel opening through the top and bottom thereof, a pin secured to said supporting member and adapted to project into said channel, a plunger fitted within the enlarged part of said bore and adapted to be engaged and moved into said grooves by said block, a spring acting against the bottom of said plunger to resist such groove occupying position, the arrangement being such that said pin alternately abuts the tops of said block and plunger, whereby said pin either holds said plunger within said grooves or limits its upward release respectively.

1,239,375. VENDING-MACHINE. SAMUEL FISHER, Hampton, Va. Filed Oct. 13, 1916. Serial No. 125,477. (Cl. 194—54.)



1. A dispensing apparatus of the character described embodying a receptacle holder, a coin slot in said holder, a receptacle, a stopper for the receptacle, and coin controlled mechanism operable simultaneously with the insertion of a coin within said slot for automatically adjusting the stopper to allow a quantity of the contents of the receptacle to be discharged therefrom.

2. A dispensing apparatus of the character described embodying a receptacle holder, a coin slot in said holder, a receptacle, a hollow perforated stopper therefor, and coin controlled means operable simultaneously with the insertion of a coin within said slot for automatically adjusting the stopper to allow a quantity of the contents of the receptacle to be discharged therefrom through said perforations.

3. A dispensing apparatus of the character described embodying a receptacle holder, a receptacle, a stopper therefor, yieldable means normally holding the stopper fitted within the receptacle, and coin controlled means for automatically adjusting the stopper to a position to allow a quantity of the contents of the receptacle to be discharged therefrom, simultaneously with the introduction of a coin into the holder.

4. A dispensing apparatus of the character described embodying a receptacle holder, a receptacle, a hollow perforated stopper therefor, coin controlled means operable simultaneously with the insertion of the coin within the holder for adjusting the stopper to a position to allow a predetermined quantity of the contents of the receptacle to be discharged therefrom through said perforations, and yieldable means for automatically returning the stopper to its normal position at a predetermined interval.

5. A dispensing apparatus of the character described embodying a casing, a closure therefor, a receptacle positioned within the casing, a stopper therefor, and coin controlled means operable simultaneously with the insertion of the coin into the casing for adjusting the stopper to allow a predetermined quantity of the contents of the receptacle to be discharged therefrom.

[Claims 6 to 12 not printed in the Gazette.]

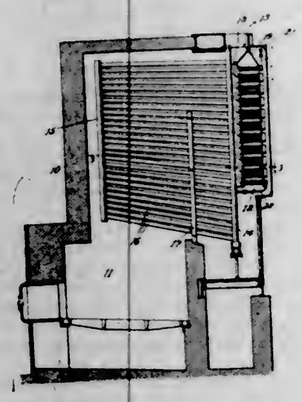
1,239,376. CAP OR HEAD-COVERING. ANDREW E. FODOR, New York, N. Y., assignor to Sanitcap Co. Inc., a Corporation of New York. Filed May 18, 1917. Serial No. 169,487. (Cl. 2—106.)



1. As a new article of manufacture, a cap or head-covering comprising a crown and skirt formed of paper so treated as to be moisture and grease repellent; and an insert of crepe paper located in the skirt.

2. As a new article of manufacture, a cap or head-covering comprising a crown and skirt formed of paper so treated as to be moisture and grease-repellent; and an elastic insert located in the skirt, whereby the cap is adapted to fit heads of different sizes and to closely conform thereto.

1,239,377. FUEL-ECONOMIZER. ERNEST H. FOSTER, Dongan Hills, N. Y., assignor to Power Specialty Company, New York, N. Y., a Corporation of New York. Filed Feb. 17, 1916. Serial No. 78,799. (Cl. 122—444.)



1. A boiler having a plurality of individual boiler sections comprising headers and boiler tubes connecting said headers and also having a vertical passage for the furnace gases beyond said section, in combination with an economizer composed of a plurality of individual sections vertically arranged in said passage and installed between the boiler and smoke stack, the tubes of said economizer being vertically arranged with respect to the flow of the furnace gases and the inlet and outlet to said economizer being at the top and bottom respectively, whereby water circulates by aid of its own gravity through said economizer, said economizer sections being individually connected to said boiler sections whereby one boiler section and one economizer section may be removed for repair or replacement without disturbing the other sections.

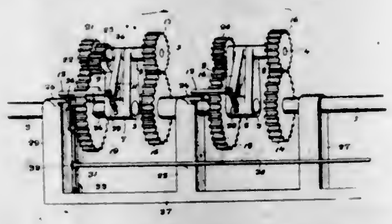
2. A boiler comprising a plurality of boiler sections and a vertical passage for the escape of furnace gases located in the rear of said sections, in combination with an economizer vertically arranged in said passages and consisting of a plurality of sections each individually connected to said boiler sections and each individually removable with one of said boiler sections.

1,239,378. CANDY-PACKAGE. WINIFRED S. FOSTER, San Francisco, Cal. Filed Dec. 14, 1915. Serial No. 66,699. (Cl. 46—40.)



A package for candy and the like comprising sheets of transparent material, quickly detachable and replaceable fastening devices for fastening together the edges of said sheets, said sheets when so fastened being in the form constituting a representation of an animated figure and a representation of the head of the figure secured to one of said sheets.

1,239,379. AUTOMATIC TRANSMISSION-GEARING. CLAUDE R. FOUNTAIN, Athens, Ga. Filed Dec. 29, 1916. Serial No. 139,622. (Cl. 74—34.)



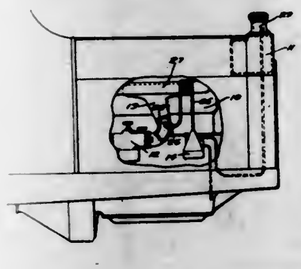
1. Transmission gearing, embodying in combination a main driving shaft, a main driven shaft in line therewith, gears fast on the driving and driven shafts, a countershaft in spaced relation to the driving and driven shafts, a support for the countershaft loose on one of said main shafts, gears fast on said countershaft, means for locking the gears against relative rotation to cause said driving and driven shafts to rotate at the same speed, and also automatically unlocking said gears to permit them to rotate when the torque of said shafts reaches a predetermined value, and means coöperating with the first named means for stopping sidewise motion of the countershaft when the said gears are unlocked.

2. Transmission gearing, embodying in combination a main driving shaft, a main driven shaft in line therewith, gears fast on the driving and driven shafts, a countershaft in spaced relation to the driving and driven shafts, a support for the countershaft loose on one of said main shafts, gears fast on said countershaft, means for locking the gears against relative rotation to cause said driving and driven shafts to rotate at the same speed, and also automatically unlocking said gears to permit them to rotate when the torque of said shafts reaches a predetermined value, means coöperating with the first named means for stopping sidewise motion of the countershaft when the said gears are unlocked, means for reversing the relative direction of motion of the driving and driven shafts, and means for preventing the locking of the driving and driven shafts when the reversing mechanism is in position for operation.

3. Transmission gearing embodying in combination, a main driving shaft, a main driven shaft, a main intermediate shaft in line with the driving and driven shafts, gears on the above mentioned main line shafts, countershafts in spaced relation to said main line shafts, gears fast on the countershafts loose on the main line shafts, gears fast on the countershafts, means for locking the gears controlling any two main line shafts against relative rotation to cause said two shafts to rotate at the same speed, and also automatically unlocking the gears controlling any two adjacent main line shafts whenever the torque between said two main line shafts reaches a certain value, and mean coöperating with the first named means for stopping sidewise motion of any countershaft when the said gears are unlocked.

4. Transmission gearing embodying in combination, a main driving shaft, a main driven shaft, a main intermediate shaft in line with the driving and driven shafts, gears on the above mentioned main line shafts, countershafts in spaced relation to said main line shafts, gears fast on the countershafts loose on the main line shafts, gears fast on the countershafts, means for locking the gears controlling any two main line shafts against relative rotation to cause said two shafts to rotate at the same speed, and also automatically unlocking the gears controlling any two adjacent main line shafts whenever the torque between said two main line shafts reaches a certain value, mean coöperating with the first named means for stopping sidewise motion of any countershaft when the said gears are unlocked, means for reversing the relative direction of rotation of the main driven shaft and its adjacent main line shaft, and means for preventing the locking of the main driven shaft with its adjacent main line shaft when the reversing mechanism is in position for operation.

1,239,380. WATER-VAPORIZER FOR INTERNAL-COMBUSTION ENGINES. WILLIAM H. FOX, Hollywood, Cal. Filed Mar. 12, 1917. Serial No. 154,237. (Cl. 123—25.)

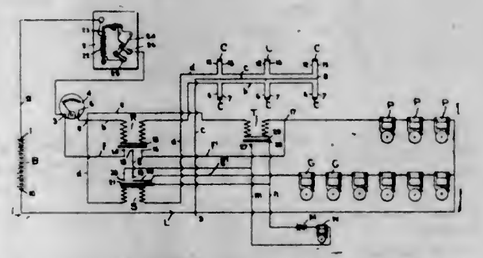


1. A vaporizer, comprising a water reservoir, a vaporizing chamber mounted in connection therewith, means whereby said chamber will connect with the intake manifold of an internal combustion engine, means whereby the suction of the engine will act to create a vapor within said vaporizing chamber and draw it into the intake manifold in combination with a gaseous fuel passing therethrough, means whereby water and vapor may be delivered to said reservoir from the radiator of said engine, and means whereby the aqueous vapor drawn from the vaporizinn chamber to the intake manifold will be heated as it is delivered thereto.

3. A vaporizer, comprising a water reservoir, a vaporizing chamber mounted in connection therewith, means whereby said chamber will connect with the intake manifold of an internal combustion engine, means weherby the suction of the engine will act to create a vapor within said vaporizing chamber and draw it into the intake manifold in combination with a gaseous fuel passing therethrough, means whereby water and vapor may be delivered to said reservoir from the radiator of said engine, means whereby the aqueous vapor drawn from the vaporizing chamber to the intake manifold will be heated as it is delivered theerto, overflow means for regulating the quantity of water and vapor within said reservoir, and regulating means for controlling the volume of aqueous vapor uniting with the gaseous fuel within said intake manifold.

[Claims 2 and 4 not printed in the Gazette.]

1,239,381. SIGNALING SYSTEM. JOHN C. FRANCIS, Canton, Mass., assignor to Samson Electric Company, a Corporation of Massachusetts. Filed July 12, 1916. Serial No. 108,945. (Cl. 177—364.)



1. A signaling system comprising a general alarm circuit, an auxiliary signaling circuit and a controlling circuit, means for supplying electrical energy to said circuits directly from a common source of energy and means in said controlling circuit operable either to supply a signaling current to the auxiliary circuit alone or to both the general alarm and auxiliary signaling circuits.

2. A signaling system comprising a general alarm circuit, an auxiliary signaling circuit and a controlling circuit having branches containing relays operable to control respectively the auxiliary and general alarm circuits, a common source of energy for said circuits, operable means in said controlling circuit for actuating said relays to supply a signaling current either to the auxiliary circuit or to both the auxiliary and main circuits.

3. A fire alarm system comprising a general alarm circuit and an auxiliary signaling circuit having high and low resistance branches, a controlling circuit connected in said high resistance branch having relays operable to control the current supply to the main and auxiliary signaling circuits and selectively operable means in said controlling circuit for actuating either the relay controlling the auxiliary circuit or both of the relays controlling the general alarm and auxiliary circuits.

[Claims 4 to 16 not printed in the Gazette.]

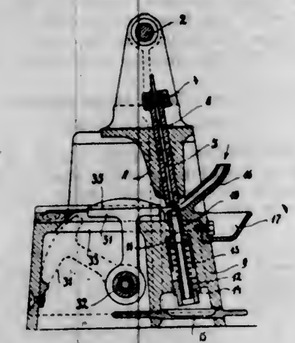
1,239,382. MACHINE FOR PUNCHING AND SETTING FASTENERS IN PAPER. MAX FREITAG, Alfeld, Germany. Filed Apr. 22, 1913, Serial No. 763,691. Renewed Sept. 19, 1916. Serial No. 121,086. (Cl. 18—87.)

1. A machine of the character described, comprising means for feeding a bent fastener into straddling engagement with a paper sheet, means for clenching the fastener to said sheet, and common means for forming a continuous opening that extends completely through the fastener and sheet.

2. A machine of the character described, comprising means for feeding a bent fastener into straddling engagement with a paper sheet, means for gripping the sheet, means for clenching the fastener to the sheet and common means for forming a continuous opening that extends completely through the fastener and sheet.

3. A machine of the character described, comprising a work table adapted to support a paper sheet, a hollow plunger adapted to clench a fastener to said sheet, and a

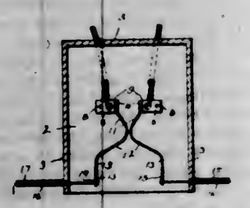
punch movable within said plunger and adapted to form a continuous opening that extends completely through the fastener and sheet.



4. A machine of the character described, comprising a work table adapted to support a paper sheet, an adjustable stop for said sheet, a hollow plunger adapted to clench a fastener to said sheet, and a punch movable within said plunger and adapted to perforate both the fastener and the sheet.

5. A machine of the character described, comprising a work table adapted to support a paper sheet, a feed chute adapted to deliver a fastener into straddling engagement with said sheet, a plunger adapted to grip the sheet, a hollow second plunger adapted to clench the fastener to the sheet, and a punch movable within said hollow plunger and adapted to perforate both the fastener and sheet.

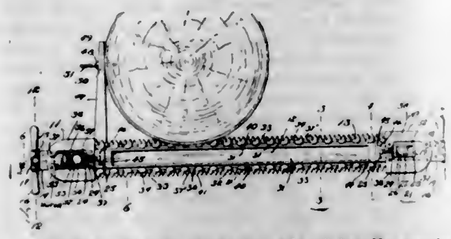
1,239,383. **FIRE AND RAIN ALARM.** GEORGE M. GERHARD, Rochester, N. Y. Filed Feb. 16, 1916. Serial No. 78,658. (Cl. 200—33.)



1. In a circuit closer, a casing said casing having a rear wall, front wall, side walls, and one end wall, its opposite end being fully open, a pair of contact springs secured to the inner side of the rear wall of the casing and having their free ends disposed near the open end of the casing, said contact springs having their medial portions bowed toward one another forming contact points and a destructible material secured to the ends of the spring holding their bowed portion away from one another as and for the purpose specified.

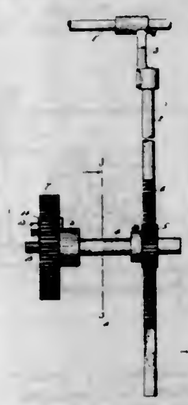
2. In a circuit closer, a casing said casing including a rear wall, side walls, front wall, and end wall having its opposite end fully open, a pair of contact springs having attaching portions at one end which attaching portions are removably secured to the inner side of the rear wall at a spaced distance apart and their free ends disposed near the open end of the casing, said contact springs having their medial portions bowed toward one another defining contact points, and destructible means connected to the free ends of said spring normally holding their medial portion away from one another, said attaching portions of the springs adapted to have connected thereto respectively the terminals of an electric circuit.

1,239,384. **MOTOR-OPERATED SAW.** ANTHONY GISCH, Carson, La. Filed Oct. 12, 1911. Serial No. 654,215. (Cl. 143—32.)



In a timber sawing device, a pair of handle members, each consisting of a pair of plates and each of said plates having longitudinal ribs on adjacent faces, one of each of the plates being formed with a channel in its inner face, a sprocket wheel carried by each handle member, an endless chain saw traveling over said sprocket wheels, a spacing and guiding strip for the saw disposed between and connected with the handle members, said strip having relatively thin longitudinal flanges on both of its longitudinal edges throughout the entire length thereof, said flanges forming longitudinally extending shoulders constituting guide bearings for the inner portions of the links of the saw, a thickened transverse portion at each end of the strip engaged between the ribs of the plate and a reduced portion on each longitudinal edge of the thickened portions of the spacing strip adapted to receive the ribs of the plates slidably thereon, said reduced portions being in alinement with the longitudinal flanges of the strip.

1,239,385. **ATTACHMENT FOR SPOOLERS.** GEORGE H. GOLDSMITH, Old Orchard, Me., assignor to Saco-Lowell Shops, Boston, Mass., a Corporation of Massachusetts. Filed July 15, 1914. Serial No. 851,196. (Cl. 242—44.)

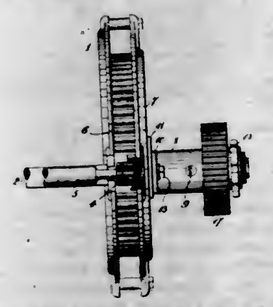


1. In a machine of the type specified, a traverse rail, mechanism assisting in actuating said rail to have movement in reverse directions, said mechanism comprising in part a shaft, a gear arranged to turn independently of the shaft, and means for coupling the gear to the shaft whereby it may be turned thereby, said means comprising a member rotatable with the shaft and an attaching device for securing said member to the gear, said member cooperating with the gear in a manner whereby upon the loosening of said device with the gear held fixed against rotation, said member and gear may be held to bear frictionally against one another and prevent accidental turning of said shaft and consequent displacement of said traverse rail but will permit the turning of said shaft and consequent positioning of the traverse rail upon the application of power to the shaft for turning it.

2. In a machine of the type specified, a traverse rail, mechanism assisting in actuating said rail to have movement in reverse directions, said mechanism comprising in part a shaft, a gear arranged to turn independently of said shaft, and means for coupling the gear to the shaft, said means comprising a member rotatable with the shaft and a binding screw for securing said member to the gear, said member coöperating with the gear in a manner whereby upon the loosening of said binding screw and with the gear held fixed against rotation, said member and gear may be held by the screw to bear frictionally against one another and prevent accidental turning of said shaft and consequent displacement of said traverse rail but will permit the turning of said shaft and consequent positioning of the traverse rail upon the application of power to the shaft for turning it.

3. In a machine of the type specified, a traverse rail, mechanism assisting in actuating said rail to have movement in reverse directions, said mechanism comprising in part a shaft, a gear, a slotted plate rotatable with said shaft, said plate having a hub embracing said shaft and upon which said gear is arranged to turn independently of said shaft, and a screw passing through said slotted plate and fastening into said gear for binding together said gear and plate, said plate coöperating with said said gear in a manner whereby upon the loosening of said screw and with said gear held fixed, said plate and gear may be held by the screw to bear frictionally against one another and prevent accidental turning of said shaft and consequent displacement of said traverse rail but will permit the turning of said shaft and consequent positioning of the traverse rail upon the application of power to the shaft for turning it.

1,239,386. **MANGLE-GEAR.** GEORGE H. GOLDSMITH, Old Orchard, Me., assignor to Saco-Lowell Shops, Boston, Mass., a Corporation of Massachusetts. Filed July 15, 1914. Serial No. 851,197. (Cl. 74—50.)

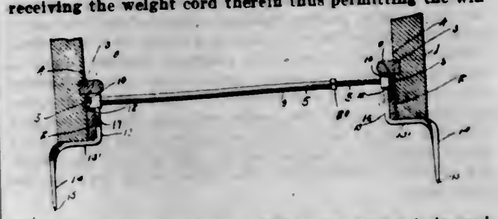


1. A mangle gear, a supporting stud and means for mounting said gear upon said stud whereby said gear may be moved and the teeth of said gear occupy different positions of eccentricity with relation to said stud along a line passing through the center of the stud and a point substantially midway between the outer teeth of said gear.

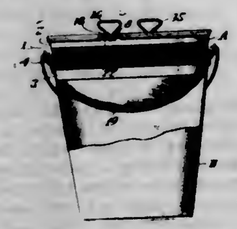
2. A mangle gear and a pinion gear for operating the same, a supporting stud or shaft upon which the mangle gear is mounted to turn, said stud or shaft forming the axis of the mangle gear, means for mounting the mangle gear upon said stud or shaft whereby the teeth of the mangle gear may occupy a position either substantially concentric with said shaft and axis of the mangle gear, or different adjusted positions of eccentricity with relation thereto along a line passing through the center of the stud and a point substantially midway between the outer teeth of said gear, and means for fixing the mangle gear in any of its adjusted positions.

1,239,387. **CURTAIN-POLE SUPPORT AND SHADE-BRACKET.** MARCUS J. GOSS, Bay City, Wis. Filed Sept. 1, 1916. Serial No. 118,068. (Cl. 156—23.)

A device of the class described comprising a pair of jaws said jaws having curved substantially concavo convex bodies the convex faces provided centrally of their ends with openings, said inner concave faces provided with vertical grooves defining gripping arms, said arms adapted to be clamped against the sides of the window frames for positioning the jaws in position and the grooves receiving the weight cord therein thus permitting the windows to be raised and lowered when the device is in position, curtain supporting and shade holding arms formed integrally with the bodies intermediate the ends and arranged at right angles thereto, and a telescoping rod for detachably holding the jaws to the sides of the window frame.



1,239,388. **STRAINER.** THEODOSIA HAMNER, Los Angeles, Cal. Filed May 20, 1916. Serial No. 98,898. (Cl. 210—16.)



1. A strainer comprising a coil, a band to which one of the windings or rings of the coil is attached, and a sack having a channel through which the other winding or ring of the coil is passed.

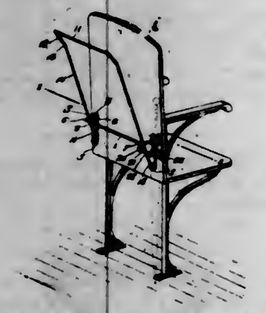
5. A strainer comprising a band having a bead providing a circumferentially extending channel exteriorly of the band at one end thereof, said bead having openings therein at diametrically opposite points, a coil having one of its windings or rings passed through said channel, loops formed from the said winding or ring extending above the band through the openings in the bead, a sack having a circumferentially extending channel at its mouth through which the other winding or ring of the coil is passed, a convoluted portion on the last mentioned winding or ring of the coil extending exteriorly of the channel at the mouth of the sack, and an eye on one of said loops through which the convoluted portion of the winding or ring is passed.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,239,389. **RACK FOR THEATER-SEATS.** OSCAR P. W. HANSON, Spokane, Wash. Filed Mar. 27, 1917. Serial No. 157,715. (Cl. 155—26.)

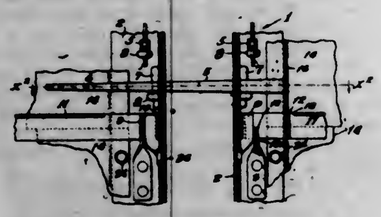
1. In a rack for theater seats and the like, the combination with a support comprising a cross-bar, arms extending from its ends to the back of the seat and converging slightly toward each other in that direction, there formed into loops for attachment to said seat-back, legs continuing said loops and depending along the seat-back to points below the cross-bar, and eyes at the lower ends of the legs standing in planes at right angles to said seat-back; of a swinging member comprising a cross-bar at its upper end, parallel arms depending therefrom and separated a distance corresponding with the space between the outer ends of said arms, and eyes at the lower ends of the upright arms standing in a plane parallel with the seat-back, and interengaged with the first-named eyes, substantially as described.

2. In a rack for theater seats and the like, the combination with a fixed support comprising a horizontal cross-bar of wire bent at its ends into arms extending from the cross-bar toward the seat-back and converging slightly toward each other, each arm being bent outward gently at that end remote from the cross-bar and formed into an eye, a screw passing through such eye into the chair-back, and other eyes outstanding from the chair-back below those first-named; of a swinging member of spring wire comprising a cross-bar, upright side arms depending from its extremities and spaced from each other a distance to normally engage the angles between said first-named cross-bar and its arms but to spring over the bends of the latter, and eyes at the ends of the side arms of the swinging member interengaging the outstanding eyes on the chair-back.



3. In a rack for theater seats and the like, the combination with a swinging member of inverted U-shape having eyes at the lower ends of its arms; of a supporting member of spring wire comprising a cross-bar bent at angles into arms, the remote ends of the latter bent into loops for attachment to the chair-back and continued thence downwardly into legs, and the lower ends of the legs formed into out-standing eyes interengaged with those first-named, for the purpose set forth.

1,239,390. MOLD FOR CASTING CONCRETE STRUCTURES. EDWARD P. HENRY, Long Beach, Cal., assignor of one-half to Gordon H. Clark, Long Beach, Cal. Filed Nov. 18, 1913. Serial No. 801,741. (Cl. 25—131.)



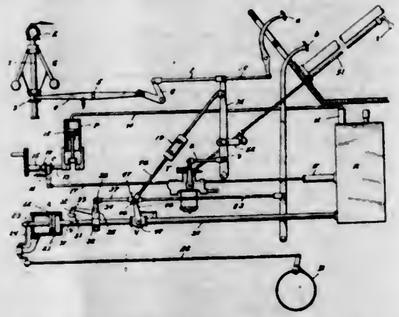
1. A metallic mold for casting concrete structures, which mold comprises standards, each standard being composed of two separate members, there being oppositely disposed corresponding perforations in the members of each standard; taper tie bars for said standards, each of said tie bars being approximately square in cross section and adapted to pass through said opposite perforations for connecting the members of each standard with each other, there being oblong slots disposed in the same direction and spaced apart throughout the length of each tie bar; a loop below and adjacent to each of said perforations on such a surface of each member as is in an external relation to the completed mold; plates connected from member to member of adjacent standards; and wedges, each of which is adapted to engage one of said slots, one of said loops and one of said external surfaces for holding the respective members of each standard in a fixed relation to each other.

2. A metallic mold for casting concrete structures, which mold comprises, standards each composed of a single T-iron and two angle irons, means to lock said T-irons and angle irons against relative movement, plates, and bars detachably fastening said plates to the T-irons and angle irons respectively of adjacent standards.

3. A metallic mold for casting concrete structures, which mold comprises; a frame composed of corner standards, intermediate standards and bars detachably connected to the standards; said corner standards each consisting of two angle irons and said intermediate standards each consisting of two T-irons; means to lock the angle irons and T-irons of the corner and intermediate standards respectively against relative movement; and plates fastened to the frame by said detachable bars.

4. A metallic mold for casting concrete structures, which mold comprises; a frame composed of corner standards, partition intersection standards, other intermediate standards and bars detachably connected to the standards; said corner standards each consisting of two angle irons, said partition intersection standards each consisting of a T-iron and two angle irons, and said intermediate standards each consisting of two T-irons; means to lock the angle irons and T-irons of the standards respectively against relative movement; and plates fastened to the frame by said detachable bars.

1,239,391. SPEED-REGULATOR FOR AUTOMOBILES. IRWIN E. HENRY, New Ringgold, Pa. Filed Feb. 21, 1917. Serial No. 150,121. (Cl. 188—1.)



1. In a speed regulator for automobiles, the combination with a main lever, connections between it and the throttle, a centrifugal governor, and connections between it and said lever; of the brakes, air-brake mechanism for controlling them including a cylinder and piston, an air line leading to the cylinder from a source of compressed air supply, escape and control air valves in said air line and connected to operate oppositely in unison, and connections between said valves and the main lever, for the purpose set forth.

2. In a speed regulator for automobiles, the combination with a main lever, a centrifugal governor connected to the lever for moving it under excessive speed of the engine, and means whereby movement of said lever reduces the engine's speed; of brakes, air-brake mechanism for controlling them including a cylinder and piston, an air line leading to the cylinder from a source of compressed air supply, escape and control air valves in said air line and connected to operate oppositely in unison, and connections between said valves and the main lever, for the purpose set forth.

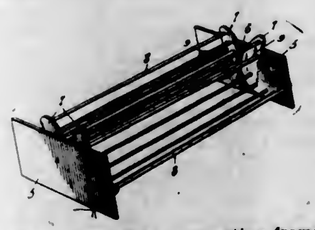
3. In a speed regulator for automobiles, the combination with a source of compressed air supply, a cylinder, a piston therein connected with the mechanism which it is desired to control, and an air line between said source and cylinder and having a hole adjacent the latter; of means for closing said hole, a control valve within said air line between said hole and the source of air supply, connections between the valve stem and the means for closing the hole whereby the latter is closed when the valve is opened, and vice versa, and means for moving said connections, for the purpose set forth.

4. In a speed regulator for automobiles, the combination with a source of compressed air supply, a cylinder, a piston therein connected with the mechanism which it is desired to control, and an air line between said source and cylinder and having a hole adjacent the latter; of a pad overlying said hole, a bell crank lever pivoted at its angle and having one arm connected with said pad, a control valve in the air line between said hole and the source of air supply, a crank on the shaft of said valve, a link connecting said crank with the other arm of said bell crank lever, and means for moving said links to close the pad and open the valve, and vice versa, for the purpose set forth.

5. In a speed regulator for automobiles, the combination with a source of compressed air supply, a cylinder, a piston therein connected with the mechanism which it is desired to control, and an air line between said source and cylinder and having a hole adjacent the latter; of a pad overlying said hole, a bell crank lever pivoted at its angle and having one arm connected with said pad, a control valve in the air line between said hole and the source of air supply, a crank on the shaft of said valve, a link connecting said crank with the other arm of said bell crank lever, a second link having a slotted extremity movably mounted on the pivot between the first link and the crank, means for moving the second link when the automobile attains excessive speed, and independent means for moving said pivotal point at the will of the driver.

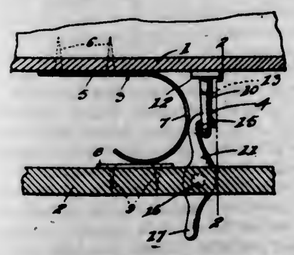
[Claim 6 not printed in the Gazette.]

1,239,392. SOAP-HOLDER. JOHN L. HESSONG, Kapowsin, Wash. Filed Aug. 29, 1916. Serial No. 117,520. (Cl. 45—28.)



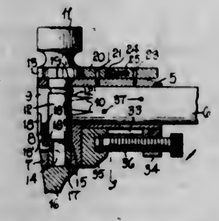
A soap holder comprising a supporting frame, and substantially segmental shaped gripping frames eccentrically pivoted in spaced relation to each other in the supporting frame and having spaced longitudinal rods arranged at intervals thereof adjacent to the outer peripheries of the segmental shaped frames.

1,239,393. BLIND-BUFFER. ANDREW T. HOTCHKISS, New Haven, Conn. Filed Feb. 15, 1915. Serial No. 8,309. (Cl. 16—129.)



The combination with a keeper member projecting horizontally from a wall and provided with an opening, of a latch member pivoted to and carried by a blind said latch member projecting from the blind and having a terminal hook to engage the opening in the keeper member, of a substantially semi-circular spring secured at one end to the said wall and being of a diameter greater than the length of the keeper member so as to project outwardly beyond the same into the path of the blind, said spring being spaced from the keeper member a distance less than the length of the hook of the latch member and presenting its convex face to and bearing at a point midway between its ends against the hook the spring being compressed and placed under tension by the blind to cushion the latter and to hold the hook in tight engagement with the keeper member.

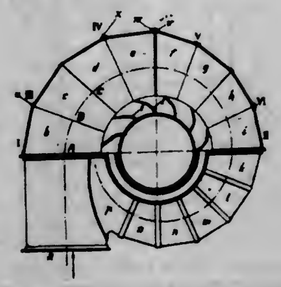
1,239,394. COMBINATION-TOOL. KRICOR HOVHANNESIAN, Middletown, Conn., assignor of one-half to Henry Pilikian. Filed Feb. 19, 1916. Serial No. 79,387. (Cl. 145—71.)



1. A tool head having a handle socket or passage, and a bore at right angles thereto, a rotatable member mounted in the bore and having a reduced many sided shank at one end, means for causing the rotation of said member around its axis with the head upon a rotative movement of the head in one direction but permitting the independent rotation of the head in the other direction, the head being provided with a transversely extending groove disposed at one end of the head and intersecting that end of the bore wherein the reduced end of the shank is disposed.

2. A tool head having a handle, a socket, and a bore at right angles thereto, a rotative member mounted in the bore and having a reduced many sided shank at one end, means for causing the unitary rotation of the head and member around the axis of said member in one direction but permitting the independent rotation of the head in the other direction, a tool having an exteriorly cylindrical boss formed with a many sided socket to receive the many sided shank, and means engaging the boss and detachably holding the tool in engagement with the shank but permitting the rotation of the tool.

1,239,395. SPIRAL CASING FOR WATER-TURBINES. ALBERT HUGUENIN, Zurich, Switzerland, assignor to Aktiengesellschaft der Maschininfabriken Escher, Wyss & Co., Zurich, Switzerland, a Corporation of Switzerland. Filed Apr. 28, 1914. Serial No. 834,980. (Cl. 253—120.)

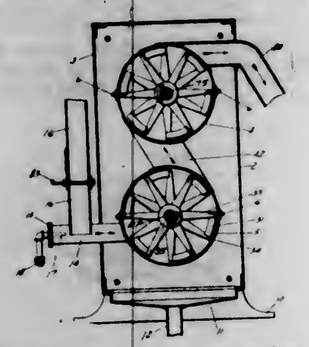


1. In a spiral casing for turbines, the combination with a pair of adjacent casing elements whose axes make an angle with one another and whose ends abut and constitute one part of a casing joint; of a strap overlapping the abut-

ting ends and constituting the other part of said joint, said parts constructed and arranged to form contacting fitted surfaces.

[Claims 2 to 5 not printed in the Gazette.]

1,239,396. ART OF CLEANSING GRAIN. MARTIN W. HUNT, Portland, Oreg. Filed Feb. 7, 1917. Serial No. 147,105. (Cl. 83—28.)



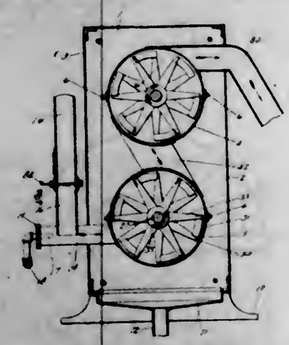
1. The improvement in the art of cleansing grain, which consists in effecting a momentary violent contention of forces between a moving mass of grain and a moving volume of detergent liquid, and then immediately separating the grain and the liquid, substantially as and for the purpose specified.

2. As an improvement in the art of cleansing grain, the feeding of the supply of grain to be cleansed, through the discharge into it of a liquid jet of sufficient force to effect a continuous flow of grain from its source of supply.

3. The improvement in the art of cleansing grain which consists in subjecting a confined mass of grain in continuing movement to the powerful hydraulic action of a continuing flow of liquid and in quickly thereafter separating the grain and the liquid so as to render their contact substantially momentary.

4. The improvement in the art of cleansing grain which consists in subjecting a volume of grain to momentary powerful hydraulic action, and, immediately thereafter to effective dehydration.

1,239,397. MACHINE FOR CLEANSING GRAIN. MARTIN W. HUNT, Portland, Oreg. Filed Feb. 7, 1917. Serial No. 147,106. (Cl. 83—30.)



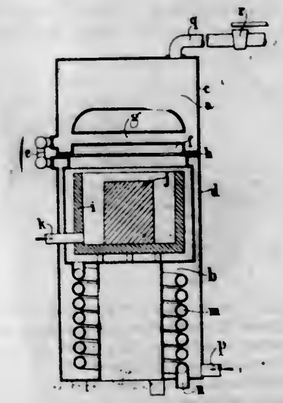
1. In a machine for cleaning grain, the combination with a casing provided with drainage, a foraminous cylinder, and a revoluble frame within the same, of a washing chamber communicating with the interior of the cylinder, means for supplying a flow of grain thereto, and means for supplying a flow of detergent liquid under high pressure to the grain within said chamber.

5. In a machine for cleaning grain, the combination with a casing provided with drainage, a plurality of foraminous cylinders within the same, a revoluble shaft within each cylinder, and means for rotating said shafts in opposite directions, of means for supplying a flow of grain and a flow of detergent liquid brought into operative washing contact within a prime cylinder substantially at its middle portion, means upon the shaft of the prime cylinder for conveying material from the middle portion to the respective ends thereof, successive means of communication between the several cylinders, and means upon the shafts of the secondary cylinders, for conveying the material, supplied thereto from the prime cylinder, alternately from ends to middle and contrariwise throughout the series of cylinders to a point of discharge.

12. As a part of a machine for cleaning grain, a receiver and distributer, comprising a cylindrical core and a continuous medial fin, shoulders defining against the medial fin plowlike points upon opposite sides of the core, apertured fins disposed upon opposite sides of and in parallel relationship to the medial fin, and additional shoulders connecting the apertured fins in consecutive order in such manner as to define with the fins continuous channels proceeding endwise of the core from the medial fin in opposite directions through the apertured fins.

[Claims 2 to 4 and 6 to 11 not printed in the Gazette.]

1,239,398. APPARATUS FOR HEATING WATER AND OTHER LIQUIDS. ALEXANDER CONSTANTINE IONIDES, Jr., London, England. Filed Nov. 9, 1914. Serial No. 871,183. (Cl. 122—23.)

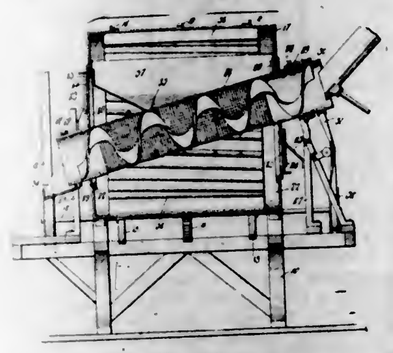


1. In combination in apparatus for heating liquid by combustion of a mixture of gases proportioned to avoid substantial residue of a constitutent of combustion, a liquid jacketed combustion chamber, an inlet for admitting said mixture thereto, means for maintaining in the neighborhood of said inlet the intensely hot zone necessary for continued combustion of said mixture, means for maintaining a zone of lower temperature between said intensely hot zone and the chamber walls and means for leading the combustion products from said lower temperature zone downward by a tortuous path through the liquid passing to the chamber walls so that said products, after cooling to a maximum extent, will escape into the atmosphere at a lower level than said chamber and without throwing a back pressure thereon.

2. Apparatus for heating liquid by high temperature gaseous combustion, comprising in combination a liquid containing jacket inclosing a space, a cylindrical vessel of refractory material placed concentrically within said space, said vessel being open only at the top to communicate with an annular passage between its wall and said jacket, means for admitting to said chamber a low pressure combustible gaseous mixture proportioned so that without the addition of any further air combustion results solely in the generation of products of combustion with

the corresponding very high temperature in said vessel and a long conduit surrounded by the liquid containing jacket extending downwardly from said annular passage and opening into the atmosphere at a point below the combustion chamber to discharge said products when fully cooled with a minimum of pressure throughout the system.

1,239,399. COATING-MACHINE. MURRIT M. JEWETT, Corning, N. Y. Filed Nov. 2, 1916. Serial No. 129,202. (Cl. 91—7.)



1. In a coating machine, a drum adapted to contain a coating material, means for conveying the articles to be coated through said drum, and means on said drum for conveying the coating material from the bottom to the top and to one end thereof and directing the same into the path traversed by said articles.

4. In a coating machine, a drum adapted to contain a coating material, a cylindrical foraminous shell rotatably arranged within said drum, means for directing the coating material upon the top of said shell, and a worm in said shell.

8. In a candy coating machine, a rotatable drum adapted to contain a coating material, plates secured to the inner periphery of said drum and being disposed at an angle to the axis thereof, and a conveyer passing through said drum and adapted to carry the articles to be coated.

10. In a coating machine, a rotatable drum adapted to contain a coating material, plates secured to the inner periphery of said drum and projecting inwardly therefrom, the said plates being inclined from the front toward the rear end of said drum, and a conveyer passing centrally through said drum and inclining downwardly from the rear to the front end thereof.

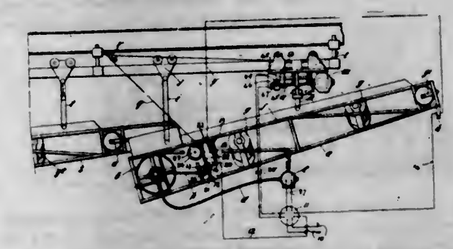
13. In a coating machine, a drum, a rotary conveyer in said drum, the said drum and conveyer being adapted to rotate in opposite directions, means for directing coating material on said conveyer at one end thereof, and means for feeding articles to said conveyer.

[Claims 2, 3, 5 to 7, 9, 11, and 12 not printed in the Gazette.]

1,239,400. CONVEYER FOR COALING SHIPS AND OTHER SUCH PURPOSES. GEORGE JONES, Manor Park, England. Filed Jan. 29, 1917. Serial No. 145,292. (Cl. 193—19.)

1. A conveyer comprising a frame, pulleys mounted on the frame; an endless belt over the pulleys; and electric clutch carried by the frame; an electric motor and connections for driving one of the pulleys and the clutch; a winding drum connected with the clutch; a switch also carried by the frame to supply electric energy to the clutch; a beam; wheeled hangers for supporting the conveyer from the beam; a cable connected to said winding drum, to pull the conveyer along the beam.

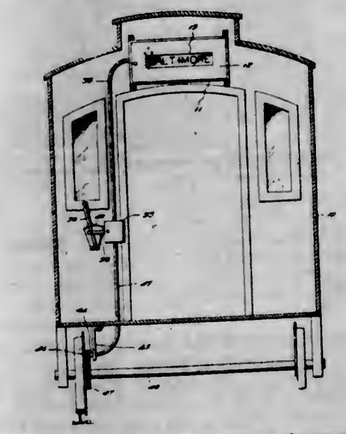
3. A conveyer; a belt carried thereby; an electric motor for driving the belt; in combination with electrical means for rearwardly moving the conveyer, said means comprising an electric clutch and a circuit-closer in circuit therewith and operable by pressure of the material deposited by said conveyer.



7. A self-contained electric conveyer, a hanging support therefor, for moving the conveyer laterally, a winding gear for moving the conveyer in a lengthwise direction, an electric motor for operating said winding gear, and a normally open electric contact in circuit with the second-mentioned electric motor and adapted to be closed by the pressure of material deposited by the conveyer.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,239,401. STATION-INDICATOR. JOHN W. KELLY, Silver City, Miss. Filed July 24, 1916. Serial No. 111,039. (Cl. 74—26.)



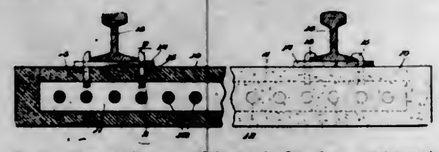
2. In a device of the class described, in combination a casing, a housing below and laterally of said casing, shaft bearings mounted respectively in said casing and housing at right angles to each other, a flexible shaft having a non-flexible terminal journaled in the bearing of said housing and having a non-flexible terminal at right angles to its main length journaled in the bearing of said casing and carrying a gear therein, a driven gear in said casing meshing with the other gear, a horizontal drive shaft having a gear, a bearing at right angles to said drive shaft, said drive shaft being mounted in said bearing, a second flexible shaft having a non-flexible terminal journaled in said housing opposite the other non-flexible terminal therein, said second flexible shaft also having a non-flexible terminal at right angles to its main length journaled in said last named bearing and having a gear meshing with the drive shaft gear, and means in said housing engageable with the opposing non-flexible terminals of both flexible terminal shafts for changing the rotation thereof.

[Claim 1 not printed in the Gazette.]

1,239,402. REINFORCED-CONCRETE RAILWAY-TIE. LEWIS KIDD, Indianapolis, Ind. Filed Apr. 9, 1917. Serial No. 160,809. (Cl. 238—3.)

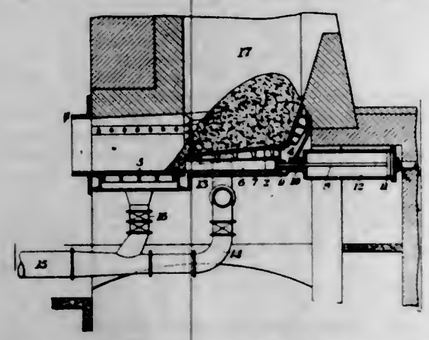
1. A railway tie comprising a body of concrete material, a longitudinally directed core plate embedded in

the tie material and entirely inclosed thereby, and rail engaging members extending transversely from opposite sides of the core plate and thence upwardly above the upper line of the body, said upwardly extended portions adapted to be bent over the flanges of a rail when disposed above the body.



2. A railway tie comprising a body of concrete material, a longitudinally directed core plate embedded in the tie material and entirely inclosed thereby, rail engaging members extending transversely from opposite sides of the core plate and thence upwardly above the upper line of the body, a rail support bearing upon the upper face of the body and perforated to receive the upwardly extended portions of the rail engaging members to hold them in position to be bent over the rail flanges.

1,239,403. REFUSE-FURNACE. EDGAR KIDWELL, Washington, D. C., assignor to Waste Utilities Company of Delaware, New York, N. Y., a Corporation of Delaware. Filed Nov. 6, 1912. Serial No. 729,737. (Cl. 110—8.)



1. A refuse-burning furnace having a main combustion grate with an imperforate bottom arranged to prevent entrance of slag and a foregrate at a lower level and arranged to receive slagged material from the main grate, a vertical rear wall between the main grate and foregrate, and a power-actuated pusher operating through a hole in the vertical rear wall between the main grate and the foregrate and arranged to push the slagged material from the foregrate out of the furnace, substantially as described.

2. A refuse-burning furnace having a main combustion grate with an imperforate bottom arranged to prevent entrance of slag, and a foregrate at a lower level and arranged to receive slagged material from the main grate, means for separately supplying air to each grate and regulating the supply to the main grate, a jacket for the main grate forming the air chamber, and a power-actuated pusher arranged to push the slagged material off the foregrate out of the furnace, said pusher operating through the jacket space of the main grate, substantially as described.

1,239,404. POULTRY-FEEDING DEVICE. GEORGE W. KNOLL, Jr., Philadelphia, Pa. Filed July 11, 1916. Serial No. 108,671. (Cl. 161—10.)

1. In an automatic poultry feeder, a feed receiving receptacle, a door movably disposed within said receptacle, means for imparting a horizontal movement to said door at predetermined periods, a rotatable feed distributing pan cooperating with the feed receptacle and adapted to receive the feed discharged from the latter, a release mechanism having contact with said distributing pan, and means for operating said pan upon the disengagement of the release mechanism from said distributing pan.



2. In an automatic poultry feeder, a feed receiving receptacle, a door movably disposed within said receptacle, means for imparting a horizontal movement to said door at predetermined periods, a rotatable feed distributing pan cooperating with the feed receptacle and adapted to receive the feed discharged from the latter, a release mechanism having contact with said distributing pan, and means for operating said pan upon the disengagement of the release mechanism from said distributing pan, said last mentioned means being controlled by the door operating means.

3. In an automatic poultry feeder, a feed receptacle, a door for controlling the discharge of the feed from said receptacle, means for operating said door at predetermined periods, an automatic rotatable feed distributing pan, a release mechanism carried by the feed receptacle and co-acting with the feed distributing pan for locking the same against movement, and means connected with the release mechanism for causing the release of the same from the feed distributing pan simultaneously with the operation of said door.

4. In an automatic poultry feeder embodying a feed receptacle, a movable door for controlling the discharge of the feed therefrom, door operating means, a rotatable feed distributing pan, means for controlling the movement of said pan, and means connected with the latter mentioned means and having connection with the door operating means for imparting an oscillating movement of the former upon the opening of said door.

5. In an automatic poultry feeder embodying a feed receiving receptacle, a door for controlling the discharge of the feed from said receptacle, operating mechanism for said door, a rotatable feed distributing pan, a member pivotally connected with the feed receptacle and contacting with the feed distributing pan for holding the latter against rotation, and means having connection with said member and with the door operating mechanism, for releasing said member from the distributing pan upon the actuation of the door operating mechanism.

[Claims 6 to 10 not printed in the Gazette.]

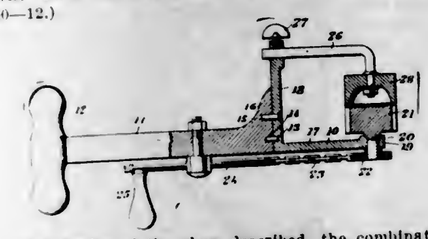
1,239,405. SCAPULAR-RING. ALEXANDER H. KOPETSCHNY, Jersey City, N. J. Filed Feb. 2, 1917. Serial No. 146,090. (Cl. 63—19.)

A scapular ring, comprising an annular band having a thickened and widened top portion provided in its outer face with a depression or recess to the upper edge of which the said widened portion extends, the wall of which is provided at one side with a cut-out portion, a hinge pintle attached to the said wall and extending in the said cut-out portion, the pintle ranging in a direction transverse to the axis of the said band, a thin flat and flangeless cover having on its inner face depending and spaced hinge eyes engaging the said pintle, the said cover being adapted to overlie the said wall to close the said recess, and provided on its inner face with a catch engaging the inner face of the wall of the recess, the edge of the cover being flush with the exterior surface of the



signet top, and a scapular plate having an eye engaging the said pintle between the eyes of the cover, the said scapular plate being normally concealed within the said recess.

1,239,406. DEVICE FOR REMOVING PUTTY FROM WINDOW-PANES. EDWARD H. KRUEGER, Kimberly, Wis. Filed Oct. 14, 1916. Serial No. 125,740. (Cl. 90—12.)



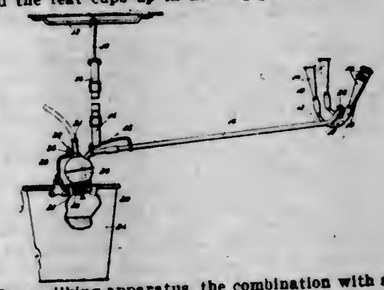
1. In a device of the class described, the combination with an L-shaped frame, of a shank, an enlarged head at one end of the shank and having the frame rigidly secured thereto, a handle at the other end of the shank, a shaft journaled on one of the arms of the frame, a cutter carried by the shaft, a toothed wheel carried by the same shaft, a second toothed wheel revolubly mounted on the said shank and provided with a handle, a chain connecting the said toothed wheels to impart rotation to the cutter when the second toothed wheel is rotated, a bar adjustably mounted on the other arm of the frame, and a roller journaled on the said bar and adjustable therewith.

2. In a device of the class described, the combination with an L-shaped frame, of a shank having the frame secured thereto, a handle carried by the shank, a bar slidably secured to one of the arms of the frame, a cutter journaled on the other arm of said frame, an operating wheel mounted to rotate on the shank and having connection with said cutter to impart rotation thereto, and a roller mounted on the slidable bar and in juxtaposition to said cutter.

1,239,407. MILKING APPARATUS. PETER LARSEN, Cattaraugus, N. Y. Filed Feb. 7, 1917. Serial No. 147,151. (Cl. 31—98.)

1. In a milking apparatus, the combination with a rigid, metal intake tube, of teat cups mounted near one end of said tube, a suction cup or milk chamber mounted at the other end of said tube and provided with means for holding a pail or milk receptacle, and suspending means connected with said intake tube and affording a fulcrum whereby the weight of such pail or receptacle, with or without the milk therein, will overbalance the teat cup end of the said tube and thus serve to hold the teat cups up in milking position.

3. In a milking apparatus, the combination with a rigid, metal intake tube, of teat cups mounted near one end of said tube, a suction cup or milk chamber mounted at the other end of said tube and provided with means for holding a pail or milk receptacle, and suspending means, comprising a loop attached to said tube and inclined relative thereto, and a strap attached to said loop, affording a variable fulcrum whereby the weight of such pail or receptacle, with or without milk therein, will overbalance the teat cup end of the said tube and thus serve to hold the teat cups up in milking position.



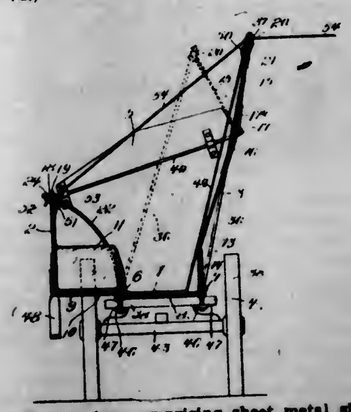
4. In a milking apparatus, the combination with a rigid, metal intake tube, of teat cups mounted near one end of said tube, a suction cup or milk chamber mounted at the other end of said tube and provided with means for holding a pail or milk receptacle, suspending means, comprising a loop attached to said tube and a strap attached to said loop, affording a variable fulcrum whereby the weight of such pail or receptacle, with or without milk therein, will overbalance the teat cup end of the said tube and thus serve to hold the teat cups up in milking position, a hook to which the upper end of said strap is connected, and a bar engaged by said hook and on which the latter may slide.

5. In a milking apparatus, the combination with a rigid, metal intake tube, of teat cups mounted near one end of said tube, a suction cup or milk chamber mounted at the other end of said tube and provided with means for holding a pail or milk receptacle, and suspending means connected with said intake tube and affording a fulcrum whereby the weight of such pail or receptacle, with or without the milk therein, will overbalance the teat cup end of the said tube and thus serve to hold the teat cups up in milking position, said tube having a bent end portion on which said teat cups are mounted.

6. A suction cup or milk chamber for milking machines consisting of a glass body portion having screw threaded ends, metal upper and lower end heads also having screw threaded portions to fit the threaded parts of said body, the upper of said heads having intake and suction tubes or parts, and the lower of said heads being equipped with a self-closing valve.

[Claim 2 not printed in the Gazette.]

1,239,408. HEADER-BOX. JOHN A. LAWSON, Hardin, Mo. Filed Aug. 8, 1916. Serial No. 113,807. (Cl. 21—74.)



1. A header box comprising sheet metal side walls, a sheet metal bottom, a pair of longitudinally arranged bars and doubled sheet metal straps on the bottom and side walls, said straps bracing the bottom and side walls and also engaging the bars and attaching the bottom side walls to the bars, one of the side walls being provided with an in-turned portion forming a lateral extension of

the bottom, and brace rods passing through said lateral extension and attached at their lower ends to one of the bars and at their upper ends to the upper end of said side wall.

2. A header box comprising a bottom, side walls, an extension at the upper side of and pivotally connected to one of said side walls, a pair of longitudinal bars to which the bottom and side walls are connected, and brace rods connected to the extension and adapted to be attached to either of said bars to secure the extension in either adjusted position.

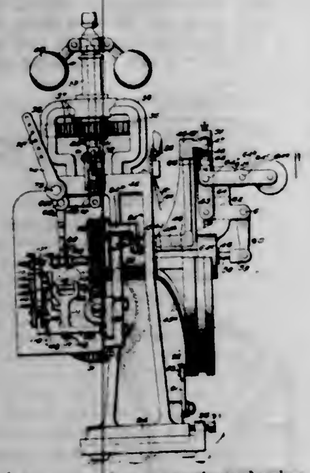
3. A header box comprising a bottom, side walls, an extension at the upper side of and pivotally connected to one of said side walls, a pair of longitudinal bars to which the bottom and side walls are connected, and brace rods connected to the extension and adapted to be attached to either of said bars to secure the extension in either adjusted position, said side wall and extension having a movable pivotal member adapted to be engaged with and disengaged from one of said brace rods.

4. A header box having side walls of unequal height, an apron attached to the upper side of the higher side wall, and a step attached to and depending from the lower side wall.

5. A header box comprising a bottom, side walls of unequal height, a pair of longitudinal bars to which the bottom and side walls are connected, a bar in the upper side of the lower side wall, an extension at the upper side of the higher side wall and pivotally connected thereto, a bar at the upper side of the extension, brace rods connected to the last-named bar and adapted to be attached to either of the first-named bars, front and rear end walls, brace rods for said front and rear end walls, each connected to said pivotal member and also connected to the said bar at the upper side of the lower side wall.

[Claim 6 not printed in the Gazette.]

1,239,409. ALARM FOR HOISTING-ENGINES. WILLIAM J. LILLY, Butte, Mont. Original application filed Apr. 2, 1914, Serial No. 829,019. Divided and this application filed Aug. 5, 1915. Serial No. 43,799. (Cl. 74—46.)



1. In a hoisting engine, control mechanism actuated by the engine, governor controlled mechanism for modifying the action of the engine actuated control mechanism, and an alarm mechanism adapted to be operated by both the engine and the governor controlled mechanisms.

2. In a hoisting engine, engine operated control mechanism, governor controlled mechanism, means for connecting the governor controlled mechanism with the engine operated control mechanism under excessive speed conditions, and an alarm mechanism adapted to be operated by either one or both the engine or governor controlled mechanisms.

3. In a hoisting engine, an engine operated control mechanism embodying a movable member and a plurality of differently positioned stops carried by said movable member, governor controlled mechanism including an element movable thereby into the path of some one of the aforesaid stops, and an alarm mechanism adapted to be operated by either one or both the engine or the governor controlled mechanisms.

4. In a hoisting engine, an engine operated control embodying a movable member and an element mounted upon said member and movable therewith and embodying a plurality of stops differently positioned both laterally and longitudinally, a governor controlled mechanism including an element movable thereby into the path of some one of the said stops, and an alarm mechanism adapted to be operated by either one or both the engine or governor controlled mechanisms.

5. In a hoisting engine, an engine operated control embodying a rotary member, a block adjustably mounted upon said member and stepped to provide a plurality of stops, a governor controlled mechanism including an element to be projected into the path of some one of the said stops, and an alarm mechanism adapted to be operated by either one or both the engine or governor controlled mechanisms.

1,239,410. CABLE CONSTRUCTION. ERNEST B. LIVY, Richmond, Va., assignor to Wortendyke Manufacturing Co., Richmond, Va., a Corporation of Virginia. Filed Nov. 17, 1916. Serial No. 131,927. (Cl. 173—264.)



5. A filler for sheathed conductors consisting of cords of paper strips each cord having a fibrous reinforcing thread.

[Claims 1 to 4 not printed in the Gazette.]

1,239,411. SHOE CONSTRUCTION. CHARLES E. LYNCH, Brooklyn, N. Y. Filed Nov. 27, 1916. Serial No. 133,706. (Cl. 36—71.)



1. A shoe of the class described, comprising a sole, an insole having one marginal edge higher than the other marginal edge, an upper and a lining secured to said sole, said higher marginal edge of the insole leaning against said lining and a reinforcing webbing secured to said sole.

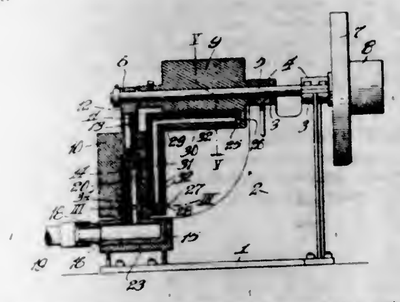
8. A shoe of the class described, comprising a sole, a raised insole over the inner portions of the shank thereof, padding between the shank of the sole and the raised insole, a composite unitary structure involving an upper, a lining and an interposed reinforcing webbing secured to said sole beneath the raised insole, and a fastening device extending clear through the upper edge of said structure.

[Claims 2 to 7 not printed in the Gazette.]

1,239,412. ROTARY MOTOR. ELMER E. MCCULLEY, St. Louis, Mo. Filed Dec. 18, 1914. Serial No. 877,879. (Cl. 121—62.)

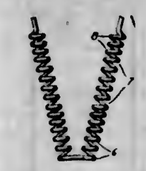
1. In a motor, a pair of revolubly mounted members, a cylinder formed in each of said members, each of said cylinders being arranged at right angles to each other, a shaft for one of said members, a hollow post for the other said member, said shaft having one end bearing on said post, and a piston having right angled portions, each of said portions of said piston being reciprocally mounted in each of said cylinders.

2. In a motor, a pair of revolubly mounted members, a plurality of cylinders formed in each of said members, said cylinders of one of said members being arranged at right angles to the cylinders of said other members, a plurality of pistons having cylinder engaging portions adapted to engage each alining pair of said cylinders, a port for each cylinder formed in one of said members, a hollow post for one of said members, said ports adapted to communicate with said post, a shaft for said other meinber, and a bearing mounted on said post for the support of one end of said shaft.



3. In a motor, a pair of revolubly mounted members, a series of cylinders formed in each of said members, said cylinders being open at one end, said cylinders of each of said members having their open ends adjacent each other, said cylinders of one of said members being positioned so as to aline with the cylinders of said other member, a hollow piston reciprocally mounted in each alined pair of said cylinders, each of said hollow pistons providing means of communication from the closed end of one of said cylinders to the closed end of the other said cylinder of each of said pairs of cylinders, a hollow post extending into one of said members, a shaft for said other member, said shaft being supported by said post, ports formed in said member of said post, said ports leading to said cylinders of said post member from said post.

1,239,413. INCANDESCENT LAMP. GEORGE M. J. MACKAY, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Dec. 20, 1913, Serial No. 807,817. Renewed Mar. 25, 1916. Serial No. 86,799. (Cl. 176—16.)



1. An incandescent lamp comprising an envelop and a coiled filament therein suspended at the terminals only and having turns subject to overheating spaced more widely apart than the remaining turns.

2. An incandescent lamp containing a freely suspended helical filament having a plurality of adjacent turns subject to deformation by natural forces during operation and spaced apart more widely than other adjacent turns, whereby substantially uniform incandescence during the life of the lamp is secured.

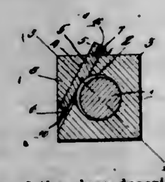
3. An incandescent lamp comprising an envelop and a helically coiled loop-shaped filament supported therein, the turns of which tending to overheat during operation are spaced a greater distance apart than adjacent turns, to secure incandescence of the filament helix at a substantially uniform temperature during the life of the lamp.

4. An incandescent lamp comprising the combination of an envelop, a filling of gas therein, a coiled tungsten filament therein having turns most subject to distorting forces spaced apart a greater distance than other turns.

5. An incandescent lamp comprising the combination of an envelop, a filling of inert gas therein and a helical refractory metal filament which is pliable at operating temperature of the lamp said filament having a few of the lowermost turns and a plurality of the upper turns spaced apart a greater distance than other turns.

[Claims 6 and 7 not printed in the Gazette.]

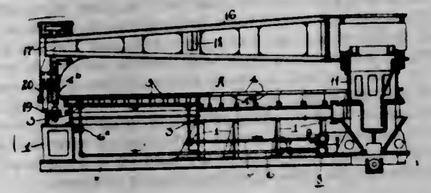
1,239,414. NUT-LOCK. JOHN J. MACKAY, Lake Charles, La. Filed Dec. 22, 1916. Serial No. 138,422. (Cl. 151—26.)



1. In a device of the class described, the combination of a bolt, a nut carried upon said bolt, a transverse opening provided wholly within the body of said nut, a key adapted to be inserted within said nut, said key provided with slots at each of its ends, said slots adapted to extend parallel with the under face of said nut so as to allow said key to be inserted within said slot in such a manner that the threads will easily cut into said key.

2. In a device of the class described, the combination of a bolt, a nut carried upon said bolt, a transverse opening provided wholly within the body of said nut, a key adapted to be inserted within said nut, said key provided with slots at each of its ends, said slots adapted to extend parallel with the under face of said nut, one end of said key being beveled so as to fit flush with the corresponding side of said nut, said end provided with a channel extending within said slot whereby a pointed instrument may be driven in said channel so as to spread said slot, thereby efficiently locking said key within said nut so as to prevent the accidental displacement of the same.

1,239,415. DRYING-TABLE. WILLIAM R. MACKLIND, Cleveland, Ohio. Original application filed Aug. 10, 1912, Serial No. 714,323. Divided and this application filed Aug. 4, 1915. Serial No. 43,593. (Cl. 257—116.)



1. In drying mechanism, an annular drying table comprising a series of contiguous hollow sections; and independent connections for supplying a heating medium to said sections respectively; and means for controlling the flow of such heating medium to each of said sections.

2. In drying mechanism, an annular drying table comprising a series of contiguous hollow sections; independent connections for supplying a heating medium to said sections, respectively; means for controlling the flow of such heating medium through said connections; and other independent connections for removing the water of condensation from said sections, respectively.

4. In drying mechanism, an annular drying table comprising a series of contiguous hollow sectors, the bottom walls of said sectors inclining toward the central axis of the table; connections for supplying steam to said sectors; and other connections, leading from the inner ends of said sectors, for removing water of condensation therefrom.

6. In drying mechanism, an annular drying table comprising a series of contiguous hollow sectors, the bottom walls of said sectors inclining toward the central axis of the table; two headers located at the central axis of said table; and pairs of radial connections extending from said headers to the several sectors, the ones for supplying steam thereto and the others, connected to the inner ends of the sectors, for removing water of condensation.

7. In drying mechanism, an annular drying table comprising a series of contiguous hollow sectors, the bottom walls of said sectors inclining toward the central axis of said table; two headers located at the central axis of said table; pairs of radial connections extending from said headers to the several sectors, one connection of each pair being adapted to supply steam to a sector and the other being connected to the inner end of the sector, for removing water of condensation; and a valve mounted in each of said steam supplying connections for controlling the heating effect of each said sector independently.

[Claims 3 and 5 not printed in the Gazette.]

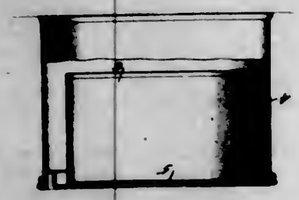
1,239,416. CLEANING AND POLISHING COMPOSITION. RICHARD L. MAINWARING, Brooklyn, N. Y. Filed Apr. 16, 1917. Serial No. 162,411. (Cl. 134—24.)

1. A cleaning and polishing composition, consisting of beeswax, benzin, alcohol and ammonia.

4. A cleaning and polishing composition, consisting of the proportions of 14 ounces by weight of white beeswax, to 1 gallon of benzin, to 3 fluid ounces of wood alcohol, to 2 fluid ounces of concentrated ammonia, to 3 fluid ounces of oil of mirbane, substantially as described.

[Claims 2 and 3 printed in the Gazette.]

1,239,417. CONTAINER. JOHN MARSH, Chicago, Ill. Filed Oct. 24, 1916. Serial No. 127,362. (Cl. 220—92.)



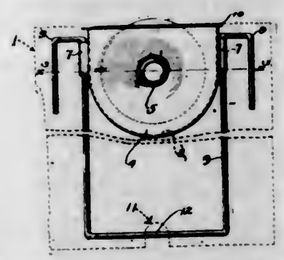
As a new article of manufacture, a paint can provided with a flat cover free from projections on its outer face and provided on its inner face adjacent the periphery with an annular inwardly bent portion serving to secure it on the can, and a short distance from the inwardly bent portion with a tubular member open at its inner end and spaced from the sides of the can, said tubular member being of considerable length and forming with the cover when removed a receptacle for holding a portion of the contents of the can and a drip receiver therefor.

1,239,418. SASH-WEIGHT. CHARLES L. MARTIN, Los Angeles, Cal., assignor of one-half to Charles N. Howard, Los Angeles, Cal. Filed Feb. 28, 1917. Serial No. 151,468. (Cl. 16—20.)

1. A sash weight comprising a concrete block having a recess in one end, a reinforcement rod embedded in said block, and a sheave in the recess anchored to said reinforcement rod.

2. A sash weight comprising a concrete block having a recess in one end, a sheave case in said recess, a sheave rotatively mounted in said sheave case, said sheave case being curved to conform peripherally with the sheave, and a reinforcement rod embedded in the block and connected with said sheave case.

3. A sash weight comprising a sheave case having a hollow shaft, a sheave journaled on said shaft, and a block embracing the sides of said sheave case and forming a core inside of said hollow shaft to anchor the sheave case.



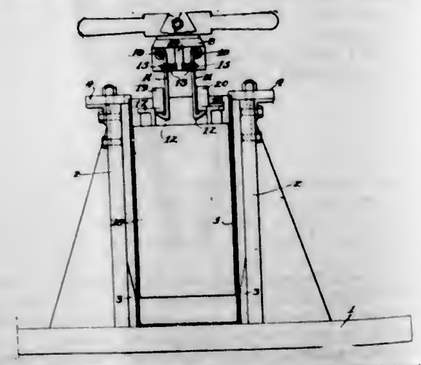
4. A sash weight comprising a block having a recess in one end, a sheave case in the recess having eyes, a sheave rotatively mounted in said sheave case, and a reinforcement rod embedded in the block and forming hooks engaging said eyes.

1,239,419. CORN-RAZOR. RICHARD MARX, Philadelphia, Pa., assignor to Defiance Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 5, 1914. Serial No. 875,607. (Cl. 30—12.)



The combination in a razor of a convex body portion and a handle portion extended at an angle from one side of the body portion; there being an opening in the handle portion adjacent its junction with the body portion; a blade mounted on the under side of the body portion with its cutting edge adjacent one side of the opening and guarded by the part of said body defining said side; with a cover plate confining the blade in place and including clips frictionally engaging the convex body portion.

1,239,420. BATTERY-ELEMENT PULLER. MARTIN MELIA, Philadelphia, Pa., assignor to Commercial Truck Company of America, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Nov. 14, 1913. Serial No. 801,052. (Cl. 29—84.)

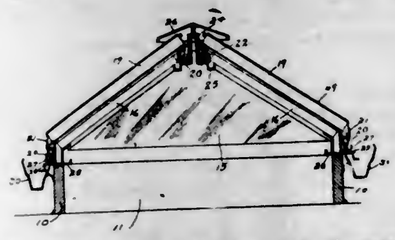


1. The combination in a battery element pulling device of a frame providing two substantially parallel standards; a U-shaped member mounted on one of said standards and having hooked ends adapted to engage the edges of the open end of a battery jar for holding the same against longitudinal movement; and a device mounted on the other standard having transversely extending parts formed to engage the terminal portions of the battery elements in the jar for withdrawing the same while said jar is held by said U-shaped member.

2. The combination in a battery element pulling device of means formed to engage the edges of a battery jar to hold it from longitudinal movement; and means including two members insulated from each other and formed to respectively engage the terminal portions of the two sets of elements for withdrawing the same from the jar while it is so held.

[Claims 3 to 12 not printed in the Gazette.]

1,239,421. SKYLIGHT. THEODORE M. METZGER, Los Angeles, Cal. Filed Feb. 1, 1917. Serial No. 145,957. (Cl. 108—31.)

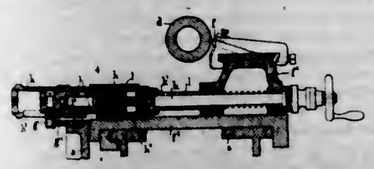


1. In a gable roof, a ridge cap, a pair of oppositely disposed rigid roof sections below the ridge cap and leaving openings, tracks at the upper sides of the rigid sections, tracks at the lower sides of the rigid sections, said tracks extending past the openings, and movable roof sections mounted upon rollers upon the tracks and adapted to normally close the openings and to move over and register with the rigid sections.

4. In a gable roof, a ridge cap, pairs of oppositely disposed rigid roof sections below the ridge cap and leaving openings at the transverse center, tracks at the upper sides of the rigid sections, tracks at the lower sides of the rigid sections, said tracks extending from end to end past said openings, a pair of movable roof sections upon each side of the ridge cap and mounted upon rollers upon the tracks and adapted to meet and normally close the openings and to move apart over and register with the rigid sections, a board mounted below the transverse center of the roof and having an opening, a weight adapted to be loosely mounted upon the board and to fall through said opening, cords connecting the weight to said movable roof sections; so that when the weight falls through the opening the movable roof sections will move to closed positions, a pan pivotally mounted in an exposed position, cords connected to the pan and to the movable roof sections; so that when the roof sections are open the pan will be held elevated; and a push-rod between the pan and the weight; so that precipitation in the pan will start to close the movable roof sections and reciprocate the push-rod to upset the weight.

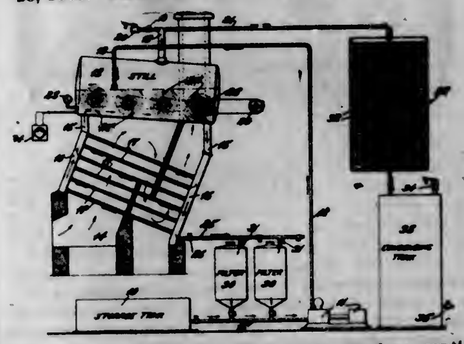
[Claims 2 and 3 not printed in the Gazette.]

1,239,422. TEMPLET-LATHE. HENRI MICHEL-LÉVY, Paris, France, assignor to Societé Anonyme des Etablissement Lejeune & H. Michel-Levy, Paris, France, a Corporation of France. Filed Aug. 9, 1916. Serial No. 113,930. (Cl. 82—14.)



In a templet lathe, a longitudinally displaceable tool slide, a tool rest transversely slidable thereon, a fixed templet, a guide bearing against the same, a piston carrying said guide, a cylinder moving with the tool slide and in which said piston freely moves transversely of the slide, a tapped block rigid with said piston and a tie rod threaded at one end to engage said block and having at its other end an abutment engaging the tool rest, substantially as and for the purpose set forth.

1,239,423. MANUFACTURE OF GASOLENE. ARTHUR D. SMITH, Vinita, Okla., assignor, by mesne assignments, to John T. Milliken, St. Louis, Mo. Filed Apr. 28, 1915. Serial No. 24,415. (Cl. 196—25.)



1. The process of producing crude gasolene continuously which consists in distilling in a closed system of circulating channels the liquid portions of the paraffin series having a boiling point of 500° F. or above and known familiarly as gas oil or fuel oil at a pressure from about 125 to 150 pounds and at a temperature ranging from about 600° to 700° F. while maintaining rapid circulation throughout the system, and removing suspended carbon in the charge by intermittent filtration of portions of the charge, whereby filtered oil together with fresh oil may be added to the charge without clogging the system.

2. The process of producing crude gasolene continuously by destructive distillation in a still or closed system subjected to heat throughout which comprises effecting rapid circulation of the contents of the system in a cyclic path by a mechanical agitating device to prevent deposit of carbon therein, and collecting carbon in suspension in said contents and removing said carbon from the still.

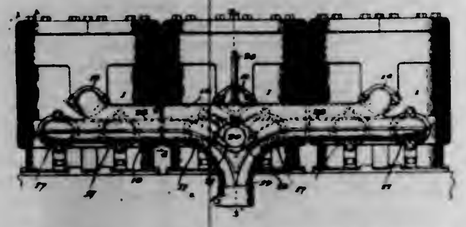
3. The process of producing gasolene continuously by destructive distillation in a closed apparatus forming a cyclic system and having heating surfaces inclined underneath, which comprises preventing the deposition of carbon on said surfaces by mechanically circulating the charge over said surfaces toward their lower ends, providing portions of the apparatus where the carbon particles can collect, periodically removing said carbon particles by intermittent filtration, and returning the filtrate to the system for further treatment.

4. The process of producing crude gasolene continuously by cracking in a closed system of tubes and receptacles arranged for positive circulation of the charge therein, which comprises condensing the lighter hydrocarbons as given off, and preventing clogging of the still by removing from time to time portions of the charge from the lowest point of action, filtering said portions in a suitable filter, and returning the carbon free filtrate to the system together with as much additional fresh distillate as may be necessary to take the place of the distillate converted into lighter hydrocarbons.

1,239,424. MANIFOLD FOR MOTOR-CARS. MARTIN L. WILLIAMS, South Bend, Ind., assignor to J. W. Cleveland, Chicago, Ill. Filed May 31, 1913. Serial No. 770,915. (Cl. 137—75.)

1. A manifold for multi-cylinder gas-engines comprising an exhaust pipe common to all the cylinders, an inlet pipe common to all the cylinders cast integral with and lying wholly without said exhaust pipe, the junction between the two pipes forming a dividing partition between the two pipes substantially equal in length to the

length of the inlet pipe, said inlet pipe being provided with a centrally disposed common inlet, and a baffle plate within said inlet pipe whereby the flow of inlet gas between the commno inlet and the central pair of cylinders is impeded.



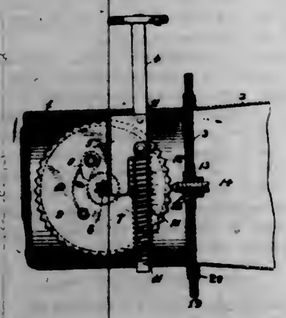
2. A manifold for gas engines comprising a main body portion having a circumferentially extending outer wall and a partition wall extending longitudinally through said body portion and dividing the latter into two chambers, forming inlet and exhaust conduits respectively.

3. A manifold for multi-cylinder gas engines, comprising a casting generally annular in cross section and having a continuous circumferentially extending outer inclosing wall and a dividing partition extending circumferentially through said casing formed integral therewith and dividing the latter into two separate chambers divided only by said partition wall and forming inlet and exhaust conduits.

4. A manifold for multi-cylinder gas engines, comprising a casting generally annular in cross section and having a continuous circumferentially extending outer inclosing wall and a dividing partition extending circumferentially through said casing formed integral therewith and dividing the latter into two separate chambers divided only by said partition wall and forming inlet and exhaust conduits, said partition wall being substantially equal in length to the length of the inlet chamber.

5. A manifold for multi-cylinder gas engines, comprising an exhaust pipe common to all cylinders, an inlet pipe common to all cylinders, and a partition wall dividing said pipes, said parts being all cast integral and the inlet and exhaust pipes, each lying in planes parallel with but spaced away from each other except at the juncture formed by said partition wall.

1,239,425. MECHANICAL HORN. EMANUEL AUFIERO, Brooklyn, N. Y. Filed July 23, 1914. Serial No. 852,700. (Cl. 116—1.)

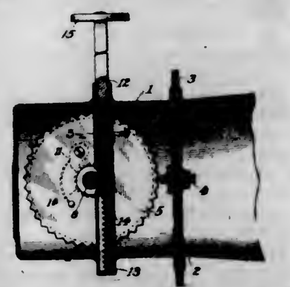


1. In a mechanical horn, the combination of a vibratory diaphragm, a casing having one end closed by said diaphragm, a shaft supported in said casing with its axis parallel to the plane of said diaphragm, a pinion on said shaft, a heavily weighted serrated disk having operative connection with said diaphragm mounted upon said shaft and rotatable independently of said pinion, a one-way clutch connection for transmitting motion from said pinion to said disk and a rack mounted for reciprocation in the wall of said casing and having operating engagement with said pinion.

3. In a mechanical horn, the combination of a vibratory diaphragm, a cylindrical casing, having one end closed by said diaphragm, a shaft supported in said casing with its axis parallel to the plane of said diaphragm, a pinion on said shaft, a disk provided with peripheral serrations freely mounted on said shaft, an annular weight of an outside diameter substantially equal to the solid portion of said disk attached to said disk, a wear piece mounted in said diaphragm and engaging said serrations, a pawl and ratchet connection between said disk and shaft and a manually operatable rack mounted for reciprocation in said casing and engaging said pinion.

[Claims 2 and 4 not printed in the Gazette.]

1,239,426. MECHANICAL HORN. EMANUEL AUFIERO, Brooklyn, N. Y. Filed Oct. 12, 1915. Serial No. 55,385. (Cl. 116—1.)



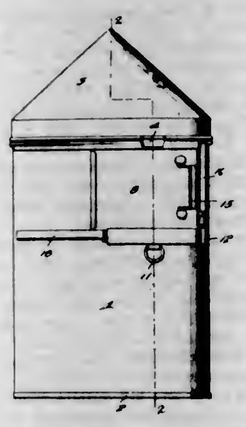
1. In a mechanical horn the combination of a vibratory diaphragm, a casing having one end closed by said diaphragm, a heavy serrated disk supported within said casing for rotation about an axis parallel with the plane of said diaphragm, a pinion supported within the casing adjacent said disk for rotation about the same axis, a guide sleeve extending across the casing and projecting beyond its wall, a toothed rack mounted for reciprocation in said guide sleeve, said guide sleeve having a portion cut away adjacent the said pinion to permit the engagement of the rack teeth therewith and a one way clutch connection for transmitting motion from said pinion to said disk.

3. In a mechanical horn the combination of a casing, a vibratory diaphragm closing one end of the casing, a shaft extending across said casing, a disk for vibeating said diaphragm, said disk having radial serrations on its periphery to operatively engage said diaphragm, a pinion on said shaft, a tubular guide extending across said casing at right angles to said shaft and projecting beyond the wall of said casing, a toothed rack mounted for reciprocation in said guideway with its teeth in engagement with said pinion, a spring in said guideway and engaging said rack for maintaining it normally projected to a predetermined position beyond said guideway, and a one way clutch between said pinion and said disk for converting the oscillating motion of the pinion into continuous rotary motion of the disk.

5. In a mechanical horn the combination of a sheet metal casing having an outwardly turned flange at one end, a vibratory diaphragm supported by said flange and of larger diameter than the casing, said diaphragm having a contact wear-piece, a disk supported in said casing for rotation about an axis substantially parallel with the plane of the diaphragm, said disk having peripheral serrations adapted to engage said wear-piece to vibrate the diaphragm, a tubular guide supported by the cylindrical wall of said casing and extending across the casing at right angles to the axis of rotation of said disk, a pinion supported in said casing adjacent said disk for rotation about the same axis, said tubular guide having its wall adjacent the teeth of said pinion cut away with the teeth of the pinion projecting into the guide, a toothed rack mounted for reciprocation in the guide with its teeth in engagement with the pinion, said rack having a longitudinal recess back of said teeth, a spring in said recess for maintaining the rack projecting out of the guide with the teeth at its end in engagement with the pinion, the toothed portion of said rack being of such length that the teeth project beyond the cylindrical wall of the casing but not beyond the end of the guide, and a one way clutch for transmitting motion from the pinion to the disk in one direction of its oscillating motion.

[Claims 2 and 4 not printed in the Gazette.]

1,239,427. GARBAGE-RECEPTACLE. WILLIAM O. BUNNELL and QUINCY A. GATES, Wilkes-Barre, Pa. Filed Dec. 8, 1916. Serial No. 135,876. (Cl. 220—115.)



1. In a garbage receptacle, the combination of a body having an opening therein, a sliding door forming a closure for said opening, a housing formed in the said body, a sliding partition forming a bottom for said housing, and means associated with the said door preventing withdrawal of the partition when the door is in open position.

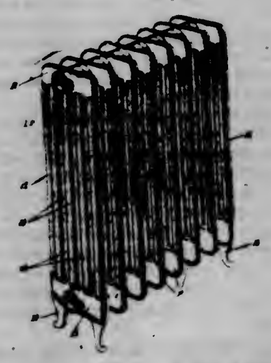
2. In a garbage receptacle, the combination of a body having an opening therein, a housing formed in the said body registering with the said opening, a sliding partition forming a bottom for the said housing, a sliding door forming a closure for the said opening, and a strip formed on the said door adjacent one end thereof to prevent opening of the partition when said door is open.

3. In a garbage receptacle, the combination with a body having an open end, a conical closure for said open end, a housing mounted in the said body adjacent the upper end thereof, the said body having an opening therein registering with the said housing, a sliding partition forming a bottom for the said housing, a sliding door forming a closure means for the last mentioned opening, and means associated with the said partition to open the same when the sliding door is in closed position.

4. In a garbage receptacle, the combination of a body having an opening therein adjacent the upper end of said body, a housing formed within the said body registering with the said opening, a sliding partition forming a bottom for the said housing, a plurality of L-shaped lugs formed on one end of the partition for limiting the movement of the same, on the free end of the said partition a laterally extending flange is provided, and a sliding door forming a closure means for the said opening being adapted to slide on said flange.

1,239,428. RADIATOR. LOUIS COURTOT, Paris, France, assignor to American Radiator Company, Chicago, Ill., a Corporation of New Jersey. Filed Jan. 13, 1914. Serial No. 811,794. (Cl. 257—151.)

1. A cast metal radiator section comprising a manifold, and a plurality of substantially cylindrical tubes in each of which the external diameter is not less than 15 m. m. and does not exceed 30 m. m., and in each of which the ratio of the annular cross-sectional area to the external surface per unit of length does not exceed 2¼, substantially as specified.



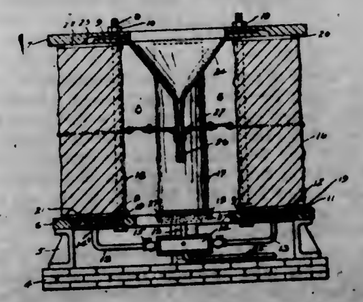
2. A cast metal radiator section comprising a manifold, and a plurality of substantially cylindrical tubes in each of which the external diameter is not less than 15 m. m. and does not exceed 30 m. m., and in each of which the thickness of the metal line is not less than 1.5 m. m. and does not exceed 3 m. m., substantially as specified.

3. A cast metal radiator section comprising a manifold, and a plurality of substantially cylindrical tubes each having an external diameter not less than 15 m. m. and not exceeding 30 m. m., and a metal line not less than 1.5 m. m. and not exceeding 3 m. m. in thickness, and in each of which the ratio of the annular cross-sectional area to the external surface per unit of length does not exceed 2¼, substantially as specified.

4. A cast metal radiator section comprising a manifold and a plurality of substantially cylindrical tubes, in which the ratio of the annular cross-sectional area to the external surface per unit of length is substantially constant for tubes having an external diameter not less than 15 m. m. and not greater than 30 m. m., substantially as specified.

5. A radiator section consisting of a unitary casting and comprising a manifold, and a plurality of substantially cylindrical tubes each having an external diameter not less than 15 m. m. and not exceeding 30 m. m., and a metal line not less than 1.5 m. m. and not exceeding 3 m. m. in thickness, and in each of which the ratio of the annular cross-sectional area to the external surface per unit of length does not exceed 2¼, substantially as specified.

1,239,429. LOG-DYEING MACHINE. HERMANN FINGERLE and KARL KROUPA, New York, N. Y. Filed Feb. 2, 1917. Serial No. 146,289. (Cl. 99—12.)



1. A log dyeing machine comprising, in combination, a base and a top plate adapted to hold therebetween a plurality of logs of various diameters, standing vertically,

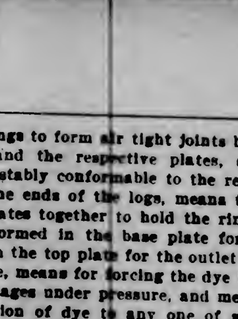
packing rings to form air tight joints between the ends of the logs and the respective plates, said packing rings being adjustably conformable to the respective circumferences of the ends of the logs, means to tighten the base and top plates together to hold the rings in compression, passages formed in the base plate for the admission of dyes and in the top plate for the outlet of the sap and the surplus dye, means for forcing the dye into said first mentioned passages under pressure, and means for preventing the admission of dye to any one of said passages independently from the others.

3. A log impregnating machine having upper and lower members provided with log end seats for respective engagement with the upper and lower ends of a vertically disposed interposed log, one of said members being movable toward and from the plane of the other and both being provided with liquid conveying passages having outlets at said seats, means for adjusting the movable member toward the other member to secure fluid tight joints between said seats and the extremities of an interposed log, and means for introducing fluid under pressure to the passages in the lower member to upwardly traverse the grain of the log.

5. A log impregnating machine having upper and lower members provided with log end seats for respective engagement with the upper and lower ends of a vertically disposed interposed log, one of said members being movable toward and from the plane of the other and both being provided with liquid conveying passages having outlets at said seats, means for adjusting the movable member toward the other member, adjustable means at the log end seats conformable in outline to the peripheries of the proximate log ends, to define the extent and shape of the areas of exposure of said outlets, and means for introducing fluid under pressure to the passages in the lower member.

[Claims 2 and 4 not printed in the Gazette.]

1,239,430. HEATING APPARATUS. FRANK B. HOWELL, Buffalo, N. Y., assignor to American Radiator Company, Chicago, Ill., a Corporation of New Jersey. Original application filed Nov. 14, 1914, Serial No. 872,122. Divided and this application filed Oct. 14, 1915. Serial No. 55,773. (Cl. 126—57.)



1. In a stove, a fuel receptacle comprising a hollow front wall having air inlet openings therein, a hollow rear wall having outlet openings therein, a series of hollow bars connected at their opposite ends to said hollow front and rear walls and forming one side of said fuel receptacle, and a series of bars extending from said hollow front wall to said hollow rear wall adjacent to the air outlets in the latter and forming the other side of said receptacle, substantially as specified.

2. In a stove, a fuel receptacle comprising a hollow front wall having inlet openings therein and means for controlling said inlet openings, a hollow rear wall having a corresponding series of air outlet openings therein, a series of hollow bars connected at their opposite ends to said front and rear walls and forming one side of said fuel receptacle, and a series of solid bars similarly arranged extending from said hollow front wall to said hollow rear wall, adjacent to the air outlets therein, and forming the other side of said receptacle, substantially as specified.

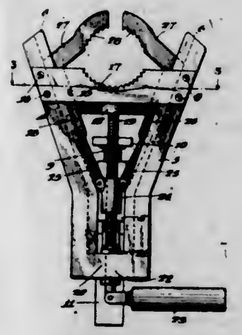
3. In a stove, a fuel receptacle comprising a hollow front wall having a series of inlet openings therein and means for simultaneously controlling the extent of the openings of said inlet openings, a hollow rear wall having a corresponding series of air outlet openings therein, a series of hollow bars connected at their opposite ends to said front and rear walls and forming one side of said fuel receptacle, and a series of solid bars similarly arranged extending from said hollow front wall to said hollow rear wall, adjacent to the air outlets therein, and forming the other side of said receptacle, substantially as specified.

4. In a stove, a fuel receptacle comprising a hollow front wall having a series of inlet openings, a slidable plate having corresponding openings therein adapted to control the admission of air to the inlet openings in said hollow front wall, a hollow rear wall having a corresponding series of air outlet openings therein, a series of hollow bars connected at their opposite ends to said front and rear walls and forming one side of said fuel receptacle, and a series of solid bars similarly extending from said hollow front wall to said hollow rear wall, adjacent to the air outlets therein, and forming the other side of said receptacle, substantially as specified.

5. In a stove, a fuel receptacle comprising a hollow front wall having a vertical series of air inlet openings therein, a hollow rear wall having outlet openings therein, a series of superposed, transversely-inclined hollow bars connected at their opposite ends to said hollow front and rear walls and forming one side of said fuel receptacle, and a series of superposed, transversely-inclined solid bars extending from said hollow front wall to said hollow rear wall, adjacent to the air outlets therein, and forming the other side of said fuel receptacle, substantially as specified.

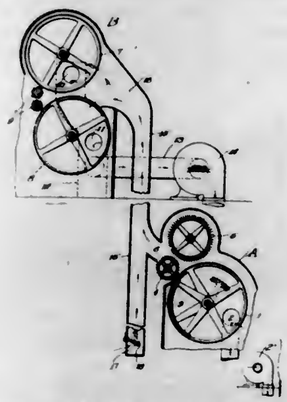
[Claims 6 to 12 not printed in the Gazette.]

1,239,431. PIPE CLAW-VISE. MORRIS MALLOVE, Brooklyn, N. Y., assignor of thirty-five one-hundredths to Jacob Greenberg and Philip Kieves, New York, N. Y. Filed Nov. 25, 1916. Serial No. 133,300. (Cl. 81—19.)



A pipe claw vise comprising, in combination, a substantially Y-shaped frame, guideways framed in the inner opposite surfaces of the branches of said frame, cross pieces connecting the branches of said frame near the upper ends thereof, arcuated dented cutaway portions in said cross pieces, claws slidably mounted in said guideways, provided with arcuate dented portions adapted to coact with the similar portions of said cross pieces in gripping a pipe inserted therebetween, means for moving said claws toward said cross pieces and means for attaching said vise to a bench or the like.

1,239,432. COTTON-CLEANING APPARATUS. JOHN O'CONNELL, Cohoes, N. Y. Filed Mar. 27, 1917. Serial No. 157,602. (Cl. 13—17.)

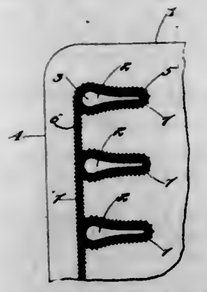


1. Apparatus for cleaning cotton and the like, comprising in combination, a cleaning machine including an exhaust cylinder to collect the cleaned fibers and picker wheels to remove the fibers from said cylinder and to loosen and expel the fibers, a second cleaning machine at a distance from the first machine and suction means to automatically transfer the fibers in loosened condition to the feed end of the second machine, and means to regulate the force of said suction means to prevent neutralization of the suction from said exhaust cylinder.

2. In a machine for cleaning cotton and the like, an exhaust cylinder to collect the cleaned fibers, picker wheels to remove the fibers from the cylinder and to loosen and expel the fibers, a passage extending to a predetermined point and into which the fibers are expelled, and means to create a draft in said passage to convey the fibers expelled therein to said point, and means to regulate said draft, all constructed and arranged for the automatic transfer of fibers in loosened condition to a predetermined point without neutralizing the suction from said exhaust cylinder.

[Claims 3 to 5 not printed in the Gazette].

1,239,433. CONSTRUCTION OF BUTTONHOLES AND REINFORCEMENT THEREOF. JAMES H. REED, Swampscott, Mass. Filed Jan. 3, 1916. Serial No. 69,820. (Cl. 2—57.)



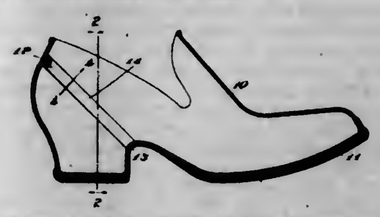
1. An article having a series of button holes, and a line of stitching which extends around the edge of each button hole and from each button hole to the next adjacent button hole in the series, the said line of stitching being continuous and integral from the first button hole to the last in the series.

2. An article having a series of button holes, a cord extending around the edge of the first button hole and thence to and around the edge of the next adjacent button hole and so on successively around each button hole and across the space between all the button holes in the series, and an unbroken line of stitching securing the cord to the article around each button hole and between the button holes.

3. An article having a series of button holes, a continuous line of stitches which extends around the edge of each button hole and between the outer ends of all of the button holes, said line of stitching beginning with the outer end of the first button hole in the series, thence extending along one side edge of the button hole, around the inner end, and thence back along the other side edge of the button hole to the outer end, at the point of beginning crossing the first line of stitching at the front and forming a double stitching at that end, thence extending as a line of stitches to the outer end of the next adjacent button hole, thence around the entire edge of said second button hole, and so on through the remaining button holes in the series.

4. An article having a series of button holes, a continuous line of stitches which extends around the edge of each button hole and between the outer ends of all the button holes, said line of stitching beginning with the outer end of the first button hole in the series, thence extending along one side edge of the button hole, around the inner end, and thence back along the other side edge of the button hole to the outer end at the point of beginning, thence extending as a line of stitches to the outer end of the next adjacent button hole, thence around the edge of said second button hole, and so on through the remaining button holes in the series, and a cord extending continuously around the edge of each button hole and between the adjacent button holes, said cord being inclosed as a core in said line of stitches.

1,239,434. RUBBER OVERSHOE. EMMETT A. SAUNDERS, South Bend, Ind. Filed Jan. 16, 1917. Serial No. 142,734. (Cl. 36—58.5.)



1. A rubber overshoe having incorporated therein integral relatively thickened elastic portions protruding inwardly from the inner surfaces of the sides of the heel and extending in the general direction of a line connecting the upper rear portion of the heel and the arch, said thickened portions adapted to be distended by insertion of the heel of the shoe into the heel of the overshoe.

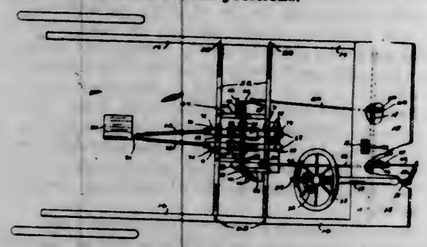
2. A rubber overshoe having incorporated therein integral oblique elastic holding ribs or bands protruding inwardly from the inner surfaces of the sides of the heel, said ribs or bands lying between the upper portion of the heel and the arch and adapted to be stretched lengthwise by insertion of the heel of the shoe into the heel of the overshoe.

3. A rubber overshoe having incorporated therein elastic holding ribs or bands integral with and protruding inwardly from the inner surfaces of the sides of the heel, said ribs or bands extending longitudinally in the general direction of a line connecting the upper rear portion of the heel and the arch and lying in the waist region of the heel and adapted to be stretched lengthwise by insertion of the heel of the shoe into the heel of the overshoe.

1,239,435. GEAR-SHIFTING MECHANISM. BURTON A. WALRATH, Rock Valley, Iowa. Filed Mar. 13, 1914. Serial No. 824,456. (Cl. 74—58.)

1. A device of the class described comprising in combination with clutch-controlling means and gear-shifting members, each movable in opposite directions between two positions, and between either of said positions and an intermediate position, elements movable to positions corresponding to the positions of the gear-shifting members

to operate the said members, a shaft adapted to be turned by the clutch-controlling means, cams of varying radii carried by said shaft and operable by turning of the shaft in one direction to move any one of said elements to its intermediate position and a chosen one of said elements to a chosen one of said first positions.



6. A device of the class described comprising in combination with clutch-controlling means and gear-shifting elements each movable in opposite directions, a cam-armed rock-shaft actuated by the clutch-controlling means and movable longitudinally, members controlled by said rock-shaft for operating said elements, a plate movable laterally to the rock-shaft and having an elongated slot disposed diagonally to the rock-shaft, a swivel mounted upon the rock-shaft and having a part engaged within said slot, means for moving said plate, and means for locking said members.

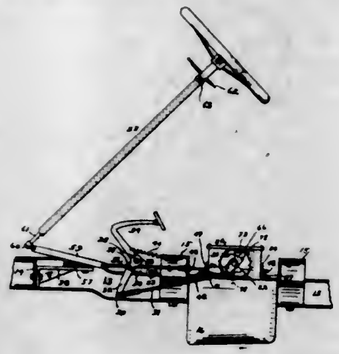
10. In a device of the class described the combination with clutch-controlling means and gear-shifting elements each movable in opposite directions between one point and points on opposite sides of said point, of mechanism including a supporting frame, a shaft mounted for rotation and longitudinal movement thereon, means governed by the clutch-controlling means for rocking said shaft, cams of varying radii mounted upon said shaft, shifting members movable laterally to said shaft, connected with the gear-shifting elements and including mated parts disposed perpendicularly to and normally centrally inclosing said shaft, each of said parts being spaced from its mate relatively twice the radii of the smaller of said cams and certain of said parts being off-set with respect to their mates whereby the greater of said cams may engage one and pass the other of said certain parts in moving the member selected, a plate mounted upon the frame to move laterally to the shaft and provided with a series of slots alined at an angle to said shaft, each of said slots being disposed at right-angles to the shaft and each communicating with its neighbor by a diagonal slot, a swivel mounted upon the shaft and having a part engaged by said slots, a speed-indicating and selecting lever mounted upon the steering column, means controlled by said lever for moving said plate, and locking mechanism including yieldable bolts carried by said shifting members and a part movable by longitudinal movement of, and in parallelism with said shaft and having parallel, elongated and relatively raised and depressed portions to slidably engage said bolts, said portions having transverse notches arranged at suitable intervals, respecting the position of the cams, to permit the operation of said shifting members.

17. In a gear-shifting mechanism, the combination with a plurality of shiftable transmission elements, of means for selectively controlling said elements, said means comprising a shaft that is longitudinally adjustable to select the element to be shifted and is rotatable to shift said element, and means for actuating said shaft.

20. In a gear-shifting mechanism, the combination with a plurality of shiftable transmission elements, of means for selectively controlling said elements, said means comprising a shaft that is longitudinally adjustable to select the element to be shifted and is rotatable to shift said element, indicating means for actuating said shaft longitudinally, and means comprising a clutch-pedal lever for rotating said shaft.

[Claims 2 to 5, 7 to 9, 11 to 16, 18, and 19 not printed in the Gazette.]

1,239,436. GEAR-SHIFTING MECHANISM. BURTON A. WALRATH, Rock Valley, Iowa. Filed Oct. 12, 1914. Serial No. 866,331. (Cl. 74—58.)



3. In a gear-shifting mechanism, the combination with a pair of shiftable gear wheels, and a pair of members of approximately U-shape connected to said gear wheels, each of said members being provided with a plurality of cam surfaces upon each side portion, of an element movable transversely to said members having coacting cam surfaces for returning a shifted gear wheel to its neutral position and to shift one of the gear wheels to an operative position upon a continuous movement of said element.

4. In gear-shifting mechanism, the combination with transmission mechanism having a plurality of gear-shifting elements, each movable between neutral and operative positions on opposite sides of neutral, of a rock-shaft, radial arms of varying lengths carried thereby and each extending on opposite sides of the rock shaft, members movable in opposite directions laterally to the rock-shaft and to positions corresponding to said neutral and operative positions for the control of said elements, each of said members embodying interconnected companion bars, disposed on opposite sides of the rock shaft and longitudinally to their direction of travel, and a plurality of projections on the adjacent sides of each bar and each arranged oppositely to those of the companion bar, one of said projections on one bar being engageable, at selected times, by one end of the longer of said arms to move the member to one operative position, and the corresponding projection of the opposite bar being engageable, at selected times, by the opposite end of said longer arm to move the member to its other operative position, and the others of said projections being engageable by the shorter of said arms to move the member to neutral position, means for placing said arms in engagement with any selected ones of said projections, and means for actuating the rock-shaft.

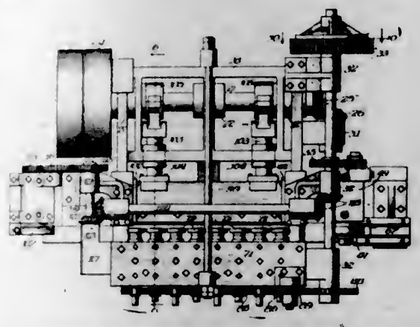
[Claims 1, 2, and 5 to 7 not printed in the Gazette.]

1,239,437. HOOP-BEADING MACHINE. FRANK GLADER, Chicago, Ill. Filed July 28, 1915. Serial No. 42,319. (Cl. 153—48.)

2. In a beading machine, the combination of a transversely moving reciprocatory die, shaped to form a bead on one edge of a flat metal strip and arranged to reciprocate in a path parallel with the flat sides of the metal strip and intermittently operated means for feeding said strip by a step by step movement past said die.

7. In a beading machine, the combination of a guide through which a metal strip is fed, a bead-forming die reciprocable in proximity to said guide, feeding rollers for advancing the strip along the guide, and a yielding clutch mechanism for driving said rollers, said mechanism being constructed to permit the rollers to stop during the beading actions of the die and to advance the strip at a supernormal speed immediately after each action of the die.

14. In a beading machine, the combination of a plurality of parts of advancing rolls constructed to advance a strip of metal through the machine, a bead-forming die adapted to operate on said strip engaged by the rolls, gear-wheels connecting the rolls of each pair so as to cause said rolls to operate at the same speed, positive driving connections between the upper and lower rolls of alternate pairs, and a clutch forming yielding driving means connected to one of said rolls from which the remainder of the rolls are driven.

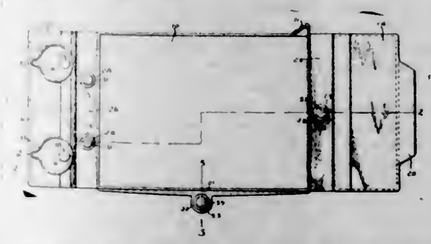


17. In a beading machine, the combination of a plurality of pairs of advancing rolls, each pair comprising an upper roll and a lower roll, a bearing in which the horizontal shaft of each of said rolls is rotatably mounted, and means for adjusting each of said bearings axially and vertically independently of the others, each of said vertical adjusting means comprising a plurality of set screws affording adjustment for each end of the bearing.

22. In a beading machine, the combination of a housing, a pair of bearings mounted therein, a shaft journaled in each bearing, coöperating strip feeding rolls mounted on said shafts, means whereby the ends of said bearings may be adjusted toward and from the other bearings, and means whereby said bearings may be independently adjusted longitudinally.

[Claims 1, 3 to 6, 8 to 13, 15, 16, 18 to 21, 23, and 24 not printed in the Gazette.]

1,239,438. DEVELOPING-TRAY. CHARLES R. GREY, Thermopolis, Wyo. Filed Feb. 28, 1917. Serial No. 151,399. (Cl. 95—95.)



1. A device of the character described comprising a unitary structure consisting of a tray having rigidly associated therewith as a substantially permanent part thereof a graduated reservoir communicating with the body of said tray, and means for controlling communication between said body and reservoir.

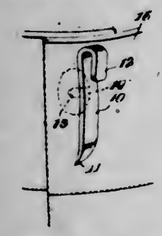
2. A device of the character described comprising a unitary structure consisting of a tray having rigidly associated therewith as substantially permanent parts thereof a plurality of reservoirs each communicating with the body of the tray, and means for independently controlling communication between said body and each of said reservoirs, respectively.

4. A device of the character described comprising a unitary structure consisting of a tray having rigidly associated therewith as a substantially permanent part thereof a reservoir communicating with the body of the tray, said reservoir having a substantially integral exterior funnel portion communicating with the interior thereof.

9. A tray of the character described having associated therewith at opposite ends, respectively, a plurality of reservoirs communicating with the body of said tray, the top of the reservoir or reservoirs at one end of said tray being substantially flush with the top of the walls of said tray, and the reservoir or reservoirs at the opposite end of said tray being arranged at a greater elevation than said body to afford a rocking shoulder at the edge of said body, said last-named reservoir or reservoirs constituting a counterpoise for said body.

[Claims 3 and 5 to 8 not printed in the Gazette.]

1,239,439. BELT AND TROUSERS SUPPORTER. THOMAS FESTUS HAYES, Jackson, Tenn. Filed Jan. 18, 1917. Serial No. 143,123. (Cl. 241—11.)

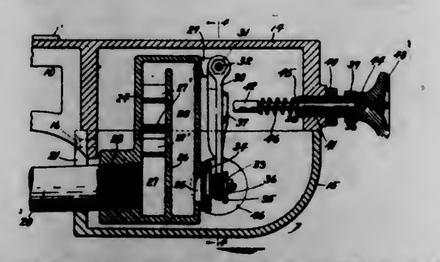


1. A device of the class described comprising a body adapted to bear against a garment and hook shaped at one end and pointed at the other end, said pointed end being directed obliquely to the longitudinal axis of the body, and means carried by the body and operating through the garment and urging the body against the garment with the pointed end embedded in the same.

3. A device of the class described comprising a body adapted to bear against a garment and hook shaped at one end and pointed at the other end, said pointed end being directed obliquely to the longitudinal axis of the body, a threaded holding pin extending from said body and adapted to be passed through the garment, and a clamp nut engaging said pin and operative to draw the body against the garment and cause the obliquely directed point to be embedded therein.

[Claim 2 not printed in the Gazette.]

1,239,440. AIR AND VACUUM CONTROLLING DEVICE. HARRY HALL HESS, Philadelphia, Pa., assignor to Vapor-Vacuum Heating Co., Philadelphia, Pa., a Corporation of New Jersey. Filed Sept. 10, 1915, Serial No. 50,091. Renewed July 25, 1916. Serial No. 111,276. (Cl. 236—9.)



1. A device of the class described embracing an expansion tube clamped at one end and equipped at its free end with a casting forming a combined air and vapor chamber provided with a single egress opening, means within said chamber for causing air and vapor to pass first away from said egress opening and then toward it, a flap-valve for closing said opening, and means operative for maintaining in closed position said valve during expansion period.

2. A device of the class described embracing an expansion tube clamped at one end and equipped at its free end with a casting forming a combined air and vapor

chamber provided with a single egress opening, said tube being inclined downwardly from the said chamber to its clamped end, means within said chamber for causing air and vapor to pass first away from said egress opening and then toward it, a flap-valve for closing said opening, and means operative for maintaining in closed position said valve during an expansion period.

3. A device of the class described embracing an expansion tube clamped at one end and equipped at its other end with a casting forming a combined air and vapor chamber provided with a single egress opening, said tube being inclined downwardly from said chamber to its clamped end, means within said chamber for causing air and vapor to pass first away from said opening and then toward it, means for separating and deflecting backward to said tube water of condensation as the vapor passes in a direction away from the egress opening, a flap-valve for closing said egress opening, and means operative for maintaining in closed position said valve, during an expansion period.

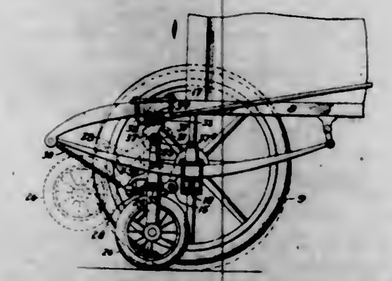
4. A device of the class described embracing an expansion tube clamped at one end and provided at its free end with a casting forming a combined air and vapor chamber having a single egress opening, said tube being inclined downwardly from said chamber to its clamped end, a partition within said casting for forming communicating divisions, so disposed that air and vapor first pass in a direction away from the egress opening and then toward it, baffle plates within the division in which said air and vapor pass in a direction away from said opening, a loosely suspended flap-valve for relatively closing said egress opening and means operative for maintaining positively closed said valve during an expansion period.

5. A device of the class described embracing a hanger carrying at one end a shell, an expansion tube one end of which is clamped to the hanger and the free end of which projects within the shell and supports a hollow casting provided with a single egress opening said tube inclining downwardly from said casting to its clamped end, a flap-valve hinged to the casting for relatively closing said opening and cushioned means carried by the said shell for positively maintaining closed said valve during an expansion period.

[Claims 6 to 12 not printed in the Gazette.]

REISSUES.

14,348. AUXILIARY STEERING DEVICE. MANUEL DE ARRIGUNAGA, New York, N. Y. Filed June 25, 1917. Serial No. 176,780. Original No. 1,183,278, dated May 16, 1916, Serial No. 68,139, filed Dec. 22, 1915. (Cl. 21—192.)



1. In a motor vehicle, the combination with steering means connected with the main front wheels of the vehicle, of a normally raised auxiliary device including a small road-wheel adapted to be lowered to the ground to raise the forward part of the vehicle and having an upright axis about which it turns for steering the vehicle, means for effecting the lowering and raising of said small wheel, and means for connecting said small wheel and said steering means, said connecting means including a gear operatively connected with the wheel to turn therewith about said axis and a rack geared to said gear to turn the same and the wheel about said axis, said connecting means allowing said small wheel under the control of said steering means to be more sharply turned than the main front wheels.

2. In a motor vehicle, the combination with steering means connected with the main front wheels, of a pair of normally raised relatively small, spaced auxiliary road-wheels mounted on the vehicle and adapted to be lowered to the roadway to raise the forward part of the vehicle and to also be raised, means for effecting said lowering and raising of the auxiliary wheels, a separate upright axis for each of said auxiliary wheels about which the wheels are swung to steer the car when the wheels are lowered to the roadway, and means for connecting said auxiliary wheels with said steering means to turn the car more sharply than it would have been turned by the main front wheels.

3. In a motor vehicle the combination with steering means connected with the main front wheels of the vehicle, of a normally raised auxiliary steering device including a small road-wheel mounted on the vehicle and adapted to be swung up and down so as to be lifted off of and lowered to the roadway to raise the forward part of the vehicle, means for effecting said lowering movement of the auxiliary wheel, said means comprising a gear operatively connected with the wheel and a rotatable shaft geared to the same for driving the gear to lower said wheel, an upright axis about which the wheel turns for steering the vehicle, and means for connecting said small wheel and said steering means, said connecting means including a gear operatively connected to the wheel to turn therewith about said upright axis and a rack geared to said gear to turn said gear and wheel about said axis, said connecting means allowing the small wheel under the control of the steering means to be more sharply turned than the main front wheels.

4. In a motor vehicle, the combination with steering means connected with the main front wheels, of a pair of normally raised relatively small, spaced auxiliary road-wheels mounted on the vehicle and adapted to be swung vertically so as to be lifted off of and lowered to the roadway to raise the forward part of the vehicle, means for effecting said vertical swinging movement of the auxiliary wheels, a separate upright axis for each of said auxiliary wheels about which the wheels are swung to steer the car when the wheels are lowered to the roadway, and means for connecting said auxiliary wheels with said steering means to turn the car more sharply than it could have been turned by the main front wheels.

5. In a motor vehicle, the combination with steering means connected with the main front wheels, of a pair of normally raised relatively small, spaced auxiliary road-wheels adapted to be lowered to the roadway to raise the main front wheels of the vehicle, frames adapted to turn horizontally about vertical axes one for each of said auxiliary wheels on which the wheel is rotatively mounted and secured to turn therewith, arms journaled on the vehicle to swing vertically and each having one of said horizontally turning frames secured to its free end to swing therewith, means for effecting the vertical swinging movement of said arms to raise and lower the wheels, said means comprising a worm gear sector movable with the arms and a worm meshing with the same to swing it, means for connecting said horizontally turning frames and said steering means when said auxiliary wheels are lowered to the roadway, to cause the vehicle to be turned by said auxiliary wheels under the control of said steering means and at a sharper angle than the vehicle could be turned with the main front wheels, said connecting means including a pinion mounted on one of said horizontally turning frames and a rack meshing therewith and operated by said steering means.

6. In a motor vehicle, the combination of a pair of relatively small auxiliary steering wheels spaced a substantial distance apart, one near each side of the car, horizontally turning frames one for each of said auxiliary wheels on which the wheel is rotatably mounted and secured to turn therewith, arms mounted on the vehicles to swing vertically and each having one of said horizontally turning frames secured to its free end to swing therewith, means for effecting the vertical swinging movement of said arms to raise and lower the wheels, and means for turning said auxiliary wheels when on the ground, to turn the car, said means comprising a pinion on one of said horizontally turning frames and a rack meshing therewith and having means for operating it under the control of the driver, whereby the vehicle may be turned at a sharper angle than with the main front wheels.

7. In a vehicle, the combination with steering means therefor, of an auxiliary steering device comprising rotary means arranged to be lowered to the roadway to raise the forepart of the vehicle on said rotary means, means for lowering said rotary means, and yielding means connecting said rotary means with said steering means to turn said rotary means by said steering means.

8. In a vehicle, the combination with steering means therefor, of an auxiliary steering device comprising a pair of supplementary wheels arranged to be lowered to the roadway to raise the forepart of the vehicle on said supplementary wheels, means for lowering said supplementary wheels, and yielding means connecting said supplementary wheels with said steering means to turn said supplementary wheels by said steering means.

9. In a vehicle, the combination with steering means therefor, of an auxiliary steering device comprising a pair of supplementary wheels arranged to be lowered to the roadway to raise the forepart of the vehicle on said supplementary wheels, means for lowering said supplementary wheels, and yielding means connecting said supplementary wheels with said steering means to turn said supplementary wheels by said steering means, said wheels turning in unison.

10. In a vehicle, the combination with steering means connected with the main front wheels, of an auxiliary steering device comprising a pair of supplementary wheels mounted on the vehicle forward the axle of the front wheels, means for securing vertical swinging and horizontal turning movements for said supplementary wheels, means to lower said supplementary wheels to the roadway whereby the main front wheels are raised from the roadway, and yielding means connecting said supplementary wheels with said steering means to horizontally turn said supplementary wheels in unison by said steering means.

11. In a vehicle, the combination with steering means connected with the main front wheels, of an auxiliary steering device comprising a pair of supplementary wheels mounted on the vehicle forward the axle of the front wheels, means for securing vertical swinging and horizontal turning movements for said supplementary wheels, means comprising a worm gear and enmeshing geared sector device to lower said supplementary wheels to the roadway whereby the main front wheels are raised from the roadway, and means comprising a sliding rack engaging with a pinion on said supplementary wheel securing means connected with said steering means to horizontally turn said supplementary wheels in unison, at will.

12. In a vehicle, the combination with steering means connected with the main front wheels, of an auxiliary steering device having a transverse shaft secured to the vehicle forward the front wheel axle, a pair of vertically swinging, horizontally turning, frames journaled to said shaft, a supporting wheel rotatably secured in each frame, means comprising a worm gear and enmeshing geared sector device to lower said supporting wheels to a vertical position to engage the roadway whereby the main front wheels are raised from said roadway, and means connected with said steering means to horizontally turn said frames in unsion at a greater angle than said main front wheels.

13. In a vehicle, the combination with steering means connected with the main front wheels, of an auxiliary steering device having a transverse shaft secured to the vehicle forward the front wheel axle, a pair of vertically swinging, horizontally turning, frames journaled to said shaft, a supporting wheel rotatably secured in each frame, means comprising a worm gear and enmeshing geared sector device to lower said supporting wheels to a vertical position to engage the roadway whereby the main front wheels are raised from said roadway, and means comprising a sliding rack engaging a pinion secured to one of said frames, connected with said steering means to horizontally turn said frames in unison at a greater angle than said main front wheels.

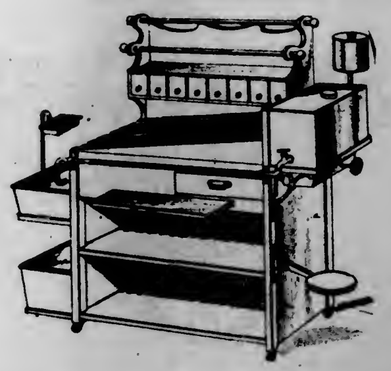
DESIGNS.

51,221. LIGHTING-POST. FAYETTE DRAPER BULLA, South Bend, Ind., assignor to George Cutter Company, South Bend, Ind., a Corporation of Indiana. Filed May 19, 1917. Serial No. 169,799. Term of patent 7 years.



The ornamental design for a lighting post as shown.

51,222. COMBINATION-CABINET. JACOB J. BUSH, Lima, Ohio. Filed Dec. 19, 1916. Serial No. 137,907. Term of patent 7 years.



The ornamental design for a combination cabinet, as shown.

51,223. PAPER DOILY. FRED CONRAD, Milwaukee, Wis., assignor to American Lace Paper Company, a Corporation of Wisconsin. Filed May 31, 1917. Serial No. 172,112. Term of patent 3½ years.



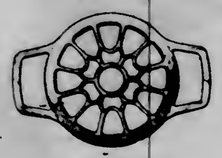
The ornamental design for a paper doily, as shown.

51,224. PRIMING-CUP. JOSEPH G. CROSS and MARK G. ALNESS, Everett, Wash. Filed Jan. 4, 1917. Serial No. 140,643. Term of patent 7 years.



The design for a priming cup as shown.

51,225. PROTECTOR FOR ARTICLES TO BE WORN ON THE WRIST. CALVIN DEAN, Providence, R. I. Filed July 18, 1917. Serial No. 181,421. Term of patent 7 years.



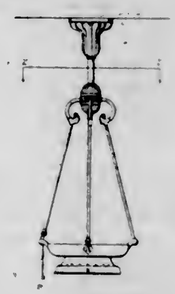
The ornamental design for a protector for articles to be worn on the wrist, as shown.

51,226. STICK-PIN. GEORGE A. DESENFANT, San Francisco, Cal. Filed Aug. 29, 1914. Serial No. 859,252. Term of patent 3½ years.



The ornamental design for an article of manufacture, as shown.

51,227. LIGHTING-FIXTURE. JOHN DOYLE, New York, N. Y. Filed Sept. 18, 1916. Serial No. 120,913. Term of patent 7 years.





The ornamental design for a lighting fixture, as shown.

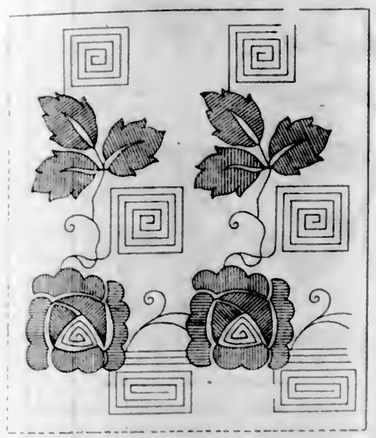
51,228. PIN. GEORGE HENRY DYSON, New Britain, Conn., assignor to The Porter & Dyson Company, New Britain, Conn., a Corporation. Filed June 28, 1917. Serial No. 177,594. Term of patent 14 years.





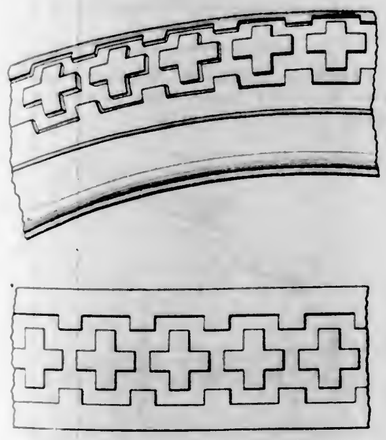
The ornamental design for a pin, as shown.

51,229. TEXTILE TRIMMING. ERNEST FRANCIS EISINGER, New York, N. Y., assignor to La France Novelty Co., New York, N. Y., a Corporation of New York. Filed May 14, 1917. Serial No. 168,616. Term of patent 3½ years.



The ornamental design for a textile trimming as shown.

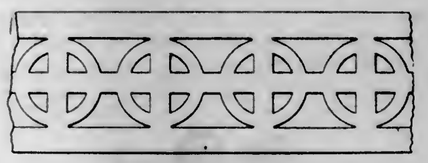
51,230. TIRE-TREAD. CHRISTOPHER A. GOETZE, Minneapolis, Minn. Filed Oct. 14, 1916. Serial No. 125,742. Term of patent 7 years.



The ornamental design for a tire tread, as shown.

51,231. TIRE-TREAD. CHRISTOPHER A. GOETZE, Minneapolis, Minn. Filed Oct. 14, 1916. Serial No. 125,743. Term of patent 7 years.





The ornamental design for a tire tread, as shown.

51,232. LAVALLIÈRE. JOHN GYLYWAICHUK, Tolstoi, Manitoba, Canada. Filed May 8, 1917. Serial No. 167,365. Term of patent 3½ years.



The ornamental design for a lavalliere, as shown.

51,233. TIE-PIN. JOHN GYLYWAICHUK, Tolstoi, Manitoba, Canada. Filed May 31, 1917. Serial No. 172,106. Term of patent 3½ years.



The ornamental design for a "tie pin" as shown.

51,234. DOLL. MARY ELLA HARRIS, San Francisco, Cal. Filed May 26, 1917. Serial No. 171,326. Term of patent 3½ years.



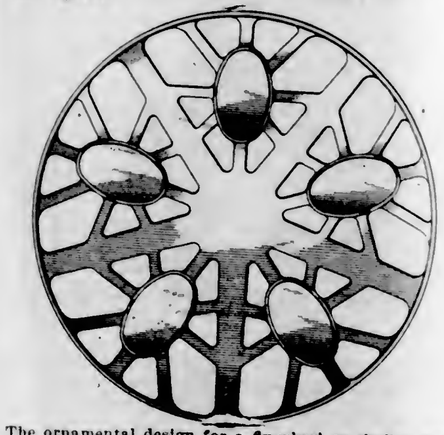
The ornamental design for a doll, as shown.

51,235. WIND-WHEEL. WILLIAM E. LEE, Columbus, Ohio. Filed July 5, 1917. Serial No. 178,876. Term of patent 3½ years.



The ornamental design for a wind wheel, as shown.

51,236. FLY-WHEEL OR SIMILAR DEVICE. CHARLES L. MCCUEN, Detroit, Mich., assignor to Isko, Incorporated, Detroit, Mich., a Corporation of Michigan. Filed July 9, 1917. Serial No. 179,562. Term of patent 7 years.



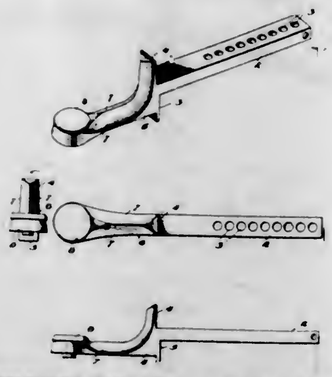
The ornamental design for a fly-wheel or similar device as shown.

51,237. WORK BAG OR BASKET. JANE M. MONSARRAT, Providence, R. I. Filed July 5, 1917. Serial No. 178,877. Term of patent 3½ years.



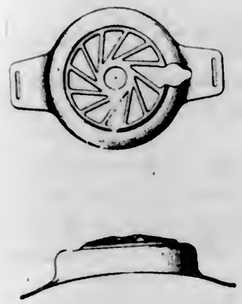
The ornamental design for a work bag or basket as shown.

51,238. PEDAL. ALBERT F. NORRIS, Stoughton, and CLIFTON H. NORRIS, Boston, Mass. Filed May 1, 1917. Serial No. 165,795. Term of patent 3½ years.



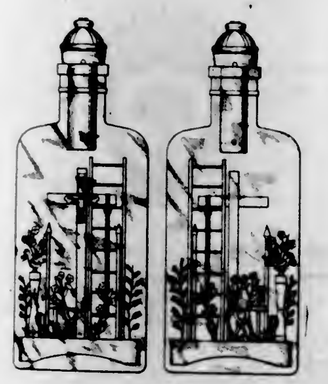
The ornamental design for a pedal as shown and described.

51,239. WRIST-WATCH HOLDER. GEORGE M. PURVER, Brooklyn, N. Y. Filed July 30, 1917. Serial No. 183,624. Term of patent 7 years.



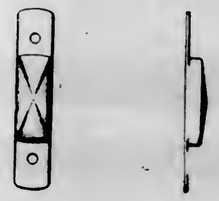
The ornamental design for a wrist watch holder, as shown.

51,240. SHRINE. JOZO RASTIJA, Akron, Ohio. Filed Oct. 16, 1916. Serial No. 126,034. Term of patent 7 years.



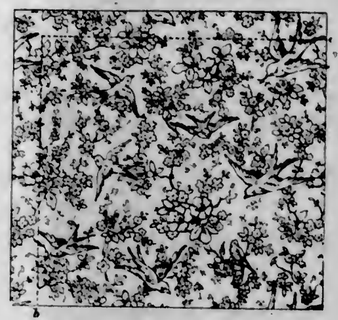
The ornamental design for a shrine, as shown.

51,241. SWITCH-SLIDE FOR PORTABLE ELECTRIC LIGHTS. HARRY ROTHENBERG, Ridgewood, N. Y. Filed June 3, 1916. Serial No. 101,617. Term of patent 7 years.



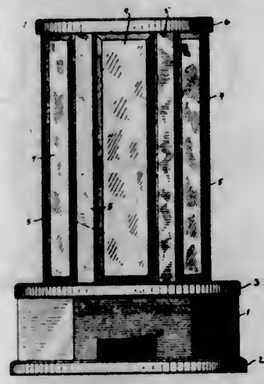
The ornamental design for a switch-slide for portable electric lights, as shown.

51,242. TEXTILE FABRIC OR SIMILAR ARTICLE. CHARLES F. SCHOLLE, New York, N. Y., assignor to Elms & Sellon, New York, N. Y. Filed June 22, 1917. Serial No. 176,429. Term of patent 7 years.



The ornamental design for textile fabric or similar article as shown and described.

51,243. VENDING-MACHINE CASING. ELMER ROLAND SHARP, Davenport, Iowa. Filed June 14, 1917. Serial No. 174,777. Term of patent 7 years.



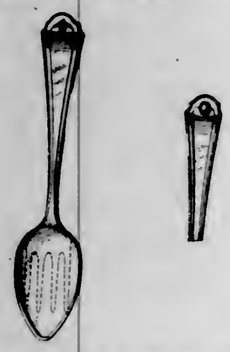
The ornamental design for a vending machine casing, substantially as shown and described.

51,244. LAMP. CHARLES E. SMITH, Leamington, Ontario, Canada. Filed June 1, 1917. Serial No. 172,342. Term of patent 7 years.



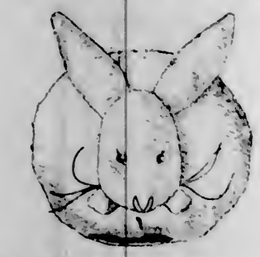
The ornamental design for a lamp as shown.

51,245. SPOON, FORK, OR SIMILAR ARTICLE. PRITCHARD STEWART, Chicago, Ill., assignor to Hibbard, Spencer, Bartlett & Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 29, 1917. Serial No. 158,479. Term of patent 7 years.



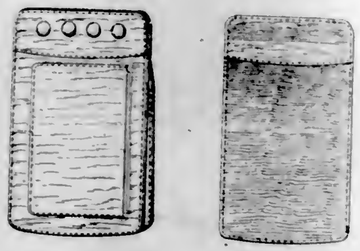
The ornamental design for a spoon, fork or similar article, as shown.

51,246. TOY. ENID TURNER, Los Gatos, Cal. Filed Dec. 28, 1916. Serial No. 139,414. Term of patent 7 years.



The ornamental design for a toy as shown.

51,247. TOBACCO-POUCH. JAMES H. WATSON, Jr., Bronxville, N. Y. Filed July 5, 1917. Serial No. 178,878. Term of patent 7 years.



The ornamental design for a tobacco pouch, as shown.

51,248. BADGE OR EMBLEM. FREDERICK W. WHITEHOUSE, Pelham, N. Y., assignor to Tiffany & Co., New York, N. Y., a Corporation of New York. Filed July 11, 1917. Serial No. 179,996. Term of patent 14 years.



The ornamental design for a badge or emblem, as shown.

TRADE-MARKS

PUBLISHED SEPTEMBER 4, 1917.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 76,220. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) NORTH WESTERN STEEL & IRON WORKS, Eau Claire, Wis. Filed Feb. 27, 1914.

National

Particular description of goods.—Steam-Pressure Canning Outfits, Including Steam-Pressure Sterilizers.
Claims use since Jan. 1, 1914.

Ser. No. 87,508. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) SPRING MAID BROOM & MFG. CO., Chicago, Ill. Filed June 22, 1915.

Spring Maid

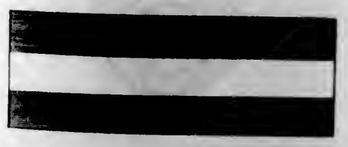
Particular description of goods.—Brooms and Scrubbing-Brushes, Dusting-Brushes, and Sweeping-Brushes.
Claims use since May 3, 1915.

Ser. No. 95,735. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) UNION TRUCK MANUFACTURING COMPANY, INC., New York, N. Y. Filed June 8, 1916.

UNION

Particular description of goods.—Motor-Trucks.
Claims use since Jan. 1, 1916.

Ser. No. 96,383. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) UNITED STATES RUBBER COMPANY, New Brunswick, N. J., and New York, N. Y. Filed July 6, 1916.



Said trade-mark comprises two blue bars and one white bar of equal width, the white bar being between the two blue bars.

Particular description of goods.—Rubber Dolls, Foot-Ball Bladders, Rubber Foot-Balls, and Base-Ball Chest-Protectors.
Claims use since June 30, 1916.

Ser. No. 96,546. (CLASS 12. CONSTRUCTION MATERIALS.) R. B. MARRIOTT & SONS, Sterling, Conn. Filed July 13, 1916.

ONECO

Particular description of goods.—Cut Granite, Building and Paving Blocks, Curbings, and Flaggings.
Claims use since Jan. 1, 1897.

Ser. No. 96,659. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ALBERS BROS. MILLING COMPANY, San Francisco, Cal. Filed July 19, 1916.



Particular description of goods.—Wheat Flakes, Rolled Oats, Hominy Grits, Cracked Wheat, Pearls of Wheat, and Cornmeal.
Claims use since July 1, 1915.

Ser. No. 97,115. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE FIRESTONE TIRE AND RUBBER COMPANY, Akron, Ohio. Filed Aug. 5, 1916.

TROPICAL

Particular description of goods.—Rubber Tires, Casings, and Tubes.
Claims use since July 1, 1916.

Ser. No. 97,438. (CLASS 12. CONSTRUCTION MATERIALS.) FAIRWAY MANUFACTURING CO., Sioux City, Iowa. Filed Aug. 18, 1916.

Fair-Way

Particular description of goods.—Ventilating-Tile.
Claims use since Apr. 30, 1916.

Ser. No. 97,647. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GEORGE R. LINN, Chicago, Ill. Filed Aug. 26, 1916.



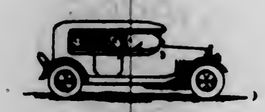
The blue color being an important feature of the said trade-mark and the figures and landscape being inconspicuously shown on the blue-tile ground.
Particular description of goods.—Butter.
Claims use since Sept. 1, 1914.

Ser. No. 98,496. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) HURLEY MACHINE COMPANY, Chicago, Ill. Filed Oct. 7, 1916.

Thor

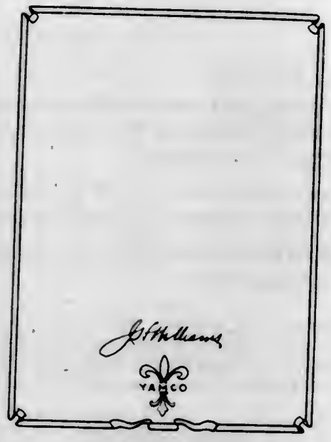
Consisting of the word "Thor."
Particular description of goods.—Clothes-Washing Machines, Ironing-Machines, and Clothes-Wringing Machines.
Claims use since June 15, 1908.

Ser. No. 98,568. (CLASS 39. CLOTHING.) W. H. MARLER COMPANY, INC., Winston-Salem, N. C. Filed Oct. 11, 1916.



Particular description of goods.—Hosiery.
Claims use since May 1, 1916.

Ser. No. 99,694. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOSHUA HUDSON WILLIAMS, Greenville, S. C. Filed Dec. 2, 1916.



The signature being that of applicant.
Particular description of goods.—A Baked Food Product Manufactured Principally from Flour and Sweet Potatoes.
Claims use since June 1, 1916.

Ser. No. 100,034. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) JOHN CHATILLON & SONS, New York, N. Y. Filed Dec. 19, 1916. Under ten-year proviso.

CHATILLON

Particular description of goods.—Butchers', Bakers', Grocers', Confectioners', Carving, and Kitchen Knives; Cleavers, Trowels, Spades, Hatchets, Meat-Tenderers, Scrapers, Ice-Picks, Tongs; Triers for Cheese, Coffee, Tallow, Butter, Etc.; Pole-Hooks, Selecting-Hooks, Scrapers, Saws and Parts Thereof, Meat-Choppers, Lard and Food Presses, Sausage-Stuffers, Lard-Paddles; Coffee, Spice, and Drug Mills; Slicing and Shaving Machines and Vegetable-Cutters.
Claims use since prior to January, 1894.

Ser. No. 100,036. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) JOHN CHATILLON & SONS, New York, N. Y. Filed Dec. 19, 1916. Under ten-year proviso.

CH

Particular description of goods.—Butchers', Bakers', Grocers', Confectioners', Kitchen, and Carving Knives.
Claims use since prior to January, 1894.

Ser. No. 100,037. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) JOHN CHATILLON & SONS, New York, N. Y. Filed Dec. 19, 1916. Under ten-year proviso.

CH STANDARD

Particular description of goods.—Butchers', Bakers', Grocers', Confectioners', Kitchen, and Carving Knives.
Claims use since prior to January, 1894.

Ser. No. 100,060. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. S. HOFFMAN COMPANY, Chicago, Ill. Filed Dec. 20, 1916.

HOF-Co

Particular description of goods.—Cheese.
Claims use since April, 1912.

Ser. No. 100,067. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) THE PARKESBURG IRON COMPANY, Parkesburg, Pa. Filed Dec. 20, 1916. Under ten-year proviso.

Parkesburg

Particular description of goods.—Charcoal Iron and Skelp.
Claims use since Jan. 13, 1882.

Ser. No. 100,069. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) THE REDSQUARE COMPANY, Chicago, Ill. Filed Dec. 20, 1916.

GRANDFATHER'S

Particular description of goods.—Children's Building-Blocks.
Claims use since Dec. 1, 1916.

Ser. No. 101,251. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MAX ZIMMER, San Francisco, Cal. Filed Feb. 8, 1917.



Consisting of a chocolate-colored background between green concentric circular lines, green lines also extending from the inner circular line radially to the center thereof.
Particular description of goods.—Hair-Tonics.
Claims use since Dec. 1, 1916.

Ser. No. 101,740. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CLARENCE C. HAY, Como, Miss. Filed Feb. 27, 1917.



Which is a portrait of Effie Mathers.
Particular description of goods.—A Hair-Dressing.
Claims use since 1905.

Ser. No. 101,829. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) THE JOSEPH N. EISENDRATH COMPANY, Chicago, Ill. Filed Mar. 2, 1917.

STANDWETT

Particular description of goods.—Leather.
Claims use since the year 1901.

Ser. No. 102,272. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FLORENCE E. WILLIAMS, Savannah, Ga. Filed Mar. 19, 1917.



Particular description of goods.—A Pomade Preparation for Improving the Hair.
Claims use since Mar. 5, 1917.

Ser. No. 102,599. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) REGINALD ALFRED HARRIS, Sydney, New South Wales, Australia. Filed Mar. 30, 1917.

HARBAS

Particular description of goods.—Insecticides and Fungicides for Spraying Plants and Trees.
Claims use since Oct. 14, 1911.

Ser. No. 102,624. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JAMES P. MANG, Brooklyn, N. Y. Filed Mar. 31, 1917.



Particular description of goods.—A Hair-Tonic in Liquid Form for External Use.
Claims use since Jan. 1, 1917.

Ser. No. 102,792. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) LEWIS-SHEPARD COMPANY, Boston, Mass. Filed Apr. 7, 1917.

MASTER

Particular description of goods.—Industrial Elevating-Trucks.
Claims use since September, 1916.

Ser. No. 102,848. (CLASS 2. RECEPTACLES.) EDWARD JOSEPH CASS, Cleveland, Ohio. Filed Apr. 10, 1917.

E·Z·E·TE

Particular description of goods.—Receptacles for Confections, Salted Peanuts, Foods, and Ingredients of Food.
Claims use since Feb. 1, 1917.

Ser. No. 102,867. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LUNDBORG COMPANY, New York, N. Y. Filed Apr. 10, 1917.

ARBOREA

Trade-mark "Arborea."
Particular description of goods.—Perfume, Toilet Water, Toilet Creams, Toilet Powders, and Bath-Salts.
Claims use since the month of December, 1905.

Ser. No. 103,124. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE NATIONAL ACME COMPANY, Cleveland, Ohio. Filed Apr. 19, 1917.

NAMCO

Particular description of goods.—Taps and Thread-Cutting Metal-Working Tools.
Claims use since Feb. 1, 1917.

Ser. No. 103,202. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) Mrs. LAURELLA J. CRAFT, Winfield, Kans. Filed Apr. 23, 1917.



The portrait is that of the proprietor.
Particular description of goods.—A Remedy for Asthma, Croup, Coughs, Catarrh of Throat and Head, and Throat Trouble.
Claims use since Mar. 24, 1917.

Ser. No. 103,277. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE WESTERN SPECIALTY MANUFACTURING CO., Denver, Colo. Filed Apr. 24, 1917.

PRO·TEC·O·LAC

Particular description of goods.—A Liquid Refinishing Preparation.
Claims use since Sept. 1, 1916.

Ser. No. 103,287. (CLASS 15. OILS AND GREASES.) DETROIT SOLUBLE OIL CO., Detroit, Mich. Filed Apr. 25, 1917.



Particular description of goods.—Lubricating-Oils.
Claims use since December, 1914.

Ser. No. 103,356. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) E. DON MCCRARY, Bandon, Oreg. Filed Apr. 27, 1917.

BLAININE

Particular description of goods.—A Preparation to be Used as an External Application for Chilblains, Sprains, Bruises, and Inflammatory Conditions of Man or other Animals, Being Marketed in the Liquid Form Ready for Use and also in the Dry or Concentrated Form for Further Preparation.
Claims use since Mar. 26, 1917.

Ser. No. 103,377. (CLASS 15. OILS AND GREASES.) THE SWAN PROCESS OIL COMPANY, Denver, Colo. Filed Apr. 28, 1917.

SPOCO

Consisting of the arbitrary word "Spoco."
Particular description of goods.—Lubricating-Oils.
Claims use since Apr. 25, 1916.

Ser. No. 103,436. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM A. WALLACE, Savannah, Ga. Filed Apr. 30, 1917.

GELSAC

Particular description of goods.—Headache and Neuralgia Tablets.
Claims use since Apr. 1, 1917.

Ser. No. 103,456. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN E. HOLMES, St. Anthony, Idaho. Filed May 2, 1917.

TEN-FORTY-FOUR
1044

Particular description of goods.—An Ointment for the Treatment of Colds, Muscular Rheumatism, Inflammatory Rheumatism, Earache, Headache, Hay-Fever, and Pneumonia.
Claims use since Nov. 28, 1916.

Ser. No. 103,470. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EDWARD FRANCIS, Lorain, Ohio. Filed May 2, 1917.

F·S·K·M

Particular description of goods.—A Pile Remedy.
Claims use since Apr. 10, 1917.

Ser. No. 103,496. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHATTANOOGA DRUG & CHEMICAL CO., Chattanooga, Tenn. Filed May 3, 1917.

ZIRON

Particular description of goods.—A Tonic for Use in Diseases or Disorders Characterized by Impoverished Blood or by Disordered Nervous or Digestive System, Such as Simple Anemia, Chlorosis, Scrofula, Eczema, Atonic Amenorrhea, Leucorrhea, Nervousness, Lack of Appetite, and Dyspepsia.
Claims use since Apr. 23, 1917.

Ser. No. 103,547. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) UNION CARBIDE COMPANY, New York, N. Y. Filed May 4, 1917.

UNION

Particular description of goods.—Calcium Carbid.
Claims use since Mar. 30, 1898.

Ser. No. 103,558. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) FITRITE ARCH SUPPORT CO., Newton, Mass. Filed May 5, 1917.

FITRITE

Particular description of goods.—Flexible Arch-Supports.
Claims use since on or about July 21, 1916.

Ser. No. 103,585. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ABE PLOUGH, Memphis, Tenn. Filed May 7, 1917.



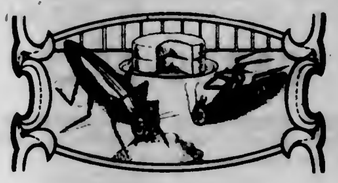
Particular description of goods.—Ointments for Medicinal Use in the Treatment of Skin Diseases, Including Eczema, Sunburn, Pimples, and Freckles.
Claims use since Apr. 16, 1917.

Ser. No. 103,595. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EDGAR S. GEBHART, Dayton, Ohio. Filed May 7, 1917.

PEPGEN

Particular description of goods.—Medicines Used as a Tonic, Stomachic, Diuretic, and Laxative in Stomach, Kidney, and Liver Ills.
Claims use since Apr. 26, 1917.

Ser. No. 103,596. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) B. HELLER & Co., Chicago, Ill. Filed May 7, 1917.



Particular description of goods.—A Roach-Destroyer.
Claims use since Apr. 30, 1917.

Ser. No. 103,597. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) KINTHO MANUFACTURING COMPANY, Buffalo, N. Y. Filed May 7, 1917.

KINTHO

Particular description of goods.—Preparation for the Removal of Freckles.
Claims use since Jan. 1, 1905.

Ser. No. 103,675. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ANNIE JESSIE MILLER, Chicago, Ill. Filed May 9, 1917.

MIL-LAR-SAV

Particular description of goods.—Pile-Salve.
Claims use since Mar. 3, 1917.

Ser. No. 103,731. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CRYSTAL SOAP COMPANY, Milwaukee, Wis. Filed May 12, 1917.

Shah of Persia

Particular description of goods.—Toilet Preparations, as Follows: Toilet Water, Perfume, Cold-Cream, Greaseless Cream, Face-Powder, Talcum Powder, Perfume-Tablets.
Claims use since Mar. 29, 1916.

Ser. No. 103,745. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RAT RIDDANCE COMPANY, Philadelphia, Pa. Filed May 12, 1917.



Particular description of goods.—Rat-Poison.
Claims use since Apr. 25, 1917.

Ser. No. 103,812. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM A. CRAIG, Clinton, Ky. Filed May 15, 1917.

"CARBO-SAL"

Particular description of goods.—Treatment of Hogs for Cholera, Thumps, Colds, Constipation, and Coughs.
Claims use since about March, 1914.

Ser. No. 103,828. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) INLAND PRODUCTS COMPANY, Spokane, Wash. Filed May 15, 1917.



Particular description of goods.—Carbonated Sweet Apple Cider.
Claims use since Oct. 1, 1916.

Ser. No. 103,868. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) C. C. MENGEL & BRO. CO., Louisville, Ky. Filed May 16, 1917.

NARANJO

Particular description of goods.—A Vegetable Dye.
Claims use since Apr. 21, 1917.

Ser. No. 104,009. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HECKER-JONES-JEWELL MILLING COMPANY, New York, N. Y. Filed May 22, 1917. Under ten-year proviso.

MANHATTAN

Particular description of goods.—Wheat-Flour and Rye-Flour.
Claims use since the year 1852.

Ser. No. 104,091. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) TRIFOLIUM BUTTER COMPANY, Lexington, Ky. Filed May 25, 1917.



Particular description of goods.—Butter.
Claims use since Feb. 1, 1917.

Ser. No. 104,136. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) KALI MANUFACTURING CO., Philadelphia, Pa. Filed May 29, 1917.

HYDROX

Particular description of goods.—Oil Used in the Treatment of Textile Fabrics.
Claims use since Jan. 1, 1915.

Ser. No. 104,226. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NARCO COMPANY, Minneapolis, Minn. Filed June 2, 1917.

Ma-oze

Particular description of goods.—An Antiseptic Powder for Cuts, Sores, Wounds, and Excessive Perspiration and for Use as a Gargle and Mouth-Wash and in a Foot and Body Bath and Vaginal Douche.
Claims use since Feb. 15, 1917.

Ser. No. 104,276. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) JOHN S. BROWN & SONS, LTD., Belfast, Ireland. Filed June 5, 1917.



Particular description of goods.—Cotton Plain and Figured Damask Cloths, Napkins, Towels, Sheets, Pillow-Cases, Bedspreads, and Handkerchiefs.
Claims use since Jan. 9, 1917.

Ser. No. 104,293. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) MAURICE B. ALTER CO., INC., Boston, Mass. Filed June 6, 1917.

BUCKMO

The word "Buckmo."
Particular description of goods.—Finished Cabaretta-Skins.
Claims use since August, 1916.

Ser. No. 104,298. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) M. K. GOETZ BREWING CO., St. Joseph, Mo. Filed June 6, 1917.

GOZO

Particular description of goods.—A Tonic Cereal Beverage to be Sold as a Soft Drink.
Claims use since May 18, 1917.

Ser. No. 104,376. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) ERMINA J. KELLER, Chicago, Ill. Filed June 11, 1917.

"Amberoid"

Particular description of goods.—Dental Cements, Dental Alloys.
Claims use since Sept. 26, 1906.

Ser. No. 104,419. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) MAX WEISS, New York, N. Y. Filed June 12, 1917.



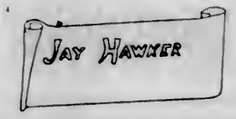
The large star being in blue.
Particular description of goods.—Enamel Ware—viz., Irrigators, Bed-Pans, Douche-Pans, and Urinals.
Claims use since Dec. 24, 1914.

Ser. No. 104,459. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) VALLEY SUPPLY COMPANY, St. Louis, Mo. Filed June 15, 1917.

PLAYETTE

Particular description of goods.—A Baby-Crib Swing.
Claims use since about June 7, 1917.

Ser. No. 104,465. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CONRAD AUGUST KRUGER, Jr., Hays, Kans. Filed June 16, 1917.



Particular description of goods.—Foot-Powders.
Claims use since May 31, 1917.

Ser. No. 104,473. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) WHEELING SANITARY MFG. CO., Wheeling, W. Va. Filed June 16, 1917.

TRANQUIL

Particular description of goods.—Water-Closets.
Claims use since June 9, 1917.

Ser. No. 104,483. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) VICTOR DE COSMIS, Hoboken, N. J. Filed June 18, 1917.

VD

Victor De Cosmis

The signature being that of the applicant.
Particular description of goods.—Hair-Tonic.
Claims use since June 2, 1917.

Ser. No. 104,499. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SANITOL CHEMICAL LABORATORY CO., St. Louis, Mo. Filed June 18, 1917.

SANITOL

Particular description of goods.—Eye-Bath.
Claims use since January, 1915.

Ser. No. 104,541. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BASIC PRODUCTS CORPORATION, New York, N. Y. Filed June 20, 1917.

Dioroz

Particular description of goods.—Solidified Alcohol.
Claims use since June 18, 1917.

Ser. No. 104,599. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RIDENOUR-BAKER GROCERY COMPANY, Kansas City, Mo. Filed June 21, 1917.

THREE MEALS A DAY

Particular description of goods.—Baking-Powder.
Claims use since May 1, 1897.

Ser. No. 104,617. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SAMUEL H. MCKEAN, New York, N. Y. Filed June 22, 1917.

SERATHOL

Particular description of goods.—An Antacid Powder Prepared Especially for Indigestion, Dyspepsia, Gastritis and Dyspepsia Disorders, Bloating, Dizziness, Headaches, and Disorders Arising from Hyperacidity of the Stomach.
Claims use since Apr. 15, 1917.

Ser. No. 104,625. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SOCIETY OF CHEMICAL INDUSTRY IN BASLE, Basel, Switzerland. Filed June 22, 1917.

CHLORANTIN

Particular description of goods.—Coal-Tar Colors.
Claims use since the year 1898.

Ser. No. 104,626. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SOCIETY OF CHEMICAL INDUSTRY IN BASLE, Basel, Switzerland. Filed June 22, 1917.

CUPRANIL

Particular description of goods.—Coal-Tar Colors.
Claims use since Nov. 1, 1903.

Ser. No. 104,627. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SOCIETY OF CHEMICAL INDUSTRY IN BASLE, Basel, Switzerland. Filed June 22, 1917.

DIDIAL

Particular description of goods.—A Medicine to be Used as Hypnotic and Sedative Especially for Producing a Twilight Sleep During Labor.
Claims use since Jan. 23, 1917.

Ser. No. 104,630. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SOCIETY OF CHEMICAL INDUSTRY IN BASLE, Basel, Switzerland. Filed June 22, 1917.

UTROPAVIN

Particular description of goods.—A Medicine to Be Used as an Oxytocic.
Claims use since Aug. 12, 1916.

Ser. No. 104,651. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WM. C. ROBINSON & SON CO., Baltimore, Md. Filed June 23, 1917.



Particular description of goods.—A Sulfonated Oil for Use in Sizing Cotton, Silk, and Woolen Yarns.
Claims use since Apr. 30, 1917.

Ser. No. 104,683. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE NORTHEASTERN COMPANY, Boston, Mass. Filed June 25, 1917.

NOREACOL

Particular description of goods.—Wood-Preservatives, Fungicides, Insecticides, and Disinfectants.
Claims use since June 4, 1917.

Ser. No. 104,685. (CLASS 48. MALT EXTRACTS AND LIQUORS.) JOHN F. OERTEL COMPANY, Louisville, Ky. Filed June 25, 1917.

CEREILA

Particular description of goods.—Non-Alcoholic Beverages Made from Barley-Malt, Cereals, and Hops and Sold at Soda-Fountains as Soft Drinks.
Claims use since Mar. 17, 1917.

Ser. No. 104,712. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CALOTABS COMPANY, Atlanta, Ga. Filed June 27, 1917.

Calotabs

Particular description of goods.—A Laxative.
Claims use since June 7, 1917.

Ser. No. 104,724. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BASIL VAHRATOGLOU, Ithaca, N. Y. Filed June 27, 1917.

VAHRAT

The trade-mark being the first six letters of applicant's name.
Particular description of goods.—Dandruff Cure and Hair-Tonic.
Claims use since June 10, 1917.

Ser. No. 104,770. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRANK S. COLWELL, Pawnee City, Nebr. Filed June 30, 1917.

ALMOLINE

Particular description of goods.—A Salve or Balm for Treatment of Cold, Catarrh, Hay-Fever, Croup, Whooping-Cough, Piles, Soreness of the Muscles, Boils, Sore Feet, Scalp Disease, Eczema, and Kindred Diseases.
Claims use since Feb. 12, 1914.

Ser. No. 104,804. (CLASS 31. FILTERS AND REFRIGERATORS.) UNITED REFRIGERATOR COMPANIES, Richmond, Ind. Filed July 2, 1917.

HOOSIER

Particular description of goods.—Refrigerators.
Claims use since Sept. 15, 1911.

Ser. No. 104,821. (CLASS 12. CONSTRUCTION MATERIALS.) THE VITRIFYX COMPANY, Chicago, Ill. Filed July 3, 1917.

Vitro-Mastic

Particular description of goods.—Composition for Surfacing Floors.
Claims use since on or about January, 1917.

Ser. No. 104,925. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JULIUS E. GUSTAFSON, Jacksonville, Fla. Filed July 9, 1917.

SAFRASCO

Particular description of goods.—A Disinfectant, Deodorant, and Germicide.
Claims use since November, 1913.

Ser. No. 104,999. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MARGARET CLASGENS, Chicago, Ill. Filed July 12, 1917.

HYGIENATHAL

Particular description of goods.—A Gargle and Mouth-Wash.
Claims use since June 14, 1917.

Ser. No. 105,013. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE COOPERATIVE DRUG CO., Ravenswood, W. Va. Filed July 13, 1917.

BURTONE

Particular description of goods.—Stomach and Liver Tablets.
Claims use since October, 1916.

Ser. No. 105,014. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHONE PEROXIDE COMPANY, New York, N. Y. Filed July 13, 1917.

Non'Plus Ultra

Particular description of goods.—Peroxid of Hydrogen.
Claims use since June, 1915.

Ser. No. 105,037. (CLASS 30. CROCKERY, EARTHENWARE, AND PORCELAIN.) GEORGE BORGFELDT & CO., New York, N. Y. Filed July 14, 1917.



Particular description of goods.—China Ware, as Follows: Dinner Sets; Tea, Coffee, and Chocolate Sets; Dresser Sets, Mayonnaise Sets, Salad-Dishes, Cake-Plates, Bowls and Baskets, Cabarets, Olive-Dishes, Bulb-Bowls; Mugs, Jugs, and Pitchers; Jardinières, Candlesticks and Candelabra, and Trays.
Claims use since about July 1, 1917.

Ser. No. 105,050. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LOUIS RUBENSTEIN, Seattle, Wash. Filed July 14, 1917.

Casagar

Particular description of goods.—A Laxative Preparation in the Form of a Powder.
Claims use since June 16, 1917.

Ser. No. 105,064. (CLASS 2. RECEPTACLES.) MONARCH SANITARY STOCK TROUGH COMPANY, INC., Webster City, Iowa. Filed July 16, 1917.

MONARCH

Particular description of goods.—Stock-Feeding Devices.
Claims use since on or about Mar. 1, 1917.

Ser. No. 105,083. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) STERLING GALT, Emmittsburg, Md. Filed July 17, 1917.



Particular description of goods.—A Stomach-Tonic.
Claims use since July 12, 1917.

Ser. No. 105,108. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ISAAC F. CHANSLOR, Maysville, Ky. Filed July 19, 1917.

Athosine

Particular description of goods.—Liver Medicine.
Claims use since June 18, 1917.

Ser. No. 105,134. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ASHER J. ODENWELDER, Jr., Easton, Pa. Filed July 19, 1917. Under ten-year proviso.

CAM-PHE-NYL

Particular description of goods.—A Liquid Preparation Intended to Destroy the Itch-Insect and All Kinds of Minute Vermin Affecting the Human Body, Also an Antiseptic for Dental Use.
Claims use since 1890.

Ser. No. 105,173. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MELBA MANUFACTURING CO., Chicago, Ill. Filed July 21, 1917.

BREMA

Particular description of goods.—Perfumes, Toilet Waters, Toilet Powders, and Cosmetics.
Claims use since about Jan. 1, 1917.

Ser. No. 105,182. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) UNITED DRUG COMPANY, Boston, Mass. Filed July 21, 1917.

Nailoid

Particular description of goods.—Preparations for Use in Removing Cuticle Around Finger and Toe Nails.
Claims use since prior to June 1, 1917.

Ser. No. 105,192. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EASTMAN KODAK CO., Rochester, N. Y. Filed July 23, 1917.

AZO

Particular description of goods.—Photographic Developer.
Claims use since Jan. 1, 1899.

Ser. No. 105,268. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEORGE LAWSON NEFF, Pittsburgh, Pa. Filed July 25, 1917.

NEFFCO

Particular description of goods.—Baking-Powder.
Claims use since Feb. 3, 1915.

Ser. No. 105,269. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) NORMANDIE CO., Norfolk, Va. Filed July 25, 1917.

KonKo

Particular description of goods.—Non-Alcoholic Beverages Sold as a Soft Drink.
Claims use since Jan. 1, 1915.

Ser. No. 105,270. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) NORMANDIE CO., Norfolk, Va. Filed July 25, 1917.

KotKo

Particular description of goods.—Non-Alcoholic Beverages Sold as a Soft Drink.
Claims use since Jan. 1, 1915.

Ser. No. 105,274. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RIDENOUR BAKER GROCERY COMPANY, Kansas City, Mo. Filed July 25, 1917.

OVEN TEST

Particular description of goods.—Baking-Powder.
Claims use since Jan. 15, 1908.

Ser. No. 105,282. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) E. L. WISEMAN, Reno, Nev. Filed July 25, 1917.

RACURA



Particular description of goods.—A Preparation for Use in the Treatment of Corns, Callouses, Ingrown Nails, and All Foot Troubles.
Claims use since Apr. 23, 1917.

Ser. No. 105,467. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) CALIFORNIA MEDICINAL SPRINGS CO., Deer Lick Springs, Cal. Filed Aug. 4, 1917.

JOY

Particular description of goods.—Spring-Water.
Claims use since August, 1916.

TRADE-MARK REGISTRATIONS GRANTED

SEPTEMBER 4, 1917.

118,370. PATENT UPPER-LEATHERS. ADIRONDACK LEATHER CO. INC., New York, N. Y.
Filed May 11, 1917. Serial No. 103,710. PUBLISHED JULY 3, 1917.

118,371. CARBON-REMOVER. THE ALLWORTH COMPANY, Chicago, Ill.
Filed April 20, 1917. Serial No. 103,134. PUBLISHED JUNE 19, 1917.

118,372. SMOKING AND CHEWING TOBACCO, TOBACCO PLUGS, AND CIGARETTES. THE AMERICAN TOBACCO CO., New York, N. Y.
Filed February 9, 1917. Serial No. 101,254. PUBLISHED JULY 3, 1917.

118,373. BACON. ARMSTRONG PACKING COMPANY, Dallas, Tex.
Filed April 16, 1917. Serial No. 103,001. PUBLISHED JULY 3, 1917.

118,374. CANNED RAW OYSTERS. ARMSTRONG SEATAG CORPORATION, Hampton, Va.
Filed January 10, 1917. Serial No. 100,507. PUBLISHED JULY 3, 1917.

118,375. BROOMS. ATLANTIC TRUST COMPANY, Jacksonville, Fla.
Filed May 4, 1917. Serial No. 103,523. PUBLISHED JULY 3, 1917.

118,376. COFFEE. BEAU-SITE COMPANY, New York, N. Y.
Filed December 23, 1916. Serial No. 100,141. PUBLISHED JULY 3, 1917.

118,377. BAGGAGE-CARRIERS USED AS ATTACHMENTS TO VEHICLES. BEAVER MOTOR DEVICES Co., Buffalo, N. Y.
Filed March 19, 1917. Serial No. 102,239. PUBLISHED JULY 3, 1917.

118,378. HAIR-NETS. J. S. BENDER COMPANY, New York, N. Y., assignors to Bender-Spitz Company.
Filed April 19, 1917. Serial No. 103,101. PUBLISHED JULY 3, 1917.

118,379. SEEDS. ALFRED J. BROWN SEED Co., Grand Rapids, Mich.
Filed May 18, 1917. Serial No. 103,912. PUBLISHED JULY 3, 1917.

118,380. CERTAIN NAMED FANCY GOODS, FURNISHINGS, AND NOTIONS. BROWN DURRELL Co., Boston, Mass.
Filed April 3, 1916. Serial No. 94,060. PUBLISHED JUNE 26, 1917.

118,381. CLOCKS. NELSON H. BROWN, Boston, Mass.
Filed March 6, 1917. Serial No. 101,901. PUBLISHED JUNE 26, 1917.

118,382. PORTABLE BUILDINGS. J. H. BURTON & Co. INC., New York, N. Y.
Filed May 3, 1917. Serial No. 103,492. PUBLISHED JULY 3, 1917.

118,383. CERTAIN NAMED KNITTED, NETTED, AND TEXTILE FABRICS. L. C. CHASE & COMPANY, Boston, Mass.
Filed February 2, 1917. Serial No. 101,118. PUBLISHED JULY 3, 1917.

118,384. MONTHLY PERIODICAL. CHILDS COMPANY, New York, N. Y.
Filed May 2, 1917. Serial No. 103,466. PUBLISHED JULY 3, 1917.

118,385. HAIR-WASH. CLOUTIER & JARVIS, Claremont, N. H.
Filed March 20, 1917. Serial No. 102,282. PUBLISHED JUNE 19, 1917.

118,386. COLLARS, SHIRTS, CUFFS, PAJAMAS, AND BATH-ROBES. CLUETT PEABODY & Co. INC., Troy, N. Y.
Filed March 3, 1917. Serial No. 101,854. PUBLISHED JULY 3, 1917.

118,387. MEN'S BELTS. COLUMBIA LEATHER GOODS MFG. Co., INC., New York, N. Y.
Filed April 26, 1917. Serial No. 103,319. PUBLISHED JUNE 26, 1917.

118,388. WHEAT-FLOUR. COMMUNITY MARVEL MILLERS' ASSOCIATION, Owensboro, Ky.
Filed April 3, 1917. Serial No. 102,683. PUBLISHED JULY 3, 1917.

118,389. BOOTS AND SHOES MADE OF RUBBER AND CANVAS. CONVERSE RUBBER SHOE Co., Malden, Mass.
Filed March 24, 1917. Serial No. 102,406. PUBLISHED JULY 3, 1917.

118,390. DRIVE-CHAINS OF ORDINARY METAL FOR GENERAL PURPOSES IN THE TRANSMISSION OF POWER. THE COVENTRY CHAIN COMPANY LTD., Coventry, England.
Filed November 10, 1915. Serial No. 90,556. PUBLISHED JANUARY 9, 1917.

118,391. PREPARED ANIMAL AND POULTRY FOODS. DARLING & COMPANY, Chicago, Ill.
Filed May 16, 1917. Serial No. 103,860. PUBLISHED JULY 3, 1917.

118,392. WRITING FLUID, RED INK, AND FOUNTAIN-PEN INK. DIAMOND INK Co., Milwaukee, Wis.
Filed March 12, 1917. Serial No. 102,070. PUBLISHED JUNE 26, 1917.

118,393. FILLER OR PIGMENT FOR USE IN THE MANUFACTURE OF RUBBER TIRES. DURBX CHEMICAL CORPORATION, New York, N. Y., and Sweetwater, Tenn.
Filed April 12, 1917. Serial No. 102,903. PUBLISHED JUNE 19, 1917.

118,394. AUTOMOBILE-PATCHES. DURKEE-ATWOOD Co., Minneapolis, Minn.
Filed May 15, 1917. Serial No. 103,815. PUBLISHED JULY 3, 1917.

118,395. COFFEE, TEA, AND COCOA. EDMANDS COFFEE COMPANY, Boston and Worcester, Mass., and Detroit, Mich.
Filed March 16, 1915. Serial No. 85,180. PUBLISHED JULY 3, 1917.

118,396. LEATHER. THE JOSEPH N. EISENDRATH COMPANY, Chicago, Ill.
Filed April 27, 1917. Serial No. 103,348. PUBLISHED JULY 3, 1917.

118,397. FACE ROUGE AND POWDER. EL MORO Co., Schenectady, N. Y.
Filed August 31, 1915. Serial No. 88,923. PUBLISHED NOVEMBER 23, 1915.

118,398. PREPARATION OF HYPOPHOSPHITES. FELLOWS MEDICAL MANUFACTURING COMPANY, INC., New York, N. Y.
Filed April 25, 1917. Serial No. 103,298. PUBLISHED JUNE 5, 1917.

118,399. BROOMS. WILLIAM A. FIELD, Kansas City, Mo.
Filed May 4, 1917. Serial No. 103,527. PUBLISHED JULY 3, 1917.

118,400. PLASTIC ROOF-COVERING COMPOUND. GEORGE A. FISHER, Merchantville, N. J.
Filed March 16, 1917. Serial No. 102,182. PUBLISHED JULY 3, 1917.

118,401. RICE. FORT SMITH COFFEE COMPANY, Fort Smith, Ark.
Filed May 15, 1917. Serial No. 103,820. PUBLISHED JULY 3, 1917.

118,402. CERTAIN NAMED BRUSHES, BROOMS, AND DUSTERS. GOLDMAN COSTUME COMPANY, New York, N. Y.
Filed January 13, 1917. Serial No. 100,598. PUBLISHED JUNE 5, 1917.

118,403. CERTAIN NAMED KNITTED, NETTED, AND TEXTILE FABRICS. GOLDMAN COSTUME COMPANY, New York, N. Y.
Filed January 18, 1917. Serial No. 100,703. PUBLISHED JULY 3, 1917.

118,404. CERTAIN NAMED ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES. GOLDMAN COSTUME COMPANY, New York, N. Y.
Filed January 24, 1917. Serial No. 100,878. PUBLISHED JUNE 12, 1917.

118,405. CERTAIN NAMED PAINTS AND PAINTERS' MATERIALS. GOLDMAN COSTUME COMPANY, New York, N. Y.
Filed January 24, 1917. Serial No. 100,886. PUBLISHED JUNE 5, 1917.

118,406. CERTAIN NAMED FANCY GOODS, FURNISHINGS, AND NOTIONS. GOLDMAN COSTUME COMPANY, New York, N. Y.
Filed March 6, 1917. Serial No. 101,915. PUBLISHED JUNE 26, 1917.

118,407. CERTAIN NAMED ARTICLES MADE OF PORCELAIN, CHINA, OR OF EARTHENWARE. W. H. GOSS, A FIRM, Stoke-upon-Trent, England.
Filed December 18, 1916. Serial No. 100,006. PUBLISHED JULY 3, 1917.

118,408. BREAD. HALLER BAKING COMPANY, Pittsburgh, Pa.
Filed December 15, 1915. Serial No. 91,497. PUBLISHED MARCH 7, 1916.

118,409. FOUNTAIN BRUSHES AND CLAMP FOR CONNECTING WATER-SUPPLY-HOSE NOZZLES WITH THE BRUSHES. THOMAS F. HARRISON, Augusta, Ga.
Filed May 3, 1917. Serial No. 103,503. PUBLISHED JULY 3, 1917.

118,410. ANT-DESTROYER. B. HELLER & Co., Chicago, Ill.
Filed April 9, 1917. Serial No. 102,831. PUBLISHED MAY 29, 1917.

118,411. BISCUITS. WILLIAM JOSEPH HELLSTERN, New Haven, Conn.
Filed February 16, 1917. Serial No. 101,424. PUBLISHED JULY 3, 1917.

118,412. CANNED CONDENSED MILK. HELVETIA MILK CONDENSING COMPANY, Highland, Ill.
Filed May 15, 1917. Serial No. 103,825. PUBLISHED JUNE 26, 1917.

118,413. OVERALLS, DRESS-SHIRTS, NEGLIGÉES, AND WORK-SKIRTS. HOSCH BROS. CO., Gainesville, Ga.
Filed March 26, 1917. Serial No. 102,447. PUBLISHED JULY 3, 1917.

118,414. LINIMENTS AND MEDICINAL PREPARATIONS FOR TREATING CERTAIN NAMED DISEASES AND AILMENTS. THE IMPERIAL CHEMICAL CO. LTD., Altoona, Pa.
Filed February 20, 1917. Serial No. 101,546. PUBLISHED JUNE 19, 1917.

118,415. BUTTER. IOWA CITY PRODUCE COMPANY, Iowa City, Iowa.
Filed May 15, 1917. Serial No. 103,829. PUBLISHED JULY 3, 1917.

118,416. TITLE OR HEADING OF A COLUMN OF HUMOROUS MATTER IN A PERIODICAL PUBLICATION. DAVID KAMNETZKY, Cleveland, Ohio.
Filed April 28, 1917. Serial No. 103,385. PUBLISHED JULY 3, 1917.

118,417. COTTON DUCK, TIRE FABRIC, CANVAS, SAIL-CLOTH, TENT-CLOTH, COTTON BAGGING. RATAMA MILLS, Boston, Mass.
Filed February 12, 1917. Serial No. 101,336. PUBLISHED JULY 3, 1917.

118,418. OUTFITS FOR VULCANIZING RUBBER TIRES. FRED O. LAKE, Washington, D. C.
Filed March 10, 1917. Serial No. 102,041. PUBLISHED JULY 3, 1917.

118,419. WHEAT-FLOUR. ALEXANDER LERMAN, Philadelphia, Pa.
Filed February 16, 1917. Serial No. 101,429. PUBLISHED JUNE 5, 1917.

118,420. AUTOMOBILES. LIBERTY MOTOR CAR COMPANY, Detroit, Mich.
Filed April 27, 1917. Serial No. 103,355. PUBLISHED JULY 3, 1917.

118,421. LACE CURTAINS, DRAPERIES, AND ORNAMENTAL DOOR AND WINDOW HANGINGS OF TEXTILE MATERIAL. LOEB & SCHOENFELD COMPANY, Wilmington, Del.; Camden, N. J., and New York, N. Y.
Filed May 7, 1917. Serial No. 103,601. PUBLISHED JULY 3, 1917.

118,422. SELF-RISING WHEAT-FLOUR. A. J. LONG CIGAR & GROCERY CO., Macon, Ga.
Filed May 8, 1917. Serial No. 103,648. PUBLISHED JULY 3, 1917.

118,423. MIDDY-BLOUSES, CHILDREN'S DRESSES, MISSES' AND LADIES' COTTON SUITS. MAASS & KEMPER (A NEW JERSEY CORP.), Baltimore, Md.
Filed April 30, 1917. Serial No. 103,423. PUBLISHED JULY 3, 1917.

118,424. LINIMENTS AND REMEDIES FOR THE TREATMENT OF BRUISES, SORES, INTERNAL AND EXTERNAL WOUNDS, ABRASIONS. CHARLES E. MALEY, Little York, Ill.
Filed April 21, 1917. Serial No. 103,179. PUBLISHED JUNE 19, 1917.

118,425. CERTAIN NAMED FANCY GOODS, FURNISHINGS, AND NOTIONS. MARTINS BIRMINGHAM LIMITED, Birmingham, England.
Filed March 8, 1917. Serial No. 101,989. PUBLISHED JUNE 26, 1917.

118,426. FACE-POWDERS. ESTATE HENRY C. MINER INCORPORATED, New York, N. Y.
Filed April 7, 1917. Serial No. 102,808. PUBLISHED JUNE 19, 1917.

118,427. STOCK FEED. ESTATE OF H. C. MINOR, Houma, La.
Filed February 24, 1916. Serial No. 93,072. PUBLISHED JULY 3, 1917.

118,428. CANNED VEGETABLES. RALPH MITCHELL, Aberdeen, Md.
Filed May 15, 1917. Serial No. 103,835. PUBLISHED JUNE 26, 1917.

118,429. NEWS-PRINT PAPER. PEJEPSCOT PAPER COMPANY, New York, N. Y.
Filed May 19, 1916. Serial No. 95,276. PUBLISHED JUNE 26, 1917.

118,430. CERTAIN NAMED CLOTHING FOR MEN, WOMEN, AND CHILDREN. RICE & HUTCHINS, INCORPORATED, Boston, Mass.
Filed May 29, 1917. Serial No. 104,145. PUBLISHED JULY 3, 1917.

118,431. LADIES' AND CHILDREN'S DRESSES, APRONS, AND APRON-DRESS. SANGER BROTHERS, Dallas and Waco, Tex., and New York, N. Y.
Filed May 25, 1917. Serial No. 104,086. PUBLISHED JULY 3, 1917.

118,432. WHEAT-FLOUR. SCOTT COUNTY MILLING COMPANY, Sikeston, Mo.
Filed May 12, 1917. Serial No. 103,747. PUBLISHED JULY 3, 1917.

118,433. WHEAT-FLOUR. SCOTT COUNTY MILLING COMPANY, Sikeston, Mo.
Filed May 12, 1917. Serial No. 103,749. PUBLISHED JULY 3, 1917.

118,434. WHEAT-FLOUR. SCOTT COUNTY MILLING COMPANY, Sikeston, Mo.
Filed May 12, 1917. Serial No. 103,751. PUBLISHED JULY 3, 1917.

118,435. WHEAT-FLOUR. SCOTT COUNTY MILLING COMPANY, Sikeston, Mo.
Filed May 12, 1917. Serial No. 103,752. PUBLISHED JULY 3, 1917.

118,436. SELF-RISING WHEAT-FLOUR. SCOTT COUNTY MILLING COMPANY, Sikeston, Mo.
Filed May 12, 1917. Serial No. 103,753. PUBLISHED JULY 3, 1917.

118,437. CERTAIN NAMED UNDERMUSLINS. SEARS, ROEBUCK AND CO., Chicago, Ill.
Filed May 25, 1917. Serial No. 104,089. PUBLISHED JULY 3, 1917.

118,438. LADIES' AND MISSES' DRESSES. SHAPERO, LEWIS & CO., New York, N. Y.
Filed March 31, 1917. Serial No. 102,633. PUBLISHED JUNE 12, 1917.

118,439. PUBLICATIONS USED IN TEACHING SCIENTIFIC SALESMANSHIP, PUBLISHED PERIODICALLY. THE SHELDON SCHOOL, Area and Chicago, Ill.
Filed January 25, 1917. Serial No. 100,936. PUBLISHED JULY 3, 1917.

118,440. PUBLICATIONS USED IN TEACHING SCIENTIFIC SALESMANSHIP, PUBLISHED PERIODICALLY. THE SHELDON SCHOOL, Area and Chicago, Ill.
Filed January 25, 1917. Serial No. 100,937. PUBLISHED JULY 3, 1917.

118,441. STRUCTURAL CEMENT. SOUTH AMERICAN SHIPPING COMPANY, New York, N. Y.
Filed April 11, 1917. Serial No. 102,894. PUBLISHED JULY 3, 1917.

118,442. RUBBER AND FABRIC HOSE, RUBBER BELTING, RUBBER PACKING. SOUTHERN RAILWAY SUPPLY AND EQUIPMENT CO., St. Louis, Mo.
Filed January 25, 1917. Serial No. 100,940. PUBLISHED JULY 3, 1917.

118,443. DRESSES, OUTER SKIRTS, SHIRT-WAISTS, AND MIDDY-BLOUSES. SOUTHLAND GARMENT MFG. COMPANY, Houston, Tex.
Filed July 1, 1916. Serial No. 96,280. PUBLISHED JULY 3, 1917.

118,444. CRUSHED SLATE FOR USE AS A SURFACING-GRIT FOR PREPARED ROOFINGS. STASO LAMINATED SLATE COMPANY, Chicago, Ill.
Filed July 10, 1916. Serial No. 96,474. PUBLISHED JULY 3, 1917.

118,445. BRAKELININGS AND TRANSMISSION-LININGS. STATBESTOS MANUFACTURING COMPANY, Philadelphia, Pa.
Filed May 5, 1917. Serial No. 103,571. PUBLISHED JULY 3, 1917.

118,446. HOSIERY. SULLOWAY MILLS, Franklin, N. H.
Filed May 18, 1917. Serial No. 103,939. PUBLISHED JULY 3, 1917.

118,447. CERTAIN BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES. THERMOID RUBBER COMPANY, Hamilton township, Trenton, Mercer county, N. J.
Filed March 2, 1917. Serial No. 101,839. PUBLISHED JULY 3, 1917.

118,448. WHEAT-FLOUR. THORNTON & CHESTER MILLING CO., Buffalo, N. Y.
Filed May 3, 1916. Serial No. 94,881. PUBLISHED JULY 3, 1917.

118,449. BISCUIT. VIRGINIA BAKING CO., INC., Richmond, Va.
Filed May 12, 1917. Serial No. 103,758. PUBLISHED JULY 3, 1917.

118,450. SNAP-FASTENERS OF ALL KINDS. WALDES & CO., Prague-Wrschowitz, Austria-Hungary, assignor to Waldes & Company of New Jersey, a Corporation of New Jersey.
Filed October 28, 1916. Serial No. 98,966. PUBLISHED JUNE 26, 1917.

118,451. CORSETS. THE WARNER BROS. CO., Bridgeport, Conn.
Filed May 22, 1917. Serial No. 104,014. PUBLISHED JULY 3, 1917.

118,452. CORSETS. THE WARNER BROS. CO., Bridgeport, Conn.
Filed May 22, 1917. Serial No. 104,015. PUBLISHED JULY 3, 1917.

118,453. EVAPORATED MILK. WATERLOO CREAMERY COMPANY, Council Bluffs, Iowa.
Filed April 21, 1917. Serial No. 103,190. PUBLISHED JUNE 26, 1917.

118,454. APPLE-JUICE. HENRY WEINHARD ESTATE, Portland, Oreg.
Filed May 19, 1917. Serial No. 103,972. PUBLISHED JULY 3, 1917.

118,455. VEHICLES—NAMELY, FOR AUTOMOBILES. THE WINTON COMPANY, Cleveland, Ohio.
Filed January 29, 1917. Serial No. 101,027. PUBLISHED JULY 3, 1917.

118,456. SHAMPOO PREPARATION. JOHN J. WITTWER, Sr., Seattle, Wash.
Filed April 28, 1917. Serial No. 103,396. PUBLISHED JUNE 19, 1917.

118,457. TOILET CREAMS, TOILET POWDERS. FREDERICK H. YOUNG, Toledo, Ohio.
Filed January 15, 1917. Serial No. 100,641. PUBLISHED MARCH 13, 1917.

LABELS

REGISTERED SEPTEMBER 4, 1917.

20,262.—*Title:* "THE NATUROPATH." (For Cigarettes.) CHARLES F. CONRAD, New York, N. Y. Filed July 26, 1917.

20,263.—*Title:* "THE NATUROPATH." (For Cigars.) CHARLES F. CONRAD, New York, N. Y. Filed July 26, 1917.

20,264.—*Title:* "THE OSTEOPATH." (For Cigars.) CHARLES F. CONRAD, New York, N. Y. Filed July 26, 1917.

20,265.—*Title:* "THE OSTEOPATH." (For Cigarettes.) CHARLES F. CONRAD, New York, N. Y. Filed July 26, 1917.

20,266.—*Title:* "AMERICAN TUTTI-FRUTTI UNCLE SAM'S CHOICE CONFECTIONS." (For Tutti-Frutti Tablets.) HARRY RUTHVEN CROWLEY, Philadelphia, Pa. Filed August 17, 1917.

20,267.—*Title:* "THE E. B. WATERPROOF POLISH FOR CLEANING AND POLISHING." (For Waterproof Polish.) E. B. POLISH CO., Harrisville, R. I. Filed December 29, 1916.

20,268.—*Title:* "ARBELLA." (For Cigars.) LISARDO RODRIGUEZ, Milwaukee, Wis. Filed August 18, 1917.

20,269.—*Title:* "C. V." (For a Non-Intoxicating Beverage.) TERRE HAUTE BREWING CO., Terre Haute, Ind. Filed July 26, 1917.

20,270.—*Title:* "ASSORTED CHOCOLATES TO-MORROWS." (For Candy-Boxes.) VAL BLATZ JR. CANDY CO., Milwaukee, Wis. Filed August 15, 1917.

20,271.—*Title:* "YESTERDAY'S CHOCOLATES ASSORTED." (For Candy-Boxes.) VAL BLATZ JR., CANDY CO., Milwaukee, Wis. Filed August 15, 1917.

20,272.—*Title:* "POTAGE DU PONT." (For Concentrated Vegetable Soups Containing Beans.) AUGUSTE FRANCOIS PAUL DU PONT, New York, N. Y. Filed July 5, 1917.

20,273.—*Title:* "PUREE DU PONT." (For Concentrated Vegetable Dish Containing Peas but Not Soup.) AUGUSTE FRANCOIS PAUL DU PONT, New York, N. Y. Filed July 5, 1917.

20,274.—*Title:* "DU PONT SOUPS TRI-COLOR BRAND." (For Concentrated Soups Containing Green Vegetables.) AUGUSTE FRANCOIS PAUL DU PONT, New York, N. Y. Filed July 5, 1917.

20,275.—*Title:* "DU PONT PUREE TRI-COLOR BRAND." (For Concentrated Vegetable Dish Other Than Soups.) AUGUSTE FRANCOIS PAUL DU PONT, New York, N. Y. Filed July 5, 1917.

20,276.—*Title:* "DU PONT CONCENTRATED VEGETABLE SOUP." (For Soups Made of Vegetables.) AUGUSTE FRANCOIS PAUL DU PONT, New York, N. Y. Filed July 5, 1917.

20,277.—*Title:* "DU PONT CONCENTRATED VEGETABLE DISH." (For Concentrated Vegetable Dish Containing Beans.) AUGUSTE FRANCOIS PAUL DU PONT, New York, N. Y. Filed July 5, 1917.

PRINTS

REGISTERED SEPTEMBER 4, 1917.

4,788.—*Title:* "THAT WONDERFUL WHITE LAUNDRY SOAP." (For Soap.) JAMES S. KIRK & COMPANY, Chicago, Ill. Filed August 16, 1917.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

CAMPBELL *v.* DYSON *v.* DUNHAM.

Decided December 27, 1916.

1. INTERFERENCE—SECOND DECLARATION.

Where an interference declared between parties K. and D. was dissolved on the ground that K. had no right to make a claim suggested to him by the Office, and C., also assignor to the assignee of K., had before the dissolution made some of the claims of the issue, *Held* that the right of C. to make the claim was not *res adjudicata* by reason of the dissolution of the first interference.

2. SAME—PURPOSE—NOT TO DETERMINE PATENTABILITY.

An interference is not a proceeding to determine whether the parties have a right to a patent. It starts with the assumption that both parties have a clear right to a patent except for the simultaneous claim of the other.

3. SAME—DISSOLUTION—EFFECT OF.

The dissolution of an interference on the ground that one of the parties has no right to make any of the claims of the issue is merely a ruling that it was a mistake to declare the interference as to that party.

4. SAME—SAME—SAME.

A previous interference which terminated without final hearing and decided nothing more than that one of the parties thereto did not have the invention in issue does not work estoppel against a common assignee to contest priority with the successful party on the basis of another application which prior to the termination of the prior interference contained claims corresponding to the issue thereof and a request to be included therein.

APPEAL from Examiners-in-Chief.

TELEPHONE SYSTEM.

Messrs. Bulkley & Sweenarton and *Mr. E. D. Fales* for Campbell.

Mr. Curtis B. Camp for Dyson.

Mr. D. C. Tanner and *Mr. John G. Roberts* for Dunham.

CLAY, *Assistant Commissioner:*

Campbell, the junior party in a three-party interference, appeals from the affirmance by the Board of Examiners-in-Chief of a decision by the Examiner of Interferences that he "is not the first inventor of the subject-matter in issue" on the ground that Campbell or his assignee is estopped to make the claims by reason of a decision in a certain prior interference which involved not the application of Campbell, but one of another assignor to the same assignee.

There seems to be necessary only the consideration of a few salient facts, as follows: that in a previous interference, No. 36,232, there were involved the same applications of these senior parties, Dyson and Dunham, against one Keith, whose application belongs to the same assignee as that of Campbell; that in that former interference, on motion brought by Dunham, the Law Examiner ruled on February 18, 1915, that Keith had no right to make certain claims involved therein identical with certain claims in this present interference and ordered a dissolution; that on December 9, 1914, Campbell had amended his present application by presenting certain claims of which one corresponds to a count (11) in the said previous interference (No. 36,232) and another of which is identical with a claim (12) of Dunham's original application, Campbell presenting these claims with the suggestion that an interference be declared between him and Dunham. Furthermore, it appears that after the dissolution of the previous interference (No. 36,232) on the ground that Keith did not have the invention there involved neither Keith nor his assignee appealed.

Campbell has been held not to be the first inventor on the ground that the real party in interest is the assignee and that the assignee is estopped to contest now on the basis of Campbell's application what it previously did or might have contested on the basis of Keith's application. The theory of the lower tribunals was that the assignee might have put Campbell in the previous contest and that it was incumbent upon it to take whatever steps were necessary to bring into that former Keith interference or some other interference copending with it Campbell's or any other application it had in which the claim might have been made. As the Examiners-in-Chief express it—

> an assignee of two assignors is estopped by a decision against him upon the case of one assignor from pressing the case of another assignor as a basis for an equivalent demand.

Elsewhere they express their view this way: that the previous interference was like a bill and cross-bill, where each party was making a demand; the parties against the assignee presented their cause of action, whereupon the assignee set up as a defense the invention of Keith; this defense having failed they cannot now set up a new defense on the basis of Campbell's invention. They consider it

immaterial whether the assignee failed to set up Campbell's invention through a misunderstanding or whether he was a claimant during the Keith interference or whether it was the express representation of the Patent Office to the assignee that Keith had the invention which gave rise to the previous Keith interference.

As it is obvious that if Keith did not disclose the invention it would have done him no good to appeal or even to go to final hearing on the interference issue, the view expressed by the Examiners-in-Chief in this case would amount to a holding that after the assignee has adopted the Office suggestion and tried to secure a patent on the basis of Keith's application in a tentative interference and found that Keith's application was not a basis for a patent it could not thereafter contest the right of Dyson or Dunham on any other basis. I think the rule cannot be so broadly stated. I do not follow the parallel between the present case and a case of bill and cross-bill. An interference is not a proceeding to determine whether the parties have a right to a patent. It starts with the assumption that both parties have a clear right to a patent except for the simultaneous claim of the other. Each party is presumed to have a right to the patent otherwise, but to be barred by the claim of the other. The contest is therefore as to which of two inventors, each with a clear right, was the first to invent. The fact that Keith was found upon inquiry not to have the invention at all has no bearing upon the question whether Campbell had the invention; nor has it any bearing on the question whether Keith was before Dyson or Dunham. I agree with the reasoning of the minority of the Board on this point.

Numerous and complicated rulings which have developed in interference practice create danger of departing from logic and justice if applied without regard to the circumstances of each case. For example, the ruling of the Examiner of Interferences, here up for review, was that Campbell was not the first inventor. The fact is, however, that there never was any inquiry as to who was the first inventor. It would have been immaterial whether Campbell was the first inventor or not, for what the ruling means is simply that Campbell or his assignee is barred of a patent irrespective of any question of priority of invention. The ruling in the previous Keith interference was, in fact, nothing more than a decision that it was a mistake to suppose Keith ever had the invention, and there was no interference with Keith, any more than there has been a boat race when the race was declared off because one of the contestants was found to have no boat to race in. Whether a default will result in estoppel of a new contest, however, is a question to be determined by the particular circumstances.

The peculiarities of this case, making it unlike any case I find passed upon by the courts, are these:

The previous Keith interference came about by the Patent Office offering to Keith on February 5, 1913, a certain claim which Keith had not before made and which presumably was taken from another application, of which he was presumably ignorant. He was offered it with the alternative of either making the claim in the dark or else admitting that he had never invented the subject-matter thereof. Under such circumstances Keith could not know the meaning or scope of the claim. He was ignorant of the disclosure upon which the claim was based. He was not even in a situation to certainly tell whether the claim, with a proper construction, would read upon his own disclosure. Dealing thus with unknown rights he made the claim, and the interference was declared. Thereupon Keith's opponent moved to dissolve the interference on the ground that Keith had no disclosure, and upon inquiry it was found that, as a matter of fact, Keith did not have the invention he was supposed by the Office to have. Obviously he agreed to this, for he did not come to final hearing on the question of priority and did not appeal. Before the ruling dissolving the Keith interference Campbell had presented a claim to the same subject-matter and specifically requested an interference with Dunham. Under section 4904 of the Revised Statutes it was the duty of the Office to see that Campbell was made a party to an interference. He cannot be adjudged guilty of laches because the requested interference was not instituted.

Whether the assignee is estopped under such conditions does not seem to have been decided by any of the cases mentioned in the record or the briefs. On the one hand, it is a sound rule, well established, that after the owner of several applications has fought through an interference with another party on one of those applications and been defeated he may not afterward come forward with a second one of his applications and again challenge the right of his successful opponent to the patent awarded him as the result of the first interference. On the other hand, the decisions of the courts do not go so far as to say that there is estoppel by judgment merely because there might have been a prior judgment, when, as a matter of fact, there was not. The question decided in the prior Keith interference was whether or not Keith had the invention. That question it is not now proposed to raise again. It is not a case such as that of *ex rel. Newcomb Motor Co.* v. *Moore*, (30 App. D. C., 464; 133 O. G., 1680,) because the assignee is not trying to raise again the question which has heretofore been decided. In that case the court held, in effect, that if the defeated party was going to insist upon his claim to a patent he must appeal *inter partes* and not *ex parte*—that is, he must take his appeal at a time when the rights of others were dependent upon that question. In the case at bar the previous Keith interference did not end in a judgment of priority and did not even go to final hearing. Campbell's opponents here did not there go through a real litigation. Supposing the assignee at the time the Patent Office offered the claim to Keith had considered whether to put the claim in Keith's application or in Campbell's application, it would seem to be a harsh rule that would require it then and there to decide for itself whether Keith or Campbell was the real prior inventor and to accept the expressed

judgment of the Patent Office that Keith had the invention at its peril, especially when a similar claim and a demand for an interference was to be made on behalf of Campbell and was made before it was decided that Keith did not have the invention. I do not see how it can be held that the assignee of Keith and Campbell is carrying on piecemeal litigation merely because it did not insist upon involving Campbell in an interference before it was decided that, contrary to the originally-expressed view of the Patent Office, Keith should never have been in an interference. If the Keith interference had gone to a final hearing—to a stage of proceedings where a judgment of priority must be entered—a different case would be presented; but, considering all the circumstances above set forth, I am of opinion that this case comes under the principle the court has applied in such cases as *Rotter* v. *Hodgkinson*, (43 App. D. C., 254; 213 O. G., 1118,) and it is held that Campbell's assignee is not estopped.

The decision of the Examiners-in-Chief must therefore be reversed.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

MACWILLIAM *v.* PRESIDENT SUSPENDER COMPANY.

Decided February 5, 1917.

1. TRADE-MARKS—LICENSE TO USE—RIGHT ACQUIRED EXCLUSIVE.

Where owner of a trade-mark grants the right to another, either by sale or license, to use the mark on goods with which its use is connected and abandons its use himself, he cannot afterward either deprive his assignee of the right to its use or set up an adverse use.

2. SAME—SALE OF BUSINESS—CARRIES TRADE-MARK.

It is well settled that the conveyance of a business with its good-will, either by sale or license, carries with it a trade-mark used in connection therewith, whether expressly mentioned in the instrument or not.

3. SAME—SAME—OPPOSITION SUSTAINED—"PRESIDENT" FOR SUSPENDERS.

Where appellant, being owner of a patent and engaged in manufacturing suspenders thereunder and having adopted and used as a trade-mark thereon the word "President" on a colored banner, granted to the predecessor of appellee an exclusive license under the patent and agreed to transfer and turn over the good-will of his business and all orders he had or might thereafter have for said suspenders, the license to continue during the life of the patent, and at request of licensee registered the trade-mark, *Held* when appellee's right to continue business became absolute with the expiration of the patent it had acquired a title to the use of the mark of which it could not be divested by appellant and that the opposition to appellant's application for registration filed June 26, 1914, must be sustained.

Mr. Odin Roberts for the appellant.

Mr. A. V. Cushman for the appellee.

VAN ORSDEL, *J.*:

This is an opposition proceeding brought by appellee, President Suspender Company, to the registration by appellant, Hugh G. Macwilliam, of the trade-mark "President" for suspenders, on an application filed June 26, 1914. Appellee company also filed a petition for the cancelation of a registration of said mark to Macwilliam under date of May 16, 1899. By consent, the two cases have been heard together. The Examiner of Interferences sustained the opposition, and recommended the cancelation of the 1899 registration. These decisions were affirmed by the Commissioner of Patents, from which this appeal was taken.

It appears that a patent for a certain style of suspender was granted to appellant on August 16, 1898. Appellant was at that time engaged in manufacturing the patented suspenders, and had adopted and used as a trade-mark thereon the word "President", printed across a red, white and blue banner. The mark has always been used in connection with this emblem. On October 1, 1898, appellant by written agreement gave an exclusive license to the C. A. Edgarton Manufacturing Company, which subsequently became the appellee company, to manufacture and sell suspenders containing his patented improvements. The license contract carried with it all orders for suspenders then on hand and all stock, machinery and material which the licensor had, and contained a provision whereby the—

said party of the first part agrees to, and he does hereby, turn over and transfer to the party of the second part, the good will of his present business of manufacturing and selling said suspenders within the United States, and all orders he now has or may hereafter take within the United States for the said suspender.

Under the terms of the contract the license was to continue during the life of the patent, unless sooner terminated under conditions which we need not consider, since the contract was not terminated.

The sole question here is whether the license and good-will of the business carried the trade-mark with it. It was more than six months after the license was granted and appellant had suspended the business of manufacturing and selling "President" suspenders that he procured in the Patent Office, at the request of appellee's predecessor, the registration of the mark. At no time during the life of the patent did appellant manufacture suspenders or use the mark in controversy. On the other hand, appellee continued during that period to manufacture the patented article and use the mark. It spent $750,000 in advertising the goods manufactured, sold between thirty and forty million pairs of the suspenders, and paid appellant about $500,000 in royalties. The patent expired on August 16, 1916, and appellant again resumed the business of manufacturing "President" suspenders, and again resumed the use of the mark: hence this action.

Nothing seems to be better established in the law of trade-marks than that where the owner of a trade-mark grants the right to another, either by sale or license, to use the mark on the goods with which its use is connected and abandons its use himself, he cannot afterward either deprive his assignee of the right to its use or set up an adverse use. By use in connection with the business, the assignee acquires the title abandoned by the assignor, and the title is of that exclusive character which is entitled to protection even against such assignor. (*Buffalo Mfg. Co.* v. *Batavia Rubber Co.*, 153 N. Y. Supp., 779; *Huff* v. *Wallace*, 97 Atl. N. J., 45.)

In the Batavia Rubber case, the plaintiff manufactured tires and called them "Security Tread."

It gave defendant a license to make tires and call them "Security" tires. Upon failure of defendant to pay the royalty as agreed, plaintiff attempted to enjoin the use of the word "Security." The court, denying relief, said:

The plaintiff, when it permitted or gave to the defendant the privilege to use the word in connection with tires made by it virtually abandoned the right to claim that the word "Security" in any sense indicated tires manufactured by the plaintiff. It waived and abandoned the use of the word as indicative of origin or ownership.

It is likewise well settled that the conveyance of a business with its good-will, either by sale or license, carries with it a trade-mark used in connection therewith, whether expressly mentioned in the instrument or not. (*Merry* v. *Hoopes*, 111 N. Y., 415; *Corbett Bros. Co.* v. *Reinhardt-Meding Co.*, 77 N. J. Eq., 7; *Myers* v. *Kalamazoo Buggy Co.*, 54 Mich., 215; *Allegretti* v. *Chocolate Cream Co.*, 177 Ill., 129.) In the Corbett case, where by a sale of the entire assets of the partnership everything pertaining to the business was conveyed, the New Jersey court said:

The transfers were effective to convey to the complainant the trade-marks of the partnership, and if the color numbers are part of the trade-marks, the use of them by defendant company is an infringement of complainant's property rights derived under the two bills of sale.

In the Allegretti case, the court said:

The transfer of the property and effects of a business carries with it the exclusive right to use such trade-marks or trade names as have been used in such business. (*Snyder Manf. Co.* v. *Snyder*, 54 Ohio, 86; *Williams* v. *Farrand*, 88 Mich., 473; *Fish Bros. Wagon Co.* v. *La Belle Wagon Works*, 82 Wis., 546; *Merry* v. *Hoopes*, 111 N. Y., 415; *Feder* v. *Benkert*, 18 U. S. Cir. Ct. App., 549.)

Inasmuch as appellant had no right to use the mark, having parted with that right at the date when he applied for the earlier registration in 1899, and had no such right when he filed the present application, it follows that the opposition must be sustained. A trade-mark right depends upon use. Appellant not only ceased to use the mark, but parted with the business with which its use was connected. Title to the mark could not exist apart from the business, and the contract contained no provision by which appellant could recover the business, and, without the business, no right existed in the mark. The license extended during the life of the patent. The invention then became public, and appellee could continue the business which it acquired and the use of the mark in connection therewith.

Appellant, when he conveyed the business to which the mark belonged, conveyed with it the right to use the mark, and, when appellee's right to continue the business became absolute with the expiration of the patent, it had acquired a title to the use of the mark of which it could not be divested by appellant after an abandonment of actual use by him for almost eighteen years. Appellant's title was not such that he could convey it to appellee, abandon the use of the mark, and, after this long lapse of time, regain the use in derogation of the right of appellee company. All the title appellant ever had in the mark was a right to use it in the particular business to which it belonged. Registration confers no higher title. As was said by the court in *Carroll Co.* v. *McIlvaine & Baldwin*, (171 Fed., 125:)

The owner of a trade-mark has no estate in the trade-mark as such, nor does registration confer upon him any monopoly. His position bears no resemblance to that of a patentee. He is entitled to legal protection for his trade-mark only because by granting the same the courts protect the business designated or indicated to the public mind by the trade-mark.

It may well be that had appellee company defaulted in its contract and the business had reverted to appellant before the expiration of the patent and the contract, the right to the use of the mark would also have reverted, but this did not occur, and appellee, succeeding to the right with the expiration of the patent to continue the manufacture of the goods, cannot be deprived of the mark which it acquired from appellant in the fulfilment of its contract in good faith. It is entitled to use it so long as it continues in the business to which the mark belongs.

The decision of the Commissioner of Patents is affirmed, and the clerk is directed to certify these proceedings as by law required.

Affirmed.

THE
OFFICIAL GAZETTE
OF THE
United States Patent Office.

Vol. 242—No. 2. TUESDAY, SEPTEMBER 11, 1917. Price—$5 per year.

The OFFICIAL GAZETTE is mailed under the direction of the Superintendent of Documents, Government Printing Office, to whom all subscriptions should be made payable and all communications respecting the Gazette should be addressed. Issued weekly. Subscriptions, $5.00 per annum; single numbers, 10 cents each.

Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

CONTENTS.

	Page.
ISSUE OF SEPTEMBER 11, 1917	257
ADVERSE DECISIONS IN INTERFERENCE	257
INTERFERENCE NOTICES	257
BRIEFS IN APPEALED CASES	257
APPLICATIONS UNDER EXAMINATION	258
PATENTS GRANTED	259
REISSUES	484
DESIGNS	490
TRADE-MARKS—REGISTRATION APPLIED FOR	497
TRADE-MARK REGISTRATIONS GRANTED	513
LABELS AND PRINTS	514
DECISIONS OF THE U. S. COURTS—	
North American Chemical Co. *v.* Keno Supply Co. (two cases)	515

Issue of September 11, 1917.

Patents	722—No.	1,239,441 to No. 1,240,162,	inclusive
Designs	26—No.	51,249 to No. 51,274,	inclusive
Trade-Marks	21—No.	118,458 to No. 118,478,	inclusive
Labels	6—No.	20,278 to No. 20,283,	inclusive.
Prints	4—No.	4,789 to No. 4,792,	inclusive.
Reissues	10—No.	14,349 to No. 14,358,	inclusive.
Total	789		

"Shall we be more tender with our dollars than with the lives of our sons?"—W. G. McAdoo, Secretary of the Treasury.

SAVE YOUR MONEY

to

BUY A U. S. GOVERNMENT BOND

of the

SECOND LIBERTY LOAN

of 1917

To Help Your Country and Yourself.

Adverse Decisions in Interference.

PATENT NO. 1,123,065.

On July 31, 1917, a decision was rendered that Erle K. Baker was not the first inventor of the subject-matter covered by claims 1, 2, 3, 4, 5, 6, 7, 8, 10, and 11 of his Patent No. 1,123,065, subject, "Vehicle-wheels," and no appeal having been taken within the time allowed such decision has become final.

PATENT NO. 1,146,889.

On July 30, 1917, a decision was rendered that Frank A. Lindquist was not the first inventor of the subject-matter covered by claim 1 of his Patent No. 1,146,889, subject, "Telephone-exchange system," and no appeal having been taken within the time allowed such decision has become final.

PATENT NO. 1,166,926.

On June 30, 1917, a decision was rendered that James F. O'Neill was not the inventor of the subject-matter covered by claims 2, 3, 4, 7, 9, and 10 of his Patent No. 1,166,926, subject, "Automobile-hood," and no appeal having been taken within the time allowed such decision has become final.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., August 18, 1917.

The Garvy Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Gasau-Thompson Company, of No. 124 Atlantic avenue, Brooklyn, N. Y., for registration of a trade-mark and trade-mark registered December 27, 1904, No. 43,935, to The Garvy Company, of Chicago, Ill., and a notice of such declaration sent by registered mail to said The Garvy Company at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said The Garvy Company, its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD,
Acting Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., August 18, 1917.

John N. Preston, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of William B. Coates, Jr., of Lynn, Mass., for registration of a trade-mark and trade-mark registered May 11, 1897, No. 29,998, to John N. Preston, of Pawtucket, R. I., and a notice of such declaration sent by registered mail to said John N. Preston at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said John N. Preston, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD,
Acting Commissioner.

Briefs in Appealed Cases.

All briefs filed in this Office should have conspicuously printed thereon a statement designating the particular tribunal of the Patent Office to which the brief is addressed.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business September 7, 1917.

Room No.	Divisions and subjects of invention.	Oldest new application awaiting office action. New.	Amended.	No. of applications awaiting action.
314	1. Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Railway Gates; Planting; Scattering Unloaders; Trees, Plants, and Flowers.	June 28	June 26	323
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	May 10	June 30	366
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Founding; Metallurgical Apparatus; Metallurgy; Plastic Metal Working.	July 11	July 20	113
234	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Pushing and Pulling Implements; Railway Mail Delivery; Store-Service; Traversing Hoists.	July 25	July 16	201
167	5. Bookbinding; Harvesters; Jewelry; Music	Mar. 30	June 1	312
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Substance Preparation.	Mar. 26	June 8	459
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes	Feb. 7	June 23	783
133	8. Beds; Chairs; Flexible-Sheet Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Apr. 23	July 16	781
221	9. Air and Gas Pumps; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Marine Propulsion.	Mar. 26	July 19	519
235	10. Carriages and Wagons; Motor Vehicles	Apr. 23	Aug. 2	817
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Spring Devices; Whips and Whip Apparatus.	June 9	Aug. 2	233
322	12. Journal-Boxes, Pulleys, and Shafting; Machine Elements	Apr. 26	June 2	698
329	13. Ammunition and Explosive Charge, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	May 19	July 30	583
323	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Apr. 26	July 3	274
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	July 18	Aug. 3	289
112	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony	Mar. 22	July 28	472
307	17. Ornamentation; Paper Manufactures; Printing; Type Casting; Sheet Material Associating or Folding; Sheet Feeding or Delivering; Type Setting.	June 29	Aug. 1	153
220	18. Fluid-Pressure Regulators; Injectors and Ejectors; Liquid Heaters and Vaporizers; Lubrication; Miscellaneous Heat-Engine Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	June 14	July 30	318
236	19. Dampers, Automatic; Furnaces, Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels	Mar. 27	June 8	482
179	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Aug. 10	Aug. 7	281
212	21. Brakes and Gins; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Mar. 19	June 13	328
249	22. Aeronautics; Firearms; Ordnance	Apr. 28	June 15	301
219	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	Mar. 20	Dec. 16	350
144	24. Apparel; Apparel Apparatus; Sewing-Machines; Garment Supporters	July 9	July 16	284
315	25. Agitating; Butchering; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separation.	Aug. 3	Aug. 7	131
105	26. Electricity, Generation; Motive Power	Feb. 13	Mar. 10	627
214	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus	July 2	July 25	308
225	28. Internal-Combustion Engines	June 22	July 2	551
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking Tools.	May 31	July 11	315
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines	June 25	July 24	365
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Sugar and Salt.	June 6	July 24	202
278	32. Dispensing Beverages; Dispensing; Gas and Liquid Contact Apparatus; Heat Exchange; Packaging Liquids; Refrigeration.	Mar. 1	July 9	683
70	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	June 28	July 24	264
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling Stock; Railway Ties and Fasteners.	May 26	July 12	220
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Signals; Toilet	May 9	Aug. 1	515
104	36. Driers; Geometrical Instruments; Measuring Instruments; Photography; Force Measuring	May 18	July 16	637
107	37. Electric Lamps; Electricity, Circuit Makers and Breakers; Electricity, Conduits; Electricity, General Applications.	Apr. 13	June 15	644
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells	Aug. 11	Aug. 2	157
220	39. Water Distribution; Multiple Valves	Apr. 2	May 7	585
275	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	June 15	Aug. 16	424
125	41. Railway Draft Appliances; Resilient Tires and Wheels	May 18	July 5	450
114	42. Electricity, Conductors; Railway Signaling; Electricity-Transmission to Vehicles; Electric Signaling.	Mar. 20	July 3	768
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	July 23	Aug. 3	190
253	44. Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Ships	May 18	Aug. 3	511

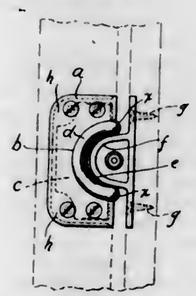
Oldest new case, Feb. 7; oldest amended, Dec. 16.
Total number of applications awaiting action 18,339

163	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	July 5	July 28	1072
	Designs	Aug. 13	Aug. 2	189
	Labels and Prints	Aug. 31	Aug. 29	34

PATENTS

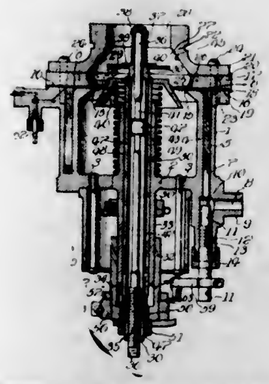
GRANTED SEPTEMBER 11, 1917.

1,239,441. DOOR-BUMPER. JOHN T. ALLMAND, Detroit, Mich., assignor to Fisher Closed Body Company, Detroit, Mich., a Corporation of Michigan. Filed Aug. 5, 1916. Serial No. 113,241. (Cl. 16—77.)



A bumper, having in combination, a shell having on its side facing the door opening a semi-circular opening, a rubber block fitted into the shell and provided with a semi-circular recess of less diameter than the semi-circular opening of the shell and said block having a crescent shaped boss around the recess in the block and that protrudes through the shell, the ends of the crescent protruding beyond the end of the block, and a striker having a semi-circular striking nose adapted to fit into the semi-circular recess in the block.

1,239,442. CARBURETER. BERNHARD C. J. ANDERSON, Chicago, Ill. Filed Nov. 4, 1915. Serial No. 59,604. (Cl. 261—44.)



1. A carbureter having a fuel-discharge passage formed by two parts having opposing surfaces, a spacing ring interposed between said opposing surfaces and leaving between them a film-like passage for the liquid fuel, terminating in an annular mouth having knife-edge lips, a throttle of tapering or graduated shape arranged opposite said mouth in close proximity to said lips and with its smaller end presented in the direction of the flow, and means for adjusting said throttle relatively to said mouth.

2. A carbureter having in combination a shell or casing having concentric walls spaced apart to leave between them an annular fuel chamber, a clamping member surmounting said walls, a spacing ring interposed between the clamping member and the top of the outer wall whereby a film-like fuel discharge passage is left between the clamping member and the top of the inner wall, means for securing the parts together in operative relation to each other and a wick disposed in said annular fuel chamber.

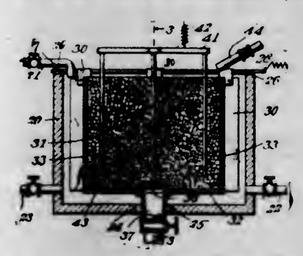
6. A carbureter having in combination a shell or casing having concentric walls spaced apart to leave between them an annular fuel chamber, a body of capillary material occupying said chamber, a clamping member, a spacing ring interposed between the clamping member and the top of the outer wall whereby a film-like discharge passage is left between the clamping member and the top of the inner wall and means for securing the parts together in operative relation to each other, the upper end of the inner wall being cut away to form an annular auxiliary fuel chamber communicating with the discharge passage aforesaid.

8. A carbureter having in combination, a shell or casing having concentric walls spaced apart to leave between them an annular fuel chamber, a clamping member surmounting said walls, a spacing ring interposed between the clamping member and the top of the outer wall whereby a film-like discharge passage is left between the clamping member and the top of the inner wall, the inner wall having at top an inwardly presented annular flange and the adjacent edges of said flanges and clamping member being reduced to knife-edge lips which form the mouth of said passage, and means for securing the parts together in operative relation to each other.

12. A carbureter having in combination a shell or casing having a liquid-fuel chamber, having an annular discharge passage terminating in an annular mouth, said casing having also an outlet port adapted for communication with the engine cylinder, a choke valve arranged in operative relation to and adapted to control said outlet port, a throttle arranged opposite said annular mouth, concentric stems carrying said choke valve and throttle, respectively, and means for simultaneously moving said stems lengthwise for simultaneously operating said throttle and choke valve.

[Claims 3 to 5, 7, 9 to 11, 13, and 14 not printed in the Gazette.]

1,239,443. APPARATUS FOR ELECTROLYTIC DEPOSITION. FRANK L. ANTISELL, Perth Amboy, N. J. Filed Oct. 31, 1913. Serial No. 798,410. (Cl. 204—5.)



1. An anode consisting of a container open at its top for the passage of particles of conducting material, and also for the solution, a bottom for supporting the particles of conducting material, but permitting the passage of the solution, closed ends and open sides, rotary cut veneer

diaphragms forming the walls of the container, conducting rods extending into the container and fragments of conducting material within the container and surrounding the conducting rods and means for causing a circulation of the solution through the anode.

2. An anode consisting of a container having an opening in its top for the passage of particles of conducting material, and also for the solution, a bottom for supporting the particles of conducting material, but permitting the passage of the solution, closed ends and open sides, porous diaphragms covering said open sides, conducting members extending into the container to form a wet contact, and particles of conducting material inclosed within said container and surrounding said conducting members, means for causing a circulation of the solution through the anode.

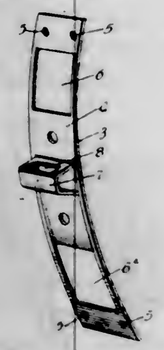
3. An anode consisting of a container formed with a bottom constructed to support the conducting material, but to permit the passage of the solution, closed ends and open sides, diaphragms of veneer covering said sides, conducting members extending into the container to form a wet contact, and fragments of conducting material within the container and surrounding said conducting members, means for causing a circulation of the solution through the anode.

4. An anode consisting of a container open at one end for the passage of the fragments of conducting material and the solution formed with a bottom constructed to support the fragments of conducting material and permit the circulation of solution therethrough, closed ends and open sides, supporting rods connected to said sides, sheets of veneer within the container and supported by the sides and said rods, a conducting member extending into the container to form a wet contact, and fragments of conducting material within the container and surrounding said conducting member, means for causing a circulation of the solution through the anode.

5. An apparatus of the class described, a tank, means for supplying a solution to said tank, means for permitting the solution to pass out of said tank, conducting members connected to said tank, cathode sheets suspended from said conducting members and into the tank, an open ended receptacle between the cathode sheets, conducting members extending into the receptacle to form a wet contact, fragments of conducting material in said receptacle and surrounding the conducting members, and means for supplying a solution to the receptacle, means for causing a circulation of the solution through the anode.

[Claims 6 and 7 not printed in the Gazette.]

1,239,444. BRAKE-SHOE. CHARLES W. ARMBRUST, Chicago, Ill., assignor, by mesne assignments, to The American Brake Shoe & Foundry Company, Wilmington, Del., a Corporation of Delaware. Filed Feb. 19, 1916. Serial No. 79,236. (Cl. 188—82.)



1. A back for a brake shoe consisting of a body strip provided with a centrally located, slotted key lug formed of a tongue drawn longitudinally from the said body strip without bending the remaining portions of said body strip.

2. A back for a brake shoe consisting of a body strip provided with a centrally located, slotted key lug formed of a tongue drawn from the said body strip without bending the remaining portions of said body strip.

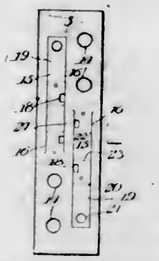
3. A back for a brake shoe consisting of a body strip provided with a centrally located, slotted key lug formed of a tongue drawn substantially from the said body strip without bending the remaining portions of said body strip.

4. A back for a brake shoe consisting of a body strip provided with a centrally located, slotted key lug formed of a tongue drawn longitudinally from the said body strip without bending the remaining portions of said body strip, said body strip having angularly extending flanges adapted to be embedded in the metal of the shoe.

5. A back for a brake shoe consisting of a body strip provided with a centrally located, slotted key lug formed of a tongue drawn longitudinally from the said body strip without bending the remaining portions of said body strip, and said body strip being adapted to be partially embedded in the metal of the shoe.

[Claims 6 to 29 not printed in the Gazette.]

1,239,445. BRAKE-SHOE. CHARLES W. ARMBRUST, Chicago, Ill., assignor, by mesne assignments, to The American Brake Shoe & Foundry Company, Wilmington, Del., a Corporation of Delaware. Original application filed Feb. 19, 1916, Serial No. 79,237. Divided and this application filed Apr. 17, 1916. Serial No. 91,623. (Cl. 188—82.)



1. A back for a brake shoe provided with a key lug, said key lug consisting of two fingers formed out of the body of the back, each forming a portion of said lug, and each having two separated cut-away portions to form a part of the key slot.

3. A back for a brake shoe having a key lug formed of two fingers drawn longitudinally from the body of the back, the material between said fingers and on both sides thereof forming three strips adapted to hold the back and shoe together.

17. A back for a brake shoe, provided with two key lug sections forming oppositely extending fingers drawn longitudinally out of the back.

26. A brake shoe back having a lug consisting of two uniform sections spaced from each other and from the side edges of the back.

31. A brake shoe back having two strips at the sides thereof arched to form a lug and an integral longitudinally extending strip between and below the arched strips to strengthen the back beneath the lug.

[Claims 2, 4 to 16, 18 to 25, and 27 to 30 not printed in the Gazette.]

1,239,446. BRAKE-SHOE. CHARLES W. ARMBRUST, Chicago, Ill., assignor, by mesne assignments, to The American Brake Shoe & Foundry Company, Wilmington, Del., a Corporation of Delaware. Continuation in part of application Serial No. 79,237, filed Feb. 19, 1916. This application filed Apr. 17, 1916. Serial No. 91,624. (Cl. 188—82.)

1. A back for a brake shoe having a plurality of pairs of longitudinally extending straps of material stamped therefrom to form a holding lug for said back.

10. A back for a brake shoe having an undetached strap running centrally longitudinally of said shoe, an undetached strap substantially midway of said back transversely of said back and tongues stamped from said back between said straps and the edges of said back and spaced from said edges.



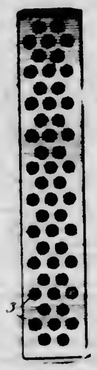
21. A back for a brake shoe provided with a double holding lug, said lug consisting of four tongues drawn longitudinally from the body of the back, the space on opposite sides of said lug occupied originally by the metal of said tongues whereby the said back is fastened to the shoe body.

23. A back for a brake shoe consisting of a body strip provided with a key lug formed of two tongues drawn from the body of said strip in the same direction.

27. A back for a brake shoe provided with a key lug, said key lug consisting of four untwisted fingers drawn longitudinally out of the body of the back, each forming a portion of said lug without bending the remaining portions of said back.

[Claims 2 to 9, 11 to 20, 22, 24 to 26, and 28 not printed in the Gazette.]

1,239,447. BRAKE-SHOE. CHARLES W. ARMBRUST, Chicago, Ill., assignor, by mesne assignments, to The American Brake Shoe & Foundry Company, Wilmington, Del., a Corporation of Delaware. Filed May 26, 1916. Serial No. 99,937. (Cl. 188—31.)



1. A brake shoe comprising a cast metal body, presenting a homogeneous wearing surface and having a plurality of openings uniformly distributed in said surface and extending into said body, whereby the weight of the shoe is lessened without destroying its efficiency.

2. A brake shoe having a wearing face portion provided with a plurality of holes extending from front to rear thereof, some of said holes being straight and some wedge-shape.

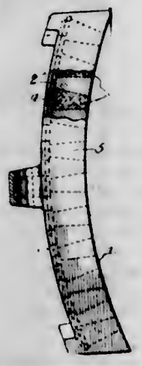
3. A brake shoe having a wearing face portion provided with a plurality of holes extending from front to rear thereof, some of said holes being straight and some wedge-shape, and a solid portion at the back of said holes.

4. A brake shoe having a wearing face portion provided with a plurality of holes extending from front to rear thereof and distributed in staggered relation throughout said wearing face portion, some of said holes being straight and parallel with each other and the rest of said holes being wedge-shape, and a solid portion at the back of said wearing face portion.

5. A brake shoe comprising a cast metal body, presenting a homogeneous wearing surface, and having a plurality of openings uniformly distributed in said surface and extending into said body and strengthening strips embedded in the shoe between said openings and the sides of the shoe.

[Claims 6 and 7 not printed in the Gazette.]

1,239,448. BRAKE-SHOE. CHARLES W. ARMBRUST, Chicago, Ill., assignor, by mesne assignments, to The American Brake Shoe & Foundry Company, Wilmington, Del., a Corporation of Delaware. Filed May 26, 1916. Serial No. 99,938. (Cl. 188—27.)



1. A brake shoe consisting of a shoe body and a metal backing plate, said shoe body having a plurality of wedge shaped holes extending from its back to its face, said holes being larger at the back of said shoe than at its face, said backing plate having holes coöperating with the holes in the shoe body, said holes in said back being smaller than the holes in said shoe body.

2. A brake shoe having a plurality of wedge shaped holes extending clear through said shoe and tapering from the back to the face of said shoe, said holes being filled with a substance, said substance being introduced from the rear of the shoe.

3. A brake shoe consisting of a shoe body, and a metal backing plate, said shoe body having a plurality of wedge shaped holes extending from its back to its face, said holes being larger at the back of said shoe than at its face, said backing plate having holes coöperating with holes of said shoe body.

4. A brake shoe having a plurality of holes therein tapering from its face to its back, a filler in said holes, and shoulders projecting into the holes at the back of the shoe to retain the filler in place.

5. A brake shoe having a plurality of holes therein tapering from its face to its back, a reinforcing plate embedded in the shoe at the back thereof, said plate and the back portion of the body of the shoe behind the plate having registering holes therein registering with the holes in front of said plate but of less diameter to form inwardly directed shoulders, and a filler in said holes.

1,239,449. WINDOW. HENRY T. ATKINSON, Oakland, Cal. Filed Dec. 11, 1915. Serial No. 66,310. (Cl. 20—42.)

1. An improvement in windows comprising a window frame, a sash movable inwardly and outwardly with respect to the frame, means slidably connecting the upper edge of said sash with the contiguous portion of said frame, and means for retaining the lower edge of the sash in closed position when the upper edge has been moved to outward position, said retaining means being releasable to permit the said lower edge to swing outwardly, whereby the sash may assume a vertical open position.

2. An improvement in windows comprising a window frame, a sash movable inwardly and outwardly with respect to the frame, means slidably connecting the upper edge of said sash with the contiguous portion of said frame, means for retaining the lower edge of the sash in closed position when the upper edge has been moved to outward position, said retaining means being releasable to permit said lower edge to swing outwardly, whereby the sash may assume a vertical open position, said slidable connecting means being shaped to permit horizontal swinging of the sash when in its outermost position.



3. An improvement in windows comprising a window frame provided with spaced apart supports, a sash movable inwardly and outwardly with respect to the frame, means for slidably connecting the upper edge of said sash with said supports, and means for retaining the lower edge of the sash in closed position, said retaining means being releasable to permit said lower edge to swing outwardly, whereby the sash may assume a vertical open position.

4. An improvement in windows comprising a window frame provided with spaced apart supports, a sash movable inwardly and outwardly with respect to the frame, means for slidably connecting the upper edge of said sash with said supports, and means for retaining the lower edge of the sash in closed position when the upper edge has been moved to outward position, said retaining means being releasable to permit said lower edge to swing outwardly, whereby the sash may assume a vertical open position, said supports and slidable connecting means having complemental portions shaped to permit horizontal swinging of the sash when in its outermost position.

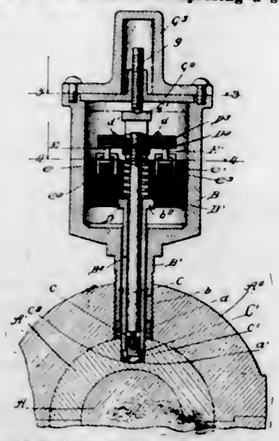
5. An improvement in windows comprising a window frame, a sash movable inwardly and outwardly with respect to the frame, means slidably connecting the upper edge of said sash with the contiguous portion of said frame, and releasable locking devices attached to the lower portion of the sash, said frame being provided with spaced apart recesses to be engaged by said locking devices when the sash is in its innermost and outermost positions, respectively.

[Claims 6 to 12 not printed in the Gazette.]

1,239,450. ELECTRIC ALARM. JOSEPH BANNEYER, Chicago, Ill. Filed July 7, 1913. Serial No. 777,713. (Cl. 200—33.)

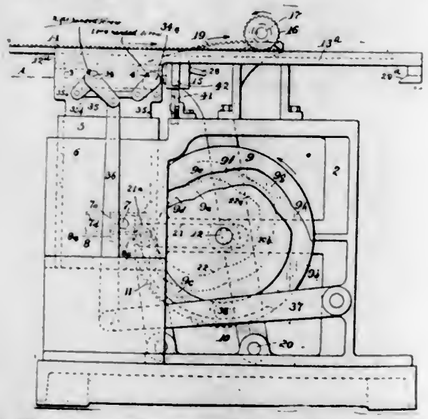
1. In an apparatus for rendering signals upon the excessive heating of bearings, the combination of a bearing, a fusible element normally held in close proximity to the bearing, a casing supporting an electric circuit closer comprising a movable contact element and a stationary contact element, and a yoke provided within said casing to guide the movable contact elements toward the stationary contact element when the fusible element is overheated, substantially as described.

2. In an apparatus for rendering signals upon the excessive heating of bearings, the combination of a bearing, a fusible element normally held in close proximity to the bearing, and a circuit closer comprising a stationary and



a movable contact element, a spring pressed yoke arranged in operative relation with one of said contact elements, said yoke adapted to be actuated when the fusible element is melted, substantially as described.

1,239,451. PROCESS AND MEANS FOR MAKING DRAWN-WIRE ARTICLES. LOUIS C. BELZ, Philadelphia, Pa. Filed Mar. 17, 1913. Serial No. 755,059. (Cl. 205—16.)



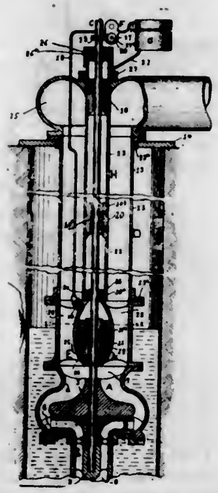
1. The hereindescribed method of wire-drawing wire strands, which consists in moving a wire in the direction of its length during said operation and wire-drawing a definite length of the wire to reduce its diameter, and then during the continued movement of the wire wire-drawing a part only of the total length of the portion of reduced diameter to produce a greatly reduced diameter connected with the wire portions of normal diameter by the reduced portions of intermediate diameter, the two wire-drawing operations taking place alternately and with one continuous movement of the wire.

5. In a machine for producing a double superimposed wire-drawing of a wire strand, the combination of two wire-drawing dies each consisting of two parts in adjustable relation said dies arranged in alinement so that the wire strand passes successively through said dies, a wire-drawing clamp or chuck to pull the wire through the dies, means for moving the clamp or chuck, and means consisting of right-hand and left-hand adjusting screws for the respective dies and means for simultaneously operating the screws for putting said dies into and out of operation alternately during the movement of the clamp or chuck, whereby one die operates upon a less mass of the wire strand than the other die.

10. In a wire-drawing machine, the combination of two sets of dies provided with drawing apertures of different sizes, means for drawing a wire strand through the two sets of dies whereby they may successively act upon the same portions of the strand, means for simultaneously closing one set of the dies and opening the other set and vice versa, connecting means for timing the means for drawing the wire strand through the dies and means for closing and opening the dies to cause the two sets of dies to respectively wire-draw different masses of the metal of the wire strand, whereby one set of dies reduces only a portion of the length of the strand which was reduced by the other set of dies, cutters for severing the wire strand into lengths, and means for moving the dies and means for drawing the wire through the dies to and from the cutters for severing the wire strand.

[Claims 2 to 4 and 6 to 9 not printed in the Gazette.]

1,239,452. LUBRICATING SYSTEM. WILLIAM I. BETTIS, Los Angeles, Cal., assignor of one-half to Western Well Works, San Francisco, Cal., a Corporation of California. Filed Sept. 17, 1915. Serial No. 51,161. (Cl. 184—54.)



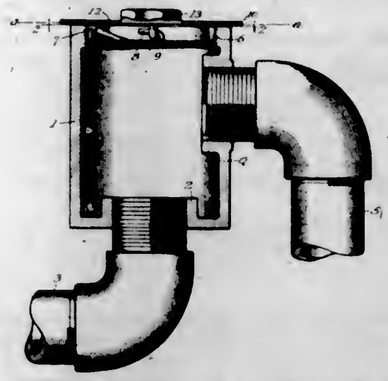
1. In a lubricating system, a submerged shaft, lubricant conducting means open at one end to the liquid in which the shaft is submerged and adapted to confine lubricant introduced therein to a path of travel which includes a plurality of bearings for the shaft adapted to be successively traversed by the lubricant, and means for introducing lubricant into said conducting means; said lubricant conducting means including said bearings.

5. In a lubricating system for the operating shaft of a submerged apparatus, said shaft, a lubricant conducting means in which the shaft lies in part and which is adapted to receive and contain liquid from the body of liquid in which the apparatus is submerged and adapted to receive lubricant at the lower portion thereof and in which rotary motion is imparted by the shaft to the liquid and lubricant so received to cause the separation thereof by centrifugal action as the lubricant rises through the liquid, and means for supplying the lubricant; said lubricant conducting means including a bearing for said shaft.

9. A bearing provided with a suitable shaft receiving bore, a circumferential outstanding shoulder undercut at both edges to accommodate the complementarily formed ends of pipe sections, and externally threaded portions at each end of said bearing.

[Claims 2 to 4 and 6 to 8 not printed in the Gazette.]

1,239,453. DRUM-TRAP COVER. MANDEL BLOCK, Chicago, Ill. Filed Nov. 22, 1916. Serial No. 132,763. (Cl. 137—13.)



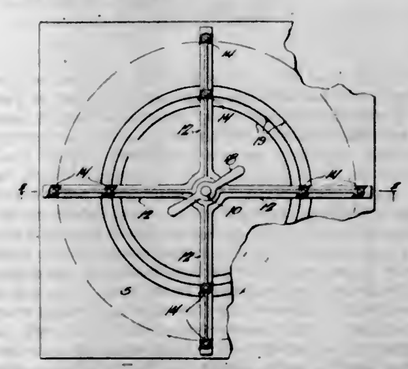
1. In a device of the class described, the combination of a drum and a cover having interlocking members adapted to tightly engage when the cover is rotated slightly in one direction, and means on the drum for tilting up one side of the cover when said cover is rotated in a direction to disengage the interlocking means.

2. A drum trap having a plurality of internal, inclined lugs, a cover having fingers for engaging said lugs, said lugs extending angularly less than 120 degrees whereby the cover is quickly released when rotated in a negative direction, and an internal cam on said drum for engaging one of said fingers to uplift one side only of the cover when the nearest finger releases its lug.

3. A drum trap having an internal thread at the top, a ring screwing into said thread and having a plurality of internal, inclined lugs extending angularly less than 120 degrees, and a cam on said ring for engaging one of said fingers to tilt the cover when rotated slightly in a negative direction.

4. A drum trap having an internal thread at the top, a ring screwing into said thread and having at least three separate internal inclined lugs for quickly releasing the cover when rotated in a negative direction, and a single cam formed on the inside of said ring and extending angularly less than 120 degrees for uplifting one side of the cover when the latter is rotated in a negative direction, said fingers being located in position for the nearest one to over-ride the cam when the cover is rotated negatively.

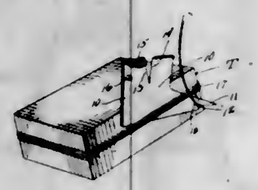
1,239,454. TIRE-REMOVING TOOL. CLARENCE A. BOYD, Milwaukee, Wis. Filed Feb. 8, 1917. Serial No. 147,332. (Cl. 157—6.)



A tire removing device comprising a table, shiftable blocks upon the table for supporting a tire and rim, a bolt detachably engaging said table, a hub slidably mounted

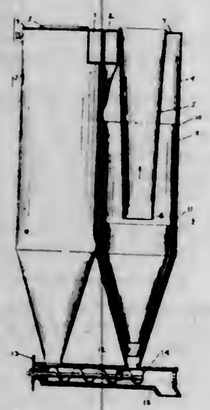
upon the bolt, radial arms carried by the hub, and detachable blocks secured to the arms having faces adapted to engage respectively the detachable flange and the rim.

1,239,455. TOOL FOR TYPE-SETTERS. JOHN BRANDT, New York, N. Y. Filed Jan. 22, 1917. Serial No. 143,791. (Cl. 7—17.)



A new article of manufacture consisting of a piece of sheet metal having a substantially rectangular body provided with a V-shaped slot extending from the top, the material at one edge of the slot being sharpened, said body having an extension from one side lying in the plane of the body and having its lower edge alined with the lower edge of the rectangular body and provided with a cord receiving notch in said lower edge, said body being provided with a thumb piece extending laterally from the top edge.

1,239,456. DUST-COLLECTOR. ALLEN C. BRANTINGHAM, Toledo, Ohio, and LEWIS R. KEY, Guelph, Ontario, Canada; said Key assignor to Huntley Manufacturing Company, Silver Creek, N. Y., a Corporation of New York. Filed Jan. 26, 1914. Serial No. 814,577. (Cl 183—85.)

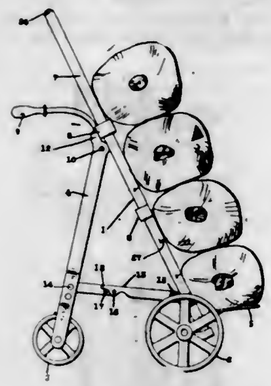


1. A dry dust collector comprising a cylindrical vessel having a downwardly tapering narrowing lower portion, and provided with an upper tangential supply opening and an axial upwardly discharging opening, a plurality of vertically disposed nested cylindrical tubes coaxially mounted in the vessel above the tapering portion, one of said tubes providing a vertically open way extending in the cylindrical portion of the vessel below the supply opening to adjacent the narrowing lower portion, said tube being disposed as to the cylindrical portion of the vessel to provide a uniform cross section vertically open annular way from the supply opening to the axial discharge opening effecting undisturbed dry annular centrifugal distribution of dust in the vessel against the vessel walls before reaching the region of the discharge opening, said tapering portion conducting the dust away from disturbance by the discharge opening, and a dry scroll conveyer for removing the dust conducted down by the tapering portion.

2. A cyclone dust collector provided with concentric particle receivers, a vertically clear entrance chamber thereover, said receivers each provided with a single top intake opening and a bottom discharge opening, the receivers between said openings being directed downwardly and inwardly only, and a central vertically open duct for the cleaned air from which the receivers have removed the centrifugally thrown particles, said vertically open duct extending below the intake opening to one of the particle receivers whereby the particle receivers preclude disturbance of the accumulated particles by the reverse air current of the discharge for cleaned air.

3. A cyclone dust collector provided with concentric particle receiving passages having intake openings disposed in longitudinal succession, and a central vertically open duct for the cleaned air from which the receiving passages therealong have successively removed the centrifugally thrown particles.

1,239,457. TRUCK. EDWARD L. BUSCHMAN, East Orange, N. J. Filed July 29, 1916. Serial No. 111,982. (Cl. 73—8.)



1. In a truck of the character described, a wheeled frame, a load-supporting tray projecting from said frame and connected thereto so as to slide longitudinally of the frame without projecting beyond the end thereof, and springs resiliently supporting said tray.

2. In a truck of the character described, a wheeled frame having tubular side members longitudinally slotted, a tray with arms extending into said slots so as to slide therein, and springs in said tubular side members resiliently supporting said tray.

3. In a truck of the character described, a wheeled frame having hollow side members, a tray for supporting a load, riders in said members adapted to support the tray and retain it in the same angular relation to the side members, and springs also in said members for resiliently supporting the riders.

4. In a truck, a wheeled frame having hollow side members, a tray for supporting a load, riders in said members adapted to support the tray and retain it in the same angular relation to the side members, said riders having rollers adapted to engage the members and reduce the friction whereby the riders may slide freely, and springs also in said members for resiliently supporting the riders.

5. In a truck, a wheeled frame having hollow side members with longitudinal slots, a tray for supporting a load having its side arms projecting through said slots, riders in the members receiving said arms and thereby supporting the tray in transverse relation to the members, and springs also in said members resiliently supporting the riders whereby the same may slide down in the members as a load is applied to the tray and will return to uppermost position when the load is removed.

[Claims 6 and 7 not printed in the Gazette.]

1,239,458. REINFORCING-TRANSOM FOR RAILWAY-CARS. LEWIS T. CANFIELD, Chicago, Ill., assignor to Union Draft Gear Co., a Corporation of Illinois. Filed Aug. 23, 1915. Serial No. 46,964. (Cl. 105—76.)



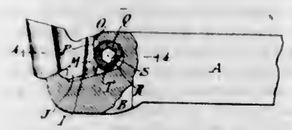
1. A reinforcing transom for railway cars adapted to extend transversely across the car bolster and between its center sills, such transom being arch shaped in cross-section and tapering downwardly toward its ends.

2. A reinforcing transom for railway cars adapted to extend transversely across the car bolster and between its center sills, such transom being arch shaped in cross-section and tapering downwardly toward its ends, and having flanges for engaging the bottom of the sills.

3. A reinforcing transom for railway cars adapted for attachment between the center sills of a car and over the bolster thereof, and comprising side walls united by a web at their upper margins and tied together at their lower margins back of the bolster.

4. A reinforcing transom for railway cars adapted for attachment between the center sills of a car and over the bolster thereof, and comprising side walls united at their upper edges by a web, and flanges projecting outwardly from the lower margins of the side walls for engaging the bottom faces of the car sills, the flanges back of the line of the bolster having depending flanges for bearing against the side faces of the sub-sills of a car and adapted to be attached to such sills.

1,239,459. TOOL AND TOOL-HOLDER. ANDREW F. CAREW, Coney Island, N. Y., assignor to J. H. Williams & Co., Brooklyn, N. Y., a Corporation of New York. Filed Nov. 30, 1915. Serial No. 64,314. (Cl. 29—100.)



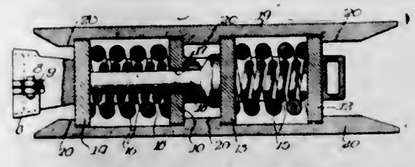
2. The combination of a tool holder and tool, the tool holder having a rearwardly facing abutment and the tool having a forwardly facing abutment, and a rotatable cam contacting directly with the rear face of the tool.

5. The combination of a tool holder and a tool, the tool holder having an abutment adapted to prevent downward movement of the tool, and the tool holder having a face seating on said abutment, and said tool holder having a rearwardly facing abutment, and the tool having a forwardly facing abutment contacting therewith, a tongue and groove connection between the tool holder and the rear of the tool for preventing lateral displacement of the tool, and a cam member bearing against the rear of said tool.

10. The combination of a tool holder and a tool, the parts having means for preventing forward thrust of the tool and means for preventing lateral thrust of the tool, said means being separated and one located toward the front of the tool and the other located at the rear of the tool, one comprising a rearwardly facing abutment on the holder and a coacting face on the tool, and the other comprising a tongue on one part and a groove on the other part.

[Claims 1, 3, 4, and 6 to 9 not printed in the Gazette.]

1,239,460. DRAFT-GEAR. CHARLES A. CARSCADIN and GEORGE A. WOODMAN, Chicago, Ill., assignors, by mesne assignments, to American Steel Foundries, Chicago, Ill., a Corporation of New Jersey. Filed May 18, 1916. Serial No. 850,063. (Cl. 213—42.)

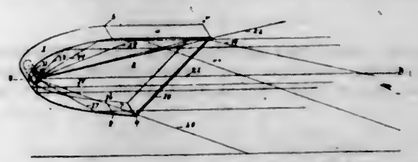


1. A yoke for draft gears comprising a U-shaped body member, means for connecting a draw-bar to one end of said yoke, and a plate integral with, extending transversely of, and connecting the arms of said body member intermediate the ends thereof and projecting beyond both sides of said arms, the projecting portions of said plate forming abrupt shoulders for engagement with the draft arms.

4. In a device of the character described, the combination of oppositely disposed draft arms, each provided with a plurality of lugs, a yoke comprising a U-shaped body member, means for connecting a draw-bar to one end of said yoke, a member integral with and connecting the arms of said body member intermediate the ends thereof and projecting beyond the sides of said arms to engage one pair of said lugs, follower plates loosely disposed between the arms of said body member and each engaging a pair of said lugs, springs disposed between one pair of said follower plates and between the remaining follower plate and the intermediately disposed integral member, an opening in said intermediately disposed integral member, and a plunger disposed in said opening and engaging a follower plate on either side thereof.

[Claims 2 and 3 not printed in the Gazette.]

1,239,461. LAMP FOR VEHICLES. JAMES MARSHALL CHATTERSON, San Diego, Cal. Filed July 8, 1915. Serial No. 38,771. (Cl. 240—41.)



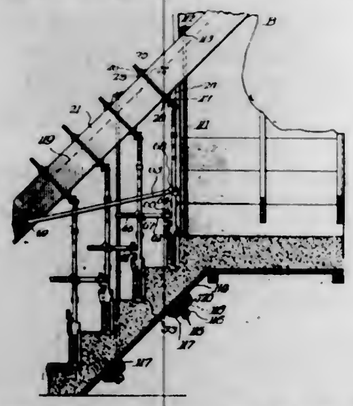
1. A lamp comprising a body, a luminant mounted in said body, a reflector mounted in said body in the form of a parabolic cylinder with plane closed ends, and a plane reflecting extension on said cylinder.

2. An automobile headlight, comprising a reflector, generated by moving a relatively short straight line in a parabolic curve, the upper portion of said reflector being extended as a plane forwardly over the lower portion, mirrored surfaces closing said reflector on both sides, a downwardly and rearwardly extending transparent door closing the front, and a linear light source located in the focal axis of the reflector.

1,239,462. MOLD FOR CONCRETE CONSTRUCTION. PETER H. CLINKUNBROOMER, Evanston, Ill. Filed Mar. 8, 1915. Serial No. 12,728. (Cl. 25—118.)

1. A form for concrete stairs comprising risers, stringers supported a substantial distance above said risers, and means depending from said stringers and rigidly holding said risers in position, said means being independently movable when the form is in place to permit each riser to be disconnected independently of the others and while said others are in operative position to permit surfacing of the surface behind the riser.

2. A form for concrete stairs comprising risers, rigid supports a substantial distance above said risers, and riser hangers pivotally connecting said risers with said supports, said hangers being adapted to be swung from operative position to permit work upon the concrete surfaces formed behind said risers.



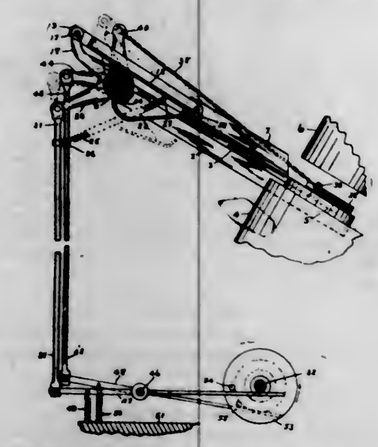
3. A form for concrete stairs comprising risers, rigid supports above said risers and riser hangers pivotally connecting said risers with said support to swing out of operative position to permit work upon the concrete surface formed behind said risers.

4. A form for concrete stairs comprising risers, a rigid support a substantial distance above said risers, riser hangers rigidly holding said risers in position and connected with said support and braces extending between appropriate riser hangers.

5. A form for concrete stairs comprising a stringer disposed a substantial distance above the stairs being constructed, a riser, a readily detachable clamp depending from said stringer and engaging said riser, and a brace for preventing movement of said clamp about its connection with said stringer.

[Claims 6 to 26 not printed in the Gazette.]

1,239,463. FEEDING MECHANISM FOR STAMPING-PRESSES. ERSKINE M. COVERT, South Bend, Ind. Filed June 9, 1917. Serial No. 173,729. (Cl. 271—8.)



1. The combination with a pressing machine of the class described and a guideway for delivering blanks in the path of the machine stamp, of a tiltably mounted blank holding member having one end thereof arranged adjacent said guideway; a retractable finger for confining the blank in said holder; means for retracting said finger to permit the discharge of the blank from said holder when said holder is tilted; means for tilting said blank holder for discharging the blank therefrom upon said guideway; movable stop means adapted to limit the movement of the blank and to confine it upon the machine die; and means for synchronizing the stop means movements with the movements of the machine stamp.

3. In a device of the class described and in combination with the guideway for delivering blanks in the path of the machine stamp, a movable and tiltable blank receiving pan having one end thereof slidably mounted adjacent one end of said guideway; a retractable stop finger for confining the blank within the pan prior to the tilt thereof; mechanism for tilting and forwardly projecting said pan to discharge the blank upon said guideway said mechanism including devices for retracting said stop finger to permit the discharge of the blank from said pan; and means for retracting said pan.

[Claims 2 and 4 to 9 not printed in the Gazette.]

1,239,464. SECTION-SWITCH. HARRY W. DAVIS, Swissvale, Pa., assignor of one-half to William C. Frost, East Pittsburgh, Pa. Filed Apr. 27, 1915. Serial No. 24,234. (Cl. 191—39.)



1. A section switch for trolley systems comprising a supporting block of insulating material, two longitudinally alined solid end pieces of conducting material attached to the lower edge of the said block and having their adjacent opposed ends separated only by an air gap sufficiently narrow to permit a trolley wheel to engage both of the said end pieces at once and wide enough to prevent arcing across the air gap under operating conditions, the said adjacent ends of the end pieces being cut away to a substantial extent to provide an increased creepage path around the said air gap, means for attaching trolley conductors to the said end pieces, a plurality of fasteners extending through the said block and serving to attach the said end pieces thereto, and a switch member adapted to electrically connect and disconnect the said end pieces.

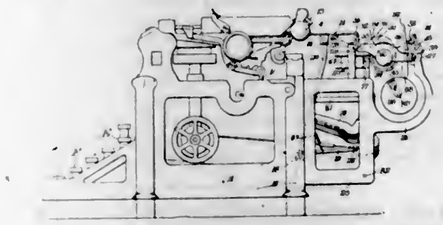
2. A section switch for trolley systems comprising a block of insulating material, two longitudinally alined end pieces attached to one edge of the said block and having their adjacent opposed ends separated by an air gap sufficiently restricted to permit a trolley wheel to engage both of the said end pieces at once and sufficiently wide to prevent arcing across the gap under operating conditions, the outer ends of the said end pieces being provided with means for securing trolley conductors thereto, means comprising fasteners extending through the said block and into the said end pieces, for attaching the said end pieces to the said block, the said attaching means serving also as stationary switch contact members, and a movable contact member adapted to connect and disconnect the said stationary contact members.

3. A section switch for trolley systems comprising a supporting block of insulating material having downwardly converging sides, two longitudinally alined solid end pieces of conducting material attached to the narrowed lower edge of the said block and having their adjacent opposed ends separated by an air gap sufficiently narrow to permit a trolley wheel to engage both of the said end pieces at once and without shock, but wide enough to prevent arcing across the air gap under operating conditions, the said adjacent ends of the end pieces being cut away substantially parallel to their trolley-engaging surfaces to a substantial extent to provide an increased creepage path around the said air gap, a plurality of attaching screws extending through the said block and received in screw-threaded openings in the said end pieces, and a switch member adapted to electrically connect and disconnect certain of the said screws.

1,239,465. COMPOSITION OF MATTER. WILLIAM A. DAY, Bellingham, Wash. Filed Mar. 12, 1917. Serial No. 154,095. (Cl. 75—1.)

The herein-described composition of matter for soldering cast iron, mild steel, pot-metal, aluminum, lead and the like, consisting of lead, five parts; tin, five parts; and zinc, one part, fused together to form an alloy.

1,239,466. TYPE-WRITING MACHINE. ADOLPHUS S. DENNIS, Lakewood, Ohio, assignor to Hurlbut W. Smith, Mathew S. Eylar, Carl Gabrielson, and Wilbert L. Smith, Syracuse, N. Y. Filed Mar. 23, 1914, Serial No. 826,757. Renewed Dec. 30, 1915. Serial No. 69,505. (Cl. 197—5.)



1. In a typewriting machine, the combination of a platen, type adapted to coöperate with the platen, keys for actuating the type, means for effecting relative movement between the type and platen, in the direction of the length of the latter, and auxiliary printing devices adapted to duplicate a record produced by actuating said keys when a predetermined section of the platen is opposite the printing point of the type and to be inoperative when a different section of the platen is opposite said printing point.

2. In a typewriting machine, the combination of a platen, type adapted to coöperate with the platen, keys for actuating the type, means for effecting relative movement between the type and platen, in the direction of the length of the latter, means for supporting a supplemental record sheet, supplemental printing devices for making a record on a sheet supported by said means, and means for automatically connecting said supplemental printing devices with keys of the typewriter when a predetermined section of the platen is opposite the printing point of the type.

3. In a typewriting machine, the combination of a platen, type adapted to coöperate with the platen, keys for actuating the type, means for effecting relative movement between the type and platen, in the direction of the length of the latter, means independent of said platen for supporting a supplemental record sheet, type supplemental to those aforesaid for making a record on a sheet supported by said means, and means for automatically connecting the actuating devices of the supplemental type with keys of the typewriter when a predetermined section of the platen is opposite the printing point of the type cooperating therewith.

4. In a typewriting machine, the combination of a longitudinally movable platen, type adapted to coöperate with the platen, keys for actuating the type, means for supporting a supplemental record sheet, printing devices supplemental to said type and platen for coöperating with a sheet supported by said means, and means for automatically connecting the said supplemental printing devices with said keys when said platen is adjusted to bring a predetermined section thereof into position to receive imprints from said type.

5. In a typewriting machine, the combination of a platen, type bars adapted to coöperate with the platen, keys for actuating the type bars, the platen and series of type bars being relatively movable bodily in the direction of the length of the platen, means for supporting a supplemental record sheet, supplemental type bars adapted to print upon a sheet supported by said means, and means for automatically conecting said supplemental type bars with said keys when a predetermined section of said platen is in position to be struck by the first mentioned type bars.

[Claims 6 to 48 not printed in the Gazette.]

1,239,467. WATCH BEZEL AND CRYSTAL. CHARLES L. DEPOLLIER, Brooklyn, N. Y. Filed May 15, 1917. Serial No. 168,644. (Cl. 58—91.)



1. The combination of a crystal and a bezel, the bezel being formed with a groove or recess in its inner edge to receive the edge of the crystal, and one of the opposing walls of the groove or recess being formed with a projection adapted to be forced into engagement with the corresponding face of the crystal to prevent the crystal from being drawn apart from the bezel.

2. The combination of a crystal and a bezel, the crystal being formed with a groove in one face thereof near its edge, the bezel being formed with a groove or recess in its inner edge to receive the edge of the crystal, and one of the opposing walls of the groove or recess being formed with a projecting rib adapted to be formed into engagement with the groove in the corresponding face of the crystal to prevent the crystal from being drawn apart from the bezel.

1,239,468. PACKET-HOLDER. DOMINGO DESPLATS, Buenos Aires, Argentina. Filed Jan. 22, 1915. Serial No. 3,804. (Cl. 224—57.)



2. A packet holder comprising a substantially U-shaped shank having its side members in mutually close proximity and terminating at their upper ends in outwardly directed finger pieces, the side members of the shank being adapted to clamp the free end portion of a string therebetween, the shank members being provided with corresponding string-receiving seats adjacent the lower end of the shank, and a string cutter projecting from one of the shank members and located above the string seats.

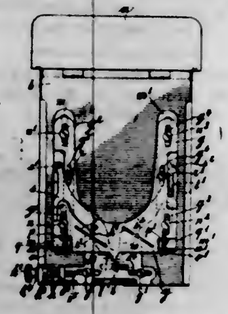
[Claim 1 not printed in the Gazette.]

1,239,469. FOCUSING DEVICE FOR PHOTOGRAPHIC CAMERAS. PAUL DIETZ, Philadelphia, Pa., assignor to Defiance Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Nov. 11, 1915. Serial No. 60,834. (Cl. 95—45.)

1. A thin focusing-device mounted on the inner surface of the door of a photographic camera, comprising a focus plate, adjusting means secured to the focus plate in an adjusted permanently fixed position, a movable adjusting plate with inner portion engaging the focus plate, and means for moving the focusing-device comprising a screw with head in a permanent position outside of the camera adapted to move the said adjusting plate and thereby the focusing-device in and out, thus adjusting the focus.

2. A thin focusing-device on the inner surface of the door of a photographic camera, comprising a focus plate with slantingly inclined slots, a movable adjusting plate with inner portion having rectangular inclined lugs thereon reaching into the inclined slots of the focus plate, two adjusting plates underneath the side portions of the focus plate secured thereto in an adjusted perma-

nently fixed position, and a screw having its head outside of the camera in a permanent position adapted to move the adjusting plate with its lugs and thereby the focusing-device in and out, thus adjusting the focus.



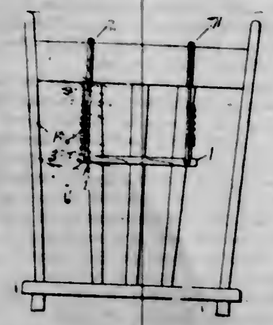
3. In a photographic camera a focusing-device on the inner surface of the door comprising a focus plate with slantingly inclined slots and guide slots, two adjusting plates underneath the side portions of the focus plate with corresponding guide slots, bearings on the plates, screws therein to adjust the relative position of said plates, a tightening device for said plates, and means to move said plates in and out to adjust the focus.

4. In a photographic camera a focusing-device on the inner surface of the door comprising a focus plate with slantingly inclined slots in its body portion, a movable adjusting plate with inner portion having rectangular inclined lugs reaching into the inclined slots, guide slots with screws in said movable plate, a bearing formed thereon, a screw in the bearing with a head outside of the camera in a permanent position adapted to impart to said plate lateral movement whereby its lugs travel in the inclined slots of the focus plate moving the same in and out for adjusting the focus.

5. In a photographic camera with adjustable lens board, a thin focusing-device on the inner surface of the door comprising a focus plate with two adjusting plates, means for securing the same on the focus plate in an adjusted permanently fixed position, a movable adjusting plate engaging the focus plate to move it in and out for adjusting the focus, and stops on said permanently fixed adjusting plates to keep the lens board in position, and a spring stop with leaf springs to lock the lens board in position until released.

[Claim 6 not printed in the Gazette.]

1,239,470. FOLDING AND ADJUSTABLE CHILD'S SEAT. LIONEL LANCASTER FARRER, Fort William, Ontario, Canada. Filed May 10, 1916. Serial No. 96,563. (Cl. 155—26.)



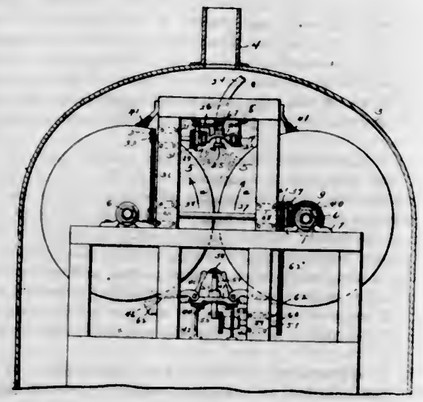
1. A child's seat of the character described comprising, a base, arms pivotally secured thereto, extensible coils disposed about said arms and adapted to frictionally grip the same to sustain the weight of the seat, and suspending hooks carried by said coils.

2. A child's seat of the character described comprising, a base, arms secured to the opposite ends thereof and each provided with a vertical branch, a spring coil disposed about each vertical branch and adapted to frictionally engage the same to suspend the seat at different heights, and suspending hooks carried by said spring coils.

3. A child's seat of the character described comprising, a base, arms secured to opposite ends thereof and each having two branches at right angles to each other, a spring coil disposed about each vertical branch and adapted to frictionally engage the same to suspend the seat at different heights, said coils being also adapted to engage the other branch of each arm when the seat is in its lowermost position, and suspension hooks carried by said spring coils.

4. A child's seat of the character described comprising, a base, U shaped arms pivotally secured to the opposite ends of said base and each consisting of two vertical branches connected by a horizontal branch, and rods provided with suspension hooks at their upper ends and each formed with a spring coil disposed about one of the aforesaid vertical branches and adapted to frictionally engage the same to suspend the seat at various heights, and also adapted to engage the horizontal branch of the arm to suspend the seat in its lowermost position.

1,239,471. MILK-POWDERING MACHINE. IRVING JOHN FELLEMAN, Gridley, Cal. Filed Apr. 30, 1917. Serial No. 165,603. (Cl. 127—9.)



1. A machine of the character described comprising a pair of heated rolls, means for spraying milk thereon and a planer carriage disposed centrally beneath said rolls and mounted to travel longitudinally thereof, said planer carriage carrying planer knives which are mounted to engage said rolls, a vertically movable plunger in said planer carriage, shanks for the planer knives, link connections between the shanks and the vertically movable plunger and means for automatically moving said plunger at each of the limits of travel of the planer carriage to thereby throw the knives into and out of engagement with the rolls.

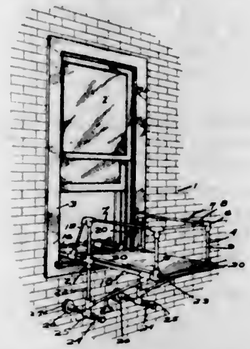
2. A device of the character described comprising a heated roll, a planer carriage, a receptacle movable therewith, a planer knife disposed in such relation to the receptacle that the products discharged by the knife are received by the receptacle, means for automatically discharging the receptacle at the end of limit of travel of the planer carriage and means for automatically moving the planer knife into and out of engagement with the roll.

5. In a milk powdering machine, the combination with a spray carriage, a discharge nozzle, a valve controlling the flow of milk to the discharge nozzle, a vertically movable plunger carried by the spray carriage, a chain having a transverse extension engaging said plunger and connections between said plunger and the valve for opening the valve when the plunger moves in one direction and closing the valve when the plunger moves in the opposite direction.

6. A machine of the character described comprising a pair of heated rolls, means for spraying milk thereon and a planer carriage disposed centrally beneath said rolls and mounted to travel longitudinally thereof, said planer carriage carrying planer knives which project in opposite directions from the planer carriage and engage said rolls.

[Claims 3 and 4 not printed in the Gazette.]

1,239,472. WINDOW-CAGE. JOSEPH H. FLORIAN, Toledo, Ohio. Filed July 10, 1916. Serial No. 108,491. (Cl. 20—87.)



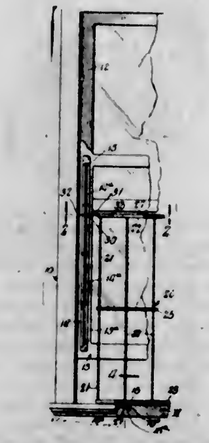
In a window cage formed of standard pipe fittings, the combination of a platform frame having upper and lower parallel pipes and upright pipes forming three sides of the cage and connected together by elbow T's, the upright pipes and horizontal pipes braced by pipes extending from the corners of the frame to the lower horizontal pipes and connected by angle T's, two of the lower horizontal pipes having cushioned members and extending within the window frame, T's located on the ends of the horizontal pipes extending within the window frame, a transverse telescoping pipe extending through the last named T's and having cushioned ends, two of the vertical members of the platform frame having extensions, the extensions having braces formed of pipes extended to the outer and lower corners of the frame, threaded T's connected to the ends of the extensions, the threaded bolts extending through the threaded T's, the bolts having feet for resting against the wall of the building below the window frame.

1,239,473. WINDOW-GUARD. BENJAMIN FRANKLIN, Chicago, Ill., assignor to Security Window Guard Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 24, 1916. Serial No. 73,788. (Cl. 20—71.)

1. In a window guard, the combination with the sill and sash of a grating in the form of a rigid structure, means at one end thereof for engaging the sill, and extensible portions at each side of the grating, said portions being constructed to interlock with the grating and sash and being inseparable from the grating when both thereof are in operative engagement with the sash, substantially as described.

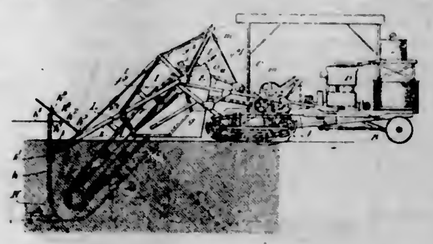
2. In a window guard, the combination of a grating in the form of a rigid structure, a frame member at one end of said structure being of tubular form and angular in cross section, means at the opposite end of said structure for interlocking with a window frame, and a laterally extensible arm, one end of which is adapted to interfit with and telescopically engage said angular tube and the other end of which is provided with means for interlocking with a sash, said arm being inseparable from said grating when in engagement with a sash, substantially as described.

3. In a window guard, the combination with the window frame and sash of a grating in the form of a rigid structure, means at one end thereof for engaging the win-



dow frame and a laterally extensible portion at the opposite end of the grating said portion interlocking with the grating and said sash and being inseparable from the grating when in operative engagement with the sash, substantially as described.

1,239,474. TRENCHING-MACHINE. JAMES C. FRENCH, Kenosha, Wis., assignor to Frederick C. Austin, Chicago, Ill. Filed May 25, 1914. Serial No. 840,665. (Cl. 37—24.)



1. An excavating machine comprising instrumentalities for cutting a trench, and means behind said instrumentalities and resiliently connected therewith for smoothing the trench in rear thereof.

2. An excavating machine comprising instrumentalities for cutting a trench, and means behind said instrumentalities for smoothing the trench in rear thereof, said machine including a shaft for supporting said instrumentalities, and said means having a support mounted independently of said instrumentalities on said shaft.

7. An excavating machine comprising instrumentalities for cutting a trench, means behind said instrumentalities for smoothing the trench in rear thereof, said means comprising a standard, a grade line indicator on the upper portion of said standard, and adjusting devices at the top of said indicator to vary the position of said means for different depths, and to hold said indicator upright.

[Claims 3 to 6, 8, and 9 not printed in the Gazette.]

1,239,475. ADJUSTABLE SOLE-PATTERN. JOHN H. GREER, Galion, Ohio. Filed Feb. 1, 1917. Serial No. 146,044. (Cl. 33—5.)

1. A sole pattern having a rim formed of a plurality of pliant sections, separate means slidingly connecting the

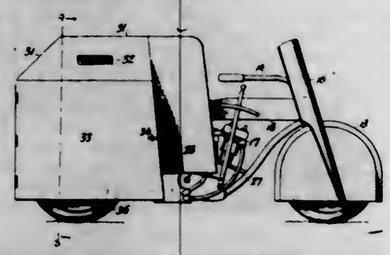
adjacent ends of the rim sections for relative longitudinal adjustment, and means disposed interiorly of said rim and operable to permit an adjustment of the rim and its sections and to secure the same in adjusted relation.



5. A sole pattern having a rim of pliant material for fitting around the edge of a sole, said rim having two opposed front sections connected together for relative longitudinal adjustment at the front ends thereof and having two opposed rear sections connected for relative longitudinal adjustment to the rear ends of the respective front sections, a plate projecting inward from each section, pin-and-slot connection between the forward end portions of the front section plates to permit relative transverse adjustment thereof, pin-and-slot connection between the rear end portions of the rear section plates to permit relative transverse adjustment thereof, pin-and-slot connection between all of said plates at their adjacent end portions to permit relative transverse adjustment of the rear end portions of the front section plates and transverse and longitudinal adjustment of the rear section plates relative to the front section plates, and means for locking the plates in adjusted relation.

[Claims 2 to 4 not printed in the Gazette.]

1,239,476. ARMORED MOTOR-CYCLE. FREDERICK M. GODDARD, Brooklyn, N. Y. Filed June 1, 1917. Serial No. 172,138. (Cl. 89—40.)



1. In a motor cycle, the combination with the front fork of the same, of a front wheel, a shield enveloping the front wheel, an upright shield at the front of the fork, rear extensions to the frame of the motor cycle, a rear axle carrying wheels, a cab comprising front and rear armor plate walls and a roof of the same material, and doors for the cab.

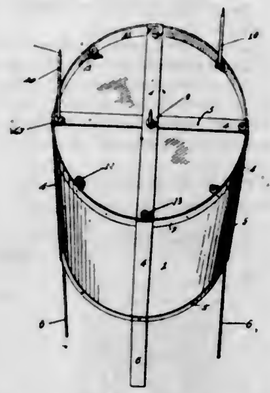
4. In a motor cycle, the combination with the frame of the same, of a front fork and wheel, a shield about the wheel and carried by the fork, an axle with rear wheels, extensions to the frame, an armored cab supported by the axle and extensions, shields at the front of the cab, a sloping roof for the cab and having port holes, and doors for the cab with pockets and depending below the said cab so as to protect the rear wheels.

[Claims 2, 3, and 5 to 7 not printed in the Gazette.]

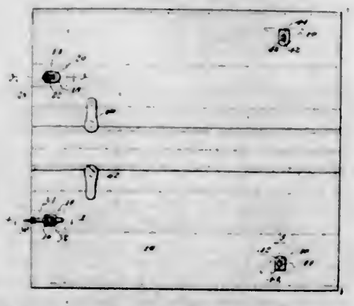
1,239,477. MODE OF PROTECTING STORAGE STRUCTURES FROM LIGHTNING. JOSEPH M. GORDON, Eureka, Kans. Filed July 8, 1915. Serial No. 38,810. (Cl. 173—31.)

1. A lightning protector for portable storage tanks including conducting bands snugly engaged with the outer periphery of the tank at the top and bottom of the latter, and conductive straps crossed over the top of the tanks and extending down the sides of the latter into engagement with said bands, the free terminals of said straps being grounded below the bottom of the tank.

[Claim 2 not printed in the Gazette.]



1,239,478. BLANKET FOR HORSES. ALBERT J. HANISCH, Oak Park, Ill. Filed Nov. 27, 1915. Serial No. 63,887. (Cl. 54—79.)



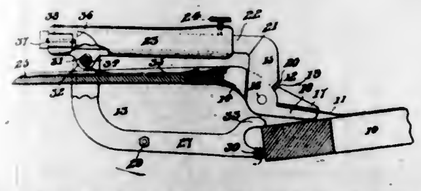
1. In a device of the class described, the combination of a blanket, a plate of reinforcing material secured to one side of the blanket, a loop formed in the blanket by having parallel slots cut in said reinforcing material and the blanket material, and a strap located on the opposite side of the blanket from the reinforcing plate and slidable over said loop, for the purposes set forth.

2. In a device of the class described, the combination of a blanket member, a reinforcing plate 40 on one surface thereof, a loop 46 formed in the material of said plate and said blanket, bent outward from the surface of the blanket toward the side thereof opposite to that on which said plate 40 is located, and a strap slidable through said loop and bearing upon the portion of the loop which is faced by a portion of the reinforcing plate 40.

1,239,479. FABRIC-STRETCHER. ANDERS CONRAD HANSON, Stanton, Iowa. Filed Feb. 2, 1917. Serial No. 146,202. (Cl. 140—109.)

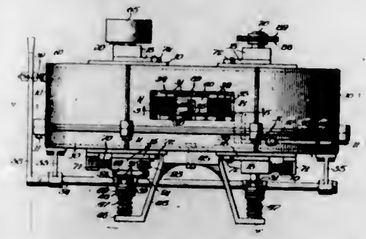
1. A fabric stretcher comprising tongs, a fulcrum member attached to the tongs, means for limiting the movement of the fulcrum member toward the tongs, and a single means adapted for normally maintaining the tongs in their open position and the fulcrum member in engagement with the said limiting means.

2. A fabric stretcher comprising tongs having operating levers, a tubular handle adjustably arranged upon one of said levers, a fulcrum member pivoted to the handle and surrounding the lever unprovided with said handle, and means for engaging two sides of the work positioned at the free end of the fulcrum member.



3. A fabric stretcher comprising tongs having operating levers, a tubular handle adjustably arranged upon one of said levers, a fulcrum member pivoted to the handle and surrounding the lever unprovided with said handle, means carried by the free end of the fulcrum member engaging one edge of the work during the stretching operation, means for limiting the direction of movement in one direction of the aforesaid means, a spring adapted for normally maintaining the tongs open and the fulcrum member at the limit of its movement toward said tongs, and adjustable stopping means for limiting the movement of the fulcrum member toward the said tongs carried by the handle adjacent the pivotal end of the fulcrum member.

1,239,480. BRICK-CLEANING MACHINE. JACQUES J. HARDIN, Oak Park, Ill. Filed Nov. 18, 1916. Serial No. 132,098. (Cl. 125—6.)



1. In a brick cleaning machine, the combination of a rotor having an annular substantially U-shaped recess in a peripheral portion thereof, cutters in said recesses adapted to engage simultaneously two sides and an edge of a brick to be cleaned, means for holding a brick in association with said cutters, and means for rotating said rotor.

2. In a brick cleaning machine, the combination of a rotor having an annular substantially U-shaped opening in a peripheral portion thereof adapted to accommodate a brick to be cleaned, said opening having brick-cleaning cutters on the three sides thereof, a wall of said substantially U-shaped opening being yieldable with respect to another wall thereof whereby said yieldable wall may move relative to such other wall when excessive pressure is brought to bear against said yieldable wall by a brick in said substantially U-shaped opening during the operation of the machine, and means for rotating said rotor.

3. In a brick cleaning machine, the combination of a rotor having a plurality of cutters thereon so arranged as to operate simultaneously upon a side and edge portion of a brick, means for holding a brick in engagement with said cutters during the cleaning operation, means for rotating said rotor, and removable obstructing means adapted to be positioned between said brick and one of said cutters where the same would otherwise engage said brick.

4. In a brick cleaning machine, the combination of a pair of rotors mounted on substantially parallel axes and with peripheral edge portions of one close to peripheral edge portions of the other, each of said rotors having a substantially U-shaped recess with cutters therein, said recesses registering with each other and being of such proportions that a brick to be cleaned may pass between the axes of rotation of said rotors and into engagement with said cutters where said recesses register with each other, and means for rotating said rotors whereby both rotors move in the same direction where such brick is adapted to pass between the same.

5. In a brick cleaning machine, the combination of a pair of rotors mounted on substantially parallel axes, each rotor having an annular substantially U-shaped recess in the periphery thereof, said recess having brick cleaning devices therein, the recess of one rotor registering with the recess of the other, the arrangement being such that a brick may pass between the axes of rotation of said rotors and be engaged simultaneously by the cutters of each thereof, means for rotating said rotors in the same direction where the brick is adapted to pass between them, and means for limiting the movement of a brick passing between said rotors.

[Claims 6 to 11 not printed in the Gazette.]

1,239,481. REFRIGERATOR OR ICE-BOX. FRANK B. HART and THOMAS G. VAN SANT, Poplar Bluff, Mo. Filed May 29, 1915. Serial No. 31,228. (Cl. 73—46.)



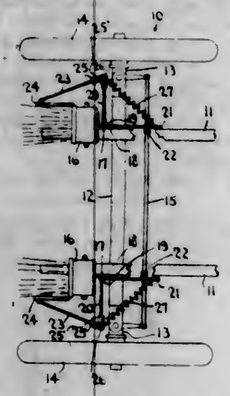
1. In a refrigerator, an ice chamber having a recess in the front wall thereof and an opening from said recess through the front wall, an indicating device supported within said recess, a support in said opening, a lever pivoted on said support extending into said recess and operatively connected with the indicating device, levers pivoted within the ice chamber near the front and rear sides thereof, respectively, an arm in connection with the rear lever extending toward the front side of the ice chamber, a connection between said arm and the lever which is pivoted in said opening, whereby said indicating device is operated by said arm, and a filling door hinged to the ice chamber operating independently of said indicating device, whereby the indicating device will indicate the weight of the ice within said chamber as the ice is placed in the chamber.

2. In a refrigerator, an ice chamber having a recess in the front wall thereof and an opening from said recess through the front wall, a filling door hinged to said chamber, scale operating levers pivoted in the bottom of said chamber, an ice supporting grate supported upon said levers approximately level with the bottom wall of the door opening, whereby the ice may be readily slipped into or out of the ice chamber, an indicating device inclosed within said recess, a support within said opening from the recess through the front wall of the ice chamber, a lever pivoted on said support in said opening and extending into said recess and into the ice chamber and being connected with the indicating device, and a connection between said lever and said scale operating levers, whereby said indicating device will be operated to indicate the weight of the ice being placed within the chamber when said door is open.

1,239,482. DIRIGIBLE AUTOMOBILE-LAMP. FRANK E. HARVEY, White Hall, Ill. Filed Dec. 26, 1916. Serial No. 138,903. (Cl. 240—62.)

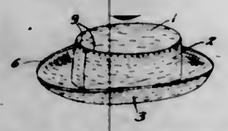
The combination in a device such as described, with a vehicle having lamps mounted thereon, movable axle spindles, a connecting rod secured to said axle spindles,

lugs secured thereto, operating rods mounted upon said vehicle, arms extending from the ends of said rods, one arm of each rod being disposed in the path of one of the lugs, reflectors pivoted to said lamps, means operatively connecting the reflectors and the other of said arms, means



for limiting the movement of said rods, and means for yieldingly holding the rods so the reflectors will be maintained in inoperative position except upon the turning of the vehicle wheels in predetermined directions.

1,239,483. PAPER HAT. EDWIN L. HENDERSON, Norwood, Ohio, assignor to The Kemper-Thomas Company, Norwood, Ohio, a Corporation of New Jersey. Filed Aug. 8, 1914. Serial No. 855,734. (Cl. 2—109.)

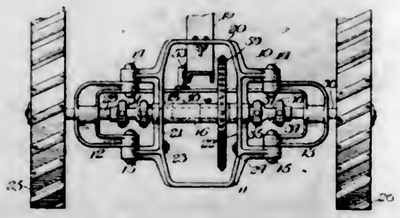


1. In a paper hat of elastic paper adapted when compressed to retain its compressed shape, the combination with the crown and band, of a brim therefor composed of said paper material compressed into a segmental shape in transverse section and secured to the lower edge of the band, whereby a hat with a permanent curved brim will be provided.

2. In a hat of waterproof elastic paper adapted when compressed to retain its compressed shape, the combination with the crown and band, of a brim therefor composed of an annular disk made up of outer layers of said material, and an inner layer of lining paper, the whole compressed into a segmental shape in transverse section, and having the outer edges bound to maintain the said shape, with the inner edges secured to the lower edge of the band, whereby a hat with a permanent curved brim will be provided.

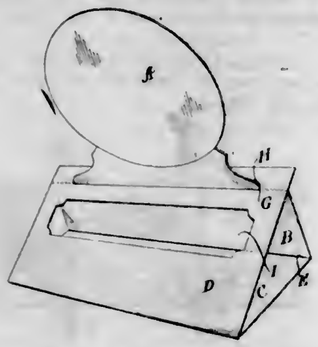
1,239,484. POWER-TRUCK FOR HARVESTERS AND THE LIKE. WALTER L. HENDRICKS, Aurora, Ill. Filed Sept. 15, 1913. Serial No. 789,883. (Cl. 21—114.)

A flexible truck comprising, in combination, a three part bolster having its parts hinged together end for end for relative movement in a horizontal plane, a sectional shaft, one non extensible section of the shaft extending through and being journaled and fixed against longitudinal movement in the intermediate section of the bolster and each of the other sections of the shaft extending through and being slidingly journaled in one of the outer sections of the bolster, a pair of knuckle joints connecting the said section of the shaft which is journaled in the intermediate part of the bolster with each of the said sections of the shaft which are slidingly journaled in the two outer parts of the bolster, the two knuckle joints of each pair being located upon opposite sides of the line of the hinge joint between the adjacent parts of the bolster, a traction wheel mounted upon each section of the shaft which is



journaled in one of the outer parts of the bolster and a power transmitting wheel mounted upon the section of the shaft which is journaled in the intermediate part of the bolster.

1,239,485. ADJUSTABLE SHOW-CARD. ROBERT R. HEYWOOD, New York, N. Y. Filed May 15, 1915. Serial No. 28,313. (Cl. 211—24.)



1. A device of the character described, consisting of substantially flat sheet material provided with hinges on which two of its ends may be turned up, one of the said ends having a transverse slot and a portion on the other end adapted to pass through said slot and thereby connect the two ends, and be held against movement toward the hinge on which said slotted end is turned up, said end portions and the portion of the material between the hinges forming an inclosure, the construction and arrangement being such that the said portion which passes through the slot may be passed therethrough until one of said end portions rests upon a horizontal portion of the other, in which position one of the said end portions is substantially vertical and extends above the other and the other is oblique thereto, said oblique portion having a second and medial aperture exposing the interior of the inclosure, and the said portion which extends through the slot having a part slightly wider than the slot adapted to be forced through the said slot substantially as described.

2. A device of the character described, consisting of a sheet of material provided with a plurality of folds and a transverse slot near one end with a part of the opposite end portion passed therethrough and projecting therefrom, means for retaining the parts of the device in this position, whereby is formed a hollow member and an upwardly extending portion projecting above said hollow member, the said end portion which extends partly through the slot having its outer extremity a greater distance from the fold nearest it than the distance of the slot from the same fold, whereby the portion of the device between the said fold and the slot may be folded flat against the said end portion without removing the extremity of said end portion from the slot.

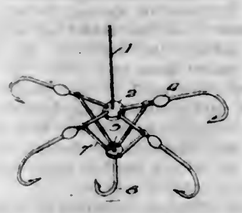
[Claims 3 and 4 not printed in the Gazette.]

1,239,486. CUTTER. FRANK T. HIGHAMS, Houston, Tex. Filed May 10, 1915, Serial No. 27,061. Renewed Feb. 8, 1917. Serial No. 147,494. (Cl. 147—1.)



A device of the character described including a supporting bar, bearings in which the same is slidably mounted, a means for moving said bar back and forth in its bearings, a cutting device carried by said bar, said device including a support formed of two parts dovetailed together, a resilient seat interposed between said parts, a cutter bar dovetailed to said support, a resilient seat interposed between said cutter bar and support, means for limiting the operation of said resilient seats, a roller carried by the free end of the bar, a cutter blade also fixed to the free end of said bar and a guard adjustably mounted upon the free end of said cutter bar.

1,239,487. FISHING-HOOK. ARTHUR LEE HILL, Faxon, Okla. Filed June 19, 1917. Serial No. 175,639. (Cl. 43—7.)

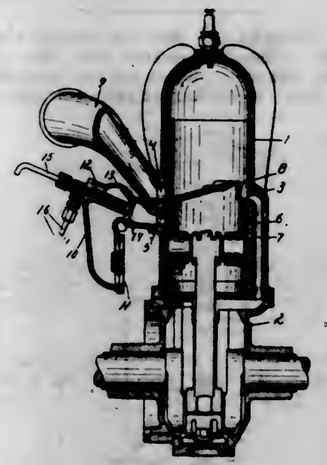


1. A device of the class described including a plurality of collapsible gripping hooks, a float carried by each of said hooks to normally hold them extended when the device is in operation, and a centrally disposed movable bait carrying hook connected with said gripping hooks and adapted to collapse the same upon outward movement.

2. A device of the class described including a pair of superposed disks, a plurality of gripping hooks pivotally connected with the upper disk, a float carried by each of said hooks to normally hold the same extended when the device is in operation, a bait carrying hook on the lower disk, and links connecting the lower disk with the gripping hooks to collapse said gripping hooks upon outward movement of said bait holding hook.

1,239,488. INTERNAL-COMBUSTION ENGINE. WILLIAM F. HOSHEL, Three Rivers, Mich., assignor to Sheffield Car Company, Three Rivers, Mich. Filed Aug. 28, 1916. Serial No. 117,247. (Cl. 123—73.)

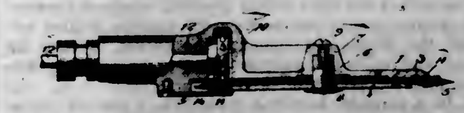
1. In an internal combustion engine, the combination of a cylinder provided with inlet and exhaust ports and a compression chamber inlet port, a crank case adapted as a compression chamber, a passage connecting said compression chamber to said cylinder inlet port, a piston constituting a pump plunger for said compression chamber, said compression chamber inlet port being closed by the piston when it is at the end of its instroke and said cylinder inlet and exhaust ports are open, and open when the piston is at the end of its outstroke, and said cylinder inlet and exhaust ports are closed thereby, an elbow-shaped inlet passage member delivering to said compression chamber inlet port and having a Venturi restriction at its inlet port end, a fuel nozzle disposed through the elbow of said inlet passage member with its tip centrally in the Venturi restriction thereof, the discharge of said nozzle being conical, a needle valve for said nozzle, a fuel reservoir, a conduit connecting said fuel reservoir to said nozzle, a check valve for said conduit, the fuel being drawn past said valve to said nozzle by the suction or inspirating impulses of the compression chamber, and a throttle valve for said inlet passage member.



2. In an internal combustion engine, the combination of a cylinder provided with inlet and exhaust ports and a compression chamber inlet port, a crank case adapted as a compression chamber, a passage connecting said compression chamber to said cylinder inlet port, a piston constituting a pump plunger for said compression chamber, said compression chamber inlet port being closed by the piston when it is at the end of its instroke and said cylinder inlet and exhaust ports are open, and open when the piston is at the end of its outstroke, and said cylinder inlet and exhaust ports are closed thereby, an inlet passage member delivering to said compression chamber inlet port and having a Venturi restriction at its inlet port end, a fuel nozzle disposed with its tip centrally in the Venturi restriction thereof, the discharge of said nozzle being conical, a regulating valve for said nozzle, a fuel reservoir, a conduit connecting said fuel reservoir to said nozzle, a check valve for said conduit, the fuel being drawn past said valve to said nozzle by the suction or inspirating impulses of the compression chamber, and a throttle valve for said inlet passage member.

[Claim 3 not printed in the Gazette.]

1,239,489. SKINNING-TOOL. FRANK JACKSON, Chicago, Ill. Filed Nov. 16, 1916. Serial No. 131,627. (Cl. 17—13.)

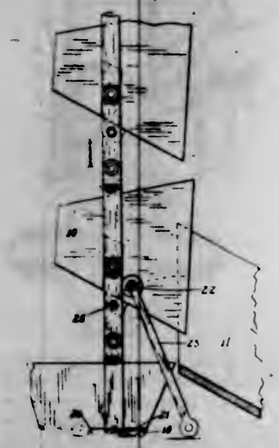


1. In a tool of the character described, a handled plate, a circular knife lying against one side of the plate, a circular toothed guard lying outside of and co-axial with the knife, a single fastening device for the knife and the guard comprising a pin projecting through the same into said plate and having on its outer end a head engaging with the outer side of the guard, said plate having a socket for receiving the inner end of the pin, and the parts being so proportioned and arranged that when the pin is seated in said socket it holds the knife and the guard in place and permits them to rotate freely independently of each other, and means for driving said knife.

2. In a tool of the character described, a handled plate, a circular knife lying against one side of the plate, a circular toothed guard lying outside of and concentric with the knife, a headed journal pin extending through the guard and the knife into said plate to hold the knife and guard in position and permit them to rotate independently

of each other, means for driving said knife, and an auxiliary guard extending from said handle over those portions of the guard and knife lying in the vicinity of the handle.

1,239,490. CONVEYER. WILLIAM THOMAS JAMES, Chicago, Ill. Original application filed Mar. 30, 1908. Serial No. 424,242. Divided and this application filed Aug. 8, 1910. Serial No. 576,183. (Cl. 193—6.)



1. In a material handling apparatus in combination, a pair of opposing carriers each composed of a pair of chains, each comprising a plurality of link sections, means connecting the ends of adjacent sections together, a conveyer bucket pivotally mounted between the carriers, and means between the carriers adjacent said bucket for stopping the bucket in both its loaded and unloaded positions.

2. In a material handling apparatus, a pair of opposing carriers, a normally swinging conveyer bucket pivoted between said carriers, and means connecting said carriers together for stopping the bucket in both its loaded and unloaded position, said last mentioned means being so constructed as to permit the bucket to right itself into operative position after discharging its contents.

3. In a material handling apparatus, a pair of opposing carriers, a conveyer bucket pivotally mounted between said carriers, and a bar between the carriers located adjacent the bucket, for stopping the bucket in both its loaded and unloaded positions.

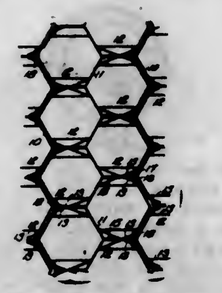
4. In a material handling apparatus, a pair of opposing carriers, a conveyer bucket pivotally mounted between said carriers, and a bar between the carriers located adjacent the bucket for stopping the bucket in both its loaded and unloaded positions, and arranged as a distance piece between said carriers.

5. In a material handling apparatus, a pair of opposing carriers, a conveyer bucket pivoted between said carriers, means for tripping the bucket, and means intermediate the ends of the bucket and connecting said carriers for stopping the bucket in both its loaded and unloaded positions.

[Claims 6 to 11 not printed in the Gazette.]

1,239,491. RADIATOR. FRANCIS W. KERGAN, New York, N. Y., assignor to D. McRa Livingston, New York, N. Y. Filed Oct. 9, 1915. Serial No. 55,002. (Cl. 257—130.)

1. A cellular radiator, including zig-zag conduits for a fluid, and an intermediate zig-zag radiating element having lateral radiating fins extending therefrom alternately at opposite sides toward the conduits, the fins being in contact with surfaces appurtenant to the conduits and presenting double walls spaced from each other, said double walls extending for the major portion of the width of said element, the said walls at the ends of the cells being in close relation and disposed at the transverse median line of the fins to present unitary end members at the cells.



2. A cellular radiator, including zig-zag conduits for a fluid, and an intermediate zig-zag radiating element having lateral radiating fins extending therefrom alternately at opposite sides toward the conduits, the said fins contacting with surfaces appurtenant to the conduits and presenting double walls spaced from each other, and being slitted through both walls thereof presenting a plurality of fin sections, said sections being deflected alternately in planes at an angle to each other.

3. A cellular radiator, including zig-zag conduits for a fluid, and an intermediate zig-zag radiating element having lateral fins extending therefrom alternately at opposite sides toward the conduits, the fins presenting double walls spaced from each other, the said fins being slittled through both walls thereof presenting a plurality of fin sections, said sections being deflected alternately in planes at an angle to each other, said fin sections contacting with the conduits, the contact of alternate sections of each fin with a conduit being respectively at opposite sides of a conduit salient.

4. A cellular radiator, including zig-zag conduits for a fluid, and an intermediate zig-zag radiating element having lateral fins extending alternately at opposite sides of said element, said element and conduits forming respectively the opposite walls of open-ended cells alternating with the conduits and extending transverse to the general direction of the conduits, said fins all contacting with the said conduits adjacent to the salients of the latter at the ends of the cells and along substantially the whole length thereof between the ends and defining with the zig-zag body of the element and the zig-zag conduits, the walls of hexagonal cells.

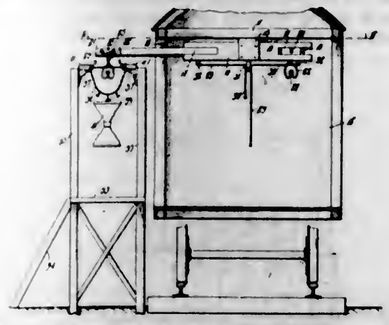
5. A radiator, including zig-zag conduits for the flow of a liquid, and an intervening zig-zag radiating element having lateral radiating fins alternately at opposite sides at the salients of said element and extending to a contact with the conduits at the salients of the latter, forming opposite walls of hexagonal cells.

[Claims 6 to 10 not printed in the Gazette.]

1,239,492. MAIL-HANDLING DEVICE. JOSEPH L. KOST, Galveston, Tex., assignor of one-half to James H. Shively, Galveston, Tex. Filed Nov. 16, 1916. Serial No. 131,741. (Cl. 258—26.)

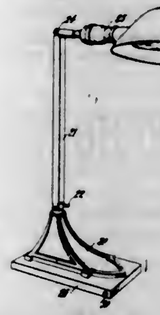
1. A mail handling device including a station device comprising a platform, a set of standards extending above said platform, collecting hooks extending from the standards and extending above the standards and toward each other, a second set of standards extending above said platform, and suspending hooks extending from the second set of standards toward each other for suspending a sack between the second set of standards.

2. A mail handling device including a station device comprising a platform, a set of standards extending above said platform, collecting means carried by said standards, a second set of standards extending above said platform, suspending means extending between the second set of standards and terminating in spaced relation, a flexible carrier carried by said suspending means and provided with an engaging element whereby a sack may be suspended from the flexible carrier.



3. A mail handling device including a station device, said station device including a set of standards, collecting means carried by the standards and extending between the same, a second set of standards positioned in alinement with the first set of standards, and suspending means carried by the second set of standards and extending between the same and positioned in a different plane from the plane of the collecting hooks.

1,239,493. DESK OR TABLE LAMP. GEORGE LAMPERT, New York, N. Y. Filed Feb. 7, 1917. Serial No. 147,090. (Cl. 240—4.)



1. In a device of the character described, a base for a lamp forming a container, a mirror-supporting member hinged pivotally to the lamp base, a mirror pivotally supported by the mirror-supporting member and adapted to be concealed within the lamp base when not in use by swinging the mirror-supporting member and mirror into the container formed by the lamp base, and adapted to be moved out of concealed position from said lamp base by swinging it out of its position in the lamp base into operative position.

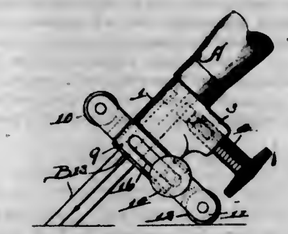
[Claims 2 and 3 not printed in the Gazette.]

1,239,494. GRAVER-SHARPENER. HUGO A. LANGE, Little Rock, Ark. Filed Jan. 15, 1917. Serial No. 142,519. (Cl. 51—7.)

1. A device of the kind described comprising a sleeve, means for clamping said sleeve to a tool to be sharpened, a block rotatably mounted on said sleeve, a yoke adjustably connected to said block, and rollers carried by said yoke and adapted to support the yoke, sleeve and tool.

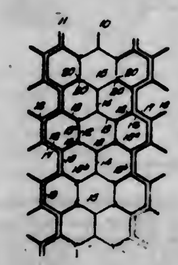
2. The combination with a tool, a sleeve adapted to fit thereon, means for clamping to the tool, a split block rotatably mounted upon said sleeve, and a yoke mounted upon said block, the block being slidable between the yoke members, and suitable graduation marks carried by the sleeve, block and yoke respectively.

3. A graver sharpener consisting of a sleeve adapted to receive the graver, a screw working transversely in the sleeve, a plug fitting loosely in the inner end of the screw and projecting therefrom and adapted to engage said graver, a split block rotatably mounted on said



sleeve, a yoke adjustably mounted on said block, rollers carried by the ends respectively of the yoke, and a binding screw working through said yoke and block.

1,239,495. RADIATOR. D MCRA LIVINGSTON, New York, N. Y. Filed Nov. 17, 1915. Serial No. 61,995. (Cl. 257—130.)



1. In a radiator, a radiating element of hexagonal cellular construction formed of a plate of single thickness, expanded at intervals alternately in opposite directions to form opposed walls of parallel cells separated by unexpanded zones of a single thickness, the said plate at the front end being returned on itself, the returned portions following the said unexpanded zones and following the lines at one side of each cell.

2. A radiator, including a pair of water tubes having corrugated walls, and pairs of convergent fins and an intermediate radiating element formed of a single plate expanded at spaced intervals in opposite directions forming opposite walls of a plurality of hexagonal cells alternating with non-cellular members, the said element and the said water tubes and their convergent fins forming hexagonal cells additional to the expanded cells of the radiating element.

3. In a radiator, a pair of water tubes having corrugated walls, and an intermediate radiating element consisting of a plate of single thickness expanded at spaced intervals in opposite directions to form in said element a series of hexagonal cells separated by intervening unexpanded zones, the walls of the said water tubes adjacent to the said radiating element presenting members forming, with the said element, cells at the sides of the expanded cells, and additional cells at the opposite sides of the said zones.

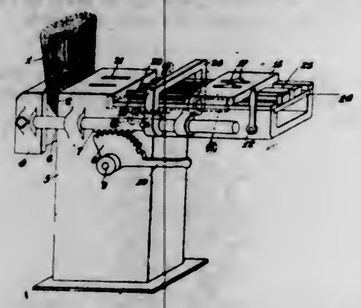
4. In a radiator, a pair of water tubes having corrugated walls, and an intermediate radiating element consisting of a plate of a single thickness expanded at intervals in opposite directions to form in said element a series of hexagonal cells separated by intervening plane unexpanded members, the walls of the water tubes adjacent to the said element presenting members forming, with said element, cells at the side of and in horizontal alinement with the expanded cells, and additional cells at the opposite sides of the said plane members, said additional cells being in horizontal alinement.

5. In a radiator, a pair of water tubes having corrugated walls, and an intermediate radiating element con-

sisting of a plate of single thickness expanded at spaced intervals in opposite directions to form in said plate rows of hexagonal expanded cells separated by members presenting plane unexpanded zones, said tubes forming with the said element hexagonal cells at opposite sides of the expanded cells and in horizontal alinement therewith, and additional cells in horizontal alinement with each other at the opposite sides of the said plane zones, those cells in horizontal alinement presenting vertical outer side wall members and vertical separating members parallel with one another.

[Claim 6 not printed in the Gazette.]

1,239,496. STAPLING-MACHINE. JOHN SHERMAN MCCHESNEY, Chicago, Ill., assignor to J. S. McChesney & Co., Chicago, Ill., a Corporation of Illinois. Filed Feb. 24, 1915. Serial No. 10,369. (Cl. 1—4.)



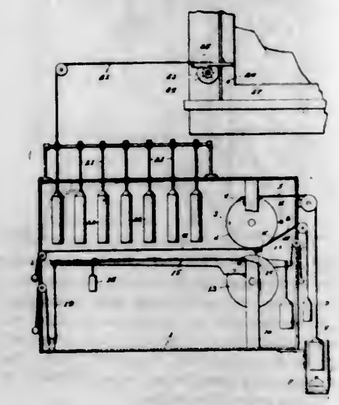
1. A stapling machine including an anvil; a needle for guiding staples; a driver for moving staples along the needle; mechanism for moving the driver and the needle toward the anvil; a driving connection between said mechanism and the needle whereby the driver and the needle are initially moved toward the anvil together; and means operating upon said driving connection upon a predetermined advance of the needle and driver for uncoupling said mechanism and the needle to thereafter permit the driver to move alone toward the anvil.

2. A stapling machine including an anvil; a needle for guiding staples; a driver for moving staples along the needle; mechanism for moving the driver and the needle toward the anvil; a driving connection between said mechanism and the needle whereby the driver and the needle are initially moved toward the anvil together; means operating upon said driving connection upon a predetermined advance of the needle and driver for uncoupling said mechanism and the needle to thereafter permit the driver to move alone toward the anvil; chucks for holding work in position to be stapled; and mechanism for causing approach of one chuck toward the other prior to movement of the needle and driver toward the anvil.

1,239,497. FIRE AND BURGLAR ALARM. JAMES M. MCCONNELL, Greensburg, Ind. Filed Sept. 23, 1916. Serial No. 121,749. (Cl. 116—44.)

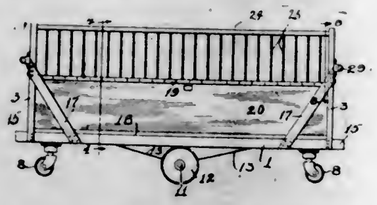
1. An alarm comprising a casing, a pulley journaled therein, cables arranged to wind upon said pulley in opposite directions and trained through the casing, weights attached to the cables, a bell located below one of the weights, a stop mounted upon the said pulley, a second pulley journaled in the casing, a lever attached to the last mentioned pulley, a stop carried by the last mentioned pulley and located in the path of movement of the first mentioned stop, a weight adjustably mounted upon the lever, an arm connected with the lever, a weight mounted upon the arm and a series of weights held suspended in the casing above the free end portion of the lever.

2. An alarm comprising a casing, a pulley journaled therein, means for cushioning the turning movement of the pulley, a stop carried by the pulley, cables arranged to wind upon the pulley in opposite directions, weights carried by the cables, a bell located in the path of movement of one of the weights, a second pulley journaled in the casing, a stop mounted upon the last mentioned pulley and located in the path of movement of the first mentioned



stop, a weighted lever attached to the second mentioned pulley, an arm attached to the lever, a weight carried by the arm, and weights held suspended above the free end portion of the said lever.

1,239,498. TRUCK. PATRICK J. MADIGAN, Chicago, Ill. Filed Oct. 26, 1916. Serial No. 127,932. (Cl. 21—65.)



1. In a truck of the class described walls at each end thereof, and telescoping side walls adapted to be folded inwardly upon the floor of the truck.

2. In a truck of the class described a floor, end walls rigidly associated therewith, and telescoping side walls independently operatable adapted to be extended for use between said end walls and to be folded flat upon said floor out of use, and latching means acting automatically to lock said side walls in upright position when the same are moved thereinto.

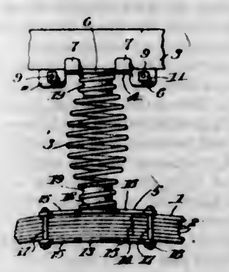
3. In a truck of the class described the combination with a floor, of end walls rigidly associated therewith, telescoping side walls hingedly connected to said floor adapted to be moved into an upright position between said end walls, and latching means acting automatically to lock said side walls in an upright position when moved thereinto.

4. In a truck of the class described end walls, and foldable telescoping side walls mounted therebetween adapted to be moved into an upright position between said end walls when extended and interlocked therewith.

5. In a truck of the class described the combination with a frame, of foldable side walls adapted to be swung toward one another into a horizontal position out of use, and to be moved into an upright position for use, and sections telescoping into said side walls adapted to be extended to increase the height thereof when in position for use.

[Claims 6 to 8 not printed in the Gazette.]

1,239,499. VEHICLE-SPRING JACK. GUSTAVE P. MARKWARDT, Winona, Minn. Filed Apr. 20, 1916, Serial No. 92,439. Renewed July 19, 1917. Serial No. 181,662. (Cl. 267—19.)



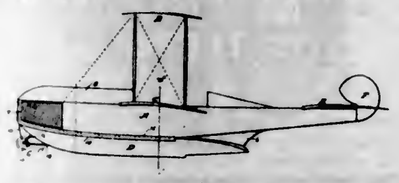
1. In combination with a supporting spring and body of a vehicle, an auxiliary spring interposed therebetween, an anchor plate for said spring, a lug on said plate to overlap one of said members, a second lug on said plate, a hook bolt engaging the last mentioned member, being mounted in the second mentioned lug.

3. In combination with a supporting spring and the body of a vehicle, an anchor plate associated with one of said members, a stud extending from said anchor plate, an auxiliary spring into which said stud extends interposed intermediate the supporting spring and body, said plate having laterally elongated slots to accommodate connection to parts varying in size, and fastening means extending through said slots.

4. In combination with a supporting spring and a body of a vehicle, an anchor plate associated with one of said members, lugs integral with said plate and abutting the last mentioned member, integral lugs on said plate extending in the opposite direction to said lugs, hook bolts engaging the last mentioned member, moutned in the second mentioned lugs, and a stud extending from said plate into said spring, an anchor plate in engagement with the spring, a stud rising from said plate and extending into the auxiliary spring, said anchor plate having elongated slots to facilitate attachment to parts varying in size, and fastening means extending through said slots.

[Claim 2 not printed in the Gazette.]

1,239,500. FLYING-BOAT. GLENN L. MARTIN, Los Angeles, Cal., assignor to Glenn L. Martin Company, Los Angeles, Cal., a Corporation of California. Filed Feb. 3, 1914. Serial No. 816,240. (Cl. 244—2.)



1. A flying boat, comprising a main elongated body provided with means for sustaining the same in flight, and a detachable elongated buoyant body applied to and beneath the same and conforming generally in transverse dimensions to those of the said main body; means being disposed between said main body and said buoyant body producing an interspace between the same; said main body being provided with a bottom opening leading to said interspace.

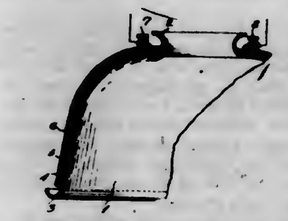
4. A flying boat, comprising a main elongated body provided with means for sustaining the same in flight; a detachable elongated buoyant body, and detachable alighting means; and means for detachably securing either of the same to the main elongated body in substitution for the other; said elongated buoyant body conforming generally in transverse dimensions to those of the main body.

6. A flying boat, comprising a main elongated hull-like body provided with means for sustaining the same in flight, a detachable false bottom for the same, and conforming generally in lines thereto, and detachable landing means for the same.

9. A flying boat, comprising a main buoyant body or hull provided with a detachable nether portion constituting an extension thereof and adapted in entirety to traverse the water, and means detachably holding such hull portions together.

[Claims 2, 3, 5, 7, 8, and 10 not printed in the Gazette.]

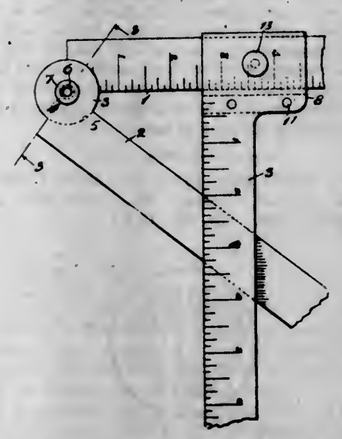
1,239,501. INSECT-KILLER. IRVING W. MASON, Aberdeen, Wash. Filed Dec. 4, 1915. Serial No. 65,063. (Cl. 43—34.)



1. An insect killer comprising a base plate, a perforated insulating strip secured to the base plate, a perforated plate secured to the insulating strip, and an electric contact secured to the base plate and an electric contact secured to the perforated plate.

[Claims 2 and 3 not printed in the Gazette.]

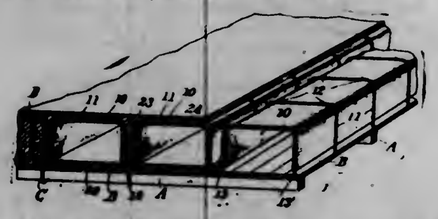
1,239,502. MEASURING INSTRUMENT. WILLIAM E. MEADWELL, Ithaca, N. Y., assignor of one-third to John O. Little, Pittsburgh, Pa. Filed Dec. 18, 1915. Serial No. 67,630. (Cl. 33—97.)



1. A measuring instrument of the class described comprising two similar arms each having a straight edge, a lateral projection extending from each arm and having an opening therein in alinement with the straight edge of the arm, a tubular rivet adapted to extend through the openings in said projections for pivotally connecting the arms together and for providing a sight opening for the instrument, another arm having one end bent upon itself to form a loop, one of said first mentioned arms being adapted to slidably extend through said loop, and thumb screw threaded in said loop portion for securing the slidable arm in adjusted positions.

[Claim 2 not printed in the Gazette.]

1,239,503. FIREPROOF CONSTRUCTION. ERNEST MERRICK, Elizabeth, N. J., assignor to Agnes R. Merrick, Elizabeth, N. J., trading under the name of Merrick Fireproof Construction Co., Elizabeth, N. J. Filed Sept. 9, 1914, Serial No. 860,840. Renewed Apr. 12, 1917. Serial No. 161,678. (Cl. 72—66.)

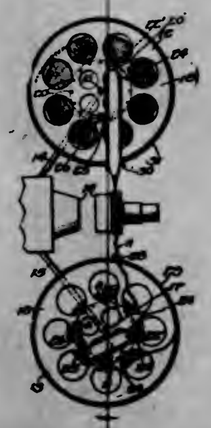


1. In a fire-proof floor and ceiling construction, having between the floor surface and the ceiling surface a series of voids or openings supported at intervals by concrete partitions, said voids or openings being lined at the top and sides with sheet material having undercut rods or bars secured to said material and projecting bodily therefrom upon the upper surface thereof, the concrete composing the floor and the partitions remaining entirely upon the upper surface of the sheet material and completely surrounding said rods or bars.

2. In a fire-proof floor and ceiling construction, having between the floor surface and the ceiling surface, a series of voids or openings separated at intervals by concrete partitions, said voids or openings being lined at the top and sides with sheet material having round rods or bars secured to said material and projecting bodily therefrom upon the upper surface thereof, the concrete composing the floor and the partitions remaining entirely upon the upper surface of the sheet material and completely surrounding said rods or bars.

3. In a fire proof floor and ceiling construction having between the floor surface and the ceiling surface, a series of voids or openings separated at intervals by concrete partitions, said voids or openings being lined at the top and sides with solid sheet metal, having rods or bars secured thereto upon the upper surface thereof and projecting bodily therefrom the ends of said rods or bars extending beyond the edges of the sheet metal pans or baskets a distance substantially equal to the thickness of the ceiling, the linings being held in place by means of the concrete surrounding the rods or bars.

1,239,504. REEL FOR PICTURE-MACHINES. WILLIAM E. MILLAR, Chicago, Ill. Filed Dec. 4, 1915. Serial No. 64,983. (Cl. 88—18.7.)



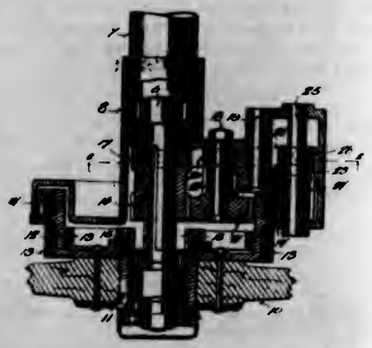
1. A reel for the purpose set forth comprising heads spaced apart to afford a slight clearance for the film, one provided with a film outlet opening, and an annular series of reel supporting rolls extending between said heads and closely spaced and non-rotative as a series relatively to the central axis of the heads, one of said rolls being disposed to rotate on an axis oblique to the axis of the reel to direct the film from the inner part of the reel in a plane at right angles to the axis of the reel.

2. A reel for the purpose set forth comprising heads spaced apart to afford a slight clearance for the film, one provided with a film outlet opening, and an annular series of reel supporting rolls extending between said heads and closely spaced and non-rotative as a series relatively to the central axis of the heads, one of said rolls being disposed to rotate on an axis oblique to the axis of the reel to direct the film from the inner part of the reel in a plane at right angles to the axis of the reel, and means on the exterior of the reel adjacent to said oblique roll to receive and hold the inner end of the film.

3. A reel for the purpose set forth comprising spaced heads, one provided with a film outlet opening, a series of annularly disposed tie rods extending between and fixed to said heads, film supporting rolls rotatively mounted on said rods, one of said tie rods and its roll being disposed oblique to the axis of the reel to direct the film from the inner part of the film roll, and one of the heads being provided adjacent to the oblique roll with an opening outwardly through which the film may be drawn.

4. A reel for the film of moving picture machines comprising spaced heads, an annular series of tie rods extending between said heads and headed at their ends, antifriction film roll supporting rollers rotatively mounted on said rods and abutting at their ends against said heads, and a directing roll in the circle of said series rotating on an axis oblique to the reel axis, and one of the heads being provided adjacent to said obliquely disposed roll with an outlet opening for the inner end of the film.

1,239,505. AUTOMOBILE TRANSMISSION. WALTER A. MILLER, East Milwaukee, Wis. Filed Feb. 2, 1917. Serial No. 146,058. (Cl. 21—90.)



1. The combination with a driven axle and its protecting casing, of a transmission housing mounted on the outer end of said casing, a wheel carrying hub journally mounted on the end of the axle outward of said housing, a drum carried by said hub and extending into the transmission housing, braking means engageable with the inner portion of said drum, and transmission means engageable with the end of said drum in the housing.

2. The combination with a driven axle and its protecting casing, of a transmission housing having its end wall continued and secured to the outer end of said casing, a wheel carrying hub mounted on the end of said axle outward of said housing, an outwardly offset flange carried by said hub and extending into said housing, braking means engageable with the inner portion of said flange, a gear carried by the outer portion of said flange, and means selectively engageable with said gear to provide a slow speed.

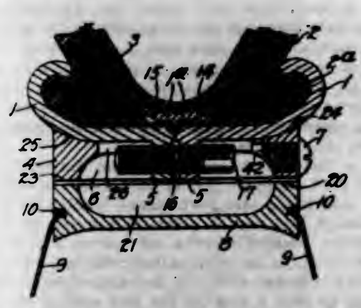
3. In an automobile, the combination with a drive wheel and adjacent drive axle portion, of a hub carrying a ring gear, a pinion gear slidably fixed to the axle and engageable with said ring gear to procure a direct drive of the wheel from said axle, and means operable by the moving of said pinion gear from engagement with the ring gear to provide a slow speed, substantially as described.

5. The combination with a driven axle and its protecting casing, of a transmission housing mounted on the outer end of said casing, a wheel carrying hub journally mounted on the end of the axle outward of said housing, a drum carried by said hub and extending into the housing, braking means engageable with the inner portion of said drum, a gear carried by the outer end of said drum, a train of gears journaled in said housing, an elongated pinion slidably mounted in said casing and adapted to simultaneously mesh with one gear of said train and the drum carried gear, and axle carried means adapted to mesh with the other gear of said train to drive said drum carried gear.

6. The combination with a driven axle and its protecting casing, of a transmission housing mounted on the outer end of said casing, a wheel carrying hub journally mounted on the end of said axle outward of said housing, a drum carried by said hub and having its outer portion extending into said housing, braking means engageable with the inner portion of said drum, a ring gear carried by the outer end of said drum, a pair of reducing gears journaled in said housing and in mesh with an elongated pinion gear slidably journaled in the housing and adapted to simultaneously mesh with one of said reducing gears and said drum carried gear, a clutch member carried by said hub, a gear clutch member slidably splined on said axle, said clutch being shiftable to selectively engage the clutch member of the wheel and the other of said reducing gears, and means connected with said elongated pinion and gear clutch member whereby to provide varying speeds.

[Claim 4 not printed in the Gazette.]

1,239,506. DEMOUNTABLE RIM. WILLIAM J. P. MOORE, New York, N. Y. Filed Apr. 1, 1916. Serial No. 88,303. (Cl. 152—21.)



1. The combination with a wheel, of a demountable rim collapsible to exert a clamping effect when mounted on the wheel, said rim having sections, screw means for separating the sections, and pneumatic means carried by the rim which exerts a clamping effect when the sections of the rim are separated, and clamping means for holding the demountable rim upon the wheel.

2. The combination of a wheel body, a sectional demountable rim, means for drawing the sections together or apart, a curved faced locking ring interposed between the sectional rim and the body, and pneumatic means for effecting a clamping pressure on the locking ring and body when the sections of the rim are separated, and clamping devices for holding the demountable rim upon the wheel body.

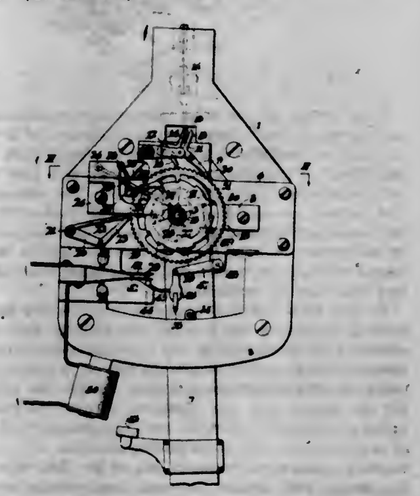
3. The combination of a wheel body, a sectional rim, means for drawing the sections of the rim together or apart consisting of screw-devices, a pneumatic tire carried by the rim whose pneumatic pressure aids in separating the sections when they are released by the aforesaid means acting thereon, and a locking ring interposed between the sectional rim and the wheel body, said locking ring having faces corresponding in shape to the faces of the sectional rim that are in contact therewith.

4. The combination of a wheel body, a sectional rim, means for drawing the sections of the rim together or apart, a pneumatic tire carried by the rim whose pressure aids in separating the sections when they are released by the aforesaid means acting thereon, and a collapsible locking ring interposed between the sectional rim and the wheel body, the contacting surfaces of the wheel body and the ring being co-axially cylindrical.

5. The combination of a wheel body, a sectional rim, means for drawing the sections together or apart, a split locking ring interposed between the sectional rim and the wheel body, and pneumatic means carried by the sectional rim and adapted to expand when the sections separate so as to apply a clamping effect to the locking ring and securely hold the latter upon the wheel body the contacting surfaces of the wheel body and the locking ring being coaxially cylindrical and the contacting surfaces of the locking ring and the sectional rim being correspondingly shaped.

[Claims 6 to 12 not printed in the Gazette.]

1,239,507. ELECTRIC CLOCK. EUGÈN KLING-MÜLLER, Philadelphia, Pa. Filed Oct. 15, 1914. Serial No. 866,742. (Cl. 58—80.)



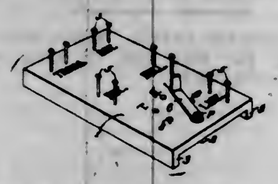
1. In an electric clock, the combination of a swinging pendulum, a ratchet wheel actuated thereby, a clock train actuated by said ratchet and means for giving an impulse to said pendulum, including an electro-magnet, an armature attached to the pendulum, a movable contact for the circuit of the electro-magnet, a notched disk connected to said ratchet, and means connected therewith for closing said contact, whereby said pendulum is given an impulse for each revolution of said notched disk.

2. In an electric clock, the combination of a swinging pendulum, a ratchet wheel actuated thereby, a clock train actuated by said ratchet, and means for giving an impulse to said pendulum, including an electro-magnet, an armature attached to the pendulum, a movable contact for the circuit of the electro-magnet, a notched disk connected to said ratchet, a depending arm adapted to close said contact when actuated by said pendulum, and means whereby said arm is lowered into position to be actuated by said pendulum at each revolution of said notched disk.

3. An electric clock including in combination, a ratchet wheel, a swinging pendulum, a pallet lever actuated directly by said pendulum, pawls carried by said pallet lever and operating said ratchet wheel, a second hand positively connected to said ratchet wheel, a second ratchet wheel mounted to turn about the axis of the first ratchet wheel, a minute hand positively connected to said second ratchet wheel, a

pawl actuated by the first ratchet wheel for turning said second ratchet wheel, a third ratchet wheel mounted to turn about the axis of the first ratchet wheel and an hour hand connected to said third ratchet wheel, a pawl actuated by said second ratchet wheel for turning said third ratchet wheel and means for giving an impulse to said pendulum including an electro-magnet, an armature attached to the pendulum, a movable contact for the circuit of the electromagnet, a notched disk connected to and turning with said first named ratchet wheel, a lever coöperating with said disk, a depending arm supported by said lever and having an extension adapted to close said contacts, a pin carried by the pendulum and adapted to contact with said depending arm for moving the same to close the contacts when said lever is lowered by the notched disk to bring said arm into range of said pin.

1,239,506. TOY TELEPHONE SYSTEM. JOSEPH S. NEWMAN, Cleveland, Ohio, assignor to The Electro Set Company, Cleveland, Ohio, a Corporation of Ohio. Filed Nov. 17, 1915. Serial No. 61,875. (Cl. 179—81.)



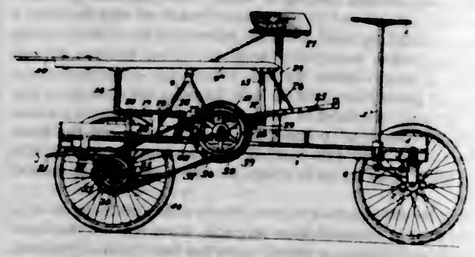
1. A device of the kind described, comprising a block having means for connecting the elements of a telephone set, said connections being indicated, said block also having line wire connections whereby two sets may be electrically connected, contacts located in the signal, talking and battery connections, and a switch connected with the line and adapted to engage any one of said contacts, whereby the circuit through the line may be made to include the signal connections, or the battery connections, or the battery and talking connections.

2. As a new article of manufacture, a block having connecting means for the battery, the talking, and the signal elements of a telephone set; connections between said means whereby the elements are placed in proper relation; contacts within said connections, one for the battery, one for the signal, and one common to both the battery and talking elements; a switch for engagement with any one of said contacts; the block having also line wire connecting means; connections between one of the line wire connecting means and the switch; and connections between the other line wire connecting means and all of the connecting means of the aforesaid elements.

3. The combination of two blocks each having connecting means for the battery, the talking, and the signal elements of a telephone set; connections between said means whereby the elements are placed in proper relation; contacts within said connections, one for the battery, one for the signal, and one common to both the battery and talking elements; a switch for engagement with any one of said contacts; each block having also line wire connecting means whereby the blocks may be electrically connected; connections between one of the line wire connecting means of each block and its respective switch; and connections between the other line wire connecting means of said block and all of the connecting means of the elements of its respective telephone set; the switch of each block being adapted to engage its signal contact and to send a signal to the telephone set of the other block, and then to engage its talking contact to establish a talking circuit between the telephone sets.

1,239,509. GRIPPING DEVICE FOR MANUALLY-PROPELLED VEHICLES. JACOB NEY, Canton, Ohio. Filed Feb. 24, 1913. Serial No. 750,066. (Cl. 74—52.)

1. In a device of the character described, the combination of a frame, a power shaft carried by said frame, a power wheel mounted upon said shaft, an oscillating element carried by the frame, grip plates provided with grip lugs, grip levers pivotally connected to the grip plates, front and rear foot levers, said front lever pivoted at its inner end and connected to the oscillating element, said rear foot lever pivoted intermediate its ends, a series of levers and links intermediate the rear foot lever and the



oscillating element, the innermost link of the series of links pivotally connected to one of the grip levers, a link connecting the other of said grip levers to the oscillating element, said grip levers adapted to alternately grip and release the power wheel.

[Claims 2 and 3 not printed in the Gazette.]

1,239,510. DOOR-CHECK. RONALD E. J. NORDQUIST, Oak Park, Ill., assignor to The Niles Invisible Door Check Company, Niles, Mich., a Corporation of Michigan. Filed Apr. 26, 1915. Serial No. 24,140. (Cl. 16—88.)



1. In a door check and closer, the combination of a casing, a fluid discharge port or passageway in said casing, a valve controlling the said port, means tending to move the valve toward said port, a pivotally-mounted lever having an operative connection with said valve, and a second lever pivotally mounted in said casing one end of which is operatively engaged with the first-named lever while its other end is free.

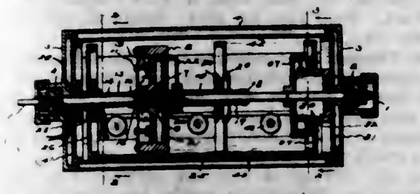
2. In a door check and closer, the combination of a casing, a fluid discharge port or passageway in said casing, a valve controlling said port, means tending to move the valve toward said port, a pivotally-mounted lever having an operative connection with said valve, a second lever pivotally mounted in said casing, one end of which is operatively engaged with the first-named lever while its other end is free, a cam on the free arm of the second-named lever, and means having coöperative engagement with said cam for operating said lever.

3. In a door check and closer, the combination of a casing, a fluid discharge port in said casing, a valve for said port, means tending to move the valve toward said port, a pivotally-mounted lever having operative connection with said valve, a slot in one end of said lever, a second pivotally-mounted lever the short arm of which passes through said slot and has operating connection with the first-named lever, a cam on the long arm of said second-named lever, and means having coöperative engagement with said cam for operating said levers.

[Claims 4 and 5 not printed in the Gazette.]

1,239,511. MOVEMENT-INDICATING APPARATUS FOR VEHICLES. ALFRED W. OLDS, Windsor, Conn. Filed July 1, 1916. Serial No. 107,082. (Cl. 40—77.)

1. A movement indicating apparatus for vehicles comprising a casing, a threaded shaft rotatably mounted in the casing, a weighted nut fitting the threaded portion of the shaft, an indicator movably mounted within the casing, and a clutch between the nut and the indicator, said clutch being engaged and disengaged by variations in the relative speeds of rotation of the shaft and nut.



2. A movement indicating apparatus for vehicles comprising a casing, a threaded shaft rotatably mounted in the casing, a nut fitting the threaded portion of the shaft, a fly wheel mounted on the nut and frictionally connected thereto, an indicator movably mounted in the casing, and a clutch between the nut and the indicator, said clutch being engaged and disengaged by variations in the relative speeds of rotation of the shaft and nut.

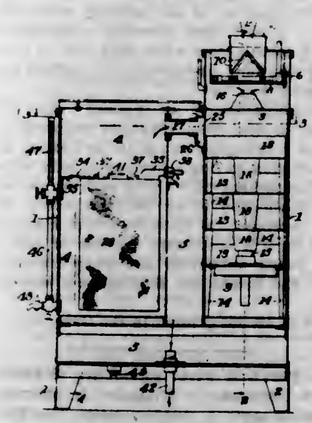
3. A movement indicating apparatus for vehicles comprising a casing, a threaded shaft rotatably mounted in the casing, a nut fitting the threaded portion of the shaft, a clutch adapted to be engaged and disengaged by the movements of the nut along the shaft, and a movable indicator connected with one member of the clutch.

4. A movement indicating apparatus for vehicles comprising a casing, a threaded shaft rotatably mounted in the casing, a nut fitting the threaded portion of the shaft, a fly wheel mounted on the nut, a clutch, a yielding connection between the nut and one member of the clutch, and a movable indicator connected with the other member of the clutch.

5. A movement indicating apparatus for vehicles comprising a casing, a threaded shaft rotatably mounted in the casing, a nut fitting the threaded portion of the shaft, springs holding the nut in normal position on the shaft, a movable indicator, and a clutch with one member connected with the nut and the other member connected with the indicator.

[Claims 6 to 9 not printed in the Gazette.]

1,239,512. OIL-FILTER. JOHN W. PETERSON and JAMES P. QUAM, Milwaukee, Wis., assignors to The Richardson-Phenix Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed June 9, 1915. Serial No. 33,000. (Cl. 210—10.)

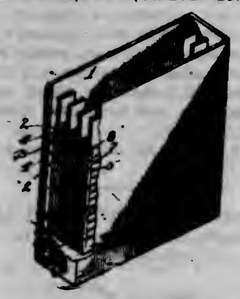


1. In an oil filter the combination of filtration and clean oil compartments, openings provided with self-closing valves between said compartments, separately removable hollow noncollapsible filtering elements, each loosely fitting into said filtration compartment and having an outlet nozzle removably fitting into and adapted to open one of said valves when said element is placed in working position.

2. In an oil filter the combination of a filtration compartment having an outlet opening, and a hollow noncollapsible filtering element comprising a frame having perforated sides, a cloth bag removably fitted over the frame and a removable cover fitted to the open top of the frame and adapted to secure the open end of the bag thereto, the cover being provided with an outlet nozzle removably fitting into said outlet opening.

[Claims 3 to 8 not printed in the Gazette.]

1,239,513. ACCUMULATOR-CELL. LEE J. PERRY, Chicago, Ill., assignor to Vesta Accumulator Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 10, 1916. Serial No. 83,844. (Cl. 204—29.)

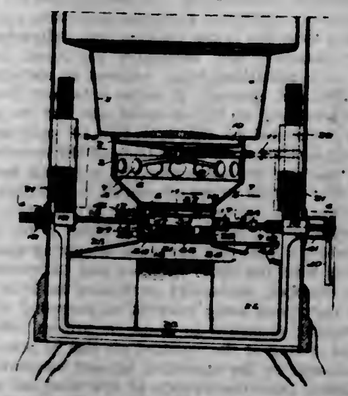


2. In an accumulator cell of the class described, the combination with the cell plates and mats provided therebetween, of means on the ends of said cell plates, of insulating members associated with said mats disposed between said means, and interlocking insulating mechanism for engagement with said means and with said insulating members to lock and maintain said cell plates in proper spaced insulated relation.

4. In an accumulator cell of the class described, the combination with the cell plates, of mats of substantially the same area as said cell plates interposed therebetween, apertured means disposed at the ends of the cell plates, apertured insulating means abutting the ends of said mats and disposed between said apertured means, and mechanism engaging through all of said apertured means for bridging said cell plates and coacting therewith to maintain the cell plates rigid and in proper spaced insulated relation with one another.

[Claims 1 and 3 not printed in the Gazette.]

1,239,514. STOVE. WILLIAM EATON PERRYCLEAR, Savannah, Ga., assignor of one-half to Luther Wilson High, Wilson, N. C. Filed Feb. 21, 1917. Serial No. 149,986. (Cl. 126—245.)



1. In combination with a furnace provided with draft openings in the walls thereof, a movable grate located above said openings, and inter-connected means to move said grate and control said draft openings.

7. A heating device, including an ash-pit, a closure therefor, an ash pan, means to raise and lower the same, including means to prevent the closure from being opened when the ash pan is moved.

8. In a furnace, a grate, a draft annulus connected thereto and a member provided with draft openings adapted to register with similar openings in the furnace wall, a single lever connected to said grate and annulus to oscillate the same.

10. In a furnace provided with an ash exit, an ash pan, a shaft, a worm thereon, a sleeve surrounding said worm, a slide connected to said sleeve and movable thereby to open and close said exit.

12. In a furnace provided with an ash exit, a closure therefor, a carriage adapted to support an ash pan, elevating means connected to said carriage, a shaft, means thereon for operating said closure, means on said shaft for elevating said carriage, means on said shaft for locking said carriage, and means for either operating said closure or said carriage, and means for locking one upon the operation of the other.

[Claims 2 to 6, 9, 11, 13, and 14 not printed in the Gazette.]

1,239,515. MACHINE FOR OZONIZING AIR. ANDREW PETERSON, Newark, N. J. Filed Aug. 19, 1914. Serial No. 857,454. (Cl. 167—3.)



1. In a machine for ozonizing air, a casing having a lower air inlet and an upper air outlet, a partition dividing the casing into an upper chamber and a lower chamber, a centrally arranged air propelling means in the lower chamber, a centrally arranged ozonizing apparatus receiving air from the lower chamber and delivering it in the upper chamber, and successive partitions in both chambers, such partitions being adapted to surround the centrally arranged elements to cause a broken circuitous passage and mixing of the ozonized air and to prevent the noises incidental to the operation of said elements being clearly audible from the outside of the machine.

2. In a machine for ozonizing air, a casing having a lower air inlet and an upper air outlet, a partition dividing the casing into an upper chamber and a lower chamber, a centrally arranged air propelling means in the lower chamber, a centrally arranged ozonizing apparatus receiving air from the lower chamber and delivering it in the upper chamber, successive partitions in both chambers, such partitions being adapted to surround the centrally arranged elements to cause a broken circuitous passage and mixing of the ozonized air and to prevent the noises incidental to the operation of said elements being clearly audible from the outside of the machine, and an air mixing wheel in the outlet of the casing, a tube extending from the outlet, the mixing wheel being operated by the current of air passing through it and acting with the tube to still further mix the ozonized air.

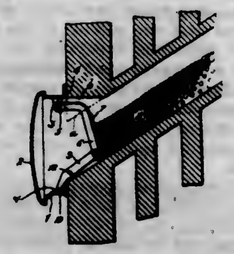
1,239,516. METHOD OF REMOVING CARBONIC-ACID GAS FROM NITROGEN GAS. HERBERT PHILIPP, Perth Amboy, N. J., assignor to The Roessler & Hasslacher Chemical Co., New York, N. Y., a Corporation of New York. Filed June 30, 1914. Serial No. 848,134. (Cl. 23—10.)

1. The method of removing carbon dioxid from a gaseous mixture thereof with nitrogen, comprising reacting upon the gaseous mixture with an absorbent comprising milk of lime and a substance adapted to render the absorbent capable of readily removing substantially all of the carbon dioxid from the gaseous mixture.

2. The method of removing carbonic acid gas from nitrogen gas, consisting in passing the impure gas through milk of lime containing a small quantity of an alkali metal hydroxid.

3. The method of removing carbonic acid gas from nitrogen gas, consisting in passing the impure gas through milk of lime containing a small quantity of sodium hydroxid.

1,239,517. RETORT. PIERRE PLANTINGA, Cleveland, Ohio. Filed Nov. 15, 1915. Serial No. 61,715. (Cl. 48—122.)



1. The combination with a retort including a mouth-piece; of a coal-stop mounted upon a stationary portion of the retort and adapted to swing outwardly and away from the floor thereof, whereby the coke may be discharged from beneath said stop.

2. The combination with a retort including a mouth-piece; of a coal-stop mounted upon the body of the mouth-piece and adapted to swing outwardly and away from the floor of the retort, whereby the coke may be discharged from beneath said stop.

3. The combination of an inclined retort including a mouth-piece; a coal stop pivotally suspended from the body of such mouth-piece when said stop is in its normal or stopping position; and means for locking said stop in such suspended position.

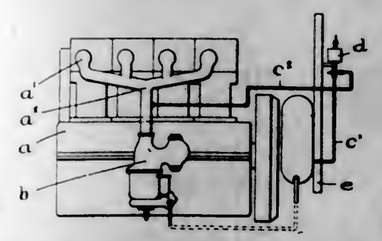
4. The combination of an inclined retort including a mouth-piece; a coal stop pivotally suspended from the body of such mouth-piece when in its normal or stopping position, said stop having a horizontal axis of oscillation; and means for locking the stop in such suspended position.

5. The combination of an inclined retort; a coal-stop adapted to intersect the interior retort space; said stop being hung from a stationary portion of the retort and adapted to swing outwardly and away from the floor of the retort; and means for holding said stop in place in said retort.

[Claims 6 to 13 not printed in the Gazette.]

1,239,518. DEVICE FOR PRIMING INTERNAL-COMBUSTION MOTORS. WILLIAM J. POTTER, Weston, Mass. Filed Apr. 5, 1915. Serial No. 19,105. (Cl. 123—180.)

1. A priming device for gasolene motors embracing in combination a vacuum cup for containing a supply of liquid fluid, a supply pipe leading thereto from the gasolene tank, an outlet pipe for leading liquid fluid from said cup to the intake of the motor, both inlet and outlet pipes having communication with the interior of said cup through a common passage, and a valve located in said passage to open communication through either of said pipes while simultaneously closing communication through the other pipe, substantially as described.

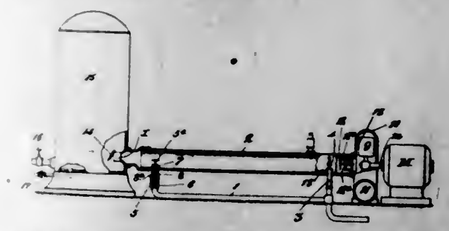


3. The combination with a gasolene tank having communication with the carbureter and with the in-take pipe of a motor, a by-passage leading from said tank to the in-take pipe of the motor beyond the carbureter, an intermediate gasolene-containing vacuum cup connected with said by-passage through a three-way valve chamber, and a valve located in said valve chamber to open communication at the will of the operator between the vacuum cup and either the motor in-take pipe or the gasolene tank, substantially as described.

4. The combination with a main gasolene tank and a motor including an intake manifold of a pressure-tight cup or receptacle, an interior pipe therein provided with an aperture near its lower end and an aperture near its upper end, an inlet and outlet pipe in communication therewith, two branches in connection with said pipe one leading to the motor intake manifold and the other communicating with the main gasolene tank and a three-way valve controlling said branch pipes to close one while the other is open, substantially as described.

[Claim 2 not printed in the Gazette.]

1,239,519. POWER-GENERATOR. ALCORN RECTOR, New York, N. Y., assignor to Rector Gas Lamp Company, New York, N. Y., a Corporation of New York. Filed Sept. 26, 1910, Serial No. 583,779. Renewed Jan. 21, 1916. Serial No. 73,485. (Cl. 60—37.)



1. In a power generator, the combination of an explosion case; a gas supply pipe communicating therewith; means for igniting fuel in the explosion case; a suction apparatus communicating with the explosion case; automatic means for stopping supply of fuel to said casing; and automatic means for stopping communication between the explosion case and suction apparatus.

2. In a power generator, the combination of an explosion case; a gas supply pipe communicating therewith; means for igniting fuel in the explosion case; a suction apparatus communicating with the explosion case; means for stopping supply of fuel to said casing and means for stopping communication between the explosion case and suction apparatus.

3. The combination of a case containing an explosion chamber and having a discharge outlet; means for supplying an explosive gas to said chamber; means for sucking the gas through the chamber to an ignition device operable within the chamber; the ignition device; a suction apparatus connected with the case and operating to rarefy the gas prior to ignition, and the ignition device operating to explode the gas while so rarefied; and a back pressure escape port in the case.

4. In a power generator, the combination of an explosion case; a gas supply-pipe communicating therewith; means for igniting fuel in the explosion case; a suction apparatus communicating with the explosion case; means for stopping supply of fuel; means for stopping communication between the explosion case and suction apparatus; a receiver for the products of combustion and connected with the explosion case; and a valve apparatus between the explosion case and receiver and automatically operable to close communication between the two.

5. In a power generator, the combination of an explosion case; a gas supply-pipe communicating therewith; means for igniting fuel in the explosion case; a suction apparatus communicating with the explosion case; means for stopping supply of fuel; means for stopping communication between the explosion case and suction apparatus; a receiver for the products of combustion and connected with the explosion case; and a valve apparatus between the explosion case and receiver and automatically operable to close communication between the two, the receiver having an outlet port for outflow of therein compressed contents.

[Claim 6 not printed in the Gazette.]

1,239,520. TANK-BALL. GEORGE C. REEVES, Oak Park, Ill. Filed Oct. 4, 1915. Serial No. 54,087. (Cl. 4—5.)

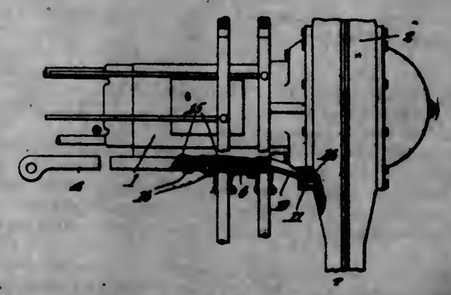


1. A one-piece tank ball of the class described, comprising a rounded hollow member of elastic material having an opening in its bottom, reinforcing ribs formed integrally on the interior upper portion thereof, and bead formed around the lower portion thereof.

2. A one-piece tank ball of the class described, comprising an elastic hollow rounded member, an enlargement formed at the upper end thereof, a ferrule disposed in said enlargement, and reinforcing ribs formed integrally on the upper inner portion of said member and radiating from said enlargement.

[Claims 3 to 5 not printed in the Gazette.]

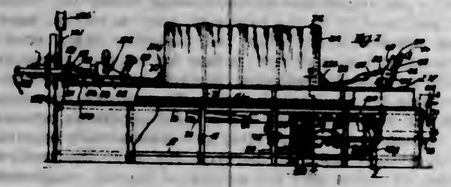
1,239,521. TORQUE-ARM FOR AUTOMOBILES. JOHN W. RUSSEL, Bradford, Pa. Filed July 6, 1916. Serial No. 107,815. (Cl. 21—90.)



1. In an automobile, a differential casing; a transmission casing; a torque arm provided at its rear end with a lateral flange abutting against the differential casing; a removable securing element passing through the flange and entering the differential casing; and means for securing the torque arm to the transmission casing.

2. In an automobile, a transmission casing; a differential casing; a torque arm provided at its rear end with a trough-shaped neck merging into an enlarged head provided with a lateral lip, the neck coacting with the transmission casing, and the lip abutting against the differential casing; means for securing the lip to the differential casing; and means for securing the neck to the transmission casing.

1,239,522. STRETCHING-MACHINE. JOHN LA ROCK, Chicago, Ill., assignor of one-third to John B. Gisabeen and one-third to Walter C. Morrell, Chicago, Ill. Filed July 17, 1916. Serial No. 109,680. (Cl. 128—16.)



1. A stretching machine comprising a frame; to and fro stretching means and a patient-supporting table movable with and in the same direction as the stretching means during the stretching operation.

3. A stretching machine comprising a frame; a patient-supporting table; shoulder anchors yieldingly connected to the frame and stretching means to resist said shoulder anchors.

22. A stretching machine comprising a main frame; a table supported on and slidable longitudinally along the main frame; a body anchor over the table connected to the main frame; a swinging stretching lever; a carrier frame shiftable longitudinally of the main frame to which said lever is pivoted; mechanism carried by the frame for swinging said lever; a screw shaft rotatively mounted in the main frame and a nut on the carrier frame through which said screw shaft extends.

32. A stretching machine comprising a frame; a table supported thereon; stretching means associated with one end of the table and anchor means associated with the other end of the table; a cylinder fixed to the main frame and adapted to contain a body of cushioning fluid; a piston therein, and connections between the piston and said anchor means.

42. In a stretching machine, the combination with a frame; a table supported thereon, and a stretching device at one end of the table, of shoulder anchors at the other end of the table embracing hooks adapted to engage under the arm pits; a cross bar over the table to which said hooks are adjustably connected; a cross head in rear of said cross bar; links connecting said cross head to said bar; a cushioning device supported on said frame and connected to said cross head; a head support and anchor movably supported on said table, and flexible connections between said anchor and support and said cross head.

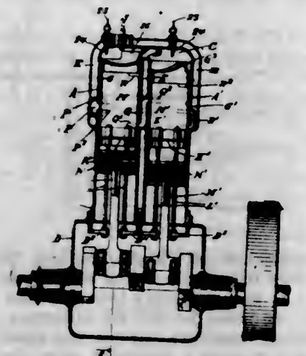
[Claims 2, 4 to 21, 23 to 31, 33 to 41, 43, and 44 not printed in the Gazette.]

1,239,523. INTERNAL-COMBUSTION ENGINE. JOHN R. ROGERS, Brooklyn, N. Y. Filed July 9, 1912. Serial No. 708,415. (Cl. 123—53.)

1. In an internal combustion engine, a combustion chamber, means for making a plurality of injections of fuel into different parts of the combustion chamber during the same cycle and means for temporarily separating said different parts of the combustion chamber from each other.

2. In an internal combustion engine, a combustion chamber, means for making a plurality of successive injections of fuel into different parts of the combustion chamber during the same cycle and means for temporarily separating said different parts of the combustion chamber from each other.

3. In an internal combustion engine, a combustion chamber, means for making a plurality of injections of separate fuels having different ignition points into different parts of the combustion chamber during the same cycle and means for temporarily separating said different parts of the combustion chamber from each other.

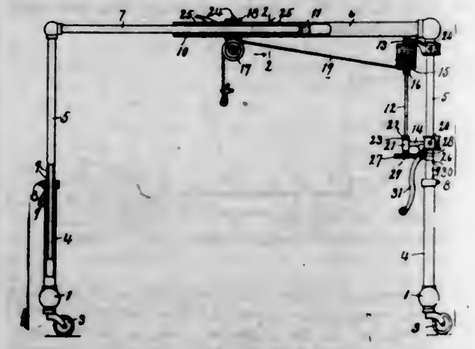


4. In a device of the character described, the combination of a low compression engine, means for making a plurality of successive injections of separate fuels having different ignition points into different parts of the combustion chamber of the engine during the same cycle and means for temporarily separating said different parts of the combustion chamber from each other.

5. In a device of the character described, the combination of a low compression engine and means for making a plurality of successive injections of separate fuels having different ignition points into different parts of the combustion chamber of the engine during the same cycle, the fuel having the lowest ignition point being first injected.

[Claims 6 to 25 not printed in the Gazette.]

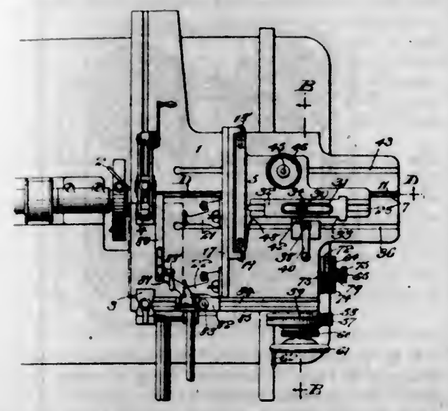
1,239,524. INVALID-LIFTING DEVICE. FRANCIS S. ROOT, Springfield, Mass. Filed Aug. 14, 1915. Serial No. 45,520. (Cl. 5—44.)



A frame, for an invalid-lifting device, comprising a pair of vertical end supports and floor supports therefor, a perforated tube rigidly attached to one of said end supports, a rod rigidly attached to the other of said end supports and extending part way into said tube, a hanger mounted for longitudinal adjustment on said tube, and a set-screw tapped into said hanger and adapted to pass through any one of the perforations in said tube into engagement with said rod, to fasten said tube and rod together and hold said hanger in place.

1,239,525. EDGING-MACHINE. VERNON ROYLE, Paterson, N. J. Filed Apr. 30, 1915. Serial No. 25,963. (Cl. 29—21.)

1. The combination with a work supporting table mounted to move forward and back to feed the work, a cutter and a rack bar free to move relative to the said table, of a dimensioning gage supported on the table in sliding adjustment toward and away from the path of the cutter, means for connecting the rack bar with the gage through the table and means independent of the gage for supporting and operating the rack bar.



2. The combination with a work supporting table mounted to move forward and back to feed the work and provided with an undercut groove in its under side for receiving a traveling rack bar and with an opening extending from said groove through its upper face for receiving a connection between the rack bar and a dimensioning gage, of a cutter, a dimensioning gage supported on the table to slide toward and away from the cutter and means for holding the gage in its adjusted position, the said gage being constructed to work independently of a rack bar or to receive a connection with a rack bar at pleasure.

3. The combination with a work supporting table mounted to move forward and back to feed the work, and a cutter, of a sliding rack bar, a dimensioning gage supported on the table independently of the rack bar and having a freely removable connection with the rack bar to leave the upper surface of the table unobstructed, and means for engaging the sliding rack bar for operating the gage.

4. The combination with a work supporting table and a cutter, of a dimensioning gage movable on the table, a toothed rack connected with the gage and a plurality of spiral gears arranged to rotate in unison and engage the rack singly or collectively to operate the gage.

5. The combination with a work supporting table and a cutter, of a dimensioning gage movable on the table, a rack bar seated beneath the table and movable relative thereto, a connection between the rack bar and gage through the table, a spiral driving gear engaged with the rack bar, a drive shaft beneath the table geared to said spiral driving gear and a micrometer disk for indicating the extent of movement of the shaft.

[Claims 6 to 14 not printed in the Gazette.]

1,239,526. STABLE CONCENTRATED PREPARATION FOR THE INDIGO FERMENTATION-VATS. ALBRECHT SCHMIDT, Höchst-on-the-Main, Germany, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed Nov. 18, 1914. Serial No. 871,963. (Cl. 8—6.)

1. In the art of indigo dyeing, the process of reviving the indigo vat and reducing the indigo, which consists in adding to the bath a mixture containing a concentrated albuminous product and a water-soluble concentrated carbohydrate, said mixture characterized by giving the chemical reactions of the two components, viz., the albumin- and sugar-reactions, and having the property of not putrefying when exposed to the air but of undergoing putrefaction when diluted with water.

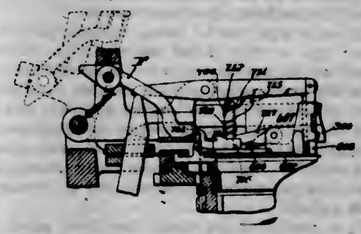
2. As new products, mixtures of concentrated albuminous extracts and water-soluble carbohydrates and indigo, which mixtures are characterised by giving the chemical reactions of the components, namely the albumin-, sugar- and indigo-reactions, having the property of dyeing in a reduced state cotton and wool a blue color, of not putrefying when exposed to the air but undergoing putrefaction when diluted with water, and of dyeing, when diluted with water and rendered alkaline by means of lime, after some time, cotton and wool blue tints.

3. As new products, mixtures of concentrated albuminous extracts and water-soluble carbohydrates and indigo-white, which mixtures are characterized by giving the chemical reactions of the components, namely the albumin-, sugar- and indigo-white reactions, having the property of dyeing in an alkaline solution cotton and wool a blue color, of not putrefying when exposed to the air but undergoing putrefaction when diluted with water, and of dyeing, when diluted with water and rendered alkaline by means of lime, cotton and wool blue tints.

4. As a new product, a solid, substantially water-free composition consisting essentially of indigo, a water-soluble carbodydrate, and an albuminous substance.

5. As a new product, a solid-substantially water-free composition consisting essentially of indigo-white, a water-soluble carbohydrate, and an albuminous substance.

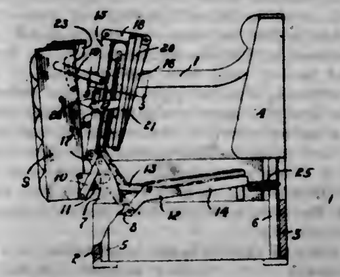
1,239,527. DEVICE FOR KNITTING UPON TRANSFERRED FABRIC SECTIONS. ROBERT W. SCOTT, Boston, Mass., assignor to Scott & Williams, Incorporated, Boston, Mass., a Corporation of Massachusetts. Original application filed Dec. 18, 1913, Serial No. 807,535. Divided and this application filed July 14, 1915. Serial No. 39,889. (Cl. 66—12.)



7. A knitting machine having needles, a latch-ring, an internal yarn guide member normally within the needles, a cam presser for the needles mounted on said internal yarn guide member, a latch for holding said presser in contact with the needles and pattern-controlled means for releasing said latch.

[Claims 1 to 6 not printed in the Gazette.]

1,239,528. FOLDING-COUCH LOCK. WENDELIN P. SENG, Chicago, Ill., assignor to Peter E. Kroehler, Naperville, Ill. Filed July 9, 1914. Serial No. 849,928. (Cl. 5—51.)



1. In a device of the class described a mattress frame embracing a plurality of sections, a couch frame, a seat frame linked to said couch frame, connections between

said sectional mattress frame and said seat and couch frames to permit unfolding of said mattress frame when the seat is inverted, foldable supporting legs on certain of said sections, pins on other of said sections, hook members rigidly secured on said legs adapted to engage said pins, and mechanisms on said last mentioned sections near said pins adapted to act automatically to hold said hook members tightly engaged with said pins and lock certain of said mattress frame sections closely adjacent one another when the device is folded to hold the same supported beneath the seat frame when the latter is in normal position on the couch frame.

2. In a folding couch of the class described, a sectional mattress frame consisting of inner, outer and intermediate sections linked to one another, foldable legs on said outer sections, hooked locking members rigidly secured thereon, pins on said intermediate sections adapted to be engaged by said hooked locking members, and mechanisms pivotally secured on said intermediate section adapted to act automatically to hold said locking members engaged with said pins to lock the sections one to another as the mattress frame is folded into the couch frame into position out of use.

3. In a folding couch of the class described, a sectional mattress frame consisting of inner, outer and intermediate sections linked to one another, legs movably secured on said outer section, hook locking members rigidly secured thereon, pins secured on said intermediate section adapted to be engaged by said hook locking members to lock the outer and intermediate sections one to another as the mattress frame is folded into the couch frame into position out of use, and gravity acting dogs pivoted on said intermediate section adapted to hold said hook locking members engaged with one another when the mattress frame is folded and adapted to automatically unlock said locking members and pins as the mattress frame is unfolded from the couch frame into a position for use.

4. In a folding couch, inner, intermediate and outer sections, legs pivoted to the outer section, locking members secured thereto having a notch on each side thereof, pins on the intermediate section adapted to engage in the notches on one side of the locking members and members pivoted to the intermediate section adapted to automatically engage into the notches on the opposite side of the locking members and to automatically disengage therefrom to lock the sections together and to release the sections to unfold.

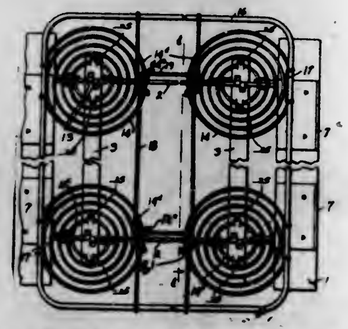
5. In a device of the class described, outer, intermediate and inner sections, legs pivoted to the outer section, latching members secured to the legs, and co-acting rigid and swinging members secured to the intermediate section adapted to automatically engage the latching members to lock the sections in folded relation and to automatically release the latching member to release the outer section from the intermediate section in unfolding the sections.

1,239,529. SPRING STRUCTURE. WOODFORD SHANNON, Louisville, Ky. Filed Dec. 14, 1915. Serial No. 66,688. (Cl. 5—29.)

1. In a spring structure, vertically-presented coil springs and tying members for said springs, of substantially U-shape, each having an open end and a closed end; said tying members uniting the springs in pairs by their closed ends, and having their open ends extended to and connected with an adjacent pair of springs whereby said tying members also space two pairs of springs apart.

2. In a spring structure, the combination of a series of springs, and tying members each having a closed end adapted to connect two springs in a transverse direction, and free interlocking ends extending to and adapted to interlock the next adjacent tying member with another pair of springs.

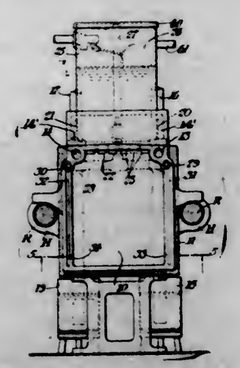
3. In a spring structure, the combination of a series of springs, and a series of tying members adapted to unite said springs in pairs, transversely, and to space the pairs of springs longitudinally; each tying member having a closed end adapted to underlie coils of the springs to be united transversely, and constructed with crimps intersecting the planes of said coils; said tying members also having free interlocking ends extending to an adjacent pair of springs and projecting beneath the crimps of the tying member associated therewith and over the coils thereof and thereby interlocking the adjacent pair of springs with its said tying member.



4. In a spring structure, the combination of springs arranged in rows, a series of tying members uniting in pairs, corresponding springs of two adjacent rows; each tying member having a closed end by which it spaces a pair of springs, adapted to underlie coils of the springs to be spaced and having crimps intersecting the planes of said coils, and free ends by which it interlocks with two adjacent springs, the closed end of the tying member associated therewith; said free ends extending transversely beneath the crimps of said last-named tying member and over the coils associated therewith, and thence downwardly to engage said coils and prevent unlocking of said free ends.

5. In a spring structure, the combination of springs arranged in rows, a series of tying members uniting in pairs corresponding springs of two adjacent rows; each tying member having a closed end by which it spaces a pair of springs, adapted to underlie coils of the springs to be spaced and having crimps intersecting the planes of said coils, and free ends by which it interlocks with two adjacent springs, the closed end of the tying member associated therewith; the closed ends of the tying members also engaging coils of the springs in a direction to resist unwinding of the springs.

1,239,530. ELECTROLYTIC APPARATUS. HARRY T. SHRIVER, West Orange, N. J. Filed May 25, 1915, Serial No. 30,285. Renewed Apr. 17, 1916. Serial No. 91,751. (Cl. 204—1.)



1. A plurality of electrolytic cells in series, a horizontal diluent supply duct located below the level of the electrolyte in said cells, auxiliary ducts, each connecting said supply duct with one of said cells, and means to give a pressure to the diluent in said supply duct and said auxiliary ducts, said auxiliary ducts and said pressure means being constructed and arranged to cause the diluent to flow from said supply duct to one of said cells and to prevent the electrolyte from flowing from said cell into said supply duct.

2. A plurality of electrolytic cells in series, a horizontal diluent supply duct, auxiliary ducts, each connecting said supply duct with one of said cells at the lower part thereof, and means to give a pressure to the diluent in said supply duct and said auxiliary ducts, said auxiliary ducts and said pressure means being constructed and arranged to cause the diluent to flow from said supply duct to one of said cells and to prevent the elcetrolyte from flowing from said cell into said supply duct.

3. An electrolytic apparatus having a plurality of cells in series, and employing an electrolyte heavier than water, horizontal main gas ducts connected to each of said cells to carry away the gases formed respectively on the anodes and cathodes thereof and means for supplying water to each of said cells at a pressure sufficient to cause it to flow into said cells when the level of the electrolyte falls below normal but insufficient to cause the electrolyte to flow into said main gas ducts.

4. An electrolytic apparatus of the filter press type having a plurality of cells in series composed of a plurality of parallel, vertically disposed, recessed plates, held face to face, main gas ducts extending through said plates horizontally and connected to each of said cells to carry away the gases formed respectively on the anodes and cathodes of said cells, and means for supplying a diluent to each of said cells at a pressure sufficient to cause it to flow into said cells when the level of the electrolyte falls below normal but insufficient to cause the electrolyte to flow into said main gas ducts.

5. An electrolytic cell comprising a pair of recessed plates, a diaphragm therebetween and means for maintaining the surface of the electrolyte at approximately a predetermined normal level, said diaphragm being porous below the normal level of the electrolyte and non-porous above such level.

[Claims 6 to 15 not printed in the Gazette.]

1,239,531. CONNECTOR. JOSEPH F. SMART, New Britain, Conn., assignor to Landers, Frary & Clark, New Britain, Conn., a Corporation of Connecticut. Filed Nov. 7, 1916. Serial No. 129,918. (Cl. 173—322.)

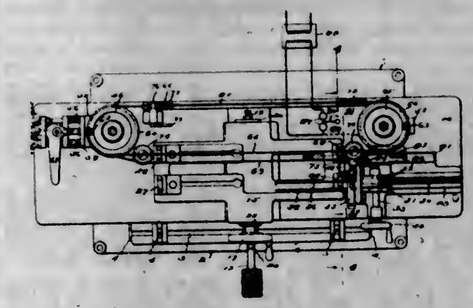


1. In a connector, a divided plug casing, terminals carried thereby, a flexible conductor having a plurality of cables connected to said terminals, and a clamp secured to said flexible conductor adjacent to the cable ends connected to said terminals, said clamp having a loop in combination with a securing bolt passing through said loop and said casing.

4. In a connector, the combination of a divided plug casing, terminals carried thereby, a flexible conductor having a plurality of cables connected to said terminals, a clamp secured to said flexible conductor adjacent to said terminals, said clamp having a loop and a lateral projection above said loop, said plug in combination with a bolt passing through said loop and a protecting spring surrounding the end of said flexible conductor and between helices of which said projection extends, the end of the last helix of said spring being bent about one of the cables of said conductor.

[Claims 2 and 3 not printed in the Gazette.]

1,239,532. MACHINE FOR CALIBRATING AND STRAIGHTENING GUN-BARRELS. CHARLES W. SPONSEL, Hartford, Conn., assignor to The Sponsel Company, Hartford, Conn., a Corporation of Connecticut. Filed Nov. 3, 1915. Serial No. 59,361. (Cl. 33—172.)



1. A machine for calibrating gun barrels, having means for supporting a barrel, a wire bearing a feeler and adapted to be moved longitudinally back and forth in the bore of the barrel held by said supports, means for holding the wire taut, means for indicating the engagement of said feeler with the wall of the bore of the barrel, said means being controlled by such engagement, and means for showing on the exterior the point of contact of the feeler with the wall of the bore, said means being connected to move longitudinally with the feeler wire.

2. A machine for calibrating gun barrels, having means for supporting a barrel, a wire bearing a feeler and adapted to be moved longitudinally back and forth in the bore of the barrel held by said support, means holding the wire taut, mechanism for imparting relative transverse movement between the barrel support and the feeler so that the feeler may be brought into contact with the wall of the bore of the barrel, and means for indicating the engagement of the feeler with the wall of the bore.

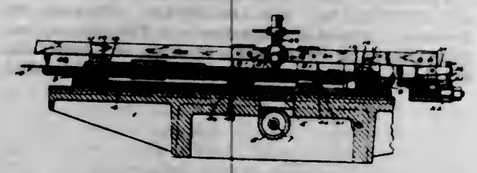
3. A machine for calibrating gun barrels, having means for supporting a barrel, a wire bearing a feeler and adapted to be moved longitudinally back and forth in the bore of the barrel held by said support, means holding the wire taut, mechanism for imparting relative transverse movement between the barrel support and the feeler so that the feeler may be brought into contact with the wall of the bore of the barrel, mechanism for measuring the amount of relative movement between the barrel support and feeler, and means for indicating the engagement of the feeler with the wall of the bore.

4. A machine for calibrating gun barrels, having means for supporting a barrel, a feeler adapted to be passed longitudinally into the bore of the barrel held by said support, mechanism for moving the barrel support transversely of the feeler, and means for indicating the engagement of the feeler with the wall of the bore of the barrel on the support.

5. A machine for calibrating gun barrels, having means for supporting a barrel, a feeler adapted to be passed longitudinally into the bore of the barrel held by said support, mechanism for moving the barrel support transversely of the feeler so as to cause the feeler to engage with the wall of the bore of the barrel, means for indicating the engagement of the feeler with the wall of the bore, and mechanism for showing on the exterior the point of contact of the feeler with the wall of the bore, said mechanism being connected to move longitudinally of the barrel with the feeler.

[Claims 6 to 22 not printed in the Gazette.]

1,239,533. MACHINE FOR STRAIGHTENING GUN-BARRELS. CHARLES W. SPONSEL, Hartford, Conn., assignor to The Sponsel Company, Hartford, Conn., a Corporation of Connecticut. Filed Feb. 28, 1916, Serial No. 80,959. Renewed July 24, 1917. Serial No. 182,582. (Cl. 153—32.)



1. A machine for straightening gun barrels having means for supporting a barrel, a contact adapted to be engaged with and disengaged from every point along the wall of the bore of the barrel, an electrical circuit connected with said contact, means connected in the electrical circuit for indicating said engagement and disengagement of the contact with the wall of the bore, and means for bending the barrel and changing the relation of the wall of the bore to the contact and causing such change to be shown by the indicating means.

10. A machine for straightening gun barrels having means for supporting a barrel, means for moving the barrel supports longitudinally, a wire adapted to be threaded through the barrel, means for holding the wire taut, means for imparting relative sidewise movement between the wire and the barrel, a contact on the wire and adapted to be engaged with every point along the wall of the bore of the barrel, an electrical circuit connected with said contact, means in said circuit for indicating the engagement of the contact with and the disengagement of the contact from the wall of the bore, and means for bending the barrel and changing the relation of the wall of the bore and the contact and causing said change to be shown by the indicating means.

13. A machine for straightening gun barrels having means for supporting a barrel, an electrically alive contact adapted to be located in the bore of the barrel, electrically excited means connected to indicate engagement of said contact with the wall of the bore, and means for bending the barrel and changing the relation of the wall of the bore and the contact and causing said change to be shown by the indicating means.

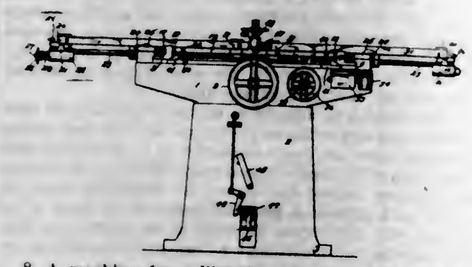
20. A machine for straightening gun barrels having yielding means for supporting a barrel, a wire adapted to be threaded through the barrel, yielding means for holding the wire taut, means for moving the wire transversely, a contact on the wire in the barrel, means on the exterior for indicating the engagement of the contact with and the disengagement of the contact from the wall of the bore of the barrel, and means for bending the barrel.

[Claims 2 to 9, 11, 12, and 14 to 19 not printed in the Gazette.]

1,239,534. MACHINE FOR CALIBRATING GUN-BARRELS. CHARLES W. SPONSEL, Hartford, Conn., assignor to The Sponsel Company, Hartford, Conn., a Corporation of Connecticut. Original application filed Feb. 28, 1916, Serial No. 80,959. Divided and this application filed July 17, 1916. Serial No. 109,600. (Cl. 33—172.)

1. A machine for calibrating gun barrels having means for supporting a barrel, a wire adapted to be threaded through the barrel, means for holding the wire taut when so threaded, means for imparting a relative transverse movement between the wire holding means and the barrel, a contact on the wire and adapted to be engaged with any point along the wall of the bore of the barrel, and means for indicating outside the barrel the engagement of the contact therein, said means being automatically controlled by such engagement.

2. A machine for calibrating gun barrels having supports for a barrel, means for moving the barrel supports together in the direction of the axis of the barrel, a wire adapted to be threaded through the barrel, means for holding the wire taut when so threaded, means for imparting a relative transverse movement between the wire holding means and the barrel, a contact on the wire and adapted to be engaged with any point along the wall of the bore of the barrel, and means for indicating outside the barrel the engagement of the contact therein, said means being automatically controlled by such engagement.



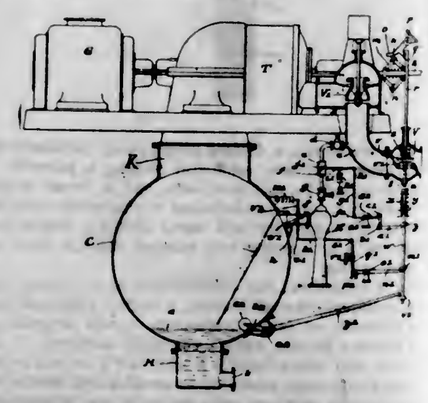
8. A machine for calibrating gun barrels having supports for a barrel, means for moving the barrel supports together in the direction of the axis of the barrel, an electric circuit including the barrel supports and a contact adapted to be located in the bore of the barrel, and electrically excited means included in said circuit to indicate engagement of said contact with the wall of the bore.

9. A machine for calibrating gun barrels having means for supporting a barrel and carrying it longitudinally of its axis, an electric circuit including the barrel supporting means and a conducting contact adapted to be inserted into the bore of the barrel, means for moving the electrical contact transversely of the axis of the barrel, and electrically excited means included in said circuit to indicate the engagement of said contact with the wall of the bore of the barrel.

10. A machine for calibrating gun barrels having means for supporting a barrel, an electrical conductor adapted to be passed into the bore of a barrel held by said supporting means, a conducting contact on said conductor and adapted to be engaged with any part of the wall of the bore of such barrel, a source of electrical energy connected with said conductor and with a barrel placed in the supporting means, and an electric lamp interposed in the electrical circuit.

[Claims 3 to 7 not printed in the Gazette.]

1,239,535. EJECTOR-CONTROL APPARATUS. ROBERT SUCZEK, Philadelphia, Pa., assignor to C. H. Wheeler Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed May 8, 1917. Serial No. 167,163. (Cl. 121—122.)



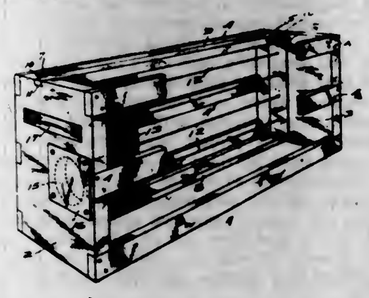
1. The combination with a condenser, of an ejector for removing air therefrom, and means responsive to change in amount of condensate for preventing removal of air from said condenser by said ejector.

5. The combination with a condenser, of an ejector, an air connection between said condenser and said ejector, a valve in said connection, a valve controlling supply of motive fluid to said ejector, means for actuating said valves, means for locking said actuating means to prevent actuation of said valves, and means responsive to changes in amount of condensate for actuating said locking means to free said actuating means.

7. The combination with a condenser, of a steam motor exhausting into said condenser, an ejector for removing air from said condenser, a valve controlling supply of motive fluid to said ejector, and means responsive to change in speed of said motor controlling said valve.

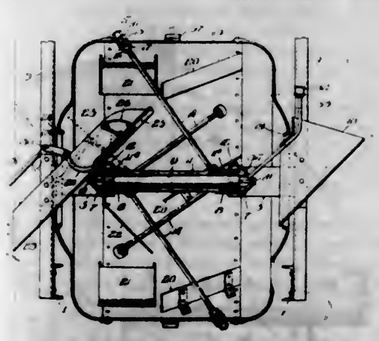
[Claims 2 to 4, 6, and 8 to 18 not printed in the Gazette.]

1,239,536. BEE-SHIPPING PACKAGE. FREDERICK W. SUMMERFIELD, Toledo, Ohio. Filed Jan. 19, 1917. Serial No. 143,292. (Cl. 6—10.)



In a bee shipping package, the combination of a frame, the ends of the frame having channels, a second frame slidable in the said channels and located within the first named frame, wires stretched across the second frame and having thereon a honey-comb containing honey, a wire screen surrounding the first named frames, the end wall of the first named frame having an opening for the receipt of bees.

1,239,537. MIXING-MACHINE. JOHN A. SVENSON, Pittsburgh, Pa., assignor of one-half to Jesse J. Shuman, Pittsburgh, Pa. Filed June 14, 1916. Serial No. 103,606. (Cl. 83—73.)



1. A batch mixing machine having, in combination, a supporting framework, a stationary U-shape bracket, the ends of the arms of which are rigidly fixed to said framework, a shaft fixed at one end to the closed end of said bracket, means attached to the supporting framework for supporting the other end of the shaft, a mixing drum having end walls to retain the material therein, each end wall having a central opening, said bracket extending through the opening in one end wall of the drum, the closed end of the bracket being within the drum, means for rotatably supporting the drum on said shaft, and an inlet spout stationarily located in position to project into the opening in the last mentioned end wall of the drum and discharge material through the space between the arms of said bracket.

2. A batch mixing machine having, in combination, a supporting framework, two stationary brackets rigidly fixed to said framework, said brackets extending toward each other, a mixing drum having end walls to retain the material therein, each end wall having a central opening, said brackets extending through the openings in the end walls of the drum, the inner ends of the brackets being within the drum, means connected to the drum and supported by the inner ends of said brackets for rotatably supporting the drum, means for charging material into the drum through the central opening in one end wall of the drum, and means for discharging material through the central opening in the other end wall of the drum.

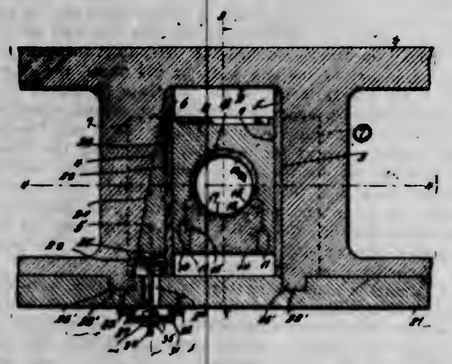
3. A batch mixing machine having, in combination, a supporting framework, a stationary U-shaped bracket rigidly fixed to said framework, a mixing drum having end walls to retain the material therein each end wall having a central opening, said bracket extending through the opening in one of the end walls of the drum, the closed ends of the bracket being within the drum, a support fixed to the framework opposite said bracket, means connected to the drum and supported by the inner end of said bracket and by said support for rotatably supporting the drum, a discharge chute extending through the central opening of one end wall of the drum and extending from a point within the drum to a point outside the drum, said chute extending through the space between the arms of the U-shaped bracket, and elevating devices within the drum for discharging material onto said chute.

4. A mixing machine having, in combination, a rotatably mounted drum having end walls, one end wall having a central charging opening and the other end wall having a central discharging opening, elevating buckets attached to the inner side of the peripheral wall of the drum near the discharging end of the drum, means located within the orbit of the brackets and in the plane of the buckets for directing materials falling upon it out of the orbit of the buckets toward the charging end of the drum, a discharge chute extending through the discharging opening, said chute including a member movable into and out of position to intercept materials which otherwise would fall upon said directing means, and an inclined member stationarily located within the drum and below the movable chute member for directing falling materials toward the charging end of the drum.

1,239,538. ADJUSTABLE WEDGE. JOHN B. SWAN, Gladstone, Mich. Filed Nov. 30, 1915. Serial No. 64,306. (Cl. 105—113.)

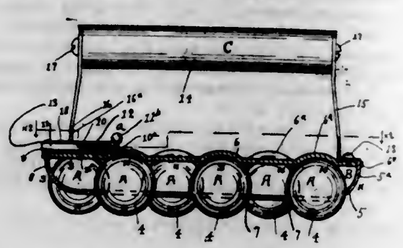
1. In a device of the class described, the combination of a frame having an opening formed therein, one side of said opening having a straight wall and the other side of said opening having a slanting wall, a strap carried upon the lower portions of said frame for closing the lower portions of said opening, a shoe carried adjacent each side of said opening, each shoe comprising a vertical body having its lower end resting upon said strap and its upper end fitting snugly upon the upper portions of said frame within said opening, parallel side flanges formed integral upon each shoe, said side flanges overhanging the side portions of said frame for holding said shoes against accidental displacement, a driving box slidably mounted within said opening and bearing upon said shoes, said driving box having a block, said box and block being provided with an axle receiving opening, a wedge interposed within said opening between the slanting wall and one of said shoes, said wedge having a flat horizontal bore extending through its lower end, said wedge having a slot extending through its lower end, said slot extending longitudinally of and communicating with said

bore, a bolt having a flat head, said head fitting within said bore and said bolt extending through said slot, said strap being provided with an elongated vertical slot, a U-shaped bracket secured upon the lower portions of said strap, said bracket having a slot formed therein, the slot of said bracket registering with the slot of said strap and the slot of said strap registering with the slot of said wedge, whereby said bolt will extend through all of said slots, binding nuts screwed upon said bolt and bearing upon each side of said bracket, whereby said bolt may be urged upwardly and held in a fixed position so that the wedge may ride upwardly upon said walls for moving one of said shoes toward the remaining shoe for taking up play caused by the wearing of said driving box and said slots being provided so as to permit said bolt to be moved longitudinally of said slots, whereby said bolt head will be retained at all times under the central portion of said wedge even when the wedge is riding upwardly upon said slanting wall, whereby supporting strain caused by the resting of the wedge upon the head of the bolt will be evenly distributed upon the bolt.



2. In a device of the class described the combination of a frame having an opening formed therein, one side of said opening having a straight wall and the other side of said opening having a slanting wall, a strap carried upon the lower portions of said frame for closing the lower portions of said opening, a shoe carried adjacent each side of said opening, means for holding said shoes against accidental displacement, a driving box slidably mounted within said opening and bearing upon said shoes, said box having an axle receiving opening, a wedge inclosed in said opening between the slanting wall and one of said shoes, said wedge having a flat horizontal bore extending through its lower end, said wedge having a slot extending through its lower end, said slot extending longitudinally of and communicating with said bore, a bolt having a flat head, said head fitting within said bore and said bolt extending through said slot, said strap being provided with an elongated vertical slot, a U-shaped bracket secured upon the lower portions of said strap, said bracket having a slot formed therein, the slot of said bracket registering with the slot of said strap and the slot of said strap registering with the slot of said wedge, whereby said bolt will extend through all of said slots, binding nuts screwed upon said bolt and bearing upon each side of said bracket whereby said bolt may be urged upwardly and held in a fixed position so that the wedge may ride upwardly upon the said slanting wall by moving one of said shoes toward the remaining shoe for taking up play caused by the wearing of said driving box, and said slots being provided so as to permit said bolt to be moved longitudinally of said slots whereby said bolt head will be retained at all times under the central portion of said wedge whereby supporting strain caused by the resting of the wedge upon the head of the bolt will be evenly distributed upon the bolt.

1,239,539. **MASSAGING DEVICE.** OTTO JULIUS SWENSON, Los Angeles, Cal., assignor of one-half to Harry Eldon Beam, Los Angeles, Cal. Filed Dec. 16, 1916. Serial No. 137,388. (Cl. 174—177.)

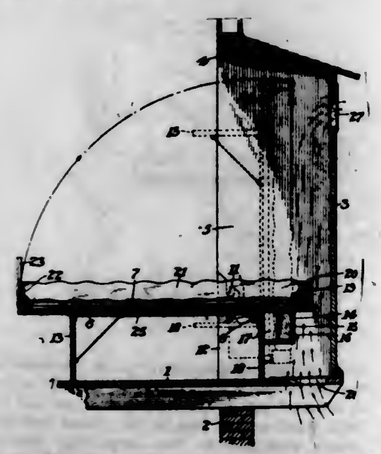


1. A device of the character disclosed, comprising a body member adapted to retain in working relation and apply for massaging purposes a plurality of massaging elements, and a plurality of such massaging elements held by said body member in positions for service; said massaging elements being so arranged as to provide for massaging contact at points spaced apart in predetermined relation and consisting each of a sphere rotatably held by said body member; said body member comprising two parts between which said spheres are confined, one of such parts being provided with openings through which the spheres slightly project beyond the surface of such part; means being provided for holding said body member parts in position to so confine said spheres between the same and permitting said parts to be relatively adjusted to release said spheres; said last named means comprising a latch, and a post upon one of said parts of said body member passing through an opening in the other of said parts of said body member and with which said latch cooperates.

3. A device of the character disclosed, comprising a body member adapted to retain in working relation and apply for massaging purposes a plurality of massaging elements, and a plurality of such massaging elements held by said body member in positions for service; each of said massaging elements having an inherent magnetic quality; said body member comprising two parts between which such massaging elements are confined and through one of which said massaging elements slightly project and which latter part likewise has an inherent magnetic quality.

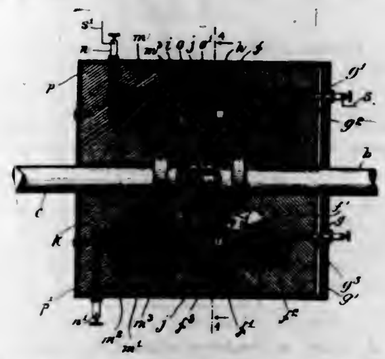
[Claim 2 not printed in the Gazette.]

1,239,540. **DISAPPEARING BED.** CHARLES H. TAYLOR, South Orange, N. J. Filed Aug. 7, 1915. Serial No. 44,147. (Cl. 5—37.)



The combination with a building including a recess forming extension having air openings in the floor and a wall thereof, of a bed pivotally mounted in the recess for movement into horizontal and vertical positions, the pivot of the bed being adjustable into the recess to various degrees whereby the head of the bed may be extended into the recess to various degrees.

1,239,541. **VARIABLE-SPEED TRANSMISSION MECHANISMS FOR AUTOMOBILES.** WALTER K. THOMAS, Brooklyn, N. Y. Filed Nov. 6, 1915. Serial No. 60,048. (Cl. 74—34.)



1. A variable speed transmission mechanism for automobiles embodying therein a driving shaft, a driven shaft, a planetary gear system adapted to act as a clutch for transmitting power from said driving shaft to said driven shaft, an armature idly mounted in relation to said shafts, an electro-magnet carried by and rotatable with said driving shaft, one of the gears of said planetary system being carried by and rotatable with said driving shaft, other gears of said system being cerried hy and rotatable with said armature, and the remainder of the gears of said system being carried by and rotatable with said driven shaft whereby when said magnet is energized said clutch will be set and when said magnet is deënergised said gearing will be permitted to run idly and means whereby the operative effect of said gear train may be varied to secure variable speed in the driven shaft with a constant speed of the driving shaft.

2. A variable speed transmission mechanism for automobiles embodying therein a driving shaft, a driven shaft, a planetary gear system adapted to act as a clutch for transmitting power from said driving shaft to said driven shaft, an armature idly mounted in relation to said shafts, an electro-magnet carried by and rotatable with said driving shaft, one of the gears of said planetary system being carried by and rotatable with said driving shaft, other gears of said system being carried by and rotatable with said armature, and the remainder of the gears of said system being carried by and rotatable with said driven shaft whereby when said magnet is energized said clutch will be set and when said magnet is deënergised said gearing will be permitted to run idly, and a variable resistance switch whereby the traction of said magnet may be varied to modify the operative effect of said clutch mechanism.

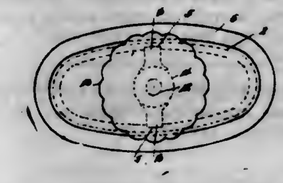
3. A variable speed transmission mechanism for automobiles embodying therein a driving shaft, a gear carried thereby and rotatable therewith, a driven shaft, a gear carried thereby and rotatable therewith, idler gears in mesh with the gears upon said driving shaft and said driven shaft respectively and means controlling the operative effect of said gears comprising an armature, means whereby said idler gears are mounted thereon, an electro-magnet carried by and rotatable with said driving shaft in close proximity to said armature, and means whereby the traction of said electro-magnet may be varied whereby the speed of said driven shaft may be varied while that of the driving shaft remains constant.

4. A variable speed transmission mechanism, for automobiles embodying therein a driving shaft, a gear carried thereby and rotatable therewith, a driven shaft, a gear carried thereby and rotatable therewith, idler gears in mesh with the gears upon said driving shaft and said driven shaft respectively and means controlling the operative effect of said gears comprising an armature, means whereby said idler gears are mounted thereon, an electro-magnet carried by and rotatable with said driving shaft in close proximity to said armature, and a variable resistance switch whereby the traction of said magnet may be varied to modify the operative effect of said clutch mechanism.

5. A variable speed transmission mechanism for automobiles embodying therein a driving shaft, a driven shaft, an electro-magnet carried by and rotatable with said driving shaft, an armature rotatable in a fixed plane and positioned within the field of said magnet, operative connections between said armature and said driven shaft, whereby power may be transmitted from said driving shaft to said driven shaft, means whereby the operative effect of said last named connections may be reversed to impart a reverse rotation to said driven shaft, and means whereby the traction of said magnet may be varied and slippage between said magnet and said armatuer is permitted to reduce the speed of rotation of the driven shaft relatively to that of the driving shaft.

[Claims 6 to 12 not printed in the Gazette.]

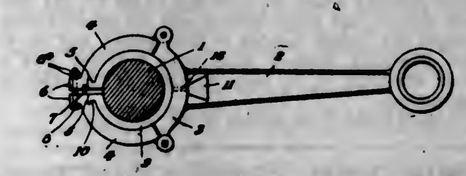
1,239,542. **RADIATOR-CAP.** ERNEST TIMMERHOFF, Elkhart, Ind., assignor of one-half to Charles E. Teed, Elkhart, Ind. Filed Mar. 14, 1917. Serial No. 154,887. (Cl. 220—124.)



1. The combination with a receptacle having a filling opening, of an upstanding flange secured to the receptacle above and beyond the opening, said flange being of elliptical form in plan and of double thickness of material from the upper edge thereof to a point above the lower edge, the free edge of the innermost section of material being formed in line with the minor axis of the flange with locking notches, a cap to engage the free upper edge of the flange and means carried by the cap to engage said locking notches to secure the cap in place, said means being wholly freed of all locking connection with the cap when out of line with minor axis of the flange, whereby the cap is locked to the flange in one position of the locking means and free of the flange in all other positions of such means.

[Claim 2 not printed in the Gazette.]

1,239,543. **BOXING AND BEARING.** CLAY TIPTON, Menard, Tex. Filed Mar. 6, 1917. Serial No. 152,736. (Cl. 74—17.)

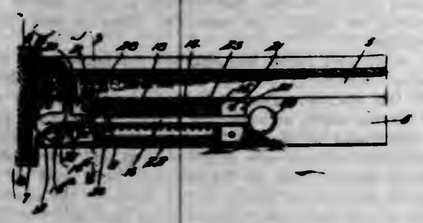


1. A bearing of the kind described comprising a fixed section of a boxing, hinged sections carried thereby, said hinged sections having recesses adjacent their free ends, and outwardly projecting lips, bolts working through said lips for holding the sections in closed position, and a cut bearing ring adapted to fit within the boxing and

having outwardly extending lugs adapted to be received in the recesses of the boxing.

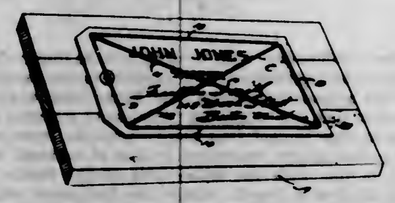
[Claim 2 not printed in the Gazette.]

1,239,544. SASH-LOCKING MECHANISM. OSCAR W. TUCKER, Lagrange, Ga. Filed May 25, 1916. Serial No. 99,686. (Cl. 16—53.)



In a window sash lock, the combination of a barrel, a spring pressed sliding bolt mounted in the barrel and projecting from either end thereof, oppositely projecting arms carried by the one end of the bolt, the window sash having slots for the reception of the ends of the said arms, a latch pivotally mounted on one end of the casing, the said latch being spring pressed, the bolt having a notch for the reception of the latch, a handle carried at the opposite end of the bolt to withdraw the arms from the slots, the said arms being integrally formed with the bolt and including a curved member forming the forward arm disposed in a plane forwardly of the other arm, the latter projecting laterally at right angles in the opposite direction to the said first mentioned arm.

1,239,545. TAG FASTENER AND PROTECTOR. WILSON S. TYLER, Keota, Colo. Filed Oct. 27, 1916. Serial No. 128,054. (Cl. 40—25.)



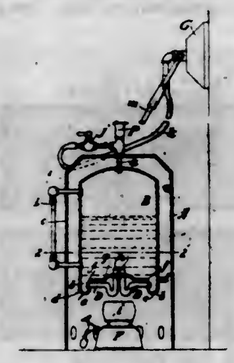
1. A tag fastener and protector comprising a marginal frame, having prongs adapted to penetrate the tag and the supporting surface for the tag to secure the latter against the outer face of the tag near the marginal edge thereof, and having diagonally extending bars adapted to lie against the outer face of the tag and hold the same from bulging from the supporting surface.

4. A tag fastener and protector, comprising a plurality of wires arranged to form a rectangular frame adapted to lie against the outer face of a tag near the marginal edge thereof, the wires having end portions bent at right angles thereto, and diagonally disposed wires in said rectangular frame engaging across the outer face of the tag and with ends bent at right angles thereto, said end portions being grouped and welded together to form prongs, and one of said diagonally disposed wires being provided with a prong extending in the same direction as the other of said prongs.

[Claims 2 and 3 not printed in the Gazette.]

1,239,546. BOILER. CLARENDON G. WARNER, Holyoke, Mass. Filed June 21, 1916. Serial No. 105,026. (Cl. 122—28.)

In combination with an upright casing closed at its top and provided in the latter with draft openings, of a boiler supported within the upper portion of the casing whereby a heater may be arranged beneath the boiler for generating steam therein, said boiler comprising a hollow cylindrical body closed at its top and bottom, the bottom of the boiler having a depending, annular fluid space and concentrically arranged, upwardly depressed center, and a plurality of radially disposed pipes extending horizontally and inwardly from the annular fluid space in proximity and parallel to the bottom of the boiler, the inner end of each pipe terminating in a U-trap which extends



below the plane of the lower edge of said annular fluid space, the inner leg of each U-trap extending vertically in a straight line through the upwardly depressed center of the boiler bottom, said U-traps and inner legs being arranged in close relation for direct contact with the heated gases from an underlying heater.

1,239,547. ROLLER SIDE BEARING FOR CARS. EDWIN W. WEBB, Chicago, Ill., assignor to Standard Car Truck Company, Chicago, Ill., a Corporation of New Jersey. Filed Sept. 21, 1914. Serial No. 862,744. (Cl. 64—64.)



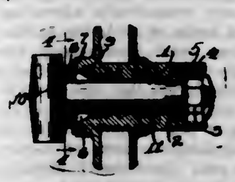
1. The combination with upper and lower roller bearing plates, interposed rollers and a cage therefor, of independently rotatable pinions journaled on the cage, said upper and lower plates having at their inner and outer edges rack teeth meshing with the pinions, said edges of the lower roller bearing plate terminating at the outer ends of the rack teeth formed therein to permit the escape of dirt thereover.

2. The combination with upper and lower roller bearing plates having on their opposing faces laterally spaced segmental flanges and rack teeth located outward thereof, of rollers interposed between said plates and held by the flanges thereof against axial movement, a cage for the rollers, and a pair of axially alined independently rotatable pinions journaled on the cage and meshing with the rack teeth.

3. The combination with upper and lower roller bearing plates, interposed rollers and a cage therefor, of means for causing the cage to maintain a medial position in respect to said plates, rack teeth formed on the outer and inner edges of said plates, pinions journaled on the cage and meshing with the rack teeth, and brackets on one of said plates overlapping the other thereof and holding said plates against accidental separation and arranged to permit the pinions to travel thereunder.

[Claims 2 and 4 not printed in the Gazette.]

1,239,548. SELF-OILED MECHANISM. CHESTER G. WOOD, Chicago, Ill., assignor to Guilford S. Wood, Chicago, Ill. Filed June 21, 1915. Serial No. 35,249. (Cl. 64—26.)

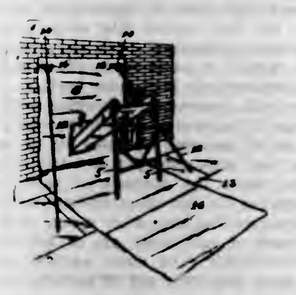


1. In a device of the class described a bearing, a reservoir formed within said bearing, a network of passages communicating therewith adapted to effect a transfer of lubricant to all parts of the bearing, and a plurality of independently rotatable means adapted to be rotated into a predetermined relation to one another to permit admission of a supply of lubricant to said reservoir.

4. In a device of the class described a bearing, an enlarged lubricant reservoir formed peripherally on the interior thereof, a shaft extending through said bearing, and a plurality of washers engaged on said shaft and having apertures therein adapted to be brought into register with one another to introduce lubricant into said reservoir.

[Claims 2 and 3 not printed in the Gazette.]

1,239,549. COAL-SHIELD. WALTER E. WOOD, Rochester, N. Y., assignor to Elwood Coal Service, Rochester, N. Y. Filed Mar. 24, 1915. Serial No. 16,822. (Cl. 45—36.)



1. A device of the character and for the purpose described comprising a shield made of suitable flexible material and having an opening therein for receiving a coal chute, flap members flexibly connected to the shield along the edges of said opening and adapted to cover the casing of a window and to be held in extended position by a chute extended through said opening and said window, and means for removably supporting said shield against the side of the house.

2. A device of the character and for the purpose described comprising a shield made of suitable flexible material and having an opening therein for receiving a coal chute, flap members wider at their outer than at their inner ends flexibly connected to said shield along the edges of said opening and adapted to cover the casing of a window and to be held in extended position by a chute extended through said opening and said window, and means for removably supporting said shield against the side of the house.

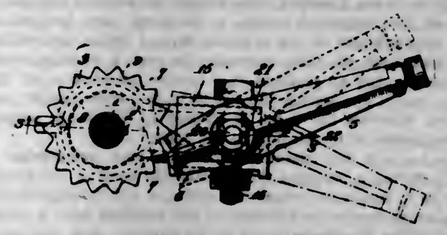
1,239,550. TENT. HENRY R. WYKERT, Council Bluffs, Iowa. Filed Oct. 26, 1916. Serial No. 127,760. (Cl. 135—1.)

1. A collapsible four-sided tent, comprising a normally flat diamond-shaped floor of flexible material, a normally pyramidal tent cover having its bottom edge continuously united with the periphery of the floor, a pair of mutually hinged tent poles permanently attached to the cover and normally distending the same with the floor diagonally from corner to corner transversely, and means for pulling taut the united floor and cover diagonally lengthwise while so distended.



2. A collapsible four-sided tent, comprising a normally flat rhombic floor of flexible material, a normally pyramidal cover of like material having its horizontal edges continuously united with the edges of the floor respectively, a pair of tent poles hinged together at the apex of the tent and permanently attached to the cover from the apex to the base along diagonally opposite corners of the cover for the purpose of tensioning the same transversely, and means for tensioning the cover longitudinally when so tensioned transversely.

1,239,551. SHAFT-ROTATING MEANS. WINFIELD HANCOCK YOST, Montreal, Quebec, Canada. Filed Dec. 9, 1912. Serial No. 735,798. (Cl. 74—54.)



1. The combination with a shaft, of a ratchet wheel fixed thereon, an arm pivoted concentrically thereto, a saddle pivoted upon and straddling the end of said arm, and a lever fulcrumed between its ends upon such arm, such lever having one end constituting a reversible pawl adapted to engage and rotate the said ratchet wheel in either direction and means providing a universal joint connection between such lever and arm, such means including a saddle pivoted upon and straddling the end of the said arm and having the lever pivoted thereto, for the purpose set forth.

2. The combination with a shaft and a toothed wheel upon the shaft, of an arm pivoted at one end concentrically to such shaft and a lever adapted to engage the wheel and rotate the shaft in either direction, the lever being pivoted to the arm, the pivotal connection between lever and arm comprising two angularly disposed axes whereby the lever is permitted two swinging and operative movements independently of the arm and in two distinct directions with relation to such arm.

3. The combination with a shaft, of a carrier and a lever supported by said carrier and adapted to rotate the shaft in either direction, such lever having a swinging movement transversely of the shaft and independently of the carrier and a swinging movement in the longitudinal line of the shaft and independently of the carrier.

4. The combination with a shaft, of a carrier and a lever supported by said carrier and adapted to rotate the shaft in either direction, such lever having a horizontal swinging movement independently of the carrier and a vertical swinging movement independently of the carrier.

5. The combination with a shaft, of a ratchet wheel fixed thereon, an arm pivoted concentrically thereon, a saddle pivoted on the free end of the arm, and a lever fulcrumed between its ends upon the saddle and adapted to engage and rotate the said ratchet wheel in either direction

and move upon its fulcrum into and out of engagement with the ratchet wheel such lever having a projection adapted to engage the said saddle and limit the movement of the lever upon its fulcrum in one direction, for the purpose set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,239,552. GARMENT-SEAM-PRESSING IRON. EDWIN H. ZACHARIAS, Reading, Pa. Filed Apr. 7, 1917. Serial No. 160,466. (Cl. 68—26.)



4. An iron for pressing garment seams, embodying a body having a pressing face, means for heating the same, means for supplying steam, a seam opener located in advance of and spaced from the pressing face, a port for the discharge of steam located in the space between the seam opener and forward end of the pressing face, a valve controlling the discharge of steam through the port and connections intermediate the seam opener and valve whereby the latter may be actuated by the seam opener.

5. An iron for pressing garment seams, embodying a body having a pressing face, means for heating the same, means for supplying steam, a discharge port located at the forward end of the pressing face, a valve controlling the discharge of steam through the port, a yielding seam opener having an inclined face located in advance of the port, and a connection intermediate the seam opener and valve, whereby the valve is opened by the seam opener when moved with relation to the body.

6. An iron for pressing garment seams, comprising a body having a pressing face, means for heating the pressing face, means for supplying steam, a discharge port for the steam located in advance of the pressing face, a valve controlling the discharge of steam through said port, and a combined seam opener and valve operating member movable with relation to the body of the iron and adapted to be moved automatically to open the steam port by downward pressure on the iron impressing a seam.

[Claims 2 and 3 not printed in the Gazette.]

1,239,553. CORD TIRE. CHARLES L. ARCHER, Minneapolis, Minn. Filed July 15, 1916. Serial No. 109,526. (Cl. 152—13.)



1. In a tire of the class described, the combination of a plurality of longitudinally extending cords, transversely extending cords positioned upon said longitudinally extending cords, beads carried upon said longitudinally extending cords, said transversely extending cords embracing said beads for holding the same against accidental displacement, said transversely extending cords then fitting upon the outer surface of said longitudinally extending cords, portions of said transversely extending cords adjacent their ends overlapping in alinement with the tread of the tire, tapered filler strips positioned upon said transversely extending cords and engaging the extreme ends thereof so as to cause the tapered structure to have a comparatively even outer surface, and a casing carried upon said transversely extending cords.

2. In a tire of the class described, the combination of a plurality of longitudinally extending cords, longitudinally extending cables positioned upon said longitudinally extending cords for forming beads or heels, transversely extending cords positioned upon said longitudinally extending cords, said transversely extending cords being wound about said beads or heels for holding the same in assembled positions, said transversely extending cords then fitting snugly upon the outer surface of said longitudinally extending cords, the ends of said transversely extending cords overlapping, filler means positioned upon the extreme ends of said transversely extending cords so as to form a substantially even outer surface, a lining positioned upon said transversely extending cords and fitting about said beads or heels, and a casing positioned upon said transversely extending cords for holding said overlapping ends in engagement with each other, whereby a substantially one-piece tire is produced.

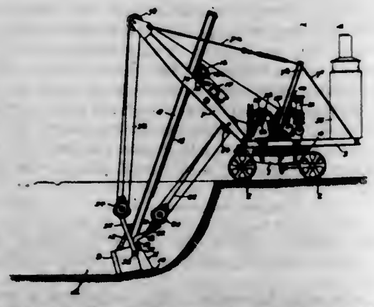
3. In a tire of the class described, the combination of a plurality of longitudinally extending cords, transversely extending cords positioned upon said longitudinally extending cords, heels carried upon said longitudinally extending cords, said transversely extending cords being wound about said heels for holding the same in assembled positions, said transversely extending cords then fitting snugly upon the outer surface of said longitudinally extending cords, the ends of said transversely extending cords overlapping, filler means positioned upon the extreme ends of said transversely extending cords so as to form a substantially even outer surface, and a casing positioned upon said transversely extending cords.

4. In a tire of the class described, the combination of a plurality of longitudinally extending cords, transversely extending cords, positioned upon said longitudinally extending cords, portions of said transversely extending cords adjacent their ends overlapping in alinement with the tread of the tire, tapered filler strips positioned upon said transversely extending cords and engaging the extreme ends thereof so as to cause the tapered strips to present a comparatively even outer surface, and a casing carried upon said transversely extending cords.

5. In a tire of the class described, the combination of an interposed ply of material, an outer ply of material positioned upon said interposed ply of material and entirely incasing the same, the portions of said outer ply of material adjacent its side edges overlapping in alinement with the tread of the tire; filler means positioned upon said side edges of said outer ply of material so as to form a substantially even outer surface, and a casing positioned upon said outer ply of material and said filler means.

[Claims 6 to 8 not printed in the Gazette.]

1,239,554. POWER-SHOVEL. EDWIN J. ARMSTRONG and HOLGER ROMMERDALE, Erie, Pa., assignors to Ball Engine Company, Erie, Pa., a Corporation of Pennsylvania. Filed Sept. 20, 1915. Serial No. 51,525. (Cl. 37—16.)



1. In a power shovel, the combination of a shovel platform; a boom extending from the platform; a dipper stick slidingly mounted on the boom; a dipper on the dipper stick having its cutting edge extending toward the platform and away from the dipper stick throughout its operation; two lines operating the dipper; a closure for the dipper closing the cutting face of the dipper; and means actuated by varying the tension on said lines and operating upon the closure for releasing the material from the dipper.

2. In a power shovel, the combination of a shovel platform; a boom extending from the platform; a dipper stick mounted on the boom; a crowding engine operating on the dipper stick; a dipper rigidly mounted on the dipper stick having its cutting edge extending toward the platform; two lines operating the dipper; and means actuated by varying the tension on said lines in connection with the crowding engine for releasing the material from the dipper.

3. In a power shovel, the combination of a shovel platform; a boom extending from the platform; a dipper stick mounted on the boom; a crowding engine acting on the dipper stick; a dipper on the dipper stick having its cutting edge extending toward the platform; two lines operating the dipper, one outwardly and one inwardly; a closure for the dipper for closing the cutting face thereof; and means actuated by varying the tension on said lines and operating upon said closure for releasing the material from the dipper.

4. In a power shovel, the combination of a shovel platform; a boom extending from the platform; a dipper stick mounted on the boom; a crowding engine operating on the dipper stick; a dipper on the dipper stick having its cutting edge extending toward the platform; two lines operating the dipper, one extending to a point on the boom outside the dipper stick and one extending inwardly to a point on the boom inwardly from the dipper stick; a closure for the cutting face of the dipper; and means actuated by varying the relative tension on said lines for actuating said closure for releasing material from the dipper.

5. In a power shovel, the combination of a shovel platform; a boom extending from the platform; a dipper stick mounted on the boom; a dipper on the dipper stick having its cutting edge extending toward the platform; a crowding engine operating on said dipper stick; two lines operating the dipper stick; a closure for the cutting face of the dipper; and means acting upon said closure and with said lines and said crowding engine for advancing the shovel into the work, elevating and retracting the shovel and discharging the material therefrom.

[Claims 6 to 19 not printed in the Gazette.]

1,239,555. PROCESS OF TREATING RICE AND PRODUCT THEREOF. MOSES MILTON BAUMGARTNER, Freeport, Ill. Filed Dec. 13, 1916. Serial No. 136,765. (Cl. 99—11.)

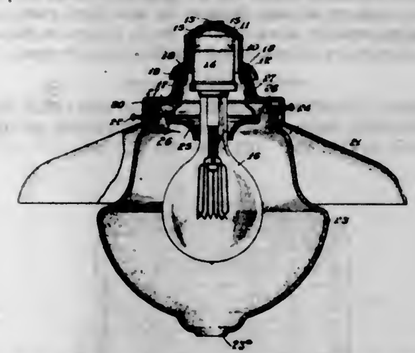
1. A product comprising sterilized dry rice kernels embodying the whole natural rice, including the germ and cuticle, with the starch dextrinized and the fats and proteids stabilized, and having substantially the original form and bulk of the natural rice.

2. A product comprising parched rice kernels embodying the whole natural rice, including the germ and cuticle, with the starch dextrinized and the fats and proteids stabilized, and having substantially the original form and bulk of the natural rice.

3. A preservative process of preparing natural rice which consists in thoroughly soaking the natural rice, in the hull, thereby causing it to absorb a quantity of water, cooking the rice in live steam, while in the hull, to preserve the nutritive value thereof, drying the rice under conditions which insure a product not differing materially in form and bulk from the natural rice, and removing the hulls from the rice kernels.

4. A preservative process of treating natural rice which consists in soaking the whole natural rice, in the hull, thereby causing it to absorb a quantity of water, cooking the rice in live steam, while in the hull, to dextrinize the starch and to stabilize the fats and proteids of the germ and cuticle, subjecting the rice to drying conditions until the water is extracted, continuing the drying conditions to parch the rice and produce a final product not differing materially in form and bulk from the natural rice and removing the hulls from the rice kernels.

1,239,556. LIGHTING-FIXTURE. GEORGE M. BEARDSLEE, Chicago, Ill., assignor to Beardslee Chandelier Manufacturing Company, a Corporation of Delaware. Filed Mar. 20, 1916. Serial No. 85,268. (Cl. 240—115.)

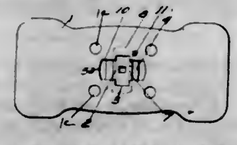


1. In a fixture of the class described, a yoke of resilient metal provided with an opening in the top adapted to receive a suspending member, while the depending sides at intermediate points are adapted to support a reflector-holding member when the yoke is in expanded condition, said yoke being provided with means transversely disposed in the upper part thereof intermediate of the sides for the attachment of an electric lamp socket, while the lower ends of the yoke-sides terminate in outwardly presented reflector-engaging portions.

2. In a fixture of the class described, a yoke formed so as to provide two depending legs, the legs being formed to support a globe and reflector holding member while the lower ends of the legs are adapted to support a supplemental reflector, the upper portion of said yoke being provided with means for securing an electric lamp-socket or holder between the legs of the yoke and arranged to permit the passage of the electric wires therethrough.

[Claims 3 to 8 not printed in the Gazette.]

1,239,557. ANCHOR. KENNETH BEEBE, Portland, Oreg. Filed Apr. 13, 1914, Serial No. 831,397. Renewed Mar. 23, 1917. Serial No. 156,968. (Cl. 114—208.)

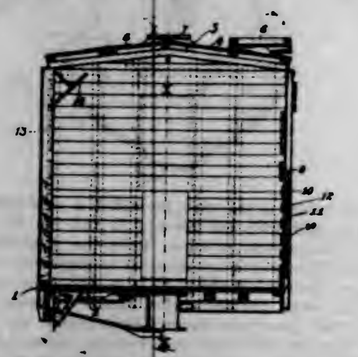


1. An anchor comprising a head-piece having a fluke at each end and a shank opening in the head-piece intermediate said flukes, a trunnion seat in each side of the shank opening leading to the bottom face of said head-piece, a recess formed in the shank opening adjacent the lower outlet thereof, a shank having a trunnion at each side of one end adapted to be inserted from the lower side into said opening, and a plate adapted to pass within said trunnion seats and to be rotated within said recess to lock the shank opening.

2. An anchor comprising a head-piece having a fluke at each end and a shank opening in the head-piece intermediate said flukes, a trunnion seat in each side of the shank opening leading to the bottom face of said head-piece, a recess formed in the shank opening adjacent the lower outlet thereof, a shank having a trunnion at each side of one end adapted to be inserted from the lower side into said opening, a plate adapted to pass within said trunnion seats and to be rotated within said recess to lock the shank opening, and means for securing the plate in fixed position.

3. An anchor comprising a head piece having a fluke at each end and a shank opening in the head piece between said flukes, said shank opening being larger in the under side of said head piece than it is through the top side of said head piece, whereby to form a chamber in said head piece, a shank provided at one end with an enlarged portion, said shank being adapted to be inserted upwardly through said head piece with its enlarged portion occupying the chamber therein, and a retaining member for closing the bottom of said chamber in said head piece, said retaining member being adapted to be locked in place in said chamber by being rotated a partial turn therein.

1,239,558. COMBINED STOCK AND GONDOLA CAR. EDWARD E. BETTS, Evanston, Ill. Filed July 26, 1916. Serial No. 111,536. (Cl. 119—7.)

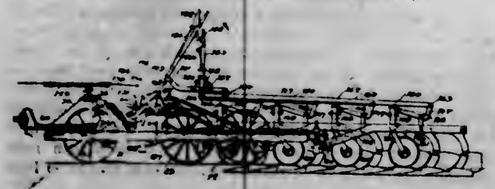


1. A combined stock and gondola freight car, having an unobstructed interior space, the sides of the car being formed of spaced slats, the upper surface of which slats, below the gondola line, are steeply inclined upwardly and outwardly, the surface width with respect to the spaces between the slats and the angle of inclination being such as to adapt the car to the transport of coal, ore and similar freight in bulk, while, without change, permitting adequate ventilation throughout the car when the car is used for the transportation of live-stock, the car being provided with top and bottom openings and doors therefor.

10. A stock-car having its lower and adjacent side-slats provided with plates secured to their outer surfaces, said plates inclining upwardly and outwardly and extending so as to be located laterally opposite the longitudinal openings formed by said slats.

[Claims 2 to 9 and 11 to 14 not printed in the Gazette.]

1,239,559. TRACTOR-PLOW. DAVID A. BIEBINGER, La Crosse, Wis., assignor to La Crosse Plow Company, La Crosse, Wis., a Corporation of Wisconsin. Filed Aug. 24, 1912. Serial No. 716,925. (Cl. 97—70.)



1. In a plow, the combination of a frame, carrying-wheels, a plow-carrying structure pivotally connected to the frame, a lever, draft-operated mechanism for operating said lever, and a connection for operating the structure from said lever comprising a linkage and a lever for shortening and lengthening the linkage to adjust the plow, said lever being sustained by said linkage.

2. In a plow, the combination of a frame, carrying-wheels, a plow-carrying structure pivotally connected to the frame, a lever, draft-operated mechanism for operating said lever, and a connection for operating the plow from said lever, comprising a pair of links pivoted to the lever and to the plow-structure respectively, a link and a lever between said links and means for locking the lever.

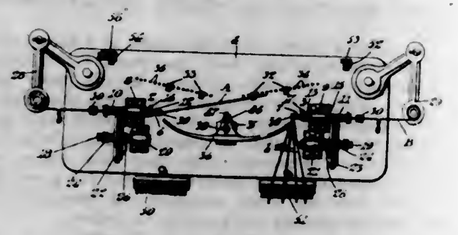
3. In a plow, the combination of a frame, carrying-wheels, a plow-carrying structure pivotally connected to the frame, a lever, draft-operated mechanism for operating said lever, a connection for operating the plow from said lever comprising a pair of links connected to the lever and the plow-structure respectively, a cross-link between said links, a lever pivoted to said pair of links, a rack secured to one of said links and a lock on the lever.

4. In a tractor plow, the combination of a frame, carrying-wheels, a series of plow-carrying structures pivoted to the frame, connections for shifting the structures respectively, each comprising a lever connected to the structure, a lever mounted on the frame and a link-connection between said levers and power-driven means for operating the connections to forcibly shift them in lowering the plows.

5. In a tractor plow, the combination of a frame, carrying-wheels, a series of plow-carrying structures pivoted to the frame, connections for shifting the structures, respectively, each comprising a lever connected to the structure, a lever mounted on the frame and a link-connection between said levers and power driven means for opearting the connections to successively force them in lowering the plows.

[Claims 6 to 16 not printed in the Gazette.]

1,239,560. THREAD-SPLICING MACHINE. ARTHUR A. BRIGHAM, Brookline, Mass. Filed Dec. 30, 1915. Serial No. 69,485. (Cl. 28—21.)



1. In a thread splicing machine, the combination of two opposed twister heads each constructed to hold a thread and each rotatable in opposite directions to twist or untwist the thread, means constructed and arranged to support the strands of both of said threads while said strands are associated with each other in readiness to be twisted together and operative to maintain said strands under tension while the operation of twisting them together is being effected.

2. In a thread splicing machine, the combination of two opposed twister heads mounted substantially in alinement with each other, each constructed to hold a thread and each rotatable in opposite directions to twist or untwist a thread, and a thread supporting plate positioned between said heads but out of axial alinement with them and mounted for yielding movement toward and from the axial line of said heads.

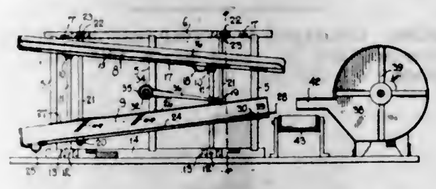
3. In a thread splicing machine, the combination of two opposed twister heads each constructed to hold a thread and each rotatable in opposite directions to twist or untwist the thread, two thread-holding devices arranged to coöperate respectively with said heads to hold the threads while the heads untwist them, said devices being mounted for adjustment toward or from their respective heads, and means constructed and arranged to support the strands of both of said threads while said strands are associated with each other in readiness to be twisted together and operative to maintain said strands under tension while the operation of twisting them together is being effected.

4. In a thread splicing machine, the combination of two opposed twister-heads mounted substantially in alinement with each other, each constructed to hold a thread and each rotatable in opposite directions to twist or untwist a thread, means for holding the ends of the threads held by said twister heads, means for revolving said heads in either direction, adjustable means for limiting the number of revolutions that said heads can make in either direction, a thread supporting plate positioned between said heads but out of axial alinement with them, means supporting said plate for movement toward and from the axial line of said heads, and a spring resisting the movement of said plate toward said axial line.

5. In a thread splicing machine, the combination of two opposed twister heads mounted substantially in alinement with each other, each constructed to hold a thread and each rotatable in opposite directions to twist or untwist a thread, two screw threaded shafts positioned, respectively, adjacent to said twister heads, and driving devices for said heads mounted respectively on said threaded shafts, adjustable means for limiting the number of turns that said driving devices can make on their respective shafts, and thread supporting means between said heads.

[Claims 6 to 12 not printed in the Gazette.]

1,239,561. SEPARATING-MACHINE. ANDREW JACKSON BUCKLEY, Calvert, Tex. Filed Feb. 8, 1917. Serial No. 147,410. (Cl. 130—17.)



2. In a machine of the character described, upper and lower pans arranged in reversely inclined planes, said lower pan having a top wall and being open at one end, the material moving by gravity and falling from the upper pan across the open end of the lower pan, and a blast fan to discharge an air blast against the falling material and separate the lighter particles of foreign matter therefrom and direct the latter into the open end of the lower pan.

4. In a machine of the character described, upper and lower longitudinal pans disposed in reversely inclined planes, the lower pan having a top wall and being open at its higher end, the material falling by gravity from the lower end of the upper pan across the upper end of said lower pan, means for discharging an air blast against the material at right anglea to its direction of gravity movement to separate the lighter particles of foreign material therefrom and direct the same into the open end of the lower pan, said lower pan having a transversely disposed, discharge trough at its lower end, and spaced, transverse, baffle plates arranged in said pan to direct the material against the bottom wall of the pan for gravity movement thereover into the discharge trough.

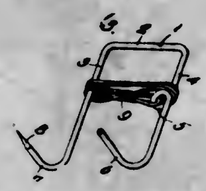
7. In a machine of the character described, spaced upper and lower agitating pans arranged in reversely inclined planes, the material dropping by gravity from one end of the upper pan across the end of the lower pan, resilient supporting bars for each of the pans yieldingly holding the same in their normal positions and against relative movement, means operatively connected to the said pans to reciprocate the same longitudinally with respect to each other, and a blast fan to discharge an air blast against the falling material and separate the lighter particles of foreign matter therefrom and direct the latter into the lower pan.

9. In a machine of the character described, a longitudinally reciprocable pan, means for reciprocating said pan, means for yieldingly retarding the reciprocatory movement of the pan in each direction, means for feeding material by gravity across one end of the pan, and means for directing a blast of air upon the material in its gravity movement to separate the lighter particles of foreign matter therefrom and direct the latter into said reciprocating pan.

10. In a machine of the character described, spaced upper and lower pans, one end of the upper pan projecting beyond the corresponding end of the lower pan, the material dropping from the projecting end of the upper pan across and beyond the end of the lower pan, means for reciprocating said pans with respect to each other, and means for directing an air blast against the falling material to separate the lighter particles of foreign matter therefrom and direct the latter into the lower pan.

[Claims 1, 3, 5, 6, and 8 not printed in the Gazette.]

1,239,562. CATTLE-POKE. FRANK I. BURT, Shallow Water, Kans. Filed Dec. 7, 1916. Serial No. 135,652. (Cl. 119—136.)



1. A cattle poke comprising a single length of wire bent to take a substantially U-shaped form and having the ends formed into engaging portions with one of said ends sharpened to provide a penetrating point to permit insertion of the member through the hide of an animal to bring the looped portion of the U-shape to be retained through the hide, and one of the arms of the U-shape form being bent and looped to provide an eye for the reception of means by which the poke is secured in place and held against twisting.

2. A cattle poke comprising a single strip of metal shaped to provide a cross bar with arms extending therefrom and bent at their ends to form hooks, the hooked portion of one of said arms being sharpened to provide a penetrating point to permit penetration of the member through the hide of the animal to bring the cross bar through the hide to a relation that the hooked ends of the arms extend forwardly, the remaining arm being looped to form an eye, and a securing member passed through said eye and then around the other arm of the device to secure the same against displacement.

1,239,563. COLLAR. WILLIAM J. CIPRA, Cleveland, Ohio. Filed Oct. 23, 1916. Serial No. 127,227. (Cl. 2—69.)



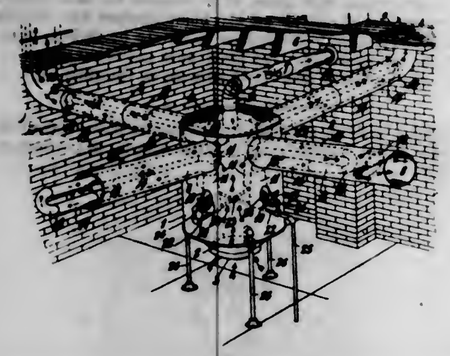
1. An article of wearing apparel having a neck encircling portion provided at its ends with flaps to be overlapped, one of said flaps having a longitudinal slit and the other flap being provided with a tab for insertion upwardly and outwardly through the said slit, the last-mentioned flap having a shouldered attaching tab at its lower portion, the shoulders being inclined toward the shank of the tab.

[Claim 2 not printed in the Gazette.]

1,239,564. HEATING SYSTEM. GEORGE W. COLEMAN, Cincinnati, Ohio, assignor of three-fourths to Abigail Coleman and one-fourth to James N. Ramsey, Cincinnati, Ohio. Filed Oct. 16, 1916. Serial No. 125,994. (Cl. 126—116.)

1. A furnace comprising a casing, a plurality of hot air pipes each directly and separately connecting said casing

with a separate space to be heated, a fume outlet, a plurality of heat conductors and radiators each within but distinct from the interior of a respective one of said hot air pipes and leading a material distance therein, then leading backwardly therein to said fume outlet, and means for supplying heat to said heat conductors.



2. A gas heated furnace comprising a casing, hot air pipes directly connecting said casing to a space to be heated, a fume outlet, a plurality of independently operable heaters within said casing, a heat conductor and radiator leading from each heater a material distance within its respective hot air pipe, and then returning upon itself therein to within said casing and thence to said outlet, and means for supplying heat to said heaters.

5. A self-contained gas heated furnace comprising a casing, a plurality of hot air pipes each connecting said casing with a space to be heated, a fume outlet, a plurality of heaters within the casing, a plurality of heat conductors and radiators each within but distinct from the interior of a respective one of said hot air pipes and leading a material distance therein, then leading backwardly therein to said fume outlet, and means for supplying heat to said heaters.

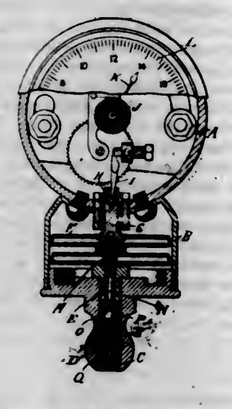
8. A furnace comprising a casing, a substantially horizontal hot air pipe connecting said casing with a space to be heated, a fume outlet, a heating chamber within said casing, a heat conductor and radiator leading from said heating chamber into said hot air pipe and extending a material distance along the lower part thereof, then leading backwardly therein along the upper part thereof to said fume outlet, and means for supplying heat to said heating chamber.

10. A self-contained, portable gas heated furnace suspended a considerable distance above the floor and comprising a casing having an opening in its bottom to receive air to be heated, hot air pipes directly connecting said casing to a space to be heated, a manifold within the casing, a fume outlet leading from the top of said casing, heating chambers within said casing, a heat conductor and radiator leading from each heating chamber a material distance within its respective hot air pipe, and then returning upon itself to said manifold, and means for heating said chambers.

[Claims 3, 4, 6, 7, and 9 not printed in the Gazette.]

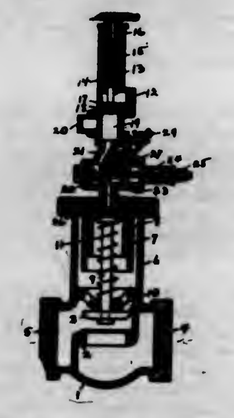
1,239,565. SAFETY DEVICE FOR PRESSURE-INDICATORS. FRANCIS E. COLLINSON, London, England, assignor of one-half to Taylor Instrument Companies, Rochester, N. Y., a Corporation of New York. Filed Mar. 6, 1914. Serial No. 823,018. (Cl. 73—110.)

In a sphygmomanometer including a hollow diaphragm connected at one side to an inlet passage and at its other side to indicating mechanism controlled thereby, means for preventing breakage of the diaphragm due to excessive pressure changes consisting of oppositely disposed valve seats arranged in said inlet passage, a valve movable in opposite directions between and coöperating with said valve seats, a valve stem carrying the valve, and a post carried by one side of the diaphragm and having an ex



tension projecting through the diaphragm toward the inlet opening and forming a support for said valve stem.

1,239,566. UNLOADER FOR COMPRESSORS. RUDOLPH CONRADER, Erie, Pa. Filed May 4, 1915. Serial No. 25,855. (Cl. 230—24.)



1. In an unloader for compressors, the combination of a valve body having inlet and discharge openings and a valve seat therein; a valve operating on said seat; a fluid actuated motor controlling said valve; a pressure actuated valve controlling said motor; a cylinder in which the pressure actuated valve operates, said cylinder having an inlet port admitting fluid to the end of the valve and subjecting the valve to the pressure therefrom; a port leading to the fluid actuated motor and the exhaust port, said port leading to the fluid actuated motor being covered by the valve as it is operated and being connected as the valve is operated with either the inlet port or the exhaust port; counterpressure means opposing the movement of the valve; a needle valve controlling said inlet port; and a pressure motor controlling said needle valve.

2. In an unloader for compressors, the combination of a valve body having inlet and discharge openings; and a valve seat; a relief valve opening and closing by a movement toward and from its seat; a fluid actuated motor controlling said valve; a pressure actuated valve controlling said motor, said valve having a pressure passage and an exhaust passage controlled by the valve; and an intensifier connected with said pressure actuated valve and controlling the delivery of air to said pressure actuated valve said intensifier comprising a chamber; a gradually opening needle valve controlling the admission of fluid to said chamber; and a minute discharge opening from said chamber.

3. In an unloader for compressors, the combination of a valve body having inlet and discharge openings and a valve seat therein; a valve operating on said seat; a fluid actuated motor controlling said valve; a pressure actuated valve controlling said motor; a cylinder in which the pressure actuated valve operates, said cylinder having an inlet port admitting fluid to the end of the valve and subjecting the valve to the pressure therefrom; a port leading to the fluid actuated motor; and an exhaust port, said port leading to the fluid actuated motor being covered by the valve as it is operated and being connected as the valve is operated with either the inlet port or the exhaust port; counter-pressure means opposing the movement of the valve; and an intensifier controlling the movement of air to the inlet port, said intensifier comprising a chamber; a gradually opening needle valve controlling the movement of fluid to the chamber; and a minute discharge opening leading from the chamber.

1,239,567. COMPRESSOR. RUDOLPH CONRADER, Erie, Pa. Filed May 4, 1915. Serial No. 25,856. (Cl. 230—24.)



1. In a compressor, the combination of a fluid actuated motor; a compressor cylinder; a valve on each end of said compressor cylinder; a governor for said motor having centrifugal and centripetal elements; means actuated by the pumped fluid for changing the normal speed of the governor; unloaders operating on said valves; a connection between said unloaders and said means; and a pressure controlled valve in said connection adjacent to the unloaders.

2. In a compressor, the combination of a fluid actuated motor; a compressor cylinder; a valve on each end of said compressor cylinder; a governor for said motor having centrifugal and centripetal elements; means actuated by the pumped fluid for changing the normal speed of the governor; unloaders operating on said valves; a connection between said unloaders and said means, a pressure controlled valve in said connection adjacent to the unloaders; and means for adjusting said valve to act at different pressures.

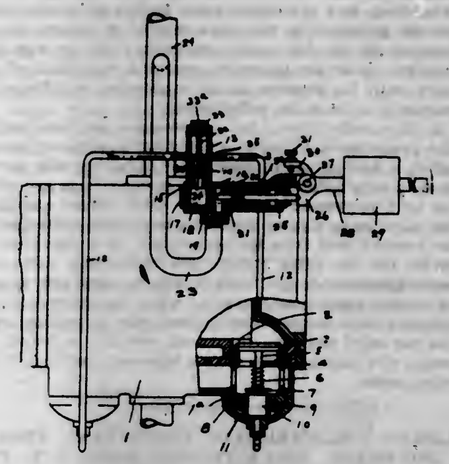
3. In a compressor, the combination of a fluid actuated motor; a compressor cylinder; an unloader for said cylinder; a pressure governor for said motor having centrifugal and centripetal elements; means actuated by the pumped fluid for changing the normal speed of the governor; an intensifying device for intensifying the changes of pressure in such pumped fluid; a connection between the intensifying device and the unloader; and a pressure actuated valve in said connection.

4. In a compressor, the combination of a fluid actuated motor; a compressor cylinder; an unloader for said cylinder; a pressure governor for said motor having centrifugal and centripetal elements; means actuated by the pumped fluid for changing the normal speed of the governor; an intesifying device for intensifying the changes of pressure in such pumped fluid; a connection between the intensifying device and the unloader; a pressure actuated valve in said connection; and means for adjusting said pressure actuated valve.

5. In a compressor, the combination of a fluid actuated motor; a compressor cylinder; valves on each end of said compressor cylinder; unloaders operating on said valves; a connection between said unloaders having a minute discharge; a pressure controlled valve in said connection, said valve comprising a cylinder having ways leading to said connection; a piston adapted to open and close said ways, said piston being subjected to pressure; and means for resisting the movement of said piston.

[Claim 6 not printed in the Gazette.]

1,239,568. RELIEF DEVICE FOR COMPRESSORS. RUDOLPH CONRADER, Erie, Pa. Filed Jan. 3, 1916. Serial No. 69,733. (Cl. 230—24.)



1. In a relief device for compressors, the combination of a compressor cylinder; a relief mechanism on the cylinder; a fluid actuated relief motor actuating said mechanism; a controlling valve for said motor closing and opening by a movement of the valve head toward and from the valve seat; a valve motor for said valve controlled by the pumped fluid from the compressor; a counterpressure device for the valve motor having approximately uniform resistance to the valve motor as the valve opens; and a connection between the controlling valve and the relief motor having a leak sufficient to permit the escape of a leakage incident to a balanced condition of the valve motor.

2. In a relief device for compressors, the combination of a compressor cylinder; a relief mechanism on the cylinder; a fluid actuated relief motor actuating said mechanism; a controlling valve for said motor; a valve motor for said valve controlled by the pumped fluid from the compressor; a counterpressure device for the valve motor having approximately uniform resistance to the valve motor as the valve opens; a connection between the controlling valve and the relief motor having a leak sufficient to permit the escape of a leakage incident to a balanced condition of the valve motor; an auxiliary valve controlling the connection actuated by the air in the connection; and an auxiliary pressure device for the valve retarding the action of the valve until the pressure in the connection is sufficient to positively actuate the relief motor.

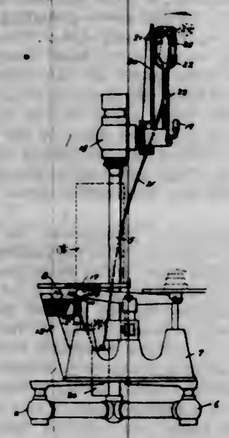
3. In a relief device for compressors, the combination of a compressor cylinder; a relief mechanism on the cylinder; a fluid actuated relief motor actuating said mechanism; a controlling valve for said motor; a valve motor for said valve controlled by the pumped fluid from the compressor; a counterpressure device for the valve motor having approximately uniform resistance to the valve motor as the valve opens; a connection between the controlling valve and the relief motor having a leak sufficient to permit the escape of a leakage incident to a balanced condition of the valve motor; and a cylindrical

valve controlling said connection actuated by the air in the connection, said cylindrical valve having an intermediate passage arranged in the walls thereof to hasten the release of the air from said connection.

4. In a relief device for compressors, the combination of a compressor cylinder; a relief mechanism on the cylinder; a fluid actuated relief motor actuating said mechanism; a controlling valve for said motor; a valve motor for said valve controlled by the pumped fluid from the compressor; a counterpressure device for the valve motor having approximately uniform resistance to the valve motor as the valve opens; a connection between the controlling valve and the relief motor having a leak sufficient to permit the escape of a leakage incident to a balanced condition of the valve motor; a cylindrical valve controlling said connection actuated by the air in the connection, said cylindrical valve having an intermediate passage arranged in the walls thereof to hasten the release of the air from said connection; and an auxiliary pressure device for the valve retarding the action of the valve until the pressure in the connection is sufficient to positively actuate the relief motor.

5. In a relief device for compressors, the combination of a compressing cylinder; a relief mechanism on the cylinder; a fluid actuated relief motor actuating said mechanism; a controlling valve for said motor closing and opening by a movement of the valve head toward and from the valve seat; a valve motor for said valve controlled by the pumped fluid from the compressor; a counterpressure device for the valve motor, said controlling valve and counterpressure device being relatively arranged to give an abrupt opening to the valve when the valve motor is actuated; and a connection between the controlling valve and the relief motor having a leak sufficient to permit the escape of a leakage incident to a balanced condition of the valve motor.

1,239,569. ELECTRICALLY-CONTROLLED RELEASING MEANS. JOHN P. CRANDALL, Buffalo, N. Y. Filed Oct. 30, 1915. Serial No. 58,858. (Cl. 73—176.)



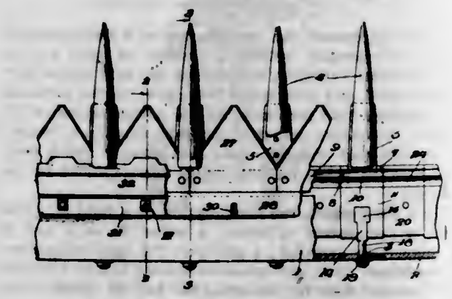
1. An electrically controlled releasing means comprising normally open contact making means, a rigidly mounted, permanent magnet, a movable electromagnet mounted opposite said permanent magnet, a suitable source of electric energy, mechanical means for closing said contact making means, a suitable electric circuit connecting said source of electric energy, said electromagnet and said contact making means, said magnets being so arranged that like poles thereof are opposite each other, and releasing means connected with and actuated by said movable magnet.

2. The combination with a scale of an electrically controlled releasing means consisting of normally open contact making means comprising a movable scale part, a pivotally mounted, counterweighted, contact arm located in the path of travel of said scale part, a rigidly mounted permanent magnet, a movable electromagnet mounted opposite said permanent magnet, a suitable source of electric energy, a suitable electric circuit connecting said source of electric energy, said electromagnet and said contact making means, said magnets being so arranged that like poles thereof are opposite each other, and releasing means connected with and actuated by said movable magnet.

3. An electrically controlled releasing means comprising normally open contact making means, a rigidly mounted magnet arm, a permanent magnet carried by said arm, a movable release arm, an electromagnet carried by said release arm, said magnets being mounted opposite each other and so arranged that like poles thereof are opposite each other, a suitable source of electric energy, and a suitable electric circuit connecting said source of electric energy, said electromagnet and said contact making means.

4. The combination with a scale of an electrically controlled releasing means, consisting of normally open contact making means comprising a movable scale part, a pivotally mounted, counterweighted, contact arm located in the path of travel of said scale part, a rigidly mounted magnet arm, a permanent magnet carried by said arm, a movable release arm, an electromagnet carried by said release arm, said magnets being mounted opposite each other and so arranged that like poles thereof are opposite each other, a suitable source of electric energy, and a suitable electric circuit connecting said source of electric energy, said electromagnet and said contact making means.

1,239,570. CUTTING APPARATUS FOR MOWERS. FRED CRAWFORD, Prosser, Wash. Filed Mar. 20, 1917. Serial No. 156,148. (Cl. 56—44.)

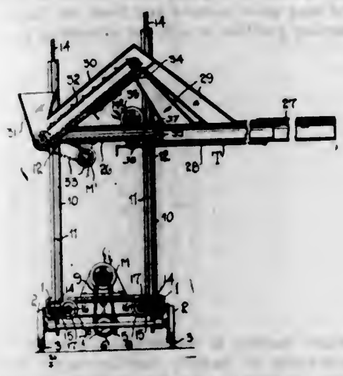


1. In a cutting apparatus, the combination of a finger bar, a guard finger having its rear portion inserted within and housed by the finger bar, and an anchor bolt having a wedging engagement with the rear portion of the guard finger and housed by the same and the finger bar and extending through and secured in the rear side of the finger bar.

4. In a cutting apparatus, the combination of a finger bar, a plurality of guard fingers secured in the finger bar, a plurality of spacing blocks secured in the finger bar between the guard fingers, the front edges of the spacing blocks being convex and the under sides of the spacing blocks and the guard fingers being flush with the under surface of the finger bar, the under surfaces of the spacing blocks and the guard fingers being provided with transverse shoulders to bear against the transverse shoulder of the finger bar and the upper sides of the spacing blocks and the guard fingers being constructed with alined transverse grooves, a cutter bar slidably seated in the guard fingers and the spacing blocks, and cutters carried by said cutter bar.

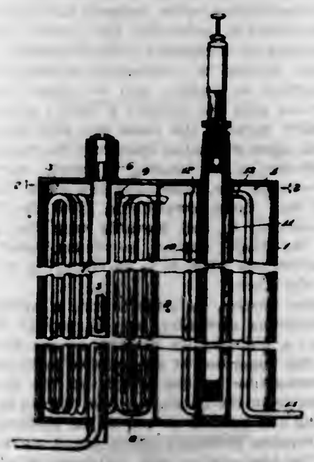
[Claims 2 and 3 not printed in the Gazette.]

1,239,571. CHARGING DEVICE. WATT C. DAUGHERTY, Monongahela, Pa., assignor of one-half to Philip Ginsberg, Monongahela, Pa. Filed July 5, 1916. Serial No. 107,683. (Cl. 254—84.)



A device of the character described including a vertically adjustable table, a reciprocating member mounted upon the table and provided with a rack, a gear wheel rotatably supported by the under surface of the table, said table being provided with an opening through which said gear extends to mesh with the rack, and a driven member depending from the table and operatively engaged with the gear for rotating the same.

1,239,572. PRECISION TEMPERATURE APPARATUS. ACHILLES DE KHOTINSKY, Chicago, Ill., assignor to Central Scientific Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 9, 1916. Serial No. 136,102. (Cl. 219—39.)



1. A method of maintaining and delivering a medium at a predetermined temperature comprising subjecting a body of the medium to heat sufficient to raise it to the desired temperature, continuously withdrawing a portion of the medium after causing it to repeatedly circulate vertically through said body, whereby heat is withdrawn from or given to succeeding strata and continuously adding a fresh supply of the medium to the body thereof.

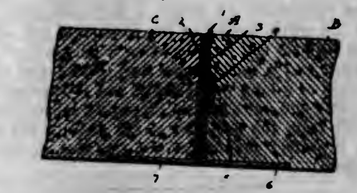
2. In a heat interchanging apparatus, the combination of a container for the medium to be heated, means for applying heat to the latter, means for continuously supplying the medium to said container, and a conductor comprising a plurality of vertically arranged loops immersed in the medium and open at one end within said container to continuously withdraw the medium from said container after subjecting it to the tempering influence of succeeding temperature strata.

7. In a water heater, the combination of a chamber, means for delivering water to said chamber, electric heating means in said chamber, a conductor arranged in a plurality of vertical loops within said chamber and leading therefrom, the open end of said conductor within said chamber being disposed adjacent the top thereof to permit the escape of accumulated air.

11. In a water heater, the combination of primary and secondary chambers, means for delivering water to said primary chamber, electric heating means in said primary chamber, a conductor arranged in a plurality of vertical loops within said chamber and leading to said secondary chamber, the open end of said conductor within said primary chamber being disposed adjacent the top thereof to permit the escape of accumulated air, a thermostat in said secondary chamber for regulating the supply of current to said electric heating means, a shell surrounding said thermostat, a conductor arranged in a plurality of vertical loops within said secondary chamber for delivering water from said secondary chamber to the interior of said shell, the open end of said conductor within said secondary chamber being disposed adjacent the top thereof to permit the escape of accumulated air, and a conductor leading from the top of said shell to deliver water therefrom.

[Claims 3 to 6 and 8 to 10 not printed in the Gazette.]

1,239,573. EXPANSION-JOINT FOR CONCRETE CONSTRUCTIONS. JOHN A. DE MOND, Richmond, Cal. Filed June 2, 1916. Serial No. 101,806. (Cl. 94—1.)



1. An expansion joint for concrete construction consisting of a pair of compressible sheets, one of the sheets having a bulged portion therein, and a filler within the bulged portion and formed of asphaltum and rock salt.

2. An expansion joint for concrete construction consisting of a pair of compressible sheets, one of the sheets having a bulged portion therein, and a filler within the bulged portion.

3. An expansion joint for concrete construction consisting of companion sheets of flexible material, a filler interposed between the sheets, and a binding element extending around the adjacent edges of the sheets to secure the sheets together and prevent the escape of the filler from between the sheets.

1,239,574. DRAIN-VALVE. ROBERT O. DOHM, Dane, Wis. Filed Jan. 12, 1917. Serial No. 142,031. (Cl. 103—60.)

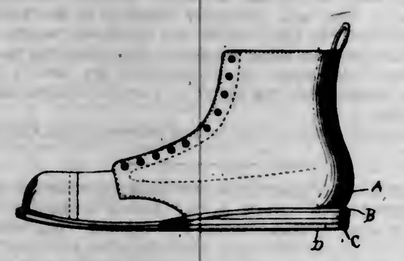


1. In a device of the class described, a body having right-angled passages with a seat externally of one of the

passages and a seat internally of the other passage, said body adapted to be secured to a conduit with the external seat adapted to engage an opening in the conduit, a projection on said body and having a laterally opening recess communicating directly with the passage having the internal seat and rendering the seat accessible, and a valve device operating through the projection and engageable with the internal seat.

2. In a device of the class described, a body having passages with seats at their ends, said body adapted to be secured to a conduit with one of said seats adapted to engage an opening in the conduit, a projection on said body and having a laterally opening recess communicating with the other seat and rendering the same accessible, and a valve device operating through a projection and engageable with the last-mentioned seat.

1,239,575. ARCH-SUPPORTING SHOE. NORMAN SCOTT DONNELLY, Detroit, Mich. Filed May 10, 1916. Serial No. 96,634. (Cl. 36—27.)



A shoe comprising an upper, a welt sole and out sole running the entire length of the shoe, said out sole being flat from its heel end to a location in advance of the ball of the foot, and a combination heel, shank and arch support formed of a long wedge-shape and interposed between the welt sole and out sole and extending substantially half the length from the heel end of the shoe to the toe, and forming a perfect foundation for the foot of the wearer of the shoe.

1,239,576. ANIMAL ANESTHETIC APPARATUS. GEORGE M. DORMAN, St. Joseph, Mo. Filed Feb. 16, 1917. Serial No. 149,001. (Cl. 128—13.)



The combination in an animal anesthetic apparatus, of a mask in the form of the frustum of a pyramid, a rubber curtain fastened on all sides of one end of said mask and having a central opening, an elastic band around the central opening, an expiration valve on one side of said mask, an inspiration tube on another side of said mask, three graduated glass containers to contain volatile liquids, and lids thereon, tubes passing through said lids down into the liquids, having perforations therein below the liquid line, a horizontal tube, three connecting tubes each having a straight air cut-off valve, a spring check valve in said horizontal tube, an indicator and stem for each of said cut-off valves, and a non-collapsible rubber tube forming connection between said mask and said horizontal tube.

1,239,577. SAFETY-RAZOR. FARNUM F. DORSEY, Winchester, Mass. Filed Aug. 7, 1916. Serial No. 113,442. (Cl. 30—12.)

1. A razor having, in combination, a stock including a grasping-portion or handle, and an upper portion rigidly connected with the handle; a blade; pivotal connections, directly between the blade and said upper portion of the stock, upon which the blade may be turned about an axis transverse to its length; a guard; and movable connections, between the guard and the stock, upon which the guard may move toward and from the blade, from an upper shaving position to a lower stropping position.



2. A razor having, in combination, a stock including a grasping-portion or handle, and an upper portion rigidly connected with the handle; a blade; pivotal connections, directly between the blade and said upper portion of the stock, upon which the blade may be turned about an axis transverse to its length; a guard; movable connections, between the guard and the stock, upon which the guard may move toward and from the blade, from an upper, shaving position to a lower stropping position; and a spring tending to move the guard toward the blade.

3. A razor having, in combination, a stock including a grasping-portion or handle, and an upper portion rigidly connected with the handle; a blade; pivotal connections, directly between the blade and said upper portion of the stock, upon which the blade may be turned about an axis transverse to its length; a guard; sliding connections, between the guard and the stock, upon which the guard may move, toward and from the blade, in a direction longitudinal with respect to the stock; and means for normally retaining the guard against such movement when in engagement with the blade.

4. A razor having, in combination, a stock including a grasping-portion or handle, and an upper portion rigidly connected with the handle; a blade; pivotal connections, directly between the blade and said upper portion of the stock, upon which the blade may be turned about an axis transverse to its length; a guard; and movable connections, between the guard and the stock, upon which the guard may move toward and from the blade, from an upper shaving position to a lower stropping position.

5. A razor having, in combination, a hollow handle; an arm extending upwardly, but rearwardly offset, from the handle; a blade-holder pivoted, at the middle of its length, to the upper end of said arm so as to swing about an axis transverse to the length of the blade-holder; a stem slidable in the handle; means carried by the stem, for engaging and holding an end of the blade-holder when it is in stropping position; and a guard movable toward and from the blade-holder and connected to operate with said stem.

[Claims 6 to 13 not printed in the Gazette.]

1,239,578. SAFETY-POCKET FOR GARMENTS. SIMON DUBINSKY, Bonne Terre, Mo., assignor of one-half to Max Broida, St. Louis, Mo. Filed Apr. 12, 1917. Serial No. 161,516. (Cl. 2—15.)

1. A garment having a pocket opening, pocket walls depending from said opening, one of which walls is provided at its upper end with a flap which extends outwardly through and downwardly from the pocket opening, a third pocket wall arranged parallel with the first mentioned pocket walls and secured at its lower portion to one of the latter, and the upper end of said third pocket wall being folded downward over the upper edge of one of the first mentioned pocket walls to form a flap which is



arranged beneath and oppositely disposed relative to the first mentioned flap.

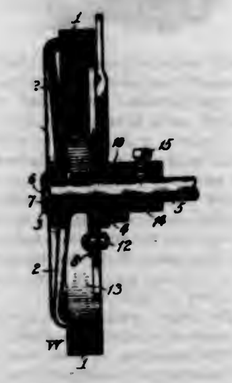
[Claim 2 not printed in the Gazette.]

1,239,579. WHITE CEMENT. WILLIAM C. EWING, Los Angeles, Cal. Filed June 29, 1916. Serial No. 106,627. (Cl. 106—25.)

1. The herein described composition of matter consisting of commercial Portland cement, and silica and calcium hydrate mixed in equal proportion, the proportion of the silica and calcium hydrate to the cement being approximately as 1 to 10.

2. The herein described composition of matter consisting of an equal proportion of diatomaceous earth and calcium hydrate mixed together in a dry state, and commercial Portland cement, the proportion of the diatomaceous earth and calcium hydrate mixture to the cement being approximately as one to ten.

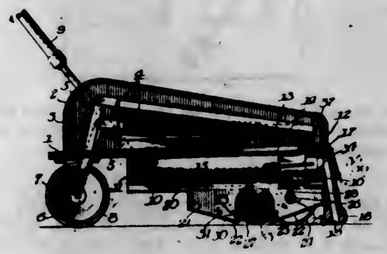
1,239,580. WHEEL. FRANK T. FARMER, Chicago, Ill., assignor to The Whitman & Barnes Manufacturing Company, Akron, Ohio. Filed Apr. 18, 1911, Serial No. 621,924. Renewed July 16, 1917. Serial No. 180,941. (Cl. 21—30.)



1. In apparatus of the class described, a support, a shaft mounted therein, a hub having a bore therein for receiving the end of the shaft said hub tapering beyond the shaft to form a thrust bearing for the same and having an aperture at the extremity of its tapered portion, a flange on said hub and a fork secured to said support and engaging said flange to retain said hub on said shaft.

2. In apparatus of the class described, a support, a shaft thereon, a wheel having a hub revolubly mounted on said shaft, said hub projecting beyond the end of said shaft to form an outwardly converging chamber provided with an aperture whereby is afforded a receptacle for a lubricant and also a thrust bearing for the end of the shaft, said hub being provided with a flange, retaining means secured to said support and engaging said flange.

1,239,581. CLEANING DEVICE. LEONARD L. FERGUSON, Chicago, Ill., assignor, by mesne assignments, to Duntley Pneumatic Sweeper Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 10, 1913. Serial No. 741,144. (Cl. 15—60.)



1. In combination with a vacuum cleaning machine having a dust box, a dust inlet nozzle, vacuum creating means and a supporting wheel, of a carpet sweeper having a dust chamber, a brush and brush driving wheels, and means for detachably connecting the carpet sweeper as a unit and for withdrawing it from below the dust box of the vacuum cleaning machine, the sweeper being located between the inlet nozzle and the supporting wheel.

2. In combination with a vacuum cleaner having a body portion provided with vacuum creating means and a dust box, a supporting wheel and a dust inlet nozzle, the nozzle being supported at one end of the body and the wheel at the opposite end thereof, of a sweeper comprising a casing, supporting wheels, a brush and dirt collecting chamber, said nozzle and said sweeper being removable, the body having means for detachably engaging the nozzle and attaching means to engage the sweeper casing.

3. In a vacuum cleaner, the combination with a suction creating device and a detachable inlet nozzle therefor, of a carpet sweeper secured to said nozzle and having a brush adapted to engage the surface to be cleaned, and attaching means to engage the sweeper and the nozzle to maintain them in operative position and permitting the sweeper and nozzle to be detached as a unit from the suction creating device.

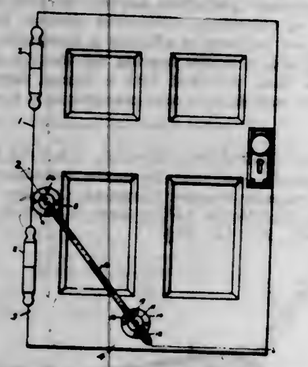
4. In combination, a vacuum cleaner, a carpet sweeper comprising a dust chamber, a brush and brush-driving wheels mounted on the chamber, said chamber being arranged below and connected to the body of the vacuum cleaner, and means whereby the said carpet sweeper may be readily detached as a unit and withdrawn from below the body of the vacuum cleaner.

1,239,582. DOOR-BRACING DEVICE. CHRISTIAN G. FILZER, Erie, Pa. Filed Dec. 30, 1914. Serial No. 879,638. (Cl. 20—38.)

1. In a door bracing device, the combination of a door; two pairs of anchor pieces arranged on opposite sides of the door; screw threaded studs connecting the anchor pieces at opposite sides of the door and forming clamps of the anchor pieces between which the door is clamped; and rods connecting said anchor pieces.

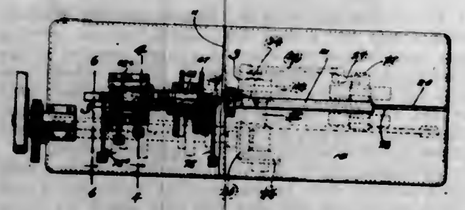
2. In a door bracing device, the combination of a door; two pairs of anchor pieces arranged on opposite sides of the door; screw threaded studs connecting said anchor pieces to the door and forming means for clamping the

door between the anchor pieces; a rod secured to the first anchor piece of each pair, said rod being screw threaded and extending through the second anchor piece of the



pair; a cap nut extending from the end of the rod against the anchor piece; and a second nut at the opposite side of said second anchor piece.

1,239,582. CABLE-RING-FORMING MACHINE. JOHN W. FORD, St. Louis, Mo., assignor to William R. Gilbert, St. Louis, Mo. Filed Sept. 27, 1916. Serial No. 122,465. (Cl. 140—71.)



1. In a machine of the class described, a pair of forming heads each comprising a pair of revoluble members, a wire engaging member carried by and movable radially with respect to one of said revoluble members, and a cooperating forming member rigidly fixed to the other revoluble member.

5. In a machine of the class described, a pair of forming heads each comprising a pair of revoluble members, a wire engaging member carried by and movable radially with respect to one of said revoluble members, a cooperating forming member rigidly fixed to the other revoluble member, and means for simultaneously moving the revoluble members in opposite directions.

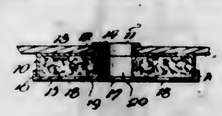
12. In a machine of the class described, a pair of forming heads one of which is movable toward and away from the other, means for feeding a section of wire into position adjacent to said heads, means on said heads for engaging the central portion of the section of wire and bending the end portions of said wire partially around said heads, and means for engaging the ends of the section of wire and bending the same to form oppositely disposed hooks.

16. In a machine of the class described, a pair of forming heads, each of which includes a pair of members revoluble in opposite directions, and wire engaging means carried by each member.

[Claims 2 to 4, 6 to 11, 13 to 15, and 17 to 20 not printed in the Gazette.]

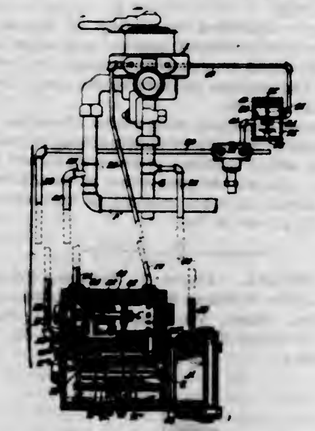
1,239,584. DISINFECTING AND VENTILATING DEVICE. FELIX FRANK, Berkeley, Cal. Filed Jan. 4, 1916. Serial No. 70,294. (Cl. 167—8.)

1. A disinfectant holder comprising a body member having exterior threads and provided with a central opening surrounded by an annular collar terminating in a laterally extending attaching flange, a perforated closure engaging the threads on the body member and provided with an opening registering with the central opening in the body member, and a disinfectant element fitting within the body member and having a central opening therethrough the walls of which are alined with the walls of the openings in said body member and closure.



2. The combination with a supporting cup having an opening in the bottom thereof, of a disinfectant holder including a body member having a central opening surrounded by a collar extending through the opening in the bottom of the cup and provided with a laterally extending flange bearing against the lower surface of the bottom of said cup, a perforated closure detachably secured to the body member and provided with a central opening registering with the opening in the body member, and a disinfectant element fitting within the body member and provided with an opening registering with the openings in said body member and closure.

1,239,585. ENGINEER'S BRAKE-VALVE. JOSEPH P. GAULT, Louisville, Ky., assignor of one-third to William Phillips and one-third to Ben L. Bruner, Louisville, Ky. Filed May 6, 1910. Serial No. 559,755. (Cl. 188—7.)



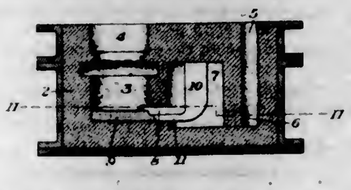
1. In an air brake system, the combination with the train line, main drum and brake-cylinder pressure conduits, of a fluid pressure controlled valve for controlling the flow of main drum pressure to the brake-cylinder pressure conduit, a chamber to receive a fluid pressure to actuate said valve, a passage-way for the supply of train line pressure to said chamber, a pressure regulated valve for controlling the pressure-supply through said passage-way, said valve having an exhaust cavity to communicate with an exhaust port, and an exhaust conduit connected at one point with the brake-cylinder pressure conduit and at another point in port communication with the exhaust cavity of said valve.

2. In an air brake system, the combination with the main drum pressure conduit, the brake cylinder pressure conduit and the train line, of a valve casing containing a supply valve controlling communication between the main drum pressure conduit and the brake cylinder pressure conduit, a chamber to receive fluid pressure to actuate said valve, a single engineer's automatic brake valve controlling the train line pressure, a pipe directly connecting the said chamber with the automatic brake valve, the latter having controllable ports for directing main drum pressure through such pipe into said chamber and for exhausting

the pressure of the chamber through the said pipe, means actuated by variations in the train line pressure for admitting pressure to the said chamber to operate the supply valve, and a separate exhaust valve controlled by the engineer's brake valve for releasing pressure from the brake cylinder.

3. In an air brake system, the combination with the main drum pressure conduit, the brake cylinder pressure conduit and the train line, of a combination valve comprising a casting having five compartments therein, one of said compartments having connection with said train line, a piston in said compartment, a slide valve in the second compartment having connection with said piston to be actuated thereby, a single engineer's automatic brake valve connected directly to said main drum pressure conduit and with the third chamber in said combination valve, said casting having a passage leading from the third chamber to said second chamber and being controllable by said slide valve, a diaphragm between the said third chamber, and the fourth chamber in said casting, the fifth chamber in said casting having communication with the main drum pressure conduit and with the brake cylinder pressure conduit, the latter conduit also having communication with said fourth chamber to control the diaphragm, a regulating valve in said fifth chamber controlling communication between said main drum pressure conduit and said brake cylinder pressure conduit, said engineer's automatic brake valve being adapted to be actuated to directly admit main drum pressure into said third chamber against the diaphragm to open said supply valve and establish a direct communication between said main drum pressure conduit and said brake cylinder pressure conduit, said first chamber being adapted to receive varying air pressures therein dependent directly upon train line pressure to control the said slide valve whereby to automatically open and close said passage and actuate said diaphragm for automatically actuating said main supply valve.

1,239,586. ART OF HARDENING CASTINGS. JOHN W. GERHARD, Vandergrift, Pa., assignor to United Engineering & Foundry Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Feb. 12, 1915. Serial No. 7,694. (Cl. 22—215.)



1. The method of making a casting having a hardened portion, consisting in casting the metal into a mold having hardening material formed as a part thereof, and feeding an additional supply of the hardening material into the mold; substantially as described.

2. The method of making a casting having a hardened portion, consisting in casting the metal into a mold cavity containing hardening material capable of giving an exothermic reaction while fusing, and feeding additional fused hardening material to the portion of the casting to be hardened as the exothermic reaction proceeds; substantially as described.

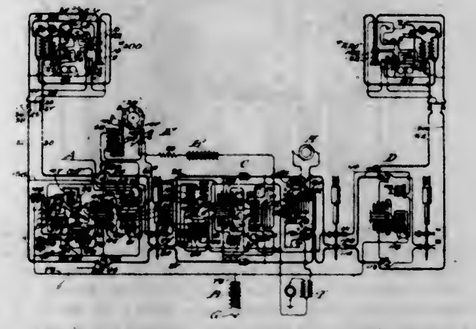
3. The method of making a casting having a hardened portion, consisting in providing a mold having extensions from the shaping cavity thereof, said mold containing a hardening exothermic reactive material within the mold and its extension, and casting the metal thereinto; substantially as described.

4. The method of making a casting having a hardened portion, consisting in providing the mold with a layer of exothermic reactive hardening material extending within and beyond the mold cavity proper, and causing said extension portion of the compound to feed into the mold during the reactive period; substantially as described.

5. The method of making a casting having a hardened portion, consisting in forming a mold cavity with a sinkhead extension open to the atmosphere, providing the mold with exothermic reactive hardening material extending into the sinkhead portion, and casting steel thereinto in contact with the hardening material in the mold cavity; substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

1,239,587. MEASURED-SERVICE TELEPHONE SYSTEM. ROY C. GIFFORD, Chicago, Ill., assignor, by mesne assignments, to Automatic Electric Company, a Corporation of Illinois. Filed Nov. 14, 1906, Serial No. 343,396. Renewed July 10, 1916. Serial No. 108,450. (Cl. 179—9.)



1. In a telephone exchange system, the combination of means for automatically trunking one line into connection with another, responsive to the calling subscriber, and call-registering devices comprising ratchet mechanism controlled first by the called subscribers and then by the calling subscribers.

2. In a telephone exchange system, the combination of means for automatically trunking one line into connection with another, responsive to the calling subscriber, and call-registering devices comprising ratchet mechanism located at the exchange or central station, controlled by the called subscribers.

3. A call-registering device, means by which the called subscriber partially actuates said device in answering, and means by which the calling subscriber then completes the operation thereof when he hangs up his telephone.

4. A call-registering device, means by which the called subscriber partially actuates said device in answering, means by which the calling subscriber then completes the operation thereof, and automatic means for trunking one line into connection with another.

5. A call-registering device, means by which the called subscriber partially actuates said device in answering, means by which the calling subscriber then completes the operation thereof when he hangs up his telephone, and automatic means for trunking one line into connection with another.

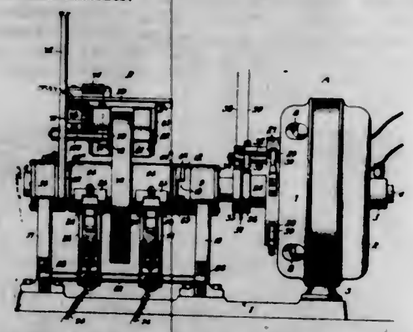
[Claims 6 to 39 not printed in the Gazette.]

1,239,588. RECTIFIER FOR ALTERNATING ELECTRIC CURRENTS. CLARK GILBERT, Bridgeport, Ohio, and EDWIN J. ORNOLD, Wheeling, W. Va., assignors of one-third to Randolph Stalnaker, Wheeling W. Va. Filed Jan. 14, 1916. Serial No. 72,096. (Cl. 175—364.)

1. A rectifier for alternating electric currents comprising a series wound synchronous motor, a rotatable series of contact segments connected to the motor for actuation thereby, dead segments interposed between and separating the first-named segments, and contact brushes on the alternating current side in position to engage the segments with the brushes contacting with the dead segments through the zero portions of the alternating current waves.

2. A rectifying structure for alternating electric currents, comprising a synchronous series wound motor provided with a commutator and with a polarized resistance bridged across the commutator of the motor, and a rotatable rectifier connected to and driven by the motor.

3. A rectifying structure for alternating electric currents, comprising a synchronous self-starting alternating current motor, a polarized resistance, and means for bridging it across the commutator of the motor, a rotatable rectifier, and lost motion connections between the motor and rectifier.



4. A rectifying system for alternating electric currents comprising an alternating current self-starting synchronous motor, a rotatable rectifier for the alternating currents connected to the motor for actuation thereby, and a shunt wound direct current motor with a fly wheel on its armature shaft, said motor being bridged across the direct current leads.

5. An alternating current motor having a stator and rotor each provided with the same number of coils and poles with the coils connected in series, a cross connected commutator for the rotor having the same number of segments as rotor coils, cross connected brushes for the commutator with the stator and rotor coils connected in series through the commutator and brushes, and a polarized resistance provided with connections and a switch for branching said resistance across the cross connected commutator segments.

[Claims 6 to 9 not printed in the Gazette.]

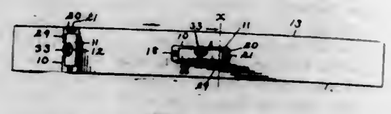
1,239,589. TOBACCO-PIPE. ROBERT WESLEY GRAVES, Elizabeth, N. J. Filed June 21, 1916. Serial No. 104,951. (Cl. 131—12.)



A pipe having a stem, a mouthpiece held removably on the outer end of the stem, a tube of absorbent material removably inserted in the said mouthpiece and projecting beyond the inner end thereof a short distance into the stem, a wick within the stem and extending at one end alongside the projecting portion of the said tube, and a hook held on the said mouthpiece and detachably engaging the said wick at a point in front of the said tube.

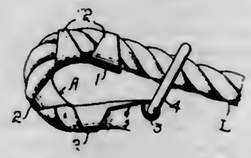
1,239,590. LEVEL. JAMES ELLIOTT GRIFFIN, New Britain, Conn. Filed Aug. 21, 1916. Serial No. 116,041. (Cl. 33—214.)

1. A level indicator structure suitable for being operatively mounted on the side face of a level stock, for making a complete level, comprising a housing for inclosing a spirit indicator having means for receiving holding screws and which permit of limited movement of the said structure pivotally for purposes of adjustment, and adjusting devices for effecting such movement of the said structure comprising a fixed part and movable parts cooperating therewith, a stud on the said stock serving as the said fixed part, and the said movable parts being in the form of screws, operatively supported by opposed walls of the said structure and adapted to engage by their ends with the said stud.



2. A level indicator structure suitable for being mounted on the side face of a level stock for making a level, comprising a housing for inclosing a spirit indicator, the said housing having a sight opening for exposing the said indicator in the top wall and an extension of the said opening in the upper portion of the side wall, and the said housing being a unitary structure and having a bar that serves as a guard for the said indicator extending across the said opening.

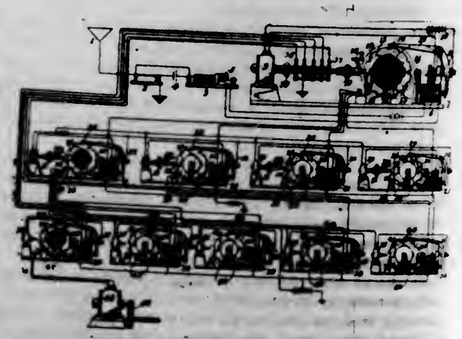
1,239,591. HALTER-LEAD. JOSEPH W. HALL, Virginia, Ill. Filed May 7, 1917. Serial No. 167,002. (Cl. 54—34.)



1. In combination with a lead, a strip of material coacting with an end portion of the lead, and arranged in the form of a hook, said strip being provided with oppositely directed wings embracing the adjacent portion of the lead for securing the strip to the lead, the free end portion of the strip being returned to afford a barrel, and a locking ring operatively engaged with said barrel.

2. In combination with a lead, a strip of material coacting with an end portion of the lead and arranged in the form of a hook, said strip being provided with oppositely directed wings embracing the adjacent portion of the lead for securing the strip to the lead, the free end portion of the strip being returned to afford a barrel, and a locking ring operatively engaged with said barrel, the end portion of the strip provided with the barrel extending beyond the opposite end portion of the strip.

1,239,592. SYSTEM OF MULTIPLE CONTROL. JOHN HAYS HAMMOND, Jr., Gloucester, Mass. Filed Dec. 30, 1909. Serial No. 535,626. Renewed May 28, 1913. Serial No. 770,523. (Cl. 250—2.)



1. A system of multiple control comprising a main controller, a plurality of subsidiary controllers in local circuits, a switch in each of said local circuits, means to operate said switches intermittently to close said local circuits, said subsidiary controllers having individual means operatively connected therewith for permitting a predetermined movement and limiting said movement.

2. A system of multiple control comprising a main motor and controller in a main circuit, means for closing said circuit by wireless impulse, means permitting a predetermined limited movement of said main controller, a plurality of secondary motors and controllers in separate local circuits with the main controller and a switch in said local circuits adapted to be opened and closed by said motor, said secondary controllers including means permitting a predetermined movement of each of said secondary controllers and limiting the movement thereof, a plurality of tertiary controllers in separate local circuits with each secondary controller and a switch in said local circuits adapted to be opened and closed by said secondary motor, said tertiary controllers including means permitting a predetermined limited movement of each of said tertiary controllers, and an operating mechanism in a local circuit opened and closed by said tertiary controller.

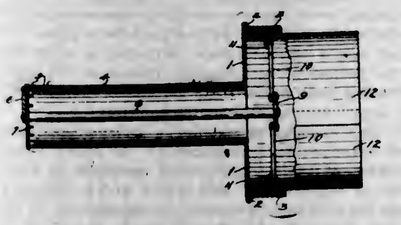
3. A system of multiple control comprising a main motor and a controller, a plurality of secondary controllers each in a local circuit, a plurality of tertiary controllers each in a separate local circuit, a switch in each of said tertiary circuits adapted to be opened and closed by one of the subsidiary controllers, said main motor being adapted to be energized by wireless impulses, a switch in each of said secondary local circuits adapted to be opened and closed by said motor, and a separate switch in each of said tertiary circuits adapted to be operated by said motor.

4. A system of multiple control comprising a main controller, a motor for operating said controller adapted to be energized by wireless impulses, a secondary motor and controller in a local circuit, a switch in said local circuit governed by the main motor, a tertiary controller in a local circuit, a switch in said local circuit governed by the secondary motor, a separate switch in said local circuit, and independent means for governing said switch independently of the main or secondary controllers.

5. A system of multiple control comprising a main controller and motor for rotating the same, a secondary controller in circuit with the main controller, a tertiary controller in circuit with the secondary controller, and a switch in circuit of said tertiary controller controlled by said main motor.

[Claims 6 to 9 not printed in the Gazette.]

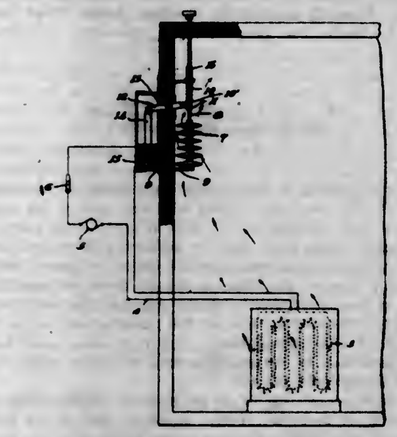
1,239,593. CULINARY UTENSIL. JOAKIME C. HANSEN, Grand Marais, Minn. Filed Oct. 8, 1915. Serial No. 54,821. (Cl. 107—50.)



1. In a culinary utensil, a head, a hollow handle carried thereby and formed with a notched end, a rotary shaft extending longitudinally through said handle and into said head, a second head carried by said shaft and disposed in the notched end of said handle, a latch carried by said second head for engagement with the notched end of said handle, a crosshead carried by said rotary shaft within the first named head, and a flexible blade within said first named head having one end secured thereto and its body portion secured to and movable with said crosshead.

2. In a culinary utensil, head, a hollow handle carried thereby, a rotary shaft extending through said handle and into said head, a crosshead carried by said rotary shaft within said head, a flexible blade within said head having one end secured thereto and its body portion secured to and movable with said crosshead, and means releasably connecting said rotary shaft and hollow handle whereby they may be locked in adjusted relation.

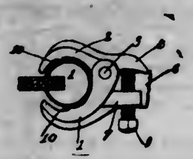
1,239,594. HEAT-REGULATOR. LEE H. HARLOW, Galesburg, Ill., assignor to Minneapolis Heat Regulator Company, Minneapolis, Minn., a Corporation. Filed Dec. 20, 1916. Serial No. 138,135. (Cl. 219—20.)



1. A heating system comprising a heating element, an alternating electric circuit therefor, a reactance coil in said circuit, and a thermostatic device connected with said coil for varying the voltage therethrough and thereby regulating the heat thrown off by said element proportionately to the temperature of the space where said thermostatic device is located.

2. The combination, with a resistance coil and an alternating electric circuit connected therewith, of a reactance coil in said circuit, an armature therefor, a thermostatic device having means for expansion or contraction with the varying temperature, means connecting said thermostatic device with said armature for varying the voltage in said reactance coil and said resistance coil proportionately to the variation in temperature of the place where said thermostatic device is located.

1,239,595. CLAMP. ELLSWORTH A. HAWTHORNE, Bridgeport, Conn. Filed Dec. 1, 1916. Serial No. 134,250. (Cl. 24—250.)



1. A clamp adapted for use upon supports of varying cross sections, comprising a fixed jaw and a pair of movable jaws, said jaws concaved and each having a bearing rib on its internal face, and each having a portion extending beyond said concavity, and adjustments acting directly against said extensions of the movable jaws for independently closing said jaws.

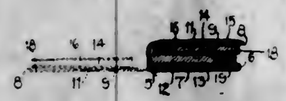
5. A clamp adapted for use upon supports of varying cross-section, comprising a fixed jaw having a rearwardly extending arm, a pair of independently adjustable jaws operatively connected with said fixed jaw, a bearing rib

on the internal face of each jaw, and means for independently adjusting said pair of adjustable jaws.

7. A clamp adapted for use upon supports of varying cross sections, comprising a fixed jaw and a pair of relatively movable concaved jaws operatively connected with said fixed jaw, each of said movable jaws having two bearing surfaces on its internal face and each having an intermediate bearing point arranged below the plane of said bearing surfaces, and said bearing points unequally dividing the concavity defined by said jaws, and adjustments for independently closing said movable jaws.

[Claims 2 to 4 and 6 not printed in the Gazette.]

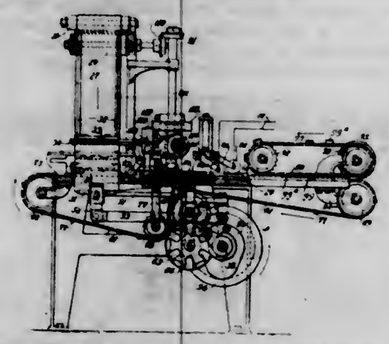
1,239,596. CASE FOR CHECK AND MEMORANDUM PADS. EARL T. HAZELETT, Phoenix, Ariz. Filed Dec. 9, 1916. Serial No. 136,046. (Cl. 150—39.)



1. A case having a body wall consisting of a single piece of flexible material folded adjacent one of its ends upon itself and stitched at the ends of said folded portion to the edges of the body wall to provide a pocket on one face of said wall, the open side of which is spaced from the central line of the case, a second piece of material stitched at its opposite ends to the edges of the body wall and also stitched along one of its longitudinal edges to said wall at the approximate center of the case, said piece of material, in conjunction with the body wall, constituting a separate pocket.

2. A case consisting of a body wall formed from a single piece of material folded adjacent one of its ends upon itself, said folded portion being stitched at its ends to the edges of the body wall to form a pocket, a second sheet of material secured along one of its longitudinal edges and its end edges to the body wall to provide a second pocket in conjunction with said body wall, the other end of said body wall being folded upon itself in spaced relation to the open side of the latter pocket to reinforce the edge of the pocket.

1,239,597. WRAPPING-MACHINE. AUGUSTUS HECK, Springfield, Mass. Filed Feb. 21, 1916. Serial No. 79,731. (Cl. 93—2.)



1. In a wrapping machine, pluralized means for folding a wrapper around the body of a stem-provided piece, and in widely encircling relation about the portion of the stem adjacent such body, and means for forming opposite inwardly extending bellows-like folds to the stem encircling portion of the wrapper.

2. In a wrapping machine, pluralized means for folding a wrapper around the body of a stem-provided piece and in widely encircling relation about the portion of the stem adjacent such body, and for folding an end portion of the wrapper around the forward end of and onto the side of the piece, and means for forming inwardly extending bellows-like folds to the shank encircling portion of the wrapper.

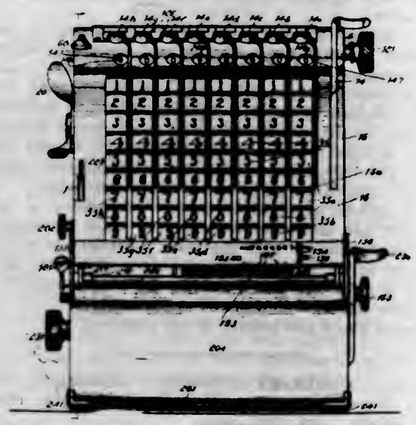
3. In a wrapping machine, pluralized means for folding a wrapper around the body of a stem-provided piece and in widely encircling relation about the portion of the stem adjacent such body, means for forming inwardly extending bellows-like folds to the shank encircling portion of the wrapper, and means for compressing the bellows-like folds.

4. In a wrapping machine, pluralized means for folding a wrapper around the body of a stem-provided piece and in widely encircling relation about the portion of the stem adjacent such body, means for forming inwardly extending bellows-like folds to the shank encircling portion of the wrapper, and means for both compressing and heating the bellows-like folds.

5. In a wrapping machine, pluralized means for folding a wrapper around the body of a stem-provided piece and in widely encircling relation about the portion of the stem adjacent such body, means for forming inwardly extending bellows-like folds to the shank encircling portion of the wrapper, means for both compressing and heating the bellows-like folds, and further means for confining the said parts of the wrapper folds in adherent relations subsequent to the heating thereof.

[Claims 6 to 21 not printed in the Gazette.]

1,239,598. CALCULATING-MACHINE. FREDERICK O. HEUSER, Chicago, Ill. Filed Nov. 4, 1912. Serial No. 729,485. (Cl. 235—59.)



1. In combination with a calculating machine totalizer-actuating-lever, and a series of spaced movable finger holds within the span of the operator's thumb and index finger and a separate stop controlled by each finger hold in its movement and thereby placed in the path of the actuating lever to limit the movement thereof and control the degree of actuation of the totalizer.

2. In a calculating machine, a series of actuating levers each arranged to be engaged by the index finger of the operator, a totalizer differently operated by different degrees of actuation of said levers and a plurality of key stops for each lever arranged for engagement by the thumb of the operator and adapted to be moved to limit the movement of said levers when the operator's index finger and thumb are pressed toward one another.

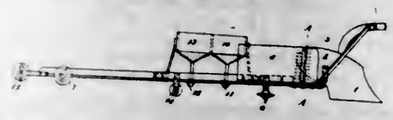
3. In a calculating machine, totalising mechanism comprising wheels for each order, a gear sector adapted to drive each of said numeral wheels, a finger operable lever controlling said gear sector, and a plurality of thumb operable key-stops for each gear sector corresponding to the digits of the numeral wheels, each of said key-stops when actuated being adapted to limit the motion of its gear sector to that required to rotate the associated numeral wheel to the necessary position.

4. In a calculating machine, a totalizing register, a plurality of gear sectors adapted to operate said totalizing register, means to cause the same movement of said gear sectors to operate said totalizing register either in the direction for addition or in the direction for subtraction, a plurality of thumb-key stops for each gear sector, and a plurality of indicating wheels each at all times in driven relation to its associated gear sector adapted to indicate which thumb key stop has been operated whether the totalizer is operated in an additional or a subtractional direction.

5. In a calculating machine, a plurality of concentric wheels, a detent support, individual detents for said wheels carried by the detent support, yielding means tending to move said support toward the wheels, and relatively weak yielding means acting between said frame and said individual detents.

[Claims 6 to 33 not printed in the Gazette.]

1,239,599. METHOD OF PREPARING SEED-BEDS. THOMAS W. HICKS, Minneapolis, Minn., assignor to Scientific Farming Machinery Company, Minneapolis, Minn., a Common Law Company. Filed Aug. 21, 1916. Serial No. 116,147. (Cl. 97—71.)



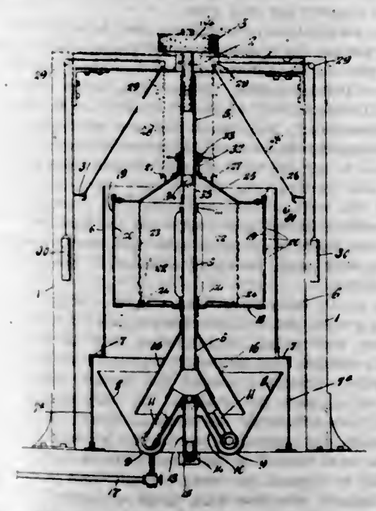
1. The method for preparing seed beds, comprising the lifting of a portion of the soil, puncturing or scoring the subsoil, and returning the soil lifted onto the punctured subsoil in a pulverized condition.

2. The method of preparing seed beds, comprising the lifting and pulverizing of a portion of the soil, puncturing or scoring the sub-soil and returning the pulverized soil onto the punctured subsoil with the smaller granules on the subsoil and the size of granules increasing toward the top of the seed bed.

3. The method of preparing seed beds comprising the lifting and pulverizing of a portion of the soil and returning the pulverized sub-soil to the seed bed with a strata of small size granules next to the subsoil, and strata of larger size granules placed thereover.

[Claim 4 not printed in the Gazette.]

1,239,600. WASHING-MACHINE. JULIUS C. HINTZ, Dayton, Ohio. Filed Feb. 24, 1915. Serial No. 10,383. (Cl. 68—18.)

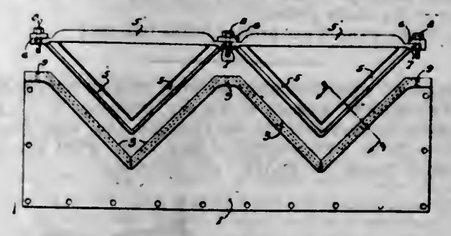


1. In a washing machine, a central hollow shaft, a clothes receptacle on said shaft, a main receptacle around said clothes receptacle, means for rotating said shaft to cause said clothes receptacle to rotate, and scoops on the end of the shaft to raise water therein from the base of the main receptacle, said shaft having an aperture above the clothes receptacle to permit the water to fall into the clothes receptacle, and water dispersing means within the clothes receptacle, for the purpose described.

2. In a washing machine, a central hollow shaft, a clothes receptacle on said shaft, a main receptacle around said clothes receptacle, means for rotating said shaft to cause said clothes receptacle to rotate, and scoops on the end of the shaft to raise water therein from the base of the main receptacle, said main receptacle having a circular trough at the base to receive said scoops and said shaft having outlets to feed water to the clothes receptacle.

3. In a washing machine, a central hollow shaft, a clothes receptacle on said shaft, a water chamber at the center of said receptacle, said chamber having radial vanes, and said shaft having outlets into the water chamber, means for rotating the shaft, to rotate said clothes receptacle, a main receptacle around the clothes receptacle, and scoops on the end of the shaft to raise water therein from the base of the main receptacle.

1,239,601. WEIR-TANK. JOHN J. HOPPES, Springfield, Ohio, assignor to The Hoppes Manufacturing Company, Springfield, Ohio, a Corporation of Ohio. Filed Apr. 16, 1915. Serial No. 21,680. (Cl. 73—167.)



1. In a device of the character described, a weir board, and a notched member having its sides arranged in permanent relation with each other, and removably secured to said board.

2. In a device of the character described, a weir board, the upper edge of said board having a recess, and a notched member having its sides arranged in permanent relation with each other and removably secured in said recess.

3. In a device of the character described, a weir board, the upper edge of said board having a recess, the walls of said recess having a groove, and a notched frame located in said groove and recess.

4. In a device of the character described, a weir board having a V-shaped recess, and a notched frame removably secured in said recess, said frame consisting of sides fitted to said recess and an upper cross-bar connecting the upper ends of said sides.

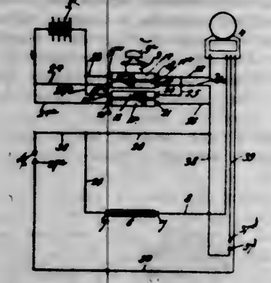
5. In a device of the character described, a weir board, the upper edge of said board having a recess, a notched member removably located in said recess and clamping devices on the upper edge of said board for clamping said member in said recess.

[Claims 6 and 7 not printed in the Gazette.]

1,239,602. ALARM DEVICE FOR MOTOR-VEHICLES. BENJAMIN F. JOHNSTON, Ogden, Utah, assignor of one-half to Winfred E. Mowbray, Ogden, Utah. Filed Dec. 28, 1916. Serial No. 139,335. (Cl. 177—314.)

1. The combination with the steering shaft of a motor vehicle; of an electro-responsive alarm device, a pair of contacts interposed in the circuit of said device, a circuit closing member mounted on the steering shaft to turn therewith, and engageable by the contacts, a lock-controlled switch in the aforesaid circuit, a sectional housing inclosing the alarm device and the aforementioned parts associated therewith, bolts fastening the housing sections together, slidable members seating against the inner ends

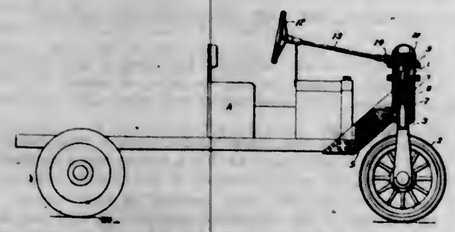
of the bolts and movable with the bolts when the latter are withdrawn, contacts carried by said members, and contacts opposite said contacts, said last mentioned pairs of contacts being also interposed in the circuit of the alarm device.



4. The combination with an electro-responsive alarm device, and means for controlling the same; of a sectional housing inclosing the alarm device and the aforementioned parts associated therewith, bolts fastening the housing sections together, slidable members seating against the inner ends of the bolts and movable with the bolts when the latter are withdrawn, contacts carried by said members, and contacts opposite said contacts, said last-mentioned pairs of contacts being also interposed in the circuit of the alarm device.

[Claims 2 and 3 not printed in the Gazette.]

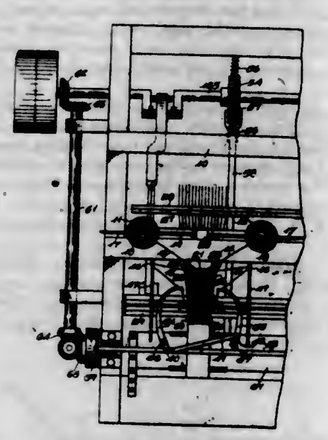
1,239,608. **CUSHION-SPRING FOR THREE-WHEELED TRACTORS.** GEORGE B. KELLEY, Flushing, N. Y., assignor to Transport Tractor Company, Inc., Long Island City, N. Y., a Corporation of New York. Filed Nov. 19, 1915. Serial No. 62,375. (Cl. 21—202.)



1. In an automobile tractor of the class described, the combination comprising a supporting frame provided with a vertical apertured casing adapted to receive a lead-wheel post vertically slidable with respect to said casing, a cushioning, supporting spring interposed between said frame and said post so as to take up the shocks upon said post, a steering mechanism vertically slidable with respect to said post including a worm slidably mounted on said post, a worm pinion held in fixed vertical relation with respect to said worm, and a driving-wheel connected to said pinion so as to positively rotate the pinion when said driving wheel is rotated, but to permit of movement of said driving wheel transversely with respect to the longitudinal axis of said pinion.

2. In an automobile tractor of the class described, the combination comprising a supporting frame provided with a vertical apertured casing adapted to receive a lead-wheel post vertically slidable with respect to said casing, a cushioning, supporting spring interposed between said frame and said post so as to take up the shocks upon said post, a steering mechanism vertically slidable with respect to said post including a worm slidably mounted on said post, a worm pinion held in fixed vertical relation with respect to said worm, a driving-wheel connected by means of a universal joint to said pinion, adapted to positively rotate the same when said driving wheel is rotated.

1,239,604. **NEEDLE-LOOM.** SOLOMON KENDRICK, Revere, Mass., assignor to Everlastik, Incorporated, Boston, Mass., a Corporation of Massachusetts. Filed May 25, 1916. Serial No. 99,781. (Cl. 139—20.)



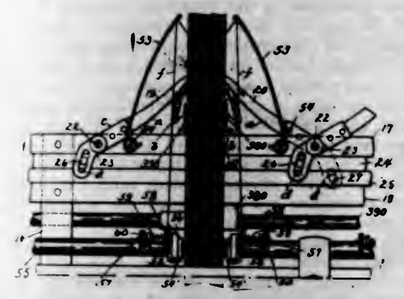
1. A needle loom comprising shed-forming mechanism and a batten, in combination with a stationary support, weft-laying needles respectively pivoted to said support at points outside the selvage warps, mechanism for simultaneously swinging said needles about their respective pivots in opposite directions into and out of the shed to lay the weft threads simultaneously in the shed, pins located adjacent the selvage warps, and mechanism for causing said pins simultaneously and automatically to engage the weft threads and retain them in the shed when said needles are moved out of the shed.

2. A needle loom comprising shed-forming mechanism and a batten, in combination with a stationary support transverse to the warp, curved needles pivoted to the support at points outside the selvage warps and in front of the forward limit of travel of the batten, mechanism for automatically and simultaneously moving said needles in opposite directions about their respective pivots through the shed to lay the weft threads therein, loop-forming upright pins for engaging the weft threads and retaining them in the shed, stationarily-mounted operative mechanism for automatically operating said pins, and guides on said support for said pins.

3. A needle loom comprising shed-forming mechanism and a batten, in combination with a stationary support transverse to the warp, curved needles pivoted to the beam at points outside the selvage warps and in front of the forward limit of travel of the batten, mechanism for automatically and simultaneously moving said needles in opposite directions about their respective pivots through the shed to lay the weft threads therein, loop-forming upright pins located near the selvage warp threads for engaging the weft threads and retaining them in the shed, a rock-shaft below and supported by said breast beam, arms fast thereon carrying said pins, and mechanism for rocking said shaft in timed relation to the operation of the needles.

4. A needle loom comprising a beam or support, a batten having a reed and movable toward and from the beam or support, weft-laying eyed needles each pivoted on said support outside the selvage warps and projecting, when in inactive position, toward the batten, guides on said beam or support for guiding the weft threads to said needles, shed-forming mechanism, means for oscillating said needles in opposite directions to lay both weft threads in each shed formed by the shed-forming mechanism, pins adapted to engage the weft threads, and a shaft below said support provided with arms to support and simultaneously to actuate said pins.

1,239,605. **NEEDLE-LOOM.** SOLOMON KENDRICK, Revere, Mass., assignor to Everlastik, Incorporated, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 4, 1917. Serial No. 140,534. (Cl. 139—20.)

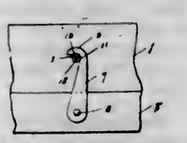


3. A needle loom comprising shed-forming mechanism, a batten, a stationary support, a pair of weft-laying needles pivoted to said support at points outside the selvage edges of the fabric being woven, mechanism for simultaneously operating said needles in opposite directions to lay two wefts in each shed, means for exerting tension on said weft threads and spring take-ups located between said tension-exerting means and said needles to take up slack in said weft threads.

5. A needle loom, comprising shed-forming mechanism, a pair of oppositely movable weft-laying needles, a stationary support therefor, mechanism for actuating said needles simultaneously in opposite directions, a rock-shaft, arms carried thereby, a pair of loop-engaging pins, blocks for said pins pivoted loosely to said arms, guides for said pins attached to said support, and means for rocking said shaft.

[Claims 1, 2, 4, and 6 not printed in the Gazette.]

1,239,606. **DEMOUNTABLE RIM.** HENRY F. KLEIN, St. Anthony, N. D. Filed Nov. 8, 1916. Serial No. 130,141. (Cl. 152—21.)

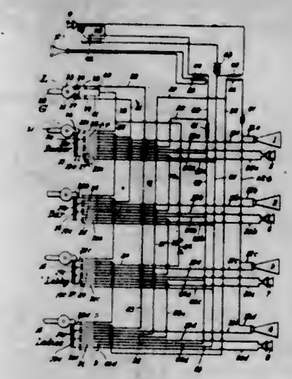


A detachable wheel rim consisting of a pair of sections, hooks carried by one of the sections and having bills provided with recesses on their inner sides, and studs rotatably mounted on the other section and adapted to be engaged by the bills of the hooks so as to detachably connect the sections to each other, each of the studs being provided at opposite points with flat and curved faces, for the purpose specified.

1,239,607. **TELEPHONIC PAGING SYSTEM.** NATHAN A. KURMAN, Oakland, Cal., assignor, by mesne assignments, to International Callophone Corporation, New York, N. Y., a Corporation of Delaware. Filed May 9, 1913. Serial No. 766,629. (Cl. 179—70.)

1. In a telephonic paging system in combination, a central station comprising a telephonic transmitter and receiver, a plurality of announcing stations comprising loud speaking receivers and sensitive transmitters, said receivers being normally in parallel with each other and said transmitters being normally in series with each other, means whereby telephonic communication is established between said central station and said announcing stations, and means situated at said central station whereby communication may be interrupted with all of said announcing stations except the one or more desired.

2. In a telephonic paging system in combination, a central station comprising a telephonic transmitter and receiver, a plurality of announcing stations each comprising loud speaking receivers and sensitive transmitters, said receivers being in parallel with each other and said transmitters being normally in series with each other, means for establishing simultaneous telephonic communication between said central station and said announcing stations, means situated at said central station whereby communication may be interrupted between it and certain selected announcing stations without disturbing the connections of the remaining announcing stations, and means situated at said central station whereby communication may be established with a certain selected announcing station and communication with the remaining announcing stations simultaneously interrupted.



3. In a telephonic paging system in combination, a central station comprising a telephonic transmitter and receiver, a plurality of announcing stations each comprising loud speaking receivers and sensitive transmitters, said receivers being in parallel with each other and said transmitters being normally in series with each other, means for establishing simultaneous telephonic communication between said central station and said announcing stations, means situated at said central station whereby communication may be interrupted between it and certain selected announcing stations without disturbing the connections of the remaining announcing stations, and means situated at said central station whereby communication may be established with a certain selected announcing station and communication with the remaining announcing stations simultaneously interrupted.

4. In a telephonic paging system in combination, a central station comprising telephonic transmitting and receiving apparatus, a plurality of announcing stations each comprising a loud speaking receiver and a sensitive transmitter, said receivers being connected in parallel with each other and said transmitters being connected in series with each other, means for establishing simultaneous telephonic communication between said central station and said announcing stations comprising a wire to which one side of said receivers is connected, and switches, one for each announcing station having four springs two of which are connected to opposite sides of the transmitter the third one of which is connected to one side of the receivers and the remaining one of which is connected in series with the like springs in the other switches and with the receivers, whereby said receiver circuit may be interrupted at any of said switches, said switches being provided with means for reëstablishing the circuit of the receiver and transmitter of the station to which it corresponds.

5. In a telephonic paging system, a central station equipped with a transmitter and receiver thereat, combined with a plurality of distant stations each having a sensitive transmitter and a loud-talking receiver thereat, telephonic connections from said central station to each of said distant stations comprising two looped talking circuits in permanently closed connection respectively with the transmitter and receiver instruments at each of the distant stations one of said circuits from the cen-

tral transmitter to the distant receiver and return and one from the central receiver to the distant transmitter and return, a source of electric energy for said circuits, and means located wholly at said central station for controlling the circuits between said source of electric energy and said central station and said distant stations whereby said talking circuits with any distant station may be maintained in or thrown out of operative connection solely under the control of the operator at said central station.

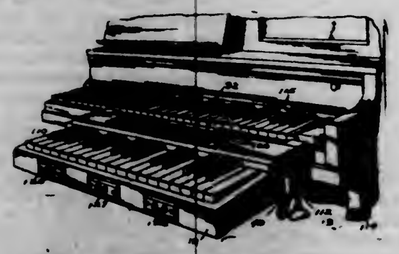
[Claims 6 to 11 not printed in the Gazette.]

1,239,608. CEMENT-FINISHING TOOL. RICHARD R. LAMB, Arrowsmith, Ill. Filed July 21, 1916. Serial No. 110,574. (Cl. 74—19.)



In a cement-finishing tool, the combination with a tool having a flat upper surface and a socket centrally positioned thereon, of a stem having its lower end received in said socket and equipped at its upper end with a spherical head, a cylindrical handle, a pair of semi-cylindrical clamping members embracing opposite sides of said handle adjacent its lower end, said clamping members having their laterally curved edges extending in spaced parallelism and having their lower ends extending beyond the lower end of said handle, the said lower ends of the clamping members being thickened and provided on their inner faces with opposed concaved recesses adapted to be oppositely engaged with said spherical head, a fastening bolt passing through said handle and the upper ends of said clamping members, and an adjusting bolt passing through the lower ends of said clamping members and engaged with the lower end of said handle.

1,239,609. ELECTRIC CONTROL APPARATUS FOR MUSICAL INSTRUMENTS. FREDERICK B. LITTLE, Indianapolis, Ind. Filed Mar. 2, 1915. Serial No. 11,489. (Cl. 84—81.)



1. A key board, a plurality of keys carried by the keyboard, a plurality of musical instruments, each instrument comprising a plurality of electro-magnetically-operated tone producers, a switch board, a plurality of multiple circuit closers on the switchboard, one for each musical instrument, each multiple circuit closer comprising a set of stationary individual contacts connected with the tone producers of its respective instrument and a movable switch bar carrying coöperating contacts, bus bars connecting corresponding coöperating contacts of the several movable switch bars, switches on the key board one for each circuit closer and connected therewith for operating the same, a single pair of contacts operable by each key, and connections between said key contacts and said bus bars on the switch board whereby when any key is operated current will pass to its connected bus bar and the tone producers of the musical instruments will be sounded which are connected with the multiple circuit closers which are in closed position.

6. In a musical instrument a plurality of sets of electro-magnetically controlled tone producers, a key-board, electrically controlled means whereby any desired instrument can be played from the key-board, electric lamps associated with each set of tone producers, and means whereby the lamps associated with respective instruments will be automatically switched on when the particular instrument is being illuminated.

[Claims 2 to 5, 7, and 8 not printed in the Gazette.]

1,239,610. SHOE-FASTENER. BETSIE K. H. LOYLAND, Thief River Falls, Minn. Filed Dec. 4, 1916. Serial No. 135,041. (Cl. 24—68.)



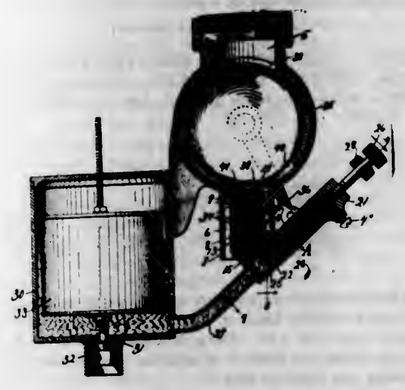
A shoe fastener comprising a pair of hingedly connected arms, one of said arms having a disk carried thereby, while the other arm is provided with a seat, a head carried by the disk, loops disposed on opposite sides of the head and carried by the disk, means for attaching one of the arms to the shoe upper, shanks carried by the shoe upper for interlocking engagement with the heads, said shanks having disks carried thereby, hooks carried by the last named disks, means for rotating the last named disks to cause the hooks to engage the loops, said seat being adapted to engage the shank, as the last named disks are moved toward the first named disks, as and for the purpose set forth.

1,239,611. CARBURETER. GEORGE B. MCBEAN and CHARLES W. BIRCHWOOD, Chicago, Ill., assignors to Mechanical & Electrical Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 4, 1908. Serial No. 414,160. (Cl. 261—41.)

1. In a carbureter, the combination of a casing provided with an air admission passageway and with a discharge opening, and a vaporizer, said vaporizer comprising a receptacle located in the air admission passageway, the bottom of said receptacle being closed to the air and the top thereof open, said receptacle being provided with a hydrocarbon supply passageway, and porous packing in said receptacle, suction within the carbureter casing operating to subject the contents of said receptacle to suction through the open top thereof, substantially as described.

2. In a carbureter, the combination of a casing provided with an air admission passageway and with a discharge opening, and a vaporizer, said vaporizer comprising a receptacle located in the air admission passageway, the bottom of said receptacle being closed to the air and the top thereof open, said receptacle being provided with a hydrocarbon supply passageway, and porous packing in said receptacle consisting of layers of fine gauze disposed edgewise, suction within the carbureter casing operating to subject the contents of said receptacle to suction through the open top thereof, substantially as described.

3. In a carbureter, the combination of a casing provided with an air admission passageway and with a discharge opening, and a vaporizer, said vaporizer comprising a receptacle located in the air admission passageway, the bottom of said receptacle being closed to the air, and the top thereof open, said receptacle comprising a plurality of separate compartments each provided with an independent hydrocarbon supply passageway, and porous packing in said compartments, substantially as described.



4. In a carbureter, the combination of a casing provided with an air admission passageway and with a discharge opening, and a vaporizer, said vaporizer comprising a receptacle comprising a plurality of separate compartments each provided with an independent hydrocarbon supply passageway, and means for adjusting the size of said hydrocarbon supply passageways, whereby the quantity of hydrocarbon delivered to said compartments, respectively, may be independently regulated, and porous packing in said compartments, substantially as described.

5. In a carbureter, the combination of a casing provided with an air admission passageway and with a discharge opening and a vaporizer, said vaporizer comprising a receptacle located in the air admission passageway, the bottom of said receptacle being closed to the air and the top thereof open, said receptacle being provided with a hydrocarbon supply passageway, a valve which controls said passageway, whereby the size of said passageway may be adjusted to regulate the quantity of hydrocarbon delivered to said chamber, and porous packing in said chamber, substantially as described.

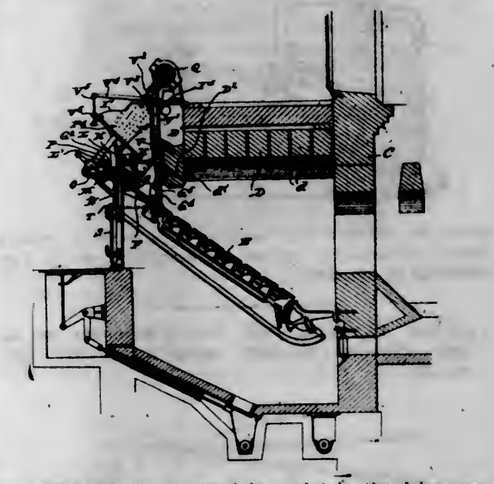
[Claims 6 to 27 not printed in the Gazette.]

1,239,612. FUEL-FEEDING DEVICE. WILLIAM MCCLAVE, Scranton, Pa., assignor to McClave-Brooks Company, Scranton, Pa., a Corporation of Pennsylvania. Filed June 27, 1913. Serial No. 776,123. (Cl. 74—14.)

1. In a furnace, a reciprocating pusher associated therewith, means for actuating said pusher consisting of a drive shaft, an eccentric thereon, a link carried by said eccentric, a furnace shaft connected to the link, means for instantly arresting the reciprocation of the pusher located between the furnace shaft and the drive shaft, comprising a block mounted in a slot in said link, side plates rigidly attached to said block, and a cam lock located between the side plates adapted to lock the block against said link.

2. In a fuel feeding device, a pusher, means for actuating same, consisting of a power shaft, a furnace shaft, an arm on said furnace shaft, a link driven from the power shaft provided with a slot connection with said arm, a block slidably mounted in the slot portion of the link, a cam lock for instantly releasing said block in varying positions with respect to the slot, whereby a single movement of the cam lock discontinues the feeding operation.

3. In a fuel feeding device for fuel, a pusher, means for reciprocating same including a rotating power shaft, an oscillatory shaft, connections intermediate said oscillatory shaft and pusher, an arm journaled on said power shaft, a link intermediate said arm and power shaft, and a slidable connection intermediate said arm and power shaft



consisting of a block seated in a slot in the drive connection, side plates for said block, a cam lock mounted between said side plates, whereby the drive connection may be instantly broken to arrest the feeding of fuel without interrupting the movement of the power shaft.

1,239,613. DETONATING CAP. OSKAR MATTER, Troisdorf, Germany. Filed Sept. 24, 1913. Serial No. 791,559. (Cl. 102—9.)

1. A cap comprising a main body of explosive and a priming charge located near the same, capable of being detonated by a moderately hot flame, and which is substantially unaffected by moisture, comprising a priming substance requiring an intense flame for detonation, and another priming substance sensitive to moisture placed on top of the first mentioned priming substance.

2. A cap comprising a main body of explosive comprising a nitro body, having on top of the same a body of explosive containing lead azid and a body of explosive containing fulminate of mercury, the fulminate of mercury being placed on top of the lead azid.

3. A cap comprising a main body of explosive comprising a nitro body, having on top of the same a body of explosive containing lead azid and a body of explosive containing fulminate of mercury and chlorate of potash, the fulminate of mercury being placed on top of the lead azid.

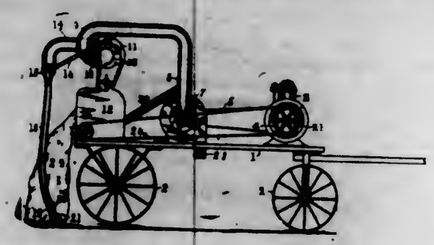
4. A cap comprising a main body of explosive comprising a nitro body, having on top of the same a body of explosive containing lead azid and a body of explosive containing fulminate of mercury and chlorate of potash, the fulminate of mercury being placed on top of the lead azid and being located in an upper capsule.

1,239,614. COTTON HARVESTING AND CLEANING MACHINE. JOHN MEIER and JAMES F. WALLACE, Dallas, Tex. Filed Oct. 3, 1916. Serial No. 123,495. (Cl. 56—117.)

1. A cotton harvesting machine, comprising, in combination, a pneumatic cotton separating casing, a curved deflector within the casing, an exhaust conduit opening into the casing above the deflector and connected with a series of cotton picking nozzles, an exhaust conduit opening into the casing beneath the curved deflector and connected with an exhausting device, substantially as described.

2. A cotton harvesting machine, comprising in combination, a movable platform, a casing mounted on said platform, an exhausting device mounted on said platform, an exhaust conduit leading from the exhausting de-

vice to said casing, a deflector in said casing and arranged above said conduit, a conduit leading from the casing



above the deflector and connected to a series of picking tubes, and means to operate the exhausting device, substantially as described.

1,239,615. PLATE-LIFTER. FRANK MITCHELL, St. Jo, Tex. Filed Feb. 28, 1917. Serial No. 151,557. (Cl. 65—32.)



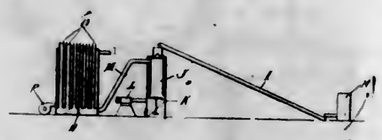
1. A device of the character described comprising two handle members in crossed relation, means for pivotally connecting the crossed portions of the handles, one end portion of the handle being provided with spaced extensions adapted to underlie a plate, the adjacent end portions of the second handle being provided with arms adapted to overlie the rim portion of a plate or the like and terminating in angular extensions disposed toward the extensions of the first handle member, and a third handle member mounted intermediate its length for pivotal movement and having an end portion interposed between the extensions of the first named handles and adapted to engage beneath the rim of the plate.

2. A device of the character described comprising two handle members in crossed relation, means for pivotally connecting the crossed portions of the handles, one end portion of the handle being provided with spaced extensions adapted to underlie a plate, the adjacent end portions of the second handle being provided with arms adapted to overlie the rim portion of a plate or the like and terminating in angular extensions disposed toward the extensions of the first handle member, and a third handle member mounted intermediate its length for pivotal movement and having an end portion interposed between the extensions of the first named handles and adapted to engage beneath the rim of the plate, said third named handle being movable about the same pivotal point as the first two handle members.

3. A device of the character described comprising two handle members in crossed relation, each of said handle members being formed of a single length of material returned upon itself and having the major portion of the strands twisted one about the other, the strands of one of the members being coiled to afford transversely spaced eyes, and a twisted portion of the second handle member being separated to afford loops adapted to be interposed between the eyes of the first named handle member, a pivot pin disposed through the eyes of the handle members, the free end portions of the strands of one of the handle members being in diverging relation and provided with extensions adapted to underlie a plate, the free extremities of the second handle member being also provided with diverging arms adapted to overlie the rim portion of a plate and terminating in extensions disposed toward the extensions of the first named handle, and a third handle member pivotally engaged intermediate its length with the pin, an end portion of said third handle member extending between the diverging arms of the first named handle member and adapted to underlie the rim portion of a plate.

4. A device of the character described comprising three handle members pivotally connected at a common point, two of said handle members being in crossed relation, one of said crossed handle members having an end portion adapted to underlie a plate, the adjacent end portion of the second crossed handle member being adapted to overlie the rim portion of a plate and the adjacent end portion of the third handle member being also adapted to underlie the rim portion of a plate.

1,239,616. PROCESS OF RECOVERING ALKALIS FROM CEMENT MATERIALS. SPENCER B. NEWBERRY, Baybridge, Ohio. Filed Apr. 11, 1916. Serial No. 90,485. (Cl. 23—22.)

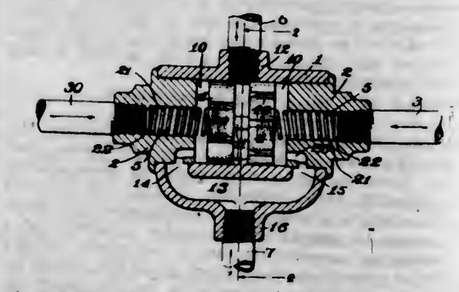


1. The process of recovering alkalis from dust collected from rotary cement kilns by re-burning the dust in a vertical kiln operated with strong blast of high-pressure air, and condensing the alkalis in soluble form by cooling the gases from the vertical kiln.

2. The process of recovering alkalis from dust collected from rotary cement kilns by molding the dust into small blocks, re-burning the blocks of dust in a vertical kiln operated with strong blast of high-pressure air, and condensing the alkalis in soluble form by cooling the gases from the vertical kiln.

3. The process of recovering alkalis from dust collected from rotary cement kilns by molding the dust into small blocks, re-burning the blocks of dust in a vertical kiln operated with a blast of air under 5 to 20 pounds pressure, and condensing the alkalis in soluble form by cooling the gases from the vertical kiln.

1,239,617. DRAIN-VALVE. CHARLES W. NEWCOMBE, Tacoma, Wash. Filed July 10, 1916. Serial No. 108,522. (Cl. 137—32.)



1. A drain valve comprising a casing having a cylinder positioned with its axis substantially horizontal, a high pressure inlet, a low pressure inlet and a discharge port axially separated from the high pressure inlet, a piston in said cylinder between the high pressure inlet and the other ports and adapted to close the low pressure inlet and the discharge ports under the action of the high pressure, said piston having by-pass ports closed under the same conditions, and a spring acting in opposition to the high pressure.

2. A drain valve comprising a casing having a cylinder positioned with its axis substantially horizontal, a high pressure inlet, a low pressure inlet and a discharge port axially separated from the high pressure inlet, a piston in said cylinder between the high pressure inlet and the other ports, and adapted to close the low pressure inlet and the discharge ports under the action of the high pressure, said piston having by-pass ports in its periphery closed by the action of the high pressure, and a spring acting in opposition to the high pressure.

3. A drain valve comprising a casing having a cylindrical bore, a high pressure port and a discharge port extending from said bore and being axially separated to accommodate a piston valve between them, a piston valve fitting said bore and having by-pass ports extending across its periphery, a plug closing an end of the bore and overlapping the discharge port and having a port opening at its inner face near its lower edge and communicating with the discharge port in the casing, the plug having a low pressure port opening at its inner face, said ports in the plug and in the piston being closed when the piston is seated on the plug, and a spring acting upon the piston to separate it from the plug.

4. A drain valve comprising a casing bored to form a piston receiving chamber having its axis placed horizontally, a piston closely fiting said chamber, and having by-pass grooves extending across its periphery from face to face, a head closing an end of said chamber, a low pressure port and a discharge port in said head and inwardly of its outer margin, the opposed faces of head and piston forming valve surfaces adapted when contacted to close all of said ports, means normally acting to hold the valve off its seat, and a high pressure connection acting to hold the valve upon its seat.

5. A drain valve comprising a casing bored to form a piston receiving chamber, piston stops centrally placed in said chamber, said casing having a high pressure supply connection within the zone which contains said piston stops, and discharge ports connecting with the lower side of the casing toward each end, a piston in each end of the casing and having by-pass grooves in their peripheries, a head for closing each end of the casing said heads each having a port in its lower part connecting the piston chamber with the discharge port at this end of the casing, and also having a low pressure inlet port, each piston and its head having seating surfaces adapted when in contact to close all their ports, and a spring for each piston acting to unseat the piston.

1,239,618. PARAFFIN POWDER AND PROCESS OF MAKING IT. AUGUST E. NIENSTADT, Bensonhurst, N. Y. Filed Feb. 3, 1916. Serial No. 75,935. (Cl. 134—22.)

1. The process of producing paraffin in a finely divided state consisting in melting the paraffin, incorporating therewith a solution containing a small quantity of an alkali stearate, stirring the mixture until cooled off, and removing the solvent of the stearate therefrom.

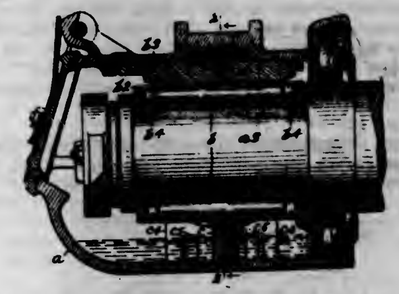
2. The process of producing paraffin in a finely divided condition consisting in melting paraffin, incorporating therewith of from 3 to 5 per cent. of ammonium stearate in aqueous solution, stirring until the mass has cooled off, and removing the water therefrom to form a fine powder.

3. As a novel product of manufacture paraffin in a finely divided condition composed of paraffin with a little ammonium stearate in a finely divided state, and existing in form of a fine powder.

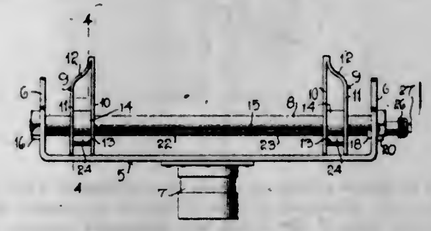
4. As a novel product of manufacture paraffin in a finely divided condition composed of about 95 to 97 per cent. of paraffin and 5 to 3 per cent. of ammonium stearate and existing in form of a fine dry powder.

1,239,619. ROLLER-BEARING. JULIUS A. PERKINS, Omaha, Nebr. Original application filed Dec. 9, 1908, Serial No. 466,582. Patent No. 1,002,441, dated Sept. 5, 1911. Divided and this application filed Nov. 26, 1912, Serial No. 733,592. Renewed Feb. 8, 1917. Serial No. 147,493. (Cl. 64—62.)

A journal box having a roller bearing member in the upper part thereof, a journal in said box, rollers interposed between said journal and bearing member, and roller bearing tracks in the lower part of said box, said tracks being two in number arranged at an angle to the axial plane of said journal and crossing each other in said axial plane beneath said journal whereby said rollers are supported and cleared at gradually changing points throughout the length thereof.



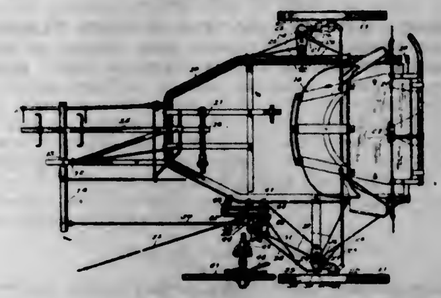
1,239,620. VISE. FRANK PLOTNIK, Browerville, Minn. Filed Mar. 2, 1917. Serial No. 152,106. (Cl. 81—85.)



1. In a vise, a supporting base, guide means mounted upon the base, jaws movably supported by the guide means for movement longitudinally with respect to the base, each jaw consisting of a plate bent to provide spaced parallel walls having openings therein, an operating screw extending through said openings, and a nut disposed between the spaced walls of each jaw with which the screw is operatively engaged, said nut also constituting a bracing means between the jaw walls and being rigidly fixed to one of said walls.

[Claim 2 not printed in the Gazette.]

1,239,621. ADJUSTING MECHANISM FOR SHOCKING-MACHINES. CLEMMA R. RANEY, Chicago, Ill., assignor to International Harvester Company of New Jersey, a Corporation of New Jersey. Filed Apr. 28, 1917. Serial No. 165,217. (Cl. 56—121.)



1. In combination, a binder including a binder frame and binding mechanism, a shocker, and means for simultaneously adjusting the shocker longitudinally and vertically relative to the binder and the binding mechanism longitudinally with respect to the binder frame.

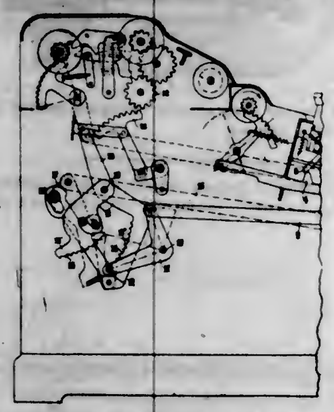
2. In combination, a binder, a shocker, means for simultaneously adjusting the shocker longitudinally and verti-

cally, and means for adjusting the shocker longitudinally independently of said last named means.

14. In combination, a binder, a shocker, a bell crank lever pivoted on said shocker, a crank shaft journaled on said lever, a crank on said shaft, operative connections between said crank and said binder, means for rotating said crank shaft, and means for tilting said lever.

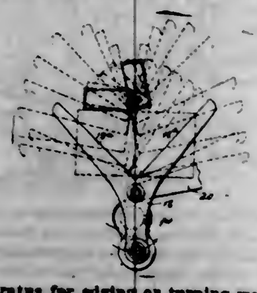
[Claims 3 to 13 and 15 to 21 not printed in the Gazette.]

1,239,622. KEYBOARD ADDING-MACHINE. FRANZ RAUCHWETTER, Berlin-Friedenau, Germany. Filed Dec. 29, 1916. Serial No. 139,682. (Cl. 235—82.)



In keyboard adding machines in combination with the main shaft, abutments settable by keys in accordance with the face value of the latter, said abutments limiting the travel of the transmitting means operated by the main shaft, bell cranks, rocking on fixed pins in proportion to the face value of the keys depressed, clips operatable from the mainshaft, the jaws of said clips having notches corresponding to the numerals 1–9, the said bell cranks having arms carrying abutment pins, said abutment pins adapted to be engaged by said jaws, numbered keys, bell-cranks unedr action of springs, and engaged by said keys, said bell-cranks having each two downward extending arms, the ones of said pairs of arms of equal length, the others of said pairs of arms gradually decreasing in length, a bar having abutments, said abutments adapted to be engaged by said gradually decreasing arms and to thereby shift the said bar by a given length corresponding to the face value of the respective key depressed, an arrester bar, for arresting the keys in their depressed position, elastically and hingedly suspended, and adapted to be released and arrested by said arms of equal length.

1,239,623. MANIPULATOR FOR ROLLER-TABLES. CARL NORMAN REESE, Alliance, Ohio, assignor to The Morgan Engineering Company, Alliance, Ohio. Filed June 20, 1916. Serial No. 104,711. (Cl. 80—48.)



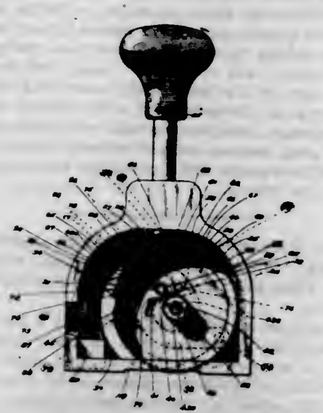
1. An apparatus for edging or turning work on a roller table consisting of a manipulator having fingers adapted to be projected upwardly so as to engage the work on the table, a vertically movable fulcrum for said manipulator, and means for moving the lower end of said manipulator in a circle.

2. An apparatus for edging or turning work on a roller table consisting of a manipulator having two fingers approximately at right angles to each other, means for moving the lower end of the manipulator in a circle, and a vertically movable fulcrum engaging said manipulator above the moving means whereby the manipulator fingers are rocked as the manipulator is raised and lowered.

3. An apparatus for edging or turning work on a roller table consisting of a Y-shaped manipulator, means for moving the lower end of said manipulator in a circle and a vertically movable fulcrum connected with said manipulator intermediate its ends.

4. An apparatus for edging or turning work on a roller table consisting of a shaft having rotary cranks, manipulators each having a bifurcated upper end, and journaled at its lower end on a crank whereby the lower ends of the manipulators will be moved in a circle, and a fulcrum arm for each crank each fulcrum arm being pivoted at its outer end and having a journal connection with its manipulator above the connection of the crank with the latter.

1,239,624. STAMP-AFFIXING MACHINE. GEORGE L. REICHHELM, New Haven, Conn., assignor to The Postcraft Company, Inc., New York, N. Y., a Corporation of New York. Filed May 11, 1914, Serial No. 837,891 Renewed Feb. 13, 1917. Serial No. 148,413. (Cl. 216—29.)



1. In a device of the class described, a rotatable drum adapted to contain a series of stamps in ribbon form and means to impart a bodily movement to said drum to press a stamp of said series upon an envelop or the like.

2. In a portable stamp affixing machine, a rotatable drum adapted to contain a series of stamps in ribbon form, means to impart a bodily movement to said drum to press a stamp of said series upon an envelop or the like, and means for feeding said stamps successively to a position for receiving the pressure of said drum.

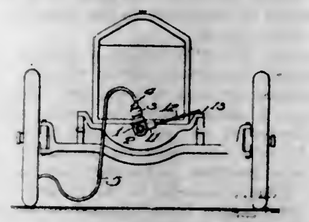
3. In a stamp affixing machine, a rotatable drum adapted to contain a series of stamps in ribbon form, means for imparting a radial movement to said drum to press a stamp of said series upon an envelop or the like, means for feeding said stamps successively to a position for receiving the pressure of said drum, and means for moistening a stamp of said ribbon before pressing it upon said envelop.

4. In a device of the class described, a rotatable drum adapted to contain a series of stamps in ribbon form, means to oscillate and impart a bodily movement to said drum to press a stamp of said series upon an envelop or the like, means for feeding said stamps successively to a position for receiving the pressure of said drum, means for moistening a stamp of said ribbon before pressing it upon said envelop, and means for severing a stamp from said series.

5. In a device of the class described, a rotatable drum adapted to contain a series of stamps in ribbon form and having an opening permitting the passage of said ribbon to the exterior thereof, means for imparting a feeding movement to said series, means for moistening a stamp in said series, and means to impart a radial movement to said drum for pressing said stamp upon an envelop or the like.

[Claims 6 to 30 not printed in the Gazette.]

1,239,625. DEMOUNTABLE PUMP. FRANK A. ROSS, Evanston, Ill., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill., a Corporation of Virginia. Filed Nov. 25, 1914. Serial No. 873,953. (Cl. 230—27.)



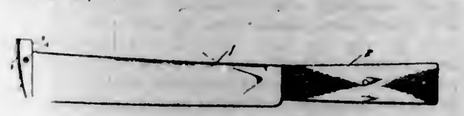
1. In combination with a rotary power shaft and a frame in which it is journaled, a pump comprising a casing, an actuating shaft journaled therein, and means for supporting the pump on the power shaft including a coupling member on the pump shaft having means for driving engagement with the power shaft, and a lever arm extending from the casing transversely to the axis of the pump shaft, and adapted to be swung by the rotation of the shaft into contact with said frame.

3. In combination with a rotary power shaft and a frame in which it is journaled, a pump comprising a casing, an actuating shaft journaled therein and means for supporting the pump on the power shaft comprising a coupling member on the pump shaft having means for driving engagement with the power shaft, and a bar removably secured to the pump casing extending therefrom transversely to the axis of the pump shaft for encounter with the aforesaid frame to check the bodily rotation of the pump casing with its shaft.

5. The combination of an engine shaft, and a non-rotatable pump detachably supported directly upon the end of said shaft and detachably connected thereto to be operated by said engine shaft.

[Claims 2, 4, and 6 to 8 not printed in the Gazette.]

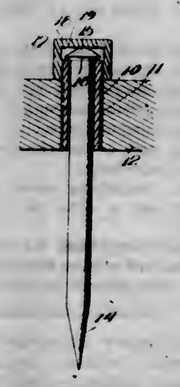
1,239,626. KNIFE-GUARD. HARRY O. SEBRING, Deer Wood, Minn. Filed Dec. 20, 1916. Serial No. 137,982. (Cl. 30—9.)



1. A knife of the class described comprising a blade, a handle at one end of the blade, an extension formed on and extending outwardly from the opposite end of the blade adjacent the upper end thereof, said extension provided with a transverse opening, a guard, said guard comprising a tapered body, having a rounded front face and straight rear face, said body provided adjacent the upper enlarged end with a vertical slot, said guard also having a recess on its rear face adjacent its lower end and the upper end of the recess communicating with the slot, said extension of the blade adapted to extend through the slot and the portion of the blade resting in the recess, means extending transversely through the guard and blade for detachably securing the guard in position upon the end of the blade.

2. A knife of the class described including a blade, a handle at one end of the blade, the opposite end of the blade extending outwardly from the upper longitudinal edge thereof, a guard, said guard comprising a tapered body portion having a rounded beveled front face and a straight rear face, said body of the guard provided adjacent its upper enlarged end with a vertical slot and having a recess in its rear face adjacent its lower end and communicating with the lower wall of the vertical slot, said body also provided at diametrically opposite points in its side face with alined openings, said guard adapted to be secured on the end of a knife blade and a screw arranged transversely through the openings in the body and blade for removably securing the guard to the knife blade as and for the purpose specified.

1,239,627. HARROW-TOOTH. FRANK SHERWIN, Brookings, S. D. Filed Aug. 15, 1916. Serial No. 115,026. (Cl. 55—7.)



1. A device of the character described including a socket open at its ends, a harrow tooth freely fitted therein, and a cap coöperating with one end of the socket to provide a bearing for rotatably supporting the harrow tooth.

2. A device of the character described including a socket open at its ends, a harrow tooth freely fitted therein and having the adjacent extremity thereof formed with a pointed terminal, and a cap coöperating with one end of the socket to provide a bearing for the harrow tooth coacting with said terminal for rotatably supporting the said tooth.

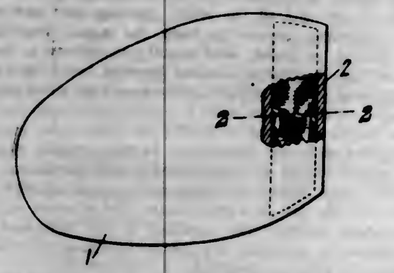
3. A device of the character described including a socket, a harrow tooth fitted therein and formed with a beveled shoulder coacting with the socket for freely supporting the harrow tooth thereon, and a bearing member engaging over the upper end of the harrow tooth to provide a bearing for rotatably supporting the harrow tooth within the socket.

4. A device of the character described including a tubular socket, a harrow tooth fitted therein and provided with a head engaging the upper end of the socket for freely supporting the harrow tooth upon the socket, and a cap screw threaded to the upper end of the socket and coöperating with the head to provide a bearing for rotatably supporting the harrow tooth.

1,239,628. SHOE TAP OR HALF-SOLE. JOHN H. SHOEMAKER and HENRY BRUCK, Portland, Oreg. Filed Apr. 17, 1917. Serial No. 162,616. (Cl. 36—32.)

1. A shoe tap having upper and lower thicknesses of fibrous, reinforcing material embedded in the rear edge portion thereof, said thicknesses being separated from each other so as not to form a double thickness.

4. A shoe tap consisting of a vulcanized composition and a longitudinally folded fabric strip housed in the



composition close to the back edge of the tap, the fold of the fabric being located adjacent said edge.

[Claims 2 and 3 not printed in the Gazette.]

1,239,629. SEALING-WAX. WALTER O. SNELLING, Pittsburgh, Pa. Filed Oct. 14, 1915. Serial No. 55,755. (Cl. 87—19.)

1. Sealing wax containing rosin and a solid or semi-solid, vaporisable fire-extinguishing substance.

2. Sealing wax containing rosin and a solid or semi-solid halogenated carbon compound.

3. Sealing wax comprising rosin, a filling material, a coloring material and a vaporisable solid or semi-solid fire-extinguishing substance.

4. Sealing wax comprising rosin, a filling material, a coloring material and a solid or semi-solid halogenated carbon compound.

5. Sealing wax comprising an inflammable resinous substance, a filler, and ethane hexachlorid.

[Claims 6 to 9 not printed in the Gazette.]

1,239,630. RESILIENT COMPOSITION FOR PRINTERS' ROLLERS. CHARLES EMILE SOANE, Hornsey, London, England, assignor of one-half to Usher-Walker Limited, London, England. Filed July 11, 1916. Serial No. 108,710. (Cl. 106—1.6.)

1. The herein described method of producing an infusible resilient composition for printers' rollers which consists in treating a mixture of glue soaked in water and glycerin with furfural.

7. The herein described method of producing an infusible resilient composition for printers' rollers, which consists in treating a mixture of glue soaked in water and glycerin with a heterocyclic aldehyde.

[Claims 2 to 6 not printed in the Gazette.]

1,239,631. TAMPING DEVICE. VENDEL SRAMCIK, Senecaville, Ohio. Filed Feb. 21, 1916. Serial No. 79,705. (Cl. 86—21.)



1. A tamping device including a tubular member, a packing material receptacle carried thereby, a valve-controlled opening forming communication between the receptacle and tubular member, a blasting needle positioned in said tubular member and extending beyond the same, a tamping bar slidably mounted in the tubular member and having a longitudinal groove in one side face thereof to receive the blasting needle, the said tamping bar adapted to open the valve to permit the contents of the receptacle to fall into the tubular member when the tamping bar moves to a point adjacent its extreme outer movement.

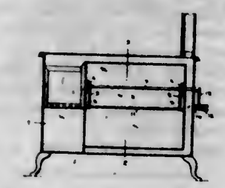
2. A tamping device including a tubular member, a packing material receptacle carried thereby, there being a communicating opening between the receptacle and tubular member, a sliding plate valve closing said opening, and a tamping bar slidably mounted in said tubular member adapted to engage and slide the plate valve when the tamping bar reaches a point adjacent its extreme outer movement to uncover the communicating opening.

3. A tamping device including a tubular member, a packing material receptacle carried thereby, there being a communicating opening between the tubular member and receptacle, a sliding plate valve closing said opening, an angular extension carried by the outer end of the valve, means for normally holding the valve closed, and a tamping bar slidably mounted in the tubular member adapted to engage the valve extension to move the valve to open position in opposition to the means for normally holding the same closed.

4. A tamping device including a tubular member, a packing material receptacle carried thereby, there being a communicating opening between the tubular member and receptacle, a sliding valve for closing said opening, springs connected at one end to said valve and at the other end to said receptacle for normally holding the valve in closed position, a tamping bar having an enlarged head slidably mounted in the tubular member, and means carried by said valve adapted to be engaged by said head when the tamping bar is moved outwardly to cause the valve to be opened against the tension of the springs.

5. A tamping device including a tubular member, means carried thereby for feeding packing material thereto, a pair of hinged clamping members connected to the outer end of the tubular member, opposed ears carried by the clamping members, an adjusting screw associated with said ears whereby the clamping members may be moved relative to the tube, and a blasting needle and tamping bar associated with the tubular member.

1,239,632. ATTACHMENT FOR OVENS. LOUISE D. STEWARD, Boise, Idaho. Filed Jan. 22, 1915. Serial No. 3,753. (Cl. 126—332.)

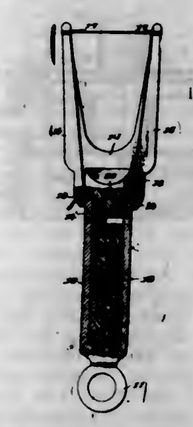


1. In combination with an oven, a shaft journaled in the side walls of the oven near the top, a pair of normally depending arms secured to said shaft, a pair of stub shafts also journaled in the side walls of the oven near the top and each carrying a normally depending arm, a shelf pivotally secured to the lower ends of said pairs of arms, and means connected to the shaft to move the shaft and pairs of arms in unison and move the shelf vertically within the oven.

2. An attachment for ovens comprising the combination with a shelf, of a pair of arms pivotally mounted in the oven and having their lower ends pivoted to the shelf, a second pair of arms pivoted in the oven and having their lower ends pivoted to the shelf, sprockets connected with said arms and sprocket chains coöperating with the sprockets to cause the second set of arms to move coincident to the first set of arms, and means whereby rotating movement may be applied to the first set of arms.

3. An attachment for ovens comprising the combination with a shelf, of a shaft extending through the oven, a pair of sprockets fixed to said shaft, arms also fixed to said shaft adjacent said sprockets, a second set of arms rotatably mounted on the walls of the oven, sprockets fixed to said arms, sprocket chains connecting said sprockets to cause the second mentioned arms to rotate with the first mentioned arms, the ends of said arms being pivoted to the shelf, means whereby rotating motion may be imparted to said shaft, and means to hold the shaft against casual rotation.

1,239,633. DENTAL-FLOSS HOLDER. FRANK H. STICKLER, Akron, Ohio. Filed Oct. 5, 1916. Serial No. 123,920. (Cl. 132—12.)



1. A device of the class described comprising a receptacle open at one end with a flat margin surrounding the opening, a holder including arms in spaced relation and a plug engaging in the opening of the receptacle and having a lateral shoulder corresponding to the flat margin of the receptacle, said arms having lips extending in advance of the shoulder with the inner faces of the lips diverging away from the receptacle to form converging recesses, said plug having a guideway therethrough for dental floss and terminating at its outer end at the juncture of the body and the holder and its plug, whereby a tension is produced in the out-going floss when the plug is inserted and another tension means provided by the depending lips for the outer terminal of the floss.

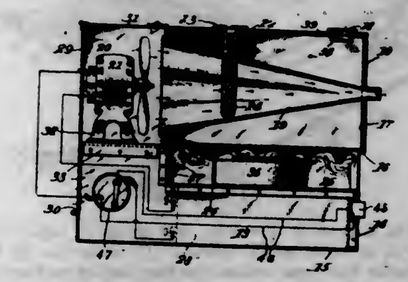
2. A device of the class described comprising a receptacle for dental floss, a holder for dental floss including arms in spaced relation and having means for retaining a portion of the floss stretched between them, and lips depending from the holder at opposite sides of the receptacle with their inner faces converging toward the body of the holder to form contracted recesses in which the dental floss is adapted to be inserted and operating as tension devices.

1,239,634. MEDICAL APPLIANCE. FRANK J. STUART, St. Louis, Mo. Filed July 25, 1916. Serial No. 111,170. (Cl. 128—13.)

1. A device of the character described comprising a housing having inlet and outlet openings, a receptacle therein having a conical passage therethrough and through the housing, a fan of the screw propeller type mounted coaxially with the passage, means within the housing to drive the fan, and a heater appliance in said housing beneath said receptacle.

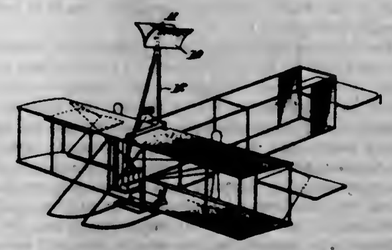
2. A device of the character described comprising a housing, an intermedial heated fluid chamber formed therein at the upper part stopping short of one end, a hollow conical element extended thorugh said chamber and through the housing, a screw propeller fan mounted concentrically with said conical element, a motor for the fan, said housing having an air inlet immediately adjacent the fan, a lamp containing chamber in said housing immediately beneath the first named chamber, a housing for batteries, and operative connections between the batteries and said motor.

3. A device of the character described including a receptacle for containing heated water, and having opposed side portions, one having a small aperture therethrough and the other having a large opening therethrough, a funnel element inserted through the large opening with the smaller end fitted hermetically in the aperture, and its larger part connected to the edges of the large opening hermetically, said receptacle having a top, a filling open-



ing in the top, registered openings being formed in the said top and top side of the funnel, a tube element extending between the last named openings and hermetically connected to the edges thereof, a stopper element constructed and shaped to fit snugly in the upper end of the tube, and a medicating device carried by the stopper of a size and proportion to project across the funnel element, for the purposes described.

1,239,635. BALANCING MECHANISM. JOHN P. TARBOX, Buffalo, N. Y., assignor to Tarbox Safety Aircraft Company, a Corporation of Delaware. Filed May 16, 1912. Serial No. 697,782. (Cl. 244—29.)



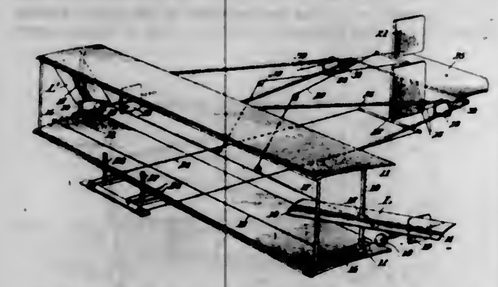
1. In combination, a principal main load supporting but inherently unstable aeroplane structure to be stabilized and an auxiliary but inherently stable aeroplane structure having laterally extending wing surfaces mounted thereon to partake of self imposed stabilizing movements with respect thereto and connected to effect stabilization of said principal aeroplane through exercise thereupon of the inherent stabilizing forces resulting from said movement.

6. In a balancing mechanism, a standard of position comprising a normally upright arm pivoted at its lower end, and having a kite connected with its upper end for a balancing movement thereabout, and operating means for balancing devices controlled by said standard.

11. In a balancing mechanism, a standard of position comprising a member pivotally secured at one end and having a kite connected with its other end for a balancing movement thereabout, a hood surrounding said kite and having a honeycomb structure in front of the kite for fixing direction of the air acting upon said kite, and operating means for balancing devices controlled by said standard.

[Claims 2 to 5, 7 to 10, and 12 to 32 not printed in the Gazette.]

1,239,636. BALANCING SYSTEM FOR AIRCRAFT. JOHN P. TARBOX, Buffalo, N. Y., assignor to Tarbox Safety Aircraft Company, a Corporation of Delaware. Filed Aug. 15, 1912, Serial No. 715,275. Renewed Feb. 5, 1917. Serial No. 146,860. (Cl. 244—29.)



1. The method of correcting the effects of unbalancing forces on aircraft, which consists (1) in setting up irrespective of the force of gravity the corrective forces in response to unbalancing forces before the craft becomes unbalanced and approximately proportional to the unbalancing force, (2) after the craft becomes unbalanced supplementing the corrective force previously set up to a value approximately proportional combinedly to the then value of the unbalancing force and the existing degree of unbalancing of the craft.

2. The method of correcting the effects of unbalancing forces on aircraft, which consists (1) in setting up irrespective of the force of gravity the corrective forces in response to unbalancing forces before the craft becomes unbalanced and approximately proportional to the unbalancing force, (2) after the craft becomes unbalanced supplementing the corrective force previously set up to a value approximately proportional combinedly to the then value of the unbalancing force and the existing degree of unbalancing of the craft, (3) maintaining the latter proportion of the corrective force until the craft is returned to normal position.

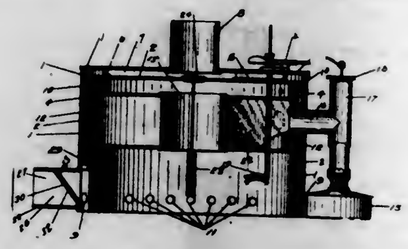
3. The method of correcting the effects of unbalancing forces on aircraft, which consists (1) in setting up irrespective of the force of gravity the corrective forces in response to unbalancing forces before the craft becomes unbalanced and approximately proportional to the unbalanced force, (2) after the craft becomes unbalanced supplementing the corrective force previously set up to a value approximately proportional combinedly to the then value of the unbalancing force and the existing degree of unbalancing of the craft, (3) as unbalancing force due to difference in supporting pressure is removed decreasing the latter corrective force approximately proportionally thereto, but (4) maintaining the proportion of said corrective force to the degree of unbalancing of the craft until the same is returned to normal position.

4. The method of correcting the effects of unbalancing forces on aircraft, which consists (1) in setting up irrespective of the force of gravity the corrective forces in response to unbalancing forces before the craft becomes unbalanced and approximately proportional to the unbalanced force, (2) after the craft becomes unbalanced supplementing the corrective force previously set up to a value approximately proportional combinedly to the then value of the unbalancing force and the existing degree of unbalancing of the craft, (3) as unbalancing force due to difference in supporting pressure is removed decreasing the latter corrective force approximately proportionally thereto, but (4) maintaining the proportion of said corrective force to the degree of unbalancing of the craft until the same is returned to normal position, and (5) artificially creating an unbalancing force when it is desired to bank the craft.

5. An aircraft comprising a main supporting member which constitutes the lifting body of the craft, a balancing device located upon each side of said main supporting member and presenting cooperating lifting surfaces forming a salient angle rearwardly, said balancing devices being connected, and each responsive to temporarily preponderating head pressure, to increase the lifting moment of the other.

[Claims 6 to 16 not printed in the Gazette.]

1,239,637. BROODER. EDWARD D. TAYLOR, Kalamazoo, Mich. Filed July 27, 1914. Serial No. 853,325. (Cl. 119—34.)



1. In a brooder, the combination of an outer sheet metal cylindrical casing comprising top and side walls, an inner sheet metal cylindrical casing disposed within said outer casing and comprising top and side walls spaced from the top and side walls of the outer casing, partition strips disposed vertically to divide the space between the side walls of said casing into substantially equal spaces providing opposed inlet passages and opposed discharge passages, partition strips disposed between the top walls of said casings providing a connecting discharge passage, the top wall of the outer casing being provided with a discharge flue for said discharge passages, the outer casing having a series of inlet openings for each inlet passage near its bottom and the inner casing having a series of delivery openings for each inlet passage near its top and a series of inlet openings for each discharge passage near its bottom, an annular heating drum fitted within said inner casing and disposed in a spaced relation to the top thereof and below the delivery openings of said inlet passages so that the incoming air passes over the top of the drum and downwardly through the central opening thereof into the brooding chamber below the drum and is discharged from the brooding chamber through the discharge inlets at the sides thereof, the circulation of the air within the brooding chamber being unobstructed, and means for heating said drum.

2. In a brooder, the combination of an outer casing comprising top and side walls, an inner casing disposed within said outer casing and comprising top and side walls spaced from the top and side walls of the outer casing, the space between the walls of said casings being divided into substantially equal spaces providing opposed inlet passages and opposed discharge passages, the outer casing being provided with a discharge for said discharge passages, the upper ends of the inlet passages being cut off from said discharge passages, the outer casing having a series of inlet openings for each inlet passage near its bottom and the inner casing having a series of delivery openings for each inlet passage near its top and a series of inlet openings for each discharge passage near its bottom, an annular heating drum fitted within said inner casing and disposed in a spaced relation to the top thereof and below the delivery openings of said inlet passages so that the incoming air passes over the top of the drum and downwardly through the central opening thereof into the brooding chamber below the drum and is discharged from the brooding chamber through the discharge inlets at the sides thereof, and means for heating said drum.

3. In a brooder, the combination of an outer casing comprising top and side walls, an inner casing disposed within said outer casing and comprising top and side walls spaced from the top and side walls of the outer casing, the space between the walls of said casings being divided into substantially equal spaces providing opposed inlet passages and opposed discharge passages, the upper ends of the inlet passages being cut off from said discharge passages, the outer casing having an inlet opening for each inlet passage near its bottom and the inner casing having a delivery opening for each inlet passage near its top and an inlet opening for each discharge passage near its bottom, a heating drum having a central opening therethrough disposed within said inner casing below the delivery openings of said inlet passages so that the incoming air passes over the top of the drum and downwardly through the central opening thereof into the brooding chamber below the drum and is discharged from the brooding chamber through the discharge inlets at the sides thereof, the circulation of the air within the brooding chamber being unobstructed, and means for heating said drum, said inner casing being provided with a central opening through which a thermometer may be introduced and with a removable closure having a thermometer depending therefrom into the brooding chamber, said closure and the thermometer being removable through said discharge flue.

4. In a brooder, the combination of an outer casing comprising top and side walls, an inner casing disposed within said outer casing and comprising top and side walls spaced from the top and side walls of the outer casing, the space between the walls of said casings being divided into substantially equal spaces providing opposed inlet passages and opposed discharge passages, the top wall of the outer casing being provided with a discharge for said discharge passages, the upper ends of the inlet passages being cut off from said discharge passages, the outer casing having an inlet opening for each inlet passage near its bottom and the inner casing having a delivery opening for each inlet passage near its top and an inlet opening for each discharge passage near its bottom, a heating drum having a central opening therethrough disposed within said inner casing below the delivery openings of said inlet passages so that the incoming air passes over the top of the drum and downwardly through the central opening thereof into the brooding chamber below the drum and is discharged from the brooding chamber through the discharge inlets at the sides thereof, and means for heating said drum.

5. In a brooder, the combination of an outer casing, an inner casing disposed within said outer casing with its walls in a spaced relation to the walls of the outer casing, there being partitions between the casings providing opposed inlet passages and opposed discharge passages, the outer casing being provided with a discharge for said discharge passages, the outer casing having an inlet opening for each inlet passage near its bottom and the inner casing having a delivery opening for each inlet passage near its top and an inlet opening for each discharge passage near its bottom, a heating drum having a central opening therethrough disposed within said inner casing below the delivery opening of said inlet passages so that the incoming air passes over the top of the drum and downwardly through the central opening thereof into the brooding chamber below the drum and is discharged from the brooding chamber through the discharge inlets at the sides thereof, the circulation of the air within the brooding chamber being unobstructed, means for heating said drum, and automatically closing entrance and exit doors for the brooding chamber whereby the circulation of air through the entrance and exit is prevented.

[Claims 6 to 13 not printed in the Gazette.]

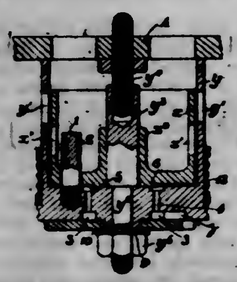
1,239,638. PAINT-BRUSH PROTECTOR. HARRY SAMUEL THROCKMORTON, Muskogee, Okla., assignor of one-half to Robert E. Reed, Muskogee, Okla. Filed Oct. 3, 1916. Serial No. 123,575. (Cl. 248—63.)

In a device of the class described, in combination, a box-like member, a box-like covering hingedly connected to said member and adapted to have its edges contact the edges of said member, the top portions of said member and said cover being formed with recesses forming a brush-receiving opening when the cover is closed against said member, an arm projecting upwardly from the back wall of said cover, said arm having an opening, and a



pin secured in the opening of said arm and adapted to project over the top portions of said member and said cover, so as to form a brush support.

1,239,639. AUXILIARY AIR-INLET VALVE FOR GAS-ENGINES. JOHN ARTHUR TORRENS, Somerset, Celraine, Ireland. Filed Aug. 30, 1916. Serial No. 117,609. (Cl. 137—26.)

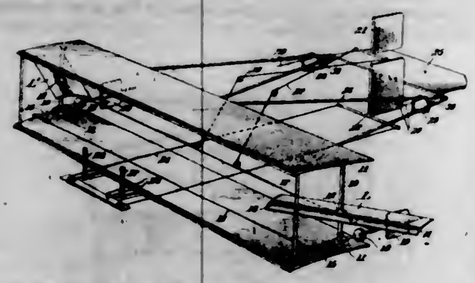


A carbureter for internal combustion engines comprising a cylinder, ports in said cylinder, a cup-shaped valve disposed in said cylinder, ports in said cup-shaped valve, said cup-shaped valve being adapted to close the ports in the cylinder when the engine is not working, said cup-shaped valve rising when subject to the suction of the engine to open the ports in the cylinder and controlled by dash pot action, a pin projecting from the base of the cylinder and passing through a hole in the base of the cup-shaped valve, means whereby the space between the pin and the edge of the hole varies with the movement of the valve so as to vary the release of air from and admission of air to the space between the base of the cup-shaped valve and the cylinder so as to affect the action of the dash pot and the valve as the latter rises, and a shutter-like device disposed at the base of the cylinder for adjusting the air supply to the said space between the said valve and cylinder.

1,239,640. JACK-TRUCK. GEORGE W. TRAMBLEY, Chicago, Ill., assignor of one-third to John W. Farley, Chicago, Ill. Filed Feb. 28, 1917. Serial No. 150,894. (Cl. 21—118.)

1. In a jack truck, the combination of two substantially parallel horizontal frames, links pivotally connecting the adjacent ends of said frames, wheels on the lower ends of said links, a tongue connected to one of said frames and serving, when lifted, to effect the expansion of said frames, and manually releasable automatic means for locking said frames in expanded position comprising a

1,239,636. BALANCING SYSTEM FOR AIRCRAFT. JOHN P. TARBOX, Buffalo, N. Y., assignor to Tarbox Safety Aircraft Company, a Corporation of Delaware. Filed Aug. 15, 1912, Serial No. 715,275. Renewed Feb. 5, 1917. Serial No. 146,860. (Cl. 244—29.)



1. The method of correcting the effects of unbalancing forces on aircraft, which consists (1) in setting up irrespective of the force of gravity the corrective forces in response to unbalancing forces before the craft becomes unbalanced and approximately proportional to the unbalancing force, (2) after the craft becomes unbalanced supplementing the corrective force previously set up to a value approximately proportional combinedly to the then value of the unbalancing force and the existing degree of unbalancing of the craft.

2. The method of correcting the effects of unbalancing forces on aircraft, which consists (1) in setting up irrespective of the force of gravity the corrective forces in response to unbalancing forces before the craft becomes unbalanced and approximately proportional to the unbalancing force, (2) after the craft becomes unbalanced supplementing the corrective force previously set up to a value approximately proportional combinedly to the then value of the unbalancing force and the existing degree of unbalancing of the craft, (3) maintaining the latter proportion of the corrective force until the craft is returned to normal position.

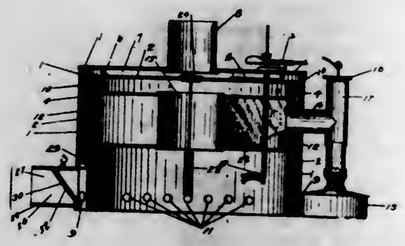
3. The method of correcting the effects of unbalancing forces on aircraft, which consists (1) in setting up irrespective of the force of gravity the corrective forces in response to unbalancing forces before the craft becomes unbalanced and approximately proportional to the unbalanced force, (2) after the craft becomes unbalanced supplementing the corrective force previously set up to a value approximately proportional combinedly to the then value of the unbalancing force and the existing degree of unbalancing of the craft, (3) as unbalancing force due to difference in supporting pressure is removed decreasing the latter corrective force approximately proportionally thereto, but (4) maintaining the proportion of said corrective force to the degree of unbalancing of the craft until the same is returned to normal position.

4. The method of correcting the effects of unbalancing forces on aircraft, which consists (1) in setting up irrespective of the force of gravity the corrective forces in response to unbalancing forces before the craft becomes unbalanced and approximately proportional to the unbalanced force, (2) after the craft becomes unbalanced supplementing the corrective force previously set up to a value approximately proportional combinedly to the then value of the unbalancing force and the existing degree of unbalancing of the craft, (3) as unbalancing force due to difference in supporting pressure is removed decreasing the latter corrective force approximately proportionally thereto, but (4) maintaining the proportion of said corrective force to the degree of unbalancing of the craft until the same is returned to normal position, and (5) artificially creating an unbalancing force when it is desired to bank the craft.

5. An aircraft comprising a main supporting member which constitutes the lifting body of the craft, a balancing device located upon each side of said main supporting member and presenting cooperating lifting surfaces forming a salient angle rearwardly, said balancing devices being connected, and each responsive to temporarily preponderating head pressure, to increase the lifting moment of the other.

[Claims 6 to 16 not printed in the Gazette.]

1,239,637. BROODER. EDWARD D. TAYLOR, Kalamazoo, Mich. Filed July 27, 1914. Serial No. 853,325. (Cl. 119—34.)



1. In a brooder, the combination of an outer sheet metal cylindrical casing comprising top and side walls, an inner sheet metal cylindrical casing disposed within said outer casing and comprising top and side walls spaced from the top and side walls of the outer casing, partition strips disposed vertically to divide the space between the side walls of said casing into substantially equal spaces providing opposed inlet passages and opposed discharge passages, partition strips disposed between the top walls of said casings providing a connecting discharge passage, the top wall of the outer casing being provided with a discharge flue for said discharge passages, the outer casing having a series of inlet openings for each inlet passage near its bottom and the inner casing having a series of delivery openings for each inlet passage near its top and a series of inlet openings for each discharge passage near its bottom, an annular heating drum fitted within said inner casing and disposed in a spaced relation to the top thereof and below the delivery openings of said inlet passages so that the incoming air passes over the top of the drum and downwardly through the central opening thereof into the brooding chamber below the drum and is discharged from the brooding chamber through the discharge inlets at the sides thereof, the circulation of the air within the brooding chamber being unobstructed, and means for heating said drum.

2. In a brooder, the combination of an outer casing comprising top and side walls, an inner casing disposed within said outer casing and comprising top and side walls spaced from the top and side walls of the outer casing, the space between the walls of said casings being divided into substantially equal spaces providing opposed inlet passages and opposed discharge passages, the outer casing being provided with a discharge for said discharge passages, the upper ends of the inlet passages being cut off from said discharge passages, the outer casing having a series of inlet openings for each inlet passage near its bottom and the inner casing having a series of delivery openings for each inlet passage near its top and a series of inlet openings for each discharge passage near its bottom, an annular heating drum fitted within said inner casing and disposed in a spaced relation to the top thereof and below the delivery openings of said inlet passages so that the incoming air passes over the top of the drum and downwardly through the central opening thereof into the brooding chamber below the drum and is discharged from the brooding chamber through the discharge inlets at the sides thereof, and means for heating said drum.

3. In a brooder, the combination of an outer casing comprising top and side walls, an inner casing disposed within said outer casing and comprising top and side walls spaced from the top and side walls of the outer casing, the space between the walls of said casings being divided into substantially equal spaces providing opposed inlet passages and opposed discharge passages, the top wall of the outer casing being provided with a discharge flue for said discharge passages, the upper ends of the inlet passages being cut off from said discharge passages, the outer casing having an inlet opening for each inlet passage near its bottom and the inner casing having a delivery opening for each inlet passage near its top and an inlet opening for each discharge passage near its bottom, a heating drum having a central opening therethrough disposed within said inner casing below the delivery openings of said inlet passages so that the incoming air passes over the top of the drum and downwardly through the central opening thereof into the brooding chamber below the drum and is discharged from the brooding chamber through the discharge inlets at the sides thereof, the circulation of the air within the brooding chamber being unobstructed, and means for heating said drum, said inner casing being provided with a central opening through which a thermometer may be introduced and with a removable closure having a thermometer depending therefrom into the brooding chamber, said closure and the thermometer being removable through said discharge flue.

4. In a brooder, the combination of an outer casing comprising top and side walls, an inner casing disposed within said outer casing and comprising top and side walls spaced from the top and side walls of the outer casing, the space between the walls of said casings being divided into substantially equal spaces providing opposed inlet passages and opposed discharge passages, the top wall of the outer casing being provided with a discharge for said discharge passages, the upper ends of the inlet passages being cut off from said discharge passages, the outer casing having an inlet opening for each inlet passage near its bottom and the inner casing having a delivery opening for each inlet passage near its top and an inlet opening for each discharge passage near its bottom, a heating drum having a central opening therethrough disposed within said inner casing below the delivery openings of said inlet passages so that the incoming air passes over the top of the drum and downwardly through the central opening thereof into the brooding chamber below the drum and is discharged from the brooding chamber through the discharge inlets at the sides thereof, and means for heating said drum.

5. In a brooder, the combination of an outer casing, an inner casing disposed within said outer casing with its walls in a spaced relation to the walls of the outer casing, there being partitions between the casings providing opposed inlet passages and opposed discharge passages, the outer casing being provided with a discharge for said discharge passages, the outer casing having an inlet opening for each inlet passage near its bottom and the inner casing having a delivery opening for each inlet passage near its top and an inlet opening for each discharge passage near its bottom, a heating drum having a central opening therethrough disposed within said inner casing below the delivery opening of said inlet passages so that the incoming air passes over the top of the drum and downwardly through the central opening thereof into the brooding chamber below the drum and is discharged from the brooding chamber through the discharge inlets at the sides thereof, the circulation of the air within the brooding chamber being unobstructed, means for heating said drum, and automatically closing entrance and exit doors for the brooding chamber whereby the circulation of air through the entrance and exit is prevented.

[Claims 6 to 13 not printed in the Gazette.]

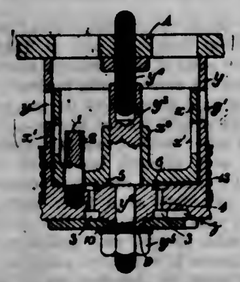
1,239,638. PAINT-BRUSH PROTECTOR. HARRY SAMUEL THROCKMORTON, Muskogee, Okla., assignor of one-half to Robert E. Reed, Muskogee, Okla. Filed Oct. 3, 1916. Serial No. 123,575. (Cl. 248—63.)

In a device of the class described, in combination, a box-like member, a box-like covering hingedly connected to said member and adapted to have its edges contact the edges of said member, the top portions of said member and said cover being formed with recesses forming a brush-receiving opening when the cover is closed against said member, an arm projecting upwardly from the back wall of said cover, said arm having an opening, and a



pin secured in the opening of said arm and adapted to project over the top portions of said member and said cover, so as to form a brush support.

1,239,639. AUXILIARY AIR-INLET VALVE FOR GAS-ENGINES. JOHN ARTHUR TORRENS, Somerset, Coleraine, Ireland. Filed Aug. 30, 1916. Serial No. 117,600. (Cl. 137—26.)



A carbureter for internal combustion engines comprising a cylinder, ports in said cylinder, a cup-shaped valve disposed in said cylinder, ports in said cup-shaped valve, said cup-shaped valve being adapted to close the ports in the cylinder when the engine is not working, said cup-shaped valve rising when subject to the suction of the engine to open the ports in the cylinder and controlled by dash pot action, a pin projecting from the base of the cylinder and passing through a hole in the base of the cup-shaped valve, means whereby the space between the pin and the edge of the hole varies with the movement of the valve so as to vary the release of air from and admission of air to the space between the base of the cup-shaped valve and the cylinder so as to affect the action of the dash pot and the valve as the latter rises, and a shutter-like device disposed at the base of the cylinder for adjusting the air supply to the said space between the said valve and cylinder.

1,239,640. JACK-TRUCK. GEORGE W. TRAMBLEY, Chicago, Ill., assignor of one-third to John W. Farley, Chicago, Ill. Filed Feb. 22, 1917. Serial No. 150,804. (Cl. 21—113.)

1. In a jack truck, the combination of two substantially parallel horizontal frames, links pivotally connecting the adjacent ends of said frames, wheels on the lower ends of said links, a tongue connected to one of said frames and serving, when lifted, to effect the expansion of said frames, and manually releasable automatic means for locking said frames in expanded position comprising a

pair of locking bars pivoted to the side members of one frame and having hooks engageable with an element of the other frame, a handle-bar connecting said locking bars, and a spring connected to said handle bar and normally urging said hooks into locking position.



2. In a jack truck, the combination of two substantially parallel horizontal frames, links pivotally connecting the adjacent ends of said frames, wheels on the lower ends of said links, a tongue connected to one of said frames and serving, when lifted, to effect the expansion of said frames, and manually releasable automatic locking means for locking said frames in expanded position comprising a locking member pivoted to one of said frames and having hooking engagement with an element of the other frame, a tension spring connected at one end to said locking member, and a movable anchor member for the other end of said spring, said anchor member operating to decrease the tension of said spring as the frames are collapsed and to increase its tension as the frames are expanded.

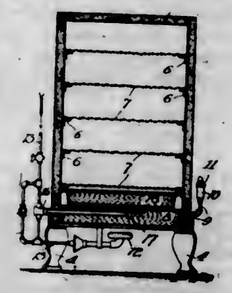
3. In a jack truck, the combination of two substantially parallel horizontal frames, a pair of links pivotally connecting the rear ends of said frames, wheels on the lower ends of said links, a pair of links pivotally connecting the forward ends of said frames and having upwardly extended portions, one of said frames having a cross-bar rigidly connecting the upper ends of said last-named links, wheels on the lower ends of said last-named links, a tongue pivoted to said last-named links and adapted, when swung upwardly, to coöperate as a lever with said cross-bar through direct engagement with the latter to effect the expansion of said frames, and means for automatically locking said frames in expanded position.

4. In a jack truck, the combination of two substantially parallel horizontal frames, a pair of links pivotally connecting the rear ends of said frames, wheels on the lower ends of said links, a pair of links pivotally connecting the forward ends of said frames and having upwardly extended portions, one of said frames having an apertured cross-bar rigidly connecting the upper ends of said last-named links, a tongue pivoted to said last-named links and adapted, when swung upwardly, to coöperate as a lever with said cross-bar to effect the expansion of said frames, means for automatically locking said frames in expanded position, and a locking rod slidably mounted on said tongue and adapted to enter the aperture of said cross-bar to hold said tongue in elevated position.

1,239,641. COOKING APPARATUS. CHARLES B. TRESCOTT, Chicago, Ill. Filed May 24, 1916. Serial No. 99,649. (Cl. 126—20.)

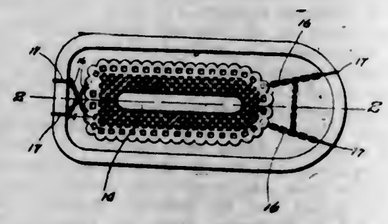
1. A low temperature cooker comprising an oven, a heat-transferring liquid-holder within said oven, an open water-pan within said oven in heat-transferring relation to said heat-transferring liquid-holder whereby the heat from said holder will heat the water in said pan, means for heating said heat-transferring liquid-holder and its liquid-content to radiate the heat therefrom and to cause the air within the oven to be heated to a low cooking temperature, and thermostatic means in said liquid-content adapted to control said heating means.

2. A low temperature cooker comprising an oven, a heat-transferring liquid-holder within said oven containing a liquid having a boiling point above that of water, an open water-pan within said oven in heat transferring relation to said heat-transferring liquid-holder, whereby the heat from said holder will heat the water in said pan, and



means for heating said heat-transferring liquid-holder and its liquid-content to radiate the heat therefrom and to cause the air within the oven to be heated to a low cooking temperature.

1,239,642. SAFETY BATH-TUB MAT. LAVINIA D. TOLLEY, St. Louis, Mo. Filed Jan. 18, 1917. Serial No. 143,068. (Cl. 4—27.)



1. The hereindescribed safety bath-mat comprising a section of flexible water-proof material, plates embedded in the ends of said section of material, chains secured to said plates, and hooks on the ends of said chains.

2. The hereindescribed safety bath mat comprising a section of flexible water-proof material, plates embedded in said section of material near the edges thereof, said plates being provided with perforations which are filled with the material of which the mat is formed, chains secured to said plates, and hooks on the ends of said chains, which hooks are adapted to engage the upper portion of the bath tub to which the mat is applied.

1,239,643. AUTOMOBILE. ADONE P. TONON, Chicago, Ill., assignor to Charles W. Gillett, Chicago, Ill. Filed Nov. 13, 1916. Serial No. 131,132. (Cl. 180—70.)



An automobile including a motor at its forward end having a shaft extending longitudinally of the automobile and which shaft is provided with a coupling member upon its rear end; a housing for said coupling; a second housing comprising a longitudinally extending front portion attached at its forward end to the rear end of the aforesaid housing, a longitudinally extending rear portion and a third portion extending transversely of the automobile and uniting the rear end of said front housing portion with the forward end of said rear housing portion; a second shaft which is in said front housing portion and

provided with a coupling member upon its front end that is engaged with the coupling member upon the rear end of the motor shaft; a third shaft which is in said rear housing portion and which shaft is provided with a coupling member upon its rear end; bearings carried by the second housing for the shafts that are in the front and rear portions of the second housing; speed reduction and power increasing gearing inclosed by the third and transversely extending portion of the second housing and which gearing unites the shafts within the second housing; longitudinal shafting in power connection with the rear wheels of the automobile and provided with a coupling member upon its front end that is engaged with the coupling member upon the rear end of the third shaft; and a housing for said longitudinal shafting and whose front end is connected with the rear end of the housing for said third shaft.

1,239,644. RAZOR. GEORGE H. TUTTLE, Lincoln, Nebr. Filed Jan. 18, 1917. Serial No. 143,139. (Cl. 30—12.)



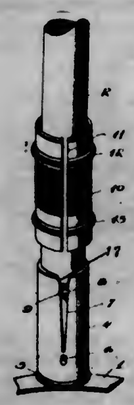
In a razor, the combination of a support, a blade carrier mounted on the support, a guard along one edge of said carrier, a blade secured on the carrier, a reciprocatory motor within the support, a head connected with the motor, a stop within the support, a spring disposed between and bearing against said stop and the head, and an angle lever fulcrumed within the support, and having one arm pivoted to said head and its other arm freely engaging the carrier.

1,239,645. HANDLE-ATTACHING DEVICE. JOHN B. VANDER PUTTEN, New Philadelphia, Ohio. Filed Mar. 7, 1917. Serial No. 153,048. (Cl. 15—24.)

1. An attaching device of the character described comprising a ferrule having a slot therein, a stud located upon said ferrule, a handle arranged to be inserted into said ferrule, a stud carried by said handle and arranged to be received in the slot in said ferrule, and a sleeve arranged to be placed over said ferrule and provided with annular grooves arranged to receive said studs.

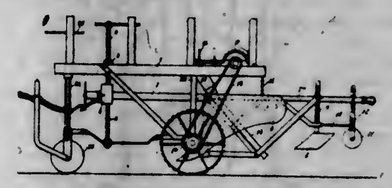
2. An attaching device of the character described comprising a ferrule having a longitudinal slot therein, a stud located upon said ferrule in alinement with said slot, a handle arranged to be inserted into said ferrule, a stud carried by said handle, and arranged to be received in the slot in said ferrule and a sleeve arranged to be placed over said ferrule and provided with means for engaging said studs.

3. An attaching device of the character described comprising a ferrule having a longitudinal slot therein, said slot having an enlarged portion near one extremity, a stud located upon said ferrule in alinement with said slot, a handle arranged to be inserted into said ferrule, a stud carried by said handle and arranged to be received in the enlarged portion of said slot and a sleeve arranged to be placed over said ferrule and provided with means for engaging said studs.



4. An attaching device of the character described, comprising a ferrule having a slot therein, a stud located upon said ferrule at the lower end thereof, a member arranged to be inserted into said ferrule, a stud located upon said member arranged to be received in said slot and a split sleeve arranged to be placed in said ferrule, the split therein registering with said studs, said sleeves provided with grooves and arranged to be given a turn seating said studs in said grooves.

1,239,646. PLANTER. JOAZ MOTTA VASCONCELLOS, Rio de Janeiro, Brasil. Filed Sept. 2, 1916. Serial No. 118,280. (Cl. 111—59.)



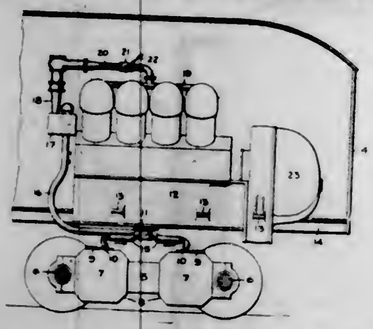
1. In a planter, the combination of a wheel supported frame, cane chopping mechanism mounted on the frame, a plow beam pivotally secured to the frame, a furrow opener on said beam, means for guiding chopped cane from the chopping element downward to the furrow made by said furrow opener, a rearward extension secured to said plow beam, a pair of moldboards adjustably secured to the extension and adjustably held in relation to each other, and a roller adjustably secured to said extension in the rear of the moldboards.

2. A planter comprising a vehicle frame, a beam adjustably carried by the frame and having a rearward extension, a standard secured to said rearward extension, moldboards adjustably mounted on the standard, a roller having a supporting standard pivotally and adjustably carried by the rearward extension in the rear of the moldboards, and a resilient member having one end secured to said roller supporting standard and its opposite end secured to a part of said rearward extension.

1,239,647. VENTILATING SYSTEM FOR CAR-MOTORS. WILLIAM EVERETT VAN PLANCE, Erie, Pa., assignor to General Electric Company, a Corporation of New York. Filed July 31, 1915. Serial No. 42,901. (Cl. 171—315.)

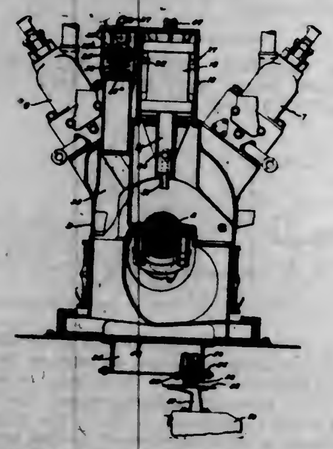
In a motor car, the combination of an internal combustion engine having a carbureter, an electric generator di-

rect connected thereto and driven thereby, means for regulating the speed of the engine to meet the varying load conditions, a propelling motor mounted on the car truck and connected to the generator, said motor having an inclos-



ing casing containing an inlet for cool air and an outlet for heated air, and a conduit connecting said outlet with the suction side of said carbureter whereby the amount of air passing through the inclosing casing will vary with changes in speed of the engine.

1,239,648. AIR-STARTING SYSTEM FOR INTERNAL-COMBUSTION ENGINES. WILLIAM EVERETT VAN PLANCK, Erie, Pa., assignor to General Electric Company, a Corporation of New York. Filed Aug. 2, 1916. Serial No. 112,841. (Cl. 123—179.)



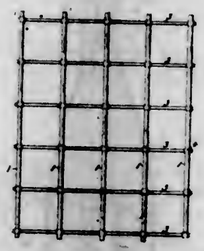
1. The combination with an internal combustion engine, of a pump operated from the crank shaft of the engine for supplying scavenging air thereto, said pump comprising a cylinder, a piston therein, and a valve mechanism which controls the admission of air to, and the discharge of air from, the cylinder, a conduit through which air is drawn into the pump, a valve for shutting off communication between the conduit and the pump, a pipe for supplying air under pressure to the pump to operate it as an air motor, and means controlled by the pressure of the air when so supplied to automatically operate the last named valve.

3. The combination with an internal combustion engine having a scavenging air receiver, of a pump operated from the crank shaft of the engine for supplying scavenging air thereto, said pump comprising a cylinder, a piston therein, and a valve mechanism which controls the admission of air to the cylinder and the discharge of air from the cylinder to the receiver, a conduit through which air is drawn into the pump, a valve for shutting off communication between the conduit and the pump, a pipe for supplying air under pressure to the pump to operate it as an air motor, means controlled by the pressure of the air when so supplied to automatically operate the last named valve, and a pressure relief valve connected to the receiver which is also opened by said air pressure to relieve the pressure in the receiver.

8. The combination in a gas electric car, of a propelling motor having a casing provided with an inlet and an outlet for the admission and discharge of cooling air, an internal combustion engine for the car, a scavenging air receiver for the engine, a pump for supplying scavenging air to the receiver, a conduit connecting the outlet of the motor casing to the suction inlet of said pump, and a valve controlling said conduit said pump acting to suck air through the motor casing and connecting conduit and deliver it to said receiver.

[Claims 2, 4 to 7, 9, and 10 not printed in the Gazette.]

1,239,649. CONCRETE-REINFORCEMENT. GUY B. WAITE, New York, N. Y. Filed July 1, 1915. Serial No. 37,493. (Cl. 72—110.)



1. A reinforcement for concrete structures, comprising a series of metal tension bars arranged in parallel relation to each other, each of said bars being provided with a series of transverse openings which are elongated in the direction of the length of said bars and having relatively long arched portions on opposite sides of said openings, the cross-sectional area of each pair of arched portions being equal to the cross-sectional area of the main portions of the bars and the ends of said arched portions being gradually merged into said main portions to retain an unbroken continuation of the metal fibers and thereby preserve the full tensile strength throughout the entire length of the bars, and tie-rods extending at an angle to, and having the arches pressing thereon to fixedly secure in them the corresponding elongated openings of said bars.

2. A reinforcement for concrete structures, comprising a series of metal tension bars arranged in parallel relation to each other, each of said bars being provided with a series of transverse openings which are elongated in the direction of the length of the bars and having relatively long arched portions on opposite sides, the cross-sectional area of each pair of arched portions being equal to the cross-sectional area of the main portions of the bars and the ends of said arched portions being gradually merged into said main portions to retain an unbroken continuation of the metal fibers and thereby preserve the full tensile strength throughout the entire length of the bars, and tie-rods extending at an angle to and engaged in corresponding elongated openings of the bars, said arches being compressed upon the tie-rods and said tie-rods being bent bodily to form loops at each side and adjacent to the tension bars to securely retain the bars and rods in position.

1,239,650. DITCHING-MACHINE. CARL WARREN, Sebree, Ky. Filed Dec. 26, 1916. Serial No. 138,876. (Cl. 37—25.)

1. A ditching machine consisting of a portable structure, an elevating mechanism supported by said structure and capable of rocking movement in a vertical direction, a ground digging implement carried by the forward end portion of the elevator, means coacting with the forward end portion of the elevator for raising or lowering the same, and a guide member carried by the last named means and capable of free vertical movement.



2. A ditching machine consisting of a portable structure, an elevating mechanism supported by said structure and capable of rocking movement in a vertical direction, a ground digging implement carried by the forward end portion of the elevator, means coacting with the forward end portion of the elevator for raising or lowering the same, a guide member carried by the last named means and capable of free vertical movement, and means for imparting upward movement to the guide member.

3. A ditching machine consisting of a portable structure, an elevating mechanism supported by said structure and capable of rocking movement in a vertical direction, a ground digging implement carried by the forward end portion of the elevator, means coacting with the forward end portion of the elevator for raising or lowering the same, a guide member carried by the last named means and capable of free vertical movement, said guide member including a frame, and disks carried by the opposite ends of the frame, said disks being rotatable about vertical axes.

4. A ditching machine consisting of a portable structure, an elevator supported by said structure and capable of rocking movement in a vertical direction, a ground digging implement carried by the forward end of the elevator, a vertically disposed bar operatively engaged with the forward end portion of the elevator, means for imparting endwise movement to said bar, a sleeve loosely mounted upon the bar, and a guide frame depending from said sleeve.

5. A ditching machine consisting of a portable structure, an elevator supported by said structure and capable of rocking movement in a vertical direction, a ground digging implement carried by the forward end of the elevator, a vertically disposed bar operatively engaged with the forward end portion of the elevator, means for imparting endwise movement to said bar, a sleeve loosely mounted upon the bar, a guide frame depending from said sleeve, an arm extending from the sleeve, and means engageable with said arm for moving the sleeve upwardly upon the bar.

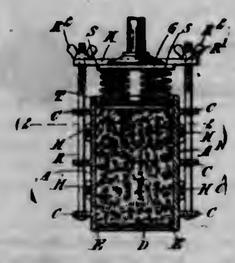
1,239,651. DRAW-BAR CARRY-IRON. CHARLES T. WESTLAKE, St. Louis, Mo., assignor to Flory Carry Iron Company, St. Louis, Mo., a Corporation of Delaware. Filed Sept. 30, 1915. Serial No. 53,390. (Cl. 213—42.)



1. A draw bar supporting device comprising a carry iron for supporting the draw bar, said carry iron being provided with trunnions at its extremities, supports spaced apart longitudinally of the carry iron and providing supporting surfaces upon which said trunnions are disposed to rock, means associated with the supports and the carry iron to limit the movement of the latter to prevent is disengagement from the former, each support and its associated trunnion being provided with interengaging portions whereby the carry iron is maintained in proper alinement relative to the supports and held against sliding movement thereon.

[Claim 2 not printed in the Gazette.]

1,239,652. PRESS-MOLD. HENRY ALEXANDER WICKHAM, London, England. Filed Oct. 1, 1914. Serial No. 864,423. (Cl. 100—55.)



1. An open top mold having side walls and a bottom, a resilient pressure device having two members for compressing the material within the mold, springs interposed between the inner and outer members, and a screw clamping device on the mold for retaining the outer member in position relative to the mold after it has been moved a predetermined distance with relation thereto, the arrangement being such that the springs will move the inner member within the mold to follow up the material therein as it shrinks under the pressure of the springs; substantially as described.

2. A device of the character described for molding material which will shrink within the mold after the initial pressure is applied thereto, comprising a mold, a composite piston, said piston having two plates movable relative to each other, means for securing the outer plate to the mold section after the second plate has been pressed to a predetermined point within the mold, and springs interposed between said plates and arranged to move the inner plate of the piston relative to the outer plate to follow up and maintain the material under pressure while shrinking within the mold; substantially as described.

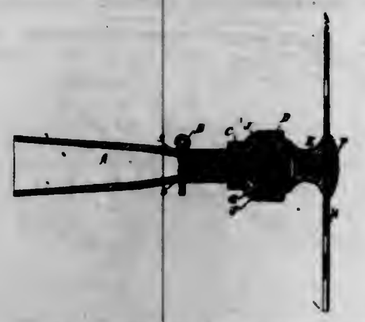
3. An open top mold having side walls and a bottom, a resilient pressure device having two members for compressing the material within the mold, the inner member being arranged to engage the side walls of the mold to be guided thereby, springs interposed between the inner and outer members, and an adjustable clamping device on the mold for retaining the outer member in position relative to the mold after it has been moved a predetermined distance with relation thereto, the arrangement being such that the springs will move the inner member within the mold to follow up the material therein as it shrinks under the pressure of the springs; substantially as described.

4. A device of the character described for molding material which will shrink within the mold after the initial pressure is applied thereto, comprising a plurality of sections each having a mold-forming portion and end flanges, means for securing said sections together, a composite piston, said piston having two members movable relatively to each other, means for securing the outer member to the said mold-forming sections after the piston has been pressed to a predetermined point with relation to the mold, and springs interposed between the said members and arranged to move the inner member of the piston relatively to the outer members to follow up and maintain the material under pressure while shrinking within the mold, substantially as described.

1,239,653. COMBINATION HOE AND IMPLEMENT. GEORGE DE WITT WILLARD, Spearfish, S. D. Filed Oct. 30, 1916. Serial No. 128,428. (Cl. 55—38.)

1. An implement comprising a handle and a tubular ferrule internally and externally threaded, a ball element with a threaded shank engaged within the ferrule, a removable pin passed through said ferrule and shank, mating

clamp elements carried by said ball and a nut carried by the external threads on the ferrule and engaging the clamp elements.



2. A universal connection for implements comprising a socket ferrule, a ball having a shank engaged in the ferrule mating clamp elements embracing said ball, one of said elements being provided with grease receiving recesses in its inner surface and means on the ferrule for frictionally locking the clamp elements in adjusted position.

3. An implement with a suitable handle with a reinforced tubular socket ferrule with locking and holding devices, comprising a ball element containing a threaded shank with cross slots milled in rearward end and receiving spring cotter or pin for the purpose of holding said ball element in position, clamping elements on said ball comprising a hemispherical dust-cap with recesses for containing grease and producing friction on a mating socket element, said mating element being provided with a shoulder for engaging blade and with a threaded hole in center of shoulder for receiving an oval headed screw for securing said blade to the socket element.

1,239,654. ELECTRICAL APPARATUS. ROBERT B. WILLIAMSON, Milwaukee, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis., a Corporation of Delaware. Filed Aug. 26, 1914. Serial No. 859,120. (Cl. 171—252.)



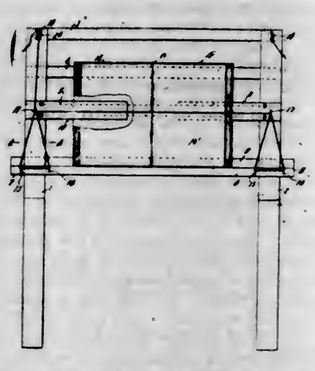
1. In a dynamo-electric machine, a core comprising a plurality of sections spaced apart axially to provide radial ventilating ducts, a winding disposed in a plurality of layers in slots in said core, and members of good heat conducting material having body portions disposed between layers of said winding and portions extending from said body portions at an angle thereto and disposed in said ventilating ducts circumferentially beyond the portions of said winding with which said members are associated.

2. In a dynamo-electric machine, a core divided into a plurality of sections by ventilating ducts, a winding disposed in slots in said core, and members of heat conducting material associated with said winding in said slots, each of said members comprising a body portion disposed in engagement with the radially inner side of a portion of said winding and extending from an interior part of one core section to an interior part of another core section, and an extension from an intermediate part of said body portion projecting circumferentially therefrom and disposed in a ventilating duct.

6. In a dynamo-electric machine, a laminated core comprising a plurality of sections axially spaced apart to provide radial ventilating ducts, said sections being provided with alined slots for the reception of a winding, a winding in a plurality of layers disposed in said slots, and members of comparatively high thermal conductivity located in said slots, each of said members comprising a body portion laid flatwise between layers of the winding in said slots and extending from an interior part of one core section to an interior part of an adjacent core section and a portion extending at an angle to said body portion and disposed in the space between said core sections in position to be cooled by ventilating currents flowing therein.

[Claims 3 to 5 not printed in the Gazette.]

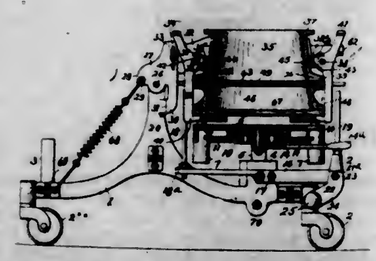
1,239,655. BOOK-HOLDER. ANNA E. WOOD, Cincinnati, Ohio. Filed July 3, 1916. Serial No. 107,328. (Cl. 45—59.)



1. A bookholder comprising legs, the upper portion being connected by cross-bars, providing a body straddling and a book holding portion, cover engaging strips secured at their outer ends to the sides of the bookholder, their inner ends being spaced, a base adjustable on the legs below said strips, a cord slidably connecting the base with the holder, for adjusting the base, a portion of the cord passing across the holder, and means for securing the cord to the holder to hold the base in adjusted position and to adjustably suspend the upper end of the holder relative to the body of the reader.

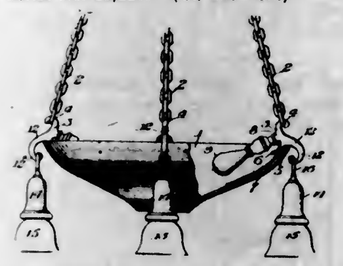
2. A bookholder comprising legs connected by cross bars providing a book holding and body straddling portion, cover engaging strips having their outer ends connected to the holder and the inner ends spaced to hold the covers between the cross bars and strips and to enable the reading matter to be projected beyond the strips, and a cord adjustably connected with the holder and providing a body engaging loop and a page engaging span for holding the pages open in reading position.

1,239,656. MOLDING-MACHINE. JOHN R. WOOD, Newark, N. J., and DANIEL CURTIS EPRIGHT, Spring City, Pa., assignors, by mesne assignments, to Abram Cox Stove Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Apr. 14, 1913. Serial No. 760,955. (Cl. 22—96.)



The combination of a pair of flask sections, a bottom board for one of said sections, latches pivoted to the other section and having means adapted to engage and retain the bottom board, a spring connected to each of the latches and having oppositely inclined portions arranged on opposite sides of its pivot, and a projection having oppositely inclined faces coöperating with the inclined portions of each spring.

1,239,657. LIGHTING-BOWL HANGER. HORACE R. YARDLEY, Chicago, Ill., assignor to R. Williamson & Co., Chicago, Ill., a Corporation of Illinois. Filed Aug. 12, 1915. Serial No. 45,227. (Cl. 240—91.)



1. The combination with a lighting bowl and suspending members therefor, of supporting devices interposed between said members and the bowl, said devices being provided with means for detachably engaging said suspending members and also with a member extending down from the top of the bowl along the inner surface of the same and provided with an aperture, said bowl being provided with a projection engaging said aperture for detachably engaging the bowl.

2. The combination with a lighting bowl and suspending members therefor, of supporting devices interposed between said members and the bowl, said devices being provided with means for detachably engaging said suspending members and also with means for detachably engaging the bowl, said last mentioned means comprising members extending down along the inner surface of the bowl and provided with apertures, and hook members on the interior of the bowl engaging said apertures, said supporting devices being provided with threaded sockets for receiving threaded end members on electric light sockets, and also with means for supporting lighting elements outside of the bowl.

3. The combination with a lighting bowl and chains for supporting the same, of supporting devices constructed to be passed over the edge of the bowl, means provided inside the bowl near the edge thereof which is engaged by the supporting member, said supporting member having means for detachably engaging the chains and having means for supporting lighting elements provided inside and outside of the bowl.

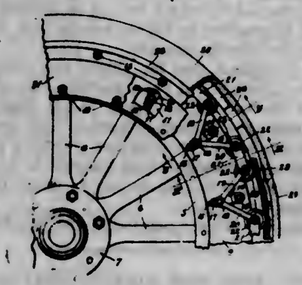
4. A supporting device for use in connection with lighting bowls comprising a hook portion for engagement with the suspending members for the bowl, and a portion adapted to engage a projection on the inside of the bowl, and said portion having a laterally projecting portion adapted to support and engage a lighting element within the bowl.

5. A supporting device for use in connection with lighting bowls comprising a hook portion for engagement with the suspending members for the bowl, a portion adapted to extend down into the interior of the bowl from the top thereof without passing through the bowl and engage a projection on the inside of the bowl, a laterally projecting portion adapted to support a lighting element within the bowl and provided with a threaded socket, and a supplemental projecting portion adapted to support a lighting element outside of the bowl.

[Claim 6 not printed in the Gazette.]

1,239,658. VEHICLE-WHEEL. JAMES J. ADAMSEN, Seattle, Wash. Filed Sept. 2, 1916. Serial No. 118,238. (Cl. 152—8.)

1. In a resilient vehicle wheel of the class described, the combination with the felly of a wheel, of two annular plates secured one to each of opposite sides of said felly in a position concentric therewith, the external diameter of said two plates being greater than the diameter of said felly; a plurality of stay-bolts disposed to extend through and between said plates at points near the peripheries thereof; a suspension rod yieldingly attached to each of said stay-bolts; a transversely disposed swivel pivot-rod adjustably mounted on each of said suspension rods; two links articulated to each of the opposite end portions of each of said swivel pivot-rods to extend in diverging lines to points beyond said stay-bolts; pivot-shafts disposed to extend between and unite the outer ends of the oppositely disposed ones of said diverging links; a roller rotatably mounted on each of said pivot shafts; links disposed to extend between and connect adjacent diverging links of adjacent swivel pivot-rods; a rubber tire of curved cross-section secured to the outer circular edges of said annular plates in a position to adapt it to inclose said rollers; and a ring made of separable segments disposed to engage its interior surface with and to surround all of said rollers and to engage its exterior surface with the inner surface of said tire.

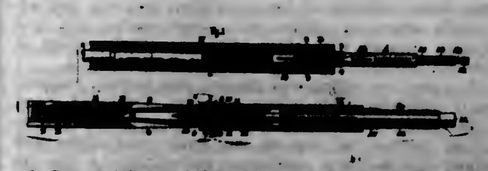


2. A resilient vehicle wheel of the class described, which embodies a felly provided with a flange concentrically disposed on each of its opposite sides to extend beyond its periphery to form a channel therearound; a plurality of rollers transversely disposed within said channel each at a different point; a yielding supporting means for said rollers upon which they are rotatable; a ring made of independently movable segments disposed to engage its interior surface with and to surround all of said rollers; and a flexible tire of curved cross-section secured to the outer edges of said flanges in a position to inclose, and engage its inner surface with all of said segments.

5. In a resilient wheel, a felly, a ring surrounding the same and comprising a plurality of relatively movable segments, flanges carried by said felly, a series of transverse members supported by said flanges, rollers bearing against the inner face of said ring, suspension rods yieldingly attached to said transverse members, and diverging links connecting a pair of rollers to each suspension rod.

[Claims 3 and 4 not printed in the Gazette.]

1,239,659. CUTTING-TOOL. WILLIAM C. ANDREWS, Cleveland, Ohio, assignor to Harry A. Aner, Cleveland, Ohio. Filed Jan. 21, 1916. Serial No. 78,355. (Cl. 90—28.1.)



1. In a cutting tool for rifling and finishing the bore of a gun, a cylindrical head having a draw cutter provided with stepped faces terminating in curved cutting edges of different radii, said cutter projecting radially outward from said head to produce an internal longitudinal groove

and a land of predetermined width and curvature in the same draw movement of the tool through a gun barrel.

2. In a cutting tool for rifling and finishing the bore of a gun, a cylindrical head having a set of cutters radially mounted therein to produce overlapping cuts internally of the gun barrel in successive cutting operations and different settings of the gun barrel, one of said cutters having a continuous cutting edge and the other cutter having a stepped cutting edge adapted to finish the lands during the final stages of rifling operations.

3. In a cutting tool for rifling and finishing the bore of a gun, a cylindrical head having a set of cutters projecting outwardly and radially disposed therein, one of said cutters having a curved cutting edge adapted to produce a groove internally of said barrel and the other cutter having a cutting edge disposed relatively nearer the center of the tool than said first cutting edge to finish the land portion between the cut grooves.

4. In a cutting tool for rifling and finishing the bore of a gun, a cylindrical head having a set of cutters oppositely disposed therein on diverging radial lines, one of said cutters being provided with a continous cutting edge adapted to produce a plain groove internally of said barrel and the other cutter having a stepped cutting edge adapted to produce a double groove and finish the land between the double grooves.

5. In a cutting tool for rifling and finishing the bore of a gun, a cylindrical head having a set of draw cutters mounted therein on diverging radial lines, one of said cutters having a channeled surface and irregular cutting edge and the other cutter having a cutting edge of regular curvature, said cutters being adapted to produce a series of radial grooves and lands and to finish the lands within the bore of the gun.

[Claims 6 to 16 not printed in the Gazette.]

1,239,660. TOOL FOR RIFLING AND PLANING GUN-BARRELS. WILLIAM C. ANDREWS and HARRY A. AUER, Cleveland, Ohio; said Andrews assignor to said Auer. Filed Oct. 23, 1916. Serial No. 127,072. (Cl. 90—28.1.)



1. A tool for rifling and planing gun barrels, comprising a cylindrical member having a hook cutter adapted to produce a groove by repeated draw cutting operations and a planing element adapted to finish a land portion adjacent the groove during final draw cutting operations, said groove cutter and planing element each having continuous cutting edges of regular curvature the full width thereof.

2. A tool for rifling and planing gun barrels, comprising a cylindrical member having a hook cutter with a circular cutting edge adapted to produce a series of grooves by repeated draw cutting operations and a planing element with a circular cutting edge adapted to finish the complete land portion between two adjacent grooves during final draw cutting operations, said cutter and planing element being mounted one in advance of the other longitudinally of the cylindrical member, and adjustable means to station said groove cutter and land planing element with their respective cutting edges at different distances radially from the axis of the tool.

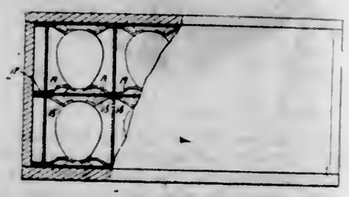
3. A tool for rifling and planing gun barrels, comprising a cylindrical body having a groove cutter and a separate land planer mounted on diverging radial lines to extend beyond the side of said body, said cutter and planer each having a continuous curved cutting edge the full width thereof but of different radii.

4. A tool for rifling and planing gun barrels, comprising a cylindrical body, a groove cutter and a separate land planer mounted on diverging radial lines one in advance of the other within said body and adapted to extend through the side thereof, the respective cutting edges of said groove cutter and land planer being positioned at different radial distances from the axis of the tool, and spreading means within said body engaging said cutter and planer at different points longitudinally of the body.

5. A tool for rifling and planing gun barrels, comprising a tubular body having a groove cutter and a separate land planer mounted one in advance of the other longitudinally of said body, and means within said body to spread said groove cutter and land planer outwardly and project said cutter to a greater distance beyond the side of said body than said planer.

[Claims 6 to 14 not printed in the Gazette.]

1,239,661. EGG-CARRIER. ARTHUR H. ARMSTRONG, New York, N. Y. Filed May 12, 1915. Serial No. 27,688. (Cl. 217—27.)



1. In an egg carrier comprising an egg cell, a sheet material egg-supporting member formed with prongs deflected out of the plane of the said sheet and into said cell, the points of the prongs providing a resilient support for the egg, and means for limiting the movement of the said prongs.

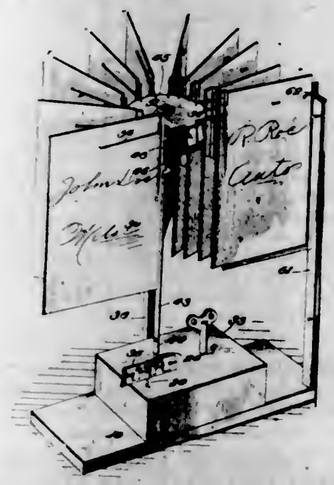
2. In an egg carrier, an egg supporting member formed from a sheet of material folded upon itself the upper fold of said member having portions thereof deflected above the plane of the sheet and the lower fold having portions deflected below the plane of the said sheet, whereby resilient supports are formed on each side of said member, and a central sheet between the folds to limit the deflected portions.

3. In an egg carrier, the combination with series of egg cells arranged one above the other, of a supporting member formed from sheet material, said member having portions thereof deflected above and below the plane of said member, said deflected portions projecting into adjacent cells, and means for preventing deformation of the sheet at the base of the said deflected portions.

1,239,662. AUTOMATIC DISPLAY-RACK. HORACE G. BAKER, Harlan, Iowa, assignor of one-half to William H. Townsan, Harlan, Iowa. Filed Nov. 21, 1914. Serial No. 873,368. (Cl. 40—35.)

1. A device of the character described including a rotatably mounted standard having a shaft provided with a head formed with a bearing member, a guide member arranged in spaced relation to the bearing member, a sleeve bearing at one end upon the guide member, and a terminal member resting upon the opposite end of the sleeve, means carried by the shaft and engaging said last mentioned member for clamping the members of the head upon the shaft to rotate therewith, an exhibit supporting member swingingly conected to the head and including an arm having a shank formed thereon, the said shank being pivotally connected with the head and extending through said terminal member and the guide member to rest upon the bearing member, the guide member being adjustable relative to the bearing member for tilting the shank of the exhibit supporting member at an angle to the vertical to cause the said exhibit supporting member to gravitate upon the head, and means arranged to operatively restrain the said exhibit supporting member to be swung upon the head against its tendency to gravitate by the rotation of the standard.

2. A device of the character described having a standard provided with a head including a guide member, an exhibit supporting member carried by the head and including an arm having a shank formed therein, the said shank being pivotally connected with the head and engaged by said guide member, means for adjusting the guide member upon the standard whereby to move said shank into angular relation to the axis of the said standard for causing the exhibit supporting member to gravitate upon the head, and means arranged to operatively restrain said arm to be pivoted upon the head against its tendency to gravitate by the rotation of the standard.



3. A device of the character described including a rotatably mounted standard, means mounted upon the said standard and gravitating to swing thereon in a fixed plane tilted from the horizontal with the said means adapted to carry an exhibit, and means arranged to operatively restrain the said first mentioned means to be swung against its tendency to gravitate by the rotation of the standard with the said first mentioned means movable to be freed from the said restraining means in the said plane.

4. A device of the character described including a rotatably mounted standard, means swingingly mounted upon said standard and adapted to support an exhibit, a member engaged with said means and adjustable upon the standard for tilting the said means to swingingly gravitate upon the standard, and means for operatively restraining said first mentioned means to be swung against its tendency to gravitate by the rotation of the standard.

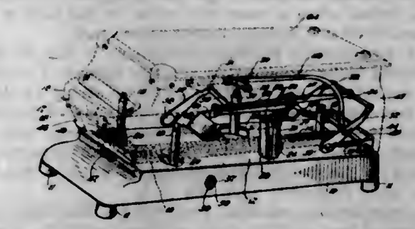
5. A device of the character described including a rotatably mounted standard, exhibit supporting means swingingly connected to the standard to gravitate thereon, means carried by said standard for adjusting the inclination of said first mentioned means relative to the standard for regulating the gravitating movement thereof, and means arranged to operatively restrain the said first mentioned means against its tendency to gravitate by the rotation of the standard.

[Claims 6 to 14 not printed in the Gazette.]

1,239,663. DELIVERY-CABINET. HENRY T. BARTLETT, JOHN E. BARTLETT, and JESSE T. ROBINSON, Montgomery, Ala. Filed Aug. 19, 1916. Serial No. 115,805. (Cl. 211—8.)

1. An apparatus of the character described comprising a platform adapted to hold the articles to be fed, guides on the platform, clamping members adapted to engage the side edges of, and frictionally hold between them, the articles to be fed, in combination with means for feeding the articles *seriatim*.

2. An apparatus of the character described comprising a platform adapted to hold the articles to be fed, guides for the articles, spring-pressed means to engage and press against the side edges of the articles, said means comprising an inclined member disposed to exert its maximum pressure on the upper articles, and means for feeding the articles *seriatim*.



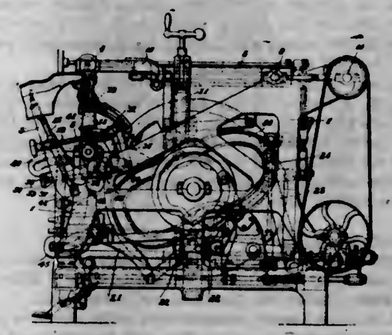
3. An apparatus of the character described comprising a platform adapted to hold the articles to be fed, adjustable guides for the articles on the platform, hinged clamping rods projecting below the platform, spring means adapted to press said rods against the sides of the articles to be fed, and means to feed said articles *seriatim*, substantially as described.

4. In an apparatus of the character described, a platform adapted to hold the articles to be fed, adjustable guides mounted on the platform, clamping rods projecting down through the platform, swinging arms which carry said clamping rods, a tension spring adapted to press said rods against the sides of the articles to be fed, and means for feeding said articles *seriatim*.

5. In an apparatus of the character described, a platform adapted to hold the articles to be fed, guides for the articles, means to frictionally engage and press against the side edges of the articles, means to feed the articles *seriatim*, comprising a handle, a reciprocable member movable thereby, and a pusher depending from said member and adapted to frictionally engage the articles *seriatim*, substantially as described.

[Claims 6 to 20 not printed in the Gazette.]

1,239,664. LEVELING-MACHINE. WILLIAM C. BAXTER, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Nov. 27, 1915. Serial No. 63,854. (Cl. 12—34.)



1. A sole leveling machine, comprising a shoe supporting jack having heel and toe posts adjustable relative to one another, a jack actuating mechanism, connections between the actuating mechanism and jack, adjustable in accordance with the relative adjustment of the heel and toe posts, and means for securing a separate initial adjustment of the actuating connections relative to the jack.

2. A sole leveling machine, having in combination, a pair of shoe supporting jacks and coöperating leveling tools, a common actuating mechanism for both jacks, and independent connections between each jack and the actuating mechanism connected with the jack and independently adjustable in accordance with the size adjustment of each jack.

3. A sole leveling machine, comprising a shoe supporting jack having heel and toe posts, means for relatively

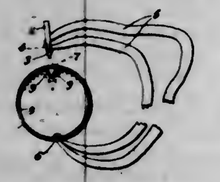
moving the heel and toe posts, actuating mechanism, a pair of slotted rocker arms, a link connecting the arms, and connections between the jack and link for simultaneously adjusting the ends of the link in opposite directions in the slotted arms to vary the travel of the jack in accordance with the size adjustment of the jack.

4. A sole leveling machine, comprising a pair of shoe supporting jacks, coöperating leveling devices, a rocking lever constructed and arranged to be connected to either jack, and separate connections between the rocking lever and each jack adjustable in accordance with the size adjustment of the jack to cause the movement imparted to the jack by the rocking lever to correspond with the size of the shoe supported upon the jack.

5. A sole leveling machine, comprising a shoe supporting jack having heel and toe posts relatively movable toward and from one another, means for adjusting the toe and heel posts, actuating mechanism, an actuating lever connecting the mechanism with the jack, connections between the actuating lever and jack to cause an adjustment of the lever in accordance with the size adjustment of the jack, and means under the control of the operator for adjusting the connections relative to the jack.

[Claims 6 to 8 not printed in the Gazette.]

1,239,665. SEAL. MARCUS B. BEHRMAN, New York, N. Y. Filed Aug. 26, 1916. Serial No. 116,980. (Cl. 70—99.)



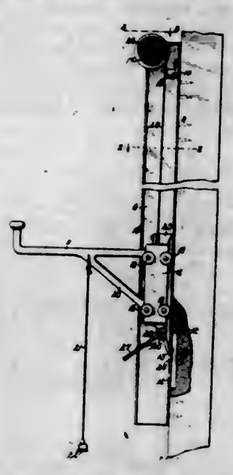
1. A seal of the character described comprising a shouldered pin provided with an eye, a box-like casing having an opening for receiving the pin, a spring catch in the casing adjacent to the opening for engaging the shoulders of the pin to prevent withdrawal, and a flexible connection between the pin and casing, having both of its ends fixedly secured in the casing and having its intermediate portion looped through the eye of the pin.

2. A seal of the character described comprising a shouldered pin, a hollow casing having imperforate front and rear walls and an opening in its side for receiving the pin, spring arms in the casing adjacent to the opening for engaging the shoulders of the pin to prevent withdrawal, and a flexible connection between the pin and casing and secured to both of said parts.

1,239,666. HARNESS-HANGER. JOHN F. BLADHOLM and AXEL L. BLADHOLM, Marshall, Minn. Filed Oct. 9, 1916. Serial No. 124,687. (Cl. 248—22.)

1. A harness hanger comprising a guide chute; a wheel-supported carriage movably disposed therein; a bracket arm extending from said carriage beyond said chute adapted for supporting a harness; means for elevating said carriage, said means embodying a spring-winding drum and a flexible connection between said drum and said carriage; and means for holding said carriage in lowered receiving position for said bracket arm, said means embodying a series of perforations in said chute and a latch for engaging the same mounted on said carriage.

2. A harness hanger comprising a guide chute; a wheel-supported carriage movably disposed therein; a bracket arm extending from said carriage beyond said chute adapted for supporting a harness; means for elevating said carriage, said means embodying a spring-winding drum and a flexible connection between said drum and said carriage; and means for holding said carriage in lowered receiving position for said bracket arm, said means embodying a series of perforations in said chute and a latch for engaging the same mounted on said carriage, said latch embodying a crook end and an exposed handle extending



beyond said chute, the weight of said handle overbalancing said crook end for causing the same to enter said perforations when disposed opposite the same.

1,239,667. PROCESS OF REMOVING FIBER FROM UNRETTED FLAX-STRAW AND PREPARING THE RESIDUE FOR STOCK FOOD. JONAS BROLIN, Sioux Falls, S. D. Filed Apr. 1, 1916. Serial No. 88,245. (Cl. 99—11.)

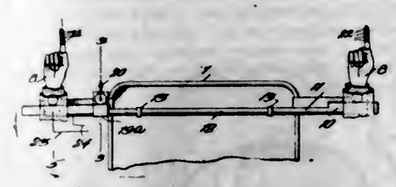
1. The process of removing fiber from unretted flax straw and of preparing the residue for stock food which consists in subjecting the straw repeatedly and continuously to breaking and beating operations, collecting the material delivered from the breakers and beaters, sifting said material to remove fibers and unbroken portions therefrom, and immediately thereafter treating said sifted material with a preservative to render it available for stock food.

2. The process of removing fiber from unretted flax straw and of preparing the residue for stock food which consists in subjecting the straw repeatedly and continuously to breaking and beating operations, collecting the material delivered from the breakers and beaters, sifting said material to remove fibers and unbroken portions therefrom, and immediately thereafter treating said sifted material with molasses to render it available for stock food.

3. The process of removing fiber from unretted flax straw and of preparing the residue for stock food which consists in subjecting the straw repeatedly and continuously to breaking and beating operations, collecting the material delivered from the breakers and beaters, sifting said material to remove fibers and unbroken portions therefrom, subjecting said sifted material to cleaning and grinding operations as the same is fed from the sifter, and treating the cleaned and ground material with a preservative binder for rendering the same available for stock food.

4. The process of removing fiber from unretted flax straw and of preparing the residue for stock food which consists in subjecting the straw repeatedly and continuously to breaking and beating operations, collecting the material delivered from the breakers and beaters, sifting said material to remove fibers and unbroken portions therefrom, subjecting said sifted material to cleaning and grinding operations as the same is fed from the sifter, and treating the cleaned and ground material with molasses for rendering the same available for stock food.

1,239,668. SIGNAL. WILLIAM CHAFFIN, San Antonio, Tex. Filed June 11, 1915. Serial No. 33,497. (Cl. 116—31.)



1. A device of the character specified, comprising a supporting bar having at each end a U-shaped extension and provided with means for engaging the wind shield of an automobile to support the bar transversely thereof and with the U-shaped extensions at the opposite sides of the shield, a connecting bar, a rack bar mounted to slide in each U-shaped extension and having an extension at its inner end, a detachable connection between each extension and the adjacent end of the connecting bar, an indicator pivoted to the front face of each of the extensions, and normally standing in a vertical position, a pinion rigid with each indicator at the pivotal connection and engaging the adjacent rack bar, and means for moving the rack bars and the connecting bars in either direction to simultaneously swing the indicators in the same direction, said means comprising a shaft journaled in the supporting bar near one indicator and at the outer side of the adjacent wind shield engaging mechanism, a pinion secured to the shaft, said shaft having at each end a radially extending indicator, the indicators being parallel and being parallel with the first-named indicators, said shaft being movable longitudinally in its bearings and in the pinion to bring either indicator adjacent to the bar.

2. A device of the character specified, comprising a supporting bar having means for detachably engaging the ends of a wind shield, a rack bar having guided movement longitudinally of the supporting bar, an indicator pivoted to each end of the supporting bar and having a pinion rigid therewith and meshing with the rack bar, said indicators being similar and similarly arranged, a pinion journaled on the supporting bar and engaging the rack bar to move the same in opposite directions, a shaft for turning the pinion, said shaft being movable longitudinally in the pinion, and having at each end an indicator, said indicators being parallel and parallel with the long axes of the first-named signals.

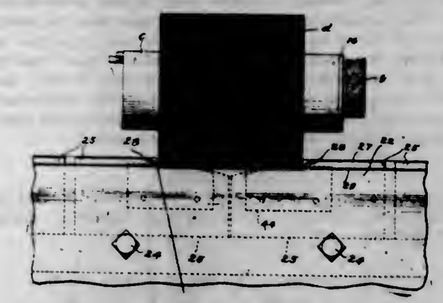
3. A device of the character specified comprising a supporting bar having means for detachably engaging a wind shield, an indicator pivoted to the bar at one end thereof and having a pinion rigid therewith, a pinion journaled on the supporting bar, a rack bar connecting the pinions, a shaft for turning the last-named pinion and having at each end an indicator arranged similarly to the first-named indicator, said shaft being movable longitudinally in the pinion.

1,239,669. TRAVERSE MECHANISM FOR WINDING-MACHINES. HOWARD D. COLMAN, Rockford, Ill., assignor to Howard D. Colman, Luther L. Miller, and Harry A. Severson, Copartners trading as Barber-Colman Company, Rockford, Ill. Filed Oct. 30, 1911, Serial No. 657,529. Renewed Feb. 10, 1916. Serial No. 77,525. (Cl. 242—44.)

1. The combination of means for supporting a winding couple; two members arranged to alternately engage the yarn; means at each side of the yarn-receiving element of the couple for disengaging the yarn from one of said members; and means for moving said members in opposite directions.

2. The combination of means for supporting a winding couple; two endless tapes arranged to alternately move the yarn; and means for actuating said tapes in opposite directions.

3. The combination of means for supporting a winding couple; two endless tapes arranged to alternately move the yarn, both tapes traveling in the same plane; and means for actuating said tapes in opposite directions.

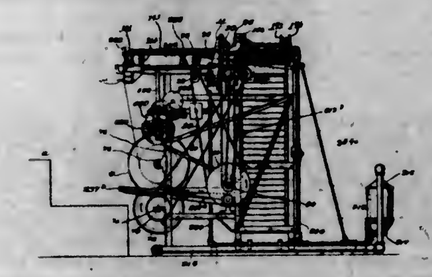


4. The combination of a row of winder units each comprising means for supporting a winding couple; two endless tapes arranged to alternately move the yarn; two runs of said tapes extending side by side and in the same plane and longitudinally of the row of winding units; and means for actuating said tapes in opposite directions.

5. The combination of means for supporting a winding couple; two members movable in opposite directions and each provided with means adapted to engage the yarn, said members moving substantially transversely of the path of the running thread; and stationary means at the sides of the yarn-receiving element of the couple to release the thread from said members alternately.

[Claims 6 to 19 not printed in the Gazette.]

1,239,670. WINDER. HOWARD D. COLMAN, Rockford, Ill., assignor to Howard D. Colman, Luther L. Miller, and Harry A. Severson, Copartners trading as Barber-Colman Company, Rockford, Ill. Filed June 28, 1913. Serial No. 776,362. (Cl. 28—14.)



1. A winder having, in combination means for winding threads; means for stopping and subsequently restarting the winding means; and means for detecting exhaustion of the threads being wound, said detecting means controlling said stopping and restarting means.

2. A winder having, in combination, means for supporting and driving a warp beam; means for stopping and subsequently restarting the beam-driving means; and means for detecting exhaustion of the threads being wound, said detecting means controlling said stopping and restarting means.

3. A winder having, in combination, a beam-driving shaft; a power shaft; a gear train connecting said shafts; a brake for the beam-driving shaft; a brake for the gear train; and means actuated upon the occurrence of an exhaust for applying the first mentioned brake and releasing the second mentioned brake.

4. A winder having, in combination, a beam-driving shaft; a power shaft alined therewith; a reduction gear-train connecting the adjacent ends of said shafts; a brake for the beam-driving shaft; a brake for the gear

train; and means actuated upon the occurrence of an exhaust for applying the first mentioned brake and releasing the second mentioned brake.

5. A winder having, in combination, a beam-rotating drum; means tending to rotate said drum; a brake for said drum; a bobbin-supporting structure; detector mechanism for the threads extending from said structure to the beam; thread-replenishing mechanism; cams controlling said replenishing mechanism and said brake; and means for driving said cams, said detector mechanism being arranged to connect said driving means to said cams.

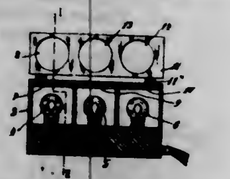
[Claims 6 to 185 not printed in the Gazette.]

1,239,671. ATTACHMENT TO A TROWEL. MORITZ F. CONSWANDT, Chicago, Ill. Filed Aug. 17, 1916. Serial No. 115,531. (Cl. 72—136.)



In a trowel attachment a sheet metal body formed of wings disposed in angular relation, bearing lugs projecting laterally from the bases of the wings, a slot in the angle between the wings to receive the handle shank, a curved bolt engaging and extending between the wings and adapted to engage over the handle shank with means for tightening the bolt whereby the attachment is secured in place.

1,239,672. SIGNAL DEVICE FOR SPEED-INDICATORS. HANS DAHL, Wilmersdorf, Berlin, Germany. Filed June 6, 1914. Serial No. 843,536. (Cl. 240—22.)



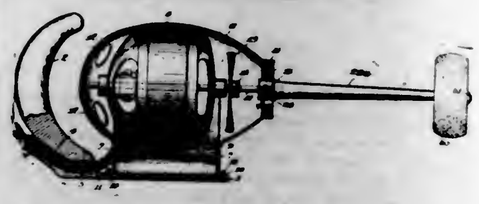
1. In a signal-device for speed-indicators, in combination, a source of electric light serving as a signal for a certain speed, and an adjustable element, located in front of the said luminous source, which over its entire effective area is uniformly translucent but non-transparent and presents a regular plane surface, and which is adapted, as required, depending upon the position given to the luminous source relatively to the observer, to serve as a reflector or as a dimmer for the luminous source without changing the said signal.

6. In a signal-device for speed-indicators, in combination, a plurality of electric lamps, a case containing the same and having a plurality of windows of different colors, one located before each lamp, and possessing a hinged lid, each part of the same which, when the lid is closed, is opposite a window being of translucent but non-transparent material.

[Claims 2 to 5 not printed in the Gazette.]

1,239,673. BLAST DEVICE FOR SHOE-POLISHING MACHINES. GUSTAVO ESPINOSA DE LOS MONTEROS, El Paso, Tex. Filed June 10, 1916. Serial No. 102,899. (Cl. 230—1.)

1. In a blast device for a shoe polishing machine of the class described, the combination of a base plate, a motor fixed upon said base plate, means for supplying said motor with an electric current, a motor housing positioned upon said base plate, said motor housing being enlarged at its central portions so as to provide sufficient space for the accommodation of said motor, said motor housing converging at its ends, one of said converging ends being provided with a plurality of enlarged openings, a fan carried by said motor, whereby as the motor rotates air will be drawn through said openings into said motor housing, the remaining converging end of said motor housing being adapted to condense the air currents created by said fan, and a funnel demountably secured upon said motor housing, whereby said funnel will conduct air currents from the motor housing to points desired.



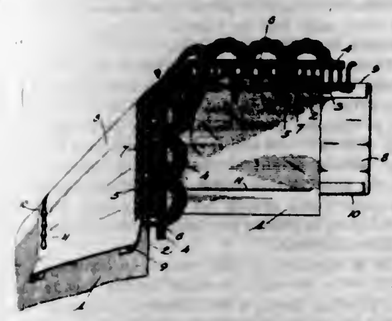
2. In a blast device for a shoe polishing machine of the class described, the combination of a base plate, a motor fixed upon said base plate, means for supplying said motor with an electric current, a motor housing positioned upon said base plate, said motor housing being enlarged at its central portions so as to provide sufficient space for the accommodation of said motor, said motor house converging at its ends, one of said converging ends being provided with a plurality of enlarged openings, a fan carried by said motor, whereby as the motor rotates air will be drawn through said openings into said motor housing, the remaining converging end of said motor housing being adapted to condense the air currents created by said fan, said motor housing provided with a collar upon said last-mentioned converging end, a funnel having a collar formed upon one end thereof, said last-mentioned collar being adapted to fit upon said first-mentioned collar, and means for holding said collars in releasable engagement with each other, said funnel being adapted to conduct air currents from said motor housing to points desired.

3. In a blast device for a shoe polishing machine of the class described, the combination of a flat base, said base being adapted to rest evenly upon a support, a handle extending upwardly from the top of said base, a motor fixedly mounted upon said base, said motor having a fan, a housing positioned upon said base, said housing being enlarged at its central portion so as to provide sufficient space for the accommodation of said motor, said housing having converging ends, said enlarged central portions of said housing having straight walls depending therefrom, outwardly-extending flanges formed upon said walls, said flanges fitting upon said base plate, means passing through said flanges for holding said housing upon said base, means for supplying said motor with an electric current, one of said converging ends having openings whereby air will be drawn therethrough into said housing, the remaining converging end being adapted to condense the air currents, said housing having a collar upon said last-mentioned converging end, and a funnel demountably carried by said collar.

1,239,674. EDGE-FINISHING SEAM. ALBERT H. DE VOE, Westfield, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Sept. 13, 1916. Serial No. 119,825. (Cl. 2—146.)

1. An edge-finishing seam comprising a body-fabric presenting an edge, a stay-strip applied to the under surface of the body-fabric adjacent said edge, an ornamental edging having its inner edge portion disposed between said body-fabric and said stay-strip, a covering thread looped back-and-forth across the edge of the body-fabric, and means for securing said edging, stay-strip and covering thread in their above defined relative positions.

2. An edge-finishing seam comprising a body-fabric representing an edge, a stay-strip applied to the under surface of the body-fabric adjacent said edge, an ornamental edging having its inner edge portion disposed between said body-fabric and said stay-strip, a covering thread looped back-and-forth in "figure 8" fashion across the edge of the body-fabric, and means for securing said edging, stay-strip and covering thread in their above defined relative positions.



3. An edge-finishing seam comprising a body-fabric of knit goods presenting an edge, a stay-strip of woven material applied to the under surface of the body-fabric adjacent said edge, an ornamental edging having its inner edge portion disposed between said body-fabric and said stay-strip, an ornamental covering thread looped back-and-forth across the edge of the body-fabric, and means for securing said edging, stay-strip and covering thread in their above defined relative positions.

4. An edge-finishing seam comprising a body-fabric presenting an edge, a stay-strip of woven material applied to the under surface of the body-fabric adjacent said edge and having its opposite edges folded inwardly between the body-fabric and the body of said stay-strip, an ornamental edging having its inner edge portion disposed between the body-fabric and the outer folded edge-portion of the stay-strip, an ornamental covering thread looped back-and-forth across the edge of the body-fabric, a line of stitches passing through the outer folded edge of the stay-strip, the inner edge of the edging, the edge of the body-fabric and the inner row of loops of the covering thread, a second line of stitches securing the outer row of loops of the covering thread to the edging, and a third line of stitches securing the inner folded edge of the stay-strip to the body-fabric.

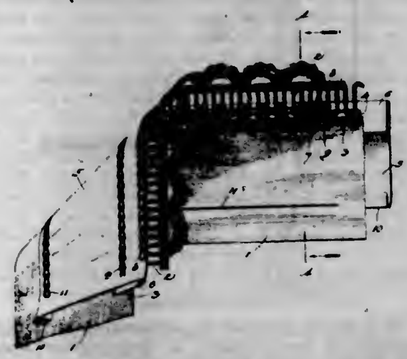
5. An edge-finishing seam comprising a body-fabric presenting an edge, a stay-strip having an outer edge disposed beneath the edge of the body-fabric, an ornamental edging or lace-strip having its inner edge disposed between the body-fabric and stay-strip, a first line of stitches passing through the body-fabric, stay-strip and the inner edge of the edging, a second line of stitches formed in the edging, an ornamental thread looped back-and-forth over the edge of the body-fabric between the first and second lines of stitches and secured in position thereby, and a third line of stitches serving to secure the inner edge of the stay-strip to the body-fabric.

[Claims 6 to 8 not printed in the Gazette.]

1,239,675. ORNAMENTAL EDGE-FINISHING SEAM. ALBERT H. DE VOE, Westfield, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Oct. 18, 1916. Serial No. 126,255. (Cl. 2—146.)

1. An ornamental edge-finishing seam for sewed articles comprising, a body-fabric presenting an edge, an ornamental edging having its inner edge in abutting relation with the edge of the body-fabric, a stay-strip underlapping the abutted edge portions of the body-fabric and edging, an ornamental covering thread looped back-and-forth across said abutted edge portions, and means for securing the body-fabric, edging, covering thread and stay-strip in their above defined relative positions.

2. An ornamental edge-finishing seam comprising, a body-fabric presenting an edge, a stay-strip applied to the under surface of the body-fabric and having its outer edge projecting beyond the edge of the body-fabric, an ornamental edging having its inner edge disposed in abutting relation with the edge of the body-fabric, an embroidery thread looped back-and-forth in "figure 8" fashion across the abutted edges of the body-fabric and edging, and means for securing said edging, stay-strip and covering thread in their above defined relative positions.



3. An ornamental edge-finishing seam comprising, a body-fabric presenting an edge, an ornamental edging arranged with its inner edge in abutting relation with the edge of the body-fabric, a covering thread looped back-and-forth across the line of division between the body-fabric and edging at the upper side of the seam, a stay-strip having its opposite edges folded inwardly and applied to the under side of the body-fabric with its outer marginal portion underlapping the inner marginal portion of the edging, a line of stitches passing through the outer row of loops of the covering thread, the edging and the stay-strip at one side of said line of division, another line of stitches passing through the inner row of loops of the covering thread, the body-fabric and the stay-strip at the opposite side of said line of division, and a third line of stitches passing through the body-fabric and inner marginal portion of the stay-strip.

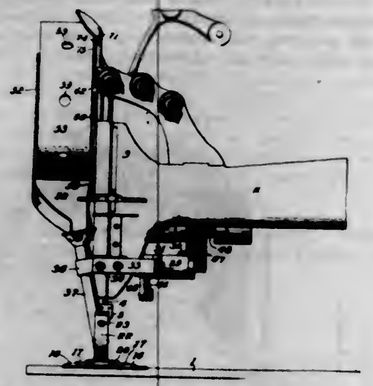
4. An ornamental edge-finishing seam for sewed articles comprising, a body-fabric presenting an edge, an ornamental edging having its inner edge in abutting relation with the edge of the body-fabric, a stay-strip having its outer marginal portion underlapping the abutted edge portions of the body-fabric and edging, an ornamental covering thread looped back-and-forth across said abutted edge portions, means for securing the body-fabric, edging, covering thread and outer marginal portion of the stay-strip in their above defined relative positions, and means for securing the inner marginal portion of the stay-strip to the body-fabric at a distance inwardly from the covering thread.

1,239,676. ARTICLE-PRESENTING MEANS FOR SEWING-MACHINES. ALBERT H. DE VOE, Westfield, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Nov. 10, 1916. Serial No. 130,532. (Cl. 112—32.)

1. In a sewing machine, in combination, stitch-forming mechanism, a work-support, a reciprocatory open-bottomed article-carrying magazine, a runway affording a bottom for said magazine and having a detaining shoulder for engagement with each article as it is deposited on said runway, and a pusher moving with said magazine and adapted to engage an article upon said runway at the side thereof engaged by said shoulder for moving it beyond the end of the runway.

2. In a sewing machine, in combination, stitch-forming mechanism, a work-support, a reciprocatory open-bottomed article-carrying magazine, a runway sustained above and spaced from the work-support to afford a bottom for said magazine and having a detaining shoulder for engagement with each article as it is deposited on said runway, and a pusher moving with said magazine and adapted to engage an article upon said runway at the

side thereof engaged by said shoulder for moving it beyond the end of the runway.



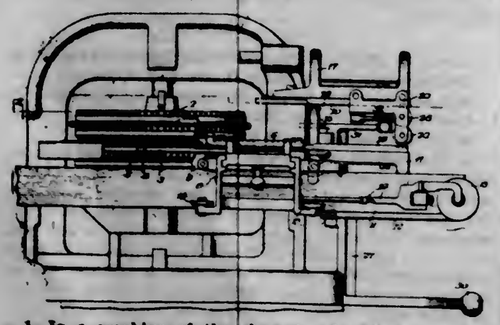
3. In a sewing machine, in combination, stitch-forming mechanism, a work-support, a reciprocatory open-bottomed article-carrying magazine, a spring-pressed runway affording a bottom for said magazine and having a detaining shoulder for engagement with each article as it is deposited on said runway, and a pusher moving with said magazine and adapted to engage an article upon said runway at the side thereof engaged by said shoulder for moving it beyond the end of the runway.

4. In a sewing machine, in combination, stitch-forming mechanism, a work-support, a reciprocatory open-bottomed article-carrying magazine, a runway affording a bottom for said magazine, and means coöperating with said magazine for successively conveying the contained articles in plural-stage movements toward the stitch-forming mechanism.

5. In a sewing machine, in combination, stitch-forming mechanism, a work-support, a reciprocatory open-bottomed article-carrying magazine, a runway affording a bottom for said magazine, and means coöperating with and moving in unison with the magazine for successively conveying the contained articles toward the stitch forming mechanism.

[Claims 6 to 18 not printed in the Gazette.]

1,239,677. MACHINE FOR LEVELING PRINTING CHARACTERS. JOSEPH S. DUNCAN, Chicago, Ill., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 7, 1916. Serial No. 113,663. (Cl. 76—4.4.)



1. In a machine of the character described, the combination of a movable carriage having means thereon to hold a printing plate, a bed adapted to support said plate, pressure means associated with said bed and spaced therefrom a distance equal to the desired height of the printing characters on said plate, and means for actuating said pressure means to reduce the faces of the printing characters to a common plane.

2. In a machine of the character described, the combination of a movable carriage having means thereon to hold a printing plate, a bed adapted to support said plate, a pressure roller associated with said bed and spaced therefrom a distance equal to the desired height of the printing characters on said plate, and means for moving said roller over said bed to reduce the faces of the printing characters to a common plane.

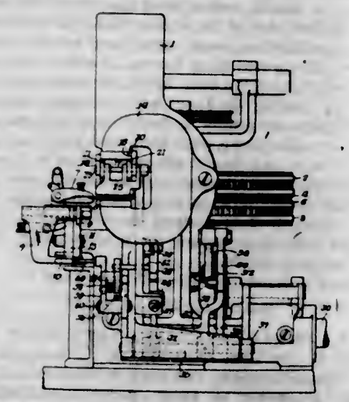
3. In a machine of the character described, the combination of a movable carriage having means thereon to hold a printing plate, a bed adapted to support a printing plate, a support above said bed, a pressure roller associated with said bed and spaced therefrom a distance equal to the desired height of the printing characters on said plate, an anti-friction roller between said pressure roller and support, and means for moving said pressure roller over sai dbed to reduce the faces of the printing characters to a common plane.

4. In a machine of the character described, the combination of a movable carriage having means thereon to hold a printing plate, a bed adapted to support said plate, pressure means associated with said bed and spaced therefrom a distance equal to the desired height of the printing characters on said plate, a manually operable lever, and a connection between said lever and pressure means for moving the latter over said bed to reduce the faces of the printing characters to a common plane.

5. In a machine of the character described, the combination of a movable carriage having means thereon to hold a printing plate, a bed adapted to support said plate, a pressure roller associated with said bed and spaced therefrom a distance equal to the desired height of the printing characters on said plate, a manually operable lever, and a connection between said lever and pressure roller for moving the latter over said bed to reduce the faces of the printing characters to a common plane.

[Claims 6 to 10 not printed in the Gazette.]

1,239,678. AUTOMATIC MACHINE FOR LEVELING PRINTING CHARACTERS. JOSEPH S. DUNCAN, Chicago, Ill., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 7, 1916. Serial No. 113,664. (Cl. 153—32.)



1. In a machine of the character described, the combination of a movable carriage having means thereon to hold a printing plate, a bed adapted to support said plate, pressure means associated with said bed and spaced therefrom a distance equal to the desired height of the printing characters on said plate, and means for automatically actuating said pressure means when a plate is disposed on said bed to reduce the faces of the printing characters to a common plane.

2. In a machine of the character described, the combination of a movable carriage having means thereon to hold a printing plate, a bed adapted to support said plate, a pressure roller associated with said bed and spaced therefrom a distance equal to the desired height of the printing characters on said plate, and means for automatically actuating said pressure roller when a plate is disposed on said bed to reduce the faces of the printing characters to a common plane.

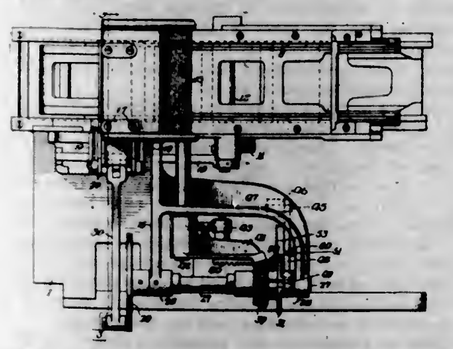
3. In a machine of the character described, the combination of a movable carriage having means thereon to hold a printing plate, a bed adapted to support said plate, a pressure roller associated with said bed and spaced therefrom a distance equal to the desired height of the printing characters on said plate, and means controlled by said carriage for automatically actuating said pressure roller when a plate is disposed on said bed to reduce the faces of the printing characters to a common plane.

4. In a machine of the character described, the combination of a movable carriage having means thereon to hold a printing plate, a bed adapted to support said plate, a pressure roller associated with said bed and spaced therefrom a distance equal to the desired height of the printing characters on said plate, means controlled by said carriage for automatically actuating said pressure roller when a plate is disposed on said bed to reduce the faces of the printing characters to a common plane, and means permitting said pressure roller to remain inoperative when an obstruction is encountered thereby while said actuating means continues in operation.

5. In a machine of the character described, the combination of a movable carriage having means thereon to hold a printing plate, a bed adapted to support said plate, a pressure roller associated with said bed and spaced therefrom a distance equal to the desired height of the printing characters on said plate, and means for automatically actuating said pressure roller when a plate is disposed on said bed including a constantly driven member, driving mechanism therefor, means normally disengaged from said member and connected to said roller, and means for causing engagement of said last-mentioned means with said member.

[Claims 6 to 10 not printed in the Gazette.]

1,239,679. MACHINE FOR ROLLING PRINTING-PLATES. JOSEPH S. DUNCAN, Chicago, Ill., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 7, 1916. Serial No. 113,665. (Cl. 153—32.)



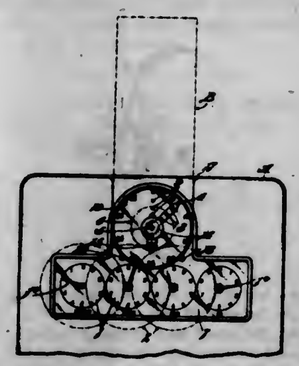
1. In a machine of the character described, the combination of a fixed bed, means for intermittently and successively positioning printing plates having characters struck up from the body thereof upon said bed, and means for automatically subjecting said plates to rolling pressure when so positioned to reduce the faces of the characters thereon to a common plane.

6. In a machine of the character described, the combination of a fixed bed, means for intermittently and successively positioning printing plates having characters struck up from the body thereof upon said bed, a pressure roller movable over said bed and spaced therefrom a distance equal to the desired height of the characters on said plate, and means for actuating said roller in opposite directions as successive plates are positioned above said bed including an operating member and an intermittent connection between said member and roller.

8. In a machine of the character described, the combination of a bed, means for intermittently and successively positoining printing plates bearing characters struck up from the body thereof upon said bed, a carriage movable over said bed, a pressure roller supported by said carriage and spaced from said bed a distance equal to the desired height of the characters on said plates, and means for actuating said carriage in opposite directions when successive plates are positioned on said bed, including a shaft, a crank secured thereto, a link connecting said crank and carriage, a member secured to said shaft and provided with a pawl, a member loose on said shaft and provided with notches adapted to be engaged by said pawl, a pinion loose on said shaft and connected to said last-mentioned member, a pivoted segmental rack engaging said pinion, and means for rocking said rack.

[Claims 2 to 5, 7, 9, and 10 not printed in the Gazette.]

1,239,680. METER. ALFRED C. EINSTEIN, St. Louis, Mo.; Blanche B. Einstein, administratrix of said Alfred C. Einstein, deceased, assignor to Union Electric Light and Power Company, St. Louis, Mo. Filed Sept. 5, 1914. Serial No. 860,317. (Cl. 234—35.)



1. In a meter of the class described, a period consumption indicating device comprising a single dial and a coöperating indicating hand provided with a series of projections, a member yieldingly arranged adjacent said dial and having a series of apertures that are adapted to coöperate with said projections, a record sheet provided with a dial that corresponds to said indicating dial and which is adapted to be interposed between said hand and said member, and means for actuating said member toward said hand so as to make an impression on the record dial that corresponds to the reading on the indicating dial.

2. In a meter of the class described, a period consumption indicating device comprising a graduated single dial and a coöperating hand, a yieldingly mounted member arranged adjacent said hand and normally spaced away therefrom and which is adapted to be moved inwardly toward said hand under certain conditions, a record sheet that is adapted to be interposed between said hand and said member, and coöperating means on said hand and said member for forming a record of the position of said hand on said record sheet when said member is moved inwardly.

3. In a meter of the class described, a period consumption indicating device comprising a graduated single dial and a coöperating hand, a yieldingly mounted member arranged adjacent said hand and normally spaced away therefrom and which is adapted to be moved inwardly toward said hand under certain conditions, a record sheet that is adapted to be interposed between said hand and said member, coöperative means on said hand and said member for forming a record of the position of said

hand on said record sheet when said member is moved inwardly, and means for preventing an unauthorized person from actuating said member.

4. In a meter for measuring a commodity that is supplied to a consumer by a public service company, a single dial and a coöperating indicating hand for indicating the total amount of consumption of the commodity during a portion of the time the meter has been in use, a record sheet provided with a single dial that is graduated in the same manner as the indicating dial and which is adapted to be placed in the meter between said indicating hand and a movable member in such a manner that the dial thereon coincides with the indicating dial, and coöperating means on said indicating hand and said movable member whereby when said member is moved toward said indicating dial the position of said indicating hand will be recorded on the dial of said record sheet.

5. In a meter of the class described, a period consumption indicating device consisting of a single dial, a record sheet provided with a similar dial that is adapted to be placed over said first mentioned dial, and means for recording on said record sheet dial the amount indicated on said period consumption indicating dial.

[Claims 6 to 10 not printed in the Gazette.]

1,239,681. GAS-BURNER. ANDREW J. ENGLISH, Cincinnati, Ohio, assignor to George J. Uckotter, Cincinnati, Ohio. Filed Aug. 12, 1915. Serial No. 45,265. (Cl. 158—106.)



1. In a gas burner, a burner head having a chamber therein for the intake of gas, a multiplicity of diverging tube like arms, flattened and widened toward their outlet, the outlet being narrow and elongated, for the mixture of air and gas, the elongated flattened outlet extending vertically upward.

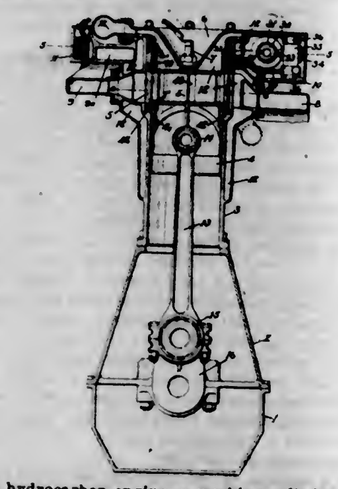
2. In a gas burner, a mixing tube having a suitable inlet for gas, said tube being gradually flattened and widened to provide a narrow elongated outlet for the mixture of air and gas, the tube at its outlet extending vertically upward, the area of inlet in the tube being least in diameter and the outlet thereof being greatest in diameter.

3. In a gas burner, a tube having an inlet of a predetermined area, the body of the tube increasing in area and having the outlet narrowed and elongated to prevent back-firing, maintaining at the outlet a greater area than the area of the inlet.

4. In a gas burner, a tube having an inlet of a predetermined area, the body of the tube increasing in area and having the outlet narrowed and elongated to prevent back-firing, maintaining at the outlet a greater area than the area of the inlet, the tube at its outlet extending vertically upward.

1,239,682. HYDROCARBON-ENGINE. ELLSWORTH F. GASKELL, New York, N. Y., assignor of one-half to Conrad G. Goddard, New York, N. Y. Filed Sept. 6, 1912, Serial No. 718,883. Renewed Feb. 1, 1917. Serial No. 145,906. (Cl. 123—80.)

1. In a hydrocarbon engine, a working cylinder having supply and exhaust ports; a piston reciprocating in said cylinder below said ports; a cylindrical valve confined to oscillating movements and located within said cylinder and extending beyond the limit of upward movement of said piston, said valve having ports adapted to coöperate with the ports in said cylinder, and the inner surface of which valve is exposed to the pressure within said cylinder throughout its entire circumference; and means for operating said valve.



2. In a hydrocarbon engine, a working cylinder open at its upper end and having supply and exhaust ports; a piston reciprocating in said cylinder; a valve confined to oscillating movements and cylindrical in form and of greater internal diameter than the diameter of said piston, located within said cylinder, so as to be exposed to the pressure within said cylinder, and said valve extending beyond the limit of upward movement of said piston, said valve having ports adapted to coöperate with the ports in said cylinder; a removable head for closing the upper end of said cylinder; and means for operating said valve.

3. In a hydrocarbon engine, a working cylinder having a plurality of supply and exhaust ports; a piston reciprocating in said cylinder; portions of the cylinder wall between said several ports being hollow so that a cooling fluid may flow therethrough; an oscillating cylindrical valve confined to oscillating movements and located within said cylinder, and extending beyond the limit of upward movement of said piston, said valve having a plurality of supply and of exhaust ports adapted to coöperate with the ports in said cylinder, and the inner surface of which valve is exposed to the pressure within said cylinder throughout its entire circumference; and means for operating said valve.

4. In a hydrocarbon engine, a working cylinder open at its upper end and having a plurality of supply and exhaust ports; a piston reciprocating in said cylinder; portions of the cylinder wall between said several ports being hollow so that a cooling fluid may flow therethrough; an oscillating valve, cylindrical in form and of greater internal diameter than the diameter of said piston, located within said cylinder, confined to oscillating movements therein, and extending beyond the limit of upward movement of said piston; said valve having a plurality of supply and of exhaust ports adapted to coöperate with the ports in said cylinder, and the inner surface of which valve is exposed to the pressure within said cylinder throughout its entire circumference; a removable head for closing the upper end of said cylinder; and means for operating said valve.

5. In a hydrocarbon engine, a working cylinder having a plurality of supply ports, and a plurality of exhaust ports located opposite to said supply ports; a piston reciprocating in said cylinder; an oscillating cylindrical valve located within said cylinder and extending beyond the limit of upward movement of said piston, said valve having ports adapted to coöperate with but greater in number than the total of the supply and exhaust ports in the cylinder; and means for operating said valve.

[Claims 6 to 28 not printed in the Gazette.]

1,239,683. GARMENT-SUPPORTER. HANS E. GRABAU, Long Island City, N. Y., assignor to Gabriel Abraham, New York, N. Y. Filed Oct. 4, 1916. Serial No. 123,686. (Cl. 24—245.)



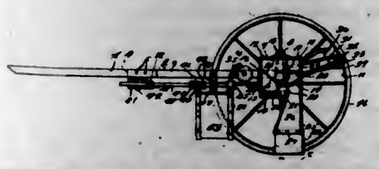
1. A garment clasp comprising a member having an aperture formed therein, a coöperating member of flexible sheet material comprising a body portion and a tab, the latter adapted to be inserted through the said aperture, the said tab being arranged substantially parallel to but offset from its body portion and connected to the latter by a neck having two reversely arranged substantially 180° bends therein.

2. A member of flexible sheet material for a garment clasp comprising a body portion and a tab arranged substantially parallel to but offset from the body portion and connected to the latter by a neck having reversely arranged substantially 180° bends therein and said tab having a portion thereof coöperating with the part of the neck between the two bends, whereby it is reinforced.

3. A flexible member of sheet material for a garment clasp comprising a body portion, a flat tab arranged substantially parallel to but offset from the body portion and connected to the latter by a neck having two reversely arranged substantially 180° bends therein and a spacing member interposed between the tab and the part of the neck between the two bends.

4. A flexible member of sheet material for a garment clasp comprising a body portion, a flat tab offset from said body portion and arranged so that the end of the body portion is opposite the central part of the tab, and a curved neck connecting the said end of the body portion and the edge of the tab which overlaps the body portion.

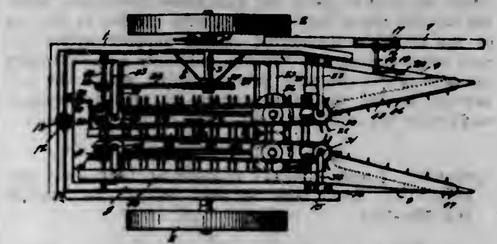
1,239,684. BOLL-WEEVIL DESTROYER. JAMES NEWELL GRAVES, San Saba, Tex. Filed Mar. 7, 1917. Serial No. 153,121. (Cl. 43—1.)



In an insect destroyer, a frame having an axle provided with supporting wheels, a casing suspended on the axle provided with a receptacle for a poisonous solution, said casing having at its ends downwardly depending pneumatic passages provided with flexible skirts to drag over the plants and the like, a fan journaled in bearings of the casing to create suctions in said passages, to draw the insects into the casing, means for deflecting the insects into the solution, means of connection between the fan and one of the supporting drive wheels to impart motion to the fan, and an agitator, for shaking the insects from the plants, whereby they may be sucked into said passages.

1,239,685. ROW-BINDER. EDWARD J. GRUBBS, Royston, Tex. Filed Apr. 17, 1917. Serial No. 162,706. (Cl. 56—103.)

1. In a row binder, the combination with a supporting structure, of a pair of vertically disposed rearwardly traveling conveyer belts having fingers, the lower portions of the belt being free from fingers, and a bottom adjustably mounted between the lower portions of the belts.



2. In a row binder, the combination of a main frame, a secondary frame, a tongue rigidly secured to the main frame, an adjusting lever mounted on the tongue and connected with the secondary frame, a swivel connection suspending the rear end of the secondary from the main frame, cutters mounted on the secondary frame, conveyer belts mounted on the secondry frame, an adjustable bottom mounted between the belts, and mechanism for driving the cutters and the belts.

3. In a row binder, a support, a pair of vertical opposed belts extending longitudinally of the support, a bottom adjustable vertically between the belts, said belts having laterally extending fingers on the upper portion overhanging the bottom, the lower portions of the belts being free from the fingers to permit the bottom to be adjusted vertically therebetween.

1,239,686. CLOTHES-BOILER. STEFAN HALUSKA, Johnstown, Pa. Filed Dec. 27, 1916. Serial No. 139,100. (Cl. 68—30.)



1. A device of the class described comprising a clothes receptacle, a perforated support shiftably arranged therein, threaded upright shafts journaled adjacent the opposite ends of the boiler and detachable threaded connections between the said support and shafts.

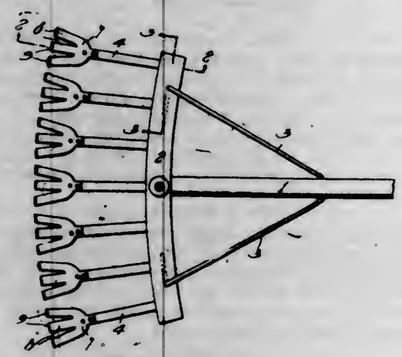
2. A device of the class described comprising a boiler, upright posts integrally arranged within the opposite ends of the boiler provided with axial bores and having longitudinal slots communicating between the said bores and the interior of the boiler, threaded operating shafts journaled axially within the said bores, a clothes support within the boiler having guide recesses within which the said posts are positioned, and clamp carried by the support projecting through the said slots in threaded engagement with the said shafts when the device is operatively arranged.

3. A device of the class described comprising a boiler, opposite posts arranged therein having axial bores and side slots, a threaded shaft revolubly arranged within each of said bores, swiveling connections between the lower end of said shafts and said boiler, journaling brackets for the upper ends of said shafts carried by the top of the boiler, and a clothes support shiftably arranged within the said boiler in operative engagement with the said shafts.

4. A device of the class described comprising a boiler, opposite posts arranged therein having axial bores and

side slots, a threaded shaft revolubly arranged within each of said bores, swiveling connections between the lower end of said shafts and said boiler, journaling brackets for the upper ends of said shafts carried by the top of the boiler, a perforated clothes support within the said boiler having end recesses guidingly arranged upon the said posts, two-part clamps pivoted within the said recesses having threaded portions in operative engagement with the said shafts when the clamps are closed.

1,239,687. LAWN-RAKE. TOMOKICHI HANAMMA, Alameda, Cal. Filed May 24, 1917. Serial No. 170,749. (Cl. 55—10.)



2. A rake comprising a handle, a transverse bar secured at its center to the front end of said handle, a plurality of one piece metallic springs secured rigidly to said bar and extending forwardly therefrom, and metal plates carried by the front ends of said springs, each of said plates having a plurality of downwardly directed fingers.

[Claim 1 not printed in the Gazette.]

1,239,688. COMBINATION PETCOCK WRENCH AND CLEANING TOOL. GEORGE F. HARRIS, Brooklyn, N. Y. Filed Apr. 20, 1917. Serial No. 163,379. (Cl. 137—70.)



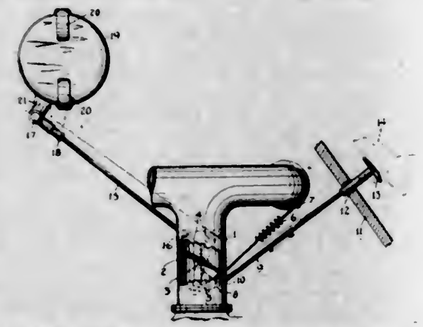
1. In a tool of the character described, the combination of an elongated handle, a substantially rectangular U-shaped grooved head-piece fastened at one extremity thereof, a petcock cleaning pin mounted upon said head-piece adapted to coöperate with the groove thereof to hold the pin in its operative position at a right angle to the elongated handle.

2. In a tool of the character described, the combination of an elongated handle, a substantially rectangular metal head-piece fastened upon one extremity thereof, a pet-cock cleaning pin pivotally mounted upon said head-piece, and means for retaining the cleaning pin in inoperative position longitudinally of and in contact with the elongated handle and in operative position in engagement with the head-piece at a right angle to the elongated handle.

3. In a tool of the character described, the combination of a grooved elongated wire handle, a grooved head-piece riveted thereto at one extremity, a cleaning pin pivotally mounted upon the head-piece and adapted to coöperate with the groove in the wire handle in its inoperative position and the groove in the head-piece in its operative position.

4. In a tool of the character described, the combination of an elongated wire handle, a grooved U-shaped head-piece riveted to one extremity thereof, a pin of springy material pivotally mounted thereon, said pin being provided with a protuberance adapted to coöperate with the groove of the head-piece to firmly seat the pin in its operative position.

1,239,689. SPARK CONTROL IN COMBUSTION-ENGINES. JAMES G. HEASLET, Detroit, Mich., assignor to The Studebaker Corporation, a Corporation of New Jersey. Filed Aug. 13, 1915. Serial No. 45,290. (Cl. 123—99.)



1. In an internal combustion engine, a throttle, and sparking mechanism, in combination with means operable by the throttle, only after the latter is opened beyond a predetermined extent, to control the sparking mechanism.

2. In an internal combustion engine, a throttle, and sparking mechanism, in combination with means operable by the throttle, only after the latter is opened beyond a predetermined extent, to retard the spark as the throttle is further opened and to subsequently advance the spark as the throttle is returned to the position of said predetermined extent of opening.

3. In an internal combustion engine, a throttle, and sparking mechanism, in combination with means operable by the opening and closing of the throttle for shifting the sparking mechanism to advance or retard the spark, said means being operable to control the sparking mechanism when the throttle is opened in excess of that necessary to supply a predetermined amount of gas to the motor, any operation of the throttle to admit less than said predetermined amount of gas having no effect upon the sparking mechanism.

4. In an internal combustion engine, a throttle, and sparking mechanism, in combination with controlling means operated by the opening and closing of the throttle for controlling the sparking mechanism, said means being operable to control the sparking mechanism when the throttle is opened in excess of a predetermined maximum, under which maximum the operations of the throttle do not control the sparking mechanism.

5. In an internal combustion engine, a throttle, and sparking means, in combination with means, independent of the throttle, to control said sparking means during a period when the gas supply is limited by said throttle to a predetermined volume, with additional means to control said sparking means, the latter operating only when the gas supply exceeds the predetermined volume referred to as the limiting field of operation of the first-mentioned controlling means, the operation of said second controlling means being progressively to retard the spark as the volume of gas increases without interference with any manual or automatic adjustment of the first-mentioned spark controlling means.

[Claims 6 to 29 not printed in the Gazette.]

1,239,690. SURGICAL LIGATURE. BERTRAM K. HOLLISTER, Chicago, Ill., assignor to The Hollister-Wilson Laboratories, Portland, Me., a Corporation of Maine. Filed June 14, 1917. Serial No. 174,719. (Cl. 99—1.)

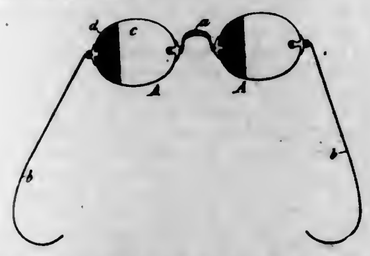
1. A surgical ligature package comprising a container and a ligature therein, the latter being immersed in a bath containing kerosene having an initial boiling point of not below about 140° C.

6. Catgut ligature immersed in a liquid comprising refined kerosene.

9. Sterilized catgut ligatures immersed in a liquid comprising about three parts kerosene and one part chloroform, together with a small percentage of oil of eucalyptus, oil of peppermint, oil of pine needles, menthol, thymol, and the like.

[Claims 2 to 5, 7, 8, and 10 not printed in the Gazette.]

1,239,691. AUTOMOBILE-GOGGLES. FRED C. HOWE, New Haven, Conn. Filed July 24, 1915. Serial No. 41,671. (Cl. 2—149.)

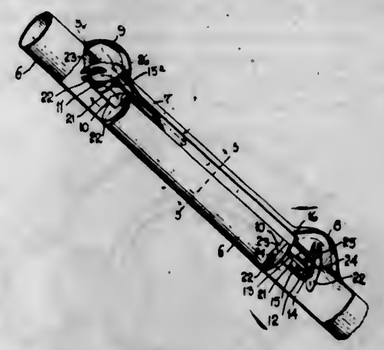


Eyeglasses or goggles especially intended for the use of automobilists, comprising a pair of glasses, said glasses having light intercepting portions at one side of the axis of the eye, the location of the intercepting portions being such as to permit a substantially unobstructed view when the eyes are directed ahead, the view ahead being adapted to be partially covered by the intercepting portions by a turn of the head, the line of division between the covered and uncovered portions of the view ahead being substantially vertical.

1,239,692. WATER-ELEVATOR. EDWARD P. HUME, Moorcroft, Wyo. Filed July 31, 1916. Serial No. 112,352. (Cl. 103—6.)

2. In a mechanism of the character described, an endless element, wheels over which said element passes, spaced buckets on the endless element, each having a slot extending inward from one end toward the center of the bucket, the bucket being hinged to the element at the inner end of this slot, said buckets being disposed at right angles to the bucket during their passage along one flight of the endless element and with the slotted portions of the buckets extending toward the other flight, and means disposed at the forward end of the first named flight positively engaging the buckets and causing the rotation of the buckets relative to the endless element to a position parallel to the second named flight and with the slotted end of the bucket extending in a direction reverse to the direction of movement of the second named flight.

5. In a water elevator, a barrel having a return passage communicating at its ends with the barrel, an endless element having one flight disposed in the barrel and the other flight disposed in said passage, wheels over which the endless element passes, the longitudinal axis of the barrel intersecting the peripheries of said wheels, and spaced buckets mounted upon the endless element, each bucket having a slot extending inward from one edge to the center of the bucket and in line with the wheels, said slots permitting the passage of the buckets past and around the wheels.



7. In a water elevator, a barrel having a return passage communicating at its ends with the barrel, an endless element having one flight disposed in the barrel and the other flight disposed in said passage, wheels over which the endless element passes disposed at the ends of said flights, buckets pivotally mounted upon the endless element, said buckets having an area approximately the same as the cross sectional area of the barrel and each bucket having a slot extending inward from its edge to its center, the bucket being pivoted to the endless element at the end of said slot and said slots being so disposed as to permit the passage of the buckets passed and around the wheels, said return passage being rectangular in cross section and having a width approximately that of the buckets, and an interior thickness slightly greater than that of the buckets, and means disposed at the upper end of the flight of said endless element for causing the buckets to rotate into the plane of the return passage as the buckets enter the return passage, said buckets rotating into a plane at right angles to the barrel as the buckets enter said barrel, said means including a finger disposed at the upper end of the flight of the endless element and extending into the path of movement of the slotted portion of the bucket and acting to rotate the bucket to a half revolution and to further rotate the bucket into the same plane as the return passage as the bucket moves around the adjacent wheel.

10. A water elevator including a circular chute or flume, a return chute or flume substantially rectangular in cross section communicating with and adjacent to the circular chute, an endless belt including pivotally mounted buckets operable in said chutes, the buckets passing through the chutes lying in different positions.

[Claims 1, 3, 4, 6, 8, 9, 11, and 12 not printed in the Gazette.]

1,239,693. SOUND-BOX MOUNTING. ALBERT A. HUSEBY, Chicago, Ill. Filed July 19, 1916. Serial No. 110,042. (Cl. 274—24.)

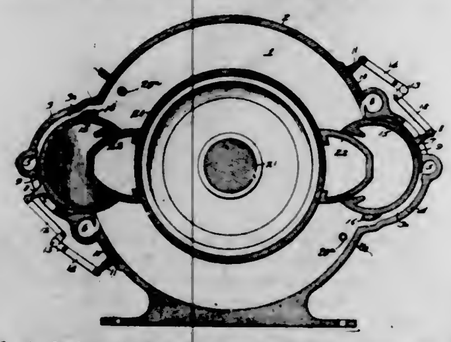


1. In a sound reproducing machine, the combination of a tone arm, a sound box constructed to rotatably engage

the outer end of said arm, means outside the sound passage for holding said sound box in operative relation to said tone arm but permitting relative rotative movement between said arm and box, and coöperating means on said arm and sound box for yieldably locking said sound box at the end of its adjusting movement in each direction.

[Claim 2 not printed in the Gazette.]

1,239,694. ROTARY ENGINE. MILES M. JACKMAN and CHARLES W. JACKMAN, Waterloo, Ind. Filed Dec. 4, 1915. Serial No. 65,080. (Cl. 123—13.)

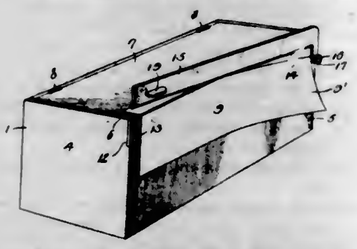


1. A device of the character described, consisting of a stator casing, comprising a central portion and substantially semi-circular end portions, a main rotor mounted in said casing, oppositely disposed pistons mounted in said casing, rotary abutments mounted in said end portions adapted to intermittently register with said pistons, an inlet passage formed transversely in each end of said casing, exhaust passages formed in the end portions, said casing being provided with enlarged end portions extending from the inlet passage to the central portion of the casing providing means for the admission of the motive fluid from the inlet passage to the inside of the central portion, a partition formed between the end casing and the rotary abutment, valve mechanism mounted upon said casing and operatively connected with said inlet passages and exhaust passages, gears formed upon said rotor, gears formed upon the said rotary abutments adapted to mesh with said rotor gears, and means interposed between said rotary abutments and said valve mechanism for operating said mechanism.

2. A device of the character described, consisting of a stator casing, comprising a central portion, and substantially semi-circular end portions, a main rotor mounted in said casing having oppositely disposed pistons formed thereon, rotary abutments mounted in the end portions adapted to intermittently register with the said pistons, an inlet passage formed in each end of said casing, said casing being provided with enlarged end portions extending from the inlet passage to the central portion of the casing providing means for the admission of the motive fluid from the inlet passage to the inside of the central portion, a partition formed between the end casing and the rotary abutments, the said end portions being provided with slots, exhaust valves, the end casings adjacent the exhaust valves being provided with slots, armed members adapted to conform to the curvature of the casing and slidably mounted in the said slots, bell crank levers, rods connecting the arms to the said bell crank levers, and means for operating the said rods for a purpose specified.

1,239,695. CONTAINER AND CUTTER FOR RUBBER-DAM SHEETS. AUGUSTUS H. JENSEN, Cheney, Wash. Filed Oct. 20, 1916. Serial No. 126,758. (Cl. 211—32.)

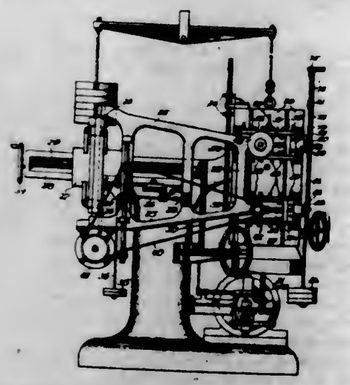
1. A container for rubber dam sheets comprising a receptacle having a ledge over which the free edge of the sheet is to be drawn, a closure for the receptacle having an edge portion arranged to engage the material resting on said ledge, and a cutting device for severing a portion of the material drawn outward over the ledge, said receptacle being recessed along its front wall and having a deeper recess at one end communicating with the recess first mentioned, a hinge member having an offset portion positioned within the recess, said cutting device also including an offset portion constituting a hinge knuckle, and means for connecting the hinge member for positioning the cutting device to sever the sheet along a line coincident with one upper edge of the receptacle at a point spaced from the point at which the sheet emerges.



2. A container for rubber dam sheets comprising a receptacle open at the top including a front wall having a portion projecting inwardly at the open top to form a ledge over which a portion of the sheet may be withdrawn, said ledge being provided with a beveled surface at its inner edge, and a door closing the top of the casing and having its free edge provided with a beveled surface adapted to engage the portion of the material resting against the beveled surface of the ledge, means positioned to cut the sheet along a line lying substantially in the plane of the top and the outer portion of the front wall.

3. A container for rubber dam sheets comprising a receptacle provided with an opening in its top, and having one of its walls formed with a ledge along one of the margins of said opening and provided with a recess adjacent to said ledge, a cover for closing the opening in the receptacle, said cover and ledge being provided with beveled lapping friction surfaces, a stationary cutter member fitted in said recess and having an edge portion lying flush with the ledge, and a movable cutter member mounted for coöperation with said stationary cutter member and spaced from the beveled lapping friction surfaces leaving a portion of the sheet projecting above the top after the cut has been made.

1,239,696. ENGRAVING-MACHINE. GUSTAF EDWARD JOHNSON, Chicago, Ill., assignor to Sanford S. Vaughan, Oak Park, Ill. Filed Nov. 18, 1916. Serial No. 132,099. (Cl. 90—13.5.)



1. In a machine of the character described having a reciprocating part, with means for reciprocating the same continuously during the operation of the machine, and a part relatively fixed with respect to the direction of movement of said other part, one of said parts having a tracer and a cutter, the other of said parts being adapted for carrying a pattern to be engaged by said tracer and material to be cut by said cutter, the combination therewith of a holder for such pattern and a holder for such material, each of said holders being mounted to rock into various positions relative to said tracer and said cutter respectively, each of said holders being secured to one of said parts whereby there is relative movement between said holders bodily and the other one of said parts, means under the control of a movable part of the machine for simultaneously rocking each of said holders into various relative positions on their axes respectively, and means for rigidly securing said holders in various positions on their own axes respectively within the limits of their respective rocking motions.

2. In a machine of the character described having a reciprocating part, with means for reciprocating the same continuously during the operation of the machine, and a part relatively fixed with respect to the direction of movement of said other part, the movement of said reciprocating part being the cutting stroke movement of the machine, one of said parts having a tracer and a cutter, the other of said parts being adapted for carrying a pattern to be engaged by said tracer and material to be cut by said cutter, the combination therewith of a holder for such pattern and a holder for such material, each of said holders being mounted to rock into various positions relative to said tracer and said cutter respectively and relative to the stroke movement of said reciprocating part, each of said holders being secured to one of said parts whereby there is relative movement between said holders bodily and the other one of said parts, and means including a connection between a relatively fixed part and a relatively movable part for simultaneously rocking said holders equally back and forth automatically in the same directions during the operation of the machine, said connection being in operative relation to said holders.

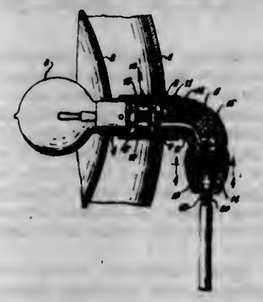
3. The combination of a sliding bed plate having a cutting stroke movement, means for reciprocating said bed plate, a tracer and a cutter operatively positioned for movement toward and from said bed plate, means for moving said tracer and cutter to provide a feed motion thereof, said tracer and said cutter being relatively fixed with respect to the sliding movement of said bed plate, means for moving said tracer and said cutter yieldingly toward said bed plate, a holder for a pattern pivotally mounted on said bed plate to move bodily therewith in operative position between said tracer and said bed plate, a holder for material to be operated upon pivotally mounted on said bed plate to move bodily therewith between said cutter and said bed plate, and means for simultaneously automatically rocking said two holders equally and with the same relative movement when said bed plate moves back and forth relative to said tracer and said cutter.

4. In combination, a plurality of pairs of supports adapted to be secured to an engraving machine of the character described in association with the tracer and cutter thereof, a substantially U-shaped holder having bearings and pivotally mounted in each pair of said supports at points on the leg portions respectively of said U-shaped holders, the axis of said pivotal mountings of the two holders being substantially parallel, said holders being spaced apart, means including a link connection between said two holders, the end portions of said link connection being spaced equally from said two axes and on the same side thereof whereby a tilting movement given to one of said holders is communicated equally to the other thereof, and means connected to said holders and to a part of said engraving machine or the like for tilting said holders during the operation of the machine.

5. In a machine of the character described having a relatively movable part and a part relatively fixed with respect to the direction of movement of said other part, one of said parts having a tracer and a cutter, the other of said parts being adapted to carry a pattern to be engaged by said tracer and material to be cut by said cutter, the combination therewith of a holder for such pattern and a holder for such material, each of said holders being secured to one of said parts whereby there is relative movement between said holders bodily and the other one of said parts, each of said holders being mounted to tilt, and means for tilting said holders equally to a given extent during a portion of the relative movement between said two parts and thereafter maintaining said holders in substantially the same tilted relative position during the remainder of the relative movement between said two parts in the same direction.

[Claims 6 to 20 not printed in the Gazette.]

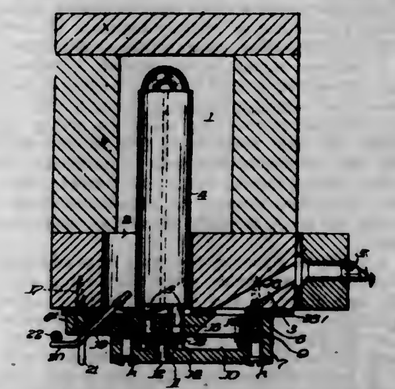
1,239,697. ELECTRIC CONNECTION FOR AUTOMOBILE-LAMPS. JOHN GALLATIN KEARBY and ZEPHANIAH ROBINSON, Mineral Wells, Tex. Filed May 13, 1916. Serial No. 97,433. (Cl. 173—328.)



1. An electric connection for automobile lamps consisting of a plug of insulating material, a relatively large conductor extending through the plug and positioned to connect with a terminal of the lamp, an electric conductor connecting with the framing of the lamp and extending part way into the flue, a relatively short conductor connected to the latter conductor and positioned to connect with the other lamp terminal, and a conductor extending only part way into the plug and connected to the first named conductor.

[Claims 2 to 4 not printed in the Gazette.]

1,239,698. ELECTROPNEUMATIC ORGAN-VALVE. HALSEY G. KINDER, Chicago, Ill., assignor to The Widney Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 20, 1916. Serial No. 137,937. (Cl. 84—95.)



1. An electropneumatic organ valve, comprising a primary valve-casing adapted to be secured to the wind chest, an electromagnet carried by said casing, and connectors for the magnet wire mounted in said casing.

2. An electropneumatic organ valve, comprising a primary valve-casing consisting of an upper section adapted to be secured to the wind chest, a lower section secured to said upper section, an electromagnet mounted in said

upper section, and connections for the wire of the magnet also mounted in said upper section.

3. An electropneumatic valve for organs, comprising a valve-casing consisting of separable upper and lower sections and means for uniting them, said upper section formed with an extension beyond one end of said lower section, an electromagnet mounted in said upper section, and connectors for the wire of the magnet mounted in the extension of said upper section.

1,239,699. ART OF RAILWAY SIGNALING. CHARLES J. KINTNER, New York, N. Y. Filed Jan. 16, 1914. Serial No. 812,432. (Cl. 246—30.)



1. A signal embracing a light, a protecting tube or casing surrounding the same and of sufficient length to cut off practically all interfering reflected or refracted rays from extraneous sources of light; stationary translucent media located on one or more sides of the light and within the ends of the protecting tube or casing a sufficient distance to be rendered non-visible except when the light is illuminated, together with a stationary source of energy for giving to said light sufficient luminuosity to render it visible, either in day light or at night substantially as described.

2. A railway signal embracing one or more electric lights and a protecting tube or casing surrounding the same together with fixed or stationary translucent media located on opposite sides of the light or lights and within the tube and relatively near to the same and adapted to give simultaneously luminous signals of relatively large area in different directions and of a different character in combination with a stationary source of electrical energy for making said signals luminous, the same being invisible at all times except when energized by the source of electrical energy.

3. A railway safety system embracing a plurality of blocks, a plurality of safety appliances for each block consisting each of a lamp having a protective tube or casing coated with a light absorptive medium on its inner surface and adapted to transmit parallel rays of light only from the lamp in opposite directions at the same time; one or more stationary sources of energy adapted to render said lamps luminous successively as a car or train passes over the blocks, said lamps being wholly non luminous except when a train is upon a block of the roadway and acting to wholly illuminate the section of road in both directions, substantially as described.

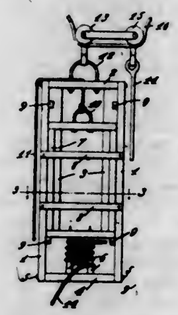
4. A railway signal embracing one or more electric lamps inclosed in a tube of such length as to cut off practically all lateral refracted rays and having relatively closely adjacent to the lamp media for giving signals of different color said meria being fixed or stationary within the tube in combination with a stationary source of electrical energy located beside the roadway and having circuit connections through the wheels and flanges of the cars and the track rails of the road as substantially described.

6. A luminous signal of relatively large superficial area surrounded by a tubular protecting casing of variable length and diameter and provided with a plurality of openings, two or more located at different angular points around the horizon, said casing being lined with an absorbent medium for absorbing substantially all of the rays of light established within the casing except the parallel rays which flow from the light directly to the points signaled.

[Claim 5 not printed in the Gazette.]

1,239,700. HAY-SLING RELEASE. IGNATIUS KONCZAK, Osakis, Minn. Filed May 25, 1917. Serial No. 170,952. (Cl. 57—11.)

A hay sling release, comprising a main frame, a frame sliding within the main frame, a bar rocking within the main frame, spaced projections on the bar adapted to be engaged by the sliding frame, means for hanging the main



frame, and means for drawing the sliding frame to projection releasing position.

1,239,701. GUMMED STICKER OR LABEL. THEODORE H. KRUEGER, New York, N. Y. Filed Mar. 3, 1916. Serial No. 81,822. (Cl. 24—67.)



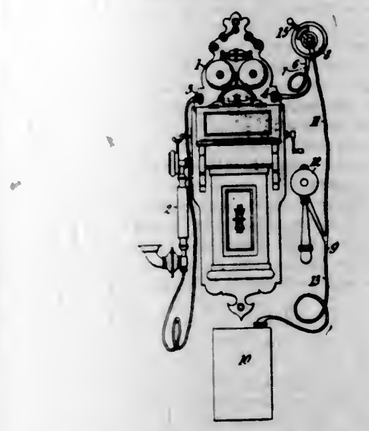
1. As a new article of manufacture, a package fastener comprising two separable strips of paper arranged in substantial alinement with their inner ends overlapping and fitting flatly against each other, said inner ends being reinforced and comparatively stiff while the outer ends are provided with adhesive and remain flexible, and a separate fastening member releasably holding the overlapping inner ends of the strips together.

2. As a new article of manufacture, a package fastener comprising two separate strips of paper arranged in substantial alinement and having their inner ends overlapping and fitting flatly against each other, said overlapping inner ends being reinforced and comparatively stiff while the outer ends are provided with adhesive and remain flexible, and a separate fastening member extending transversely of the line of pull upon the fastener and engaging the overlapping reinforced inner ends of the strips to hold them releasably together.

3. As a new article of manufacture, a package fastener comprising two independent strips of paper arranged in substantial alinement and having their inner ends overlapping and fitting squarely against each other, said overlapping inner ends being reinforced and comparatively stiff, while the outer ends are provided with adhesive and remain flexible, corresponding openings being provided in the overlapping inner ends of the strips, and a separate locking key threaded through the said openings and holding the overlapping ends of the strips releasably together.

1,239,702. TELEPHONE FOR LONG DISTANCES OR FOR DEAF PERSONS. ROBERT LAGUS, Abo, Finland, Russia. Filed Mar. 21, 1913. Serial No. 755,898. (Cl. 179—171.)

1. Means for rendering a telephone applicable to varying distances, comprising a receiving device inserted in a branch from the circuit of said telephone and a magnifying means detachably attached to said receiving device and magnifying the sound received therein, said magnifying means comprising a membrane and a cover located on the side of the membrane toward said receiving device and having a number of small holes through it, said holes being flared toward the membrane, a felt disk on the other side of the membrane and having holes in it in line with the holes in the cover, and carbon powder located in said holes in the felt disk.



2. Means for rendering a telephone applicable to varying distances, comprising a receiving device inserted in a branch from the circuit of said telephone and a magnifying means detachably attached to said receiving device and magnifying the sound received therein, said magnifying means comprising a membrane and a cover located on the side of the membrane toward said receiving device and having a number of small holes through it, said holes being flared toward the membrane, a felt disk on the other side of the membrane and having holes in it in line with the holes in the cover, carbon powder located in said holes in the felt disk, and means for adjusting said receiving device and said magnifying device toward and away from each other.

3. Means for rendering a telephone applicable to varying distances, comprising a receiver and a second receiving device inserted in a branch from the circuit of said first receiver and a magnifying means detachably attached to said receiving device and magnifying the sound received therein, said magnifying means comprising a membrane, a source of current of suitable strength for rendering audible currents of feeble strength received from a long distance, and a cover located on the side of the membrane toward said receiving device, and means for adjusting said receiving device and said magnifying device toward and away from each other, in order to render distinct sounds received from distances less than the extreme distance to which the strength of said source of current is suited.

1,239,703. HOLDER FOR FLY-PAPER. WILLIAM HENRY LEAMAN, Jr., Meriden, Conn. Filed Dec. 15, 1916. Serial No. 137,154. (Cl. 43—1.)



A flypaper holder, comprising a body having flanges upon four of its edge portions having their upper portions provided with rolls, parts of the roll of one of said flanges having extension tongues, the flanges adjacent said tongues having openings, through which tongues are bent forming lugs under which one edge of a piece of flypaper engages, the flange opposite the flange having the first openings having an opening, and a leaf spring secured to the flange having the last named opening and provided with a lug protruding through said last named opening, and under which the opposite edge portion of said sheet of flypaper engages, and a pair of wires secured to the bottom of the body and extending toward the corners thereof and terminating in coiled eyes forming feet, to support the body.

1,239,704. LOCKING-CLOSURE. HARRY W. LEE, THOMAS J. LEE, and CHARLES M. SIMS, Anniston, Ala. Filed Jan. 18, 1916. Serial No. 72,722. (Cl. 137—18.)



1. In a closure, an element having an opening, a plurality of angularly disposed projections on the element, a cover having a depending skirt interlocking with the projections on the element, a plurality of lugs on the skirt, and a locking disk carried by said lugs adapted to engage the projections on the element to lock the cover to the element.

2. In a closure, an element having an opening, a projection on the element extending into the opening, a cover having a depending portion interlocking with the projection on the element, a lug on the depending portion of the cover, and a rotatable locking disk having cam surfaces coöperating with the projection on the element and the lug on the depending portion of the cover.

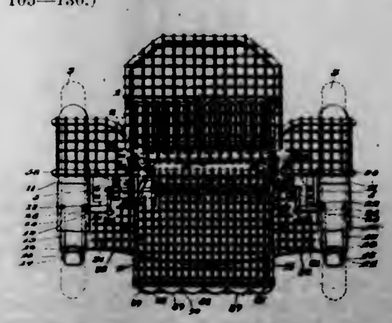
3. In a closure, an element having an opening, a plurality of projections on the element extending into the opening, a cover having a plurality of lugs extending into the opening angularly disposed to the projections on the element, and a locking means engaging the projections on the element and the lugs on the cover to lock the cover to the element.

4. In a closure, an element having an opening, a plurality of projections on the element extending into the opening, a cover having a plurality of lugs extending into the opening angularly disposed to the projections on the element in a plane below said projections, and a rotatable locking means engaging said projections and said lugs to lock the cover to the element.

5. In a closure, an element having an opening, a projection on the element, a cover with a depending skirt having a cut-away portion interlocking with the projection on the element, a removable locking cam adapted to be carried by the cover and adapted to engage the projection on the element, and lugs on the cover for carrying the removable locking cam.

[Claims 6 to 21 not printed in the Gazette.]

1,239,705. FENDER. FREDERICK LILLICH, Philadelphia, Pa. Filed Dec. 29, 1916. Serial No. 139,468. (Cl. 105—130.)



1. The combination with an automobile, of wheel guards pivotally connected to the automobile, means normally

holding the wheel guards in elevated position, a bumper rod elastically connected to the automobile, means for adjusting the tension of the elastic support for the bumper rod, and means operated by the bumper rod for releasing the wheel guards, substantially as described.

2. The combination with an automobile, vertically movable wheel guards on the automobile, and means normally holding the wheel guards in elevated position, of elastically supported bars connected to the vehicle, links pivotally connected to the bars, springs exerting outward pressure on the free ends of the links, a bumper rod supported by the outer ends of the links, and means operated by the movement of the bumper rod to release the wheel guards, substantially as described.

3. The combination with an automobile, vertically movable wheel guards on the automobile, and means normally holding the wheel guards in elevated position, of elastically supported bars connected to the vehicle, links pivotally connected to the bars, springs exerting outward pressure on the free ends of the links, a bumper rod supported by the outer ends of the links, a finger on one of said links, and a flexible device connecting the finger with the guard holding means, whereby the movement of the bumper rod causes the release of the holding means, substantially as described.

4. The combination with an automobile, of tubular brackets secured to the automobile, bars movable in the tubular brackets, springs exerting cushioning pressure on the bars, bolts on the bars projecting through the brackets, nuts on the bolts controlling the tension of the springs, a bumper rod supported by the bars, and means operated by the bumper rod for releasing the wheel guards, substantially as described.

5. The combination with an automobile, of tubular brackets secured to the automobile, bars movable in the tubular brackets, springs exerting cushioning pressure on the bars, bolts on the bars projecting through the brackets, nuts on the bolts controlling the tension of the springs, links pivotally connected to the outer ends of the bars, a bumper rod supported by the free ends of the links, springs exerting outward pressure on the bumper rod, and means operated by the bumper rod for releasing the wheel guards, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,239,706. ROTARY DEEP-WELL PUMP. SAMUEL LIPPERT, East Cleveland, Ohio. Filed July 24, 1913. Serial No. 780,873. (Cl. 103—44.)



1. In a pump, the combination of a cylindrical pump chamber provided with induction ports leading into the bottom thereof and with eduction ports leading from the top thereof, a vertically extending pump tube whereinto the eduction ports are adapted to discharge, check valves for the eduction ports and adapted to relieve the pump chamber from the pressure of the liquid in the tube thereabove, rotary helical vanes in said chamber corresponding to said eduction ports, said vanes being circumferentially spaced, blades slidably mounted in the top of the said chamber adjacent to said eduction ports and adapted to be elevated by said vanes, means for projecting said blades downwardly to the bottom of said chamber when released by said vanes, and means for rotating said vanes.

2. In a pump, the combination of a cylindrical pump chamber provided with induction ports leading into one end thereof and with eduction ports leading from the other end thereof, a vertically extending pump tube communicating with the eduction ports, check valves controlling the eduction ports and adapted to relieve the pump chamber from the pressure of the liquid in the tube thereabove, rotary helical vanes in said chamber corresponding to said eduction ports, said vanes being circumferentially spaced, blades slidably mounted in guideways in the delivery end of the pump chamber adjacent to the eduction ports, tubular extensions for said guideways, springs in said extensions tending to thrust the blades toward the induction end of the pump chamber, and means for rotating said vanes.

3. In a pump, the combination of a cylindrical pump chamber provided with induction ports leading into one end thereof and with eduction ports leading from the other end thereof, a vertically extending pump tube communicating with the eduction ports, means for relieving the pump chamber from the pressure of the liquid in the tube thereabove, rotary helical vanes in said chamber corresponding to said eduction ports, said vanes being circumferentially spaced, blades slidably mounted in the delivery end of the pump chamber, means for moving the blades toward the induction end of the pump chamber, and means for rotating said vanes.

4. In a pump, the combination of a cylindrical pump chamber provided with induction ports leading into one end thereof and with eduction ports leading from the opposite end thereof, a vertically extending pump tube whereinto the eduction ports are adapted to discharge, cages projecting from the end of the pump chamber carrying the eduction ports, balls in said cages adapted to relieve the pump chamber from the pressure of the liquid in the tube thereabove, rotary helical vanes in said chamber corresponding to said eduction ports, said vanes being circumferentially spaced, blades slidably mounted in guideways in the eduction wall of the pump chamber adjacent to the eduction ports and adapted to be moved by said vanes, tubular extensions to said guideways carried by the eduction wall, springs in said extensions adapted to move the blades toward the induction end of the pump chamber, and means for rotating said vanes.

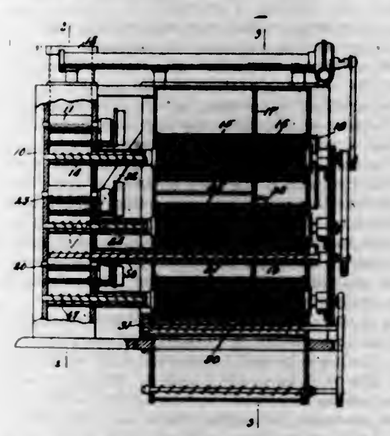
5. In a pump, the combination of a cylindrical pump chamber having a wall at each end thereof, one of said walls being provided with an induction port and the other with an eduction port, a vertical pump tube extending from the wall having the eduction port, a shaft extending through said chamber and having a bearing, a coöperating bearing in the wall having the induction port arranged within a recess within said wall, there being antifriction devices interposed between said bearings in said recess, a helical vane carried by said shaft within said chamber, said vane being of less than 360° in angular extent, a blade slidably mounted in the wall having the eduction port and adapted to be operated in one direction by said vane, means coöperating with said blade for operating it in the reverse direction, means coöperating with the eduction port to relieve the pump chamber from the pressure of the water in said tube, and means for rotating said shaft.

[Claims 6 and 7 not printed in the Gazette.]

1,239,707. ROLLER-MILL. LUCIUS FREEMAN LITTLE, Owensboro, Ky., assignor to The Anglo-American Mill Co., Owensboro, Ky., a Corporation of Kentucky. Filed Mar. 1, 1915. Serial No. 11,266. (Cl. 83—12.)

1. In a mill, the combination of a pair of break rolls, a centrifugal dresser to receive the product from said break rolls and dress out the flour and the fine middlings, first and second sets of reduction rolls, means to deliver the fine middlings directly to one set of reduction rolls, and means to deliver the coarse middlings to the other set and then to said first set of reduction rolls.

6. In a mill, the combination of a pair of break rolls; a centrifugal dresser to receive the product from said break rolls, dress out the flour and the fine middlings and deliver the overtails to a suitable conveyer; a second pair of break rolls, means to deliver part of the product from said first pair of break rolls to said centrifugal dresser and the overtails from said first break to said second break; a centrifugal dresser to receive the product from said second pair of break rolls, said dresser having a flour-producing section, a fine middlings section and a coarse middlings section; a set of second reduction rolls; a conveyer to which the fine middlings sections of said centrifugal dressers deliver to carry the fine middlings directly to said second reduction rolls; a set of first reduction rolls; means for conveying the coarse middlings from the first and second break dressers to said set of first reduction rolls; and a centrifugal dresser to receive the product from said set of first reduction rolls, dress out the flour and deliver the fine middlings to said first-named conveyer.



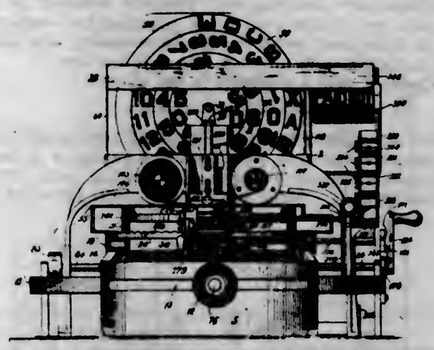
14. In a mill, the combination of a pair of break rolls, a centrifugal dresser to receive the product of said rolls, a series of feed boards to deliver the fine middlings from said dresser to a middlings conveyer, a second pair of break rolls, means to deliver the overtails from the first pair of breaks to the second pair of breaks, a centrifugal dresser for said rolls, a middlings conveyer for said second dresser to receive the coarse middlings, and means for delivering the fine middlings from said second break dresser to the fine middlings conveyer for the first break dresser comprising an arched feed board covering a portion of the middlings conveyer for the second break dresser.

17. In a mill, the combination of a pair of break rolls, a centrifugal dresser to receive the product of said rolls, a series of feed boards to deliver the fine middlings from said dresser to a middlings conveyer, a second pair of break rolls, means to deliver the overtails from the first pair of breaks to the second pair of breaks, a centrifugal dresser for said rolls, a middlings conveyer for said second break dresser to receive the coarse middlings, means for delivering the fine middlings from said second break dresser to the fine middlings conveyer for the first break dresser, and means comprising a hinged feed board to interrupt the flow from said first break dresser and direct it to the conveyer for said second break dresser when desired.

22. In a mill, the combination of two pairs of break rolls, a centrifugal dresser for each pair of break rolls, two sets of reduction rolls, a centrifugal dresser for each set of reduction rolls, means for delivering the coarse middlings from the centrifugal dressers for the two pairs of break rolls directly to one set of reduction rolls, and means for delivering the scalped middlings from the last mentioned reduction rolls, together with the fine middlings from the centrifugal dressers for the two pairs of break rolls to the other set of reduction rolls.

[Claims 2 to 5, 7 to 13, 15, 16, and 18 to 21 not printed in the Gazette.]

1,239,708. INDICATING, REGISTERING, RECORDING, AND CHECK-PRINTING MECHANISM. WILLIAM D. MCCOY, New York, N. Y. Filed Aug. 25, 1910. Serial No. 578,928. (Cl. 235—8.)



1. In a machine of the character described, a laterally movable setting arm and a knob carried thereby and rotatable on an axis extending transverse to the direction of lateral movement and an operating key carried by said arm and having a movement independent thereof.

2. In a machine of the character described, a laterally movable setting arm and a rotatable and longitudinally movable setting knob carried thereby.

3. In a machine of the character described, a register, a rotatable and longitudinally reciprocable knob, means for preventing rotation when the knob is in its normal longitudinal position and preventing reciprocation when the knob is out of its normal rotation position and mechanism operable by said knob to totalize said register in an adding operation.

4. In a machine of the character described, a laterally movable setting arm, a rotatable and longitudinally movable setting knob carried thereby and interlocking parts to prevent rotation of said knob except when moved longitudinally from its neutral longitudinal position and to prevent longitudinal movement of said knob except when in its neutral rotated position.

5. In a machine of the character described, a laterally movable setting arm, a rotatable setting knob carried thereby and a push key carried by said arm and having an independent movement.

[Claims 6 to 113 not printed in the Gazette.]

1,239,709. SAW-CLAMP. WALTER MCDANIEL, Spokane, Wash. Filed Apr. 28, 1917. Serial No. 163,909. (Cl. 76—78.)



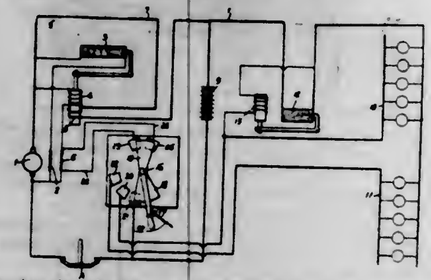
1. In a device of the character described, a saw clamping unit having a bore therethrough, a saw clamping jaw supported by said unit, a pin slidably mounted in said bore, a bifurcated saw receiving arm having one end mounted upon said pin, an additional saw clamping jaw mounted upon the opposite end of said arm, and means for exerting pressure on said pin.

5. In a device of the character described, a saw clamping unit having a bore therethrough, a saw clamping jaw

supported by said unit, a pin slidably mounted in said bore, a cam-lever carried by said pin for exerting and maintaining pressure on said pin, a bifurcated saw receiving arm having one end pivotally mounted on said pin, an additional saw clamping unit pivotally mounted on the opposite end of said arm, a saw clamping jaw supported by the latter unit, and a spring clip carried by said latter unit and adapted to interlock said unit and arm.

[Claims 2 to 4 not printed in the Gazette.]

1,239,710. **ELECTRICAL SYSTEM OF DISTRIBUTION.** ALEXANDER MCGARY, New York, N. Y., assignor to Gould Coupler Company, a Corporation of New York. Filed Jan. 26, 1914. Serial No. 814,484. (Cl. 171—313.)



1. An electrical system of distribution having in combination a generator driven at a variable speed, a storage battery and work circuit connected to be fed thereby, generator regulating means including a current coil for regulating the current from the generator and a voltage coil for limiting the voltage of the generator, and means for decreasing the limit to which the voltage coil holds the voltage of the generator, when the work circuit is turned off.

2. An electrical system of distribution having in combination a generator driven at a variable speed, a storage battery and work circuit connected to be fed thereby, generator regulating means including a current coil for regulating the current from the generator and a voltage coil for limiting the voltage of the generator, and means for decreasing the limit to which the voltage coil holds the voltage of the generator, when the work circuit is turned off, said last mentioned means embracing a switch for turning on and off the work circuit and means controlled by the switch for increasing the voltage at which said coil operates, when the work circuit is turned on by said switch.

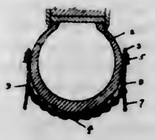
3. An electrical system of distribution having in combination a generator, a storage battery and work circuit connected to be fed thereby, generator regulating means including a coil for limiting the voltage of the generator, and means for decreasing the limit to which the voltage coil holds the voltage of the generator, when the work circuit is turned off.

4. An electrical system of distribution having in combination a generator, a storage battery and work circuit connected to be fed thereby, generator regulating means including a coil for limiting the voltage of the generator, a switch for turning on and off the work circuit, and means controlled by the switch for altering the effect of said voltage coil to decrease the voltage of the generator when the work circuit is turned off.

5. A car lighting system having in combination with the car, a generator, a storage battery and work circuit connected to be fed by the generator, generator regulating means including a coil for limiting the voltage of the generator, a switch for turning on and off the work circuit and means controlled by the switch for altering the effect of said voltage coil to decrease the voltage of the generator when the work circuit is turned off, said switch being located inside the car, and means whereby the switch may be operated from outside the car to turn off the work circuit.

[Claims 6 and 7 not printed in the Gazette.]

1,239,711. **NON-SKID CHAIN.** FRED E. MESSLER, Canton, Ill. Filed Nov. 18, 1916. Serial No. 131,983. (Cl. 152—14.)



1. A device of the character described, including in combination, side chains, a plurality of cross or transverse chains connected thereto and adapted to extend entirely across the tire and each of said cross or transverse chains having a depending member on each side connected to only one of its links to prevent side skidding.

2. A device of the character described, including in combination, side chains, a plurality of cross or transverse chains connected thereto, and each of said cross or transverse chains having a member depending on each side from a point adjacent the point of attachment to said side chains, the engaging portion of said member being spaced from its cross or transverse chain to prevent side skidding.

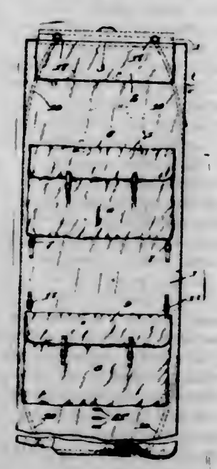
3. A device of the character described, including in combination, a pair of flexible members arranged in spaced relation and adapted to extend around the sides of a wheel or tire, and a plurality of cross or transverse flexible members secured to and connecting said spaced flexible members and adapted to extend entirely across the tire and each having additional elements secured thereto and projecting at an angle therefrom so as to assume a tangential relation with respect to the sides of the wheel or tire to prevent side skidding.

4. A device of the character described including in combination, side chains, a plurality of cross or transverse chains having a hooked connection with said side chains, and a side skid preventing member secured to each hook and depending therefrom so as to be positioned at an angle to said cross or transverse chains and tangential to the sides of the wheel when applied thereto.

5. As an article of manufacture, a section of chain having a hook at each end and an extension member secured to each hook and adapted to project at an angle to said chain and substantially tangential to the sides of the wheel or tire when applied thereto.

[Claims 6 to 8 not printed in the Gazette.]

1,239,712. **BEDDING-ROLL.** SHERMAN MILES, Washington, D. C. Filed June 22, 1916. Serial No. 105,221. (Cl. 5—10.)



1. A device of the class described comprising a sheet of canvas, a bag secured to the inner side of said canvas sheet adjacent to the center thereof, a pocket secured to said side of the canvas sheet adjacent to one end thereof and adapted to fold onto the said bag, a receptacle detachably mounted in said pocket, a bag secured to said side of the canvas sheet adjacent to the other end thereof and adapted to fold onto said receptacle, and means for locking said canvas sheet in folded condition to hold the bags upon opposite sides of said receptacle.

2. A device of the class described comprising a sheet of canvas, a pocket at one end of said canvas sheet, a bag secured to said sheet adjacent to the center thereof and having the upper edge permanently attached to the canvas and the lower edge detachably connected thereto, a second bag secured to said sheet adjacent to the other end thereof and having the lower edge permanently attached to the canvas and the upper edge detachably connected thereto and adapted to be attached to the lower edge of the first bag whereby the length of the sheet may be shortened to facilitate the suspending of the canvas sheet from a support.

3. A device of the class described comprising a sheet of canvas, a bag secured to the inner side of said canvas sheet adjacent to the center thereof, a pocket secured to said side of the canvas sheet adjacent to one end thereof and adapted to fold onto the said bag, a receptacle detachably mounted in said pocket, a bag secured to said side of the canvas sheet adjacent to the other end thereof and adapted to fold onto said receptacle, a ring secured to the outer side of said canvas sheet between said pocket and first-named bag, eyelets in said sheet between the last-named bag and the adjacent end of the sheet adapted to interchangeably aline with said ring, and locking means adapted to pass through said alining eyelet and ring.

4. A device of the class described comprising a sheet of canvas, a bag secured to the inner side of said canvas sheet adjacent to the center thereof, a pocket secured to said side of the canvas sheet adjacent to one end thereof and adapted to fold onto the said bag, a receptacle detachably mounted in said pocket, a bag secured to said side of the canvas sheet adjacent to the other end thereof and adapted to fold onto said receptacle, means for locking said canvas sheet in folded condition to hold the bags upon opposite sides of said receptacle, and means reinforcing the ends of said canvas sheet.

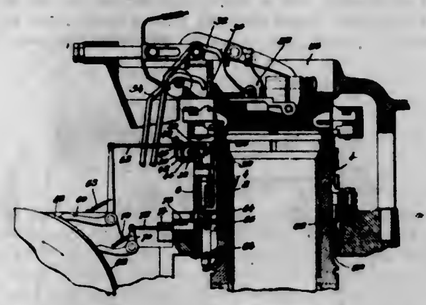
5. A device of the class described comprising a sheet of canvas, a bag secured to the inner side of said canvas sheet adjacent to the center thereof, a pocket secured to said side of the canvas sheet adjacent to one end thereof and adapted to fold onto the said bag, a recepacle detachably mounted in said pocket, a bag secured to said side of the canvas sheet adjacent to the other end thereof and adapted to fold onto said receptacle, means for locking said canvas sheet in folded condition to hold the bags upon opposite sides of said receptacle, means reinforcing the ends of said canvas sheet, and means associated with the last named means whereby the canvas sheet may be suspended as a hammock.

[Claims 6 and 7 not printed in the Gazette.]

1,239,713. **CIRCULAR-KNITTING MACHINE.** MAX C. MILLER, Providence, R. I., assignor to Jenckes Knitting Machine Company, Pawtucket, R. I., a Corporation of Rhode Island. Filed July 26, 1915. Serial No. 41,969. (Cl. 66—21.)

10. A circular knitting machine, having, in combination, a needle cylinder, a circular series of needles mounted therein, a stitch cam for depressing the needles, an auxiliary cam for depressing some of the needles below the point to which the needles are depressed by the stitch cam, means for rendering the auxiliary cam active or inactive, a support for the needles acted on by the auxiliary cam movable to limit the downward movement of the needles when depressed by the stitch cam and when depressed by the auxiliary cam, and jacks for limiting the downward movement of the needles not acted on by the auxiliary cam.

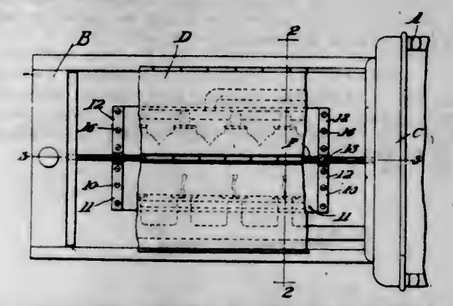
14. A circular knitting machine, having, in combination, a needle cylinder, needles mounted therein, a stitch cam for depressing the needles, a vertically movable support below the point of the stitch cam for limiting the downward movement of the needles, and mechanism for



automatically controlling the position of the support during the operation of the machine.

[Claims 1 to 9 and 11 to 13 not printed in the Gazette.]

1,239,714. **MOTOR ATTACHMENT.** EDMUND L. MOORE, Vega Baja, Porto Rico. Filed Nov. 12, 1915. Serial No. 61,192. (Cl. 21—90.)



1. The combination with a motor vehicle including a brace rod connecting the radiator and dash board, and a sectional hood, of a shield arranged within the hood and above the motor and supported by said rod independently of the hood, said shield bridging the joint between the hood sections for the purpose described.

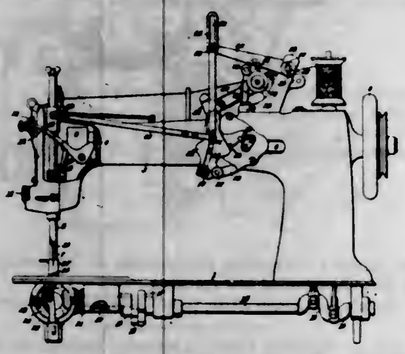
2. The combination with a motor vehicle including a brace rod connecting the radiator and dash board, and a sectional hood, brackets suspended from said rod adjacent the extremities thereof, and a shield carried by said brackets and bridging the joint between the hood sections for the purpose set forth.

3. The combination with a motor vehicle including a brace rod connecting the radiator and dash board, and a sectional hood, of brackets suspended from said rod adjacent the extremities thereof, each of said brackets including oppositely disposed arms projecting from the opposite sides of the rod, and a shield associated with said arms and bridging the joint between said hood sections for the purpose described.

1,239,715. **ORNAMENTAL-STITCH SEWING-MACHINE.** WALTER MYERS, Bridgeport, Conn., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Dec. 3, 1914. Serial No. 875,210. (Cl. 112—7.)

1. In a sewing machine for ornamental stitching, the combination with a stitch-forming mechanism including a needle having stitch-forming movements in different paths, of a slide-plate provided with a fabric spur having a needle opening and a needle slot extending out from said opening in a direction corresponding to the lateral movements of said needle and adjustable to permit of the placing of circularly arranged zigzag stitches outside the field occupied by said spur.

2. In a sewing machine for ornamental stitching, the combination with a stitch-forming mechanism including a needle having stitch-forming movements in different paths, of a cloth-plate and a slide-plate carried by the latter, said slide-plate being provided with a fabric spur having a needle opening and a needle slot extending out from



said opening in a direction corresponding to the lateral movements of said needle and adjustable to permit of the placing of circularly arranged zigzag stitches outside the field occupied by said spur, and means for securing said slide-plate against accidental movement.

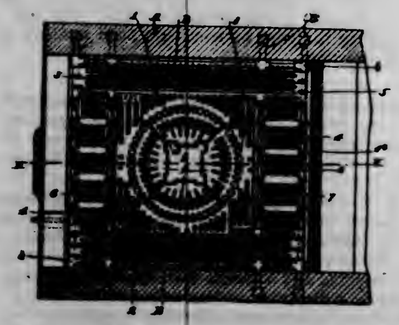
1,239,716. CUSPIDOR. CONRAD E. NYSTRUM, Medford, Wis., assignor of one-fourth to Eugene M. White, Medford, Wis. Filed May 14, 1917. Serial No. 168,419. (Cl. 4—38.)



1. A device of the character described comprising a receptacle formed from a single blank of material folded on lines similar to a Roman Cross to afford a bottom and sides, the portions of the blank intermediate the sides being folded to overlie adjacent sides, the outer end portions of the remaining sides being provided with flaps, said flaps being extended along one of the folds of each of the intermediate portions, said flaps being extended inwardly and downwardly of the receptacle to afford a top provided with a restricted opening, the lower portions of adjacent flaps interlocking.

[Claim 2 not printed in the Gazette.]

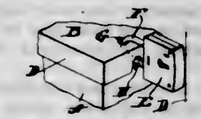
1,239,717. FURNACE-GRATE. GEORGE F. PIERCE, Chicago, Ill. Filed Dec. 11, 1915. Serial No. 66,291. (Cl. 126—152.)



1. In a grate of the character described, a center plate having quadrangular corners and locking members, and segments surrounding said center plate having recesses to receive the quadrangular corners and locking members to interlock with the first-mentioned locking members.

2. In a grate of the character described, a rectangular center plate having marginal recesses and locking members, and segments surrounding said center plate provided with projections to enter said recesses and locking members to interlock with those on the center plate.

1,239,718. COVER-LOCKING MEANS. CLARENCE D. PLATT, Bridgeport, Conn. Original application filed Aug. 2, 1916, Serial No. 112,710. Divided and this application filed Apr. 18, 1917. Serial No. 162,864. (Cl. 70—3.)



Locking means for a sheet metal switch box having a hinged cover flanged to overlap the side walls of the box body, the cover having an opening in the top thereof at a point remote from the hinged end thereof and a clearance opening in the overlapping flange adjacent said top opening, and the box body, having an opening in the side wall thereof, arranged to register with the clearance opening in the cover flange when the cover is closed, said locking means comprising a lock having a hasp member adapted to be passed through the opening in the top of the cover and through the opening in the side of the box and the clearance opening in the flange of the cover.

1,239,719. AUTOMATIC LUBRICATOR FOR SWITCH-POINTS. FRANK D. POLHEMUS, Atlantic City, N. J. Filed Feb. 28, 1917. Serial No. 151,516. (Cl. 184—3.)



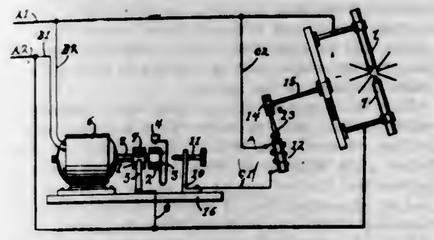
1. In combination with a rail, ties, and a switch point, a lubricant reservoir secured to the web of the rail, having a valve closing the opening therein and a stem projecting therefrom in the path of movement of the switch point and adapted to be actuated by the switch point in its movement laterally, substantially as described.

2. In combination with a rail and ties supporting the same, a lubricant reservoir secured to the rail, spring pressed valves controlling the oil discharge from said reservoir, and having stems extending laterally of the wall of the reservoir and operated by the lateral movement of the switch point, substantially as described.

1,239,720. CARBON-FEEDING MECHANISM. WALTER G. PRODDY, San Francisco, Cal. Filed May 29, 1916. Serial No. 100,684. (Cl. 176—67.)

1. In a carbon feeding mechanism, the combination of an arc circuit and an arc lamp connected thereto, an electric motor operating from the arc circuit and the speed of same varying with the voltage of said arc circuit, a periodic circuit closer and a centrifugal switch attached to the rotating member of said motor, and a circuit including a source of E. M. F. and said circuit closer and switch and means responsive to the intermittent closure of the circuit for feeding one of the electrodes toward the other.

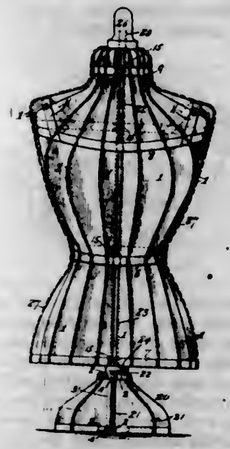
4. In a carbon feeding mechanism, the combination of an arc circuit and an arc lamp connected thereto, an electric motor operating from the arc circuit and the speed of same varying with the voltage of said circuit, a periodic circuit closer and a centrifugal switch attached to the rotating member of said motor, a circuit including a source of E. M. F. and said circuit closer and switch and means responsive to the intermittent closure of the circuit for feeding one of the electrodes toward the other, one contact of said centrifugal switch being stationary, and said stationary contact of centrifugal switch having means for adjusting same.



5. In a carbon feeding mechanism, the combination of an arc circuit and an arc lamp connected thereto, an electric motor operating from the arc circuit and the speed of same varying with the voltage of said arc circuit, a periodic circuit closer and a centrifugal switch attached to the rotating member of said motor, a circuit including a source of E. M. F. closing through said periodic circuit closer and centrifugal switch and connecting to an electro-magnet, and said electro-magnet operating a pawl and ratchet for actuating feeding gear.

[Claims 2 and 3 not printed in the Gazette.]

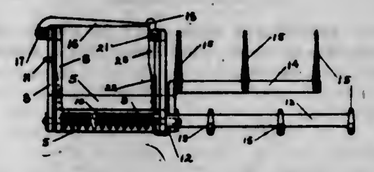
1,239,721. DRESS-FORM. PATRICK F. QUINN, Corona, N. Y. Filed Oct. 31, 1912. Serial No. 728,862. (Cl. 211—13.)



In a dress form, a plurality of connected sections foldable one on the other and having their outer edges contoured to a bust and hip shape, and a looped wire slidable in guides on the lower end of each section for lengthening the sections.

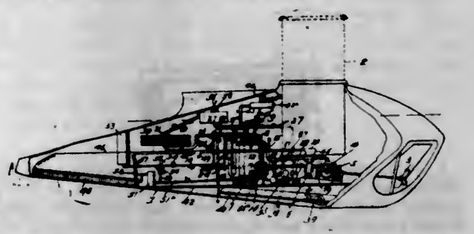
1,239,722. ANIMAL-TRAP. STEPHEN RUSSE, Sumner, Wash. Filed Mar. 10, 1917. Serial No. 154,053. (Cl. 43—23.)

1. A trap of the class described comprising a U shaped base frame member having forward ends that are curved upwardly and rearwardly to leave on open passageway therethrough, trip mechanism disposed in said passageway, a laterally projecting arm on one side of said base frame, curved jaw members on said arm, an upper frame member pivoted to said base frame, a spring on said two frame members, a laterally projecting arm on said upper frame member and curved jaw members on said arm to coact with said first named jaw members and hold an animal.



2. A trap of the class described comprising a U shaped frame member having its forward ends bent upwardly and rearwardly to leave an open passageway therethrough, a trip lever pivoted to one of said rearwardly extending ends and disposed to hang in a vertical position with its lower end in said open passageway, another frame member pivoted to said first named member and having one side that extends upwardly and forwardly from said pivot, a trip arm pivoted to said forwardly extending portion of said last named frame member said trip arm being adapted to rest upon one of said rearwardly extending ends of said first named frame member and engage with said trip lever when said trap is set, a spring connected with said two frame members, an extension on said last named frame member projecting rearwardly from said pivot whereby said trap may be set, arms projecting sidewise from each of said frame members in substantially parallel relation, and curved jaws on said arms.

1,239,723. SUBMARINE BOAT. EDWARD B. REILLY, Atlantic City, N. J., assignor of four-fifths to Harry R. Young, Atlantic City, N. J. Filed May 6, 1916. Serial No. 95,842. (Cl. 114—16.)



1. In a submarine boat, a normally water-tight shell, propelling means embodying a steam boiler, fuel-supply means therefor, an engine, connections between said engine and boiler, and an electrolysis device operatively connected with the combustion chamber of the boiler.

2. In a submarine boat, a normally water-tight shell, propelling means embodying a steam boiler, fuel-supplying means therefor, an engine, connections between said engine and boiler, an electrolysis device operatively connected with the combustion chamber of the boiler, and means for storing gases.

3. In a submarine boat, a normally water-tight shell, propelling means embodying a steam boiler, fuel-supplying means therefor, an engine, connections between said engine and boiler, an electrolysis device operatively connected with the combustion chamber of the boiler, and a condenser with operative connections.

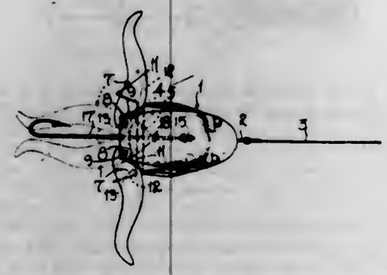
4. In a submarine boat, a normally water-tight shell, propelling means embodying a steam boiler, fuel-supplying means therefor, an engine, connections between said engine and boiler, an electrolysis device operatively connected with the combustion chamber of the boiler, a fume container, a converter and a condenser with operative connections.

5. In a submarine boat, a normally water-tight shell, propelling means embodying a steam boiler, fuel-supplying means therefor, an engine, connections between said engine and boiler, an electrolysis device operatively con-

nected with the combustion chamber of the boiler, a fume container, a converter, a condenser with operative connections, and a water cooling system.

[Claims 6 to 13 not printed in the Gazette.]

1,239,724. ARTIFICIAL BASS-BAIT OR FROG. TERRY REIMERS, Omaha, Nebr. Filed Feb. 1, 1917. Serial No. 145,923. (Cl. 43—30.)



1. An artificial bait of the character described comprising a body portion, legs pivotally connected thereto, said legs outwardly of their pivotal connection with the body being provided with openings and an elastic member connecting said legs and having its extremities frictionally held within the openings of the legs, said elastic member being free of tension after the member has drawn the legs substantially to half way of a fully spread position.

[Claims 2 and 3 not printed in the Gazette.]

1,239,725. LOCK FOR BOXES. DAVID J. RICHARDSON, Pittsburgh, Pa. Filed Nov. 3, 1916. Serial No. 129,251. (Cl. 70—82.)



1. In a container for the purpose described, the combination of an outer box, a second box open at its top nesting snugly in said outer box, and automatic locking means for securing said boxes together comprising a block secured against the inner face of the end wall of the second box provided with a transverse locking recess on its exposed face and a hooked locking plate of spring metal attached to the bottom of the outer box and adapted to snap down over the exposed face of said block into engagement with said recess when said boxes are telescoped together.

2. In a container for the purpose described, the combination of an outer box, a second box open at its top nesting snugly in said outer box, automatic locking means for securing said boxes together comprising a block secured against the inner face of the end wall of the second box provided with a transverse locking recess and a hooked locking plate of spring metal attached to the bottom of the outer box and adapted to snap into engagement with said recess when said boxes are telescoped together, and a third box nesting in said second box and having its end wall bearing on said locking plate to prevent its disengagement from said recess.

1,239,726. PISTON-RING. ARTHUR J. SAUER and JOHN J. GEORGI, Buffalo, N. Y., assignors to Sauer-Georgi Manufacturing Company, Inc., Buffalo, N. Y. Filed Sept. 16, 1916. Serial No. 120,477. (Cl. 121—108.)

1. A composite piston ring consisting of an outer ring provided with a groove on the inner surface thereof, a strip of resilient and absorptive material adapted to enter said groove, and elastic means adapted to hold said strip in said groove.



2. In a composite piston ring, the combination with an outer resilient ring having a groove formed on the inner surface thereof, of a fabric strip adapted to enter said groove and an expansion ring of slightly smaller diameter than the outer ring and the strip and adapted to hold the fabric in place in the groove.

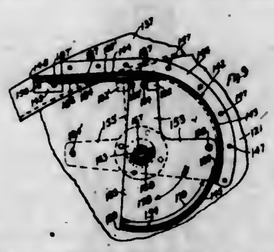
3. In a composite piston ring, the combination of an outer resilient ring provided with a groove on the inner surface thereof and having an inclined slit therein, a fabric strip adapted to enter said groove and having the extremities thereof cut at an angle to said inclined slit, and an expansion ring of smaller diameter than the outer ring and adapted to hold the fabric in place in the groove.

4. In a composite piston ring, a resilient outer ring having a slit therein, an oil-retaining strip of fabric having its ends terminating in proximity to said slit and an expansion ring which presses said fabric strip against the inner face of said outer ring, the ends of said fabric strip entering into said slit for closing the same when said outer ring is compressed.

5. In a composite piston ring, a resilient outer ring having an inclined slit therein, an oil-retaining strip of fabric having its ends cut square and an expansion ring which presses said fabric strip against the inner face of said outer ring, the ends of the fabric strip entering into said slit for closing the same when said outer ring is compressed.

[Claims 6 to 8 not printed in the Gazette.]

1,239,727. COMBINED DITCH CLEANER AND FORMER. MOSES SCHLATTER, Hollywood, Cal. Filed Dec. 26, 1912. Serial No. 738,762. (Cl. 37—29.)



1. In a cleaner for any silted ditch, a vehicle adapted to travel along said ditch, knife blades on said vehicle for forming inclined sides on the ditch, said knife blades having cutting edges extending downwardly and inwardly, and the plane of said blades behind said cutting edges being warped inwardly so as to move the cut silt inward toward the center of the ditch, and revolubly mounted buckets for removing the silt from the ditch.

2. In a cleaner for any silted ditch, a vehicle adapted to travel along said ditch, knife blades on said vehicle for forming inclined sides on the ditch, said knife blades having cutting edges extending downwardly, inwardly and rearwardly, and the plane of said blades behind said cutting edges being warped inwardly so as to move the cut silt inward toward the center of the ditch, and revolubly mounted buckets for removing the silt from the ditch.

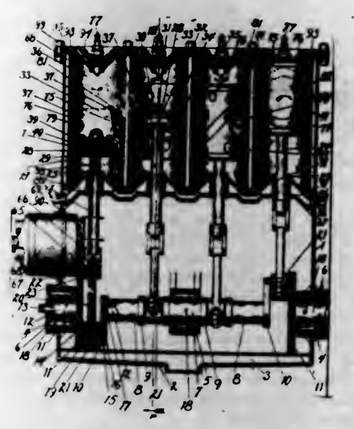
3. In combination, a vehicle, a bucket wheel revolubly mounted on said vehicle, and knives extending from adjacent the periphery of the bucket wheel aslant forward and upward and laterally away from said bucket wheel and provided with rear extensions, the lower portions of said knives lying in a vertical plane and the upper rear portions of said knives being warped to form inwardly and downwardly deflecting portions close to the periphery of the bucket wheel.

4. In a cleaner for any silted ditch, a bucket adapted to rotate constantly around an axis while the cleaner is in operation, said bucket being adapted to scoop into and clean the silt from the ditch, and the containing part of said bucket being divided into two substantially concentrically curved parts, the scooping part being rigidly mounted and the other part being movably mounted so as to telescope over each other thereby forcing the silt loose from the bucket.

5. In a cleaner for any silted ditch, a series of buckets mounted so as to successively scoop into and clean the silt from the ditch, each bucket comprising a concentrically-curved bottom or outside member held rigid in the train and having a mouth provided with a cutting edge, and a concentrically curved top or inside member concentrically telescoping with the rigid member, normally extended and circumferentially retractable.

[Claims 6 to 32 not printed in the Gazette.]

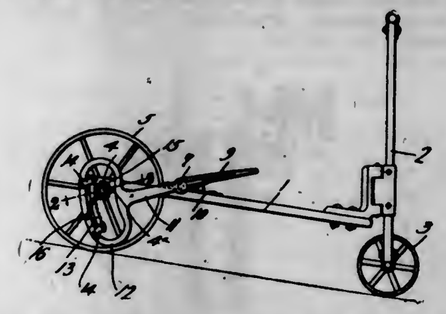
1,239,728. INTERNAL-COMBUSTION ENGINE. SALEM LEON SCHLEPPY, Chicago, Ill. Filed Oct. 15, 1913. Serial No. 795,322. (Cl. 123—45.)



1. In a double-acting internal combustion engine, valveless cylinders provided with intake-ports and exhaust-ports; double-acting revoluble pistons provided with ports, adapted to normally keep closed said cylinder ports but to periodically open same by the registration therewith of said piston ports; continuous spiral cam-channels peripherally countersunk in the outer faces of said double-acting revoluble pistons; cam-roller members fixedly projecting within said cylinders, adapted by engagement thereof with said cam-channels to rotate said pistons; an air-tight crank-case common to said cylinders; an air-compressor operated by members connected to the engine crank-shaft, adapted to supply compressed air to said air-tight crank-case; means adapted to admit said compressed air from said crank-case to the engine manifold for the forcible admixture of said compressed air in said manifold with the nebulized fuel received therein from the engine carbureter to form compressed gaseous fuel charges for said cylinders; members adapted to admit to said cylinders, alternately at either end of said double-acting revoluble pistons, said compressed gaseous fuel charges; and, cylinder heads closing both ends of said valveless cylinders, and each provided with ignition members adapted to alternately explode said gaseous fuel charges for imparting reciprocal motion to said double-acting revoluble pistons.

2. In an internal combustion engine, valveless cylinders provided with intake-ports and exhaust-ports; cylindric revoluble pistons, fitting said cylinder, provided with ports adapted to normally keep closed said cylinder ports but to periodically open same by the registration therewith of said piston ports; members for admitting explosive gaseous fuel to said cylinders for imparting by its ignition reciprocal motion to said pistons; members adapted to ignite said gaseous fuel in said cylinders; members adapted to educt exploded gases from said cylinders; continuous spiral cam channels peripherally counter-sunk in the outer faces of said revoluble pistons; fixed cam-rollers adapted, by engagement thereof with said spiral cam channels, to rotate said revoluble pistons; median diaphragms in said cylindric revoluble pistons, adapted to separate each cylinder into two firing chambers; piston rods provided with cones, antifriction-balls, sockets and caps, engaging said median diaphragms so as to form pivotal mounts for said cylindric pistons; members for packing said pistons; members for packing said piston rods; piston ratchets on said pistons, adapted to prevent rotation of same in the direction reverse to their determinate direction of rotation: and piston-pawls secured to said cylinders for engaging said piston-ratchets.

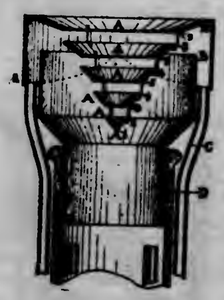
1,239,729. ACTUATING DEVICE FOR TOY VEHICLES. EDWARD B. SHAFER, Decatur, Ill. Filed Oct. 2, 1916. Serial No. 123,344. (Cl. 74—54.)



1. In a device of the character described, a ratchet wheel, an oscillatory arm having a portion movable past the ratchet wheel, an arcuate ratchet bar engageable with the ratchet wheel, and links connecting both ends of said bar and said portion.

[Claim 2 not printed in the Gazette.]

1,239,730. SPARK OR CINDER ARRESTER OR COLLECTOR. ISAAC J. SHIPLEY and GEORGE WOLFGANG, Tampa, Fla. Filed July 22, 1916. Serial No. 110,813. (Cl. 183—108.)



In a separator of the class described, an inner tubular member, an outer tubular member spaced from said inner member and having a flooring attached to the outer wall of said inner tubular member, and provided with an annular baffle member projecting inwardly and overhanging the upper edge of said inner member and a plurality of supplemental baffle members of successive decreasing baffling area supported by said annular baffle member within said inner tubular member, a discharge pipe extending from said flooring for the discharge and collection of matter.

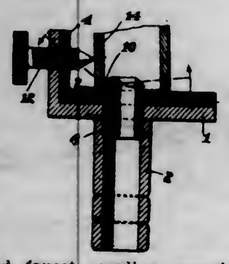
1,239,781. SEPARABLE SUPPORTING AND POLARITY ATTACHMENT PLUG. MILTON H. SHOENBERG, San Francisco, Cal., assignor to Majestic Electric Development Company, a Corporation of California. Filed Oct. 12, 1915. Serial No. 55,555. (Cl. 173—343.)



1. A separable attachment plug consisting of base and cap members and rigid means secured externally to one member for permitting only a limited separation of said members.

[Claims 2 to 5 not printed in the Gazette.]

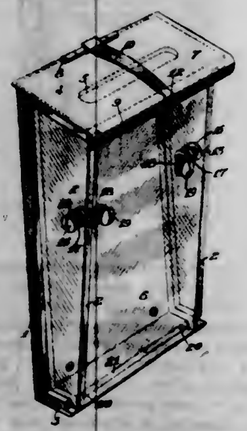
1,239,782. FAUCET AND HOSE ATTACHMENT CLAMP. MILTON H. SHOENBERG, San Francisco, Cal., assignor to Majestic Electric Development Company, a Corporation of California. Filed May 21, 1917. Serial No. 169,905. (Cl. 137—28.)



4. A hose and faucet coupling comprising an angle bracket having a base plate for positioning over a faucet or pipe outlet and an arm at one side thereof, a tubular extension depending oppositely from said arm the bore of which extends through the plate, an adjustable clamping screw carried by said arm adapted to engage the outer wall of the faucet, and a member projecting from said plate provided with a lateral biting edge to engage the inner wall of the faucet and serve as a fulcrum between the screw and the plate.

[Claims 1 to 3 and 5 not printed in the Gazette.]

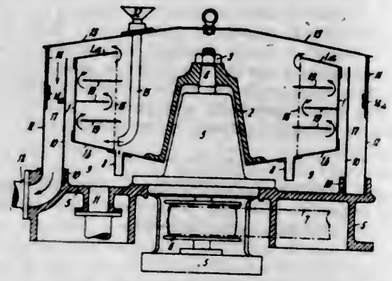
1,239,733. MAIL-BOX. HARRY P. SICKELS, Rochester, N. Y., assignor to In. Vu Co. Inc., Rochester, N. Y., a Corporation of New York. Filed Apr. 5, 1915. Serial No. 19,109. (Cl. 232—38.)



1. In a mail box, the combination with a receptacle including a top having a mail receiving opening therein, of a movable cover coöperating with the top, and a spring actuated retainer engaging the cover to hold it closed and movable independently of the cover.

[Claim 2 not printed in the Gazette.]

1,239,734. CENTRIFUGAL APPARATUS FOR CLEANSING LIQUIDS. ROBERT ALEXANDER SLOAN and JOHN EDWARD LLOYD BARNES, Liverpool, England. Filed Nov. 7, 1913. Serial No. 799,817. (Cl. 233—37.)

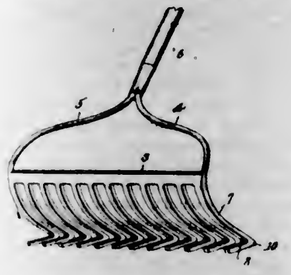


1. In a centrifugal apparatus for cleaning volatile liquids in combination;—an outer casing having a removable cover; a rotatable drum mounted within the casing and having an inwardly projecting flange adapted, when the drum is rotated, to retain an annular column of liquid within the drum; a liquid supply pipe delivering liquid to the drum at the end thereof remote from the flange; a deflecting plate transverse to the axis having an internal diameter less than that of the column of contained liquid; passage-ways between the said plate and the wall of the drum; a series of cylindrical plates staggered in cross-section located between the transverse plate and the drum flange, said cylindrical deflecting plates being formed in integral removable sections and forming a tortuous path for the liquid from the supply pipe to the flange; a division wall forming with the outer casing a clear liquor container adapted to receive the clean liquid discharged by centrifugal force across the edge of the flange of the drum, said liquid passing over said division wall into said clear liquor container.

2. In a centrifugal apparatus for cleaning volatile liquids in combination;—an outer casing having a removable cover; a rotatable drum mounted within the casing and having an inwardly projecting flange adapted, when the drum is rotated, to retain an annular column of liquid within the drum; a liquid supply pipe delivering liquid to the drum at the end thereof remote from the flange; a deflecting plate transverse to the axis, having an internal diameter less than that of the column of contained liquid; passage-ways between the said plate and the wall of the drum; a series of cylindrical plates staggered in cross-section located between the transverse plate and the drum flange; said cylindrical deflecting plates being formed in integral removable sections with substantially parallel ends; a series of blocks fixed inside the drum for the ends of the deflector segments to abut against, said deflecting plates between said blocks forming a tortuous path for the liquid from the supply pipe to the flange; a division wall forming with the outer casing a clear liquor container adapted to receive the clean liquid discharged by centrifugal force across the edge of the flange of the drum, said liquid passing over said division wall into said clear liquor container.

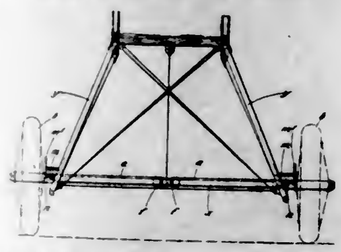
3. In a centrifugal apparatus for cleaning volatile liquids in combination;—an outer casing having a removable cover; a rotatable drum mounted within the casing and having an inwardly projecting flange adapted, when the drum is rotated, to retain an annular column of liquid within the drum; a liquid supply pipe delivering liquid to the drum at the end thereof remote from the flange; transversely arranged deflecting plates carried from the drum, forming a tortuous path from the supply pipe to the flange; a trough like cover of fabric or the like shaped so as to lie over the surfaces of one of the annular sections into which the drum is divided by the deflecting plate, said cover being adapted to receive the dirt separated by centrifugal action and to expedite the removal thereof; a division wall forming with the outer casing a clear liquor container adapted to receive the clean liquid discharged by centrifugal force across the edge of the flange of the drum, said liquid passing over said division wall into said clear liquor container.

1,239,735. RAKE. CHAUNCEY WARREN SMITH and CLARENCE MERRITT LAMB, San Bernardino, Cal. Filed Mar. 14, 1917. Serial No. 154,772. (Cl. 55—10.)



In a rake, a head, a plurality of curved rake teeth carried by the head, said teeth being equally spaced throughout their length and having free equal spaces between them, and flat extensions projecting rearwardly at an angle from the ends of the curved teeth.

1,239,736. LANDING-CHASSIS OR UNDER-CARRIAGE OF AEROPLANES AND THE LIKE. THOMAS SOPWITH, Kingston-on-Thames, England. Filed May 12, 1917. Serial No. 168,292. (Cl. 244—2.)



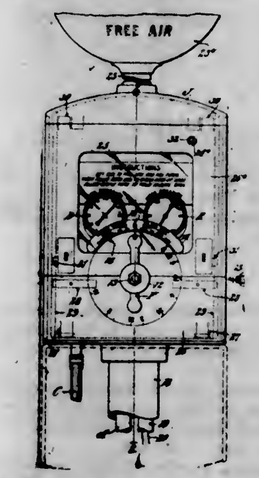
1. A landing chassis or under-carriage for aeroplanes and the like comprising two V-shaped side frames, a lower member or spar connecting said side frames, a two-part axle the inner ends of the two parts of which are pivoted to the lower member or spar at the center thereof and the outer ends of which pass between the two members of the V-shaped side frames, vertical guides for said two-part axle said guides mounted in the apices of the two V-shaped side frames, landing wheels loosely mounted on the outer ends of the parts of said axle exterior to the side frames, two studs or bosses mounted on the outer side of each side frame, and an elastic bridge carried by and formed between each pair of said studs or bosses each said elastic bridge being adapted to contact and support one half of the axle.

3. A landing chassis or under-carriage for aeroplanes and the like comprising two V-shaped side frames, a lower member or spar connecting said side frames, a two-part axle the inner ends of the two parts of which are pivoted to the lower member or spar, landing wheels loosely mounted on the outer ends of the parts of said axle exterior to the side frames, two studs or bosses mounted on the outer side of each side frame, flanges carried by said studs or bosses, spools or rollers mounted on said studs or bosses and adapted to contact and support one half of the axle, flanges carried by the two parts of the axle adjacent to the points of contact of the elastic bridges, and spools or rollers on the two parts of the axle at the points where same contact the elastic bridges.

8. In a landing chassis or under-carriage for aeroplanes and the like the combination of two V-shaped side frames, a lower member of spar of a channel section connecting said side frames, a channel-shaped plate fixed in the center of the lower member or spar, transverse pins carried by said plate, a two-part axle the inner ends of the two parts of which are pivoted to the transverse pins carried by the lower member or spar, landing wheels loosely mounted on the outer ends of said axle, an attachment for the bracing medium of the lower member or spar located between the two parts of the axle, a vertical guide carried by each side frame, two studs or bosses mounted on the outer side of each side frame, flanges carried by said studs or bosses, spools or rollers mounted on said studs or bosses, an elastic bridge carried by and formed between each pair of said studs or bosses and adapted to contact and support one half of the axle adjacent to one of the landing wheels, flanges carried by the two parts of the axle adjacent to the points of contact of the elastic bridges, and spools or rollers on the two parts of the axle at the points where same contact the elastic bridges.

[Claims 2 and 4 to 7 not printed in the Gazette.]

1,239,737. TIRE-INFLATING APPARATUS. GEORGE F. STEEDMAN, St. Louis, Mo., assignor to Curtis & Co. Mfg. Co., Wellston, Mo., a Corporation of Missouri. Filed Jan. 29, 1916. Serial No. 75,068. (Cl. 220—110.)



1. A tire-inflating apparatus, comprising a tire filling pipe or hose, a conduit that communicates with a supply of air under relatively high pressure, an air chamber to which said hose and conduit lead, a valve arranged so that it will be unseated by air that is admitted to said chamber, a controlling member for said valve arranged so that the pressure in said chamber will move it in one direction and thus permit the valve to seat, a variable actuating device for said controlling member that constantly exerts pressure on same in a direction tending to permit the valve to open, an adjustable indicating means provided with indicia that represents standard tire sizes or pressures, said means being adapted to be set by the user according to the size of the tire to be inflated, and means whereby the act of setting said indicating means causes the condition of said variable actuating device to be changed so that the valve will close when the pressure in said chamber reaches the degree that is proper for a tire of the size being inflated.

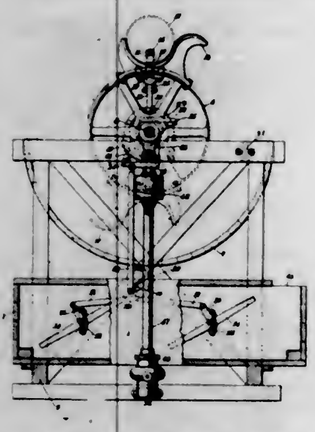
8. A tire-inflating apparatus provided with a pressure-reducing valve that automatically regulates the pressure

of the supply of air to the tire being inflated, a spring-controlled device that governs said valve, an indicator that is adapted to be set in different positions, means combined with said valve-governing device and indicator for automatically changing the tension of the spring of said valve-governing device when the position of said indicator is changed, and an independent means that governs the initial adjustment of the valve.

5. A tire-inflating apparatus provided with a pressure-reducing valve for governing the pressure of the supply of air to the tire being inflated, said valve comprising a casing having a portion on the inside of same in which an inlet duct is formed, a valve that governs the supply of air to the interior of said casing, a reciprocating actuating device for seating said valve guided by the portion on the interior of the casing in which said inlet duct is formed, and a spring-pressed diaphragm for governing said valve-actuating device.

[Claims 2, 4, and 6 to 8 not printed in the Gazette.]

1,239,738. PAINTING-MACHINE. FLOYD D. STOWE, Wilmington, Del., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed Feb. 26, 1914. Serial No. 821,232. (Cl. 91—46.)



1. In combination, a paint trough, means for submerging in the paint therein kegs to be painted, including rotary clamping devices clamping the keg at the filling opening.

2. In combination, a paint trough, means for submerging in the paint therein kegs to be painted, including rotary clamping devices clamping the keg at the filling opening and the edge of the keg.

3. In combination, a paint trough, means for submerging in the paint therein kegs to be painted, including a spring-pressed, clamping device clamping the keg at the filling opening, and cam operated means for disengaging said device from said opening.

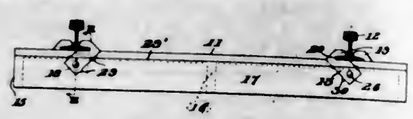
4. In combination, a paint trough, means for submerging in the paint therein kegs to be painted, including spring-pressed, clamping devices clamping the keg at the filling opening and the edge of the keg, and means for engaging and disengaging said devices from the above mentioned parts of the keg.

5. In combination, a paint trough, means for submerging in the paint therein kegs to be painted, including rotary clamping devices, and means for moving the kegs out of engagement with the clamping means.

[Claims 6 to 14 not printed in the Gazette.]

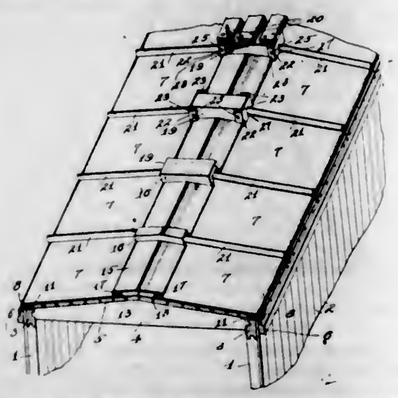
1,239,739. METALLIC TIE AND RAIL-FASTENER. JOHN TARAY, Woodriver, Ill. Filed June 22, 1917. Serial No. 176,260. (Cl. 238—5.)

1. A device of the class described comprising a metallic tie having a rail supporting top, with the sides of the tie provided with oblique sockets extending in opposite directions, bent hooked rail securing plates removably arranged in the said sockets, securing bolts for said plates and means adapted for preventing longitudinal movement of the plates.



2. A metallic tie and rail fastener comprising in combination with a tie having a top platform portion adapted for the seating of railway rails thereon, the opposite longitudinal sides of said tie being arranged in two planes provided with oblique sockets opening at the top of the platform and with the sides of the said sockets provided with transverse recesses, portions of the said sockets being oppositely positioned on opposite sides of the tie and provided with alining openings, angularly bent locking plates adapted for seating within the side sockets having lugs arranged within the said recesses when the plates are in their operative positions, locking means securely removably secured through the said plates and openings, the said plates having hooked upper ends projecting toward each other above the tie and adapted for overlying the base flanges of the adjacent rail when the tie is operatively positioned.

1,239,740. CAR-ROOF. JOHN J. TATUM, Baltimore, Md., assignor, by mesne assignments, to P. H. Murphy Company, Parnassus, Pa., a Corporation of Pennsylvania. Filed Jan. 8, 1913. Serial No. 740,777. (Cl. 108—5.4.)



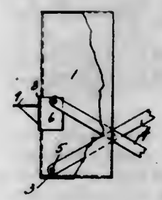
1. A car roof including separate roof sheets terminating short of the eaves and short of the ridge, a ridge sheet secured upon the substructure at the ridge and extending beyond each side of the ridge, said ridge sheet having underturned flanges along its side margins, loosely interlocking with the ridge end of the roof sheet, said flanges limiting the movement of the roof sheets from the ridge, and means movably connecting the eaves ends of the roof sheets to the roof substructure, whereby the roof sheets are limited as to endwise movement away from the eaves and are free to move sidewise and diagonally at both top and bottom ends at the same time, when the car body is weaving.

3. In a car roof the combination with a series of movable roof sheets connected together at their side marginal edges by upstanding flexible seams, of a fixed ridge roof sheet extending longitudinally of the car and covering the ridge ends of said movable sheets, hoods formed in said ridge sheet over the seams of the movable roof sheets and of greater transverse dimension than the transverse dimension of said seams, running board saddles positioned over said hoods and attached to the car, and caps fitting over said seams and closing the spaces between the side walls of the hoods and the seams, said caps being slidably mounted on the ends of said saddles whereby they may move longitudinally with said seams.

5. In a car roof, the combination of transverse roof sheets connected by upstanding side marginal seams, a roof sheet extending along the ridge, running board saddles supported on said ridge roof sheet, said running board saddles having grooves in their under sides adapted to embrace said upstanding seams, and caps loosely mounted on the ends of said running board saddles covering the ends of said grooves.

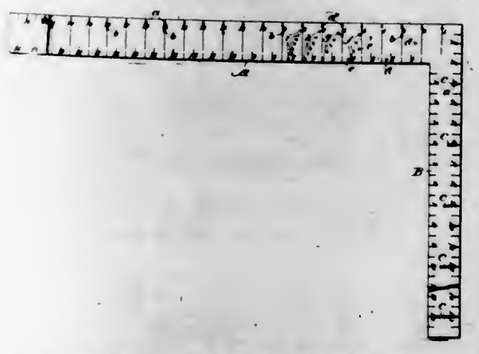
[Claims 2 and 4 not printed in the Gazette.]

1,239,741. MECHANICALLY-OPERATED INDICATOR. CHARLES E. TAYLOR, Seattle, Wash. Filed Aug. 19, 1915. Serial No. 46,221. (Cl. 116—31.)



A signaling device for vehicles, comprising a vertically elongated housing open on one side and provided on its opposite side with a vertical slot, a slide including a vertical member which extends through the slot and lateral side flanges which overlap the outer edges of the walls of the slot, a finger piece extending from the outer face of the flanged end of the slide, a series of lazy tongs extending from the vertical housing, a pivot connecting the inner end of one of the tongs to the housing, a pivot connecting the inner end of the corresponding tong to the slide, and a signal on the outer end of the lazy tongs, whereby when the finger piece is vertically depressed the lazy tongs and signal carried thereby will be forced outwardly from the housing.

1,239,742. CARPENTER'S SQUARE. SAM TAYLOR, Morgantown, N. C. Filed May 16, 1916. Serial No. 97,973. (Cl. 33—113.)



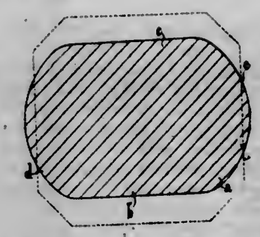
1. In a device of the character described, a flat blade or the like having a scale, and provided with a series of groups of perforations located at certain scale divisions thereof, the number of perforations in each group increasing progressively from one end of the scale to the other.

2. In a device of the class described, an instrument provided with a straight edge and a scale, said instrument having means associated with each unit scale division thereof for defining, in conjunction with said straight edge, an angle bearing a definite simple relation to the angle of a regular polygon, the number of sides of the polygon being indicated by the position of the particular division in the scale.

3. A measuring instrument comprising a flat portion having a pair of straight, parallel edges and provided with a row of perforations extending across the same, said row of perforations being disposed at such an inclination to said edges as to form therewith an angle equal to one half the angle of a regular polygon.

4. A measuring instrument having a straight edge, and provided with a plurality of rows of perforations extending across the same and each forming with the straight edge an angle bearing a definite relation to that of a regular polygon, the number of perforations in each row corresponding to the number of sides of the polygon.

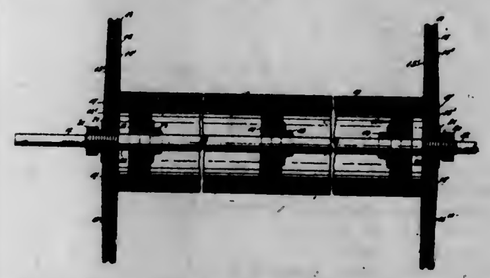
1,239,743. ROLLING-MILL. CHARLES THICKETT and WILLIAM HAWKSWORTH, Deepcar, near Sheffield, England, assignors to Samuel Fox & Company Limited, Sheffield, England. Filed Sept. 26, 1916. Serial No. 122,267. (Cl. 80—51.)



2. A method of rolling round bars which consists in first forming the bar such that two sides are rectilinear while the other two sides or ends are curvilinear and subsequently finishing the bar circular in cross-section.

[Claims 1 and 3 not printed in the Gazette.]

1,239,744. SECTION-BEAM HEAD. RAY THORNTON, New Bedford, Mass., assignor to George H. H. Allen, New Bedford, Mass. Filed Sept. 2, 1914. Serial No. 859,773. (Cl. 242—124.)



1. The combination with a section-beam, of a unitary or one-piece head comprising in its construction a plurality of layers of wood, each layer having a plurality of bands permanently united at their meeting edges, the cross-section of the outer edge of said head being arc-shaped, and a metallic rim clamped on said outer edge of said head and binding said layers together.

3. The combination with a section-beam, of a unitary or one-piece head comprising in its construction a plurality of layers of wood, each layer having a plurality of bands permanently united at their meeting edges, the joints between the bands of one of the outer layers being out of line with the joints of the other outer layer and the cross-section of the outer edge of said head being arc-shaped, and a metallic rim clamped on said outer edge of said head and binding said layers together.

5. The combination with a section-beam, of a unitary or one-piece head comprising in its construction a plu-

rality of layers of wood, each layer having a plurality of bands permanently united at their meeting edges, the bands of the inner layer being at right angles to those of the outer layers, the joints between the bands of one of the outer layers being out of line with the joints of the other outer layer, and a metallic rim clamped on the outer edge of said head, said rim being so shaped as to bind said layers together.

[Claims 2, 4, 6, and 7 not printed in the Gazette.]

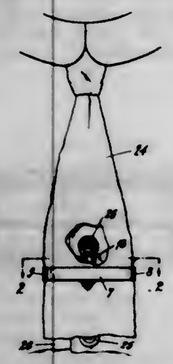
1,239,745. CHAIN-LOCK. EUGENE J. C. TIMERMAN, Syracuse, N. Y. Filed Mar. 13, 1917. Serial No. 154,602. (Cl. 24—239.)



1. The combination with the side chain and a latch pivoted to one end link of said chain, of a sleeve movably mounted upon said end link adapted to telescope said latch for preventing opening thereof, and snap hooks carried by said sleeve adapted to engage one of the opposite end links for holding said sleeve in the operative position.

2. The combination with the side chain and a latch coupling pivoted to one end of said chain, the other end of said chain having a link for engaging said latch, of a coil-spring lock encircling the end of the chain adjacent said latch when idle, said spring movable longitudinally for telescoping said latch for preventing the opening thereof, and a pair of snap hooks adapted to stretch and hold said spring in the operative position.

1,239,746. NECKTIE-CLASP. EDWARD P. TOBIE, Providence, R. I. Filed Nov. 7, 1916. Serial No. 129,929. (Cl. 24—81.)



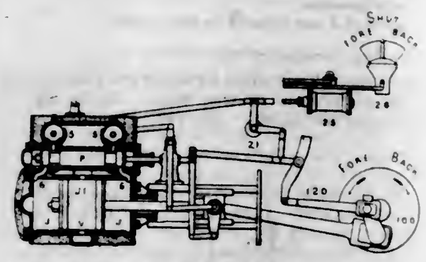
1. A necktie clasp comprising an elongated body, rearwardly directed inwardly curved fingers upon the ends of the body adapted to guide the edges of the tie, a hinge socket on the end of one finger, and a tongue mounted in the socket and having a lateral spring loop intermediate its ends.

4. A necktie clasp comprising an elongated body, rearwardly directed inwardly curved resilient fingers upon the ends of the body, a loop upon the extremity of one finger spaced from the body, a socket integral with the end of the other finger also spaced from the body, a tongue pivotally engaging the socket, and having a lateral spring loop intermediate its ends, and a loop upon the free end of the tongue adapted to engage the first mentioned loop.

10. A necktie clasp comprising an elongated body, curved fingers upon the ends of the body, a loop on one finger, a tongue attached to the other finger engaged by the loop, an open resilient laterally disposed loop upon an intermediate portion of the tongue adjacent the body and in the rear thereof adapted to form a barrier.

[Claims 2, 3, and 5 to 9 not printed in the Gazette.]

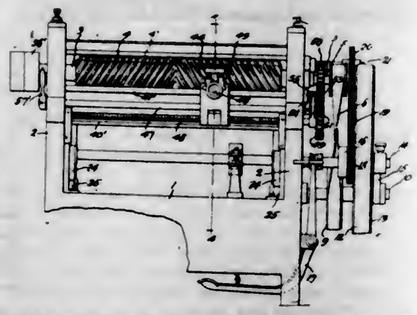
1,239,747. STEAM-ENGINE. LEONARD JENNETT TODD, Stoke Newington, London, England. Filed Mar. 16, 1916. Serial No. 84,626. (Cl. 121—99.)



2. A steam or other elastic fluid engine comprising the elements of a primary shut-off and expansion gear including two pivotal axes, a variable control driving joint located between the transverse center lines of the axes that lie at right angles to a line connecting the said axes, driving levers oscillating about the said axes, diagonal driving links connecting the said levers with the variable control driving joint, primary shut-off and expansion valves connected either directly or indirectly to the said pivotal axes, a secondary valve adapted to receive working fluid from the primary valves, a main driving cylinder adapted to receive the working fluid from the secondary valve, a reversing gear connected to the secondary valve, and a single controlling handle connected to the variable control joint of the primary valves, and also to the reversing gear of the secondary valve, the whole being correlated to give a single handle control of the shut-off and expansion of the working fluid by the primary valves, and of the direction of the rotation of the engine by the secondary valve.

[Claims 1, 3, and 4 not printed in the Gazette.]

1,239,748. FLESHING-MACHINE. ALBERTUS TRAVIS, Johnstown, N. Y. Filed Nov. 23, 1916. Serial No. 133,069. (Cl. 149—16.)



1. In a fleshing machine, the combination with a fleshing cylinder mounted for rotation and a corrugated feed roller yieldingly supported adjacent thereto, of a spring pressed friction disk revoluble with said roller, arms mounted to swing toward and from the feed roller and fleshing cylinder, a shaft journaled in the arms, a resilient feed roller revoluble with the shaft, a friction disk carried by said shaft and movable with the arms into and out of contact with the spring pressed friction disk.

2. In a fleshing machine, the combination with a fleshing cylinder mounted for rotation and a corrugated feed roller yieldingly supported adjacent thereto, of a spring pressed friction disk revoluble with said roller, arms mounted to swing toward and from the feed roller and fleshing cylinder, a shaft journaled in the arms, a resilient feed roller revoluble with the shaft, a friction disk carried by said shaft and movable with the arms into and out of contact with the spring pressed friction disk, and means carried by the arms for shifting the resilient roller toward or from the fleshing cylinder.

3. In a fleshing machine, the combination with a fleshing cylinder mounted for rotation and a corrugated feed roller yieldingly supported adjacent thereto, of a spring pressed friction disk revoluble with said roller, arms mounted to swing toward and from the feed roller and fleshing cylinder, a shaft journaled in the arms, a resilient feed roller revoluble with the shaft, a friction disk carried by said shaft and movable with the arms into and out of contact with the spring pressed friction disk, actuating cams contacting with the arms, means for rotating the cams, and means for yieldingly holding the arms in contact with the cams.

4. In a fleshing machine, the combination with a fleshing cylinder mounted for rotation, and superposed feed rollers, of bell crank levers supporting one of the feed rollers, a finger pivotally connected to one arm of each lever, means carried by said arm for yieldingly supporting the finger at a predetermined angle relative to the arm, yieldable means for supporting the finger carrying arms of the levers, and revoluble means operatively connected to the fingers for operating the bell crank levers and shifting the feed roller thereon toward and from the fleshing cylinder.

1,239,749. NON-SKIDDING AND TIRE-HOLDING DEVICE FOR PNEUMATIC TIRES. ERNEST VELTUNG, New York, N. Y. Filed Nov. 4, 1915. Serial No. 59,520. (Cl. 152—14.)



The herein described means for securing an elastic tire to the rim of a wheel and providing anti-skid devices consisting of annular side plates between which the tire is placed, said side plates being adapted to be secured to the rim, chain devices adapted to be passed transversely around the outer surface of the tire, one end of said chain devices being permanently connected with one of said side plates, the other end of said chain devices being detachably connected with the other of said side plates, and lock devices pivoted to said last named side plate and adapted to hold the detachable end of said chain devices against displacement.

1,239,750. RAIL TIE AND FASTENER. EDWIN T. WADE, Jackson, Miss., assignor of one-third to Albert C. Jones, Jackson, Miss. Filed May 10, 1917. Serial No. 167,752. (Cl. 238—3.)



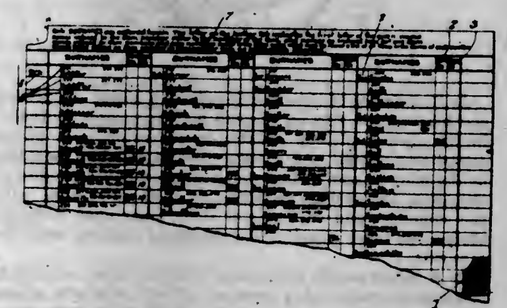
2. A railroad tie embodying a sleeper, having an enlargement, bars embedded within the upper portion of the sleeper and having terminals extending downwardly therethrough at one side of said enlargement, means engaging said terminals for holding them in place, and means engaging said enlargement and disposed between said bars for holding a rail thereon.

5. A railroad tie embodying a sleeper, a tie plate thereon having upstanding lugs, bolts extending downwardly through said plate and having their heads uppermost to overlap the base flange of a rail, and keys adapted to be driven between said lugs and heads of the bolts.

6. A railroad tie embodying a sleeper, a tie plate thereon having upstanding lugs provided with undercut grooves, bolts extending downwardly through said plate and having their heads uppermost to overlap the base flange of a rail seating on said plate between the lugs, nuts embedded in the sleeper for the engagement of the bolts, and keys of inverted T-shaped section adapted to be driven between said lugs and heads to engage under them.

[Claims 1, 3, and 4 not printed in the Gazette.]

1,239,751. INDEX. GUSTINE SNOWDEN WHITE, Dunmore, Pa. Filed July 25, 1914. Serial No. 853,038. (Cl. 11—7.)



1. An index comprising a primary index and a final index, the primary index being provided with a plurality of similar lists of surnames arranged in dictionary order, each of such lists being identified by a letter of the alphabet, a vertical series of spaces beside said surnames having a caption indicating that such spaces are reserved for reference indications, the final index having a plurality of spaces each identified by a reference indication whereby one of such reference indications when inserted in the spaces reserved therefor in the primary index beside all variations of the same surname in one list indicates that the space in the final index bearing the corresponding reference indication should receive all variations of such surname whose given name begins with the letter identifying the list in which such names belong.

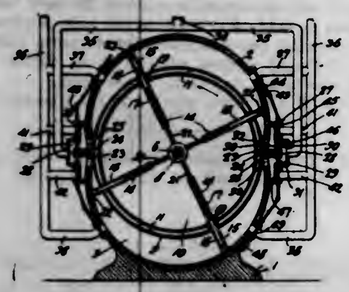
3. An index comprising a primary index, an intermediate index and a final index, the primary index being provided with a plurality of similar lists of surnames arranged in dictionary order and having one vertical series of spaces beside the surnames having a caption indicating that such spaces are reserved for recording an item number, and a second vertical series of spaces beside the surnames having a caption indicating that the spaces of the second series are reserved for recording a page number, each list of surnames in the primary index having a letter of the alphabet to identify the same, the intermediate index having a series of consecutively arranged item numbers beside which the data of the records may be recorded, the item number of each of such records being recorded in the spaces reserved for the same beside all variations of the corresponding surname in the primary index, and the final index having a plurality of pages each identified by a number whereby one of such page numbers when inserted in the spaces reserved for the same in the primary index beside all variations of the same surname in one list indicates that such page of the final index should receive all variations of such surname whose given name begins with the letter identifying the list in which such names belong.

4. In an index, a list of surnames arranged in dictionary order, consecutive numbers associated with said surnames.

the number of each surname which is a variation of a single family name associated with all other variations of the same family name whereby each name will refer to all other variations of the same family name.

[Claim 2 not printed in the Gazette.]

1,239,752. ROTARY ENGINE. JOHN B. WHITTED, Elizabethtown, N. C. Filed Apr. 7, 1915. Serial No. 19,829. (Cl. 121—74.)



1. In a device of the class described, a stator comprising end plates; cam ribs on the end plates; a rotor journaled in the stator; pistons slidable in the rotor, each piston comprising a head and a reduced stem defining shoulders in the piston; and springs disposed upon opposite sides of the stem, the springs engaging at their outer ends with the shoulders and engaging at their inner ends with the stator, the inner edges of the shoulders coacting with the cam ribs.

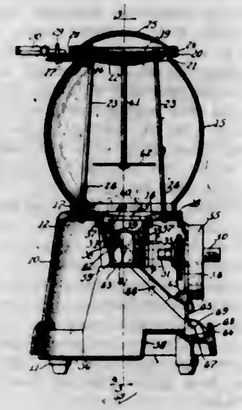
2. A rotary engine comprising a stator having oppositely disposed abutments and provided at each side with a pair of first exhaust ports, the exhaust ports of the pairs being located upon opposite sides of the respective abutments, the stator being supplied at each side with a pair of second exhaust ports located between the first exhaust ports of each pair, the stator being equipped at each side with a pair of inlet ports disposed on opposite sides of the respective abutments and between the second exhaust ports of each pair; main valves mounted on the stator for right line sliding movement, each main valve controlling one pair of inlet ports and a correasponding pair of second exhaust ports; an auxiliary valve controlling each first exhaust port and mounted on the stator for right line sliding movement; links pivotally connected to the outer ends of the main valves and with the inner ends of the corresponding auxiliary valves; a single lever fulcrumed intermediate its ends on the stator; means for holding the lever in adjusted positions; a link connecting each end of the lever with one of the main valves; and a rotor journaled in the stator and coöperating with the abutments.

1,239,753. VENDING-MACHINE. ALFRED D. ANTOINE and ALBERT E. GARRET, Chicago, and CLARENCE C. TRAVIS, Evanston, Ill., assignors to Advance Machine Co., Chicago, Ill., a Corporation of Illinois. Filed Dec. 17, 1913. Serial No. 807,163. (Cl. 211—8.)

1. A vending machine embodying a holder for a supply of articles, and delivery mechanism for the articles, the said mechanism embodying provisions for receiving and simultaneously holding a plurality of articles from the supply, and provisions whereby some of the articles will be retained in the delivery mechanism while another article is delivered therefrom.

2. A vending machine embodying a holder for a supply of articles, and delivery mechanism for the articles, said mechanism embodying a sliding carrier having a chamber therein for receiving and simultaneously holding a plurality of articles from the supply, and provisions whereby one of the articles will be delivered from the chamber and another article will be retained in the chamber when the delivery mechanism is actuated.

3. A vending machine embodying a holder for a supply of articles, delivery mechanism for the articles, said mechanism embodying a carrier for receiving and holding a plurality of articles, provisions whereby the actuation of the carrier will cause one of the articles to be delivered therefrom and another article to be retained in the carrier, means tending normally to move the carrier in one direction, and means for moving the carrier in the opposite direction and against the stress of the last recited means.

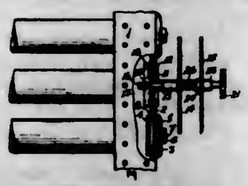


4. A vending machine embodying a holder for a supply of articles, delivery mechanism for the articles and embodying a chamber for receiving a plurality of the articles from the supply, means for actuating the carrier, means whereby one article will be delivered from the carrier upon the actuation of the latter in one direction, and a cutoff operating to retain another of the articles in the carrier while the last said article is being delivered therefrom.

5. A vending machine embodying a holder for a supply of articles, delivery mechanism for the articles embodying a carrier having a chamber for receiving the articles from the supply, said chamber having a discharge outlet, means forming a closure for the outlet of the chamber, provisions whereby the outlet of the chamber will be opened at a predetermined point in the movement of the carrier to permit an article to pass through the outlet, provisions operating to close the outlet to another article in the chamber during the time that one article is being discharged therefrom, and provisions for actuating the carrier.

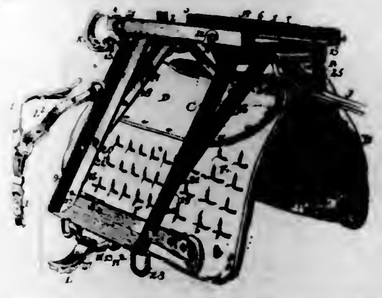
[Claims 6 to 16 not printed in the Gazette.]

1,239,754. SCRAPER FOR BOILER HAND-HOLES. OTTO BACHE and CHARLES BERG, San Francisco, Cal. Filed Sept. 1, 1915. Serial No. 48,530. (Cl. 83—64.)



In an implement of the class described, the combination of a spindle, means supported thereby for scraping the inner side of an apertured plate, a bearing for the spindle provided with means for engaging the outer side of said plate, handles secured respectively to said spindle and bearing, and each extending in opposite directions from the part to which it is secured, and a coiled spring around the spindle compressed between said handles.

1,239,755. PACK-SADDLE. HERBERT D. BADER and JAMES CLARENCE WASSELL, St. Louis, Mo., assignors to Simmons Hardware Company, St. Louis, Mo., a Corporation of Missouri. Filed Feb. 14, 1917. Serial No. 148,610. (Cl. 54—37.)



1. A device of the character described comprising a horizontally disposed package carrier provided with flanges arranged to afford a supporting surface for the package, and with additional flanges extending upwardly from said surface to provide side and end walls for the carrier, and a depending package carrier connected at each side of and rigidly supported by said horizontal carrier, substantially as described.

8. A device of the character described comprising an upper package carrier, and an inclined package carrier supported on each side of said upper carrier, each of said inclined carriers being constructed of an integral member having flanges providing side and end walls for said carrier, and an integral bracing member connected to each of the said inclined carriers and to said upper carrier, substantially as described.

[Claims 2 to 7, 9, and 10 not printed in the Gazette.]

1,239,756. PACK-SADDLE. HERBERT D. BADER and JAMES CLARENCE WASSELL, St. Louis, Mo., assignors to Simmons Hardware Company, St. Louis, Mo., a Corporation of Missouri. Filed Feb. 14, 1917. Serial No. 148,611. (Cl. 54—37.)

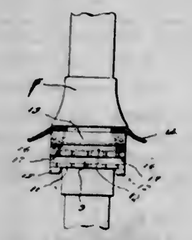


1. A device of the character described comprising a horizontal, rectangularly shaped package carrier provided with flanges arranged to constitute a supporting surface for the package, and other flanges arranged at a right angle to the first-mentioned flanges to provide end and side walls preventing transverse or longitudinal movement of the package with respect to the carrier, and a downwardly extending curved package carrier suspended from each side of said horizontal carrier, substantially as described.

11. A device of the character described comprising a frame provided with a top member and with inclined side members having vertical flanges, a plurality of downwardly extending arms suspended from said top member and forming package carriers, portions of said arms extending parallel to said vertical flanges, and projections on said flanges to hold the upper surfaces of said arms in a plane above the upper surfaces of said vertical flanges, substantially as described.

[Claims 2 to 10, 12, and 13 not printed in the Gazette.]

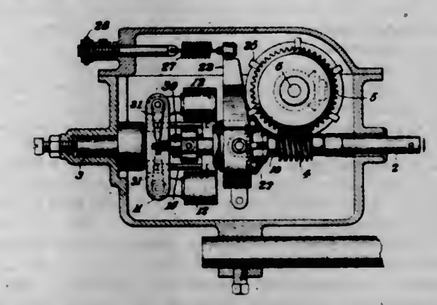
1,239,757. UMBRELLA. PETER BAGLEY, Farnworth, England. Filed Oct. 5, 1915. Serial No. 54,251. (Cl. 135—34.)



1. An umbrella comprising a stick made up in sections and connected together by means of a spring clamp, a top notch, ribs pivoted to the top notch, a runner, braces pivoted to the ribs and runner, said top notch and runner being detachable from the upper section of the stick, a cover provided with a ring having pivoted latches thereon to connect with the top notch, and means for connecting the cover to the ribs.

2. An umbrella comprising a stick in two sections, a top notch having ribs pivoted thereto, braces connected to the ribs, a runner to which the braces are connected, a cover having sockets for the ends of the ribs, and clasps to engage said ribs, a ring connected to the center of the cover and provided with hinged latches to engage the top notch to which the ribs are pivoted, a collar detachably secured to the top notch, and a collar fitted over the top of the ring, and latches carried by one of the collars and engaging the opposite collar for holding the parts assembled.

1,239,758. SPEED-CONTROL DEVICE. HAYDN M. BAKER, Jr., Brooklyn, N. Y., assignor to Augustus Treadwell, Jr., Brooklyn, N. Y. Filed Apr. 6, 1914. Serial No. 829,779. (Cl. 74—45.)



2. The combination in a speed control device, of a rotatable shaft, a cross head attached to said shaft, centrifugal weights pivotally mounted in said cross head, a sleeve to rotate and slide on the shaft connections between said weights and said sleeve for effecting an endwise movement of said sleeve upon centrifugal movement of said weights, and an equalizing connection between said cross head and said sleeve for transmitting the rotary motion of said cross head to said sleeve.

4. The combination in a speed control device, of a rotatable shaft, a cross head attached thereto, centrifugal weights carried by said cross head, a sleeve mounted on said shaft and free to move end-wise thereon, means for shifting said sleeve comprising bell crank arms carried by said weights, and thrust rods between said arms and a flange of said sleeve, said rods being loosely seated at each end in sockets in said arms and flange respectively.

9. In a speed control device, the combination of a driving shaft, a driven shaft, permanently intermeshing gears connecting the said shafts with each other, and means for operatively disconnecting the same including a stop wheel, a governor rotating with the said driving shaft, a

stop device for the said stop wheel, an operative connection between the said governor and the said stop device including a sleeve loosely mounted on the said driving shaft to slide and to turn thereon, and means to limit the sliding movement of the said sleeve and thereby the centrifugal action of the said governor.

[Claims 1, 3, and 5 to 8 not printed in the Gazette.]

1,239,759. AUTOMATIC ELECTRIC-ARC-CONTROL MECHANISM. HAYDN M. BAKER, Jr., Brooklyn, N. Y., assignor to Augustus Treadwell, Jr., Brooklyn, N. Y. Filed Oct. 21, 1914. Serial No. 867,773. (Cl. 176—72.)



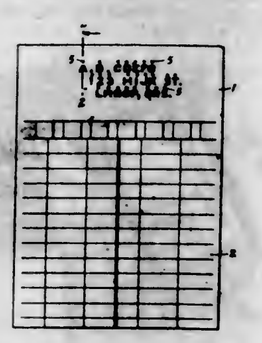
1. In electric arc control mechanism, the combination comprising a pair of electrodes adjustable toward and from each other, gearing for adjusting said electrodes, a normally stationary shaft for actuating said gearing, means for operating said gearing by hand, including a sleeve fixedly mounted upon said shaft and having a frictional collar at its inner end, a worm gear loosely mounted on said sleeve, adapted to frictionally engage with its lateral face the lateral face of said collar, a disk member also loosely mounted on said sleeve and slidable thereon, arranged to normally engage the opposite lateral face of said worm gear, a second disk member capable of limited rocking movement, but incapable of longitudinal movement, mounted on said sleeve beyond the first disk member, a single adjusting screw for frictionally connecting and disconnecting said disk members operatively with said worm gear, and means for actuating said shaft by hand when said disk members are operatively disconnected from said worm gear.

2. In electric arc control mechanism, the combination comprising a pair of electrodes each provided with a rack-bar, a pinion for relatively adjusting the said electrodes, a normally stationary shaft for actuating said pinion in circuit with said electrodes, a shaft for operating said pinion and provided with a fixed sleeve having a friction collar at its inner end, a worm loosely mounted on said sleeve and adapted to frictionally engage with its lateral face the lateral face of said collar, a disk member also loosely and slidably mounted on said sleeve arranged to normally engage the opposite lateral face of said worm, a second disk member capable of limited rocking movement, but incapable of slidable movement, mounted on said sleeve beyond the first disk member, a single adjusting screw for frictionally operatively connecting, and disconnecting the said disk members with said worm and means for actuating said shaft by hand when said disk members are operatively disconnected from said worm.

1,239,760. STENCIL-CARD. EDWIN D. BELKNAP, East Orange, N. J. Filed Oct. 2, 1914. Serial No. 864,687. (Cl. 101—127.)

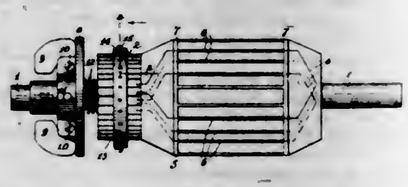
1. A card of substantially uniform thickness having a portion of its area in which there is provision for stenciling a mailing address and a long extension at one side ruled for the reception of data to be printed thereon, said portion to be stenciled being provided with means for separating it from a similar card when superposed thereon, said means comprising projections from a plurality of points scattered over the back of the card.

2. A card of substantially uniform thickness having a portion of its area in which there is provision for stenciling a mailing address and a long extension at one side ruled for the reception of data to be printed thereon, said portion to be stenciled being provided with means for separating it from a similar card when superposed thereon, said means comprising portions offset from a plurality of points scattered over the back of the card and devices for preventing similar offset portions from an-



other card entering the depressions formed in the face of the first card by the offset portions thereof.

1,239,761. ALTERNATING-CURRENT MOTOR. ALONZO C. BELL and THADDEUS R. BELL, Westfield, N. J. Filed Feb. 27, 1913, Serial No. 750,953. Renewed June 2, 1917. Serial No. 172,523. (Cl. 172—279.)



1. The combination in motors of the class described of a rotor comprising a light squirrel cage adapted to starting; a wound armature in which the ends of the coils are contact members or segments; means for automatically short-circuiting said segments from the speed of rotation of the motor; and a conductor adjacent said segments having a plurality of independent means corresponding to the segments adapted individually to be brought into electrical contact therewith.

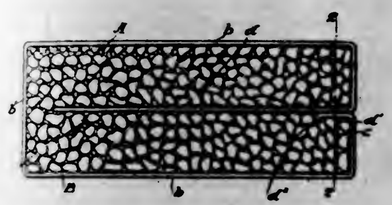
2. The combination in motors of the class described of a rotor comprising a commutator; a wound armature in which the ends of the coils are brought out to the segments of the commutator; a conducting ring mounted in concentric position relative to the commutator and having a plurality of independent conducting members each adapted to be adjusted into and out of contact with the adjacent commutator segment.

3. The combination in motors of the class described of a rotor comprising a light squirrel cage adapted to starting; a wound armature in which the ends of the coils are contact members or segments; means for automatically short-circuiting said segments from the speed of rotation of the motor; and conducting means adjustable to connect or disconnect the segments corresponding to some of the armature coils in order to supplement the squirrel cage.

1,239,762. METHOD OF PRODUCING PAVING-BLOCKS. EDWIN H. BENNERS, Elizabeth, N. J. Filed Jan. 31, 1914. Serial No. 815,607. (Cl. 94—1.)

1. The method of producing a reinforced concrete paving block which consists in positioning a metal band upon the bottom portion of a mold, depositing a concrete mixture including a mineral aggregate and a grout within the mold and into contact with said metal band, whereby the mineral aggregate will stratify at the surface of the block and adjacent the metal band, and uniting the concrete and the metal band into a homogeneous mass by the bonding action of the grout entering into the concrete mixture.

2. The process of producing a reinforced concrete paving block which consists in positioning a metal band within a suitable mold, preparing a concrete mixture including a mineral aggregate and a semi-liquid grout of sand and cement, depositing said concrete mixture within the mold



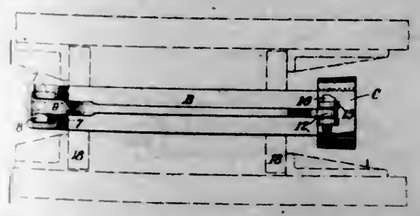
and into contact with the metal band, allowing the mineral aggregate to accumulate by gravity thereof into a strata or layer at the bottom of the mold and next to the metal band, and bonding the whole into a homogeneous mass by the action of the semi-liquid grout.

1,239,763. HAY-RAKE ATTACHMENT. ROB BLACK, Oskaloosa, Iowa. Filed Apr. 14, 1917. Serial No. 162,011. (Cl. 56—137.)



In a hay rake attachment, in combination, a wheel supported frame, a substantially horizontal rake member thereon having relatively long teeth, an upright at the rear of said rake member, a transverse cross member secured to said upright, a cleaning device for said rake member comprising a transverse cross member parallel to said first cross member, a plurality of relatively short vertically disposed cleaning members secured to said second cross member, the central vertical cleaning members being of greater height than the adjacent side cleaning members, means connecting said vertical members of greater height with the first cross member to permit pivotal movement thereon, an operating lever, connections from said vertical members to said lever, and means for adjusting the length of said operating connections.

1,239,764. COUPLING-YOKE. WILLIAM BLACKMORE, Cleveland, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed Oct. 28, 1914. Serial No. 869,006. (Cl. 213—42.)

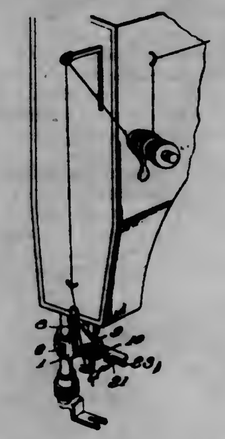


1. In a coupler yoke an upper and a lower arm, the said arms having a detachable connection at their rear ends and a securing member for the forward ends of the yoke arms, said securing member having a fulcrum bearing on one arm and being adapted to be rotated thereabout into engagement with the other yoke arm.

4. In a coupler yoke, an upper and a lower arm, the said arms having a member securing their forward ends together, one of said arms having at its rear end integral trunnions adapted to seat in a socket in the other yoke arm, said trunnions and socket comprising a pulling engagement between the yoke arms substantially in line with the lower arm.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,239,765. SEWING-MACHINE THREADING ATTACHMENT. THOMAS JAMES BOWYER, Duluth, Minn. Filed Jan. 29, 1916. Serial No. 75,087. (Cl. 112—18.)



1. A threading attachment for sewing machines comprising a member attachable to the pressure bar of the sewing machine, a horizontally disposed L-shaped plate carried by the said member, said plate extending from a point at one side of the pressure bar forwardly and around in front of the needle, the front edge of the said plate provided with a guideway, and a slidable member mounted in said guideway and having a hook on one end adapted to pass through the eye of the sewing machine needle.

2. A threading attachment for sewing machines comprising a member attachable to the pressure bar of the sewing machine, a horizontally disposed plate carried by the said member, the said plate having guideways on one edge thereof, a slidable member mounted in said guideways and having a hook on one end adapted to pass through the eye of the sewing machine needle, a spring having one end attached to the under side of the plate and engaging the top of the slidable member for normally holding the hook away from the needle.

3. A threading attachment for sewing machine needles comprising a member attachable to the pressure bar of the sewing machine, a horizontally disposed plate carried by the said member, said plate having a notch in one edge to receive the sewing machine needle, another edge of the said plate rolled to form a guide-way diametrically behind the said notch, and a slidable member mounted in said guideway and carrying means for threading the nedle.

4. A threading attachment for sewing machine needles comprising a member attachable to the pressure bar of the sewing machine, a horizontally disposed plate carried by the said member, one edge of the said plate rolled to form a guideway, a slidable member mounted in the said guideway, a portion of the guideway cut away, a spring having one end attached to the plate and having a handle on the other end passing through the cut-away portion in the guideway and attached to the slidable member providing means for moving the slidable member between the limits of the cut-away portion.

1,239,766. PROCESS OF DRYING CASEIN. WILLIAM M. BROWNELL, Brooklyn, N. Y., assignor of three-fourths to Arthur M. Hood, Newton, Mass., and John T. Nightingale, Boston, Mass. Filed May 1, 1916. Serial No. 94,585. (Cl. 99—5.)

1. The method of drying casein which consists in submitting the curds or wet casein to heat to render them

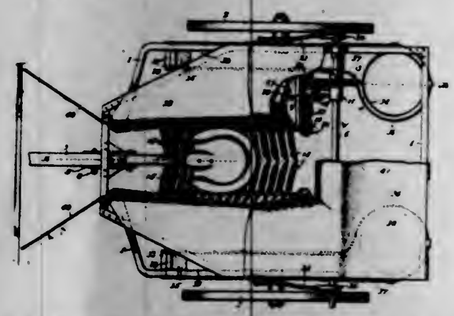
plastic, sticky and homogeneous, forming the material into small pieces, immersing it in water to render the surface non-adhesive, and drying the material.

2. The method of drying casein which consists in submitting the curds or wet casein to a temperature of from 135 to 180° Fahrenheit, to render them plastic, sticky and homogeneous, forming the material into small pieces, immersing it in water of a temperature lower than that to which the material has been heated to render the surface non-adhesive, and drying the material.

3. The method of drying casein which consists in subjecting the wet curds or casein to heat to render them plastic, sticky and homogeneous, forming the material into continuous strips or ribbons, immersing the material in water to render the surface non-adhesive, cutting the strips into smaller pieces, and drying the same while being agitated.

4. The method of drying casein which consists in submitting the curds of wet casein to heat to render them plastic, sticky and homogeneous and to distribute the moisture uniformly throughout the mass, forming the material in pieces of uniform size, immersing it in water to render the surface non-adhesive and drying the material.

1,239,767. COTTON-HARVESTER. CHARLES CALDWELL and WILLIAM P. KOPPE, Chicago, Ill., assignors, by direct and mesne assignments, to Deere and Company, Moline, Ill. Filed Apr. 26, 1913. Serial No. 763,717. (Cl. 56—6.)



1. In a cotton harvester, the combination of a main frame, a revoluble carrier mounted on said frame, means for imparting rotation to said carrier, picker blades mounted in series on different portions of said carrier and disposed toward the same side of the carrier, means for maintaining the direction in which said picker blades are disposed relative to said carrier during their travel around the axis of said carrier, said last means comprising a central fixed gear wheel, an idler gear wheel journaled on the carrier and meshing with the fixed gear wheel, and a gear wheel carried by the portion on which the picker blades are mounted and meshing with said idler gear wheel, and means for stripping the picked cotton from the picker blades.

2. In a cotton harvester, the combination of a main frame, a revoluble carrier mounted on said frame, means for imparting rotation to said carrier, picker blades connected to opposite sides of said carrier and disposed toward the same side of said carrier, means for maintaining the direction in which said picker blades are disposed relative to said carrier during the travel of the blades around the axis of said carrier, said means comprising a central fixed gear wheel, a pair of shafts to which the picker blades are secured, a pair of idler gear wheels journaled on the carrier and meshing with the fixed gear wheel and a pair of gear wheels carried by said shaft and meshing with the idler gear wheels, and means for stripping the picked cotton from the picker blades.

3. In a cotton harvester, the combination of a main frame, a revoluble carrier mounted on said frame, means for imparting rotation to said carrier, picker blades pivotally connected to opposite portions of said carrier and disposed toward the same side thereof, means for maintaining the direction in which said picker blades are disposed relative to said carrier during their travel around the axis of said carrier, and means for stripping the picked cotton from the picker blades, the same comprising stripper plates arranged intermediate of the blades at opposite sides of the carrier and supported by the latter.

4. In a cotton harvester, the combination of a main frame, a revoluble carrier mounted on said frame, means for imparting rotation to said carrier, picker blades pivotally connected to opposite portions of said carrier and disposed toward the same side thereof, means for maintaining the direction in which said picker blades are disposed relative to said carrier during the travel of said blades around the axis of said carrier, and means for stripping the picked cotton from the picker blades, the same comprising stripper plates extending between opposite sides of said carrier and supported thereby, said plates having an approximately diamond form and arrangement intermediate of the picker blades.

5. In a cotton harvester, the combination of a main frame, a revoluble carrier comprising a pair of cross-heads journaled to the main frame and a pair of carrying shafts journaled in the outer ends of said cross-heads, means for imparting rotation to said carrier, a plurality of picker blades secured to the aforesaid carrying shafts so as to be disposed toward the same side of said carrier, means associated with said carrying shafts for maintaining the direction of the picker blades relative to said carrier during their orbital travel around the axis of the carrier, and means for removing the picker cotton from the picker blades.

[Claims 6 to 29 not printed in the Gazette.]

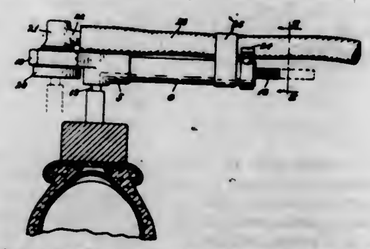
1,239,768. METHOD OF TREATING ALUNITE. FRANK K. CAMERON and JOHN A. CULLEN, Washington, D. C. Filed Nov. 11, 1916. Serial No. 130,859. (Cl. 23—13.)

1. A method of treating alunite, comprising reacting thereon with strong sulfuric acid in proportion sufficient to neutralize the basic compound with formation of a solid cake, hydrating the cake and heating to effect solution of the aluminum salts, crystallizing out alum from the resulting solution by cooling, and recovering an aluminum compound from the mother-liquor.

2. A method of treating alunite, comprising reacting thereon with strong sulfuric acid in proportion sufficient to neutralize the basic compound with formation of a solid cake, hydrating the cake and heating to effect solution of the aluminum salts, crystallizing out alum from the resulting solution by cooling, and recovering an aluminum compound from the mother-liquor.

3. In a method of treating alunite, the step which consists in reacting thereon with sufficient strong sulfuric acid to neutralize the basic compound, producing directly thereby a solid cake which is largely water-soluble.

1,239,769. COMBINED SOCKET AND HANDLE FOR AN AIR-PRESSURE GAGE AND HOSE-CONNECTOR. FRANK B. CHARROIN, Seattle, Wash. Filed Sept. 18, 1916. Serial No. 120,895. (Cl. 137—28.)



1. A combined socket and handle of the class described, comprising a body portion which is provided with a hole that forms a circular recess in one of its end portions, and further provided with an annular recess in one of its side portions, said recesses being disposed with their axes at right angles to each other and connected by an air passageway extending therebetween, said annular recess being adapted to connect with and to operate the check-valve-controlled nipple of the inner tube of a pneumatic tire; a section of tube which is adapted to surround an air pressure gage and releasably to fasten the inlet end of said gage within the circular recess in the end portion of said body portion, whereby air may pass from said passageway into said gage; and means associated with said body portion and with said tube whereby there may be fastened thereto and parallel therewith the inlet nipple of a hose connector and an end portion of the hose to which said inlet nipple is connected.

2. A combined socket and handle of the class described, comprising a body portion which is provided with a hole that forms a circular recess in one of its end portions, and further provided with an annular recess in one of its side portions, said recesses being disposed with their axes at right angles to each other and connected by an air passageway extending therebetween, said annular recess being adapted to connect with and to operate the check-valve-controlled nipple of the inner tube of a pneumatic tire; a section of tube which is adapted to surround an air pressure gage and releasably to fasten the inlet end of said gage within the circular recess in the end portion of said body portion, whereby air may pass from said air passageway into said gage; and means associated with said body portion and with said tube whereby there may be fastened thereto and parallel therewith the inlet nipple of a hose connector.

3. A combined socket and handle of the class described, comprising a body portion which is provided with a hole that forms a circular recess in one of its end portions, and further provided with an annular recess in one of its side portions, said recesses being disposed with their axes at right angles to each other and connected by an air passageway, said annular recess being adapted to connect with and to operate the check-valve-controlled nipple of the inner tube of a pneumatic tire; a tube one end portion of which is disposed within the said circular recess; and a pressure gage releasably fastened within said tube so that air may pass from said air passageway into said gage.

4. A gage comprising a body portion which is provided with a hole that forms a circular recess in one of its end portions; a gage tube one end portion of which is disposed within said circular recess; a hose connector associated with said body portion; and an end portion of a hose connected to one of said hose connector and to the side portion of said tube so that said end portion of said hose will be parallel with said tube.

1,239,770. HEAT-INSULATING WALL. CLYDE J. COLEMAN, New York, N. Y., assignor, by mesne assignments, to Isko, Incorporated, Detroit, Mich., a Corporation of Michigan. Filed July 9, 1908, Serial No. 442,751. Renewed Mar. 22, 1917. Serial No. 156,801. (Cl. 20—4.)



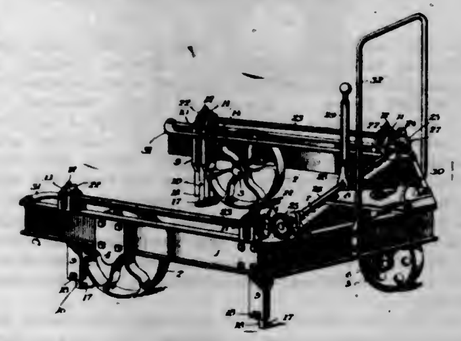
1. A heat insulating wall comprising vacuum inclosing bodies of oblong cross-section having closed ends and oppositely outwardly curved side walls and assembled in substantial parallelism with the plane of the wall.

8. A heat insulating wall comprising vacuum inclosing tubes of oblong cross-section having closed ends and oppositely outwardly curved side walls assembled with their longer transverse axes in substantial parallelism with the plane of the wall, each of the tubes being provided with cushioning strips adherently secured to its edges, the tubes being arranged adjacent one with another to form a plurality of layers spaced apart with the tubes in one layer breaking joints with the tubes in an adjacent layer, supports outside of the outer layers and spaced therefrom, and low heat conductive filling material interposed between the layers and between the outside layers and the supports.

10. A heat insulating wall comprising an assemblage of transversely oblong vacuum inclosing bodies having closed ends and oppositely outwardly curved side walls and arranged in the wall in overlapping relation one with another, and low heat conductive material in which the vacuum inclosing bodies are embedded.

[Claims 2 to 7 and 9 not printed in the Gazette.]

1,239,771. TRUCK. GEORGE COLLIS, Clinton, Iowa, assignor to The Collis Co., Clinton, Iowa, a Corporation of Iowa. Filed Dec. 1, 1913. Serial No. 804,016. (Cl. 254—4.)



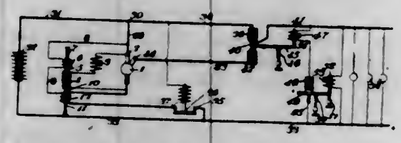
1. A truck comprising a wheel supported frame; said frame having approximately parallel side bars converging and joined at one end to form a wedge-shaped structure; a cross piece connecting said side bars between the closed and the other end thereof; a lifting instrumentality comprising lifter sustaining members each provided with an elongated slotted guide way; lifting elements movable in the slots in said guide ways, and each having a projection at one end thereof; a cam roller disposed intermediate the ends of each lifting element and adapted to track in said guide way; means for actuating said lifting elements in unison; and means for locking said lifting elements in their lifted position.

2. A truck comprising a wheel supported frame; said frame having approximately parallel side bars converging and joined at one end to form a wedge-shaped structure; a cross piece connecting said side bars between the closed and the other end thereof; a lifting instrumentality comprising lifter sustaining members each provided with an elongated slotted guide way; lifting elements movable in the slot in said guide ways, and each having a projection at one end thereof; a cam roller disposed intermediate the ends of each lifting element and adapted to track in said guide way; means for actuating said lifting elements in unison; means for locking said lifting elements in their lifted position; and a plurality of guide pieces secured at one end to said side bars and carried back in spaced relation thereto and secured at their other ends to a portion of said frame.

3. A truck comprising a wheel supported frame; said frame having approximately parallel side bars converging and joined at one end to form a wedge-shaped structure; a cross piece connecting said side bars between the closed and the other end thereof; a plate disposed on said cross piece and said side bars; a lifting instrumentality comprising lifter sustaining members each provided with an elongated slotted guide way, lifting elements movable in the slots in said guide ways, and each having a projection at one end thereof; a cam roller disposed intermediate the ends of each lifting element and adapted to track in said guide way; means for actuating said lifting elements in

unison; and means comprising a latch mechanism disposed on said plate for locking said raising means in raised position.

1,239,772. ELECTRIC REGULATION. JOHN L. CREVELING, New York, N. Y., assignor to Safety Car Heating and Lighting Company, a Corporation of New Jersey. Original application filed Nov. 5, 1910, Serial No. 590,835. Divided and this application filed Jan. 16, 1912. Serial No. 671,418. (Cl. 171—318.)



1. The combination with a generator and means for delivering therefrom currents at different voltages, a storage battery in connection with said means adapted to be charged thereby, a translation circuit connected to said storage battery and said means through a variable resistance, a second variable resistance connecting said translation circuit with one of said current delivering means of said generator at a voltage less than that supplied to said battery, and means responsive to voltage fluctuations in the translation circuit to determine through which of said two resistances said translation circuit is to be supplied and to control the value of said selected resistance to maintain constant voltage on said translation circuit.

2. The combination with a generator and means for taking therefrom currents at different voltages, a storage battery in connection with said means, means for charging said storage battery from said generator, a translation circuit, and a variable resistance connecting the same with the storage battery, a variable resistance for connecting the translation circuit with one of the current collecting means of said generator at a voltage less than that supplied to the battery, and means for controlling said resistances.

3. The combination with a generator and means for taking therefrom currents at different voltages, a storage battery in connection with said means, a translation circuit and a variable resistance connecting the same with the storage battery, a variable resistance for connecting the translation circuit with one of the current collecting means of said generator at a voltage less than that supplied to the battery, and means for controlling said resistances responsive to fluctuations in the translation circuit.

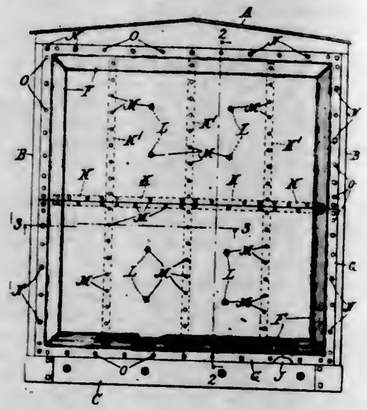
4. In combination with a generator having a plurality of means for delivering current at different voltages; a battery and a translation circuit for receiving current from one of said delivering means; and means for automatically connecting the said translation circuit with another of said delivery means.

5. In combination with a generator having a plurality of means for delivering current at different voltages; a battery and a translation circuit for receiving current from one of said delivering means; and means for automatically connecting the translation circuit with another of said delivery means, without disturbing the connection of the battery with said first delivery means.

[Claims 6 to 8 not printed in the Gazette.]

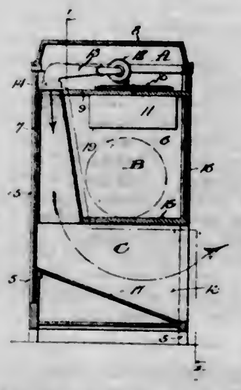
1,239,773. CAR END. CHARLES W. DAKE, Chicago, Ill., assignor to Pyle-National Electric Headlight Company, Chicago, Ill., a Corporation of New Jersey. Filed Jan. 27, 1915. Serial No. 4,611. (Cl. 105—192.)

A car end comprising two flat plates parallel with and separated from one another intermediate spacing members between the plates the edge of one of the plates being bent inwardly about its periphery to engage the other such bending being localized by the periphery so that such bent plate takes the form of a truncated pyramid, and means for fastening the plate edges together and for



fastening and locking the plates together upon the spacers and holding the parts all in permanent relation.

1,239,774. CABINET FOR TALKING-MACHINES. FRED A. DENNETT, Port Washington, Wis., assignor to Wisconsin Chair Company, Port Washington, Wis. Filed Dec. 1, 1915. Serial No. 64,401. (Cl. 45—52.)

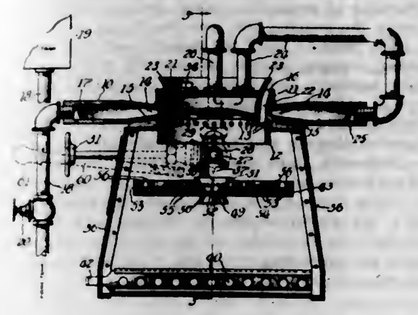


A cabinet for talking machines comprising back and side panels, upper and lower partitions spaced apart to form a compartment, the partitions being apertured in juxtaposition to the cabinet back panel, a series of plates connecting the partition apertures and associated with the cabinet back panel to form a vertically disposed throat chamber, and a second series of plates associated with the lower partition and the aforesaid cabinet back panel to form a horizontal continuation of the throat chamber, the said chamber being adapted for use as an amplifier.

1,239,775. HYDROCARBON-BURNER. FOREST V. DETWILER, Chicago, Ill. Filed Apr. 8, 1914. Serial No. 830,340. (Cl. 158—54.)

1. A burner of the character described embodying an annular vaporizing chamber having a fluid inlet and a vapor outlet, a perpendicular flange encompassing the opening and projecting beyond opposite faces of the chamber, said flange having openings therethrough to direct the flame against one wall of the chamber, a second chamber disposed in alinement with the opening and within the plane of the periphery of the flange, said second chamber having an inlet connected with the outlet of the first said chamber, and a jet opening connected with the second

recited chamber and disposed in alinement with the said opening and below both of the chambers.



2. A burner of the character described embodying a chamber having an opening of some size therethrough and out of communication therewith, the wall of the opening projecting beyond the chamber, said wall having openings therethrough for directing the flame against one face of the chamber, said chamber having a fuel inlet and a vapor outlet, a second chamber encompassed by the said wall and being smaller than the opening and spaced from the said wall to coöperate therewith to form a flame passage around the second said chamber, means connecting the outlet of the first recited chamber with the second chamber, and a jet opening leading from the second said chamber, said jet opening being disposed in alinement with the said opening to direct the flame against the second recited chamber.

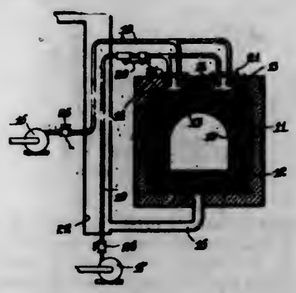
3. A burner of the character described embodying a chamber having an opening of some size therethrough and out of communication therewith, the wall of the opening projecting beyond the chamber, said wall having openings therethrough for directing the flame against one face of the chamber, said chamber having a fuel inlet and a vapor outlet, a second chamber encompassed by said wall and being smaller than the opening and spaced from the said wall to coöperate therewith to form a flame passage around the second said chamber, means connecting the outlet of the first recited chamber with the second chamber, a jet opening leading from the second said chamber, said jet opening being disposed in alinement with the said opening to direct the flame against the second recited chamber, and provisions for initially and simultaneously heating the chambers.

4. A burner of the character described embodying a chamber having an opening of some size therethrough and out of communication therewith, the wall of the opening projecting beyond the chamber, said wall having openings therethrough for directing the flame against one face of the chamber, said chamber having a fuel inlet and a vapor outlet, a second chamber encompassed by the said wall and being smaller than the opening and spaced from the said wall to coöperate therewith to form a flame passage around the second said chamber, means connecting the outlet of the first recited chamber with the second chamber, and a jet opening leading from the second said chamber, said jet opening being disposed in alinement with the said opening to direct the flame against the second recited chamber, the first recited chamber being shaped to form a flame pocket adjacent the said wall.

5. A burner of the character described embodying a chamber having an opening of some size therethrough and out of communication therewith, the wall of the opening projecting beyond the chamber, said wall having openings therethrough for directing the flame against one face of the chamber, said chamber having a fuel inlet and a vapor outlet, a second chamber encompassed by the said wall and being smaller than the opening and spaced from the said wall to coöperate therewith to form a flame passage around the second said chamber, means connecting the outlet of the first recited chamber with the second chamber, and a jet opening leading from the second said chamber, said jet opening being disposed in alinement with the said opening to direct the flame against the second recited chamber.

[Claims 6 to 17 not printed in the Gazette.]

1,239,776. PROCESS OF PRODUCING HEAT. CARLETON ELLIS, Montclair, N. J., assignor to Radiant Heating Limited, Armley, Leeds, England, a Corporation of Great Britain. Filed Dec. 6, 1911, Serial No. 664,304. Renewed Feb. 9, 1917. Serial No. 147,723. (Cl. 158—117.5.)



1. The process of producing heat which comprises injecting into a highly heated porous and permeable bed of refractory material currents of gas and air to commingle within the bed and to cause combustion to take place adjacent the highly heated interior surfaces of the bed at the points of confluence of the gas and air, and positioning the points or places of confluence of the gas and air with respect to the preignitive characteristics of the gas and the respective temperatures of the gas and air.

2. The process of producing heat which comprises injecting into a highly heated porous and permeable bed of refractory material a current of a combustible gas and a current of a supporter of combustion to commingle within the bed and to cause combustion to take place adjacent the highly heated interior surfaces of the bed at the points of confluence of the gas and the combustion supporter, and positioning the points or places of confluence of the gas and combustion supporter with respect to their respective initial temperatures.

3. The process of producing heat which comprises injecting into a highly heated porous and permeable bed of refractory material a current of a combustible gas and a current of a supporter of combustion to commingle within the bed and to cause combustion to take place adjacent the highly heated interior surfaces of the bed at the points of confluence of the gas and the combustion supporter, and positioning the points or places of confluence of the gas and combustion supporter with respect to their chemical characteristics.

4. The process of producing heat which comprises injecting into a highly heated porous and permeable bed of refractory material a current of hot gaseous combustible and an adjacent current of preheated air to commingle within the bed and to cause combustion to take place adjacent the highly heated interior surfaces of the bed at the points of confluence of the combustible and air.

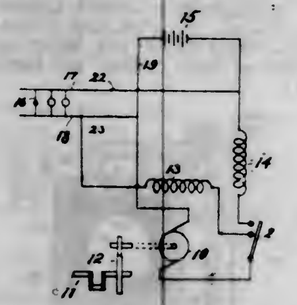
5. The process of producing heat which comprises injecting into a highly heated porous and permeable bed of refractory material a current of gaseous combustible and a current of preheated air to commingle within the bed and to cause combustion to take place adjacent the highly heated surfaces of the bed at the points of confluence of the gas and air.

[Claims 6 to 8 not printed in the Gazette.]

1,239,777. STARTING AND LIGHTING SYSTEM. JUSTUS B. ENTZ, Cleveland, Ohio, assignor to Edwin L. Thurston, trustee, Cleveland, Ohio. Filed Apr. 20, 1912. Serial No. 692,160. (Cl. 175—294.)

1. In combination with a prime mover, a dynamo electric machine having a shunt field winding and adapted to

be driven by the prime mover, a battery, a switch for connecting the battery and dynamo electric machine into circuit, and means for opening the shunt field circuit when the machine is driven with the circuit between the battery and dynamo electric machine open at any point outside the shunt field circuit.



2. In combination with a prime mover, a dynamo electric machine having a shunt field winding and adapted to be driven by the prime mover, a battery, a switch for connecting the battery and dynamo electric machine into circuit, and means for automatically disconnecting the shunt field winding when the machine is driven with the circuit between the battery and dynamo electric machine open at any point outside the shunt field circuit.

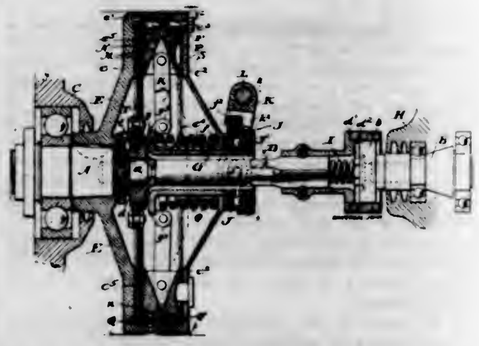
3. In combination with a prime mover, a dynamo electric machine having a shunt field winding and adapted to be driven by the prime mover, a battery, switching means for closing and opening the circuit between the dynamo electric machine and the battery and for connecting and disconnecting the shunt field winding, and means for automatically opening the shunt field circuit, when the dynamo electric machine is being driven by the prime mover, if said circuit between the dynamo electric machine and battery is open at any point outside the shunt field circuit.

4. In combination with a prime mover, a dynamo electric machine having a shunt field winding and adapted to be driven by the prime mover, a battery, a switch for connecting into circuit the battery and dynamo electric machine, a lighting circuit connected to the battery and dynamo electric machine circuit, and means for automatically opening the shunt field circuit and the lighting circuit when the machine is driven with the circuit of the battery and dynamo electric machine open at any point outside the shunt field circuit.

5. In combination with a prime mover, a dynamo electric machine adapted to be driven by the prime mover and provided with a shunt field winding, a battery, a switch for connecting and disconnecting the battery and dynamo electric machine, and means for rendering the shunt winding ineffective for excitation purposes when the machine is driven by the prime mover with its circuit open at any point outside the shunt field circuit.

1,239,778. FRICTION-CLUTCH. FRANK H. FARMER and ERNEST W. HULST, Cleveland, Ohio, assignors, by mesne assignments, to The White Motor Company, Cleveland, Ohio, a Corporation of Ohio. Filed Oct. 31, 1913. Serial No. 798,405. (Cl. 192—7.)

1. The combination with two alined shafts, viz: a driving shaft and a driven shaft, and an intermediate clutch shaft which is directly supported at one end by a ball and socket non-driving connection with the driving shaft and is supported at its other end by a universal joint driving connection with the driven shaft, a housing fixed to the driving shaft and overhanging the clutch shaft, which housing is provided with a sleeve which surrounds but does not contact with said clutch shaft, two thrust members within said housing having oppositely beveled surfaces, one of said thrust members being adjustably fixed to the housing and the other having a sliding non-rotative connection therewith, a driving disk which has a driving connection with the clutch shaft and which projects between a part of the housing and the sliding thrust member whereby it may be clamped between them, a plurality of expansible coiled springs which are located between the housing and movable thrust member and exert their force to move the latter toward the fixed thrust member, wedges located between the fixed and movable thrust members and adapted to engage the beveled surfaces of said thrust members, a clutch actuating sleeve which extends through the sleeve of the housing and is supported thereby and has a tongue and groove connection therewith, links which are wholly within the housing and are connected with said wedges, and with that end of the clutch sleeve which extends into the housing, a spring which lies wholly within the housing and acts to move said sleeve in the clutch setting direction, and means engaging the projecting outer end of said sleeve for moving said sleeve in the contrary direction.

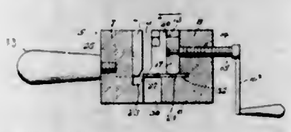


2. In mechanism of the character described, the combination of a driving shaft, a driven shaft, an intermediate clutch shaft which is directly supported at one end by a ball and socket non-driving connection with the driving shaft, and is supported at its other end by a universal joint driving connection with the driven shaft, a housing fixed to the driving shaft and overhanging the clutch shaft and having an internal clutch surface, an annular pressure member movable longitudinally within the housing and having a driving connection with the housing, a fixed pressure member in the housing adjustably connected therewith, the said two pressure members having oppositely inclined opposed surfaces, a series of wedges lying between said pressure members and engaging the inclined surfaces thereof, a friction disk having a driving connection with the clutch shaft and extending between said movable pressure member and the clutch surface on the housing, a clutch operating sleeve wholly supported by the housing and movable longitudinally thereon and projecting at one end into the housing and at the other end outside of the housing, links connecting the projecting inner end of said sleeve with the wedges, and means outside of the housing for moving said sleeve.

3. In mechanism of the character described, the combination of a driving shaft, a driven shaft, an intermediate clutch shaft, a housing fixed to the driving shaft and overhanging the clutch shaft, said housing having a tubular hub which embraces but does not contact with said clutch shaft, and an internal clutch surface, a movable pressure member within the housing having a driving connection therewith but capable of longitudinal movement, a friction disk lying between said clutch surface and said pressure member, said disk being provided with a hub which has a loose driving connection with the clutch shaft, a clutch sleeve which embraces the clutch shaft but is supported by and is longitudinally movable in said tubular hub of the housing, means operable by the sleeve for moving said pressure member toward the clutch surface on the housing, and a series of springs supported by the housing engaging said pressure member to move it in the contrary direction.

4. In mechanism of the character described, the combination of a driving shaft, a driven shaft, an intermediate clutch shaft which is directly supported at one end by a ball and socket non-driving connection with the driving shaft and is supported at its other end by a universal joint driving connection with the driven shaft, a housing fixed to the driving shaft and overhanging the clutch shaft and having an internal clutch surface, an annular pressure member movable longitudinally within the housing and having a driving connection with the housing, a fixed pressure member in the housing adjustably connected therewith, the said two pressure members having oppositely inclined opposed surfaces, a series of wedges lying between said pressure members and engaging the inclined surfaces thereof, a friction disk having a loose driving connection with the clutch shaft and extending between said movable pressure member and the clutch surface on the housing, a clutch operating sleeve wholly supported by the housing and movable longitudinally thereon and projecting at one end into the housing and at the other end outside of the housing, links connecting the projecting inner end of said sleeve with the wedges, means outside of the housing for moving said sleeve in one direction, a spring for moving the said sleeve in the opposite direction, and a series of springs carried by the housing and engaging the movable pressure member and acting to move it toward the fixed pressure member.

1,239,779. SAW-SET. GEORGE FINNEY, Plummer, Idaho. Filed Aug. 16, 1916. Serial No. 115,255. (Cl. 76—60.)



1. A saw setting device comprising a bed plate having an opening, a bearing lug formed at one end of the bed plate, bearing plates secured to the bearing lug, a setting head supported by the bearing plates in spaced relation with the bed plate, and means inserted between the setting head and bed plate and covering the opening of said bed plate for permitting observation of the saw teeth.

2. A saw setting device comprising a bed plate having an opening, a bearing lug formed at one end of the bed plate, bearing plates secured to the bearing lug, a setting head supported by the bearing plates in spaced relation with the bed plate, and a transparent plate inserted between the confronting surfaces of the setting head and bed plate.

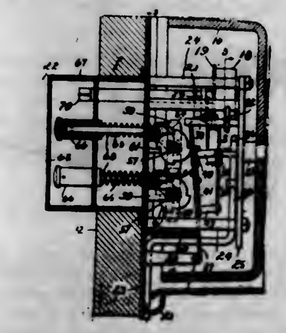
3. A saw setting apparatus embodying a bed plate formed at one end with a bearing lug having a groove, bearing plates secured to the opposite sides of the bearing lug and bed plate and having a groove registering with the groove of the bearing lug, a setting head mounted in the bearing plates and in spaced relation with the bed plate, and a transparent member supported in the groove of the bearing lug and the grooves of the bearing plate.

4. A saw setting apparatus embodying a bed plate formed at one end with an L-shaped supporting arm, the horizontal portion of the supporting arm being disposed below the plane of the top surface of the bed plate providing a transverse groove, an adjustable setting head connected with the bed plate, and an adjustable gage block connected to the vertical portion of the supporting arm and having a beveled edge, and means connected with the gage block for permitting the adjustment thereof in a direction toward or away from the said groove to permit of the bending of the saw teeth at different angles.

5. A saw setting apparatus embodying a bed plate, a supporting arm formed at one end thereof, a bearing lug formed at the opposite end of said bed plate and having a threaded opening, bearing plates having U-shaped openings secured to the opposite side faces of the bearing lug and bed plate, a setting head mounted in the U-shaped openings of the bearing plates, an operating screw threadedly mounted in the opening of the bearing lug and connected with the setting head, a crank for operating said screw to cause a longitudinal adjustment of the setting head, a gage block mounted on the supporting arm, and a handle formed on the supporting arm.

[Claim 6 not printed in the Gazette.]

1,239,780. THEFT-INDICATING MECHANISM FOR MOTOR-VEHICLES. CHARLES WALTER FOLSOM, Cambridge, Mass. Filed Feb. 24, 1917. Serial No. 150,739. (Cl. 116—1.)



1. Theft-indicating mechanism for motor vehicles, comprising, in combination, an audible signal, a signal-operating motor, a motor-restraining detent, a movable vehicle-controlling member, normally inoperative connecting means between said member and detent, adapted when operative, to cause the release of the motor by a vehicle-starting movement of said member, and selective means whereby the mechanism may be alternately set for action and rendered inoperative, said means including a plurality of identical spring-retracted keys, each adapted to be manually projected, and each normally maintained in identity-concealing position.

8. A theft-indicating attachment for motor vehicles, comprising a case adapted for attachment to the front side of a vehicle dash, and provided with a housing formed to extend through said dash, an audible signal supported in said case and including a gong and a hammer, a motor-supported in the case and adapted to oscillate the hammer, said motor including a rotary member having a detent-engaging projection, a detent normally engaging said projection to restrain the motor, a coupling part movable in and projecting from said case, a spring-pressed carrier also inclosed in the case, a bell-crank lever fulcrumed on said carrier and provided with a detent-displacing member and with a coupling part which is shiftable by said carrier into and out of the path of the first-mentioned coupling part, and manually operable means for alternately displacing and releasing said carrier and including a plurality of carrier-displacing and releasing cams, a plurality of spring-retracted keys projecting from the case into said housing, and ratchet and pawl connections between said cams and keys.

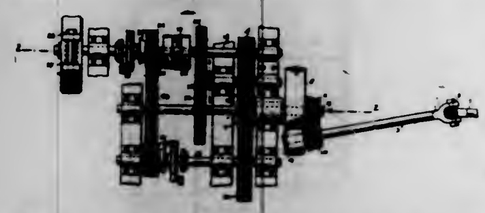
10. A theft-indicator for motor vehicles comprising, in combination, a motor-driven alarm, a vehicle-controlling member, complemental elements forming with said member a normally inoperative alarm-releasing mechanism, and selective means for setting said mechanism for operation, said selective means including a plurality of identical spring-retracted keys, each adapted to be manually projected; and each normally maintained in identity-concealing position.

[Claims 2 to 7 and 9 not printed in the Gazette.]

1,239,781. TRANSMISSION-GEAR. ALFRED T. FORWARD, Manton, Cal. Filed Nov. 7, 1916. Serial No. 129,951. (Cl. 74—34.)

1. In a device of the character described, the combination of a driving shaft, an intermediate shaft, a flexible joint connecting one end of the intermediate shaft with

the driving shaft, a driven shaft in line with the driving shaft and having a bevel gear fixed thereon, a bearing revoluble around said driven shaft, the other end of said intermediate shaft rotating in said bearing, a bevel wheel on said intermediate shaft meshing with the first-named bevel wheel, a countershaft parallel with said driven shaft, a brake therefor, means whereby said countershaft rotates in the same direction as said bearing, a gear wheel loose on said countershaft, a clutch member rotatable with, but slidable on, said countershaft, and adapted to engage said loose gear wheel, and a gear wheel fixed on said driven shaft, and with which said loose gear wheel meshes.



2. In a device of the character described, the combination of a driving shaft, an intermediate shaft, a flexible joint connecting one end of the intermediate shaft with the driving shaft, a driven shaft in line with the driving shaft and having a bevel gear fixed thereon, a bearing revoluble around said driven shaft, the other end of said intermediate shaft rotating in said bearing, a bevel wheel on said intermediate shaft meshing with the first-named bevel wheel, a countershaft parallel with said driven shaft, a brake therefor, means whereby said countershaft rotates in the same direction as said bearing, gear wheels loose on said countershaft, a clutch member rotatable with, but slidable on, said countershaft, and adapted to engage either of said loose gear wheels, and gear wheels fixed on said driven shaft, and with which said loose gear wheels respectively mesh.

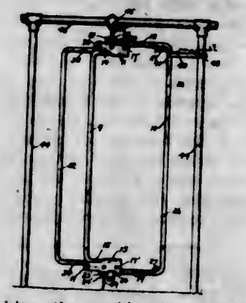
3. In a device of the character described, the combination of a driving shaft, an intermediate shaft, a flexible joint connecting one end of the intermediate shaft with the driving shaft, a driven shaft in line with the driving shaft and having a bevel gear fixed thereon, a bearing revoluble around said driven shaft, the other end of said intermediate shaft rotating in said bearing, a bevel wheel on said intermediate shaft meshing with the first-named bevel wheel, a countershaft parallel with said driven shaft, a brake therefor, means whereby said countershaft rotates in the same direction as said bearing, a gear wheel loose on said countershaft, a clutch member rotatable with, but slidable on, said countershaft, and adapted to engage said loose gear wheel automatically when the speed of the loose gear wheel diminishes to that of the clutch member, and a gear wheel fixed on said driven shaft, and with which said loose gear wheel meshes.

4. In a device of the character described, the combination of a driving shaft, an intermediate shaft, a flexible joint connecting one end of the intermediate shaft with the driving shaft, a driven shaft in line with the driving shaft and having a bevel gear fixed thereon, a bearing revoluble around said driven shaft, the other end of said intermediate shaft rotating in said bearing, a bevel wheel on said intermediate shaft meshing with the first-named bevel wheel, a reversing shaft rotated in the opposite direction by the revolution of said bearing, a friction clutch thereon, a gear wheel with which said friction clutch can engage, and a gear wheel meshing therewith on the driven shaft.

5. In a device of the character described, the combination of a driving shaft, an intermediate shaft, a flexible joint connecting one end of the intermediate shaft with the driving shaft, a driven shaft in line with the driving shaft and having a bevel gear fixed thereon, a bearing revoluble around said driven shaft, the other end of said intermediate shaft rotating in said bearing, a bevel wheel on said intermediate shaft meshing with the first-named bevel wheel, a countershaft parallel with said driven shaft, a brake therefor, means whereby said countershaft rotates in the same direction as said bearing, a gear wheel loose on said countershaft, a clutch member rotatable with, but slidable on, said countershaft, and adapted to engage said loose gear wheel, a gear wheel fixed on said driven shaft, and with which said loose gear wheel meshes, and a friction clutch on the countershaft adapted to engage the said loose gear wheel.

[Claim 6 not printed in the Gazette.]

1,239,782. COMBINED STANCHION AND GUARD. LOUIS O. FRENCH, Milwaukee, Wis. Filed July 21, 1916. Serial No. 110,436. (Cl. 119—150.)



1. In a stanchion, the combination of a fixed stanchion member, a movable side bar, a movable guard bar, and a gearing connection between said movable bars whereby said guard bar is moved into and out of guarding position on the outward and inward movement of said side bar.

2. In a stanchion, the combination of a fixed stanchion member, a movable side bar, a movable guard, means for locking the side bar closed, and a gearing connection between said movable guard and side bar whereby said guard is moved into and out of guarding position on the outward and inward movement of said side bar and is locked in closed position on the locking of the side bar.

3. The combination, with a stanchion including a fixed bar and a movable side bar, of a guard mounted on the stanchion adjacent said fixed bar, and a gearing connection between said movable side bar and guard for conjointly moving said guard and side bar into and out of guarding position on the movement of one of them.

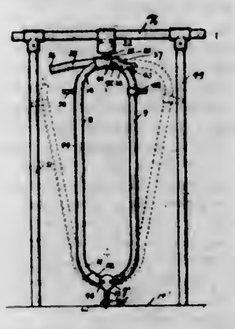
5. In a stanchion, the combination, with the relatively fixed parts thereof including a fixed side bar, a top bar having a hollow therein, and a movable side bar, of a guard mounted on the stanchion adjacent the fixed side bar, and means within the hollow of the top bar and operatively connected with said guard and movable side bar for simultaneous movement of said guard and side bar into and out of guarding position on the movement of one of them.

10. The combination, with a suspended stanchion comprising a top bar, a bottom bar, a U-shaped channel fixed bar secured to said top and bottom bars, a U-shaped channel movable side bar slidably mounted within said top and bottom bars, means for locking said movable side bar closed, and controlling means for said locking means disposed within the channel of said movable side bar, of a U-shaped movable guard bar slidably mounted within the fixed bar, and means for operating said movable guard bar.

[Claims 4 and 6 to 9 not printed in the Gazette.]

1,239,783. STANCHION. LOUIS O. FRENCH, Milwaukee, Wis. Filed Nov. 27, 1916. Serial No. 133,537. (Cl. 119—150.)

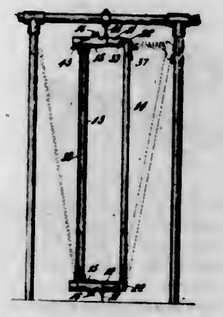
1. In a stanchion, the combination, with the relatively fixed parts thereof, of a movable side bar pivotally secured to said fixed parts, a guard pivotally secured to said fixed parts, and a gearing connection between said guard and said movable side bar, whereby said guard and side bar are moved simultaneously into or out of guarding position.



5. The combination, with a stall frame, of means for connecting a stanchion thereto, comprising a ball and socket joint, and a spring for yieldably maintaining the ball against the socket.

[Claims 2 to 4 and 6 to 11 not printed in the Gazette.]

1,239,784. STANCHION. LOUIS O. FRENCH, Milwaukee, Wis. Filed Feb. 23, 1917. Serial No. 150,362. (Cl. 119—150.)



2. In a stanchion, the combination, with the relatively fixed parts thereof including a hollow bottom bar, of a movable side bar pivotally secured to said parts at its lower end, a guard pivotally secured to said parts at its lower end, a link disposed within the hollow of the bottom bar and pivotally connected to said guard and said side bar for simultaneous movement of said guard and side bar, and means for locking the stanchion closed.

4. In a stanchion, the combination with the top bar, fixed side bar, bottom bar and swinging side bar, of a movable guard pivotally connected at its lower end to the lower portion of the stanchion adjacent the fixed side bar, and means connected to the lower portions of the guard and swinging side bar whereby said guard is moved simultaneously with the movable side bar.

6. In a stanchion, the combination of a hollow top bar, a movable side bar, a guide member connected to said side bar and slidable within the top bar, locking guide means within said top bar and secured thereto cooperating with the guide member to guide the movable side bar, said guide member having a locking latch cooperating with said locking guide means to lock the stanchion closed and having a part extending beyond the top bar whereby said member may be unlocked by the operator with one hand.

8. In a stanchion, the combination of a hollow top bar, a movable side bar, a guide member pivotally connected to the side bar and slidable within the top bar, locking guide means within the top bar and connected thereto, locking guide means in the guide member cooperating with said top bar locking guide means and automatically operable to lock said side bar closed when it is moved to closed position, said guide member having a part extending beyond the top bar whereby said member may be unlocked by the operator with one hand.

10. In a stanchion, the combination, with the relatively fixed parts thereof including a hollow bottom bar, and an adjustable fixed bar, of a movable side bar pivotally secured to said parts at its lower end, a guard pivotally secured to said parts, a link disposed within the hollow of the bottom bar and operatively connected to said guard and side bar for simultaneous movement of said guard and side bar, means for varying the effective length of the link on the adjustment of the fixed bar, and means for locking the stanchion closed.

[Claims 1, 3, 5, 7, and 9 not printed in the Gazette.]

1,239,785. SOLDERING COMPOUND. GEORGE GARDINER, East Cleveland, Ohio. Filed May 1, 1916. Serial No. 94,781. (Cl. 75—1.)

A soldering compound consisting of tin, zinc, copper and antimony in substantially the proportions of tin 35 ounces, zinc 17½ ounces, copper 1 ounce and antimony 1/50 ounce.

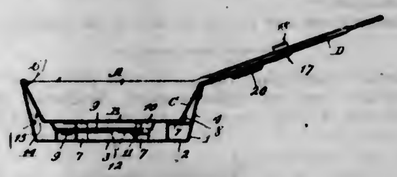
1,239,786. [WITHDRAWN.]

1,239,787. PROCESS FOR TREATING FELDSPAR, FELDSPATHIC ROCK, AND SIMILAR MATERIAL. WALTER GLABSER, Brooklyn, N. Y., assignor to George T. Bishop, Macedonia, Ohio. Filed Sept. 16, 1914. Serial No. 862,058. (Cl. 23—22.)

1. The process of treating feldspar, feldspathic rock and like material, which consists in burning the material at a low red heat, then suddenly cooling the heated material, then mixing the cooled material with anhydrous calcium chlorid and then fusing the mixture at a temperature of at least 1200° centigrade and in the presence of air.

2. The process of treating feldspar, feldspathic rock and like material which consists in burning the material at a low red heat, then suddenly cooling the heated material, then mixing the cooled material with anhydrous calcium chlorid, and then fusing the mixture at a temperature of between 1200° and 1800° centigrade.

1,239,788. COOKING-UTENSIL ATTACHMENT. JOHN HAUENSTEIN, Kansas City, Mo., assignor of one-fourth to Thomas E. Lander, Kansas City, Mo. Filed Apr. 24, 1917. Serial No. 164,099. (Cl. 53—7.)



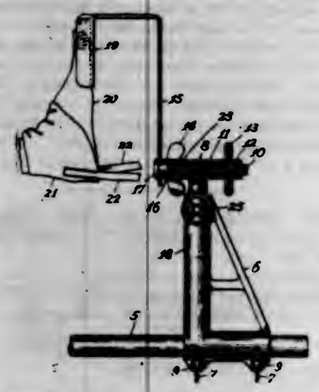
1. In combination with a cooking utensil having a body portion with a handle projecting rigidly therefrom, an attachment consisting of a bottom having an opening therein, supporting members extending upwardly from said bottom to support the cooking utensil above said bottom, a wall surrounding said bottom and extending upwardly therefrom, means on said wall to removably secure it to the body of the cooking utensil, a handle projecting rigidly from said wall and adapted to underlie the utensil handle, and means on the attachment handle for removably securing it to the utensil handle.

[Claims 2 to 5 not printed in the Gazette.]

1,239,789. FOOT-SUPPORT. GEORGE W. HAWLEY, Bridgeport, Conn., assignor to Kny-Scheerer Corporation, New York, N. Y., a Corporation of New York. Filed June 30, 1916. Serial No. 106,877. (Cl. 128—62.)

1. A foot support comprising a sub-frame and a foot piece carried by the sub-frame, said sub-frame being wholly

supported on an orthopedic or fracture table, and being longitudinally adjustable with respect to the table, said foot piece being adjustable vertically, transversely and axially relative to the sub-frame.



3. A foot support comprising a sub-frame and a foot piece, said foot piece being adjustably carried by the sub-frame, said sub-frame being wholly supported on an orthopedic or fracture table, and being longitudinally adjustable with respect to the table, the foot piece having perpendicular and axial adjustment with respect to the sub-frame and the sub-frame being revolvable on the table.

4. A foot support adapted to be used in connection with an orthopedic and fracture table the sub-frame of which is mounted for longitudinal movement on said table, a T-telescope rod slidably adjustable in a tube of said sub-frame, in combination with a foot-piece revolvable in its own plane and adapted to be moved longitudinally with respect to said table.

11. A foot support having a foot piece with an upturned edge comprising a sub-frame adapted to be adjustably mounted by clamps, a telescoping member mounted therein so as to be vertically adjustable, a threaded bar adapted to be moved longitudinally of a patient's leg mounted in the head of the telescoping member, and a foot-piece adjustably mounted on said threaded bar so that it can be secured at any angle desired in its own plane, in combination with a fracture and orthopedic table having pivoted traction bars on which said sub-frame is adjustably mounted.

[Claims 2 and 5 to 10 not printed in the Gazette.]

1,239,790. COMBINATION-LOCK FOR ELECTRIC CIRCUITS. JOHN F. HENDRICKSON, Wollaston, Mass. Filed Aug. 9, 1916. Serial No. 113,954. (Cl. 175—282.)



1. Means for opposing unauthorized use of a motor vehicle employing electric connections for enabling it to be operated, said means comprising an adjustable terminal and a removable key having a correspondingly adjustable member for effecting the closing of the circuit through said connections and terminal and through the key.

2. A device for rendering an electric circuit useless, comprising a casing having an aperture, a pair of co-operating but normally separated adjustable contacts within said casing, and a key removable through said aperture, said key having an adjustable member adapted to bring said contacts together by insertion of said key in the casing to effect the completion of the circuit.

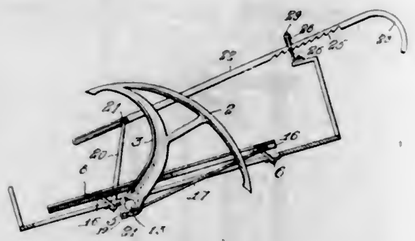
3. A device for rendering an electric circuit useless, said device comprising a pair of adjustable terminals and a removable key having a correspondingly adjustable member for effecting the closing of the circuit through the key and through said terminals.

4. Means for preventing completion of an electric circuit, said means having an adjustable terminal member, a contact movable toward and from said terminal member, a manually operable and removable member having a correspondingly adjustable portion adapted to actuate said contact to cause it to engage said terminal member to complete the circuit, and means for automatically shifting said contact away from the terminal member when the said manually operable member is removed.

5. Means for preventing completion of an electric circuit, comprising a pair of terminals and a removable member adapted to complete a circuit which includes said terminals, one of said terminals being adjustable to different operative positions, the removable member having means adjustable to position to accord with the position of said adjustable terminal.

[Claims 6 to 16 not printed in the Gazette.]

1,239,791. GRAIN-BINDER DECK. ALFRED E. HOLMBERG, Maple Lake, Minn. Filed Nov. 6, 1915. Serial No. 59,921. (Cl. 56—126.)



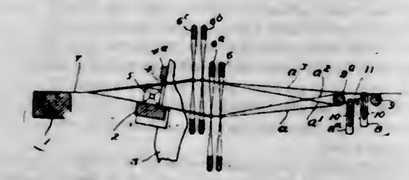
1. A binder having a deck with an adjustable and movable section, a shaft for adjusting the position of the section rotatably connected to the deck, means connected to the shaft for moving the same, a needle and needle shaft, a second shaft secured to the deck and section, and a rod connecting the needle and second shaft for contemporaneously moving the adjustable section with the needle.

2. A binder having a deck with a movable and adjustable section, shafts rotatably connected to the deck and said section, a needle having a lug thereon, and a bar connected to said lug and one of the shafts.

3. A binder having a deck with a movable and adjustable section, shafts rotatably connected to the deck and said section, a needle and a bar connected to one of the shafts and the needle for moving the section and needle in unison.

[Claims 4 and 5 not printed in the Gazette.]

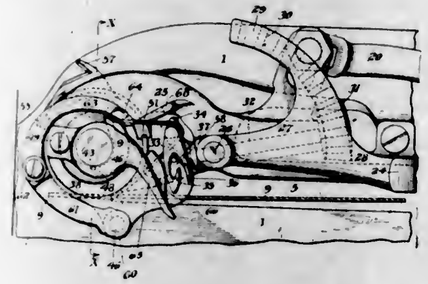
1,239,792. WARP STOP-MOTION FOR LOOMS. SIMEON S. JACKSON, Boston, Mass., assignor to The Stafford Company, Boston, Mass., a Corporation of New Jersey. Filed Mar. 13, 1915. Serial No. 14,246. (Cl. 139—92.)



1. In combination, a transverse warp-support for the warp-threads in a loom, a lease-rod in advance of said warp-support by which the warp-threads passing over said warp-support in a single plane are divided by alternating groups into two planes, one whereof passes over the said lease-rod and the other below the same, a bank of drop-wires hung upon alternating warp-threads adjacent the warp-support, a second bank of drop-wires hung upon the remaining warp-threads in the lower plane of warp-threads adjacent the said lease-rod, and oppositely-working harness-frames pertaining to opposite planes of a shed, said harness-frames having the threads composing each of the said groups drawn in alternating order through the heddle-eyes of the respective harness-frames so as to be divided between the said opposite shed-planes.

2. In combination, a transverse warp-support for the warp-threads in a loom, a lease-rod in advance of said warp-support by which the warp-threads passing over said warp-support in a single plane are divided by pairs into two planes, one whereof passes over the said lease-rod and the other below the same, a bank of drop-wires hung upon alternating pairs of the warp-threads adjacent the warp-support, a second bank of drop-wires hung upon the warp-threads of the remaining pairs in the lower plane of warp-threads adjacent the said lease-rod, and oppositely-working harness-frames pertaining to opposite planes of a shed, said harness-frames having the threads composing each of the said pairs drawn in alternating order through the heddle-eyes of the respective harness-frames so as to be divided between the said opposite shed-planes.

1,239,793. KNOT-TYING DEVICE FOR GRAIN-BINDERS. EDWARD W. JENKINS, Norristown, Pa. Filed Dec. 29, 1913. Serial No. 809,214. (Cl. 56—127.)



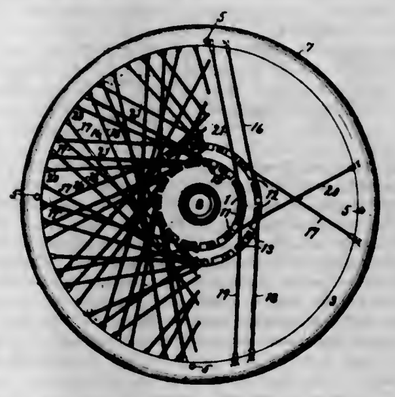
1. In a knot-tier, a frame, a cord gripping mechanism comprising an arm pivoted to said frame, a plate carried by said arm and movable with respect thereto, a portion of said plate being adapted to interfit with a portion of said arm to form gripping jaws to hold a tying cord, a looper bill mounted for rocking movement adjacent said gripping mechanism, means to properly position said cord with respect to said gripping mechanism and said looper bill, and means to respectively actuate said parts whereby a weaver's knot is formed in said cord.

2. In a knot-tier, a frame, a cord gripping mechanism comprising an arm pivoted to said frame, a plate carried by said arm and movable with respect thereto, a portion of said plate being adapted to interfit with a portion of said arm to form gripping jaws to retain a tying cord, means to press said plate and arm together to increase the gripping action, a looper bill mounted for rocking movement adjacent said gripping mechanism, means to properly place said cord with respect to said gripping mechanism and said looper bill, and means to respectively actuate said parts whereby a weaver's knot is formed in said cord.

24. In a knot-tying mechanism, a frame, a needle arm mounted for operation adjacent said frame, means carried by said frame for tying a knot in a binding cord for a bundle, a pivoted retaining arm adjacent said needle arm, and cam means to shift said retaining arm into contact with said bundle and then hold it stationary to maintain the bundle in packed condition during the time said needle arm continues to advance and place said cord about the bundle and during its coöperation with said tying means to form a knot in said cord.

[Claims 3 to 23 and 25 to 28 not printed in the Gazette.]

1,239,794. WIRE WHEEL. ROBERT M. KEATING, Springfield, Mass. Filed Feb. 27, 1914. Serial No. 821,531. (Cl. 21—69.)



1. A wheel comprising a hub provided with peripheral crosswise lugs in spaced relationship and oblique lugs between a rim, and spokes extending laterally from certain of said crosswise and oblique lugs to said rim, in approximately tangential relation to said hub.

2. A wheel comprising a hub, a single rim, spokes extending between said hub and rim, certain of said spokes being cross-over spokes, and all of said spokes being attached to said rim adjacent to the edges thereof, and means of attachment at said hub for all of said spokes, whereby the latter are retained in approximately tangential relation to said hub.

3. The combination, in a wheel, with a hub having rims provided with outer, inner, and intermediate sets of lugs, the lugs in the intermediate sets being oblique, and a wheel rim, of a set of spokes extending from each of said outer sets of lugs to said wheel rim, a set of spokes extending in a generally opposite direction from each inner set of lugs to said wheel rim, and a set of spokes extending from each intermediate set of lugs to said wheel rim, the spokes extending from the intermediate sets of lugs crossing to opposite sides of said wheel rim.

4. The combination, in a wheel, with a hub having rims provided with outer, inner, and intermediate lugs, and a wheel rim, of spokes extending from corresponding sides of said outer lugs to said wheel rim, spokes extending from corresponding sides of said inner lugs, but relatively opposite to those of said outer lugs from which said first-mentioned spokes extend, to said wheel rim, and cross-over spokes extending from said intermediate lugs to said wheel rim.

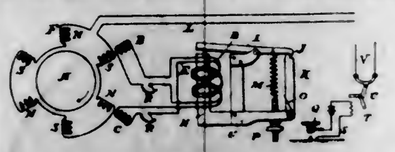
5. The combination, in a wheel, with a hub having rims provided with outer, inner, and intermediate lugs, and a wheel rim, of spokes extending from said lugs to said wheel rim, certain of said spokes having one general direction, and certain others of said spokes having another general direction, and the spokes which extend from said intermediate lugs crossing to the opposite side of said wheel rim.

1,239,795. PROTECTIVE DEVICE. ERNEST O. E. KLIPPHAHN, Dobbins, Cal. Filed Sept. 2, 1909, Serial No. 515,885. Renewed Apr. 9, 1917. Serial No. 160,898. (Cl. 175—294.)

1. The combination with a dynamo electric machine having a rotor and a stator and a winding on one of said members, of a symmetrically arranged induced winding on the other of said members, and an electro-responsive device connected to said induced winding and influenced by unsymmetrical conditions in the first mentioned winding.

12. In a dynamo-electric machine, the combination with a field and an armature relatively movable, of a differential electro-responsive device having coils, connections between one of the coils and the winding on one field pole, connections between the other coil and the winding on the

other field pole, and reactance coils in the field winding circuit located on each side of the leads which connect the coils of the electro-responsive device to the field windings.



13. The combination with a dynamo-electric machine comprising a rotatable and a stationary element, of two electrical circuits associated therewith, each circuit comprising a coil carried by one of said elements, a winding, and means for adjusting the resistance of the circuit, the two windings of the circuits being differentially associated so as to normally neutralize one another, and a signal associated with said windings and adapted to be actuated when sufficient current flows in either of said windings to overcome the neutralizing effect of the other winding.

[Claims 2 to 11 and 14 to 17 not printed in the Gazette.]

1,239,796. AIRSHIP. ARNOLD HENRY SAVAGE LANDOR, Florence, Italy. Filed Apr. 28, 1917. Serial No. 164,047. (Cl. 244—6.)



1. An airship of the type indicated in which the framework is in the form of a girder whose depth is considerable in relation to its width, and is a maximum toward the forward end tapering to a point at the bow and slightly tapering toward the stern, while in plan also the airship is broad toward its bow and narrow toward its stern, the gas compartments being the form of one or more ranks of substantially cylindrical bodies, the axes of which are vertical when the airship is horizontal, the gas compartments being so arranged that in plan and cross-section a substantially stream-line contour is provided, substantially as described.

2. In an airship as claimed in claim 1 means for compressing the lower portions of the gas cylinders in order to accommodate the reduced volume of the gas due to increase of barometric pressure or reduction of temperature or diffusion, thus doing away altogether with the internal air ballonnets now in general use, substantially as described.

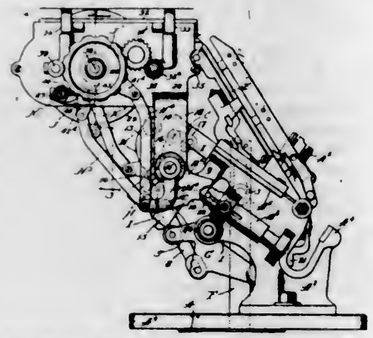
3. In an airship as claimed in claim 1, a rudder at each of the extreme ends of the girder framework, the rudder at the bow being composed of two portions pivoted about a common axis and an elevating plane on the nose of the airship.

4. In an airship as claimed in claim 1, having a propeller on each side of the airship and one, two or more further propellers in rear of the first, each succeeding propeller being situated at a greater distance from the side of the airship than the preceding one.

5. In an airship as claimed in claim 1, guns mounted on adjustable platforms extending from the lower portion of the sides of the framework in such a manner that the guns can be fired at objects vertically above or below the airship, substantially as described.

1,239,797. BUTTON-FEEDING MECHANISM. IVERT LARSEN, Chicago, Ill., assignor to F. H. Smith Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Original application filed Nov. 13, 1915, Serial No. 61,290. Divided and this application filed July 5, 1916. Serial No. 107,715. (Cl. 218—12.)

4. In means of the character set forth, the combination of a pivotally-mounted hopper, an endless conveyer mounted therein, a feed-wheel associated therewith, a shaft through the medium of which said endless conveyer and feed-wheel are actuated, an oscillating pivotally-mounted member and actuating means therefor, links connected therewith, and a pair of ratchet devices mounted on said shaft and actuated by said links, one of said ratchet devices working idly when said links are moved in one direction and the other working idly when said links are moved in the other direction.

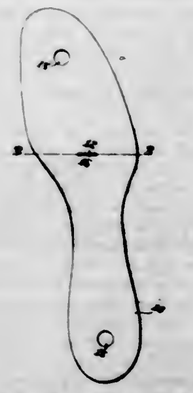


6. Button-feeding mechanism comprising a hopper, button-elevating means mounted therein, button-conveying mechanism associated therewith, a shaft through which the button-elevating means and button-conveying mechanism are actuated, a pair of clutch-devices mounted on said shaft, each of said devices working idly during the working stroke of the other, a pivotal mounting for the hopper, and actuating means for said clutch-devices mounted concentrically with relation to the pivotal mounting of said hopper.

7. Button-feeding mechanism comprising a pivotally-mounted hopper, a button-elevating wheel therein, a shaft on which said wheel is mounted which projects through one side of the hopper, a button run-way into which the buttons are elevated by said wheel, a conveyer-chain associated therewith, a gear-wheel fixedly mounted on said shaft, clutch-devices through the medium of which said gear-wheel is actuated, means for communicating motion from said gear-wheel to said conveyer-chain, and a lock-device for said gear-wheel which is automatically thrown to the locking position when the hopper is swung on its pivotal support.

[Claims 1 to 3, 5, and 8 not printed in the Gazette.]

1,239,798. SOLE-ROUNDER PATTERN. AUGUSTINE F. LITTLEFIELD, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 13, 1915. Serial No. 66,555. (Cl. 33—5.)



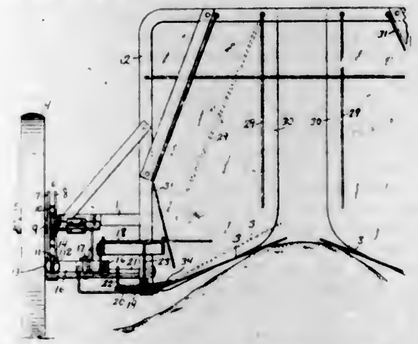
1. A sole rounder pattern comprising, a rigid plate having the shape of a sole, and a marker mounted in the body of the plate at the position of the forward end of the shank piece of a shoe.

2. A sole rounder pattern comprising, a rigid plate having the shape of a sole, and a marker having a sharpened edge mounted in the body of the plate at the position of the forward end of the shank piece of a shoe.

3. A sole rounder pattern comprising, a flat rigid plate having the shape of a sole and reversible to cut both right and left soles, and a marker having a sharp edge mounted approximately on the median line on each side of the plate at the location of the forward end of the shank piece of a shoe.

4. A sole rounder pattern comprising, a flat rigid plate having the shape of a sole and reversible to cut both right and left soles, and a marker having barbed points embedded in each side of the plate with a sharp marking edge projecting above the surface of the plate, said marker being located at the position of the forward end of the shank piece of a shoe.

1,239,799. EXTERMINATOR. HUBERT LONGAUER, Lyndon Station, Wis. Filed May 21, 1917. Serial No. 169,850. (Cl. 43—1.)

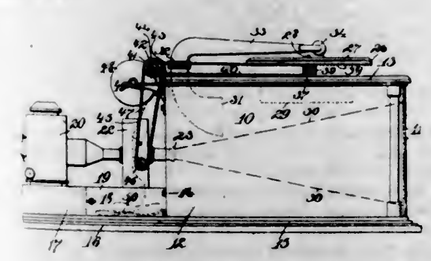


1. The combination in an exterminator, of a frame work, a beater, a collecting plate, a crusher plate, means for causing the crusher plate to rise and fall and means for intermittently actuating the crusher plate.

4. The combination in an exterminator, of a frame-work, a beater, a collecting plate, a bed plate, a crusher plate, a wheel, actuating mechanism secured to said wheel, means actuated by said actuating mechanism for transversely reciprocating said crusher plate, a scraper, and means for elevating said crusher plate above said bed plate as it is being moved in one direction with respect thereto.

[Claims 2 and 3 not printed in the Gazette.]

1,239,800. COMBINED TALKING AND PICTURE-PROJECTING MACHINE. ACHILLE LUCIANO, Silver Lake, N. J. Filed Dec. 31, 1914. Serial No. 879,911. (Cl. 88—16.2.)



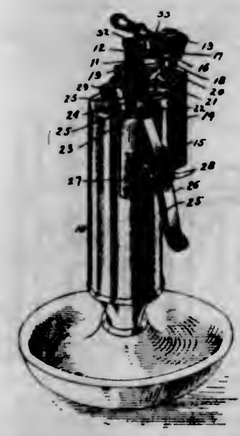
1. In a combined talking and picture projecting machine, a casing of box-like form with an open front, a screen in said front and adapted to have the major portion of its surface utilized for projection purposes, the top of the casing forming a support, a record supporting and rotating device on the support so provided, a sound-conveying means extending within the casing and bent forward to direct sound directly at and through the screen, said projecting sound-conveying means being toward the rear of the casing to permit a comparatively large sound outlet without getting within the line of divergent rays in said casing, and a motion picture machine at the back of the casing and directing its light rays on the back of the screen.

2. In a combined talking and picture projecting machine, a box-like casing with an open front, a screen closing said front, a motion picture machine at the rear of said casing so that the rays from the machine diverge within the casing, a record support and rotating device on the upper side of the top of the casing, a motor on the under side of said top, and a horn to convey sound from the record and having its outlet end projecting within the casing and forwardly directed at the rear of the inside of the casing, said horn and motor being thus arranged so as not to interfere with the light from the picture machine.

5. In a combined picture projecting and sound reproducing machine, a casing having an open front, a screen disposed across said opening, a picture projecting machine in the rear of the casing adapted to project a picture onto the screen, and a sound reproducing device supported by the upper wall of the casing and having a horn adapted to direct the sound waves downwardly into the casing and forwardly toward the screen.

[Claims 3 and 4 not printed in the Gazette.]

1,239,801. CIGAR-LIGHTER. MICHAEL MCANENY, St. Louis, Mo., assignor, by mesne assignments, to John O. Carrey, St. Louis, Mo. Filed Dec. 3, 1914. Serial No. 875,340. (Cl. 67—4.1.)



1. In a lighter, a wick, a spark producing mechanism, a rock shaft for actuating said spark producing mechanism, a snuffer plate supported by said rock shaft and movable thereby to and from the wick, a resilient element connected to said rock shaft for actuating the same and thereby said snuffer plate, a latch for holding said resilient element, a handle operable to release said element from said latch to enable said element to operate said shaft, and a device for restoring said element into engagement with said latch, and thereby moving said shaft to position said snuffer plate adjacent to said wick.

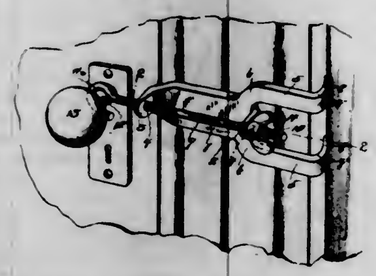
2. In a lighter, a wick, a spark producing mechanism, a shaft for actuating said spark producing mechanism, a pivoted member, a resilient element having releasable latch connection with said member, a connection between said resilient element and said shaft, a snuffer plate support-

by said shaft and movable thereby to and from the wick, a handle for releasing said resilient element from said pivoted member to enable said element to actuate said shaft, and thereby the spark producing mechanism and said snuffer plate in one direction, means for actuating said resilient element into latched engagement with said pivoted member and thereby turning said shaft in the opposite direction to move said snuffer plate adjacent to said wick, and a connection between said shaft and said spark producing mechanism enabling said shaft to move in the last-named direction, while the spark producing mechanism is stationary.

3. In a lighter, a pivoted member, a spark producing mechanism, a shaft for actuating said mechanism, a wick, a snuffer plate supported by said shaft and movable thereby to and from the wick, a resilient element having releasable latch connection with said member, a handle for operating said resilient element to release said latch connection, means whereby said resilient element will operate said shaft and thereby said snuffer plate in one direction when released from said member and in the opposite direction to move said snuffer plate to said wick, when said resilient element is moved into engagement with said member, and means for moving said element into latched engagement with said member.

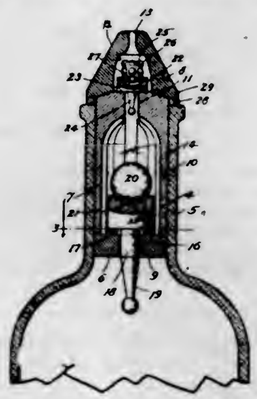
4. In a lighter, a wick-support, a member pivoted to said wick-support and having limited movement thereon, spark producing mechanism, a snuffer plate, a rock shaft supporting said snuffer plate, a resilient element having releasable latch connection with said member, a handle for operating said resilient element to release said latch connection, means whereby said resilient element will turn said shaft in one direction when released from said member by said handle to move said snuffer plate from said wick, means for simultaneously operating said spark producing mechanism by said shaft, and means for actuating said resilient element into latched engagement with said member to turn said shaft in the opposite direction and to move said snuffer plate adjacent to said wick.

1,239,802. DOOR-SECURER. ROBERT ANDREW MACBETH, Brooklyn, N. Y. Filed July 28, 1916. Serial No. 111,940. (Cl. 16—8.)



A door securer, comprising a coupler to be constructed from a single piece of sheet metal, said coupler consisting of a plate having a pair of ears at its opposite ends extending laterally and in parallelism, said ears having guide apertures axially alined, one end of said plate adjacent one of the ears merging upwardly and downwardly forming curved portions, merging into top and bottom horizontally disposed parallel arms, the end portions of which being bent, forming gripping fingers extending at slight acute angles to the inner faces of the arms and curving at their extremities toward and engaging the edge of the door frame, a coupling rod guided by and mounted in said apertures of the ears and having one end threaded, and its other end turned into a hook to engage the shank of the door knob, and a nut mounted on the threaded end of the coupling rod and designed to be adjusted against one face of the ear adjacent the curved portion of the arms, in order to draw the coupler and the coupling rod toward each other.

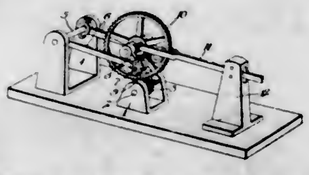
1,239,803. NON-REFILLABLE BOTTLE. JESSE B. MARS and NICK STRAMAGLIA, Gary, Ind. Filed Jan. 29, 1917. Serial No. 145,243. (Cl. 215—69.)



1. The combination with a bottle, of a closure therefor comprising a member secured in the neck of the bottle with an opening in the outer end and presenting spaced portions containing openings, the wall between said spaced portions containing longitudinally extending grooves, a valve in said member between said portions and having longitudinal movement therein, a stem on said valve sliding in one of said openings, said stem being constructed and arranged to fit said last-named opening relatively closely when in normal position to substantially close said last-named opening and maintain the latter substantially closed during a portion of the movement of said valve away from said last-named opening and to afford a space between the stem and the wall of the opening upon the further movement of said valve away from said last-named opening, a ball arranged above said valve and movable longitudinally of said member, and engaging said valve, said grooves being so arranged that the ball will not close communication between the space in which it is located and the other of said openings when the bottle is inverted, a valve in said member above said last-referred-to opening and having a stem which extends into the latter, and a ball, having nubs, arranged above said last-named valve and adapted to engage the latter, said last-named valve and ball being movable in said member and confined therein, the whole presenting a series of passages through said member through which the liquid may pass from the bottle when the latter is inverted.

[Claim 2 not printed in the Gazette.]

1,239,804. GEARING. ARTHUR J. MITCHELL, Connersville, Ind. Filed Mar. 28, 1917. Serial No. 157,963. (Cl. 74—34.)



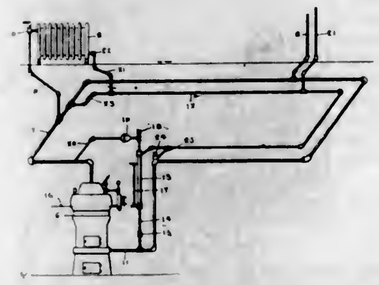
2. A structure as specified in claim 1 in which the shaft of the gear wheel is a crank shaft and the gear wheel is mounted on said crank.

4. In a gearing the combination with a shaft mounted in fixed bearings, a pinion keyed to said shaft, a fixed support, arms pivotally mounted at one end of a fixed support, a shaft journaled on the free ends of said arms, a gear revolubly mounted on said last named shaft and adapted to mesh with said pinion, and means to hold the gear and pinion in operative relation, whereby said gear wheel may move bodily at right angles to the pinion shaft and maintain its mesh with said pinion, whereby a quick return movement is imparted to said gear wheel shaft.

5. In a gearing the combination with a shaft mounted in fixed bearings, a pinion keyed to said shaft, arms pivotally mounted at one end on a fixed bearing, whereby the free ends of said arms are free to move, a crank shaft revolubly mounted on the free ends of said arms, links connecting the two said shafts to maintain the shafts parallel with each other, a gear wheel revolubly mounted on said crank shaft and constructed to mesh with said pinion, a pitman connected to said crank shaft; whereby said gear wheel may shift bodily at right angles to the pinion shaft and at the same time remain in mesh with said pinion, whereby said pitman is positively driven in each direction with a slow motion one way and a quick return.

(Claims 1, 3, 6, and 7 not printed in the Gazette.]

1,239,805. HEATING SYSTEM. WARD TEMPLE MIXSELL, Washington, D. C. Filed Aug. 4, 1916. Serial No. 113,089. (Cl. 237—68.)



1. In a heating system, the combination with a boiler, radiators, and a supply main between the former and the latter, said main being connected at both ends to the boiler, of a separate return line from the radiators to the boiler, a connection between the supply and return mains, and a pressure-actuated equalizing valve in said connection adapted to admit steam to the return line in advance of the radiating system when the pressure exceeds a certain amount, and to exclude steam therefrom when the pressure is below said amount.

2. In a heating system, the combination with a boiler, radiators, and a supply main from the former to the latter, said main being connected at both ends to the boiler, of a separate return line from the radiators to the boiler, said line being connected at one end to the supply main in advance of the return connections from the radiators, a pressure-actuated equalizing valve at said end to admit steam to said line, and a receiver in said return line, extending above the normal water line in the boiler, to provide a static head for the return of water to the boiler.

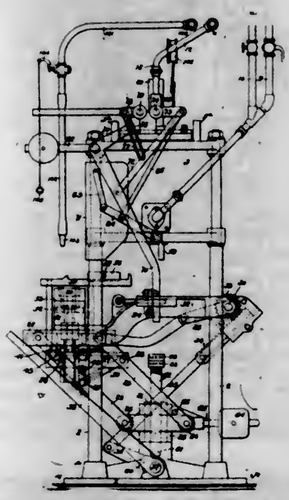
3. In a heating system, the combination of a boiler, radiators, a supply main from the former to the latter, said main being connected at both ends to the boiler, a receiver extending above the water line of the boiler and connected at its lower end thereto, a separate return line from the radiators, connected at its inlet end, in advance of the radiators, to said supply main and discharging at its outlet end to the receiver, an air vent valve in said return line, at the discharge end thereof, and a pressure-actuated equalizing valve at the inlet end of said line controlled by the pressure in the supply main to admit steam to the return line.

4. In a heating system, the combination with a boiler and radiators, of a supply main from the former to the latter, a return main from the radiators to the boiler, said return main having an air vent open at low pressure, a connection between the supply main and the end of the return main in advance of the radiators, provided with a pressure-actuated equalizing valve actuated by difference in relative pressures in the supply and return mains, and a pressure-operated valve controlling said air vent and adapted to close the same when the pressure exceeds a certain amount.

5. In a heating system, the combination of a boiler, radiators, a supply main from the former to the latter, a receiver extending above the water line of the boiler and connected at its lower end thereto, a separate return line from the radiators, connected at its inlet end in advance of the radiators to said main and discharging at its outlet end to the receiver, an air vent valve in said return line, at the discharge end thereof, and a normally-closed equalizing valve at the inlet end of said line, said valve adapted to be opened by pressure in the supply main and having a resistance substantially equal to the static head in the receiver, whereby the valve will be opened when the pressure equals said static head.

[Claim 6 not printed in the Gazette.]

1,239,806. CASTING-MACHINE. ALBERT W. MORRIS, Philadelphia, Pa., assignor to Morris Process of New York, Incorporated, New York, N. Y., a Corporation of New York. Filed May 8, 1914, Serial No. 837,139. Renewed Nov. 9, 1916. Serial No. 130,471. (Cl. 22—57.)



1. The combination, in a casting machine, of a discharge nozzle, a mold carrier, means for moving the latter in a horizontal direction toward and away from the mold, and means for, at the same time, moving the mold carrier in a vertical direction toward and from the mold.

9. The combination, in a casting machine, of a mold, a sliding pouring plate therefor, supports for said sliding-plate, means for sliding said plate back and forth on said supports, and means for raising said supports when the plate is moved thereon in one direction and for lowering said supports when the plate is moved thereon in the opposite direction.

19. The combination, in a casting machine, of a discharging nozzle for molten metal, a valve seated in said nozzle for preventing discharge of the metal therefrom, a mold movable into and out of position beneath said nozzle, a screen movable into protective position during the casting operation and out of such position while the casting is being discharged from the mold, a lever for so moving said screen, and means whereby said lever is also caused to raise and lower the valve in the discharge nozzle.

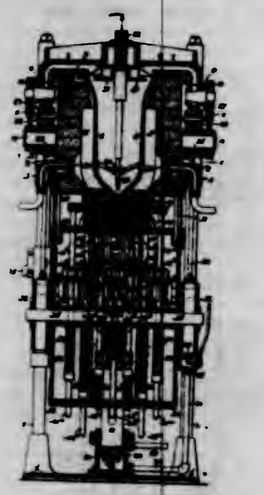
22. The combination, in a casting machine, of a discharge nozzle, a valve for governing the discharge from said nozzle, a valve for governing the admission of air under pressure to the material of which the casting is to be made, a screen movable into and out of protective relation to said nozzle, an operating lever common to said

metal-controlling valve, air-controlling valve, and screen, and a lost motion connection between said lever and the metal-controlling valve, whereby the air valve will be opened and the screen adjusted to protective position before the opening of the metal-controlling valve.

27. A casting machine comprising a receptacle containing molten metal, a die or mold, means controlling the flow of compressed air into said receptacle, another means controlling the flow of molten metal under the pressure of the compressed air into said die or mold, a shield at one side of said receptacle, and a lever mechanism for operating both of said controlling means and said shield.

[Claims 2 to 8, 10 to 18, 20, 21, and 23 to 26 not printed in the Gazette.]

1,239,807. DIE-CASTING MACHINE. ALBERT W. MORRIS, Springfield, Mass., assignor to Morris Process of New York, Incorporated, New York, N. Y., a Corporation of New York. Filed Jan. 20, 1916. Serial No. 73,124. (Cl. 22—69.)



1. In a machine for casing metal under pressure, the combination of a melting pot, a mold for receiving the molten metal therefrom, said mold being movable into and out of contact with said pot, a valved passage for supplying air under pressure to the melting pot, a plug for opening and closing the nozzle of the melting pot, a single operating device, and connections between the same and said air-controlling valve, discharge-controlling plug and mold whereby movement of said device is caused to operate all of the parts.

3. In a machine for casting metal under pressure, the combination of a base structure, supporting posts projecting upwardly therefrom, a melting pot, a fire pot surrounding the same, and means independent of one another for mounting said melting pot and said fire pot upon said supporting posts.

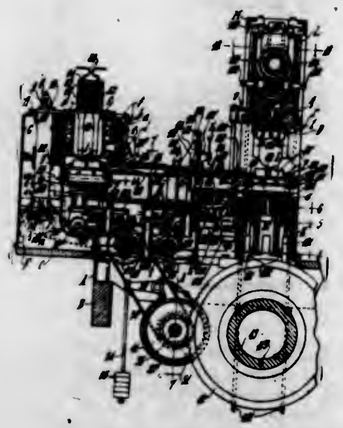
11. In a machine for casting metal under pressure, the combination of a melting pot, a mold for receiving the molten metal therefrom, a mold-carrying frame pivoted so as to swing said mold beneath or outwardly away from the melting pot, and a shield carried by said frame and serving to protect the attendant from splashes of molten metal when the mold is in position for receiving the charge from the melting pot.

18. In a machine for casting metal under pressure, the combination of a melting pot, a mold for receiving molten metal from said pot, a swinging frame for carrying said mold into and out of casting position, a fluid-actuated jack separate from said frame for pressing the mold toward the melting pot when in casting position, constantly acting means for lowering said jack, and valve-controlled means for lifting the same.

22. A casting machine comprising a receptacle containing molten metal, a die or mold, means for raising and lowering said die or mold relative to said receptacle, means controlling the flow of molten metal from said receptacle to said die or mold, means for locking said controlling means in closed position when said die or mold is in lowered position, and means for unlocking said controlling means when said die or mold is in raised position.

[Claims 2, 4 to 10, 12 to 17, and 19 to 21 not printed in the Gazette.]

1,239,808. DIE CASTING OR FORGING APPARATUS. ALBERT W. MORRIS, Springfield, Mass., assignor to Morris Process of New York, Inc., New York, N. Y., a Corporation of New York. Filed Apr. 30, 1917. Serial No. 165,412. (Cl. 22—77.)



1. A casting machine, comprising in combination, means to carry a plurality of mold parts, reciprocable mechanism to carry a coöperating mold part to work the material in the molds, a transferring device to successively move the molds from said means into line with the coöperating part in said mechanism and back to said means, and timing devices to coördinate said means transferring device, and mechanism whereby the said part may work the material in the molds.

16. A metal working machine, comprising in combination, a turret, mold carrying devices movably mounted therein, molds carried by said devices, means to work the metal in the molds, devices to automatically move the mold carrying devices into position for engagement of said means with the molds and back again to the turret, an ejector member movable with each mold carrying device and arranged to be lifted with relation to the mold to remove the finished metal therefrom, means to lift the ejector member operable after operation of the metal working means, and devices engageable successively with each of the ejector members on movement of the turret to positively force the members into normal relation with the molds when the members fail to automatically drop back after ejecting the finished metal from the mold.

24. A metal working machine, comprising in combination, a turret to carry the molds or die parts, mans to work the metal in the molds, a transferring device to successively move molds from the turret into position for the operation of said means and back again after operation of the latter, mechanism to move the turret step by step to successively deliver molds to said device and to remove other molds therefrom, a pyrometer to dip into the metal in the molds just before they are delivered to said means, means controlled by the pyrometer to actuate said

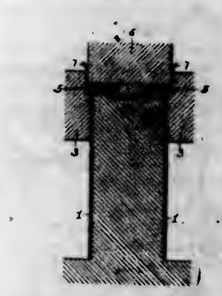
device, mechanism and ram through one complete cycle of operation and in definite timed relation, devices to lift the pyrometer as the transferring device delivers a mold to said means and to lower the pyrometer as a succeeding mold is delivered to the transferring device.

50. A metal working machine, comprising in combination, a turret, molds movably mounted therein, a furnace to supply liquid metal, a ram to work the metal, mechanism to move the turret step by step, mechanism to reciprocate the ram intermittently, a transferring device to successively move molds from the turret into line with said ram and operable during step by step movements of the turret and between operations of the ram, mechanism operable during reciprocation of the ram to tap the furnace and fill the molds, and devices operable on improperly positioned molds to bring them into correct position to be filled by the furnace.

61. A casting machine, comprising in combination a turret to carry molds, a furnace to supply liquid metal and pivoted to swing into and out of mold filling position with relation to said turret, means to lock the furnace in mold filling position, means to supply fuel to said furnace, means to intermittently tap the latter, mechanism to move the turret step by step to successively position molds in position to be filled, said last named means being timed to operate during intervals of rest of the turret, said fuel supplying means and furnace tapping means including parts whose axes are coincident with that of the furnace and connections between said parts and the furnace to swing on the former as a pivot, whereby the furnace may be moved out of mold filling position without interrupting the fuel supply or its tapping means.

[Claims 2 to 15, 17 to 23, 25 to 49, and 51 to 60 not printed in the Gazette.]

1,239,809. MANUFACTURE OF CARTRIDGE-CASES. ALBERT W. MORRIS, Springfield, Mass., assignor to Morris Process of New York, Incorporated, New York, N. Y., a Corporation of New York. Filed Aug. 1, 1917. Serial No. 183,857. (Cl. 22—203.)



The mode herein described of producing a cartridge case or like structure having relatively thin side walls and a relatively heavy base, said mode consisting in first providing a tube having walls of the thickness desired for those of the case, then placing said tube in a die so that one end of the same projects into the metal-receiving chamber thereof, then introducing into said chamber molten metal in quantity somewhat in excess of that desired for the base of the case, and then subjecting said metal to pressure which will cause the surplus metal to escape from the die in the form of a flash, and then trimming off said flash.

1,239,810. ARC-LAMP ELECTRODE. WILLIAM R. MOTT, Lakewood, Ohio, assignor, by mesne assignments, to National Carbon Company, Inc., a Corporation of New York. Filed Jan. 4, 1916. Serial No. 70,251. (Cl. 176—136.)

1. An arc lamp electrode containing lithopone.

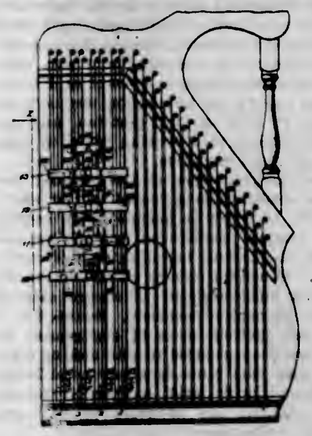
2. An arc lamp electrode containing a fluorid and lithopone.

3. An arc lamp electrode containing fluorids of rare-earth metals and lithopone.

4. An arc lamp electrode containing fluorids and a material containing barium sulfate and zinc sulfid.

5. An arc lamp electrode containing fluorids and a complex precipitate of barium sulfate and zinc sulfid.

1,239,811. ZITHER. SAMUEL C. OSBORN, Chicago, Ill. Filed Sept. 4, 1915. Serial No. 48,965. (Cl. 84—116.)

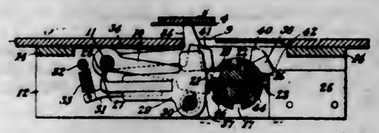


1. The combination with a zither, of a chord-sounding device comprising a relatively narrow hammer-bar, and a plurality of relatively-short spring-arms spaced apart and each connected at one end with said hammer-bar and at its opposite end with the zither and positioned for holding said hammer-bar normally out of engagement with the strings of the zither, said arms extending in a direction generally lengthwise of said strings.

5. The combination with a zither having bass chord-strings arranged in groups, of devices for actuating said strings, each actuating the strings of one of said groups and the strings of another of said groups and including a hammer-bar extending transversely of said strings.

[Claims 2 to 4 and 6 to 10 not printed in the Gazette.]

1,239,812. WATCHMAN'S CLOCK. KOLMEN OSWALD, New York, N. Y., asignor to C. Maurice Penbody, South Orange, N. J. Filed Feb. 28, 1916. Serial No. 80,794. (Cl. 234—39.)



1. In a watchman's clock a key-actuated mechanism comprising in combination a record carrier and marking mechanism, one of which is movable with respect to the other, said marking mechanism comprising means for marking upon the record, including one or more impression members, a locking plate for locking all of said impression members, a cam plate secured to said locking plate, means for engaging said cam plate to release said locking plate from engagement with said impression members, and means for actuating one or more of said impression members when unlocked.

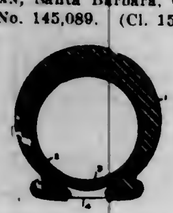
2. In a watchman's clock a key-actuated mechanism comprising in combination a record carrier and marking mechanism, one of which is movable with respect to the other, said marking mechanism comprising means for marking upon the record, including one or more impression members, shoulders formed on the impression members, a locking plate adapted to engage said shoulders to

lock said impression members, a cam plate secured to said locking plate, means for engaging said cam plate to release said locking plate from engagement with said impression members, means for actuating one or more of said impression members when unlocked.

3. In a watchman's clock a key-actuated mechanism comprising in combination a record carrier and marking mechanism, one of which is movable with respect to the other, said marking mechanism comprising means for marking upon the record, including one or more impression members, shoulders formed on the impression members, a locking plate adapted to engage said shoulders to lock said impression members, a cam plate secured to said locking plate, means for engaging said cam plate to release said locking plate, and to prevent said locking plate from engaging any of the impression members until they have returned to their normal position, and means for normally maintaining said locking plate in engagement with said impression members.

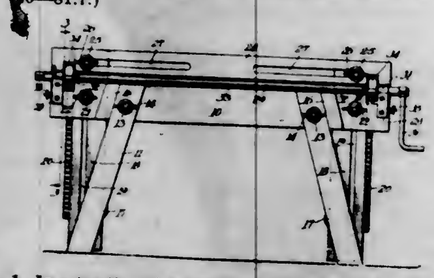
4. In a watchman's clock a key-actuated mechanism comprising in combination a record carrier and marking mechanism, one of which is movable with respect to the other, said marking mechanism comprising means for marking upon the record, including one or more impression members, shoulders formed on the impression members, a locking plate adapted to engage said shoulders to lock said impression members, means for normally maintaining said locking plate in engagement with said shoulders, a cam plate secured to said locking plate, means for engaging said cam plate to release said locking plate from engagement with said impression members and means for actuating one or more of said impression members when unlocked.

1,239,813. FLEXIBLE CLOSURE FOR TIRE-CASINGS. PHILIP OVERMAN, Santa Barbara, Cal. Filed Jan. 29, 1917. Serial No. 145,089. (Cl. 152—13.)



In means for securing together the edges of a flanged casing of a pneumatic tire against the pressure due to the inflation of the inner tube, an annular sheet of flexible material, and hooks secured to each side of the sheet and adapted to engage the respective flanges of the tire casing.

1,239,814. ELEVATING AND FOLDING TRESTLE. JULE C. PEPIN and JOSEPH N. PEPIN, East Chicago, Ind. Filed Dec. 15, 1913. Serial No. 806,683. (Cl. 20—81.7.)



1. In a trestle, a leg-supported bridge furnishing guides, standards vertically movable in said guides, gears supported by said bridge and operating on racks secured to said standards for moving them, and releasable devices for holding said gears in engagement with said racks, said releasable devices furnishing pivots upon which the standards may be turned to fold them upon said bridge when the racks and gears are disengaged.

2. In a trestle, a bridge consisting of two pieces, standards vertically movable in a space between the two pieces, racks and gears for so moving them, and bolts for clamping said standards between said two pieces and for holding said gears and racks in engagement, said standards being foldable into the space between said pieces when said bolts are released.

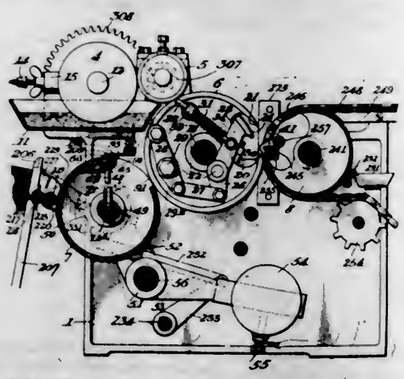
3. In a trestle, a bridge furnishing vertical guides, standards located in said guides, gearing for elevating said standards, and releasable devices for holding said gearing in operative condition, said standards being foldable upon said bridge when the releasable devices are released.

4. In a trestle, a lower bridge, an upper bridge, standards between the bridges, and combined pivotal and sliding connections between the standards and both bridges, said connections being so arranged that the standards may be folded within the lower bridge while retaining their pivotal relation to both bridges.

5. A leg-supported bridge formed of two pieces providing guides, standards vertically movable in said guides, gears supported by said bridge and engaging racks on said standards for moving them, bolts connecting the two bridge pieces together and extending through slots in said standards, and nuts on said bolts, said bolts and nuts so arranged that upon releasing said nuts the standards and racks may be released from the guides and gears and said standards may be pivotally turned upon the bolts.

[Claims 6 to 9 not printed in the Gazette.]

1,239,815. PNEUMATICALLY-CONTROLLED BLANK-GUMMING MACHINE. MELVILLE E. PETERS, GEORGE H. FATH, and ALBERT F. MILLER, Denver, Colo., assignors to The Peters Patent Rights Company, Denver, Colo., a Corporation of Colorado. Filed May 25, 1915. Serial No. 30,471. (Cl. 91—18.)

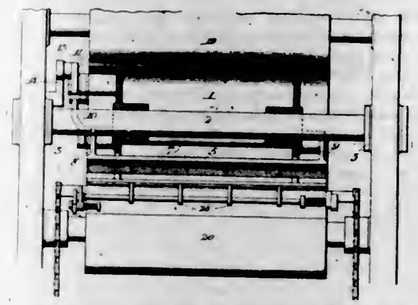


1. In a blank gumming machine, a gumming cylinder having a gap and an opening and closing cylindrical segment fitting said gap and arranged to receive and to expose the advancing edge of each blank at predetermined points on said gumming cylinder as it rotates, and means for feeding blanks to said cylinder and means including a conveyer for grabbing their advancing exposed edges and removing them from said gumming cylinder, in the direction in which they would naturally curl, and means for applying a tempering moisture to their ungummed sides while on said conveyer.

2. In a blank gumming machine, a gumming cylinder having a gap and an opening and closing cylindrical segment fitting said gap and arranged to receive and to expose the advancing edge of each blank at predetermined points on said gumming cylinder as it rotates, means for feeding blanks to said cylinder and for grabbing their advancing exposed edges and removing them from said gumming cylinder, in the direction in which they would naturally curl, and means including a gapped transmission cylinder and a conveyer for moistening the ungummed surface of said blank, whereby said blank is evenly moistened and tempered throughout, and pneumatic means including air suction impulse mechanism for discharging said blanks from said conveyer.

[Claims 3 to 36 not printed in the Gazette.]

1,239,816. GAP AND SEGMENT BLANK-GUMMING CYLINDER. MELVILLE E. PETERS, GEORGE H. FATH, and ALBERT F. MILLER, Denver, Colo., assignors to The Peters Patent Rights Company, Denver, Colo., a Corporation of Colorado. Filed Feb. 8, 1916. Serial No. 76,987. (Cl. 91—60.)



1. A gapped cylinder, means including a segment for closing the gap, means for feeding a blank onto said cylinder to lap onto said segment, and means for moving the segment from under the edge of the blank.

2. A gapped cylinder having a segment movable in said gap to receive and expose a blank, and means including a transmission mechanism for gripping the exposed edges of said blanks and for conveying them to a box covering machine.

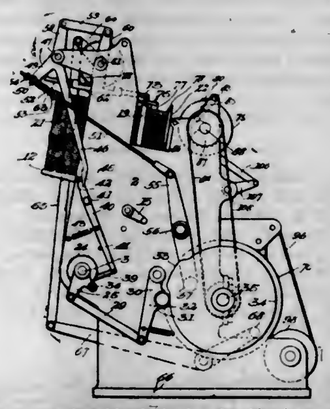
3. In a blank gumming cylinder, a gumming cylinder having a gap and an opening and closing cylindrical segment fitting said gap and arranged to receive and to expose the advancing edge of each blank at predetermined points on said gumming cylinder as it rotates, means for feeding blanks to said cylinder, and means for grabbing their advancing exposed edges and removing them from said gumming cylinder, in the direction in which they would naturally curl.

4. In a blank gumming cylinder, a gum distributing cylinder provided with a gap and having a segment member forming a part of the gumming face of said gapped cylinder, said segment being positioned to receive the advancing edge of the blank and movable at a predetermined point in said cylinder's rotative movement to expose the gummed edge of said blank, means for feeding blanks onto said gumming cylinder and its segment, and means for operating said segment to close and open said segment to receive and to expose said blank.

5. In a box-covering blank gumming cylinder, a rotating cylinder operatively connected to blank feeding, gumming, gripping, transmission and conveying mechanism, and provided with a reciprocable and movable segment surface portion of said cylinder's circumference, and arranged to form a gap in the surface of said cylinder when moved away therefrom, means for feeding the blanks one at a time so that the advancing edge of the blank will engage the movable segment surface portion of said cylinder at the time it is being gummed, and will be exposed in the gap formed therein when the segment portion is moved out of engagement with said gaps, means including an expansive tension spring bearing directly against the back of said segment for normally holding said segment in its gap in said cylinder surface, and a cam mechanism connected to said segment and arranged to instantly open said segment against the tension of said spring and instantly release it to the segment closing expansive tension of said spring, and means for instantly gripping the gummed edge of said blank in the gap of said cylinder and for removing said gummed blank from said cylinder and transmitting it to the said conveyer.

[Claim 6 not printed in the Gazette.]

1,239,817. BLANK-FEEDER FOR GUMMING-MACHINES. MELVILLE E. PETERS, GEORGE H. FATH, and ALBERT F. MILLER, Denver, Colo., assignors to The Peters Patent Rights Company, Denver, Colo., a Corporation of Colorado. Original application filed May 25, 1915, Serial No. 30,471. Divided and this application filed Feb. 8, 1916. Serial No. 76,988. (Cl. 271—28.)

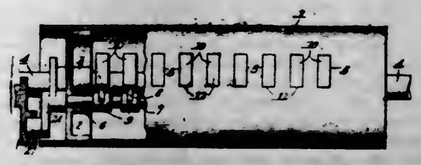


1. A box covering blank feeder for blank gumming machines, comprising a stack holder, and means including an air suction sucker member for gripping the top blank and separating it from the stack and for feeding it to a receiving means, and means including a plate for stripping it from said suction feed, and means including a vertically reciprocating blade for removing irregular alined blanks from the feeder mechanism before they are discharged from it.

5. In a box covering blank feeder for blank gumming machines, the combination with blank gripping sucker members for gripping orderely alined blanks and stopping the feed movement of disorderly alined blanks, of means for removing said disorderly alined blanks, said means comprising rotating rollers, idler rollers against which said rotating rollers rotate in blank gripping and feeding relation, means including a power transmitting belt for rotating said rollers and a reciprocating blade arranged to reciprocate across the feeding path of said blanks below the blank gripping surfaces of said rollers, and means including cam controlled rock arm mechanism for reciprocating said blade.,

[Claims 2 to 4 and 6 to 8 not printed in the Gazette.]

1,239,818. BLANK-EDGE-EXPOSING MECHANISM FOR BLANK-GUMMING CYLINDERS. MELVILLE E. PETERS, GEORGE H. FATH, and ALBERT F. MILLER, Denver, Colo., assignors to The Peters Patent Rights Company, Denver, Colo., a Corporation of Colorado. Filed Apr. 28, 1916. Serial No. 94,208. (Cl. 91—60.)

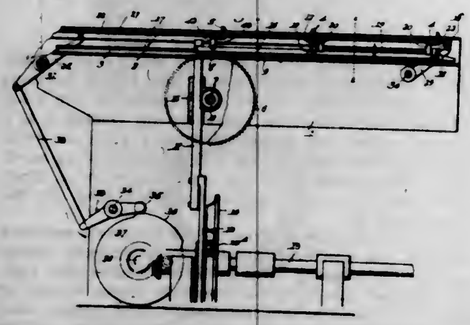


2. In a blank gumming cylinder, the combination with operative gum distributing means, operative blank feeding means and operative blank gripping transmitting and

conveying means, of a blank gumming cylinder rotatably mounted between said blank feeding and blank transmitting means, provided with a plurality of gaps, a reciprocating plate provided with a peripheral surface of the same circumferential curvature as said cylinder arranged to fit into and fill each gap, means for providing the surface of said cylinder with a coat of adhesive gum of any desired thickness, means for rotating said cylinder to receive the advancing edge of each blank as it feeds from said feed roller on its gap fitting segment plates and the adjacent surface of said cylinder, means including a cam engaging roller for moving all of said segments simultaneously to open all of said gaps instantaneously to expose the advancing edge of each blank in each of said gaps, and means including said blank gripping and transmitting and conveying mechanism for engaging the exposed edge of each blank in said gaps when said plates are withdrawn from them and for removing each blank from said cylinder to said transmission and conveying mechanism.

[Claim 1 not printed in the Gazette.]

1,239,819. BOX-TRANSFERRING MECHANISM FOR BOX OR PACKAGE TRANSMISSION MACHINES. MELVILLE E. PETERS, GEORGE H. FATH, and ALBERT F. MILLER, Denver, Colo., assignors to The Peters Patent Rights Company, Denver, Colo., a Corporation of Colorado. Original application filed Nov. 5, 1915, Serial No. 59,860. Divided and this application filed Sept. 25, 1916. Serial No. 122,058. (Cl. 193—11.)



1. In a box or package transferring mechanism for box wrapping machines, the combination with the table provided with a longitudinal slot, with a slideway below the slot and having a receiving and delivering station, of means including a rack bar mounted in said slideway, box engaging grippers adjustably mounted on said rack bar to engage the ends of boxes of different sizes, cam actuated gearing for reciprocating said rack bar to carry said boxes to the delivery station, and means also carried by the rack for engaging a box at the delivery station and discharging it from the table, and cam actuated mechanism for depressing the said box grippers and the box discharging means during the rearward movement of the rack bar, and for releasing them at the beginning of its forward movement, and springs for raising said grippers and discharging means to box engaging positions at the beginning of their forward movement.

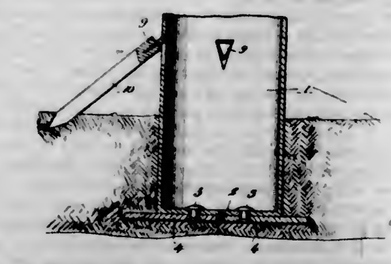
2. The combination with a frame having a table portion, of a bar slidably mounted therein, means for reciprocating said bar, adjustably and pivotally mounted grippers carried by said bar for engaging a box at one position on the table and advancing it to another position, means also carried by the bar for engaging the box at the latter position and discharging it from the table, means for holding the grippers and the discharging means in box engaging position during the advancing movement of the bar, and means for depressing said grippers and discharging means on the reverse movement of the bar.

3. In a machine of the character described, the combination with the table having a longitudinal slot, of a horizontal bar slidably mounted in the table below said slot, means for reciprocating said bar, blocks adjustably mounted on said bar to have a movement toward and away from each other, box grippers pivotally mounted in said blocks for engaging a box at one end of the table and advancing it to the other end thereof, a push arm also carried by the bar for engaging the box at the latter position and discharging it from the table, a spring for projecting said grippers and said push arm up through the slot in said table during the advancing movement of the bar, and cam operated means for depressing said grippers and push arm below the plane of the table top, during the reverse movement of the bar.

4. In a machine of the character described, the combination with the table having a longitudinal slot therein, of a rack bar slidably mounted in said table below and in line with said slot, a gear wheel in mesh with said rack bar, and cam actuated means for rotating said gear wheel to impart a reciprocating movement to said rack bar, a right and left hand threaded rod rotatably mounted on said bar, blocks threaded to said rod, pivoted grippers carried by said blocks for engaging a box at one end of the table and advancing it to the opposite end thereof, a pivoted push arm also carried by said bar for engaging the box in the latter position and discharging it from the table, springs for projecting the grippers and push arm in box engaging position through the slot in said table during the advancing movement of the bar, and cam actuated means for depressing them below the plane of the table top during the reverse movement thereof.

5. The combination with a frame having a table provided with a longitudinal slot, of a rack bar slidably mounted in said table below and in line with said slot, a gear wheel in mesh with said rack bar, a pinion wheel rigidly secured to said gear wheel, and a cam actuated toothed bar in mesh with said pinion, whereby the gear wheel is rotated to impart a reciprocating movement to the rack bar, a right and left hand threaded rod rotatably mounted on the rack bar, oppositely arranged blocks threaded upon said rod, pins carried by said blocks and grippers mounted on said pins for engaging a box at one end of the table and advancing it to the other end thereof, a push arm also carried by said rack bar for engaging a previously advanced box and discharging it from the table simultaneously with the advancing movement of each successive box, arms carried by said grippers and said push arm having antifriction rollers, a bar having a horizontal flange for engaging said rollers, a spring for normally projecting said grippers and push arm through the slot in said table in box engaging position during the advancing movement of the rack bar, and cam actuated means for depressing said flanged bar, thereby to depress said grippers and push arm below the plane of the table top during the reverse movement of the said rack bar.

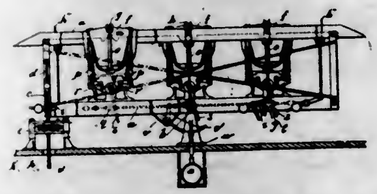
1,239,820. ANCHOR. GILBERT E. PETERSON, Clinton, Minn. Filed Jan. 22, 1914. Serial No. 813,784. Renewed July 30, 1917. Serial No. 183,640. (Cl. 189—31.)



A fence post comprising a body portion, and semicircular anchoring plates pivotally connected with the lower

end of said body portion, each having its arcuate edge beveled at one extremity upon the lower face to cause the unbeveled extremity of each plate to provide an abutment shoulder extending outwardly beyond the lower face of the adjoining extremity of the second plate when the plates are in a retracted position.

1,239,821. STOWING AND TRANSFERENCE OF BOATS ON BOARD SHIP. GERARD JOHN PHILLIPS and LOUIS ANTHONY KELLER, London, England. Filed Dec. 28, 1916. Serial No. 139,279. (Cl. 9—22.)

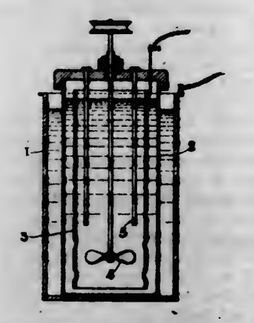


1. Means for stowing boats on board ship comprising a frame adapted to be tilted toward either side of the ship and formed or provided with rails, wherein the rails serve as a track for rollers mounted at the bow and stern of each boat, and stops are provided to hold the boats in their stowed positions on the supporting rails and adapted when released, to allow the boats to move along the rails toward independent davit arrangements by which they can be lowered over the side of the ship, substantially as described.

2. In means for stowing boats on board ship according to claim 1, side-frames or chocks adapted to secure the boats to the tilting frame and to be displaced so as to release the boats by actuating means the side frames or chocks of the boats being operable separately or as a whole, substatnially as described.

3. In means for stowing boats on board ship according to claim 1 the combination with the track rails for the boat rollers, of supports at a lower lever upon which rest the trunnions of bars or frames each adapted to normally support the keel of the boat, the said trunnion supports being so shaped that as a boat moves along the rails, the keel supporting bar or frame will clear the keel of the boat and be left behind, substantially as described.

1,239,822. PROCESS FOR THE MANUFACTURE OF AROMATIC AMINO-OXY-COMPOUNDS. ALFRED PIGUET, EWALD STEINBUCH, and ROBERT STOCKER, Basel, Switzerland, assignors to Society of Chemical Industry in Basle, Basel, Switzerland. Filed Oct. 27, 1916. Serial No. 128,009. (Cl. 204—9.)

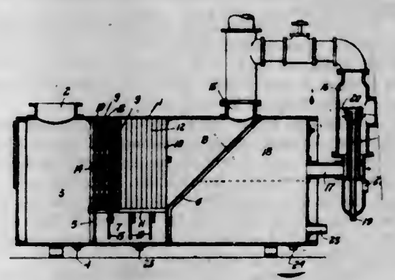


1. The herein described process for the manufacture of amino-oxy-compounds by electrolytic reduction of aromatic nitrocompounds in acid, which consists in conducting the electrolysis in presence of at least two metals in the cathode chamber, which by continuously passing into solution and depositing on the surface of the cathode, maintain the latter always coated with a deposit of at least two metals.

2. The herein described process for the manufacture of amino-oxy-compounds by electrolytic reduction of aromatic nitro-compounds in acid, which consists in employing as electrolyte in the cathode chamber a diluted acid solution which contains not much more acid than is necessary to combine with the bases produced by the reduction.

3. The herein described process for the manufacture of amino-oxy-compounds by electrolytic reduction of aromatic nitrocompounds in acid, which consists in employing as electrolyte in the cathode chamber a diluted acid solution which contains not much more acid than is necessary to combine with the bases produced by the reduction and in conducting the electrolysis in presence of at least two metals in the said cathode chamber, which by continuously passing into solution and depositing on the surface of the cathode, maintain the latter always coated with a deposit of at least two metals.

1,239,823. STEAM-SEPARATOR. PERCY H. PINDER, New York, N. Y., assignor to The Standard Steam Specialty Company, a Corporation of New York. Filed Feb. 9, 1917. Serial No. 147,580. (Cl. 183—106.)



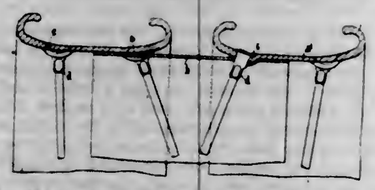
1. A steam separator comprising an expansion chamber having drip retaining means, a dam plate at the inner lower end thereof, a baffle chamber above and horizontally beyond said dam plate containing large surfaced flexible baffles, a dam plate closing said baffle chamber, a single secondary drip chamber below said baffle chamber and between said dam plates opening freely into said baffle chamber, and means in said secondary drip chamber obstructing the steam flow therethrough to a greater extent than the normal flow through said baffles.

2. A steam separator comprising an expansion chamber effecting an initial separation and having its bottom closed to retain drip, a baffle chamber containing oil separating flexible baffles communicating with the upper portion of said expansion chamber, a secondary drip chamber below said baffles, separated from said expansion chamber at the bottom by a partition and opening freely into said baffle chamber, vertical baffles in said secondary drip chamber for obstructing the steam flow therein to a greater extent than through said first mentioned baffles, a plate closing both the first baffle chamber and the secondary drip chamber, and a steam outlet from said baffle chamber.

3. A steam separator comprising an expansion chamber effecting an initial separation by expansion and change of direction of steam flow and having its bottom closed to retain drips, a baffle chamber communicating with the upper portion of said expansion chamber containing a series of flexible baffles, and separated at the bottom from said expansion chamber by a partition, a secondary drip chamber formed by said partition below said baffle chamber, plate baffles spaced above the bottom of said secondary drip chamber below said first named baffles for obstructing the steam flow in said secondary chamber to a greater extent than through said flexible baffles, a second partition having its upper end inclined upwardly away

from said baffles and closing both the baffle chamber and the secondary drip chamber, and a steam outlet from said baffle chamber above said inclined portion.

1,239,824. TWIN RIM FOR WIRE-SPOKED VEHICLE-WHEELS. JOHN V. PUGH, Allesley, England, assignor to Rudge Whitworth, Limited, Coventry, England. Filed June 14, 1915. Serial No. 34,112. (Cl. 21—69.)



1. A vehicle wheel having a twin rim formed of two rims of the wire spoked wheel type mounted upon a third member and retained firmly in connection therewith by a series of distortions formed in the overlapping portions of rims and member.

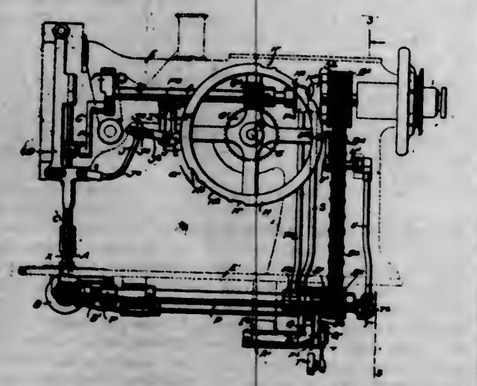
2. A hoop or band-like member upon which are mounted a plurality of complete rims of the wire spoked wheel type, said member and rims being firmly united by inter-engaging projections and depressions formed in the overlapping portions.

3. A rim for a double tired vehicle wheel, in which two rims of the wire spoked wheel type are mounted upon a hoop of band-like form and retained thereon by depressions formed in the double thickness of material resulting from the overlapping of said hoop and rims.

4. A twin rim wheel for a vehicle comprising two rims of the wire spoked wheel type mounted upon a hoop of sheet material, said members having locating depressions for spoke holes formed around the circumference in each double thickness of material occurring at the junction of the hoop and a rim, and the combined rims and hoop being connected to a hub by spokes passing through said holes, substantially as described.

5. A twin rim wheel for a vehicle having in combination a wide hoop of thin material, a rim for carrying a tire mounted upon and overlapping each side thereof, a series of depressions formed around the circumference in each overlapping zone, spokes passing through holes formed in said depressions to support said rims and hoop in their operative position in a wheel, and headed nipples screwed upon said spokes and having their heads housed in said depressions.

1,239,825. SEWING-MACHINE. WILLIAM R. ROGERS, Newark, N. J., assignor to William Raubitscheck, New York, N. Y. Filed June 30, 1915. Serial No. 37,238. (Cl. 112—24.)

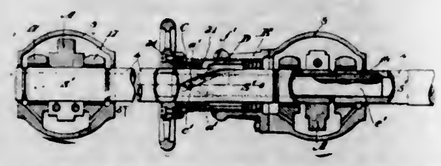


1. In a sewing machine, the combination of a feed mechanism for feeding the material forward in a straight line, a stitch producing mechanism having a reciprocating needle bar adapted to vibrate laterally of the line of movement of the material, means for so vibrating the needle bar and means for rendering the feed mechanism inoperative during such lateral movements of the needle bar.

3. In a sewing machine, the combination of a feed bar, a stitch producing mechanism having a reciprocating needle bar adapted to vibrate, a revoluble cam, means connecting such cam with such feed bar to periodically render the feed bar inoperative, a second revoluble cam and a connection between the latter and the needle bar to vibrate the latter at the time the feed bar is inoperative.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,239,826. STEAM-ENGINE. SIEGFRIED ROSENZWEIG, New York, N. Y. Filed Dec. 5, 1916. Serial No. 135,112. (Cl. 121—45.)

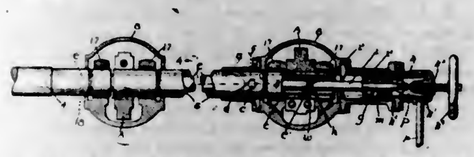


1. In a uniflow engine of the character described, the combination with the engine crank shaft, the steam cylinder and piston, and the steam admission, cut-off, and main exhaust instrumentalities, of auxiliary exhaust ports and controlling valves therefor; a rotary shaft independent of the steam admission and cut-off instrumentalities and driven from and revolving in unison with the engine crank shaft; auxiliary-exhaust-valve operating cams driven from and revolving in unison with said rotary shaft, acting to open the auxiliary-exhaust-valves always before the main exhaust closes, and to hold them open always for the same absolute period of time, said cams being rotatably shiftable with reference to their driving shaft to vary the time of opening of the auxiliary-exhaust-valves relatively to that of closing of the main exhaust, whereby while the beginning of the effective open period of the auxiliary exhaust is always coincident with the closing of the main exhaust and therefore takes place always at substantially the same point in the return stroke of the steam piston, the length of said effective open period will vary with and depend upon the rotary adjustment of said operating cams with reference to their driving shaft; and means for thus-adjusting said cams.

2. In a uniflow engine of the character described, the combination with the engine crank shaft, the steam cylinder and piston, and the steam admission, cut-off and main exhaust instrumentalities, of auxiliary exhaust ports and controlling valves therefor; a rotary shaft, independent of the steam admission and cut-off instrumentalities and driven from and revolving in unison with the engine crank shaft; auxiliary-exhaust-valve operating cams, driven from and revolving in unison with said rotary shaft, acting to open the auxiliary-exhaust-valves always before the main exhaust closes and to hold them open always for the same absolute period of time, said cams being rotatably shiftable with reference to their driving shaft within predetermined limits for condensing work on the one hand and non-condensing work on the other hand to vary the time of opening of the auxiliary exhaust valves relatively to that of the closing of the main exhaust; and hand operated mechanical means for thus-shifting said cams, whether the engine be in motion or at rest, to any desired point within the predetermined limits of said rotary shifting movement, and holding them in their thus-adjusted position, substantially as and for the purposes hereinbefore set forth.

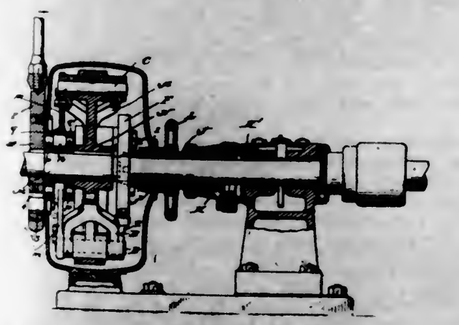
3. In a uniflow engine of the character described, the combination with the auxiliary exhaust valves, of a rotary side shaft driven from and in unison with the engine crank shaft; a tubular extension of said rotary shaft, separate from but arranged on the axial prolongation of said shaft, mounted in bearings in which it is capable of rotary movement only, and formed with symmetrically arranged spiral channels; operating cams, one for each auxiliary exhaust valve, mounted on and fast to said tubular extension; an operating stem housed in and extending between and into the opposed tubular ends of said rotary shaft and tubular extension; a feather key and groove connection between the operating stem and the rotary shaft to permit lengthwise movement of the stem relatively to the shaft, while compelling the two to revolve in unison; projections on the stem engaging the spiral channels in the tubular extension, and hand operated mechanical means for moving the stem lengthwise of the rotary shaft and its tubular extension as desired, whether the engine be in motion or at rest, and holding it in its thus-adjusted position, substantially as and for the purposes hereinbefore set forth.

1,239,827. STEAM-ENGINE. SIEGFRIED ROSENZWEIG, New York, N. Y. Filed Mar. 16, 1917. Serial No. 155,244. (Cl. 121—45.)



In a uniflow engine of the character described, the combination with the engine crank shaft, the steam cylinder and piston, and the steam admission, cut-off, and main exhaust instrumentalities; of auxiliary exhaust ports and controlling valves therefor; a rotary shaft independent of the steam admission and cut-off instrumentalities and driven from and revolving in unison with the engine crank shaft; auxiliary-exhaust-valve operating cams driven from and revolving in unison with said rotary shaft, acting to open the auxiliary-exhaust valves always before the main exhaust closes, and to hold them open always for the same absolute period of time, said cams being rotatably shiftable with reference to their driving shaft to vary the time of opening of the auxiliary-exhaust-valves relatively to that of closing of the main exhaust, whereby while the beginning of the effective open period of the auxiliary exhaust is always coincident with the closing of the main exhaust and therefore takes place always at substantially the same point in the return stroke of the steam piston, the length of said effective open period will vary with and depend upon the rotary adjustment of said operating cams with reference to their driving shaft, and means for automatically thus adjusting said rotatably shiftable cams conformably to variations in the exhaust pressure.

1,239,828. CENTRIFUGAL GOVERNOR FOR STEAM-ENGINES. SIEGFRIED ROSENZWEIG, New York, N. Y. Filed Apr. 18, 1917. Serial No. 162,848. (Cl. 264—3.)

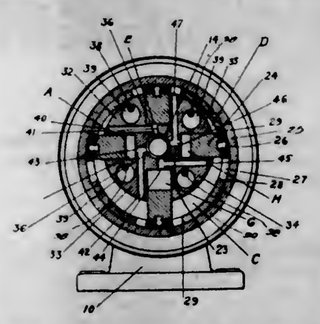


1. In a steam engine governor, the combination with the governor shaft, the governor body revolving therewith and the centrifugal pendulums pivoted to the governor body at diametrically opposite points on the same; of a swinging arm pivoted to the governor body eccentrically with reference to the governor shaft and thence extending crosswise of said shaft in a curved path around and partly encircling the same so as to bring the free end of the arm on the other side of the shaft from the point at which said arm is pivoted to the governor body; a spring extending in a curved path around the governor shaft, secured at one end to the free end of the eccentrically pivoted arm, and at its other end to that one of the pendulums whose pivot adjoins the free end of said arm; and adjusting means for moving said eccentrically pivoted arm in one direction or the other to vary the stress of the spring as desired and for holding the thus-moved arm in its adjusted position.

3. In combination with the elements specified in claim 1, the arm R rigidly secured to the governor body and bearing at its outer end against the under face of the curved spring at a predetermined distance in advance of the point of attachment of said spring to the free end of the eccentrically pivoted swinging arm, substantially as and for the purposes herein before set forth.

[Claim 2 not printed in the Gazette.]

1,239,829. ROTARY ENGINE. ALFRED SCHWARZ, New York, N. Y., assignor to William Scully, trustee, Brooklyn, N. Y. Filed June 11, 1915. Serial No. 33,435. (Cl. 121—66.)



1. A rotary engine, comprising a primary piston and a cylinder or casing surrounding said piston, said piston and cylinder being rotatably and eccentrically connected to each other, a plurality of secondary pistons slidably connected to said primary piston and slidably engaging said cylinder thereby defining a plurality of piston spaces between the inner wall of the outer cylinder and the outer wall of the primary piston, and means for admitting fluid behind said secondary pistons and to each of said piston spaces.

[Claims 2 to 4 not printed in the Gazette.]

1,239,830. CIRCUIT-CLOSER. CORLISS SHELDON, Saratoga Springs, N. Y. Filed Apr. 8, 1915. Serial No. 19,892. (Cl. 200—38.)



1. A circuit closer comprising a pair of like interchangeable conductors having flat surfaces and having cups formed therein opposite each other and containing fusible conducting material filling said cups to the planes of said flat surfaces, and a spacer of insulating material between the conductors and having an aperture to provide a communicating passage between the cups.

2. A circuit closer comprising a pair of like interchangeable conductors having flat surfaces and having cups formed therein, arranged with their openings opposite each other and containing fusible conducting material filling said cups to the planes of said flat surfaces, and a spacer of insulating material between the conductors and having an aperture to provide an inclosed communicating passage between the cups.

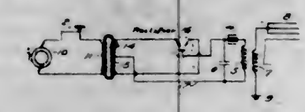
3. A circuit closer comprising an insulating block having a central aperture, a pair of terminals secured to the block at a fixed distance apart, flat conducting members extending adjacent to each other across the central aperture of the block and having opposite cupshaped indentations filled with fusible material, and means for spacing the conducting members apart.

4. A circuit closer comprising an insulating block having a central aperture, a pair of terminals secured to the block, at a fixed distance apart, flat conducting members, extending adjacent to each other across the central aperture of the block and having opposite cupshaped indentations filled with fusible material, and a spacer of insulating material having an aperture to provide a communicating passage between the cups through which the fusible material may flow when softened.

5. A circuit closer comprising an insulating block having a central aperture, a pair of terminals secured to the block at a fixed distance apart, conducting members of thin flat metal, extending adjacent to each other across the central aperture of the block and having opposite cupshaped indentations pressed therein and filled with fusible conducting material, and a spacer of insulating material having an aperture to provide an inclosed communicating passage between the cups into which the fusible material may flow when softened.

[Claim 6 not printed in the Gazette.]

1,239,831. WIRELESS TELEGRAPHY. FREDERICK G. SIMPSON, Seattle, Wash. Filed May 27, 1914. Serial No. 841,183. (Cl. 250—36.)

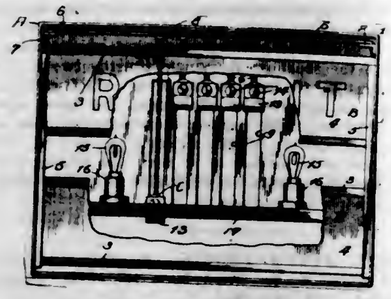


In combination, a transformer having primary and secondary coils, a generator connected to the primary coil, a three pole rectifier having two of its poles connected to opposite ends of the secondary, a condenser, a conductor connecting the third pole of the rectifier and the condenser, a second transformer primary connected in series to the condenser, a conductor connecting the transformer secondary and the second transformer primary, a second condenser, a connection between the first conductor and second condenser, and a connection between the second condenser and second conductor.

1,239,832. TRAFFIC-DIRECTING SIGNALING DEVICE. CHARLES A. SINGER, St. Louis, Mo., assignor to Singer Auto Traffic Signal Company, St. Louis, Mo., a Corporation of Delaware. Filed May 12, 1915. Serial No. 27,591. (Cl. 40—52.)

1. A traffic signal for vehicles, comprising two groups of indicators arranged at the front and at the rear of the vehicle and each composed of a plurality of indicators of different character, a manually-operated selective means for actuating the indicators of one group, and an electrically-operated mechanism controlled by said manually-operated selective means for actuating the indicators of the other group.

2. A traffic signal for vehicles, comprising two groups of indicators arranged to be seen from the front and from the rear of the vehicle and each composed of a plurality of indicators of different character, a manually-operated selective means for moving the indicators of one group into operative position, and an electrically-operated mechanism for actuating the indicators of the other group, said mechanism being so constructed that the indicators controlled by same will operate in a synchronism with the indicators controlled by said manually-operated governing means whenever said means is operated.



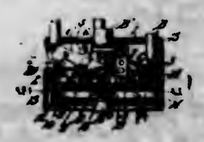
3. A traffic signaling device for vehicles, comprising two groups of indicators, each of which is composed of a plurality of indicators of different character, a plurality of manually-operated controlling devices, means for transmitting movement from said controlling devices to the indicators of one group, an electrically-operated mechanism for actuating the indicators of the other group, and means on said controlling devices for closing the circuit that energizes said electrically-operated mechanism.

4. A traffic signaling device for vehicles, comprising two groups of indicators, each of which is composed of a plurality of indicators of different character, a plurality of manually-operated controlling devices, means for transmitting movement from said controlling devices to the indicators of one group, an electrically-operated mechanism for actuating the indicators of the other group, and contacts on said controlling devices that are adapted to engage contacts that form part of the circuit in which said electrically-operated mechanism is arranged when said controlling devices are in an operative position.

5. A traffic signaling device for vehicles, comprising two groups of indicators, each of which is composed of a plurality of indicators of different character, a plurality of manually-operated controlling devices, means for transmitting movement from said controlling devices to the indicators of one group, electrically-operated mechanism for actuating the indicators of the other group, contacts on said controlling devices that are adapted to engage contacts that form part of the circuit in which said electrically-operated mechanism is arranged when said controlling devices are in an operative position, and illuminating devices for said indicators that operate automatically whenever one or the other of said controlling devices is rendered operative.

[Claims 6 to 8 not printed in the Gazette.]

1,239,833. MULTIPLE SWITCH. CHARLES A. SINGER, St. Louis, Mo., assignor to Singer Auto Traffic Signal Company, St. Louis, Mo., a Corporation of Delaware. Filed May 11, 1916. Serial No. 96,865. (Cl. 175—282.)



1. A multiple switch provided with a plurality of independently-operable selective controlling elements grouped about a central point, a locking device arranged at said central point and common to all of the controlling elements for locking the inoperative controlling elements when one of said controlling elements is rendered operative, and means for rendering said locking device inoperative with respect to all of the controlling elements when the operative controlling element is restored to its inoperative position.

2. A multiple switch provided with a plurality of independently-operable selective controlling elements, a device that locks all of the inoperative controlling elements and prevents them from being operated when one of said elements is operative, and a resetting or restoring device, which, upon being operated, restores the operative controlling element and also renders said locking device inoperative.

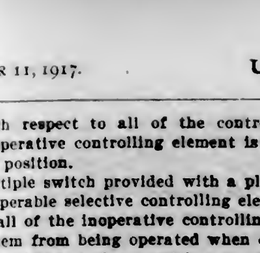
3. A multiple switch, comprising a plurality of independently-operable selective controlling elements, a resetting device common to all of said controlling elements and arranged so that it will move in one direction whenever any one of said controlling elements is rendered operative, and a locking device governed by the resetting device and arranged so that it will lock the inoperative controlling elements when a controlling element is rendered operative.

4. A multiple switch provided with a plurality of independently-operable selective controlling elements, a resetting or restoring device for said elements, means combined with said controlling elements and said resetting device for causing said device to move in one direction when any one of said controlling elements is rendered operative and for causing the operative controlling element to be restored to its inoperative position when said resetting device is moved in the opposite direction, and means cooperating with said resetting device for preventing the inoperative controlling devices from being operated.

5. A multiple switch provided with a plurality of movable electrical contractors arranged in a group, a locking device that is moved automatically into position to lock all of the inoperative connectors when one of the connectors is rendered operative, and a restoring device common to all of said connectors that control said locking device.

[Claims 6 to 15 not printed in the Gazette.]

1,239,834. DISH-PAN. MARVIN A. SMITH, Cottonwood, Ala. Filed Nov. 13, 1916. Serial No. 131,072. (Cl. 141—8.)



1. The described device consisting of inner and outer nesting pans, the walls of one seating flush against the walls of the other when in nesting relation, the bottom wall of the inner pan being perforated, and the outer pan having a horizontal ledge therearound terminating in a vertical flange, the upper edge of the inner pan having openings for handles adjacent its upper edge which extend above said ledge.

2. The described device consisting of inner and outer nesting pans, the walls of one seating flush against the walls of the other when in nesting relation, the bottom of the inner pan being perforated and the outer pan having a horizontal ledge therearound terminating in a vertical flange, the upper edge of the inner pan having openings for handles adjacent its upper edge which extend above said ledge, said pans being oval and having inclined side walls, the extreme width of said outer pan within said flange equaling the length of said bottom.

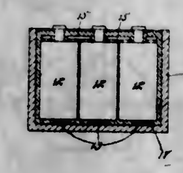
3. The described device consisting of inner and outer nesting pans, the bottom of the inner pan being perforated and the outer pan having a horizontal ledge therearound terminating in a vertical flange, the upper edge of the inner pan having openings for handles adjacent its upper edge which extend above said ledge, said pans being oval and having inclined side walls, the extreme width of said outer pan within said flange equaling the length of said bottom, said ledge forming a seat for the inner pan when the latter is mounted transversely on the outer pan.

4. The described device consisting of inner and outer nesting pans, the bottom of the inner pan being perforated and the outer pan having a horizontal ledge therearound terminating in a vertical flange, the extreme width of said outer pan within said flange equaling the length of said bottom, said ledge forming a seat for the inner pan when the latter is mounted transversely on the outer pan, said flange forming means for holding said inner pan against movement when seated upon the ledge.

5. The described device consisting of a pair of oval pans adapted to closely nest one within the other, said inner one having a perforated bottom, the outer of said pans having a horizontal ledge terminating in a right angular flange, said pans being of approximately the same depth, the side walls of said pans being oblique, the length of the bottom of the inner pan being equal to the width of the upper part of said outer pan whereby the inner pan may seat crosswise on said ledge and be held against movement by said flange.

[Claim 6 not printed in the Gazette.]

1,239,835. STORAGE BATTERY AND METHOD OF MAKING SAME. ROLAND L. SMITH, Everett, Mass. Filed May 17, 1917. Serial No. 169,211. (Cl. 204—29.)



1. The improved battery having a battery box and a cell therein, a supporting member beneath the cell, and in contact with both the battery box and the cell, and a layer of hardened insulating compound surrounding said supporting member and interposed between the cell and the battery box.

3. The novel method of making batteries which consists in placing in the battery box an insulating acid resisting support in position to support the cell, filling the battery box partly with melted insulating compound, and then putting the cell in place with its bottom resting on the said support.

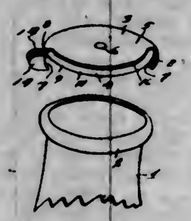
6. The novel method of making a battery which consists in placing an insulating acid resisting button in the battery box in position to support the cell, placing temporary spacers against the inside of the box, filling the battery box partly with melted insulating compound, then putting the cell in place with its bottom resting on the said button, and after the compound is partly hardened, and while a portion of it is still liquid, removing the said temporary spacers, and adding more melted compound to bring the compound to a predetermined level.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,239,836. BOTTLE-CLOSURE. HARRY W. SPANGLER, Allentown, Pa. Filed Apr. 22, 1917. Serial No. 161,459. (Cl. 215—14.)

2. A closure for a milk bottle, comprising a pair of complemental disks pivoted together axially, said disks having semi-circular flanges curved in cross section to engage under the bead of the mouth end of the bottle, and provided with semi-circular cut away portions, the flange of each disk being diametrically opposite the cutaway portion of said disk, so that by partially rotating the disks, may assume positions in registration with each other,

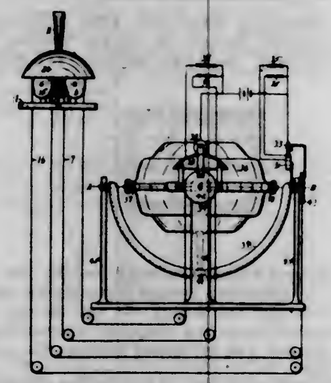
whereby the cover may be applied or removed on or off the bottle, one end of each flange having a lateral ear, whereby its respective disk may be rotated, said ears adapted to coöperate to limit the disks with the cut away



portions in registration, the ear of one flange to coöperate with one end of the other flange to limit the disks in their closed positions.

[Claims 1, 3, and 4 not printed in the Gazette.]

1,239,837. UNIVERSAL CONTROL-HANDLE. LAWRENCE B. SPERRY, Brooklyn, N. Y., assignor to The Sperry Gyroscope Company, Brooklyn, N. Y., a Corporation of New York. Filed Feb. 25, 1915. Serial No. 10,457. (Cl. 244—29.)

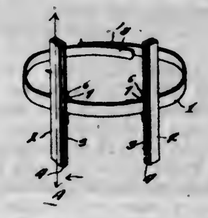


1. In a control device for aeroplanes, a pair of contacts, the relative position of which is shifted by tilting of the aeroplane about one axis, a second pair of contacts shifted by tilting about the other axis, means for governing the stability of the aeroplane controlled by said contacts, a hand control device for adjusting the position of both pairs of contacts comprising a handle supported so as to be turned about both of said axes, and means connecting said handle and contacts whereby rotation of the device about either axis will cause tilting of the aeroplane about such axis.

2. In a control device for aeroplanes, a pair of contacts the relative position of which is shifted by tilting of the aeroplane about one axis, means for governing the stability of the aeroplane controlled by said contacts, a control handle, a cam like member connected to said handle, and transmission means connecting said member and one of said contacts, whereby the amount of relative movement transmitted to the contact is less when the two contacts are near the same position.

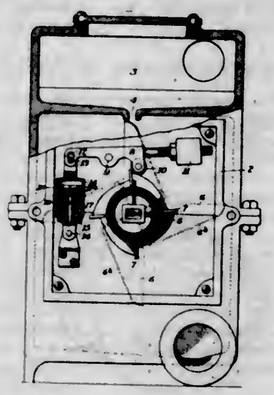
3. A control device for aeroplanes comprising a shaft journaled for rotation, a control handle pivoted on said shaft at an angle to the axis of the shaft, a swinging loop journaled on an axis lying in the same plane as the pivotal axis of said handle, said loop being only responsive to movements of said handle at an angle to said plane, a cam like member connected to said shaft, a second cam like member connected to said loop, transmission means connecting said members with means for controlling the aeroplane about its respective axes, whereby the relative amount of movement transmitted to said means is dependent upon the position of the handle.

1,239,838. CARD-HOLDER. GEORGE SPUCHLER, Kansas City, Mo. Filed Aug. 31, 1916. Serial No. 117,894. (Cl. 40—16.)



In a card holder, the combination of a resilient band and a pair of vertical strips, of metallic straps attached to the strips and in surrounding relation to the band, the strips being channeled and having the channels closed at the bottoms by end walls, the straps being arched and holding the band in close frictional contact with the strips, the outside arched portion of the straps being adapted to frictionally engage the surface of the object to which the band is attached, so that they may give the strips additional security against displacement.

1,239,839. MECHANISM FOR WEIGHING LIQUIDS. WERNER I. STAAF, Pittsburgh, Pa., assignor to Edward B. Tyler, Pittsburgh, Pa. Filed June 10, 1916. Serial No. 102,878. (Cl. 253—16.)



1. In an apparatus for weighing liquids, the combination with a rotary shaft having a plurality of liquid-receiving buckets or receptacles, of a controlling device for said shaft and buckets, said device comprising a cam member having projecting stops, a weighted lever in engagement with the cam member, and a dash-pot device connected to said lever, substantially as described.

2. In an apparatus for weighing liquids, the combination with a rotary shaft having a bucket, of a cam wheel connected to said shaft and having a cam surface of gradually increasing radius and terminating in a stop whose outer edge projects beyond the cam surface, a weighted lever coöperating with the cam, and a dash-pot device connected to said lever, substantially as described.

3. In an apparatus for weighing liquids, the combination with a rotary shaft having a bucket, of a cam wheel connected to said shaft and having a cam surface of gradually increasing radius and terminating in a stop whose outer edge projects beyond the cam surface, a weighted lever coöperating with the cam, and a dash-pot device connected to said lever, said dash-pot device comprising telescoping cylinder and plunger members having

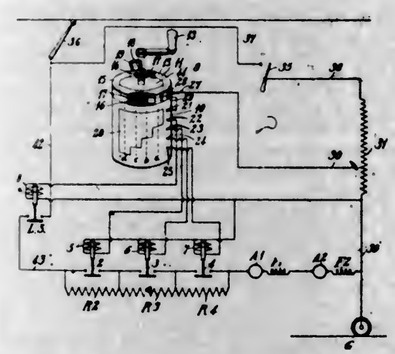
escape ports arranged to be moved into and out of register, substantially as described.

4. In an apparatus for weighing liquids, the combination with a rotary shaft having a plurality of buckets or receptacles, of a cam member connected to said shaft, said member having a plurality of cam surfaces, each of which is of gradually increasing radius in the direction of rotation of said member, a pivoted lever having one arm engaging the cam wheel, and a dash-pot device connected to said lever and having escape openings arranged to be moved into and out of register with each other, substantially as described.

5. In mechanism of the character described, the combination of a bucket shaft, a cam member connected to said shaft, a weighted lever adapted to engage the cam member, and a dash pot device having a movable member provided with a lost motion connection with said lever, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

1,239,840. CONTROL SYSTEM FOR ELECTRIC MOTORS. NORMAN W. STORER, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed June 18, 1913. Serial No. 774,394. (Cl. 172—179.)



1. In a control system, the combination with electric translating means, and a plurality of electrically controlled switches for governing the operation thereof, of a master controller for controlling the operation of said switches and comprising a main contact-bearing drum adapted to govern the circuits of said switches, a frictionally driven auxiliary member having contact members adapted to govern the main energising control circuit, and means for limiting the movement of said auxiliary member.

2. A control system comprising an electric translating device, control means therefor, and a master controller adapted to occupy a plurality of positions for governing the control means and comprising a main contact-bearing drum, an auxiliary member, a friction coupling operatively connecting said main drum and said member, and means for limiting the rotative movement of said member, whereby any predetermined backward movement of the drum returns the member to its initial position.

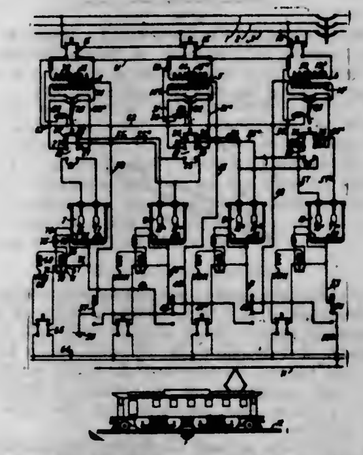
3. A control system comprising an electric translating device, control means therefor, a master controller for governing the control means and comprising a movable contact-bearing member embodying a main section, an auxiliary section, a friction clutch connection for operatively connecting said sections, a plurality of stationary contact terminals, and a movable contact member on the auxiliary section adapted to engage two of the stationary contact terminals as the master controller is rotated forwardly and adapted to become disengaged from said terminals when the main section is moved backwardly.

4. A control system comprising an electric translating device, control means therefor, a master controller for governing the control means and comprising a movable contact-bearing member having a main section, an auxiliary section, a friction clutch operatively connecting said sections, a plurality of stationary contact terminals, and a movable contact member on the auxiliary section adapted to engage two of the stationary contact terminals as the master controller is rotated forwardly and adapted to become disengaged from said terminals when the main section is moved backwardly, the contact member associated with the auxiliary section being adapted to govern the completion of the translating device circuit.

5. In a control system, the combination with a motor and a supply circuit, a line switch and a plurality of independently actuated resistor-switches for connecting the motor to the supply circuit and governing the acceleration thereof, and a controller for governing the operation of said switches and embodying means for causing the opening of said line switch if moved backward a predetermined slight amount.

[Claims 6 to 8 not printed in the Gazette.]

1,239,841. MERCURY-RECTIFIER DISTRIBUTING SYSTEM. NORMAN W. STORER, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 8, 1916. Serial No. 76,011. (Cl. 175—294.)



1. A system of distribution comprising an alternating-current supply circuit, a transformer having its primary winding connected thereto, a current rectifier having its anodes connected to terminals of a secondary winding of the transformer, a distributing circuit for the rectified current connected to the rectifier cathode and the secondary winding of the transformer, and a single device for protecting the rectifier and transformer against both internal short circuits and overloads on the distributing circuit.

7. A system of distribution comprising a polyphase alternating-current supply circuit, a transformer for each phase thereof having its primary winding connected to its respective phase conductors, a plurality of current rectifiers having their anodes connected to the secondary windings of the transformers, said rectifiers being connected in series relationship through conductors extending between the rectifier cathodes and mid-points on the transformer secondary windings, a distributing circuit for the rectified current, double-pole circuit interrupters associated with the transformer secondary windings, and connections for selectively associating each pair of phase-conductors with any one of a plurality of rectifiers.

[Claims 2 to 6 not printed in the Gazette.]

1,239,842. BOWL-SUPPORT. WILLIAM E. SURFACE, Decatur, Ill., assignor to Faries Manufacturing Co., Decatur, Ill., a Corporation of Illinois. Filed Dec. 17, 1915. Serial No. 67,206. (Cl. 240—91.)

1. A support for indirect lighting bowls comprising a spiral of flexible material, a binding post secured to one

extremity of the spiral and having an opening to receive a portion of the spiral, a second binding post having an opening to slidably receive the opposite end of the spiral and having an opening to slidably receive a portion of the central part of the spiral, adjacent the first mentioned end, whereby the ends of the spiral may be adjusted with relation to each other, and lamp supporting brackets adjustably held on said spiral.



2. A support for indirect lighting bowls comprising a flexible spiral, means carried by the spiral for adjusting one end with relation to the other, light supporting brackets, each of the brackets having one of its ends extending around a portion of the spiral, and means for clamping said end to the spiral to allow an adjustment of the bracket with relation thereto.

1,239,843. **CANDLE-TUBE SUPPORT.** WILLIAM E. SURFACE, Decatur, Ill., assignor to Farlee Manufacturing Co., Decatur, Ill., a Corporation of Illinois. Filed Jan. 27, 1916. Serial No. 74,545. (Cl. 240—52.)



1. A candle tube support comprising the combination of two tubes, each of said tubes having threads on one end, said threaded portion being integral with said tube and having part of their side walls cut away, one of said tubes tubes being adapted to telescope the other, means to determine the regulation of the distance between the threaded portions, and means to lock the tubes in the desired position.

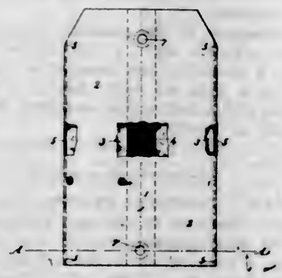
2. A candle tube support comprising the combination of two tubes, each of said tubes having threads on one end, said threaded portion being integral with said tube and having part of their side walls cut away, one of said tubes being adapted to telescope the other, means to determine the regulation of the distance between the threaded portions, means to lock the tubes in the desired position, there being a slot cut in the outer tube and a set screw mounted in the other which is adapted to slide in the said slot, whereby the length of the support may be varied and then held in the desired position.

3. A candle tube support comprising the combination of two tubes, one of which telescopes within the other, a portion of the side walls of each tube being cut away, threads cut upon an integral portion of said tubes, means to regulate the distance between the threaded portions and means to lock the two tubes together in the desired position.

1,239,844. **TAG.** CHARLES B. TEWKSBURY, Boston, Mass., assignor, by mesne assignments, to Safeguard Tag Company, Portland, Me., a Corporation of Maine. Filed June 28, 1912. Serial No. 706,757. (Cl. 40—27.)

1. A tag formed from a sheet of material having its longitudinal edges folded back so as to abut and a reinforcing strip underlying the abutting edges, said material and reinforcing strip being punctured and bent over so as to form an eyelet and to clench the reinforcing strip to each of the longitudinal edges of said other material.

2. In a tag having a multi-ply body portion, the outside surface of one ply being smooth, the combination of a metal reinforcing strip with a serrated surface between said plies, said body portion and said reinforcing strip being punctured and bent over upon themselves so as to form an eyelet and to clench the metal strip to a ply of the body portion and to form a smooth, rounded edge entirely around said puncture, and a strand of flexible reinforcing material between said plies running substantially parallel to the metal reinforcing strip but nearer the longitudinal edge of said tag.



3. In a tag having a multi-ply body portion, the combination of a metal reinforcing strip between said plies, said body portion and said reinforcing strip being punctured and bent back upon themselves so as to form an eyelet and to clench the metal strip to a ply of the body portion and to form a smooth, rounded edge entirely around said puncture, and a strand of flexible reinforcing material between said plies running substantially parallel to the metal reinforcing strip but nearer the longitudinal edge of said tag.

4. A tag which comprises in combination a body formed of two layers of sheet material adhesively united together, a longitudinal reinforcement for said body, consisting of a flat relatively wide metal strip disposed between said layers and adhesively held in place therebetween, said strip and layers having coinciding holes therein for the reception of means for attaching said tag to a parcel, and combined attachment protecting and sheet material retaining means, integrally united to and formed directly from the metal of said strip, at said hole therein, for preventing said tsrip from abrading said attaching means at any point whatsoever in the peripheral wall of said hole and for holding the edge of the hole in one layer of said sheet material close to said metal strip, securely around said periphery of said hole.

1,239,845. **ADJUSTABLE WINDOW SHADE AND CURTAIN SUPPORT.** CLYDE S. TIBBETTS and WALTER TIBBETTS, Indianapolis, Ind. Filed Sept. 23, 1915. Serial No. 52,280. (Cl. 156—24.)



In a window shade and curtain supporter, the combination with a roller-bracket, and a socket fixed on the roller-bracket, of a curtain-pole bracket comprising a shaft arranged in said socket, a main member fixed on said shaft, an arm fixed on said main member and extending upwardly, a saddle member fixed to the top of said arm and extending downwardly therefrom, a seat bar fixed to said seat member and extending forwardly therefrom, said seat bar extending upwardly and having an upwardly-facing shoulder, and a stud fixed to and extending upwardly from said shoulder.

1,239,846. **BUTTON-FEEDING MECHANISM FOR BUTTON-ATTACHING MACHINES.** ALBERT H. TOLIN, Anderson, Ind., assignor, by mesne assignments, to William J. Woolley, Anderson, Ind. Filed Nov. 30, 1914. Serial No. 874,723. (Cl. 218—12.)



1. In a button-attaching machine, an inclined chute for movably guiding the buttons, a guide plate fixedly supported above the chute and having a slot therein, and a tumbling stop device pivotally supported upon the guide plate and having a finger to be moved through the slot and into the path of movement of the buttons, the device having also a controlling arm normally engaging the top of the guide plate.

2. In a button-attaching machine, a housing having a table thereon, a magazine fixedly connected to the housing above the table, a chute extending from the top of the magazine, an elevator extending through and vertically movable in the bottom of the magazine and provided with a controlling rod that extends through the table, the rod having two stop devices thereon arranged respectively above and below the table, and means for lifting the elevator to carry buttons from the magazine to the chute.

3. In a button-attaching machine, an inclined chute for movably guiding buttons, a guide plate fixedly supported above the chute, a curved guide bar connected to the lower end of the chute, a gate hinged to the top of the guide plate and extending downward over the lower end of the guide plate to the guide bar to hold the buttons, and a lifting device hinged to and normally resting on the top of the guide plate and having a finger extending under a portion of the gate for lifting the gate to release the buttons, the lifting device having a projecting handle portion.

4. In a button-attaching machine, a gravity chute having two guide channels converging each to the other and also a single channel extending from the junction of the convergent channels, the chute having also two straight guide channels extending to the two convergent channels respectively, a magazine frame connected to the chute and having two guide channels that extend to the two convergent channels respectively, a magazine body secured to the magazine frame and having a partition wall therein on a plane between the straight guide channels, and two elevators vertically guided on opposite sides respectively of the partition wall and having channels for carrying the buttons to the two straight channels.

5. In a button-attaching machine, a chute for guiding buttons, a curved guide extending downwardly from the end of the chute and having a guide channel therein, a pivotally supported lever provided on its free end with a pivot, an open head swingingly hung on the pivot and provided below the pivot with a guide pin, a finger bar movably arranged in the head and having two slots therein, one slot receiving the pivot and the other receiving the guide pin for vertically guiding the finger bar, the finger bar having on its lower end a thumb and also a finger projecting below the thumb, the thumb being normally guided in the guide channel, a spring connected to the head and the finger bar for yieldingly forcing the bar downward in the head, and a spring cooperating with the lever and the head for yieldingly forcing the thumb of the finger bar into the guide channel.

[Claims 6 to 16 not printed in the Gazette.]

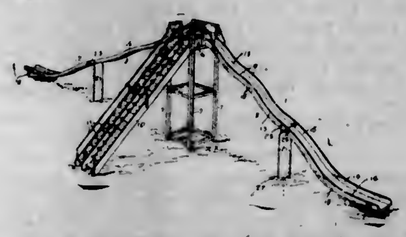
1,239,847. **UNIVERSAL SCREW-DRIVER.** GEORGE TOWNILL, Plainfield, Ill. Filed Jan. 12, 1917. Serial No. 142,049. (Cl. 145—69.)



1. In a screw driver, the combination with a sectional shank, one section bearing a handle and the second section bearing a driver, of a universal joint connecting said sections, a sleeve loosely mounted on the handle section, a collar adjustably mounted on the sleeve, a collar rotatably mounted upon the driver section, and an arm pivoted to and connecting said collars.

[Claim 2 not printed in the Gazette.]

1,239,848. **WAVE COASTER-SLIDE.** PAUL V. TOWNSEND, Anderson, Ind., assignor to American Playground Device Company, Anderson, Ind., a Corporation of Indiana. Filed Oct. 4, 1916. Serial No. 123,655. (Cl. 46—37.)



1. A coaster slide having a plurality of downward curves and a plurality of upward curves merging therewith, said slide comprising a pair of sinuous risers and a smooth metal covered floor connecting them, said slide being in two transversely separable members, a socket plate bolted to one member of the slide and having an extension overlapping the other slide member, means fixed to said other slide member to engage said plate and draw said slide members together, and a post in the socket supporting the socket plate.

2. A coaster slide having a plurality of downward curves and a plurality of upward curves merging therewith, said slide comprising a pair of sinuous risers and a smooth floor connecting them, said slide being in two transversely separable members, dowel pins in their meeting ends, a metal plate bolted to the outside of one member of the slide, said plate having an under side post socket and a perforated lug on an extension of the plate which overlaps the other slide member, a second plate with a perforated lug bolted to the last named slide member, a bolt connecting the two lugs to draw the slide mem-

bers together, means to secure the plate to said last slide member and a post to enter the socket in the plate and extend to the ground to support the slide at said joint.

1,239,849. BUCKLE. FRANK E. VANDERCOOK, Waterbury, Conn. Filed June 27, 1916. Serial No. 106,252. (Cl. 24—200.)



1. A buckle bent from a single length of wire in the form of a figure 8 and having end bars and an intermediate bar, all of said bars parallel to each other and lying in the same plane, the extremities of the wire length being located adjacent the intermediate bar, said buckle having means for locking said extremities to the intermediate bar.

2. A buckle bent from a single length of wire and having single end bars and a double intermediate bar, all lying in the same plane, the extremities of the wire length being located at the intermediate portion of the buckle, and lying in the same plane, said buckle having means for securing said extremities to the intermediate portion of the buckle.

3. A wire buckle made from two loops and having the extremities of the wire lying in the same plane as the intermediate portion of the buckle, said buckle having means integral therewith for locking said extremities directly to such intermediate portion.

4. A buckle made from a single length of wire and having a diagonal intermediate portion with notches or recesses, the respective end portions of the wire being bent into said recesses to interlock said end portions with the intermediate portion of the buckle; substantially as described.

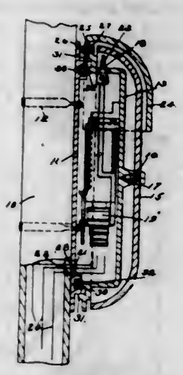
5. A buckle or the like having a loop made from a single length of wire, said wire having an angular locking recess formed therein at one side of the loop, and one extremity of said wire lying in the plane of said loops and being pointed to engage in said recess to complete the loop and prevent the opening thereof; substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,239,850. CROSSING-BELL. EUGENE W. VOGEL, Oak Park, Ill., assignor to Chicago Railway Signal and Supply Company, Carpentersville, Ill., a Corporation of Illinois. Original application filed June 5, 1914, Serial No. 843,226. Divided and this application filed Nov. 6, 1914. Serial No. 870,617. (Cl. 177—7.)

1. In apparatus of the character described, the combination with signaling mechanism, of a housing for supporting and inclosing the same comprising a pair of housing members, one adapted to be secured to a support and the other hinged to the first named member, one of said members being formed with a pair of circumferential ribs constituting a groove and the other with a flange adapted to overlap the outer one of said ribs and with a rib within said flange, and a gasket in said groove against which said last named rib bears.

4. In apparatus of the character described, the combination with signaling mechanism, of a housing for supporting and inclosing the same comprising a pair of housing members, one adapted to be secured to a support and the other hinged to the first named member, one of said members being formed with a pair of circumferential ribs constituting a groove and the other with a flange adapted to overlap the outer one of said ribs and with a rib within said flange, a gasket in said groove against which said last named rib bears, and a bell secured to and inclosing said hinged housing member, said mechanism being mounted in said hinged housing member.

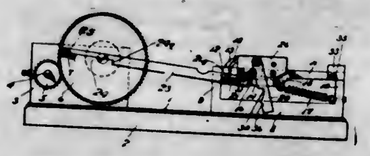


5. In apparatus of the character described, the combination with a housing member adapted to be sustained in a fixed position, of a hollow housing member hinged to said first named member, a bell secured to one side of said hinged housing member and surrounding the same so that its edge stands close to the housing, and bell ringing mechanism secured within and surrounded by said hinged housing member.

11. In apparatus of the class described, a flat supporting member, a hollow housing member hinged to said supporting member and forming with it an inclosed space, a bell ringing mechanism located in said space and secured to said hinged member adapted to be exposed when the hinged member is swung open, and a bell secured to the exterior of said hinged member and surrounding it.

[Claims 2, 3, and 6 to 10 not printed in the Gazette.]

1,239,851. MACHINE FOR MAKING CROCHET-NEEDLES. ALBERT F. VORCE, Grand Rapids, Mich., assignor of one-third to Warren H. Stansberry and one-third to Edwin H. Witherell, Grand Haven, Mich. Filed June 12, 1916. Serial No. 103,263. (Cl. 153—16.)



1. In combination, a support, a table carried thereby, a bar suspended from the table, a die having a sharp end located above the table, said end coming directly above the end of the table, a member connected to the end of the bar and mounted to turn upwardly and around the end of the die on longitudinal movement of the bar, means to periodically operate the bar, and means automatically operated with the bar operating means to clamp a needle rod under the die and said member.

2. In combination, a table, a support therefor, a plate projecting upwardly from the table, a die having an inclined upper face pivotally mounted on the plate, a cam rotatively mounted on the plate above the inclined face of the die, a lever connected with the cam and operating normally by gravity to force said cam against the die, a bar suspended from the table, a member connected to one end of the bar adapted on longitudinal movement thereof in one direction to turn around the end of the die, an operating bar connected to said bar, means to give a reciprocatory movement to the operating bar, and a pin on said operating bar adapted in one position to engage against the lever and release the die.

3. In combination, a mechanism for turning a hook at one end of a needle rod, including a table, a bar suspended from the table, means operated by movement of the bar for turning said hook, a member mounted for rotation, means to rotate said member, a pin projecting from the member, a pin projecting from the bar, and a bar provided at one end with a slot having an enlarged portion at one end and with a longitudinal recess cut therefrom on its under side at the other end interposed between said pins, the pin on the rotating member being received in the recess, and the pin on the first bar entering into said slot.

4. In combination, a table, a member having an inclined upper face and a pointed end pivotally mounted above the table, a cam rotatively mounted above the inclined face of the member, a lever secured to said cam and normally dropping by gravity to thereby turn the cam against the member and force it toward the table against a needle bar held between the member and table, means for turning one end of said bar around the pointed end of the member to turn a hook, and means for engaging with the lever to turn the cam and release the member after the hook is formed.

5. In combination, a table, a member having an inclined upper face and a pointed end pivotally mounted above the table, a cam rotatively mounted above the inclined face of the member, a lever secured to the cam and normally actuated by gravity to turn the cam against said member and thereby hold a needle bar interposed between the member and table against movement, a device for turning one end of said needle bar around the pointed end of the members to make a hook, an operating bar, mechanism connecting said bar with said hook turning device, means for periodically reciprocating the operating bar, and means on said bar for engaging against the lever and turning the cam to release said member after the hook is formed.

[Claims 6 to 9 not printed in the Gazette.]

1,239,852. RECEIVER OF ELECTRICAL IMPULSES. FREDERICK K. VREELAND, Montclair, N. J., assignor to Vreeland Apparatus Company, Inc., New York, N. Y., a Corporation of New York. Filed Jan. 2, 1907. Serial No. 350,476. (Cl. 250—20.)



1. A receiver of sustained high frequency signal impulses, wherein are combined a detector, a local source of sustained alternating currents of slightly different frequency from the signal impulses and means for combining the local currents with the signal impulses and applying the resultant beat current to the detector, substantially as set forth.

2. A receiver of sustained high frequency signal impulses, wherein are combined a detector, a local source of sustained alternating currents of slightly different frequency from and greater intensity than the signal impulses and means for combining the local currents with the signal impulses and applying the resultant beat current to the detector to produce an amplified response, substantially as set forth.

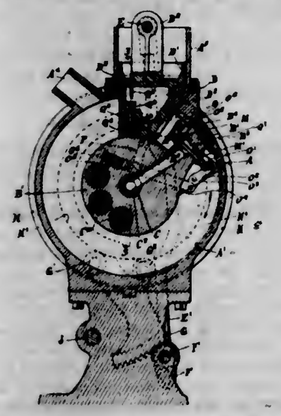
3. A receiver of sustained high frequency signal impulses, wherein are combined a detector, a local source of sustained alternating currents of slightly different frequency from the signal impulses, means for combining the local currents with the signal impulses and applying the resultant beat current to the detector, and means for selectively observing the beats, substantially as set forth.

4. A receiver of sustained high frequency signal impulses, wherein are combined a detector, a local source of sustained alternating currents of slightly different frequency from the signal impulses, means for combining the local currents with the signal impulses and applying the resultant beat current to the detector, and means turned to the beat frequency for selectively observing the beats, substantially as set forth.

5. A receiver of sustained high frequency signal impulses, wherein are combined a local circuit, means for impressing the signal impulses upon such circuit, a local source of sustained high frequency oscillations of slightly different frequency from the signal impulses, means for impressing these latter oscillations upon such local circuit so as thereby to be combined with the signal impulses and produce a resultant beat current, and a detector acted upon by the beat current and directly responsive thereto, substantially as set forth.

[Claims 6 to 28 not printed in the Gazette.]

1,239,853. ROTARY INTERNAL-COMBUSTION ENGINE. FRANK WALTER, Philadelphia, Pa., assignor to Enos F. Schlichter, Philadelphia, Pa. Filed July 29, 1916. Serial No. 111,970. (Cl. 123—14.)



1. In an internal combustion engine of the rotary piston type, the combination with the engine cylinder of a rotary piston working therein and formed with a charge receiving chamber, a valve carried by the piston and controlling communication between said chamber and the cylinder space in which the piston works and means for delivering fuel charges to, and igniting them in said chamber.

8. In an internal combustion engine of the rotary piston type, the combination with the engine cylinder of a rotary piston working therein and formed with a charge receiving chamber and with an axial supply passage communicating with said chamber, a valve and actuating means therefor carried by the piston and controlling communication between said chamber and said cylinder, and a fuel precompressing device actuated by said piston for delivering a fuel charge to said chamber through said axial passage at regular intervals in the operation of the engine.

12. In an internal combustion engine of the rotary piston type, the combination with a working cylinder, of a rotary piston working in said cylinder and provided with a cylindrical body portion of smaller diameter than said cylinder and a projection from said body portion extending into engagement with the peripheral wall of said cylinder and formed with a charge receiving chamber communicating with said cylinder through a port formed in the rear wall of said projection, a valve mechanism controlling said port and including an actuating device movably mounted in the piston and normally projecting from the periphery of the body portion of said piston in close proximity to the rear face of said projection, and an abutment movable in timed relation with the piston movements from one position in which it extends across the path of said piston projection to a second position in which it clears said path, said abutment comprising a front edge portion engaging said actuating member and opening said port as it moves into the first mentioned po-

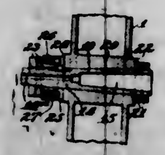
sition, and a relatively movable rear portion adapted to engage the periphery of the body portion of said piston before the latter is engaged by the forward edge of said forward edge portion.

[Claims 2 to 7, 9 to 11, and 13 not printed in the Gazette.]

1,239,854. COMPOSITION OF MATTER FOR THE WELDING AND SOLDERING OF ARTICLES CONSTRUCTED OF ALUMINUM. CLARANCE CHARLES WELLS, Fort Worth, Tex. Filed June 23, 1917. Serial No. 176,535. (Cl. 75—1.)

The herein described composition for welding and soldering articles constructed of aluminum, consisting of aluminum one part, lead three parts, block tin seven parts and zinc two parts, substantially as described.

1,239,855. SPINDLE FOR MILLING-MACHINES. JOHN L. WHEELER, St. Louis, Mo. Filed Oct. 22, 1914. Serial No. 867,989. (Cl. 64—25.)



1. In a milling machine or the like, a taper-bored bearing having end thrust shoulders at opposite ends thereof, a spindle having a counterpart tapered portion journaled in said bearing, an adjustable shoulder on said spindle adjacent to the larger end of its journal portion and cooperating with the end thrust shoulder at the corresponding end of the bearing for taking the thrust and limiting the endwise movement of the spindle in one direction, an adjustable shoulder on said spindle adjacent to the smaller end of its journal portion and coöperating with the end thrust shoulder at the corresponding end of the bearing, and a spring-pressed device interposed between said two last-mentioned shoulders, whereby the spindle is yieldably held with its first-mentioned shoulder against the end thrust shoulder at the adjacent end of the bearing.

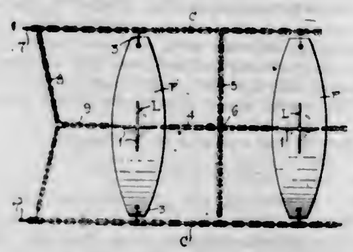
2. In a milling machine or the like, a taper-bored bearing, a spindle having a counterpart tapered journal portion fitted to said bearing, an end thrust shoulder on said bearing at the smaller end of the bore thereof, a thrust shoulder on said spindle opposed to said first mentioned shoulder, and resilient means interposed between and acting against said two thrust shoulders.

3. In a milling machine or the like, a bearing, a spindle journaled in said bearing, a collar on said spindle abutting the end of said bearing for taking the end thrust and limiting the endwise movement of the spindle in one direction, a ring mounted on said spindle so as to rotate therewith but having free movement endwise thereon, said ring normally abutting the opposite end of the bearing, a thrust collar on said spindle adjacent to said ring, and resilient means on said spindle interposed between and acting against said last-mentioned thrust collar and said ring so as to hold the latter against the end of the bearing and the spindle yieldably with its first-mentioned thrust collar against the opposite end of the bearing.

4. In a milling machine or the like, a bearing, said bearing having thrust faces at its opposite ends, a spindle journaled in said bearing, a thrust collar on said spindle adapted to coöperate with the end of the bearing to limit the endwise movement of the spindle in one direction, a ring mounted on said spindle adjacent to the opposite end of said bearing, said ring having recesses in its outer face and being engaged to said spindle so as to rotate therewith, but being permitted to move separately endwise thereon, a thrust collar on said spindle adjacent to said ring, a second ring interposed between said first mentioned ring and said adjacent thrust collar, said second mentioned ring having spring-pressed pins projecting from its inner face and adapted to engage in the respective recesses in said first mentioned ring, whereby the two rings are held from separate rotation and the spindle is pressed in the direction limited by said first mentioned thrust collar.

5. In a milling machine or the like, a taper-bored bearing having thrust faces at its opposite ends, a spindle having a tapered journal portion in said bearing, an adjustable thrust collar on said spindle adjacent to the larger end of the tapered journal portion thereof and in opposed relation to the thrust face at the corresponding end of said bearing, a collar on said spindle adjacent to the smaller end of the tapered journal portion thereof, said second-mentioned collar being capable of endwise movement on said spindle but fixed to rotate therewith and being in opposed relation to the trust face at the corresponding end of said bearing, said collar having recesses in its outer face, an adjustable thrust collar on said spindle beyond said second-mentioned collar, and another collar mounted loosely on said spindle between said last-mentioned thrust collar and said second-mentioned collar, said loose collar bearing with its outer face against said last-mentioned thrust collar and having spring-pressed pins projecting from its inner face and bearing in the recesses of said second-mentioned collar.

1,239,856. ANTISLIPPING DEVICE. MILFORD E. WICKWIRE, Lehigh, Iowa. Filed May 28, 1917. Serial No. 171,452. (Cl. 152—14.)

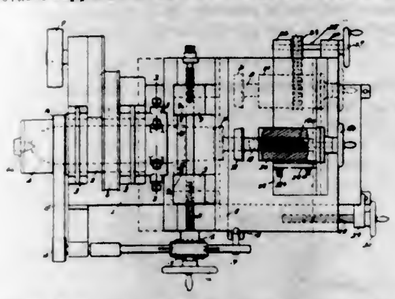


An anti-slipping device comprising side chains the ends of each chain being adapted to be secured one to the other, elongated flexible plates interposed between said side chains, links connecting the end portions of the plates to the side chains, flexible members connecting the side chains intermediate each pair of adjacent plates, flexible members connecting the opposed longitudinal marginal portions of adjacent plates, said last named flexible members being secured to the first named flexible members, a transversely disposed flexible member connecting the corresponding end portions of the side chains, said last named flexible member being of a length greater than the first named flexible member, and a flexible member connecting the last named flexible member and the adjacent end plate at substantially the longitudinal centers thereof.

1,239,857. LATHE. CHARLES F. WILLIAMS, Erie, Pa., assignor to Williams Tool Company, Erie, Pa., a Corporation of Pennsylvania. Filed Aug. 15, 1916. Serial No. 115,020. (Cl. 82—2.)

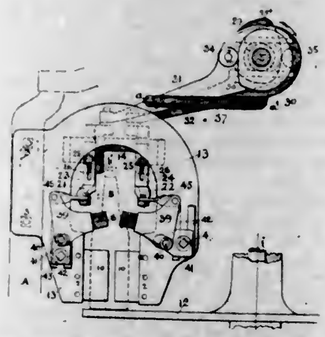
1. In a lathe, the combination of a hollow spindle; a tail block; a centering spindle carried by the tail block; means for moving the centering spindle axially to center the work; means for moving the tail block laterally to clear the opening of the hollow spindle and permit the insertion and removal of the work, and a chuck on the hollow spindle adapted to engage and clamp an inserted piece while centered by the centering spindle.

2. In a lathe, the combination of a hollow spindle; a tail block; a centering spindle carried by the tail block; means for moving the centering spindle axially to center the work; means for moving the tail block laterally to clear the opening of the hollow spindle and permit the insertion and removal of the work; a carrier for carrying the tool in position to operate upon the work; a chuck on the hollow spindle adapted to engage and clamp an inserted piece while centered by the centering spindle; and a movable support for the tool carrier and tail block.



3. In a lathe, the combination of a hollow spindle; a centering device at the rear end of the hollow spindle; a tail block; a centering spindle carried by the tail block; means for moving the centering spindle axially to center the work; means for moving the tail block laterally to clear the opening of the tail block and permit the insertion and removal of the work; and a chuck on the hollow spindle adapted to engage an inserted piece while centered by the centering spindle.

1,239,858. WIPER MECHANISM FOR LABELING-MACHINES. FRANK O. WOODLAND, deceased, Worcester, Mass., by Frances S. Woodland, Worcester, Mass., and Arthur F. Kelley, Grafton, Mass., administrators of said Frank O. Woodland, deceased, assignors to Economic Machinery Company, Worcester, Mass., a Corporation of Massachusetts. Filed Oct. 4, 1916. Serial No. 123,759. (Cl. 216—13.)



1. In a labeling machine for bottles or the like, in combination with means for advancing the bottles, oppositely acting neck-label wipers, and a wiper-supporting frame; a pair of pivotally supported wiper-carrier elements mounted on said frame, means connecting the wiper-devices with the respective wiper-carrier elements, and mechanism for operating said wiper-carrier elements and parts connected therewith, said mechanism including means for imparting to the wipers an impulse of increased pressure when said wipers are upon the extreme ends of the label, substantially as set forth.

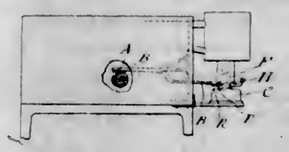
2. In a labeling machine, in combination with means for carrying forward the bottle and label; a stationary fulcrum-supporting bridge adjacently above the path of the bottles, a label wiper, wiper actuating means including a carrier having fulcrum bearings embracing said bridge, and a front seating surface, a wiper-connecting arm having an upwardly offset attaching-head matching with said seating surface, means adjustably securing said head thereon, an upright fulcrum pivot hingingly connecting the carrier bearings and supporting bridge, mechanism for oscillating said carrier including means for imparting a variable and increasing pressure to the wipers while wiping-on the labels.

4. A label wiper mechanism, including a pair of swinging lever elements, a support upon which said lever elements are fulcrumed, right and left wiper devices connected with the respective lever elements, an operating shaft having a pair of cams adjacently fixed thereon, a pair of endwise reciprocating connecting bars, their ends pivotally connected with the rearwardly projecting members of said lever elements, said bars extending directly to said cams; their heads being respectively provided with means for engagement with an actuation by said cams, and a longitudinally disposed retracting spring attached to said bars, substantially as set forth.

6. A wiper mechanism comprising an inverted U-shaped supporting frame, body-label wipers supported thereon, wiper-carrier elements fulcrumed upon said frame, neck-label wipers connected with said wiper-carrier elements, an operating shaft provided with cams fixed thereon, endwise movable connection bars having oppositely open jaws embracing the cam-center hub as a guide, and respectively provided with stud-rolls that engage the cams, the opposite ends of said bars being connected with the respective wiper-carrier elements, and a spring connected from one of said bars to the other.

[Claims 3, 5, 7, and 8 not printed in the Gazette.]

1,239,859. THERMOSTATICALLY-OPERATED BURNER FOR LAMPS FOR HEATING INCUBATORS. GILBERT W. ALLEN, Cherry Creek, N. Y. Filed Dec. 23, 1916. Serial No. 138,601. (Cl. 236—5.)



A thermostatically-operated device for heating incubators, etc., comprising a burner having a shell with a wick tube, said shell of the burner having a flat portion about said tube which is provided with a slot, a lever pivoted at one side of its center to said shell underneath the same and having a bowed arm, the convexed edge of which is adapted to bear against the under surface of the flange of said wick tube at its longitudinal center, the free end of said bowed arm resting upon a horizontal portion of the burner and the other arm of the lever projecting beyond the circumference of the burner, a thermostatically-operated tilting member one end of which is adapted to engage the outer arm of said lever, as set forth.

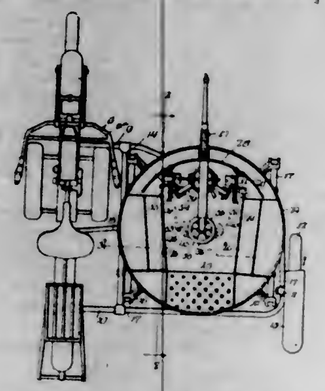
1,239,860. GUN-CARRIAGE. ADOLPH ANDERSON, Chicago, Ill., assignor to Aurora Automatic Machinery Co., Chicago, Ill., a Corporation of Delaware. Filed Aug. 16, 1916. Serial No. 115,306. (Cl. 89—40.)

1. A gun carriage, comprising a chassis, a floor adapted to revolve with respect to said chassis, a gun carried by the floor, a gunner's seat carried by the floor, dog and ratchet mechanism for turning the floor, a pedal carried by the floor, a connection between said pedal and dog and ratchet mechanism, and said gear, seat and pedal all maintaining the same relative position with respect to one another as the floor is revolved, substantially as described.

2. A gun carriage, comprising a chassis, a floor adapted to revolve with respect to the chassis, a gun carried by the floor, a gunner's seat carried by the floor, a spring connection between the floor and chassis, an adjustable rod serving as a king bolt about which the floor turns, and said rod when adjusted acting to distend said springs to remove the resiliency therefrom, substantially as described.

7. A gun carriage comprising a chassis, a floor adapted to revolve with respect to said chassis, a gun carried by said floor, a gunner's seat carried by said floor and arranged to the rear of the gun, companion foot-pedals, one

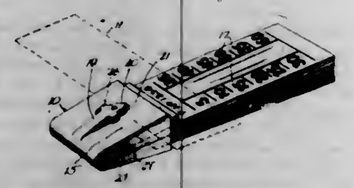
on each side of the gun arranged forward of said seat, a ratchet attached to the floor, a ratchet attached to the chassis concentric with the floor ratchet, companion arms extending to opposite sides of the ratchets and mounted to swing in a path concentric with the ratchets, an actuating pawl and a locking pawl on each arm, the actuating pawl coöperating with the floor ratchet and the locking



pawl coöperating with the chassis ratchet, a connection between each of said arms and a foot-pedal, and said gun, seat and pedals all maintaining the same relative position with respect to one another as the floor is revolved, substantially as described.

[Claims 3 to 6 not printed in the Gazette.]

1,239,861. CHECK HOLDING AND NOTCHING DEVICE. JAMES S. ARCUS, Chicago, Ill. Filed Dec. 27, 1915. Serial No. 68,792. (Cl. 211—37.)



1. A check holding and notching device comprising a resilient clamp adapted to receive and hold the stub of a book of checks, and inclosed to provide a receptacle for punchings, and a shearing device carried by the clamp and receptacle in rear of the clamping edges of the device and in position to discharge punchings into said receptacle.

2. A check holding and notching device comprising a one piece resilient clamp and punchings-receptacle adapted to engage over one end of a book of checks and a shearing member associated with one member of said clamp and movable toward a shearing edge of said member.

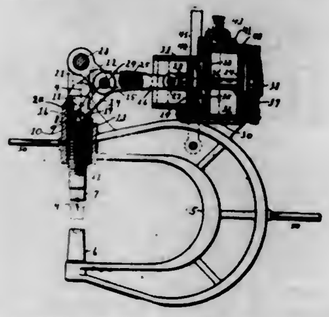
3. A check holding and notching device comprising a one piece resilient clamp, and punchings receptacle adapted to engage over one end of a book of checks; a shearing member integral with said clamp and receptacle, and a gage stop to limit the insertion of a check beneath said shearing member.

4. A check holding and notching device comprising a clamp provided in rear of its clamping edges with a shearing edge, said clamp adapted to engage at its clamping edges over one end of a book of checks and a tongue integral with and struck up from said clamp and provided with a pointed shearing edge adapted to coöperate with said shearing edge.

5. A check holding and notching device comprising a U-shaped clamp having in rear of its clamping edges a shearing edge, said clamp adapted to engage at its clamping edges over one end of a book of checks, a tongue integral with and struck up from said clamp and provided with a pointed shearing edge adapted to coöperate with said shearing edge, said tongue being provided in rear of its pointed end with an integral gage stop to limit the insertion of the check between the tongue and said clamp.

[Claims 6 to 8 not printed in the Gazette.]

1,239,862. RIVETING-MACHINE. ARCHIE M. BAIRD, Topeka, Kans. Filed Apr. 6, 1917. Serial No. 160,110. (Cl. 78—42.)



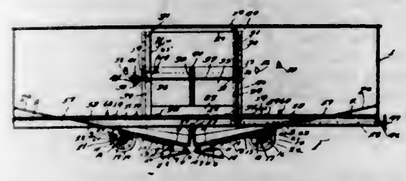
1. The combination of a yoke, a fixed die on one leg thereof, a plunger movably mounted on the other leg opposite the fixed die, a movable die carried by the plunger opposite the fixed die, a toggle-jointed element comprising two links pivoted together, one of said links being pivoted to the yoke and the other to the plunger and the last-named link being extended beyond the common pivot; a cylinder casing mounted on the yoke and formed with a relatively large cylinder bore closed at both ends and a relatively small cylinder bore arranged in tandem relation with the first-named bore and closed at the end adjacent thereto and open at the other end, said casing being also formed with ports leading to both ends of the larger bore and to the closed end of the smaller bore, pistons in each bore, a piston rod rigidly connecting the two pistons, the piston in the smaller bore being formed with pivot lugs, a link pivoted at one end to said pivot lugs and at the other end to the extension of the second-named toggle-joint member, and a valve mounted on the casing and controlling the flow of the motive fluid through said ports.

2. The combination of a yoke, a fixed die on one leg thereof, a plunger movably mounted on the other leg opposite said die, a movable die carried by said plunger opposite the fixed die, a toggle-jointed element comprising two links pivoted together, one of said links being pivoted to the yoke and the other to the plunger and formed with an extension beyond the common pivot; a cylinder casing mounted on the yoke and formed with two cylinder bores in tandem relation one of said bores being closed at both ends and the other only at one end, and said casing being also formed with ports leading to said closed ends, pistons in the respective bores, a piston rod rigidly connecting the pistons, a link pivoted at one end to the piston in the open-ended bore and at the other end to said extension, and a valve for controlling the flow of the motive fluid through said ports.

3. The combination of a yoke formed for supporting a fixed die on its lower leg and with a sleeve in its upper leg, a plunger reciprocatingly mounted in said sleeve and formed for supporting a riveting die opposed to the first-mentioned die; a toggle-joint transmission comprising an upper member pivoted at its upper end to said sleeve and a lower member pivoted at its lower end to said plunger, said upper member being pivoted at its lower end to said lower member intermediate its ends and the lower member being formed with an angular extension, beyond said intermediate pivot and inclined away from the first two named pivots, a cylinder casing mounted on the yoke, a piston in the casing, and a link connecting said extension with said piston.

4. In a pneumatic riveting machine comprising a yoke, a plunger, and a toggle-jointed element for operating said plunger, of a cylinder casing mounted on the yoke and formed with two alined cylinder bores, one of said bores being closed at both ends and the other being open at the end opposite the other bore, pistons in the respective cylinder bores, a piston rod rigidly connecting the two pistons, and a link connecting the piston in the open-ended bore with said toggle-jointed element.

1,239,863. COMBINATION FREIGHT AND GRAIN CAR. ELMER J. BEEBE and CLIDE C. MACGREGOR, Flint, Mich. Filed Nov. 15, 1916. Serial No. 131,536. (Cl. 105—184.)



1. In a bottom dump mechanism for cars, the combination of a hopper bottom having flanged discharge openings and chutes swiveled to the flanges of said discharge openings, of means for closing said discharge openings.

2. In a bottom dump mechanism for cars, the combination of a hopper bottom having flanged discharge openings and chutes swiveled to the flanges of said discharge openings, of means for closing said discharge openings, said means comprising guides upon said hopper bottom extending from said openings toward the ends of the car, slides or closures in said guides, and means for operating said slides or closures.

3. In a bottom dump mechanism for cars, the combination of a hopper bottom having flanged discharge openings and chutes swiveled to the flanges of said discharge openings, of means for closing said discharge openings, said means comprising guides upon said hopper bottom extending from said openings toward the ends of the car, slides or closures in said guides, and means for operating said slides or closures, said operating means comprising racks on said slides or closures, shafts mounted in bearings of the hopper bottom and having pinions to engage said racks, and provided with hand wheels for rotating the shafts, one end of each shaft having a ratchet, rocking rods mounted in bearings of the hopper bottom and provided with pawls to engage said ratchets to hold the closures in open positions.

4. In a bottom dump mechanism for cars, the combination of a hopper bottom having flanged discharge openings and chutes swiveled to the flanges of said discharge openings, of a division wall separating said discharge openings, and means comprising flat bottom sections foldable from the ends and the sides of the car over the hopper bottom, to form a flat bottom, thereby converting the bottom dump car into a freight car.

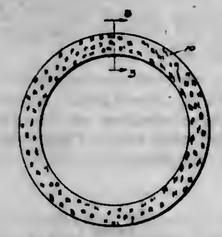
5. In a grain car door, a car door opening, a grain car door consisting of two sections, one section being hinged at the bottom of said opening and having guides at its opposite ends in which the other section is adjustably mounted, and means whereby the hinged section may be tilted upwardly and downwardly on its hinges, when said other section is lowered completely in its guides.

[Claims 6 to 8 not printed in the Gazette.]

1,239,864. CLUTCH-FACING. HARRY A. BELL and CHARLES SWOBODA, Indianapolis, Ind., assignors to Hide, Leather & Belting Company, Indianapolis, Ind., a Corporation. Filed Dec. 8, 1916. Serial No. 135,781. (Cl. 192—1.)

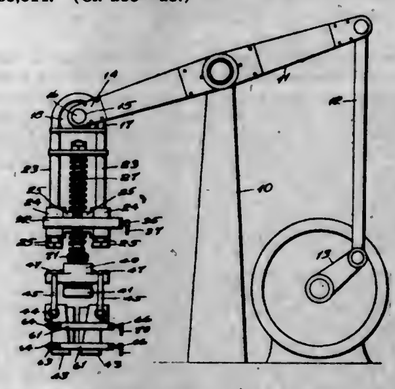
1. A disk clutch facing including a body formed of cork, a fabric facing, and means for securing said fabric facing to said cork body.

2. A disk clutch facing including a body formed of cork, a fabric facing, and cement applied between said fabric and cork for securing the two materials together.



3. A disk clutch facing including an annular body formed of cork, a thickness of fabric, and cement applied between said fabric and cork for securing them together so that they will be substantially as one piece.

1,239,865. TEMPER-SCREW CONNECTION. JOHN BERGSTEN, Taft, Cal. Filed Apr. 30, 1917. Serial No. 165,514. (Cl. 255—15.)



1. In apparatus of the character described, the combination with a vertically movable member, of a temper screw having screw-threaded engagement therewith, means to turn the temper screw upon its longitudinal axis and connected therewith for movement with the same, a longitudinally adjustable device connected with the means to drive it, and a member held against substantial vertical movement and connected with the device to operate the same.

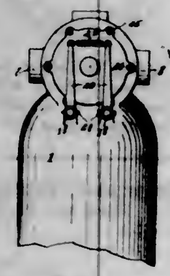
2. In apparatus of the character described, the combination with a vertically movable member, of a temper screw having screw-threaded engagement therewith and adapted to be vertically moved thereby, gearing connected with the temper screw to turn it upon its longitudinal axis and to be vertically moved thereby, a shaft connected with the gearing to drive it and extending downwardly therebelow, a rotatable member splined upon the shaft, and means for holding the rotatable member against substantial vertical movement.

3. In apparatus of the character described, the combination with a vertically movable member, of a temper screw having screw-threaded engagement therewith and adapted to be vertically moved thereby, a device connected with the temper screw to turn it upon its longitudinal axis and to be vertically moved thereby, a shaft connected with the device to drive it and depending therefrom, a relatively stationary support, and a manually operated member swiveled upon the support and splined upon a portion of the shaft.

4. In apparatus of the character described, the combination with a vertically movable member, of a temper screw having screw-threaded engagement therewith and adapted to be vertically moved thereby, a device connected

with the temper screw to turn it upon its longitudinal axis and to be vertically moved thereby, a shaft connected with the device to drive it, a manually operated member splined upon the shaft, means to hold the manually operated member against substantial vertical movement, and a suspension device pivotally connected with the lower end of the temper screw.

1,239,866. VALVE-PACKING. JOHN E. BEVINGTON, Cleveland, Ohio, assignor of one-half to Alton H. Greeley, West Dover, Ohio. Filed Nov. 3, 1916. Serial No. 129,261. (Cl. 137—7.)



1. The combination, with a valve body, of a casing therefor which is provided with a port and having a channel adjacent said port and a bore intersecting the channel, packing means within the channel, a rocking element within the bore for engaging the packing means and adapted when rocked to press it against the valve body, and means for rocking said element.

2. The combination, with a valve body, of a casing therefor having a port and a channel adjacent said port and a bore which intersects said channel, packing means within the channel, a shaft within the bore, said shaft having an eccentric portion adjacent the channel for engagement with the packing means, and means located outside of the valve casing which tends to rock the shaft.

6. The combination of a valve body, a casing therefor, packing means within the casing, a rocking element for moving the packing means into engagement with the valve body, and means for rocking said element.

7. The combination of a valve body, a casing therefor, packing means within the casing, a pair of rocking elements for moving the packing means into engagement with the valve body, and means common to both of said elements for rocking them.

[Claims 3 to 5 not printed in the Gazette.]

1,239,867. ART OF HYDROGENATING ORGANIC SUBSTANCES. JOHN WILLIAM BLAGDEN, Heidelberg, Germany, assignor to C. F. Boehringer & Soehne, Mannheim-Waldhof, Germany, a Firm. Filed Oct. 8, 1914. Serial No. 865,679. (Cl. 23—24.)

1. The method of hydrogenating alkaloids consisting in treating an alkaloidal compound in the presence of an indifferent liquor with molecular hydrogen in the presence of a catalyst of the nickel group.

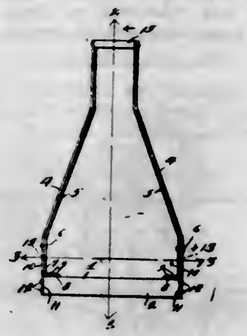
7. The method of hydrogenating quinin consisting in treating a quinin salt in aqueous solution with molecular hydrogen in the presence of a nickel catalyst under pressure while agitating the mixture.

8. The method of hydrogenating quinin which consists in treating an indifferent liquor containing quinin hydrochlorate with molecular hydrogen in the presence of a catalyst of the nickel group.

[Claims 2 to 6 not printed in the Gazette.]

1,239,868. CUSPIDOR-CARRIER. RICHARD O. BLANK, Readfield, Wis. Filed May 16, 1917. Serial No. 169,068. (Cl. 57—111.)

1. In a cuspidor carrier, a pair of gripping members adapted to grasp the funnel of a cuspidor, each gripping member comprising a semi-circular disk having a depending flange and an annular flange inturned from the lower edge of the depending flange, and carrying members connected with the grips, the carrying members being conjoined with means whereby the gripa may be separated and brought together to effect their attachment to the funnel of a cuspidor.



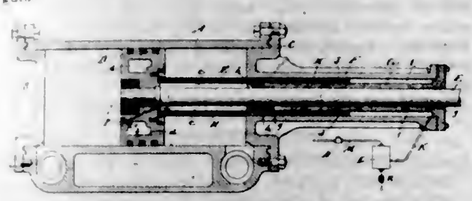
2. In a cuspidor carrier, a pair of gripping members adapted to grasp the funnel of a cuspidor, each gripping member comprising a semi-circular disk having a depending flange and an annular flange inturned from the lower edge of the depending flange, carrying members connected with the grips, the carrying members being assembled in pairs with those of each pair pivotally connected together, and handles connected with the carrying members at the ends remote from the ends connected with the gripping members, one handle connecting the carrying members attached to one grip and the other handle connecting those attached to the other grip, the two handles being adapted for movement toward and from each other, whereby the carrying members are oscillated on their pivotal connections and the gripping members separated and brought together.

3. In a cuspidor carrier, a pair of opposing gripping members adapted to grasp the funnel of a cuspidor, said gripping members consisting of semi-circular disks, which, when their adjacent edges are in contact, form a circular cover for covering the top of the cuspidor, each gripping member having a depending flange and an annular flange inturned from the lower edge of the depending flange to engage the perimeter of the cuspidor below its funnel, carrying members connected with the grips, the carrying members being assembled in pairs with those of each pair pivotally connected together, handles connected with the carrying members at the ends remote from the ends connected with the gripping members, one handle connecting the carrying members attached to one grip and the other handle connecting those attached to the other grip, the handles being adapted for movement toward and from each other, whereby the carrying members are oscillated on their pivotal connections and the gripping members separated and brought together, the lower ends of each pair of carrying members between their attachments to the grips and their pivotal connections having enlargements, one enlargement of one carrying member of each pair having a slot with closed ends, and a pin carried by the adjacent enlargement and engaging said slot.

1,239,869. GAS-COMPRESSOR. LOUIS BLOCK, Mamaroneck, N. Y. Filed Nov. 30, 1915. Serial No. 64,255. (Cl. 230—6.)

1. In a compressor of the character set forth, the combination of a movable member actuating a compressor piston, a fixed guide inclosing such member, and means inclosing such member and guide and moving with such member in gas tight contact with said guide for excluding gas from the point between said guide and member.

5. In a compressor, the combination of a cylinder-head, a tubular extension thereon, a piston, a piston-rod thereon extending axially of said extension, a tubular guide inclosing said piston-rod and carried by and separated from said extension, and a sleeve on said piston inclosing said piston-rod and separated therefrom, and arranged to reciprocate in the annular space between said extension and guide.

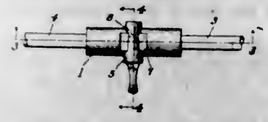


9. In a compressor, the combination of a cylinder-head, a tubular extension thereon, a piston, a piston-rod thereon extending axially of said extension, a tubular guide inclosing said piston-rod and carried by and separated from said extension, a sleeve on said piston inclosing said piston-rod and separated therefrom, and arranged to reciprocate in the annular space between said extension and guide, and a passage leading from the space between said piston-rod and sleeve to the opposite face of said piston.

11. In a compressor, the combination of a cylinder head, a tubular extension thereon, a piston, a piston-rod thereon extending axially of said extension, a tubular guide inclosing said piston-rod and carried by and separated from said extension, a sleeve on said piston inclosing said piston-rod and separated therefrom, and arranged to reciprocate in the annular space between said extension and guide, said piston having a chamber therein and a passage leading from the space between said piston-rod and sleeve to said chamber, and a delivery passage from the latter to the opposite face of the piston, and a self-closing valve in said delivery passage.

[Claims 2 to 4, 6 to 8, 10, 12, and 13 not printed in the Gazette.]

1,239,870. ANTITHEFT DEVICE FOR CONTENTS OF GAS AND OTHER PIPE-LINE SYSTEMS. CHARLES W. BRADFORD, Los Angeles, Cal. Filed Jan. 29, 1917. Serial No. 145,288. (Cl. 137—7.)



1. In combination, a cylindrical body part having a longitudinal passage therethrough adapted for connection to a pipe line, said body being provided with a relatively larger transverse bore therethrough intersecting said passage, and with a depressed exterior surface substantially parallel to said bore and intersecting it intermediate its ends; and a removable plug adapted to fit within said bore and provided with a transverse channel therethrough to register with the said passage.

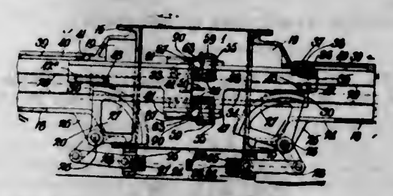
2. In combination, a body part having a passage therethrough adapted for connection to a pipe line, said body being provided with a relatively larger bore therethrough intersecting said passage, and with an exterior surface substantially parallel to said bore and intersecting it intermediate its ends; and a plug adapted to fit within said bore and provided with a channel therethrough to register with the said passage.

3. In combination, a body part having two intersecting passages therethrough, and an exterior surface substantially parallel to one of said passages and intersecting it intermediate its ends; and a plug adapted to fit within said last mentioned passage to close the opening made therein by said intersecting surface, said plug being provided with a transverse channel therethrough to register with the other said passage.

4. In combination, a body part having a longitudinal bore and a transverse intersecting bore therethrough, said body being provided with an exterior surface substantially parallel to and intersecting said transverse bore intermediate its ends; and a plug adapted to fit within said transverse bore to close the opening made by said intersecting surface and provided with a channel therethrough to register with the said longitudinal bore.

5. In combination, a pipe coupling having a longitudinal passage therethrough and a transverse bore intersecting said passage, and provided with an exterior surface substantially parallel with said transverse bore and intersecting it intermediate its ends; and a plug adapted to fit within said bore to close the gap formed by the intersection of said surface, said plug being provided with a transverse channel to register with said longitudinal passage.

1,239,871. BALING-PRESS. FOKKO H. G. BRANDT and JOHN R. EVANS, Kansas City, Kans., assignors to Evans-Brandt Manufacturing Company, Kansas City, Kans., a Corporation of Kansas. Filed June 24, 1914. Serial No. 846,979. (Cl. 100—20.)



1. In a baling press, a baling case having opposite side openings, and wire guides at the forward side and wire-receiving openings at the rear side of the said side openings, and doors controlling said side openings.

2. In a baling press, a baling case having opposite side openings, wire guides at the forward side and wire-receiving openings at the rear side of the said side openings, doors controlling said side openings, and yielding means for closing the said doors.

3. In a baling press, a baling case having opposite side openings, wire guides at the forward side and wire-receiving openings at the rear side of the said side openings, doors controlling said side openings, and yielding means for closing the said doors; said doors being hinged adjacent said wire guides, the free edges of the doors normally forming the front ends of the said wire-receiving openings.

4. In a baling press, a baling case having opposite side openings and wire guides, wire-carrying holders from which wires extend along the outer sides of the baling case and through said guides and into the case through said openings; the ends of said wires being knotted together within the case, means to compress baling material within the case against said knotted ends of the wires, means to press the wires inward between the said wire guides and the compressed baling material, and means to bend one of the wires at opposite sides of the center of its inwardly-pressed portion.

5. In a baling press, a baling case having opposite side openings and wire guides, wire-carrying holders from which wires extend along the outer sides of the baling case and through said guides and into the case through said openings; the ends of said wires being knotted together within the case, means to compress baling material within the case against said knotted ends of the wires, means to press the wires inward between the said wire guides and the compressed baling material, means to bend one of the wires at opposite sides of the center of its inwardly-pressed portion, and means to sever said wire between the points where it is bent.

[Claims 6 to 20 not printed in the Gazette.]

1,239,872. TYPE-WRITING MACHINE. ARTHUR J. BAIGES, Syracuse, N. Y., assignor to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed Aug. 28, 1916. Serial No. 117,260. (Cl. 197—63.)

1. In a typewriting machine and in margin stop mechanism, the combination with a carriage comprising two

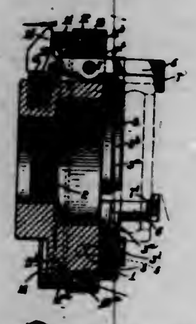
roller-bearing rails and a coöperating track-way; of a spring-pressed margin stop piece mounted in said coöperating track-way, said track-way having means for guiding said stop piece, and said stop piece comprising a bar with a stop lug on one end thereof, and a finger piece on the other end, said finger piece when the



carriage is at one end of its travel projecting beyond the end of the carriage and being under the carriage at other times; means for holding said stop piece in adjusted position comprising a rack in the track-way and a tooth on the stop piece; and a coöperating stop on the carriage.

[Claims 2 to 6 not printed in the Gazette.]

1,239,873. CHUCK. FRED E. BRIGHT, Philadelphia, Pa. Filed Jan. 30, 1915. Serial No. 5,182. (Cl. 29—129.)



1. In a chuck, the combination with a head or frame, of clamping jaws mounted thereon and movable independently to clamp the work, springs sustained by the head and acting to hold the jaws independently of each other in yielding engagement with the work to clamp the same in position, and means for moving the jaws in opposition to the action of the springs to release the work.

2. In a chuck, the combination with a head or frame, of clamping jaws pivoted between their ends thereto and extending axially thereof to rock on their pivots radially toward each other to clamp the work on its seat, springs acting on said jaws to hold the same independently of each other in yielding clamping engagement with the work, and a circumferentially movable member adapted to move the jaws in opposition to the springs to release the work.

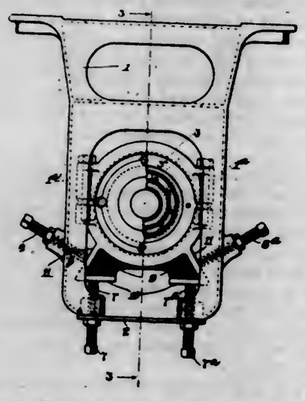
3. In a chuck, and in combination with a head or frame, axially extending clamping jaws pivoted thereto between their ends, and adapted at one of their ends to engage the work, springs acting independently of each other on the opposite ends of the jaws and operating to hold the jaws independently of each other in yielding engagement with the work with a clamping pressure, and a circumferentially movable ring mounted on the head and provided with a cam surface having alternately disposed elevated and depressed portions adapted to respectively engage the jaws and to control the movement of the same.

4. In a chuck, and in combination with a head or frame provided with a work seat, clamping jaws movably mounted thereon and provided with sloping clamping faces to engage and clamp the work against the seat with a wedging action, yielding means acting independently of each other on the respective jaws to maintain said sloping surfaces in independent yielding clamping engagement with the work, and means for moving the jaws to release the work.

5. In a chuck, and in combination with a head or frame, a plurality of plates fixed thereto and having their inner edges of segmental form to conjointly constitute a work seat of general circular form, means for adjusting said plates radially on the head to vary the size of the work seat, and clamping jaws mounted on the head between the ends of the plates and movable to hold the work on its seat.

[Claims 6 and 7 not printed in the Gazette.]

1,239,874. SHAFT-HANGER. FRED E. BRIGHT, Philadelphia, Pa., assignor to The Hess-Bright Manufacturing Company, a Corporation of Delaware. Filed Jan. 12, 1914. Serial No. 811,525. (Cl. 64—14.)



1. In a shaft hanger, the combination of a hanger frame, vertically adjustable supports mounted therein, a bearing box sustained by said supports and provided with a foot extending beyond the general area of the box and having surfaces sloping downwardly and outwardly from each other, and transversely adjustable devices mounted in the frame and engaging said sloping surfaces respectively, to hold the box in fixed positions on the vertical supports.

2. In a shaft hanger, the combination of a hanger frame, vertically adjustable supports mounted therein, a bearing box sustained by said supports and provided with a foot extending beyond the general area of the box and having surfaces sloping downwardly and outwardly from each other, and inwardly and downwardly extending transversely adjustable devices mounted in the frame and engaging said sloping surfaces respectively, to hold the box in fixed position on the vertical supports.

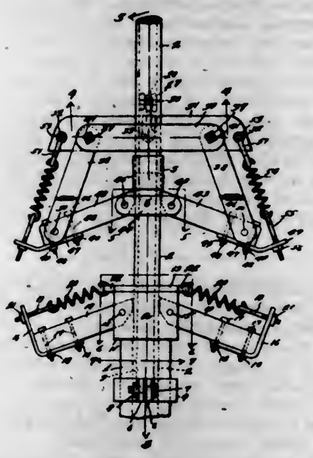
3. In a shaft hanger, the combination of a hanger frame, vertically adjustable supports independent of each other at the lower end of the frame at opposite sides, a bearing box provided with a supporting foot extending beyond the general area of the box and formed with horizontal surfaces at its lower end and with inclined surfaces at opposite sides, said horizontal surfaces being seated on the adjustable supports, and transversely adjustable devices independent of each other and mounted in the sides of the hanger frame and engaging the inclined surfaces on the bearing box, and acting to hold the box firmly down on the vertical supports.

4. In a shaft hanger, the combination of a hanger frame formed with opposed upright side bars having their lower ends extended inwardly toward each other, a bearing box disposed between said side bars and adapted to sustain a shaft bearing, said bearing box having fixed thereto a supporting portion or foot projecting therefrom beyond the area of the box, and said foot being provided with end surfaces and two side surfaces disposed in angular relations to the end surfaces, two upright adjusting screws threaded in the inwardly extended ends of the side bars and bearing directly against the end surfaces of the foot, and two transversely extending screws threaded in said side bars and bearing at their ends respectively against the side surfaces of the foot, and acting to hold the foot down on the upright adjusting screws while preventing the box from shifting, said four adjusting screws serving as the sole means for maintaining the bearing box in its adjusted position in the hanger frame.

5. In a shaft hanger, the combination of a hanger frame, vertically adjustable supports mounted therein, a bearing box provided at its lower side with a supporting foot extending beyond the general area of the box and in the direction of the plane of the same and provided with outwardly and downwardly sloping sides, said supporting foot being seated on the adjustable supports, and inclined transversely adjustable devices mounted in the frame and engaging the sloping sides of the supporting foot respectively.

[Claims 6 and 7 not printed in the Gazette.]

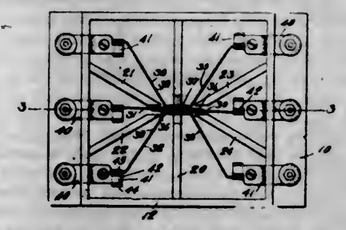
1,239,875. LIFT FOR PUMP-PIPES OR PUMP-RODS. MILES D. BRUCE, Thedford, Nebr. Filed Mar. 7, 1917. Serial No. 153,085. (Cl. 254—31.)



1. In a pump lift, a holding frame adapted to rest upon the pump head, whereby said frame may swivel around the pump pipe, said frame having a standard rising upwardly therefrom, a lever pivoted on the upper end of the standard, a link loosely pivoted to one end of the lever, a transversely disposed beam having a channeled out recess midway its ends to receive the lower end of said link, means to secure the link in said recess, the ends of said beam having laterally extending bolts, arms pivoted upon said bolts, jaws having their outer end portions pivotally connected to the lower ends of the arms and having extensions, a pair of plates connected together, one upon each side of the pipe and having means to pivotally support the inner ends of said jaws, spring connections connecting the ends of the beam and said extensions of said jaw, a vise beam having its ends slidable on the lateral bolts, springs between the ends of the vise beam and said arms, and means threaded on said lateral bolts for forcing the vise beam toward the pipe, said vise beam having teeth, adapted to engage the pipe when the vise beam is forced toward the same, whereby the pipe may be turned.

2. In a pump lift, a holding frame adapted to rest upon the pump head, said holding frame having spring tensioned jaws at its lower portion to intermittently grip the pipe, said holding frame having a standard rising upwardly therefrom, a lever pivoted on the standard, a beam having a central link connection to the lever, the ends of the beam having lateral bolts, arms pivotally mounted on said bolt, a vise beam slidably supported upon said bolts, a pair of plates connected together and disposed opposite each other on diametrically opposite sides of the pipe, a pair of jaws having their outer ends pivotally connected to the lower ends of the arms and their inner ends pivotally connected between the plates, whereby the last named jaws may grip the pipe alternately with the first named jaw, the outer pivoted ends of the last named jaws having extensions and spring means connecting said extensions and the outer ends of said beam to hold the last named jaws in firm contact with the pipe.

1,239,876. ELECTRIC FUSE. GEORGE A. BURNHAM, Saugus, Mass. Filed July 1, 1915. Serial No. 37,607. (Cl. 175—273.)



1. An electric-fuse comprising a plurality of separate fuse-strips insulated from each other, portions of the strips being closely associated together to occupy positions in the fusing zones of each other to form short-circuiting means for the strips, and other portions being separated to form blow-out portions.

2. An electric-fuse comprising an inclosing-case, a plurality of separate fuse-strips arranged in said case and insulated from each other, portions of the strips being closely associated together to occupy positions in the fusing zones of each other to form short-circuiting means for the strips, and other portions being separated to form blow-out portions.

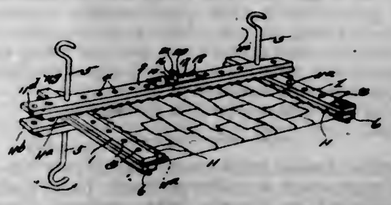
3. An electric-fuse comprising an inclosing-case, a plurality of separate fuse-strips, some of which are tortuously arranged in said case and all of which are insulated from each other, portions of the strips being closely associated together to occupy positions in the fusing zones of each other to form short-circuiting means for the strips, and other portions being separated to form blow-out portions.

4. An electric-fuse comprising an inclosing-case, a plurality of separate fuse-strips arranged in said case and insulated from each other, and embedded in heat-resisting material, portions of the strips being closely associated to occupy positions in the fusing zones of each other to form short-circuiting means for the strips, and other portions being separated to form blow-out portions.

5. An electric-fuse comprising a plurality of separate fuse-strips, having associated fusing portions to form short-circuiting means for the strips, and widely separated blow-out portions insulated from each other.

[Claims 6 to 14 not printed in the Gazette.]

1,239,877. FOLDABLE QUILTING-FRAME. JANE ANN BUSH, Middletown, N. Y. Filed Jan. 25, 1913. Serial No. 744,165. (Cl. 45—24.)



In a quilt attaching means for a quilting frame, a frame having a rabbet adjacent its inner marginal edge, an edging consisting of four sections carried by the four

sides of the frame, each section comprising a strip of fabric folded longitudinally upon itself forming a rolled edge to which the quilt is adapted to be stitched and having its edge portion secured in said rabbet, each end portion of each folded strip being inturned and stitched, thereby providing a thickened reinforced mitered or beveled part to prevent the stitches between the quilt and the edging from tearing adjacent the corners of the frame, said inturned end parts of each fabric strip also constituting means to prevent a selvage or frayed edge.

1,239,878. **FUSIBLE LINK.** WILLIAM H. CAREL, Philadelphia, Pa., assignor to John M. Duncan, Philadelphia, Pa. Filed Aug. 2, 1916. Serial No. 112,701. (Cl. 236—16.)



1. A fusible link comprising two members hinged together, one of said members being bent to provide a substantially V-shaped groove, said other member having a free end bent into said groove and spaced therefrom to provide a crotch, another member having its extreme end bent to fit within said groove and to project into said crotch, and fusible material for holding said members in said positions, substantially as described.

2. A fusible link comprising a member having one of its extreme ends turned inwardly, another member hinged to said first member and having a groove into which said inwardly turned end of the first member extends to form a crotch, a third member having a bent portion fitting the groove of the second member and having a free edge extending into said crotch, and fusible means for securing said members in said positions, substantially as described.

3. A fusible link comprising a member having an inwardly bent free end, another member having a groove and being hinged to said first member, the grooved portion of said hinged member and said end of the first member forming a crotch, a third member having a bent projecting end portion normally fitting the groove in said other member, the projecting portion being again bent and terminating in a free edge which fits within said crotch, and fusible means for normally holding said parts together, substantially as described.

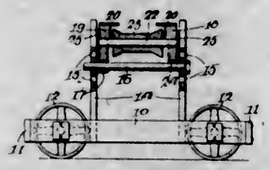
4. A fusible link comprising a plate having an inwardly projecting bent end portion and a slot, a second plate having a groove and being provided with a tongue designed to pass through said slot in the first plate, a third plate having a bent portion fitting within said groove of the second plate, the free edge of said portion being again bent and fitting within a crotch formed between said inwardly projecting end of the first plate and the portion of said second plate adjacent said tongue, and fusible material for binding said plates together, substantially as described.

5. A fusible link comprising a plate having an inwardly projecting bent end portion and a slot, a second plate having a tongue designed to extend through said slot, said second plate being provided with a groove which, when the tongue is moved parallel to the first plate, is directly under the inwardly bent end of the first plate, the portion of said plate adjacent said tongue and the inturned portion of the first plate forming a crotch, a third plate having an end portion fitting said groove of the second plate and having a bent free edge fitting within said crotch, and fusible means for holding said plates together, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

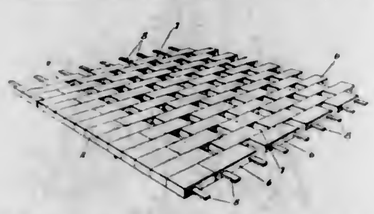
1,239,879. **APPARATUS FOR HANDLING BRICKS AND PAVING BLOCKS OR STONES.** OSCAR CARLSON, Chicago, Ill. Filed Oct. 9, 1916. Serial No. 124,502. (Cl. 198—1.)

In an apparatus of the character described, the combination with a truck having a pair of spaced apart uprights provided with holes one above the other, a shaft mounted transversely on said uprights in a pair of the holes, a frame including a pair of parallel bars loosely mounted near one of its ends on said shaft, between said uprights, a rack bar on one of the said parallel bars to



engage said shaft, a roller on said shaft to support the other parallel bar, a wheel journaled on the opposite end of said frame, and a series of rollers mounted transversely on said frame and side by side in parallelism with one another.

1,239,880. **LEATHER FABRIC.** WILLIAM M. CAVANAUGH, Rosebank, N. Y., assignor, by mesne assignments, to Leather Products Company, Inc., New York, N. Y., a Corporation of New York. Filed Oct. 23, 1914. Serial No. 868,188. (Cl. 154—46.)



1. A fabric composed of small pieces of leather arranged in staggered relation and secured together by metal strips passing therethrough.

2. A fabric comprising small elongated pieces of leather arranged in staggered relation and secured together by flexible metal strips passing therethrough.

3. A fabric comprising small pieces of leather secured together by metal strips passing through holes therein.

4. A fabric comprising small pieces of leather secured together by metal strips passing through holes therein, and so disposed with respect to one another as to provide spaces or apertures in the fabric between the ends of the leather pieces.

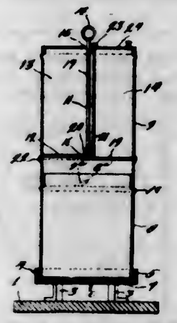
5. A fabric composed of small elongated pieces of leather arranged in staggered relation and spaced from one another at their ends and secured together by flexible metal strips passing therethrough.

[Claims 6 to 16 not printed in the Gazette.]

1,239,881. **GARBAGE-RECEPTACLE.** FRANK M. CAWBY, Champaign, Ill. Filed Aug. 17, 1916. Serial No. 115,436. (Cl. 220—115.)

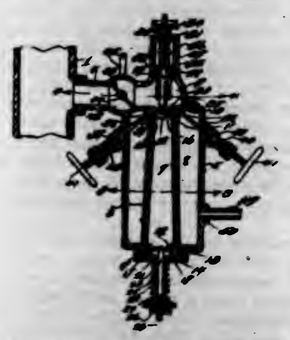
1. In a garbage receptacle, the combination of a flanged support having alternate bars and elongated openings and a garbage can supported thereon and said can consisting of a dominant receptacle and an auxiliary hollow body telescoping the upper end of the dominant receptacle, of means for detachably connecting the body to said receptacle, said body having a vertical and horizontal wall dividing the same into an idle compartment and an open ended auxiliary receptacle, a cover for the upper open end of the auxiliary receptacle, said body adjacent the bottom of the idle compartment and the lower open end of the auxiliary receptacle having an annular groove, a semicircular partition slidable in said groove, in order to slide adjacent the under surface of the bottom of the idle compartment, to insure scraping the refuse from the upper face of the sliding partition, and a rocking rod mounted in bearings of the body and connected to the sliding partition for closing and opening the same, whereby the

garbage may be dumped from the auxiliary receptacle into the dominant receptacle.



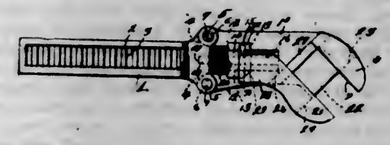
2. A garbage can, comprising a casing, the upper part of the can having a vertical wall dividing the upper part into a semi-circular idle compartment and a similar shaped garbage receptacle, said partition having an integral wall forming the bottom of the idle compartment, the outer wall of the can having an annular groove immediately adjacent the bottom of the idle compartment and the lower end of the auxiliary receptacle, a semi-circular closure mounted and slidable in said groove, whereby as the closure moves under the bottom of the idle compartment, the garbage may be scraped from the upper face of said closure, and a rod mounted in bearings of the can and connected to the closure for moving the same to dump the garbage from the auxiliary receptacle into the bottom of said can.

1,239,882. **GAS AND AIR MIXING DEVICE.** CHARLES E. CHALKER, Tampa, Fla., assignor of one-half to William B. Warren, Tampa, Fla. Filed June 6, 1916. Serial No. 102,009. (Cl. 48—180.)



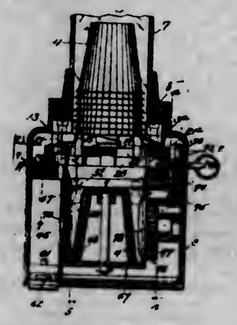
A gas and air mixer for internal combustion engines having an intake manifold, said device comprising a casing provided with a central air chamber, a mixing chamber having an opening of communication with the air chamber, a valve seat about said opening, said mixing chamber having means of communication with the manifold, and a gas chamber in surrounding relation to the air chamber adapted for connection to a gas tank having gas under pressure therein, said valve seat having diametrically disposed eduction apertures connecting the gas and mixing chambers, a self closing valve coöperating with said seat, opening in response to the suction strokes of the engine, whereby, upon opening of said valve, opposite jets of gas and an intermediate supply of air substantially impinging with one another are drawn into the mixing chamber to mix therein, manual means for controlling said eduction apertures and self closing means at one end of the air chamber opening in response to the suction strokes of the engine for controlling air into said air chamber.

1,239,883. **WRENCH.** PORTER CHAMPLIN, Powers Lake, N. D. Filed May 16, 1917. Serial No. 169,103. (Cl. 81—165.)



In a wrench, a handle, a stationary jaw having its jaw face substantially at a forty-five degree angle to the handle and having guide openings and provided with an adjoining blade, said stationary jaw having a shank provided with a guide and being connected to the handle, a block or cross head slidably mounted in the guide and provided on its outer face with transverse guide grooves, a movable jaw having a bifurcation, the crotch of which receives said blade, the adjacent faces of the bifurcation having grooves, said shank adjacent the stationary jaw having ribs to engage said grooves, said movable jaw having forks caused to be formed by said bifurcations, said forks of the movable jaw having means to engage the transverse guide grooves of said block, and a screw having one end in a bearing of the handle and its other end engaging the crotch of the guide of said shank, and threaded through the block for adjusting the same.

1,239,884. **VENDING-MACHINE.** EMIL A. CLAUS, Brooklyn, N. Y., assignor to Public Service Cup Company, Brooklyn, N. Y., a Corporation of New York. Filed May 31, 1913. Serial No. 770,934. (Cl. 194—65.)



1. A device of the class described comprising in combination, means for guiding a stack of nested cups, a rotatable ring, a rotatable escapement, means for rotating said escapement from said ring, a second rotatable ring co-axial with said first-mentioned ring, check controlled means for rotating said first ring from said second ring, a latch for engaging with said second ring, and means on said first ring for lifting said latch from engagement with said second ring.

2. A device of the class described comprising in combination, means for guiding a stack of nested cups, a rotatable ring, means operably connected with said ring for discharging cups from said stack, a second rotatable ring co-axial with said first-mentioned ring, check controlled means for rotating said first ring from said second ring, a latch for engagement with said second ring, and means on said first ring for lifting said latch from engagement with said second ring.

3. A device of the class described comprising in combination, means for guiding a stack of nested cups, a rotatable ring, means operably connected with said ring for discharging cups from said stack, a second rotatable ring co-axial with said first-mentioned ring, check controlled means for rotating said first ring from said second ring, a rotatable carriage for receiving and discharging the

cups delivered from said stack, and means for rotating said carriage from one of said rings.

4. A device of the class described comprising in combination, means for guiding a stack of nested cups, a rotatable ring, means operably connected with said ring for discharging cups from said stack, a second rotatable ring co-axial with said first-mentioned ring, check controlled means for rotating said first ring from said second ring, a latch for engagement with said second ring, means on said first ring for lifting said latch from engagement with said second ring, a rotatable carriage for receiving and discharging the cups delivered from said stack, and means for rotating said carriage from one of said rings.

5. A device of the class described comprising in combination, means for guiding a stack of nested cups, a rotatable ring, a second rotatable ring co-axial with the said first-mentioned ring, check controlled means for rotating the said first ring from said second ring, a rotatable carriage for receiving and discharging the cups, means actuated by said first ring for delivering cups one at a time to said rotatable carriage, a hand lever for rotating said second ring, and means connecting said second ring with said carriage for rotating said carriage to discharge position by the forward movement of said lever.

[Claims 6 to 22 not printed in the Gazette.]

1,239,885. PROCESS FOR TREATING ORES. HAROLD EDWIN CLEAVES, Washington, D. C. Filed Mar. 9, 1917. Serial No. 153,663. (Cl. 23—13.)

1. The process of treating ores or compounds which contain one or more of the metals of the fifth and sixth groups associated with undesirable metals or metalloids, which comprises treating such ores or compounds with a non-oxidising gas containing hydrogen chlorid and no more reducing agent than is necessary to prevent the formation of free chlorin by reacting with any excess of metalloids over the amount which can combine with the hydrogen liberated in the formation of metal chlorid, while maintaining the ore or compound at a temperature at which one or more metal chlorids will be formed and volatilized.

12. The process of treating an ore containing an iron tungstate which comprises passing a current of gas containing hydrogen chlorid in contact with the ore maintained above a red heat, so as to volatilize and remove the iron and tungsten chlorids as soon as they are formed, and passing the stream of gas containing metal chlorid into water to separate the tungsten in the form of a tungsten oxid precipitate.

[Claims 2 to 11 not printed in the Gazette.]

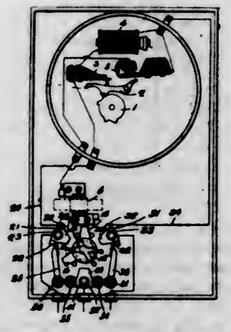
1,239,886. PNEUMATIC TIRE. ERNEST E. COLA, Chicago, Ill. Filed May 25, 1914. Serial No. 840,654. (Cl. 152—22.)



1. In a sectional pneumatic tire, an inflatable tire casing having an opening in the base, an inflatable tube within said casing, means for closing said opening, said means comprising a plate disposed within said casing and an adjustable clip disposed without said casing and engaging the same and means to secure said plate and said clip together.

2. In a sectional pneumatic tire, a main casing having an opening therein, an inflatable tube receivable in first said casing, a plate within the main casing between the inner periphery thereof and said inflatable tube, an adjustable clamping member to engage exteriorly said main casing, and means engaging said inner plate and clamping member to maintain both of the same in engagement with said casing.

1,239,887. FIRE-ALARM SIGNAL-BOX. FREDERICK W. COLE, Newton Highlands, Mass. Filed Apr. 19, 1916. Serial No. 92,292. (Cl. 177—377.)



1. A signal-box having a signal-transmitter adapted for connection with an electric circuit, switching-means for electrically connecting the circuit-wires at each side of the transmitter to form a shunt, said switching-means consisting of a pair of spaced contact-members adapted for electrical connection with the circuit-wires at each side of the transmitter, a rotatable two-armed contact-member adapted for movement into and out of engagement with said contact-plates, the arms of said contact-member being spaced apart, and means arranged on the inside of the door coacting with said rotatable member to permit closing of the door when member is in disengaged position and to prevent closing of the door when in engaged position.

2. A signal-box having a signal-transmitter adapted for connection with an electric circuit, switching-means for electrically connecting the circuit-wires at each side of the transmitter to form a shunt, said switching-means consisting of a rotatable two-armed contact-plate, and a pair of stationary contact-plates arranged concentrically to the axis of rotation of the two-armed plate, said stationary plates being connected with the circuit-wires at each side of the transmitter, and widely spaced apart, and the arms of said two-armed plate being spaced apart, and insulated studs arranged in the spaces adjacent the stationary contact plates for engagement with the arms of the rotatable contact plate, tending to maintain said arms in disengaged positions.

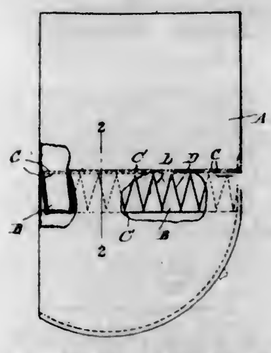
3. A signal-box having a signal-transmitter adapted for connection with an electric circuit, switching-means for electrically connecting the circuit-wires at each side of the transmitter to form a shunt, said means consisting of a rotatable two-armed contact-plate having a turning knob, a pair of stationary contact-plates having attaching-portions with binding-posts thereon for connection with the circuit-wires at each side of the transmitter, said stationary plates being arranged concentric to the axis of rotation of the two-armed plate, and spaced apart, and the arms of the two-armed plate being angularly related, and insulated studs arranged in the spaces adjacent the stationary contact plates for engagement with the arms of the rotatable contact plate, tending to maintain said arms in disengaged positions.

4. A signal-box having a signal-transmitter adapted for connection with an electric circuit, switching-means for electrically connecting the circuit-wires at each side of the transmitter to form a shunt, said means consisting of a pair of contact-members adapted for electrical connection with the circuit-wires at each side of the transmitter, and a rotatable two-armed member adapted for movement into and out of engagement with said contact-plates, a spindle bearing said two-armed member having a turning knob with a transverse slot, and an abutment arranged on the inside of the door adapted to enter said slot when the knob is in a predetermined position, thus permitting closing of the door, and when said knob is in another position to form an obstruction to prevent closing said door.

5. A signal-box having a signal-transmitter adapted for connection with an electric circuit, switching-means for electrically connecting the circuit-wires at each side of the transmitter to form a shunt, said means consisting of a rotatable two-armed contact-plate, a pair of widely separated stationary contact-plates adapted for connection with the circuit-wires at each side of the transmitter with which said two-armed plate coacts, a pair of carbon jacketed posts, and conductors connecting said jacketed posts with the stationary contact-plates, and a ground branch terminal connected to similar carbon jacketed posts arranged between and in close relation to the circuit wire terminals.

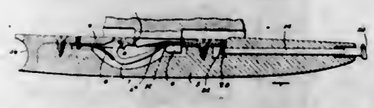
[Claims 6 to 15 not printed in the Gazette.]

1,239,888. POCKET. HORACE T. COOK, Boone, Iowa. Filed May 16, 1916. Serial No. 97,897. (Cl. 2—15.)



A safety pocket having its front and rear walls each folded upon itself to provide a plait, a continuous thread having portions thereof secured to the outer surfces of the plaits adjacent the upper and lower edges thereof, to provide a plurality of loops, said loops adapted to catch articles held in the pockets and prevent the same from falling therefrom.

1,239,889. MEANS FOR HOLDING THE FORE-ENDS OF FIREARMS IN POSITION. ARTHUR P. CURTIS, Fulton, N. Y., assignor to The Hunter Arms Co., Fulton, N. Y., a Corporation of New York. Filed Mar. 28, 1913. Serial No. 757,329. (Cl. 42—75.)



1. A firearm comprising a removable fore-end, a barrel formed with a lug, and means for holding the fore-end in position including an automatic spring catch, coacting with a rearwardly facing surface of the lug, and a manually controlled catch carried by the fore-end and including a resilient arm having a free end located adjacent the engaging end of said spring catch and coacting with a side of the lug, substantially as and for the purpose specified.

2. In a firearm, a barrel formed with a lug on the under side thereof, a fore-end, and means associated with the fore-end and coacting with the lug to hold the fore-end in position, said means including a manually operable element slidable lengthwise of the fore-end and having jaws coacting with opposite sides of the lug for normally preventing removal of the fore-end, substantially as and for the purpose described.

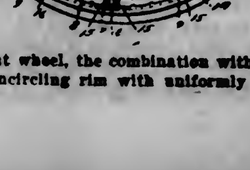
3. In a firearm, a barrel formed with a lug having a groove on one side thereof, a fore-end, and means carried by the fore-end and coacting with the lug for holding the fore-end in position, said means including a manually operable element slidable lengthwise of the fore-end and provided with a laterally movable part normally interlocking in said groove, substantially as and for the purpose specified.

4. In a firearm, a barrel formed with a lug having grooves on opposite sides thereof, a fore-end and means coacting with the lug for holding the fore-end in position, said means including manually operable catches slidable lengthwise of the fore-end normally interlocking with the grooves respectively, substantially as and for the purpose set forth.

5. A firearm including a barrel having a depending lug, a removable fore-end, and catch movable longitudinally and laterally into and out of engagement with the lug, and an operating member movable lengthwise of the fore-end and being exposed at the front end of the fore-end, substantially as and for the purpose specified.

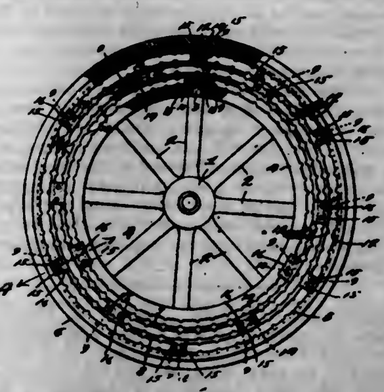
[Claims 6 to 23 not printed in the Gazette.]

1,239,890. TELEPHONE-STAND. BUSWELL S. CUTLER, Buffalo, N. Y., assignor to Cutler Desk Co., Buffalo, N. Y., a Corporation of New York. Filed May 6, 1916. Serial No. 95,931. (Cl. 248—20.)



A telephone stand comprising a table provided with an inner bearing opening and a recess around said opening, an arm having its inner end arranged over the upper side of that part of the table containing said inner bearing opening and provided at its outer end with an outer bearing opening, an inner pivot screw journaled in said inner bearing opening and engaging its upper threaded end with said arm and its lower headed end with the underside of said table, a plate arranged on said inner pivot screw between said table and arm and engaging with said recess, a shelf arranged above the outer end of said arm, an outer pivot screw journaled in the outer bearing opening of said arm and engaging its upper threaded end with said shelf and its lower headed end with the underside of said arm, and a washer arranged on said outer pivot screw between said arm and shelf.

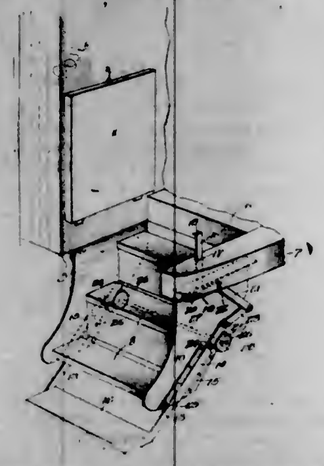
1,239,891. SPRING-WHEEL. JACOBUS H. DE SMIDT, Sheboygan, Wis. Filed Nov. 15, 1916. Serial No. 131,533. (Cl. 152—32.)



In a resilient wheel, the combination with a wheel having a spoke encircling rim with uniformly spaced trans-

verse ribs, of a rim having a tire engaging means and provided on its inner face with uniformly spaced transverse ribs, a multiple of resilient rings intervening between the aforesaid rims and having uniformly spaced transverse ribs on each of their inner and outer faces, and spacing blocks adjustable as to position and alternating with the rings and rims, said spacing blocks having means on each of their opposite faces for engaging the transverse ribs of the rings and rims and being provided with means on their ends to prevent their lateral displacement.

1,239,892. MOVABLE STEP FOR VEHICLES. HERBERT DUSENBERY, Cleveland, Ohio. Filed Mar. 9, 1916. Serial No. 83,610. (Cl. 105—87.)



1. In combination with the stationary car steps and a trap-door therefor, of an extensible step provided with movable rack members mounted on the sides of said car steps, equalizing pinions engaging said rack members, and actuating means mounted independently of said pinions comprising a depressible bar operatively disposed in the path of said trap-door, said bar provided with connections with one of said rack members and constructed and arranged to raise said extensible step on depression of said bar, and permitting the lowering of said step to its extended position upon the raising of said trap-door.

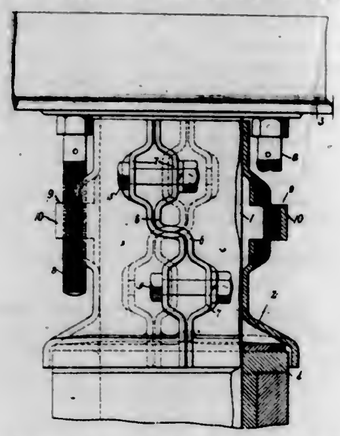
2. In combination with the stationary car steps and a trap door therefor, of an extensible step having movable rack bar members mounted on the sides of the car steps, shafted equalizing pinions engaging said rack bar members, one of said bars having a portion extending upwardly past its respective pinion, a vertically depressible actuating member having an upper portion disposed in the path of the trap door, and operative lever connections between said upwardly extending portion and the base of said actuating member.

3. In combination with the stationary car steps and a trap-door therefor, of a movable extensible step having inclined side hanger members, guides for said members mounted on the sides of said stationary steps, an actuating depressible member disposed in the downward path of the trap-door to be actuated thereby, a rocking lever having a lost motion connection with said depressible member and provided with a link connection with one of said hanger members, and an equalizing mechanism for said members.

1,239,893. AXLE-COLLAR. GEORGE M. EATON, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 19, 1914. Serial No. 819,728. (Cl. 105—259.)

1. An axle collar comprising a plurality of duplicate interfitting members having engaging portions on their respective sides in staggered relation.

2. An axle collar comprising a plurality of duplicate axle-inclosing members having mutually interlocking portions on their respective sides in staggered relation.



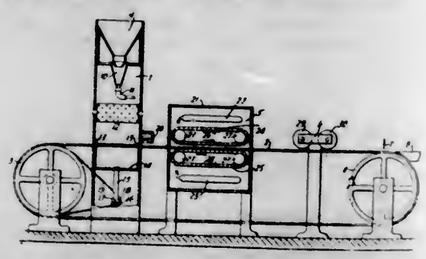
3. An axle collar comprising a plurality of identical axle-inclosing members severally having staggered lugs on their respective sides, the said members being assembled to cause the lugs on the corresponding sides to engage each other in a longitudinal direction.

4. An axle collar comprising a plurality of identical axle-inclosing members severally having staggered lugs adapted to oppositely engage longitudinally on the corresponding sides.

5. An axle collar comprising a pair of axle-inclosing members severally having staggered lugs adapted to engage on one side of the collar to prevent relative longitudinal movement of the members in one direction and on the opposite side to prevent such movement in the opposite direction.

[Claims 6 to 22 not printed in the Gazette.]

1,239,894. PROCESS OF AND APPARATUS FOR MANUFACTURING COMPOSITE SHEET MATERIAL. HENRY R. EDGECOMB, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Nov. 25, 1914. Serial No. 873,956. (Cl. 154—1.)



1. A process of manufacturing sheet material that comprises distributing a shower of commingled flake material and a comminuted dry bond upon a continuously moving surface and applying heat and pressure to the said material while it is carried by the said surface.

2. A process of manufacturing sheet material that comprises distributing a shower of commingled mica flakes and a comminuted dry bond upon a continuously moving surface and applying heat and pressure to the said material while it is carried by the said surface.

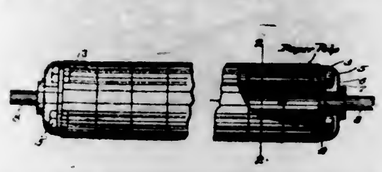
3. A process of manufacturing sheet material that comprises distributing a shower of commingled flake material and a comminuted dry bond upon a continuously moving plane surface and applying heat and pressure to the said material while it is carried by the said plane surface.

4. A process of manufacturing sheet material that comprises distributing a shower of commingled mica flakes and a comminuted dry bond upon a continuously moving plane surface and applying heat and pressure to the said material while it is carried by the plane surface.

5. A process of manufacturing sheet material that comprises distributing a shower of commingled flake material and a comminuted dry bond upon a continuously moving metallic surface and applying heat and pressure to the said material while it is carried by the said surface.

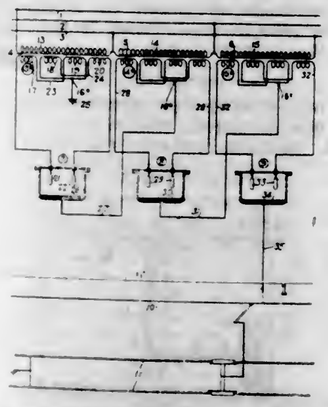
[Claims 6 to 20 not printed in the Gazette.]

1,239,895. ROLL FOR PAPER-MAKING MACHINES. HILAND R. FARNSWORTH, Sandusky, Ohio. Filed Jan. 4, 1917. Serial No. 140,537. (Cl. 92—49.)



A roll of the kind described, comprising a plurality of perforated sections having an opening through their centers, means for securing the sections together, comprising a plurality of tubes extending through other openings in the sections and parallel with the center openings, heads or plates to which the ends of the tubes are connected, journals secured to the heads for permitting rotation of the roll, said sections being composed of elastic fibrous material, as wood pulp, and treated with a water resisting or sizing substance, as pitch.

1,239,896. TRANSFORMER. CHARLES LE G. FORTESCUE, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Aug. 9, 1916. Serial No. 113,899. (Cl. 175—363.)



1. The combination with a double-anode vapor converter, of a transformer therefor having its secondary winding provided with an intermediate tap, said secondary winding comprising a plurality of coil groups on each side thereof, the coils on one side of said intermediate tap being interlaced with coils on the other side thereof to substantially eliminate the leakage flux between the alternate active portions of said winding.

2. The combination with a double-anode converter, of a transformer therefor having its secondary winding comprising a plurality of coil groups on each side of said mid tap that are interlaced with one another to eliminate magnetic leakage fluxes between the alternately active portions of said secondary winding.

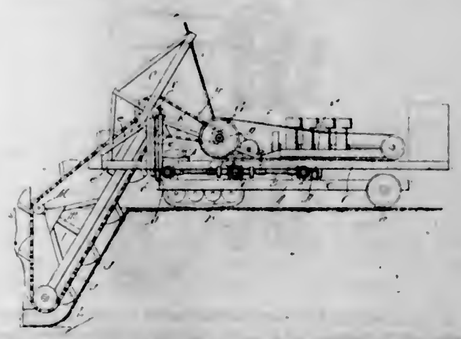
3. The combination with a double-anode vapor converter, of a transformer therefor having its secondary winding provided with an intermediate tap, said secondary winding comprising a plurality of coils on each side of said intermediate tap that are alternately connected in series circuit with one another in order that the mutual inductance between the alternately active portions of said winding may be substantially unity.

4. A distributing system comprising a plurality of vapor converters, transformers having primary and secondary windings for supplying alternating currents thereto, and a rectified-current circuit to which the rectifiers are connected in series relationship through the said secondary windings of said transformers, said secondary windings severally having a mid-point tap and comprising a plurality of coils on each side thereof which are so interconnected that alternate coils are simultaneously energized during each excitation of said vapor converter.

5. A distributing system comprising a plurality of transformers having their primary windings severally excited from separate phases of a polyphase supply circuit and their secondary windings severally connected to double-anode vapor converters that, in turn, are connected in series relationship with each other through said secondary transformer windings to a common circuit, said secondary transformer windings comprising a plurality of coils on each side of their mid-points that are alternately connected in circuit with one another to become simultaneously energized with rectified currents on each reversal of the alternating current waves impressed on the primary windings.

[Claim 6 not printed in the Gazette.]

1,239,897. OSCILLATING TRENCH-MACHINE. JAMES C. FRENCH, Kenosha, Wis., assignor to Frederick C. Austin, Chicago, Ill. Filed Mar. 22, 1915. Serial No. 16,302. (Cl. 37—24.)



1. An excavator for making trenches or ditches, comprising an endless series of digging buckets, an inclined frame for supporting said buckets in position to operate in the ground, mechanism for operating said buckets, means for propelling the machine forward during the operation of the buckets, in the direction desired for the trench or ditch, a power-plant to operate said mechanism and means, and instrumentalities including a turn-table upon which said frame and mechanism and power-plant are supported for oscillating movement about a vertical axis disposed a distance ahead of the digging point to give the buckets in action a back-and-forth sidewise motion behind said axis, so that the trench will be wider than the buckets, and whereby the descending buckets cut away the dirt first at one side of the trench and then at the other, said excavator having means to insure operation of said buckets in such manner that the angle of said frame will not leave the trench with overhanging sides.

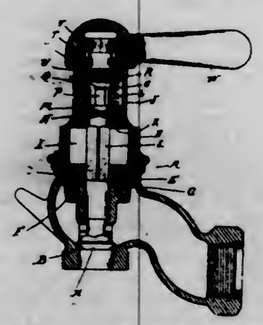
2. An excavator comprising an endless series of digging buckets, a frame for supporting said buckets in position to operate in the ground, mechanism for operating said buckets, means for propelling the machine forward during

the operation of the buckets, and instrumentalities including a turn-table upon which said frame and mechanism are supported for oscillating movement about a vertical axis disposed a distance ahead of the digging point to give the buckets in action a back and forth sidewise motion behind said axis, so that the trench will be wider than the buckets, and whereby the descending buckets cut away the dirt first at one side of the trentch and then at the other, said excavator having means to insure operation of said buckets in such manner that the angle of said frame will not leave the trench with overhanging sides, said frame being mounted to swing up and down about a horizontal axis extending transversely of the machine.

8. An excavator comprising an endless series of digging buckets, a frame for supporting said buckets in position to operate in the ground, mechanism for operating said buckets, means for propelling the machine forward during the operation of the buckets, and instrumentalities including a turn-table upon which said frame and mechanism are supported for oscillating movement about a vertical axis disposed a distance ahead of the rigging point to give the buckets in action a back and forth sidewise motion behind said axis, so that the trench will be wider than the buckets, and whereby the descending buckets cut away the dirt first at one side of the trench and then at the other, said excavator having means to insure operation of said buckets in such manner that the angle of said frame will not leave the trench with overhanging sides, devices on said turn-table to raise and lower said frame, and an engine mounted on said turn-table and connected for operating said mechanism and means and devices.

[Claims 4 to 10 not printed in the Gazette.]

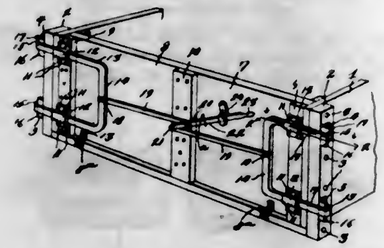
1,239,898. VALVE. FREDERICK J. GAGNON, Detroit, Mich.; Grace McIntosh executrix of said Frederick J. Gagnon, deceased. Filed Nov. 22, 1915. Serial No. 62,736. (Cl. 137—4.)



1. In a valve, the combination with a casing having a valve seat therein, of a valve having a threaded engagement with said casing for adjustment longitudinally with respect to its seat, a stem insertible through the outer end of said casing into rotative coupling engagement with said valve member, a collar on said stem, an annular shoulder within said casing surrounding said stem adjacent to said collar, packing between said collar and shoulder, a second stem rotatively coupled but longitudinally free from said first stem within said casing, a collar on said second stem, a spring sleeved on said stem between the collar thereon and the collar on said first stem, an annular cap surrounding said second stem engaging said casing and forming an abutment for compressing said spring, a packing between said abutment and the collar on said second stem, and a handle rotatively secured on said casing recessed for engagement with the outer end of said second stem and forming a rotative coupling engagement therewith.

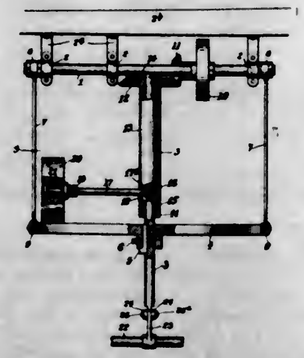
2. In a valve, the combination, with a casing having a valve seat therein, of a valve member having a threaded engagement with said casing for longitudinal adjustment with respect to its seat upon rotation thereof, a stem having a non-rotative longitudinally slidable engagement with said valve, a handle rotatively engaging the casing, a member detachably engaging the casing, apertured for the stem, said member being received within a recess of the handle and retaining the handle in engagement with the casing, packing seated on said member, a collar carried by the stem and a spring bearing upon said collar pressing the same upon said packing.

1,239,899. END-GATE AND LOCKING MEANS THEREFOR. WALLACE E. GARDNER, St. Joseph, Mo. Filed Dec. 15, 1916. Serial No. 137,212. (Cl. 21—21.)



In combination with a wagon body having upper and lower angular keeper plates on the outer faces of the sides of the body at the tail end edges of said sides, a tail end gate disposed between the sides of the body, U-shaped locking bars, one adjacent each end of the gate and having its arms engaging flat against the rear edges of the sides of the body, the outer extremities of the arms terminating in U-shaped hooks engaging over the lateral flanges of the keeper plates, forwardly and inwardly, to prevent rear movement of the end gate, the upper ends of the lateral flanges of the upper keeper plates having laterally extending V-shaped projections, the lower edges of which overlie the upper hooks, acting to force downwardly on the same to hold the lower edge of the gate in contact with the bottom of the body, guides secured to the rear face of the gate in which the arms of the locking bars are guided, a keeper on the rear face of the gate, links connected to the arches of the U-shaped locking bars, and a lever connecting the links, whereby, as the lever is moved to engage the keeper of the gate, the U-shaped terminal hooks of the arms are drawn closely in engagement with the lateral flanges of the keepers.

1,239,900. POWER-TRANSMITTING MECHANISM. OLIVER HOWARD GENTRY, Westwood, N. J. Filed Dec. 29, 1916. Serial No. 139,452. (Cl. 74—14.)



1. In a machine of the class described, a shaft, an oscillating arm secured thereto, a power transmitting element revolubly mounted on said shaft, a revoluble element mounted on said arm and geared to said power transmitting element, a tiltable runway mounted on said arm, means for oscillating said arm and thereby tilting said runway first in one direction and then in the reverse direction, an arm extending from said revoluble element and a weight roller on said arm and arranged to travel around said runway.

3. In a machine of the class described, a shaft, an oscillating arm secured thereto, a power transmitting element revolubly mounted on said shaft, a member rotatably mounted on said arm and geared to said power transmitting element, a tiltable runway mounted on said arm, means for oscillating said arm and thereby tilting said runway, an arm secured to said member and a pair of weight rollers connected with said last named arm and adapted to travel around said runway.

[Claims 2 and 4 not printed in the Gazette.]

1,239,901. SPRING-SUPPORT FOR MOTOR-VEHICLES. CLARENCE O. GEST, Indianapolis, Ind. Filed Apr. 9, 1917. Serial No. 160,668. (Cl. 267—34.)



1. A spring-support comprising a curved saddle having two spaced-apart spring-supporting pillars integral with the convex side thereof and also a transverse rib integral with the convex side and also with the two pillars, a curved clamp part, and bolts for connecting the clamp part with the saddle.

2. A spring-support comprising a saddle having two pillars integral with the normal upper side thereof in spaced relation, the under side of the saddle being concave, the top of each pillar having a spring-seat plate integral thereon, a curved clamp part, and bolts for connecting the clamp part with the saddle.

3. A spring-support comprising a saddle having two pillars integral with the upper side thereof, the under side of the saddle being concave and having one relatively larger spanning end portion, the opposite end of the saddle having a projection integral with the middle portion thereof, two pillars integral with the saddle, each pillar having a spring-seat plate thereon, a clamp part, and bolts for connecting the clamp part with the saddle.

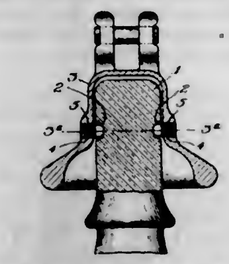
4. A spring-support comprising a saddle having a concave under side and apertured ears on the opposite sides of the concave portion, two pillars integral with the opposite under side of the saddle, each pillar having a spring-seat plate integral with the top thereof and having also an integral rib extending from said plate to the adjacent one of said ears, a clamp part, and bolts for connecting the clamp part with the ears of the saddle.

5. In a spring-support for motor vehicles, the combination with an axle casing, of a saddle seated upon and extending continuously across the top of the casing, said saddle having two spring-supporting pillars integral therewith in spaced apart relation, and a clamp part arranged beneath the axle casing and connected to said saddle, said clamp part having an ear thereon to receive a truss rod.

1,239,902. INSULATOR. WALTER T. GODDARD, Hamilton, Ontario, Canada. Filed June 7, 1916. Serial No. 102,287. (Cl. 173—366.)

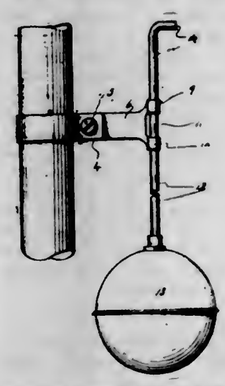
1. The combination with an insulating member having a locking recess in its periphery, of a conducting cap having a threaded opening, a securing device threaded within said opening with its inner end extending beyond the cap and engaging the locking recess, and a filling material in the opening adjacent to the outer end of the securing pin and forming a surface continuous with the exterior of the cap.

2. The combination with an insulating member having a plurality of locking recesses in its periphery, of a conducting cap arranged in spaced relation to the insulating member and having a plurality of threaded openings corresponding to said locking recesses, and securing devices arranged in the threaded openings of the con-



ducting cap and extending into the aforesaid locking recesses within the periphery of the insulating member, whereby the cap is held upon the insulating member in spaced relation without a cement connection.

1,239,903. FLOAT-WIRE GUIDE. HENRY F. GOETZ, Waterbury, Conn., assignor to Waterbury Mfg. Co., Waterbury, Conn., a Corporation. Filed July 26, 1917. Serial No. 182,864. (Cl. 4—5.)



As a new article of manufacture, a float-wire guide for water closet tanks, the said float-wire guide being made of a single piece of sheet metal shaped at one end to form an open band terminating at one end in a clamping arm and having its opposite end bent on itself to form a shank the fold of which is expanded to form two guide eyes located one above the other, and a clamping screw passing through the clamping-arm of the band and through the two parallel members of the shank.

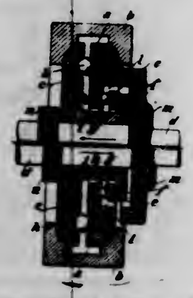
1,239,904. BALL-BEARING. MAX GOHLKE, Pankow, near Berlin, Germany, assignor to The Hess-Bright Manufacturing Company, a Corporation of Delaware. Filed Feb. 3, 1915. Serial No. 5,839. (Cl. 64—49.)

1. In a double-acting thrust ball bearing for shafts and a suitable housing therefor, ball race members with balls between them adapted to transmit thrust from the shaft to the housing and arranged with axial play in said housing, and positively acting means adapted to prevent said ball race members being spread by the centrifugal force of said balls.

2. In a double-acting thrust ball bearing for shafts and a suitable housing therefor, ball race members with balls between them adapted to transmit thrust from the shaft to the housing and arranged with axial play in said housing, and means comprising anti-friction members coöperating with each other and holding said ball race members together against the spreading action of the centrifugal force of the said balls.

3. In a double-acting thrust ball bearing for shafts and a suitable housing therefor, ball race members with

balls between them adapted to transmit thrust from the shaft to the housing and arranged with axial play in said housing, and an auxiliary thrust ball bearing arranged between said ball race members and adapted to counteract the spreading action of the centrifugal force of the balls of the main thrust bearing.



4. In a double-acting thrust ball bearing for shafts and a suitable housing therefor a pair of ball race rings with balls between them adapted to transmit thrust from the shaft to the housing and arranged with axial play in the housing, a sleeve on one of said rings mounted on the shaft and passing through a central opening of the other one of said rings, a shoulder on said sleeve, an auxiliary ball race ring abutting against said shoulder and auxiliary thrust balls between said auxiliary ring and the second ring of the main thrust ball bearing.

5. In a double acting thrust ball bearing having a single row of thrust balls, the combination of a housing provided with opposing abutments, ball race members, a row of thrust balls between said members, said members being arranged between said abutments with limited axial play and adapted to transmit the thrusts from the shaft respectively to said abutments, and means cooperating with one of said ball race members and preventing said members from being spread apart by the centrifugal force of the balls.

1,239,905. CURTAIN-POLE. ADDISON F. GRAY, Warren, Ohio. Filed Nov. 13, 1916. Serial No. 131,084. (Cl. 156—19.)



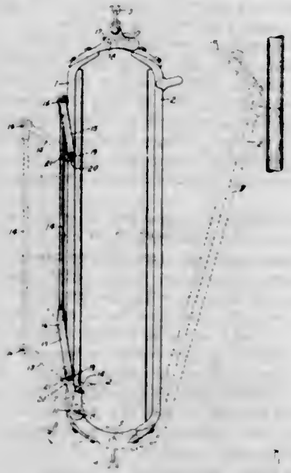
1. A curtain pole provided with a longitudinally disposed recess, one side wall of the recess being of less width than the opposite side wall, a removable plate overlying the recess and provided with an edge coacting with the wider wall of the recess to afford clamping means, coacting means arranged at the extremities of the recess and the plate for holding the plate in applied position, and a latch carried by the under face of the removable plate, a wall of the recess being provided with grooves to receive the latch to lock the plate in applied position.

2. A curtain pole provided with a longitudinally disposed recess, one side wall of the recess being of less width than the opposite side wall, a removable plate overlying the recess and provided with an edge coacting with the wider wall of the recess to afford clamping means, coacting means arranged at the extremities of the recess and the plate for holding the plate in applied position, and a latch carried by the under face of the removable plate, a wall of the recess being provided with grooves to receive the latch to lock the plate in applied position, said latch being provided with an operating arm extending exteriorly of the pole when said plate is in applied position.

3. A curtain pole provided with a longitudinally disposed recess, one side wall of the recess being of less width than the opposite side wall, a removable plate overlying the recess and provided with an edge coacting with the wider wall of the recess to afford clamping means, coacting means arranged at the extremities of the recess and the plate for holding the plate in applied position, and a latch carried by the under face of the removable plate, a wall of the recess being provided with grooves to receive the latch to lock the plate in applied position, said latch being provided with an operating arm extending exteriorly of the pole when said plate is in applied position, said pole being provided with a notch to receive the operating arm for holding the latch against movement when in locked adjustment.

4. A curtain pole provided with a longitudinally disposed recess, one side wall of the recess being of less width than the opposite side wall, a removable plate overlying the recess and provided with an edge coacting with the wider wall of the recess to afford clamping means, coacting means arranged at the extremities of the recess and the plate for holding the plate in applied position, and a latch carried by the under face of the removable plate, a wall of the recess being provided with grooves to receive the latch to lock the plate in applied position, said latch being provided with an operating arm extending exteriorly of the pole when said plate is in applied position, said pole being provided with a notch to receive the operating arm for holding the latch against movement when in locked adjustment, the portion of the pole adjacent the notch being beveled to facilitate the entrance or withdrawal of the operating arm into or out of the notch.

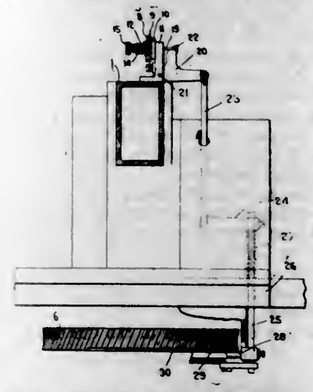
1,239,906. CATTLE-STANCHION. WILLIAM GUTENKUNST, Milwaukee, Wis. Filed July 16, 1917. Serial No. 180,767. (Cl. 119—150.)



1. In a device of the described class, the combination with the lower end of a pair of stanchions, of a pair of clamping members rigidly affixed to the movable member of said stanchions, a pair of links, each pair being rigidly affixed to the side of said clamping members, a bolt connected at its respective ends to the outer ends of said pairs of links, a single link pivotally connected between its ends to the stationary member of said stanchions, said last named link being pivotally connected at its upper end to a division rod, said link extending downwardly beneath the bolt by which said pair of links are connected together, whereby said division rod is free to drop from its raised position to that indicated by dotted lines as the inclinable stanchion member is unlocked and moved outwardly, and means for pivotally connecting the upper end of said division rod with said stanchion member.

[Claims 2 to 5 not printed in the Gazette.]

1,239,907. THREAD-CONTROLLING DEVICE FOR SEWING-MACHINES. CHRISTIAN H. T. HAGELSTEIN, Boston, Mass., assignor to The Reece Button Hole Machine Company, Boston, Mass., a Corporation of Maine. Filed May 5, 1917. Serial No. 166,593. (Cl. 112—39.)



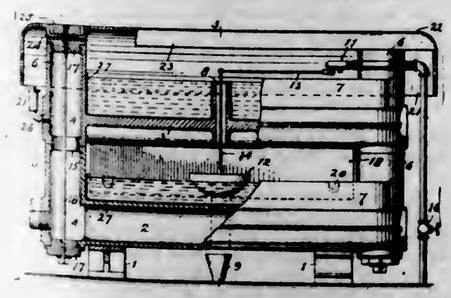
1. In a buttonhole sewing machine, the combination with a frame carrying stitch-forming mechanism, of work-holding means, a tension device for the thread, automatically-operative means tending to release the tension, a feed cam for producing relative movement between said stitch-forming mechanism and work-holding means, and means controlled by said cam for holding said automatically-operative means inoperative until the stitching on a buttonhole is completed.

3. In a buttonhole sewing machine, the combination with a frame carrying stitch-forming mechanism, of work-holding means, a rotary feed cam for producing relative movement between said stitch-forming mechanism and work-holding means, said feed cam having a high portion and a low portion, a tension device for applying tension to the thread, a lever for releasing the tension, a rod connected to said lever, a spring acting on the rod and tending to actuate said lever in a direction to relieve the tension, and a finger carried by said rod and adapted to engage the high and low portions of the feed cam as the latter rotates.

4. In a sewing machine, the combination with a frame carrying stitch-forming mechanism, of work-holding means, a tension device for the thread, automatically-operative means tending to release the tension, a feed cam for producing relative movement between the stitch-forming mechanism and work-holding means, and means rigid with said cam for holding said automatically-operative means inoperative until the cam is in a predetermined position.

[Claims 2 and 5 not printed in the Gazette.]

1,239,908. AIR-MOISTENER. ROBERT W. HARDIE, White Plains, N. Y. Filed Sept. 2, 1916. Serial No. 118,258. (Cl. 237—73.)

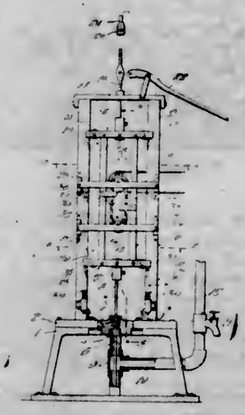


1. In an air moistener, the combination of an open horizontal receptacle, a heating member having a heat radiating conductor forming the bottom of said receptacle, and a heating chamber at each end of said receptacle forming the end walls of said receptacle and communicating with and extending above said conductor, whereby heat is radiated from the upper wall of said conductor and the inner walls of said chambers directly into the water in said receptacle.

4. In an air moistener, the combination of an open receptacle, a main heating member having a horizontal heat radiating conductor extending along the bottom of said receptacle and a heating chamber at each end of said receptacle extending above and communicating with said conductor, the upper wall of said conductor, and the inner vertical walls of said heating chambers being exposed to the interior of said receptacle, an auxiliary heating member provided with a plurality of horizontal conduits and an end chamber at each end of said conduits communicating with said conduits, and means for connecting the end chambers of said auxiliary heating member with the corresponding end heating chambers of the main heating member.

[Claims 2 and 3 not printed in the Gazette.]

1,239,909. PUMP-JACK. EDWARD HARDS, Phoenix, Ariz. Filed Jan. 15, 1917. Serial No. 142,490. (Cl. 74—14.)



1. A device of the class described comprising an upright open rectangular guide frame, a smaller upright open rectangular frame slidable vertically within said guide frame and adapted to be connected to the reciprocating piston rod of a pump, pairs of upper and lower horizontal supporting bars connected at their ends to the upright members of said guide frame intermediate the ends thereof and being provided with bearings, upper and lower shafts mounted in said bearings and extended transversely of said frames and within the smaller frame, sprocket gears on said shafts, a sprocket chain passing over said gears and having a driving element thereon, and lugs extending inwardly from the upright members of the smaller frame for alternate engagement with said driving element, whereby to reciprocate said smaller frame upon the application of power to one of said shafts.

[Claim 2 not printed in the Gazette.]

1,239,910. HEAD-COVERING. MARY JANE HARRIS, San Francisco, Cal., assignor of one-half to Margaret M. Sutton, Los Angeles, Cal. Filed Nov. 10, 1915. Serial No. 60,785. (Cl. 2—118.)

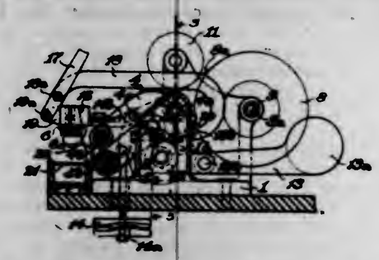
A head covering comprising a fabric member; a band secured along an edge of said fabric member; said band having portions extended beyond the fabric member to constitute tying ends; one component of a separable fas-

tening device secured to the band and fabric intermediate the tying ends, a vizor member; a band secured along an



edge thereof; and another component of a separable fastening device secured to said band and vizor.

1,239,911. MILLING-MACHINE. CHARLES L. HEISLER, Schenectady, N. Y. Filed June 23, 1916. Serial No. 105,325. (Cl. 90—15.)



1. A milling machine comprising a swinging cutter arm, a work-holding chuck, and movable means connected to said arm and to said chuck in such a way that movement of said means in one direction will first cause the chuck to grip the work and then swing the arm to cause the cutter to engage the work, and movement of said mans in the other direction will first swing the arm away from the work and then cause the chuck to release the work.

2. A milling machine comprising a swinging cutter arm, a work-holding chuck, a lever pivoted on said chuck, and a link connection between said lever and said arm, whereby actuation of said lever will first cause the chuck to grip the work and then cause said arm to bring the cutter into engagement with the work.

3. A milling machine comprising a vertically swinging weighted cutter arm, a spring chuck, a lever pivoted on said chuck, and connections between said lever and said arm, whereby actuation of said lever first closes the chuck on the work against the spring resistance thereof and the weight of the arm, and then raises the latter to bring the cutter into engagement with the work.

4. A milling machine comprising a pair of parallel swinging arms, cutter spindles journaled in the free ends of said arms, cutters mounted on said spindles, means to rotate the latter, a work-holding chuck, a manually operable lever, and connections between said lever and said chuck and arms, such that actuation of said lever first grips the chuck on the work and then swings said arms to cause the cutters to engage the work.

5. A milling machine comprising a pair of superposed vertically swinging arms, rotary cutters journaled in the free ends of the same, a stationary spring chuck, a lever pivotally connected at its lower end to said chuck, a link pivotally connected at one end to said lever, connections between said link and said arms, and an adjustable weight suspended from said arms, whereby, when said lever is actuated, the pivotal connection of said link therewith first acts as its fulcrum and the chuck is caused to grip the work, and then the pivotal connection of the lever with the chuck becomes its fulcrum and the arms are raised to bring the cutters into engagement with the work.

[Claims 6 to 10 not printed in the Gazette.]

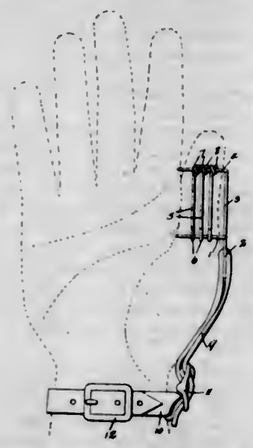
1,239,912. MANUFACTURE OF CEMENT. ANDRÉ HELBRONNER, Paris, France. Filed Dec. 29, 1913. Serial No. 809,224. (Cl. 106—25.)

1. A process for manufacturing white Portland cement by mixing the ordinary ferrugineous raw materials of cement and calcium chlorid, heating the mixture progressively up to 1400°–1500° C. and submitting the mixture during the heating to the action of superheated steam, thereby volatilizing the metallic chlorids and collecting the white cement produced.

7. A process for manufacturing white Portland cement by mixing ferrugineous clay and calcium chlorid, then heating the mixture progressively in a blast of air up to 1400°–1500° C. and submitting the mixture during the heating to the action of superheated steam, thereby volatilizing the metallic chlorids and collecting the white cement produced.

[Claims 2 to 6 not printed in the Gazette.]

1,239,913. CORN-HUSKER. JOHN J. HESER, Tamora, Nebr. Filed June 21, 1917. Serial No. 176,169. (Cl. 130—4.)



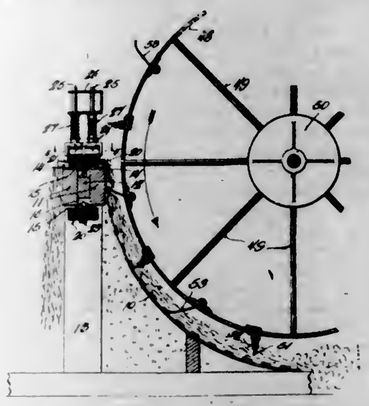
1. A corn husker, comprising a thumb encircling loop, an offset sloping rearwardly from the loop, a supporting bar rising from the offset, another thumb encircling loop supported on the bar, prongs projecting from the last mentioned loop, and attaching means secured to the offset.

2. A corn husker, comprising a thumb encircling loop, an offset sloping rearwardly from the loop, a supporting bar extending from the offset, another loop supported on the bar, spacing bars secured to and extending between the loops, prongs projecting from one end of the spaced bars, and means engaging the offset for securing the husker in place upon a hand.

1,239,914. SCUTCHING-MACHINE. JOHN HUBLER, Brandon, Wis. Filed Dec. 18, 1916. Serial No. 137,610. (Cl. 13—18.)

1. In a scutching machine, a gripping and conveying mechanism including upper and lower endless belts, means clampingly engaging the inner stretch of one of the belts, a traveling bed engaging the inner stretch of the other belt whereby said inner stretches are held in clamping relation, and means for driving said belts.

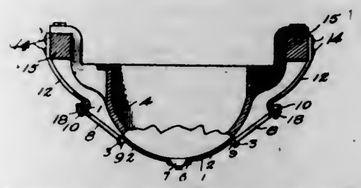
3. In a scutching machine, a bed comprising a pair of outer sills and an intermediate sill of less size than the outer sills to provide a pair of channels between the latter, a gripping and conveying mechanism including an endless chain movable in said channels, bed plates carried by the chain and slidable on said outer sills, an endless belt having one stretch seated against said bed plates, a second endless belt, means for clampingly engaging one stretch of said second endless belt with the said stretch of the first belt and means for driving said belts and chain.



4. In a scutching machine, a gripping and conveying mechanism including upper and lower endless belts, a support for the inner stretch of one of the belts, spring urged rollers engaging the inner stretch of the other belt, inter-engaging ribs on the adjacent faces of the inner stretches of said belts, annular flanges on the outer ends of certain of said rollers for engagement with the outer sides of the adjacent belt whereby to hold both of said belts in longitudinal alinement and against lateral shifting, and means for driving said belts.

[Claim 2 not printed in the Gazette.]

1,239,915. CRANK-CASING SUPPORT. JOHN A. JOHNSON, Westerly, R. I. Filed Aug. 21, 1916. Serial No. 116,109. (Cl. 74—56.)



1. In a device of the class described, the combination of a cradle plate, said cradle plate being adapted to fit upon a crank casing, bolts connected to said cradle plate, and supporting straps adjustably connected to said bolts, said supporting straps being adapted to be carried upon the frame of an automobile, whereby said supporting straps will cause said bolts to positively retain said cradle plate in a set position upon the crank casing.

2. In a device of the class described, the combination of a cradle plate, bolts connected to said cradle plate, and supporting straps having outwardly extending ears, said bolts being adjustably connected to said ears, whereby said cradle plate may be adjustably held in a set position upon the crank casing.

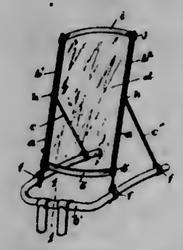
3. In a device of the class described, the combination of a cradle plate, said cradle plate comprising a central body having reduced arms extending from its end portions, said arms terminating in outwardly bent lips, said lips being provided with central openings, adjusting bolts having transversely extending heads formed thereon, whereby said bolts will be provided with T-shaped ends, said bolts extending through said openings of said lips, whereby said transversely extending heads will fit within said lips, said cradle plate being adapted to fit upon a crank casing, and means connected to said bolts for positively supporting the same, whereby said cradle plate will be held in engagement with the crank casing.

9. In a device of the class described, the combination of a cradle plate having lips formed thereon, said lips having openings, adjusting bolts having heads formed thereon, said bolts extending through said openings, said heads bearing upon said lips, and means connected to said bolts for supporting the same, thereby supporting said cradle plate.

13. In a device of the class described, the combination of a cradle plate having lips formed thereon, said lips having openings, adjusting bolts having heads formed thereon, said bolts extending through said openings, said heads bearing upon said lips, supporting straps having outwardly extending ears formed thereon, said ears having apertures extending therethrough, said bolts projecting through said apertures, and nuts engaging the projecting ends of said bolts, said nuts bearing upon said ears, thereby adjustably supporting said bolts.

[Claims 4 to 8 and 10 to 12 not printed in the Gazette.]

1,239,916. WIND-SHIELD FOR MOTOR-CYCLES. HARRY T. JOSS, Biddeford, Me. Filed Jan. 16, 1917. Serial No. 142,728. (Cl. 208—150.)



1. In a wind shield for motor cycles, the combination of a pair of upright frame rods, a brace secured to each rod, clips on the handle bars for holding the rods and braces and permitting their vertical adjustment, frame members uniting the upper and lower ends of said rods and curved toward the front, and a sheet of flexible transparent material uniting said frame members and free from connection with the upright frame rods.

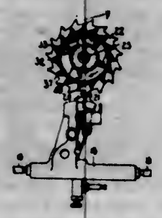
2. In a wind shield for motor cycles, the combination of a pair of upright frame rods, a brace for each rod, curved cross-frame members uniting the upper and lower ends of said rods, clips for securing said rods and braces to the handle bars and permitting their vertical adjustment, said frame rods and curved rods constituting a supporting frame, and a strip of flexible transparent material for covering said supporting frame.

3. In a wind shield for motor cycles, the combination of an upright frame secured to the handle bars, said frame having upper and lower forwardly curved members and a piece of flexible transparent material stretched between said members and free at its lateral edges.

4. In a wind shield for motor cycles, the combination of an upright frame presenting a forward curve or arch in a horizontal plane, a strip of flexible transparent material covering said frame, clips for securing said frame between the handle bars and a deflecting apron extending below said frame and said handle bars, and positioned to direct a current of air onto the motor, to cool the same.

5. In a wind shield for motor cycles, the combination of an upright frame presenting a forward curve or arch in a horizontal plane, a strip of flexible transparent material covering said frame, clips for securing said frame to the handle bars, a deflecting apron secured to the lower end of said frame and extending below said handle bars and fastening devices for securing said apron to said handle bars, and positioned to direct a current of air onto the motor, to cool the same.

1,239,917. PAWL-AND-RATCHET MECHANISM. HUBBARD N. JOSLEYN, Syracuse, N. Y., assignor to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed June 23, 1915. Serial No. 35,837. (Cl. 74—60.)



1. In mechanism of the character described, two disconnectible rotatable elements provided with devices effective to connect said elements during rotation in one direction, in combination with traveling means for automatically disconnecting said devices when the direction of rotation is reversed, said traveling means being rotatively supported on one of said rotatable elements.

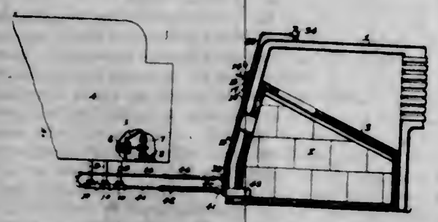
3. In mechanism of the character described, the combination of two rotatable elements, pawl and ratchet devices for connecting said elements, a spring tending constantly to maintain said pawl and ratchet devices in engagement, and a C-shaped spring surrounding and frictionally gripping said ratchet device, one end of said C-shaped spring, when the direction of rotation of said elements is reversed, engaging said pawl device and throwing it out of the ratchet device, after which during further movements of rotation said pawl device forces said C-shaped spring ahead of it.

6. In mechanism of the character described, the combination of a wheel, a shaft, a ratchet wheel connected with said wheel, a pawl pivotally mounted and supported from said shaft, a spring for pressing said pawl into engagement with said ratchet wheel, and a C-shaped spring surrounding and frictionally gripping said ratchet wheel, one end of said C-shaped spring, when the direction of rotation of the shaft is reversed, engaging said pawl and throwing it out of the ratchet wheel after which said pawl forces said C-shaped spring ahead of it.

8. The combination of a driving member, a pawl pivoted to rotate therewith, a driven member including a ratchet wheel with which said pawl normally engages, and an interposed device rotating normally with said ratchet wheel and adapted on reversal of the movement of the driving member to disengage the pawl from the ratchet wheel, and adapted also to be moved by said pawl in reverse direction while said ratchet wheel remains stationary.

[Claims 2, 4, 5, 7, 9, and 10 not printed in the Gazette.]

1,239,918. PULVERIZED-COAL-BURNING MEANS FOR LOCOMOTIVES. AUGUST KIRCHHOFER, Nashville, Tenn., assignor of one-half to Thomas A. Clarkson, Nashville, Tenn. Filed Aug. 28, 1915, Serial No. 47,789. Renewed Feb. 8, 1917. Serial No. 147,496. (Cl. 110—103.)

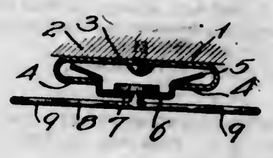


1. A means for burning pulverized coal in boiler furnaces, comprising a burner with two superposed outlets, means common to both outlets for directing air under pressure thereto, means for feeding pulverized coal to the upper burner outlet by the air stream directed thereto, and means in the air directing means common to both outlets of the burner for simultaneously controlling the air to both outlets by and in accordance with the boiler pressure.

2. A means for burning pulverized coal in locomotives, comprising a burner, an air duct to be connected to a source of air under pressure, an injector structure connected to the air duct and leading to the burner for directing a stream of air and fuel through the burner into the fire chamber of the locomotive, a steam controlled valve included in the air duct for varying the flow of air in accordance with the steam pressure in the locomotive, and means for directing a stream of air from said duct on the burner side of the steam controlling means into underlying relation to the stream of air and fuel within the fire chamber of the locomotive.

3. A means for burning pulverized coal in locomotives, comprising a burner with adjacent passages one above the other in the installed position of the burner, the upper passage being provided to direct a stream of air and pulverized coal into the fire chamber of the locomotive, and the lower passage being provided to direct a stream of air, in underlying relation to the first-named stream, an injector structure coupled to the upper passage of the burner, an air pipe connected to the injector structure and to the lower passage in the burner for supplying air under pressure to both passages, and a valve structure in the air pipe having a steam chamber adapted to be connected to the boiler of the locomotive with said steam chamber associated with the valve to control the passage of air through the valve in accordance with the steam pressure.

1,239,919. PORTIÈRE-HANGER. CHARLES W. KIRSCH, Sturgis, Mich. Filed Mar. 8, 1916. Serial No. 82,893. (Cl. 156—20.)



1. A portière hanger comprising an inverted channeled rail-member, having opposed overhanging side flanges presenting a downwardly opening longitudinal slot therebetween, said rail-member adapted to be mounted upon the lower face of the top of a door-frame or the like, and a plurality of drapery supports of greater width than the slot in the rail, and having upwardly divergent flanges adapted to rest upon the inner faces of the rail flanges and formed with a dependent portion fitting loosely between the opposed rail flanges whereby the supports are freely movable longitudinally of the rail and are held against rotation, each of said supports provided with means at its lower end for securing a portière thereto.

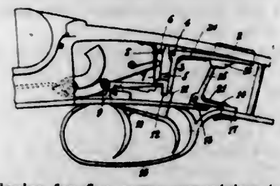
2. A portière hanger comprising an inverted channeled rail-member having opposed overhanging side flanges presenting a downwardly opening longitudinal slot therebetween, said rail-member adapted to be secured upon the lower face of the top of a door-frame or the like, said rail-member having perforations in its middle portion for the passage of fastening means, the heads of the latter adapted to project from the inner face of the rail, channeled longitudinally movable drapery supports mounted upon the flanges of the rail and having middle portions depending below the opposed flanges of said rail for preventing the rotation of said supports, the channels of the supports permitting their free passage past said fastening means, each support provided at its lower end with means for securing a portière thereto.

3. A portière hanger comprising a relatively flat channeled rail having opposed overhanging flanges bordering a longitudinal slot, a plurality of drapery supports movable in the slot and having divergent side flanges adapted to rest upon the opposed flanges of the rail, the middle portions of said supports depending below the flanges of the rail a distance greater than that separating the divergent flanges of said supports from the middle portion of the rail to prevent the displacement of the supports by raising the same, and preventing the rotation of the supports while permitting their free longitudinal movement in the slot of the rail.

4. A portière hanger comprising a relatively flat channeled rail having opposed overhanging flanges bordering a longitudinal slot, a plurality of drapery supports movable in the slot and having upwardly divergent side flanges adapted to rest upon the opposed flanges of the rail, each of said supports formed with a depending middle portion fitting loosely in the slot of the rail and preventing the rotation of said supports, said inclined flanges adapted to contact with the upper wall of the rail before the depending portion rises free of said opposed flanges, and means swiveled in the supports for attachment to the upper edge of a portière.

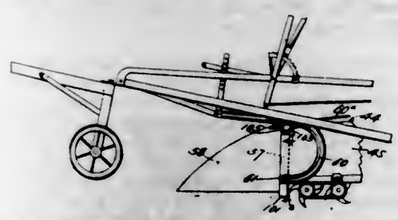
5. A flat C-shaped rail having a longitudinal slot in one flat side, said rail adapted to be mounted upon the lower face of the top of a door-frame or the like, a channeled sheet metal support having divergent side flanges supported within the rail and depending through the slot a depth sufficient to prevent the displacement of the support when the latter is raised until the flanges contact with the upper wall of the rail, a short vertical rod swiveled in the support and provided at its lower end with a rigid cross-bar, and a loop on each end of the cross-bar, the loops lying in the horizontal plane of the cross-bar and adapted for attachment to the upper edge of the portière, whereby the latter is movably supported to present its upper edge in close proximity to the top of the door frame.

1,239,920. SAFETY DEVICE FOR FIREARMS. EDWARD LARSON, Lerdala, Sweden. Filed Oct. 12, 1916. Serial No. 125,323. (Cl. 42—70.)



A safety device for fire arms comprising two coöperating locking members, whereof the one locks the trigger and is arranged on the upper side of the stock, while the other locks the first-named locking member and is arranged on the underside of the stock.

1,239,921. POTATO-DIGGER. ALBERT LAURITZEN, Charlotte, Mich. Filed June 16, 1916. Serial No. 104,037. (Cl. 55—9.)



1. In a machine of the character described, a trunk, a U-shaped member attached to the forward end thereof, the lower portion of said member having a raised portion, colter plates attached to the limbs of said member, and a digging share secured upon said upwardly offset portion and having its side edges projecting beyond said portion.

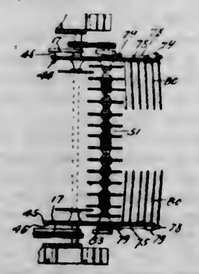
2. In a machine of the character described, a trunk, a U-shaped member having its limbs attached to the forward end of said trunk, the lower portion of said member being provided with an upwardly offset portion between and spaced from the limbs, colter plates attached to the limbs of said member and projecting forwardly, and a digging share secured upon said upwardly offset portion, the side edges of said share being spaced from the colter plates and projecting beyond the ends of said upwardly offset portion.

3. In a machine of the character described, a trunk embodying side plates, a U-shaped member, the forward ends of said plates overlapping the limbs of said member, colter plates overlapping the limbs of said member, a digging share secured upon the lower portion of said member, pivot elements connecting said plates and limbs adjacent the lower edges of said plates, said side plates and limbs having slots adjacent the upper edges of said plates, and clamping elements engaged through said slots.

4. In a machine of the character described, a trunk embodying side plates, a U-shaped member at the forward end of the trunk, colter plates, said plates and member being pivotally connected, means for holding said plates and member at different angles relative to one another, and a digging share secured upon the lower portion of said member.

5. In a machine of the character described, a trunk having side plates, a U-shaped member at the forward end of the trunk, colter plates, said plates and limbs of said members being pivotally connected adjacent the lower edges of said plates, said side plates and limbs having slots adjacent the upper edges of said plates, clamping bolts engaged through said slots, and rearwardly projecting rods overhanging the trunk and having portions engaging said bolts.

1,239,922. POTATO-SEPARATOR. ALBERT LAURITZEN, Charlotte, Mich. Filed June 16, 1916. Serial No. 104,038. (Cl. 130—32.)



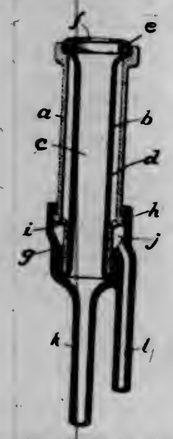
1. In a machine of the character described, a trunk, a shaft carried thereby transversely thereof, an adjustable member carried by the trunk and adjustable about said shaft as a center, a rock shaft carried by said member and having a fork extending transversely at the delivery end of the trunk, means for holding said member in various positions relative to the trunk, and an operative connection between said shafts whereby the rotation of the first mentioned shaft oscillates the rock shaft and its fork at various positions of said member.

2. In a machine of the character described, a trunk, a transverse shaft carried thereby, rearwardly projecting wings mounted upon said shaft for swinging movement, the rear ends of said wings and trunk having coöperable means for holding the wings in different positions and for limiting the movements of said wings, rock shafts carried by the lower edges of said wings and having forks projecting downwardly at a slight angle, said forks projecting toward one another and having their adjacent ends spaced apart, the forks being located at the delivery end of the trunk, the forward ends of the rock shafts having outstanding arms, and cams secured upon the first mentioned shaft and coöperable with said arms for oscillating the forks.

3. In a machine of the character described, a trunk, a transverse shaft carried thereby, a rearwardly adjustable wing mounted upon said shaft for swinging movement, means for limiting the movement of the wing and holding it in different positions, a longitudinal rock shaft carried

by the wing and having a fork at the delivery end of the trunk, said rock shaft having an outstanding arm, and a cam secured upon the first mentioned shaft above said arm for oscillating it and the fork.

1,239,923. MILKING-MACHINE TEAT-CUP. MEREDITH LEITCH, Poughkeepsie, N. Y., assignor to The De Laval Separator Company, a Corporation of New Jersey. Filed Oct. 16, 1916. Serial No. 125,833. (Cl. 31—102.)



1. In a milking machine teat cup, the combination with a rigid shell and a flexible liner engaging the shell at both ends, of a flexible cap and a milk tube formed integral therewith, said cap retaining the lower end of the liner in position on the shell.

2. In a milking machine teat cup, the combination with a rigid shell and a flexible liner engaging the shell at both ends, of a flexible cap and a pulsation tube formed integral therewith, said cap retaining the lower end of the liner in position on the shell.

4. In a milking machine teat cup, the combination with a rigid shell and a flexible liner whose lower end is turned up around the lower end of the shell, of a flexible cap retaining the liner in position on the shell and a milk tube and a pulsation tube formed integrally with the cap.

5. In a milking machine teat cup the combination with a flexible cap, a milk tube communicating with the lower end of the cap, and a pulsation tube opening into the side wall of the cap, of a rigid shell, and a flexible liner engaging the shell, said cap at its upper end surrounding the shell and toward its lower end confining the liner to the shell at a point between the cap's milk tube opening and its pulsation tube opening, the shell being perforated to afford communication between the annular chamber formed between the liner and the shell and the annular chamber formed between the shell and the cap.

8. A device for attachment to the lower end of a teat cup, comprising a cap having an open top, a milk tube communicating with the base of the cap and a pulsation tube opening into the side wall of the cap.

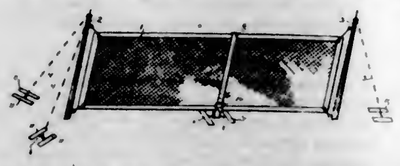
[Claims 3, 6, and 7 not printed in the Gazette.]

1,239,924. ANCHORAGE FOR TENNIS-NETS AND THE LIKE. FREDERICK WAIT LORD, New York, N. Y. Filed Oct. 11, 1916. Serial No. 125,114. (Cl. 46—24.)

1. Means for retaining a tennis net, comprising a plurality of plates, each provided with a plurality of teeth, and a flexible member between said toothed plates.

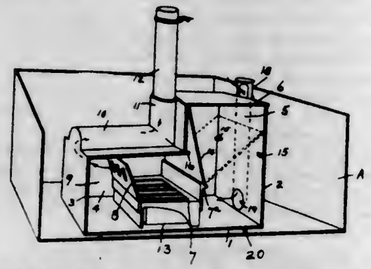
2. Means for retaining a tennis net, comprising a plurality of plates each having a plurality of independent teeth, a flexible member between said toothed plates, and a flexible member adapted to engage a net and said first mentioned flexible member.

3. A device of the character described, comprising a plurality of perforated plates, a plurality of teeth supported thereby and extending at right angles to the surface thereof, and a flexible member secured in said perforation and extending approximately parallel with the surface of said plates, as and for the purpose set forth.



4. A securing means comprising a plurality of toothed plates, a flexible member extending between said plates and secured thereto and a flexible member adapted to engage said first flexible member.

1,239,925. TANK-HEATER. RICHARD LORD, Cedar Rapids, Iowa. Filed Feb. 12, 1916. Serial No. 77,875. (Cl. 126—367.)

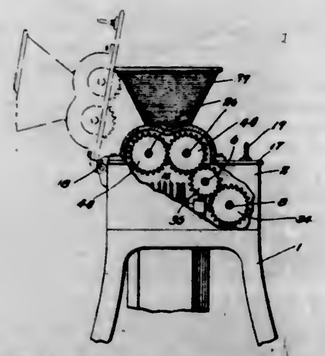


1. In a tank heater, the combination of a one-piece body having a fire chamber; an upwardly extending entrance projection; and a chimney extending along the top of the fire chamber and having its lower wall formed with the upper wall of the fire chamber.

2. In a tank heater, the combination of a body having a fire chamber; an upwardly extending entrance projection; ribs arranged in the projection; a fire box; and a plate adapted to rest on the fire box and of a size to fill the opening above the ribs.

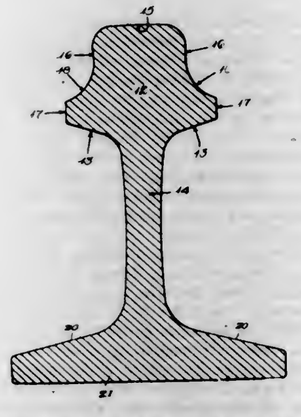
3. In a tank heater, the combination of a body having a fire chamber; an upwardly extending entrance projection; supporting ribs arranged in the projection; a removable fire box; a plate adapted to rest on the fire box and extend into the projection, said plate being of a size to fill the opening above the ribs when placed upon said ribs; and a chimney extending along the top of the fire box and having its lower wall formed with the upper wall of the fire box.

1,239,926. MEAT-CUTTING MACHINE. HERMAN LUER, Alton, Ill. Filed July 19, 1916. Serial No. 110,197. (Cl. 17—18.)



In a cutting machine, the combination of a pair of shafts, means for rotating them, coöperating cutters carried on the shafts, a pair of upper shafts disposed above said first mentioned shafts, means for rotating the upper shafts, coöperating cutters carried by said upper shafts above the cutters on the lower shafts, stripping blades cooperating with the cutters on the upper shafts and on the lower shafts, and a hinged mounting for said upper shafts and said stripping blades whereby the latter may be swung out of coöperation with the cutters on the lower shafts.

1,239,927. INNER RAIL FOR RAILROAD-TRACK CURVES. JOHN W. MCMANAMA, Waltham, Mass., assignor of one-third to Samuel W. Simonds and one-third to Francis A. Barbey, Cambridge, Mass. Filed Jan. 30, 1917. Serial No. 145,385. (Cl. 239—14.)



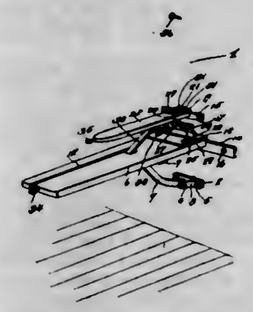
1. A railroad rail, the head of which has a relatively wide base, including downwardly facing bearing surfaces at opposite sides of the web, a relatively narrow tread, and sides including substantially parallel upper portions extending downwardly from the tread, and adapting the tread to be worn down without substantial increase of its width, lower portions joining said bearing surfaces, and outwardly and downwardly inclined intermediate portions forming fillet surfaces between said upper and lower portions.

2. A railroad rail, the head of which has a relatively wide base, including downwardly facing bearing surfaces at opposite sides of the web, a relatively narrow tread, and diversified sides extending from the tread to the base, and including upper portions adapting the tread to be worn down without substantial increase of its width lower portions defining the width of the head base, and intermediate portions joining said upper and lower portions.

3. A railroad rail, the head of which has a base including downwardly facing bearing surfaces at opposite sides of the web, and a relatively narrow tread, the distance between said bearing surfaces and the opposed bearing surfaces of the rail flange being substantially the same as in a standard rail, to admit standard angle plates between said surfaces, and the height of the rail, or the distance between the tread and the bottom of the rail flange, being greater than the standard height.

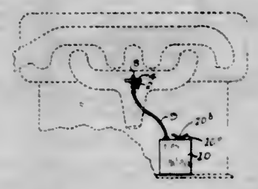
1,239,928. IRONING AND PRESSING BOARD. BENJAMIN F. MARSDEN, Plad, Mo. Filed Aug. 20, 1914. Serial No. 857,681. (Cl. 68—10.)

In combination, a horizontal support disposed at right angles to a vertical stationary support and having a recess in its upper face, said recess having a shoulder, a plate having a flange provided with perforations secured to said stationary support, a board having upwardly extending lugs at one end to engage said perforations, a bracket carried by the stationary support and having a pivoted brace linked to the under face of the board, a brace hinged to the under face of the board outwardly beyond the link and



being inclined downwardly and outwardly and having its lower end engaging said shoulder of the recess.

1,239,929. HYDROPNEUMATIC VAPORIZING APPARATUS FOR GAS-ENGINES. JAMES G. MECHAM, San Diego, Cal., assignor to Mecham Manufacturing Co., a Corporation of Arizona. Filed June 27, 1916. Serial No. 106,153. (Cl. 123—25.)



1. In an apparatus of the class described, a vapor conductor provided with separate water and separate air inlets, means for regulating the quantity of vapor therethrough, said means consisting of a double hollow diaphragm communicating with said conductor and a needle valve supported by said diaphragms and means for adjusting said needle valve relatively to said diaphragm supports.

2. In an apparatus of the class described, a vapor conductor provided with separate water and separate air inlets and means for regulating the quantity of vapor therethrough, said means consisting of a double hollow diaphragm communicating with said conductor, a needle valve supported by said diaphragms, means for adjusting said needle valve relatively to said diaphragm supports and manually operated means for closing said conductor independent of said needle valve.

3. In an apparatus of the class described, a vapor conductor provided with separate water and air inlets connecting with the intake manifold of a gas engine, means for regulating the quantity of vapor through said conductor, said means consisting of a double hollow diaphragm actuated by the vacuum in said intake manifold, a needle valve supported by said diaphragms, means for adjusting said needle valve relatively to said diaphragm supports and means for adjusting the size of the water intake to said conductor.

4. In an apparatus of the class described, the combination of an intake manifold to a gas engine, a T shaped conductor rigidly secured thereto, means adjacent to said manifold for manually closing said conductor, a hollow double diaphragm communicating with said conductor, a needle valve adjustably mounted on said diaphragm whereby said needle valve is automatically opened and closed relatively to the vacuum in said intake manifold, means for supplying water and air to said needle valve, and means for regulating the quantity of water to said needle valve.

1,239,930. COFFEE-CLEARING COMPOSITION. ALBERT F. W. MEYER, Chicago, Ill. Filed July 13, 1916. Serial No. 109,056. (Cl. 99—11.)

1. A beverage clarifier comprising a granular, porous cellulose material, a weighting material added thereto, and a coating of albumen.

2. A beverage clarifier comprising comminuted wood particles having a coating of intermixed albumen and a weighting material.

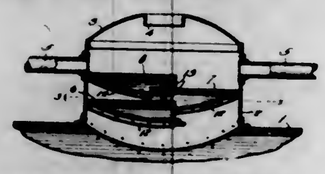
3. A beverage clarifier comprising comminuted wood particles having a coating of intermixed albumen and pipe clay.

4. The process of preparing a coffee clearing product which consists in admixing albumen and a weighting agent, intermingling therewith comminuted particles of porous cellulose material and drying the product.

5. The process of preparing a coffee clearing product which consists in admixing liquid albumen with an adhesive, intermingling therewith particles of comminuted material of approximately the size and shape of ground coffee, and drying the product in its comminuted state.

[Claims 6 and 7 not printed in the Gazette.]

1,239,931. STEAM-DOME SEPARATOR AND BOILER-SKIMMER. CHARLES C. MILLER, Pittsburg, Kans. Filed Jan. 13, 1917. Serial No. 142,258. (Cl. 122—492.)



1. In steam skimming and separating means, a boiler, a dome carried by the boiler and communicating with the interior thereof and provided with a steam outlet, a plurality of convexed oppositely directed baffle plates mounted in the dome in superposed spaced relation intermediate said boiler and steam outlet adapted to separate moisture from steam as it flows through the dome, and means for collecting the moisture separated from the steam by said plates and removing it from the dome.

2. In steam skimming and separating means, a boiler, a dome carried by the boiler and communicating with the interior thereof, a plurality of sectoral oppositely directed baffle plates mounted in the dome in super-posed spaced relation, said plates being convexed longitudinally, moisture collecting pans mounted beneath and closely adjacent each corner of the lowermost one of said plates, and means for optionally draining said pans.

3. In steam skimming and separating means, a boiler, a dome carried by the boiler and communicating directly with the interior thereof, a plurality of sectoral concavo-convex oppositely directed baffle plates mounted in the dome in superposed spaced relation, each of said plates being concaved in the direction of its longitudinal axis, moisture collecting pans mounted beneath and closely adjacent each corner of the lowermost one of said plates, and means for optionally draining said pans.

1,239,932. BALING-PRESS. CHARLES L. MILLER and LANCE J. TOPPELMIER, San Leandro, Cal., assignors to Junior Monarch Hay Press Company, San Leandro, Cal., a Corporation of California. Filed May 24, 1916. Serial No. 99,552. (Cl. 100—19.)

1. The combination with a baling press, a bull-wheel, a frame supporting the wheel, and a chain by which power is transmitted from the bull-wheel to the press, of a guide frame for the chain extending from the first frame and consisting of parallel connected angle iron bars having their vertical flanges depending to engage in the ground when said guide frame is operatively disposed, said bars being upwardly offset at their free ends for connection with the baling press.

2. The combination with a portable baling press, a wheeled support therefor a trailing frame, a bull-wheel on the frame, of an extension guide frame on the trailing frame, means coupling the guide frame to the wheeled support for moving the trailing frame with the wheeled support, a power transmitting chain connecting the bull-wheel to the press, said guide frame being adapted to be uncoupled from the wheeled support and positioned to serve as a guide for the chain, and means on the wheeled support for interlocking with the guide frame when the latter is uncoupled from the support for holding the guide frame operatively disposed.

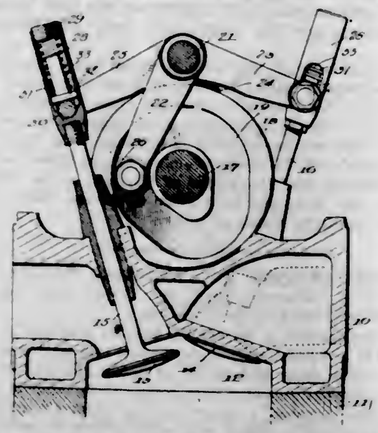


3. The combination with a press, a support therefor embodying spaced frame members, a bull-wheel, a frame supporting the wheel and means on the support to couple the frame extension therewith for transportation purposes, of a depending upright on each frame member, a connecting cross bar for the spaced uprights, a pulley on the support, a second pulley on the frame extension, a power transmitting chain connecting the press to the bull-wheel and passing about the pulleys and between the frame members, and means on the frame extension for interlocking with the uprights when said frame is uncoupled from the support.

4. The combination with a baling press, a support therefor, a bull-wheel, and a frame for the wheel, of a yoke depending from the press support, a guide frame leading forwardly from the first frame and adapted to serve as a coupling between the latter and the press support, and a power transmitting chain connecting the press and bull-wheel, said guide frame being adapted to be uncoupled from the support and positioned for guiding the chain in its movement and interlocking at its forward end with said yoke.

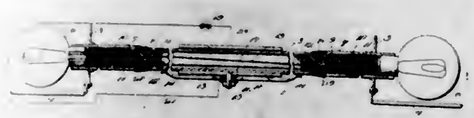
5. The combination with a baling press, a support therefor, a bull-wheel, and a frame for the wheel, of a yoke depending from the press support, a guide frame leading forwardly from the first frame and adapted to serve as a coupling between the latter and the press support, a power transmitting chain connecting the bull-wheel with the press and being adapted for guidance by said guide frame when the latter is uncoupled from the press support, and interlocked with the yoke, said guide frame having its forward end upwardly offset for interlockingly engaging with the yoke.

1,239,933. VALVE-GEAR. DELBERT J. MILLER, Green Bay, Wis., and JESSE M. AUSTIN, Chicago, Ill. Filed May 2, 1917. Serial No. 165,996. (Cl. 121—97.)



A valve operating mechanism comprising in combination with the stem of a valve, a sleeve carried by the outer end of the valve stem and having a side opening, a spring pressed plunger seating in the sleeve, a lever having a side pin extending into the sleeve through the side opening and engaging the plunger, and actuating means for the lever, the plunger being moved to compress its spring when the lever swings to close the valve.

1,239,934. INDICATOR FOR VEHICLES. WILLIAM A. MILLER, Los Angeles, Cal. Filed Feb. 16, 1916. Serial No. 78,743. (Cl. 177—311.)



1. An indicator for vehicles comprising in combination, a conducting support, a bar having a conducting portion intermediate its ends reciprocable on said support and a pair of spaced conducting collars insulated from said intermediate portion, a lamp carried by said bar at each end thereof and connected electrically to said intermediate portion, each lamp being also connected electrically to the opposite collar, a source of electricity connected to said support, switch contacts connected to said source of electricity and located in the path of said collars, and means for moving said bar endwise to extend a lamp to indicating position and light it.

2. An indicator for vehicles comprising in combination, a support, a bar mounted for reciprocation thereon, a lamp carried by said bar at each end thereof, a source of electricity to which one terminal of both of said lamps is connected, insulated movable switch contacts connected respectively to the other terminals of said lamps, means for reciprocating said bar and moving said contacts, and stationary switch contacts connected with said source of electricity and located adjacent the middle of the device and between and in the path of said movable switch contacts whereby endwise motion of said bar will bring one or the other of said switch contacts into contact with one of said stationary contacts thus completing the circuit of one of said lamps.

4. An indicator for vehicles comprising in combination, a support, a bar reciprocable thereon and having an intermediate conducting portion, a non-conducting plug in each end thereof, conducting collars insulated from said intermediate conducting portion, a pair of lamps carried by said bar one at each end thereof, each having one terminal connected to the intermediate conducting portion by a wire the end of which is pressed between the plug and the intermediate conducting portion and the other terminal of which is in electrical connection with the opposite collar, means for reciprocating said bar, and stationary contacts located between said collars and in their path to complete the circuit through the extended lamp when the bar is moved endwise into indicating position.

[Claim 3 not printed in the Gazette.]

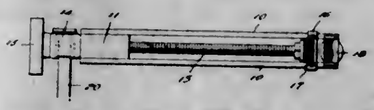
1,239,935. PEANUT AND POTATO HARVESTER. GEORGE M. MIZE, De Queen, Ark., assignor of one-half to William F. Wood, De Queen, Ark. Filed Nov. 30, 1915. Serial No. 64,290. (Cl. 55—137.)



1. A machine of the character specified, comprising a frame, wheels on the frame intermediate the ends thereof, the front end of the frame carrying a digging blade being adapted to normally rest upon the ground, and means at the said front end for raising and lowering the frame, said means comprising a curved plate upon which the said front end of the frame rests, the rear end of the plate being detached from the frame and having an upwardly extending handle for locking the plate with respect to the frame to raise and lower said frame.

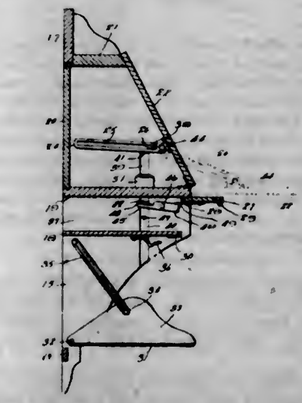
2. A machine of the character specified, comprising a wheel supported frame adapted to run at its front end upon the ground and carrying digging means at the said end, and means for raising and lowering the said end, said means comprising a curved plate connected to the frame at the front thereof to rock upon the frame, and having a handle for rocking the same.

1,239,936. WAGON-JACK AND WRENCH. DAVID N. MORTON, Mitchell, Nebr. Filed Aug. 23, 1916. Serial No. 116,504. (Cl. 81—175.)



In a device of the class described, in combination a pair of carrying plates, a jaw projecting between said plates at one end and being secured thereto, a spacing block secured between said plates at their opposite ends, a slidable jaw mounted between said plates and having a non threaded bore, a screw-bolt threaded into said block and projecting revolubly in said bore, nuts engaging said screw-bolt and engaging opposite sides of said slidable jaw, a rigid bearing member formed on said screw-bolt and a connecting member having one side secured to one end of said slidable jaw and engaging one edge of said plate, two parallel sides slidably straddling said carrying plates and formed with terminal lugs extending inwardly and forming shoulders engaging the opposite edge of each of said plates.

1,239,937. DESK. EULA A. MOSMAN, Allegany, N. Y. Filed Mar. 27, 1916. Serial No. 86,948. (Cl. 45—51.)



1. A wall desk having a writing compartment provided with a lid, a shelf below said writing compartment, a hinged lid to close the space between said writing compartment and shelf and having a portion depending below said shelf, and a fastening device on the under side of said shelf and coöperating with the depending portion of said last-named lid.

2. In a desk having a writing compartment, in combination, a drop lid for closing said compartment, a link pivoted to said lid and provided with a slot and a notch at the upper side of said slot adjacent the outer end thereof, a fixed stud coöperating with said slot and adapted to enter said notch when said lid is closed to lock the same in closed position, and a slide guided in the wall of said compartment and extending to the exterior there-

of, said slide being adapted to engage and raise said link to disengage said stud from said notch and thereby unlock said lid.

3. A disk having a writing compartment provided with a lid, means for locking said lid in closed position, a shelf below said writing compartment, a lid hinged at its upper edge and adapted to close the space between said writing compartment and shelf, said last-named lid having a portion depending below said shelf and being operatively connected with said locking means, and a fastening device on the underside of said shelf and coöperating with the depending portion of said last-named lid.

4. A desk having a writing compartment provided with a lid, means within said compartment for supporting said lid in open position and adapted to lock the same in closed position, and means for operating said locking means, said desk having a second compartment provided with a lid, and means carried by said last-named lid for engaging and operating said operating means.

5. In a desk having a writing compartment and a second compartment, in combination, a drop lid for closing said writing compartment, a link pivoted to said lid and provided with a slot and a notch at the upper side of said slot adjacent the outer end thereof, a fixed stud coöperating with said slot and adapted to enter said notch when said lid is closed and lock the same in closed position, a slide adapted to engage and raise said link to disengage said stud from said notch and thereby unlock said lid, said slide extending into said second compartment, and a lid for closing said second compartment and operatively connected with said slide.

[Claims 6 to 8 not printed in the Gazette.]

1,239,938. STOVEPIPE-SHELF. VINCENT MRASEK, Burbank, Fla. Filed June 19, 1916. Serial No. 104,594. (Cl. 126—341.)



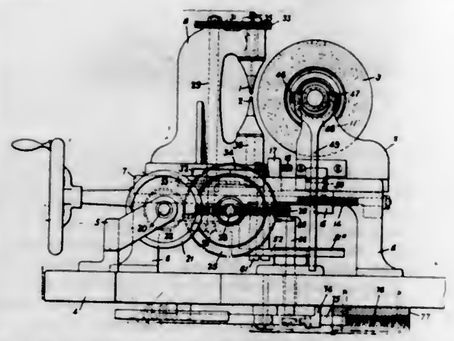
A stove pipe shelf comprising a plate recessed at one end to fit the pipe and having at the other end a bearing, a substantially rectangular frame journaled at one end in the bearing and shaped at the other to fit the pipe, a brace between the said end and the plate, the plate having a depending tongue at the said end, said brace and tongue being flat strips tending to prevent lateral movement, and means for connecting the shelf to a pipe, said means comprising a ring between which and the pipe the tongue engages, the ring being adjustable to permit it to be engaged with different sizes of pipes.

1,239,939. JEWEL-GRINDING MACHINE. FRIEDRICH MUELLER, Irvington, N. J., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Jan. 5, 1916. Serial No. 70,422. (Cl. 51—3.)

1. In a machine for grinding bearing jewels and the like, the combination with means for rotatably supporting the object to be ground, and a grinding member that is rotatable upon an axis substantially perpendicular to the axis of rotation of the said object, of means for bringing the said grinding member into contact with the said object, and means for axially moving the said grinding member while in contact with the said object.

2. In a machine for grinding bearing jewels and the like, the combination with means for rotatably supporting the object to be ground, and a grinding member that is rotatable upon an axis substantially perpendicular to the axis of rotation of the said object, of means for bringing a rotary grinding member into contact with the said object, and automatic means for rotating the said grinding member and for simultaneously imparting an axial bodily movement thereto.

3. In a machine for grinding bearing jewels and the like, the combination with means for rotatably supporting the object to be ground, of means for bringing a rotary grinding member into contact with the said object, automatic means for rotating the said grinding member and for simultaneously imparting an axial and rectilinear bodily movement thereto, and means for periodically reversing the direction of rotation of the said object and the direction of bodily movement of the said grinding member.

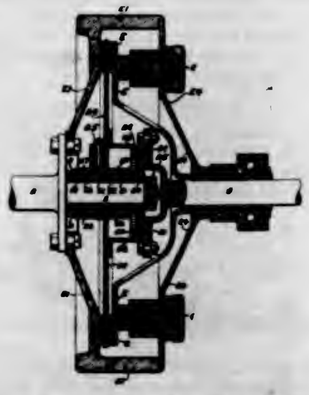


4. In a machine for grinding bearing jewels and the like, the combination of means for rotatably supporting the object to be ground, a grinding member rotatable around an axis perpendicular to the axis of rotation of the said member, means for axially moving the said grinding member in contact with the said object so that the points of the said member and of the said object that are in contact move in opposite directions, and means for periodically reversing the direction of rotation of the said object and the direction of axial movement of the said grinding member.

5. In a machine for grinding bearing jewels and the like, the combination with means for rotatably supporting the object to be ground, of a rotary grinding member adapted to engage the said object, means for periodically reversing the direction of rotation of the said object, and automatic means, operable in timed relation to the said reversing means, for imparting axial bodily movement to the said grinding member.

[Claims 6 to 9 not printed in the Gazette.]

1,239,940. FRICTION-CLUTCH. THOMAS BLACKWOOD MURRAY, Scotstoun, Scotland. Filed Jan. 10, 1917. Serial No. 141,609. (Cl. 192—7.)

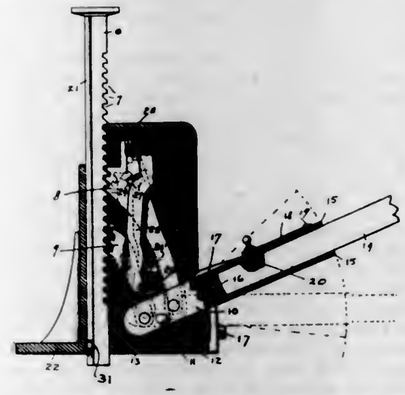


1. In a clutch of single plate type, an intermediate driven disk, a sleeve carrying the same, spring means for closing the clutch, a spring of lesser strength tending to open the clutch, an adjustable stop limiting the travel of the sleeve together with a frictional device between the disk and the sleeve tending to hold the disk normally in given position but insufficient to prevent the displacement of the disk by the clutch closing spring.

2. In a structure such as defined in claim 1, the construction of the frictional device between the disk and disk-carrying sleeve as a series of radially arranged spring-pressed friction plungers carried by the disk and engaging the disk-carrying sleeve.

3. In a construction such as recited in claim 1, the provision of a shouldered driving sleeve upon which the disk-carrying sleeve is carried, the latter being provided with a shoulder between which and the shoulder on the driving sleeve a spring is interposed.

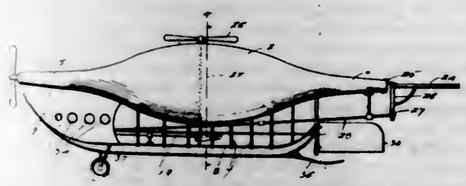
1,239,941. LIFTING-JACK. ALBERT NEAL, Kokomo, Ind. Filed May 10, 1917. Serial No. 167,793. (Cl. 254—110.)



3. In a lifting-jack, a standard, a notched staff mounted in the standard, a lever pivoted to the standard, a pair of pawls pivoted to the lever on opposite sides of the lever pivot and alternately engaging the notched staff by the rocking of the lever, means by a greater angular movement of the lever to alternately hold the pawls out of engagement with the next notches above to retract the staff comprising a pair of lugs on the side of one of the pawls said lugs being beveled on one side, and an extension from the other pawl having a corresponding pair of oppositely beveled lugs which variously engage with lugs of the first pawl as the two pawls are moved by a movement of the lever, spring means for insuring engagement of the two sets of lugs, another pair of coöperating lugs one lug on each pawl, and means for regulating the angular movement of the lever.

[Claims 1 and 2 not printed in the Gazette.]

1,239,942. FLYING-MACHINE. HERBERT G. NELSON, New Kamiche, Wash. Filed Oct. 20, 1916. Serial No. 126,710. (Cl. 244—7.)



1. In a flying machine, a buoyant body having a flat forward end and a flat rear end, said body being bulged intermediate said ends to form an oval shape, a platform suspended beneath said body, a driving propeller carried forwardly of and by said flat front end, a raising and sustaining propeller carried above the central oval shaped portion of said body, an elevating plane hingedly connected to and extending rearwardly from the rear end of said flat rear end, and means for pivotally moving said horizontal elevating plane, and a vertical rudder pivotally mounted beneath the rear flat end of said body forwardly of said horizontal elevating plane, a sheet metal housing inclosing the forward portion of said platform and having its upper edges attached to the under surface of said body, port holes formed in said housing, a pilot seat carried by said platform and positioned interiorly of said housing, and means for operating said propellers carried by said platform interiorly of said housing.

2. In a flying machine, a buoyant body having a flat forward end and a flat rear end, said body being bulged intermediate said ends to form substantially an oval shape, a platform suspended beneath said body, a driving propeller carried forwardly of and by said flat front end, a raising and sustaining propeller carried above the central oval shaped portion of said body, an elevating plane hingedly connected to and extending rearwardly from the rear end of said flat rear end, means for pivotally moving said horizontal elevating plane, a vertical rudder pivotally mounted beneath the rear flat end of said body forwardly of said horizontal elevating plane, a sheet metal housing inclosing the forward portion of said platform and having its upper edges attached to the under surface of said body, port holes formed in said housing, a pilot seat carried by said platform and positioned interiorly of said housing, and means for operating said propellers carried by said platform interiorly of said housing, and a ballast tank attached to the under surface of said platform and extending longitudinally along the platform, said ballast tank being comparatively thin and relatively deep and adapted to contain a liquid ballast.

3. In a flying machine, a buoyant body having a flat forward end and a flat rear end, said body being bulged intermediate said ends to form substantially an oval shape, a platform suspended beneath said body, a driving propeller carried forwardly of and by said flat front end, a raising and sustaining propeller carried above the central oval shaped portion of said body, an elevating plane hingedly connected to and extending rearwardly from the rear end of said flat rear end, means for pivotally moving said horizontal elevating plane, a vertical rudder pivotally mounted beneath the rear flat end of said body forwardly of said horizontal elevating plane, a sheet metal housing inclosing the forward portion of said platform and having its upper edges attached to the under surface of said body, port holes formed in said housing, a pilot seat carried by said platform and positioned interiorly of said housing, and means for operating said propellers carried by said platform interiorly of said housing, and a ballast tank attached to the under surface of said platform and extending longitudinally along the platform, said ballast tank being comparatively thin and relatively deep and adapted to contain a liquid ballast, a skid attached to the lower surface of said ballast tank at the rear end of the same and extending outwardly beneath said vertically-positioned rudder.

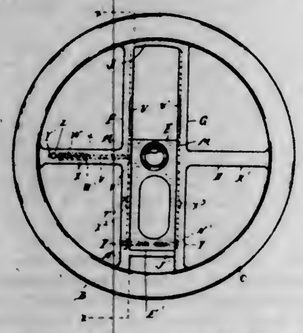
4. In a flying machine, a buoyant body having a flat forward end and a flat rear end, said body being bulged intermediate said ends to form substantially an oval shape, a platform suspended beneath said body, a driving propeller carried forwardly of and by said flat front end, a raising and sustaining propeller carried above the central oval shaped portion of said body, an elevating plane hingedly connected to and extending rearwardly from the rear end of said flat rear end, means for moving said horizontal elevating plane, a tank attached to and depending from the center of the under surface of said platform, said tank extending substantially throughout the entire length of the platform and being comparatively thin and relatively deep, said tank adapted for retaining a liquid ballast.

5. In a flying machine, a buoyant body having a flat forward end and a flat rear end, said body being bulged intermediate said ends to form substantially an oval shape, a platform suspended beneath said body, a driving

propeller carried forwardly of and by said flat front end, a raising and sustaining propeller carried above the central oval shaped portion of said body, an elevating plane hingedly connected to and extending rearwardly from the rear end of said flat rear end, means for moving said horizontal elevating plane, a tank attached to and depending from the center of the under surface of said platform, said tank extending substantially throughout the entire length of the platform and being comparatively thin and relatively deep, said tank adapted for retaining a liquid ballast, ground engaging wheels rotatably supported beneath said platform a short distance rearwardly of its forward ends, and a skid attached to said platform and extending rearwardly from the rear end of said ballast tank.

[Claim 6 not printed in the Gazette.]

1,239,943. STEERING-WHEEL. ASA G. NEVILLE, Wellsburg, W. Va. Filed Mar. 18, 1916. Serial No. 85,038. (Cl. 74—33.)

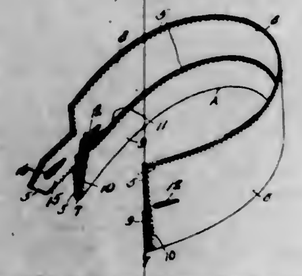


1. The combination with the steering post, of a head rigidly secured thereto and a steering wheel having spaced supporting arms slidably engaging the head to allow movement of the wheel to an eccentric position, said arms being cut away to permit of a relative rocking movement between said wheel and head upon movement of the former to one side of the latter.

4. The combination with a steering post, of a head non-rotatively secured thereto, a wheel having parallel arms between which said head is engaged, and a spring-pressed bearing for establishing a sliding relation between said head and one of said arms, one of said parts carrying said bearing and the other being formed with a groove in which the bearing is engaged, and being formed with a recess in said groove for receiving the bearing in a position of the wheel eccentric to the post to resist sliding motion of the wheel upon the head.

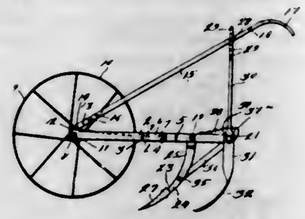
[Claims 2 and 3 not printed in the Gazette.]

1,239,944. CUFF-PROTECTOR. HARRY D. NEWMAN, Manasquan, N. J. Filed Aug. 2, 1916. Serial No. 112,784. (Cl. 2—79.)



A cuff protector comprising connected inner and outer folds, the end edges of said folds being joined together to provide an inwardly opening cuff receiving pocket, said outer fold having cuff link receiving openings adjacent its ends registrable with the button holes of a cuff, and a tab carried by one end of the protector and by which the latter is drawn snugly about a cuff, said tab being foldable to overlap the other end of the protector and having an opening therein to receive a cuff link and maintain the protector snugly in position.

1,239,945. CULTIVATOR. NOAH EVERETT NICHOLS, Gillett, Ark. Filed June 22, 1917. Serial No. 176,368. (Cl. 97—42.)

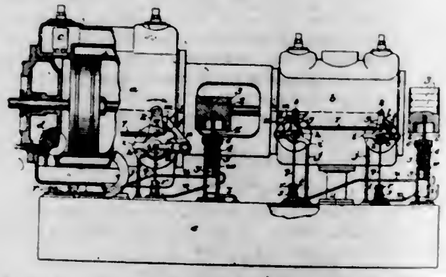


1. In a cultivator, a frame having a supporting wheel for its forward end and provided with rearwardly extending forks, a rod connecting the rear ends of said forks, shovel blades having their upper ends mounted on said rod, the upper ends of the shovel blades having laterally and inwardly extending lugs to overlie and abut the upper edges of the forks to brace the shovel blades in their vertical positions.

4. In a wheel cultivator, a frame having rearwardly extending forks, a cross connection connecting the rear terminals of the forks, a rod passing through said forks, a tubular member on said rod, a standard provided with upwardly extending forks pivoted on said rod and having a shovel at its lower end, means for holding the rod in place, an upwardly and rearwardly extending brace pivoted in the crotch between the forks of the standard and having a notch near its upper rear end to receive and engage said cross connection, and a spring cooperating with the brace to hold the notch engaging said cross connection.

[Claims 2 and 3 not printed in the Gazette.]

1,239,946. UNLOADING AND CAPACITY-REGULATING MECHANISM FOR COMPRESSORS. BRUNO V. NORDBERG, Milwaukee, Wis. Filed Apr. 16, 1914. Serial No. 832,191. (Cl. 230—24.)



1. In a compressor the combination of a cylinder provided with suction ports, positively actuated suction valves adapted to close said ports on the compression strokes of the piston, releasing means comprising chambers having fluid pressure supply connections and movable members adapted when subjected to pressure to render the valve closing means inoperative, fluid pressure controlling means comprising a chamber having a loaded movable part constantly subjected to the discharge pressure of the cylinder and adapted at different points in its traverse coincident with predetermined increases of such pressure to admit fluid pressure to said releasing chambers one after the other and upon corresponding reductions of said discharge pressure to open said releasing chambers to exhaust in the reverse order.

3. In a compressor the combination of a cylinder provided with a rotative suction valve; valve operating mechanism comprising an arm fixed on the valve stem, an oscillatory lever having an actuating connection with a movable part of the compressor, and a latch pivotally connected with said lever and adapted by engagement with said arm to close said valve on the compression stroke of the piston, said latch being provided with an arm at an angle thereto and with a heel adapted by engagement with the valve arm to open the valve on the suction stroke of the piston; releasing means comprising a chamber having a fluid pressure supply connection and a movable member connected with the latch arm in axial alinement with the valve stem when the latch is in operative position for closing the valve, and adapted when subjected to pressure to shift and hold the latch out of operative position in any part of the traverse of said valve stem arm; and fluid pressure controlling means comprising a chamber connected with the discharge of said cylinder and having a loaded movable part constantly subjected to discharge pressure and adapted when such pressure rises to a certain point to admit fluid pressure to the releasing chamber, and when such pressure falls below that point to open said releasing chamber to exhaust.

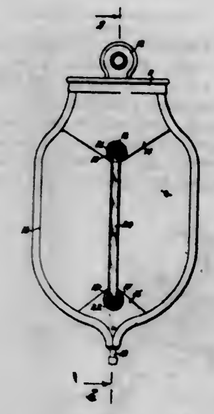
6. In a compressor the combination of a cylinder provided at the ends with rotative suction valves; valve operating mechanism comprising arms fixed on the valve stems, fixed stops for limiting the movement of said arms in the open position of the valves, a spring connected with said arms and tending to hold them against said stops, oscillatory levers having an actuating connection with a moving part of the compressor and fulcrumed concentrically with the valve stems, and latches pivotally mounted on said levers and adapted by engagement with said arms to close the valves on the compression strokes of the piston, said latches being provided with arms at an angle thereto and with heels adapted in any position of the latches by engagement with the valve arms to open the valves on the suction strokes of the piston; releasing means comprising chambers having fluid pressure supply connections and movable members connected with the latch arms in axial alinement with the valve stems when the latches are in operative position for opening the valves and adapted when subjected to pressure to shift the latches out of operative position for closing the valves; and fluid pressure controlling means comprising a chamber having a loaded movable part subjected to the discharge pressure of the cylinder and adapted at different points in its travel coincident with predetermined increases of such pressure to admit fluid pressure to said releasing chambers one after the other and upon corresponding reductions of said discharge pressure to open said releasing chambers to exhaust in the reverse order.

10. In a compressor the combination of a cylinder provided with suction valves; valve operating mechanism adapted to open said valves on the suction strokes of the piston and to close the same on the compression strokes; releasing means comprising chambers having movable members adapted when subjected to pressure to render the valve closing means inoperative; and fluid pressure controlling means comprising a cylinder communicating with the discharge of the compressor and connected at different points in the direction of its length with said releasing chambers, and a loaded plunger fitted in said controlling cylinder and adapted when subjected to certain increases in the discharge pressure to establish communication between said controlling cylinder and the releasing chambers one after the other, and upon corresponding reductions in such pressure to cut off the supply of fluid pressure to the releasing chambers and open them to exhaust in the reverse order.

[Claims 2, 4, 5, and 7 to 9 not printed in the Gazette.]

1,239,947. FOUNTAIN-SYRINGE. FRANK J. O'ROURKE, New York, N. Y. Filed Mar. 7, 1917. Serial No. 153,108. (Cl. 128—47.)

1. As an article of manufacture, a rubber douche bag provided at the top with a filling opening and at the lower end with an outlet tube, and an indicator removably held on the front of the said bag.

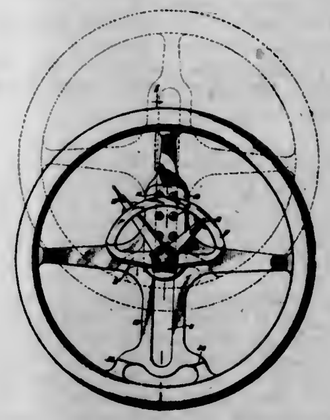


2. As an article of manufacture, a rubber douche bag provided at the top with a filling opening and at the lower end with an outlet tube, upper and lower nipples on the front of the bag, and an indicator having its ends removably engaging the said nipples.

5. As an article of manufacture, a water bag having spaced rubber nipples communicating with the interior of the bag, and provided with a gage tube having angular ends entering the said nipples, the said ends having flanges engaging the inner and outer faces of the nipples.

[Claims 3 and 4 not printed in the Gazette.]

1,239,948. AUTOMOBILE STEERING-WHEEL. GEORGE T. OTTE, Greenwich, Conn. Filed Apr. 16, 1917. Serial No. 162,326. (Cl. 74—33.)



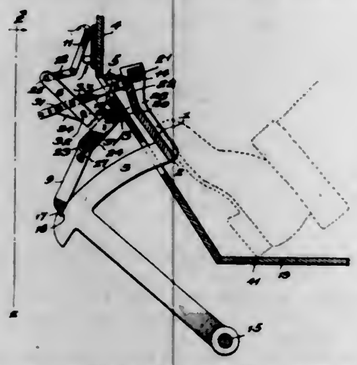
1. A wheel as characterized comprising a rim; a spider support for said rim, said support having a straight slide extending in a plane parallel to the median plane of said rim; a hub portion slidably mounted on said spider support; a trigger-operated latch for engaging said spider support for holding said rim in operating positions eccentric to said rim; a fixed automobile-operating quadrant non-rotatively mounted concentric to said hub portion

and adapted for engaging said spider support when the wheel is disposed in advanced position; and means for locking the wheel in said advanced position.

[Claim 2 not printed in the Gazette.]

1,239,949. CONTROLLING APPARATUS FOR AUTOMOBILES. JAMES HARALSON PACE, Mansfield, Ga. Filed Apr. 26, 1917. Serial No. 164,768. (Cl. 74—81.)

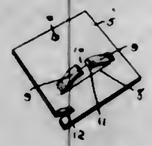
1. A controlling apparatus for motor vehicles comprising, in combination, mechanism for holding a clutch release pedal in depressed position and for opening a switch in the motor ignition circuit, said mechanism being connected and arranged for operation by a single movement.



7. A controlling apparatus for motor vehicles comprising, in combination, a bracket for attachment to a suitable support below the floor of the vehicle, a lever pivoted to said bracket, a pawl pivoted to an arm of said lever and a spring to normally depress said pawl, a switch in the ignition circuit of the motor having its movable member connected with another arm of said lever, yielding means to normally maintain said lever in position for holding the switch closed, and means, operable at the will of the driver of the vehicle, for moving said lever to operate the switch and simultaneously place the pawl in position for engaging and locking the clutch releasing lever of the vehicle in depressed position.

[Claims 2 to 6 and 8 to 10 not printed in the Gazette.]

1,239,950. PACKAGE-TIE. RICHMOND D. PEARSON, Guilford, Me. Filed July 19, 1916. Serial No. 110,158. (Cl. 24—18.)



A package tie comprising a rectangular plate, a cord secured to one edge of the plate, a pair of opposing tongues struck up from said plate adapted to receive the cord after being passed about a package, and one of said tongues having its free end disposed in a plane above the free end of the other tongue to permit the easy entrance of the cord thereunder, said plate having a pair of relatively spaced slits extending inwardly from one edge to form a tongue to receive the free end of the cord after being passed under the first named tongues.

1,239,951. HAIR-MEASURER. EDWIN C. PECKHAM, Brooklyn, N. Y. Filed Mar. 14, 1917. Serial No. 154,893. (Cl. 132—31.)

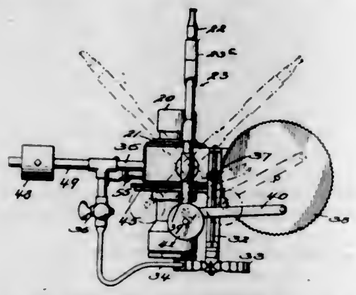
1. In combination with a comb having a back of substantially circular cross section and shaped to present a longitudinal groove at each side of said comb between said back and the teeth of the comb, and a hair measurer adapted to detachably embrace said back and engage said



grooves and having a measuring flange extending therefrom.

[Claims 2 and 3 not printed in the Gazette.]

1,239,952. SPRINKLER-HEAD. CHARLES H. PERRY, Miami, Fla. Filed Aug. 1, 1916. Serial No. 112,565. (Cl. 137—155.)



1. In a sprinkler head, in combination, a rotatably mounted distributing chamber, a nozzle supplied therefrom and mounted for oscillatory movement in a vertical plane athwart said chamber, means for effecting oscillatory movement of said nozzle, and means for effecting step-by-step rotation of said distributing chamber during periods when the nozzle is moving through perpendicular.

2. In a sprinkler head, in combination, a distributing chamber having an upright support adapted for connection to a service pipe, said chamber being rotatable about said support as an axial center, a tubular nozzle carrier arranged externally of said chamber and communicating with the interior thereof, said nozzle carrier being pivotally connected at its lower end to the distributing chamber for oscillatory movement in a vertical plane athwart said chamber and being movable through an angle having a vertical bisector, a rotatable gear wheel arranged externally of said chamber at one side thereof, a water wheel for operating said gear wheel, means for delivering water from said chamber to said water wheel to effect rotation thereof and a link eccentrically connected to said gear wheel and also connected to said nozzle carrier to effect oscillatory movement of said carrier through said angle at a speed which gradually increases from zero at the beginning of the stroke to maximum at the middle of the stroke and which gradually decreases from maximum to zero at the end of the stroke.

3. In a sprinkler head, in combination, a rotatable distributing chamber, a nozzle, a nozzle carrier pivotally connected to the distributing chamber for oscillatory movement in a vertical plane athwart said chamber, a rotatable gear wheel arranged at one side of said chamber, a link eccentrically connected to said gear wheel and also connected to said nozzle carrier to effect oscillatory movement thereof through an angle having a vertical bisector, a gear wheel circumscribing and secured fast to said chamber, a worm having an abrupt spiral cam portion co-acting with said last-named gear wheel to effect a step-by-step rotation of said chamber, and gearing for operating said worm from said first-named gear wheel.

4. In a sprinkler head, in combination, a rotatable distributing chamber, a nozzle, a nozzle carrier pivotally connected to the distributing chamber for oscillatory movement in a vertical plane athwart said chamber, a worm wheel circumscribing and secured fast to said distributing chamber, a worm driving said worm wheel, a rotatable gear wheel supported by said distributing chamber, a connection between said gear wheel and said nozzle carrier for oscillating the latter, and gearing operatively connecting said gear wheel and said worm.

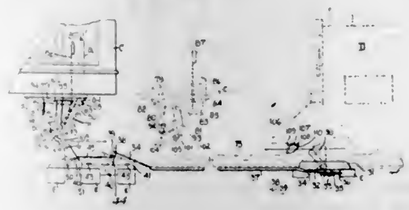
5. In a sprinkler head, in combination, a rotatable distributing chamber, a nozzle, a nozzle carrier pivotally connected to the distributing chamber for oscillatory movement in a vertical plane athwart said chamber and having an extension below its pivot, a rotatable gear element, a link connecting said gear element and said extension to effect oscillatory movement of said nozzle carrier through an angle having a vertical bisector, and a counterweight carried by said extension.

[Claim 6 not printed in the Gazette.]

1,239,953. ART OF PAINTING POROUS SURFACES. ROBERT S. PERRY, Cave Spring, Ga. Filed Jan. 20, 1917. Serial No. 143,486. (Cl. 91—70.)

As an improvement in the art of painting surfaces of porous material, the hereinbefore described process, which consists in first hot spraying the surface with finely divided lead, to form a penetrant, adhesive, and coherent film, with a mat external surface; and subsequently applying upon the external surface of the film a coating of vehicle-carrying pigment, substantially as set forth.

1,239,954. TRAIN-CONTROLLER. EUGENE E. PETIT, Charleston, S. C. Filed June 3, 1916. Serial No. 101,528. (Cl. 246—59.)

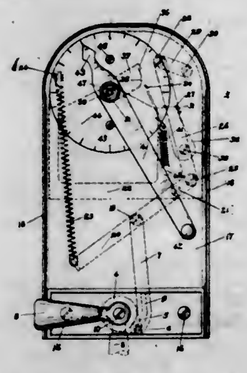


2. A trip mechanism for a train controller comprising a frame, a lever pivotally engaged with the frame, one end of said lever being adapted to move in a guide carried by the frame, means coacting with the lever for constantly urging the same about its pivot in one direction, a trip pivotally engaged with the frame and adapted to engage with a track element, a link connecting the lever and the trip, and means to operatively connect the lever with the air brake, throttle or whistle.

[Claim 1 not printed in the Gazette.]

1,239,955. TIMING MECHANISM. ROSS M. G. PHILLIPS, West Haven, Conn., assignor to The Sentinel Mfg. Co., New Haven, Conn., a Corporation. Filed Aug. 21, 1916. Serial No. 115,965. (Cl. 161—9.)

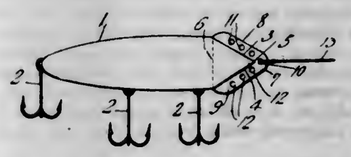
1. In a timing-mechanism, the combination with an escapement-train, of a setting-lever therefor, a cocking-mechanism, a fuel-control, and connection between the cocking-mechanism and the fuel-control, whereby the initial turning on of the fuel cocks the cocking-mechanism, and the firing of the cocking-mechanism operates the fuel-control to shut off the supply of fuel, the said mechanisms being constructed and arranged to permit the fuel-control to be operated for the regulation of the fuel after the cocking of the cocking-mechanism without firing the same.



2. In a timing mechanism, the combination with an escapement-train, of a setting-lever therefor, a firing-cam operated by the said train, a trigger operated by the said cam, a cocking-lever co-acting with the said trigger, and connection between the said fuel-control and the cocking-lever, whereby when the fuel is turned on the said lever is operated for being engaged by the trigger.

3. In a timing-mechanism, the combination with an escapement-train, of a setting-lever, a firing-cam operated by the said train, a trigger co-acting with the said cam, a cocking-lever co-acting with the said trigger, a lifting-lever connected with the cocking-lever, a fuel-control, and a link connecting the fuel-control with the lifting lever, whereby the said lever is operated for cocking the mechanism when the fuel-control is operated for turning on the fuel.

1,239,956. ARTIFICIAL BAIT. WILLIS E. PHINNEY, Coldwater, Mich. Filed Sept. 7, 1916. Serial No. 118,898. (Cl. 43—30.)



1. An artificial bait embodying a body having a plane inclined from its forward end, and a plate carried by the body providing a fin projecting from said plane, said fin having a series of line attaching means for the adjustable connection of a line to regulate the vertical movement of the body when drawn through the water, said fin being disposed obliquely of the body to create a sidewise motion of the body when drawn through the water.

2. An artificial bait embodying a body having upper and lower diverging inclined planes extending from its forward end, and a fin projecting from each of said planes, each of said fins having a series of line attaching means for the adjustable connection of a line to regulate the vertical movement of the body when drawn through the water, the line when attached to one fin causing the body to dive and when attached to the other fin causing the body to skip over the water.

3. An artificial bait embodying a body having an inclined face and an oblique slot at its forward end, and a plate fitted in said slot and providing a fin projecting from said face, said fin having a series of line attaching apertures.

4. An artificial bait embodying a body having upper and lower diverging faces and a slot at its forward end,

and a plate fitted in said slot and providing fins projecting from said faces, said fins having a series of line attaching means.

5. An artificial bait embodying a body having inclined upper and lower diverging faces extending from its forward end, and a slot in its forward end portion arranged in an oblique vertical plane intersecting said faces, and a plate fitted in said slot and providing fins projecting from said faces, said fins having diverging series of apertures extending from the forward end of said plate for the attachment of a line.

[Claim 6 not printed in the Gazette.]

1,239,957. ARTIFICIAL BAIT. WILLIS E. PHINNEY and SAMUEL O. LARRABEE, Coldwater, Mich. Filed July 18, 1916. Serial No. 109,931. (Cl. 43—30.)



1. An artificial bait having a body, a tail hook having its shank seated for a portion of its length against the body, and a screw threaded into the rear end of the body and having an eye extending at an angle therefrom and embracing said shank.

2. An artificial bait having a body, securing means carried thereby at one surface thereof, and a double hook having its crotch portion held between said securing means and body, one of the first mentioned elements having a groove receiving the crotch portion of the double hook, the shanks of the double hook seating against the intermediate wall of said groove.

3. An artificial bait having a body, and a double hook having rearwardly diverging shanks connected by a crotch portion, said crotch portion being secured to the under surface of the body between its ends, and said shanks having downwardly projecting bills projecting from the opposite sides of the body.

4. An artificial bait having a body, a tail hook having its shank secured to the body and having its bill projecting rearwardly and downwardly from the rear end of the body, a double hook having rearwardly diverging shanks and a crotch portion connecting said shanks, means securing said crotch portion to the under surface of the body between its ends, and a weed guard for the tail hook held by said securing means and projecting rearwardly and downwardly with its free end below the tail hook.

5. An artificial bait having a body, a hook carried by said body, an attaching member carried by the body in advance of the hook and having a crimp and a stop, and a weed guard having a loop engaging said crimp to pivotally connect the weed guard with the body for swinging movement toward and away from the hook, said stop limiting the movement of the weed guard.

[Claim 6 not printed in the Gazette.]

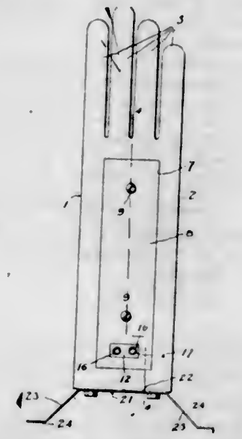
1,239,958. NUT-LOCK. WILL G. PINGEL, Withee, Wis., assignor of one-half to Will Rohan, Withee, Wis. Filed June 22, 1916. Serial No. 105,185. (Cl. 151—14.)



1. A nut lock comprising a nut including two sections each having an internally screw-threaded bore, one of the sections having the end of the bore adjacent the other section enlarged and screw-threaded, a tubular screw-threaded extension carried by said other section removably fitted in the enlarged end of said bore, and means pivotally carried by one of said members for locking the sections against relative rotary movement, said means being adapted to be swung laterally of said sections, whereby said sections can be adjusted relative to each other.

2. A nut lock comprising inner and outer sections, means to lock said sections against rotary movement upon a bolt, the outer section having a series of recesses in the side faces thereof, the inner member having two of its opposite side faces provided with depressions and communicating recesses extending in parallel relation to the bore, the recesses in the outer and inner sections being adapted to register, a spring locking member, said locking member having a reduced section adapted to engage in any of the registering recesses, in said sections, for locking said sections against relative rotary movement, and means for pivotally securing the spring locking members in said depressions, whereby said locking members can be lifted out of said recesses and swung laterally of said members.

1,239,959. GLOVE-FORMER. ERNEST E. PLESS, Morristown, Tenn. Filed Jan. 26, 1916. Serial No. 74,397. (Cl. 223—17.)

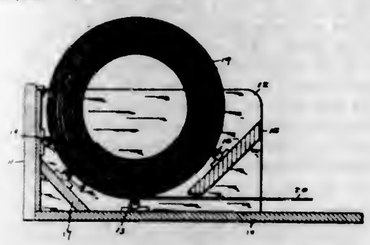


1. A glove former comprising a standard having an elongated recess opening outwardly through one face thereof, fingers formed on the standard, a head located in said recess, parallel electrically heated elements carried by said head and located in the recess, an insulating plate overlying the elements and having one of its ends forked to expose the head, a cover removably secured to the standard and closing the recess, and means for supporting the standard.

2. A glove former comprising a body, fingers at one end of the body, the body being provided with a recess extending longitudinally thereof and opening out through one side, the outer edges of the side walls of the recess being rabbeted, a heating element positioned within said recess, and a cover plate adapted to rest on the rabbeted portions to close the opening.

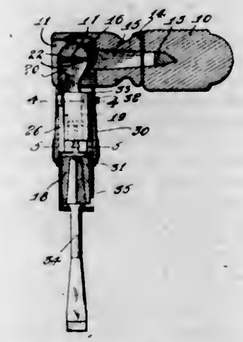
3. A glove former comprising a body, fingers at one end of the body, a support at the opposite end of the body, the body being provided with a recess, the top, bottom and side walls of said recess being rabbeted, bosses formed integral with the bottom wall of the recess and extending outwardly therefrom, a heating element positioned within the recess and straddling the bosses, and a cover plate resting in the rabbeted portions and attaching means extending through the cover plate and into the bosses.

1,239,960. RECEPTACLE FOR RETAINING BRAKE-BAND LINING AND THE LIKE. ELMER LEE POHLMAN, Indianapolis, Ind. Filed Jan. 23, 1917. Serial No. 143,942. (Cl. 211—18.)



A roll retaining receptacle including a base, a rear wall, a plurality of stalls, a diagonally disposed brace between the front portion of the walls forming each stall, the lower end of said brace being spaced from the base member to form below the brace a passage for the contents of the stall, whereby the unwound portion of the contents of the stall will extend in a substantially straight line in leaving the stall, a diagonally disposed brace in each stall extending from the rear wall to said base and rollers on said base and braces for holding and retaining a roll, said base projecting forwardly of said stall to form a measuring and cutting surface.

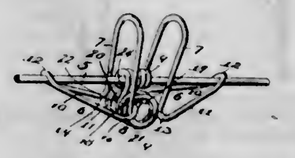
1,239,961. SCREW-DRIVER. HENRY W. POMEROY, Northampton, Mass. Filed May 12, 1915. Serial No. 27,624. (Cl. 145—71.)



A brace of the character described comprising a handle, an article engaging socket provided with a head having a hinge ear extending therefrom, a tang driven into said handle and provided with resilient arms extending in spaced relation and terminating at their free ends in hinge ears positioned in a pocket formed in the handle and open at the side and end of the handle, one ear of said tang being provided with grooves and the ear of said socket being provided with a rib for fitting into the grooves of the ear of said tang, securing means passing through the handle and between the arms of the tang, and a pin passing through registering openings in said ears for pivotally mounting the ear of the socket between the ears of said tang.

1,239,962. CLOTHES PIN OR RETAINER. THOMAS M. PRICE and JOHN W. TILLMAN, Cooper, Tex. Filed Sept. 1, 1916. Serial No. 118,087. (Cl. 24—139.)

1. A device of the class described, comprising an eye to continually engage and slide on a clothes line and provided with oppositely projecting clamps fully open at the lower portions and having inclined side guards with depending portions adjacent to the central portion of the device, said guards extending upwardly from their depending portions to form bent bearing terminals which extend over and exert a downward pressure on the clothes line, a central resilient coiled member between the lower portions of the clamps and below the said eye and having a part of one of the side guards extending upwardly from each of its opposite ends, and an operating grip extending from each of the terminals of the resilient coiled member upwardly above the eye and clamps.



2. A device of the class described, comprising an eye to continually engage and slide on a clothes line and provided with oppositely projecting approximately V-shaped clamps having upwardly bent bearing portions extending over and normally engaging the clothes line, the greater portion of the clamps being below the said eye and the clothes line and formed with depending side guards, a resilient coil member between the lower inner portions of the clamps and below the said line engaging eye for controlling the action of the clamps and from opposite portions of which parts of the guards extend upwardly to the said bearing portions, and operating means for the clamps extending upwardly from the opposite ends of the resilient coil member.

3. A device of the class described, comprising a slide eye continually engaging and longitudinally movable on a clothes line, and oppositely projecting clamps having means for operating them, and a resilient clamp controlling member between the clamps and below the said slide eye, said resilient member comprising coils arranged in planes at right angles to the eye and an intermediate angular coil spaced from the latter coils and having its ends respectively continuing into the inner members of the outer coils.

4. A device of the class described, comprising a longitudinally arranged clothes line engaging eye including a series of coils in fixed close association, oppositely projecting clamps located mainly below and extending upwardly over and bearing upon the clothes line, transversely positioned spring coils below the clothes line engaging eye and between the inner portions of the clamps and operating means for said clamps having reverse portions merging, respectively, into the outer ends of the transversely positioned spring coils, the latter coils serving as the resilient controlling means for the clamps through the said operating means.

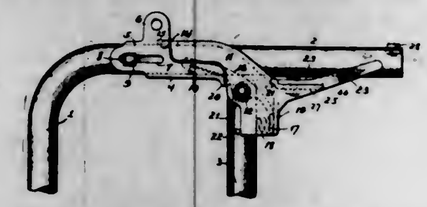
5. A device of the class described, comprising a slide eye to permit longitudinal movement thereof on a clothes line, oppositely projecting clamps having upwardly extending operating means at their inner portions which extend above the slide eye and clothes line adjacent to opposite terminals of said eye, a clamp controlling resilient member between the clamps and below the eye, said resilient member consisting of outer transversely arranged coils and an intermediate diagonal coil connecting and merging into the inner ends of the outer coils, and retaining arms extending inwardly from opposite side portions of the retaining clamps and entering the outer and intermediate coils in reverse directions, the ends of these arms having engagement with opposite portions of the intermediate coil.

[Claim 6 not printed in the Gazette.]

1,239,963. STANCHION. HUGO C. RASSMANN, Beaver Dam, Wis. Filed Mar. 7, 1917. Serial No. 153,029. (Cl. 119—150.)

The combination with the top bar and hinged upright of a stanchion, of a bracket secured to said bar and having latch engaging means at respective sides of the latter, a bracket pivoted to the hinged standard and embracing

said bar, latch arms pivoted within the pivoted bracket, and a cross bar connecting said latch arms within the



pivoted bracket, said cross bar constituting a figer piece for operating said latch arms.

1,239,964. COMB-CLEANER. GEORGE RECHTER, San Francisco, Cal. Filed Dec. 15, 1916. Serial No. 137,096. (Cl. 132—17.)



1. A comb cleaner including a flat substantially rectangular metal bar provided centrally with a plurality of spaced longitudinally extending openings defining transverse ribs, which ribs are adapted to be arranged between the teeth of the comb, the sides of thes trips bent upwardly to provide side bars and adapted to slidably engage the opposite sides of the comb to facilitate the placing of the ribs between the teeth thereof, the ends of the side bars bent angularly at right angles thereto and having their ends bent inwardly to provide guides for preventing the removal of the cleaner bar from the comb, and means for holding the cleaner bar up against the back of the comb, as and for the purpose specified.

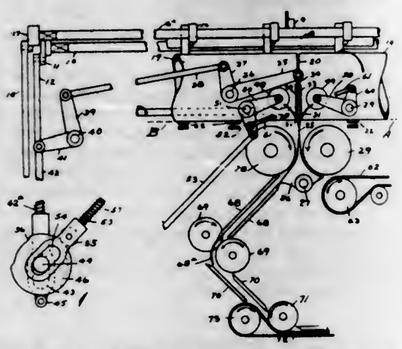
3. A device of the class described, the combination with a comb having its back provided centrally with a horizontal recess, a bolt slidably mounted in the recess, the end teeth of said comb provided adjacent their lower ends with laterally projecting shoulders on the exterior thereof, of a cleaner bar, said cleaner bar comprising spaced parallel longitudinally extending side bars, the lower edges of the side bars connected by spaced transversely arranged ribs, which are adapted to extend between the teeth of the comb, the opposite ends of the side bars bent upwardly and inwardly toward one another to provide guides, which are adapted to engage the end teeth of the comb and adapted to rest upon the shoulder when the cleaner bar is in its lowermost position, and means carried by one of the side bars for receiving the bolt therein and removably securing the cleaner bar in its uppermost position on the comb, as and for the purpose specified.

[Claim 2 not printed in the Gazette.]

1,239,965. FOLDING-MACHINE. WILLIAM REINHOLD, Erie, Pa., assignor to Brown Folding Machine Company, Erie, Pa., a Corporation of Pennsylvania. Filed Nov. 2, 1915. Serial No. 59,298. (Cl. 270—61.)

1. In a paper folding machine, the combination of a slitting device; reversing means comprising reversing rolls parallel with the cutting line of the slitting device; conveying mechanism for carrying the slitted sheet from said slitting device to the reversing rolls; starters carrying the slitted edges of the sheets into the reversing rolls; a set of folding rolls for each part of the slitted sheet; and conveying means extending from the reversing rolls carrying both parts of the sheet to their respective folding rolls, one part to each set and reversing one part relatively to the other.

2. In a paper folding machine, the combination of a slitting device; reversing mechanism comprising reversing rolls parallel with the slitting device; conveying mechanism for carrying the slitted parts of the sheets to the reversing rolls; a set of folding rolls for each part of the sheet, one set being above the other; and conveying means extending from said reversing rolls for carrying both parts of the slitted sheet to their respective folding rolls, one part to each set of folding rolls, said conveying means turning one part of the sheet back upon itself and into position over one set of the folding rolls and the second part of the sheet without reversing, said latter part to folding position over the other set of folding rolls.



3. In a paper folding machine, the combination of reversing rolls; means for carrying two sheets of paper into position above said rolls with their edges adjacent and parallel to the axis of said rolls; a starting device acting on the edges of said sheets for starting said sheets through said rolls; a folding device for each sheet; and conveying means for carrying the sheets from said reversing rolls to said folding devices, one sheet to each folding device, said conveying means reversing one of said sheets upon itself as it is conveyed to folding position over one set of folding devices and conveying the second sheet without reversing to folding position over the other folding device.

4. In a paper folding machine, the combination of a pair of reversing rolls; a separating plate extending parallel to the bite of said rolls; starting blades at each side of said plate; a bar to which sad blades are attached; and means for actuating said bar.

5. In a paper folding machine, the combination of a pair of reversing rolls; means for feeding two sheets of paper with their edges adjacent and parallel to the bite of said rolls; a starting device for starting the edges of said sheet into said reversing rolls; tapes for carrying the first of said sheets back under itself and reversing the sheet; a guide way for carrying the second of the sheets downwardly to intermediate rolls; said intermediate rolls; guides extending from the intermediate rolls to a horizontal carrying means; and a horizontal carrier.

1,239,966. SEAL. CHARLES J. REYNOLDS, Melrose, Mass. Filed Dec. 9, 1916. Serial No. 135,925. (Cl. 70—99.)



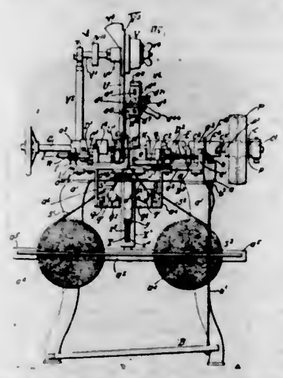
1. In a seal, a plate provided with shouldered slots, the inner walls of which have their outer portions converge, in combination with a bail having its legs resilient and provided with shoulders and adapted to be inserted in said slots, the shoulders of said legs engaging with the respective shoulders formed by said slots, and the inner walls of said slots engaging with the respective legs when in locked position at a point between the shoulders of the respective legs and the outer ends of the respective slots.

2. In a seal, a plate provided with shouldered slots, the inner walls of which are provided with opposed double curves so that the outer ends of the inner walls converge, while the lower ends thereof diverge, in combination with a resilient bail having its ends shouldered to interlock with the shoulders formed by said slots in said plate, the diverging lower portion of the inner walls of said slots being adapted to be engaged by the ends of the bail when inserted and to spread the same, and the converging upper portions of the inner walls of said slots allowing the legs of the bail to spread so that their shoulders will interlock with the shoulders of their respective slots while their inner faces will remain in contact with the upper converging portions of the inner walls of said slots, preventing the compression of the legs to disengage the shoulders of the latter from the shoulders formed by said slots.

3. In a locking seal, a plate of non-resilient material provided with two opposed co-acting edges, the upper portions of which converge while the lower portions thereof diverge, said plate being adapted to coöperate with a bail.

1,239,967. [WITHDRAWN.]

1,239,968. APPARATUS FOR APPLYING FASTENINGS TO ENVELOPS, &c. WALTER RICHARDSON, New York, N. Y. Original application filed May 10, 1916, Serial No. 96,693. Divided and this application filed Apr. 30, 1917. Serial No. 165,444. (Cl. 93—61.)



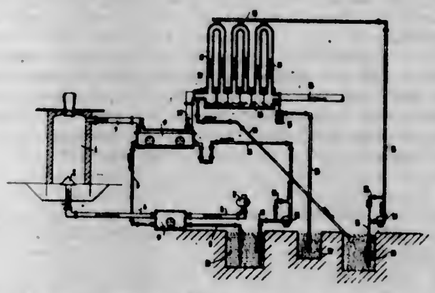
1. In apparatus of the character designated, in combination, means for forming and reinforcing a clip-prong hole in the flap of an envelop, means for applying a pronged clip to the body thereof, a channel for feeding clips to said clip applying mechanism, means for adjusting the clip applying mechanism with relation to the hole forming and reinforcing mechanism, and means for adjusting said feed channel with relation to the said clip applying mechanism, for the purpose described.

3. In apparatus of the character designated, the combination with mechanism for forming a clip prong hole in an envelop flap and for reinforcing the same by means of patches detached from gummed patch strips and applied to the envelop flap as set forth, of a reciprocatory imprint die and a platen between which one of the patch strips is passed, said die being movable with the forming and reinforcing means, and said platen being formed with a relief anvil surface opposed to the printing surface on the imprint die for the purpose of reducing frictional contact with the gummed patch strip.

4. In apparatus of the character designated, the combination with mechanism for forming a clip prong hole in an envelop flap and for reinforcing the same by means of patches detached from gummed patch strips and applied to the envelop flap, of a reciprocatory imprint die and a detachable platen plate between which one of the patch strips is pressed, said die being movable with the forming and reinforcing means, and said detachable platen plate being formed with a relief anvil surface opposed to the printing surfaces on the imprint die for the purpose of reducing frictional contact with the gummed patch strip.

[Claim 2 not printed in the Gazette.]

1,239,969. WORKING OF BY-PRODUCT-RECOVERY GAS-PRODUCERS. THOMAS RIGBY and GEORGE W. ANDREW, Dumfries, Scotland, assignors to Wetcarbonising Limited, London, England. Filed May 7, 1914. Serial No. 837,067. (Cl. 203—6.)



1. In the utilization of peat, gasifying the peat in the presence of undecomposed steam to facilitate the production of ammonia, cooling the gases so produced to a temperature of from 66° to 90° C. by contact with a liquid, utilizing the warmed liquid thus obtained to impart to the air the steam required for the gasification and further cooling the gases below a temperature of about 66° C. out of contact with the cooling liquid in order to facilitate recovery of methyl alcohol from the gases.

2. In the utilization of peat, gasifying the peat in the presence of undecomposed steam to facilitate the production of ammonia, cooling the gases so produced by a washing process to recover the heat of said steam, utilizing the liquid of said washing process for imparting to the air the steam for the gasification process and thereafter effecting further cooling of the gases in a surface condenser to obtain methyl alcohol and other substances.

1,239,970. [WITHDRAWN.]

1,239,971. FOUNTAIN-PEN. WILLIAM J. RUFF, Quincy, Ill. Filed Feb. 25, 1916. Serial No. 80,350. (Cl. 120—46.)



1. In combination, a fountain pen having a chamber therein, an opening into said chamber removed from the pen-carrying end thereof, and a liquid seal for said opening.

2. In combination, a fountain pen having a chamber therein, an opening into said chamber removed from the pen-carrying end thereof, and a tube connected with said opening and provided with an upturned end within said chamber to form a liquid seal for said opening.

3. In combination, a fountain pen having a chamber therein, an opening connecting said chamber with the outer atmosphere at a point removed from the pen-carrying end thereof, means for positively closing said opening and a liquid seal for said opening.

4. In combination, a fountain pen having a chamber therein, an opening into said chamber, a suction device arranged to be connected with said opening, means for positively closing said opening, and a liquid seal for said opening.

5. In combination, a fountain pen having a chamber therein and an opening connecting said chamber with the outer atmosphere, a collapsible bulb removably connected with said opening, means for positively closing said opening, and a liquid seal for said opening.

[Claims 6 to 13 not printed in the Gazette.]

1,239,972. FOUNTAIN-PEN. WILLIAM J. RUFF, Quincy, Ill. Filed Apr. 6, 1916. Serial No. 89,316. (Cl. 120—47.)



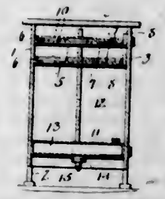
1. In a fountain pen, a barrel having an opening in the end thereof, a piston movable within said barrel and having a portion thereof arranged to enter said opening and provided with mutilated threads for securing said piston to said barrel in position to close said opening, a rod for operating said piston, and means for detachably securing said rod to said piston.

2. In a fountain pen, a barrel having one end open, a piston located within said barrel and having a portion thereof arranged to enter the opening in said barrel, a rod slidably movable through said piston, means for detachably securing said rod to said piston, and means secured to the end of said rod arranged to enter the outer end of the opening in said barrel and to be attached directly to said barrel to hold said rod in position within said barrel.

4. In combination, a fountain pen barrel, a piston movable longitudinally in said barrel for drawing fluid into said barrel, a rod for operating said piston and movable relative thereto, a bayonet slot for securing said piston to said rod, a nipple having threaded connection with an opening in one end of said barrel, mutilated threads within said nipple, mutilated threads carried by said piston for detachably securing said piston in position at one end of said barrel, a cap secured to said rod, and mutilated threads formed on said cap for securing said rod in telescope position within said barrel while said piston is held in position at one end thereof.

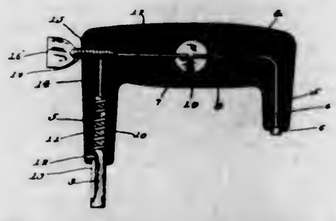
[Claim 3 not printed in the Gazette.]

1,239,973. ALTAR-BREAD SOFTENER. PETER SAURISAITIS, Waterbury, Conn. Filed Dec. 21, 1915. Serial No. 67,984. (Cl. 45—71.)



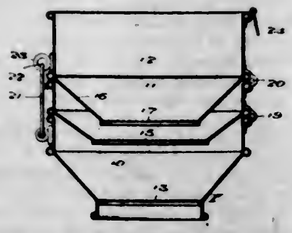
In a device of the kind described, in combination, a cabinet, pairs of vertically spaced apart longitudinal guide strips secured upon two opposing walls of said cabinet at right angles thereto, a water-receiving tank secured at the lower end of said cabinet, a burner supported directly under said tank and adapted to heat the contents thereof to form steam, said strips being formed with medial recesses directly adjacent the walls of said cabinet, vertically disposed pipes passing through said recesses and secured at their lower ends upon said tank, said pipes extending toward the upper end of said cabinet and formed with a longitudinal series of steam-escaping ports, and a plurality of trays slidably supported on said strips and having opposite walls contacting said pipes.

1,239,974. GAS-ENGINE TESTER. CLAYTON SEYMOUR, Burlington, Vt. Filed May 9, 1916. Serial No. 96,297. (Cl. 175—183.)



A spark plug tester, consisting of a yoke forming a hand grasping portion and a pair of arms, a visible spark gap or sight opening in said hand grasping portion, contact points in each of said arms, one of said contact points being rigid and the other slidably mounted, a spiral spring bearing against said slidable contact point, a steel bushing in one end of said hand grasping portion, a wire connecting said spring and bushing, an adjustable screw mounted in said bushing, and a wire carried by said screw whereby the space between the end of the said wire and the wire leading from said rigid contact point may be adjusted.

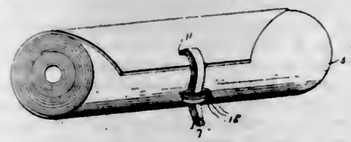
1,239,975. STRAINER. HANNAH A. SIGNOR, Schenectady, N. Y. Filed Jan. 17, 1917. Serial No. 142,869. (Cl. 210—16.)



In a device of the class described, in combination, a pair of annular members each formed with a bead upon its outer end, a funnel-shaped portion having its base formed

of equal diameter with said annular members and each being also formed with an intermediate outwardly extending bead joining the annular member and funnel shaped portion together the intermediate bead of one member resting upon the outer bead of the other member so as to space the funnel shaped portion of the second member from the outer bead of the first member, hinge elements pivoted together and secured upon the respective annular members said hinge elements having curved portions engaging the beads of said hinged annular members.

1,239,976. SECURING MEANS FOR THE OUTER ENDS OF PULP-ROLLS. EDWARD SIMONSON, Buffalo, N. Y. Filed July 11, 1916. Serial No. 108,607. (Cl. 206—59.)

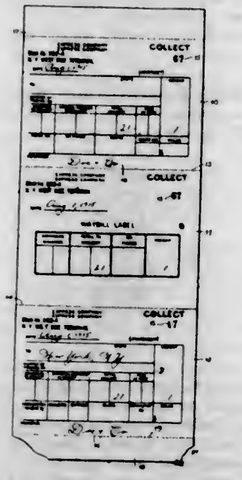


2. A roll of sheet material having one end folded on diagonal and transverse lines and slits formed in the folded end, and a plurality of tongues cut out from the material and positioned through said slits.

4. A roll of sheet material having a series of substantially U-shaped slits providing inwardly directed and longitudinally extending tongues, said sheet of material being folded on diagonal and transverse lines at its extreme end to form triangular sections, said sections having slits to receive the tongues, and some of the convolutions of the roll being formed with parallel slits to form straps for securing the free end of the tongues.

[Claims 1 and 3 not printed in the Gazette.]

1,239,977. COMBINED WAY-BILL AND ACCOUNTING-COUPON. FREDERICK PERCIVAL SMALL, Ridgefield, N. J. Filed Jan. 3, 1917. Serial No. 140,337. (Cl. 11—19.)

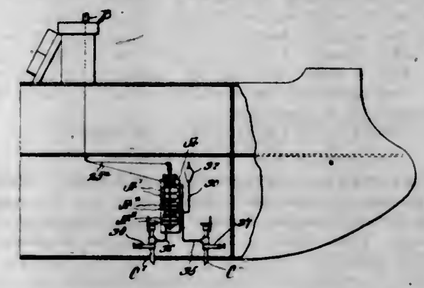


1. A blank of the nature set forth comprising detachably connected portions which are adapted to be used as a waybill label and an accounting statement coupon, said label and coupon being connected but separable along a predetermined line, one of said portions being longer than the other and foldable thereover, the free edge of the longer portion extending beyond the corresponding edge of the other portion, and a pasting strip constituting an extension of the shorter portion and over which the free edge of the longer portion lies, said longer portion and the then exposed portion of the pasting strip being adapted to receive an adhesive whereby said longer portion and the strip may be attached permanently to a package, the statement coupon being thereby carried in an unpasted removable condition.

2. A blank of the character set forth consisting of a sheet comprising three main coupon portions each connected to another along a weakened line, the several weakened lines being parallel to each other, one of said portions constituting an abstract to be retained by the originating office, another of said portions constituting an accounting statement coupon and having along one edge a detachable pasting strip, said pasting strip and the third main portion being arranged along opposite edges of the statement coupon, said third portion being foldable along the weakened line connecting it to the statement coupon flatly down upon the face of the statement coupon and constituting a waybill label, the free edge of the label remote from the folding line overlapping the aforesaid pasting strip, the then upper face of the label and the exposed portion of the pasting strip being then adapted to receive an adhesive for securing the label, the pasting strip and the statement coupon all flatly against a package leaving the statement coupon free of paste to be detached from the other portions just mentioned to be sent back to the originating office for checking up in connection with the abstract portion first mentioned.

3. In a device of the character set forth, a blank consisting of a sheet comprising a waybill label, a statement coupon detachably connected along a weakened line thereto, the waybill label being foldable forwardly and downwardly flatly upon the statement coupon, said label and coupon being provided with similar identifying indicia, and an extension along the free edge of the statement coupon adapted to receive an application of paste simultaneously with the application of paste to the rear face of the waybill label, whereby the statement coupon is adapted to be detachably secured to a package along its two opposite edges coincidentally with the operation of pasting the said waybill label and extension, but leaving the statement coupon unpasted and adapted to be severed along said weakened lines for return to the originating office.

1,239,978. APPARATUS FOR INDICATING THE SPEED OF SHIPS. RICHARD STAH, Newport, R. I. Filed Aug. 7, 1916. Serial No. 113,597. (Cl. 73—122.)



1. In an apparatus of the character described the combination with an indicator, of means for controlling the same comprising an actuator composed of three superposed expansible chambers, that is a pressure chamber, a suction chamber, and an intermediate chamber charged with liquid and provided with a movable head, an inlet pipe opening into said pressure chamber and communicating with the water of flotation, a suction pipe opening into said suction chamber and also communicating with the water of flotation, and a stand pipe adapted to contain a column of liquid connected to said liquid chamber, for balancing the pressure on said movable head, substantially as described.

2. In an apparatus of the character described the combination with an indicator, of means for controlling the

same comprising an actuator composed of three superposed expansible chambers, that is a pressure chamber, a suction chamber, and an intermediate chamber charged with liquid and provided with a movable head, an inlet pipe opening into said pressure chamber and communicating with the water of flotation, a suction pipe opening into said suction chamber and also communicating with the water of flotation, and a stand pipe adapted to contain a column of liquid connected to said liquid chamber, with a closed air chamber connected to said stand pipe, for balancing the pressure on said movable head, substantially as described.

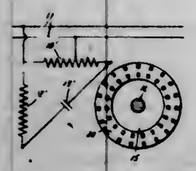
3. In an apparatus of the character described the combination with an indicator, of means for controlling the same comprising an actuator composed of three superposed expansible chambers, that is a pressure chamber, a suction chamber, and an intermediate chamber charged with liquid and provided with a movable head, an inlet pipe opening into said pressure chamber and communicating with the water of flotation, a suction pipe communicating with the water of flotation, and a stand pipe adapted to contain a column of liquid connected to said liquid chamber, with a closed air chamber connected to said stand pipe, for balancing the pressure on said movable head, and means for adjusting the pressure of the air in said air chamber, substantially as described.

4. In an apparatus of the character described the combination with an indicator, of means for controlling the same comprising an actuator composed of three superposed expansible chambers, that is a pressure chamber, a suction chamber, and an intermediate chamber charged with liquid and provided with a movable head, means for transmitting the movement of said head to said indicator, an inlet pipe opening into said pressure chamber and communicating with the water of flotation, a suction pipe opening into said suction chamber and also communicating with the water of flotation, and a stand pipe adapted to contain a column of liquid connected to said liquid chamber, for balancing the pressure on said movable head, substantially as described.

5. In an apparatus of the character described the combination with an indicator, of means for controlling the same comprising an actuator composed of three superposed expansible chambers, that is a pressure chamber, a suction chamber, and an intermediate chamber charged with liquid and provided with a movable head, means for transmitting the movement of said head to said indicator, an inlet pipe opening into said pressure chamber and communicating with the water of flotation, a suction pipe opening into said suction chamber and also communicating with the water of flotation, and a stand pipe adapted to contain a column of liquid connected to said liquid chamber, with a closed air chamber connected to said stand pipe, for balancing the pressure on said movable head, substantially as described.

[Claims 6 to 17 not printed in the Gazette.]

1,239,979. ALTERNATING-CURRENT MOTOR. CHARLES P. STEINMETZ, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Sept. 1, 1915. Serial No. 48,470. (Cl. 172—233.)



1. An alternating current motor comprising two primary windings displaced in space relation and electrically connected to each other so that one of said windings is adapted to act as an autotransformer for impressing a voltage on the second winding, phase advancing means associated with said second winding, and a secondary winding having relatively high impedance when the rotor of the motor is at or near standstill but relatively low impedance at running speeds of the motor.

2. An alternating current motor comprising two primary windings displaced in space by 90 electrical degrees, electrical connections between said windings whereby one of said windings is adapted for direct connection to a single phase source of alternating current energy and to act as an autotransformer for impressing on the second winding a voltage higher than the voltage of said source, phase advancing means electrically associated with said second winding, and a secondary winding of inductively changing effective resistance inductively related to said primary windings.

3. An alternating current motor comprising two primary windings displaced in space by 90 electrical degrees, electrical connections between said windings whereby one of said windings is adapted for direct connection to a single phase source of alternating current energy and to act as an autotransformer for impressing on the second winding a voltage higher than the voltage of said source, phase advancing means electrically associated with said second winding, and a secondary winding inductively related to said primary windings.

4. An alternating current motor comprising two primary windings displaced in space by 90 electrical degrees, electrical connections between said windings whereby one of said windings is adapted for direct connection to a single phase source of alternating current energy and to act as an autotransformer for impressing on the second winding a voltage higher than the voltage of said source, phase advancing means electrically associated with said second winding, and a secondary winding having relatively high impedance when the rotor of the motor is at or near standstill but relatively low impedance at running speeds of the motor.

5. An alternating current motor comprising two primary windings displaced in space by 90 electrical degrees, a single phase source of alternating current energy electrically connected to both windings, phase advancing means electrically associated with one of said windings, and a secondary winding having relatively high inductive reactance when the rotor of the motor is at or near standstill but having relatively low inductive reactance at running speeds of the motor.

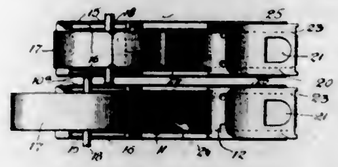
[Claims 6 to 9 not printed in the Gazette.]

1,239,980. BODY-PROTECTOR. WALTER L. STEWART, Des Moines, Iowa. Filed Oct. 1, 1915. Serial No. 53,624. (Cl. 2—190.)



A body protector, comprising oppositely disposed spaced sections adapted to be positioned at the sides of the wearer, each of said sections comprising an upper member and an integral lower member, said upper member being of greater dimensions than said lower member, exterior pads formed upon said upper members for protecting the ribs at the sides of the wearer, exterior pads also formed upon said lower members for protecting the hips of the wearer, said upper members having their upper edges formed with concaved cut-out portions to provide recesses for the reception of the arm pits of the wearer, a pair of spaced elastic members connecting the forward edges of said upper members for respectively engaging the chest and abdominal regions for yieldingly supporting the protector upon the body of the wearer, and straps upon the rear edges of said upper members disposed on a line centrally between said elastic members for equalizing the strains upon said elastic members and for attachably securing the protector at the back of the wearer for maintaining the sections in their relative positions.

1,239,981. TICKET-DISPENSER. JAMES A. STORM, Chicago, Ill., assignor to The Storm Company, Chicago, Ill. Filed Aug. 5, 1915. Serial No. 43,735. (Cl. 211—37.)



1. A ticket dispenser, including in combination, a guide of sheet metal bent to provide sides for a portion of its length to constitute in effect a U-shaped member within which a notch edged ticket strip is guided in a straight course of travel, the guide near its delivery end being formed with two complementary relatively longitudinal openings and with a relatively transverse slot situated therebetween, and having the extremity of the delivery end thereof bent back upon itself upon a line intersecting the transverse slot to constitute a fourth side to the guide at its delivery end, with the relatively longitudinal openings therein brought into register, substantially as described.

2. A dispenser for ticket strips, including, incombination, a guide for the strip formed of a single piece of sheet material provided with a transverse slot near the delivery end thereof, the delivery end of the guide being bent back upon itself upon a line intersecting the transverse slot whereby the edges of the slot constitute the extremity of the guide from which the strip is issued, and over either of which the strip may be torn off, substantially as described.

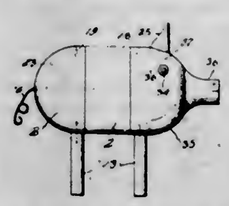
3. A dispenser for ticket strips, including, in combination, a guide for the strip formed of a single piece of sheet material provided with two complementary openings situated longitudinally of each other near the delivery end of the guide, and provided further with a transverse slot intermediate said complementary openings, the delivery end of the guide being bent back upon itself upon a line intersecting the transverse slot to bring the two complementary openings into register, whereby the strip of ticket extending beneath the bent back portion of the guide and out through the transverse slot may be fed along by pressure of the fingers applied upon opposite sides of the strip through said openings, substantially as described.

4. A dispenser for notch edged ticket strips, including, in combination, a guide for the strip formed of a single piece of sheet material having portions thereof bent up to provide lateral supports for the strip, and having a transverse slot near the delivery end thereof, the delivery end of the guide being bent back upon itself upon a line intersecting the transverse slot whereby the edges of the slot constitute the extremity of the guide from which the strip is issued, and over either edge of which the strip may be torn off, and a friction button positioned upon the guide a distance of one or more ticket lengths from the delivery end thereof arranged to engage successively within the notches of the strip, whereby movement of the strip is periodically halted at intervals coincident with advancement of ticket notches to a point adjacent the delivery end of the guide, substantially as described.

5. A dispenser for notch edged ticket strips, including, in combination, a guide for the strip formed of a single piece of sheet material bent up to provide lateral supports for the strip, and a friction element upon the guide comprising a tension element arranged to engage successively within the notches of the strip, and tongues struck from the friction element arranged to lock through portions of the guide not traversed by the strip, whereby the friction element is permanently secured in position upon the guide, substantially as described.

[Claim 6 not printed in the Gazette.]

1,239,982. SECTIONAL TOY ANIMAL. ALVIN H. SWEET, San Diego, Cal. Filed Sept. 28, 1915. Serial No. 53,058. (Cl. 46—40.)

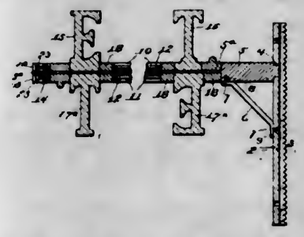


1. A set of toy animal building blocks including separate interchangeable body sections provided with removable means for detachably securing them together to form bodies of different shapes and sizes, said body sections comprising cylindrical and semi-spherical sections, and a tapered section cross sectionally circular and having a cylindrical extension.

3. A set of toy animal blocks including a substantially semi-spherical body section having an opening arranged at an angle to the flat face of the said section, and a block or section coöperating with the semi-spherical section and having a curved end face to fit substantially the curved surface of the semi-spherical section around the opening thereof, said block or section being provided with means for engaging the said opening.

[Claim 2 not printed in the Gazette.]

1,239,983. SIGN-LETTER AND HOLDER. FRED THUNELL, Salt Lake City, Utah. Filed Sept. 30, 1916. Serial No. 123,000. (Cl. 40—142.)



1. A bracket for sign letters comprising a supporting arm, pairs of arm flanges terminating in sockets at one end of the arm, a tongue on the inner face of one of the flanges of each pair, a nut having vertical displacement at the inner end of each socket and held against longitudinal movement, and set screws working in the sockets and through the nuts.

2. A bracket for street sign letters, comprising a supporting arm having a post-socket end, two pairs of flanges extending from said end, a tongue on the inner face of one of the flanges of each pair, said flanges having vertical grooves at one end of the tongues, grooved nuts fitting the vertical grooves for fixing the nuts against longitudinal movement and permitting vertical displacement of the nuts, and set screws contained between the flanges and working through the nuts.

1,239,984. MANUFACTURE OF CRYSTALLINE FUSED ALUMINA. FRANK J. TONE, Niagara Falls, N. Y., assignor to The Carborundum Company, Niagara Falls, N. Y., a Corporation of Pennsylvania. Filed Feb. 26, 1916. Serial No. 80,668. (Cl. 204—64.)

1. The process of making crystalline fused alumina which consists in subjecting ores containing alumina and

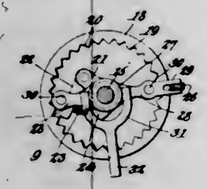
alkali compounds in which the alkali is present in substantial amounts to electric heat sufficient to volatilize the alkali compound and to fuse the alumina, collecting and condensing the alkali compound, and allowing the fused alumina to cool.

6. In the manufacture of crystalline fused alumina, the method which consists in subjecting ore containing alumina and alkali compounds in which the alkali is present in substantial amounts to electric heat sufficient to volatilize the alkali compound and to fuse the alumina, reducing any excess of silica and iron oxid in the ore to ferro-silicon, and separately recovering the fused alumina and the alkali metal.

9. The treatment of ores containing alumina and alkali compounds, which consists in subjecting them to electric heat sufficient to volatilize the alkali compound and to fuse the alumina, recovering the alkali from the volatilization fumes, allowing the fused alumina to cool, and during the treatment eliminating the silica and iron oxid present in the ore.

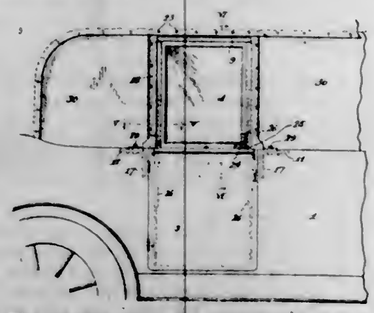
[Claims 2 to 5, 7, and 8 not printed in the Gazette.]

1,239,985. CLUTCH. ALBERTUS TRAVIS, Johnstown, N. Y. Filed May 24, 1916. Serial No. 99,623. (Cl. 74—46.)



In combination, a normally stationary clutch member including a spring pressed pawl, a normally revoluble clutch member having teeth for engagement by the pawl, means normally in the path of the pawl for holding the clutch members disengaged, means for momentarily releasing the pawl to couple the clutch members and cause the same to rotate in unison, said pawl engaging means operating to automatically disengage the clutch members upon the completion of a one-half revolution of the members.

1,239,986. DOOR CONSTRUCTION FOR VEHICLES. ALFRED B. TROTT, Denver, Colo. Filed Apr. 1, 1916. Serial No. 88,333. (Cl. 21—62.)



1. The combination with a vehicle body, and a door disposed therein, of a rigid frame detachably but rigidly engaged with said body and straddling said door and to which the side curtains and top are connected detachably, and a window slidable into and out of a pocket in said door and adapted when in projected position to contact with and fill said frame.

2. The combination with a vehicle body, and a door disposed therein, of a rigid frame detachably but rigidly engaged with said body and straddling said door, a flange extending around the interior of said frame, and a window slidable into and out of a pocket in said door and adapted when in projected position to lie against said flange and said frame.

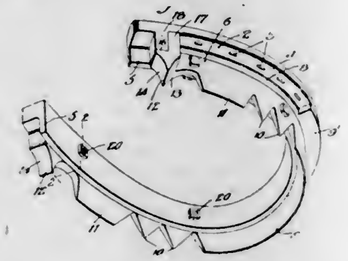
3. The combination with a vehicle body, and a door disposed therein, of a rigid frame removably mounted on said body and straddling said door, said frame being grooved in its outer vertical edges, and side curtains having their edges provided with studs adapted slidably to engage the grooves in said frame.

4. The combination with a vehicle body, and a door disposed therein, of a rigid frame removably mounted on said body and straddling said door, a vehicle top adapted to be connected detachably with the top edge of said frame, and side curtains adapted to be connected detachably with said top, and along one edge provided with headed studs adapted to engage similarly shaped recesses in the sides of said frames, said studs being inserted into and removed from said recesses at the top ends of the latter.

5. The combination with a vehicle body, a top, and a door disposed therein, of a frame adapted to be connected detachably with said top and comprising a top and sides and having depending legs adapted detachably to enter vertical recesses in the vehicle body on opposite sides of said door.

[Claims 6 to 9 not printed in the Gazette.]

1,239,987. HORSESHOE. GIUSEPPE P. TROTTA, Wilkes-Barre, Pa. Filed Mar. 2, 1917. Serial No. 152,102. (Cl. 168—11.)



1. A horse shoe having a base member of L-shaped cross section forming a depending inside flange encompassed by a shallow bead spaced outwardly therefrom on the lower face of the base, the latter provided with nail holes outside of the bead, a calk band deeper than the flange resting against the base in the channel formed by the bead and flange and lying against the flange, and means for detachably fastening the calk band to the flange.

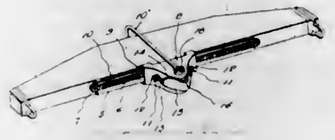
2. The combination in a horseshoe, of a base member of L-shaped cross-section and forming a depending inside flange, the heels of the shoe having lugs in the angle between the flanges; and a calk band deeper than the flange resting against the under face of the base and lying against the flange, said band having heel lugs rabbeted to fit and underlap the base lugs, and means for detachably fastening said base and band.

3. The combination in a horseshoe, of a base member of L-shaped cross-section and forming a depending inside flange, the heels of the shoe having lugs in the angle between the flanges; and a calk band deeper than the flange resting against the under face of the base and lying against the flange, said band having heel lugs rabbeted to fit and underlap the base lugs, means for detachably fastening said base and band, said base having a narrow bead encompassing the edge of the band where it abuts the base.

4. The combination in a horseshoe, of a base member of L-shaped cross-section and forming a depending inside flange, the heels of the shoe having lugs in the angle between the flanges; and a calk band deeper than the flange resting against the under face of the base and lying against the flange, said band having heel lugs rabbeted to fit and underlap the base lugs, means for detachably fastening said base and band, said base having a narrow bead encompassing the edge of the band where it abuts the base, the band being notched at its wearing edge inwardly to a depth equal to the projection thereof below the base flange.

5. The combination in a horseshoe, of a base member of L shaped cross section and forming a depending inside flange, the heels of the shoe having lugs in the angle between the flanges; and a calk band deeper than the flange resting against the under face of the base and lying against the flange, said band having heel lugs rabbeted to fit and underlap the base lugs, means for detachably fastening said base and band, said base having a narrow bead encompassing the edge of the band where it abuts the base, the band being notched at its wearing edge inwardly.

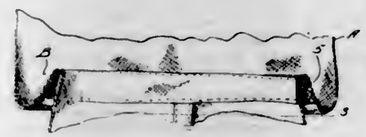
1,239,988. EQUALIZER. EDWIN WAGNER, Molalla, Oreg. Filed Sept. 27, 1916. Serial No. 122,502. (Cl. 21—76.)



1. In a device of the class described, in combination, a whiffle tree, an elongated rack bar secured thereagainst, a slidable block guided upon said rack bar and having its front wall slidable upon the teeth of said rack bar, a series of locking members slidably mounted in said slidable block and having points adapted to engage said rack teeth, a leaf spring secured at one end to each end of said block and secured also to said locking members so as to hold the latter against the rack teeth, and means secured to said locking members adapted to disengage the same from said rack teeth.

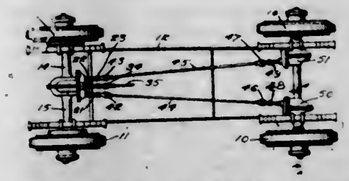
2. In a device of the class described, in combination, a whiffletree, a rack bar secured against one edge thereof, a slidable block slidably guided against said rack bar, a pair of opposed locking members adapted to engage the teeth of said rack bar, leaf springs secured to said block and also to the rear ends of said locking members, a cap adapted to extend opposite said blocks so as to straddle the sides thereof, said block being formed with side recesses, pins carried by said cap and adapted to slide in said recesses, link rods pivotally secured to said cap and to the rear ends of said locking members, said springs normally holding said pins against the back walls of said recesses and said locking members against said rack teeth, and a handle secured to said cap by which it may be retracted from said block to disengage said locking members.

1,239,989. GARMENT. ALFRED H. WAIT, Lincoln, Kans. Filed May 23, 1917. Serial No. 170,432. (Cl. 2—98.)



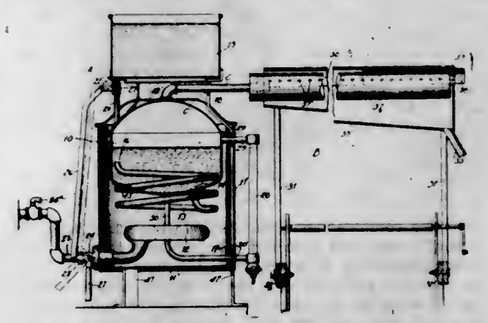
A ventilating appliance for blouses consisting of a band of porous material adapted to be secured to the lower edge of a blouse, and having means for its detachable engagement with a garment arranged beneath the blouse, and a stiffening element associated with the band for maintaining the same in a position to permit the free passage of air therethrough between the blouse and the garment therebeneath.

1,239,990. FOUR-WHEEL DRIVING DEVICE. JOSEPH L. WARD, St. Paul, Minn., assignor to Twin City Four-Wheel Drive Company, St. Paul, Minn., a Corporation of South Dakota. Filed Mar. 6, 1916. Serial No. 82,332. (Cl. 21—90.)



In combination with the four wheels of a truck or automobile, a rear axle comprising two main sections and a face plate section united to form a housing, the face plate section embodying a multiplicity of elongated bearing members and the housing comprising a central chamber, a top chamber and a laterally-positioned chamber, driving shafts for the rear wheels and a worm gear differential mounted thereon in the central chamber, a worm shaft extending through one of said bearing extensions into the top chamber for driving the worm, bevel gears in the side chamber having driving connection with said differential, and drive shafts for the front wheels connected with said bevel gears and journaled in other of said casing extensions.

1,239,991. CLOTH-STEAM-SPONGING DEVICE. CHARLES A. WEISS, Brooklyn, N. Y., assignor, by mesne assignments, to MASON STEAM SYSTEM, Inc., New York, N. Y., a Corporation of New York. Filed July 24, 1914. Serial No. 852,949. (Cl. 122—250.)



1. The herein described steam generator comprising a boiler, means to heat water within the boiler, said heating means including a pipe for fluid fuel, a normally open valve controlling the normal flow of fuel through the pipe and including a bell crank handle, a preheating boiler supported above the main boiler, a pipe leading from one boiler to the other, a normally closed valve for controlling the flow of water through said pipe, an arm connected to the last mentioned valve, and a bar leading from the valve arm just mentioned at a point above the primary boiler down to the bell crank handle aforesaid, the parts being so arranged that when the handle is moved to shut off the normal flow of fuel the water pipe will be opened, substantially as set forth.

[Claim 2 not printed in the Gazette.]

1,239,992. METHOD OF RECOVERING GRAPHITIC CARBON FROM GRAPHITE SCALE. FREDERICK W. WEISSMANN, Cincinnati, Ohio, assignor to The Hill & Griffith Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Apr. 28, 1916. Serial No. 94,262. (Cl. 252.)

1. The method of obtaining marketable graphitic carbon from the waste product known as graphite scale, com-

sisting in separating and removing the foreign matter by mechanical separative means leaving the graphitic carbon as a residue.

2. The method of obtaining graphite from dry artificial graphite scale, which consists in subjecting the said scale to the action of an air separator.

5. The method of obtaining graphite from dry artificial graphite scale, which consists in subjecting the scale to the action of an air-separator, bolting, subjecting the residue to the action of an electro-magnetic separator, pulverizing the product thus obtained to powder, separating the graphite carbon from the other residual substances by levigation, and further refining the product by boiling with an acid solution, washing the graphitic carbon residue and filtering, pressing and drying the same.

8. The method of obtaining graphite from dry artificial graphite scale which consists in subjecting said scale to the operation of screening and then subjecting the product thus obtained to the action of an air separator.

11. The method of obtaining graphite from dry artificial graphite scale which consists in subjecting said scale to the operation of screening then subjecting the product thus obtained to the action of an air separator then subjecting that product to the operation of bolting then subjecting that product to the action of an electro-magnetic separator and then separating the graphitic carbon from the other residual substances by levigation and then further refining that product by boiling with an acid solution and washing the graphitic carbon residue and then pressing and drying same.

[Claims 3, 4, 6, 7, 9, and 10 not printed in the Gazette.]

1,239,993. CONNECTING AND RETAINING DEVICE. FRANK L. WEST, Cleveland Heights, Ohio. Filed Apr. 28, 1917. Serial No. 165,084. (Cl. 24—241.)



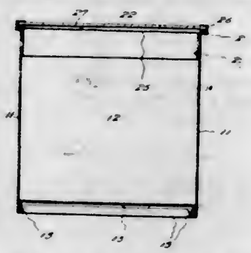
9. The combination with a double branched hook comprising a base and recurved end portions, the base of the hook diminishing in width from the loop thereof toward the recurved portions, of a keeper having a base diminishing in width in the same direction as the hook base and provided with resilient sides adapted to receive the hook base, said keeper being provided with lateral extensions coöperating with the recurved portions of the hook to provide therewith and with the bottom of the hook a closure for the article coöperating with the hook and a pin connecting the sides of said keeper and having a curved portion coöperating with the bottom portion of the hook, the base of said keeper being recessed at the end opposite the last mentioned projection.

10. The combination with a hook comprising a base and a recurved end, the base of the hook diminishing in width toward the recurved portion thereof, of a keeper having a base diminishing in width in the same direction as the hook base and provided with resilient sides adapted to receive the hook base, said keeper being provided with lateral extensions coöperating with the recurved portion of the hook to provide therewith and with the bottom of the hook a closure for the article coöperating with the hook, and a pin connecting the sides of said keeper.

[Claims 1 to 8, 11, and 12 not printed in the Gazette.]

1,239,994. PLANT-BOX. EDGAR C. WHITE, Belmar, N. J. Filed July 3, 1916. Serial No. 107,382. (Cl. 47—34.)

A plant box, including rear and side walls made from a single sheet of material and each provided with a cleat upon its lower edge, the side walls being provided with cleats upon the front edges thereof, a removable bottom engaging the cleats upon the lower edge of the rear and side walls, a front wall having cleats for slidably engaging the cleats upon the forward edge of the side walls, a removable cover consisting of an open frame having a rim



for insertion within the rear, front and side walls of the box, limiting portions for engagement therewith, a screen attached to said limiting portions, two of the opposite limiting portions being provided with flanges projecting therebeyond, and a removable sheet of transparent material mounted in said flanges.

1,239,995. CONVERTIBLE COAT AND CAPE. JOHN COOPER WHITESIDE, Rutherford, N. J., assignor to Hodgman Rubber Co., Yonkers, N. Y., a Corporation of New York. Filed Feb. 10, 1917. Serial No. 147,756. (Cl. 2—86.)



1. A garment, comprising a coat, a half cape covering one shoulder and sleeve and extending from the front median line to the back median line of the coat and fastening means detachably fastening the said half cape to the said coat along said median lines.

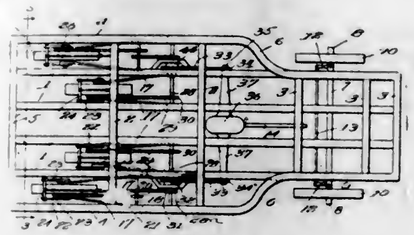
2. A garment, comprising a coat, a half cape, a set of fastening members arranged exteriorly on one side of the coat collar and along the median back line of the coat, and a set of fastening members arranged on the under side of the half cape along the collar and along the margin of the rear edge of the half cape, the said half cape fastening members being adapted to be engaged with the said coat fastening members to hold the half cape removably in position on the coat.

[Claim 3 not printed in the Gazette.]

1,239,996. VEHICLE-TRUCK. WILLIAM S. WILLS, Covington, Va. Filed Oct. 23, 1914, Serial No. 868,338. Renewed Mar. 8, 1917. Serial No. 153,458. (Cl. 21—90.)

1. In a motor vehicle, the combination with the frame and the front wheels for supporting and guiding the frame, of a series of rear wheels at each side of the frame and below the same, front and rear bearing forks for each wheel, the wheel being journaled in the front fork at the rear thereof and the front fork being pivoted to the frame

at the front end thereof, the rear forks being pivoted to the front forks adjacent to the wheel, a swinging support connecting the rear end of each rear fork with the frame, a lever pivoted to the frame intermediate its ends between the members of each series of wheels and in front of the same, and a rigid connection between the swinging support of each rear fork and the adjacent end of the lever.



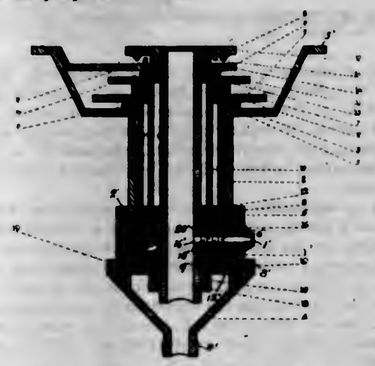
2. In a motor vehicle, the combination with the frame, of a series of rear wheels at each side of the frame, a pair of bearing forks for supporting each wheel, one of the said forks extending forwardly and upwardly and pivotally connected to the frame, the other fork extending rearwardly and upwardly and pivoted to the front fork adjacent to the wheel, a yoke-shaped bracket comprising a body journaled on the frame and arms extending rearwardly and downwardly and pivotally connected to the upper end of the rear fork, a lever pivoted intermediate its ends to the frame between the members of each series of wheels and in front of the same, and a rigid connection between each end of the lever and the pivotal connection between the adjacent bracket and rear fork.

3. In a motor vehicle, the combination with the frame, of a series of rear wheels at each side of the frame, an operating shaft for each wheel, a pair of bearing forks arranged between each operating shaft and the adjacent wheel, the members of each pair being journaled on the shaft at their front or upper ends, and rotatably supporting the wheel at their rear or lower ends, a driven shaft, a differential connecting the driven shaft to the operating shafts at each side to permit the shafts of one series to move angularly with respect to the shafts of the other series, and a yielding connection between the rear ends of each pair of forks and the frame.

4. In a motor vehicle, the combination with the frame, of a plurality of rear wheels at each side of the frame, a swinging connection between each wheel and the frame in front of the wheel, a yoke-shaped bracket comprising a body and arms adjacent to each wheel, the body of each bracket being journaled transversely of the frame above the center of the adjacent wheel, and the arms of each bracket extending downwardly and rearwardly, a shaft journaled in the arms, a connection between the shaft and the swinging connection of the adjacent wheel, and a balanced connection between the shafts of the wheels of each series.

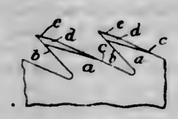
1,239,997. COMBINATION LIQUID-LOCK FOR AUTOMOBILES. NICHOLAS H. WIRTZ, Watertown, S. D. Filed Nov. 14, 1916. Serial No. 131,248. (Cl. 137—7.)

1. A valve of the type described, including an outer stationary casing, a plurality of stationary sleeves within the casing and spaced apart from the casing and from each other, the said casing and the said sleeves being provided with passages through which liquid may pass, said passages being in alinement one with the other, a plurality of independent axially movable tubular members within the said casing and disposed in close contact with the said plurality of sleeves within the said casing, each of said tubular members being provided with an aperture for the passage of liquid arranged in the same transverse plane as the aforementioned liquid passages, each of said tubular members being provided with means for manual manipulation, a stationary stop for each of said axially movable tubular members and a stop on each of said axially movable tubular members for engagement with the stationary stop for each of the axially movable tubular members to limit the axial movement of each of the axially movable tubular members, the whole being arranged in such manner that upon axial movement of the said axially movable tubular members, the said apertures therein may be brought into alinement with the liquid passages in the casing and in the said stationary sleeves to effect communication through the whole, substantially as described and for the purposes set forth.



2. A valve of the type described, including a stationary casing, a plurality of alternate stationary sleeves and axially movable tubular members within the said casing, the said casing and the stationary sleeves being provided with alining passages for liquid, each of the said axially movable tubular members being provided with an aperture in the same transverse plane as the said passages in the casing and in the stationary sleeves, each of the said axially movable tubular members being equipped with means for manual manipulation, the whole arranged in such manner that upon axial movement of the said axially movable tubular members the apertures therein may be brought into alinement with the said passages in the said casing and in the said stationary sleeves to effect communication of liquid through the device.

1,239,998. COTTON-SEED-DELINTING SAW. ALBERT A. WOOD, Atlanta, Ga. Filed Aug. 3, 1914. Serial No. 854,716. (Cl. 13—14.)



1. In a delinting saw, a tooth formed as a triangular pyramid touching the outer circumferential line of the teeth only at its apex.

2. In a delinting saw, a tooth having a substantially plane forward side and a rearward side formed of planes arranged at an angle to each other and to the forward side of the tooth, and producing a rib disposed at an angle to a circumference.

3. In a delinting saw, a tooth having a substantially plane forward side disposed at an angle to a radius and a rearward side having a central rib disposed at an angle to a radius and to the circumference.

4. In a delinting saw, a tooth having a substantially plane forward side with its rearward side beveled to form with the forward side a point, it being the only part of the tooth touching the circumference of the saw.

5. In a delinting saw, a tooth having a substantially plane forward side disposed at an angle to a radius; a rearward side disposed at a greater angle to and upon the same side of the radius as the forward side; and side bevels producing a point, it being the only part of the tooth touching the circumference.

[Claims 6 to 9 not printed in the Gazette.]

1,239,999. EMPTYING AND FILLING THE BALLAST-TANKS OF SUBMARINE VESSELS. HAROLD EDGAR YARROW, Scotstoun, Glasgow, Scotland. Filed Nov. 27, 1916. Serial No. 133,778. (Cl. 114—125.)



1. In a submarine vessel, the combination, with the valves of a group of ballast tanks; of a controlling member which, by its position, determines the setting of all of said valves, at whatever parts of the vessel they may be placed; and non-rigid means, adapted to open and close the valves, connecting said controlling member with each valve.

4. In a submarine vessel, the combination, with the valves of a group of ballast tanks; of a controlling member which, by its position, determines the setting of all of said valves, at whatever parts of the vessel they may be placed; a fluid-actuated piston connected to each valve; a valve for controlling the direction of movement of said piston; and a fluid-actuated piston for controlling the last-named valve, itself controlled by said controlling member.

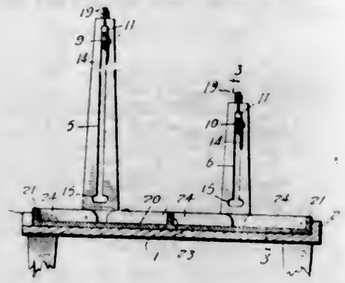
9. In a submarine vessel, the combination, with the valves of a group of ballast tanks; of a controlling device for operating said valves by fluid pressure, comprising three cylinders, a piston in each cylinder, a lever by which said pistons are moved, a pipe conveying fluid from one of said cylinders and branched to the mechanism operating the sea valves of a group of ballast tanks, a pipe conveying fluid from another of said cylinders and branched to the mechanism operating the vent valves of the group of ballast tanks, a pipe conveying fluid from the third cylinder and branched to the mechanism operating the compressed air valves of the group of ballast tanks, and means operated by the fluid in said pipes to open and close by fluid pressure the corresponding valves in the group of ballast tanks.

10. In a submarine vessel, the combination, with the valves of a group of ballast tanks; of a controlling device for operating said valves by fluid pressure, comprising three cylinders, a piston in each cylinder, a lever by which the said pistons are moved, a pipe conveying fluid from one of said cylinders and branched to the mechanism operating the sea valves of a group of ballast tanks, a pipe conveying fluid from another of said cylinders and branched to the mechanism operating the vent valves of the group of ballast tanks, a pipe conveying fluid from the third cylinder and branched to the mechanism operating the compressed air valves of the group of ballast tanks, and means operated by the fluid in the said pipes so that when said lever is displaced in one direction the sea and venting valves of the group of tanks are opened, and when the lever is displaced in the other direction the sea and compressed air valves of the groups of tanks are opened.

[Claims 2, 3, and 5 to 8 not printed in the Gazette.]

1,240,000. BAKERY APPLIANCE. LOUIS YCRE, San Francisco, Cal. Filed May 23, 1917. Serial No. 170,497. (Cl. 107—21.)

1. A bakery appliance comprising a table having upstanding flanges at its rear and end walls, a pair of standards near each side of the table and at opposite ends thereof, one pair being of greater height than the other, each standard having on its inner face a vertical groove enlarged laterally at both sides at the bottom of the groove, a blade support having its ends engaging the grooves of each pair, and carrying a cutting blade, the enlargements at the bottom of the grooves permitting the support to be moved laterally, and counterweight mechanism for lifting the blade supports, each blade support engaging the bottom of the adjacent groove, said counterweighting mechanism comprising weights, flexible members connecting the weights to the blade supports, said weights being at the outer faces of the standards, and direction elements for the flexible members.

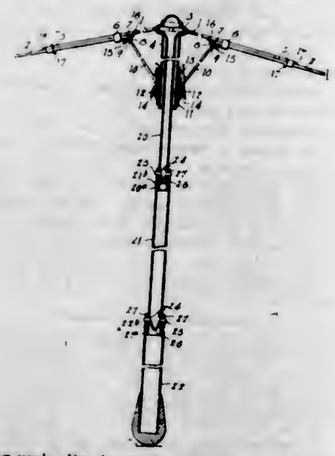


4. A device of the character described comprising a table, a pair of standards near each side of the table, the members of the pairs being at opposite ends of the table, a blade support for each pair of standards, the ends of the support having guided movement in the standards, each support carrying a cutting blade, the guiding mechanism having means at their lower ends for permitting the support to be moved laterally in both directions.

5. A device of the character specified, comprising a table having upstanding flanges at its ends and one side, a pair of cutting blades having guided movement toward and from the table and a dough supporting tray fitting the table between the flanges and having double compartments for holding dough for two rolls, the walls of the compartments being cut away at the position of the blades.

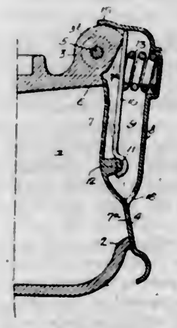
[Claims 2 and 3 not printed in the Gazette.]

1,240,001. FOLDING UMBRELLA. CARL O. YOUNGREN, Downing, Wis. Filed May 15, 1916. Serial No. 97,599. (Cl. 135—26.)



A folding umbrella, including a stick, pivotally mounted ribs adapted to be folded against the stick and formed in slidably connected inner and outer sections, each outer section sliding against the lower face of the inner section and terminating at its inner end in a bifurcated bearing, a runner, braces connected at their inner ends to the runner and having their outer ends bifurcated to straddle the bifurcated bearings of the outer rib sections, pivot pins connecting the said bifurcated bearings of the rib sections and the bifurcated ends of the braces, and spring actuated dogs arranged within the bifurcated bearings of the rib sections and mounted upon the same pivot pins which connect the braces to the rib sections, the inner rib sections being formed with notches adapted to be engaged by the dogs when the ribs are extended, and the dogs being provided with rearward extensions which are engaged by the bifurcated ends of the braces to automatically release the dogs when the runner is moved to swing the ribs against the stick.

1,240,002. JOURNAL-BOX LID. WALTER S. ADAMS, Philadelphia, Pa., assignor to The J. G. Brill Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 14, 1917. Serial No. 148,509. (Cl. 64—23.)



1. The combination of a journal box having a continuous bearing surface at the forward end; a lug at the upper portion of the box having a rounded surface and a flat surface; a lid pivoted to the lug and having an inner portion of such a size as to rest against the bearing surface of the box, said lid having an enlargement inclosing a space; a lug on the inner portion of the lid extending into the space; a spring plate mounted on the lug and bearing against the pivot lug on the box; and a spring between the outer wall of the lid and the plate.

2. The combination of a journal box having a continuous bearing surface at the forward end; a pivot lug at the upper end of the box; a lid pivoted to the lug and having an inner portion arranged to fit against the continuous bearing surface; an enlargement on the lid extending over the pivot and having a pocket near a point opposite the pivot of the lid; a spring bearing plate resting against the inner portion of the lid and the lug and a coiled spring located in the pocket and bearing against the plate, the lug having a rounded portion on which the bearing plate travels when moved from the open to the closed position; the enlargement of the lid having a drip opening to allow any water, which gains access to the interior of the lid, to escape outside of the box.

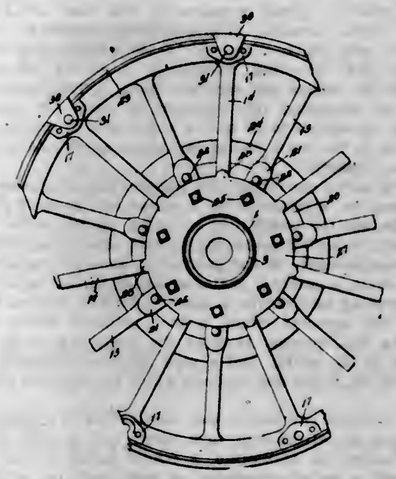
[Claim 3 not printed in the Gazette.]

1,240,003. WHEEL. PER G. ANDERSON, Elkhart, Ind., assignor to Bathrick & Palmer Machine Co., Incorporated, Elkhart, Ind. Filed Sept. 11, 1916. Serial No. 119,518. (Cl. 21—69.)

1. A wheel including a rim and spokes formed in a unitary structure from sheet metal, the spokes being coupled to the rim by webs having inner abutting portions and outer diverging portions, one of said webs having flanges struck outwardly therefrom for engagement with fastening means of a demountable rim.

2. A wheel including a rim and spokes formed as a unitary structure from sheet metal, said spokes being coupled to the rim by webs having inner abutting portions and outer diverging portions, one of said webs having flanges struck outwardly therefrom for engagement with fastening means of a demountable rim, the spokes at opposite sides of the wheel being of unequal lengths and having extensions at their inner ends, a hub, and means for securing said spoke extensions to the hub.

3. A wheel comprising a hub, a rim and spokes formed of a unitary structure of sheet metal, said spokes having inner end portions bearing against the periphery of the hub and provided with extensions, clamping plates engaging the spokes and their extensions, and fastening means for uniting the aforesaid parts.

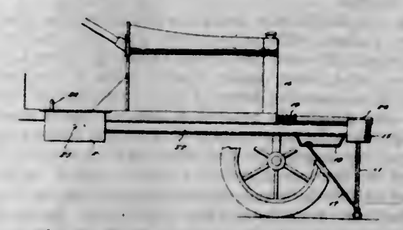


4. A wheel comprising a hub having end portions and a surrounding annular flange carrying clamping surfaces at opposite sides thereof, a rim and spokes formed as a unitary structure of sheet metal, said spokes having inner end portions resting against said flange and extensions resting against said clamping surfaces, clamping plates engaging the spokes and extensions to clamp the same in position, and fastening means engaging the flange and clamping plates and securing the parts in position.

5. A wheel comprising a hub having a clamping surface at one side and a series of clamping members at its opposite side, a rim, spokes connected with the rim and having end portions provided with extensions resting against said abutment surfaces, clamping plates securing the extensions of the spokes at one side of the center of the wheel to the series of clamping members, a clamping plate engaging the abutment surface at the opposite side of the wheel and clamping the extensions of the other spokes thereagainst, and bolts passing through the extensions of the latter named spokes and the said clamping plates and securing the parts in position.

[Claim 6 not printed in the Gazette.]

1,240,004. AUTOMOBILE-FENDER. PATRICK ANGELILLO, Vaudreuil Station, Quebec, Canada. Filed May 26, 1916, Serial No. 100,174. Renewed Feb. 13, 1917. Serial No. 148,414. (Cl. 105—83.)



1. In a motor car fender, the combination of a supporting case for attachment to a motor car, a shaft journaled therein for oscillation, a fender apron carried by said shaft, a spring connected to said shaft for holding the fender normally in one position, a sprocket connected to said shaft, a sprocket chain connected to said sprocket and extending rearwardly, a second sprocket journaled to receive the sprocket chain, a foot actuated means for op-

erating this sprocket to move the fender apron in opposition to its spring.

2. In a motor car fender, the combination of a supporting casing for attachment to a motor car, a shaft journaled therein for oscillation, a fender apron carried by said shaft, a spring connected to said shaft for holding the fender normally in one position, a sprocket connected to said shaft, a sprocket chain connected to said sprocket and extending rearwardly, a second sprocket journaled to receive the sprocket chain, a foot actuated means for operating this sprocket to move the fender apron in opposition to its spring and a pair of brace rods connected to the lower end of the fender apron and to the motor car chassis.

3. In a motor car fender, the combination of a supporting casing for attachment to a motor car, a shaft journaled therein for oscillation, a fender apron carried by said shaft, a spring connected to said shaft for holding the fender normally in one position, a sprocket connected to said shaft, a sprocket chain connected to said sprocket, and extending rearwardly, a second sprocket journaled to receive the sprocket chain, a foot actuated means for operating this sprocket to move the fender apron in opposition to its spring, and a pipe mounted alongside of the motor car frame and through which the sprocket chain passes.

4. In a motor car fender, the combination of a supporting casing for attachment to a motor car, a shaft journaled therein for oscillation, a fender apron carried by said shaft, a spring connected to said shaft for holding the fender normally in one position, a sprocket connected to said shaft, a sprocket chain connected to said sprocket and extending rearwardly, a second sprocket journaled to receive the sprocket chain, a foot actuated means for operating this sprocket to move the fender apron in opposition to its spring, a pair of brace rods connected to the lower end of the fender apron and to the motor car chassis, and a pipe mounted alongside of the motor car frame and through which the sprocket chain passes.

1,240,005. CLUB. JOHN P. ARNETT and JAMES T. FAIRCHILD, Salyersville, Ky. Filed May 3, 1917. Serial No. 166,200. (Cl. 46—4.)

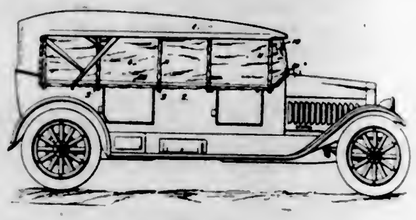


1. A club including a handle, a rod projecting from the handle, a stock slidable upon the rod, a pin carrying bar arranged within the stock parallel to the rod, normally retracted pins upon the bar, and a toggle connection between the bar and the rod for automatically projecting the pins into operative position when the stock is moved upon the rod.

5. A club including a handle, a rod projecting from the handle, a stock slidably mounted upon the club and divided longitudinally into interchangeable complemental sections, said stock being formed with a longitudinal bore and the meeting faces of the complemental sections being correspondingly notched to provide radial openings leading from the longitudinal bore to the outside of the stock, a cap applied to the outer end of the stock for holding the sections together, a sleeve applied to the inner end of the stock and telescoping upon the handle, pin carrying bars arranged within the bore of the stock on opposite sides of the rod, normally retracted pins projecting from the bars and received within the before mentioned radial openings, and V-shaped springs connected to the rod and bars, said springs normally holding the stock against the handle and having a toggle action for automatically moving the pin carrying bars outwardly to project the pins into operative position when the stock is pulled away from the handle.

[Claims 2 to 4 not printed in the Gazette.]

1,240,006. ATTACHMENT FOR AUTOMOBILES. SAMUEL E. AUSTIN, Garden City, Kans. Filed Feb. 16, 1916. Serial No. 78,665. (Cl. 21—62.)



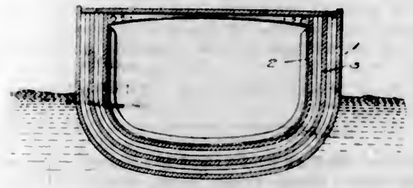
1. The combination with the vehicle body and a top carried by said body and a plurality of spaced brackets along the top rail of the body; of a curtain attachment comprising a plurality of standards adapted to be removably mounted on and projected vertically one from each of the said brackets, a flexible curtain that extends across all of the standards, each standard being vertically extensible, and means for flexibly connecting the upper edge of the curtain to the upper end of each of the standards, other means for connecting the lower edge of the curtain with each of the standards, said upper and lower curtain connecting means consisting of elastic cable sections, one section for each pair of adjacent standards.

2. In an attachment of the character described; the combination with an automobile body and a plurality of spaced brackets along the side of the body, a plurality of standards, one for each bracket, said standards being adapted to be removably mounted on their respective brackets and each including a lower stationary member and an upper member that telescopically engages with the lower member, a flexible curtain that extends the full length across all of the standards, means for flexibly connecting the upper edges of the curtain to the upper standard members, other means for flexibly connecting the lower edge of the curtain onto the lower standard members, the means for flexibly connecting the lower edge of the curtain to the lower standards including elastic cables hemmed in the lower edge of the curtain, and means for connecting their ends to adjacent ones of the lower standard members, said last named means including sleeves frictionally engaging the said standards.

3. In an attachment of the character described: the combination with an automobile body and a plurality of spaced brackets along the side of the body, a plurality of standards, one for each bracket, said standards being adapted to be removably mounted on their respective brackets and each including a lower stationary member and an upper member that telescopically engages with the lower member, a flexible curtain that extends the full length across all of the standards, means for flexibly connecting the upper edge of the curtain to the upper standard members, other means for flexibly connecting the lower edges of the curtain onto the lower standard members, the means for flexibly connecting the lower edge of the curtain to the lower standards including elastic cables hemmed in the lower edge of the curtain, means for connecting their ends to adjacent ones of the lower standard members, said last named means including sleeves frictionally engaging the said standards, said means for flexibly connecting the upper end of the curtain to the upper standard members including elastic cables hemmed in the said upper edge of the curtain and connected at their ends to adjacent ones of the upper standard members.

1,240,007. DEVICE FOR PROTECTING SHIPS. FRANK WILLIAM BAUMHOVER, Carroll, Iowa. Filed Jan. 22, 1917. Serial No. 143,646. (Cl. 114—68.)

1. In a vessel consisting of inner, outer and intermediate walls spaced apart from each other, of flexible containers for air under pressure arranged within the spaces between the walls in abutting relation at their side edges and filling the space between the walls, each of the said casings consisting of a flexible outer casing and an elastic inner casing, and having on opposite sides reëntrant portions for the purpose specified.

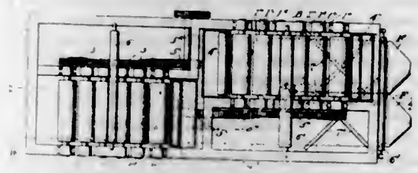


3. In a vessel having spaced inner and outer walls, a series of flexible containers for fluid under pressure arranged within the space between the walls and larger than necessary to fill the said space, so that some of the containers will be provided with folds and capable of further expansion.

4. A method of protecting vessels from injury, which consists in interposing between the walls thereof flexible containers for fluid under pressure and larger than necessary to fill the said space, so that some or all of the containers will be provided with folds and be capable of further expansion.

[Claim 2 not printed in the Gazette.]

1,240,008. ROTARY CYLINDER PRINTING-PRESS. HENRY F. BECHMAN, Battle Creek, Mich., assignor to Duplex Printing Press Company, Battle Creek, Mich., a Corporation of Michigan. Filed Sept. 12, 1912, Serial No. 719,967. Renewed June 30, 1917. Serial No. 177,989. (Cl. 270—5.)



1. In a printing press, the combination of a pair of rotary printing mechanisms so arranged that the inner side of one mechanism overlaps the inner side of the other, whereby two narrow webs may be printed, or a full width web may be printed by dividing such web and leading one half thereof through each mechanism; with means for folding the printed halves of the web separately or together.

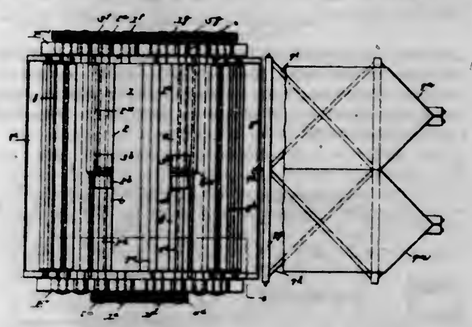
3. In a printing press, the combination of two sets of rotary perfecting printing mechanisms arranged transversely of the main frame, the inner ends of the cylinders in one set extending slightly past the inner ends of the cylinders in the other; means for operating the mechanisms, and means for folding their products separately or together.

Claims 2 and 4 to 37 not printed in the Gazette.]

1,240,009. ROTARY PRINTING-PRESS. HENRY F. BECHMAN, Battle Creek, Mich., assignor to Duplex Printing Press Company, Battle Creek, Mich., a Corporation of Michigan. Filed Oct. 16, 1912, Serial No. 726,092. Renewed June 30, 1917. Serial No. 177,990. (Cl. 270—5.)

1. In a printing press, the combination of two adjacent sets of printing mechanisms; each comprising a pair of plate cylinders and co-acting impression means so arranged that the inner end of one plate cylinder in a pair overlaps the inner end of the other plate cylinder in such pair; whereby two narrow webs or a single wide web may be perfected by leading same successively through the printing mechanisms.

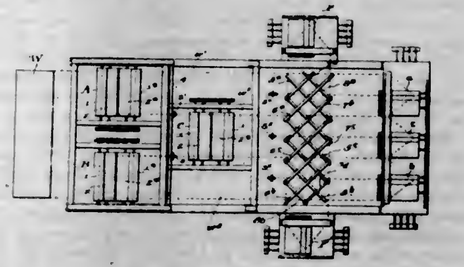
7. In a printing press, the combination of a pair of longitudinally and laterally displaced plate cylinders arranged in axial parallelism, and impression means cooperating with both said plate cylinders whereby adjacent longitudinal portions of a wide web may be printed



on one side, and bearings for the ends of the plate cylinders adapted to permit tubular plates to be slipped on or off the ends of such cylinders; with gearing for driving the plate cylinders at the side of the press opposite such bearings.

[Claims 2 to 6 and 8 to 33 not printed in the Gazette.]

1,240,010. ROTARY PRINTING-PRESS. HENRY F. BECHMAN, Battle Creek, Mich., assignor to Duplex Printing Press Company, Battle Creek, Mich., a Corporation of Michigan. Filed Mar. 26, 1915. Serial No. 17,195. (Cl. 270—8.)



1. In a printing press, the combination of three rotary printing mechanisms arranged in substantially the same horizontal plane two of such printing mechanisms being substantially in axial alinement, and the intermediate printing mechanism being out of alinement with the other two printing mechanisms but in axial parallelism therewith.

2. In a printing press, the combination of three rotary printing mechanisms arranged in substantially the same horizontal plane two of such printing mechanisms being substantially in axial alinement, and the intermediate printing mechanism being arranged to one side of the other two printing mechanisms but in axial parallelism therewith, said mechanisms being adapted to simultaneously print the portions of a wide web without lateral deflection thereof; with means for slitting the web prior to printing.

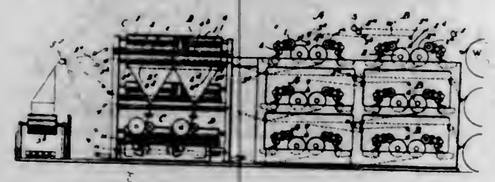
6. In a printing press, the combination of three printing mechanisms having their axes parallel, the central printing mechanism being laterally displaced relative to the outer printing mechanisms; with gearing for driving said mechanisms, the drive gearing for the two outer sets of printing mechanisms being arranged at the inner ends thereof, and the gearing for the central printing mechanism being arranged at one end thereof.

10. In a printing press, the combination of three printing mechanisms having their axes parallel, the alternate

printing mechanisms being relatively laterally displaced, with a folding mechanism in line with each printing mechanism adapted to fold the web printed by such mechanism without lateral deflection thereof.

[Claims 3 to 5, 7 to 9, and 11 to 21 not printed in the Gazette.]

1,240,011. ROTARY PRINTING-PRESS AND FOLDER. HENRY F. BECHMAN, Battle Creek, Mich., assignor to Duplex Printing Press Company, Battle Creek, Mich., a Corporation of Michigan. Filed Apr. 19, 1915. Serial No. 22,445. (Cl. 270—5.)

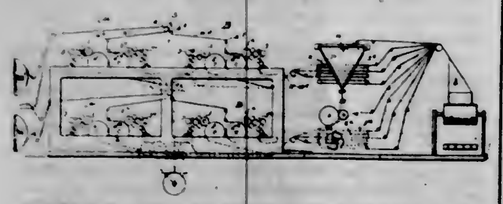


1. In a printing press, the combination of a pair of laterally displaced printing mechanisms, a folder in direct line with each printing mechanism adapted to fold the web printed thereby, a second pair of laterally displaced printing mechanisms arranged in a plane at right angles to the plane of the first printing mechanisms, a folder for each of the said printing mechanisms; said folders and printing mechanisms being so disposed that the paths of webs passing from one set of printing mechanisms to their related folders intersect the paths of the webs passing from the other printing mechanisms to their folders.

7. In a printing press the combination of a printing mechanism and a co-acting folding mechanism arranged in line with but spaced away from the printing mechanism; a second printing mechanism arranged at right angles to the first printing mechanism and located opposite the space between the first printing and folding mechanisms; a co-acting folding mechanism in line with the second printing mechanism and located at the side of the first printing mechanism opposite the second printing mechanism, whereby the web from either press may pass direct without any lateral deflection from either printing mechanism to its related folder, the web passing from one printing mechanism to its folder crossing the web passing from the other printing mechanism to its folder, with means located in the space between the respective printing mechanisms and the folding mechanisms whereby the webs from one printing mechanism may be deflected to the folding mechanism for the other printing mechanism with angle bars, located in the space intermediate the printing mechanisms and their respective folding mechanisms whereby the web from one printing mechanism may be directed to the folding mechanism for the other printing mechanism.

[Claims 2 to 6 not printed in the Gazette.]

1,240,012. ROTARY PRESS. HENRY F. BECHMAN, Battle Creek, Mich., assignor to Duplex Printing Press Company, Battle Creek, Mich., a Corporation of Michigan. Filed Mar. 26, 1915. Serial No. 17,194. Renewed June 30, 1917. Serial No. 177,991. (Cl. 270—5.)

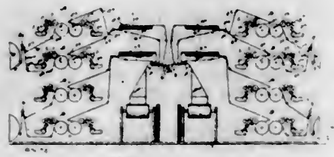


1. In a printing press, the combination of four printing mechanisms having their axes parallel, and adapted to print side by side webs or portions of webs, the alternate printing mechanisms being relatively laterally displaced.

13. In a printing press, the combination of four printing mechanisms having their axes parallel, the alternate printing mechanisms being relatively laterally displaced; with a plurality of folding mechanisms, and means for directing the sections of the web from the respective printing mechanisms to the respective folding mechanisms.

[Claims 2 to 12 and 14 to 19 not printed in the Gazette.]

1,240,013. ROTARY PRINTING-PRESS. HENRY F. BECHMAN, Battle Creek, Mich., assignor to Duplex Printing Press Company, Battle Creek, Mich., a Corporation of Michigan. Filed Apr. 17, 1915, Serial No. 22,155. Renewed June 30, 1917. Serial No. 177,992. (Cl. 270—5.)

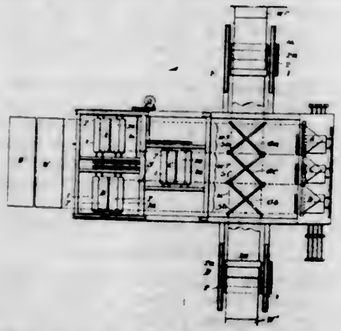


1. In a printing press the combination of a main frame and two separate printing mechanisms therein arranged one above the other and relatively laterally displaced and adapted to print two narrow webs or different portions of the same web.

9. In a printing press the combination of a pair of separate relatively laterally displaced printing mechanisms arranged in the same frame and in different horizontal planes and adapted to print two narrow webs or different portions of the same web; with means for folding webs printed by such mechanisms.

[Claims 2 to 8 and 10 to 26 not printed in the Gazette.]

1,240,014. ROTARY PRINTING-PRESS. HENRY F. BECHMAN, Battle Creek, Mich., assignor to Duplex Printing Press Company, Battle Creek, Mich., a Corporation of Michigan. Filed Apr. 22, 1915. Serial No. 22,998. (Cl. 270—8.)

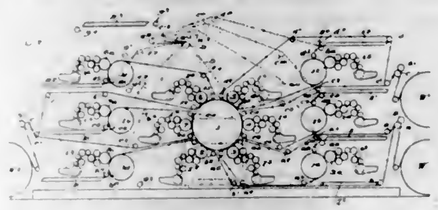


1. In a rotary printing press, the combination of a plurality of rotary printing mechanisms having their cylinders in axial parallelism, said printing mechanisms being located in different parallel planes and adapted to simultaneously print narrow webs or portions of a single wide web, means for slitting a wide web prior to printing and folding mechanism; with a printing mechanism at one side of the path of the web from the first printing mechanisms, and means for directing the webs from the side printing mechanism to the folding mechanism.

6. In a printing press, the combination of three rotary printing mechanisms arranged in substantially the same horizontal plane, the plate cylinders in said mechanisms being adapted to carry single page tubular plates; two of such printing mechanisms being separated but in substantial axial alinement, and the other printing mechanism being arranged between and to one side of the other two printing mechanisms but in axial parallelism therewith; with a folding mechanism in line with each printing mechanism adapted to fold the web printed by such mechanism without lateral deflection thereof, and web guides and angle bars whereby the web printed by any mechanism may be led to any folder.

[Claims 2 to 5 and 7 not printed in the Gazette.]

1,240,015. ROTARY WEB-PRINTING PRESS. HENRY F. BECHMAN, Battle Creek, Mich., assignor to Duplex Printing Press Company, Battle Creek, Mich., a Corporation of Michigan. Filed May 23, 1916. Serial No. 99,321. (Cl. 270—5.)



1. In a rotary printing press, the combination of an impression cylinder, a plurality of laterally displaced plate cylinders coacting therewith adjacent opposite ends thereof, a plurality of printing couples arranged at opposite sides of the said cylinder, and means for directing webs through the individual printing couples and between the impression cylinder and the related coacting plate cylinders.

9. In a rotary printing press, the combination of an impression cylinder and a plurality of plate cylinders coacting therewith; a plurality of superposed printing couples at one side of said cylinders; adjacent superposed printing couples being relatively laterally displaced; with folding mechanism adjacent the printing mechanisms, and angle bars whereby the webs after being perfected may be turned and directed to the folding mechanism.

[Claims 2 to 8 and 10 to 23 not printed in the Gazette.]

1,240,016. PROCESS OF PREPARING A NON-ALCOHOLIC CHILL-PROOF BEVERAGE. JOHN BEERHALTER, Duluth, Minn. Filed Nov. 18, 1914. Serial No. 872,872. (Cl. 99—11.)

1. In the manufacture of non-alcoholic beverages containing proteids, a step consisting in adding to the beverage, subsequent to the cooling of the wort, an ingredient preventing the coagulation of proteids under a change of temperature or the lapse of time.

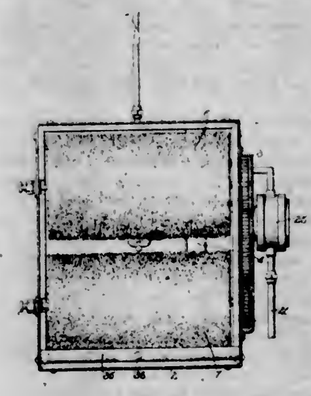
2. In the manufacture of non-alcoholic beverages produced from malted grain, and charged with carbonic acid gas, a step which consists in adding to the beverage subsequent to the cooling of the wort a proteolytic enzym active in slightly acid media.

3. In the manufacture of non-alcoholic beverages, produced from malted grain and flavoring vegetable substances, and charged with carbonic acid gas, the step which consists in adding to the beverage subsequent to the cooling of the wort, a proteolytic enzym active in slightly acid media, such enzym being added in proportions and under conditions to remain in the finished beverage in the described state of activity and to render the beverage chill-proof and more stable at ordinary temperatures.

4. In the manufacture of non-alcoholic beverages, produced from malted grain and other flavoring vegetable substances, and charged with carbonic acid gas, the step which consists in adding to the beverage, subsequent to the cooling of the wort, a proteolytic enzym active in slightly acid media, such enzym being added in proportion and under conditions to remain in the finished beverage in the described state of activity and to render the beverage chill-proof and more stable at ordinary temperatures, and subsequently pasteurizing.

5. In the manufacture of non-alcoholic beverages, produced from malted grain, and other flavoring vegetable substances, and charged with carbonic acid gas, the step which consists in adding to the beverage subsequent to the cooling of the wort, a preparation derived from malt, said preparation containing a proteolytic enzym active in slightly acid media, and being practically free from unstable albumens which are devoid of proteolytic action, said enzym being added in proportions and under conditions to remain in the finished beverage in the described state of activity, and to render the beverage chill-proof and more stable at ordinary temperatures.

1,240,017. PAINT-BRUSH. FRANK LEE BENEDICT, Harrisburg, Pa. Filed Nov. 9, 1916. Serial No. 130,320. (Cl. 91—25.)



1. In a device of the character described, a casing open on one face, a pair of rotatable brushes arranged in the casing and projecting beyond the casing through said open face, means for spraying paint at a point between said brushes, a power member for rotating the brushes, and means for varying the amount of paint sprayed.

2. In a device of the character described, a pair of rotatable brushes, means for rotating said brushes, and means for directing a spray of paint between said brushes whereby when said brushes are moved over a surface paint is applied to said surface and then spread by the brushes.

3. In a device of the character described, a pair of rotatable brushes, an air motor for driving said brushes, means for supplying a stream of paint at a point between said brushes, and means for directing the exhaust air from said motor in a spray past the discharge point of said paint for spraying the paint.

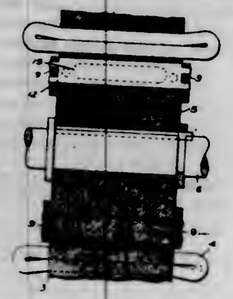
4. In a device of the character described, a pair of rotatable brushes, means for driving said brushes, and a spraying member arranged between the brushes, said spraying member comprising a pipe for paint having an opening in one side, an air supply pipe having an opening discharging at right angles across the opening in the paint pipe, and a distributing pan for directing the sprayed air and paint.

5. In a device of the character described, a casing provided with a pair of rotatable brushes arranged therein, and projecting therefrom so as to engage the surface to be painted, means for causing the brushes to rotate in opposite directions, a spray nozzle arranged between said brushes and discharging in a plane substantially mid-

way between the brushes, and a controlling member controlling the supply of paint to said spray nozzle.

[Claims 6 and 7 not printed in the Gazette.]

1,240,018. ALTERNATING-CURRENT MOTOR. SVEN R. BERGMAN, Nahant, Mass., assignor to General Electric Company, a Corporation of New York. Filed June 3, 1915. Serial No. 31,835. (Cl. 172—120.)



1. An induction motor having a secondary member comprising a magnetic core having relatively deep slots therein, a relatively thin conductor of substantially the slot depth but of considerably less thickness than the slot width positioned in each slot, means adjacent each conductor for filling the slot, and end rings connected to said conductors.

2. An induction motor having a secondary member comprising a magnetic core having relatively deep slots therein, a conductor of considerably less thickness than the slot width positioned in each slot, a member of magnetic material on each side of each conductor for filling the slot, and end rings connected to said conductors.

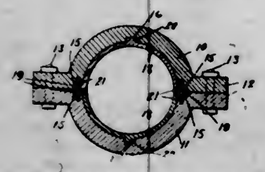
3. An induction motor having a secondary member comprising a magnetic core having relatively deep slots therein, a sheet metal strip of high specific conductivity and of substantially the slot depth but of considerably less thickness than the slot width positioned approximately in the center of each slot, means adjacent both radial faces of each sheet metal strip for filling the slot, and end rings connected to said strips.

4. An induction motor having a secondary member comprising a magnetic core having relatively deep slots therein, a sheet metal strip of high specific conductivity and of substantially the slot depth but of considerably less thickness than the slot width positioned approximately in the center of each slot, strips of magnetic material on each side of each of said sheet metal strips, and end rings connected to said sheet metal strips.

5. An induction motor having a secondary member comprising a magnetic core having relatively deep slots therein, a composite conductor bar in each slot, each composite conductor bar comprising a strip of sheet metal of high specific conductivity and of substantially the slot depth and not over $\frac{1}{8}$ of an inch in thickness secured between strips of low specific conductivity, and end rings connected to said conductor bars.

[Claims 6 to 9 not printed in the Gazette.]

1,240,019. BEARING. OKEY J. BOARD, Gay, W. Va. Filed Dec. 7, 1916. Serial No. 135,651. (Cl. 64—10.)



A bearing comprising separable sections arcuate throughout the greater portion of their length and having end portions extended to provide tongues positioned in contacting relation, each section being provided intermediate its length and at the inner ends of its end tongues with grooves of less width than the sections, liners positioned within the bearing against the inner faces of the sections and having end tongues extending in contacting relation and fitting into the grooves of the end tongues of the sections and having intermediate ribs fitting into the intermediate grooves of the sections, and means releasably connecting the end tongues of the section.

1,240,020. CONCENTRATED FOOD PRODUCT AND THE LIKE. TEOFRON BOBERG, OLOF SÖDERLUND, and FELIX ÅSLUND, London, England, assignors to Techno-Chemical Laboratories Limited, London, England. Filed June 10, 1915. Serial No. 33,416. (Cl. 99—5.)

1. A method of increasing the porosity of substances by sudden expansion of a permeating fluid consisting in reducing a meat or coffee extract to a substance containing 5% to 10% of moisture, granulating said substance, forming a semi-impervious coating on said granules by heating to some 90° C. while being continually tumbled over and suddenly reducing the pressure surrounding said granules.

2. A method of preparing concentrated food and like products consisting in reducing the moisture content of the material to about 5% to 10% by weight, roughly consolidating the material into small masses, heating said masses to a temperature of about 90° C., suddenly reducing the superincumbent pressure during such heating until the remaining moisture is evaporated and then cooling the resulting product.

1,240,021. CORN-PAD. ANNE BOONE, New York, N. Y. Filed June 9, 1917. Serial No. 173,786. (Cl. 128—28.)



1. A pad of the class described comprising a body formed of layers of coils of a single piece of yarn loosely bound together, there being a central opening in the body.

2. A pad of the class described comprising an annular body formed of a single piece of yarn wound into a plurality of spiral layers with the free ends of the yarn passing out from the center of the body to form tie strings.

3. A pad of the class described comprising an annular body formed of a single piece of yarn wound into a plurality of spiral layers with the free ends of the yarn passing out from the center of the body to form tie strings, one end of the yarn being coiled around the body from the center to the periphery to loosely bind the layers together.

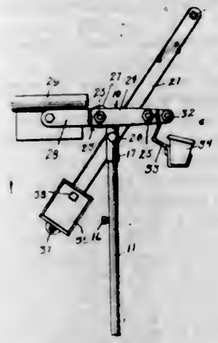
[Claim 4 not printed in the Gazette.]

1,240,022. RURAL MAIL-CARRIER. LLOYD R. BRUCKNER, Augusta, and JOHN W. MURPHY, Griffin, Ga. Filed Aug. 21, 1916. Serial No. 116,162. (Cl. 232—40.)

1. The combination with a base, of an arm movable with respect thereto, and a receptacle carrier connected with the arm for movement thereon into positions for alternate direct support by the base and arm.

5. The combination with a base, of an arm movable with respect thereto, a carrier mounted to rock upon the arm and arranged for movement longitudinally thereof to be limited in one direction by the base, and a receptacle supported by and movable with the carrier to reverse its position with respect to the base as the arm is moved in opposite directions.

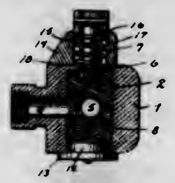
7. The combination with a base, of an arm movable with respect thereto, a carrier slidably mounted on the arm for rocking movement, and a receptacle supported by the carrier and arranged in one position of the arm to



extend outwardly beyond the end thereof, and in the other position of the arm to extend inwardly of said end.

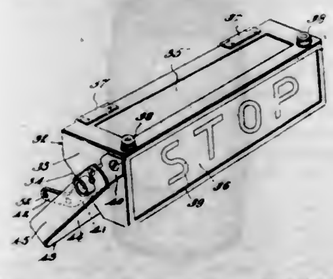
[Claims 2 to 4, 6, 8, and 9 not printed in the Gazette.]

1,240,023. VALVE. HUGH P. BRUNK, Sylvia, W. Va. Filed June 3, 1915. Serial No. 32,021. (Cl. 137—26.)



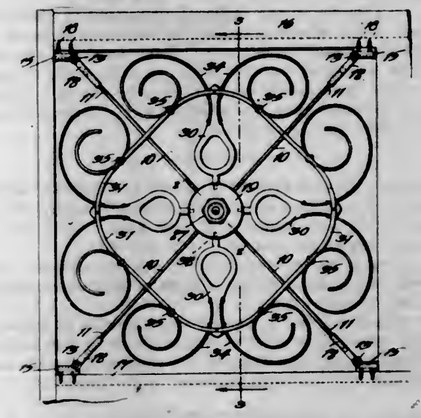
A valve comprising a casing, a seat in the casing, a plug rotatable in the seat and having radial communicating passages, ports formed in the casing and adapted to communicate with the passages upon rotation of the plug, a stem carried by the plug and extending through the top of the casing, a head fixed to the stem, said head having an annular shoulder formed therein and its outer face provided with a plurality of angular surfaces, certain adjacent edges of which intersect to form pointers movable on the upper surface of said casing, a coil spring encircling the stem and having its upper end engaged with the shoulder and its lower end engaged with the top of the casing, said head having a plurality of points thereon which are adapted to aline with the ports to indicate which passages are in registry with the ports, said spring serving to hold the top of the plug in yieldable engagement with the inner surface of the top of the casing, and the head in yielding adjusted position.

1,240,024. AUTOMOBILE-SIGNAL. STEPHEN L. CARPENTER, New Rochelle, N. Y., assignor of one-half to Leopold Karpen, New Rochelle, N. Y. Filed Apr. 19, 1915. Serial No. 22,467. (Cl. 40—77.)



A direction indicator comprising an elongated casing, a [illegible] plate closing one of the walls of the casing and having direction indicating characters thereon, a colored glass plate closing another wall of the casing for forming a tail light signal, braces secured to the end walls and extending diagonally thereof, a hollow shaft extending through the casing and the braces, a substantially U-shaped supporting member having its arm portions adjacent their free ends apertured to rotatively receive the ends of the hollow shaft, a curved extension formed upon one of the braces and adapted to have means connected thereto for rotating the casing within the substantially U-shaped supporting member to bring the direction indicating character into view, said hollow shaft having apertures therein and located within the casing, electric wires extending into the hollow shaft and through the apertures thereof, brackets secured to the hollow shaft adjacent each end, electric lamp sockets carried by said brackets and connected with the wires extending outwardly through the apertures of the shaft, and electric lamps carried by said sockets for illuminating the casing.

1,240,025. WINDOW-GUARD. HELEN S. CARSON, Chicago, Ill. Filed Dec. 19, 1916. Serial No. 137,897. (Cl. 20—71.)



1. In a window guard, a plurality of radial guard bars, detachable fastening members for the outer ends of said bars, and separable clamping means engaging the inner ends of said bars to normally prevent detachment of the outer ends thereof and key actuated locking means normally holding said clamping members in engaged position.

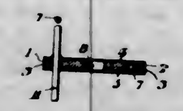
7. In a window guard, a plurality of radially disposed guard bars, fastening means at the outer ends of the bars, and clamping means connecting the inner ends of said bars and including opposing separable clamping plates, one of which is provided with an internally threaded tubular portion projecting toward the other plate, a nut threaded into the said tubular extension on the clamping plate and bearing against the other plate so as to secure the said plates in clamped position, said nut having a tubular barrel, a lock in the barrel of the nut having means to prevent the withdrawal of the nut from the threaded tubular extension so as to thus lock the blades in clamped position.

[Claims 2 to 6 not printed in the Gazette.]

1,240,026. SURGICAL APPLIANCE. EVERETT BROWN CHAPMAN, Philadelphia, Pa. Filed Oct. 10, 1912. Serial No. 725,039. (Cl. 206—42.)

1. In a device of the character described a plane disk, having means whereby it may be rotatably engaged, and a circular series of sockets, being openings extending through said disk parallel with its axis; frangible covers for the opposite ends of said sockets, so arranged that the operator may ascertain whether said sockets are empty or not, including sheets of translucent fabric at-

tached to the opposite faces of said disk; and, pellets in said sockets between said covers.



2. In a device of the character described a plane disk, having means whereby it may be rotatably engaged, and a circular series of sockets, being openings extending through said disk parallel with its axis; and, frangible covers for the opposite ends of said sockets, so arranged that the operator may ascertain whether said sockets are empty or not, including sheets of translucent fabric attached to the opposite faces of said disk.

3. In a device of the character described a plane disk, having means whereby it may be rotatably engaged, and a circular series of sockets, being openings extending through said disk parallel with its axis; and, frangible covers for the opposite ends of said sockets, so constructed and arranged that the operator may ascertain whether said sockets are empty or not, including sheets of fabric attached to the opposite faces of said disk.

4. In a device of the character described, a plane disk, having means whereby it may be rotatably engaged and a circular series of sockets, being openings extending through said disk parallel with its axis; and, frangible covers for the opposite ends of said sockets, so constructed and arranged that the operator may ascertain whether said sockets are empty or not.

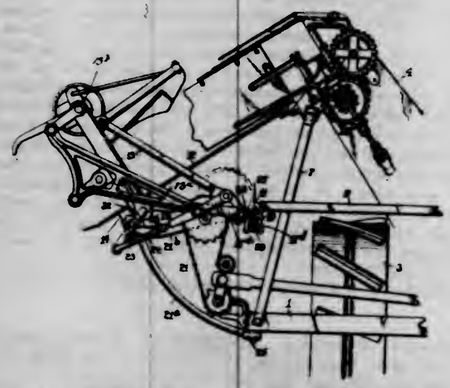
1,240,027. FLASH-POWDER. JOHN I. CRABTREE, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed Dec. 11, 1916. Serial No. 136,384. (Cl. 52—6.)

2. A flash powder mixture of sodium oxalate, phosphorus, combustible metal of high actinic value, and an alkali-earth metal nitrate.

5. A flash powder composed substantially of strontium nitrate 40 parts, sodium oxalate 4 parts, red phosphorus 3.5 parts, magnesium 5 parts and aluminum 10 parts.

[Claims 1, 3, and 4 not printed in the Gazette.]

1,240,028. GRAIN HARVESTER AND BINDER. WILLIAM H. CRANE, Poughkeepsie, N. Y., assignor to Moline Plow Company, a Corporation of Illinois. Filed Dec. 28, 1916. Serial No. 139,312. (Cl. 56—126.)



1. In a grain harvester and binder, the combination of a main frame, a binding attachment shiftable horizontally relatively to the main frame, a horizontally swinging supporting member mounted on the main frame on a vertical axis and comprising a lower arm and a connected upper link, said supporting member receiving the weight of the binding attachment at a point within the plane of the member, and means for shifting the binding attachment to adjust the same.

2. In a grain harvester and binder, the combination of a main frame, a binding attachment shiftable horizontally relatively thereto, a horizontally swinging supporting member mounted at its inner end on the main frame on a vertical axis and comprising a lower arm and an upper connected link, said member being provided at its outer end with a sustaining portion disposed in the plane of the member, and said supporting portion and receiving the weight of the binding attachment, and means for shifting the binding attachment to adjust the same.

5. In a grain harvester and binder, the combination of a main frame, a binding attachment including a frame shiftable horizontally relatively thereto, a swinging supporting member pivoted to the main frame, a sustaining head on the supporting member movable relatively thereto and by which the frame of the binding attachment is supported in its shafting movements, and means for shifting the binding attachment to adjust the same.

[Claims 3, 4, and 6 to 14 not printed in the Gazette.]

1,240,029. METALLIC BARREL. JOHN W. DARLEY, Jr., Baltimore, Md., assignor to The Universal Steel Package Co., a Corporation of Delaware. Filed Oct. 21, 1915. Serial No. 57,189. (Cl. 220—4.)



1. A stave for a metallic barrel having a bilged body portion, a flat radially disposed rib along one edge thereof and a flanged rib along the other edge thereof, the inner edge of said flat rib and the inner surface of said flanged rib being substantially straight longitudinally.

2. In a metallic barrel, staves having bilged body portions, ribs along the edges of said bilged body portions, and curved ends on said staves, each of said ends having side extensions to fit over the ends of one rib of an adjacent stave.

1,240,030. METALLIC BARREL. JOHN W. DARLEY, Jr., Baltimore, Md., assignor to The Universal Steel Package Co., a Corporation of Delaware. Filed Oct. 21, 1915. Serial No. 57,190. (Cl. 220—4.)

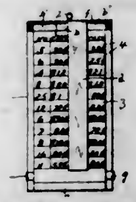


1. The combination with a plurality of staves each having flanges on a portion of the ends thereof, of a head

provided with a flange having portions adapted to be passed under said flanges on said staves to lock said head and staves together, said flange on said head also having portions adapted to pass over the ends of the flanges on said staves.

[Claim 2 not printed in the Gazette.]

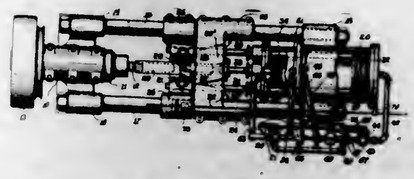
1,240,031. EDUCATIONAL APPLIANCE. HARRY DE WITT DE GROAT, Cortland, N. Y. Filed Apr. 2, 1914. Serial No. 829,033. (Cl. 35—2.)



1. In an educational appliance of the character described, the combination of a relatively stiff back plate, a series of relatively flexible reversible charts arranged flatwise upon the front face of said plate, means for detachably pivotally attaching the lower edges of the charts to said plate, means for detachably holding the upper ends of the charts in position adjacent the back plate to permit the intermediate portion of the front chart to be sprung forwardly to withdraw the upper end from beneath the holding means for displacement of said front chart for reversibility thereof and exposure of the one adjacent thereto.

[Claims 2 and 3 not printed in the Gazette.]

1,240,032. LATHE. GEORGE DE LAVAL, Orange, N. J., asignor to The T. A. Gillespie Company, New York, N. Y., a Corporation of Delaware. Filed Aug. 29, 1916. Serial No. 117,402. (Cl. 82—2.)



1. In a machine of the class described, a work center and fluid operated means to move it toward and hold it against the work, a tool carriage and means controlled by the motion of said carriage to withdraw said center from the work.

2. In a machine of the class described, a work center, a fluid operated piston connected thereto, means to supply a fluid pressure behind said piston to move said center toward the work, means to supply a fluid pressure to the front of said piston to move said center away from the work, a tool carriage and means operated by the motion of said carriage to control the operation of said last named means at predetermined times.

3. In a machine of the class described, a work center and fluid operated means therefor comprising a cylinder, a piston therein and a rod connected to said piston and said center, means for permitting the passage of fluid to and from the rear of said piston, means for permitting the passage of fluid to and from the front of said piston, a tool carriage and means controlled by the motion of said carriage to reverse the direction of flow of fluid into and out of the opposite ends of said cylinder.

4. In a machine of the class described, a work driving spindle, a bearing therefor, a pair of cylinders, a tool carriage, a work center, a piston and a piston rod in one of said cylinders connected to said carriage, a piston and a piston rod in the other of said cylinders connected to said work center, a pair of rods each passing through openings in projections on said bearing and said cylinders respectively, means for supplying fluid pressure behind said pistons to force said center and said carriage toward said work driver, and means on the ends of said pair of rods to prevent relative longitudinal motion between said cylinders and the said bearing.

5. In a machine of the class described, a movable tool carriage, a movable work center, a piston connected to said carriage, a piston connected to said center and means to supply fluid pressure behind said pistons, constructed and arranged so that said center is first moved and held against the work, and afterward said carriage is moved along the work.

[Claims 6 to 11 not printed in the Gazette.]

1,240,033. HYPODERMIC SYRINGE. FAIRLEIGH S. DICKINSON, Rutherford, N. J. Filed Dec. 9, 1916. Serial No. 135,961. (Cl. 128—25.)



1. In a hypodermic syringe, a needle and a cup-shaped attaching and packing member in which the butt end of the needle is secured, a nozzle onto which fits the said attaching and packing member, and a coupling cap screwing on the said nozzle and engaging the said attaching and packing member to force the latter firmly into position on the nozzle.

2. In a hypodermic syringe, a needle and a cup-shaped attaching and packing member in which the butt end of the needle is secured, a nozzle onto which fits the said attaching and packing member, and a coupling cap screwing on the said nozzle and engaging the said attaching and packing member to force the latter firmly into position on the nozzle, the said coupling cap having a central bore for the passage of the said needle.

3. In a hypodermic syringe, a needle and a cup-shaped attaching and packing member in which the butt end of the needle is secured, a nozzle onto which fits the said attaching and packing members, and a coupling cap screwing on the said nozzle and engaging the said attaching and packing member to force the latter firmly into position ou the nozzle, the said coupling cap having a central bore for the passage of the said needle, the bore gradually increasing in size in an outward direction to allow the needle to flex laterally in any direction and to form a needle guard to limit the flexing movement of the needle.

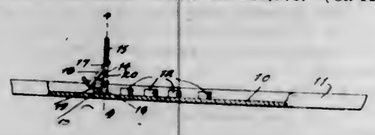
4. In a hypodermic syringe, a barrel, a nozzle on the end of the said barrel and having a reduced end, a needle, a cup-shaped attaching and packing member in which the butt end of the needle is secured, the said attaching and packing member engaging the said nozzle end, a coupling cap screwing on the said nozzle and having a seat for the said attaching and packing member to force the latter into packing position on the said nozzle end.

5. In a hypodermic syringe, a barrel, a nozzle on the end of the said barrel and having a reduced end, a needle, a cup-shaped attaching and packing member in which the butt end of the needle is secured, the terminal of the butt end of the needle extending into the bore of the said nozzle, the said attaching and packing member en-

gaging the said nozzle end, and a coupling screwing on the said nozzle and having a seat for the said attaching and packing member to force the latter into packing position on the said nozzle end.

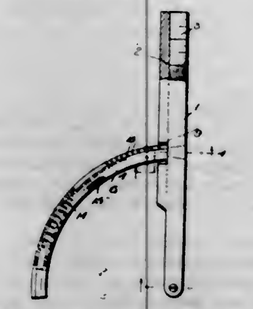
[Claims 6 to 11 not printed in the Gazette.]

1,240,034. PROJECTOR. ROBERT DOBBS, Newkirk, Okla. Filed Oct. 11, 1916. Serial No. 125,075. (Cl. 124—14.)



A projecting device for a game piece including an inverted U-shaped member having a stem on the upper portion thereof, a transverse shaft mounted in and extending between the intermediate portions of the legs of said U-shaped member, rubber caps on the lower ends of said legs for engagement with the surface of the game board, a depending arm pivotally carried by the intermediate portion of the shaft and having its lower end of a length to clear the surface of the game board when swung, said arm having a transverse opening therethrough, and an elastic band disposed through said opening and having its bight portions embracing the legs below the said shaft.

1,240,035. FRAMING-SQUARE. ALFRED L. DRUCKEMILLER, Great Falls, Mont. Filed Oct. 7, 1916. Serial No. 124,343. (Cl. 33—116.)

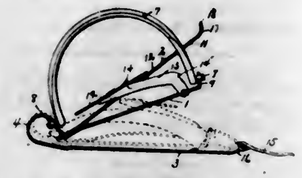


A framing square comprising a handle portion having in one edge thereof a longitudinally extending groove or recess, the bottom of the groove being cut away at one end, a straight blade pivoted at the said end and adapted to fit within the groove or passage, means for clamping the side walls of the groove or passage on the blade at the said end to fix the same with respect to the handle, a curved or protractor blade connected with the straight blade at approximately the center thereof and extending through the bottom wall, said bottom wall being cut away to permit the passage of the protractor blade, said protractor blade being provided on its opposite face with scales designating the plumb, bevel, and base cuts of valley and hip rafters, the plumb and base cuts of common rafters, and the bevel cut of jack rafters, and on its edges with degree scales and scales for bevel cuts for polygons.

1,240,036. ANIMAL-TRAP. FERRAND F. ELLIS, Oneida, and STEPHEN R. LEONARD, Kenwood, N. Y., assignors to Oneida Community, Ltd., Oneida, N. Y., a Corporation of New York. Filed Apr. 9, 1917. Serial No. 160,686. (Cl. 43—28.)

2. In a trap, a base together with underlying and overlying springs, a bait pan mounted on the base, a detent mounted on one of the springs and extending across the other spring to engage the bait pan.

4. In a trap, a base, a jaw-operating spring, and a trap-elevating spring, a bait pan pivotally mounted on the base and extending through the jaw-operating spring, and a detent pivotally mounted on one of said springs for engagement with the other spring and the bait pan.

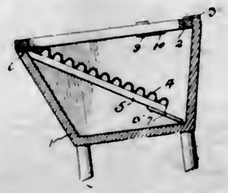


10. In a trap, a base together with an underlying and an overlying spring, a loop at one end integrally uniting two of said members, a bait pan mounted on one of said members and extending through another of said members, and a detent pivotally secured to one of said members and extending across the other members to engage the bait pan.

16. A trap comprising three overlying leaves, two of the same being integrally united at one end by an open loop, jaws having one end extending through the upper leaf and pivotally mounted upon the intermediate leaf and their opposite ends pivotally mounted in the adjacent side of the loop, a bait pan mounted upon the intermediate leaf and extending through the upper leaf and a detent mounted on the lower leaf and adapted to extend over the other leaves and engage the trigger.

[Claims 1, 3, 5 to 9, and 11 to 15 not printed in the Gazette.]

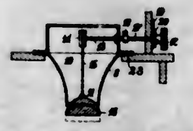
1,240,037. WASHTUB AND WASHBOARD COMBINED. GEORGE T. ELLIS, Brooklyn, N. Y. Filed Apr. 23, 1917. Serial No. 163,961. (Cl. 68—31.)



1. A combination cover and wash board for laundry tubs, comprising in combination with a tub, a frame hinged to the tub, and a wash board structure pivotally mounted within the frame.

2. A combination cover and wash board for laundry tubs, comprising in combination with a tub, a frame, a board hinged within the frame to be let down toward the rear of the tub, and legs pivotally secured to the free end of the board.

1,240,038. TALKING-MACHINE. FREDERICK J. EMPSON, Sydney, New South Wales, Australia, assignor to The Aeolian Company. Filed Dec. 31, 1912. Serial No. 739,521. (Cl. 181—27.)



1. In a sound controlling device, the combination with a sound conduit of a plug valve coöperating with a ported member whose port has a thin rubber lip.

2. In a sound controlling device, the combination with a sound conduit of a plug valve coöperating with a ported member whose port has a thin yielding periphery.

3. In a sound controlling device, the combination with a sound-conduit of a valve coöperating with a ported member whose port has a thin rubber lip.

4. In a sound controlling device, the combination with a sound-conduit of a valve coöperating with a ported member whose port has a thin yielding periphery.

5. In a sound controlling device, the combination with a tone-arm and horn of a valve movable into and away from a ported member whose port has a thin yielding periphery; said ported member being in the form of a tubular throat arranged to project the sound from the tone arm into the horn without having its sides at said port in contact with the sides of the horn.

[Claims 6 to 14 not printed in the Gazette.]

1,240,039. CONCRETE TIE. IRA S. FISHER, Molino, Mo. Filed Dec. 29, 1916. Serial No. 139,487. (Cl. 238—3.)



1. A rail tie comprising a body portion formed of concrete, an elongated metallic plate embedded within the body and having its opposite longitudinal edges bent in opposite directions and then bent upon themselves in reverse directions, the said bent edges providing flanges, the said flanges being reduced in width adjacent the opposite ends of the plates, and tongues formed on the flanges and engaging in the tie body.

2. A rail tie comprising a body portion formed of concrete, an elongated metallic plate embedded within the body and having flanges formed on the longitudinal edges thereof, the said flanges being reduced adjacent the opposite ends of the plate to provide recesses, rail-supporting plates located on the upper side of the tie body and having openings therein, and bolts extending through the tie and through the recesses formed by the reduced portions of the flanges and through the openings in the supporting plate.

3. A rail tie comprising a body portion formed of concrete, an elongated metallic plate embedded within the body of the tie, plates located below the first-mentioned plate and having openings therein, rail-supporting plates located on the upper side of the tie body, and bolts extending through the openings in the second-mentioned plates and through the tie body and having their lower ends disposed wholly within the tie body, and having their upper ends extending through the openings in the rail-supporting plates.

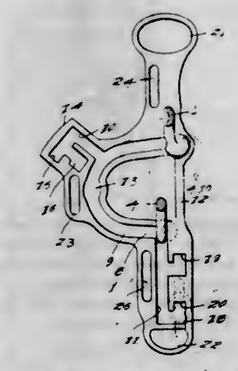
1,240,040. VALVE-UNSEATING CLIP FOR TIRE-VALVES. LLOYD FOWLER, South Britain, Conn. Filed June 22, 1917. Serial No. 176,334. (Cl. 152—12.)



1. A clip of the character described including a bowed spring strip terminating at its ends in opposed jaws adapted to grip a tire valve casing or the like, integral wings folded over the jaws from the sides thereof to reinforce the same, and rearward extensions projecting from the wings and extending beyond the back of the bowed spring strip to provide finger pieces for flexing the spring strip to move the jaws apart.

2. A clip of the character described, including a bowed spring strip terminating at its ends in opposed jaws adapted to grip a tire valve casing or the like, integral wings bent laterally over the jaws from the sides thereof and having edge portions thereof returned around the gripping portions of the jaws, and rearward extensions projecting from the wings and extending beyond the back of the bowed strip to provide opposed finger pieces for flexing the bowed strip to move the jaws apart.

1,240,041. CONVERTIBLE RIDING, DRIVING, AND VETERINARY BRIDLE-BIT. JOHN A. FRETWELL, Bradford, Ark. Filed July 25, 1916. Serial No. 111,298. (Cl. 54—9.)



1. A bridle bit of the class described comprising side frames provided with enlarged intermediate portions having approximately semi-circular slots provided with upper branch slots and lower branch slots extending upwardly and downwardly from the said semi-circular slots at spaced points, a mouth bar composed of a fixed member rigidly connected with the sides at the upper portions of said slots, and a relatively adjustable member having portions guided in the said slots and movable also into the upper and lower branch slots to form a curb bit, a drenching bit and a speculum.

3. A bridle bit of the class described including side frames provided with slots and having approximately inverted U-shaped branch slots forming extensions of the said slots and provided with notches or recesses located at different distances from the terminals of the same, said branch slots being located adjacent the horizontal plane of the upper terminals of the first mentioned slots, and a mouth bar composed of a relatively fixed member rigidly connected with the side frames, and a relatively movable member adjustable in the said slots and in the branches thereof and provided with means for securing its terminals in the said recesses or notches to form a curb bit.

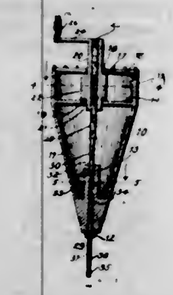
6. A bridle bit of the class described including spaced side frames having enlarged intermediate portions provided with upwardly extending arms inclined to the vertical, said side frames being also provided in their intermediate portions with curved slots having upper and lower branch slots, the upper branch slots being formed in the said arms and the lower branch slots extending downwardly longitudinally of the side frames of the intermediate enlarged portions, said branch slots having recesses spaced apart, and a mouth bar composed of relatively fixed and movable sections, the movable section being operable in the said slots to and adapted to be supported by the said arms spaced from and in approximately the same horizontal plane as the fixed section and provided with means for securing it in the said recesses, whereby an adjustable curb and an adjustable speculum may be formed.

[Claims 2, 4, 5, and 7 not printed in the Gazette.]

1,240,042. MACHINE FOR APPLYING BINDING-WIRE. DAVID B. GALBALLY, New York, N. Y., assignor to The Universal Steel Package Co., Dover, Del., a Corporation of Delaware. Filed July 28, 1915. Serial No. 42,394. (Cl. 254—67.)

1. In a binder applying device, the combination of a casing having means for holding one end of a binding wire,

with a pull rod having means on one end for holding the other end of said binding wire, means for preventing said pull rod from turning, a nut mounted in bearings in said casing and threaded on the other end of said pull rod, and a handle for turning said nut.



2. In a binder applying device, the combination of a casing having a conical end provided with a cylindrical tip, a cylindrical body adjacent to said conical end, bearings in said cylindrical body, a nut mounted in said bearings, and a pull rod slidably mounted in a bearing in said conical end and threaded into said nut.

1,240,043. FISH-LINE BOB OR FLOAT. WALTER W. GREGORY and PETER D. MAIRE, Lakewood, Ohio; said Maire assignor of his right to W. R. White, Cleveland, Ohio. Filed Jan. 27, 1915. Serial No. 4,582. (Cl. 43—4.)



1. A bob for fish lines consisting of two equal sections hinged together and provided with flat inner sides closed to form hermetically sealed chambers within and adapted to close one upon the other, one of said sides having a groove for a fish line and the other side having notches in its edge opposite said groove; and a clamp adapted to lock said sections together.

[Claims 2 and 3 not printed in the Gazette.]

1,240,044. SASH-STRIP FASTENER. GUSTAF F. GULLBORG, Renova, Pa. Filed Mar. 28, 1917. Serial No. 158,036. (Cl. 16—29.)

1. A window frame including a jamb provided with a longitudinally extending groove and having key-hole slots in the base of the groove, a sash retaining strip adapted to be fitted within the groove, headed studs projecting from the strip and arranged to interlock with certain of the key-hole slots, a spring locking strip formed with a resilient overhanging arm which has substantially the same configuration as the last mentioned key-hole slot through which it is adapted to be inserted, and means cooperating with the resilient overhanging arm to lock the strip in operative position.

3. A window frame including a jamb provided with a longitudinally extending groove and having key-hole slots in the base of the groove, a sash retaining strip formed with a rib which is slidable within the groove, headed studs projecting from the strip and arranged to interlock with certain of the key-hole slots, a lug projecting from the window jamb adjacent another of the key-hole slots, a spring locking strip formed with a resilient overhanging arm adapted to be inserted through the last mentioned key-hole slot and sprung into engagement with the lug, and a plunger projecting from the arm of the spring strip and



extending through the jamb so that by pushing upon the plunger the spring strip can be sprung away from the lug.

[Claims 2 and 4 not printed in the Gazette.]

1,240,045. CONTAINER. CLARENCE A. HAMMOND-KNOWLTON, New York, N. Y. Filed Jan. 25, 1917. Serial No. 144,417. (Cl. 242—159.)



In a container of the character described, a receptacle inclosing a supply of thread, an eyelet member arranged in one end of the receptacle through which the thread is adapted to be drawn, and a friction member acting against said eyelet for producing friction on said thread, said friction member comprising a strip of resilient and bendable sheet material having the ends thrust through part of the end of said receptacle.

1,240,046. NUT-LOCK. WILLIAM ALOYSIUS HUBENER, New York, N. Y. Filed Aug. 31, 1916. Serial No. 117,877. (Cl. 151—8.)



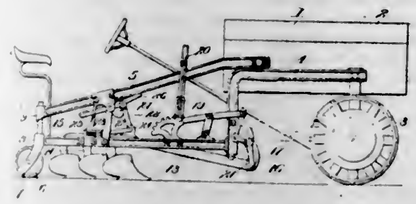
1. The combination with a bolt having a longitudinal cruciform key seat formed in its threaded end and intersecting the bolt thread and a nut coöperating with the bolt around its key seat, of a cruciform key in said key seat, said key being movable longitudinally of the bolt and projecting radially through said key seat into interlocking engagement with the threaded part of the nut.

2. The combination with a bolt having a longitudinal key seat formed in its threaded end, said key seat being formed with a laterally projecting notch adjacent to the lower end of the key seat, the bolt also being provided with a pocket extending longitudinally thereof below the notch, of a key located in the key seat and rotatable therein around its axis to interlock in said notch, guide means for the key projecting into said pocket, and an actuating spring for the key surrounding said guide means in the pocket.

3. The combination with a bolt having a longitudinal key seat formed in its threaded end, said key seat being provided with a laterally projecting notch adjacent to its lower end, of a key movable longitudinally of the bolt in said key seat and adapted to interlock temporarily in said notch, and means acting upon the key tending to force it upwardly along the key seat, the upper face of the key being provided with a groove to control the rotation of the key and its coöperation with said notch.

4. The combination with a bolt having a longitudinal cruciform key seat formed in its threaded end, each portion of the key seat being extended laterally forming a notch, of a cruciform key movable longitudinally along the key seat and rotatable to cause all of its arms to interlock in the several key seat notches, said key having a central hole, a guide pin disposed centrally of the key seat and projecting through said key hole, and a spring surrounding the guide pin and acting upon the key tending to force it toward the end of the bolt.

1,240,047. PLOW. WILLIAM T. HUTCHISON, South Bend, Ind. Filed Aug. 11, 1913. Serial No. 784,131. (Cl. 97—58.)



2. In a device of the kind described, in combination, a plow, a frame upon which said plow is mounted, a bearing on said frame, said bearing having a longitudinal slot, a pin working in said slot, an expansible spring in said slot to which said pin is connected, a pivot on said bearing, a bell-crank mounted on said pivot, said bell-crank being pivotally secured to said plow to depress the same, and a rod connected respectively to said pin and to said plow.

[Claims 1 and 3 not printed in the Gazette.]

1,240,048. WARDROBE-TRUNK-DRAWER-LOCKING DEVICE. ARTHUR P. JAMES, Richmond, Va., assignor to H. W. Roundtree & Brother Trunk and Bag Co., Incorporated, Richmond, Va. Filed Sept. 20, 1916. Serial No. 121,289. (Cl. 45—94.)

1. In a trunk drawer locking means of the character stated, the combination with a master or operative drawer and a subsidiary drawer; of a rotary locking device mounted on the trunk casing, the said locking device including a flexible member projected into the path of the said master drawer for rotating the said locking device to the locking position, said locking device also including members adapted to be engaged by the subsidiary drawers to flex said flexible member when said subsidiary drawers are closed after the master drawer is closed, the said locking device also including a spring element for rotating it to the unlocking position when the master drawer is open.

2. In a trunk drawer locking means of the character stated, the combination with a master or operative drawer and a subsidiary drawer; of a rotary locking device, the said locking device including a member projected into the path of the said master drawer for rotating the said locking device, the said locking device also including a spring element for rotating it to the unlocking position when the master drawer is open, the said rotary locking device including a shaft having latch heads, the subsidiary drawer having notches for interlockably engaging the said latch heads, said heads and the shaft being adapted for being turned to a limited degree to the unlocking position as the notched ends of the drawers engage the latch heads during the operation of pushing the said subsidiary drawers inwardly for interlocking with the said latch heads.



5. In a wardrobe trunk drawer locking device of the character stated, the combination with the casing, a master or operative drawer and one or more subsidiary drawers slidably mounted in the casing, each of the subsidiary drawers having a horizontal slot in the rear wall and the operative drawer having a key locked connection with the casing; of a rotary locking shaft journaled on the rear wall of the casing, said locking shaft including a series of crank-like latch heads, one for each subsidiary drawer, and adapted for being projected through the slots in the respective drawers, a resilient crank member on the upper end of the shaft, a spring element attached to the said shaft and engaging the back of the casing and tending to normally rock the shaft in the latch unlocking direction, the said crank member on the upper end of the rod being adapted for being engaged by the operative drawer when the latter is pushed in, to thereby rock the shaft against the tension of the spring element that normally rotates it to the unlocking position, said latch members on the shaft having beveled impacting edges for being engaged by the subsidiary drawers when they are pushed in, whereby to rock the shaft to a limited degree against the tension of the resilient crank member on the upper end of the shaft, and means engaging the operative drawer secured to the back of the casing for forcing the said operative drawer to its outermost position when it is unlocked.

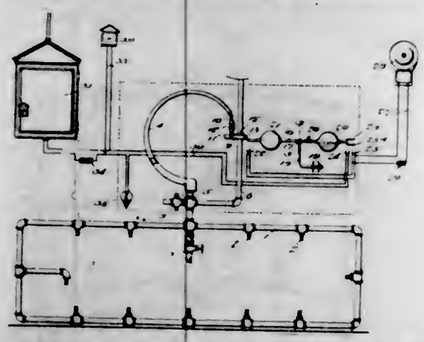
7. The combination with a master drawer and subsidiary drawers, of a rockable latch bar having bevel-headed latch members, said subsidiary drawers having means to receive said latch members for securing purposes, and a yieldable bar rocking device adapted to be engaged by the master drawer when closed for holding the latch bar in the latching position, said bevel-headed latch members and said rockable bar adapted to yield when said subsidiary drawers are being closed after the master drawer has been closed.

[Claims 3, 4, 6, and 8 not printed in the Gazette.]

1,240,049. FIRE-ALARM. CHRISTIAN J. JENNE, San Francisco, Cal. Filed Feb. 9, 1917. Serial No. 147,573. (Cl. 177—382.)

2. A fire alarm system comprising a tube extending throughout the structure to be protected and having fusible plugs carried thereby, and adapted to be supplied with air above atmospheric pressure, a Bourdon tube connecting with the system, a local alarm and a central station,

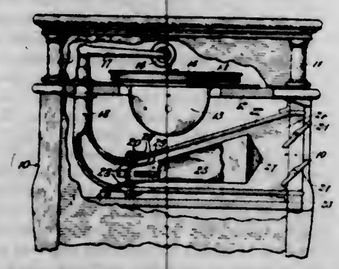
an electric circuit for the local alarm and an electric circuit for the central station, a switch lever pivoted intermediate its ends adjacent to the blind end of the Bourdon tube, said lever having at each end a contact lug, said lever being balanced to swing downward at the end remote from the Bourdon tube, means controlled by the



Bourdon tube for holding the lever balanced when the Bourdon tube is expanded under pressure, and for tipping the adjacent end of the lever downward when the pressure is gradually released, and for tipping and releasing the lever when the pressure is suddenly released, the local circuit having terminals for engagement by the said adjacent end of the lever for closing the same, and the central station circuit having terminals for engagement by the other lug.

[Claim 1 not printed in the Gazette.]

1,240,050. SOUND-CLARIFIER FOR SOUND PRODUCING OR REPRODUCING INSTRUMENTS. CORREL WELTON JOHNSON, New York, N. Y. Filed Mar. 14, 1914, Serial No. 824,703. Renewed Feb. 27, 1917. Serial No. 151,377. (Cl. 181—27.)



1. A sound clarifier for a sound producing instrument having an amplifying chamber and a sound conveyer of tapered formation, said clarifier comprising a deflector terminating in a point and positioned in said chamber and projecting into the conveyer to uniformly deflect the sound waves between it and the walls of the chamber.

2. The combination with a horn of a sound producing instrument tapering in one direction and a sound conveyer connected thereto; of a deflector positioned in the horn and having oppositely tapered ends, the deflector forming a space of uniform width between it and the horn and having one end extending partially into the sound conveyer.

3. The combination with a musical or sound producing instrument having a sound conveyer and an amplifying chamber coupled thereto; of a sound clarifier positioned in the amplifying chamber to produce a surrounding space and being of symmetrical cross section, said clarifier having oppositely tapered ends one of which extends into the mouth of the sound conveyer, and means connecting the sound conveyer and clarifier for supporting the latter within the amplifying chamber.

4. A sound clarifier for the amplifying box of a sound producing instrument, embodying a tapered deflector in the form of a shell, the apex and base of the deflector being abruptly tapered.

5. A sound clarifier, comprising a tapered deflector of rectangular cross section and having its apex formed by triangular faces extending from the sides to a point and having a hipped or arrised base.

[Claims 6 to 11 not printed in the Gazette.]

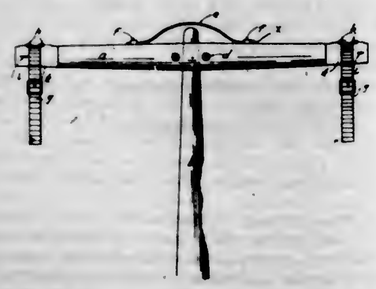
1,240,051. PNEUMATIC TIRE. DEFOREST E. JOHNSON, Hinsdale, N. Y. Filed Mar. 21, 1916. Serial No. 85,637. (Cl. 152—18.)



1. A tire of the class described including an armor section consisting of a strip of thin flexible sheet metal extending circumferentially around the tire and being of a width to extend across the tire from one base portion to the other and provided with transverse slits forming narrow contiguous transversely disposed flexible metallic strips and terminating short of the side edges of the metallic sheet to leave imperforate longitudinal marginal portions, and narrow longitudinally disposed fabric strips extending circumferentially around the tire and interlaced with the metallic transverse strips to enable the armor section to be vulcanized to the tire.

2. A tire of the class described including an armor section consisting of a strip of thin flexible metal extending circumferentially around the tire and being of a width to extend across the tire from one base portion to the other and provided with transverse slits forming narrow highly flexible contiguous transversely disposed metallic strips and terminating short of the side edges of the metallic sheet to leave imperforate longitudinally marginal portions, narrow longitudinal fabric strips of approximately the width of the transverse metallic strips extending circumferentially around the tire and interlaced with the said metallic transverse strips to enable the armor to be vulcanized to the tire, said imperforate marginal portions being folded within the base portions of the tire, and circumferentially disposed parallel wires arranged at intervals and interlaced with the transverse metallic strips.

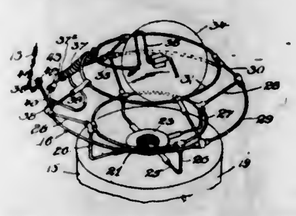
1,240,052. NECK-YOKE. JAMES O. JOHNSTON, Gem, Idaho. Filed June 5, 1916. Serial No. 101,867. (Cl. 21—77.)



1. The combination with a neck yoke, of a rein guard, comprising a pair of bolts designed to be passed through the neck yoke, and provided with curvilinear heads, having recesses therein, and a resilient guard member designed to be bent in curvilinear formation, and overhang the front of a wagon pole.

2. The combination with a neck yoke, of a rein guard comprising a pair of curvilinear members, each having a recess in the inner face thereof, means for securing the members to the neck yoke, and a guard member designed to engage the recess and overhang the front of a wagon pole.

1,240,053. BATH-CABINET HEATER. MAXWELL M. JONES, Chicago, Ill. Filed Oct. 21, 1916. Serial No. 126,932. (Cl. 126—350.)



1. In a bath cabinet heater, the combination of a chambered base provided on its upper side with a threaded opening, a guard frame upon the base, means for detachably securing the guard frame upon the base, consisting of a flanged cap adapted to be threaded into the base opening with its flanged portion overlying a portion of the frame, the cap serving when so positioned as a closure for the base, the guard frame consisting of a lower circular portion, an upper circular portion, and an intermediate widened portion secured to both the upper and lower frame portions by obliquely extending arms, and a burner of cylindrical shape adapted to seat within the lower circular portion of the frame, the widened intermediate portion serving as a guard to prevent accidental contact with the burner flame, substantially as described.

2. In a bath cabinet heater, the combination of a base, a guard frame detachably carried in the frame, a burner removably carried in the frame, an extinguisher for the burner flame, and a pan loosely supported in the frame above the burner, the frame comprising a lower portion shaped to hold the burner against lateral movement, arms extended outwardly and upwardly from the lower portion of the frame, a circular ring carried at the arm extremities, arms projected upwardly and inwardly from the circular ring, and a top ring carried by the upper arms arranged to provide a support for the pan, the flame extinguisher being pivotally mounted upon one of the frame arms and arranged to move into and out of position directly over the burner, substantially as described.

[Claims 3 and 4 not printed in the Gazette.]

1,240,054. FERRO-URANIUM ALLOY. ROBERT M. KEENEY and LOUIS F. VOGT, Washington, Pa., assignors to Standard Chemical Company, Pittsburgh, Pa. Filed Dec. 24, 1915. Serial No. 68,542. (Cl. 75—1.)

1. A ferro-uranium alloy containing more than twenty-five per cent. uranium.

2. A ferro-uranium alloy containing between twenty-five and thirty per cent. uranium and more than sixty per cent. ferrous metal.

3. An alloy consisting substantially of ferrous metal and uranium, the uranium content being approximately one-half as much as the ferrous metal.

1,240,055. NICKEL-URANIUM ALLOY. ROBERT M. KEENEY and LOUIS F. VOGT, Washington, Pa., assignors to Standard Chemical Company, Pittsburgh, Pa. Filed Dec. 24, 1915. Serial No. 68,543. (Cl. 75—1.)

1. A nickel-uranium alloy containing more than twenty-five per cent. uranium.

2. A nickel-uranium alloy containing between twenty-five and thirty per cent. uranium and more than sixty per cent. nickel.

3. An alloy consisting substantially of nickel and uranium, the uranium content being approximately one-half as much as the nickel.

1,240,056. PROCESS OF MANUFACTURING FERRO-URANIUM. ROBERT M. KEENEY and LOUIS F. VOGT, Washington, Pa., assignors to Standard Chemical Company, Pittsburgh, Pa. Filed Dec. 28, 1915. Serial No. 69,045. (Cl. 75—1.)

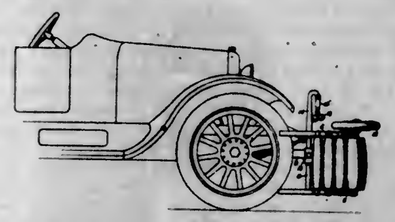
1. The herein described process of making ferro-uranium consisting in reducing a compound of uranium in the presence of ferrous metal and at a temperature above the melting point of the ferrous metal.

2. The herein described process of making ferro-uranium, consisting in subjecting subdivided ferrous metal and a compound of uranium to a reducing temperature above the melting point of the ferrous metal in the presence of a reducing agent and neutral slag-forming material.

5. The herein described process of making ferro-uranium, consisting in mixing subdivided ferrous metal with uranium oxid, a carbonaceous reducing agent, and fluorspar as a slag-forming material, and subjecting said mixture to a reducing temperature, whereby the uranium content will be alloyed with the ferrous metal.

[Claims 3, 4, and 6 not printed in the Gazette.]

1,240,057. AUTOMOBILE-FENDER. BENJAMEN KEMPLER, New York, N. Y., assignor of one-half to Samuel Wald, New York, N. Y. Filed Feb. 9, 1917. Serial No. 147,572. (Cl. 105—128.)



1. A fender of the class described, comprising a rigid frame presenting arcuated front members disposed in substantially horizontal planes and spaced parallelly from each other, rollers mounted to revolve between said arcuated members, a wheel mounted to revolve in a horizontal plane associated with the frame so as to project ahead of the rollers in proximity to said wheel, and means for adjustably securing said frame.

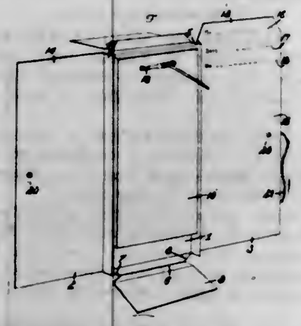
2. A fender of the class described, comprising a frame having an arcuated front, barrel-shaped rollers mounted to revolve on substantially vertical axes at the arcuated front, a wheel carried by the frame to revolve in a substantially horizontal plane, said wheel being adapted to project above the rollers directly underneath, and means for adjustably securing the frame.

3. A fender of the class described, comprising a rigid frame presenting arcuated front members disposed in substantially horizontal planes and parallelly to each other, barrel-shaped rollers mounted to revolve between said arcuated members on substantially vertical axes, a wheel mounted to revolve in a horizontal plane and secured to the upper arcuated member so as to project ahead of the rollers directly underneath said wheel, and means for securing the frame adjustably in a vertical plane.

1,240,058. LETTER-FILE. HENRY K. KISO, New York, N. Y. Filed June 8, 1916. Serial No. 101,438. (Cl. 129—16.7.)

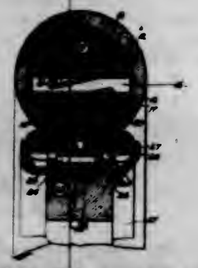
1. A letter file comprising a back, a flap arranged at each end of said back, a foldable structure arranged be-

tween each of said flaps and said back, a pair of side members, a foldable connecting member arranged between each of said side members and said back, and a legend receiving extension projecting from one end of one of said side members.



2. A letter file comprising a back, an end flap, a pair of side members connected with said back, one of said side members having an extension, an indicating line arranged on said extension for receiving a designating legend, and means for holding the side members in position when folded.

1,240,059. VEHICLE-WHEEL TIRE. WILLIAM N. KNOWLTON, Brooklyn, N. Y. Filed Dec. 14, 1916. Serial No. 136,900. (Cl. 152—8.)



1. A vehicle wheel tire comprising a pliable non-stretchable shoe having retaining edges; a plurality of separable rim sections, each having a flange for engaging one of said retaining edges; a filler for said shoe, said filler embodying two opposed continuous resilient cushion rings, said rings being complementary and forming inner and outer portions of a body substantially circular in cross section, and said rings having a series of annular recesses formed in the opposed surfaces of said rings; a plurality of disconnected metallic springs disposed in said recesses and between said cushion rings in juxtaposed relation for normally maintaining said rings in spaced relation, said springs being adapted to separate said rings beyond the normal service relation thereof when not restrained by said shoe and said rim sections; and means for permanently holding said rim sections united for cohtracting said filler within said shoe.

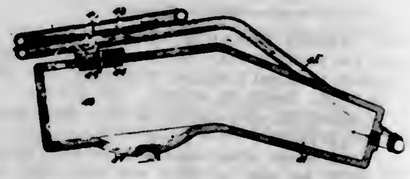
2. A vehicle wheel tire comprising a pliable non-stretchable shoe having retaining edges; a plurality of separable rim sections, each having a flange for engaging one of said retaining edges; a filler for said shoe, said filler embodying two opposed continuous resilient cushion rings, said rings being complementary and forming inner and outer portions of a body substantially circular in cross section, and said rings having a series of annular recesses formed in the opposed surfaces of said rings; a plurality of disconnected metallic springs disposed in said recesses and between said cushion rings in juxtaposed relation for normally maintaining said rings in spaced relation, said springs being adapted to separate said rings beyond the normal service relation thereof when not restrained by said shoe and said rim sections; means for permanently holding said rim sections united for contracting said filler within said shoe; and a plurality of metal caps fitting said annular recesses for forming wearing surfaces for said springs.

1,240,060. HAND-BAG. ABRAHAM KULICK, New York, N. Y. Filed Apr. 10, 1917. Serial No. 160,971. (Cl. 150—42.)



A hand bag, comprising a bag body having an open mouth and formed of a flexible material, the bag body having a front, a back, inserts connecting the lower portions of the front and back with each other, the inserts having their upper ends terminating a distance below the tops of the said front and back to form spaces between the upper portions of the front and back, reinforcing plates of non-flexible material and fitting into the spaces formed between the free side edges of the said front and back and the upper edges of the inserts, and having guide openings in their upper portions, stitches connecting the side edges and bottoms of the said plates with the said side edges of the front and back and the upper edges of the inserts, guide rings secured along the front and back around the said mouth of the bag, and draw strings extending through the plate openings and through the said guide rings.

1,240,061. HYDROCARBON-BURNER. HARRY ANTHONY LACERDA, Schenectady, N. Y., assignor of one-half to Ralph W. Benson, Mount Vernon, N. Y. Filed June 16, 1916. Serial No. 103,972. (Cl. 158—79.)

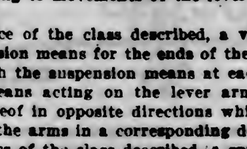


1. A hydrocarbon burner, comprising an elongated burner casing having one end inclined downwardly and reduced, a burner in the top of the body of the said casing, and a fuel supply pipe formed into a coil concentric with and above the said burner, the end of the pipe being connected with the end of the inclined portion of the casing.

2. A hydrocarbon burner, comprising a burner casing having a downwardly inclined extension chamber, the bottom of the body of the said burner casing having a depression, a drain plug screwing in the said depression, a burner in the top of the body of the said casing, and a fuel supply pipe formed into a coil concentric with and above the said burner, the end of the pipe being connected with the said extension chamber.

3. A hydrocarbon burner, comprising an elongated burner casing having one end inclined downwardly and reduced, a burner in the top of the body of the said casing, and a fuel supply pipe supported on one side of the said burner casing and leading into the end of the said inclined portion thereof, a portion of the supply pipe being formed into a coil concentric with the said burner and located above the same.

1,240,062. ALARM APPARATUS. FRANK A. LELLESS and JAMES M. NANGLE, Greensburg, Pa., Filed Jan. 13, 1915. Serial No. 1,953. (Cl. 200—33.)



In a device of the class described, in combination a casing, a pair of spring contacts supported adjacent said casing in a normally spaced apart relationship, a tubular block secured upon said casing and having a flared channel at one end in which said contacts are disposed, a plunger in the bore of said block having a flange head engaging the wall of said channel so that the said block is limited in movement in one direction, a stem projection from said block, a disk closing said block and having an opening through which said stem projects and two openings near its periphery, an eye on said stem, a U-shaped frame having an inwardly extending offset formed on its cross position and having its side arms received in the openings of said disk, a coiled spring embracing said stems, bearing at one end against said disk, at its opposite end bearing against said plunger, and a fusible strip between the arms of said U-shaped frame and linked to said eye and offset respectively, said strip being of such a length that normally said spring is compressed thereby causing said flange head to abut the wall of said channel, and causing the arms of said frame to contact the rear side of said block, whereby the head is also spaced from said contact.

1,240,063. SPRING SUSPENSION MEANS. D MCRA LIVINGSTON, New York, N. Y. Filed June 17, 1916. Serial No. 104,199. (Cl. 267—52.)



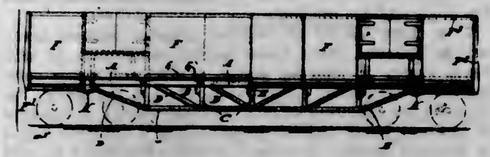
1. In a device of the class described, a vehicle spring, suspension shackles to which the ends of the spring are connected, levers connected with the said shackles and extending laterally inward therefrom, said levers being arranged to rock vertically, and means acting on the levers and preventing movement thereof in opposite directions but yielding to movements of the levers in the same direction.

2. In a device of the class described, a vehicle spring, pivoted suspension means for the ends of the spring, lever arms rigid with the suspension means at each end of the spring, and means acting on the lever arms preventing movement thereof in opposite directions while permitting movements of the arms in a corresponding direction.

4. In a device of the class described, a spring, shackles suspending the ends of the spring, lever arms rigid with the shackles and constituting with said shackles, bell-crank levers, the said arms extending toward each other and having their ends overlapped, and means engaging the overlapped ends of the arms, said last-mentioned means opposing movement of the lever arms in opposite directions while yielding to movements of the lever arms in a similar direction.

[Claims 3, 5, and 6 not printed in the Gazette.]

1,240,064. UNDERFRAME FOR RAILWAY AND OTHER VEHICLES. LLEWELLYN NORTH LLOYD, Bombay, India. Filed Dec. 29, 1915. Serial No. 69,150. (Cl. 105—76.)



1. A car frame, comprising a center sill of approximately triangular cross section, said sill having top and bottom chords, strut members, and upwardly and outwardly extending diagonals connecting the bottom chord to the upper chord; substantially as described.

2. A car frame, comprising a center sill of approximately triangular cross section, said sill having top and bottom chords, strut members, and diagonals connecting the bottom and top chords to each other, said diagonals extending upwardly and outwardly from the center of the car; substantially as described.

3. A car frame of the character described, comprising a main or center sill of approximately triangular cross section throughout the major portion thereof, said sill having upper and lower chord members, triangular struts conencting said chord members to each other, transverse brace members connected to the struts and extending upwardly and outwardly to the bottom of the car at the sides thereof, floor plates having downwardly extending flanges secured to each other, and diagonal braces between the atrut members connecting the upper chord to the lower chord, said diagonals extending at an angle to a longitudinal center line through the car, as well as at an angle to the floor of the car; substantially as described.

4. A main sill for a car having upper and lower chord members, said sill being of approximately triangular cross section throughout the major portion of its length, the upper chord being formed of Z-bars with their webs lying in vertical planes, the lower member being formed of a channel section with its web in a horizontal plane and its flange extending upwardly, triangular strut members connecting the top chord members to the bottom chord member, diagonals connecting the bottom chord to the upper chord, said diagonals extending at an angle to a longitudinal center line through the sill and at an angle to the planes of the chords, the ends of the bottom chord being bent upwardly toward the top chord, the ends of the members forming the top chord being bent toward each other at their ends, and a bracket connecting the ends of the members of the top chord and the end of the bottom chord; substantially as described.

1,240,065. TORSIONAL EQUALIZER FOR TRANSMISSION OF POWER. HARRY G. LOAD, Philadelphia, Pa. Filed Jan. 11, 1917. Serial No. 141,801. (Cl. 64—13.)



1. A shaft formed of sections, angular toothed heads on the opposite inner ends or faces thereof, a housing in which said sections are freely mounted, caps in said housing, springs in said caps, said springs being of different

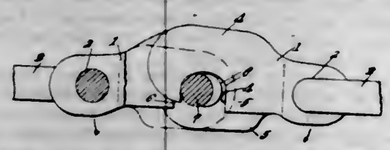
expansive pressure adapted to be compressed successively on the thrust of said heads due to the outward movements thereof.

4. The combination of two shaft sections; coacting toothed heads on the adjacent ends of said sections; a housing surrounding the heads; a cap in the housing; a spring operative on the cap for pressing together the two faces of said heads; and adjustable means for restricting the relative longitudinal movement of the heads to an amount less than the height of the teeth, including two concentric sleeves of which one engages the housing and the other engages the cap.

7. A shaft formed of sections, angular toothed heads on the opposite inner faces thereof embodying on said heads angles of differing degree, which said angles coming into engagement successively, effect a change in the ratio of the longitudinal and circumferential movements of the said heads, thereby necessitating a different stress or force to actuate or cause a relative movement of said heads, depending on the degree of angles so employed.

[Claims 2, 3, 5, 6, and 8 to 16 not printed in the Gazette.]

1,240,066. CAR-COUPLING. HARRY L. LOWE, Clinton, Ind., assignor to Clinton Switch Company, Clinton, Ind. Filed Oct. 26, 1916. Serial No. 127,881. (Cl. 24—201.)



1. A bifurcated coupling member to receive a portion of a duplicate companion coupling member and having a laterally opening recess in one portion and a stud projecting from the other to enter the recess of the companion coupling member.

2. A bifurcated coupling member having a pair of spaced ears to receive an ear of a similar companion coupling member, one ear having a laterally opening recess, the other ear having a stud projecting therefrom toward said recess to enter the recess of the companion coupling member.

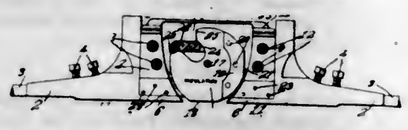
3. A coupling embodying a pair of similar members each having a laterally opening recess and a stud to enter the recess of the other member, said recesses facing one another when the members are arranged side by side and facing in the same direction when said members are moved toward a straight line position.

4. A coupling embodying a pair of members each being bifurcated to provide a pair of spaced portions, one portion of each member having a laterally opening recess and the other portion having a stud to enter the recess of the other member, said recesses facing one another when the members are arranged side by side and facing in the same direction when said members are moved toward a straight line position.

5. A coupling embodying a pair of bifurcated members each having a pair of spaced ears, one ear of each member having a laterally opening recess and the other ear having a stud projecting toward said recess, said recesses facing one another when the members are arranged side by side and facing in the same direction when said members are moved toward a straight line position.

1,240,067. INSULATOR AND CUT-OUT SWITCH. HARRY L. LOWE, Clinton, Ind., assignor to Clinton Switch Company, Clinton, Ind. Filed Dec. 22, 1916. Serial No. 138,407. (Cl. 191—39.)

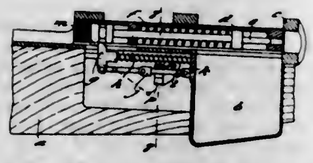
1. A device of the character described embodying a pair of spaced members, a pair of plates extending between said members, means securing said plates and members together, insulation between said plates and members to insulate them from one another, a disk of insulating material pivoted between said plates to rotate about a transverse axis in the plane of said members and having a bridging member at one point, and contact strips carried by the first mentioned members below said plates and projecting toward one another, said contact strips overlapping the faces of said disk to be bridged by the bridging member below said plates when the disk is turned to one position.



5. A device of the character described having a pair of members spaced apart and provided with contact portions, a connection between said members, a switch member pivoted to said connection to rotate about a transverse axis and having a bridging member adapted to be moved into and out of bridging position between said contact portions, and a lever pivoted to said connection and extending to one side, the switch member having a radial open slot through which said lever projects and from which the lever is partially movable when swung in either direction.

[Claims 2 to 4 not printed in the Gazette.]

1,240,068. FIRING MECHANISM FOR SMALL-ARMS. EDWARD LYTTON, London, England. Filed July 21, 1916. Serial No. 110,561. (Cl. 42—69.)

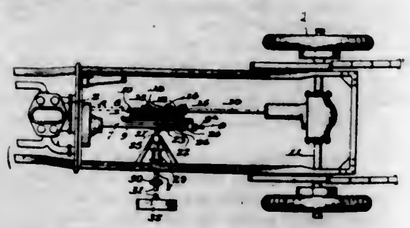


2. A firing device for small arms having toggle means which when maintained at approximately the dead center position are adapted to hold the firing pin or other operative mechanism at cock and means for throwing the toggle off or over the dead center when the arm is to be fired.

3. A firing device for small arms, comprising toggle means for holding the firing pin or the like at cock, and a sliding member extending transversely across the body of the weapon for releasing the toggle when the weapon is to be fired.

[Claims 1 and 4 to 11 not printed in the Gazette.]

1,240,069. POWER-TRANSMISSION AND DRIVING MECHANISM FOR AUTOMOBILES. THOMAS F. MCCALLISTER, Prineville, Oreg. Filed Feb. 27, 1917. Serial No. 151,277. (Cl. 74—59.)



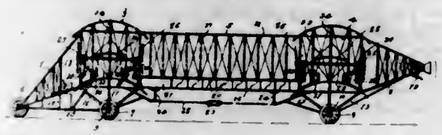
1. In transmission driving mechanism for motor vehicles, a wheel having companion concentric multiple gears on each side thereof, a primary shaft extending across one side of the wheel, an auxiliary shaft parallel with the primary shaft and extending across the other side of the wheel, pinions slidable on the primary shaft for each of the gears on one side of the wheel, pinions slidable on the auxiliary shaft for each of the gears on the other side of the wheel, a clutch face on each pinion, and clutches secured to the shafts and engaging said faces for locking the pinions to the shafts.

3. In transmission driving mechanism for motor vehicles, a pair of parallel shafts, loose pinions on each shaft opposite each other, one of said shafts constituting the primary shaft, a wheel revoluble between the shafts and having independent gears for each of said pinions, a shaft upon which the wheel is mounted and extending under and at right angles to the primary shaft for operating supplemental driving devices, and means secured to the shafts for coupling the pinions with their shafts.

7. In transmission driving mechanism for motor vehicles, a multiple speed and reversing wheel having a pair of concentric gears on one side thereof and constituting the driven side of the wheel, a pair of concentric gears on the other side of the wheel opposite the other pair of gears and constituting the driving face of the wheel, a pair of shafts which straddle the wheel, a pair of pinions on the driven shaft of said shafts and meshing with the driven gears, a pair of pinions on the driving shaft of said pair of shafts and meshing with the inner gear of said pair of driving gears, a pinion on the driving shaft and meshing with the outer gear of the driving gears, a frictional gear on the driven face adjacent to the periphery of the wheel, a frictional pinion on the driven shaft and engaging the frictional gear, a shaft upon which the wheel is secured and extending at right angles to the said pair of shafts and terminating in a shaft coupling, and means for changing the position of the pinions relative to the wheel gears.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,240,070. AEROPLANE. ROBERT B. MCCANN, Chicago, Ill., assignor of one-fourth to William Dickerson, Chicago, Ill. Filed Apr. 20, 1917. Serial No. 163,431. (Cl. 244—14.)



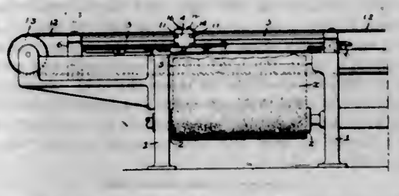
1. An aeroplane of the class described including a frame having front and rear tapered sections and an intermediate connecting section, the front tapered section being inclined downwardly and forwardly, and front and rear upper and lower transversely disposed laterally projecting supporting planes located at the adjacent ends of the sections and arched longitudinally of the machine.

3. An aeroplane of the class described including a frame provided with spaced upper and lower front and rear transversely disposed laterally projecting supporting planes, longitudinally disposed shafts located at opposite sides of the frame and mounted between the upper and lower front and rear supporting planes and extending across the same, front and rear propellers mounted on the front and rear ends of the said shafts and arranged in pairs at opposite sides of the machine at the front and rear portions thereof, centrally arranged engines mounted on the frame and also located between the supporting planes, and gearing for connecting the engines with the said shafts.

4. An aeroplane of the class described including a frame having front, rear and intermediate sections, the intermediate section being provided with means for the accommodation of passengers, upper and lower transversely disposed supporting planes arranged in pairs at the front and rear portions of the frame and located between the said sections, longitudinal truss rods arranged beneath the central or intermediate sections and having adjusting means, and transverse struts interposed between the truss rods and the frame.

[Claims 2, 5, and 6 not printed in the Gazette.]

1,240,071. KNIFE-CARRIER FOR LOOMS. ALFRED F. MCCOLLUM, Bloomsburg, Pa., assignor of three-fifths to James Magee, 2d, Bloomsburg, Pa. Filed Dec. 27, 1915. Serial No. 68,893. (Cl. 139—23.)



1. The combination of an elongated bar of rectangular section supported with one of its longitudinal edges uppermost; a knife carriage slidable on said bar; and means for preventing lost motion between the carriage and the bar and for exerting a braking force on said carriage, including two members having their adjacent faces formed with recesses of triangular section for the reception of said bar.

3. The combination of an elongated supporting bar; two blocks fitted to said bar and slidable longitudinally thereof; means for causing said blocks to frictionally act upon the bar; with a pile knife carried by said blocks.

7. The combination in a loom of an elongated bar supported at its ends and extending across the machine; a knife carriage slidable on said bar; and a constantly acting braking device for the carriage including means for automatically taking up lost motion between the bar and said carriage.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,240,072. BOTTLE. LEAMAN A. MAIDEN, Newberry, Fla. Filed July 19, 1916. Serial No. 110,182. (Cl. 215—3.)



1. A container provided with a base spaced from its bottom, webs connecting the base and bottom and dividing the space between the said base and bottom into compartments, receptacles disposed within the compartments, and a shell fitted upon the container and movable to close the said compartments and retain the receptacles therein.

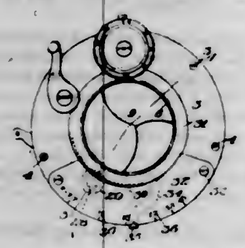
2. A container provided with a base spaced from its bottom, webs connecting the base and bottom and dividing the space between the said base and bottom into compartments, receptacles disposed within the compartments, and a shell slidable upon the body of the container and arranged when in lowered position to close the said compartments and retain the receptacles therein.

3. A container provided with a base spaced from its bottom, webs connecting the base and bottom and dividing the space between the said base and bottom into compartments, receptacles disposed within the compartments,

a shell slidable upon the body of the container and arranged when in lowered position to close the said compartments and retain the receptacle therein, and means for holding the shell against upward displacement.

4. A container provided with a base spaced from its bottom, webs connecting the base and bottom and dividing the space between the said base and bottom into compartments, receptacles disposed within the compartments, a shell slidable upon the body of the container and arranged when in lowered position to close the said compartments and retain the receptacles therein, and latch fingers carried by the shell and constructed to engage the edge of the said base whereby to hold the shell against upward displacement.

1,240,073. CONTROLLING MECHANISM FOR PHOTOGRAPHIC SHUTTERS. PAUL J. MANKS, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed Apr. 2, 1917. Serial No. 159,216. (Cl. 95—64.)



1. The combination with an annular shutter casing having a cover ring provided with an opening, and symmetrically opening pivoted blades within the casing, of a toothed ring within the latter controlling the movement of the blades, a gear extending through the opening in the cover ring and meshing with the toothed ring and a relatively movable rotary setting member on the exterior of the casing for driving the gear.

5. The combination with a shutter casing having pivoted blades therein, of inner and outer rotary rings carried by the casing, the former controlling the blades and the latter serving as a setting member and a rotary driving connection between the rings.

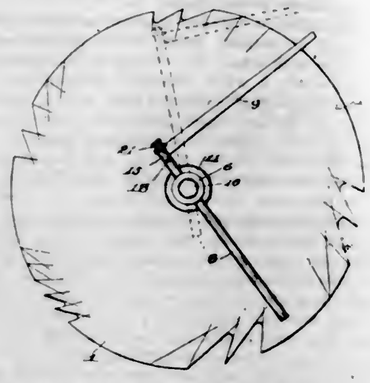
6. The combination with an annular shutter casing having a cover ring provided with an opening and with a collar forming a lens tube and symmetrically opening pivoted blades within the casing, of a toothed rotary ring within the latter controlling the movement of the blades, a gear extending through the opening in the cover ring and meshing with the toothed ring, a toothed setting ring having a bearing on the lens tube of the cover ring and meshing with the gear, a scale plate covering the opening in the cover ring and in spaced relation to the latter, and an operating arm on the setting ring extending between the cover ring and scale plate and constituting an indicator coöperating with the latter.

[Claims 2 to 4 not printed in the Gazette.]

1,240,074. TOOTH-GAGE DEVICE FOR CIRCULAR SAWS. FRANK D. MARTIN, Chester, Vt. Filed Jan. 13, 1917. Serial No. 142,232. (Cl. 33—202.)

1. A tooth gage device for circular saws, comprising a flanged head having a transverse hole and a set screw hole perpendicular to the transverse hole, a saw mandrel projecting from the flanged end of the head, a rod adjustable in the transverse hole, a scriber arm projecting at right angles from the rod, and a set screw working in the set screw hole for adjustably securing the rod in the transverse hole.

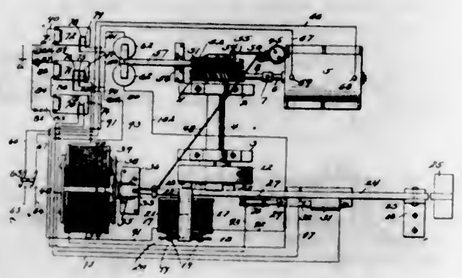
4. In a device of the character described, a countersunk head having a mandrel for circular saws, a flange extending from the countersunk portion of the head for engaging one face of the saw, a nut fitting the mandrel on the other face of the saw and having a cone-shaped end extending



through the mandrel hole of a saw and fitting the countersunk portion.

[Claims 2, 3, 5, and 6 not pritned in the Gazette.]

1,240,075. SIGNAL APPARATUS. EDWARD MAYER and WILLIAM M. CORRELL, Ashland, Nebr. Filed Feb. 21, 1916. Serial No. 79,726. (Cl. 177—339.)



1. Signal apparatus comprising a signal device, mechanical means for causing operation thereof, and electromagnetically controlled devices coöperative with said mechanical means to produce a signal of uniform pitch or a signal of varying pitch, at will.

2. Signal apparatus comprising a signal device, mechanical means for operating the same to produce a signal of one pitch, electro-magnetic means coöperative with said mechanical means to produce a signal of a different pitch, and electrical control means coöperative with said mechanical means to cause the latter to produce a signal of either pitch, at will.

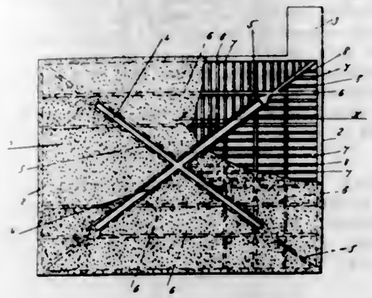
3. Signal apparatus comprising a signal device, means for operating the same to produce a signal of one character, electro-magnetic means for varying the character of the signal while the same is being produced by the means first mentioned, and electrical means for controlling the signal device to produce a signal of the desired character.

4. Signal apparatus comprising mechanically-operated means for producing signals of distinctive pitches, and electro-magnetic means operative at will to control said mechanically-operated means and to cause the latter to selectively produce signals of the desired pitches.

5. Signal apparatus comprising a signal device, signal operating means for mechanically initiating and terminating the operation of the signal, electro-magnetic means for controlling the actuation of said means, means for retaining the signal operating means in actuated condition, and electro-magnetic means for releasing said retaining means.

[Claims 6 to 18 not printed in the Gazette.]

1,240,076. GRID FOR BATTERY-PLATES. ROBERT S. MEARS, Arkansas City, Kans. Filed Feb. 8, 1917. Serial No. 147,313. (Cl. 204—29.)



1. A grid for a battery plate, consisting of a frame comprising outer bars, diagonal bars having slots which radiate from the center portion of the grid, and supports for the active material arranged in the spaces or panels of the frame formed by the said outer and diagonal bars.

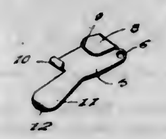
2. A grid for a battery plate, consisting of a rectangular frame comprising outer bars, diagonal bars having slots which radiate from the center portion of the grid toward the angles of the frame and which divide the grid into triangular panels, and supports for the active material arranged in the said panels.

3. A grid for a battery plate, consisting of a rectangular frame comprising outer bars, bars arranged crosswise of each other and extending between the angles of the frame and provided with slots which meet at the center portion of the grid, and supports for the active material arranged in the panels of the frame between its said bars and leaving the said slots open to each other and unobstructed.

4. A grid for a battery plate, consisting of a rectangular frame comprising outer bars, diagonal bars having slots which radiate from the center portion of the grid and divide it into triangular panels, a series of inner bars arranged in each panel parallel to the outer bar pertaining to it, and supporting bars for the active material arranged in each said panel at a right angle to its inner and outer bars.

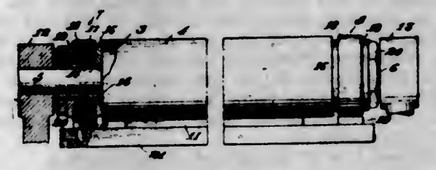
5. A grid for a battery plate, consisting of a rectangular frame comprising outer bars, diagonal bars having slots which radiate from the center portion of the grid and divide it into triangular panels, a series of inner bars arranged in each panel parallel to the outer bar pertaining to it, and supporting bars for the active material arranged in each said panel at a right angle to its inner and outer bars, said supporting bars being triangular in cross-section and being arranged alternately in staggered relation upon opposite sides of the center plane of the grid with one angle of each bar projecting outwardly.

1,240,077. PACKAGE-TIE. ESLEY V. C. MELIUS, Newark, N. J. Filed Oct. 19, 1915. Serial No. 56,746. (Cl. 24—18.)



A package tie comprising a body plate, an extension formed on said body plate, said extension having an aperture therein, a cord fastened at one end in said aperture a spring clamping member carried by said body plate and located to one side of said extension, a cord holder or guide formed upon said body plate and arranged opposite said spring clamping member, said guide and spring clamping member being bent back upon the body plates toward each other, and a longitudinally extending handle carried by said body plate opposite said extension and in direct alinement therewith, said handle having its outer edge curved upwardly for engagement with the thumb of the operator to prevent the body plate from slipping while a package is being tied.

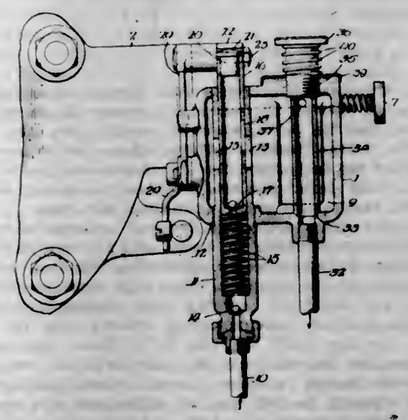
1,240,078. ADJUSTING MEANS FOR PRINTING-PRESS ROLLERS. VICTOR G. MORGAN, Los Angeles, Cal., assignor, by direct and mesne assignments, to Park W. Cowan, Los Angeles, Cal. Filed Apr. 19, 1915, Serial No. 22,261. Renewed Feb. 6, 1917. Serial No. 146,987. (Cl. 101—348.)



1. In an inking roller for printing presses, a truck comprising a threaded sleeve, a collar secured thereto, a collar slidingly mounted on said sleeve, an expansible tire of ring form filling the space between said collars and of solid elastic material mounted on said sleeve between said collars, and a nut engaging with the threads on said sleeve and in engagement with said sliding collar to expand the tire.

2. In an inking roller for printing presses, a truck comprising a threaded sleeve, a collar having a wedge face secured thereto, a collar having a wedge face slidingly mounted on said sleeve, an expansible tire of ring form filling the space between said collars and of solid elastic material mounted on said sleeve between said collars, and a nut engaging with the threads on said sleeve and in engagement with said sliding collar to expand the tire.

1,240,079. COMBINED PUMP AND RESERVOIR. CHARLES H. MORSE, Jr., Chicago, Ill., and FRANKLIN G. HOBART, Beloit, Wis., assignors to Fairbanks, Morse & Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 22, 1915. Serial No. 57,314. (Cl. 123—139.)



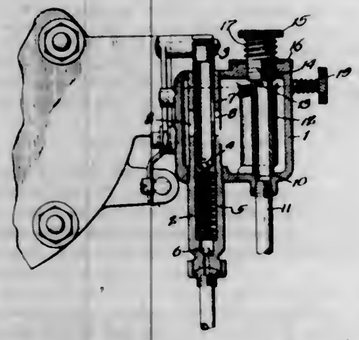
1. A combined pump and reservoir for internal combustion engines, comprising a casing in which is formed a fuel reservoir, a pump cylinder lying partially without the casing and extending thereinto and discharging into said reservoir, and an overflow duct for maintaining constant fuel level in the reservoir, the discharge of the pump into the reservoir being below the level of the fuel as maintained by said overflow duct.

2. Mechanism of the class described, comprising a reservoir, pumping mechanism consisting of a cylinder and a plunger in said cylinder projecting above the upper end of the cylinder and reservoir, said cylinder and plunger having outlet ports discharging directly into said reservoir, said cylinder and plunger being provided with suitable inlet ports and check valves, a compression spring for normally holding the plunger raised, and a lever fulcrumed upon said reservoir and engaging the plunger for reciprocating it.

3. In a combined fuel pump and reservoir for internal combustion engines, the combination with a reservoir and means for maintaining a constant level of fuel therein, of a separate pump cylinder projecting downward from the bottom of the reservoir, a hollow piston working in said cylinder and projecting above the top of the reservoir, said cylinder having an inlet and check valve at its lower end, the plunger also having an inlet and check valve at its lower end, the cylinder and plunger both having ports in the side communicating with the reservoir at a point below the level of the fuel therein, and means engaging the upper outer end of the plunger for reciprocating it.

[Claims 4 to 10 not printed in the Gazette.]

1,240,080. PRIMING DEVICE. CHARLES H. MORSE, Jr., Chicago, Ill., and FRANKLIN G. HOBART, Beloit, Wis., assignors to Fairbanks, Morse & Co., Chicago, Ill., a Corporation of Illinois. Original application filed Oct. 22, 1915, Serial No. 57,314. Divided and this application filed June 30, 1916. Serial No. 106,756. (Cl. 123—180.)



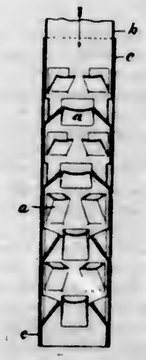
1. A reservoir for liquid fuel having means for supplying a surplus of fuel to the reservoir, an overflow fixing the fuel level, a drain opening into the lower portion of the reservoir adapted when open to lower the level of the fuel below the top of the overflow, a waste duct, said drain and said overflow connecting to said waste duct, and a valve controlling said drain.

5. A priming device for internal combustion engines comprising a reservoir having an inlet for supplying liquid fuel thereto, an outlet for conducting the fuel from the reservoir to the engine, a drain pipe separate from the inlet and outlet for carrying away surplus fuel, a tube in the reservoir communicating directly with the drain pipe, so that when the tube is in closed position fuel cannot flow directly from the reservoir to the drain pipe, said tube having an opening above the mouth of the drain pipe whereby the fuel may be maintained at a constant level in said reservoir, and the surplus fuel conducted off into the drain pipe, said tube being movable away from the mouth of the drain pipe to permit the fuel, which may be of relatively low grade, to be drained off and, after the tube is returned to closed position, a more volatile fuel to be substituted.

8. A reservoir for liquid fuel, said reservoir having an outlet leading to an internal combustion engine, means for supplying a surplus of liquid fuel to the reservoir, said reservoir having a drain opening near the bottom guarded by an angular valve seat, a valve coöperating with said seat and consisting of a vertical tube having an overflow opening for fixing the liquid level in the reservoir, means for opening and closing said valve, consisting in a thread formed on the outside of the tube and working through a tapped hole in a part rigid with the reservoir, and a handle for rotating said valve.

[Claims 2 to 4, 6, 7, 9, and 10 not printed in the Gazette.]

1,240,081. APPARATUS FOR SEPARATING SOLID MATTERS FROM FLUIDS OR FLUIDS FROM FLUIDS. FRANCIS EVAN MOSS, Worthington, near Wigan, England. Filed Feb. 15, 1917. Serial No. 148,877. (Cl. 183—107.)



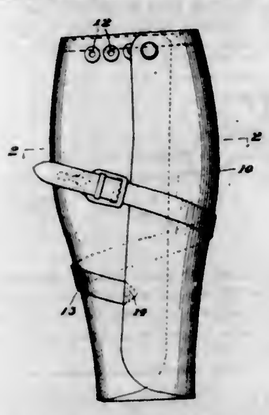
1. An apparatus of the class described comprising an inner vertical flue formed with a plurality of inwardly and upwardly extending baffles arranged at different levels, and each bent to form a cup to catch by gravity solids contained in fluids passing through the apparatus, the flue having an opening adjacent each cup for the removal of the collected solids, an outer vertical flue surrounding the inner vertical flue, said inner and outer vertical flues being movable with reference one to the other to expose the openings to remove the substance collected on the cups.

2. An apparatus of the class described comprising an inner vertical flue formed with a plurality of inwardly and upwardly extending cup shaped collectors arranged at different levels and in alternate rows, the cups at the bottom of the flue having side walls to increase their capacity, the inner vertical flue having openings adjacent the cups to permit the removal of the collected matter, an outer vertical flue for covering the openings, the inner and outer vertical flues being movable one on the other to uncover the openings to permit removal of the collected matter on the cups.

3. An apparatus of the class described comprising inner and outer vertical flues, one fitted over the other, the inner vertical flue having a plurality of openings closed by the outer vertical flue, and cups on the inner flue arranged adjacent the openings to collect and retain solids contained in fluid passed through the apparatus.

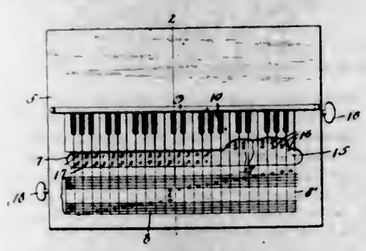
1,240,082. LEGGING. EDWIN B. NATHAN, New York, N. Y. Filed Jan. 24, 1914. Serial No. 814,040. (Cl. 36—2.)

A quickly attachable and adjustable legging comprising in combination with the body portion adapted to fold over the calf, means adjacent the top of the body for snapping the top edges together at a number of points, a strap secured adjacent one edge of the body and adapted to be wound around the same, a buckle slidably mounted on the strap and having one or more teeth for engaging the same at any desired point, said buckle being formed with



an eye, and a hook attached to the adjacent opposite edge of the body portion and adapted to quickly engage the eye.

1,240,083. MUSIC-INDICATOR. FRANS A. NELSON, Chicago, Ill. Filed Aug. 19, 1914. Serial No. 857,585. (Cl. 84—48.)

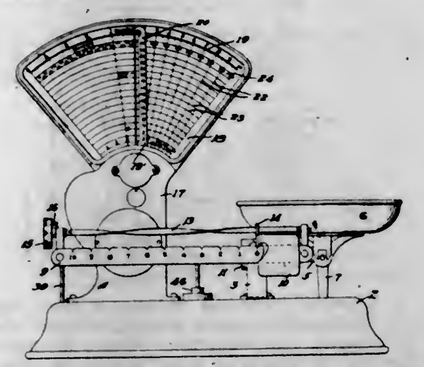


1. A fingering indicator comprising a casing having a slot in one side, a representation of a key board upon said casing at one side of the slot, a representation of a musical passage on the opposite side of said slot, a fingering-indicating sheet within said casing, and traversable across said slot for coöperation with said key board and musical passage, said key board, musical passage and indications upon said sheet being alined to indicate the finger used in striking each note and means for adjusting the said indicator sheet to indicate the fingering of the given passage.

2. A fingering indicator comprising a casing having a slot at one side, the representation of a key board upon said casing at one side of the slot, a representation of a musical passage upon the opposite side of the said slot and alined with said keyboard representation and means visible through the slot for indicating the finger to be used in striking a particular key.

1,240,084. SCALE. NILS NILSON, Wayzata, Minn. Filed Feb. 15, 1916. Serial No. 78,358. (Cl. 73—104.)

1. In a scale, a dial having a portion of its face graduated in fractions of ounces and a portion in fractions of pounds, an indicator hand adapted to sweep across the face of said dial and having characters thereon representing the price per pound of the article to be weighed, and said dial having characters opposite the marks on said indicator hand and representing the price in pounds, ounces and fractions thereof, a pivoted beam and poise operatively connected with said indicator hand, means for resisting the movement of said hand on the fractions of ounces portion of the dial and for offering an increased resistance to the movement of said hand on the fractions of pounds portion of the dial, the adjustment of said poise to the weight in pounds indicated by said hand when the weight on the scale is in excess of such number of pounds causing said hand to swing back over the fractions of ounces portion of said dial and indicate thereon the ounces in excess of the number of pounds and the amount to be added to the price in pounds for the total cost of the article to be weighed.



2. In a scale, a dial having a portion of its face graduated in fractions of ounces up to one pound and the remaining portion in fractions of pounds, an indicator hand mounted to sweep across the face of said dial and having characters thereon representing the price per pound of the article to be weighed, said dial also having on curved lines opposite the figures on said indicator hand characters representing the price in pounds, ounces and fractions thereof means for resisting the movement of said hand over that portion of the dial graduated in fractions of ounces and for offering an increased resistance to the movement of said hand over that portion of the dial graduated in pounds, means for balancing the load on the scale indicated in pounds by the indicator hand and thereby causing said hand to move backwardly over that portion of the dial graduated in fractions of ounces and indicate thereon the weight of the load in excess of the pounds previously indicated by said hand and the cost of the weight in fractions of ounces added to the price in pounds indicating the total cost of the article weighed.

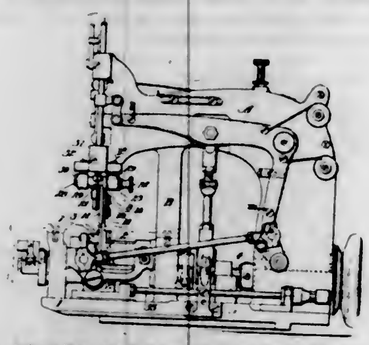
3. A scale dial having a series of curved lines thereon, spaced apart, and also having straight radial lines intersecting said curved lines, an indicator hand having characters thereon representing the price per pound arranged opposite the spaces between said curved lines, said spaces containing figures representing the cost in ounces and pounds, a portion of the surface of said dial being graduated at the end of said radial lines to indicate pounds and having figures on said radial lines between said curved lines indicating the total cost for the different prices per pound, the remaining portion of the dial having graduations indicating ounces and the total of the cost of the ounces in excess of the total pounds, means for resisting the movement of the indicator hand across the face of the dial, means for balancing the load in pounds on the scale, said indicator hand swinging backwardly when the pounds of the load are balanced to indicate on the fractions of ounces portion of the dial the number of ounces of the load in excess of the pounds graduation, for the purpose specified.

1,240,085. SEWING-MACHINE. LANSING ONDERDONK, New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 9, 1913. Serial No. 794,279. (Cl. 112—6.)

1. A trimming mechanism including a work support, an overhanging arm, a pivoted upper trimming member, adjustable means above the pivot of said trimming member and between said pivot and the overhanging arm whereby the upward thrust of the trimming member is taken up by the overhanging arm.

2. A trimming mechanism including a work support, an overhanging arm, an upper trimming member, a bracket

supporting the same, and means located directly above the bracket and between said bracket and the overhanging arm for taking the upward thrust of the trimming member.



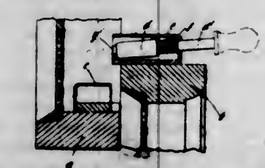
3. A trimming mechanism including a work support, an overhanging arm, an upper trimming member, links on the overhanging arm, connections between the links and the bracket, and adjustable means between the links and the overhanging arm for taking the upward thrust of the trimming member.

4. A trimming mechanism including a work support, an overhanging arm, an upper trimming member, a support therefor, a sleeve connected with the support, links pivoted on the overhanging arm and embracing the sleeve, and stop screws carried by the overhanging arm and bearing respectively on the free end of the links.

5. A trimming mechanism including a work support, an overhanging arm, an upper trimming member, a support therefor, a sleeve connected with the support, parallel links pivoted at one end to the overhanging frame, and at their free ends supporting the sleeve, and stop screws attached to the overhanging arm and bearing on the free ends of the links.

[Claims 6 to 8 not printed in the Gazette.]

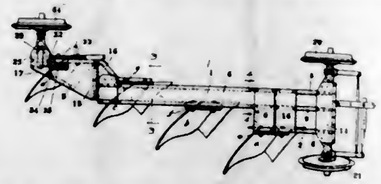
1,240,086. FASTENING FOR SLIDING WINDOWS AND THE LIKE. THOMAS PARKER, Diss, England. Filed Mar. 10, 1917. Serial No. 154,019. (Cl. 16—58.)



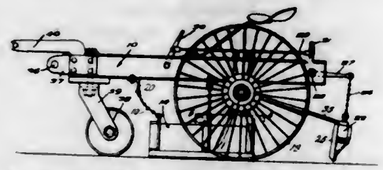
A catch for sliding windows, comprising a casing, a spring-controlled bolt within the casing, means for withdrawing the bolt against the spring, a nose projecting from the bolt, a step on the said casing on each side of the projecting nose, a recess between the said steps to receive the nose, a part on each side of the nose to engage the steps, and a socket member having a projection adapted to strike the underside of the nose and lift the said bolt from the two steps thus permitting the spring to shoot the bolt into the socket.

1,240,087. GANG-PLOW. WESLEY A. PAUL, Moline, Ill., assignor to Deere & Company, Moline, Ill., a Corporation of Illinois. Filed Aug. 8, 1913. Serial No. 783,704. (Cl. 97—68.)

A main frame for gang plows comprising a tubular body composed of parallel beams oppositely disposed and spaced apart, plates above and below said beams and secured thereto, a beam spaced apart from said beams at the furrowward forward end thereof and connected thereto by plates secured to said beams to form an extension of the frame, a beam secured to the landward side of the tubular body and at the rear end thereof and having its end portions substantially parallel to the tubular body and its intermediate portion bent landward and rearward to form a landward extension to the frame, a beam secured to the furrowward side of the tubular body and extending landward at an angle thereto, plates secured to upper and lower sides of the beams, and a cross beam on the forward end of the tubular body and furrowward extension and connected thereto by plates secured to the upper and lower sides thereof.

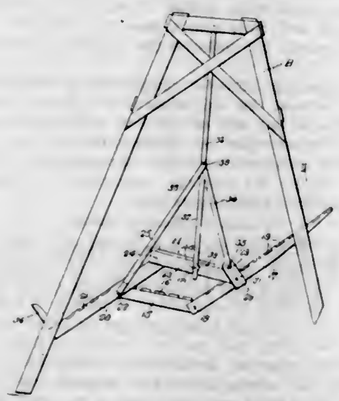


1,240,088. COMBINED RIDGER AND BLOCKER. HENRY PITCHER, Orange, Cal. Filed Jan. 2, 1917. Serial No. 140,261. (Cl. 97—12.)



In an agricultural implement, an axle, wheels upon the ends of the axle, a draw-bar rigidly connected with the axle, a ridger mounted between the wheels and connected to the draw-bar, said ridger including two scraping side boards extending from points in front of the wheels inwardly and backwardly, there being a space between the rear ends for a ridge of dirt to pass, a horizontally disposed cross-beam mounted in the rear of the ridger and adapted to be raised and lowered, and blocking scrapers mounted upon the ends of the cross-beam.

1,240,089. SWING. RAY W. POTTINGER, Charleston, S. C. Filed Aug. 26, 1916. Serial No. 117,023. (Cl. 155—35.)



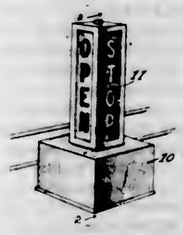
1. In a swing, a seat, a back pivoted thereto and having forwardly extending brackets, a leg rest pivotally connected with the seat and having upwardly extending side members, arm rests of L-shaped cross section connected pivotally at their forward ends with the upward extensions of the leg rest and at their rearward ends with the back, said L-shaped arm rests having notches producing

shoulders that lie in the path of the back to limit the forward swinging movement thereof, brackets connected with the back being extended exteriorly of the arm rests; and rear suspending members connected with the brackets, front suspending members connected with the pivots whereby the leg rest is connected with the seat, and main suspending members with which the upper ends of the front and rear suspending members are connected.

2. In a reclining swing having a seat, a back, a leg rest and arm rests pivotally connected together, as herein described, a main suspending member and front and rear suspending members, a locking device consisting of a clamp secured on the arm rest, a locking pin between the limbs of the clamp, and a strap pivotally connected with the front and rear suspending members at their convergent upper ends, said strap forming a rigid extension of the main suspending member which extends upwardly with respect thereto, said strap being guided through the clamp and provided with apertures for engagement with the locking pin.

3. In a reclining swing having a seat, a back, a leg rest and arm rests pivotally connected together, as herein described, a main suspending member and front and rear suspending members, a locking device consisting of a clamp secured on the arm rest, a locking pin between the limbs of the clamp, and a strap pivotally connected with the front and rear suspending members at their convergent upper ends, said strap forming a rigid extension of the main suspending member which extends upwardly with respect thereto, said strap being guided through the clamp and provided with apertures for engagement with the locking pin, the limbs of the clamp being provided with inturned flanges to retain the strap and with inwardly extending projections to retain the strap in adjusted position in or out of engagement with the locking pin.

1,240,090. AUTOMATIC TRAFFIC-REGULATOR. ELMER A. POUND, Venice, Cal. Filed July 11, 1916. Serial No. 108,582. (Cl. 40—33.)

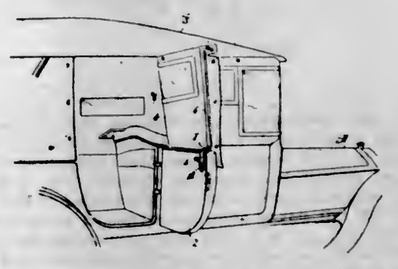


1. A traffic regulator, comprising a vertically disposed semaphore block, indicia inscribed upon the sides of said semaphore block, means whereby said block may be intermittently and regularly rotated a given portion of a revolution, means for illuminating the semaphore block, and means whereby the semaphore block may be reciprocated while rotating to discontinue the illumination therein.

2. A traffic regulator comprising a supporting base, a rotatable vertical shaft mounted thereon, a semaphore block mounted fast to said shaft, timing gears constantly driven within said base, means operatively connected to said gears for rotating said shaft a quarter revolution in the same direction at regular intervals, means for illuminating said block, and means whereby the illumination may be discontinued during the rotation of said shaft, said means including a contact point fast to said base and a contact point fast to said block adapted to engage said first-named contact point when said block is at rest and to be disconnected when said block is rotated.

3. A traffic regulator comprising a supporting base, a rotatable vertical shaft supported thereby, a rectangular vertical semaphore block fast to said shaft, traffic regulating indicia carried by said block, means for imparting a quarter revolution to said shaft at regular intervals, said means including reducing gears operatively connected therewith, a toothed plate fast to said shaft, a pin on one of said gears, a lever intermittently operated by said pin, and operatively connected to said plate, and resilient means restoring said lever to its original position after its engagement with said pin.

1,240,091. AUTOMOBILE-CURTAIN CARRIER. HARRIE E. RANDALL, Vandalia, Ohio. Filed May 14, 1915. Serial No. 28,156. (Cl. 21—62.)



1. The combination with a vehicle door, of a side curtain carrier embodying a longitudinally channeled curtain holding standard extending above the top of the door to a point substantially on a level with the top cover, means for detachably fastening said standard to said door, said means comprising a standard retaining door plate receivable in the channel of said standard and in relation to which said standard is slidable, and means for clamping said standard and door plate together including a pivotally mounted cam lever.

2. The combination with a vehicle door, of a side curtain carrier embodying a longitudinally channeled curtain holding standard extending above the top of the door to a point substantially on a level with the top cover, means for detachably fastening said standard to said door, said means comprising a standard retaining door plate receivable in the channel of said standard and in relation to which said standard is slidable, and means for clamping said standard and door plate together including a pivotally mounted cam lever carried by said standard.

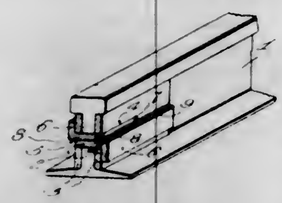
3. The combination with a vehicle door, of a side curtain carrier embodying a curtain holding standard extending above the top of the door to a point substantially on a level with the top cover, and means for detachably fastening said standard to said door, said means comprising a standard retaining door plate fastened to the door and in relation to which said standard is slidable, one of said members having a laterally opening channel extending longitudinally of one face thereof to slidingly receive the other member, and clamping means carried by said standard, slidable in relation to the door plate, and adapted to engage the latter to prevent vertical movement of the standard.

4. The combination with a vehicle door, of a side curtain carrier embodying a channeled curtain holding standard extending above the top of the door to a point substantially on a level with the top cover, means for detachably fastening said standard to said door, said means embodying a slotted door plate, a headed projection on said standard shiftable in relation thereto and insertible through said slotted door plate, and means for shifting said projection into clamping engagement with the door plate to prevent vertical movement of said standard in relation to the door plate.

1,240,092. RAIL-JOINT. GEORGE H. RICKS, Cincinnati, Ohio. Filed Apr. 23, 1917. Serial No. 163,942. (Cl. 238—13.)

1. The combination of the abutting ends of two track rails having transverse openings, a pair of plates having

shoulders, said plates passing through said rail openings from opposite sides, said shoulders limiting the transverse movement of the plates, and a welded joint connecting the two plates but leaving them free of the rails.



2. The combination of the abutting ends of track rails having transverse slots, a pair of plates of right-angularly shape in cross section having their horizontal portions passed through said slot from opposite sides of the rail, the horizontal portions of said plate being of less length than the rail slot to allow for expansion and contraction of the rail, and a welded joint connecting the exposed portions of the plates on opposite sides of the rail but leaving the rails free of said plates.

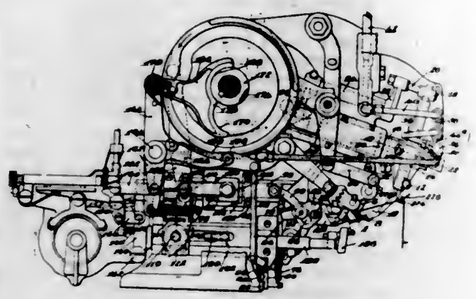
3. The combination of the abutting ends of track rails having transverse slots therein, fish plates on opposite sides of the rails having slots alining with those in the rail, a pair of locking plates of right angular shape in cross section having their horizontal portions projected through said alined slots from opposite sides of the rails and having their vertical portions in contact with the outer faces of the fish plates, said vertical flanges of the locking plates being projected beyond the ends of the slots in the fish plates, and a welded joint uniting said vertical portions to the fish plates.

1,240,093. WASHBOARD. JOHN H. RYAN, Dayville, Conn. Filed Oct. 14, 1916. Serial No. 125,620. (Cl. 68—29.)



A washboard comprising a frame including side rails, a top rail, spaced horizontal rails connecting the side rails, and vertical rails connecting the horizontal rails, the lower of said horizontal rails being formed with a shoulder, a scrubbing element consisting of a single sheet of mental bent around the horizontal rails and having its opposite ends formed with straps, the straps of one end being interlocked with the straps of the other end, the face of the scrubbing element being corrugated, a back member consisting of a single sheet of metal having its lower edge fitted against said shoulder, the opposite end of said member being bent about the top rail to provide a ledge, and the material forming the ledge being reversely bent and extended to provide a soap tray.

1,240,094. SEWING-MACHINE. THOMAS H. SEELY, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 29, 1914. Serial No. 815,127. (Cl. 112—20.)



1. A shoe sewing machine, having, in combination, stitch forming devices including a curved hook needle, a back gage, a back gage actuator, means for moving the actuator to move the back gage toward and from the shoe, connections between the back gage and the actuator comprising locking mechanism acting to lock the back gage with relation to the actuator during the retracting movement of the needle, during the retracting movement of the actuator, and during the first portion of the forward movement thereof, and to unlock the back gage so as to permit relative movement between the back gage and the actuator.

2. A shoe sewing machine, having, in combination, stitch forming devices including a curved hook needle, a back gage, a back gage actuator, means for moving the actuator to move the back gage toward and from the shoe, connections between the back gage and the actuator comprising locking mechanism acting to lock the back gage with relation to the actuator during the first portion of the forward movement of the actuator, and to unlock the back gage so as to permit relative movement between the back gage and the actuator.

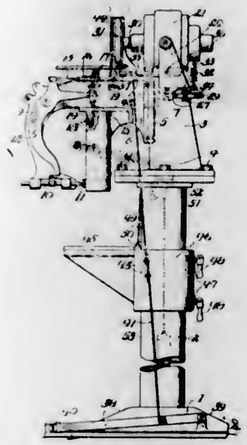
3. A shoe sewing machine, having, in combination, stitch forming devices including a curved hook needle, a back gage, a back gage actuator, means for moving the actuator to move the back gage toward and from the shoe, connections between the back gage and the actuator comprising locking mechanism acting to lock the back gage with relation to the actuator during the retracting movement of the actuator so that the back gage is always withdrawn substantially the same distance from the shoe, and to unlock the back gage so as to permit relative movement between the back gage and the actuator.

4. A shoe sewing machine, having, in combination, stitch forming devices including a curved hook needle, a pivoted back gage carrier, a back gage fixed to the carrier, a back gage actuator, means for moving the actuator to move the back gage toward and from the shoe, and connections between the actuator and the carrier comprising locking mechanism acting to lock and unlock the carrier with relation to the actuator during each cycle of operations.

5. An inseam shoe sewing machine, having, in combination, stitch forming devices including a curved hook needle, a back gage carrier, a back gage fixed to the carrier, a back gage actuator, means for moving the actuator to move the back gage toward and from the shoe, mechanism for locking and unlocking the carrier with relation to the actuator, comprising a locking block engaging a slot in the carrier, and means for turning the locking block in the slot to engage its faces with and disengage them from the sides of the slot and thereby lock and unlock the carrier with relation to the actuator.

[Claims 6 to 15 not printed in the Gazette.]

1,240,095. FILLED-BAG-SEWING MACHINE. DUDLEY S. SEYMOUR, Oak Park, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed May 4, 1914. Serial No. 836,220. (Cl. 112—24.)



1. A filled bag sewing machine including in combination, a standard, a bracket attached to the upper end of the standard, a bag support carried by the standard, a sewing machine mounted on the bracket and overhanging the support, a motor mounted on said bracket, and driving connections between said motor and said sewing machine.

2. A filled bag sewing machine including in combination, a standard, a bracket attached to the upper end of the standard, a bag support carried by the standard, a sewing machine mounted on said bracket and overhanging said bag support, a motor mounted on the upper end of the standard whereby the same may be adjusted transversely of the standard, and driving connections between said motor and said sewing machine including devices whereby an adjustment of the motor varies the speed of the sewing machine.

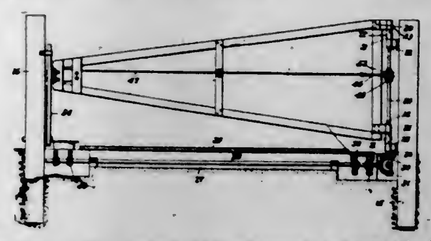
3. A filled bag sewing machine including in combination, a standard, a bracket attached to the upper end of the standard, a bag support carried by the standard, a sewing machine mounted on said bracket and overhanging said support, a motor mounted on the upper end of the standard, driving connection between the motor and the sewing machine, means for pivotally supporting said motor, manually controlled means for shifting the motor on its pivotal support for connecting and disconnecting the motor and the sewing machine.

4. A filled bag sewing machine including in combination, a standard, a bracket mounted on the upper end of the standard, a sewing machine carried by said bracket and arranged with its needle in substantially a horizontal line, a filled bag support, a sleeve surrounding the standard and adjustable vertically thereon and carrying said bag support, a motor mounted on said bracket at the upper end thereof, and driving connections between the motor and said sewing machine.

5. A filled bag sewing machine including in combination, a standard, a bracket mounted on the upper end of the standard, a sewing machine carried by said bracket and arranged with its needle in substantially a horizontal line, a filled bag support, a sleeve surrounding the standard and adjustable vertically thereon and carrying said bag support, means connected to the sleeve for counterbalancing the weight thereof and the bag support, and means for holding said sleeve in an adjusted position, a motor mounted on the upper end of the bracket, and driving connections between the motor and the sewing machine.

[Claims 6 to 15 not printed in the Gazette.]

1,240,096. GATE-OPERATING DEVICE. DANIEL N. SHOEMAKER, Cainesville, Mo. Filed Nov. 18, 1916. Serial No. 132,131. (Cl. 39—33.)



1. In a device of the class described, a hinge shaft, a crane carried and actuated thereby, a main shaft disposed longitudinally at right angles to the hinge shaft, intermeshing gears on the hinge shaft and the main shaft, transversely disposed operating shafts having gear wheels fixed thereon adjacent to the ends thereof, intermeshing gears on the operating shafts and the main shaft, and operating levers at diametrically opposite sides of the operating shafts, said levers having rack segments meshing with the gear wheels on the operating shafts.

2. In a device of the class described, a hinge shaft, a crane carried and actuated thereby, a main shaft disposed longitudinally at right angles to the hinge shaft, intermeshing gears on the hinge shaft and the main shaft, transversely disposed operating shafts having gear wheels fixed thereon adjacent to the ends thereof, intermeshing gears on the operating shafts and the main shaft, and operating levers at diametrically opposite sides of the operating shafts, said levers having rack segments meshing with the gear wheels on the operating shafts; and covered trenches and housings in which the main shaft and the operating shafts are supported for rotation and the operating levers are housed.

3. In a device of the class descried, a swingingly supported crane, a latch post and a stop post limiting the movement thereof, a latch member carried by the crane, and shock absorbing means on the respective posts, said shock absorbing means including a lever, a keeper limiting the movement thereof, a spring actuating the lever in one direction, and a bumper carried by the lever.

4. In a device of the class described, a swingingly supported crane having a latch member, and a latch post and a stop post limiting the movement of the swinging crane, each of said posts being equipped with a swingingly supported lever, a keeper limiting the movement thereof, an actuating spring for the lever, a catch member carried by the lever, and a bumper mounted on the catch member.

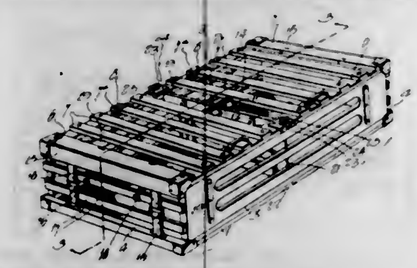
5. In a device of the class described, a swingingly supported crane having a latch member, and a latch post and a stop post limiting the movement of the swinging crane, each of said posts being equipped with a swingingly supported lever, a keeper limiting the movement thereof, an actuating spring for the lever, a catch member carried by the lever, and a bumper mounted on the catch member, in combination with a keeper limiting the movement of the latch carried by the crane, said keeper having a swelled cheek portion adapted for engagement with the bumper.

1,240,097. FOLDING CRATE. JOHN D. STIBBS, Columbus, Nebr. Filed Feb. 19, 1917. Serial No. 149,621. (Cl. 217—47.)

1. A folding crate comprising a top and bottom, inwardly folding hingedly mounted ends and sides, locking rods carried by said sides and extending transversely across the same for securing them in operative position, and other locking devices for securing the top and bottom of the crate together when folded and at the same time for preventing removal of said rods.

4. A folding crate comprising a bottom, a top, and inwardly folding ends and sides, locking rods carried by and extending transversely of said sides, said rods having screw threads on their lower ends and eyes on their up-

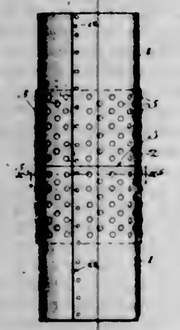
per ends, nuts carried by the bottom for receiving said threaded lower ends of the rods, and locking screws adapted to pass through the aforesaid eyes and to be threaded



into said nuts when the crate is folded, whereby said screws will retain the crate in collapsed position and at the same time prevent removal of said rods.

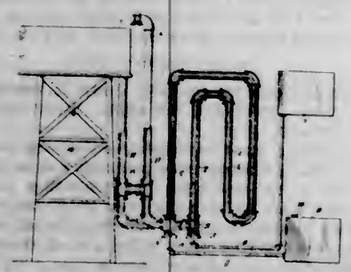
[Claims 2, 3, and 5 not printed in the Gazette.]

1,240,098. PIPE OR WELL-CASING. MORGAN L. SWEENEY, Los Angeles, Cal., assignor to Western Pipe and Steel Company of California, Los Angeles, Cal., a Corporation of California. Filed Dec. 28, 1916. Serial No. 139,398. (Cl. 137—29.)



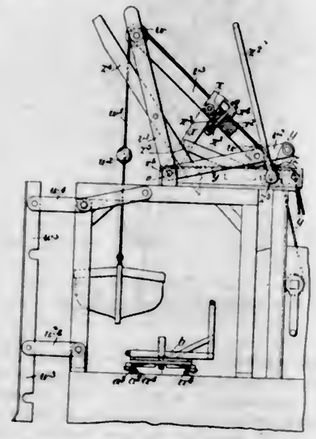
A pipe formed of outer and inner tubular sheet metal sections, the outer sections having their adjacent ends abutting and the inner sections having their adjacent ends abutting and the abutting ends of the outer and inner sections breaking joint, and the outer and inner sections being fastened together by spot punches projecting outward from the outer surface of the inner sections into the inner surface of the outer sections.

1,240,099. OIL-SEPARATOR. JOSEPH M. TATMAN, Taft, Cal. Filed July 20, 1912. Serial No. 710,588. (Cl. 196—1.)



An apparatus of the class described comprising an oil circulating coil, a heating coil inclosing the said oil circulating coil, a water tank arranged above the heating coil, said heating coil having its ends connected respectively with the bottom and top portions of the tank and a by-pass establishing communication between the end portions of the coil, said by-pass being arranged in the coil at a point below the tank.

1,240,100. APPARATUS FOR STORING SHIPS' BOATS AND FACILITATING THE LOWERING OF SAME. ISAAC FRANCIS TAYLOR, East Dulwich, London, England, assignor of one-half to Samuel Pick, London, England. Filed Aug. 31, 1914. Serial No. 859,428. (Cl. 9—22.)



1. In an apparatus of the class described, a supporting frame, davits consisting of braced structures of right angled triangular form pivoted on said frame, pulleys carried by said davits and frame, falls for connecting a boat with a winch barrel guided over said pulleys, fall clamping means comprising angle levers pivoted to the davits, blocks carried by the davits, and springs connected to force said levers into engagement with said blocks between which the falls are arranged.

4. In an apparatus of the class described, a supporting frame, including davits consisting of braced structures of right-angled triangular form pivoted on said frame, pulleys carried by said davits and frame, falls for connecting a boat with a winch barrel guided over said pulleys, fall clamping means comprising angle levers pivoted to the davits, clamping jaws on said levers, blocks fixed to said davits, bolts passing through said blocks and jaws, coiled springs on said bolts between said blocks and the bolt heads whereby said jaws are yieldingly held in engagement with said blocks, stops on said frame arranged to engage and release said levers when the davits move to outboard position, foot levers, and cords connecting said foot levers and clamping levers to provide for the release of said clamping levers independently of the movement of the davits.

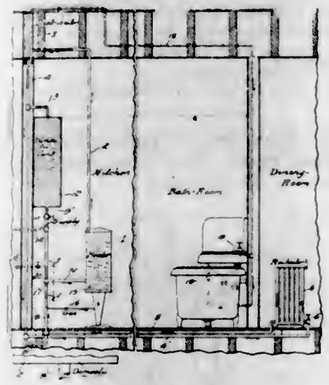
8. In a ship's boat launching apparatus foldable means for guiding the boats down the ship's side during the launching comprising a davit supporting frame, vertically disposed angular guide bars, links pivoted at one end to said frame and at their other end to said bars, said bars being spaced sufficiently to engage a boat at its stem and stern.

[Claims 2, 3, and 5 to 7 not printed in the Gazette.]

1,240,101. HOT-WATER-PRESSURE COMBINED DOMESTIC AND HEATING SYSTEM. ALFRED H. THOMPSON, Venice, Cal. Filed Oct. 21, 1912, Serial No. 727,073. Renewed Oct. 25, 1913. Serial No. 797,358. (Cl. 237—19.)

1. In a domestic heating system, the combination of a hot water circuit including a distributer, a domestic tank, and a heater, the distributer being situated substantially

above the level of the domestic tank, and the domestic tank being situated substantially above the heater; a radiator, a pipe communicating with the hot water circuit near the upper part of the domestic tank, said pipe leading to said radiator, a pipe leading from said radiator and communicating with the lower portion of said water circuit.



2. In a domestic heating system, the combination of a hot water circuit including a distributer, a domestic tank, and a heater, the distributer being situated substantially above the domestic tank, and the domestic tank being situated substantially above the level of the heater; a radiator, a pipe communicating with the hot water circuit near the upper part of the domestic tank, said pipe leading to said radiator, a pipe leading from said radiator and communicating with the lower portion of said water circuit, service cocks, and a pipe leading from the upper portion of said water circuit to said service cocks.

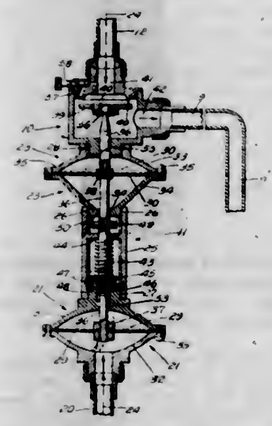
3. In a domestic heating system, the combination of a water circuit including a distributer, a domestic tank, and a heater, the distributer being situated substantially above the level of the domestic tank, and the domestic tank being situated substantially above the level of the heater, a radiator, a pipe communicating with the water circuit above the tank and leading to said radiator, a pipe communicating with the lower portion of said water circuit and also leading to said radiator, a valve in one of said pipes leading to said radiator, a valve in the water circuit, service cocks, a pipe communicating with the upper portion of said water circuit and leading to said service cocks, and a supply pipe for the system.

4. In a domestic heating system, the combination of a water circuit including a distributer, a domestic tank and a heater, the distributer being situated substantially above the level of the domestic tank and the domestic tank being situated substantially above the level of the heater; a radiator, a pipe communicating with the water circuit above the tank and leading to said radiator, a pipe leading from said radiator and communicating with the lower portion of said water circuit, service cocks, a pipe communicating with the upper portion of said water circuit and leading to said service cocks, and a supply pipe for the heating system.

5. In a domestic heating system, the combination of a water circuit including a distributer, a domestic tank, a heater, and a valve, the distributer being situated substantially above the level of the domestic tank, and the domestic tank being situated substantially above the level of the heater, a radiator, a pipe communicating with the water circuit above the level of the tank and leading to said radiator, a pipe communicating with the lower portion of said water circuit and also leading to said radiator, a valve in one of said pipes leading to said radiator, service cocks, a pipe communicating with the upper portion of said water circuit and leading to said service cocks, a circulatory pipe having one end connected to one of said pipes leading to said radiator, and the other end of said circulatory pipe being connected with the other of said pipes leading to said radiator, said circulatory pipe extending below the level of the lowest point of either of said pipes leading to said radiator.

[Claim 6 not printed in the Gazette.]

1,240,102. REGULATOR. ALFRED H. THOMPSON, Venice, Cal. Filed Apr. 18, 1913. Serial No. 762,110. (Cl. 236—6.)



1. In a regulator, a valve chamber, a driven diaphragm chamber connected to one side of the valve chamber, a yoke connected at one end to the opposite side of the driven diaphragm chamber, a driving diaphragm chamber connected to the opposite end of the yoke, a driving diaphragm in the driving diaphragm chamber, a valve stem connected to the driving diaphragm and extending through the yoke and through the driven diaphragm chamber into the valve chamber, a driven diaphragm upon the valve stem in the driven diaphragm chamber and serving as a stuffing box for the stem in the valve chamber, a valve seat in the valve chamber, a valve upon the valve stem for the seat, a spring seat in the yoke and spaced apart from the driven diaphragm chamber, a spring upon the valve stem against the spring seat for moving the valve away from the valve seat, the driven diaphragm chamber forming a rigid stop, and an adjustable stop upon the valve stem between the spring seat and the rigid stop to engage the rigid stop and limit the movement of the valve toward the seat.

2. In a regulator, a valve chamber, a driven diaphragm chamber connected to one side of the valve chamber, a yoke connected at one end to the opposite side of the driven diaphragm chamber, a driving diaphragm chamber connected to the opposite end of the yoke, a driving diaphragm in the driving diaphragm chamber, a valve stem connected to the driving diaphragm and extending through the yoke and through the driven diaphragm chamber into the valve chamber, a driven diaphragm upon the valve stem in the driven diaphragm chamber and serving as a stuffing box for the stem in the valve chamber, a valve seat in the valve chamber, a valve upon the valve stem for the seat, a spring seat in the yoke and spaced apart from the driven diaphragm chamber, a spring upon the valve stem against the spring seat for moving the valve away from the valve seat, the driven diaphragm chamber forming a rigid stop, an adjustable stop upon the valve stem between the spring seat and the rigid stop to engage the rigid stop and limit the movement of the valve toward the seat, a nut upon the valve stem for adjusting the tension of the spring, the driven diaphragm chamber forming a second rigid stop, and a second adjustable stop upon the valve stem to engage the second rigid stop and limit the movement of the valve away from the valve seat.

1,240,103. CONE-TUBE. HENRY L. TIFFANY, South Dartmouth, Mass. Filed Mar. 25, 1915. Serial No. 17,084. (Cl. 242—122.)



1. As an article of manufacture, a winding cone having a yarn-retaining surface markedly conical in shape, and provided with an inturned apex end treated with a reinforcing material incorporated into the substance of the cone.

6. As an article of manufacture, a winding cone having a roughened yarn-retaining surface markedly conical in shape to permit the yarn to free itself from said roughened surface when drawn from the end of said cone, the latter having an inturned apex end treated with sizing to neutralize the softening caused by the inturning action.

8. As an article of manufacture, a winding cone having a yarn-retaining surface markedly conical in shape, and provided with an inturned apex end treated with a reinforcing material incorporated into the substance of the cone, the material of said end being circumferentially displaced.

11. As an article of manufacture, a winding cone having a roughened, yarn retaining surface markedly conical in shape to permit the yarn to free itself from said roughened surface when drawn from the end of said cone, the tip of the latter being inturned and thereby weakened and softened, said tip end subsequent to said inturning being treated with sizing to neutralize the softening and weakening incident to the inturning action, whereby the entire cone is rendered of substantially uniform stiffness throughout.

[Claims 2 to 5, 7, 9, and 10 not printed in the Gazette.]

1,240,104. PROTECTOR FOR WOUND-YARN-MASS SUPPORTS, &c. HENRY L. TIFFANY, South Dartmouth, Mass. Filed Mar. 25, 1915. Serial No. 17,037. (Cl. 242—159.)



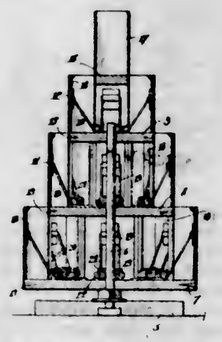
1. As an article of manufacture, a protector for the protruding end of the axial support of a wound yarn mass, having a portion adapted to rest upon said yarn mass, and a portion to receive said protruding end.

3. In combination as an article for transportation in commerce, a wound yarn mass, an axial support therefor having a protruding end, and a protector applied to the end of said yarn mass and shaped to receive said protruding end.

6. In combination as an article for transportation in commerce, a wound yarn mass, a markedly tapering axial support therefor having a protruding, inturned, yielding end, and a protector for said protruding end having a substantially flat, circular portion adapted to rest flatwise upon the end of the yarn mass and having a central protruding portion, the inner surface of which is shaped to conform, substantially to the shape of said inturned, yielding, tip end and adapted loosely to incase the same in spaced relation thereto.

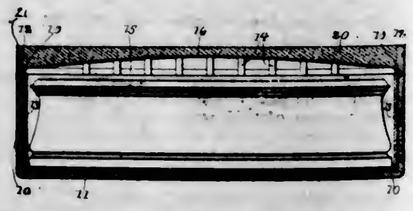
[Claims 2, 4, 5, and 7 not printed in the Gazette.]

1,240,105. REVOLVING DISPLAY-RACK. ERNEST W. TOWNSEND, Ogden, Utah. Filed June 25, 1915. Serial No. 36,321. (Cl. 211—20.)



In a device of the character described in combination a base, a post secured to said base, a series of platforms secured to said post and decreasing in diameter in an upward direction, a series of axially alined receptacles secured flush with the periphery of and upon each platform in axial alinement and having their upper edges projecting in a plane with the next adjacent platforms, a follower plate in each receptacle disposed with its top edge flush with that of the receptacle and bent inward away from it, and spring members secured upon said platforms and having their upper ends pivotally secured to said follower-plates, said spring members being so arranged as to hold said follower plates in contacting relation against the receptacle but adapted to permit said follower-plates to move between the next adjacent platforms and said receptacles.

1,240,106. SEPULCHER. ELLIS M. TREAT, Buffalo, N. Y. Filed Dec. 21, 1916. Serial No. 138,243. (Cl. 72—7.)

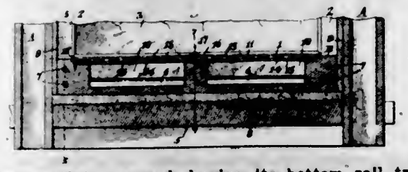


1. A sepulcher having a metallic body portion provided with an inwardly and downwardly turned flange along its entire upper edge, and a top for said body having a depending flange provided with an outwardly and upwardly turned edge constituting a continuous trough and interlocking with the flange of the body.

2. A sepulcher having a metallic body portion provided with an inwardly and downwardly turned flange along its entire upper edge, a top for said body having a depending flange provided with an outwardly and upwardly turned edge constituting a continuous trough and interlocking with the flange of the body and a filling of solder in said trough.

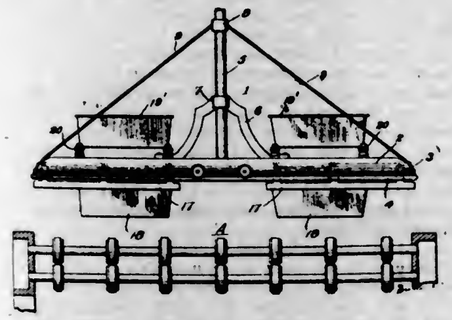
3. A sepulcher having a metallic body portion provided with an inwardly and downwardly turned flange along its entire upper edge, a top for said body having a depending flange provided with an outwardly and upwardly turned edge constituting a continuous trough and interlocking with the flange of the body, an outer shell of concrete substantially surrounding the body but terminating short of the flange, an inner shell of concrete within the body, and a covering of concrete over said top and inclosing the interlocking joint between the top and body.

1,240,107. WINDOW SASH AND VENTILATOR. FRANK VICTOR, Ridgway, Pa. Filed Nov. 6, 1915. Serial No. 60,034. (Cl. 98—31.)



In a ventilator, a sash having its bottom rail transversely enlarged and formed with angular openings therethrough which lead from the outside to the upper inner edge of the rail, said openings being spaced apart substantially midway of said bottom rail to leave a solid portion of the rail which divides said openings from each other, a damper having a plurality of openings and supported intermediately of its ends upon said solid portion of the rail and having its ends moving in recesses in said rail beyond said openings, a rigid plate also provided with openings and arranged above the damper and supported at its ends independently thereof, said damper and said plate being located at the upper inner edge of the rail at the inner terminal of said openings, and a sash lift set into the front side of the rail at the intermediate solid portion thereof.

1,240,108. COMBINED HEAT AND MOISTURE GENERATOR. JOSEPH L. WALTER, Jr., Columbus, Ohio. Filed Sept. 20, 1916. Serial No. 121,336. (Cl. 34—18.)



1. An overhead drier and static neutralizer for use in conjunction with the delivery mechanisms of printing presses, comprising means for producing a volume of heated air and water vapor, and means for directing the same downward against the surface of the sheets of paper being delivered by the said delivery mechanism.

2. An overhead drier and static neutralizer for use in conjunction with the delivery mechanisms of printing presses, comprising a support, heating means carried by said support, means arranged within the zone of said heating means for producing a watery vapor, and means for deflecting the heated air and vapor downward against the printed sheets of paper carried by the delivery mechanism.

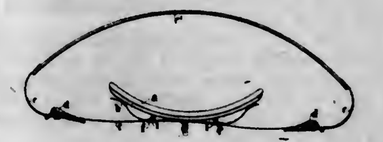
3. A device of the character described comprising a top plate provided with downturned marginal portions forming a hood, heating means arranged within the hood, a water container arranged within the zone of action of the heating means for the production of vapor, and a deflector arranged for deflecting the heated air and vapor in a downward direction.

4. A device of the character described comprising a top plate having down-turned marginal portions forming a hood, heating means arranged within the hood, a water container arranged beneath the heating means and within the heating zone thereof for the production of vapor, and a deflector disposed between the heating means and top plate for directing the hot air and vapor downward.

5. A device of the character described comprising a receptacle open at the bottom thereof, heating means arranged within said receptacle, water containing means supported beneath the heating means within the heating zone thereof, and means for directing the air heated by said heating means and the vapor from the moisture containing means in a downward direction.

[Claims 6 to 10 not printed in the Gazette.]

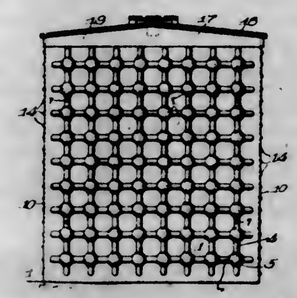
1,240,109. ABDOMINAL SUPPORT FOR MEDICAL AND SURGICAL USE. SAMUEL ARCHIBALD WALTON, West Hampstead, London, England. Filed June 19, 1917. Serial No. 175,630. (Cl. 128—3.)



1. The improved abdominal support comprising a broad plate for contact with the body of the wearer of the device, an elastic front plate secured to the front and middle portions of such contact plate, a back strip, and means adjustably connecting the ends of the same with the contact plate, and curved plate springs secured to the front plate and their free outer ends projecting laterally and interposed between the contact plates and the front plate, as described.

2. In an abdomnal support of the type indicated, the combination of a body contact plate having a vertical slot, a front spring plate extending across the contact plate, a clamp screw securing such front plate to the contact plate, curved springs extending between the two plates, and clips adjustably connecting the springs and front plate for varying the pressure on the contact plate, substantially as shown and described.

1,240,110. STEEL END FOR FREIGHT-CARS. WILLIAM ERASTUS WILLIAMS, Chicago, Ill. Filed Dec. 26, 1914. Serial No. 878,991. (Cl. 105—192.)



1. The combination with an internally flat sheet metal car end provided with a set of embossed ribs extending upwardly from points near the floor line, with a second set of ribs of like character intersecting the ribs of the first set, and with materially deeper embossed cups at the

points of intersection, respectively, of strips secured in some of the ribs and extending across the deeper cups into which the ribs merge, and wood sheathing secured to said strips, covering the inner face of the metal and forming therewith continuous open passages in all ribs not filled by the strips.

2. In a metal car end, the combination with a metal sheet having its constituent metal deflected to form external ribs of corrugations extending along vertical and horizontal intersecting lines and merging into integral deeper cups at the points of intersection, respectively, of wooden inlay strips fixed in certain of the vertical corrugations or ribs, and wood sheathing secured to the inlay strips.

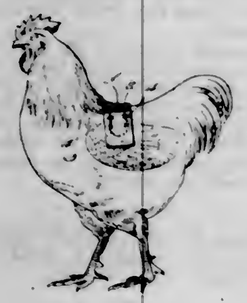
3. The combination with a sheet metal car end provided with embossed ribs extending along intersecting lines, inlay strips fixed in certain of said ribs, and sheathing secured to the inlay strips, the downwardly extending ribs being carried outward at the points of intersection to form by-passes around any inlay strips in the ribs met by said downwardly extending ribs.

4. The combination with a sheet metal car end having its lateral marginal portions bent to fit against the car's sides and its body provided with vertical embossed ribs, with horizontal embossed ribs continued into said portions, and with materially deeper embossed cups at the points of intersections of the two sets of ribs, of wood strips fixed in certain ribs of one set, and internal sheathing fixed to said strips.

5. In a car end, a heavy metal sheet constituting the main strain-resisting element of the end wall and consisting of a primarily plane sheet pressed outward along many lines to form two intersecting sets of narrow integral stiffening ribs distributed with approximate uniformity over the car end.

[Claims 6 to 10 not printed in the Gazette.]

1,240,111. POULTRY-FETTER. WILLIAM N. C. WILLSON, Berryville, Va. Filed June 15, 1917. Serial No. 174,970. (Cl. 119—97.)

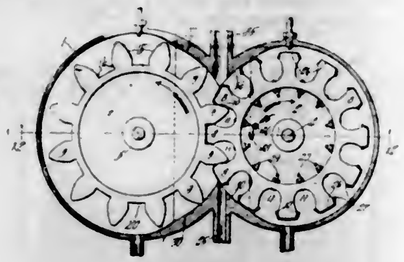


4. A poultry fetter comprising a saddle curved longitudinally into arch shape for passage over the fowl's back, the ends of said saddle having longitudinally spaced openings along their edges, and U-shaped straps whose ends are insertible through said openings, said ends of the straps having openings, and fasteners passing through said last named openings, said straps being adapted for passage around the wing bones to prevent flying.

[Claims 1 to 3 not printed in the Gazette.]

1,240,112. ROTARY ENGINE. STOVER C. WINGER, Pasadena, Cal. Filed Apr. 10, 1916. Serial No. 90,189. (Cl. 123—12.)

1. A rotary combustion engine comprising a casing provided with an inlet and an outlet, a pair of gears rotatively mounted within said casing, the teeth of which gears intermesh, the spaces between the teeth of one of said gears being adapted to receive gas from said inlet, the teeth of the other gear being adapted to enter and close said spaces to compress the gas therein, the teeth of one of said gears being provided with resilient packing means adapted to make a gas tight joint with the teeth of the other gear, and means for successively igniting the confined gas in said successive spaces so that said gas will act upon the teeth of said gears to rotate the gears, the products of combustion being adapted to escape from said spaces through said outlet.

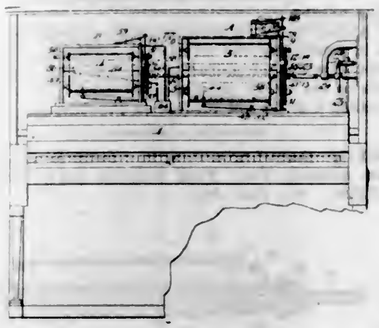


2. A rotary combustion engine comprising a casing provided with an inlet and an outlet, a pair of gears rotatively mounted within said casing, the teeth of which gears intermesh, the spaces between the teeth of one of said gears being adapted to receive gas from said inlet, the teeth of the other gear being adapted to enter and close said spaces to compress the gas therein, a terminal of an electric ignition circuit projecting into said casing, the other terminal of which circuit being grounded in said casing, and a spark plug projecting into each of said spaces of said gear adapted to be rotated by said gear into electrical connection with said terminal to ignite the gas in said spaces successively to rotate the gears, the products of combustion of said gas being adapted to escape through said outlet.

3. A rotary combustion engine comprising a casing provided with an inlet and an outlet, a pair of teeth intermeshing gears rotatively mounted within said casing, the teeth of one of said gears being provided with resilient packing means adapted to make a gas-tight joint with the teeth of the other gear, the spaces between the teeth of one of said gears being adapted to receive gas from said inlet, the casing being so constructed as to engage the teeth of said gears adjacent said inlet to prevent the gas escaping from said spaces, the teeth of the other gear being adapted to enter and close said spaces to compress the gas therein, means for successively igniting the confined gas in said successive spaces so that said gas will act upon the teeth of said gears to rotate the gears, the products of combustion of said gas being adapted to escape from said spaces through said outlet, the casing being so constructed as to engage the teeth of said gears adjacent said outlet to prevent the products of combustion from escaping from said spaces otherwise than through said outlet.

4. A rotary combustion engine comprising a casing provided with an inlet and an outlet, a pair of gears having intermeshing teeth rotatably mounted within said casing, the spaces between the teeth of one of said gears being adapted to receive an explosive gaseous fuel mixture from said inlet, the teeth of the other gear being adapted to enter and close said spaces to confine and compress the gaseous fuel therein, means for successively confining and igniting gaseous fuel mixture in said successive spaces so that said fuel mixture will act upon the teeth to rotate said gears, said means comprising a plurality of spark plugs mounted on one of said gears, there being one for each of the spaces between the teeth of said last mentioned gear, and a stationary contact brush mounted on said casing and adapted to contact successively with said spark plugs at the moment when the fuel mixture in the space between the teeth of the gear, with which it is connected, is at its maximum compression.

1,240,113. DUPLEX TRACKER FOR MUSICAL INSTRUMENTS. FARNY R. WURLITZER and FRANK L. MCCORMICK, North Tonawanda, N. Y., assignors to The Rudolph Wurlitzer Manufacturing Company, North Tonawanda, N. Y., a Corporation of New York. Filed Nov. 1, 1915. Serial No. 58,975. (Cl. 84—161.)



1. An appartus of the character described, comprising a perforated main or note sheet, a perforated auxiliary sheet for controlling pipe-stops and the like, trackers associated with said sheets, driving means for the auxiliary sheet controlled by the main sheet, and stopping means for the auxiliary sheet controlled by itself.

2. An apparatus of the character described, comprising a main tracker having note ducts and a controlling duct adapted to coöperate with a main or note sheet having corresponding perforations, an auxiliary tracker having stop-controlling ducts and a sheet-arresting duct adapted to coöperate with an auxiliary sheet having corresponding perforations, rolls for said auxiliary sheet, driving mechanism for said rolls, a take-up pneumatic controlling said driving mechanism, means for exhausting said pneumatic controlled by the controlling duct of the main tracker, and means for flushing said pneumatic controlled by the sheet-arresting duct of the auxiliary tracker.

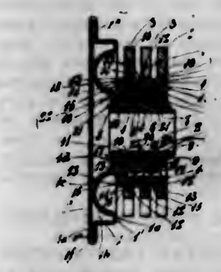
3. An apparatus of the character described, comprising a main tracker having note ducts and a controlling duct, an auxiliary tracker having stop-controlling ducts and a sheet-arresting duct, rolls for said auxiliary sheet, driving mechanism for said rolls, a take-up pneumatic controlling said driving mechanism, a valve-chamber connected with said pneumatic and having suction and flushing ports, a valve controlling said ports, a primary pneumatic controlling said valve and connected with the controlling duct of the main tracker, a retaining pouch also acting on said valve to hold it in position to exhaust said take-up pneumatic, the compartment on one side of said pouch communicating with said valve chamber, a second valve chamber in communication with the compartment on the opposite side of said pouch and having suction and flushing ports, a valve controlling the last-mentioned ports, and a primary pneumatic controlling the last-named valve and connected with the sheet-arresting duct of said auxiliary tracker.

4. An apparatus of the character described, comprising main and auxiliary trackers adapted to coöperate with separate perforated sheets, a pair of rolls for each sheet, driving mechanism for each pair of rolls, a rewind pneumatic coöperating with each of said driving mechanisms, and means under the control of one of said trackers, for simultaneously exhausting said rewind pneumatics.

5. An apparatus of the character described, comprising a main tracker having note ducts and a controlling duct, an auxiliary tracker having stop-controlling ducts and a sheet-arresting duct, rolls for said auxiliary sheet, driving mechanism for said rolls including a shiftable member for transmitting motion to one or the other of said rolls, means tending to move said shiftable member to neutral position, a pneumatic controlling said shiftable member, and means for collapsing said pneumatic including the controlling duct of the main tracker.

[Claim 6 not printed in the Gazette.]

1,240,114. COMBINATION-LOCK. JACOB BAUM, Cincinnati, Ohio; Anna Williams Baum, Mary Baum Birnbryer, Geo. M. Bacon, and Joseph B. Derbes executors of said Jacob Baum, deceased. Filed July 16, 1915. Serial No. 40,240. (Cl. 70—53.)



1. In a combination lock, a tumbler wheel comprising an outer disk having a central aperture with abutting means around it, an inner disk adapted to be inserted from one side of said main outer disk and bear against the abutting means around the aperture, and having a part extending out of the opposite side of said main outer disk, this part of the inner disk having a peripheral groove lying behind the abutting means of the aperture when the inner disk is thus inserted, and resilient fastening means in said groove, to prevent displacement of said inner disk from said outer disk, but accessible for the purpose of prying it out of said groove when it is desired to displace said inner disk from said outer disk.

2. In a combination lock, a tumbler wheel comprising an outer disk having a central aperture with an axially tapered wall forming abutting means around it, an inner disk having a tapered periphery and being adapted to be inserted from one side of said outer disk and bear against the abutting means around the aperture, and having a part extending out of the opposite side of said outer disk, this part of the inner disk having a peripheral groove lying behind the abutting means of the aperture when the inner disk is thus inserted, and resilient fastening means in said groove, to prevent displacement of said inner disk from said outer disk, but accessible for the purpose of prying it out of said groove when it is desired to displace said inner disk from said outer disk.

3. In a combination lock, a tumbler wheel comprising an outer disk having a central aperture with an axially tapered toothed wall forming abutting means around it, an iner disk having a tapered toothed periphery to mesh with said toothed wall and being adapted to be inserted from one side of said outer disk and bear against the abutting means around the aperture, and having a part extending out of said outer disk on the opposite side of said main outer disk, this part of the inner disk having a peripheral groove lying behind the toothed wall of the aperture when the inner disk is thus inserted, and resilient fastening means in said groove, to prevent displacement of said inner disk from said outer disk, but accessible for the purpose of prying it out of said groove when it is desired to displace said inner disk from said outer disk.

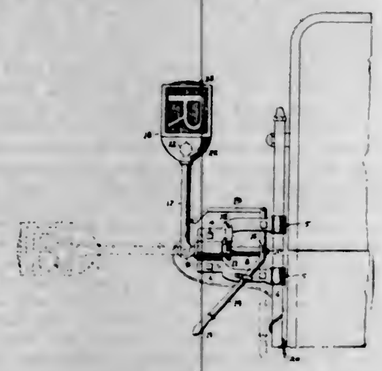
4. In a combination lock, a tumbler wheel comprising an outer disk having a central aperture with a toothed wall and abutting means around said toothed wall, an inner disk having a toothed periphery to mesh with said toothed wall and being adapted to be inserted from one side of said outer disk and bear against the abutting means around the aperture, and having a part extending out of the opposite side of said main outer disk, this part

of the inner disk having a peripheral groove lying behind the toothed wall of the aperture when the inner disk is thus inserted, and resilient fastening means in said groove, to prevent displacement of said inner disk from said outer disk, but accessible for the purpose of prying it out of said groove when it is desired to displace said inner disk from said outer disk.

5. In a combination lock, a tumbler wheel comprising an outer disk having a central aperture with abutting means around it, an inner disk adapted to be inserted from one side of said outer disk and bear against the abutting means around the aperture, and having a part extending out of the opposite side of said outer disk, this part of the inner disk having a peripheral groove lying behind the abutting means of the aperture when the inner disk is thus inserted and a wire bent into substantially the shape of an incomplete circle and sprung into said peripheral groove by spreading over the part of the periphery of said inner disk away from said outer disk, to prevent displacement of said inner disk from said outer disk, but accessible for the purpose of prying it out of said groove when it is desired to displace said inner disk from said outer disk.

[Claims 6 to 9 not printed in the Gazette.]

1,240,115. SIGNAL-LAMP FOR VEHICLES. ADDISON J. BENTZ, Ashland, Ohio. Filed Feb. 14, 1917. Serial No. 148,682. (Cl. 116—31.)



7. A signaling lamp for vehicles, comprising a support having clamping means to secure it to a standard, a shaft carried by said support having a hinged extension, a lamp mounted upon said extension having translucent sides and a reflector therein to project light in a direction parallel with the axis of said extension, and means to actuate said shaft and extension into different positions relatively to each other and said support.

8. A spot and signal lamp, comprising a casing having translucent lettered sides and a lens at one end and a reflector opposite said lens, in combination with a jointed shaft and means to swing said lamp into either a horizontal or vertical position and to rotate the lamp on the main axis of said reflector and lens.

[Claims 1 to 6 and 9 to 12 not printed in the Gazette.]

1,240,116. VULCANIZATION OF RUBBER AND OTHER SIMILAR SUBSTANCES. GUSTAVE BERNSTEIN, Royat, France. Filed July 18, 1913. Serial No. 779,846. (Cl. 18—53.)

1. A process for vulcanizing rubber substance which consists in submitting the substance at high temperature in the presence of sulfur, sulfids or other vulcanizing agents to the action of ultra-violet rays.

2. A process for vulcanizing rubber substance which consists in submitting the substance under pressure in the presence of sulfur, sulfids or other vulcanizing agents to the action of ultra-violet rays.

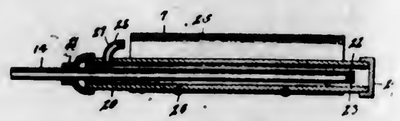
3. A process for vulcanizing rubber substance which consists in submitting the substance at high temperature and under pressure in the presence of sulfur, sulfids or other vulcanizing agents to the action of ultra-violet rays.

4. A process for vulcanizing rubber substance which consists in submitting the substance in the presence of sulfur, sulfids or other vulcanizing agents to the action of ultra-violet rays in an atmosphere of a neutral gas not containing oxygen.

5. A process for vulcanizing rubber solution which consists in submitting the solution in a thin liquid film and in the presence of sulfur, sulfids or other vulcanizing agents to the action of ultra-violet rays.

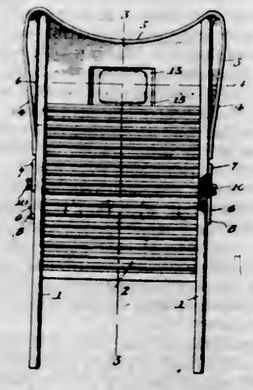
[Claims 6 to 11 not printed in the Gazette.]

1,240,117. GASOLENE-TORCH. JOHN B. BLACKWELL, San Antonio, Tex. Filed Dec. 19, 1916. Serial No. 137,900. (Cl. 158—33.)



In a device of the class described a burner comprising a pipe having a plug in its outer end and provided with an aperture, a reducer on said pipe, a generating pipe of greater diameter than the first named pipe and arranged around the discharge end thereof and connected thereto by said reducer, said generating pipe having a cap at its outer end and being also provided, near its inner end with an outwardly directed elbow provided with a gas discharge tip, and a mixing and flame directing pipe of greater diameter than and arranged around the generating pipe and having one side secured thereto, said mixing and flame directing pipe being open at its ends and said elbow and tip being arranged to discharge outwardly and through the center of said generating and flame directing pipe.

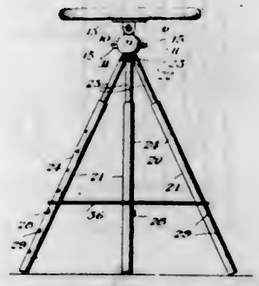
1,240,118. WASHBOARD. ULYSSES S. BROWN AND LUCY E. BROWN, Logansport, Ind. Filed Dec. 1, 1916. Serial No. 134,425. (Cl. 68—29.)



1. A wash board having an opening, a structure in the rear of said opening forming a soap receiving compartment, a soap holder detachably arranged in said compartment and comprising a pair of soap clamping members, springs to draw said soap clamping members toward each other and a spring slidably connected to said members and also serving to force the same and the soap forwardly.

2. A wash board having an opening, a structure in the rear of said opening forming a soap receiving compartment and having an opening in the upper side and also having a closed rear side and flanges in its end walls spaced slightly from the rear side, a soap holder and a plate to which the soap holder is attached, said plate being removable from the compartment through the upper side of the latter and when in the compartment being held between the rear wall and said flanges of the compartment.

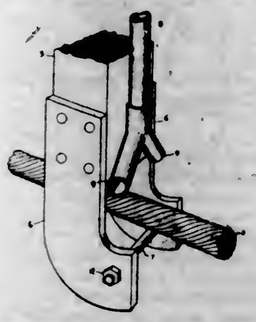
1,240,119. STOOL. THOMAS BURNS, Martinsville, N. J. Filed Jan. 12, 1916. Serial No. 71,739. (Cl. 155—32.)



1. A stool comprising a seat, a plurality of adjustable legs, and means for detachably and rotatably connecting the seat with said legs, said means comprising a plate secured to the under face of the seat provided with spaced depending apertured ears, a sectional casing having a plurality of apertured extensions, certain of said extensions engaging between the ears of the plate, means passing through the ears and said extensions for pivotally connecting the casing to said plate, and a spherical member loosely mounted in the casing provided with a plurality of apertured lugs said legs being secured to said lugs substantially as and for the purpose specified.

2. A device of the character set forth comprising a seat, means depending from the under surface of the seat for rotatably supporting the latter consisting of a plurality of apertured extensions, legs for said seat including upper and lower telescopically mounted sections, the upper leg section being formed with a slot, while the lower leg section has a series of diametrically arranged apertures, means passing through the upper leg section and the apertured extensions for establishing a pivotal connection between the legs and seat, the slot formed in the upper leg section permitting of the extensions swinging outwardly when the legs are in open position, a screw passing through the diametrically arranged apertures of the lower leg sections, and a coiled spring having connection at one end with the upper leg section and at its opposite end with said screw for yieldably supporting the lower leg section with the upper section.

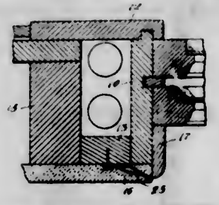
1,240,120. MEANS FOR RECOVERING STRANDED SHIPS. JOSEPH W. CHURCH, San Francisco, Cal. Filed Mar. 6, 1917. Serial No. 152,500. (Cl. 114—55.)



1. An implement of the class described, comprising an elongated member, a guideway for a cable secured at one end of said member, and a water pipe secured lengthwise of said member and having a discharge nozzle adjacent to said guideway.

2. An implement of the class described, comprising an elongated member, a guide-way for a cable secured at one end of said member, and a water pipe secured lengthwise of said member and having downwardly and outwardly discharging nozzles adjacent to said guideway.

1,240,121. BUILDING-WALL. WALTER L. COLLINS, Milford, Mass. Original application filed Aug. 1, 1910, Serial No. 574,768. Divided and this application filed Jan. 8, 1913. Serial No. 740,814. (Cl. 72—98.)



1. A building-wall having an opening, a window frame arranged therein having compartments for the window weights, the grounds forming the inner boundary of the compartments being aranged flush with the inner surface edge of the frame, window stops arranged on and in contact with the face of the frame, said stops projecting inwardly beyond the inner edge of the frame to provide with such inner edge angularly related surfaces having a depth transverse the frame substantially equal to the thickness of the plaster wall, the meeting line of the inner edge of the frame and the relatively inner projecting face of the stops forming a limit for the forward edge of a plaster wall, whereby the stops overlie the edge of the plaster wall to serve as a substitute for the usual casing.

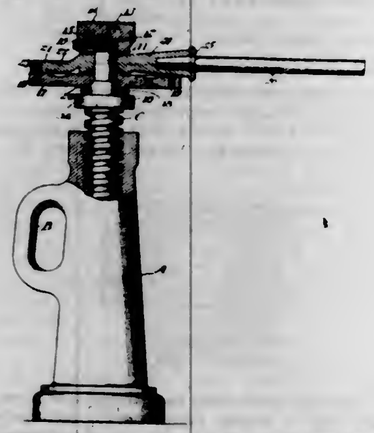
2. A building wall having an opening, a window-frame set therein having compartments for the window-weights, the grounds at the inside of said compartments being arranged flush with the inner edge of the frame, window-stops arranged on the face of the frame which project inward therefrom, a plaster wall extended over the grounds and the inner edge of the frame which abuts against the projecting portion of the stops and a metallic reinforcement embedded in the wall at its edge, one edge of which reinforcement rests against the edge of the projecting portion of the stop and is exposed at such point.

3. A building wall having an opening, a window-frame set therein, having compartments for the window-weights, grounds arranged at the inside of said compartments flush with the inner edge of the window-frame, a plaster wall extended over said grounds, and the inner edge of the window-frame, which terminates flush with the face of the frame, and a metallic reinforcement embedded in said plaster wall and extended diagonally across the same from back to front, one edge of which is attached to said grounds and the other edge of which is exposed at the inner corner of the plaster wall, and a window stop arranged on the face of the frame which is extended inward over the edge of said plaster wall, and terminates at the exposed portion of the metallic reinforcement.

1,240,122. LIFTING-JACK. GEORGE C. CONDITO, Wingdale, N. Y. Filed Mar. 22, 1917. Serial No. 156,659. (Cl. 254—98.)

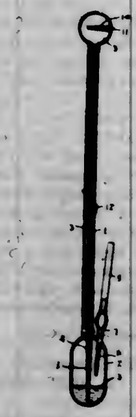
1. A lifting jack comprising a base, an upright screw threaded therein, a disk fixed to the upper end of the screw and having a ring of openings, a spider overlying the disk and including a central portion rotatably mounted upon and concentric with such disk and a series of radial arms whereof one has a radial socket in its outer end and the remainder have upright openings in their outer ends, a handle for insertion in said socket, and a series of vertically movable dogs interchangeably inserted

in said openings, each hanging below the spider-arm and having one abrupt edge and one beveled edge to engage the openings in said disk beneath, and each dog having a lug at its upper end to prevent its passage through the opening in its supporting arm.



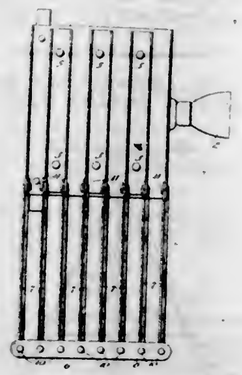
2. A lifting jack, comprising, a base, a lifting screw adjustable therethrough, a disk secured to the upper portion of said screw, openings through said disk adjacent the outer periphery thereof, a ratchet mechanism including a central portion, arms extending radially therefrom, a handle within one of the arms, openings provided in the outer extremities of the remaining arms, removable and interchangeable dogs adapted to be received in said openings, and extending below the lower face of said arms for engagement with the openings in the disk, the dogs being inclined on the lower portion of one of their faces to allow the dog to ride over the openings in the disk when the handle is operated in one direction and engage in the openings of the disk when the handle is operated in the reverse direction.

1,240,123. MANOMETER. JAMES H. COTTON, Toronto, Ontario, Canada. Filed Oct. 1, 1915. Serial No. 53,527. (Cl. 73—44.)



A manometer, comprising a glass tube having its lower end reduced to form a capillary passage, a glass bulb surrounding the lower end of said tube and formed integral therewith, a pressure tube formed integral with the said bulb and extending downwardly from the top having its lower end drawn to form a capillary passage and extending to a point near the bottom, a bulb formed integral with the top of said tube and having a capillary tube extending inwardly from the side.

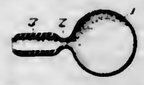
1,240,124. CURRYCOMB. FRANK L. DE LUCCHI, Novato, Cal. Filed May 16, 1917. Serial No. 169,082. (Cl. 119—88.)



1. In combination with a curry comb having a plurality of comb blades, a cleaning attachment comprising a plurality of loops, a bar to which said loops are connected, each loop being formed of a continuous length of wire having an eye on one end and having its other end extended through one of the blades, and a hook in said eye whereby the loop is attached to the blade.

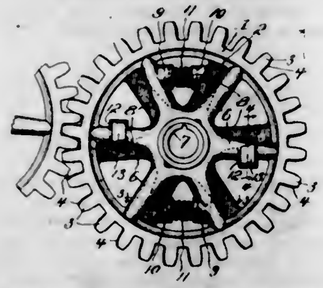
[Claims 2 and 3 not printed in the Gazette.]

1,240,125. SURGICAL APPLIANCE. BENJAMIN M. DOUD, Gillette, Wyo. Filed Dec. 15, 1915. Serial No. 66,973. (Cl. 128—28.)



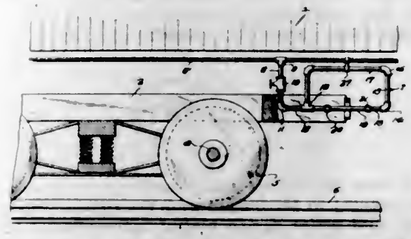
A surgical appliance comprising a flexible globular sack, a neck on said sack providing a circumferentially extending groove exteriorly of the appliance to receive therein the meatus, a hollow cylindrical extension connected at its inner end with the sack by said neck and having a rounded edge at its outer end, the wall of said extension being of greater thickness than the wall of the neck and sack for the purpose set forth.

1,240,126. ANTIRATTLING GEAR. HENRY J. DUBOIS, Putnam, Conn., assignor of one-half to Byron E. Howard, Putnam, Conn. Filed Nov. 7, 1916. Serial No. 130,036. (Cl. 74—28.)



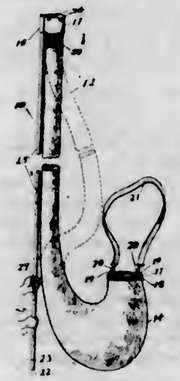
A gear wheel comprising two gear members having spokes and arranged side by side and also having teeth primarily in transverse alinement with each other, yieldable means associated with the spokes, said gear members admitting of a relative circumferential movement between the gear members, and means on a spoke of one of said members engaging an adjacent spoke of the other member and serving to prevent relative lateral movement of said members while limiting the relative circumferential movement thereof.

1,240,127. BRAKE APPLIANCE. ERNEST E. EWING, Spokane, Wash. Filed Feb. 21, 1917. Serial No. 150,127. (Cl. 188—81.)



In a device for the purpose set forth, the combination with a railway coach having an air brake system, of a coil connected with the main train line of the said system, said coil being made up of a plurality of connected pipe sections, one of which being fragile, a breakable element for the fragile section of the coil surrounding the said fragile member and being secured to the frame of the truck of the coach, and means for adjusting the the said breaker member either in a vertical or longitudinal direction.

1,240,128. FRUIT-PICKER. DANIEL W. FELLOWS, Los Angeles, Cal. Filed May 4, 1916. Serial No. 95,453. (Cl. 56—99.)



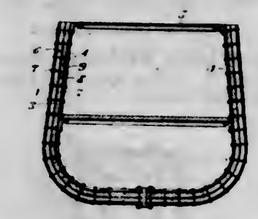
1. In a fruit picker, the combination of a handle, a cylindrical fruit-picking member carried thereby, said member having a straight upper edge provided at spaced intervals with a plurality of recesses constituting fruit stem cutters, each recess being formed of a shallow notch sloping rapidly toward the middle and having at its lowest point a constricted passage terminating in an enlarged circular opening, and a fruit-receiving bag connected to said fruit-picking member.

2. In a fruit picker, the combination of a handle, a tubular fruit-picking member carried thereby, said member having a straight upper edge provided at spaced intervals with a plurality of recesses constituting fruit stem cutters, each recess being formed of a shalow notch sloping rapidly toward the middle and having at its lowest point a constricted passage terminating in an enlarged opening, and a fruit-receiving bag connected to said fruit-picking member.

3. In a fruit picker a tubular fruit-picking member provided at its lower edge with a plurality of spaced ring supports, a flexible fruit conduit encircling said member, and through which said supports project rigid conduit supporting means secured to the upper end of said conduit, and a clamping ring carried by said ring supports below said rigid members for holding said conduit in frictional engagement with said fruit-picking member.

4. In a fruit picker, a tubular fruit-picking member provided with a plurality of spaced ring supports, a flexible fruit conduit encircling the lower end of said member and being provided at its upper end with a conduit supporting ring, and a clamping ring caried by said ring supports below said conduit supporting ring for clamping said conduit against said fruit-picking member.

1,240,129. SHIP-HULL CONSTRUCTION. THOMAS FENWICK, Mobile, Ala. Filed Oct. 3, 1916. Serial No. 123,533. (Cl. 114—65.)



1. In marine hull construction, the combination of an inner metal sheathing, frame pieces to which said inner sheathing is fastened, an outer metal sheathing arranged in spaced relation to the inner sheathing, metal bars fastened to the inner surface of said outer sheathing and arranged transversely opposite and substantially parallel to the inside frame members, tie bolts extending perpendicularly to and through the outer and inner sheathings and maintaining the same in a fixed and spaced relation to each other, and a filling of concrete between said outer and inner sheathings.

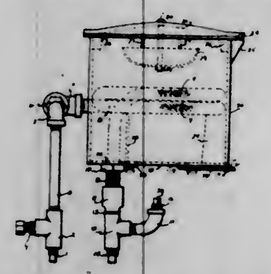
2. In marine hull construction, the combination of an inner metal sheathing, frame pieces to which said inner sheathing is fastened, an outer metal sheathing arranged in spaced relation to the inner sheathing, an intermediate shell between and in spaced relation to said inner and outer sheathings, metal bars fastened to the inner surface of said outer sheathing and arranged transversely opposite and substantially parallel to the inside frame members, tie bolts extending perpendicularly to and through the outer and inner sheathings and also through the intermediate shell, and a filling of concrete between said intermediate shell and the inner sheathing.

3. In marine hull construction, the combination of an inner metal sheathing, frame pieces to which said inner sheathing is fastened, an outer metal sheathing arranged in spaced relation to the inner sheathing, an intermediate shell between and in spaced relation to said inner and outer sheathings, metal bars fastened to the inner surface of said outer sheathing and arranged transversely opposite and substantially parallel to the inside frame members, tie bolts extending perpendicularly to and through the outer and inner sheathing and also through the intermediate shell, a filling of concrete between said intermediate shell and the inner sheathing, and tie members extending transversely across the hull and connecting oppositely located frame members.

1,240,130. LIQUID-HYDROCARBON BURNER. HARDY A. FRIEND, Marshalltown, Iowa. Filed Apr. 27, 1917. Serial No. 164,964. (Cl. 158—63.)

1. In a burner of the class described, a casing forming a mixing element and provided with an air intake opening at one end; a closure at the opposite end of the casing and provided with openings, a gas generating or vapor-

izing coil arranged in said casing and provided with means to discharge gas or vapor into said casing through



the first-named opening, and a flame spreading element in said casing arranged between said coil and said closure.

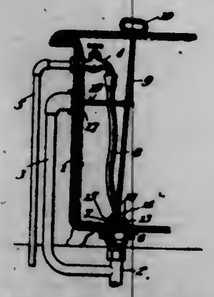
[Claims 2 and 3 not printed in the Gazette.]

1,240,131. ICE-CREAM FREEZER. THOMAS R. GIBBS, Belhaven, N. C. Filed May 23, 1916. Serial No. 99,376. (Cl. 257—191.)



The herein described ice cream freezing apparatus comprising an upright freezing tank, an upright cream receptacle centrally disposed therein, a band to which the upper end of the receptacle is detachably connected and through which it may be removed, radial arms from the band to the walls of said tank, and a series of ice containers surrounding said receptacle, each having its outer wall paralleling the wall of the tank, its inner wall conforming to the adjacent wall of the receptacle, and its sides beveled to parallel the sides of the contiguous containers and spaced therefrom whereby the containers may be raised past said radial arms.

1,240,132. FLUSHING APPARATUS. WILLIAM GLEASON, Rahway, N. J. Filed Apr. 14, 1917. Serial No. 162,111. (Cl. 4—1.)



1. In a flushing apparatus, a plug, means for conducting water through said plug, an arm having a handle formed on one end and a lateral tongue formed on the other end, a socket secured to the plug in which said tongue is removably fitted for locking movement, a second arm slidable on said first mentioned arm and detachable therefrom, and a closure carried by the second arm.

2. In a flushing apparatus, a plug adapted to fit into the drain pipe of a receptacle, a socket carried by said plug, an arm, a tongue formed on the lower end of said arm at right angles thereto, said tongue being adapted for rocking and tilting movements within said socket, a second arm having an eye formed on one end through which the first mentioned arm extends, the second mentioned arm being slidable on the first mentioned arm and removable therefrom and a closure on the second mentioned arm adapted to be held by pressure from the first mentioned arm over the entrance to an overflow pipe.

1,240,133. FRAME FOR TENT-OPENINGS. LOUIS B. GOLDBERG and NATHAN GOLDBERG, Denver, Colo. Filed July 8, 1916. Serial No. 108,097. (Cl. 126—314.)



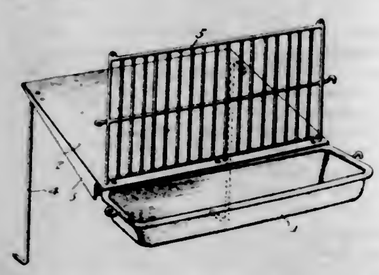
1. A frame for tent openings comprising two coöperating plates adapted to be clamped over the edges of the tent canvas, said plates having central communicating openings, the opening of one plate being considerably larger than that of the other plate, the plate having the larger opening being provided with a flange surrounding said opening and projecting toward and into engagement with the companion plate thereby serving to inclose the canvas edges.

2. A frame for tent openings, comprising two coöperating plates adapted to be clamped over the canvas edges of a straight line opening formed in the tent, said plates being provided with engaging beads surrounding their perimeters for spacing the outer portions of the plates, said plates also having central communicating openings, the opening of one plate being considerably larger than the opening of the other, the plate having the larger opening being provided with a flange surrounding said opening and projecting toward and into engagement with the companion plate thereby serving to inclose the canvas edges.

3. A frame for tent openings comprising two coöperating plates having central communicating openings, one of said plates being provided with a flange for spacing the two plates to form a shallow chamber between them beyond said openings, the said plate and its flange being perforated to ventilate said chamber.

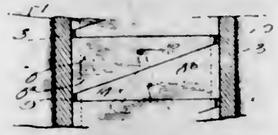
4. A frame for tent openings comprising two coöperating plates adapted to be clamped over the edges of the tent canvas, said plates having central communicating openings, the opening of one plate being considerably larger than that of the other plate, the plate having the larger opening being provided with a flange surrounding said opening and projecting toward and into engagement with the companion plate thereby serving to inclose the canvas edges and forming a shallow chamber between the said plates beyond the communicating openings, the plate provided with the larger opening and its flange being perforated to ventilate said chamber.

1,240,134. FEED-TROUGH. WILLIAM D. GRAHAM, Lake Pickett, Fla. Filed Dec. 22, 1916. Serial No. 138,470. (Cl. 119—58.)



A feed trough comprising a trough body having at its rear edge a flange which is spaced from the body, a panel extending upwardly and rearwardly from the edge of the body and from the said flange, and provided at its ends with depending flanges which bear at their ends against the first mentioned flange, legs supporting the upper rear portion of the panel, and a grating mounted upon the panel, and a grating mounted upon the panel at the lower forward edge thereof, and vertically disposed with relation to the trough body.

1,240,135. SILO. FRANK C. HALL, Hartford, N. Y. Filed Oct. 12, 1916. Serial No. 125,249. (Cl. 20—1.4.)



1. In a building having a vertically extending opening forming a doorway, a series of two-part doors disposed successively one upon the top of the other within said doorway, the end edges of said door sections having wedging engagement with the jambs of the doorway and the contacting longitudinal edges of each pair of door sections being inclined at an appreciable angle to the horizontal in order to increase the friction of the sliding movement between the door sections, and means to permit said sections to be moved longitudinally in opposite directions.

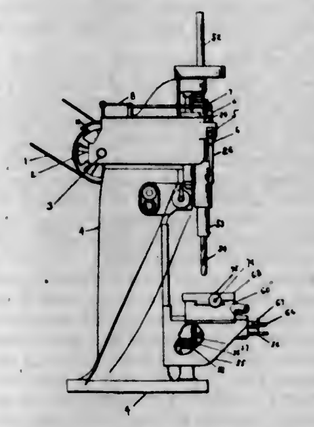
2. In a building having a vertically extended opening forming a doorway, a door-jamb disposed on each side of said opening, the adjacent face of each jamb being provided with a vertical groove, one wall thereof being inclined, a series of two-part doors disposed successively one upon the top of the other within said door opening, the adjacent edges of the sections of each door being inclined from one end to the other, and means to permit the sections of each door to be engaged and moved laterally in opposite directions on their inclined edges to frictionally engage their end edges with the inclined walls of the grooves.

3. The combination with a building having a vertically extended opening forming a doorway, a door-jamb disposed on each side of said opening, the adjacent face of each jamb being provided with a vertical groove, one wall thereof being inclined, and a series of two-part doors disposed successively one upon the top of the other within said door way, the adjacent edges of the sections of each door being inclined from end to the other, each section also having a circular socket formed therein adjacent its inclined edge; of means disposed in engagement with the sockets of the sections of each door to move said sections laterally in opposite directions on their inclined edges to engage their end edges with the inclined walls of the grooves.

1,240,136. MULTIPLE-SPEED MACHINE-TOOL. GEORGE E. HALLENBECK, Toledo, Ohio, assignor to Baker Brothers, Toledo, Ohio, a Firm. Filed Dec. 8, 1913. Serial No. 805,292. (Cl. 74—58.)

1. A machine tool embodying a frame provided with an overhanging portion, a drill spindle carried by said overhanging portion, an actuating shaft for the drill spindle parallel thereto, a pair of shafts carried by said frame and extending away from the actuating shaft, one of said shafts having driving connection with the actuating shaft, variable speed driving connection between the pair of shafts operable to change the speed of the drill spindle, said frame providing a housing for the pair of shafts and the variable speed driving connection therebetween, and a laterally shiftable control handle for the driving connection.

3. A machine tool embodying a frame, a drill spindle carried by the frame, a pair of shafts carried by said frame and extending away from the drill spindle, one of said shafts having driving connection to actuate the drill spindle, variable speed driving connection between the pair of shafts operable to change the speed of the drill spindle, said frame providing a housing for the variable speed driving connection, and adjacent the drill spindle a laterally shiftable rockable control handle for the driving connection.

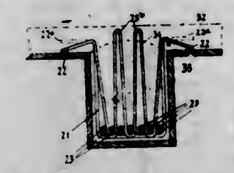


6. A machine tool embodying a frame, a drill spindle carried by the frame, a driving shaft at an angle to the drill spindle, a pair of shafts extending from adjacent the drill spindle toward the driving shaft, one of said shafts having driving connection with the spindle, the other shaft having driving connection with the driving shaft, variable speed gearing between said pair of shafts for varying the speed of the spindle, said frame providing a housing for the gearing, and a laterally shiftable rockable control handle for the gearing.

7. A machine tool including a vertical drill spindle, a horizontal driving shaft spaced therefrom, horizontal shafts connected therebetween, shiftable gears for varying the speed of the spindle, a housing for the gears, and a laterally shiftable rockable control handle for shifting the gears.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,240,137. REINFORCEMENT SYSTEM FOR CONCRETE BEAMS. RUDOLPH B. HARTMAN, Milwaukee, Wis. Original application filed Nov. 18, 1905, Serial No. 288,068. Divided and this application filed Apr. 23, 1907. Serial No. 369,765. (Cl. 72—122.)



1. A stirrup for supporting reinforcing members for concrete beams and the like, comprising a rod bent into one or more V-shaped portions, and having the upper free ends thereof downwardly turned and adapted to bear upon the mold forms to thereby suspend the reinforcing members above the bottom of the mold.

3. A stirrup for supporting reinforcing members for concrete beams and the like, comprising a rod bent into zigzag form and having the upper free ends bent at an acute angle to the outer members and adapted to bear upon the top surface of the sides of the mold form, whereby the main portion of the reinforcing member depends below the support of said free ends and is suspended thereby above the bottom of the mold.

4. A reinforcing framework for concrete beams and the like, comprising a plurality of stirrups disposed at intervals along the beam, each of said stirrups having down-

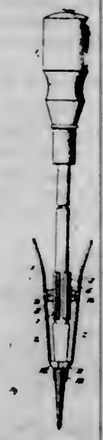
wardly extending portions bent into one or more loops and outwardly and downwardly diverging arms adapted to rest upon lateral supports such as mold boards or floor tile, to thereby support the loop portion above the bottom of the mold, and also serve as shear reinforcement members for the beam, and longitudinal reinforcing rods extending between adjacent stirrups and supported in the loop portions thereof.

6. The process of constructing reinforced concrete beams which consists in placing at intervals along said beams a plurality of stirrups having downwardly bent portions and outwardly and downwardly extending prolongations resting on the sides of said form, placing longitudinal reinforcing members in said stirrups, pouring the concrete beams, bending up said prolongations into substantially horisontal position after the concrete so poured has partially set, and finally pouring a slab over and in continuity with said beam; whereby said prolongations form bonds between the beam and slab.

8. A reinforcing framework for concrete beams and the like, comprising first a set of stirrups each of which has downwardly extending portions at the sides and a horisontally extending portion joining the ends of said downwardly extending portions; secondly, a second set of stirrups alternating with the first, each of which has downwardly extending portions at the sides, and an intermediate up-and-down zigzag portion connecting the lower ends of said downwardly extending portions; thirdly, a set of one or more longitudinal reinforcing bars resting on the firts set of stirrups and passing under the second; and fourthly, a second set of one or more longitudinal reinforcing-bars supported by and resting on both sets of stirrups.

[Claims 2, 5, 7, and 9 to 13 not printed in the Gazette.]

1,240,138. SCREW-HOLDING ATTACHMENT FOR SCREW-DRIVERS. OTTO A. HAUPT, Secaucus, N. J. Filed Mar. 24, 1917. Serial No. 157,160. (Cl. 145—52.)

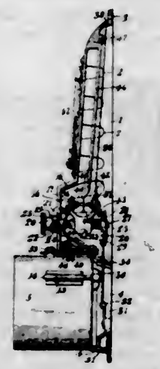


1. A screw holding attachment for screw drivers comprising a body adapted to be arranged around and secured to a screw driver and comprising a pair of pivotally connected members, a pair of levers each pivotally connected to one of the body members and provided with a screw engaging jaw, and springs acting on said levers to close said jaw.

3. A screw holding attachment for screw drivers comprising a body adapted to be arranged around and secured to a screw driver and comprising a pair of pivotally connected members, a pair of levers each pivotally connected to one of the body members and provided with a screw engaging jaw, and springs acting on said levers to close said jaw, each of the body members being constructed of sheet metal and provided with a pair of spaced outstanding lugs, and each of the said levers being also constructed of sheet metal and provided with lugs for arrangement between the lugs of the body members and engagement by a pivot.

[Claim 2 not printed in the Gazette.]

1,240,139. THERMOSTAT. WALTER O. HAYMOND, Muncie, Ind. Filed Sept. 13, 1915. Serial No. 50,473. (Cl. 236—7.)



1. A thermostatic structure, comprising a themostatic element with supporting means at one end and free at the other end, a carrier with spaced contacts thereon positioned with respect to the thermostatic element to be directly engaged by the free end thereof, a spindle with a long-pitch screw thread thereon threaded through the carrier and constituting the sole support and actuating means for the carrier, a pointer on and movable with the spindle, and a dial over which the pointer is movable.

2. A thermostatic structure, comprising a thermostatic element with a support at one end and free at the other end, a carrier with spaced contacts thereon positioned with respect to the free end of the thermostatic element to be directly engaged thereby, a spindle extending in the same direction as the movements of the free end of the thermostatic element, said spindle having a long-pitch screw thereon threaded through the carrier and constituting the sole support and actuating means therefor, a pointer on and movable with the spindle, and a dial with which the pointer is associated, the pitch of the screw being related to the movement of the thermostatic element under predeterminded extremes of temperature to impart to the contacts a corresponding range of movement by a rotative movement of the spindle not exceeding one turn thereof.

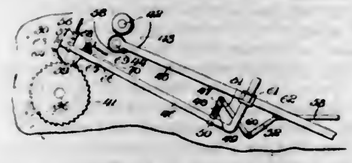
3. A thermostatic structure, comprising a suitable support, a thermostatic element fast at one end to the support and free at the other end, a spindle extending from front to rear of the support and mounted for rotation therein, said spindle having a long-pitch screw thereon, a carrier through which the screw is threaded with said carrier supported by the screw and provided with means for preventing rotation of the carrier with the screw, a pointer and manipulating means on one end of the spindle with the pointer adjustably mounted on the spindle, a dial on the casing over which the pointer is movable, a timepiece on the casing, an arm on the end of the spindle remote from the pointer and also adjustably secured thereto, and connections between the timepiece and the arm for the actuation of the spindle by the timepiece.

4. A thermostatic structure comprising a thermostatic element, spaced contacts in the path of and arranged on opposite sides of the thermostatic element, a block with a multi-threaded passage therethrough and provided with spaced arms carrying the contacts, a multi-threaded screw traversing the passage in the block and constituting the sole support for the block, means for rotating the screw to propel the block lengthwise of the screw, and means for holding the block against rotation while being propelled along the screw by the latter.

5. A thermostatic structure comprising a thermostatic element, spaced contacts in the path of and arranged on opposite sides of the thermostatic element, a block with a multi-threaded passage therethrough and provided with spaced arms carrying the contacts, a multi-threaded screw traversing the passage in the block and constituting the support for the block, means for rotating the screw to propel the block lengthwise of the screw, and means for holding the block against rotation while being propelled along the screw by the latter, said block being split lengthwise of the threaded passage and provided with clamping means for regulating the pressure of the block upon the screw.

[Claims 6 to 15 not printed in the Gazette.]

1,240,140. INTERMITTENT OPERATING MECHANISM. RUFUS C. HENDERSON, Kankakee, Ill. Filed Apr. 9, 1914. Serial No. 830,775. (Cl. 74—54.)



1. In a mechanical movement, a driven shaft, a drive shaft, operative connection between the said shafts, a ratchet carried by the driven shaft, a member mounted for reciprocatory movement, a pawl carried by the member and coöperating with the said ratchet, a second pawl coöperating with the ratchet, means tending to move the second-mentioned pawl in a direction opposite that to rotate the ratchet, means carried by the member arranged to move the second-mentioned pawl in an opposite direction upon movement of the said member in one direction, means for moving the said member, and means for adjusting the member with relation to the ratchet, whereby to vary the amplitude of movement of the pawls with respect to the ratchet.

2. In a mechanical movement, a driven shaft, a drive shaft, operative connection between the said shafts, a ratchet carried by the driven shaft, a member mounted for reciprocatory movement, a pawl carried by the said member and coöperating with the said ratchet, a pawl pivotally mounted adjacent the said member and coöperating with the ratchet, means for reciprocating the member, means for adjusting the member toward and away from the ratchet, and means upon the member arranged to coöperate with the second mentioned pawl in all positions of adjustment of the said member to actuate the pawl upon reciprocation of the member.

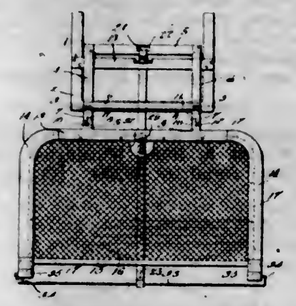
3. In a mechanical movement, a driven shaft, a drive shaft, operative connection between the said shafts, a ratchet carried by the driven shaft, a member mounted for reciprocatory movement, a pawl carried by the member and coöperating with the ratchet, a plate mounted for pivotal movement, a pawl carried by the plate and coöperating with the ratchet, a rib upon the plate, a stud upon the said member arranged to engage with the rib when the member is reciprocated in one direction, means for reciprocating the member, and means for adjusting the member toward and away from the ratchet.

4. In a mechanical movement, a driven shaft, a drive shaft, operative connection between the said shafts, a ratchet carried by the driven shaft, a member mounted for reciprocatory movement, a pawl carried by the said member and coöperating with the ratchet, a member mounted for pivotal movement, a pawl carried by the member and coöperating with the ratchet, means tending to move the said pivoted member upon its pivot in one direction, means carried by the first-mentioned member and coöperating with the second-mentioned member when the first-mentioned member is reciprocated in one direction, whereby to rock the second-mentioned member against the action of its said moving means, means for reciprocating the first-mentioned member, and means for adjusting the same toward and from the said ratchet.

5. In a mechanical movement, a driven shaft, a drive shaft, operative connection between the said shafts, a ratchet carried by the driven shaft, a guide adjustably mounted, a bar mounted for reciprocatory movement in the said guide, a pawl carried by the bar and coöperating with the ratchet, a member mounted for pivotal movement, a pawl carried by the member and coöperating with the ratchet, means for reciprocating the bar, means for adjusting the said guide, whereby to adjust the bar with relation to the ratchet, and means carried by the bar and arranged to coöperate with the said movable member in all positions of adjustment of the bar.

[Claims 6 and 7 are not printed in the Gazette.]

1,240,141. AUTOMOBILE-FENDER. WILLIAM HENKE, St. Louis, Mo. Filed June 27, 1917. Serial No. 177,355. (Cl. 105—130.)



1. A fender comprising a stationary frame, a gravity operating tilting frame, a hinged connection between said frames, a catch mounted upon said stationary frame in working relation with said tilting frame, an actuating bar in operable connection with said catch extending in front of aforesaid frames, a contact rod pivotally attached to said actuating bar, arms affixed to said contact rod, and pivotal supports for said arms mounted upon said tilting frame.

3. A fender comprising a stationary frame, a gravity operated tiltable fender frame overlying said stationary frame, a pivotal connection between said frame engaging said fender frame near its center, a catch mounted upon said stationary frame in working relation with the said overlying tiltable frame, an actuating bar in working relation with said catch extending underneath said tiltable fender frame to a point in front of said frame, a contact rod engaging the outer end of said actuating bar, and arms engaging said contact rod, said arms being pivotally mounted upon said tilting frame.

6. A fender comprising a stationary frame, a gravity operated tiltable fender frame overlying the stationary frame, a pivotal connection between said frames, foraminated material secured to the tiltable frame, a catch mounted on said stationary frame in working relation with the tiltable frame, an actuating bar operatively associated with said catch and extending beneath said foraminated material to a point in advance of said tiltable frame, a contact rod pivotally connected with said bar and said tiltable frame, said actuating bar comprising hingedly connected sections, a manually operatable latch element bridging the joint between said sections for holding said sections normally fixed relatively, and said foraminated material having a hand receiving opening immediately above said latch element.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,240,142. THREADER, HOLDER, AND CUTTER FOR THREAD. ELMER F. HERSHBERGER, Kokomo, Ind. Filed June 23, 1917. Serial No. 176,584. (Cl. 223—36.)

1. A device of the character described comprising a body plate having opposed tongues formed thereon constituting

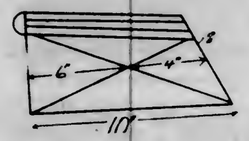
a needle guide, a needle threading hook fixed to said plate and disposed adjacent to one edge of said tongues, the opposite edge of one of said tongues being provided with a thread holding clip, and an expansible sleeve on said plate for detachable engagement in the bore of a thread spool.



4. A device of the character described comprising a body plate having opposed tongues formed thereon constituting a needle guide, a needle threading hook fixed to said plate and disposed adjacent to one end of said tongues, and an expansible sleeve integrally formed with the plate and extending at right angles to the plane thereof, said plate being adapted for detachable engagement in the bore of a thread spool and the body plate being engaged upon the end face of the spool.

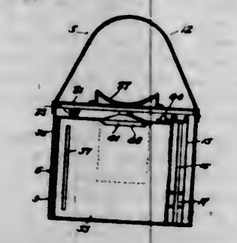
[Claims 2 and 3 not printed in the Gazette.]

1,240,143. METHOD OF MAKING DRAWINGS OR PICTURES. WALTER R. HOPE, Wilmington, Del. Filed Mar. 25, 1916. Serial No. 86,654. (Cl. 41—26.)



The herein described method of making drawings or pictures, which consists in delineating the subject matter upon a sheet of material through the medium of a copying pencil, preventing contact of any object with the subject matter so delineated, and then subjecting the material while the delineation is fresh to the action of vapor.

1,240,144. LUNCH-KIT. YOSHISABURO HOSHINO, Denver, Colo. Filed Jan. 31, 1917. Serial No. 145,754. (Cl. 220—14.)



1. A device of the class described, a closure therefor, a heating element mounted within said closure, and a plurality of supporting members carried by the closure and arranged in parallelism across the bottom of the closure, certain of said supporting members having pivotal connection at one end with one face of the closure and detachably connected at its opposite end with the opposide face of said closure.

2. A device of the above stated character, embodying a receptacle including a slotted rear end wall, a closure hingedly connected thereto, guide springs mounted in said receptacle, a plate mounted within said receptacle, and in adjacent relation to the rear end thereof, a pair of shutters carried by said plate, and means for simultaneously operating said shutters to obstructing or non-obstructing relation with respect to said slot for affording proper ventilation to said receptacle.

3. A device of the character described, including a receptacle having a slotted rear end wall, a slotted plate disposed within the receptacle, a slotted retaining member defined within the receptacle between the rear end wall thereof and the said plate, the slots of the end wall, the retaining member and the said plate registering with one another, a closure for said receptacle, and means extending through the slotted end wall of the receptacle, and through the slot of the retaining member for hingedly connecting the closure with said receptacle.

4. A device of the character described, including a receptacle having a slotted rear end wall, a slotted plate disposed within the receptacle, a slotted retaining member defined within the receptacle between one of the end walls thereof and the said plate, the slots of the latter end wall, the retaining member, and the said plate registering with one another, a closure for said receptacle, and means extending through the slotted end wall of the receptacle, and through the slot of the retaining member for hingedly connecting the closure with said receptacle, said retaining member being formed with an offset portion for holding the closure in contact with the exterior face of the rear end wall of the receptacle when in an open position.

5. A device of the class described, embodying a receptacle, a closure hingedly connected with the receptacle for longitudinal swinging movement, and having an opening in the front end wall thereof, supporting strips arranged across the lower open end of the closure, a heating element supported thereon, and a tab hingedly connected with the receptacle for closing the opening of the closure, and means for locking the tab in closed position.

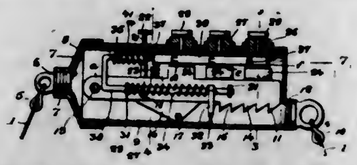
[Claim 6 not printed in the Gazette.]

1,240,145. COMBINED RULER AND PENCIL-SHARPENER. RALPH W. HURLEY, Brookvale, Colo. Filed Dec. 7, 1915. Serial No. 65,582. (Cl. 120—1.)



In a pencil sharpener, the combination with a ruler provided with a longitudinally arranged elongated opening, of a flanged U-shaped casing disposed in the opening and lengthwise of the ruler and provided with grooves, means passing through the flanges of the casing for securing the latter to one of the facings of the ruler, and a sharpening blade mounted in the grooves of said casing for adjustment in a longitudinal direction of the casing and said ruler, permitting the cutting edge of said blade being projected across a slot in the casing, substantially as and for the purpose specified.

1,240,146. PERMUTATION TIRE-LOCK. IAL E. JACKSON, Casa, Ark. Filed Feb. 7, 1917. Serial No. 147,207. (Cl. 70—53.)



1. A lock of the class specified, comprising a lock casing, a hasp insertible in said casing and provided with teeth, a plurality of pivoted locking dogs in said casing having teeth to engage the teeth of the hasp, a manually controlled dog shifting member coöperating with said dogs to move the latter out of engagement with the hasp, and a plurality of rotatable tumblers operable from the exterior of the casing and formed with slots to receive and admit of the pivotal movement of said locking dogs, each of said dogs having a projection adapted to enter the slot in the respective tumbler.

2. A lock of the class specified, comprising a lock casing, a hasp insertible in said casing and provided with teeth, a plurality of pivoted locking dogs in said casing having teeth to engage the teeth of the hasp, also having tumbler engaging projections, a manually controlled dog shifting member coöperating with said dogs to move the latter out of engagement with the hasp, a plurality of rotatable tumblers operable from the exterior of the casing and formed with slots to receive the projections of the dogs and admit of the pivotal movement of said locking dogs, and means for yieldingly pressing said dogs into engagement with said hasp.

3. A lock of the class specified, comprising a lock casing, a hasp insertible in said casing and provided with teeth, a plurality of pivoted locking dogs in said casing having teeth to engage the teeth of the hasp, also having tumbler engaging projections, a manually controlled dog shifting member coöperating with said dogs to move the latter out of engagement with the hasp, a plurality of rotatable tumblers operable from the exterior of the casing and formed with slots to receive the projections of the dogs and admit of the pivotal movement of said locking dogs, and means operable exteriorly of the casing for actuating said dog shifting member.

4. A lock of the class specified, comprising a lock casing, a hasp insertible in said casing and provided with teeth, a plurality of pivoted locking dogs in said casing having teeth to engage the teeth of the hasp, also having tumbler engaging projections, a manually controlled dog shifting member coöperating with said dogs to move the latter out of engagement with the hasp, a plurality of rotatable tumblers operable from the exterior of the casing and formed with slots to receive the projections of the dogs and admit of the pivotal movement of said locking dogs, and means operable by said hasp as the latter is inserted in the casing coöperating with the tumblers for imparting a partial rotative movement thereto.

5. A lock of the class specified, comprising a lock casing, a hasp insertible in said casing and provided with teeth, a plurality of pivoted locking dogs in said casing having teeth to engage the teeth of the hasp, also having tumbler engaging projections, a manually controlled dog shifting member coöperating with said dogs to move the latter out of engagement with the hasp, a plurality of rotatable tumblers operable from the exterior of the casing and formed with slots to receive the projections of the dogs and admit of the pivotal movement of said locking dogs, and means operable by the hasp as the latter is inserted in the casing for shifting said tumblers, the last named means embodying studs on the tumblers, and a flexible tumbler trip having lugs which coöperate with the studs on the tumblers.

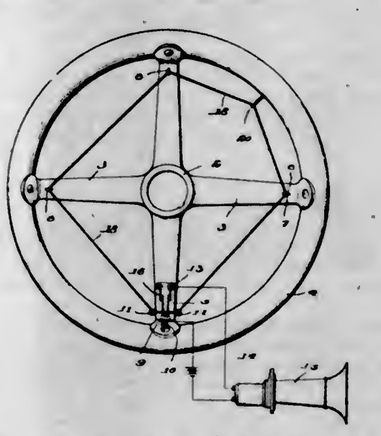
[Claim 6 not printed in the Gazette.]

1,240,147. CIRCUIT-CLOSING DEVICE. ROBERT PULLIAM JOHNSTON, Asheville, N. C. Filed Jan. 22, 1916. Serial No. 73,654. (Cl. 200—27.)

1. The combination with the steering wheel of a motor vehicle, of a switch block mounted upon one of the spokes of the wheel, a switch blade on said block normally held in open position, and a continuous flexible element on the steering wheel engaging said blade and operable to move the same to closed position.

2. The combination with the steering wheel of a motor vehicle, of a switch block mounted upon one of the spokes of the wheel, a continuous flexible element connected with the spokes of the wheel and crossing said block, and a resilient switch blade on said block normally in an open position and engaging said continuous flexible element to hold the same taut on the wheel.

3. The combination with the steering wheel of a motor vehicle, of a switch block mounted upon one of the spokes of the wheel, a continuous flexible element connected with the spokes of the wheel and crossing said block, a resilient switch blade on said block normally in an open position and engaging said continuous flexible element to hold the same taut on the wheel, and means for regulating the tautness of said continuous flexible element.



4. The combination with the steering wheel of a motor vehicle, of a switch block mounted upon one of the spokes of the wheel, screw eyes connected with the spokes and the sides of said switch block, a continuous flexible element threaded through said eyes and crossing said block, a resilient switch blade on the block normally in an open position and having an end engaged with the continuous flexible element to hold the same taut upon the wheel, and a screw eye mounted in the rim of the wheel and engaged with the continuous flexible element.

1,240,148. BASIC BRICK. HARRY A. KENNEDY, Clearfield, Pa. Filed July 26, 1917. Serial No. 182,995. (Cl. 106—9.)

1. A refractory basic brick consisting of fritted together particles, each consisting of a compound formed of lime, magnesia, silica and an oxid fluxing agent.

2. A refractory basic brick consisting of fritted together particles, having the following analysis:—lime and magnesia, seventy-eight to ninety-two (78–92) per cent.; silica two to thirteen (2–13) per cent., and a fluxing agent.

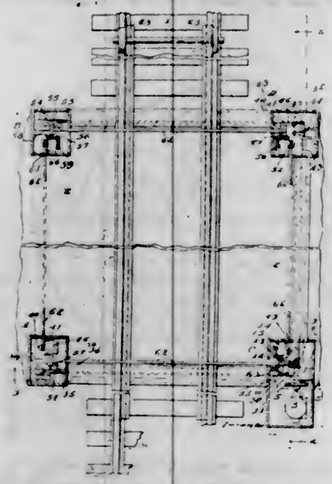
3. A refractory basic brick consisting of fritted together particles, each consisting of a compound formed of lime, magnesia, silica and an oxid fluxing agent, said brick having a vitrified outer surface.

4. A refractory basic brick consisting of fritted together particles, having the following analysis:—lime and magnesia, seventy-eight to ninety-two (78–92) per cent.; silica two to thirteen (2–13) per cent., and a fluxing agent, said brick having a vitrified outer surface.

1,240,149. RAILWAY-GATE APPARATUS. LOWELL M. KING, Oregon, Ill. Filed Feb. 9, 1916. Serial No. 77,322. (Cl. 269—5)

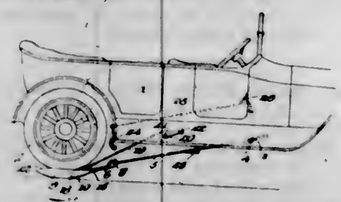
In railway gate apparatus for use at highway crossings and the like, barriers movable across the highway at opposite sides of the track, barriers movable across the trackway at opposite sides of the highway, connections between all of said barriers whereby the first-mentioned barriers may be moved to inactive position when the last-named barriers are in closed position and the last-named barriers moved to open position in the closing of the first-mentioned barriers, a segment connected to one of said barriers, an electric motor, a pinion on the motor shaft meshing with said segment, an electric circuit for said motor adapted to be closed by a train traversing the trackway in the vicinity of the crossing, an electro-magnet connected across the motor circuit, a switch for breaking the motor circuit and establishing the circuit of said magnet and disposed in the path of movement on said seg-

ment, and an armature on said segment adapted to engage said magnet upon the operation of said switch where-



by the barriers may be held in operated position succeeding the operation of the motor.

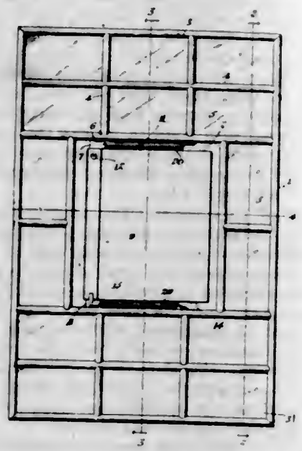
1,240,150. EMERGENCY-BRAKE. GEORGE F. KNISLEY, Charleston, S. C. Filed Mar. 3, 1917. Serial No. 152,322. Cl. 21.—8.)



1. In combination with a self-propelled vehicle, of rod members hingedly connected with the vehicle, heads upon the free ends of the rod member, gravitative brake shoes, each of said shoes having a knob at one of the corners thereof provided with a flared opening through which the rods pass, and whereby the slidable movement of the brake shoes upon the rods is limited in one direction, a connection between the brake shoes, flexible elements connected with the brake shoes, winding means upon the body of the vehicle for the flexible element, supports for the rods, spring dogs for engaging with the brake shoes for retaining the same in inoperative position, and operating means for the dogs.

2. In combination with an automobile or like self-propelled vehicle, of rod members hingedly secured to the sides of the body of the vehicle and directed toward the propelling wheels thereof, gravitative brake members upon each of the rods, anti-frictional elements upon the upper face of each of the brake members, a connection between the pair of brake members, a shaft journaled in bearings on the body of the vehicle, drums upon the shaft, a crank for the shaft, a flexible element connected with each of the brake shoes and wound one around each of the drums, a rigid support upon the body of the vehicle to engage with the shoes when the said shoes are elevated to an inactive position, means between the rods and brake shoes for limiting the gravitation of the said brake shoes in an outward direction with respect to the rods, whereby the said brake shoes will be positioned directly below the propelling wheels of the vehicle, dogs upon the vehicle arranged to engage with the brake shoes to retain the same in their elevated and inactive position, a pivoted pedal, and elements connecting the pedal with the dogs, as and for the purpose set forth.

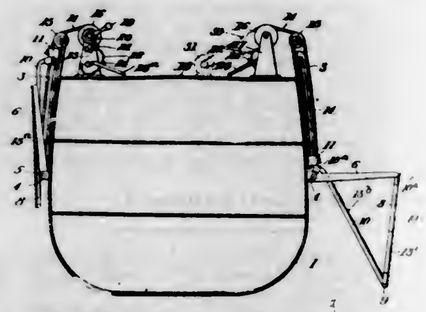
1,240,151. ADVERTISING AND BOOK-HOLDING APPARATUS. OSCAR J. LARSON, Le Roy, Minn. Filed Mar. 28, 1916. Serial No. 87,291. (Cl. 45—58.)



1. In a device of the character described, a bar, a bolt engaging a hole therein and adapted to pass underneath a book and engage the front surface of the book, and a second bolt adapted to pass through a hole in said book and engage the bar.

2. In a device of the character described, a bar, a bolt engaging a hole therein and adapted to pass underneath a book and engage the front of the book, a second bolt engaging a slot in the bar and adapted to pass through a hole in the book and to coöperate with said first mentioned bolt to clamp the book upon said bar.

1,240,152. TORPEDO-GUARD. JULIUS LEVY, Roland Park, Md. Filed Dec. 5, 1916. Serial No. 135,141. (Cl. 114—240.)



1. In a device of the class described, the combination with a vessel, of a folding frame carried by the side thereof, a net or screen secured to said frame, pivoted braces for holding said screen in operative position, means for hoisting the upper ends of said braces and thus folding said frame when desired, and means whereby a thrust against said screen serves to hold said braces against such movement.

3. In a device of the class described, the combination with a vessel, of a pair of vertical guideways carried by the side thereof, blocks working on said guideways, brace members secured to said blocks, a frame to which said brace members are pivoted, arms supporting said frame, and pivoted to the side of the vessel, and means for raising and lowering said blocks to shift said frame.

6. In a device of the class described, the combination with a vessel, of a folding frame carried by the side thereof, a net or screen secured to said frame, braces extending from the lower edge of said frame to the side of the vessel to hold said frame in operative position, and a second net or screen secured to said braces.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,240,153. PNEUMATIC CUSHION FOR SHOES. GEORGE OLSEN, Trenton, N. J., assignor to Keene Shock Absorber Company, Trenton, N. J., a Corporation of New Jersey. Filed Jan. 7, 1916. Serial No. 70,709. (Cl. 36—37.)



1. An internal cushion for shoes comprising an external hermetically sealed wide and shallow envelop containing an elastic pneumatic medium, and a second hermetically sealed wide and shallow envelop wholly inclosed in the first envelop and in part spaced therefrom, and also containing an elastic pneumatic medium.

2. An internal cushion for shoes comprising an external hermetically sealed wide and shallow envelop containing an elastic pneumatic medium, and a second hermetically sealed elastic wide and shallow envelop wholly inclosed in the first envelop and in part spaced therefrom, and also containing an elastic pneumatic medium.

3. An internal cushion for shoes comprising an external hermetically sealed wide and shallow envelop containing a pneumatic medium; and a second hermetically sealed wide and shallow envelop wholly inclosed in the first envelop, and in part spaced therefrom, and also containing a pneumatic medium; the wall of the second envelop being secured by vulcanization to an adjoining wall of the first envelop at the peripheral region.

4. In an internal cushion for shoes, the combination of a flat wall and a plurality of walls extending from said wall, with interspaces adapted to form hermetically sealed wide, shallow chambers, the outermost of said walls extending at an obtuse angle from the flat wall throughout a portion of its periphery, said angle diminishing to an acute angle at another portion of the periphery; and a surrounding rim of relatively deep horizontal extent, the said chambers being filled with a pneumatic medium, substantially as set forth.

5. In an internal heel cushion for shoes, the combination of a flat upper wall; and a series of three subjacent walls connected therewith, and with each other, around their peripheries, the lowermost wall extending at an obtuse angle from the uppermost wall, at the rear region of the heel and the angle diminishing as the line of junction proceeds forward, said walls being arranged at a distance from one another to form vertically a series of relatively wide and shallow hermetically sealed chambers, said chambers being filled with an elastic pneumatic medium; and a projecting rim surrounding the region of junction of said walls, said rim having substantial depth in a horizontal direction, substantially as set forth.

[Clam 6 not printed in the Gazette.]

1,240,154. PAPER-SIZING APPARATUS. WILLIS H. SANBURN, Springfield, Mass., assignor to Strathmore Paper Company, Mittineague, Mass., a Corporation. Filed Sept. 24, 1915. Serial No. 52,357. (Cl. 91—31.)

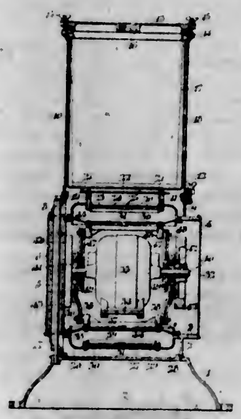
1. In a paper sizing apparatus, an immersion tank, a pair of spaced rollers therein and means swingingly mounting each roller independently of the other for swinging the roller down into and up out of the tank and toward and away from the companion roller whereby paper passing under said rollers may be immersed varying lengths and at varying depth and dispositions, and squeeze means arranged between said rollers, the latter being adjustable toward and from said squeeze means.

2. In a paper sizing apparatus, an immersion tank, a pair of spaced immersing rollers therein, means swingingly mounting each roller independently of the other for swinging the roller down into and up out of the tank and toward and away from the companion roller whereby paper passing under said rollers may be immersed varying lengths and at varying depth and dispositions, and a pair of coöperating squeeze rolls toward and from which said immersing rollers are mounted for swinging said squeeze rolls being arranged between the immersing rollers.



3. In a paper sizing apparatus, an immersion tank, coöperating squeeze rolls mounted thereabove, and an immersing roller swingingly mounted on each side of said squeeze rolls for movement down into and up out of the tank and toward and from the squeeze rolls and each other.

1,240,155. VACUUM-CLEANER. HOWARD SMALL, Jenkintown, Pa., assignor to James H. Bell, Philadelphia, Pa. Filed July 16, 1912. Serial No. 709,640. (Cl. 230—5.)

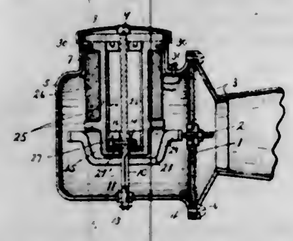


A vacuum cleaner including in combination, a supporting base, a ring bracket carried by the supporting base and having a member spaced therefrom to form a chamber, a second ring bracket spaced from the first ring bracket, tubes connecting said brackets, and passages extending through the brackets and registering with the tubes whereby the said chamber is connected with the upper face of the upper ring bracket, a casing mounted on said upper ring bracket, and forming a vacuum chamber, said upper ring bracket having a central opening therethrough, a flexible diaphragm carried by each ring bracket, means for vibrating said diaphragms so as to simultaneously draw in and expel air, valves formed centrally in said diaphragms, and valves for forming and controlling a pumping chamber for each diaphragm.

1,240,156. SIGNAL. WILLIAM SPARKS, Jackson, Mich., assignor to The Sparks-Withington Company, a Corporation of Ohio. Filed May 11, 1915. Serial No. 27,375. (Cl. 177—7.)

1. In a signal, a vibratory member, an actuator for vibrating the same, a shaft, a clutch mechanism, a spool surrounding the shaft, the shaft and the clutch mechanism capable of relative movement, means for transferring

axial movement of one of said members into rotary movement of the other, one of said relatively movable members being secured to the actuator, means for preventing rotary movement of the other of said members, and a solenoid in connection with the spool for moving one of said members axially to rotate the other and thereby the actuator.

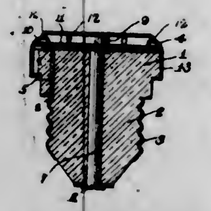


4. In a signal, a diaphragm, a diaphragm actuator, a shaft upon which said actuator is mounted, a plunger movable longitudinally of the shaft, a spool substantially concentric with the shaft and coöperating parts upon the spool and plunger for preventing rotation of the plunger as it moves longitudinally of the shaft, and means for moving the plunger along the shaft to rotate the shaft.

7. A signal comprising a diaphragm, a rotary shaft, a diaphragm actuator mounted upon the shaft and rotating therewith and adapted to coact with the diaphragm to force vibration of the latter as the former is rotated, a plunger movable longitudinally of the shaft, said plunger comprising a nut and an inclosing case, said nut and shaft having coöperating parts so formed and arranged that movement of the nut longitudinally of the shaft forces relative rotation of the shaft and nut, coöperating parts upon said case and nut for holding the nut from rotation when moved in one direction whereby rotation of the shaft is forced and allowing rotation of said nut when moved in a reverse direction, a spool surrounding the shaft, coöperating parts upon the spool and case for preventing rotation of the case, and a solenoid in connection with said spool for moving the plunger along the shaft.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

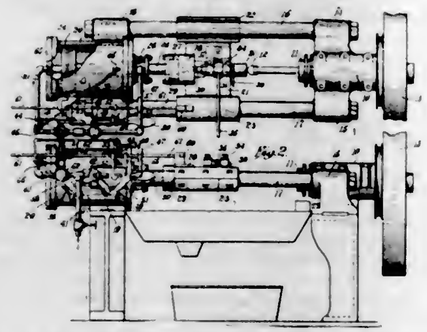
1,240,157. FUSE-PLUG. WILLIE O. BESAW, Reedley, Cal. Filed Aug. 26, 1915. Serial No. 47,477. (Cl. 175—278.)



In a fuse plug, the combination with a body portion having a metallic casing, of a band encircling one end of the body portion and forming a chamber, a conductor extending through said body portion from the casing into the chamber, a bolt rotatably extending through the body portion into the chamber, a plurality of fusible strips extending from the bolt and arranged to bear, successively, against the conductor and a cover plate secured within the chamber and bearing against the fusible strips.

1,240,158. DRILL. GEORGE DE LAVAL, Orange, N. J., assignor to T. A. Gillespie Company, New York, N. Y., a Corporation of Delaware. Filed Aug. 16, 1916. Serial No. 115,137. (Cl. 77—33.)

1. In a machine of the class described, a movable support and fluid operating means therefor, comprising a cylinder, a piston therein and a rod connected to said piston and said support, means for permitting the passage of fluid to and from the rear of said piston, means for permitting the passage of fluid to and form the front of said piston and means, controlled by the motion of said support, to reverse the direction of flow of fluid into and out of the opposite ends of said cylinder.



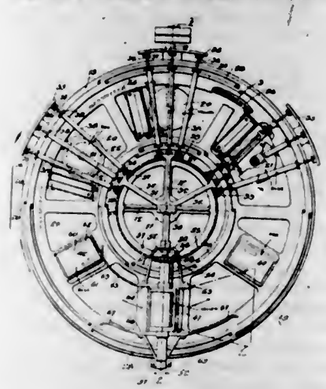
2. In a machine of the class described, a tool spindle, a bearing therefor, a cylinder, a pair of rods, each passing through openings in projections on said bearing and said cylinder respectively, a work support movably mounted on said rods, a piston and piston rod in said cylinder with one end of said piston rod connected to said work support, means for supplying a fluid at the rear of said piston to force said work support toward said spindle and means on the ends of said pair of rods outside said projections to prevent relative longitudinal motion between said cylinder and said bearing.

3. In a machine of the class described, a movable support and fluid operating means therefor, comprising a cylinder, a piston therein and a piston rod connected to said piston and said support, an inlet pipe connecting the rear of said cylinder with a source of constant fluid pressure, a reversing pipe connecting the front of said cylinder with said source, an outlet pipe connecting with the front of said cylinder, means to regulate the rate of flow through said outlet pipe, and means operated by the motion of said support to change said inlet pipe to an outlet pipe and to open said reversing pipe to said source of pressure, whereby the direction of motion of said support may be reversed when it has reached a predetermined position in its forward travel.

4. In a machine of the class described, a movable support and fluid operating means therefor, comprising a cylinder, a piston therein and a piston rod connected to said piston and said support, an inlet pipe connecting the rear of said cylinder with a source of constant fluid pressure, a reversing pipe connecting the front of said cylinder with said source, an outlet pipe connecting with the front of said cylinder, means to regulate the rate of flow through said outlet pipe, a valve in each of said inlet and said reversing pipes and operating means for said valves constructed and arranged to set said valves so as to permit fluid to flow into said cylinder behind said piston to move said support forward, and to reverse said valves to permit fluid to flow into said cylinder in front of said piston and from the rear of said piston out of said cylinder, to move said support backward, and means, operated by the forward motion of said support, to move said operating means to reverse the positions of said valves.

5. In a machine of the class described, a movable support and fluid operating means therefor, comprising a cylinder, a piston therein and a piston rod connected to said piston and said support, an inlet pipe connecting the rear of said cylinder with a source of constant fluid pressure, an outlet pipe connecting the front of said cylinder with said source, an auxiliary outlet pipe from the front of said cylinder, means to regulate the rate of flow through said auxiliary outlet pipe, a valve in each of said inlet and said outlet pipes, means connecting said valves, constructed and arranged so that when in a first position, said inlet pipe is open to said source and said outlet pipe is closed thereto, and when in a second position, said outlet pipe is open to said source and said inlet pipe is closed thereto and open to permit fluid to flow from said cylinder, and means, operated by the forward motion of said support, to move said valves from the first position to the second position.

1,240,159. MULTICOLOR-PRINTING MACHINE. RAPHAEL JACOBUCCI, Fall River, Mass., assignor of one-half to James A. Grourke, Jr., Fall River, Mass. Filed Oct. 14, 1916. Serial No. 125,717. (Cl. 101—186.)



1. In a multi-color press, the combination with a rotary table, a plurality of bed plates thereon carrying separate forms, and the cylinder and paper feed; of a number of inking disks each rotatably mounted in said table, a like number of sets of inking rollers mounted in upright guides across the path of said disks and forms, means for permitting the descent of any given set upon its disk and upon its form, means for rotating each disk at a certain point in its travel with the table, a fountain adjacent the disk, and means for causing the feed of the fountain at a certain point in said travel.

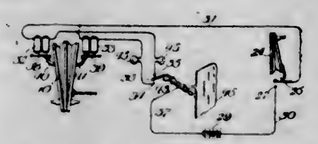
3. In a multi-color press, the combination with a rotary table, a plurality of bed plates shiftably mounted thereon carrying separate forms, means for controlling said plates at predetermined time, and the cylinder and paper feed; of a number of inking disks each rotatably mounted in said table, a like number of inking rollers mounted in upright guides across the path of said disks and forms, wheels on the trunnions of the various rollers and set to different gage, tracks of correspondingly different gages on the table, each depressed opposite one disk, and means for causing each roller to apply ink to one form as the latter passes under it.

6. In a multi-color press, the combination with a continuously rotating table, a plurality of bed plates loosely mounted at intervals thereon and carrying separate forms, the inking mechanism, and the cylinder; of parallel fixed guides extending beneath the cylinder and spaced to engage and direct a bed plate as it passes under the same, and yieldable means at the inlet ends of said guides for directing the approaching plates between them.

[Claims 2, 4, 5, and 7 not printed in the Gazette.]

1,240,160. MUSIC-SHEET-CONTROLLING DEVICE. PAUL B. KLUGH, Chicago, Ill., assignor to The Cable Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 22, 1911. Serial No. 661,846. (Cl. 84—161.)

1. In an automatic sheet controlling device in combination, a pivoted supporting member, a sheet contact member pivoted to said supporting member having an offset portion whose weight tends to turn said contact member about its pivot, means for opposing the turning moment of said contact member, and a pair of electrical contacts mounted on said supporting member, said sheet contact member being thrown into contact with one of said contacts by the weight of said offset portion, and being thrown into contact with the other of said contacts by the action of said means.



2. A sheet shifting device comprising, in combination, a movable roll, pneumatics and connections for moving said roll, electro-magnets controlling the operation of said pneumatics, and a circuit closing device for said electromagnets, said device being provided with means whereby it is operated by variation in position of one edge only of the sheet to open or close the circuit for a plurality of electro-magnets.

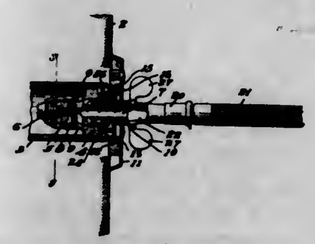
3. In an automatic sheet controlling device, in combination, a pivoted adjustable member, a contact member pivoted to said adjustable member, said contact member having a projecting face for engaging the edge of a sheet to be controlled and having a horizontal projecting portion whose weight acts to throw said face against the edge of the sheet, and a pair of contacts supported on said adjustable member which coöperate with said contact member.

4. In an automatic sheet controlling device, in combination, a pivoted contact member having a smooth face for engaging the edge of a sheet to be controlled and having a horizontal projecting portion on the opposite side of the pivot point from said face, and a pair of electric contacts for coöperating with said contact member to control the device.

5. In an automatic sheet controlling device, in combination, a pivoted contact member having a face for contact with the edge of a sheet, said contact member having a projecting portion whose weight acts to throw said face against the edge of the sheet, and a pair of electric contacts embracing a portion of said contact member, said member being thrown into engagement with one of said contacts by the action of the sheet and being thrown into engagement with the other of said contacts by the weight of said projecting portion.

(Claims 6 to 30 not printed in the Gazette.)

1,240,161. WALL GAS-COCK AND COUPLING. FRANK W. OLDS, Bismarck, N. D. Filed Feb. 18, 1916. Serial No. 79,062. (Cl. 137—80.)



1. The combination, with a service pipe, of a shell tapped therein and having ports in its walls, a gas cock fitting within said shell and having a passage therethrough positioned to register with the ports in said shell, said cock having a tapered outer end, a pin mounted in said cock and projecting laterally therefrom, a cap having an opening through which the tapered outer end of said cock projects, a coupling having a socket to receive said tapered outer end and a recess for said pin, said coupling

also having laterally projecting lugs, and yielding means interposed between said lugs and said cap and engaged by said lugs when said coupling is rotated for drawing said coupling and cock together.

2. The combination with a service pipe, of a shell tapped therein, a gas cock seated in said shell and having a passage to register with ports in said shell, a cap for the outer end of said service pipe and shell, a coupling having a tapered socket to receive the correspondingly shaped end of said cock, said cock and coupling having means for interlocking to rotate said cock when said coupling is revolved, a washer having cam surfaces interposed between the inner end of said coupling and said cap, and said coupling having means for engaging with said cam surfaces for drawing said coupling and cock together when rotated to expose said ports.

3. The combination, with a service pipe, of a shell tapped therein and provided with a flanged outer end and a recess encircled by said flange, a gas cock fitting within said shell and having a passage communicating with ports therein leading to said service pipe, a cap covering the outer end of said shell and having an opening therein through which said cock projects, a coupling having a socket to enter the opening in said cap and receive the end of said cock, said coupling and cock having means for interlocking with one another, a washer interposed between said cap and shell within said recess and provided with cam surfaces, means for preventing rotation of said washer, said coupling having means for engaging said cam surfaces for drawing it and said cock snugly together when said coupling is revolved.

1,240,162. DEMOUNTABLE RIM FOR TIRES. IRA D. WALTER, Harrisburg, Ark., assignor of one-twentieth to Thomas Flournoy, one-tenth to Benjamin F. Cole, thirty-six one-hundredths to Josiah Brinkerhoff, one-twentieth to Jodie G. Gant, and one-fiftieth to Samuel A. Latimer, Harrisburg, Ark., one-twentieth to Ed. Hamilton and one-twentieth to Clinton B. Bailey, Wynne, Ark., one-twentieth to Fred Shauver and Harvey C. Shauver, Nettleton, Ark., and one-fiftieth to James W. Gant, Harrisburg, Ark. Filed Sept. 13, 1916. Serial No. 119,880. (Cl. 152—21.)



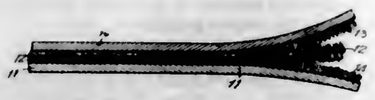
1. In a demountable rim structure, a demountable rim having transverse radial lugs provided with inclined perpendicular shoulders, and a felly band having an edge flange on its inner side and provided with complemental transverse radial lugs having inclined perpendicular shoulders to engage the shoulders on the rim lugs, the said felly band lugs having their inclined shoulders arranged adjacent to the flange with their point of closest approach less than the crest of the incline of the rim lugs and the two sets of lugs being engaged by a circumferential movement of the rim and when so engaged the inclined shoulders on the lugs serving to draw the rim to a seat on the flange, insure its concentricity with the wheel in its vertical plane and preclude the lateral and circumferential escape of the rim.

[Claims 2 to 9 not printed in the Gazette.]

REISSUES.

14,349. WOOD-VENEERED METAL. RICHARD W. BURNETT, Chicago, Ill. Filed Apr. 16, 1917. Serial No. 162,551. Original No. 1,178,130, dated Apr. 4, 1916, Serial No. 48,650, filed Sept. 2, 1915. (Cl. 154—45.9.)

1. As an article of manufacture, a wood veneered metal sheet which comprises, a sheet of metal, a sheet of wood veneer, and an interposed textile fabric between the metal and wood, said textile fabric being provided with nap on the surface adjacent the sheet of metal, the nap only of the fabric being united to the metal sheet by a binder substance, the body of the fabric retaining its natural elasticity, there being also a thin layer of binder substance between and uniting the wood and the fabric.

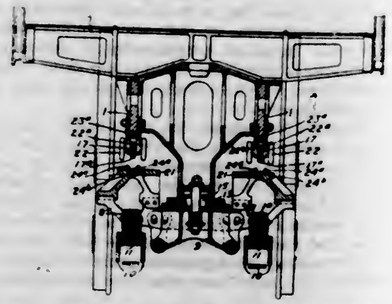


2. As an article of manufacture, a wood veneered metal sheet which comprises, a sheet of metal, a sheet of wood veneer, and an interposed pliable fabric between the veneer and metal, said fabric being provided with a nap on its surface, the nap being united to the adjacent sheet by a cementitious substance, the body of the fabric remaining unpermeated by said cementitious substance, whereby the difference in the rate of expansion and contraction of the veneer and metal is compensated for by said fabric without rupturing the bond between either the fabric and the metal or the fabric and the veneer.

3. As an article of manufacture, a wood veneered metal sheet which comprises metal in sheet form, wood veneer in sheet form, and an interposed layer of raised flannel, the pile of the flannel being united to the adjacent materials by a binder substance, said flannel permitting slight relative movement between the wood and metal without destroying the bond therebetween.

4. As an article of manufacture, a fire-resisting veneered metal sheet which comprises, a sheet of metal, a sheet of veneer, and an interposed pliable fabric between the veneer and metal, said fabric being provided with a nap on its surface, the nap being united to the adjacent sheet by a cementitious substance, the body of the fabric remaining unpermeated by said cementitious substance whereby, the difference in the rate of expansion and contraction of the veneer and metal is compensated for by said fabric without rupturing the bond between the fabric and the members adjacent thereto.

14,350. RAILWAY-VEHICLE. WILLIAM COOPER, deceased, Pittsburgh, Pa., by Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania, assignee. Filed Dec. 20, 1916. Serial No. 138,136. Original application filed Mar. 2, 1910, Serial No. 546,853. Renewed Dec. 7, 1914, Serial No. 875,964. Original No. 1,166,187, dated Dec. 28, 1915. (Cl. 105—17.)



1. In a railway vehicle, the combination with a body frame and a swivel truck comprising a pair of truck wheel axles and a frame having a truck bolster upon which the body is centrally supported, of means for transferring the weight of the body to two side points of support which are located near the respective ends of the truck bolster.

2. In a railway vehicle, the combination with a body and a truck comprising wheel axles and a frame having a bolster upon which the body is pivotally supported, of means for temporarily supporting the body at two points which are located near the respective ends of the bolster without interfering with the swiveling of the truck.

3. In a locomotive, the combination with a body, a pair of swivel trucks upon which the body is supported, driving wheel axles located between the trucks, and equalizers for carrying a portion of the weight upon the driving wheel-axles, of pneumatically operated means for changing the points of support for the body from the centers of the trucks to points near their sides and between the truck axles.

4. In a locomotive, the combination with a frame having body bolsters near its ends, a pair of swivel trucks upon which the frame is supported at the centers of the body bolsters, driving wheel-axles located between the swivel trucks, and equalizers comprising side springs above the respective driving axles, levers pivotally mounted on the frame and links connecting the ends of the springs to the levers for throwing a portion of the weight upon the driving wheel-axles, of levers that are connected to the equalizers and extend over the trucks, and means carried by the frame for forcing the levers into engagement with the truck bolsters near their ends to change the points of support from the centers of the body bolsters to points near their ends, as desired.

5. In a railway vehicle, the combination with a body member having swivel trucks located at its respective ends and interposed driving wheel-axles constituting a rigid wheel base, of means for locking the trucks against swiveling.

6. In a railway vehicle, the combination with a body member having swivel trucks located at its respective ends, and interposed driving wheel-axles constituting a rigid wheel-base, of means for locking the trucks against swiveling, whereby the trailing truck becomes a part of the rigid wheel-base for either direction of travel.

7. In a railway vehicle, the combination with a body having swivel trucks at its ends, interposed driving wheel-axles constituting a rigid wheel-base, and equalizers for yieldingly mounting the body on the driving wheel-axles, of levers forming extensions to the equalizers and projecting over the sides of the trucks, friction shoes attached to the levers, and means for forcing the friction shoes into engagement with the bolster, whereby the point of support is transferred from the center to the sides of the truck and the truck is locked against swiveling, as desired.

8. In a railway vehicle, the combination with a body having center-bearing swivel trucks at its ends interposed driving wheel-axles constituting a rigid wheel-base, and equalizers for yieldingly mounting the body upon the driving wheel-axles, of levers forming extensions to the equalizers and projecting over the sides of the trucks, friction shoes carried by the levers, and actuating cylinders and pistons carried by the vehicle body for forcing the shoes into engagement with the trucks, whereby the trailing truck may be changed from a center to a side-bearing truck and be locked against swiveling.

9. In a vehicle, the combination with a body and a truck having a swing bolster, of means for preventing the swinging of the bolster.

10. In a railway vehicle, the combination with a body and a center-bearing truck having a swing bolster, of means for converting the truck from a center to a side-bearing truck and for locking the truck bolster against swinging.

11. In a railway vehicle, the combination with a body, driving wheel axles and center-bearing swivel trucks on which the body is supported, of a system of equalizers by which the weight is distributed on the driving wheel axles, and means for extending the equalizers to include the swivel trucks and for converting them from center to side-bearing trucks, as desired.

12. In a railway vehicle, the combination with a body and a truck embodying a swing truck bolster, of means for temporarily preventing the swinging of the truck bolster and for converting the truck from a center to a side-bearing truck.

13. In a railway vehicle, the combination with a body member and swivel trucks located at its respective ends and having swing bolsters, of means for locking the trucks against swiveling and preventing the swinging of the truck bolsters.

14. In a railway vehicle, the combination with a body member, swivel trucks located at its respective ends and having swing bolsters, and interposed driving wheel axles constituting a rigid wheel base, of means for locking the truck bolsters against swinging and for preventing the trucks from swiveling, whereby the trailing truck becomes a part of the rigid wheel base of the vehicle for either direction of travel.

15. In a vehicle, the combination with a pivotal truck of means for locking said truck against pivotal movement and redistributing the load thereon.

16. In a vehicle, the combination with a pivotal truck of means controllable from the vehicle for converting said truck into a rigid side-bearing truck.

17. In a vehicle, the combination with a body and a pivotal truck, of means for locking said truck to said body in alinement therewith and transferring the load from the center to the sides of the said truck.

18. In a vehicle, the combination with a body and a pivotal truck, of power-operated means for preventing relative pivotal movements of said truck and body.

19. In a vehicle, the combination with a plurality of pivotal trucks, of means for locking the rear truck against pivotal movement and redistributing the load thereon.

20. In a vehicle, the combination with a plurality of pivotal trucks, of means for converting the rear truck into a rigid side-bearing truck in either direction of operation.

21. In a vehicle adapted for operation in opposite directions, the combination with a plurality of pivotal trucks, of selective means for converting the trailing truck into a rigid truck having side bearings.

22. In a vehicle, the combination with a body and a pivotal center-bearing truck, of controllable means for transferring the weight of the body to a plurality of transversely disposed points in substantially the middle transverse plane of the truck.

23. In a vehicle, the combination with a body and a pivotal center-bearing truck, of controllable means for transferring the weight of the body to a plurality of points in substantially the transverse plane of the pivotal connection.

24. In a vehicle, the combination with a body, and a multi-axle truck having a pivotal connection of said body, of controllable means for supporting said body solely upon transversely disposed points intermediate the truck axles.

25. In a vehicle, the combination with a body and a pivotal truck for supporting said body, of manually controllable means for supporting said body solely upon a plurality of transversely disposed points without interfering with the pivotal movement of the truck.

26. In a vehicle, the combination with a body and a pivotal truck having a swing-bolster, of means for locking said bolster against swinging while permitting pivotal movements of said truck.

27. In a vehicle, the combination with a body and a pivotal truck having a swing-bolster, of means for locking said bolster against swinging and preventing pivotal movements of said truck.

28. In a railway vehicle, the combination with a body, driving wheel axles and center-bearing swivel trucks on which the body is supported, of a system of equalizers by which the weight is distributed on the driving wheel axles, and means for extending the equalizers to include the swivel trucks and for locking said trucks against swiveling.

29. In a railway vehicle, the combination with a body, driving wheel axles and center-bearing swivel trucks on which the body is supported, of a system of equalizers by which the weight is distributed on the driving wheel axles, and means for converting the swivel trucks into rigid trucks and for extending the equalizers to include said trucks.

30. In a vehicle, the combination with a body, a main

truck and an equalizer system for normally supporting said body, of a pivotal truck associated therewith, and controllable means for including said truck in said equalizer system.

31. In a vehicle, the combination with a body, driving wheel axles, and a plurality of end pivotal trucks, of an equalizer system for normally providing flexible side suspensions for said body upon said driving wheel axles and controllable means for including one of said trucks in said equalizer system whereby a virtual three-point suspension for said body is provided.

32. In a vehicle, the combination with a body, driving wheel axles constituting a rigid wheel base, and a plurality of end guiding trucks, of equalizing means for supporting said body solely upon said driving wheels and the rear guiding truck in either direction of operation.

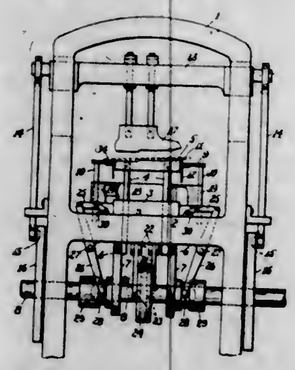
33. In a vehicle, the combination with a body, driving wheel axles constituting a rigid wheel base, and a pivotal rear guiding truck, of means for increasing the length of the rigid wheel base to include said truck.

34. In a vehicle, the combination with a body, driving wheel axles constituting a rigid wheel base and a plurality of pivotal end guiding trucks, of means for extending the rigid wheel base to include the rear guiding truck.

35. In a vehicle, the combination with a body and a plurality of swing bolster end guiding trucks, of controllable means for locking the bolster of the trailing truck against swinging.

36. In a vehicle, the combination with a body and means for supporting said body, of selective means for effecting a three-point suspension for said body whereby the forward end thereof is supported at a single point in either direction of operation.

14,351. MACHINE FOR FORMING SHOES. WILFRED JOHN DEBY, Carlisle, Pa., assignor, by direct and mesne assignments, to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 2, 1917. Serial No. 140,299. Original No. 1,167,277, dated Jan. 4, 1916, Serial No. 16,173, filed Mar. 22, 1915. (Cl. 12—21.)



1. In a machine of the character described, the combination with a pair of dies for clamping a blank between them to form the sole of a sandal, of a table having an opening through which the dies are movable for turning up the marginal portion of the blank to form the sides of the sandal.

2. In a machine of the character described, the combination with a pair of dies for clamping a blank between them to form the sole of a sandal, of a table having an opening through which the dies are movable for turning up the marginal portion of the blank to form the sides of the sandal, and means for compressing said upturned marginal portion of the blank around one of the dies for shaping the sides of the sandal.

3. In a machine of the character described, the combination with a pair of dies for clamping a blank between them to form the sole of a sandal, of means for turning up the marginal portion of the blank to form the sides of the sandal, means to which said blank is moved spaced below said upturning means for pressing said upturned marginal portion of the blank around one of the dies to shape the sides of the sandal, and means for holding the upturned marginal portion of the blank in position as it is moved from the upturning means to the pressing means.

4. In a machine of the character described, the combination with a pair of dies for clamping a blank between them to form the sole of a sandal, of means for turning up the marginal portion of the blank to form the sides of the sandal, means to which said blank is moved spaced below said upturning means for pressing said upturned marginal portion of the blank around one of the dies to shape the sides of the sandal, and a series of brackets or pins extending below the upturning means adapted to hold the upturned marginal portion of the blank in position as it is moved from the upturned means to the pressing means.

5. In a machine of the character described, the combination, with a pair of dies for clamping a blank between them to form the sole of a sandal, of a table having an opening through which the dies are movable for turning up the marginal portion of the blank to form the sides of the sandal, means spaced below the table for pressing said upturned marginal portion of the blank around one of the dies to shape the sides of the sandal, and depending brackets attached to the table and arranged flush with the opening therein for holding the upturned marginal portion of the blank in position as it passes from the table to the pressing means.

6. In a machine of the character described, the combination, with a movable upper die shaped like a shoe last, of a movable lower die having its upper surface shaped to conform to the bottom of the upper die and conforming in outline to the upper die, a table having an opening therein through which the dies are movable for turning up the marginal portion of a blank clamped between them for forming the sides of a sandal, and means for moving the upper die independently of the lower die for spacing them apart to permit the introduction of a blank between them, and means for moving said dies together through the opening of the table.

7. In a machine of the character described, the combination, with a vertically movable upper die shaped like a shoe last, of a vertically movable lower die having its upper surface shaped to conform to the bottom of the upper die and having its outline conforming to that of the upper die, a table having an opening therein through which the dies are movable for turning up the marginal portion of a blank clamped between them for forming the sides of a sandal, means for moving the upper die independently of the lower die for spacing them apart to permit the introduction of a blank between them, and means to move the dies together through the opening in the table, and horizontally movable blocks mounted below the table and adapted to be simultaneously contracted around the dies to press the upturned marginal portion of the blank against one of the dies for shaping the sides of the sandals.

8. In a machine of the character described, the combination with a pair of dies for clamping a blank between them to form the sole of a sandal, of means for turning up the marginal portion of the blank to form the sides of the sandal, and means arranged to receive the blank from the upturning means and to press said upturned marginal portion of the blank around one of the dies to shape the sides of the sandal.

9. In a machine of the character described, the combination of a die beneath which a blank may be placed, means for turning up the marginal portion of the blank about the die to form the sides of the sandal, and means arranged to receive the blank and die from the upturning means and to press the upturned marginal portion of the blank against the die to shape the sides of the sandal.

10. In a machine of the character described, the combination of a die beneath which a blank may be placed, means for turning up the marginal portion of the blank around the die to form the sides of a shoe, pressing means arranged to receive the die and blank from the upturning means and to form the upturned marginal portion against the sides of the die, and means coöperating with the bottom of the die for forming the central portion of the blank as the sole of the shoe.

11. In a machine of the character described, the combination of a pair of dies between which a blank may be placed, means through which the dies are movable to turn up the marginal portion of the blank about one of the dies, means to which the blank is moved for compressing the marginal portion against one of the dies to form the sides of a shoe, and means for moving relatively the dies to form the central portion of the blank as the sole of the shoe.

12. In a machine of the character described, the combination with a die, of a table having an opening to receive the die, means for moving relatively the die and table to turn up the marginal portion of a blank placed between the die and table about the side portions of the die to form the sides of a shoe part, a mold having internally the contour of the sides and bottom of a shoe arranged to receive the die and blank upturned about the die, and means for moving relatively the die and mold to effect molding of the side and bottom portions of the blank to form the sides and bottom of the shoe.

13. In a machine of the character described, the combination of a table having an opening, an upper die movable through the opening, means for moving the upper die through the opening to turn the marginal portion of a blank placed upon the table up around the side faces of the die, a mold having internally the contour of the sides of a shoe and comprising movable forming blocks arranged to receive the blank as it passes through the table with its marginal portion upturned, and means for closing the forming blocks toward the upper die and operating to press the marginal portion against the upper die to form the side portions of the shoe.

14. In a machine of the character described, the combination of a die having the shape of a shoe last, a table adapted to receive a flat blank and having an opening through which the die is movable, means for moving the die through the opening in the table to turn up the marginal portion of the blank about the die, compressing means arranged to receive the die and blank with the upturned marginal portion as it passes from the table, and means for operating the compressing means to shape the marginal portion of the blank against the die to form the sides of a shoe.

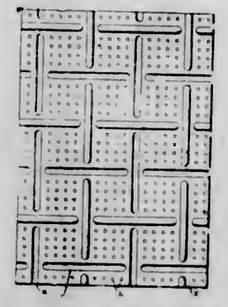
15. In a machine of the character described, the combination of a die, a table having an opening through which the die may be moved, means for operating the die to force the blank through the table to give the blank a shape approximating that of the sole and side portions of a shoe, and a mold arranged to close on the die after it passes through the table to complete the molding of the side portions of the shoe.

16. In a shoe forming machine, a table, a die, means for moving relatively the die and table whereby a flat blank placed on the table is engaged at its central portion by the die and the marginal portions are turned up about the die, a mold arranged to receive the blank and the die, and means for effecting relative movement of the mold and die to mold the central portion ofthe blank to form the sole of the shoe and to mold the marginal portions to form the side portions of the shoe.

17. In a machine for molding the bottom and side portions of a shoe from a flat blank in a single operation, an inside die, means for folding up the blank about the sides of the die, a mold, means for moving the inside die and folded up blank into the mold, and means for effecting relative movement between the mold and the die to mold the blank into the shape of the sole and side portions of the shoe.

18. In a machine of the character described, the combination with a die, of a table having an opening to receive the die, means for relatively moving the die and the table to turn up the marginal portion of a blank placed between the die and the table about the side portions of the die, and molding means for receiving the blank thus formed and molding the sides of the blank into the shape of a shoe.

14,352. BUILDING CONSTRUCTION. WILLIAM H. EVERS, Lakewood, Ohio, assignor, by mesne assignments, to trustees of The R. C. Products Trust, Cleveland, Ohio. Filed Nov. 21, 1916. Serial No. 132,699. Original No. 1,170,743, dated Feb. 8, 1916, Serial No. 30,719, filed May 27, 1915. (Cl. 72—116.)



1. A sheet metal plate for building construction, having a plurality of intersecting rows of ribs projecting on opposite sides thereof and also provided with numerous perforations between the ribs, with rims around the perforations projecting on opposite sides of the plate at different perforations respectively.

2. A sheet metal plate for building construction, having a plurality of relatively short ribs projecting on opposite sides thereof and disposed in intersecting lines with the ends of each rib adjacent intermediate portions of other ribs and at an angle thereto, and perforations in the spaces between the ribs and projecting rims around the perforations, the rims around some of the perforations projecting on one side of the plate, and those around the other perforations projecting on the opposite side of the plate.

3. A sheet metal plate of substantially uniform thickness having uniform reinforcing ribs extending in intersecting lines and symmetrical with respect to both sides of the plate, and perforations between said ribs.

4. A sheet metal plate having two similarly arranged series of uniform reinforcing ribs, symmetrical with respect to both sides of the plate and the ribs of each series being parallel and arranged at right angles to those of the other series, and perforations between the ribs.

5. A sheet metal plate having uniform ribs projecting on opposite sides thereof symmetrically, the ribs being in two series of intersecting lines, and perforations between the ribs.

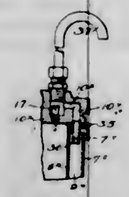
6. A sheet metal plate of substantially uniform thickness and having on both sides relatively uniform reinforcing ribs extending in intersecting lines, both sides of the plate being relatively symmetrical and having substantially uniform bending characteristics with respect to axes parallel with any of the ribs or transverse thereto.

7. A sheet metal plate of substantially uniform thickness having on both sides non-intersecting reinforcing ribs extending in intersecting lines, both sides of the plate being relatively symmetrical and having substantially uniform bending characteristics with respect to axes parallel with any of the ribs or transverse thereto.

14,358. LIQUID-FEEDING APPARATUS. WEBB JAY, Chicago, Ill. Filed Aug. 6, 1917. Serial No. 184,789. Original application filed Aug. 31, 1914, Serial No. 859,312. Divided and application filed Oct. 26, 1914, Serial No. 868,581. Original No. 1,158,924, dated Nov. 2, 1915. (Cl. 158—36.)

1. A tank for the purpose indicated, comprising two chambers, one of which extends lower than the other;

connections for the discharge of liquid from said other into said lower chamber, the lower chamber being extended above the level of the bottom of the other chamber, the cross-sectional area in such extension being adequate for the free escape of vapor through the liquid which may be in such extension, and an air vent from the upper part of said extension.



2. A tank for the purpose indicated comprising two chambers, one suspended within the other, an upwardly opening air inlet for one chamber, an air inlet for the other chamber comprising a conduit communicating with the lateral space between the chambers and a common air vent connecting the two air inlets above the tank.

3. A tank for the purpose indicated comprising two chambers constructed of two upwardly opening vessels, one vessel having a rim flange extending toward its axis, the other vessel having a rim flange extending away from its axis, the second vessel being suspended within the first vessel by the seating of such flange upon the flange of the first, a cover seated over said flanges, and means clamping together the cover and the flange of the first vessel with the flange of the other vessel between them.

4. A tank for the purpose indicated comprising two chambers constructed of two upwardly opening vessels each having a flanged rim, one of said vessels being suspended within the other by the seating of its flange upon the flange of the other, a cover seated over said flanges, said cover having an aperture serving as an air vent for the inner vessel, the flange of said vessel having an aperture communicating with the lateral space between the chambers and the cover having a duct positioned to register with said aperture and leading to the aforesaid vent aperture, and means securing said cover to the flange of the outer vessel with the flange of the inner vessel interposed.

5. In a motor vehicle, an auxiliary fuel tank positioned above the fuel inlet of the motor, and comprising two chambers, one of which is telescoped within the other so as to form an annular portion of one chamber around the other; the top plate of said tank having a passage which communicates both with the inner chamber and with said annular portion of the other chamber, and an air vent or pipe connected with said passage and extending above the normal level of liquid in the tank, and terminating in a downwardly opening portion.

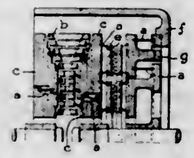
14,354. [WITHDRAWN.]

14,355. STEAM-TURBINE. FREDRIK LJUNGSTRÖM, Stockholm, Sweden, assignor to Aktiebolaget Ljungströms Ångturbin, (Manufacturers,) Liljeholmen, Stockholm, Sweden. Filed July 23, 1917. Serial No. 182,348. Original No. 1,073,916, dated Sept. 23, 1913, Serial No. 616,651, filed Mar. 24, 1911. (Cl. 253—83.)

1. In a device of the class described, the combination of a turbine comprising a plurality of parts, and connecting means for said parts comprising link members of annular form journaled in said parts and adapted to permit relative expansive and contractive movement of the same when the parts are subjected to unequal temperature.

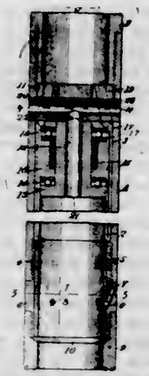
2. In a device of the class described, the combination of a turbine comprising a plurality of parts having recesses therein, and link members of annular form having enlarged extremities adapted to be received in the recesses aforesaid to yieldingly connect said parts together.

3. In a dvice of the class described, the combination of a turbine comprising a plurality of parts having recesses therein, ring members mounted in certain of said recesses, the recesses of other parts having their edge portions bent inwardly, and link members of annular form having one extremity mounted in the rings aforesaid and their other extremity mounted in the last mentioned recesses, whereby to permit of relative movement of said parts when subjected to unequal temperature.



4. In a device of the class described, the combination of a turbine comprising a plurality of parts having recesses therein, link members of annular form having extremities adapted to be received in the recesses aforesaid, said extremities having openings therethrough, fastening members passing through the parts, and openings in the extremities of the link members to connect said parts together and permit of relative movement of the parts when subjected to unequal temperature.

14,356. CORE-DRILL. FREDERICK STONE, Spokane, Wash., assignor to Diamond Drill Contracting Company, Spokane, Wash., a Corporation. Filed Feb. 24, 1917. Serial No. 150,656. Original No. 761,332, dated May 31, 1904, Serial No. 168,153, filed Aug. 4, 1903. (Cl. 255—72.)



1. In a core drill, the combination of a hollow drill rod, a core-barrel shell and a plug member at the upper end of the core-barrel shell, a core-barrel supported by the plug member within and spaced from the core-barrel shell, water connections in the plug member for the downward passage of water from the drill rod to the space between the core-barrel shell and core-barrel, and return water connections in the plug communicating with the top of the core-barrel and having their outlets extending through the circumferential wall of the plug member to the exterior of the drill.

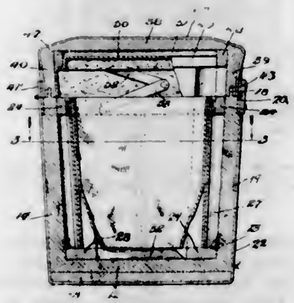
2. In a core-drill, the combination of a hollow drill rod a plug member, a core-barrel shell extending below the lower end of the plug member, a core-barrel carried by the plug member within and spaced from the shell, an annular bit on the core-barrel shell, water connections from the drill rod through the plug to the space between the core-barrel and shell, and a return water connection from the top of the core barrel extending laterally within and through the circumferential wall of the plug member to the exterior of the drill.

3. In a drill of the character described, the combination with a rotatable, hollow rod and a shell rigid therewith, of a concentric inner core barrel, means for delivering water from the rod into the shell and from the shell into the lower end of the core-barrel, and return water connections for discharging water from the top of the core-barrel exterior to the said rod, said water connections including a plug member interposed at the lower end of the rod, and having said return water connections lying entirely within and extending through its circumferential wall to the exterior of the drill.

4. In a drill of the character described, the combination with a rotatable shell of a concentric inner core-barrel and means for supporting said barrel within the shell, said means including a central hanger rigidly connected with the shell, and means upon the core-barrel engaging with said hanger, said hanger having passage-ways extending laterally through the circumferential wall and communicating with the space exterior to the shell and with the interior of the core-barrel.

5. In a drill of the character described the combination with a shell, of a concentric inner core-barrel, and means for supporting the latter within the shell, said means including a perforated plug as 11 secured in the shell above the core-barrel, a hanger rigid with the plug and having a water-passage extending laterally through the circumferential wall of the hanger and plug and connecting the space in the top of the core-barrel with the outside of the shell, an internal projection on the core-barrel engaging said hanger, and antifrictional ball-bearings supporting the barrel on the hanger.

14,357. GLASS CASKET. JAMES W. DE CAMP, Blackwell, Okla., assignor of one-fourth to John P. Miller, McAllen, Tex., and one-fourth to Charles E. De Camp, Blackwell, Okla. Filed Dec. 15, 1916. Serial No. 137,220. Original No. 1,123,856, dated Jan. 5, 1915, Serial No. 794,661, filed Oct. 11, 1913. (Cl. 27—8.)



1. In a device of the character described, a body box, a binding frame for the box, a closure, a binding frame for the closure, hinges applied to the binding frames for attaching the closure to the body member, an internal bracing frame arranged in the body member, means carried by the said frame, for attachment and support of a fabric lining, and an internal bracing frame arranged in the closure.

2. In a device of the character described, a body member, an exterior binding frame for the body member, a closure, a binding frame for the closure, hinges secured to the binding frames of the body member and closure for attaching the closure to the body member, vertically extending spaced reinforcing ribs on the inner face of the body member and having their terminals spaced from the upper edge and bottom wall thereof, a bracing frame mounted on the bottom wall of the body member and engaging against the side and end walls thereof, and a second internal bracing frame removably mounted on the upper terminals of the said ribs and engaging against the side and end walls of the body member, and studs carried by said second-mentioned frame whereby a fabric lining may be suspended in the body member.

3. In a device of the character described, a body member, a binding frame for the body member, a closure, a binding frame for the closure, hinges secured to the binding frames of the body member and closure for attaching the closure to the body member, a plurality of transversely extending longitudinally spaced reinforcing ribs on the inner face of the closure, the terminals of the ribs being spaced from the sides of the closure, a substantially rectangular bracing frame arranged in the closure and having its side members disposed between the terminals of the ribs and the sides of the closure, a plurality of reinforcing ribs formed on the side and end walls of the body member and on the inner face thereof, said reinforcing ribs being vertically arranged and longitudinally spaced and having their upper and lower terminals respectively spaced from the upper edge and bottom wall of the body member, a bracing frame arranged on the upper terminals of the reinforcing ribs and engaging against the side and end walls of the body member, a second substantially rectangular internal bracing frame mounted on the bottom wall of the body member and engaging against the side and end walls thereof, the outer edges of the second-mentioned frame being disposed between the lower terminals of the body member reinforcing ribs and the bottom wall of the body member.

4. In a device of the character described, a body member, reinforcing ribs on the inner face of the body member having their terminals spaced from the upper edge and bottom wall thereof, a bracing frame mounted above the bottom wall of the body member against the side and end walls thereof, and a second internal bracing frame mounted on the upper terminals of said ribs and bearing against the side and end walls of the body member.

5. In a device of the character described, a body member, ribs on the upper face of the bottom wall of the body member having their terminals spaced from the side walls of the body member, and an internal bracing frame mounted on the bottom wall of the body member against the side walls of the same and against the terminals of said ribs.

6. In a device of the character described, a body member, reinforcing ribs formed on the inner face of the body member having their terminals spaced from the upper edge and bottom wall thereof, ribs formed on the upper face of the bottom wall of the body member having their terminals spaced from the side walls of the body member, an internal bracing frame mounted on the bottom wall of the body member against the side and end walls of the same and between and against the terminals of the first and second mentioned ribs, and a second internal bracing frame mounted on the upper terminals of the vertical ribs and bearing against the side and end walls of the body member.

7. A casket including a glass body having a groove extending horizontally around the outer surfaces of its walls at the upper portion thereof, a continuous binding element seated in said groove and extending about the walls, and a second binding element secured to the first mentioned binding element and extending downwardly beside the walls of the body and beneath the bottom thereof, engagement of the binding element in said groove serving to anchor and support said element therein and permit the second mentioned binding element to fit tightly around said body.

8. A casket including a transparent body and a transparent lid therefor, an external binding frame for the body, an external binding frame for the lid, means for holding the external binding frames against displacement, hinges applied to said frames for connecting the body and lid, an internal bracing frame for the body, and an internal bracing frame for the lid the internal bracing frames extending over a minor portion of the area of the walls of the body and lid whereby to permit a substantially unobstructed view through the said walls, the external binding frame for the lid carrying said lid when opening and closing the casket.

9. A casket including a glass body formed in the outer

surfaces of its walls at its upper portion with a groove extending continuously around the body, a binding frame for the body including a binding strap extending longitudinally and continuously around the walls of the body and seating in said groove, and a plurality of binding straps secured at their ends to the first-mentioned strap and extending downwardly beside the side walls of the body and transversely beneath the bottom thereof and located wholly exteriorly of the body, a glass lid for the body, a binding frame for the lid permanently held thereon, and hinge connection between the first-mentioned strap of the body binding frame and the frame for the lid, the frame for the lid carrying said lid when opening and closing the casket.

10. A casket including a glass body and a glass lid therefor, the body being formed in the exterior surfaces of its walls with a groove extending continuously around the upper edge portion of the body, the lid being formed in the exterior surfaces of its walls with a groove extending continuously around the lower edge portion of the lid, a binding strap extending continuously around the body and seating in the groove formed therein, binding straps secured at their ends to the first-mentioned straps and extending downwardly beside the side walls of the body and transversely beneath the bottom thereof, a binding strap extending continuously around the lid and seating in the groove formed therein, and binding straps secured to said first-mentioned binding strap for the lid and extending across the exterior of the lid.

11. A casket including a glass body and a glass lid therefor, a binding element extending continuously around the upper portion of the body, a binding element extending continuously around the lower portion of the lid, the binding element of the lid being permanently held upon said lid, and direct hinge connection between said elements, the binding element upon the lid carrying said lid when opening and closing the casket.

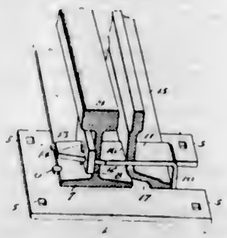
12. A casket including a glass body and a glass lid therefor, a strap extending continuously around the side and end walls of the body near the upper portion thereof, a strap extending continuously around the side and end walls of the lid near the lower portion thereof, said straps being respectively permanently held upon the body and lid, and a hinge connection between said straps, the strap upon the lid carrying said lid when opening and closing the casket.

13. A casket including a glass body having a groove extending horizontally around the outer surfaces of its walls at the upper portion thereof, a continuous binding element seated in said groove and extending about the walls, a second binding element secured to the first mentioned binding element and extending downwardly beside the walls of the body and beneath the bottom thereof, and a glass lid for the body having a groove extending horizontally around the outer surfaces of its walls at the lower portion thereof, a continuous binding element seating in the said groove in the lid and extending about the walls of said lid, and a second binding element for the lid secured to the first mentioned element and extending transversely across said lid, the engagement of the horizontal binding elements for the body and lid in their respective grooves serving to prevent displacement of all of said binding elements.

14,358. TIE-PLATE FOR RAILROAD-RAILS. OSCAR P. MORRISON, Maud, Tex., assignor, by direct and mesne assignments, to Morrison Tie Plate Company, Texarkana, Tex. Filed May 27, 1916. Serial No. 100,406. Original No. 1,099,929, dated June 16, 1914, Serial No. 815,042, filed Jan. 28, 1914. (Cl. 104—95.)

1. A tie-plate for railroad rails comprising in combination a base adapted to support a rail in operative position, a switch point movable laterally with relation to said rail, and a switch-guiding member crossing the tie-plate horizontally and impaling said switch-point in slidable relation.

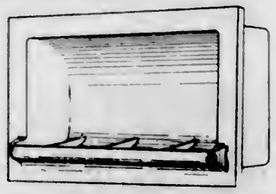
2. A tie plate for railroad rails, comprising in combination a base adapted to support a rail in operative position, a switch-point movable laterally with relation to said rail in the arc of a circle upon said base, and a switch-guiding member crossing the tie plate horizontally and impaling said switch-point in slidable relation.



3. A tie-plate for railroad rails comprising in combination a base adapted to support a rail in operative position, a switch-point pivotally mounted and movable laterally at one end with relation to said rail, a bracket rising from said plate, a horizontally extending guide member carried by said bracket and impaling the switch-point in slidable relation said switch-point being limited in its movements in one direction by the rail and in the other direction by the bracket aforesaid.

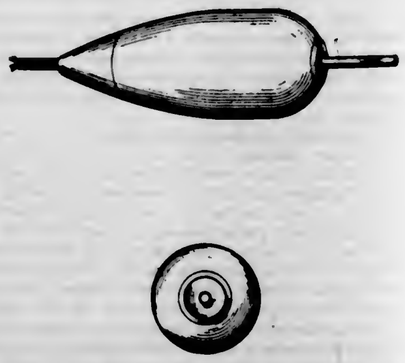
DESIGNS.

51,249. WALL-RECEPTACLE FOR SOAP AND OTHER TOILET ARTICLES. STEPHEN D. BAKER, New York, N. Y. Filed Feb. 12, 1917. Serial No. 148,221. Term of patent 14 years.



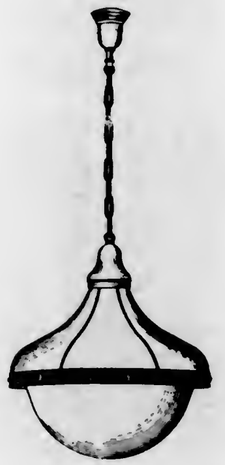
The ornamental design for a wall receptacle for soap and other toilet articles, substantially as herein shown.

51,250. CASING FOR RADIOGENERATORS. EDWARD W. BOEGGRAFE, Stamford, Conn., assignor to Electric Specialty Co., Stamford, Conn., a Corporation of Connecticut. Filed Jan. 12, 1917. Serial No. 142,109. Term of patent 14 years.



The ornamental design for a casing for a radio-generator, as shown.

51,251. ELECTRIC-LIGHT FIXTURE. SIMON BRAUNSTEIN, New York, N. Y. Filed July 26, 1917. Serial No. 182,982. Term of patent 3½ years.



The ornamental design for an electric- light fixture, substantially as shown.

51,252. ELECTRIC-LIGHT FIXTURE. SIMON BRAUNSTEIN, New York, N. Y. Filed July 28, 1917. Serial No. 183,376. Term of patent 8½ years.



The ornamental design for an electric-light fixture, substantially as shown.

51,253. ELECTRIC-HEATER CASING. EDMUND N. BROWN, San Francisco, Cal., assignor to Majestic Electric Development Company, a Corporation of California. Filed July 10, 1917. Serial No. 179,756. Term of patent 7 years.



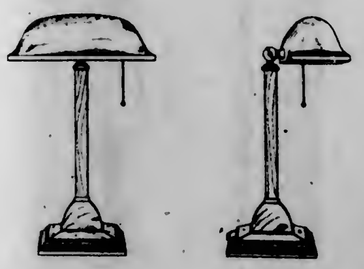
The ornamental design for an electric heater casing substantially as shown.

51,254. FONT OF TYPE. RICHARD F. BURFEIND, Philadelphia, Pa., assignor to Keystone Type Foundry, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 20, 1914. Serial No. 846,390. Term of patent 14 years.

ABCDEFGHIJKLMNOP
QRSTUVWXYZ&
abcdefghijklmnopqrstuvwxyz
.,'-?81234567890

The ornamental design for a font of type shown in the accompanying drawing.

51,255. LAMP. GEORGE W. CASSIDY, New York, N. Y. Filed July 28, 1917. Serial No. 183,874. Term of patent 7 years.



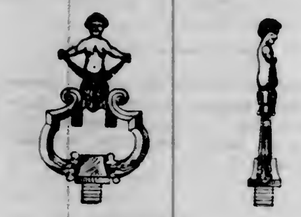
The ornamental design for a lamp, as shown.

51,256. ARM FOR LIGHTING-FIXTURES. FRANK S. CROWELL, Toledo, Ohio, assignor to The Western Gas Fixture Co., Toledo, Ohio, a Corporation of Ohio. Filed July 20, 1917. Serial No. 181,908. Term of patent 3½ years.



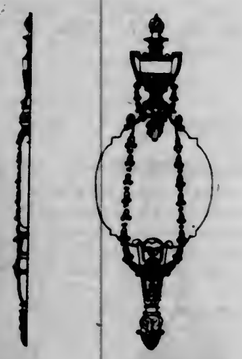
The ornamental design for an arm for lighting fixtures, as shown.

51,257. LIGHTING-FIXTURE ARM. FRANK S. CROWELL, Toledo, Ohio, assignor to The Western Gas Fixture Co., Toledo, Ohio, a Corporation of Ohio. Filed July 20, 1917. Serial No. 181,905. Term of patent 3½ years.



The ornamental design for a lighting fixture arm, as shown.

51,258. BRACKET-BACK FOR LIGHTING-FIXTURES. FRANK S. CROWELL, Toledo, Ohio, assignor to The Western Gas Fixture Co., Toledo, Ohio, a Corporation of Ohio. Filed July 20, 1917. Serial No. 181,906. Term of patent 3½ years.



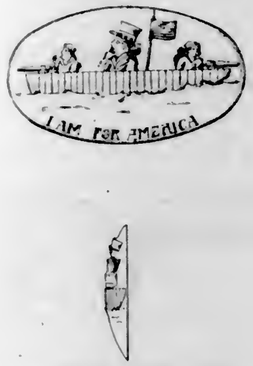
The ornamental design for a bracket back for lighting fixtures, as shown.

51,259. SET OF LETTERS AND NUMERALS FOR SIGNS. CHARLES A. DIVINE, Columbus, Ohio. Filed May 8, 1916. Serial No. 96,243. Term of patent 14 years.



The ornamental design for a set of letters and numerals for signs, substantially as shown.

51,260. BADGE. JOHN DREFS, Omaha, Nebr. Filed July 23, 1917. Serial No. 182,356. Term of patent 3½ years.



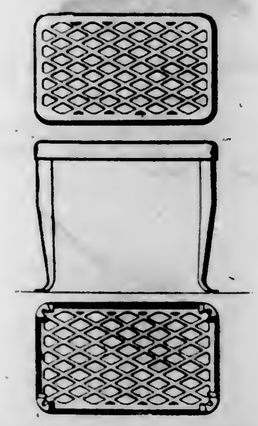
The ornamental design for a badge as shown.

51,261. CARPET. JAMES C. FULTON, Yonkers, N. Y., assignor to Alexander Smith & Sons Carpet Company, Yonkers, N. Y., a Corporation of New York. Filed Aug. 3, 1917. Serial No. 184,334. Term of patent 3½ years.



The ornamental design for carpet as shown and described.

51,262. FOOTSTOOL. JOSEPH ZAGORA, Racine, Wis. Filed Oct. 16, 1916. Serial No. 126,033. Term of patent 14 years.



The ornamental design for a foot stool as shown.

51,263. METAL PAPER FASTENER OR CLIP. HARRY A. GRAMMES, Allentown, Pa. Filed June 20, 1917. Serial No. 175,832. Term of patent 3½ years.



The ornamental design for a metal paper fastener or clip, as shown.

51,264. RING. ABRAHAM JACOBSON, Chicago, Ill. Filed Aug. 3, 1917. Serial No. 184,354. Term of patent 7 years.



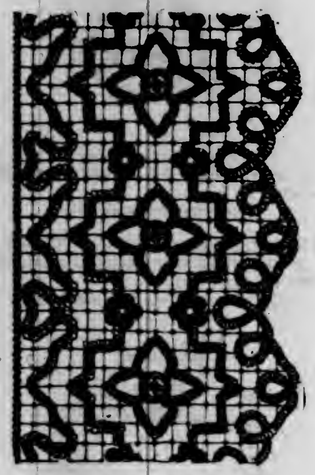
The ornamental design for a ring as shown.

51,265. LACE. ALEXANDER R. KOCH, New York, N. Y., assignor to Felix Meyer, New York, N. Y. Filed July 27, 1917. Serial No. 183,192. Term of patent 3½ years.



The design for lace as herein shown and described.

51,266. LACE. ALEXANDER R. KOCH, New York, N. Y., assignor to Felix Meyer, New York, N. Y. Filed July 28, 1917. Serial No. 183,375. Term of patent 3½ years.



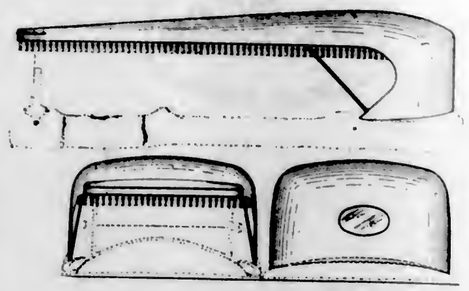
The design for lace as herein shown and described.

51,267. BADGE. HERBERT H. PATTEE, New York, N. Y. Filed May 27, 1916. Serial No. 100,402. Term of patent 7 years.



The ornamental design for a badge as shown.

51,268. AUTOMOBILE-TOP. FRANÇOIS RICHARD, Cleveland, Ohio, assignor to The Richard Auto Mfg. Company, Cleveland, Ohio. Filed May 2, 1917. Serial No. 166,059. Term of patent 14 years.



The ornamental design for an automobile top as shown.

51,269. PORTABLE LAMP. JAMES T. ROBB, Bay Shore, and LORIN W. YOUNG, New York, N. Y., assignors to The Lighting Corporation, New York, N. Y., a Corporation of New York. Filed July 26, 1917. Serial No. 182,988. Term of patent 3½ years.



The ornamental design for a portable lamp, as shown.

51,270. FAN. ALBERT Z. SEROR and EDWARD J. HOYER, Chicago, Ill. Filed June 21, 1916. Serial No. 105,074. Term of patent 7 years.



The ornamental design for a fan, as shown.

51,271. SNAP-SWITCH COVER. GEORGE B. THOMAS, Bridgeport, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Dec. 7, 1915. Serial No. 65,621. Term of patent 3½ years.



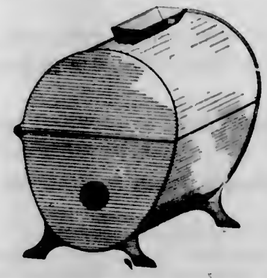
The ornamental design for an article of manufacture substantially as shown.

51,272. HANGER FOR LIGHT-TRANSMITTING BOWLS. EDWIN L. WHITE, Brooklyn, N. Y. Filed July 26, 1917. Serial No. 182,985. Term of patent 3½ years.



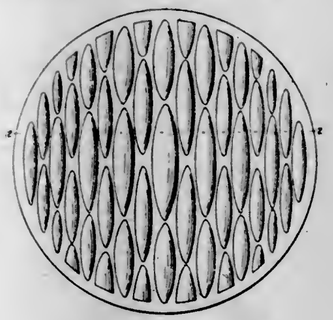
The ornamental design for a hanger for light transmitting bowls, as shown.

51,273. CASING FOR EGG-CANDLING DEVICES. HARRY E. WINTERS, Davenport, Iowa. Filed July 26, 1917. Serial No. 182,986. Term of patent 3½ years.



The ornamental design for a casing for egg-candling devices, as shown and described.

51,274. HEADLIGHT-LENS. CARL WOODBURY, Los Angeles, Cal. Filed Aug. 2, 1917. Serial No. 184,170. Term of patent 14 years.



The ornamental design for a headlight lens as shown.

TRADE-MARKS

PUBLISHED SEPTEMBER 11, 1917.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 81,608. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE OGILVIE FLOUR MILLS COMPANY, LIMITED, Montreal, Quebec, Canada. Filed Oct. 2, 1914.



Particular description of goods.—Wheat-Flour.
Claims use since about July 1, 1904.

Ser. No. 87,841. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DELTA CHEMICAL COMPANY, New Canaan, Conn. Filed July 9, 1915.



Particular description of goods.—A Preparation for the Treatment of Rheumatism.
Claims use since Apr. 7, 1915.

Ser. No. 88,821. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HUNTER MANUFACTURING & COMMISSION CO., New York, N. Y. Filed Aug. 26, 1915.



Particular description of goods.—Cotton Piece Goods in the Gray.
Claims use since November, 1900.

Ser. No. 92,845. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) CLARENCE PETERSON, Minneapolis, Minn. Filed Feb. 14, 1916.

VUL-TEX

Particular description of goods.—A Cold Self-Vulcanizing Texture-Back Patch for Tires and the Like.
Claims use since Jan. 25, 1916.

Ser. No. 95,705. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HEZEL MILLING COMPANY, East St. Louis, Ill. Filed June 8, 1916. Under ten-year proviso.



The picture being fanciful.
Particular description of goods.—Wheat-Flour.
Claims use since Aug. 10, 1880.

Ser. No. 95,806. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) TAYLOR CHEMICAL COMPANY, Penn Yan, N. Y. Filed June 10, 1916.

CARBONAFIDE

Particular description of goods.—Carbon Bisulfid (CS_2) and Compositions Containing Carbon Bisulfid.
Claims use since May 20, 1916.

Ser. No. 96,024. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) VANCE C. POWERS, Reidsville, Ga. Filed June 21, 1916.

VA KAT

Particular description of goods.—Ointment or Salve for Eczema, Sores, Tetter, Dandruff.
Claims use since Jan. 1, 1916.

Ser. No. 97,395. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DR. G. EBERLE & CIE., Stuttgart, Germany. Filed Aug. 17, 1916.

Purgatol

Particular description of goods.—Bates for Leather Industries.
Claims use since Mar. 24, 1910.

Ser. No. 99,129. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE POINT-O-GRAPH CO., Wilmington, Del., and San Antonio, Tex. Filed Nov. 6, 1916.

POINT-O-GRAPH

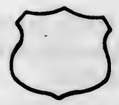
Particular description of goods.—Copy-Holding and Indicating Devices for Type-Writers.
Claims use since Nov. 20, 1912.

Ser. No. 99,378. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FELIX MILLS, Stone Bluff, Okla. Filed Nov. 18, 1916.



Portrait shown being that of the applicant.
Particular description of goods.—An Ointment for the Treatment of Sores, Sore Eyes, and Eruption.
Claims use since 1904.

Ser. No. 99,410. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE IRONSIDES COMPANY, Columbus, Ohio. Filed Nov. 20, 1916.



Particular description of goods.—Ready-Mixed Paints.
Claims use since Dec. 22, 1898, or earlier.

Ser. No. 99,815. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES. JOSEPH HOFFAY, New York, N. Y. Filed Dec. 9, 1916.



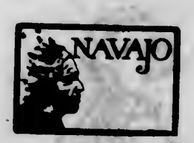
Particular description of goods.—Talking-Machines and Their Parts.
Claims use since June, 1916.

Ser. No. 99,968. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) PEOPLE'S OUTFITTING COMPANY, Detroit, Mich. Filed Dec. 15, 1916.

Operola

Particular description of goods.—Piano-Players.
Claims use since Oct. 1, 1916.

Ser. No. 100,370. (CLASS 36. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) JEWELL BELTING CO., Hartford, Conn. Filed Jan. 5, 1917.



Particular description of goods.—Woven Machinery-Belting.
Claims use since June, 1915.

Ser. No. 100,672. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MATTEO ILLICETO, Philadelphia, Pa. Filed Jan. 17, 1917.

TISALCETO

Particular description of goods.—Certain Medicinal Preparations for Malarial Fever, Asthma, Bronchitis, Coughs, Consumption, Rheumatism, Nervousness, Indigestion, Stomach Troubles, Dizziness, Poor Blood, and Venereal Diseases.
Claims use since on or about Jan. 3, 1917.

Ser. No. 100,704. (CLASS 43. THREAD AND YARN.) GOLDMAN COSTUME COMPANY, New York, N. Y. Filed Jan. 18, 1917.



Comprising the words "Betty Wales" and "Ploshkin," with the doll figure, all included in a quadrangular figure.
Particular description of goods.—Cotton, Wool, Linen, Silk, Artificial-Silk, Ramie, Vegetable, and Fiber Thread, Spool-Thread, Yarn Crochet and Knitting Thread, Floss, Skein-Yarn, Mercerized or Otherwise Processed Yarn and Textile Thread.
Claims use since Jan. 5, 1917.

Ser. No. 100,791. (CLASS 39. CLOTHING.) A. J. BATES COMPANY, Webster, Mass. Filed Jan. 22, 1917.

BATEX

Particular description of goods.—Footwear—Namely, Rubber and Leather Boots and Shoes, Rubber Boots and Shoes, and Slippers.
Claims use since Aug. 25, 1916.

Ser. No. 101,156. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) PIKE MANUFACTURING COMPANY, Pike and Littleton, N. H.; Evansville, Vt.; Orleans, Ind.; Hot Springs, Ark., and New York, N. Y. Filed Feb. 3, 1917.



Particular description of goods.—Abrasive Materials and Tools—Namely, Scythe-Stones, Whetstones, Ax-Stones, Oil-Stones, Oil and Water Stones, Hones, Strops, Stones for Grinding Purposes, and Grinding Disks and Wheels.
Claims use since Jan. 1, 1912.

Ser. No. 101,481. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ECLIPSE INTERCHANGEABLE COUNTERBORE COMPANY, Detroit, Mich. Filed Feb. 19, 1917.



Particular description of goods.—Counterbores, Pilots, Hollow Mills, Reamers, Taps, Sockets, Spot-Facers, Countersinks, Milling-Cutters, Forming Milling-Cutters, Collets, Tapping Attachments, End Mills, Shanks, Drills, Arbors.
Claims use since February, 1914.

Ser. No. 101,604. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ALFRED JONES' SONS, Bangor, Me. Filed Feb. 23, 1917.



Particular description of goods.—Fish, Fresh, Dried, Salted, Smoked, or Canned, and Particularly for Finnan Haddie, Kippered Smoked Salmon, Lunch Smoked Halibut, Pure Codfish, Salt Codfish, Fibered Codfish, Smoked Herring, Fresh Penobscot-River Salmon, Fresh Flaked Codfish, and Fresh Mackerel.
Claims use since Feb. 20, 1915.

Ser. No. 101,699. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CORA E. MCLAUGHLIN, Kansas City, Mo. Filed Feb. 26, 1917.

Dr J Candor McLaughlin

The signature shown being a facsimile of the signature of Dr. J. Candor McLaughlin, deceased.
Particular description of goods.—An Antiseptic and a Germicide for Tuberculosis, Bronchitis, Catarrh, Hay-Fever.
Claims use since Feb. 1, 1917.

Ser. No. 101,717. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) GEORGE PILKINGTON VARLEY, St. Helens, England. Filed Feb. 26, 1917.

NARKI

Consists of the word "Narki."

Particular description of goods.—Castings of Steel, Iron, Manganese, Copper, Brass, Tin, Zinc, Aluminum, Platinum, Nickel, Antimony, and Antifriction Metals.

Claims use since about Dec. 9, 1914.

Ser. No. 101,811. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN A. WEATHERALL, San Angelo, Tex. Filed Feb. 28, 1917.



Particular description of goods.—Tetter Remedy.

Claims use since Jan. 1, 1916.

Ser. No. 101,886. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) TRUPAKT, INC., Milwaukee, Wis. Filed Mar. 3, 1917.



Particular description of goods.—Oysters.

Claims use since October, 1912.

Ser. No. 101,921. (CLASS 39. CLOTHING.) GOODYEAR RUBBER COMPANY, Middletown, Conn. Filed Mar. 6, 1917.



The entire face of the portion within the triangular border being white or substantially white and the said triangular border being red.

Particular description of goods.—Rubber Boots and Shoes.

Claims use since January, 1917.

Ser. No. 102,039. (CLASS 38. PRINTS AND PUBLICATIONS.) ISKO, INCORPORATED, Detroit, Mich. Filed Mar. 10, 1917.



Particular description of goods.—A Monthly Trade Journal.

Claims use since Jan. 20, 1917.

Ser. No. 102,051. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) GEO. H. SCHAFER & Co., Fort Madison, Iowa. Filed Mar. 10, 1917.

U-LAVO

Particular description of goods.—A Shaving-Cream.

Claims use since March, 1913.

Ser. No. 102,122. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) WILLIAM HANSBROUGH MORLEY, Austin, Tex. Filed Mar. 13, 1917.



Particular description of goods.—A Purely Vegetable Soap.

Claims use since Feb. 1, 1917.

Ser. No. 102,216. (CLASS 17. TOBACCO PRODUCTS.) LUCKETT-WAKE TOBACCO CO., Louisville, Ky. Filed Mar. 17, 1917.



Particular description of goods.—Leaf-Tobacco.

Claims use since November, 1916.

Ser. No. 102,242. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE BUCKEYE COTTON OIL COMPANY, Cincinnati, Ohio. Filed Mar. 19, 1917.

BUCKEYE

Particular description of goods.—Cotton-Seed Roughage.

Claims use since Jan. 1, 1916.

Ser. No. 102,558. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EVERETT-AUGHENBAUGH & COMPANY, Waseca, Minn. Filed Mar. 29, 1917.



Particular description of goods.—Wheat-Flour.

Claims use since about Mar. 1, 1917.

Ser. No. 103,183. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) J. W. PINKERTON VETERINARY MEDICINE CO., Geary and Hinton, Okla., assignor to J. W. Pinkerton Veterinary Medicine Company, a Corporation of Oklahoma. Filed Apr. 21, 1917.



The portrait being that of Dr. J. W. Pinkerton.

Particular description of goods.—A Liniment for Use in Treating Wire Cuts, Old Sores, Sore Shoulders, Collar-Boils, Scratches, Sore Teats, Grease-Heel, and Any and All Abrasions of the Skin of Animals.

Claims use since Jan. 17, 1917.

Ser. No. 103,347. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE DONALD COMPANY, Grand Island, Nebr. Filed Apr. 27, 1917.



Particular description of goods.—Tea.

Claims use since the year 1915.

Ser. No. 103,532. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MALCOLM HENRY, Tulsa, Okla. Filed May 4, 1917.



The name "Malcolm Henry" being the applicant's facsimile signature.

Particular description of goods.—A Remedy for Catarrh, Hay-Fever, Rose-Cold, Cold in the Head, and All Nasal Inflammation and Catarrhal Affections.

Claims use since Feb. 1, 1916.

Ser. No. 103,600. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) LYON & HEALY, Chicago, Ill. Filed May 7, 1917.

APARTMENT

Particular description of goods.—Pianos.

Claims use since about Apr. 1, 1916.

Ser. No. 103,662. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) GEORGE BORGFELDT & Co., New York, N. Y. Filed May 9, 1917.

NIFTY

Particular description of goods.—Collar, Cuff, Pearl, and Fancy Buttons, (of Non-Precious Metal;) Pyroxylin Buttons, Agate Buttons, Ribbon-Wire, Button-Hooks, Corset and Shoe Laces, Braid, Thimbles, Tape, Celluloid-Cuff Protectors, Glove-Stretchers, Sewing and Darning Needles for Hand-Work and Needle-Cases, Crochet and Knitting Needles for Hand-Work, Hooks and Eyes, Beads, Placket-Fasteners, Buttons for Attachment to Wearing-Apparel, (Except Precious Metal;) Safety-Pins, Hair-Curlers other Than Electric, Fans, Hat-Pins, Hair-Pins, and Common Stick-Pins in Folders and Cubes, Lace-Pins, Elastic Tape, and Elastic Cord.

Claims use since Apr. 30, 1917.

Ser. No. 103,757. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) UNITED DRUG COMPANY, Boston, Mass. Filed May 12, 1917.



Particular description of goods.—Cold-Cream, Perfume, Complexion-Powder, Tooth-Paste, Toilet Water, Cream of Almonds, Rose-Water and Glycerin, Lotion for Use After Shaving, and Talcum Powder.

Claims use since prior to Apr. 1, 1916.

Ser. No. 103,759. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE MARION STEAM SHOVEL COMPANY, Marion, Ohio. Filed May 12, 1917.



Particular description of goods.—Steam-Shovels, Gasolene-Shovels, Dipper-Dredges, Hydraulic Dredges, Elevator-Dredges, Railroad-Ditchers, Drag-Line Excavators, Orange-Peel Excavators, Clam-Shell Excavators, Trench-Digging Machines, Ballast-Unloaders, and Log-Loaders.
Claims use since Apr. 6, 1917.

Ser. No. 103,807. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILFORD HALL LABORATORIES, Scarsdale, N. Y., and Greenwich, Conn. Filed May 14, 1917.



Trade-mark being the representation of a rectangle with a background of yellow bordered by a green line. The rectangle is bisected by a green bar running from the upper to the lower border, forming an angle of 45° with the base. On this bar is a circle containing an inner circle in which is the letter "H" in red.
Particular description of goods.—Blister-Plaster.
Claims use since Apr. 1, 1915.

Ser. No. 103,842. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SOPHIA W. OEHLER, Carlstadt, N. J. Filed May 15, 1917. Under ten-year proviso.



Particular description of goods.—Lotions for the Cure of Sore Nipples, Chapped Hands and Lips, Burns, and Bruises.
Claims use since 1874.

Ser. No. 103,846. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. S. REYNOLDS & COMPANY, Frederica, Del. Filed May 15, 1917.

BLUE HENS CHICKEN

Particular description of goods.—Canned Tomatoes.
Claims use since Sept. 1, 1881.

Ser. No. 103,864. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ORLANDO C. GILBERT, Spokane, Wash. Filed May 16, 1917.

ANALTHESIA

Particular description of goods.—A Preparation for Treatment of Teeth and Gums to Relieve Pain and for Local-Pain Relief.
Claims use since Jan. 17, 1917.

Ser. No. 103,870. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE SANPAN DISTRIBUTING COMPANY, Harrisburg, Pa. Filed May 16, 1917.

SANPAN

Particular description of goods.—A Tonic and System-Cleanser Acting Particularly on the Stomach, Intestines, Liver, and Kidneys.
Claims use since about Jan. 1, 1917.

Ser. No. 103,911. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE ASEPTOL COMPANY, New York, N. Y. Filed May 18, 1917.



The lining shown on the drawing is intended to represent merely shading.
Particular description of goods.—Preparations for the Treatment of Stomach, Kidney, and Liver Diseases, Blood-Poison, Diphtheria, Tonsilitis, Catarrh, Hay-Fever, Pyorrhea, and for Use as a Mouth-Wash, Disinfectant, and Deodorant, and a Salve for Sores, Cuts, Chapped Hands, Colds, Sore Throat, Sunburn, Barbers' Itch, Scald-Head, Sore Eyes, Scalded Feet, Corns, Bunions, Nasal Catarrh, Insect and Animal Bites, and for Use as a Massage Cream.
Claims use since Sept. 1, 1916.

Ser. No. 103,947. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE FITTS MANUFACTURING COMPANY, Pueblo, Colo. Filed May 19, 1917.

MOUNTAIN QUEEN

Particular description of goods.—Baking-Powder.
Claims use since Dec. 20, 1910.

Ser. No. 103,996. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) STANDARD WOVEN FABRIC COMPANY, Walpole, Mass. Filed May 21, 1917.

STANWAL

The word "Stanwal."
Particular description of goods.—For Use on Brake-Lining.
Claims use since Mar. 3, 1917.

Ser. No. 104,012. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) C. C. MERRILL & Co., Cincinnati, Ohio. Filed May 22, 1917.

Anida

Particular description of goods.—Depilatory Vanishing Cream, Cold-Cream, Flesh-Cream, Rolling or Massage Cream, Complexion-Lotion, Deodorizer, Rice Powder, (Pour de Riz.) Face-Powder, Powder-Compact, and Eyebrow-Pencils.
Claims use since Nov. 9, 1915.

Ser. No. 104,119. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) OXANNA GRAYSON, Montgomery, Ala. Filed May 28, 1917.

Alice's

Particular description of goods.—Home-Made Candies.
Claims use for more than twenty-five years.

Ser. No. 104,137. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALLAN M. KAY, Vancouver, Wash. Filed May 29, 1917.



The picture shown in the drawing is the portrait of applicant, and the name "A. M. Kay's" is a facsimile of applicant's signature.
Particular description of goods.—A Preparation for the Treatment of Tuberculosis, Arterial Sclerosis, Bright's Disease, Dropsy, Rheumatism, (Any Form.) Locomotor Ataxia, Pneumonia, Pleurisy, Asthma, &c.
Claims use since July, 1914.

Ser. No. 104,156. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) YU ESS MANUFACTURING CORPORATION, New York, N. Y. Filed May 31, 1917.



Particular description of goods.—Type-Writing Machines.
Claims use since Apr. 1, 1917.

Ser. No. 104,160. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE ASHLAND PRODUCTS CO., Ashland, Ohio. Filed May 31, 1917.

APCO

Particular description of goods.—Automobile-Jacks and Tire-Saver Jacks.
Claims use since Apr. 1, 1917.

Ser. No. 104,200. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GEO. R. NEWELL & Co., Minneapolis, Minn. Filed June 1, 1917.

18K

Particular description of goods.—Canned Fruits, Canned Vegetables, Canned Fish, Canned Shrimp, Pickles, Sugar, and Coffee.
Claims use since May 7, 1917.

Ser. No. 104,215. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHNSON DRUG COMPANY, Canton, Miss. Filed June 2, 1917.

777

Particular description of goods.—A Preparation for the Treatment of Chills and Fever.
Claims use since May 1, 1917.

Ser. No. 104,221. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) GEORGE C. KRUSEN & SON, Philadelphia, Pa. Filed June 2, 1917.



The portrait shown being that of H. W. Lobb, M. D.
Particular description of goods.—Soap.
Claims use since Mar. 17, 1908.

Ser. No. 104,258. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LOUIS N. MOSS, New York, N. Y. Filed June 4, 1917.

Anytime

Particular description of goods.—Mint Lozenges.
Claims use since May 26, 1917.

Ser. No. 104,316. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) HERO SNAP FASTENER CO., New York, N. Y. Filed June 7, 1917.



Particular description of goods.—Metal Snap-Fasteners, Snap-Fastening Buttons, or Push-Buttons.
Claims use since Apr. 15, 1917.

Ser. No. 104,317. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) HERO SNAP FASTENER CO., New York, N. Y. Filed June 7, 1917.



Particular description of goods.—Metal Snap-Fasteners, Snap-Fastening Buttons, or Push-Buttons.
Claims use since Apr. 15, 1917.

Ser. No. 104,321. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) INTERNATIONAL DRUGGISTS' & CHEMISTS' LABORATORIES, New York, N. Y. Filed June 7, 1917.

FERRO-PEPTINE

Particular description of goods.—A Chemical Preparation in Tablet Form for Disorders of the Blood.
Claims use since June 4, 1917.

Ser. No. 104,380. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) A. L. RICE, INC., Adams, N. Y. Filed June 11, 1917.

SUNBEAM

Particular description of goods.—Wall-Finishes.
Claims use since January, 1917.

Ser. No. 104,415. (CLASS 39. CLOTHING.) SHERMAN OVERALL MFG. CO., Sherman, Tex. Filed June 12, 1917.



Particular description of goods.—Overalls.
Claims use since March, 1917.

Ser. No. 104,422. (CLASS 48. MALT EXTRACTS AND LIQUORS.) FREMONT BREWING COMPANY, Fremont, Nebr. Filed June 13, 1917.

FREMO

Particular description of goods.—A Non-Intoxicating Beverage Sold as a Soft Drink.
Claims use since May 18, 1917.

Ser. No. 104,457. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE POMPEIAN MFG. CO., Cleveland, Ohio. Filed June 15, 1917.



Particular description of goods.—Rouge.
Claims use since 1907.

Ser. No. 104,566. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS; AND PARTS THEREOF.) THE ROESSLER & HASSLACHER CHEMICAL CO., New York, N. Y. Filed June 20, 1917.

CYANOR

Particular description of goods.—Fumigating-Machines Adapted for the Application of Hydrocyanic Acid, Sulfurous Acid, Carbonic Acid, Formaldehyde, and other Disinfecting-Gases for the Treatment of the Soil, Plants, Ships, Buildings, and Similar Purposes.
Claims use since June 2, 1917.

Ser. No. 104,567. (CLASS 39. CLOTHING.) JAMES G. TAVARES, New York, N. Y. Filed June 20, 1917.



Particular description of goods.—Shoes, Boots, and Rubbers Made of Leather, Rubber, and Canvas.
Claims use since Oct. 1, 1916.

Ser. No. 104,595. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) NEW YORK RUBBER COMPANY, Matteawan and New York, N. Y. Filed June 21, 1917.



Particular description of goods.—Rubber Belting and Hose.
Claims use since October, 1916.

Ser. No. 104,596. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) NEW YORK RUBBER COMPANY, Matteawan and New York N. Y. Filed June 21, 1917. Under ten-year proviso.

WICCAPEE

Particular description of goods.—Rubber Belting and Hose.
Claims use since July, 1851.

Ser. No. 104,605. (CLASS 39. CLOTHING.) AMERICAN LADY CORSET COMPANY, Detroit, Mich. Filed June 22, 1917.

Twinplex

Particular description of goods.—Corsets.
Claims use since June 1, 1917.

Ser. No. 104,624. (CLASS 37. PAPER AND STATIONERY.) SMITH BLANK BOOK CO. INC., New York, N. Y. Filed June 22, 1917.



Particular description of goods.—Blank Books, Account-Books, Receipt-Books, Tablets, Pads, and Box-Paper.
Claims use since June 1, 1917.

Ser. No. 104,637. (CLASS 38. PRINTS AND PUBLICATIONS.) WOMAN'S INSTITUTE OF DOMESTIC ARTS & SCIENCES, INC., Scranton, Pa., and New York, N. Y. Filed June 22, 1917.

Inspiration

Particular description of goods.—A Monthly Periodical.
Claims use since Jan. 20, 1917.

Ser. No. 104,674. (CLASS 38. PRINTS AND PUBLICATIONS.) GROSSET & DUNLAP, New York, N. Y. Filed June 25, 1917.

TUCK-ME-IN TALES

Particular description of goods.—A Series of Books.
Claims use since Jan. 1, 1917.

Ser. No. 104,711. (CLASS 39. CLOTHING.) BIRKENFELD, STRAUSS & Co., New York, N. Y. Filed June 27, 1917.

BILLIEBIRKE

Particular description of goods.—A One-Piece Sleeping-Garment.
Claims use since May 1, 1917.

Ser. No. 104,722. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) SMALL & PARKS LIMITED, Harpurhey, Manchester, England. Filed June 27, 1917.

BARAUT

Particular description of goods.—Packing Made of Fibrous Textile Material, or of Asbestos, or of an Admixture of Asbestos and Fibrous Textile Substances; Hose Made of Woven Material, with or without the Addition of Rubber; Belting Made of Woven Material, with or without a Facing of Asbestos.
Claims use since about the year 1913.

Ser. No. 104,723. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) THE UNITED STATES GAUGE Co., New York, N. Y. Filed June 27, 1917.

SOLFRONT

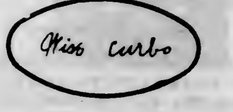
Particular description of goods.—Gages.
Claims use since June 19, 1917.

Ser. No. 104,729. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BUSHWICK PRODUCE EXCHANGE, Brooklyn, N. Y. Filed June 28, 1917.



Particular description of goods.—Fresh Vegetables—Namely, Potatoes, Pickles, Onions, Cabbage, Tomatoes, and Turnips.
Claims use since June 20, 1917.

Ser. No. 104,767. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WISE CURBO, Garrison, Tex. Filed June 30, 1917.



The name being a facsimile of my signature.
Particular description of goods.—A Cough Remedy.
Claims use since May 1, 1917.

Ser. No. 104,776. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NOVELTY CANDY COMPANY, New York, N. Y. Filed June 30, 1917.



Particular description of goods.—Candy.
Claims use since June, 1916.

Ser. No. 104,781. (CLASS 17. TOBACCO PRODUCTS.) CHARLES P. STANLEY CIGAR COMPANY, St. Louis, Mo. Filed June 30, 1917.

LIBERTY BOND

Particular description of goods.—Cigars, Cigarettes, and Smoking and Chewing Tobacco.
Claims use since May 8, 1917.

Ser. No. 104,795. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) THE FRITZSCH PHONOGRAPH CO., Cincinnati, Ohio. Filed July 2, 1917.

Phon d'Amour

Particular description of goods.—Phonographs.
Claims use since June 2, 1917.

Ser. No. 104,844. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE GUTTA PERCHA & RUBBER MANUFACTURING COMPANY, New York, N. Y. Filed July 5, 1917.

Saganore

Particular description of goods.—Belting and Hose of Rubber and Fabric.
Claims use since 1906.

Ser. No. 104,846. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE GUTTA PERCHA & RUBBER MANUFACTURING COMPANY, New York, N. Y. Filed July 5, 1917.



Particular description of goods.—Belting of Rubber and Fabric.
Claims use since May, 1910.

Ser. No. 104,850. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE GUTTA PERCHA & RUBBER MANUFACTURING COMPANY, New York, N. Y. Filed July 5, 1917.

Mohawk

Particular description of goods.—Belting and Hose of Rubber and Fabric.
Claims use since 1892.

Ser. No. 104,864. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) LOUIS M. MYERS, Chicago, Ill. Filed July 5, 1917.

RITEWAY

Particular description of goods.—A Weighing-Scale.
Claims use since June 15, 1917.

Ser. No. 104,873. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WM. C. ROBINSON & SON Co., Baltimore, Md. Filed July 5, 1917.

SILKOL

Particular description of goods.—An Oil Used for Degumming Raw Silk.
Claims use since June 1, 1917.

Ser. No. 104,875. (CLASS 39. CLOTHING.) M. E. SMITH & Co., INC., Omaha, Nebr. Filed July 5, 1917.



Particular description of goods.—Men's, Women's, and Children's Night-Shirts, Gowns, Pajamas, and Garments for Night Wear.
Claims use since Apr. 11, 1917.

Ser. No. 104,887. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GREELEY SQUARE HOTEL CO. (HOTEL MCALPIN), New York, N. Y. Filed July 6, 1917.

Hotel McAlpin

Particular description of goods.—Chocolates.
Claims use since before Jan. 1, 1914.

Ser. No. 104,888. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GREELEY SQUARE HOTEL CO. (HOTEL MCALPIN), New York, N. Y. Filed July 6, 1917.



Particular description of goods.—Chocolates.
Claims use since before Jan. 1, 1914.

Ser. No. 104,907. (CLASS 39. CLOTHING.) THE LEWIS-LEOPOLD SKIRT CO., New York, N. Y. Filed July 7, 1917.



The cross-lines in the drawing indicating shading.
Particular description of goods.—Petticoats.
Claims use since June 21, 1917.

Ser. No. 104,940. (CLASS 38. PRINTS AND PUBLICATIONS.) NATIONAL INDUSTRIAL CONFERENCE BOARD, Boston, Mass. Filed July 9, 1917.

INDUSTRIAL NEWS SURVEY

"Industrial News Survey."
Particular description of goods.—Periodicals Issued Weekly.
Claims use since May 2, 1917.

Ser. No. 104,968. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) HOUSTON ICE & BREWING ASSOCIATION, Houston, Tex. Filed July 10, 1917.



Particular description of goods.—Non-Alcoholic Cereal Beverages Sold as Soft Drinks.
Claims use since Apr. 2, 1917.

Ser. No. 104,988. (CLASS 38. PRINTS AND PUBLICATIONS.) NEW YORK EVENING POST CO., New York, N. Y. Filed July 11, 1917.

Investors'
Blue Book

Particular description of goods.—Pamphlets Published from Time to Time at Intervals.
Claims use since May 1, 1917.

Ser. No. 104,990. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) PRE-HEATED AIR COMPANY, Philadelphia, Pa. Filed July 11, 1917.

SAVIR

Particular description of goods.—Preheating Devices for Inlet-Air for Stoves, Ranges, Heaters, and Furnaces.
Claims use since on or about October, 1912.

Ser. No. 104,998. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) S. BLACKMAN & CO., Philadelphia, Pa. Filed July 12, 1917.



Particular description of goods.—Soda-Fountain Syrup.
Claims use since June 14, 1917.

Ser. No. 105,045. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) H. R. MALLINSON & CO., New York, N. Y. Filed July 14, 1917.

AMPHORA

Particular description of goods.—Silk Piece Goods.
Claims use since June 30, 1917.

Ser. No. 105,048. (CLASS 20. LINOLEUM AND OILED CLOTH.) NAIRN LINOLEUM CO., Kearney, N. J. Filed July 14, 1917.

Linium

Particular description of goods.—Composition Floor-Covering.
Claims use since June 26, 1917.

Ser. No. 105,081. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ARTHUR M. COLLENBERG, Baltimore, Md. Filed July 17, 1917. Under ten-year proviso.

KNOX'S

Particular description of goods.—Laundry Blue for the Bluing of Clothes.
Claims use since June 3, 1865.

Ser. No. 105,115. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) HAND & HITCHNER, Bridgeton, N. J. Filed July 19, 1917.

W. S. H.

Particular description of goods.—Washing Fluid.
Claims use since July 10, 1917.

Ser. No. 105,124. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE HADLEY MILLING COMPANY, Olathe, Kans. Filed July 19, 1917.



Particular description of goods.—Wheat-Flour.
Claims use since about Aug. 1, 1916.

Ser. No. 105,128. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE HADLEY MILLING COMPANY, Olathe, Kans. Filed July 19, 1917.



Particular description of goods.—Wheat-Flour.
Claims use since about June 1, 1916.

Ser. No. 105,129. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE HADLEY MILLING COMPANY, Olathe, Kans. Filed July 19, 1917.



Particular description of goods.—Self-Rising Flour.
Claims use since about July 1, 1916.

Ser. No. 105,130. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE HADLEY MILLING COMPANY, Olathe, Kans. Filed July 19, 1917.



Particular description of goods.—Self-Rising Flour.
Claims use since about July 1, 1916.

Ser. No. 105,142. (CLASS 39. CLOTHING.) BIBERMAN BROTHERS, Philadelphia, Pa. Filed July 20, 1917.

HOOVERALL

Which consists of the word "Hooverall."
Particular description of goods.—Women's, Misses', and Children's Dresses, House-Gowns, and Aprons.
Claims use since about July 13, 1917.

Ser. No. 105,212. (CLASS 39. CLOTHING.) SELZ, SCHWAB & COMPANY, Chicago, Ill. Filed July 23, 1917.

Advantage

Particular description of goods.—Men's, Women's, Misses', Children's, Boys', and Youths' Rubber Boots and Shoes.
Claims use since before Feb. 15, 1917.

Ser No. 105,213. (CLASS 39. CLOTHING.) SELZ, SCHWAB & COMPANY, Chicago, Ill. Filed July 23, 1917.

HYDRO

Particular description of goods.—Men's, Women's, Misses', Children's, Boys', and Youths' Rubber Boots and Shoes.
Claims use since before Feb. 15, 1917.

Ser. No. 105,283. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE LARROWE MILLING CO., Cohocton, N. Y., and Detroit, Mich. Filed July 24, 1917.

BIG 6 SIX

Particular description of goods.—Dairy Feed.
Claims use since Jan. 31, 1917.

Ser. No. 105,296. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CLAUDE L. HOWES, Boston, Mass. Filed July 26, 1917.

GRAFFON

Particular description of goods.—A Rust-Preventive or Non-Electrolytic Coating for Metals.
Claims use since on or about July 1, 1917.

Ser. No. 105,307. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LEE ROY SWOPE, Kansas City, Mo. Filed July 26, 1917.

RELIANCE

Particular description of goods.—Unguent.
Claims use since June 1, 1917.

Ser. No. 105,312. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE FAIRMONT CREAMERY COMPANY, Omaha, Nebr. Filed July 27, 1917.

PURITAN

Particular description of goods.—Poultry and Cheese.
Claims use since 1911.

Ser. No. 105,318. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE HIKE-DIRT CO., Franklin, Pa. Filed July 27, 1917.

"HYCO"

Particular description of goods.—A Water-Softening Compound.
Claims use since May 1, 1917.

Ser. No. 105,329. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AMERICAN PRETZEL COMPANY, Philadelphia, Pa. Filed July 28, 1917.

Rods Gold

Particular description of goods.—Pretzels.
Claims use since about June 1, 1917.

Ser. No. 105,330. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AMERICAN PRETZEL COMPANY, Philadelphia, Pa. Filed July 28, 1917.



Particular description of goods.—Pretzels.
Claims use since about June 1, 1917.

Ser. No. 105,346. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MAGNOLIA METAL COMPANY, New York, N. Y. Filed July 28, 1917.

MAGMETCO

Particular description of goods.—Sulfuret of Antimony, a Pigment Used to Impart Color to Rubber Goods.
Claims use since Mar. 15, 1917.

Ser. No. 105,357. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) A. GIURLANI & BROTHER, San Francisco, Cal. Filed July 30, 1917.

ROMANELLO

Particular description of goods.—Cheese.
Claims use since about Jan. 1, 1917.

Ser. No. 105,464. (CLASS 48. MALT EXTRACTS AND LIQUORS.) P. BALLANTINE & SONS, Newark, N. J. Filed Aug. 4, 1917.



Particular description of goods.—Lager-Beer.
Claims use since Jan. 18, 1907.

Ser. No. 105,498. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE MIDLAND MILLING COMPANY, Kansas City, Mo. Filed Aug. 6, 1917.

SOMBRERO



Particular description of goods.—Wheat-Flour.
Claims use since June 7, 1917.

Ser. No. 105,499. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE MIDLAND MILLING COMPANY, Kansas City, Mo. Filed Aug. 6, 1917.



Dynamite

Particular description of goods.—Wheat-Flour.
Claims use since June 7, 1917.

Ser. No. 105,660. (CLASS 48. MALT EXTRACTS AND LIQUORS.) MASSACHUSETTS BREWERIES COMPANY, Alexandria, Va., and Boston, Mass. Filed Aug. 15, 1917.

ALPFA

Particular description of goods.—A Beverage of a Malt Nature.
Claims use since June 1, 1917.

Ser. No. 105,699. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) ARBUTUS BEVERAGE CO., Iron Mountain, Mich. Filed Aug. 17, 1917.

ARBUTUS

Particular description of goods.—Sodas, Ginger-Ale, Root-Beer, Grape-Juice.
Claims use since June 28, 1917.

Ser. No. 105,700. (CLASS 48. MALT EXTRACTS AND LIQUORS.) S. LIEBMANN'S SONS BREWING COMPANY, Brooklyn, N. Y. Filed Aug. 17, 1917.

AGRICOLA

Particular description of goods.—Beverage Brewed of Malt and other Cereals and is Non-Alcoholic.
Claims use since July 25, 1917.

TRADE-MARK REGISTRATIONS GRANTED

SEPTEMBER 11, 1917.

118,458. CLOTHES-WRINGERS AND PARTS THEREOF. THE AMERICAN WRINGER COMPANY, New York, N. Y.
Filed May 29, 1917. Serial No. 104,130. PUBLISHED JULY 10, 1917.

118,459. LEATHERS AND SKINS. ANCIENS ETABLISSEMENTS A. COMBE & FILS & CIE., Paris, France.
Filed December 1, 1913. Serial No. 74,276. PUBLISHED MAY 9, 1916.

118,460. SOIL CORRECTIVE AND FERTILIZER. ASH GROVE LIME & PORTLAND CEMENT CO., Kansas City, Mo.
Filed May 7, 1917. Serial No. 103,583. PUBLISHED JULY 3, 1917.

118,461. TOOTH-BRUSHES, NAIL-BRUSHES, HAIR-BRUSHES, CLOTHES-BRUSHES, AND KITCHEN-BRUSHES. GEORGE BORGFELDT & CO., New York, N. Y.
Filed April 7, 1917. Serial No. 102,797. PUBLISHED JULY 3, 1917.

118,462. RUBBER ROOFING, AND IS A PREPARED ROOFING MANUFACTURED OF ASPHALT, RAGS, &c. BUFFALO HOUSE WRECKING & SALVAGE CO., Buffalo, N. Y.
Filed April 24, 1917. Serial No. 103,246. PUBLISHED JULY 10, 1917.

118,463. OLEOMARGARIN. CAPITAL CITY DAIRY COMPANY, Columbus, Ohio.
Filed April 20, 1917. Serial No. 103,135. PUBLISHED JULY 3, 1917.

118,464. PIECE GOODS OF SILK, KNOWN AS BROAD SILKS. EGYPT SILK MILLS CORPORATION, Egypt, Pa., and New York, N. Y.
Filed April 6, 1917. Serial No. 102,773. PUBLISHED JUNE 12, 1917.

118,465. WHEAT-FLOUR. FISHER FLOURING MILLS COMPANY, Seattle, Wash.
Filed May 8, 1917. Serial No. 103,638. PUBLISHED JULY 3, 1917.

118,466. CROCKERY, EARTHENWARE, PORCELAIN AND CHINA DISHES, AND KITCHEN-RECEPTACLES. GOLDMAN COSTUME COMPANY, New York, N. Y.
Filed January 24, 1917. Serial No. 100,882. PUBLISHED JUNE 12, 1917.

118,467. LIME-JUICE. LAWRENCE D. HUNTINGTON, Jr., Miami, Fla.
Filed May 24, 1917. Serial No. 104,043. PUBLISHED JULY 10, 1917.

118,468. TOOTH, HAIR, AND SHAVING BRUSHES. MILLER SAFETY TOOTH BRUSH COMPANY, Boston, Mass.
Filed May 25, 1917. Serial No. 104,077. PUBLISHED JULY 3, 1917.

118,469. NON-INTOXICATING MALT BEVERAGE SOLD AS A SOFT DRINK. MILO BEVERAGE CO., Milwaukee, Wis.
Filed April 23, 1917. Serial No. 103,226. PUBLISHED JULY 10, 1917.

118,470. CERTAIN NAMED NON-ALCOHOLIC BEVERAGES. PABST BREWING COMPANY, Milwaukee, Wis.
Filed June 13, 1917. Serial No. 104,429. PUBLISHED JULY 10, 1917.

118,471. VENTILATING, CIRCULATING, EXHAUST FANS, VENTILATING-BLOWERS, STEAM, HOT-WATER, AND FLUID-HEAT RADIATORS. JAMES D. PARKER, Kansas City, Kans.
Filed December 27, 1915. Serial No. 91,783. PUBLISHED MARCH 7, 1916.

118,472. WALL-CASES. QUINCY SHOW CASE WORKS, Quincy, Ill.
Filed October 20, 1916. Serial No. 98,789. PUBLISHED JANUARY 2, 1917.

118,473. KITCHEN AND PARLOR CHAIRS, BEDSTEADS, ROCKERS, BUFFETS, DINING-ROOM AND PARLOR TABLES, MIRRORS, AND DESKS. BARNEY SCHEB, New York, N. Y.
Filed June 19, 1915. Serial No. 87,444. PUBLISHED JUNE 5, 1917.

118,474. MOTOR-CYCLES. THE SCHICKEL MOTOR CO., Stamford, Conn.
Filed May 4, 1917. Serial No. 103,543. PUBLISHED JULY 10, 1917.

118,475. SELF-RISING WHEAT-FLOUR. SCOTT COUNTY MILLING COMPANY, Sikeston, Mo.
Filed May 12, 1917. Serial No. 103,750. PUBLISHED JULY 3, 1917.

118,476. SOFT CHEESE. P. E. SHARPLESS COMPANY, Philadelphia, Pa.
Filed May 8, 1917. Serial No. 103,624. PUBLISHED JULY 3, 1917.

118,477. COMPOSITE SOUND-DEADENER MADE OF VEGETABLE FIBERS. UNION FIBRE COMPANY, Winona, Minn.
Filed March 22, 1917. Serial No. 102,365. PUBLISHED JULY 3, 1917.

118,478. PAPER BOXES. YORK-BRADFORD CO., San Francisco, Cal.
Filed May 7, 1917. Serial No. 103,620. PUBLISHED JULY 10, 1917.

LABELS

REGISTERED SEPTEMBER 11, 1917.

20,278.—*Title:* "PEACE (P. O. E.)." (For Cigars.) CHARLES F. CONRAD, New York, N. Y. Filed August 23, 1917.

20,279.—*Title:* "PEACE (P. O. E.)." (For Cigarettes.) CHARLES F. CONRAD, New York, N. Y. Filed August 23, 1917.

20,280.—*Title:* "WE ROOT FOR FORBES' PURE FOOD PRODUCTS." (For Lard.) W. S. FORBES & Co. INC., Richmond, Va. Filed April 7, 1917.

20,281.—*Title:* "KINDERMEEL." (For Baby Food.) NICHOLAS V. KROEZE, Paterson, N. J. Filed March 7, 1917.

20,282.—*Title:* "RADIO." (For Golf-Balls.) RADIUM GOLF BALL CO., LTD., New York, N. Y. Filed August 24, 1917.

20,283.—*Title:* "EDEN ORCHARDS." (For Boxed Apples.) WENATCHEE REALTY & INVESTMENT CO., Wenatchee, Wash. Filed August 22, 1917.

PRINTS

REGISTERED SEPTEMBER 11, 1917.

4,789.—*Title:* "PREPAREDNESS." (For Wheat Breakfast Food.) CREAM OF WHEAT CO., Minneapolis, Minn. Filed August 27, 1917.

4,790.—*Title:* "TOBIE PRINGKENS." (For Soap.) KIRKMAN & SON, Brooklyn, N. Y. Filed May 21, 1917.

4,791.—*Title:* "MALLORY HATS." (For Hats.) E. A. MALLORY & SONS, INC., Danbury, Conn. Filed August 27, 1917.

4,792.—*Title:* "FURNACE HEAT FOR EVERY HOME." (For Pipeless Hot-Air Furnaces.) THE MONITOR STOVE & RANGE CO., Cincinnati, Ohio. Filed August 23, 1917.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

U. S. Circuit Court of Appeals—First Circuit.

NORTH AMERICAN CHEMICAL CO. *v.* KENO SUPPLY CO. (two cases).

KENO SUPPLY CO. *v.* NORTH AMERICAN CHEMICAL CO.

Decided October 14, 1915.

227 Fed. Rep., 63.

1. PATENTS — INVENTION — PROCESS OF FILLING SHOE-BOTTOMS.
   The Thoma patent, No. 808,224, for the art of filling shoes, *Held* void for lack of invention.
2. SAME — VALIDITY AND INFRINGEMENT — SHOE-FILLING APPARATUS.
   The Arnold patent, No. 808,227, for a shoe-filling apparatus, *Held* void for lack of invention and also not infringed.
3. SAME—SAME—SHOE-BOTTOM FILLER.
   A decree affirmed, which holds valid and infringed the Thoma patent, No. 832,002, for a shoe-bottom filler.
4. SAME—CONSTRUCTION—REFERENCE TO SPECIFICATION.
   Claims in a patent are frequently explained and must necessarily be explained by reference to the specification; but claims which are lacking in the definiteness or clearness required by statute cannot be thus made good.

APPEALS from the District Court of the United States for the District of Massachusetts.

STATEMENT OF THE CASE.

The following is the opinion of Dodge, District Judge, in the court below:

Three United States patents are in suit in this case, all owned by the plaintiff company. They are No. 808,224, issued December 26, 1905, to Andrew Thoma; No. 808,227, issued on the same day, to William B. Arnold; No. 832,002, issued September 25, 1906, to Andrew Thoma. All three were applied for on the same day, August 28, 1905.

The first-named patent (808,224) has eight claims in all, and the bill alleges that six are particularly infringed by the defendant—Nos. 1, 3, 5, 6, 7, and 8. The second (808,227) has ten claims; two of them, Nos. 1 and 8, being specified as particularly infringed. The remaining patent (832,002) has thirty-seven claims; ten of them, according to the bill, Nos. 1 to 4, 6 to 10, and 14, being the ones particularly infringed.

No. 832,002, last mentioned, is for "shoe filler package and process of making the same." In his disclosure the patentee, Thoma, states that he has obtained the best results by mixing certain ingredients, in specified proportions, in a manner he describes, but has also found a number of means of attaining his object, all of which are not disclosed. The plaintiff calls this a patent covering a compound or manufacture, and speaks of it as the "product patent."

No. 808,224, also issued to Thoma, is said to cover the art of applying the filler of No. 832,002 to shoes, and the plaintiff speaks of it as the "process patent."

No. 808,227, to Arnold, is for an "improvement in shoe-filling apparatus," is said to cover the apparatus used in applying Thoma's filler to shoes by Thoma's process, and is spoken of as the "machine patent."

(1) The product of No. 832,002 being thus involved in the inventions described in the other two patents, it will be convenient to consider that (the "product patent") first. The specification is prolix, not always clear, and contains much unnecessary repetition. Its most important features may be stated in substance as follows:

The patentee begins by stating that the filler in common use at the time of his invention is made of comminuted cork mixed with rubber cement (rubber dissolved in naphtha). He refers at this point to United States patent to Howland No. 458,421 (1891), which describes a filler so composed. He then sets forth the disadvantages attending its use, as follows:

The volatile nature of the naphtha in the rubber cement requires a supply to be made fresh for each day's work, and involves large evaporation loss.

There is difficulty in handling the mixture so as to keep "the cement and adjacent articles clean."

The danger of fire from evaporating naphtha—perhaps the greatest disadvantage.

The mixture dries so slowly as to retard the work of the entire factory.

It soon becomes dry and brittle in the shoe, causing the latter to wear unevenly.

The patentee's filler, it is then said, cannot evaporate, nor lose its elastic, waterproof, etc., qualities by reason of age, but remains in proper condition, and adherent to the leather, during the life of the shoe. It can be made into convenient, portable package shapes, though not hard or solid, so as to be supplied ready made and stored until used, and it can be heated and cooled repeatedly without losing its characteristics. It has a low melting-point, and cools or sets rapidly when spread thin on the damp shoe-bottom. The patentee's object is stated to be—

to do away with the delay of the slow-setting rubber cement filler, and with the objectionable features thereof due to the use of, and the evaporating of, the naphtha solvent.

How he attains his object is then disclosed. About five parts gutta-percha, three parts resin, and two parts paraffin-oil are mixed and subjected to a melting heat, which disintegrates the gutta-percha and unites it with the resinous part. The mixture, rendered thin and smooth in two to four hours, by this means, is then thoroughly mixed with

ground cork, or the like, and, being strongly adhesive, affords an excellent elastic medium between the cork granules. Cork or any other substance adapted to give body to the mass, and capable of elastic yielding in all directions, may be used. Instead of gutta-percha, other vegetable gums (some of which are named), or low-grade rubber, to some extent, may be used. The oil being varied in amount, according to their quality and its own quality, it may be either vegetable or mineral oil and either thick or thin.

The mixture is spread out in thin layers, partially cooled, then gathered into small quantities, compacted into loaf form, kept under pressure until stuck together in a mass, preferably compressed again when slightly cooler, and then provided with an external coating of ground cork, or other material capable of becoming part of the loaf which will adhere without sinking in, thus leaving the loaf not sticky enough to prevent ready handling, yet capable of being put into the melting-pot just as it is.

One of the most important results of the invention, according to the patent, is the provision of a—

portable ever-ready filler, having the characteristics mentioned.

The "two most important distinguishing features" of the invention are later said to be: (1) The filler is unchangeable in character, instead of becoming brittle and non-sticky. (2) It is quick-setting, without becoming hard.

The patentee regards his invention as—

broadly novel in certain particulars as pointed out in the claims,

and therefore wishes it understood that in those particulars he is not limited to the preferred binder described.

Thirty-seven claims follow. Nos. 1 to 14 are for a shoe-bottom filler consisting of a mass having characteristics described, or composed of a base and a binder having characteristics described.

All the claims said to be particularly infringed are claims included in this group. Nos. 15 to 32 are for a shoe-bottom filler in the form of a self-contained loaf which is described in a variety of ways, and Nos. 33 to 37 are for the described process of making a self-contained loaf of shoe-filler. No claim belonging to either of the two last-mentioned groups is specified as particularly infringed.

The defendant compounds the filler which it sells by employing a binder for its comminuted cork composed of the following ingredients: resin, nine pounds; Pontianak resin, one-fourth pound; asphalt, one and one-half pounds; brown pitch, one and one-half pounds; oil, eight pounds—these being the quantities used for each twelve pounds of cork. The above proportions are slightly varied according to circumstances. It does not appear that the defendant makes its filler into or sells it in the form of self-contained loaves like the plaintiff's. The method of mixing the ingredients does not differ materially from the patentee's method. The resulting compound is put into cartons or boxes, each holding five pounds.

The defendant thus omits the gutta-percha of the formula whereby the patentee says he has obtained the best results, using instead more resin and Pontianak resin. The patentee has stated that other vegetable gums, Pontianak among those he names, may be used instead of gutta-percha. The asphalt and brown pitch, which are added in small proportion, fall under the description of mineral oils. The defendant, like the plaintiff, has provided a binder for its cork base without using an ingredient containing naphtha, and has thus done away with the delay due to the slow setting of a mixture containing naphtha, and the objectionable features due to its evaporation. It substitutes, for certain ingredients in the patentee's preferred mixture, only well-known equivalents. I see no reason to doubt that it makes its filler by what is in substance the method of the patent; and, restricting the claims in issue to a shoe-bottom filler produced according to the disclosure of the patent, I think they are infringed if they are valid. It does not seem to me that the patentee's described method of making a shoe-bottom filler can fairly be said to be anticipated by the prior patents to Petersen (1882), Grunzweig (1889), or Goodall (1891). In neither of these is the production of a compound adapted for use in filling shoes contemplated, nor does either appear to show how such a compound may be made.

The plaintiff contends for a construction of the claims in suit much broader than that above indicated. It insists that the invention patented is "of a pioneer character," and that, especially since this is true, the patentee is entitled to claim his product "identified by its physical characteristics"; thus covering every article possessing the specified characteristics, without regard to the ingredients which compose it or the method whereby it is compounded.

I do not find sufficient ground to believe that the invention described in this patent is properly to be regarded as "pioneer" in character, or that the product thereof is "new" in the sense necessary to support the plaintiff's contention. So far as appears from the disclosure of the patent, the patentee did no more than show how to make a filler free from the disadvantages he mentions involved in the use of fillers containing naphtha. Except for those disadvantages, the rubber-cement filler does not appear to have been unsatisfactory. The evidence affords reason to believe that, apart from them, it was little, if any, inferior in any essential respect to that produced by the patentee, provided that the rubber cement was of the best quality and free from adulteration. What the patentee provided, therefore, was an improved filler, but not one sufficiently superior in quality or different in kind from anything before known to justify calling it a new filler, or regarding the patentee as first in a new field of invention.

That the use of rubber-cement fillers has been almost everywhere abandoned in favor of a filler made and sold by the plaintiff under the name of "Besto" may be regarded as proved. But it has also appeared that the binder employed in making "Besto" contains hardly any of the ingredients mentioned in the patent and is not prepared according to the method therein described. It is made mainly of "wax tailings," or the resinous residuum of petroleum, rendered properly elastic by the addition of a very small amount of paraffin-oil, and, according to the disclosure of a later United States patent issued to Thoma July 30, 1907, (No. 861,555,) for an improvement in innersole-fillers. Thoma's application for this patent was filed May 15, 1905. It further appears that the plaintiff has made and sold fillers according to the patent in suit only to a limited extent, having almost immediately substituted "Besto," because "wax tailings" cost so much less than gutta-percha; also that "Besto" has been preferred by purchasers who formerly used rubber-cement filler because it was so much cheaper. In view of all the above, the undisputed commercial success of "Besto" affords little reason for crediting the patentee with the invention of a new filler, or with having been a pioneer inventor. The quick disappearance of the old rubber-cement filler as soon as purchasers were able to obtain "Besto" is fully accounted for by the fact that the new filler was cheaper and answered the purposes of the old filler without involving the use of naphtha, and is no indication

that the new filler was also regarded as superior in other respects.

Thoma states, in his "Besto" patent, No. 861,555, that it is subordinate to his copending application for his patent No. 832,002, now under consideration, and that he has therein—

placed the broad claims which are generic to the several different varieties of shoe filler, * * * the present case being restricted to the species of my filler which depends upon the resinous residuum of petroleum or sticky wax tailings.

This is another way of stating the claim he makes here, that the invention described in the patent under consideration is of a character which entitles him to cover every composition for filling shoes, however made or from whatever materials, if only it, or the base or the binder employed in it, can be said to have such qualities as the claims in suit mention. Claim 9, which may be taken for an example, is as follows:

A shoe-bottom filler, consisting of a permanently plastic, quick setting, waterproof mass adherent to leather, and composed of a finely comminuted filler material whose granules are thinly coated with a tenacious, tough binder, which is rendered temporarily highly fluid by moderate heat.

No decision is found in which it is held or recognized that the product of a described process, whether it be called a manufacture or a composition of matter, can properly be claimed in terms like these, so as to cover every product to which the same terms are capable of application. If there are any circumstances in which such claims for a product could be held valid to their full extent, I am unable to believe that they can be so treated in a case like this, where the invention is, at most, of an improved filler, not of one wholly different in kind from any that preceded it. In *American, etc., Co.* v. *Howland, etc., Co.*, (80 Fed., 395, 400; 25 C. C. A., 500,) upon which the plaintiff relies, it was held that the patentee's claims for an improved pulp-digester, covering, among other things, a continuous lining "of cement," without specifying the kind of cement, were not limited to ordinary hydraulic cement, or to the particular cementitious mixtures he had chemically and commercially isolated as individuals, but were to be construed as including all such mixtures as ordinarily skilled chemists might be expected to find as answering the described conditions. Not only does this fall far short of what is required to sustain the plaintiff's contention, but the patentee's conception in that case was wholly new. He had "discovered a new property or force in matter"; *i. e.*, that cement or cementitious mixtures generally would adhere to the iron shell of a digester, resist hot acid, and protect the shell therefrom. Thoma cannot be said to have made any discovery of such character. In view of the fact that he appears to have devised and disclosed an improvement of value, I do not regard the character of his claims in suit as sufficient ground for holding them invalid, as the defendant contends; but I cannot give them a construction broader than that adopted above.

(2) Coming next to the "process patent," No. 808,224, the patentee declares in his specification that, besides providing a filler which will neither evaporate, cave in, cling to the tool, or remain moist and refuse to set indefinitely, he has devised a method which makes the shoe absolutely waterproof, gives it—

a high degree of pliability and elasticity or resiliency of tread,

securing at the same time the main advantages of quick setting, perfect adherence to the leather, even if damp, economy, uniformity, and neatness. He refers to the Arnold machine (being the machine of Patent No. 808,227), which he says has been invented for carrying out his method commercially.

What is to be done in carrying out his "method" is next stated. The first step is to prepare—

a filler of any suitable materials which will be permanently pliable, will not evaporate, will adhere firmly and permanently to leather or the like, and be semi-solid when cold, and freely plastic or semi-fluid when properly heated, and will be quick setting, such a compound being formed of a mixture of comminuted cork, gutta percha, resin, and paraffin oil (about five parts of the gutta percha to three of the resin and two of the oil), and when these are thoroughly mixed under heat the resulting filler may be permitted to stand indefinitely.

The next step is to provide a suitable machine or mechanism; the Arnold machine being shown in the accompanying drawings, and referred to as an instance of such a machine.

Having provided the filler and mechanism as above, pails, contained in the steam-jacketed top of the machine, are filled with the filler and heated by turning steam into the steam-jacket. The filler in the pails, being thus melted, is turned in this condition into a dip-pot, also contained in the steam-jacketed top. The melted filler in proper quantity is taken from the dip-pot and spread upon the innersole of the shoe into the cavity to be filled. The body of filler thus placed in the cavity is pressed against a roll kept hot by the steam which heats the steam-jacket, being admitted thereto through a pipe forming the axis of the roll. By this pressure against the hot roll the outer surface of the filler in the cavity is "superheated," the binder of the filler is caused to flow or spread laterally into all corners of the cavity and in the sewing of the shoe, so as to form tight joints, the top surface of the filler compressed, smoothed, and leveled, and the filler spread by the vertical pressure of the roll, not only so as to fill all crevices, needle-holes, etc., but so as to adhere to the bottom and sides of the cavity. The shoe is then ready to have its outersole attached in the usual manner.

The patentee then declares that a shoe thus constructed has "permanent solidity" and even wearing qualities, a high degree of resiliency and pliability, is permanently waterproof, in comparison with "the old construction," is equally light, less expensive, and more quickly made, and that its construction, being "performed under heat," gives a "homogeneous character" to the parts, which, when subjected to pressure under heat, are all bound together by the filler.

The patentee next restates the advantages possessed by his filler, in virtue of the fact that there is no naphtha in it, in much the same terms as used in his "product patent."

He concludes by stating that he wishes it understood that he is not limited to the mechanical details shown, that the ingredients of his filler may be varied, that he has several fillers meeting the requirements of his method, that that filler and other details are covered in other applications, and that this is limited to the art or method forming part of his "new system of shoe manufacture."

Apart from the patented filler of No. 832,002 and the patented machine of No. 808,227 (below considered), I can find no patentable novelty in what this patent discloses. Whatever else the patent describes amounts to nothing more, so far as I can see, than causing plastic materials which heat will soften to fill a cavity by pressure with a heated tool. This seems to me an obvious mechanical process, involving no inventive idea, given the patented filler, whether Arnold's or any other "suitable" machine be used in carrying it out. Finding nothing patentable in the described method of putting the filler into the shoe, I hold this patent invalid.

(3) Finally, as to the Arnold patent, No. 808,227, the apparatus therein described, as has been stated above, consists of a steam-jacketed table, comprising steam-jacketed compartments, each to receive a filling-pot for melting the Thoma filler and closed by a cover, and containing also an adjacent shallow dip-pot, above the rear end whereof is the roll above mentioned in considering Patent No. 808,224. This is heated by steam, which passes into and heats the steam-jacketed table through a pipe whereon the roll turns as its axis. The patent calls the roll a "superheating-tool," and declares that it constitutes the most important feature of the invention by reason of its position close to the delivery end of the dip-pot. The roll is so shaped as to have a surface in part straight, in part concave, and in part convex, so that the shoe may be pressed against either as required to give the filler the exact surface and compression desired. On the top of the steam-jacketed table, conveniently near the dip-pot and roll, is an arrangement into which dip-knives used in spreading melted filler on the shoe may be thrust, when not in use, and kept hot by being pressed against the heated surface of the table, so as to have a heated knife always at hand for use in transferring filler from the dip-pot to the shoe, without chilling it by the use of an unheated knife.

The two claims said to be particularly infringed are:

1. In a shoe-filling apparatus, means for supplying hot filler for a shoe, and superheating means mounted close to the delivery end of said supplying means for instantly applying a superheated contact over the top of the filled surface of the shoe.

8. In a shoe-filling apparatus, a heated dip pot for supplying hot filler for a shoe, a stand provided with a superheating tool mounted close to the open end of said pot in position to permit the shoe, when filled, to be freely and instantly manipulated in pressing engagement with said superheating tool, and quick-heating means at one side of said dip pot for heating the dip knives used for applying the filler from the pot to the shoe.

I am unable, notwithstanding the presumption in favor of the patent and the plaintiff's argument, to believe that this patent describes anything more than an aggregation of familiar devices, each performing its separate function and accomplishing its separate result in substantially the same manner and to substantially the same extent as if they had not been brought together in one structure resting on the same support. Each is separately and successively used. I can see no result which can properly be regarded as due to their combined operation. It is doubtless highly desirable to have the melted filler close to the hot roll against which it is to be pressed when on the shoe, and to have the dip-knives kept hot in a place close to the filler-supply and the roll; but juxtaposition is not combination. It is true that the patentee not only brings the separate devices close together, but also supplies them all with heat from the same steam. This, however, does not seem to me enough to make any substantial difference. In bringing the separate devices together as above, I think it clear that nothing beyond ordinary mechanical skill was required, and nothing which can fairly be called invention involved.

I am obliged to consider this patent invalid for want of patentable invention. I should be unable, in any event, to treat the claims as covering anything except the particular structure shown and described. So construed, they are not infringed. The defendant's steam-jacketed kettle has no roll, but has a portion of its outer surface flat, and kept hot, of course, by the steam within the jacket. The operator, having filled the shoe with heated filler from the kettle, presses the filler into the shoe by wiping or smoothing it against this flat portion of the heated kettle.

The claims in suit of Patent No. 832,002 are therefore held valid and infringed by the defendant. The claims in suit of the other two patents are both held invalid. There may be a decree accordingly.

Mr. W. Orison Underwood for the plaintiff.

Mr. Francis J. V. Dakin for the defendant.

Before PUTNAM and BINGHAM, Circuit Judges, and ALDRICH, District Judge.

PUTNAM, *Cir. J.:*

This case depends upon alleged infringement of three patents for invention. The first is No. 832,002, application filed on August 28, 1905, and patent issued on September 25, 1906, to Andrew Thoma. This is for the filler, and is entitled "Shoe-filler package, and process for making the same," and is spoken of in the district court as being for the "product." The next patent was issued to the same Andrew Thoma on December 16, 1905, on an application filed on August 28, 1905, entitled to be for "the art of filling shoes," and is spoken of as for the "process." The third patent was issued to William B. Arnold on December 26, 1905, on an application filed on August 28, 1905, and is entitled as for "shoe-filling apparatus," and said to be "the machine of machinery," and is also said to cover the apparatus. All three are supposed to relate to the same art.

The opinion of the learned judge of the district court in these cases was passed down on February 6, 1915. It sustained the bill so far as Patent No. 832,002 was concerned, and entered thereon an interlocutory decree for an accounting and an injunction. On the other patents, namely, 808,224 and 808,227, being one for the process, and the other for the machine or machinery, the bill was ordered to be dismissed, with costs. Both parties appealed to this court.

(1, 2) The learned judge of the district court gave the case a very thorough and elaborate consideration, and passed down a correspondingly thorough and elaborate opinion. So far as Patents Nos. 808,224 and 808,227 are concerned, this court agrees with that opinion, and the facts stated and the reasoning of the court are so full that it is the work of supererogation to go over the matter in detail, or do more than accept its conclusions in reference thereto, and so far as those two patents are concerned we accept that opinion as the opinion of this court, and reaffirm the judgment entered by him without further detail.

(3) With reference to Patent No. 832,002 our views are not entirely harmonious with those of the district court, and therefore we state them to some extent. There had been a great deal of shifting with reference to the claims in that patent, with many amendments of a substantial character. It all came down finally, so far as we are concerned, into the following claims, Nos. 1, 2, 3, 4, 6, 7, 8, 9, 10, and 14:

1. A shoe bottom filler, consisting of a base united with a binder into a permanently tenacious, quick-setting, permanently elastic mass, capable of being molded into a thin pliable layer filling the shoe bottom.

2. A shoe bottom filler, consisting of a normally unchangeable, permanently elastic, quick-setting mass, composed of a base capable of yielding in all directions to pressure, united with a permanently sticky component.

3. A shoe bottom filler, consisting of a normally unchangeable, permanently elastic, quick-setting mass, composed of a base capable of yielding in all directions to pressure, united with a permanently sticky component having a low melting point.

4. A shoe bottom filler, consisting of a normally unchangeable, permanently elastic, quick-setting mass, composed of a base capable of yielding in all directions to pressure, united with a permanently sticky component having a low melting point and serving to render said mass waterproof.

6. A shoe bottom filler, consisting of a resilient base united with a viscous binder into a permanently tenacious, quick-setting, permanently elastic, and water repellent mass, capable of being molded into a thin, pliable layer, filling the shoe bottom.

7. A shoe bottom filler consisting of a normally unchangeable, permanently elastic, quick-setting mass, composed of finely comminuted filler material, having each granule thinly coated with a permanently sticky binder, capable of being rendered highly fluid by moderate heat.

8. A shoe bottom filler, consisting of a filler body in a fragmentary condition, thoroughly mixed with a binder into a permanently tenacious, quick-setting, permanently elastic, and moldable mass of a nonshifting consistency when cold.

9. A shoe bottom filler, consisting of a permanently plastic, quick-setting, waterproof mass adherent to leather, and composed of finely comminuted filler material whose granules are thinly coated with a tenacious, tough binder, which is rendered temporarily highly fluid by moderate heat.

10. A shoe bottom filler, consisting of filler material in a fragmentary condition, and a binder which is permanently elastic, quick-setting, and permanently sticky; said fragmentary filler material and binder being thoroughly mixed together in the presence of heat for use in filling the shoe.

14. A shoe bottom filler, consisting of comminuted filler material, held compactly together by a permanently flexible, viscous binder, in a permanently elastic mass of a consistency suitable for filling in the cavity between the inner sole and the out sole of a shoe; said mass having a low melting point and being compressible and resilient when cold.

This patent was finally left with claims numbered 1 to 37; but the case was accepted by the district court as standing on the claims which we have copied. The other claims were accepted by it as not essential to this litigation, probably because they were not in their terms infringed, as they were more specific, in that they described somewhat particularly various articles which went into the combinations, as, for example, five parts of gutta-percha, and three parts of resin, and two parts of paraffin-oil were enumerated as "binders," while comminuted cork was given as the filling; but we have nothing to do with this as the case stands before us. It now rests entirely on the claims which we have quoted, and which contain no practical express enumeration of the various substances which enter into the product, or of the quantities of these substances, or of any of them. It will be seen that, in the claims so said to be in issue, there is an entire absence of all such specific proportions or elements, and that everything is left standing upon its qualities as described in them, with nothing whatever to enable any one ordinarily skilled in the art to determine the proportions or qualities required, except by experiment. Therefore, so far as these claims are concerned, the case is subject to the rule fully determined by many decisions of the Supreme Court, and given in *Walker on Patents*, (4th ed., sec. 178,) as follows:

The statutory requirements, relevant to particularity in the descriptions and claims of Letters Patent, are conditions precedent to the authority of the Commissioner of Patents to issue such documents; and, if such a document is issued, the description or claims in which do not conform to these requirements, then that document is void.

In this patent the patentee seems to be confused between the "process" and the "product," and he confused the title of the patent accordingly. All that is left now is the "product"; but it is a "product" whose usefulness depends upon the proportions of the various elements contained in it. Therefore, they need the same particular and plain statement as they would if they related to "process."

The reason of this rule is convincing, and in the eyes of the law the rule is a simple one; but its application in practice is sometimes very difficult, as shown in *Wood* v. *Underhill*, (5 How., 1, 5; 12 L. Ed., 23,) which was a case of the "composition of matter," or "product," where the two courts differed. In the case at bar, which with reference to the claims which absolutely lack any statement of any specific proportions, it is plain that the application of this rule is difficult, because the specification deals at great length with numerous elements necessary to be taken into consideration before it can be determined that the generic expressions in these claims which we have copied are capable of any certain application, or any application except one involving experiments by persons who are only ordinarily qualified in the art, or the use of the spirit of invention.

(4) We have already said that the case rests entirely on the claims. To speak accurately, we should say that the case rests on the claims according to the language which they have used, and that the claims in the language in which they are expressed cannot lawfully be applied by drawing on the specification. The claims, of course, in a patent, are frequently explained, and must necessarily be explained, by reference to the specification; but claims which are lacking in definiteness, or clearness, in the way to which Mr. Walker refers, cannot be thus made good. The claims must stand as good or bad by a determination based on the ordinary rules of interpretation.

The court below seems to have gone outside of the claims for the purpose of finding an interpretation for them, and seems to have accepted the invention intended to be covered, not merely by reading the claims under the ordinary rules of interpretation, but by supplying that in which the claims are absolutely lacking—precision and definiteness. Nevertheless we have carefully examined the positions of the respondent, and we do not find that the claims were asserted to be defective or void by reason of the propositions to which we have referred; so that, notwithstanding what we have said in reference thereto, we do not feel justified here in assuming to be wiser than the parties, or assuming to declare claims void for reasons not asserted. Consequently we have been compelled to draw out from the opinion of the court below for what reason it held this patent valid.

This seems to come down to the proposition contained in the opinion as follows, referring therein to the inventor, namely:

In view of the fact that he appears to have devised and disclosed an improvement of value, I do not regard the character of his claims in suit as sufficient ground for holding them invalid; but I cannot give them a construction broader than that adopted above.

This apparently refers to the following paragraph in the opinion of the court, namely:

No decision can be sound in which it is held or recognised that the product of a described process, whether it be called a manufacture or a composition of matter, can properly be claimed in terms like these so as to cover every product in which the same terms are capable of application. If there are any circumstances in which such claims for a product could be held valid to their full extent, I am unable to believe that they can be so treated in a case like this, where the invention is at the most of an improved filler, and not of one wholly different in kind from any that preceded it.

The effect of all this seems to be that the district court held that it could not sustain the patent to the full extent of the language of the claims which we have cited, but found that the patent contained something narrower in its practical effect than what is called for by the language of the claims as read without restriction. In other words, the opinion seems to have gone through the whole state of the art and the circumstances explained in the specification, and gathered from the whole what it found to be new. Therefore, while we make out that, after all, the language of these claims may be insufficient, within the rule which we have cited from Mr. Walker, yet, in view of the fact that neither the court below nor the respondent stands on propositions of that character, we feel that it is going beyond the province of this court to assert such a proposition, which plainly involve serious such a proposition, which plainly involves serious

We apprehend, however, the difficulty arising from the fact of sustaining the patent on a narrower reading than the natural reading of the claims in controversy, and that under the circumstances the invention, as we are sustaining it, is a narrow one, while the claims themselves are perhaps broad. It is therefore necessary for us to caution the profession and the public that the patent is always to be read and interpreted in the manner in which the learned judge of the district court interpreted it, and not with a mere reference to some possible interpretation which may be put on the claims.

The decree of the district court is affirmed, and neither party recovers any costs of appeal.

BINGHAM, Circuit Judge, concurs in the result.

THE
OFFICIAL GAZETTE
OF THE
United States Patent Office.

Vol. 242—No. 3. TUESDAY, SEPTEMBER 18, 1917. Price—$5 per year.

The OFFICIAL GAZETTE is mailed under the direction of the Superintendent of Documents, Government Printing Office, to whom all subscriptions should be made payable and all communications respecting the Gazette should be addressed. Issued weekly. Subscriptions, $5.00 per annum; single numbers, 10 cents each.

Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

CONTENTS.

	Page.
ISSUE OF SEPTEMBER 18, 1917	521
ADVERSE DECISIONS IN INTERFERENCE	521
DISCLAIMERS	521
ADJUDICATED PATENTS	521
APPLICATIONS UNDER EXAMINATION	522
PATENTS GRANTED	523
REISSUES	728
DESIGNS	728
TRADE-MARKS—REGISTRATION APPLIED FOR	731
TRADE-MARK REGISTRATIONS GRANTED	743
TRADE-MARK REGISTRATIONS RENEWED	747
LABELS	748
PRINTS	None.
COMMISSIONER'S DECISIONS—	
Ex parte Herber	749
DECISIONS OF THE U. S. COURTS—	
In re Herber	749
Auffero v. Monnot	750
Coffin Redington Co. v. Turner	751
INTERNATIONAL CONVENTION—MOROCCO	752

Issue of September 18, 1917.

Patents	640—No.	1,240,163 to No.	1,240,802, inclusive.
Designs	19—No.	51,275 to No.	51,293, inclusive.
Trade-Marks	134—No.	118,479 to No.	118,612, inclusive.
Labels	2—No.	20,284 to No.	20,285, inclusive.
Prints	None.		
Reissues	5—No.	14,359 to No.	14,363, inclusive.
Total	800		

"Shall we be more tender with our dollars than with the lives of our sons?"—W. G. McAdoo, Secretary of the Treasury.

SAVE YOUR MONEY

to

BUY A U. S. GOVERNMENT BOND

of the

SECOND LIBERTY LOAN

of 1917

To Help Your Country and Yourself.

Adverse Decisions in Interference.

PATENT No. 1,147,437.

On July 30, 1917, a decision was rendered that John N. Reynolds was not the first inventor of the subject-matter covered by claims, 1, 3, and 5 of his Patent No. 1,147,437, subject, "Bonding device," and no appeal having been taken within the time allowed such decision has become final.

PATENT No. 1,195,567.

On August 13, 1917, a decision was rendered that William Henry Draughon was not the first inventor of the subject-matter covered by claim 16 of his Patent No. 1,195,567, subject, "Calculating and recording machine," and no appeal having been taken within the time allowed such decision has become final.

PATENT No. 1,207,759.

On August 10, 1917, a decision was rendered that Russell Huff was not the first inventor of the subject-matter covered by claims 1, 2, and 4 of his Patent No. 1,207,759, subject, "Oil-guards," and no appeal having been taken within the time allowed such decision has become final.

Disclaimers.

1,107,593.—*Thomas Macready Dowse*, London, England. BULLET FOR KINEMA-TARGETS. Patent dated August 18, 1914. Disclaimer filed September 18, 1917, by the assignee, *Winchester Repeating Arms Co.*

Enters its disclaimer to claims 3 and 7 which are in the following words:

"3. A bullet for indicating hits on a kinematograph target screen, charged with a composition containing powdered aluminium and a small proportion of an oxidising agent.

"7. A hollow nosed bullet for indicating hits on a kinematograph target screen, charged in said hollow nose with a composition containing powdered aluminium and a small proportion of an oxidising agent."

1,212,229. *William Jones*, New York, N. Y. APPARATUS FOR THE PRODUCTION OF OXYGEN AND HYDROGEN GASES. Patent dated January 16, 1917. Disclaimer filed September 1, 1917, by the patentee.

By way of disclaimer—

"Hereby limits the word 'electrodes' occurring in line 3 of claims 2 and 3 of said patent to *bi-polar electrodes*."

ADJUDICATED PATENTS.

(U. S. C. C. A.) The Brucker design patent, No. 48,150, for a design for a toy balloon having the shape and appearance of a watermelon, *Held* void for lack of invention. *Miller Rubber Co.* v. *Behrend*, 242 Fed. Rep., 515.

(U. S. C. C. A.) The Brucker patent, No. 1,136,982, for a toy balloon, *Held* void for lack of invention. *Miller Rubber Co.* v. *Behrend*, 242 Fed. Rep., 515.

(U. S. C. C. A.) Claims 1, 2, 5, 6, 8, 9, 11, 12, and 13 of the Wege patent, No. 999,929, for improvements in metallic structures, *Held* anticipated and invalid. *Safe-Cabinet Co.* v. *Globe Wernicke Co.*, 242 Fed. Rep., 497.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business September 14, 1917.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended.	No. of applications awaiting action.
314	1. Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Railway Gates; Planting; Scattering Unloaders; Trees, Plants, and Flowers.	July 3	June 26	362
126	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	May 10	June 30	361
178	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Founding; Metallurgical Apparatus; Metallurgy; Plastic Metal Working.	Aug. 22	Aug. 11	113
234	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Pushing and Pulling Implements; Railway Mail Delivery; Store-Service; Traversing Hoists.	July 27	Aug. 1	190
167	5. Bookbinding; Harvesters; Jewelry; Music	Mar. 30	June 15	317
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Substance Preparation.	Mar. 31	June 8	474
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes	Mar. 10	June 23	759
133	8. Beds; Chairs; Flexible-Sheet Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	May 4	July 20	755
221	9. Air and Gas Pumps; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Marine Propulsion.	Apr. 2	Aug. 10	531
235	10. Carriages and Wagons; Motor Vehicles	May 1	Aug. 7	782
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Spring Devices; Whips and Whip Apparatus.	June 9	Aug. 6	242
322	12. Journal-Boxes, Pulleys, and Shafting; Machine Elements	May 3	June 7	697
339	13. Ammunition and Explosive Charge, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	May 24	July 30	602
323	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	May 4	July 3	274
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	July 23	Aug. 3	287
112	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony	Mar. 29	July 28	481
307	17. Ornamentation; Paper Manufactures; Printing; Type Casting; Sheet Material Associating or Folding; Sheet Feeding or Delivering; Type Setting.	June 25	Aug. 6	147
229	18. Fluid-Pressure Regulators; Injectors and Ejectors; Liquid Heaters and Vaporizers; Lubrication; Miscellaneous Heat-Engine Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	June 28	July 31	292
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels	Mar. 27	June 27	481
179	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Sales; Undertaking.	Aug. 10	Aug. 10	280
212	21. Brakes and Gins; Canting; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Mar. 19	June 13	348
249	22. Aeronautics; Firearms; Ordnance	Apr. 28	June 15	309
219	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	Mar. 20	Dec. 16	350
144	24. Apparel; Apparel Apparatus; Sewing-Machines; Garment Supporters	July 11	July 27	291
315	25. Agitating; Buttebering; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separation.	Aug. 8	Aug. 13	133
105	26. Electricity, Generation; Motive Power	Feb. 13	Mar. 10	639
214	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus	June 9	Aug. 4	345
235	28. Internal-Combustion Engines	June 27	July 2	540
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking Tools.	May 31	July 11	316
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines	June 25	July 28	394
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Sugar and Salt.	July 5	Aug. 1	199
278	32. Dispensing Beverages; Dispensing; Gas and Liquid Contact Apparatus; Heat Exchange; Packaging Liquids; Refrigeration.	Mar. 1	July 25	990
70	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	July 18	Aug. 1	258
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling Stock; Railway Ties and Fasteners.	June 4	July 12	228
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Signals; Toilet	May 9	Aug. 1	526
204	36. Driers; Geometrical Instruments; Measuring Instruments; Photography; Force Measuring	May 18	June 30	658
107	37. Electric Lamps; Electricity, Circuit Makers and Breakers; Electricity, Conduits; Electricity, General Applications.	Apr. 14	June 26	650
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells	Aug. 11	Aug. 10	160
220	39. Water Distribution; Multiple Valves	Apr. 6	May 7	425
275	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	June 20	Aug. 18	404
126	41. Railway Draft Appliances; Resilient Tires and Wheels	May 21	July 14	431
114	42. Electricity, Conductors; Railway Signaling; Electricity-Transmission to Vehicles; Electric Signaling	Mar. 26	July 3	727
252	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Aug. 6	Aug. 7	196
263	44. Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Ships	June 9	Aug. 7	500

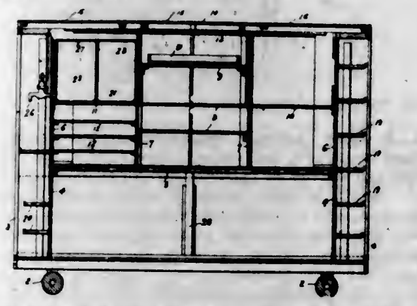
Oldest new case, Feb. 13; oldest amended, Dec. 16.
Total number of applications awaiting action 18,442

168	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	July 5	Aug. 2	1003
	Designs	Aug. 18	Aug. 23	152
	Labels and Prints	Sept. 10	Sept. 8	50

PATENTS

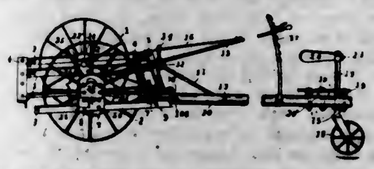
GRANTED SEPTEMBER 18, 1917.

1,240,163. PORTABLE SERVING-BUFFET. JEAN LUCIEN ABADIE, Santa Barbara, Cal. Filed Aug. 12, 1916. Serial No. 114,493. (Cl. 45—17.)



A portable buffet serving table comprising a base portion consisting of a bottom, end and intermediate standards supported thereupon, a supplemental frame arranged between said intermediate standards, a partition for dividing said supplemental frame into sections, shelves arranged within said base portion and supplemental frame, slidable doors for closing the opposite sides of said supplemental frame, a top carried by said base portion, said top adapted to cover said base portion and said supplemental frame, extendible sections arranged within said top and means whereby when said extendible sections are opened access may be gained into the supplemental frame for the purpose set forth.

1,240,164. CORN-HARVESTER AND ENSILAGE-CUTTER. WILLIAM H. ASCUE, Wichita, Kans. Filed Oct. 4, 1915. Serial No. 54,069. (Cl. 56—107.)



In a corn-harvester and ensilage-cutter, a frame suitably mounted upon wheels, one of which is a power-wheel, cut-off saws and means for operating said saws, suitably attached to said frame, means for conducting the corn to said saws to be cut off, a carrier to receive said corn when cut, and means for knocking the corn back on the carrier when cut, a roller to receive the corn from the carrier, a plurality of saws mounted upon a shaft, a roller, provided with curved teeth to receive the corn from the last named roller, and deliver it to the aforesaid saws to be cut into the desired fineness, a conveyer to receive the finished material from the saws and deliver it into an elevator and means to operate said elevator and conveyer and deliver it into a vehicle.

1,240,165. PROCESS FOR THE PREPARATION OF THE FLESH OF ANIMALS OF THE BOVINE GENUS. JULIO BALZARI, Buenos Aires, Argentina. Filed Nov. 1, 1915. Serial No. 59,049. (Cl. 99—11.)

1. That process for the preparation of the flesh of animals of the bovine genus, to be used for food, characterized by mincing the flesh; sterilizing it by heating it, while in water, to a sufficiently high temperature and for the required length of time; separating said flesh from the resultant broth; mincing said flesh a second time; and adding to said flesh the said broth, previously strained and concentrated to the proper consistency, so that the whole shall form a thick mixture of paste-like appearance, substantially as described.

[Claims 2 and 3 not printed in the Gazette.]

1,240,166. CAR-TRUCK. FRANKLIN L. BARBER and EDWIN W. WEBB, Chicago, Ill., assignors to Standard Car Truck Company, Chicago, Ill., a Corporation of New Jersey. Filed May 3, 1917. Serial No. 166,241. (Cl. 105—244.)



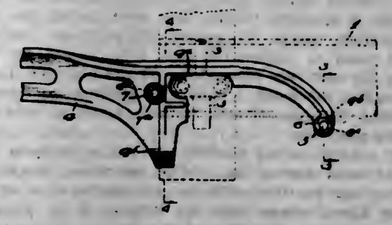
1. In a car truck, the combination with a frame and a bolster, of bolster hangers, and keys supporting said hangers from the frame and holding the same against swinging movement.

2. In a car truck, the combination with a frame and a bolster, of bolster hangers, and flat keys supporting said hangers from the frame and holding the same against swinging movement.

3. In a car truck, the combination with a frame and a bolster, of bolster hangers carried by the frame, and wearing plates on the frame arranged to hold said hangers stationary and affording bolster columns.

[Claims 4 to 13 not printed in the Gazette.]

1,240,167. VEHICLE-BUMPER SUPPORT. JOSEPH BERG, Chicago, Ill., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill., a Corporation of Virginia. Filed June 11, 1917. Serial No. 173,938. (Cl. 213—39.)

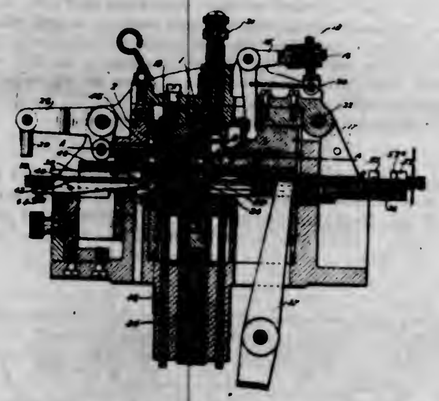


3. In combination with the frame of an automobile having side bars and a transverse bar connecting them, and brackets rigid with the side bars at the outer sides thereof, bumper-supporting arms applied against the outer sides of the side bars respectively, and recessed to accommodate and engage the brackets; hook bolts engaged with the inner ends of said bumper-supporting arms, having their hook ends engaged with the side bars and extending under the latter for such engagement; nuts on the bolts outside the bumper-supporting arms for tightening said

engagement; a tie rod extending across the frame in front of the transverse bar and engaging the bumper-supporting arms, and means for tightening said tie rods to clamp the bumper-supporting arms against the outer sides of the side bars.

[Claims 1 and 2 not printed in the Gazette.]

1,240,168. TYPE-CASTING MACHINE. SHANKER ARAJI BHIAKY, London, England, assignor to Sir Ratan Tata, London, England. Filed Aug. 11, 1914. Serial No. 856,300. (Cl. 199—81.)



1. In a type casting machine in combination, a mold three sides of which form an inverted channel-shaped cavity, said sides being adjustable to vary the body and set width of the mold, but which are maintained in adjusted relation and of channel form throughout the casting cycle, a platform closing said mold, and means for bodily moving the mold and the platform relatively to expose the cast type.

2. In a type casting machine in combination, a mold three sides of which form an inverted channel shaped cavity, said sides being adjustable to vary the body and set width of the mold, but which are maintained in adjusted relation and of channel form throughout the casting cycle, a platform closing said mold, means for moving the mold and the platform relatively to expose the cast type, a stationary receiving platform, and means for transferring the type from the mold closing platform to said stationary platform.

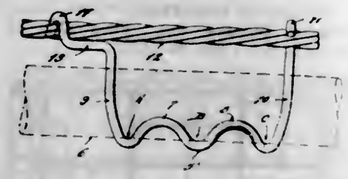
3. In a type casting machine in combination, a mold three sides of which form an inverted channel shaped cavity, said sides being adjustable to vary the body and set width of the mold, but which are maintained in adjusted relation and of channel form throughout the casting cycle, a platform closing said mold during the casting operation, means for moving the platform relatively to said mold to expose the cast type, means for preventing the cast type from rising off the platform during said relative movment, a receiving platform and means for sliding the type off said movable platform onto said receiving platform.

4. In a type casting machine a mold, a platform closing said mold during the casting operation, means for relatively moving the mold and the platform to expose the cast types, means upon the surface of the platform for insuring the connection of the type to the platform by the casting operation whereby said cast types are prevented from rising off said platform but are capable of being moved sidewise, a receiving platform and means for pushing the cast types from the mold closing platform on to the receiving platform.

5. In a type casting machine a mold, a platform closing said mold during the casting operation, means for moving the platform and the mold relatively to expose the cast types, a dit casting device on the surface of said platform so formed as to prevent the cast type rising off said platform but to permit the types to be pushed off sidewise, a stationary platform for receiving the type, and means for pushing said types sidewise on to said receiving platform.

[Claims 6 to 17 not printed in the Gazette.]

1,240,169. CABLE-HANGER. JASPER BLACKBURN, Webster Groves, Mo. Filed Oct. 11, 1915. Serial No. 55,245. (Cl. 248—33.)



1. A cable hanger comprising spaced fingers arranged to support, but not surround a cable, arms spaced apart and curved in opposite directions formed integral with certain of said fingers, a hook carried by one of said arms, and a yielding clamping means carried by the other arm, said clamping means exerting and maintaining a yielding vertical pressure on the messenger wire when the hanger is applied.

2. A cable hanger constructed of a single piece of material and comprising a number of laterally spaced and curved fingers, arranged to support, but not surround a cable, an arm carried by each of the outermost ones of said fingers, a hook carried by one of said arms, and a yielding clamping means carried by the other arm for preventing creeping of the hanger when applied to the messenger.

3. A cable hanger formed from a single piece of spring wire comprising a body portion affording a seat for a cable, arms carried by the body portion bent outwardly and spaced apart so that the hanger may be applied to an existing cable, without spreading the arms apart, one of said arms provided with a hook adapted to engage a span wire on its top surface at a point beyond the arm by which it is carried and with a substantially straight and yielding portion intermediate said hook and the cable supporting seat, said portion being of greater length than the diameter of the span wire and arranged to engage said wire on its underneath surface, and the other of said arms being provided with a hook arranged at an angle to the first mentioned hook adapted to engage the span wire on its top surface.

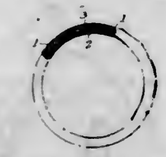
4. As a new article of manufacture, a cable hanger formed from a single piece of resilient material, one end being provided with a suspending hook terminating in a lever arm adapted to be positioned beneath a messenger wire, a body portion formed of a series of suspension points or surfaces arranged at an angle to the axis of the messenger and a cable to be supported thereby, the other end of the hanger terminating in a hook spaced apart from the first mentioned hook, thus affording an increased leverage by means of which the hanger may be applied to or removed from the messenger wire.

5. A cable hanger comprising a cradle like body, open topped, whereby a cable may be supported thereupon without threading the cable through the device, a suspending arm at each end of the device, a hook at the end of one arm at approximately right angles to the longitudinal axis of the device, a wrist at the free end of the other suspending arm and a hook at the free end of said wrist arranged at an angle other than a right angle to the longitudinal axis of the device.

[Claims 6 to 10 not printed in the Gazette.]

1,240,170. SPRING. MANDEL BLOCK, Chicago, Ill. Filed Nov. 22, 1916. Serial No. 132,765. (Cl. 267—14.)

1. A spring ring consisting of a resilient helix the axis whereof is approximately rectilinear when the helix is under no strain, said helix having its ends brought together to form a torus, and a cylindrical pin inserted into the proximate ends of the bent helix, the diameter of the pin being but slightly less than the internal diameter of the helix whereby the pin, though smooth, is frictionally engaged by reason of the tendency of the helix to straighten out, and thereby, unaided, holds the ends of the helix together.



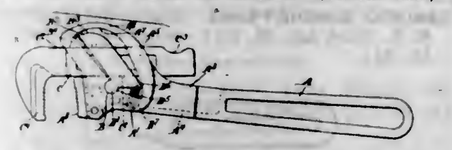
2. A torus-like spring consisting of a resilient helix having substantially tangential coils, and a pin having an external diameter slightly less than the internal diameter of the helix, said pin having a shoulder formed approximately midway between its ends for preventing it from being inserted too far into the helix.

3. A torus-like spring consisting of a helix having a length at least twenty times its external diameter, a cylindrical locking pin of a diameter slightly less than the internal diameter of the helix, said pin having a shoulder between its ends for abutting the ends of the helix to thereby prevent it from entering too far into the helix, and the ends of the helix passing over the ends of the pin a sufficient distance for the ends of the helix to approximately meet.

4. A torus-like spring composed of a resilient helix which is over twenty times as long as its external diameter, a cylindrical locking pin of a diameter slightly less than the internal diameter of the helix, the length of the pin being approximately four times its diameter, and means for preventing the pin from passing too far into the ends of the helix, the ends of the helix extending over the ends of the pin and substantially inclosing it.

5. A spring ring consisting of a helical spring whose length is upward of twenty times its diameter, the coils of the spring being approximately tangential when the helix is straight, a cylindrical locking pin inserted into the two ends of the helix to hold them together, the number of turns of the helix being approximately a whole number in distinction to a number containing a fraction, whereby when the ends of the spring are brought together, the turns of the helix will meet substantially end to end, thereby producing the appearance of a continuous helix in the finished article.

1,240,171. WRENCH. RANSOM Y. BOVEE, Bloomington, Ill. Filed May 28, 1915, Serial No. 30,959. Renewed Feb. 12, 1917. Serial No. 148,258. (Cl. 81—103.)



1. A wrench comprising a handle, a hollow head and a jaw carried thereby, a yoke pivotally mounted within the head, a shank extending through and in rotatable and slidable engagement with both head and yoke, a jaw carried thereby in opposition to the jaw on the handle, clamping surfaces on the yoke and means for yieldingly rotating it to bring them into such engagement with opposed sides of the shank that a plane perpendicular to the shank containing the axis of rotation of the yoke lies between the contact areas.

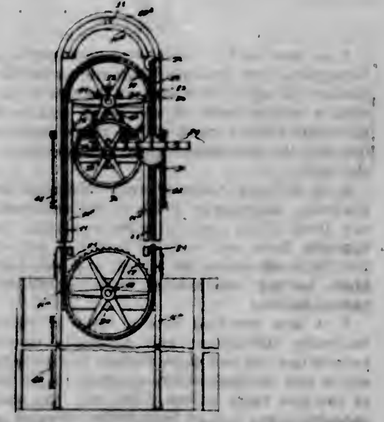
2. A wrench comprising a handle, a hollow head and a jaw carried thereby, a yoke pivotally mounted within the head, a shank extending through and in rotatable and slidable engagement with both head and yoke, a jaw carried thereby in opposition to the jaw on the handle, clamping surfaces on the yoke and means for yieldingly rotating it to bring them into engagement with opposed sides of the shank, and means contained within the head for limiting the rotational movement of the shank.

3. A wrench comprising a handle, a hollow head and a jaw carried thereby, a yoke pivotally mounted within the head, a shank extending through and in rotatable and slidable engagement with both head and yoke, a jaw carried thereby in opposition to the jaw on the handle, clamping surfaces on the yoke and means for yieldingly rotating it to bring them into engagement with opposed sides of the shank, and means contained within the head for limiting the rotational movement of the yoke.

4. A wrench comprising a handle, a hollow head and a jaw carried thereby, a yoke pivotally mounted within the head, a shank extending through and in rotatable and slidable engagement with both head and yoke, a jaw carried thereby in opposition to the jaw on the handle, clamping surfaces on the yoke and means for yieldingly rotating it to bring them into engagement with opposed sides of the shank, and means contained within the head for limiting the rotational movement of the yoke.

5. A wrench comprising a handle, a hollow head and a jaw carried thereby, a yoke pivotally mounted within the head, a shank extending through and in rotatable and slidable engagement with both head and yoke, a jaw carried thereby in opposition to the jaw on the handle, clamping surfaces on the yoke and means for yieldingly rotating it to bring them into engagement with opposed sides of the shank, and means contained within the head for limiting the rotational movement of both the shank and the yoke.

1,240,172. ELEVATOR. LOUIS A. BRENNAN, St. Paul, Minn., assignor to Minnesota Manufacturers' Association, North St. Paul, Minn., a Corporation of Minnesota. Filed June 3, 1916. Serial No. 101,495. (Cl. 198—8.)



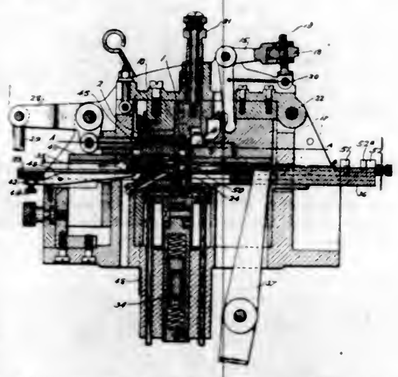
1. In an elevator, a frame, a pair of sprocket wheels revoluble on said frame and arranged one above the other, a chain passing over said sprocket wheels, means to drive the chain, a hanger pivotally attached to said chain, a tray on the lower end of the hanger, a gear segment on the hanger, a driven spur gear below the upper sprocket wheel arranged to mesh with said gear segment and hold the hanger in upright position at the upper turn, and a segmental shoulder on the hanger adapted to slidably bear against the side of said spur gear at said upper turn, to support the hanger.

3. In an elevator, a frame having vertical ways at its sides and an arched way at the top thereof, a pair of sprocket wheels revoluble on said frame and arranged one above the other, a chain passing over said sprocket wheels, means to drive the chain, a hanger having an integral guide block thereon adapted to travel in said vertical ways, a pivot passing centrally through said guide block and connected with said chain, a tray on the lower end of the

engagement; a tie rod extending across the frame in front of the transverse bar and engaging the bumper-supporting arms, and means for tightening said tie rods to clamp the bumper-supporting arms against the outer sides of the side bars.

[Claims 1 and 2 not printed in the Gazette.]

1,240,168. TYPE-CASTING MACHINE. SHANKER ABAJI BHISEY, London, England, assignor to Sir Ratan Tata, London, England. Filed Aug. 11, 1914. Serial No. 856,300. (Cl. 199—81.)



1. In a type casting machine in combination, a mold three sides of which form an inverted channel-shaped cavity, said sides being adjustable to vary the body and set width of the mold, but which are maintained in adjusted relation and of channel form throughout the casting cycle, a platform closing said mold, and means for bodily moving the mold and the platform relatively to expose the cast type.

2. In a type casting machine in combination, a mold three sides of which form an inverted channel shaped cavity, said sides being adjustable to vary the body and set width of the mold, but which are maintained in adjusted relation and of channel form throughout the casting cycle, a platform closing said mold, means for moving the mold and the platform relatively to expose the cast type, a stationary receiving platform, and means for transferring the type from the mold closing platform to said stationary platform.

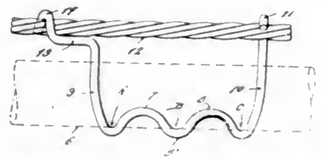
3. In a type casting machine in combination, a mold three sides of which form an inverted channel shaped cavity, said sides being adjustable to vary the body and set width of the mold, but which are maintained in adjusted relation and of channel form throughout the casting cycle, a platform closing said mold during the casting operation, means for moving the platform relatively to said mold to expose the cast type, means for preventing the cast type from rising off the platform during said relative movment, a receiving platform and means for sliding the type off said movable platform onto said receiving platform.

4. In a type casting machine a mold, a platform closing said mold during the casting operation, means for relatively moving the mold and the platform to expose the cast types, means upon the surface of the platform for insuring the connection of the type to the platform by the casting operation whereby said cast types are prevented from rising off said platform but are capable of being moved sidewise, a receiving platform and means for pushing the cast types from the mold closing platform on to the receiving platform.

5. In a type casting machine a mold, a platform closing said mold during the casting operation, means for moving the platform and the mold relatively to expose the cast types, a dit casting device on the surface of said platform so formed as to prevent the cast type rising off said platform but to permit the types to be pushed off sidewise, a stationary platform for receiving the type, and means for pushing said types sidewise on to said receiving platform.

[Claims 6 to 17 not printed in the Gazette.]

1,240,169. CABLE-HANGER. JASPER BLACKBURN, Webster Groves, Mo. Filed Oct. 11, 1915. Serial No. 55,245. (Cl. 248—33.)



1. A cable hanger comprising spaced fingers arranged to support, but not surround a cable, arms spaced apart and curved in opposite directions formed integral with certain of said fingers, a hook carried by one of said arms, and a yielding clamping means carried by the other arm, said clamping means exerting and maintaining a yielding vertical pressure on the messenger wire when the hanger is applied.

2. A cable hanger constructed of a single piece of material and comprising a number of laterally spaced and curved fingers, arranged to support, but not surround a cable, an arm carried by each of the outermost ones of said fingers, a hook carried by one of said arms, and a yielding clamping means carried by the other arm for preventing creeping of the hanger when applied to the messenger.

3. A cable hanger formed from a single piece of spring wire comprising a body portion affording a seat for a cable, arms carried by the body portion bent outwardly and spaced apart so that the hanger may be applied to an existing cable, without spreading the arms apart, one of said arms provided with a hook adapted to engage a span wire on its top surface at a point beyond the arm by which it is carried and with a substantially straight and yielding portion intermediate said hook and the cable supporting seat, said portion being of greater length than the diameter of the span wire and arranged to engage said wire on its underneath surface, and the other of said arms being provided with a hook arranged at an angle to the first mentioned hook adapted to engage the span wire on its top surface.

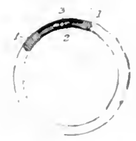
4. As a new article of manufacture, a cable hanger formed from a single piece of resilient material, one end being provided with a suspending hook terminating in a lever arm adapted to be positioned beneath a messenger wire, a body portion formed of a series of suspension points or surfaces arranged at an angle to the axis of the messenger and a cable to be supported thereby, the other end of the hanger terminating in a hook spaced apart from the first mentioned hook, thus affording an increased leverage by means of which the hanger may be applied to or removed from the messenger wire.

5. A cable hanger comprising a cradle like body, open topped, whereby a cable may be supported thereupon without threading the cable through the device, a suspending arm at each end of the device, a hook at the end of one arm at approximately right angles to the longitudinal axis of the device, a wrist at the free end of the other suspending arm and a hook at the free end of said wrist arranged at an angle other than a right angle to the longitudinal axis of the device.

[Claims 6 to 10 not printed in the Gazette.]

1,240,170. SPRING. MANDEL BLOCK, Chicago, Ill. Filed Nov. 22, 1916. Serial No. 132,765. (Cl. 267—14.)

1. A spring ring consisting of a resilient helix the axis whereof is approximately rectilinear when the helix is under no strain, said helix having its ends brought together to form a torus, and a cylindrical pin inserted into the proximate ends of the bent helix, the diameter of the pin being but slightly less than the internal diameter of the helix whereby the pin, though smooth, is frictionally engaged by reason of the tendency of the helix to straighten out, and thereby, unaided, holds the ends of the helix together.



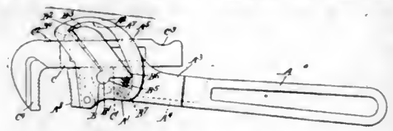
2. A torus-like spring consisting of a resilient helix having substantially tangential coils, and a pin having an external diameter slightly less than the internal diameter of the helix, said pin having a shoulder formed approximately midway between its ends for preventing it from being inserted too far into the helix.

3. A torus-like spring consisting of a helix having a length at least twenty times its external diameter, a cylindrical locking pin of a diameter slightly less than the internal diameter of the helix, said pin having a shoulder between its ends for abutting the ends of the helix to thereby prevent it from entering too far into the helix, and the ends of the helix passing over the ends of the pin a sufficient distance for the ends of the helix to approximately meet.

4. A torus-like spring composed of a resilient helix which is over twenty times as long as its external diameter, a cylindrical locking pin of a diameter slightly less than the internal diameter of the helix, the length of the pin being approximately four times its diameter, and means for preventing the pin from passing too far into the ends of the helix, the ends of the helix extending over the ends of the pin and substantially inclosing it.

5. A spring ring consisting of a helical spring whose length is upward of twenty times its diameter, the coils of the spring being approximately tangential when the helix is straight, a cylindrical locking pin inserted into the two ends of the helix to hold them together, the number of turns of the helix being approximately a whole number in distinction to a number containing a fraction, whereby when the ends of the spring are brought together, the turns of the helix will meet substantially end to end, thereby producing the appearance of a continuous helix in the finished article.

1,240,171. WRENCH. RANSOM Y. BOWEN, Bloomington, Ill. Filed May 28, 1915, Serial No. 30,959. Renewed Feb. 12, 1917. Serial No. 148,258. (Cl. 81—103.)



1. A wrench comprising a handle, a hollow head and a jaw carried thereby, a yoke pivotally mounted within the head, a shank extending through and in rotatable and slidable engagement with both head and yoke, a jaw carried thereby in opposition to the jaw on the handle, clamping surfaces on the yoke and means for yieldingly rotating it to bring them into such engagement with opposed sides of the shank that a plane perpendicular to the shank containing the axis of rotation of the yoke lies between the contact areas.

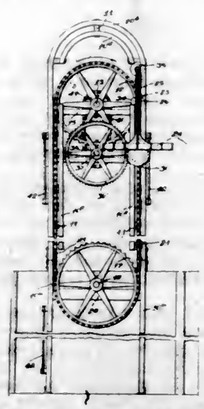
2. A wrench comprising a handle, a hollow head and a jaw carried thereby, a yoke pivotally mounted within the head, a shank extending through and in rotatable and slidable engagement with both head and yoke, a jaw carried thereby in opposition to the jaw on the handle, clamping surfaces on the yoke and means for yieldingly rotating it to bring them into engagement with opposed sides of the shank.

3. A wrench comprising a handle, a hollow head and a jaw carried thereby, a yoke pivotally mounted within the head, a shank extending through and in rotatable and slidable engagement with both head and yoke, a jaw carried thereby in opposition to the jaw on the handle, clamping surfaces on the yoke and means for yieldingly rotating it to bring them into engagement with opposed sides of the shank, and means contained within the head for limiting the rotational movement of the shank.

4. A wrench comprising a handle, a hollow head and a jaw carried thereby, a yoke pivotally mounted within the head, a shank extending through and in rotatable and slidable engagement with both head and yoke, a jaw carried thereby in opposition to the jaw on the handle, clamping surfaces on the yoke and means for yieldingly rotating it to bring them into engagement with opposed sides of the shank, and means contained within the head for limiting the rotational movement of the yoke.

5. A wrench comprising a handle, a hollow head and a jaw carried thereby, a yoke pivotally mounted within the head, a shank extending through and in rotatable and slidable engagement with both head and yoke, a jaw carried thereby in opposition to the jaw on the handle, clamping surfaces on the yoke and means for yieldingly rotating it to bring them into engagement with opposed sides of the shank, and means contained within the head for limiting the rotational movement of both the shank and the yoke.

1,240,172. ELEVATOR. LOUIS A. BRENEMAN, St. Paul, Minn., assignor to Minnesota Manufacturers' Association, North St. Paul, Minn., a Corporation of Minnesota. Filed June 3, 1916. Serial No. 101,495. (Cl. 198—8.)



1. In an elevator, a frame, a pair of sprocket wheels revoluble on said frame and arranged one above the other, a chain passing over said sprocket wheels, means to drive the chain, a hanger pivotally attached to said chain, a tray on the lower end of the hanger, a gear segment on the hanger, a driven spur gear below the upper sprocket wheel arranged to mesh with said gear segment and hold the hanger in upright position at the upper turn, and a segmental shoulder on the hanger adapted to slidably bear against the side of said spur gear at said upper turn, to support the hanger.

3. In an elevator, a frame having vertical ways at its sides and an arched way at the top thereof, a pair of sprocket wheels revoluble on said frame and arranged one above the other, a chain passing over said sprocket wheels, means to drive the chain, a hanger having an integral guide block thereon adapted to travel in said vertical ways, a pivot passing centrally through said guide block and connected with said chain, a tray on the lower end of the

hanger, a guide wheel on the hanger, above the point of connection with the chain, arranged to travel in said ways, a gear segment on the hanger beneath said point of connection, and a driven spur gear below the upper sprocket wheel, said gear segment and guide wheel being adapted to coöperate respectively with said spur gear and arched way to hold the hanger in upright position at the upper turn.

[Claim 2 not printed in the Gazette.]

1,240,173. KEYHOLE-SAW. ALDEN R. BREWER, Northport, Wash., assignor of one-half to Charles H. Moore, Northport, Wash. Filed Jan. 24, 1917. Serial No. 144,252. (Cl. 145—31.)



1. A saw with a blade of substantially even thickness throughout and gradually tapering in width from one end toward the other, each edge of the saw blade being formed with a double series of saw teeth, and each side face of the blade being formed with a single series of teeth merging into the first-named teeth and providing clearance for the latter.

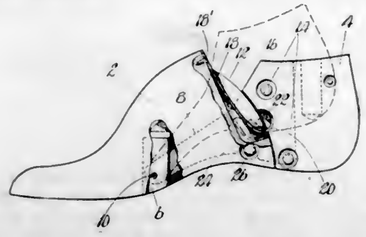
3. A flat saw blade of even thickness throughout and gradually tapering in width to one end, said blade having saw teeth along opposite edges and other teeth along the opposite faces and merging into and providing clearance for the teeth along the edges, and the small end of the blade having longitudinal teeth constituting a straight boring member.

8. A saw provided with a blade of substantially even thickness throughout and gradually tapering in width toward one end and there formed into a cutting device of a width and thickness corresponding to the like dimensions of the saw blade at the small end, the blade having the opposite edges formed into double rows of saw teeth with the teeth having their cutting points adjacent to the side faces of the blade and arranged in alternation with respect to the same edge of the blade, those teeth along one edge constituting cross-cut teeth and those teeth along the other edge constituting rip teeth, and the opposite faces of the saw blade being formed into chisel-like teeth extending crosswise of the blade and progressively narrowing in width in accordance with the taper of the blade, the said teeth on one face of the blade alternating with those on the other face of the blade and merging into the teeth at the edges of the blade and providing clearance therefor.

[Claims 2 and 4 to 7 not printed in the Gazette.]

1,240,174. LAST. MATTHIAS BROCK, Roxbury, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 14, 1912. Serial No. 715,052. (Cl. 12—136.)

1. A last comprising a fore part and a heel part movably connected, a spring rigidly secured to one of said parts and extending inwardly of the last substantially parallel to the direction of the relative movement of the fore and heel parts in collapsing and the other part having a recess to be engaged by the free end of the spring, said spring and recess having opposed curved surfaces arranged to resist movement of the last parts when the last is in extended condition.



2. A last comprising a fore part and a heel part movably connected, a downwardly extending spring rigidly secured to one of said parts and having its free end upwardly recurved, and the other part having a recess shaped to be engaged by the recurved end of the spring for holding the last in extended condition, the edge of the recess reacting against the spring substantially in the direction of its radius of curvature at the point of contact.

3. A last comprising a fore part and heel part pivotally connected, a spring having one end rigidly secured to one of said parts, extending toward the other part and having its opposite end recurved, and said other last part having a curved recess arranged in the interior of the last to be engaged by the recurved end of the spring for holding the last in extended condition.

4. A last comprising fore and heel parts movably connected together, a spring secured rigidly to the secant end of one of said parts and having a free end portion extending downwardly and terminating in a reversely curved end abutment and the other part having a curved recess to receive said abutment and coöperating therewith to hold the last in extended condition.

5. A last comprising two parts movably connected, one of said parts being provided with a groove in its secant face and a spring in said groove having its body portion substantially straight and having one end secured to said part and its remaining portion extending downwardly and rearwardly toward the other part and having a recurved end, and the other part having a recess formed with a curved wall to engage said end, the body portion of said spring lying substantially in the line of relative movement of said last parts when the last is extended.

[Claims 6 to 9 not printed in the Gazette.]

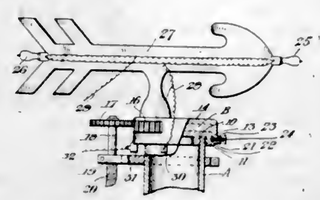
1,240,175. MIRROR-FRAME. ALFRED BURKE, Brooklyn, N. Y. Filed Jan. 23, 1917. Serial No. 143,886. (Cl. 18—51.)



1. A method of manufacturing frames or similar articles which consists in forming a strip to constitute the front section, having an elongated opening and having the material surrounding the opening of substantially uniform width, from a sheet of celluloid; heating the strip to soften the material; shaping the opening to the required configuration for the completed article by spreading the material while it is in a softened condition; forming a back section in its completed shape from a sheet of celluloid; and uniting the two sections, substantially as described.

2. A method of manufacturing mirror frames which consists in forming a strip to constitute the front of the frame, having an elongated opening and having the material surrounding the opening of substantially uniform width, from a sheet of celluloid; heating the strip to soften the material; shaping the opening to the configuration required for receiving the mirror by spreading the material while it is in a softened condition; cutting away the lower, inner marginal edge of the opening; forming a back of required shape from a sheet of celluloid; inserting a mirror between the two parts of the frame; and joining said parts together, substantially as described.

1,240,176. AUTOMOBILE-INDICATOR. HORACE CLAUDE, Clarkstown, Ottawa, and OVILA LACOMBE, Ottawa, Ontario, Canada. Filed June 22, 1916. Serial No. 105,310. (Cl. 177—311.)

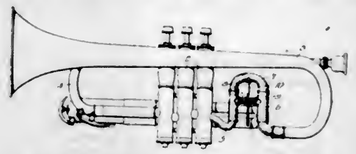


1. The combination with an automobile, of a cap mounted on the automobile radiator provided with a V-shaped recess in the upper face thereon and a peripheral recess, a cover rotatably mounted on the cap provided with a V-shaped projection coacting with the V-shaped recess, a ball coacting with the peripheral recess, resilient means for pressing the ball inwardly, a pointer mounted on the cover, lamps on the front and rear ends of the pointer, and means for closing an electric circuit including said lamps when the pointer has been deflected.

2. The combination with an automobile, of a cap mounted on the automobile radiator, a cover rotatably engaging the cap, a pointer operatively mounted on the cover, an electric contact mounted on the cover and insulated therefrom, a pair of contacts located on opposite sides of the first said contact and designed to engage therewith, lamps on the front and rear ends of the pointer operatively connected to the second said contacts, means for rotating the cover, and automatic means for returning the cover to initial position.

3. The combination of an automobile of a cap mounted on the automobile radiator, a cover rotatably engaging the cap, a curvilinear rack extending partially around the cover, a pinion meshing with the rack, a pointer carried by the cover, lamps on the front and rear ends of the pointer, means for closing an electric circuit including said lamp when the pointer has been deflected, a flexible shaft operatively connected to the pinion to rotate the cover, and automatic coacting angular means for returning the cover to initial position.

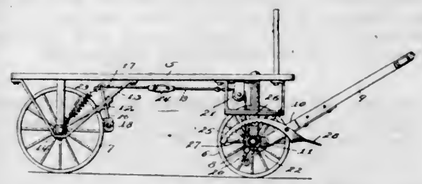
1,240,177. CORNET. CHARLES G. CONN, Elkhart, Ind. Filed Oct. 8, 1914. Serial No. 865,690. (Cl. 84—8.)



1. A cornet having a tuning slide in the form of an open-ended, vertically arranged loop, positioned between the first valve casing and the mouth piece, said loop comprising part of the tube connecting said casing and the bell tube; a thumb nut held against axial movement and a coacting screw held against rotation positioned within the aforesaid loop for adjusting said tuning slide.

2. A cornet having a tuning slide in the form of an open ended, vertically-arranged loop, positioned between the first valve-casing and the mouth piece, said loop comprising part of the tube connecting said casing and the bell tube; and means positioned within the aforesaid loop for adjusting said tuning slide.

1,240,178. TRUCK. HARRY CRAIN, HARRY V. KENGLE, and ELMER E. BUNDY, Enid, Okla. Filed Dec. 21, 1916. Serial No. 138,235. (Cl. 21—8.)

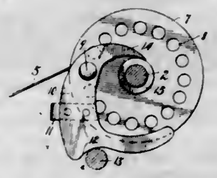


1. The combination of a truck having a pivoted draft tongue, a brake for the truck wheels, brake-operating means, an arm extending from the butt end of the draft tongue and terminating below and to the rear of the pivot of the tongue, a flexible connection between the outer end of said arm and the aforesaid brake-operating means, and a guide on the truck for said flexible connection.

2. The combination of a truck having a swinging draft tongue, a brake for the truck wheels operatively connected to the draft tongue and set when said tongue is swung in one direction, means for releasing the brake when the tongue is swung in the opposite direction, a pivoted ratchet bar carried by the draft tongue, and a keeper on the truck normally engageable by the ratchet bar, the teeth of said ratchet bar being arranged for holding the tongue against a swing in the last-mentioned direction.

3. The combination of a truck having a swinging draft tongue, a brake for the truck wheels operatively connected to the draft tongue and set when said tongue is swung in one direction, means for releasing the brake when the tongue is swung in the opposite direction, a pivoted ratchet bar carried by the draft tongue, and a keeper plate on the front bolster of the truck engageable by the ratchet bar for holding the tongue against a swing in the last-mentioned direction, said truck bolster having an aperture through which the ratchet bar slidably passes.

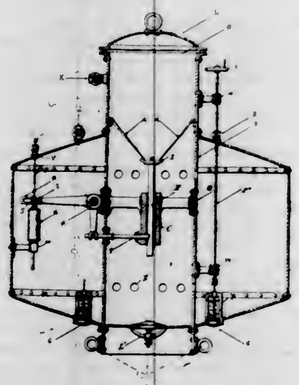
1,240,179. AUTOMATIC STOP MEANS FOR AWNING-ROLLS. WILLIAM ROSS CUNNINGHAM, Toledo, Ohio. Filed Apr. 29, 1916. Serial No. 94,390. (Cl. 156—44.)



1. The combination with a roll, and a member for winding thereon, of a latch pivotally carried by the roll for transverse swinging movements relative thereto and adapted to swing outward with respect to the roll axis by gravity action when at a predetermined point in its turning movement with the roll, the pivot of said latch being adjustable around the roll axis a part fixedly projecting from said latch transversely thereof and lengthwise of the roll to project between predetermined convolutions of said member, whereby the latch will be held in inwardly drawn position by the engagement of a convolution of the member with said part, and a stationary stop part with which said latch coacts to stop an unwinding movement of the roll when the latch is in its outer operative position.

2. In combination, a bracket, a roll having a trunnion journaled in said bracket, a collar fixed to said roll adjacent to said bracket, a latch pivoted to said collar and having a finger projecting from its inner end for coacting with said trunnion to limit the outward swinging movements of the latch, the latch pivot being adjustable on said collar and also having a part projecting transversely from its outer end portion lengthwise of the roll, a stationary part with which said latch coacts to stop an unwinding movement of the roll when the latch is in outwardly-swung position and at a predetermined point in an unwinding revolution thereof with the roll, and a member for winding on said roll and over said latch part to retain the latch in inoperative position except when the member is unwound a predetermined extent from the roll.

1,240,180. MEANS FOR RAISING SUNKEN VESSELS. RAFAEL DE ARAZOZA, Habana, Cuba. Filed Sept. 10, 1915. Serial No. 50,064. (Cl. 114—52.)



1. In a float of the character described, a body, a cylindrical gas generator concentrically arranged within said body and containing a chamber for the gas generating compound, a support for the collapsible bottom of said chamber, a latch or trigger normally maintaining said support in its raised position, means for operating said trigger for releasing the support and means for regulating the air and water supply and exhaust, substantially as described.

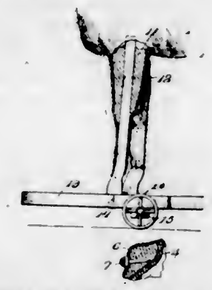
2. In a float of the character described, a body, a cylindrical gas generator, concentrically arranged within said body and containing a chamber for the gas generating compound, a collapsible bottom for said chamber, a support for said bottom, a trigger normally maintaining said support in its raised position for holding said bottom closed, a bell crank lever, a weighted rod guided in a slot of one arm of said lever, means for operating said rod to actuate the trigger to release said support and valves for regulating the supply and exhaust of air, water and gas, substantially as described.

1,240,181. TOY ANIMAL. CHARLES J. DORSEY, Baltimore, Md. Filed Nov. 4, 1916. Serial No. 130,459. (Cl. 46—45.)

1. A toy animal with body, neck and head comprising molded sections secured together edge to edge, molded eye bearing projections distinct from said sections but secured thereto, and a simulated skin of colored canton flannel wrong side out covering said body, neck and head, including said projections.

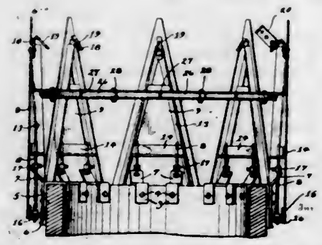
2. A toy animal comprising a molded material head, eye-projection composition moldings secured thereon, and artificial eyes secured in proper relation thereto.

3. A toy animal comprising a head of molded material halves secured together, and eye sockets built outward thereon, and eyes secured thereto.



4. A toy animal of molded material, eye socket extensions thereon, and artificial eyes consisting of round headed tacks suitably painted.

1,240,182. SILO-ROOF. FRANK H. DOUTHITT, Clinton, Iowa. Filed Oct. 30, 1916. Serial No. 128,364. (Cl. 20—1.4.)

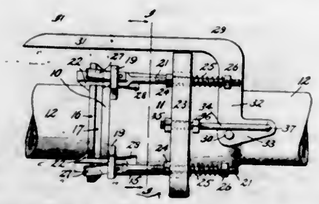


2. In a silo, a plurality of converging roof sections, an anchor rod extending longitudinally of each of said sections, supporting means for securing said sections to the upper edge of a silo by means of said rods, a collar adjustably carried by each rod to coöperate with said supporting means to hold the sections in proper position, and means for giving the proper support to the top of said sections.

5. In a silo, a plurality of converging roof sections, means for adjustably supporting the lower ends of said sections from the upper edge of a silo so that said sections may be expanded or contracted, a ring member to which the upper ends of said sections are attached, and means whereby the upper ends of said sections may be adjustably connected to said ring to permit their assuming various heights.

[Claims 1, 3, and 4 not printed in the Gazette.]

1,240,183. HOSE-COUPLING. CHARLES E. DRAPER, Larrabee, Iowa. Filed July 5, 1916. Serial No. 107,639. (Cl. 137—28.)



1. A pipe coupling comprising a male and a female member adapted to snugly fit together, a projecting collar

on one of said members, a plurality of devices on the other member adapted to engage said collar and hold said members in coupled relation, means encircling said other member for supporting said devices and causing them to move in unison, resilient buffers between said supporting means and said devices, and operating means on said other member connected to said supporting means for moving the same and the locking devices longitudinally of the coupling to engage the collar thereon to hold said members connected.

2. In a pipe coupling, comprising a male member and a female member adapted to be snugly coupled together, a collar on one of said members, a plurality of locking devices on the other member adapted to engage with said collar and hold said coupled members from separation, a ring loosely encircling the member supporting the locking devices and connecting said devices for the purpose of causing them to move in unison, a resilient buffer between each locking device and said ring, and a swinging lever connected to said ring for operating said locking devices through the resilient means.

3. A pipe coupling, comprising a male member and a female member adapted to be snugly fitted together, a collar on said male member, a plurality of longitudinally moving locking hooks slidably supported on said female member and adapted to engage with said collar and hold the members of the coupling from separating, a loose ring encircling said female member having openings in which said locking hooks are adapted to pass and slide freely and by means of which said hooks are caused to operate in unison, resilient means between said locking hooks and said ring, a swinging lever, and means connecting said lever and said ring for moving the locking devices longitudinally.

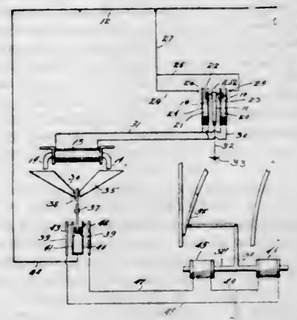
4. A pipe coupling, comprising a male member and a female member, adapted to be snugly fitted together, a collar projecting outwardly from said male member, a plurality of radial projections on the end of the female member, through each of which is formed an opening, a longitudinally movable hook adapted to slide through each of said openings and engage said collar, a loose ring surrounding the female member in the rear of said projection and having openings therein through which the rear end of said locking members are adapted to slide freely in a longitudinal direction, nuts on each of said hooks on opposite sides of said ring, a resilient member between one of said nuts and the ring, a lever pivoted to the female member, and connections between said lever and said collar for moving said hooks longitudinally.

5. A pipe coupling comprising a male member and a female member adapted to snugly fit together, a projecting collar on one of said members, a plurality of rods on the other member each having a hook on one end adapted to engage said collar and hold said members in coupled relation, a loose ring encircling said other member through which said rods slide freely and which support them and cause them to move in unison, a stop on each rod on one side of said ring, an adjustable spring buffer surrounding each rod on the opposite side of the ring, and a lever pivoted on said other member and connected to said ring for causing the hooked ends of said rods to engage the collar on the first named member that hold said member in coupled relation.

[Claim 6 not printed in the Gazette.]

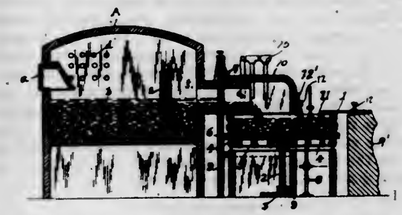
1,240,184. ELECTRIC RAILROAD. THOMAS M. ERICKSON, Chicago, Ill. Filed Nov. 13, 1916. Serial No. 131,039. (Cl. 104—155.)

1. The combination with the movable member of a switch; of a pair of normally open electric circuits each including an electrically operated mechanism connected to said member to move it in one direction and a switch for closing the circuit, said switches being disposed adjacent each other, and means to selectively close the switches by magnetism induced from a moving magnet, said means comprising a pair of spaced paramagnetic bodies each having one end adjacent the path of the moving magnet, and a permanent bar magnet pivoted adjacent the remaining ends of said bodies and having one end projecting between the adjacent ends of the bodies, the remaining end of said permanent magnet being arranged to engage said switches selectively and close the same upon movement of said permanent magnet under the influence of magnetism induced in the paramagnetic bodies.



2. The combination with a car supported electromagnet movable with the car, and means to control the polarity of said magnet; of a stationary pair of spaced paramagnetic bodies having an end adjacent the path of movement of a respective pole of the car supported magnet, the remaining ends of said paramagnetic bodies being disposed adjacent each other, a permanent magnet pivoted adjacent said remaining ends and having one end projecting therebetween for oscillation by magnetism induced in said bodies by the passage of the electro-magnet past the bodies, a pair of switches disposed on opposite sides of the other end of said permanent magnet and arranged to close selectively under the influence of movement of the permanent magnet in a respective direction, a track switch having a member movable to open and closed positions, and actuating means electrically connected to respective switches of the pair and arranged to effect desired movement of the member to a selected position upon closing of a respective switch.

1,240,185. CONTINUOUS GLASS-DRAWING APPARATUS. ROBERT G. EWING, Toledo, Ohio. Filed Apr. 9, 1917. Serial No. 160,605. (Cl. 49—17.)



1. In a continuous glass drawing apparatus, the combination with a continuous glass melting and supply furnace, of a revoluble drawing supply tank adapted to continuously receive molten glass from the melting furnace, a stationary hood covering in and forming a heating chamber over all the top of the revoluble tank excepting an open drawing segment of the top, means to revolve the tank and with it the mass of molten glass therein, means to segregate from the moving molten glass in the uncovered segment of the tank and maintain and hold relatively motionless therein, a drawing supply of the mass, means to continuously draw glass from the segregated portion of the glass, and means to re-heat the moving portion of the glass in the tank as it passes underneath the hood, whereby the segregated stationary drawing supply is maintained in a drawing condition, and the accumula-

tion of detrimental deposit below the place of drawing is prevented.

3. In a continuous glass drawing apparatus, the combination of a drawing supply tank adapted to be continuously supplied with molten glass, a hood partly covering in and inclosing the supply tank, forming a re-heating chamber therefor, and having an open drawing portion, a stationary drawing well open at top and bottom and partly submerged in the supply of molten glass in the open drawing portion of the tank and adapted to segregate the portion of the glass in the drawing well from the molten glass in the tank, means to move the mass of molten glass of the tank, excepting the portion in the well, from and to the heating chamber, and to and around and under and from the drawing well, means to supply heat to the heating chamber, and means to continuously draw glass from the well.

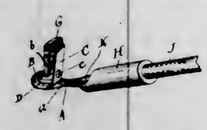
4. In a continuous glass drawing apparatus, the combination with a glass melting supply furnace, of a drawing supply tank adapted to continuously receive molten glass from the melting furnace, a stationary hood covering in the larger portion of the supply tank excepting an open drawing portion of the top, and forming a re-heating chamber for the glass in the tank, means to segregate a drawing supply from the molten glass in the tank in the uncovered portion of the tank, and hold it relatively motionless therein, means to continuously draw glass from the motionless segregated portion of the glass, means to supply heat to the re-heating chamber, and means whereby the glass in the tank is moved from and to the re-heating chamber, to and from and around and under the segregated drawing supply, and whereby the segregated drawing supply is maintained in drawing condition, and an accumulation of detrimental deposits below the place of drawing is prevented.

5. In a continuous glass drawing apparatus, the combination of a revoluble drawing supply tank adapted to be continuously supplied with molten glass, a hood partly covering in and inclosing the supply tank and forming therewith a re-heating chamber above and for the glass in the tank and leaving a drawing portion of the top open, a drawing well, open at its top and bottom, and having its walls partly submerged in the molten glass in the tank, means to revolve the tank, means to heat the chamber over the tank, and means to continuously draw glass from the well.

6. In a continuous glass drawing apparatus, the combination of a revoluble drawing supply tank adapted to be continuously supplied with molten glass, a hood partly covering in and inclosing the supply tank and forming therewith a re-heating chamber above and for the glass in the tank and leaving a drawing portion of the top open, means to segregate a drawing supply from the molten glass in the tank in the uncovered portion of the tank, and hold it relatively motionless therein, means to continuously draw glass from the segregated portion of the glass, means to supply heat to the re-heating chamber, and means whereby the glass in the tank is moved from and to the re-heating chamber, to and around and under and from the segregated drawing supply.

[Claim 2 not printed in the Gazette.]

1,240,186. SPRING TERMINAL CONNECTION. ERNEST BENJAMIN FAHNESTOCK, Brooklyn, N. Y. Filed Feb. 24, 1913. Serial No. 750,304. (Cl. 173—269.)



1. A spring terminal connection for electric wires formed of resilient metal and comprising opposed normally separated body and spring members, and a third member located intermediate the same, all of said members being adapted to receive a conductor and coöperate in clamping the conductor, said body member carrying a sleeve of nonconducting material and said spring member carrying a finger-piece of non-conducting material whereby said spring member may be forced toward the body member and into coöperative relationship with said third member and body member against the tension of the spring without danger of electric shock.

2. A spring terminal connection for electric wires formed of resilient metal and comprising opposed normally separated body and spring members, and a third member located intermediate the same and adapted to cooperate with said body and spring member to receive and clamp a conductor when said members are forced into cooperative relationship against the tension of the spring and then released, said body member carrying a protective sleeve of non-conducting material, said sleeve being adapted at its free end to receive the end of an electric conducting wire and means for electrically connecting said electric conducting wire to said body member.

3. A spring terminal connection for electric wires formed of resilient metal and comprising opposed normally separated body and spring members, and a third member located intermediate the same and adapted to cooperate with said body and spring member to receive and clamp a conductor when said members are forced into coöperative relationship against the tension of the spring and then released, said body member carrying a protective sleeve of non-conducting material, said sleeve being adapted at its free end to receive the end of an electric conducting wire, and non-conducting means whereby said spring member may be forced toward the body member and into coöperative relationship with said third member and body member against the tension of the spring, without danger of electric shock.

4. A spring terminal connection for electric wires formed of resilient metal and comprising two opposed normally separated spring members adapted when pressed together to coöperate with each other to clamp a conductor, a body member formed at a free end of said spring members, said body member carrying a protective sleeve of non-conducting material, said sleeve being adapted at its free end to receive the end of an electric conducting wire, and non-conducting means whereby the two spring members may be forced toward each other into coöperative relationship against the spring tension, without danger of electric shock.

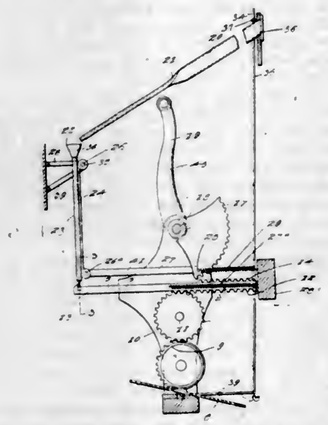
5. A spring terminal connection for electric wires formed of resilient metal and comprising opposed normally separated body and spring members adapted to cooperate with each other to receive and clamp a conductor when the spring member is forced toward the body member and then released, said body member carrying a protective sleeve of non-conducting material, said sleeve being adapted at its free end to receive the end of an electric conducting wire, and non-conducting means whereby said spring member may be forced toward the body member and into coöperative relationship therewith against the tension of the spring, without danger of electric shock.

[Claim 6 not printed in the Gazette.]

1,240,187. COIN-CONTROLLED MECHANISM FOR VENDING-MACHINES. EDWARD C. FAIN, Wetumpka, Ala. Filed Oct. 21, 1916. Serial No. 126,940. (Cl. 194—91.)

1. Coin controlled mechanism including an oscillatory gear, a movable coin chute connected with the gear, a rack bar having its teeth normally out of mesh with the oscillatory gear, and provided with means adapted to be engaged by a coin for connecting the rack bar with the movable coin chute to cause a movement of the rack bar to carry its teeth into mesh with the oscillatory gear, the continued movement of the rack bar and the chute operating to dislodge the coin.

2. Coin controlled mechanism including an oscillatory gear, operating mechanism connected with the gear for actuating the same, a pivotally mounted coin chute connected with the gear, a slidable rack bar having its teeth normally out of mesh with the oscillatory gear, said rack bar extending beneath the coin chute when the latter is in its initial position and adapted to support a coin for connecting the rack bar with the chute to cause a preliminary movement of the rack bar to carry its teeth into mesh with the teeth of the oscillatory gear.



3. Coin controlled mechanism including an oscillatory gear, a pivoted coin chute mounted to swing on a horizontal axis, a link connecting the coin chute with the gear to cause the former to swing in union with the latter, a slidable rack bar having its teeth normally spaced from and arranged out of mesh with the teeth of the gear, said rack bar extending beneath and having coin receiving means adapted to support a coin in the lower end of the coin chute to cause a preliminary movement of the rack bar by the operating means to carry the teeth of the rack bar into mesh with the teeth of the said gear.

4. Coin controlled mechanism including an oscillatory gear a rack bar located beneath and having its teeth normally arranged out of mesh with the rack bar, a pivotally mounted coin chute connected with the gear to swing in unison with the latter and arranged above the rack bar, the rack bar being provided with a coin receiving notch having a laterally inclined bottom and adapted to support a coin for connecting the rack bar with the operating means.

5. Coin controlled mechanism including a quadrant, a slidable rack bar located beneath the quadrant and having upper and lower racks, the upper rack being normally out of engagement with the quadrant, a movable coin chute connected with the quadrant and located above the rack bar for depositing a coin thereon for connecting the rack bar with the quadrant to carry the upper teeth of the rack bar into mesh with the said quadrant, a valve or cut-off, and gearing for connecting the valve or cut-off with the lower teeth of the rack bar.

[Claims 6 and 7 not printed in the Gazette.]

1,240,188. ELECTRICAL-CONDUIT BUSHING. CHARLES W. FINLEY, Battle Creek, Mich. Filed Mar. 6, 1916. Serial No. 82,307. (Cl. 247—1.)

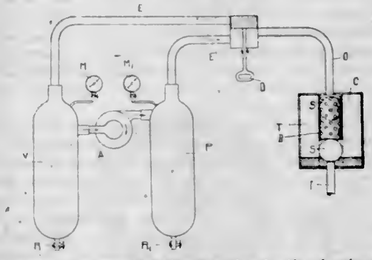


2. The combination with a junction box, a conduit having a threaded end extending through the side wall thereof and a jam nut screw-threaded on said conduit against the outer wall of said box, of a ring bushing having longitudinally-extending exterior ribs with radially indrawn top terminals screw threaded on said conduit within said box, and a dished closure having an outwardly-flaring rim fitted within said bushing, the rim of said bushing resting upon the radial terminals of said ribs, substantially as set forth and for the purpose described.

3. The combination with a junction box, a conduit having a threaded end extending through the side wall thereof and a jam nut screw threaded on said conduit against the outer wall of said box, of a ring bushing screw-threaded upon said conduit within said box, said bushing having raised portions extending longitudinally therewith from the outer open end of said bushing and a dished closure fitted within said bushing, said closure having an outwardly flaring marginal rim seated upon the raised portions of the outer end of said bushing, for the purpose set forth and described.

[Claim 1 not printed in the Gazette.]

1,240,189. BALLAST CONTROL FOR SUBMARINES. GUIDO FORNACA, Turin, Italy, assignor to Fiat-San Giorgio, Società Anonima, Spezia, Italy. Filed Oct. 10, 1916. Serial No. 124,809. (Cl. 114—16.)

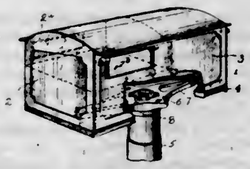


1. Means for quickly altering the depth of submergence of submarines, comprising two reservoirs for air or gaseous fluid which are so arranged that one of the reservoirs is maintained in a condition of pressure and the other in a condition of vacuum, a third reservoir or chest in turn in communication with the sea water, and means for placing either of said first-named reservoirs in communication with said third-named reservoir for the purpose of drawing in such water or expelling it from the chest and consequently increasing or diminishing the weight of the vessel.

3. Means for quickly altering the depth of submergence of submarines, comprising two reservoirs for air or gaseous fluid, which are so arranged that one of the reservoirs is maintained in a condition of pressure and the other in a condition of vacuum, a third reservoir or chest in turn in communication with the sea water, and a distributing valve for placing either of said first-named reservoirs in communication with said third-named reservoir for the purpose of drawing in such water or expelling it from the chest and consequently increasing or diminishing the weight of the vessel.

[Claim 2 not printed in the Gazette.]

1,240,190. POSTAL BOX. CHARLES FORTH, Ottawa, Ontario, Canada. Filed Aug. 27, 1915. Serial No. 47,568. (Cl. 232—40.)



1. In combination with a standard, a postal box, an annular depending member fastened to the under side of

the box and rotatably supported by the standard, and fastening means situated within said annular member and inaccessible from the outside for confining the same and connected box rotatably on the standard.

2. In combination with a standard provided with an upwardly extending stud, a postal box, an annular depending member fastened to the under side of the box and rotatably supported by the standard, said member being provided with a portion inclosed by said member and loosely surrounding the stud, and a head on the stud to hold the parts together, said head being inaccessible from the outside.

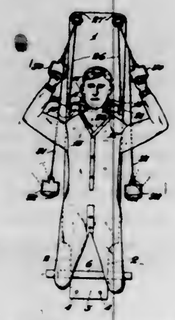
3. In combination with a standard provided with a vertical stud, a postal box, a depending socket member fastened to the under side of the box and provided with an internal bracket inclosed thereby, said socket member being rotatably mounted on the standard, with the bracket loosely surrounding the stud, and a head on the stud to confine the bracket thereon, said head being inclosed by the socket member and being inaccessible from the outside.

4. In combination with a standard, a postal box, an annular depending member fastened to the underside of the box and rotatably supported on the standard and movable axially thereof in shifting the box around to different predetermined positions, and fastening means situated within the annular member to confine the same rotatably on the standard, said fastening means being constructed to limit the axial movement of the member and being inaccessible from the outside.

5. In combination with a standard provided with an annular track having depressions therein, a postal box, a depending annular member fastened to the under side of the box and rotatably supported by the standard to move axially thereof, said member being provided with downwardly extending lugs to enter the depressions in the track, whereby by the axial movement of the box, the lugs may be engaged with the different depressions in shifting the box around to different predetermined positions, and means situated within the annular member for limiting the axial movements of the same, said means acting to confine the annular member rotatably on the standard and being inaccessible from the outside.

[Claims 6 and 7 not printed in the Gazette.]

1,240,191. AUTO-EXERCISING APPARATUS. IVAN FOX, near Media, Pa. Filed Nov. 4, 1916. Serial No. 129,442. (Cl. 46—69.)



1. An exercising apparatus comprising a base member adapted to support the body of a person while using the apparatus, a head rest movably connected with the said base upon which the head of such person rests and means for causing movement of the said head rest to stretch the muscles of the body.

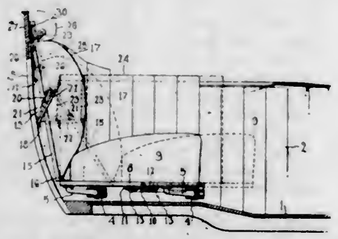
2. In an exercising apparatus, the combination of a base member adapted to support the body of a person using the said apparatus, a head rest pivotally and slidably connected with the said base and means having connection with the said rest for supplying a force thereto to effect a stretching and manipulation of the muscles of a person using the said apparatus.

3. In an exercising apparatus, the combination of a base member for supporting the body of a person using the apparatus, means adjustably connected with one end portion of the said base member for supporting the legs of a person using the said apparatus upon opposite sides of said end portion, a head rest pivotally and slidably connected with the said base member for supporting the neck and head of a person using the apparatus and means for applying a force to the head of a person using the apparatus to exert a pulling upon the same in the direction of the length of the body.

4. In an exercising apparatus the combination of a base member for supporting the body of a person using the said apparatus, means slidably connected with the said base member for supporting the neck and head of a user of the said apparatus and means for applying a force underneath the chin of such user to effect a pulling action upon the same in the direction of the length of the body, the said head rest having means for preventing a backward bending of the head.

5. In an exercising device, the combination of a base member for supporting the body of a person using the apparatus, a head rest pivotally and slidably connected with the said base member, ropes having connection with the said head rest, guides for the said ropes secured upon the said base member at points above the head of a person using the apparatus and hand pieces upon the outer free ends of the said ropes adapted to be grasped by the hands of a person using the apparatus to enable such person to pull upon the said ropes and effect a pulling force upon the head and chin of a person using the said apparatus.

1,240,192. AUTOMOBILE-SEAT. WILL R. FRENCH, Detroit, Mich. Filed June 2, 1917. Serial No. 172,356. (Cl. 21—43.)



1. The combination with an automobile body having side walls and a rear wall, of sets of pivoted brackets carried by said side walls, a seat frame loosely connected to said brackets and capable of longitudinal movement in said automobile body, a back frame hinged to the rear edge of said seat frame, side arms slidable on the side walls of said body, and coupling members carried by the rear wall of said body and articulated with said back frame and said side arms for movement in synchronism with said seat frame.

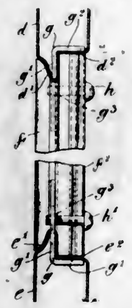
2. The combination with an automobile body having side walls and a rear wall, of an adjustable seat frame supported from said side walls, an adjustable back frame connected to the rear edge of said seat frame, arms slidable on the side walls of said body, means articulating said arms and said back frame for movement in synchronism with and in the same direction as said seat frame, and means carried by said seat frame adapted for locking said seat frame in adjusted position.

3. The combination with an automobile body having side walls and a rear wall, of brackets carried by the side walls of said body, a seat frame loose on said brackets and capable of longitudinal movement with said automobile body, a back frame hinged to the rear edge of said seat frame, arms slidable on the side walls of said body, coupling members articulating said back frame and said arms for movement in synchronism with said seat frame, and means carried by said seat frame operatable at the front edge thereof and adapted to lock said seat frame at the ends thereof against accidental movement.

4. The combination with an automobile body, having side walls and a rear wall, of an adjustable seat frame supported in the side walls of said automobile body and capable of longitudinal movement in said automobile body, a back frame hinged to the rear edge of said seat frame, rails carried by the side walls of said automobile body, rollers carried by the ends of said back frame at the upper edge thereof engaging in said rails, arms slidable on the side walls of said body, and means articulating said arms and the ends of said back frame for movement in synchronism with said seat frame.

5. The combination with an automobile body having side walls and a rear wall, of sets of pivoted brackets carried by the side walls of said automobile body, a seat frame loose on said bracket and capable of longitudinal movement in said automobile body, a back frame hinged to the rear edge of said seat frame, rails carried by the side walls of said automobile body, rollers carried by the ends of said back frame at the upper edge thereof and engaging in said rails, and means carried by said seat frame operatable at the front edge thereof and adapted to lock the ends of said seat frame relative to said side walls.

1,240,193. METAL WINDOW CONSTRUCTION. ALEXANDER FROMHOLD, Rutherford, N. J., assignor to S. H. Pomeroy Company, New York, N. Y., a Corporation of New York. Original application filed Jan. 28, 1915, Serial No. 4,816. Divided and this application filed Oct. 2, 1915. Serial No. 53,676. (Cl. 189—76.)



1. In metal window construction, a rail having a slot in its inner face, a muntin bar having its end fitted to the rail, an L-shaped connecting piece having one arm bearing internally against the rail and the other arm projected through the slot in the rail directly, and means to secure said last named arm to the muntin bar whereby tension on the muntin bar is transferred directly to the rail.

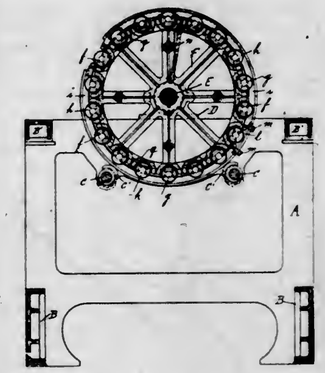
2. In metal window construction, a sheet metal rail bent to form inner and outer flanges and an intermediate web and slotted through its inner face, a muntin bar having its end fitted to the rail, an L-shaped connecting piece having one arm bearing internally against the web of the rail and the other arm projected through the slot in the rail, and means to secure said last named arm directly to the muntin bar whereby tension on the muntin bar is transferred directly to the rail.

3. In metal window construction, a rail formed of sheet metal with inner and outer flanges and an intermediate web and slotted in its inner face, a muntin bar formed of sheet metal with internal flanges, an L-shaped connecting piece having one arm bearing internally against the rail and the other arm projected through the slot in the rail and within the muntin bar and bearing against the internal flanges thereof, and means to secure the last named arm directly to the muntin bar whereby tension on the muntin bar is transferred directly to the rail.

4. In metal window construction, a rail formed of sheet metal with inner and outer flanges and an intermediate web and slotted in its inner face, a muntin bar formed of sheet metal with internal flanges, an L-shaped piece having one arm bearing internally against the rail and the other arm projected through the slot in the rail and within the muntin bar and bearing against the internal flanges thereof, and a screw projected through one side of the muntin bar and threaded directly into the corresponding arm of the connecting piece whereby tension on the muntin bar is transferred directly to the rail.

5. In metal window construction, a rail having a slot in its inner face, a muntin bar formed of sheet metal in two parts with internal flanges on one part, an L-shaped connecting piece having one arm bearing internally against the rail and the other arm projected through the slot in the rail within the muntin bar and bearing against said internal flanges of one member and a screw passed through the other member and threaded into said last named arm whereby tension on the muntin bar is transferred directly to the rail.

1,240,194. NAPPING-MACHINE. DAVID GESSNER, Worcester, Mass. Filed Aug. 28, 1913. Serial No. 787,051. (Cl. 26—19.)



1. In a planetary napping machine, in combination, a head, a circular series of napping rolls having gudgeons journaled in said head, and a ring surrounding said gudgeons and having a lip overlying the ends of the bodies of said rolls.

2. In a planetary napping machine, in combination, a head, a circular series of napping rolls having gudgeons journaled in bearings in said head, a ring surrounding said gudgeons, and means for preventing both inward and outward movement of the rolls in case of breakage of the gudgeons.

3. In a planetary napping machine, in combination, a head, a circular series of napping rolls having gudgeons journaled in bearings in said head, a ring surrounding said gudgeons, and stop means carried by the head and located between the rolls to prevent the rolls contacting each other in case of breakage of the gudgeons.

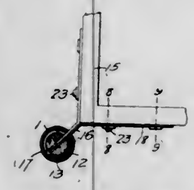
4. In a planetary napping machine, in combination, a head, a circular series of napping rolls having gudgeons journaled in said head, a ring surrounding said gudgeons, means for preventing inward and outward movement of the rolls in case of breakage of the gudgeons, and stop means on the head and located between the rolls to prevent the rolls contacting each other in case of said breakage.

5. In a planetary napping machine, in combination, a head, a circular series of napping rolls having gudgeons journaled in bearings in said head, a ring surrounding

said gudgeons, and means for supporting the rolls out of contact with each other in event of breakage of the gudgeons.

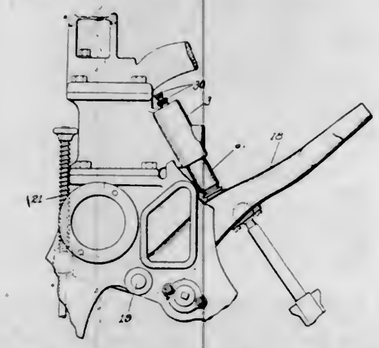
[Claims 6 to 19 not printed in the Gazette.]

1,240,195. BEDSTEAD. GEORGE GOLDEN, Lackawanna, N. Y. Filed Apr. 24, 1916. Serial No. 93,193. (Cl. 5—4.)



A bedstead comprising head and foot members each including suitably connected slotted posts, a spring suspension device within said posts, a mattress supporting frame and supporting brackets therefor, said brackets comprising strips bent intermediate their ends to form tongues, said tongues adapted to extend into the slotted posts into engagement with said suspension devices.

1,240,196. DASH-POT MECHANISM. JOSEPH GOULDBOURN, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 6, 1913. Serial No. 805,159. (Cl. 74—69.)



1. A dashpot mechanism comprising a plunger having a chamber open at its upper end and adapted to contain liquid, a member extending through said open end and fitting into said chamber and having a discharge passage, and a frame or support in which said member is fastened and which has a bore in which the plunger is movable, said parts being so constructed and arranged that during the rise of the plunger the liquid will be forced through the passage in said member.

2. A dashpot mechanism comprising a plunger having a fluid containing chamber of relatively large diameter in the upper portion of the plunger and of smaller diameter in the lower portion of the plunger, a substantially stationary member extending freely through the large part of said chamber and adapted to fit the smaller part of the chamber and having a passage from its lower end upwardly, and a port located to cause said passage to communicate with the larger part of the chamber in the plunger as the plunger is raised.

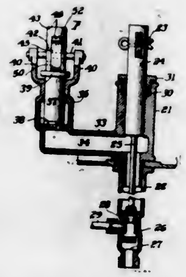
3. A dashpot mechanism comprising a plunger having a fluid containing chamber of relatively large diameter in the upper portion of the plunger and of smaller diameter in the lower portion of the plunger, a substantially stationary member extending freely through the larger part of said chamber and adapted to fit the smaller part of the chamber and having a passage from its lower end upwardly, a port located to cause said passage to communicate with the larger part of the chamber in the plunger as the plunger is raised, and a valve spindle fitting the upper portion of said passage and having a reduced portion adapted to be adjusted to extend more or less past the port.

4. A dashpot mechanism comprising a frame or support having a bore, a hollow plunger guided in said bore, the lower portion of the chamber in the plunger being of smaller diameter than the upper portion, and a member held longitudinally stationary but laterally rockable in the frame or support to permit it to find and freely enter the smaller portion of the chamber in the plunger, said member being shaped to fit in the smaller portion of said chamber and provided with a passage extending from its lower end and communicating with the larger portion of the chamber in all relative operative positions of the plunger and member.

5. A dashpot mechanism comprising a frame or support having a bore, a hollow plunger guided in said bore, the lower portion of the chamber in the plunger being of smaller diameter than the upper portion, and a member held longitudinally stationary in the frame or support, a spring arranged to move the plunger in one direction in said bore, said member having an internal passage forming a restricted communication between the lower portion of the plunger chamber and the upper portion thereof to cause fluid in the chamber to retard and delay the movement of the plunger into said bore.

[Claims 6 to 12 not printed in the Gazette.]

1,240,197. FLUSHING APPARATUS FOR WATER-CLOSETS. WILLIAM U. GRIFFITHS, Philadelphia, Pa. Filed July 10, 1914. Serial No. 850,080. (Cl. 137—68.)

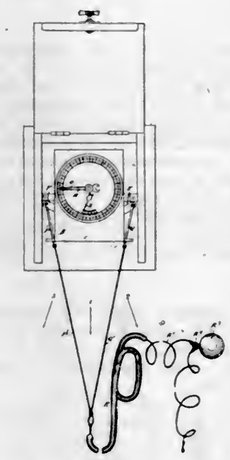


1. In an apparatus of the character described, the combination of a flush tank, a water supply pipe having an end projecting into said tank, a valve situated in said supply pipe below the freezing line for closing the same, a rod having connection with said valve and extending therefrom through the said pipe into the said flush tank, a lever pivotally supported at one end and connected intermediate its ends to said rod and the outer swinging end of the said lever being provided with a weight, a movably supported rod extending into the said flush tank and being provided with a projection in engagement with the said lever to raise the same whereby the said valve may be opened and closed.

2. In apparatus of the character described, the combination of a pipe for supplying water to a flush tank, a valve in said pipe for closing the same, said valve being situated below the freezing line, a rod connected with said valve and extending upwardly through the said pipe into the said tank, a weighted lever pivoted at one end and having connection intermediate its ends with said valve, means for raising the said lever to open the said valve and for permitting the said lever to move downwardly to close the same, an independent valve for opening and closing a water supply passageway, cam means for closing the said last-mentioned valve, and means for automatically actuating the said cam.

3. In apparatus of the character described, the combination of a flush tank, a water supply pipe for supplying water to said tank, a valve for closing said pipe, said valve being situated below the freezing line, a rod connected with said valve and extending upwardly through said pipe into said tank, a lever carrying a weight at one end and pivotally supported at its opposite end, the said lever having connection intermediate its ends with the said rod, a second rod extending into said flush tank and being movably supported, the said rod having a projection thereon for raising the weighted end of said lever, a laterally extending passageway leading from the upper end of said supply pipe, a valve for closing said passage-way, and means operating to close the said valve when a predetermined amount of water has been discharged into the said flush tank.

1,240,198. MACHINE FOR REGISTERING THE TRAJECTORIES OF CAPTIVE BALLS. CHARLES GUTHRIE GUTHRIE, Glasgow, and LYON WILSON NEILSON, Helensburgh, Scotland. Filed June 27, 1916. Serial No. 106,236. (Cl. 265—13.)



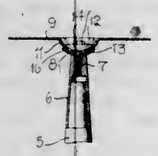
1. In a machine for registering the properties of length, height, "slice" or "pull" of the flight of a captive golf ball had it been free to complete its flight, in combination, an inner box frame, a horizontal shaft upon which said inner box is pivotally mounted, an outer enveloping box in which said horizontal shaft is carried, a double-armed wiper-piece carried and secured on the said horizontal shaft, a curved lever, a pointer having a fulcrum which is integrally formed with said curved lever, said lever being adapted to engage with one projection on the said double wiper-piece when the said receptacle is tilted on said shaft by the momentum of the captive ball in its projected flight, and a segmentally divided scale over which the said pointer moves, and adapted to temporarily indicate the angle of inclination for the receptacle, substantially as described.

2. In a machine for registering the properties of length, height, "slice" or "pull" of the flight of a captive golf ball had it been free to complete its flight, in combination, an inner box frame, a horizontal shaft upon which said inner box is pivotally mounted, an outer enveloping box in which said horizontal shaft is carried, a double-armed wiper-piece carried and secured on the said horizontal shaft, a curved lever, a pointer having a fulcrum which is integrally formed with said curved lever, said lever being adapted to engage with one projection on the said double wiper-piece when the said receptacle is tilted on said shaft by the momentum of the captive ball in its projected flight, a segmentally divided scale over which the said pointer moves, and adapted to temporarily indicate the angle of inclination for the receptacle, a dial, said pointer moving on the dial, said lever formed integrally with said pointer to which said wiper-piece communicates motion, and means for maintaining said pointer in the position determined by the action of the captive ball and for retaining it to zero, substantially as described.

3. In a machine for registering the properties of length, height, "slice" or "pull" of the flight of a captive golf ball had it been free to complete its flight, in combination, an inner box frame, a horizontal shaft upon which said inner box is pivotally mounted, an outer enveloping box in which said horizontal shaft is carried, a double-armed wiper-piece carried and secured on the said horizontal shaft, a curved lever, a pointer having a fulcrum which is integrally formed with said curved lever, said lever being adapted to engage with one projection on the said double wiper-piece when the said receptacle is tilted on said shaft by the momentum of the captive ball in its projected flight, a segmentally divided scale over which the said pointer moves, and adapted to temporarily indicate the angle of inclination for the receptacle, a vertically arranged column fixed to the floor of the inner box, a pair of spring controlled levers mounted on said column, a column fixed to the floor of said outer box, a cross-head pivotally mounted on said column in the outer box, springs connecting said levers on said first mentioned column to said cross-head, flexible means for attaching said levers to the golf ball to be acted upon, toothed levers actuated by said first mentioned levers, and toothed pinions engaging with said toothed levers for communicating their movement, a dial, and a pair of pointers actuated by said pinions and moving over said dial for momentarily indicating the measurements made, substantially as described.

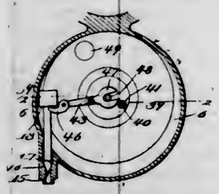
4. In a machine for registering the properties of length, height, "slice" or "pull" of the flight of a captive golf ball had it been free to complete its flight, in combination, an inner box frame, a horizontal shaft upon which said inner box is pivotally mounted, an outer enveloping box in which said horizontal shaft is carried, a double-armed wiper-piece carried and secured on the said horizontal shaft, a curved lever, a pointer having a fulcrum which is integrally formed with said curved lever, said lever being adapted to engage with one projection on the said double wiper-piece when the said receptacle is tilted on said shaft by the momentum of the captive ball in its projected flight, a segmentally divided scale over which the said pointer moves, and adapted to temporarily indicate the angle of inclination for the receptacle, a vertically arranged column fixed to the floor of the inner box, a pair of spring controlled levers mounted on said column, a column fixed to the floor of said outer box, a cross-head pivotally mounted on said column in the outer box, springs connecting said levers on said first mentioned column to said cross-head, flexible means for attaching said levers to the golf ball to be acted upon, toothed levers actuated by said first mentioned levers, and toothed pinions engaging with said toothed levers for communicating their movement, a dial, a pair of pointers actuated by said pinions and moving over said dial for momentarily indicating the measurements made, means for returning the pointers to zero on the dial, comprising a lever controlled by a helical spring, and means for causing a frictional action upon parts of said pinions of the pointers to maintain them in the position determined by the flight of the ball, said friction causing means comprising a cushioning spring plate fitted on the floor of the inner box and a pintle projecting from the floor of the outer box against which the spring plate rests, substantially as described.

1,240,199. HOE. WILLIAM HENERY HAAS, Raub, Ind., Filed Apr. 11, 1917. Serial No. 161,367. (Cl. 55—40.)



In combination, a handle, a ferrule fixed upon one end of the handle and having an interiorly threaded portion projecting beyond the end of the handle and terminating in a concavo-convex seat, an implement blade having a concavo-convex protuberance formed therein, the convex face of which is adapted for engagement upon the concave seat on the end of the ferrule, said protruberance being provided with an opening, a bolt for engagement through said opening having threaded engagement in the ferrule to detachably secure the blade in an angularly adjusted position with respect to the handle, the head of the bolt being wholly disposed within the cavity formed by the protuberance on the blade in all positions of the blade with respect to said handle.

1,240,200. FLOAT FEED-CHAMBER AND FLOAT FOR CARBURETERS. FRANKLIN W. HAGAR, Nashville, Tenn.; Albert S. Davis executor of Frank W. Hagar, deceased. Original application filed July 14, 1915, Serial No. 39,866. Divided and this application filed Aug. 22, 1916. Serial No. 116,338. (Cl. 137—104.)



1. A float feed chamber having communication with a supply inlet, a valve operably mounted to close the said inlet, and a float eccentrically fulcrumed through the body portion thereof in the said float feed chamber and provided with a projection coöperating with means engaging the said valve to automatically open the latter and also permitting the said valve to close.

2. A float feed chamber having communication with a supply inlet provided with a valve, and a vertically disposed float mounted in the said chamber and eccentrically engaged by a fulcrum device which is loosely fitted relatively to the body and within the periphery of the float, the float also being provided with a projection cooperating with means engaging the valve to control the operation of the said valve.

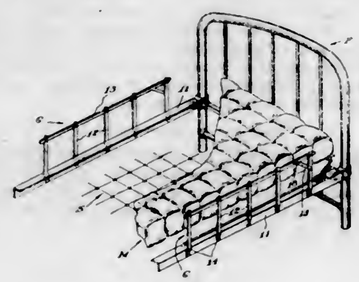
3. A float feed chamber in communication with a supply inlet provided with a valve, a float mounted in the said chamber and having a fulcrum device eccentrically engaging the body thereof, the float also having a projection, the fulcrum device and projection being disposed within the periphery of the body of the float, and means between the projection of the float and the valve for controlling the operation of the latter.

4. A float feed chamber in communication with a supply inlet provided with a valve, and a float mounted in the said chamber and having a fulcrum eccentrically and loosely engaging the body thereof within the periphery of the said body to permit the float to have a tilting movement, the float also being provided with means for controlling the operation of the valve.

5. A float feed chamber having communication with a supply inlet provided with a valve, and a float mounted in the said chamber and having a fulcrum means eccentrically engaging the body thereof and also provided with a weight attachment on the portion thereof which has the greater projection beyond the fulcrum means, the float also provided with means for controlling the operation of the valve.

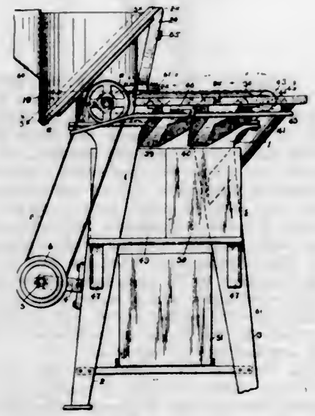
[Claims 6 and 7 not printed in the Gazette.]

1,240,201. BEDSIDE-GUARD. SAMUEL HASKES, Brooklyn, N. Y. Filed Apr. 15, 1916. Serial No. 91,286. (Cl. 5—41.)



A bed-frame having side-rails, short-links pivotally connected to each side-rail, off-set at the bottom above the pivot point from such side-rails; an elongated-bar pivotally connected to all of said short-links at the outer ends whereby said bar may be moved toward or from said side-rail; an anchoring-link pivotally connected to said elongated-bar at one end; a stud on one of the short-links adjacent to said pivotal connection, there being notches in said anchoring link spaced from one another, which are adapted to engage said stud so that said elongated-bar may be anchored at various distances removed from said side-rail, thereby to determine the height of the side-guard.

1,240,202. BUTTON-FEEDING MACHINE. HERBERT HASTINGS, Rochester, N. Y., assignor to German-American Button Company, Rochester, N. Y., a Corporation of New York. Filed Feb. 24, 1914. Serial No. 820,523. (Cl. 193—24.)



1. In a machine for feeding buttons the combination of a hopper having a stationary bottom, a thin dial mounted to rotate on top of said bottom, pockets in said dial having a diameter of several times their depth adapted to engage with the sharp edge of a button blank and carry the blank up with the flat side of the blank lying against the stationary bottom, said pockets being opened at the bottom, an opening in said stationary bottom, said opening being in line with said pockets in said dial.

2. In a machine for feeding buttons the combination of a hopper having a stationary bottom, pockets extending through said dial adapted to engage with the sharp edge of a button blank and carry it up, said pockets being opened at the bottom, an opening in said stationary bottom, said opening being in line with said pockets in said dial, means for deflecting buttons into said pockets on the rotation of said dial.

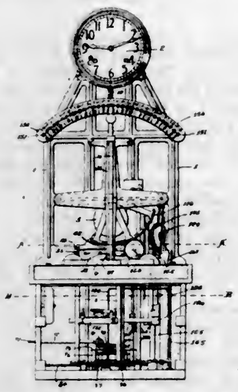
3. In a machine for feeding buttons the combination of a hopper having an inclined stationary bottom, a dial rotating in said bottom, pockets in said dial having a thin beveled edge, said pockets being opened at the bottom, means for ejecting the button blanks through the bottom of said pocket, means for selecting a number of button blanks out of said hopper on the rotation of said dial and deflect one of the selected blanks in each of said pockets.

4. In a machine for feeding buttons, the combination of a dial having pockets extending therethrough, ribs on said dial leading to said pockets, said ribs being tangential to a common circuit and being tangential to a common circle and being adapted to raise buttons on the rotation of the dial and deflect them into the pockets.

5. In a machine for feeding buttons, the combination of a dial with pockets extending therethrough near the periphery thereof, ribs arranged tangentially to a common circle extending inwardly from the pockets and integral with said dial to pick up button blanks on one side of said dial and deflect part of these blanks to the outside of said dial and means to release the rest of these blanks to fall back toward the inside of said dial.

[Claims 6 to 20 not printed in the Gazette.]

1,240,203. TIME-RECORDER. WILLIAM D. HAWLEY, Syracuse, N. Y., assignor, by direct and mesne assignments, to International Time Recording Company of New York, Endicott, N. Y., a Corporation of New York. Filed July 3, 1915. Serial No. 38,033. (Cl. 234—43.)



1. In a time recorder, the combination of a recording couple including two elements, one comprising recording means and the other a card receiver, means for automatically shifting one of said elements relatively to the other at predetermined intervals, and means for setting back the automatically shiftable element from the position to which it has been automatically set, the last-mentioned means being controlled by the card, substantially as and for the purpose specified.

2. In a time recorder, in combination a recording couple comprising two elements, one comprising recording means, and the other a card receiver, time controlled means for shifting one of the said elements relatively to the other by a series of steps, and means, including devices, adapted to coöperate with certain portions of the time card for setting the shiftable element in a position different from its setting by the aforesaid means.

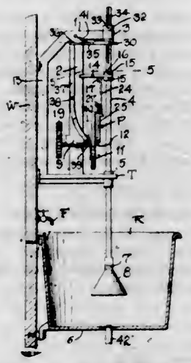
3. In a time recorder, in combination a recording couple comprising two elements, one comprising recording means, and the other a card receiver, time controlled means for shifting one of the said elements relatively to the other; means including devices to coöperate with certain portions of the time card for setting the shiftable element in a position different from the position in which it has been set by the aforesaid means, and time controlled means to prevent the last mentioned shifting movement during predetermined time periods.

4. In a time recorder, the combination of a recording couple including two elements, one comprising recording means, and the other a card receiver, means for automatically shifting one of said elements relatively to the other at predetermined intervals, and manually operated means for shifting the shiftable element a predetermined distance out of the position in which it has been automatically set, substantially as and for the purpose described.

5. In a time recorder, the combination of a recording couple including two elements, one comprising recording means and the other a card receiver, means for automatically shifting one of said elements relatively to the other step by step at predetermined intervals, and manually operated means for shifting the shiftable element a single step in a retrograde direction from the position in which it has been automatically set, substantially as and for the purpose specified.

[Claims 6 to 34 not printed in the Gazette.]

1,240,204. OPERATING MECHANISM FOR WASHING-MACHINES. ARTHUR W. HEALEY, Jamestown, N. D. Filed Mar. 11, 1916, Serial No. 836,621. Renewed July 25, 1917. Serial No. 182,801. (Cl. 74—14.)



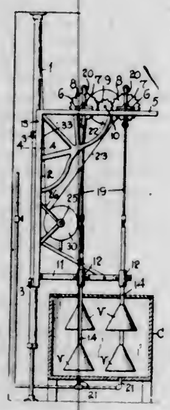
1. In combination, a member mounted for reciprocation and for rotation, a driven disk, a ratchet adapted to rotate in unison with the member but permitting reciprocation of the member independently thereof, a rod mounted intermediate its length for rocking movement, a pawl carried by one end of the rod and coacting with the ratchet, and a cam carried by a face of the disk and coacting with the opposite extremity of the lever whereby the ratchet is intermittently rotated.

2. In combination, a member mounted for reciprocation and for rotation, a driven disk, a ratchet adapted to rotate in unison with the member but permitting reciprocation of the member independently thereof, a rod mounted intermediate its length for rocking movement, a pawl carried by one end of the rod and coacting with the ratchet, a cam carried by a face of the disk and coacting with the opposite extremity of the lever whereby the ratchet is intermittently rotated, and a spring coacting with the pawl for holding the same in constant contact with the ratchet and for holding the lever in constant contact with the cam carried by the disk.

4. In combination, a member mounted for reciprocating movement, an arm loosely carried by said member, means for holding the arm against independent movement longitudinally of the member, a guide coacting with the arm for holding the arm against rocking movement relative to the reciprocating member, a driven disk, and a pitman operatively engaged with the disk and the arm at a point intermediate the member and the guide.

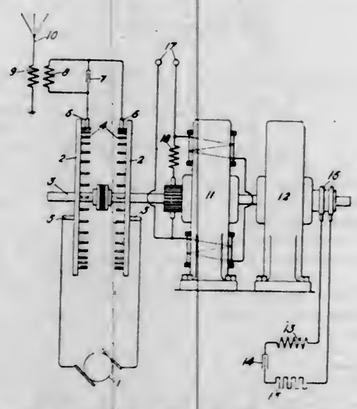
[Claim 3 not printed in the Gazette.]

1,240,205. WASHING APPARATUS. ARTHUR W. HEALEY, Jamestown, N. D. Filed Mar. 11, 1916, Serial No. 83,622. Renewed July 25, 1917. Serial No. 182,802. (Cl. 68—19.)



A washing apparatus comprising a container, plurality of pounder heads mounted for reciprocation in a vertical path relative to and above the bottom of the container, and a pipe coacting with each of the pounder heads and leading from a source of fluid supply under pressure and in communication with the container through the bottom thereof at a point below the axial center of the pounder head, the space between the bottom of the container and the pounder heads being unobstructed.

1,240,206. OSCILLATION-GENERATOR. RAYMOND A. HEISING, East Orange, N. J., assignor, by mesne assignments to Western Electric Company, Incorporated, a Corporation of New York. Filed Oct. 12, 1915. Serial No. 55,396. (Cl. 250—36.)



1. In an oscillation generator, the combination of a source of electromotive force, a complete oscillation circuit, means for periodically connecting said circuit to said source and for periodically isolating said circuit from said source.

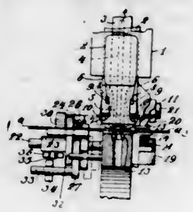
2. An oscillation generator comprising an oscillation circuit having a constant natural frequency, a source of electromotive force, means for supplying said circuit from said source at times differing by integral multiples of a natural period of said circuit, and translating means associated with said circuit.

3. An oscillation generator comprising an oscillation circuit having a constant natural frequency, a source of electromotive force, contact-making means for establishing a metallic connection between the terminals of the resonant circuit and the terminals of the source of electromotive force at times differing by integral multiples of a natural period of said oscillation circuit, and translating means associated with said circuit.

6. An oscillation generator comprising a resonant circuit, a source of electromotive force, a rotatable member carrying two sets of equally spaced contact studs, one of each of said sets being connected respectively to a terminal of said source, two brushes connected with said resonant circuit, said brushes being adapted to make metallic connection respectively with a stud of each set, and means for rotating said member.

[Claims 4 and 5 not printed in the Gazette.]

1,240,207. PUNCHING AND SETTING MACHINE. HENRY C. HINCHCLIFF, Brooklyn, N. Y. Filed Jan. 26, 1917. Serial No. 144,620. (Cl. 218—2.)



1. In a machine of the character described, means for clamping in position the material to be operated upon, means for elevating the same while so clamped and means for guiding an article to be set into the material.

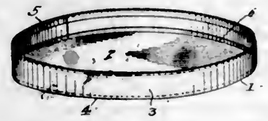
3. In a machine of the character described, the combination of a punch, a set and an anvil adapted to cooperate with the set, clamping means operative to clamp the material in position during the punching operation and to elevate the material for the operation of the set and anvil and means for guiding an article to be set into the material substantially as described.

8. In a machine of the character described, the combination of a punch, a set and an anvil adapted to cooperate with the set, means adapted to clamp the material in position during the punching operation and to elevate the material for the operation of the set and anvil and a second elevating and clamping means operative alternatively with said first clamping means to clamp the material and adapted to advance the material to successive positions, movable guiding jaws adapted to position an article in the material, means adapted to open the jaws in elevated position to receive the article, and means adapted to open the jaws in lowered position to release the article when placed in the material substantially as described.

[Claims 2, 4 to 7, and 9 to 13 not printed in the Gazette.]

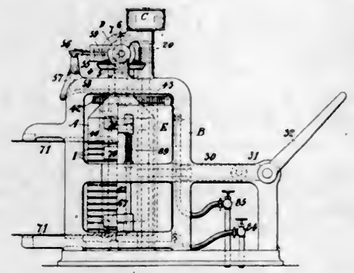
1,240,208. TABLE-CAP. JOHN J. HOLTMEYER, Cincinnati, Ohio. Filed Oct. 18, 1913. Serial No. 796,023. (Cl. 65—53.)

As a new and improved article of manufacture, a table cap comprising a single thickness of flexible material of outwardly non-woven and substantially impervious structure, forming a horizontal body having a vertically downwardly disposed integral flange extending continuously around its edge and adapted to snugly fit all around the edge of a table top and hold the cap in place on said top against horizontal displacement without any extraneous fastening means, a vertically disposed band of material like that of said body, having its ends secured



together whereby it is continuous, and having an inwardly and downwardly turned upper edge part, and secured to said flange of said body by a continuous seam therearound through the band and its turned-down part and said flange, whereby there is formed a reinforcement to said cap all around the edge of said body.

1,240,209. MACHINE FOR MAKING STEREOTYPE-PLATES. CHARLES EDWARD HOPKINS, New York, N. Y. Filed Aug. 11, 1905, Serial No. 273,761. Renewed Mar. 1, 1916. Serial No. 81,548. (Cl. 22—3.)



1. In a machine for making stereotype plates, the combination with a cylindrical core, and a drag movable toward and from said core and forming with said core a casting chamber, of members pivoted on each side of the drag for holding a matrix, said members having arms, and spring actuated cams at each side of the core with which said arms coöperate to guide said members in the forward movement of the drag.

2. In a machine for making stereotype plates, the combination of a cylindrical core, a drag movable toward and from the core, means to cut the slug from a plate, means operatively connected with the drag to remove the plate from the core as the drag moves toward the core, and platforms or supports to receive the plate and the slug respectively.

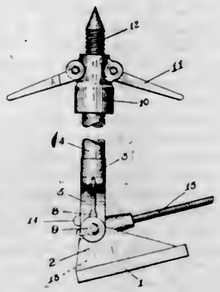
3. In a machine for making stereotype plates, the combination of an upright cylindrical core mounted to rotate, means to rotate the core intermittently through substantially 180 degrees, a drag movable toward and from one side of the core, spring actuated pivoted members on each side of the drag to hold a matrix, arms upon said members, cams at each side of the core coöperating with said arms to guide said members as the drag is moved, and connections between the drag and the means for rotating the core whereby the core is set in operation as the drag is moved away from the core, each of said arms moving upon one side of its cam and forcing the cast plate from the core as the drag is moved toward the core and then upon the other side of the cam for the purpose of stripping or unwinding the matrix from the cast plate as the drag moves away from the core.

4. In a machine for making stereotype plates, the combination of a rotatable cylindrical core, a drag movable to and from the core to form the casting chamber trimming mechanism for the plate, means to rotate the core to deliver the cast plate from the casting chamber to and through the trimming mechanism, and a clutch to control the operation of said means.

5. In a machine for making stereotype plates, the combination of a rotatable cylindrical core, trimming mechanism for the plate, means to throw said mechanism into operative relation with the core, means to rotate the core to deliver the cast plate to and through the trimming mechanism, and a clutch to control the operation of said means.

[Claims 6 to 11 not printed in the Gazette.]

1,240,210. ANCHOR-JACK. EDWARD L. HOPKINS, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Aug. 31, 1911. Serial No. 646,966. Renewed Jan. 10, 1913. Serial No. 741,350. (Cl. 189—90.)



1. In an anchor jack, a shoe, and an upright horizontally pivoted to the shoe, the shoe having means adapted to be connected with a cable and to receive the tension thereof at a point approximately in the vertical plane of the axis of the said pivot, said means being independent of the pivotal connection between the shoe and the upright.

2. In an anchor jack, a shoe, an upright horizontally pivoted to the shoe, a fin carried by the shoe and adapted to be attached to a cable end and having its point of cable engagement approximately at the point of intersection of the pivotal axis and the longitudinal axis of the said upright.

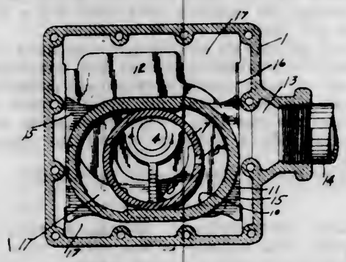
3. In an anchor jack, the combination of a shoe, an upright, a forked end piece carried by said upright and pivotally connected to the shoe, the said end piece being provided with lateral shoulders in engagement with the shoe in all operative positions of the upright, and means for attaching a cable to said shoe, said means being independent of the pivotal connection between the forked end piece and the shoe.

4. In an anchor jack, the combination of a shoe provided with integral lugs having bolt holes and laterally projecting shoulders concentric with said holes, an upright, a forked end piece secured to said upright and loosely pivoted to said lugs, said end piece being provided on its prongs with shoulders in engagement with the aforementioned shoulders of the said lugs to transmit to the latter the thrust of the upright, and means for attaching a cable to the shoe independently of the pivotal connection between the upright and the shoe.

5. In an anchor jack, a shoe, upright extending lugs at each side of the shoe, an upright post, a forked extension on the lower end of the post, the two prongs of said fork being pivoted to the lugs of the shoe, a central fin formed on the shoe, and a hook at the upper end of the fin adapted to be engaged by a tension member, the hook being so located that the line of tension passes through the pivot point.

[Claim 6 not printed in the Gazette.]

1,240,211. PUMP. GEZA HORVATH, Detroit, Mich. Filed Jan. 22, 1916. Serial No. 73,592. (Cl. 103—44.)

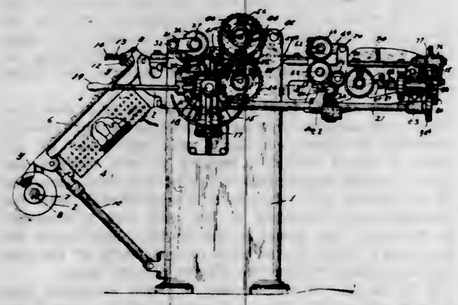


1. A pump comprising a casing having inlet and outlet ports, a hollow eccentric working within said casing with its interior cavity in constant communication with one of said ports and itself provided with a peripheral port, and a cross head mounted to reciprocate within said casing, and having an elongated seat in which said eccentric works, the said eccentric, under rotation, serving to reciprocate said cross head and move the eccentric seat thereof, alternately into communication with certain of the ports of said casing.

4. In a pump, the combination with a casing having laterally spaced wearing surfaces and obliquely opposed intake ports arranged in laterally spaced pairs and all connected to a common intake conduit, of a hollow eccentric arranged to rotate within said casing and itself having a peripheral port located approximately ninety degrees from the line of its greatest eccentricity, and the said casing having an outlet port in constant communication with the interior of said eccentric, and a cross head arranged to reciprocate within said casing, said cross head and eccentric working in close engagement with the laterally spaced wearing surfaces of said casing, the said cross head having an elongated eccentric seat which, under rotation of said eccentric, is moved alternately into communication with the obliquely opposite intake ports of said casing, and the said eccentric having a shaft extended through and journaled in one head plate of said casing, the other head plate of said casing being detachable.

[Claims 2 and 3 not printed in the Gazette.]

1,240,212. SHEET-METAL-WORKING MACHINE. GEZA HORVATH, Detroit, Mich. Filed Apr. 29, 1916, Serial No. 94,825. Renewed July 20, 1917. Serial No. 181,859. (Cl. 153—2.)



3. A sheet-metal working machine having slitting devices adapted to form, near the opposite margins of the sheet, opposite parallel longitudinal slits spaced apart by connecting strands of the metal sheet, and also provided with marginal displacing devices adapted to displace portions of the margins of the sheet to afford reversely disposed alining webs.

6. In a sheet metal working machine, coöperating rollers having circumferentially spaced shearing surfaces timed so that gaps between shearing surfaces run together, the shearing surfaces on one of said rollers being circumferentially adjustable, substantially as described.

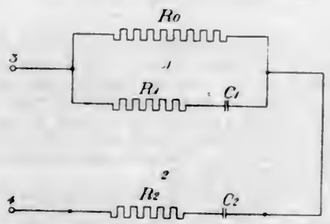
8. In a sheet-metal working machine, slitting devices adapted to form longitudinal slits in the metal sheet, a corrugating device for corrugating the slit sheet, and a travel adjuster operative to vary the length of that portion of the sheet which is between said slitting devices and said corrugating devices.

17. In a sheet-metal working machine, the combination with rollers having coöperating circumferentially spaced shearing edges adapted to form, near the opposite margins of the sheet, opposite parallel longitudinal slits spaced by connecting strands of the metal sheet, of corrugating rollers adapted to form transverse corrugations in the metal sheet, marginal turning devices adapted to turn the corrugated margins of the sheet on said strands to form reversely disposed alining webs, corrugated clenching rollers timed for engagement with the turned alining webs and operative to press the same to final position in respect to the corrugation of said sheet, and a travel adjuster operative to vary the length of that portion of the sheet that is between said slitting rollers and corrugating rollers.

21. The combination with means for feeding a corrugated sheet, of a cutter for severing the sheet, a cutter-actuating mechanism, a stop normally holding said actuating mechanism out of action, and a trip driven with a timed action from said sheet feeding means and operating to retract said stop and render the said cutter operative.

[Claims 1, 2, 4, 5, 7, 9 to 16, 18 to 20, and 22 to 25 not printed in the Gazette.]

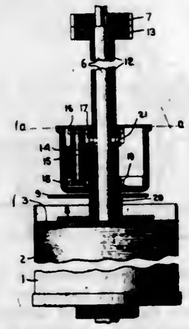
1,240,213. ARTIFICIAL LINE. RAY S. HOYT, Brooklyn, N. Y., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed Jan. 24, 1917. Serial No. 144,137. (Cl. 178—44.)



1. An artificial line for simulating the characteristic impedance of a cable circuit whose constants are uniformly distributed comprising a part consisting of a condenser and a non-inductive resistance in series with said condenser, and a second part serially connected with said first mentioned part and consisting of a second non-inductive resistance in parallel with the serial combination of a second condenser and a third non-inductive resistance, the elements of the artificial line being so proportioned that the sum of the resistance component of the characteristic impedance of the first part and the resistance component of the characteristic impedance of the second part approximates the resistance component of the characteristic impedance of the cable circuit, and the sum of the reactance components of the characteristic impedances of the two parts approximate the reactance component of the characteristic impedance of the cable circuit.

2. An artificial line for simulating the characteristic impedance of a cable circuit whose constants are uniformly distributed consisting of two serially connected parts, one part comprising a resistance and a capacity with a second resistance in shunt therewith, and the other part comprising a resistance and capacity, the elements of the artificial line being so proportioned that the sum of the resistance components and the sum of reactance components of the characteristic impedances of the two parts shall respectively approximate the resistance and reactance components of the cable circuit.

1,240,214. SPINNING AND TWISTING APPARATUS. CHARLES W. HUBBARD, Boston, Mass. Filed May 3, 1915. Serial No. 25,385. (Cl. 118—49.)

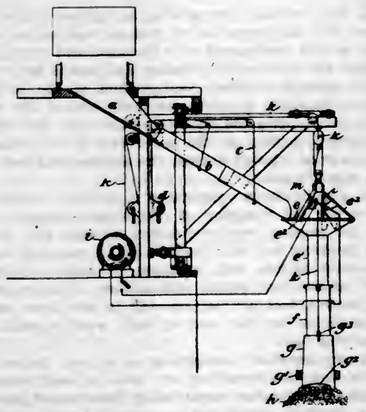


1. In a winding and twisting apparatus, the combination with a yarn support, of a winding plate adapted to rest on the yarn mass sustained on said support and provided with a yarn-guiding slot, means to rotate said yarn support and winding plate relative to each other, and a disk-like yarn-guiding member having a peripheral edge over which the yarn passes as it is delivered to said slot, and means to rotate said yarn-guiding member relative to the winding-plate.

4. In a device of the class described, the combination with a yarn support, of a winding plate adapted to rest on the yarn mass and having a radial yarn-guiding slot, means to rotate the yarn support and winding plate relative to each other, a rotary yarn-guiding member having a peripheral eccentrically-situated edge over which the yarn passes as it is delivered to said slot, and means to rotate said yarn-guiding member relative to the winding plate.

[Claims 2, 3, and 5 to 11 not printed in the Gazette.]

1,240,215. COALING APPARATUS. WILLIAM F. HUNT, New Brighton, N. Y. Filed May 15, 1914. Serial No. 838,624. (Cl. 193—37.)



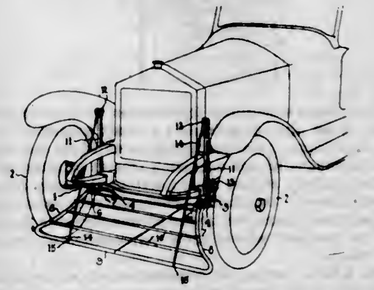
1. Apparatus for transferring coal including a chute disposed in a substantially vertical position and having its lower end provided with a graduated opening for the discharge of the material.

3. Apparatus for transferring coal including a chute, means controlled by the coal and operable thereby when the coal rises within the chute to a predetermined height to raise automatically the chute in accordance with the change of elevation of the pile.

5. Apparatus for transferring coal including a chute composed of a series of telescoping tubes, hoisting cables attached to the lower section of the chute, a hoist for operating said cables, and means to control the operation of the hoist, said means being controlled by the coal in the chute so that as the amount of coal in the chute increases, the hoist will be operated to cause the lower section of the chute to be raised automatically in direct substantial accordance with the increase in the elevation of the pile.

[Claims 2 and 4 not printed in the Gazette.]

1,240,216. FENDER. MICHAEL IHNAT, Detroit, Mich. Filed July 12, 1917. Serial No. 180,059. (Cl. 105—38.)



1. The combination with an automobile having a front axle, of plates attached to said axle, a fender frame pivotally connected to said plates, uprights on said plates, a sheave carried by each plate and each upright, cables attached to the front edge of said fender frame and trained over and under said sheaves respectively, a rotatable drum supported by the floor of said automobile and to which said cables are attached and adapted to be wound thereon and unwound therefrom, a drum shaft extending through the floor of the automobile so that said drum may be manually rotated, means for holding said drum against accidental rotation, and a cable attached to the front edge of said fender frame and to said drum and wound thereon in an opposite direction from the first mentioned cables.

[Claim 2 not printed in the Gazette.]

1,240,217. SHRAPNEL-SHELL. WILLIAM C. INGRAM, Grand Rapids, Mich. Filed Mar. 7, 1917. Serial No. 152,993. (Cl. 102—29.)

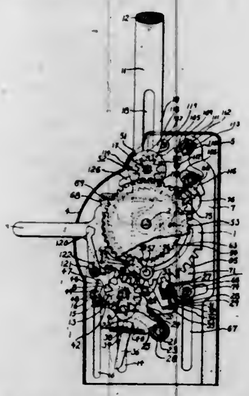


1. A shrapnel shell containing a bursting charge and missiles and having a portion of its wall more frangible than other parts thereof, and a weight attached to the shell and adapted to swing outwardly therefrom to turn said portion downward in the shell's trajectory.

3. An oblong shrapnel shell containing a bursting charge and missiles and having a portion of its wall more frangible than other parts thereof, and having a recess in the outer surface of its wall, and a swinging weight attached to the shell and adapted to lie in said recess and to swing outwardly therefrom to turn said portion downward in the shell's trajectory.

[Claim 2 not printed in the Gazette.]

1,240,218. ACCOUNTING-MACHINE. MAX JACOB, Berlin, Germany, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (Incorporated in 1906.) Filed May 1, 1914. Serial No. 835,742. (Cl. 235—101.)



1. In a hand stamp, the combination with a supporting frame; of an operating frame; a shaft arranged in the supporting frame; totalizer wheels mounted on said shaft; a shaft arranged in said operating frame; printing wheels mounted on said second shaft; setting elements for said printing wheels; and means connected with said operating frame and controlled by the setting elements for actuating the totalizer wheels upon reciprocation of the operating frame.

2. In a hand stamp, the combination with a supporting frame; of an operating frame mounted thereon; a shaft arranged in the supporting frame; setting elements mounted on said shaft; a second shaft arranged in said supporting frame; totalizer wheels mounted thereon; printing means operably connected with said setting elements and mounted in said operating frame; and actuating mechanism for said totalizer wheels mounted on said second shaft and operated under the control of said setting elements upon reciprocation of the operating frame.

3. In a hand stamp, the combination with a supporting frame; of a shaft arranged in said frame; totalizer wheels loosely mounted thereon; a second shaft arranged in said supporting frame; setting elements loosely mounted on said second shaft; an operating frame mounted on said supporting frame; a shaft carried by said operating frame; type wheels mounted on said last mentioned shaft and normally in engagement with said setting elements; actuating gears mounted on said second shaft and constantly meshing with said totalizer wheels; and operating means for said actuating gears, having an invariable extent of movement imparted thereto upon operation of said operating frame, and controlled by said setting elements.

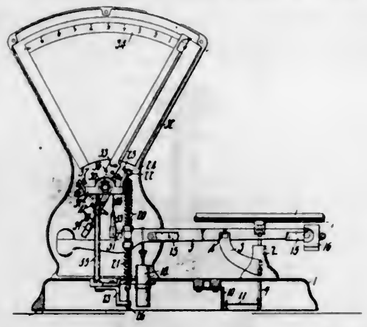
4. In a hand stamp, the combination with printing means; of a totalizer; means for operating said printing means; and an actuating mechanism for said totalizer automatically operated but once by said operating means during a definite plurality of operations of the stamp.

5. In a hand stamp, the combination with an operating frame; of a printing means carried thereby; a supporting frame; a totalizer mounted therein; and operating means for the totalizer automatically operated upon alternate operations of said operating frame.

[Claims 6 to 15 not printed in the Gazette.]

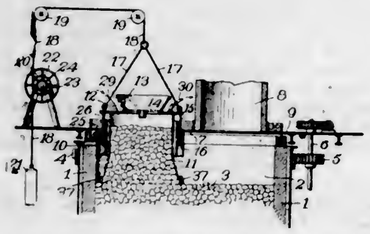
1,240,219. SCALE. LOUIS JAENICHEN, Detroit, Mich., assignor to The Standard Computing Scale Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 29, 1915. Serial No. 24,627. (Cl. 265—36.)

A scale comprising in combination a load receiver, a beam on which the load receiver is carried, means for pivotally supporting the beam, a spring for controlling the movement of the beam, a pointer, means for pivotally supporting the pointer, a scale over which the pointer may swing, a drum secured to rotate with the pointer, a flexible band for connecting the beam to the drum to cause the latter and the drum to move with the former,



a vertically movable counterweight arranged to act tangentially to the drum in opposition to the beam, and means for shifting the center of gravity of the pointer, said means comprising a counterpoise operatively connected thereto, and means for shifting the counterpoise laterally in respect to the pivotal axis of the pointer.

1,240,220. GAS-PRODUCER. EBENEZER A. W. JEFFERIES, Worcester, Mass., assignor to Morgan Construction Company, Worcester, Mass., a Corporation of Massachusetts. Filed Jan. 2, 1913. Serial No. 739,635. (Cl. 48—85.1.)



1. A gas producer comprising a section inclosing a chamber for the reception of fuel, a fuel magazine eccentric to said section and with its lower end arranged to rest upon the fuel in said chamber, and means for causing relative rotation between said section of the producer and said magazine to cause the lower end of the magazine to move along the surface of the fuel, the edge of the delivery opening at the lower end of the magazine being lower at its side nearest the approaching fuel than at its opposite side.

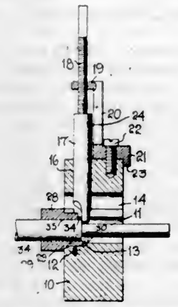
2. A gas producer comprising a section including a chamber for the reception of fuel, a fuel magazine, and means for causing relative rotation between said section of the producer and said magazine, the magazine having an inclined bottom wall arranged to contact with the surface of the fuel within said section of the producer, there being a fuel delivery opening in the lower end of said magazine at the side of said wall opposite the approaching fuel.

3. A gas producer comprising a section inclosing a chamber for the reception of fuel, a fuel magazine entering said chamber eccentrically thereto and provided with a scraping lower end arranged to rest upon the fuel in said chamber, means for producing a relatively rotative movement between said magazine and the surface of the fuel in the said chamber, and means for vertically adjusting said magazine relatively to said section to vary the level of fuel therein.

4. A gas producer, comprising a gas producing chamber, a vertically movable fuel magazine therein, and means for imparting a rotative movement to the surface of the fuel in said gas producing chamber relative to said fuel magazine.

5. A gas producer, comprising a fuel section, means for varying the level of fuel in said section, comprising an adjustable supply magazine having its contents directly superimposed on the fuel contained in said section, and means for rotating said section relatively to said magazine.

1,240,221. ROD TRIMMER OR REDUCER. MICHAEL KATZMAREK, Duluth, Minn. Filed Apr. 23, 1917. Serial No. 163,976. (Cl. 82—35.)

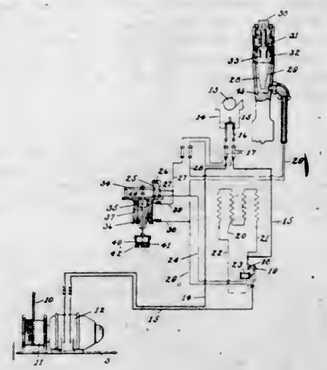


1. A rod trimmer comprising a body having a transversely extending bore, a cutting tool passing through one end of the body and into said bore, a feed screw swiveled to the cutting tool, a bracket detachably mounted upon the end of the body and with which said feed screw has screw-threaded engagement, means for preventing a rotation of the cutting tool, a rod supporting collar having a reduced portion insertible into said bore, the extremity of the reduced portion being cut away for a portion of its circumference, this cut-away portion facing the tool, and means for holding the collar detachably in place within the bore.

2. A rod trimmer comprising a body having a transversely extending bore, a cutting tool passing through one end of the body and into said bore, a feed screw swiveled to the cutting tool, a bracket detachably mounted upon the end of the body and with which said feed screw has screw-threaded engagement, means for preventing a rotation of the cutting tool, a rod supporting collar having a reduced portion insertible into said bore, the extremity of the reduced portion being cut away for a portion of its circumference, this cut-away portion facing the tool, and means for holding the collar detachably in place within the bore, the body having a bore extending parallel to the first named bore and opening thereinto and through which bore the cutter passes, said last named bore permitting the lubrication of the cutter and the removal of the chips.

1,240,222. TRIPPING DEVICE. CHARLES B. KING, BENJAMIN JACOBY, and CHARLES S. JOHNSON, Marion, Ohio, assignors to The Marion Steam Shovel Company, Marion, Ohio, a Corporation of Ohio. Filed May 28, 1917. Serial No. 171,339. (Cl. 37—16.)

1. In an excavating machine, a frame, an excavating mechanism comprising a dipper having a hinged closure, a latch for controlling the movement of said closure, a cable connected with said latch, an actuating device mounted on said frame, connected with said cable and comprising a motor, a circuit breaker and closer in said circuit, means to close said circuit breaker and closer, and means to automatically open the same.

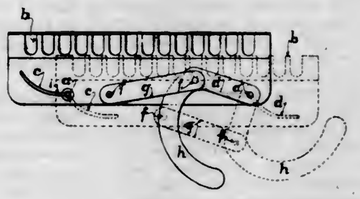


7. In a device of the character described, a drum adapted for connection with a cable, means for applying power to said drum to actuate said cable and for applying power to said drum in reduced amount, between the operations thereof, to take up the slack in said cable and hold the same taut.

13. In a mechanism of the character described, the combination with a motor and circuit therefor, of a circuit breaker and closer in said circuit, an electro-magnet to close said circuit breaker and closer, a circuit for said magnet, a switch to close said magnet circuit, a second circuit breaker and closer in said magnet circuit, a solenoid connected with said magnet circuit on opposite sides of said last-mentioned circuit breaker and closer, and a connection between the core of said solenoid and the movable member of said last-mentioned circuit breaker and closer.

[Claims 2 to 6, 8 to 12, and 14 to 16 not printed in the Gazette.]

1,240,223. TOGGLE-LOCKING FOLLOWER-HOLDER. FRANK W. THEODORE KLAUSING, Lakewood, and WILLOUGHBY C. TACKABERRY, Cleveland, Ohio. Filed Oct. 22, 1915. Serial No. 57,370. (Cl. 190—36.)

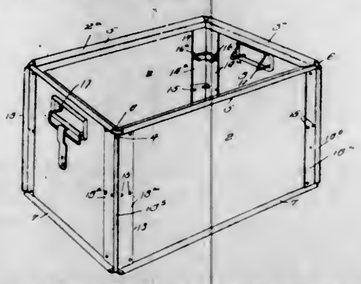


1. In a toggle-locking follower holder, the combination of a fixed plate; a complementary plate movable relatively thereto; a guide in said latter plate; a pin secured to said fixed plate and adapted to register with said guide; a toggle-locking member pivoted to said movable plate and to said pin; and holding means supported by said movable plate.

2. In a toggle-locking follower holder, the combination of a plate intended to be affixed to the inside of a trunk or other wardrobe; a complementary plate provided with guiding grooves; pins affixed to said first-named plate and adapted to register with said grooves; holding means actuated by said complementary plate; a link provided with a handle and pivoted to one of said pins; and a second link pivoted to said complementary plate and to said first-named link.

3. In a toggle-locking follower holder, the combination of a pair of plates intended to be affixed to the opposite inside walls of a trunk or other wardrobe; a pair of complementary plates provided with guiding means; means, such as pins, affixed to said first-named plates and adapted to register with said guiding means, respectively; holding means adjustably supported by said complementary plates; and toggle-locking means pivoted to said complementary plates and to said pins.

1,240,224. SHEET-METAL BOX. GOTTLIEB KLENK, Defiance, Ohio, assignor to The Defiance Pressed Steel Company, a Corporation of Ohio. Filed Apr. 17, 1911, Serial No. 621,683. Renewed Feb. 13, 1917. Serial No. 148,416. (Cl. 220—111.)

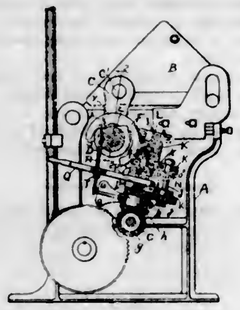


1. In a sheet metal box of the class described, the combination of end walls and side walls crimped together at their vertical edges, the walls being shaped at their upper edges to provide an outward projecting bead around the top of the box and to form an inward projecting stiffening and supporting flange below the said bead, and being shaped at their lower edges to provide an outward projecting box supporting flange around the bottom of the box in vertical lines below the said bead, a downward projecting stacking flange at the bottom of the box positioned along lines within the said supporting flange, supplemental vertical pillar-like angle shaped reinforcing bars secured to the outer sides of the corners of the box, and engaging with the under side of the top bead and with the upper side of the bottom flange and inclosing the corner crimps, and supplemental vertical angle shaped reinforcing bars at the inner sides of the corners of the box, each extending to the bottom of the box and bearing against the under side of the said inward projecting flange near the top of the box, the said supplemental reinforcing bars at the outer and inner sides of the corners serving to strengthen the corners and to support the said bead and the said flanges against distortion when the box is subjected to pressure along vertical lines.

2. In a sheet metal box of the class described, the combination of end walls and side walls crimped together at their vertical edges, a bottom structure secured to the side and end walls, and vertical reinforcing bars secured to the inner sides of the box corners, the bars being angle shaped in horizontal cross section, and bent between their ends to form horizontal inward projecting shelves.

1,240,225. CLUTCH MECHANISM. NIC KRUMP, Chicago, Ill. Filed Apr. 3, 1916. Serial No. 88,656. (Cl. 192—7.)

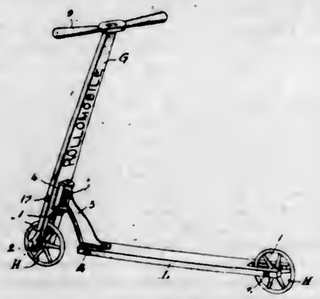
1. In a clutch mechanism, clutch members mounted to turn loosely on a shaft, means to simultaneously turn said members in opposite directions, an additional clutch member movable on said shaft and keyed thereto, to turn therewith, and positioned between said first named clutch members, means to force said keyed clutch member into contact with said loosely mounted clutch members, the faces of said clutch members which engage when said loosely mounted members are turning in a predetermined operative direction being at an angle of approximately forty five degrees to a plane which is at right angles to said shaft, and the faces which engage when said loosely mounted members are turning in a non-operative direction being at an angle of approximately thirty degrees to said plane.



3. A rotatable shaft, means to turn said shaft in opposite directions comprising clutch wheels loosely mounted on said shaft, an additional clutch wheel on said shaft between said first named wheels, said additional wheel movable on said shaft and keyed thereto to turn therewith, means to control the position of said additional clutch wheel, the operative faces of the teeth on opposite sides of said keyed clutch wheel being in parallelism and the operative meeting faces of the teeth on all said clutch wheels being at an angle of approximately forty five degrees to a plane at right angles to said shaft, the faces on the other side of all of said teeth being at an angle of approximately thirty degrees to said plane, whereby the teeth on one side of said keyed clutch wheel are adapted to engage to be driven by the loosely mounted clutch wheel adjacent to said side in one direction, and the teeth on the opposite side of said keyed wheel are adapted to engage to be driven by the loosely mounted wheel adjacent to said opposite side in the opposite direction, to respectively carry predetermined loads.

[Claim 2 not printed in the Gazette.]

1,240,226. ROLLOMOBILE. JOHN KUNST, New York, N. Y. Filed June 2, 1915. Serial No. 31,656. (Cl. 21—191.)



1. A device of the class described, comprising a platform member and a steering member, one end of one of said members being provided with forks, a wheel rotatably supported between the forks of said member, and means pivotally conecting said members together comprising in part a member having a web portion extending between the forks of said forked member and having opposite flanges engaging opposite surface portions of the forks.

2. A device of the class described, comprising a platform and a steering member, one end of one of said members being forked, means for connecting said members together comprising a part having oppositely disposed pockets therein into which the forks of said forked member engage, and means retaining the forks of said forked member within said pockets.

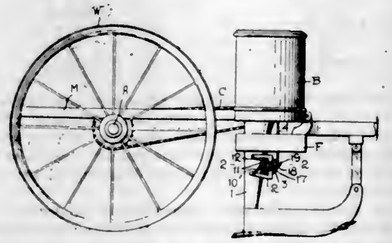
3. A device of the class described, comprising a platform member and a steering member, means connecting said members together comprising a member having oppositely disposed pockets therein, one of said first mentioned members having oppositely disposed parts for engaging within said pockets, and clamping means for clamping said parts in said pockets.

4. A device of the class described comprising, a substantially horizontally disposed platform member, a steering member substantially vertically disposed at the forward end of said platform member, said steering member having a slot extending therethrough from its rear face to its forward face and means pivotally connecting said members together comprising in part an element extending through said slot from the rear surface of said steering member to the forward surface of said steering member, a flange formed upon said element disposed to fit snugly against the forward face of said steering member, and means for retaining said element in position with said flange fitting snugly against the forward surface of said steering member.

5. A device of the class described, comprising a substantially horizontally disposed platform member, a steering member disposed with respect to said platform member so as to define an angle between said members, one of said members having a slot extending therethrough from its surface within said angle to its surface outside said angle, and means within said angle pivotally connecting said members together having a portion extending through said slot, said portion having a flange formed thereon disposed to fit snugly against the outer face of said slotted member, and means for positively retaining said portion in position with said flange fitting snugly against the outer surface of said slotted member.

[Claims 6 to 8 not printed in the Gazette.]

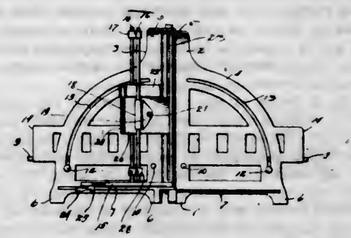
1,240,227. SEED-PLANTER. FREDERICK LAIRD, Claypool, Okla., assignor of one-half to Joseph T. Prince, Claypool, Okla. Filed May 19, 1917. Serial No. 169,736. (Cl. 137—145.)



In combination with the spout of a seed box, a shaft rotatably supported thereby, a rock shaft disposed through the spout and having a portion exteriorly of the spout provided with a crank, a valve plate within the spout and fixed to the rock shaft, a disk operatively engaged with the first named shaft, and a longitudinally adjustable finger radiating from the disk and arranged for contact with the crank of the rock shaft.

1,240,228. MITER-BOX. HERBERT D. LE SUER, Seymour, Iowa. Filed Sept. 14, 1916. Serial No. 120,095. (Cl. 143—89.)

1. A miter box, comprising in combination, a standard, a pair of sections mounted upon said standard, each of said sections consisting of a front wall and a base, and the bases being mounted on the front walls so that one base will slide upon the other when the walls are brought into right-angular relation, tables carried by said walls and adapted to be brought into horizontal alinement when the sections are extended, a saw guide also mounted in said standard and means to adjust the saw guide relative to the section in open or closed position.

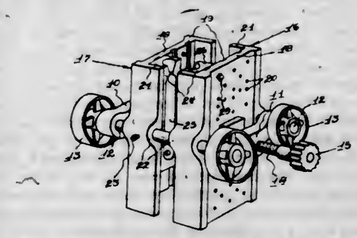


2. A miter box, comprising in combination, a standard, a pair of sections mounted upon said standard to swing therearound, each of said sections consisting of a quadrant shaped base and a front wall, the bases being associated to slide one upon the other when the walls are carried into right-angular relation, a saw guide operative over the bases, means for adjusting the saw guide relative to the base, and tables mounted on the front walls and adjusted thereon to the various angles of the saw guide.

3. A miter box, comprising in combination, a standard, a pair of sections mounted upon said standard to rotate thereabout, each of said sections having a front wall, said walls being adapted to be brought into alinement, a table carried by each of said walls, means for adjusting said tables to various vertical angles on said front wall, and a saw guide mounted on said standard.

4. A miter box, comprising in combination, a standard, a pair of sections mounted upon said standard to rotate thereabout, each of said sections having a front wall, said walls being adapted to be brought into alinement, a table carried by each of said walls, means for adjusting said tables to various vertical angles on said front walls, and a saw guide mounted on said standard, said saw guide consisting of a bar having one end pivotally secured to the standard, a pair of guide rods vertically mounted upon the guide bar and guide plates pivoted between said guide rods and extending through said standards.

1,240,229. MOLD FOR CASTING-MACHINES. CHARLES HENRY LISTER, North St. Paul, Minn. Filed May 25, 1916. Serial No. 99,766. (Cl. 22—76.)



1. In a device of the class described, the combination with a carriage having mold-supports thereon, separable frames mounted on said supports, a plurality of companion dies adapted to be carried upon said frames, and means for detachably securing the dies upon the frames, portions of said frames and dies being cut away to form passageways for a cooling fluid between their contacting surfaces.

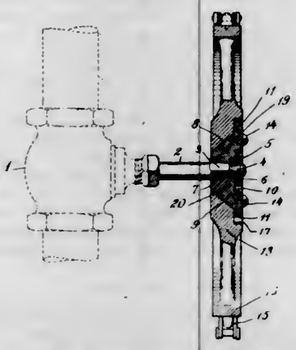
2. A mold, comprising a frame and a plurality of dies mounted in said frame, portions of said dies being cut away to form pasageways for a cooling fluid between their contacting surfaces.

3. In a device of the class described, the combination with a mold-support of a separable mold, comprising two frames carried upon said support, said frames being U-shaped in cross-section and arranged so that the chan-

nels therein register when the mold is closed, the webs of said frames being grooved longitudinally at their inner sides and formed with a number of perforations, and a plurality of dies for said frames, each die comprising a block having beveled rear corners, grooved sides and a recess in its face, and threaded perforations in the back thereof adapted to receive bolts passing through perforations in said webs.

4. In a device of the class described, the combination with a mold-carriage having two parallel supporting shafts, of a separable mold, comprising two frames, said frame being U-shaped in cross-section and arranged so that the channels therein register when the mold is closed, the webs of said frames being grooved longitudinally and formed with a plurality of perforations therein and the flanges of said frames being each formed with a transverse ear bored to receive a supporting shaft of the mold-carriage and a plurality of dies for said frames, each die comprising a block having a recess in its face and threaded perforations in the back thereof adapted to receive bolts passing through registering perforations in said webs.

1,240,230. VALVE ATTACHMENT. THOMAS C. LUCE, Stratford, Conn., assignor to Pratt & Cady Company, Incorporated, Hartford, Conn., a Corporation of New York. Filed Feb. 8, 1917. Serial No. 147,340. (Cl. 74—8.)



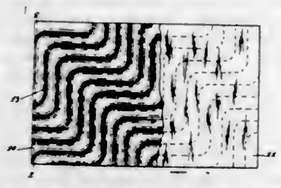
1. In operating attachments for steam valves or the like, a sprocket operating wheel having a hub formed with a square tapered hole and with an annular recess communicating with the larger end of said hole, interchangeable sectional centering clamping bushings having a square tapered stem aperture and oppositely tapered squared wedging faces to coöperate with said hole in said hub to center said stem aperture with respect to said wheel and having a securing flange to fit within said recess and a central depression inside said flange to accommodate the fastening device of the valve stem and securing screws to adjustably hold said connecting member in said hub and allowing access to the end of the wheel stem and the fastening device thereof.

5. In operating attachments for steam valves or the like, an operating wheel formed with a tapered hole, an interchangeable centering connecting member having a non-circular stem aperture and said connecting member being formed to render adjustable the size of said stem aperture, wedging faces to coöperate with said hole to center said stem aperture with respect to said wheel and securing means to hold said connecting member in said wheel.

7. In operating attachments for steam valves or the like, an operating wheel formed with a hole, an interchangeable sectional centering connecting member having a stem aperture to coöperate with said hole to center said stem aperture with respect to said wheel and securing means to hold said connecting member in said wheel.

[Claims 2 to 4 and 6 not printed in the Gazette.]

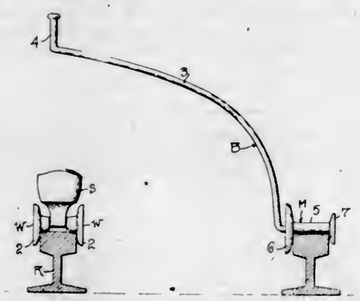
1,240,231. CORRUGATED STOCK OR BOARD. WILFRID LUMLEY, Conneaut, Ohio. Filed Oct. 11, 1913. Serial No. 794,691. (Cl. 154—55.)



1. Corrugated stock for packages or incasements for breakable objects, comprising a sheet provided with parallel wavy corrugations extending in a general direction diagonally across the sheet and having portions extending substantially lengthwise of the sheet and portions extending substantially transversely of the sheet.

2. Corrugated stock for packages or incasements for breakable objects, comprising a sheet provided with parallel wavy corrugations extending in a general direction diagonally across the sheet and having portions extending substantially lengthwise of the sheet and portions extending substantially transversely of the sheet, and flat sheets secured on opposite sides of the corrugated sheet.

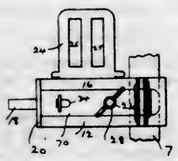
1,240,232. SKATE. DWIGHT B. MCNAMEE, Heman, Okla. Filed Dec. 11, 1916. Serial No. 136,315. (Cl. 46—53.)



1. A skate including a pair of wheels adjacent each end thereof, each of said wheels being provided with a hub and with an annular flange, the hubs of said wheels being adapted to engage with the top of a rail and the flanges of said wheels being adapted to engage with the sides of the rail.

2. A skater's appliance comprising a supporting rod and a roller positioned at one end of the rod and adapted to engage a trackway, said rod extending laterally and rearwardly to be grasped by the user.

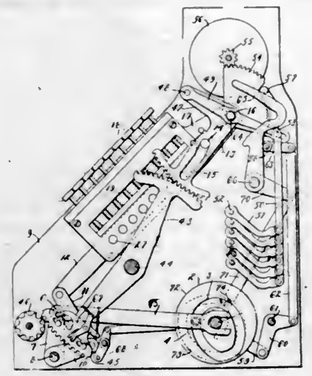
1,240,233. BICYCLE-LAMP BRACKET. WILLIAM MARCOWITZ, New York, N. Y. Filed Mar. 15, 1917. Serial No. 155,118. (Cl. 240—58.)



1. A bicycle lamp bracket adapted for alternately supporting lamps of different types, having opposed clamping jaws at one end, a cylindrical lamp supporting pin at the other end, a forwardly extending hook-shaped lamp supporting plate, and an upwardly extending lamp supporting plate.

2. A bicycle lamp bracket for supporting lamps from the fork arm, comprising opposed clamping jaws at one end and means for attachment to a lamp at the other, a clamping bolt for closing the jaws and an auxiliary holding spring surrounding the fork arm within the jaws and having outwardly extending perforated ears through which the clamping bolt passes.

1,240,234. CASH-REGISTER. HAAKON A. MARTIN, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed Feb. 10, 1913. Serial No. 747,349. (Cl. 235—9.)



1. In a machine of the class described, the combination with accounting mechanism, of actuating mechanism therefor including a segment gear having a slot, a lever having a pin extending into said slot, means for pivoting said lever at any one of a plurality of different points, and means connected to said lever to rock it around a determined one of said points.

2. In a machine of the class described, the combination with a bank of keys, of a key detent plate moved by said keys and serving to retain any key in depressed position, plungers one for and moved by each key, and a plate adjusted by said detent plate into the paths of the plungers of all the undepressed keys.

3. In a machine of the class described, the combination with a bank of keys, of a key detent plate having inclined edges engaged and moved by the keys and serving to retain any key in depressed position, plungers one for and moved by each key, and a plate adjusted by said detent plate into the paths of the plungers of the undepressed keys.

4. In a machine of the class described, the combination with a bank of keys and a supporting key frame, of a key detent plate carried by the key frame, and moved by any key, plungers moved by each of said keys, and a second plate carried by said key frame and moved by said detent plate into the paths of the plungers of the undepressed keys.

5. In a machine of the class described, the combination with a bank of keys, and a key detent plate moved by any key of the bank, of plungers moved by the keys, a second plate adjacent said plungers and through which the moved plungers project to serve as pivots therefor, and connections whereby said key detent plate rotates said second plate around the plunger of the depressed key and thereby into the paths of plungers of the undepressed keys.

[Claims 6 to 11 not printed in the Gazette.]

1,240,235. FOOD-PACKAGE. GEORGE W. MATHISON, Denver, Colo. Filed Apr. 30, 1917. Serial No. 165,535. (Cl. 99—8.)

1. A vending package consisting of a filler of a beverage ingredient material inclosed in a container of friable, edible material, said container being molded of plastic material composed in part of the same substance as said filler.

4. A vending package consisting of a filler of pulverulent malted milk inclosed in a container of friable material the base of which is malted milk.

(Claims 2 and 3 not printed in the Gazette.)

1,240,236. INITIAL IGNITER. OSKAR MATTER, Troisdorf, Germany, assignor, by mesne assignments, to The Vereinigte Köln-Rottweiler Pulverfabriken, Berlin, Germany. Filed Apr. 17, 1913. Serial No. 761,848. (Cl. 102—9.)

1. An initial igniter composition containing nitropentaerythrite and another detonating substance.

2. An initial igniter composition containing nitropentaerythrite and lead azid.

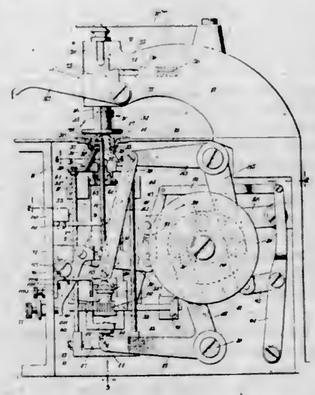
3. An initial igniter composition containing nitropentaerythrite and a layer of another detonating substance.

4. An initial igniter composition containing nitropentaerythrite and a layer of lead azid.

5. A detonator comprising nitropentaerythrite and another detonating substance.

[Claims 6 to 8 not printed in the Gazette.]

1,240,237. TRIMMING-MACHINE. CHARLES D. MATTISON, Hasbrouck Heights, N. J., assignor to The Unitrim Company, Inc., New York, N. Y., a Corporation of New York. Filed Dec. 31, 1913, Serial No. 809,621. Renewed Feb. 26, 1917. Serial No. 151,145. (Cl. 164—48.)



1. In a machine of the class described, a cutter having positioning and cutting movements, the extent of the former being determined by lateral contact of the cutter with the projecting surface configuration of the material to be severed, means for imparting the positioning movement to the cutter, and means for imparting the cutting movement to the positioned cutter.

2. In a machine of the class described, a cutter having a rotary positioning movement and a longitudinal cutting movement, the extent of the former being determined by lateral contact of the cutter with the projecting surface configuration of the material to be severed, means for imparting the positioning movement to the cutter, and means for imparting the cutting movement to the positioned cutter.

3. In a machine of the class described, a cutter movable in a path interrupted by the relief of the material to be severed, whereby lateral contact of the cutter with such relief determines the severing position of the cutter, means for moving the cutter in said path, means for effecting relative movement of the fabric and cutter in a path longitudinally of the relief, and means for actuating the cutter to sever the fabric when the cutter is positioned by its contact with the relief.

4. In a machine of the class described, a feeder, a cutter movable in a path interrupted by the relief of the material to be severed, said relief affording a guide for the edge of the cutter as the material progresses, means for moving the cutter in said path, and means for actuating said cutter itself to sever the fabric when the cutter is positioned by contact with the relief.

5. In a machine of the class described, a cutter, means for rotating the same about its longitudinal axis to position the cutter itself laterally against the edge of the relief for a severing operation, and means for thereafter longitudinally reciprocating the cutter to effect the severing operation.

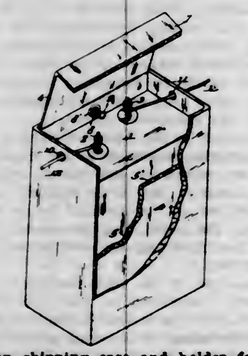
(Claims 6 to 31 not printed in the Gazette.)

1,240,238. SWINGLETREE-CLIP. JOSEPH C. MELCHER, Walla Walla, Wash. Filed May 8, 1917. Serial No. 167,241. (Cl. 21—79.)



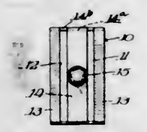
The combination with a swingletree, of plates mounted on opposite sides and projecting from the end thereof, the projecting end of one plate being offset inwardly toward the other plate, a tubular spacing member between the projecting ends of the plates, a hook having its shank rotatably and slidably seating in the spacing member, one end of the shank projecting from one of the plates, and a nut screwed on the projecting end of the shank and seating on the offset portion of the plate, the bill of the hook extending from the other end of the shank and the corresponding plate, said plate having an aperture to receive the extremity of the hook bill.

1,240,239. BATTERY-CASE. MARCUS H. MOFFETT, Lakewood, Ohio, assignor, by mesne assignments, to National Carbon Company, Inc., a Corporation of New York. Filed Mar. 23, 1914. Serial No. 826,509. (Cl. 204—53.)



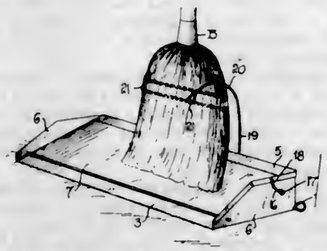
A combination shipping case and holder for dry batteries consisting of a double faced, corrugated outer casing open at the top and bottom, an inner casing of double faced corrugated material bent on four spaced parallel lines into rectangular form and having the junction of the ends at one of the sides of said outer casing, whereby a complete inclosure is formed when the upper flap is within the outer casing and an open ended box is formed when the flap is pulled outside the casing, the corrugation of said inner and outer casings being perpendicular to each other and said casings having an opening in the back to receive a supporting member, and said outer casing having two holes in the sides for admitting connecting wires for the purpose described.

1,240,240. MOUNTING FOR CLASP-STUDS. UGO MORTARA, Chicago, Ill., assignor to Kabo Corset Company, Chicago, Ill., a Corporation of West Virginia. Filed Oct. 12, 1915. Serial No. 55,440. (Cl. 24—245.)



A device of the class described, comprising a single metallic plate-like member formed with parallelly extending slots arranged on each side of the center thereof, producing outer bars and a center bar, a stud extending from the top face of the center bar, said center bar being raised into a plane above the plane of the outer bars and in a plane parallel to the plane of the outer bars, side bars connecting said center bar and outer bars, and said side bars being cut away below the plane of the outer bars to further extend the slots between said outer bars and center bar, substantially as described.

1,240,241. DUST-PAN. CHARLES R. MOSS, Richmond, Va. Filed July 12, 1916. Serial No. 108,904. (Cl. 65—20.)



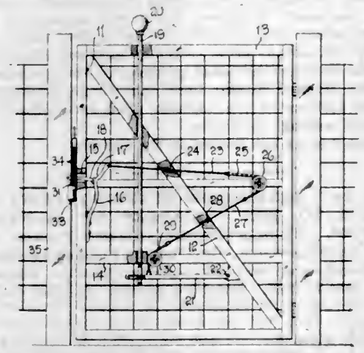
1. A dust pan comprising a body having a portion of its top open, an apron hinged to the forward margin of the pan and serving as a closure for the open portion of the top, a portion of the bottom of the pan being open, a slide for closing said open portion, and an operating member for the slide extending exteriorly of the pan through an end thereof.

8. In combination with a dust pan including a base and an upstanding back wall at right angles to the base, arms secured to the back wall and extending thereabove, said arms being spaced apart longitudinally of the back wall and also substantially perpendicularly related to the base of the dust pan, the outer extremities of the arms being angularly disposed and overlying the base of the dust pan, the portion of the arms above the pan being free from each other at all points.

[Claim 2 not printed in the Gazette.]

1,240,242. GATE-LATCHING DEVICE. JAMES NEAL, Phoenix, Ariz. Filed Feb. 28, 1917. Serial No. 151,519. (Cl. 70—28.)

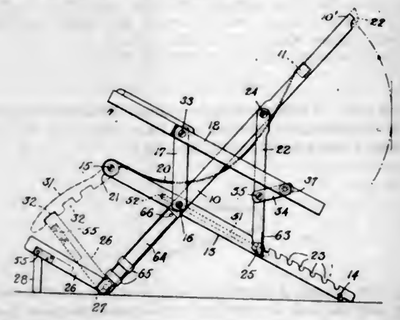
1. The combination with a gate and a gate post, of a spring-actuated bolt extending through a perforation in the front bar of the gate post, manually operable means for retracting the bolt, and means for holding the bolt retracted when the gate is swung away from the gate post comprising a latch pivoted at its upper end, normally extending over said perforation and having a weight at its lower end, the weight extending outward and adapted to be engaged by the gate post when the gate is closed and thereby shifted away from a position over the perforation through which the bolt passes.



2. The combination with a gate and a gate post, of a flat spring attached to the frame of the gate and extending upward and rearward, a latching bolt operatively connected to the spring, the front bar of the gate being formed with a perforation through which the latching bolt passes, a vertically depressible actuating member mounted upon the frame of the gate, a link pivotally supporting the lower end of said member, pulleys and a flexible connection attached at one end to the spring passing around said pulleys and at its other end attached to said link whereby upon a depression of the actuating member the bolt will be retracted, and means for holding the bolt retracted while the gate is out of alinement with the gate post but automatically releasing said bolt when the gate is in alinement with the gate post.

[Claim 3 not printed in the Gazette.]

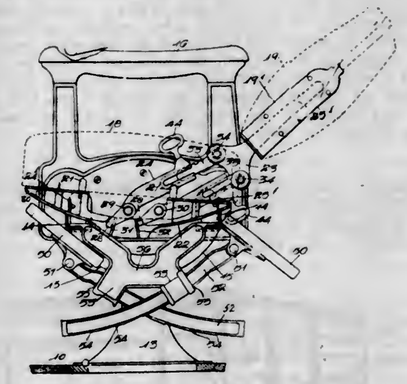
1,240,243. COLLAPSIBLE AND CONVERTIBLE CHAIR. GIOVANNI NORBERTI, Boston, Mass. Filed Feb. 24, 1916. Serial No. 80,143. (Cl. 155—30.)



1. A collapsible structure comprising two rectangular frames arranged one within the other, coöperative trunnions connecting said frames, said frames being capable of relative angular movement about said trunnions, a rectangular sheet of thin flexible material fastened at one edge to one of said frames and at the opposite edge to the other one of said frames in lines parallel to the axis of said trunnions, said frames being arranged to sustain said sheet material in a slack condition and in a taut condition according to their angular relation, bracing means arranged to brace said frames in chair-forming relation with said sheet material in a slack condition to form the seat and back, a foot-rest pivotally connected to one end of the outer said frame, two coöperative legs pivotally connected to the other end of said outer frame, said legs and said bracing means having separable portions arranged to coact to brace said legs in frame-supporting position, and means arranged to brace said foot-rest in frame-supporting position.

2. A collapsible structure comprising an open rectangular frame, a smaller open rectangular frame arranged within the first said frame, trunnions connecting said frames so that they may be nested in a common plane and moved relatively to various angular relations, a rectangular sheet of thin flexible material fastened along one edge to one of said frames and along the opposite edge to the other one of said frames, whereby it is held taut to form a bed-bottom when said frames are nested, and whereby it is sustained in a slack condition to form a chair-seat and chair-back when said frames are in an angular relation, means arranged to hold said frames in chair-forming angular relation, a leg-rest pivotally mounted on said smaller frame, supporting means pivotally connected to the first said frame and arranged to sustain said leg-rest in operative position when said frames are in chair-forming relation, said supporting means being arrangeable to support one end of the first said frame when said frames are in said nested relation, said leg-rest being arranged to be sustained by said frames, conjointly, to provide a head-rest when said frames are in said nested relation, and means arranged to support the other end of the first said frame when said frames are in said nested relation.

1,240,244. CAR-SEAT. GEORGE M. OGLE, Wakefield, Mass., assignor to Heywood Brothers and Wakefield Company, Wakefield, Mass., a Corporation of New Jersey. Filed Sept. 28, 1915. Serial No. 53,045. (Cl. 155—2.)



1. A car seat structure comprising a seat-supporting frame, a pair of back-supporting members, a pair of oscillatory arms at each side of said frame for carrying said back-supporting members forward and back to reverse the facing direction of the seat, and means forming double connection between each of said back-supporting members and the adjacent pair of said oscillatory arms, to sustain the back-supporting members, said means including double pivotal connection with the back-supporting member and including adjustable elements arranged to vary the angle or inclination of the back-supporting member.

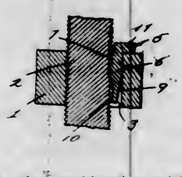
2. A car seat comprising a seat portion, a back, and back-supporting means arranged to carry said back across said seat portion to reverse the facing direction of the seat, said means including oscillatory arms, adjustable extension members carried thereby, and latching devices arranged to latch said extension members automatically to

said arms, said back being pivotally connected to and supported by said extension members.

3. A car seat structure comprising a seat-supporting frame, and back-supporting means pivotally connected to said frame and arranged to carry a back across the latter to reverse the facing direction of the seat, said means including two pairs of oscillatory arms, slidable members each carried by one of said arms, a pair of back-holders each carried by and pivotally connected to a pair of said slidable members, and connections arranged to hold said slidable members in various positions of adjustment relatively to said arms, to afford angular adjustment of the back.

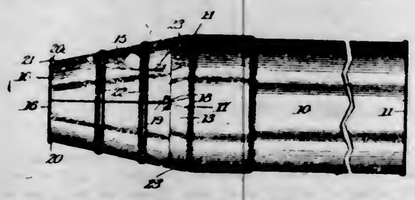
4. A car seat comprising a seat portion, two pairs of oscillatory arms arranged respectively at the sides of said seat portion, two pairs of sliding members each carried by one of said arms, a pair of coöperating holders each pivotally connected at separate points to a pair of said sliding members, a back mounted upon said holders, and two pairs of latching members each arranged to coöperate with one of said arms and with one of said sliding members to sustain said holders at various angular positions relatively to said arms.

1,240,245. NUT-LOCK. OSCAR B. OLLER, Los Angeles, Cal., assignor of one-half to H. F. Schulz, Santa Anita, Cal. Filed Nov. 7, 1916. Serial No. 129,988. (Cl. 151—23.)



In a nut lock, the combination with a bolt, of a nut threaded on the bolt, said nut having a channel formed longitudinally of its opening, a key having a cutting edge adapted to engage the threads of the bolt when said key is engaged in the channel, the inner end of said key having a resilient shank carried thereby, said shank having a tooth for yieldably engaging the threads of the bolt, and a head formed on the outer edge of the key, as and for the purpose set forth.

1,240,246. ADJUSTER FOR PNEUMATIC MECHANO-THERAPEUTIC RECEIVERS. HOLLAN N. D. PARKER, Washington, D. C. Filed Apr. 28, 1914. Serial No. 835,007. (Cl. 128—9.)



1. In pneumatic mechano-therapeutic apparatus, the combination with a receiver, of an adjuster therefor comprising a pair of reversely-arranged complemental members hingedly connected together at their edges for relative movement and separably connected to the receiver, and means for sealing the joints.

2. In pneumatic mechano-therapeutic apparatus, the combination with a receiver, of a frusto-conical adjuster therefor comprising a pair of members connected for movement relatively to each other, means for effecting a locking engagement between the receiver and said adjuster, and means for sealing the joints.

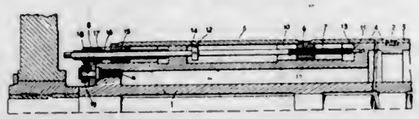
3. In pneumatic mechano-therapeutic apparatus, the combination with a receiver, of an adjuster therefor comprising a frusto-conical sectional body, means for effecting a wedging engagement of the adjuster with the receiver, whereby to close the sections of the adjuster with respect to each other, and means for sealing the joints.

4. In pneumatic mechano-therapeutic apparatus, the combination with a receiver, of a frusto-conical-sectional adjuster associated with said receiver, means for effecting a wedging action between the receiver and the adjuster, whereby to close the sections of the latter upon each other, means for effecting a locking engagement between the receiver and the adjuster, and means for sealing the joints.

5. In pneumatic mechano-therapeutic apparatus, the combination with a receiver having an inclined flange surrounding its mouth, of a sectional adjuster associated with said receiver the basal portions of the sections of which are adapted to seat upon said flange, whereby to close the sections of the adjuster upon each other, and means for sealing the joints.

[Claims 6 to 14 not printed in the Gazette.]

1,240,247. DEVICE FOR CLAMPING PRINTING-PLATES TO THE CYLINDERS OF PRINTING-PRESSES. THOMAS ROBERT GILLETT PARKER and JOHN SHUTTLEWORTH, Broadheath, England, assignors to Linotype and Machinery Limited, London, England. Filed July 7, 1915. Serial No. 38,599. (Cl. 101—378.)



1. In devices for clamping to the cylinder of a printing press a plurality of printing plates arranged end to end, the combination with a dog normally adapted to clamp an inner printing plate or an outer printing plate, of means adapted to operate the said dog from the end of the cylinder to clamp an outer printing plate thereon, means for clamping an inner printing plate thereon, and means for moving said plates axially.

2. In devices for clamping to the cylinder of a printing press a plurality of printing plates arranged end to end, the combination with a dog between the adjacent ends of two printing plates, means for operating that dog from the end of the cylinder, and a dog adjustable from the same end of the cylinder for engaging the outer end of an outer printing plate, of means including the said outer printing plate whereby both of the dogs can be simultaneously moved in direction parallel with the axis of the cylinder, and auxiliary means for adjusting said dogs and dog-adjusting means relatively to said cylinder.

[Claims 3 to 5 not printed in the Gazette.]

1,240,248. ANIMAL-TRAP. LOUIS PEASE and AUGUST W. SCHOENHEIT, Pittsburgh, Pa. Filed Jan. 17, 1917. Serial No. 142,813. (Cl. 43—19.)



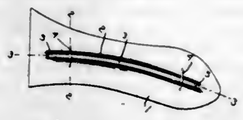
1. An animal trap comprising a substantially stationary gate having an opening in the lower portion thereof, a receptacle or body member having an opening in its forward extremity and means adjacent said opening whereby it has a sliding and wedging engagement with said gate, and a foot upon which said body member tilts.

5. An animal trap comprising an integral receptacle or body member arranged to tilt as a whole and having an entrance open in one position of the receptacle, and means for closing the entrance opening upon movement of the receptacle into its other position by the entrance of an animal thereinto, said trap being so proportioned and arranged that the receptacle will remain in equilibrium in closed position of the trap irrespective of the movements of the animal therein.

9. An animal trap comprising a substantially stationary gate having an opening in the lower portion thereof, a receptacle or body member having an opening in its forward extremity, means adjacent said opening whereby it has a sliding and wedging engagement with said gate, and means upon which said body member tilts.

[Claims 2 to 4 and 6 to 8 not printed in the Gazette.]

1,240,249. SHANK-STIFFENER. JOSEPH E. PECKHAM, Newton Highlands, Mass., assignor to J. E. Peckham Co., Inc., Boston, Mass., a Corporation of Massachusetts. Filed Dec. 1, 1916. Serial No. 134,221. (Cl. 36—76.)



1. A shank stiffener comprising a flexible body portion curved longitudinally to conform to the shank and depressed longitudinally along the medial line of the convex side to form a groove and cause the total thickness of the body portion to be greater than the thickness of the material from which it is formed, a stiff, resilient, metal wire curved longitudinally to conform to the curvature of the body portion and embedded in said groove, and means for retaining the wire in the groove and permitting relative longitudinal movement of the wire and body portion under flexure of the shank stiffener.

2. A shank stiffener comprising a flexible body portion curved longitudinally to conform to the shank and depressed longitudinally along the convex side to form a plurality of grooves and cause the total thickness of the body portion to be greater than the thickness of the material from which it is formed, said grooves also increasing the resistance of the body portion to longitudinal deflection, a stiff, resilient, metal wire curved longitudinally to conform to the curvature of the body portion and embedded in one of said grooves, and means for retaining the wire in the said groove and permitting relative longitudinal movement of the wire and body portion under flexure of the shank stiffener.

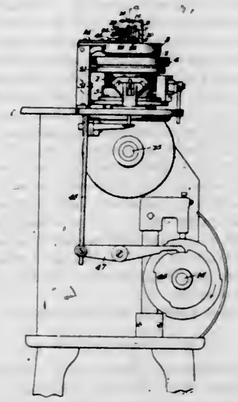
3. A shank stiffener comprising a flexible body portion curved longitudinally to conform to the shank and depressed longitudinally along the convex side to form a groove and cause the total thickness of the body portion to be greater than the thickness of the material from which it is formed, a stiff, resilient metal wire curved longitudinally to conform to the curvature of the body portion and embedded in said groove, and staples secured to said body portion transversely said wire to retain the wire in the groove and permit relative longitudinal movement of the wire and body portion under flexure of the shank stiffener.

4. In a shank stiffener the combination of a body portion longitudinally grooved, a resilient element positioned in the groove, and means to retain said element in the groove so that relative longitudinal movement may be afforded the element therein.

5. In a shank stiffener, the combination of a body portion longitudinally grooved, a resilient element positioned in the groove, and members secured on said body portion extending transversely of said groove to retain said element in the groove so as to permit relative longitudinal movement of the element in the groove.

1,240,250. KNITTING-MACHINE. HERMAN PETERS, Milwaukee, Wis., assignor to Holeproof Hosiery Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed June 10, 1915. Serial No. 33,289. (Cl. 66—12.)

1. In a knitting machine the combination with a rotary needle cylinder provided with a circular series of latch needles, of a reinforcing yarn carrier movable into and out of position to direct a reinforcing yarn to the needles between predetermined points in successive courses, means for operating said carrier, a reciprocating hook movable transversely to the course of knitting within the series of needles and adapted when projected outwardly toward the needles to receive into its bight the yarn drawn by the fabric from the carrier as the carrier is shifted out of working position, a yielding clam-coöperating with one side of the hook as it is withdrawn inwardly to first grip the yarn, and a stationary cutter coöperating with the other side of the hook to then sever the yarn between the clamp and the fabric.



2. In a knitting machine the combination with a rotary needle cylinder provided with a circular series of latch needles, of a reinforcing yarn carrier, means for shifting said carrier into and out of working position at predetermined points in successive courses of knitting, a reciprocating hook located within and movable transversely to the series of needles and adapted when projected outwardly toward the needles to receive into its bight the yarn drawn from the carrier by the rotation of the cylinder with the fabric as the carrier is shifted out of working position, a laterally yielding clamp coöperating with one side of the hook to first grip the yarn, a stationary cutter coöperating with the other side of the hook to then sever the yarn close to the fabric, a reciprocating inside guide movable back and forth transversely to the movement of the hook and coöperating with the carrier when it is shifted into working position to direct the yarn between the same needles in successive courses of knitting, and means for operating said hook and guide.

3. In a knitting machine the combination with a needle cylinder provided with a series of needles, of a reinforcing yarn carrier, means for shifting said carrier into and out of working position at predetermined points in successive courses of knitting, a reciprocating hook located within and movable transversely to the series of needles and adapted when projected outwardly toward the needles to receive the yarn drawn from the carrier by the rotation of the fabric with the cylinder as the carrier is shifted out of working position, a clamp coöperating with one side of the hook to first grip the yarn, a cutter coöperating with the other side of the hook to then sever the yarn close to the fabric, an inside guide movable into and out of position to coöperate with the carrier when it is shifted into working position, to direct the yarn between the same needles in successive courses of knitting, and means for operating said hook and guide.

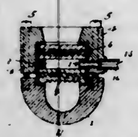
4. In a knitting machine the combination with a rotary needle cylinder provided with a circular series of latch needles, of a reinforcing yarn carrier, means for shifting said carrier into and out of working position at predetermined points in successive courses of knitting, means within the series of needles for severing the yarn close to the fabric when it is withdrawn by the carrier from the needles and

for holding the detached end and returning the same to the needles when the carrier is shifted back to working position, a tension device comprising two disks between which the yarn is constantly directed to the carrier, one of said disks being stationary and the other movable and provided with a stem which passes through and is guided axially in the stationary disk, a spring tending to press the movable disk toward the stationary disk, and a tension releasing lever adapted by engagement with the end of the stem of the movable disk to separate said disks and remove tension from the reinforcing yarn when said carrier is shifted into working position.

5. In a knitting machine having a needle cylinder provided with a circular series of needles, a reinforcing yarn carrier, means for shifting said carrier into and out of position to direct a reinforcing yarn to the needles between predetermined points in successive courses of knitting, the combination of means within the series of needles for severing the yarn when it is withdrawn by the carrier from the needles and for holding the detached end until the carrier is shifted into working position, means for operating said severing and holding means, a tension device comprising separable jaws between which the yarn is led to the carrier, a backwardly yielding tension releasing arm operated by said carrier to separate said jaws, and a movable stop actuated with the yarn severing and holding means and adapted by engagement with said releasing arm to delay the separation of the tension jaws when the carrier is shifted into working position until said holding means releases the yarn.

[Claims 6 to 8 not printed in the Gazette.]

1,240,251. WATER-GAGE. FRANCIS A. POCOCK, Philadelphia, Pa. Filed Feb. 18, 1914. Serial No. 819,466. (Cl. 73—54.)



1. A water gage comprising a body, an inner transparent wall forming with the body a liquid chamber, an outer transparent wall parallel with the first named wall and spaced therefrom, means for packing the transparent walls whereby a sealed pressure chamber is formed therebetween, a face plate for holding the parts in position, a tube in said face plate communicating with the chamber, a disk mounted against one end of said tube, and a pipe for holding said disk in position and forming with said tube a communication from the chamber between the two transparent walls to the atmosphere, whereby the disk is blown out.

2. A water gage comprising a body, a reflecting glass forming with the body a liquid chamber, a protector or sight glass parallel with the first named glass and spaced therefrom to form a space or pressure chamber therebetween, means for packing said glasses, a face plate detachably secured to the body for holding the glasses and packing in position, and nipples for connecting the gage with the ordinary boiler fixtures.

1,240,252. MANUFACTURE OF PLASTICS. MICHAEL A. POPKESS, Kansas City, Mo., assignor to Bituminized Road Company, a Corporation of Arizona. Filed Apr. 11, 1916. Serial No. 90,391. (Cl. 106—31.)

1. The process of forming a material suitable for paving purposes and the like, which consists in heating damp earthy material in a deflocculated condition in the presence of a liquid bitumen to drive off the moisture, and simultaneously disintegrating and mixing the material with bitumen while so heated, whereby the bitumen penetrates the earthy material as the moisture leaves it, and maintains it in its deflocculated condition.

2. The process of forming a material suitable for paving purposes and the like, which consists in mixing moist finely divided earthy material containing substances having plasticity and colloidal qualities with a liquid bitumen, heating the mixture to drive off the moisture, and vigorously agitating it to assist the bitumen to impregnate the material.

3. The process of forming a material suitable for paving purposes and the like, which consists in warming moist earthy material, adding a liquid bitumen thereto, and simultaneously mixing and disintegrating the mixture.

4. The process of forming a material suitable for paving purposes and the like, which consists in warming earthy moist material, adding a liquid bitumen thereto, simultaneously mixing and disintegrating the mixture, and heating the same to drive off the moisture.

5. The process of forming a material suitable for paving purposes and the like, which comprises heating moist ordinary earthy material at a temperature which is below 212° F. but is sufficient to vaporize part of the moisture, and while so heated adding liquid bitumen thereto and simultaneously stirring to thoroughly mix and disintegrate the earth and the bitumen, and finally raising the heat to a degree somewhat in excess of 212° F.

[Claims 6 to 27 not printed in the Gazette.]

1,240,253. PLASTIC COMPOSITION AND METHOD OF MAKING THE SAME. MICHAEL A. POPKESS, New York, N. Y. Filed Dec. 13, 1916. Serial No. 136,808. (Cl. 106—31.)

1. The process of making paving compositions which comprises producing an emulsion of asphalt, water and clayey earthy material, the amount of such asphalt being merely that which in conjunction with said earthy material will give a dense, hard and malleable composition and the amount of water being such as to permit free workability during incorporation.

2. The process of making paving compositions which comprises producing an emulsion of asphalt liquid at atmospheric temperatures, water and clayey earthy material, the amount of such asphalt being merely that which in conjunction with said earthy material will give a dense, hard and malleable composition and the amount of water being such as to permit free workability during incorporation.

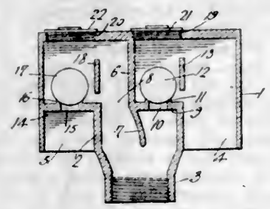
3. The process of making paving compositions which comprises producing an emulsion of asphalt, water and clayey earthy material, the amount of such asphalt being merely that which in conjunction with said earthy material will give a dense, hard and malleable composition and the amount of water being such as to permit free workability during incorporation, agitation and disintegration of asphalt and earthy matter in the presence of water being continued until the asphalt and earthy matter are reduced to fine associated particles, and thereafter removing the water.

4. The process of making paving compositions which comprises producing an emulsion of asphalt liquid at atmospheric temperatures, water and clayey earthy material, the amount of such asphalt being merely that which in conjunction with said earthy material will give a dense, hard and malleable composition and the amount of water being such as to permit free workability during incorporation, agitation and disintegration of asphalt and earthy matter in the presence of water being continued until the earthy matter is reduced to fine particles and the liquid asphalt thoroughly incorporated therewith, and thereafter removing the water.

5. The process of making paving compositions which comprises producing an emulsion of asphalt, water and clayey earthy material, the amount of such asphalt being merely that which in conjunction with said earthy material will give a dense, hard and malleable composition and the amount of water being such as to permit free workability during incorporation, agitation and disintegration of asphalt and earthy matter in the presence of water being continued until the asphalt and earthy matter are reduced to fine associated particles, and applying the composition thus obtained to a roadway and compacting it in place.

[Claims 6 to 8 not printed in the Gazette.]

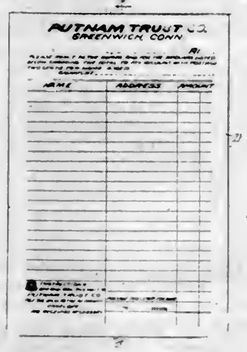
1,240,254. DOUBLE CHECK-VALVE. HARRY H. PRESCOTT and EDWARD H. CONSIDINE, Chicago, Ill. Filed Oct. 24, 1916. Serial No. 127,439. (Cl. 137—53.)



1. A valve structure embodying a valve casing having a lower portion for attachment to the upper end of a pipe, lower inlet and outlet ports at opposite sides of said portion, a vertical partition above said portion, a horizontal partition between the aforesaid partition and one side of said portion having an opening and a valve seat, and a horizontal partition between the opposite side of said portion and the wall of the casing above the inlet port and having an opening and a valve seat, and valves seatable upon said seats.

2. A valve structure embodying a horizontally elongated valve casing having a lower portion intermediate its ends for attachment to the upper end of a pipe and having outlet and inlet ports between said portion and the ends of the casing opening downwardly, said casing having a vertical partition extending from its top to a point between opposite sides of said portion and a horizontal partition between the aforesaid partition and that side of said portion adjacent to the outlet port, the casing having another horizontal partition between the opposite side of said portion and the respective end wall of the casing above the inlet port, the horizontal partitions each having an opening and a valve seat, ball valves seatable on said seats, the casing having bars between its sides for retaining the valves above the seats, the top of the casing having openings above the valve seats, and removable closures for said openings.

1,240,255. BILL-PAYMENT FORM. HENRY F. PRICE, Riverside, Conn., assignor, by mesne assignments, to The Budget Cheque Corporation, Chicago, Ill., a Corporation of Illinois. Filed May 31, 1916. Serial No. 100,766. (Cl. 11—13.)



1. A bank check having thereon a space for the signature of the drawer and comprising a plurality of parts, one part bearing thereon the name of a bank and containing instructions to the bank to charge a total amount to the account of the drawer and to distribute to a plurality of parties specified individual amounts, the sum of which equals said total amount, and another part of said check comprising spaces for the names of said parties to whom amounts are to be distributed, for the insertion of individual amounts to be distributed to said parties, and a third part formed as a receptacle for documents showing the individual accounts to which payments of the said individual amounts may be applied.

2. A bank check having thereon a space for the signature of the drawer and comprising a plurality of sections, one section bearing thereon the name of a bank and containing instructions to the bank to charge a total amount to the account of the drawer, and to distribute to a plurality of parties specified individual amounts, the sum of which equals said total amount, a second section comprising spaces for the names of said parties to whom distributions are to be made and for the insertion of the individual amounts to be distributed to said parties, a third section to be retained by the drawer comprising a receptacle for the bills paid by the said check and spaces for duplicate records of the names of said plurality of parties and the individual amounts to be distributed to them.

3. A device for use in disbursing to a plurality of parties moneys deposited with a bank, consisting of a plurality of parts, one bearing thereon the name of the bank with instructions to make disbursements from such deposit and having spaces for the signature of the depositor and for the insertion of a total amount equal to the sum of the amounts to be disbursed, another part comprising spaces for the names of parties to whom disbursements are to be made and for the insertion of the individual amounts to be disbursed to said parties, and a third part to be retained by the depositor comprising in combination a receptacle for bills from the said plurality of parties and spaces for records of the names of the plurality of parties and of the individual amounts to be disbursed to them.

4. A device for use in disbursing to a plurality of parties moneys deposited with a bank, consisting in combination of a form comprising spaces for the signature of the depositor, the names of the payees, the individual amounts to be disbursed to said payees, and the total of said individual amounts, and having thereon an order on the said bank to pay the designated individual amounts to the respectively designated payees and to charge the said total amounts to the account of said depositor, and of a receptacle adapted to contain bills from the said payees and having spaces for memoranda of the said individual amounts as applied to the said bills.

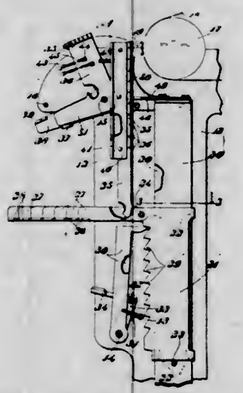
5. A bill payment form comprising a plurality of separable sections, one section bearing the name of the bank and containing instructions to the bank to remit to specified parties designated amounts aggregating a designated total sum for the account of the drawer and also including spaces for writing in the date, the name of the payees and the amounts, and the signature of the drawer, and another section having spaces for dates, signature and names of payees and amounts as appearing on the first section, the first section adapted for transmission to the bank and the second section adapted for retention by the drawer and being formed as an envelop receptacle for the bills paid by means of the first section.

[Claim 6 not printed in the Gazette.]

1,240,256. NUMBER-PRINTING MECHANISM. WILLIAM P. QUENTELL, New York, N. Y. Filed May 7, 1917. Serial No. 166,918. (Cl. 101—94.)

1. In a number printing mechanism, a series of type members independently movable in one direction to adjust the same to print different figures and in another direction to effect the printing impression, and means operated by said type members whereby each of the type members of lower order is operated when the next

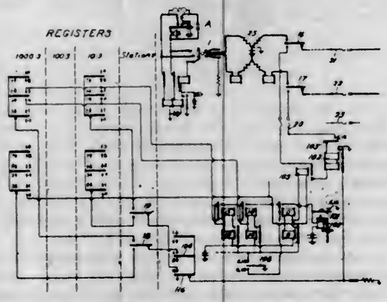
adjacent type member of a higher order is moved in said last-named direction.



6. In a number printing mechanism, the combination with a plurality of printing devices adjustable to print different numbers of characters from the several printing devices, of means for actuating said printing devices with a variable force automatically controlled in accordance with the number of printing devices actuated.

[Claims 2 to 5 and 7 to 13 not printed in the Gazette.]

1,240,257. TELEPHONE SYSTEM. FRANK N. REEVES, Newark, N. J., and ALBEN E. LUNDELL, New York, N. Y., assignors to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Jan. 20, 1916. Serial No. 73,223. (Cl. 179—27.)



1. In a telephone system, a calling line, a called line, a plurality of stations on said called line, signaling devices at said stations respectively, differently responsive to ringing current, means including a connector switch for establishing a connection from one of said lines to the other, a single terminal set for said called line at said switch, a source of ringing current, and means controlled solely by said switch in making connection to said terminal set for joining said source to one or the other talking conductor terminals of said line.

2. In a telephone system, a telephone line, means including an electrically operated selecting device for extending a connection to said line, a plurality of series of corresponding selecting positions for said device, said device being arranged to effect the same connection when moved to any of its corresponding positions, a source of current, and means responsive to the movement of said selecting device to different, but corresponding positions for differently applying said current to said line.

3. In a telephone system, a telephone line, means including an electrically operated selecting device for extending a connection to said line, two series of corresponding selecting positions for said device, said device being arranged to effect the same line selecting operation when moved to either of its corresponding positions, a source of current, and means dependent on whether said selecting device is positioned in one of its first or second series of positions for differently applying said current to said line.

4. In a telephone system, a telephone line, means including an electrically operated switch controlling device for extending a connection to said line, a plurality of series of corresponding selective positions for said device, said device being arranged to effect in corresponding positions the same switching operation, a source of current, and means dependent on to which of its corresponding positions said selecting device has been moved for differently applying said current to said line.

5. In a telephone system, a telephone line, means including an electrically operated switch for extending a connection to said line, a plurality of brushes on said switch, a brush selecting device having a plurality of selecting positions corresponding to each of said brushes, a source of current, and means dependent on whether said brush selecting device has been moved to one or another of its corresponding selecting positions for differently associating said source with said line.

[Claims 6 to 22 not printed in the Gazette.]

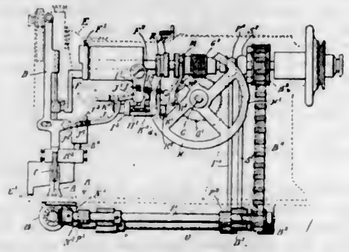
1,240,258. ARTIFICIAL TOOTH. ROBERT FINLAY ROSS, Glasgow, Scotland. Filed Feb. 28, 1916. Serial No. 80,915. (Cl. 32—9.)



1. The combination with an artificial tooth having a horizontal shoulder projecting from its rear wall, the rear vertical wall of the tooth and the face of said shoulder having a plurality of alined dovetail grooves therein, of a locking bar having a plurality of projections in locking engagement with the grooves of said tooth.

2. An artificial tooth having a plurality of dove-tailed grooves in the rear wall thereof, and a locking bar adapted to be seated in a bed of vulcanite or like material, said locking bar having a plurality of projections for engaging in said grooves.

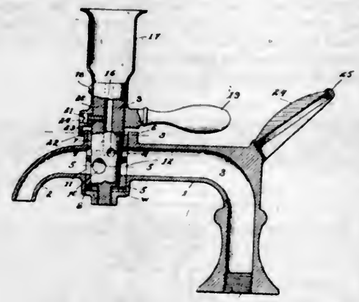
1,240,259. MACHINE TO SEW SEAMS WITH GAPS. WILLIAM R. ROGERS, Newark, N. J., assignor to William Raubitschek, Brooklyn, N. Y. Filed June 30, 1916. Serial No. 106,891. (Cl. 112—24.)



1. In a machine for sewing seams with gaps, in combination, an automatic stitch producing mechanism, adapted to normally reciprocate the needle bar, downwardly, in a vertical position, to produce a seam, a needle bar frame fulcrumed for lateral motion, in which the needle bar is mounted, a needle bar shaft from which the needle bar is reciprocated, a rotary cam having two opposite recesses in its periphery and rotated from the needle bar shaft, a friction roller connected with the needle bar frame and operatively engaging in the recesses to deflect the needle bar and produce gaps in the seam at equal distances and in an indeterminate series, and an automatic feed mechanism adapted to continuously advance the material forward, in a straight line.

(Claims 2 to 6 not printed in the Gazette.)

1,240,260. COMBINATION FAUCET AND DRINKING-FOUNTAIN. CORRIE F. RUDOLPH, Washington, D. C. Filed Feb. 7, 1916. Serial No. 76,617. (Cl. 137—109.)

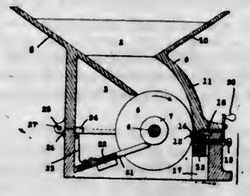


1. In a device of the class described, a faucet body having a valve chamber therein, a valve casing in said chamber having spaced pairs of upper and lower openings therein alining with the passage of the faucet body, a valve mounted to turn in said casing and having a passage extending longitudinally thereof and provided at its lower end with a pair of branches arranged at right angles thereto and diverging outwardly from the lower end of said passage to the periphery of the valve, one of said branches being adapted to normally register with one of the openings in the uppermost pair of openings in the valve casing, the other of said branches being adapted to register with the other opening in the uppermost pair of openings in the valve casing when the valve is partially rotated in one direction, and a second passage in said valve extending transversely thereof adapted to register with the lowermost pair of openings in the valve casing when the valve is partially rotated in the opposite direction.

2. In a device of the class described, a faucet body having a valve chamber therein, a valve casing in said chamber having spaced pairs of upper and lower openings therein alining with the passage of the faucet body, a valve mounted to turn in said casing and having a passage extending longitudinally thereof and provided at its lower end with a pair of branches arranged at right angles thereto and diverging outwardly from the lower end of said passage to the periphery of the valve, one of said branches being adapted to normally register with one of the openings in the uppermost pair of openings in the valve casing, the other of said branches being adapted to register with the other opening in the uppermost pair of openings in the valve casing when the valve is partially rotated in one direction, a second passage in said valve extending transversely thereof adapted to register with the lowermost pair of openings in the valve casing when the valve is partially rotated in the opposite direction, and a cup on said valve in communication with the upper end of the first mentioned passage.

3. In a device of the class described, a faucet body, a valve mounted to turn in said body and extending above the same, said valve having a passage therein adapted to communicate with the interior of the faucet body, an operating handle for said valve having a collar thereon through which the extending portion of the valve is passed, said collar having an opening therein, and a flow control member on said valve having an end extending within the opening in said collar and its other end extending within the passage in said valve.

1,240,261. MACHINE FOR SLICING MEAT, VEGETABLES, &c. HENRY C. SANDER, Newark, N. J. Filed July 24, 1914. Serial No. 852,787. (Cl. 83—24.)



1. In a machine of the character described, the combination with a base, a shaft with cutters thereon mounted transversely of the said base, a cutting block and a comb on opposite sides of the cutter shaft and supported upon the interior of the base, of a hopper hinged to the top of the base so as to hold both the block and comb in position when closed, and means for locking said hopper.

3. In a machine of the character described, the combination with a base, a plurality of revolving blades mounted therein, and a comb in said base having teeth projecting between said blades, of a hopper hinged to the top of said base, and a bracket adapted to extend between said comb and hopper when closed and hold the comb in position.

5. In a machine of the character described, the combination with a base, a plurality of revolving blades mounted therein, a comb having its teeth projecting between said blades, said base having lugs for supporting said comb and said comb having a bracket at its end away from the blades, and a hopper hinged to said base having lugs adapted to engage said bracket when the hopper is closed and prevent displacement of said comb.

[Claims 2, 4, 6, and 7 not printed in the Gazette.]

1,240,262. SAFETY-MATCH-PAD CASE. ALFRED SCHICKERLING, Mount Vernon, N. Y. Filed Mar. 29, 1917. Serial No. 158,187. (Cl. 206—33.)



2. A match pad case of the character designated, comprising a box, a match pad holder pivotally connected therewith and fitting therein and formed with an open space for the exposure of the prepared ignition surface on the stub of a match pad, and a cover hinged to the said match pad holder beyond the said space for the exposure of the ignition surface, for the purpose set forth.

[Claim 1 not printed in the Gazette.]

1,240,263. OVERHEAD-TROLLEY SUSPENSION AND FEED-IN EAR. JAMES SCOTT, Cleveland, Ohio. Filed Oct. 18, 1915. Serial No. 56,463. (Cl. 191—43.)

1. An ear for trolley wires as described having an internally threaded boss and saw toth shaped serrations about.

the top edge thereof, in combination with a hanger having a threaded stem engaged in said boss and a flat shoulder bearing upon said serrations.

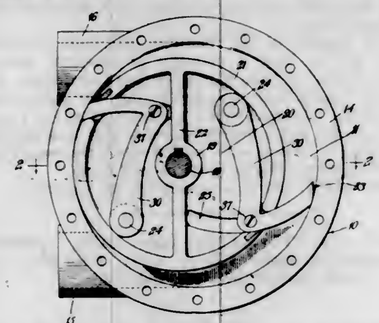


2. As a new article of manufacture, an ear for trolley wires having an open channel lengthwise from end to end in its bottom, a boss at its middle to secure a hanger therein and an inclined and slotted socket for a feed wire apart from said boss toward one end of the ear the bottom of said socket having an opening communicating with said channel.

3. A suspension and feed-in ear for trolley lines having a base provided with an open channel for a trolley wire and a slotted socket for a feed wire provided with an opening in its bottom communicating with said channel.

4. A suspension ear for trolley lines having an open channel lengthwise in its bottom for a trolley wire and a slotted socket for a feed-in wire open at its bottom to said channel, in combination with wires in said channel and said socket and solder filling the interstices of said socket and the opening therefrom to said channel.

1,240,264. ROTARY PUMP. JILES S. SHOCKLEY, Nashville, Tenn., assignor, by direct and mesne assignments, of ten one-hundredths to William L. Danley and eighty one-hundredths to Louis F. Butler, Nashville, Tenn. Filed May 29, 1916. Serial No. 100,665. (Cl. 103—44.)



1. A device of the character described including a casing having inlet and outlet ports, a rotor eccentrically mounted within the casing to coact therewith, a sectional piston having a head coöperating with the casing, and means rigidly connecting the said sections with the sections supported by opposite side faces of the rotor.

2. A device of the character described including a casing having inlet and outlet ports, a rotor eccentrically mounted within the casing to co-act therewith, and a sectional piston swingingly mounted upon the rotor, the said piston including a head split intermediate its length, arms carried by the portions of the head and connected to opposite side faces of the rotor, and means rigidly connecting the said sections and holding the pistons in engagement with the rotor with the piston head mounted to coöperate with the casing.

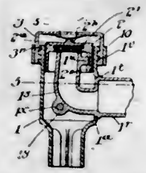
3. A device of the character described including a casing having inlet and outlet ports, a rotor eccentrically mounted within the casing to coact therewith, and a sectional piston freely connected with the rotor, the said piston including a head having a portion thereof carried by each section of the piston, and means extending freely through one portion of the head and engaging the other portion thereof for rigidly connecting the said sections with the piston head mounted to coöperate with the casing.

4. A device of the character described including a casing, having inlet and outlet ports, a rotor eccentrically mounted within the casing and including a rim coacting with the casing, there being a slot formed through said rim, and a piston freely connected to opposite side faces of the rotor and including a head swingingly mounted for movement in said slot to coöperate with the casing, and guide members carried by the said head and engaging an adjacent wall of said slot for directing the head in its swinging movement.

5. A device of the character described including a casing having inlet and outlet ports, a rotor eccentrically mounted within the casing and including a rim having a slot formed therethrough, and a piston freely connected to the rotor and including a head swingingly mounted for movement in said slot to coöperate with the casing, and bearing members projecting from opposite extremities of said head and engaging an adjacent wall of said slot for supporting the head to move therein.

[Claim 6 not printed in the Gazette.]

1,240,265. FAUCET. CHARLES B. STILWELL, Wayne, Pa. Filed Feb. 4, 1916. Serial No. 76,081. (Cl. 137—4.)



1. A faucet having an inlet, a valve for controlling said inlet, means comprising a spring and a movable head for controlling said valve, said spring permitting the closed valve to open when subject to abnormal pressure, and means for adjusting the maximum pressure of said valve.

2. A faucet comprising a threaded body, a conduit having an outlet, a valve for controlling said outlet, means comprising a rotary head threaded on said body for operating said valve, and means for varying the maximum pressure of said valve on said outlet.

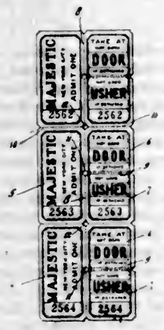
3. A faucet comprising a threaded body, a conduit having an outlet, a valve for controlling said outlet, means comprising a rotary head threaded on said body and a spring disposed between said head and valve for operating the latter, and means comprising a lug connected with said head and a lug connected with said body for limiting the movement of said head, one of said lugs being adjustable, whereby the maximum pressure applicable to said valve through said head may be varied.

4. A faucet having a hollow body provided with a lateral aperture, a conduit having a section disposed in said aperture and a bent section containing an outlet disposed in said body, a pin engaging said conduit section within said body for holding said body and conduit together and a valve for controlling said outlet.

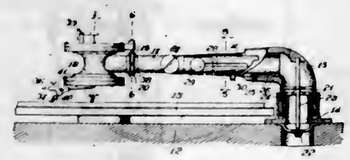
1,240,266. TICKET. HERBERT A. STOIBER, Brooklyn, N. Y. Filed Nov. 19, 1913. Serial No. 802,008. (Cl. 11—15.)

1. A ticket unit comprising a main coupon and auxiliary coupons, the latter being detachably connected at one end with each other and at one edge with a side edge of said main coupon, and having a combined length equal to the length of said main coupon, said coupons being provided with suitable printed matter constituting each an admission, door and usher coupon respectively.

2. A ticket unit comprising a main coupon and two auxiliary coupons, a longitudinal line of perforations connecting one side edge of said main coupon with alining side edges of said auxiliary coupons and a transverse line of perforations extending from said longitudinal line of perforations in one direction and connecting said auxiliary coupons together end to end, a relatively large aperture being located at the point of engagement of said transverse line of perforations with said longitudinal line of perforations, said coupons being provided with suitable printed matter constituting each an admission, door and usher coupon respectively.



1,240,267. UNIVERSAL SOUND REPRODUCER AND ARM. LOUIS TAXON, Rockford, Ill., assignor, by mesne assignments, to The Brunswick-Balke-Collender Company, Chicago, Ill., a Corporation of Delaware. Filed Feb. 7, 1917. Serial No. 147,254. (Cl. 274—23.)



1. In a device of the class described, a sound arm provided with lateral perforations in its end communicating with its interior, and a sound reproducer provided with two diaphragms lying in parallel planes and with holes to register with the lateral perforations in the sound arm, said parts being so arranged that the hole communicating with the unused diaphragm will be closed and the hole communicating with the used diaphragm will register with one of the lateral perforations in the sound arm.

2. A device of the character described including a tone arm, a sound conducting tube pivotally mounted on and communicating with said tone arm, a sound box mounted on said tube, said tube having an extension on the side of its pivotal axis opposite said sound box, and a weight adjustably mounted in said tube to counterbalance the weight of said sound box.

3. A device of the character described including a tone arm, a sound conducting tube pivotally mounted on and communicating with said tone arm, a sound box mounted in said tube and selectively adjustable thereon to a plurality of positions, said tube being provided with an extension on the side of its pivotal axis opposite said sound box and a weight adjustably mounted in said tube to vary the effective weight of the sound box.

4. A device of the character described including a tone arm, a sound conducting tube pivotally mounted on and communicating with said tone arm, a sound box adjustably mounted in said tube and having means to support a plurality of styli, each of which is operative when said sound box is adjusted to a predetermined position, said tube being provided with an extension on the side of its pivotal axis opposite said sound box and a weight adjustably mounted in said tube to vary the effective weight of the sound box.

5. A device of the character described including a tone arm, a sound conducting tube pivotally mounted on and communicating with said tone arm, a sound box having two diaphragms arranged in parallel planes, said sound box being selectively adjustable to a plurality of positions wherein one or the other of said diaphragms are operative, said tube having an extension on the side of its pivotal axis opposite said sound box, and a weight adjustably mounted in said tube to vary the effective weight of the sound box.

[Claims 6 to 11 not printed in the Gazette.]

1,240,268. WOODEN LUG-STRAP. TIMOTHY E. TAYLOR, Webster, Mass. Filed Aug. 22, 1916. Serial No. 116,348. (Cl. 189—48.)



1. As an article of manufacture, a lug strap consisting of a single integral thin wooden member bent around to provide a passage therethrough for the picker stick, the free end being secured to the main portion at the end of said passage.

2. As an article of manufacture, a lug strap comprising a wooden member having a straight side bent around to provide an offset at one end and having a vertical passage therethrough for the picker stick, and provided with a block at one end of the passage and a cushion at the other.

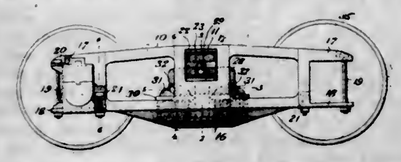
1,240,269. SURFACING MATERIAL FOR ROADS. CHARLES M. UPHAM, Stoughton, Mass. Filed June 28, 1912. Serial No. 706,517. (Cl. 106—31.)

1. A surfacing material for roads comprising a bitumen having a melting point of substantially 150° F. and a penetration not substantially more than 55° measured with a Dow penetrometer with 100 gram weight at a temperature of 77° F.

2. A surfacing material for roads comprising a bitumen having a melting point of substantially 150° F. and a penetration not substantially more than 55° measured with a Dow penetrometer with 100 gram weight at a temperature of 77° F., and a natural aggregate.

3. A surfacing material for roads comprising a bitumen having a melting point of substantially 150° F. and a peentration not substantially more than 55° measured with a Dow penetrometer with 100 gram weight at a temperature of 77° F. and a natural aggregate comprising a large proportion of fine material mixed with larger material.

1,240,270. TRUCK-FRAME AND BOLSTER. ALBERT H. VOSS, Davenport, Iowa. Filed June 1, 1916. Serial No. 101,147. (Cl. 105—248.)



1. The combination of a truck frame member having a socketed portion and a slotted partition within the socket thereof, a bolster having one end disposed above said partition, a member extending through the slot of said partition and supporting one end of said bolster, and means mounted in the socketed portion and at opposite

sides of said partition for yieldingly supporting said member.

2. The combination of a truck frame member provided with a pair of spring seats, vertical guiding elements between said spring seats, a supporting member extending between the said vertical guiding elements, spring seat elements connected to the respective ends of said supporting member, a bolster having one of its ends associated with said supporting member, and springs cooperating with the first said spring seat and the second said spring seat and with said supporting member for yieldingly supporting one end of said bolster.

3. In a device of the character described, the combination with a truck frame member including a centrally located socketed portion and an opening communicating with said socketed portion, of a bolster having one end disposed in said opening, a plate carried by said bolster and having its ends projecting laterally thereof within the socketed portion of said truck frame member, members pivotally mounted at the end portions of said plate, and yieldable means interposed between said members and the face of the socketed portion of said truck frame member to yieldingly support said bolster, substantially as described.

[Claims 4 to 6 not printed in the Gazette.]

1,240,271. LACING-HOOK. JOHN WAGNER, Howe, Idaho, assignor of three-fourths to Martin Krauleides, Taber, Idaho. Filed July 3, 1915. Serial No. 37,843. (Cl. 24—147.)



The herein described lacing hook for shoes and the like, the same comprising a flat base having a pair of apertures and on opposite sides thereof a pair of upstanding ears, an L-shaped lever pivoted at its angle between said ears and having a short arm projecting toward the base and a long arm extending over the base and adapted to contact with the shoe-upper, and a spring strung through the apertures in the base with one extremity bent up against the back of the short leg of said lever to hold the tip of the long leg normally raised and the throat of the hook open, the tension of the lacing against the short leg tending to overcome said spring and close the lacing hook.

1,240,272. CHLORATE EXPLOSIVE OF THE SPRENGEL CLASS. WILLIAM CHARLES WAIN, North Sydney, New South Wales, Australia. Filed Mar. 19, 1915. Serial No. 15,582. (Cl. 52—1.)

1. A saturating fluid for chlorate explosives of the Sprengel class, said fluid being a brown transparent liquid having a specific gravity of approximately .816 and a rate of diffusion of approximately double that of nitrobenzol, said fluid being formed by dissolving castor oil and raw linseed oil in petroleum and treating the said solution with fuming nitric acid.

2. A saturating fluid for chlorate explosives of the Sprengel class, said fluid being a brown transparent liquid having a specific gravity of approximately .816 and a rate of diffusion of approximately double that of nitrobenzol, said fluid being formed by treating equal parts of castor oil and raw linseed oil with sufficient petroleum to dissolve the said organic oils, and treating the said solution with sufficient nitric acid specific gravity 1.5 to completely nitrate said organic oils.

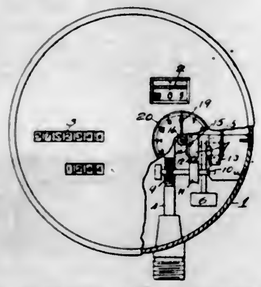
3. A saturating fluid for chlorate explosives of the Sprengel class, said fluid being a brown transparent liquid having a specific gravity of approximately .816 and a rate of diffusion of approximately double that of nitrobenzol, said fluid being formed by compounding castor oil, raw linseed oil, petroleum and fuming nitric acid specific gravity 1.5 in or about the following proportions:—

Castor oil	20 parts by measure,
Linseed oil	20 parts by measure,
Petroleum	320 parts by measure,
Nitric acid	10 parts by measure.

4. A saturating fluid for chlorate explosives of the Sprengel class, said fluid being a brown transparent liquid having a specific gravity of approximately .816 and a rate of diffusion of approximately double that of nitrobenzol, said fluid being formed by treating equal parts of castor oil and raw linseed oil with sufficient petroleum to dissolve the said organic oils, and treating the said solution with sufficient nitric acid, and no more than sufficient acid, to completely nitrate the organic oils so that no excess is introduced to remain as free acid.

5. A process of manufacturing a saturating fluid for explosives of the Sprengel class, consisting of dissolving in petroleum equal parts of castor oil and raw linseed oil, nitrating the said organic oils by fuming nitric acid sp. g. 1.5 added to the solution, and allowing the resultant precipitate to be thrown down and subsequently reabsorbed by the petroleum, as herein described.

1,240,273. POWER-INDICATOR FOR VEHICLES. HORACE H. WELCH, Chicago, Ill. Filed Feb. 9, 1914. Serial No. 817,660. (Cl. 265—1.)



1. A power indicator for vehicles, comprising a casing, a weight and means by which it is held yieldingly against back and forward movement relatively to the casing in the line of travel of the vehicle, said means being adapted to produce an accumulating resistance to such movement of the weight; an indicator element and a coöperating graduated scale element, one of said coöperating elements being mounted for movement with respect to the other, and means by which the movement of said weight controls the movement of the movable one of said coöperating elements, a rotary driving element, and connections by which it influences the rotation of the movable one of said coöperating elements, said connections being adapted for checking said movement of the weight.

2. A power indicator for vehicles comprising a casing, a weight and means by which it is held yieldingly against back and forward movement in the line of travel of the vehicle, said means being adapted to produce an accumulating resistance to such movement; an indicator element and a coöperating graduated scale element, one of said coöperating elements being mounted for movement with respect to the other; a rotary driving element and connections by which it rotates the movable one of said coöperating indicator elements adapted to cause accumulation of said yielding resistance to such movement; a source of energy for causing such rotation, and means by which the movement of the weight against such accumulating resistance connects said rotary driving element with said source of energy for rotation.

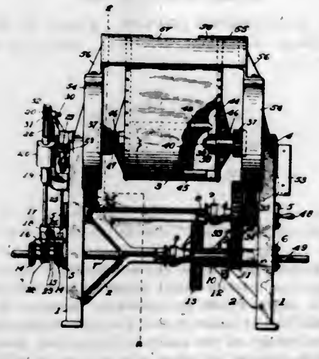
3. A power indicator for vehicles comprising a casing, a weight mounted for backward and forward movement in the line of travel of the vehicle; a spring which yieldingly resists such movement of the weight forward and tends to retract it; a rotary driving element; a rotary indicator element, and connections by which the former rotates the latter, means by which said rotation operates on the spring to increase its resistance to said movement of the weight; a source of energy for causing said rotation of the rotary driving element, and means by which the weight's movement connects said rotary driven element with said source of energy for rotation.

4. A power indicator for vehicles comprising in combination with a casing, a weight mounted for backward and forward movement in the line of travel of the vehicle, a spring which yieldingly resists such movement of the weight forward and tends to retract it; an indicator element mounted for rotation; a rotary driving element and connections by which it rotates said indicator element, connections by which the rotation of said indicator element operates on the spring to increase its resistance to said movement of the weight, an electric motor; connections by which the motor rotates said rotary driving element; a circuit in which the motor is energized comprising a contact-making-and-breaking part which is carried into circuit-closing position by said forward movement of the weight.

5. A power indicator for vehicles comprising, in combination with a casing, a weight mounted in the casing for movement backward and forward in the line of travel of the vehicle; a spring which yieldingly resists its forward movement and tends to retract it; a wheel mounted and connected with the spring for increasing its resistance when the wheel is rotated in one direction; a shaft and connections therefrom for so rotating the wheel; an electric motor for rotating the shaft; a circuit in which it is energized comprising a contact-making-and-breaking part which is carried into circuit closing position by said forward movement of the weight, and an indicator element rotated by said wheel.

[Claim 6 not printed in the Gazette.]

1,240,274. MIXING-MACHINE. GEORGE A. WELZENBACH, Peoria, Ill. Filed Apr. 18, 1917. Serial No. 162,825. (Cl. 259—104.)



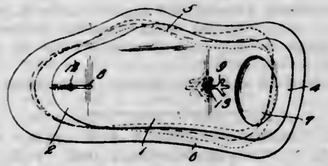
1. In a mixing machine, the combination of a frame, a shaft journaled therein, a driving gear mounted free to turn concentric with said shaft, a clutch carried by said shaft and adapted to receive motion from said driving gear, a second shaft journaled on said frame and carrying a driving gear loosely mounted concentric therewith and adapted to receive motion from said first mentioned driving gear, a clutch carried by said shaft and adapted to receive motion from said driving gear, a mixing hopper carried by said frame, an agitator within said hopper, connections between said second shaft and said agitator whereby when said second mentioned clutch is engaged said agitator will be operated, a tilting gear in connection with said mixing hopper whereby the latter may be tilted, and means whereby when said first mentioned clutch is engaged said tilting gear may be operated.

2. In a mixing machine, the combination of a frame, a tilting hopper mounted thereon, a cover for said hopper and mounted on said frame whereby when said hopper is in mixing position the opening therein will be closed, a shaft mounted on said frame, a driving mechanism mounted free to turn concentric with said shaft, a clutch whereby said shaft may receive motion from said driving mechanism, a second shaft mounted on said frame, driving mechanism mounted free to turn concentric therewith and receiving motion from said first mentioned driving mechanism, a clutch between said driving mechanism and said shaft whereby the latter may be operated, an agitator in said hopper, gearing between said agitator and said second shaft whereby when the latter is operated said agitator will be operated, and a tilting gear coacting between said hopper and said first mentioned shaft whereby when the latter is operated said hopper may be tilted.

3. In a mixing machine, the combination of a tilting mixing hopper, an agitator therein, a frame upon which said hopper is mounted, a pair of shafts carried by said frame and each provided with a clutch, connection between one of said shafts and a tilting gear whereby when said shaft is operated said hopper may be tilted, connection between the other of said shafts and said agitator whereby when said shaft is operated said agitator will be operated, and driving mechanism adapted to be engaged by the clutch of either of said shafts.

4. In driving mechanism for mixing machines, the combination of a quill driving gear, a shaft passing therethrough, a clutch on said shaft for engaging said gear, hopper tilting mechanism coöperating with said shaft, an agitator driving shaft, a clutch carried thereby, a driving member therefor and operated by said quill driving gear, and means for operating said clutches independently.

1,240,275. ARCH-SUPPORT. JOHN H. WILLETT, Chicago, Ill. Filed Dec. 29, 1916. Serial No. 139,616. (Cl. 36—71.)



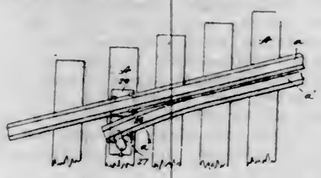
1. An arch support adapted to be fitted within a shoe upon the sole thereof to thus be disposed to bear against the plantar surface of the foot, including a stiffening member shaped to fit the instep arch of the foot and having slotted openings formed therethrough near the ends, a covering member of a material which in use will conform to the shape of the stiffening member mounted over said stiffening member, and means passed through the covering member and through the slotted openings of the stiffening member to secure the same together to be capable of adjustable movement through shifting of said means within the slotted openings.

5. An arch support adapted to be fitted within a shoe upon the sole thereof to thus be disposed to bear against the plantar surface of the foot, including a covering member of a more or less flexible material which in use will conform to the shape of the foot as supported, a stiffening member arched up in its central portion and at its forward end provided with a bossed up formation, said stiffening member provided with an elongated slotted opening at the heel end and at the toe end having a substantially crowfoot shaped slotted opening, and clamp screws extending through the covering member and through the slotted openings of the stiffening member to thus permit adjustment of the relative positioning of the stiffening member within the shoe and to vary the dis-

tribution of pressure as exerted by the arch supporting structure upon the anterior metalarsal arch and the longitudinal ach of the foot.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,240,276. RAIL-BRACE. CHARLES HAINES WILLIAMS, Chicago, Ill., assignor to Chicago Railway Equipment Company, Chicago, Ill., a Corporation. Filed May 28, 1917. Serial No. 171,353. (Cl. 239—18.)



1. A rail brace comprising an upper bracing member having a bearing head with a flattened portion to engage the rail and a lower member adapted to be set at an acute angle to the rail, said upper bracing member being adapted to be turned to different horizontal positions with respect to said lower member.

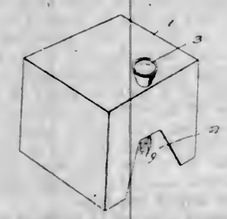
5. A rail brace comprising an upper bracing member adapted to engage the rail and a lower member, said upper member being provided at its bottom with a circular portion passing through said lower member and with a part extending beneath said lower member to interlock therewith.

6. A rail brace comprising an upper bracing member adapted to engage the rail and a lower member formed with an elongated opening to receive said upper member, said opening having curved, expanded walls and said upper member being formed at its bottom with a circular portion extending through said curved walls of the lower member and with a flange or offset to engage the under side of said lower member.

7. A rail brace comprising an upper bracing member adapted to engage the rail and a lower member provided with an opening wherein said upper member is pivotally held, said upper member being provided at its bottom with a flange having cutaway portions for the passage of spikes.

[Claims 2 to 4 and 8 not printed in the Gazette.]

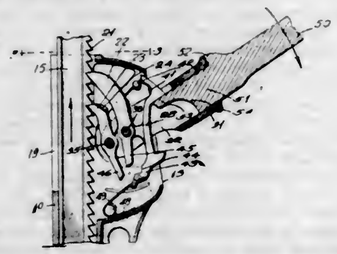
1,240,277. MARKING DEVICE FOR HENS' NESTS. CLEMENT V. WILLIAMS, Loveland, Okla. Filed May 9, 1917. Serial No. 167,441. (Cl. 119—45.)



A marking device of the class described comprising a reservoir, a tubular member connected therewith, a coiled spring surrounding the free end of said tubular member, a brush head carried by said coiled spring, and a flat steel spring extending through the tubular member and projecting into the reservoir and brush head.

1,240,278. JACK. LE ROY WILLOUR, Ashland, Ohio, assignor to The Ashland Products Co., Ashland, Ohio, a Corporation of Ohio. Filed May 31, 1917. Serial No. 171,976. (Cl. 254—111.)

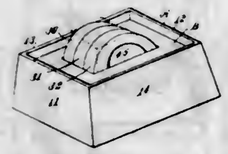
1. A lifting jack of the character described, comprising a standard, a lift-bar having slidable contact therewith and provided with a longitudinal set of teeth, a holding pawl connected with the standard and adapted to engage the teeth and having a shank, an operating pawl adapted to engage the teeth and having a shank, a handle socket pivotally connected with the standard and pivotally carrying the operating pawl, yielding means to hold the pawls in contact with the teeth, a pivoted control-member arranged to contact with the shanks of the pawls, means to swing the pivoted control-member in one direction upon its pivot, and a lever adapted for insertion within the handle socket and having a key adapted to alternately contact with opposite ends of the control-member when the lever is reversed.



5. In a lifting jack of the character described, a standard, a lift-bar having slidable contact therewith and provided with a longitudinal set of teeth, a pair of pivoted pawls associated with the standard and adapted to contact with the teeth and carrying shanks, yielding means to move the pawls into contact with the teeth, a control member pivoted to the standard and provided near its ends with contact elements and at its lower end with an extension to contact with the shanks, yielding means to swing the control member in one direction, a lever pivotally connected with the standard and carrying one pawl, and a key adapted for connection with the lever and to be arranged between the contact elements.

[Claims 2 to 4 not printed in the Gazette.]

1,240,279. MOISTENING DEVICE. ALBERT B. WILSON, Lowell, Mass. Filed Mar. 27, 1916. Serial No. 86,983. (Cl. 91—51.)



1. In a moistening device, the combination of a water container having interior shaft supports near the top at each side, a shaft which is removably mounted in such supports, and one or more disks of absorbent material so revolubly mounted on the shaft as to project above the top rim of the water container and to extend below the water level therein, combined with a removable guard of sheet material having ends bent downwardly and outwardly to rest upon the bottom of the container and to engage the ends thereof, such ends being of such length that the top of the guard will be below the top rim of the water container, and will fit closely inside thereof at a point above the water level, and having an opening in the top through which the disks project.

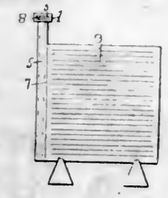
2. In a moistening device, the combination of a water container having interior shaft supports near the top at each side, a shaft which is removably mounted on such supports, and one or more disks, each formed entirely of compressed felt, so revolubly mounted on the shaft as to project above the top rim of the water container and to extend below the water lever therein, combined with a removable guard of sheet material having ends bent downwardly and outwardly to rest upon the bottom of the container and to engage the ends thereof, such ends being of such length that the top of the guard will be below the top rim of the water container and having an opening in the top through which the disks project.

3. In a moistening device, the combination of a water container having interior shaft supports near the top at each side, a shaft which is removably mounted on such supports, and one or more disks, each formed entirely of compressed felt, so revolubly mounted on the shaft as to project above the top rim of the water container and to extend below the water level therein, combined with a removable guard of sheet material having ends bent downwardly and outwardly to rest upon the bottom of the container and to engage the ends thereof, such ends being of such length that the top of the guard will be below the top rim of the water container, and such top being of a size to fit closely therein, an opening in the top through which the disks project, and ears which project upwardly proximate the sides of the disks.

6. In a moistening device, the combination of a water container having interior shaft supports near the top at each side, a shaft which is removably mounted on such supports, and one or more disks, each formed entirely of compressed felt, so revolubly mounted on the shaft as to project above the top rim of the water container and to extend below the water level therein, combined with a removable guard of sheet material, having a top which fits closely in the top of the water container, and ends bent downwardly and outwardly to rest upon the bottom of the container and to engage the ends thereof, such ends being of such length that the top of the guard will be below the top rim of the water container, an opening in the top through which the disks project, and ears which project upwardly and engage the sides of the disks.

(Claims 4 and 5 not printed in the Gazette.)

1,240,280. STORAGE BATTERY. DAVID H. WILSON, Paterson, N. J. Filed Sept. 23, 1913, Serial No. 791,418. Renewed Feb. 3, 1917. Serial No. 146,519. (Cl. 204—29.)



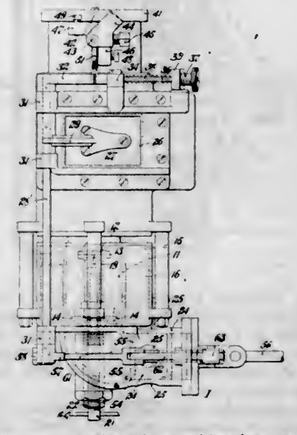
1. In a storage battery, battery plates of high resistance non-porous material, low resistance inserts therein located at opposite sides of the plates of opposing polarity to equalize the resistance of the paths of the current between them.

2. In a battery, battery plates composed of high non-porous resistance and low resistance portions, the low resistance portions being located at opposite margins of the plates of opposite polarity to equalize the resistance of the paths of current between them.

3. In a storage battery, opposite polarity bus bars carrying low resistance conductors, battery plates connected thereto containing low resistance conductors along the opposite margins of the plates of opposite polarity, said low resistance conductors in the plates being directly connected to the low resistance portions of the bus bars.

1,240,281. CARBURETER. ERASTUS E. WINKLEY, Lynn, Mass. Filed Feb. 26, 1912. Serial No. 679,853. (Cl. 261—44.)

1. A carbureter, having, in combination, a chamber provided with a depressed bottom to retain fuel and with an air inlet at one side of the chamber adjacent the depressed bottom, a valve normally held in fixed position and adjustable by the operator to a position to substantially close the air inlet said valve being provided with an air passage adjacent the depressed bottom of the chamber and with a downwardly projecting lip adjacent the air passage to deflect the air downwardly into the depressed bottom, and means for supplying fuel to the chamber, substantially as described.



2. A carbureter, having, in combination, a chamber provided with a depressed bottom to retain fuel and with an air inlet at the side of the chamber adjacent the depressed bottom, an air intake pipe connected with the air inlet and provided with an air port in the side thereof, a piston valve mounted in said pipe and normally held in fixed position at one side of said air port to permit air to pass freely from said port through the air inlet, and movable to a position between said air port and the air inlet, the valve being provided with an air passage adjacent the depressed bottom, means for adjusting the position of the valve, and means for supplying fuel to the chamber, substantially as described.

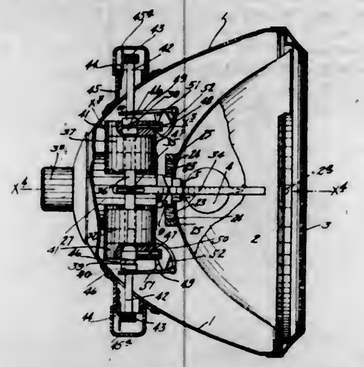
3. A carbureter, having, in combination, a chamber provided with an air inlet at the side adjacent its bottom, an air intake pipe connected with the air inlet, said pipe being provided with a lateral air port, a piston valve in the air pipe normally held in fixed position and movable by the operator from a point beyond the air port to a point between the air port and the chamber, an auxiliary air intake port, a spring-pressed auxiliary intake valve for closing the same, and connected mechanism under the control of the operator for positively closing and holding closed the auxiliary intake valve and for moving the piston valve to the position intermediate the air port and the chamber, substantially as described.

4. A carbureter, having, in combination, a chamber provided with a main air inlet, a main valve for closing said air inlet, an auxiliary air port, a pivoted auxiliary intake valve for closing the same, an arm rigidly connected with the said valve, means under control of the operator for actuating the main valve, devices connected with said means, including a finger adapted to engage the arm connected with the auxiliary intake valve to positively close and hold closed said auxiliary valve when the main valve is adjusted by the operator to close the air inlet, and to be moved out of contact with said arm to render the auxiliary valve free to open when the main valve is adjusted by the operator to open the air inlet, and means for supplying fuel to the chamber, substantially as described.

1,240,282. HEADLIGHT. OVERTON WINSTON, Minneapolis, Minn. Filed Dec. 2, 1915. Serial No. 64,662. (Cl. 240—44.)

1. In a headlight, the combination with a reflector, of a lamp therein pivotally supported for oscillations to-

ward and from the axis of said reflector, and a lamp fulcrum adjustable toward and from the lamp pivot.



2. In a headlight, the combination with a reflector, of a lamp support pivotally associated with said reflector and adapted to support a lamp within the reflector, and a fulcrum for the rear portion of said lamp support, mounted for adjustments toward and from the pivot of said lamp support.

3. In a headlight, the combination with a reflector, of a lamp support pivotally connected thereto and adapted to support a lamp within said reflector, an annular fulcrum supporting and surrounding the rear portion of said lamp support, and means for adjusting said fulcrum axially toward and from the pivot of said lamp support.

4. In a headlight, the combination with a reflector mounted for oscillatory movements, of a lamp support pivoted to said reflector and adapted to support a lamp within said reflector.

5. In a headlight, the combination with a reflector mounted for oscillatory movements, of a lamp support pivoted to said reflector and adapted to support a lamp within said reflector, and a fulcrum for the rear portion of said lamp holder, upon which the said lamp support oscillates when moved with said reflector.

(Claims 6 to 13 not printed in the Gazette.)

1,240,283. DIMMER-LIGHT-SWITCH SUPPORT. LEE L. WINTERS, Monroe, Mich. Filed Jan. 2, 1917. Serial No. 140,108. (Cl. 248—3.)

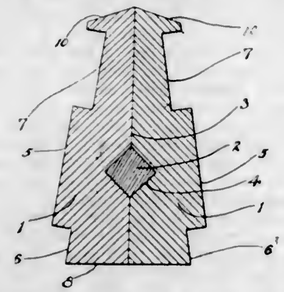


1. In a supporting bracket, the combination of a pair of elastic clamping jaws formed of a single piece of sheet metal, the sheet metal bent to form a box shape inclosing portion, a pair of inwardly extending flanges extending over the box shaped portion and extending from near the jaws to near the corners of the box shaped inclosing portion, a transverse member having means connected to the flanges for holding the clamping jaws in clamped position.

[Claim 2 not printed in the Gazette.]

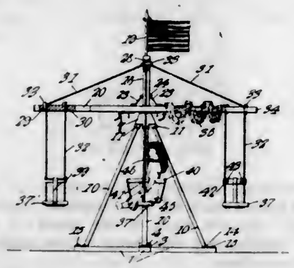
1,240,284. SILO CONSTRUCTION. CHARLES WOLF, Spokane, Wash., assignor to Eureka Silo Company, Bellingham, Wash. Filed May 19, 1917. Serial No. 169,746. (Cl. 20—1.4.)

1. A wall supporting upright for silos composed of longitudinal companion sections of similar design adapted to be keyed together by a longitudinal spline, each of said sections being substantially wedge shaped in transverse section and having its outer board supporting face provided with longitudinal board supporting grooves and its opposite or section engaging face provided with a longitudinal V-shaped groove, the V-shaped grooves of the joined sections being adapted to register to provide a longitudinal splineway, and a spline adapted to fit in said splineway.



2. A wall supporting upright for silos of polygonal construction, composed of longitudinal companion sections of similar design adapted to be keyed together by a longitudinal spline, each of said sections being formed with a straight outer board supporting face and an opposite or section engaging face tapered at an angle to the straight face, the outer board supporting face being provided with longitudinal board supporting grooves cut rectangular with respect to the face, and its opposite section engaging face provided with a longitudinal V-shaped groove, the V-shaped grooves of the jointed sections being adapted to register to provide a longitudinal splineway when the sections are assembled, and a spline adapted to fit in said splineway.

1,240,285. TOY ROUNDABOUT. PET THOMAS WOLPERT, Atlanta, Ga. Filed Nov. 15, 1916. Serial No. 131,494. (Cl. 46—27.)



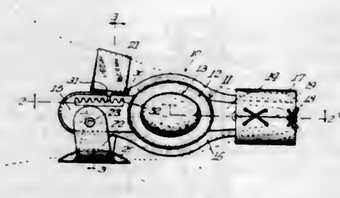
1. A toy of the roundabout type, comprising a frame including a base, a cap having side walls provided with sockets and a top, the top being equipped with openings, legs extended through the sockets and secured at their lower ends to the base and having their upper ends disposed within the side walls, and tongues carried by the legs, the tongues extending through the openings, and being clenched on the top of the cap; and a rotatable member including a shaft journaled in the top of the cap and in the base.

2. A toy of the roundabout type, comprising a frame embodying a base, a cap and legs connecting the base and the cap; a rotatable member including a shaft journaled in the base and in the cap; a spiral spring surrounding a portion of the shaft in a plurality of vertically superposed convolutions; means for securing the upper end of the spring to the shaft; and means for securing the lower end of the spring to the base.

3. In a toy of the roundabout type, comprising a rotatable member including crossed top bars, the top bars being equipped with a polygonal recess at their point of crossing; a shaft including a polygonal portion fitting in the recess, and a circular portion; a frame in which the circular portion of the shaft is journaled; and means for releasably connecting one of the top bars with the polygonal portion of the shaft, at a point above the top bars, thereby to suspend the top bars on the polygonal portion of the shaft to enable the top bars to clear the upper end of the frame, and to maintain the polygonal portion of the shaft engaged with the polygonal recess of the cross bars.

4. A toy of the roundabout type comprising a frame; a shaft journaled in the frame and provided with an opening adjacent its upper end; a top bar carried by the shaft and provided adjacent its ends with inner and outer openings; a flexible element extended through the opening in the shaft and extended downwardly through the outer openings in the cross bar, the ends of the flexible element being extended upwardly through the inner openings in the cross bar to form loop-shaped swings; and securing devices coöperating with the openings and with the flexible element to prevent a movement of the flexible element in the openings.

1,240,286. ORTHOPEDIC APPLIANCE FOR FOOT TREATMENT. WILLIAM H. WOOD, Cleveland, Ohio, assignor to Stanley W. Cook, Trustee, Chicago, Ill. Filed Dec. 16, 1916. Serial No. 137,322. (Cl. 128—28.)



1. The combination of a relatively rigid structure adapted to extend along a side portion of the foot, means to attach one end thereof to the foot, a belt to attach the other end thereof to the foot with the belt passing in rear of the metatarsal heads, said belt having one end fast to the rigid structure and its other end adjustably connectible with said rigid structure at different longitudinal points to throw the course of the belt that passes beneath the foot into different lines of traverse, and a hump element coacting with the belt to be positioned with respect to the length of the foot by the stated adjustment of the belt.

2. The combination of a toe-splint, a belt connected at one end to the rear end of the splint and at its other end adjustable connectible to different points near the rear end of the splint, and a hump member engaged by the under foot course of said belt.

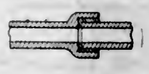
3. The combination of a toe splint, a belt connected to the rear end of said toe-splint, said belt having a fastening device located in its under-foot course, and a convexo-concave hump element engaging said belt and enveloping the fastening in its concave.

4. The combination of a toe-splint, a belt having its one end fixed thereto, and its other end adjustable lengthwise thereof, and a down-and-under curved under-foot plate pivoted to said splint, having a metatarsal hump portion slotted to receive the belt, said belt having a fastening means within the concave underside of said hump.

5. The combination of a belt; a fastening device for the ends of the belt; a hump plate carried by said belt, and overlying the fastening device and a cover for said hump-plate.

[Claim 6 not printed in the Gazette.]

1,240,287. PROCESS OF SEALING PIPE-JOINTS. EDWIN C. WOODWARD, Dallas, Tex., assignor to E. P. Woodward, Dallas, Tex., and E. R. Woodward, Fort Worth, Tex. Filed Aug. 14, 1916. Serial No. 114,757. (Cl. 137—29.)

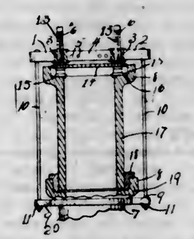


1. The herein described process of sealing pipe joints consisting of preparing bituminous packing rings, treating the packing rings with a solvent for softening the rings, and then forcing the pipes and a packing ring together.

2. The herein described method of sealing pipe joints consisting of preparing packing rings of bituminous material, treating the packing rings for softening the same, placing the ring in the receiving end of the pipe, and forcing the spigot end of the pipe into the packing ring and causing the same to conform to the contour of the interior of the receiving end of a pipe section and to the contour of the exterior of the spigot end of a pipe section.

3. The herein described process of sealing pipe joints consisting of preparing packing rings of bituminous material or asphaltic material, treating the packing for softening the same, placing the packing ring in the receiving end or bell of a pipe section, and forcing the spigot end of a pipe section into the packing ring and causing the same to conform to the interior of the said bell and to the exterior of the spigot end and between the spigot end and said bell.

1,240,288. APPARATUS FOR SEALING PIPE-JOINTS. EDWIN C. WOODWARD, Dallas, Tex., assignor to E. P. Woodward, Dallas, Tex., and E. R. Woodward, Fort Worth, Tex. Filed Jan. 5, 1917. Serial No. 140,857. (Cl. 29—85.)



1. An apparatus for sealing pipe couplings comprising a frame, screw bearings in said frame, a yoke adapted to be mounted on the previously laid section of pipe for holding said frame stationary with the section of pipe already laid, screw plungers operating through said bearings and provided with swivel bearings to engage the inner shoulder of the section of pipe to be sealed against the previously laid section, and means for driving said screw plungers.

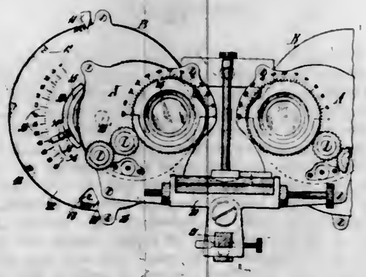
4. An apparatus for sealing pipe couplings comprising a pair of clamps, bars for holding said clamps at fixed distances apart, said clamps and bars constituting a rigid frame, means for holding said frame rigid with the section of pipe previously laid, bearings rigidly held in said clamps, plungers operating through said bearings and provided with driving bearings for engaging the annular interior shoulder of the pipe section to be laid, and means for driving said plungers simultaneously through said bearings in said clamps for causing said driving bearings to move the section of pipe to be laid.

[Claims 2 and 3 not printed in the Gazette.]

1,240,289. OPTICAL INSTRUMENT. MICHAEL WOOLF, New York, N. Y. Filed Nov. 23, 1916. Serial No. 132,971. (Cl. 88—22.)

1. In a device of the character described, a disk carrying a plurality of cylindrical lenses on a common axis,

means rotatably supporting said lenses in said disk, means engaging said supporting means and adapted to simultaneously rotate the same by movement thereof to change the optic axes of said lenses, means adapted to be manually operated to impart direct movement to said last named means, and a scale adapted to indicate the amount of movement of said last named means.



3. In a device of the character described, a disk carrying a plurality of cylindrical lenses, on a common axis, means rotatably supporting said lenses in said disk, means engaging said supporting means, and adapted to simultaneously rotate the same by movement thereof to change the optic axes of said lenses, a handle mounted on said last named means for operating the same, and a scale adapted to indicate the amount of movement of said last named means.

4. In a device of the character described, a disk carrying a plurality of cylindrical lenses, on a common axis, means rotatably supporting said lenses in said disk, rotatable means engaging said supporting means, and adapted to simultaneously rotate the same by movement thereof to change the optic axes of said lenses, a handle mounted on said rotatable means for rotating the same, a scale adapted to indicate the amount of movement of said last named means, and means adapted to lock said handle, and said last named means in any position of movement to maintain the position of the axes of said lenses.

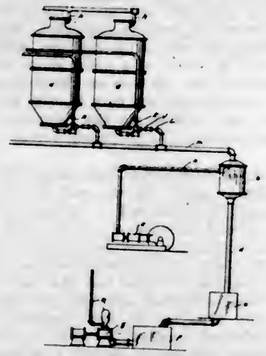
5. In a device of the character described, a supporting plate provided with an arcuate slot therein, a disk concentric to the axis thereof, carrying a plurality of cylindrical lenses, on a common axis, means rotatably supporting said lenses in said disk, rotatable means concentric to the axis of said plate engaging said supporting means and adapted to simultaneously rotate the same by movement thereof to change the optic axes of said lenses, a handle mounted on said rotatable means and extending through said arcuate slot exterior of said plate, and a scale on said plate adapted to indicate the amount of movement of said handle and rotatable means.

8. In a device of the character described, a disk carrying a plurality of cylindrical lenses, on a common axis, means rotatably supporting said lenses in said disk, and provided with gear teeth, a gear rotatable with respect to said disk and engaging the gear teeth of said supporting means, an index handle for turning said gear, a scale of degrees of refraction adapted to determine the amount of movement of said gear, turning of said gear adapted to simultaneously rotate said lenses to correspondingly change the optic axis of said lenses.

[Claims 2, 6, 7, and 9 to 11 not printed in the Gazette.]

1,240,290. PROCESS FOR CLEANING FILTERS IN CONNECTION WITH THE PURIFICATION OF SUGAR, OILS, AND CHEMICALS. PHILIP L. WOOSTER, Yonkers, N. Y. Filed Aug. 17, 1916. Serial No. 115,480. (Cl. 210—8.)

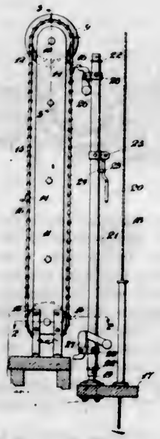
1. The herein described process of cleaning filter beds having a substantial depth and which are exhausted or clogged by a liquid or the solid constituents thereof, which consists in subjecting the lower portion of the filter bed having the substantial depth to the action of a suitable degree of vacuum for withdrawing the clogging material from the lower portion of the filter bed, and continuing the action of the vacuum upon such lower portion to



gradually withdraw the clogging material from the upper portion of the filter bed through the previously treated lower portion.

[Claims 2 to 4 not printed in the Gazette.]

1,240,291. CONTROL FOR ELEVATOR-DOORS. WILLIAM E. WRAGG, Philadelphia, Pa. Filed Dec. 16, 1916. Serial No. 137,348. (Cl. 187—60.)



1. The combination with a vertically movable door, and vertically movable lugs controlling the movement of the door, of an elevator, a member on the elevator having partial rotary movement, pivoted dogs carried by the member and adapted to engage the lugs, a fixed part, and a lever pivotally connected to the member and adapted when in one position to engage the fixed part and hold the member against movement, and adapted when moved to another position, to release the member and operate as a handle to permit movement of the member.

2. The combination with a vertically movable door and vertically movable lugs controlling the movement of the door, of an elevator, a vertical post secured to the elevator, a sleeve mounted on the post, dogs carried by the sleeve and adapted to engage the lugs, and a member connected to the sleeve and adapted to move the same, and constructed to lock the same in different positions.

3. The combination with a vertically movable door, of an endless chain adapted when moved, to move the door, and lugs projecting from the chain, of an elevator, a vertical post secured to the elevator, a sleeve having limited turning movement on the post, a pin on the post, a slot in the sleeve receiving the pin and limiting the turning movement of the sleeve, a lever pivotally connected to the sleeve and adapted to rest on either side of said pin, and pivoted dogs carried by the sleeve adapted to engage the lugs and move the chain to open the door, when the elevator approaches the same.

4. The combination with an elevator door, a spring bolt normally holding the elevator door in closed position, and having an eye thereon, an operating cable secured at one end to the door, an eye on the door, said cable passed through the eye of the bolt and through said last mentioned eye, and adapted when drawn taut to move the bolt from its locked position, an elevator, and means on the elevator for causing the movement of the cable to release the bolt and open the door.

1,240,292. STRUT FOR AUTOMATIC SPRINKLER-HEADS. DAVID A. ALEXANDER, Rochester, N. Y. Filed July 13, 1917. Serial No. 180,267. (Cl. 169—5.)



1. In a sprinkler head of the character described having a valve and a thrust sustaining member, a valve holding member comprising a strut engaging and extending from end to end in a median line between the valve and the thrust sustaining member and formed of two plates lying in the same plane and having ends bearing one upon the other in a line at right angles to the line of thrust, one of such plates being cut away to receive an extension on the other plate and the two plates being united by suitable solder along adjacent edges.

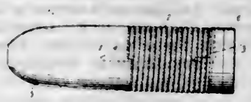
2. In a sprinkler head of the character described having a valve and a thrust member comprising a strut engaging and extending from end to end in a median line between the valve and the thrust sustaining member and formed of two plates lying in the same plane and having ends bearing one upon the other in a line at right angles to the line of thrust and midway between the ends of the strut, one of such plates being cut away to receive an extension on the other plate and the two plates being united by suitable solder along adjacent edges.

3. In a sprinkler head of the character described having a valve and a thrust sustaining member, a valve holding member comprising a strut engaging and extending from end to end in a median line between the valve and the thrust sustaining member and formed of two plates lying in the same plane and having ends bearing one upon the other in a line at right angles to the line of thrust, the said bearing end of one plate having a knife edge engaging in a groove in that of the other plate, one of such plates being cut away to receive an extension on the other plate and the two plates being united by suitable solder along adjacent edges.

[Claims 4 to 6 not printed in the Gazette.]

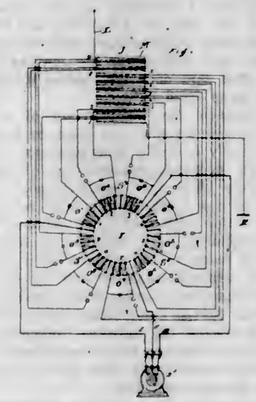
1,240,293. PROJECTILE AND PROCESS OF MAKING THE SAME. DENSON H. ARMSTRONG, Grand Rapids, Mich. Filed July 26, 1916. Serial No. 111,479. (Cl. 29—1.23.)

1. A projectile comprising a jacket and a soft metal body within the jacket, the jacket consisting of a strand of ductile wire sheathed with threads of cotton or like material and wound spirally to form a cylinder whose convolutions contact with one another and are under tensioning circumferential stress and compressive transverse stress and whose ends are extended angularly and embedded within the soft metal body.



2. The method of making a projectile for small arms which consists in coiling a strand of ductile wire into the form of a cylinder whose convolutions are in contact, in casting the soft metal body of the projectile subcaliber within said cylinder and anchoring the ends of said cylinder in said body, and in thereafter swaging the projectile to bring it up to the required caliber whereby the convolutions of the cylinder are increased in diameter and circumference, are crowded against one another, and bear with increased pressure on the inclosed portion of the soft metal body.

1,240,294. SYSTEM FOR GENERATING HIGH-FREQUENCY CURRENTS. RICCARDO ARNÒ, Milan, Italy. Filed Jan. 26, 1914. Serial No. 814,374. (Cl. 250—37.)



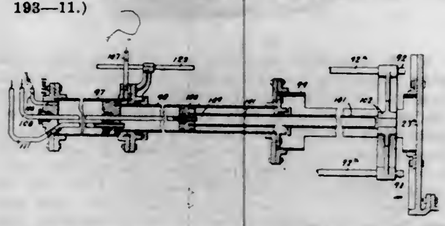
1. The combination of a current generator, and a static transformer connected thereto, a plurality of secondary circuits connected to the transformer, and an aerial conductor with which each secondary circuit has independent communication for energizing the same.

2. The combination of a current generator of a low number of phases and low tension, and a static transformer connected thereto for transforming the phases into a current of multiple phases of high frequency, and an antenna with which the multi-phases are united as an induction.

3. The combination of a current generator of a low number of phases and low tension, and a static transformer connected thereto for transforming the phases into a current of multiple secondary phases of high frequency, a jigger consisting of a plurality of primary circuits and a secondary circuit, said primary circuits being associated with the secondary phases of the transformer, and an aerial conductor in communication with said last mentioned secondary circuit of the jigger.

4. The combination of a plurality of circuits including a static transformer, means for charging the circuits, and an aerial conductor and jigger in associated relation, said circuits being in independent communication with the jigger for actuating the aerial conductor.

1,240,295. CHARGING MECHANISM. THOMAS W. ATTERBURY, Dansville, N. Y., and PERCY W. MATTHEWS, Scottdale, Pa., assignors, by direct and mesne assignments, of five-twelfths to said Percy W. Matthews, Dormont, Pa., five-twelfths to Frederick Emmet Bedale, Mount Pleasant, Pa., and two-twelfths to Joseph Franklin Brandenburg, Mahwah, N. J. Original application filed July 5, 1912, Serial No. 707,697. Divided and this application filed Nov. 10, 1915. Serial No. 60,762. (Cl. 193—11.)



1. In a furnace, a charging chamber with a charging entrance and charging mechanism movable through the entrance and comprising front and rear end parts for receiving and conveying the charge between them, said parts being provided with outer and inner seals for said entrance, and means for moving said parts outward in succession and inward in unison.

2. In a furnace, a charging chamber open at one end and closed at the other, movable front and rear end members for said chamber affording outer and inner closures for said open end, and means for moving the rear end member to close said open end before moving the front end member away from it.

3. In a furnace, the combination of a chamber, a charging receptacle outside said chamber having an open top, independently movable front and rear members movable from said receptacle rearward to introduce a charge carried between them into said chamber and forward again to receive a fresh charge, and a cover for said receptacle movable with said front member.

4. The combination of a chamber having an entrance, front and rear members for introducing a charge through said entrance into said chamber and for closing said entrance, and means for moving said members forward to receive a fresh charge comprising means for moving the rear member toward the entrance independently of the front member and means for automatically moving the front member forward away from said entrance when approached by the rear member.

5. The combination of a chamber having an entrance, front and rear members for introducing a charge through said entrance into said chamber and for closing said entrance, power means for moving said members, and single controlling means for causing said power means to drive said members rearward in unison and forward in succession.

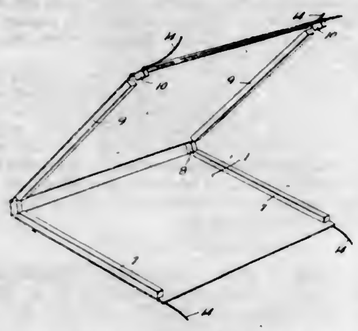
[Claims 6 to 21 not printed in the Gazette.]

1,240,296. BOX. GUILFORD C. BABCOCK, Evanston, Ill., assignor to Wirebounds Patents Company, Kittery, Me., a Corporation of Maine. Filed Aug. 5, 1914. Serial No. 855,275. (Cl. 217—12.)

1. A box comprising cleats adapted to fit together and form substantially uninterrupted end walls for the box, side material in sheet form applied to said cleats and extending unbroken across the corners of the box, binding wires encircling the ends of the box and fastened by means passing through said side material and anchored in cleats, the wire and side material being tensioned over the cleats at the box corners.

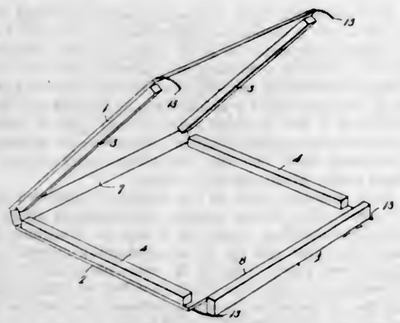
2. A box blank comprising successive pairs of cleats, a sheet extending integrally along said cleats and binding wires applied to said sheet and secured to the cleats, the parts being so proportioned that the cleats will make to form substantially uninterrupted end walls for the box with wires and sheet tensioned about the corners thereof.

3. A box blank comprising successive pairs of cleats, a sheet extending integrally along said cleats, the material of the sheet being displaced in transverse lines between successive pairs of cleats to provide flexibility at the box



edges and binding wires applied to said sheet and secured to the cleats, the parts being so proportioned that the cleats will mate to form substantially uninterrupted end walls for the box with wires and sheet tensioned about the corners thereof.

1,240,297. BOX. GUILFORD C. BABCOCK, Evanston, Ill., assignor to Wirebounds Patents Company, Kittery, Me., a Corporation of Maine. Filed Aug. 5, 1914. Serial No. 855,276. (Cl. 217—5.)



1. A box comprising, in combination, ends including each a pair of cleats substantially contacting lengthwise with each other; uncleated side strips extending across the ends of said cleats; side material on the sides of said cleats and extending across the edges of said side strips; and means for securing the parts together.

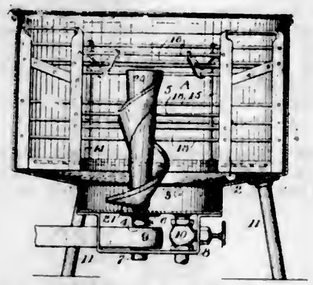
2. A box comprising, in combination, oppositely disposed side sections, having end cleats between them and substantially closing the box end, and having also overlap margins projecting beyond the ends of said cleats; and non-cleated side strips between said overlap margins.

3. A method of making wirebound boxes which consists in assembling separate sections of side material with separate sectional cleats, each cleat and its side material being relatively positioned to provide overlap margins projecting beyond the cleat ends; spacing apart edgewise the sections so formed to accommodate side pieces between said overlap margins; foldably connecting the sections by flexible binding with the cleats arranged to mate in the folded box substantially to close the box ends.

4. A box comprising, in combination, oppositely disposed side sections, having end cleats between them which substantially close the box ends and also having overlap margins projecting beyond the ends of the cleat material, non-cleated side strips between said overlap margins and wires encircling the ends of the box and secured by fastening means passing through said side sections into the cleats.

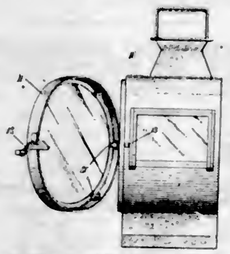
5. A box comprising, in combination, oppositely disposed side sections, having end cleats between them which substantially close the box ends and also having overlap margins projecting beyond the ends of the cleat material, non-cleated side strips between said overlap margins, fastening devices securing said margins to said side strips and wires encircling the ends of the box and secured by fastening means passing through said side sections into the cleats.

1,240,298. DISH-WASHING MACHINE. LEONARD S. BEST, Suisun, Cal., assignor of one-half to John J. Birmingham, Suisun, Cal. Filed Aug. 28, 1916. Serial No. 117,189. (Cl. 141—9.)



In a dish washing machine of the character described, a cylindrical container, having an annular inclined bottom and a depressed central sump, means carried upon the annular bottom around the central sump, to support articles to be washed, a vertical shaft journaled and turnable in the center of the sump, said shaft having an upwardly divergent hub, a spirally disposed blade fixed to the hub, decreasing in diameter upwardly from the bottom, and a motor connecting with the shaft below the sump.

1,240,299. GLASS-HOLDER FOR HEADLIGHTS. ROBERT BLACK, Scarsdale, N. Y., assignor to The Dressel Railway Lamp Works, a Corporation of New York. Filed Jan. 2, 1915. Serial No. 202. (Cl. 240—41.)



1. In a lantern, the combination with the frame thereof, and a removable section thereon, of a series of securing devices on said frame each comprising a pivoted member having a free end for securing said removable section in position, and yielding means for holding said pivoted member in its operative position, substantially as specified.

2. In a lantern, the combination with the frame thereof, and a removable section thereon, of a series of members each of which is pivotally supported upon said frame and adapted to be rotated in a plane at an angle to the plane of said removable section to occupy its operative or inoperative positions, the free ends of said members serving to secure said removable section in position when said members are in their operative positions, substantially as specified.

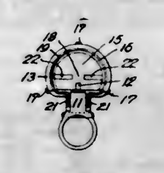
3. In a lantern, the combination with the frame thereof, and a removable section thereon, of a series of members each of which is pivotally supported upon said frame and adapted to be rotated in a plane at right angles to the plane of said removable section to occupy its operative or inoperative positions, the free ends of said members serving to secure said removable section in position when said members are in their operative positions, substantially as specified.

4. In a lantern, the combination with the frame thereof, and a removable section thereon, of a series of members each of which is pivotally supported upon said frame and adapted to be rotated in a plane at an angle to the plane of said removable section to occupy its operative or inoperative positions, the free ends of said members serving to secure said removable section in position when said members are in their operative positions and means for holding said members in their operative position, substantially as specified.

5. In a lantern, the combination with the frame thereof, and a removable section thereon, of a series of members each of which is pivotally supported upon said frame and adapted to be rotated in a plane at an angle to the plane of said removable section to occupy its operative or inoperative positions, the free ends of said members serving to secure said removable section in position when said members are in their operative positions and yielding means for holding said members in their operative positions substantially as specified.

[Claims 6 to 15 not printed in the Gazette.]

1,240,300. SIGHT FOR FIREARMS. ROBERT M. BLAIR, Quebec, Quebec, Canada. Filed June 26, 1916. Serial No. 105,960. (Cl. 33—47.)



1. An attachment for firearms comprising a sight, and means appearing to the shooter as substantially opaque bars, said means coöperating with the sight to define an unobstructed area through which the line of sight is taken.

2. An attachment for firearms comprising a sight, a housing therefor, and means in the housing coöperating with the sight to define a clear area through which the line of sight is taken.

3. An attachment for the fore sight of a firearm, comprising a housing over the sight, and opaque bars in the housing coöperating with the sight to define a clear space through which the line of sight is taken.

4. An attachment for the fore sight of a firearm, comprising a housing attached to the sight, and radially disposed bars removably mounted in the housing and converging with the fore sight toward a given point through which the line of sight is taken, all of said bars and the fore sight terminating short of such given point, whereby a clear sighting space is formed.

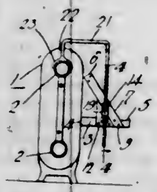
5. An attachment for the fore sight of a firearm comprising a housing secured to the fore sight, bars in said housing arranged with their common longitudinal axis intersecting the vertical axis of the fore sight, said bars and fore sight terminating short of said point of intersection, and a lens mounted in the housing having its optical axis passing through said point of intersection.

[Claims 6 to 9 not printed in the Gazette.]

1,240,301. FOOT-REST AND FOOT-WARMER. BERT H. BOWER, Gloversville, N. Y., assignor of one-third to John W. Inch and one-third to John S. Zuckerman, Gloversville, N. Y. Filed July 26, 1916. Serial No. 111,461. (Cl. 155—9.)

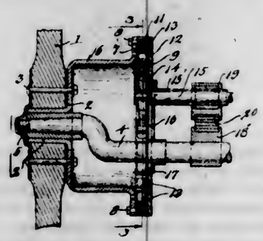
1. In a device of the class described, a base; braces secured to the ends of the base, and having inclined for-

ward edges; a U-shaped frame including side bars engaging the forward edges of the braces; guides applied to the side bars of the frame and the braces; securing elements connecting the guides with the side bars and the braces; supports mounted to move in the guides for adjustment, and provided with radiator engaging means; and means for preventing relative movement between the supports and the guides.



2. In a device of the class described, a radiator; a pair of rods disposed parallel to the forward vertical face of the radiator and provided at their upper end with means for engaging the radiator; a base having guides wherein the rods are slidably received; and clamping means carried by the guides and engaging the rods; the rear edge of the base engaging the forward vertical face of the radiator to hold the rods parallel thereto and to maintain the clamping devices at all times in front of the forward vertical face of the radiator.

1,240,302. DRIVING MECHANISM FOR POWER TRANSMISSION. CLEM G. BRANSTRATOR, Monmouth, Ill., assignor of one-fourth to Harvey G. Herring. Filed Nov. 15, 1916. Serial No. 131,464. (Cl. 21—90.)



1. In combination, an axle, a driving wheel mounted on said axle, a housing secured to the wheel and through which the axle extends, driving means for said wheel disposed in the housing, and cover means for said housing comprising an annular plate partially closing the housing and having a central opening and a supplemental plate closing said central opening, said driving means passing through the supplemental plate and serving to hold the same operative.

2. In combination, an axle, a driving wheel mounted on said axle, a housing secured to the wheel through which the axle extends, a removable cover plate for closing said housing and comprising an annular bearing plate and a central dust plate coöperating therewith, power transmitting elements journaled in the housing and plate, and intermediate the same, a driving member extending into the housing and coöperating with the power transmitting members for actuating the wheel aforesaid, and a sleeve housing for the driving member abutting the central dust plate for holding the same operative.

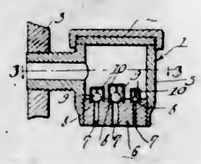
3. In combination, an axle, a driven member carried thereby, a drum secured to said driven member, a closure for said drum comprising an annular disk having a lateral peripheral spacing flange, fastening members extending into said disk and securing it to the drum, roller members journaled between the disk and drum adjacent to the periphery of the latter, and a drive gear extending into said drum and meshing with the bearings aforesaid for actuating the driven member through the drum.

6. In combination, an axle, a driving wheel mounted thereon, a brake drum secured to said wheel and having an annular flange at its inner side, a closure for said drum secured to said flange and comprising an annular bearing plate and a dust plate coöperating therewith, roller members journaled in the annular plate and the drum flange, a drive shaft passing through said dust plate and arranged in spaced relation to the axle, and a driving gear carried by said driving shaft in meshing relation with respect to the roller bearings for actuating the driving wheel aforesaid, said dust plate having an open slot to permit displacement of the driving shaft with respect to the axle.

7. In combination, an axle, a driven member carried thereby, a housing secured to the member, an internal gear in the housing, a removable closure for the housing through which the axle extends, a drive gear meshing with internal gear, a shaft carrying the gear and passing through the closure, a supporting spring interposed between the shaft and axle, exterior of the housing, and a clamping means for each the shaft and the axle, said clamping means being connected to each other and securing the spring therebetween.

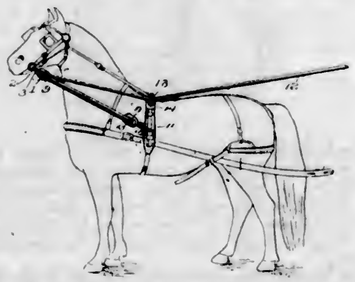
[Claims 4 and 5 not printed in the Gazette.]

1,240,303. INSPIRATOR-VALVE FOR INTAKE-MANIFOLDS. WILLIAM H. BRASIER, Corpus Christi, Tex. Filed Feb. 26, 1916. Serial No. 80,704. (Cl. 137—26.)



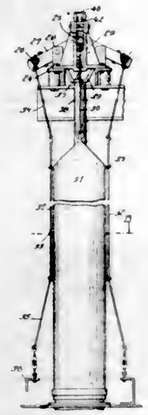
An inspirator valve comprising an upright T-shaped casing, a removable cap threaded on the upper end thereof, a plug threaded into the lower end of the casing and having a series of ducts therethrough of graduated sizes, the plug having concaved seats of graduated size at the upper ends of the respective ducts, balls of graduated size seatable in the respective seats and adapted to unseat in succession, and arched spiders having their terminals engaged downwardly into said plug above the valve seats to guide the respective balls for movement to and from the seats.

1,240,304. ATTACHMENT FOR HARNESS. JAMES F. BRITT, Prescott, Ark. Filed Feb. 27, 1911. Serial No. 611,086. (Cl. 54—36.)



A device of the type described, including a swivel bit-attached ring, and a saddle-attached ring, each ring being equipped with a roll, one roll-equipped ring having a swivel connection with the front edge of the saddle, at one side thereof and at a point below the plane of the bit-attached ring, a guide-ring fixed to the saddle adjacent the check-rein terret, and a controlling rein having one end connected to the first-referred to ring, said ring being then rove directly through the second-referred to ring and back through the first-referred to ring and through said guide-ring.

1,240,305. FILTERING APPARATUS. GEORGE SAGE BROOKS and LAWRENCE GRANT DUNCAN, Depue, Ill., assignors to New Jersey Zinc Company, New York, N. Y., a Corporation of New Jersey. Filed Nov. 1, 1916. Serial No. 128,872. (Cl. 183—57.)



1. A bag shaking apparatus comprising the combination of a bag, means for supporting the same, a flue connected to the bag for conveying thereto the gas containing the particles to be filtered out, and mechanical means connected to the sides of the bag at a plurality of distributed points for shaking the bag to detach particles lodged thereon; substantially as described.

2. A bag shaking apparatus comprising the combination of a bag, means for supporting the same, a flue connected to the bag for conveying thereto the gas containing the particles to be filtered out, connections to the sides of the bag at a plurality of distributed points, and means operating through said connections for alternately collapsing and expanding the bag; substantially as described.

3. A bag shaking apparatus comprising the combination of a bag, means for supporting the same, a flue connected to the bag for carrying thereto the gas containing the particles to be filtered out, a power-shaft and mechanical means connected thereto and to the sides of the bag and operated by said shaft for shaking the bag to detach therefrom solid particles that have lodged thereon; substantially as described.

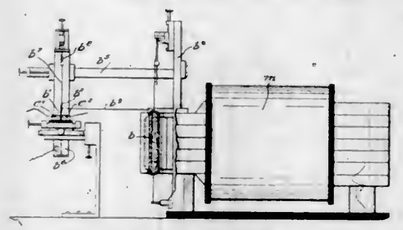
4. A bag shaking apparatus comprising the combination of a bag, supports therefor connected to the sides of the bag and means for operating the supports to shake the bag; substantially as described.

5. A bag shaking apparatus comprising the combination of a bag, supporting devices therefor connected to the sides of the bag, and means for operating the supporting devices to cause the bag to be alternately collapsed and expanded; substantially as described.

[Claims 6 to 51 not printed in the Gazette.]

1,240,306. TELEGRAPHY. WILLIAM M. BRUCE, Jr., Springfield, Ohio, assignor to The United Telegraph & Cable Company, Springfield, Ohio, a Corporation of Ohio. Filed Oct. 23, 1915. Serial No. 57,442. (Cl. 175—320.)

1. In a relay such as described, having a movable arm, means for rapidly vibrating said arm in one direction, and means such as a movable coil for moving the arm in another direction, mercurial contacts arranged on each side of a zero point, said mercurial contacts being supported so as to form globules with a recess between the same, the recess forming a neutral or zero point, and the globules forming contacting surfaces for securing electrical contact with said movable arm.



2. In a relay such as described, a movable arm and contacts with which it may be caused to engage, means such as a movable coil for moving said arm to different positions adjacent to said contacts, but not in engagement therewith and separate means for causing said arm to vibrate into engagement with said contacts when moved to proper position.

3. In a relay such as described, having a movable arm to form an electric contact, mercurial globules arranged on opposite sides of a neutral point and adjacent to said arm, said mercurial globules forming contacting devices and separated from each other by a depression formed by the mercurial globules themselves, and electrically separated from each other by means which end below the contact walls of said mercurial globules, and separate means for vibrating said arm to cause it to contact with the mercurial globules when said arm is moved to different positions.

4. In a relay such as described, liquid contacts formed in globules, said globules separated by insulating material, the surface of which is below the top of the liquid globules, in combination with a movable contacting device to engage said liquid globules and form an electrical connection therewith.

5. In a movable coil relay, a contact arm having simultaneous vertical and horizontal movement, contacts located adjacent to said contact arm to form and complete local electrical circuits through the vertical and horizontal movement of said contact arm.

[Claims 6 and 7 not printed in the Gazette.]

1,240,307. SUPPORTING DEVICE FOR LADIES' HAIR. NATHAN L. BURTON, Galesburg, Ill. Filed Jan. 18, 1917. Serial No. 143,126. (Cl. 34—26.)



1. A device of the class described comprising a support for engaging the neck of the wearer having upstanding arms rising therefrom, and a hair rest connecting the ends of said arms, said arms being adjustable toward and away from each other.

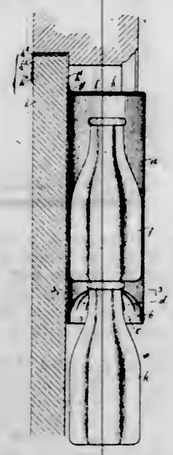
2. A device of the class described comprising a loop-shaped support for encircling the neck of the wearer and having rearwardly curved upstanding arms with a hair rest carried by said arms, and shoulder engaging feet formed at the junction of said arms with said loop-shaped support.

[Claims 3 and 4 not printed in the Gazette.]

1,240,308. SAFETY-DEPOSITORY FOR MILK-BOTTLES. MICHAEL CAGGIANO, New York, N. Y. Filed Feb. 28, 1917. Serial No. 151,401. (Cl. 232—42.)

1. A safety depository for milk bottles comprising a tubular receptacle, a leaf spring device in its bottom

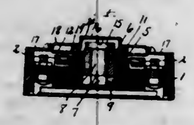
portion having upwardly curved radial leaf springs extending inwardly and leaving a central opening, and a hinged cover at the top with a hook device rigidly secured thereto composed essentially of rectangular sections adapted to fit the top of a door.



4. In a safety depository for milk bottles a combined hinge cover and hook device composed of the hinged cover with two bars rigidly secured on its under surface, the said bars forming a rectangular hook beyond the hinge of the cover adapted to be hung on a door.

[Claims 2 and 3 not printed in the Gazette.]

1,240,309. SWITCH. GEORGE C. CARHART and STEPHEN L. YOUNG, Syracuse, N. Y., assignors to Syracuse Universal Mfg. Co., Syracuse, N. Y., a Corporation of New York. Filed Mar. 8, 1917. Serial No. 153,450. (Cl. 175—282.)



1. In a switch a base, a bearing of relatively soft metal mounted on the base, a collar mounted on the bearing, a disk mounted on the collar, and a screw of relatively hard metal secured to the bearing and adapted to form its own co-acting thread in said bearing and operating to hold said disk in position on said collar.

5. In a switch a base, a bearing mounted on the base, a collar rotably mounted on the bearing and provided with a recess, a disk mounted on the collar and having a flange positioned in said recess, and a screw having a threaded relation with said bearing and provided with a porting overlying said recess.

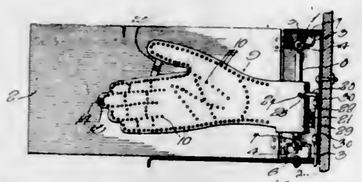
12. In a switch a base, a bearing of relatively soft metal mounted on the base, a collar mounted on the bearing, a disk mounted on the collar, a screw of relatively hard metal secured to the bearing and adapted to form its own co-acting thread in said bearing and operating to hold said disk in position on said collar, a cap covering the screw, a closure-plate engaged with the cap, key co-acting means in connection with said disk, and slots in said plate permitting passage of a key to said key co-acting means.

19. In a switch a base, a bearing secured to the base, a collar rotatably mounted on the bearing, a disk mounted on the collar and having key co-acting means, a screw having a threaded relation with the bearing and adapted to hold the disk in position on said collar, a cap covering the screw, and an annular closure-plate fitting over the cap and having a dished portion forming with the disk a key-receiving chamber, said plate and cap provided with registering openings permitting passage of a key into said chamber.

22. In a switch a base, a bearing mounted on the base, a collar rotatably mounted on the bearing and provided with a recess, a disk mounted on the collar and having a flange positioned in said recess, a screw having a threaded relation with said bearing and provided with a portion overlying said recess, a cap covering the screw, a closure-plate engaged with the cap, and flanges on the disk and plate interlocked when the switch is in neutral position.

[Claims 2 to 4, 6 to 11, 13 to 18, 20, and 21 not printed in the Gazette.]

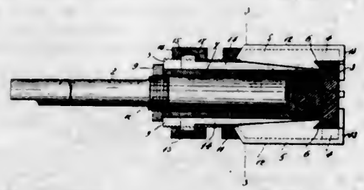
1,240,310. DIRECTION-SIGNAL FOR VEHICLES. JOHN H. CEBOLT and CLARENCE W. DOWNS, Indianapolis, Ind. Filed Apr. 6, 1916. Serial No. 89,486. (Cl. 116—31.)



1. A device of the class described comprising a casing open on one side, a cover hinged to the open side of said casing, a pointer pivotally mounted within said casing, means for swinging said pointer into and out of said casing, and a sliding connection between said pointer and cover, said cover being continually in engagement with the pointer, whereby the same is opened or closed by operation of said pointer swinging means.

2. A device of the class described comprising a casing open on one side, a cover hinged to the open side of said casing, a pointer pivotally mounted at one of its ends within said casing, a slotted plate fixed to said pointer, a headed element slidably engaged in the slot of said plate and fixed to the said cover, and means for swinging said pointer into and out of said casing.

1,240,311. ADJUSTABLE REAMER AND SIMILAR TOOL. GEORGE B. CHADWICK, Portsmouth, N. H. Filed Apr. 4, 1917. Serial No. 159,036. (Cl. 77—75.5.)

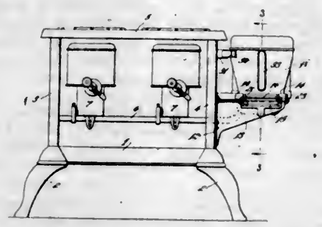


1. A tool of the character described, comprising a body portion provided with blade-receiving grooves, a set of blades each located in one of the grooves and shaped to provide a tapering space between its inner edge and the bottom of the corresponding groove, a set of wedges each located in one of said tapering spaces and provided with an outwardly-extending projection, a pair of adjusting nuts mounted on the body portion with the projections on the collective wedges located between them, and means for holding the blades in adjusted position.

3. A tool of the character described, comprising a body portion provided with blade-receiving grooves and with projections each located at one end of one of the grooves and having a slanting face overhanging the bottom of the groove, a set of blades each located in one of the grooves and shaped to provide a tapering space between its inner edge and the bottom of the corresponding groove, each blade being provided with a slanting face arranged to engage the slanting face of the corresponding projection, a set of wedges each located in one of said tapering spaces and provided with an outwardly-extending projection, a pair of adjusting nuts mounted on the body portion with the projections on the collective wedges located between them, and a clamping nut located between the adjusting nuts and the adjacent ends of the blades for holding the latter in adjusted position.

[Claim 2 not printed in the Gazette.]

1,240,312. LIQUID-FUEL STOVE. LEE S. CHADWICK, East Cleveland, Ohio, assignor to The Cleveland Metal Products Company, Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 7, 1916. Serial No. 89,572. (Cl. 158—41.)



1. In a stove of the character set forth, the combination of a burner, a distributing receptacle communicatively connected to the burner, a supporting element attached to the frame of the stove, a dispensing receptacle hingedly connected to said supporting element and movable to and from a position above the distributing receptacle, and a stop for arresting the movement of the dispensing receptacle and for maintaining it out of engagement with and in operative relation to the distributing receptacle.

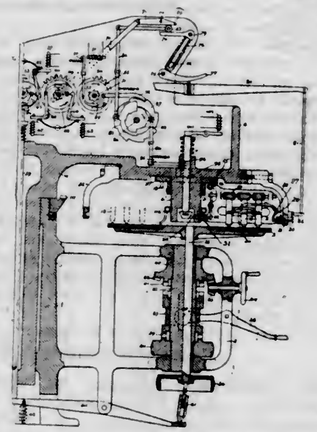
3. In a stove of the character set forth, the combination of a burner, a distributing receptacle communicatively connected to the burner, a supporting element secured to the frame of the stove adjacent the distributing receptacle, a carrier hinged on a substantially horizontal axis to said element and capable of swinging from a position alongside said element to an inverted position above the distributing receptacle, a dispensing receptacle supported by the carrier, and means for sustaining the carrier in a position to support the dispensing receptacle free of and in operative relation to the distributing receptacle.

4. In a stove of the character set forth, the combination of a burner, a distributing receptacle communicatively connected to the burner, a supporting element secured to the frame of the stove adjacent said receptacle, a carrier hinged on a substantially horizontal axis to said element and capable of swinging from a position alongside said element to an inverted position above the distributing receptacle, a dispensing receptacle supported by the carrier, the carrier and the frame of the stove having cooperating abutments which engage to maintain the carrier in a position to support the dispensing receptacle free of and in operative relation to the distributing receptacle.

[Claims 2, 5, and 6 not printed in the Gazette.]

1,240,313. AUTOMATIC MACHINE FOR CUTTING AND POLISHING A NUMBER OF JEWELS OR PRECIOUS STONES SIMULTANEOUSLY. ETIENNE CHALLET, Geneva, Switzerland, assignor to L. Heller & Son, New York, N. Y. Filed Nov. 10, 1915. Serial No. 60,695. (Cl. 51—11.)

1. A machine for cutting and polishing a number of jewel or precious stones simultaneously, embodying, therein a rotatable lapidary wheel, a stone carrying frame, pivotal supports for said frame whereby its angular relation to said wheel may be varied, a stone carrier, means revolubly supporting said carrier upon said frame, means whereby the revoluble support for the stone carrier is yieldingly thrust toward said lapidary wheel, and independently and automatically operative means whereby at predetermined intervals, said stone carrier and said lapidary wheel will be separated, said stone carrier will be turned in its support, said stone carrying frame will be moved about its pivotal support and said stone carrier and said lapidary wheel will be again brought into the operative relation to each other.



2. A machine for cutting and polishing a number of jewel or precious stones simultaneously, embodying, therein a rotatable lapidary wheel, means whereby said wheel may be caused to rotate only about its own axis or to simultaneously describe an orbit, a stone carrying frame, pivotal supports for said frame whereby its angular relation to said wheel may be varied, a stone carrier, means revolubly supporting said carrier upon said frame, means whereby the revoluble support for the stone carrier is yieldingly thrust toward said lapidary wheel, and independently and automatically operative means whereby at predetermined intervals, said stone carrier and said lapidary wheel will be separated, said stone carrier will be turned in its support, said stone carrying frame will be moved about its pivotal support and said stone carrier and said lapidary wheel will be again brought into the operative relation to each other.

3. An automatic machine for cutting and polishing a number of jewel or precious stones simultaneously, embodying, therein a revoluble sleeve, a shaft mounted eccentrically thereof, a lapidary wheel carried by said shaft, independently operative means whereby said shaft and said sleeve may be simultaneously rotated or said shaft alone may be rotated, a stone carrying frame, pivotal supports for said frame whereby its angular relation to said wheel may be varied, a stone carrier, means revolubly supporting said carrier upon said frame, means whereby the revoluble support for the stone carrier is yieldingly thrust toward said lapidary wheel, and independently and automatically operative means whereby at predetermined intervals, said stone carrier and said lapidary wheel will be separated, said stone carrier will be turned in its support, said stone carrying frame will be moved about its pivotal support and said stone carrier and said lapidary wheel will be again brought into the operative relation to each other.

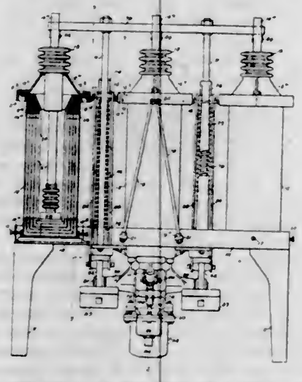
4. A machine for cutting and polishing a number of jewel or precious stones simultaneously, embodying, therein a revoluble sleeve, a shaft mounted eccentrically thereof, a lapidary wheel carried by said shaft, independently operative means whereby said shaft and said

sleeve may be simultaneously rotated or said shaft alone may be rotated, manually operative means whereby said sleeve may be rotated, a stone carrying frame, pivotal supports for said frame whereby its angular relation to said wheel may be varied, a stone carrier, means revolubly supporting said carrier upon said frame, means whereby the revoluble support for the stone carrier is yieldingly thrust toward said lapidary wheel, and independently and automatically operative means whereby at predetermined intervals, said stone carrier and said lapidary wheel will be separated, said stone carrier will be turned in its support, said stone carrying frame will be moved about its pivotal support and said stone carrier and said lapidary wheel will be again brought into the operative relation to each other.

5. A machine for cutting and polishing a number of jewel or precious stones simultaneously, embodying, therein a rotatable lapidary wheel, a stone carrying frame, pivotal supports for said frame whereby its angular relation to said wheel may be varied, a stone carrier, means revolubly supporting said carrier upon said frame, supporting means for said lapidary wheel whereby it may be moved toward or from said frame, means whereby the revoluble support for the stone carrier is yieldingly thrust toward said lapidary wheel and independently and automatically operative means whereby at predetermined intervals, said wheel will be moved away from said frame, said stone carrier will be turned in its support, said stone carrying frame will be moved about its pivotal support and said wheel will be moved toward said frame.

[Claims 6 and 7 not printed in the Gazette.]

1,240,314. OIL-SWITCH. HERBERT W. CHENEY, Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Original application filed Mar. 27, 1909, Serial No. 486,171. Divided and this application filed Sept. 16, 1910. Serial No. 582,301. (Cl. 175—283.)



3. In combination, a plurality of switches, a casing for each switch, a support for said casings, switch operating means supported in fixed relation to said support, and means for adjusting said casings relatively to each other and to said support to properly aline the switch parts, said adjusting means including adjustable spacing devices between the individual casings and independent of said support.

4. In an oil switch, an oil tank, an insulating support mounted in said tank, a contact holder of conductive material carried by said support, said holder having a base and a portion supported thereby and provided with an extension substantially parallel to the adjacent side of said base and spaced therefrom, said extension being provided with a guiding recess, a contact in said recess, a spring intermediate the base of said holder and said contact and pressing the latter away from said base, said spring being insertible into operative position from the side of said extension adjacent said base.

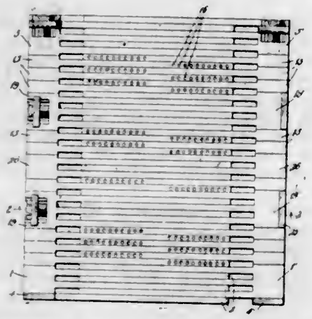
8. In an oil switch, an oil tank, an insulating frame mounted in the lower portion of said tank, said frame carrying a plurality of separate insulators, contact holders mounted upon the upper ends of said insulators, terminal conductors extending downward into the tank and connected to the holders on the two outer insulators, each of said last named holders having a main contact yieldingly supported so as to be capable of a slight vertical movement, and a pivoted member provided with an auxiliary contact, a third holder intermediate the outer holders, said third holder having a pair of main contacts yieldingly supported so as to be capable of slight vertical movements, and having a pair of pivoted members provided with auxiliary contacts, vertically movable plungers extending downward into the tank, bridging contact members carried by said plungers and having at their ends main and auxiliary contacts adapted to engage the main and auxiliary contacts of said holders.

10. In combination, in a switch, contact mechanism, switch operating mechanism comprising a longitudinally movable member, cushioning devices for limiting the movement of said member comprising hollow members which are mounted adjacent to and are movable laterally by said longitudinally movable member, and a cushioning medium within each of said hollow members.

20. In a switch, the combination of a contact support of conductive material and comprising a body portion and a portion supported thereby and spaced therefrom, said latter portion being provided with a guiding recess, a contact in said recess, said contact being insertible in said recess from the side adjacent said body portion, and means for urging said contact away from said body portion.

[Claims 1, 2, 5 to 7, 9, and 11 to 19 not printed in the Gazette.]

1,240,315. ADJUSTABLE SUPPORTING-BASE FOR PRINTING-PLATES. RUFE F. CHRISMAN, Nashville, Tenn., assignor of one-half to Edward W. Reed, Nashville, Tenn. Filed Feb. 15, 1916. Serial No. 78,497. (Cl. 101—383.)



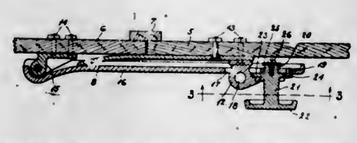
1. An extensible supporting base, including a plurality of telescoping sections certain ones thereof having fixed abutments, movable abutments arranged on others of the sections, all of said sections having a plurality of registerable openings arranged in the sides thereof, a locking bar adapted to pass through said openings, and filler sections having pin receiving openings in the upper surfaces thereof.

2. In an extensible supporting base, the combination with a telescoping section having an angularly recessed head provided with a threaded counter bore, said head having a plurality of fingers, ribs formed in the annular recess, a slidable abutment having a wearing base and notches movable on the ribs, and an adjusting screw passing through the abutment into the threaded counter bore whereby the slidable abutment may be adjusted.

3. In a device of the character described, the combination of a plurality of clamping sections having endwise slidable and interengageable fingers, a fixed stop on certain of the sections, an adjustable stop on the coacting ones of the sections, all of said interchangeable fingers having a series of openings adapted to aline, a connecting rod adapted to enter the alined openings to prevent end-wise disengagement of the fingers, end clamping sections having fixed and adjustable stops respectively, and interchangeable filler members arranged to be located between the respective clamping members.

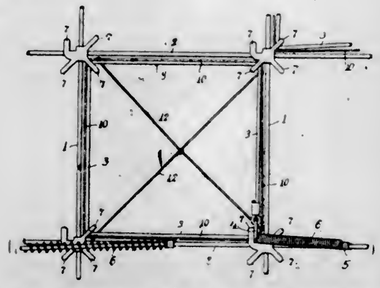
4. In a device of the character described, the combination of an end-wise and laterally expansible base for electro-types, including opposed clamping members having a plurality of laterally slidable and inter-engageable fingers, fixed and adjustable stops on the respective clamping members for engaging the sides of the electro-type, fixed and adjustable stops on others of the clamping members for engaging the electro-type endwise, filler members arranged to be interposed between the respective clamping members said filled members having fingers the fingers of the filler members and the clamping members having openings, and a key rod adapted to be projected into the openings to prevent the lateral disengagement of the fingers.

1,240,316. HASP-FASTENER. ALEXANDER CHRISTIE, Seattle, Wash. Filed Jan. 29, 1917. Serial No. 145,297. (Cl. 70—83.)



A hasp fastener comprising a latch bar provided with a hinge on one of its end portions to adapt it to be hinged to a door frame, and provided with two holes disposed to extend through its other end portion; a locking member provided with a cylindrical shank and a radially projecting locking lug, said shank being rotatably disposed within one of said holes and being adapted to be moved in endwise directions therein; a detent fixed on said latch bar and disposed to adapt it to engage with said locking lug in response to a rotative movement of said locking member when said locking lug is in engagement with the adjacent side surface of said latch bar; a catch adapted to project through the other of said holes to make locking engagement with said locking lug; and a spring associated with said latch bar in a position to adapt it to exert a pressure against said latch bar when said locking lug is in engagement with said catch.

1,240,317. TORPEDO-NET. EWEN A. CLARK, Revere, Mass. Filed Dec. 15, 1914. Serial No. 877,445. (Cl. 114—241.)



1. The combination with a netting comprising ropes or the like secured together at their intersections, of a slip noose supported in each mesh of the netting with one end attached to the netting.

2. The combination with a netting, of a slip noose supported in each mesh of the netting and having one end attached to the netting, each slip noose being supported to closely coincide with the sides of the mesh containing it.

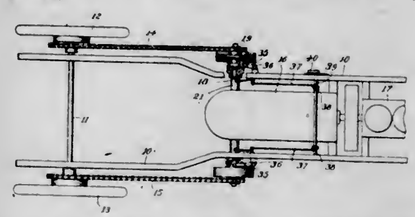
3. The combination with a netting comprising ropes secured together at their intersections, of a slip noose supported in each mesh of the netting and having one end attached to the netting, resilient means for tightening each slip noose, and means temporarily holding said means from acting upon each noose.

4. The combination with a netting having meshes of a material size, of a slip noose supported in each mesh of the netting and attached to the netting, resilient means for tightening each noose, and easily releasable means holding said tightening means inactive.

5. The combination with a netting having meshes of a material size, of a slip noose supported in each mesh of the netting and attached at one end thereto, a helical spring mounted on each noose between its attached end and the movable end thereof, means for holding said springs compressed, and means for releasing said springs.

[Claims 6 to 8 not printed in the Gazette.]

1,240,318. AUXILIARY TRANSMISSION FOR MOTOR-VEHICLES. WILSON MARION COPELAND, Evansville, Ind. Filed Feb. 15, 1917. Serial No. 148,769. (Cl. 74—34.)



6. In an auxiliary transmission, a rotatable power shaft, devices associated with said shaft and adapted to be rotated thereby, in combination with mechanism for imparting variable speeds from said shaft to said devices, comprising a sun gear fixed to said shaft, planetary gears revoluble in the same plane with said sun gear, and a movable clutching means coöperating with said sun and planetary gears to effect one speed, and means engageable by said clutch member to effect another speed.

9. In a transmission device, a rotatable driving shaft, a fixed member in proximity thereto, a driven device rotatably mounted upon said shaft, in combination with mechanism connecting said shaft and said device for varying the relative angular velocities between said shaft and device comprising a system of planetary gearing including planetary gears and a sun gear fixed relatively to each other with respect to lateral movement, and a movable clutch member operatively connecting said fixed member and said planetary gearing.

10. In a transmission device, a rotatable driving shaft, a fixed member located in proximity thereto, a driven device rotatably mounted upon said shaft, in combination with mechanism connecting said shaft and said device for varying the relative angular velocities between said shaft and device comprising a planetary and sun gear fixed relatively to each other and to said device with respect to lateral movement, and a laterally movable clutch member operatively connecting said fixed member and planetary and sun gears.

13. In a transmission device, a driving shaft, a driven device rotatably mounted upon said shaft, in combination with mechanism connecting said shaft and said device for varying the relative angular velocities between said shaft and said device comprising a system of sun and planetary gearing fixed against lateral movements, a

fixed member adjacent thereto, and a clutch movable into locking engagement with said fixed member for effecting a low speed but movable into engagement with said planetary gearing to rotate as a unit therewith for effecting a high speed.

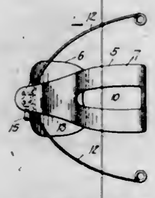
[Claims 1 to 5, 7, 8, 11, 12, and 14 to 17 not printed in the Gazette.]

1,240,319. TREE-STAND. JOSEPH H. CRONICK, Uniontown, Pa. Filed Apr. 12, 1915. Serial No. 20,823. (Cl. 248—38.)



A tree stand comprising a base member, a stud mounted centrally in said base member, a second base member pivotally mounted upon said stud and disposed at all times entirely above the first base member, the terminals of said base members being bent upwardly and twisted to form ears disposed in the plane of the associated base member, brace arms pivoted to respective ears, and inwardly directed spikes on the free ends of said brace arms.

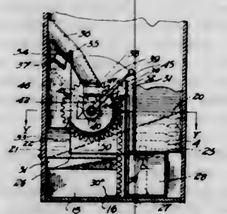
1,240,320. DENTAL AND SURGICAL INSTRUMENT. EDWARD P. DAMERON, Denver, Colo. Filed Oct. 10, 1916. Serial No. 124,796. (Cl. 128—24.)



1. An instrument of the character described comprising a clamp composed of a pair of coöperative jaws adapted to engage the tongue and chin of a patient and an appliance adapted to distensibly engage the cheeks of the patient while one of said jaws engages the tongue of the same.

2. An instrument of the character described comprising a clamp composed of a pair of coöperative jaws adapted to engage the tongue and chin of a patient, and an appliance consisting of a pair of spring-members adapted to engage the cheeks of a patient whose tongue is depressed by one of said jaws.

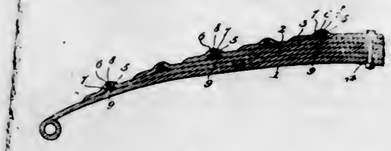
1,240,321. BOTTLE-VENDING MACHINE. JOSEPH C. DICKINSON, Cottondale, Ala., assignor of one-half to J. D. Wright, Toomsuba, Miss. Filed June 28, 1916. Serial No. 106,439. (Cl. 211—8.)



1. In a bottle vending machine, an ice chamber, a chute leading through the chamber at an incline to a point adjacent to a wall of said chamber, a plunger disposed to receive the bottles successively in its top face which slopes toward the wall and which has a notch therein, a pivoted counter-weighted element normally depressed into said notch by the bottle adjacent to the bottle resting on the plunger, a coin controlled mechanism to move the plunger vertically, mechanism controlled by the movement of said element responsive to its counter-weight to prevent the operation of the coin mechanism, and a discharge chute opening through said wall of the ice chamber above the water level therein and into which the bottles, when raised by the plunger, are adapted to pass, substantially as described.

2. In a bottle vending machine, a refrigerating compartment having an inclined bottle chute therein, an ice water reservoir in the lower part of the refrigerating compartment in which the lower end of the chute is submerged, a vertically reciprocable ejector disposed adjacent to a side wall of the reservoir and in position to receive the submerged bottles successively from the chute, a rack and pinion means for raising the ejector and with it a bottle to a point above the water line in said reservoir, a guard on said ejector to hold the bottles on the chute while it is raised, a discharge chute to receive the bottles from the ejector, and coin controlled means to actuate the rack and pinion drive for the ejector.

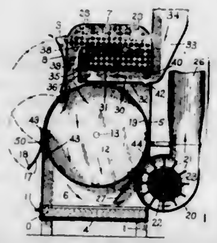
1,240,322. SELF-LUBRICATING VEHICLE-SPRING. ARZENO J. DILLEY, Ionia, Mich., assignor to Stanley Vehicle Spring Company, Inc., Syracuse, N. Y., a Corporation of New York. Filed Sept. 16, 1915, Serial No. 51,039. Renewed July 9, 1917. Serial No. 179,572. (Cl. 267—33.)



1. A self-lubricating spring comprising leaves secured together, their ends having recesses and caps which approximately fit the recesses, and an absorbent disk interposed between each cap and the adjacent leaf of the spring.

2. A self-lubricating spring comprising leaves secured together at the center, their ends having perforated depressions in connection with caps which approximately fit the depressions, said caps each having a button which enters the perforation in the depression, and an absorbent disk interposed between the cap and the adjacent leaf of the spring.

1,240,323. DRY-CLEANING FUME-EXTRACTOR. SAMUEL S. DRESHER, Omaha, Nebr. Filed Mar. 22, 1916. Serial No. 85,979. (Cl. 34—5.)

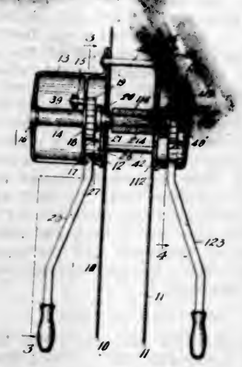


1. In a dry-cleaning fume extractor, a rotatable perforate cylinder, a casing inclosing the same, means for exhausting air from the lower part of said casing and for supplying air thereto at the upper part, and a water-pan disposed in the casing below the cylinder and adapted to receive solids falling therefrom.

2. In a dry-cleaning fume extractor, a tumbling-cylinder, a casing inclosing the same, heating means disposed within the casing above the cylinder, means forming an air-inlet passage extending adjacent to the heating means, means for directing air from said inlet passage through the heating means to the tumbling-cylinder, said directing means including a part movable to a position for admitting air immediately from the inlet passage to the cylinder, and air-impelling means for causing a flow of air from said inlet passage through the cylinder.

[Claims 3 to 5 not printed in the Gazette.]

1,240,324. HAND-BRAKE FOR RAILWAY-CARS. WILLIAM M. [illegible], Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Sept. 8, 1916. Serial No. 118,964. (Cl. 188—41.)



1. In a hand brake for cars and the like adapted to be operated from either side of a wall, the combination with a winding drum, a swinging lever, means interposed between said lever and the drum for rotating the latter upon oscillation of the lever, of an axially adjustable extension from said drum adapted to pass through a wall, and means associated with the end of said extension for rotating the latter on the opposite side of the wall.

2. In a hand brake for cars and the like adapted to be operated from either side of a wall, the combination with a winding drum having an axially adjustable extension adapted to pass through the wall of a car, of two sets of independently operable pawl and ratchet mechanisms for rotating the drum, one of said mechanisms being located on the outside and the other on the inside of the wall.

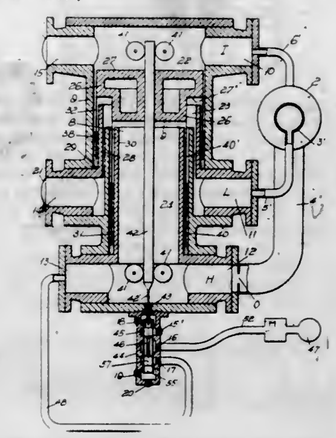
3. In a hand brake for cars and the like adapted to be operated from either side of a wall, the combination with a winding drum having an axially adjustable extension adapted to pass through the wall of a car, of two sets of independently operable pawl and ratchet mechanisms for rotating the drum, one of said mechanisms being located on the outside and the other on the inside of the wall, each of said mechanisms including a ratchet wheel, a swinging link, and a lever pivotally suspended from said link, the lever having a pawl engageable with the ratchet.

4. In a hand brake for cars and the like adapted to be operated from either side of a wall, the combination with a winding drum located on one side of the wall and having an extension passing through the wall, of two sets of independently operable pawl and ratchet mechanisms for rotating said drum, one adapted to be located on the outside and the other on the inside of the wall, each pawl and ratchet mechanism including a ratchet wheel, a locking dog associated with one of said ratchet wheels, and a pair of handles, one on the outside and the other on the inside of the wall for disengaging said dog from the ratchet wheel.

5. In a hand brake for cars and the like adapted to be operated from either side of a wall, the combination with a winding drum having an axially adjustable extension adapted to pass through the wall of a car, of two sets of independently operable pawl and ratchet mechanisms for rotating the drum, one of said mechanisms being located on the outside and the other on the inside of the wall, each of said mechanisms including a ratchet wheel, a swinging link, and a lever, pivotally suspended from said link, the lever having a pawl engageable with the ratchet, a locking dog associated with one of said ratchet wheels, a pair of hand levers, one on the inside and the other on the outside of the wall for actuating said dog, and adjustable connections between said handles to thereby adapt the brake for walls of different thicknesses.

[Claims 6 to 8 not printed in the Gazette.]

1,240,325. AUTOMATIC CONTROLLING OR REGULATING APPARATUS. GEORGE GOODELL EARL, New Orleans, La. Filed June 7, 1915. Serial No. 32,725. (Cl. 73—167.)



1. In a device of the class described, the combination of a plurality of fluid pressure cells provided with openings in the walls for the admission of fluid under pressure, movable means between said cells exposed to the pressures therein, guiding means for said movable means, flexible means connected to said movable means and separating said cells, and a valve and valve stem controlled by said movable means.

10. In a device of the class described, the combination of two pressure cells, means to admit fluid under pressure to said cells, a fluid-tight partition between said cells including a movable member, and flexible means connecting said member to the walls of the cells, said member being exposed to the fluid in said cells and movable in response to the variations in pressure of the fluid in said cells, said member being of constant area and freely movable, friction reducing means for supporting said member independently of said flexible means, said guiding means permitting said member to move freely in response to the variations in such pressures and fluid regulating mechanism controlled by said movable member.

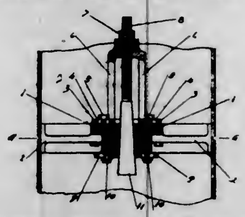
18. In a hydraulic system, the combination of a fluid chamber, movable means separating said chamber into several pressure cells, said movable means being acted upon by the pressures in said cells and being movable in response to variations in pressure in said cells, sources of fluid pressure connected to said chamber and apparatus controlled by said movable means for maintaining the pressure in one of said cells proportional to the sum of the pressures in the other cells.

23. In a hydraulic system, the combination with movable means acted upon and movable in response to pressures acting upon its different sides, a source of pressure connected to act upon one side of said means, a plurality of sources of pressures acting upon different parts of the other side of said means, the area of said means acted upon by the first pressure being equal to the areas of the parts acted upon by the other pressures and apparatus

controlled by the movable means for maintaining the pressure on one side of said means proportional to the sum of the pressures on the other sides thereof.

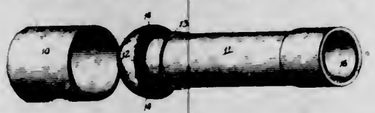
[Claims 2 to 9, 11 to 17, and 19 to 22 not printed in the Gazette.]

1,240,326. MANDREL FOR WELDING SECTIONS OF SHEET-METAL CONDUIT OR PIPE TOGETHER. THOMAS A. ERRETT, Portland, Oreg. Filed Mar. 17, 1917. Serial No. 155,594. (Cl. 113—103.)



In an expanding mandrel for welding sections of sheet metal conduit, a separable hub, composed of a plurality of movable members each carrying work engaging means, a slotted front and back plate, bolts secured to the hub members and passing through the slots to secure the plates to said hub members, and a cone extending through the hub and slidably mounted to co-act with said hub members for imparting thereto a radial motion.

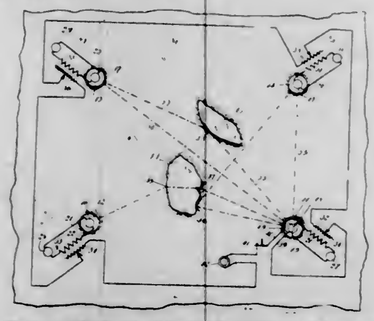
1,240,327. CARRIER FOR PNEUMATIC-TUBE APPARATUS. MELCHIZEDK FELLOWS, Chicago, Ill. Filed May 28, 1917. Serial No. 171,369. (Cl. 243—39.)



1. The combination in a carrier tube of a pneumatic head, a cylinder, means for securing the head to the cylinder and a valve located in the inner part of the head and extending into the cylinder, for inflating the head.

2. The combination in a carrier tube of a flexible head having a tread portion suitably reinforced, a cylinder, a valve located at the inner end of the head and extending into the cylinder and a screw threaded connection between the cylinder and head.

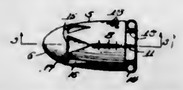
1,240,328. METHOD AND APPARATUS FOR LOCATING ORE-BODIES. REGINALD A. FESSENDEN, Brookline, Mass., assignor to Submarine Signal Company, Waterville, Me., a Corporation of Maine. Original application filed Apr. 2, 1914, Serial No. 828,972. Divided and this application filed Jan. 15, 1917. Serial No. 142,421. (Cl. 175—182.)



1. That method of determining the location of ore bodies which consists in generating sound waves and observing their inflection.

2. That method of determining the location of ore bodies by generating sounds and observing their inflection by the ore bodies, and their velocities.

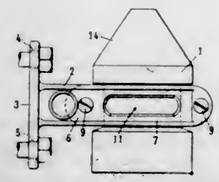
1,240,329. WIND-SHIELD AND PROTECTOR FOR CIGARS. CLARENCE E. FORT and AUGUSTUS S. HENTON, Rockford, Ill. Filed Apr. 20, 1916. Serial No. 92,406. (Cl. 131—61.)



1. A shield or protector for cigars comprising a conically shaped shell adapted to receive the lighted end of a cigar, and means for detachably securing a cigar to and centrally within the shell so as to allow a circumferential air space entirely about the incased portion of the cigar, the closed end of the shell being imperforate and the shell being formed intermediate its ends with circumferentially spaced openings shaped so as to open toward the rear or open end of the shell.

2. A shield or protector for cigars comprising a shell shaped to receive the lighted end of a cigar, means for detachably securing a cigar to and centrally within the shell, said shell being imperforate except for openings arranged circumferentially about the shell in proximity to the closed end thereof and shaped so as to open toward the rear or open end thereof, and other openings at the top only of the holder and rearwardly of said circumferentially spaced openings through which smoke may pass from the shell.

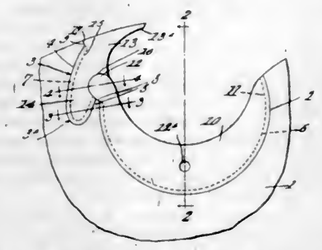
1,240,330. INSULATOR AND SUPPORT THEREFOR. LOUIS FORT, Jersey City, N. J. Filed Feb. 16, 1912. Serial No. 677,936. (Cl. 173—314.)



1. In a device of the character described, a bracket member and a clamping member coöperating therewith and secured to the bracket member on opposite sides of an insulator, a two-part insulator of the petticoat type having a conical head and a dependent skirt and a central annular portion engaged by the bracket and clamp to prevent longitudinal movement of the insulator, a central opening formed in part in each section of the insulator and serrated to engage and be impressed in the insulation of a wire to be held, interlocking beads and grooves arranged upon the meeting faces of the two parts of the insulating members and separated from the central opening and the bracket member by the intermediate flat meeting faces of the two parts of the insulator whereby the insulator parts may be firmly embedded with respect to the contained wire upon a clamping action of the clamp with reference to its supporting bracket.

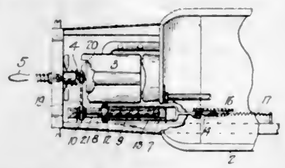
2. In a device of the character described, a two-part insulator of the petticoat type having a conical head and a dependent skirt and a central opening formed in part in each section of the two-part insulator, serrations formed in the central opening of the insulator adapted to be embedded in the insulation of a wire to be clamped, upon compression exerted by a clamping member, a bracket forming one part of a clamping member and a clamping member coöperating therewith and adapted to compress the two parts of the insulator against the wire and interlocking grooves and beads upon the meeting faces of the two-part insulator adapted to be brought into registering engagement by the clamp and increasing the insulating surface at the partition face of the insulating sections substantially as described.

1,240,331. SAW. JOHN H. FREE, Portland, Oreg. Filed Mar. 4, 1915. Serial No. 12,030. (Cl. 143—151.)



A saw comprising a blade having a relatively large primary recess with an arcuate edge and a relatively small secondary recess at one end of the primary recess, there being a horn between the recesses, the horn having a blunt flat end, the secondary recess having an arcuate edge concentric with the edge of the primary recess, the secondary recess having a deep lobe-shaped pocket between its arcuate edge and the horn, a bit resting against said arcuate edge of the secondary recess and having an elongated lobe-shaped portion fitted snugly in said pocket to hold the bit firmly in place, and a crescent-shaped holder fitted within the primary recess and having a rounded overhanging knob at one end seating against the blunt end of the horn, the bit having a rounded socket adjacent to and flush with the blunt end of the horn snugly receiving said knob to assist in steadying the bit.

1,240,332. STARTING DEVICE FOR EXPLOSION-ENGINES. ROBERT E. FRISON, Ten Sleep, Wyo. Filed Jan. 29, 1917. Serial No. 145,198. (Cl. 74—40.)



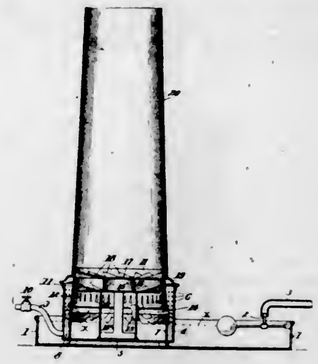
2. A starting device for explosion-engines comprising a rotary screw-threaded shaft, a non-rotating nut coöperating with said screw-thread, means for transmitting the rotary motion of the shaft, a lever for impelling the nut along the shaft, and a spring in impellent relation to said lever.

4. A starting device for explosion-engines comprising a rotary screw threaded shaft, a non-rotating nut coöperating with said screw-thread, means for impelling the nut along the shaft, and means for transmitting the rotary motion of the shaft, the shaft having at an end of its screw-thread, a non-threaded portion to receive the nut when impelled by back-firing of an engine with which the shaft has a driving connection.

[Claims 1 and 3 not printed in the Gazette.]

1,240,333. HYDROCARBON-BURNER. LEE GARDNER, Concord, N. C., assignor of forty-five one-hundredths to Joseph F. Cannon, Gowan Dusenbery, and Morrison H. Caldwell, Concord, N. C. Filed Dec. 24, 1915. Serial No. 68,558. (Cl. 158—13.)

1. A liquid fuel burner comprising a water basin, a fuel trough surrounding said water basin, and means for causing the flame from the burning fuel in said trough to curve downwardly over the edge of said basin, and impinge upon the surface of the water contained therein.



2. A liquid fuel burner comprising an annular fuel trough, a water pan in which said trough is supported so that the trough is surrounded by water on both sides, and means for causing the flame from the burning fuel in said trough to impinge upon, enter into and vaporize the water on the inside of said annular trough.

3. A liquid fuel burner comprising a vertically disposed drum, an annular fuel trough extending around the inside of said drum near its bottom, and a water basin inside of and surrounded by said fuel trough, the upper part of said drum being perforated, and means for drawing air through these perforations and for causing the flame from the burning fuel to curl down over the edge of said trough and impinge upon the water in said basin.

4. A liquid fuel burner comprising an annular fuel trough, a combustion chamber comprising a drum supported by and spaced from the inner upper edge of said trough, and means for causing the flame from the burning fuel in said trough to be drawn inwardly and downwardly through the space between said trough and drum.

5. A liquid fuel burner comprising an annular fuel trough, a combustion chamber comprising a separate drum of frusto-conical shape, having its lower edge supported by and spaced from the inner upper edge of said trough so as to provide an annular slot, and means for causing flame from the burning fuel to flow inwardly through this slot, said drum having a series of openings around its lower portion above said slot adapted to direct jets of air into such flame.

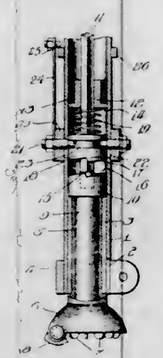
[Claims 6 to 8 not printed in the Gazette.]

1,240,334. TRANSMISSION DEVICE. GUSTAV A. GILBERTSON, Benson, Minn. Original application filed Mar. 13, 1916. Serial No. 83,999. Divided and this application filed July 15, 1916. Serial No. 109,431. (Cl. 192—9.)

1. In an apparatus of the character described, a tube, a driving shaft and a driven shaft arranged in alinement with each other in the tube, a clutch between said shafts, a clutch actuating collar surrounding said tube and movable lengthwise thereof, means connecting said collar with said clutch, and a catch device for yieldingly holding said collar in one of its positions.

2. In an apparatus of the character described, a tube, a driving shaft and a driven shaft arranged in alinement with each other in the tube, a clutch between said shafts, a clutch actuating collar surrounding said tube and movable lengthwise thereof, means connecting said collar with said clutch, and a catch device for yieldingly holding said collar in each of its working positions.

3. In an apparatus of the character described, a tube, a driving shaft and a driven shaft arranged in alinement with each other in said tube, a clutch in the tube between said shafts, a clutch actuating collar supported on the tube and slidable lengthwise thereof, said tube having a slot therein in proximity to the clutch, and a part extending from said collar through said slot and into engagement with the clutch.

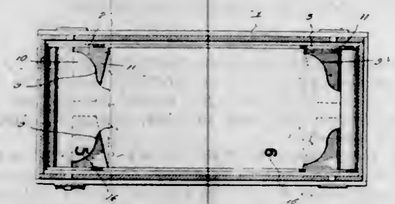


4. In an apparatus of the character described, a supporting tube, a driving shaft and a driven shaft alined within the tube, a clutch between said shafts, an actuating collar for the clutch slidably supported on the tube for movements lengthwise thereof, a spring finger carried by said collar, and interlocking shoulders on the spring finger and on the tube for causing the collar to be held yieldingly in a predetermined position when it is moved into that position.

5. In an apparatus of the character described, a tube, a driven shaft arranged with the tube and having an enlarged end, a driving shaft within the tube extending into and revoluble in said enlarged end, a part revoluble with said driving shaft and capable of sliding axially thereon located in proximity to said enlarged end, the adjacent faces of said enlarged end and of the aforesaid part having complementary clutch teeth, a collar surrounding the tube, and a connection between said collar and the aforesaid part on the driving shaft.

[Claims 6 to 10 not printed in the Gazette.]

1,240,335. PHOTOGRAPHIC-FILM CARTRIDGE. HARRISON GINDELE, Cincinnati, Ohio. Filed Aug. 5, 1916. Serial No. 113,260. (Cl. 95—9.)



1. A film cartridge embodying a covering strip, a photographic film carried thereby, said covering strip being slitted from a point near its outer edge toward its longitudinal center, and a film engaging element independent of the film and covering strip and having means to be positioned loosely in the slit of the covering strip and adapted to be secured to the film and covering strip.

2. A film cartridge embodying a covering strip, a photographic film carried thereby, said covering strip being provided with a curved slit from a point near its outer edge and extending rearwardly toward its longitudinal center, and a film engaging element independent of the film and covering strip having retaining means adapted to be positioned loosely in the slit of the covering strip, said film engaging element having means whereby the same may be secured to the film and covering strip.

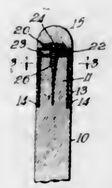
3. A film cartridge embodying a covering strip, a photographic film carried thereby, said covering strip being provided with a slit in the form of an ogee curve extending from a point near its outer edge rearwardly toward its longitudinal center, and a film engaging element independent of the film and covering strip having means to be positioned within the slot of the covering strip to be protected thereby during the passage of the film through a camera, said film engaging element being provided also with means whereby said element may be secured to the film and its covering strip.

4. A film cartridge embodying a covering strip, provided with a plurality of arcuate slits for each exposure to be represented on the photographic film, a photographic film carried by the covering strip having a slit positioned substantially between each exposure section of the film, the film being so mounted relative to its covering strip that the film is in juxtaposition to the slit of the covering strip, and a film engaging element adapted to have a portion thereof exposed through the slits of the covering strip and other portions thereof adapted to extend from the slits of the photographic film strip respectively.

5. A film cartridge embodying a covering strip provided with arcuate slits arranged at intervals throughout the length thereof, a photographic film carried by said covering strip and provided with slits arranged at predetermined intervals throughout the length thereof, a film engaging element for each group of slits of the backing strip and film strip, said element having means to secure the same to the backing strip and having a portion thereof passed through the slits if the film to be secured to the sensitized face thereof.

[Claim 6 not printed in the Gazette.]

1,240,336. BILLIARD-CUE. JOHN H. GOODELL, Marseilles, Ill. Filed June 11, 1917. Serial No. 173,935. (Cl. 46—9.)



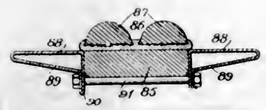
1. A billiard cue having, in combination, a body, a tip, a strap, a washer, a rivet extending through the washer and the mid-portion of the strap and into the tip, said strap lying between the washer and the tip, a conical member in the tip to expand the rivet; and means for securing the end portions of the strap to the body.

2. A billiard cue having, in combination, a body, a tip, a strap, a rivet extending through the mid-portion of the strap and into the tip, a conical member in the tip to expand the rivet, and means for securing the end portions of the strap to the body.

5. A billiard cue having, in combination, a body, a tip, a strap portion connected to the tip and adapted to lie beside the body, a device to embrace the body and the strap portion, said body having a slot therein, and a device in the slot to expand the body.

[Claims 3 and 4 not printed in the Gazette.]

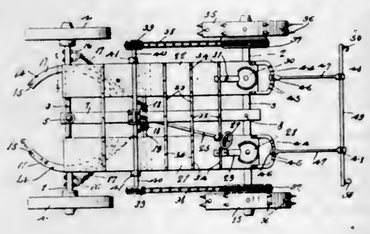
1,240,337. SAND-RIM FOR AUTOMOBILES. ALBERT E. GRAY, Goodland, Ind. Filed Sept. 1, 1916. Serial No. 118,097. (Cl. 21—161.)



1. The combination with a felly, having a double tire rim thereon, of a pair of annular flange members having tread surfaces and bracing portions, said members being adapted to abut said felly, said members being provided with annular flanges, and a plurality of bolts extending through said flanges and engaging the inner peripheral face of the felly to maintain said members in abutting relation with the felly.

2. The combination with a felly, of a pair of tread rings, a portion of said rings adapted to abut the side of said felly, lateral extensions extending from the upper edge of the felly engaging portions providing tread surfaces, bracing portions connecting the free ends of the lateral extension and the felly engaging portions, the bracing portions adjacent the felly engaging portions being flattened to form annular flanges, and a plurality of bolts extending through said flanges and engaging the inner peripheral face of the felly to maintain said members in rigid position for a purpose specified.

1,240,338. TRACTOR. ABIAH H. GUARD, Colfax, Ind. Filed Feb. 10, 1917. Serial No. 147,791. (Cl. 21—114.)



1. In a tractor structure, the combination, of a front axle and a rear axle having arches formed therein intermediate their ends, a pair of supporting platforms positioned upon each side of said arches and attached to said rear axle, a supporting bar rigidly attached to the horizontal portion of the arch of the rear axle, said front axle being pivotally connected to said supporting bar, and a plurality of bracing arches attached to said platforms and to said supporting bar.

2. In a tractor structure, the combination of a front axle, and a rear axle having arches formed therein intermediate their ends, a pair of mechanism supporting platforms positioned upon each side of the arches of said axles and attached to the rear axle, a supporting bar rigidly attached to the horizontal portion of the arch of the rear axle, said front axle being pivotally connected to said supporting bar, means for pivotally moving said front axle upon its pivotal connection with said bar for steering the direction of travel of the tractor, and a plurality of bracing arches attached to said platforms and to said supporting bar.

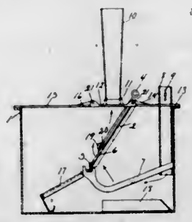
3. In a tractor structure, the combination, of a front axle and a rear axle having arches formed therein intermediate of their ends, a pair of platforms positioned upon each side of the arches of said axle and attached to the rear axle, a supporting bar rigidly attached to the horizontal portion of the arch of the rear axle, said front axle being pivotally connected to said supporting bar, a fifth wheel structure carried by said platforms and extending forwardly therefrom, said fifth wheel structure including a pair of arcuate members each of which is composed of a pair of spaced plates, said front axle provided with flattened portions positioned between each pair of said spaced plates, said plates adapted for guiding the pivotal movement of said axle.

4. In a tractor structure, the combination, of a front and rear axle having arches formed therein intermediate their ends, a supporting structure carried by said axles, a fifth wheel structure carried by said supporting structure and extending forwardly therefrom, said fifth wheel structure including a pair of arcuate members, each of which is composed of a pair of spaced plates, said front axle provided with flattened portions positioned between each pair of said spaced plates, said plates adapted for guiding the pivotal movement of said front axle.

5. In a tractor structure, a front and rear axle having arches formed therein, a supporting platform attached to said rear axle upon each side of said arches, a supporting bar rigidly attached to the arch of the rear axle and pivotally connected to the arch of the front axle, means for pivotally moving said front axle for steering the tractor, said platforms forming supports for a part of the steering mechanism and for the operating mechanism of the tractor.

[Claims 6 and 7 not printed in the Gazette.]

1,240,339. STOCK-TANK HEATER. WILLIAM HAAK, Madison, Wis. Filed Mar. 4, 1916. Serial No. 82,261. (Cl. 126—367.)

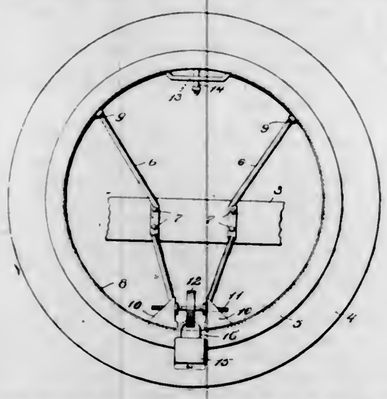


In a tank heater comprising a casing, a grate, a baffle plate over the grate and a baffle plate back of said grate, an aperture provided in said baffle plate over said grate and near the lower terminus thereof, a sliding door operated by a rod extending upward through the top of said heater and adapted to cover the aperture in said baffle plate.

1,240,340. EXTRA-TIRE CARRIER. ARMIN HANPETER, St. Louis, Mo. Filed Oct. 11, 1916. Serial No. 125,021. (Cl. 224—29.)

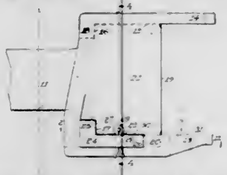
In combination with a tire rim, having a peripheral tire retaining flange, a channel on its inner face, and a hole extending from face to face of said rim for the reception of a valve stem, and to prevent circumferential movement of a tire on said tire rim, a split expansible circular element of such length as to prevent an overlapping of the ends in all positions, having a hole therethrough to provide an opening for the valve stem of a tire to extend therethrough and to prevent rotative movement of said tire rim and said split expansible circular element, two lugs, one secured to each end of said circular element, a right and left threaded bolt passing through said lugs, so that the distance between said lugs may be varied by a rotation of said bolt, a wheel secured at the center of said bolt, and locking means for securing said wheel in a pre-

determined position, said means consisting of a staple lock selectively positioned with the staple between the spokes



of said wheel, said locking means greater in size than the volume between said lugs.

1,240,341. MEANS OF CONNECTING DRAW-BAR TO DRAFT-YOKE IN RAILWAY DRAFT-RIGGING. STACY B. HASELTINE, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Sept. 13, 1912. Serial No. 720,153. (Cl. 213—42.)



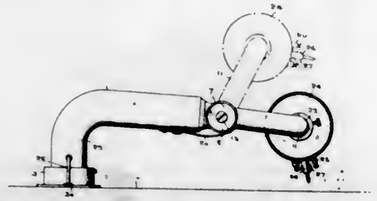
1. In a device of the class described, a draw bar having a butt forming oppositely disposed shoulders, a yoke forwardly provided with a laterally slotted box-like head to receive the draw bar, a shoulder within said head co-acting with one of the shoulders of the draw bar, a block passing through the slots in the yoke head having a shoulder co-acting with the other shoulder of the draw bar, said block engaging one of the faces of the butt of the draw bar, said draw bar being free to move rearwardly independently of the yoke.

2. In a device of the class described, a yoke forwardly provided with a box-like opening, a draw bar provided with oppositely disposed shoulders and adapted to be received within said opening, a transverse shoulder within said opening adapted to engage one shoulder of the draw bar, and a removable block engaging the butt of the draw bar, said block being provided along its forward edge with an up-turned angular flange to engage the other shoulder of the draw bar, the draw bar being held within the head by said shoulders and block, and being free to move rearwardly therein independently of the yoke.

3. In a device of the class described, a draw bar provided with shoulders, a yoke provided with an upper and a lower strap, the upper strap being forwardly provided with a transverse shoulder adapted to engage one of the shoulders of the draw bar and the lower strap having a depressed portion therein adapted to receive a block, a block, the latter being provided with a shoulder adapted to engage another shoulder of the draw bar, and means for securing said block in said depressed portion of the yoke, the draw bar being held in said head by said shoulders and being free to move rearwardly independently of the yoke.

[Claims 4 to 9 not printed in the Gazette.]

1,240,342. SOUND-CONVEYER ARM. EDWARD G. HAYNE, Ottawa, Ill. Filed Sept. 15, 1916. Serial No. 120,342. (Cl. 274—23.)



1. The combination with a phonograph, of a sound conveyer arm consisting of a tubular supporting arm, a tubular extension rotatably and hingedly connected to the supporting arm, a reproducer carried by the extension arm, yielding means to hold the extension arm in either lowered or raised position, and spring tension means to prevent the extension arm from casually rotating around its longitudinal axis.

2. The combination with a phonograph, of a sound conveyer arm comprising a supporting arm, an extension arm rotatably and hingedly connected to the supporting arm, said extension arm being rotatable around its longitudinal axis, a reproducer carried by said extension arm, yielding means to hold the extension arm in either raised or lowered position, means to prevent rotation of the extension arm around its longitudinal axis when in lowered position, and means to prevent casual rotation of the extension arm around its longitudinal axis when in raised position.

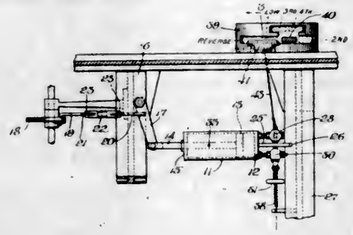
3. The combination with a phonograph, of a sound conveyer arm comprising a supporting arm, an extension arm rotatably and hingedly connected to the supporting arm, means for holding the extension arm in operative and inoperative position, said means coöperating with the extension arm to prevent rotation of the extension arm around its longitudinal axis when the extension arm is in operative position, means for preventing the casual rotation of the extension arm around its longitudinal axis when the latter is raised to an inoperative position, and a reproducer having a pair of needles carried by said extension arm.

4. In a phonograph, the combination with a sound conveyer arm having a tubular barrel formed on the outer end thereof, a hinge pin having a bore extending entirely through the intermediate portion thereof and rotatably disposed in said barrel, said barrel being further provided with recesses in the lower portion thereof, an extension arm disposed in said hinge pin bore for rotation and provided with a circumferentially extending slot, a set screw extending centrally through one end of the hinge pin and through said slot of the extension arm and adapted to limit the rotary movement of the extension arm, said extension arm being provided with depressions adjacent the said slot thereof, and a spring arm having a locking pin adapted to selectively engage the recesses of the hinge pin and the depressions of the extension arm to hold the hinge pin and extension arm in operative position and to hold the extension arm in inoperative position.

5. In a phonograph, the combination with the sound conveyer arm thereof comprising a supporting arm having a tubular barrel formed on the free end thereof provided with a circumferential slot, a hinge pin having a bore extending therethrough rotatably mounted in the barrel, an extension arm rotatably disposed in said bore and provided with a circumferential slot adjacent its end, the said slot of the barrel adapted to limit the vertical movement of the extension arm, a set screw disposed centrally through one end of the hinge pin, said set screw being provided with a threaded shank and a reduced extension, said extension arm projecting through the circumferential slot of the extension arm and adapted to limit the rotary movement of said extension, and an expansible coil spring positioned upon the extension of the set screw between the threaded shank of the set screw and the outer surface of the extension arm and adapted to frictionally hold the extension arm against casual rotation when in an inoperative position.

[Claim 6 not printed in the Gazette.]

1,240,343. CLUTCH-CONTROLLING DEVICE. JOHN E. HOLDEN, South Boston, Mass., assignor of one-third to Edith I. Jackson, Newton, Mass., and one-third to Thomas W. Moran, South Boston, Mass. Filed Jan. 7, 1916. Serial No. 70,750. (Cl. 192—1.)



1. In a clutch, the combination with a pair of clutch members relatively movable into and out of engagement, of means for moving the members into engagement, a cylinder closed at one end, and having an open port located intermediate the limits of movement of the piston, a piston movable in the cylinder, means for permitting the retarded escape of air from the cylinder adjacent the closed end, and adjustable connections between the piston and the movable member of the clutch having provision for varying the extent of movement of the piston between the open port and the closed end of the cylinder.

3. In a clutch, the combination with a pair of clutch members relatively movable into and out of engagement, a spring for moving the members into engagement, a cylinder closed at one end, a piston, connections between the piston and the movable member of the clutch, means for permitting the retarded escape of air from the cylinder adjacent the closed end, devices adjacent the closed end of the cylinder for permitting the free passage of air into the cylinder and normally preventing the escape of air, and mechanism under the control of the operator for actuating said devices to permit the free escape of air from the cylinder.

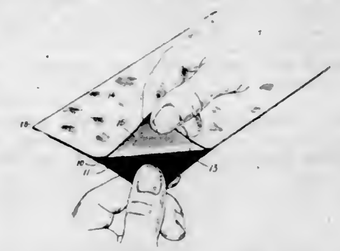
7. In a motor vehicle the combination with a gear shifting lever, of a pair of clutch members relatively movable into and out of engagement, a spring for moving the members into engagement, a cylinder closed at one end, a piston movable in the cylinder, a check valve connected with the cylinder adjacent its closed end and arranged to permit the free passage of air into the cylinder, means for holding the check valve open to permit the escape of air from the cylinder, a gear shifting lever guide plate, an arm overlapping the low speed and reverse slots in the plate, connections between the arm and the check valve for causing the valve to close when the arm is engaged by the gear shifting lever, and connections between the piston and the movable member of the clutch.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,240,344. PHOTOGRAPHIC FILM. FREDERIC E. IVES, Philadelphia, Pa. Filed Sept. 21, 1915. Serial No. 51,743. (Cl. 95—8.)

1. As a new photographic commodity of commerce a sensitized photographic colloid film carried upon a water-impervious support and protectively sealed by a temporary water-impervious layer, which is in atmospheric contact with the sensitized film and of a character capable of being readily and cleanly removed therefrom without injury to the colloid film.

2. As a new photographic commodity of commerce a sensitized colloid film carried upon a water-impervious support and protectively sealed by a temporary water-impervious layer, which is in atmospheric contact with the sensitized film and of a character capable of being readily and cleanly removed therefrom at ordinary temperatures by a solvent non-destructive of the sensitive film.



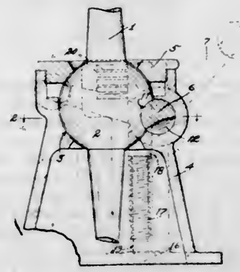
3. As a new photographic commodity of commerce a sensitized colloid film carried upon a water-impervious support and protectively sealed by a temporary water-impervious layer of soluble varnish, which is in atmospheric contact over the entire face of the sensitized film and of a character capable of being readily and cleanly removed therefrom by a solvent non-destructive of the sensitive film.

4. As a new photographic commodity of commerce, a sensitized colloid film carried upon a water-impervious support and protectively sealed by a temporary water-impervious layer, consisting of a soluble coating of benzol damar varnish in atmospheric contact with the sensitized film and adapted to be readily and cleanly washed off therefrom by benzol.

1,240,345. SOLUTION FOR WATERPROOFING FABRICS. THOMAS C. JAMES, Chicago, Ill. Filed Sept. 30, 1914. Serial No. 864,223. (Cl. 134—16.)

A solution for water-proofing fabrics produced by dissolving like parts by weight of acetate of lead and of powdered alum in substantially twenty-five times their combined weight of water and mixing with this solution substantially three-sixteenths of the combined weight of the lead acetate and alum of gum arabic dissolved in an alcoholic body.

1,240,346. APPARATUS FOR LOCKING LEVERS. GEORGE C. JENSEN, Oakland, Cal. Filed Mar 31, 1917. Serial No. 158,871. (Cl. 70—128.)



1. In combination with a lever provided with a substantially spherical portion pivotally mounted for universal swinging movement within a substantially spherical socket member and capable of removal therefrom, said socket member provided with a bore disposed tangentially to the spherical portion and intersecting the same, and a rotatable locking member within said bore and capable of operative movement therein to lock said lever from pivotal movement within or removal from its socket.

2. In combination with a lever provided with a substantially spherical portion pivotally mounted for universal swinging movement within a substantially spherical socket member, said socket member provided with a bore disposed tangentially to the spherical portion and intersecting the same, and a locking member rotatably mounted within said bore and capable of rotation therein to operative position to lock said lever from operative movement within its socket.

[Claims 3 to 6 not printed in the Gazette.]

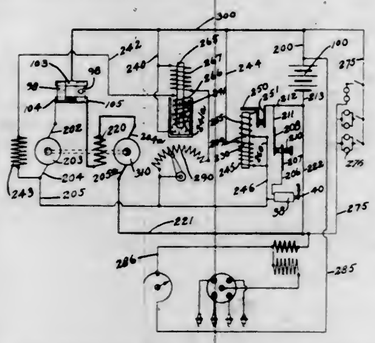
1,240,347. VEHICLE-LICENSE-NUMBER EXHIBITOR. WILLIAM NOEL JOHNSON, Minnedosa, Manitoba, Canada. Filed June 30, 1915. Serial No. 37,315. (Cl. 40—131.)



1. In a vehicle license number exhibitor, the combination with a lamp, of a light concentrating tube into which the light rays emanating from said lamp are directed, a sign structure mounted to rotate at the outer end of said tube for movement into various positions with respect thereto, and a means to maintain said sign structure in its adjusted position.

[Claims 2 and 3 not printed in the Gazette.]

1,240,348. ENGINE-STARTING DEVICE. CHARLES F. KETTERING, Dayton, Ohio, assignor to The Dayton Engineering Laboratories Co., a Corporation of Ohio. Filed Sept. 19, 1912. Serial No. 721,237. (Cl. 171—315.)



1. In an engine starting system, the combination with an engine, of a starting device therefor including a dynamo electric machine having its armature wound with two independent sets of windings, one set comprising motor armature windings of relatively low resistance and few turns, and the other set comprising generator armature windings of higher resistance and a greater number of turns than the motor armature windings; connections between the engine and the starting device for starting the former by the latter and running the latter by the former; an accumulator; and means for connecting the motor armature windings to the accumulator to secure high torque effect for starting purposes, and to connect the generator armature windings to the accumulator to secure charging of the accumulator at relatively low current values.

3. In an engine starting system, the combination with an engine of a starting device therefor including a dynamo electric machine having a motor armature winding of relatively low resistance and few turns, and an independent generator armature winding of higher resistance and a greater number of turns than the motor winding; a series field winding of relatively low resistance for motor operation, and a shunt field winding for generator operation; connections between the engine and the starting device for starting the former by the latter and running the latter by the former; an accumulator; and means for connecting the motor armature winding and said series field winding to the accumulator to secure higher torque effect for starting purposes and to connect the generator armature winding and shunt field winding to the accumulator to secure charging of the accumulator at relatively low current values when the dynamo electric machine is operated as a generator by the engine.

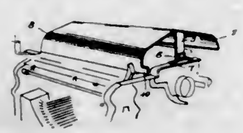
7. In a starting system, the combination with an engine; of a starting device therefor, comprising a dynamo electric machine having a generator armature winding and a motor armature winding; means for mechanically connecting the engine and starting device together; and means for passing current through the generator armature winding to operate the electric machine as a motor, to facilitate the connecting of the starting device to the engine, by said mechanical connections.

15. An engine starting system comprising the combination with an engine, of a starting device therefor including a dynamo electric machine comprising a plurality of circuit connections including independent armature windings; an accumulator; connecting gearing including enmeshing members between the dynamo electric machine and the engine; and means for selectively connecting the accumulator with one of said circuit connections of the dynamo electric machine to effect an initial operation of said machine to facilitate the enmeshment of said connecting members, and to connect another circuit connection of said machine with the accumulator to effect a motor starting operation, and to connect said first circuit connection with the accumulator for charging said accumulator.

17. An engine starting system comprising a combination with an engine, a starting device therefor including a dynamo electric machine having a pair of armature windings; means including enmeshing connecting members for connecting the starting device with the engine; an accumulator; means for connecting said accumulator with one of said armature windings to operate the electric machine as a motor to facilitate the enmeshment of said connecting members; and means for connecting the accumulator with the other winding to cause the dynamo electric machine to crank the engine through said enmeshing members.

[Claims 2, 4 to 6, 8 to 14, 16, 18, and 19 not printed in the Gazette.]

1,240,349. CONCEALING-SCREEN FOR VISIBLE TYPEWRITERS. HENRY R. KNOWLES, Ridley Park, Pa. Filed May 9, 1917. Serial No. 167,489. (Cl. 197—105.)



1. The combination with a visible typewriter, of a concealing screen detachably secured to the carriage thereof and disposed above the same, said screen being composed of front and rear sections pivotally mounted with respect to each other, the rear section being disposed over the rear part of the carriage and the forward section being disposed over the forward part of the carriage.

2. The combination with a visible typewriter, of a concealing screen disposed above the carriage of the same, said screen being composed of two pivotally movable sections and a pair of brackets having notches in one of their edges for receiving the ends of the rod on which the paper guides of the typewriter slide, and laterally extending stops on the brackets resting upon the horizontal end bars of the carriage.

[Claims 3 to 7 not printed in the Gazette.]

1,240,350. FLEXIBLE METAL CASING FOR LAMINATED SPRINGS. BENNO B. LEUSTIG, Cleveland, Ohio. Filed June 7, 1917. Serial No. 173,265. (Cl. 267—28.)

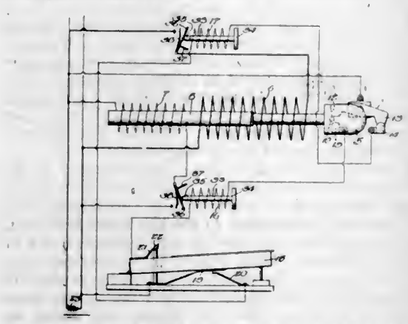


4. The combination, with a laminated spring, of a flexible sheet-metal strip forming a covering for the bottom of the spring and extending longitudinally and from side to side of the spring and provided at each side of the spring with upwardly projecting flanges spaced longitudinally of the spring, and a flexible sheet-metal strip forming a covering for the top of the spring and extending longitudinally and from side to side of the spring and provided at each side of the spring with downwardly projecting flanges spaced longitudinally of the spring, the flanges of the strips being arranged to form a covering for the sides of the spring, there being lubricant receiving chambers formed adjacent each side of the spring at the inner side of the second-mentioned strip, and said chambers being spaced longitudinally of the spring.

15. The combination, with a semi-elliptical laminated spring having one of its leaves projecting beyond the other leaves of the spring at each end of the spring and terminating in heads, of a casing comprising flexible metal strips extending longitudinally of the spring and into proximity to the aforesaid heads and forming a covering for the top, sides and bottom of the spring, and flexible members embracing the aforesaid heads and connected to the said casing, the casing being provided between the central portion of the spring and said head-embracing members with inlets at which lubricant may be supplied to the interior of said casing.

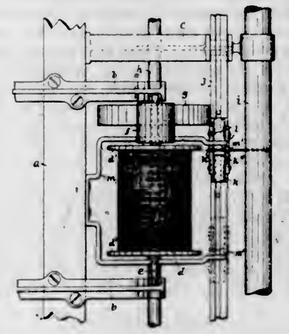
[Claims 1 to 3 and 5 to 14 not printed in the Gazette.]

1,240,351. VIBRATING MECHANISM. FREDERICK B. LITTLE, Chicago, Ill., assignor, by mesne assignments, to J. C. Deagan Musical Bells, Chicago, Ill., a Corporation of Illinois. Filed Apr. 5, 1916. Serial No. 88,983. (Cl. 172—240.)



Vibrating mechanism including a striking hammer; one magnet for effecting striking movement of the hammer; a second magnet for withdrawing the hammer; one relay having a switch controlled thereby that is in the circuit of the first magnet for opening and closing the circuit of this magnet; a second relay having a switch controlled thereby that is in the circuit of the second magnet for opening and closing the circuit of this magnet; switching mechanism governed by the hammer and inclusive of one switch included in the circuit of the first relay and opened by the hammer when striking and closed by the hammer in withdrawing and another switch included in the circuit of the second relay and closed by the hammer when striking and opened by the hammer in withdrawing; a key provided with means for restoring it to normal position; a switch also included in the circuit of the second relay and closed by said key when in normal position and opened by the key when depressed; and a switch also included in the circuit of the first relay and closed by said key when depressed and opened when the key is restored to normal position.

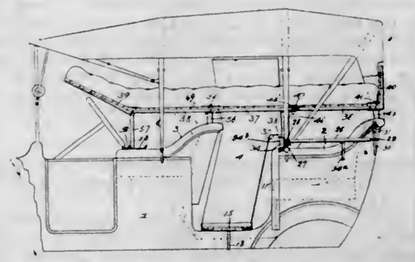
1,240,352. THREAD-TRAVERSE MEANS FOR WINDING-MACHINES AND THE LIKE. EMORY J. LIPPS, Fountain Hill borough, Pa. Filed Jan. 22, 1917. Serial No. 143,568. (Cl. 242—18.)



1. Means for winding thread with a traverse including, with a support, a rotary receiving device on which to wind the thread, a thread guide carrier reciprocating substantially parallel with the axis of the receiving device, a thread guide carried by and normally reciprocating with the carrier opposite the receiving device and free to move on the carrier longitudinally of its reciprocating path, and means to stop in each direction the reciprocating movement of the guide with the carrier.

2. Means for winding thread with a traverse including, with a support, a rotary receiving device on which to wind the thread, a thread guide carrier reciprocating substantially parallel with the axis of the receiving device, a thread guide carried by and normally reciprocating with the carrier opposite the receiving device and free to move on the carrier longitudinally of its reciprocating path, and means, confined by said device, against movement relatively thereto longitudinally of its axis, to stop in each direction the reciprocating movement of the guide with the carrier.

1,240,353. CAMPING OUTFIT. JAMES F. LONG, San Francisco, Cal. Filed May 26, 1916. Serial No. 100,052. (Cl. 21—7.)



1. A removable camping outfit for motor vehicles comprising a foldable bed extensible lengthwise and within

the vehicle and adapted to be supported upon the seats thereof, and bins disposed between the seats, and foldable means for supporting said bins both within and without the body of the vehicle, a guide for said bins and means securing said bed and guide together.

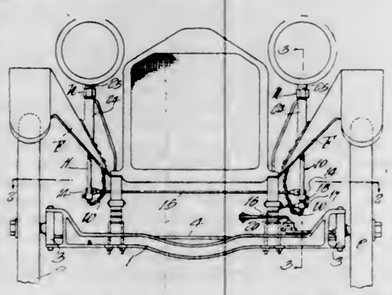
7. In a camping outfit for motor vehicles, a foldable bed extensible within and lengthwise of the vehicle, means for supporting receptacles between the seats, a guide for said receptacles, means for securing the guide and bed together, hinged means adapted to be dropped to a horizontal position and extend outward from the vehicle to support said receptacles when they are moved from their normal position between the seats, cooperating guiding means between said receptacles and the hinged supporting means, and an inclined brace engageable at one end with said hinged means when in horizontal position.

8. In a portable camping outfit for motor vehicles, a foldable bed extensible within and lengthwise of the vehicle, movably mounted receptacles adapted to occupy the space between the seats, a guide for said receptacles, means for securing the guide and bed together and hinged means extensible laterally of the vehicle and upon which said receptacles are adapted to slide outward.

11. In a portable camping outfit for motor vehicles, a foldable bed extensible within and lengthwise of the vehicle, movably mounted receptacles adapted to occupy the space between the seats, a guide for said receptacles, means for securing the guide and bed together, hinged means upon which said receptacles are adapted to slide outward, and pivotally mounted supports for said means, said means having longitudinal slots into which said supports are adapted to fold, said supports having out-turned members and said means having a lateral slot into which outturned members extend when the supports are folded.

[Claims 2 to 6, 9, 10, and 12 not printed in the Gazette.]

1,240,354. DIRIGIBLE HEADLIGHT FOR VEHICLES. EVA M. LYON, Escondido, Cal. Filed Jan. 3, 1917. Serial No. 140,425. (Cl. 240—62.)

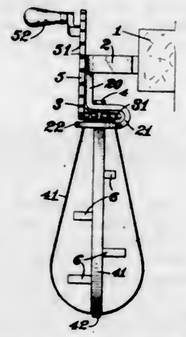


1. The combination with a vehicle having a steering mechanism and a tubular lamp supporting bracket secured on the fender of the vehicle with an opening in the fender communicating therewith, a tubular lamp post extending loosely through the fender and said bracket, a lamp fixed to the upper end of said post, a coupling member between said lamp and bracket for swivel connection therebetween, and a connection between said post and steering mechanism whereby said lamp is turned in said bracket on the operation of the steering mechanism.

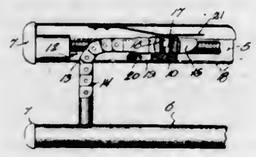
[Claims 2 to 4 not printed in the Gazette.]

1,240,355. EGG-BEATER. HENRIETTA K. MACMORAN, Burlington, Wash. Filed July 27, 1916. Serial No. 111,553. (Cl. 259—108.)

In an egg-beater, in combination, a shaft, a horizontal pinion secured upon said shaft, a plurality of loops having their upper ends bent to contact with the downwardly-directed face of the pinion and being secured thereto, a bracket having an integral downward extension and a laterally offset U-shaped member, said pinion lying between the arms of the U-shaped member, and said shaft being journaled only in the upper arm of said U-shaped member, the lower arm of the U-shaped member being expanded to form a ring and closely embracing the upward extensions of said loops immediately below their connection with the pinion, said ring being of greater diameter than the outside diameter of the pinion, and a gear wheel journaled in said bracket and meshing with said pinion.



1,240,356. LOOSE-LEAF BINDER. HENRY CHARLES MILLER, Milwaukee, Wis. Filed Feb. 23, 1917. Serial No. 150,409. (Cl. 129—41.)



1. A loose leaf binder including a pair of binder heads, flexible connecting posts secured to one head and passed into the other head to extensibly lie therewithin, carriage blocks slidably mounted in the last mentioned head, means for simultaneously moving said carriage blocks in opposite directions and means for detachably connecting said carriage blocks and the flexible posts.

3. A loose leaf binder including a pair of binder heads, flexible connecting posts secured to one head and passed into the other head to extensibly lie therewithin, carriage blocks slidably mounted in the last mentioned head, means for simultaneously moving said carriage blocks in opposite directions, pins on said carriage blocks, and end pieces for the flexible posts provided with recesses for receiving the pins of the carriage blocks.

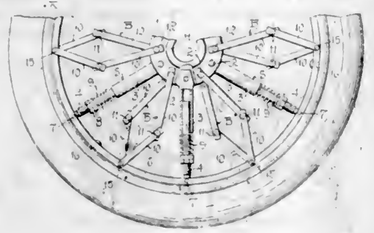
5. A loose leaf binder including a pair of binder heads, flexible connecting posts secured to one head and passed into the other head to extensibly lie therewithin, carriage blocks slidably mounted in the last mentioned head, means for simultaneously moving said carriage blocks in opposite directions, means detachably connecting said carriage blocks and the flexible posts, pawls pivoted to the carriage blocks and engageable with the flexible posts to detach said posts from the blocks, and series of ratchet teeth in the head engageable with the pawls to rock said pawls.

8. A loose leaf binder including a pair of binder heads, flexible connecting posts secured to one head and passed into the other head to extensibly lie therewithin, carriage blocks slidably mounted in the last mentioned head, means for simultaneously moving said carriage blocks in opposite dierections, means detachably connecting said carriage blocks and the ends of the posts and said carriage blocks being clampingly engageable with the flexible posts at their junctures with the head.

10. In a loose leaf binder, a flexible connecting post comprising end pieces, a pair of flexible core members connecting the end pieces, a series of sheathing members disposed about the core members and with their edges disposed in abutting relation, each sheathing member comprising a plate bent about the core members with its side edge portions bent inwardly between the core members, and the end edge portions of the sheathing members at one side of the post being cut away to permit flexure of the post in one direction.

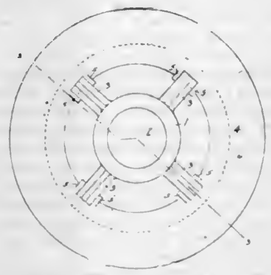
[Claims 2, 4, 6, 7, 9, 11, and 12 not printed in the Gazette.]

1,240,357. RESILIENT WHEEL. EDWARD I. MOWER, Cresson, Pa. Filed May 19, 1917. Serial No. 169,733. (Cl. 152—28.)



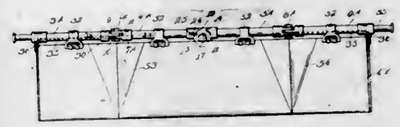
A wheel structure comprising, in combination, a hub, a felly, spokes interposed between the felly and the hub and pivotally engaged therewith, each of said spokes comprising telescopically engaged sections, means coacting with the sections of each of the spokes for constantly imparting separate movement thereto, brace members positioned between adjacent pairs of spokes, each of said brace members comprising pivotally connected sections, said brace members being arranged in pairs and disposed inwardly in divergence, the outer end portions of the brace members being pivotally engaged with the felly, bolts disposed through the hub and extending beyond opposite sides thereof, the inner ends of the brace members being pivotally engaged with the bolts, and washers arranged upon the bolts and positioned intermediate the brace members and the hub, the faces of the washers adjacent the brace members being convex.

1,240,358. COMPOUND TROLLEY-WHEEL. JAMES C. OLLARD, Tacoma, Wash., assignor to Ollard Trolley Wheel Company, Dover, Del. Filed Sept. 8, 1915. Serial No. 49,433. (Cl. 191—63.)



A trolley wheel having a central hub of iron with arms extending outward therefrom; an annular rim of good conductive metal surrounding said hub and cast to said arms, said rim having a V-shaped groove in its outer face whereby flanges are formed whereby every part of the wheel which may come in contact with the trolley wire is formed of said good conductive metal, said rim extending from arm to arm around the hub and having lugs formed on its inner face adjacent to and in contact with said arms.

1,240,359. CORPSE-CARRIER. BERNARD O'REILLY, Rochester, N. Y. Filed Apr. 27, 1917. Serial No. 165,002. (Cl. 21—80.)



1. In a device of the character described, the combination of a pair of foldable side rails, each of said side rails comprising a pair of intermediate sections and a pair of end sections, said end sections being mounted to swing horizontally on said intermediate sections, a crossbar connecting each of said corresponding sections of each of said side rails to properly space them apart from each other.

2. In a device of the character described the combination of a pair of foldable side rails, crossbars connecting said side rails and forming a frame therewith, said frame being divided into an intermediate section and two end sections, said end sections being mounted to swing horizontally on said intermediate section, means for locking all of side sections in line with one another.

3. In a device of the character described, the combination of a pair of foldable side rails, crossbars connecting said side rails and forming a frame therewith, said frame being divided into an intermediate section and two end sections, said end sections being mounted to swing horizontally on said intermediate section, means for locking all of side sections in line with one another, a canvas bag suspended from said frame.

4. In a device of the character described, the combination of a pair of foldable side rails, crossbars connecting said side rails and forming a frame therewith, said frame being divided into an intermediate section and two end sections, said end sections being mounted to swing on said intermediate section, means for locking all of said sections in line with one another, a pair of canvas sections suspended from said frame, a rope adapted to hold said canvas sections together at their ends to form a bag below said frame.

5. In a device of the character described, the combination of a foldable frame comprising end and intermediate sections, said end sections mounted to swing horizontally on said intermediate sections, a bag suspended from said intermediate and said end sections, means for opening said bag in the center thereof.

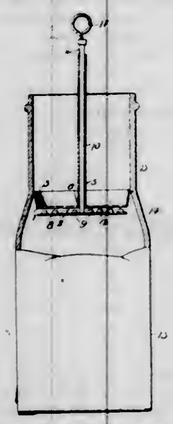
[Claims 6 and 7 not printed in the Gazette.]

1,240,360. MILK AND CREAM SEPARATOR. JEFFERSON D. PALMER, Warrenton, N. C. Filed Oct. 6, 1916. Serial No. 124,099. (Cl. 65—28.)

1. A milk and cream separator including a cup having a regularly perforated bottom and a flaring annular wall, a tube extending from the central portion of said cup, a disk, a rod mounted in said tube connected with the disk to move the latter, and a plurality of regularly arranged conical enlargements on said disk for engagement with said perforations in the cup.

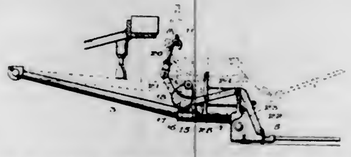
2. In a milk and cream separator, the combination of a cup having a regularly perforated bottom and a flaring annular wall, a tube extending from said cup, a disk, a rod operable in said tube connecting with said disk, said disk being provided with a plurality of regularly ar-

ranged conical enlargements for engagement in said perforations, and a key carried by the rod engageable in a



complemental recess in said tube to prevent relative rotation of said disk and said cup.

1,240,361. MOWING-MACHINE. CHARLES PEARSON, Chicago, Ill., assignor to International Harvester Company of New Jersey, a Corporation of New Jersey. Filed Jan. 27, 1913. Serial No. 744,537. (Cl. 56—74.)



1. In a mowing machine, a machine frame, a coupling frame, a finger bar, an operating member, and means including a single flexible connection between said operating member, said coupling frame and said finger bar whereby upon movement of said operating member said coupling frame may be raised and said bar moved independently thereof to absolute vertical position and back to an operative angle with respect to the ground prior to the lowering of said coupling frame.

2. In combination, a frame, a coupling frame thereon, a finger bar pivoted to said coupling frame, an operating member on said frame, and means including a single flexible connection between said operating member, said coupling frame and a point at the grassward side of said finger bar pivot whereby, upon movement of said member in one direction, said coupling frame may be raised and said bar moved independently thereof to absolute vertical position and upon a reverse movement of said member automatically turned downwardly about its pivot.

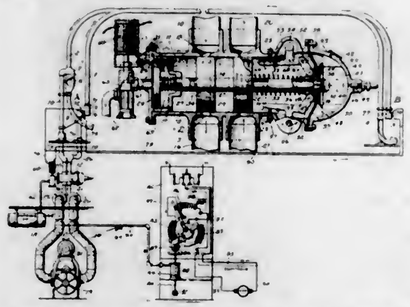
3. In a mowing machine, a frame, an operating lever thereon, a coupling frame operatively connected to said frame, a finger bar pivotally connected to said coupling frame, a gagging member pivoted on said coupling frame, and link connections pivotally connected between said lever and said gagging member and said gagging member and said finger bar whereby upon movement of said lever the bar may be raised to an absolute vertical position and lowered therefrom.

4. In a mowing machine, a machine frame, a movable operating member thereon, a coupling frame connected to said machine frame, a finger bar connected to said coupling frame, and means including operative connections between said elements whereby upon movement of said operating member in one direction said coupling frame and bar may be raised and said bar may be subsequently raised independently to an absolute vertical position and upon a reverse movement of said operating member said bar may be lowered to an operative angle relative to the ground prior to the lowering of said coupling frame.

5. In a mowing machine, a machine frame, an operating lever thereon, a coupling frame operatively connected to said machine frame, a finger bar pivotally connected to said coupling frame, a gagging member pivotally mounted on said coupling frame, a coöperating gagging link pivotally connected to said gagging member and extending therefrom toward said bar, a plurality of pivotally connected links flexibly connecting said gagging link to said finger bar, and operative connections between said operating lever and said gagging member whereby the latter may be swung about its pivot.

[Claims 6 to 30 not printed in the Gazette.]

1,240,362. VACUUM-PLENUM PNEUMATIC-CARRIER-DESPATCH SYSTEM. ALBERT W. PEARSALL, Lowell, Mass., assignor to The Lamson Company, Boston, Mass., a Corporation of New Jersey. Filed Dec. 3, 1914. Serial No. 875,242. (Cl. 243—13.)



1. In a vacuum-plenum carrier despatch system, the combination of a normally dead transit tube having a receiving station substantially at one end thereof and a carrier delivery station at the other end thereof, an exhaust conduit therefor, a pressure transit tube, a compressed air supplying conduit therefor, means to rarefy the air in the first of said conduits and to compress air for the second of the same, and means adapted to substantially simultaneously establish communication between said transit tubes and their respective conduits.

2. In a vacuum-plenum carrier despatch system, the combination of a normally dead transit tube having a receiving station substantially at one end thereof and a carrier delivery station at the other end thereof, an exhaust conduit therefor, a pressure transit tube, a compressed air supplying conduit therefor, means to rarefy the air in the first of said conduits and to compress air for the second of the same, valve mechanism adapted to substantially simultaneously establish communication between said transit tubes and their respective conduits, and means to control said valve mechanism.

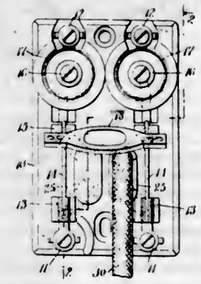
3. In a vacuum-plenum carrier despatch system, the combination of a normally dead transit tube having a receiving station substantially at one end thereof and a carrier delivery station at the other end thereof, an exhaust conduit therefor, a pressure transit tube, a compressed air supplying conduit therefor, means to rarefy the air in the first of said conduits and to compress air for the second of the same, and means to substantially simultaneously disestablish communication between said transit tube and their respective conduits after such communication has been established.

4. In a vacuum-plenum carrier despatch system, the combination of a transit tube, an exhaust conduit therefor, a pressure transit tube, a compressed air supplying conduit therefor, means to rarefy air in the first of said conduits and to compress air for the second of the same, two stations between which said tubes extend, valve mechanism to substantially simultaneously establish communication between said transit tubes and their respective conduits, and means to control said valve mechanism from either of said stations.

5. In a vacuum-plenum carrier despatch system, the combination of a normally dead transit tube having a receiving station substantially at one end thereof and a carrier delivery station at the other end thereof, an exhaust conduit therefor, a pressure transit tube, a compressed air supplying conduit therefor, means to rarefy the air in the first of said conduits and to compress air for the second of the same, valve mechanism adapted to substantially simultaneously establish communication between said transit tubes and their respective conduits, time element means to automatically actuate said valve mechanism to disestablish said communication after the lapse of a period of time determined by said means, and means to retime said time element means, to provide for the proper transmission of successively despatched carriers.

[Claims 6 to 16 not printed in the Gazette.]

1,240,363. METER-TESTING-SWITCH CONSTRUCTION. CLARENCE D. PLATT, Bridgeport, Conn. Filed Dec. 4, 1916. Serial No. 134,856. (Cl. 175—183.)

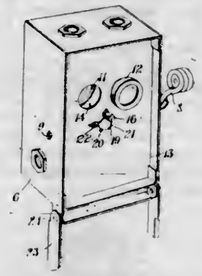


A meter testing switch, comprising an insulating base, a pair of spaced apart switch posts on the insulating base, a complementary pair of switch contacts spaced apart on the base and disposed each in line with one of the switch posts, switch blades hinged to the switch posts and arranged each to engage one of the switch contacts, contact sockets closely spaced in pairs alongside each of the switch blades and said sockets being disposed in the space bounded by the switch blades and sunk in the material of the insulating base with their outer plug receiving ends close to the outer face of the insulating base to thereby enable the insertion of testing plugs into such sockets between the switch blades and the opening of the switch over the tops of said testing plugs, and connecting straps at the back of the insulating base connecting the testing sockets to the switch posts and contacts respectively.

1,240,364. INCLOSED-SWITCH CONSTRUCTION. CLARENCE D. PLATT, Bridgeport, Conn. Filed Mar. 3, 1917. Serial No. 152,257. (Cl. 175—292.)

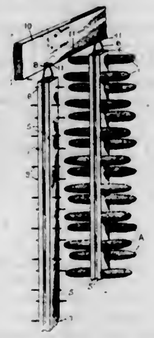
1. In an inclosed switch construction, a box body, a cover therefor, switch mechanism within the box body and having sockets for fuse plugs, a protective partition within the box body covering the switch mechanism therein and forming a protective covering for said mechanism when the box cover is open, said protective partition having openings therein in line with the fuse sockets of the switch mechanism to thereby enable replacement of fuses without exposure of the switch mechanism, and means for securing the partition in its protective position.

2. In an inclosed switch construction, a box body and a movable cover therefor, an insulating base mounted in the box body, switch parts and fuse sockets on said insulating base, and a protective partition of insulating material secured within the box body in position covering the live parts of the switch mechanism and provided with openings therein in line with the fuse sockets to enable replacement of fuses without exposure of live parts of the switch when the box cover is open.



3. In an inclosed switch construction, a box body, a movable cover therefor, an insulating base mounted in the box body, switch parts and fuse sockets on said insulating base, a protective partition within the box resting on the insulating base, covering the aforesaid switch mechanism and provided with openings in line with the fuse sockets to enable replacement of fuses without exposure of live parts of the switch mechanism when the box cover is open, means for securing the protective partition to the insulating base and means for sealing said securing means.

1,240,365. SEED-CORN DRIER. ROBERT F. PLUMB, Tennant, Iowa. Filed Feb. 15, 1916. Serial No. 78,529. (Cl. 34—26.)



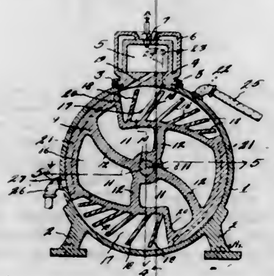
2. A seed-corn drying rack comprising a pair of slats, a plurality of spaced pins projecting from one side of each of the slats, a hinge connecting adjacent ends of the slats so that the same are movable from a longitudinally-alined position at which the pins of both slats extend in the same direction to a folded position at which the pins of the respective slats extend in opposite directions, and a loop integral with the hinge-pintle for supporting the device in a suspended position.

[Claim 1 not printed in the Gazette.]

1,240,366. GASOLENE-ENGINE. ANDREW RASMUSEN, Jr., Ridgway, Colo. Filed June 1, 1916. Serial No. 101,094. (Cl. 123—9.)

1. In a rotary engine, the combination of a main casing and an auxiliary casing having a motive power chamber, of an intake manifold in communication with the interior of the main casing, a shaft, a rotor carried by the shaft and mounted revolubly in the main casing, said rotor having diametrically oppositely disposed intake

pockets provided with an abutment wall and a plurality of abutment blades arranged at different angles to each other, the foremost blades being nearly vertical with the bottom of the pockets and each succeeding blade inclining more toward the bottom of the pockets with the angle of inclination of the last blades being the most acute, said motive power chamber having two passages of communication with the interior of the main casing, one being vertical and offset from the plane of travel of the intake pockets, the other being inclined and disposed coincident to the plane of travel of the intake pockets, said rotor having elongated pockets diametrically opposite each other and offset from the intake pockets and at right angles thereto and designed to connect the intake manifold and said vertical passage to intermittently convey a motion producing means into the motive power chamber, and an exhaust manifold connected to the main casing.



2. In a rotary engine, the combination of a main casing and an auxiliary casing having a motive power chamber, of an intake manifold in communication with the interior of the main casing, a shaft, a tapered rotor carried by the shaft, and mounted revolubly in the main casing, said rotor having diametrically oppositely disposed intake pockets provided with an abutment wall and a plurality of different sized abutment blades arranged at different angles to each other, the foremost blade of each pocket being nearly vertical with the bottom of the pocket and each succeeding blade inclining more toward the bottom of the pocket with the angle of the last blade being the most acute, said main casing being tapered inside to receive the rotor, said motive power chamber having two passages of communication with the interior of the main casing, one being vertical and offset from the plane of travel of the intake pockets, the other being inclined and disposed coincident with the plane of travel of the intake pockets, said rotor having elongated pockets, diametrically opposite each other and offset from the intake pockets and at right angles thereto and designed to connect the intake manifold and said vertical passage to intermittently convey motion producing means into the motive power chamber, and an exhaust manifold connected to the main casing.

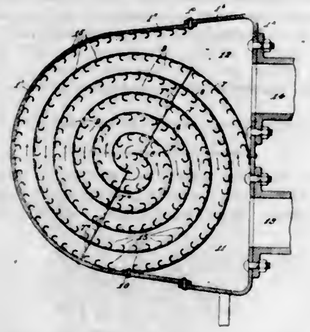
1,240,367. AIR-ADMISSION DEVICE FOR AIR-CIRCULATION STORAGE-CHAMBERS. RUSSELL RAYSON, Melbourne, Victoria, Australia. Filed Mar. 19, 1917. Serial No. 155,931. (Cl. 137—17.)



1. An air admission device for air circulating storage chambers, comprising a tubular stem, laterally extending and downwardly directing branches therefrom, lateral holes in the stem and means for attaching the device to the ceiling of a chamber, substantially as and for the purpose specified.

2. An air admission device for air circulating storage chambers, comprising a tubular stem, laterally extending and downwardly directing branches therefrom, lateral holes in the stem, a hole in the base of the stem directing a current of air downwardly between the branches.

1,240,368. GAS-PURIFIER. CLAUDE E. REESE, Caney, Kans. Filed Jan. 10, 1916. Serial No. 71,284. (Cl. 183—79.)



1. In a device of the class described, a casing, a pair of intercoiled spiral walls in said casing forming a passage way between them, said casing being provided with inlet and outlet ports in communication with the ends of said passage ways, a plurality of spaced vertically disposed baffles arranged on the outer walls of said passage way, each of said baffles being provided with a series of perforations and the perforations in adjacent baffles being arranged in staggered relation, substantially as described.

2. In a device of the class described, a casing, a pair of intercoiled spiral walls in said casing forming a passage way between them, said casing being provided with inlet and outlet ports in communication with the ends of said passage ways, a plurality of spaced vertically disposed baffles arranged on the outer walls of said passage way, said baffles comprising flanges curved in horizontal section to form pockets, substantially as described.

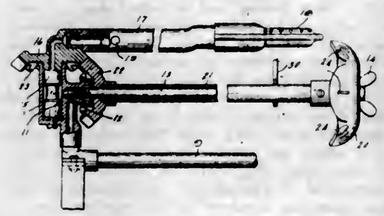
3. In a device of the class described, a casing, a pair of intercoiled spiral walls in said casing forming a passage way between them, said casing being provided with inlet and outlet ports in communication with the ends of said passage ways, a plurality of spaced vertically disposed baffles arranged on the outer walls of said passage way, said baffles comprising flanges curved to form pockets and each provided with a series of perforations, and the perforations in adjacent baffles being in staggered relation, substantially as described.

4. In a device of the class described, a casing, a pair of intercoiled spiral walls in said casing forming a passage way between them, said casing being provided with inlet and outlet ports in communication with the ends of said passage ways, a plurality of spaced vertically disposed baffles arranged on the outer walls of said passage way, said baffles comprising flanges curved to form pockets and the inner or free edges of said flanges being inwardly beveled, substantially as described.

5. In a device of the class described, a casing, a pair of intercoiled spiral walls in said casing forming a passage way between them, said casing being provided with inlet and outlet ports in communication with the ends of said passage ways, a plurality of spaced vertically disposed baffles arranged on the outer walls of said passage way, said baffles comprising flanges curved to form pockets and the inner or free edges of said flanges being inwardly beveled, and said flanges each being provided with a series of perforations and the perforations in adjacent baffles being arranged in staggered relation, substantially as described.

[Claims 6 to 18 not printed in the Gazette.]

1,240,369. COMBINED SIMMER-BURNER AND LIGHTER FOR GAS-STOVES. FRANK W. REYNOLDS, New Washington, Ohio. Filed Jan. 9, 1917. Serial No. 141,405. (Cl. 158—115.)

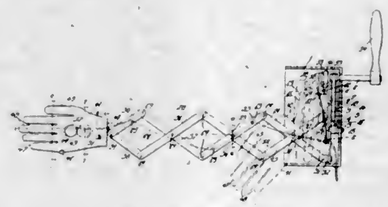


1. In a device of the kind described, the combination of a valve casing, a swinging burner communicating therewith, a rotary tubular handle member operatively connected at the inner end with the burner to swing the same, and a valve rod extending through said tubular member and into the casing.

2. In a device of the kind described, the combination of a gas valve casing, a rotary head mounted to turn on said casing and having a projecting burner, a tubular handle member geared to said head, to turn the same, and a valve in the casing provided with an operating rod extending through the handle member.

3. In a device of the kind described, the combination of a gas valve casing, a rotary head mounted to turn thereon and having an external gear, a burner projecting from said head and communicating with the casing, a hollow rotary handle member having a gear meshing with said gear, and a valve in the casing having an operating rod extending lengthwise through said handle member.

1,240,370. OPERATING MECHANISM FOR SIGNALS. CHARLES RIENER, Philadelphia, Pa. Filed Jan. 20, 1917. Serial No. 143,419. (Cl. 74—5.)

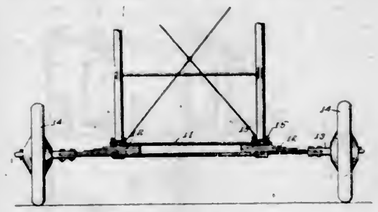


1. The combination with a member, a lever supporting said member, means forming a slotted slideway, a carriage having anti-friction rollers thereon movable in said slideway and for engagement with the opposite walls thereof, said carriage being secured to certain of the links of the toggle lever, and means for moving said carriage to effect pivotal movement to the links of the toggle lever and thereby cause said member to be extended and retracted, substantially as described.

3. The combination of a member, a toggle lever supporting said member, a supporting structure, means for pivoting one of the links of said toggle to the supporting structure, means providing a slideway, a carriage pivotally connected to another of the links of the toggle lever, and a cam operative to reciprocate said carriage, substantially as described.

[Claims 2 and 4 to 7 not printed in the Gazette.]

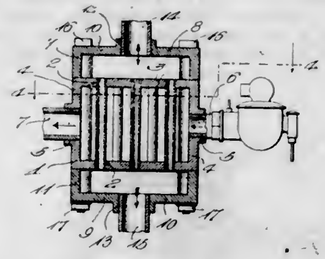
1,240,371. LANDING-CHASSIS FOR AEROPLANES. WILLIAM C. ROBINSON, Grinnell, Iowa. Filed Mar. 27, 1916. Serial No. 87,117. (Cl. 244—2.)



1. An improved aeroplane landing chassis comprising a rigid axle portion, two spring axle members, wheels thereon and means for adjustably securing the spring axle members on said rigid axle portion for supporting the wheels at different positions of the adjustment of said spring axle members.

2. An improved aeroplane landing chassis comprising a rigid tubular axle member having open ends, two laminated spring axle members inserted in the open ends of the tubular axle member, means for adjustably and detachably securing the spring axle members in position, and supporting wheels on the outer ends of said spring axle members, for the purposes stated.

1,240,372. FUEL-HEATING DEVICE FOR INTERNAL-COMBUSTION ENGINES. CHARLES L. RODGERS, Newton, Kans. Filed Oct. 2, 1916. Serial No. 123,386. (Cl. 257—241.)

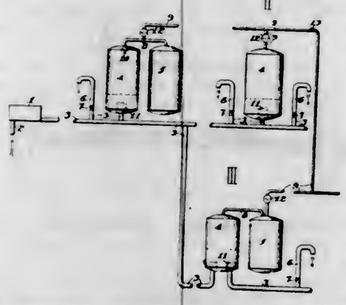


A device of the class described comprising a hollow rectangular shaped casing having a plurality of apertures in the ends thereof, and gaseous fuel inlet and outlet openings in two of its opposite sides, a plurality of tubes extending longitudinally through said casing and having their ends secured in said apertures, rectangular shaped cap members composed of rectangular shaped end plates and inwardly extending lateral flanges, said end plates being provided with inlet and outlet exhaust openings, said cap members being arranged at the ends of said casing with their flanges abutting the same, and clamping bolts extending longitudinally through said casing and said cap members for removably maintaining the latter in their assembled positions with respect to said casing.

1,240,373. PNEUMATIC HYDROSTATIC SYSTEM. ADOLPH ROSZKOWSKI, Petrograd, Russia. Filed Apr. 17, 1912. Serial No. 691,399. Renewed Dec. 11, 1916. Serial No. 136,370. (Cl. 137—79.)

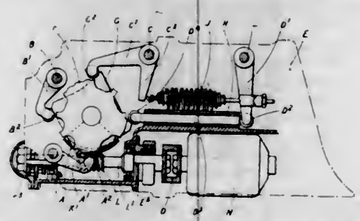
1. A pneumatic water supply system comprising a plurality of tanks spaced apart, a common water supply pipe, independent connections between said pipe and tanks, valved discharge pipes connected with said common water supply pipe adjacent to said tanks respectively, a common air supply pipe, pipes severally connecting said tanks with said common air supply pipe,

and automatic check valves for the air connections of the several tanks, said check valves opening toward said tanks.



2. A pneumatic water supply system comprising a plurality of water tanks spaced apart, a plurality of air tanks severally disposed adjacent to said water tanks, a common water supply pipe, independent connections between said common supply pipe and said water tanks, valved discharge pipes connected with said common water pipe adjacent to said water tanks, pipes connecting said water and air tanks in pairs, a common air supply pipe, independent connections between said air pipe and said air tanks, and check valves for said connections opening toward said air tanks.

1,240,374. MECHANISM FOR THE OPERATION AND CONTROL OF VARIABLE-SPEED GEARS. ARTHUR JOHN ROWLEDGE, London, England, assignor to D. Napier & Son Limited, London, England. Filed Apr. 27, 1917. Serial No. 165,012. (Cl. 74—39.)



1. In a variable speed gear of the epicyclic type in which the speed variations are effected by the action of clutches and brakes on different gear members, the combination of a plurality of clutch and brake actuating members, a rotatable selector member about which the clutch and brake actuating members are disposed so that these members can be acted on and controlled by the selector member which is so formed that according to the position in which it is set by rotation it will alternatively permit or prevent operative movement of the several clutch and brake actuating members, means for rotating the selector member, and means for moving each of the clutch and brake actuating members into and retaining them temporarily in positions such that they are not controlled by the selector which is then left free to be set by rotation as set forth.

7. In a variable speed gear of the epicyclic type in which the speed variations are effected by the action of clutches and brakes on different gear members, the combination of a plurality of clutch and brake actuating members, a disk-like rotatable selector member the periphery of which is shaped to alternatively permit or prevent operative movement of and so control each of the clutch and brake actuating members disposed about it according to the position in which the selector member is set by rotation, means for rotating the selector member, a rotatable cam member mounted concentric with but separate from the selector member the cam member being so formed that rotation thereof will cause it to act on each of the clutch and brake actuating members and move them into and retain them temporarily in positions such that they are not controlled by the selector which is then left free to be set by rotation, and means for rotating the cam member as set forth.

15. In a variable speed gear of the epicyclic type in which the speed variations are effected by the action of clutches and brakes on different gear members, the combination of a plurality of clutch and brake actuating members, a rotatable selector member about which the clutch and brake actuating members are disposed so that these members can be acted on and controlled by the selector member which is formed as a disk with recesses in its periphery the depth and relative positions of these recesses being such that according to the position in which the selector is set by rotation the recesses will determine the operative movements which may be permitted by the selector to the selected clutch and brake actuating members in the combinations necessary to effect the speed variations, means for rotating the selector member, and means for moving each of the clutch and brake actuating members into and retaining them temporarily in positions such that they are not controlled by the selector which is then left free to be set by rotation as set forth.

26. In a variable speed gear of the epicyclic type in which the speed variations are effected by the action of clutches and brakes on different gear members, the combination of a plurality of clutch and brake actuating members each comprising a rock shaft with a lever thereon, springs tending to move these members into their operative positions so as to effect engagement of the clutches and application of the brakes, a disk like rotatable selector member about which the levers of the clutch and brake actuating members are disposed so that these levers can be acted on and controlled by the selector member the periphery of which is shaped to alternatively permit or prevent operative movement of each of the levers of the clutch and brake actuating members according to the position in which the selector member is set by rotation, means for rotating the selector member, a rotatable cam member mounted concentric with but separate from the selector member the cam member being so formed that rotation thereof will cause it to act on each of the levers of the clutch and brake actuating members and move these members into and retain them temporarily in positions such that they are not controlled by the selector which is then left free to be set by rotation, and an electric motor by means of which the cam member can be rotated into its operative position whence it will automatically return into its inoperative position by rotation in the reverse direction when the current is cut off from the motor as set forth.

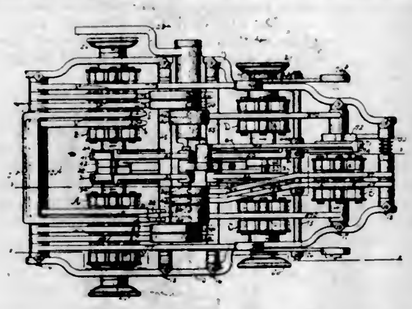
[Claims 2 to 6, 8 to 14, 16 to 25, and 27 to 30 not printed in the Gazette.]

1,240,375. LOOM-CONTROLLING MECHANISM. EPPA H. RYON, Waltham, Mass., assignor to Crompton & Knowles Loom Works, Worcester, Mass., a Corporation of Massachusetts. Filed Feb. 1, 1917. Serial No. 146,027. Cl. 139—79.)

1. Loom controlling mechanism having, in combination, a pair of actuating cylinders, two multiplying cylinders for said actuating cylinders, a control cylinder for said actuating cylinders, and pattern-controlled means to feed each cylinder.

6. Loom controlling mechanism having, in combination two actuating cylinders, two multiplying cylinders, means to feed each cylinder, and means to control the feed of each cylinder, including a single weighted lever for each multiplying cylinder, each lever when lowered being effective to render the feed of both actuating cylinders inoperative.

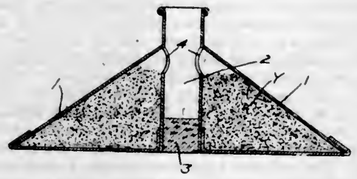
9. Loom controlling mechanism having, in combination, a pair of actuating cylinders, two multiplying cylinders for said actuating cylinders, a control cylinder for said actuating cylinders, feed pawls for said cylinders, shields for said pawls, rockers for said shields, and weighted levers controlling said rockers, each actuating cylinder having a separate weighted lever for each multiplying



cylinder rocker and for the control cylinder rocker, each multiplying cylinder having a single weighted lever controlling both actuating cylinder rockers, and the control cylinder having a separate weighted lever for each actuating cylinder rocker.

[Claims 2 to 5, 7, 8, 10, and 11 not printed in the Gazette.]

1,240,376. CHRISTMAS-TREE-STAND. CHARLES SAUCIER, Minneapolis, Minn. Filed Feb. 2, 1916. Serial No. 75,711. (Cl. 248—38.)



1. A Christmas tree stand in the form of a shell having an axial tube extending completely therethrough and normally open at both ends, the said tube having a perforation opening into the interior of said shell adjacent to the uppermost portion thereof, whereby, when the lower end of said tube is plugged, material may be poured into said tube and run into the interior of said shell, and when the plug is removed, the said tube may be cleared of the filling material.

2. A Christmas tree stand in the form of a conical shell having an axial tube extending completely therethrough and normally open at both ends, the said tube having a perforation opening into the interior of said shell adjacent to the uppermost portion thereof whereby, when the lower end of said tube is plugged, material may be poured into said tube and run into the interior of said shell, and when the plug is removed, the said tube may be cleared of the filling material, and whereby, furthermore, when the said stand is turned upside down, it may be completely emptied of the filling material.

1,240,377. FLAG-HOLDER ATTACHMENT FOR AUTOMOBILES. WENDELIN P. SENG, Chicago, Ill. Filed July 8, 1916. Serial No. 108,237. (Cl. 24—257.)

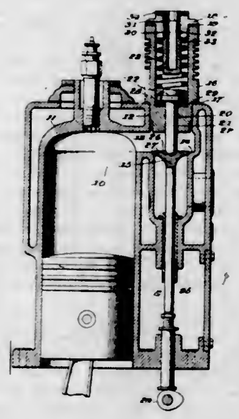
2. The herein described flag-holder attachment, the same consisting of a spring-wire blank bent at its middle to form one member of an upper jaw and opposite depending terminals, the latter being rebent at one side of their middles to form a pair of lower spaced apart jaws at angles to the upper jaw-member and ascending terminals, and at points substantially opposite the middle bend of the blank, disposed at right angles to the ascending terminals and combined to form the second member of the upper jaw and a shank, the ends of the latter being bent in semicircular form to produce opposite bolt embracing members, the spacing of the jaws of each set of jaws being such that they are adapted to pass and clamp a staff of suitable size.



4. The hereinafter described flag-holder attachment, the same consisting of a spring-wire blank bent at its middle to form one member of an upper jaw and depending terminals, the latter being outwardly disposed and bent upon themselves to form one member of the upper flared jaw and at their lower ends recurved upon themselves to form opposite lower jaws at angles to the upper jaw-member and divergently disposed, with relation to each other and ascending terminals, the latter opposite the upper jaw being laterally disposed to form a second jaw-member and a shank, and attaching-means, the spacing of the jaws of each set of jaws being such that they are adapted to pass and clamp a staff of suitable size, at the end of the shank.

[Claims 1 and 3 not printed in the Gazette.]

1,240,378. PUPPET-VALVE FOR INTERNAL-COMBUSTION ENGINES. FRANK D. SHEPHERD, Salt Lake City, Utah. Filed Feb. 8, 1917. Serial No. 147,397. (Cl. 123—188.)



1. The combination of an engine cylinder having a valve-controlled passage with a valve seat, a puppet valve, a shell or container, a spring in said shell, a stem reaching from the valve into said shell, and a spring-engaging head on said stem, said stem and said valve being unconnected.

2. The combination of an engine cylinder having a valve-controlled passage with a valve seat, a puppet valve, a shell or container, a spring in said shell, a stem reaching from the valve into said shell, and a spring-engaging head on said stem, said stem and said valve being unconnected, and one of said parts having a socket that receives the other part.

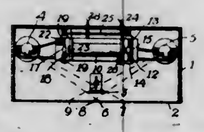
3. The combination of an engine cylinder having a valve-controlled passage with a valve seat, a puppet valve, a shell or container, a spring in said shell, a stem reaching from the valve into said shell, and a spring-engaging head on said stem integral with said stem, said stem and valve being unconnected.

4 The combination of an engine cylinder having a valve controlled passage with a valve seat, a puppet valve, a shell or container into which a valve-operating member extends, a coil spring in said shell bearing against said member at one end, and an adjustable filler that extends partially through the coils of the spring.

5. The combination of an engine cylinder having a valve controlled passage with a valve seat, a puppet valve, a shell or container into which a valve-operating member extends, a coil spring in said shell bearing against said member at one end, and an adjustable filler that extends partially through the coils of the spring, said filler having a bearing for the other end of the spring.

[Claim 6 not printed in the Gazette.]

1,240,379. ADVERTISING DEVICE. HERBERT V. SHEPPARD, Worcester, Mass. Filed Mar. 31, 1916. Serial No. 88,140. (Cl. 40—13.)



1. An advertising device comprising a screen, separated sources of illumination, an object placed between said sources of illumination and said screen but spaced from said screen, whereby a shadow will be thrown upon said screen by each source of illumination but in different positions.

2. An advertising device comprising a semitransparent screen, an opaque figure placed behind said screen and spaced therefrom, two separate sources for illuminating said screen placed behind said opaque object, and means for illuminating said screen from each of said sources alternately, whereby shadows of said object will be thrown upon said screen in different positions.

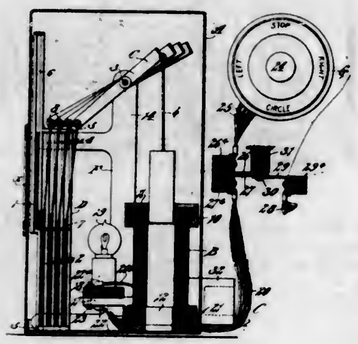
3. An advertising device comprising a semitransparent screen, an electric circuit, two separated electric lamps for illuminating said screen and forming part of said electric circuit, an opaque figure placed behind said screen and spaced therefrom, and in a position substantially midway between said electric lamps, and means for alternately breaking the electric circuit leading to each of said lamps, whereby the shadow of said opaque figure will be thrown upon the screen in two different positions alternatly.

4. An advertising device, comprising a screen, a figure spaced from said screen, means for projecting a shadow of the figure on said screen, and means for changing the direction of the illumination, whereby the position of the shadow is changed.

5. The combination of a closed casing having at one of its sides a semitransparent screen for the projection of a shadow thereon, an object at the rear of said screen, but spaced therefrom, capable of intercepting rays of light, two sources of illumination inclosed in said casing in a plane at the rear of said object but spaced apart, whereby a shadow projected by each of said sources of illumination will be varied in position on said screen, and means for cutting off the illumination of said screen from each of said sources alternately in rapid succession.

1,240,380. TRAFFIC-DIRECTING SIGNAL FOR VEHICLES. CHARLES A. SINGER, St. Louis, Mo., assignor to Singer Auto Traffic Signal Company, St. Louis, Mo., a Corporation of Delaware. Filed Sept. 27, 1915. Serial No. 52,904. (Cl. 40—52.)

1. A traffic-directing signal for vehicles, comprising a housing provided with a sight opening, a plurality of indicators arranged inside of said housing for designating proposed changes in the speed or direction of travel of the vehicle, said indicators being free to move independently of each other, means for causing one or the other of said indicators to be exposed to view through said sight opening, and a separate and distinct indicating device in said housing that is normally exposed to view through said sight opening and which is shifted into and out of alinement with said sight opening by the movement of said indicators, thereby causing said device to disappear automatically whenever one of said indicators is rendered operative and to reappear automatically after said indicator has been rendered inoperative.



2. A traffic-directing signal for vehicles, comprising a housing provided with a sight opening, a plurality of independently-movable indicators that are normally arranged in an inoperative position inside of said housing, means for enabling said indicators to be operated or rendered operative, and a separate and distinct indicating device in said housing that is normally held in alinement with said sight opening, said device being moved automatically into an inoperative position by the movement of any of said indicators into alinement with said sight opening.

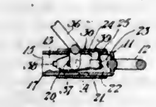
3. A traffic-directing signal for vehicles, comprising a housing provided with a sight opening, a plurality of indicators arranged inside of said housing in such a manner that they are normally hidden from view, a separate and distinct indicating device in said housing that is normally in alinement with said sight opening, and means whereby said indicating device will be moved out of alinement with said sight opening whenever one or the other of said indicators is moved into position to be seen through said opening.

4. A traffic-directing signal for vehicles, comprising a housing provided with a sight opening, a plurality of indicators arranged inside of said housing in parallel relation to each other and in such a manner that they are normally hidden from view, a separate and distinct indicating device arranged in said housing so that it can be normally seen through said sight opening, and a portion on said indicating device that extends transversely of said indicators and which is adapted to be engaged by any one of said indicators that is rendered operative, thereby causing said indicating device to disappear automatically from view when any one of said indicators is rendered operative.

5. A traffic-directing signal for vehicles comprising a housing provided with a sight opening, a plurality of indicators arranged in the lower portion of said housing out of alinement with said sight opening and in parallel relation with each other, a separate and distinct indicating device in said housing that is normally arranged in alinement with said sight opening, and means on said device that extends across the upper edges of said indicators so as to cause said indicating device to be held in its normal position and to move automatically out of alinement with said sight opening whenever one or the other of said indicators is rendered operative.

[Claims 6 to 10 not printed in the Gazette.]

1,240,381. SNAP-HOOK. WILLARD L. SMITH, Los Angeles, Cal. Filed May 17, 1916. Serial No. 98,220. (Cl. 24—242.)



1. A snap hook comprising a body having an L-shaped slot therein, the primary branch of the L-shaped slot being at right angles to the top of the body and the secondary branch of the L-shaped slot being parallel with the top of the body; an attachment eye secured to said body; a sleeve sliding on said body, said sleeve having a straight slot therein which coincides with the primary branch of the L-shaped slot in said body when said sleeve is slid to the oopen position; ears formed on said sleeve, said ears projecting inwardly from said sleeve into the secondary branch of said L-shaped slot; and means for locking said sleeve in the locked position on said body, the lower end of said slot in said sleeve coinciding with the extreme end of said secondary slot when said sleeve is in the locked position.

2. A snap hook comprising a body having an L-shaped slot therein, the primary branch of the L-shaped slot being at right angles to the top of the body and the secondary branch of the L-shaped slot being parallel with the top of the body; an attachment eye secured to said body; a sleeve sliding on said body, said sleeve having a straight slot therein which coincides with the primary branch of the L-shaped slot in said body when said sleeve is slid to the open position; ears formed on said sleeve, said ears projecting inwardly from said sleeve into the secondary branch of said L-shaped slot; and a spring operated pin secured to slide in said body and engaging said sleeve in such a manner as to lock said sleeve in the locked position on said body, the lower end of said slot in said sleeve coinciding with the extreme end of said secondary slot when said sleeve is in the locked position.

3. A snap hook comprising a body having an L-shaped slot therein, the primary branch of the L-shaped slot being at right angles to the top of the body and the secondary branch of the L-shaped slot being parallel with the top of the body; an attachment eye secured to said body; a sleeve sliding on said body, said sleeve having a straight slot therein which coincides with the primary branch of the L-shaped slot in said body when said sleeve is slid to the open position; ears formed on said sleeve, said ears projecting inwardly from said sleeve into the secondary branch of said L-shaped slot; a pin sliding in said body, and a spring tending to hold said pin in its upper position, said sleeve being of such a length that it is engaged by said pin and prevented from sliding on said body when said sleeve is in its locked position, said slot in said sleeve coinciding with the extreme end of said secondary slot in said body when said sleeve is in the locked position.

4. A snap hook comprising a body having an L-shaped slot therein, the primary branch of the L-shaped slot being at right angles to the top of the body and the secondary branch of the L-shaped slot being parallel with the top of the body; an attachment eye secured to said body; a sleeve sliding on said body, said sleeve having a straight slot therein which coincides with the primary branch of the L-shaped slot in said body when said sleeve is slid to the open position; ears formed on said sleeve, said ears projecting inwardly from said sleeve into the secondary branch of said L-shaped slot; a pin sliding in said body, and a spring secured in said body and forcing said pin into its upper position, said sleeve being of such a length that it is engaged by said pin and prevented from sliding on said body when said sleeve is in its locked position, said slot in said sleeve coinciding with the extreme end of said secondary slot in said body when said sleeve is in the locked position.

1,240,382. ANTIFRICTION-BEARING. LOUIS R. SPENCER, Hartford, Conn. Filed Feb. 3, 1917. Serial No. 146,399. (Cl. 64—59.)

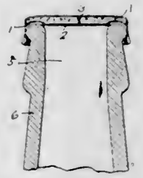


1. An anti-friction bearing comprising an inner annular member with a cylindrical ball-raceway about its middle and a conoidal ball-raceway on each side of the middle, an outer annular member with a concaved ball-raceway around its interior, a ring of radial-load bearing-balls, fitting between the cylindrical raceway of the inner member and the concaved raceway of the outer member, and two rings of longitudinal-thrust bearing-balls fitting between the conoidal raceways of the inner member and the concaved raceway of the outer member.

2. An anti-friction bearing comprising an inner annular member with a cylindrical ball-raceway about its middle and a conoidal ball-raceway on each side of the middle, an outer annular member with a concaved ball-raceway around its interior, a ring of radial-load bearing-balls fitting between the cylindrical raceway of the inner member and the concaved raceway of the outer member, two rings of longitudinal-thrust bearing-balls fitting between the conoidal raceways of the inner member and the concaved raceway of the outer member, the balls of the outside rings alternating with the balls of the middle ring.

3. An anti-friction bearing comprising an inner annular member with a cylindrical ball-raceway about its middle and a conoidal ball-raceway on each side of the middle, an outer annular member with a concaved ball-raceway around its interior, a ring of radial-load bearing-balls fitting between the cylindrical raceway of the inner member and the concaved raceway of the outer member, two rings of longitudinal-thrust bearing-balls fitting between the conoidal raceways of the inner member and the concaved raceway of the outer member, the balls of the outside rings alternating with the balls of the middle ring, and spacing blocks separating the balls.

1,240,383. BOTTLE-STOPPER. HENRY F. STOCK and JOSEPH NADER, Waukesha, Wis. Filed Nov. 26, 1913. Serial No. 803,090. (Cl. 215—10.)

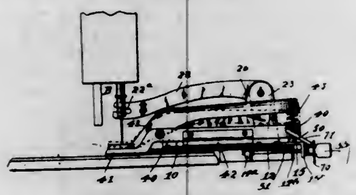


The combination in a bottle stopper of an imperforate cap adapted to be secured to the neck of a bottle, a cushion in said cap and contacting therewith, a thin metal disk seated against said cushion on the side thereof opposite said cap and extending substantially entirely over the interior of the cap and composed of pure block tin or its equivalent, and an annular packing of paraffined paper seated in said cap against said disk on the side thereof opposite the cushion, the width of said annular packing being not substantially greater than the thickness of the necks of bottles with which the bottle stopper is to be used whereby the area of the paraffined paper exposed to the interior of the bottle will be a minimum.

1,240,384. SEWING-MACHINE ATTACHMENT. FREDERICK D. SWEET, Cleveland, Ohio, assignor to The Sweet-Webster Manufacturing Company, Cleveland, Ohio. Filed Aug. 9, 1916. Serial No. 113,847. (Cl. 112—4.)

1. In a buttonhole attachment for sewing machines, the combination of a base, a guided slide mounted thereon and

movable forward and backward, and having a downturned front end, a feed screw located below and mounted upon the base and passing forward through a hole in the downturned front end of the slide, a pinion fixed to said feed screw, and means carried by the slide for disengaging said feed screw, and a rotating element lying above and mounted upon a vertical axis upon said base, and comprising as a lower member a disk in which are slots to receive the teeth of said pinion, a cam having an uneven number of cam projections, and a ratchet disk having double that number of upwardly projecting pins, a vibrating workholder pivoted on a vertical axis to said slide and having along its sides downturned edges adapted to be engaged by said cam projections, a standard fixed to said base, a bell crank lever pivoted thereto having a horizontal arm adapted to engage the reciprocating needle bar of the sewing machine and having also a downturned arm and a spring pawl carried by said downturned arm to engage the pins on said ratchet disk.

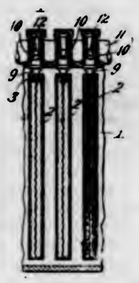


2. In a buttonhole attachment for a sewing machine, the combination of a subbase adapted to be attached to the sewing machine, a base mounted and movable laterally thereon, means to effect and prevent such lateral movement, a slide movably mounted upon said base and movable forward and backward thereon, a vibrating workholder pivoted to said slide on a vertical axis, a feed screw mounted on the base for operating said slide, a rotatable element mounted on a vertical axis upon the base and including a ratchet by which it is turned, a cam which engages the vibrating workholder to vibrate it back and forth, and a gear, an intermeshing gear fixed to the feed screw, a standard fixed to the base, a lever pivoted to said standard and carrying a pawl for engaging said ratchet, said lever being adapted to be engaged and operated by the reciprocating needle bar of the sewing machine.

3. In a buttonhole attachment for a sewing machine, the combination of a base, a slide mounted thereon and movable forward and backward and having a downturned front end, a feed screw located below and mounted upon the base and passing forward through a hole in the downturned front end of the slide, a pair of levers mounted on the downturned part of said slide and each carrying a half nut adapted to engage said feed screw or to be disengaged therefrom as required, means for holding said half nuts disengaged from said feed screw, a vibrating workholder pivoted on a vertical axis on said slide and extending rearward therefrom,—said workholder having downturned flanges along its sides, a rotating element mounted on a vertical axis upon said base and comprising a ratchet by which it may be turned, a gear for turning the feed screw, and a cam having an uneven number of cam projections adapted to engage the downturned flanges of said vibrating workholder, a gear fixed to said feed screw and in mesh with the gear which is a part of said rotating element, a standard fixed to said base, a lever mounted thereon and adapted to be engaged and operated by the reciprocating needle bar of the sewing machine, and a pawl carried by said lever for actuating said ratchet.

4. In a buttonhole attachment for sewing machines, the combination of a base, a slide mounted thereon and movable forward and backward, a screw mounted upon the base, means carried by the slide for engaging and disengaging said screw, a vibrating work holder pivoted on a vertical axis on said slide adjacent the front end thereof and extending rearward therefrom, said workholder having downturned flanges along its sides, a rotating element mounted on a vertical axis upon said base and comprising a ratchet by which it may be turned, a gear for turning the feed screw, and a cam lying between said downturned flanges and having an uneven number of cam projections adapted to engage said downturned flanges of the vibrating workholder, a gear fixed to said screw in mesh with the gear which is a part of said rotating element, a standard fixed to said base, a lever mounted on said standard and adapted to be engaged and operated by the reciprocating needle bar of a sewing machine, and a pawl carried by said lever for actuating said ratchet.

1,240,385. FILTER. ERNEST J. SWEETLAND, Montclair, N. J. Filed May 9, 1914. Serial No. 837,379. Cl. 210—9.)

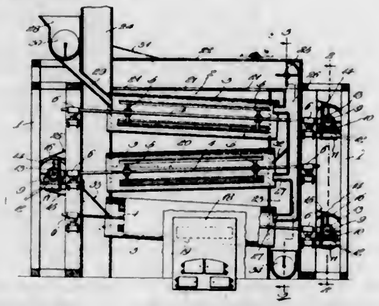


1. A filter medium comprising a woven sheet having incorporated therein metallic fibers, said fibers individually extending across only a part of said sheet.

2. A filter medium comprising a woven sheet including a metallic wool.

[Claims 3 to 10 not printed in the Gazette.]

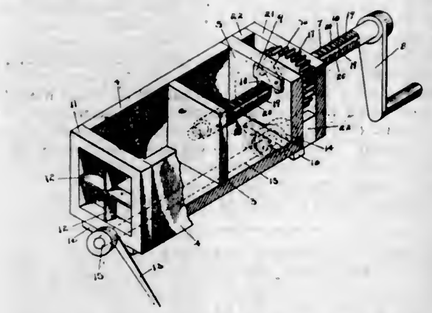
1,240,386. ROTARY DRIER. WILLIAM W. SWENGEL, Bloomsburg, Pa. Filed Oct. 12, 1916. Serial No. 125,252. (Cl. 34—6.)



1. In a rotary drier, the combination of a plurality of vertically spaced rotary drums through which the material to be dried is adapted to travel, a housing surrounding said drums and having a hot air inlet and a hot air outlet, the one being at the top of the housing and the other at the bottom thereof, a vertically extending conduit with which the drums communicate at one end, a stack with which the other ends of said drums communicate, a fan for drawing hot air from the outlet of the housing, and means leading from the outlet of said fan for directing the hot air discharged therefrom through the drums into the stack.

2. In a rotary drier, the combination of a plurality of vertically spaced rotary drums through which the material to be dried is adapted to travel, a housing surrounding said drums and having a hot air inlet and a longitudinally extending heat outlet conduit, the one being disposed at the top of the housing and the other at the bottom thereof, a vertical conduit with which the drums communicate at one end, a stack with which the other ends of said drums communicate, a fan in the aforesaid heat outlet conduit for drawing hot air therefrom, and an outlet pipe from said fan located in the aforesaid vertical conduit and having branches for directing the hot air discharge from the fan through the drums into the stack.

1,240,387. BUTTER-CUTTER. DANNOJO TAKAHASHI, Portland, Oreg. Filed Dec. 15, 1916. Serial No. 137,196. (Cl. 31—65.)

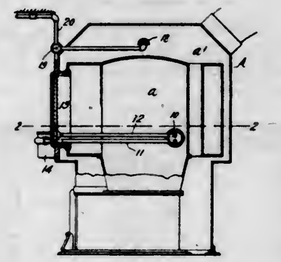


1. In a butter cutter, a body having two sides, a bottom and an end piece; a die frame secured to the end of said body opposite said end piece; a longitudinally slidable diaphragm within said body; a rod rotatably attached to said diaphragm and extending through said end piece; a thread upon said rod having a portion only of each circumferential turn thereof helical; a dog pivotally mounted upon said back piece and coacting with said thread; a gear rotatably fixed and longitudinally slidable upon said threaded rod; a rotable shaft substantially parallel to said threaded rod; a knife mounted upon said shaft adjacent said die frame; a pinion secured to said shaft and adapted to mesh with said gear upon the threaded rod, the ratio between said pinion and said gear being such that the change of pitch of the thread upon said rod holds said diaphragm stationary while said knife is performing its function; and means to operate said threaded rod.

2. In a butter cutter having a box like body, a die frame, a knife adjacent said die frame, and a slidable diaphragm within said body; a rod operably connected to said diaphragm; a thread upon said rod having a portion only of each circumferential turn thereof helical; a dog coacting with said thread; and means whereby said knife is driven from said threaded rod in such a manner that the change of pitch of said thread holds said diaphragm stationary while said knife performs its function.

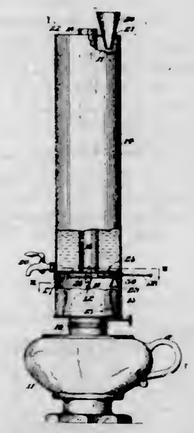
1,240,388. AIR-MOISTENING ATTACHMENT FOR HOT-AIR FURNACES. MILLARD S. TALLMAGE, Buffalo, N. Y., assignor of one-half to John T. Ronan, Buffalo, N. Y. Filed July 8, 1916. Serial No. 108,113. (Cl. 126—113.)

1. The combination with a hot air furnace having a combustion chamber and a hot air chamber, of a water heating vessel located in the combustion chamber, water supply regulating means located outside of the furnace casing for automatically maintaining the water in said heating vessel at a level below the top thereof, a water pipe connecting said supply regulating means to said water heating vessel and passing through a hole in the furnace casing, means for discharging the steam or vapor from said water heating vessel into the hot air from the furnace, a pipe connecting the water heating vessel directly to said discharge means independently of the water supply means, a waste steam pipe, and a valve for connecting the water heating vessel either with said discharge means or with said waste steam pipe.



2. The combination with a hot air furnace having a combustion chamber and a hot air chamber, of a water heating vessel located in the combustion chamber, water supply regulating means located outside of the furnace casing for automatically maintaining the water in said heating vessel at a level below the top thereof, a water pipe connecting said supply regulating means to said water heating vessel and passing through a hole in the furnace casing, said pipe having a restriction for minimizing the circulation of hot water from said heating vessel to said water supply regulating means, and pipe connections leading directly from the upper portion of said water heating vessel to said hot air chamber independently of the supply regulating means for discharging the steam or vapor from said water heating vessel into the hot air for humidifying the same.

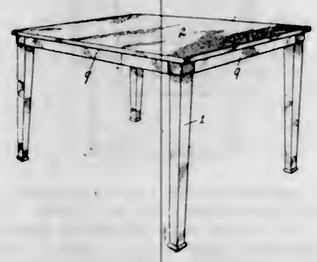
1,240,389. FLUID-HEATER FOR LAMPS. MIKE TRUHAN, Bridger, Mont. Filed Mar. 10, 1917. Serial No. 153,864. (Cl. 126—358.)



A lamp-heater including a drum-form of container having a liquid or water chamber, said container having in continuation thereof, below the bottom of its water-chamber, a separate bottomless compartment forming a heat-receiving chamber, said bottomless compartment being adapted to be positioned upon a lamp, around the burner, said drum-form of container having a central axial stack-like heating tube, with its lower end opening through the bottom of said water chamber, and its upper end terminating a slight distance above the upper end of said container, said end of the container being provided with a filling opening, said burner-forming chamber having arranged therein a slidable flame-controllable

damper, at the entrance of said heating tube, said damper being provided with a snuffer-forming member arranged with respect to the wick-tube of the burner.

1,240,390. ARTICLE OF FURNITURE. CLEMENT R. UHL, Toledo, Ohio. Filed Nov. 3, 1916. Serial No. 129,295. (Cl. 45—48.)



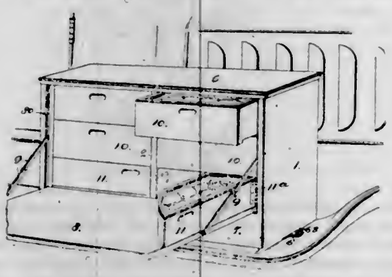
1. In an article of furniture, a pair of legs each having an arm projecting therefrom toward the other leg, said arm being angled in cross-section, a rail bar having recesses in its ends adapted to receive said arms, said rail bar being angled in cross-section to conform to the angle of said arms and extending at its ends adjacent to each leg, and means carried by said bar and operable to releasably secure the arms and bar together in rigid relation.

3. In an article of furniture, a leg, an arm projecting transversely from said leg, a rail bar having a socket in an end thereof for receiving said arm, a plate inserted in said socket and having a threaded part, and a screw inserted through one wall of said socket and the threaded part of said plate and adapted to engage and firmly hold the arm transversely seated in said socket.

7. In an article of furniture, a rail bar comprising a plurality of longitudinally alined sections having sockets in the adjacent ends thereof, a coupling bar inserted at its ends into each of said sockets and adapted to transversely seat therein, and means carried by the rail sections and operable to releasably retain the coupling bar transversely seated in the section sockets and to coöperate with the coupling bar to firmly connect said sections.

[Claims 2, 4 to 6, and 8 not printed in the Gazette.]

1,240,391. LUNCH-CARRIER FOR AUTOMOBILES. CHARLES D. UPDEGRAFF, Portland, Oreg., assignor of one-half to John A. Bernard, Portland, Oreg. Filed Dec. 9, 1916. Serial No. 135,977. (Cl. 45—71.)



1. A luncheon carrier comprising a casing having a compartment in the lower end and a side opening above the said compartment, a hinged drop cover for closing the said side opening, means for sustaining the said drop cover at the horizontal plane of the upper edge of the front side of the said compartment, a drawer located over the aforesaid compartment and which forms a top closure for the said compartment, and means for hinging the said drawer to swing outwardly to rest on the hinged drop cover, whereby to give access to the said compartment.

2. In a carrier of the character stated, the combination with a casing, a drawer slidably mounted therein, the said drawer having a pair of oppositely disposed diagonally positioned guides on the bottom thereof, a pair of opposite links, each of said links being hinged at the inner end to the adjacent inner end of the casing and having the outer end slidably engaging its respective diagonal guide on the drawer bottom, and brackets projected inwardly from the casing ends that form rests for the drawer when pushed in and rests for the links when the drawer is pulled out.

3. In a carrier of the character stated, the combination with an open front casing, of a drawer slidable in the casing, said drawer having a pair of oppositely disposed diagonal grooves that extend from approximately the center of the drawer front to approximately the center of the drawer ends, a pair of links, the said links being hinged at their inner ends to their respective adjacent ends of the casing, each of the said links having a headed stud for engaging their respective diagonal grooves in the drawer bottom, and means on the drawer bottom for holding the headed studs in the grooves.

[Claims 4 and 5 not printed in the Gazette.]

1,240,392. ARTIFICIAL CHRISTMAS TREE. HERMAN K. VIERLINGER, Brooklyn, N. Y., assignor to The Strobel & Wilken Company, Cincinnati, Ohio, a Corporation of Ohio. Filed July 11, 1917. Serial No. 179,828. (Cl. 41—15.)



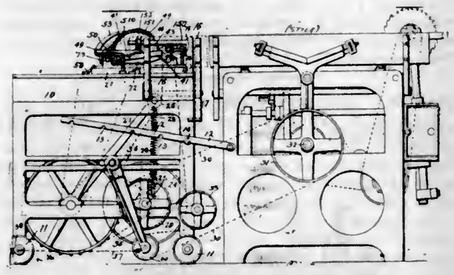
1. An artificial Christmas tree comprising a stem, a plurality of branches extending therefrom, each branch being formed of a number of intertwisted strands and of short metal tinsel threads interwoven with the strands, and radiating therefrom in different directions.

2. An artificial Christmas tree comprising a stem, a plurality of branches extending therefrom, each branch being formed of a number of intertwisted strands and of tufted metal tinsel threads interwoven with said strands, binders that connect the inner ends of said branches to said stem, and coverings which envelop the stem at its lower end and also between said branches, said coverings extending over the inner ends of said branches and over said binders.

1,240,393. MACHINE FOR FORMING OPENINGS IN WINDOW-STILES. FREDERICK H. WEEKS, Akron, Ohio, assignor to The F. H. Weeks Lumber Company, Akron, Ohio, a Corporation of Ohio. Filed Sept. 12 1912. Serial No. 719,966. (Cl. 144—19.)

1. In a stile cutting machine, the combination of a revolving bit, means for moving the same axially comprising a rotatable cam, and connections between the cam and the bit, a reciprocable slide carrying all of said parts, and a cam rotating device actuated by the reciprocation of the slide.

2. In a stile cutting machine, the combination of a pair of oppositely acting bits, a wheel having cams on its opposite sides, and connections between the cams and the respective bits, teeth on the wheel, a feed pawl, a slide carrying all of said parts, and a feed pawl operating device stationary with reference to the slide.

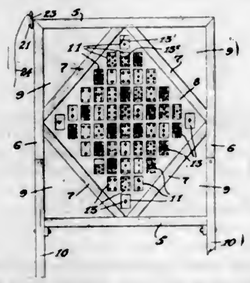


3. In a stile cutting machine, the combination of a mortising bit, a reciprocating slide carrying the same, a disk or wheel, a wrist pin carrier pivoted eccentrically to the disk or wheel, a series of lugs on the wrist pin carrier, a pawl on the disk or wheel, and a pawl shifter movable into and out of the path of the pawl.

4. In a stile cutting machine, the combination of a pair of oppositely acting bits, a wheel having cams on its opposite sides, connections between the cams and the respective bits, teeth on the wheel, a feed pawl, a slide carrying all of said parts, a feed pawl operating device stationary with reference to the slide, and a stop dog engaging said teeth.

5. In a stile cutting machine, the combination of a pair of oppositely acting bits, a wheel having cams on its opposite sides, connections between the cams and the respective bits, teeth on the wheel, a rock shaft, a feed pawl carried by an arm of the rock shaft, a stop dog mounted on the rock shaft, an operating arm carried by the rock shaft, a slide carrying all said parts, and a stationary member in the path of the rock shaft operating arm, as it moves with said slide.

1,240,394. GAME APPARATUS. EUGENE M. WESLEY, Tacoma, Wash. Filed Jan. 15, 1917. Serial No. 142,386. (Cl. 46—59.)



1. A game apparatus comprising a board having a plurality of openings, doors provided for the respective openings and hingedly connected from their lower ends to the board, said doors having playing-card designating marks thereon, a vertically movable rack provided at the rear of the board, and means to elevate said rack to close any of the doors which may be tilted into open positions.

2. A game apparatus comprising a board having a plurality of spaced openings, doors hingedly connected to the board subjacent to the respective openings, game-designating characters marked on the respective doors, a rack, means secured to the rear of said board and having obliquely arranged ways to guide the lower end of the rack, and means attached to the board and connected to the upper end of the rack and coöperating with the aforesaid means to effect the forward movement of the rack when the latter is elevated through the agency of the second-named means.

3. In game apparatus of the character described, the combination with the board having openings therein, and hinged doors for said openings, of a rack, means for elevating said rack, and means connected with the rear of the board for guiding said rack forwardly to effect the closing of the doors when the rack is elevated, said guiding means also serving to cause the rack to be moved by gravity rearwardly from the board when the rack-elevating means is inoperative.

4. In game apparatus of the character described, a board having openings therein, a rabbet provided about each of said openings, doors seatable in the rabbets of the respective board-openings, hinges for the doors, a rack engageable by the doors when dislodged from the respective rabbets, and means to actuate said rack for returning the doors into the rabbets for closing the respective openings.

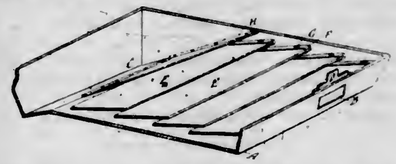
1,240,395. COMPOSITION FOR PROTECTING METALLIC SURFACES AGAINST CORROSION. DON C. WESTERFIELD, Dayton, and EDWARD J. ROGERS, Miamisburg, Ohio. Filed Mar. 2, 1917. Serial No. 152,136. (Cl. 134—1.)

1. A composition for protecting metallic surfaces against corrosion, consisting of orthophosphoric acid, a resin, a solvent for the resin, and water substantially in the proportions described.

2. A composition for protecting metallic surfaces against corrosion, consisting of orthophosphoric acid, shellac, a solvent for the shellac, and water substantially in the proportions described.

3. A composition for protecting metallic surfaces against corrosion, consisting of orthophosphoric acid, shellac, acetone, and water substantially in the proportions described.

1,240,396. GOLD-SAVING PAN. SHERMAN L. WINCHESTER, Weiser, Idaho. Filed June 9, 1915. Serial No. 33,211. (Cl. 83—68.)



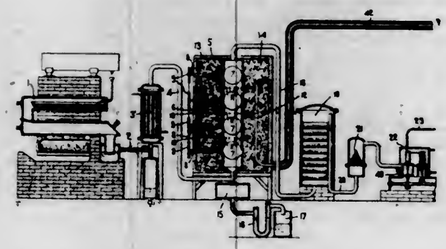
1. A gold saving pan comprising side and end walls, a bottom therefor, a receiving pocket formed in the bottom of the pan adjacent one end thereof, the pocket being deeper at one end than at the other, an extension plate secured to one of the side walls of the pan adjacent one end of the pocket, plates suspended within the pan and being spaced from the bottom thereof, and means for reciprocating the pan.

2. In a gold saving pan comprising side and end walls, a bottom for said pan, a receiving pocket formed in the bottom adjacent one end thereof, a triangular shaped extension plate secured within the pan adjacent one edge of the pocket, transversely suspended plates positioned within the pan and spaced from the bottom thereof, means for reciprocating the pan and said pan having an opening at one end for exhausting material therefrom.

1,240,397. APPARATUS FOR PRODUCING LIQUEFIED GAS. LINUS WOLF, Chicago, Ill. Filed Dec. 3, 1913. Serial No. 804,333. (Cl. 62—122.)

1. In an apparatus for producing liquefied constituents of a gas containing hydrocarbon constituents, the combi-

nation with a cooling chamber, of means to cause the gas to pass therethrough, means to compress said gas and liquefy the liquefiable constituents thereof, and means to return a portion of the liquefied gas to the cooling chamber and to allow it to expand therein and become commingled with the gas passing therethrough whereby the gas in the cooling chamber is highly refrigerated by being commingled with the cold gas produced by the expansion of the liquefied gas.



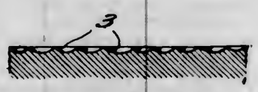
2. An apparatus such as set forth in claim 1 in combination with mechanical agitators within the cooling chamber for assisting in mixing the expanded cold liquefied gas with the gas passing through the cooling chamber.

3. In an apparatus of the class described, the combination with means to cool a hydrocarbon gas and separate therefrom the easily-liquefiable constituents, of means to subject the remaining constituents to a high degree of pressure and severe refrigeration thereby to liquefy all the constituents except those most difficult to liquefy, a collecting chamber into which both the liquefied and remaining gaseous constituents are delivered, and means to subject the gaseous constituents in said chamber to further refrigeration.

5. In an apparatus of the class described, the combination with means to cool a hydrocarbon gas and separate therefrom the easily liquefiable constituents, of means to subject the remaining constituents to a high degree of pressure and severe refrigeration thereby to liquefy all the constituents except those most difficult to liquefy, a collecting chamber into which both the liquefied and remaining gaseous constituents are delivered, said collecting chamber having an extension in which the gaseous constituents collect, and means to subject the gaseous constituents in said extension to further refrigeration.

[Claims 4 and 6 not printed in the Gazette.]

1,240,398. METHOD OF MAKING LIGHT-DIFFUSING SCREENS. ROBERT W. WOOD, Baltimore, Md. Filed May 29, 1913. Serial No. 770,672. (Cl. 41—39.)

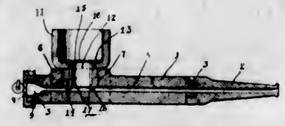


1. The method of making a light diffusing screen, which consists in forming in a glass surface a multiplicity of minute pits separated by a plane surface relatively wide as compared with the depth of the pits, then enlarging these pits into contiguous concave depressions, whereby each such depression forms a surface of a concave lens.

2. The method of making a light diffusing screen, which consists in forming in a glass surface by mechanical abrasion a multiplicity of irregular pits separated by a plane surface relatively wide as compared with the depth of the pits, and then smoothing out and enlarging these pits into contiguous concave depressions by the application of acid to the pitted surface of said glass, and then removing the acid therefrom, each of said depressions forming the surface of a concave lens.

3. The method of making a light diffusing screen, which consists in applying a blast of abrasive material to a glass surface and thereby forming in said surface a multiplicity of pits separated by a plane surface relatively wide as compared with the depth of the pits, flowing the pitted surface of said glass with hydrofluoric acid and thereby enlarging said pits into contiguous smooth concave depressions, and then removing the acid from said glass.

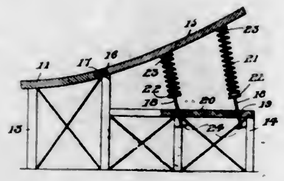
1,240,399. TOBACCO-PIPE. JOSEPH YARTIN, New York, N. Y. Filed June 22, 1915. Serial No. 35,558. (Cl. 131—12.)



1. A tobacco pipe, including a stem having a central duct extending throughout its length, one end of said stem around said central duct being countersunk, an end cap threaded internally, said stem having an enlarged portion, said enlarged portion having a laterally extending threaded opening therein communicating with the central duct, and a tobacco bowl threaded in said opening and having communication with said duct, as and for the purpose set forth, said cap being externally threaded to engage said opening when said bowl is removed.

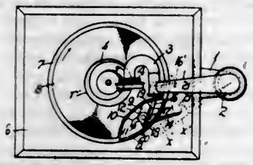
2. A tobacco pipe, including a stem having a straight central duct therein, an enlarged portion on said stem, said enlarged portion having a threaded laterally extending opening therein communicating with the central duct for removably receiving a bowl, and an end cap threaded externally and internally for reception in the threaded opening when the bowl is removed or over the free extremity of the stem when the bowl is applied.

1,240,400. LAUNCHING DEVICE FOR AEROPLANES. FABIAN ZEMOJTEL, Philadelphia, Pa., assignor of one-third to Joseph Sobolewski, Philadelphia, Pa. Filed July 20, 1917. Serial No. 181,767. (Cl. 244—2.)



A device of the class described comprising in combination with a hangar, a platform leading from a point adjacent the floor thereof extending forwardly and upwardly in a parabolic curve, the said platform having a forward hinged portion, means for preventing the upward swinging movement of said portion above the plane of the general curvature of the platform, supporting means for the platform having its forward portion in the form of a frame with its top positioned beneath said hinged portion, bushings extending through said top, adjusting screws threaded through said bushings, and having heads above said top, blocks upon the bottom of said portion, springs arranged between the said heads and blocks and operating handles for said screws arranged beneath the said top.

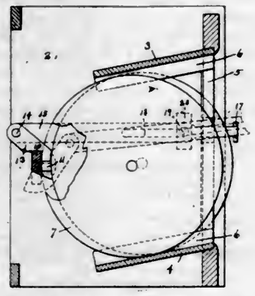
1,240,401. AUTOMATIC STOP FOR PHONOGRAPH-RECORDS. SHERMAN G. ALEXANDER, St. Louis, Mo. Filed Jan. 15, 1917. Serial No. 142,446. (Cl. 74—46.)



2. In combination with a rotatable flanged platform and record disk secured thereto, a tone-arm oscillating across the disk and carrying a stylus traversing the disk record, an oscillating brake adapted to engage the flange of the platform, a brake lever leading from said brake and hinged to yield in one direction in response to the movement of the tone arm, a hub at the base of the brake provided with a notch, an oscillating trigger provided with a toe engaging said notch during the sweep of the tone-arm with the traverse of the stylus along the record, an arm leading from the pivotal end of the trigger, a contracting spring connecting the trigger and brake arm operating to rotate the hub to bring the notch out of the way of the toe and simultaneously applying the brake upon withdrawal of the toe from the notch, and a tappet on the tone-arm operating to strike the lever leading from the trigger and cause the lever to trip the trigger to withdraw the toe from the notch, the parts operating substantially as and for the purpose set forth.

[Claims 1 and 3 not printed in the Gazette.]

1,240,402. CABINET. CHARLES W. ALMON, Youngstown, Ohio. Filed Apr. 17, 1916. Serial No. 91,578. (Cl. 211—16.)



1. In a cabinet for disk sound records, the combination of the exterior case and vertical partitions therein between which the records may be placed on edge, a bar extending across the rear end of the case and having a series of fingers projecting at right angles therefrom, alternate fingers being at substantially right angles to each other and so spaced as to engage alternate records, and means to turn the bar back and forth so that the fingers may press forward the alternate records alternately.

2. In a cabinet for disk sound records, the combination of the sides, a top and a bottom guide, said top and bottom guides being formed with grooves to receive the edges of disks, a bar extending across the cabinet at the rear of said records and having two longitudinal rows of projections, the projections of one row being spaced to engage alternate records while the projections of the other row are spaced to engage the remainder of the records, and means to turn said bar back and forth to project alternate records forwardly.

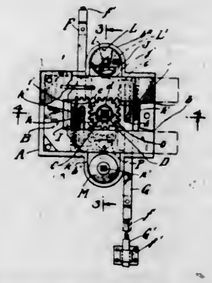
3. In a cabinet for disks, the combination of the sides, a top and a bottom guide, the bottom guide sloping down rearwardly to cause the disks to roll back into the case, and a bar revolubly mounted in the case at the rear of the disks and provided with rows of projections so spaced that the turning of the bar will project the disks forwardly from the case in predetermined groups.

4. In a cabinet for disks, the combination of the sides, a top and a bottom guide, the bottom guide sloping down rearwardly to cause the disks to roll back into the case, a bar revolubly mounted in the case at the rear of the disks and provided with rows of projections so spaced that the turning of the bar will project the disks forwardly from the case in predetermined groups, a crank connected to said bar, and a link extending from said crank out of the front of the cabinet and movable longitudinally back and forth to rock said bar and the projections thereon.

5. In a cabinet for disks, the combination of a case formed with vertical partitions between which the disks may be inserted and a movable member at the rear end of the cabinet for projecting the disks forwardly in predetermined groups.

[Claim 6 not printed in the Gazette.]

1,240,403. DOOR-LOCK. FRANK AMATO, New York, N. Y. Filed Mar. 1, 1916. Serial No. 81,302. (Cl. 70—74.)



1. In a lock, the combination with a lock bolt, and a knob spindle, of an additional bolt, a gear for operating the lock bolt and the additional bolt simultaneously, a dog coöperating with the lock bolt, and means for shifting the gear in a direction to free it from the additional bolt while retaining said gear in operative relation to the lock bolt.

4. In a lock, the combination with a lock bolt, and a knob spindle, of an additional bolt, a gear slidably mounted on the knob spindle, means for retaining said gear in mesh with the lock bolt and the additional bolt so as to operate the same simultaneously, and means for positioning said gear out of mesh with the additional bolt while it remains in mesh with the lock bolt so as to operate the latter.

6. In a lock, the combination with a lock bolt, and a knob spindle, of a dog coöperating with said lock bolt, and a rotatable chambered actuator incasing said dog, a spring for projecting the dog, and means for rotating the actuator into contact with the dog to retract it from engagement with said lock bolt.

[Claims 2, 3, 5, 7, and 8 not printed in the Gazette.]

1,240,404. GAS-ENGINE PRIMER. JEROME J. AULL, Cincinnati, Ohio, assignor to The Lunkenheimer Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Mar. 27, 1915. Serial No. 17,369. (Cl. 103—75.)

1. In a gas engine primer, in combination with a cylinder, a plunger therefor, the cylinder provided with a port, means for closing the port and means for mounting the port closing means in the plunger so as to be movable therein and means for locking the plunger, said port closing means adapted to seat before the lock takes effect in the operation of the plunger.

3. In a device of the character described, in combination with a cylinder and a plunger therefor, the cylinder

provided with a port, means on the plunger for closing said port, said means being extensible and spring-pressed so as to allow movement of the plunger after the said means is in closing position and means for locking the plunger, said port closing means adapted to seat before the lock takes effect in the operation of the plunger.



8. In a device of the character described, in combination with a cylinder and a plunger therefor, the cylinder provided with a port, a bored out portion in said plunger, a means for closing said port slidably mounted in the bored out portion, a spring in said bored out portion to hold the said means in extended position, a pin on the plunger, a flange to engage said pin, provided with a notch in the flange whereby the pin may be inserted thereunder, and a depression around said notch, for the purpose described.

[Claims 2, 4 to 7, and 9 not printed in the Gazette.]

1,240,405. METHOD FOR PRODUCING COMPOSITE TITANIC-OXID PRODUCTS. LOUIS E. BARTON, Niagara Falls, N. Y., assignor to The Titanium Alloy Manufacturing Company, New York, N. Y., a Corporation of Maine. Original application filed July 19, 1915, Serial No. 40,639. Divided and this application filed June 8, 1916. Serial No. 102,393. (Cl. 134—58.)

1. In the production of composite titanic oxid products from a titanic solution, the steps which consist in suspending particles of a case pigment in such solution, and in precipitating orthotitanic acid upon said particles while so suspended.

2. In the production of composite titanic oxid products from a titanic solution, the steps which consists in adding to such solution an extender pigment and also adding an alkali base.

7. The method of producing pigments containing titanic oxid from impure titanic solution which comprises passing hydrogen sulfid gas into the solution, filtering out precipitated sulfids, adding to the filtrate an extender pigment, also adding thereto an alkali base, agitating the charge, withdrawing therefrom the resulting composition of orthotitanic acid precipitate and therewith coalesced extender pigment and calcining it.

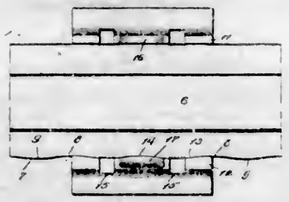
8. The method of producing pigments containing titanic oxid from iron-containing titanic solution which comprises adding to such solution an extender pigment, also adding thereto an alkali sulfid base, agitating the charge, incorporating therein sulfurous acid, withdrawing therefrom the resulting composition of orthotitanic acid precipitate and therewith coalesced extender pigment, and calcining such composition.

9. In the production of composite titanic oxid products from a titanic solution, the steps which consist in suspending particles in such solution, and in precipitating orthotitanic acid upon said particles while so suspended.

[Claims 3 to 6, 10, and 11 not printed in the Gazette.]

1,240,406. COMBINED ANTICREEPING RAIL AND TIE-PLATE. BENJAMIN B. BETTS, St. Louis, Mo. Filed Sept. 23, 1916. Serial No. 121,853. (Cl. 238—2.)

1. A rail anti-creeper comprising a rail having a continuous straight edge flange throughout its length and a uniformly corrugated flange throughout its length, a tie plate provided with a rail-bearing shoulder at one end of said tie plate adjacent said seat, a corrugated rail-bearing abutment arranged at the other end of said tie plate adjacent said seat, said abutment provided with spike openings passing therethrough and through the tie plate and disposed at such distance laterally from the longitudinal central plane of the rail that any longitudinal movement thereof will not cause the corrugated edge to engage with the shanks of the spikes; whereby the shank of a spike adapted to be seated in a spike opening is protected from contact with the corrugated edge of the rail flange, thereby preventing shearing of the spike shank by the corrugated edge of the rail flange.

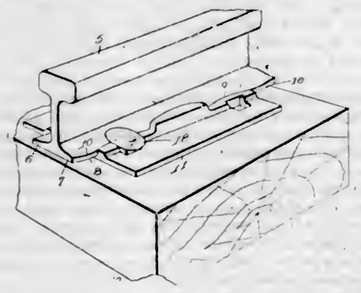


2. A rail anti-creeper comprising a rail having a continuous straight flange throughout its length and a corrugated flange throughout its length, a tie plate provided with a rail-bearing seat, a rail-bearing abutment at one end of said plate adjacent said seat and having spike openings formed therethrough, a corrugated rail-bearing abutment arranged at the other end of said tie plate adjacent said rail-bearing seat and provided with spike openings removed from the corrugated edge of said abutment, whereby the shank of a spike adapted to be seated in said opening is protected from contact with the corrugated edge of the rail flange and the head of said spike is adapted to span the joint between the corrugated edge of the abutment and the corrugated edge of the flange of the rail.

3. In combination with a rail having a base flange whose margin is formed other than straight, a tie plate having rail-bearing elements for engagement and shaped to conform with the margins of the rail base flanges and there being a spike opening formed through the tie plate removed from the engaging portions of a rail base flange and a rail bearing element a distance sufficient to cause part of the plate body to stand between the margin of the rail base flange and a spike driven through the opening in the plate, but not a distance preventing the head of the spike from overlying the rail base flange.

4. A tie plate having a removable rail-bearing element upstanding from the rail seat of the plate and having a spike opening formed through the rail-bearing element, laterally removed from the rail seat, whereby the rail-bearing element will prevent the base flange of a rail from engaging and wearing a spike seated in the opening, with its head overlapping the base flange of the rail.

1,240,407. COMBINED ANTICREEPING RAIL AND TIE-PLATE. BENJAMIN B. BETTS, St. Louis, Mo. Filed Dec. 4, 1916. Serial No. 134,997. (Cl. 238—2.)



1. In a rail anti-creeper, a rail with opposite base flanges one of which is corrugated along its edge, the

density of the metal of the base on lines transverse to the rail being greatest opposite the valleys of the corrugated edge, whereby the rail strength is preserved where its transverse dimensions are diminished, and tie plates on which the rail is confined having opposite bearing shoulders, one of each being corrugated to fit the corrugated edge of the rail.

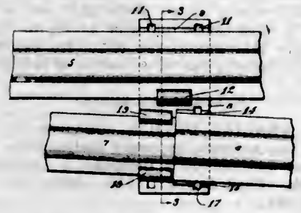
2. A rail anti-creeper, comprising a rail having a rolled corrugated flange of unequal density, and a tie plate having a rolled corrugated shoulder, said tie plate being provided with spike openings intersecting said corrugated shoulder and removed from the corrugated face thereof.

3. A rail anti-creeper comprising a rail having a continuous straight edge flange throughout its length and a uniformly corrugated flange throughout its length, the said corrugated flange being formed by passing the rail through a corrugated roller, thus compressing the material of the flange and not removing the same at certain distances apart, whereby the original weight and strength of the rail are preserved, and a rolled tie plate provided with a corrugated shoulder adapted to snugly fit the corrugations of the rail flange, said corrugated shoulder being provided with a rigid upstanding guiding lug for guiding the rail back to its original seat, should it become displaced by the loosening of the spikes.

4. A rail anti-creeper comprising a rail provided with a straight flange and a corrugated flange, the corrugations of the corrugated flange being formed by rolling and a tie plate provided with a corrugated rail-bearing shoulder formed by rolling, and with spike openings, the said spike openings passing through the shoulder and body of the plate and being removed from the corrugated face of the shoulder, thus leaving portions of the shoulder between the spikes and corrugated rail flange.

5. A rail anti-creeper comprising a rail having a straight flange and a rolled corrugated flange of unequal density, a tie plate provided with a straight and a corrugated rail bearing shoulder and with spike openings intersecting said shoulders, and a lug carried by each shoulder between the spike openings.

1,240,408. MULTIPLE-RAIL CHAIR. BENJAMIN B. BETTS, St. Louis, Mo. Filed Dec. 18, 1916. Serial No. 137,541. (Cl. 239—18.)



1. A rail chair having a seat for a running rail at one end and a seat for a switch rail at the other end, the latter seat being at a different level and at an angle to the first seat.

2. A rail chair having a heat for a running rail at one end and a seat for a switch rail at the other end, the seat for the switch rail being at an angle to the running rail and located at a higher level.

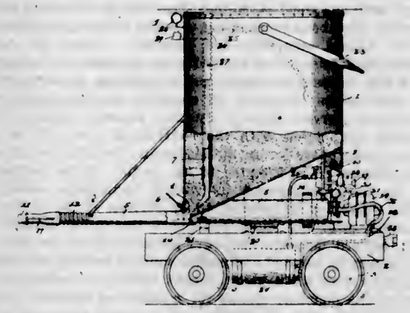
3. A rail chair having a seat for a running rail at one end, and a seat for a switch rail at the other end, the switch rail seat being at an angle to the first seat, and at a higher level, and being of less width.

4. A rail chair having a seat near its one end and coextensive with its width and means for securing a rail therein, a second seat laterally to one side of the first mentioned seat and extending for only a portion of its width and means for securing a rail end therein, and a third seat, in substantial alinement with the second mentioned seat, and disposed in a plane thereabove and means for securing a rail end therein.

5. A rail chair provided with three defined seats adapted to receive rails, said seats being of unequal widths, two of which are in alinement and the remaining seat at an angle to the alined seats.

[Claims 6 and 7 not printed in the Gazette.]

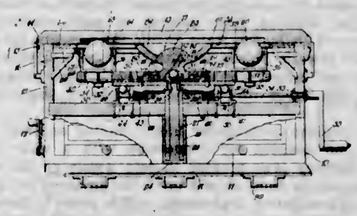
1,240,409. MEANS FOR LINING FURNACE-BOTTOMS. JOHN A. BLACK, Chicago, Ill., assignor of one-half to Robert R. Menaugh, Chicago, Ill. Filed Nov. 9, 1914. Serial No. 871,093. (Cl. 193—10.)



1. In apparatus for lining furnace bottoms with dolomite and the like, the combination with a portable hopper adapted to contain sufficient of the material to line a plurality of furnace bottoms, a conduit leading from one side of the bottom of said hopper, a mechanical agitator extending down through said hopper and having a movable portion positioned in close proximity to the connection between the hopper and conduit, a source of air under pressure, and a connection between the source of air under pressure and the mechanical agitator for reciprocating the latter, there being also a connection between the source of air under pressure and the conduit directly in rear of the connection between the latter and hopper for forcing the material fed into the conduit out of the end of said conduit with sufficient force to carry the material into a furnace and across the bottom thereof, from a position wholly exterior thereof.

[Claims 2 and 3 not printed in the Gazette.]

1,240,410. ELECTRICAL MASSAGE APPARATUS. THEODORE BOLLIN, Okmulgee, Okla. Filed Apr. 25, 1916. Serial No. 93,424. (Cl. 174—89.)



1. A massage instrument including a massage element adapted to conduct electricity from the body of the patient being massaged, means for driving the element in a circular path upon the patient, and an electrode adapted to be inserted in the rectum of the patient to form a supply conductor.

2. An electrical massage instrument including a rotatably mounted member, means for rotating the member, a support carried by the member and free to remain stationary during rotation of the member, massage elements carried by the member, means whereby one element may conduct current from a patient being treated when the patient

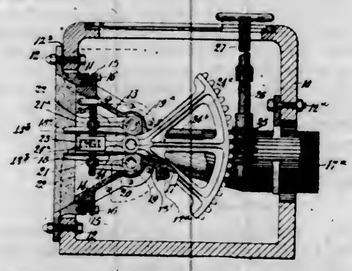
is resting against the support, and means for supplying current to the patient.

5. An electrical massage apparatus including a shaft, a gear rotatable on the shaft, means for rotating the gear, a body member detachably connected to the gear to be driven thereby, a supporting member having swiveled connection with the body member and projecting therefrom, a plurality of massage elements peripherally spaced about the supporting member and carried by the body member, each massage element being in the form of a roller of non-conducting material and one of such rollers being provided with a partial covering of conductive material in electrical circuit with the shaft, a cabinet structure surrounding and inclosing the above mechanism, a table forming a portion of the cabinet structure and partially closing the top thereof, said table being formed with an opening through which the massage elements and supporting member project, and means connected in circuit with the shaft for conducting current supplied by that massage element in electrical connection with the shaft from the body of a patient being operated upon, said means including an electrode adapted to be inserted in the rectum of the patient.

7. An electrical massage instrument including a cabinet, a table supported within the upper portion of the cabinet, a member rotatably supported above the table, diametrically disposed massage elements mounted upon the member, a centrally located abdominal support having swiveled connection with the member, means within the cabinet for rotating the member, means for conducting current from one of the massage elements, and a rectal electrode for supplying current to a patient being massaged.

[Claims 3, 4, 6, 8, and 9 not printed in the Gazette.]

1,240,411. NOZZLE FOR BATHS. JOHN FRANCIS BOORAEM, Greenwich, Conn. Filed July 8, 1912, Serial No. 708,216. Renewed Mar. 13, 1916. Serial No. 83,964. (Cl. 137—17.)



1. A flaring rectangular nozzle having an inlet at its inner small end adapted for connection with a water supply pipe, delivery jaws pivoted in said nozzle at the smaller end thereof in front of said inlet, means for swinging said jaws in unison for adjusting them at varying inclines, and means for swinging said jaws toward and from each other for varying the size of the discharge orifice.

2. A flaring rectangular nozzle having an inlet at its small end adapted for connection with a water supply pipe, delivery jaws pivoted in said nozzle at the smaller end thereof in front of said inlet, the adjacent faces thereof having radiating depressions which assist in flaring the stream at the discharge, means for swinging said jaws in unison for adjusting them at varying inclines, and means for swinging said jaws toward and from each other for varying the size of the discharge orifice.

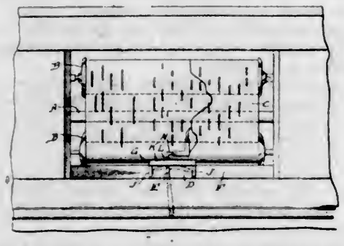
3. A flaring rectangular nozzle having an inlet at its inner small end adapted for connection with a water supply pipe, delivery jaws pivoted in said nozzle at the smaller end thereof in front of said inlet, the adjacent faces of said jaws being stepped from the center toward the side walls of the nozzle, means for swinging said jaws in unison for adjusting them at varying inclines, and means for swinging said jaws toward and from each other for varying the size of the discharge orifice.

4. The combination of a flaring nozzle, hinged plates in the mouth of said nozzle, arms connected with the pintles of said plates and provided with screwthreaded eyes of opposite pitch, a lever pivoted between the pintles of said plates and provided with a guideway, a sliding block in said guideway, an actuating rod journaled in said block and having reverse screwthreads engaging said eyes, and means for actuating said lever.

5. A nozzle comprising a flaring mouth, jaws pivoted at the small end of said mouth and adapted to spread the jet discharged thereby, means for swinging said jaws toward and from each other, and means for adjusting said jaws in unison at varying inclines.

[Claim 6 not printed in the Gazette.]

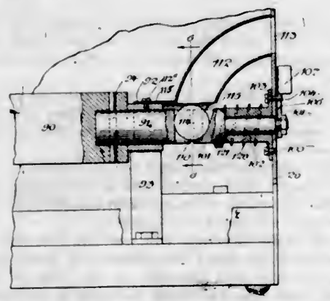
1,240,412. EXPRESSION-CONTROLLING DEVICE FOR MECHANICAL MUSICAL INSTRUMENTS. JOSEPH BAÉMONT, New York, N. Y. Filed Mar. 22, 1917. Serial No. 156,564. (Cl. 84—160.)



1. In expression controlling devices, means for carrying a pointer, said carrying means permitting said pointer to move to and fro in a horizontal line, said pointer having a socket at its lower end, and a tempo indicator consisting of a pivoted member, the upper end of said tempo indicator projecting within said socket, the oscillation of said pivoted member causing said pointer to reciprocate.

2. In expression controlling devices, a horizontal hollow bar having upper and lower superimposed slots, a pointer projecting upwardly from said upper slot and having a part fitting snugly within said bar and a projecting portion provided with a socket projecting from said lower slot, and a pivoted tempo indicator having its upper end fitting within said socket, the to-and-fro oscillation of said indicator causing the reciprocation of said pointer in said bar.

1,240,413. VENDING DEVICE. CHARLES E. BRIDGES, Chicago, Ill., assignor, by mesne assignments, to Auto-sales Gum and Chocolate Company, a Corporation of New York. Filed July 27, 1910. Serial No. 574,187. (Cl. 194—85.)



1. In a coin-controlled mechanism, a casing, a pair of separate and axially alined shafts within said casing, the adjacent ends of said shafts being slotted to receive the deposited coin which forms an operative connection between said shafts, a standard for supporting the slotted end of one of said shafts, a sleeve for supporting the second shaft, means for securing said sleeve to one wall of said casing, and an operating member connected to the outer end of said second shaft, said securing means for the sleeve projecting out of the casing into the path of movement of said member to form positive stops therefor.

2. In a coin-controlled mechanism, a casing, a pair of separate and axially alined shafts within said casing, the adjacent ends of said shafts being slotted to receive the deposited coin which forms an operative connection between said shafts, a standard for supporting the slotted end of one of said shafts, a sleeve for supporting the second shaft, means for securing said sleeve to one wall of said casing, an operating member connected to the outer end of said second shaft, said securing means for the sleeve projecting out of the casing into the path of movement of said member to form positive stops therefor, a coin-chute arranged to guide the deposited coin into the slotted ends of said shafts, and a cylindrical guard extending from the lower end of said chute and arranged to partially surround said slotted ends, whereby the coin is retained in said slotted ends until the shafts have been rotated the required distance.

3. In a coin-controlled mechanism, a casing, a pair of separate and axially alined shafts within said casing, the adjacent ends of said shafts being slotted to receive the deposited coin which forms an operative connection between said shafts, a standard for supporting the slotted end of one of said shafts, a sleeve for supporting the second shaft, means for securing said sleeve to one wall of said casing, an operating member connected to the outer end of said second shaft, said securing means for the sleeve projecting out of the casing into the path of movement of said member to form positive stops therefor, a coin-chute secured at its lower end to said standard to guide the deposited coin into the slotted ends of said shafts, and a cylindrical guard extending from the lower end of said shaft and arranged to partially surround said slotted ends, whereby the coin is retained in said slotted ends until the shafts have been rotated the required distance.

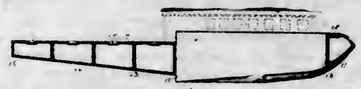
4. In a coin-controlled mechanism, a pair of axially alined shafts having the adjacent ends slotted to receive a deposited coin which forms an operative connection between said shafts, a standard for supporting the slotted end of one of said shafts, a coin-chute secured at its lower end to said standard and arranged to guide the deposited coin into said slotted ends, and a cylindrical guard extending from the lower end of said chute and arranged to partially surround said slotted ends, whereby the coin is retained in said slotted ends until the shafts have been rotated the required distance.

5. In a coin-controlled mechanism, a casing, a pair of separate and axially alined shafts within said casing, the adjacent ends of said shafts being slotted to receive the deposited coin which forms an operative connection between said shafts, an upright standard having a hub portion for supporting the slotted end of one of said shafts, a sleeve for supporting the second shaft, means for securing said sleeve wholly within said casing, an operating member connected to the outer end of said shaft and mounted in close proximity to the side wall of said casing, means for limiting the movements of said member, and a coin-chute secured at its lower end to said standard to guide the deposited coin into the slotted ends of said shafts.

[Claim 6 not printed in the Gazette.]

1,240,414. SAFETY-BALLOONETTE FOR BOATS AND THE LIKE. THOMAS P. BROOKE, Chicago, Ill., assignor to The Brooke Aircraft Company, a Corporation of Delaware. Filed Feb. 2, 1917. Serial No. 146,251. (Cl. 114—68.)

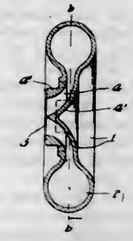
4. The combination of a boat body having a compartment therein, a plurality of sacks in the compartment, said sacks having substantially the same shape as the interior of the compartment, a partition constructed of light material and disposed intermediate adjacent sacks and within the compartment, means whereby each of the sacks may be inflated to substantially fill the portion of the compartment occupied by the respective sacks, and



a casing inclosing each of the sacks, said casing being of a size slightly less than the sacks whereby the walls of the sack and the partition will be relieved of the air pressure therein, by the casing exterior of the sacks.

[Claims 1 to 3 not printed in the Gazette.]

1,240,415. EXHAUST-MUFFLER. TRACY V. BUCKWALTER, Altoona, Pa. Filed June 24, 1916. Serial No. 105,639. (Cl. 121—116.)



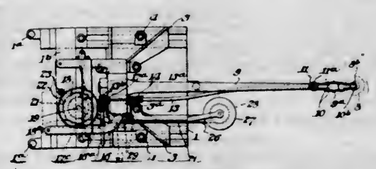
1. A muffler comprising a shell having a curved periphery forming a curved outer passage and parts extending from said periphery inwardly and laterally with relation thereto, so as to form an outlet from said passage surrounding one of said parts, said periphery having a branch forming an inlet thereto.

2. A muffler comprising a shell having a curved periphery forming a passage and concentric parts extending inwardly and then laterally with relation to said periphery to form a throttled passage surrounding one of said parts and through which said passage first named discharges, said periphery having a branch forming a substantially tangential inlet thereto.

3. A muffler comprising a shell having a curved periphery forming a passage and concentric parts forming a contracted curved discharge passage extending from the inner part of said passage first named in the direction of the axis of said periphery, said periphery having a branch forming an inlet thereto.

4. A muffler comprising a shell having a curved periphery forming a passage, a conoidal part surrounded by said periphery and a part surrounding said conoidal part to form a contracted conoidal passage through which said passage first named discharges, said periphery having a branch forming an inlet passage thereto.

1,240,416. TESTING-MACHINE. TRACY V. BUCKWALTER, Altoona, Pa. Filed Oct. 17, 1916. Serial No. 126,073. (Cl. 265—13.)



1. In a testing machine, a gravity operated striking device, an indicating device connected with said striking device so as to move through distances bearing a definite relation to the movements of said striking device, means for holding said striking device in elevated position, means for tripping said means first named so as to release said striking device, recording means, and mechanism connect-

ing said tripping and recording means whereby they are operated in coördinated relation.

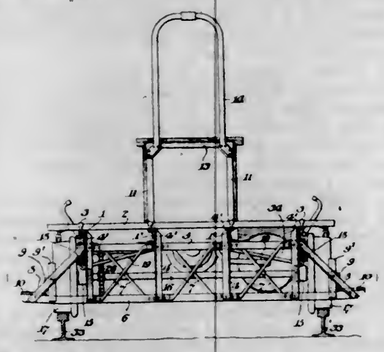
4. In a testing machine, an oscillatory arm provided with a striking device, an oscillatory arm provided with a marking device, means for connecting said arms so that they oscillate together, means for holding said striking device in elevated position, means for carrying paper parallel to the path of said marker, a motor, and mechanism whereby said motor effects the release of said striking device and the movement of said paper.

6. In a testing machine, a frame having means for holding an article to be tested, means journaled in said frame for striking said article, a table carried by said frame, means connected with said means first named for making a record, rollers for carrying paper across said table for receiving said record, means for holding said means first named in elevated position, a motor, and means whereby said motor releases said means first named and operates a roller aforesaid.

9. In a testing machine, the combination with a frame having a base, a work suport connected with said base, and a standard adjustable on said base, in combination with a table carried by said standard, a pair of rolls for carrying paper across said table, a motor for revolving one of said rolls, an arbor journaled in said standard, an oscillatory striking device carried by said arbor, and an oscillatory marking device carried by said arbor and adapted to record the actions of said striking device on paper carried across said table by said rollers.

[Claims 2, 3, 5, 7, and 8 not printed in the Gazette.]

1,240,417. MOTOR-VEHICLE. TRACY V. BUCKWALTER, Altoona, Pa. Filed Jan. 10, 1917. Serial No. 141,316. (Cl. 105—94.)



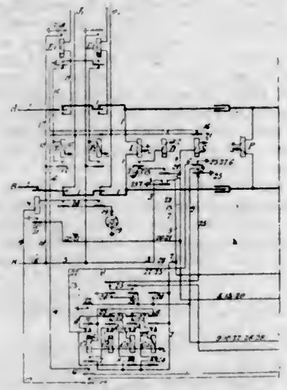
1. In a car, the combination with means comprising traction wheels and journal boxes therefor, of a frame having depending end trusses extending beyond said wheels and between which said wheels are disposed, said trusses having bottom members whereby said car can be skidded and means for tying together a truss and journal box aforesaid.

2. In a car, the combination with traction wheels, of means carried by said wheels, said means comprising a frame having depending trusses extending laterally of said car beyond said wheels and running boards extending along said car exterior to said wheels and supported by said trusses.

[Claims 3 and 4 not printed in the Gazette.]

1,240,418. TELEPHONE SYSTEM. LEONARD CHARLES BYGRAVE, London, England, assignor to The Relay Automatic Telephone Company, Limited, London, England. Filed May 24, 1916. Serial No. 99,574. (Cl. 179—18.)

1. A telephone system comprising discriminating means situated in an exchange and adapted immediately it is operated by a set of digit impulses to determine whether the call is for that exchange or for another, before the next set of impulses is sent in from the sub-station and before a trunk to said other exchange is taken into engagement, and means whereby, when the call is for the other exchange, that same set of digit impulses is made selectively effective at the other exchange.



2. A telephone system comprising discriminating means situated in an exchange and adapted on being operated by a set of digit impulses to determine whether the call is for that exchange of for another, and when the call is for that same exchange to operate again in accordance with the next set of impulses.

6. A telephone system comprising discriminating means situated in an exchange and adapted on being operated by a set of digit impulses to determine whether the call is for that exchange or for another, and means whereby, after said set of impulses has been sent and in case the call is for another exchange, a complementary number of impulses is sent to said exchange before the next set of digit impulses.

7. A telephone system comprising discriminating means situated in an exchange and adapted on being operated by a set of digit impulses to determine whether the call is for that exchange or for another, and means whereby, after said set of impulses has been sent and in case the call is for another exchange, further impulses are given automatically to operate apparatus at the other exchange until the sending of further impulses is prevented by the discriminating means having been operated by said further impulses to a predetermined position.

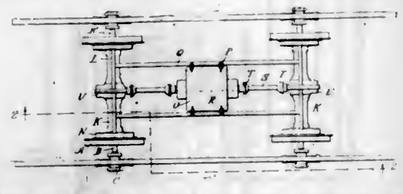
8. A telephone system comprising means situated in an exchange for automatically connecting subscribers' lines with a trunk line, means for connecting said trunk line with any of a plurality of junction lines leading to another exchange, discriminating means associated with said trunk line and adapted to be operated by a set of digit impulses to determine whether the call is for the first or for the second exchange, means whereby a junction line is connected with the trunk line after it has been ascertained that the call is for the second exchange, and means whereby said set of digit impulses is made selectively effective at the second exchange before the next set of digit impulses is sent, the first apparatus at the said second exchange being so arranged that it will respond to impulses complementary in number to the impulses for operating the discriminating apparatus and all other apparatus at the said second or local exchange being arranged to respond to direct impulses.

[Claims 3 to 5 not printed in the Gazette.]

1,240,419. RAILWAY-CAR DRIVING MECHANISM. CHARLES H. CALKINS, Ludlow, Mass., assignor to Baush Machine Tool Company, a Corporation of Massachusetts. Filed Mar. 17, 1916. Serial No. 84,855. (Cl. 105—223.)

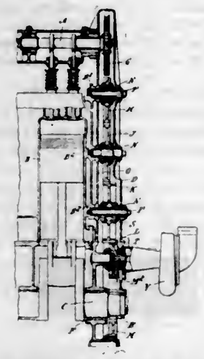
A railway car driving mechanism including in combination a high speed motor O, two pairs of traction wheels

A, separately rotatable wheel shafts B turning said wheels, said motor being located between the front pair and the rear pair of wheels and having a shaft R extending lengthwise of the car, a pair of flexible shafts S T extending lengthwise in opposite directions from the



ends of the motor shaft and connected thereto, a worm V engaged and driven by each of said flexible shafts, a worm gear X engaged by said worm and driven thereby at a greatly reduced speed and differential gearing transmitting the rotation of said worm gears X without change of speed to said wheel shafts B.

1,240,420. CAM-SHAFT DRIVING MECHANISM. LOUIS COATALEN, Wolverhampton, England, assignor of one-half to Sunbeam Motor Car Company Limited, Wolverhampton, England. Filed Sept. 6, 1916. Serial No. 118,781. (Cl. 74—7.)

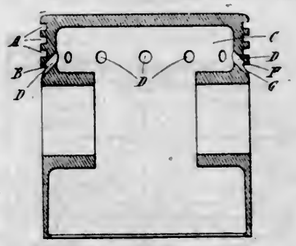


1. In cam shaft driving gear for an internal combustion engine, the combination of a crank shaft, a cam shaft located above the engine cylinders, a driving spur pinion mounted in one vertical plane on said crank shaft, a driven spur gear wheel mounted on said cam shaft in a different vertical plane, and an intermediate gear connection including a broad spur gear one side of which is driven from said pinion while the other side drives on to said gear wheel, substantially as set forth.

2. In cam shaft driving gear for an internal combustion engine, the combination of a crank shaft, a cam shaft located above the engine cylinders, a driving spur pinion mounted in one vertical plane on said crank shaft, a driven spur gear wheel mounted on said cam shaft in a different vertical plane, an intermediate gear connection including a broad intermediate spur gear one side of which is driven from said pinion while the other side drives on to said gear wheel, an engine casing, a cover plate, a distance piece supporting the intermediate gear and carried by the engine casing and cover plate, and a screw passing through said distance piece into said engine casing, substantially as set forth.

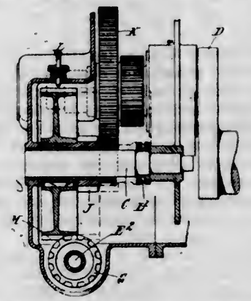
1,240,421. PISTON FOR INTERNAL-COMBUSTION ENGINES. LOUIS COATALEN, Wolverhampton, England, assignor of one-half to Sunbeam Motor Car Company Limited, Wolverhampton, England. Filed Sept. 6, 1916. Serial No. 118,782. (Cl. 74—85.)

In a piston for an internal combustion engine, the combination of a skirt, having grooves therein, an oil-catching groove below said piston ring grooves which in section is one-half cordiform in shape with the apex



thereof at the lowest point, and upwardly inclined passages leading from the inner side of said groove to the interior of the piston, substantially as set forth.

1,240,422. STARTING MECHANISM FOR INTERNAL-COMBUSTION ENGINES. LOUIS COATALEN, Wolverhampton, England, assignor of one-half to Sunbeam Motor Car Company Limited, Wolverhampton, England. Filed Nov. 21, 1916. Serial No. 132,644. (Cl. 74—7.)



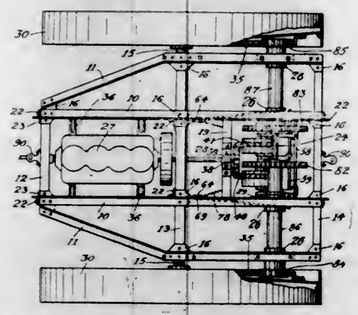
1. In turning gear for an internal combustion engine, the combination of an engine shaft, a gear wheel thereon, a starting shaft at right angles thereto, a turning device at one end of said starting shaft, a helical pinion at the other end of said starting shaft, an intermediate shaft at right angles to said starting shaft and parallel to said engine shaft, a broad helical gear sliding on said intermediate shaft and meshing with said helical pinion, a gear pinion fixed to said helical gear and adapted to mesh with said gear wheel on said engine shaft, substantially as set forth.

2. In turning gear for an internal combustion engine, the combination of an engine shaft, a gear wheel thereon, a starting shaft at right angles thereto, a turning device at one end of said starting shaft, a helical pinion at the other end of said starting shaft, an intermediate shaft at right angles to said starting shaft and parallel to said engine shaft, a broad helical gear sliding on said intermediate shaft and meshing with said helical pinion, a gear pinion fixed to said helical gear and adapted to mesh with said gear wheel on said engine shaft, a detent engaging said broad helical gear, and a spring holding said detent out of engagement, substantially as set forth.

1,240,423. TRACTION-ENGINE. ARTHUR D. COLE, Fort Pierre, S. D. Filed July 1, 1915. Serial No. 37,496. (Cl. 21—114.)

1. A traction engine comprising a pair of wheels, a frame including a transverse axle upon which said wheels are journaled, said frame comprising one set of members resting upon the axle, and another set of members below the axle and rigidly secured thereto, an engine and transmission system mounted upon the lower portion of said frame so as to hang suspended from the axle, and

a drawbar having a pivotal connection with both portions of said frame.



5. In combination with a traction engine having two traction wheels, means for differentially driving said wheels comprising an independent shaft for each wheel, a pair of oppositely-driven clutch members for each of said shafts, and means under control of the operator for effecting at will driving connection of either or both of said shafts with either of its or their corresponding clutch members.

8. In combination with a traction engine having two traction wheels, means for differentially driving said wheels comprising an independent shaft for each wheel, a pair of double-faced oppositely-driven clutch members, a pair of corresponding clutch members for each shaft engageable with one of the faces of each of said oppositely-driven clutch members, and means under the control of the operator for causing said clutches to be engaged or disengaged to drive either of said traction wheels independently forward or backward or to permit them to independently travel free.

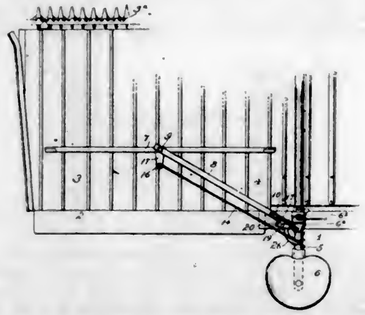
10. In combination with a traction engine having two traction wheels, means for differentially driving said wheels comprising an independent shaft for each wheel, a pair of oppositely-driven clutch members, a clutch system for and having operative connection with each shaft, means under the control of the operator for independently actuating said clutch systems for effecting at will driving connection of either or both of said shafts with either or both of said clutch members, said means comprising rearwardly-extending flexible members for operating the clutches in one direction and springs tensioned by such operation for operating the clutches in the opposite direction, and means for locking the clutches where set.

12. In combination with a traction engine having two traction wheels, a frame including a transverse axle upon which said wheels are journaled, said frame comprising a frame member resting upon the axle and of a width substantially equal to the distance between the wheels, and another frame member below the axle of a width considerably less than the upper member and rigidly secured thereto, and an engine and transmission system mounted upon the lower portion of said frame so as to hang suspended from the axle and be confined to the width of the lower frame member.

[Claims 2 to 4, 6, 7, 9, 11, and 13 to 26 not printed in the Gazette.]

1,240,424. WIND-SHIELD FOR HARVESTERS. WILLIAM H. CRANE, Poughkeepsie, N. Y., assignor to Moline Plow Company, a Corporation of Illinois. Filed July 31, 1916. Serial No. 112,209. (Cl. 56—36.)

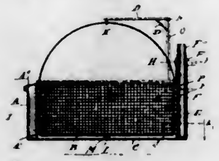
3. In a harvester, the combination of a frame, a grain platform thereon, a hanger arm pivoted to the frame and extending above the platform, a wind-shield pivoted to the hanger arm, a link pivoted to the frame and wind-shield respectively, a plate pivoted to the frame on the axis of the pivotal connection of the link therewith, and a releasable locking latch on the hanger arm in position to engage the plate and lock the parts against relative motion.



4. In a harvester, the combination of a frame, a grain platform thereon, a hanger arm pivoted to the frame and extending above the platform, a wind-shield pivoted to the hanger arm, a link pivoted to the frame and wind-shield respectively, a plate pivoted to the frame and extending adjacent the hanger arm, and a releasable locking latch sustained by the hanger arm and movable horizontally into and out of engagement with the plate to lock the parts against relative motion, said locking latch being provided with an upwardly extending actuating arm in position to be operated by the driver's foot.

[Claims 1 and 2 not printed in the Gazette.]

1,240,425. PHOTOGRAPHIC-PRINT-WASHING MACHINE. ELMER CRUSEY, Sidney, Ohio. Filed July 5, 1916. Serial No. 107,702. (Cl. 95—97.)



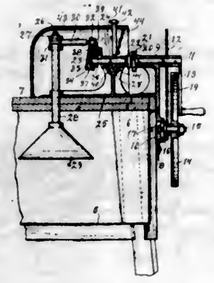
1. A photographic print washer comprising a pan, provided with a vertical opening in the side thereof, an upstanding tube, provided with a vertical opening, rigidly secured to the outside of said pan and adjacent the opening in said pan, the above mentioned openings being in register, an upstanding water outlet means secured to the outside of said pan, the side of said pan adjacent the water outlet means being provided with an opening which communicates with the upstanding water outlet means, a bracket secured to the outside of the pan, and a basket rotatably mounted in the pan upon said bracket.

6. A photographic print washer comprising a pan, provided with a vertical opening in the side thereof, a tubular pocket secured to the pan adjacent the opening in the pan, said tubular pocket being provided with a vertical opening which registers with the opening in the side of the pan, a tubular member provided with a longitudinal series of perforations removably secured within the tubular pocket, a water outlet means arranged exteriorly of the pan and communicating with the interior of the pan, an upstanding bracket secured to the side of the pan, and a basket rotatably mounted in the pan and suspended from the bracket.

[Claims 2 to 5 not printed in the Gazette.]

1,240,426. WASHING-MACHINE MECHANISM. HERMAN C. DOMAN, Oshkosh, Wis. Filed Mar. 29, 1916. Serial No. 87,400. (Cl. 74—14.)

1. A washing machine mechanism, comprising a work shaft, a two part driving shaft extending at an angle with relation thereto, a resilient and cranked connection between the driving shaft and the work shaft, clutch members carried by the respective parts of the two part shaft for operatively connecting the two parts of the shaft together, and means for disconnecting said shaft parts.

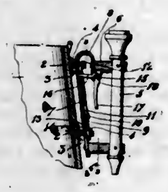


3. A washing machine mechanism, comprising a work shaft, a two part driving shaft extending at an angle with relation thereto, clutch members operatively and detachably connecting the two parts of the two part shaft together, a resilient and cranked connection between the driving shaft and the work shaft for transmitting motion from one shaft to the other and for yieldingly holding the clutch members in engagement with each other, and a wedge shaped member controlling the disengagement of one of the clutch members from the other.

4. A washing machine mechanism, comprising a work shaft, a two part driving shaft extending at an angle with relation thereto, one of said shaft parts having an endwise movement, clutch members mounted on the adjacent ends of the two part shaft to operatively and detachably connect the shaft ends together, a resilient and cranked connection between the endwise movable driving shaft part and the work shaft for transmitting a rotary movement of the driving shaft to a reciprocal and rocking movement of the work shaft and to also maintain the clutch members in engagement with each other, and means for disengaging one clutch member from the other.

[Claims 2 and 5 to 15 not printed in the Gazette.]

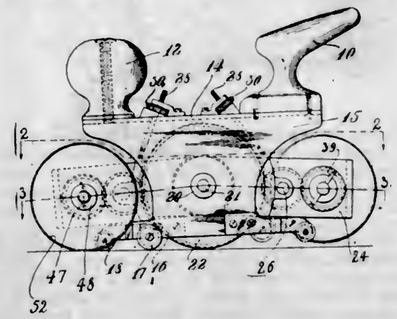
1,240,427. COOKING UTENSIL. JOHN P. DOUGHERTY, Hazleton, Pa. Filed May 25, 1916. Serial No. 99,877. (Cl. 53—3.)



1. The combination with a utensil of a detachable handle comprising a keeper bar forming a part of the handle, apertures provided in the keeper bar, a slidable latch bar mounted on the keeper bar, apertured lugs on the utensil adapted to be seated in the apertures of the keeper bar, and means for urging the latch bar into engagement in the apertures of the lugs to retain the keeper bar and handle thereon.

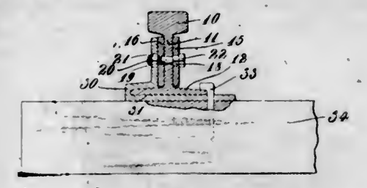
2. The combination with a utensil of a detachable handle comprising a handle portion, a keeper bar secured thereto in spaced relation, apertures provided in the keeper bar, a latch bar slidably mounted upon the keeper bar and having extensions which during movement thereof intersect the apertures, apertured lugs on the utensil adapted to be seated within the first mentioned apertures, a bell crank pivotally mounted on the keeper bar with one arm engaging the latch bar to move same and its extensions into the apertures of the lugs, a resilient member engaging the bell crank to retain said latch bar in seated position, said bell crank affording means for withdrawing the latch bar from such engagement.

1,240,428. SANDPAPERING-MACHINE. MICHAEL W. DUZEY, Seymour, Conn., assignor of one-half to Mik. Kuryllo, Seymour, Conn. Filed Mar. 2, 1917. Serial No. 152,148. (Cl. 51—13.)



In a manually operated sand papering machine, the combination with a handle, a frame depending therefrom, a roller mounted in said frame adapted to engage with the surface over which the implement is moved, a gear combined with said roller, abrading wheels carried by said frame, a plurality of support rollers upon which the first named frame is mounted, pinions engaged with said abrading rollers, connections between said pinions and said gear whereby said rollers are caused to rotate, and means for raising either of said abrading wheels one independently of the other relative to said frame.

1,240,429. RAIL-JOINT. JACOB DZIATKIEWICZ, Perth Amboy, N. J. Filed Oct. 19, 1916. Serial No. 126,510. (Cl. 239—9.)



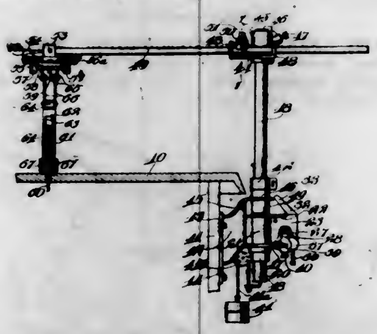
2. In a rail joint, the combination with a seat element upon which the ends of abutting rails are adapted to rest, said seat element having a rigid vertical portion provided with rectangular perforations, a pair of joint plates, one of said plates also having rectangular perforations, corresponding circular perforations being formed in the other of said joint plates, a bolt having a part fitted to the rectangular openings in one of the mentioned joint plates and passing through the other, the head of said bolt resting upon the exterior of said joint plate, a nut suited to said bolt whereby said joint plates may be clamped tightly against the sides of the rail, said nuts being receivable within the perforations of the mentioned vertical element of the seat, and means for securing said seat to its support.

[Claim 1 not printed in the Gazette.]

1,240,430. CUTTER-GUARD. PETER ERICKSON, Chicago, Ill. Filed July 22, 1916. Serial No. 110,678. (Cl. 143—159.)

1. The combination of a support, a shaft carrying the support and having a longitudinal groove, a bearing

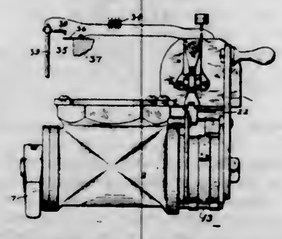
bracket rotatably supporting the shaft, a sleeve mounted on the shaft, a key carried by the sleeve and adjustable to seat in the shaft groove, and means for locking the sleeve to the bearing bracket.



2. The combination of a support, a shaft carrying the support and having a longitudinal groove, a bearing bracket rotatably supporting the shaft, a split sleeve encircling the shaft and having outstanding flanges at its ends, a key slidably mounted between said flanges and adapted to enter the shaft groove, a lever connected to the key for actuating the same and having its fulcrum on one of the flanges, and means for locking the sleeve to the bearing bracket.

3. The combination of a support, a shaft carrying the support and having a longitudinal groove, a bearing bracket rotatably supporting the shaft, a split sleeve encircling the shaft and having outstanding flanges at its ends, a key slidably mounted between said flanges and adapted to enter the shaft groove, a lever connected to the key for actuating the same and having its fulcrum on one of the flanges, means for locking the sleeve to the bearing bracket, and means for clamping the key between the flanges.

1,240,431. FILLING-VALVE. LEWIS S. EVANS, Pittsburgh, Pa. Filed Apr. 1, 1914. Serial No. 828,851. (Cl. 73—176.)

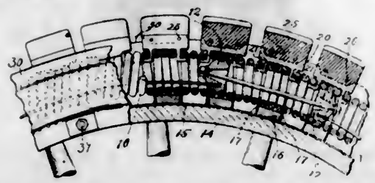


1. Apparatus of the class described, comprising a valve, a spring for closing said valve, a trip device carried by the valve casing, a valve operating lever, a plate adjustably connected to said lever and arranged to engage said trip device for holding the valve open, and operated by weight of matter discharged through the valve means for releasing said trip device from said plate to allow the spring to close said valve.

2. Apparatus of the class described, comprising a valve, a spring for closing said valve, a trip device, a tongue adjustably connected to the movable valve member and arranged to engage said trip device for holding the valve open, electrically operated means for disengaging said trip device from said tongue to allow the valve to close, and a lever connected to said valve for opening the same.

3. Apparatus of the class described, comprising a valve embodying a casing and a valve member rotatable therein, a spring located on the outside of the casing and attached to the valve member for closing the same, a trip device carried by said casing, means connected to said valve member and rotatably adjustable with reference thereto and arranged to engage said trip device for holding the valve open, and means operated by weight of discharged material for disengaging said trip device from said means to allow the valve to close.

1,240,432. SPRING-TIRE. ADRIAN A. FIRESTONE, Cleveland, Ohio. Filed Oct. 18, 1916. Serial No. 126,257. (Cl. 152—8.)



1. The combination with a wheel having an encircling row of spaced blocks which are slidable on the outer periphery of said wheel, and a coil spring annulus which embraces the block-encircled wheel and bears against the outer surfaces of said blocks and holds said blocks tightly against the periphery of said wheel.

2. The combination with a wheel having an encircling row of spaced oil-soaked wood blocks which are slidable on the outer periphery of said wheel, and a coil spring annulus which embraces the block-encircled wheel and bears against the outer surfaces of said blocks and holds said blocks tightly against the periphery of said wheel.

3. The combination with a wheel having an encircling row of wood blocks which are slidable on the outer periphery of said wheel, and a coil spring annulus which embraces the block-encircled wheel and bears against the outer surfaces of said blocks and holds said blocks tightly against the periphery of said wheel, the convolutions of said annulus being partly embedded in the outer surfaces of said wood blocks.

4. The combination with a wheel having an encircling row of spaced blocks which are slidable on the outer periphery of said wheel, and a coil spring annulus which embraces the block-encircled wheel and bears against the outer surfaces of said blocks and holds said blocks tightly against the periphery of said wheel, each of said blocks being provided at its ends with outwardly projecting metal flanges which include a group of convolutions and project between the end convolutions of said group and the convolutions next adjacent thereto.

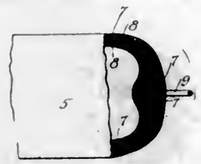
5. The combination of a wheel, a coil spring annulus mounted thereon, and a series of metal tread plates each having a recessed outer surface for the reception of a tread block and each having two inwardly projecting arms which include a group of convolutions and pass between the end convolutions of that gorup and the convolutions next adjacent thereto, which arms have circumferentially projecting fingers which lie inside of adjacent convolutions.

[Claims 6 to 9 not printed in the Gazette.]

1,240,433. AIR-BAG. FRANK J. FOOTE, Chicopee Falls, Mass., assignor to The Fisk Rubber Company, Chicopee Falls, Mass., a Corporation of Massachusetts. Filed May 10, 1917. Serial No. 167,721. (Cl. 18—45.)

1. The combination in a device of the class described of a non-collapsible bag adapted to be positioned within a tire shoe and inflated to exert pressure internally on the latter during a vulcanizing operation, a ring anchored in one end of said bag and a flexible handle attached to said ring so that it may be positioned within the tire shoe during said operation and may be subsequently used to remove the bag from the tire.

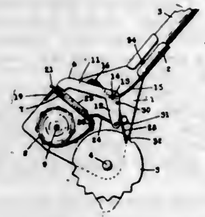
3. An air bag for use as a vulcanizing tool for tire casings, comprising, a non-collapsible cylindrical member closed at both ends and made up of fabric layers and rubber, a valve stem connected through one end and means fastened intermediate the fabric layers of the cylindrical



member by which the latter may be conveniently removed from an open-bellied casing.

[Claim 2 not printed in the Gazette.]

1,240,434. DETONATING TOY. WILLIAM F. GEHRIG, Newark, N. J. Filed Nov. 28, 1916. Serial No. 133,851. (Cl. 46—47.)



1. A detonating toy comprising an anvil, a hammer adapted to be retracted and released for striking said anvil, means for feeding caps to the portion of said anvil upon which said hammer strikes, means for operating said hammer and cap feeding means, and a wheel adapted to be rotated by engagement with the ground or the like for actuating said operating means, said wheel having teeth disposed along such parts of the periphery as to engage the ground while the operating means is being actuated thereby and having the rest of its periphery entire.

2. A detonating toy comprising an anvil, a hammer, a feeding finger pivoted on said hammer and adapted to move longitudinally of the anvil as the hammer is swung, a trip adapted to successively press the feeding finger toward the anvil and swing the hammer, and means for operating said trip.

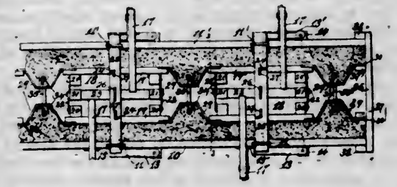
7. In a detonating toy, the combination of a plate having a socket at its edge, a handle inserted in said socket, a wheel on the same side with and spaced from said socket and pivoted on the plate so as to project beyond the edge thereof, an anvil, means for supporting a cap strip roll, and a hammer having cap strip feeding means, all mounted upon and projecting from the same side of the plate as said wheel and socket and being freely exposed thereat, and means for operating said hammer and cap feeding means by the rotation of said wheel.

[Claims 3 to 6 and 8 not printed in the Gazette.]

1,240,435. MOLD FOR CONSTRUCTING CONCRETE WALLS. ARMINI GENDRON and JOHN R. RICHARDSON, Madera, Cal. Filed Dec. 11, 1915. Serial No. 66,322. (Cl. 25—131.)

1. In combination with means for supporting the outer forms of molds used in the construction of concrete walls, of outer forms provided with apertures therethrough which are positioned in both vertical and longitudinal alinement, and wall-indenting and form-supporting means which are pivotally associated with the forms.

5. In a mold for use in the construction of walls from concrete, side plates having vertically and horizontally alined apertures therethrough, means pivotally associated with the side plates and adapted to be swung into position for forming recesses in the wall and similar means for engagement with the recesses to space and support the side plate previous to molding a further portion of the wall.



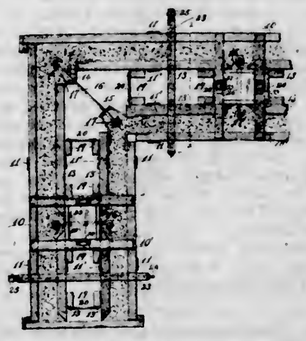
7. In molds for use in the construction of hollow walls from concrete, outer forms, expansible inner forms of less length and depth than the outer forms and angularly bent members located between the ends of the inner forms and engaging therewith, said members being shaped to provide the walls with oppositely located and inwardly extending abutments.

8. In molds for use in the construction of hollow walls from concrete, outer forms provided with loops which extend above the upper edges of the forms, inner forms provided with turn-pins which extend above the upper edges of the inner forms, a spacing bar provided with slots for the passage therethrough of the turn-pins; said spacing bar being of a length to engage with the loops attached to the outer molds.

12. In a mold the combination with inner and outer forms the inner forms being of less length than the length of the outer forms, lap plates that are adapted to bridge spaces between the ends of the inner forms to provide on the opposite inner walls abutments of a truncated wedge shaped configuration which are connected by tie bars and recesses in the lap plates that are adapted to receive the tie bars.

[Claims 2 to 4, 6, 8 to 11, and 13 not printed in the Gazette.]

1,240,436. MOLD FOR CONSTRUCTING HOLLOW WALLS OF CONCRETE. ARMINI GENDRON and JOHN R. RICHARDSON, Madera, Cal. Filed May 9, 1916. Serial No. 96,382. (Cl. 25—131.)



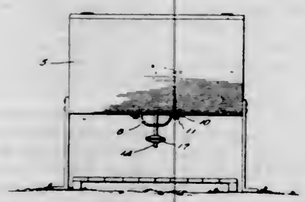
1. In a molding apparatus for use in the construction of hollow walls, the combination of inner connected mold sections, outer mold sections, the inner sections being of less length than the outer sections and spaced apart longitudinally and having the ends beveled to provide the wall with inward extending and oppositely located abutments, and means for closing the longitudinal spaces between the inner mold sections comprising a central wedge and tapered side pieces which engage with opposite inner mold sections.

3. In an apparatus for molding hollow walls, the combination with inner and outer mold sections, the inner mold sections being of less length than the outer mold sections and spaced apart longitudinally to provide abutments on the inner faces of the walls, means for closing the spaces between adjacent inner mold sections comprising a member having converging sides, tapered members associated therewith and adapted to be forced toward the inner faces of opposite inner mold sections by depression of the member having converging sides.

5. In an apparatus for molding hollow walls, the combination with outer and inner mold sections, means for connecting opposite inner mold sections, said sections in use being spaced apart longitudinally, means for closing the space between the inner mold sections at the longitudinal spaces comprising a central wedge shaped member, tapered side members which are attached to the central wedge shaped member and spacing bars for engagement with each of the mold sections maintained in hinged engagement with said central wedge shaped member.

[Claims 2, 4, 6, and 7 not printed in the Gazette.]

1,240,437. HOG-FEEDER. EMMET GORE and GEORGE S. HENSON, Rushville, Mo. Filed June 10, 1916. Serial No. 102,889. (Cl. 119—54.)



1. In a hog feeder, a container having an outlet opening, two frames attached respectively upon either side of the outlet opening, each frame being provided with a stem guide, a stem slidably mounted in said guide, a valve detachably mounted upon the stem for movement between the outlet of the container and one of the frames, and a nose engaging member mounted upon the free end of the stem.

2. The comoination with a container having an outlet opening through the bottom thereof, of a valve controlling mechanism therefor, including two frames, one disposed to rest upon the inner surface of the bottom, and the other disposed to engage the under surface of the bottom, both being adjacent the outlet opening of the container, fastening devices piercing the bottom and the adjacent portions of the frames to hold the frames securely together and upon the bottom, each frame being provided with a stem guiding opening therein, a stem mounted for sliding movement in said openings of the frames and projecting through the outlet opening of the container, a disk valve having a tubular portion slidably mounted upon the stem, means piercing the tubular portion for engaging the stem to lock the valve upon the stem, said valve being disposed to rest upon the bottom of the container to close the opening thereof and being limited in its upward movement by the frame, and a disk fixed upon the lower end of the stem and below the depending frame.

1240,438. PLAYING-BALL AND METHOD OF MAKING THE SAME. RICHARD T. GRIFFITHS, Akron, Ohio, assignor to The Miller Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed Feb. 28, 1917. Serial No. 151,614. (Cl. 154—17.)

1. The herein described method of forming a playing ball of plastic material which consists in molding a pair of hemi-spherical sections, one having a threaded projection, and the other a correspondingly threaded recess, and thereafter screwing said parts together.

2. The herein described method of forming a playing ball which consists in shaping two hemi-spherical sections of vulcanizable plastic material with parts adapted to interlock against separation to form a complete sphere, partially vulcanizing said sections, bringing them into interlocking engagement, and thereafter completing the vulcanization.



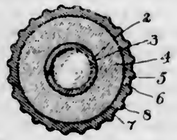
3. The herein described method of forming a playing ball which consists in shaping two hemi-spherical sections of suitable material provided respectively with male and female threaded portions, coating said threads with adhesive, and screwing said sections together to complete the sphere.

4. The herein described method of manufacturing a playing ball which consists in shaping two hollow hemispherical sections of vulcanizable plastic material having parts adapted to interlock against separation, partially vulcanizing said sections, applying a vulcanizable cement to said interlocking parts, bringing said sections together and completing the vulcanization.

7. A playing ball comprising a pair of hollow hemispherical sections having interlocking parts, a gaseous material under pressure confined within said playing ball, and means for sealing the joint against escape of such gas, comprising a spherical envelop lining the hollow interior of the ball.

[Claims 5 and 6 not printed in the Gazette.]

1,240,439. METHOD OF MANUFACTURING PLAYING-BALLS. RICHARD T. GRIFFITHS, Akron, Ohio, assignor to The Miller Rubber Company, a Corporation of Ohio. Filed Feb. 28, 1917. Serial No. 151,615. (Cl. 154—17.)

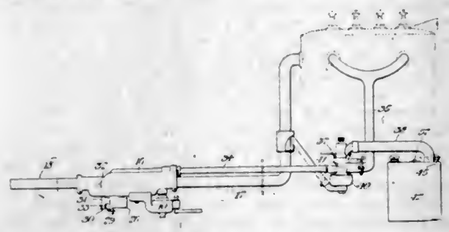


The hereindescribed method of manufacturing golf balls and the like, which consists in forming a spherical core of sections, uniting said sections with an inclosed material capable of gasifying under heat, applying to said core a winding of textile material, surrounding said textile material with a vulcanizable cover, and heating said ball in a mold sufficiently to effect vulcanization and gasify the material in the cover.

1,240,440. CARBURETER APPARATUS FOR INTERNAL-COMBUSTION ENGINES. WILLIAM GRIKSCHEIT, Detroit, Mich., assignor of two-thirds to William D. Reid, Montreal, Quebec, Canada, and one-third to Robert G. Reid, St. Johns, Newfoundland, Canada. Filed Aug. 8, 1916. Serial No. 113,700. (Cl. 261—9.)

1. In a carbureter apparatus for internal combustion engines, means for mixing air and fuel; means for receiving said mixture and converting it into superheated vapor; means for receiving the said superheated vapor and reducing the temperature thereof, and means for supplying a relatively large proportion of artificially humidified air to the cooled vapor.

2. In a carbureter apparatus for internal combustion engines, means for mixing air and fuel; means for receiving said mixture and converting it into superheated vapor; means for receiving the said superheated vapor and reducing the temperature thereof, and means for supplying a relatively-large proportion of artificially humidified air to the cooled vapor, said air-supplying means including a valve for automatically controlling the flow of the humidified air.



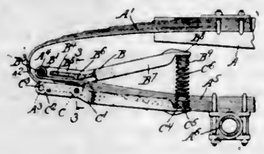
3. In a carbureter apparatus for internal combustion engines, means for mixing air and fuel; a structure comprising a chamber for receiving said mixture and converting it into superheated vapor; means for maintaining said chamber at a predetermined temperature; means for receiving the said superheated vapor and reducing the temperature thereof, and means for supplying a relatively-large proportion of artificially humidified air to the cooled vapor.

4. In a carbureter apparatus for internal combustion engines, means for mixing air and fuel; a structure comprising a chamber for receiving said mixture and converting it into superheated vapor; means for maintaining said chamber at a predetermined temperature; means for receiving the said superheated vapor and reducing the temperature thereof, and means for supplying a relatively-large proportion of artificially humidified air to the cooled vapor, said air-supplying means including a valve for automatically controlling the flow of the humidified air.

5. In a carbureter apparatus for internal combustion engines, means for mixing air and fuel; means for receiving said mixture and converting it into superheated vapor; a conduit leading from said latter means, and means for supplying artificially humidified air to the conduit at a point sufficiently remote from the vaporizing means whereby the superheated vapor in its passage through said conduit is partially cooled, but not condensed, before the admixture of the humidified air therewith.

[Claims 6 to 8 not printed in the Gazette.]

1,240,441. SHOCK-ABSORBER. LEWIS P. HALLADAY, Streator, Ill. Filed Nov. 15, 1915. Serial No. 61,467. (Cl. 267—19.)



1. A road vehicle having a supporting axle, a flat leaf spring resting thereon, a lever pivoted at one end on the spring, a stop between the lever and the spring adjacent its end, a scroll leaf spring, a vehicle body suspended thereon, the end of the scroll being located immediately beneath the end of the flat leaf spring, a lever having its end pivoted on the scroll, said levers being pivoted together immediately adjacent the stop, and a yielding member interposed between the free ends of the levers.

2. A road vehicle having a supporting axle, a flat leaf spring resting thereon, a lever pivoted at one end on the spring, a scroll leaf spring, a vehicle body suspended thereon, the end of the scroll being located immediately beneath the end of the flat leaf spring, a lever having its end pivoted on the scroll, said levers being pivoted together beneath the flat spring, and a yielding member interposed between the free ends of the levers, one lever being located above and the other below the flat spring.

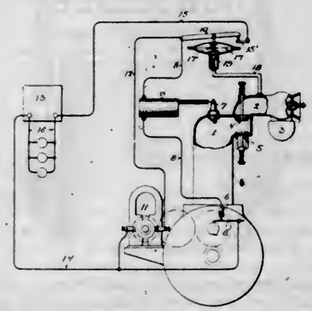
3. A road vehicle having a supporting axle, a flat leaf spring resting thereon, a lever pivoted at one end on the spring, a stop between the lever and the spring adjacent its end, a scroll leaf spring, a vehicle body suspended thereon, the end of the scroll being located immediately beneath the end of the flat leaf spring, a lever having its end pivoted on the scroll, said levers being pivoted together immediately adjacent the stop, and a yielding member interposed between the free ends of the levers, and said levers being for a portion of their length interposed in line with the springs and offset beyond the pivotal point to bring the yielding member into a position at one side of said springs.

4. A road vehicle having a supporting axle, a flat leaf spring resting thereon, a lever pivoted at one end on the spring, a scroll leaf spring, a vehicle body suspended thereon, the end of the scroll being located immediately beneath the end of the flat leaf spring, a lever having its end pivoted on the scroll, said levers being pivoted together beneath the flat spring, and a yielding member interposed between the free ends of the levers, and said levers being for a portion of their length interposed in line with the springs and offset beyond the pivotal point to bring the yielding member into a position at one side of said springs, one of said levers being located above, the other below the flat spring.

5. A road vehicle comprising a flat supporting spring, a lever pivoted at one end thereon, a stop on the lever engaging and resting on the upper edge of the spring, the lever being beyond the stop bent upwardly away from and outwardly to one side of the spring, lugs depending downwardly from such lever on the side of the spring below the stop, a lever pivoted in said lugs, said lever being bent outwardly to one side of the spring substantially beneath the first lever, a yielding member interposed between the free end of said levers and a connection between opposed end of said second lever and the vehicle body.

[Claim 6 not printed in the Gazette.]

1,240,442. CIRCUIT-BREAKER. WILLIAM S. HARLEY, Milwaukee, Wis., assignor to Harley-Davidson Motor Co., Milwaukee, Wis. Filed May 18, 1914. Serial No. 839,204. (Cl. 123—165.)



1. In an electric supply system, the combination of an internal combustion engine, a vacuum responsive device associated with the intake pipe thereof adapted to respond relatively quickly to a partial vacuum in said intake pipe and relatively slowly to the absence of vacuum in said intake pipe, and an electric circuit controlled by said vacuum responsive device.

2. In an electric supply system, the combination of an internal combustion engine, a vacuum responsive circuit controlling device associated with the intake pipe thereof adapted to respond relatively quickly to a partial vacuum in said intake pipe and relatively slowly to the absence of vacuum in said intake pipe, an electric generator driven by said internal combustion engine, a storage battery adapted to be charged by said generator and an electric

circuit including said battery, generator and vacuum responsive circuit controlling device.

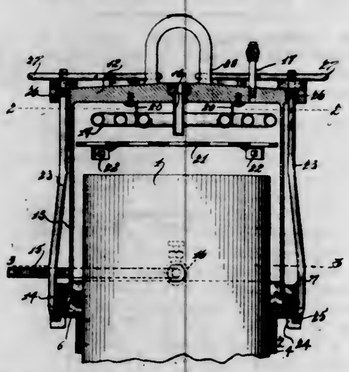
3. In an electric supply system, the combination of an internal combustion engine, a vacuum responsive circuit controlling device associated with the intake pipe of said internal combustion engine, said device being relatively quickly displaced from its normal position by the presence of a partial vacuum in said intake pipe, and returning to its normal position relatively slowly during the absence of a partial vacuum in said intake pipe, a source of electricity, ignition apparatus for said internal combustion engine, and an electric circuit including said source of electricity, said ignition circuit and said vacuum responsive circuit controlling device.

4. In an electric supply system, the combination of an internal combustion engine, a vacuum responsive circuit controlling device associated with the intake pipe of said internal combustion engine, said device being relatively quickly displaced from its normal position by the presence of a partial vacuum in said intake pipe and returning to its normal position relatively slowly during the absence of such vacuum in said intake pipe, a source of electric energy, a load for said source, and a circuit including said source of electric energy, said load and said vacuum responsive circuit controlling device.

5. In an electric supply system, the combination of an internal combustion engine, a chamber communicating with the intake pipe thereof, a check valve in the passage between said chamber and said intake pipe, permitting a rapid flow of air from said chamber to said intake pipe, and but a slow flow of air in the opposite direction, a flexible piece forming a portion of the wall of said chamber, and an electric circuit controlled by said flexible piece.

[Claims 6 to 8 not printed in the Gazette.]

1,240,443. APPARATUS FOR TREATING TIMBER. ERNEST F. HARTMANN, New York, N. Y. Filed Feb. 20, 1917. Serial No. 149,879. (Cl. 99—12.)



1. In an apparatus for treating timber in combination, a timber-embracing member having side walls surrounding said timber, a collar for encircling said timber adjacent the end of said side walls, means for locking said side walls and collar together, plastic material which has set and hardened supported by said collar for closing the outlet from between said side walls and said timber, and an inlet for introducing timber treating fluid under pressure to the space between said timber and said embracing member.

4. In an apparatus for treating timber in combination, a timber-embracing member having side walls surrounding said timber, a collar for encircling said timber adjacent the end of said side walls, means for locking said side walls and collar together, plastic material which has set and hardened supported by said collar for closing the outlet from between said side walls and said timber, and an inlet for introducing timber treating fluid under pressure to the space between said timber and said embracing member.

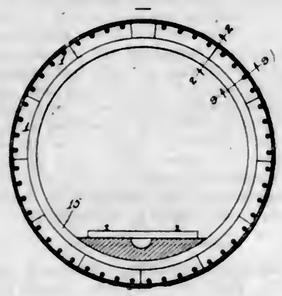
5. In an apparatus for treating timber in combination, a timber-embracing member having side walls surrounding said timber, plastic material which has set and hardened between said side walls and said timber for closing the outlet from the space therebetween, and an inlet for introducing timber treating fluid under pressure to said space between said timber and said embracing member.

8. In an apparatus for treating timber in combination, a timber-embracing member having side walls surrounding said timber, plastic material which has set and hardened between said side walls and said timber for closing the outlet from the space therebetween, a collar for supporting said plastic material while setting, means for locking said collar and timber-embracing member together, and an inlet for introducing timber treating fluid under pressure to said space between said timber and said embracing member.

14. In an apparatus for treating timber in combination, a timber-embracing member comprising a head and side walls for surrounding said timber, plastic material which has set and hardened between said side walls and said timber for closing the outlet from the space therebetween, a fluid conducting pipe extending through said side walls near the lower end thereof but above said plaster seal.

[Claims 2, 3, 6, 7, and 9 to 13 not printed in the Gazette.]

1,240,444. TUNNEL CONSTRUCTION. CORNELIUS G. HASTINGS, West Hoboken, N. J., assignor to Hastings Tunnel System Company, a Corporation of New York. Filed Oct. 18, 1915. Serial No. 56,518. (Cl. 61—16.)



1. A tunnel structure of the class described comprising a plurality of blocks in built-up relation, each of said blocks recessed along its edges on its outer surface affording circumferential grooves and staggered longitudinally disposed recesses in the outer walls of the tunnel structure, the end walls of each of said blocks recessed to afford radially disposed holes in the built-up tunnel structure, tie rods disposed in said circumferential recesses, cross straps attached to said tie rods and laid within said longitudinal staggered recesses, and a filling of grouting adapted to be blown through said radial holes to invest the outer wall of the built-up structure and fill said radial apertures.

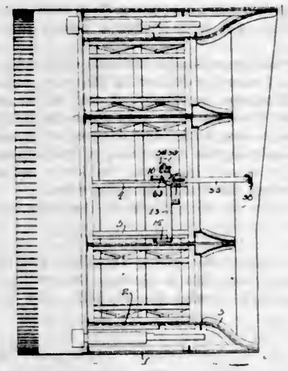
2. A tunnel comprising blocks laid one upon another in parallel rows and in staggered relation, each of said blocks having metallic Z-bars recessed into the outer edges thereof affording circumferential grooves between said respective rows of blocks, retaining rings secured around said tunnel and laid within said circumferential grooves, and cross straps secured upon the respective rings of each row of blocks and disposed in recesses formed at the ends of abutting blocks.

3. A tunnel construction of the class described comprising a plurality of blocks assembled with one another, each of said blocks having metallic Z bars molded thereinto on the exterior thereof, said bars affording peripheral grooves in the tunnel construction, circumferential tie rods fitted into said grooves, and cross members secured at a plurality of points around the exterior of the tunnel construction between adjacent tie rods.

4. In a tunnel construction of the class described a plurality of blocks laid one against another, means extending transversely through the blocks to interlock the same with one another, mechanism extending circumferentially around the exterior of the blocks to reinforce the same and retain the same in position, each of said blocks recessed at its ends in the outer surface, and cross members laid in said recesses and attached to said circumferential mechanism to retain the same in position.

5. In a tunnel construction of the class described a plurality of reinforced concrete blocks, interlocking means between the respective adjacent rows of blocks comprising telescoping rods and sleeves breaking joints with one another, a threaded connection between the ends of abutting sleeves, Z-bar members recessed into the outer surface of said blocks affording a plurality of peripheral exterior metallic grooves in the tunnel construction, reinforcing tie rods laid within said grooves, and means extending transversely between said grooves and connecting said tie rods one to another.

1,240,445. EXCAVATOR. CORNELIUS G. HASTINGS, Glendale, Cal., assignor to Hastings Tunnel System Company, a Corporation of New York. Filed Nov. 26, 1915. Serial No. 63,492. (Cl. 61—44.)



1. An excavating device of the class described comprising a pivotally mounted shaft, means advancing the same forwardly, a swinging arm connected with said shaft and mechanisms for swinging said arm through a relatively wide angle to break the material into which the same is thrust.

2. In an excavating device of the class described, a movable carriage, a shaft swingingly connected therewith, a swinging arm mounted thereon, means for locking said shaft from movement, and cumulatively acting mechanisms operating to swing said arm, the one operating to impart a horizontal movement and the other a vertical movement to said arm to effect a composite movement thereof.

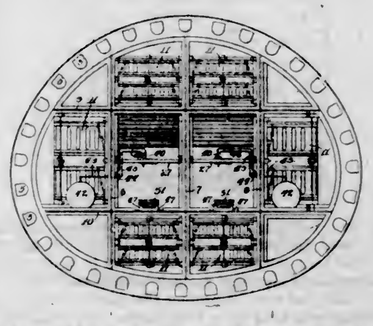
3. In an excavating device of the class described, a movable carriage, means swingingly mounted thereon, locking means therefor, a swinging arm mounted on said means, a stationary cutter head on the end of said arm, means adjusting said cutter head at different positions with respect to said arm, and power mechanisms mounted on said first mentioned means to swing said arm to cut material into which the cutter head is projected.

4. In an excavating device of the class described, a carriage, means advancing the same, a swingingly mounted shaft on said carriage, means locking the same in a fixed position, a swinging arm on said carriage, a cutter head on the end of said arm, and mechanisms mounted on said carriage to swing said arm and to advance the same step by step to one side or the other to effect a cut in a predetermined area against which the cutter head is projected.

5. In an excavating device of the class described, a carriage, means advancing the same, a horizontally swinging shaft on said carriage, a horizontally and vertically swinging arm connected with said shaft, a cutter head on the end thereof, means adjusting the cutter head with respect to said arm, and power mechanisms on said carriage for swinging said arm to effect a resultant movement thereof due to a combination of vertical and horizontal movements imparted thereto.

[Claim 6 not printed in the Gazette.]

1,240,446. TUNNEL-SHIELD. CORNELIUS G. HASTINGS. Glendale, Cal., assignor to Hastings Tunnel System Company, a Corporation of New York. Filed Nov. 26, 1915. Serial No. 63,494. (Cl. 61—45.)



1. In a tunneling shield of the class described divided into a plurality of compartments, means for closing certain of said compartments, sliding shutter doors for other of said compartments comprising T-bars, pintle brackets secured thereon, and chains connected to said pintle brackets, counterweights for said shutter doors, and guides disposed at the upper ends of the compartments in which the shutter doors are mounted to receive the same when the same are in open position.

2. In a tunneling shield of the class described divided into a plurality of compartments, a flexible metal door for one of said compartments comprising a plurality of T-bars, brackets rigidly secured to the ends of said T-bars, and chain links attached to said brackets for holding said T-bars associated with one another, vertical guides disposed at the forward end of the compartment to afford a guide and support for said door when in closed position, and horizontally disposed guides in the upper end of the compartment to receive a door drawn thereinto when the same is drawn open.

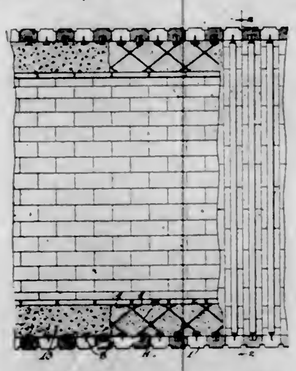
3. A tunneling shield comprising a plurality of compartments, doors at the forward ends of said compartments, certain of said doors comprising a plurality of hingedly connected T-bar sections, and guides for said latter doors to receive the same disposed in horizontal position at the upper ends of certain of the compartments when the doors are opened.

4. In a tunneling shield of the class described divided into a plurality of compartments, vertical guideways afforded by the frame structure of said tunneling shield at the forward end on the sides of certain of said compartments, a sectional flexible door of T-bar sections slidable in said guideways of one of said compartments, and horizontal guides to receive the flexible door drawn thereover and disposed at the upper end of the compartment out of interference with excavating operations performed from within said compartment.

5. In a tunneling shield divided into compartments, sectional flexible metallic doors provided therefor comprising T-bars, chains at each end of said T-bars to which said T-bars are connected in associated relation, guides

built into the framework of said tunneling shield for said sectional doors, and means receiving said sectional doors disposed thereon when the door is moved into open position of said guides.

1,240,447. TUNNEL AND RETAINING WALL CONSTRUCTION. CORNELIUS G. HASTINGS, Glendale, Cal., assignor to Hastings Tunnel System Company, a Corporation of New York. Filed Nov. 26, 1915. Serial No. 63,496. (Cl. 61—16.)



1. In a building construction of the class described, an inner wall consisting of blocks laid in built up relation, an outer wall consisting of blocks laid in built up relation, reinforcement members molded within the blocks of said inner wall and bent to project through the surface thereof affording attaching eyes, T-bar forms supporting the blocks of said outer wall, connecting means clamped on said T-bar forms, reinforcement members connected to said attaching eyes and connecting means of the blocks of said respective walls in a manner to draw the blocks of the walls toward one another to afford tight joints between the blocks, and a filling of concrete poured within the space between said inner and outer walls and bonding about said reinforcement members.

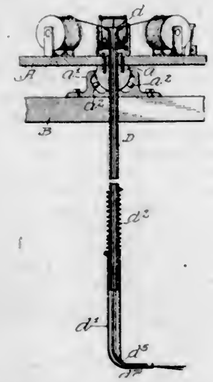
2. In a tunnel construction of the class described, an inner built up wall, reinforcement rods molded therein and projecting through the surface thereof affording attaching eyes, an outer built up wall, T-bar forms on which the blocks of said outer wall are assembled, attaching clips engaged thereon, reinforcement members connected to said clips and to the eyes of said inner walls, and a filling of concrete between said inner and outer walls molded about said reinforcement members.

1,240,448. IMPLEMENT FOR WINDING ARMATURES. WILLIAM T. HENSLEY, Boundbrook, N. J., assignor, by mesne assignments, to Bound Brook Engine & Mfg. Co., a Corporation of Delaware. Filed May 24, 1912. Serial No. 699,602. (Cl. 242—13.)

1. A winding machine comprising means for supporting a plurality of wires, a device for delivering the wires, a mechanism for permitting free movement of said device to feed the wires therefrom, means for preventing the wires from twisting, comprising a revolving and oscillating table, and means for properly placing the wires.

2. A winding machine comprising means for supporting the wire, a device for delivering the wire, and mechanism for permitting free movement of said device and preventing the wire from twisting, said means including a revolving and oscillating table, and a wire reel secured on said table.

3. A winding machine comprising means for supporting the wire, a device for delivering the wire, and mechanism for permitting free movement of said device and preventing the wire from twisting, said means including a revolving and oscillating table, a plurality of wire reels mounted on said table, and said mechanism including a ball and socket joint for the bottom of said table, said joint having a passage for the wires.

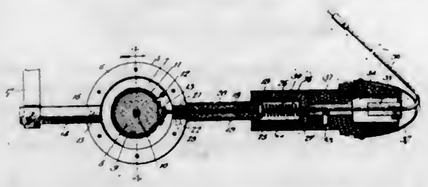


4. A winding machine comprising means for supporting the wire, a device for delivering the wire, and mechanism for permitting free movement of said device and preventing the wire from twisting, the said device comprising a telescoping feed tube depending from said means, and the lower end of said tube having a nozzle for discharging the wire.

5. A winding machine comprising means for supporting the wire, a device for delivering the wire, and mechanism for permitting free movement of said device and preventing the wire from twisting, said means including a revolving and oscillating table, and a wire reel secured on said table, the said device comprising a telescoping feed tube depending from said table, and the lower end of said tube having a nozzle for discharging the wire.

[Claims 6 to 20 not printed in the Gazette.]

1,240,449. ELECTRICALLY-HEATED VALVE. CLAUDE J. HINSHAW and ROY L. GABLE, Shelbyville, Ind. Filed Apr. 12, 1917. Serial No. 161,561. (Cl. 219—38.)



1. In a device of the character set forth, the combination with a valve having an electric heater therein, of means for turning the valve, and a bearing member for said valve, including an electrical conductor for the heater having a rotatable connection therewith.

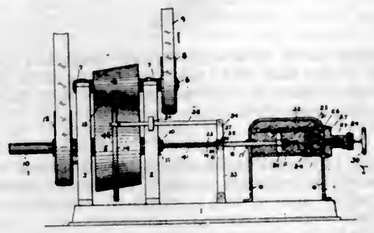
4. In a device of the character set forth, the combination with a valve having a trunnion, of an electric heating element in the valve provided with a terminal, a conductor slidable in the trunnion and engaged with the terminal, and means for yieldingly urging the conductor into engagement with the terminal.

6. In a device of the character set forth, the combination with a valve having an internal chamber, of an electric heating element therein having a terminal, oppositely projecting removable trunnions for the valve, a device connected to one trunnion for turning the valve, a conductor slidably and rotatably engaged in the other trunnion, a spring for urging said conductor inwardly into engagement with the terminal, and means for conducting a lead wire to the outer end of the conductor.

7. In a device of the character set forth, the combination with a valve having an internal chamber, of an insulating support located in said chamber, between the side walls thereof and spaced from the outer annular walls, and an electric heating coil mounted on the peripheral portion of the support and surrounding the same.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,240,450. SPEED-GOVERNOR. JAMES W. HOAG, Oakland, Cal. Filed July 21, 1914, Serial No. 852,306. Renewed Jan. 29, 1917. Serial No. 145,310. (Cl. 74—26.)



1. A speed governor comprising a vessel provided with a circulating channel, a liquid carried by said vessel, a driven member, a source causing the motion of said driven member, a governor shaft, an actuating member operated by said governor shaft, adapted to act upon said liquid, so as to create a hydrostatic pressure within said vessel, mechanism adapted to be acted upon by said pressure and forced to move in one direction for a greater or less distance varying with the said pressure, means adapted to act yieldingly upon said mechanism so as to counterbalance the force of said variable pressure at each position of said mechanism and means connecting said mechanism with said source.

2. A speed governor comprising a vessel provided with a circulating channel, a liquid carried by said vessel, a driven member, a source causing the motion of said member, a governor shaft, an actuating member operated by said governor shaft adapted to act upon said liquid, so as to create a hydrostatic pressure within said vessel, mechanism adapted to be acted upon by said pressure and forced to move in one direction for a greater or less distance varying with the said pressure, a spring adapted to counterbalance the force of said varying pressure at each position of said mechanism, and means connecting said mechanism with said source.

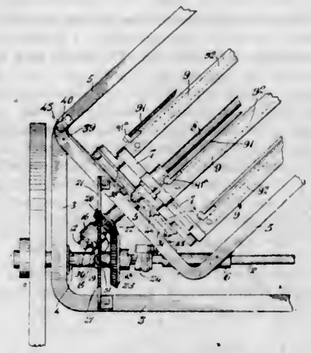
3. A speed governor comprising a vessel provided with a circulating channel, a liquid carried by said vessel, a driven member, a source causing the motion of said driven member, a governor shaft, a screw propeller slidably mounted on said governor shaft rotating in unison with it adapted to act upon said liquid, so as to create a hydrostatic pressure within said vessel and to be reacted upon by said pressure and forced to move in one direction, means acting yieldingly upon said propeller adapted to counterbalance the force of said pressure, and means connecting said propeller with said source.

4. A speed governor comprising a vessel provided with a circulating channel, a liquid carried by said vessel, a driven member, a source causing the motion of said member, a governor shaft, a screw propeller slidably mounted on said governor shaft, rotating in unison with it adapted to act upon said liquid so as to create a hydrostatic pressure within said vessel and to be reacted upon by said pressure and forced to move in one direction, a spring adapted to counterbalance the force of said pressure, and means connecting said propeller with said source.

5. A speed governor comprising a vessel provided with a circulating channel, a liquid carried by said vessel, a driven member, a source causing the motion of said driven member, a governor shaft, an actuating member opearted by said governor shaft, adapted to act upon said liquid, so as to create a hydrostatic pressure within said vessel, varying with the speed of said actuating member, mechanism adapted to be acted upon by said varying hydrostatic pressure and forced to move in one direction, and means acting yieldingly upon said mechanism and adapted to counterbalance the force of said variable pressure, a shifting member adapted to be acted upon by the said counterbalancing opposing forces and to vary in position at each variation of the intensity of said forces, and means connecting said shifting member with said source so as to determine the action of the latter by the position of the former.

[Claims 6 to 8 not printed in the Gazette.]

1,240,451. SIDE-DELIVERY RAKE. HENRY B. HOLTVOIGT, Dayton, Ohio, assignor to The Ohio Rake Company, Dayton, Ohio, a Corporation of Ohio. Filed May 6, 1914. Serial No. 836,604. (Cl. 56—115.)

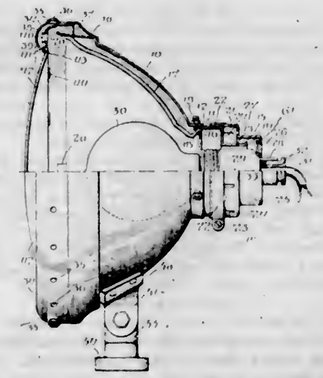


1. In a side delivery rake, a main axle, a rake reel shaft, a hanger on the main axle, means for loosely holding one end of the rake reel shaft on said hanger so as to permit a tilting therein, and means for adjustably swinging the hanger, to tilt up or down the end of the rake reel shaft.

3. In a side delivery rake, a main axle, a rake reel shaft, a hanger on the main axle, a sleeve on the rake reel shaft, a collar on the hanger loosely mounted on the sleeve, means in the hanger to engage the sleeve axially and against revolution, and means for adjustably swinging the hanger to tilt up or down the end of the rake reel shaft.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,240,452. FLOODLIGHT-PROJECTOR. PAUL M. HOTCHKIN, Chicago, Ill. Filed June 12, 1916. Serial No. 103,086. (Cl. 240—41.)



1. A housing for light producers having an opening, a closure for the opening comprising an inner and outer

wall connected to form a chamber, a portion of one wall standing at an angle to a portion of the other wall, the angularly disposed portions of the walls having apertures for the circulation of air, and the said outer wall having outwardly extending water guards around said aperture.

2. A housing for light producers having an opening, a closure for the opening comprising an inner and outer wall connected to form a chamber, a portion of one wall standing at an angle to a portion of the other wall, the angularly disposed portions of the walls having apertures for the circulation of air, the said outer wall having outwardly extending portions forming water guards around said aperture.

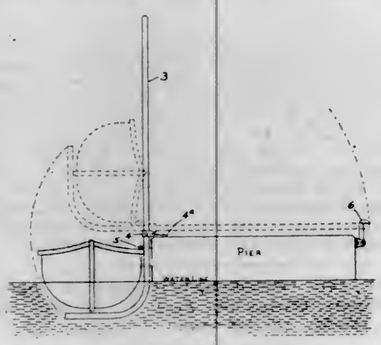
3. A housing for light producers having openings, a ventilated closure for one of the openings, a ventilated socket casing extending from the other opening and having a moisture confining channel, and a closure for the end of the socket casing having ventilating and draining apertures.

4. A housing for light producers having openings, a ventilated closure for one of the openings, a ventilated socket casing extending from the other opening and having a moisture confining channel, a closure for the end of the socket casing having ventilating and draining apertures, and a shield guarding certain of the ventilating apertures.

5. A housing for light producers having openings, a ventilated closure for one of the openings, a closure for the end of the socket casing having ventilating and draining apertures, a tube connected to and communicating with the closure for electrical conductors, and means for effecting a tight joint between the conductor and the tube.

[Claims 6 and 7 not printed in the Gazette.]

1,240,453. BOAT-RAISING DEVICE. HARRY A. HOUGHTON, Seville, Ohio. Filed Dec. 27, 1915. Serial No. 68,871. (Cl. 9—22.)



1. In a device of the character described, a lever-acting frame, a supporting means for same, a hinged connection between the frame and the supporting means, a portion of the frame extending below the hinged connection and adapted to engage a boat, and adjusting means associated with the hinged connection and the frame whereby the boat-engaging portion of the latter may be positioned farther from or closer to the hinged connection.

2. In a boat tilting device of the character described, the combination of a support, a lever fulcrumed thereto at a point above the water surface to one side of the center of its longitudinal extent, and thereby presenting a lever with a long arm and a short arm, the long arm being adapted to receive the application of power, and the short arm having a submerged boat engaging position adapted to extend below the bottom of a floating boat.

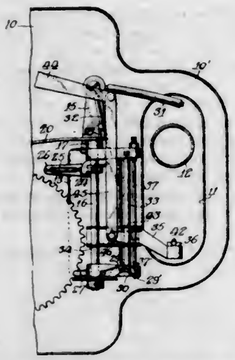
1,240,454. WINDOW-SASH. MILTON H. HUBNER, Stockton, Cal., assignor of one-half to N. W. Mahaffey, Stockton, Cal. Filed Sept. 5, 1916. Serial No. 118,427. (Cl. 20—49.)

The combination with a window sash having a beading along its sides and a glass retaining frame normally held within the sash and against the beading along its entire length, of a pivotal means whereby the lower end of the frame may be dropped below the beading and the frame



then turned out of the sash, such means comprising guides movable in the sash and capable of having their lower ends dropped below the beading, the frame being pivoted on the lower ends of the guides.

1,240,455. MOTOR-CONTROLLING MECHANISM FOR TALKING-MACHINES. ALBERT A. HUSEBY, Chicago, Ill. Filed Apr. 6, 1917. Serial No. 160,150. (Cl. 74—46.)

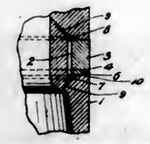


1. In a motor-controlling mechanism for talking machines, the combination of a brake, brake applying and releasing mechanism including a rock shaft and a spring tending to apply said brake through said shaft, a ratchet disk connected to said shaft, a detent pawl, a spring urging said pawl into engagement with said disk, a push-rod for disengaging said pawl from said disk, and a push-rod actuating member located in the path of a movable element of the machine.

7. In a motor-controlling mechanism for talking machines, the combination of a frame structure having parallel side members, a rock shaft journaled in and between said side members, a brake lever at one end connected to and actuated by said rock shaft and carrying a brake-block at its other end, a spring tending to apply said brake-block, a ratchet disk fast on said shaft, a detent pawl pivoted on one of said side frame members, a spring urging said pawl into engagement with said disk, a rod connecting said side frame members parallel with said shaft and forming with the latter a slideway, a slide on said said slideway having a rigid projecting buffer arm, a buffer-block carried by the free end of said buffer arm, a push-rod supported by and between said side frame members parallel with said slideway, a trip-arm formed at one end with a pair of separated down turned lugs slidably mounted on said push-rod and actuated lengthwise of the latter by said slide, said trip-arm resting upon said buffer arm and having a down turned end lying alongside said buffer-block, and a spring engaging said trip-arm in a manner to maintain its free end normally slightly spaced from said buffer-block.

[Claims 2 to 6 not printed in the Gazette.]

1,240,456. PISTON AND PISTON-RING. CHARLES E. JOHNSON, Muskegon, Mich. Filed Oct. 11, 1915. Serial No. 55,304. (Cl. 121—108.)

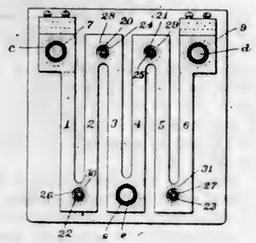


1. In combination, a piston having a ring receiving groove with upwardly and downwardly inclined passages connecting the upper and lower rear portions of the groove with the interior of the piston, and a ring seated in the groove, said ring on its lower outer portion having a groove cut therein to provide a lip adapted to scrape oil from the inner surface of a cylinder, and with radial passages extending inwardly from said groove, substantially as described.

2. In combination, a piston having a ring receiving groove formed with an upwardly extending recessed groove at its upper inner corner and also having a plurality of upwardly and inwardly extending passages connecting said recessed groove with the interior of the piston, and a ring seated in the groove, said ring on its lower outer portion having a groove cut therein to provide a lip adapted to escape oil from the inner surface of a cylinder, and with radial passages extending inwardly from said groove, substantially as described.

3. A piston having a ring receiving groove, said groove at its inner upper and lower corners being provided with recessed grooves extending from said ring receiving groove, said piston also being formed with upwardly and inwardly extending passages connecting the interior of the piston and the upper recessed groove and downwardly and inwardly extending passages connecting the interior of the piston with the lower recessed groove.

1,240,457. ELECTRIC RESISTANCE DEVICE. WILLIAM H. KELLER, Norton, Va. Filed June 2, 1915. Serial No. 31,643. (Cl. 219—69.)



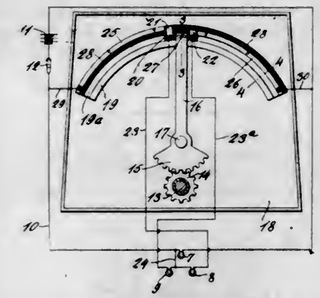
1. In an electric resistance device, the combination with a plurality of reflexed resistance grids formed from sheet metal and of substantially uniform thickness throughout, and having the greater part of their surfaces exposed to the air, clamping means including rods extending transversely of the planes of said grids for clamping the grids together, means for insulating said grids from said clamping rods, metallic and insulating spacing members adjacent said clamping rods and interposed between adjacent grids, whereby the grids are spaced apart from one another, and whereby the grids are insulated from each other or electrically connected together at desired points, rods extending transversely of the planes of said grids at points removed from said clamping rods, and carrying insulating pieces insulating the grids from the rods and from each other, the said insulating pieces of different rods being separated and individual to each rod.

2. In an electrical resistance device, the combination with a plurality of reflexed resistance grids having the greater part of their surfaces exposed to the air, clamping means including rods extending transversely of the planes of said grids for clamping the grids together, means for insulating said grids from said clamping rods and from each other adjacent to said rods, and insulating separating means interposed between adjacent grids at each place of flexure.

6. In an electrical resistance device, the combination with a plurality of reflexed resistance grids, having the greater part of their surfaces exposed to the air, the said grids being punched from sheet steel and having the reflexed portions of a grid of substantially equal length, of means for clamping the grids together, comprising rods extending along said grids, insulating bushings and washers on said clamping rods, grid connecting washers upon said clamping rods, rods smaller than said clamping rods passing through said grids at each point of flexure and insulating bushings and washers carried by the last mentioned rods.

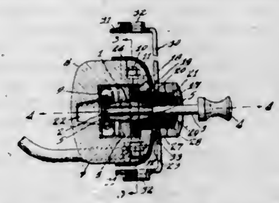
[Claims 3 to 5 not printed in the Gazette.]

1,240,458. SIGNAL-LAMP. HAROLD S. KITTREDGE, Chicago, Ill., assignor of one-half to Holton A. Anderson, Chicago, Ill., and one-half to Freeman D. A. Hunter, Fort Wayne, Ind. Filed June 4, 1915. Serial No. 32,122. (Cl. 175—282.)



A circuit controller comprising a rotary element, a lever, operatively connected to said element, brushes carried by the lever, contact strips for the respective brushes, said contact strips being separated endwise, a shoe carried by the lever, said shoe being of insulation and carrying the brushes, an arcuate guide having an undercut channel in which the shoe is slidably mounted, and an electric circuit controlled by the contact strips and the brushes.

1,240,459. ELECTRIC SWITCH. CHARLES J. KLEIN, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed June 12, 1911. Serial No. 632,531. (Cl. 175—284.)



1. A switch for concealed mounting, comprising, in combination, an insulating casing, a snap switch mechanism inclosed therein and having an operating member extending thereb eyond, a bushing having an opening to receive said operating member, means for securing said bushing

to said casing, and adjustable means carried by said bushing for clamping said casing to a suitable support.

2. A switch for concealed mounting, comprising, in combination, a snap switch mechanism, a protective supporting casing therefor, said switch mechanism having an operating member projecting beyond said casing, a bushing encircling said member, means for securing said bushing to said casing, and adjustable means on said bushing for detachably clamping said casing to a support.

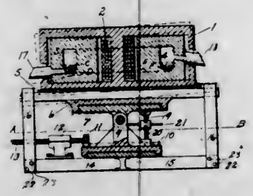
3. A switch for concealed mounting, comprising, in combination, a snap switch mechanism, a two-part casing therefor including an insulating base having thereon stationary contacts for said mechanism, a threaded bushing having an opening through which the operating member of said mechanism is movable, means for securing said bushing to one of the parts of said casing, and locking nuts threaded on said bushing for effecting its attachment to a support.

4. A switch for concealed mounting, comprising in combination, a casing, a snap switch mechanism therein having an operating member extending therethrough, an exteriorly threaded bearing for said member, means for securing said bearing to said casing, and adjustable means carried by said bearing for attaching said casing to a support.

5. A switch for concealed mounting, comprising in combination, a two-part insulating casing, a snap switch mechanism inclosed between the parts of said casing and having an operating member operable from the exterior thereof, a bushing and means for fixing the same to one of the parts of said casing and having an opening through which said operating member extends, and removable and adjustable means carried by said bushing for clamping said casing to a suitable support.

[Claims 6 to 13 not printed in the Gazette.]

1,240,460. ELECTRIC FURNACE. DAVID R. KNAPP, Pottsville, Pa., assignor to The Eastern Steel Company, Pottsville, Pa., a Corporation of Pennsylvania. Filed Feb. 19, 1916. Serial No. 79,351. (Cl. 204—64.)



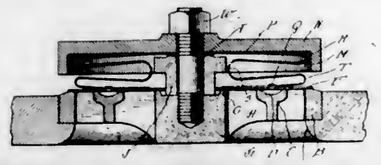
1. In an induction furnace of the character described, a fixed base, a supporting casting revolubly mounted on said base, means for rotating said supporting casting, a circular element supported by a trunnion on said supporting casting, means for varying the plane of said circular element, a furnace revolubly mounted on said circular element, and means to prevent the furnace from rotating, substantially as described.

3. In an electric furnace, a crucible or trough mounted for rotary movement and adapted to contain a body of metal, means for heating the metal, means for producing a maximum cross-sectional area of metal at one part of the trough and a minimum cross-sectional area of metal at another part of the trough and means for simultaneously varying the location of said maximum and minimum areas.

5. In an electric furnace, the combination of a rotatable crucible or trough for containing a body of metal to be refined, means to lock said furnace against rotation, means to produce a circumferentially oscillating movement to said trough in its locked position and means operable at will for releasing said furnace whereby rotary movement may be imparted and the metal discharged in any radial direction.

[Claims 2 and 4 not printed in the Gazette.]

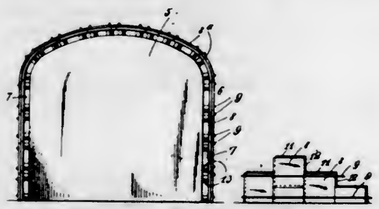
1,240,461. VALVE FOR COMPRESSORS. CHARLES H. LEINERT, Chicago, Ill. Filed Nov. 29, 1915. Serial No. 64,188. (Cl. 103—66.)



1. In a check-valve for blowers and compressors, a reciprocable valve, a stop-member for limiting the opening movement thereof, and a plurality of springs for maintaining said valve on its seat, said springs each consisting of a flat strip of metal bent zig-zag to provide a plurality of leaves, the end leaves thereof detachably engaged with said valve and said stop member, there being raised straps on the valve beneath which the ends of respective springs are received and held.

2. In a check-valve for blowers and compressors, a reciprocable valve, a stop-member for limiting the opening movement thereof, and a plurality of springs for maintaining said valve on its seat, said springs each consisting of a flat strip of metal bent zig-zag to provide a plurality of leaves, the end leaves thereof detachably engaged with said valve and said stop member, said valve provided with raised portions forming slots for receiving and removably holding the ends of respective springs.

1,240,462. HEAT-INSULATING UNIT. JOHN C. LOHSE, Glen Ridge, N. J. Filed Apr. 13, 1916. Serial No. 90,994. (Cl. 154—45.)



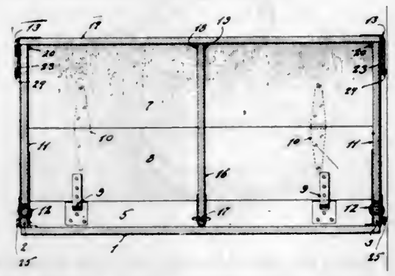
1. A heat insulating unit comprising a thin block of asbestos provided with projecting flanges, a metallic lath embedded within said block and extending therethrough from edge to edge, and heat insulating pins carried by said block and extending therefrom in a direction lateral to the general plane thereof.

2. A heat insulating unit comprising a block of heat insulating material, a metallic strengthening member embedded therein and having a foraminous form, a bolt connected with said metallic strengthening member and extending in a direction lateral thereto, a porcelain pin of substantially tubular form into which said bolt extends, and a filling of heat-insulating material disposed within said pin and covering a portion of said bolt.

3. In a heat insulating unit the combination of a block of heat insulating material, a reinforcing metallic member of foraminous form embedded therein, a nut located within said block and disposed adjacent said metallic member, a bolt engaging said nut and extending from said metallic member, and a porcelain pin carried by said bolt.

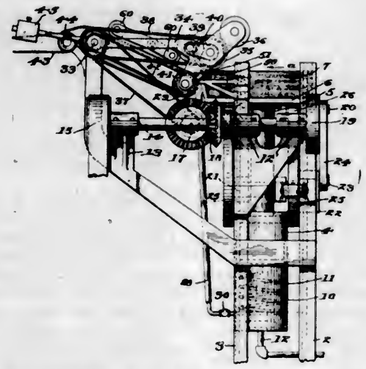
1,240,463. FOLDING CRATE. MINNIE ALBERTA LONG, Lake Charles, La. Filed Mar. 20, 1916. Serial No. 85,420. (Cl. 217—15.)

1. An improved folding crate, comprising: the combination of a fixed bottom; opposite fixed side and end bars above said bottom; double folding side-sections hinged to said side bars; ends hinged to the said end bars; a center partition slidingly hinged at its lower edge to said side-bars, the relative proportions of the end-bars, ends and partition being such that when folded down both ends will rest upon said center partition, and said side sections will rest upon said ends; and a suitable top for the crate.



2. An improved folding crate comprising a bottom, lower end bars resting on said bottom, side bars resting on said bottom, upper and lower folding side sections hinged together at their inner edges, hinges connecting the lower side sections to said side bars, a central partition hinged at its lower edge to said side-bars, to fold down upon said bottom, ends having their lower edges hinged to said cross bars to fold upon and be held up by said partition when the latter is down, a top hinged at one edge and carrying upon its under side projections which are adapted to engage and retain said ends in an upright condition when the crate is set up, upper cross bars to which the said top is hinged and suitable sliding bolts for engaging apertures formed in said upper cross bars to lock said top in a closed position.

1,240,464. PAPER-FEEDER. GEORGE B. MCCORMACK, Jersey City, N. J. Filed Oct. 31, 1916. Serial No. 128,698. (Cl. 271—39.)



1. An automatic paper feeder comprising a table adapted to support a stack of paper, a revolving vertically movable roller mounted above the stack, and means for successively raising and lowering the table upon feed of each sheet to bring the topmost sheet of the stack into engagement with the roller to raise the latter.

2. An automatic paper feeder comprising a table adapted to support a stack of paper, a pivotally mounted frame, a revolving roller journaled in the free end of the frame above the paper stack to partake of the frame movements, and means for raising and lowering the table to bring the topmost sheet of the stack into and out of engagement with the roller.

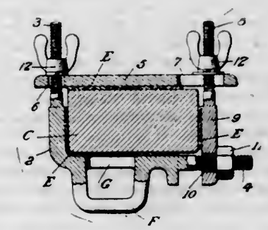
3. An automatic paper feeder comprising a table adapted to support a stack of paper, a pivotally mounted frame, a plurality of revolving feed rollers journaled in the free end of the frame, a plurality of revolving stripping rollers journaled in the frame adjacent the feeder rollers and intermediate the same, and means for raising and lowering the table to bring the topmost sheet in the stack into engagement with the feeding rollers.

4. An automatic paper feeder comprising a table adapted to support a stack of paper, a pivotally mounted frame, a plurality of revolving feed rollers journaled in the free end of the frame, a plurality of revolving stripping rollers journaled in the frame adjacent the feeder rollers and intermediate of same, means for raising and lowering the table to bring the topmost sheet in the stack into engagement with the feeding rollers, and a conveyer belt carried by the pivotally mounted frame, operating in unison with feeding and stripping rollers to discharge each sheet as it is removed from the stack by the feeding rollers.

5. An automatic paper feeder comprising a table adapted to support a stack of paper, a pivotally mounted frame, a revolving roller journaled in the free end of the flange above the paper stack, and means for raising and lowering the table to bring the topmost sheet of the stack into engagement with the roller, means for limiting the downward swinging movement of the free end of the pivotally mounted frame, and means for limiting both the upward and downward movement of the table.

[Claims 6 to 21 not printed in the Gazette.]

1,240,465. ANTISKIDDING DEVICE. WILLIAM H. MCLAUGHLIN, Hartford, Conn., assignor to Cassius S. Chase, Hartford, Conn. Filed Mar. 30, 1917. Serial No. 158,544. (Cl. 24—263.)



1. An adjustable clamp comprising a front plate extending in two directions and having its ends provided with externally screw-threaded parts, a side plate having a perforation near one end to receive one of said screw-threaded parts, its other end being provided with an externally screw-threaded part, and a rear plate provided near one end with a hole to receive the other screw-threaded part of the front plate and provided near its other end with a longitudinal slot adapted to receive at any point the screw-threaded part of said side plate, and nuts turning on said screw-threaded parts to hold said plates in assembled and adjusted position.

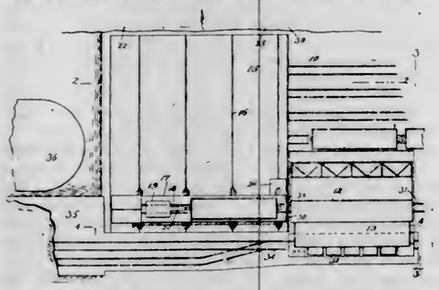
4. An adjustable clamp comprising a front plate, a rear plate provided with a longitudinal slot near one end and a side plate adapted to be adjustably connected at one end to said front plate and having a part projecting through said slot, in combination with means traveling on said part to lock it in any such adjusted position and to also move the rear plate toward the front plate and lock it against movement therefrom, and means for adjusting the position of the other end of the rear plate with the view of holding said front and rear plates parallel to each other for the purpose set forth.

5. A clamp comprising three plates, one of which is provided with a hole near one end and a slot near the other, another being provided with a hole near one end and a screw-threaded part connected to its other end and extending through the slot of the first mentioned plate, the third plate being provided on both ends with a screw-threaded parts extending respectively through the holes

of the first and second mentioned plates, and nuts turning on said screw-threaded parts for the purpose set forth.

[Claims 2 and 3 not printed in the Gazette.]

1,240,466. CAR-HANDLING SYSTEM. JOHN MCMYLER, Cleveland, Ohio, assignor to The McMyler Interstate Company, Bedford, Ohio, a Corporation of Ohio. Filed Feb. 11, 1915. Serial No. 7,638. (Cl. 104—48.)



1. In a car handling system, one or more tracks for loaded cars, a car receiving device, a traveling platform of sufficient length to receive a car for transferring cars from said track or tracks to the car receiving device and a car haulage device located on the platform and movable back and forth along the same.

2. In a car handling system, one or more tracks for loaded cars, a car receiving device and a traveling platform of sufficient length to receive a car for transferring cars from said track or tracks to the car receiving device, and means on said platform for shifting the cars.

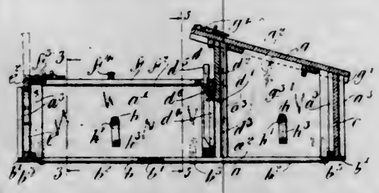
3. In a car handling system, one or more tracks for loaded cars, a car receiving device, a traveling platform of sufficient length to receive a car for transferring cars from said track or tracks to the car receiving device, and a haulage car on the platform for moving cars on to and from the platform.

4. In a car haulage system, one or more tracks for loaded cars, a car receiving device displaced laterally with respect to said track or tracks, and a transfer platform movable back and forth between the track or tracks and the car receiving device for conveying cars from the former to the latter.

5. In a car haulage system, one or more tracks for loaded cars, a car receiving device displaced laterally with respect to said track or tracks, a transfer platform movable back and forth between the track or tracks and the car receiving device for conveying cars from the former to the latter, and means on said platform for moving the cars.

[Claims 6 to 9 not printed in the Gazette.]

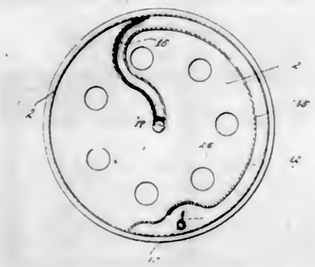
1,240,467. COOP. DONALD MACVICAR, Norfolk, Conn. Filed Apr. 28, 1917. Serial No. 165,108. (Cl. 119—21.)



1. A coop comprising side members, a bottom placed loosely between the side members, ends placed loosely between the side members, and roosting bars extending directly from one side member to the other detachably engaging the side members to hold them in fixed relation.

[Claims 2 to 13 not printed in the Gazette.]

1,240,468. PRINT-DRYING APPARATUS. MILFORD B. MARTIN, Spokane, Wash. Filed Oct. 2, 1916. Serial No. 123,397. (Cl. 34—4.)



1. A drying machine of the class described including a frame, a drum rotatably mounted therein, a chamber formed within said drum and stationary therein, means for heating the chamber, and a driving and conveying belt mounted on said frame and operating in connection with said drum.

2. In a machine of the class described, a frame, a drum of hollow design rotatably mounted therein, a chamber arranged within said drum and having an outlet through the side of the latter, means for heating said chamber, a driving and conveying belt, arranged on the frame and operating in connection with said drum, and means for conveying the exhausted heat from the chamber to portions of the belt to dry the latter.

3. In a device of the class described, a frame, a rotatable drum, a heat conveying pipe leading into the axis of said drum, a heat exhausting pipe leading from the axis of said drum opposite the first-mentioned pipe, said pipes forming the rotatable axes of said drum, a chamber arranged in said drum receiving the heat conducting pipe therein and terminating in the exhausting pipe, and means for rotating said drum and conveying elements for contact therewith.

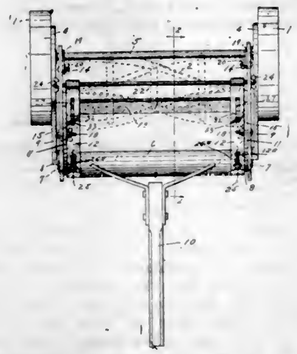
4. In a machine of the class described, a frame, a drum of hollow design rotatable thereon, a chamber arranged in said drum and stationary therein, means for supplying heat to said chamber, a driving and conveying belt operatively mounted on the frame and operating in connection with said drum, a receiving hopper also mounted on the frame, a yielding scraping member in connection with the belt above the hopper, and an additional yielding scraping member within the hopper operating in connection with the drum.

5. In a device of the class described, a frame, a drum of hollow design, a heat conducting pipe extending through the center of one wall thereof, a heat exhausting pipe extending through the center of the opposite wall thereof, a chamber formed within the drum and stationary therein, said chamber receiving the heat conducting pipe therein and terminating at one end in the heat exhausting pipe, said heat conducting and exhausting pipes forming the rotating axes of said drums, a driving and conveying belt operatively mounted on the frame and operating to rotate said drum, and means for conveying the exhausted heat from said chamber to portions of said belt, whereby to dry the latter.

1,240,469. LAWN-MOWER SHARPENER. JOHN E. MEDLEY, Portland, Oreg., assignor of one-half to Walter B. Schuette, Morristown, Minn. Filed Sept. 30, 1916. Serial No. 123,021. (Cl. 56—19.)

1. A lawn mower sharpener comprising a frame having means for supporting the same on a lawn mower, a pair of arms pivoted to the frame and extending transversely of the cutting blades of the lawn mower, mechanical means for adjusting the free ends of the arms radially with respect to said cutting blades, and a sharpening tool carried by the arms for action on said cutting blades.

2. A lawn mower sharpener comprising a frame having means for supporting the same on a lawn mower, a pair of arms extending transversely of the cutting blades of the lawn mower, mechanical means adjustably securing both ends of the arms to the frame, and a sharpening tool carried by the arms for action on said cutting blades.



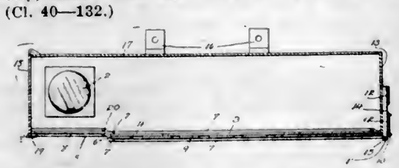
3. A lawn mower sharpener comprising a frame having means for supporting the same on a lawn mower, a pair of arms pivoted on the frame and extending transversely of the cutting blades of the lawn mower, a sharpening tool carried by the arms for action on said cutting blades, springs acting upon the arms and tending to lift the sharpening tool out of contact with said cutting blades, and means for adjusting the arms against the tension of the springs to carry the sharpening tool into contact with said cutting blades.

4. A lawn mower sharpener comprising a frame having means for supporting the same on a lawn mower, a pair of arms pivoted on the frame and extending transversely of the cutting blades of the lawn mower, a sharpening tool carried by the arms for action on said cutting blades, springs acting upon the arms and tending to lift the sharpening tool out of contact with said cutting blades, and screw bolts adjustably connecting the free ends of the arms to the frame with respect to said cutting blades.

5. A lawn mower sharpener comprising a frame having side members having means for supporting the same on a lawn mower, a tie rod connecting said side members, a pair of arms pivoted to the tie rod and extending transversely of the cutting blades of the lawn mower, a sharpening tool carried by the arms for action on said cutting blades, springs acting upon the arms and tending to lift the sharpening tool out of contact with said cutting blades, and means for adjusting the arms against the tension of the springs to carry the sharpening tool into contact with said cutting blades.

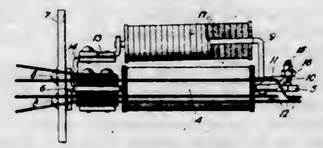
[Claims 6 to 12 not printed in the Gazette.]

1,240,470. NUMBER-ILLUMINATING DEVICE FOR MOTOR-VEHICLES. RUDOLPH J. MEITNER, Dodge City, Kans. Filed Apr. 27, 1916. Serial No. 93,907. (Cl. 40—132.)



An illuminating device of the class described comprising a light receiving casing having an opening in one wall thereof, a slide arranged in said opening, an apertured arm extending laterally from the slide, and a locking bolt slidably mounted on the side of the casing and movable into the aperture of the arm aforesaid.

1,240,471. ELECTROMAGNETIC DEVICE. DANIEL D. MILLER, New York, N. Y., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed Mar. 4, 1915. Serial No. 12,204. (Cl. 175—325.)



1. In an electromagnetic device, an electromagnet, an armature therefor, and a short circuited secondary coil encircling and linking with the flux in said armature for coöperating with said electromagnet to control the movement of said armature.

2. In an electromagnetic device, an electromagnet, an armature therefor adapted to move in a direction transverse to the axis of the electromagnet, and a plurality of copper disks carried by and linking with the flux in said armature to render it slow-respounding and slow-releasing.

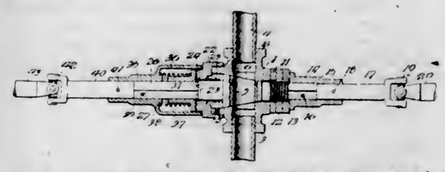
3. In an electromagnetic device, a magnetic circuit comprising a core and an armature, a pole piece for said core, a convex pole piece for said armature adapted to have substantially line contact with the pole piece for said core, a primary energizing winding on the core, a closed secondary coil linking with all the flux in the magnetic circuit, said closed secondary coil coöperating with said pole pieces to render the armature slow-releasing.

4. In an electromagnetic device, an electromagnet, an armature therefor having a convex pole face, a pole face on the electromagnet adapted to have substantially line contact with the convex pole face of the armature, and a closed secondary coil carried by and linking with the flux in said armature and coöperating with said contacting pole faces to render said armature slow-releasing.

5. In an electromagnetic device, an electromagnet, an armature therefor having a convex pole piece, a pole piece for said electromagnet adapted to have substantially line contact with the convex pole piece of the armature, and a closed coil of non-magnetic material carried by and linking with the flux in said armature for coöperating with said contacting pole pieces to render said armature slow-releasing.

[Claims 6 to 10 not printed in the Gazette.]

1,240,472. TRAIN-PIPE VALVE. DAVID C. MITCHELL, Monongahela, Pa. Filed Nov. 2, 1916. Serial No. 129,165. (Cl. 137—7.)



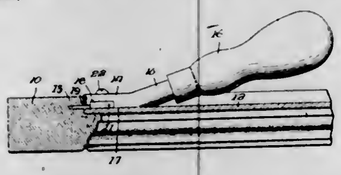
1. In a valve of the class described, a casing, a valve plug mounted for turning movement in the casing and having a stem, a cap upon one end of the casing through which the stem extends, a member slidably fitting the valve stem and rotatable therewith, coacting means upon the said cap and the said member for holding the valve in positions of adjustment, a member fixed upon the valve stem, a spring surrounding the valve stem and bearing between the first and last mentioned members whereby to hold the first-mentioned member yieldably in coöperative relation to the said cap, and means carried by the last-mentioned member inclosing the said spring.

2. In a valve of the class described, a casing, a valve plug mounted for turning movement in the casing and having a stem, a member slidably fitted on the stem and

rotatable therewith, a locking element fixed with relation to the casing, a locking element fixed with relation to the said member, a member fixed upon the valve stem, a spring bearing against the last-mentioned member and also against the first-mentioned member and serving to hold the first-mentioned member with the locking elements in coöperative engagement, and means carried by the last-mentioned member surrounding and inclosing the said springs and the said locking elements.

3. In a valve of the class described, a casing, a cap upon one end of the casing, a valve plug mounted for turning movement in the casing and having a stem extending through the cap, an approximately circular boss upon the face of the cap having seating notches, a member slidably fitted upon the valve stem and having a lug arranged for engagement interchangeably in said notches, a member fixed upon the valve stem, a spring bearing between the first and last mentioned members, and a cylindrical extension upon the last mentioned member housing the said spring and the first mentioned member and receiving and housing within its end the boss upon the said cap.

1,240,473. IMPLEMENT FOR APPLYING GLAZIERS' POINTS. JOHN A. MOFFAT, Hamilton, Ontario, Canada. Filed Apr. 14, 1917. Serial No. 162,105. (Cl. 1—44.)



1. An implement of the class described comprising a stock having a handle at one end and a transverse seat spaced from the other end, the body of the stock being reduced in advance of the seat with the lower face of the reduced portion curving upwardly and outwardly away from the seat, and a block secured within the seat with its outer face flush with the adjacent face of the stock and its forward edge forming a glazier's point engaging abutment, the curving of the lower face of the reduced portion operating to prevent the separation of the abutment from the glazier's point in event of the stock being elevated at its handle end.

2. An implement of the class described comprising a stock having a handle at one end and a transverse abutment spaced from the other end, the body of the stock in advance of the abutment being reduced with the lower face of the reduced portion curving upwardly and outwardly away from the abutment, the curving of the lower face of the reduced portion operating to prevent the separation of the abutment from the glazier's point in event of the stock being elevated at its handle end.

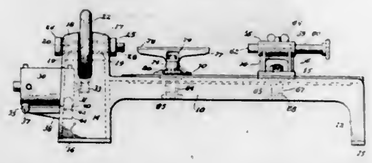
[Claim 3 not printed in the Gazette.]

1,240,474. LATHE. EDWARD J. MOORE and DAVID S. HAWKINS, Cleveland, Ohio, assignors to The Foundry Equipment Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 31, 1915. Serial No. 69,543. (Cl. 82—2.)

1. In a lathe, the combination with a frame having a hollow standard, of a live spindle, a wheel thereon extending into said standard, and a pivotally mounted motor having a pulley within the standard yieldingly bearing against said wheel.

2. In a lathe, the combination with a frame, of a live spindle journaled therein, a wheel on said spindle, an extension on the frame, a motor pivoted to said extension having its armature shaft extending beneath said wheel, a pulley on the armature shaft engaging the wheel, and means pressing the motor upwardly to cause a yielding engagement between the pulley and wheel.

3. In a lathe, the combination with a frame having a hollow standard, a live spindle journaled in the frame at two points, a wheel secured to the spindle between its bearings and depending into the hollow of the frame, said frame having an extension, a motor pivoted to the extension and extending into the hollow of the frame, a pulley on the armature shaft of the motor engaging the under side of said wheel, and a spring pressing upwardly on the motor frame between its pivot and the pulley.

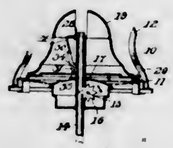


4. In a lathe, the combination of a hollow head standard, a bed extending from the standard in one direction, a bracket extending from the standard in the opposite direction, a motor hinged near its outer end on a horizontal pivot to the outer end of the bracket, said motor extending into the hollow of the standard, a spring between the inner end of the motor and standard tending to raise the motor, a live spindle journaled in the upper portion of the standard, a vertical wheel on said standard, and a pulley on the armature of said motor engaging said wheel.

5. In a lathe, the combination with a frame having a bed, of a live spindle, a driving wheel thereon, a motor pivoted to the bed and having a pulley on its armature shaft adapted to engage said driving wheel, the motor frame having two downwardly extending recessed lugs, and a pair of compression springs entering the recesses of said lugs and coöperating recesses in the standard to yieldingly press the motor upwardly to cause the pulley to frictionally engage the wheel.

[Claims 6 and 7 not printed in the Gazette.]

1,240,475. LAMP-EXTINGUISHER. JOHN MURCEK, Hazleton, Pa. Filed Apr. 10, 1917. Serial No. 160,953. (Cl. 67—78.)



An extinguisher attachment for burners comprising a single piece snuffer formed from a T-shaped blank and having an angularly bent flange at one end, the upright portion of the blank being centrally bent inwardly with the sides thereof in engagement with each other forming a leg, and each of said sides having a terminal foot with teeth at their free ends adapted for coöperation when assembled.

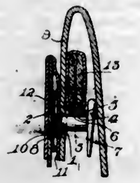
1,240,476. COLLAR-BUTTON. THOMAS J. NELIS, Frankford, Pa. Filed Dec. 28, 1916. Serial No. 139,271. (Cl. 24—101.)

1. A button having a shank connecting its head and base, and an anti-frictional member carried thereby.

2. A button having a shank connecting its head and base, and an anti-frictional member carried directly by said shank.

3. A button having a shank connecting its head and base, and a cylindrical member revolubly carried thereby, and operative to lessen the friction between said button and a tie.

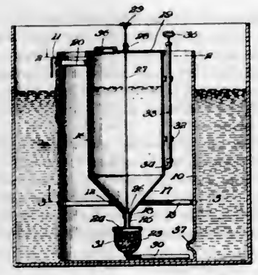
4. A button having a shank, and a cylindrical member revolubly carried thereby, the edges of said member being beveled.



5. A button having a shank provided with a recess, and a cylindrical member rotatably mounted therein.

[Claims 6 to 8 not printed in the Gazette.]

1,240,477. SUBMERGED HEATER. AL NELSON, Ripley, Tenn. Filed Mar. 21, 1917. Serial No. 156,311. (Cl. 126—360.)

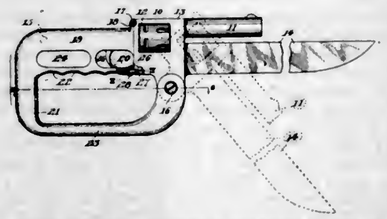


2. In a heater, a casing closed at its lower end and open at its upper end, an open supporting ring disposed substantially centrally and adjacent the lower end of the casing, arms extending from the ring and fixed to the casing to support the ring, centering arms extending inwardly from the casing near its upper end, a fuel receptacle having its upper portion centered between the arms and its lower portion engaging in the supporting ring, a vaporizing cup passable through the supporting ring and communicating with the lower portion of the receptacle, a fibrous packing in the cup, a burner tube leading from the cup in a lateral direction to a point adjacent the wall of the casing, and a valve controlling flow of fuel from the receptacle to the cup.

4. In a heater, a casing closed at its lower end and formed adjacent such end with an indentation, a fuel receptacle supported within the casing, and a burner having operative connection with the fuel receptacle and disposed immediately below the indentation of the casing.

[Claims 1, 3, 5, and 6 not printed in the Gazette.]

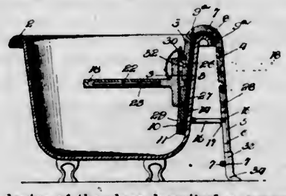
1,240,478. PISTOL-SWORD. NICHOLAUS B. NELSON, East Chicago, Ind. Filed May 23, 1917. Serial No. 170,397. (Cl. 42—53.)



1. A pistol sword comprising a rectangular handle having a finger receiving opening therein, a revolver casting pivoted within a corner portion of the handle, a retaining latch and catch at opposite sides of the casting adapted for normally maintaining the revolver closed, and a forwardly projecting blade carried by the casting adjacent the barrel of the revolver.

[Claim 2 not printed in the Gazette.]

1,240,479. BATH-TUB SEAT. JOHN L. NICHOLS and CHARLES J. OLSON, Muskegon, Mich. Filed Feb. 20, 1917. Serial No. 149,893. (Cl. 4—2.)



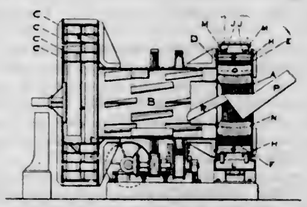
3. In a device of the class described, a supporting frame structure including spaced members and a connecting portion, a seat, means for supporting the seat movable from position upon one of said members, along the connecting portion, to position upon the other member, and means providing for vertical adjustment of the said seat supporting means upon each of said members.

4. In a device of the class described, a supporting frame structure including spaced members and an arcuate connecting portion, a member slidably fitting the first-mentioned members and the said arcuate connecting portion and adjustable along the said portions whereby to be positioned upon either of the first-mentioned portions, means upon each of the first-mentioned portions for adjustably supporting the said member, and a seat supported by the member.

6. In a device of the class described, a supporting frame structure including spaced portions and a connecting portion, the connecting portion being curved and extending between the upper ends of the spaced portions, one of the spaced portions being designed to extend within a tube and the other spaced portion being of greater length and being designed to rest at its lower end upon the surface upon which the tub is disposed, means upon the connecting portion for engagement with the upper edge of the tub, and means upon the spaced portions designed to brace the same with relation to the wall of the tub straddled by the said structure, and a seat designed to be adjustably supported selectively upon the said spaced portions and movable from one to the other along the said connecting portion.

[Claims 1, 2, 5, and 7 to 13 not printed in the Gazette.]

1,240,480. APPARATUS FOR COOLING CLINKER IN THE MANUFACTURE OF CEMENT. GEORGE M. PARK, Blackburn, England. Filed Apr. 21, 1916, Serial No. 92,800. Renewed Aug. 9, 1917. Serial No. 185,392. (Cl. 222—7.)



1. Apparatus for cooling clinker comprising a rotary chamber adapted to receive cold water, an inner ring or circumferential screen positioned within said chamber adapted to receive, retain and lift hot clinker on its surface while permitting passage of water therethrough, drip

flanges at the exterior circumference of the chamber adapted to facilitate the collection of the heated water produced by the contact of the cold water with the hot clinker and a means for receiving the heated water from said chamber and drip flanges.

2. Apparatus for cooling clinker comprising a rotary chamber of circular cross section adapted to receive cold water, an inner perforated ring or circumferential screen positioned within said chamber, means for feeding hot clinker to the surface of said screen, means on said screen for retaining and lifting the hot clinker while in contact with the water, drip flanges at the exterior circumference of the chamber adapted to facilitate the collection of heated water produced by said contact of hot clinker and cold water and a receptacle below the chamber for receiving the heated water from said chamber and drip flanges.

3. Apparatus for cooling clinker comprising a rotary chamber adapted to receive cold water, an inner ring or circumferential screen positioned within said chamber and adapted to receive, retain and lift hot clinker on its surface while permitting passage of water therethrough, drip flanges at the exterior circumference of the chamber adapted to facilitate the collection of heated water produced by the contact of cold water with the hot clinker, a casing inclosing the chamber leaving an annular space around same, drip flanges on said casing within said annular space to collect and direct condensed steam or vapor and means for receiving heated water and products of condensation from said chamber and drip flanges.

4. Apparatus for cooling clinker comprising a rotary chamber of circular cross section adapted to receive cold water, a perforated ring or circumferential screen positioned within said chamber means for feeding hot clinker to the surface of said screen means on the latter for retaining and lifting the hot clinker while in contact with the water, drip flanges at the exterior circumference of the chamber to facilitate the collection of the resultant heated water, a hood or cover circumferentially inclosing the chamber leaving an annular space around same, drip flanges on said casing within said annular space to collect and direct condensed steam or vapor, and a receptacle below the chamber for receiving heated water and products of condensation from said chamber and drip flanges.

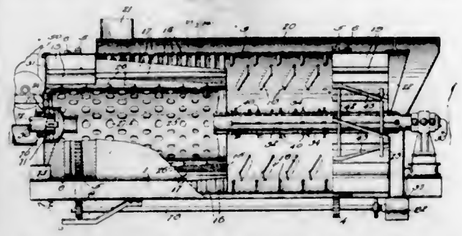
5. Apparatus for cooling clinker comprising in combination a rotary chamber, adapted to receive cold water, an inner ring or circumferential screen, positioned within said chamber and adapted to receive, retain and lift hot clinker on its surface, while permitting passage of water therethrough, drip flanges at the exterior circumference of the chamber adapted to facilitate the collection of heated water produced by the contact of the cold water with the heated clinker, means for receiving the heated water from said chamber and drip flanges, rotary cooling device adjacent said rotary chamber and means for transferring the clinker from the screen within same to said cooling device.

1,240,481. PROCESS OF AND MACHINE FOR TREATING EARTHY MATERIAL. MICHAEL A. POPKESS, New York, N. Y. Filed Apr. 4, 1914, Serial No. 829,549. Renewed Feb. 16, 1917. Serial No. 149,145. (Cl. 94—6.)

1. In a machine of the class described, the combination of a drum, means within the same for raising the material toward the top thereof, revolving pulverizing means within said drum upon which the material falls, and means within said drum for collecting the fine dust as it is formed and for maintaining it out of further contact with said pulverizing means.

2. In a machine of the class described, the combination of a rotary drum, revolving pulverizing means within said drum upon which the material falls, means between said drum and pulverizing means for collecting the fine dust as it is formed and for maintaining it out of further contact with said pulverizing means, and means between said drum and collecting means for feeding the dust rearwardly in the drum.

3. In a machine of the class described, the combination of a drum having an inlet for the material to be treated, revolving means within said drum to pulverize the material and at the same time feed it rearwardly, a rotary screen cylinder between said drum and pulverizing means, means within said cylinder to raise the material and drop it onto said pulverizing means, and means between said cylinder and drum to feed the material, which has passed through the cylinder, rearwardly as said cylinder rotates.

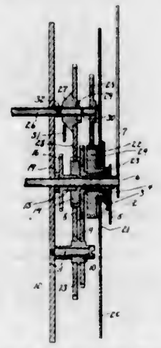


40. The process of producing material for use in surfacing roads, making brick and the like, consisting in taking earthy material in a cold and damp state and a binder having adhesive and waterproof properties, and mixing the said ingredients thoroughly together, and then passing the mixture through a disintegrator to comminute the same.

42. A machine for preparing paving material comprising a mixer, a disintegrator, means to operate both mixer and disintegrator, means to deliver a measured quantity of earthy material to said mixer, means to deliver binding material to said mixer in quantity proportioned to the quantity of earthy material delivered to said mixer, and means to automatically deliver mixed material from said mixer to said disintegrator.

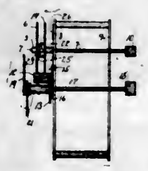
[Claims 4 to 39 and 41 not printed in the Gazette.]

1,240,482. ALARM-CLOCK. WILSON E. PORTER, New Haven, Conn., assignor to New Haven Clock Co., New Haven, Conn., a Corporation. Filed Aug. 21, 1915. Serial No. 46,604. (Cl. 58—16.)



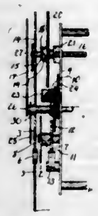
In an alarm clock, the combination with the time-mechanism thereof, of a 12 hour time-dial, a non-rotatable 24 hour alarm-dial arranged concentric with the said time-dial, smaller than the same and indicating the A. M. and P. M. divisions of a day, hour and minute hands driven by the said time-mechanism over the time dial, an A. M. and P. M. alarm-hand arranged concentric with the said dials and driven by the said time-mechanism for indicating the correct time of day or night upon the said 24 hour alarm-dial, a normally stationary concentric alarm-setting pointer arranged concentric with the said hour and minute hands and alarm hand and located in front of the said dials and back of the said hour and minute and alarm hands and adapted to be swept over the alarm-dial in setting the alarm, means located at one side of the center-arbor of the time-mechanism for manually setting the alarm-setting pointer from the back of the clock, and an alarm-mechanism driven by the time-mechanism and operating to let off the alarm without disturbing the lateral position of the said alarm-setting hand with respect to the said hour and minute and alarm-hands.

1,240,483. ALARM-CLOCK. WILSON E. PORTER, New Haven, Conn., assignor to New Haven Clock Co., New Haven, Conn., a Corporation. Filed Aug. 21, 1915. Serial No. 46,605. (Cl. 58—16.)



In an alarm clock, the combination with a time-dial, of a stationary, non-concentric alarm-dial imposed thereupon, an alarm-setting pointer sweeping over the said alarm-dial, a manually operable alarm-setting arbor mounting the said pointer, a 24 hour alarm-cam wheel turning and sliding loosely on the said arbor, a 24 hour alarm-hand wheel turning loosely upon the said arbor in a fixed plane, an A. M. and P. M. alarm-hand carried by the said 24 hour alarm-hand wheel and also turning in a fixed plane, an hour-wheel, and a dial-pinion driven by the time-mechanism of the clock and adapted in length to be meshed into and to drive the said hour-wheel, the said alarm-hand wheel, and the said alarm-cam wheel.

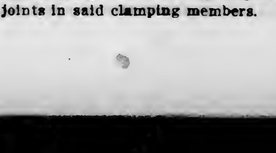
1,240,484. ALARM-CLOCK. WILSON E. PORTER, New Haven, Conn., assignor to New Haven Clock Co., New Haven, Conn., a Corporation. Filed Aug. 21, 1915. Serial No. 46,606. (Cl. 58—16.)



1. In a rear-wind and rear set alarm-clock, the combination with the time and alarm mechanisms thereof, of a time-dial furnished with a sight-opening, a stationary A. M. and P. M. alarm-setting dial imposed upon the said time-dial and having two sets of figures running from 1 to 12, an alarm-setting pointer arranged to sweep over the said alarm-setting dial, means for manually operating the said pointer from the back of the clock, a rotary A. M. and P. M. dial located behind the said time-dial and furnished with alternating A. M. and P. M. markings which are successively exposed through the said sight-opening, and step-by-step actuating means connecting the said A. M. and P. M. dial with the hour-hand socket of the said time-mechanism, whereby the said dial is moved at 12 hour intervals, the said means being adapted to permit the said dial to rotate in either direction, whereby the clock may be set by turning its hour and minute hands in either direction without deranging the rotary A. M. and P. M. dial with reference to the time-mechanism.

2. In a rear wind and rear set alarm-clock, the cimbination with the time and alarm mechanisms thereof, of a time-dial furnished with a sight-opening located directly below its center, a stationary A. M. and P. M. alarm-setting dial located directly above the center of the said time-dial in line with the said sight-opening and having two sets of figures running from 1 to 12, an alarm-setting pointer for the said alarm-setting dial, means operable from the back of the clock for manually setting the said pointer, a rotary A. M. and P. M. dial furnished with alternating A. M. and P. M. markings and located behind the time-dial in position to have its markings successively exposed through the said sight-opening, and step-by-step actuating means whereby the said dial is operated at 12 hour intervals by the hour-hand socket of the time-mechanism, the said means being adapted to permit the said rotary dial to be rotated in either direction to prevent it from being deranged with reference to the time-mechanism.

1,240,485. POCKET MANICURE IMPLEMENT. ALFRED K. POTTER, Providence, R. I., assignor to E. A. Potter Company, Providence, R. I., a Corporation of Rhode Island. Filed July 18, 1917. Serial No. 181,185. (Cl. 132—36.)



1. In a pocket manicure-implement, the combination with a hollow case-like handle, of a permanent blade mounted within the sides of the handle to adapt it to open out therefrom, a socket-member also inclosed within the handle and arranged to open out therefrom, and a replaceable wooden stick fitted to the socket-member to adapt it to open and close therewith.

2. In a pocket manicure-implement, the combination with a hollow case-like handle, of a file-blade pivoted at one end to the handle to adapt it to fold between the sides thereof, a socket-member also pivoted to the handle to close into position between its sides, and a wooden stick having its end inserted in the socket-member to adapt it to open and close therewith while allowing for its removal and replacement.

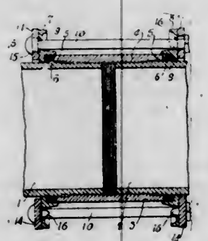
3. An improved pocket manicure-implement comprising a case-like handle constructed in the form of an open-sided tube, a pivot-pin riveted through the sides of the handle, a file-blade hinged on said pin to adapt it to close into position between the sides of the handle, a tubular socket-member pivoted on the pin at the side of the file-blade, and a wooden stick having its end inserted in the socket-member to adapt it to open and close therewith while being removable therefrom.

4. An improved pocket manicure-implement comprising a sheath-like handle constructed from U-shaped tubing, a file-blade pivoted at one end to the handle to adapt it to close between the sides thereof, an open-ended socket-member also pivoted to close within the handle, and a wooden stick inserted in the socket-member to adapt it to open and close therewith, said handle formed with an opening on its side for the insertion of the finger to assist in opening the tools out therefrom.

1,240,486. CLAMP FOR COUPLINGS. WILLIAM W. PRICE, Dayton, Ohio, assignor to The Dayton Pipe Coupling Company, Dayton, Ohio, a Corporation of Ohio. Filed Aug. 24, 1916. Serial No. 116,642. (Cl. 137—28.)

1. In a device of the character described, sectional clamping members provided with joints, independent interlocking devices overlapping said joints to prevent their separation, clamping devices passing through said sectional members and the interlocking devices of said members, said clamping devices being disposed on each side of said joints in said clamping members.

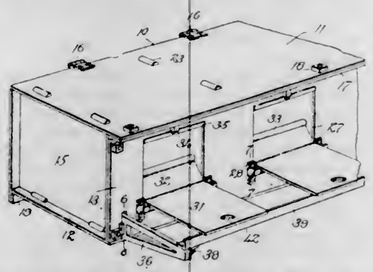
2. In a device of the character described, a sectional clamping member having a joint and a combined lug and bolt hole at each side of said joint, a connecting plate provided with lugs projecting into said holes and also provided with holes between the lugs and its ends and bolts in contact with said lugs and projecting through said holes.



3. In a device of the character described, a sectional clamping member having a joint and a combined lug and bolt hole at each side of said joint, a connecting plate provided with lugs projecting into said holes and also provided with holes between the lugs and the ends thereof, a coöperating clamping member provided with holes and bolts projecting through said holes and in contact with the outer sides of said lugs.

4. In a device of the character described, sectional clamping members having joints where they abut with a combined lug and bolt hole at each side of said joints, connecting plates provided with lugs projecting into said holes and also provided with holes between the lugs and the ends thereof, said sectional members and connecting plates being disposed on each side of a collar in which are the respective ends of pipe sections coupled by said device.

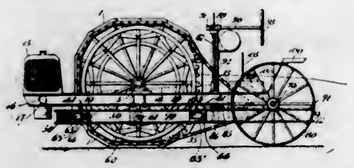
1,240,487. COLLAPSIBLE TRAP-NEST. HARVEY F. REED, New York, N. Y. Filed Apr. 25, 1917. Serial No. 164,479. (Cl. 119—49.)



A collapsible nest structure including a top wall and a bottom wall, a front wall hinged to the bottom wall and foldable therebeneath, a rear wall hinged to the top wall and foldable thereupon, means detachably securing the front and rear walls to the bottom and top walls respectively, end walls hingedly connecting the top and bottom walls for folding movement toward each other, said front wall having an entrance opening therein, a trapping platform removably pivoted in the entrance opening and tiltable by a hen to close the latter, means for automatically locking the platform in closed position, and brackets removably engaged with said front wall for supporting said platform in its open position.

1,240,488. TRACTOR. BYRON C. RIBLET and ROYAL N. RIBLET, Spokane, Wash. Filed Nov. 6, 1915. Serial No. 60,142. (Cl. 21—114.)

1. A tractor comprising traction means, a rigid frame supported by and surrounding said traction means and carrying a guide ring, power mechanism mounted upon said rigid frame on one side of said traction means and having driving connection with said traction means, a wheeled stabilizing guide frame carrying a guide ring concentric with the guide ring on the rigid frame and journaled thereto, and steering mechanism mounted on said rigid frame on the side opposite said power mechanism and geared to said guide frame for turning said rigid frame horizontally relative to said guide frame.

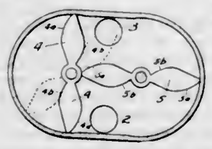


2. A tractor comprising traction means, a rigid frame supported by and surrounding said traction means and carrying a guide ring, power mechanism mounted upon said rigid frame on one side of said traction means and having driving connection with said traction means, a wheeled stabilizing guide frame carrying a guide ring concentric with the guide ring on the rigid frame, guide rollers mounted in one of said guide rings and engaging the other of said guide rings, and steering mechanism mounted on said rigid frame on the side opposite said power mechanism and geared to said guide frame for turning said rigid frame horizontally relative to said guide frame.

3. A tractor comprising traction means, a rigid frame supported by and surrounding said traction means, power mechanism mounted upon said rigid frame on one side of said traction means and having driving connection with said traction means, a wheeled stabilizing guide frame surrounding said traction means, concentric channel-iron guide rings carried respectively by said rigid frame and said guide frame, vertical and horizontal rollers journaled in one of said channel-iron guide rings and engaging the other of said rings, and steering mechanism mounted upon said rigid frame on the side opposite said power mechanism and geared to said guide frame for turning said rigid frame horizontally relative to said guide frame.

4. A tractor comprising traction means, a rigid frame supported by and surrounding said traction means, power mechanism mounted upon said rigid frame on one side of said traction means and having driving connection with said traction means, a wheeled stabilizing guide frame surrounding said traction means, having widely spaced wheels and an intermediate platform, concentric guide rings carried respectively by said rigid frame and said guide frame and surrounding said traction means, guide rollers mounted in one of said rings and engaging the other of said rings, steering mechanism mounted on said rigid frame on the side opposite said power mechanism and geared to said guide frame for turning said rigid frame horizontally relative to said guide frame and a seat supported on said rigid frame and adapted to overhang the platform.

1,240,489. ROTARY PUMP. FLETCHER C. ROOD, Portland, Oreg. Filed July 20, 1914. Serial No. 851,925. (Cl. 103—44.)



1. In a rotary pump, a casing with inlet and discharge ports, rotary impellers mounted to revolve upon independent parallel shafts spaced apart therein, and means for driving said impellers with an intermittent and alternating movement, said impellers being adapted to have a rolling contact with each other as they come together.

2. In a rotary pump, a casing provided with inlet and discharge ports, two rotary impellers having convexed faces and mounted to turn about parallel axes within said casing, and driving connections adapted to drive said impellers alternately for a portion of a full revolution at a time.

3. In a rotary pump, a casing having inlet and exhaust ports, rotary impellers mounted upon spaced parallel shafts therein in coöperative relationship with each other, a driving member adapted to be continuously driven, and intermittent driving connections from said driving member to said impellers designed to alternately drive them a portion of a revolution at a time, said impellers having rounded contacting faces and adapted to have intermittent rolling engagement with each other, for the purpose specified.

4. A rotary pump of the character referred to comprising in combination, a casing provided with inlet and discharge ports, two coöperating impellers rotatably mounted to turn about parallel, spaced axes therein and adapted to have a rolling bearing engagement one with the other, a driving member adapted to be continuously driven, and intermittent driving connections from said member to said impellers adapted to alternately drive them for a portion of a revolution only at one time.

5. In a rotary pump, the combination with the casing and the coöperating impellers revolubly mounted therein, of a driving mechanism comprising a continuously driven member, and intermittent gear members connecting said impellers with said driven member and arranged to impart alternately to said impellers a part of a full revolution, each impeller being adapted to give to the other an initial movement to put its gear members into action.

[Claim 6 not printed in the Gazette.]

1,240,490. COMPOSITION CONTAINING ALUMINA AND ZIRCONIA. LEWIS E. SAUNDERS and RAY HILL WHITE, Niagara Falls, N. Y., assignors to Norton Company, Worcester, Mass., a Corporation of Massachusetts. Filed Feb. 12, 1917. Serial No. 148,265. (Cl. 204—64.)

1. A crystalline aluminous product containing zirconia.

2. An electric furnace product, comprising a finely crystalline mass consisting essentially of alumina and zirconia.

3. An electric furnace abrasive, comprising a finely crystalline mass consisting essentially of alumina and zirconia, the alumina in preponderant proportions.

4. An abrasive implement comprising grains of an aluminous abrasive containing zirconia, and a ceramic bond for said grains.

5. An abrasive implement comprising grains consisting essentially of alumina and zirconia, and a ceramic bond for said grains.

1,240,491. ALUMINOUS ABRASIVE AND METHOD OF PREPARING THE SAME. LEWIS E. SAUNDERS and RAY HILL WHITE, Niagara Falls, N. Y., assignors to Norton Company, Worcester, Mass., a Corporation of Massachusetts. Filed Feb. 12, 1917. Serial No. 148,266. (Cl. 204—64.)

1. An electric furnace abrasive containing crystalline alumina, in association with the normal impurities of bauxite, and zirconia.

2. An aluminous abrasive containing oxids of silicon and zirconium.

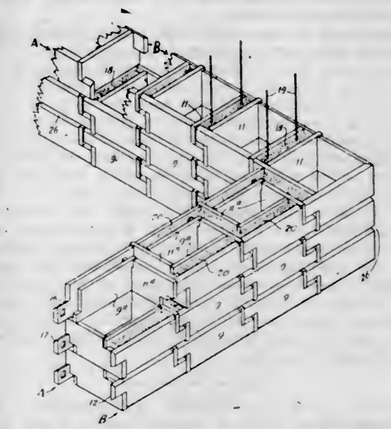
3. An aluminous abrasive containing oxids of silicon, titanium and zirconium.

4. An aluminous abrasive containing oxids of silicon, titanium, iron and zirconium.

5. An abrasive implement comprising grains containing alumina in association with the normal impurities of bauxite and with zirconia, and a ceramic bond for said grains.

[Claim 6 not printed in the Gazette.]

1,240,492. BUILDING CONSTRUCTION. FRANK MURRAY SAWYER, Alhambra, Cal. Filed Feb. 10, 1915. Serial No. 7,390. (Cl. 72—29.)



1. In a wall, two sets of slabs, each of said sets comprising an inner and an outer course of longitudinally extending slabs arranged to form the side portions of the wall and to leave a space extending longitudinally along each side of the wall between the inner and outer slabs of said sets of slabs, the outer course of slabs at each side of the wall having end extensions which overlap each other in an edgewise manner, there being a vertically extending space at the end of each of said overlapping extensions to receive a key slab, key slabs extending across the wall and fitting into said spaces at each side thereof, said extensions being of sufficient length to separate said key slabs longitudinally of the wall to form cement-receiving pockets or spaces, and a filling of adhesive cement occupying said pockets or spaces.

2. In a wall, slabs extending lengthwise of the wall at each of its outer sides, the slabs at each side of the wall being arranged in horizontal courses in which contiguous slabs are provided with end extensions which overlap in an edgewise manner and are slightly spaced apart from each other lengthwise of the wall, key slabs the ends of which occupy the spaces thus provided at each side of the wall, said key slabs being arranged in pairs the members of which are spaced apart lengthwise of the wall by reason of one member of each pair occupying the space at the end of one longitudinal slab and the other member occupying the space at the end of the adjacent overlapping extension of the contiguous slab, and a filling of adhesive cement occupying the spaces between the members of said pairs of key slabs.

1,240,493. CONNECTING-BAR. FREDERIC SCHAEFER, Pittsburgh, Pa. Filed July 7, 1914. Serial No. 849,550. (Cl. 74—17.)



1. A bar, comprising a one-piece hollow body member slotted at its ends to form pairs of oppositely disposed ears, the metal of said body member opposite the roots of said slots being of substantially uniform thickness around the entire periphery of the body and being also displaced laterally into arch form to increase the strength of the bar.

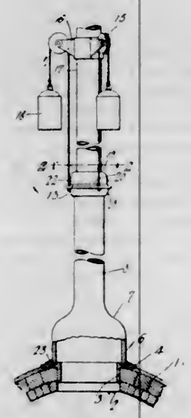
2. A connecting bar, comprising a one-piece hollow body member provided with slots at both ends to form pairs of parallel ears, said ears having oppositely disposed apertures with the metal around said apertures

thickened to thereby increase the bearing surface, and opposite the roots of said slots being of substantially uniform thickness around the entire periphery of the body and being displaced outwardly into arch form to increase the strength of the bar.

3. A connecting bar, comprising a body member formed of plate metal bent to hollow form and slotted at both ends to form pairs of parallel ears, said ears being narrower than the depth of said body member and being provided with oppositely disposed apertures with the metal around said apertures thickened to thereby increase the bearing surface, and opposite the ends of said slots being of substantially uniform thickness around the entire periphery of the body and being displaced outwardly into arch form to increase the strength of the bar.

4. A bar or rod, comprising a hollow body having its end portion slotted to form a pair of parallel ears, said ears being provided with oppositely disposed apertures with the metal around said apertures thickened to thereby increase the bearing surface, the metal of said body opposite the root of said slot being of substantially uniform thickness around the entire periphery of the body and being also displaced laterally into arch form to increase the strength of the bar.

1,240,494. GAS-COLLECTING ATTACHMENT FOR COKE-OVENS. HANS P. SCHEEL, Tenino, Wash. Filed Jan. 17, 1917. Serial No. 142,924. (Cl. 202—3.)



1. The combination with a coke oven having a feed opening in the top thereof, of means for conducting gases from the oven, said means including a gas conducting pipe supported above and in line with the opening, and a hood removably mounted on the oven and around the opening and below and communicating with the pipe, said pipe and hood being concentric with the axis of the opening.

2. The combination with a coke oven having a feed opening in the top thereof, of gas collecting means including a gas conducting pipe supported above and in line with the opening, a base member upon the oven and surrounding the opening, and a flue supported by said base member and below and communicating with the pipe, said flue being movably mounted, said pipe and flue being concentric with the axis of the opening.

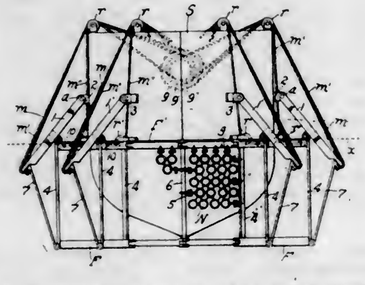
3. The combination with a coke oven having a feed opening in the top thereof, of means for collecting gas from the opening, including a gas conducting pipe overhanging the opening, a base member upon the oven and surrounding the opening, and a flue slidably mounted on said pipe and normally seated at its lower end upon said base member, said flue and pipe being concentric with the axis of the opening.

4. The combination with a coke oven having a feed opening in the top thereof, of means for collecting gas from the opening, including a gas conducting pipe overhanging the opening, a base member upon the oven and surrounding the opening, a flue slidably mounted on said pipe and normally seated at its lower end upon said base member, and means for sealing the joint between the pipe and flue, said flue and pipe being concentric with the axis of the opening.

5. The combination with a coke oven having a feed opening in the top thereof, of means for collecting gas generated in the oven, said means including a gas conducting pipe supported above the opening, a flue slidably mounted on said pipe and normally supported at its lower end by the oven, the lower end of said flue surrounding the opening, said flue having an inwardly extending portion for receiving pressure from generated gases.

[Claims 6 to 15 not printed in the Gazette.]

1,240,495. TORPEDO-NET. EMIL SCHEELKE, St. Louis, Mo. Filed Apr. 21, 1917. Serial No. 163,616. (Cl. 114—240.)



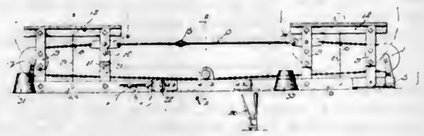
1. In combination with a vessel, a series of vertically swinging members hinged to the sides of the vessel, a frame pivotally suspended from intermediate points along said members, struts hinged at their lower ends to the frame and operating to engage the free ends of the swinging members for a lowered position of the members, meane for elevating said members, and a netting stretched across the frame, substantially as set forth.

3. In combination with a vessel, a series of vertically swinging sweep arms hinged at one end to the sides of the vessel, a net-frame pivotally suspended from intermediate points of the sweep arms, struts hinged at their lower ends at the lower edge of the net-frame and of a length to engage with their free ends the free ends of the sweep arms for a lowered position of the net-frame, a drive shaft disposed parallel to the length of the ship, drums on the shaft opposite the several sweep arms, cables leading from the drums respectively to the free ends of the sweep arms, to the free ends of the struts through the sweep arms, and to points adjacent the hinge axis of the net-frame, guide rollers for the cables, the several cables being adapted to wind on and unwind from, their respective drums according to the direction of rotation of the shaft and according as the net-frame is raised or lowered to respond to such rotation, and a toggle net-frame hinged to the forward ends of the side frames.

[Claim 2 not printed in the Gazette.]

1,240,496. AUTOMOBILE-LIFTING APPARATUS. OLIVER E. SEYMOUR, Milwaukee, Wis., assignor of one-half to William J. Thomas, Milwaukee, Wis. Filed Oct. 27, 1916. Serial No. 127,999. (Cl. 254—89.)

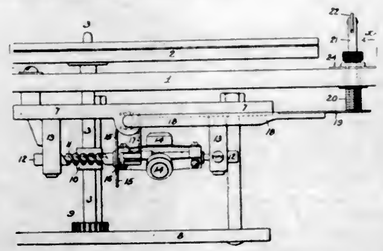
1. A vehicle lifting mechanism comprising a body frame, lifting members having their inner ends pivoted adjacent the corners of the body frame, means connecting the lifting members at each side of the frame whereby they move in unison, pulleys at the ends of the body frame, and a transversely journaled drum shaft and flexible



connections secured to the lifting members and trained about said pulleys and wound on said drum shaft.

[Claim 2 not printed in the Gazette.]

1,240,497. TALKING-MACHINE. HORACE SHEBLE and THOMAS KRAEMER, Philadelphia, Pa., assignors to Domestic Talking Machine Corporation, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Apr. 9, 1917. Serial No. 160,759. (Cl. 74—45.)



1. The combination, in a talking machine, of a record-carrying turntable, a motor for rotating the same, a governor for controlling the speed of said motor, a reproducing device, and means controlled by the weight of said reproducing device and coöperating with said governor whereby the operation of said motor may be permitted or stopped.

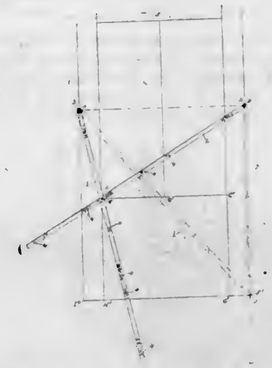
5. The combination, in a talking machine, of a record-carrying turntable, a motor for rotating the same, a governor for controlling the speed of said motor, a reproducing device, a bell crank lever, a brake pad carried by one arm of said lever and coöperating with the brake disk of the governor, a speed regulating device acting upon the other arm of said lever, and means passing through said speed regulating device and acting upon the same arm of the lever, said means being controlled by the weight of said reproducing device for causing said lever to move independently of said speed regulating device so as to move said brake pad with reference to the governor brake disk as to permit or stop the operation of the motor.

8. The combination, in a talking machine, of a record-carrying turntable, a motor for rotating the same, a governor for controlling the speed of said motor, a bell crank lever, a brake pad carried by one arm of said lever and coöperating with the brake disk of the governor, a yielding member mounted on the other arm of said lever, and means controlled by the weight of the reproducing device and acting upon said yielding member to cause said bell crank lever to move so as to so move said brake par with reference to the governor brake disk as to permit or stop the operation of the motor, said yielding member acting as a shock absorber to prevent any jar being transmitted therebeyond.

[Claims 2 to 4, 6, 7, and 9 not printed in the Gazette.]

1,240,498. APPARATUS FOR LAYING-OUT TENNIS-COURTS. AARON W. SHERWOOD, Hoosick Falls, N. Y. Filed Nov. 19, 1915. Serial No. 62,422. (Cl. 33—137.)

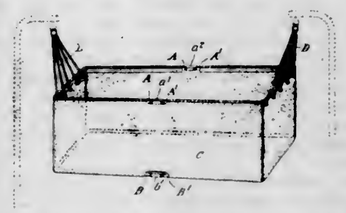
1. An apparatus for laying out a court, comprising a pair of complementary strips each having at one end means whereby it can be pivoted, and each provided with a series of individually distinctive characters at distances from its pivotal end equal to the respective distances from one end of a predetermined base-line to the several definitive points of the court, the distinctive character on one strip at a distance from its pivotal end equal to the distance from one end of said base-line to a definite point in the court being the same as the distinctive character on the other strip at a distance from the pivotal end of the latter strip equal to the distance from the other end of the base-line to the same definite point in the court.



2. An apparatus for laying out a tennis court, comprising a pair of complementary strips each having at one end means whereby it can be pivoted, and each provided with a series of individually distinctive characters at distances from its pivotal end equal to the respective distances from the middle of a side-line to the several corners of the court, each distinctive character on the one strip at a distance from its pivotal end equal to the distance from the middle of one side-line to a corner being the same as the distinctive character on the other strip at a distance from the pivotal end of the latter strip equal to the distance from the middle of the other side-line to the same corner.

3. An apparatus for laying out a tennis-court, comprising a pair of complementary tapes each having at one end means whereby it can be pivoted, and each provided with a series of individually distinctive characters at distances from its pivotal end equal to the respective distances from the middle of a side-line to the several corners of the court, each distinctive character on one tape at a distance from its pivotal end equal to the distance from the middle of one side-line to a corner being the same as the distinctive character on the other tape at a distance from the pivotal end of the latter tape equal to the distance from the middle of the other side-line to the same corner, said tapes being provided with eyelets adjacent to the respective distinctive characters.

1,240,499. FOLDING HAMMOCK. GEORGE F. SISBOWER, East Orange, N. J., and LOUIS E. PITTONI, New York, N. Y., assignors to New York Couch Bed Company, New York, N. Y., a Corporation of New York. Filed Apr. 22, 1914. Serial No. 833,758. (Cl. 5—56.)



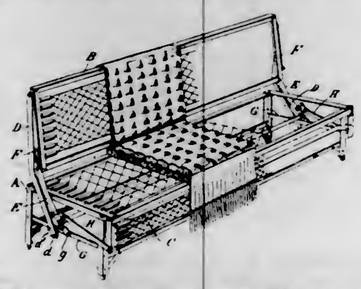
2. A hammock having rectangular top and bottom frames, each frame being formed of two main sections

and an intermediate section, one way hinges connecting the adjacent ends of the main sections to the contiguous intermediate section, a fabric connecting the frames and forming the sides, ends and bottoms of the hammock, and supporting devices for the ends of the hammock.

4. A hammock having rectangular top and bottom frames, each formed of articulated sections foldable upwardly, a flexible connecting fabric inclosing each frame at its edges, and supporting devices for each end.

[Claims 1 and 3 not printed in the Gazette.]

1,240,500. CONVERTIBLE COUCH. GEORGE F. SISBOWER, East Orange, N. J., and LOUIS E. PITTONI, New York, N. Y., assignors to New York Couch Bed Company, New York, N. Y., a Corporation of New York. Filed July 10, 1914. Serial No. 850,095. (Cl. 5—47.)



1. The combination, in a convertible couch, of a stationary horizontal frame, a frame movable from one side to the other of said stationary frame, a supplemental frame pivoted to one side of the said stationary frame, links for guiding and retaining the said movable frame in different positions and angles, folding legs for said movable frame, and means for interposing the said supplemental frame between the other two when the parts are extended horizontally.

3. The combination, in a convertible couch, of a stationary frame, a narrow frame hinged to the front edge of said stationary frame, a movable frame provided with folding legs, means for bringing the said movable frame into a vertical position on the rear edge of said stationary frame with its legs folded in, or into a horizontal position in front of but separated from said stationary frame with its legs unfolded, and means for bringing said narrow frame into a vertical position in front of said stationary frame or into a horizontal position between the other two frames.

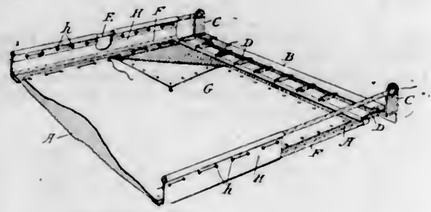
5. The combination, in a convertible couch, of a stationary frame, a movable frame, selectively movable to vertical and longitudinal positions, a short guiding link for one edge of said movable frame, a longer guiding link for the other edge thereof, said guiding links being attached to the stationary frame, a third and narrower frame hinged to the front edge of said stationary frame, and an operating device movable with said movable frame for lifting said third frame from its vertical position to a horizontal position between the other two frames.

7. The combination, in a convertible couch, with a stationary frame and legs therefor, of a movable frame, a curved link connecting the outer edge of said movable frame with the stationary frame, a shorter link connecting the inner edge of said movable frame with said stationary frame, and so mounted as to bring the said inner edge to the rear edge of the stationary frame or to a point outside of the front edge thereof, and a third frame adapted to be interposed between the front edge of said stationary frame and the inner edge of said movable frame.

9. The combination, in a convertible couch, of a stationary frame, a movable frame upholstered on one side and shiftable from an upright position over the stationary frame to a horizontal position beside it, and a folding seat-mattress on the stationary frame forming a double thickness on the stationary frame and a single thickness when unfolded on both frames, said seat mattress resting upon the non-upholstered side of the movable frame when in horizontal position.

[Claims 2, 4, 6, 8, and 10 not printed in the Gazette.]

1,240,501. MATTRESS. GEORGE F. SISBOWER, East Orange, N. J., and LOUIS E. PITTONI, New York, N. Y., assignors to New York Couch Bed Company, New York, N. Y., a Corporation of New York. Filed Jan. 23, 1915. Serial No. 3,930. (Cl. 5—39.)



1. The combination with a metallic-fabric mattress, of a side guard comprising uprights secured to the ends of said mattress, a cable connecting the upper ends of said uprights and located above the side edges of the mattress, and a flexible fabric guard covering said cable and detachably connected therewith, said fabric having a lower edge overlapping said mattress, and means whereby said overlapping edge is detachably connected with the contiguous edges of the mattress.

2. The combination with a metallic-fabric mattress, of a side guard comprising uprights secured to the ends of said mattress, a cable connecting the upper ends of said uprights and located above the side edge of the mattress, and a flexible fabric guard having one edge overlapping and inclosing said cable, lacings detachably connecting said overlapping edge with the body of said strip, the lower edge of said guard being extended beneath the contiguous edge of the members, and lacings detachably connecting said mattress and the extended lower edge of said guard.

3. The combination with a metallic-fabric mattress, of a side guard comprising uprights secured to the ends of said mattress, a cable connecting the upper ends of said uprights and located above the side edges of the mattress, a flexible fabric guard covering said cable and having a lower edge overlapping the contiguous edge of the mattress, a sheet of fabric covering the mattress and having its edge overlapping the lower edge of the guard, and means for detachably connecting the overlapping edges of the guard and sheet to the mattress body.

4. The combination with a metallic-fabric mattress, of a side guard comprising uprights secured to the ends of said mattress, a cable connecting the upper ends of said uprights and located above the side edges of the mattress, a flexible fabric guard covering said cable and having a lower edge overlapping the contiguous edge of the mattress, a sheet of fabric covering the mattress and having its edge overlapping the lower edge of the guard, and lacings passed through the overlapping edges of the guard and sheet and also through the mattress body.

1,240,502. D-HANDLE. FREDERICK SKELTON, Burlington, and WILLIAM PICKARD, Bartonville, Ontario, Canada; said Pickard assignor to said Skelton. Filed Jan. 22, 1917. Serial No. 143,627. (Cl. 55—116.)

1. A D-handle for tools comprising a wooden haft having a bifurcated upper end providing diverging arms, a grip-bar between the upper ends of the arms, caps mounted on the upper ends of said arms engaging said grip-bar, reinforcing strips secured to said arms, the upper ends of said strips being concealed within said caps, and a pin passing through said arms, grip-bar, caps and reinforcing strips.

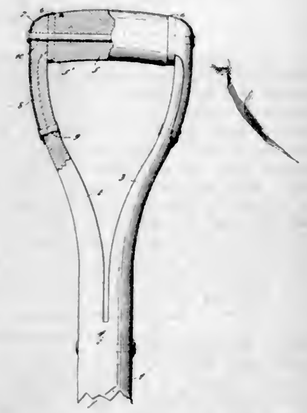


3. A D-handle for tools comprising a wooden haft having a bifurcated upper end providing diverging arms, a grip-bar between the upper ends of said arms, caps fitting over the ends of said grip-bar, reinforcing strips on said arms secured to the outer surface of said arms, said reinforcing strips having their upper ends bent over the upper edge of said arms, said caps having openings therein through which said arms and reinforcing strips pass, and a pin pasing through said arms, grip-bar, caps and reinforcing strips.

5. A D-handle for tools comprising a wooden haft having a bifurcated upper end providing diverging arms having curved outer surfaces, a grip-bar between the upper ends of said arms, caps fitting over the ends of said grip-bar, said caps having their ends of generally cylindrical shape, reinforcing strips on said arms secured to the outer surface of said arms, said reinforcing strips having their upper ends bent over the upper edge of said arms, said caps having segmental-shaped openings therein through which said arms and reinforcing strips pass, the portion of said reinforcing strips within said caps engaging therewith, and a pin passing through said arms, grip-bar, caps and reinforcing strips.

[Claims 2 and 4 not printed in the Gazette.]

1,240,503. REINFORCED D-HANDLE. FREDERICK SKELTON, Burlington, Ontario, Canada. Filed Feb. 19, 1917. Serial No. 149,545. (Cl. 55—116.)

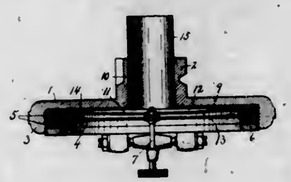


1. A D-handle comprising a wooden stem having diverging arms and a grip-bar inserted therebetween, and a metallic reinforcement for each arm comprising a ring fitting over the end of the grip-bar, a cap-piece concealing the upper end of the arm and a reinforcing strip secured to the outer face of the arm.

4. A blank for forming a metallic reinforcement for D-handles comprising a strip of sheet metal having a semi-circular portion adapted to be cupped to form a cap and ears projecting downwardly from said semi-circular portion adapted, when bent, to form with the edge of the cupped portion a closed ring.

[Claims 2 and 3 not printed in the Gazette.]

1,240,504. PHONOGRAPHIC REPRODUCER. EDWARD G. SMITH, Syracuse, N. Y. Filed Aug. 30, 1915. Serial No. 47,990. (Cl. 274—27.)

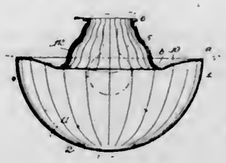


1. In a phonographic reproducer, a non-vibrant concavo-convex disk between the diaphragm and back of the case, and provided with an opening registering with the sound-wave exit in the case, said disk having its concave side facing the exit.

2. In a phonographic reproducer, a lining disk of non-vibrant material lying against the inner face of the back of the case, and provided with a tubular hub of the same material fitted within and extending through the sound-wave exit in said case.

3. In a phonographic reproducer, a lining disk of non-vibrant material lying against the inner face of the back of the case and provided with a tubular hub of the same material fitted within and extending through the sound-wave exit in said case, and a concavo-convex disk of non-vibrant material interposed between the diaphragm and said lining disk and provided with a central opening coaxial with and relatively larger than that in the tubular hub, said concavo-convex disk having its concave side facing the lining disk.

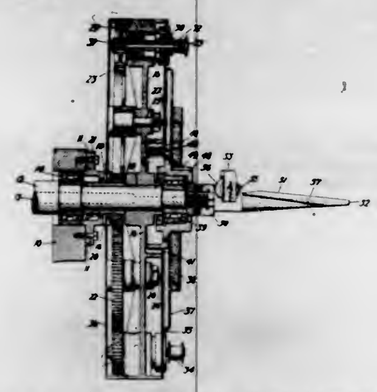
1,240,505. LIGHTING-FIXTURE. ESMOND M. SMITH, New York, N. Y., assignor of one-half to Leopold Plaut and one-half to Herman Plaut, New York, N. Y. Filed Jan. 18, 1917. Serial No. 143,010. (Cl. 240—92.)



1. A lighting fixture comprising a shade for an electric lamp; said shade comprising a bowl, a neck open at the top for the insertion of the lamp, said neck being of less diameter than the bowl, a top connecting the bowl and neck, said shade being composed of a single piece of transparent glass; the interior surfaces of the neck and bowl being so treated as to render them diffusive; the exterior surfaces of the neck and bowl being coated with a material to render the neck and bowl non-transparent and to render the interior surfaces of the neck and bowl highly reflective.

[Claims 2 and 3 not printed in the Gazette.]

1,240,506. WINDING-MACHINE. WILLIAM F. SMITH, Brooklyn, N. Y., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed Oct. 16, 1915. Serial No. 56,260. (Cl. 28—6.)



2. In a winding head, a hollow spindle having a tape guiding member projecting radially therefrom and presenting a substantially flat supporting surface for said tape, and an adjustable bracket attached to said spindle, said bracket being provided with a conical guide roller.

4. In a winding head, a tapered spindle, an adjustable bracket mounted thereon, said bracket being provided with a stationary roller, and a fin extending diagonally of said tapered spindle and projecting radially therefrom to provide a substantially flat supporting and guiding surface for a tape.

5. In a winding head, a hollow spindle, a fin extending diagonally of said spindle and projecting radially therefrom, and a tape guide roller mounted on said spindle, the periphery of which is in the same plane with the guiding surface of the fin against which the tape bears.

[Claims 1 and 3 not printed in the Gazette.]

1,240,507. SEALING DEVICE FOR PIPE-JOINTS. EWALD M. SPIEKERMAN, Lodi, Cal. Filed Aug. 28, 1916. Serial No. 117,232. (Cl. 72—128.)



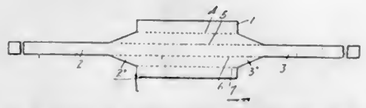
1. A sealing device for pipe joints comprising a collar provided with a recess, a pin projecting across the recess, a brush having a head arranged to be disposed within the recess and having a slot to fit over the pin whereby the position of the brush in the recess may be removed to keep the bristles of the brush continuously projecting beyond the periphery of the collar, a wing nut on the pin adapted to clamp the sides of the recess against the brush head to hold the brush rigid within the recess, and means for rotating the collar.

2. A device of the character described comprising a collar carrying a brush, such collar being arranged to fit into pipe sections, means for rotating said collar when it is fitted into the joint between adjacent pipe sections, such means comprising a rotatable handle mounted on the collar and being of sufficient length to project outside of the pipe sections, a guide for such handle, such guide comprising a collar arranged to fit into the pipe section at a spaced distance from the first named collar, and guides carried by the last named collar through which guides the handle projects.

3. A device of the character described comprising a collar having a sealing brush, a double line of bristles on the collar converging toward each other near the center line of the collar, and means for rotating the collar.

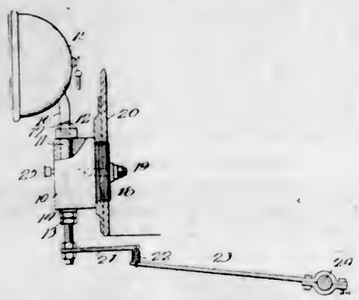
4. A device of the character described comprising a collar split at one end and having overlapping edges, a brush carried by the collar, a yoke secured to the collar and projecting outwardly therefrom, a spindle removably secured to the yoke, another collar provided with centrally orificed cross bars, such spindle projecting through such orifices and being provided with a handle.

1,240,508. HAIR-CURLER. MABEL BEATRICE STEVENSON, Guelph, Ontario, Canada. Filed Dec. 1, 1916. Serial No. 134,409. (Cl. 132—19.)



A new article of manufacture comprising an integral hair curler blank having a longitudinal strip portion, portions on each side of the middle thereof of the shape of an isosceles trapezoid, and further portions surmounting the trapezoidal portions rectangular in shape, said portions adapted to be folded along the lines of jointure with the adjacent portions whereby a body is formed about which hair may be wound, the ends of the strip portion adapted to be tied together over the hair on the curler body to maintain it in place.

1,240,509. HEADLIGHT-STEERING MECHANISM. CARL E. STROMQUIST, Coffeyville, Kans. Filed July 27, 1916. Serial No. 111,695. (Cl. 240—62.)



1. The combination with a motor vehicle provided with a body having a motor crank receiving opening formed therein, of a headlight for the vehicle including a body member, a supporting element carried thereby and engaged in said opening for connecting the body member with the vehicle, a headlight receiving shaft rotatably mounted upon the body member, a crank extending rearwardly from said shaft, opposed yieldable means extending in opposite directions from the free extremity of said cank, and arms adapted for attachment to the connecting rod of the vehicle steering gear with the said arms projecting forwardly at opposite sides of the crank and engaged with said yieldable means whereby shifting of the rod to steer the vehicle will rotate the said shaft.

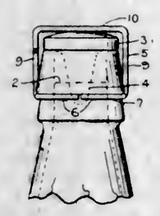
2. A device of the character described including a body member, a screw threaded plug mounted thereon and adapted for engagement with a vehicle for connecting the body member thereto, a bolt connecting the said plug with the body member, a headlight carrying shaft rotatably mounted upon the body member, and means for rotating the said shaft and adapted for attachment to the connecting rod of a vehicle steering gear whereby shifting of the said rod to steer the vehicle will rotate the said shaft.

1,240,510. CORSET. JAMES HOWARD TAYLOR and IZORA TAYLOR, Philadelphia, Pa. Filed Feb. 24, 1915. Serial No. 10,172. (Cl. 2—73.)



An article of manufacture comprising the combination of a corset with a brassière formed of two members, the front edges of which are adapted to be secured together, an extensible fabric connecting the back edges of each member to the inner back portion of the corset, each member extending a suitable distance above and below the upper edge of the corset, whereby when the corset is in place said two members will embrace the bust, will be held in position by the close engagement of the corset therewith, and will permit the free movement of the upper portion of the corset in a direction away from the body of the wearer.

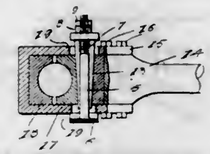
1,240,511. FASTENER FOR BOTTLE-STOPPERS. CHARLES F. THATCHER, Providence, R. I. Filed Apr. 19, 1917. Serial No. 163,141. (Cl. 215—26.)



In combination with a receptacle having an exterior shoulder about its neck and a stopper for the receptacle having a convex top, a fastener for the stopper formed of a single length of resilient wire bent centrally to provide an integral and diametrical straight bar engaging the convex top of the stopper only at its center, and extending beyond the stopper, the outer ends of the bar being downturned into parallel arms spaced from the stopper and being straight throughout their lengths, said arms inclined from the diametrical plane of the receptacle and having their lower ends bent acutely angular to form neck-embracing members the free terminals of which are curved about the neck of said receptacle beneath the shoulder.

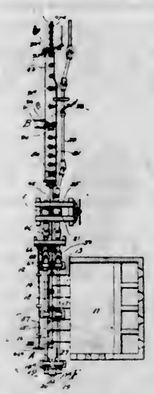
1,240,512. GIB AND KEY FOR ADJUSTABLE JOURNAL-BOXES. JAMES C. THERIOT, Taft, Cal. Filed Mar. 3, 1916. Serial No. 81,952. (Cl. 74—8.)

1. In a journal box, a shank substantially rectangular in cross section, a cylindrical head rigidly secured at one end of said shank, a pair of wedges engaged with two of the opposed faces of said shank, a block slidably mounted on said shank and engaging the enlarged ends of said wedges, and means for adjusting said block and wedges longitudinally of said shank, said block having means for preventing any relative lateral movement of said wedges.



2. In a journal box, a shank substantially rectangular in cross section, a cylindrical head formed integral with one end of said shank and extending outwardly from each side thereof for equal distances, a pair of wedges engaged with two of the opposed faces of said shank, the enlarged ends of said wedges being positioned opposite said head, a block slidably mounted on said shank, said block having a longitudinal groove on its inner face, the relatively large ends of said wedges being snugly received in said groove, whereby relative lateral movement of said wedges is prevented, and means engaging the outer faces of said block for adjusting the block and wedges longitudinally of said shank.

1,240,513. TUBE-ROLLING APPARATUS. GEORGE J. THUAT, Milwaukee, Wis. Filed Mar. 7, 1916. Serial No. 82,546. (Cl. 80—13.)



19. In apparatus of the class described, rolls, means to convey a tube thereto, means to convey a tube therefrom, a gate operable to permit or prevent said first named movement, a second gate spaced from said rolls and arranged to limit said second named movement of said tube, a third gate located between said rolls and said second gate and constructed and arranged as a stop for a mandrel carrying bar or the like after passage thereby of said tube, and means to operate said second and third gates.

20. In apparatus of the class described, rolls, means to convey a tube thereto, means to convey a tube therefrom, a gate operable to permit or prevent said first named movement, a second gate spaced from said rolls and arranged to limit said second named movement of said tube, a third gate located between said rolls and said second gate and constructed and arranged as a stop for a mandrel carrying bar or the like after passage thereby of said tube, and means to operate said second and third gates, said means comprising operating handles located adjacent each other.

[Claims 1 to 18 and 21 to 23 not printed in the Gazette.]

1,240,514. APPARATUS FOR STROPPING RAZOR-BLADES. JOHN MESNY TOURTEL, Ealing, London, England. Filed June 2, 1916. Serial No. 101,292. (Cl. 51—16.)



1. A razor stropping device including a frame, connecting rods extending between the ends thereof, a pair of adjacently positioned razor-blade holding members carried thereby, an arched resilient plate having its ends positioned beneath the connecting rods with the intermediate portion overlying the razor holding members for engagement with the back edge of a razor blade for holding the same in position on the members, and a pair of rotatable blade stroppers journaled in said frame beneath said members.

2. A razor stropping device including a frame, a razor blade holder carried thereby, a pair of rotatable shafts journaled in the frame, a yielding stropper flexibly connected to each shaft, the stroppers being normally cylindrical in cross section and intergeared simultaneously to strike the opposite sides of the razor supported by said holder, the cross sectional shape of said stropping member changing during operative engagement with the razor blade to present a relatively long abrading surface to each side of the blade.

1,240,515. STROPPING DEVICE. JOHN MESNY TOURTEL, Watertown, N. Y. Original application filed June 2, 1916, Serial No. 101,292. Divided and this application filed Dec. 27, 1916. Serial No. 139,189. (Cl. 51—16.)



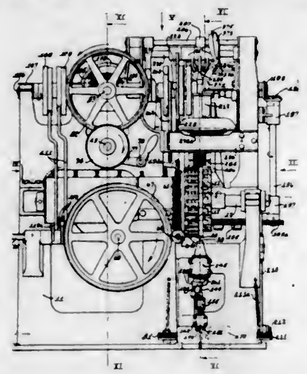
1. A razor stropper including a rotatable shaft, a leather strap folded upon itself with the folded edges secured to one side of the shaft, and an elastic filling for the folded strap.

2. A razor stropper including a rotatable shaft, a leather strap folded upon itself with the folded edges secured to one side of the shaft, a reinforcing plate positioned at the point of connection with said shaft, and an elastic filling for said folded strap.

3. A razor stropper including a rotatable shaft, a leather strap folded upon itself with the folded edges secured to one side of the shaft, and a cylindrical elastic filling for the folded strap.

1,240,516. BRUSH-MAKING MACHINE. BENJAMIN W. TUCKER, South Orange, N. J., and LUCIEN H. ARNOLD, Chicago, Ill., assignors to Malgam Brush Company, Inc., a Corporation of New Jersey. Filed May 21, 1915. Serial No. 29,698. (Cl. 15—7.)

1. In a brush-making machine, the combination of a turret having a plurality of faces, pairs of jaws on said faces, one of each of said jaws being relatively movable with respect to the other, a normally stationary disk having a cut-away part, jaw operating arms moved in one direction by said disk during the rotary movement of said turret, means for imparting a rotary movement and a longitudinal movement to said turret, means for giving a limited movement to the disk, a detachable section held to said disk, means for drilling holes in rows in the brush blanks in succession, and means for filling the holes with tufts of bristles.



3. In a brush-making machine, the combination of a turret having a plurality of faces, relatively movable jaws one with respect to the other, arranged in pairs on said faces, a normally stationary disk having a cut-away part, jaw-operating arms moved in one direction by said disk during the rotary movement of said turret to impart movement to one of each pair of jaws, means for imparting a rotary movement and a longitudinal movement to said turret, means for drilling holes in rows in the brush blanks in succession, and means for filling the holes with tufts of bristles.

17. In a brush-making machine, the combination of means for holding brush backs and for forming holes therein, means for holding bristles and for separating the same, transfer means comprising rotary arms, jaws carried by said arms and adapted to open and close, means for oscillating said arms, two arms held to the movable jaws of the transfer means, a stop adapted to open said movable jaws when the latter are in the receiving position, mechanism for positively opening said jaws when the transfer means is in the delivering position, and means receiving the bristles from the transfer means and for forming the same into tufts and for driving the tufts one at a time into the holes in the brush backs.

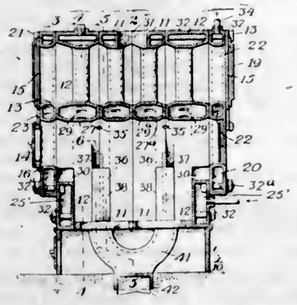
20. In a brush-making machine, the combination of means for holding brush backs and for providing holes to receive tufts of bristles in said backs, feeding means for the bristles, a slide, a plunger movable with and independently of the slide, means for holding bristles and cooperating with the plunger to form a tuft and by the plunger adapted to be forced into the receiving means of the brush back, anchoring metal feeding means, and means whereby the plunger for anchoring the tuft in the brush back may move back after forcing a tuft into a hole and then forward again to force a piece of anchoring metal into a tuft-filled hole.

30. In a brush-making machine, the combination of means for holding brush backs, means for forming rows of holes in said brush backs, means for feeding bristles, plunger mechanism for forcing the bristles into the holes of the brush backs, spreader jaws for forcing the previously inserted bristles out of the path of incoming bristles, together with means for opening and closing the jaws and for reciprocating the same.

[Claims 2, 4 to 16, 18, 19, 21 to 29, and 31 not printed in the Gazette.]

1,240,517. FURNACE. ADRIAN VAN LEEUWEN, Jr., and FRANCOIS X. BRUNELLE, Worcester, Mass., assignors, by direct and mesne assignments, of one-fourth to Francois X. Brunelle and three-fourths to Harry I. Randall, trustee. Filed June 13, 1916. Serial No. 103,553. (Cl. 122—225.)

1. A sectional heater comprising a plurality of sections, each provided with an external water wall and a water arch connecting the two sides of the external water wall and providing a combustion chamber between them above the arch, the space below the arch constituting a fire box, the edges of the arches of the several sections coming substantially into contact with each other to make the arch continuous, said sections having a series of substantially continuous and substantially parallel water conduits extending from the arch to the external wall, and means for conducting air into the fire-box and combustion chamber from below the fire box.



2. A sectional heater comprising a plurality of sections, each provided with an external water wall and a substantially horizontal inner water wall or arch connecting the two sides of the external water wall and providing a combustion chamber between them above the arch, the space below the arch constituting a fire box, the edges of the arches of the several sections coming substantially into contact with each other to make the arch continuous, said arch having jet openings therethrough to admit gases from the fire box into said combustion chamber, said sections having substantially vertical continuous water conduits extending from the arch to the external wall, but narrower than the sections and spaced from each other to permit circulation of air and gases around them in all directions, and means for supplying air both above and below the arch to support combustion.

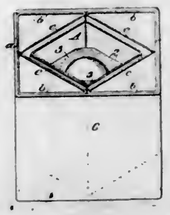
3. A sectional heater comprising a plurality of sections, each provided with an external water wall and a water arch connecting the two sides of the external water wall and providing a combustion chamber between them above the arch, the space below the arch constituting a fire box, the edges of the arches of the several sections coming into contact with each other to make the arch continuous, said sections having substantially continuous water conduits extending from the arch to the external wall, but spaced from each other to permit circulation of air and gases around them, a grate at the bottom of the fire box, and means for conducting air around the fire box to heat it and into the top of the fire box below the arch, the edges of the arch curving downwardly and inwardly at their ends to force the products of combustion back toward the grate.

4. A water heater having an inner and an outer hollow wall for the circulation of water spaced apart to form an upper combustion chamber separated from the fire box by said inner wall, said inner wall having jet openings passing transversely through the water filled inner wall for admitting the unconsumed gases from the fire-box into the space between said inner and outer walls, and air supply passages into said combustion chamber between said inner and outer walls.

5. A water heater having an inner and an outer wall, said inner wall constituting a substantially continuous flat arch over the fire box and having a plurality of jet openings therethrough for admitting the unconsumed gases from the fire-box into the space between said inner and outer walls, said space being practically as deep as the fire-box, and air supply passages from below the fire-box opening inwardly into the space between said inner and outer walls to supply preheated air to the combustion chamber formed in said space.

[Claims 6 to 16 not printed in the Gazette.]

1,240,518. EGG-CARRIER. MACKEE B. WALLACE, San Francisco, Cal. Filed Sept. 8, 1914, Serial No. 860,572. Renewed Feb. 12, 1917. Serial No. 148,256. (Cl. 217—29.)



1. An egg carrier comprising inner and outer spaced rectangular members, egg supporting disks on the inner members having their edges projected beyond said inner members, cushioning members consisting of integral central and side portions for engaging the inner faces of the outer member, said side portions terminating in inwardly directed integral portions, the ends of which meet and bear against the central portions, said inwardly directed portions being engaged by the projected edges of the disks, whereby the meeting ends of the last named portions are held in engagement with said central portions.

2. An egg carrier comprising inner and outer members, the inner member having egg supporting disks the edges of which project beyond the inner members and cushioning devices interposed between the inner and outer members, said cushioning devices being yieldably engaged by the projected edges of the disks, whereby the inner member is spaced from the cushioning devices.

3. In combination with an egg container, and a case therefor, a single pair of cushions each having a U-shaped body and inclined inner wings, the two bodies forming a rectangular inclosure for the container and the wings being directly engaged by the container.

4. A cushion for boxes consisting of a body portion, wing portions at substantially right angles thereto, said portions being adapted for engagement with three sides of the box, the wings having extensions forming inner wings which latter have their free ends engaged with the body portion at points substantially central of the space between the first mentioned wing portions.

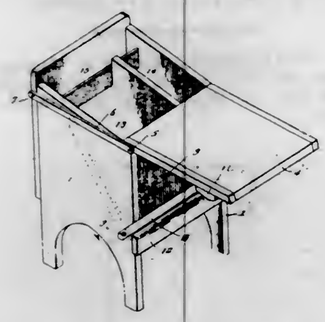
5. In combination with an egg container having segmental projections, cushioning members which engage said projections, each projection engaging a side of the cushioning members at a point central of the length of a side.

[Claims 6 and 7 not printed in the Gazette.]

1,240,519. KITCHEN-CABINET. WILLIAM FRANKLIN WALLACE, Scooba, Miss. Filed Sept. 14, 1915. Serial No. 50,706. (Cl. 45—16.)

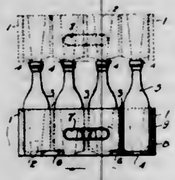
In combination, a flour cabinet having an open top with the upper edges of opposed sides inclined, a combined dough board and cover for said open top of the cabinet, a pair of bars pivotally connected at adjacent ends to the rear side of the cabinet adjacent its top portion, the opposite ends of the bars being connected to the opposite edges of the board adjacent the end thereof remote from the point of connection of the bars with the cabinet, whereby the board may be swung around the pivotal point of said bars and disposed horizontally so that the normally bottom side of the board may be used as a kneading surface, and means for supporting the board in said position, said

board being movable toward a vertical position in the rear of the cabinet by swinging the bars about their point



of connection with the cabinet whereby the interior of the cabinet may be entirely exposed.

1,240,520. BOTTLE-CASE. BENJAMIN T. WEBB, Birmingham, Ala., assignor of one-fourth to L. Julian Toole, one-fourth to George E. Kyser, and one-fourth to Algernon W. Nelson. Filed Apr. 2, 1917. Serial No. 159,528. (Cl. 217—22.)



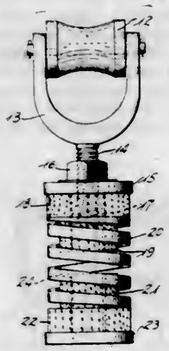
1. In a bottomless case for bottles, sides and ends suitably connected, spaced vertical partitions which taper upwardly and are partially cut away to form segmental bottle seats, and ledges on said partitions at the bottom of the seats, substantially as described.

4. A bottomless case for bottles having ends, sides and intermediate partitions, the sides having their inner faces sloping from the top inwardly to the bottom, and the partitions having their side faces sloping from wide bases upwardly toward narrow tops, the spaces between the bases of the sides and partitions being less than the diameter of the necks of the bottles to be used in the case, and bottle seats formed by segmental recesses bored downwardly partway through the side faces of the sides and partitions, and bottom ledges left at the bottom of each of said seats to support the bottles, substantially as described.

[Claims 2 and 3 not printed in the Gazette.]

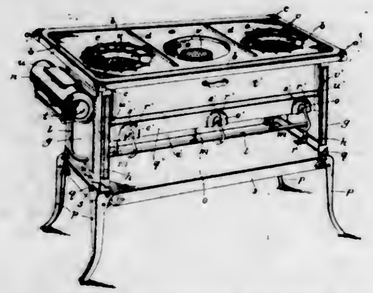
1,240,521. SHOCK AND SOUND ARRESTER. CHARLES F. WENDLAND, Brooklyn, N. Y. Filed Oct. 26, 1916. Serial No. 127,970. (Cl. 248—31.)

Means for supporting a pipe or the like, comprising a plurality of supports spaced along the length of said pipe, each of said supports comprising a supporting piece in contact with the pipe, a member connected to said piece and having a threaded stem, a top member having a central opening into which said threaded stem projects, a base, a solid resilient member and a metallic resilient member between said cap and said base and a nut on said threaded stem adapted to adjust the height of said



piece from said base and to adjust the tension of said metallic resilient member.

1,240,522. OIL-STOVE. FRED E. WHITE and FREDERICK E. HOOPER, Gardner, Mass., assignors to Central Oil & Gas Stove Company, Gardner, Mass., a Corporation of Massachusetts. Filed Apr. 4, 1916. Serial No. 88,888. (Cl. 126—44.)



1. On oil stove comprising a base made of inverted tray form, legs secured to the corners of said base flaring outwardly beyond the walls of the base and having upwardly extending corner extensions, a body made of sheet metal and bottomless, and of less width and length than the base so that it fits within the extensions of the legs and also fits within the flange of the base when the same is inverted, substantially as described.

2. An oil stove comprising a base of inverted tray form, legs supporting the same flaring outwardly and having upward extensions within the margin of the base, a body portion of sheet metal, bottomless and fitting within the extensions of the legs, an oil pipe extending the length of the body portion and brackets arranged beneath the oil pipe adapted to support the same and to form a connection with the base, substantially as described.

1,240,523. PRODUCTION OF SULFONIC-ACID SALTS FROM MINERAL-OIL WASTE LIQUORS. ALBERT WOLFF, Hamburg, Germany. Filed Feb. 28, 1917. Serial No. 151,606. (Cl. 23—24.)

1. The method of separating sulfuric acid from a sulfonic acid with which it is mixed, which comprises dissolving the mixture in alcohol, adding to the solution substantially dry alkali-metal carbonate to precipitate the sulfuric acid as sulfate, and removing the precipitate.

2. The method which consists in removing from the alcoholic alkaline waste liquor obtainable in refining mineral oil, the oil and salts ordinarily contained therein, dissolving the impure sulfonic acid obtained in alcohol, neutralizing the solution with alkali-metal carbonate free from water, removing the resulting precipitate, and evaporating the alcohol from the sulfonate solution obtained.

3. The method which consists in treating the alcoholic alkaline waste liquor obtainable in refining mineral oil with dilute sulfuric acid to remove the oil and salts, dissolving the impure sulfonic acid obtained in alcohol, neutralizing the solution with alkali-metal carbonate free of water and evaporating the alcohol from the sulfonate solution obtained.

4. The method which consists in decomposing the alcoholic alkaline waste liquor obtainable in refining mineral oil by aid of dilute sulfuric acid, repeatedly washing the sulfonic acid obtained with dilute sulfuric acid to remove the salt, dissolving the impure sulfonic acid obtained in alcohol, neutralizing the solution with alkali-metal carbonate free of water and evaporating the alcohol from the sulfonate solution obtained.

5. The method which consists in heating and agitating the alcoholic alkaline waste liquor obtainable in refining mineral oil with dilute sulfuric acid, repeatedly washing the sulfonic acid obtained with dilute sulfuric acid, adding the quantity of alcohol required for dissolving the oil still present, separating the layers thus formed, neutralizing the sulfonic acid solution with sodium carbonate free of water, removing the deposit and evaporating the liquid.

1,240,524. PROCESS OF MANUFACTURING FIBROUS COMPOSITION. JAMES C. WOODLEY, Evanston, Ill. Filed July 14, 1915. Serial No. 39,880. (Cl. 106—31.)

1. The process of producing a substantially homogeneous fibrous gummy mass which consists in superficially coating a fibrous material with a bituminous material in a moistened condition and disintegrating the fibrous mass in the resulting gummy mixture without destroying the fibrous character of said material.

2. The process of producing a substantially homogeneous fibrous gummy mass which consists in superficially coating paper with asphalt in a moistened condition and disintegrating the paper in the resulting gummy mass without destroying the fibrous character of the paper.

3. The process of producing a substantially homogeneous fibrous gummy mass which consists in superficially coating a fibrous material with a bituminous material, adding water and disintegrating the fibrous material in the resulting gummy mixture without destroying the fibrous character thereof.

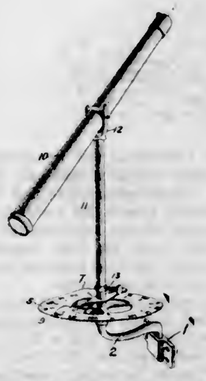
4. The process of producing a substantially homogeneous fibrous gummy mass which consists in superficially coating paper with asphalt and adding water to the mixture, and then disintegrating the paper in the resulting gummy mass without destroying the fibrous character of the paper.

5. The process of producing a substantially homogeneous fibrous gummy mass which consists in superficially coating paper with asphalt and adding water to the mixture in quantity not exceeding five times the weight of the paper, and then disintegrating the paper in the resulting gummy mass without destroying the fibrous character of the paper.

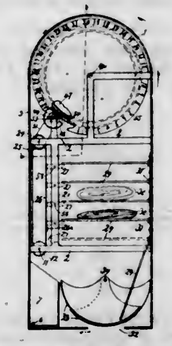
[Claims 6 to 10 not printed in the Gazette.]

1,240,525. DEVICE FOR NAVIGATING BY THE NORTH STAR. CHARLES D. WOODWARD, Providence, R. I. Filed Jan. 31, 1917. Serial No. 145,603. (Cl. 33—72.)

A device for navigating by the north star comprising the combination of a dial having reverse compass markings whereof the south marking is designed to be permanently fixed forward and in lubber line position on a vessel and a sight adjustable with respect to the reverse compass markings in correspondence with the course desired, whereby when the sight is on the north star the lubber line is in true compass direction of the desired course, and means for fixing the sight in the described relation to the fixed reverse compass marking for different new courses.



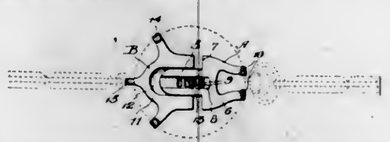
1,240,526. VENDING-MACHINE FOR NEWSPAPERS AND SIMILAR ARTICLES. WILLIAM C. ZIEBARTH, Sioux Falls, S. D. Filed Oct. 24, 1916. Serial No. 127,463. (Cl. 211—8.)



1. In a vending machine, an inclosure for goods, the same having a bottom opening for the sold goods to pass out, an escapement normally closing said bottom opening, and means for opening the said escapement; said escapement comprising two segmentally curved plates mounted to swing on a horizontal axis and partly overlap and thereby close the opening and to leave an opening between them when swung in opposite directions.

2. In a coin-controlled vending machine, an inclosure for goods, the same having a bottom opening for the sold goods to pass out, a series of skeleton shelves hinged one above the other to one side of the inclosure, means for supporting the shelves temporarily in level position, and means for releasing each shelf and let it drop to a hanging position; an escapement normally closing the bottom opening of the inclosure and means for opening the said escapement; said escapement comprising two horizontally curved plates mounted to swing on a horizontal axis and partly overlap and thereby close the opening and to leave an opening between them when swung in opposite directions; said plates having deep transverse notches to allow the lowest shelf to drop to and remain in its lower position during the delivery of goods from it and from the shelves above it.

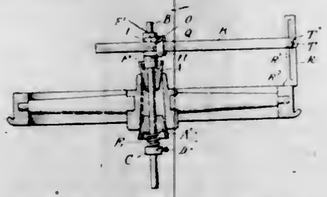
1,240,527. WATCH-HOLDER. CHARLES H. ALLEN, Attleboro, Mass., assignor to C. H. Allen & Co., Attleboro, Mass., a Copartnership consisting of Charles H. Allen and William H. Lamb. Filed Nov. 18, 1916. Serial No. 132,049. (Cl. 224—4.)



1. A watch-holder comprising two relatively-adjustable parts, one of said parts having a seat and the other of said parts having a tongue arranged to rest in said seat and said tongue having a groove and a series of openings in the groove, a member in said seat arranged to engage through said openings from the side opposite to said groove whereby the parts are held together, and a watch-engaging member on each of said parts.

2. A watch-holder comprising two relatively-adjustable parts, one of said parts having a seat extending from the edge adjacent to the other part and a hook member extending upwardly in said seat, and the other of said parts including a base, a tongue extending therefrom and disposed in said seat of the other part and adjustable longitudinally therein, the tongue being formed in its upper face with a longitudinally extending groove and with a series of openings in the groove extending to the under face of the tongue and each arranged to receive said hook member whereby the parts are held together, said hook member when so received terminating short of the upper plane surface of the tongue outside of said groove, and a watch-engaging member on each of said parts.

1,240,528. DEVICE FOR TRUING WHEELS. LOUIS F. ALSWORTH, Chicago, Ill. Filed Dec. 30, 1916. Serial No. 139,780. (Cl. 33—203.)

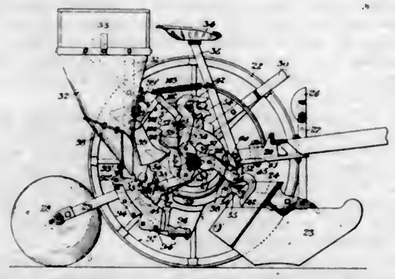


1. A device for truing wheels comprising a supporting shaft, conical-shaped members mounted thereon and adapted to engage the hole in the hub of a wheel, a sleeve upon said shaft, means for fastening the sleeve to said shaft, said sleeve having a recess therein, a bar movable in said recess, means for holding the bar in adjusted positions, a slotted gage secured to said bar, a screw passing through said bar and slotted gage, and a thumb nut upon the screw.

2. A device for truing wheels comprising two conical-shaped members adapted to engage the hole in the hub of a wheel, a shaft upon which said conical-shaped members are mounted, a collar fixed to said shaft and a spring interposed between the collar and one of said conical-shaped members, a sleeve upon the shaft, a set screw for holding the same to the shaft, an adjustable bar mounted upon the sleeve, a slotted gage member upon the bar, and means for holding said gage member in different adjusted positions.

1,240,529. POTATO-PLANTER. LEWIS AUGUSTUS ASPINWALL, Jackson, Mich., assignor to Aspinwall Manufacturing Company, a Corporation of Michigan. Filed Aug. 25, 1916. Serial No. 116,795. (Cl. 221—127.)

1. In a potato planter, a picker comprising a pair of spaced arms having beveled edges adapted to receive a potato, a device associated with said spaced arms and coacting therewith to engage, hold and release a potato, and a concave member to which the potatoes are fed and from which the potatoes gravitate to the said spaced arms, and which is adapted to permit the passage therein of said spaced arms and a potato held against the same by the action of the said device.



2. In a potato planter, a picker comprising a pair of spaced arms having beveled inner edges adapted to receive a potato, a concave, a center piece in the concave, the potatoes being fed to the concave and prevented from passing therethrough by the said center piece, and means associated with said spaced arms and coacting therewith to engage, hold, and release a potato.

3. In a potato planter, picker devices for receiving and carrying a potato, means for actuating the said picker devices to cause the same to yieldingly engage, hold and then release a potato, a concave to which said potatoes gravitate and through which said picker devices pass, and a center piece in said concave spanned by parts of the picker devices in passing through the concave and acting as a stop to prevent the passage of potatoes through the concave.

4. In a potato planter, a picker comprising a pair of spaced arms, a device between said spaced arms, means for actuating the said device between the spaced arms for causing the same to co-act with the said spaced arms to engage, hold and release a potato, and a concave member having spaced walls to permit the passage therethrough of the said spaced arms and a potato held against the same by the action of the said device.

5. In a potato planter, a picker comprising a pair of spaced arms having beveled edges, a tongue pivotally mounted between the said spaced arms, means for actuating the said tongue for causing the same to coöperate with the said spaced arms to engage, hold and release a potato, and a concave, the walls of which are spaced appreciably apart to permit the passage therethrough of the said spaced arms and a potato held against the same by the action of the said tongue, the edges of the walls of the concave being beveled similarly to the edges of the spaced arms.

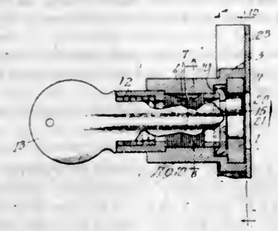
[Claims 6 to 14 not printed in the Gazette.]

1,240,530. MANUFACTURE OF LOCKS. EDWARD P. BAIRD, Chicago, Ill., assignor to The King Lock Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 5, 1915. Serial No. 59,819. (Cl. 29—148.)

1. The herein described manufacture of locks, consisting in associating a plurality of tumblers and inserting a key in the tumblers, then cutting off the ends of the tumblers so that they aline at the ends, then withdrawing the key and inserting a different key in the tumblers, and then again cutting off the ends of the tumblers.

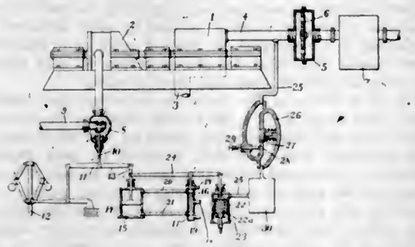
2. The manufacture of plate tumbler master locks of the kind described, operable by a common key, consisting in inserting a suitable master key in the locks and cutting off the tumblers at the ends, whereby the same will clear a coöperating engaging part when the key is in the lock.

3. The herein described manufacture of locks, consisting in associating a plurality of suitably formed plate tumblers in a slotted spindle, said tumblers being of a length to project beyond the spindle, then inserting a key to adjust the tumblers and cutting off the tumblers flush with the spindle, whereby when the spindle is inserted in a suitable barrel arranged for engagement with said tumblers, the tumblers will be moved out of or in operative engagement with the barrel upon the insertion or withdrawal of the key.



4. The herein described manufacture of locks, consisting in associating a plurality of plate tumblers and arranging them with a suitable key, then cutting away portions whereby when the same are inserted within a suitable spindle the same will be entirely contained within the confines thereof, then again arranging them and cutting away portions whereby when a dissimilar key is employed to rearrange the tumblers they will also be entirely contained within the confines of the spindle.

1,240,531. REGULATING MECHANISM FOR CENTRIFUGAL COMPRESSORS. OTTO BANNER, Easton, Pa., assignor to Ingersoll-Rand Company, Jersey City, N. J., a Corporation of New Jersey. Filed June 30, 1914. Serial No. 848,147. (Cl. 103—95.)

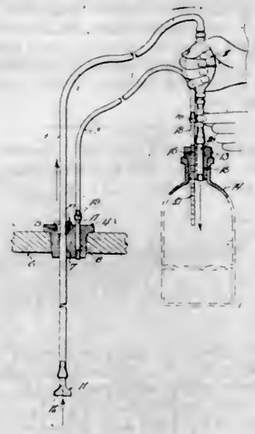


1. In combination, a centrifugal compressor, a driving engine therefor, a compressor discharge line, a check valve in said discharge line, a controlling valve for said engine, and means to operate said controlling valve by discharge line pressure and the speed of the engine comprising a fluid conduit leading from said discharge line between said compressor and said check valve.

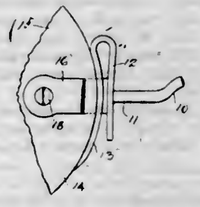
2. The combination with a centrifugal compressor having a discharge line, and an engine for said compressor, of a check valve in said discharge line, a controlling valve for said engine, a speed governor and a motor for operating said controlling valve, a fluid conduit for transmitting the pressure of said discharge line to operate said motor, means in said conduit for allowing free passage of the fluid through said conduit in a direction to close said valve and means for restricting the flow in the opposite direction.

1,240,532. SIPHON. CHARLES A. BARROW and JOHN KARPEN, Racine, Wis. Filed Aug. 24, 1915. Serial No. 47,075. (Cl. 137—20.)

In a siphon, the combination with a member provided with a bore having one end taperingly counter sunk, of a resilient fluid tube slidable through said bore, and a tapered split sleeve on the tube adapted to seat in the counter sink and to be contracted thereby to clip the tube whereby the diameter of the tube is reduced to prevent longitudinal shifting thereof.



1,240,533. EYEGLASS-MOUNTING. EARLE J. R. BEATTEY, Providence, R. I., assignor to Universal Optical Corporation, Providence, R. I., a Corporation of Rhode Island. Filed Nov. 23, 1916. Serial No. 132,951. (Cl. 88—47.)



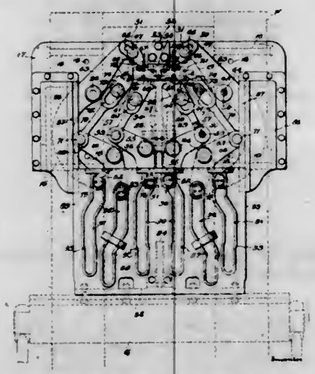
1. An eye-glass mounting comprising the lens clamp having spaced apart arms normally separated by a distance greater than the thickness of the lens, a screw connecting said arms, said screw and one of said arms having complemental means for normally preventing rotation of the screw, said arms being sufficiently resilient to permit them to be pressed toward each other, whereby the screw may be disengaged from its rotation-preventing means to permit rotation thereof, a lens seat on one side of the axis of said screw, and resilient means on the opposite side of the axis of the screw for maintaining a tension upon the lens to press the latter against said seat.

2. An eye-glass mounting comprising a lens clamp having spaced apart arms normally separated by a distance greater than the thickness of the lens, a screw passed through and connecting said arms, said screw having angular locking faces, one of said arms having angular locking faces complemental to those of the screw to normally prevent rotation of the latter, said arms being sufficiently resilient to permit them to be pressed toward each other, whereby said complemental locking faces may be disengaged to permit rotation of the screw, a lens seat on one side of the axis of said screw, and resilient means on the opposite side of the axis of the screw for maintaining a tension upon the lens to press the latter against said seat.

3. In an eye-glass the combination with a lens, of a clamp having spaced apart arms normally separated by a distance greater than the thickness of said lens, a screw supported by said arms and extended through the lens to

provide a pivot therefor, said screw and one of said arms having complemental means for normally preventing rotation of the screw, said arms being sufficiently resilient to permit them to be pressed toward each other, whereby the screw may be disengaged from its rotation-preventing means to permit rotation thereof, a lens seat above said pivot screw, and resilient means below said pivot screw for applying a rotation tension to the lens to yieldably press it to said seat.

1,240,534. BENDING-MACHINE. GEORGE T. BOND, Huntington, W. Va. Filed Oct. 4, 1916. Serial No. 123,698. (Cl. 153—68.)



1. In a bending-machine, the combination of a base, a primary lever, a secondary lever, and a tertiary lever fulcrumed on said base, former-heads associated with said levers, a cam-follower on each of said levers, a member having cam-guideways in which said followers are disposed and arranged to impart sequential movement to said primary, secondary, and tertiary levers, and means for actuating said member.

3. In a bending-machine, the combination of a fixed former, a primary former arranged to press material against said fixed former, a secondary former arranged to press material against said primary former, a tertiary former arranged to press material against said secondary former, a cam-follower associated with each of said primary, secondary, and tertiary formers, an actuating member having cam-guideways in which said followers are disposed and arranged to impart sequential bending action to said primary, secondary, and tertiary formers and to release pressing action thereof after bending of the material, an ejector positioned to engage the material, an ejector-actuator, and means whereby said ejector-actuator is moved after release of said formers and the material ejected from between them.

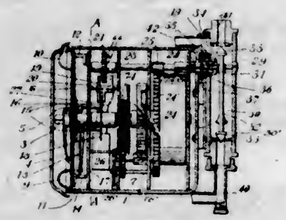
4. A bending-machine comprising a movable former-head, an actuating member therefor, a cam-follower associated with said actuating member, and an actuating member having a cam-guideway in which said follower is disposed, said guideway having a cam-surface arranged to impart bending action to said former-head and an offset arranged to release pressure from said former-head.

9. In a bending-machine, the combination of a fixed former, a primary former arranged to press material against said fixed former, a secondary former arranged to press material against said primary former, a tertiary former arranged to press material against said secondary former, a cam-follower associated with each of said primary, secondary, and tertiary formers, an actuating member having guideways in which said followers are disposed, said guideways being so relatively inclined and arranged that sequential bending action is imparted to said primary, secondary, and tertiary formers and having offsets positioned to release pressure on said formers after completion of their bending movement, an ejector member movable with respect to said formers, push members on said ejector member arranged to be moved against material acted on by said formers, and means whereby ejecting movement is imparted to said ejector member after release of pressure on said formers.

11. In a bending-machine the combination of a base member, coöperating formers thereon having registering slots in their abutting faces, means whereby formers are actuated and pressure with respect to one another released, an ejector member movable with respect to said formers, push members on said ejector members arranged to be moved into said former-slots whereby to eject material bent between said formers, and means whereby ejecting movement is imparted to said ejector member after release of pressure of said formers.

[Claims 2, 5 to 8, 10, 12, and 13 not printed in the Gazette.]

1,240,535. DEVICE FOR AUTOMATICALLY CONTROLLING LIGHTING-GAS CONDUITS, ELECTRIC CIRCUITS, AND THE LIKE. AUGUSTE CLAUDE ADOLPHE BOUCHARD, Nice, France. Filed Mar. 30, 1914. Serial No. 828,364. (Cl. 161—9.)



1. A device of the character described comprising a clock-work, a shaft driven thereby, a graduated dial, a finger on said shaft in front of said dial, a sleeve on said shaft, indexes on said sleeve, a shoulder on each of said indexes, a pivoted member carried by said shoulder and adapted to be operated by contact with said shoulders, and means controlled by the operation of said pivoted member adapted to open and close a valve.

2. In a device of the character described, the combination with a casing, of a clock-work within, a shaft driven thereby, a dial, an indicating finger on said shaft adapted to coöperate with said dial, a sleeve on said shaft, a plurality of indexes adjustably mounted to said sleeve, a shoulder on each of said indexes, a pivoted member carried by said shaft and adapted to be alternately operated by each of said shoulders, a spindle, a member slidably mounted on said spindle adapted to be operated by said pivoted member upon contact with one of the shoulders, and means carried by said spindle carried member adapted to control the operation of said clock-work.

3. In a device of the character described, the combination with a clock-work, of a shaft driven thereby, an indicating finger on said shaft adapted to coöperate with the dial, a plurality of indexes adjustably mounted on said shaft by means of a sleeve, a shoulder on each of said indexes, a pivoted member carried by said shaft and adapted to be alternately operated by each of said shoulders, a spindle, a forked member slidably mounted thereon, a second shaft adapted to be operated by said clock-work, a wheel on said shaft, pins carried by said wheel and adapted to alternately strike said forked member, connections between the pivoted member and said forked member whereby movement of the pivoted member will cause movement of said forked member, and means carried by said forked member adapted to control the movement of the clock-work.

4. A device of the character described comprising a casing, a clock-work within said casing, a central shaft driven by said clock-work, an indicating finger carried by said clock-work, and a dial adjacent said finger, a sleeve on said shaft, a plurality of indexes mounted on said shaft and adapted to coöperate with said dial, a shoulder on each of said indexes, a pivoted member carried by said shaft and adapted upon rotation to engage one of said shoulders, a spindle, a forked member slidably mounted upon said spindle, connections between said forked member and said pivoted member, a second shaft driven by said clock-work, a wheel on said shaft, a plurality of pins on said wheel adapted to alternately engage said forked member, means carried by said fork adapted to control the operation of said clock-work, and means carried by said second shaft adapted to open and close a supply valve.

5. A device of the character described comprising a casing, a clock-work within said casing, a shaft driven by said clock-work, an indicating finger on said shaft, a dial adjacent said finger, a sleeve on said shaft, a plurality of indexes carried by said sleeve and adapted to coöperate with said dial, a shoulder on each of said indexes, a pivoted member carried by said shaft, a cam head on said pivoted member adapted upon rotation to engage one of said shoulders, a spindle, a double forked member slidably mounted upon said spindle, connections between said pivoted member and said double forked member, a governor for the speed of said clock-work, means carried by said forked member adapted to normally engage said governor to prevent rotation thereof, a valve, means for operating said valve normally held inoperative by said forked member, whereby upon a shifting of said pivoted member by means of contact with the shoulders, said forked member will be shifted to permit rotation of the governor and operation of the valve.

1,240,536. EYEGLASS-CASE. JOHN M. BRADLEY and CHARLES F. PIKE, Philadelphia, Pa. Filed July 2, 1915. Serial No. 37,764. (Cl. 206—5.)



1. A reel case, in combination with an eyeglass-case separated therefrom and provided with an opening in its top for the passage of a cord or chain from the reel and a second opening for the ingress and egress of the glasses carried by the cord.

2. An eyeglass case provided with an edge slot for the free passage and upward and downward movement of a cord attached to an eyeglass.

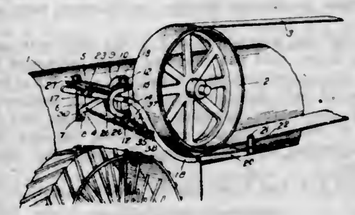
3. An eyeglass case provided with an edge slot for the free passage and upward and downward movement of an eyeglass and a cord attached thereon.

4. A reel case, means for the attachment thereof to a garment, an eyeglass case independent of the reel case, means for attaching the eyeglass case independently to a garment and openings between the interior of the reel case and the interior of the eyeglass case for the passage of a cord from the reel, an eyeglass, the eyeglass case being provided with an edge slot to permit lateral and vertical movement of the cord.

5. A reel case, means for securing it to a garment, an eyeglass case independent of the reel case and means for securing the eyeglass case to a garment, the top of the eyeglass case being removed to permit of the passage into the eyeglass case of a cord from the reel.

[Claims 6 to 9 not printed in the Gazette.]

1,240,537. BELT-GUIDE. EDWARD R. BROWN, Rocky Ford, Colo. Filed Jan. 15, 1917. Serial No. 142,395. (Cl. 64—4.)

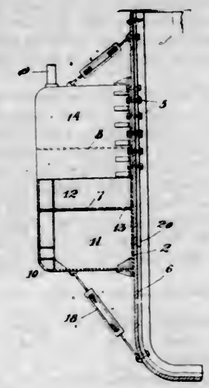


1. A belt guide comprising a bracket having an end yoke, a block pivotally mounted in said yoke, a guide arm pivotally mounted on said block having a free end adapted to swing into and out of alinement with the line of a belt wheel and toward and from a belt carried by said wheel, rollers carried by the free end of the guide arm for engaging opposite edges of the belt, and means for yieldingly retaining said arm in alinement with the line of the belt wheel.

3. A belt guide comprising a bracket having an end yoke, a block having a vertical axial line pivotally mounted in said yoke, a guide arm pivotally mounted on the said block having a rearwardly extended lever arm and a forwardly extending bifurcated arm adapted to swing vertically toward and away from a belt, a sector plate mounted on the said block having a notched edge, a latch pin mounted on the lever arm adapted to seat in said sector notches to lock the outer end of the guide arm in a vertically adjusted position, rollers mounted at the end of the bifurcated arm adapted to engage opposite edges of the belt, and a tension spring attached to the bracket and to the forward end of the guide arm to yieldingly retain the latter in functional alinement.

[Claims 2 and 4 not printed in the Gazette.]

1,240,538. APPARATUS FOR RAISING SUNKEN VESSELS. RICHARD M. BROWNE and THOMAS D. SCOTT, New York, N. Y. Filed Mar. 26, 1917. Serial No. 157,353. (Cl. 114—52.)



1. A pontoon having a flat side arranged to lie snugly against the side of a vessel, and having a co-extensive flange whereby said pontoon may be bolted to the vessel.

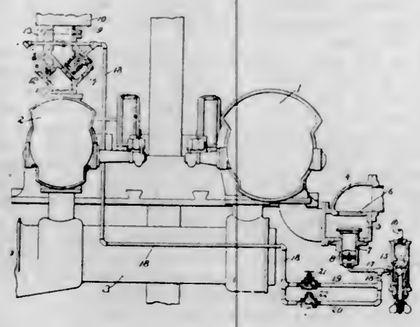
3. A salvage pontoon having a deck portion attachable to the side of a sunken ship, vertical lengthwise compartments in said pontoon, and means for admitting water at a lower portion of one of said compartments to upend said pontoon and dispose its deck portion vertically, for such attachment.

4. The improvement in the art of ship construction wherein a sunken vessel is provided with a series of salvage pontoons, which are rigidly bolted to the sides of said vessel to thereby become an integral part of its fabric.

7. A salvage pontoon having a flat side with an extending flange, said flat side and flange arranged to fit against the side of a sunken vessel, and said flange having a series of bolt holes, arbitrarily spaced horizontally, whereby, under the provision of registering bolt holes formed in the vessel's side and piercing the ribs of the hull, connecting bolts may integrally unite said pontoon and vessel.

[Claims 2, 5, and 6 not printed in the Gazette.]

1,240,539. REGULATOR FOR FLUID-COMPRESSORS. EMERY L. BUCKLEY, Painted Post, N. Y., assignor to Ingersoll-Rand Company, Jersey City, N. J., a Corporation of New Jersey. Filed Dec. 5, 1914. Serial No. 875,589. (Cl. 230—24.)



1. In a regulator for fluid compressors, in combination, a compressor, its receiver, a fluid operated discharge line unloading valve mechanism, a fluid operated intake closing valve, a passage to convey fluid to said intake closing valve, a passage to convey fluid to said discharge line unloading valve mechanism, said passage having valve mechanism arranged to restrict the flow of fluid in a direction to open said unloading valve mechanism, and means to admit fluid to said passage at a predetermined receiver pressure.

2. In a regulator for fluid compressors, in combination, a compressor, its receiver, a fluid operated discharge line unloading valve mechanism, a fluid operated intake closing valve, a passage to convey fluid to said intake closing valve, a passage to convey fluid to said discharge line unloading valve mechanism, said passage having adjustable valve mechanism arranged to restrict the flow of fluid in a direction to open said unloading valve mechanism and to allow free flow in the other direction, and means to admit fluid to said passages at a predetermined receiver pressure.

1,240,540. SHARPENING DEVICE. RENÉ CANDELIEZ, Uccle, Belgium. Filed June 18, 1914. Serial No. 845,810. (Cl. 51—16.)

1. In a domestic sharpening device the combination of a bar; a leather envelop; and a plurality of parallel longitudinal tubes of uniform diameter, arranged side-by-side under said envelop, said tubes permitting the envelop to be deformed and to adopt the form of the blade and cutting edge from end-to-end thereof.

2. In a domestic sharpening device the combination of a bar; a leather envelop; and an elastic tube, open to the air, in said envelop.



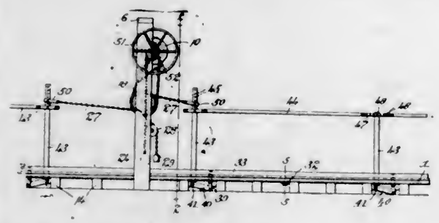
3. In a domestic sharpening device the combination of a bar; a leather envelop; and a plurality of parallel elastic tubes open to the outside air and of uniform diameter arranged side-by-side under said envelop, said tubes permitting the envelop to be deformed and to adopt the form of the blade and cutting edge from end-to-end thereof.

4. A sharpening device, comprising in combination, a bar, two lateral, longitudinal ledges of uniform height and perpendicular to the bar, a leather envelop arranged between the said ledges and resting on the bar, rubber tubes arranged in the interior of the leather envelop, parallel to the long sides of the bar, a rubber base in which are embedded the said tubes, substantially as described.

5. A sharpening device, comprising in combination, a bar, two lateral, longitudinal ledges of uniform height and perpendicular to the bar, a leather envelop arranged between the said ledges and resting on the bar, rubber tubes arranged in the interior of the leather envelop, parallel to the long sides of the bar and the inner diameter of which is equal to half the thickness of the thick portion of the blade to be sharpened, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,240,541. MINE-DOOR. CHARLES W. CARMAN, Newburg, W. Va., assignor of one-half to Christiana Carman, Newburg, W. Va. Filed Feb. 19, 1917. Serial No. 149,635. (Cl. 269—6.)



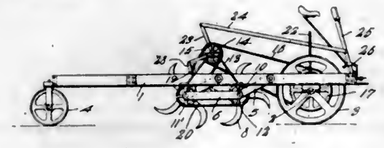
1. An apparatus of the character described, comprising in combination, a track, a roller, a door to be wound upon said roller, a shaft, a roller on said shaft, an operative connection between said shaft and said first roller, and means to be actuated by a vehicle passing over the track for rotating the shaft, said means including a lever and a chain connected therewith and passing over the last roller, removable pins being provided for connecting the chain to the lever, for the purpose set forth.

3. An automatic door for mines, comprising, in combination, a track including a depression rail, a shaft having a roller thereon upon which the door is adapted to be wound, a second shaft, an operative connection between the depression rail and said last shaft, sprocket wheels on said shafts, a sprocket chain connecting said sprocket wheels, and a second chain connecting opposite portions of said sprocket chain, for the purpose set forth.

4. An automatic door for mines, comprising, in combination, a track, a shaft having a roller thereon upon which the door is adapted to be wound, means automatically actuable by a vehicle passing over the track for operating the door, and a hand-wheel on the shaft whereby the roller may be manually operated.

[Claims 2 and 5 not printed in the Gazette.]

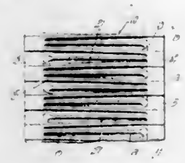
1,240,542. ROTARY HARROW. CHARLES CASSELL, Weippe, Idaho. Filed May 8, 1917. Serial No. 167,198. (Cl. 55—85.



1. A weeder and harrow, comprising a wheel supported frame, spaced links pivotally secured to each side of the frame, a connecting rod secured to the pair of links at each side of the frame, reels journaled in the links, curved teeth on the reels, a shaft overlying the reels, gearing between the shaft and the reels and means for rotating the shaft to actuate the reels.

2. A weeder and harrow, comprising a wheel supported frame, links pivotally secured to the frame and depending therefrom, rotary members supported by the links, a shaft journaled in the frame and overlying the rotary members, gearing between the shaft and rotary members, means for rotating the shaft to actuate the rotary members, a bell crank lever fulcrumed on the shaft, a connection between the bell crank lever and the links, and means for operating the bell crank lever to swing the links and adjust the rotary members.

1,240,543. RADIATOR. HORACE A. CURETON, Los Angeles, Cal. Filed Apr. 15, 1916. Serial No. 91,459. (Cl. 257—130.)



1. In a radiator, a sheet element formed with longitudinally tapered corrugations substantially rectangular in cross section with adjacent corrugations having opposed diagonally extending bottom walls.

2. In a radiator, a sheet element formed with longitudinally tapered corrugations substantially rectangular in cross section, the adjacent corrugations being tapered throughout their lengths in opposite directions.

3. In a radiator, a sheet element formed with longitudinally tapered corrugations, with the adjacent corrugations tapered in opposite directions in relation to each other, and having a corrugation extending longitudinally between the side walls of the tapered corrugations.

4. In a radiator, a sheet element having longitudinally tapered corrugations with the adjacent corrugations tapered in opposite directions in relation to each other, said corrugations having their bottom walls off-set intermediate their ends.

5. In a radiator, a sheet element having longitudinally tapered corrugations with the adjacent corrugations tapered in opposite directions in relation to each other, said corrugations having their bottom walls off-set intermediate their ends, and having rib-like corrugations between the side walls of the tapered corrugations.

[Claims 6 to 9 not printed in the Gazette.]

1,240,544. NON-CUMULATIVE WAX POLISH. WILLIAM H. DAMON, Los Angeles, Cal. Filed Mar. 13, 1916, Serial No. 83,986. Renewed July 2, 1917. Serial No. 178,267. (Cl. 134—24.)

1. The herein-described cleaning and polishing composition consisting of water, soap, diatomaceous earth, paraffin wax, spirits of turpentine, and rosin, substantially in the proportions specified.

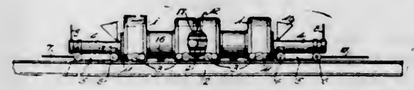
2. A composition consisting of one gallon of water, four ounces of soap, two pounds of diatomaceous earth, one gallon of spirits of turpentine, two pounds of paraffin wax, and one ounce of rosin, substantially as described and for the purposes specified.

1,240,545. NON-CUMULATIVE WAX POLISH. WILLIAM H. DAMON, Los Angeles, Cal. Filed Aug. 30, 1916, Serial No. 118,594. Renewed July 2, 1917. Serial No. 178,268. (Cl. 134—24.)

1. The herein-described cleaning and polishing composition consisting of water, soap, diatomaceous earth, wax, and light petroleum distillate, substantially in the proportions specified.

2. A composition consisting of two gallons of water, one pound of soap, one to two pounds of diatomaceous earth, two pounds of wax, and two and one-half gallons of light petroleum distillate, substantially as described and for the purposes specified.

1,240,546. CENTRIFUGAL CASTING-MACHINE. DIMITRI SENSAUD DE LAVAUD, Buffalo, N. Y. Filed Dec. 15, 1916. Serial No. 137,130. (Cl. 22—65.)



1. The combination, comprising a pair of centrifugal casting machines arranged to be brought into axial alinement, rotary molds within said machines arranged with ends to fit each other to form a continuous mold, means for supplying molten metal to said molds, and means for drawing apart said machines when the casting has been completed to effect the removal of the casting.

2. The combination, comprising a pair of centrifugal casting machines mounted axially in line and slidable in axial direction, rotary molds within said machines arranged with ends to fit each other to form a continuous mold, means for supplying molten metal to said molds, and means for drawing apart said machines when the casting has been completed to effect the removal of the casting.

3. The combination, comprising a pair of centrifugal casting machines adapted to be brought into axial alinement, rotary molds within said machines arranged with ends to fit each other to form a continuous mold, a trough extending through said molds for supplying molten metal thereto, and means for drawing apart said machines when the casting has been completed to effect the removal of the casting.

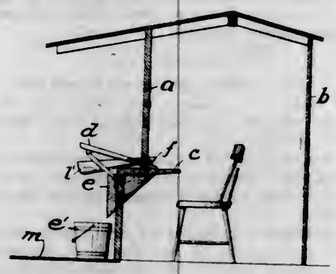
4. The combination comprising a pair of centrifugal casting machines adapted to be brought into axial alinement, rotary molds within the machines arranged with ends to fit each other to form a continuous mold, revoluble troughs extending into said molds from the outer ends for supplying molten metal to said molds, and means for drawing apart said machines when the casting has been completed to effect the removal of the casting.

5. The combination, comprising a pair of centrifugal casting machines adapted to be brought into axial alinement, rotary molds disposed within the said machines and having beveled ends to fit each other to form a continuous mold, means for supplying molten metal to said molds, and means for drawing apart said machines when the casting has been completed to effect the removal of the casting.

[Claims 6 to 10 not printed in the Gazette.]

1,240,547. [WITHDRAWN.]

1,240,548. MEANS FOR INSURING THE SAFE MANIPULATION OF EXPLOSIVES. ELEUTHERE PAUL DU PONT, Wilmington, Del. Filed Mar. 23, 1917. Serial No. 157,060. (Cl. 86—20.)



1. Means for protecting operatives performing operations involving the successive manipulation of small quantities of explosives, comprising a barricade, and an explosive supply container extending through an aperture in the barricade whereby the supply of explosive material on one side of the barricade may pass by small instalments to the operative on the other side of the barricade.

2. Means for protecting operatives performing operations involving the successive manipulation of small quantities of explosives, comprising a barricade, and a finished product container extending through an aperture in the barricade whereby the units of the product as provided by the operator on one side of the barricade may be successively disposed of and accumulate on the other side of the barricade.

3. Means for protecting operatives performing operations involving the successive manipulation of small quantities of explosives, comprising a barricade, an explosive supply container on one side of the barricade, said barricade having an aperture communicating with said container and providing an inlet for the passage to the operator on the other side of the barricade of successive instalments of the explosive supply.

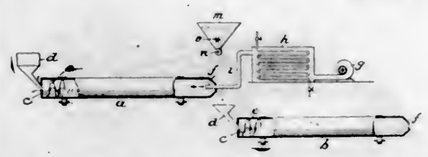
4. Means for protecting operatives performing operations involving the successive manipulation of small quantities of explosives, comprising a barricade, a finished product container on one side of the barricade, said barricade having an aperture communicating with said container and providing an outlet for the passage from the operator on the other side of the barricade of successive units of the finished product.

5. Means for protecting operatives successively manipulating small quantities of explosives in the successive formation of numerous units of finished or partly finished product, comprising a barricade, an explosive supply container and a finished product container on one side of the barricade; said barricade having an aperture communicating with the explosive supply container and providing an inlet for the passage to the operator on the other side of the barricade of successive instalments of the explosive supply and an aperture communicating with the finished product container and providing an outlet for the passage from the operator of successive units of the finished product.

[Claims 6 to 12 not printed in the Gazette.]

1,240,549. PROCESS FOR FINISHING EXPLOSIVE POWDER. ERNEST DU PONT, Wilmington, Del., assignor, by direct and mesne assignments, to Ball Grain Explosives Company, Wilmington, Del., a Corporation of Delaware. Filed July 28, 1915. Serial No. 42,261. (Cl. 52—4.)

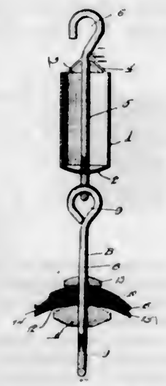
1. In the process of finishing explosive granular powder, causing the powder grains to have a combined longitudinal and transverse rolling movement and continuously applying and discharging powder at opposite ends of the moving stream so as to maintain substantially constant the volume of powder being treated and at the same time carry on the operation continuously.



7. The process of finishing explosive granular powder which consists in imparting to the same a continuous forward movement, introducing unto the continuous stream of moving powder a polishing material, and causing the powder, both back of and beyond the point of introduction of the polishing material to have also a transverse rolling movement, and directing a blast of artificially heated air over that part of the stream of powder back of the point of introduction of the polishing material in a direction opposite to the direction of forward travel of the powder, thereby, in a continuous manner, first smoothing the grains and blowing away the dust created in the smoothing operation and then polishing the grains.

[Claims 2 to 6 not printed in the Gazette.]

1,240,550. PUMP-CHAIN. WILLIAM E. FAHRNER, McKittrick, Mo. Filed Nov. 4, 1916. Serial No. 129,572. (Cl. 103—6.)

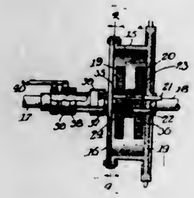


1. A pump chain comprising a plurality of connecting rods having their ends linked together, cups mounted upon certain of the said connecting rods including hollow cylindrical member each provided with closed ends, the loop of the end of the said connecting rod being partially extended through the said closed end, and retaining arms at the open end of the cup secured to the said connecting rod.

2. A pump chain comprising a plurality of rods linked together at their ends, certain of said rods carrying cups each of which comprises a hollow cylindrical member provided with a closed end having openings formed therein, the end of the corresponding connecting rod adjacent the closed end of each cup being provided with an eye having its opposite portions extended through the said openings, and retaining arms integrally formed with each cup and connected to the corresponding rod.

1,240,551. DIFFERENTIAL MECHANISM OR EQUALIZING-GEARING FOR MOTOR-DRIVEN VEHICLES. ARCHIE W. FARRELL, Maple Park, Ill. Filed July 8, 1912. Serial No. 708,137. (Cl. 74—34.)

1. A motor vehicle having power transmission means, a sprocket-gear forming a part of said transmission means, a housing formed on said sprocket wheel and rotating therewith, equalizing gearing arranged within said housing and receiving power by the rotation of said housing, a pair of main gears forming a part of said equalizing gearing, separate shafting connected to each of said main gears, a pair of pinions intermeshing with one another and with said main gears and forming a part of said equalizing gearing, said pinions being shiftably mounted in the housing, and locking projections carried by the inner faces of said housing for engagement with said pinions whereby either or both of said main gears may be held in locking relation with said housing.



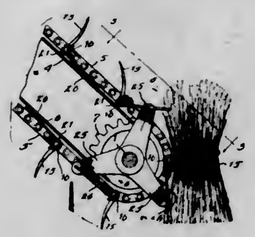
2. In a motor driven vehicle, the combination with a pair of alined shafts, of a sprocket-gear mounted on one of said shafts and having a housing mounted on and overhanging the adjacent end of the other of said shafts, means to drive said gear, a main gear mounted on each of said shafts within said housing, a plurality of shafts slidably mounted on the sprocket-gear and said housing in parallelism with the alined shafts and arranged in pairs at diametrically opposite points, a pinion rotatably mounted on each of the last named shafts but movable longitudinally therewith, projections on the inner faces of the housing and sprocket-gear to engage said pinions, and means to move the pinion-shafts so as to cause the pinions thereon to engage or disengage said projections.

3. In a motor driven vehicle, the combination with a pair of alined shafts, of a sprocket-gear mounted on one of said shafts and having a housing mounted on and overhanging the adjacent end of the other of said shafts, means to drive said gear, a main gear mounted on each of said shafts within said housing, a plurality of shafts slidably mounted on the sprocket-gear and said housing in parallelism with the alined shafts and arranged in pairs at diametrically opposite points, a pinion rotatably mounted on each of the last named shafts but movable longitudinally therewith, projections on the inner faces of the housing and sprocket-gear to engage said pinions, and means to independently move each pair of the pinion-shafts so as to cause the pinions thereon to engage or disengage said projections.

4. In a motor driven vehicle, the combination with a pair of alined shafts, of a sprocket-gear mounted on one of said shafts and having a housing mounted on and overhanging the adjacent end of the other of said shafts, means to drive said gear, a main gear mounted on each of said shafts within said housing, a plurality of shafts slidably mounted on the sprocket-gear and said housing in parallelism with the alined shafts and arranged in pairs at diametrically opposite points, a pinion rotatably mounted on each of the last named shafts but movable longitudinally therewith, projections on the inner faces of the housing and sprocket-gear to engage said pinions, collars slidably and rotatably mounted on one of the alined shafts and connected one to each pair of the pinion-shafts, sleeves slidably mounted on said alined shaft and loosely connected one to each of said collars, and means to shift said sleeves and collars back and forth.

1,240,552. ELEVATOR. HARRY P. FISHER, Chicago, Ill. Filed Apr. 23, 1917. Serial No. 163,819. (Cl. 214—2.)

A belt conveyer having an endless link belt traveling in a vertical plane, sprocket wheels over which the belt passes at the ends of the conveyer, prongs on the belt for engaging the material, said prongs being rotatable relatively to the belt, controlling arms for rotating said prongs relatively to the belt, and a spider concentric with one of said sprocket wheels and rotating therewith, said spider having arms extending beyond the circumference of the wheel for engaging the controlling arms and thereby imparting a temporary forward rotative movement to the



prongs, the number of teeth in the sprocket wheel being considerably greater than the number of arms on the spider whereby, by adjusting the link belt forward or backward a tooth or two on the sprocket wheels, the action of the spider arms upon the controlling arms may be varied.

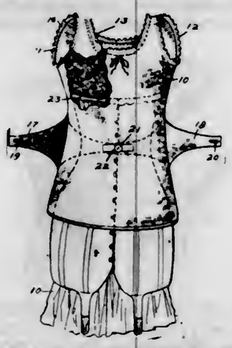
1,240,553. DRILL. IRA W. FOLTZ, Chicago, Ill. Filed May 15, 1916. Serial No. 97,687. (Cl. 77—69.)

A device of the class described, comprising a body portion provided with an axial bore therein for the reception of a drill, a shank integral with said body portion and extending outward therefrom in alinement with said axial bore, said body portion having a longitudinal slot therein at one side, said slot being formed to provide side walls and an inclined inner wall, a cutting tool mounted in said slot and having a flat surface extending at substantially right angles to the axis of said body portion, said cutting tool having a surface inclined with respect to the axis of said body portion for coacting with the inclined surface of said body portion, said cutting tool being provided with a slot disposed substantially parallel to said inclined surfaces, means mounted on said body portion and extending through said inclined slot for clamping said cutting tool between the walls of said slot, and a flat-faced nut in threaded engagement with said shank for bearing against the flat face of said cutting tool whereby the tool may be adjusted axially and radially of said body portion.

1,240,554. COMBINATION CORSET-COVER AND CHEMISE. JENNY B. FORTAIN, Redondo Beach, and MINNA VIETS, Los Angeles, Cal. Filed Jan. 11, 1917. Serial No. 141,836. (Cl. 2—145.)

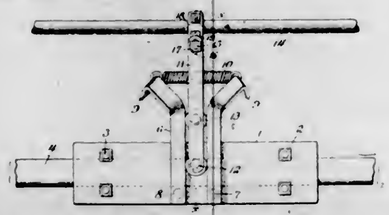
1. An undergarment, comprising a chemise, a corset cover having a one-piece front adapted to be sewed around the fore part of the neck and arm holes of the chemise, a plaiting strap positioned upon said front portion along the waist line and adapted to reduce the fullness of the garment, a back portion of said corset cover secured to the rear of the neck and arm holes of the chemise, and a pair of oppositely disposed binding straps formed integral

with said back portion and adapted to pass around the body of the wearer and be secured to the plaiting strap.



2. An under garment comprising a chemise, a corset cover having a one-piece front adapted to be sewed around the fore part of the neck and arm holes of the chemise, a back portion of said corset cover secured to the rear of the neck and arm holes of the chemise, a pair of oppositely disposed binding straps extending from said back portion and adapted to pass forwardly around the body of the wearer, and means for securing the free ends of the straps.

1,240,555. AUTOMATIC GUIDING ATTACHMENT FOR AUTOMOBILES. IRVIN J. FOSHA, Madison township, Riley county, Kans. Filed Oct. 4, 1916. Serial No. 123,766. (Cl. 21—200.)

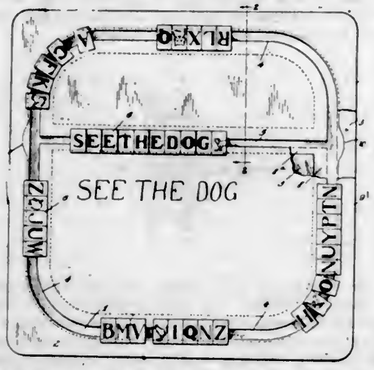


In a device of the class described, the combination with a supporting plate adapted to be secured to a vehicle axle, of a pair of jaws pivotally supported at one end on said plate at separated points in spaced, parallel relation, the free ends of said jaws being flared outwardly, a tension spring connecting the said flaring ends of the jaws, an arm pivoted at one end to said plate at a point between said jaws and adapted to be connected at its free end with the steering rod of the vehicle, and a roller mounted on said arm between its pivot point and point of connection with the steering rod and bearing against the inside faces of said jaws.

1,240,556. EDUCATIONAL DEVICE. JOHN H. FOX, Berea, Ohio. Filed Feb. 4, 1915. Serial No. 6,030. (Cl. 35—9.)

1. A device of the character set forth comprising a face plate having a storage slot and a branch slot that extends therefrom, buttons comprising opposed heads connected by necks that are guided within the slots of the face plate, one head of each button having a flattened portion, and a guide having an edge wherewith the flattened portions of the button heads engage as the buttons traverse the storage slot and are thereby prevented from turning, said edge being interrupted adjacent the entrance to the branch slot so that the buttons may turn as they enter the same.

2. A device of the character set forth comprising aplate having a storage slot and a narrower branch slot that extends therefrom, buttons slidable within the aforesaid slots and comprising each a pair of opposed heads that are connected by a neck that is adapted to be received by either of the slots of the plate, said neck being in cross-section of a width less than the width of the branch slot and of a length greater than the width of the storage slot, one head of each button having a flattened portion, and a guide for engagement by the flat portions of the button heads whereby the buttons are prevented from turning within the storage slot except when adjacent the end of the aforesaid branch slot.



3. A device of the character set forth comprising a supporting plate, a face plate parallel to and spaced from the supporting plate, a filler between the supporting plate and the face plate, the face plate having a storage slot and a narrower branch slot that extends therefrom, the filler also having slots that are coincident with and wider than the slots in the face plate and buttons slidable within the aforesaid slots and comprising each a pair of opposed heads that are connected by a rectangular neck that is adapted to be received by either of the slots of the face plate, one of the heads of each button having a flattened portion, one side of the slots of the filler constituting guides for engagement by the flattened portions of the buttons whereby the buttons are prevented from turning within the slots of the face plates except when adjacent the end of the aforesaid branch slot.

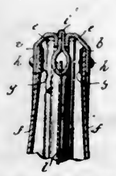
4. A device of the character set forth comprising a supporting plate, a face plate parallel to and spaced from the supporting plate, a filler between the supporting plate and the plate face, the face plate having a storage slot and a branch slot that extends therefrom, the filler having a slot coincident with each and wider than the corresponding slot of the face plate, the slot of the filler that is beneath the branch slot of the face plate being offset laterally with respect to said branch slot, and buttons comprising each a pair of opposed heads that are connected by a neck, the inner head of each button being off center with respect to its neck, the shorter end of said inner head being arranged to engage one side of the aforesaid filler slot, thereby to prevent the buttons from entering the branch slot of the face plate except when in a fixed relation thereto, as and for the purpose specified.

5. A device of the character set forth comprising a plate having a storage slot and a branch slot that extends therefrom, buttons slidable within the aforesaid slots and comprising each a pair of opposed heads that are connected by a neck that is adapted to be received by either of the slots of the plate, one of the heads of each button being off-center with respect to its neck, and a guide extending along the slots for engagement by the shorter ends of the last mentioned heads whereby the buttons are prevented from entering the branch slot except when in a fixed relation thereto.

1,240,557. BAG-FRAME. FRANZ A. FULLER, Newark, N. J., assignor to The J. E. Mergott Company, Newark, N. J., a Corporation of New Jersey. Filed Nov. 13. 1915. Serial No. 61,214. (Cl. 150—29.)

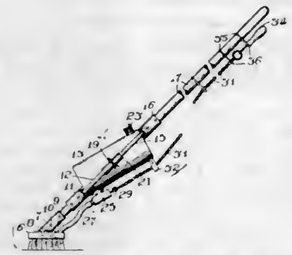
1. In a device of the character described, two outside bag frame members, an intermediate bag frame member,

and means for pivotally connecting the lower ends of said bag frame members, the outside bag frame members each comprising a channeled strip formed from an unbroken flat piece of sheet metal, and a continuous flange extending around the inner edge of each of said members, the intermediate frame member comprising a channeled strip provided with convex portions formed from an unbroken flat piece of sheet metal, and provided with a continuous flange extending around the upper portion of said frame member, the flange of said intermediate member being formed by folding the metal of said frame member together and adapted to lie between the continuous flanges of the outside frame members and projecting beyond said frame members.



2. A hand bag comprising two outside frame members, an intermediate bag frame member and means for pivotally connecting the lower ends of said bag frame members, the intermediate frame member comprising a channeled strip formed from an unbroken flat piece of sheet metal, and provided with a continuous flange formed by folding the metal of said frame member together and extending around the upper portion of said frame member, the channeled strip forming a hollow open channel throughout the length of the intermediate member, a partition secured within the open channel of said strip, said channeled member being adapted to close upon and grip the margin of the partition, for securing the edge of said partition in position.

1,240,558. BRUSH. JAMES D. GARVEY, Chicago, Ill. Filed Feb. 9, 1917. Serial No. 147,526. (Cl. 15—51.)



1. A fountain brush, comprising a brush proper, a liquid container having a valved outlet, means for conveying the liquid from the valved outlet to the bristles of the brush, a handle comprising a pair of bifurcated portions adapted to straddle opposite ends of the container so as to have the bifurcations presented in opposite directions, means whereby the oppositely presented bifurcations are secured together, and means extending lengthwise of the handle whereby said valved connection may be controlled.

2. A fountain brush, comprising a brush proper provided with an aperture in the back thereof, a sectional handle, one portion whereof is obliquely secured to the brush-back, the opposing ends of the handle sections being bifurcated so as to provide a receptacle-receiving opening therebetween, a receptacle provided with socketed ends to receive the bifurcated portions of the handle-sections and thereby prevent displacement of the receptacle, means whereby the bifurcations of the handle-sections are secured together so that pressure on the upper handle-section will be exerted on the lower handle-section without transmitting said pressure to the receptacle, said receptacle being provided with a valved outlet, a conduit connected with said valved outlet and with the brush-back for conveying fluid from the receptacle to the brush proper, and means disposed lengthwise of the handle for controlling said valved outlet.

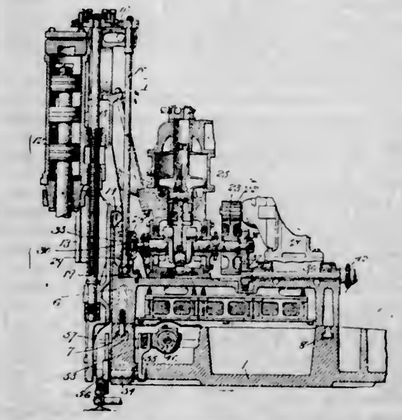
3. A fountain brush, comprising a brush, a sectional handle, a liquid container removably mounted between the sections of said handle, a split-frame whereby the sections of the handle are secured together, said frame being adapted to extend about the sides of the container and maintain the latter in place, a valved connection intermediate of the container and the brush and located exteriorly of the container, means, extending lengthwise of the handle, whereby the valved connection may be controlled from the upper end of the handle, and means whereby the split-frame is maintained in "set-up" condition and the handle-sections secured together.

4. A fountain brush, comprising a brush provided with an aperture in the back thereof, a sectional handle obliquely secured to the brush, the sections being provided with opposing bifurcated ends adapted to be secured together so as to provide a receptacle-receiving frame, a liquid container mounted in said frame-portion of the sectional handle and provided with an exterior valve-housing on one side thereof having communication with the container and the aperture in the brush-back, a spring-controlled valve in said housing, and means extending lengthwise of the handle whereby the valve may be controlled from the upper end of the handle.

5. A fountain brush, comprising a brush provided with an aperture in the back thereof, a sectional handle, one section being obliquely secured to the brush-back, a pair of forked members whereby the sections of the handle are secured together and a container-receiving frame provided, a liquid container removably mounted in said frame and having a valve-housing on the side thereof having communication with the container and the aperture in the brush-back, said housing having a valve-seat intermediate of the points of communication with the container and the brush, and a spring-controlled valve mounted in said housing, and means yieldingly mounted on and extending lengthwise of the handle and connected with the valve whereby the latter may be controlled from the upper end of the handle.

[Claims 6 and 7 not printed in the Gazette.]

1,240,559. ELECTROPNEUMATIC CHANNELING-MACHINE. ARTHUR H. GIBSON, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed Sept. 26, 1912. Serial No. 722,476. (Cl. 125—2.)

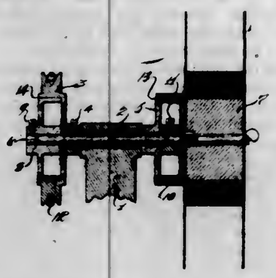


1. A percussive tool, its feed screw, a pulsator for operating the tool, the pulsator shaft, and intermediate shaft

geared to the feed screw and manually controlled means for connecting and disconnecting the intermediate and pulsator shafts.

2. A percussive tool, its feed screw, a pulsator for operating the tool, the pulsator shaft, an intermediate shaft operatively connected to the feed screw, and manually controlled means for connecting and disconnecting the intermediate and pulsator shafts.

1,240,560. FRICTION GRAVITY-DRIVE. JOHN F. GILMORE, New York, N. Y. Filed Apr. 10, 1913. Serial No. 760,166. (Cl. 64—13.)



1. In a motion picture apparatus, a friction drive for a film take-up reel consisting of a continuously driven hollow shaft, a supporting frame therefor and a reel carrying spindle, said reel carrying spindle supported entirely by said hollow shaft and frictionally connected therewith as and for the purpose described.

2. In a motion picture apparatus, a film take-up device consisting of a constantly driven tubular spindle, a supporting frame therefor, a film reel carrying a spindle freely mounted in said tubular spindle, a friction cup fastened on said reel spindle, a friction cup fastened on said constantly driven tubular shaft, said friction cup fastened on said reel spindle engaging on its surface with said friction cup, which is fastened on said constantly driven tubular shaft, substantially as described.

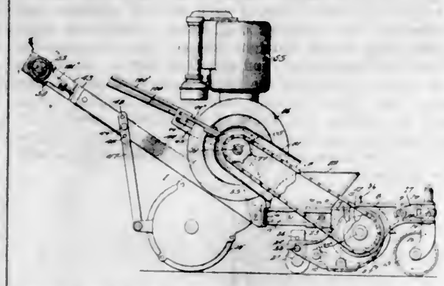
3. In a motion picture apparatus, a film winding device consisting of a constant speed tubular shaft, a reel carrying shaft, said shaft being loosely mounted in said tubular shaft and supported entirely thereby, and a frame support for said tubular shaft, as and for the purpose described.

4. In a motion picture apparatus, a film winding device consisting of a constantly driven tubular shaft, a film reel shaft supported thereby, contact cups with friction surfaces mounted on said shafts, and a supporting frame for the tubular shaft, said tubular shaft driving the reel shaft controlled by the gravity contact between the friction cups, substantially as described.

1,240,561. POWER LAWN-MOWER. WARREN W. GOBB, Madison, Wis., assignor to Fuller & Johnson Mfg. Co., Madison, Wis., a Corporation of Wisconsin. Filed July 13, 1915. Serial No. 39,506. (Cl. 56—19.)

1. In a power lawn mower of the class described, the combination of a main frame, a traction roller journaled in said main frame, a cutter frame flexibly connected to the forward end of said main frame on a single pivotal axis, said traction roller and cutter frame affording the entire ground support for said main frame, roller supports for the front and rear ends of said cutter frame, a cutter in said cutter frame, a steering bar connected to said main frame, a motor on said main frame, and driving connections from said motor to said traction roller and cutter.

11. In a power lawn mower of the class described, the combination of a frame, a motor mounted thereon, a cutter, driving connections, including a clutch, between said motor and said cutter, a steering bar connected to said frame, a handle-grip on said steering bar, a clutch-shifter supporting bracket secured on said frame, a clutch-shifting lever pivoted on said bracket, an eccentric journaled on said handle-grip, an eccentric strap encircling said eccentric, and a link connection between said eccentric strap and said lever.



[Claims 2 to 10 not printed in the Gazette.]

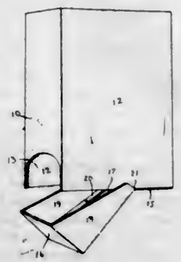
1,240,562. ANTIRATTLING DEVICE FOR CONTROL-RODS. WALTER S. GRAFFAM, West Newton, Mass. Filed May 2, 1917. Serial No. 165,818. (Cl. 74—5.)



1. An automobile having, in combination, a steering post, a spark control rod and a throttle control rod located on opposite sides of said steering post, bearings for said rods and a U-shaped spring extending across said steering post and terminating at its opposite ends in hooks which engage said spark control rod and throttle control rod, whereby said rods are forced against their respective bearings.

[Claims 2 to 4 not printed in the Gazette.]

1,240,563. CIGARETTE-BOX. GEORGE E. GRIFFITH and EUGENE F. GALLAGHER, Detroit, Mich. Filed Dec. 22, 1916. Serial No. 138,457. (Cl. 229—17.)

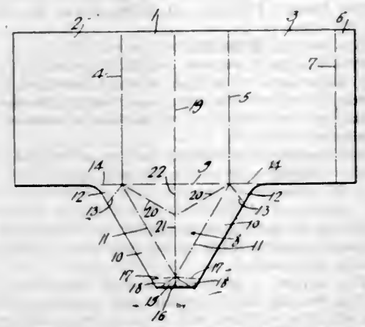


1. In a box, the combination of a body open at one end and provided thereat with overlapping flaps adapted to close part of said end, and a cap adapted to close the remaining part of said open end, said cap being provided with a tongue at its inner end adapted to fit between the overlapping flaps of the body for hingedly supporting the cap on said end of the body.

3. In a box, the combination of a body having an opening in one end, and a cap adapted to close the opening and provided upon its inner end with supporting means adapted to engage across the opposite edge portions of the box, at the opposite sides of the opening, said cap also having a tongue projecting from its inner end over said supporting means and secured at its free end to the body, whereby upon depression of the tongue, the cap is adapted to swing upon said supporting means as a pivot into open position.

[Claim 2 not printed in the Gazette.]

1,240,564. FOLDING DRINKING-CUP. EDWARD C. HARRINGTON, St. Louis, Mo. Filed Dec. 22, 1916. Serial No. 138,395. (Cl. 229—22.)



A triangular cup formed from a blank and having three united side walls and a triangular bottom united with the lower end of the intermediate side wall, the side edges of the bottom having flaps to overlap and be secured to the other side walls, gussets between said flaps and the lower ends of the last mentioned side walls to fold behind said flaps, and a gusset united with the free ends of said flaps and the free corner of the bottom and having fold lines to enable the last mentioned gusset to fit the corner between the last mentioned side walls and to provide tucks to fit behind said flaps.

1,240,565. INSULATING COMPOUND AND THE METHOD OF FORMING THE SAME. JONATHAN W. HARRIS, Montclair, N. J., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed Mar. 5, 1915. Serial No. 12,392. (Cl. 91—70.)

1. An insulating coating comprising resin and castor oil subjected to destructive distillation.

7. The process of making an insulating coating which consists in heating a mixture of resin and castor oil at a temperature approximately 250° to 310° C. until approximately from 5% to 15% of the decomposition products of the castor oil has been distilled and then subjecting the mixture applied to the object to be coated to a temperature of approximately 300° C.

[Claims 2 to 6 not printed in the Gazette.]

1,240,566. INSULATING COMPOUND AND THE METHOD OF FORMING THE SAME. JONATHAN W. HARRIS, Montclair, N. J., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed Mar. 5, 1915. Serial No. 12,393. (Cl. 91—70.)

1. An insulating material comprising substantially a polymerized compound of castor oil and a metallic soap.

2. An insulating coating comprising substantially castor oil and a metallic soap of castor oil subjected to destructive distillation.

3. The process of making an insulating coating which consists in heating together a mixture in which the only active ingredients are castor oil and a metallic soap of castor oil.

4. The process of making an insulating coating which consists in heating together a metallic soap and castor oil, thus forming a coating mixture, and subjecting the coating mixture thus formed, after application to the article to be coated, to a temperature sufficient to destructively distil the castor oil and form a hard, elastic, enamel-like substance.

5. The process of making insulating material which consists in heating a mixture composed chiefly of castor oil and a metallic soap of castor oil, and subjecting said mixture, in the form in which the insulating material is desired, to sufficient heat to convert the mixture into a solid insoluble substance.

[Claims 6 to 8 not printed in the Gazette.]

1,240,567. INSULATING COMPOUND AND THE METHOD OF FORMING THE SAME. JONATHAN W. HARRIS, Montclair, N. J., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed Mar. 5, 1915. Serial No. 12,394. (Cl. 91—70.)

1. An insulating coating comprising a metallic resinate and castor oil subjected to destructive distillation.

2. An insulating material comprising a polymerized compound of castor oil and a metallic resinate.

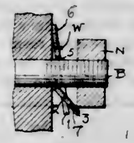
3. The process of making an insulating coating mixture which consists in heating together a metallic resinate and castor oil at a temperature approximately 250° to 310° C.

4. The process of making an insulating coating which consists in mixing, by the aid of heat, a metallic resinate and castor oil, thus forming a coating mixture, and subjecting the coating mixture thus formed, after application to the article to be coated, to a temperature sufficient to destructively distil the castor oil and form a hard, elastic, enamel-like substance.

5. The process of making insulating material which consists in heating a mixture of a metallic resinate and castor oil, and subjecting said mixture, in the form in which the insulating material is desired, to sufficient heat to convert the mixture into a solid insoluble substance.

[Claims 6 to 8 not printed in the Gazette.]

1,240,568. NUT-LOCK. JOSEPH A. HARRIS and ARTHUR W. HOWARD, Clarendon, Tex. Filed Oct. 30, 1916. Serial No. 128,524. (Cl. 151—2)



1. As a new article of manufacture, a washer having a portion cut away, and a member pivotally supported within said cut-away portion of the washer and provided with a tooth intersecting the bore of the washer when said member is substantially flush with the washer.

2. As a new article of manufacture, a washer having a portion cut away, a member pivotally supported within said cut-away portion of the washer and provided with a tooth intersecting the bore of the washer when said member is substantially flush with the washer, and a second tooth carried by the washer and intersecting the bore thereof.

3. As a new article of manufacture, a washer having a portion cut away, and a member pivotally supported within said cut-away portion of the washer and provided with a tooth intersecting the bore of the washer when said member is substantially flush with the washer, said washer being provided with means engageable with the side of a nut or the like.

4. As a new article of manufacture, a washer having a portion cut away, and a member pivotally supported within said cut-away portion of the washer and provided with a tooth intersecting the bore of the washer when said member is substantially flush with the washer, the outer portion of said pivoted member being beveled.

5. In combination with a bolt and a nut engageable therewith, a washer surrounding the bolt, and a movable tooth

carried by the washer and engageable with the bolt under the influence of the nut, the outer portion of the face of the movable tooth remote from the nut being beveled.

1,240,569. PRODUCTION OF REFRACTORIES. PAUL R. HERSHMAN, Chicago, Ill., assignor to The Mineral Products Company, New York, N. Y., a Corporation of West Virginia. Filed July 19, 1915. Serial No. 40,697. (Cl. 106—11.)

1. The method of producing heat resisting bodies, which comprises raising to a high temperature in a non-oxidizing atmosphere a moided mass containing a refractory metal oxid, carbon, and a binding agent associated with an ingredient which exercises a cementing effect upon the particles of the molded mass up to the time when they begin to sinter or frit together.

2. The method of producing heat resisting bodies, which comprises raising to a high temperature in a non-oxidizing atmosphere a molded mass containing a refractory metal oxid, carbon, and a binding agent associated with an ingredient which exercises a cementing effect upon the particles of the molded mass up to the time when they begin to sinter or frit together and finally substantially driving off the cementing ingredient.

3. The method of producing heat resisting bodies, which comprises raising to a high temperature in a non-oxidizing atmosphere a molded mass containing aluminum oxid, carbon, and a binding agent associated with an ingredient which exercises a cementing effect upon the particles of the molded mass up to the time when they begin to sinter or frit together.

4. The method of producing heat resisting bodies, which comprises raising to a high temperature in a non-oxidizing atmosphere a molded mass containing aluminum oxid, carbon, and a binding agent associated with an ingredient which exercises a cementing effect upon the particles of the molded mass up to the time when they begin to sinter or frit together and finally substantially driving off the cementing material.

5. The method of producing heat resisting bodies, which comprises raising to a high temperature in a non-oxidizing atmosphere a molded mass containing aluminum oxid, carbon, and a binding agent, and proportioning the amount of carbon employed, in such manner that at the highest temperature employed there will result a decided shrinkage and increase in density of the final product.

[Claim 6 not printed in the Gazette.]

1,240,570. PRODUCTION OF ALUMINATE FROM ALUNITE. PAUL RALPH HERSHMAN, Chicago, Ill., assignor to Armour Fertilizer Works, Chicago, Ill., a Corporation of New Jersey. Filed Oct. 21, 1916. Serial No. 126,997. (Cl. 23—13.)

1. The method of producing potassium aluminate, which comprises treating a mixture of substantially 100 parts by weight of alunite to thirty parts by weight of calcium oxid, at a temperature of about 1000° C. in the presence of steam, and subsequently dissolving out the potassium aluminate from the resulting mass; substantially as described.

2. As a new product of manufacture, potassium aluminate corresponding substantially to the formula $2Al_2O_3.K_2O$.

1,240,571. MANUFACTURE OF BARIUM ALUMINATE AND SULFUR. PAUL RALPH HERSHMAN, Chicago, Ill., assignor to Armour Fertilizer Works, Chicago, Ill., a Corporation of New Jersey. Filed Oct. 21, 1916. Serial No. 126,998. (Cl. 23—13.)

1. The method of producing barium aluminate, which consists of heating a reducible barium compound, alumina, and an excess of carbon, in an atmosphere of reducing gas; substantially as described.

2. The method of producing barium aluminate, which consists of heating a reducible barium compound, alumina, and an excess of carbon, in an atmosphere of reducing gas together with steam; substantially as described.

4. The process of producing barium aluminate and sulfur, by heating barium sulfate, alumina, and an excess of carbon, in an atmosphere of reducing gas, together with steam; substantially as described.

[Claim 3 not printed in the Gazette.]

1,240,572. PRODUCTION OF BARIUM ALUMINATE. PAUL RALPH HERSHMAN, Chicago, Ill., assignor to Armour Fertilizer Works, Chicago, Ill., a Corporation of New Jersey. Filed Oct. 21, 1916. Serial No. 126,999. (Cl. 23—13.)

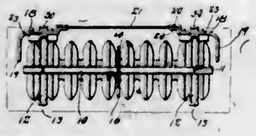
1. The method of producing barium aluminate, which comprises heating a barium compound capable of reduction in the presence of calcium oxid and aluminum oxid, in the presence of calcium oxid, to a reacting temperature resulting in the formation of barium aluminate; substantially as described.

2. The method of producing barium aluminate, which comprises heating a barium compound capable of reduction in the presence of calcium oxid and aluminum oxid, in the presence of calcium oxid, to a reacting temperature resulting in the formation of barium aluminate, the reaction being further assisted by the presence of steam; substantially as described.

3. The method of producing barium aluminate, which comprises heating barium sulfate and aluminum oxid, in the presence of calcium oxid to a reacting temperature resulting in the formation of barium aluminate; substantially as described.

4. The method of producing barium aluminate, which comprises heating barium sulfate and aluminum oxid, in the presence of calcium oxid to a reacting temperature resulting in the formation of barium aluminate, the reaction being assisted by steam; substantially as described.

1,240,573. COMBINED SHELF AND SHIELD FOR RADIATORS. CHARLES VAN DYKE HILL and HERMAN H. K. SCHWERDTMANN, St. Louis, Mo., assignors to Hill Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed Apr. 10, 1915. Serial No. 20,467. (Cl. 248—30.)



1. A fixture of the class described comprising a pair of vertically disposed shield members which are adapted to be applied to the rear corners of a radiator, a central shield member coöperating with said end members, a framework detachably connected to the end shield members and positioned on top of the radiator, and a shelf removably positioned on said framework.

2. A fixture of the class described comprising a pair of vertically disposed shield members which are adapted to be applied to the rear corners of a radiator, a central shield member coöperating with said end members, a framework detachably connected to the end shield members and positioned on top of the radiator, and a shelf removably positioned on said framework, the rear portion of which shelf overlies the upper edges of the shield members.

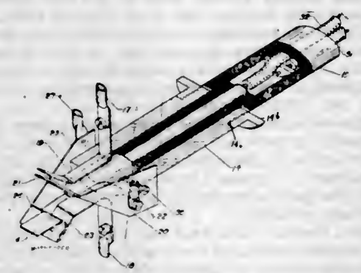
3. A fixture of the class described comprising a pair of upright shield members which are adapted to be applied to the rear corners of a radiator, portions of which shield members are extended forwardly to partially inclose the ends of the radiator to which the fixture is applied, a central shield member coöperating with the pair of shield members to cover the back of the radiator, a framework detachably applied to the pair of shield members and overlying the radiator to which the fixture is applied, and a shelf removably positioned on said framework.

4. In a fixture of the class described, a sectional shield adapted to be applied to a radiator so as to cover the rear portion thereof, the end portions of which shield are extended forward so as to partially inclose the ends of the radiator to which the fixture is applied, a horizontally disposed frame detachably applied to the upper end of said sectional shield and adapted to overlie the radiator to which the fixture is applied, and a shelf removably positioned on said framework.

5. In a fixture of the class described, a sectional shield adapted to be applied to a radiator so as to cover the rear portion thereof, the end portions of which shield are extended forward so as to partially inclose the ends of the radiator to which the fixture is applied, a horizontally disposed frame detachably applied to the upper end of said sectional shield and adapted to overlie the radiator to which the fixture is applied, a shelf removably positioned on said framework, and means on said framework for preventing the horizontal displacement of the shelf.

[Claims 6 to 17 not printed in the Gazette.]

1,240,574. CURRENT-JACK FOR ELECTRICAL METERS. FRANK R. INNES, Detroit, Mich. Filed Sept. 18, 1915. Serial No. 51,478. (Cl. 175—183.)



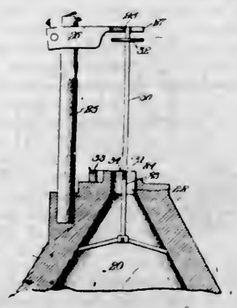
1. In a testing jack for electrical circuits, the combination of a pair of separable terminal members forming parts of a normally closed load circuit, a second pair of terminal members connected to a meter circuit and normally in contact with said first mentioned terminal members, and a pair of plugs selectively adapted for separate contact with certain of each class of terminal members, whereby said first-named terminal members may be short circuited through said secondly named terminal members, or whereby the engagement between the constituent members of the two groups of terminal members may be rearranged to bring a connected test meter circuit into the path of travel of the current passing through the closed load circuit.

4. In a meter testing jack, the combination of a pair of connectible main line contacts, and a plurality of auxiliary contacts selectively capable of coöperation with one or the other of said main line contacts to form new current paths, whereby upon the insertion of plugs of different types a normally external test-meter circuit may be included in the path traversed by the current, or whereby the main line contacts may be short-circuited and connected to the test meter circuit.

7. A meter testing jack, having in combination with a pair of main line terminal members, a pair of plugs either of which is adapted to alter the circuit through said main line terminal members when interposed therebetween, and a plurality of normally inactive auxiliary terminal members against certain of which one or the other of said main line terminal members is adapted to be forced by the engagement of one of said plugs, whereby in the one case a test meter circuit with which the plug is connected is brought into circuit with the main line, and whereby in the other case said main line terminal members are short-circuited by contact with certain others of said auxiliary terminal members.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,240,575. METHOD OF PREPARING CERAMIC ARTICLES FOR HANDLING. JOSEPH A. JEFFERY, Detroit, Mich. Filed Apr. 19, 1913. Serial No. 762,414. (Cl. 25—156.)



1. An improved method of preparing ceramic articles for handling in subsequent steps of manufacture comprising forcing plastic ceramic material over a rigid core, allowing said material to partly harden while the core is embedded therein to prevent distortion of the blank, and subsequently removing said core when the plastic material has dried sufficiently to permit handling.

2. An improved method of preparing ceramic articles for handling in subsequent steps of manufacture comprising imparting a preliminary shape to the plastic material, embedding a rigid core in the shaped material, allowing said material to partly harden with the core embedded therein to prevent distortion of the blank, and subsequently removing said core when the plastic material has dried sufficiently to permit handling.

3. An improved method of preparing ceramic articles for handling in subsequent steps of manufacture comprising embedding a rigid core in the plastic ceramic material and allowing said material to partly harden while the core is embedded therein to prevent distortion of the blank, and subsequently removing said core when the plastic material has dried sufficiently to permit handling.

4. An improved method of preparing ceramic articles for handling in subsequent steps of manufacture, comprising imparting a preliminary shape to the plastic material by extrusion to render the same dense and compact, forcing the plastic material over a rigid core, allowing said material to partly harden while the core is embedded therein to prevent distortion of the blank, and subsequently removing said core when the plastic material has dried sufficiently to permit handling.

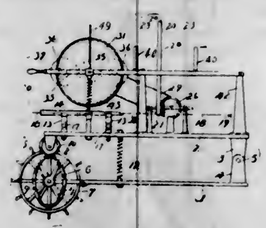
5. An improved method of preparing ceramic articles for handling in subsequent steps of manufacture comprising forcing plastic ceramic material through a die to impart a preliminary shape thereto, forcing said plastic material over a rigid core as it leaves the die, allowing said material to dry with said core embedded therein, and finally removing said core when the plastic material has hardened sufficiently to retain its shape.

1,240,576. MACHINE FOR STRAIGHTENING GUN-BARRELS. ORSON E. JESSUP, Springfield, Mass. Filed Apr. 23, 1917. Serial No. 163,789. (Cl. 153—32.)

1. In a machine of the kind described the combination with an adjustable table on which the article to be straightened is placed, of a plurality of bodily revolving hammers arranged for imparting blows thereto, means for rotating said hammers independently of their bodily rotation, and means for manually moving the hammers toward the article for varying the force of the blow which is imparted to the article to be straightened.

3. The combination in a machine of the kind described, of a supporting table, sight adjusting anvils thereon for receiving the barrel to be straightened, a revolving frame, revoluble hammers carried by said frame, means for

adjusting the table as a whole, and means for changing the direction of rotation of said frame and hammers, said table adjusting means including a pair of elliptical shaped gears located below the table and engaging a pair of gears on said table.

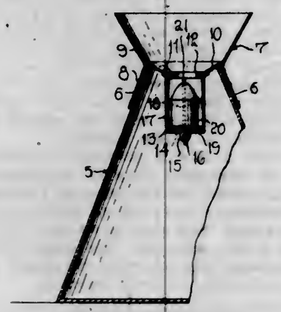


7. A gun-barrel straightening machine comprising, in combination, an adjustable table for supporting the barrel to be straightened, a balanced frame for supporting the hammers, means for imparting rotary motion to the hammers, comprising a revoluble frame, revoluble shafts carried by the revoluble frame, a fixed gear with operative connecting means between said gear and the revoluble shafts, whereby when the revoluble frame is rotated the hammers will have rotary motion imparted thereto as described, and means for rotating the revoluble frame.

9. A straightening machine comprising in combination with the supporting table, of means comprising eccentrically shaped gears for adjusting the table, means for adjustably supporting the barrel to be straightened, revolving hammers for engaging the barrel, manually operated means for varying the force of the blows imparted to the barrel, means for changing the direction of rotation of the hammers.

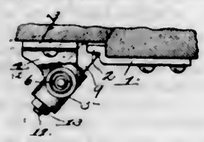
[Claims 2, 4 to 6, and 8 not printed in the Gazette.]

1,240,577. CUSPIDOR. HENRY L. JOHNSON, Ewing, Mo. Filed Jan. 25, 1917. Serial No. 144,446. (Cl. 4—38.)



A cuspidor including a body section, a detachable mouth section, a concavo-convex plate arranged centrally in the latter section of the cuspidor and centrally provided with an opening, a rubber valve seat fixed upon the under side of said plate and surrounding said opening, a cage consisting of two wires having their intermediate portions disposed at right angles to each other and provided with interlocked eyes, the end portions of said wires being extended in spaced parallel relation and fixed at their edges to said plate around the valve seat, a rubber disk fixed to the intermediate portions of said wires within the cage, and a gravity movable valve element arranged in said cage and adapted for engagement upon the annular seat to seal said opening when the cuspidor is overturned.

1,240,578. LATCH. RICHARD E. JONES, Hagerstown, Md. Filed Oct. 4, 1915, Serial No. 54,077. Renewed Mar. 21, 1917. Serial No. 156,460. (Cl. 70—119.)



1. A locking device comprising a latch, a rotatable cylinder, said cylinder having its axis at right angles to said latch, a bolt arranged transversely with respect to said cylinder and working therethrough, and a spring arranged within said cylinder and adapted to force said bolt outwardly through a side of the cylinder, the outer end of said bolt being notched and forming a keeper for said latch.

2. A device of the kind described comprising a latch rigidly secured upon a door, a cylinder rotatably mounted adjacent the door, a longitudinally movable bolt carried by and at right angles to the vertical axis of the cylinder, and a spring adapted to press said bolt outwardly, said bolt being engaged by said latch at one angle when the door is in open position and at an opposite angle when closed, said bolt pressing the door inwardly when the door is closed and pressing outwardly as the door is opened.

3. The combination with a swing door, of a latch carried thereby, a cylinder rotatably mounted on the door casing, said cylinder being in advance of the door when the latter is in closed position, and a spring pressed longitudinally movable bolt carried by said cylinder and at right angles to the axial pivotal line of the cylinder, and adapted to be engaged by said latch, such engagement moving the bolt longitudinally and at the same time rotating said cylinder.

4. In a device of the kind described, a rotatable cylinder, a spring tending to rotate said cylinder in one direction, bosses formed on opposite sides of the cylinder and provided with openings, an apertured plug threaded in one opening, a bolt working through the other opening, a shank carried by the bolt and working loosely through the aperture of the plug, a spring arranged within the cylinder and bearing respectively on said plug and said bolt, and means carried by a door or other part to be locked adapted to engage said bolt, as and for the purpose set forth.

5. The combination with a fixed latch member carried by a swinging support, a cylinder mounted vertically and rotatably on a fixed support, a spring pressed bolt working at right angles to the axial line of said cylinder, said bolt being adapted to engage the latch member at opposite angles, and adjustable means for mounting the rear end of said bolt.

1,240,579. SHADE-ROLLER. CHARLES W. KIRSCH, Sturgis, Mich. Filed May 31, 1912. Serial No. 700,650. (Cl. 156—36.)



1. A shade roller including a roller member having a longitudinal bore of rectangular section, and a shaft comprising two alined sections, one section of said shaft being disposed partly within the bore of the roller and being flattened at its inner end to a width greater than either side dimension of the said rectangular section.

2. A shade roller including a roller member having a longitudinal bore of rectangular section, a tubular shaft projecting into said bore and flattened within said bore to a width substantially equal to the diagonal of said rectangular section, and a coiled spring encircling said shaft and secured at one end to the said flattened portion of the latter.

1,240,580. SHADE-ROLLER. CHARLES W. KIRSCH and JAMES A. HENRY, Sturgis, Mich., assignors to Kirsch Manufacturing Co., Sturgis, Mich., a Corporation of Michigan. Filed Jan. 8, 1915. Serial No. 1,237. (Cl. 156—36.)



1. A shade roller comprising a hollow cylindrical metal member provided with a longitudinal row of deformed portions providing inwardly extending projections, an inwardly extending longitudinal rib arranged diametrically opposite to said projections, a cap for one end of said member, a shaft rotatably mounted in said cap and held therein against relative longitudinal movement, a fin-plate rotatably mounted on the inner end of said shaft, said fin-plate longitudinally movable in said member and held against rotation therein by said rib and said projections, and a helical spring carried by said shaft and rigidly secured thereto at one end, the other end thereof secured to said fin-plate, said deformed portions providing a longitudinally disposed channel for receiving a shade-securing member.

2. A metallic shade roller comprising a hollow cylindrical member provided at one side with a longitudinally extending rib and at the diametrically opposite side with a longitudinal row of inwardly formed portions, providing with the intermediate portions of the cylinder a longitudinally extending channel for receiving a shade-securing member, a cap rigidly secured on one end of said roller, a shaft rotatably mounted in said cap, a fin-plate rotatably mounted on the inner end of said shaft, said fin-plate longitudinally movable in said roller and held against rotation therein by said rib and said longitudinal row of inwardly extending projections and a helical spring carried by said shaft and rigidly secured thereto at one end, the other end thereof secured to said fin-plate.

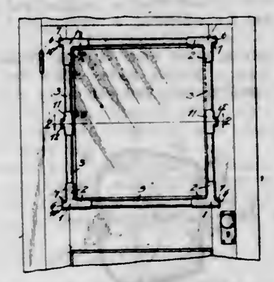
3. In a shade-roller, a hollow roller, a cap for one end thereof having a central recess provided with a central opening in its end wall, a shaft having a portion projecting through said opening and a portion of larger diameter fitting said recess, there being an annular groove inwardly of the last-named portion of said shaft, a member fitting within the cap and having an opening for the passage of said shaft, a portion of said opening eccentric to said member being of large diameter to permit the passage therethrough of the enlarged portion of said shaft and a portion of said opening concentric with said member adapted to receive the portion of said shaft rendered smaller by said groove, the enlarged portion of said shaft adapted to be confined between said member and the recess in said cap, and means for securing said cap and said member rigidly to each other and said roller.

4. In a shade-roller, a hollow roller, a cap for one end thereof having a central recess provided with a central opening in its end wall, a shaft having a portion projecting through said opening and a portion of larger diameter fitting said recess, there being an annular groove inwardly of the last-named portion of said shaft, a member fitting within the cap and having an opening for the passage of said shaft, a portion of said opening eccentric to said member being of large diameter to permit the passage therethrough of the enlarged portion of said shaft and a portion of said opening concentric with said member adapted to receive the portion of said shaft rendered smaller by said groove, the enlarged portion of said shaft adapted to be confined between said member and the recess in said cap, and means for securing said cap and said member rigidly to each other and said roller, comprising projections on said roller passing through alined slots in said member and said cap and bent over exteriorly of the latter.

5. In a shade-roller, a hollow roller, a cap for one end thereof having a central recess provided with a central opening in its end wall, a shaft having a portion projecting through said opening and a portion of larger diameter fitting said recess, there being an annular groove inwardly of the last-named portion of said shaft, a member fitting within the cap and having an opening for the passage of said shaft, a portion of said opening eccentric to said member being of large diameter to permit the passage therethrough of the enlarged portion of said shaft and a portion of said opening concentric with said member adapted to receive the portion of said shaft rendered smaller by said groove, the enlarged portion of said shaft adapted to be confined between said member and the recess in said cap, and means for securing said cap and said member rigidly to each other and said roller, comprising projections on said roller passing through alined slots in said member and said cap and bent over exteriorly of the latter, one of said projections passing through the enlarged portion of the opening in said member and a slot in said cap.

[Claim 6 not printed in the Gazette.]

1,240,581. PANEL-CURTAIN FRAME. CHARLES W. KIRSCH and HENRY J. LAHMEYER, Sturgis, Mich. Filed Mar. 8, 1916. Serial No. 82,862. (Cl. 156—10.)



A knock-down curtain frame comprising L-shaped channeled corner members having overhanging side flanges, rod members of similar cross-section adapted to be telescopically received and engaged in said corner members to provide a rectangular frame adapted to receive a panel curtain or the like, and means within the engaging ends of the rods for expanding same to provide a substantially rigid engagement between same and the opposed flanges of the corner members, whereby said frame can be readily adjusted to desired dimensions and the parts quickly secured in such position in condition to be readily taken apart.

1,240,582. CURTAIN-ROD. CHARLES W. KIRSCH, Sturgis, Mich., assignor to Kirsch Manufacturing Co., Sturgis, Mich., a Corporation of Michigan. Filed July 24, 1916. Serial No. 111,009. (Cl. 156—19.)



1. A sectional curtain rod comprising two similar tubular end members, one thereof of a size to be telescopically received within the other, and a coupling member interposed between the two end members fitting telescopically within the larger of said end members at one end and fitting telescopically upon the other end member at its other end, and means for locking the several members against relative longitudinal movement.

2. A sectional curtain rod comprising two similar end members of channel shaped cross-section having inturned edge flanges one thereof adapted to be telescopically received within the other, and a coupling member of similar cross-section adapted at one end to telescopically fit within the larger end member, and at the other end to telescopically fit upon the other member, and means for locking the end members to the coupling member to prevent relative longitudinal movement thereof.

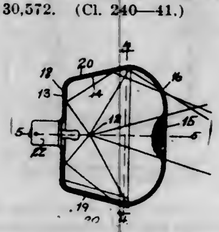
3. A sectional curtain rod comprising two main members adapted for telescopic engagement with each other at their opposed ends, and a coupling member interposed between the opposed ends of said main members and telescopically engaging both thereof, and means for locking the several members against relative longitudinal movement.

4. A sectional curtain rod comprising two end members of channel shape cross-section having inturned edge flanges, and formed for telescopic engagement with each other, a coupling member of similar cross-section interposed between the end members and formed for telescopic engagement of both, and means for frictionally holding the several members against relative longitudinal movement.

5. In a channel-shaped tubular sectional curtain rod having members formed for telescopic interfitting engagement; a coupling member formed at one end for telescopic interfitting engagement with one of said members and at its other end for telescopic interfitting engagement with the other of said members, and means for locking the several members against relative longitudinal movement.

[Claims 6 and 7 not printed in the Gazette.]

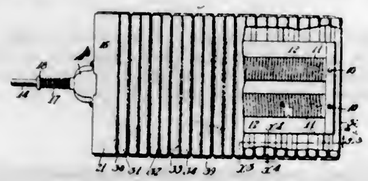
1,240,583 HEADLIGHT FOR MOTOR-VEHICLES, &c. HARRY W. LAKIN, Boston, Mass. Filed Nov. 10, 1916. Serial No. 130,572. (Cl. 240—41.)



An incandescent electric lamp, the bulb and plug element of which are coaxially arranged, the bulb including a forwardly facing inner wall, substantially perpendicular to the axis of the plug, and constituting a reflector located behind the lamp filament, a body wall surrounding and substantially concentric with a prolongation of said axis, the bottom portion of said body wall being non-reflecting, and the remaining portion constituting a segmental frusto-conical reflector, and a front wall having a light-obstructing central portion, the center of which is substantially coincident with the axis of the plug, and a transparent annular zone surrounding said central portion and joining the body wall, said reflectors and non-reflecting portion being relatively arranged to coöperate with the lamp filament in projecting rays through said zone in forward and downward directions and obliquely in forward and substantially horizontal directions when the plug is engaged with a horizontal fixed socket, the said non-reflecting portion preventing the projection of rays in forward and upward directions, and the said light-obstructing portion intercepting rays projected in the plane of the axis of the lamp, so that the lamp is adapted to constitute a self-contained, non-glaring, road-illuminating headlight.

1,240,584. ARTICULATED METAL SHELL FOR AN ELECTRIC HOT-PAD. HENRY D. LARAWAY and BJARNE FALKENBERG, Ontario, Cal., assignors to Hotpoint Electric Heating Company, Ontario, Cal., a Corporation of California. Filed Sept. 6, 1916. Serial No. 118,779. (Cl. 219—46.)

1. A hot pad comprising a heating element, and a metal shell inclosing said element, said shell being composed of a series of sections locked together but having a limited movement with relation to each other.



2. In a hot pad, an articulated metal shell comprising a series of sheet metal members so formed that they mutually engage each other and have a limited movement with relation to each other.

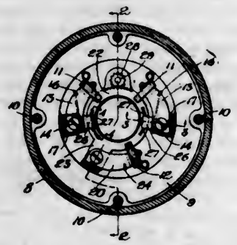
3. In a hot pad, an articulated metal shell comprising a series of sheet metal members each bent to form a series of parallel partial cylinders, and means for securing one of said partial cylinders on one of said series of sheet metal members around a similar partial cylinder of an adjacent one of said series of sheet metal members.

4. In a hot pad, an articulated metal shell comprising a series of sheet metal members each bent to form a series of parallel partial cylinders, and means for securing one of said partial cylinders on one of said series of sheet metal members around a similar partial cylinder of an adjacent one of said series of sheet metal members in such a manner that the two sheet metal members so fastened together have a limited angular movement with relation to each other.

5. In an articulated metal shell, a pair of sheet metal members each comprising a series of corrugations, each corrugation forming a portion of a cylinder, sides bent down approximately at right angles to the axis of said cylinders, and means for securely locking the sides of one of said pair of members to the sides of the other of said pair of members.

[Claims 6 to 11 not printed in the Gazette.]

1,240,585. BRUSH-MOUNTING FOR ELECTRIC MOTORS OR GENERATORS. THOMAS L. LEE, Rochester, N. Y., assignor to North East Electric Company, Rochester, N. Y., a Corporation of New York. Filed Apr. 10, 1916. Serial No. 90,205. (Cl. 200—24.)



1. In an electric motor or generator, the combination, with a flat frame-member, of a stud-bolt fixed in and extending normal to the frame-member; a brush-holder pivotally mounted on the stud-bolt; a spring for rocking the brush-holder; and a sheet-metal stop-plate having two parts at a right-angle to each other, one of said parts being perforated to receive the stud-bolt and being fixed, by the stud-bolt, against the frame-member, but insulated therefrom, and the other of said parts extending alongside the part of the stud-bolt on which the brush-holder is mounted, in position to coöperate with the brush-holder to limit the movement thereof about the stud-bolt in both directions.

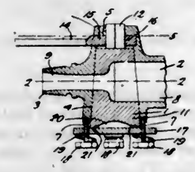
2. In an electric motor or generator, the combination, with a frame-member provided with an annular bearing, of a ring mounted to turn on said bearing; a brush-holder carried by the ring; and a resilient member frictionally engaging the ring and pressing it against the bearing so as both to hold the ring thereon and retain it normally against turning movement.

3. In an electric motor or generator, the combination of a frame-member provided with an internal annular bearing; a ring mounted to turn on said bearing and provided with gear-teeth; a pinion engaging said teeth; a rotary member, for turning the pinion, extending through the frame-member and accessible from outside; a resilient member engaging the ring and holding it frictionally against the bearing; and a brush-holder mounted on the ring.

4. In an electric motor or generator, the combination of a frame-member provided with an annular bearing; a ring mounted to turn on said bearing; a brush-holder carried by the ring; a stud-bolt fixed in said frame-member; a brush-holder pivoted on the stud-bolt; and a resilient retaining-member fixed by the stud-bolt to the frame-member and frictionally engaging said ring to resist rotation thereof.

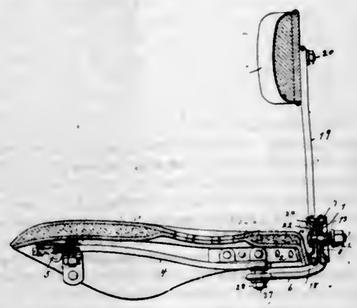
5. In an electric motor or generator, the combination of a frame-member; an adjustable brush-supporting member mounted thereon; a stud-bolt fixed in the frame-member; a brush-holder pivoted on the stud-bolt; a stop-member fixed by the stud-bolt to the frame-member and coöperating with the brush-holder; and a resilient retaining-member also fixed by the stud-bolt to the frame-member and coöperating with said adjustable brush-supporting member.

1,240,586. VALVE. ROBERT GEORGE MCDOWELL, Walkerville, Mont., assignor of one-half to Alfred William Charles, Butte, Mont. Filed Dec. 28, 1916. Serial No. 139,357. (Cl. 137—26.)



A cock comprising a body provided with a tapered axial opening, and equipped with an inlet and an outlet; a tapered plug journaled in the opening and controlling the inlet and the outlet; a cap supporting the plug; studs carried by the body and projecting through the cap; nuts on the studs; and spring washers interposed between the studs and cap and carried by the studs.

1,240,587. SADDLE FOR MOTOR-CYCLES. FREDERICK MESINGER, New York, N. Y. Filed June 18, 1917. Serial No. 175,287. (Cl. 208—138.)

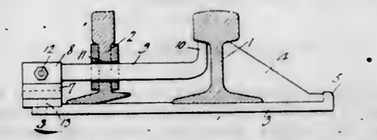


3. A saddle for motor cycles comprising a saddle top, a support at the rear thereof, a clamp member engaging said support and extending transversely to the saddle top, a saddle back, a second clamp member engaging the saddle back and in facewise contact with the first named clamp member, a bolt coaxial with the saddle top and extending through the clamp members, and spring-controlled means for interlocking the clamp members.

6. A saddle for motor cycles comprising a saddle top, a support at the rear thereof, a clamp member carried by the support and extending transversely to the saddle top, said clamp member having a plurality of protuberances, a bolt engaging said clamp member, a second clamp member mounted on the bolt and in facewise contact with the first named clamp member, said second clamp member having a plurality of sockets adapted to be engaged by said protuberances, spring-controlled means for interlocking the clamp members, and a saddle back engaged by the second named clamp member.

[Claims 1, 2, 4, 5, and 7 not printed in the Gazette.]

1,240,588. SWITCH-POINT HOLDDOWN. OSCAR P. MORRISON, Bloomburg, Tex., assignor of one-half to Vernon D. Glass, Bloomburg, Tex. Filed June 1, 1917. Serial No. 172,252. (Cl. 104—95.)

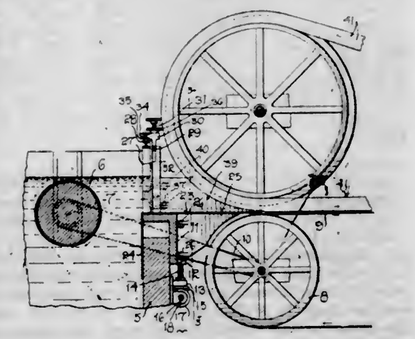


2. A switch point hold-down, comprising a supporting plate, a switch point engaging arm extending from the plate, and an upturned end on the arm adapted to engage the ball of a main rail.

3. A switch point hold down, comprising clamping plates, a switch point engaging element detachably secured to the plates, and means interposed between the element and a main rail for retaining the engaging element in place.

[Claim 1 not printed in the Gazette.]

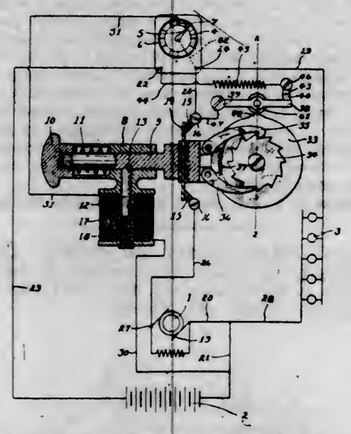
1,240,589. PAPER-MAKING MACHINE. RICHARD F. MURRAY, Fort Edward, N. Y. Filed June 9, 1917. Serial No. 173,776. (Cl. 92—44.)



1. In a paper making machine, the combination with a head box, a breast roll and wire engaged thereon, of an apron mounted upon the head box and extending over the breast roll to direct the flow of the pulp to the wire, a vertically adjustable slice mounted upon the head box between the apron and the pulp pond, means for adjusting said slice, and means for vertically adjusting the apron independently of the slice.

[Claims 2 to 10 not printed in the Gazette.]

1,240,590. GOVERNOR FOR REGULATING THE OVERCHARGE FOR STORAGE BATTERIES. PERRY OKEY, Columbus, Ohio, assignor, by mesne assignments, to Lalley Electro-Lighting Corporation, Detroit, Mich., a Corporation of New York. Filed Oct. 11, 1916. Serial No. 124,960. (Cl. 171—314.)



1. The combination with a storage battery and a generator, of means for automatically uncoupling the generator from the battery when the battery has received full charge, and means for automatically giving said battery an over-charge after each given number of full charges.

4. The combination with a storage battery and a generator, of an ampere hour meter, means coöperating with said meter for automatically uncoupling the generator from the battery when said meter registers a predetermined amount of current, and means for automatically decreasing the amount of current passing through said meter once out of each cycle of normal charges to give an over-charge.

11. The combination with a storage battery and a generator, of an ampere hour meter, a switch mechanism operable when in one position to couple said generator and said battery and when in the other position to uncouple them, an electric circuit passing around said meter, a supplemental switch in said circuit, a cam structure coöperatively mounted with respect to said last named switch, a ratchet wheel on said cam, and a pawl structure carried by said first named switch and operable to coöperate with said ratchet each time said first named switch is opened and closed to bring the hump of the cam into engagement with said second named switch to close said circuit once out of each cycle of full charges to give an over-charge.

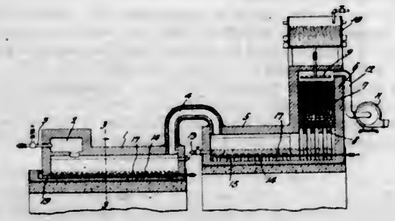
[Claims 2, 3, 5 to 10, and 12 not printed in the Gazette.]

1,240,591. METHOD AND APPARATUS FOR CONCENTRATING LIQUIDS. THOMAS C. OLIVER, Charlotte, N. C. Filed Feb. 7, 1917. Serial No. 147,202. (Cl. 23—1.)

1. Apparatus for use in concentrating liquids, including a flue or conduit having a side opening, a collecting trough outside of said flue or conduit and in communication with said opening, the bottom of the flue or conduit being inclined downwardly toward the opening, and means for directing a current of hot gases over liquid contained within said flue or conduit.

3. Apparatus for concentrating liquids, including a liquid containing flue or conduit, means for directing hot gases over the liquid to concentrate the same, means for agitating the liquid to prevent the formation of a crust thereon, and means outside of the conduit for receiving precipitates from within the conduit.

5. Apparatus for concentrating liquid, including a liquid containing flue or conduit, means for concentrating the liquid in the flue or conduit, means for agitating the liquid to prevent the formation of a crust thereon, and means for collecting precipitates from within the conduit.

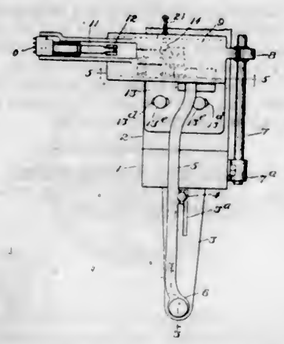


7. Apparatus for the concentration of liquid, including separate concentrating flues or conduits disposed at different elevations, means for directing hot gases over the liquid contents of the flues successively, means for conducting liquid from one flue to the other, a tower in communication with one of the flues, means for spraying liquid to be concentrated into the tower, means for exhausting waste gases and vapors from the tower, means within each of the flues or conduits for cooling and agitating the liquid contents of the conduits and for preventing the formation of crust on said liquid contents, and means outside of and in communication with the interior of each flue or conduit for receiving precipitates from said flue or conduit.

10. The herein described method of removing precipitates from liquid being concentrated, which consists in subjecting the liquid to the action of an overlying current of hot gases, agitating the liquid to prevent the formation of a crust and to precipitate solids produced by concentration, and removing precipitates laterally by gravity from under that portion of the liquid under the hot gases.

[Claims 2, 4, 6, 8, and 9 not printed in the Gazette.]

1,240,592. DEFERRED-ACTION INDICATING DEVICE FOR LOOMS. HENRY A. OWEN, Whitinsville, Mass., assignor to Whitin Machine Works, Whitinsville, Mass., a Corporation of Massachusetts. Filed Feb. 18, 1915. Serial No. 9,008. (Cl. 139—85.)



1. Deferred-action indicating devices having a traveling actuator or dog, combined with guiding means relative to which the said actuator or dog is movable bodily, said guiding means having a plurality of pathways by which the said actuator or dog is conducted by one or more stages from its starting position into a path in which it produces the prearranged indicating action.

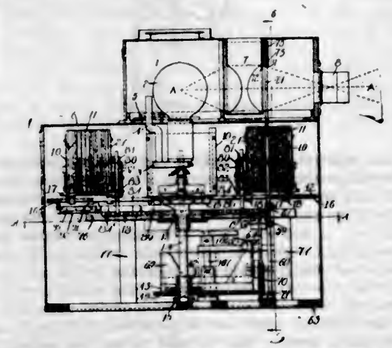
3. Deferred-action indicating devices having a loose or floating actuator or dog, combined with guiding means relative to which the said actuator or dog is movable bodily, said guiding means having a plurality of pathways by which the said actuator or dog is conducted by one or more stages from its starting position into a path in which it produces the prearranged indicating action.

7. Deferred-action indicating devices having a loose or floating reciprocable actuator or dog and also having guiding means relative to which the said actuator or dog is movable bodily, said guiding means having a plurality of pathways by which said actuator or dog is guided as it moves, and provisions for switching it into one or more different paths at successive strokes made by it, in one of which it effects the predetermined indicating action.

10. Deferred-action indicating devices having a reciprocable actuator or dog, and also having a plurality of path-grooves governing the said actuator or dog in the movements of the latter, and provisions for switching the actuator or dog by one or more successive stages into a path of movement in which by its stroke it effects the predetermined indicating action.

[Claims 2, 4 to 6, 8, 9, and 11 to 38 not printed in the Gazette.]

1,240,593. PROJECTING APPARATUS. GEORGE L. W. PALMER, Roxbury, Mass. Filed July 17, 1916. Serial No. 109,612. (Cl. 88—27.)



1. A projecting apparatus having, in combination, instrumentalities for projecting luminous rays, a carrier constructed and arranged to rotate in a plane substantially parallel with the axis of said rays, a plurality of transparency containers mounted upon said carrier each adapted to hold a plurality of transparencies in substantially lateral relation to said plane of the rays, means for rotating said carrier to successively move said containers into a plane of said rays, and means for moving the transparencies one at a time from said container into a position to intercept said rays.

2. A projecting apparatus having, in combination, instrumentalities for projecting luminous rays, a carrier constructed and arranged to rotate in a plane substantially parallel with said rays, a plurality of transparency containers mounted upon said carrier each adapted to hold a plurality of transparencies, means for rotating said carrier to successively move said containers into a plane of said rays, means operated by the rotation of said carrier adapted to move each of said containers radially with respect to the axis of said carrier to successively present the transparencies in said container into a predetermined position relatively to said projecting instrumentalities, and means for moving the transparencies one at a time from said container into a position to intercept said rays.

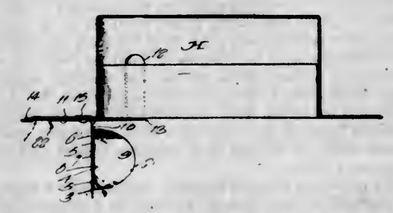
3. A projecting apparatus having, in combination, instrumentalities for projecting luminous rays, a rotatable carrier constructed and arranged to rotate in a plane substantially parallel with the axis of said luminous rays, means for supporting a plurality of sets of parallelly disposed transparencies on said carrier, mechanism for intermittently rotating said carrier to move each of said sets of transparencies into a plane of said luminous rays, and means constructed and arranged to move the transparencies of said set one at a time to intercept said luminous rays.

4. A projecting apparatus having, in combination, instrumentalities for projecting luminous rays, a rotatable carrier constructed and arranged to rotate in a plane substantially parallel with the axis of said luminous rays, a plurality of containers each adapted to hold a plurality of transparencies in parallel relation, mechanism adapted to rotate said carrier to move each of said containers into a plane of said luminous rays, and mechanism for moving said transparencies one at a time from said container into a position to intercept said luminous rays.

5. A projecting apparatus having, in combination, instrumentalities for projecting luminous rays, a rotatable carrier constructed and arranged to rotate in a plane substantially parallel with the axis of said luminous rays, a plurality of containers each adapted to hold a plurality of transparencies, mechanism adapted to rotate said carrier to move each of said containers into a plane of said luminous rays, a pusher adapted to aline with one of the transparencies in a container when said container is in a plane of said luminous rays, and means for operating said pusher to engage a transparency and move the same from said container into intercepting relation with respect to said rays.

[Claims 6 to 21 not printed in the Gazette.]

1,240,594. AUTOMOBILE-GOGGLES. LE ROY PATERY, Portland, Oreg. Filed Nov. 23, 1916. Serial No. 133,025. (Cl. 2—149.)



1. The combination with a hat, of an eye glass holder comprising an attaching plate, upright arms extending therefrom and engaged with the inside of the hat to secure said plate thereto, a pair of glasses hinged to said plate, and means for holding said glasses in horizontal or vertical position.

2. The combination with a hat, of an eye glass holder comprising a U-shaped attaching plate, the arms of said plate extending upwardly therefrom and engaged with the inside of the hat to secure said plate thereto, a pair of glasses hinged to said plate, and means for holding said glasses in horizontal or vertical position.

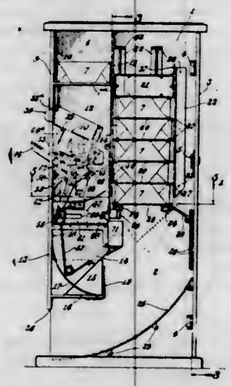
3. The combination with a hat, of an eye glass holder comprising a U-shaped attaching plate, and a spur projecting from the front edge of said plate, and adapted to engage the fabric of said hat, said attaching plate being disposed in horizontal position, the outer ends of the arms of said U-shaped plate being bent upwardly and engaged with the inside of a hat, a pair of glasses hinged to said plate, and means for holding said glasses in horizontal or vertical position.

4. The combination with a hat, of an eye glass holder comprising a U-shaped attaching plate disposed in horizontal position in engagement with the under side of said hat, the arms of said U-shaped plate being extended upwardly and engaged with the inside of the hat, a spur projecting from the intermediate portion of said plate and engaged with the fabric of the hat, a pronged fastener extending through said plate and said hat to secure the former thereto, a pair of glasses hinged to said plate, and means for holding said glasses in horizontal or vertical position.

5. In a device of the class described, an eye glass holder comprising a substantially U-shaped plate adapted to be disposed horizontally and in engagement with a hat, the arms of said plate being bent upright to be disposed inside of a hat, a pair of eye glasses pivoted to said plate, and means for holding said glasses in vertical or horizontal position.

[Claim 6 not printed in the Gazette.]

1,240,595. DELIVERY MECHANISM FOR VENDING-MACHINES. EBER M. PERFECT, Evansville, Ind., assignor of one-half to Francis W. Winans, Evansville, Ind. Filed May 13, 1916. Serial No. 97,397. (Cl. 211—8.)



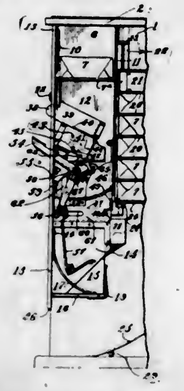
1. An improved vending-machine, comprising: a casing; a series of article-supporting plates mounted to be shoved endise upon fixed brackets; the fixed brackets upon which the lowermost one of said plates is mounted; ears on the opposite edge of each plate, at one end thereof; opposite inclined tracks which said cars slide upon after they have been shoved off of the fixed brackets; and a coin-operated bolt which engages the said lowermost plate and shoves the same bodily off of said fixed brackets toward and onto said inclined tracks.

2. An improved vending-machine, comprising: a casing; fixed brackets in said casing; a series of horizontal article-supporting plates superposed upon said fixed brackets, to support articles, and to be consecutively first moved bodily in a horizontal plane until one end is shoved off of its fixed brackets; a pusher-bolt for pushing the lowermost one of said plates off of its fixed brackets at one end; ears on said plates, extending beyond the edges of the plates in opposite directions, at the end of said plates which is opposite the end which is engaged by said pusher-bolt; and opposite tracks which are downwardly-inclined, and onto which said ears are pushed whenever said plates are shoved by said pusher-bolt.

3. An improved vending-machine, comprising a suitable casing, a series of horizontal article supporting-plates supported in said casing to slide edgewise and to be dumped after having been slid edgewise, downwardly-inclined tracks onto which said plates are delivered after having been slid edgewise and dumped with the articles carried by them, whereby the dumped plates are carried automatically out of the path of the next plate and article to be dumped, a weighted-follower resting upon the uppermost one of said supporting-plates before it has been dumped, and a flange on the uppermost rear corner of said weighted-follower, forming a stop, to prevent the said follower from being slid edgewise, and means actuated by a coin, for bodily sliding said plates edgewise and causing them to be delivered onto said inclined tracks after having been dumped.

1,240,596. COIN WEIGHING AND BLOCKING DEVICE FOR VENDING-MACHINES. EBER M. PERFECT, Crafton, Pa., assignor of one-half to Francis W. Winans, Evansville, Ind. Original application filed May 13, 1916, Serial No. 97,397. Divided and this application filed Dec. 4, 1916. Serial No. 135,014. (Cl. 194—103.)

1. An improved coin-weighing and blocking mechanism for vending-machines, comprising a delivery-lever, a hopper arranged to be balanced by the weight thereon of a proper coin so as to automatically pass a full-weight coin toward the money-till of the machine, a coin-blocking arm arranged in a plane below that of said hopper, to intercept coins and "slugs," a connection with the delivery-lever of the machine, for projecting said arm when said delivery-lever is operated, and a connection with the delivery-lever of the machine for dumping light-weight coins and slugs from said hopper after the said coin-blocking arm has been projected.



2. An improved coin-weighing and blocking mechanism for vending-machines, comprising a coin-weighing device which will be insufficiently balanced by a light-weight coin or slug, and which will retain such until the same is dumped; a delivery-lever; a blocking-arm below said coin-weighing device, to intercept coin and slugs; a dumping-lever for engaging said coin-weighing device and causing the same to dump the coin and slugs which have been retained by it; a V-shaped blocking-device arranged to rock and intercept coin and slugs before they reach said coin-weighing device; and suitable means for connecting said blocking-arm, said dumping-lever and said V-shaped blocking-device with the delivery-lever of the machine.

1,240,597. FLOTATION OF MINERALS. CLEMENT L. PERKINS, Pittsburgh, Pa., assignor to Metals Recovery Company, New York, N. Y., a Corporation of Maine. Filed Aug. 2, 1917. Serial No. 184,053. (Cl. 83—85.)

1. The method of effecting the concentration of minerals by flotation, which comprises adding to the mineral pulp a small amount of beta-naphthylamin, and subjecting the resulting mixture to a flotation operation; substantially as described.

2. The method of effecting the concentration of minerals by flotation, which comprises adding to the mineral pulp a small amount of beta-naphthylamin and other agents promoting the flotation, and subjecting the resulting mixture to a flotation operation; substantially as described.

3. The method of effecting the concentration of minerals by flotation, which comprises adding to the mineral pulp a small amount of beta-naphthylamin and sufficient alkali to give the ore pulp a distinct alkaline reaction, and subjecting the resulting mixture to a flotation operation; substantially as described.

4. The method of effecting the concentration of minerals by flotation, which comprises adding to the mineral pulp a small amount of beta-naphthylamin and of oil, and subjecting the resulting mixture to a flotation operation; substantially as described.

1,240,598. FLOTATION OF MINERALS. CLEMENT L. PERKINS, Pittsburgh, Pa., assignor to Metals Recovery Company, New York, N. Y., a Corporation of Maine. Filed Aug. 2, 1917. Serial No. 184,054. (Cl. 83—85.)

1. The method of effecting the concentration of minerals by flotation, which comprises adding to the mineral pulp a small amount of xylidin, and subjecting the resulting mixture to a flotation operation; substantially as described.

2. The method of effecting the concentration of minerals by flotation, which comprises adding to the mineral pulp a small amount of xylidin and other agents promoting the flotation, and subjecting the resulting mixture to a flotation operation; substantially as described.

3. The method of effecting the concentration of minerals by flotation, which comprises adding to the mineral pulp a small amount of xylidin and sufficient alkali to give the ore pulp a distinct alkaline reaction, and subjecting the resulting mixture to a flotation operation; substantially as described.

4. The method of effecting the concentration of minerals by flotation, which comprises adding to the mineral pulp a small amount of xylidin and of oil, and subjecting the resulting mixture to a flotation operation; substantially as described.

1,240,599. FLOTATION OF MINERALS. CLEMENT L. PERKINS, Pittsburgh, Pa., assignor to Metals Recovery Company, New York, N. Y., a Corporation of Maine. Filed Aug. 2, 1917. Serial No. 184,055. (Cl. 83—85.)

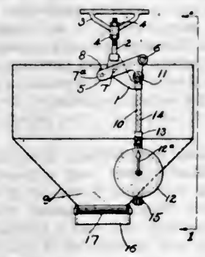
1. The method of effecting the concentration of minerals by flotation, which comprises adding to the mineral pulp a small amount of naphthol, and subjecting the resulting mixture to a flotation operation; substantially as described.

2. The method of effecting the concentration of minerals by flotation, which comprises adding to the mineral pulp a mixture of alpha- and beta-naphthols, and subjecting the resulting mixture to a flotation operation; substantially as described.

3. The method of effecting the concentration of minerals by flotation, which comprises adding to the mineral pulp a small amount of naphthol and other agents promoting the flotation, and subjecting the resulting mixture to a flotation operation; substantially as described.

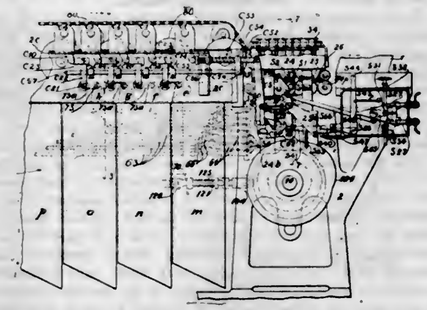
4. The method of effecting the concentration of minerals by flotation, which comprises adding to the mineral pulp a small amount of naphthol and of oil, and subjecting the resulting mixture to a flotation operation; substantially as described.

1,240,600. WEIGHING APPARATUS. BRYAN D. PINKNEY, Cincinnati, Ohio, assignor to The Triumph Manufacturing Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Oct. 12, 1916. Serial No. 125,276. (Cl. 265—68.)



In a weighing apparatus, the combination comprising a hopper provided with a pivot rod, a supporting standard provided with suspension hooks, a leverage member pivotally trunnioned in said suspension hooks and pivotally connected to said pivot rod, a pull-rod pivotally connected to said leverage member, a compression member connected with one suspension hook, and a dial-scale connected to said compression member and to said pull-rod; substantially as described.

1,240,601. SELECTIVE AND TOTALIZING COUNT-ACTION FOR CARD-SORTING MACHINES. JAMES POWERS, New York, N. Y., assignor, by mesne assignments, to Powers Accounting Machine Company, New York, N. Y., a Corporation of Delaware. Filed July 18, 1913. Serial No. 779,711. (Cl. 235—91.)



1. A mechanical action adapted to operably connect a mechanical counter with operating members of perforated-record-card sorting machines of the type in which series of movable pins co-act with fact-recording card-perforations and thereby cause the operation of card-classifying members and comprising a settable member operably connected with such counter and with a card-classifying, sorting-machine member and normally inactive but adapted to be set by such classifying member and when set operable to cause registration of such counter, and operating means adapted to transmit motion from a movable sorting-machine member to said settable member when set and at such times move it and operate such counter.

2. A mechanical action adapted to operably connect a series of mechanical counters with operating members of perforated-record-card sorting machines of the type in which series of movable pins coact with fact-recording card-perforations and thereby cause the operation of card-classifying members and comprising settable members each operably connected with such counter and with a card-classifying sorting-machine member and normally inactive but adapted to be set by such classifying member and when set operable to cause registration of such counter, and operating means adapted to transmit motion from a movable sorting-machine member to said settable members when set and at such times move it and operate such counters.

3. A mechanical action adapted to operably connect a class-series of mechanical counters and a like totalizing counter with operating members of perforated-record-card sorting machines of the type in which series of movable pins coact with fact-recording card-perforations and thereby cause the operation of card-classifying members and comprising a settable member operably connected with each such class counter and with a card-classifying sorting-machine member and normally inactive but adapted to be set by such classifying member and when set operable to cause registration of such counter, and operating means adapted to operably connect and transmit motion from a movable sorting-machine member to said settable members when set and to such totalizing counter and move said settable members and operate such class and totalizing counters.

4. In perforated-record-card sorting machines of the type in which series of movable pins co-act with fact-recording card-perforations and thereby cause the operation of card-classifying members and provided with a card-controlled power-stop apparatus the combination therewith of a mechanical counter and a mechanical action comprising a settable member operably connected with such counter and with a card-classifying, sorting machine member and normally inactive but adapted to be set by such classifying member and when set operable to cause registration of such counter, and operating means adapted

to transmit motion from a movable sorting-machine member to said settable member when set and at such times move it and operate such counter; and connection-breaking means operably connecting said operating means with such card-controlled power-stop apparatus and adapted to be thereby operated to suspend the transmission of motion by said operating means.

5. In perforated-record-card sorting machines of the type in which series of movable pins coact with fact-recording card-perforations to thereby cause the operation of card-classifying members and provided with a card-controlled power-stop apparatus, the combination therewith of a series of mechanical counters, settable members each operably connected with such counter and with a card-classifying sorting-machine member and normally inactive but adapted to be set by such classifying member and when set operable to cause registration of such counter, operating means adapted to transmit motion from a movable sorting-machine member to said settable members when set and at such times move them and operate such counters, and connection-breaking means operably connecting said operating means with such card-controlled power-stop apparatus and adapted to be thereby operated to suspend the transmission of motion by said operating means.

[Claims 6 to 21 not printed in the Gazette.]

1,240,602. GREASE-ARRESTER FOR SHAFTS. CHARLES H. PRIEST, Los Angeles, Cal. Filed July 11, 1916. Serial No. 108,581. (Cl. 64—24.)



1. In a grease arrester, the combination of a rotating shaft, a housing therefor, a tubular member secured through said housing, a reciprocable grease wiper contacting with said shaft and slidably mounted in said member, and a spring pressing said wiper against said shaft, said tubular member having a passage whereby grease wiped from said shaft is diverted through said housing.

[Claim 2 not printed in the Gazette.]

1,240,603. WEATHER-STRIP. WILLIAM R. PROCTOR, Athena, Oreg. Filed Feb. 19, 1917. Serial No. 149,558. (Cl. 20—68.)



1. The combination with a swinging closure of a strip located at the bottom of such closure and vertically movable to project therefrom, a vertically slidable bolt mounted on the closure and carrying the strip, a pivoted member carried by the closure and having a cam slot engageable by the bolt, and means for locking the pivoted member.

3. The combination with a swinging closure of a strip located at the bottom of such closure and vertically movable to project therefrom, a vertically slidable bolt mounted on the closure and carrying the strip, a pivoted member carried by the closure and having a cam slot engageable by the bolt, means for locking the pivoted member, a pivot bolt carrying said member and passing through the closure, the swinging member being mounted on one end of said bolt, and means on the other end of the pivot bolt for operating the same.

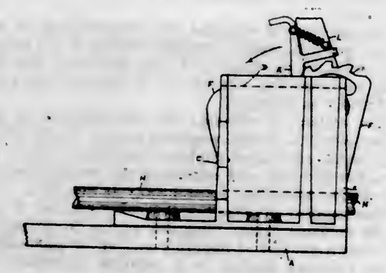
[Claim 2 not printed in the Gazette.]

1,240,604. BRUSH. GEORGE RASMUSEN, Jr., Winnetka, Ill. Filed Oct. 15, 1913. Serial No. 795,233. (Cl. 15—37.)



A rotary brush comprising a body, a plurality of helically formed bristles supported radially thereon, said bristles being spaced apart near their points of connection with the body of the brush to provide air circulating spaces around the bristles.

1,240,605. APPARATUS FOR BENDING PIPES. CHARLES S. RYERSON, Detroit, Mich. Filed Mar. 28, 1917. Serial No. 157,877. (Cl. 153—40.)



1. In combination with an open-ended frame member, whose side portions are provided with overengaging upper edges, a pressing segment having trunnion portions adapted to engage the under faces of said overengaging edges and to be movable lengthwise thereof when the segment is rotatively actuated against an attached length of pipe interposed between its periphery and the floor of the frame member.

3. In combination with a frame, a segment member provided with a pipe-engaging projection adapted to engage a length of pipe inserted in said frame and to be peripherally rocked thereagainst, said segment member having laterally projecting trunnion portions adapted to slidably engage complementary overengaging portions of the frame, whereby the axis of rotation of the segment, when it is rocked, is guided along a line parallel to the axis of the pipe.

6. A pipe-bending tool, having, in combination with a pipe-holding portion at one end, a troughed peripheral portion extending therefrom to the other end, adapted to confine a pipe bent thereabout against lateral expansion, means for rotating said tool, and a holding frame lengthwise of which the axis of rotation of said tool is adapted to move in a plane parallel with the floor thereof, to draw a pipe rested on the floor of the frame member about the troughed peripheral portion of the tool.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,240,606. ARRANGEMENT FOR FLAMING. KARL RÜCKER and DANIËL PICKER, Marienfelde, near Berlin, Germany. Filed Dec. 8, 1913. Serial No. 805,418. (Cl. 158—50.1.)

1. A device for flaming the inner walls of tanks and the like, especially brewery vessels, in combination, a burner for liquid fuel, a reservoir for containing the liquid fuel located outside the vessel to be flamed, a metallic spirally-wound tube extending through an opening in the vessel and connecting the burner and reservoir, and a valve associated with said burner and for controlling the passage of the liquid fuel to the same from the reservoir and through said spiral tube, substantially as described.



2. An apparatus of the character described including a burner adapted to be received through an opening in a tank to be flamed and to be readily moved about therein by the operator, a reservoir situated without said tank and having means for placing the same under pressure, a thin flexible tube of small diameter having its ends connected to said reservoir and burner and passing freely through the opening in said tank, a liquid hydrocarbon placed under pressure in said reservoir and passing through said tube to said burner, and a valve in said burner for controlling the issuance of said hydrocarbon in liquid form, said issuing liquid hydrocarbon being ignited and directed by the operator against the walls of the tank, substantially as described.

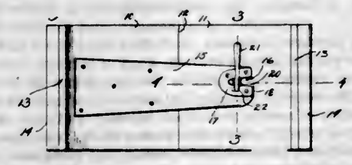
1,240,607. CONCENTRATING CARNOTITE ORES. HERMAN SCHLUNDT, Columbia, Mo. Filed June 16, 1916. Serial No. 103,939. (Cl. 23—13.)

1. The method of effecting extraction of radium from carnotite ores and concentrates and other suitable radium-containing material, which comprises treating the material with niter cake of a concentration and at a temperature sufficient to convert the radium-barium components into sulfates in solution, and recovering the radium sulfate from the solution thus formed.

8. The method of producing radium concentrates from carnotite ores and other suitable radium-containing material, which comprises treating the material with niter cake at a temperature sufficient to dissolve the radium together with barium as sulfates, pouring the resultant solution while in a liquid condition into water and thereby diluting the solution and precipitating the radium-barium sulfates in a finely divided condition in admixture with the undissolved material and separating the finely divided radium-barium sulfates from the undissolved material.

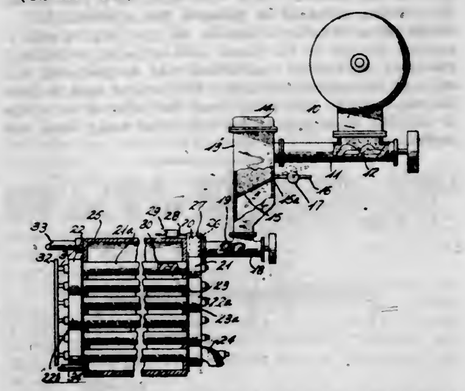
[Claims 2 to 7 not printed in the Gazette.]

1,240,608. END-GATE FASTENER. CHARLES STELOW SCHWARTZ, Kirksville, Mo. Filed Oct. 11, 1916. Serial No. 125,046. (Cl. 21—21.)



The combination with a sectional end gate having a slotted arm thereon, of a bolt disposed through the gate and engageable in the slot, a nut engaged on one end of the bolt, means for holding the nut against rotation, a U-shaped plate secured to the slotted end of the arm and partially inclosing said slot, one end of the said plate being provided with an outstanding stop lug, and a handle member carried transversely of the other end of the bolt and arranged to be disposed across the said slot, the bolt moving through the nut when turned to operative position.

1,240,609. COOLING APPARATUS. STEWART E. SEAMAN, Brooklyn, N. Y., assignor to Seaman Waste Wood Chemical Company, Inc., New York, N. Y., a Corporation of New York. Filed May 27, 1916. Serial No. 100,189. (Cl. 257—8.6.)

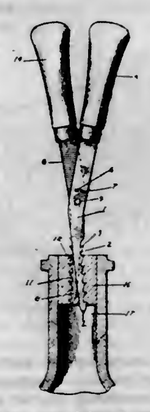


1. The combination of a retort, a cooling apparatus and a pipe line connecting the same, having therein a valve, means to hold the valve to its seat, but permitting excessive pressure from the retort side of the valve to open the same, whereby a seal is formed by the material passing through the pipe line, to prevent excessive passage of gases from the retort to the cooling apparatus.

5. The combination with a retort, of a cooling apparatus comprising a pipe line in contact with a cooling medium, a passage-way leading from the retort to the pipe line, a vertically arranged casing forming an element of said passage-way, and a swinging counter-balanced valve in the casing acting to maintain a column of material behind it to effect a seal against the escape of gases from the retort.

[Claims 2 to 4 not printed in the Gazette.]

1,240,610. CORK-PULLER. JOHN SHERIDAN, San Francisco, Cal. Filed Aug. 8, 1916. Serial No. 114,924. (Cl. 65—47.)

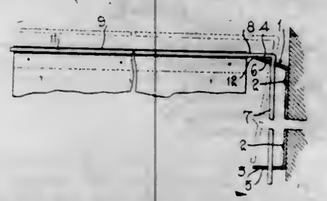


1. A cork puller comprising a pair of blades pivotally connected and having inclined serrations on opposite

edges thereof, the serrations on each blade being masked by the back of the adjacent blade when entering a cork or the like; and means adapted to slightly separate the blades whereby the inclined serrations may be projected into the cork throughout the length thereof and thereby tend to draw the sides of the cork away from the sides of an orifice when said blades are pulled away from said orifice.

2. A cork puller comprising a pair of alined blades pivotally connected to each other and having upwardly inclined serrations on oppositely positioned edges thereof, the back of each blade being arranged to mask the serrations of the adjacent blade when entering a cork or the like; means arranged to preserve the alinement of blades when entering a cork or the like; and a pair of handles secured to the blades and arranged to separate the same whereby the serrations may be projected into the cork throughout the length thereof and tend to draw the sides of the cork away from the sides of an orifice or the like when said blades are pulled away from said orifice.

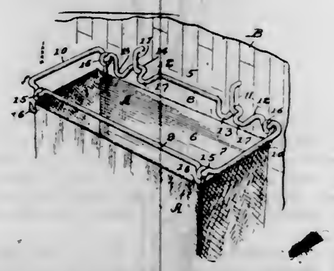
1,240,611. DISPLAY DEVICE. EUGENE RANDOLPH SMITH, Baltimore, Md. Filed Mar. 28, 1916. Serial No. 87,269. (Cl. 211—15.)



1. A device of the character described including a supporting bracket provided with upper and lower outstanding and substantially rigid and unyielding flanges having openings extending therethrough, the upper flange being inclined upwardly toward its free edge, the opening in the upper flange being spaced from the free edge of said flange and having its axis disposed obliquely relative to the axis of the opening in the lower flange, and a suspension arm provided with an angularly disposed flexible shank receivable in said openings whereby it will be flexed and frictionally held therein, said arm extending over the free edge of the upper flange and engaged therewith at a point spaced from said shank, substantially as shown and described.

[Claim 2 not printed in the Gazette.]

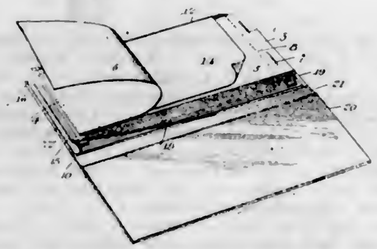
1,240,612. SACK-HOLDER. GEORGE SMITH, Blairsville, Pa. Filed Dec. 20, 1916. Serial No. 138,030. (Cl. 83—26.)



1. A device of the character set forth, a rectangular frame including spaced parallel longitudinally arranged strands, bearing eyes receiving one of said strands for hingedly connecting the frame to a support, the latter mentioned strand of the frame being bent to provide spaced legs arranged at right angles with respect to one another, one of said legs adapted to support the frame in a horizontal open position, the other of said legs permitting the frame being raised to assume a vertical position, substantially as and for the purpose specified.

2. A device of the character set forth comprising a frame constructed from a single strand of wire, bearing eyes for hingedly connecting the frame to a support, a pair of spaced legs formed adjacent the opposite ends of the frame, and a trunnion connecting the legs with one another to permit of a sliding movement of the frame in said bearings to alternately engage the legs in said bearings to permit of the frame supporting bags of various lengths.

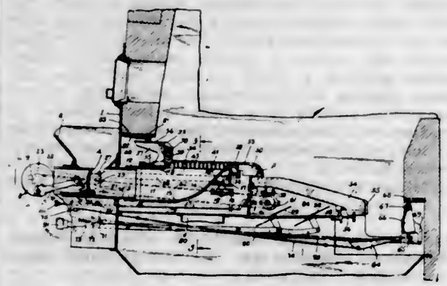
1,240,613. MANIFOLDING SALES-BOOK. CHARLES L. SPENCE, Sturgis, Mich. Filed Nov. 15, 1915. Serial No. 61,460. (Cl. 11—23.)



1. A triplicate manifolding book, including a series of sets of record leaves, each set having an original, duplicate, and triplicate leaf, means for binding the leaves, the original and duplicate leaves being connected together remote from the binding means, a transfer sheet connected along one side edge of the book, and a second transfer sheet connected to that end of the book remote from the binding means.

[Claims 2 to 5 not printed in the Gazette.]

1,240,614. AUTOMATIC STOKER. EDWARD W. SPRAGUE, Allentown, Pa. Filed Jan. 19, 1916. Serial No. 72,879. (Cl. 110—44.)



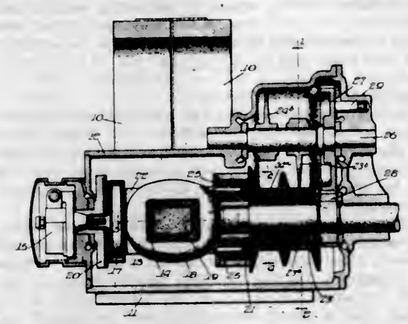
1. In a furnace, the combination of a fuel-receiving chamber, a feeder-duct in alinement, and forming a continuous passage therewith, said duct having an upwardly and rearwardly sloping bottom, a grate surface carried by said duct, extending alongside the side edges, in front of, and to the rear of, the rear delivery end of said duct, the grate surface across the front of said delivery end extending upwardly above the plane of the side and rear grate surfaces, means for advancing fuel from said chamber into said duct, and means for reciprocating said duct, substantially as set forth.

5. In a furnace, the combination of a reciprocating feeder-duct, having an upwardly extending delivery end, a grate carried thereby, comprising grate-surfaces extending at the sides and across the front of the opening, the grate at the front extending above the plane of said side grate surfaces and being adapted to push rearwardly fuel positioned to the rear of the same, means for progressing fuel through said duct, and an air-chamber, said front and side grate surfaces having air passages therethrough, communicating with said air-chamber, said passages being inclined to prevent the sifting of fuel therethrough, substantially as set forth.

7. In a furnace, the combination of a feeder-grate comprising forward and rear and side series of grate-bars arranged about an opening, under-feed means for delivering fuel through said opening, and means for reciprocating said grate, the grate-bars across the front of the opening having approximately vertical rear edges extending above the plane of said side grate-bars and being adapted to push rearwardly fuel positioned to the rear of the same, substantially as set forth.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,240,615. HIGH-TENSION MAGNETO. JOHN ROY STARK, Racine, Wis., assignor to The Webster Electric Company, Racine, Wis., a Corporation of West Virginia. Filed June 26, 1916. Serial No. 105,802. (Cl. 123—149.)



1. In a high tension magneto the combination with a rotatable armature, a pair of collector rings movable with the armature, each of said collector rings provided with a contact segment, said segments being connected in circuit with the secondary coil of the armature, a pair of brushes coöperating with each collector ring and a pair of grounding members coöperating with said collector rings and driven in timed relation thereto.

2. In an ignition magneto having primary and secondary windings, a rotary armature, a pair of collector rings movable with the armature, each collector ring having a contact segment, said segments being connected in circuit with the secondary winding, a pair of brushes coöperating with each collector ring and a pair of grounding devices, one coöperating with each of said collector rings.

3. In combination with the rotary armature of a high tension magneto, collector rings rotatable with the armature, each collector ring having a contact segment in circuit with the secondary winding of the magneto, a pair of brushes coöperating with each collector ring, an internal combustion engine having a plurality of spark gaps connected in circuit with said brushes, a shaft driven in timed relation to said armature and grounding devices, one for each segment, carried by said shaft.

4. The combination with the rotary armature of a high tension magneto, a pair of contact segments rotatable with the armature, a pair of brushes arranged to be engaged by each of said contact segments as the latter are rotated, means for connecting the segments in circuit with the secondary winding of the magneto and the brushes in circuit with the spark gaps of an internal combustion engine, a pair of grounding sectors coöperating with said contact segments and means for driving said grounding sectors in timed relation to the armature and contact segments.

5. The combination with the rotary armature of a high tension magneto, a pair of contact segments rotatable with the armature, said segments being connected in circuit with the secondary armature coil, a pair of brushes arranged to coöperate with each contact segment as the segment is rotated, an internal combustion engine having a plurality of spark plugs associated in pairs and electrically connected by the engine frame, the plugs of each pair being connected in circuit with a diagonally opposite set of said brushes to alternately spark said pairs of spark plugs, and means for periodically grounding each of said contact segments to the engine frame.

[Claims 6 to 10 not printed in the Gazette.]

1,240,616. PROCESS OF REFINISHING PAINTED, VARNISHED, OR FILLED SURFACES. VICTOR E. STARNER, Chicago, Ill. Filed Sept. 25, 1916. Serial No. 122,152. (Cl. 91—68.)

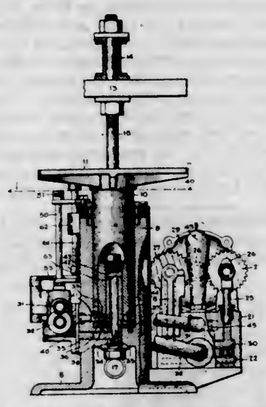
1. The process of refinishing a painted or varnished surface, or a surface having a superficial coating or filler, which consists in covering such surface with a substance not readily acted on by an enamel with a celluloid or cellulose base, and then applying over such substance such an enamel.

2. The process of refinishing a painted or varnished surface, or a surface with a superficial coating of filler, which consists in first covering such surface with a substance not readily dissolved by the solvent of an enamel made of a celluloid or cellulose base, and then applying over such substance such an enamel.

3. The process of refinishing a painted or varnished surface, or a surface having a superficial coating of filler, which consists in applying over such old paint or varnish or superficial coating of filler, a covering of shellac, and then applying over it an enamel with a celluloid or cellulose base.

4. The process of refinishing a painted or varnished surface, or a surface having a superficial coating of filler, which consists in applying over the old paint or varnish or superficial coating of filler, a covering of shellac, and then applying over it an enamel of a celluloid or cellulose base dissolved in a suitable solvent.

1,240,617. HYDRAULIC PRESS. GEORGE E. STEVENS, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Dec. 6, 1915. Serial No. 65,383. (Cl. 138—17.)



1. In a hydraulic press, the combination of a cylinder, a double area ram, a double area cylinder therefor, conduit means admitting fluid under pressure to the smaller cylinder area and subsequently to the portion of greater area, controlling valve means for admitting fluid to said conduit means and permitting it to exhaust therefrom, a valve in the cylinder adjacent one end thereof, which opens to permit fluid to enter the cylinder under the suction effect of the larger portion of the ram and closes when the cylinder part of larger area is subjected to fluid under pressure, and means for positively moving the valve to exhaust fluid from the cylinder.

2. In a hydraulic press, the combination of a cylinder, a double area ram, a double area cylinder therefor, conduit means admitting fluid under pressure to the smaller cylinder area and subsequently to the portion of greater area, controlling valve means for admitting fluid to said conduit means and permitting it to exhaust therefrom, a pivoted slide valve which opens on its pivot to permit fluid to enter the cylinder under the suction effect of the larger portion of the ram and closes when the cylinder part of larger area is subjected to fluid under pressure, means for positively sliding the valve to exhaust fluid from under the ram, and means for simultaneously moving said controlling valve means and the last named valve.

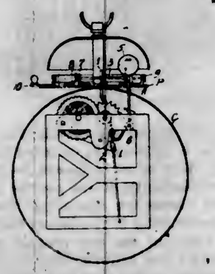
3. In a hydraulic press, the combination of a ram having a recess, a cylinder therefor, a tubular member carried by the cylinder and arranged in telescope relation with the recess, said ram controlling the passage of fluid from the member to the outer part of the cylinder, a conduit admitting fluid under pressure to the member, a check valve in the cylinder that opens automatically to permit fluid to enter the main part of the cylinder under the suction effect of the larger part of the ram and closes when subjected to fluid pressure from said member, a valve means for shutting off the supply of fluid to the member and permitting the fluid to exhaust therefrom, and means for moving the check valve to permit fluid to escape from the cylinder.

4. In a hydaulic press, the combination of a ram having a recess, a cylinder therefor, a tubular member carried by the cylinder and arranged in telescopic relation with the recess, said ram controlling the passage of fluid from the member to the outer part of the cylinder, a conduit admitting fluid under pressure to the member, a hinged check valve in the cylinder that opens to permit fluid to enter the cylinder due to the suction of the ram and closes automatically when fluid under pressure enters the cylinder, supply and exhaust valves for regulating the passage of fluid to the tubular member, and means for moving the check valve with respect to its seat to permit the escape of fluid from the cylinder.

5. In a hydraulic press, the combination of a base, a fluid containing chamber, a double area cylinder mounted on the base, a double area ram in the cylinder, a pump mounted on the base which delivers fluid at substantially constant pressure and receives fluid from the chamber, a motor also mounted on the base to drive the pump, a valve interposed between the pump and cylinder for regulating the supply of fluid to the latter, an automatic bypass relief valve actuated by the pressure in the fluid supply that communicates with the high pressure side of the valve and discharges into the chamber, a valve in the cylinder which admits fluid to the cylinder from the chamber due to the suction effect of the portion of the ram of larger area, and means for positively moving the valve to permit the cylinder to discharge into the chamber.

[Claims 6 and 7 not printed in the Gazette.]

1,240,618. COMBINED ALARM-CLOCK AND FIRE-SIGNAL. JOHN STEVENS, Launceston, Tasmania, Australia. Filed Feb. 24, 1914. Serial No. 820,714. (Cl. 116—11.)



The combination with an alarm clock having the usual alarm bell, hammer, alarm train for operating said hammer and releasing spring for said train, of a thermostatic bar arranged beneath said bell and curved in general conformity thereto, said bar having a fixed end and a free end, and by means of its free end controlling the operation of said hammer, the bar when expanded by heat effecting the release of said hammer and a rod connected to the releasing spring and operative by said spring to effect the release of said hammer independently of said bar.

1,240,619. CUTTER. KARL STIEGELMAYER, Chicago, Ill. Filed Mar. 24, 1917. Serial No. 157,107. (Cl. 144—146.)



1. In a cutter the combination with a frame of a carriage mounted therein, means for adjusting said carriage longitudinally of the frame, a resilient reed holder comprising a single spring pivoted to one end of the carriage, and a clip positioned at the opposite end of the carriage and formed to engage a reed on the holder to aline said reed with the holder and frame.

3. In a cutter the combination with a frame of a reed carriage adjustable longitudinally of the frame, means upon the carriage for holding a reed and alining the same with respect to the frame, and a cutter block mounted upon the frame and adjustable in the same direction as said carriage.

6. In a cutter the combination with a frame having a guideway of a reed carriage slidably mounted in said guideway, a rod protruding rearwardly from said carriage and engaging a bearing provided on the frame, a projection extending forwardly of the forward end of the carriage, and a finger overlapping said projection and secured to the frame.

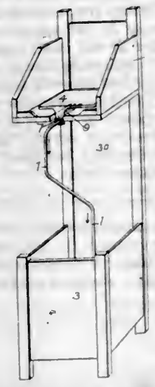
12. In a cutter the combination with a frame of a blade arm pivoted thereto, a cutter block disposed beneath the free end of said arm, a blade carried at the free end of the arm, a spring clamp also carried at the free end of the arm and having its free end positioned adjacent the blade normally below the same and rearwardly thereof, a reed carriage mounted in the frame for adjustment in a direction at right angles to the edge of said blade, and rearwardly of the blade, and means upon said carriage for holding a reed and positioning the same with its axis at right angles to the edge of said blade.

15. In a cutter the combination with a frame of a cutter block mounted thereon and protruding above the upper surface thereof, a blade arm pivoted to the frame and protruding above the upper surface thereof, said block being slidable with respect to the blade arm, a reed carriage mounted in the frame and protruding above the upper surface thereof, adjusting means for said carriage including a knurled nut protruding above the upper surface of the frame, a lever pivoted to the frame, extending above the upper surface thereof, cut away to overlie said arm and hollowed out at its rearward end to form a cover for said carriage and nut, and a spring clip mounted in said hollow rearward end of the lever and positioned to snap over said nut to hold the lever against the frame.

[Claims 2, 4, 5, 7 to 11, 13, and 14 not printed in the Gazette.]

1,240,620. TOWEL-CABINET. FRANK WEBB STOCKTON, Chicago, Ill. Filed June 16, 1916. Serial No. 104,133. (Cl. 45—32.)

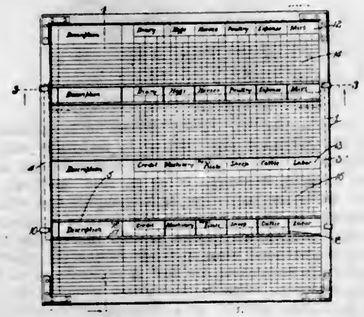
1. In a device of the class described, a towel support pierced by a slot which is adapted for the extension from above of a portion of a towel therethrough to a towel-retaining member below; and a towel-retaining member extending outwardly along the slot and below the surface of the towel support and then extending downwardly,



constituting a suitable guide for a towel while in use, substantially as described.

[Claims 2 and 3 not printed in the Gazette.]

1,240,621. ACCOUNTING DEVICE. LEONARD LEACH STORY, East Fairfield, Vt. Filed Nov. 24, 1916. Serial No. 133,137. (Cl. 11—19.)



1. In a device of the character described, the combination of a baseboard, a record sheet on the baseboard, a frame for the baseboard provided with a guiding groove, a carrier slidably mounted in said groove, and subject heading members on said carrier.

2. In a device of the character described, the combination of a baseboard, a record sheet on the baseboard, a frame associated with the baseboard and acting to hold the record sheet in position thereon, a carrier formed with means coacting with the frame whereby the carrier is guided in a back and forth movement over the record sheet, and subject heading members arranged on said carrier.

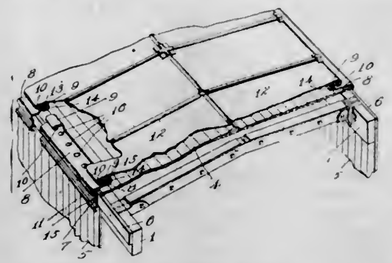
3. In a device of the character described, the combination of a baseboard, a plurality of record sheets on said baseboard, a grooved frame, a carrier extending into said grooved frame formed with a plurality of retaining sections spaced apart so that one section may be utilized on one record sheet and the other sections on the other record sheets simultaneously, and subject heading members on each of the sections.

4. In an accounting device of the character described, a base, a frame on said base for clamping an article to the base, means for holding the frame and base together, and a heading carrier on said frame and guided thereby, said heading carrier being movable over said article and from one end of the frame to the other.

5. In an accounting device of the character described, a baseboard, a plurality of pins extending through the baseboard, a pair of frames having openings therein for receiving the ends of said pins whereby the baseboard and frames are held in a certain predetermined relationship, said frames being disposed on either face of the baseboard, securing members for securing said frames in position on said baseboard, and a sliding carrier on each of said frames whereby either side of the baseboard may be used for record sheets.

[Claims 6 to 8 not printed in the Gazette.]

1,240,622. CAR. JOHN J. TATUM, Baltimore, Md., assignor, by mesne assignments, to P. H. Murphy Company, Parnassus, Pa., a Corporation of Pennsylvania. Filed May 22, 1912. Serial No. 698,958. (Cl. 108—5.)



1. In a car roof the combination with roof sheets thereof terminating short of the eaves, of an integral metal fascia and flashing strip, secured along the eaves of the car and lapping the upper ends of the sheathing and having its flashing portion disposed on top of the car and loosely engaging the eaves ends of the roofing sheets, said strip overhanging and secured to the side of the car and having a lengthwise extending rib projecting outwardly and spaced therefrom to constitute a fascia.

3. In a car roof, the combination with roof sheets having an under return bend at their outer ends, of a combined fascia and flashing extending on top of the roof and terminating in an upward return bend at its inner end constructed to engage the under return bend of the roof sheets and form therewith a loose joint, and spaced bosses on the upper face of the flashing within its return bend on which the return bend of the roof sheet rests.

5. In a car roof, the combination with roof sheets and an integral metal fascia and flashing strip loosely engaging said sheets, of a strip extending longitudinally of the car and secured to the side plate, side sheathing secured to the plate with the upper end thereof positioned under said strip, said flashing being anchored to the strip and covering the joint between the strip and sheathing.

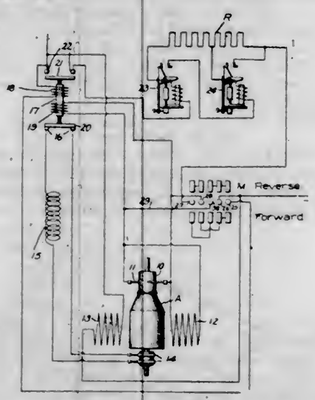
9. In a car roof, in combination with roof sheets having their eaves ends loosely held on the car, an angle shaped metal flashing and fascia strip arranged lengthwise along the side and top of the car at the eaves and lapping under the ends of said roof sheets, side sheathing for the car, the upper ends of their side sheathing terminating below the eaves of the car, said flashing strip being rigidly secured to the side of the car above said side sheathing and having its lower marginal portion stiffened lengthwise by a hollow rib and spaced away from the side of the car, the lower edge of said flashing strip lapping over the upper ends of said side sheathing.

[Claims 2, 4, 6 to 8, 10, and 11 not printed in the Gazette.]

1,240,623. MOTOR-CONTROL SYSTEM. CARL P. TAYLOR, Roanoke, Va., assignor to General Electric Company, a Corporation of New York. Filed Nov. 21, 1913. Serial No. 802,223. (Cl. 172—240.)

1. In a control system for electric motors, a reversible direct current motor, means for causing the motor to operate at different speeds in the two directions, comprising

two permanently connected shunt fields energized to have a cumulative effect for one direction of rotation and a differential effect for the opposite rotation, and means for reversing the motor.



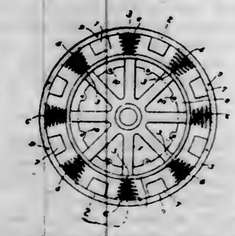
4. In a control system for electric motors, a reversible direct current motor, means for dynamically braking the same comprising a circuit supplied with alternating current from the motor armature, an impedance in said circuit, a pilot switch for controlling the operation of said motor in both directions, means whereby the operation of said pilot switch causes the closure of the alternating current circuit to apply a dynamic brake to the motor and simultaneously causes the opening of the supply of current to the motor, and means for causing the motor to operate at different speeds in the two directions comprising field windings one of which is connected across the line and the other across the motor armature.

5. In a system of motor control, a direct current motor, a supply circuit therefor, a dynamic braking circuit supplied with alternating current from the motor armature, and means responsive to the speed of the motor operative after the supply circuit has been opened to maintain the dynamic braking circuit until the motor has been brought substantially to rest and then close the supply circuit.

11. In a system of motor control, a reversible direct current motor, a supply circuit therefor, a reversing controller therefor, a dynamic braking circuit for the motor supplied with alternating current from the motor armature, and an electromagnetically controlled switching device operated responsively to the movement of the reversing controller for opening the supply circuit and closing the braking circuit for both directions of rotation of the motor armature, the said device having a winding energized from the motor armature for maintaining the supply circuit open until the motor has been brought substantially to rest.

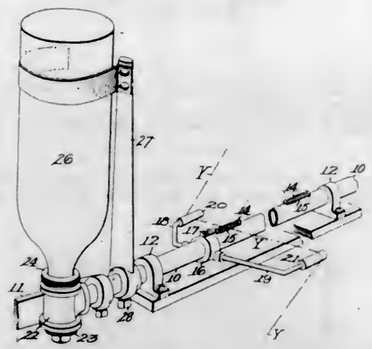
[Claims 2, 3, and 6 to 10 not printed in the Gazette.]

1,240,624. RESILIENT WHEEL. FRANK TAYLOR, Ponsonby, Auckland, New Zealand. Filed Dec. 11, 1916. Serial No. 136,261. (Cl. 152—37.)



In a resilient wheel, the combination with an inner rim formed on its periphery with spaced oval shaped depressions, of an outer rim spaced from the inner rim and provided on its inner surface with a plurality of oval shaped depressions in line with and larger than the oval shaped depressions in the inner rim, oval shaped coil springs having their ends seated in the depressions, the coils of the springs being larger at the outer ends than those at the inner ends, rubber cushioning blocks secured to the inner surface of the outer rim between each of the springs and normally spaced from the inner rim and adapted to contact with the periphery of said rim when load strain is applied to the wheel, and circular plates secured to the outer rim and overlapping the inner rim to inclose the springs and the rubber blocks.

1,240,625. YARN-MOISTENING DEVICE. GEORGE N. TAYLOR, East Providence, R. I., assignor to S. Slater & Sons, Webster, Mass., a Corporation of Massachusetts. Filed July 6, 1917. Serial No. 179,082. (Cl. 91—43.)

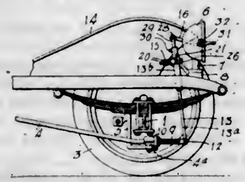


1. A yarn moistening device having, in combination, a horizontally extended pipe, means to maintain water at a predetermined level in said pipe, said pipe having spaced openings therein, bushings fitted in said openings, and means to guide the yarn over said bushings and adjacent the surface of the water whereby said yarn is moistened.

3. A yarn moistening device having, in combination, a horizontally extended pipe, a water reservoir, adjustable means effective to control the flow of water from said reservoir to said pipe, whereby the water level in said pipe may be held substantially at a predetermined point, said pipe having spaced openings therein, wear-resisting bushings cemented in said openings, a pair of guide rolls for each bushing, and means for supporting said rolls on either side of said pipe, said means being adjustably secured to said pipe.

[Claim 2 not printed in the Gazette.]

1,240,626. DIRIGIBLE AUTOMOBILE-HEADLIGHT. MARTIN L. TAYLOR, Menard, Tex. Filed Nov. 28, 1916. Serial No. 133,937. Renewed Aug. 7, 1917. Serial No. 184,974. (Cl. 240—62.)

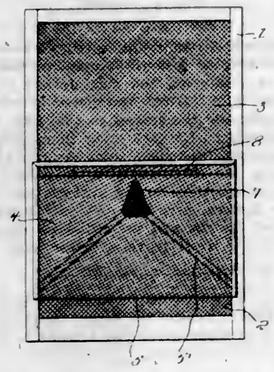


1. The combination with a motor vehicle and its steering gear, of a headlight carried by the vehicle and mounted to turn about a vertical axis, an upright lever formed in telescoping sections, an operative connection between the lower section of the upright lever and the drag link of a steering gear, a bracket applied to the edge of the mud guard and provided with means for pivotally engaging an intermediate portion of the upright lever, and an operative connection between the upper end of the upright lever and the headlight.

6. The combination with a motor vehicle and its steering gear, of a headlight carried by the vehicle and mounted to turn about a vertical axis, an upright lever operatively connected at its lower end to the drag link of the steeing gear, and its upper end to the headlight, a bracket applied to the edge of the mud guard, a yoke adjustably mounted upon the bracket and adapted to be set into various angular positions with relation thereto, said yoke straddling the upright lever, a collar slidable upon the upright lever and provided with trunnions adapted to engage the arms of the yoke, and means for locking the collar in an adjusted position upon the lever.

[Claims 2 to 5 not printed in the Gazette.]

1,240,627. FLY-SCREEN. EMMETT G. THOMPSON, Brighton, Colo. Filed May 11, 1917. Serial No. 167,966. (Cl. 156—37.)



1. In a device of the character described, the combination with a frame, of two screens secured thereto and spaced apart, one of said screens being shorter than the other and leaving an unobstructed inlet to the space between said screens at the lower end of said shorter screen, said frame having a slot formed on the upper end thereof leading from the space between said scren to the side of said frame opposite said shorter screen, and an inverted V-shaped partition in said space between said screen having the apex thereof extending upwardly and disposed centrally of the screen, said partition having an aperture at the apex thereof communicating the space above it with the space below.

2. In a device of the character described, the combination with a frame, of two screens secured thereto and spaced apart, one of said screens being shorter than the other and leaving an unobstructed inlet to the space between said screens at the lower end of said shorter screen, said frame having a slot formed on the upper end thereof leading from the space between said screen to the side of said frame opposite said shorter screen, an inverted V-shaped partition in said space between said screen having the apex thereof extending upwardly, said partition having an aperture at the apex thereof communicating the space above it with the space below, and a conical tube mounted on said partition above said hole and having its apex extending upwardly.

1,240,628. ARC-LIGHT ELECTRODE. KNUT TORNBERG, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Mar. 13, 1916. Serial No. 83,764. (Cl. 176—136.)

2. An arc lamp electrode material consisting of the exothermic reaction product of a compound which, when heated, liberates oxygen, with a light giving material capable of combining with the liberated oxygen.



3. A solid coherent arc lamp electrode material consisting of the exothermic reaction product of a compound which, when heated, liberates oxygen, with a light giving material capable of combining with the liberated oxygen.

7. The process of making arc lamp electrode material, which consists in starting exothermic reaction at one point of a mixture of pyro-genetic and light-giving materials of such composition and proportion that the reaction will propagate from point to point through the whole mass of the mixture, and allowing the mass to cool when the reaction has ceased.

8. The process of making arc-lamp electrodes, which consists in filling a conducting tube with a powdered mixture of barium peroxid and titanium carbid, heating the top of the filled tube until oxygen is liberated from the peroxid and enters into exothermic reaction with the carbid, allowing the reaction to propagate throughout the whole length of the filled tube and then allowing the mass to cool.

[Claims 1 and 4 to 6 not printed in the Gazette.]

1,240,629. MECHANISM FOR FACILITATING THE INSTRUCTION OF DRIVERS OF SELF-PROPELLED VEHICLES. JOHN GEORGE TORR, Sydney, New South Wales, Australia. Filed May 12, 1916. Serial No. 97,172. (Cl. 35—12.)



1. An instruction mechanism for attachment to self-propelled vehicles, comprising an endless conveyer adapted to be driven from the vehicle while the latter is standing, said conveyer extending forwardly from the vehicle and having its stretches arranged one above the other; a track extending forwardly from the vehicle parallel with said conveyer; a carrier arranged to travel along said track toward and from the vehicle; upper and lower bolts movably mounted on said carrier; oppositely-extending projections on said conveyer arranged for alternate engagement with said bolts during the movement of the conveyer, to effect the travel of the carrier; and forks arranged in the respective paths of said bolts to release the same from such engagement.

2. An instruction mechanism for attachment to self-propelled vehicles, comprising an endless conveyer adapted to be driven from the vehicle while the latter is standing, said conveyer extending forwardly from the vehicle and having its stretches arranged one above the other; a track extending forwardly from the vehicle parallel with said conveyer; a carrier arranged to travel along said track toward and from the vehicle; upper and lower

bolts movably mounted on said carrier; oppositely-extending projections on said conveyer arranged for alternate engagement with said bolts during the movement of the conveyer, to effect the travel of the carrier; and means for automatically withdrawing said bolts from such engagement at predetermined intervals.

3. An instruction mechanism for attachment to self-propelled vehicles, comprising an endless conveyer adapted to be driven from the vehicle while the latter is standing, said conveyer extending forwardly from the vehicle and having its stretches arranged one above the other; a track extending forwardly from the vehicle parallel with said conveyer; a carrier arranged to travel along said track toward and from the vehicle; upper and lower bolts movably mounted on said carrier; oppositely-extending projections on said conveyer arranged for alternate engagement with said bolts during the movement of the conveyer, to effect the travel of the carrier; a movable danger flap or signal mounted on said carrier to travel therewith; means for automatically withdrawing said bolts from such engagement at predetermined intervals; and means operable automatically to move said flap to an inoperative position when one of said bolts is withdrawn.

4. An instruction mechanism for attachment to self-propelled vehicles, comprising an endless conveyer adapted to be driven from the vehicle while the latter is standing, said conveyer extending forwardly from the vehicle and having its stretches arranged one above the other; a track extending forwardly from the vehicle parallel with said conveyer; a carrier arranged to travel along said track toward and from the vehicle; upper and lower bolts movably mounted on said carrier; oppositely-extending projections on said conveyer arranged for alternate engagement with said bolts during the movement of the conveyer, to effect the travel of the carrier; a movable danger flap or signal mounted on said carrier to travel therewith, and normally disposed in upright position; means for automatically withdrawing said bolts from such engagement at predetermined intervals; and means operable automatically to lower said flap when the upper bolt is withdrawn.

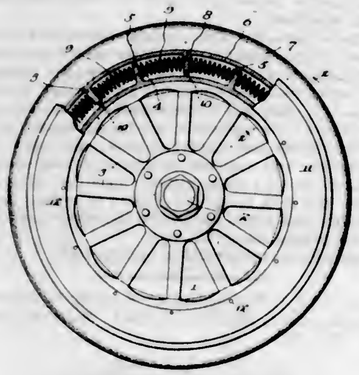
5. An instruction mechanism for attachment to self-propelled vehicles, comprising an endless conveyer adapted to be driven from the vehicle while the latter is standing, said conveyer extending forwardly from the vehicle and having its stretches arranged one above the other; a track extending forwardly from the vehicle parallel with said conveyer; a carrier arranged to travel along said track toward and from the vehicle; upper and lower bolts movably mounted on said carrier; oppositely-extending projections on said conveyer arranged for alternate engagement with said bolts during the movement of the conveyer, to effect the travel of the carrier; a movable danger flap or signal mounted on said carrier to travel therewith; forks arranged in the respective paths of said bolts, to release the same from such engagement; and means connected to automatically control the movement of said flap in one direction consequent upon the release of one of said bolts.

[Claims 6 to 14 not printed in the Gazette.]

1,240,630. VEHICLE WHEEL AND TIRE. AUGUST G. TRAUTMAN, New York, N. Y. Filed Jan. 26, 1917. Serial No. 144,714. (Cl. 21—69.)

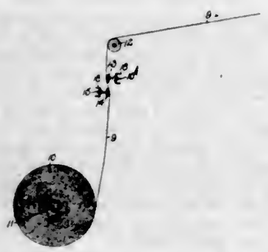
1. A vehicle wheel comprising a felly, a rim surrounding and spaced from the same, brackets on each element projecting toward the other and alternated with brackets on the latter, anti-friction devices at the outer ends of all brackets, and expansive springs between the several brackets, substantially as described.

2. A vehicle wheel comprising a felly, a rim surrounding and spaced from the same, brackets on each element projecting toward the other and alternated with brackets on the latter; anti-friction devices at the outer ends of all brackets, expansive springs loosely mounted between said elements and with their ends against respective brackets, and a housing carried by the felly and inclosing said springs and brackets and extending loosely over the edges of the rim, substantially as described.



3. A vehicle wheel comprising a felly, a rim embracing the same and adapted to move circumferentially thereof, a cushion tire embracing the rim, devices on the rim, devices on the felly, springs interposed between the devices on said rim and the devices on said felly, all of said devices contributing with each other functionally to hold the felly equi-distantly spaced from the rim at all times and to sustain the load which is supported upon the wheel, all of said devices having anti-friction bodies, the bodies on the devices carried by the felly being arranged to freely travel the rim and the bodies on the devices of said rim serving to freely travel over the felly.

1,240,631. TENSION-EQUALIZER FOR PRINTING-PRESS WEBS. JAMES M. TRIER, New York, N. Y. Filed Sept. 12, 1916. Serial No. 119,655. (Cl. 273.)



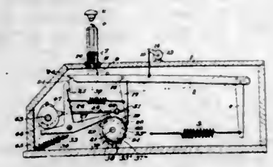
1. An apparatus as characterized comprising a plurality of guide members for guiding and smoothing out the paper web of a printing press while being fed to the printing rolls, said members being disposed in paired relation, the members of each pair being disposed in spaced relation at opposite sides of said web, the spacing being lengthwise of said web, said members being further arranged in staggered relation to extend to opposite sides of the plane of said web and pivots for said members, said pivots forming a rocking engagement with said members adjacent the contact surface thereof to avoid lateral movement of said members when being rocked.

2. An apparatus as characterized comprising a plurality of guide members for guiding and smoothing out the paper web of a printing press while being fed to the printing rolls, said members being disposed in paired relation, the members of each pair being disposed in spaced relation at opposite sides of said web, the spacing being lengthwise of said web, said members being further arranged in staggered relation to extend to opposite sides of the plane of said web; pivots for said members, said pivots forming a rocking engagement with said members adjacent the contact surface thereof to avoid lateral movement of said members when being rocked; and yielding means for normally maintaining the parallel relation of said guide members.

3. An apparatus as characterized comprising a plurality of guide members for guiding and smoothing out a paper web while being fed to a printing press, said members being pivotally supported in spaced relation on opposite sides of said web and in lapped relation each to the other and to the normal path of said web for maintaining a drag on said web, said members being adapted to be rocked in relatively opposite directions for diminishing and increasing relatively the deflection of said web at opposite sides of the linear center thereof.

4. An apparatus as characterized comprising a plurality of guide members for supporting a paper web while being fed to a printing press, said members being pivotally supported in spaced relation on opposite sides of said web and in lapped relation each to the other and to the normal path of said web for maintaining a drag on said web, said members being adapted to be rocked in relatively opposite directions for diminishing and increasing relatively the deflection of said web at opposite sides of the linear center thereof, said diminution and increment of deflection being complementary for equalizing and steadying the tension on said web.

1,240,632. VOTE-RECORDING MACHINE. WILLIAM CLEMENT WATSON, Ponsonby, Auckland, New Zealand. Filed May 31, 1917. Serial No. 171,868. (Cl. 235—55.)



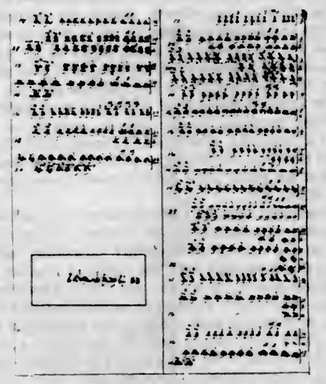
1. In a voting machine, a plurality of stems, a corresponding plurality of levers operable by the stems, counters operable by the levers, a pawl pivoted to each lever, a shaft and a plurality of rachet wheels fixed to the shaft and operated by the pawls, a counter operable by the shaft, a series of sliding plates between the stems and levers, the said plates having chamfered recesses at their ends being limited in their movement endwise sufficiently to prevent more than one stem from being depressed simultaneously, substantially as set forth.

6. In a voting machine, a sleeve mounted freely on a shaft, rachet wheels and snail cams fixed to the shaft, a grooved disk fixed to the shaft and having a fixed peg and a number of holes corresponding to the number of teeth in the rachet wheels, a peg adapted to be placed in any one of the said holes, a stop against which the pegs are adapted to contact, main levers having pawls adapted to engage the rachet wheels, detent levers adapted to engage the main levers and having arms riding on the snail cams, and counters operated by the main levers, substantially as set forth.

[Claims 2 to 5 not printed in the Gazette.]

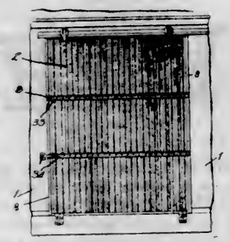
1,240,633. ART OF PRINTING THE ASSYRIAN LANGUAGE. JOEL E. WEBDA, New York, N. Y. Filed Sept. 4, 1915. Serial No. 48,942. (Cl. 101—199.)

As new articles of manufacture a font of separate types for printing in languages in which Syriac characters are used, the said types comprising separate elements carrying initial characters without dots or accents and elements with dots and accents only, which latter embody the controlling and vowel signs having meaning only when used in combination with the type carrying the initial signs and being adapted to make impressions thereof preceding,



or following the said initial characters substantially as shown and described.

1,240,634. RAILWAY-CAR DOOR. WILLIAM ERASTUS WILLIAMS, Chicago, Ill. Filed Sept. 2, 1913. Serial No. 787,675. (Cl. 189—46.)

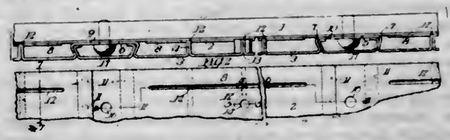


1. The combination with a corrugated metal sheet forming a door body, of channel members covering the edges of the sheet, respectively, spot welded thereto, and forming the edge faces of the door, and right angle corner plates sunk in and flush with said faces and spot welded in place at the angles of the door.

2. A door composed of a sheet of metal corrugated for stiffening ribs in one direction and stiffened transversely of the corrugations by cross-rails on each side of the sheet and adjacent to each other and welded to the summits of the corrugations, said rails being provided with perforations for allowing the passage of the electrode through the rail to facilitate the welding.

[Claims 3 to 5 not printed in the Gazette.]

1,240,635. METAL SHEATHING FOR CARS AND HOUSES. WILLIAM ERASTUS WILLIAMS, Chicago, Ill. Filed Nov. 26, 1913. Serial No. 803,133. (Cl. 189—85.)



1. In a structure of the class described, the combination with an outer plate made up of sheets each bent to form on one face parallel ribs and on the other face corresponding panels, the successive sheets overhanging marginally

to form dovetail grooves to receive joint panel slats, joint slats fitting said grooves, respectively, transverse backing members integrally secured to the inner margins of all the ribs of the sheets, respectively, means for securing each united front and backing member to the wall to be sheathed, and means for securing each joint panel in its groove.

2. A sheathing composed of a front plate provided with stiffening ribs made therein in a manner to give the appearance on the outside of a slatted sheathing said plate formed at its edges parallel to the ribs to provide a locking groove for a joint slat, a joint slat adapted to fit the groove and bridge the space between the sections of the sheathing; with a backing plate fixed to the front plate across the summits of the ribs.

3. A sheathing composed of a front plate provided with stiffening ribs formed therein in a manner to give the appearance on the outside of a slatted sheathing, said plate bent at its edges parallel with the ribs in a manner to provide a locking groove for a joint slat; with a backing plate fixed to the front plate across the summits of the ribs and the plates overlapping each other at the edges in a manner to cover up the joint seams between the sections and with a joint slat adapted to fit the grooves and bridge over the space of the joint between the sections.

[Claims 4 to 6 not printed in the Gazette.]

1,240,636. ROLLER SIDE BEARING FOR RAILWAY-CARS. WILLIAM ERASTUS WILLIAMS, Chicago, Ill. Filed Aug. 27, 1914. Serial No. 858,792. (Cl. 64—64.)



1. In a device of the class described, the combination with a housing of a bottom track surface with upwardly extending projections, a curved rocker plate adapted to rest upon said surface and provided with recesses to receive said projections, respectively, and a weight-receiving roller held against upward displacement resting upon said rocker plate, substantially as set forth.

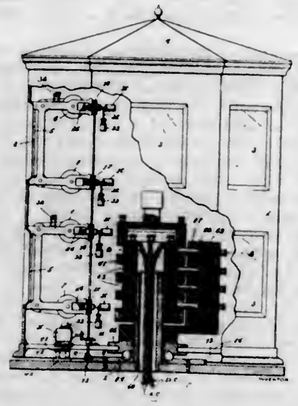
3. The combination with an elongated box-like housing having at its bottom a track surface, of a curved rocker plate resting on that surface and a roller resting upon the rocker plate and held against upward displacement, the end walls of the housing being cut away at their lower sides below and beyond the upwardly curved margins of the rocker plate.

[Claim 2 not printed in the Gazette.]

1,240,637. ADVERTISING-KIOSK. GEORGE W. WILLIAMSON, Petaluma, Cal. Filed Feb. 24, 1917. Serial No. 150,753. (Cl. 40—53.)

1. In a changeable exhibitor, the combination with a web-actuating roller, a longitudinally movable driving shaft therefor having a notch, and a friction disk on the shaft adapted to contact with the head of the roller; of a solenoid in which the rear end of the driving shaft is mounted, an electrically controlled catch adapted to engage said notch when the driving shaft is retracted and its friction disk out of contact with the roller-head, and means for alternately actuating the solenoid and the catch.

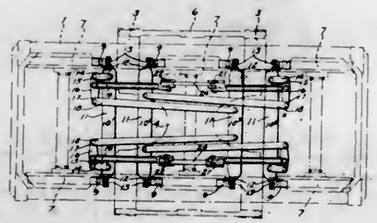
4. In a changeable exhibitor, the combination with a revolving kiosk, changeable panels carried thereby, means for changing them and for revolving the kiosk a cam and a motor carried by the kiosk and actuating said means; of an upstanding pillar fixed in said support, a head carried thereby and supporting two pairs of contact rings to which the wires from a direct current and an alternating current are respectively connected through the pillar, a block carried by the kiosk, two pairs of spring-pressed brushes mounted in the block and respectively contacting



with the rings, and feed wires leading from the motor and respectively connected with said brushes.

[Claims 2 and 3 not printed in the Gazette.]

1,240,638. SIX-WHEELED CAR-TRUCK. WILLIAM H. WILSON, St. Paul, Minn. Original application filed Nov. 10, 1913, Serial No. 800,063. Divided and this application filed Dec. 18, 1914. Serial No. 877,961. (Cl. 188—24.)



1. In a six-wheel truck, brake mechanism adapted to independently set the brakes on each side of the truck, and to set the brake shoes on the outer wheels with greater force than on the middle wheels.

2. In a six-wheel truck, brake shoes applied only to the inner peripheral faces of the outside wheels, and to both faces of the middle wheels, in combination with brake mechanism adapted to independently set the brakes on the wheels on each side of the truck.

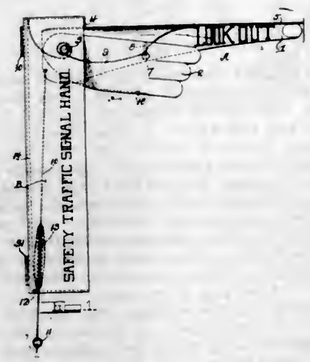
3. In a six-wheel truck, brake shoes applied to the inner peripheral faces of the outside wheels, and to opposite faces of the middle wheels, in combination with brake mechanism adapted to independently set the brakes on each side of the truck, and to set the brake shoes on the outer wheels with greater force than on the middle wheels.

4. In a six-wheel truck, brake shoes applied to the inner peripheral faces of the outside wheels, and to opposite faces of the middle wheels, and brake beams connecting the brake shoes on the same side of each pair of wheels, in combination with a live lever and a dead lever, a connection therebetween, a pair of equalizing levers, connections from the live lever to an intermediate portion of one equalizing lever, and from the dead lever to an intermediate portion of the other equalizing lever, and connections from one end of an equalizing lever to one brake beam, and from the other end of said equalizing lever to another brake beam.

5. In a six-wheel truck, brake shoes applied to the inner peripheral faces of the outside wheels, and to opposite faces of the middle wheels, and brake beams connecting the brake shoes on the same side of each pair of wheels, in combination with a live lever and a dead lever, a connection therebetween, a pair of equalizing levers, connections from the live lever to an intermediate portion of one equalizing lever, and from the dead lever to an intermediate portion of the other equalizing lever, and connections from one end of an equalizing lever to the brake beam engaging the brake shoes on the outside wheels, and from the other end of said equalizing lever to one of the brake beams engaging the brake shoes on the middle pair of wheels.

[Claims 6 and 7 not printed in the Gazette.]

1,240,639. DIRECTION-SIGNAL. HOLLIS T. WINSTON, Washington, D. C. Filed May 15, 1916. Serial No. 97,548. (Cl. 116—31.)



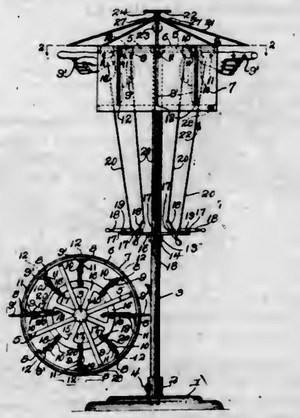
1. A signaling device of the character described comprising a casing closed on all sides but one, a pivot pin passing through said casing, parallel to the open side thereof, a plurality of signaling members pivoted on said pin and having a limited angular movement relative to each other about said pivot pin, said members over-lapping each other when in the retracted position, and one of said members being provided with laterally projecting flanges adapted to close the open side of said casing when the signaling members are in the retracted position, with means for swinging said members about said pivot pin into and out of said casing.

4. A signaling device of the character described comprising a casing closed on all sides but one, a pivot pin passing through said casing, parallel to the open side thereof, a pair of signaling members pivoted on said pin, comprising an inner and an outer member, the outer member being longer than the inner and being provided with a laterally projecting flange adapted to form a cover for the open side of said casing when the two members are in the retracted position, and also to engage the outer edge of said inner member to swing it back into place in said casing, the two members having a limited angular movement relative to each other about said pivot pin, said members over-lapping each other when in the retracted position, and a wire or cord secured to the heel of said outer member for swinging both of said members about said pivot pin.

[Claims 2 and 3 not printed in the Gazette.]

1,240,640. TRAFFIC-SIGNAL. HOLLIS T. WINSTON, U. S. Navy. Filed Dec. 21, 1916. Serial No. 138,246. (Cl. 116—22.)

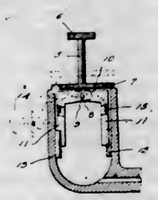
1. A traffic signal comprising a base member; a standard mounted thereon; supporting members mounted on said standard; a drum carried by said supporting members; bracket members secured to said drum; a signal device disposed on each of said brackets; and means for operating said signal.



5. A traffic signal comprising a base member; a standard secured thereon; a plurality of supporting arms mounted on said standard; a ring secured thereto; a drum member carried by said ring; said drum being also provided with a plurality of openings therein; a plurality of bracket members having an angulated portion secured to said ring; and an extended portion in approximate alinement with each slot; a signal member mounted intermediate its ends on each of said bracket members; a counterweight disposed on one end of each signal; a secondary supporting member disposed on said standard; a plurality of signal actuating arms pivotally mounted thereon; members connecting said arms and said signal; and a cover instrumentality disposed on said arms on the upper end of said standard.

[Claims 2 to 4 not printed in the Gazette.]

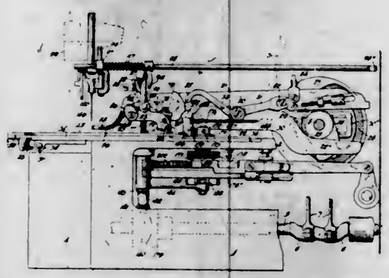
1,240,641. PIPE-CLEANER. FREDERICK C. WRIGHT, Halifax, Nova Scotia, Canada. Filed Sept. 12, 1916. Serial No. 119,790. (Cl. 131—13.)



1. A cleaner or scraper for smokers' pipes, including a threaded shank, an operating member carried at one end thereof, two hingedly connected members attached to the opposite end of said shank, a scraper carried by each of said members, a spring for normally extending the members, and an adjusting member for limiting the extension of such members mounted upon the threaded shank.

2. A cleaner or scraper for smokers' pipes, including a threaded shank, an operating knob upon one end thereof, two L-shaped members pivotally connected to one end of the shank for swinging movement, a spring connected to both of said members for extending the free ends thereof, a scraper blade swingingly connected to the free end of each of said L-shaped members, and a disk threadedly engaging the shank for limiting the extensibility of the L-shaped members.

1,240,642. WORK-HOLDER FOR BUTTONHOLE-SEWING MACHINES. EDWARD B. ALLEN, Bridgeport, Conn., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Apr. 29, 1912. Serial No. 693,778. (Cl. 112—4.)



1. In a buttonhole sewing machine, the combination with a shaft, stitch-forming mechanism deriving operative movements therefrom, a stop-motion comprising a cam upon said shaft and a spring-pressed plunger controlled thereby, and a work-holder constructed with clamping members separable to release and clamp the work and a controlling rock-shaft therefor provided with an arm, of clamp-opening means comprising a rod carrying a tappet-arm adapted for engagement with the clamp rock-shaft arm, and an angle-lever for communicating endwise movements to the tappet-arm carrying rod from said plunger.

2. In a buttonhole sewing machine, the combination with stitch-forming mechanism, slit-cutting mechanism, a rotary shaft from which the stitch-forming mechanism derives operative movements, a stop-motion for controlling the operation of said shaft, and a work-holder having upper and lower clamping members separable to release and clamp the work, of clamp-closing and clamp-opening means, one of which is operatively connected with the slit-cutting mechanism and the other of which is operatively connected with said stop-motion.

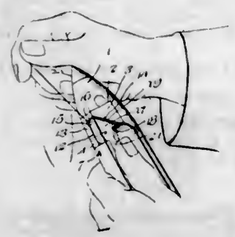
3. In a buttonhole sewing machine, the combination with stitch-forming mechanism, slit-cutting mechanism including a cutter-carrying lever and provided with means for confining it permanently to one side of the stitch-forming mechanism, and a traveling work-holder having upper and lower clamping members separable to release and clamp the work, and a controlling rock-shaft for said work-holder mounted to partake of the traveling movements of the same and provided with an arm, of clamp-closing means acting upon said arm of the clamp-controlling rock-shaft and operatively connected with and operated by said cutter-carrying lever to effect the final closing of the work-holder substantially simultaneously with the slit-cutting action.

32. A buttonhole sewing machine, having, in combination, stitch-forming mechanism and a non-rotary work-holding clamp, mechanism for actuating the stitch-forming mechanism and relatively moving the stitch-forming mechanism and the work-holding clamp to sew about a buttonhole, an independently actuated cutter, and connections between the cutter and clamp for closing the clamp by movement of the cutter toward the face of the work.

41. In a buttonhole sewing machine, in combination, stitch-forming mechanism, a work-holder having upper and lower clamping members separable to admit the work, a controlling rock-shaft therefor provided with an arm, slit-cutting mechanism comprising a reciprocating carrier, a cutting element mounted thereon and movable toward and from the stitch-forming mechanism and said clamping members, actuating means for said carrier, and means independent of said actuating means for establishing operative connection between said arm of the clamp-controlling rock-shaft and said carrier for effecting the final closing of the work-holder substantially simultaneously with the slit-cutting action.

[Claims 4 to 31 and 33 to 40 not printed in the Gazette.]

1,240,643. HAND-THREADING ATTACHMENT FOR LOOM-SHUTTLES. BENJAMIN S. ATWOOD, Milford, Mass. Filed Aug. 4, 1915. Serial No. 43,657. (Cl. 139—46.)



1. A hand threader attachment for a shuttle comprising a block adapted to be fitted in a recess in one side of the shuttle, said block having a shoulder provided with an oblique face and also having a recess extending to the outer side and from said oblique face, said block being further provided with a tubular eyelet arranged in the angle between said oblique face and the bottom of said recess and open on the side next said oblique face, the block being further provided with an air chamber, a vent opening leading therefrom and an opening leading thereto to the interior of the shuttle, a thumb lever arranged in said recess and having an oblique face corresponding with that of the block and movable toward and from said oblique face of the block to form a thread slot, said lever being further provided with an arm on the inner side of and pivotally mounted on one wall of the shuttle, and a spring to close the thread slot and forming the pivoting member of said lever.

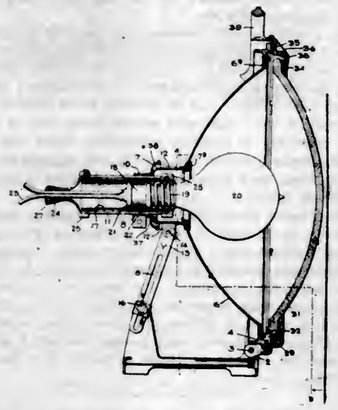
2. A threader attachment for a shuttle comprising a block adapted to be fitted in a recess in one side of the shuttle, said block having a shoulder provided with an oblique face and also having a recess extending from the outer side of the block and from said oblique face, a tubular eyelet arranged in the angle between said oblique face and the bottom of said recess and open on the side next said oblique face, and a lever arranged in said recess and having an oblique face corresponding with that of the block, said lever being arranged for movement toward and from said shoulder of the block to form a thread slot.

3. A threader attachment for a shuttle comprising a block adapted to be fitted in a recess in one side of the shuttle, said block having a shoulder provided with an oblique face and also having a recess extending from the outer side of the block and from said oblique face, a tubular eyelet arranged in the angle between said oblique face and the bottom of said recess and open on the side next said oblique face, a lever arranged in said recess and having an oblique face corresponding with that of the block, said lever being arranged for movement toward and from said shoulder of the block to form a thread slot, and a spring forming the pivot member of said lever and serving to normally close the thread slot.

1,240,644. LIGHTING UNIT. PERCY S. BAILEY, West Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Apr. 5, 1916. Serial No. 89,021. (Cl. 240—41.)

1. A lighting unit comprising a base support, a lamp frame pivoted thereto, a reflector secured to said frame, a shell secured to said reflector and extending rearwardly therefrom, and means attached to said shell and to said base support for adjustably securing the projector in position.

2. A lighting unit comprising a base support, a lamp frame pivoted therto, a reflector secured to said frame, a shell secured to said reflector and extending rearwardly therefrom, and means comprising a slotted link attached to said shell and to the base support for adjustably securing the projector in position.



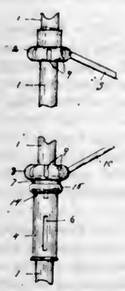
3. A lighting unit comprising a base support, a lamp frame pivoted thereto, a reflector secured to said frame, an annular metallic shell secured to said reflector axially therewith and extending rearwardly therefrom, a lamp socket holder extending within said shell, means connecting said shell and said base support for adjustably securing the projector in position, and means for adjustably securing the socket holder within said shell.

4. A lighting unit comprising a base support, a lamp frame pivoted thereto, a reflector secured to said frame, and a window supporting frame pivoted on the same axis as the lamp frame.

5. A lighting unit having a housing comprising a reflector and an annular shell secured to said reflector axially therewith and extending rearwardly therefrom, an incandescent lamp socket within said shell spaced therefrom, and draft openings located in said shell for the admission of air to the housing around said socket, and outlet openings located at the outer portion of the housing for exhausting said air, whereby the cooling air passes longitudinally along the space between the socket and shell.

[Claim 6 not printed in the Gazette.]

1,240,645. UMBRELLA-RUNNER. CHARLES L. BAKER and JOHN E. KLOS, Lancaster, Pa. Filed May 24, 1915. Serial No. 30,138. (Cl. 135—30.)

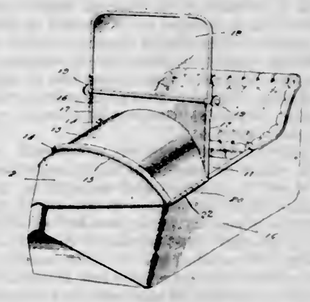


1. In a runner for umbrellas, the combination of a tubular member provided with a longitudinally-extending slot at its upper end; a sleeve rotatably mounted thereon, said sleeve having an enlarged bead provided with a series of slots extending through the upper portion thereof with a socket or recess formed at the inner end of each slot; and means for preventing relative longitudinal movement of said tubular member and the sleeve, while permitting relative rotative movement, whereby any slot in the sleeve may be brought into register with the slot in the tubular member.

3. In a runner for umbrellas, the combination of a tubular member provided with a longitudinally-extending slot at its upper end; an annular bead formed upon the outer face of the tubular member; a sleeve rotatably mounted on said tubular member, said sleeve having a head provided with a series of radially-disposed slots extending through the upper portion thereof, with a socket or recess formed at the inner end of each slot, the lower end of the sleeve being spun inwardly beneath the bead aforesaid and thereby locking the tubular member and sleeve against separation while permitting relative rotation; and a tongue extending from the tubular member, adapted to enter an opening formed in the sleeve, said tongue serving, when in said opening, to hold the sleeve and tubular member against relative rotation, and with the slot in the tubular member out of line with any of the slots in the head of the sleeve.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,240,646. SIDE-CAR WIND-SHIELD. HENRY BAKEWELL, Lowell, Mass. Filed Feb. 21, 1916. Serial No. 79,613. (Cl. 21—148.)



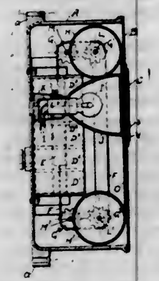
The combination with a motorcycle side car having a rib formed on the forward edge of the hood and a plurality of ears formed on one side edge adjacent the hood, of an extension hood having a plurality of ears on one edge, a pivot removably engageable with the ears for swingingly connecting the extension hood to the side car, an arcuate strip carried by the extension hood for overlapping the rib on the hood of the side car, a vertically arranged support having the outer edge of the extension hood secured thereto and reinforced thereby, a windshield connected to the upper edge of the support, and means for adjusting the inclination of the windshield with respect to the support.

1,240,647. ELECTRICAL SIGNAL. EDWARD BALBACH, Springfield, Ohio. Filed Sept. 21, 1916. Serial No. 121,394. (Cl. 40—52.)

1. In an electric signaling device, a main casing, a sectional solenoid having a core movable in either direction from one section to another by the energization of said sections, a flexible ribbon having a series of signals thereon, rotatable drums to which said ribbon is connected, and flexible connections between the respective drums and the ends of the core of said solenoid whereby said solenoid will rotate said drums in either direction.

2. In an electric signaling device, a sectional solenoid having a core movable in either direction from one section to another by the energization of said sections, a flexible ribbon having a plurality of signals, drums to which the respective ends of said ribbon are connected, flexible

connections between the respective drums and the ends of the core of said solenoid whereby said drums may be rotated in either direction, and illuminating means for said signals.

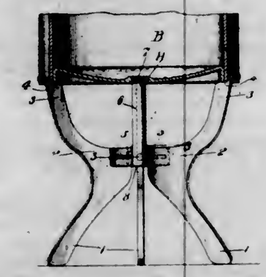


3. In an electric signaling device, a sectional solenoid having a core movable in either direction from one section to another by the energization of said section, a pair of drums, flexible connections between the drums and the ends of the core of said solenoid whereby said drums may be rotated in either direction, a flexible ribbon on said drums having a plurality of signals thereon, and means for maintaining said ribbon taut.

4. In an electric signaling device, a sectional solenoid together with means for energizing the respective sections to cause the core thereof to move in either direction from one section to another, a pair of drums, a ribbon on said drums having a plurality of signals, sprocket wheels connected to the respective drums and a sprocket chain connected to the respective ends of the core of said solenoid and passing over said sprocket wheels to form an endless driving connection whereby said drums may be rotated in either direction.

5. In an electric signaling device, a sectional solenoid together with means for energizing the respective sections thereof to cause the core of said solenoid to move in either direction from one section to another, a pair of drums, a flexible ribbon having a plurality of signals on said drums, a sprocket wheel connected to each drum, a pair of idle sprocket wheels, and sprocket chains passing about the respective sprocket wheels and connected to the respective ends of the core of said solenoid to form a continuous driving connection whereby the drums may be rotated in either direction.

1,240,648. BOILER-STAND. WILLIAM D. BANKS, Clarksburg, W. Va. Filed Nov. 21, 1916. Serial No. 132,646. (Cl. 248—41.)



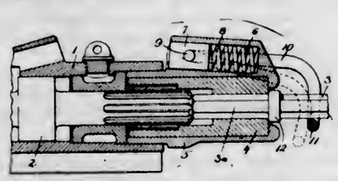
1. A boiler stand comprising a plurality of legs, each having an inwardly projecting knee provided with a slot, a tubular stem adapted to be tapped into the lower end of the boiler and having a plurality of laterally projecting wings adapted to lie along-side said knees, means for connecting the drain pipe with said stem, and a bolt through each wing and the slot of the contiguous knee.

2. A boiler stand comprising a plurality of legs, each having an inwardly projecting knee provided with a slot, a tubular stem adapted to be tapped into the lower end of the boiler and having a plurality of laterally projecting wings adapted to lie alongside said knees and each provided with a slot standing at right angles to that in the knee, and a bolt through the slot in each wing and the slot in the knee adjacent.

3. In a boiler stand, the combination with a plurality of legs each having a foot at its lower end, an arm at its upper end shouldered at its upper extremity, and an inwardly projecting knee between these elements; of a tubular stem whose upper end is adapted to be tapped into the lower end of the boiler and whose lower end is provided with a plurality of radially projecting wings and a series of outlet holes between the latter, and adjustable connections between each knee and the contiguous wing, for the purpose set forth.

4. In a boiler stand, the combination with a plurality of legs, each having an inwardly projecting knee provided with an upright slot; of a tubular stem threaded at its upper end and adapted for connection with the lower end of the boiler and having at its lower end a plurality of radially projecting wings each provided with a horizontal slot and a series of differently sized holes between said wings, and bolts whereof each passes through a slot in one wing and the slot in the knee adjacent, for the purpose set forth.

1,240,649. TOOL-RETAINER FOR HAMMER-DRILLS. LEWIS C. BAYLES, Easton, Pa., assignor to Ingersoll-Rand Company, Jersey City, N. J., a Corporation of New Jersey. Filed Jan. 30, 1917. Serial No. 145,410. (Cl. 121—26.)



1. In a tool retainer of the class described, a tool, a yoke for limiting the forward movement of said tool, two side arms extending back from said yoke and pivotally engaging resilient means contained within the front head of the machine for resisting the forward movement of the yoke and side arms.

2. In a tool retainer of the class described, a tool having a collar on its shank, a yoke movable into and out of engagement with said collar, side arms extending back from said yoke and pivotally engaging a plunger, and resilient means contained within the front head of the machine for resisting the forward movement of the yoke, side arms and plunger.

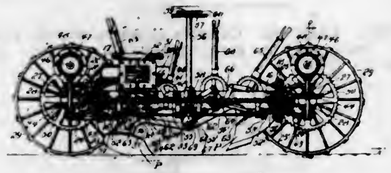
3. In combination with a hammer drill having a front head, a collared drill steel, a yoke adapted to engage said collar when said drill steel is forced forward, said yoke having two side arms extending back to and pivotally engaging resilient means within said front head to resist the forward movement of said yoke and side arms.

4. In a pneumatic tool having a front head, a cylinder mounted upon said front head, a plunger slidable within said cylinder and side arms pivotally connecting said plunger to a yoke embracing a drill steel inserted in said front head.

5. In a pneumatic tool having a front head, a cylinder mounted upon said front head, a plunger slidable within said cylinder, lugs mounted on the outside of said cylinder and side arms connecting said plunger to a yoke embracing a drill steel inserted in said front head, said lugs retaining said side members and yoke in operative and inoperative position.

[Claims 6 and 7 not printed in the Gazette.]

1,240,650. FARM-TRACTOR. ROBERT R. BEATTY, Sarver, Pa. Filed Oct. 29, 1915. Serial No. 58,671. (Cl. 21—114.)



1. In a machine of the class described, disks mounted on the ends of the frame, axle carrying fork members having disks connected with the first mentioned disks, one of said fork members being supported for rocking movement about the axis of the disk, a main shaft extending longitudinally through the frame and through the axle supporting members at the ends thereof, shafts supported vertically in the respective fork members, ground wheel carrying axles mounted on the vertical shafts for horizontal swinging movement, means for driving and for reversing the main shaft, and means for transmitting motion from the main shaft to the ground wheels on the respective axles, said means including counter shafts and differential gears.

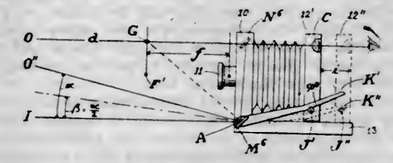
2. In a machine of the class described, disks mounted on the ends of the frame, axle carrying fork members having disks connected with the first mentioned disks, one of said fork members being supported for rocking movement about the axis of the disk, a main shaft extending longitudinally through the frame and through the axle supporting members at the ends thereof, shafts supported vertically in the respective fork members, ground wheel carrying axles mounted on the vertical shafts for horizontal swinging movement, means for driving and for reversing the main shaft, and means for transmitting motion from the main shaft to the ground wheels on the respective axles, said means including counter shafts and differential gears, each axle being provided with a toothed sector; and steering gear including independently operable pinions engaging the toothed sectors.

3. In a machine of the class described, disks mounted on the ends of the frame, axle carrying fork members having disks connected with the first mentioned disks, one of said fork members being supported for rocking movement about the axis of the disk, a main shaft extending longitudinally through the frame and through the axle supporting members at the ends thereof, shafts supported vertically in the respective fork members, ground wheel carrying axles mounted on the vertical shafts for horizontal swinging movement, means for driving and for reversing the main shaft, and means for transmitting motion from the main shaft to the ground wheels on the respective axles, said means including counter shafts and differential gears, each axle being provided with a toothed sector; and steering gear including independently operable pinions engaging the toothed sectors, and means for independently actuating said pinions including a tubular steering post, an auxiliary steering post extending therethrough, and hand wheels at the upper ends of the two steering posts.

4. In a machine of the class described, a main frame, fork members mounted on the ends thereof, a main shaft extending longitudinally through the frame and the fork members, means for driving and for reversing said shaft, vertical shafts supported for rotation in the fork members, ground wheel carrying axles supported for horizontal swinging movement about the axes of the vertical shafts, and means for transmitting motion to the ground wheels from the main shaft and through the vertical shafts, said means including counter shafts supported above the planes of the respective axles and equipped with differential gears.

5. In a machine of the class described, a main frame, fork members mounted on the ends thereof, a main shaft extending longitudinally through the frame and the fork members, means for driving and for reversing said shaft, vertical shafts supported for rotation in the fork members, ground wheel carrying axles supported for horizontal swinging movement about the axes of the vertical shafts, and means for transmitting motion to the ground wheels from the main shaft and through the vertical shafts, said means including counter shafts supported above the planes of the respective axles and equipped with differential gears, in combination with means whereby the axles may be independently swung about the axes of the vertical shafts.

1,240,651. FOCUSING-CAMERA. JOSEPH BECKER, Washington, D. C., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York, Original application filed Aug. 11, 1900, Serial No. 26,647. Divided and this application filed Mar. 24, 1916. Serial No. 86,366. (Cl. 95—44.)



1. The combination with a photographic camera comprising relatively movable parts adapted to be relatively moved to set the camera in focus on an object point of the camera field; of an auxiliary optical focuser, for said camera, comprising means for sighting convergingly from two laterally separated points of such focuser at the same said object point of the camera field; said focuser comprising also relatively movable parts that are adapted to be moved to change the relative inclination of the said sighting directions; structural connections between the said relatively movable focuser parts on the one hand, and the said relatively movable camera parts on the other hand, to insure that to each relative position of the said camera parts shall correspond only one relative inclination of the said sighting directions; said structural connections comprising an abutment on one of said relatively movable camera parts and an arm pivotally mounted on the other of said relatively movable camera parts; said arm having a non-radial cam edge adapted to have combined sliding and rotating engagement with the said abutment.

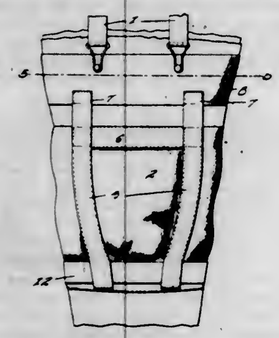
2. The combination with a photographic camera comprising relatively movable parts adapted to be relatively moved to set the camera in focus on an object point of the camera field; of an auxiliary optical focuser, for said camera, comprising means for sighting convergingly from two laterally separated points of such focuser at the same said object point of the camera field; said focuser comprising also relatively movable parts that are adapted to be moved to change the relative inclination of the said sighting directions; structural connections between the said relatively movable focuser parts on the one hand, and the said relatively movable camera parts on the other hand, to insure that to each relative position of the said camera parts shall correspond only one relative inclination of the said sighting directions; said structural connections comprising an abutment on one of said relatively movable camera parts, and an arm pivotally mounted on the other of said relatively movable camera parts; said arm having a non-radial cam edge adapted to have combined sliding and rotating engagement with the said abutment as the said relatively movable camera parts are relatively moved; said different camera and focuser elements being proportioned and arranged to secure exact correspondence between the camera and the focuser for two different distances of the said object point.

3. The combination with a photographic camera comprising relatively movable parts adapted to be relatively moved to set the camera in focus on an object point of

the camera field; of an auxiliary optical focuser, for said camera, comprising mirrors for sighting convergingly from two laterally separated points of such focuser at the same said object point of the camera field; said focuser comprising also relatively movable parts that are adapted to be moved to change the relative inclination of the said sighting directions; structural connections between the said relatively movable focuser parts on the one hand, and the said relatively movable camera parts on the other hand, to insure that to each relative position of the said camera parts shall correspond only one relative inclination of the said sighting directions; said structural connections comprising an abutment on one of the said relatively movable camera parts; an arm pivotally mounted on the other of said relatively movable camera parts and having a cam edge adapted to have combined sliding and rotating engagement with said abutment so that to each relative position of the said camera parts shall correspond one, and only one, inclination of the said pivoted cam arm; said pivoted cam arm being, moreover, composed of elements whose relative position may be changed to permit of changing the correspondence that exists between the focusing displacements in the said camera and the sighting inclinations in the said focuser as required to suit the particular camera lens used.

4. The combination with a photographic camera comprising a support for the camera lens, a support for the image receiving plane of the camera and guides that permit of changing the relative position of said two supports as may be necessary to set the camera in focus on an object point of the camera field; of an optical focuser for said camera comprising a mirror pivoted on one of the said two camera supports, an abutment on the other of the said two camera supports and an arm fixed to the said mirror to rotate the same; said arm having a non-radial cam edge adapted to have combined sliding and rotating engagement with the said abutment so that to each relative position of said camera parts shall correspond one, and only one, inclination of the said pivoted cam arm.

1,240,652. HOSE-SUPPORTER. ALICE F. BEEVERS, Cleveland, Miss. Filed Dec. 10, 1915. Serial No. 66,161. (Cl. 241—1.)



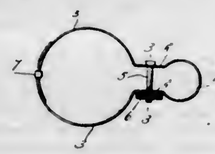
A hose supporter comprising a body, a binding strip at the lower end of said body, edging strips attached to the side edges of the body and extending from the binding strip beyond the upper edge of the body, the binding strip being adapted to surround the limb of the wearer below the knee and to cause the device to frictionally engage the upper end of the stocking, a band attached to the upper end of the edging strips and adapted to encircle the limb of the wearer above the knee, said band being adapted to be attached to an ordinary hose supporter, loops formed at the lower end of the edging strips, attaching tongues attached to one side edge of the body and removably connected to the opposite side edge of the body to cause the device to encircle the limb of the wearer and an auxiliary attaching band adapted to surround the binding strip at the lower edge of the body and extended through the loops.

1,240,653. LADDER. CHARLES E. BELL, Beaver Falls, Pa. Filed Oct. 27, 1916. Serial No. 128,070. (Cl. 228—6.)



A ladder comprising a series of step sections, a bracket having a connection with the step sections and including two parallel horizontally disposed bars each having one end formed into a hook extending in a horizontal direction toward the opposite end of the bar and a second hook pivoted to each bar for vertical movements in a direction toward and away from said first hook and a spring pressed catch for locking said last hook in a vertical extending position.

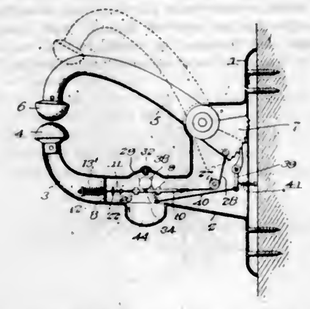
1,240,654. CANDLESTICK-HOLDER. VASCO BELLODI, Sunlight, Colo. Filed Nov. 29, 1915. Serial No. 64,131. (Cl. 67—23.)



A device of the class described formed from a single strip of material bent intermediate its ends to form a receiving socket, spaced parallel arms forming extensions in said socket and provided with alined openings, one of which is squared, the portions of the strip contiguous to said arms and forming the ends of said strip being bent to provide semi-circular arms for embracing a lamp, a bolt extending through said openings and transversely of the first named arms and having a squared head in engagement with said squared opening, and a nut threaded on said bolt and disposed between the said socket and the adjacent one of the second named arms when in fastening position against the adjacent one of the first named arms.

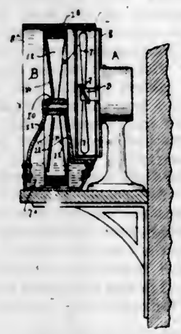
1,240,655. COMBINATION-RACK. CHARLES BENSON, Coscob, Conn. Filed May 1, 1915. Serial No. 25,322. (Cl. 45—13.)

In a rack having a fixed arm, a pivoted arm on the body portion, a barrel turnably mounted in the fixed arm, a lever engageable with the barrel and adapted to be swung by the barrel as the barrel is turned, means engaging the pivoted arm to lock the same in a closed position with relation to the fixed arm and being operatively connected with the lever, and a spring actuated means adapted to swing the pivoted arm from a closed to an open position when the same is released and including



means for returning the barrel to its normal position when the pivoted arm is closed.

1,240,656. AIR AND TEMPERATURE MODIFYING MEANS. FRANK V. BENSON and ROBERT SANDSTROM, Los Angeles, Cal., assignors of one-fourth to Harry I. Thompson and one-fourth to N. Herman Cederquist, Los Angeles, Cal. Filed May 26, 1914. Serial No. 841,072. (Cl. 261—92.)



1. Air and temperature modifying means, comprising means for providing air in motion, rotative means disposed in the path of such moving air, and a liquid container which said rotative means enters in part during rotation; said rotative means comprising a plurality of buckets, and liquid-conducting surfaces extending between said buckets athwart the air currents and permeable to air; said surfaces extending each unbrokenly between the respective buckets with which it is connected and causing rotation of said rotative means by impingement of air currents thereon.

2. Air and temperature modifying means, comprising means for providing air in motion, rotative means disposed in the path of such moving air, and a liquid container which said rotative means enters in part during rotation; said rotative means comprising a plurality of buckets, and liquid-conducting surfaces extending between said buckets athwart the air currents and permeable to air; said surfaces extending each diagonally between the respective buckets with which it is connected and causing rotation of said rotative means by impingement of air currents thereon.

3. Air and temperature modifying means, comprising means for providing air in motion, rotative means disposed in the path of such moving air which is directed axially of said rotative means, and a liquid container which said rotative means enters in part during rotation; said rotative means comprising a plurality of buckets, and liquid-conducting surfaces extending between said buckets and permeable to air; all of said buckets being perforated at the sides thereof next adjacent to said surfaces.

4. Air and temperature modifying means, comprising means for providing air in motion, rotative means disposed in the path of such moving air which is directed axially of said rotative means, and a liquid container which said rotative means enters in part during rotation; said rotative means comprising a plurality of buckets, and liquid-conducting surfaces extending between said buckets and permeable to air; all of said buckets being perforated at the sides thereof next adjacent to said surfaces, and each of said buckets being likewise provided with a channel directing liquid toward such perforated bucket portion.

5. Air and temperature modifying means, comprising means for providing air in motion, rotative means disposed in the path of such moving air, and a liquid container which said rotative means enters in part during rotation; said rotative means comprising a plurality of radial buckets, and liquid-conducting surfaces extending between said buckets and in the plane of all the buckets and permeable to air; all of said buckets being perforated at the sides thereof next adjacent to said surfaces, and each of said buckets being likewise provided with a diagonal channel directing liquid toward such perforated bucket portion.

[Claims 6 to 11 not printed in the Gazette.]

1,240,657. BOTTLE-OPENER. LESTER W. BOLICK, Newton, N. C. Filed Dec. 13, 1916. Serial No. 136,805. (Cl. 65—47.)

1. A bottle cap remover embodying a yieldably mounted plunger, means for depressing the plunger against the cap to loosen the latter on the bottle, and means for automatically engaging the cap when the plunger is depressed, and releasing said cap with the return of the plunger to normal position.

2. A bottle opener embodying a yieldably mounted plunger, means for depressing the plunger against the cap to loosen the same on the bottle, a plurality of pivotally mounted cap engaging members automatically operable to engage the cap when the plunger is depressed, and means operable with the return of the plunger to normal position to adjust said members to effect a release of the cap.

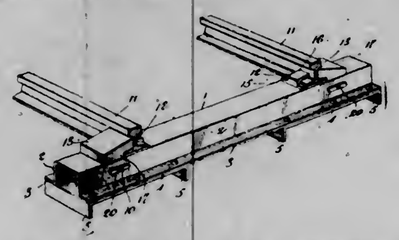
3. A bottle cap remover embodying a yieldably mounted plunger, means for depressing the plunger against the cap to loosen the same on the bottle, a plurality of pivotally mounted hook like elements adapted to automatically engage the cap when the plunger is depressed, and means carried by the plunger to coöperate with means on said members to automatically extend the latter to release the cap with the return of the plunger to normal position.

5. A bottle opener embodying a yieldably mounted plunger, means for depressing the plunger against the cap to loosen the same on the bottle, a plurality of hook like members pivotally mounted about said plunger, means operable with the depression of the plunger to contract said members and bring the latter into engagement with the cap, a collar fixed upon the plunger, and said members having portions disposed in the path of movement of the collar whereby said members are extended to release the cap with the return of the plunger to normal position, and to hold said parts extended.

6. A bottle cap remover embodying means adapted to be brought into engagement with and depressing the cap for loosening the same upon the bottle, and means operable to grip said cap subsequent to the loosening of the latter.

[Claims 4, 7, and 8 not printed in the Gazette.]

1,240,658. RAILWAY CONSTRUCTION. WILLIAM F. BOND, Morrisdale, Pa. Filed Aug. 16, 1916. Serial No. 115,335. (Cl. 238—5.)

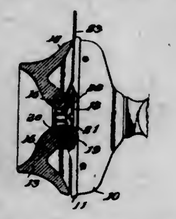


1. The combination with a hollow substantially U-shaped tie having its top provided with slits and its sides provided with registering openings, rails for the tie, and means for securing the rails to the tie, said means including an inner and an outer rail-engaging member, the inner member being constructed from a plate having a reduced offset tongue which is adapted to be passed through one of the slots in the tie and having a rail-engaging lip, the outer rail engaging member having its inner end shaped to be received in the fishing spaces of the rail and having a depending web that is notched below the rail engaging portion of the said member that is adapted to be inserted in the outer slot of the tie, a wedge member passing through the transverse openings in the sides of the tie and through an opening in the web of the outer rail engaging member for moving the said member inwardly of the tie to rail engaging position, and said wedge member being slit and adapted to have its ends bent over the sides of the tie.

2. The combination with a hollow metal tie having its top provided with openings and its sides provided with registering apertures, of means for securing rails upon the said tie, said means including an inner rail engaging member constructed from a flat plate having a reduced outwardly extending tongue that is arranged out of the plane of the plate and which is adapted to be passed through the inner opening in the top of the tie, and an outer rail engaging means having its upper portion of a width approximately equaling the width of the tie and having its inner portion shaped to engage in the fishing space of the rail, said member having its lower face horizontally straight and provided with a depending tongue which projects under its rail-engaging lip, said tongue having an opening, a slit wedge-member passing through the apertures in the sides of the tie and through the opening in the web to force the rail engaging member inwardly of the tie toward the rail, and a lug upon the said member adapted to be received in an aperture in the tie.

1,240,659. TELEPHONE-MOUTHPIECE. WILLIAM BOOTH, East Liverpool, Ohio. Filed Sept. 12, 1916. Serial No. 119,744. (Cl. 179—187.)

1. A telephone mouthpiece including a body provided with a sound receiving bowl, a sound post projecting from the inner extremity of the bowl, the bowl being formed with a channel to surround the said post and there being a sound receiving channel formed through the said post to communicate with the bowl, an attaching member for the mouthpiece carried thereby and seated in said first mentioned channel to surround the said post, and a filler between the said member and the post.

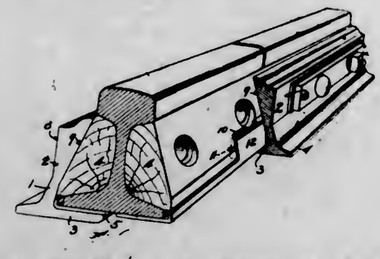


2. A telephone mouthpiece including a body provided with a sound receiving bowl, a sound post arranged at the inner end of said bowl and provided at its outer extremity with a concave sound diffusing face, there being a plurality of sound receiving channels formed through the said post to communicate with the bowl with the said channels converging at their outer extremities toward the axis of the post to emerge through the central portion of the said sound diffusing face, and an attaching member for the mouthpiece carried by the said bowl.

3. A telephone mouthpiece including a body provided with a sound receiving bowl, a sound post projecting from the inner extremity of the bowl, the bowl being formed with a channel to surround the said post and there being a sound receiving channel formed through the said post to communicate with the bowl, an attaching member for the mouthpiece carried thereby and seated in said first mentioned channel to surround the post, and locking means connecting the said member with the bowl and interposed between the member and said post.

4. A telephone mouthpiece including a body provided with a sound receiving bowl, a sound post projecting from the inner extremity of the bowl, the bowl being formed with a channel to surround the said post and there being a sound receiving channel formed through the said post to communicate with the bowl, an attaching member for the mouthpiece carried thereby and seated in said first mentioned channel, and means interposed between the said member and the post for reinforcing the post.

1,240,660. INSULATED RAIL-JOINT. BANCROFT G. BRAINE, New York, N. Y., assignor to The Rail Joint Company, a Corporation of New York. Filed June 20, 1917. Serial No. 175,946. (Cl. 239—5.)



1. An insulated rail joint including the rail, a filler block, and the joint bar, of an insulation plate having an interlocked engagement with one of said parts to prevent longitudinal displacement.

2. An insulated rail joint including the rail, a filler block, and a joint bar clampingly engaging the filler block, and an insulation plate having a direct interlocked engagement with one of said parts and held so interlocked by the engagement of the bar with the block.

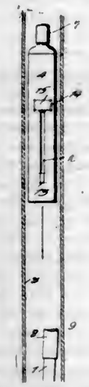
4. An insulated rail joint including a filler block having a shouldered recess, and an insulation plate having a member held in locked position within the said recess.

9. An insulated rail joint including the rail, a filler block having a recess below the bolt holes, a shoe angle, and a base section of insulation having an upstanding tongue interlocked with said recess.

10. An insulated rail joint including the rail, a filler block having a recess below the bolt holes, a shoe angle, and a base section of insulation confined within the shoe angle and having an upstanding tongue held in locking position within said recess by the shoe angle.

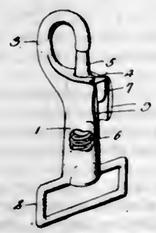
[Claims 3 and 5 to 8 not printed in the Gazette.]

1,240,661. FISHING-TOOL. HARRY C. BREWSTER, Shreveport, La. Filed Nov. 11, 1916. Serial No. 130,777. (Cl. 57—9.)



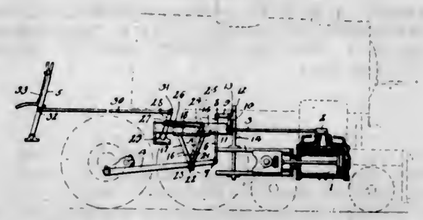
A device of the character specified, comprising a substantially cylindrical casing having its bore enlarged at one side of the casing and forming a shoulder at the lower end of the enlarged portion, a latch plate mounted to slide longitudinally of the casing at the opposite side from the shoulder and extending into the path of movement of the entering tool to cause the plate to be lifted by the tool, said latch plate in its lowermost position being at approximately the level of the shoulder, the lower end being beveled to move the tool laterally when it has entered the casing to cause the tool to engage the shoulder and to permit the latch plate to drop to the level of the shoulder to support the tool, said casing being of a length to receive the coupling of the tool to pass above the shoulder, and the sliding movement of the latch plate being sufficient to permit the said coupling to pass above the shoulder without interference from the latch plate.

1,240,662. SNAP-HOOK. CLAUDE A. BRISLAWN, Sprague, Wash. Filed Nov. 25, 1916. Serial No. 133,439. (Cl. 24—239.)



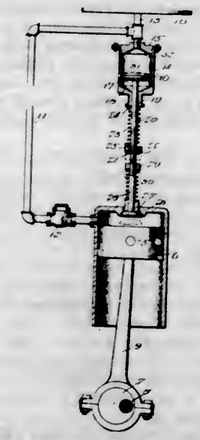
A snap hook having a tubular shank provided with a slot, a bolt having a button arranged to operate in the slot and guard flanges extending outwardly from the shank, arranged at opposite sides of the slot and protecting the button from contact with objects, said guard flanges being curved transversely and being provided with curved outer edges.

1,240,663. REVERSING VALVE-GEAR. JOEL E. BROGDON, Montgomery, Ala., assignor of one-fourth to Archibald H. Arrington, Montgomery, Ala. Filed Aug. 27, 1915. Serial No. 47,626. (Cl. 121—97.)



In reversing valve gear for steam engines, the combination of a one-piece eccentric rod, slide valve rod, a fulcrum support embodying parallel bars in spaced relation to each other, a single transmission hanger pivotally connected at one end to the eccentric rod, a bell crank connecting the transmission hanger with said valve rod, a stationary U-shaped radius fulcrum bar bracket embodying laterally spaced side portions fastened to the parallel bars of the fulcrum support, an inverted substantially U-shaped radius fulcrum bar having the extremities of both arms thereof pivotally connected to said bracket near the lower end thereof and also having an upstanding arm rising above the fulcrum of the radius hanger, a radius hanger pivotally connected at its upper end to and working between the arms of said fulcrum bar and pivotally connected at the lower end to said eccentric rod, and a reversing lever operatively connected with said upstanding arm of the radius fulcrum bar.

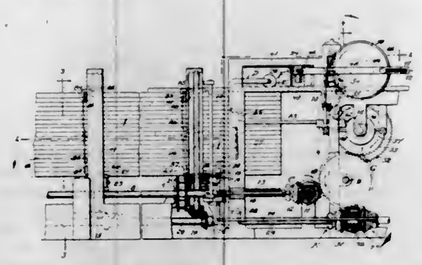
1,240,664. UNLOADING-VALVE. EARL WILLIAM BROWN, Anacortes, Wash. Filed June 14, 1915. Serial No. 34,048. (Cl. 230—24.)



In a device of the class described the combination with an air tank and an air pump adapted to compress air within the tank, of an auxiliary cylinder communicating with the air tank and having its opposite ends provided with ground valve seats, a piston mounted for reciprocation in the cylinder and adapted to be controlled by the

pressure of air in the tank, said piston having its opposite faces ground whereby to snugly seat against one of the valve seats when the piston is at one end or the other of the cylinder, a stem connected with the piston, the inlet valve of the air pump being in alinement with the stem and having a stem adapted to be engaged by the stem of the piston when said piston is shifted outwardly to open the inlet valve of the pump, a spring normally holding the said valve closed, a spring normally maintaining the piston stem in retracted position, and means for varying the tension of the spring.

1,240,665. AUTOMATIC FEEDER FOR MOLDING AND MATCHING MACHINES. JAMES E. BROWN, Brooklyn, N. Y. Filed Mar. 16, 1917. Serial No. 155,200. (Cl. 144—245.)



1. A lumber feeder for woodworking machines, comprising a carrier capable of supporting a plurality of stacks of boards, a driving means, a controllable device for connecting the carrier with the driving means, a stack elevator, a device for intermittently connecting the elevator with the driving means for moving the stack a step at a time equal to the thickness of a board, means for automatically stopping the elevating movement of the elevator when it reaches the limit of its movement in one direction, means for producing a continuous return movement of the elevator and for controlling the said device to automatically operate the pile carrier, and means for automatically controlling the device to stop the pile carrier when the same has moved the next stack of the pile to the elevator.

2. A lumber feeder for woodworking machines, comprising an intermittently movable carrier capable of holding a plurality of stacks of boards, in combination with a stack elevating means comprising screws rotatable intermittently in one direction and rotatable continuously in the opposite direction, and devices movable by the rotation of the screw for elevating a stack intermittently, said devices being returned to normal position by continuous movement.

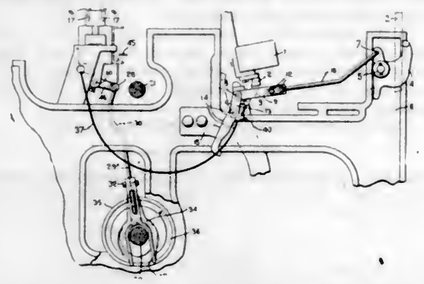
5. A feeder of the class described comprising a carrier capable of supporting and carrying a plurality of stacks of lumber, means for moving the carrier step by step, a stack elevator, separate clutches for operating the elevator, means for feeding the uppermost board of the stack from the latter, and a controller actuated by the feeding of the uppermost board to alternately control the clutches.

12. A feeder of the class described comprising stack elevator movable step by step, means for successively moving stacks to the elevator, and means for automatically engaging and supporting the last board when the elevator reaches the end of its upward movement.

16. A feeder of the class described comprising actuating means having a predetermined feeding movement, gripping jaws moved by the actuating means, and yielding connecting means between the jaws and actuating means, whereby the actuating means can move through their full range before the jaws have finished their feeding movement, whereby the spring means takes the final feeding movement of the jaws.

[Claims 3, 4, 6 to 11, 13 to 15, and 17 not printed in the Gazette.]

1,240,666. WARP STOP-MOTION FOR LOOMS. LOUIS S. BURBANK, Hopedale, Mass., assignor, by mesne assignments, to Draper Corporation, Hopedale, Mass., a Corporation of Maine. Filed Dec. 26, 1914. Serial No. 879,005. (Cl. 139—92.)



1. A loom comprising loom change effecting means; a lay provided with a bunter; a dog connected with the loom change effecting means, mounted on the loom frame, movable into the path of the bunter, and acting when struck by the bunter to actuate the said loom change effecting means; warp failure detecting means; a flexible sheath having its ends secured against longitudinal movement, one adjacent said dog and the other adjacent said detecting means; a flexible core located in, and longitudinally movable with respect to, and laterally supported by, said sheath; and means operated by said detecting means upon detection of a warp failure to transmit a longitudinal thrust to said core and therefrom to said dog to move the dog into the path of the bunter and thus effect the actuation of the loom change effecting means.

2. A loom comprising warp failure detecting means; loom change effecting means; a flexible connector extending between said means and comprising two relatively and longitudinally movable substantially conterminous juxtaposed parts which act to prevent relative transverse movement; and means for operating by or through a longitudinal thrust of one of said connector parts the loom change effecting means upon a detecting action of the warp failure detecting means.

11. A loom comprising loom change effecting means; a lay provided with a bunter, a dog connected with the loom change effecting means, mounted on the loom frame, movable into the path of the bunter, and acting when struck by the bunter to actuate the said loom change effecting means; warp failure detecting means; a flexible connector extending between said dog and said warp failure detecting means and comprising two relatively and longitudinally movable substantially conterminous juxtaposed parts one of which acts to support the other throughout against transverse movement with respect thereto; and means actuated by said detecting means upon detection of a warp failure for moving by or through a longitudinal thrust of the said transversely supported connector part the dog into the path of the bunter and thus effecting the actuation of the loom change effecting means.

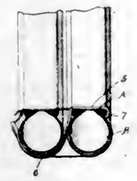
[Claims 3 to 10 and 12 not printed in the Gazette.]

1,240,667. TIRE-BRACKET. DAVID MARION BUTLER, Augusta, Ga. Filed Dec. 18, 1915. Serial No. 67,635. (Cl. 224—29.)

1. As a new article of manufacture, a tire bracket comprising a shank adapted to engage a tire carrying rim and carried thereby, and a tire receiving portion offset with relation to said shank and having a slot adjacent the free end thereof.

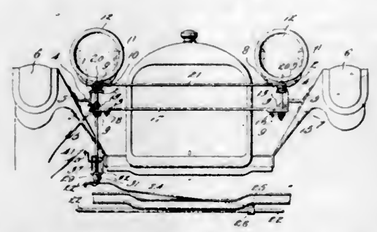
2. As a new article of manufacture, a tire bracket comprising a shank adapted to rest upon a tire carrying rim and carried thereby, a hook on the free end of the shank for engagement with said rim, a tire receiving portion offset relatively to said shank and coöperating with said hook to clamp the bracket upon said rim.

3. As a new article of manufacture, a tire bracket comprising a tire receiving portion having a transverse slot adjacent one end thereof, an integral shank offset relatively to said tire receiving portion, and a hook formed by the free end of said shank.



4. As a new article of manufacture, an auxiliary tire bracket including a shank adapted to be carried by a tire carrying rim, and a tire receiving portion offset relatively thereto and depending therefrom.

1,240,668. DIRIGIBLE HEADLIGHT. FRANK CAMMARATA, Amite, La. Filed Oct. 20, 1916. Serial No. 126,749. (Cl. 240—62.)

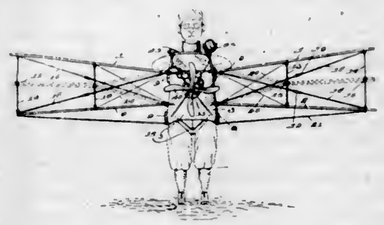


1. The combination with a vehicle head lamp, and a substantially vertical post by which said lamp is carried, of a lamp supporting bracket in which said post is journaled, a lamp turning arm normally loose on said lamp-post, an operating connection between said lamp turning arm and the steering knuckle connecting rod of the vehicle steering mechanism, a latch guide fastened to, carried by and rotatable with said lamp-post, a slidable latch carried by said guide and movable into and out of engagement with said lamp turning arm, and latch operating means.

2. The combination with a vehicle head lamp, and a substantially vertical post by which said lamp is carried, of a lamp supporting bracket in which said post is journaled, a lamp turning arm normally loose on said lamp-post, an operating connection between said lamp turning arm and the steering knuckle connecting rod of the vehicle steering mechanism, a latch guide fastened to, carried by and rotatable with said lamp-post, a slidable latch carried by said guide and movable into and out of engagement with said lamp turning arm, and latch operating means comprising a spring which acts to thrust the latch into engagement with the lamp turning arm, a crank shaft journaled in and carried by the latch guide, and a link connecting the latch with said crank shaft.

3. The combination with a vehicle head lamp, and a substantially vertical post by which said lamp is carried, of a lamp supporting bracket in which said post is journaled, a lamp turning arm normally loose on said lamp-post, an operating connection between said lamp turning arm and the steering knuckle connecting rod of the vehicle steering mechanism, a latch guide having a fixed relation to said lamp-post, a latch guided thereby and movable into and out of engagement with said lamp turning arm, latch operating means, said latch operating means comprising a spring which acts to thrust the latch into engagement with the lamp turning arm, a crank shaft journaled in the latch guide, and a link connecting the latch with said crank shaft, said link also serving to compress the latch thrust spring.

1,240,669. FLYING APPARATUS. ELLIS CAPPS, Forrest City, Ark. Filed Mar. 24, 1917. Serial No. 157,165. (Cl. 244—14.)



1. In flying apparatus, the combination of a jacket adapted to fit around the body of an aviator, supporting and gliding surfaces connected thereto and extending therefrom, directional surfaces in rear of said jacket and connected therewith, propelling means, and means for controlling said directional surfaces.

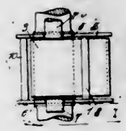
3. In flying apparatus, the combination of a jacket adapted to fit around the body of an aviator, supporting and gliding surfaces connected thereto and extending therefrom, directional surfaces in rear of said jacket and connected therewith, propelling means, and means for controlling said directional surfaces, said supporting surfaces having a detachable connection with said jacket.

7. In flying apparatus, the combination of a jacket adapted to fit around the body of an aviator, supporting and gliding surfaces connected thereto and extending therefrom, directional surfaces in rear of said jacket and connected therewith, propelling means, and means for controlling said directional surfaces, said supporting surfaces embodying upper and lower wings extending in opposite directions, the upper and lower wings being of dihedral formation and inclining reversely to each other.

12. In flying apparatus, the combination of a jacket adapted to fit around the body of an aviator, supporting and gliding surfaces connected thereto and extending therefrom, directional surfaces in rear of said jacket and connected therewith, propelling means, means for controlling said directional surfaces, a tubular tail support extending rearwardly from said jacket and having said directional surfaces connected to and supported thereby, control cables extending from said directional surfaces through said tubular tail support, and cable controlling members supported by said jacket.

[Claims 2, 4 to 6, and 8 to 11 not printed in the Gazette.]

1,240,670. MECHANISM FOR DRAWING FIBERS WITH ENDLESS BELTS. FERNANDO CASABLANCAS, Sabadell, Barcelona, Spain. Filed Mar. 12, 1917. Serial No. 154,357. (Cl. 19—29.)



1. In a drawing mechanism having endless belts of the kind referred to, two metal plates one at each side of the belts to prevent lateral slipping, transversal rods that bind said plates and maintain them separated to a distance corresponding to the width of the belts, said plates resting on the driving rollers of the belts so that they remain in an invariable position, and means fixed in said

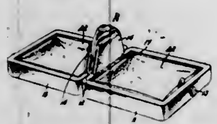
plates to guide the belts forcing them to contact one against the other.

2. In a drawing mechanism having endless belts of the kind referred to, two metal plates separated to a distance corresponding to the width of the belts and placed one at each side of the belts to prevent lateral slipping, transversal rods that connect said plates and hold them at the required distance apart, said plates having the necessary form to rest on the driving rollers of the belts, and having sufficient resting points so that they stay in an invariable position and transversal rods supported by said plates to guide the belts forcing them to contact one against the other.

3. In a drawing mechanism, the combination with an endless traveling belt and another coacting element for receiving the roving and conducting it to the drawing rollers, of side plates to prevent lateral slipping of said belt, means connecting said plates to maintain them separated at a distance corresponding substantially to the width of said belt, said plates having portions for receiving the driving roller of said belt, means extending between said plates for guiding the belt and forcing it into contact with its coacting element, tail pieces on said plates extending between portions of the feeding rollers, and means extending between said tail pieces for guiding the feeding belt and forcing it into contact with its coacting element, substantially as described.

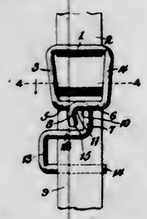
[Claims 3 and 4 not printed in the Gazette.]

1,240,671. CASE FOR JEWELRY. TIBURCE CATALA, New York, N. Y. Filed Apr. 3, 1916. Serial No. 88,632. (Cl. 211—28.)



The herein described jewelry case comprising two relatively movable parts hinged together, a jaw device for holding the jewelry, said jaw device comprising a single strip of sheet material folded transversely along its center so as to bring the two flat portions directly against each other, said flat portions being bent away from each other along lines parallel to the first folding line thereby forming two middle flaps and two end flaps, spring means acting upon the strip so as to hold the two middle flaps toward each other with respect to the first bending line, and flexible strap means connecting the loose ends of the end flaps to the respective case members on opposite sides of the hinge line thereof.

1,240,672. BALE-BUCKLE. HENDERSON P. CHILDRESS, Memphis, Tenn. Filed May 20, 1916. Serial No. 98,902. (Cl. 24—26.)

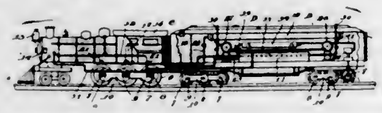


1. A one-piece wire bale buckle, comprising an end bar, two side bars and respective extensions of the side bars overlapping to form another end bar remote from the first end bar, both extensions having their extremities formed into hooks exterior to the buckle and on the side of the entering end of the buckle remote from the first-named end bar, one of the hooks having a prolongation in the form of a side extension and a return thereof in spaced relation to said side extension on the side of the latter remote from the body of the buckle to constitute a non-rendering member to engage the looped end of a bale band applied to the entering end of the buckle.

2. A one-piece wire bale buckle having end and side bars, one end bar comprising the entering end of the buckle and formed by overlapping extensions of the respective side bars with one extension terminating in a hook and the other extension being provided with a hook, said hooks being spaced apart in the direction of the width of the buckle and the ends of the hooks remote from the respective extensions approaching so as to engage and mutually interlock under the pull of the bale band, and the second-named hook having a prolongation in a direction cross-wise of the applied loop of the bale band and constituting a non-rendering member engaging that loop of the bale band applied to the entering end bar of the buckle.

3. A one-piece wire bale buckle having end and side bars, one end bar comprising the entering end of the buckle and formed by overlapping extensions of the respective side bars, one extension terminating in a hook and the other extension being provided with a hook, said hooks being bent away from the entering end of the buckle on the side thereof remote from the other end bar and spaced apart in the direction of the width of the buckle and at the ends remote from the extensions approaching toward each other so as to mutually interlock under the pull of the bale band, the second-named hook having a prolongation extending in a direction cross-wise of that loop of the bale band applied to the entering end of the buckle and having a return portion also extending cross-wise of the applied loop of the bale band and bent with relation to the plane of the body of the buckle and of the extension carrying it to lie on the bale side of the applied loop, whereby said return portion constitutes a non-rendering member for the buckle.

1,240,673. ROLLING-STOCK. CHARLES C. CLARK, Buffalo, N. Y. Filed Oct. 27, 1916. Serial No. 128,090. (Cl. 105—267.)

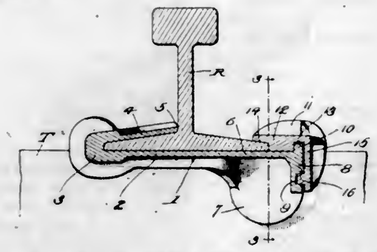


1. A tractor comprising a main section, an auxiliary section detachably connected with the main section, electrically driven motors operatively connected with the drive wheels on said main and auxiliary sections, means for supplying electrical energy to said motors including fluid propelled engines, independent fluid power generating mechanisms carried by each of said sections, and means for conveying fluid power from said mechanisms to said engines either independently or simultaneously.

2. A tractor comprising a main section having steam generating mechanism including a boiler, an auxiliary section connected with said main section to serve as a water reservoir, electrically operated motors operatively connected with the drive wheels of said sections, means for supplying electrical energy to said motors including said steam operated engines carried by said auxiliary section and having connection with the steam dome on said boiler and means for heating and transferring water from said auxiliary section to said boiler.

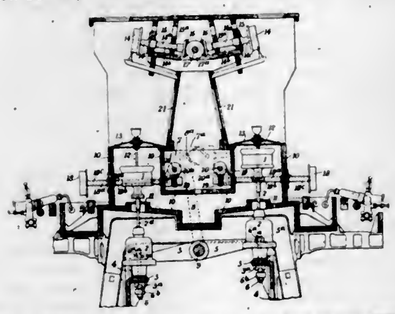
3. A tractor comprising a main section having steam generating mechanism including a boiler, an auxiliary section connected with said main section, electrically operated motors operatively connected with the drive wheels of said sections, means for supplying electrical energy to said motors including fluid operated engines having connection with the steam dome on said boiler, and fuel storage tanks in said auxiliary section having discharge pipes extending beneath said boiler.

1,240,674. RAIL-ANCHOR. CHARLES F. CLAWSON, Mount Pleasant, Iowa, assignor of one-third to John T. Corcoran and one-third to John C. Baker, Mount Pleasant, Iowa. Filed June 15, 1917. Serial No. 174,960. (Cl. 238—4.)



A rail anchor comprising a substantially T-shaped base plate to extend transversely beneath the rail, the free end of the shank of said plate having formed integrally therewith a hook to receive one base flange of the rail, the bill of said hook having a flat wing extending longitudinally therefrom in the plane thereof to overlie said base flange and the outer end of said wing being formed with a straight edge to abut the web of the rail to prevent angling of the base plate beneath said rail, a transverse thrust flange depending from and formed integrally with one end of the head of said base plate to abut a tie, a longitudinal flange depending from and formed integrally with the outer edge of said head and integrally joined at one end to the outer edge of said thrust flange to brace the latter, said longitudinal flange having a groove in its outer face extending throughout its length, a tapered rib on the upper face of said head and extending longitudinally thereof along the outer edge of the same, said rib increasing in size toward said thrust flange, and an elongated wedge member of inverted L-shape in transverse section, the lower side of the horizontal flange of said wedge member having a tapered longitudinal groove receiving said tapered rib and the vertical flange of said member having on its inner face a longitudinal rib received in the groove of said longitudinal flange.

1,240,675. APPARATUS USED IN THE MANUFACTURE OF ARTIFICIAL SILK. JAMES CLAYTON, Coventry, England, assignor to Courtaulds, Limited, London, England. Filed Apr. 18, 1916. Serial No. 91,986. (Cl. 18—8.)

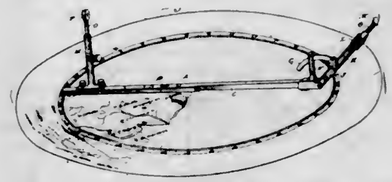


1. In apparatus for use in the manufacture of artificial silk, a spinning box and means for reciprocating the same up and down during the spinning operation.

[Claims 2 to 16 not printed in the Gazette.]

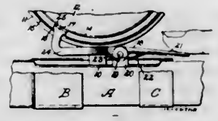
1,240,676. RELIEF-ALIDADE. FREDERICK H. COLBURN, Concord, N. H., assignor, by mesne assignments, to the Government of the United States and the people thereof. Filed July 25, 1916. Serial No. 111,203. (Cl. 33—67.) (Dedicated to the public.)

1. An alidade comprising a base adapted to be revolubly mounted on a drawing board, a tube hingedly connected to one end of said base, adjustable means to hold said tube yieldingly in predetermined inclined relation to said base, said tube being provided with a slot, a sight member slidably mounted in said tube and having a marking device extending through said slot, a second tube adapted to be fixedly secured in different positions on said base, means for detachably securing said second tube in said base, a sight adjustable in said second tube, and means to secure said sight in adjusted position in said second tube.



2. An alidade comprising a base, a front sight pivotally connected to said base, means connecting said base and sight normally to maintain the sight yieldably inclined to the base, and a vertically adjustable rear sight adapted to be fixedly and vertically secured in different positions on said base.

1,240,677. FISHING-REEL. GUSTAV COOK, Gillett, Wis. Filed Apr. 17, 1917. Serial No. 162,609. (Cl. 242—84.5.)



1. A reel and brake therefor including a base, a casing thereon, a spool turning in the casing, annular brake flanges on the spool at the sides extending laterally outward, annular flanges on the sides of the casing extending laterally inward toward each other and disposed outside of the brake flanges to house the latter, said housing flanges having radial openings therein at the under side, a vertically rocking brake pivoted between its ends to the base, the rear end of the brake presenting a thumb plate, a spring acting on the thumb plate to raise the same, the forward end of the brake being forked presenting side arms terminating in upwardly extending members extending directly through the radial openings in the housing flange and provided with brake shoes to bear against the said brake flanges.

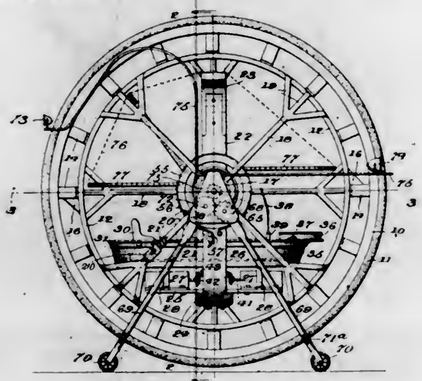
[Claim 2 not printed in the Gazette.]

1,240,678. UNICYCLE. ROBERT F. CORNELL, San Diego, Cal., assignor of one-fourth to Harley Clement Scovel, San Diego, Cal. Filed Oct. 5, 1916. Serial No. 123,980. (Cl. 21—90.)

1. In combination with the carrying wheel of a unicycle, an engine, gearing between the engine and said wheel, a car suspended within the wheel comprising a horizontally extending platform that reaches in front and in rear of a plane passing vertically through the wheel axis and having storage space in its forward part, and a driver seat in its rear part, and means mounted on the car for controlling the running of the unicycle by the engine.

2. In combination with the carrying wheel of a unicycle, an engine, gearing between the engine and said wheel, a car suspended within the wheel comprising a horizontally extending platform that reaches in front and in rear of a plane passing vertically through the wheel axis and having storage space in its forward part, and a driver seat in its rear part, and means mounted on the car for controlling the running of the unicycle by the engine, said engine being situated beneath the car.

3. In combination with the carrying wheel of a unicycle, a car supported within the wheel, an engine bed below the car, a plurality of engines on the bed in a balanced arrangement with reference to a plane passing vertically through the wheel axis shafts driven from the engines extending front and back and situated in a plane at the transverse center of the wheel, driving wheels concentric with wheel axis on opposite sides of the transverse center of the wheel, and gearing, including two upwardly extending shafts, connecting said engine shafts with said driving wheels.

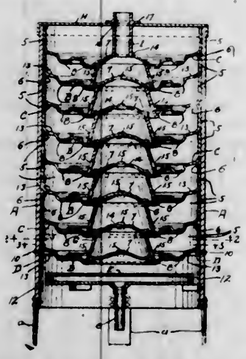


4. In a unicycle, the combination of a carrying wheel having concentric spaced outer and inner rims situated in substantially the same vertical planes, means yieldingly connecting said rims, a pair of wheel hubs, spokes in sets on opposite sides of the wheel which incline from the hub to the inner rim, and a car supported within the wheel between the sets of spokes.

5. In a unicycle, the combination of a main carrying wheel, a pair of alining sleeves on which the wheel is mounted to revolve, a car supported within the wheel, a motor suspended within the wheel below the car, gearing between the motor and the wheel, a spindle passing through each of said sleeves, a crank connecting the spindle within the wheel, pivoted legs outside the wheel, and gearing between the spindle and said legs.

[Claims 6 and 7 not printed in the Gazette.]

1,240,679. STOVE OR HEATER. FRANCIS A. COTTIER, Jr., Cleveland, Ohio. Filed Feb. 5, 1917. Serial No. 146,627. (Cl. 126—85.)



1. In a heater, an upright metal casing, several vertically spaced suitably supported deflector-forming partitions arranged in a substantially horizontal plane internally of the casing and transversely of the heater, and a heating burner arranged under the lowermost partition, said partitions forming internally of the casing a sinuous passageway extending upwardly from below the lowermost partition, the lower of adjacent partitions being provided next internally of the casing with an upwardly projecting circumferential flange supporting the upper of said adjacent partitions.

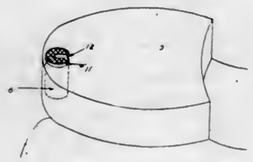
5. In a heater, the combination, with an upright casing, several vertically spaced partitions having each a central opening, several vertically spaced partitions having imperforate central portions and alternating with the first-mentioned partitions, and a heating burner under the lowermost partition, each partition being arranged internally of the casing in a substantially horizontal plane and transversely of the heater, the lowermost partition being one of the second-mentioned partitions, and the space between each of the first-mentioned partitions and the next lower partition being in communication adjacent the casing with the space next below said partition, of a laterally perforated upright tube interposed between the central portions of adjacent partitions.

7. In a heater, an upright casing, several vertically spaced partitions arranged in a substantially horizontal plane internally of the casing and transversely of the heater, and a laterally perforated upright tube interposed between the central portions of adjacent partitions, the upper of said adjacent partitions having a downwardly offset portion embracing the upper end of said tube, and said tube forming with the partitions a sinuous passageway internally of the casing and extending upwardly from below the lowermost partition.

9. In a heater, the combination, with an upright casing, vertically spaced partitions having each a central opening, other vertically spaced partitions having each an imperforate central portion and alternating with the first-mentioned partitions, and a heating burner under the lowermost partition, each partition being arranged internally of the casing in a substantially horizontal plane and transversely of the heater and provided with two spaced annular downwardly offset portions arranged concentrically relative to the casing, the lowermost partition being one of the second-mentioned partitions, and each of the second-mentioned partitions being perforated between its outer downwardly offset portion and the casing, of a laterally perforated upright tube interposed between adjacent partitions and embraced by the inner downwardly offset portion of the upper of said adjacent partitions and seated on the inner downwardly offset portion of the lower of said adjacent partitions.

[Claims 2 to 4, 6, and 8 not printed in the Gazette.]

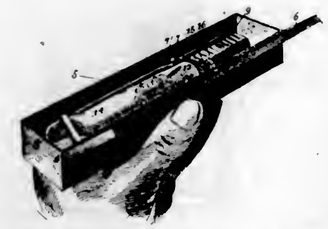
1,240,680. HEEL SCREW OR PROTECTOR FOR FOOTWEAR. ALEXANDER CRAIG, Sydney, New South Wales, Australia. Filed Oct. 13, 1916. Serial No. 125,452. (Cl. 36—73.)



1. A protector for the tread surfaces of footwear, comprising a headless screw adapted to be inserted in a hole formed in the part of the footwear to be protected, said screw being provided with a single longitudinal slot which opens through the outer end of the screw and also opens through one side of the screw for the entire length of the screw, so as to allow a bead of leather to be forced into said slot and to permit the rotation and expansion of the screw by means of a tool introduced into the slot.

[Claim 2 not printed in the Gazette.]

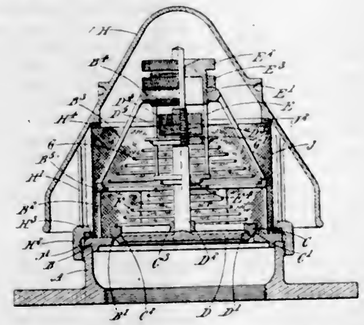
1,240,681. TOOTH-BRUSH AND DENTIFRICE HOLDER. CARL F. CRECELIUS, Falmouth, Ky. Filed Jan. 8, 1917. Serial No. 141,247. (Cl. 206—15.1.)



1. In a device of the character described the combination with a container and a closure therefor, of a clip struck from one of the sides of the container and projecting inwardly and upwardly with respect thereto and leaving an opening in the side of the container of a length equal to the length of the clip, said clip being adapted to engage the handle of a tooth brush so that said opening above and below the handle will be free for ventilating the contents of the container, and a second clip fastened medially of the bottom of the container, said last mentioned clip serving as a fastening means for a dentifrice tube.

[Claims 2 and 3 not printed in the Gazette.]

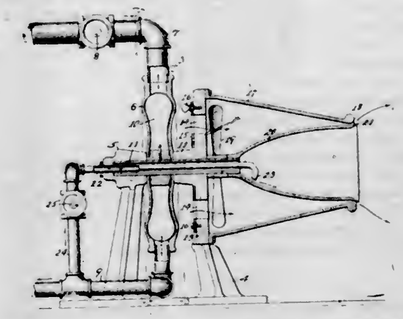
1,240,682. DOUBLE-ACTING VALVE. THOMAS ALBERT CROMPTON, Jr., London, England. Filed May 10, 1917. Serial No. 167,841. (Cl. 137—53.)



7. In a compound double-action valve, the combination of, an annular valve-seat element, an internally flanged and screw-threaded nut for connection to the exterior of the conduit, the valve-seat element having an exterior flange which can bed against the end of the conduit and beg ripped between this and the internal flange of the said nut, the said element further having on that side which is to face away from the conduit a frame supporting a screw-threaded socket whose through axis is situated centrally relatively to the valve-seating, a stirrup having an external screw-thread whereby it is engaged with the aforesaid socket, the cross-piece of the stirrup lying at a point between the said socket and the valve-seat, a valve of the mushroom type mounted concentrically on the valve-seat and having an external sealing-face coöperating with the valve-seat to open outward and an internal sealing face and a through-way provided with a valve-seating on that side which is toward the conduit, a second mushroom-valve mounted concentrically relatively to the first and bedding on this second valve-seating to open inward, said valve having a stem which extends outward perpendicularly from it, passes through the cross-piece of the aforesaid stirrup as a guide and is screw-threaded at its upper end where it receives a nut, a compression-spring operating between the bottom of the stirrup and the outwardly opening valve, a second compression-spring thrust at one end against a support provided for it by the aforesaid socket-carrying frame and controlled at the other end by the nut on the valve-stem, means for locking the nut and the stirrup in any position in which each is set, a domed hood which covers the whole valve-mechanism and is rigidly secured to the flanged nut whereby the annular valve-seat element is secured in place, the base of the hood lying approximately at the same level as this fastening-nut but being of larger diameter and open at the large end to allow free access of air, and a cylindrical gauze screen surrounding the valve-mechanism and having its lower end clamped between the flange of the fastening-nut and the valve-seat element which the nut secures and its upper end bearing against the interior of the domed hood, substantially as set forth.

[Claims 1 to 6 not printed in the Gazette.]

1,240,683. OIL-BURNER. THERON C. CURTISS, San Francisco, Cal. Filed Nov. 29, 1916. Serial No. 134,030. (Cl. 158—77.)



1. An oil burner, comprising a fuel supply pipe, a fuel supply tube, means operable by the fuel from said pipe for atomizing the fuel from said tube by imparting a swirling and centrifugal action thereto, and means operable by the fuel for supplying air under pressure at the mouth of the burner.

2. An oil burner, comprising a revoluble member operated by the fuel, means for delivering the fuel onto the revoluble member to atomize the same, and means also operated by the fuel for supplying air under pressure at the outer end of the revoluble member.

3. An oil burner, comprising a shell open at its forward end, a revoluble bell therein having its open end adjacent the open end of said shell, a fuel supply tube within said bell, a fuel supply pipe, and means operable by the fuel from said pipe for imparting a swirling and centrifugal action to the fuel from said tube.

4. An oil burner, comprising a shell open at its forward end, a revoluble bell therein having its open end adjacent the open end of said shell, controlled means for supplying air to the base of said shell, a fuel supply tube within said bell, and means operable by the fuel supply for revolving said bell.

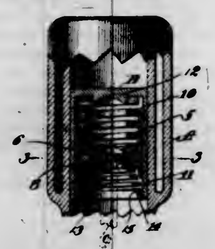
5. An oil burner, comprising a shell open at its forward end, a revoluble bell therein having its open end adjacent the open end of said shell, controlled means for supplying air to said shell, a fuel supply tube within said bell, and means operable by the fuel supply for revolving said bell and for forcing air through said shell under pressure.

[Claims 6 and 7 not printed in the Gazette.]

1,240,684. PISTON-HEAD FOR ENGINES. HUBERT T. DEALY, Alfalfa, Oreg. Filed Feb. 20, 1917. Serial No. 149,901. (Cl. 74—85.)

1. The combination with a piston head, of a floating false piston head slidably fitted therein and having an internal

flange, resilient compression springs disposed at opposite sides of the flange and resting against the same, one of the springs being seated against the closed end of the piston head, means on the piston head for centering the spring resting against the same, and a bearing ring adjustably mounted within the piston head at the open end thereof for the other spring.



3. The combination with a piston head, of a floating false piston head slidably fitted therein and having an internal flange, resilient compression springs disposed at opposite sides of the flange and resting against the same, one of the springs being seated against the closed end of the piston head, means on the piston head for centering the spring resting against the same, a bearing ring adjustably mounted within the piston head at the open end thereof for the other spring, a set screw carried by the bearing ring for locking it in adjusted position, and diametrically opposed lugs on the flange for the pivotal connection of a crank arm therewith, one of the springs being of helical conoidal shape, while the other spring is formed with uniform coils with respect to each other.

[Claim 2 not printed in the Gazette.]

1,240,685. WEATHER-STRIP. ALONZO E. DECKER, Fremont, Ohio. Filed Nov. 27, 1915. Serial No. 63,847. (Cl. 20—68.)

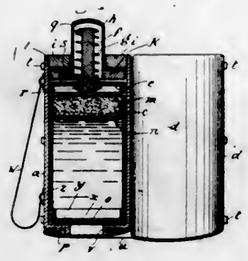


A weather strip comprising in combination a stile grooved throughout its length, a guard plate L-shaped in cross-section having its short limb completely filling said groove and spacing the long limb from the stile, a strip mounted between the long limb and the stile for sliding movement, pins carried by said plate and working in slots in said strip near each end thereof, one of said slots being of greater depth to permit said strip to conform to the warping of the door and springs carried by said strip and working against the short leg of the plate to force the strip tightly against the door when in a closed position.

1,240,686. POCKET LIFE-BUOY. PIERO DE LUCA, Rome, Italy. Filed Jan. 31, 1917. Serial No. 145,792. (Cl. 9—19.)

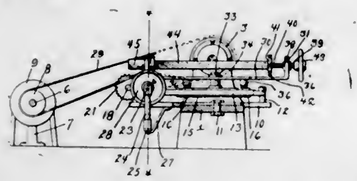
1. In a life-buoy of the type described, a basin containing the gas-producing materials, a membrane for separating the materials, a tube inclosing the basin, an envelop receiving the inflating gas, means for clamping the inlet of the envelop to the tube, and a spring-controlled rod to rupture the membrane.

2. In a life-buoy of the type described, a basin containing the gas-producing materials, a membrane for separating the materials, a tube inclosing the basin, an envelop receiving the inflating gas, means for clamping the inlet of the envelop to the tube, and a spring-controlled rod to rupture the membrane, the gas-producing materials being



calcium hydrid and water whose reaction produces the inflating hydrogen.

1,240,687. STONE-DRESSER. JOHN C. DODSON, Stone Mountain, Ga. Filed Sept. 27, 1916. Serial No. 122,463. (Cl. 51—4.)



1. The combination of a jeweler's lathe adapted to receive a pivot pin in its chuck, of a pivot grinding attachment including a frame plate adapted to be secured to the lathe bed for adjustment in a longitudinal direction, a slide mounted upon the frame plate for movement in a direction transverse of the lathe bed, a frame mounted upon the slide, resilient means for urging the frame in an upward direction, chuck members at opposite ends of the frame, an abrasive element supported at either end in the chuck members and adapted to engage the pivot pin to be ground, means for imparting a reciprocatory movement to the slide, and means for actuating said slide actuating means and the lathe chuck.

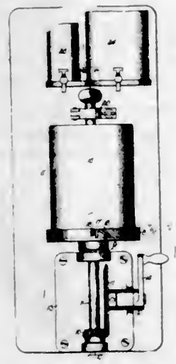
2. A pivot grinding attachment for jewelers' lathes including a frame plate, a slide mounted thereon for reciprocatory movement, a frame mounted on said slide, an abrasive element, means on one end of the frame for receiving one end of the abrasive element, a threaded member mounted in the opposite end of the frame for adjustment in a direction longitudinally of the frame and abrasive element, and means on said threaded element for engaging the other end of the abrasive element.

3. A pivot grinding attachment for jewelers' lathes including a frame plate, a slide mounted thereon for reciprocatory movement, a frame mounted on said slide, a chuck member mounted on one end of the frame including a member formed with a cylindrical recess, a cylindrical block mounted in said recess for rotative and sliding movement, an abrasive element having one end mounted in said block, a spring within the recess element bearing against the block to urge the same in an outward direction, a chuck member on the other end of the frame including a threaded element mounted therein for adjustment in a direction longitudinally of the abrasive element, and a chuck member mounted on said threaded member for receiving the opposite end of the abrasive element.

4. A pivot grinding attachment for jewelers' lathes, including a frame plate, a slide mounted thereon for reciprocatory movement, a frame mounted on said slide, an abrasive element, means on one end of the frame for supporting one end of the abrasive element comprising a recessed member, a block mounted in said member for rotative and reciprocatory movement therein, a spring within the recessed member to urge the block outward, said block having a recess to receive one end of the abrasive element, a threaded member mounted in the opposite end of the frame for adjustment in a direction longitudinally of the abrasive element, one end of said threaded element being bifurcated, a disk member mounted within said bifurcated portion and having a recess to receive the opposite end of the abrasive element, and set screws in said disk member for securing the abrasive element against displacement

5. A pivot grinding attachment for jewelers' lathes, including a frame plate, a slide mounted thereon for reciprocatory movement, a threaded stud mounted on said slide, a frame having a central opening to receive the stud, a nut applied to said stud to secure the frame against dislodgment, sleeves mounted on the under side of the frame at opposite sides of the stud, studs on the slide adapted to enter the said sleeves, coil springs encircling the studs for urging the frame upward, an abrasive element, and means on the slide for supporting said abrasive element.

1,240,688. MAYONNAISE-MIXER. WILLIAM J. DRUCKER, New York, N. Y., assignor to himself and Conrad P. Boss, trading as Drucker and Boss Machine Manufacturing Company. Filed Nov. 16, 1916. Serial No. 131,671. (Cl. 259—88.)



1. A mixer, comprising a support, a vertical shaft mounted in the support, a platform on the upper end of the shaft above said support, a receptacle mounted on and detachably secured to said platform, a beater in the receptacle and having a stem-like member projecting from its upper end, a bracket above the receptacle and having means for removably securing the stem-like member of the beater thereto to hold the beater stationary, and means for operating the said shaft.

2. A mixer, comprising a support, a vertical shaft mounted in the support, a platform secured to the upper end of the shaft and having a peripheral upwardly projecting flange, a receptacle on the platform, means for locking the receptacle to the flange of the platform, a beater in the receptacle, means for suspending the beater in the receptacle, and means for operating the said shaft.

1,240,689. OIL-CAN VENT. THOMAS F. DURNING, Newark, N. J. Filed Mar. 10, 1917. Serial No. 153,839. (Cl. 220—76.)



1. A sheet metal receptacle having a vent opening formed in the top thereof, the wall of said opening being tubular and convexed cross sectional longitudinally thereof, and a closure for the opening flexibly connected to the receptacle, said closure including a circular sealing member, and a resilient member of lesser length than the wall of the opening for engaging the wall to frictionally hold the sealing member in close contact with the outer face of the receptacle adjacent the opening.

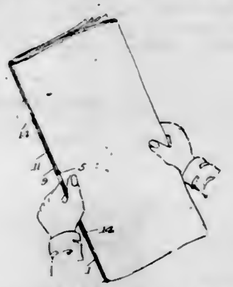
[Claim 2 not printed in the Gazette.]

1,240,690. CONCRETE WALL CONSTRUCTION. LEOPOLD C. EGLOFF, Forest Park, Ill. Filed Apr. 11, 1916. Serial No. 90,344. (Cl. 72—44.)



A concrete wall including front and rear slabs, reinforce bars ranging horizontally in said slabs near the upper and lower edges, and protruding from the inner faces of the slabs near the vertical side edges thereof, the said protruding ends of the said reinforce bars having extensions projecting laterally beyond the said vertical edges and being flattened, the adjacent flattened ends of adjacent bars overlapping each other in horizontal planes adjacent to the inner wall surfaces and formed with alined vertical holes, and U-shaped horizontal bonding members having their ends depending, the depending ends extending through the alined holes of the bars.

1,240,691. PAPER-HOLDER. MENO FEDDERN, Middle Village, N. Y. Filed Jan. 23, 1917. Serial No. 144,007. (Cl. 129—38.)



1. In a newspaper holder of the class described, a pair of inner tubular members, outer substantially U-shaped members telescopically engaging the tubular members, means for limiting the longitudinal movement of the outer members with respect to the inner members, and means for adjustably retaining the outer members adjutsable with relation to the inner members.

2. In a newspaper holder of the class described, inner tubular members comprising each a pair of hinged sections, outer U-shaped members having their legs telescopically received in the tubular members, and means at the joint of the tubular members for holding the said members in alinement and for retaining the said mmbers when folded against each other.

3. In a newspaper holder of the class described, inner tubular members, each comprising a pair of pivoted sec-

tions, spring means upon one of the sections of each of the members engaging with the other section of the said members for retaining the members in alinement and for retaining the members when folded together, outer U-shaped members having their legs telescopically received in the inner tubular members, said legs being notched, and spring catches upon the tubular members disposed to engage with the notches.

1,240,692. FOLDING WICKER CHAIR. JOHN A. FENTON, Oakland, Cal. Filed July 19, 1915. Serial No. 40,576. (Cl. 155—3.)



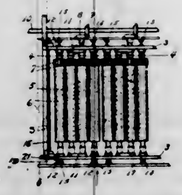
1. A folding wicker chair comprising sides, front, back and seat covered with wicker, said back and seat being removably attached to said front and sides and said sides being foldable on said front portion.

2. A folding wicker chair comprising a base portion, consisting of sides and a front, said sides being foldable on said front, a seat, a back, said seat and back being removably attached to said base portion.

3. A folding wicker chair comprising a front, sides revolubly mounted on said front, a seat, a back, said seat being pivotally secured to said back and said back portion having pins adapted to extend into sockets in said sides, thereby securing said back portion to said sides.

4. A folding chair comprising upright rear supports, each of said supports consisting of an inner member and an outer member, each of said members comprising a short section and a long section, means securing said short sections to the adjacent long sections, a pin and socket joint connecting the abutting end of said sections, a back secured to the long section of the inner of said members, a seat pivotally secured to said back, side members attached to the long section of said outer members and a front member pivotally secured to said sides.

1,240,693. ROLL ADJUSTMENT FOR BEAN-PICKING MACHINES. ALBERT T. FERRELL, Saginaw, Mich. Filed Dec. 29, 1913. Serial No. 809,225. (Cl. 130—18.)



The combination with the main frame of a bean machine, of an inclined roll-supporting frame, means for changing the inclination of said frame, of sets of rolls arranged in pairs, half of said rolls being adjustable and the other half non-adjustable, a gear mounted on one end of each roll adapted to mesh with the next roll of the set, means for imparting movement to one of the non-adjustable rolls of each set, an arm secured to each end of each adjustable roll, a cam-shaft, a link pivotally connecting the arms at the upper ends of the adjustable rolls, each of said arms being connected at one end to said cam-shaft, a link pivotally connected to each arm at the lower end of the adjustable frame, said link being pivotally connected at one end to an adjustable lever, which lever is connected at its lower end to said cam shaft.

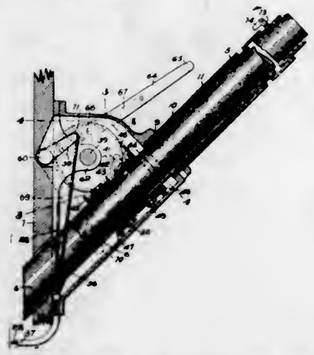
1,240,694. LIPOIDLIKE, BLOOD-CLOTTING SUBSTANCE AND A PROCESS OF MAKING SAME. ANTON FONIO, Langnau, and WILLY FÖHRENBACH, Basel, Switzerland, assignors to Society of Chemical Industry in Basle, Basel, Switzerland. Filed June 8, 1915. Serial No. 32,934. (Cl. 167—7.)

2. The herein described process for the manufacture of a blood-clotting substance consisting in evaporting at a low temperature the greater part of alcohol of an alcoholic blood extract, mixing the residue of the distillation with water, agitating the so obtained emulsion with chloroform, precipitating from the solution in chloroform the therapeutically valuable substance by adding acetone, extracting the precipitate thus obtained with ether and concentrating the resulting solution by evaporting the same *in vacuo*.

4. As a new article of manufacture the herein described new blood clotting, liqoid-like, therapeutically valuable substance derived from blood, constituting a clear-brown to yellowish-white powder and containing carbon, hydrogen, phosphorus and traces of iron, being easily soluble in benzene and carbon tetrachlorid, sufficiently soluble in chloroform, ether, toluene and carbon disulfid, only partly soluble in alcohol with a yellow coloration, insoluble in acetone, soluble in water to colloidal solutions and administered per os or by subcutaneous or intravenous injections.

[Claims 1 and 3 not printed in the Gazette.]

1,240,695. DIRIGIBLE HEADLIGHT. JOSEPH P. FOX, Providence, R. I. Filed Oct. 25, 1913. Serial No. 797,303. (Cl. 240—62.)



1. In combination in a vehicle, a steering gear, a rotatable driving member moving therewith, a dirigible light, a tensile connection between said member and light to cause the former to drive the latter and means whereby to adjust the point of attachment of said connection relative to the axis of rotation of said driving member.

2. A vehicle comprising in combination, a steering gear, shaft, a sleeve turned thereby, a dirigible light, and motion transmitting means between said sleeve and light including a pulley and a flexible element extending from opposite sides of said pulley to the opposite sides of said sleeve.

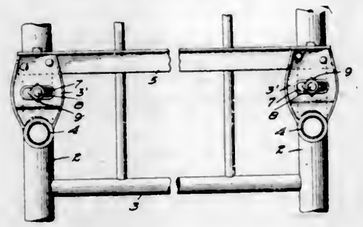
3. A vehicle comprising in combination, a steering gear, shaft, a sleeve turned thereby, a plurality of dirigible lights, and motion transmitting means between said sleeve and said lights comprising a pulley, and a flexible element connecting opposite sides of said pulley and opposite sides of said sleeve.

4. A vehicle comprising in combination, a steering gear, a dirigible light, and means to operate the latter by the former including motion transmitting means, pulleys, a sleeve having rings, connections from said rings to said pulleys, and threaded lock nuts for said rings.

5. A vehicle comprising in combination, a steering gear, a dirigible light, and means to operate the latter by the former including motion transmission means, a pulley, a sleeve having a ring, a connection from said ring to said pulley, and a threaded lock nut for said ring.

[Claims 6 to 19 not printed in the Gazette.]

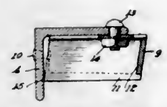
1,240,696. BED-RAIL COUPLING. WILLIAM L. FREDERICKS, Minneapolis, Minn. Filed Sept. 21, 1914. Serial No. 862,639. (Cl. 5—63.)



1. The combination with the tubular end posts and the side rails, of end supporting brackets for the side rails, each consisting of an upright web portion having a centrally disposed transversely extending slot to receive a clamping bolt and provided at its lower end below the bolt opening with a socket to receive the end of the side rail and bear against the end post, a clamping bolt extending from the post and through the transversely extending slot of the web portion and having a nut to secure the bracket, the transversely extending slots of the upright web portions accommodating the supporting brackets and connecting rails to head and foot posts set at greater or less distances apart.

2. The combination with the tubular end posts and the side rails, of end supporting brackets for the side rails, each consisting of an upright web portion having a centrally disposed transversely extending slot to receive a clamping bolt and provided at its lower end below the bolt opening with a socket to receive the end of the side rail and bear against the end post, a clamping bolt extending from the post through the transversely extending slot of the web portion and having a nut to secure the bracket, and adjusting screws threaded in the end posts and having their heads bearing against the upper ends of the brackets.

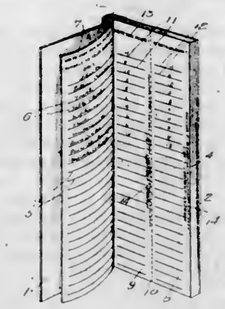
1,240,697. BED-FRAME. WILLIAM L. FREDERICKS, Minneapolis, Minn., assignor to Minneapolis Bedding Company, Minneapolis, Minn., a Corporation. Filed Mar. 29, 1916. Serial No. 87,442. (Cl. 5—64.)



1. A bed-frame having an end rail composed of angle bar material with a horizontal and a vertical flange, a truss bar having its end portions secured to said end rail, a bridge interposed between the middle portion of said truss bar and said angle bar, said bridge having its upper portion seated against the horizontal flange of said rail and secured thereto, and its rear portion bearing against the lower part of the vertical flange of said rail for transmitting the strain of the truss bar thereto.

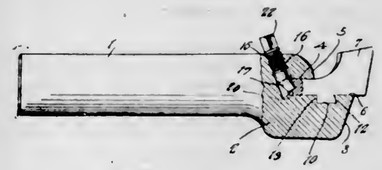
2. In a bed-frame, the combination, with an angle bar end rail having a horizontal and a vertical flange, of a truss bar secured at its ends, a bridge interposed between the middle portion of said truss bar and said end rail and seated against the under surface of the horizontal flange of said rail, the rear end of said bridge being beveled and having its lower edge in contact with said vertical flange below the middle portion thereof.

1,240,698. LAUNDRY-BOOK. WILLARD STANLEY FREEMAN, Richmond, Va. Filed May 14, 1917. Serial No. 168,471. (Cl. 11—19.)



A device of the character specified, comprising a book having fifty-three leaves and a cover, one of the leaves having on the inner face thereof a series of transverse lines forming spaces for receiving a permanent list of articles, and the remaining leaves being divided by vertical lines of partial separation into two detachable portions, said portions having lines registering with the lines of the first leaf for receiving numerals indicating the number of articles for each article in the list on the first leaf, the portions of each leaf bearing the same date, and the leaves being dated corresponding to the weeks of the year.

1,240,699. TOOL-HOLDER. ERWIN S. FREY and ALBERT E. WRIGLEY, Brooklyn, N. Y. Filed May 11, 1916. Serial No. 96,894. (Cl. 29—100.)



1. A tool holder including a body having a head provided with an extension and having a slot at the inner end of the extension, the latter being provided with a transverse groove, a tool having a rib fitted in the groove, said tools being also extended into the slot and an inclined angularly disposed locking screw having a cam arranged to engage the tool and force the rib into tight engagement with the extension, said screw being also adapted to force the cam downwardly against the tool to clamp the same against the head.

2. A device of the class described including a body provided with a head having an extension, said extension being provided with a transverse groove having a dovetailed front wall, a tool having a dove-tailed rib fitted in the said groove, said tool being also provided with a recess and an angularly disposed screw having a cam arranged to engage the recess to force the tool outwardly and downwardly whereby the tool is locked against the head and the rib forced into interlocking engagement with the front wall of the groove.

3. A device of the class described including a body having a head provided with an extension and having a slot

at the inner end thereof, said head being provided with a dove-tailed transverse groove, a tool having a reduced rear portion and fitted in the slot and provided with a bottom transversely disposed dove-tailed rib slidably interlocked with the said groove, said reduced portion being also provided with a recess at the inner or rear edge and an inclined locking screw mounted in the head and having a tapered eccentrically arranged portion forming a cam and arranged to engage in the recess of the tool for forcing the tool outwardly and also downwardly and locking the tool against lateral movement.

1,240,700. INCANDESCENT TUNGSTEN LAMP. ERNST FRIEDERICH, Berlin, Germany, assignor to General Electric Company, a Corporation of New York. Filed June 11, 1913. Serial No. 773,007. (Cl. 176—16.)

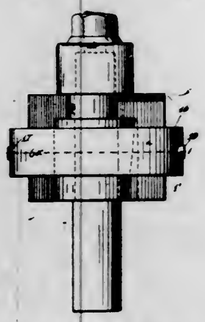
1. An incandescent lamp comprising a sealed envelop, a tungsten filament therein, and a solid oxygen containing compound in the envelop in such a position that the incandescent filament causes said solid compound to evolve in said envelop at a pressure no greater than substantially the pressure of a first-class vacuum an oxygen containing atmosphere which reacts with the vaporized tungsten to form solid and substantially transparent nonvolatile reaction products which do not increase the pressure of the atmosphere in the envelop.

2. An incandescent lamp comprising a sealed envelop, a tungsten filament therein and a solid inorganic compound containing oxygen and positioned in the envelop to be heated by the filament, said compound having at the temperature attained by it during operation of the lamp an oxygen dissociation pressure not greater than substantially the pressure of a first-class vacuum and maintaining during the life of the lamp an oxygen atmosphere at said pressure to react with the vaporized tungsten and form solid substantially transparent and nonvolatile reaction products which do not increase the pressure in the envelop.

3. An incandescent lamp comprising a sealed bulb, a tungsten filament therein, and a solid inorganic compound containing oxygen and decomposable with evolution of oxygen when heated in the lamp by the filament and positioned in the lamp to attain a temperature at which oxygen is evolved at a pressure not greater than that of a first-class vacuum, and is maintained during the life of the lamp to produce with the vaporized tungsten solid substantially transparent and nonvolatile reaction products.

4. An incandescent lamp comprising a bulb, a tungsten filament therein, and barium chlorate positioned in said bulb to attain a temperature at which said barium chlorate evolves an oxidizing atmosphere at a pressure not greater than substantially the pressure of a first-class vacuum.

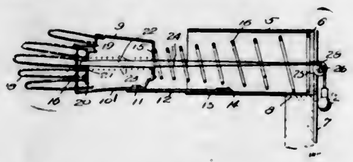
1,240,701. FACING-TOOL. ALEXANDER L. GEITNER, Rochester, N. Y. Filed Apr. 16, 1917. Serial No. 162,548. (Cl. 29—105.)



1. A tool comprising a holder, a shank on one side of said holder, an extension of reduced diameter on the other side of said holder, a bushing carried on the end and overlapping said extension to form a shoulder thereon, slots in said holder, said slots being adapted to receive tools therein, means for independently adjusting said tools in each of said slots, the cutting edge of each of said tools being adapted to project out of said holder and abut against the shoulder formed by said bushing on said extension, clamping means provided on said holder to adjustably clamp each of said tools in said holder.

[Claims 2 and 3 not printed in the Gazette.]

1,240,702. AUTOMOBILE-SIGNAL. EUCLID P. GOODCHILD, Spokane, Wash. Filed Jan. 15, 1917. Serial No. 142,494. (Cl. 116—31.)

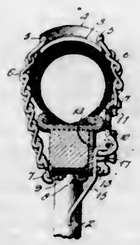


1. A signal for the purpose specified, comprising a cylinder adapted for attachment to a vehicle, a metal frame which is movable into and out of said cylinder, a slidable stop which is operatively connected with the cylinder and said movable frame, fingers secured to the latter and adapted to be projected therefrom to serve as a signal proper, a guide pin held in the movable frame and whereon the said fingers are adapted to slide, a spring applied to said pin and tending to project the fingers forward, another and stronger spring arranged between the cylinder head and movable finger-carrying frame, and means for manually locking and releasing the frame, as shown and described.

2. A signal for the purpose specified, comprising a cylinder adapted for attachment to a vehicle support, a frame slidable therein and having its front end provided with a series of openings, a metal strap passing back and forth through said openings and its convolutions extending forward to serve as a signal proper, and means for projecting the said signal from the cylinder, as described.

3. A signal for the purpose specified, comprising a cylinder, a skeleton frame slidable therein, a cross head slidable in the skeleton frame and having a series of fingers projecting forwardly therefrom to serve as the signal proper, a guide pin fixed in the skeleton frame and whereon the crosa head is slidable, an ejecting spring applied to said pin, and means for projecting and retracting the signal, as shown and described.

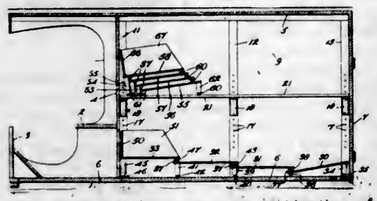
1,240,703. MUD-HOOK CLAMP. CARL C. GRAY, Wapakoneta, Ohio. Filed July 20, 1916. Serial No. 110,291. (Cl. 24—68.)



A tightener for chains and the like comprising a channel plate, a hook, an elbow lever pivoted to the bill of the hook at the junction of the arms of the lever and having one of its arms adapted to engage within the bill of the hook, said arm having outwardly extending pintles, and

the side walls of the channel plate being notched for engagement by the pintles, said channel plate being adapted for connection with one end of the chain and the hook with the other end.

1,240,704. DELIVERY-VEHICLE BODY. ROBERT E. GREENE, Memphis, Tenn. Filed Dec. 2, 1916. Serial No. 134,728. (Cl. 21—7.)



1. In a delivery vehicle body the combination of side walls; vertically disposed supports having perforations associated with said walls; longitudinally disposed tracks associated with said supports and walls; means for adjusting said tracks up and down comprising holding brackets having L-shaped members provided with holding lips; a plurality of trays extending from side to side of said body resting on and movable over said tracks; and means associated with said trays by which they are adapted to nest the one with the other, substantially as described.

3. In a delivery vehicle body the combination of side walls, vertically disposed perforated strips on the inside of said walls; adjustable brackets having members entering the perforations in said strips; tracks supported on said brackets; a plurality of trays provided with front supports resting on and movable over said tracks; extensions on the front edges of some of said trays; supports on the rear edges of the same trays, the said extensions adapted to engage the said last named supports when the series of trays is extended, and the said last named supports of the forward trays adapted to traverse the top surfaces of the succeeding or rear trays when the series of trays are nested, substantially as described.

5. In a nest of trays for use in delivery vehicle bodies, the combination of a plurality of trays; front and rear supports on each tray, the front support of each tray except the last being higher than its own rear support, and higher than the front support of its associated rear or succeeding tray in the series, while the rear support of the last tray is higher than its own front support; and extensions on the front edges of each tray except the first in the series, adapted to engage the corresponding rear supports of preceding trays when the series is extended, and to slide under said preceding trays when the trays are in their nested positions, substantially as described.

[Claims 2 and 4 not printed in the Gazette.]

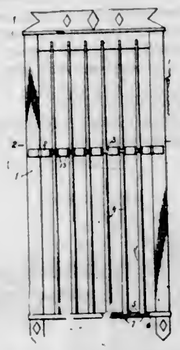
1,240,705. CUE-HOLDER. FRANK P. GRODE, Kansas City, Mo. Filed Oct. 15, 1915, Serial No. 55,971. Renewed Feb. 23, 1917. Serial No. 150,614. (Cl. 46—6.)

1. In a cue holder, two coöperatively connected cue holding members adapted to embrace a cue and movable conjointly to and from the closed position, and means for reliably holding said members releasably in the closed position.

2. In a cue holder, two coöperatively connected cue holding members adapted to embrace a cue and movable conjointly to and from the closed position, and resilient means for reliably holding said members releasably in the closed position.

3. In a cue holder, two pivoted coöperatively connected cue holding members adapted to embrace a cue and movable conjointly to and from the closed position, and means for reliably holding said members releasably in the closed position.

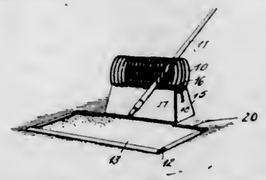
4. In a cue holder, two pivoted coöperatively connected cue holding members adapted to embrace a cue and movable conjointly to and from the closed position, and resilient means for reliably holding said members releasably in the closed position.



5. In a cue holder, two pivoted coöperatively connected cue holding members adapted to embrace a cue and movable conjointly to and from the closed position, and means for reliably holding said members releasably in the open or the closed position.

[Claims 6 to 8 not printed in the Gazette.]

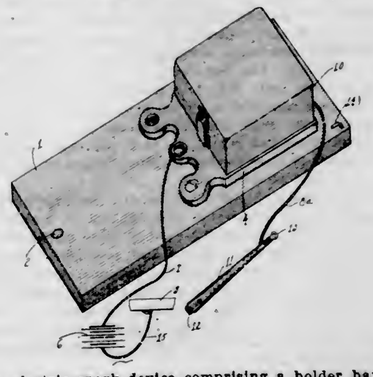
1,240,706. PEN-HOLDER. FRED J. GROPENGIESER, Onida, S. D. Filed May 16, 1916. Serial No. 97,859. (Cl. 120—108.)



2. A combined device of the present character including a pen rack having a body portion, a holder consisting of a plate having pad holding means and having an extension at one side on which the said body of the rack is seated, and having portions bent upwardly around and embracing the sides, ends, and top of the said rack body and a pad carried by said holder at one side of the said rack body and engaged by said holding means.

[Claim 1 not printed in the Gazette.]

1,240,707. ELECTRIC LIGHTER FOR GAS-STOVES. FREDERICK C. GUTENBERGER, Sacramento, Cal. Filed Dec. 6, 1915. Serial No. 65,179. (Cl. 175—91.)



An electric spark device comprising a holder having a threaded recess at one end, a wire embedded centrally

through the holder and terminating at the bottom of the recess, a removable tip threaded into the recess to contact with the wire, said tip having a head by which it may be grasped and unscrewed, said head being smaller than the end of the holder whereby it will not come in contact with the stove when the holder is laid thereon, and means for completing an electric circuit through the wire and tip.

1,240,708. PNEUMATIC PERCUSSIVE TOOL. CHARLES H. HAESELER, Philadelphia, Pa. Filed May 12, 1916. Serial No. 97,014. (Cl. 121—20.)



2. A percussive tool, comprising a one piece casing having a piston chamber, an inlet port at its rear end opening into the rear end of the piston chamber, an inlet port near its rear end leading to the forward end of the piston chamber, a head block having a split sleeve recessed to receive the rear end of the casing and having inlet ports to register with the ports in the casing, the coacting faces of the casing and head block being smooth and unobstructed but provided with a common transversely extending aperture, a locking device in said aperture serving to maintain the register of said ports and to clamp said sleeve to the casing to form a fluid tight joint between its inlet ports, a piston in the piston chamber, and means to alternately admit motive fluid to said inlet ports.

5. In a percussive tool, a head block having a valve cage pocket and means to pass motive fluid thereto, a ported valve cage to fit said pocket and consisting of sections forming a valve chamber, a locking and alining member serving to secure the cage sections together and interlocking with the wall of the valve cage pocket to aline the valve cage, and a valve to control the ports in the valve cage.

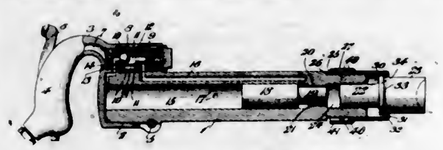
11. A percussive tool, comprising a casing having a piston chamber with exhaust ports, a piston in the piston chamber, means to introduce live motive fluid to opposite ends of the piston chamber, means to reduce the compression at one end of the piston chamber and including a valve actuated in both directions by live motive fluid, and devices to reduce the compression at the outward end of the piston chamber and including a valve actuated in one direction by live motive fluid and in the reverse direction by compression of motive fluid between the piston and the end of the piston chamber.

15. The combination of a casing having ports and passages for the admission and exhaust of motive fluid, a piston reciprocable in the casing, valve mechanism controlling said admission ports and passages, comprising a cage formed in two separable sections, each of which forms a valve seat, one of said sections forming a valve chamber and provided with an annular groove communicating by ports with said valve chamber, a valve in said valve chamber, and means to lock the cage sections together whereby they may be inserted in and removed from place as a unit of structure.

21. The combination of a casing having ports and passages for the admission and exhaust of motive fluid, a piston reciprocable in the casing, valve mechanism controlling said admission ports and passages, comprising a cage formed in two separable sections, each of which forms a valve seat, a valve to control said seats, a locking and alining member to secure the sections together, said casing having a valve cage pocket to receive the valve cage, a cap closing said pocket, and a spring between said valve cage and said cap.

[Claims 1, 3, 4, 6 to 10, 12 to 14, and 16 to 20 not printed in the Gazette.]

1,240,709. PNEUMATIC PERCUSSIVE TOOL. CHARLES H. HAESELER, Philadelphia, Pa. Filed Mar. 20, 1917. Serial No. 155,996. (Cl. 121—20.)

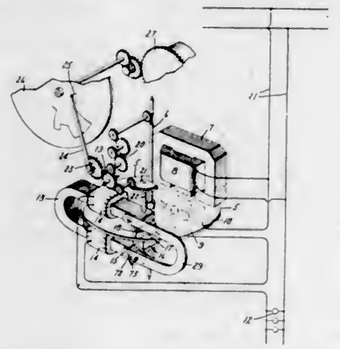


1. The combination with a pneumatic percussive tool having a reciprocating piston, of a working tool adapted to receive the impact of said piston, and means to pass motive fluid to said working tool to retain it beyond the range of said piston when the percussive tool is not in proper working position.

24. The combination with a fluid pressure operative percussive tool, its piston, and its working tool, of a tool retainer for holding said working tool in association with said percussive tool, said working tool being freely slidable in said container and free to vibrate therein, said retainer having means to limit the forward movement of said working tool, and means to utilize live motive fluid during the rear stroke of the piston to retain said working tool in its advance position beyond the range of the piston, said working tool being retained in its advance position beyond the range of the piston during the forward stroke of the latter by compression between said piston and said working tool.

[Claims 2 to 23 not printed in the Gazette.]

1,240,710. POWER-FACTOR METER. CHESTER I. HALL, Fort Wayne, Ind., assignor to General Electric Company, a Corporation of New York. Filed Dec. 5, 1914. Serial No. 875,627. (Cl. 172—245.)



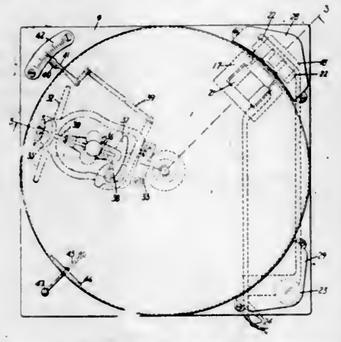
1. A power factor meter comprising means for producing a torque dependent upon the watt-energy flow in an electric circuit and adjustable means for producing a countertorque dependent upon the current flow in the circuit, a movable element adapted to be acted upon by both torques, mechanical means operatively connecting said movable element to said adjustable countertorque producing means whereby movement of said element operates to vary said countertorque, and means for indicating movement of said element.

2. A power factor meter comprising means for producing a torque dependent upon the watt-energy flow in an electric circuit and adjustable means for producing a countertorque dependent upon the current flow in the circuit, a rotatable element adapted to be acted upon by both torques, means including a reduction gear train operatively connecting said rotatable element to said adjustable countertorque producing means whereby said countertorque is varied as a function of the revolutions of said element, and means for indicating rotation of said element.

8. A power factor meter comprising a rotatable disk armature, an induction watt-hour meter element adapted to exert upon said armature a torque dependent upon the watt-energy flow in an electric circuit, an induction motor element of the shaded pole type adapted to exert upon said armature a countertorque dependent upon the current flow in the circuit, said motor element having a movable shading pole whereby the countertorque exerted upon said armature can be varied, gearing operatively connecting said armature to said movable shading pole so that rotation of the armature in one direction increases the countertorque of said motor element and rotation of said armature in the opposite direction decreases the countertorque of said motor element, and means for indicating rotation of said armature.

[Claims 3 to 7 and 9 not printed in the Gazette.]

1,240,711. TALKING-MACHINE. CHESTER I. HALL, Fort Wayne, Ind., assignor to General Electric Company, a Corporation of New York. Filed May 15, 1915. Serial No. 28,319. (Cl. 172—278.)



1. An electrically operated talking machine comprising a rotatably mounted member having a flat circular horizontal surface for supporting a disk record and a continuous band of electrical conducting material depending from the periphery of such circular surface, a magnetic core member having an air gap through which said band is adapted to rotate, and magnetizing coils carried by said core member for producing a shifting magnetic field across said air gap.

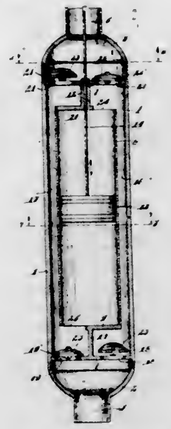
3. An electrically operated talking machine comprising a rotatably mounted member having a flat circular upper surface for supporting a disk record and a continuous band of electrical conducting material depending from the periphery of such circular surface, a magnetic core member having an air gap through which said band is adapted to rotate, an energizing coil mounted on said core member, a substantially non-inductive resistance, and another energizing coil mounted on said core member and connected in series relation with said resistance.

5. An electrically operated talking machine comprising a rotatably mounted member carrying an armature of electrical conducting material and provided with means for supporting a record, a magnetic core member having an air gap through which said armature is adapted to rotate, an energizing coil mounted on said core member so that the greater portion of the flux developed by said coil has a substantially closed magnetic circuit, a substantially noninductive resistance, and another energizing coil mounted on said core member and connected in series with said resistance and having small ohmic resistance as compared with said non-inductive resistance.

7. An electrically operated talking machine comprising a rotatably mounted member carrying an armature of electrical conducting material and provided with means for supporting a record, and electromagnetic means including a magnetic core member energizing coils and an incandescent lamp operatively related to said armature and forming therewith an electric motor of the induction motor type, said incandescent lamp being adapted to provide said electromagnetic means with a substantially non-inductive load and being positioned to illuminate said rotatable member.

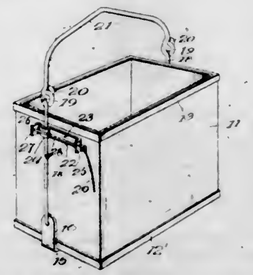
[Claims 2, 4, and 6 not printed in the Gazette.]

1,240,712. DOUBLE-ACTING PUMP. HARRY HAMILTON, Lebanon, Ind. Filed July 30, 1914. Serial No. 854,037. (Cl. 103—76.)



In a device of the kind described, in combination an outer and an inner cylinder, circular plates supported against the opposite ends of said outer cylinder, and having valve controlled ports, a centrally formed diametrical web on each circular plate, the central portion of one web providing a sleeve, semi-circular heads formed at right angles upon each web, the inner cylinder being of such length and diameter as to engage the inner sides of said semi-circular heads so as to be supported against vertical displacement within the outer cylinder, a pair of longitudinally disposed partitions secured upon the inner side of said outer cylinder at diametrically opposite points therein and having concave faces, said inner cylinder engaging the concave faces of said partitions so as to be held against displacement and be positioned concentrically in the outer cylinder, a piston moving in said inner cylinder and a piston rod secured to said piston and projecting through said sleeve.

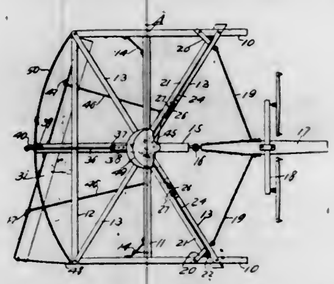
1,240,713. LOADING AND UNLOADING DEVICE. DANIEL G. HARRIS and GARRETT O. MASON, Homer, Nebr. Filed July 17, 1916. Serial No. 109,844. (Cl. 57—13.)



A device of the class described comprising a receptacle open at one end, a lifting member swingingly connected

to the receptacle and including vertical portions, a catch device of resilient material connected near one end to the receptacle and with outturned ends and a curved seat to engage one of the vertical portions of the lifting member, and a pull rod connected to one of the outturned ends of the catch device and slidable through the other outturned end.

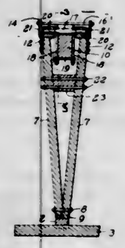
1,240,714. ROAD-DRAG. ALBERT A. HATTON, Halls, Mo. Filed Jan. 12, 1917. Serial No. 142,092. (Cl. 37—42.)



1. A machine of the character described comprising a runner frame, forwardly diverging horizontally disposed cutters, hangers supported on the frame and carrying the cutters, means for adjusting the hangers, an angularly and vertically adjustable scraper supported at the rear end of the frame, means for holding the scraper in adjusted position, a swingle tree pivoted in the frame and trail rods pivotally connected thereto and also loosely connected to the scraper.

2. A machine of the character described comprising a frame having side runners and crossed braces, forwardly diverging front horizontal cutters, hangers for supporting the cutters, means for adjusting the hangers to raise and lower the cutters, a center bar in the frame, draft means connected to the center bar, a hanger arm swingingly supported on the center bar, a rear scraper connected for angular adjustment to the hanger arm, means for raising and lowering the hanger arm and means for holding the scraper in its angularly adjusted position.

1,240,715. SAMSON-POST AND RIG-IRON. CHARLES M. HEETER, Butler, Pa. Filed May 18, 1915. Serial No. 28,989. (Cl. 74—5.)



1. The combination with a samson post consisting of two uprights spaced apart at their upper ends, of alined bearings secured to the uprights and consisting of heads resting on the extremities thereof and provided with journal seats, flanges depending from the heads and secured to the uprights, and journals for a walking beam rotatable in said seats.

2. The combination with a samson post consisting of two uprights spaced apart at their upper ends, of alined bearings secured to the uprights and consisting of heads resting on the extremities thereof, and provided with journal seats, flanges projecting upwardly from the heads, walking beam journals mounted in said seats, and a tie-rod above and paralleling said journals and connecting said upwardly extending flanges.

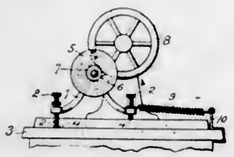
3. The combination with a samson post consisting of two uprights spaced apart at their upper ends, of alined bearings secured to the uprights and consisting of heads resting on the extremities thereof and provided with journal seats, flanges extending upwardly from the outer sides of the heads, the flanges spaced outwardly from the seats, walking beam journals mounted in the seats and having knob-like extremities extending into the spaces between the seats and the upwardly extending flanges, and a tie-rod above and paralleling the journals and secured to the upwardly extending flanges.

4. The combination with a sampson post consisting of two uprights spaced apart at their upper ends, of alined bearings mounted on the uprights, a walking beam journal shaft mounted in the bearings, and enlargements on the extremities of the shaft engaging the outer sides of the bearings, whereby the shaft comprises a tie for holding the bearings from spreading apart.

5. The combination of the main sill of a well rig, a samson post consisting of two uprights secured together at their lower ends and mounted on the main sill as one post, separating means between said uprights intermediate of their ends, forming spaced apart upper ends of said uprights, bearings secured to the separated upper ends of the uprights, connecting means for said separated upper ends of said uprights, a walking beam adapted to oscillate between said uprights, and trunnions projecting from the walking beam and mounted in said bearings.

[Claim 6 not printed in the Gazette.]

1,240,716. GRINDING DEVICE. FRANCIS M. HENSHAW, Oklahoma, Okla. Filed Oct. 6, 1916. Serial No. 124,068. (Cl. 51—7.)

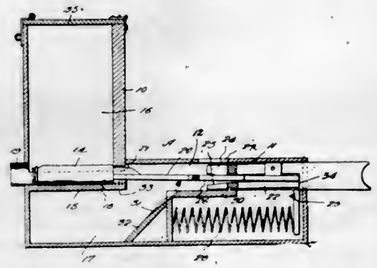


1. In combination, a grinding member, a friction pulley, a shaft carrying said member and said pulley and a support for the shaft adapted to rest on the top of a sewing machine table and to freely slide thereon and to hold the shaft at an elevation such that the point of contact of the sewing machine fly wheel and friction pulley is slightly above the lowest point of the fly wheel, whereby when the fly wheel is rotated in a direction such that any point on its periphery travels from said point of contact downwardly, the pulley will be maintained by friction in contact with the fly wheel.

2. In combination, a frictional driving means, a grinding member carried thereby, and a support on which said driving means is rotatable, said support being adapted to rest on the top of a sewing machine table and to move freely thereon and to hold the driving means at an elevation such that the point of contact of said driving means and the sewing machine fly wheel is slightly above the lowest point of the fly wheel, whereby when the fly wheel is rotated in a direction such that any point on its periphery travels from said point of contact downwardly, the driving means will be maintained by friction in contact with the fly wheel.

1,240,717. VENDING-MACHINE. WILLIAM PRESTON HOLT, Wilson, Ark. Filed Oct. 11, 1916. Serial No. 125,059. (Cl. 194—80.)

1. In a vending machine, a body formed with a column and extension, a partition in the column, for dividing the same into chambers, a delivery trough within the uppermost chamber and terminating in a spout without the body, a bifurcated ejector slide movable within the trough for ejecting articles singly therefrom through the spout, a plunger slidably fitted in the extension and having a bifurcation for receiving a coin to position the same relative to the ejector slide, means for automatically projecting the plunger without the extension, a runway for the coin released by the plunger and slide after the deposit of said coin for delivering the same into the lowermost chamber in the column, and means on the plunger for limiting the outward movement thereof.



2. In a vending machine, a body formed with a column and extension, a partition in the column for dividing the same into chambers, a delivery trough within the uppermost chamber and terminating in a spout without the body, a bifurcated ejector slide within the trough for ejecting articles singly therefrom through the spout, a plunger slidably fitted in the extension and having a bifurcation for receiving a coin to position the same relative to the ejector slide, means for automatically projecting the plunger without the extension, a runway for the coin released by the plunger and slide after the deposit of said coin for delivering the same into the lowermost chamber in the column, and means on the plunger for limiting the outward movement thereof.

3. In a vending machine, a body formed with a column and extension, a partition in the column for dividing the same into chambers, a delivery trough within the uppermost chamber and terminating in a spout without the body, a bifurcated ejector slide within the trough for ejecting articles singly therefrom through the spout, a plunger slidably fitted in the extension and having a bifurcation for receiving a coin to position the same relative to the ejector slide, means for automatically projecting the plunger without the extension, a runway for the coin released by the plunger and slide after the deposit of said coin for delivering the same into the lowermost chamber in the column, means on the plunger for limiting the outward movement thereof, and a transparent panel forming one wall of the column.

4. In a vending machine, a body formed with a column and extension, a partition in the column, for dividing the same into chambers, a delivery trough within the uppermost chamber and terminating in a spout without the body, a bifurcated ejector slide within the trough for ejecting articles singly therefrom through the spout, a plunger slidably fitted in the extension and having a bifurcation for receiving a coin to position the same relative to the ejector slide, means for automatically projecting the plunger without the extension, a runway for the coin released by the plunger and slide after the deposit of said coin for delivering the same into the lowermost chamber in the column, means on the plunger for limiting the outward movement thereof, a transparent panel forming one wall of the column, and an opening cover at the top of the column.

5. In a vending machine, a body formed with a column and extension, a partition in the column for dividing the same into chambers, a delivery trough within the uppermost chamber and terminating in a spout without the body, a bifurcated ejector slide within the trough for ejecting articles singly therefrom through the spout, a plunger slidably fitted in the extension and having a bifurcation for receiving a coin to position the same relative to the ejector slide, means for automatically projecting the plunger without the extension, a runway for the coin released by the plunger and slide after the deposit of said coin for delivering the same into the lowermost chamber in the column, means on the plunger for limiting the outward movement thereof, and a transparent panel forming one wall of the column, said plunger being bifurcated to co-act with the bifurcation in the slide to prevent operation of the latter by the plunger without the deposit of a coin.

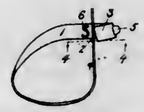
1,240,718. CROSSING-GATE. LEMUEL L. HOOD, Wichita Falls, Tex. Filed May 31, 1917. Serial No. 171,987. (Cl. 268—5.)



1. In combination with a trackway and a gate positioned adjacent thereto, an elongated bar positioned adjacent the trackway and mounted for longitudinal and vertical movements, an operative connection between the bar and the gate whereby said gate is adjusted into a closed position upon movement of the bar in one direction and whereby the gate is adjusted into an open position upon movement of the bar in the opposite direction, means for normally maintaining the bar at the limit of its movement in one direction, a supplemental bar coacting with one end portion of the first named bar, said supplemental bar being mounted for longitudinal and vertical movements and when depressed moving in a direction toward the first named bar and one end portion of the supplemental bar being provided with a longitudinally disposed slot and a laterally directed member carried by the first named bar and seated within the slot of the supplemental bar said slot being of a length in excess of the extent of longitudinal movements of the bars.

2. In combination with a rail of a trackway, clamping members engaged with said rail in longitudinally spaced relation, rock shafts supported by said clamping members, an upstanding rock arm carried by each of the rock shafts, a bar disposed longitudinally of the rail and operatively engaged with the rock arms, means coacting with the rock shafts for constantly urging the rock arms upwardly, a swinging gate positioned adjacent the rail, and an operative connection between the bar and the gate whereby said gate is caused to move into either an open or closed position under the influence of the bar, and an outstanding pin carried by the bar and contacting with one of the rock arms for limiting the upward movement of the bar.

1,240,719. SEAL. RICHARD T. HOSKING, Saginaw, Mich. Filed Dec. 14, 1915. Serial No. 66,698. (Cl. 70—98.)



1. A seal comprising an elongated metal strip having a narrow slit formed near one end, the opposite end of said metal strip inserted in said slit and projecting through said strip, a curved slit formed in said strip, a tongue included within said curved slit, the projecting end of said strip doubled upon itself to form a stop of greater thickness than the width of the slit to prevent withdrawal of the doubled end through the slit.

2. A seal comprising a single strip of metal having a narrow elongated slit formed near one end, the strip being

bent to form a loop and the opposite end of said metal strip inserted in the slit and projecting through said strip, a curved slit formed in said strip, a tongue included within said curved slit, the projecting end of said strip doubled upon itself along a diagonal line across said strip to form a laterally projecting stop of greater thickness than the width of the slit, to prevent withdrawal of said double end through said slit.

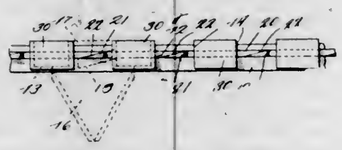
3. A seal comprising a single strip of metal having a narrow elongated slit formed near one end, the strip bent to form a loop and the opposite end of said strip inserted in said slit and projecting through the strip, a slit formed in said strip, to include a tongue, the projecting end of said strip folded back upon itself at the sides of the tongue to form a stop of greater thickness than the width of the slit, to prevent withdrawal of the folded end and tongue through said slit.

4. A seal comprising a single elongated strip of metal having a narrow elongated slit formed near one end, the strip being bent to form a loop and the opposite end of said metal strip inserted in said slit and projecting through said strip, a slit formed in said strip, a tongue included within said slit, the projecting end of said strip folded back upon itself to form a stop of greater thickness than the width of the slit, to prevent withdrawal of the folded end and tongue through said elongated slit.

5. A seal comprising a metal strip having a narrow elongated slit formed near one end, the opposite end of said strip inserted in said slit and projecting through said strip, a curved slit formed in said strip, a tongue, diagonally disposed notches formed in the opposite edges of said strip, the projecting end of said strip folded back upon itself along the line of said notches to form a stop to prevent withdrawal of the folded end and tongue through said elongated slit.

[Claim 6 not printed in the Gazette.]

1,240,720. SICKLE-BAR. CHARLES F. HOVER, Conrad, Mont. Filed Apr. 23, 1917. Serial No. 163,924. (Cl. 56—44.)

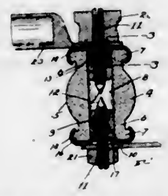


1. In a sickle, the combination with a bar having a longitudinal passage therethrough and a plurality of transverse slots in its upper face with resultant spaced blocks, the front and side walls of which are slantingly undercut with resultant bevels of a plurality of knives each having a transversely reduced stem projecting from its base and slidably fitted between a corresponding pair of blocks and into the side bevels of the latter and having its base at both sides of the stem beveled and fitted to the bevels of the front faces of the blocks, the stem of each knife having a diagonal groove in its under face and a rod slidably mounted in the passage of the bar and having lugs movable with the bar into and out of the grooves of the knife stems, each lug having a rear face diagonally disposed to engage the rear face of the groove of the corresponding knife stem.

[Claims 2 and 3 not printed in the Gazette.]

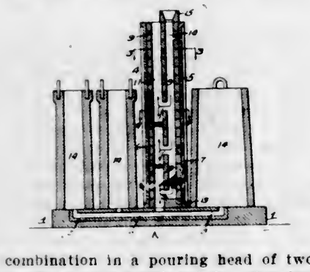
1,240,721. AUXILIARY SPARK-GAP. FRANK F. HULTGREEN, Berkeley, Cal. Filed Nov. 1, 1915. Serial No. 59,025. (Cl. 175—183.)

A device of the character described comprising a transparent body portion having a central axial opening, annular beads formed on the ends of said body, end plates fixedly attached to said body by having their edges rolled around said beads, screw threaded plugs seated within said axial opening, radial slots in the outer ends of said plugs, projecting ribs on said end plates adapted to enter said slots, threaded conducting members extending through said end plates and said plugs and having their inner



ends lying adjacent each other within said opening, and nuts on the outer end of said conducting members whereby said plugs are held against the inside of said end plates.

1,240,722. POURING-HEAD FOR INGOT-MOLDS. CHARLES L. HUSTON, Coatesville, Pa. Filed June 27, 1916. Serial No. 106,159. (Cl. 22—141.)



1. The combination in a pouring head of two vertical channels, one for molten metal and the other for gas, said channels communicating at intervals along their length.

3. The combination with a base plate having passages communicating with a plurality of molds, of a pouring head comprising two vertical channels, one for molten metal and the other for gas, said gas channel communicating directly with said passages and said metal channel communicating with the gas channel at a point above the base plate.

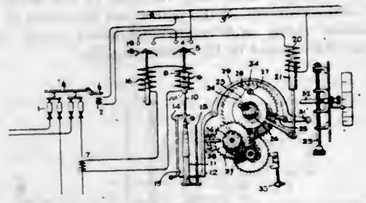
4. The combination with a base plate having passages communicating with a plurality of molds, of a pouring head comprising two vertical channels, one for molten metal and the other for gas, the gas channel descending directly into said base plate passages, the metal channel ending its vertical descent at a point above the base plate, a lateral passage connecting the lower end of the metal channel with the gas channel, and a lateral passage connecting said channels at a point above said first named lateral passage.

6. The combintion in a pouring head, of a casing consisting of two sections having flanges at opposite corners, the flanges being slotted; bolts located in the slots for holding the sections together; a brick lining built in the casing and forming two vertical channels, one channel being greater in diameter than the other; and cross passages connecting the vertical channels between the upper and lower ends of the pouring head.

8. The combination with a base plate of a pouring head comprising a casing made in two parts; a series of molded bricks located within the casing, certain of the bricks having two openings, one opening being of greater diameter than the other, others of the bricks having a large single opening forming a lateral communication between the two vertical channels formed by the other bricks; a base brick having a single opening in line with the large vertical channel and forming an abutment for the molten metal as it flows into the smaller channel, the opening in this last mentioned brick forming a communication between the opening in the vertical channels and the opening in the base plate.

[Claims 2, 5, and 7 not printed in the Gazette.]

1,240,723. TIME-LIMIT RELAY. ERNEST H. JACOBS, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Aug. 22, 1914. Serial No. 858,003. (Cl. 175—270.)



1. A protective device for electric circuits comprising a winding energized by current derived from the circuit to be protected, a freely movable circuit controlling armature normally separated from said winding and unaffected thereby, and a definite time limit mechanism rendered operative in response to abnormal conditions on the circuit to reduce the distance between said winding and said armature at a definite rate which is independent of conditions on said circuit.

2. A protective device for electric circuits comprising a winding energized to an extent dependent upon conditions in the circuit to be protected, a circuit controlling armature normally separated from said winding by an air gap which renders said armature unresponsive to said winding, and a definite time limit actuating mechanism rendered operative in response to abnormal conditions on said circuit to decrease said air gap at a definite and uniform rate which is independent of conditions on said circuit and thereby ultimately renders said armature freely responsive to said winding.

3. In a protective device for electric circuits, the combination with a tripping relay energized by curent derived from the circuit to be protected and normally set to be unresponsive to abnormal conditions in said circuit, of definite time limit mechanism operative in response to abnormal conditions on said circuit to progressively vary the setting of said relay to increase its sensitiveness at a definite and uniform rate which is independent of abnormal conditions.

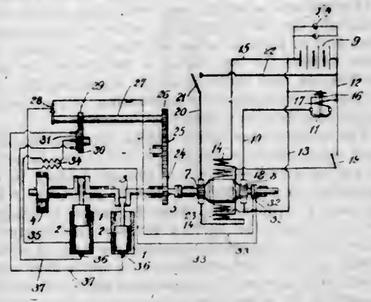
4. A protective device for electric circuits, comprising a winding energized by current derived from the circuit to be protected, a circuit controlling armature responsive to said winding but normally prevented from responding and moving into operative position, and a time limit actuating mechanism for increasing the responsiveness of said armature at a definite and constant rate which is independent of conditions on said circuit.

5. A protective device for electric circuits comprising a winding energized to an extent dependent upon conditions in the circuit to be protected, a tripping armature actuated by said winding but normally unresponsive thereto, a time limit mechanism operative at a definite and uniform rate, means responsive to predetermined abnormal conditions on said circuit for setting said mechanism into operation, and connections whereby said mechanism moves said armature a definite time after said mechanism is set in operation and at a definite rate independent of conditions on said circuit to increase the responsiveness of said armature to said winding.

[Claims 6 to 17 not printed in the Gazette.]

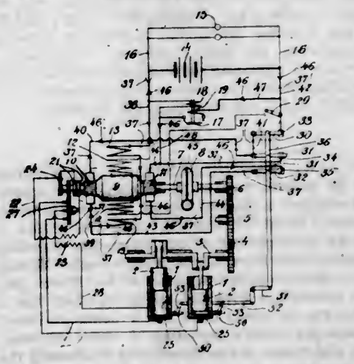
1,240,724. ENGINE APPLIANCE. JOHN W. JEPSON, Depew, N. Y., assignor to Gould Coupler Company, a Corporation of New York. Filed Aug. 5, 1912. Serial No. 713,272. (Cl. 171—315.)

1. In a system of the class described, the combination of an internal combustion engine and its shaft, a dynamo having its moving element rigidly connected to said shaft, electric ignition devices for the engine, a distributer geared to said shaft and controlling the operation of said ignition devices, connections between said distributer and dynamo whereby the dynamo supplies alternating current to the distributer to energize the ignition devices, a storage battery, said dynamo having two armature windings, one adapted to produce greater torque than the other, the winding of greater torque having a field winding in series with it and a switch for disconnecting both from the battery, the other armature winding having a field in shunt thereto and an automatic switch for connecting both across the battery when the voltage produced by the last mentioned armature winding reaches a predetermined value, said distributer being connected to the last mentioned armature winding.



2. In a system of the class described, the combination of an internal combustion engine and its shaft, a dynamo having its moving element rigidly connected to said shaft, electric ignition devices for the engine, a distributer geared to said shaft and controlling the operation of said ignition devices, connections between said distributer and dynamo whereby the dynamo supplies alternating current to the distributer to energize the ignition devices, a storage battery and lamps connected in parallel across the dynamo, said dynamo having two sets of windings, one for causing the engine to be started by the dynamo when said windings are connected to the battery, and the other to cause the dynamo to charge the battery when the engine is running at sufficient speed and a switch automatically connecting the latter windings to the battery when the voltage produced by said windings has attained a certain value, said distributer being connected to said last mentioned dynamo windings.

1,240,725. ENGINE APPLIANCE. JOHN W. JEPSON, Depew, N. Y., assignor to Gould Coupler Company, a Corporation of New York. Filed Aug. 13, 1912. Serial No. 714,775. (Cl. 171—315.)



1. The combination of an internal combustion engine, a dynamo mechanically connected to the engine shaft, a storage battery in operative relation to the dynamo whereby energy may be transmitted from the engine to charge the battery and from the battery to start the engine, said

dynamo having two sets of armature windings, and switching means for connecting said sets of windings in series when charging the battery and in parallel when starting the engine and for relieving the pressure in the engine cylinders when starting the engine.

2. The combination of an internal combustion engine, dynamo electric apparatus mechanically connected to the engine to drive the same and be driven thereby, a storage battery in operative relation to said dynamo electric apparatus whereby energy may be transmitted from the engine to charge the battery and from the battery to start the engine, said dynamo electric apparatus having two sets of armature windings, and switching means for connecting said sets of windings in series when charging the battery and in parallel when starting the engine, electric ignition devices for the engine, a distributer for said ignition devices, and connections for supplying the distributer from the dynamo with alternating current when the armature windings are connected in series.

3. The combination of an engine, dynamo electric apparatus mechanically connected to the engine to drive the same and be driven thereby, a storage battery in operative relation to said dynamo electric apparatus whereby energy may be transmitted from the engine to charge the battery and from the battery to start the engine, said dynamo electric apparatus having two sets of armature windings, a shunt field winding and a series field winding, and switching means for connecting said sets of armature windings in series when charging the battery and in parallel when starting the engine, said series winding being so connected as to oppose the shunt winding when charging the battery and to aid the shunt winding when starting the engine.

4. The combination of an internal combustion engine, a dynamo mechanically connected to the engine to drive the same and be driven thereby, a storage battery in operative relation to said dynamo whereby energy may be transmitted from the engine to charge the battery and from the battery to start the engine, said dynamo having two sets of armature windings, a shunt field winding and a series field winding, and switching means for connecting said sets of armature windings in series when charging the battery and in parallel when starting the engine, said series winding being so connected as to oppose the shunt winding when charging the battery and to aid the shunt winding when starting the engine.

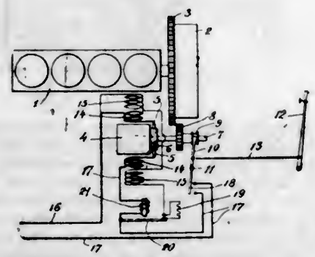
5. The combination of an engine, dynamo electric apparatus mechanically connected to the engine to drive the same and be driven thereby, a storage battery in operative relation to said dynamo electric apparatus whereby energy may be transmitted from the engine to charge the battery and from the battery to start the engine, said dynamo electric apparatus having two sets of armature windings, switching means for connecting said sets of windings in series when charging the battery and in parallel when starting the engine, means for relieving the gas pressure in the engine cylinder or cylinders, and means whereby operation of said switching means causes the operation of said pressure-relieving means.

[Claims 6 and 7 not printed in the Gazette.]

1,240,726. ENGINE-STARTING ARRANGEMENT. JOHN W. JEPSON, Depew, N. Y., assignor to Gould Coupler Company, a Corporation of New York. Filed Feb. 25, 1913. Serial No. 750,485. (Cl. 172—239.)

1. In an arrangement of the character described, the combination of an internal combustion engine having a fly wheel, an electric motor adapted to be thrown into mechanical connection with the engine to start the engine and drive the fly wheel, said motor being provided with field producing means including a series exciting field winding, and means for automatically weakening the field of the motor when the armature current of the motor has decreased to a predetermined value.

8. In an arrangement of the character described, the combination of an internal combustion engine having a fly wheel, an electric motor adapted to be thrown into mechanical connection with the engine to start the engine and drive the fly wheel, said motor being provided with field producing means including a series exciting field winding and a shunt exciting field winding, and means for automatically weakening the field of the motor when the armature current of the motor has decreased to a predetermined value, said means embracing means for decreasing the current in the shunt winding.



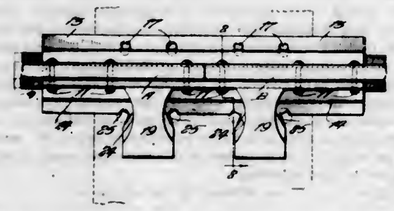
12. In an arrangement of the character described, the combination of an internal combustion engine, a dynamo electric machine mechanically connected to the engine to start the same, said dynamo electric machine being provided with field producing means including a series exciting field winding, and means for automatically weakening the field of the machine to permit of an abnormal increase in speed thereof, responsive to a decrease in current through the motor, with the motor still energized by the series field winding.

16. In an arrangement of the character described, the combination of an internal combustion engine having a fly wheel, a motor for starting said engine, said motor being provided with field producing means including a series exciting field winding, and a shunt exciting field winding, and means for automatically weakening the field of the motor to permit of an abnormal increase in speed thereof, said means acting responsive to a decrease in current through the motor.

18. In an arrangement of the character described, the combination of an internal combustion engine, a starting motor therefor, and means for automatically weakening the motor field as the load on the motor decreases to increase the speed thereof.

[Claims 2 to 7, 9 to 11, 13 to 15, and 17 not printed in the Gazette.]

1,240,727. RAIL-JOINT. FRANK JERICH, Ely, Minn. Filed Mar. 26, 1917. Serial No. 157,400. (Cl. 239—6.)



2. In combination with the abutting ends of adjoining rails, a combined chair plate and fish plate in one piece, the latter of which extends upwardly from one side of the former, at one side of the rails, to the side of the rail heads, and the former of which has spike openings adjacent its opposite side, buttresses integrally connecting said chair and fish plate at opposite sides of the abutting rail ends, and extending from the top of the fish plate, said chair plate and said buttresses having their lower surfaces provided with projecting tie engaging spurs.

3. In combination with the abutting ends of adjoining rails, a combined chair plate and fish plate in one piece, the latter of which extends upwardly from one side of the former, at one side of the rails, to the side of the rail heads, and the former of which has spike openings adjacent its opposite side, buttresses integrally connecting said chair and fish plate at opposite sides of the abutting rail ends, and extending from the top of the fish plate, said chair plate and said buttresses having their lower surfaces provided with projecting tie engaging spurs, said buttresses having concaved sides, and said chair plate having one side thereof provided with spike receiving notches disposed in oblique relation closely adjacent the sides of the buttresses.

[Claim 1 not printed in the Gazette.]

1,240,728. MITT. MAMIE S. JORDAN, South Haven, Minn. Filed June 22, 1914. Serial No. 846,496. (Cl. 224—5.)

1. The described device consisting of a pair of right hand mitts connected by a tape, and means for holding said tape connected with the body of the person.



2. The described device consisting of a pair of right hand mitts connected by a tape, and means for holding said tape connected with the body of the person, said means consisting of a belt, and a loop for connecting said mitts to said belt.

3. The described device consisting of a pair of right hand mitts connected by a tape, and means for holding said tape connected with the body of the person, said means consisting of a belt, and a loop for connecting said tape to said belt, said loop being slidable on said belt.

4. The described device consisting of a pair of right hand mitts connected by a tape, and means for holding said tape connected with the body of the person, said means consisting of a belt, a loop for connecting said mitts to said belt, said loop being slidable on said belt, and a ring held by said loop through which said tape is slidable.

5. A device as described comprising a pair of mitts, a tape connecting said mitts, and body attachable means on which said tape is adjustably mounted.

[Claims 6 to 13 not printed in the Gazette.]

1,240,729. TOOL-HOLDING DEVICE. FRANK H. KASPERSON, New Haven, Conn. Filed Sept. 18, 1911, Serial No. 649,886. Renewed Feb. 17, 1917. Serial No. 149,376. (Cl. 29—145.)

1. A tool holding device comprising in combination, tool receiving means having a bore therein and teeth with provision for positive driving engagement with spiral portions of a tool and having provision for limiting the adjustment of the shank of the tool into said bore, and means adjustable relatively to said shank for gripping the same to prevent withdrawal thereof from said bore.

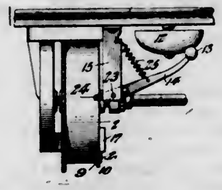
2. A tool holding device comprising in combination, tool receiving means having a straight bore therein, a tool having a spiral portion and a straight shank for insertion in said bore, a tooth on said tool receiving means for positive driving engagement with said spiral portion and having provision for limiting the adjustment of said shank into said bore, and means including an adjustable member for gripping said straight shank to prevent withdrawal thereof from said bore.



3. A tool holding device comprising in combination, tool receiving means having a bore therein, a tool having a spiral or equivalent portion and a shank smaller than the latter for insertion into said bore, a tooth rigid with said tool receiving means for positive driving engagement with said spiral portion and having provision for limiting the adjustment of said shank into said bore, and means carried by said tool receiving means for preventing withdrawal of said shank from said bore.

4. A tool holding device comprising in combination, tool receiving means having a bore therein, a tool having spiral portions and a shank smaller than the latter for insertion into said bore, means on said tool receiving means for positive driving engagement with said spiral portions and having provision for limiting the adjustment of said shank into said bore, a key set into a recess in said tool receiving means, and adjustable means for pressing said key into tight gripping engagement with said shank.

1,240,730. WINDING-SIGNAL FOR A TALKING-MACHINE. THOMAS KEEPFER, Philadelphia, Pa. Filed Nov. 27, 1916. Serial No. 133,652. (Cl. 185—44.)



1. In a talking machine, a casing rotatably mounted, a motor spring attached to said casing, a movable member on said casing having an inwardly projecting part for contact by said spring as the latter unwinds, said member being adapted to be projected from the casing by the spring when the latter is nearly run down, and a signal having a member in the path of the first-named means to be operated by the rotation of the casing.

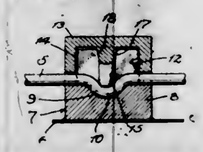
2. In a talking machine, a casing rotatably mounted, a motor spring attached to said casing, a movable member on said casing having an inwardly projecting part for contact by said spring as the latter unwinds, said member being adapted to be projected from the casing by the spring when the latter is nearly run down, a signal having a member in the path of the first-named means to be operated by the rotation of the casing, and a spring attached

to the first-named member for normally holding it in its retracted position.

6. In a talking machine, a motor spring, a rotatably mounted casing therefor, said casing being rotatable with said spring, a member movable within a slot in the wall of said casing and having a member projecting within the casing for engagement by said spring as it unwinds, and a nose portion projectible through an opening in the periphery of said casing by the spring when the latter is nearly run down, and a movably mounted signal having a portion arranged in the path of said nose when projected by the unwinding of the spring, said signal being normally disconnected from said projecting portion.

[Claims 3 to 5 not printed in the Gazette.]

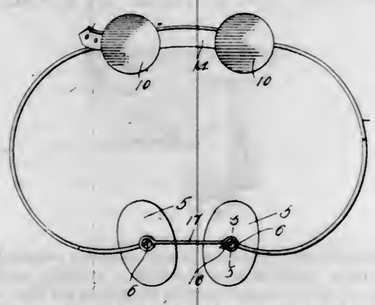
1,240,731. ORTHODONTIC APPLIANCE. JOHN JAMES KINEHAN, Los Angeles, Cal. Filed Dec. 29, 1916. Serial No. 139,469. (Cl. 32—19.)



1. An orthodontic appliance comprising a spring arch wire, having laterally projecting portions, adjacent to teeth to be affected, tooth securing means having a socketed member with a band receiving depression therein, a nut member adapted to clamp the wire in said socket member, and having a wire engaging centering stud, having a flaring base portion adapted to lock the members together.

2. An orthodontic appliance, having an arch wire gripping means, made up of a socketed member, having a bifurcated screw stud adapted to project around the arch member, a cap member adapted to engage said screw stud, having a central centering band engaging pin therein, the said pin having a flaring base, the bifurcated screw stud having an enlarged portion for fitting upon said flaring base, whereby, the bifurcated screw stud will have its parts crowded against the threads of the said cap to lock the parts in place.

1,240,732. TRUSS. JOHN C. KINGSLAND, Arlington, N. J. Filed May 31, 1917. Serial No. 171,959. (Cl. 128—26.)



1. A truss comprising a pair of truss pads, supporting rods, means pivotally securing the rods to the pads, a hook pivotally secured at the point of connection between one of the pads and rods and adapted to engage the other pivotal connection to connect the pads, and adjustable means connecting the rear ends of the rods.

3. A truss including a pair of truss pads, sleeves secured in the pads, screws fitted in the sleeves, supporting rods connected with the screws, means detachably connecting the screws, a pair of plates, sleeves pivotally and non-slidably mounted in said plates, and means adjustably securing said rods in said sleeves.

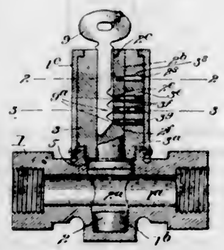
[Claim 2 not printed in the Gazette.]

1,240,733. DEVICE FOR APPLYING SUBSTANCES TO TREES, SHRUBS, AND VINES. WILLIAM RENATUS KLECKNER, Cowell, Cal. Filed Sept. 6, 1916. Serial No. 118,651. (Cl. 47—36.)



A device for applying a substance to a tree, shrub, or vine, including a container adapted to hold the substance to be applied, and being open at the front end for the application of the substance to the surface to be treated, a capped filling neck on the top of the body and rising from said top, and an inlet neck depending from the bottom of the body and within the sides thereof adapted for connection with a supply tube.

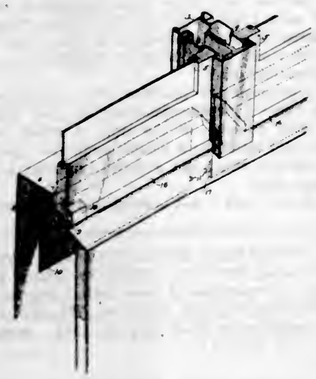
1,240,734. LOCK-VALVE. ADOLPH G. KOEPPE, Palmyra, Ill. Filed Mar. 19, 1917. Serial No. 155,870. (Cl. 137—7.)



1. In a lock valve, the combination of a body having a longitudinal passage, a transverse bore and an annular flange surrounding the outer end of said bore, said flange being threaded both internally and externally; a bushing having a reduced threaded end engaging the interior threads of said flange and an axial passage alined with the bore, and a series of radially disposed openings; tumblers in said bushing openings; springs adapted to move said tumblers inwardly; and a casing fitted to and inclosing the bushing and having its lower end fastened to the exterior threaded portion of said body flange; with a rotatable valve in said bore provided with an integral axial stem fitted in the passage in said bushing, said stem having a vertical key slot and a plurality of radial openings communicating therewith adapted to register with the openings in the bushing; and tumblers in said stem openings adapted to be engaged and projected by a key inserted in the slot, substantially as described.

2. In a lock valve, the combination of a body having a longitudinal passage, a transverse bore, and an annular flange surrounding the outer end of said bore, said flange being threaded both internally and externally; a bushing having a reduced threaded end engaging the interior threads of said flange, and an axial passage alined with the bore and a radial transverse slot extending through one quarter of its circumference, and a series of radially disposed openings; tumblers in said openings; springs adapted to move said tumblers inwardly; and a casing fitted to and inclosing the bushing and having its lower end fastened to the exterior threated portion of said body flange; with a rotatable valve located within said bore and provided with an integral axial stem fitted in the passage in said bushing, said stem having a vertical key slot and a plurality of radial openings communicating therewith adapted to the register with the openings in the bushing; tumblers in said stem openings adapted to be engaged and projected by a key inserted in the slot; and a pin on said valve atem engaging the slot in the bushing to limit the rotatorial movement of said stem.

1,240,735. WINDOW-FRAME. GEORGE B. KOHLER, Philadelphia, Pa., assignor to The J. G. Brill Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Sept. 21, 1915. Serial No. 51,843. (Cl. 20—52.1.)



1. The combination of a window frame having guides and having an inher and an outer sill spaced apart to form a passage, the inner sill having a depending flange forming a stop, the outer sill having a vertical flange at the passage; a pivoted closing device pivoted to the frame and having a portion bent and extending through the passage and arranged to bear against the depending flange of the inner sill and to extend over the opening and over the vertical flange of the outer sill.

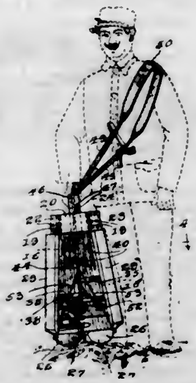
2. The combination of a window frame having guides and having an inner and an outer sill spaced apart to form a passage; a sash arranged to enter the passage; a pivoted closing device located under the sill, said inner sill having a depending flange arranged to limit the movement of the closing device in either of its two positions.

3. The combination of a window frame having guides and having an inner and an outer sill spaced apart to form a passage; a sash arranged to enter the passage; a closing device located under the inner sill and pivoted to the frame and arranged to close the opening when the sash is raised, said closing device having an inclined portion extending under the sash, when the sash is raised; and means for limiting the movement of the said closing device.

1,240,736. DEVICE FOR CATCHING BOLL-WEEVILS. GEORGE E. KYSER, Birmingham, and JIMIE U. TILL, McWilliams, Ala., assignors to Till Manufacturing Co., Birmingham, Ala., a Corporation of Alabama. Filed Mar. 27, 1917. Serial No. 157,714. (Cl. 43—1.)

1. In a device of the class described, a cage comprising upwardly convergent side frames, front and rear top pieces with which said side frames are connected, and a top frame interposed between the side frames and the front and rear top pieces, said top frame having a spring actuated rocking bar provided with downwardly extending beaters.

5. In a device of the class described, a cage comprising upwardly convergent side frames, front and rear top pieces with which said side frames are connected, a top frame, vertical braces on the inner faces of the front and rear top pieces, said braces being extended upwardly to form lugs, and said front and rear top pieces and braces having longitudinal apertures, a divider extending through the top frame, a connecting rod extending through the apertured top pieces and braces and through the divider, and a handle axially engaged by the rod and extending between the divider and the braces on the rearward top piece, in combination with suitably arranged spring actuated beaters within the cage.



7. In a device of the class described, a cage-like structure comprising top and side frames and interiorly arranged beaters, divergent wings connected with the front portions of the side frames, overlapping flexible curtains connected with the rear portions of the side frames and having their upper portions also connected with the top portion of the cage, in combination with spring actuated arms with which the lower end portions of the flexible curtains are connected to maintain said curtains normally in obstructing position with respect to the interior of the cage, and gathering troughs carried by the lower ends of the side frames, the rearward ends of said troughs lying in the path of the spring actuated arms to limit the forward movement thereof.

12. In a device of the class described, a cage having upwardly convergent side frames, front and rear top pieces with which the side frames are connected, said top pieces having vertical series of apertures, a handle extending longitudinally between the front and rear top pieces, a pin extending through the top pieces and the handle adjustably connecting the handle with said top pieces, and a carrying device including a shoulder strap and springs connecting the ends of said shoulder strap with the handle.

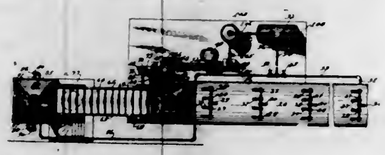
13. In a device of the class described, a cage having side members connected at their upper ends and spaced apart at their lower ends, said side members being provided with troughs adjacent to their lower ends and with interiorly arranged beaters, in combination with a deflecting element arranged obliquely within the cage to deflect plants to one side, said deflecting element being terminally connected with the two side members of the cage.

[Claims 2 to 4, 6, and 8 to 11 not printed in the Gazette.]

1,240,737. PROCESS FOR INCINERATING KELP. GEORGE A. LAMB, Los Angeles, Cal. Filed Nov. 3, 1915, Serial No. 59,427. Renewed Feb. 8, 1917. Serial No. 147,491. (Cl. 110—8.)

1. The process for incinerating kelp which consists in moving the matter to be incinerated continuously through a primary combustion zone, heating the kelp to an incinerating temperature at intervals throughout the primary combustion zone during its passage, continuously separating the ash from the unburned material while the material is passing through said primary zone and delivering the ash and unburned material to separate receptacles, and subjecting the unburned material to further combustion.

2. The process for incinerating kelp which consists in heating the kelp to an incinerating temperature at intervals throughout a primary combustion zone, the heat being applied to the kelp at angles in the direction of movement, removing the solid products of combustion from the incinerating zone to a point separate therefrom, continuously separating the ash from the unburned material while the material is passing through said primary combustion zone, and subjecting the unburned material to further combustion, in a continuous operation.



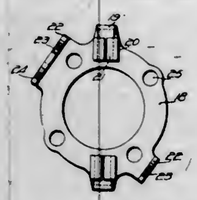
3. The process for incinerating kelp which consists in burning liquid or gaseous fuel in an inclosed space in the presence of oxygen admitted at intervals throughout the inclosure, moving the matter to be incinerated into the presence of the burning fuel, heating the matter to an incinerating temperature at intervals throughout the primary combustion zone, removing the ash from the presence of the burning fuel and continuoously separating the ash from the unburned material while the material is passing through the primary combustion zone, and subjecting the unburned material to further combustion, in a single and continuous operation.

4. The process for incinerating kelp which consists in burning liquid or gaseous fuel in a primary combustion zone in the presence of oxygen, heating the material to an incinerating temperature at intervals throughout the primary combustion zone, said material being moved continuously during the application of the heat, continuously separating the ash from the unburned material while the material is progressing through said primary combustion zone, removing the ash therefrom to an auxiliary combustion zone, subjecting the ash to further combustion in said auxiliary combustion zone, and collecting the ash for further treatment.

5. The process for incinerating kelp which consists in forcing liquid fuel under pressure through a primary combustion zone, volatilizing and burning the fuel at separate points throughout the length of said zone in the presence of oxygen, continuously moving the matter to be incinerated through the presence of the burning fuel, heating the matter to an incinerating temperature at intervals throughout said primary combustion zone, continuously separating the ash from the unburned material while the material is progressing through said primary combustion zone, removing the ash and unburned material from said primary zone, and subjecting the unburned material to further combustion.

[Claims 6 to 15 not printed in the Gazette.]

1,240,738. BRUSH-MOUNTING. EARLE P. LEE and THOMAS L. LEE, Rochester, N. Y., assignors to North East Electric Company, Rochester, N. Y., a Corporation of New York. Filed Aug. 14, 1916. Serial No. 114,730. (Cl. 200—24.)



1. A brush-mounting comprising a substantially flat sheet-metal ring; an arm projecting integrally from one edge of the ring and transverse to the plane thereof; and a brush-holder formed integrally upon said arm by bends in the sheet-metal thereof.

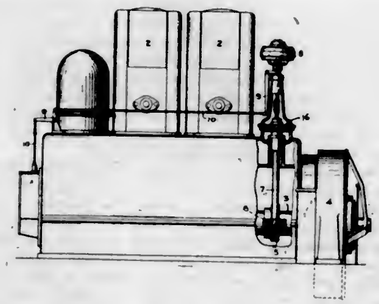
3. In a dynamo-electric machine of the inclosed type, the combination, with a head of the casing thereof, of two brush-mounting devices each comprising a substantially flat sheet-metal ring and a brush-supporting member integrally connected with the ring at an edge thereof, said rings being superposed, but insulated from each other; and means fastening the rings to the casing-head coaxially with the armature-shaft of the machine.

6. In a dynamo-electric machine, the combination, with the frame thereof, of two brush-mounting devices each comprising a sheet-metal ring and a plurality of brush-supporting members integrally connected with the ring at an edge thereof; said rings being superposed, but insulated from each other, with the brush-supporting members in angularly-spaced alternating position; and means fastening the rings to the head of the frame co-axially with the armature shaft.

8. In a dynamo-electric machine, the combination of a sheet-metal ring; a brush-supporting member projecting integrally from an edge of the ring; a brush movably mounted on said member; a flexible connector connecting the brush and the ring; and a main conductor also connected to the ring.

[Claims 2, 4, 5, and 7 not printed in the Gazette.]

1,240,739. GOVERNING MECHANISM FOR ENGINES. HERMANN LEMP, Erie, Pa., assignor to General Electric Company, a Corporation of New York. Original application filed June 12, 1913, Serial No. 773,160. Divided and this application filed July 7, 1914. Serial No. 849,611. (Cl. 264—2.)

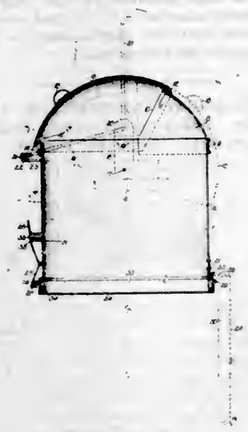


The combination with an engine having a shaft, of a speed governor, a two-part shaft for driving it, gearing connecting the governor shaft to the engine shaft, and a spring connection interposed in the governor shaft between the two parts thereof and through which motion is transmitted from the gearing to the governor whereby any vibration due to irregularities in the engine operation or in the transmission gearing will be absorbed.

1,240,740. GARBAGE-CAN. JULIUS I. LEVETT, New York, N. Y. Filed Dec. 14, 1916. Serial No. 136,972. (Cl. 220—22.)

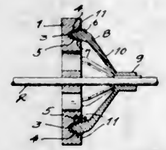
1. An article as characterized comprising an open-ended cylindrical body; a cover pivotally connected with said body at points concentric with the path of movement of said cover; and a bail pivotally connected with said cover above the pivotal mounting thereof, said bail being arranged for engaging said body when said cover is closed.

2. An article as characterized comprising an open-ended cylindrical body; a cover pivotally connected with said body at points concentric with the path of movement of said cover; a bail pivotally connected with said cover above the pivotal mounting thereof, said bail being arranged for engaging said body when said cover is closed;



and means for locking said bail in engaged relation to said body.

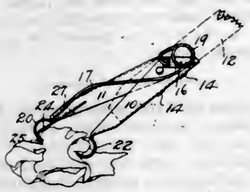
1,240,741. CONE-CLUTCH. HOMER M. LEWIS, Springfield, Ill., assignor of one-half to Alba G. Swayzee, Springfield, Ill. Filed Dec. 5, 1916. Serial No. 135,170. (Cl. 192—8.)



1. A cone clutch comprising in combination, a recessed clutch member, a movable member consisting of a hub, a plurality of radiating arms extending forwardly from the hub toward the recessed member, oppositely faced annular clutch members formed on the arms, facings upon the last-named clutch members and spring elements disposed between the facings and the clutch elements to resiliently support the facings.

[Claim 2 not printed in the Gazette.]

1,240,742. FLOOR-CLEANING DEVICE. FRANK O. LISTER, Altoona, Pa. Filed May 22, 1917. Serial No. 170,250. (Cl. 15—55.)



1. A mop or brush holding device including a stationary jaw, a movable jaw pivoted thereto having an article engaging portion disposed at substantially right angles to the body of the jaw and provided with a slot, a spring for forcing the movable jaw toward the fixed jaw, and an auxiliary brush carrying jaw mounted in the slot of the movable jaw and having a slidable engagement with the inner face of the said movable jaw.

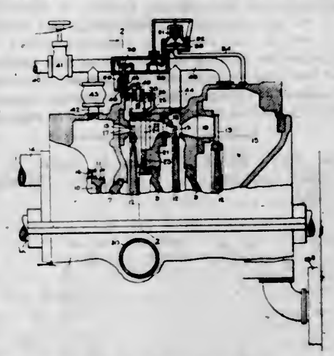
2. A mop or brush holding device including a stationary member having a fixed gripping jaw at one end and hollow spring receiving ears at the other, a handle rigidly secured to said stationary member, a movable clamping member pivotally carried by the stationary member, a spring for placing the movable member under tension, said spring being of substantially U-shaped form and having its end portions coiled and fastened in the spring receiving ears of the stationary member while its free transverse portion exerts a clamping pressure on the movable member, and means carried by the movable member for engaging a brush.

3. A mop or brush holding device including a stationary member having a griping jaw at one end and integral tubular spring holding ears at the other end, a movable clamping member having a gripping jaw at one end and pivotally connected at its opposite end with the stationary member adjacent the spring holding means thereof, a spring for said movable member having its end portions engaged by the spring holding ears of the stationary member, and an extension jaw element carried by the movable member.

4. A mop or brush holding device including a stationary member having a gripping jaw at one end and having its opposite ends turned downwardly to form tubular spring receiving ears, a movable member also having a gripping jaw at one end and pivoted at its other end to the said stationary member, a substantially U-shaped spring having a coil portion adjacent each end and also having the extremities thereof engaged within the tubular ears of the stationary member, said spring having its transverse portion bearing against the outer face of the movable member, and an extensible brush engaging element carried by the movable member and located at the inner face thereof.

5. A mop or brush holding device including a stationary member having a gripping jaw, a spring tensioned clamping member having a gripping jaw and provided with a longitudinal slot in the body thereof and a horizontal slot in the jaw thereof, and an extension brush gripping element having its body portion passing through the slot in said jaw of the movable member and also carrying a pin slidably engaging the longitudinal slot in the body of the movable member.

1,240,743. ELASTIC-FLUID TURBINE. LOUIS C. LOEWENSTEIN, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed June 22, 1916. Serial No. 105,271. (Cl. 121—118.)



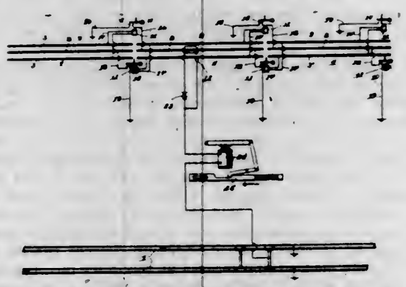
1. The combination of a turbine having a conduit leading from an intermediate stage, a condenser into which the final stage exhausts, a stage valve controlling the passage of steam from such intermediate stage to the next lower stage, said stage valve being arranged so that it cannot entirely shut off the flow of elastic fluid through the turbine, conduit means for supplying elastic fluid to a stage of the machine lower than such intermediate stage, and valve means which is under the control of the stage valve and the pressure existing in the final stage of the ma-

chine for admitting elastic fluid through the conduit means to the final stage when the condenser vacuum is lost, and the stage valve is closed.

7. The combination with a turbine having a conduit leading from an intermediate stage and a condenser into which the final stage exhausts, of means controlled by the pressure in the condenser for introducing elastic fluid of a pressure higher than that of said intermediate stage to one or more of the final stages of the machine when the condenser is shut down and the wheels in such final stages are running idle, whereby such elastic fluid may circulate backward through the idle stages of the machine to prevent the wheels therein from overheating.

[Claims 2 to 6 not printed in the Gazette.]

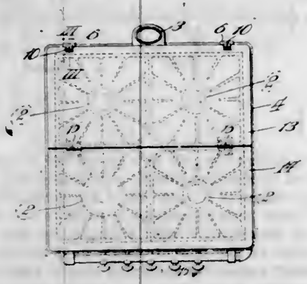
1,240,744. AUTOMATIC TRAIN-STOPPING APPARATUS. ARVID LONGHED, Georgetown, Conn. Filed Oct. 3, 1916. Serial No. 123,927. (Cl. 246—58.)



1. In a vehicle controlling system, a plurality of conductors divided into sections, electro-responsive means connected to a conductor of said plurality in each section, said means adapted to establish partial circuits including a conductor of said plurality in the adjoining sections; vehicle-carried means for actuating said electro-responsive means, and vehicle-carried means for stopping the vehicle, said stopping means adapted to be actuated by establishment of such partial circuit in a section to which the vehicle is adjacent.

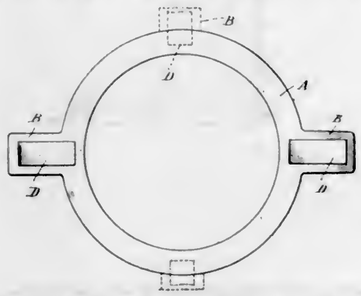
2. In a vehicle controlling system, a plurality of conductors divided into sections, a relay bridged across a pair of said conductors at each end of each section, each relay adapted to establish a partial circuit including a conductor of said plurality in the adjacent section; a vehicle-carried source of energy adapted for energizing the relays of a section to which the vehicle is adjacent, and a vehicle-carried device for cutting off the power and applying the brakes of the vehicle; said device adapted to be energized by said source of energy when such partial circuit is established in a section to which the vehicle is adjacent.

1,240,745. RANGE-COVER. LEE K. LOVE, St. Louis, Mo. Filed Oct. 30, 1913. Serial No. 798,194. (Cl. 126—215.)



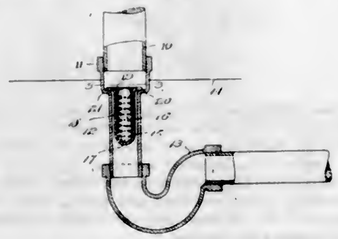
The combination of a range cover, a range top having a depending flange and a fastening member, said fastening member comprising a body portion, a bent portion formed on one end of said body portion, and a struck-out portion formed adjacent the opposite end of said body portion, said struck-out portion adapted to be clamped over a portion of said range cover, said bent portion adapted to engage the depending flange of said range top.

1,240,746. SILENCING DEVICE FOR COVERS OF COMMODES. EMILY MCCRACKEN, Hastings, Nebr. Filed July 26, 1917. Serial No. 182,938. (Cl. 4—33.)



A silencing device for chambers comprising a ring of rubber having oppositely extending tabs on the outer edge thereof, and a metallic strap secured to the inner face of each tab in alinement with the latter, said straps adapted to be bent over the edges of the lid.

1,240,747. DRAIN-PIPE POCKET. THOMAS J. MCKEONE, Philadelphia, Pa. Filed Sept. 1, 1915. Serial No. 48,495. (Cl. 210—16.)



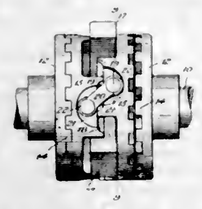
In combination with a vertically arranged pipe having a diametrically enlarged head at the upper end, providing an annular seat, a vertically arranged pocket in and of less diameter than said pipe, said pocket having a perforated wall and being provided at the upper open end with an outwardly extending annular flange which bears on said seat and suspends and supports the pocket, said flange having a scalloped outer edge providing openings between the seat and the wall of the pocket and permitting the pocket to be readily lifted.

1,240,748. GEARING FOR MOTOR-VEHICLES. RICHARD G. MANIFOLD, Riverside, Cal. Filed July 6, 1916. Serial No. 107,768. (Cl. 74—7.)

1. The combination with two separated alined shafts having spaced facing clutch members fixed thereto, respectively, of two co-acting clutch members between and normally in positive engagement, respectively, with the members first mentioned and adapted to drive them positively in either direction, means for rotating said co-acting members, and means whereby force tending to rotate one of the shafts faster than its companion may disengage the corresponding co-acting clutch member.

2. The combination with two alined shafts having facing clutch members spaced apart and fixed to the shafts,

respectively, of co-acting clutch members normally engaging the first mentioned members, respectively, and having abutting portions which extend fully across the space between the two first clutch members, when the shafts are rotating at the same speed, and positively prevent disengagement, and means whereby unequal rotation disengages the clutch of the faster rotating shaft.



3. The combination with two alined shafts and two facing spaced clutch members fixed to the shafts, respectively, of two co-acting clutch members normally engaging the members first mentioned, respectively, having non-inclined meeting faces normally preventing disengagement of either co-acting clutch member, and cut away alongside said faces to allow the latter to move out of meeting position when the co-acting clutch members rotate unequally, means for rotating both the members last mentioned while allowing either to advance with respect to the other, and means for automatically disengaging the advanced clutch member from the companion member with which it engages.

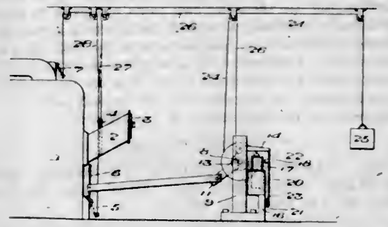
5. The combination with two alined driven shafts having their adjacent ends spaced apart, of a spider interposed between said ends, a power rotated member engaging the spider arms at some distance from the axes of the shafts and compelling the spider to rotate, clutch members fixed to the ends of the shafts, respectively, co-acting clutch members normally engaging the members first mentioned respectively, and cut away upon their opposite sides to receive the spider arms in recesses which allow said members limited movements of rotation with respect to the spider and parallel to the axes of the shafts, and a link pivotally connecting said co-acting clutch members and adapted to draw toward the spider either co-acting clutch member rotating faster than its companion.

6. The combination with two alined driven shafts having their adjacent ends spaced apart, of a spider interposed between said ends, a power rotated member engaging the spider arms at some distance from the axes of the shafts and compelling the spider to rotate, clutch members fixed to the ends of the shafts, respectively, co-acting clutch members normally engaging the members first mentioned, respectively, and cut away upon their opposite sides to receive the spider arms in recesses which allow said members limited movements of rotation with respect to the spider and parallel to the axes of the shafts, and a spring link pivotally connecting said co-acting clutch members and adapted to draw toward the spider either co-acting clutch member rotating faster than its companion, while itself put under tension tending to restore the parts to initial position.

[Claims 4 and 7 not printed in the Gazette.]

1,240,749. TIME-CONTROLLED MECHANISM. MILTON J. MATTHEWS, Detroit, Mich. Filed Mar. 12, 1917. Serial No. 154,203. (Cl. 161—8.)

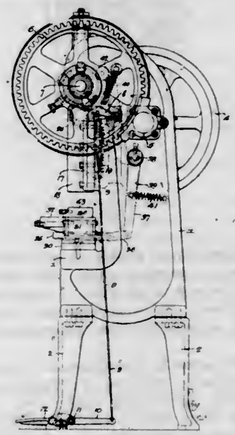
2. In means for the purpose described, the combination of a grate-actuating lever; supporting means, a shaft journaled in the latter means and having a ratchet disk, a crank on said shaft, a pitman intermediate said crank and the grate-actuating lever, means connected with the shaft for rotating the same when it is released, a pawl lever mounted on the supporting means and yieldingly maintained in engagement with the ratchet disk, a clock mounted on the supporting means and having a disk adapted to be revolved at a predetermined time and also having apertures in said disk off the center thereof, a vertically-swinging lever on the supporting means, a connection between one arm of said lever and the pawl lever, and a link connected to the other arm of the vertically-swinging



lever and having an angularly disposed end portion adapted for removable arrangement in one of the apertures of the disk.

[Claim 1 not printed in the Gazette.]

1,240,750. EMBOSSING-PRESS. RICHARD MARX, Philadelphia, Pa., assignor to Defiance Manufacturing Company, Summerdale, Pa., a Corporation of Pennsylvania. Filed Dec. 5, 1914. Serial No. 875,606. (Cl. 101—27.)



1. The combination in a press of two movably mounted dies; means for moving one of the dies toward the other to cause a piece of material to be gripped; means for locking the second die from movement after said gripping; and means for thereafter moving the first die still nearer the second die to make a complete impression.

2. The combination in a press of a supporting frame; a head movable therein; a die carried by said head; a second die mounted on the frame and movable in the line of the head toward and from the same; two devices for successively moving the head and its die toward the second die; and means for preventing movement of said second die after the first of said dies is actuated.

3. The combination in a press of a supporting frame; a head slidable therein; a die for said head; a second die yieldingly mounted on the frame; two devices for successively moving the head with its die toward the second die; a locking device for preventing movement of the second die under predetermined conditions; and means for causing action of the locking means after the first head moving device has acted and before the action of the second head moving device.

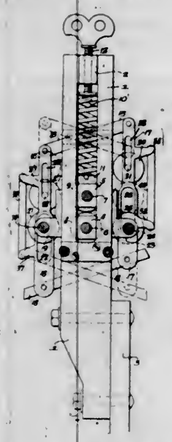
4. The combination in a press of a supporting frame; a die yieldingly supported thereon; a second die movably mounted on the frame; two members for independently actuating said second die; a device for preventing yielding of the first die relatively to the frame; and means for

causing action of said device after one of the die actuating members has operated but before the operation of the second member.

5. The combination in a press of a supporting frame; a reciprocating die thereon; two cams mounted to successively actuate said die; a second die movably mounted on the frame in position to cooperate with the first die; with mechanism for automatically locking the second die from movement after the operation of the first die by one of the cams and before its operation by the second cam.

[Claims 6 to 16 not printed in the Gazette.]

1,240,751. SAFETY DEVICE FOR WRINGERS. RICHARD MARX, Philadelphia, Pa. Filed Jan. 18, 1917. Serial No. 143,133. (Cl. 68—32.)



1. The combination of a pair of main driven rolls; and a pair of freely separable guard rolls held together by gravity and mounted in advance of said main rolls with an adjustable drain board operatively connected to said guard rolls for separating them under predetermined conditions.

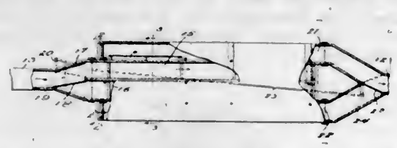
6. The combination in a wringer of a main frame; two main rolls journaled therein; a drain-board pivoted to the main frame under said rolls; two cross members pivoted to the main frame; vertical members pivoted to the ends of each of said cross members and also to the drain-board; and two pairs of guard rolls respectively mounted on opposite sides of the main rolls, one guard roll of each pair being supported by the main frame and the other being movably journaled in said vertical members so as to be free to move toward and from the first roll; with means for driving the main rolls and at least one of each pair of guard rolls.

8. The combination in a wringer of a main frame; two main rolls journaled therein; an oscillatory drain-board mounted under said rolls; a movable frame including two pairs of upwardly extending members connected to said drain-board, said members each having two elongated slots; guard rolls mounted in fixed bearings on opposite sides of the main rolls and respectively having portions passing through certain of the slots of said movable frame members; with two other guard rolls having spindles respectively operative in others of the slots of the frame members and positioned to coöperate with said first guard rolls; with means for driving the main rolls and at least one of each coöperating pair of guard rolls.

9. The combination in a wringer of a pair of main wringing rolls; pairs of guard rolls respectively on opposite sides of said main rolls; means for driving said pairs of rolls, with means for maintaining one pair of guard rolls separated and the other pair in engagement with each other.

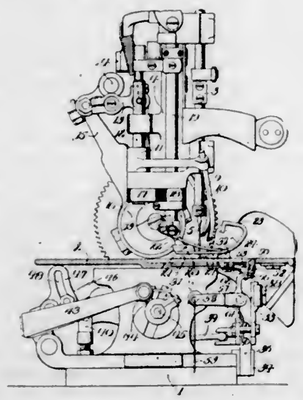
[Claims 2 to 5, 7, 10, and 11 not printed in the Gazette.]

1,240,752. COTTON-ELEVATOR. CHARLES S. MIDDLETON and DREWDIE B. THOMPSON, Blakely, Ga. Filed July 14, 1915. Serial No. 39,908. (Cl. 13—19.)



In a pneumatic cotton elevator, an intake nozzle and an air tube alined therewith, a distributing trunk therebetween having parallel inner cotton ducts with a partition centered with the nozzle end, a valve chamber connecting said ducts and the nozzle, and cotton valves for alternate engagement with the near end of the partition, lateral air ducts paralleling the cotton ducts, suction inlets in the bottom of said air ducts for communicating with an attached feeder, convergent air branches attached to the spaced rear ends of the air ducts, and to the air tube, a single valve in said air branches, and connecting means between the cotton valves and the air valve.

1,240,753. TRIMMING MECHANISM FOR SEWING-MACHINES. JAMES R. MOFFATT, Chicago, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed June 29, 1914. Serial No. 847,947. (Cl. 112—6.)



1. A trimming mechanism for sewing machines including in combination a work support, a movable trimming blade mounted beneath the work support and having a cut edge overhanging the work support, a device located in front of said trimming blade for deflecting the material over the top of said trimming blade for rendering the same ineffective, and a treadle connected to said device for moving the same in one direction.

2. A trimming mechanism for sewing machines including in combination a work support, a movable trimming blade mounted beneath the work support and having a forwardly projecting portion overhanging the work support, a pivoted finger located in front of said movable trimming blade, said finger being normally flush with the work support, and means for raising the end of the finger adjacent said trimming blade for deflecting the material over said trimming blade, said means for raising the finger including a treadle for moving the finger in one direction, and a spring for returning the finger to normal position flush with the top of the work support.

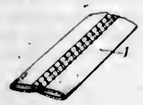
3. A trimming mechanism for sewing machines including in combination a movable trimming blade mounted beneath the work support, and projecting above the same, said blade having a forwardly projecting portion with a cutting edge at the lower side thereof, a pivoted finger located directly in front of said trimming blade and adapted to be raised so as to deflect the material over the top of said trimming blade, a spring for normally holding said finger in a position flush with the work support, a seating shoulder for said finger when in normal position, and means for raising the finger at the will of the operator.

4. A trimming mechanism for sewing machines including in combination a movable trimming blade mounted beneath the work support, and projecting above the same, said blade having a forwardly projecting portion with a cutting edge at the lower side thereof, a pivoted finger located directly in front of said trimming blade and adapted to be raised so as to deflect the material over the top of said trimming blade, a spring for normally holding said finger in a position flush with the work support, a seating shoulder for said finger when in normal position, and means for raising the finger at the will of the operator, said means for raising the finger including a treadle and a stop for limiting the upward movement of the finger.

5. The combination of a work support, stitch forming mechanism trimming members located in advance of the stitch forming mechanism and including a movable trimming blade mounted beneath the work support and projecting above the same, said movable trimming blade having a forwardly projecting portion with the cutting edge on the lower side thereof, and means for rendering said cutting blade ineffective at the will of the operator including a controlling finger pivoted to the work support and normally lying substantially flush therewith, a seating shoulder on which said controlling finger rests, a spring for pressing said finger into contact with its seating shoulder, a treadle for raising the rear end of said finger, and a stop for limiting the movement of said finger.

[Claims 6 to 8 not printed in the Gazette.]

1,240,754. METHOD OF FORMING BELT-LOOPS. JAMES R. MOFFATT, Chicago, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 1, 1914. Serial No. 854,504. (Cl. 112—34.)



1. The herein described method of making belt loops which consists in forming a central crimp in a strip of fabric, folding the side portions on opposite sides of the crimped portion to substantially vertical position, pressing the side portions against the central portion and uniting the folded fabric by stitches passing through said side portions and engaging the apex of the crimped portion of the fabric.

2. The herein described method of making belt loops which consists in forming a central crimp in a strip of fabric, folding the side portions on opposite sides of the crimped portion to substantially vertical position, trimming off the edges of said side portions, pressing said side portions against the central portion and uniting the folded fabric by stitches passing through the side edges and engaging the apex of the crimped portion of the fabric.

3. The herein described method of making belt loops, which consists in forming a central crimp in a strip of fabric, of folding the side portions on opposite sides of the crimped portion to substantially vertical position, the apex of the crimped portion being below the plane of the upper edges of the side portions, trimming off the edges of said side portions, pressing said side portions against the central portion, and uniting the folded fabric by stitches passing through the side edges and engaging the apex of the crimped portion of the fabric.

1,240,755. BED-SPRING-REINFORCING MEMBER. JOHN H. MONTSTREAM, Hartford, Conn. Filed Dec. 20, 1915. Serial No. 67,721. (Cl. 5—26.)



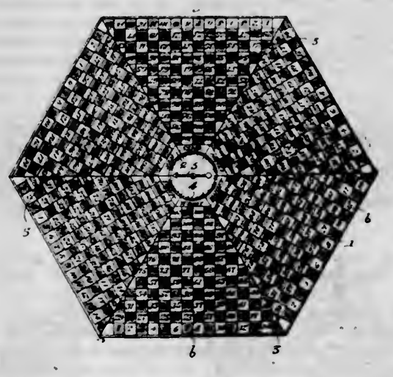
1. A bed-spring reinforcing-member relatively rigid in a direction transversely of the spring and flexible longitudinally of the spring and provided with hook means to engage into the fabric of the spring to hold the member against movement bodily with respect to the spring.

2. A bed-spring reinforcing-member comprising a plurality of cross bars, flexible elements extending freely through the cross bars near the ends thereof, stops on the ends of the flexible elements, springs carried by the flexible elements and acting against intermediate cross bars and tending to constantly force said intermediate cross bars outwardly, and spacing members carried by the flexible elements between the other cross bars to positively separate said other cross bars from each other.

3. A bed-spring reinforcing-member comprising cross bars, wires extending through the cross bars, nuts threaded on the ends of the wires and bearing against the outer sides of the end cross bars, springs coiled about the wires and bearing at their ends against the intermediate cross bars, the wires being provided with sleeves between the other cross bars to space said other cross bars from each other.

4. A bed-spring reinforcing-member comprising cross bars, wires extending through the cross bars, nuts threaded on the ends of the wires and bearing against the outer sides of the end cross bars, springs coiled about the wires and bearing at their ends against the intermediate cross bars, the wires being provided with sleeves between the other cross bars to space the said other cross bars from each other, and being also provided with latches to engage the bed-spring.

1,240,756. GAME-BOARD. ARTHUR J. MOORE, Kenwood Park, Iowa. Filed Dec. 1, 1915. Serial No. 64,515. (Cl. 46—63.)

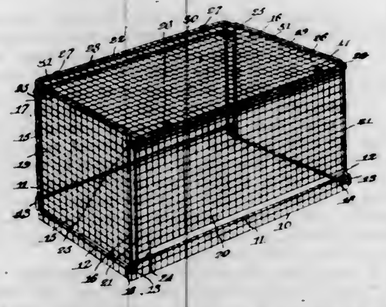


1. A game board having a surface divided into a plurality of individual playing areas, each of said areas being divided into squares of different consecutive values, a central circle divided into arcs, indicia for each of said arcs for indicating the values of the plays, pieces movable over

the said areas and means carried by the board for determining such movement.

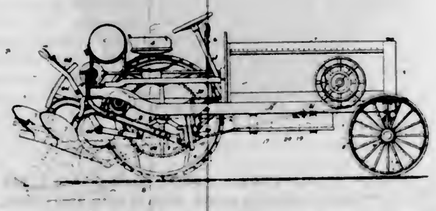
2. A game board of hexagonal shape having an inner circular space provided with indicia, lines connecting the corners of the board with the inner circular space to provide divisions for said indicia, said lines forming independent playing areas, said areas being divided into squares over which the pieces move and a pointer cooperating with the indicia for determining the value of each play.

1,240,757. FOLDING CRATE. ROSS R. MORTLAND and WILBERT S. KAIL, Scio, Ohio. Filed Nov. 10, 1916. Serial No. 130,635. (Cl. 220—132.)



In a folding crate, a bottom frame comprising a substantially rectangular member having its ends disposed below its sides, a flanged mesh connected to the frame and depending therefrom, side frames including substantially U-shaped members having their ends wound around the sides of the bottom frame to hingedly secure the side frames to the bottom, end frames comprising substantially U-shaped members having the ends of their frames wound around the sides of the bottom frame to hingedly secure the sides to the said bottom frame, the longitudinal member of one of the sides being crimped to provide outwardly projecting eyes, a top frame comprising a substantially rectangular member, means wound around one of the longitudinal portions of the top frame and one of the connecting members of the side frames for hingedly securing the said top frame to the said side frame, spring hooks upon the end members of the side frames to engage with the end members of the end frames, said top adapted to be swung between the end frames, when the device is set up, to prevent the inward movement of the said end frames, a facing comprising a wire mesh for all of the frames, the eyes of one of the side frames adapted to project through the mesh of the top frame and to receive securing means, all as and for the purpose set forth.

1,240,758. PLOW DRAW-BAR HEAD AND LEVELER FOR TRACTORS. ROLLA ALEXANDER MORTON, Gallon, Ohio. Filed May 2, 1913. Serial No. 765,037. Renewed Feb. 24, 1917. Serial No. 150,858. (Cl. 97—7.)



1. A machine of the class described comprising a frame, an implement carried thereby, a draw bar head, a connecting device connected with the draw bar head and implement on right-angular disposed axes for permitting sidewise and vertical movement of the implement with respect to the draw bar head, a fixed guide on the frame for the draw bar head, and a draw bar connected rigidly with the head and pivotally with the frame at a point in advance of the said guide.

2. A machine of the class described comprising a frame, an implement carried thereby, a draw bar head, a connecting device connected with the draw bar head and implement on right-angular disposed axes for permitting sidewise and vertical movement of the implement with respect to the draw bar head, a fixed guide on the frame for the draw bar head, a draw bar connected rigidly with the head and pivotally with the frame at a point in advance of the said guide, and leveling mechanism mounted on the frame and connected with the draw bar head for raising and lowering the same.

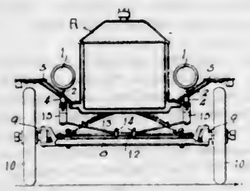
3. A machine of the class described comprising a wheel-supported body, a pair of connected plows, a gage wheel carried by the plows and disposed between the same, and a single connection between the plows and body portion, said connection comprising a guide disposed at right-angles to the plane of the body, a member slidable on the guide, and a connecting element between the plows and member including two pivotal axes at right-angles to each other, one of the axes lying in a plane co-incident with the said guide, whereby the plows can freely rise or fall and move laterally while the sides of the plow are maintained parallel with the said guide.

4. A machine of the class described comprising a wheel-supported frame, a tilling implement having a beam, a vertically disposed plate arranged in front of the beam and pivotally connected therewith, a rigid vertically disposed guide on the frame and through which the plate extends forwardly from the beam, a connecting element secured to the plate at a point in front of the guide and having its forward end connected with the frame, and an elevating device mounted on the frame and connected with the said plate for raising and lowering the latter.

5. A machine of the class described comprising a wheel-supported frame, a tilling implement disposed under the frame and having a forwardly-extending beam, a depending fixed guide rigid on the frame and disposed in front of the forward end of the beam, a draw-bar head movable up and down in the said guide, a universal connection between the rear part of the said draw-bar head and front of the beam, a draw-bar having its read end connected with the draw-bar head and its front end connected with the frame, and a device mounted on the frame and connected with the draw-bar head to raise and lower the same.

[Claim 6 not printed in the Gazette.]

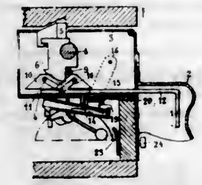
1,240,759. DIRIGIBLE HEADLIGHT ATTACHMENT FOR AUTOMOBILES. THOMAS F. MORTON, Sabinsville, Pa. Filed Dec. 28, 1916. Serial No. 139,330. (Cl. 240—62.)



1. The combination with a motor vehicle having a spindle arm connecting rod and headlights carried by brackets terminating in spindles which are received within vertical bearing sleeves and have polygonal retaining nuts applied thereto, of a lamp shifting bar extending longitudinally of the spindle arm connecting rod and having the extremities thereof offset upwardly from its middle portion, means for clamping said middle portion of the lamp shifting arm to the spindle arm connecting rod, lamp turning levers pivotally connected to the extremities of the lamp shifting bar and provided with polygonal openings to receive the retaining nuts of the lamp spindles, keys for locking the nuts with the spindles, and springs interposed between the keys and the lamp turning levers to take up looseness.

2. The combination with a motor vehicle having a spindle arm connecting rod and headlights carried by brackets terminating in spindles which are received within vertical bearing sleeves and have retaining nuts applied thereto, of a lamp shifting bar extending longitudinally of the spindle arm connecting rod and having the extremities thereof offset upwardly from its middle portion, means for clamping said middle portion of the lamp shifting bar upon the spindle arm connecting rod, and lamp turning levers pivotally connected at one end to the extremities of the shifting lever and operatively connected at their opposite ends to the retaining nuts of the headlight spindles, said lamp turning levers being formed in hingedly connected sections to admit of the up and down movements of the vehicle body relative to the running gear.

1,240,760. DRAWER-LOCK. DÉSIRÉ MUREAU, Paris, France. Filed May 13, 1914. Serial No. 838,355. (Cl. 70—54.)



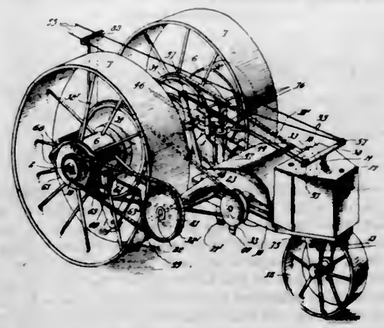
1. A combination lock for drawers, comprising in combination, a casing, a bolt pivotally mounted on said casing, a series of draw-bars slidably mounted in said casing, blocks secured to one end thereof, and means slidably mounted in said casing coacting with said blocks and means to retain said blocks in one of two positions, substantially as described.

2. A combination lock for drawers, comprising in combination a casing, a bolt pivotally mounted on said casing, a series of draw-bars slidably mounted in said casing, handles formed at one end thereof, actuating members secured to the inner end of said draw-bars and a transverse bar slidably mounted in said casing coacting with said bolt and actuating members to retain said bolt in one of two positions, substantially as described.

3. A combination lock for drawers, comprising in combination a casing, a bolt pivotally mounted in said casing, a series of draw bars slidably mounted in said casing, handles formed on one end of said draw-bars, blocks secured to the other end of said draw-bars, said blocks being adapted to swing in an arc of 180°, a transverse rod slidably mounted in a vertical plane in said casing, intermediate said blocks and said bolt, said blocks being operative in one of two positions and adapted to coact with said bar to retain said bolt in one of two positions, substantially as described.

4. In a combination lock for drawers, a casing, draw-bars slidably mounted in said casing each provided with a depression intermediate its ends, springs secured to the front wall of said casing, and to the front part of said draw-bars, stirrups above the depressed part of said draw-bars, blocks pivotally mounted in said stirrups, a transverse rod slidably mounted in the walls of said casing, an axle journaled in the side walls of said casing, guides on said axle, heads sliding in said guides and a spring secured to the central guide tending to return said heads into their closing position, said rod normally resting upon said blocks and during operation to engage shoulders of said guides, substantially as described and for the purpose set forth.

1,240,761. FARM-TRACTOR. CORNELIUS MURNANE, Haberfield, New South Wales, Australia. Filed Nov. 16, 1915. Serial No. 61,771. (Cl. 21—114.)



1. In a farm tractor, the combination of an internal combustion engine having a crank case, hollow axles projecting axially from the said crank case, hauling wheels mounted on said axles, a crank-shaft passing through the center of the hollow axles, and means for retaining the wheels on said hollow axles, substantially as described.

3. In a farm tractor, the combination of an internal combustion engine having a crank case, hollow axles projecting laterally from said crank case, hauling wheels revolubly mounted on said hollow axles, wearing bushes fitted concentrically in said axles, and a crank-shaft revolubly mounted in said bushes, substantially as described.

5. In a farm tractor, the combination of an internal combustion engine having a crank case, hollow axles projecting laterally from the crank case, wearing bushes in said hollow axles, a crank-shaft mounted in said wearing bushes, a wheel and engine brake fitted to one end of the crank-shaft, hauling wheels mounted on said hollow axles and means for conveying motion from the wheel on the crank-shaft to the hauling wheels, substantially as described.

7. In a farm tractor, the combination of an internal combustion engine, hollow axles projecting from the crank case of said engine, a crank-shaft revolubly mounted in the hollow axles, hauling wheels on said axles, a gear wheel on one end of the crank-shaft, chain gearing connecting the gear wheel with power transmission gear, and means for operatively connecting the power transmission gear with gear wheels fitted to the hauling wheels, substantially as described.

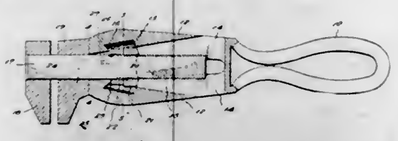
19. In a farm tractor the combination of an engine having hollow axles projecting laterally from the crank case thereof, recesses in the sides of the crank case and in the tops of the axles, detachable filling pieces fitting in said recesses, and seats on the crank case for ball bearings, substantially as described.

[Claims 2, 4, 6, and 8 to 18 not printed in the Gazette.]

1,240,762. WRENCH. LUDVIG NELSON, Deary, Idaho. Filed July 19, 1916. Serial No. 110,215. (Cl. 81—126.)

1. A wrench including a body portion having a chamber therethrough, the chamber being provided with an intersecting recess having a curved wall, a stem slidable in the chamber, a rigid jaw on the outer end of the stem, a movable jaw slidably mounted on the stem and arranged adjacent one end of the body portion, a plate having one end pivotally connected to the movable jaw and having a slot in the opposite end, means engaged with the body por-

tion and operating in the slot for connecting the opposite end of the plate to the body portion, a handle projecting from the body portion, and means adjustably engageable with the stem and arranged in the recess and operating on the curved wall thereof for guiding the movement of the body portion when the handle is moved in either direction to swing the body portion against either portion of the inner edge of the movable jaw to consequently move said jaw with respect to the rigid jaw.



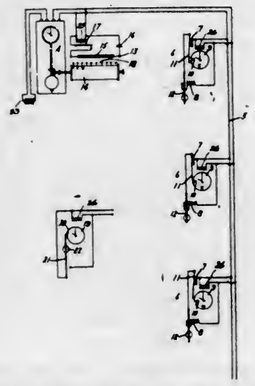
2. A wrench including a body portion having a chamber the walls of which diverge from the outer end to the inner end, the chamber being provided substantially midway the ends thereof with an intersecting recess having a curved wall, a stem square in cross section slidable in the chamber, a rigid jaw on the outer end of the stem, a movable jaw slidably mounted on the stem and pivotally connected to the body portion, a handle projecting from the inner end of the body portion, and means adjustably engageable with the stem and arranged in the recess and operating on the curved wall thereof for guiding the movement of the body portion when the handle is moved in either direction to consequently swing the body portion when adjusting the movable jaw with respect to the rigid jaw.

3. A wrench including a body portion having a chamber therethrough, the walls of which diverge toward the inner end, the body portion being also provided with a recess which intersects the chamber approximately midway the ends thereof, the recess being provided with a curved wall, a stem square in cross sections slidable in the body portion and having threads on the inner end thereof, a rigid jaw on the outer end of the stem, a movable jaw slidably mounted on the stem and pivotally connected to the body portion to permit of the swinging movement of the body portion with respect thereto, a washer arranged on the stem and having a curved face engageable with the curved wall of the recess, a nut operably mounted on the stem and operable from without the body portion so as to adjust the relative position of the parts, and a handle projecting from the inner end of the body portion for swinging the body portion in either direction to adjust the movable jaw, the movement of the body portion being guided by the washer operating on the curved wall of the recess.

1,240,763. SYSTEM FOR RECORDING THE CONDITION OF APPARATUS. AUGUST NICOL, Nieder-Schönhausen, Germany, assignor to General Electric Company, a Corporation of New York. Filed Feb. 11, 1913. Serial No. 747,707. (Cl. 234—36.5.)

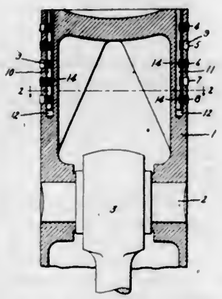
1. A system of the character described comprising a plurality of apparatus each of which has a movable element, means normally operating to synchronously move each of said movable elements, an actuator having a circuit interrupter associated with each apparatus and arranged to be operated when the synchronously moving element of its associated apparatus, occupies a predetermined position, the circuit interrupters of the actuators being adjusted to oscillate at different periods, a recorder having a time actuated record sheet, means selectively responsive to electric currents of different periods operatively related to said record sheet, and means electrically connecting each actuator to said recorder.

2. A system of the character described comprising a plurality of secondary clocks, a master clock, means controlled by said master clock for operating said secondary clocks, an actuator associated with each secondary clock, each actuator having a circuit closer operated by its secondary clock mechanism, a circuit interrupter, the circuit closers of the different actuators being arranged to normally operate at different times and the circuit interrupters of different actuators being adjusted to oscillate at different periods, a recorder having a time actuated



record sheet, and means selectively responsive to electric currents of different periods operatively related to said record sheet, and means electrically connecting each actuator to said recorder.

1,240,764. PISTON-RING-LOCKING DEVICE. WERNER NORDGREN, Charlottenburg, Germany, assignor to General Electric Company, a Corporation of New York. Filed Oct. 22, 1914. Serial No. 868,102. (Cl. 121—108.)



1. The combination of a piston having circumferential grooves and a plurality of longitudinally extending holes which intersect said grooves, split piston rings in said grooves having their ends arranged at the points where the holes intersect the grooves, the ends of successive rings being arranged at different holes so they are staggered around the piston, locking bolts in said holes which engage between the ends of the rings to lock them in position, and means comprising locking connections between the piston rings and bolts to lock the bolts against movement.

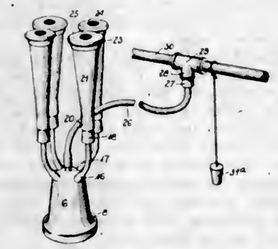
2. The combination of a piston having circumferential grooves and a plurality of longitudinally extending holes which intersect said grooves, split piston rings in said grooves having their ends arranged at the points where the holes intersect the grooves, the ends of successive rings being arranged at different holes so they are staggered around the piston, and locking bolts in said holes which engage between the ends of the rings to lock them in position, said bolts having notches at each groove where piston ring ends are not located which receive the bodies of the rings to lock the bolts against movement.

3. The combination of a piston having circumferential grooves and a plurality of longitudinally extending holes which intersect said grooves, split piston rings in said grooves having their ends cut away at the inner corners and arranged at the points where the holes intersect the grooves, and locking bolts in said holes which engage in the spaces formed by the cut away corners to lock the rings in position, said bolts having notches at each groove where piston ring ends are not located which receive the bodies of the rings to lock the bolts against movement.

4. The combination of a piston having circumferential packing ring grooves, and longitudinally extending holes which intersect the bottom of said grooves, split packing rings in said grooves, and bolts in said holes, said rings and bolts being interlocked with each other so as to lock both the rings and bolts in position.

5. The combination of a piston having circumferential grooves and a plurality of longitudinally extending holes which intersect said grooves, split piston rings in said grooves having their ends staggered around the piston, and locking bolts in said holes, said locking bolts engaging recesses in some of the piston rings and having recesses which are engaged by other of the piston rings whereby the locking bolts serve to hold the rings against circumferential movement and the rings serve to hold the locking bolts against longitudinal movement.

1,240,765. MILKING-MACHINE. MARVIN L. NORRIS, Fort Wayne, Ind. Filed Oct. 24, 1914. Serial No. 868,416. (Cl. 31—98.)



1. In a milking machine, a milk chamber in one piece shaped substantially like an inverted cup, a detachable valve in one piece for closing the opening in the bottom of the milk chamber, and resilient means in one piece for engaging the milk chamber and the valve for holding the valve yieldingly in closed position.

2. In a milking machine, a pipe having an opening, a stopper for closing said opening, a tube with a stopper at one end and detachably disposed in the opening, the stopper having a passage affording communication between the pipe and the tube and being interchangeable with the first mentioned stopper, a unit having a milk chamber with an opening in its bottom and additional openings, a tube connected with one of the additional openings, a valve for closing the first mentioned opening in the milk chamber, a teat cup connected with the last mentioned tube and having free communication at all times with the milk chamber, and means connecting the first tube with another of the said additional openings.

3. In a milking machine, a portable member in a single piece and substantially like an inverted cup, with a valve seat at its bottom, a valve normally disposed against the outer side of the valve seat for closing the bottom of the member, resilient means at the outer side of the valve for pressing the valve against the valve seat, a teat cup, valveless means connecting the teat cup with the interior of the member, and stationary means for alternately increasing and decreasing the pressure in the portable member for the purpose specified.

4. In a milking machine, a pipe line having an opening, a stopper for closing said opening, another stopper interchangeable with the first mentioned stopper and having a passage, and a unit having a tube secured to the second mentioned stopper at the passage, the second stopper serving to attach or detach a unit to the pipe line, the opening in which is closed by the first stopper when the unit is detached.

5. In a milking machine, a member in a single piece forming a milk chamber having a valve seat therebelow with a shoulder for supporting a spring to hold a valve in position at the valve seat, there being an opening in the member at the upper portion of the milk chamber for the purpose specified.

1,240,766. PROCESS FOR THE PRODUCTION OF LACTIC ACID. EDGAR THEOPHILUS OLSON, Ann Arbor, Mich., assignor to Detroit Organic Chemical Co., Detroit, Mich., a Corporation of Michigan. Filed Oct. 19, 1916. Serial No. 126,599. (Cl. 23—24.)

1. In the process for the production of lactic acid, preparing calcium lactate, converting the calcium lactate into a mixture containing lactid and lactic acid anhydrid, hydrolyzing the lactid and anhydrid to lactic acid, and separating the lactic acid.

5. In the process for the production of lactic acid, preparing calcium lactate, converting the calcium lactate into a mixture containing lactid and lactic acid anhydrid, distilling said mixture with superheated steam at 230° to 240° C., thereby hydrolyzing the lactid and anhydrid to lactic acid, collecting the latter in the distillate, and concentrating said distillate.

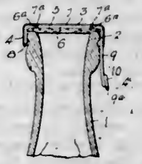
9. In the process for the production of lactic acid, treating crude lactic acid with an alkaline compound of calcium, thereby forming calcium lactate, purifying said calcium lactate during separation thereof from the solution, removing the calcium lactate, and preparing lactic acid therefrom.

11. In the process for the production of lactic acid, treating crude lactic acid with calcium hydroxid, adding water thereto during cooling at the moment of separation of the calcium lactate, further purifying and removing the calcium lactate, forming a solution thereof, treating said solution with sulfuric acid, and drying the resulting mixture of calcium sulfate and lactic acid, converting the lactic acid in said mixture into anhydrid and lactid, further purifying the resulting mixture, hydrolyzing the lactid and anhydrid to lactic acid, and separating the latter in finally purified state.

15. In the process for the production of lactic acid from crude materials, preparing a partially purified calcium lactate, treating the calcium lactate with an aqueous solution of sulfuric acid, thereby producing a mixture containing calcium sulfate and lactic acid, drying said mixture, heating the dried mixture to approximately 130° C., thereby converting the lactic acid into lactid and anhydrid, removing soluble impurities from the resulting mixture, and subjecting the purified mixture to the action of steam, thereby hydrolyzing the lactic and anhydrid to lactic acid and removing the latter in the pure state.

[Claims 2 to 4, 6 to 8, 10, and 12 to 14 not printed in the Gazette.]

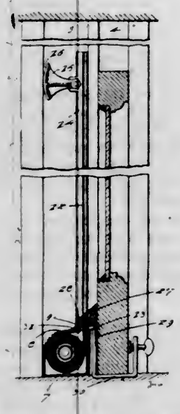
1,240,767. BOTTLE-CAP. CHARLES EDWARD O'MALLEY, Mansfield, Mass. Filed Dec. 1, 1916. Serial No. 134,400. (Cl. 215—10.)



In a device of the character described, the combination with a crimped cap and its compressible lining, of a substantially U-shaped wire finger piece having the arms thereof extended transversely across the interior of the cap under the lining and provided with reduced portions,

the free ends of the arms being extended downwardly within the crimped flange, while the looped end of the finger piece is extended downwardly below the crimped flange on the opposite side of the cap to provide a tang, the downwardly extended ends of the finger piece being provided at their junction with the arms with notched seats to receive the edges of the compressible lining, and the top of the cap having grooves pressed outwardly to receive the arms, the walls of the grooves being pinched around the before mentioned reduced portions of the arms to lock the finger piece in position.

1,240,768. ROLLING WINDOW-SCREEN. DAVID O'NEILL, Woodside, N. Y. Filed Nov. 28, 1916. Serial No. 133,865. (Cl. 156—39.)



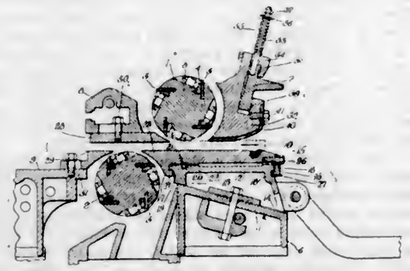
1. A rolling window screen comprising a casing, a spring roller journaled in said casing, a screen wound on said roller and extending exteriorly of the casing, an attaching strip having a groove to receive the free end of the screen, means for securing the screen within the groove, downwardly depending tongues formed on the attaching strip, and substantially U-shaped clamps securing the tongues to a window sash.

2. A rolling window screen comprising a casing, a spring roller journaled in said casing, a screen wound on said roller and extending exteriorly of the casing, means for securing the free end of the screen to a window sash, substantially U-shaped guide strips in cross section secured to each end of the casing and in vertical alinement with the opening in the casing to receive the edges of the screen, and a locking arm pivoted to the guide strips for locking said guide strips to a window frame.

3. A rolling window screen comprising a casing having an elongated slot therein, a roller journaled in said casing, a screen wound on said roller and extending through the opening, means for detachably securing the free end of the screen to a window sash, vertical guide strips located each end of the elongated slot of the casing to receive the edges of the screen, right angled flanges formed on said guide strips and having their lower ends extended at right angles and secured to the casing, and locking arms pivoted to the flanges for securing the guide strips to a window frame.

4. The combination with a window frame including a sliding sash, a casing carried by the window frame and having an elongated opening, a spring rewound roller journaled in said casing, a screen carried by said roller, means for connecting the screen to the window sash for movement therewith, substantially U-shaped in cross section guides secured to the frame and adapted to receive the edges of the screen, said substantially U-shaped guides having their lower ends spread to engage the top and rear walls of the casing for establishing a connection between the guides and the casing.

1,240,769. PLANING-MACHINE. CARL G. OSTEMAN, South Boston, Mass., assignor to S. A. Woods Machine Company, a Corporation of Maine. Filed June 23, 1916. Serial No. 105,499. (Cl. 144—114.)

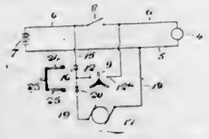


1. In apparatus of the kind described, a pair of planing cutters adapted to work on opposite sides of stock, means to feed said stock by said cutters and automatic means to guide said stock into cutting action with one cutter and simultaneously control the cutting action of the other cutter according to the thickness of the stock operated on, said means consisting in the yieldingly actuated chip breaker, a rocking guide upon which said chip breaker presses, with the inner end of said guide acting as an independent chip breaker in combination with the second cutter.

4. In apparatus of the kind described, top and bottom planing cutters adapted to plane the top and bottom surfaces of stock fed past them, a fixed guide opposite the bottom cutter, a tilting guide opposite to and cooperating with the top cutter and adapted to be actuated on a pivot directly under the axis of the top cutter, a portion of said tilting guide extending over the fixed guide opposite the bottom cutter, a yieldingly actuated chip breaker arranged to coöperate with said tilting guide and actuating said guide to constitute a second chip breaker on the fixed guide.

[Claims 2 and 3 not printed in the Gazette.]

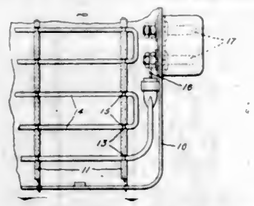
1,240,770. ELECTRIC-LIGHT APPARATUS. NICOLA PAPA, Utica, N. Y. Filed Mar. 14, 1916. Serial No. 84,133. (Cl. 177—348.)



An apparatus of the class described, a circuit including a light and a switch, a shunt of said circuit including an electric motor, a subshunt excluding the motor and including a motor driven intermittently acting switch, and switches to open and close the shunt and subshunts, whereby when the first named switch is closed and the last named switches are open, the light will operate continuously, and when the first named switch is open and the last named switches are closed the light will flash intermittently.

1,240,771. ELECTRIC HEATING UNIT. LEON F. PARKHURST, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed Mar. 28, 1916. Serial No. 87,171. (Cl. 219—63.)

1. A heating unit comprising a frame provided with metal strips formed with openings, metal sheathed insulated resistance wire received within said openings, and means independent of the metal strips for locking the wire in the openings.



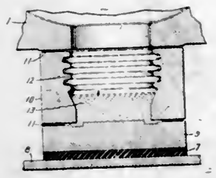
2. A heating unit comprising a frame provided with metal strips formed with openings in their edges, metal sheathed insulated resistance wire laid in said openings, and readily removable means for locking said wire in said openings.

3. A heating unit comprising a frame provided with metal strips formed in their edges with openings, insulated metal sheathed resistance wire laid in said openings, and independent means associated with the metal frame for locking said resistance wire in said openings.

4. A heating unit comprising a frame having an outer metal strip and metal cross strips secured within the same, said strips being reflexed at their upper edges and formed with slots in the edges of the reflexed portion, insulated resistance wire received within said slots, and rods passing through said outer strip and the reflexed portions of said cross strips and above the resistance wire, for locking the resistance wire to the cross strips.

5. A heating unit comprising a frame provided with metallic strips formed with a series of alined openings, a metal sheathed insulated resistance wire laid in said openings and freely expansible longitudinally therein, and means for locking the resistance member in said openings.

1,240,772. VAPOR ELECTRIC DEVICE. HARRY F. PERKINS, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Apr. 14, 1915. Serial No. 21,271. (Cl. 175—354.)



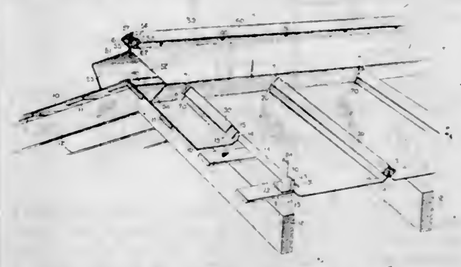
1. A vapor electric device comprising a metal container, a vaporizable cathode, one or more coöperating anodes, and means for electrically insulating the cathode from the main part of the container, said insulating means having a plurality of ridges extending transversely between the cathode and the anode or anodes.

2. A vapor electric device comprising a mercury cathode, one or more coöperating anodes and an inclosing envelop, the cathode-containing part of said envelop consisting at least in part of insulating material, the surface of which is provided with annular protuberances.

3. In a vapor arc device, a mercury cathode and a container therefor consisting in part at least of porcelain and having a plurality of ridges located on the surface of the container above the mercury surface and substantially parallel thereto.

1,240,773. SHEET-METAL ROOF. JOHN HENRY PERRY, Middletown, N. Y. Filed July 28, 1916. Serial No. 111,811. (Cl. 108—5.)

1. In a sheet metal roof, the combination of sheet metal side plates having upturned abutting members and a seam cap slipped over the upturned abutting members, and a ridge formed of two sheets having upturned abutting members at their upper ends and inwardly turned angular bottom members at their lower ends, the said bottom members having openings for the passage of the said seam caps, the upper ends of the said abutting members having outwardly and downwardly bent flanges, and a peak-shaped ridge cap fitting onto the said flanges, the said ridge cap having downwardly and inwardly extending flanges abutting with their lower edges against the outer faces of the said abutting members of the ridge.



2. In a sheet metal roof, a ridge formed of two sheets extending downwardly and outwardly one relatively to the other, the sheets having inwardly and downwardly extending flanges at their lower ends and having upwardly extending abutting members at their upper ends, the said abutting members terminating in outwardly and downwardly extending flanges and a ridge cap of inverted V shape and fitting over the said flanges of the abutting members, the said ridge cap having at its lower ends inwardly and downwardly extending flanges abutting against the outer faces of the said abutting members.

[Claim 3 not printed in the Gazette.]

1,240,774. MOTION-PICTURE AND METHOD OF PRODUCING THE SAME. CHARLES F. PIDGIN, Winthrop, Mass., assignor of six-tenths to Henry A. Johnston, Riverdale, Md. Filed July 19, 1916. Serial No. 110,128. (Cl. 88—16.)



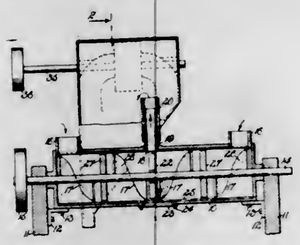
1. The hereindescribed method of introducing visible speech into motion pictures which consists in placing words or other speech on an inflatable device, inflating the same so that the words contained on the device will appear as if issuing from the mouth of the actor or character, photographing the picture and eliminating from the picture the inflatable device without removing the words from the picture, so that the words without the inflatable device will appear on the completed picture.

[Claims 2 to 5 not printed in the Gazette.]

1,240,775. GRAIN-POLISHING MACHINE. HERMAN J. PIEPGRAS, Caldwell, Idaho. Filed Oct. 7, 1916. Serial No. 124,247. (Cl. 83—34.)

1. A polishing machine for grain and seeds, including a fixed cylinder having inlets at both sides of the center and having a central outlet at the top, a stand pipe through which the material passes from the said outlet, a relatively small shaft turning in the cylinder leaving an ample space in the cylinder to receive a mass of material between the shaft and cylinder, separate indi-

vidual spiral flights on the cylinder shaft and oppositely disposed at each side of the center, those flights adjacent to the center being convergent but having their terminals spaced from each other, and an ejector revolving with the shaft at the said outlet between the said terminals, and receiving the material from both of the latter.



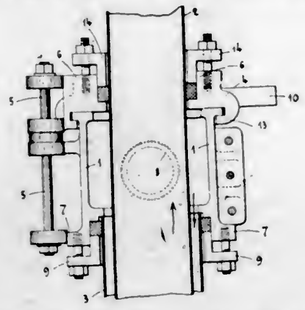
2. A polishing machine for grain and seeds, including a fixed cylinder having inlets at both sides of the center and having a central outlet at the top, a stand pipe through which the material passes from the said outlet, a relatively small shaft turning in the cylinder leaving an ample space in the cylinder to receive a mass of material between the shaft and cylinder, separate individual spiral flights on the cylinder shaft and oppositely disposed at each side of the center, those flights adjacent to the center being convergent but having their terminals spaced from each other, and an ejector on the shaft between the said terminals, said ejector consisting of a wheel presenting separate blades curved in the plane of rotation of the wheel, and wiping in succession past the said outlet with the turning of the shaft.

3. In a machine of the class described, a housing having a vertical inlet and having an inclined bottom and a partition dividing the housing into separate chambers, said chambers communicating by a passage adjacent to the said bottom, a vertical discharge spout leading from the bottom of one of said chambers and receiving material from the said inclined bottom, and means to produce an upward air current through said chamber and discharge spout, the other of said chambers surrounding the said vertical inlet and receiving the material issuing therefrom, to permit a loosening up of the material and an initial separation of the polished grains from the dust and chaff, uninfluenced by the air current in the second chamber.

4. A polishing machine of the class described, including a cylinder, having inlets at opposite sides of the center, and an outlet at the approximate center, a relatively small shaft turning in the cylinder, spiral elements on the shaft at each side of the center, there being a plurality of elements on the shaft at each side of the center and separated from each other, diametrically disposed bars on the shaft at each side of the center of the respective spiral elements, said bars presenting beveled side edges, the central spiral elements being convergent to constitute revoluble wedge surfaces, the adjacent terminals of the said central elements being separated, and an ejecting device disposed on the shaft at the said outlet between the said terminals.

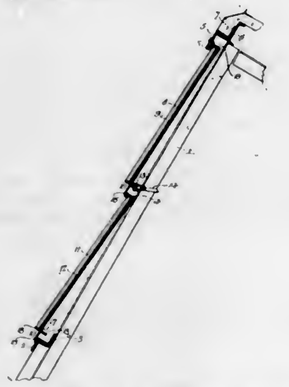
1,240,776. APPARATUS FOR WASHING WITH SLIME THE BORE END OF A WELL. IWAN PODOBIEDOFF, Petrograd, Russia. Filed Feb. 2, 1916. Serial No. 75,750. (Cl. 255—24.)

In a well-washing apparatus, the combination with spaced working and conducting pipes arranged one within the other, of a hood mounted on the upper end of the outer pipe and divided into two halves, said hood communicating with the annular space between said pipes and being connected with a source of washing liquid under pressure, a hinge pin about which both the hood halves may be swung, packing between the hood and the outer pipe, a bushing associated with said packing for compressing the same, a cover divided into two halves swinging about the said pin and provided with a similar



packing and a lower inwardly projecting rim adapted to engage the flanged upper edge of the hood, and means for fastening together the halves of the cover and the halves of the hood, respectively.

1,240,777. SASH CONSTRUCTION. CLARKE P. POND, Philadelphia, Pa. Filed June 3, 1912. Serial No. 701,322. (Cl. 108—16.)



3. The combination of a sash frame having a bottom member of cross shaped section; a body of glass in the sash supported along one edge by an upwardly extending flange of said bottom member, a second flange of the latter member extending outwardly beyond the surface of the glass and being provided with drainage holes and a third flange extending downwardly with its edge turned in; a frame having a sill engaged by said turned in edge; and an operating bar connected to the inwardly extending flange of said bottom member.

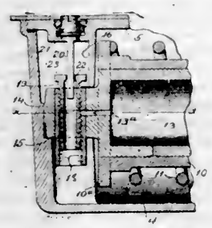
5. The combination of a sill member with a sash including a bottom member consisting of a structural rolled section including two webs intersecting each other substantially at right angles, one of said webs being arranged to provide a glass support and the other being turned inwardly with its edge in position to engage the sill member.

[Claims 1, 2, and 4 not printed in the Gazette.]

1,240,778. DOOR CHECK AND CLOSER. ROBERT S. POTTER, Greenwich, and PEDER MIKKELSEN, Stamford, Conn., assignors to The Yale & Towne Manufacturing Company, Stamford, Conn. Filed July 11, 1916. Serial No. 108,700. (Cl. 74—69.)

1. A valve for controlling the escape of liquid consisting of an internally threaded member having a port

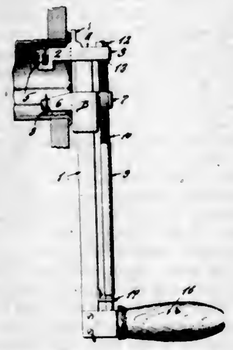
and an externally threaded member within said other member and passing the port therein, the threads on one of said members being partly cut away in that portion of the valve through which the liquid must pass in escaping, the externally threaded member being adjustable in the other member whereby the length of the threaded section through which the liquid must flow in escaping can be lengthened or shortened.



3. A valve consisting of a member having a bore, a bushing within said bore, a port in said member and communicating with the bore of the bushing, the said bore of the bushing being threaded, the threads in that portion through which the liquid must pass in escaping being partly cut away, and an externally threaded member adapted to adjust the length of the thread through which the liquid must flow in escaping.

[Claim 2 not printed in the Gazette.]

1,240,779. FLUE-CUTTER. HERMAN M. POWERS, Pierce City, Mo. Filed Aug. 30, 1916. Serial No. 117,659. (Cl. 81—194.)



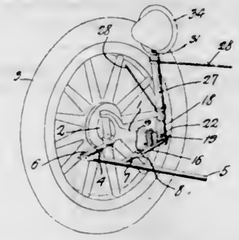
1. A flue cutting implement comprising a stock, a cutter holder fixed to said stock, a cutter holder movable on said stock, cutters carried by said cutter holders, a handle journaled to said stock whereby the stock may be moved in a circular path while the cutters are arranged within a tube, and means operable by said handle whereby the movable cutter holder may be fed in a direction away from the other cutter holder, the last mentioned means being cooperable with said handle.

2. A flue cutting implement comprising a stock, a cutter holder fixed to said stock, a cutter holder movable on said stock, cutters carried by said cutter holders, a handle journaled to said stock whereby said stock may be moved in a circular path while the cutters are arranged within a tube, and means operable by said handle whereby the movable cutter holder may be fed in a direction away from the other cutter holder, the last mentioned means being operable by said handle.

3. A flue cutting implement comprising a stock, a cutter holder fixed to said stock, a second cutter holder slidable upon said stock, cutters carried by said cutter holders, a feed screw rotatably connected to said stock for imparting movement to said second cutter holder while the holders are arranged within a tube, a handle journaled to said stock, and means whereby rotative movement of said handle may be transmitted to said feed screw to cause the latter to feed the movable cutter holder in a direction away from the first cutter holder.

4. A flue cutting implement comprising a stock, a cutter holder fixed to said stock, a second cutter holder slidable upon said stock, cutters carried by said cutter holders, a feed screw rotatably connected to said stock and lying parallel therewith, a handle extending outwardly from said stock and having a shaft therein journaled to the stock, and gearing connecting said shaft to said feed screw.

1,240,780. AUTOMOBILE-HEADLIGHT. CHELSEA C. PRATT, Mankato, Minn. Filed Dec. 6, 1916. Serial No. 135,433. (Cl. 240—62.)



1. The combination with the steering rod and the running gear of a vehicle, of a bearing; means for supporting the bearing on the body of the vehicle; a longitudinally extensible shaft journaled in the bearing and comprising upper and lower parts which are provided with interengaging elements uniting said parts for simultaneous rotation and for relative longitudinal movement; means for supporting the upper part of the shaft on the bearing independently of the running gear, against vertical movement; means for supporting the lower part of the shaft on the running gear; means for connecting the lower part of the shaft with the steering rod; and a lamp carried by the upper part of the shaft.

2. The combination with the steering rod and the running gear of a vehicle, of a bearing; means for supporting the bearing on the body of the vehicle; a longitudinally extensible shaft journaled in the bearing and comprising upper and lower parts which are provided with interengaging elements uniting said parts for simultaneous rotation and for relative longitudinal movement; means for supporting the upper part of the shaft on the bearing independently of the running gear, positively against vertical movement; means for supporting the lower part of the shaft on the running gear for rotation and for free sliding movement in a substantially horizontal plane responsive to the relative horizontal movements of the body of the vehicle and the running gear; means for connecting the lower part of the shaft with the steering rod; and a lamp carried by the upper part of the shaft.

3. The combination with the steering rod and the running gear of a vehicle, of a bearing; means for supporting the bearing on the body of the vehicle; a longitudinally extensible shaft journaled in the bearing and comprising upper and lower parts which are provided with interengaging elements uniting said parts for simultaneous rotation and for relative longitudinal movement; means for supporting the upper part of the shaft on the bearing; means for supporting the lower part of the shaft on the running gear; a lamp carried by the upper part of the shaft; a rod mounted in the lower part of the shaft for rotation and for longitudinal sliding movement; and means for connecting the said rod with the steering rod of the vehicle.

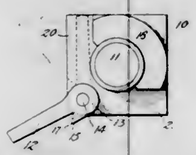
4. The combination with the steering rod and the running gear of a vehicle, of a bearing; means for supporting the bearing on the body of the vehicle; a longitudinally ex-

tensible shaft journaled in the bearing and comprising upper and lower parts which are provided with interengaging elements uniting said parts for simultaneous rotation and for relative longitudinal movement; means for supporting the upper part of the shaft on the bearing; means for supporting the lower part of the shaft on the running gear for rotation and for limited sliding movement in a substantially horizontal plane; a lamp carried by the upper part of the shaft; a rod mounted in the lower part of the shaft for rotation and for longitudinal sliding movement; and means for pivotally connecting the said rod with the steering rod of the vehicle.

5. In a device of the class described, a bearing; means for supporting the bearing on the body of a vehicle; a shaft journaled in the bearing; a lamp carried by the shaft; a support; means for upholding the support from the running gear of the vehicle, the shaft being mounted in the support for limited sliding movement in a substantially horizontal plane; a steering rod; and means for operatively connecting the shaft with the steering rod.

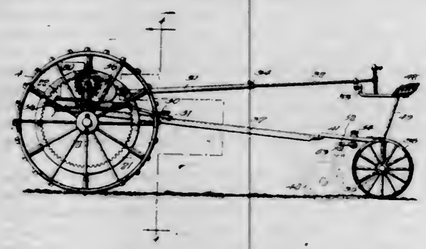
[Claims 6 and 7 not printed in the Gazette.]

1,240,781. NUT-LOCK. CHARLES D. ROBERTS, Monroe, N. C. Filed Sept. 19, 1916. Serial No. 121,052. (Cl. 151—25.)



A nut lock comprising a nut proper, one face being cut away at two adjacent sides and one corner to provide a depressed portion in the plane of the face of said nut, an arm pivotally mounted on the depressed portion of said nut at the corner thereof, a spur projecting from one side of said arm and having a series of parallel angular grooves formed therein to produce pointed teeth that when said arm is swung into position over one of said depressed sides will engage the threads of a screw but when swung over the other depressed side will remove said spur from the threads and permit rotation of the nut, said arm in either of its swinging positions being wholly within the plane of the sides of the nut.

1,240,782. TRACTOR. WILLIAM SAVIDGE, Alton, Ill. Filed Aug. 16, 1916. Serial No. 115,250. (Cl. 21—114.)



1. A tractor comprising a frame having pivoted to each end thereof a spindle, a power wheel journaled on each spindle and having an internal gear ring, a driving shaft journaled on the frame, pinions connected to the end thereof by universal joints and engaging the gear teeth, a counter-shaft journaled on the frame and having a driving connection with the driving shaft, a motor on the frame having its shaft at right angles to the counter-shaft, bevel gear wheels journaled loosely on the counter-shaft on opposite sides of the motor shaft, a clutch sleeve feathered on the shaft between the bevel gears, and adapted to clutch either gear to the counter-shaft, means for simultaneously swinging the spindles to steer the tractor, a reach bar connected with the frame, a trailing truck connected with the reach bar, and a steering post for operating the steering mechanism and movable longitudinally with respect to the steering mechanism, and means in connection with the steering post and the clutch sleeve for operating the said clutch sleeve when the steering post is moved longitudinally.

2. A tractor comprising a frame having pivoted to each end thereof a spindle, a power wheel journaled on each spindle and having an internal gear ring, a driving shaft journaled on the frame, pinions connected to the end thereof by universal joints and engaging the gear teeth, a counter-shaft journaled on the frame and having a driving connection with the driving shaft, a motor on the frame having its shaft at right angles to the counter-shaft, bevel gear wheels journaled loosely on the counter-shaft on oposite sides of the motor shaft, a clutch sleeve feathered on the shaft between the bevel gears, and adapted to clutch either gear to the counter-shaft, and means for simultaneously swinging the spindles to steer the tractor, means for operating the steering mechanism, and a connection between the said means and the clutch for permitting the same means to operate the clutch.

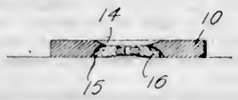
3. A tractor comprising a supporting frame for a motor and having pivoted to the ends thereof spindles, wheels journaled on the spindles, a driving shaft journaled on the frame and having a driving connection with the wheels and movable with the wheels, a counter-shaft, a motor, means for connecting the shaft with the motor to operate the said shaft in either direction, a driving connection between the counter-shaft and the driving shaft, means for simultaneously swinging the wheels, and a common means for operating the swinging means and the connecting mechanism of the counter-shaft, a reach bar pivoted to the frame for connection with the vehicle or implement to be drawn, and a trailing truck for supporting the reach bar during movement of the tractor.

4. A tractor comprising a supporting frame for a motor and having pivoted to the ends thereof spindles, wheels journaled on the spindles, a driving shaft journaled on the frame and having a driving connection with the wheels and movable with the wheels, a counter-shaft, a motor, means for connecting the shaft with the motor to operate the said shaft in either direction, a driving connection between the counter-shaft and the driving shaft, means for simultaneously swinging the wheels, and a common means for operating the swinging means and the connecting mechanism of the counter-shaft.

5. A tractor comprising a frame, having spindles pivoted to the ends thereof and power wheels journaled on the spindles, a counter-shaft having a driving connection with the wheels, oppositely arranged bevel gears journaled loosely on the shaft and adapted for connection with a motor, a clutch sleeve feathered on the shaft between the gears for connecting either to the shaft, steering mechanism for steering the wheels, a steering post for operating the steering mechanism, said shaft being sectional and the sections being movable with respect to each other, one of the sections having means in connection therewith for operating the clutch when the said section is moved toward and from the other section.

[Claim 6 not printed in the Gazette.]

1,240,783. JEWELER'S TOOL. HUGO B. SCHMIDT, Charleston, S. C. Filed May 17, 1917. Serial No. 169,286. (Cl. S1—6.)

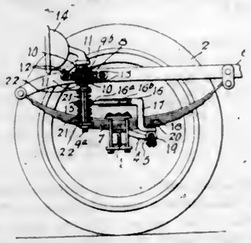


2. An implement of the character described comprising an elongated flat blade having a handle at one end and provided with a series of openings extending therethrough

and in line with its longitudinal axis, having countersunk portions at the upper and lower surfaces of the blade, said openings gradually increasing in diameter from one end of the series to the other.

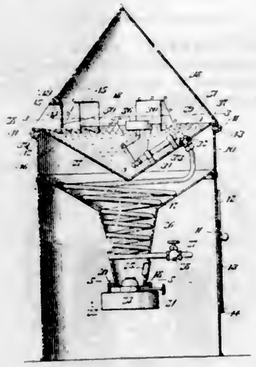
[Claim 1 not printed in the Gazette.]

1,240,784. DIRIGIBLE AUTOMOBILE-HEADLIGHT. JOHNIE W. SEARS, Hale Center, Tex. Filed Mar. 2, 1917. Serial No. 151,994. (Cl. 240—62.)



A dirigible automobile headlight, including a bearing bracket applied to the vehicle frame, an upright shaft journaled in the bearing bracket and formed with a polygonal lower end, a lamp rigidly applied to the upper end of the shaft, a rearwardly extending swinging arm provided at its forward end with a polygonal eye which is slidable on the polygonal lower end of the upright shaft, said swinging arm being formed in telescoping sections, and a pivot stud carried by the spindle arm connecting rod of the vehicle and pivotally engaging the rear end of the swinging arm.

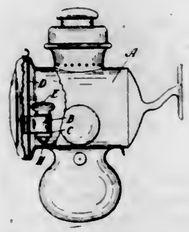
1,240,785. WATERING-TROUGH. WILLIAM V. SHAW, Riverside, Iowa. Filed June 15, 1917. Serial No. 175,016. (Cl. 119—73.)



1. In a hog watering device, a casing, a conical pan having a flanged edge engaging the top of the casing, a dome-shaped top having a depending flange surrounding the flange of the pan, both of said flanges being notched, elements secured to the casing and contacting with the flange of the dome for securing the dome and pan on the casing, said top having drink openings, a vestibule in each of said openings, means for delivering water to the pan, and means for regulating the delivery of the water to the pan.

2. In a stock watering device, a casing having an opening and a slidable door closing the opening, a jacket in the casing including a lower frusto-conical member having an upper flared portion which is secured to the casing, the frusto-conical portion having its lower edge provided with a notched flange, a lamp member having offset fingers designed to be passed through the notches in the flange and to rest on the flange, said jacket having an opening, a transparent plate closing the opening, a valved tube connected with the source of water supply and provided with a coil received in the frusto-conical and flared portions of the jacket, a substantially cone-shaped pan removably connected with the top of the casing and communicating with the coil, a valve for regulating the entrance of water through the coil into the pan, float means associated with said valve, a frusto-conical top surrounding the pan, said top having drink openings, a vestibule in each of said openings including spaced sides, a connecting top and a rear wall, and the pan having a vent opening communicating with the top.

1,240,786. ELECTRIC LAMP-ADAPTER. NOAH F. TILLERY, Oregon, Mo., assignor of one-half to Ottie Wall, St. Joseph, Mo. Filed Apr. 12, 1917. Serial No. 161,636. (Cl. 240—37.)

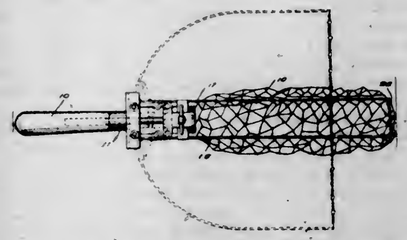


1. In a device of the kind described, an electric socket holder consisting of a strap having a loop formed therein and arms curved outwardly from said loop to form a socket receiving portion, a spring frame having a portion bent upwardly from its base to form a loop, said loop being widened at its upper portion to receive the loop of the socket holder, and being diminished at its base, the spring frame having lateral portions bent circularly upward from its base, which portions are adapted to exert an outward pressure to hold the device in a lamp, said lateral portions having downwardly bent ends to form hand holes to assist in the replacement and removal of the device from a lamp.

2. In a device of the kind described the combination of a spring wire frame having spring arms of general circular shape and a portion bent to form a loop and an electric socket holder received in said loop.

[Claim 3 not printed in the Gazette.]

1,240,787. FOLDING FISH-LANDING NET. CHARLES S. VAN HORN, Los Angeles, Cal., assignor of one-half to Harry R. Whitaker, Los Angeles, Cal. Filed Dec. 19, 1916. Serial No. 137,834. (Cl. 43—9.)

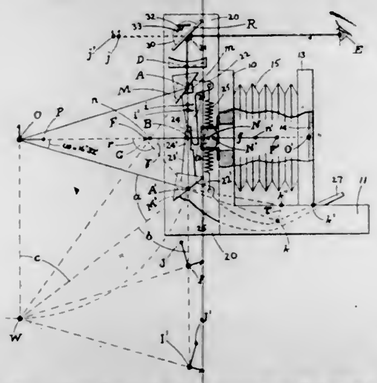


1. A folding fish landing net comprising a handle, a lateral channel bracket extending forwardly from the handle, stay links pivotally mounted in the channel of the bracket and extending forwardly, spring net stays secured to the stay links, a net secured to the stays, spreading

links connected to the forward ends of the stay links, a spreading channel member mounted between the stays and connected to the forward ends of the spreading links, a centering rod extending from the spreading channel member slidingly into the handle, and a thumb-piece pivotally mounted upon the spreading channel member and adapted to lock with the lateral channel bracket.

[Claim 2 not printed in the Gazette.]

1,240,788. FOCUSING-CAMERA. JOSEPH BECKER, Washington, D. C., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporatioon of New York. Continuation in part of applications Serial No. 26,647, filed Aug. 11, 1900, and Serial No. 88,805, filed Apr. 4, 1916. This application filed July 6, 1917. Serial No. 178,990. (Cl. 95—44.)

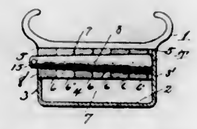


1. The combination with a photographic camera comprising relatively movable parts adapted to be relatively moved to set the camera in focus on an object point in the camera field, also an optical focuser of the type comprising means for sighting from two laterally separated points on the focuser or camera convergingly on the same said object point to be focused on, said focuser comprising mirrors located at the said sighting points; one of the said mirrors consisting in a total reflection prism, and means for rendering a part of its hypotenuse face transparent.

2. The combination with a photographic camera comprising relatively movable parts adapted to be relatively moved to set the camera in focus on an object point in the camera field, also an optical focuser of the type comprising means for sighting from two laterally separated points on the focuser or camera convergingly on the same said object point to be focused on, said focuser comprising mirrors located at the said sighting points; one of said mirrors consisting in a total reflection prism, and means for rendering a part of its hypotenuse face transparent, said means consisting in a smaller similar total reflection prism cemented with its hypotenuse face in contact with the hypotenuse face of the said larger prism to annul the reflecting power of that part of the hypotenuse face of the larger prism that is covered by the hypotenuse of the said smaller prism.

3. The combination with a photographic camera comprising relatively movable parts adapted to be relatively moved to set the camera in focus on an object point in the camera field, also an optical focuser of the type comprising means for sighting from two laterally separated points on the focuser or camera convergingly on the same said object point to be focused on; said focuser comprising mirrors located at the said sighting points, and both facing the object; of a divergent lens in the path of rays emitted by the object and reflected by the said mirrors, with its principal axis directed substantially through the said two laterally separated sighting points; and a third mirror fixed in the path of the object rays emitted by the said lens, to reflect such object rays into the observer's eye E as coming from two erect images *f*, *f'*; and means for fixing said third mirror at an angle that is variable to secure any preferred inclination of the line of sight *Eff'*.

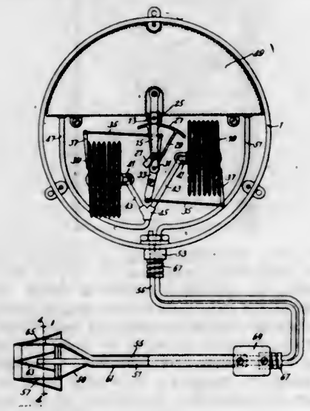
1,240,789. SPLIT CLENCHER DEMOUNTABLE RIM AND LOCKING AND ALINING DEVICE THEREFOR. WILLIAM N. BOOTH, Detroit, Mich., assignor to Kelsey Wheel Company, Inc., Detroit, Mich., a Corporation of New York. Filed Dec. 19, 1911. Serial No. 666,832. (Cl. 152—21.)



1. The combination with a fixed integral channeled rim, of a split demountable rim sleeved thereon and closely engaging the channeled edges thereof, rigid interlocking lugs upon the margins of the ends of said split rim, and inclosed in said channeled rim, said lugs having continuous tapered openings therethrough, the said channeled rim provided with a lateral opening in one wall through which said lugs are inserted, a tapered pin inserted in the said tapered openings, the large end of said tapered pin abutting against the inner surface of the channel wall, opposite said opening, whereby said tapered pin is prevented from escaping.

2. The combination with a fixed channeled rim, and a split demountable rim sleeved thereover, of a series of lugs upon one extremity of said split rim, and a series of lugs upon the other extremity of said split rim interlocking with said aforesaid series of lugs, means for detachably securing said series of lugs together, said lugs inclosed between the walls of said channel, one of the side walls of said channeled rim serving to engage and prevent the displacement of said securing means, when the rim parts are interlocked.

1,240,790. SPEEDOMETER. EDGAR H. BRISTOL, Foxboro, Mass., assignor to The Foxboro Company, Foxboro, Mass., a Corporation of Massachusetts. Filed Mar. 17, 1915. Serial No. 15,059. (Cl. 73—2.)



1. An instrument of the class described comprising an index and means to actuate said index including pressure-responsive tubes and means to transmit movement from said tubes to said index, said tubes and transmission means being balanced against movement by gravity in all positions of the instrument.

2. An instrument of the class described comprising an index 11, and means to actuate said index including pressure-responsive tubes 39, 39, balanced for preventing movement of said index by gravity in all positions of the instrument.

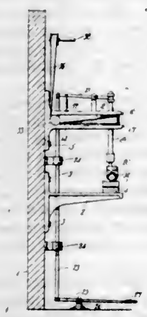
3. A speedometer comprising in combination, a casing, an index, a Pitot tube, expansion tubes mounted in said casing, pipe means connecting said Pitot tube with the interiors of said expansion tubes, pipe means connecting said Pitot tube with the interior of said casing, and means for transmitting movement from said expansion tubes to said index, said expansion tubes being arranged to counterbalance the effect of gravity thereon.

4. A speedometer comprising in combination, an index shaft, a pinion thereon, a rack meshing with said pinion, a shaft for said rack, a lever on said shaft, pressure responsive expansion tubes and links connecting the opposite ends of said lever with said tubes.

5. A speedometer comprising in combination, an index and means for rotating same including a shaft, a lever fulcrumed to said shaft intermediate its ends, pressure responsive expansion tubes symmetrically located at opposite sides of said fulcrum and members connecting said tubes with said lever.

[Claims 6 to 14 not printed in the Gazette.]

1,240,791. MACHINE FOR FORMING SHEET MATERIAL. JOHN CZAJKA, Chicago, Ill. Filed Apr. 6, 1917. Serial No. 160,242. (Cl. 113—52.)



1. In a device of the character specified, in combination with a forming die, means for operating upon work placed on the die, means for imparting vertical and horizontal circular movement to said first mentioned means, and means permitting rolling movement of said first mentioned means on the work.

5. In a device for forming sheet material, in combination with a forming die, means for operating upon work placed on the die, means for supporting said operating means whereby the latter is capable of rotating in any direction about its center, said supporting means being rotated about an axis distant from the center of said operating means, means for rotating said supporting means, and means for imparting a vertical movement to said supporting means.

14. In a device for forming sheet material, in combination with a relatively stationary forming die, an actuating rod movably supported, a head on said actuating rod, said head being provided with a spherical recess on its underside and eccentrically arranged thereto, a spherical element seated in said recess, ball bearings interposed between said recess and said element, means for retaining said element in said head, means for rotating said actuating rod, and means for imparting vertical movement to said head.

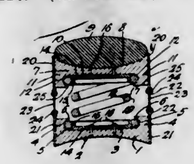
[Claims 2 to 4, 6 to 13, 15, and 16 not printed in the Gazette.]

1,240,792. PROCESS OF MAKING PARAFFINUM LIQUIDUM. HENRY V. DUNHAM, Bainbridge, N. Y., assignor to Hall Motor Fuel, Limited, London, England, a Corporation. Filed Mar. 16, 1916. Serial No. 84,682. (Cl. 196—26.)

4. A process of treating cylinder oil to produce paraffinum liquidum which comprises subjecting the oil to the action of a relatively large amount of sulfuric acid, removing the sludge, treating the residual oil with a mixture comprising ammonia and alcohol, settling and removing the separated matter, drying the oil by passing therethrough a current of heated, dry, elastic fluid incapable of chemically reacting upon the oil, and thereafter filtering the oil through a column of fullers' earth.

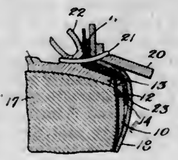
[Claims 1 to 3, 5, and 6 not printed in the Gazette.]

1,240,793. VEHICLE-TIRE. HENRY M. HORNE, Sulphur Springs, Tex., assignor of fifty one-hundredths to John C. Buford, Sulphur Springs, Tex. Filed Nov. 18, 1916. Serial No. 132,116. (Cl. 152—32.)



In a vehicle tire, an inner rim having overhanging flanges; an outer rim having overhanging flanges; helical springs abutting terminally against the rims and having terminal convolutions engaged beneath the flanges, the terminal convolutions abutting laterally against the rims beneath the flanges and projecting toward the median plane of the tire beyond the flanges; retainers on the rims and engaging the inner edges of the terminal convolutions of the springs in spaced relation to the flanges; and means for securing the retainers to the respective rims.

1,240,794. METHOD OF MAKING SHOES. GEORGE P. PRESBY, West Bridgewater, Mass., assignor to Beckwith Box Toe Company, Dover, N. H., a Corporation of Maine. Original application filed Feb. 5, 1915, Serial No. 6,255. Divided and this application filed Apr. 28, 1915. Serial No. 24,446. (Cl. 12—142.)



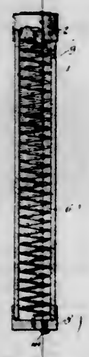
1. In the art of shoe-making, the herein described method, which consists in softening the sizing of a sized heel-seat portion of a counter stiffener of an unsewed shoe, forming the end portions of said heel-seat portion into the angle between the feather and lip, of the insole while said sizing in them is soft, and holding said formed-in portions in said angle while said sizing in them sets.

2. In the art of shoe-making, the herein described method, which consists in softening the sizing of a sized heel-seat portion of a counter stiffener of an unlasted shoe, lasting the shoe and wiping the end portions of said heel-seat portion into the angle between the feather and lip of the insole while said sizing in them is soft, and holding said portions in said angle while said sizing in them sets.

3. In the art of shoe-making, the herein described method, which consists in lasting the shoe with a counter stiffener whose heel-seat portion is composed of limp

absorbent material and impregnated with a heated adhesive pliable substance which hardens at ordinary atmospheric temperatures, forming the end portions of said heel-seat portion into the angle between the feather and lip of the insole while such adhesive substance in said end portions is heated and pliable, forming the upper into the angle formed by such formed-in end portions, holding the upper against such formed-in end portions while said adhesive substance in the latter sets, and sewing such contiguous formed-in portions of the upper and said heel-seat member to the insole.

1,240,795. FUSE DEVICE. EDMUND O. SCHWEITZER, Chicago, Ill., assignor to Schweitzer & Conrad, Chicago, Ill., a Corporation of Illinois. Filed Nov. 3, 1913. Serial No. 798,858. (Cl. 175—273.)



1. A fuse device comprising a tubular casing, a member forming a cap and closing the end of the tubular casing, said cap including a ferrule, a fusible element mounted upon the end of the ferrule, a terminal held by the fusible element, and means tending to separate the terminal from the cap.

4. A fuse device comprising a ring shaped fuse, a contact member for engaging the outer edge portion of said fuse, and a terminal device engaging the inner edge portion of said fuse and extending into the aperture of the ring, and means for exerting tension upon said terminal device said means being secured to the end of the terminal which extends into the aperture in said ring.

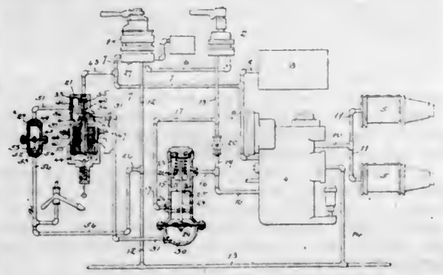
10. A fuse device comprising a tube of insulating material, a metal ferrule surrounding an end portion of said tube, a flat washer-like fuse device fitted against the end of said tube and contacting with said ferrule, a metal cone-shaped member arranged within the opening of said fuse and having its small end pointing inward, the outer end of said member engaging said fuse and the fuse and member forming a closure for the tube, and a spring arranged within the tube and engaging and drawing upon said member.

13. In a fuse device comprising a tubular casing, a terminal provided in said casing and supported by an apertured fusible element, said terminal engaging the inner edges of the aperture, a spring conductor secured to the terminal and extending into the casing, and tending to separate the terminal and the fusible element.

[Claims 2, 3, 5 to 9, 11, 12, 14, and 15 not printed in the Gazette.]

1,240,796. AIR-BRAKE-CONTROLLING MECHANISM. THOMAS W. SCOTT, Baltimore, Md., assignor to The American Train Control Company, Baltimore, Md., a Corporation of Maryland. Filed Nov. 23, 1916. Serial No. 133,055. (Cl. 188—4.)

1. In an air-brake controlling device the combination with a main reservoir, of a brake cylinder; a train line; an engineer's valve; a distributing valve; connections for supplying air to the brake cylinders through the distributing valve; connections between the distributing valve and engineer's valve to control the release of the brakes through the engineer's valve; valve-means interposed in the connections between the distributing valve and engineer's valve to prevent release of the brakes through the engineer's valve and automatic means for controlling said valve-means.



2. In an air-brake controlling device the combination with a main reservoir, of a brake cylinder; a train line; an engineer's valve; a distributing valve having a connection with the brake cylinder and having an application pipe leading to the engineer's valve to control the release of the brakes through the engineer's valve; valve means interposed in said application pipe to cut off communication therethrough to the engineer's valve; means for holding said valve means in one position by reservoir pressure, and automatic means for venting said reservoir pressure from the holding means independently of the engineer's valve.

3. In an air-brake controlling device the combination with a main reservoir, of a brake cylinder; a train line; an engineer's valve; a distributing valve having a connection with the brake cylinder and having an application pipe leading to the engineer's valve to control the release of the brakes through the engineer's valve; valve means interposed in said application pipe to cut off communication therethrough to the engineer's valve; and electro-pneumatic means for automatically controlling said valve means.

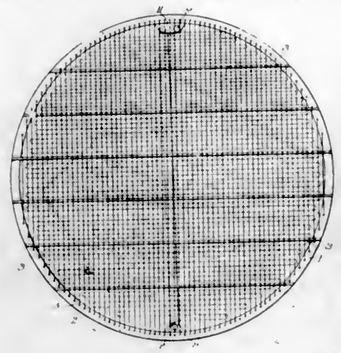
4. In an air-brake controlling device the combination with a main reservoir, of a brake cylinder; a train line; an engineer's valve; a distributing valve having a connection with the brake cylinder and having an application pipe by which air may be vented through the engineer's valve to the atmosphere to release the brakes; valve means interposed in the application pipe between the distributing valve and the said engineer's valve; means for normally holding said valve means open by pressure from the main reservoir and means independent of the engineer's valve for venting the train line to apply the brakes and for venting the main reservoir pressure from the said valve means to close the latter and cut off communication between the engineer's valve and the distributing valve through said application pipe.

5. In an air-brake controlling device the combination with a main reservoir, of a brake cylinder; a train line; an engineer's valve; a distributing valve; connections between the distributing valve and brake cylinder; connections between the distributing valve and main reservoir; connections between the distributing valve and engineer's valve; normally open valve means in said latter connections; means for holding said valve means open and electric means for controlling said holding means.

[Claims 6 and 7 not printed in the Gazette.]

1,240,797. METER. LEWIS L. TATUM, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Mar. 1, 1913. Serial No. 751,466. (Cl. 73—167.)

1. An electric thermometer resistance comprising a frame, supporting means carried by said frame and a resistor carried by said supporting means and disposed so that the resistance of the area covered by the resistor at one side of the frame is greater proportionally than the resistance of the area covered by the resistor at the other side of the frame.



2. An electric thermometer resistance comprising a frame, supporting means of non-conducting material carried by said frame, and a resistor in the form of a wire doubled back and forth to cover substantially the entire area bounded by said frame, said wire being supported by said supporting means out of contact with said frame, and being disposed so that the resistance of the area covered by the resistor at one side of the frame is greater proportionally than the resistance of the area covered by the resistor at the other side of the frame.

3. An electric thermometer resistance comprising a circular metallic frame, a plurality of parallel non-conducting cords stretched across said frame and spaced at substantially equal intervals, and a refexed resistance wire secured to said cords, the adjacent turns of said wire being substantially parallel to each other and arranged at right angles to said cords and disposed so that the resistance of a given portion of the area covered by said wire is greater than the resistance of the remainder of said area.

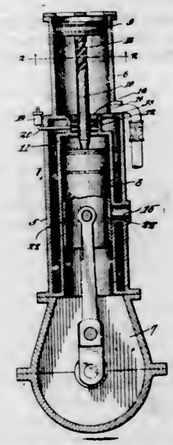
4. An electric thermometer resistance comprising a metallic hoop, a plurality of equally spaced non-conducting cords secured at opposite ends to said hoop, a resistance element comprising a plurality of adjacent lengths of resistance wire substantially parallel to each other and spaced apart, said lengths of resistance wire being arranged to intersect said cords and being tied thereto at each intersection and being so disposed that the resistance of the wire covering a portion of said area is relatively greater than the resistance of the wire covering the remainder of said area.

5. An electric thermometer resistance comprising a frame, a resistance wire supported thereby and insulated therefrom, said wire being so disposed with respect to said frame as to cover substantially the entire area bounded thereby, and being arranged so that the total resistance of said area at one side of the frame is greater proportionally than the resistance of the area at the other side of the frame.

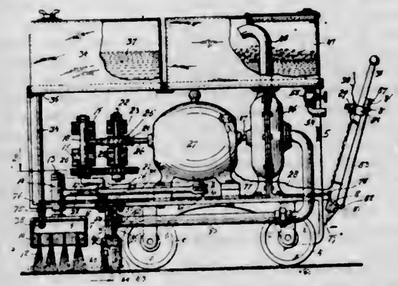
[Claims 6 to 21 not printed in the Gazette.]

1,240,798. TWO-CYCLE COMBUSTION-ENGINE. CHARLES W. FOWLER, Baltimore, Md. Filed Apr. 11, 1916. Serial No. 90,313. (Cl. 123—65.)

An internal combuation engine, comprising axially alined explosion and compression chambers separated by a partition having a central opening therethrough, said explosion and compression chambers being provided at their lower ends with an exhaust and inlet port respectively, pistons in said chambers, and a stem connecting said pistons and passing through the opening of said partition, said stem having a single continuous exterior passageway completely encircling said stem and of such length as to establish communication between the chambers at the end of the compression stroke of the piston in the compression chamber, the lower end of said exterior passageway being smooth and shoulderless to allow a free discharge of gas therefrom and also inclined in a direction to cause the gas to initially contact with the explosion chamber wall adjacent its upper end.



1,240,799. CARPET WASHING AND RINSING MACHINE. HALLA F. GRAY, Denver, Colo., assignor to The Bon Aurora Manufacturing and Machine Company, Denver, Colo., a Corporation of Colorado. Filed Jan. 30, 1917. Serial No. 145,351. (Cl. 15—8.)



1. A portable machine for washing carpets and the like comprising a framework adapted to be moved over the carpet or rug to be cleaned and having mounted thereon a fountain scrubber, a squeegee, and a suction nozzle in close proximity and coöperating with the squeegee, the nozzle and squeegee being substantially of the same length and located in the rear of the scrubber.

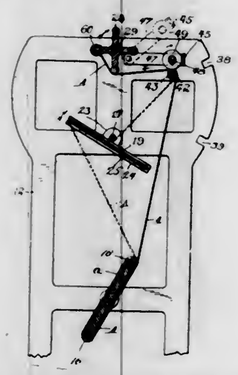
2. A portable machine comprising a frame, a scrubber movably mounted thereon, means for imparting the scrubbing movement thereto, a suction nozzle mounted on the frame and acting on the carpet in the rear of the scrubber, and a squeegee mounted on the frame, arranged in the rear of the scrubber and in coöperative relation with the nozzle, the squeegee and nozzle being substantially of the same length.

3. A portable machine for washing carpets and the like comprising a framework adapted to be moved over the carpet or rug to be cleaned and having mounted thereon a fountain scrubber, a squeegee, a suction nozzle substan-

tially coextensive in length with the squeegee, and a nap combing device, the squeegee, the nozzle and the nap combing device being arranged in the rear of the scrubber.

[Claims 4 to 8 not printed in the Gazette.]

1,240,800. MACHINE FOR REWINDING WOVEN FABRICS. MORRIS J. HOFFMAN, Chicago, Ill. Filed Jan. 6, 1917. Serial No. 140,886. (Cl. 242—61.)



1. In a machine for doubling and rewinding bolts of woven fabrics, a support for the full bolt, a winding drum upon which part of the fabric is wound, a rewinding head, upon which the fabric is doubled and rewound, and mechanism for alternatively rotating said winding drum and rewinding head.

4. In a machine for doubling and rewinding fabric, to oppositely disposed rewinding heads, the one being spring pressed toward the other, each having an elongated socket member for the reception of the end of a board, and each head also having a socket for the reception of a rod, between which rod and board the middle of the fabric is placed, and driving means for rotating said heads.

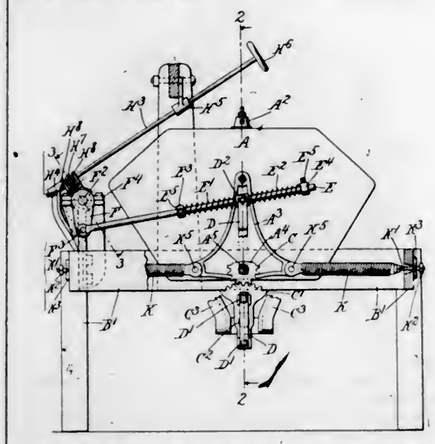
11. In a machine for doubling and rewinding fabric, a rotatory support for a full bolt of fabric, a rotatory support for holding a board upon which the doubled fabric is to be rewound, a drum upon which part of said fabric is to be wound temporarily, means for alternately driving said second support and said drum, and a measuring device having a friction roller resting on said fabric and rotated thereby when the fabric is moved past the roller, said measuring device indicating the length of fabric unwound from the full bolt, whereby when half of the fabric has been withdrawn from said full bolt, it may be doubled and rewound on the board carried by said second named support.

13. In a machine for doubling and rewinding fabric, a frame, a drum rotatively mounted in said frame, a pinion connected with said drum, rewinding heads rotatively mounted in said frame, connections between said heads, including a rod over which the fabric is doubled, a pinion connected with one of said heads, a gear carrying lever pivotally mounted upon said frame, a driving gear wheel journaled on said lever, and adapted to be moved into mesh with either of said pinions, and a bolt carried by said lever and coöperating with notches in said frame to hold said lever in either of said positions.

[Claims 2, 3, 5 to 10, and 12 not printed in the Gazette.]

1,240,801. DRIVING MECHANISM FOR WASHING-MACHINES. HENRY S. JUDD and HENRY PLETSCH, Chicago, Ill., assignors to Judd Laundry Machine Company, Chicago, Ill., a Corporation of Delaware. Filed Mar. 10, 1910. Serial No. 548,388. (Cl. 74—5.)

1. In an apparatus of the character described, the combination with a main frame, of a body pivotally mounted on said frame to oscillate about a horizontal axis adjacent the bottom of said body, and an oscillating spring pivotally connected at its outer end to said frame and pivotally connected at its inner end directly to said body, said spring being arranged at an angle to the path of movement of its inner pivoted end.



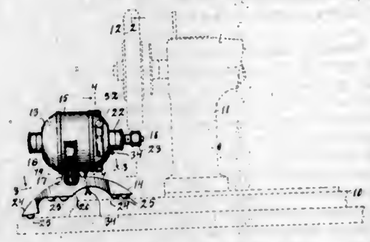
2. In an apparatus of the character described, the combination with a main frame, of a body pivotally mounted on said frame to oscillate about the horizontal axis arranged below the center of gravity of said body, counterbalancing springs pivotally connected at their outer ends to said frame and pivotally connected at their inner ends directly to said body on opposite sides of and spaced apart from said horizontal axis, each of said springs being arranged at an angle to the path of movement of its inner pivoted end, a power shaft and driving connections between said shaft and said body comprising a rotary crank and pitman, an oscillating lever and cushioning springs, substantially as described.

3. In apparatus of the character described, the combination with a main frame, of a body mounted on said frame and arranged to oscillate about a horizontal axis below its center of gravity, mechanism for oscillating said body about said axis comprising a lever pivoted on said frame below the axis of said body and connected to the latter, a power actuated pitman for oscillating said lever and spring mechanism arranged to coöperate with said lever in effecting the reversals in the direction of movement of said oscillating body, substantially as described.

4. In an apparatus of the character described, the combination with a main frame, of an oscillatory body horizontally arranged trunnions adjacent the bottom of said body, bearings at each side of the main frame for said trunnions, springs connected to said body and to the main frame for yieldingly holding said body normally in upright position, a lever connected to the lower portion of said body at one end for oscillating the same, a power driven pitman, a block slidably mounted upon said pitman and connected to the upper end of said lever, and cushioning springs mounted upon said pitman at opposite sides of said block.

1,240,802. ELECTRIC MOTOR. FREDERICK J. OSIUS, Racine, Wis. Filed Mar. 26, 1915. Serial No. 17,095. (Cl. 74—26.)

3. An electric motor, comprising a support having a plurality of downwardly projecting yielding knobs, some of said knobs being positioned on a higher plane than other of said knobs, said support also provided with eyed ears, a motor member having a transversely extending pivot bolt which extends through the eyed ears and pivotally connects the motor member to the support, said motor member also having a yielding friction driving pulley, and a coiled spring surrounding the pivot bolt and having one of its ends engaging the support and the other end engaging the motor member for yieldingly tilting the pulley portion of the motor member in a direction toward the wheel to be driven thereby.



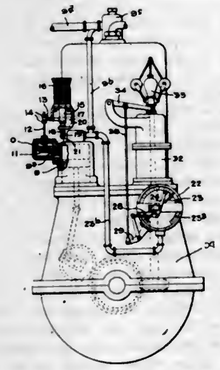
13. The combination with the frame and the wheel of a machine to be driven, of a motor member and its shaft and a driving wheel secured to and turning with the shaft thereof, a base member positioned below the motor member, a pivot pin pivotally connecting the motor member to the base member, and a coiled spring surrounding the pivot pin and coacting with both members to cause the motor wheel to yieldingly and drivingly engage the machine wheel and the base member to clampingly engage the frame of the machine.

15. The combination with the frame and the wheel of a machine to be driven, the lower portion of said wheel being positioned above a portion of the frame, of a motor member and its shaft and a driving wheel secured to and turning with the shaft thereof, and a base member on which the motor member is mounted, the motor wheel and a portion of the base member being interposed between the machine frame and the lower peripheral portion of the machine wheel, said motor wheel frictionally engaging said lower peripheral portion of said wheel and the base portion clampingly engaging said frame portion.

[Claims 1, 2, 4 to 12, and 14 not printed in the Gazette.]

REISSUES.

14,359. INTERNAL-COMBUSTION ENGINE. CHARLES DAY, GEORGE EDWARD WINDELER, and PETER GRANT, Hazel Grove, near Stockport, England, assignors to General Electric Company, a Corporation of New York. Filed July 13, 1917. Serial No. 180,488. Original No. 1,221,696, dated Apr. 3, 1917, Serial No. 60,672, filed Nov. 10, 1915. (Cl. 123—103.)



1. The combination with an internal combustion engine and a compressor for supplying air thereto for injecting fuel into it, of a valve controlling the admission of air to the inlet of the compressor, and means responsive to the load on the engine and the pressure of the air delivered by the compressor for positioning said valve.

2. The combination with an internal combustion engine and a compressor for supplying air thereto for injecting fuel into it, of a valve controlling the inlet of the compressor, a device which moves in response to the pressure on the delivery side of the compressor, a second device which moves in response to variations in the load on the engine, and means controlled by said two devices for positioning the valve.

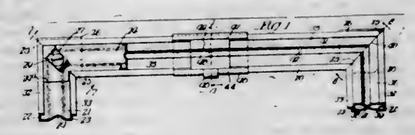
3. The combination with an internal combustion engine and a compressor for supplying air thereto for injecting fuel into it, of a valve in the inlet of the compressor, an electromagnet for controlling the position of said valve, an electric circuit connected with said electromagnet, and means responsive to the load on the engine and the pressure on the delivery side of the compressor for opening and closing said circuit.

4. The combination with an internal combustion engine, and a compressor for supplying air thereto for injecting fuel into it, of a valve in the inlet of the compressor, and means for regulating it to vary the delivery pressure of the compressor in accordance with the load on the engine, said means comprising an electric contact which is positioned by the load on the engine, a cooperating contact which is positioned by the delivery pressure of the compressor, an electric circuit which is controlled by said contacts, and means in said circuit for opening and closing said valve.

5. The combination with an internal combustion engine having a governor, and a compressor for supplying air for injecting fuel into the engine, of a valve in the inlet of the compressor, an electroresponsive device for positioning it, an electric circuit in which said device is included, a pair of contacts movable relative to each other for opening and closing said circuit, a pressure responsive device which is moved in response to the pressure on the delivery side of the compressor for moving one of said contacts, and means connecting the other contact to said governor.

6. The combination with an internal combustion engine and a compressor for supplying air thereto for injecting fuel into it, of a valve in the inlet of the compressor and means for regulating it to vary the delivery pressure of the compressor in accordance with the load on the engine, said means comprising a pressure gage connected with the delivery side of the compressor and having an electric contact on its pointer, a second pointer carried by the gage and having a contact which coöperates with the first named contact and is positioned in accordance with the load on the engine, an electric circuit which is controlled by said contacts, and means in said circuit for opening and closing said valve.

14,360. ADJUSTABLE METALLIC FRAME FOR SCREENS AND THE LIKE. CHARLES A. HENRY, Chicago, Ill., assignor, by mesne assignments, to C. K. Anderson, Chicago, Ill. Filed Sept. 10, 1914. Serial No. 861,149. Original No. 1,038,367, dated Sept. 10, 1912, Serial No. 622,861, filed Apr. 24, 1911. (Cl. 156—14.)



1. A metallic frame including in its construction a corner piece consisting of two channeled members each having its walls mitered at their meeting ends, a right-angled extension on each of said members to lie one on the other, said members having in one of their surfaces between the corners of their meeting ends an apertured recess, a screw

located in said openings and a nut engaging said screw and located in the recess of one of said members.

2. A metallic frame including in its construction a corner piece consisting of two pieces each having at each of its edges a wall each provided with a flange extended in the same direction, the walls and flanges of each piece being mitered at their meeting ends, each of said members also having between its walls a longitudinally extended corrugation, a right angled extension on each of said members at their meeting ends to lie one on the other, each of said extensions having a longitudinally extended corrugation and provided on one of their surfaces between the corners of their meeting ends with an apertured recess, a screw located in said openings, a nut engaging said screw and located in the recess of one of said members, an outer member located in each of the first named pieces, and each consisting of a piece having a longitudinally extended and inwardly disposed corrugation to impinge against the first named corrugation and provided with an opening in its corrugated portion, each of said outer members also having at each of its edges a wall to fit between the walls of said inner members.

3. A metallic frame including in its construction a plurality of inner and outer clamping members connected together in pairs, each of said inner members consisting of a piece having at each of its edges a wall each provided with a flange extended in the same direction, each of said outer members consisting of a piece having at each of its edges a wall to fit between the walls of said inner members and provided between its ends with an opening, a splicing member telescopically engaging the adjacent ends of two pairs of the said inner and outer members and consisting of a piece having at each of its edges a wall one of which is provided with a channeled recess to receive one of the flanges on the said inner members, and an extension member located within the splicing member between the adjacent ends of said pairs of the inner and outer members and provided with an opening between its ends, said extension member having at each of its edges a wall to fit between the walls of the splicing member.

4. In an adjustable metallic frame, the combination with a pair of channeled members located in alinement with one another but spaced apart at one of their ends, each of said members having on one of its walls a flange extended outwardly from said wall, a channeled splicing member embracing said alined members at their adjacent portions and having in one of its walls a channeled extension to receive the flanges on the first named members and provided with an eye extended from said channeled wall, a link loosely mounted in said eye, and an extension member located within the splicing member between the ends of the alined members.

5. In an adjustable metallic frame, the combination with a pair of channeled members located in alinement with one another but spaced apart at one of their ends, each of said members having on one of its walls a flange extended outwardly from said wall, a channeled splicing member telescopically engaging said alined members at their adjacent portions and having in one of its walls a channeled extension to receive the flanges on the first named members, and an extension member located within the splicing member between the ends of the alined members.

6. A metallic frame including in its construction an inner and an outer clamping member, said inner member consisting of a piece having at each of its edges a wall each provided with a flange extended in the same direction, said inner member also having between its walls a longitudinally extended corrugation, said outer member consisting of a piece having a longitudinally extended and inwardly disposed corrugation to impinge against the first named corrugation and provided at each of its edges with a wall to fit between the walls of said inner member, one of the members of said outer member having its free edge inturned and the other wall of said member having its edge outturned or rolled and provided with an apertured extension, a suitably supported hinge plate having an extension provided with eyes to register with the said apertured extension of the outer member, and a pintle located in said eyes and apertures.

7. A metallic frame comprising, in combination, cooperating inner and outer clamping members, the inner clamping member being provided with a wall having an outwardly projecting flange forming a bearing for a sheet of material and with a wall having an inwardly projecting flange coacting with the outer clamping member, and the outer clamping member being provided with a portion coacting with said last mentioned flange and with a wall bearing against the wall of said inner clamping member opposite to said inwardly extending flange, the said clamping members being constructed and adapted for yieldingly resistant engagement.

8. A frame strip with up-turned rims, a clamp strip rockably mounted in said frame strip intermediate its rims and provided with edges adapted to move bodily along said rims in opposite directions, said clamps being wider than the distance between the two rims.

9. A frame strip with up-turned rims adapted to receive the screen border on its inner rim, a clamp strip rockably mounted in said frame strip intermediate its rims and provided with edges adapted to move bodily along said rims and one of them to engage the screen border, said clamp being wider than the distance between the screen border when in position on the rim and the opposite rim whereby the clamp when rocked on its axis will alternately clamp and free the screen border.

10. A frame strip with up-turned rims, a clamp strip rockably mounted in said frame strip intermediate its rims and provided with edges adapted to move bodily along said rims in opposite directions, said clamp being wider than the distance between the two rims, one of said strips being of spring material.

11. A frame strip with up-turned rims adapted to receive the screen border on its inner rim, a clamp strip rockably mounted in said frame strip intermediate its rims and provided with edges adapted to move bodily along said rims and one of them to engage the screen border, said clamp being wider than the distance between the screen border when in position on the rim and the opposite rim whereby the clamp when rocked on its axis will alternately clamp and free the screen border, one of said strips being of spring material.

12. A frame strip with up-turned rims, a clamp strip rockably mounted in said frame strip intermediate its rims and provided with edges adapted to move bodily along said rims in opposite directions, said clamp being wider than the distance between the two rims, the clamp strip being of spring material.

13. A frame strip with up-turned rims adapted to receive the screen border on its inner rim, a clamp strip rockably mounted in said frame strip intermediate its rims and provided with edges adapted to move bodily along said rims and one of them to engage the screen border, said clamp being wider than the distance between the screen border when in position on the rim and the opposite rim whereby the clamp when rocked on its axis will alternately clamp and free the screen border, the clamp strip being of spring material.

14. A frame-strip with up-turned rims, a clamp strip rockably mounted in said frame strip intermediate its rims and provided with edges adapted to move bodily along said rims in opposite directions, said clamp being wider than the distance between the two rims and an inward projection on the upper surface of the outer rim of the frame strip to hold the clamp strip in position.

15. A frame strip with up-turned rims adapted to receive the screen border on its inner rim, a clamp strip rockably mounted in said frame strip intermediate its rims and provided with edges adapted to move bodily along said rims and one of them to engage the screen border, said clamp being wider than the distance between the screen border when in position on the rim and the opposite rim whereby the clamp when rocked on its axis will alternately clamp and free the screen border and an inward projection on the upper surface of the outer rim of the frame strip to hold the clamp strip in position.

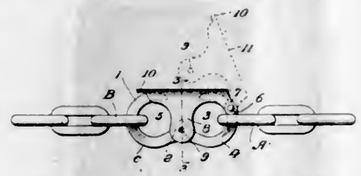
16. A frame strip with up-turned rims, a clamp strip rockably mounted in said frame strip intermediate its rims and provided with edges adapted to move bodily along said rims in opposite directions, said clamp being wider than the distance between the two rims, one of said strips being of spring material, and an inward projection on the upper surface of the outer rim of the frame strip to hold the clamp strip in position.

17. A frame strip with up-turned rims adapted to receive the screen border on its inner rim, a clamp strip rockably mounted in said frame strip intermediate its rims and provided with edges adapted to move bodily along said rims and one of them to engage the screen border, said clamp being wider than the distance between the screen border when in position on the rim and the opposite rim whereby the clamp when rocked on its axis will alternately clamp and free the screen border, one of said strips being of spring material, and an inward projection on the upper surface of the outer rim of the frame strip to hold the clamp strip in position.

18. A frame strip with up-turned rims, a clamp strip rockably mounted in said frame strip intermediate its rim and provided with edges adapted to move bodily along said rims in opposite directions, said clamp being wider than the distance between the two rims, the clamp strip being of spring material, and an inward projection on the upper surface of the outer rim of the frame strip to hold the clamp strip in position.

19. A frame strip with up-turned rims adapted to receive the screen border on its inner rim, a clamp strip rockably mounted in said frame strip intermediate its rims and provided with edges adapted to move bodily along said rims and one of them to engage the screen border, said clamp being wider than the distance between the screen border when in position on the rim and the opposite rim whereby the clamp when rocked on its axis will alternately clamp and free the screen border, the clamp strip being of spring material and an inward projection on the upper surface of the outer rim of the frame strip to hold the clamp strip in position.

14,361. CHAIN-LINK CONNECTOR. WILLIAM H. MCLAUGHLIN, Hartford, Conn., assignor, by mesne assignments, to Cassius S. Chase, Hartford, Conn. Filed Apr. 20, 1917. Serial No. 163,418. Original No. 1,166,068, dated Dec. 28, 1915, Serial No. 27,089, filed May 10, 1915. (Cl. 59—89.)



1. A chain link connector consisting of a single piece of non-resilient metal divided into two eyes by a dividing point and adapted to receive strain in a straight line in opposite directions from the respective terminal links of two chains, said dividing point being provided with two registering lateral recesses, in combination with a guard having a bifurcated end pivotally connected to said piece of metal adjacent one of the sides thereof, the other end of said guard projecting slightly over the other end of said piece for the purpose set forth and having between its ends two integral resilient dividing plates extending down along the sides of said dividing point and provided with lateral inwardly presented lugs fitting into said recesses, said plates preventing the terminal link of either chain from working into the wrong eye during slackness of the chain.

2. A chain link connector consisting of a single piece having two eyes divided by a raised point, in combination with a guard having a bifurcated end pivotally connected to said piece adjacent one end thereof, extending over the opening between the two ends of said piece and provided with a pair of resilient dividing plates extending down along the sides of said raised point in order to prevent the passage of an endless article from one eye into the other eye when the guard is shut, the faces of the eyes being formed to receive strain in opposite directions only.

3. A chain connector consisting of a single piece of metal formed with two hooks arranged to receive chain links and resist pull in opposite directions, and a guard, having one end pivoted to one hook and the other end adapted to overlie the other hook for closing the opening between the hooks, said guard having two resilient arms that extend laterally across the opening between the hooks and are adapted to clasp the body of the connector between the hooks so as to divide the space embraced by the hooks into two separated eyes and prevent the passage of a link from one hook to the other when the guard is closed.

4. A device to connect the links of a chain consisting of a part having two hooks presented toward each other, leaving an open space between their adjacent ends and adapted to receive strain or pull in opposite directions, in combination with a guard pivotally connected to said part at one end and, in closed position, guarding said open space and extending down between the adjacent ends of the hooks to prevent the passage of an endless article from one of said hooks to the other, said guard being provided with a pair of resilient plates to grip between them a portion of said part for the purpose of holding said guard in closed position.

5. A device, to connect the links of a chain, consisting of a part having two hooks presented substantially toward each other, leaving an open space between their ends and adapted to receive chain links, said hooks being connected by a body portion in combination with a guard permanently mounted on said part and, in closed position, guarding said open space and extending between the adjacent ends of said hooks toward said body portion to prevent the passage of an endless article from one of said hooks to the other, said guard being provided with a pair of resilient plates to engage said part to hold said guard in closed position.

14,362. INSULATED RAIL-JOINT. PETER G. TEN EYCK, Albany, N. Y., assignor to The Rail Joint Company, a Corporation of New York. Filed June 30, 1914. Serial No. 848,304. Original No. 997,475, dated July 11, 1911, Serial No. 489,275, filed Apr. 12, 1909. (Cl. 239—5.)



1. In a rail joint comprising the rails, a fish plate, a holding plate, insulation placed between and permanently attached throughout its entire length to both the fish plate and the holding plate.

2. A rail joint, comprising a rail, a fish plate provided with a lower flange bent over on itself and resting above the main portion of said fish plate on the same side of the web of the rail as said fish plate, an insulation placed between said fish plate and said rail, substantially as described.

3. A rail joint comprising the rails, a holding plate in contact with the web on the underside of the head and with the foot of the rail throughout the extent of the holding plate, a fish plate, insulation placed between the fish plate and holding plate and permanently attached to each throughout the extent thereof.

4. A rail joint comprising the rails, a fish plate, a holding plate, an insulation placed between the fish plate and the holding plate and permanently attached to each where-

by gases, water, oil, acids, cinders, dirt and all foreign substances are prevented from coming in contact with the insulation, and no moving part is permitted to touch the insulation in any way.

5. An insulated rail joint including, in combination, the rails, a splice bar, and a separate insulating filler unit interposed between the splice bar and the rail and including a metal plate and a sheathing of insulation material having a sealed union with the plate to thereby form a fixed and permanent part of the unit.

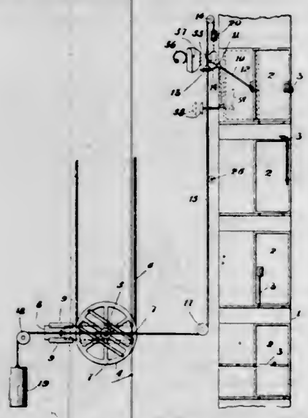
6. An insulated rail joint including, in combination, the rail, a splice bar, and a separate insulating filler unit adapted to be interposed between the rail and the joint bar, and including a metal plate lying next to the rail and a sheathing of insulation material having a sealed union with the plate to thereby form a fixed and permanent part of the unit.

7. An insulated rail joint including, in combination with opposing metal faces within the joint, an insulating unit interposed between said metal faces and consisting of separate metal plates and a sheet of insulating material confined between said plates and permanently secured thereto and carried thereby.

8. An insulated rail joint, including in combination with opposing rail ends within the joint, an insulating unit interposed between said rail ends and consisting of separate metal plates, and a sheet of insulating material confined between said plates and carried thereby.

9. An insulated rail joint, including in combination with opposing rail ends within the joint, an insulating unit interposed between said rail ends and consisting of separate metal plates, and a sheet of insulating material confined between said plates and permanently secured thereto and carried thereby.

14,363. ELEVATOR. JACOB M. WHALBE, New York, N. Y. Filed Aug. 17, 1917. Serial No. 187,022. Original No. 1,232,742, dated July 10, 1917, Serial No. 18,881, filed Apr. 3, 1915. (Cl. 187—49.)



1. A safety device for elevator doors comprising a sheave, means between said sheave and the car control to oscillate said sheave oppositely in the respective stopping and starting operations of said control, a sliding lock, means upon said sheave receptive of said lock when the control has been operated to stop the car, means upon said sheave to prevent engagement of said lock therewith when the control has been operated to start the car, an actuator for said lock, means between said door and actuator, operating under the influence of the door movement in opening, whereby said lock is drawn into engagement with said sheave, and gravity means to disengage said lock upon closing the door.

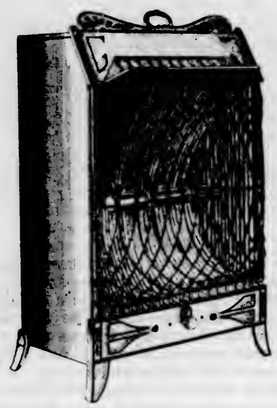
2. A safety device for elevator doors, a car control, an oscillating member, means connecting said control and member for movement in unison, a sliding lock to engage said member to lock it and the control, a weighted connector to disengage said sliding lock, a sliding door, and a pivotal lever engaging both said connector and door; whereby, in the opening movement of said door, said connector is caused to directly draw said lock into engagement with said member, to thereby lock said control.

3. The combination with an elevator, having a control and a sliding door, of a lock for said control, an actuator for said lock, a lever engaging said actuator and movable with the movement of said sliding door, and a rack to engage said lever; together with release means operable from within the elevator to disengage said rack from said lever.

4. In a safety device for elevator doors, the combination of a sheave having a transverse slideway, means between said sheave and the car control to oscillate said sheave oppositely in the respective stopping and starting operations of said control, a sliding lock, a slideway support therefor, said sheave slideway and lock aliining for engagement when the control has been operated to stop the car, a connector to control said lock, guide pulleys for said connector to direct its tension through the longitudinal axis of the lock, means operated by the door in opening to actuate said connector and lock, and gravity means to disengage said lock upon closing the door.

DESIGNS.

51,275. ELECTRIC-HEATER CASING. EDMUND N. BROWN, San Francisco, Cal. Filed Aug. 10, 1917. Serial No. 185,615. Term of patent 7 years.



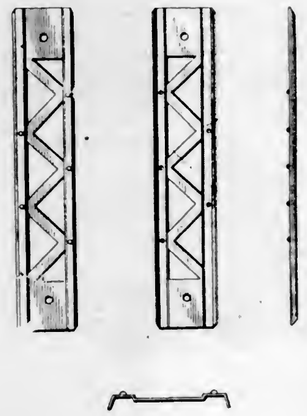
The ornamental design for an electric heater casing substantially as shown.

51,276. ELECTRIC-HEATER CASING. EDMUND N. BROWN, San Francisco, Cal. Filed Aug. 10, 1917. Serial No. 185,616. Term of patent 7 years.



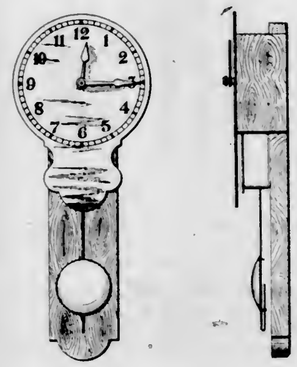
The ornamental design for an electric heater casing substantially as shown.

51,277. TOY BUILDING ELEMENT. ALFRED C. GILBERT, New Haven, Conn., assignor to The A. C. Gilbert Company, New Haven, Conn., a Corporation of Connecticut. Filed Nov. 19, 1914. Serial No. 873,058. Term of patent 14 years.



The ornamental design for a toy building element, substantially as shown.

51,278. CLOCK. NATHAN DREYFUS, New York, N. Y. Filed July 18, 1917. Serial No. 181,419. Term of patent 7 years.



The ornamental design for a clock, as shown.

51,279. LAMP-LENS. HENRY C. FORSTER, Omaha, Nebr. Filed July 2, 1917. Serial No. 178,166. Term of patent 3½ years.



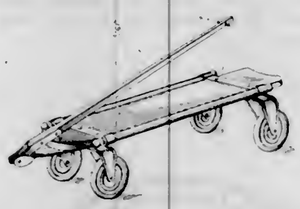
The ornamental design for a lamp lens, as shown.

51,280. STREET-CLOCK. FRANK FONTANA, San Francisco, Cal. Filed Aug. 1, 1917. Serial No. 183,992. Term of patent 7 years.



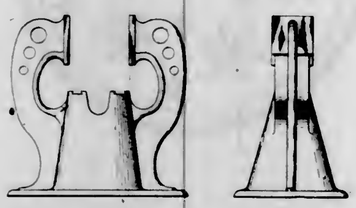
The ornamental design for a street clock substantially as shown.

51,281. JUVENILE VEHICLE. MARIUS E. GRISWOLD, Burlington, Iowa. Filed Mar. 14, 1917. Serial No. 154,906. Term of patent 14 years.



The ornamental design for a juvenile vehicle, as shown.

51,282. CHAIN-WELDING-MACHINE FRAME. FRANK H. HOWARD, Reading, Pa. Filed July 5, 1917. Serial No. 178,875. Term of patent 7 years.



The ornamental design for a chain welding machine frame, as shown.

51,283. STANDARD FOR A LAMP OR SIMILAR ARTICLE. EMANUEL KOPRIWA, Chicago, Ill., assignor to E. Kopriwa Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 30, 1917. Serial No. 165,641. Term of patent 3½ years.



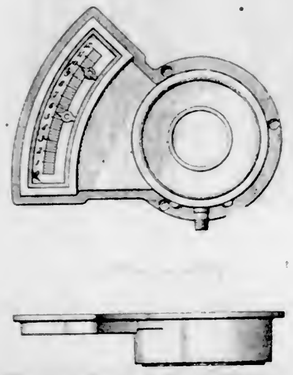
The ornamental design for a standard for a lamp or similar article, as shown.

51,284. STANDARD FOR A LAMP OR SIMILAR ARTICLE. EMANUEL KOPRIWA, Chicago, Ill., assignor to E. Kopriwa Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 30, 1917. Serial No. 165,642. Term of patent 3½ years.



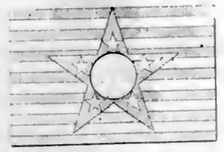
The ornamental design for a standard for a lamp or similar article, as shown.

51,285. GAGE-CASING. LEWIS A. MAPEL, St. Louis, Mo., assignor to Mechanical Development Company, St. Louis, Mo., a Corporation of Missouri. Filed Jan. 29, 1917. Serial No. 145,337. Term of patent 14 years.



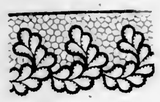
The design for a gage casing, as shown.

51,286. PICTURE OR PHOTOGRAPH FRAME. NORA NEWELL, New York, N. Y. Filed May 26, 1917. Serial No. 171,325. Term of patent 3½ years.



The ornamental design for a picture or photograph frame, as shown.

51,287. EMBROIDERED LACE. HENRY SCHWARBER, Weehawken, N. J., assignor to Inflexible Co., West New York, N. J. Filed Aug. 9, 1917. Serial No. 185,362. Term of patent 3½ years.



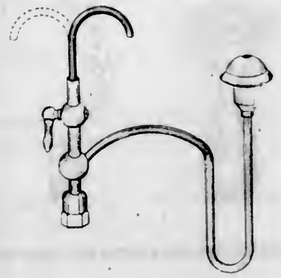
The ornamental design for embroidered lace substantially as shown.

51,288. EMBROIDERED LACE. HENRY SCHWARBER, Weehawken, N. J., assignor to Inflexible Co., West New York, N. J. Filed Aug. 9, 1917. Serial No. 185,363. Term of patent 3½ years.



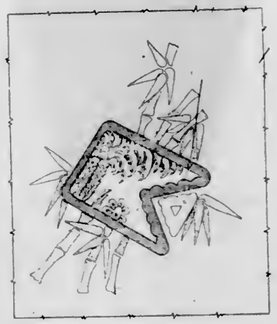
The ornamental design for embroidered lace substantially as shown.

51,289. DENTAL SANITARY FOUNTAIN. EDWARD H. SHIBLEY, St. Paul, Minn. Filed Sept. 26, 1914. Serial No. 863,773. Term of patent 7 years.



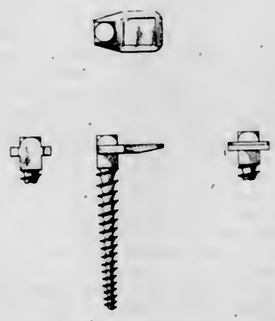
The ornamental design for a dental sanitary fountain as shown.

51,290. TEXTILE FABRIC. AUGUST SONNTAG, Steinway, N. Y., assignor to Weiner Brothers, New York, N. Y., a Copartnership. Filed May 16, 1917. Serial No. 169,144. Term of patent 3½ years.



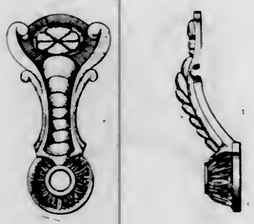
The ornamental design for a textile fabric as shown.

51,291. SCREW. FRANK VOREL, Roy, Mont. Filed Jan. 12, 1916. Serial No. 71,797. Term of patent 3½ years.



The ornamental design for a screw as shown.

51,292. ARM FOR LIGHTING-FIXTURES. CHARLES WERNER, Cleveland, Ohio. Filed Jan. 12, 1917. Serial No. 142,111. Term of patent 3½ years.



The ornamental design for an arm for lighting-fixtures, as shown.

51,293. ARM FOR LIGHTING-FIXTURES. CHARLES WERNER, Cleveland, Ohio. Filed Jan. 12, 1917. Serial No. 142,112. Term of patent 3½ years.



The ornamental design for an arm for lighting-fixtures, as shown.

TRADE-MARKS

PUBLISHED SEPTEMBER 18, 1917.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 72,781. (CLASS 37. PAPER AND STATIONERY.) FULTON RUBBER TYPE CO., Elizabeth, N. J. Filed Sept. 11, 1913. Under ten-year proviso.

FULTON

F R
T C

Particular description of goods.—Rubber Stamps, Rubber-Type Printing Outfits, Dating-Stamps, and Numbering-Stamps.

Claims use since Jan. 1, 1895.

Ser. No. 86,956. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) FORD MOTOR COMPANY, Highland Park, Mich. Filed May 28, 1915.

Ford

Particular description of goods.—Farm-Tractors and Parts Thereof.

Claims use since about May 5, 1909.

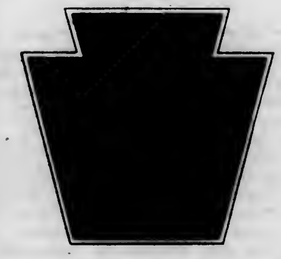
Ser. No. 92,702. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) SONORA PHONOGRAPH CORPORATION, New York, N. Y. Filed Feb. 7, 1916.

SUPREME

Particular description of goods.—Talking-Machines, Phonographs, Records, Gramophones, Graphophones, Tone-Arms, Sound-Boxes, Horns, and Amplifiers for Talking-Machines and Phonographs.

Claims use since September, 1915.

Ser. No. 94,826. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) H. K. MULFORD COMPANY, Philadelphia, Pa. Filed May 1, 1916.



Particular description of goods.—Fluid Extracts for Medicinal and Pharmaceutical Purposes and Preparations Thereof, Solid Extracts for Medicinal and Pharmaceutical Purposes and Preparations Thereof, Powdered Extracts for Medicinal and Pharmaceutical Purposes and Preparations Thereof, Tinctures; Soluble, Elastic, and Hard Filled Capsules; Effervescent Salts, Elixirs, Medicinal and Pharmaceutical Syrups; Tablets for Medicinal and Pharmaceutical Purposes, Including Particularly Friable Tablets, Tablet-Triturates, and Dispensary-Tablets; Lozenges for Medicinal and Pharmaceutical Purposes; Special Medicinal and Pharmaceutical Compounds, Including Analgine, Aseptesia, Benzo-Formol Compound, Blandine Compound, Bronchol, Cargentos, Casca Laxative, Chil-Cedine, Cornutol, Cremo-Bismuth, Digitol, Diurol, Dyspepsia Fermentative Tablets, Endometritis Tablets, Hepatone, Hexos, Ichthoidine, Iodo-Casein, Liquor Diastos, Lithos, Methyl-Santal, Mistura Pectorole, Pine and Somnos Cordial, Predigested Beef, Proferrin, Protan, Salicylos, Somnos, Tanichthol, Thaletts, Thymalka, Utros, Vaginoids, Bismuth Beta-Naphthol Compound, Bismuth Formic-Iodid Compound Powder, Glycerophosphates Compound Capsules, Guaiacol Carbonate Compound, Mulford Extract, (Malt, Corn, and Hops Tonic,) Pepsinized Glycerophosphates, Syrup of Quinin with Chocolate; Biological Products, Including Generally Serums and Serobacterins, Such as Diphtheria Antitoxin, Tetanus Antitoxin, Antidysenteric Serum, Antimeningitis Serum, Antipneumococcic Serum, Antistreptococcic Serum, Rabies Vaccin, Bacterin, Tuberculins, Vaccin Lymph, Anthrax Vaccin, Blackleg Vaccin, Hog-Cholera Serum, and Mallein; Cultures of Nitro-Fixing Bacteria, Bulgarian Bacillus, Boluses, Concentrations, Medicinal and Pharmaceutical Cordials, Culture Media, Disinfectants, Emulsions, Gargles, Glycerites, Laxative Salts, Liniments; Chemical, Medicinal, and Pharmaceutical Liquor Solutions; Special Medicinal Mixtures, Pastils;

Powders, Veterinary; Pharmaceutical Soda-Fountain Requisites, Including Bromid and Acetanilid Compound, Caffein, Compound Sarsaparilla Extract, Fluid Ginger, (Soluble,) Kola-Celery Phosphate, Lime-Juice and Pepsin, Liquid Acid Phosphates; Medicinal and Pharmaceutical Spirits, Suppositories; Toilet Preparations, Including Deodorants, Perfume-Tablets, Dentifrices, Talcum Powder, Hair-Tonic, and Cold-Cream, of the Character Described in the Price-List Filed and Made a Part of the Record in This Case.

Claims use since Apr. 1, 1916.

Ser. No. 96,089. (CLASS 32. FURNITURE AND UPHOLSTERY.) PECK & HILLS FURNITURE COMPANY, Chicago, Ill. Filed June 23, 1916.



No claim being made for the name "Peck & Hills Furniture Co.", except in connection with the mark shown.

Particular description of goods.—Metal and Wood Bedsteads, Bookcases, Book-Racks, Book-Shelves, Buffets, Kitchen-Cabinets, Medicine-Cabinets, Music-Cabinets, Phonograph-Record Cabinets, Pianola-Record Cabinets, Cedar Chests, Cellarets; Wood, Reed, and Metal Office, Household, Club, Opera, Assembly-Room, Lodge, and Church Chairs, Divans, and Settees; Household, Office, Club, Hotel, Church, and Lodge Tables; Mirrors, Chiffonniers; Chiffarobes, (Combination Chiffonnier and Wardrobe;) China-Cabinets, China-Closets; Clothes-Racks, Commodes and Washstands, Costumers; Wood, Metal, and Canvas Cots, Couches, and Lounges, Upholstered and Plain; Wood and Metal Cradles and Cribs, Cupboards, Upholstered Davenports; School, Office, and Household Desks and Desk-Tables; Dressers and Dressing-Tables, Hall-Trees and Hall-Seats, Hat-Racks, Jardinière-Stands, Lawn-Seats, Plate-Racks, Mattresses, Pedestals, Pillows, Sewing-Tables, Wood and Metal Bed-Springs, Box-Springs; Piano, Store, Office, and Household Stools; Porch and Lawn Swings, Taborets, Tea Wagons and Trays, Telephone-Stands, Umbrella-Racks; Upholstered Chairs, Sofas, Divans, and Davenports; Utility-Boxes, (to Contain Shirt-Waists and the Like,) and Wardrobes.

Claims use since on or about May 1, 1896.

Ser. No. 96,244. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ALART & MCGUIRE COMPANY, Brooklyn, N. Y. Filed June 30, 1916.



The horizontal lines used in the drawing represent a background and are not intended to indicate any particular color.

Particular description of goods.—Sweet, Sour, and Mixed Pickles, Catsup, Capers, Salad-Oil, Olive-Oil, Olives, Chow-Chow, Vinegar, Worcestershire and Analogous Sauces, Pepper Sauce, India Relish, and Mustard.

Claims use since 1883.

Ser. No. 96,404. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) N. GOODMAN & SON, New York, N. Y. Filed July 7, 1916.



Particular description of goods.—Olive-Oil.

Claims use since about June 26, 1916.

Ser. No. 96,588. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) IMPERIAL SUGAR COMPANY, Sugar Land, Tex. Filed July 15, 1916.



Particular description of goods.—Sugar.

Claims use since January, 1912.

Ser. No. 97,596. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE BURNETT-LARSH MANUFACTURING CO., Dayton, Ohio. Filed Aug. 24, 1916.



Particular description of goods.—Pumps and Fluid-Pressure Motors.

Claims use since Jan. 1, 1916.

Ser. No. 98,548. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE AKRON RUBBER MOLD & MACHINE COMPANY, Akron, Ohio. Filed Oct. 11, 1916.

TIP-TOP

Particular description of goods.—Vulcanizing Outfit for Tires, Including Inside-Patch Vulcanizer, Self-Contained Boiler, Tube-Plates, Adjustable Clamp, and Bead-Molds.

Claims use since Feb. 1, 1916.

Ser. No. 99,033. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) TRIUMPH TRAP CO., INC., Oneida, N. Y. Filed Nov. 1, 1916.



Particular description of goods.—Game-Traps.

Claims use since June 1, 1916.

Ser. No. 99,277. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) LASSO SPECIALTY CO., Chicago, Ill. Filed Nov. 13, 1916.



The keystone being lined for red.

Particular description of goods.—Alcoholic Bitters, Alcoholic Cordials, Alcoholic Tonics, Cognac, and Ginger and Brandy.

Claims use since July 6, 1915.

Ser. No. 99,495. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WALDES & CO., Prague-Wrschowitz, Austria-Hungary, assignor, by mesne assignments, to Waldes & Company of New Jersey, a Corporation of New Jersey. Filed Nov. 22, 1916.



The portrait shown being that of Elizabeth Coyne.

Particular description of goods.—Powder-Paper.

Claims use since Feb. 26, 1916.

Ser. No. 99,891. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE HOLT MANUFACTURING COMPANY, Stockton, Cal. Filed Dec. 13, 1916.

CATERPILLAR

Particular description of goods.—Traction-Engines, Combined Harvesters, Plowing, and Harrowing Outfits.

Claims use since March, 1910.

Ser. No. 100,218. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE MUTUAL MOTOR STORES COMPANY, Cleveland, Ohio. Filed Dec. 28, 1916.



Particular description of goods.—Electric Auto-Horns, Spark-Plugs, Batteries, and Battery-Boxes.

Claims use since Oct. 1, 1914.

Ser. No. 101,514. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BENJAMIN F. SWINDELL, Baltimore, Md. Filed Feb. 19, 1917.



Particular description of goods.—A Preparation for the Treatment of Cancers.
Claims use since July 3, 1916.

Ser. No. 101,865. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KOHRS PACKING COMPANY, Davenport, Iowa. Filed Mar. 3, 1917. Under ten-year proviso.

CROWN

Particular description of goods.—Ham, Bacon, Skinned Hams, Picnic, Boiled Hams, Boiled Picnics, Pork Meat Products, Hocks, Pig-Snouts, Boneless Pigs' Feet, Pig-Hearts, and Pig-Tongues.
Claims use since Apr. 1, 1880.

Ser. No. 101,866. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KOHRS PACKING COMPANY, Davenport, Iowa. Filed Mar 3, 1917. Under ten-year proviso.



Particular description of goods.—Ham, Bacon, Lard, Skinned Hams, Picnic, Boiled Hams, Boiled Picnics, Pork Meat Products, Hocks, Pig-Snouts, Boneless Pigs' Feet, Pig-Hearts, and Pig-Tongues.
Claims use since Apr. 1, 1880.

Ser. No. 101,926. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN W. HARDY, Chipley, Ga. Filed Mar. 6, 1917.

GRANDMA HUNTER'S



The picture is fanciful and not that of any living individual.
Particular description of goods.—Cancers.
Claims use since Feb. 19, 1917.

Ser. No. 101,986. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WILLIAM E. HENRY, Wilburtha, N. J. Filed Mar. 8, 1917.

EFFICIENCY

Particular description of goods.—Prepared Food for Animals and Poultry.
Claims use since on or about Feb. 1, 1917.

Ser. No. 102,677. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) AMERICAN STEEL EXPORT COMPANY, New York, N. Y. Filed Apr. 3, 1917.



Particular description of goods.—Steel Billets, Steel Blooms, Steel Slabs, Open-Hearth Steel, Bessemer Steel; Alloys of Steel with Nickel, Vanadium, Tungsten, Molybdenum, Chromium, Cobalt, Manganese; Cold-Rolled and Cold-Drawn Steel; Tool, Magnet, and Nickel Steel; Bar-Iron, Pig-Iron, Steel for Automobile-Forgings and Machine Parts, Spring-Steel, Merchant Bar-Steel, Agricultural Steel, Plow-Steel, Forged and Pressed Steel for Railway-Cars, Hoop-Steel, Steel Rails; Wire; Terne-Plate, Tin-Plate, Plates Made from Iron and Steel.
Claims use since Oct. 5, 1916.

Ser. No. 103,300. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ARTHUR L. JOHNSON, Providence, R. I., and Boston, Mass. Filed Apr. 25, 1917.



Particular description of goods.—Canned Sardines.
Claims use since July 27, 1916.

Ser. No. 103,464. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) F. BLUMENTHAL COMPANY, New York, N. Y. Filed May 2, 1917.

CLIOWHITE

No claim is made to the exclusive use of the word "White" apart from the mark shown in the drawing.
Particular description of goods.—Leather.
Claims use since Mar. 30, 1917.

Ser. No. 103,472. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) CLEMENS J. HUELSENKAMP, Miami, Fla. Filed May 2, 1917.

PRUNELA

Particular description of goods.—A Non-Alcoholic Maltless Carbonated Beverage and Syrup for Making Same.
Claims use since Feb. 1, 1916.

Ser. No. 103,698. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ROSE LAIRD KINGSTONE, New York, N. Y. Filed May 10, 1917.

SOLVO

Particular description of goods.—A Composition of Matter for Removing Superfluous Hair.
Claims use since about March, 1903.

Ser. No. 103,719. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) DAVID R. HAWES, Los Angeles, Cal. Filed May 11, 1917.



Particular description of goods.—A Grinding Compound.
Claims use since July 19, 1915.

Ser. No. 103,721. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MOTORADE CHEMICAL CO., Memphis, Tenn. Filed May 11, 1917.



Particular description of goods.—A Motor-Fuel Intensifier or Improver.
Claims use since on or about Dec. 15, 1916.

Ser. No. 103,771. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BORIS FONSTEIN, Chicago, Ill. Filed May 14, 1917.



Particular description of goods.—Liver-Tablets, Nit-Destroyer, Corn-Plasters, Anodyne Ointment for Relief of Pain, Blood-Purifier, Headache-Powders, Penetrating Liniment for Rheumatism, Neuralgia, Sprains, Bruises, Swellings, Chilblains, and other Pains; Yerba Santa Compound Cough-Syrup, and Tolu, Tar, and Wild-Cherry Cough-Syrup.
Claims use since Apr. 30, 1917.

Ser. No. 103,946. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE FITTS MANUFACTURING COMPANY, Pueblo, Colo. Filed May 19, 1917.

RICO

Particular description of goods.—Baking-Powder, Ammonia, Bluing.
Claims use since October, 1903.

Ser. No. 103,966. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NEW WORLD GINSENG COMPANY, New York, N. Y. Filed May 19, 1917.



Particular description of goods.—Ginseng Used by Chinese People in the Preparation of a Tonic for Purifying the Blood, and for Bear-Galls, Skunk-Galls, and Beaver-Castors, also Used by Chinese people as a Remedy for Pimples, Boils, and other Skin Diseases.
Claims use since Jan. 1, 1917.

Ser. No. 103,969. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM M. PAULSON, Mawer, Saskatchewan, Canada. Filed May 19, 1917.

PYLOKIL

Particular description of goods.—An Ointment for Use in the Treatment of Piles.
Claims use since Jan. 15, 1917.

Ser. No. 103,980. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) W. H. DYER COMPANY EVANSVILLE IND., Evansville, Ind. Filed May 21, 1917.



Particular description of goods.—Pork and Beans and Canned Beans.
Claims use since Apr. 10, 1917.

Ser. No. 104,033. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) CHAS. STOECKER TANNING CO. INCORPORATED, Louisville, Ky. Filed May 23, 1917.



Particular description of goods.—Prepared and Partly-Prepared Leather, Tanned Leather, and Sole-Leather.
Claims use since May 1, 1917.

Ser. No. 104,112. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES. AJAX RUBBER COMPANY, INC., Millbrook, N. Y. Filed May 28, 1917.

AJAX ROAD KING

Particular description of goods.—Automobile and Bicycle Tires of Rubber and Fabric.
Claims use since April, 1917.

Ser. No. 104,118. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LEON GAWURIN, New York, N. Y. Filed May 28, 1917.



Particular description of goods.—Face-Powder, Toilet Powder, Perfume, Toilet Water, Sachet-Powder, Face-Cream, Brilliantine, Face-Lotion, Face-Paste, Toilet Cream, Rouge, Liquid Tint, Smelling-Salt, Tooth-Powder, Tooth-Paste.
Claims use since May 1, 1911.

Ser. No. 104,120. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HENRY E. KENDALL, Shelby, N. C. Filed May 28, 1917.

RHEU-NOCK

Particular description of goods.—Preparation for the Treatment of Rheumatism, Ailments of the Kidneys, Backache, and Excess of Uric Acid.
Claims use since April, 1917.

Ser. No. 104,132. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ARTHUR J. COLE, Omaha, Nebr. Filed May 29, 1917.



Particular description of goods.—An Antiseptic Cream for the Relief of Burns and for Rubbing on the Hands as a Protection Against Acid Burns.
Claims use since Mar. 19, 1917.

Ser. No. 104,133. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE CRESCENT CO., Meriden, Conn. Filed May 29, 1917.

CRESCENT

Particular description of goods.—Glass-Cutters, Screw-Drivers, Screw-Driver Bits, Expansion-Bits, Countersinks, Reamers, Chisels, Drawing-Knives, and Food-Choppers.
Claims use since Jan. 1, 1917.

Ser. No. 104,269. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SCHERING & GLATZ, INC., New York, N. Y. Filed June 4, 1917.

CAMIOFEN

Particular description of goods.—An Ointment for Burns, Ulcers, Abscesses, Carbuncles, Furuncles, Erysipelas, Impetigo, Pruritus, Eczema, Adenitis, Mastitis, Enlarged and Tuberculous Glands, Lymphangitis, Bursitis, Synovitis, and Similar Afflictions.
Claims use since Jan. 15, 1917.

Ser. No. 104,285. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) MCKIERNAN-TERRY DRILL COMPANY, Dover, N. J., and New York, N. Y. Filed June 5, 1917.



Particular description of goods.—Pile-Hammers.
Claims use since Apr. 5, 1917.

Ser. No. 104,286. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MATTHEW T. MOOREHEAD, West Lafayette, Ohio. Filed June 5, 1917.

F & B

Particular description of goods.—An Ointment for Treating Ulcers, Running Sores, Swellings, and Tuberculosis of the Bones.
Claims use since one year.

Ser. No. 104,288. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PURITAN PHARMACEUTICAL CO., St. Louis, Mo. Filed June 5, 1917.

Milaire

Particular description of goods.—Hair-Tonic. Skin-Cleansing Cream, Vanishing Cream, Face-Powder, Sunlight-Rouge, Liquid Rouge, Skin-Lotion, Nail-Polish, Talcum, Toilet-Water, Perfume Extract, Depilatory, Eyebrow-Pencils, Lip-Rouge, and Deodorant.
Claims use since May 25, 1917.

Ser. No. 104,432. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) ROSS GLOSS CO., Auburndale, Mass. Filed June 13, 1917.

ROGLO

Particular description of goods.—An Automobile and Furniture Polish.
Claims use since May 1, 1916.

Ser. No. 104,503. (CLASS 38. PRINTS AND PUBLICATIONS.) PERIODICAL PUBLISHING CO., Grand Rapids, Mich. Filed June 18, 1917.

PRACTICAL SUGGESTIONS FOR HOME FURNISHERS

Particular description of goods.—A Newspaper-Section Published Weekly.
Claims use since Aug. 6, 1916.

Ser. No. 104,508. (CLASS 38. PRINTS AND PUBLICATIONS.) PERIODICAL PUBLISHING CO., Grand Rapids, Mich. Filed June 18, 1917.

FURNITURE OF THE TIMES

Particular description of goods.—A Periodical Published Monthly.
Claims use since June 1, 1915.

Ser. No. 104,623. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DEWITT C. RUSCOE, Stamford, Conn. Filed June 22, 1917.

ALBEAGO

Particular description of goods.—A Preparation for the Relief of Malaria and Biliousness and for Use as a Tonic in Disorders Characterized by Malarial and Bilious Conditions.
Claims use since June 6, 1917.

Ser. No. 104,647. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) GORDON, SEWALL & CO., INC., Houston, Tex. Filed June 23, 1917.

BLUE BONNET

Particular description of goods.—Grape-Juice.
Claims use since June 8, 1917.

Ser. No. 104,660. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FRANCESCO ALBANO, New York, N. Y. Filed June 25, 1917.

TOREADOR



Particular description of goods.—Olive-Oil.
Claims use since Mar. 1, 1917.

Ser. No. 104,678. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) INGRAM DRUG COMPANY, Valdosta, Ga. Filed June 25, 1917.

Success

Particular description of goods.—Field and Garden Seeds.
Claims use since about Jan. 1, 1917.

Ser. No. 104,689. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE BARTON SALT COMPANY, Hutchinson, Kans. Filed June 26, 1917.

HOURGLASS



Particular description of goods.—A Table-Salt.
Claims use since May 20, 1917.

Ser. No. 104,736. (CLASS 17. TOBACCO PRODUCTS.) JULIUS KLORFEIN, New York, N. Y. Filed June 28, 1917.



Particular description of goods.—Cigars.
Claims use since Mar. 1, 1909.

Ser. No. 104,779. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) QUABAUG RUBBER COMPANY, Brookfield, Mass. Filed June 30, 1917.

"HEMLOX"

Particular description of goods.—Sheets of Rubber or Rubber Compound for Use Especially in Making Rubber Soles for Shoes.
Claims use since May 19, 1917.

Ser. No. 104,897. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) THE BELL TALKING MACHINE CORPORATION, New York, N. Y. Filed July 7, 1917.



The trade-mark includes the picture of Franz Schubert, the famous musical composer, long since dead.
Particular description of goods.—Phonograph Records or Disks.
Claims use since June 25, 1917.

Ser. No. 104,934. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) INTERNATIONAL PHARMACEUTICAL COMPANY, Chicago, Ill. Filed July 9, 1917.

IP-KO

Particular description of goods.—Stomach-Tablets for Indigestion and Associated Ailments.
Claims use since Jan. 15, 1917.

Ser. No. 104,945. (CLASS 48. MALT EXTRACTS AND LIQUORS.) ST. JOSEPH BREWING CO., St. Joseph, Mo. Filed July 9, 1917.

Presto

Particular description of goods.—A Non-Intoxicating Malt Beverage to be Sold as a Soft Drink.
Claims use since July 2, 1917.

Ser. No. 104,966. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE REMILLER CO., New York, N. Y. Filed July 10, 1917.



Particular description of goods.—Crême, (Greaseless,) Almond Lotion, Hair-Tonic, Brilliantine, Complexion-Beautifier, Nail-Polish, Poudre-Compact, (Solid Face-Powder in Cake Form,) Smelling-Salts, Bandolin, Tootnoir, (Eyebrow-Tint,) Complexion-Powder, Rouge, (Cake,) Nail-Blanc, Bath-Salts, Cuticle-Remover, and Nail-Polish, (Cake.)
Claims use since Jan. 1, 1912.

Ser. No. 105,057. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) EASTMAN KODAK COMPANY, Rochester, N. Y. Filed July 16, 1917.

ARISTO.



Particular description of goods.—Sensitized Photographic Paper and Photographic Backing-Paper.
Claims use since Dec. 22, 1888.

Ser. No. 105,058. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EASTMAN KODAK COMPANY, Rochester, N. Y. Filed July 16, 1917.

ARISTO.



Particular description of goods.—Photographic Toning Chemicals and Solutions, Photographic Mat-Surfacing Preparation, and Photographic Negative-Varnish.
Claims use since Dec. 22, 1888.

Ser. No. 105,166. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHAUTAUQUA CONFECTIONERY COMPANY, Jamestown, N. Y. Filed July 21, 1917.



Particular description of goods.—Candies, Ice-Cream Dressing, Ice-Cream Topping, and Hot-Chocolate Topping.
Claims use since on or about Oct. 10, 1912.

Ser. No. 105,278. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) SAMSTAG & HILDER BROS., New York, N. Y. Filed July 25, 1917.

FAIRY



Particular description of goods.—Snap-Fasteners.
Claims use since July 1, 1917.

Ser. No. 105,279. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) SAMSTAG & HILDER BROS., New York, N. Y. Filed July 25, 1917.

STAPUT

Particular description of goods.—Snap-Fasteners.
Claims use since July 1, 1917.

Ser. No. 105,284. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) THE AUTOYRE CO., Oakville, Conn. Filed July 26, 1917.

CONQUEROR

Particular description of goods.—Snap-Fasteners.
Claims use since Apr. 23, 1917.

Ser. No. 105,371. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) BEADLESTON & WOERZ, New York, N. Y. Filed July 31, 1917.

B&W

Particular description of goods.—A Non-Intoxicating Carbonated Beverage Sold as a Soft Drink.
Claims use since July 28, 1917.

Ser. No. 105,396. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHNSTON FRUIT CO., Santa Barbara, Cal. Filed Aug. 1, 1917.

PACIFIC

Particular description of goods.—Citrus Fruits.
Claims use since Apr. 19, 1917.

Ser. No. 105,547. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed Aug. 8, 1917.

DULCET

Particular description of goods.—Biscuit.
Claims use since as early as June 2, 1917.

Ser. No. 105,711. (CLASS 48. MALT EXTRACTS AND LIQUORS.) H. P. FINLAY & CO., LTD., New York, N. Y. Filed Aug. 18, 1917.

NIP

Particular description of goods.—Ale and Stout.
Claims use since June 5, 1899.

Ser. No. 105,722. (CLASS 47. WINES.) SOCIETE ANONYME DUBONNET, Paris, France. Filed Aug. 18, 1917. Under ten-year proviso.



Particular description of goods.—Appetizing-Wine.
Claims use since the year 1890.

Ser. No. 105,837. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) GALVESTON BREWING ASSOCIATION, Galveston, Tex. Filed Aug. 23, 1917.



Particular description of goods.—Non-Intoxicating Cereal Beverages.
Claims use since Aug. 13, 1917.

Ser. No. 105,868. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) CHIPPEWA SPRINGS CORPORATION, Minneapolis, Minn. Filed Aug. 25, 1917. Under ten-year proviso.

CHIPPEWA



Particular description of goods.—For Natural Spring-Water Taken and Bottled from Its Springs at Said Chippewa Falls and for Its Products Known as "Root-Beer," "Sarsaparilla," and "Dry Ginger-Ale," Prepared or Compounded as Beverages from the Said Natural Spring-Water Taken from Its Said Springs at Said Chippewa Falls.
Claims use since Dec. 16, 1892.

Ser. No. 105,917. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) GREAT RADIUM SPRING WATER COMPANY, INC., Brooklyn, N. Y. Filed Aug. 28, 1917.



Particular description of goods.—Lemon-Soda, Ginger-Ale, Orangeade, Birch-Beer, Root-Beer, Club-Soda, and Sarsaparilla.
Claims use since September, 1916.

TRADE-MARK REGISTRATIONS GRANTED

SEPTEMBER 18, 1917.

118,479. RUBBER. ACUSHNET PROCESS CO., New Bedford, Mass.
Filed April 8, 1915. Serial No. 85,769. PUBLISHED JULY 10, 1917.

118,480. CANNED OLIVE-OIL. MICHELE AJELLO CO. INC., Brooklyn, N. Y.
Filed April 6, 1917. Serial No. 102,757. PUBLISHED JULY 17, 1917.

118,481. INCENSE VESSELS. ALADDIN PRODUCTS CO., New York, N. Y.
Filed April 24, 1916. Serial No. 94,658. PUBLISHED JULY 10, 1917.

118,482. SOLE-LEATHER MAT AND RUNNER. FRANK ALEXE, New York, N. Y.
Filed May 15, 1917. Serial No. 103,808. PUBLISHED JULY 10, 1917.

118,483. WRITING-PAPER. AMERICAN PAPETERIE COMPANY, Albany and New York, N. Y.; Chicago, Ill., and San Francisco, Cal.
Filed June 10, 1916. Serial No. 95,769. PUBLISHED FEBRUARY 27, 1917.

118,484. LARD SUBSTITUTE COMPOUND OF COTTON-SEED OIL AND OLEO-STEARIN. ARMSTRONG PACKING COMPANY, Dallas, Tex.
Filed June 19, 1917. Serial No. 104,510. PUBLISHED JULY 17, 1917.

118,485. SHORTENING COMPOSED OF COTTON-SEED OIL AND OLEO-STEARIN. ARMSTRONG PACKING COMPANY, Dallas, Tex.
Filed June 19, 1917. Serial No. 104,511. PUBLISHED JULY 17, 1917.

118,486. PISTON-RINGS. AUTOMOBILE ACCESSORIES CO., Baltimore, Md.
Filed April 26, 1917. Serial No. 103,315. PUBLISHED JULY 10, 1917.

118,487. MONTHLY PUBLICATION. BAERS', Canton, Ohio.
Filed May 22, 1917. Serial No. 104,003. PUBLISHED JULY 17, 1917.

118,488. MEDICINAL PREPARATION WITH LAXATIVE OR CATHARTIC PROPERTIES. BEGGS MANUFACTURING COMPANY, Chicago, Ill.
Filed August 12, 1915. Serial No. 88,559. PUBLISHED SEPTEMBER 28, 1915.

118,489. CIGARS, CHEROOTS, AND LITTLE CIGARS. BERNINGER & HENRY, Allentown, Pa.
Filed March 27, 1917. Serial No. 102,476. PUBLISHED JULY 17, 1917.

118,490. LEATHER. F. BLUMENTHAL COMPANY, New York, N. Y.
Filed May 2, 1917. Serial No. 103,463. PUBLISHED JULY 17, 1917.

118,491. FINGER-RINGS OF ALL KINDS. J. B. BOWDEN & COMPANY, New York, N. Y.
Filed April 11, 1917. Serial No. 102,878. PUBLISHED JULY 10, 1917.

118,492. NON-ALCOHOLIC CARBONATED TONIC BEVERAGE TO BE SOLD AS A SOFT DRINK. BUCKHORN LITHIA WATER CO., Bullock, N. C.
Filed April 9, 1917. Serial No. 102,825. PUBLISHED MAY 15, 1917.

118,493. CANNED SARDINES. IWAN B[illegible], New York, N. Y.
Filed June 19, 1917. Serial No. 104,513. PUBLISHED JULY 17, 1917.

118,494. CAUSTIC SODA. BURGESS SULPHITE FIBRE CO., Berlin, N. H.
Filed February 29, 1916. Serial No. 93,162. PUBLISHED JULY 3, 1917.

118,495. SALVES AND PASTES FOR THE TREATMENT OF DISEASES OF THE SKIN, EXTERNAL INFECTIONS, SORES, BURNS, &C. ARTHUR H. BUSCH, Cleveland, Ohio.
Filed April 30, 1917. Serial No. 103,404. PUBLISHED JULY 17, 1917.

118,496. SERIES OF CARTOONS. THE CHICAGO RECORD-HERALD COMPANY, Chicago, Ill.
Filed June 7, 1917. Serial No. 104,312. PUBLISHED JULY 17, 1917.

118,497. CANNED FRUITS, CANNED BERRIES, CANNED SWEET PICKLED PEACHES, CANNED SWEET PICKLED PEARS, CANNED VEGETABLES. W. N. CLARK COMPANY, Rochester, N. Y.
Filed February 19, 1917. Serial No. 101,479. PUBLISHED JULY 17, 1917.

118,498. HAIR-TONIC, DANDRUFF-REMOVER, AND SCALP-CLEANSER. COCOTONE CHEMICAL COMPANY, Los Angeles, Cal.
Filed April 16, 1917. Serial No. 103,008. PUBLISHED JULY 10, 1917.

118,499. SEED-CORN, TIMOTHY-SEED, AND CLOVER-SEED. E. W. CONKLIN & SON INC., Binghamton, N. Y.
Filed June 12, 1916. Serial No. 95,811. PUBLISHED JULY 17, 1917.

118,500. PREPARATION FOR REMOVING SUPERFLUOUS HAIR. JAY V. DANIELS, Chicago, Ill.
Filed April 6, 1917. Serial No. 102,767. PUBLISHED JULY 17, 1917.

118,501. FOODS—NAMELY, PREPARED STOCK AND POULTRY FOODS. DARLING & COMPANY, Chicago, Ill.
Filed January 28, 1916. Serial No. 92,465. PUBLISHED NOVEMBER 7, 1916.

118,502. SERIAL PUBLICATION. DRAPER CORPORATION, Hopedale, Mass.
Filed May 3, 1917. Serial No. 103,486. PUBLISHED JULY 10, 1917.

118,503. DESICCATED MILK. THE DRY MILK COMPANY, New York, N. Y.
Filed April 26, 1917. Serial No. 103,321. PUBLISHED JULY 10, 1917.

118,504. TITLE OF A MONTHLY PUBLICATION. R. G. DUN & CO., New York, N. Y.
Filed June 9, 1917. Serial No. 104,358. PUBLISHED JULY 17, 1917.

118,505. BACTEROLYSIN FOR CERTAIN NAMED ANIMAL COMPLAINTS. WILLIAM DUNCAN, Toronto, Ontario, Canada.
Filed February 9, 1917. Serial No. 101,264. PUBLISHED JULY 10, 1917.

118,506. SALVES AND OINTMENTS FOR CERTAIN NAMED AFFECTIONS. THE ELACS CO., Greenville, S. C.
Filed January 29, 1917. Serial No. 101,003. PUBLISHED JULY 10, 1917.

118,507. TITLE OF A MONTHLY PUBLICATION. THE EMERSON ELECTRIC MANUFACTURING COMPANY, St. Louis, Mo.
Filed June 11, 1917. Serial No. 104,385. PUBLISHED JULY 17, 1917.

118,508. CERTAIN NAMED PHARMACEUTICAL PREPARATIONS. KÁLMÁN ÉRDEKY, Pittsburgh, Pa.
Filed April 10, 1917. Serial No. 102,862. PUBLISHED JULY 10, 1917.

118,509. WRITING-PENS OF ALL KINDS. THE ESTERBROOK STEEL PEN MFG. CO., Camden, N. J.
Filed February 9, 1917. Serial No. 101,265. PUBLISHED JULY 17, 1917.

118,510. REMEDY FOR REMOVING DANDRUFF. THE FAVORITA CO., New York, N. Y.
Filed March 2, 1915. Serial No. 84,881. PUBLISHED MARCH 30, 1915.

118,511. IMITATION LEATHER. FELSENTHAL BROS. CO., Chicago, Ill.
Filed May 15, 1917. Serial No. 103,818. PUBLISHED JULY 10, 1917.

118,512. WRITING AND PRINTING PAPER. CELESTINO FERNANDEZ & SONS, New York, N. Y.
Filed June 14, 1917. Serial No. 104,435. PUBLISHED JULY 10, 1917.

118,513. MEDICAL PREPARATION FOR THE TREATMENT OF DISEASES OF THE HUMAN FEET. THE FE-TE-ZO COMPANY, Greenville, Tex.
Filed March 20, 1917. Serial No. 102,290. PUBLISHED JULY 17, 1917.

118,514. SAUER-KRAUT AND DILL PICKLES. M. A. GEDNEY COMPANY, Minneapolis, Minn.
Filed June 11, 1917. Serial No. 104,382. PUBLISHED JULY 17, 1917.

118,515. MONTHLY FURNITURE HOUSE ORGAN PERIODICALS. THE GENERAL FIREPROOFING COMPANY, Youngstown, Ohio.
Filed May 12, 1917. Serial No. 103,738. PUBLISHED JULY 10, 1917.

118,516. CERTAIN NAMED FOODS AND INGREDIENTS OF FOODS. G. F. GESSNER CO., Cleveland, Ohio.
Filed June 2, 1917. Serial No. 104,211. PUBLISHED JULY 17, 1917.

118,517. CERTAIN NAMED JEWELRY AND PRECIOUS-METAL WARE. GOLDMAN COSTUME COMPANY, New York, N. Y.
Filed January 24, 1917. Serial No. 100,880. PUBLISHED JULY 3, 1917.

118,518. CERTAIN NAMED GAMES, TOYS, AND SPORTING GOODS. GOLDMAN COSTUME COMPANY, New York, N. Y.
Filed January 24, 1917. Serial No. 100,888. PUBLISHED JULY 10, 1917.

118,519. CERTAIN NAMED SMOKERS' ARTICLES. GOLDMAN COSTUME COMPANY, New York, N. Y.
Filed January 25, 1917. Serial No. 100,918. PUBLISHED JUNE 5, 1917.

118,520. MIXED FEEDS FOR ANIMALS, MANUFACTURED FROM VARIOUS GRAINS, GROUND OR WHOLE, AND OTHER INGREDIENTS. GRAIN BELT MILLS COMPANY, South St. Joseph, Mo.
Filed April 7, 1917. Serial No. 102,787. PUBLISHED JULY 17, 1917.

118,521. LEMON-SODA, GINGER-ALE, ORANGEADE, BIRCH-BEER, ROOT-BEER, CLUB-SODA, AND SARSAPARILLA. GREAT RADIUM SPRING WATER COMPANY, INC., Brooklyn, N. Y.
Filed November 2, 1916. Serial No. 99,036. PUBLISHED JULY 17, 1917.

118,522. OUTER SHIRTS, INCLUDING DRESS, NEGLIGÉE, AND WORK SHIRTS. BARNETT A. HACKNER, Chicago, Ill.
Filed September 11, 1916. Serial No. 97,902. PUBLISHED JULY 3, 1917.

118,523. HAIR-REMEDY COMPOUND. P. STEPHEN HARRIS, Kansas City, Mo.
Filed April 21, 1917. Serial No. 103,172. PUBLISHED JULY 10, 1917.

118,524. BREAKFAST CEREALS AND REMEDIAL FOODS. DAVID A. HARRISON, Los Angeles, Cal.
Filed March 15, 1917. Serial No. 102,160. PUBLISHED JULY 10, 1917.

118,525. WHEAT-FLOUR. HECKER-JONES-JEWELL MILLING COMPANY, New York, N. Y.
Filed April 27, 1917. Serial No. 103,352. PUBLISHED JULY 17, 1917.

118,526. BEDBUG-DESTROYER. B. HELLER & CO., Chicago, Ill.
Filed March 21, 1917. Serial No. 102,313. PUBLISHED JUNE 12, 1917.

118,527. ANT-DESTROYER. B. HELLER & CO., Chicago, Ill.
Filed April 9, 1917. Serial No. 102,830. PUBLISHED JUNE 12, 1917.

118,528. SUBSTITUTE FOR COFFEE. SAMUEL T. HOGAN, Creedmoor, Tex.
Filed April 6, 1917. Serial No. 102,776. PUBLISHED JUNE 26, 1917.

118,529. UKULELES, MUSICAL INSTRUMENTS MADE IN HAWAII. HONOLULU AD CLUB, Honolulu, Territory of Hawaii.
Filed May 22, 1916. Serial No. 95,332. PUBLISHED JULY 3, 1917.

118,530. PAPER ILLUSTRATION-BOARD, MAT-BOARD, PHOTO-MOUNT BOARD, SIGN-WRITERS' BOARD, AND PICTURE-BACKING BOARD. HURLOCK BROS. COMPANY, Philadelphia, Pa.
Filed March 24, 1917. Serial No. 102,412. PUBLISHED JULY 10, 1917.

118,531. LAXATIVE IN TABLET FORM. INDEPENDENT TRADING CO. INC., New York, N. Y.
Filed April 21, 1917. Serial No. 103,176. PUBLISHED JULY 10, 1917.

118,532. CERTAIN NAMED CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS. INTERNATIONAL DRUG COMPANY, Wilmington, Del.
Filed December 11, 1916. Serial No. 99,846. PUBLISHED JULY 17, 1917.

118,533. GOLD CHAINS, BRACELETS, AND PLATINUM CHAINS. JACOB M. JABLOW, New York, N. Y.
Filed April 19, 1917. Serial No. 103,117. PUBLISHED JULY 17, 1917.

118,534. OLEOMARGARIN. JOHN F. JELKE COMPANY, Chicago, Ill.
Filed November 26, 1915. Serial No. 91,260. PUBLISHED AUGUST 8, 1916.

118,535. WEEKLY PUBLICATION. GEORGE E. JENNINGS, New York, N. Y.
Filed June 9, 1917. Serial No. 104,361. PUBLISHED JULY 17, 1917.

118,536. MALTLESS BEVERAGE TO BE SOLD AS A SOFT DRINK. FRANK JONES BREWING CO. LTD., London, England, and Portsmouth, N. H.
Filed June 12, 1917. Serial No. 104,407. PUBLISHED JULY 17, 1917.

118,537. POULTRY-FEEDERS. CHARLES D. KARR, Holland, Mich.
Filed February 17, 1917. Serial No. 101,570. PUBLISHED JULY 17, 1917.

118,538. CLEANING AND SCOURING PREPARATION. KEEN KLEENER MANUFACTURING COMPANY, Ottawa, Ill.
Filed August 8, 1916. Serial No. 97,167. PUBLISHED OCTOBER 24, 1916.

118,539. WEEKLY AND MONTHLY PUBLICATIONS. KELLEY-CLARKE CO., Seattle, Tacoma, and Spokane, Wash.; Portland, Oreg.; San Francisco and Los Angeles, Cal.; Boise, Idaho; Vancouver, Canada, and New York, N. Y.
Filed June 13, 1917. Serial No. 104,424. PUBLISHED JULY 17, 1917.

118,540. CRUSHED-LIMESTONE CHICKEN-GRIT. KENTUCKY LITHOGRAPH STONE CO., Louisville, Ky.
Filed January 15, 1917. Serial No. 100,599. PUBLISHED JULY 17, 1917.

118,541. CANNED VEGETABLES AND CANNED FRUITS. THE E. S. KIBBE COMPANY, Hartford, Conn.
Filed January 30, 1917. Serial No. 101,041. PUBLISHED JULY 17, 1917.

118,542. WATCH-GLASS. KOJI KONISHI, Nakabashi, Tokyo, Japan.
Filed May 18, 1917. Serial No. 103,929. PUBLISHED JULY 17, 917.

118,543. WAXED WRAPPING-PAPER. KUHMARKER MANUFACTURING COMPANY, New York, N. Y.
Filed May 26, 1917. Serial No. 104,100. PUBLISHED JULY 17, 1917.

118,544. SHEET-PACKING, PISTON-PACKING, AND GASKETS COMPOSED OF OR CONTAINING RUBBER. LA FAVORITE RUBBER MANUFACTURING CO., Paterson, N. J.
Filed April 20, 1917. Serial No. 103,148. PUBLISHED JULY 10, 1917.

118,545. WHEAT-FLOUR. LANGENBERG MILLING COMPANY, Republic, Mo.
Filed January 18, 1917. Serial No. 100,714. PUBLISHED JULY 17, 1917.

118,546. WHEAT-FLOUR. LANGENBERG MILLING COMPANY, Republic, Mo.
Filed January 18, 1917. Serial No. 100,715. PUBLISHED JULY 17, 1917.

118,547. PUBLICATION PUBLISHED AT IRREGULAR INTERVALS. THE LINOGRAPH COMPANY, Davenport, Iowa.
Filed May 31, 1917. Serial No. 104,170. PUBLISHED JULY 17, 1917.

118,548. COLD-CREAM, COMPLEXION-POWDER, ROUGE, TOILET WATER, PERFUME, AND SHAMPOO. WILLIAM A. MCLEOD, Joliet, Ill, and South Bend, Ind.
Filed April 30, 1917. Serial No. 103,425. PUBLISHED JULY 10, 1917.

118,549. WHITE FLOUR, WHOLE-WHEAT FLOUR, BRAN, SHORTS, AND GRAHAM FLOUR. MCNAMARA & MARLOW, INC., Big Sandy, Mont.
Filed April 5, 1917. Serial No. 102,748. PUBLISHED JULY 17, 1917.

118,550. EYELETS FOR FASTENING PURPOSES. MACHINE APPLIANCE CORPORATION, Brooklyn, N. Y.
Filed May 9, 1917. Serial No. 103,673. PUBLISHED JULY 17, 1917.

118,551. CERTAIN NAMED CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS. G. B. MARTIN, Frankfort, Ind.
Filed April 24, 1917. Serial No. 103,264. PUBLISHED JUNE 19, 1917.

118,552. PRINT-PAPER IN SHEET FORM. THE MEAD PULP AND PAPER CO., Dayton, Ohio.
Filed March 20, 1917. Serial No. 102,294. PUBLISHED JULY 3, 1917.

118,553. SHEET-PAPER FOR THE PRINTING TRADE. THE MEAD PULP AND PAPER CO., Dayton, Ohio.
Filed March 20, 1917. Serial No. 102,295. PUBLISHED JULY 3, 1917.

118,554. CANNED VEGETABLES. JOHN M. MICHAEL, Aberdeen, Md.
Filed June 4, 1917. Serial No. 104,259. PUBLISHED JULY 17, 1917.

118,555. SOFT DRINKS. MINOLA COMPANY, New Haven, Conn.
Filed June 20, 1917. Serial No. 104,563. PUBLISHED JULY 17, 1917.

118,556. SELF-RISING WHEAT-FLOUR. MODERN FLOUR MILLS, Macon, Ga.
Filed April 16, 1917. Serial No. 103,031. PUBLISHED JULY 17, 1917.

118,557. PREPARATION FOR REMOVING TAR AND SIMILAR SPOTS FROM VEHICLE-BODIES, FABRICS, AND THE LIKE. MOHAWK VALLEY SUPPLY CO. INC., Herkimer, N. Y.
Filed May 15, 1917. Serial No. 103,836. PUBLISHED JULY 10, 1917.

118,558. DRESSING FOR OPEN WOUNDS AND LINIMENT FOR EXTERNAL USE FOR THE RELIEF OF PAIN. BESSIE-LEE MOSSO, Chicago, Ill.
Filed August 31, 1916. Serial No. 97,735. PUBLISHED JULY 3, 1917.

118,559. ABSCESSES AND CATARACTS. ROCCO M. S. G. MURIGILIO, Morristown, N. J.
Filed August 3, 1915. Serial No. 88,393. PUBLISHED JULY 17, 1917.

118,560. CANDIES. NATIONAL CANDY COMPANY, Jersey City, N. J., and St. Louis, Mo.
Filed June 4, 1917. Serial No. 104,262. PUBLISHED JULY 17, 1917.

118,561. CERTAIN NAMED BELTING, HOSE, AND MACHINERY PACKING. THE NATIONAL SUPPLY COMPANY, Toledo, Ohio.
Filed April 18, 1917. Serial No. 103,086. PUBLISHED JULY 17, 1917.

118,562. COFFEE. NEW YORK GROCERY COMPANY, Newark, N. J.
Filed January 6, 1917. Serial No. 100,401. PUBLISHED JUNE 5, 1917.

118,563. CIGARETTES. GROSVENOR NICHOLAS & CO., INC., New York, N. Y.
Filed April 27, 1917. Serial No. 103,358. PUBLISHED JULY 10, 1917.

118,564. NUT PASTE FOR THE PREPARATION OF CERTAIN NAMED FOODS. NUT PRODUCTS CO., New Haven, Conn.
Filed March 3, 1917. Serial No. 101,878. PUBLISHED MAY 22, 1917.

118,565. AUTOMOBILES. OAKLAND MOTOR CAR CO. OF MICHIGAN, Pontiac, Mich.
Filed May 18, 1916. Serial No. 95,237. PUBLISHED JULY 10, 1917.

118,566. FOR SKIN IRRITATIONS, SUNBURN, WINDBURN, AND POISON OAK, GENERAL HOUSEHOLD AND SURGICAL USE. OLIVOINT CHEMICAL COMPANY, San Francisco, Cal.
Filed October 31, 1916. Serial No. 99,015. PUBLISHED JUNE 12, 1917.

118,567. ANIMAL-TRAPS. ONEIDA COMMUNITY, LIMITED, Oneida, N. Y.
Filed June 11, 1917. Serial No. 104,369. PUBLISHED JULY 17, 1917.

118,568. MEDICATED SALT PREPARATIONS FOR LIVE STOCK. GEORGE L. OWENS, Sioux City, Iowa.
Filed December 1, 1916. Serial No. 99,668. PUBLISHED JULY 10, 1917.

118,569. CIGARS. HENRY W. PEABODY & COMPANY, New York, N. Y.
Filed May 8, 1917. Serial No. 103,652. PUBLISHED JULY 10, 1917.

118,570. CANDY. WILLIAM PENN HOTEL COMPANY, Pittsburgh, Pa.
Filed May 15, 1917. Serial No. 103,855. PUBLISHED JULY 10, 1917.

118,571. SODIUM SILICATE. PHILADELPHIA QUARTZ COMPANY, Philadelphia, Pa.
Filed January 20, 1917. Serial No. 100,777. PUBLISHED JULY 10, 1917.

118,572. PERIODICALS PUBLISHED MONTHLY. PORCUPINE PUBLISHING COMPANY, INC., New York, N. Y.
Filed May 19, 1917. Serial No. 103,970. PUBLISHED JULY 10, 1917.

118,573. SUSPENDERS. PRESIDENT SUSPENDER COMPANY, Shirley, Mass.
Filed May 7, 1917. Serial No. 103,611. PUBLISHED JULY 17, 1917.

118,574. REMEDIES FOR INDIGESTION AND STOMACH DISORDERS. WILLIAM J. RITCHIE, Allentown, Pa.
Filed April 30, 1917. Serial No. 103,430. PUBLISHED JULY 10, 1917.

118,575. BLANK LABELS. THE ROSE PATCH & LABEL Co., Grand Rapids, Mich.
Filed February 12, 1916. Serial No. 92,817. PUBLISHED JUNE 5, 1917.

118,576. LINIMENT FOR CERTAIN NAMED AILMENTS. JULES G. ROUSSEL, New Orleans, La.
Filed May 17, 1917. Serial No. 103,905. PUBLISHED JULY 10, 1917.

118,577. FOOD FOR INFANTS AND INVALIDS. SENECA FOOD & DRUG CO., Waterloo, N. Y.
Filed March 2, 1917. Serial No. 101,837. PUBLISHED JULY 10, 1917.

118,578. MONTHLY MAGAZINE. SERVICE MOTOR SUPPLY COMPANY, Chicago, Ill.
Filed May 21, 1917. Serial No. 103,994. PUBLISHED JULY 17, 1917.

118,579. PREPARATION IN POWDER FORM FOR CURING PERSPIRATION OF THE FEET. CLYDE O. SHATTO, Sharon, Pa.
Filed December 29, 1916. Serial No. 100,232. PUBLISHED JULY 10, 1917.

118,580. CERTAIN NAMED PAPER AND STATIONERY. SHEA SMITH & CO., Chicago, Ill.
Filed February 13, 1917. Serial No. 101,347. PUBLISHED JULY 3, 1917.

118,581. CHECKS, CHECK-BOOKS, AND CHECK-BOOK HOLDERS OR TEMPORARY BINDERS. JOHN F. SHOEMAKER, Des Moines, Iowa.
Filed October 2, 1915. Serial No. 89,612. PUBLISHED JULY 10, 1917.

118,582. PHARMACEUTICAL PRODUCT CONTAINING ALL THE ALKALOIDS OF OPIUM AND PARTICULARLY APPLICABLE FOR SEDATIVE PURPOSES. SOCIETY OF CHEMICAL INDUSTRY IN BASLE, Basel, Switzerland.
Filed July 15, 1916. Serial No. 96,601. PUBLISHED JULY 10, 1917.

118,583. CERTAIN NAMED PHARMACEUTICAL PRODUCT. SOCIETY OF CHEMICAL INDUSTRY IN BASLE, Basel, Switzerland.
Filed July 15, 1916. Serial No. 96,604. PUBLISHED JULY 10, 1917.

118,584. CERTAIN NAMED MUSICAL INSTRUMENTS AND SUPPLIES. SONORA PHONOGRAPH CORPORATION, New York, N. Y.
Filed March 10, 1917. Serial No. 102,052. PUBLISHED JULY 17, 1917.

118,585. CERTAIN NAMED CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS. CHARLES V. SPARHAWK, New York, N. Y.
Filed February 5, 1917. Serial No. 101,180. PUBLISHED JULY 17, 1917.

118,586. CERTAIN NAMED THEATRICAL MAKE-UP COSMETICS. JOSEPH STANICK, Saginaw, Mich.
Filed January 19, 1917. Serial No. 100,757. PUBLISHED JULY 17, 1917.

118,587. COMPOUND OF NEUTRAL MINERAL OIL USED IN A PROCESS FOR STERILIZING EGGS. STERILIZED EGG CO., Chicago, Ill.
Filed April 27, 1917. Serial No. 103,372. PUBLISHED JULY 17, 1917.

118,588. CERTAIN NAMED CHEMICALS FOR TREATING BOILERS AND NEUTRALIZING ACIDS OF THE FEED-WATER. STERLING EQUIPMENT & SUPPLY COMPANY, Wilmington, Del., and Philadelphia, Pa.
Filed March 20, 1917. Serial No. 102,300. PUBLISHED JULY 10, 1917.

118,589. CERTAIN NAMED PRINTS AND PUBLICATIONS. TEXTILE PUBLISHING COMPANY, New York, N. Y.
Filed March 15, 1917. Serial No. 102,172. PUBLISHED JULY 10, 1917.

118,590. PILLS OR TABLETS FOR THE TREATMENT OF PILES. HENRY THAYER & COMPANY, INC., Cambridge, Mass.
Filed February 6, 1917. Serial No. 101,199. PUBLISHED JULY 10, 1917.

118,591. TOOTH-POWDER. GEORGE E. THEODOROPOULOS, New York, N. Y.
Filed August 24, 1916. Serial No. 97,607. PUBLISHED FEBRUARY 6, 1917.

118,592. SOFT DRINK. THE THOMAS ADVERTISING SERVICE, Jacksonville, Fla.
Filed June 19, 1917. Serial No. 104,535. PUBLISHED JULY 17, 1917.

118,593. COMPOSITIONS CONTAINING TITANIUM OR ITS COMPOUNDS EMPLOYED AS PURIFIERS IN METALLURGICAL OPERATIONS. THE TITANIUM ALLOY MANUFACTURING COMPANY, New York, N. Y.
Filed January 5, 1917. Serial No. 100,385. PUBLISHED JUNE 12, 1917.

118,594. CERTAIN PRINTS AND PUBLICATIONS. UNITED ASSOCIATION OF PLUMBERS AND STEAM FITTERS OF THE UNITED STATES AND CANADA, Chicago, Ill.
Filed October 1, 1915. Serial No. 89,592. PUBLISHED JULY 17, 1917.

118,595. CIGARS. UNITED CIGAR MANUFACTURERS COMPANY, (NOW BY CHANGE OF NAME GENERAL CIGAR CO., INC.), New York, N. Y.
Filed August 21, 1916. Serial No. 97,486. PUBLISHED JULY 17, 1917.

118,596. PREPARATION FOR THE RELIEF OF ALL RAW AND IRRITATED SKIN SURFACES. VAN ANTWERP'S DRUG CORPORATION INC., Mobile, Ala.
Filed April 14, 1917. Serial No. 102,996. PUBLISHED JULY 10, 1917.

118,597. SNAP-BUTTONS USED AS GARMENT-FASTENERS. WALDES & CO., Prague-Wrschowitz, Austria, assignors to Waldes & Company of New Jersey, a Corporation of New Jersey.
Filed February 19, 1916. Serial No. 92,983. PUBLISHED JULY 3, 1917.

118,598. CERTAIN NAMED FANCY GOODS, FURNISHINGS, AND NOTIONS. WALDES & CO., Prague-Wrschowitz, Austria-Hungary, assignors to Waldes & Company of New Jersey, a Corporation of New Jersey.
Filed November 22, 1916. Serial No. 99,494. PUBLISHED JULY 17, 1917.

118,599. SNAP-FASTENERS AND PLACKET-FASTENERS. WALDES & COMPANY OF NEW JERSEY, New York, N. Y.
Filed May 23, 1917. Serial No. 104,035. PUBLISHED JULY 17, 1917.

118,600. PHOTOGRAPHS AND PHOTOGRAPHIC ENLARGEMENTS. JOHN J. WEAVER, New York, N. Y.
Filed April 12, 1917. Serial No. 102,922. PUBLISHED JULY 17, 1917.

118,601. CERTAIN NAMED HEATING, LIGHTING, AND VENTILATING APPARATUS. WARREN WEBSTER AND COMPANY, Camden, N. J.
Filed June 21, 1916. Serial No. 96,039. PUBLISHED JULY 17, 1917.

118,602. CERTAIN NAMED HEATING, LIGHTING, AND VENTILATING APPARATUS. WARREN WEBSTER AND COMPANY, Camden, N. J.
Filed June 21, 1916. Serial No. 96,040. PUBLISHED JULY 17, 1917.

118,603. CERTAIN NAMED FOODS. WESTERN GROCER COMPANY, Oskaloosa, Iowa.
Filed May 14, 1917. Serial No. 103,805. PUBLISHED JULY 10, 1917.

118,604. WRITING-PAPER AND ENVELOPS. CHARLES E. WEYAND & CO. INC., New York, N. Y.
Filed April 12, 1917. Serial No. 102,918. PUBLISHED JUNE 26, 1917.

118,605. WRITING-PAPER AND ENVELOPS. CHARLES E. WEYAND & CO. INC., New York, N. Y.
Filed April 12, 1917. Serial No. 102,919. PUBLISHED JULY 17, 1917.

118,606. WRITING-PAPER AND ENVELOPS. CHARLES E. WEYAND & CO. INC., New York, N. Y.
Filed April 12, 1917. Serial No. 102,920. PUBLISHED JULY 17, 1917.

118,607. WRITING-PAPER AND ENVELOPS. CHARLES E. WEYAND & CO. INC., New York, N. Y.
Filed April 12, 1917. Serial No. 102,921. PUBLISHED JULY 17, 1917.

118,608. CANNED SARDINES. WHITE STAR CANNING CO., East San Pedro, Cal.
Filed June 2, 1917. Serial No. 104,238. PUBLISHED JULY 17, 1917.

118,609. AMMONIUM ICHTHOSULFONATE. JOHN WYETH & BROTHER, INCORPORATED, Philadelphia, Pa.
Filed November 4, 1916. Serial No. 99,106. PUBLISHED JULY 17, 1917.

118,610. COCOA. SAMUEL ZECHNOWITZ, New York, N. Y.
Filed May 7, 1917. Serial No. 103,621. PUBLISHED JUNE 19, 1917.

118,611. HAIR-TONICS. CHRISTIANE R. LONDON, Chicago, Ill.
Filed April 3, 1917. Serial No. 102,692. PUBLISHED JULY 10, 1917.

118,612. WHEAT-FLOUR. THE SOUTHWESTERN MILLING COMPANY, INC., New York, N. Y., and Kansas City, Mo.
Filed April 24, 1917. Serial No. 103,274. PUBLISHED JULY 17, 1917.

TRADE-MARK REGISTRATIONS RENEWED.

14,742. LAUNDRY STARCH. THE SLEEPER STARCH COMPANY, Des Moines, Iowa; National Starch Company, a corporation of New Jersey, assignee.
Registered September 6, 1887. Renewed September 6, 1917.

14,743. CORN-STARCH. THE SLEEPER STARCH COMPANY, Des Moines, Iowa; National Starch Company, a corporation of New Jersey, assignee.
Registered September 6, 1887. Renewed September 6, 1917.

14,860. AGRICULTURAL IMPLEMENTS. SAMUEL L. ALLEN & CO., Philadelphia, Pa.
Registered November 1, 1887. Renewed November 1, 1917.

15,014. REMEDIES FOR DISEASES OF THE LIVER, KIDNEYS, STOMACH, AND BOWELS, TONICS, COUGH-SIRUP, LINIMENTS, PILLS, AND PILE-OINTMENT. ALBERT CABLE, Pottsville, Pa.
Registered December 13, 1887. Renewed December 13, 1917.

LABELS

REGISTERED SEPTEMBER 18, 1917.

20,284.—*Title:* "DR. KING'S HEALTH PILLS." (For a Health-Restorative Pill.) H. C. HAAK & COMPANY, Scranton, Pa. Filed April 9, 1917.

20,285.—*Title:* DR. KING'S HEADACHE POWDERS." (For a Headache-Powder.) H. C. HAAK & COMPANY, Scranton, Pa. Filed April 9, 1917.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

EX PARTE HERBER.

Decided March 12, 1917.

PATENTABILITY—SUBSTITUTION OF EQUIVALENTS—CRACKING OIL.

Claims for a method of cracking oil by the direct application of heat thereto *Held* unpatentable over a reference disclosing a similar method in which another well-known way of heating the oil is used.

APPEAL from Examiners-in-Chief.

METHOD OF SEPARATING OIL.

Mr. Frederick S. Stitt for the applicant.

EWING, *Commissioner:*

This is an appeal from the decision of the Examiners-in-Chief affirming the action of the Primary Examiner rejecting the following claims:

1. The herein described method of producing a lower boiling point hydro-carbon from a higher boiling point hydro-carbon, in a retort operating under pressure and operatively connected with a condenser consisting of first cracking the oil in the retort by the direct application of heat thereto, passing the resulting vapor into a separatory chamber within which is maintained a cushion of steam into which the lighter portion of the vapor from the cracked oil finds its way and is carried with a portion of the steam to the condenser, while the heavier portion is arrested by the steam.

2. The herein described method of producing a lower boiling point hydro-carbon from a higher boiling point hydro-carbon in a retort operating under pressure and operatively connected with a condenser, consisting of first cracking the oil in the retort by the direct application of heat thereto and passing the resulting vapor into a separatory chamber operatively connected with the retort and condenser and in which is maintained a cushion of steam, into which the lighter portion of the cracked oil finds its way and is carried with a portion of the steam to the condenser, while the heavier portion arrested by the steam is returned to the retort.

The reference held to anticipate the claims is the patent to Forward, No. 1,189,083, June 27, 1916.

The appealed claims are found to read directly upon the disclosure of the Forward patent, unless it be for the limitation to the cracking of the oil by the "direct application of heat" thereto. In applicant's process the heat is applied to the oil in the retort by the direct application of fire. In the Forward patent the heat is applied to the oil in a special heater before entering the retort and in the retort by the application of superheated steam. It is not at all clear that the expression "direct application of heat" excludes the method of heating shown by Forward. However that may be, the Forward patent does point out that his method differs from the "usual practice" in not employing the ordinary retort for bringing the oil to a separating temperature, thereby recognizing and indicating the well-known practice of heating the oil in the manner employed by applicant. Assuming, therefore, that the claims distinguish in terms in the respect indicated, the most that can be said is that they differ from the Forward process in the substitution of one well-known way of heating the oil for another.

In his brief appellant urges that the method of heating by superheated steam is inefficient. Doubtless Forward regarded this departure from the usual practice as importing certain advantages which more than counterbalance any inefficiency in the respect suggested. Whether this be true or not, it cannot be regarded as invention to revert to the ordinary method of applying the heat. The decisions of the tribunals below point out specifically the correspondence between the applicant's process and that of Forward in all other respects and it seems unnecessary to review these details here.

The decision of the Examiners-in-Chief is affirmed.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

IN RE HERBER.

Decided June 2, 1917.

PATENTABILITY—INVENTION—SEPARATING OIL.

The appealed claims compared with the reference (Forward, 1,189,083) and *Held* to be completely anticipated thereby.

Mr. Frederick S. Stitt for the appellant.

Mr. Theodore A. Hostetler for the Commissioner of Patents.

ROBB, *J.:*

This is an appeal from a decision of the Commissioner of Patents rejecting the following two claims of appellant's application for patent:

1. The herein described method of producing a lower boiling point hydro-carbon from a higher boiling point hydro-carbon, in a retort operating under pressure and operatively connected with a condenser consisting of first cracking the oil in the retort by the direct application of heat thereto, passing the resulting vapor into a separatory chamber within which is maintained a cushion of steam into which the lighter portion of the vapor from the cracked oil finds its way and is carried with a portion of the steam to the condenser, while the heavier portion is arrested by the steam.

2. The herein described method of producing a lower boiling point hydro-carbon from a higher boiling point hydro-carbon in a retort operating under pressure and operatively connected with a condenser, consisting of first cracking the oil in the retort by the direct application of heat thereto and passing the resulting vapor into a separatory chamber operatively connected with the retort and

condenser and in which is maintained a cushion of steam, into which the lighter portion of the cracked oil finds its way and is carried with a portion of the steam to the condenser, while the heavier portion arrested by the steam is returned to the retort.

After careful consideration of appellant's brief, in connection with the record, we have reached the conclusion that the decision of the Commissioner should be affirmed, and upon the ground stated by him. In other words, we are fully satisfied that the Forward patent, No. 1,189,083, of June 27, 1916, is a complete anticipation of appellant's claims.

The decision is affirmed.

Affirmed.

Court of Appeals of the District of Columbia.

AUFIERO v. MONNOT.

Decided April 2, 1917.

1. INTERFERENCE—REDUCTION TO PRACTICE.

Where A.'s conception and disclosure of the invention on May 23, 1909, is conceded, and where A., assisted by a mechanic, commenced early in 1910 a horn embodying the invention, completing the same in May or June of that year, and where this horn was satisfactorily and successfully operated in July, 1910, in the presence of four witnesses and shown to be a practical automobile-horn so far as sound production is concerned, and where the count of the issue does not define the invention either as an automobile-horn or as a device adapted for use on an automobile, *Held* that this test amounted to a reduction to practice, according to prior rulings of this court. (See *Stanbon* v. *Howe*, 34 App. D. C., 418; *Gaisman* v. *Gillette*, 36 App. D. C., 440; *Hopkins* v. *Peters*, 41 App. D. C., 302; *Manly* v. *Janney*, present term, 45 App. D. C., 516.)

2. SAME—SAME—DELAY IN FILING APPLICATION.

Where A. reduced to practice in July, 1910, in the presence of several witnesses under no injunction of secrecy, and thereafter exhibited the invention to R., with a view to having it exploited, the mere fact that he delayed the filing of his application until June 12, 1912, is not sufficient to deprive him of the fruits of his discovery where there is no evidence that he was induced to file because of any activity on the part of another; nor are there any circumstances tending to impugn his good faith in any way. (*Gaisman* v. *Gillette*, 36 App. D. C., 440; *Hubbard* v. *Berg*, 40 App. D. C., 577; *Stewart* v. *Thomas*, 42 App. D. C., 222; *Piermann* v. *Chisholm*, 44 App. D. C., 460.)

Mr. S. T. Cameron, *Mr. Reeve Lewis*, *Mr. C. A. L. Massie*, and *Mr. W. B. Kerkam* for the appellant.

Mr. Geo. C. Dean and *Mr. W. C. Fairbank* for the appellee.

ROBB, *J.*:

Appeal from concurrent decisions of the Patent Office tribunals in an interference proceeding awarding priority of invention to the senior party, Monnot. The Aufiero application was filed November 24, 1913, and is a division of application No. 703,232, filed June 12, 1912. The Monnot application was filed in France on November 7, 1910, and in the United States on November 7, 1911. This party has taken no testimony and relies upon his filing dates.

According to the specification of Aufiero, the invention relates to an "improvement in hand-actuated alarm device," while Monnot in his specification states that the invention relates to "improvements in mechanical horns." The single count reads as follows:

In a signaling device, the combination of an acoustic diaphragm, a rotor having projections adapted to vibrate said diaphragm, a spring adapted to rotate said rotor, a means for putting said spring under tension, said means including a rotatable member, a manually actuated reciprocating member, and ratchet and pawl connections between said members.

It will be noted that this count does not define the invention, either as an automobile-horn or as a device adopted for use on an automobile. It is, in fact, a comparatively simple departure from the prior art and consists merely in the installation in the well-known device of a spring similar to a clock-spring, means for tensioning said spring, and means for delivery of the stored power to the part to be actuated. In short, the operator puts the spring under tension and the spring actuates the rotor.

The Patent Office tribunals ruled that inasmuch as Monnot's French application when filed contained a disclosure of the invention in issue, he is entitled for constructive reduction to practice to the filing date of that application. While this ruling is challenged by Aufiero, we shall accept it without further discussion for the purposes of this decision.

Aufiero, in the spring of 1909, was engaged in the manufacture of clocks and speedometers and, apparently, was highly skilled in that art. He commenced experimenting with horns commonly used on automobiles and observed that the pitch of the sound emitted was very unsteady; that—

it changed at every slight variation of speed imparted to the handle.

As he was familiar with the property of springs in storing up energy and controlling speed, the idea of this issue occurred to him. Thereupon he made a drawing which is in evidence, and which the tribunals of the Patent Office concede clearly discloses the invention of the issue. This drawing he signed under date of May 12, 1909, while three witnesses signed it under date of May 23, 1909. The authenticity of this drawing, in view of the evidence, is not to be questioned. Early in 1910 Aufiero, assisted by a mechanic named Guerriero, commenced a horn embodying the invention, but it was not completed until May or June of 1910. Aufiero had suffered reverses and found himself without either means or employment. With a view of interesting some one in the manufacture of his horns, he set about the completion of the horn above mentioned, and also an electrically-operated horn. These horns he tested in some vacant lots in Brooklyn, N. Y., early in July of 1910, in the presence of four witnesses. Both horns were satisfactorily and successfully operated, according to the testimony of these witnesses. Mr. Aufiero testified that the operation of the horn of the issue—

was much easier and the sound more continuous and uniform than now.

Asked to explain how he accounted for the difference, he replied:

I believe that the clock-spring, having been so long inert, has become stiff, and doesn't work properly.

The witness Citro, who was present at this test, testified concerning the success of the test as did Mr. Brandes, a teacher of languages and medical student. The witness Guerriero was asked when he first saw this horn, and replied: "When we made it;" that it was started in about February and

finished early in June. He then was given the horn, which was an exhibit in the case, and removed the rear cap and diaphragm, as requested. He then was asked to look into the front of the trumpet and also into the rear, where the diaphragm had been removed, and asked to state if he recognized the "wheels and so on, inside." He answered: "Sure, we made them." He then identified "the spring-box, containing spring inside." He also testified to the success of the test made.

Soon after this Mr. Aufiero took the horn of the issue and his electrically-operated horn to a Mr. Rubes for the purpose of interesting him in them. Both horns were shown him, and after sounding upon the witness stand the horn of the issue, he testified that it sounded as it did when first shown him. At that time, however, Mr. Aufiero could not interest him in this horn, for the reason that "the demand was for electric horns." A contract was entered into, however, under which Mr. Rubes became interested in the manufacture of the electric horn.

Aufiero, at the time he entered into this arrangement, was in debt and without income. The money he thereafter received from this new venture he applied to the payment of his debts and to the filing of four applications for patents on electrically-operated horns, and, a few days prior to the filing of the application of which this is a division, he also filed an application on a hand-operated horn.

While the Examiner of Interferences accepted without question the drawings of May 12th, which were witnessed on May 23d, as amounting to a conception and disclosure of the invention, he was not satisfied that the horn which was completed and tested contained a spring at that time, and therefore ruled that it was not sufficient to establish reduction to practice. The Examiners-in-Chief, on the question of reduction to practice, said:

We think that there is no doubt that the horn, Aufiero Exhibit No. 2, with the spring referred to therein, was tested in July, 1910, and that this developed the same sound then that it gives forth at the present time. This sound is undoubtedly all that could be required, so far as sound production is concerned, to mark the device a practical automobile horn. But the exhibit was not subjected to further tests to determine whether it would continue to work in a practical manner when placed upon an automobile and subjected to the shock, dust, mud, rain, and snow to which it would be subjected in ordinary usage.

They therefore ruled that it did not amount to reduction to practice, and this ruling was sustained by the Commissioner.

That this horn was made and successfully tested as claimed by Aufiero is clearly established by the evidence, to which we have alluded. We are further fully satisfied that it was not thereafter changed in any way. It was an exhibit in the case and, had it shown any signs of having been changed, the fact would have been brought out in evidence. There is a still stronger reason for accepting the straightforward and reasonable testimony of the witnesses concerning this exhibit. Prior to its completion Aufiero had conceived and fully disclosed in the drawing referred to every element of the issue, and this is conceded by the Patent Office. It would have been a strange thing for this intelligent man, who was attempting to improve upon the prior art, to construct the very device of the prior art without any improvement, call together witnesses, test it, and express great joy over the success of the test. We are equally convinced that this test demonstrated the utility and completion of the invention; in other words, that it amounted to reduction to practice. There is no warrant, in our view, for the criticism of the Board of Examiners-in-Chief, since there is nothing in the specifications or claim limiting this device to use on an automobile, but, even if there was, it is a matter of common knowledge that such horns now are usually located under the hoods, where they are protected. Our conclusion that this test amounted to a reduction to practice is in accord with our prior rulings. (See *Stanbon* v. *Howe*, 34 App. D. C., 418; 153 O. G., 823; *Gaisman* v. *Gillette*, 36 App. D. C., 440; 165 O. G., 244; *Hopkins* v. *Peters*, 41 App. D. C., 302; 199 O. G., 1243; *Manly* v. *Janney*, present term, 46 App. D. C., ——.)

Having reduced the invention to practice, priority must be awarded Aufiero unless he concealed or abandoned his invention. We find no evidence that he did either. The reduction to practice was in the presence of several witnesses, and they were put under no injunction as to secrecy. Soon thereafter the device embodying the issue was exhibited to Mr. Rubes with a view to having it exploited, and the only reason this was not done was because Mr. Rubes preferred an electrically-operated horn. Obviously, Aufiero was not in a position to dictate as to which device should be taken up first. The mere fact that he delayed the filing of his application is not sufficient to deprive him of the fruits of his discovery. There is no evidence that he was induced to file because of any activity on the part of Monnot, nor are there are circumstances tending to impugn his good faith in any way. The facts, therefore, bring him within the rule laid down in *Gaisman* v. *Gillette*, (36 App. D. C., 440; 165 O. G., 244;) *Hubbard* v. *Berg*, (40 App. D. C., 577; 195 O. G., 818;) *Stewart* v. *Thomas*, (42 App. D. C., 222; 202 O. G., 1262,) and *Piermann* v. *Chisholm*, (44 App. D. C., 460; 225 O. G., 1106.)

The decision is reversed and priority awarded Aufiero.

Reversed.

Court of Appeals of the District of Columbia.

COFFIN REDINGTON CO. v. TURNER.

Decided May 26, 1917.

1. TRADE-MARKS—REGISTRATION—MISREPRESENTATIONS.

"One cannot maintain a bill in equity for the protection of a trade-mark unless his own use of the mark has been honest and free from false and fraudulent representations touching the article sold under the mark; and it is the duty of the Patent Office to refuse registration to one whose use of the mark has been of such a character that a court of equity would, upon the foregoing principle, deny him protection," (citing *Levy* v. *Uri*, 31 App. D. C., 441; 1908, C. D., 461.)

2. SAME—SAME—SAME—PRIOR USE.

Where appellee's labels stated that the face-cream to which they were applied were purely vegetable and would remove freckles or wrinkles, but upon examina-

tion she persistently refused to state whether the cream did not contain mineral ingredients and whether she had any ground for believing it would remove freckles or wrinkles, *Held* her refusal fairly shows the statement concerning the removal of wrinkles and freckles to have been made without regard to their truth and justifies the finding that it was not purely vegetable and *Held* that while the mark or name was not itself deceptive the accompanying statements were and the registration on the ground of prior use should have been denied.

Mr. Geo. W. Ramsey for the appellant.

Mr. C. P. Griffin and *Mr. E. C. Brown* for the appellee.

STAFFORD, *J.*:

One cannot maintain a bill in equity for the protection of a trade-mark unless his own use of the mark has been honest and free from false and fraudulent representations touching the article sold under the mark; and it is the duty of the Patent Office to refuse registration to one whose use of the mark has been of such a character that a court of equity would, upon the foregoing principle, deny him protection. Such was the ruling of this court in *Levy* v. *Uri*, (31 App. D. C., 441; 1908, C. D., 461,) where the authorities were cited and the ground of the decision fully explained.

The present case falls clearly within the principle, for the appellee's use of the trade-name, even if it was prior to the use of the same by the appellant, was such a use as would have led a court of equity to refuse her protection. The article is a face-cream. The appellee's labels stated that it was purely vegetable and would remove freckles and wrinkles. Yet, when examined as a witness touching the truth of these statements and her honesty in making them, she persistently refused to state whether the cream did not contain certain mineral ingredients and whether she had any ground for believing that the cream would remove freckles or wrinkles. Her testimony fairly shows that she made the statements concerning the removal of freckles and wrinkles without any regard to their truth and merely because she considered the label in that form attractive, and her refusal to state whether the cream was in fact purely vegetable justifies and in our opinion requires the finding that it was not purely vegetable. (*Keeley Institute* v. *Leslie E. Keeley Co.*, 155 Fed., 964.) As remarked by Robb, J., in *Levy* v. *Uri*, *supra*:

> It was the purpose of the act to protect honest manufacturers and dealers, because in so doing the public would in turn be protected. It was not the purpose of the act to recognize the right of any person, firm or corporation to deceive the public by the use of a deceptive mark.

In this case, it is true, the mark or name itself was not deceptive, but the accompanying statements were, and their deceptive character is enough to disentitle the appellee to claim priority upon the ground of such use.

The appellant's registration should have been allowed to stand and the appellee's petition to be allowed registration on the ground of prior use should have been denied.

Reversed.

International Convention—Morocco.

AUGUST 8, 1917.

The Secretary of State presents his compliments to the honorable the Secretary of the Interior and has the honor to inform him that the chargé d'affaires of Switzerland at this capital, in a note dated June 30, 1917, notifies the Department of State of the adhesion of Morocco (French Protectorate)—

(1) To the Industrial Property Convention, Paris, as revised at Brussels in 1900 and Washington 1911.

(2) The Madrid Arrangement of April 11, 1891, revised at Washington June 2, 1911, for the repression of false declarations of origin.

(3) The Madrid Arrangement of 1891, revised at Washington in 1911, for the international registration of trade-marks.

The chargé d'affaires adds that Morocco wishes to be entered in the sixth class with respect to the payment of quotas and that the adhesion will take effect one month after the date of the notification made by the Swiss Government.

THE OFFICIAL GAZETTE OF THE United States Patent Office.

Vol. 242—No. 4. TUESDAY, SEPTEMBER 25, 1917. Price—$5 per year.

The OFFICIAL GAZETTE is mailed under the direction of the Superintendent of Documents, Government Printing Office, to whom all subscriptions should be made payable and all communications respecting the Gazette should be addressed. Issued weekly. Subscriptions, $5.00 per annum; single numbers, 10 cents each.

Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

CONTENTS.

	Page.
ISSUE OF SEPTEMBER 25, 1917	753
INTERFERENCE NOTICES	753
ADJUDICATED PATENTS	753
APPLICATIONS UNDER EXAMINATION	754
PATENTS GRANTED	755
REISSUES	969
DESIGNS	972
TRADE-MARKS—REGISTRATION APPLIED FOR	977
TRADE-MARK REGISTRATIONS GRANTED	987
TRADE-MARK REGISTRATIONS RENEWED	990
LABELS AND PRINTS	991
DECISIONS OF THE U. S. COURTS—	
In re Minor	993
In re Vreeland	995
UNION OF SOUTH AFRICA—PROCLAMATION RELATING TO PATENTS, TRADE-MARKS, ETC	996

Issue of September 25, 1917.

Patents	683	No. 1,240,803 to No.	1,241,485,	inclusive.
Designs	17	No. 51,294 to No.	51,310,	inclusive.
Trade-Marks	114	No. 115,613 to No.	115,726,	inclusive.
Labels	12	No. 20,286 to No.	20,297,	inclusive.
Prints	5	No. 4,793 to No.	4,797,	inclusive.
Reissues	6	No. 14,364 to No.	14,369,	inclusive.
Total	837			

"Shall we be more tender with our dollars than with the lives of our sons?"—W. G. McAdoo, Secretary of the Treasury.

SAVE YOUR MONEY

to

BUY A U. S. GOVERNMENT BOND

of the

SECOND LIBERTY LOAN

of 1917

To Help Your Country and Yourself.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., September 14, 1917.

Wilmot B. Nethery, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Fred Miller Brewing Co., Fortieth and State streets, Milwaukee, Wis., for registration of a trade-mark and trade-mark registered January 5, 1909, No. 72,160, to Wilmot B. Nethery, 506 Whitehall street, Atlanta, Ga., and a notice of such declaration sent by registered mail to said Wilmot B. Nethery at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Wilmot B. Nethery, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD,
First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., September 15, 1917.

Philip T. George, Jr., his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Pierce Oil Corporation, of 25 Broad street, New York, N. Y., for registration of a trade-mark and trade-mark registered March 14, 1899, No. 32,591, to Philip T. George, Jr., of Philadelphia, Pa., and a notice of such declaration sent by registered mail to said Philip T. George, Jr., at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Philip T. George, Jr., his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD,
First Assistant Commissioner.

ADJUDICATED PATENTS.

(U. S. D. C.) The Kenney patent, No. 847,947, for a vacuum-cleaner, claim 4 *Held* infringed. *Vacuum Cleaner Co.* v. *Bissell Carpet Sweeper Co.*, 242 Fed. Rep., 649.

(U. S. C. C. A.) The Laas and Sponenburg patent, No. 720,362, for a rail-anchor, *Held* valid and infringed. *Track Specialties Co.* v. *Barnett*, 242 Fed. Rep., 633.

(U. S. C. C. A.) The Pope patent, No. 656,470, for a rail-anchor, *Held* not anticipated, valid, and infringed. *Track Specialties Co.* v. *Barnett*, 242 Fed. Rep., 633.

(U. S. D. C.) The Rousso patent, No. 1,157,046, for a towel-cabinet, *Held* not anticipated, valid, and infringed. *Rousso* v. *City Towel Supply Co.*, 242 Fed. Rep., 655.

(U. S. C. C. A.) The Vaughan and Vaughan patent, No. 1,021,387, for a rail-anchor, *Held* valid and infringed. *Track Specialties Co.* v. *Barnett*, 242 Fed. Rep., 633.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business September 21, 1917.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended.	
314	1. Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Railway Gates; Planting; Scattering Unloaders; Trees, Plants, and Flowers.	July 5	June 26	376
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	May 10	June 30	357
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Founding; Metallurgical Apparatus; Metallurgy; Plastic Metal Working.	Aug. 29	Aug. 2	100
234	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Pushing and Pulling Implements; Railway Mail Delivery; Store-Service; Traversing Hoists.	Aug. 7	Aug. 22	175
167	5. Bookbinding; Harvesters; Jewelry; Music	Apr. 5	June 21	309
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Substance Preparation.	Mar. 31	June 8	509
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes	Apr. 4	June 23	748
133	8. Beds; Chairs; Flexible-Sheet Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	May 19	Aug. 6	727
221	9. Air and Gas Pumps; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Marine Propulsion.	Apr. 7	Aug. 17	553
235	10. Carriages and Wagons; Motor Vehicles	May 1	Aug. 7	790
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Spring Devices; Whips and Whip Apparatus.	June 12	Aug. 22	233
322	12. Journal-Boxes, Pulleys, and Shafting; Machine Elements	May 21	June 15	688
329	13. Ammunition and Explosive Charge, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	June 2	Aug. 2	600
323	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	May 31	July 18	268
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	July 24	Aug. 15	286
112	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony	Apr. 14	Aug. 1	475
307	17. Ornamentation; Paper Manufactures; Printing; Type Casting; Sheet Material Associating or Folding; Sheet Feeding or Delivering; Type Setting.	June 25	Aug. 10	144
229	18. Fluid-Pressure Regulators; Injectors and Ejectors; Liquid Heaters and Vaporizers; Lubrication; Miscellaneous Heat-Engine Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	July 6	Aug. 10	282
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels	Apr. 16	July 10	478
179	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Aug. 17	Aug. 13	255
212	21. Brakes and Gins; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Apr. 11	June 13	347
249	22. Aeronautics; Firearms; Ordnance	May 4	June 15	312
219	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	May 24	Dec. 20	367
144	24. Apparel; Apparel Apparatus; Sewing-Machines; Garment Supporters	July 11	Aug. 1	307
315	25. Agitating; Butchering; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separation.	Aug. 3	Aug. 13	132
105	26. Electricity, Generation; Motive Power	Feb. 17	Mar. 10	628
214	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus	June 25	Aug. 20	352
225	28. Internal-Combustion Engines	June 12	Aug. 2	527
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking Tools.	May 31	July 11	319
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines	June 28	Aug. 15	391
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Sugar and Salt.	July 9	Aug. 17	196
278	32. Dispensing Beverages; Dispensing; Gas and Liquid Contact Apparatus; Heat Exchange; Packaging Liquids; Refrigeration.	Mar. 3	Aug. 1	986
70	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	July 12	Aug. 3	247
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling Stock; Railway Ties and Fasteners.	June 12	July 23	213
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Signals; Toilet	May 9	Aug. 1	548
204	36. Driers; Geometrical Instruments; Measuring Instruments; Photography; Force Measuring	May 18	July 18	641
107	37. Electric Lamps; Electricity, Circuit Makers and Breakers; Electricity, Conduits; Electricity, General Applications.	Apr. 25	June 29	631
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells	Aug. 11	Aug. 10	167
220	39. Water Distribution; Multiple Valves	Apr. 13	May 7	419
275	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	June 30	Aug. 28	397
125	41. Railway Draft Appliances; Resilient Tires and Wheels	May 25	July 30	422
114	42. Electricity, Conductors; Railway Signaling; Electricity-Transmission to Vehicles; Electric Signaling.	Mar. 28	July 5	701
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Aug. 6	Aug. 7	184
253	44. Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Ships	May 18	Aug. 7	469

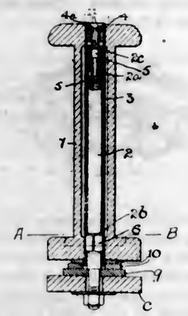
Oldest new case, Feb. 17; oldest amended, Dec. 20.
Total number of applications awaiting action 18,256

163	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	July 5	Aug. 14	1036
	Designs	Aug. 25	Sept. 1	164
	Labels and Prints	Sept. 10	Sept. 8	68

PATENTS

GRANTED SEPTEMBER 25, 1917.

1,240,803. SPINNING-MACHINE SPINDLE. THOMAS OSWALD AKED, St. Thomas, Ontario, Canada. Filed Dec. 30, 1915. Serial No. 69,416. (Cl. 64—56.)



1. In spinning machines, in combination, a dead spindle having an axial opening, a tube fitting loosely thereover, a plug fitting within said tube and having a cavity at its upper end and ducts leading through said plug from said cavity into proximity to the upper end of said spindle, and a pin extending from said plug within said axial opening.

2. In spinning machines, in combination, a dead spindle having an axial opening, a tube taking loosely thereover, a plug fitting within the end of said tube, and having a cavity at its upper end and ducts leading through said plug from said cavity into proximity to the upper end of said spindle, an extension from said plug leading within said axial opening, a bearing at the lower end of said extension, said dead spindle having a groove formed in its inner end portion, and a split ring fitting within said groove.

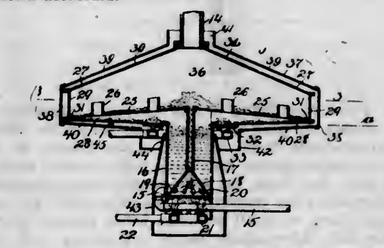
3. In spinning machines, in combination, a dead spindle having an axial opening, a tube fitting thereover, a plug fitting within said tube with its upper surface flush with the end of said tube, a rotary spindle extending from said plug, the dead spindle being provided with an axial opening for the reception of said rotary spindle, and with a conical opening at its upper end, said plug being provided with a cavity formed in its upper end and with ducts leading from said cavity, and means for preventing the ready detachment of said tube.

4. In spinning machines, in combination, a dead spindle having an axial opening formed therein, a tube fitting loosely over said spindle, a plug fixed in said tube, a pin projecting from said plug and extending within said axial opening to act as a support, said plug being provided with a cavity and with ducts leading from said cavity, means for preventing the ready removal of said tube, a bobbin fitting over said tube with its upper end arranged to leave the cavity in the plug free to facilitate the feeding of lubricant, and a support for said dead spindle.

1,240,804. STEAM-BOILER. CARL Z. ALEXANDER and EARL S. ALEXANDER, Newark, N. J. Filed Oct. 31, 1916. Serial No. 128,674. (Cl. 122—39.)

1. A steam boiler comprising a geyser tube, a container for said tube, plates to conduct water from the top of the geyser tube back to the container, the plates being but slightly inclined and of relatively large diameter, means for heating the container, and means for heating the plate from which the water flows into the container.

2. A steam boiler comprising a geyser tube, a base portion containing water in which the geyser tube is arranged and from which it projects, a body portion of considerably larger diameter than the base portion and with a downwardly inclined bottom to conduct water to the inside of said base portion, and means for conducting water from the top of the geyser tube to the outer edge of the bottom aforesaid.



3. A steam boiler comprising a body portion forming a steam chamber and having an inwardly and slightly downwardly inclined bottom with a central opening, a plate within the body portion and less in diameter, the plate being slightly inclined outwardly, the plate having openings with raised rims to permit the passage of steam and prevent the passage of water through the openings, a geyser tube projecting through the center of the plate, means for conducting water from the open bottom of the body portion to the geyser tube, means for heating the water in the conducting means to force it through the tube, and means for heating the bottom of the body portion near the opening therein.

4. A steam boiler comprising a body portion forming a steam chamber and having an inwardly and slightly downwardly inclined bottom with a central opening, a plate within the body portion and less in diameter, the plate being slightly inclined outwardly, the plate having openings with raised rims to permit the passage of steam and prevent the passage of water through the openings, a geyser tube projecting through the center of the plate, means for conducting water from the open bottom of the body portion to the geyser tube, means for heating the water in the conducting means to force it through the tube, and means for heating the bottom of the body portion near the opening therein, the bottom of the body portion being depressed above the last-mentioned heating means to provide for a slightly greater depth of water.

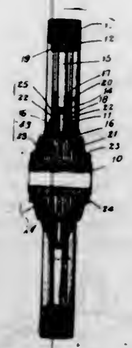
5. A steam boiler comprising a geyser tube, a base portion containing the tube, means for heating the base portion and thus forcing water through the geyser tube, plates arranged with a slight incline and adapted to receive water from the geyser tube and to retard the gravity flow of said water, a body portion inclosing said plates to form a steam chamber, the body portion having open communication with the base portion, and means for heating the lower of said plates.

[Claims 6 to 12 not printed in the Gazette.]

1,240,805. SPRING-WHEEL. JOHN ANDERSON, Bluefield, W. Va., assignor of one-half to John W. Auren, East Liberty, Pittsburgh, Pa. Filed Dec. 27, 1915. Serial No. 68,609. (Cl. 152—44.)

1. A wheel comprising a hub, a rim, and a pair of spiral springs having close flat turns, one of said members having a web formed to coöperate with the turns

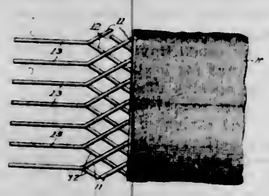
of the spiral springs to prevent the axial displacement thereof.



2. A wheel comprising a hub having a plurality of spiral notches forming a stepped web projection which extends outwardly from the hub, a rim having an inwardly extending central web and a pair of spiral springs having close, flat turns, the outer turns of large diameter being secured to the respective sides of the rim web and the outer turns of small diameter being secured to the hub, the flat, intermediate turns coöperating with the stepped web of the hub, each turn being spaced from the coöperating step of the hub by a small radial clearance.

[Claim 3 not printed in the Gazette.]

1,240,806. METHOD OF BUILDING COMMUTATORS FOR ARMATURES. VINCENT G. APPLE, Dayton, Ohio. Filed Jan. 22, 1917. Serial No. 143,831. (Cl. 219—8.)



1. Steps in the method of making a commutator for an armature which consists in pairing the conductor terminals; inclosing each pair of terminals in a clip having outlines of a commutator segment; welding the clips and terminals into masses forming respective commutator segments.

2. Steps in the method of making a commutator for an armature which consists in pairing the conductor terminals; inclosing each pair of terminals in a clip having outlines of a commutator segment; welding the clips and terminals together forming respective commutator segments and holding the segments separated with insulating material.

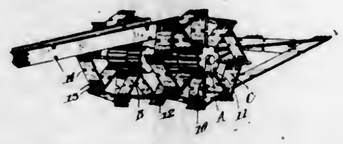
3. Steps in the method of making a commutator for an armature which consists in pairing the conductor terminals; inclosing each pair of terminals in a clip having outlines of a commutator segment; welding the clips and terminals into masses forming respective commutator segments and submerging the armature in a liquid bosh to carry the heat away from the armature during the welding operation.

4. Steps in the method of making a commutator for an armature which consists in pairing the conductor terminals; applying heat to form the terminals into commutator segments and coincidentally carrying the excessive heat away from the armature by a moving, heat conducting fluid.

5. Steps in the method of making a commutator for an armature which consists in pairing the conductor terminals; inclosing each pair of terminals in a clip having outlines of a commutator segment; separating said segments by a non-welding plate; applying heat to the terminals and clips individually, to thereby form homogeneous commutator segments; removing the plates and substituting insulating material between adjacent segments.

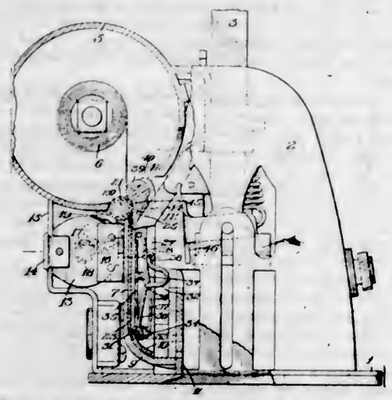
[Claims 6 and 7 not printed in the Gazette.]

1,240,807. TOY BUILDING CONSTRUCTION. HENRY WESTLAKE ANGUS and ABEL WATTERS CHAMBERLIN, North Bay, Ontario, Canada. Filed July 8, 1916. Serial No. 108,251. (Cl. 46—35.)



A toy building construction comprising a plurality of strips each being formed of substantially rectangular shape provided with a plurality of elongated parallel sided slots in the ends subdividing the said ends into a plurality of fingers, and having transverse parallel slots in the lateral faces intermediate of the length of the said strips, the said fingers and slots of adjacent strips being designed to be frictionally engaged, a hub having a plurality of longitudinal grooves in the periphery thereof designed to frictionally engage with the fingers of the strips, and a spindle adapted to engage with the hub.

1,240,808. STAMP-AFFIXER. WESLEY J. BALKWILL, Rochester, N. Y., assignor to Multiport Company, Rochester, N. Y., a Corporation of New York. Filed Sept. 27, 1915. Serial No. 52,885. (Cl. 216—28.)



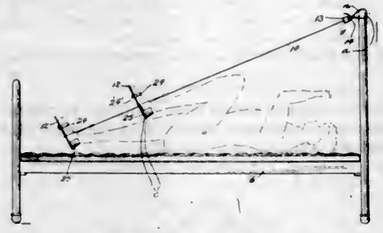
1. In a stamp affixer, the combination with a stamp guideway comprising a backing and a removable clamping member, of an affixing member and devices for feeding a stamp strip through said guideway, and a yieldingly mounted frictional roller in engagement with the stamp strip for the purpose of deflecting the same with respect to the guideway.

2. In a stamp affixer, the combination with a stamp guideway comprising a backing and a removable clamping member, of an affixing member and devices for feeding a stamp strip through said guideway, a friction roler mounted on one side of the stamp strip in engagement therewith, and a yieldingly mounted frictional roller on the opposite side of the stamp strip arranged slightly above the first mentioned roller whereby the strip is deflected with respect to the first mentioned roller to increase the frictional contact between the rollers and the strip.

3. In a stamp affixer, the combination with a stamp guideway comprising a backing and a removable clamping member, of an affixing member and devices for feeding a stamp strip through said guideway, of a counter mechanism, a friction roller engaging one side of the stamp strip, gear wheels connecting the roller with the counter mechanism for operating the same, and a yieldingly mounted frictional roller on the opposite side of the stamp strip positioned slightly above the first mentioned roller for the purpose of deflecting the strip to increase the frictional contact between each of said rollers and said strip.

4. In a stamp affixer, the combination with a stamp guideway comprising a backing and a movable clamping member having spaced lateral extensions thereon extending above said guideway each provided with an aperture, an affixing member, and devices for feeding a stamp strip through said guideway, a friction roller engaging one side of the stamp strip above the guideway, and a friction roller on the opposite side of the stamp strip yieldingly mounted in the apertures and adapted to deflect the strip with respect to the first mentioned roller for the purpose of increasing the frictional contact between said strip and said rollers.

1,240,809. EXERCISING DEVICE. EMERSON F. BALDWIN, Philadelphia, Pa. Filed Dec. 28, 1916. Serial No. 139,291. (Cl. 46—69.)



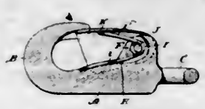
1. An exercising device for use in a lying position embracing a frame adapted for suspension above a person's head, a series of pulleys for said frame, a single, continuous cable the bight of which is adapted for free back and forth movement around the pulley in a substantially horizontal plane and a sandal-like attachment for each end of said cable for connection with a person's feet, whereby in use the weight of a person's leg in descending tends to raise the other leg.

4. A device of the character stated embracing a frame adapted for suspension above a person's head, a series of pulleys for said frame, a single cable the bight of which is adapted for free back and forth movement around the pulley in a substantially horizontal plane, said cable being doubled over upon itself throughout its entire length so that a closed and an open end are provided and apertured sandal-like foot attachments for the cable ends, the free ends of the cable being passed through the apertures in one direction so that the closed end thereof abuts against the underside of the attachment, said free ends of the cable then being passed down through the apertures of the other atiachment and twisted with respect to one another and brought up through said apertures, said cable arrangement forming an adjustable and self-locking adjustment.

[Claims 2, 3, and 5 not printed in the Gazette.]

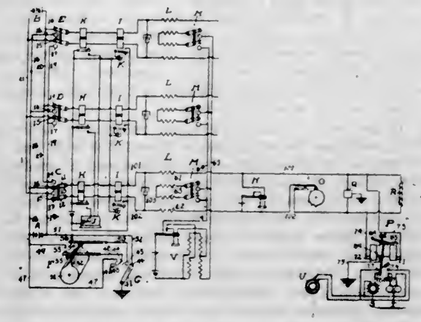
1,240,810. HOOK. JOHN B. BAXTER, Watervliet, N. Y., assignor to Covert Manufacturing Company, Watervliet, N. Y., a Corporation of New York. Filed Oct. 29, 1915. Serial No. 58,672. (Cl. 24—235.)

A snap hook of the character described comprising a shank having an upwardly extending wall at one side, and also provided with a bill and spring actuated tongue, the spring having a terminal adapted to engage the shank and the upper surface of the shank being inclined from the normal plane of said surface inwardly from the outer side edge of the shank to near the opposite side edge



thereof to constitute a broad guiding face and seat, the deepest portion of the seat being located immediately adjoining the said side wall of the shank so that the latter serves as an abrupt stop for the spring terminal in its travel down the inclined surface.

1,240,811. SIGNALING SYSTEM. CLARENCE E. BEACH, Binghamton, N. Y., assignor, by mesne assignments, to The Gamewell Fire Alarm Telegraph Company, a Corporation of New York. Filed Oct. 12, 1914. Serial No. 866,322. (Cl. 179—5.)



1. In an electric signaling system: two current sources; a plurality of signaling circuits each having connected thereto,—switch mechanism for connecting said circuit to either current source without simultaneously disconnecting said sources, telegraphic signal receiving mechanism, telephonic signal indicating mechanism, one or more telegraphic transmitting stations, one or more telephone stations, relay mechanism adapted to operatively affect certain alarm receiving or indicating devices upon a predetermined change in the condition of said circuit and to operatively affect other alarm receiving or indicating devices upon a different predetermined change in the condition of said circuit, and means for establishing telephonic correlation with another circuit; circuit condition changing means associated with one of said current sources and adapted to cause said predetermined changes in the condition of circuits connected to said source; and conductors between said mechanisms and stations and said circuit condition changing means whereby said circuit condition changes will operatively affect said relay mechanism but will not operatively affect the transmission of telegraphic signals or telephonic communications in said circuits.

2. In an electric signaling system: two current sources: a plurality of signaling circuits each having connected thereto,—switch mechanism for connecting said circuit to either current source without simultaneously disconnecting said sources, telegraphic signal receiving mechanism, telephonic signal indicating mechanism, one or more telegraphic transmitting stations, one or more telephone stations, relay mechanism adapted to operatively affect certain alarm receiving or indicating devices upon a predetermined change in the condition of said circuit and to operatively affect other alarm receiving or indicating devices upon a different predetermined change in the condition of said circuit, and means for establishing tele-

phonic correlation with another circuit; alarm signal formulating mechanism associated with one of said current sources; alarm selecting mechanism adapted to control said alarm signal formulating mechanism to cause either or both of said predetermined changes in the condition of circuits connected to said source; and conductors between said mechanisms and stations whereby said circuit condition changes will operatively affect said relay mechanism but will not operatively affect the transmission of telegraphic signals or telephonic communications in said circuits.

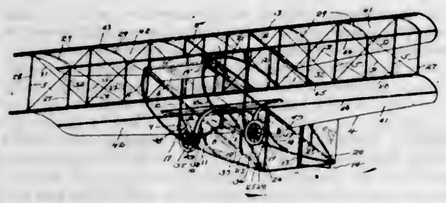
3. In an electric signaling system: two current sources; circuit condition changing means associated with one of said current sources and adapted to cause a predetermined change in the condition of circuits connected to said source; a plurality of signaling circuits each having connected thereto,—switch mechanism for connecting said circuit to either current source without simultaneously disconnecting said sources, telegraphic signal receiving mechanism, telephonic signal indicating mechanism, one or more telegraphic transmitting stations, one or more telephone stations, and one or more relay mechanisms each adapted to operatively affect alarm receiving or indicating devices when said circuit is connected to the current source having said circuit condition changing-means associated with it and said circuit condition changing-means is operated; and conductors between all of said mechanisms, stations, and said circuit condition changing means whereby the operation of said circuit condition changing-means will not operatively affect the transmission of telegraphic signals or telephonic communications in any of said circuits.

4. In an electric signaling system: two current sources; circuit condition changing means associated with one of said current sources and adapted to cause a predetermined change in the condition of circuits connected to said source; a plurality of signaling circuits each having connected thereto,—switch mechanism for connecting said circuit to either current source without simultaneously disconnecting said sources, telegraphic signal receiving mechanism, telephonic signal indicating mechanism, one or more telegraphic transmitting stations, one or more telephone stations, one or more relay mechanisms each constructed and arranged to operatively affect alarm receiving or indicating devices when said circuit is connected to the current source having said circuit condition changing-means associated with it and said circuit condition changing-means is operated, and means for establishing telephonic correlation with another circuit; and conductors between all of said mechanisms, stations, and said circuit condition changing means whereby the operation of said circuit condition changing-means will not operatively affect the transmission of telegraphic signals or telephonic communications in any of said circuits.

5. In an electric signaling system: two current sources; circuit condition changing means associated with one of said current sources and adapted to cause a predetermined change in the condition of circuits connected to said source; a plurality of signaling circuits each having connected thereto,—switch mechanism for connecting said circuit to either current source without simultaneously disconnecting said sources, telegraphic signal receiving mechanism, telephonic signal indicating mechanism, one or more telegraphic transmitting stations, one or more telephone stations each having a central energy telephone set, one or more relay mechanisms each constructed and arranged to operatively affect alarm receiving or indicating devices when said circuit is connected to the current source having said circuit condition changing-means associated with it and said circuit condition changing-means is operated, and means for establishing telephonic correlation with another circuit; and conductors between all of said mechanisms, stations, and said circuit condition changing means whereby the operation of said circuit condition changing-means will not operatively affect the transmission of telegraphic signals or telephonic communication in any of said circuits.

[Claims 6 to 20 not printed in the Gazette.]

1,240,812. AEROPLANE CONSTRUCTION. JOSEPH A. BLONDIN, Los Angeles, Cal. Filed May 18, 1916. Serial No. 98,331. (Cl. 244—31.)



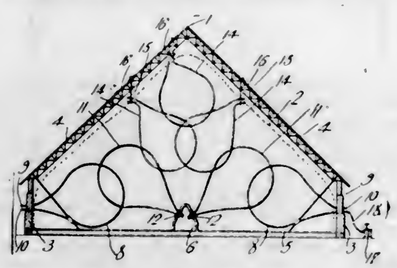
1. In an air plane, a frame, upper and lower plane structures detachably mounted upon said frame, and integrally connected struts and stringers for rigidly spacing said structures.

2. In an airplane construction, consolidated (right and left) side frame units, composed of horizontal rear outriggers, vertical connecting members and arcuate horizontal braces extending fore and aft of the wing emplacement, whereby said consolidated side frame units constitute bases, which support the carrying surfaces, control surfaces and running gear of the airplane.

10. In an airplane, a skid and base frame formed of two similarly formed units, plane structures detachably mounted upon said frame, said structures including upper and lower sustaining plane members, means for rigidly spacing said upper and lower members, said means consisting of struts and stringers integrally connected to form a single unit, a truck mounted upon said skids, arcuate braces connecting said skids and lower sustaining plane members outwardly of said skids.

[Claims 3 to 9 and 11 to 14 not printed in the Gazette.]

1,240,813. HEAT-INDICATOR. HIRAM M. BOBO and HARRY C. HARRINGTON, Rome, Ga. Filed Sept. 25, 1916. Serial No. 122,102. (Cl. 73—52.)

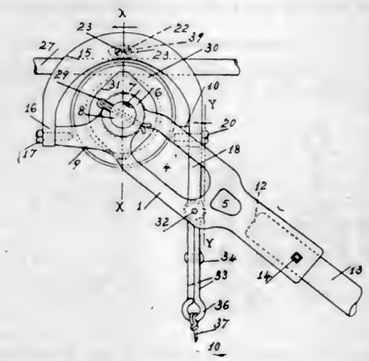


1. The herein described method of locating a heated area in a pile of material, having embedded therein a conduit the length of which is known and the cross section of which is constant; such method consisting in filling the conduit with liquid which is allowed to become heated by the pile; then permitting the liquid to run out of the conduit; noting the point in the flow at which the temperature of the liquid rises; and noting the amount of discharge before such point is reached, to locate the place of heating in the pile.

2. The herein described method of locating a heated area in a pile of material, having embedded therein a conduit the length of which is known and the cross section of which is constant; such method consisting in filling the conduit with liquid which is allowed to become heated by the pile; then permitting the liquid to flow out of the conduit; noting the point in the flow at which the temperature of the liquid rises; and noting the time that elapses between the beginning of the flow and the discharge of heated liquid thereby to locate the place of heating in the pile.

3. The herein described method of locating a heated area in a pile of material, having embedded therein a conduit the length of which is known and the cross section of which is constant; such method consisting in filling the conduit with liquid which is allowed to become heated by the pile; then permitting the liquid to run out of the conduit; noting the point in the flow at which the temperature of the liquid rises; and weighing the liquid discharged, to locate the place of heating in the pile.

1,240,814. TROLLEY. JAMES A. BOOTH, Springfield, Ill. Filed Apr. 24, 1916. Serial No. 93,196. (Cl. 191—78.)



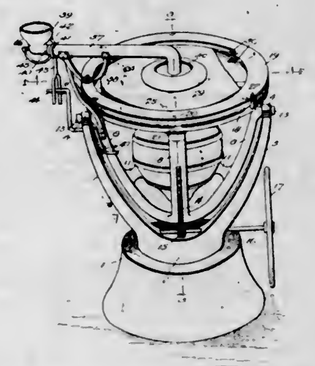
1. In an appliance of the class described, the combination of a line wire; a switch plate stationary on the line wire; a harp; laterally oscillative arched guards mounted in the harp and adapted to engage the edge of the switch-plate to depress the trolley; contact members opposite to each other on the respective arched guards and having curved lower surfaces adapted to engage on the upper surface of the line wire to spread the arched guards apart upon downward movement of the trolley effected by the edges of the arched guards engaging on the edge of the switch plate and curved upper surfaces adapted to engage the under side of the line wire to spread the guards apart upon upward pressure of the contact members against the under side of the line wire.

4. In a trolley, the combination of a harp, a trolley wheel in the harp, and guards having arched edges adapted to engage switch plates on a line-wire to depress the trolley and having parallel central parts adapted to traverse the channels of the switch plates.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,240,815. CENTRIFUGAL GUN. ARCHIE EDWARDS BROWN, El Paso, Tex., assignor of one-eighth to George Daniel Flory, one-eighth to Charles Davis, and one-tenth to Charles Nebeker Bassett, El Paso, Tex. Filed Nov. 28, 1916. Serial No. 133,903. (Cl. 89—10.)

1. A centrifugal gun comprising a base, a bracket mounted to rotate on a vertical axis on the base, a motor support journaled in the bracket to swing on an axis transverse to the base, a motor in connection with the support and having its shaft at the center therof, and arranged in vertical position, a pair of superposed rings connected with the support at the top thereof and spaced apart from each other, a pair of disks secured together in spaced relation and connected to the shaft of the motor to rotate therewith, said disks having a central magazine between the same, and a spiral passage leading from the magazine to the periphery of the disks and opening at the periphery with a portion radial to the disks, said disks having extensions at opposite sides of the said opening extending across the space between the rings and the disks, the rearmost extensions having reduced portions moving between the rings, said rings having coacting grooves tangential to the disks and forming a barrel, and having deflecting fingers at the inner end of the barrel for engaging between a ball between the extensions of the disks and a ball in the radial portion of the passage, and means for feeding balls to the magazine, said feeding means comprising an elbow connected with the ring and having a depending portion extending into the magazine, a hopper having a chute fitting loosely into the outer end of the elbow, and a connection between the hopper and the support for swinging the hopper in the opposite direction to the swinging of the support.



2. A centrifugal gun comprising a base, a bracket mounted to rotate on a vertical axis on the base, a motor shaft journaled in the bracket to swing on an axis transverse to the base, a motor connected with the support and having its shaft at the center thereof and arranged in vertical position, a pair of superposed rings connected with the support at the top thereof and spaced apart from each other, a pair of disks secured together in spaced relation and connected to the shaft of the motor, to rotate therewith, said disks having a magazine between the same, and a spiral passage leading from the magazine to the periphery of the disks and opening at the periphery with a portion radial to the disks, said disks having extensions at opposite sides of the said opening extending across the space between the rings and the disks, the rearmost extensions having reduced portions moving between the rings, said rings having coacting grooves tangential to the disks forming a barrel, and having deflecting fingers at the inner end of the barrel for engaging between a ball between the extensions of the disks and a ball in the radial portion of the passage, and means for feeding balls to the magazine.

3. A centrifugal gun comprising a ring, a motor supported by the ring and rigidly connected therewith, a bracket in which the support is journaled to swing on an axis transverse to the shaft of the motor, a base on which the bracket is mounted to swing on a vertical axis, a rotatable member connected with the motor shaft and arranged to rotate within the ring and spaced apart from the ring, said rotatable member having a central magazine and a spiral passage, and the ring having a passage tangential to the periphery of the rotatable member, said rotatable member having extensions at opposite sides of the outlet of the spiral passage and extending across the space between the ring and the rotatable member, the rotatable member having deflecting fingers for engaging a ball held between the extensions.

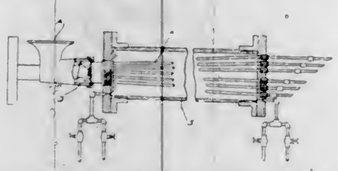
4. A centrifugal gun comprising a base, a bracket rotatable on the base, a motor support mounted to swing on the bracket and carrying a motor, a rotating member secured to the motor shaft and having a central magazine and a spiral passage leading from the magazine to the periphery of the member, the support carrying a ring encircling the rotating member and having a bore substantially tangential to the said member, said rotating member having means at the opposite sides of the outlet of the passage for holding a ball between the ring and the

member, and the ring having means for deflecting a ball so held into the bore, and means for swinging the support on the bracket.

5. A centrifugal gun comprising a base, a bracket rotatable on the base, a motor support mounted to swing on the bracket and carrying a motor, a rotating member secured to the motor shaft and having a central mazazine and a spiral passage leading from the magazine to the periphery of the member, the support carrying a ring encircling the rotating member and having a bore tangential to the said member, and means in connection with the ring and the rotating member for guiding a ball into the bore at each complete revolution of the member, said passage and bore having openings to permit the circulation of air, and means for feeding the balls to the magazine.

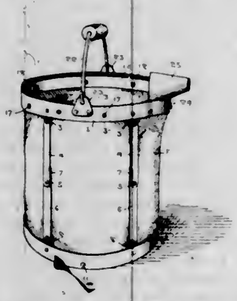
[Claims 6 to 8 not printed in the Gazette.]

1,240,816. METHOD OF DRYING CASEIN. WILLIAM M. BROWNELL, Brooklyn, N. Y., assignor of three-fourths to Arthur N. Hood and John T. Nightingale, Boston, Mass. Filed May 5, 1916, Serial No. 95,682. Renewed Feb. 20, 1917. Serial No. 149,937. (Cl. 99—5.)



The method of drying casein which consists in heating it until it becomes a plastic adhesive mass, then passing it under pressure through a heated passage, and then allowing it to emerge into the open air.

1,240,817. COLLAPSIBLE RECEPTACLE. EDWARD E. BRUMBAUGH, Imler, Pa. Filed Sept. 15, 1916. Serial No. 120,346. (Cl. 150—49.)

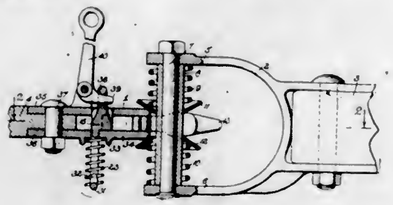


1. A receptacle of the character described, comprising a collapsible supporting frame consisting of an upper supporting ring and a lower supporting ring, collapsible links for operatively connecting said upper ring and said lower ring together, a clamping hoop upon said upper supporting ring, a bar upon said lower supporting ring, a flexible container formed with an upper open end and a closed bottom and having its upper edge portion interposed between said upper supporting ring and said clamping hoop, means for clamping said upper ring and said clamping hoop together, and means for securing the bottom of said container to the bar of said lower supporting ring.

2. A receptacle of the character described, comprising a collapsible supporting frame consisting of an upper supporting ring and a lower supporting ring, means for operatively connecting said rings together, a bar upon said lower supporting ring, a flexible container within said supporting frame, means for securing said container upon said upper supporting ring and the bar of said lower supporting ring, and a ball upon said upper supporting ring, whereby said receptacle may be manipulated from collapsed to set up position by outward force exerted upon said ball and said bar.

3. A receptacle of the character described, comprising a collapsible supporting frame consisting of an upper supporting ring and a lower supporting ring, means for operatively connecting said rings together, a bar upon said lower supporting ring, a flexible container within said supporting frame, means for securing said container upon said upper supporting ring and the bar of said lower supporting ring, a ball upon said upper supporting ring, whereby said receptacle may be manipulated from collapsed to set up position by outward force exerted upon said ball and said bar, and a spout upon said upper supporting ring.

1,240,818. COUPLING. JACOB WIENS BULLER, Hillsboro, Kans. Filed Feb. 3, 1917. Serial No. 146,385. (Cl. 213—67.)

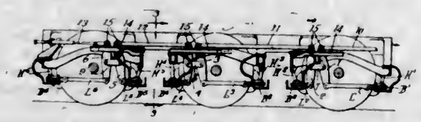


1. A coupling comprising a head, a pair of articulated jaws pivotally mounted so that part will extend into said head, said part extending into the head forming locking extensions, a sliding block movable at right angles to the plane of movement of said jaws, said block being formed with a substantially squared portion, an extension on the upper part for accommodating the lifting member and a projection on the lower part having a spring centering device, and a spring resting on said centering device and acting against said head for tending to keep said squared portion in a lowered position and between said locking extensions.

2. A coupling comprising a head provided with locking jaws, means for locking said jaws in a closed position, a locking link provided with a bar adapted to be grasped by said jaws, and resilient operable members engaging said jaws for resisting vertical up and down movement of said jaws, said members comprising a pair of washers and a spring engaging each washer, said springs being arranged to continually urge the washers toward each other.

3. A coopling member comprising a coupling head provided with locking jaws, means for locking said jaws closed, a link provided with a bar gripped by said jaws, a pair of washers surrounding said bar, there being one washer arranged on each side of said coupling head, and means acting on said washers for pressing the same against said head, said means resiliently resisting movement of the head longitudinally of said bar.

1,240,819. CLASP BRAKE-RIGGING. THOMAS L. BURTON, St. Louis, Mo., assignor to The American Brake Company, St. Louis, Mo., a Corporation of Missouri. Filed Sept. 14, 1916. Serial No. 120,055. (Cl. 188—24.)



1. In a brake rigging for railway trucks having a plurality of pairs of wheels, the combination with brake beams applied to both sides of each pair of wheels, of a truck lever for each brake beam, said levers being arranged in pairs and both levers of each pair located at one side of the respective axle, and links and pull rods for connecting said levers.

2. In a brake rigging for railway trucks having a plurality of pairs of wheels, the combination with brake beams applied to both sides of each pair of wheels, of a double set of truck levers pivotally connected to said brake beams, one set at each side of the truck, the truck levers of each set being arranged in pairs and both levers of each pair being located at one side of the respective axle, and pull rod connections for said levers.

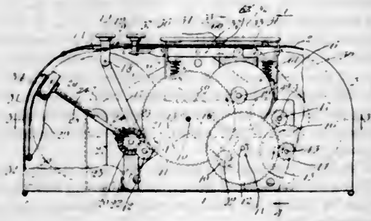
3. In a brake rigging for railway trucks having a plurality of pairs of wheels, the combination with brake beams applied to both sides of each pair of wheels, of a truck lever pivotally connected at its lower end to each brake beam, said levers arranged in pairs with both levers of each pair located at one side of the respective axle, links connecting the levers of each pair at an intermediate point, and pull rods connecting the upper ends of said levers between the respective pairs.

4. In a brake rigging for six wheeled trucks, the combination with brake beams applied to both sides of each pair of wheels, of a truck lever pivotally connected to each brake beam, said levers arranged in pairs with both levers at the two end pairs of wheels located inside the respective axles, and links and pull rods for connecting said levers.

5. In a brake rigging for six wheeled trucks, the combination with brake beams applied to both sides of each pair of wheels, of a double set of truck levers pivotally connected to the brake beams, one set at each side of the truck, the truck levers of each set being arranged in pairs with both levers of each pair located on the same side of the respective axle, the pairs at the opposite ends of the truck being disposed at the inner side of their axles, and pull rod connections for said levers.

[Claims 6 to 8 not printed in the Gazette.]

1,240,820. CONTINUOUS WRITING-TABLET. HERMAN B. CARLSON, Chicago, Ill. Filed May 4, 1914. Serial No. 836,305. (Cl. 11—22.)



1. The combination in a writing tablet of the kind described, of a supply spool and a receiving spool, means for driving the receiving spool at a gradually decreasing speed, in combination with a strip of paper carried by said spools, and movable continuously during the writing thereof, controlling means for said receiving roll driving means, arranged proximate the writing space and including a hand rest, whereby the operating hand may release the controlling means simultaneously with writing on the strip of paper, and the strip of paper will be gradually moved from one spool to the other.

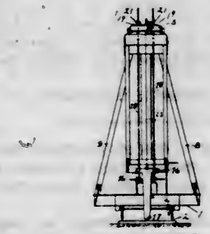
2. In a writing tablet of the kind described, two paper spools, and means for supporting said spools, a paper supporting table arranged between said spools, and independent transmission mechanism for each of said spools, in combination with a driving shaft, a driving wheel operatively connected with said shaft, a pivotally supported bell-crank lever carrying upon each of its ends a wheel engaging the driving wheel, wheels on the ends of the bell-crank lever being each arranged to drive one of the transmission mechanisms of the spools, but one being engaged therewith at one time, and a lever connected to the bell-crank arranged to rock the latter on its pivotal support to actuate one or the other of the transmission gears, whereby upon operating the bell-crank lever, either of the spools may be rotated at will, and means arranged on said table for controlling the driving mechanism with the writing hand, comprising a hand rest bar extending parallel with the strip of paper at one side of the table, a brake wheel carried on said driving shaft, and means connected with said hand rest for engaging said brake wheel.

3. A writing tablet of the kind described, comprising two spools, a supporting table for carrying paper, located between the spools, a sliding writing plate position on the table, formed with an opening therethrough for displaying a portion of the paper on the table, transmission mechanism for each of the spools, and a brake mechanism for regulating the speed of the device, in combination with a cogged driving wheel, having loosely mounted on the same shaft therewith a bell-crank lever carrying at the end of each of its arms a cog wheel meshing with the driving wheel, the cog wheel on one arm engaging and actuating transmission mechanism of one spool, and the cog wheel on the other arm arranged to engage and actuate the transmission mechanism of the other spool, but in the reverse direction, but one of said transmission mechanisms being engaged at a time, and a lever connected to the bell-crank lever and adapted to swing the same to transmit the movement of the driving wheel to either of said transmission mechanisms at will.

4. A device of the kind described, comprising two paper spools spaced from one another, driving mechanism for winding the paper from one spool to the other, and a writing platen arranged between the spools over which the paper passes, in combination with brake mechanism arranged to regulate the speed of the driving mechanism, a movable bar controlling the brake mechanism extending to a point near the writing table, said bar substantially the length of the platen, and arranged parallel to the direction of travel of the paper, a supplemental brake mechanism arranged to control the device when freed from the control of the first named brake mechanism.

5. In a device of the kind described and in combination, a suitable casing, a pair of spools spaced apart and rotatably mounted in said casing, a strip of paper carried by one spool and extending therefrom to the exterior of the casing at the top thereof, and thence over the top, and to the other spool, a transmission gear for each spool, a driving wheel, and means for operatively connecting either transmission mechanism with said driving wheel at will, means for controlling the speed of the driving wheel, and means for stopping the movement of the mechanism as desired, including a movable hand rest arranged at the top of the exterior of the casing, and in proximity to the paper strip.

1,240,821. STONE-BREAKER. ANTONIO T. CAROZZA, Baltimore county, Md. Filed Mar. 2, 1915. Serial No. 11,615. (Cl. 83—57.)

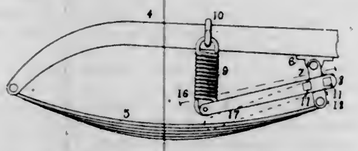


1. A stone breaker consisting of a support, a carriage adjustable thereon, guide rods suspended from said carriage at their uper ends and a hammer vertically movable on said guides and having a lower free end adapted

to project below said guide rods, said guide rods being supported only at their upper ends and free throughout their depending lengths.

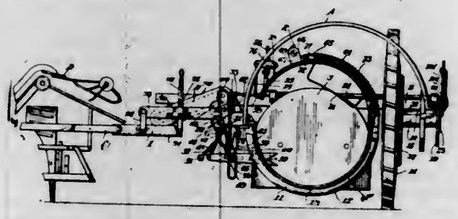
2. A breaker consisting of a support, a guide operatively controlled by said support and free to swing throughout its entire depending length and a hammer embracing said support and mounted on said guide so as to operate below the same.

1,240,822. SHOCK-ABSORBER. HOWARD G. CARR, Hoopeston, Ill. Filed Feb. 26, 1917. Serial No. 151,046. (Cl. 267—19.)



In combination with a frame, a spring supporting said frame, a perch, and shackles supporting said spring from said perch, a lever having an end adapted to be attached to or detached from said shackles, the other end of said lever being secured to a contractile spring, and means for suspending said contractile spring from said frame.

1,240,823. GRAIN-STOOKER. WILLIAM HACKLY CHURCH, Superb, Saskatchewan, Canada. Filed June 2, 1916. Serial No. 101,424. (Cl. 56—121.)



1. In a stooking machine and in combination, a basket collector, means for delivering sheaves of grain to the basket collector, means for packing the grain in position, and means for rotating the basket collector through a complete revolution in a forward direction.

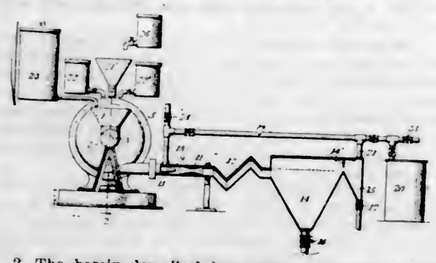
2. In a stooking machine and in combination, a basket collector, means for delivering sheaves of grain to the basket collector, packing arms operating through the basket collector, means for reciprocating the packing arms, and means for rotating the basket collector through a complete revolution in a forward direction.

3. In a stooking machine and in combination, a basket collector, a conveyer coöperating therewith, packing arms operating through the basket collector, means for reciprocating the packing arms, means for rotating the basket collector in a forward direction through a complete revolution, and means for simultaneously rendering the conveyer and packing arms inoperative during the rotation of the basket.

[Claims 4 to 9 not printed in the Gazette.]

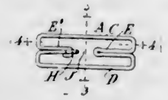
1,240,824. PROCESS OF CONCENTRATION OF METALLIFEROUS ORES. SELDEN IRWIN CLAWSON, Salt Lake City, Utah. Filed Jan. 2, 1914. Serial No. 809,927. (Cl. 83—85.)

1. The herein described improvement in concentrating ores by the flotation process which consists in mixing the pulverized ores with a saline solution and oil, charging the mixture with gas, by throttled injection discharging the pulp thus formed into a closed separating chamber or tank, the supply of gas being sufficient to create a body of gas under pressure in the upper portion of said tank and returning the gas from the region of froth formation to the region of pulp and gas injection.



2. The herein described improvement in concentrating ores by the flotation process which consists in mixing the pulverized ores with a saline solution, adding gas and oil under injection, forcing the mixture of pulp into one side of a closed separating chamber under pressure, collecting the concentrates from the opposite side of said chamber for withdrawal, leading the surplus gas under pressure from the side of the separating chamber opposite its point of entry back to the point of injection for reuse in connection with a new supply of mixed ores.

1,240,825. GARMENT-SLIDE. CLARK S. COMSTOCK, Sr., East Orange, N. J. Filed May 27, 1916. Serial No. 100,243. (Cl. 24—200.)

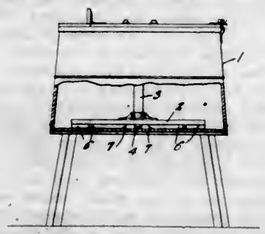


1. A slide formed of a single piece of wire and having an upper bar, a lower bar and a central bar, said central bar being composed of portions of the wire bent inwardly from each side, each of the inwardly bent portions of the central bar being formed of double portions of the wire, which double portions lie closely adjacent and alongside one another, the central bar being thereby formed of double portions each extending inwardly from a side, the end portions of one double portion being formed by a bend in the wire and the end portion of the other being formed of the two ends of the single piece of wire composing the slide, the wire having a loop therein joining the ends of the piece of wire, said central bar being adapted to have a loop in an overall strap pass around both said double portions.

2. A slide according to claim 1, the ends of the central bar portions being spaced apart, whereby the overall strap loop may be placed on said central bar through the space between said ends.

3. A slide according to claim 2, the ends of the wire being joined by interlocked eyes formed on the ends of the piece of wire.

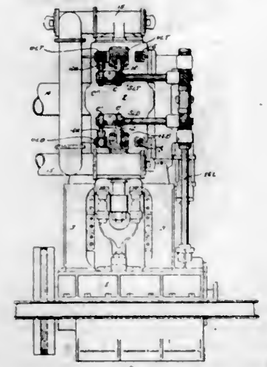
1,240,826. AGITATOR FOR WASHING-MACHINES. GEORGE L. DAVIS, Binghamton, N. Y. Filed Feb. 29, 1916. Serial No. 81,200. (Cl. 259—96.)



In a washing machine the combination with a tub, of an agitating disk mounted to float on water in the tub,

radial vanes upon the lower face of the disk adapted, when the disk is rotated, to direct the upper portion of the water outwardly by centrifugal force toward the wall of the tub and to draw water upwardly from the center of the bottom thereof and a driving shaft for actuating the disk, said disk being freely movable vertically.

1,240,827. DOUBLE-ACTING DIESEL ENGINE. GREGORY C. DAVISON and JOHN W. ANDERSON, New London, Conn., assignors to Electric Boat Company, New York, N. Y., a Corporation of New Jersey. Filed Mar. 24, 1916. Serial No. 86,359. (Cl. 123—27.)

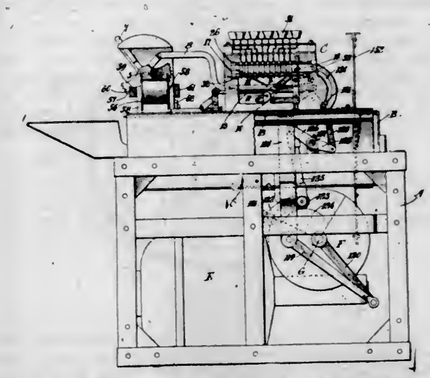


1. In a double-acting two-cycle internal combustion engine of the Diesel type, a cylinder comprising a cylinder proper and removable heads therefor, fuel and scavenger valves extending transversely into opposite sides of the cylinder proper at each end thereof, two transmission shafts driven from the engine shaft through spiral gearing and extending along one side of the cylinder, two cam shafts extending across one side of the cylinder at opposite ends thereof and driven from one of the transmission shafts through spiral gearing, and two other cam shafts extending across the other side of the cylinder at opposite ends thereof and driven from the other of the transmission shafts through spiral gearing.

2. In a double-acting two-cycle internal combustion engine of the Diesel type, a cylinder comprising a cylinder proper and removable heads therefor, a scavenger valve and a fuel valve extending into the cylinder in proximity to each other on each side of the cylinder and at each end thereof, two transmission shafts driven from the engine shaft through spiral gearing and extending along one side of the cylinder, two cam shafts extending across one side of the cylinder at opposite ends thereof and driven from one of the transmission shafts through spiral gearing, and two other cam shafts extending across the other side of the cylinder at opposite ends thereof and driven from the other of the transmission shafts through spiral gearing, each cam shaft actuating the scavenger and fuel valves which are in proximity to each other.

3. In a double-acting two-cycle internal combustion engine of the Diesel type, a cylinder comprising a cylinder proper and removable heads therefor, four interchangeable scavenger valves extending substantially radially into the cylinder proper, two of said valves being located on opposite sides of the cylinder at one end thereof and the other two being located on opposite sides of the cylinder at the other end thereof, interchangeable fuel valves extending transversely into the cylinder at the two ends thereof, two interchangeable transmission shafts driven from the engine shaft through spiral gearing and extending along one side of the cylinder, two cam shafts extending across one side of the cylinder at opposite ends thereof and driven from one of the transmission shafts through spiral gearing, and two other cam shafts extending across the other side of the cylinder at opposite ends thereof and driven from the other of the transmission shafts through spiral gearing, said cam shafts being interchangeable.

1,240,828. PRINTING-MACHINE. PERCIVAL DIGNAN, New York, N. Y., assignor to R. H. Macy & Co., a Copartnership composed of Jesse Isidor Straus, Percy S. Straus, and Herbert N. Straus. Filed Nov. 12, 1915. Serial No. 61,004. (Cl. 101—100.)



1. In a device of the class described, the combination of a type member, an article-supporting member, said members being relatively movable, means for moving an article relatively to said supporting member and into instantaneous coöperation with said type member for one or more instantaneous complete printing operations during the relative movement of said members and means rendering inoperative said last-named means.

32. In a device of the class described, a type member, an article-supporting carriage, mechanism for impressing together said type and an article supported by said carriage, means for controlling the operation of said impressing mechanism, and means operative during a certain portion of the relative motion of said members for rendering said last named means inoperative to effect the impression together by said mechanism of an article supported by said carriage and said type.

47. In a device of the class described, the combination of a type member, means for relatively moving an article and said type in two directions out of contact and for relatively moving said type and said article into one or more instantaneous printing contacts during relative motion in one of said directions and means rendering said means inoperative to move said type and said article into contact during relative motion in the other of said directions.

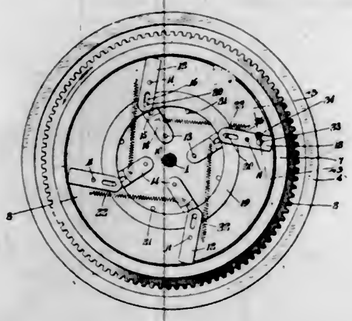
[Claims 2 to 31 and 33 to 46 not printed in the Gazette.]

1,240,829. CLUTCH. PERCIVAL DIGNAN, New York, N. Y., assignor to R. H. Macy & Co., a Copartnership composed of Jesse Isidor Straus, Percy S. Straus, and Herbert N. Straus. Original application filed Nov. 12, 1915, Serial No. 61,004. Divided and this application filed May 13, 1916. Serial No. 97,377. (Cl. 74—46.)

1. In a device of the class described, a constantly-moving member, a member to be driven thereby, a plurality of links pivoted to one of said members, each pivot being nearer to the other member than to one end of its corresponding link, means tending to swing said end of said links into engagement with the other member, one of said links having a projection thereon between its corresponding pivot and the afore-mentioned end of the link, a stationary support, and a part mounted thereon and normally held in the path of said projection.

2. In a device of the class described, a constantly-moving member, a member to be driven, an element carried by

one of said members and supported against movement in a path substantially perpendicular to the path of movement of an adjacent portion of the other of said members and rotatable about an axis, said other member being nearer said axis than one end of said element, a stationary member and means mounted thereon for retarding the motion in one direction of that part of said element between said axis and said end.



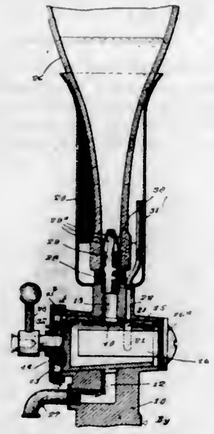
3. In a device of the class described, a transmission element comprising a constantly-moving driving ring, a plate coaxial therewith and adapted to be driven therefrom, a link pivoted to said plate, the pivot being slightly nearer to the surface of said ring than to one end of said link, means acting on said link to swing said first-mentioned end into contact with said ring, a stationary member and a part mounted thereon and movable into the path of that part of the link between said ring and said pivot.

4. In a device of the class described, a transmission element comprising a constantly-moving driving ring, a plate coaxial therewith and adapted to be driven therefrom, a link pivoted to said plate, the pivot being slightly nearer to the surface of said ring than to one end of said link, a spring acting on said link to swing said first-mentioned end into contact with said ring, a housing for said element, and a pin mounted in said housing and movable into the path of that part of the link between said ring and said pivot.

1,240,830. DEVICE FOR DISPENSING LIQUIDS. CHARLES DOERING, Jr., and HENRY H. DOERING, Chicago, Ill. Filed June 21, 1915. Serial No. 35,193. (Cl. 221—117.)

1. A device for dispensing liquids, comprising a standard provided with a portion adapted to hold a liquid container or bottle in inverted position and to provide an air chamber, a chamber provided with an inlet port and air port arranged in communication with the holding portion and with a discharge port in the bottom thereof, a hollow cylindrical valve provided with an open end and with ports arranged to alternately register with the inlet port and discharge port of said chamber when the valve is rotated a predetermined distance and with an elongated port adapted to constantly register with the air port, and means arranged at the open end of said valve and extending into said valve, said means being provided with an adjustable portion whereby the holding capacity of said chamber may be regulated.

2. A device for dispensing liquids, comprising a standard provided with a portion adapted to hold a liquid container or bottle in inverted position, a chamber beneath said bottle-holding portion having an inet port and an air port both in communication with the holding-portion, and with an outlet port, a hollow elongated valve rotatably mounted in said chamber provided with inlet and outlet ports at separated points and an air inlet arranged to constantly register with the air port in the chamber, said air port being adapted to be sealed by the inflowing liquid and thereby automatically prevent further flow into said valve, and means extending into said valve for determining the capacity of said valve and adapted to close the end of said chamber and said valve.



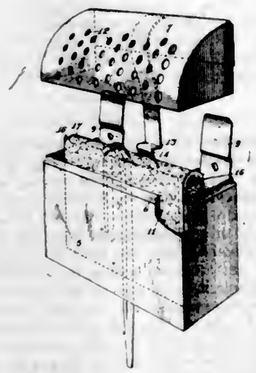
3. A device for dispensing liquids, comprising a standard provided with a portion adapted to hold a liquid container or bottle in inverted position and to provide an air chamber, a chamber arranged beneath the bottle-holding portion having an inlet port and air port communicating with said holding-portion and having a discharge port, a hollow valve rotatively mounted in said chamber and provided with ports at predetermined points adapted to be alternately brought into register with the inlet port and discharge port of said chamber and having an elongated port extending circumferentially of the valve and adapted to constantly register with said air port, a closure member for the end of said chamber and adjacent end of the valve provided with a tubular portion arranged to extend into the hollow valve, and means adjustably mounted in said tubular portion and accessible from the inner end of said portion whereby the capacity of the valve may be determined.

4. A device for dispensing liquids, comprising a standard provided with a portion adapted to hold a liquid container or bottle in inverted position and to provide an air chamber, a chamber provided with an inlet port and an air port arranged in communication with the holding-portion and provided with a discharge port, an open ended hollow valve provided with ports adapted to register with the ports of said chamber, the ports being so arranged as to alternately register with the inlet and discharge ports of the chamber without affecting the air port, and closure means arranged at one end of the chamber and having an internally threaded tubular portion extending into said valve, said tubular portion being provided with a diaphragm having a threaded perimeter and accessible only from the inner end of said tubular portion whereby the holding capacity of the valve may be regulated.

5. A device for dispensing liquids, comprising a standard having a portion adapted to hold a liquid container or bottle in inverted position and to provide an air chamber, the lower part of the standard being provided with a cylindrical open-ended chamber having ports communicating with said bottle-holding portion and an outlet port, an elongated hollow valve rotatably mounted in said chamber and provided with a pair of ports adapted to alternately be brought into register with the outlet port in the chamber and one of the ports thereof communicating with the bottle-holding portion, said valve being also provided with an elongated port adapted to constantly register with the other port of the chamber communicating with the air chamber in the standard, and closure means for the open end of said cylindrical chamber and the valve, said means having an extension taking into the valve and provided with a regulable portion whereby the capacity of the valve may be determined.

[Claims 6 and 7 not printed in the Gazette.]

1,240,831. DISINFECTING DEVICE. CHARLES DOERING, Jr., Chicago, Ill. Filed Jan. 21, 1916. Serial No. 73,296. (Cl. 137—154.)



1. A disinfecting device, comprising a liquid-containing holder adapted to be secured against a side wall or partition, the walls of the holder being offset adjacent the upper ends to provide cover-receiving shoulders, while the upper edges of the walls are bent down upon themselves within the holder so as to provide laterally disposed flanges, the rear wall of the holder being formed to provide an air passage between the holder and wall or partition, a cover having a foraminated, arcuate wall toward the front so as to permit air to circulate through the openings in the cover and through said air passage intermediate of the rear wall of the holder and the wall or partition, and an absorbent element-holding bracket mounted in said holder so as to maintain a portion of said element in the path of the air currents, while the depending portion of said element is held out of contact with the side walls of said holder by said flanges.

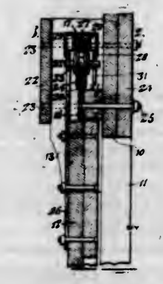
2. A disinfecting device, comprising a liquid-containing holder adapted to be secured against a side wall or partition, the rear wall of the holder being provided with a vertically disposed channel for the passage of air, a lug formed on the rear wall and in said channel, a cover having a foraminated, arcuate wall toward the front so as to permit air to circulate through the openings in the cover and through said channel, a spring hasp secured to said cover and arranged to engage with said lug to lock the cover in place, and an absorbent element-holding bracket mounted in said holder so as to hold a portion of said element in the path of the air-currents.

3. A disinfecting device, comprising a fluid-containing holder, the rear wall whereof is provided with a vertically disposed air channel on the exterior thereof and with attaching members whereby the holder may be secured against a side wall or partition, a cover for said holder, the rear wall whereof extends across said air channel so as to permit the air to enter and also receives the upper free ends of said attaching members so as to form frictional engagement therewith, while the other walls of the cover are arranged to permit passage of air to and from said channel and through the upper portion of the holder, and an absorbent element-holding member arranged in said holder so as to maintain a portion of said element within the cover and in the path of said air currents.

4. A disinfecting device, comprising a liquid holder adapted to be secured against a side wall or partition, the rear wall of the holder being provided with a vertically disposed air channel, a foraminated cover, the rear side whereof is adapted to extend beyond said channel so as to permit communication between said channel and the holder-interior, and a bent wick-holding member disposed in said channel and adapted to extend over the rear wall of the holder, with the outer portion of the member extending into a plane below the inner end thereof.

5. A disinfecting device, comprising a liquid holder adapted to be secured against the side wall, the walls of the holder being off-set at the upper ends to provide cover-receiving shoulders while the rear wall is provided with a vertically disposed air passage extending to the bottom of the holder, a cover having a foraminated front wall while the rear wall is arranged to overlap said air passage so as to permit the air to flow through said passage, and a bent tubular wick-holding member disposed within said air passage, one portion of said member depending within the holder while the other portion depends in said passage to a point beneath the inner end of the member, the inner end of said tubular member being open sided.

1,240,832. SLIDING-DOOR SUPPORT. LUTHER VIRGIL DUKE, Pine Bluff, Ark., assignor of one-half to Henry M. Dial, Kedron, Ark. Filed Apr. 28, 1916. Serial No. 94,180. (Cl. 16—96.)



1. The combination with the side of a car having an opening therein, a door for closing the opening and a hanger on the door, of a unitary track comprising a pair of vertically spaced apart rails to support and hold the hanger in place, and separated at one end and connected at the other end providing a stop block to limit the movement of the hanger and hold the rails from spreading, vertically arranged brackets at each end of the rails projecting at right angles from the car and having sockets in their sides for the reception of the rail ends, and bolts passing through the brackets, ends of said rails and said car whereby the rails are secured to the brackets and the brackets to the car by the same bolts.

2. The combination with the side of a car having an opening therein, a door for closing the opening and a hanger on the door, of a rail to support and hold the hanger in place, vertically arranged brackets at each end of the rail projecting at right angles from the car and having sockets through their sides for the reception of said rail ends, and bolts passing through the brackets, ends of said rails and said car whereby the rails are detachably and rigidly secured to the brackets and the brackets to the car by the same bolts.

3. In a sliding door support, a pair of brackets having sockets therethrough adapted to be positioned against the side of a car and projecting beyond the same at right angles thereto, a supporting rail having its opposite ends detachably mounted in said sockets, a door cap detachably mounted at its ends against the outer faces of said brackets in spaced relation from the side of the car and from said rail, and bolts extending inwardly through said cap, said brackets, said rail and through the side of the car, whereby all of said elements are secured to the side of the car by the same bolts.

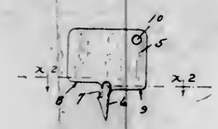
7. In a sliding door support, a hanger having a closed top, front and rear walls, and webs extending longitudinally beneath the top and being spaced inwardly from said walls and from each other to provide a longitudinal

channel beneath the top of the hanger for the reception of a guard rail.

8. In a sliding door support, a supporting rail, a guard rail arranged above the supporting rail, a hanger having front, rear and top walls and longitudinally extending webs beneath the top and being spaced apart from said front and rear walls and from each other, said hanger being open at its opposite ends to receive said guard rail between the webs, and a roller mounted in the hanger having a hub portion bearing on said supporting rail to suspend the hanger and having cheeks overlapping the opposite sides of the supporting rail and extending upwardly at opposite sides of the guard rail and between said webs.

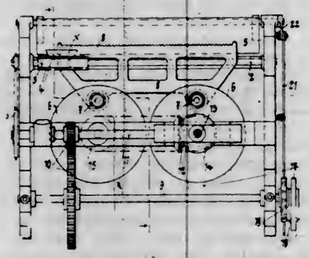
[Claims 4 to 6 not printed in the Gazette.]

1,240,833. BOTTLE-CAP PULLER. JOHN A. EKELUND, Minneapolis, Minn. Filed Feb. 7, 1917. Serial No. 147,120. (Cl. 65—47.)



A bottle cap puller formed from a single piece of sheet metal and comprising a body member having on its lower edge a shouldered barb, the lower edge of the body member on one side of the barb being located in a plane above that on the other side thereof, to permit said lower edge on one side of the barb to engage the upper edge of the neck of a bottle and on the other side thereof to engage a cap closing the neck of the bottle.

1,240,834. DEVICE FOR ARRANGING ARTICLES IN ROWS. ERNST MAX FISCHER, Dölzschen, near Dresden, Germany. Filed Aug. 25, 1916. Serial No. 116,806. (Cl. 193—1.)

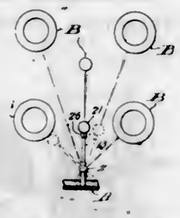


1. In a device for re-arranging articles, supplied in single file, into several parallel rows, a race composed of continuously revolving rollers, means for supplying the articles to said rollers in single file, a liftable stop in front of the delivery point of said articles, feeders between said rollers, means for raising and lowering and simultaneously reciprocating said feeders between said rollers, and means for lifting said stop when a row of articles upon said rollers has been completed.

4. In a device for arranging articles in rows, a traveling support for the articles, a stop for temporarily holding the articles against being carried forward by said traveling support, a feeder arranged to move transversely of the direction in which said support travels, and to shift the articles thereon in a like transverse direction, and means for releasing the articles from said stop to allow them to proceed.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,240,835. FLASH-IGNITER FOR GAS-BURNERS. HERMAN FRANK, Chicago, Ill., assignor of one-half to Julius F. Rutz, Chicago, Ill. Filed Dec. 26, 1916. Serial No. 138,883. (Cl. 158—115.)



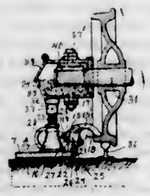
1. The combination of a gas stove having a series of burners, a flash igniter therefor, the same comprising a swiveled supply tube, a hollow head carried at the free end of the tube provided with vents in its bottom and side walls and a single horizontally disposed firing port, a horizontal nipple in communication with the free end of the tube and extending into the head in axial alinement with the firing port thereof, means for supplying a constant restricted quantity of gas to the nipple, an auxiliary valve mounted within the swiveled connection of the igniter, and a handle for the valve adapted to shift the flash igniter to selective position when moved horizontally and to increase the supply of gas to the nipple when moved vertically.

2. The combination with a gas stove having a series of burners, a flash igniter therefor comprising a swiveled supply tube, a firing head on the free end of the tube, means for supplying a constant restricted quantity of gas to the firing head, an auxiliary valve mounted within the swiveled connection of the igniter, and a handle for the auxiliary valve, said handle shifting the flash igniter to selective positions when moved horizontally and increasing the supply of gas to the firing head when moved vertically.

3. A flash igniter head for swiveled burner igniters comprising a cup-like shell having a series of air inlet openings in its bottom, a plurality of outlet vents in the side wall adjacent the upper edge and a single firing port in the side wall, a gas nipple having a restricted opening extending through the side wall opposite the firing port and in alinement therewith, a cap closure for the top of the shell having down turned flanges adapted to shield the outlet vents and lips extending from the body of the shell for supporting the cap.

[Claims 4 to 8 not printed in the Gazette.]

1,240,836. WHEEL-CLAMP. WILLIAM FRENIER, Corliss, Wis. Filed Feb. 17, 1916. Serial No. 78,804. (Cl. 254—33.)

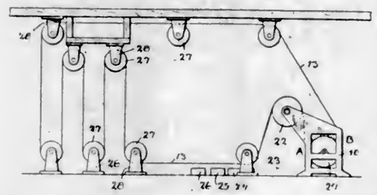


2. A wheel clamp, comprising a supporting member, a wheel holding member pivotally connected thereto, said members being provided with a plurality of sets of pin engaging means arranged in staggered relation to each other, and a locking pin adapted to engage either set of said pin engaging means for adjustably securing said members against movement with respect to each other.

7. A wheel clamp of the character described, comprising a platform and a wheel holding member mounted for vertical adjustment adjacent to one edge of said platform, said platform being constructed to support a lift-jack for horizontal adjustment independent of said wheel holding member, and said wheel holding member comprising a bifurcated supporting member, a clamping member pivoted in the bifurcation of the supporting member and provided with a clamping finger and notches formed concentric with its pivot, and a locking means for retaining the nose of said clamping finger in its adjusted positions and with the nose located either above or below the pivot of the clamping member, said locking means embodying a pin rigidly and removably supported by both arms of the bifurcated supporting member and adapted to separately engage said notches in the clamping member.

[Claims 1 and 3 to 6 not printed in the Gazette.]

1,240,837. MATCH-MACHINE. SAMUEL M. FRIEDE, New York, N. Y., and WARREN B. HUTCHINSON, Newark, N. J., assignors to H. & F. Match Machine Corporation, New York, N. Y., a Corporation of New York. Filed Dec. 20, 1916. Serial No. 137,947. (Cl. 144—65.)



1. In a match machine, a splint carrier comprising a flexible jointless belt having stick receiving holes transversely therethrough arranged to hold match sticks perpendicular to the carrier, and means for moving the belt longitudinally.

2. A match machine comprising a carrier consisting of a flexible jointless belt having stick receiving holes transversely therethrough arranged to hold match sticks in parallel relation perpendicular to the carrier, means for moving the belt or carrier longitudinally, means for inserting match sticks in the holes of the belt or carrier, and means for ejecting the matches from such holes.

3. In a continuous match machine, the carrier comprising a flexible jointless belt having rows of match stick receiving holes transversely therein to hold the match sticks perpendicular to the carrier, and means located near the edges of the belt for moving the belt longitudinally.

4. In a continuous match machine, the carrier comprising a flexible jointless belt having rows of eyelets inserted therethrough to receive the match sticks, combined with means for inserting such sticks and means for ejecting matches from the eyelets.

5. In a continuous match machine, the carrier comprising a flexible jointless non-metallic belt having match receiving holes therethrough, and reinforcing strips on the surface of the belt.

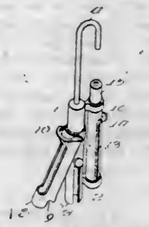
[Claims 6 to 12 not printed in the Gazette.]

1,240,838. LOCK. JOHN H. GILBERT, Plant City, Fla. Filed July 2, 1917. Serial No. 178,221. (Cl. 70—108.)

1. A lock of the class described including a body portion, a shackle slidably mounted therein, a pivoted lever adapted for engagement with the shackle to lock the same, and a keeper for said shackle adjustable in the direction of movement of the same.

2. A lock of the class described including a main body portion, a shackle slidably mounted therein and projecting from one end of the same, a supplemental body portion disposed parallel with the main body portion, and a keeper slidably mounted therein and movable beyond the end of the main body portion for positive engagement with the shackle.

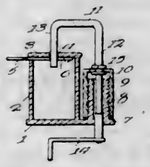
3. A lock of the class described including a main body portion, a shackle slidably mounted therein and projecting from one end of said body portion, a supplemental body portion disposed substantially parallel with the main



body portion and having its end lying flush with the end thereof, a keeper slidably mounted in the supplemental body portion and adapted to project therefrom, and means for locking said keeper in projected position.

[Claim 4 not printed in the Gazette.]

1,240,839. LOCK. JOHN H. GILBERT, Plant City, Fla. Filed July 2, 1917. Serial No. 178,222. (Cl. 70—108.)



1. A device of the class described including a keeper, a longitudinally adjustable rotatable hasp disposed substantially parallel therewith and having one end adapted for engagement with said keeper, and a crank on the lower end of said hasp whereby the same is adapted to be rotated out of operation with the keeper.

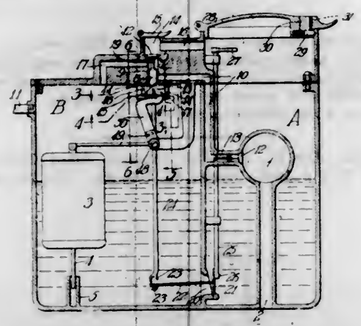
2. A device of the class described including a keeper, a hasp disposed substantially parallel therewith, an externally threaded tubular casing carried by the keeper through which the hasp is adapted to be slidably positioned, and internally threaded casing coöperatively related with the first mentioned casing, and means for reciprocably but non-rotatably connecting the last mentioned casing with the hasp.

3. A device of the class described including a keeper, a rotatable and longitudinally adjustable hasp of a greater length than said keeper disposed substantially parallel therewith, means for moving said hasp longitudinally whereby one end is adapted for engagement with the keeper, means in said keeper for locking said end of the hasp when positioned therein, and a crank on the other end of the hasp for rotating the same when the first mentioned end is disengaged from the keeper.

1,240,840. FUEL-FEEDING DEVICE FOR CARBURETERS. PIERRE GILLES, Springfield, Mass. Filed June 5, 1916. Serial No. 101,755. (Cl. 158—36.)

1. A fuel feeding device for carbureters, comprising a single casing formed with a carbureter fuel chamber and a fuel supply chamber, a connection between said chambers arranged to permit fuel to pass from the latter to the former, a valve in said connection, a fuel supply connection to the supply chamber, a float in the latter, a passage communicating between the air spaces of said chambers, a valve in said passage operable from said float, an air intake pipe passing through the carbureter chamber and adapted for connection to a suction means, a passage connecting the intake with the air space of the supply chamber and communicating with the latter through a restricted opening, means operable from said float to open and close said first-named valve, and a device to lock the latter to prevent flow from the supply chamber when desired.

2. The combination in a fuel feeding device for carbureters of a fuel receptacle, a float therein, a valve for said receptacle having an operating stem, a pivoted arm of resilient material arranged to be moved by the float, said arm being arranged to support said stem in one position and when moved by the float a predetermined distance in one direction to withdraw from supporting engagement with the stem, whereby the valve may fall to another position, means on the valve stem engageable by said arm when moved in the other direction to deflect the arm, and other means on the valve stem engageable by the deflected arm to suddenly move the valve stem to the first position.



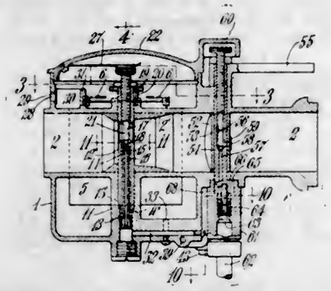
3. The combination in a fuel feeding device for carbureters, of a fuel receptacle, a float therein, a valve for the receptacle having an operating stem, a swinging spring arm operatively connected to the float for actuation therefrom and adapted for flexure in a direction transverse to said movements, the arm arranged to hold the valve in one position until the float has fallen a predetermined distance and then to permit the valve to drop to another position, means on the valve stem engageable by the arm as the float rises to deflect the arm, and a device on the valve stem engageable by the deflected spring arm, all constructed and arranged so that the tension of the deflected arm is exerted upon said device to suddenly move the valve to the first named position.

4. In a fuel feeding device for carbureters, a fuel receptacle, a valve therefor having an operating stem, a float in the receptacle, a resilient arm connected to the float to be swung thereby and adapted normally to support the valve in one position, said arm arranged to withdraw from supporting engagement with the valve after the float has fallen a predetermined distance, a cam formed on said valve stem arranged to engage and deflect the resilient arm as the float rises, and a second cam on the valve stem adapted to be engaged by the deflected arm after the float has risen a predetermined distance, the construction being characterized in that the tension of the deflected arm is exerted on said cam to raise the valve to the first named position.

1,240,841. CARBURETER. PIERRE GILLES, Springfield, Mass. Filed June 5, 1916. Serial No. 101,756. (Cl. 261—18.)

1. A carbureter, comprising, a casing formed with a fuel supply chamber and open at its upper end, a plurality of nozzles adapted to feed fuel from said chamber, an adjustable device for each nozzle arranged to vary the fuel fed therefrom, a cover to close the open end of said casing and means to lock the cover, said means being key operable to release the cover, the locked cover being arranged to render each of said devices inaccessible, whereby the adjustment of the devices may be protected against unauthorized interference.

2. A carbureter, comprising, a casing formed with a fuel supply chamber open at its upper end and a suction pipe extending through the chamber, a sleeve extending from the upper part of the casing downwardly through and below said pipe, means formed on the sleeve adapted to seat in the casing to axially position the sleeve, a main nozzle removably secured in the base of said sleeve and arranged to leave an annular passage between the latter and the nozzle, whereby an auxiliary nozzle is formed, an opening formed in the sleeve in communication with said pipe, means formed in the casing to supply the main and auxiliary nozzles from said chamber, a needle valve threaded into the upper portion of the sleeve and depending therein into coöperative engagement with the main nozzle, the sleeve being constructed and arranged for withdrawal axially through the open end of the chamber, a cover for the latter, means to lock the cover, and a device on the cover engageable with the upper part of the needle valve to force and hold said sleeve against its seat in the casing.



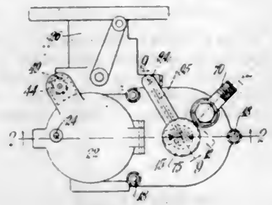
3. A carbureter, comprising, a casing formed with a fuel supply chamber open at its upper end and a suction pipe extending through the chamber, a sleeve extending through and below the pipe and formed with an opening communicating therewith, a shoulder formed on the lower part of the sleeve to seat against a corresponding shoulder formed in the casing, whereby the sleeve may be positioned axially, a nozzle removably secured within the sleeve in concentrical relation therewith and constructed to form an annular passage between the nozzle and sleeve, an axial fuel passage formed in the nozzle, a passage formed in the casing communicating between the chamber and the base of said nozzle, the latter having an enlarged portion to closely fit the base of the sleeve and a head portion positioned at the top of the sleeve and constructed to form a delivery opening between the head and sleeve, whereby an auxiliary nozzle is formed, an opening formed in the sleeve above said enlarged portion, a passage formed in the casing communicating between the chamber and said opening, a needle valve threaded into the upper end of the sleeve and depending therein into coöperative engagement with the axial passage in the nozzle, said sleeve with the nozzle and valve assembled therein being constructed and arranged for withdrawal axially through the open end of the casing, and means on the casing engageable with a part of the sleeve to position the sleeve so that the opening therein registers with the last-named passage in the casing.

4. The combination in a carbureter, of a main suction controlled nozzle, a constant level fuel supply chamber therefor, a compensating nozzle in concentrical relation with the main nozzle, a valve controlled connection between the chamber and the compensating nozzle adapted to supply the latter at a uniform rate, a suction pipe into which said nozzles deliver, a throttle in said pipe, a third nozzle arranged to deliver into said pipe in proximity to the throttle, a connection between the first-named connection and the third nozzle adapted to supply fuel thereto at a uniform rate, a connection from the air space of said chamber to the first-named connection and a connection from the air space of the chamber to the third nozzle, all constructed and arranged so that air saturated with fuel vapor may be drawn into said pipe through the compensating and third nozzles when the engine is running.

5. A carbureter, comprising, a fuel supply chamber, a suction pipe, atomizing devices to deliver fuel from the chamber to the pipe, a throttle valve in the pipe to vary the amount of fuel mixture passing therethrough, an axial passage formed in the throttle and opening at one end into said pipe, means to supply another fluid to the other end of said passage, a valve in said connection and means operable by movement of the throttle to open and close said valve proportionately with the opening and closing of the throttle valve, all constructed and arranged so that an auxiliary supply of fluid may be injected into said pipe in direct proportion to the amount of fuel mixture passing therethrough.

[Claim 6 not printed in the Gazette.]

1,240,842. VACUUM-FEED CARBURETER. PIERRE GILLES, Springfield, Mass. Filed Oct. 9, 1916. Serial No. 124,521. (Cl. 158—36.)



1. A vacuum feed carbureter, comprising, a carbureter fuel chamber, atomizing devices in said chamber adapted to be fed therefrom, a fuel supply chamber communicating with the carbureter chamber to feed the latter by gravity, a valve controlling the communication between said chambers, a float in the supply chamber, means controlled by the float to draw fuel into the supply chamber, and means operable by the rise and fall of the float to open and close said valve, all constructed and arranged so that the level in both of said chambers is controlled by a single float.

4. A vacuum feed carbureter, comprising, a casing formed with a carbureter fuel chamber and a fuel supply chamber, a connection between the chambers arranged to permit fuel to pass from the supply to the carbureter chamber by gravity, a valve in said connection, a fuel supply connection to the supply chamber, a float in the latter, devices controllable from the float to draw fuel into the supply chamber and means operable from the float to open and close said valve.

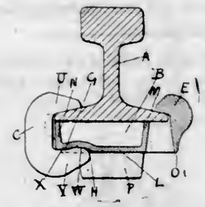
6. In a fuel feeding device for carbureters, a fuel supply chamber, a float therein, means controlled by the float operable to draw fuel into said chamber, a carbureter fuel chamber, a fuel passage connecting the latter to the fuel supply chamber, a valve in said passage, and means operable by rise and fall of the float to suddenly open and close said valve.

7. In a fuel feeding device for a carbureter, a fuel supply chamber, a carbureter fuel chamber, a connection between the chambers to permit the former to feed the latter, a fuel supply connection to the supply chamber, a suction pipe associated with the carbureter chamber, a passage from said pipe to the air space of the supply chamber, means in said pipe to vary the effective opening therein, a valve in said passage operable from said means and constructed and arranged to be opened in proportion to the effective opening in said pipe.

13. A vacuum feed carbureter, comprising, a fuel supply chamber, a float therein, means controlled by the float operable to draw fuel into said chamber, a carbureter fuel chamber, atomizing devices in the latter, a fuel passage connecting the last-named to the first-named chamber, a valve in said passage, and means operable by the falling of the float to suddenly close said valve.

[Claims 2, 3, 5, and 8 to 12 not printed in the Gazette.]

1,240,843. ANTICREEPER FOR RAILWAY-RAILS. HORATIO G. GILLMOR, Washington, D. C. Filed Feb. 17, 1915. Serial No. 8,860. (Cl. 238—4.)



1. A part for rail anchors constructed with a rail base flange engaging jaw at one end, a retaining catch at the other end, and a body portion having a downward inclination toward the retaining catch end thereof and a seat in the under side of the part at the retaining catch end thereof.

2. A rail gripping element constructed with a jaw at one end and a plurality of base edge engaging catches at the other end and a body portion, the upper surfaces of which are in two planes, that toward the catches inclining downwardly from that toward the jaw and a groove seat for engagement with a vertical pressure producing part.

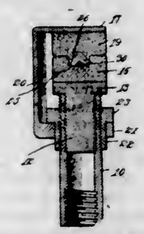
3. A rail embracing and gripping element constructed with a rail base engaging jaw at one end, a retaining portion at the other end and a body provided with a tie engaging portion intermediate of said jaw and said retaining portion, the upper surfaces of said body portion being downwardly inclined from the jaw toward the retaining portion end thereof.

4. A rail gripping element constructed with a groove in the under side thereof, the bottom of the groove having a plane surface and a curved surface adapted to engage with a vertical pressure producing part.

5. A rail embracing and gripping element constructed with a rail base flange engaging jaw and a transverse portion having upper surfaces in two planes lying at a relatively small angle the one to the other and a seat adapted to engage with a vertical pressure producing part at the end opposite to said jaw.

[Claims 6 to 37 not printed in the Gazette.]

1,240,844. INSULATOR. FRANCK S. GREGUR, West Brownsville, Pa. Filed Feb. 7, 1917. Serial No. 147,186. (Cl. 173—314.)



2. In an insulator, a support, a clamping member capable of moving toward and away from said support, wire clamping means on said support and clamping member, a sleeve threaded upon said support, and a connection between said clamping member and said sleeve.

3. In an insulator, a support, a clamping member capable of moving toward and away from said support, wire clamping means on said support and clamping member, a sleeve on said support adapted to move toward and away from said clamping means, and a plate depending from said clamping member and being attached to said sleeve.

5. In an insulator, a base, a clamping plate adapted to move toward and away from said base, inwardly projecting flanges on said base and clamping plate, insulator

blocks carried by said base and clamping plates, the said blocks being dovetailed in cross section to be received between said flanges, and coöperating binding means upon the adjacent faces of said blocks.

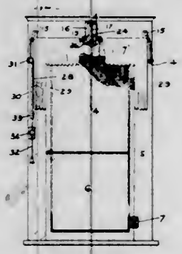
[Claims 1, 4, and 6 not printed in the Gazette.]

1,240,845. GUARD FOR LINK CUFF-BUTTONS. ANNA C. HAGE, Toronto, S. D. Filed Dec. 4, 1916. Serial No. 135,062. (Cl. 24—90.5.)



As an article of manufacture a guard for preventing the loss of a link cuff button comprising a single length of resilient wire having its ends extending toward each other and arranged in overlapping relation, the wire being twisted at points adjacent the end thereof to form closed loops, the intermediate portion of the wire being formed into an enlarged loop, the said overlapping ends being arranged for resilient movement.

1,240,846. DOOR ATTACHMENT. CHARLES F. HERBOLSHEIMER, Denver, Colo. Filed Sept. 7, 1915. Serial No. 49,188. (Cl. 230—7.)

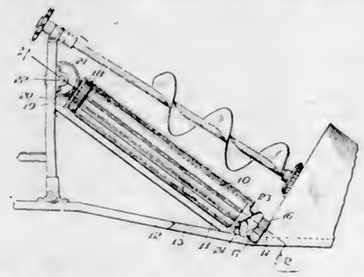


2. A door attachment, comprising a frame pivoted to the door casing above the door, a leaf spring secured to said door casing above the door at right angles to the axis of the said frame, a finger secured to said frame, said spring being disposed in the path of said finger, the said frame adapted to be engaged by said door when the latter is opened for raising said frame and causing said finger to engage with said spring, said spring acting on said finger to suddenly throw said frame to its completely raised position and to sustain same in its raised position, a member fulcrumed on said frame and having a part adapted to engage said finger on the rear side thereof and another part adapted to be disposed in the path of the closing movement of the door and engageable by the door while the latter is being closed for releasing said finger from engagement with said spring, and a fabric secured to said frame and having parts depending from the opposite extremities of said frame.

[Claim 1 not printed in the Gazette.]

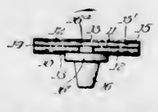
1,240,847. CORN-HARVESTER. WILLIAM HIBBS, Oskaloosa, Iowa. Filed July 7, 1916. Serial No. 107,967. (Cl. 56—113.)

In a corn harvester, in combination, a pair of oppositely turning parallel inclined snapping rolls having their lower ends directed forwardly and a set of multiple spiral threads, each of a uniform diameter throughout its length greater than that of the corresponding roll, formed upon the forward end of each roll, the two sets of threads being of like shape but opposite pitch and intermeshing



and each thread making only a single turn about the axis of the corresponding roll.

1,240,848. VALVE FOR PNEUMATIC PLAYER-ACTIONS. EMORY C. HISCOCK, Oak Park, Ill., assignor to John C. Farwell, Chicago, Ill. Original application filed July 15, 1914, Serial No. 851,027. Divided and this application filed May 15, 1915. Serial No. 28,274. (Cl. 137—4.)

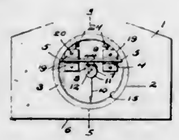


1. As a new article of manufacture, a two-faced valve for pneumatic player actions comprising a series of superposed thin flexible disks, the outermost disk on each side being of moisture-proof material, a container embracing the margins of said outermost disks, and a valve-stem secured centrally to one of said faces.

2. As a new article of manufacture, a valve for pneumatic player actions comprising a series of superposed thin, flexible disks of substantially equal diameter, a container therefor consisting of a thin metal annulus having its edges bent over the edges of the outermost of said disks, and a valve stem secured centrally to one side of said disks.

3. As a new article of manufacture, a valve for pneumatic player actions comprising a central paper disk, felt disks on either side of said central disk, and outer disks of thin sheet rubber, a thin metal container embracing the peripheral portions of said disks, and a valve stem cemented to one side of said valve and having a central shank or tenon extending part way through the series of disks.

1,240,849. PLUMB-LEVEL. JOHN HOLM, Juneau, Alaska. Filed Feb. 23, 1917. Serial No. 150,411. (Cl. 33—215.)

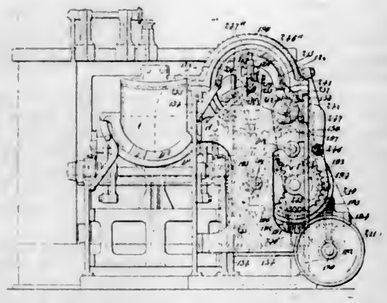


1. The combination with a stock provided with a recess, of a plumb level comprising a casing formed of a ring-like metallic member adapted to be seated in said recess, said ring-like member being provided with a graduated dial and formed with a pair of oppositely disposed grooves, a cross bar slidably mounted in said grooves, and a pointer mounted on said cross bar.

3. The combination with a recessed member, of a plumb level comprising a casing adapted to be seated in said recessed member, a removable cross bar within said casing, a pointer supported on said cross bar, a graduated dial within said casing, and front and rear covers for said casing supported from said cross bar, said front plate being depleted circumferentially to expose said dial and pointer to view.

[Claim 2 not printed in the Gazette.]

1,240,850. APPARATUS FOR FINISHING CURVED STEREOTYPES. CHARLES EDWARD HOPKINS, Worcester, Mass. Filed Mar. 13, 1907. Serial No. 362,111. (Cl. 29—21.)



1. The combination of an independent stereotype receiver; a finishing cylinder; clutch controlled mechanism for operating the latter; and means actuated by the receiver to start the said mechanism.

2. The combination of an independent stereotype receiver; a finishing cylinder; mechanism for operating the latter; and means actuated by the receiver to start said mechanism.

3. The combination of a stereotype receiver, a finishing cylinder, means to hold them with their axes nearly coincident, and means controlled by one of them to start the finishing cylinder when the said one is moved into axial alinement with the other.

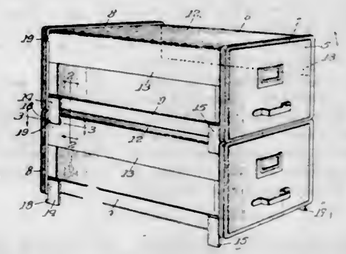
4. The combination in an apparatus for finishing stereotypes, of a stereotype receiver; a conveyer head having a finger projecting therefrom to receive the weight of the front portion of an unfinished stereotype; and means for preventing the weight of the latter depressing the finger low enough to allow the said portion to engage with the respective part of the stereotype receiver.

5. The combination of a conveyer head; a spring protruded finger; a device for limiting the motion of the finger in the said head; a finishing cylinder having one fixed and one movable support to hold the top of the unfinished stereotype at a distance from the cylinder; means for reciprocating and stopping the conveyer and means for raising and lowering the movable support.

[Claims 6 to 18 not printed in the Gazette.]

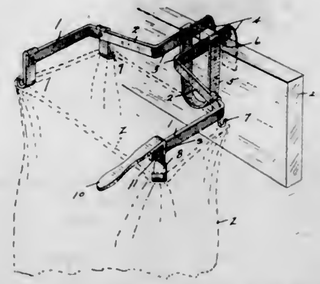
1,240,851. SECTIONAL FILING-CABINET. DAVID E. HUNTER, Muskegon, Mich., assignor to The Shaw-Walker Company, Muskegon, Mich., a Corporation of Michigan. Filed Aug. 28, 1916. Serial No. 117,163. (Cl. 45—2.)

In an all metal sectional filing cabinet, the combination of front and rear rectangular supporting frames, top, side and bottom walls extending between and secured to said frames, plates welded to said side walls at the lower corners thereof and alongside of said front and rear frames, said plates extending downwardly sufficiently to engage against the side walls of a lower section of a tier and to abut against the front and rear walls of such lower section whereby to prevent longitudinal and transverse relative displacement of the sections, said plates also acting as legs for separate sections or for the lowermost section of a tier, the rear frames of each section having notches and the rear plates having tongues for extending into said notches when the sections are placed



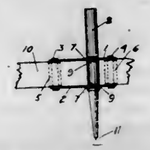
one on top of the other whereby to prevent relative vertical displacement of such sections.

1,240,852. BAG-HOLDER. PETER ISRAELSON, Ramey, Minn. Filed July 21, 1916. Serial No. 110,504. (Cl. 83—26.)



A bag holder comprising a pair of laterally spaced independent arms having hooks at their rear ends, a U-shape member yieldingly connecting said arms for parallel angular twisting movements in respect to each other, said member being spaced apart from the hooks to afford a crotch therebetween, said crotch arranged to straddle a support and detachably secure the bag holder thereto, and bag holding devices on said arms, one of which is adjustable.

1,240,853. BEAM-COMPASS. SZYMON JACHIMOWICZ, Zurich, Switzerland. Filed Dec. 1, 1915. Serial No. 64,578. (Cl. 33—158.)



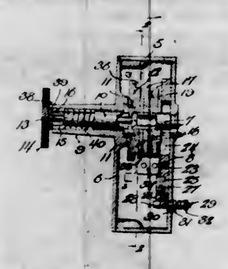
1. In a beam-compass, a beam, a marking device, a carriage adjustable along the beam and clamping the marking device thereto, said carriage being formed of wire bent to embrace the beam and the marking device, pins provided with antifriction rollers arranged on opposite sides of the beam and connecting portions of the wire on the opposite edges of said beam.

2. In a beam-compass, a beam, a marking device provided with grooves, a carriage adjustable along the beam and clamping the marking device thereto, parts of the carriage being formed of wire seated in said grooves and arranged on opposite edges of said beam and pins provided with antifriction rollers connecting said parts.

3. In a beam-compass, a beam, a marking device, a carriage adjustable along the beam, said carriage being formed of one piece of wire, bent to embrace the beam and press said marking device against said beam, pins connecting portions of said wire on the opposite edges of said beam and provided with antifriction rollers arranged on opposite sides of the beam.

4. In a beam-compass, a beam, a marking device, a carriage adjustable along the beam said carriage being formed of wire bent in such a manner as to embrace a beam and press said marking device against said beam, a portion of said wire being formed in such a manner as to allow release of said marking device after pressure is applied to said portion of the wire.

1,240,854. PERMUTATION-LOCK. FREDERICK W. JONES and LUTHER GLASS, Milwaukee, Wis. Filed Sept. 11, 1916. Serial No. 119,420. (Cl. 70—53.)



1. A device of the character described including a plurality of tumbler wheels provided with recesses adapted to aline, a slidable member, a resilient arm carried by the slidable member and engaging the tumbler wheels above the axis thereof to normally urge the said slidable member upwardly, said resilient arm being engageable in said recesses when alined, and means engaging one of the tumbler wheels for overcoming the tendency of the resilient arm to move the slidable member upwardly.

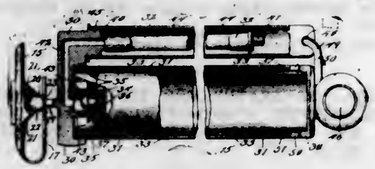
2. A device of the character described including a plurality of tumbler wheels provided with recesses adapted to aline, a slidable member and a resilient arm secured to the slidable member below the axis of the tumbler wheels, and resiliently urged against said tumbler wheels above the said axis and engageable in said recesses when alined, said resilient arm normally urging the slidable member from operative position.

3. A device of the character described including a plurality of tumbler wheels provided with recesses adapted to aline, a slidable member, a resilient arm carried by the slidable member and engaging the tumbler wheels above the axis thereof to normally urge the said slidable member upwardly, said resilient arm being engageable in said recesses when alined, a notched disk carried by one of the tumbler wheels, and spring means engageable with said disk for overcoming the tendency of the resilient arm to move the slidable member upwardly to retain said slidable member in operative position.

4. A device of the character described including a plurality of tumbler wheels provided with recesses adapted to aline, a slidable member, a resilient arm carried by the slidable member and engaging the tumbler wheels above the axis thereof to normally urge the said slidable member upwardly, said resilient arm being engageable in said recesses when alined, a notched disk carried by one of the tumbler wheels, and spring means having a relatively greater spring action than said resilient arm and engaging said disk and retaining said movable member in operative position against the tendency of said resilient arm.

1,240,855. PUMP. HOWARD B. JONES, Evanston, Ill. Filed Oct. 10, 1914. Serial No. 866,050. (Cl. 230—27.)

1. The combination of a tire pump, a flexible tube on said pump, said tube being adapted to be secured upon the nipple of a tire, and a protective cover for the tube, said cover being adapted to lie along the side of the pump and being readily removably secured to a pump part.



2. The combination of a tire pump having a pump cylinder, a flexible tube, a tubular cover adapted to inclose said tube, said cover being readily removably secured to a pump part so as to lie along one side of said cylinder when in its tube-inclosing position.

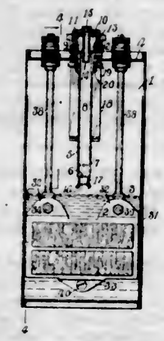
3. In a tire-insulating pump, the combination of a pump cylinder, a mounting for the same, a piston within said cylinder, a flexible tube secured to said mounting, said mounting having means providing a passageway for air from the interior of said cylinder to the interior of said tube, and a protective casing adapted to inclose said flexible tube, said casing being threaded into said mounting when in its tube-inclosing position.

4. The combination with a tire pump having a piston element and a flexible tube, of a protective casing adapted to cover the tube and be removably secured to a pump part, said piston element having an opening to receive said casing, said casing when removed from said flexible tube and inserted in said opening constituting a handle for operating said piston.

5. The combination with a tire pump having a piston element and a flexible tube, of a protective casing adapted to cover said flexible tube and be readily removably secured to a pump part, one end of said casing being tapered to form a prying tool, the piston element of said pump having means for securing said casing element thereto, the construction being such that by removing said casing from said flexible tube the casing may constitute a handle for operating the pump.

[Claims 6 to 11 not printed in the Gazette.]

1,240,856. GALVANIC BATTERY. HEINRICH H. MENO KAMMERHOFF, Orange, N. J., assignor to Edison Storage Battery Company, West Orange, N. J., a Corporation of New Jersey. Filed Feb. 9, 1914. Serial No. 817,493. (Cl. 204—29.)



1. In a galvanic cell, the combination with a container, of a vent tube extending into said container through one side thereof, and tube bracing means extending from said side and engaging said tube intermediate its length, substantially as described.

2. In a galvanic cell, the combination with a container, of a vent tube extending into said container, said tube having its inner end open to the interior of the container and having one or more vents in the side thereof, and a baffle member carried by said tube spaced from and disposed across said open end, substantially as described.

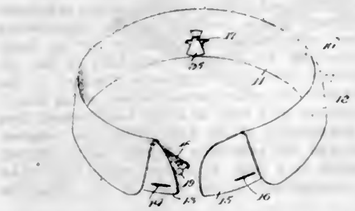
3. In a galvanic cell, the combination with a container having an opening, of a vent tube removably mounted within said opening, and extending into said container, said tube having its inner end open to the interior of the container and disposed within the latter, and a baffle member carried by said tube and spaced from and disposed across said open end, substantially as described.

4. In a galvanic cell, the combination with a container having an opening, of a vent tube removably mounted within said opening and extending into said container, and an inverted reservoir adjacent the outer end of said tube and in communication with the bore thereof, said reservoir having means for permitting the escape of gas to a point beyond the reservoir directly from the bore of the portion of said tube within the container, substantially as described.

5. In a galvanic cell, the combination with a container having an opening, of a vent tube extending into said container through said opening, the outer portion of the bore of said tube being enlarged, an inverted reservoir positioned in the enlarged portion of said bore, the mouth of said reservoir facing the inner smaller portion of said bore, and a gas conducting tube extending through said reservoir and projecting into said inner smaller portion of the bore, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,240,857. COLLAR-FASTENING. ARCHIE A. KINION, Sand Springs, Okla. Filed Sept. 18, 1916. Serial No. 120,745. (Cl. 2—69.)



1. The combination with a collar, of a fastener therefor including an elastic strip connected with the collar, and a stud carried by said strip and arranged to extend through a bottonhole in the collar for engagement with a shirt.

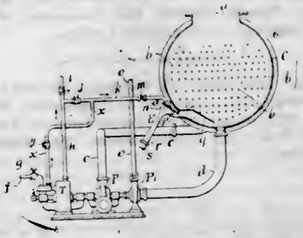
2. The combination with a collar having overlapping flaps at its forward side provided with buttonholes adapted to be brought into register, of a fastener for the collar including an elastic strip connected to the inner side of the collar, and a stud carried by said strip and arranged to extend through the registering buttonholes of a neck band of a shirt and through the registering buttonholes of the flaps of the collar for connecting the collar with the shirt with the said strip normally pulling upwardly upon the stud for tilting the stud longitudinally and binding the stud within the said buttonholes.

1,240,858. AUTOMATIC EJECTOR CONTROL. GOTTDANK L. KOTHNY and ROBERT SUCZEK, Philadelphia, Pa., assignors to C. H. Wheeler Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Mar. 23, 1916. Serial No. 86,075. (Cl. 230—13.)

12. The combination with a chamber, of an ejector for producing a vacuum therein, a steam motor, a governor therefor, an exhaust steam connection from said motor to said ejector, and a connection from said ejector to a second source of steam controlled by said governor.

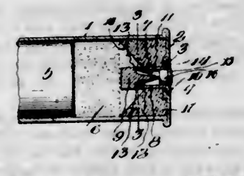
16. The combination with a chamber, of an ejector for producing a vacuum therein, a source of motive fluid for said ejector, a motor, and means responsive to change of load on said motor controlling connection between said ejector and said source of motive fluid.

17. The combination with a chamber, of an ejector for producing a vacuum therein, a source of motive fluid, a motor, and a governor controlling said motor and a connection between said source of motive fluid and said ejector.



[Claims 1 to 11, 13 to 15, and 18 to 22 not printed in the Gazette.]

1,240,859. AMMUNITION-PRIMER. GILBERT F. LALLMAN, Arlington, Nebr. Filed Sept. 23, 1916. Serial No. 121,844. (Cl. 102—18.)



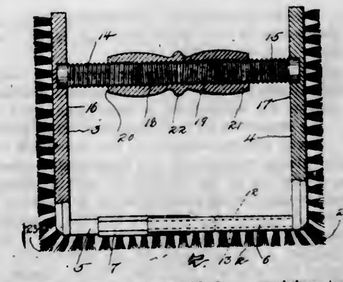
1. In a cartridge, a battery cup having a plurality of circumferential openings, a priming cap for said battery cup, and a cone shaped deflector within the cup having a plurality of longitudinally extending grooves, for directing the flames toward all of the openings.

4. In a cartridge, a battery cup, having a plurality of circumferential openings, a priming cap for said battery cup, and a conical deflector within the cup, having a plurality of longitudinally extending grooves in its surface, each groove leading to one of the aforesaid openings whereby to direct the flame from the cap toward and through said openings to uniformly ignite the charge.

6. A cartridge having a battery cup, said battery cup having a series of circumferentially disposed openings in its side wall, and a padding located at the base portion of the cartridge therewithin and around the battery cup having in its forward face a conical opening with the apex thereof located adjacent the openings of the battery cup whereby to deflect the flame from said battery cup toward said front end of the cartridge.

[Claims 2, 3, and 5 not printed in the Gazette.]

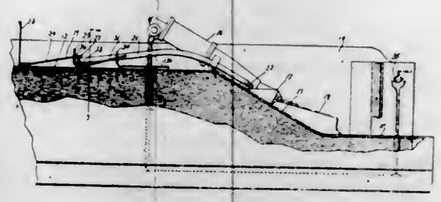
1,240,860. BRUSH. DAVID LEVY, New York, N. Y. Filed July 10, 1916. Serial No. 108,352. (Cl. 141—7.)



A brush of the class specified, comprising two parallel side brush members connected at one end by overlapping

brush members secured thereto and slidably connected, said side members being also connected by a handle device consisting of right and left screws secured thereto, and a sleeve mounted on said screws and having corresponding threads whereby the dimensions of the brush may be adjusted by turning said sleeve.

1,240,861. LOCOMOTIVE-TENDER. NATHAN M. LOWER, Pittsburgh, Pa., assignor to Locomotive Stoker Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Feb. 19, 1917. Serial No. 149,565. (Cl. 105—260.)



1. In combination, a locomotive tender having a fuel bin provided with a sloping rear wall and a fuel deck back of the bin, a reciprocating motor having its axis parallel with the sloping wall, a fuel pusher reciprocable over the deck, and a rigid link connecting the pusher with the motor.

2. In combination, a locomotive tender having a fuel bin provided with a sloping rear wall and a fuel deck back of the bin, a reciprocating motor having its axis parallel with the sloping wall, a fuel pusher reciprocable over the deck and a rigid bowed link connecting the pusher with the motor.

3. In combination, a locomotive tender having a fuel bin provided with a sloping rear wall and a fuel deck back of the bin, a reciprocating motor having its axis parallel with the sloping wall, a fuel pusher actuated by the motor and movable over the sloping wall, a fuel pusher reciprocable over the deck, and a rigid link connecting the pusher with the motor.

4. In combination, a locomotive tender having a fuel bin provided with a sloping rear wall and a fuel deck back of the bin, a reciprocating motor having its axis parallel with the sloping wall, a fuel pusher reciprocable over the deck and having a forwardly swinging pusher plate at its front end, and a rigid link connecting the pusher with the motor.

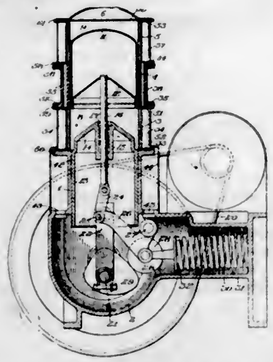
5. In combination, a locomotive tender having a fuel bin provided with a sloping rear wall and a fuel deck back of the bin, a reciprocating motor having its axis parallel with the sloping wall, a fuel pusher reciprocable over the deck, a rigid link connecting the pusher with the motor, and a supplemental pusher in advance of the named pusher and hinged thereto.

[Claims 6 and 7 not printed in the Gazette.]

1,240,862. REFRIGERATING-MACHINE. IVAR LUNDGAARD, Rochester, N. Y. Filed Sept. 21, 1915. Serial No. 51,767. (Cl. 62—136.)

1. The combination with a cylinder forming a compression chamber at one portion and an expansion chamber at another portion for acting on a mediating fluid, said chambers being separated by heat non-conducting material, of a displacement piston movable in the expansion chamber, a power piston movable in the compression chamber, and means connected to the pistons for driving them the compression chamber being adapted to be surrounded by a body of lower temperature than the average temperature of the fluid within the compression chamber, and the expansion chamber being adapted to be surrounded by a body of higher temperature than the average temperature of the fluid within the expansion chamber.

2. The combination with a cylinder forming a compression chamber at one portion and an expansion chamber at another portion, said chambers being separated by heat non-conducting material, of a displacement piston movable in the expansion chamber, a power piston movable in the compression chamber, means connected to the pistons for driving them, and fluid conducting means located exteriorly of the cylinder and leading from the compression chamber to the expansion chamber.



3. The combination with a cylinder forming a compression chamber at one portion and an expansion chamber at another portion for acting on a mediating fluid, said chambers being separated by heat non-conducting material, of a displacement piston movable in the expansion chamber, a power piston movable in the compression chamber, means connected to the pistons for driving them, and fluid conducting means located exteriorly of the cylinder and leading from the compression chamber to the expansion chamber, the compression chamber being adapted to be surrounded by a body of lower temperature than the average temperature of the fluid within the compression chamber, and the expansion chamber being adapted to be surrounded by a body of higher temperature than the average temperature of the fluid in the expansion chamber.

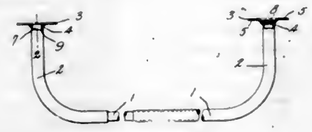
4. The combination with a cylinder forming a compression chamber at one portion and an expansion chamber at another portion, said chambers being separated by heat non-conducting material, of a displacement piston movable in the expansion chamber, a power piston movable in the compression chamber, means connected to the pistons for driving them, and fluid conducting means located exteriorly of the cylinder and leading from the compression chamber to the expansion chamber, said fluid conducting means including a regenerating chamber formed within a body of heat-non-conducting material.

5. The combination with a cylinder forming a compression chamber at one portion and an expansion chamber at another portion, said chambers being separated by heat non-conducting material, of a displacement piston movable in the expansion chamber, a power piston movable in the compression chamber, means connected to the pistons for driving them, and fluid conducting means located exteriorly of the cylinder and leading from the compression chamber to the expansion chamber, said fluid conducting means including a plurality of extended radiating surfaces with which the fluid contacts.

[Claims 6 to 23 not printed in the Gazette.]

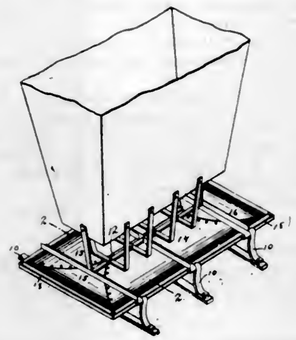
1,240,863. TUBULAR ADJUSTABLE CURTAIN-HANGER. ARTHUR W. LYDA, New Berlin, Ohio, assignor of one-half to Owen J. Evans, Canton, Ohio. Filed July 5, 1916. Serial No. 107,654. (Cl. 156—22.)

In a device of the character described, a tubular hanger having an upper notch at its end, and an elongated plug fitted in said hanger and having a hook with its bend uppermost, said hook engaging in said notch, and the bill of the hook providing a tongue extending downwardly across



the end of the plug and engageable with a supporting member.

1,240,864. FEEDING-TROUGH. WILLIAM A. MCCOLLOUGH, Webster City, Iowa. Filed May 3, 1916. Serial No. 95,285. (Cl. 119—52.)

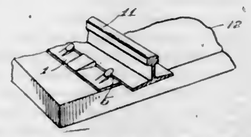


1. A trough formed with concavo-convex side and end portions, the concavities of which are innermost, the central portion of said trough being concavo-convex in cross-section on a lesser radius than said side and end portions, the concavity of which central portion is outermost, the ridge of the concavo-convex central portion of the trough being on a right line and of less length than the sides of the trough, the ends of said ridge terminating in spaced relations to the ends of the trough.

2. A trough formed with concavo-convex side and end portions, the concavities of which are innermost, the central portion of said trough being concavo-convex in cross-section, the concavity of which is outermost, the ridge of the concavo-convex central portion of the trough being on a right line and of less length than the sides of the trough, the ends of said ridge terminating in spaced relations to the ends of the trough, the ridge of the central portion of the trough being at less altitude than the margins of the trough, said trough also being formed with partitions arranged at right angles to each other, the planes of each pair of said partitions intersecting at one end of the ridge centrally of the trough.

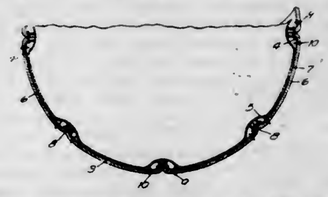
3. A trough formed of two metal side members and two metal end members, the side members being alike and trapezoidal in form, the end members being alike and equilaterally triangular in form, all of the members being bent on the same arc, the side members being arranged with their shorter parallel margins adjacent each other, the end members being arranged with their curved margins adjacent to the curved end margins of the side members, whereby an article is produced of a shape rectangular in plan, concavo-convex in cross-section at either side of its median line, its median line forming a recurved ridge with respect to its side portions and of less length than its side margins, and of concavo-convex form between its end margins and the ends of said ridge.

1,240,865. TIE-PLATE. THOMAS SEZABURO MATSUOKA, Arrow, Colo. Filed May 23, 1916. Serial No. 99,330. (Cl. 238—2.)



The combination in a tie plate of the class described, of a body portion having a pair of openings on each side thereof, lugs formed on the said body portion adjacent the rear edges of the openings on the upper face thereof, a reinforcing lug formed intermediate the said lugs for engagement with a rail, the said body portion being provided with a pair of intersecting recesses terminating at a point adjacent the outer edge of the rail to provide means for drainage, flanges formed along the longitudinal edges of the underside of the body portion, a plurality of intersecting diagonally arranged ribs on the said under side, and suction chambers formed by the intersecting of the said ribs to prevent displacement of the plate on the tie.

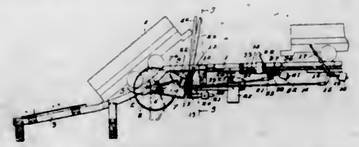
1,240,866. INFLATED GAME-BALL. WILLIAM MILLER, Newport, Ky., assignor to The P. Goldsmith's Sons Company, Cincinnati, Ohio, a Corporation of Ohio. Filed June 21, 1917. Serial No. 176,031. (Cl. 46—4.)



1. An inflated game ball comprising a casing consisting of a series of sections having seams between the sections, and stitches located on each side of the seams and projecting beyond the surface of the ball.

2. An inflated game ball comprising a casing consisting of a series of sections, a lining located within the casing and consisting of a series of sections, the sections of the casing and the lining having seams to secure them together, and stitching located on each side of each seam, passing through the casing and the lining and having the stitches thereof extending beyond the surface of the casing.

1,240,867. CAR-DUMPING APPARATUS. GEORGE H. MUELLER, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, Columbus, Ohio, a Corporation of Ohio. Filed Jan. 2, 1913, Serial No. 739,839. Renewed Nov. 29, 1915. Serial No. 64,200. (Cl. 214—8.)



1. In a car dumping apparatus, the combination with approximately horizontal car feed and car discharge tracks at different levels, and a sharply inclined rigidly mounted stationary track connecting the feed and discharge tracks, of means for temporarily stopping a car in inclined dumping position on the sharply inclined track, means in position to be engaged by a car on the feed track

for releasing the said car stopping means, and manually controlled means for stopping a car on the feed track after engaging with the said releasing means.

2. In a car dumping apparatus, the combination with approximately horizontal car feed and car discharge tracks at different levels, and a sharply inclined rigidly mounted stationary track connecting the feed and discharge tracks, of a transverse rock shaft, horns secured to the rock shaft and adapted to be swung into and out of the path of the wheels of a car on the sharply inclined track, a movable stop for positively limiting the movement of the shaft and the horns in one direction, means in position to be engaged by a car on the feed track for moving the said stop to an inoperative position, and manually controlled car stops between the said stop moving means and the inclined track.

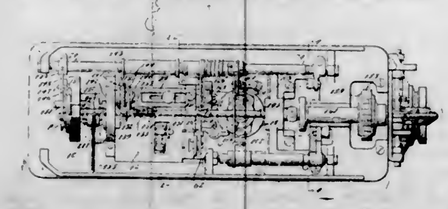
3. In a car dumping apparatus, the combination with approximately horizontal car feed and car discharge tracks at different levels, and a sharply inclined rigidly mounted stationary track connecting the feed and discharge tracks, of a transverse rock shaft, horns secured to the rock shaft and adapted to be swung into and out of the path of the wheels of a car on the sharply inclined track, a movable stop for positively limiting the movement of the shaft and the horns in one direction, means for normally holding the stop in operative position, means in position to be engaged by a car on the feed track for moving the said stop to an inoperative position and movable car stops between the last said stop-moving means and the horns.

4. In a car dumping apparatus, the combination with approximately horizontal car feed and car discharge tracks at different levels, and a sharply inclined rigidly mounted stationary track connecting the fed and discharge tracks, of a transverse rock shaft, horns secured to the rock shaft and adapted to be swung into and out of the path of the wheels of a car on the sharply inclined track, a manually controllable brake for resisting the movement of the shaft and the horns, a movable stop for positively limiting the movement of the shaft and the horns in one direction, means in position to be engaged by a car on the feed track for moving the said stop to an inoperative position, and manually movable car stops adapted to arrest a car on the feed track after it has engaged the last said means.

5. In a car dumping apparatus, the combination with approximately horizontal car feed and car discharge tracks at different levels, and a sharply inclined rigidly mounted stationary track connecting the feed and discharge tracks, of means for temporarily stopping a car in inclined dumping position on the sharply inclined track, means in position to be engaged by a car on the feed track for releasing the said car stopping means, and manually controllable means for stopping a car on the feed track after it has engaged with the said releasing means.

[Claims 6 and 7 not printed in the Gazette.]

1,240,868. THREAD-CONTROLLING MECHANISM FOR SEWING-MACHINES. GEORGE W. NELSON, Cleveland, Ohio, assignor to The Standard Sewing Machine Company, Cleveland, Ohio, a Corporation of Ohio. Filed Nov. 12, 1913. Serial No. 800,495. (Cl. 112—26)



1. In a sewing machine, the combination with stitch-forming mechanism, of a bobbin-holder, a bobbin-thread pull-off coöperative with said bobbin-holder to turn the same and having a variable action in the general direction of the pull-off path, and means for operating said pull-off in said direction to act upon the bobbin-thread in a different manner for different stitches.

2. In a sewing machine, the combination with stitch-forming mechanism, of a bobbin-holder, a bobbin-thread pull-off coöperative with said bobbin-holder to turn the same and having a variable action in the general direction of the pull-off path, and means for operating said pull-off in said direction to act upon the bobbin-thread at each alternate stitch.

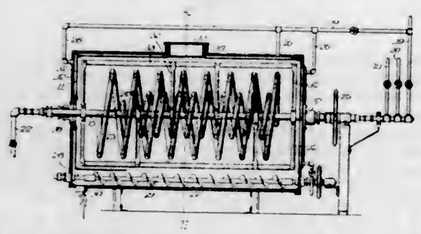
3. In a sewing machine, the combination with stitch-forming mechanism, of a bobbin-holder, a bobbin-thread pull-off coöperative with said bobbin-holder to turn the same and being constantly maintained in its pull-off path, and means for operating said pull-off to act upon the bobbin-thread during the formation of certain predetermined stitches and to maintain said pull-off in inoperative relation with said bobbin-thread during the formation of certain other predetermined stitches.

4. In a sewing machine, the combination with work-holder-shifting mechanism, of a bobbin-holder, a thread-pull-off coöperative with said bobbin-holder to turn the same and having a variable action in the general direction of the pull-off path, and means controlled by said work-holder-shifting mechanism for operating said pull-off in said direction to act upon the thread in a different manner for different stitches.

5. In a sewing machine, the combination with stitch-forming mechanism, of a bobbin-holder, and a bobbin-thread pull-off coöperative with said bobbin-holder to turn the same, automatic means for varying the range of throw of said pull-off, and means for actuating said pull-off the determined distance in its pull-off path.

[Claims 6 to 14 not printed in the Gazette.]

1,240,869. OLEO-STOCK CLARIFIER, SEEDER, AND BREAKER. GUY L. NOBLE, Chicago, Ill. Filed Nov. 15, 1916. Serial No. 131,398. (Cl. 87—12.)



1. A combined clarifier, seeder and breaker for oleo stock comprising a tank, a pipe-coil coaxially arranged within the tank, independent sources of supply of hot and cold fluid to the coil, scrapers arranged adjacent the tank walls, means to rotate the pipe and scrapers, and an upper inlet and a lower outlet for the stock.

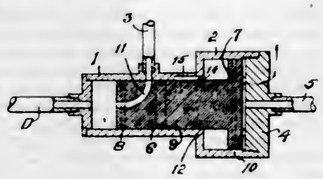
2. A combined clarifier, seeder and breaker for oleo stock comprising a tank, a hollow shaft extending therethrough, a pipe aranged within the tank about the hollow shaft and in intercommunication therewith, independent sources of supply of hot and cold water to the pipe, means to rotate the shaft and pipe and an upper inlet and a lower outlet for the stock.

3. A combined clarifier, seeder and breaker for oleo stock comprising a cylindrical tank, a hollow shaft extending therethrough, a pipe coil coaxially arranged within the tank about the hollow shaft and in intercommunication with the latter, independent sources of supply of hot and cold water to the shaft and coil, an upper inlet and a lower outlet for the stock, the tank being constricted in its lower part, a screw conveyer in the constricted part, and means to rotate the screw conveyer.

4. A combined clarifier, seeder and breaker for oleo stock comprising a cylindrical tank, a shaft extending therethrough, a pipe coil coaxially arranged within the tank about the shaft, independent sources of supply of hot and cold water to the coil, means to rotate the shaft and pipe, an upper inlet and a lower outlet for the stock, a trough in the lower part of the tank leading to the outlet, and a screw conveyer in the trough, and means to rotate the screw conveyer.

5. A combined clarifier, seeder and breaker for oleo stock comprising a cylindrical tank, a shaft extending therethrough, a pipe coil coaxially arranged within the tank and connected to the shaft, independent sources of supply of hot and cold water to the coil, scrapers arranged adjacent the tank walls, means to rotate the shaft and pipe and scrapers, an upper inlet and a lower outlet for the stock, a trough in the lower part of the tank leading to the outlet, and a screw conveyer in the trough, and means to rotate the screw conveyer.

1,240,870. DRAFT-CONTROLLING MECHANISM. HUGH O'NEIL, Pittsburgh, Pa., assignor to Simplex Air Brake and Manufacturing Co., Pittsburgh, Pa., a Corporation of Delaware. Filed June 21, 1913, Serial No. 775,162. Renewed Feb. 3, 1917. Serial No. 146,518. (Cl. 110—150.)



1. In a locomotive having a steam operated draft means and a throttle valve for controlling the supply of steam to the engine cylinders, a cylinder having a port in its side, a differential piston therein covering said port in both extremes of movement and having its smaller end exposed to steam pressure from the boiler and having leading from such end a passage whose other end leads through the side of the piston and registers with the said port when the piston is in one extreme of travel and is disconnected therefrom when the piston moves to its other extreme of travel, a connection from the port to the draft means, and a connection from the outlet side of the throttle to the other end of the piston.

2. In combination in operating mechanism for locomotives, a differential cylinder having a port in its side, a differential piston therein covering said port in both extremes of movement, and provided with a passage leading from the small end of the piston through the side thereof, such passage registering with the said port when in the extreme of movement to which the piston is moved by pressure on the small end thereof, means for applying fluid pressure to the two ends of the piston, means for varying the pressure on the large end of the piston, and a conduit leading from said port to a point of use.

1,240,871. HEATER FOR THE INTAKE-MANIFOLDS OF INTERNAL-COMBUSTION ENGINES. BERT N. PARRISH, Jackson, Mich. Filed Apr. 9, 1917. Serial No. 160,761. (Cl. 219—38.)



1. In a structure of the class described, the combination of a pair of heating members, each comprising a supporting plate having a channel-like recess formed therein, said plates being of bendable material so that they may be conformed to a manifold and having strap loops punched therefrom, a securing strap of flexible metal disposed through said loops and provided with means for adjustably connecting its ends, an electrical heating element disposed within said recess and insulated from said plate, an insulating sheet disposed over said heating element, a metal heating and retaining plate disposed over said heating element and said insulation therefor and having its ends engaged over the edges of said supporting plate, and tongues formed on said supporting plate to engage the ends of electrical conductors connected to said heating element.

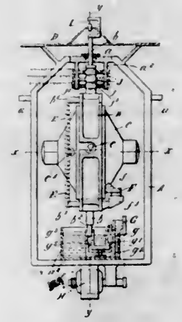
6. In a structure of the class described, the combination with a manifold of an internal combustion engine, of a pair of heating members secured thereto and each comprising a supporting plate having a recess therein, a heating element disposed in said recess and insulated from said supporting plate by a strip of heat and electrical insulating material, a strip of insulation disposed over said heating element to insulate it from the walls of such manifold, a metal heating plate disposed over said last-mentioned insulating strip, and means for connecting and disconnecting said heating elements with a source of electrical supply.

9. In a structure of the class described, the combination of a heating member comprising a supporting plate of thin bendable metal adapted to be conformed to a manifold and provided with a channel-like recess having a securing strap engaging loop struck from the bottom thereof, an electrical heating element disposed in said recess and insulated from said plate, and a heating plate disposed over said heating element and insulated therefrom.

10. In a structure of the class described, the combination with an insulated electrical heating element, of a housing therefor having flexible heat conducting extensions, and means for holding said extensions to a support.

[Claims 2 to 5, 7, and 8 not printed in the Gazette.]

1,240,872. GYRO-COMPASS. JOHN PERRY, Kensington, London, and SIDNEY GEORGE BROWN, North Acton, England. Filed Nov. 10, 1915. Serial No. 60,770. (Cl. 74—78.)



1. In a gyro-compass, an orienting frame under gyroscopic control, a bearing for the said frame and means for giving a longitudinal reciprocating movement to the frame relatively to its bearing.

3. In a gyro-compass, an orienting frame, a bearing for the said frame containing liquid supporting the frame, and a pump adapted to pump the said liquid into the bearing in impulses so as to reciprocate the frame.

4. In a gyro-compass, a pivoted support, an orienting frame having a spindle mounted to turn in the said support, a socket bearing receiving the lower end of the spindle and supplied with lubricating liquid and a continuously operating pump adapted to pump the liquid into the bearing in impulses.

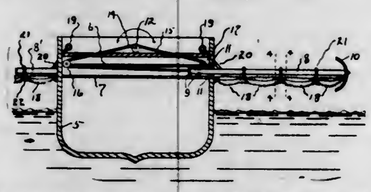
7. In a gyro-compass, an orienting frame adapted to receive a reciprocating motion, a spindle for the said

frame, contact slip rings on the spindle forming part of the electrical circuit for the gyro motor, fixed contact rings surrounding the said slip rings and rings of mercury lying in channels between the said slip and contact rings.

9. In a gyro-compass, an orienting frame under gyroscopic control, a bearing for said frame, means for giving a longitudinal reciprocating movement to the frame relatively to its bearing, a gyro-wheel casing mounted to turn around an axis in the said frame, and a centralizing spring connection and a damping device both interposed between the frame and casing.

[Claims 2, 5, 6, and 8 not printed in the Gazette.]

1,240,873. BUOYANCY ATTACHMENT FOR SHIPS. JOSEPH PERSAK, Burwell, Nebr. Filed July 21, 1917. Serial No. 182,024. (Cl. 114—68.)

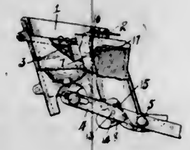


3. In devices for the purpose described, the combination with the hull of a vessel, said hull being provided between its sides with guides, supporting-arms coincidently movable on said guides transversely of the hull from the sides of the vessel, a pair of housing-plates of semicircular form in cross-section each being disposed at the side of the vessel and mounted on the ends of the supporting-arms, brackets encircling and slidably mounted on the supporting arms, a plurality of flexible containers carried by the brackets, and a plurality of pipes carried by the hull and in communication with the containers for conducting air under pressure for inflating said containers.

4. In combination with the hull of a vessel, a shaft in bearings disposed longitudinally of the hull and provided with pulleys arranged in pairs, supporting arms disposed transversely of the hull and provided with buoy-members, cables wound upon the pulleys of each pair and connected with the supporting-arms, said shaft being revoluble in one direction for coincidently moving the supporting-arms outwardly of the sides of the hull.

[Claims 1 and 2 not printed in the Gazette.]

1,240,874. SHOE-BUTTON-FASTENING MACHINE. LE DRU R. POMEROY, Toledo, Ohio, assignor to The Toledo Button Machine Company, Toledo, Ohio, a Corporation of Ohio. Filed Oct. 9, 1916. Serial No. 124,542. (Cl. 218—12.)



1. In a machine of the class described, the combination with a hopper having a button delivery guideway, and means operable to elevate buttons within the hopper to said guideway, said means having a button elevating slide and an operating lever attached thereto, of a member movable to kick improperly positioned buttons from said guideway, means normally retaining said member in inoperative position, and means operable by the lever of said first means at each button elevating movement thereof to move said member to button kicking position and then to release the member to permit it to return to inoperative position.

2. In a machine of the class described, the combination with a hopper having a button delivery guideway, a button elevating slide in said guideway, and a lever connected to said slide and operable to move the same to elevate buttons to said guideway, of a kicker member movable to kick improperly positioned buttons from said guideway, said member having a projecting part without the hopper, means normally retaining said member in inoperative position, and a pawl carried by said lever and operable upon a slide raising movement of said lever to move said member to operative position and then to release it to permit its return to inoperative position.

3. In a machine of the class described, the combination with a hopper having a button delivery guideway therein and a button elevating slide within said hopper, of a kicker member movable up through a portion of said guideway to eject improperly positioned buttons therefrom, means normally retaining said member in lowered position, and means having connection with both said elevating slide and said member and operable to reciprocate said slide and to raise said member to button ejecting position and then to release the same, said release taking place before said slide has reached the limit of its raising movement.

4. In a machine of the class described, the combination with a button hopper having a button delivery guideway therein, and a button elevating slide movable in said hopper, of a kicker member movable up through a portion of said guideway to eject improperly positioned buttons therefrom, said member having an outwardly projecting lip at its lower end, means normally retaining said member in lowered position, a lever having connection with said slide and operable to raise and lower the same, and a pawl pivotally carried by said lever for limited rocking movements relative thereto and operable upon a slide raising movement of said lever to coact with said member lip to raise the member to operative position and to disengage said lip at a predetermined point in the slide raising movement of said lever.

1,240,875. GUM AND PROCESS OF MAKING THE SAME. WILLIAM BEACH PRATT, Wellesley, Mass. Filed Nov. 1, 1913. Serial No. 798,701. Renewed Feb. 28, 1917. Serial No. 151,556. (Cl. 127—4.)

1. As a new article of manufacture, the solid residuum of a latex, having a globular characteristic, plastic and non-adhesive in the presence of water at a temperature of 98° F., brittle and breaking with a clean fracture when at a temperature of approximately 50° F., combustible, and neutral in taste.

2. As a new article of manufacture, the gummy solid residuum of a latex, said residuum containing a converted starch.

3. A new product consisting of a coagulated organic gummy mass, having a globular characteristic like rubber but with a sugar content, said mass being plastic and non-adhesive in the presence of water at a temperature of 98° F.

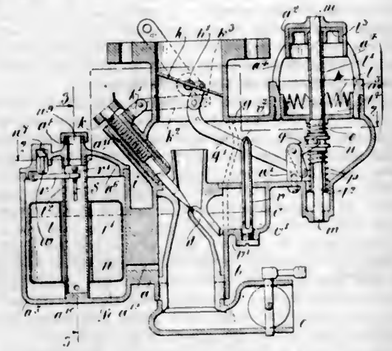
4. As a new article of manufacture, a product consisting of the coagulated residuum of the latex of the cow tree.

5. A chewing gum comprising a coagulated gummy residuum of a latex containing its original starch in the form of sugar.

[Claims 6 to 11 not printed in the Gazette.]

1,240,876. CARBURETER. CARROLL W. PROCHASKA, New York, N. Y., assignor, by mesne assignments, to Actus Carburetor & Manufacturing Co., Inc., a Corporation of New York. Filed Aug. 4, 1915. Serial No. 43,530. (Cl. 261—45.)

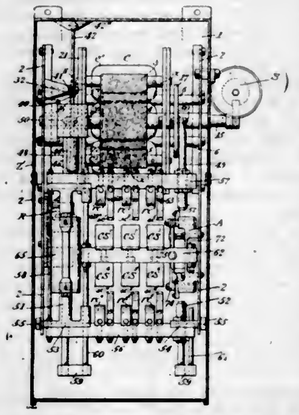
1. In a carbureter, the combination with the gasolene duct and the air port, of valves controlling the duct and the port respectively, a single means actuating said valves, a yielding connection between the said actuating means and the air valve, and a positive connection between said actuating means and the gasolene valve, whereby movement of the gasolene valve is followed by movement of the air valve.



2. In a carbureter, the combination with the gasolene duct and the air port, of valves controlling the duct and the port respectively, a butterfly valve to control the flow of fuel to the motor, a positive connection between the butterfly valve and the gasolene valve, and a yielding connection between the butterfly valve and the air valve, whereby movement of the butterfly valve causes corresponding movement of the gasolene valve and is followed by movement of the air valve.

3. In a carbureter, a valve to control the gasolene, an air valve, a mixing chamber, a butterfly valve to control the flow of fuel from the mixing chamber, a positive connection between the butterfly valve and the gasolene valve, and a yielding connection between the butterfly valve and the air valve extending through the mixing chamber and including a stem for the air valve, a collar mounted on the stem, opposed springs seated on the collar and expanding operatively against the valve, and a link connection between the butterfly valve and the collar.

1,240,877. CONTROLLING MECHANISM FOR ELECTRIC MOTORS. CLEVELAND REDFIELD, Ogden, Utah. Filed June 15, 1915. Serial No. 34,168. (Cl. 172—179.)



1. In controlling mechanism for alternating electric machines, the combination of a compensator comprising coils and a variable magnetic circuit, a switch for connecting said coils in circuit with a controlled machine, means for closing said switch and then varying said magnetic circuit, and means for controlling the speed of operation of said last named means.

2. In controlling mechanism for alternating electric machines, the combination of a compensator comprising coils and a variable magnetic circuit, starting and running contacts, means for closing the starting contacts, varying the magnetic circuit and closing the running contacts in the order named and means for retarding the operation of said means last mentioned.

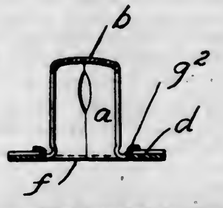
3. In controlling mechanism for alternating electric machines, the combination of a compensator comprising coils and a variable magnetic circuit, a switch to place the coils in circuit with a controlled machine, mechanical means for closing said switch and varying said magnetic circuit and means for controlling the speed of operation of said mechanical means.

4. In controlling mechanism for alternating electric machines, the combination of a compensator comprising coils and a variable magnetic circuit, starting and running contacts, operating means for closing the starting contacts, varying the magnetic circuit and closing the running contacts in the order named, means for retarding the action of said operating means and means for rendering said retarding means inoperative when the mechanism is going to off position.

5. In controlling mechanism for alternating electric machines, the combination of a compensator comprising coils and a variable magnetic circuit, contacts for connecting said coils in line circuit to a controlled machine, operating means for closing said contacts and varying said magnetic circuit, a motor device for said operating means, a controlling circuit therefor and a switch to control said controlling circuit.

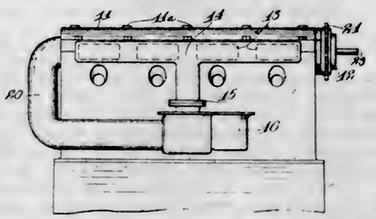
[Claims 6 to 21 not printed in the Gazette.]

1,240,878. SNAP-FASTENER SOCKET. WILLIAM S. RICHARDSON, Canton, Mass., assignor to United States Fastener Company, a Corporation of Maine. Filed May 9, 1917. Serial No. 167,458. (Cl. 24—216.)



A socket member for a snap fastener comprising a tubular body portion closed at one end, and provided with an outwardly extending flange or foot around the other end; said body and foot portions comprising separate abutting sections, and being provided with a number of openings through said foot in proximity to the junction thereof with the tubular body portion; an annular foot plate having at its inner periphery projecting portions which are passed through the said openings in the foot and engage with said foot to secure the said base plate thereto.

1,240,879. VALVE. WILLIAM W. RIDDELL, Chicago, Ill. Filed Jan. 12, 1917. Serial No. 142,071. (Cl. 123—59.)



1. The combination with a water-cooled internal-combustion engine having a port, a charge-forming device,

and a radiator for the cooling system; of a rotary valve for the aforesaid port, said valve having an air passageway the outlet of which is connected to the air-intake of the charge-forming device, and means for delivering water vapor from the aforesaid radiator to the air passageway.

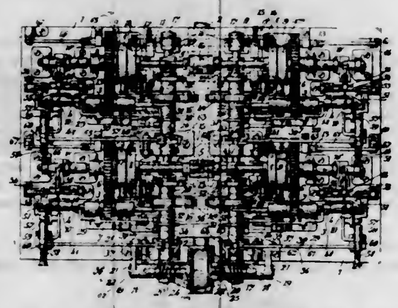
2. The combination with a water-cooled internal-combustion engine having a port, a charge-forming device, and a radiator for the cooling system; of a rotary valve for the aforesaid port, said valve having an air passageway the outlet of which is connected to the air-intake of the charge-forming device, and a water vapor delivering conduit extending into the air passageway and connected to the radiator above the water level therein to obtain a supply of water vapor therefrom.

1,240,880. COMBINED SCALE SHEATH AND CLEANER. GEORGE W. RINK, Washington, Pa. Filed Jan. 11, 1917. Serial No. 141,851. (Cl. 224—2.)



A scale sheath consisting of a flexible body having a metallic binder, the body terminating in loose flaps beyond the ends of the binder, and oiling pads attached to the flaps in positions entirely beyond the ends of the binder, whereby the pads may be moved entirely away from a scale as it is inserted into or withdrawn from the sheath to avoid an excessive application of oil to the scale.

1,240,881. BOBBIN-WINDER. ANTON ROTTER, Rorschach, Switzerland. Filed Feb. 4, 1913. Serial No. 746,215. (Cl. 242—41.)



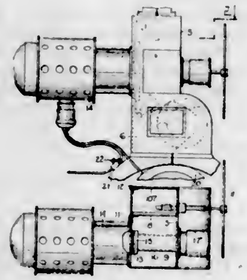
1. In a high speed bobbin winder, coaxial, rotatable but not axially movable bobbin spindles, co-axial counter shafts for positively driving said spindles, a fast and a loose pulley on each shaft, a driving shaft, a fast and a loose pulley on the latter, a driving belt passing over the pulleys on the driving shaft and one of the pulleys of each counter shaft, a feeler for each bobbin, and means under the control of each feeler for automatically moving the belt from one pulley to the other on the counter shaft.

3. In a high speed bobbin winder, a pair of co-axial, rotatable but not axially movable bobbin spindles, a counter shaft for positively driving each spindle, a single belt for driving both shafts, a pair of continuously rotating auxiliary shafts, a sleeve on each auxiliary shaft arranged transversely of the spindle and counter-shafts adapted to be connected thereto, a cam disk on each sleeve, a belt-shifter operable by each cam disk, a feeler for each spindle, and means operated by each feeler for moving a sleeve on an auxiliary shaft into operative connection therewith to operate a belt shifter, and means to release the sleeves from the auxiliary shafts.

11. In a high-speed bobbin winder, a shaft, a fast pulley and a loose pulley thereon, a belt for said pulleys, a stationary bearing, a rotatable and non-slidable bobbin spindle mounted therein, a thread guide, said guide and spindle positively driven from said shaft, a feeler-lever for the bobbin, a continuously rotating auxiliary shaft, a sleeve on said auxiliary shaft arranged to be connected thereto and disconnected therefrom, means controlled by the feeler lever to connect said sleeve and its shaft, a belt shifter, a friction brake on the shifter coöperating with said fast pulley to simultaneously and suddenly stop the same when the belt is shifted therefrom, a cam on said sleeve to actuate the shifter and brake, and means to automatically disconnect the sleeve from its shaft.

[Claims 2 and 4 to 10 not printed in the Gazette.]

1,240,882. MOVING-PICTURE MACHINE. HERMAN EVI ROYS, New York, N. Y., assignor, by mesne assignments, to Cameoscope Corporation, a Corporation of Virginia. Filed Dec. 17, 1914. Serial No. 877,828. Renewed Mar. 14, 1917. Serial No. 154,871. (Cl. 88—17.)



1. In a moving picture machine, a housing for a film-progressing mechanism comprising two relatively movable sections, a projecting lamp associated with one of the sections and adapted to participate in its movement, a film progressing mechanism in the other section, and means for actuating said film-progressing mechanism.

2. In a moving-picture machine, a housing comprising two hinged sections, one of the sections consisting of a side and rear wall, a projecting lamp associated with the rear wall of the said section and adapted to participate in its movement, a film-progressing mechanism in the other section, and means for actuating the film-progressing mechanism.

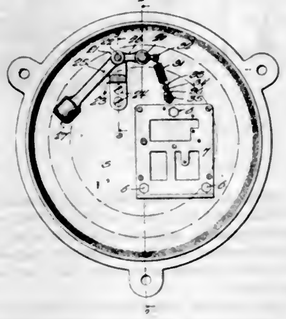
3. In a moving-picture machine, a housing comprising three relatively movable sections, the main sections comprising the front wall, top and bottom and a portion of the rear wall, a partition from the top to the bottom uniting the rear wall to the front wall, the second section comprising a side wall and the remaining part of the rear wall hinged to the main section at the rear-wall portion thereof, the third section comprising a side wall hinged to the main section at the rear thereof, and a projecting lamp associated with the second section and adapted to participate in the movement thereof.

4. In a moving picture machine, a housing comprising two compartments, a film-progressing mechanism in one of the compartments, a transmission mechanism in the other compartment, a motor for actuating said mechanism, said housing having means whereby independent access may be had to said compartments, and a projecting lamp associated with the means giving access to the compartment accommodating the film-progressing mechanism, said projecting lamp being adapted to participate in all the movements of said access-giving means, whereby the light from the projecting lamp is prevented from falling on to the film in the film propelling mechanism when access is had to said compartment accommodating said film-propelling mechanism.

5. In a moving-picture machine, a housing for the film-progressing mechanism comprising two relatively movable sections, and a projecting lamp secured to one of said sections and adapted to participate with all of the movements thereof, said second section including means whereby the transmission part of said film-progressing mechanism may be inspected without the displacement of said section carrying the lamp.

[Claims 6 to 8 not printed in the Gazette.]

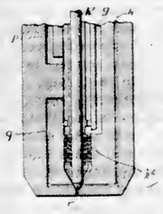
1,240,883. VIBRATION-RECORDER. HANS SATTLER, Sheboygan, Wis. Filed Apr. 13, 1917. Serial No. 161,777. (Cl. 234—36.)



1. In a vibration recorder, the combination with a continuously revolving record receiving dial and its operating mechanism and supporting base therefor, of a forked bearing secured to the base, a pendulum pivotally mounted in said bearing, said pendulum being bent to form an obtuse angle and having one of its arms weighted, a stylus carried by the other arm of the pendulum and bearing on the dial to record the vibrations of the body to which the recorder is attached, and spring means connecting the arm carrying the stylus and the supporting base for the purpose described.

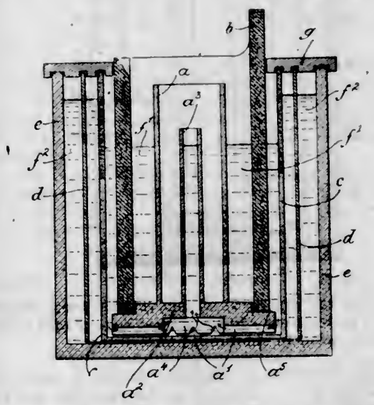
[Claims 2 and 3 not printed in the Gazette.]

1,240,884. INTERNAL-COMBUSTION ENGINE. WALTER SCHENKER, Winterthur, Switzerland, assignor to Busch-Sulzer Bros.-Diesel Engine Company, St. Louis, Mo., a Corporation of Missouri. Filed Nov. 4, 1912. Serial No. 729,452. (Cl. 123—33.)



Fuel injection means for combustion engines employing two fuels, comprising a valve casing having an exit opening to the engine, a single valve plug member coöperative therewith, means in said casing affording a staggered passage for fuel and air, means for supplying working fuel to said passage, and means for supplying ignition fuel to said passage at a plurality of longitudinally spaced points nearer to said exit opening than the point of introduction of working fuel, and means for supplying compressed air individually to the respective points of introduction of the two kinds of fuel.

1,240,885. GALVANIC BATTERY. RICHARD SCHUSTER, Puppling, Germany, assignor, by mesne assignments, to Schuster-Patent-Gesellschaft, Berlin, Germany. Filed Dec. 16, 1915. Serial No. 67,195. (Cl. 204—41.)



1. In combination with a galvanic battery having an anode electrolyte and a cathode electrolyte, means for eliminating the products of decomposition of the said cathode electrolyte, comprising an impervious container, a footplate to said container having a recess and passages laterally extending from said recess, and an ascending pipe in said container in communication with said foot plate recess.

2. In a galvanic battery, in combination, an outer container, a partly impervious porous cell, an anode electrolyte and a zinc member in the space between said outer container and said porous cell; a cathode electrolyte and a carbon member in said porous cell; and means, located within said porous cell, for eliminating the products of decomposition given off by the cathode electrolyte, comprising an impervious stand-pipe, a foot-plate to this latter, said foot plate having a recess and passages laterally extending from said recess, and an overflow pipe within said standpipe in communication with said foot plate recess.

[Claim 3 not printed in the Gazette.]

1,240,886. GALVANIC BATTERY. RICHARD SCHUSTER, Puppling, Bavaria, Germany, assignor to Schuster-Patent-Gesellschaft M. B. H., Berlin, Germany. Filed Mar. 3, 1917. Serial No. 152,351. (Cl. 204—40.)

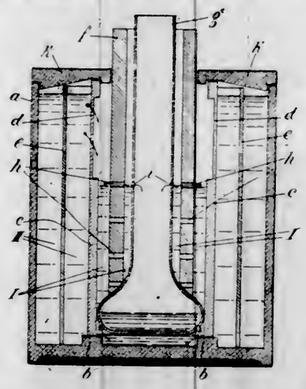
1. In combination with a galvanic battery having an anode electrolyte and a cathode electrolyte, means for eliminating the products of decomposition thereof consisting of a perforated standpipe within the cathode electrolyte.

2. In combination with a galvanic battery having an anode electrolyte and a cathode electrolyte, means for eliminating the products of decomposition thereof, consisting of an impervious standpipe within said cathode electrolyte having overflow perforations at the height of the normal cathode electrolyte level.

3. In a galvanic battery, in combination, an outer container, a porous cell, an anode and an electrolyte in the space between said outer container and said porous cell, a cathode and an electrolyte in said porous cell, and a standpipe having a ring of radially directed perforations arranged within said cathode electrolyte, substantially as and for the purpose set forth.

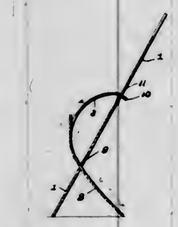
4. In a galvanic battery, in combination, an outer container, a porous cell, an anode and an electrolyte in the space between said outer container and said porous cell.

a cathode and an electrolyte in said porous cell, said cathode having series of radially directed ports, and a standpipe having overflow perforations within said cathode



electrolyte, the uppermost of said cathode ports, the said overflow perforations and the normal level of said cathode electrolyte being in substantial alinement.

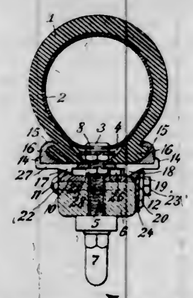
1,240,887. PICTORIAL DEVICE. JOHN G. SCOTT, Jr., Philadelphia, Pa., assignor to International Art Publishing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed May 10, 1917. Serial No. 167,632. (Cl. 46—37.)



1. A device of the character described comprising a front picture bearing element having separated slots, a second picture bearing element having tongues extending through said slots from the front of said front element to the rear thereof, one of said tongues constituting with said front element an easel.

[Claim 2 not printed in the Gazette.]

1,240,888. VEHICLE-WHEEL RIM. EDWIN COUPLAND SHAW, Akron, Ohio, assignor, by mesne assignments, to The B. F. Goodrich Company, a Corporation of New York. Filed May 25, 1907. Serial No. 375,715. (Cl. 152—21.)

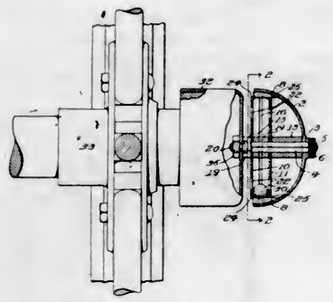


1. In a wheel, in combination, a fixed wheel member, a demountable tire-carrying rim thereon having a transversely-split base, means for limiting the expansion of said base, and wedging means tending to expand said rim, for detachably securing it upon the fixed wheel member.

3. In a wheel, in combination, a fixed wheel member or felly, a demountable tire-carrying rim thereon, and a laterally-flexible wedging ring, together with felly bolts engaging said ring at intervals, for detachably holding said rim upon the fixed wheel member.

[Claims 2 and 4 to 31 not printed in the Gazette.]

1,240,889. ALARM. DANIEL B. SHEPP, Philadelphia, Pa. Filed Apr. 24, 1917. Serial No. 164,091. (Cl. 116—9.)



1. An alarm device comprising a vibratile member, a cage concentric and in fixed operative relation with said member and means in said cage operative to vibrate said member independent of the speed of rotation thereof when said member and said cage are rotated on their common center.

2. An alarm device comprising a vibratile member, a spindle supporting said member, a cage mounted on said spindle and a freely movable body confined within said cage operative to vibrate said member when said spindle is rotated about its longitudinal axis independent of the speed of such rotation.

3. An alarm comprising a vibratile member, a spindle supporting said member, a cage comprising a pair of spaced disks mounted on said spindle and substantially contained within and out of contact with said member, and means comprising a body freely movable within said cage operative to vibrate said member when said member and said cage are rotated.

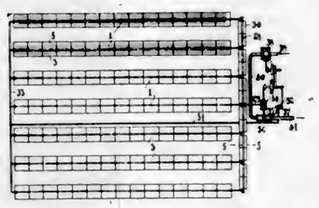
5. An alarm device comprising a vibratile member having an integral inwardly extending lug, a spindle supporting said member, a cage in fixed relation with said spindle comprising a pair of spaced disks and a ball freely movable within said cage adapted to contact with said lug when said spindle is revolved.

7. The combination with a rotatable element, of an alarm comprising a vibratile substantially dome-shaped member, a spindle supporting said member, a cage mounted on said spindle and substantially within said member comprising a pair of opposed spaced perforated disks having oppositely disposed spaced peripheral flanges, a ball freely movable within said cage, a lug integral with said vibratory member projecting into and out of contact with said cage and means to maintain said spindle in fixed operative relation with said element whereby the rotation of said element will cause said ball to impinge against said lug to vibrate said member.

[Claims 4 and 6 not printed in the Gazette.]

1,240,890. SUN-BOILER. FRANK SHUMAN, Philadelphia, Pa., and CHARLES VERNON BOYS, Westminster, London, England. Filed Sept. 30, 1912. Serial No. 723,209. (Cl. 126—271.)

1. In apparatus for utilizing the heat of the sun, the combination of a longitudinally extending and transversely curved reflector, with a heat absorber so disposed in respect to said reflector as to receive the rays of the sun reflected thereby, said absorber presenting parallel longitudinal sides disposed at a short distance apart and expanded at their upper ends to form a longitudinally extending steam chest.



2. In apparatus for utilizing the heat of the sun, the combination of a longitudinally extending and transversely curved reflector, with a heat absorber so disposed in respect to said reflector as to receive the rays of the sun reflected thereby, said absorber presenting a narrow longitudinal column surmounted by an enlarged longitudinally extending bulbous head.

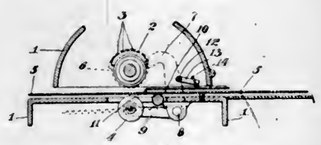
3. In apparatus for utilizing the heat of the sun, the combination of a longitudinally extending and transversely curved reflector with a heat absorber so disposed in respect to said reflector as to receive the rays of the sun reflected thereby, said absorber presenting a narrow longitudinal column extending parallel with the reflector and surmounted by an enlarged longitudinally extending bulbous head.

4. In apparatus for utilizing the heat of the sun, the combination of a curved reflector, and a heat absorber so disposed in respect to said reflector as to receive the rays of the sun reflected thereby, said heat absorber presenting in cross section a narrow column surmounted by an enlarged head and being so disposed in respect to said reflector as to receive the reflected rays on both sides of said narrow column.

5. The combination, in apparatus for utilizing the heat of the sun, of a curved reflector, a heat absorber so disposed in respect to said reflector as to receive the rays of the sun reflected thereby, said reflector consisting of strips of mirror extending longitudinally of the absorber and so disposed as to reflect the rays onto both sides thereof, and a partition extending downwardly from the bottom of the absorber to prevent the passage of air currents from one side of the absorber to the other underneath said absorber.

[Claims 6 to 15 not printed in the Gazette.]

1,240,891. CHECK-PROTECTOR. JAMES E. SIMPSON and CHARLES J. PAULSON, Brooklyn, N. Y., assignors, by mesne assignments, to Todd Protectograph Company, Rochester, N. Y., a Corporation of New York. Filed June 19, 1915. Serial No. 34,976. (Cl. 197—6.)



1. The combination with a printing machine adapted to disrupt the fibers of the paper by its impression, of a device coöperating with the paper placed in the machine and adapted to detect and tear any portion thereof which has been previously disrupted by an impression.

2. The combination with a check printing machine adapted to mark a check with a disrupting impression and to feed it through the machine, of a device adapted to bear upon the check and to detect and engage a portion of the check which has been previously impressed, for preventing a second impression upon the same check, means for rendering said device inoperative to permit the adjustment of the work in the machine, and means for locking said device in operative position during the operation of the machine.

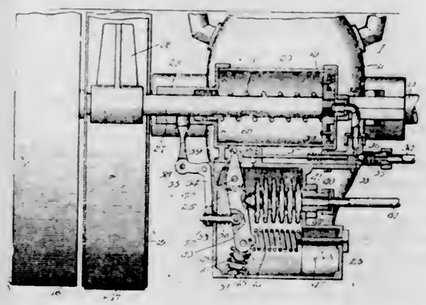
3. The combination with a check printing machine adapted to mark a check with a disrupting impression and to feed it through the machine, of a device comprising an instrument having a point bearing upon the paper and adapted to engage and tear a previously embossed portion of the check to prevent a second impression thereon, and means for adjusting said point to permit the insertion and removal of a check.

4. The combination with a printing apparatus adapted to emboss the portion of the check printed upon, of a device comprising a member adapted to contact with the work to be printed, and to detect and tear any portion thereof which has previously received an embossing impression.

5. The combination with a marking apparatus, including work embossing mechanism, of an embossing detecting device including a disruptive work engaging member.

[Claims 6 and 7 not printed in the Gazette.]

1,240,892. COMPRESSOR. STEPHEN G. SKINNER, Wilmette, Ill. Filed May 17, 1916. Serial No. 97,992. (Cl. 230—24.)

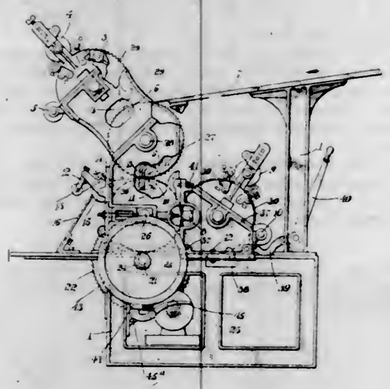


1. In combination with a compressor, driving mechanism therefor comprising tight and loose pulleys and a belt, a tank supplied from the compressor, a belt shifting mechanism comprising a cylinder and piston in the cylinder, means connected with the piston arranged to engage and shift the belt, fluid pressure operated means controlled by tank pressure arranged to admit pressure to said cylinder to operate the piston and belt shifting mechanism when the tank pressure exceeds a certain limit, a locking device arranged positively to hold the piston against movement in the opposite direction when said piston reaches the end of its stroke which carries the belt to the loose pulley, and mechanism controlled by the fluid pressure operated means aforesaid, for releasing the piston from the locking device when the tank pressure falls below a certain predetermined minimum.

2. In combination with a compressor, driving mechanism therefor comprising tight and loose pulleys and a belt, a tank supplied from a compressor, a belt shifting mechanism comprising a cylinder, a piston in the cylinder, means connected with the piston arranged to engage the belt to shift the latter from the tight to the loose pulley and vice versa, spring means tending to hold the piston in a certain position, fluid pressure operated means controlled by the tank pressure arranged to admit pressure to said cylinder to move the piston in opposition to said spring, to shift the belt from the tight to the loose pulley when the tank pressure exceeds a certain predetermined maximum, a locking member arranged positively to hold the piston against movement under the action of said spring means when the piston has reached the end of its movement in opposition to said spring, and mechanism operated by the aforesaid fluid pressure operated

means for releasing the piston from said locking member when the tank pressure falls below a certain predetermined maximum.

1,240,893. NUMBERING-MACHINE. AMOS H. SMITH, New York, N. Y., assignor to American Bank Note Company, a Corporation of New York. Filed Oct. 23, 1914. Serial No. 868,301. (Cl. 101—231.)

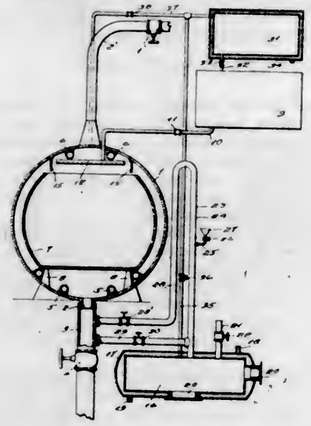


1. A numbering machine embodying therein two successively operative drums each adapted to carrying a printing surface or printing surfaces, two successively operative impression cylinders each coöperating with the printing surface or surfaces upon a drum, means whereby a sheet is transferred from one cylinder to the other and is reversed while being so transferred, means adapted to receive each printed sheet upon its delivery from the second of said cylinders, means whereby both of said impression cylinders are rotated at uniform speed, and cooperating means carried by said cylinders respectively and said drums having slight lost motion therein whereby variances in the diameters of said cylinders and said drums will be compensated for and said drums will be driven from said cylinders.

2. A numbering machine embodying therein two successively operative drums each adapted to carry a printing surface or printing surfaces, two successively operative impression cylinders each coöperating with the printing surface or surfaces upon a drum, means whereby a sheet is transferred from one cylinder to the other and is reversed while being so transferred, means adapted to receive each printed sheet upon its delivery from the second of said cylinders, close meshing gears rotatable with said cylinders, and coöperating loose mesh gears carried by said cylinders respectively and said drums respectively whereby slight lost motion is afforded between the coöperating gears upon each cylinder and each drum to compensate for variances in the diameters of said cylinders and said drums respectively.

3. A numbering machine embodying therein two successively operative drums each adapted to carry a printing surface or printing surfaces, to successively operative impression cylinders each coöperating with the printing surface or surfaces upon a drum, means whereby a sheet is transferred from one cylinder to the other and is reversed while being so transferred, means adapted to receive each printed sheet upon its delivery from the second of said cylinders, close meshing gears rotatable with said cylinders, coöperating loose mesh gears carried by said cylinders respectively and said drums respectively whereby slight lost motion is afforded between the coöperating gears upon each cylinder and each drum to compensate for variances in the diameters of said cylinders and said drums respectively, each of said gears carried by said drums having a segmental slot therein and means carried by said drums respectively and moving in said slot whereby said drums may be adjusted circumferentially in relation to said gears and may be locked in their adjusted position.

1,240,894. APPARATUS FOR TREATING THE OCOTILLO-PLANT FOR EXTRACTING GUM THEREFROM. EDGAR W. SNYDER, Los Angeles, and JEFFERSON DAVIS CRAWFORD, San Francisco, Cal.; said Crawford assignor to said Snyder. Filed Dec. 16, 1916. Serial No. 137,401. (Cl. 18—2.)



1. In apparatus of the character described, the combination with a digester, of a foraminous container arranged therein for receiving and holding the ocotillo plant containing a gum, means to heat the lower portion of the digester, baffle plates connected with the upper portion of the digester in proximity to and inwardly of the side walls of the container, means arranged inwardly of the baffle plates to spray a liquid solvent of the gum into the container, and means for withdrawing the solvent containing the gum in solution therein from the digester.

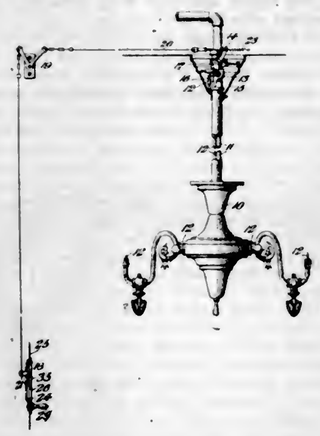
4. In apparatus of the character described, the combination with a digester, of a container arranged therein for receiving and holding the ocotillo plant containing gum and having its top open and its sides and bottom perforated with the bottom and top thereof spaced a substantial distance from the lower and upper portions of the digester, means arranged within the lower portion of the digester and beneath the perforated container for heating the digester, cooling means arranged within the upper portion of the digester near and above and inwardly of the upper open end of the container for acting upon gases passing from the container, substantially vertical baffle plates secured to the upper portion of the digester and depending therefrom near and above the upper open end of the container and arranged within such upper open end to direct condensation back to the interior of the container, and means located beneath the cooling means and near and above the open end of the container for introducing a liquid solvent of the gum into the upper portion of the container.

[Claims 2 and 3 not printed in the Gazette.]

1,240,895. WALL-SWITCH FOR DISTANT CONTROL OF GAS-SUPPLY. ADOLPH SPIELMAN, Philadelphia, Pa. Filed July 6, 1917. Serial No. 178,956. (Cl. 240—123.)

1. An article of the character stated embracing a wall plate having a slotted portion adjacent one end thereof, a lever pivoted adjacent the other end of said plate, the respective ends of said lever abutting against said plate and at least a portion of the intermediate part of the lever being spaced from the plate, an operating handle

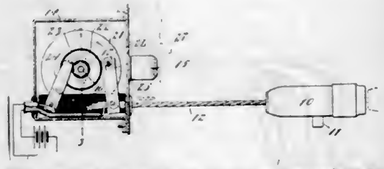
secured to the lever and projected through the slot in said plate, an eccentric having an outwardly extended arm pivoted to said plate so as to lie between the plate and



said lever, and means for connecting the lever to said eccentric.

[Claim 2 not printed in the Gazette.]

1,240,896. SAFETY DEVICE FOR ELECTRICAL CIRCUITS. MAXIMILLIAN H. SPIELMAN, New York, N. Y. Filed Mar. 23, 1916. Serial No. 86,079. (Cl. 200—27.)

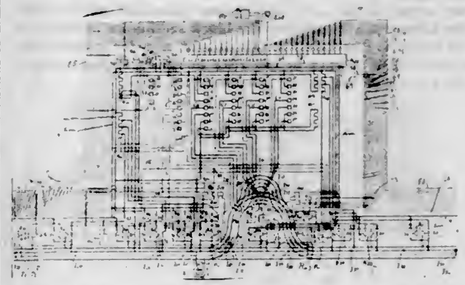


3. The combination with an electrical device and a flexible two-part conductor cable to supply the current thereto, of a reel over which the cable, is adapted to wind, a spring for rewinding the cable on the reel, the reel having two annular conducting surfaces insulated from each other and respectively connected electrically to the parts of the conductor cable, a contact joining one of said conducting surfaces to the source of current, a spring contact arm in the circuit and adapted to join the other conducting surface with the source of current and a back and forth rotating member running on the second conducting surface and rotated by the rotation of the reel, said member coacting with the spring contact arm to make and break the circuit according to the direction of rotation of the reel, said back and forth rotating member being journaled on and carried by the spring contact arm and having an eccentrically located insulation segment set into its surface, for the purpose specified.

[Claims 1 and 2 not printed in the Gazette.]

1,240,897. ELECTRIC-RAILWAY SYSTEM. KENNETH E. STUART, Philadelphia, Pa. Filed Apr. 29, 1912, Serial No. 693,973. Renewed July 17, 1915. Serial No. 40,526. (Cl. 104—210.)

1. In an electric railway system, a track section, a car, a motor thereon, conductors extending along the trackway for energizing said motor, a second track section, means associated with said second track section automatically controlling said motor when said car is upon the first track section, and a controller for independently controlling said motor when said car is upon said first section, and for interrupting said automatic control of said first section by said means.



2. In an electric railway system, a track section, a car, a motor thereon, conductors extending along the trackway for energizing said motor, a second track section, a relay through which said first track section is automatically controlled by said second track section, and a controller for preventing control of said second track section through said relay and for independently controlling said motor when said car is upon said first track section.

3. In an electric railway system, a car, railway trackage on which said car travels, a motor on said car for driving the same, a contact conductor independent of said trackage, extending along the trackway for supplying current to the field of said motor, a second contact conductor independent of said trackage extending along said trackway for supplying current to the armature of said motor, a return contact conductor comprised in said trackage common to the field and armature of said motor, permanent field and armature connections on said car, a source of current, and a controller for varying the connections between said source of current and said contact conductors.

4. In an electric railway system, a car, a motor thereon for driving the same, a contact conductor extending along the trackway for supplying current to the field of said motor, a second contact conductor extending along said trackway for supplying current to the armature of said motor, a return contact conductor common to the field and armature of said motor, a source of current, a resistance, and a controller for connecting the motor armature to said source of current through said resistance and the motor field directly to said source of current.

5. In an electric railway system, a car, a motor thereon for driving the same, a contact conductor extending along the trackway for supplying current to the field of said motor, a second contact conductor extending along said trackway for supplying current to the armature of said motor, a return contact conductor common to said field and armature of said motor, a source of current, and a controller for connecting said source of current to the field of said motor and for isolating said armature from said source of current and closing a connection between said armature contact conductor and said return contact conductor.

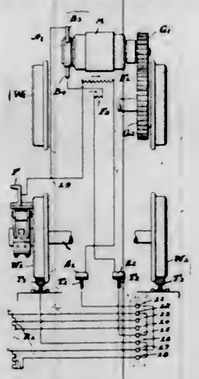
[Claims 6 to 134 not printed in the Gazette.]

1,240,898. ELECTRIC-RAILWAY SYSTEM. KENNETH E. STUART, London, England. Original application filed Apr. 29, 1912, Serial No. 693,973. Divided and this application filed May 1, 1914. Serial No. 835,778. (Cl. 246—36.)

16. In an electric railway system, a car, a motor thereon for driving the same, a source of current, and automatic means controlled by another car for isolating the motor of said first named car from said source of current and for short circuiting said motor, whereby said car is braked.

20. In an electric railway system, a car, a motor thereon, a contact conductor extending along the trackway and divided into block sections, automatic means associated

with each block section for bringing said car to rest and for restarting said car, said means when restarting the car applying to the motor thereof voltage correlated to the speed of the car, and means controlled by said car for automatically putting the block section in the rear in condition for bringing a car to rest and for putting the second block section in the rear in condition for restarting a car and thereafter increasing its speed.



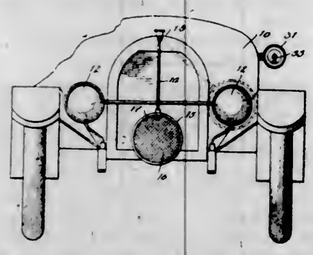
34. In an electric railway system, a car, a motor thereon for driving the same, a curve in the trackway, and automatic means for retarding a car as it approaches said curve comprising a resistance of constant value and means for short circuiting the motor armature through said resistance.

52. In an electric railway system, the combination with cars, of motors thereon for driving the same, a contact conductor extending along the path of travel of said cars, means for dividing said contact conductor into block sections, a source of current, and automatic means controlled by a car traversing another block system for causing the car to traverse the block at full speed or for braking the car or for restarting the car, said means when restarting the car applying to the motor thereof voltage correlated to the speed of the car.

58. In an electric railway system, a car, a motor thereon, a contact conductor extending along the path of travel of said car and divided into block sections, and automatic means controlled by a car on another block section associated with each block section for retarding said car by steps and for re-starting said car.

[Claims 1 to 15, 17 to 19, 21 to 33, 35 to 51, 53 to 57, and 59 to 76 not printed in the Gazette.]

1,240,899. AUTOMOBILE SIGNAL DEVICE. PETER O. SWEDBERG, Marshalltown, Iowa, assignor of one-half to S. H. Reilly, Marshalltown, Iowa. Filed Nov. 6, 1916. Serial No. 129,866. (Cl. 240—23.)



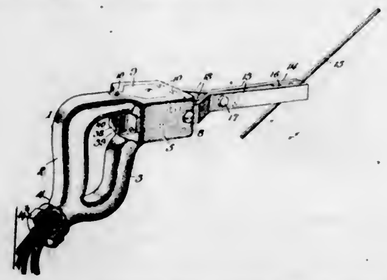
1. In an automobile signal device, the combination of laterally spaced lights each having a casing, a transparent signal swingingly mounted intermediate the lights and adapted to be swung into a position in front of either of the lights, a stop device connected with the signal for limiting its movement in one direction, and actuating means located in a convenient position for the driver for swinging the signal, said stop device embodying a projection connected with the said swinging signal and adapted to contact with the frame of either of the lights.

3. In an automobile signal device, the combination of laterally spaced lights, a transparent signal swingingly mounted intermediate the lights and adapted to be swung into a position in front of either of the lights, actuating means located in a convenient position for the driver for swinging the signal, said actuating means embodying a foot treadle, a pully connected with the signal, and a flexible element passing over the pulley to rotate the same to actuate the signal, said flexible element having connections with the treadle, and a locking device for locking the signal in its adjusted position.

4. In an automobile signal device, the combination of laterally spaced lights each having a casing, a transparent signal swingingly mounted intermediate the lights and adapted to be swung into position in front of either of the lights, a stop device connected with the signal for limiting its movement in one direction, said stop device embodying a projection connected with the signal and adapted to contact with the casing of either of the lights, actuating means located in a convenient position for the driver for swinging the signal, and means for retaining the signal in its adjusted position, the last recited means embodying a catch, and means for controlling the catch.

[Claim 2 not printed in the Gazette.]

1,240,900. ELECTRIC WELDING-TOOL. WILSON E. SYMONS, New York, N. Y. Filed Feb. 21, 1917. Serial No. 150,095. (Cl. 219—17.)



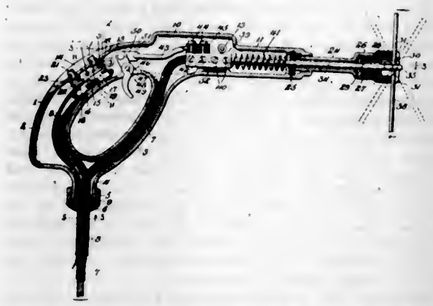
1. An electric welding tool provided with a handle portion and an electrode holder mounted on the handle for movement into different angular relations thereto and provided with means whereby the electrode holder may be maintained in different adjusted positions against disturbing forces incident to the use of the tool.

13. An electric welding tool comprising a handle member, and an electrode holder carried thereby, the handle member being hollow with two branches in spaced relation and united at the ends, the space between the branches adapting the handle member to form a pistol grip, and said branches forming separate conduits for electric conductors, one of the ends of the branches having a single outlet opening for the electric conductors, while the other end serves as a support for the electrode holder, and an electric switch carried by the handle member and located within the same and having the manipulating portion protected by the handle member from accidental contact.

17. In an electric welding tool having a hollow handle and an electrode holder carried thereby, a circuit controlling switch having a rockable switch arm and a series of contacts with conductor receiving parts all housed within the handle and insulated therefrom and protected by the handle from access, and a manipulating member for the switch arm extending to the outside of the handle and located in position to be moved by the hand of the operator grasping the handle, the switch having means for constraining the switch arm to a central position and for there temporarily holding it and yieldable to purposely applied forces tending to move the switch arm to other active positions.

[Claims 2 to 12 and 14 to 16 not printed in the Gazette.]

1,240,901. ELECTRIC WELDING-TOOL. WILSON E. SYMONS, New York, N. Y. Filed May 22, 1917. Serial No. 170,221. (Cl. 219—17.)



1. An electric welding tool provided with a handle portion, an electrode holder provided with seats for an electrode in different angular relations to each other, and clamping means for the electrode having a normal tendency to clamp the electrode to any chosen ones of the seats.

3. An electric welding tool provided with a handle portion, an electrode holder on the handle portion having a series of electrode seats arranged circumferentially of the longitudinal axis of the tool, and clamping means for holding the electrode in any chosen ones of the seats, said clamping means being provided with means for imparting to it a normal tendency toward the electrode clamping position.

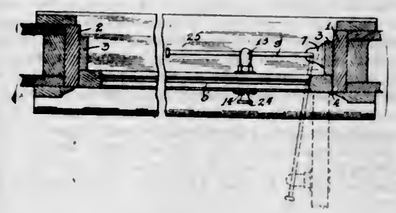
14. An electric welding tool comprising a hollow handle portion of pistol grip and guard conformation with the grip and guard united at one end and there provided with an entrance for electric conductors, and means for clamping the electric conductors against accidental displacement and also joined at the other end, a barrel constituting a continuation of the handle portion, a removable face plate for exposing the interior of the body of the tool, an electric switch housed within the handle portion and having manipulating members sunken into the handle portion within the contour line thereof, an electrode holder projecting from the barrel portion and provided with seats for the electrode in different angular positions circumferentially of the electrode holder about the longitudinal axis of the tool, and clamping means for the electrode having a normal tendency toward the clamping position and provided with manipulating means in the handle portion projecting into the space between the pistol grip and guard, said pistol grip and guard also forming conduits for the electric conductors entering the tool.

[Claims 2 and 4 to 13 not printed in the Gazette.]

1,240,902. LOCK-ADJUSTER FOR WINDOWS. BAYARD E. TAYLOR, Oak Park, Ill. Filed Jan. 30, 1915. Serial No. 5,190. (Cl. 16—22.)

1. In a device of the class described, the combination with a window frame and sash hinged therein, of means pivoted on the window frame, interfitting members mounted on said sash, and mechanisms adjustably mounted between said members for engaging said means to hold said sash in an adjusted position.

2. In a device of the class described, the combination with a window frame and sash hinged therein, of locking mechanism therefor comprising a bracket secured upon the window frame, a rod pivoted therein, clamping members on the sash having threaded engagement with one another adjustable for different thicknesses of sash, and means within said members engaged on said rod acting when released to permit said rod to slide and rotate through the locking mechanism to allow the sash to be adjusted.



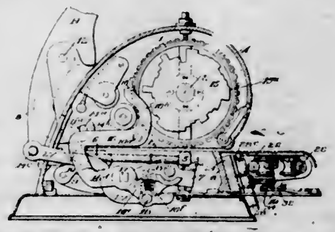
3. In a device of the class described, the combination with a window frame and sash, of a rod pivotally mounted on one thereof, interfitting adjustable clamping mechanisms secured on the other thereof through which said rod is adapted to slide, a ball member in one of said mechanisms engaging said rod, and movable means in the other of said mechanisms adapted to tighten the grip of said ball member on said rod to lock said sash from movement.

4. The combination with a window frame and sash, of an exterior bracket having a key shaped aperture therein mounted on said frame, a rod, means thereon adapted to be inserted through said aperture for pivotal association with said bracket, a clamp mounted in and extending through the sash and engaging said rod on the exterior of the sash, a split ball member within said clamp engaging around said rod, and mechanisms adapted to be operated from the interior of the sash to operate said clamp to clamp said split ball member around said rod and lock said sash in any position of adjustment.

5. In a device of the class described, the combination with a rod pivotally mounted on the exterior of a window frame, of clamping means secured on and through the sash and engaging said rod, said clamping means comprising sections engaging said rod, a tubular member threaded into said clamping means contacting said sections, and mechanism slidably engaged therein and operatable from the interior of the window adapted to clamp said sections on said rod to hold said sash in any position of adjustment.

[Claims 6 to 8 not printed in the Gazette.]

1,240,903. CHECK-WRITING MACHINE. LIBANUS M. TODD and CHARLES G. TIEFEL, Rochester, N. Y., assignors, by mesne assignments, to Todd Protectograph Company, Rochester, N. Y., a Corporation of New York. Filed Nov. 11, 1912. Serial No. 730,563. (Cl. 197—6.4.)



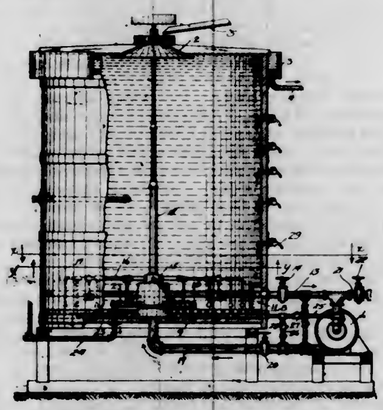
2. In a printing machine, the combination with a wheel having a plurality of rows of printing characters thereon, a platen coöperating therewith and means for operating it, of a carriage, feeding devices for moving it comprising an operating member arranged to be moved in one direction upon movement of the platen into printing position, a yielding link connection between said member and the

platen operating means, and a spring for returning said operating means to its normal position, and actuating the carriage.

11. In a printing apparatus, the combination with a revoluble wheel provided with printing characters, a platen arranged beneath it and a member for operating the platen into engagement with the wheel, of a carriage movable in a direction parallel to the axis of the wheel comprising a plate arranged beneath and in front of the wheel, having at one end a rearwardly extending portion projecting beyond the end of the wheel and a work piece clamp movable transversely of the carriage, a rack bar on the carriage, a pawl coöperating therewith and connected to the platen operating member, a bar for disengaging the pawl and coöperating projections on the bar and work clamp for moving the bar into releasing position when the work clamp is in its normal position.

[Claims 1, 3 to 10, and 12 to 18 not printed in the Gazette.]

1,240,904. LEACHING APPARATUS. LAMARTINE C. TRENT, Los Angeles, Cal. Filed Aug. 24, 1914. Serial No. 858,411. (Cl. 23—31.)



1. A leaching apparatus comprising a receiving vessel, an agitator therein for gradually thickening and settling material under treatment, a filter bed situated adjacent the bottom of the receiving vessel to provide a vacuum chamber, a suction pump located outside of the receiving vessel, a suction pipe connected with said pump for the withdrawal of thickened material from within the vessel, connection between said pump and the vessel for the return therein of the withdrawn material, a suction pipe connection between the pump and the vacuum chamber below the filter bed, means for admitting to the pump a barren liquid, and a discharge outlet in the vessel for the withdrawal of the tailing therefrom.

2. A leaching apparatus comprising a receiving vessel for the material to be treated, an agitator within the vessel for the gradual thickening of the material fed therein, means for withdrawing material from the vessel and returning the same thereto under pressure, a filter bed situated adjacent the bottom of the vessel to provide a vacuum chamber, means for removing from the said chamber liquid drawn therein through the filter bed, and a discharge outlet in the receiving vessel for the withdrawal therefrom of the settled tailings.

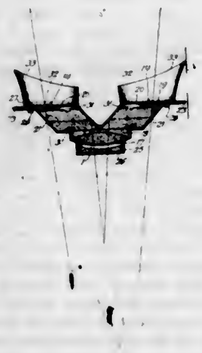
6. In a leaching apparatus, the combination with a receiving vessel provided adjacent its bottom with a vacuum chamber, of a filter bed cover for said chamber, suction means for drawing liquid into the vacuum chamber through the filter bed and removing the same therefrom, connections between said suction means for the withdrawal of material from the vessel and returning the same thereto for maintaining the material therein under circulation, and a discharge device for removing the settled tailings from the receiving vessel.

7. In a leaching apparatus, the combination with a receiving vessel, of means for delivering therein material to be treated, an overflow launder adjacent the upper edge of the vessel for the clear pregnant liquid, a filter bed situated adjacent the bottom of the vessel to provide a vacuum chamber, suction means connected with said chamber, a rotary agitator within the receiving vessel, and connections between the suction means and the vessel for withdrawing material therefrom and returning the same thereto under pressure through the rotary agitator.

12. A leaching apparatus comprising a receiving vessel, a filter bed located within the vessel near the bottom thereof providing a chamber between the same and the bottom of the receiving vessel, a discharge outlet in the vessel for the withdrawal of the tailings therefrom, a pump located outside of the receiving vessel, connections with the pump and the vessel for withdrawing material therefrom and returning the same thereto, means for admitting to the pump a barren liquid, a connection between said pump and the chamber below the filter bed, and valves controlling said connections and said last mentioned means whereby liquid may be withdrawn from the chamber below the filter bed through said last mentioned connection by the pump, or barren liquid may be forced into said chamber and upwardly therefrom through the filter bed, substantially as described.

[Claims 3 to 5, 8 to 11, 13, and 14 not printed in the Gazette.]

1,240,905. BINOCULAR-MAGNIFIER. CHARLES J. TROPPMAN, Chicago, Ill., assignor to F. A. Hardy & Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 9, 1917. Serial No. 160,698. (Cl. 88—39.)



1. A lens system comprising obliquely disposed prisms the anterior and posterior ends whereof lie in the same planes, a plano-convex spherical element having its plano side common to the anterior ends of said prisms, and separate plano convex spherical elements with their plano sides disposed adjacent the respective posterior ends of said prisms.

2. A lens system comprising opposite positive spherical elements approximating surfaces of the same radii having interposed therebetween reflecting elements whereby the light entering one of said spherical elements is reflected and caused to emerge from the other of said spherical elements and the path of the light shall approximate twice the radius of curvature.

3. A lens system comprising a positive spherical objective element, a pair of diverging prisms each having opposite oblique reflecting surfaces adapted to receive light entering through said spherical element and independent positive spherical elements arranged for the passage of light emergent from said respective prisms said last-mentioned positive elements being decentered whereby light emergent from said system will have the desired divergence.

[Claims 4 and 5 not printed in the Gazette.]

1,240,906. FRICTION-LOCKED GREASE-CUP. EMIL TYDEN, Evanston, Ill. Filed Apr. 20, 1916. Serial No. 92,354. (Cl. 184—48.)



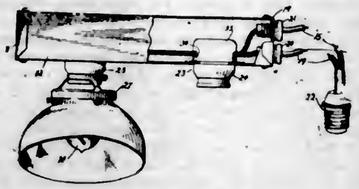
1. In a grease cup comprising a cap and base screw-threaded for mutual engagement, one of said parts having an aperture in its threaded wall, a friction member in said aperture positioned for yielding frictional engagement with the threads of the other part, and a supplemental wall for the apertured part extending adjacent the aperture but spaced away therefrom to provide housing room for the spring member.

4. In a grease cup comprising a cap and base screw-threaded for mutual engagement, said base having an aperture near the upper edge of its threaded wall, a spring member in said aperture positioned for yielding frictional engagement with the threads of the cap, and a lining wall in the base extending over the aperture but spaced away therefrom to provide housing room for the spring member.

10. In a grease cup comprising a cap and a base, screw-threaded for mutual engagement, the base having a chamber for lubricant and a discharge duct leading therefrom, said base having an aperture in its threaded wall; a device in said base positioned to protrude through the aperture for engagement with the threads of the cap, and means within the chamber of the base for partitioning the aperture away from the remaining portion of the chamber to prevent leakage of lubricant out through said aperture.

[Claims 2, 3, and 5 to 9 not printed in the Gazette.]

1,240,907. ELECTRIC WIRING SYSTEM. FREDERICK A. WATKINS, Chicago, Ill. Filed Nov. 5, 1915. Serial No. 59,850. (Cl. 173—339.)



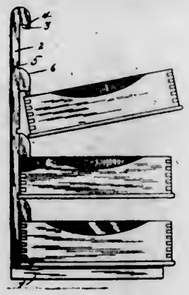
1. An apparatus for supporting and supplying current to a plurality of electric lamps comprising, in combination, an integrally walled flat sided metal tube, having a separate opening in one of its flat sides for each lamp to be supported and otherwise imperforate, a porcelain fitting secured in each of said openings, each fitting being constructed to provide a lamp socket opening upon the outside of the tube and wires extending through the tube for attachment to each of said fittings.

2. An apparatus for supporting and supplying current to a plurality of electric lamps comprising, in combination, an integrally walled metal tube having a separate lateral opening for each lamp to be supported and otherwise imperforate, a porcelain fitting secured in each of said openings, each fitting being constructed to provide a lamp socket opening upon the outside of the tube, and wires extending through the tube for attachment to each of said fittings.

3. An apparatus for supporting and supplying current to a plurality of electric lamps comprising, in combination, an integrally walled metal tube having a single lateral opening for each lamp to be supported and otherwise imperforate, a two part porcelain fitting having its parts applied to the inside and the outside of the tube at each of the said openings, the part of each fitting which is applied to the outside of the tube being constructed to provide a lamp socket, clamping means uniting the two parts of each fitting, and wires extending through the tube for attachment to each fitting.

4. An apparatus for supporting and supplying current to a plurality of electric lamps, comprising, in combination, an electric conductor, a plurality of two part porcelain fittings, one of the parts of each fitting being attached to the said conductor and the said fitting parts which are attached to the conductor being located at intervals along the same, a tube inclosing the conductor and the last mentioned fitting parts, the wall of the tube being formed with lateral openings which register with the inclosed fitting parts but each of which is of insufficient size to permit the corresponding fitting part to pass through the same and the tube being otherwise constructed to permit the introduction of the said conductor and the fitting parts which are attached thereto only through the end of the tube, the other part of each fitting being applied to the outside of the tube at one of its said lateral openings and being constructed to provide an outwardly facing lamp socket, and clamping means uniting the two parts of each fitting.

1,240,908. TRAY-HOLDER. HARRY C. WEIS and HERBERT AUSTIN CONSOR, Monroe, Mich., assignors to The Weis Manufacturing Company, Monroe, Mich., a Corporation. Filed Feb. 16, 1917. Serial No. 148,933. (Cl. 45—4.)



1. In a tray holder, an upright bar having across its front face a series of transverse overhanging lips adapted respectively for engagement with the upper edge of a tray and having a corresponding series of transverse grooves adapted respectively for the reception of the projecting bottom ledge of a tray.

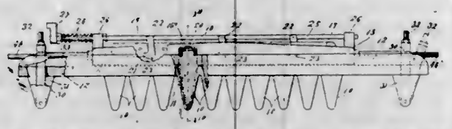
2. In a device of the described character, a base, an upright member carried by the base, said member having a series of transverse grooves arranged at equi-distant intervals one above another, said grooves being adapted respectively for the reception of and engagement with the upright portions of a tray.

3. A tray holder comprising a base, an upright member secured to said base at one side thereof, said member having in its forward side a plurality of transverse recesses adapted respectively for the reception of the side of a tray, said recesses having respectively transverse grooves for the reception of the top edge of a tray and for the projecting bottom ledge of a tray.

1,240,909. MACHINE FOR MAKING ICE-CREAM CONES. KARL WESSEL, St. Paul, Minn. Filed June 26, 1911. Serial No. 635,257. (Cl. 107—58.)

1. A mold bar provided with a mold terminating in a sharp serrated edge projecting beyond the face of said bar, as and for the purposes set forth.

2. The combination with a mold bar, of mold sections movably seated therein, and provided with caps having flaring transverse pin seats with their contracted ends eccentric to the axis of said mold sections, a tie bar having pins working in the pin seats of the said heads, substantially as and for the purposes set forth.



3. The combination with a mold bar, of mold sections movably seated therein, and provided with caps having flaring transverse pin seats with their contracted ends eccentric to the axis of said mold sections, a tie bar having pins working in the pin seats of the said heads, and means for imparting complex endwise and receding movement to said tie bar, whereby said mold sections will be caused to recede in said tie bars with a spiral movement.

4. In a machine of the kind described, a mold bar, a plurality of mold sections associated therewith, and means to impart spiral receding movements to said mold sections, said means comprising an element shiftable longitudinally of said mold bar, connections between said element and said mold sections whereby a combined longitudinal and lifting movement of the element produces a combined rotary and lifting movement of each of said mold sections, and means to shift said element longitudinally and simultaneously lift the same.

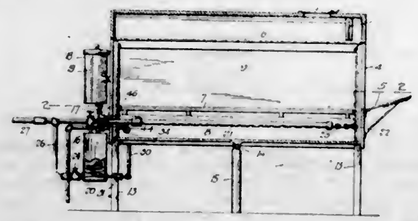
1,240,910. AUTOGRAPHIC CAMERA. ROY WILMOT, Larimore, N. D. Filed Apr. 6, 1916. Serial No. 89,386. (Cl. 95—1.1.)



In an autographic camera having an autographic opening, the combination of a hingedly mounted closure for said opening, spring means for urging the closure to open position, a frame movable within the camera behind the opening, resilient means for normally retaining the same out of engagement with the film backing paper, means on the frame whereby it may be pressed against the paper, and coacting means on the frame and closure operating to retain the closure in closed position, said coacting means being separable when the frame is moved to permit the closure to open.

1,240,911. BATH-CABINET. LEO WILOTH and ALBERT L. GREER, Denver, Colo.; said Wiloth assignor to said Greer. Filed May 22, 1916. Serial No. 99,114. (Cl. 4—13.)

1. A bath-cabinet comprising a chamber, primary and secondary heating coils therein, a source of liquid-fluid supply, a waste pipe, a connection between adjacent ends of said coils, a connection between the source and the other end of the primary coil, a connection between the other end of the secondary coil and the waste-pipe, a connection between the primary coil and the waste pipe, and adjustable valves in said connections whereby fluid admitted to the primary coil may be compelled to flow through either the primary coil or through both the coils, into the waste pipe.



2. A bath-cabinet comprising a chamber, primary and secondary heating-coils and a vapor-escape pipe therein, a supply pipe, a waste pipe, a connection between adjacent ends of said coils, a connection between the other end of the primary coil and the supply-pipe, a connection between the other end of the secondary coil and the waste-pipe, a connection between the primary coil and the waste-pipe, a connection between the primary coil and the vapor-escape pipe, and adjustable valves in said connections, whereby the fluid admitted to the primary coil may be compelled to flow through the primary coil into the vapor-escape pipe, through the primary coil into the waste-pipe or through both coils and into the waste pipe.

3. A bath-cabinet comprising a chamber, a heating coil and a vapor-escape pipe therein, a source of heating-fluid supply, a vaporizing element including a container and a heater for vaporizing the contents thereof, connections between said heater, said source and said coil, and a connection between said element and the vapor-escape pipe whereby a heating fluid may pass from the source to the vapor-escape pipe either through the heater and the coil, or through the coil exclusive of the heater.

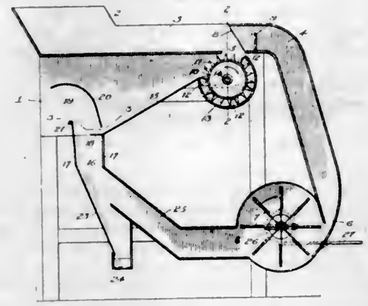
4. A bath-cabinet comprising a chamber, a heating coil and a vapor-escape pipe therein, a source of heating-fluid supply, a plurality of vaporizing elements each including a container and a heater for vaporizing the contents thereof, connections between the heaters of said elements and the source, connections between the containers and the vapor-escape pipe, connections between said heaters and the coil, and valves in connections, whereby the heater and container of any one of said elements may be placed in communication with the source, the coil and the escape pipe, exclusive of the other elements.

5. A bath-cabinet comprising a chamber, a heating coil and a vapor-escape pipe therein, a source of heating-fluid supply, a plurality of vaporizing elements each including a container and a heater for vaporizing the contents thereof, a manifold connected with said source, a manifold connected with said coil, connections between said manifolds and the heaters of the elements, a manifold in connection with the vapor-escape pipe, connections between the last-mentioned manifold and the containers of the elements, and valves in said connections, whereby the heater and container of any one of said elements may be placed in communication with the source, the coil and the escape pipe, exclusive of the other elements.

[Claims 6 to 15 not printed in the Gazette.]

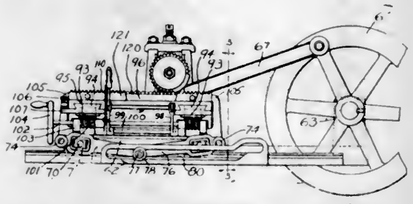
1,240,912. MACHINE FOR HULLING PEAS, BEANS, AND THE LIKE. LAURENCE C. YOUNG, Montgomery, Ala., assignor of one-half to Merrill E. Pratt, Prattville, Ala. Filed June 6, 1916. Serial No. 101,971. (Cl. 130—30.)

1. In a machine such as described, the combination with an air blast separator and a fan inclosed by a casing and adapted to create a blast of air for said separator, a hulling mechanism, a hopper and delivery passage for delivering pods to said hulling mechanism, a substantially vertical suction conduit having one end covered with mesh netting and adjacent said delivery passage and the other end connected to the exhaust end of said fan casing for creating suction in the delivery passage whereby pods are drawn along said delivery passage to said hulling mechanism, and means for delivering the mixture of peas and hulls to the air blast separator.



2. In a machine such as described, the combination with an air blast separator and a fan inclosed by a casing and adapted to create a blast of air for said separator, a hulling mechanism, a hopper and delivery passage for delivering pods to said hulling mechanism, a substantially vertical suction conduit having one end adjacent said delivery passage, mesh netting covering said end of the suction conduit, a retarding plate positioned in said suction conduit adjacent said netting, and the other end of said conduit being connected to the exhaust end of said fan casing for creating suction in the delivery passage whereby pods are drawn along said passage to the hulling mechanism, and means for delivering the mixture of peas and hulls to the air blast separator.

1,240,913. GEAR-FORMING MACHINE. HAROLD N. ANDERSON, Dayton, Ohio, assignor to The Anderson Rolled Gear Company, Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 8, 1911. Serial No. 643,010. (Cl. 80—16.)

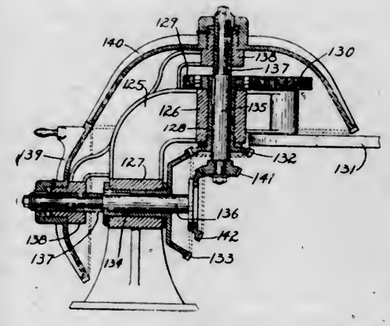


2. In a gear forming machine, in combination: means for supporting a rotating gear blank; a toothed member adapted to form teeth on the blank, and means for pressing the blank and toothed member together for the purpose of forming said teeth; and means for separating the blank and the toothed member at intervals during the tooth-forming process and changing the relative lineal position of their pitch-lines, whereby, when they are again pressed together, the several teeth on the blank will be acted upon by different teeth on the toothed member.

29. In a gear forming machine, in combination: a rotatable support for a gear blank, means for fixing a blank thereto, and a gear rigidly secured to said support; a rectilineally movable carriage and a rack bar secured thereto parallel with its line of movement, and enmeshed with said gear; means for imparting reciprocating motion to the carriage, said motion being of sufficient extent to cause the rack bar to move quite out of the gear; means for temporarily adding one or more teeth to the rack bar while it is disengaged from the gear, whereby as the carriage returns, the gear is rotated, so that when its fixed teeth reëngage the gear they will engage other teeth than those last engaged; a tooth-forming rack bar carried by the carriage, parallel with the aforesaid rack bar and opposite the blank; means for moving the tooth-forming rack bar with reference to the carriage and forcing it against the blank to form teeth thereon, and independent means for withdrawing the tooth-forming rack bar from the blank while the other rack bar is out of the gear, thereby permitting the rotation of the gear by the added teeth as aforesaid.

[Claims 1, 3 to 28, and 30 to 50 not printed in the Gazette.]

1,240,914. GEAR-ROLLING MACHINE. HAROLD N. ANDERSON, Cleveland, Ohio, assignor to The Anderson Rolled Gear Company, Cleveland, Ohio, a Corporation of Ohio. Filed Nov. 11, 1913. Serial No. 800,251. (Cl. 80—16.)



9. In a gear rolling machine, means for supporting a blank, a die-roll, means for moving the die-roll longitudinally for the purpose of pressing it against the blank, and means for imparting relative movement between the die-roll and blank whereby they are rolled against each other.

15. In a bevel-gear rolling machine, means for supporting a blank, a die-roll mounted with its pitch-cone radius parallel to what will be the pitch-cone radius of the finished blank, means for rotating the die-roll and blank, means for contemporaneously producing relative movement between the die-roll and blank whereby the teeth of the former are pressed into the latter, and means for causing said approach to be perpendicular to said pitch-cone radii.

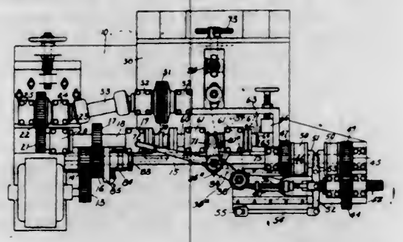
[Claims 1 to 8, 10 to 14, and 16 to 18 not printed in the Gazette.]

1,240,915. GEAR-ROLLING MACHINE. HAROLD N. ANDERSON, Cleveland, Ohio, assignor to The Anderson Rolled Gear Company, Cleveland, Ohio, a Corporation of Ohio. Filed July 16, 1914. Serial No. 851,275. (Cl. 80—16.)

1. In a gear rolling machine, the combination of a rotatably mounted shaft carrying a blank-holder, a gear rigidly secured to the shaft, a second gear rotatably mounted with its axis parallel to the first and their teeth enmeshed, a die-roll rotatably mounted with its axis parallel to the shaft and capable of moving toward the shaft without disturbing the parallelism, and a flexible connection between the die-roll and second gear whereby the die-roll is caused to rotate at substantially the same velocity as said second gear.

2. In a gear rolling machine, the combination of a rotatably mounted shaft carrying a blank-holder, a gear rigidly secured to the shaft, a second gear rotatably mounted with its axis parallel to the first and their teeth enmeshed, a die-roll rotatably mounted with its axis parallel

to the shaft and capable of moving toward the shaft without disturbing the parallelism, a flexible connection between the die-roll and second gear whereby the die-roll is made to rotate at substantially the same velocity as said second gear, and means for moving the rotating die-roll toward a blank mounted in the blank-holder to form teeth on the blank.



3. In a gear rolling machine, the combination of a rotatably mounted shaft carrying a blank-holder, a gear rigidly secured to the shaft, a second gear rotatably mounted with its axis parallel to the first and their teeth enmeshed, a die-roll rotatably mounted with its axis parallel to the shaft and capable of moving toward the shaft without disturbing the parallelism, a flexible connection between the die-roll and second gear whereby the die-roll is made to rotate at substantially the same velocity as said second gear, and a toggle whereby to move the rotating die-roll and press it against a blank held in the blank-holder until teeth are formed on the blank.

4. In a gear rolling machine, the combination of a rotatably mounted shaft carrying a blank-holder, a gear rigidly secured to the shaft, a second gear rotatably mounted with its axis parallel to the first and their teeth enmeshed, a die-roll rotatably mounted with its axis parallel to the shaft and capable of moving toward the shaft without disturbing the parallelism, a universal joint connecting the die-roll and second gear whereby the die-roll is made to rotate at substantially the same velocity as the second gear, and a toggle whereby to move the rotating die-roll and press it against a blank held in the blank-holder until teeth are formed on the blank.

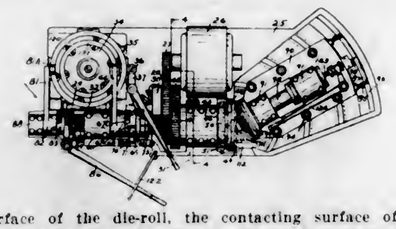
5. In a gear rolling machine, the combination of a rotatably mounted shaft carrying a blank-holder, a gear rigidly secured to the shaft, a second gear rotatably mounted with its axis parallel to the first and their teeth enmeshed, a die-roll rotatably mounted with its axis parallel to the shaft and capable of moving toward the shaft without disturbing the parallelism, means for moving the die-roll and pressing it against a blank carried by the holder, means connecting the die-roll and second gear whereby the moving die-roll is made to rotate at substantially the same velocity as the second gear, and means actuated by said die-roll moving means for clamping the blank in the holder, said means acting while the die-roll approaches but before it touches the blank.

[Claims 6 to 56 not printed in the Gazette.]

1,240,916. GEAR-ROLLING MACHINE. HAROLD N. ANDERSON, Cleveland, Ohio, assignor to The Anderson Rolled Gear Company, Cleveland, Ohio, a Corporation of Ohio. Filed July 26, 1915. Serial No. 41,857. (Cl. 80—16.)

1. In a machine for rolling gears, a toothed die-roll whose pitch diameter and outside diameter are equal, means for mounting a blank with a portion of its working face contiguous to the working face of the blank, means for imparting relative motion between the die-roll and blank whereby other portions of their working faces are brought successively into similar contiguity, and means for moving the die roll longitudinally and causing its teeth to sink into and form teeth on the blank.

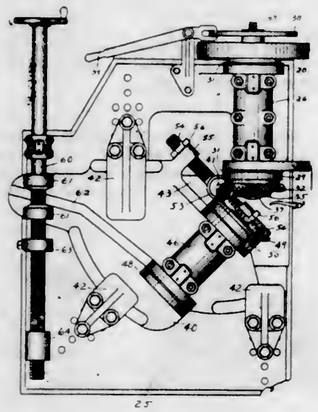
42. In a machine for rolling bevel gears, a blank holder, a die-roll, a member adapted to press a blank into the holder for the purpose of holding it firmly therein while teeth are being rolled on it, said member having a surface of the same form as the pitch-surface of the die-roll, a circular block interposed between said member and the blank, and means for forcing said member against the circular block and pressing said block toward the blank until the surface of said member coincides with the pitch-



surface of the die-roll, the contacting surface of the block having the same form as the pitch-surface of the blank thus adapting the block and member to roll together substantially as the pitch-surfaces of the die-roll and blank roll together.

[Claims 2 to 41 and 43 to 99 not printed in the Gazette.]

1,240,917. GEAR-ROLLING MACHINE. HAROLD N. ANDERSON, Cleveland, Ohio, assignor to The Anderson Rolled Gear Company, Cleveland, Ohio, a Corporation of Ohio. Original application filed Nov. 11, 1913, Serial No. 800,251. Divided and this application filed Oct. 15, 1915, Serial No. 55,976. Renewed Aug. 17, 1917. Serial No. 186,820. (Cl. 80—16.)



1. In a machine for rolling gears, the combination of a pair of timing gears mounted to rotate with their teeth enmeshed, one of them being a crown gear, a die roll having a working face similar to that of a crown gear, mounted to rotate upon the same axis and in unison with said crown gear, means for mounting a blank so it rotates upon the same axis and in unison with the other timing gear, and means for producing movement of approach between the die roll and blank; said means enabling the movement of approach to continue after the die roll and blank have come into contact and until the die roll has formed teeth on the blank.

2. In a machine for rolling gears, the combination of a pair of timing gears mounted to rotate with their teeth enmeshed, one of them being a crown gear, a die roll having a working face similar to that of the crown gear, mounted to rotate upon the same axis and in unison with said crown gear, means for mounting a blank so it rotates upon the same axis and in unison with the other timing gear, and means for producing movement of approach between the die roll and the blank, said means enabling the movement of approach to continue after the die roll and blank come into contact and until the die roll has formed teeth on the blank, and means for keeping the depth of enmeshment of the timing gears' teeth uniform during said movement of approach.

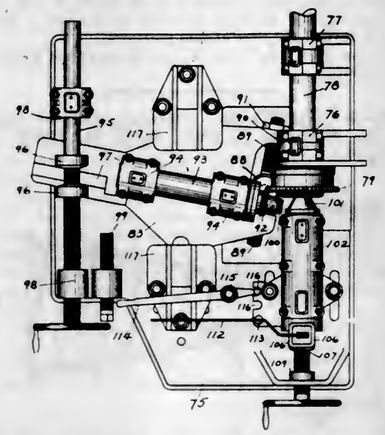
3. In a machine for rolling gears, the combination of a toothed die roll whose pitch diameter and outside diameter are equal, means for mounting a blank with a portion of its working face contiguous to one or more teeth on the die roll, means for imparting relative motion to the die roll and blank, whereby portions of the working face of the blank are brought successively into similar contiguity with successive teeth on the die roll, and means for contemporaneously producing relative movement of approach between the die roll and blank to cause the teeth on the die roll to sink into the blank and form teeth thereon.

4. In a machine for rolling gears, the combination of a toothed die roll whose pitch diameter and outside diameter are equal, means for mounting a blank with a portion of its working face contiguous to one or more teeth on the die roll, means for imparting relative motion to the die roll and blank, whereby portions of the working face of the blank are brought sucessively into similar contiguity with successive teeth on the dier oll, means for pressing the die-roll and blank together and means for maintaining synchronous relations between the teeth on the die roll and those it is forming on the blank.

5. In a machine for rolling gears, the combination of a rotatably mounted toothed die roll whose pitch diameter and outside diameter are equal, means for rotatably mounting a blank with its working face contignous to the die roll, means for rotating the blank and die roll at equal pitch line velocity, and means for contemporaneously producing relative movement of approach between the die roll and blank, said means enabling the continuation of said movement of approach after the die roll and blank have engaged, until teeth have been formed on the blank.

[Claims 6 to 43 not printed in the Gazette.]

1,240,918. GEAR-ROLLING MACHINE. HAROLD N. ANDERSON, Cleveland, Ohio, assignor to The Anderson Rolled Gear Company, Cleveland, Ohio, a Corporation of Ohio. Original application filed Nov. 11, 1913, Serial No. 800,251. Divided and this application filed Oct. 15, 1915. Serial No. 55,977. (Cl. 80—16.)



10. In a machine for rolling gears, the combination of a pair of timing gears rotatably mounted with their teeth enmeshed and their axes forming an angle, a die roll mounted to rotate in unison and an axial alinement with one of the timing gears, said gear and die roll being of different diameters; means for mounting a gear blank so it will rotate in unison and in axial alinement with the other timing gear, means for producing relative movement of approach between the die roll and blank whereby they may be brought into contact for the purpose of rolling the blank, means for effecting said movement of approach without varying the depth of enmeshment of the timing gears, and means for preventing radial displacement of the die roll and blank, each relative to the other.

11. In a machine for rolling teeth on gears, the combination of a die roll having a working face conjugate to the working face of a bevel gear, and a blank holder, said die roll and blank holder being rotatably mounted; means for rotating them, means for producing relative movement of approach between the die roll and holder, whereby the former and a blank carried by the holder may be brought into contact, and whereby said movement of approach may be continued thereafter until the die roll has formed teeth on the blank, means for maintaining uniform speed ratio between the die roll and blank all the time the movement of approach and said tooth forming operation continues, and means for preventing radial displacement of the die roll and blank, each relative to the other.

12. In a machine for rolling teeth on gears, the combination of a die roll having a working face conjugate to the working face of a bevel gear, and a blank holder, said die roll and blank holder being rotatably mounted; means for rotating them, means for producing relative movement of aproach between the die roll and holder, whereby the former and a blank carried by the holder may be brought into contact, and whereby said movement of approach may be continued thereafter until the die roll has formed teeth on the blank, means for maintaining uniform speed ratio between the die roll and blank all the time said movement of approach and said tooth forming operation continues, and a positive connection between the die roll and blank holder which prevents radial displacement of one with reference to the other.

[Claims 1 to 9 and 13 to 36 not printed in the Gazette.]

1,240,919. PROCESS FOR MAKING GEARS. HAROLD N. ANDERSON, Cleveland, Ohio. Filed Dec. 23, 1916. Serial No. 138,554. (Cl. 80—60.)



1. The method of rolling gear teeth in machines of the kind referred to, said method comprising rolling the die and blank in contact at a pitch-line velocity of 200 or more feet per minute.

2. The method of rolling gear wheels as herein described, comprising rotating the blank and die at a pitch-line velocity of 200 or more feet per minute, while pressing the die into the blank.

[Claims 3 to 5 not printed in the Gazette.]

1,240,920. METHOD OF PREPARING SULFITE CELLULOSE. CARL EACHE-WIIG, Portland, Me. Filed Nov. 7, 1914. Serial No. 870,903. (Cl. 92—11.)

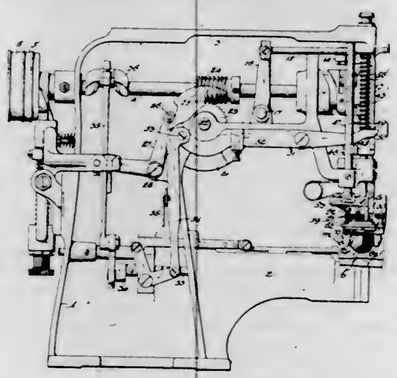
1. The method herein described of preparing sulfite cellulose, which consists in cooking small pieces of wood in a bisulfite liquor and in injecting a very small quantity, say less than 5%, of sodium chlorid during the cooking operation.

2. The method herein described of preparing sulfite cellulose, which consists in cooking small pieces of wood in a calcium bisulfite liquor and in injecting a very small quantity, say less than 5%, of sodium chlorid during the cooking operation.

3. The method herein described of preparing sulfite cellulose, which consists in cooking small pieces of wood in a magnesium bisulfite liquor and in injecting a very small quantity, say less than 5%, of sodium chlorid during the cooking operation.

4. The method herein described of preparing sulfite cellulose, which consists in cooking small pieces of wood in a sodium bisulfite liquor and in injecting a very small quantity, say less than 5%, of sodium chlorid during the cooking operation.

1,240,921. BUTTON-SEWING MACHINE. WILLIAM L. BARRON, New York, N. Y., and FRITZ E. OSOL, Elizabeth, N. J., assignors to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Aug. 3, 1916. Serial No. 112,906. (Cl. 112—32.)



1. A button-holder for sewing machines comprising clamping members having opposed gripping jaws, a locking device adapted to normally prevent movement of the clamping members toward or from each other, button-holder lifting means, and means operable independently of said lifting means for rendering said locking device ineffective.

2. A button-holder for sewing machines comprising gripping jaws, a gripping-jaw locking device, button-holder lifting means, and means separate from said lifting means for releasing said locking device when the button-holder is lifted.

3. A button-holder comprising opposed gripping-jaws, a gripping-jaw setting device, and a locking connection between said setting device and said jaws and movable relatively to and independently of said jaws.

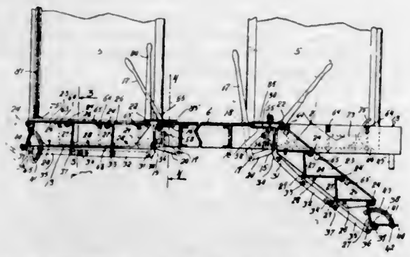
4. A button-holder comprising opposed gripping-jaws connected for reciprocal movement, a gripping-jaw setting device, and a locking connection between said setting device and one of said jaws and movable relatively to and independently of said jaw.

5. A button-holder for sewing machines comprising opposed gripping jaws, a gripping-jaw setting device, means connected with said setting device for locking said jaws against movement toward or from each other, button-holder lifting means, and means for releasing said jaws when the button-holder is lifted.

[Claims 6 to 14 not printed in the Gazette.]

1,240,922. SAFETY DISAPPEARING CAR AND HOUSE STEPS. HARRY H. BARSBY, AXEL G. STEPHENSON, and WILLIAM C. BROWNE, Denver, Colo. Filed Mar. 6, 1917. Serial No. 152,480. (Cl. 105—84.)

1. In combination with a floor or platform provided with an opening, of a shaft journaled in the sides of said opening, members having one extremity rigidly connected with said shaft, parts adapted to constitute steps movably secured between said members, and means adapted to be applied to one extremity of the shaft for raising and lowering the members.



8. In combination with a platform of a car said platform provided with an opening, of a frame slidably mounted in said opening, a shaft journal in the inner extremity of the frame, members having their inner extremities rigidly connected with said shaft, parts adapted to constitute steps movably secured between the said members, means for extending the frame and raising and lowering the step supporting members, means actuated on the frame and adapted to enter perforations formed in the said step supporting members for locking the latter in the raised position, means also mounted on the frame for releasing said locking means and means located in the platform directly beneath said releasing means, and provided with a part adapted to be engaged by the door of the car to prevent the release of the locking means until the door is opened.

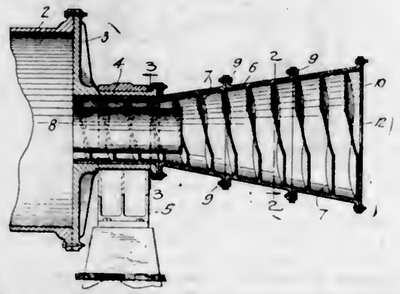
10. In combination with a surface provided with an opening, of a step supporting member slidably mounted in said opening in the same plane as that of the said surface, and means for moving said member in a horizontal plane.

19. In combination with the platform of a car or the like, said platform being provided with an opening, of members adapted to support steps adjustably mounted in said opening, means supported by the platform and adapted to enter perforations formed in the step supporting members for locking said members in a raised position, means also supported by the platform for releasing said locking means, and other means adapted to coöperate with the door of the car to prevent the locking means from being released until the said door is opened.

23. In combination with a platform provided with an opening of a member slidably mounted in said opening and adapted to constitute a portion of the platform, and means for moving said member laterally to project a portion thereof beyond the edge of said platform.

[Claims 2 to 7, 9, 11 to 18, and 20 to 22 not printed in the Gazette.]

1,240,923. CLASSIFIER. JOSEPH S. BARTLEY, Denver, Colo. Filed Mar. 7, 1916. Serial No. 82,595. (Cl. 83—86.)



1. A classifier comprising a rotary conduit mounted with its axis substantially horizontal and having a feed-opening at one end and a discharge-opening at its opposite end, and a helical trough of gradually diminishing depth winding from the discharge end of the feed end of the conduit with the edges of its sides terminating in the periphery of an imaginary cylinder coaxial with the conduit, to receive settling particles of a current of material passing through the center of the conduit.

2. A classifier comprising a rotary conduit mounted with its axis substantially horizontal and having a feed opening at one end and a discharge-opening at its opposite end, a helical trough of gradually diminishing depth winding from the discharge end to the feed end of the conduit with the edges of its sides terminating in the periphery of an imaginary cylinder coaxial with the conduit, to receive settling particles of a current of material passing through the center of the conduit, and a partition dividing said trough at the feed-end of the conduit from the central portion thereof whereby to provide a passage which conducts the inflowing material past the shallowest portion of the trough through which settling matter flows in opposite directions.

3. A classifier comprising a rotary conduit of variable length mounted with its axis substantially horizontal and having a feed-opening at one end and a discharge-opening at its opposite end, and a helical trough of gradually diminishing depth winding from the discharge end to the feed end of the conduit with the edges of its sides terminating in the periphery of an imaginary cylinder coaxial with the conduit, to receive settling particles of a current of material passing through the center of the conduit.

4. A classifier comprising a rotary conduit composed of end-to-end adjoining and detachably connected sections and having a feed-opening at one end and a discharge opening at its opposite end, said conduit being mounted with its axis substantially horizontal, and a helical trough of gradually diminishing depth winding from the discharge end to the feed end of the conduit with the edges of its sides terminating in the periphery of an imaginary cylinder coaxial with the conduit, to receive settling particles of a current of material passing through the center of the conduit.

5. A classifier comprising a rotary, interiorly tapering conduit mounted with its axis substantially horizontal and having a feed-opening at one end and a discharge opening at its opposite end, and a helical blade winding from the discharge end to the feed-end of the conduit with its outer edge adjoining the interior surface thereof and with its inner edge terminating at the periphery of an imaginary cylinder coaxial with the conduit, whereby to provide a helical trough of gradually increasing depth to receive settling particles of a current of material passing through the center of the conduit.

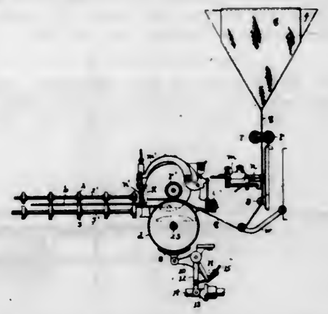
[Claim 6 not printed in the Gazette.]

1,240,924. BAG-MAKING MACHINE. HORACE G. BENDER, Akron, Ohio, assignor of one-half to Llewellyn H. Bender, Akron, Ohio. Filed June 21, 1916. Serial No. 105,059. (Cl. 112—24.)

2. A bag making machine as described comprising means to make a tube from woven fabric, a cutter to sever the tube into bag lengths, and means to feed the tube to the cutter comprising a drum and a roller over the same, a shaft and a cam thereon operatively connected with said cutter and brake mechanism for said drum actuated from said shaft.

4. A machine for sewing bags, comprising sewing mechanism, a device to fold the goods to be sewed, a support for a roll of goods, and means to move said folding device relatively nearer to or farther from said sewing mechanism.

9. A machine as described, having mechanism to fold the bag stock lengthwise upon itself and to stitch the same along its open edge, a cutter to sever the stock into bag blanks and rolls to feed the stock to said cutter, means to momentarily suspend the rotation of said rolls and means to take up slack in the stock while suspension occurs, in combination with stitching mechanism for the end of the blank and a laterally reciprocating table to deliver the blanks thereto.

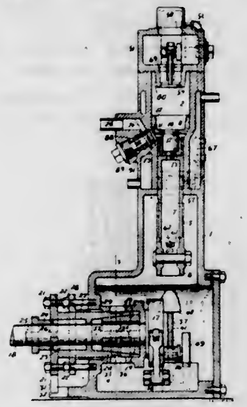


10. A machine as described having supporting standards for a roll of fabric, a set of tension rolls adapted to exert a downward pull on the fabric and a device between said standards and said tension adapted to contribute to the folding of the fabric lengthwise upon itself, the said device provided with means to adjust the same toward and from the said roll supporting standards according to the width of the fabric.

15. A machine as described having stitching mechanism for the bottom of the bag and means to feed the bag blank thereto, comprising a reciprocating table adapted to carry said blank forward to be stitched and means to operate said table adapted to effect a forward and a return movement thereof in a continuous operation and to rest the table for a predetermined interval after such movement to receive another blank.

[Claims 1, 3, 5 to 8, and 11 to 14 not printed in the Gazette.]

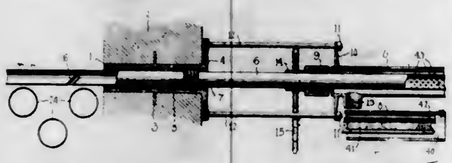
1,240,925. GAS-COMPRESSOR. FRANK M. BENNETT, Berkeley, Cal. Filed Dec. 28, 1914. Serial No. 879,328. (Cl. 230—32.)



In a gas compressor, the combination of a cylinder having an inlet conduit at one end, and a discharge conduit at the other end, a piston rod slidable through said latter end, having a diameter sufficiently large to materially reduce the volume of the space in the cylinder around the piston rod, whereby said space may be used as a second stage compressor cylinder for the gas passing thereinto from the other end, a hollow piston connected to said rod and having a conduit leading from the portion of said cylinder adjacent to said inlet end to that around the piston rod, a non-return valve carried by said piston

and controlling said latter conduit, the cylinder head at the end opposite to that through which the piston rod extends having an extension adapted to enter the cavity of the piston when the piston is moved adjacent to said end; and a non-return suction valve seated on a seat in said extension, and controlling said inlet conduit.

1,240,926. SOOT-BLOWER FOR BOILERS. GORDON C. BENNETT and JAMES C. BENNETT, Detroit, Mich. Filed Nov. 24, 1916. Serial No. 133,166. (Cl. 122—392.)

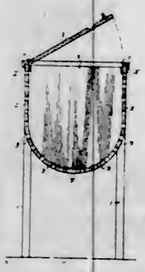


1. In a soot blower, a boiler setting, tubes, permanent interiorly screwthreaded blower holders in said boiler setting, rotary exteriorly screwthreaded tube blowers in said holders adapted for reciprocation by reason of the threaded connection betwen said holders and the blowers to move in proximity to said tubes, internal nozzles carried by said blowers to discharge steam between said tubes, and permit of said blowers being bodily withdrawn through said holders.

2. In a soot blower, an interiorly screwthreaded holder, and a blower arm devoid of protuberance so as to be placed in and removed from said holder and having an exteriorly screwthreaded enlargement for engagement with said holder.

3. In a soot blower, a boiler setting, tubes, permanent interiorly screwthreaded blower holders in a wall of said boiler setting, tube brackets adjacent an opposite wall of the boiler setting, rotary tube blowers in screwthreaded engagement with said holders extending transversely of said tubes through said tube brackets and adapted for reciprocation therein by a rotary movement of said blowers, and nozzles carried by said blowers and confined so as to permit of the blowers being withdrawn through the holders.

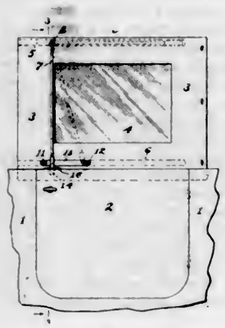
1,240,927. RECEPTACLE. AUGUST C. BRAING, Jr., Houston, Tex. Filed Oct. 31, 1916. Serial No. 128,710. (Cl. 211—9.)



1. A receptacle including a pair of supporting legs arranged at each end thereof, an arcuate transverse end support secured to the legs at each end of the receptacle, side and bottom slats whose ends are secured to the legs and to the end supports, respectively, said slats being spaced apart, the upper side slats and the central bottom slat being thicker than the others and having alined notches, partitions seated in said notches and spaced apart and ends resting upon the respective transverse supports and secured between the corresponding legs.

2. A receptacle including a pair of supporting legs arranged at each end thereof, an arcuate transverse end support secured to the legs at each end of the receptacle, side and bottom slats whose ends are secured to the legs and to the end supports, respectively, said slats being spaced apart, a covering hinged to the receptacle at one side, the inner sides of the upper side slats being shouldered down to receive the edges of said covering when closed and a reticulated covering secured to and surrounding said slats.

1,240,928. AUTOMOBILE-CURTAIN. GEORGE E. BISHOP, Cleveland, Ohio. Filed July 30, 1914. Serial No. 854,057. (Cl. 21—220.)



1. In an automobile curtain, the combination, with suitable curtain fabric; of a collapsible frame supporting the latter, said frame comprising a strengthening member incorporated with said fabric, a stretching member pivoted to said strengthening member, and a third member secured to said fabric, said stretching member being provided with a connecting element coöperating with said third member so as to effect the union and separation of said element and member by the pivotal movement of said stretching member, whereby the integrity and collapsing of said frame are effected.

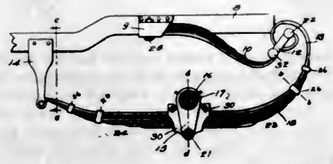
2. In a collapsible frame for supporting automobile door curtains or similar structures, the combination of strengthening members; a spreading member pivoted to one of said strengthening members and detachably connected to another strengthening member; and coöperating connecting means formed upon said last-named strengthening member and said spreading member, respectively, to effect said connection and detachment by the pivotal movement of said spreading member.

3. In an automobile curtain, the combination of suitable curtain fabric; a frame supporting the latter, an element of said frame being movable relatively to the other elements thereof and formed with a groove or slot; and a member formed with a tongue registering with said groove, the relative disposition of said element and said member at one end of the path of movement of the former providing for the integrity of the curtain and intermediately of the two ends of the path of movement of the element providing for the release of said tongue from said groove whereby the curtain can be collapsed.

4. In an automobile curtain, the combination of suitable curtain fabric; strengthening members incorporated therewith, one of said members being formed with a tongue; and a standard or rod formed with a groove or slot adapted to register with the tongue of said member, said standard or rod being hinged to another member, the relative disposition of said rod and said tongue-member at certain points in the path of movement of the former providing for the integrity of the curtain and at other points providing for the release of said tongue from said groove whereby the curtain can be collapsed.

5. In a self-contained collapsible automobile curtain, the combination of suitable curtain fabric; two oppositely disposed strengthening members incorporated therewith; a member attached to one of said strengthening members and forming a tongue; and a standard or rod hinged to the other strengthening member and formed with a groove or slot adapted to register with the tongue-member, the pivotal movement of said rod providing for the release of said tongue from said groove.

1,240,929. VEHICLE-SPRING. LINDON B. BISSELL, North Yakima, Wash. Filed Oct. 4, 1916. Serial No. 123,610. (Cl. 267—27.)

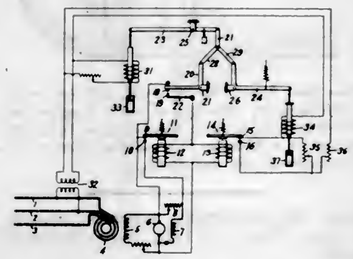


1. A vehicle spring which embodies a cantaliver spring; a semi-elliptical spring with a coiled end portion; and an articulated link for connecting the said cantaliver spring and said coiled end portion of said semi-elliptical spring, said link being normally disposed at an angle from a vertical line, the end of said link that it attached to the end of said coiled end portion being above the other end of said link.

4. A clevis adapted to be freely mounted upon an axle housing of a vehicle to be rotatively movable thereon, and embodying two separable portions fastened together by a bolt, a receptacle for spring leaves disposed between said two separable portions, and a clamping plate removably disposed to clamp said spring leaves within said receptacle.

[Claims 2 and 3 not printed in the Gazette.]

1,240,930. ELECTRICAL REGULATOR. CLARENCE A. BODDIE, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed June 11, 1915. Serial No. 33,498. (Cl. 171—229.)

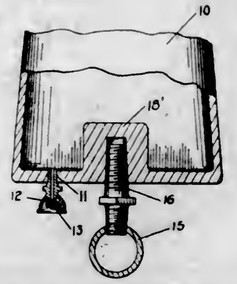


1. An electrical regulator comprising two levers each of which has a stationary fulcrum, actuating means for said levers, a movable contact member, and link and lever mechanism operatively connecting said levers and contact member whereby each of the said actuating means may move the said contact member independently of the other.

2. An electrical regulator comprising two levers each of which has a stationary fulcrum, actuating means for said levers, a movable contact member, and link and lever mechanism operatively connecting said levers and contact member whereby the actuating means for one of said levers may vary the position of said contact member and the actuating means for the other lever may vibrate it.

3. An electrical regulator comprising two levers each of which has a stationary fulcrum, actuating means for said levers, a third lever also having a stationary fulcrum, a contact member actuated by said third lever, and means operatively connecting the said third lever with the other two levers whereby each of the said actuating means may move the contact member independently of the other.

1,240,931. FORM FOR RUBBER ARTICLES. CHARLES E. BRADLEY, Mishawaka, Ind., assignor to Mishawaka Woolen Manufacturing Company, a Corporation of Indiana. Filed May 15, 1915. Serial No. 28,301. (Cl. 18—6.)

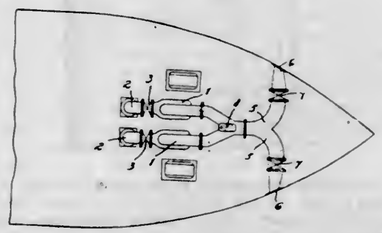


1. An apparatus of the class described, comprising an air-tight chamber, means for exhausting the same, a support in said chamber, and a perforated hollow boot or shoe last on said support having a check valve opening outwardly to afford communication between the interior of the last and the interior of the chamber.

2. An apparatus of the class described, comprising a vulcanizer, means for exhausting the same, means for applying fluid pressure in the vulcanizer, a support in the vulcanizer, and a perforated hollow boot or shoe last on said support having a check valve opening outwardly to afford communication between the interior of the last and the interior of the chamber.

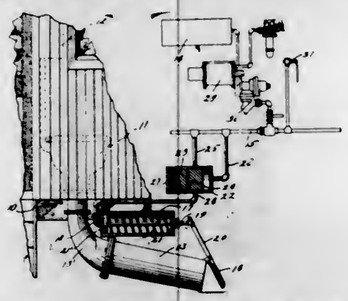
3. The process of treating vucanizable rubber boots and shoes consisting of building the same to substantially final form upon a hollow last provided with perforations that expose the interior of the article to the interior of the last, said last having a check valve, transferring the lasted article to a vulcanizer, exhausting the interior of the vulcanizer by a vacuum whereby the interior of the last is simultaneously exhausted, breaking said vacuum in said vulcanizer by admitting a pressure medium, said check valve being closed by said pressure medium with a resultant entrapping of the vacuum in said last, and finally vulcanizing the lasted rubber article while exposed exteriorly to pressure and interiorly to said entrapped vacuum.

1,240,932. DREDGER. WILLIAM BROWN and WALTER BROWN, Renfrew, Scotland. Filed Jan. 19, 1916. Serial No. 72,948. (Cl. 114—151.)



In a dredger, in combination, nozzles located one at each side of the bow, a pair of pumps located adjacent to said nozzles, pipe connections leading from the discharge side of each pump to both nozzles, water supply pipes connected to the inlets of said pumps and penetrating the bottom of the dredger hull, valves operable from the dredger bridge to control the supply and outlet pipes and to determine which nozzle will be supplied with water, and a common diaphragm for cutting off communication between either pump and said nozzles, substantially as and for the purpose set forth.

1,240,933. RAILWAY-CAR TOILET LOCK. LOUIS J. BRUNE, Algiers, La. Filed May 15, 1917. Serial No. 168,817. (Cl. 4—20.)



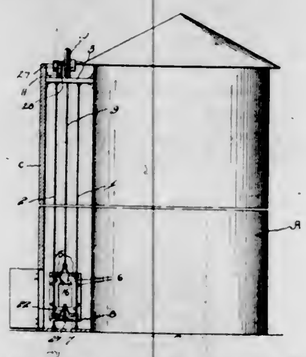
The combination with an air-brake system and its train-pipe, of a toilet receptacle, a closure for the receptacle movable into and out of closing position, a cylinder having a piston connected with the closure for actuating it, means for holding the piston normally and yieldably with the closure in inoperative position, said piston being movable by air pressure in the cylinder to move the closure into operative position, and means operable by brake-applying change of train-pipe pressure for communicating the cylinder with the train pipe.

1,240,934. WATERPROOF PAPER. HERBERT BUFFINGTON, South Bend, Wash. Filed May 31, 1917. Serial No. 172,009. (Cl. 91—68.)

1. A water proof paper including an ordinary paper base having a filler consisting of oxid of zinc, white varnish and wheat flour.

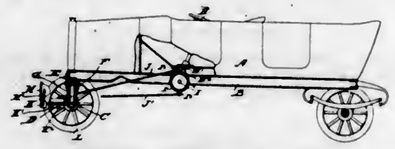
[Claim 2 not printed in the Gazette.]

1,240,935. ELEVATOR FOR SILOS. STEPHEN O. BUMGARNER, Given, Ohio. Filed Mar. 10, 1916. Serial No. 83,340. (Cl. 187—8.)



An elevator carriage for a silo chute including a horizontal portion having elevator guide passages therein, a vertically disposed portion having connection with the horizontal portion at one edge thereof, elevator guide-engaging rollers carried by the vertically disposed portion of the carriage, a pair of spaced blocks mounted adjacent the lower end of the vertically disposed portion, the said blocks being located, respectively, adjacent the vertical edges of the vertically disposed portion, and manually controlled pivoted elevator guide-engaging elements mounted on the vertical portion of the carriage and located at the lower end thereof and disposed opposite the blocks at the lower end of the vertical portion and normally lying in elevator guide-engaging position, for the purpose specified.

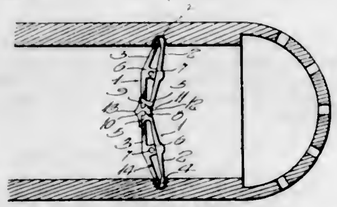
1,240,936. MOTOR-VEHICLE. EDVARD BUSH, Delray, Mich. Filed Dec. 26, 1916. Serial No. 139,037. (Cl. 21—201.)



1. In combination, a frame, an axle having pivotal connection intermediate its ends with the said frame, a steering member, and longitudinally disposed rods between the axle and steering member having return bends at their forward ends which cross and extend forwardly and rearwardly of the axle when the latter is set to steer the vehicle in a direct line.

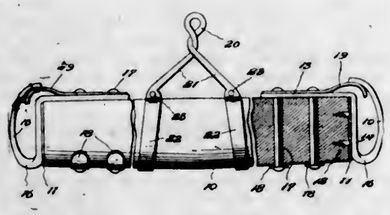
2. In combination, a frame, an axle having pivotal connection intermediate its ends with the said frame, a transversely arranged rock shaft, a steering column geared to the rock shaft, rods having their rear ends connected with the rock shaft to move longitudinally in opposite directions when turning the rock shaft, said rods having return bends at their forward ends which cross and are pivoted to the axle upon opposite sides of its pivotal connection with the frame.

1,240,937. GLASS-TANK FLOATER. JOHN D. CAIN, Caney, Kans., assignor of one-half to George A. Falls, Caney, Kans. Filed July 13, 1917. Serial No. 180,409. (Cl. 49—61.)



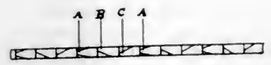
A glass tank floater having front and rear walls spaced apart substantially throughout their lengths but joined at their ends, the rear wall being reduced in height to permit the use of a skimmer in removing inferior glass accumulating between the two walls.

1,240,938. SWINGLETREE. JAMES D. CAPSHAW, Monterey, Tenn. Filed Oct. 5, 1916. Serial No. 123,936. (Cl. 21—79.)



A device of the character described including a hook for attachment to a swingletree and provided with a shank connected to one face of the tree with the said shank having a leg extending laterally therefrom and projecting transversely of the adjacent end of the tree to support the bill of the hook, a wear plate fitted between said leg and the adjacent end of the tree, and a fastening device connecting the said plate with the tree with the said leg overlying said fastening device and holding said device against displacement.

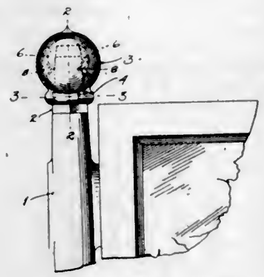
1,240,939. SAW-TOOTH. THEODORE T. CARLSON, Fitchburg, Mass., assignor to Simonds Manufacturing Company, Fitchburg, Mass., a Corporation of Massachusetts. Filed Mar. 9, 1917. Serial No. 153,613. (Cl. 143—133.)



1. A saw blade provided with teeth of equal length comprising a plurality of groups, each of three teeth, the first tooth of each series having at its extremity a straight cutting edge of a width substantially one-third the width of the completed kerf to form a center cut, a second tooth having a straight cutting edge for cutting on one side of the center cut and the third tooth having a stright cutting edge for cutting on the opposite side of the center cut for completing the full width of the kerf, the width of such stright cutting edge of the said second and third teeth each substantially equaling that of the straight cutting edge on the first tooth and all the cutting edges of the teeth arranged within the planes of the opposite faces of the saw blade.

[Claim 2 not printed in the Gazette.]

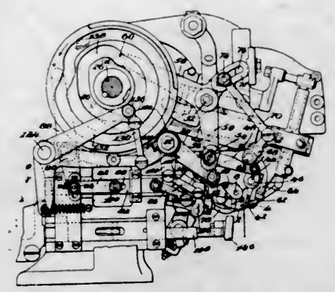
1,240,940. ORNAMENTING DEVICE. OSCAR W. CARTER, Fellows, Cal. Filed Sept. 8, 1916. Serial No. 119,099. (Cl. 21—148.)



The combination with the projecting end of a spindle, of a decorating and protecting cap engaged with said end, said cap comprising a hollow shell having an opening in which the spindle is engaged, an annulus carried by the shell and surrounding the opening, said annulus having a plurality of recesses formed in its inner surface, a leaf spring for each recess, said springs being secured at one end in the recesses and extending within the shell, said springs being bent upon transverse lines between their ends to provide inwardly directed spindle gripping shoulders engaging the spindle, said springs beyond the shoulders being curved to extend inwardly of the shoulders and over the end of the spindle for engagement by the end of the spindle to limit the inward movement of the spindle with respect to the shell.

1,240,941. SHOE-SEWING MACHINE. FRANK CHATEAUNEUF, Haverhill, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 17, 1913. Serial No. 807,216. (Cl. 112—20.)

1. A shoe sewing machine, having, in combination, stitch forming devices including a curved hook needle, a back gage, a back gage slide, means for moving the slide to advance and retract the back gage, a connection between the back gage and the slide permitting the back gage to yield with relation to the slide after the back gage engages the shoe, means tending to move the back gage forwardly with relation to the slide, and means controlled independently of the work for locking the back gage in operating position.



2. A shoe sewing machine, having, in combination, stitch forming devices including a curved hook needle, a back gage, a back gage slide, means for moving the slide to move the back gage toward and from the shoe, a connection between the back gage and the slide permitting the back gage to yield with relation to the slide after the back gage engages the shoe, means tending to move the back gage forwardly with relation to the slide, and means acting independently of the movement of the slide for locking the back gage in operating position.

3. A shoe sewing machine, having, in combination, stitch forming devices including a curved hook needle, a back gage, a back gage slide, positively acting means for moving the slide to move the back gage toward and from the shoe, a connection between the back gage and the slide permitting the back gage to yield with relation to the slide after the back gage engages the shoe, means tending to move the back gage forwardly with relation to the slide, and means controlled independently of the work for locking the back gage in operating position.

4. A shoe sewing machine, having, in combination, stitch forming devices including a curved hook needle, a back gage, a back gage slide, positively acting means for moving the slide to move the back gage toward and from the shoe, a connection between the back gage and the slide permitting the back gage to yield with relation to the slide after the back gage engages the shoe and means acting independently of the movement of the slide for locking the back gage in operating position.

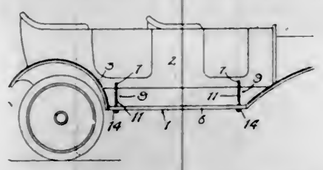
5. A shoe sewing machine, having, in combination, stitch forming devices including a curved hook needle, a back gage, a back gage slide, means for moving the slide in a path having definite limits to move the back gage toward and from the shoe, a connection between the back gage and the slide permitting the back gage to yield with relation to the slide after the back gage engages the shoe, and means controlled independently of the work for locking the back gage in operating position.

[Claims 6 to 16 not printed in the Gazette.]

1,240,942. FENDER-BRACE. CHRISTIAN CHRISTIANSEN, Sioux Falls, S. D. Filed Sept. 25, 1916. Serial No. 122,049. (Cl. 21—55.)

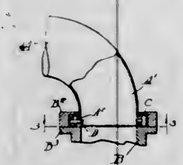
The combination with a motor vehicle comprising a frame having angle iron side bars, the horizontal flanges thereof extending inwardly, a body on said frame, and fenders on the opposite sides of said body; of a brace rod having a substantially straight intermediate portion disposed horizontally through one side of said body, the end portions on each side of said horizontal part being bent downwardly, one into engagement with the horizontal flange of one side bar, and the other into contact with the horizontal portion of one fender, the last mentioned end

being again bent downwardly, thereby disposing the same vertically, and then extended through an opening in said fender, said vertical portion being threaded, a nut on the threaded end, the other end of said rod being also threaded, a U-shaped clip having an opening in its base to re-



ceive said last mentioned end, one arm of said clip being longer than the other, the short arm engaging the under side of the horizontal flange of the side bar, the long arm contacting with the rod, and a nut on said threaded end in engagement with the base of said clip.

1,240,943. PHONOGRAPH-TONE-ARM JOINT. MELVILLE CLARK, Chicago, Ill., assignor to Melville Clark Piano Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 5, 1917. Serial No. 159,891. (Cl. 274—23.)



1. In a talking machine, a tone arm and a sound conduit member upon which it is supported for swinging over the record, said member having an annular track transverse to, opening toward, and encompassing the axis of said swinging movement, and the tone arm having at the end which engages said conduit member two sets of rollers, those of one set having their axes radial, and those of the other set having their axes parallel to said first-mentioned axis, both sets being engaged with said annular track.

[Claim 2 not printed in the Gazette.]

1,240,944. POWDER-PUFF RETAINER. ADELAIDE M. CLAY, San Francisco, Cal. Filed June 25, 1917. Serial No. 176,728. (Cl. 132—34.)



1. A powder puff retainer comprising spring material of which an outer portion is of a general circular form and inner portions extend inwardly from the outer circular portion.

2. A powder puff retainer comprising spring material of which an outer portion is of a general circular form, and inner portions extend inwardly from, and out of the plane of, the outer circular portion.

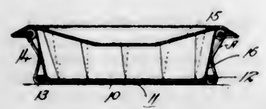
4. A powder puff retainer comprising a single piece of spring material of which a portion is in the form of a portion of a circle, and other portions extend inwardly at intervals from the circular portion.

5. A powder puff retainer comprising a single piece of material of which a portion is in the form of a portion of a circle and other portions extend inwardly at intervals from the circular portion and out of the plane of the circle and wholly to one side thereof.

6. A powder puff retainer comprising a single piece of spring material of which a portion is in the form of a portion of a circle and other portions extend inwardly at intervals from the circular portion and out of the plane of the circle and wholly to one side thereof.

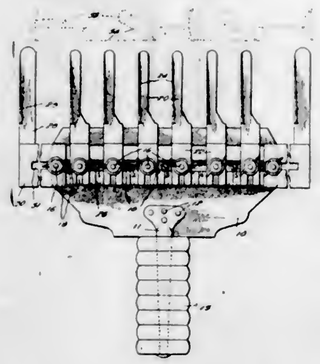
[Claim 3 not printed in the Gazette.]

1,240,945. CUSPIDOR. OLIVER P. CLEMENS and WALTER C. BOTT, Walla Walla, Wash. Filed Apr. 21, 1916. Serial No. 92,730. (Cl. 220—136.)



As an article of manufacture, a holder for collapsible paper cuspidors consisting of a disk having its margin provided with a downwardly turned hook shaped bead, a ring of greater diameter than the disk spaced above the bead and in axial alinement with the disk and a sinuous wire comprising upper straight members in a common plane, lower straight members in a common plane and connecting members, the lower straight members being inclosed within the hooked bead and the upper straight members being disposed against the ring with the adjacent portions of the connecting members coiled around the ring, said connecting members between the upper and lower straight members being each deflected inwardly in position to touch the straight wall of a cuspidor disposed against the corresponding coiled portion and resting upon the disk within the inclosure of the bead of the latter.

1,240,946. MULTIBLADED KNIFE. AUGUST P. CLOT, Weehawken Heights, N. J. Filed Nov. 24, 1916. Serial No. 133,179. (Cl. 26—9.)



1. In a knife, the combination of a plate having a channel member thereon provided with inwardly directed flanges, said flanges being arranged in spaced relation to form a slot, a plurality of cutting elements having bifurcated ends, said cutting elements being offset to engage said channel, and securing screws extending through the bifurcated portions of said cutting elemetns and between said flanges for the purpose specified.

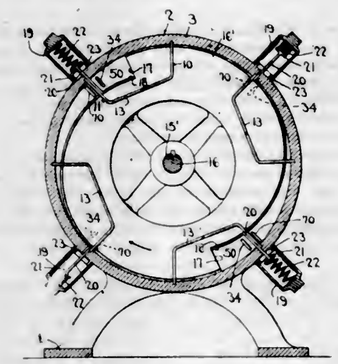
4. In a knife of the class described, the combination of a base plate having a channel-iron arranged thereon, said channel-iron being formed with a pair of spaced parallel

inwardly directed flanges for providing a slot between them, a cutting element associated with said base plate having means to engage said channel, and means extending through said cutting elements and engageable with said flanges for adjustably maintaining said cutting element on said plate.

5. In a device of the class described, the combination of a base plate having a channel member thereon, a plurality of intermediate independently and relatively adjustable blades carried by said channel member, and a pair of extension blades carried by the free ends of said channel member, said extension blades being relatively adjustable and adjustable relative the intermediate blade.

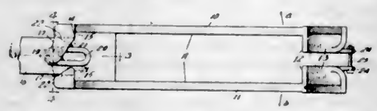
[Claims 2 and 3 not printed in the Gazette.]

1,240,947. ROTARY INTERNAL-COMBUSTION ENGINE. FRANK L. COLE, La Fayette, Pa. Filed Aug. 20, 1915. Serial No. 46,451. (Cl. 123—14.)



A gas engine comprising a casing, a piston rotatably mounted in the casing, a plurality of shoulders formed in the periphery of said piston, a plurality of sliding elements adapted to engage the piston behind the shoulders to form explosion chambers, means for maintaining the sliding elements in engagement with the rotary piston, a plurality of pumping cylinders arranged in pairs and communicating with the explosion chambers by means of ports through the end of the casing, means for rendering one of the cylinders in each of the pairs of pumping cylinders inoperative, and means for exploding a charge of gas supplied to the explosion chambers by the pumping cylinders.

1,240,948. YOKE FOR DRAFT-RIGGINGS. ALFRED COPONY, Chicago, Ill. Filed Nov. 30, 1914. Serial No. 874,680. (Cl. 213—42.)



1. A yoke for railway draft rigging comprising two members, each of which has a laterally extending stud at its front end, each stud having an elongated head at its inner end, the heads being adapted to enter a coupler key slot when parallel with the latter and prevented from removal therefrom when positioned at an angle thereto.

2. A yoke for railway draft riggings which comprises upper and lower horizontal, separable arms, each of which is provided with integral means at its forward end adapted to enter a coupler key slot.

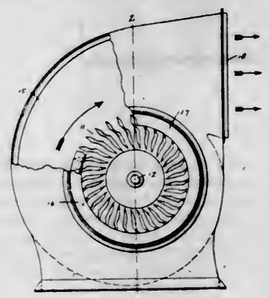
3. A yoke of the character described comprising two members, each having an inwardly extending key at its front end provided with an elongated head at its inner end, said elongated heads on the keys being arranged to form a bayonet joint with the draw bar coupler key slot, said members having also shoulders at the rear ends adapted to engage a rear follower.

4. A yoke of the character described comprising two like members, each having two side wings at the front thereof, one wing being longer than the other and the longer wing having an inwardly extending lug arranged to enter a coupler key slot.

5. In a draft rigging for railway cars, the combination with a draw bar having a key slot therein and provided with upper and lower shoulders, of a yoke consisting of two like members, each of which is provided with a shoulder arranged to engage one of said draw bar shoulders, each of said members being provided also with a side wing having an inwardly extending lug arranged to enter said slot in the draw bar, each of said lugs having an elongated head at the inner end thereof.

[Claims 6 and 7 not printed in the Gazette.]

1,240,949. CENTRIFUGAL FAN. ALBERT A. CRIQUI, Buffalo, N. Y., assignor to Buffalo Forge Company, Buffalo, N. Y., a Corporation of New York. Filed Aug. 3, 1914. Serial No. 854,671. (Cl. 253—200.)



1. A centrifugal fan having a wheel provided with a plurality of blades, the entire surface of each of said blades being formed from a portion of the surfaces of two solids having curved surfaces, each successive part of the surface of each of said blades progressively receding from the heel to the tip thereof.

8. A centrifugal fan having a wheel provided with a plurality of blades, the surface of each of said blades being formed from a portion of the surfaces of two solids having curved surfaces, and the disk end of said wheel being smaller in diameter than the entrance end.

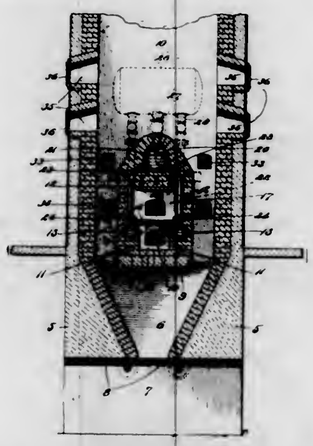
12. A centrifugal fan having a wheel provided with a plurality of blades, a part of the surface of each of said blades being formed from the surface of a cone, and a part of the surface of each of said blades being formed from the surface of a cylinder.

[Claims 2 to 7, 9 to 11, and 13 not printed in the Gazette.]

1,240,950. LIMEKILN. PHILIP J. DAUERNHEIM, St. Louis, Mo. Filed June 21, 1915. Serial No. 35,396. (Cl. 122—6.)

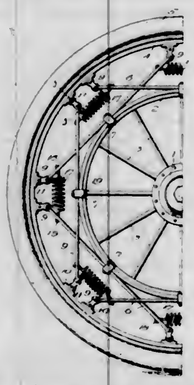
1. A lime kiln comprising an internal furnace constructed of ceramic material, said furnace being provided with a fuel opening, grate bars, ash pit, and whose side walls are spaced apart from the walls of the kiln and provided with a series of fire holes extending throughout their length, a drum located on each side of the furnace adjacent the grate bars and partially in the heat zone, a drum of greater capacity than either of said drums located in the furnace above the combustion chamber, a series of tubes connecting the upper drum and the lower drums, said tubes arranged adjacent to the fire openings and serve to protect the side walls from deterioration by heat and acting as a reinforcement for the same.

2. A lime kiln comprising an internal furnace constructed of ceramic material, the walls thereof being provided with a series of openings leading from the fire zone, a horizontally disposed drum located below the grate bars and adjacent thereto in each side wall of the furnace, a drum of greater capacity than either of the first mentioned drums horizontally disposed in the arch of the furnace, a series of vertical tubes connecting the lower drums with



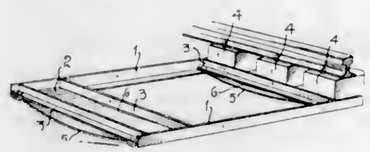
the upper drum, said vertical tubes being partially exposed to the heat of the combustion chamber, said drums protecting the furnace adjacent the grate bars from the excessive heat and the vertical tubes likewise protecting the side walls of the furnace from excessive heat and also acting as a reinforcement for the side walls, and a steam drum located on the outside of the kiln and connected with said drums.

1,240,951. SPRING-WHEEL. WILLIAM JOHN DAVIS, Redig, S. D. Filed Apr. 5, 1917. Serial No. 159,951. (Cl. 152—32.)



A spring wheel comprising an inner wheel, an outer rim concentric with the inner wheel, two sets of straight plate springs, each of said springs being disposed tangentially to the rim of the inner wheel and secured at a central point thereto, radially disposed straps connecting the extremities of the plate springs with the outer rim, one set of springs being disposed at one face of the wheel and the other set at the opposite face of the wheel, the centers of the springs of each set being opposite the ends of the springs of the other set shackled to the outer rim, and contractile helical springs connecting the terminal portions of adjacent plate spring and disposed between the shackled ends thereof and the rim of the inuer wheel and parallel with the plate springs of the set opposite the shackled ends of the remaining set.

1,240,952. RAILWAY-TIE. WILLIAM PATRICK DAY, Cleveland, Ohio. Filed Jan. 31, 1917. Serial No. 145,700. (Cl. 238—5.)



1. A tie of the character described, comprising spaced members, plates secured to said members and extending longitudinally from one to the other at the ends thereof, bars extending longitudinally on said plates and connected thereto at the side edges thereof, and rail supporting means resting loosely on said plates between said bars, as and for the purpose set forth.

2. A tie of the character described comprising spaced members, plates secured thereto and extending longitudinally from one member to the other, rail supporting blocks resting loosely upon said plates and the end blocks abutting against said members, for the purpose specified, and means for preventing the lateral movement of said blocks.

3. A railway tie of the character described, comprising spaced members, plates extending longitudinally and connected to said members in laterally spaced relation to each other, rail supporting blocks resting loosely on said plates and the end blocks abutting against said members, for the purpose specified, and bars extending longitudinally on said plates and connected thereto at the side edges thereof and engaging said blocks whereby to prevent any lateral movement of the same, the side edges of said plates being bent downward to form flanges and to also form drainage openings underneath said bars.

4. A railway tie of the character described, comprising spaced angle members, flat plates secured to said members at the ends thereof and extending from one member to the other, angle bars connected to said plates and extending longitudinally at the side edges thereof, said side edges being bent downward to form flanges that are curved downwardly from their ends toward the middle and the side edges of the bars extending substantially parallel to each other and to the longitudinal axes of the plates, said flanges producing openings beneath said angle bars, and wooden blocks mounted loosely upon said plates between said bars and engaged by the latter, the end blocks being engaged by the angle members, as and for the purpose set forth.

5. A railway tie of the character described, comprising angle members spaced from each other, plates extending from one angle member to the other and connected thereto, said plates forming the bottom of troughs and the ends of the angle members forming the ends of said troughs, bars secured to said plates and forming the sides of the troughs, and rail supporting blocks loosely supported in said troughs, the end blocks adapted to abut against the ends of the troughs and the sides of the troughs preventing any lateral movement of said blocks.

1,240,953. ADJUSTABLE WINDOW-VENTILATOR. CHANDLER P. DE LANCE, Columbus, Nebr. Filed Dec. 1, 1916. Serial No. 134,347. (Cl. 98—31.)

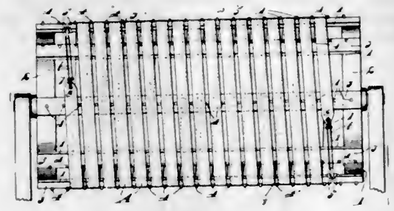
1. An adjustable window ventilator comprising a plurality of sections adapted when in position to overlap one another, means forming an integral part of each of said sections for firmly locking the sections together against relative longitudinal movement while permitting angular movement of one section with respect to another about a horizontal axis into a position permitting of relative longitudinal movement of said sections.



2. In an adjustable window ventilator a plurality of sections adapted to form a wind screen, the upper part of each of said sections being curved, the extent and contour of the curved portions being such as to permit the curved portion of one section to slide longitudinally in that of another section when the sections are angularly disposed with respect to each other, but to prevent such longitudinal movement when the sections have been forced into substantially the same plane.

3. In an adjustable window ventilator a plurality of sections adapted to form a wind screen, the upper part of each of said sections being curved toward the window, the extent and contour of the curved portions being such as to permit the curved portion of one section to slide longitudinally in that of another section when the sections are angularly disposed with respect to each other, but to prevent such longitudinal movement when the sections have been forced into substantially the same plane, and means for holding said sections in substantially the same plane.

1,240,954. SUPPORT FOR MOTION-PICTURE FILMS. ANNE M. DELMAS, Chicago, Ill. Filed Nov. 3, 1915. Serial No. 59,415. (Cl. 242—77.)

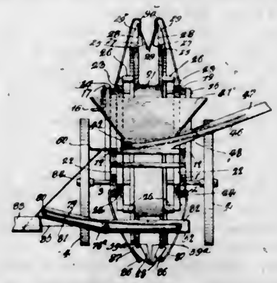


1. A support for motion picture films comprising an element upon which the film is adapted to be wrapped; hollow, resilient, non-abrasive members on said element at the points of engagement therewith of the film; and integral projections on said members for separating adjacent convolutions of the film, substantially as described.

2. A support for motion picture films comprising a frame upon which the film is adapted to be wrapped, said frame consisting of a plurality of spaced slats; hollow, resilient strips on the outer sides of said slats; and integral projections on said strips for separating adjacent convolutions of the film, substantially as described.

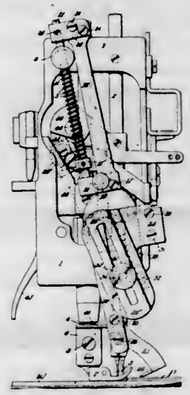
1,240,955. BEET-HARVESTER. JOSEPH D. DENBURGER, Lents, Oreg. Filed Nov. 8, 1916. Serial No. 130,221. (Cl. 55—108.)

In beet harvesters, a pair of spaced rotatably mounted rigid rings, a pair of digging members pivotally secured to said rings for limited movement toward and away from each other, a pair of spaced guide rods mounted concentric with the rings and extending about the under and rear parts of the rings for forcing the digging members together during their downward and rearward travel, and a pair of spaced rods mounted about the top portions of the rings concentric therewith, the rearward ends of said rods being integrally connected to form a V-shaped opening member positioned closely adjacent the upper ends of the said guide rods and in the path of travel



of the digging members for entering between said members and forcing the same apart as they leave the said guide rods.

1,240,956. RUFFLING MECHANISM FOR SEWING-MACHINES. ALBERT H. DE VOE, Westfield, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Dec. 19, 1913. Serial No. 807,571. (Cl. 112—16.)



1. In a sewing machine, the combination with stitch-forming mechanism including a reciprocating needle and feeding mechanism, of ruffling mechanism including a vibratory ruffling lever and a fulcrum therefor with respect to which said lever is endwise movable, a rigid ruffling blade carried by said lever, said fulcrum and blade being disposed on opposite sides of the needle-path, a spring acting upon said lever to press said blade into operative relation with the work, a rock-arm and adjustable means for transmitting to-and-fro movements from the rock-arm to said lever.

2. In a sewing machine, the combination with stitch-forming mechanism and feeding mechanism, of ruffling mechanism comprising a vibratory ruffling lever, a fulcrum-stud therefor, a thrust-rod carried by said ruffling lever and entering an aperture in said fulcrum-stud, a pressure spring surrounding said thrust-rod, a ruffling blade carried by said lever, actuating means for said lever including a rock-arm, and means for adjustably connecting said rock-arm and the lever.

3. In a sewing machine, the combination with stitch-forming mechanism and feeding mechanism, of ruffling mechanism comprising a vibratory ruffling lever, an oscillatory fulcrum-stud with which said lever is connected for endwise movement relatively thereto, a ruffling blade carried by said lever, a pressure spring acting upon

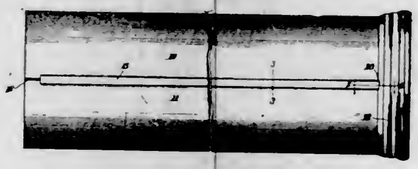
said lever to press the blade upon the work, a rock-arm having opposed faces which embrace the lever, actuating means for said rock-arm, and means for adjustably connecting said rock-arm and the lever.

4. In a sewing machine, the combination with stitch-forming mechanism and feeding mechanism, of ruffling mechanism comprising a vibratory ruffling lever, an oscillatory fulcrum-stud with which said lever is connected for endwise movement relatively thereto, a ruffling blade carried by said lever, a pressure spring acting upon said lever to press the blade upon the work, a rock-arm having opposed faces which embrace the lever, means for adjustably connecting said rock-arm and the lever, and actuating means for said rock-arm including a rock shaft, a crank-disk, a slide-block upon said disk, and a crank-arm connected to said rock-arm and having a forked end embracing said slide-block.

5. In a sewing machine, the combination with stitch-forming mechanism and feeding mechanism, of ruffling mechanism comprising a vibratory and endwise movable ruffling lever and a fixed fulcrum therefor, a ruffling blade carried by said lever, a pressure spring acting upon said lever to press the blade in operative relation with the work, a longitudinal guideway formed in said lever, a rock-arm comprising two rigidly connected plates intermediate which said ruffling lever is received, one of said plates being provided with a guide-way, a coupling member for the ruffling lever and rock-arm and adjustable within said guide-ways, a rock-shaft fixed to said arm and provided with a crank-arm, an actuating rock-shaft, and operative connections between said actuating rock-shaft and the crank arm.

[Claims 6 to 8 not printed in the Gazette.]

1,240,957. MANUFACTURE OF CYLINDERS, PIPES, &c. WILLIAM A. DOBLE, San Francisco, Cal., assignor to Pelton Water Wheel Company, San Francisco, Cal., a Corporation of California. Filed June 26, 1914. Serial No. 847,491. (Cl. 137—75.)



1. A joint construction comprising two parts, an edge of one part arranged parallel and close to an edge of the other part, a strap arranged exteriorly of the joint and overlying the two edges and having one of its longitudinal edges welded to one of the said parts and its other longitudinal edge welded to the other part, and a weld between the meeting edges of the said parts.

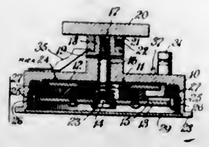
2. A joint construction comprising two parts arranged to form a butt joint, a butt weld joining the said two parts and a strap arranged exteriorly of and overlying the joint and welded to the parts along three spaced parallel lines.

3. As an article of manufacture, a sheet metal cylindrical pipe having a longitudinal butt weld, and a strap arranged exteriorly of and overlying the said weld and having its longitudinal edges welded to the pipe.

4. As an article of manufacture, a sheet metal cylindrical pipe having a longitudinal butt weld, and a strap arranged exteriorly of and covering said butt weld and welded thereto on the exterior of the pipe and having its longitudinal edges welded to the pipe along lines spaced from the butt weld.

5. As an article of manufacture a sheet metal cylindrical pipe having a longitudinal joint, the abutting edges being beveled to form a space therebetween wider at the one than at the other surface of the pipe, and a strap overlying the joint and having its longitudinal edges welded to the pipe.

1,240,958. CONDENSER. HAROLD P. DONLE, Belmont, Mass., assignor to Connecticut Telephone & Electric Company, Meriden, Conn., a Corporation of Connecticut. Filed Jan. 29, 1917. Serial No. 145,070. (Cl. 250—41.)

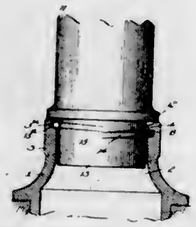


1. A condenser comprising a support having a condenser surface thereon and provided with a passage therethrough, a second condenser member for coöperation with the first condenser member provided with a screw stud extending freely through the passage in the first condenser member, an interposed dielectric between the condenser members, coöperating guides on the support and the second condenser member for guiding the second condenser member in a straight path toward and away from the first condenser member, a spring for separating the condenser members and a nut engaging the screw stud for drawing the second condenser member toward the first condenser member.

4. A condenser comprising a metallic base having an integral surface formed to constitute a condenser member, a second condenser member mounted on the base and insulated from the first condenser member, an interposed dielectric between the condenser members and means for shifting the second condenser member toward and away from the integral condenser surface of the metallic supporting base.

[Claims 2 and 3 not printed in the Gazette.]

1,240,959. COLUMN AND BASE. PHILLIP DROSS and FRED M. MCLEAN, Meridian, Miss. Filed Dec. 11, 1916. Serial No. 136,308. (Cl. 189—28.)

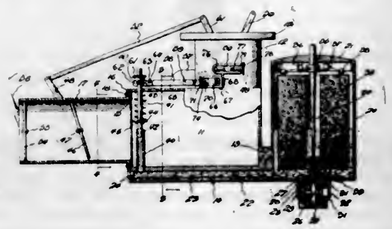


1. In combination, a stationary hollow base having an opening in its top and an internal thread provided with a locking tooth; and a column adapted to be mounted in the base having an external thread provided with a locking shoulder for engagement with said tooth, the column having a limited lateral movement relatively to the base, whereby, on screwing the column into the base, the locking shoulder of the external thread may be moved past the locking tooth, and, on centering of the column in the base, said locking shoulder seats behind the locking tooth and removal of the column from the base is prevented.

2. In combination, a stationary hollow base, having an opening in its top and an internal thread provided with a lateral locking tooth; and a column adapted to be mounted in the base having an external thread provided with a lateral locking shoulder for engagement with said tooth, the column having a limited lateral movement relatively to the base, substantially equal to the lateral dimension of the locking tooth, whereby on screwing the column into the base, the locking shoulder of the external thread may be moved past the locking tooth, and, on centering of the column in the base, said locking shoulder seats behind the locking tooth and removal of the column from the base is prevented.

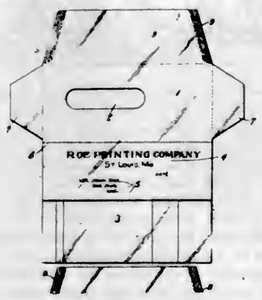
[Claims 3 to 5 not printed in the Gazette.]

1,240,960. CARBURETER. OSCAR G. ERICKSON, Detroit, Mich. Filed Mar. 14, 1916. Serial No. 84,140. (Cl. 261—51.)



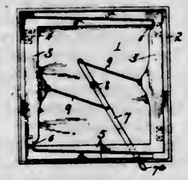
In a carbureter, a reciprocally mounted fuel valve normally held in one position, a throttle valve having a rotating valve stem, a lever pivoted intermediate its length and operatively engaging the fuel valve by one end whereby movement of the other end in one direction will cause opening of the fuel valve and in the other direction will permit closing thereof, a projecting member mounted upon the other end of the lever, a cam member mounted upon the throttle valve stem in a vertical plane with the projecting member, means for adjusting the projecting member to in effect increase or decrease the length of the lever, and means for adjusting the second cam member in a direction parallel to the adjustment of the projecting member.

1,240,961. FOLDER-ENVELOP. FREDERIC W. FORGUS, St. Louis, Mo., assignor to Stewart Scott, Jr., St. Louis, Mo. Filed Oct. 30, 1915. Serial No. 58,925. (Cl. 229—92.3.)



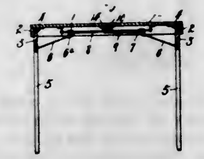
A folder envelop, comprising a face, a window in the face, end flaps in connection with the face having their lower edges terminating above the lower edge of the face and leaving openings between the lower edges of the end flaps and the lower edge of the face when the envelop is folded, a communication portion in connection with the lower edge of the face adapted to fold against the inner side of the face, a folding and severance line at the lower edge of the face below the lower edges of the end flaps defining the communication portion from the face, whereby when said communication portion is folded and the envelop is closed an opening is formed between the lower edge of each end flap and the lower edge of the face defined by said folding and severance line, a space on the communication portion adjacent to the severance line for receiving a letter-head or the like, designated spaces on the communication portion adapted to receive the name of the addressee in such position that when the communication portion is folded the name will be visible through the window, said designated spaces and said window being equidistant from said severance line, the space on the communication portion below the designated spaces adapted to receive the communication, a side flap at the side edge of the face opposite from the communication portion of less width than the face, and means for securing the side flap in connection with the end flaps only and leaving the side flaps and end flaps disconnected from the communication portion so that the envelop below the end flaps is open to enable the communication portion to be inspected or withdrawn.

1,240,962. FOLDING TABLE. HARRY A. FRANK, Toledo, Ohio. Filed Apr. 8, 1916. Serial No. 89,973. (Cl. 45—11.)



In a table, a top having a flange depending from and extending around its edge, said flange having an elongated opening in a part thereof, a pair of cross-bars hinged to the top, one adjacent to each of opposite edges thereof, each of said bars having legs projecting therefrom, a lever pivoted to the under side of the table and having one end thereof prolonged and extended through said elongated opening, rods projecting in opposite directions from the lever at opposite sides of its pivot and connected at their outer ends to respective cross-bars, whereby rocking movements of the lever will communicate simultaneous movements to the cross-bars and legs, ratchet-teeth provided at opposite end portions of said opening in one wall thereof, and means on said lever for engaging with said teeth to releasably retain the lever at either limit of its movement with respect to said opening.

1,240,963. FOLDING TABLE. HARRY A. FRANK, Toledo, Ohio. Filed Apr. 20, 1916. Serial No. 92,509. (Cl. 45—11.)

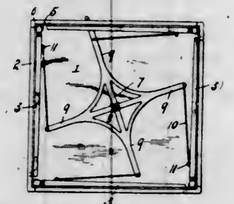


1. A table having a top portion, legs hinged to the top portion adjacent to each of opposite edges thereof, means connecting said legs and having a set of toggle links which when straightened effect an outward unfolding of the legs and when collapsed effect an inward folding of the legs, and means having connection with said toggle links and operable to control the movements thereof and to normally urge their movement in one direction.

2. In a table, a top, legs hinged to said top adjacent to opposite edges thereof, a guide secured to the top between said legs and disposed longitudinally of the plane of folding and unfolding movements thereof, slide parts mounted on said guide, means connecting said slide parts to respective of said legs, and means connecting both of said slide parts and operable to impart relative inward or outward movements in unison thereto to impart folding and unfolding movements respectively to the legs.

[Claim 3 not printed in the Gazette.]

1,240,964. FOLDING TABLE. HARRY A. FRANK, Toledo, Ohio. Filed July 5, 1916. Serial No. 107,572. (Cl. 45—11.)

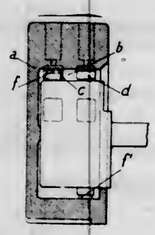


1. A table having a top portion of polygonal form, a set of legs hinged to different side edges of the table for folding and unfolding movements in the same direction perimetrically of the table, and means including a lever member carried by the table top at its under side and connected to each leg, said means being operable when turned in one direction to impart simultaneous unfolding movements to the legs, and vice versa.

3. A table having a top of square form and provided around its edge with a depending flange, a leg pivotally carried by the flange in each angle thereof, and lever means pivoted to the under side of the table and having a plurality of arms, each connected to an adjacent leg and operable upon a movement of the lever in one direction to impart simultaneous unfolding movements to the legs, and vice versa.

[Claim 2 not printed in the Gazette.]

1,240,965. PLUG CONTACT-MAKER. HENRI GALLET, Puteaux, France, assignor to Etablissements De Dion Bouton, Société Anonyme, Puteaux, France, a Corporation of France. Filed Dec. 26, 1916. Serial No. 138,949. (Cl. 123—167.)

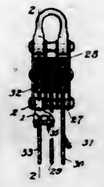


1. A contact make and break device comprising a hollow casing, a plurality of contact studs disposed in the upper part of the casing in sets, the members of each set being spaced apart predetermined distances, a rotary member in said casing having at least two brushes electrically connected together and adapted, upon the movement of the rotary member, to successively engage said contact studs.

2. A contact make and break device comprising a hollow casing, a plurality of contact studs disposed in the upper part of the casing in sets, the members of each set being spaced apart predetermined distances, a rotary member in said casing having brushes arranged on the same in such manner that during the movement of the rotary member one brush will successively engage the members of one set of contacts and another brush will subsequently successively engage the members of another set of contacts.

1,240,966. CLAMP. MILLARD H. GOULD, Pittsburgh, Pa. Filed Jan. 13, 1916. Serial No. 71,903. (Cl. 24—134.)

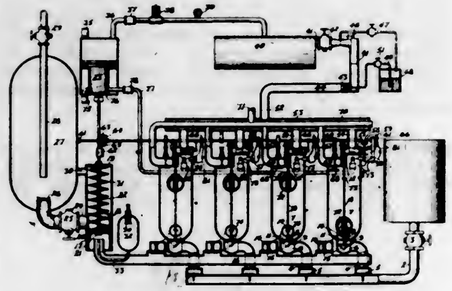
2. A line clamp comprising a body portion having an eye, downwardly curved arms formed on said body, an eccentric sheave adapted to be received between said arms, an axle for said sheave, removable side plates and cooperating means on said side plates and said arms and said axle whereby the side plates may be readily positioned on said arms and axle.



3. A line clamp comprising a body portion having an eye, downwardly curved arms formed on said body, an eccentric sheave adapted to be received between said arms, said sheave being in such relation to the body portion of the clamp that the line of pull of a cable inserted in said sheave will be in a direct line with the center of said head or eye portion of the clamp body.

[Claim 1 not printed in the Gazette.]

1,240,967. INTERNAL-COMBUSTION PUMP. VICTOR GRIFFITH, San Francisco, Cal. Filed Jan. 22, 1917. Serial No. 143,553. (Cl. 160—1.)



1. In an apparatus of the character described, the combination with a series of internal combustion chambers, having electrically ignited spark plugs, liquid outlet pipes leading therefrom, a common pipe into which they discharge, a pressure chamber, a valve actuated by the pressure of liquid in said common pipe, and controlling the communication between said common pipe and the pressure chamber, a shaft actuated by said valve, and means, actuated by said shaft, for controlling the circuits through the spark plugs of the internal combustion engines.

2. In an apparatus of the character described, the combination of a series of internal combustion chambers, liquid outlet pipes leading therefrom, a common pipe into which they discharge, a pressure chamber, a valve actuated by pressure of liquid in said common pipe, and controlling the communication between said common pipe and the pressure chamber, a shaft actuated by said valve, and means, actuated by said shaft, for controlling the admission of fluid fuel into said combustion chambers.

3. In an apparatus of the character described, the combination of a series of internal combustion chambers, liquid outlet pipes leading therefrom, a common pipe into which they discharge, a pressure chamber, a valve actuated by the pressure of the liquid in said common pipe, and controlling the communication between said common pipe and the pressure chamber, a shaft actuated by said valve, and means actuated by said shaft, for controlling the exhaust from said internal combustion chambers.

4. In an apparatus of the character described, the combination of a series of internal combustion chambers, liquid outlet pipes leading therefrom, a common pipe into which they discharge, a pressure chamber, a valve actuated by the pressure of the liquid in said common pipe and controlling the communication between said common pipe and the pressure chamber and a piston, actuated by said valve, for forcing carbureted air into said cylinders and for exhausting waste gases therefrom.

7. In an apparatus of the character described, the combination of an internal combustion chamber, an inlet conduit for supplying liquid to the lower portion of said chamber, means for igniting combustible fluid fuel in the upper portion of said chamber, a valve for limiting the amount of water admitted to said internal combustion chamber through said inlet pipe, and a float operating by its buoyancy to close said valve.

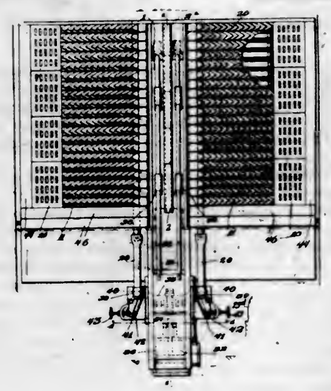
[Claims 5, 6, and 8 not printed in the Gazette.]

1,240,968. COLLAPSIBLE PILLOW. YASAVRO HARA, San Francisco, Cal. Filed Mar. 30, 1917. Serial No. 158,559. (Cl. 5—15.)



A collapsible pillow comprising end boards each formed with a socket, a piece of fabric extending between the end boards and secured thereto, and the collapsible spreader comprising two metallic pieces pivoted together and each having an end adapted to be received in one of said sockets and also having an elbow at the other end adapted to support the other piece when said pieces extend in an approximately straight line.

1,240,969. UNDERFEED STOKER. EDWIN J. HART, Philadelphia, Pa. Filed Nov. 23, 1915, Serial No. 62,944. Renewed Nov. 23, 1916. Serial No. 133,096. (Cl. 110—47.)



1. In a stoker of the character described, the combination of a longitudinally extending chute, means providing an air supply chamber below the chute, a hollow partition extending longitudinally between the walls of said chute and communicating with said chamber, fuel conveying means located between the walls of the chute and the opposite sides of the partition, said partition having air outlets leading into the fuel as it is conveyed in the chute, substantially as described.

2. In a stoker of the character described, the combination with a retort, and an air supply chamber below the retort, of a hollow partition constituting an air chamber extending throughout the center of the retort having air outlets in its sides and having open communication throughout its length with the air chamber below, and reciprocating boosters in the retort at opposite sides of the partition, substantially as described.

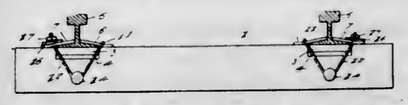
3. In a stoker of the character described, the combination with a retort, and an air supply chamber below the retort, of a hollow partition constituting an air chamber extending throughout the center of the retort having air outlets in its sides and having open communication throughout its length with the air chamber below, a chute communicating with one end of the retort, a hopper communicating with the chute, and a reciprocating pusher below the hopper forcing the fuel in the chute into the retort at opposite sides of the partition, substantially as described.

4. In a stoker of the character described, the combination with a retort, and an air supply chamber below the retort, of a hollow partition constituting an air chamber extending throughout the center of the retort having air outlets in its sides and having open communication throughout its length with the air chamber below, reciprocating boosters in the retort at opposite sides of the partition, a chute communicating with one end of the retort, a hopper communicating with the chute, and a reciprocating pusher below the hopper forcing the fuel in the chute into the retort at opposite sides of the partition, substantially as described.

5. In a stoker of the character described, the combination with a retort, and an air supply chamber below the retort, of a hollow partition constituting an air chamber extending throughout the center of the retort having air outlets in its sides and having open communication throughout its length with the air chamber below, inclined grate bars having their highest ends located at the sides of the retort, means for forcing fuel longitudinally of the retort and over the sides of the retort onto the grate bars, means for shaking the grate bars, and a single motor simultaneously operating both of said last mentioned means, substantially as described.

[Claims 6 to 16 not printed in the Gazette.]

1,240,970. RAIL TIE AND FASTENER. JOHN J. HARTNETT, Worden, Ill. Filed Jan. 3, 1917. Serial No. 140,391. (Cl. 238—4.)

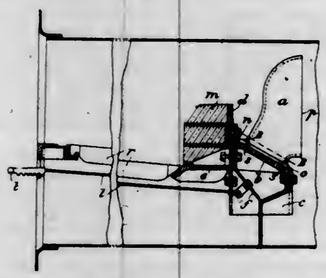


1. A rail tie consisting of a body portion having the upper sides provided, adjacent the opposite ends thereof, with recesses, cushion elements located within the recesses, rail-clamping elements located at the upper side of the tie, and retaining elements having connection with the rail-clamping elements and engaging the cushion elements at opposite sides of the tie body, for the purpose specified.

2. The combination with a rail tie, of spaced pairs of rail-engaging plates located, respectively, at the opposite ends of the tie body, each plate of each pair having a pair of openings therein, a retaining element for each pair of plates consisting of a U-shaped portion having the sides thereof extending through the openings in one plate and having the connecting portion for the sides located at the upper side of the mentioned plate, the sides of the U-shaped portion lying, respectively, on opposite sides of the tie body, and upwardly projecting arms formed integral with the sides of the U-shaped portion and having their upper terminals extending through the openings in the other plate of the pair, means for holding the arms against withdrawal from the openings in the last-mentioned plate, bolts located at the opposite sides of the tie body and engaging over the points of juncture between the arms and the sides of the U-shaped portion of the retaining element, for the purpose specified.

3. The combination with a rail tie, of spaced pairs of rail-clamping plates mounted on the upper side of the tie and located, respectively, adjacent the opposite ends of the tie and terminally extending beyond the sides of the tie and provided with openings adjacent the terminals, a fastening element extending through one of the plates of each pair and engaging in the tie body, a retaining plate overlying the last-mentioned plate and resting on the fastening element and having openings adjacent the terminals thereof registering with the openings in the adjacent plate, and retaining elements having connection with the sides of the tie body and extending through the openings in the plates of the respective pairs and through the openings in the retaining plates.

1,240,971. FIRE-BOX. JOHANNES HASSEL-JENSEN, Copenhagen, Denmark. Filed May 31, 1916. Serial No. 100,920. (Cl. 110—73.)

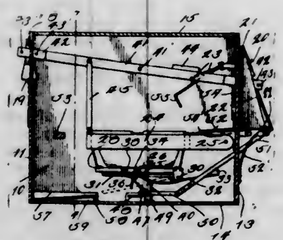


1. A mouth-piece for secondary air supply in fire boxes, comprising a flattened trumpet-shaped member corrugated in cross section forming air passages adapted to direct air issuing from the outlet end in paths crossing one another.

4. In a furnace, means for supplying secondary air thereto consisting of a plurality of flattened trumpet-shaped members corrugated in cross section and placed across the path of the smoke and products of combustion, said members forming between them sinuous smoke passages, and means for supplying air to said members whereby alternating currents of air and smoke cross one another.

[Claims 2 and 3 not printed in the Gazette.]

1,240,972. TRAP-NEST. GEORGE F. HATCH, Atwater, Cal. Filed Dec. 13, 1916. Serial No. 136,683. (Cl. 119—47.)

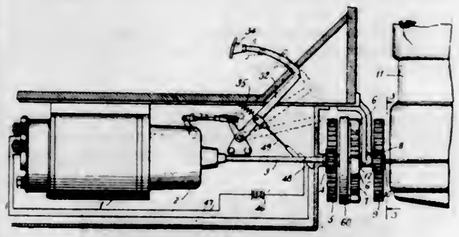


1. In a trap nest, an inclosure, a nest provided with an egg discharge opening, a closure for said opening, a pivoted latch mounted on the nest for holding the closure in closed position, means operable by a hen entering the nest to release said latch and permit an egg laid in the nest to pass through said discharge opening, and means for restoring the parts to normal position.

2. In a trap nest, an inclosure, a movable nest having an egg discharge opening, a closure for said opening, means normally holding said closure in closed position, means for releasing said holding means when the nest is depressed and for maintaining the closure in closed position, means operable by an egg deposited in the nest for holding the latter depressed, and means operable by the weight of a departing hen for releasing said last named holding means to permit the return of said nest to normal position and the discharge of the egg through said opening.

3. A trap nest comprising an inclosure provided with an entrance and an exit opening, doors for said openings, a controlling member for alternately locking and releasing said entrance and exit doors, a movable nest provided with a discharge opening, operative connections between the nest and said controlling member, a hinged closure for said discharge opening, means urging said closure to closed position, means for limiting opening movement of the closure, said means being operable by an egg deposited in the nest to hold the latter in one position of its movement, a paltform operatively supported in the exit opening, means connected with the platform for releasing said first named means, and permitting the closure to open and discharge the egg, and means for restoring the parts to normal position.

1,240,973. STARTING INTERNAL-COMBUSTION ENGINES. OTTO HEINS, New York, N. Y., and CHARLES M. WILD, Springfield, Mass., assignors to Bosch Magneto Company, New York, N. Y., a Corporation of New York. Filed June 12, 1915. Serial No. 33,727. (Cl. 172—239.)



1. The method of bringing an internal combustion engine from rest to its critical speed by means of a starting motor connected thereto through speed change gearing, which consists in decreasing the reduction ratio of the speed change gearing during the starting period; substantially as described.

2. The method of bringing an internal combustion engine from rest to its critical speed by means of an electric motor of the series type connected thereto through speed change gearing, which consists in decreasing the reduction ratio of the speed change gearing substantially at the time that the motor attains its maximum output.

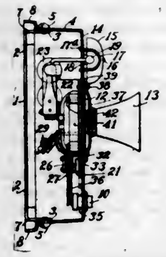
3. The method of bringing an internal combustion engine from rest to its critical speed by means of an electric motor of the series type connected thereto through speed change gearing, which consists in causing the maximum output of the motor to recur by decreasing the reduction ratio of the speed change gearing after the motor first attains its maximum output.

4. The method of bringing an internal combustion engine from rest to its critical speed by means of an electric motor of the series type connected thereto through speed change gearing, which consists in adapting the motor to reach its maximum output substantially at the normal critical speed of the engine, and decreasing the reduction ratio of the speed change gearing at substantially said speed.

5. The combination with an internal combustion engine and a starting motor therefor, of means for increasing the average acceleration in bringing the engine from rest to its critical speed comprising speed change gearing between the motor and the engine, and means for decreasing the reduction ratio of the speed change gearing during the starting period.

[Claims 6 and 7 not printed in the Gazette.]

1,240,974. TELEPHONE WALL SET. WILLIAM W. HENRY, Wollaston, Mass., assignor to S. H. Couch Company, Inc., Atlantic, Mass., a Corporation of Massachusetts. Filed Aug. 18, 1915. Serial No. 46,053. (Cl. 179—100.)

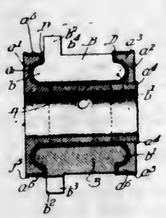


2. In a telephone wall-set, a wall-plate; a box adapted to be secured against said wall-plate; means for so securing said box; and frictional guides adapted to prevent rattling of said box when so secured; in combination with a base-plate adapted for the mounting thereon of the transmitter and other mechanism; and means for securing said base-plate within said box.

3. A telephone box; a metallic base-plate with a suitable opening therethrough; means adapted for the mounting of a transmitter against said opening; and a plurality of bent ears, fast on said base-plate and adapted for the mounting thereon of suitable, independently-insulated telephone-actuating mechanisms; in combination with a mouth-piece for said transmitter; and independent, removable means for securing said base-plate and said mouth-piece together in operative position against said box.

[Claims 1, 4, and 5 not printed in the Gazette.]

1,240,975. COMMUTATOR. WILLIAM T. HENSLEY, Boundbrook, N. J., assignor, by mesne assignments, to Bound Brook Engine & Mfg. Co., a Corporation of Delaware. Filed Sept. 18, 1913. Serial No. 790,489. (Cl. 200—12.)



1. A commutator comprising a tubular holder, annular shoulders encircling said holder, disposed a distance apart, providing opposed retaining seats, conducting bars arranged side by side around said holder, disposed longitudinally thereof, formed with end portions engaging said seats, and means for insulating the bars thus held against displacement by the opposition of said shoulders, the said means comprising a mica disk composed of superimposed sheets of material, slitted to form converging portions, the slits of different sheets breaking joint, and said disk being interposed between the bars and one shoulder, conforming thereto, and extending a distance between the holder and the inner edges of the bars.

2. A commutator comprising a tubular holder, annular shoulders encircling said holder, disposed a distance apart, providing opposed retaining seats, conducting bars arranged side by side around said holder, disposed longitudinally thereof, formed with end portions engaging said seats, the said seats being in the form of annular grooves which face each other, and said end portions being shaped to enter said grooves, and means for insulating the bars thus held against displacement by the opposition of said shoulders, the said means comprising a mica disk composed of superimposed sheets of material, slitted to form converging portions, the slits of different sheets breaking joint, and said disk being interposed between the bars and one shoulder, conforming thereto, and extending a distance between the holder and the inner edges of the bars.

3. A commutator comprising a tubular holder, annular shoulders encircling said holder, disposed a distance apart, providing opposed retaining seats, conducting bars arranged side by side around said holder, disposed longitudinally thereof, formed with end portions engaging said seats, said end portions being rounded, and said seats being shaped to conform to the curve of said end portions, and means for insulating the bars thus held against displacement by the opposition of said shoulders, the said means comprising a mica disk composed of superimposed sheets of material, slitted to form converging portions, the slits of different sheets breaking joint, and said disk being interposed between the bars and one shoulder, conforming thereto, and extending a distance between the holder and the inner edges of the bars.

4. A commutator comprising a tubular holder, annular shoulders encircling said holder, disposed a distance apart, providing opposed retaining seats, conducting bars arranged side by side around said holder, disposed longitudinally thereof, formed with end portions engaging said seats, said shoulders holding the bars under endwise compression, and the shortest distance between said seats being less than the length over all of said bars, and means for insulating the bars thus held against displacement by the opposition of said shoulders, the said means comprising a mica disk composed of superimposed sheets of material, slitted to form converging portions, the slits of different sheets breaking joint, and said disk being interposed between the bars and one shoulder, conforming thereto, and extending a distance between the holder and the inner edges of the bars.

5. A commutator comprising a tubular holder, annular shoulders encircling said holder, disposed a distance apart, providing opposed retaining seats, conducting bars arranged side by side around said holder, disposed longitudinally thereof, formed with end portions engaging said seats, at least one of said shoulders being integral with said holder, and means for insulating the bars thus held against displacement by the opposition of said shoulders, the said means comprising a mica disk composed of superimposed sheets of material, slitted to form converging portions, the slits of different sheets breaking joint, and said disk being interposed between the bars and one shoulder, conforming thereto, and extending a distance between the holder and the inner edges of the bars.

1,240,976. COMBINED FRICTION AND HERMETICALLY-SEALED CAN. JOHN G. HODGSON, Maywood, Ill., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Oct. 27, 1913. Serial No. 797,534. (Cl. 220—77.)

1. A container of the character described including, in combination: a body having a top provided with a hole, said top having an internal friction wall and a gasket supporting ledge; a gasket on said ledge; a cap having a doubled elastic peripheral portion and adapted to be seated on said top to close the opening therein, the edge of said cap extending over and engaging the gasket; and a retaining member for said cap having an external friction wall coöperable with the friction wall of the top, said member being independent of and engaging the cap

and adapted to press the same firmly into engagement with the gasket, substantially as specified.

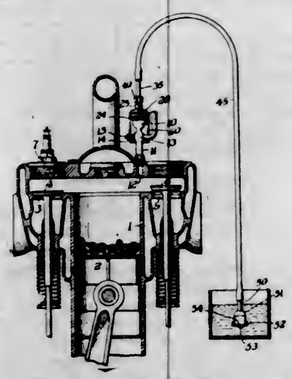


2. A container of the character described including, in combination: a body provided with a top having a hole therein, said top having a gasket supporting ledge and a friction wall; a gasket supported on said ledge; a cap having a curled and inturned edge spaced from the main portion thereof; and a cap retaining member having a friction wall coöperable with the friction wall of the top, said member engaging the cap to press the latter firmly into engagement with the gasket, the spaced inturned edge of the cap affording an additional yielding pressure on the gasket, substantially as specified.

3. A container of the character described including, in combination: a body provided with a top having an opening therein, said top having a gasket supporting ledge; a gasket mounted on said ledge; a cap adapted to close the opening in said top and having its edge in engagement with said gasket; and a retaining member in engagement with said cap and adapted to press the latter firmly against the gasket, said retaining member being frictionally held in position and said cap having a spring yielding action, substantially as specified.

4. A container of the character described including, in combination: a body provided with a top having a central opening therein, said top having an annular channel and a substantially vertically extending friction seat wall; a gasket located in said channel; a cap having a curled inturned edge spaced from the main portion thereof, said cap being adapted to be seated on said gasket; and a cover having a friction seat wall coöperable with the friction seat wall of the top and having a portion thereof in engagement with said inturned edge of the cap, whereby the can is provided with a hermetic and a friction seal, substantially as specified.

1,240,977. MEANS FOR REMOVING CARBON FROM EXPLOSIVE-ENGINE CYLINDERS. GEORGE P. HORN, Lansdowne, Pa. Filed Feb. 25, 1915. Serial No. 10,451. (Cl. 123—198.)



1. The combination of the priming cup for the cylinder of an explosive engine, a nozzle having an end adapted to be inserted into the said priming cup, means in said nozzle which permits the passage of a liquid therethrough into the said priming cup and thence into said cylinder, means for detachably connecting the said nozzle to the said priming cup and a conduit having connection with the said nozzle, and communicating with a source of supply of liquid.

2. The combination of the priming cup for the cylinder of an explosive engine, a nozzle adapted to have an end projected into the said cup, a ball having swinging connection with the said nozzle and adapted to engage a portion of the priming cup structure whereby the said nozzle is adapted to be detachably connected to the latter, means in said nozzle which permits the passage of liquid in one direction therein to enter the cylinder and which acts automatically to prevent the return outward passage of the said liquid and a conduit having connection with the said nozzle and communicating with a source of supply of liquid.

3. The combination of a priming cup for a cylinder of an explosive engine, said cup having a stem by means of which it is connected with the cylinder, a valve for closing the passage-way through said stem, a nozzle having an end portion which is adapted to project into the said cup, a spring ball having pivoted connection with the said nozzle and being adapted to engage a part of the priming cup structure when the nozzle is placed in position with its end portion in the said priming cup to hold the said nozzle in detachable engagement with the said priming cup, means for permitting the passage of a liquid in a direction to enter the said cylinder, said means acting automatically to prevent a return passage of the said liquid, and a flexible tubular conduit having connection with the said nozzle and communicating with the source of supply of liquid whereby the latter may be conducted to the said cylinder.

1,240,978. COLLAPSIBLE BOAT. JOHAN CHRISTIAAN HOSECK, 's-Gravenhage, Netherlands. Filed Apr. 30, 1917. Serial No. 165,600. (Cl. 9—2.)

1. A collapsible boat comprising in combination a number of transverse frames, a skin or cover of watertight material applied over the said frames, locking devices at the upper ends of the frames, gunwales interlocking with the said locking devices, said locking devices being longitudinally adjustable with respect to the gunwales, locking devices on the undersides of the frames and a keel designed to engage with the said locking devices, said last-named locking devices being longitudinally adjustable with respect to the keel, substantially as hereinbefore described.

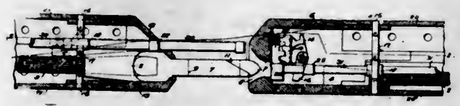
2. A collapsible boat comprising in combination a number of transverse frames, a skin or cover of watertight material applied thereto, hooks attached to the upper ends of the frames and having their openings directed alternately upward and downward, gunwales which engage with the said hooks, hooks secured to the undersides of the frames and the openings of which are directed alternately to the left and to the right and a keel engaging with the said hooks, substantially as hereinbefore described.

3. A collapsible boat comprising in combination a number of transverse frames, a skin or cover of watertight material applied thereto, locking devices upon the upper ends and the undersides of the transverse frames, gunwales engaging with the upper locking devices and a keel engaging with the bottom locking devices, the said keel and the gunwales abutting against the foremost frame and engaging with play in the locking devices of the remaining frames and engaging eyes on the stern frame, substantially as hereinbefore described.

4. A collapsible boat comprising in combination a number of transverse frames having locking devices at their upper ends and undersides, gunwales engaging the upper locking devices, a keel engaging the lower devices, a bow composed of a pair of inclined rails hinged to the foremost frame and jointed at their front ends to the stem and a front keel jointed to the underside of the foremost frame and clamped to the lower part of the stem, substantially as hereinbefore described.

5. A collapsible boat comprising in combination a number of transverse frames, gunwales and a keel detachably connected to locking devices at the upper ends and undersides thereof respectively and a skin or cover of watertight material applied to the said transverse frames and having at the top of the stern frame a projecting portion which covers the inner space of the boat when the latter is collapsed, substantially as hereinbefore described.

1,240,979. MEANS FOR CONNECTING THE ENDS OF LIFTING-ROPES TOGETHER UNDER THE HULL OF A SUBMERGED VESSEL. ANDREW JOHNSEN, Vancouver, British Columbia, Canada. Filed Jan. 26, 1917. Serial No. 144,723. (Cl. 114—51.)

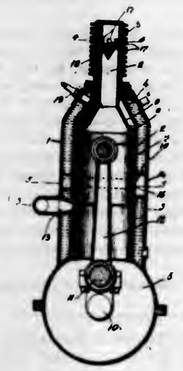


5. A means for automatically connecting together the ends of wire ropes, said means comprising a socket member secured to the end of one rope, a normally retracted lock bolt movable across the socket aperture within the socket, a spigot member secured to the other rope end, said spigot apertured to receive the lock bolt of the socket member when inserted and means whereby insertion of the spigot in the socket projects the lock bolt to secure it therein.

13. The combination with the male and female coupling members each including shoes, of applying instruments engaging said shoes, toggle latches for connecting said applying instruments to said shoes and releasing members adapted to be operated during the coupling act for breaking the toggles to withdraw the toggle latches whereby said applying members may be disconnected from said shoes.

[Claims 1 to 4 and 6 to 12 not printed in the Gazette.]

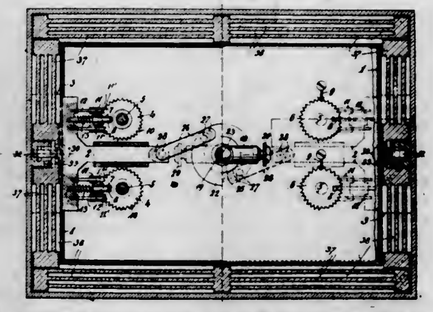
1,240,980. INTERNAL-COMBUSTION ENGINE. CHARLES A. JUENGST, Croton Falls, N. Y. Filed Mar. 13, 1915. Serial No. 14,062. (Cl. 123—73.)



A two-cycle engine comprising: a cylinder and a piston forming a combustion chamber having an end portion of relatively small capacity which gradually widens in one direction from the point of admission and in which the fresh mixture is localized on the compression stroke, ignition means in said end portion adjacent to which a minimum charge can be confined, and a valveless port of substantially the same area as the small end portion of said combustion chamber, said port being controlled by the reciprocation of the piston for admitting the charge under compression into substantially the narrowest part of said end portion substantially upon the completion of the power stroke of the piston

---

1,240,981. KEYLESS LOCK. EDUARD FRANZ KOHL, Vienna, Austria. Filed Dec. 5, 1913. Serial No. 804,909. (Cl. 70—53.)

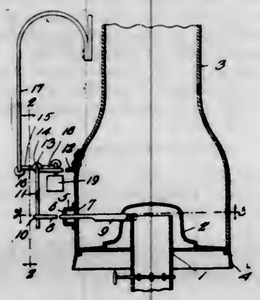


1. In a keyless lock, the combination with a locking bolt and a plurality of locking disks adapted to permit movement of the locking bolt into the unlocking position only at a prearranged position, each of said locking disks being provided with teeth, of slidably mounted pressure members yieldingly supported by the bolt, and one of such locking members being arranged adjacent each locking disk, and each pressure member being provided with teeth, a plurality of which are constantly in engagement with a plurality of the teeth on the respective disk, and means arranged to exert a constant pressure upon each of the pressure members to maintain the teeth of the latter constantly in engagement with the teeth of the locking disks whereby the hand of the operator rotating each locking disk will encounter the same resistance to the movement whether or not the locking disk is in the position permitting movement of the bolt.

2. In a keyless lock, the combination with a locking bolt and a plurality of locking disks adapted to permit movement of the locking bolt into the unlocking position only at a prearranged position, each of said locking disks being provided with teeth, of pressure members, guides carried by the bolt and upon which guides the said pressure members are slidingly mounted, one of said pressure members being arranged adjacent each locking disk, and each presure member being provided with teeth, a plurality of which are constantly in engagement with a plurality of the teeth on the respective disk, and a spring bearing upon each of the pressure members and exerting a constant pressure thereon to maintain the teeth of the pressure members constantly in engagement with the teeth of the locking disks for the purposes set forth.

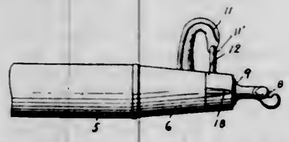
3. In a keyless lock, the combination with a plurality of locking bolts, of means for actuating them simultaneously, a plurality of locking disks for one bolt adapted to permit movement of said bolt into unlocking position only at a pre-arranged relative position of said disks, each of said disks being provided with teeth, pressure members yieldingly slidingly supported by the bolt and each provided with a plurality of teeth for engagement with a plurality of teeth on the respective disk and maintained constantly in engagement therewith throughout the arc of a circle whereby the hand of the operator rotating each locking disk will encounter the same resistance to its movement whether or not the locking disk is in the position permitting movement of the bolts.

1,240,982. AUTOMATIC FLAME-REGULATOR. JOSEPH KRIZAN, Jr., Groom, Tex. Filed June 1, 1916. Serial No. 101,066. (Cl. 236—5.)



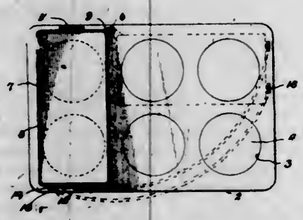
The combination with an incubator lamp, a burner and a chamney thereof, a slide adapted to variably cut off the flame of the burner, said slide having a bearing in the wall of the chimney, and sliding longitudinally along the upper end of the wick, a rock arm supported by the chimney and having a pivotal connection with said slide, a thermally controlled rod connected to said rock arm, an extension on said rock arm, and a weight upon said extension positioned for normally holding the slide withdrawn from contact with said burner.

1,240,983. SWINGLETREE-CLIP. JOHN CLARENCE KUBLY, Monroe, Wis. Filed May 7, 1915. Serial No. 26,627. (Cl. 21—79.)



The combination with a swingletree, of a ferrule disposed thereon and provided with a trace-chain engaging hook, a screw disposed axially through the outer end of the ferrule and engaged in the swingletree, a sleeve rotatably mounted upon the screw and directly held thereby against the outer face of the ferrule, the sleeve having a keeper for the hook, a helical spring mounted upon the screw and having its ends engaged with the ferrule and sleeve respectively in position to hold the keeper yieldably active, the outer end of the screw beyond the sleeve being formed to engage and retain a trace interchangeably with the hook.

1,240,984. EVAPORATING-PAN. MAX KURTH, Waldron, Ark. Filed Oct. 21, 1916. Serial No. 126,976. (Cl. 34—22.)

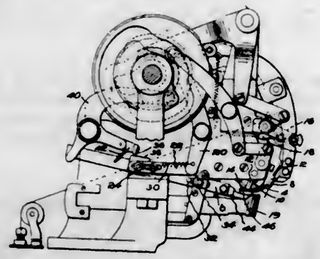


1. The combination with the top of a stove, of a boiler pivotally connected to the top and arranged to be swung either longitudinally or transversely thereof, and means for rotatably supporting the outer free end of the boiler during movement.

2. The combination with the top of a stove, of a boiler pivotally connected to the top and arranged to be swung to a position either longitudinally or transversely thereof, means for rotatably supporting the outer free end of the boiler during movement, and a drying pan receivable within the boiler and supported on the upper edge of the latter and provided with means to permit of the escape of steam from the boiler.

[Claims 3 to 6 not printed in the Gazette.]

1,240,985. BACK-GAGE FOR SHOE-SEWING MACHINES. BENJAMIN S. LA FLEUR, Beverly, Mass. Filed June 22, 1915. Serial No. 35,688. (Cl. 112—20.)



1. In a turn shoe sewing machine, in combination, a gage carrying member; a gage carried by said member and provided with a work engaging surface to be engaged by the edge of the shoe as the latter is held in position to be sewed on the machine, said gage being movable relatively to said member, transversely to the plane of the sole of the shoe to be sewed; and mechanism to move said gage carrying member to bring the gage into operative position.

3. In a shoe sewing machine, the combination of a curved needle arranged to pierce the shoe from the outside and emerge from a channel in the shoe sole; and a rotary gage provided with a work engaging surface to engage the edge of the shoe and extend inwardly over the edge of the sole, as the shoe is held in position to be sewed on the machine, and press the marginal portion of the sole downwardly relatively to the rest of the sole at the point where and as the needle penetrates said marginal portion.

8. In a shoe sewing machine, the combination with a curved needle arranged to pierce the shoe from the outside and emerge from a channel in the shoe sole, of the rotatable gage 7 provided with the work engaging surface 46 shaped to engage the edge of the sole and to extend inwardly over the edge of the sole and press the latter downwardly at the point where and as the needle penetrates the sole, as the shoe is held in position to be sewed on the machine.

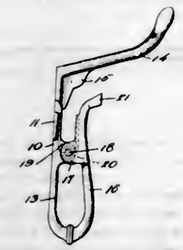
9. In a shoe sewing machine, the combination with a curved needle arranged to pierce the shoe from the outside and emerge from a channel in the shoe sole, of the rotatable gage 7 having the upper concave surface 50 and the peripheral work engaging surface 46 shaped to engage the edge of the sole and to extend inwardly over the edge of the sole and press the latter downwardly at the point where and as the needle penetrates the sole, as the shoe is held in position to be sewed on the machine.

12. In a turn shoe sewing machine, in combination, a gage carrying member; a gage mounted for rotation on said member and movable transversely to its plane of rotation; and a concave work engaging surface provided on said gage.

[Claims 2, 4 to 7, 10, and 11 not printed in the Gazette.]

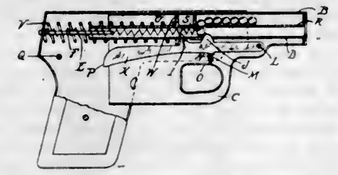
1,240,986. HOOK. HENRI J. LALIBERTE, St. Johnsbury, Vt. Filed Oct. 4, 1916. Serial No. 123,745. (Cl. 24—84.)

A supporting device comprising a base plate, a stationary jaw extending from said base plate, a supporting arm extending from said base plate above the stationary jaw, a movable jaw connected with the base plate and normally



contacting with the stationary jaw, and a handle for the movable jaw extending to provide a hanger arm positioned beneath the supporting arm.

1,240,987. SPRING-GUN. CHARLES F. LEFEVER, Plymouth, Mich., assignor to Daisy Manufacturing Company, Plymouth, Mich., a Corporation of Michigan. Filed Apr. 7, 1916. Serial No. 89,604. (Cl. 124—13.)



1. In a spring gun the combination with a barrel, of a spring therein having its forward end forming a seat for the projectile, a detent or sear for engaging said spring adjacent to said seat, means for compressing the spring while engaged by said detent or sear, and means for releasing the sear.

2. In a gun, the combination with a barrel, of a spring therein having its forward end forming a seat for the projectile, a detent or sear for engaging said spring adjacent to said seat, a second detent for engaging the projectile to retain the same seated upon said spring, means for compressing said spring while retained by said sear, and means for simultaneously releasing said sear and projectile-retaining detent.

3. In a gun, the combination with a telescopic barrel having a true or firing barrel in the forward section thereof, of a spring in said true barrel having its rear end projecting and anchored in the rear section of the telescopic barrel, a sear mounted on the forward section for engaging the forward end of said spring, and means for automatically disengaging said sear at the completion of the rearward telescopic movement.

4. In a gun, telescopically engaged, sections, a true barrel mounted on the forward section, a spring engaging said true barrel forming a seat for the projectile at its forward end, the rear end of said spring projecting from said barrel and anchored to the rear telescopic member, a sear mounted on the forward telescopic member engaging the forward end of said spring, a trigger for telescopically collapsing said sections to tension said spring, and means for tripping said sear at the completion of said telescopic collapsing movement.

5. In a gun, the combination with two telescopically-engaged members, one constituting the frame and handle and the other the barrel and trigger section, of a true barrel carried by said false barrel and trigger section, a spring engaging said true barrel forming at its forward end a seat for the projectile, its rear end projecting from said true barrel and anchored to said frame, a sear mounted on said false barrel and trigger section, and engaging the forward end of said spring, and means for tripping said sear upon the completion of the rearward movement of said trigger section to release said spring.

[Claims 6 to 17 not printed in the Gazette.]

1,240,988. GUN. CHARLES F. LEFEVER, Plymouth, Mich., assignor to Daisy Manufacturing Company, Plymouth, Mich., a Corporation of Michigan. Filed Sept. 18, 1916. Serial No. 120,761. (Cl. 124—11.)



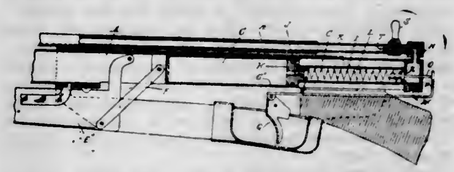
1. In a gun, the combination with a false barrel, of an air compression cylinder insertible therein, a piston abutment having a concave outer face, a true barrel engaging said piston abutment, a magazine barrel arranged parallel to said true barrel and cut away at its inner end for the transfer of shot therefrom to said true barrel, said transfer being guided by the concave face of said abutment.

3. In a gun, the combination with a false barrel, of a true barrel therein, a magazine barrel arranged between said true barrel and false barrel, a barrel sleeved upon said magazine barrel to telescopically engage the same, being endwise withdrawable from said false barrel, a follower and a spring within said magazine barrel, the tension of said spring being relieved and the follower retracted by the endwise withdrawal of the telescopic sleeve.

7. In a gun, the combination with a false barrel, of a true barrel therein, a magazine barrel in between said true barrel and false barrel, the inner end of said magazine barrel having a discharge aperture communicating with said true barrel and being also provided with a feed aperture intermediate its ends in registration with a feed aperture through said barrel, a tubular sleeve surrounding said magazine barrel, closing the registering feed apertures in the same and said false barrel, said tube being endwise withdrawable to uncover the said registering apertures, a catch for holding said sleeve in its inner position, a follower in said magazine barrel, and a spring for yieldably pressing said follower toward the inner end of said barrel, the outer end of said spring being anchored to said tubular sleeve and being withdrawable therein during the outward movement thereof.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,240,989. AIR-GUN. CHARLES F. LEFEVER, Plymouth, Mich., assignor to Daisy Manufacturing Company, Plymouth, Mich., a Corporation of Michigan. Filed Sept. 18, 1916. Serial No. 120,762. (Cl. 124—8.)



1. In a gun, a cumulative air compressor, comprising a cylinder and hollow piston, said piston forming the storage chamber, a check-valve controlling the admission to said storage chamber, and a trip-valve for controlling the discharge therefrom.

2. In a gun, a cumulative air compressor, comprising a cylinder and a hollow piston, means for reciprocating said cylinder, a check-valve controlling the passage of air from said cylinder to said hollow piston, a trip-valve at the opposite end of said piston, and a connecting passage between said trip-valve and the shooting barrel.

5. In an air gun, a cumulative air compressor comprising a reciprocating cylinder, a piston for said cylinder

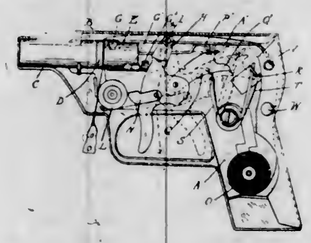
having a hollow stem constituting an air storage chamber, a check-valve controlling communication between said cylinder and hollow stem, a connection between the opposite end of said hollow stem and the shooting barrel, a trip valve for controlling communication between said hollow stem and said shooting barrel, and a trigger mechanism for unseating said trip-valve.

7. In a gun, the combination with an air compressor, of a shooting barrel having a telescopically-movable section, and a tubular nipple for engaging said telescopically-movable section, forming a receiver for the projectile, said nipple being connected to the air-compressing means.

8. In a gun, the combination with an air compression cylinder, of a shooting barrel arranged parallel thereto and having a telescopically-movable section, and a fitting connecting said air-compressing cylinder with said shooting barrel, having a tubular nipple for telescopically engaging said section, said nipple forming a receiver for the projectile.

[Claims 3, 4, and 6 not printed in the Gazette.]

1,240,990. POP-GUN. CHARLES F. LEFEVER, Plymouth, Mich., assignor to Daisy Manufacturing Company, Plymouth, Mich., a Corporation of Michigan. Filed Sept. 18, 1916. Serial No. 120,763. (Cl. 46—46.)



1. In a gun of the character described, the combination of a seat for the paper strip, clamping means, a strip-feeding roll, a trigger, a pawl actuated by the trigger for rotating said roll, an air compression cylinder, a piston therein, a piston shank for actuating the same, a pawl operated by the trigger for engaging said shank to retract the same and to constitute the sear, a spring for actuating the piston in the reverse direction, a trip for releasing said pawl or sear at the completion of its rearward movement, and means actuated by the trigger for unclamping the paper strip.

2. In a gun, the combination with a seat for the paper, a paper feeding roll, a trigger, a pawl connected to said trigger for actuating said roll, an air compression cylinder, a piston therein, a shank for said piston, a pawl connected to said trigger for engaging said shank to actuate the same rearward and constituting a sear, a spring for actuating the piston in the forward direction, a trip for releasing said pawl or sear at the completion of the rearward movement of said trigger, and means actuated by the piston respectively in its rearward and forward movement for unclamping and clamping the strip upon its seat.

3. In a gun of the character described, a frame, a seat for the paper strip, means for clamping the paper on said seat, an air compression cylinder, strip feeding means, a trigger, and mechanism actuated by said trigger for operating said clamping means, feeding means and air compressing means, all of said parts being mounted on said frame and a detachable casing for inclosing said parts, said frame being provided with a U-shaped rear wall, a headed brace pin passing through the sides of said U-shaped wall and said casing being open at one end and having portions cut-away at the sides thereof at their rear edges for receiving the heads of said brace pin.

[Claims 4 to 10 not printed in the Gazette.]

1,240,991. GUN. CHARLES F. LEFEVER, Plymouth, Mich. assignor to Daisy Manufacturing Company, Plymouth Mich., a Corporation of Michigan. Filed Oct. 4, 1916. Serial No. 123,644. (Cl. 124—10.)



1. In a gun, the combination of a barrel, a plunger therein, a spring for actuating said plunger, an abutment for said plunger and spring, a shank for said plunger extending rearward therefrom and having shoulders for engagement with the sear, a pump handle slidable parallel to said barrel, a toggle lever connected to said pump handle and fulcrumed to said barrel, the fulcrum pin passing through a slot in said shank, and a link connecting said toggle with said shank at a point intermediate the ends of the toggle.

2. In a gun, the combination of a barrel, a plunger therein, a spring for actuating said plunger, an abutment for said spring, a plunger shank around which said spring is sleeved provided with a slot through which said spring abutment passes, the rear end of said shank being adapted for engagement with the sear, a toggle lever for retracting said plunger, having its fulcrum pin extending through a slot in said shank, and a link connected to said toggle pivotally attached to said plunger shank at a point intermediate the ends of the toggle.

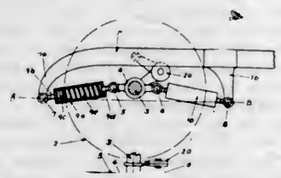
3. In a gun, the combination of a barrel, a plunger therein, a spring for actuating said plunger, an abutment for said spring, a shank for said plunger, around which said spring is sleeved, said shank having a slot through which said spring abutment extends and being fashioned at its rear end for engagement with the sear, and a toggle lever for retracting said plunger having its rear end fulcrumed on a pin passing through a slot in said shank, a link for connecting said toggle to said shank having its point of attachment to the latter intermediate the ends of the toggle and engaging a slotted bearing, said slotted bearing permitting of the straightening of the toggle when said shank is in engagement with the sear.

4. In a gun, the combination with a barrel, of a plunger therein, a spring for actuating said plunger, an abutment for said spring, including an anchoring pin extending across said barrel, a toggle lever, a pin forming a fulcrum for the inner end of said toggle, also extending across said barrel, a trigger and sear, and a shank for said plunger slotted for engagement with said anchoring pin and fulcrum pin, and a link connecting said toggle with said shank, being attached to the latter at a point intermediate the ends of the toggle and engaging a slotted bearing, for the purpose described.

5. In a gun, a combined trigger and sear, comprising a stamping simulating a trigger guard and having a shoulder thereon constituting the sear.

[Claims 6 and 7 not printed in the Gazette.]

1,240,992. VEHICLE SUSPENSION. BENJAMIN LIEBOWITZ, New York, N. Y. Filed Nov. 2, 1914. Serial No. 869,725. (Cl. 267—8.)



1. In a vehicle suspension, the combination of an initially strained spring and a spring-motion reducing mechanism of reducing ratio varying inversely as the load, whereby the spring material is subjected to reduced stress variations.

2. In a vehicle suspension, the combination of an initially strained spring, the initial strain whereof is large in comparison with the subsequent strains due to normal relative displacements of body and axle, and a spring-motion reducing mechanism of reduction ratio varying inversely as the load, whereby the spring material is subjected to reduced stress variations.

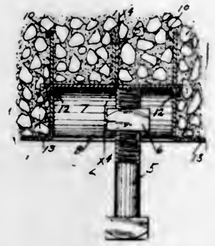
3. In a vehicle suspension, the combination of a plurality of initially strained springs, and a spring-motion reducing mechanism of reduction ratio varying inversely as the load, whereby the spring material is subjected to reduced stress variations.

4. In a vehicle suspension, the combination of a plurality of initially strained springs, the initial strains whereof are large in comparison with the subsequent strains due to normal relative displacements of body and axle, and a spring-motion reducing mechanism of reduction ratio varying inversely as the load, whereby the spring material is subjected to reduced stress variations.

5. In a vehicle suspension, an initially strained spring under nearly constant strain throughout the normal range of relative displacements of body and axle.

[Claims 6 to 20 not printed in the Gazette.]

1,240,993. METALLIC INSERT. FRANK G. MCMILLAN and HOWARD O. MCMILLAN, Minneapolis, Minn. Filed May 22, 1916. Serial No. 99,149. (Cl. 72—105.)



1. A wall insert comprising a metal tube normally open at its ends, provided with a longitudinal slot and provided with end notches opposite its slot, and disks inserted into the ends of said tube, and having anchoring portions projecting through said end notches and adapted to be embedded in the concrete.

2. A wall insert comprising a metal tube having open ends and a longitudinal slot, and metal disks insertible into the ends of said tube and having interlocking engagement therewith and provided with projecting anchor portions adapted to be embedded in the concrete, the said disks further having laterally projecting ears alined with the slot of said tube and adapting the insert to be temporarily secured to one of the boards of the concrete form.

3. A wall insert comprising a metal tube normally open at its ends, provided with a longitudinal slot and provided with end notches opposite its slot, and disks inserted into the ends of said tube, and having anchoring portions projecting through said end notches and adapted to be embedded in the concrete, the said disks having outturned laterally projecting ears alined with the slot of said tube and adapting the insert to be temporarily secured in one of the boards of the concrete form.

4. A wall insert comprising a metallic tube normally open at its ends, provided with a longitudinal slot, and having end notches and intervening clencher lips opposite said slot, and metal disks inserted into the ends of said tube, said disks having perforations through which said lips are passed and clenched, and further having anchoring portions projecting through the said end notches adapted to be embedded in the concrete.

5. A wall insert comprising a metal tube having open ends and a longitudinal slot, metal disks engageable with the ends of said tube and having projecting anchor flanges, and an intermediate anchor plate embracing the intermediate portion of said tube and adapted to be embedded in the concrete.

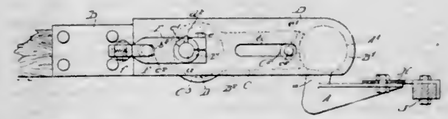
[Claim 6 not printed in the Gazette.]

1,240,994. PIPE ATTACHMENT FOR TUBULAR FURNACES. EUGÈNE SOLOMON MANNY, Montreal, Quebec, Canada. Filed Feb. 12, 1917. Serial No. 148,294. (Cl. 122—305.)



In a furnace, the combination, with spaced outer and inner water legs formed with coaxial openings, the opening in the outer water leg being threaded, and the opening in the inner water leg being plain and having smaller diameter than the first-named opening; of an outer water-circulating tube closed at one end and having its other end disposed in registration with the opening in said outer water leg and internally threaded; a nipple threaded through the said opening in the outer water leg into the second-named end of said tube, said nipple being formed with a plurality of spaced arms which project into the space between the water legs and are connected at their extremities by an annular supporting member of appreciably smaller diameter than said tube; an open-ended inner water-circulating tube disposed within the outer tube and projecting at one end through said annular supporting member and the plain opening in the inner water leg into the space between the latter and the back wall of the furnace, the other end of said inner tube terminating short of the closed end of the outer tube; and a plurality of supporting members arranged within said outer tube and grouped around the said other end of inner tube, whereby said inner tube is maintained in spaced relation within said outer tube.

1,240,995. TRACTOR-TRAILER COUPLING. JAMES W. MENHALL and CHARLES G. CLEMENT, Beloit, Wis. Filed Apr. 26, 1917. Serial No. 164,772. (Cl. 21—114.)



1. A tractor trailer coupling comprising a socket member having a socket open rearwardly and also open downwardly; a ball member having a stem on which it is carried projecting upwardly for engagement with the socket member; a concavely segmental follower mounted for sliding back and forward in the socket member for closing and unclosing the socket at the rear side; an eccentric mounted for rocking in the socket member operatively engaged with the follower for reciprocating the latter; an exteriorly-accessible crank arm on the eccentric shaft for rocking said eccentric, said crank arm being angularly adjustable on the eccentric shaft for limiting the thrust of the follower toward the ball.

2. A tractor trailer coupling comprising a socket member having a rearwardly-open socket; a ball member having the ball adapted to enter said socket from the rear; a follower mounted for movement back and forward in the

socket member for closing and unclosing the socket at the rear and holding the ball seated in the socket; an eccentric mounted for rocking in the rear portion of the socket member and operatively connected with the rear portion of the follower, and exteriorly-accessible means for rocking the eccentric to operate the follower, the socket member being formed with lateral flanges forming a housing for the follower, and having longitudinal slots in said flanges, the follower having near the head a cross pin pivotally and slidably engaging said slots, the trend of the slots being toward the axis of the eccentric rock shaft, whereby at the foremost position of the follower the eccentric center is substantially in the line of rear thrust on the follower, and such rear thrust is transmitted through the eccentric rock shaft to the socket.

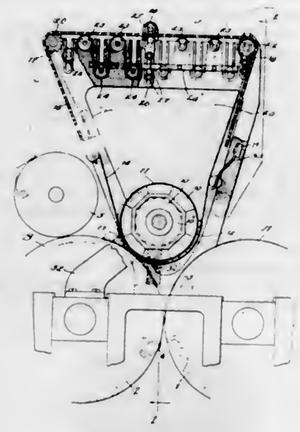
3. A tractor trailer coupling comprising a socket member adapted to be rigidly secured to the vehicle to be drawn; a ball member adapted to be secured to the tractor; the socket member having a socket which is rearwardly open, and the ball member being adapted to be entered into the socket from the rear; a follower mounted in the socket member for closing the socket at the rear and holding the ball forwardly in the socket, said ball being pivotally and slidably engaged at its forward part with the socket member; an eccentric mounted for rocking in the rear portion of the socket member, and operatively connected with the rear end of the follower, for reciprocating the latter by the rocking of the eccentric, said eccentric being proportioned and positioned with respect to the rock shaft to substantially aline the eccentric center between the rock shaft axis and the ball socket center at the foremost position of the follower, and means for securing the rock shaft in position to hold the eccentric with its center so alined.

4. A tractor trailer coupling comprising a socket member adapted to be rigidly secured to the vehicle to be drawn; a ball member adapted to be secured to the tractor; the socket member having a socket which is rearwardly open, and the ball member being adapted to be entered into the socket from the rear; a follower mounted in the socket member for closing the socket at the rear and holding the ball forwardly in the socket, said follower being pivotally and slidably engaged at its forward part with the socket member; an eccentric mounted for rocking in the rear portion of the socket member, and operatively connected with the rear end of the follower for reciprocating the latter by the rocking of the eccentric, said eccentric being proportioned and positioned with respect to the rock shaft to substantially aline the eccentric center between the rock shaft axis and the ball socket center at the foremost position of the follower; means for securing the rock shaft in position to hold the eccentric with its center so alined; a lever arm angularly adjustable on the rock shaft for rocking the eccentric, and means for engaging the lever arm with the socket member for locking the eccentric in ball-securing position of the follower, the range of adjustment of the lever arm on the rock shaft being such as to shift the eccentric center transversely of the line from the ball center to the rock shaft axis through an angle about said ball center less than that subtended by the diameter of the rock shaft.

1,240,996. BLOTTING OR OFFSETTING MECHANISM FOR PRINTING-PRESSES. ROBERT MIEHLE, Chicago, Ill. Filed Nov. 27, 1916. Serial No. 133,762. (Cl. 101—112.)

1. The combination with a printing press element for supporting printing; of a blotting element that is raised corresponding to a portion of the printing that is borne by said printing press element and is recessed corresponding to another portion of the printing; mechanism for operating the blotting element to cause the raised and recessed portions thereof to register with the printing portions to which they correspond; and a blotting sheet interposed between the raised and recessed portions of the blotting element and the aforesaid printing press element.

2. The combination with a printing press element for supporting printing; of a blotting element that is raised corresponding to a portion of the printing that is borne by said printing press element and is recessed corresponding to another portion of the printing; mechanism for operating the blotting element to cause the raised and recessed portions thereof to register with the printing portions to which they correspond; a blotting sheet interposed between the raised and recessed portions of the blotting element and the aforesaid printing press element; and means for passing such sheet between and in contact with the aforesaid printing press element and the raised portion of the blotting element.



3. The combination with a printing press cylinder for supporting printing; of a blotting element that is raised corresponding to a portion of the printing that is borne by said printing press cylinder and is recessed corresponding to another portion of the printing; mechanism for operating the blotting element to cause the raised and recessed portions thereof to register with the printing portions to which they correspond; and a blotting sheet interposed between the raised and recessed portions of the blotting element and the aforesaid printing press cylinder.

4. The combination with a printing press cylinder for supporting printing; of a blotting element that is raised corresponding to a portion of the printing that is borne by said printing press cylinder and is recessed corresponding to another portion of the printing; mechanism for operating the blotting element to cause the raised and recessed portions thereof to register with the printing portions to which they correspond; a blotting sheet interposed between the raised and recessed portions of the blotting element and the aforesaid printing press cylinder; and means for passing such sheet between and in contact with the aforesaid printing press cylinder and the raised portion of the blotting element.

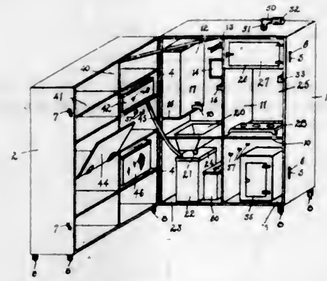
5. The combination with a printing press element for supporting printing; of a blotting cylinder that is raised corresponding to a portion of the printing that is borne by said printing press element and is recessed corresponding to another portion of the printing; mechanism for operating the blotting cylinder to cause the raised and recessed portions thereof to register with the printing portions to which they correspond; and a blotting sheet interposed between the raised and recessed portions of the blotting cylinder and the aforesaid printing press element.

[Claims 6 to 24 not printed in the Gazette.]

1,240,997. PORTFOLIO-KITCHENETTE. EDWARD DUNSCOMBE MOORE, Utica, N. Y. Filed Apr. 27, 1916. Serial No. 93,984. (Cl. 45—16.)

1. In a portfolio kitchenette, a cabinet comprising two sections of equal proportions hinged together, a water supply tank, a sink disposed beneath said tank, a catch basin and a warming closet in one section, compartments in the other section, a refrigerator in one of said compartments, a drainage pipe from said refrigerator to said catch basin, and a drop shelf to form a work board in the other section.

2. In a portfolio kitchenette, a cabinet comprising two sections of equal proportions hinged together, a water supply tank, a sink disposed beneath said tank, a catch basin and a warming closet in one section, compartments in the other section, a refrigerator in one of said compartments, and a drainage pipe from said refrigerator to said catch basin.



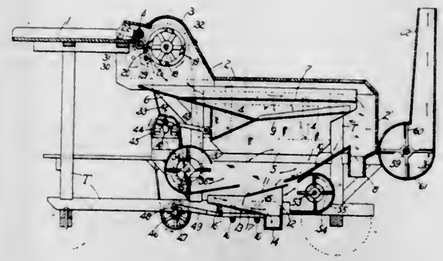
1,240,998. CORSET-STAY TIP. ODO MORTARA, Chicago, Ill. Filed Mar. 12, 1917. Serial No. 154,279. (Cl. 2—76.)



A corset stay tip formed of a single strip of metal with its ends cut at right angles to its side edges to form sharp corners, said corners being folded onto one side of the strip and the latter being bent into the form of a U with an internal channel to receive the end of the corset stay, the aforesaid inwardly bent corners being located in said channel to be forced into the stay covering when the tip is flattened upon said stay.

1,240,999. BEAN-SEPARATOR. ERNST H. MUELLER, Menfro, Mo. Filed Feb. 19, 1917. Serial No. 149,484. (Cl. 130—24.)

1. In a bean separator, a shaking platform for intercepting the released beans and chaff, a plurality of superposed grates disposed at an angle to one another and inclining in opposite directions operating in conjunction with the shaking platform, a stationary platform disposed a suitable distance below the lowermost grate of the series for intercepting a part of the beans, a shaking platform operating in conjunction with the fixed platform to receive another part of the precipitating beans and the beans from the stationary platform, a finishing screen operating in conjunction with and disposed at an angle to the shaking platform, and suitable air moving apparatus for acting on the precipitating beans and on the chaff separated therefrom, whereby the light particles and chaff are carried away by the air currents.



2. In a bean separator, a shaking box provided with a pair of grates in superposed relation and disposed at an angle to one another and spaced apart, and with an inclined platform delivering the feed to the upper grate, a second shaking box disposed a suitable distance below the bottom grate of the first mentioned box, a finishing screen carried by said second mentioned box, a platform on said box inclined toward and discharging onto the finishing screen, a stationary platform operating in conjunction with and positioned above the platform of the second mentioned shaking box, a fan positioned beneath said stationary platform and directing currents of air in a given direction between the shaking platform and the finishing screen, fans operating to direct currents of air in the opposite direction through the space below the first mentioned shaking box and the stationary platform and shaking platform of the second mentioned shaking box, and means adjacent to one of the fans for removing any overflow of beans from the upper grate of the first mentioned shaking box.

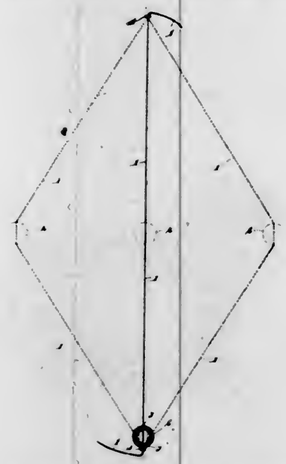
3. In a separator of the character described, a shaking box provided with two superposed screens meshed to permit passage of the beans therethrough and spaced apart, and with an inclined platform leading to the upper screen, a second shaking box mounted a suitable distance centrally below the first box and provided with a finishing screen and an inclined platform discharging thereonto, a fixed platform positioned in proximity to and overlapping the edge of the platform on the second mentioned shaking box, a fan disposed forward of the lower shaking box and discharging rearwardly into the space between the boxes, an exhauster for drawing the currents from the rear of the machine to a suitable point of discharge, a second fan discharging forwardly below the platform of the second shaking box and below the fixed platform cooperating therewith and over the finishing screen, means rearward of said last mentioned fan for conducting away the beans discharged from the upper screen of the first mentioned shaking box, and independent means for removing the beans from the finishing screen of the second mentioned shaking box.

1,241,000. TOY. ROBERT J. MULVEY, Chicago, Ill. Filed July 26, 1916. Serial No. 111,344. (Cl. 46—37.)

1. A toy comprising an elastic string; and a ball freely slidable thereon, substantially as described.

2. A toy comprising a rubber string; a hollow rubber ball slidable thereon, said ball being provided with diametrically opposite openings through which said string is

passed; and stops on said string adjacent the ends thereof, said stops consisting of rubber disks centrally perfo-



rated to fit snugly over said string, substantially as described.

1,241,001. CAR-ROOF. WALTER P. MURPHY, Chicago, Ill., assignor to P. H. Murphy Company, Parnassus, Pa., a Corporation of Pennsylvania. Filed Oct. 9, 1916. Serial No. 124,476. (Cl. 108—5.)



1. A metal car roof comprising roof sheets arranged in rows on each side of the ridge, said roof sheets having flanges along their side and ridge edges which are connected to form seams, said roof sheets being fixedly secured to the roof substructure along the ridge so as to maintain an unbroken line at their ridge ends and freely movable upon the roof substructure along the eaves and at the ends of the car, whereby an alinement of the ridge ends of the roof sheets is maintained notwithstanding the distortion of the sides and ends of the car.

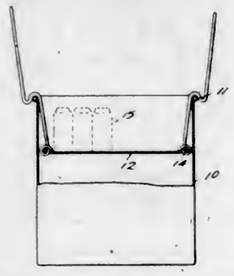
4. A metal car roof comprising roof sheets arranged crosswise of the car, said roof sheets lapping along their side edges, which are secured together to form seams, said roof sheets being fixedly secured to the roof substructure along the ridge so as to maintain an unbroken line at their ridge ends and freely movable upon the roof substructure along the eaves and at the ends of the car, rebent means engaging the under sides of said roof sheets for holding down their eaves ends, and end caps secured to the ends of the car and lapping over the edges of the end roof sheets inwardly from the ends of the car, whereby the alinement of the ridge ends of the roof sheets and continuity of the roof is maintained notwithstanding the distortion of the sides and ends of the car.

5. A metal roof comprising an end roof sheet having its outside edge raised and freely movable upon the car at one end, an end flashing strip arranged beneath said raised edge of said sheet, and an end cap secured to the end of the car and projecting over on top of the edge of the roof sheet to hold it down upon the flashing strip.

7. A metal car roof comprising roof sheets arranged side by side, said roof sheets lapping along their side edges to form seams, said roof sheets being fixedly secured to the roof substructure along the ridge so as to maintain an unbroken line at their ridge ends and freely movable upon the roof substructure along the eaves and at the ends of the car, the ends and edges of said roof sheets terminating on top of the car, end caps secured to the ends of the car and lapping the end roof sheets, and means protecting the eaves and engaging the eaves ends of said roof sheets to hold them from lifting up, whereby the alinement of the roof sheets and their continuity at the seams are maintained notwithstanding the distortion of the sides and ends of the car.

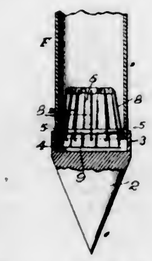
[Claims 2, 3, and 6 not printed in the Gazette.]

1,241,002. BOILER ATTACHMENT. NICK H. NEUENS, Pierce, Nebr. Filed Mar. 10, 1917. Serial No. 154,003. (Cl. 53—1.)



In a device of the character described, the combination with a receptacle, of a tray member having a plurality of openings therein, the outer edges of said tray being rolled, a pair of resilient inverted substantially U-shaped rods, portions of said rods being bent around the rolled edge of the tray and adapted to pivotally engage the same, looped portions formed midway the upper and lower ends of the U-shaped rods to engage the edges of the receptacle, the ends of said rods forming stops against the tray to limit the inward movement of said rods and to hold resiliently the looped portions thereof in position to engage the upper edge of the receptacle, and handle portions formed on said U-shaped rods opposite the ends attached to the tray.

1,241,003. WELL OR SUBTERRANEAN RESERVOIR FOR USE IN IRRIGATION AND OTHER PURPOSES. ELI NEWSOM, Center Valley, N. Mex. Filed Sept. 11, 1916. Serial No. 119,578. (Cl. 166—5.)



1. The combination in a driven-well, of a tube, a distensible retaining member adapted to be projected therefrom, and coacting means on said tube and member whereby the projection of said member from said tube causes the same to distend.

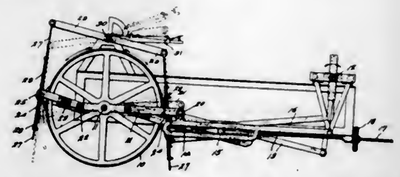
3. The combination in a driven well, of a tube, a distensible retaining member adapted to be projected therefrom, coacting means on said tube and member to distend the latter when projected from the tube, and a separable driving point on the lower end of the tube.

6. The combination in a driven-well, of a tube, a distensible and contractible conical retaining device, a ring surrounding said device, elements secured to the exterior sides of said device and embracing said ring, a ring of smaller diameter upon which the integral parts of said device are hinged, and retaining means for said device within said tube.

7. In combination, a filtration device comprising a plurality of sections having interlocking flanges on their longer edges, a ring from which each section is supported for inward and outward movement, a larger ring encircling said sections, a plurality of bail members connected to and parallel with the outer faces of said sections and embracing said larger ring, and means within the open end of the tube supporting said larger ring.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,241,004. SPEED-VARYING DRIVE. WILBUR H. NICHOLAS, Indianapolis, Ind. Filed Feb. 17, 1917. Serial No. 149,206. (Cl. 74—53.)

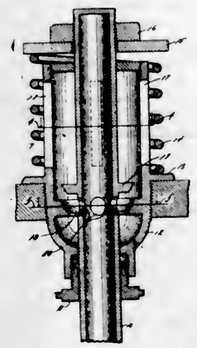


1. The combination of a rotating member having a circumferential face, a lever pivoted adjacent said member, means for applying a driving force to said lever, a link pivoted to said lever at a point other than its fulcrum, a shoe carried by said link and adapted to engage the circumferential face of the rotative member, and means for yieldingly supporting the outer end of said link, for the purpose set forth.

3. The combination of a rotating member having a circumferential face, a lever pivoted adjacent said member, means for applying driving force to said lever, a link pivoted to said lever at a point other than its fulcrum, a shoe carried by said link and adapted to engage the circumferential face of the rotative member, a support for the outer end of said link, and means for shifting said support so as to normally hold the link angularly displaced, to one side or the other, with relation to the medial line of the first-mentioned lever.

[Claims 2 and 4 to 6 not printed in the Gazette.]

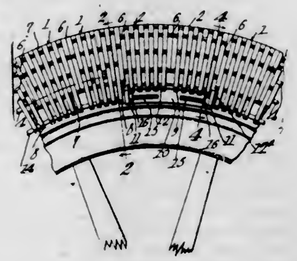
1,241,005. WATERING SYSTEM. JOHN NORDQVIST, Angora, Minn. Filed Feb. 11, 1916. Serial No. 77,634. (Cl. 137—68.)



1. A watering system comprising a reservoir, a tank therebeneath, a water pipe connecting said reservoir and tank, a slotted casing encircling said water pipe within said reservoir, valve connection between said casing and water pipe whereby water may be admitted to the latter member and means connecting said casing and water pipe whereby they are yieldingly retained in adjusted position to keep said valve connection open.

2. A watering system comprising a reservoir, a tank therebeneath, a water pipe connecting said tank and reservoir, a flanged slotted casing encircling said water pipe within said reservoir, valve connection between said casing and water pipe whereby water may be admitted to the latter member, a disk adjustably carried by said water pipe above said casing and a spring encircling said casing and bearing upon the flange thereof and upon said disk to yieldingly retain said valve connection in open relation.

1,241,006. TIRE-ARMOR. DUKE OATMAN, Corpus Christi, Tex. Filed June 12, 1915. Serial No. 33,730. (Cl. 152—16.)



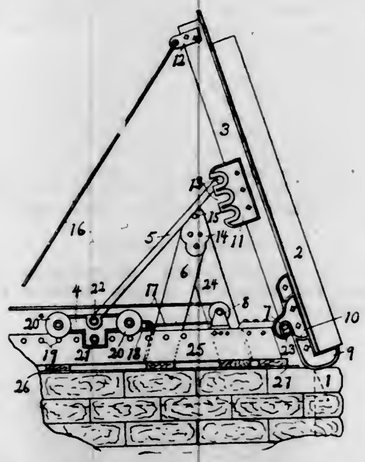
A flexible tire protector embodying a plurality of transverse individually removable sections, the sections including a plurality of transverse lines of links, alternate lines comprising outer links which are longer than the remaining shorter links, the sections terminating at their ends in lines of shorter links, and said lines of shorter links being in abutment at the ends of adjoining sections, thereby to space the terminal outer links of adjoining sections apart by a distance equal to twice the thickness of said shorter links; means for pivotally connecting the lines of links in each section independently of the lines of links of an adjoining section; and circumferential holding means engaged with the outer links and including transversely projecting parts disposed between certain of said terminal outer links.

1,241,007. MOLDING AND SETTING TABLE FOR PLASTIC BODIES. ROLLIN C. OGBURN, Des Moines, Iowa. Filed Mar. 28, 1911. Serial No. 617,502. (Cl. 25—1.)

1. In a molding and setting table for plastic bodies, the combination of a base, a trestel-like table support rising therefrom, a table fulcrumed thereon, stirrups and molding forms on said table, eccentric shaft portions mounted on said base, means for rotating said shaft portions, bearings positioned on said table to register with said shaft portions, other bearings centrally positioned on said table to register with said table support, with an actuating mechanism consisting of tracks laid on said base, carriages adapted to move thereon, lifting bars connected to said carriages and to the table, and means for moving and controlling the carriages.

2. In a molding and setting table for plastic bodies, a table provided with means for shaping and retaining plastic bodies relatively true to position and form together with means for actuating and controlling said table, in combination with a duplex supporting mechanism consisting of a primary axis comprising an eccentric shaft portion journaled on a base, and means for its rotation in conjunction with bearings marginally positioned on the table to register with said shaft portions, and a secondary axis comprising a shaft mounted on a trestle-like element

in conjunction with bearings intermediately positioned on the table to register therewith.



3. In a molding and setting table for plastic bodies, the combination of a base, a support thereon, a table fulcrumed on said support, a shaft journaled on the base and having an eccentric portion, means on the table for engaging said eccentric shaft portion, means for rotating said shaft, a carriage movable on the base, lifting means interposed between the carriage and the table, and means for holding the carriage against casual movement.

4. In a molding and setting table for plastic bodies, a table provided with means for shaping and retaining plastic bodies relatively true to position and form together with means for controlling said table, in combination with duplex supporting mechanism consisting of a primary axis comprising an eccentric shaft portion mounted on a base and adapted to be rotated, means positioned on the table to engage said eccentric shaft portion, and a secondary axis comprising a shaft mounted on a support in conjunction with a bearing intermediately positioned on the table to engage the same.

1,241,008. LOOSE-LEAF-BINDER POST. EDWARD J. OYSTON, Chicago, Ill. Filed Mar. 31, 1917. Serial No. 158,890. (Cl. 129—12.)



2. In a loose leaf binding device, a post comprising a plurality of tubular sections each having its lower end reduced and threaded, the upper end of each section having a threaded opening adapted for engagement by the reduced lower end of the next higher section; a cap adapted to engage loosely over the upper end of anyone of said sections; and a medial screw on said cap, the lower end of the opening in each section being reduced and threaded for engagement by said screw, substantially as described.

2. In a loose leaf binding device, a post comprising a plurality of tubular sections each having its lower end reduced and threaded, the upper end of each section having a threaded opening adapted for engagement by the reduced lower end of the next higher section; a cap adapted to engage loosely over the upper end of anyone of said sections; and a medial screw on said cap, the lower end of the opening in each section being reduced and threaded for engagement by said screw, said screw being of a length to adapt the same for passage entirely through one section into engagement with the threads of the next lower section, substantially as described.

1,241,009. ALPHABETICAL CONSTRUCTION TOY. CHARLES HAMILTON PAJEAU, Evanston, Ill. Filed Feb. 1, 1917. Serial No. 145,848. (Cl. 35—1.)



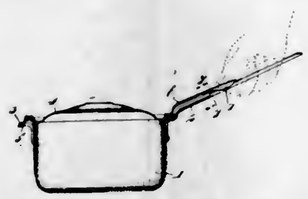
1. A set of alphabetical construction blocks each comprising a block equipped on one face with a letter of the alphabet, and an equal number of base elements and of dowels, the blocks and base elements all having bores for interchangeably receiving opposite ends of the dowels.

2. The combination with a box, of a pedestal for supporting the box in an elevated position, the pedestal being detachable and normally housed by the box, and a plurality of legend-bearing members also normally housed by the box and each being a miniature reproduction of said box and pedestal.

3. The combination with a box having a perforation in its bottom, of a pedestal having an upper end adapted to socket in said perforation, a plurality of minature reproductions of the pedestal, and a plurality of miniature blocks of substantially the same shape as said box and each arranged for mounting the same on one of the miniature pedestals, the said box normally serving as a container for all of the other elements above recited.

4. The combination with a box, of elements all normally housed by the same; said elements comprising a support for holding the box in display position, blocks similar in shape to the box and respectively marked with different legends, and miniature supports simulating the aforesaid support and arranged respectively for similarly holding said blocks.

1,241,010. COOKING UTENSIL. JENNIE PAQUETTE, Chicago, Ill., assignor to Isabelle Carroll, Chicago, Ill. Filed July 6, 1915. Serial No. 38,126. (Cl. 53—8.)

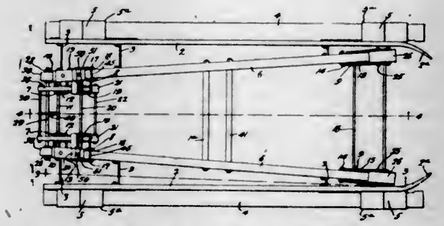


I. The combination of an upwardly opening vessel having an outwardly projecting handle at one side; a keeper at the opposite side of said vessel; a cover for said vessel; means at one side of said cover for engagement with said keeper to hold said side of the cover in position on the vessel; a projection at the opposite side of said cover adapted to register with said handle at the upper side thereof for engagement by the hand engaging said handle; and depending means on said projection for engagement with said handle for retaining said projection in registration with said handle, substantially as described.

2. The combination of an upwardly opening vessel having an outwardly projecting handle at one side; a keeper at the opposite side of said vessel; a cover for said vessel; means at one side of said cover for engagement with said keeper to hold said side of the cover in position on the vessel; a projection at the opposite side of said cover adapted to register with said handle at the upper side thereof for engagement by the hand engaging said handle; and depending ears on said projection adapted to embrace said handle to retain said projection in registration therewith, substantially as described.

3. The combination of an upwardly opening vessel having an outwardly projecting hande at one side thereof; a loop at the opposite side of said vessel; a cover for said vessel; an outwardly projecting lip on said cover on one side thereof for engagement in said loop to hold said side of the cover in position on the vessel; an outwardly projecting arm on said cover at the opposite side thereof adapted to register with the upper side of the handle, when the cover is positioned on the vessel, said arm extending well along said handle for ready engagement by the thumb of the hand engaging said handle; and depending flanges on the outer end of said arm adapted for engagement with the longitudinal edges of said handle to prevent lateral movement of said arm, and said cover being provided with an aperture adjacent its edge midway between said lip and said arm, substantially as described.

1,241,011. AUTOMOBILE-JACK. FRANK R. PARMENTER, Lansing, Mich. Filed Dec. 1, 1916. Serial No. 134,399. (Cl. 254—91.)



1. An automobile jack embodying sills to rest upon a floor, castings fitted and secured upon the ends of the sills, lift bars above the sills, castings fitted and secured upon the ends of the lift bars, and links pivotally connected with the first and second mentioned castings, the first and second mentioned castings having interengaging means for guiding the lift bars upwardly and downwardly.

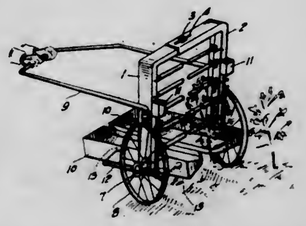
3. An automobile jack embodying sills, castings fitted and secured upon the ends thereof, lift bars above the sills, castings fitted and secured upon the ends of the lift bars, links pivoted to the first and second mentioned castings, the castings at one end of the two sills having upstanding brackets, the castings at the other end of the two lift bars having depending brackets, rollers carried by said brackets, the other castings having rounded ends along which said rollers travel when the lift bars are raised and lowered, and having stops to contact with said rollers when the lift bars are raised.

4. An automobile jack embodying a base, lift bars, links connecting the base and lift bars at the ends thereof, the links having upwardly projecting extensions, the extensions at one end of the base being adapted to be engaged by an automobile axle for raising the lift bars, and supporting members pivotally connected with the extensions at the other end of the base to be moved thereby adjacent to the lift bars when they are lowered, and to be raised from the lift bars when the lift bars are raised.

6. An automobile jack embodying a base, lift bars, links connecting said bars and base, some of the links having upwardly projecting extensions to be engaged by the axle of an automobile for raising said bars, plates to rest upon the lift bars and having depending portions for straddling them, said plates having upstanding lugs, blocks seatable upon said plates between said lugs and having portions seatable upon the lift bars at opposite ends of said plates, said portions having inclines, said blocks being reversible, and blocks seatable upon the aforesaid blocks and adjustable thereon, the last mentioned blocks having inclines, the blocks being disposed adjacent to said extensions for supporting the axle.

[Claims 2 and 5 not printed in the Gazette.]

1,241,012. BOLL-WEEVIL DESTROYER. SAMUEL J. PATTON, Helena, Ala. Filed Jan. 17, 1917. Serial No. 142,916. (Cl. 43—1.)



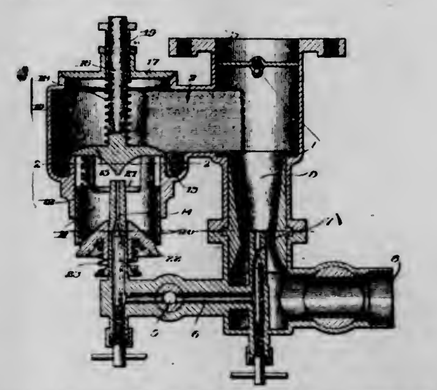
1. An insect destroying apparatus comprising a wheel supported frame, vertical bearings connected to the upright sides of the frame, shaker rods journaled to swing horizontally on said bearings, coil springs connecting the intermediate portions of the rods on opposite sides to the frame, and means to catch the insects as they are shaken from the plant, substantially as described.

3. In an insect destroying apparatus, a wheeled frame comprising two channel bars with the channels inturned and their upper ends bent at right angles and lapped, an adjustable connection for the lapped ends of the channels, wheels journaled to the lower ends of the frame, pans also connected to the frame and spaced to permit the plant stem to pass between them, yieldable plant engaging members pivoted to the channels, and horizontally adjustable deflectors adjustably mounted on the frame and having their plant engaging surfaces covered with rearwardly inclined bristles, substantially as described.

5. In an insect destroying apparatus, a wheeled frame, a pan carried thereby in position to travel under the plant, means on the frame to knock the insects on the plant into the pan, and a fuel burner under the pan to keep its bottom heated.

[Claims 2, 4, and 6 not printed in the Gazette.]

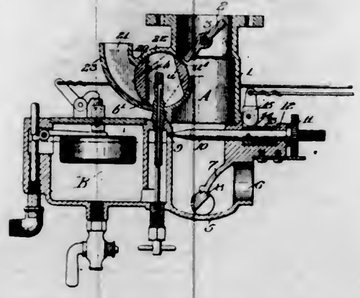
1,241,013. CARBURETER. WINFIELD P. PEMBROKE, Rochester, N. Y. Filed Apr. 13, 1914. Serial No. 831,362. (Cl. 261—52.)



In a carbureter for explosive engines, the combination with a vacuum chamber and a carbureting chamber hav-

ing a port opening to the vacuum chamber at one end and an air intake opening to the atmosphere at the other end, of a fuel jet projecting longitudinally into the carbureting chamber from the air inlet end thereof, a valve normally closing the port and adapted to be unseated by atmospheric pressure in the carbureting chamber, a sleeve on the valve surrounding the jet and arranged to enlarge the air intake opening when unseated and a regulating cap threaded on the fuel jet to be adjusted relatively to the sleeve and coöperating therewith to vary the minimum capacity of the inlet opening.

1,241,014. CARBURETER. WINFIELD P. PEMBROKE, Rochester, N. Y. Filed Mar. 2, 1915. Serial No. 11,572. (Cl. 261—41.)



1. In a carbureter, the combination with a casing forming an auxiliary air passage in which a partial vacuum is formed and an auxiliary source of fuel supply connected to said passage and adapted to discharge therein under the influence of said partial vacuum, of a single valve arranged to first open the air passage at a point in front of said fuel discharge a greater distance than it opens said passage in rear of the fuel discharge and subsequently upon the continued movement of the valve effect a reverse of the condition of the opening at said points.

3. In a carbureter, the combination with the walls of an auxiliary air inlet passage, in which a partial vacuum is formed, and an auxiliary fuel discharge nozzle extending and discharging transversely of the passage, of a revoluble valve member having an opening therein and coöperating with the passage walls at opposite sides of the nozzle to automatically transfer the point of aspiration from a point in rear of the nozzle to a point in front thereof.

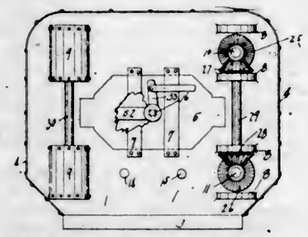
5. In a carbureter, the combination with the walls of an auxiliary air passage, one of which is curved and in which a partial vacuum is formed and an auxiliary fuel discharge nozzle extending and discharging transversely of the passage, of an adjustable valve member having an aperture coöperating with said walls and serving to alternately transfer the area of aspiration from a point at one side of the nozzle to a point at the other side thereof.

8. In a carbureter, the combination with a casing having a mixing chamber in which a partial vacuum is produced, an air valve, a cylinder connected thereto and communicating with said mixing chamber, a piston therein adapted to be operated upon the reduction of pressure in said chamber below a predetermined point, of an oscillatory auxiliary air valve connected to said piston.

9. In a carbureter, the combination with a casing having a mixing chamber in which a partial vacuum is produced, a pivoted cylinder having communication with the interior of the mixing chamber and a piston in said cylinder, of an auxiliary fuel and air supply mechanism connected to the piston and adapted to be opened by the movement imparted thereto upon the reduction of pressure in said mixing chamber below a predetermined point and means for closing said valve when the pressure in said chamber rises.

[Claims 2, 4, 6, 7, and 10 not printed in the Gazette.]

1,241,015. MECHANISM FOR CONVERTING MOTION. JOHN PETERSON, Seattle, Wash. Filed Feb. 11, 1916. Serial No. 77,623. (Cl. 74—7.)



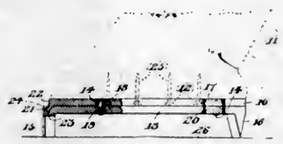
1. In means for converting lateral motion into rotary motion, the combination with a ratchet shaft, a plurality of pinions loosely mounted on the ratchet shaft, a ratchet connection between each pinion and the ratchet shaft, a plurality of floating gears having external and internal teeth, the pinions meshing with the internal teeth on the floating gears, a counter shaft, a pinion secured thereto which meshes with the external teeth on one of the floating gears, a driven shaft, pinions secured thereto which mesh with the other floating gears, gearing between the counter shaft and the driven shaft, and means for laterally reciprocating the ratchet shaft to cause the pinions thereon to impart rotary motion to the floating gears in one direction of reciprocation.

2. In means for converting lateral motion into rotary motion, the combination of a ratchet shaft, means for laterally reciprocating the ratchet shaft, a pinion loosely mounted on the ratchet shaft, a ratchet connection between the pinion and the ratchet shaft, a floating gear having external and internal teeth, the pinion on the ratchet shaft meshing with the internal teeth on the floating gear, a driven shaft, a pinion secured on the driven shaft which meshes with the external teeth on the floating gear, and means engaging the periphery of the floating gear for maintaining said floating gear in mesh with said pinions.

3. In means for converting lateral motion into rotary motion, the combination of a pair of parallel ratchet shafts, a plurality of pinions loosely mounted on each ratchet shaft, a ratchet connection between each pinion and its ratchet shaft, the ratchets on the respective ratchet shafts being arranged to permit opposite rotation of the two sets of pinions, a pair of meshing floating gear wheels, each provided with internal and external teeth, the internal teeth of said floating gears meshing with certain of the pinions on the parallel ratchet shafts, a pair of parallel counter shafts, a pinion secured to each counter shaft, said latter pinions meshing with the external teeth on the pair of floating gears, a pair of parallel driven shafts located in vertical planes with the counter shafts, a pinion secured to each of the driven shafts a second pair of meshing floating gears each provided with internal and external teeth, the internal teeth on the second mentioned floating gears meshing with certain of the pinions on the ratchet shaft and the external teeth of said second mentioned floating gears meshing with the pinion on the driven shafts, gears interposed between the counter shaft and driven shaft in one vertical plane, gears interposed between the other counter shaft and driven shaft in the other vertical plane, gearing between the two driven shafts, means for conveying motion from either driven shaft, and means for laterally reciprocating the ratchet shafts toward and from each other to cause the pinions thereon to impart rotary motion to the floating gears.

1,241,016. HORSESHOE. MARTIN PETRIC, Detroit, Mich. Filed Mar. 22, 1917. Serial No. 156,712. (Cl. 168—11.)

A horseshoe consisting of a base having its forward end squared and provided with a lip or flange projecting downwardly from its lower surface and forwardly of said squared-end portion, said downwardly projecting lip or flange being also curved forwardly at its lower end, and a tread-plate having its forward end projecting beyond the face of the squared portion of said base, said base projecting portion having a socket opening upwardly



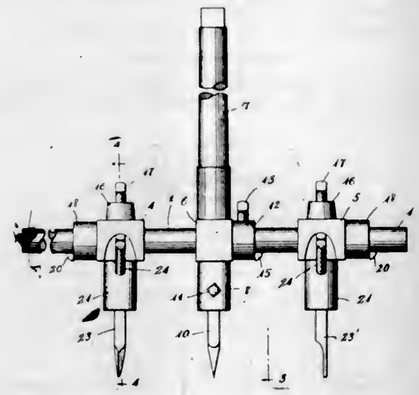
through its upper surface and extending downwardly in a corresponding contour as, and receiving said lip or flange, said base and tread-member having laterally projecting and registering fastening receiving ears.

1,241,017. PROCESS FOR THE MANUFACTURE OF TRINITROTOLUENE. FERDINANDO QUARTIERI, Milan, Italy. Filed Aug. 31, 1914. Serial No. 859,493. (Cl. 23—24.)

1. In the manufacture of trinitrotoluene, the process which comprises nitrating toluene, treating the solid intermediate products of the nitration to partially or fractionally liquefy the same and thereby to separate liquid intermediate nitration products therefrom, further nitrating the liquid intermediate nitration products thus separated, and purifying the resultant final product by melting and filtration, and by heating in a vacuum.

[Claims 2 and 3 not printed in the Gazette.]

1,241,018. WASHER-CUTTER. WILLIAM L. RAWLES, South Norfolk, Va. Filed Feb. 19, 1917. Serial No. 149,556. (Cl. 164—82.)



A device of the class described comprising a member adapted to be rotated and having a vertical center pin at the lower end thereof, a horizontal beam carried by said member, blocks slidable on said beam, clamping screws extending through one side of said blocks and engaging said beam for locking said blocks in their adjusted positions, means for preventing said blocks from rotating on said beam, the lower portions of said blocks and having upright sockets therein, cutters having their upper ends disposed in said sockets, screws extending diagonally through the lower portions of said blocks and engaging the upper ends of said cutters for adjusting the same, and additional screws extending horizontally through the lower portions of said blocks and engaging said cutters for locking the same in their adjusted positions.

1,241,019. TYPE-BAR OR CASTING-SLUG. WILLIAM A. READE, Cleveland, Ohio, assignor to Ludlow Typograph Company, Cleveland, Ohio, a Corporation of Maine. Original application filed May 24, 1911, Serial No. 629,099. Divided and this application filed July 3, 1914. Serial No. 848,764. (Cl. 101—396.)



1. A slug or type-bar made from a composite matrix having its upper, type-bearing portion project beyond one end of said slug.

2. The combination of two slugs or type bars made from composite matrices and forming adjacent portions of a continuous line of type, the upper, type-bearing portion of one slug terminating short of the end of said slug adjacent to the other slug and such upper, type-bearing portion of the latter slug projecting a corresponding amount.

3. A slug or type-bar made from a composite matrix, said slug comprising a body portion of ordinary length and width, and an upper, enlarged portion bearing the type characters, such enlarged portion being vertically less thick at space points than where characters are thus formed on its face.

4. A slug or type-bar made from a composite matrix, said slug comprising a body portion of ordinary length and width, and an upper, enlarged portion bearing the type characters, such upper, enlarged portion terminating short of one end of said slug.

5. A slug or type-bar made from a composite matrix, said slug comprising a body portion of ordinary length and width, and an upper, enlarged portion bearing the type characters, such upper, enlarged portion projecting beyond one end of said slug.

[Claims 6 to 11 not printed in the Gazette.]

1,241,020. PROCESS OF MAKING CALCIUM OR OTHER METAL CYANAMID. JAMES HENRY REID, Newark, N. J. Filed June 28, 1915. Serial No. 36,658. (Cl. 23—13.)

1. The process of making metal cyanamid which comprises introducing a molten metal carbid into an atmosphere of nitrogen and maintaining the association of the ingredients until nitrogen has combined therewith.

2. The process of making metal cyanamid, which comprises exposing a molten metal carbid to the action of nitrogen.

3. The process of making metal cyanamid which comprises conveying heat to a zone of reaction between metal carbid and nitrogen through the medium of molten or liquefied metal carbid.

4. The process of making metal cyanamid which comprises introducing a molten calcium-containing carbid into an atmosphere of nitrogen and maintaining the association of the ingredients until nitrogen has combined therewith.

5. The process of making metal cyanamid, which comprises exposing molten calcium-containing carbid to the action of nitrogen.

[Claims 6 to 8 not printed in the Gazette.]

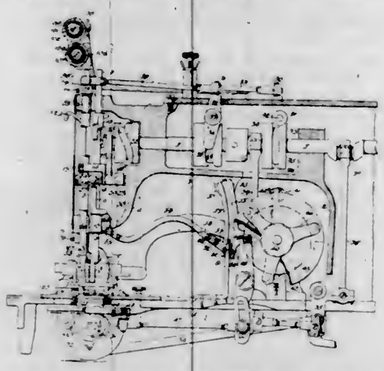
1,241,021. LACE-FASTENER. ELLEN EVEREST RICHARDSON, Boston, Mass. Filed Feb. 19, 1917. Serial No. 149,588. (Cl. 206—51.)



An article of manufacture comprising a card upon the body portion of which a strip of lace is adapted to be

wound, a fastening strap at one side of said card for anchoring the strip, and snap fasteners at the ends of the card for securing the ends of said strap detachably and pivotally thereto, the female sections of said fasteners being in the form of metal eyes extending entirely through the cards and substantially flush with the sides thereof.

1,241,022. EMBROIDERING-MACHINE. JOHN C. RINGE, Bridgeport, Conn., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed July 25, 1914. Serial No. 852,988. (Cl. 112—7.)



1. In a sewing machine, the combination with stitch-forming mechanism comprising a plurality of laterally spaced reciprocating needles, of a looper adapted to seize the thread of one needle at one side of the work and carry a loop thereof laterally, a spreader adapted to seize said thread-loop from the looper and present it for passage of the other needle at the same side of the work, oscillatory bars fixed against endwise movement and sustaining respectively said looper and spreader, and means for imparting to said bars operative movements.

2. In a sewing machine, the combination with stitch-forming mechanism comprising a plurality of laterally spaced reciprocating needles, of a looper adapted to seize the thread of one needle at one side of the work and carry a loop thereof laterally, a spreader adapted to seize said thread-loop from the looper and present it for passage of the other needle at the same side of the work, oscillatory bars mounted in fixed bearings parallel with the direction of thrust of the needles and sustaining respectively said looper and spreader, and means for imparting to said bars differentially timed operative movements.

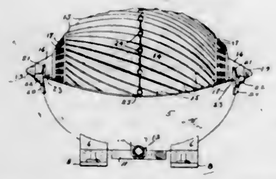
3. In a sewing machine, the combination with stitch-forming mechanism comprising a plurality of laterally spaced reciprocating needles, of a looper adapted to seize the thread of one needle at one side of the work and carry a loop thereof laterally, a spreader adapted to seize said thread-loop from the looper and present it for passage of the other needle at the same side of the work, oscillatory bars mounted in fixed bearings and sustaining respectively said looper and spreader, means for imparting to said bars differentially timed operative movements, and means for imparting to the last-named needle step-by-step lateral movements toward and from the other needle.

4. In a sewing machine, the combination with a rectilinearly reciprocating needle-bar mounted in fixed bearings, and carrying a needle, of a laterally jogging needle-frame, a reciprocating needle-bar journaled therein and carrying a needle, loop-taking devices, common means for reciprocating said needle-bars, and means sustained independently of said rectilinearly reciprocating needle-bar and of the bearings therefor for imparting to the needle-frame, a plurality of step-by-step lateral movements in the same direction.

5. In a sewing machine, the combination with a reciprocating needle-bar mounted in fixed bearings and carrying a needle, of a laterally jogging needle-frame, a reciprocating needle-bar journaled therein and carrying a needle, spreader mechanism adapted to seize a loop of one needle-thread and present it for passage of the other needle at the same side of the work, loop-taking devices, common means for reciprocating said needle-bars, jogging means including an actuating element and a reciprocatory element in constant operative relation therewith, for imparting to the needle-frame step-by-step lateral movements, means for rendering said jogging means ineffective, and means whereby the spacing apart of said needles may be adjusted.

[Claims 6 to 13 not printed in the Gazette.]

1,241,023. HOG-OILER. ELIAS RIZK, Sioux City, Iowa. Filed Aug. 9, 1916. Serial No. 113,893. (Cl. 119—157.)

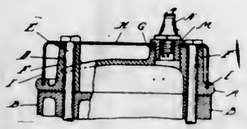


1. A hog-oiler comprising an oil receptacle and a rotatable roller having its lower part below the oil level, the roller having helically-inclined peripheral ribs disposed at a sharp angle to the roller axis.

3. A hog-oiler comprising an oil receptacle, a rotatable horizontal roller therein, conical journals on the ends of the roller, and bearings on the receptacle to support the journals, said journals being extended a distance through the bearings, and said bearings comprising plates on the receptacle having upright ears on opposite sides of and curved partly over the journals.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,241,024. CYLINDER-HEAD. EDWARD T. ROSS, Detroit, Mich. Filed Dec. 29, 1916. Serial No. 139,652. (Cl. 123—173.)



1. A cylinder head, comprising a cast-metal member for engaging the cylinder, a pressed sheet-metal member seated upon said cast member and forming a water-jacket, and a common clamping means for securing said cast and pressed sheet-metal members to the cylinders.

2. A cylinder head, comprising a cast-metal member for directly engaging the cylinder, marginally extended to cover the water-jacket side walls and apertured in registration with the water-jacket, a pressed sheet-metal member for covering said cast member, having downturned marginal flanges seated with a water sealing joint upon the cast member, and securing bolts passing through alined apertures in both of said members and holding the same to the cylinder.

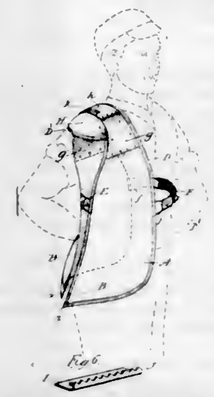
3. A cylinder head, comprising a cast-metal member for directly engaging the cylinder and extended marginally to cover the water-jacket, being apertured in registration with said jacket and being provided with a marginal groove on its upper face, a water-jacket formed of a pressed sheet-metal member having a depending flange seated in said marginal groove, and common clamping means for securing said sheet-metal member and cast-metal member to the cylinder.

4. A cylinder head, comprising a cast-metal member for directly engaging the cylinder, marginally extended to cover the water-jacket and provided with one or more upwardly-extending apertured lugs, a pressed sheet-metal water-jacket having a depending flange seated upon the marginal portion of said cast-metal member and also seated on said upwardly-extending lugs, being apertured in registration therewith, and clamping bolts passing through the registering apertures for securing both the pressed sheet-metal member and cast-metal member to the cylinder.

5. A cylinder head, comprising a cast-metal member for directly engaging the cylinder, being marginally extended to cover the water-jacket and having a marginal groove in the upper face thereof, said member being also provided with upwardly-extending apertured lugs, a pressed sheet-metal water-jacket covering said cast-metal member having a marginal depending flange seated in said marginal groove and also bearing upon said upwardly-extending apertured lugs, and means engaging said apertured lugs and registering apertures in the pressed sheet-metal member for securing the latter to the former.

[Claims 6 to 8 not printed in the Gazette.]

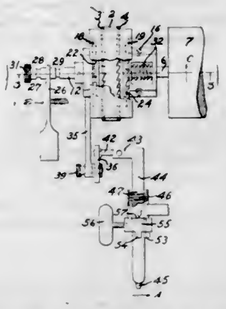
1,241,025. SHIELD FOR ICEMEN AND OTHERS. CHARLES G. SAGERSTROM, Chicago, Ill. Filed Apr. 19, 1915. Serial No. 22,302. (Cl. 2—190.)



1. An article of apparel of the class described comprising a front and rear portion united by a narrower medial connecting portion and adapted to be hung over one shoulder of the wearer and the narrower connecting portion bent over his shoulder at the front and back, a curved outer shoulder guard attached at its inner edge to the narrow medial connecting portion and inclined outwardly and downwardly to cover and protect the outer portion of the shoulder of the wearer, the outer edge of said shoulder guard and the edge of the garment to which said shoulder gaurd is attached being constructed to form a gutter which extends to the lowermost edge of the garment.

2. An article of apparel of the class described comprising a front and rear portion united by a narrower medial connecting portion and adapted to be hung over one shoulder of the wearer, and said narrower connecting portion bending over his shoulder at the front and back, a curved outer shoulder guard attached at its inner edge to the narrow medial connecting portion and inclined outwardly and downwardly to cover and protect the outer portion of the shoulder of said wearer, the outer edge of said shoulder guard and the edge of the garment to which said shoulder guard is attached being constructed to form a gutter which extends to the lowermost edge of the garment, and a flexible wire in said lowermost edge of each of the front and rear portions.

1,241,026. LINE-SPACER. CARLOS E. SAMPSON, Shale, Cal. Filed Mar. 18, 1916. Serial No. 85,068. (Cl. 197—114.)



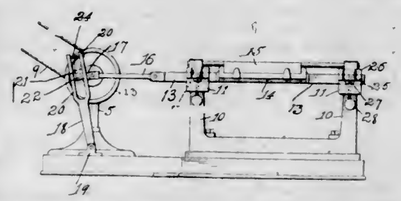
1. In a typewriter, a rotatable platen shaft, a longitudinally movable wheel on said shaft, a casing on said shaft disposed about said wheel, means on each side of said casing adapted to engage said wheel, means for moving said wheel longitudinally into contact with either of said engaging means, and means for oscillating said casing.

2. In a typewriter, a rotatable platen shaft, a longitudinally movable wheel on said shaft, an oscillatable casing on said shaft disposed about said wheel, means on each side of said casing adapted to engage said wheel, means for moving said wheel into contact with either of said engaging means, an actuating lever for said casing, and means for varying the throw of said lever.

3. In a typewriter, a rotatable platen shaft, a longitudinally movable wheel on said shaft, an oscillatable casing on said shaft disposed about said wheel, means on each side of said casing adapted to engage said wheel, means for moving said wheel into contact with either of said engaging means, an actuating lever for said casing, and means for reversing the direction of the thrust of said lever on said casing.

[Claims 4 to 13 not printed in the Gazette.]

1,241,027. ABRADING-MACHINE. WILHELM SANDER, Zurich, Switzerland. Filed Apr. 14, 1914. Serial No. 831,770. (Cl. 51—16.)

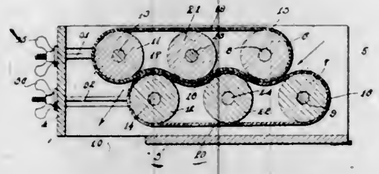


In an abrading machine, a base, standards supported by the base, bearings supported by the standards, and abrading clamp for abrading material having arms slidable in said bearings, one of said arms extending beyond one of the standards, an operating pulley, a lever pivotally connected to the base, one end of said lever being bifurcated to form guides, means for providing a connection between the bearing and pulley, means connecting the lever to the extending arm of the clamp, whereby movement of the lever is transmitted to the clamp, and abrading means supported by the clamp.

1,241,028. THRESHING-MACHINE. ALFRED C. SANFORD, Grangeville, Idaho. Filed Nov. 13, 1915. Serial No. 61,286. (Cl. 130—30.)

1. In a threshing machine, endless integral threshing belts of flexible material, belt rollers holding adjacent laps of said belts in continuous pressure engagement

throughout their abutting areas with each other to thresh the interposed materials, and means for operating said belts to impart relatively different surface speeds to said adjacent laps, whereby the interposed material will be subjected to sustained attritive action throughout its passage between said adjacent laps, substantially as described.



2. In a threshing machine, endless threshing belts, belt rollers holding adjacent laps of said belts in pressure engagement against each other throughout their abutting areas, and means for operating said belts at different speeds to hull the berries by attrition and gradually advance the material from the point at which it was received between said laps to a point of discharge, substantially as described.

3. In a threshing machine, endless threshing belts, bight rollers supporting said belts with laps of the latter in abutting relation to receive the stalks therebetween, idler rollers engaging said abutting laps to cause the latter to assume a sinuous course during their travel and throughout their abutting areas, and means for driving one of said belts at a greater speed than the other, substantially as described.

4. In a threshing machine, endless threshing belts, upper bight rollers for one belt, lower bight rollers for the other belt arranged with respect to the upper bight rollers to dispose adjacent laps of the belts in abutting relation, said upper and lower bight rollers having their peripheries in staggered relation, idler rollers holding said abutting laps in pressure engagement with peripheries of said idler rollers being in staggered relation to cause the abutting laps to take a sinuous course, tension means for the bight rollers of each belt, and means for driving said belts at unequal speeds to attritively hull the berries, substantially as described.

5. In a threshing machine, endless belts, rollers for supporting said belts with adjacent laps in abutting relation, one of said belts having longitudinally disposed attritive ridges and the other of said belts having transversely disposed attritive ridges, and means for driving said belts at unequal speeds to hull the berries by attrition, substantially as described.

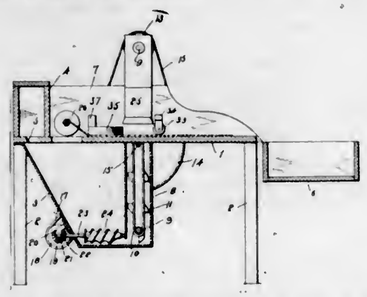
[Claims 6 to 12 not printed in the Gazette.]

1,241,029. PLASTER-BANDAGE ROLLER. EDWIN M. SAUNDERS, Los Angeles, Cal. Filed Apr. 18, 1916. Serial No. 91,911. (Cl. 18—5.)

1. In a device of the class described including a table, a spindle mounted above the table and adapted to wind bandages, means to convey plaster Paris to the bandage in front of said bandage receiving means, said table having a series of longitudinal slots positioned on each side of the bandage, and means positioned in rear of said conveyer and between said slots to scrape any excess plaster Paris off of said bandage toward said slots, as and for the purpose specified.

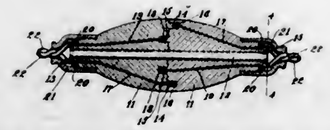
2. In a device of the class described including a table, having a series of spaced longitudinal slots, a spindle rotatably mounted above the table adapted to wind bandages and guide the same between the slots, means to convey plaster Paris to the bandage in front of said bandage receiving means, a scraper positioned in front of said bandage receiving means and centrally of said slots, said scraper having its front wall inclined rearwardly from the central portion thereof toward said slots, whereby any excess plaster Paris is scraped off said bandage toward said slots, as and for the purpose specified.

3. A device of the class described including a table having slots therein, a bin positioned beneath the table, a spindle rotatably mounted above the table, an elevator at one side of the table and operable within the bin, a chute connected to the upper end of the elevator, the lower end of the chute being disposed immediately above a bandage which is to be wound, a roller for holding said bandage flat when passing beneath the chute, and a distributer immediately in the rear of the chute adapted to spread a material over the face of the bandage and scrape any excess of material off to the side and through the slots in the table back into the bin, the said roller and distributer being pivoted at one of their ends to said table, whereby they can be swung upwardly and out of engagement with the table to permit the device to be readily adjusted for operation.



4. In a device of the class described, a table, a spindle rotatably mounted about the table and adapted to wind bandages, a guide roller pivoted to the table and adapted to be swung downwardly to hold the bandage which is being wound flat on the table, means for conveying plaster Paris to the bandage immediately in rear of the roller, a distributer adapted to spread the plaster Paris over the bandage and means carried by the bandage receiving spindle to control the speed of rotation of said spindle.

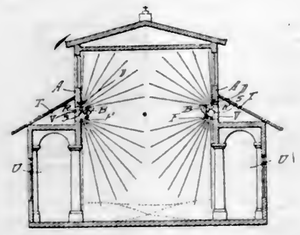
1,241,030. SWIVEL ELECTRIC CONNECTION. WILFRED SCHADE, St. Louis, Mo. Filed Feb. 5, 1917. Serial No. 146,575. (Cl. 173—324.)



1. A swivel electric connection comprising a body consisting of two mating half portions arranged end to end in axial alinement, said body being composed of insulating material, and the abutting ends of said body portions having a mating groove and flange concentric with the axis of the body, a pair of contact rings in said groove, an electric conductor extending through each half portion of said body and connected to the adjacent contact ring at its inner end, means for holding the two body portions together for relative rotation around the axis of the body, and means for connecting electric circuit wires to the outer ends of said electric conductors.

2. A swivel electric connection comprising a body consisting of two mating half portions arranged end to end in axial alinement, said body being composed of insulating material, and each of the abutting ends of said body portions having a mating groove and flange concentric with the axis of the body, a pair of contact rings in each of said grooves, a pair of electric conductors extending through each half portion of said body and connected one to each of the adjacent contact rings at its inner end, means for holding the two body portions together for relative rotation around the axis of the body, and means for connecting electric circuit wires to the outer ends of said electric conductors.

1,241,031. ILLUMINATING MEANS. HENRY J. SCHLACKS, Chicago, Ill. Substitute for application Serial No. 857,788, filed Aug. 20, 1914. This application filed Feb. 14, 1916. Serial No. 78,300. (Cl. 240—3.)



1. In an auditorium, a cornice arranged upon the wall thereof having a continuous longitudinal space therein adapted to contain light-producing elements, conduits and reflectors, and provided with a substantially continuous slot along its lower side through which light can be directed into the lower part of the auditorium, and a substantially continuous slot along its upper side through which light can be projected into the upper part of the auditorium.

2. In a lighting system for auditoriums, cornices on opposite walls thereof each having a lower and upper substantially continuous slot through which light can be projected into the auditorium, and substantially continuous light-diffusers arranged in the lower slots to prevent direct light rays reaching the lower part of the auditorium.

3. In a lighting system for an auditorium, a cornice arranged on the wall thereof, a substantially continuous slot in the lower part of the cornice through which light can be projected into the lower part of the auditorium, a series of electric lamps within the cornice adapted to project light through said slot, reflectors associated with the lamps to cause a maximum quantity of light to be projected through said slot, a substantially continuous translucent light diffuser in said slot to prevent the direct rays of light reaching the lower part of the auditorium and adapted to spread the rays of light laterally to the slot over the lower part of the auditorium whereby the lower part of the auditorium is substantially uniformly illuminated and shadows are destroyed.

4. In a lighting system for an auditorium, a hollow cornice arranged between the floor and ceiling thereof, lighting elements arranged in said hollow cornice, said cornice provided with slots through which the light is projected into the auditorium and reflectors for conserving the light produced by said elements and causing a maximum projection of light through said slots, and a substantially continuous light diffuser in one of said slots for preventing direct light rays entering the auditorium therethrough.

5. In a lighting system of the kind described, for auditoriums, a series of lights within a cornice, a slot through which the rays therefrom can be directed into the lower part of the auditorium, a substantially continuous diffuser closing said slot, a substantially half-closed and continuous housing inclosing said lights, and reflectors within said housing associated with said lights for directing a maximum quantity of light through said diffusers.

[Claims 6 to 9 not printed in the Gazette.]

1,241,032. BURNER. FREDERICK D. SCHNEIDER, New Brunswick, N. J., assignor to The Long-Landreth Schneider Co., New Brunswick, N. J. Filed Dec. 1, 1914. Serial No. 874,985. (Cl. 158—114.)

1. A burner comprising an elongated hollow member provided along one side with a plurality of transversely directed orifices, opposite ends of said member being closed and provided with an inlet opening respectively, said member being of progressively constricted dimension away from and of somewhat constricted dimension at said inlet, and a bar extending across the larger portion of said chamber and below the orifice nearest said inlet.



3. A burner comprising a mixing chamber having an inlet and an outlet, a hollow burner head seated in the latter and having an enlarged outer end, gauze arched upwardly within said outer end, and a cap engaging said gauze to hold it in place and forming in conjunction with the upper edge of said end a plurality of orifices.

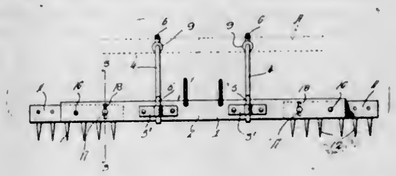
5. A burner comprising an elongated mixing chamber having one end closed and the opposite end open, said chamber furthermore provided with a plurality of openings alined along the upper longitudinal dimension of said chamber, burner heads detachably secured around said openings, individual gauze partitions across said burner heads and caps partially closing the tops of said heads such that said partitions are held in place thereby.

7. A burner comprising an elongated chamber provided with a single inlet, a plurality of upwardly directed outlet bosses spaced along said chamber, opposite sides and the bottom of said member progressively converging in a direction away from said inlet and a corresponding number of burner heads having circumferentially arranged openings and seated upon said bosses.

11. A burner comprising a mixing chamber provided with an inlet and an outlet, a burner head fitted over said outlet and provided with a cap, said cap having upturned lips spaced at intervals from said head whereby orifices are formed in conjunction with the latter.

[Claims 2, 4, 6, and 8 to 10 not printed in the Gazette.]

1,241,033. HARROW. GEORGE H. SCHRUM, Templeton, Iowa. Filed Sept. 12, 1916. Serial No. 119,675. (Cl. 97—44.)



1. A harrow comprising a harrow bar formed of a length of angle iron, a pair of toothed members pivotally mounted one upon each end of one flange of the angle iron, and draw bars attached to the said harrow bar.

2. A harrow comprising a length of angle iron forming a harrow bar having one flange disposed vertically and the adjacent flange projecting forwardly from the top thereof, a toothed member pivotally mounted to each end of the said harrow bar beneath the said forwardly projecting flange thereof, the said member including a short length of angle iron having one flange disposed vertically in close proximity to the vertical flange of the harrow bar, and its adjacent flange extending forwardly from the lower edge of the vertical flange.

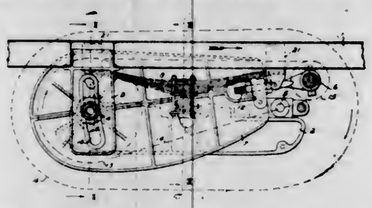
3. A harrow comprising a harrow bar formed of a length of angle iron and provided with two slots, and a pair of toothed members pivotally mounted upon the bar, one at each end thereof, and a bolt carried by each member and extended through one of said slots for limiting the pivotal movement of the toothed member.

5. In a harrow, the combination with a corn planter having a transversely arranged bar at its rear, of a harrow bar, means for attaching the said harrow bar to the said rear bar of the corn planter, and a pair of pivoted toothed members carried by the said harrow bar and disposed in the path of each wheel of the corn planter.

6. In a harrow, the combination with a corn planter having a transversely arranged bar at its rear, of a harrow bar formed of a length of angle iron and having a vertical slot arranged at each end, the said harrow bar carrying harrow teeth arranged in two groups, one behind each wheel of the said corn planter, and means for attaching the harrow bar to the rear bar of the corn planter whereby the rise and fall of the said harrow bar is permitted when the corn planter is in motion.

[Claim 4 not printed in the Gazette.]

1,241,034. TRACTOR. CHARLES EDWIN SEARCH, Milwaukee, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis., a Corporation of Delaware. Filed Dec. 9, 1915. Serial No. 66,396. (Cl. 21—114.)



1. In combination, a vehicle frame, a track frame having two connections with said vehicle frame, each permitting relative sliding of said frames, and a link pivoted to each of and connecting said frames.

4. In combination, a vehicle frame having an axle, a track frame slidably connected to said axle, and means engaging said track frame at a place remote from said axle for restraining same against motion out of the plane of motion about said axle.

6. In combination, a vehicle frame having an axle, a track frame slidably connected to said axle, track driving mechanism mounted upon said track frame, means for guiding said track frame at a place thereon adjacent the driving mechanism thereof, and means for communicating driving motion from said vehicle frame to said driving mechanism.

8. In combination, a vehicle frame, a block swiveled on said frame, a track frame at one place slidably engaging said block and at another place guided on said vehicle frame, and connecting means pivoted to each of said frames.

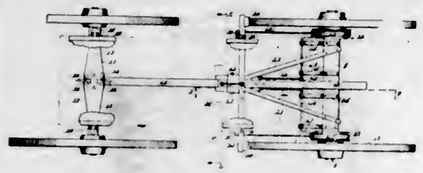
10. In combination, a vehicle frame having an axle, a block swiveled on said axle, a track frame at one place slidably engaging said block, a guide on said vehicle frame engaging said track frame at another place thereon, and a link pivoted to each of said frames.

[Claims 2, 3, 5, 7, 9, 11, and 12 not printed in the Gazette.]

1,241,035. AUTOMATIC VEHICLE-BRAKE. LAWRENCE W. SEIVERT, Elkton, S. D. Filed Sept. 14, 1916. Serial No. 120,167. (Cl. 21—9.)

2. In combination, a vehicle body provided with a front bolster, a rear axle fixed to said body, wheels on said axle, a front axle provided with wheels, a sliding connection between said front axle and said bolster, a reach attached to said front axle and movable with relation to the rear axle, braces having slotted connections with said reach and affixed to said rear axle, a brake band encircling a wheel hub, brake band applying mechanism supported by said rear axle and an operative connection between said reach and said brake applying mechanism, substantially as described.

4. In combination, a vehicle body provided with a front bolster, a rear axle fixed to said body, wheels on said axle, a front axle provided with wheels, a sliding connection between said front axle and said bolster, a reach attached to said front axle and movable with relation to the rear axle, a brake beam swingingly mounted on said body and equipped with shoes to engage the periphery of the rear wheels and a link connecting said beam and said reach, substantially as described.

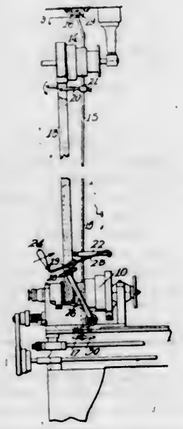


7. In combination, a vehicle body; a bolster for said body, with a longitudinal track on the underside of said bolster; a front axle; grooved rollers on said front axle arranged to receive said track; and braking mechanism arranged to be applied by movement of said vehicle body relative to said front axle, substantially as described.

9. In combination, a vehicle body, a front bolster a front axle, a connection between said bolster and said axle permitting relative movement thereof, arms pivotally connected at one end to said front axle and at the other to said bolster, and braking mechanism operable through the motion of the body relative to the front axle, substantially as described.

[Claims 1, 3, 5, 6, and 8 not printed in the Gazette.]

1,241,036. BELT-SHIFTING DEVICE. GEORGE A. SEXTON, Fitchburg, Mass. Filed Oct. 12, 1916. Serial No. 125,299. (Cl. 64—4.)



1. In a belt shifting device, the combination of a supporting rod pivoted at its ends, said rod having an offset therein, and a belt shifting fork on said rod near the offset and movable with the offset.

2. A belt shifting device comprising a supporting rod pivoted at its ends, said rod having an offset therein, and a belt shifting fork located on the rod at a point near the offset and extending from the rod at an angle to a plane defined by the two pivots at the ends of the rod and the point at which the fork is mounted on the rod.

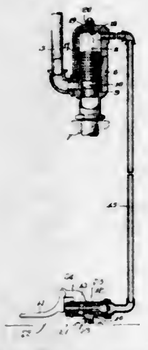
3. In a belt shifting device, the combination of a supporting rod pivoted at its ends, said rod having an offset portion, and a belt shifting fork on said rod and movable therewith, means for swinging the rod on its pivots, and a stop fixed to and projecting from the rod for engaging a stationary surface and limiting the movement of the rod so as to prevent its being operated to shift the belt off the end of a cone pulley.

4. In a belt shifting device, the combination of a supporting rod pivoted at its ends, said rod having an offset, a fork secured to said rod near the offset for shifting one strand of a belt, said rod having an arm extending radially therefrom for swinging it on its pivots, a rod connected with the end of said arm and adapted to swing the arm and rod by a longitudinal motion, and means connected with the second rod for controlling the shifting of the other strand of the belt.

5. In a belt shifter, the combination of a pivoted arm, means for frictionally holding the arm in any position in which it is placed, said arm having thereon a device for engaging and shifting the front strand of a belt and having a perforation, an operating rod extending through said perforation, a substantially vertical supporting rod, an arm projecting therefrom and pivotally supporting one end of the operating rod, whereby said operating rod may be turned about its pivot for moving the first named arm and can be moved longitudinally for turning the second arm and oscillating the vertical rod, said vertical rod being provided with a belt engaging fork for the rear strand of the belt.

[Claim 6 not printed in the Gazette.]

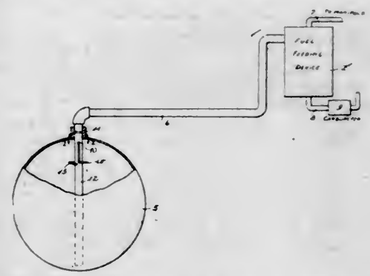
1,241,037. WATER-FLUSHING CONTROL. JOSEPH W. SHARP, Jr., Berwyn, Pa., assignor to Haines, Jones & Cadbury, Incorporated, a Corporation of Pennsylvania. Filed May 16, 1914. Serial No. 838,918. (Cl. 137—93.)



In combination with water flushing mechanism, a pressure relief valve for controlling the same, comprising a horizontal cylinder having a valve and a spring-controlled valve-operating spindle operating therein and projecting therefrom, a cylinder supporting stem and means for connecting the same to a supporting surface, such as the floor, with the cylinder spaced therefrom, a bracket projecting from said cylinder, and a foot lever having a portion substantially in line with the valve spindle, pivoted to the bracket and adapted to hang by gravity in engagement with the spindle.

1,241,038. FLUID-FLOW CONTROL. WILFRED SHURTLEFF, Moline, Ill. Filed Nov. 22, 1916. Serial No. 132,790. (Cl. 158—36.)

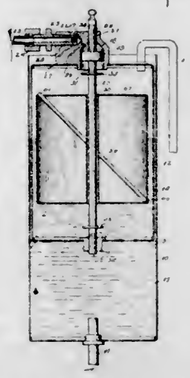
1. In a vehicle, the combination with the fuel supply tank, fuel feed device and connecting piping of a fuel feeding system, of an air inlet for the piping, and a cleaning member projecting at one end into said inlet to restrict



the same, said member being free to be shifted by the movements of the traveling vehicle to keep said inlet open.

[Claims 2 and 3 not printed in the Gazette.]

1,241,039. VACUUM FUEL-FEEDING SYSTEM FOR GAS-ENGINES. WILFRED SHURTLEFF, Moline, Ill. Filed Mar. 12, 1917. Serial No. 154,152. (Cl. 158—36.)



1. The combination with a fluid container, of a hollow float supported by the fluid in said container and closed to the direct entrance of fluid, means for intermittently changing the pressure in said container with reference to the pressure at the inside of said float, and means controlled by such differences in pressure between the inside and outside of said float for preventing the accumulation of leakage fluid within the float.

4. The combination with a closed hollow float, of a pipe open at one end to the float interior at the bottom thereof and open at its other end to the exterior of the float a the top thereof.

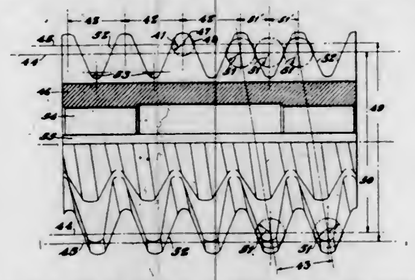
6. The combination of a fuel container, of fluid partly filling said container, a sheet metal float guided to reciprocate in said container with the rising and falling fluid, means for subjecting the interior of the container alternately to pressure and vacuum, a pipe leading from the bottom of said float to the exterior thereof above the fluid level, said float being otherwise entirely closed to the air or the fluid within the container.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,241,040. HOBBING-CUTTER. OLIVER G. SIMMONS, Rochester, N. Y. Filed Mar. 22, 1917. Serial No. 156,689. (Cl. 29—103.)

5. In a hob of the class described comprising a series of tapered teeth arranged in the form of a helix the tops of which teeth are curved in the form of an arc of a circle, the center of which lies upon the base line inter-

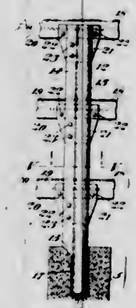
mediate the sides of the teeth of the hob, said base line being identical with the root line and removed from



the pitch line a distance corresponding to the measure of the distance between the pitch circle and base circle of the base gear of the given diametral pitch.

[Claims 1 to 4 not printed in the Gazette.]

1,241,041. METAL RAILING. EDWIN E. SLICK, Westmont borough, Pa. Filed Apr. 8, 1915. Serial No. 19,893. (Cl. 256—21.)



1. A railing comprising a plurality of posts each formed with a substantially hollow cylindrical portion, an integral flange projecting therefrom, a railing bar of substantially the same section, the posts and rails being secured together by means of their flanges.

3. In a railing, the combination of a post composed of a hollow cylindrical portion, an integral flange projecting therefrom, a rail of similar section applied thereto with their flanges superposed, and means for securing said flanges together.

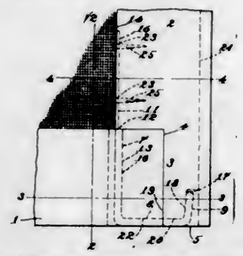
5. A railing comprising a post having a body portion of hollow cylindrical form with an integral flange projecting therefrom, the edge of which is parallel thereto, a gusset plate secured to the outside of said flange by means of bolts or rivets, a railing bar of substantially the same shape as the post located at an angle thereto and secured to said gusset plate by means of its flange.

6. A post of hollow cylindrical form with an integral flange projecting slightly therefrom and continuously thereof, a plurality of gusset plates secured to said flat flange, a corresponding plurality of railings located at an angle to said post, said railings having the outer portions of their flanges abutted against and secured to said gussett plates.

[Claims 2 and 4 not printed in the Gazette.]

1,241,042. CORNER-JOINT. JESSE SMALL, Arlington, Md. Filed July 25, 1917. Serial No. 182,647. (Cl. 20—92.)

1. A corner joint consisting of two frame members, one rabbeted at the end to receive the end of the other, the inserted end being pierced by a hole in alinement with the inner surface of the rabbeted frame member, a U-shaped clamp, one leg of which is passed through the aperture and engages the inner surface of the rabbeted member, and the other leg of which engages the rabbeted member from the opposite side.



2. A corner joint consisting of two frame members, one rabbeted at the end to receive the end of the other, the inserted end being pierced by a hole in alinement with the inner surface of the rabbeted frame member, a U-shaped clamp, one leg of which is passed through the aperture and engages the inner surface of the rabbeted member, the other leg of the U-shaped clamp engaging the rabbeted member from the opposite side, the legs of the clamp being sprung outward and one of the legs having its inner surface inclined to give a wedge effect in forcing the parts together.

1,242,043. SOAP. MORRIS SPAZIER, Los Angeles, Cal. Filed Jan. 27, 1917. Serial No. 144,972. (Cl. 87—5.)

1. A composition of matter, comprising a soap, water, sodium carbonate, sodium acetate and ammonium acetate.

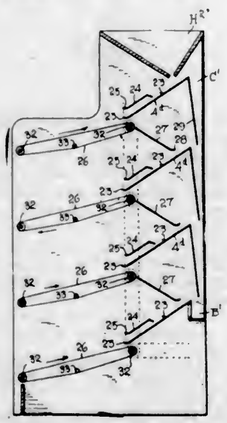
2. A composition of matter comprising ingredients in substantially the following proportions: soap 50.72%, moisture 11.90%, sodium carbonate 32.39%, ammonium acetate 1.79%, and sodium acetate 3.20%.

1,241,044. WASHING-CRYSTAL. MORRIS SPAZIER, Los Angeles, Cal. Filed Jan. 27, 1917. Serial No. 144,973. (Cl. 87—5.)

1. A washing crystal, including water, sodium carbonate, sodium acetate and ammonium acetate.

2. A washing crystal including the following ingredients in substantially the proportions by weight specified: water 57.28%, sodium carbonate 40.02%, ammonium acetate 2.22% and sodium acetate .48%.

1,241,045. GRAIN-SEPARATOR. JOHN STADTHERR and ALBERT BENGTSON, Gibbon, Minn. Filed Apr. 16, 1917. Serial No. 162,517. (Cl. 130—18.)

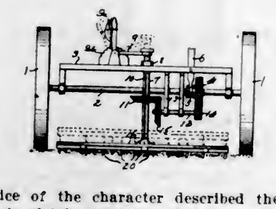


1. A device of the character described comprising a plurality of inclined members discharging one upon the other, aprons depending from the upper end portions of certain of said members and endless carriers having their upper stretches traveling toward the members, each of said endless carriers receiving from an upper inclined member and delivering to an inclined member immediately therebelow.

2. A device of the character described comprising a plurality of inclined members discharging one upon the other, the lower ends of each of said members being disposed upwardly, aprons depending from the upper end portions of certain of said members and endless carriers having their upper stretches traveling toward the members, each of said endless carriers receiving from an upper inclined member and delivering to an inclined member immediately therebelow.

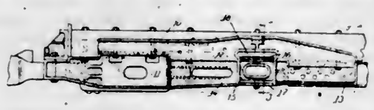
3. A device of the character described comprising a plurality of inclined members discharging one upon the other, and endless carriers having their upper stretches traveling toward the members, each of said endless carriers receiving from an upper inclined member and delivering to an inclined member immediately therebelow.

1,241,046. ROTARY WHEEL-HARROW. HELON M. STARK, Williams, Ariz. Filed June 12, 1915. Serial No. 33,738. (Cl. 55—20.)



A device of the character described the combination with a pair of drive wheels, and a power shaft connecting said drive wheels, of a carrying frame mounted on said power shaft, a gear wheel loosely mounted on said power shaft, means associated with said gear wheel to operatively engage and disengage said gear with the power shaft, bearings secured to said frame, a counter-shaft mounted upon said bearings in parallel relation to the power shaft, a pinion mounted on one end of the counter-shaft in mesh with said gear wheel, a bearing mounted centrally of the carrying frame, a vertical shaft mounted in said bearing having a keyway therein, a bevel gear on said vertical shaft engaged with the keyway, a second bevel gear mounted on the free end of the counter-shaft and in meshing relation with the gear on the vertical shaft, said keyway permitting vertical reciprocation of said harrow shaft relative to the first said bevel gear to adjust the height of the harrow.

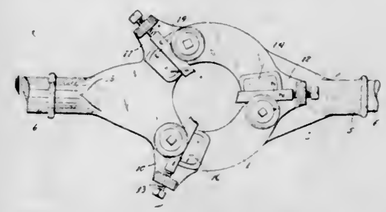
1,241,047. CAR-UNDERFRAME. WALTER A. STEARNS, Chicago, Ill., assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed July 25, 1914. Serial No. 852,985. (Cl. 105—76.)



1. In means for reinforcing the sills of cars, a casting adapted to lie alongside a sill and to coöperate with a body bolster, consisting of a beam extending in a straight line from the end sill to a point a substantial distance to the rear of the body bolster and provided with an aperture in the casting in the plane of one of the members of the body bolster, said casting being provided with a portion arching over the bolster above said aperture and a portion passing through the bolster below said aperture, said last-named portion adapted to act as a spacer for the two members of the bolster, said beam having a shelf to underlie said sill at front and rear of the bolster, substantially as described.

2. In means for reinforcing the sills of cars, a casting adapted to lie alongside of and beneath a sill and to cooperate with a body bolster consisting of a beam extending in a straight line from the end sill to a point a substantial distance to the rear of the body bolster and provided with an aperture in the casting in the plane of the upper member of the body bolster and with a notch in the casting in the plane of the lower member of the body bolster, thereby providing square shoulders on said casting against which both sides of both said body bolster members may abut, said casting being provided with a portion arching over the bolster above said aperture and a portion passing through the bolster below said aperture, said last-named portion adapted to occupy the entire space between the two members of the body bolster, substantially as described.

1,241,048. PIPE-THREADING DIE. ARTHUR J. STEFFENBERG, Pittsburgh, Pa. Filed Feb. 26, 1916. Serial No. 80,644. (Cl. 10—121.)



1. A pipe-threading die comprising a body portion in the form of an annulus, pairs of transversely extending, eccentrically disposed and forwardly projecting abutments integral with the forward face of said annulus, said pairs of abutments being spaced from each other, the abutments of each pair spaced to provide a channel inclining with respect to the sides of the abutments of the pair and further disposed in a plane eccentric with respect to the center of the annulus, cutters supported upon the forward face of the annulus within said channels, means extending in the forward face of the abutment of each pair and over-lapping a cutter for maintaining it against the annulus, spaced L-shaped brackets projecting laterally from the outer edge of the annulus and each having a horizontal and lateral arm, said longitudinal arm flushed with the forward face of the annulus and said horizontal arm extending forwardly from the annulus and spaced from and opposing the outer ends of a pair of abutments, and means carried by said horizontal arms abutting against the outer ends of the cutters forward of the annulus for adjustably shifting them inwardly and across the forward face of the annulus.

2. A pipe threading die comprising a body portion in the form of an annulus, pairs of transversely extending, eccentrially disposed and forwardly projecting abutments integral with the forward face of said annulus, said pairs of abutments being spaced from each other, the abutments of each pair spaced to provide a channel inclining with respect to the sides of the abutments of the pair and further disposed in a plane eccentric with respect to the center of the annulus, cutters supported upon the forward face of the annulus within said channels, means extending in the forward face of the abutment of each pair and over-lapping a cutter for maintaining it against the annulus, spaced L-shaped brackets projecting laterally from the outer edge of the annulus and each having a horizontal and lateral arm, said longitudinal arm flushed with the forward face of the annulus and said horizontal arm extending forwardly from the annulus and spaced from and opposing the outer ends of a pair of abutments,

and means carried by said horizontal arms abutting against the outer ends of the cutters forward of the annulus for adjustably shifting them inwardly and across the forward face of the annulus, and a pair of diametrically opposed and rearwardly curved extensions integral with the outer edge of the annulus and each having its outer end terminating in a pocket for the reception of a handle bar.

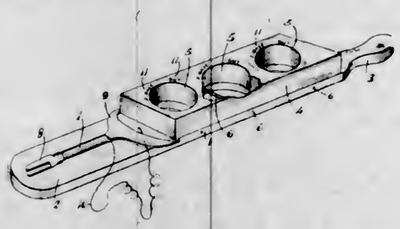
3. A pipe threading die comprising a body portion, pairs of transversely extending eccentrically disposed and forwardly projecting abutments integral therewith, an abutment of each pair spaced to provide a channel inclining with respect to the sides of the abutments of a pair and further disposed in a plane eccentric with respect to the center of the annulus, cutters mounted in said channels, means extending in the abutment of each pair for maintaining the cutters in position, and means supported exteriorly of the body portion and abutting against the outer ends of the cutters for adjustably shifting these latter inwardly.

1,241,049. COMBINED PLACE MARKING AND ADVERTISING DEVICE FOR DIRECTORIES, &c. FRANK M. STEVENS, Ridgewood, N. J. Filed Sept. 14, 1916. Serial No. 120,059. (Cl. 11—7.)



In a telephone directory, index and reference book and similar publication, a combined place marking and advertising paper strip composed of an inner end portion provided with spaced cutting lines to allow of its use with different books, and glued, after cutting, to the inner margin of a page indicating a certain place, an overlapping marginal outer end portion with a direction printed on both sides, and a middle section containing advertising matter on both sides.

1,241,050. GAME APPARATUS. PETER C. STICHTENOTH, Cincinnati, Ohio. Filed Feb. 21, 1917. Serial No. 150,215. (Cl. 46—59.)



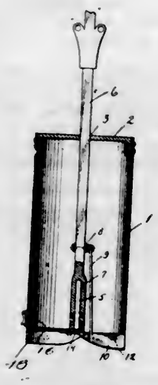
1. A game aparatus comprising a block, apertures therein, obstructions placed across said apertures, a dart adapted to be placed on one end of said block and pass when lifted therefrom through the apertures provided therein, and also adapted to engage said obstructions.

2. A game apparatus comprising a block having apertures therein, bars placed across said apertures and a dart having a bifurcated end adapted to engage said bars, substantially as described.

3. A game apparatus comprising a block, a raised portion on said block having apertures therein, obstructions mounted in said apertures, a platform at one end of said block, a handle at the other end thereof, and a dart having a weighted end and provided with means for engaging the obstructions in said apertures.

[Claims 4 and 5 not printed in the Gazette.]

1,241,051. WELL-AUGER. CLAUDE D. STILWELL, Hamar, N. D. Filed Apr. 11, 1917. Serial No. 161,227. (Cl. 255—67.)



1. A device of the character described, comprising a cylindrical casing, means for closing a portion of the bottom of said casing, means for rotating said cylindrical casing, and a cutting element connected to said casing rotating means and adapted to close the remainder of the bottom of the cylindrical casing.

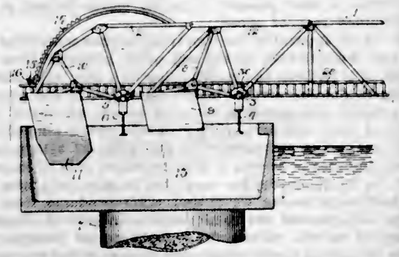
2. A device of the character described comprising a cylindrical casing, means for closing a portion of the bottom of said casing, means for rotating the casing, a hinged cutter carried by the bottom of the casing and adapted to close the open portion thereof, and means connecting the hinged cutter with the casing rotating means to operate said cutter.

3. A device of the character described comprising a cylindrical casing, means for closing a portion of the bottom of said cylindrical casing, a hinged cutting member secured to the bottom of the casing adjacent the open portion thereof, means for rotating the casing and adapted for vertical movement within the casing, and means connecting said hinged cutter and the casing rotating means for moving the hinged cutter to close the open portion of the bottom of the casing upon vertical movement of the casing operating means.

4. A device of the character described comprising a cylindrical casing, means for closing a portion of the bottom of said casing, a cutting element hinged to the bottom of said casing near the open portion thereof, means for rotating the casing and adapted for vertical movement within the same, and a link connecting the casing rotating means and said pivoted cutter to move the cutter about its pivot to close the open portion of the bottom upon vertical movement of the casing rotating means.

1,241,052. BRIDGE. JOSEPH B. STRAUSS, Chicago, Ill. Filed Aug. 29, 1913. Serial No. 787,251. (Cl. 14—38.)

1. A bridge comprising two sections adjacent to each other and on the same side of the space to be spanned, said sections opening in the same direction, each section movably mounted in position, a counterweight connected with each section near the tail end thereof which acts as a counterbalance, one of said counterweights being heavier than required to counterbalance the section to which it is attached and a movable connection between the two sections so that they move in unison, the counterweight of one section acting to help counterbalance the other section when the two sections are moved away from their closed positions.



2. A bascule bridge comprising two sections adjacent to each other and located on the same side of the space to be spanned, said sections opening in the same direction, each section supporting a portion of the floor of the bridge, a counterweight connected with each section, one counterweight being heavier than required to counterbalance the section to which it is attached and a connection between the two sections so that they move in unison.

3. A bascule bridge comprising two sections adjacent to each other and on the same side of the space to be spanned, said sections opening in the same direction, each section supporting a portion of the floor of the bridge, a counterweight connected with each section, the counterweight of one section acting to help counterbalance the other section and a connection between the two sections so that they move in unison to all their various positions and an operating mechanism associated with one section.

4. A bascule bridge comprising two movably mounted sections adjacent to each other and on the same side of the space to be spanned, said sections opening in the same direction, each carrying a part of the floor of the bridge, a movable connection between said sections so that they move in unison, a separate counterweight connected with each section, the counterweight of one section being heavier than necessary to counterbalance said section, the surplus weight acting to help counterbalance the other section.

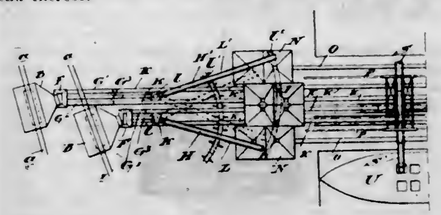
5. A bascule bridge comprising two sections adjacent to each other and on the same side of the space to be spanned, said sections opening in the same direction, trunnions upon which said sections are mounted, each section having rigid members which project rearwardly from the trunnions thereof, a separate counterweight connected with the rearwardly projecting members of each section, the counterweight of the rear section being heavier than necessary to counterbalance said section and a pivoted connection between the two section and means for opening and closing said sections.

[Claim 6 not printed in the Gazette.]

1,241,053. LOADING AND STORING APPARATUS. FRANCIS LEE STUART, Baltimore, Md. Filed Oct. 13, 1915. Serial No. 55,620. (Cl. 214—1.)

1. In a system for handling coal and the like, apparatus having means for discharging the material to be handled and including a receiving member having a plurality of discharge openings, a place for storage, a plurality of loading machines having means for loading material into boats or the like, conveyers for carrying material from one of the discharge openings to storage and from another of said discharge openings to said loading machines, means whereby the conveyers leading to said last mentioned loading machines may be fed with material from storage, and additional conveyers extending from storage and leading to other loading machines.

2. The combination with a place for storage of a truss or bridge mounted at its lower or receiving end to swing about a vertical axis, a track concentric with said axis for supporting said truss or bridge, a conveyer carried by said truss and which delivers to storage, another truss or bridge longer than that first mentioned and which is pivotally mounted at its lower or receiving end to swing about a vertical axis and is provided with a conveyer having its receiving end close to the receiving end of the first-mentioned conveyer and delivering to storage, and another track concentric with the axis of said last-mentioned bridge and which supports the outer end thereof.



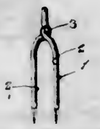
3. In a system for handling coal and like material, a store house provided with a plurality of bins, a plurality of belt-conveyers arranged beneath said bins and receiving material therefrom, unloading apparatus provided with means for delivering material to said conveyer belts, loading apparatus movable from place to place and receiving material from the conveyer belts, and a boom conveyer receiving material from the unloading apparatus and which is mounted to swing horizontally from bin to bin and which is adjustable vertically at its outer end to deliver material at any desired elevation in said bins.

4. In a system for handling material the combination with unloading apparatus, of a series of loading machines, a storage house between the unloading apparatus and the loading machines, and means for simultaneously supplying material to a plurality of the machines either from the unloading apparatus or from the storage house, including belts which convey from the unloading apparatus or storage house to certain of the machines and additional belts which lead to other loading machines and convey the material from the storage house.

5. In a system for handling material the combination with unloading apparatus, of a series of loading machines, a storage house, conveying means extending from the unloading apparatus to the storage house, conveying means extending from the latter to certain of the machines, additional conveying means extending direct from the unloading apparatus to other loading machines, and means for feeding material from the storage house to the last named conveying means.

[Claim 6 not printed in the Gazette.]

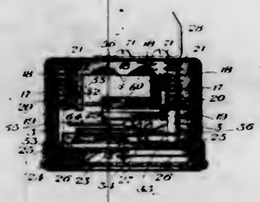
1,241,054. WIRE STAPLE. CHARLEY TERVO, Mack, Minn., assignor of one-third to Owen E. Hulehan, Deer River, Minn. Filed July 22, 1916. Serial No. 110,724. (Cl. 85—49.)



1. A staple comprising a pair of legs, and a head located in a plane at right angles to the plane of the legs, said head projecting beyond the plane of the legs to provide shoulders by means of which the staple may be removed by a claw hammer, and said staple being formed from a single length of wire bent first into U-shape to provide said legs, and then having the connecting portions of said legs twisted to provide said head.

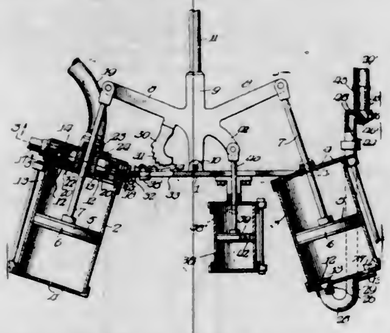
2. A staple formed from a single wire strand bent to provide a central eye therein, spaced parallel shanks, and a twisted stem portion connecting the shanks to said eye, said eye being disposed at right angles to the plane of the shanks.

1,241,055. ELECTRIC AUTOMOBILE-CLOCK. WILLIAM H. THOMPSON, Memphis, Tenn., assignor to Thompson Electric Clock Company, Memphis, Tenn., a Corporation of Tennessee. Filed Oct. 28, 1914. Serial No. 869,014. (Cl. 58—41.)



In a clock, the combination with a frame, of a power shaft journaled therein and in metallic contact therewith adapted for driving the train, a power wheel loosely mounted on, and in metallic contact with, the said shaft and adapted for driving it, a ratchet wheel loosely mounted on said power shaft, a driving disk loosely related to the ratchet wheel and secured on the power shaft, a compensating spring connecting the driving disk and the ratchet wheel, a pawl carried by the power wheel and engaging the ratchet wheel, an electric contact on the power wheel, an armature having a contact adapted to be engaged by the contact aforesaid, an electro-magnet in circuit with said contact and said frame, an arm connected to the power wheel, and a contractile coil spring having one end anchored and its other end connected to said arm, said armature being adapted to kick the power wheel to tension said contractile coil spring when the contacts engage.

1,241,056. APPARATUS FOR PRODUCING ARTIFICIAL RESPIRATION. WILLIAM E. TULLAR, Chicago, Ill., assignor to The Respiratory Apparatus Company, Chicago, Ill., a Corporation of Illinois. Filed July 19, 1915. Serial No. 40,559. (Cl. 128—13.)



1. In an apparatus for supplying oxygen-containing gas to and withdrawing waste and other products from the lungs of a patient, the combination of a plurality of cylinders, plungers therein, means for actuating said plungers, an inlet to and an outlet from each of said cylinders, valves in said inlets and outlets, and means for preventing the operation of said plunger actuating means beyond a predetermined rate of speed.

2. In an apparatus for supplying oxygen-containing gas to and withdrawing waste and other products from the lungs of a patient, the combination of a pair of cylinders, plungers therein, means for actuating said plungers, an inlet to and an outlet from each of said cylinders, valves in said inlets and outlets, and means for preventing the operation of said plunger actuating means beyond a predetermined rate of speed.

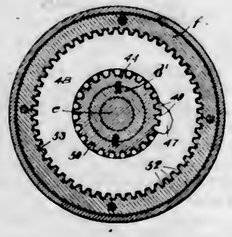
3. In an apparatus for supplying oxygen-containing gas to and withdrawing waste and other products from the lungs of a patient, the combination of a pair of cylinders, plungers therein, pivoted means connected to and adapted to actuate said plungers, an inlet to and an outlet from each of said cylinders, valves in said inlets and outlets, and means for preventing the operation of said plunger actuating means beyond a predetermined rate of speed.

4. In an apparatus for supplying oxygen-containing gas to and withdrawing waste and other products from the lungs of a patient, the combination of a pair of cylinders, plungers therein, means for actuating said plungers, an inlet to and an outlet from each of said cylinders, valves in said inlets and outlets, a third cylinder, and means operating therein and connected to said plunger-operating means to prevent the operation thereof beyond a predetermined rate of speed.

5. In an apparatus for supplying oxygen-containing gas to and withdrawing waste and other products from the lungs of a patient, the combination of a pair of cylinders, plungers therein, pivoted means connected to and adapted to actuate said plungers, and inlet to and an outlet from each of said cylinders, valves in said inlets and outlets, means disposed in the path of said pivoted means to adjustably vary the stroke of said plungers, a third cylinder, and means operating therein and connected to said plunger-actuating means to prevent operation thereof beyond a predetermined rate of speed.

[Claims 6 to 24 not printed in the Gazette.]

1,241,057. CLUTCH MECHANISM FOR REVERSING-GEARING. HENRY A. TUTTLE, Taunton, Mass., assignor to Evans Stamping & Plating Company, Taunton, Mass., a Corporation of Massachusetts. Original application filed May 26, 1911, Serial No. 629,596. Divided and this application filed Feb. 18, 1915. Serial No. 9,140. (Cl. 192—10.)



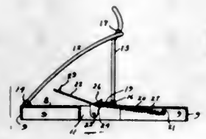
1. A clutch plate and its coöperating members and intermeshing projections on each element, contact faces of said projections having different curvatures whereby a limited contact between the projections is obtained.

3. A clutch plate and its coöperating member and numerous intermeshing projections on each element, the contact faces of said projections having curvatures with engaging-portions extending for a portion only of their length, which admit of the clutch-plates becoming self-centered, and all of the projections thereof brought into engaging relation with projections on the coöperating member.

5. A clutch including a plurality of annular clutch-plates, two coöperating members, one slidably supporting some of said plates, and the other slidably supporting the remainder of said plates, and intermeshing projections on the clutch-plates and their supports, said projections having contact-faces with engaging portions extending for a portion only of their length, whereby limited contact is obtained.

[Claims 2 and 4 not printed in the Gazette.]

1,241,058. ANIMAL-TRAP. MYRON A. TWITCHELL, Elk Point, S. D., assignor to Chauncey C. Crandall, Sioux Falls, S. D., and Buel Couch and Milton S. Crandall, Sioux City, Iowa. Filed Feb. 27, 1917. Serial No. 151,205. (Cl. 43—23.)



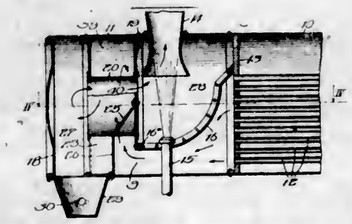
1. An animal trap including a base, a jaw having a lower cross member provided with an intermediate crank and pivoted on the base to permit the jaw to be swung upwardly and downwardly to accordingly open and close, a spring acting on the crank to force the jaw closed, a trigger pivoted on the base to engage the crank to hold the jaw releasably open, and a stop on the trigger to engage the crank, the stop being adjustable to regulate the sensitiveness of the trigger.

3. An animal trap including a base, a jaw having a lower cross-member pivoted on the base to permit the jaw to be swung upwardly and downwardly to accordingly open and close, a crank-arm on the cross-member, a spring acting on the crank to force the jaw closed, and a trigger including a plate pivoted adjacent one end on the base and adapted to engage at its pivoted end the under side of the crank arm to hold the jaw releasably open, and an inclined ear on the plate engageable with the end of the crank-arm and adjustable to regulate the sensitiveness of the trigger.

5. An animal trap comprising a base, a substantially U-shaped jaw having the ends of its arms pivoted adjacent one end of the base, a second jaw substantially rectangular and having its lower end pivoted to the intermediate portion of the base and formed with a crank, the base having an opening to receive the crank, and the sides of said second jaw being provided with loops slidably engaging the sides of said first jaw, whereby the jaws swing in unison downwardly toward each other to close against the base, and upwardly from each other to open, a retracting spring between the crank and the base to close the jaws, and a trigger including a bait-holding plate pivoted adjacent one end within the opening and engageable at its pivoted end with the under side of the crank wrist to hold the jaws open and adapted when depressed at its free end to disengage the crank, and an ear extending upwardly from the plate to engage the crank.

[Claims 2 and 4 not printed in the Gazette.]

1,241,059. SPARK-ARRESTER. THOMAS M. VAN HORN, Chicago, Ill. Filed Nov. 16, 1915. Serial No. 61,736. (Cl. 110—122.)



1. In combination with a locomotive smoke box and stack, and an exhaust nozzle, of a spark arresting device having a passage constructed for causing the products of combustion to revolve in the front end of the smoke box whereby to separate the solid particles from the exhaust gases, said arresting device arranged on said front end and provided with an outlet for said products of combustion disposed forwardly of said nozzle and stack, and a conduit for conducting the exhaust gases rearwardly to the stack.

2. In combination with a locomotive smoke box and stack, of a spark arresting device having a passage spirally arranged in said smoke box for causing the products of combustion to make one or more revolutions in the front end of the box whereby to effect a separation of the solid particles and the exhaust gases, said device having an outlet for said products disposed in said front end forwardly of said stack and constructed for conducting the separated exhaust gases rearwardly to the stack, and a receptacle disposed adjacent said outlet to receive the solid particles.

3. The combination with a locomotive smoke box and stack, of a spark arresting device substantially vertically disposed in said smoke box whereby to form a front compartment located forwardly of said stack and provided with a passage constructed for causing the products of combustion to peripherally revolve in the front compartment whereby so separate at that point the solid particles from the exhaust gases, and a rearwardly extending conduit positioned centrally with reference to said front compartment adapted for conducting the exhaust gases therefrom to said stack.

4. The combination with a locomotive smoke box and stack, of a spark arresting device disposed in said smoke box whereby to form a front compartment located forwardly of said stack and provided with a passage constructed for causing the products of combustion to peripherally revolve in the front compartment whereby to separate at that point the solid particles from the exhaust gases, and a conduit positioned centrally with reference to said front compartment adapted for conducting the exhaust gases therefrom to said stack, said passage spirally arranged about the said conduit.

5. The combination with a locomotive smoke box and stack, of a spark arresting device disposed and arranged in said smoke box whereby to form front and rear compartments therein, the rear compartment communicating with the stack, said device provided with an outlet in the front compartment and an inlet closed off from the rear compartment, and an exhaust conduit leading from the front to the rear compartment for conducting exhaust gases to the stack.

[Claims 6 to 10 not printed in the Gazette.]

1,241,060. CLUTCH MECHANISM. JESSE G. VINCENT, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Nov. 21, 1913. Serial No. 802,264. (Cl. 74—46.)

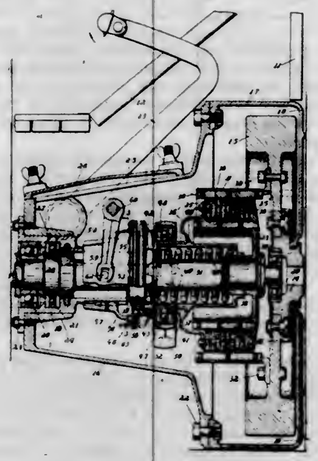
1. In a motor vehicle, the combination with a casing, driving and driven shafts therein, and a clutch connecting said shafts, of a clutch brake having a rotating sliding part and a non-rotating sliding part, means preventing engagement of said parts while the clutch is engaged, and means causing yielding engagement of said parts upon disengagement of the clutch.

2. In a motor vehicle, the combination with a casing, driving and driven shafts therein, and a clutch connecting said shafts, of a clutch brake within the casing, and means accessible from the outside of said casing for adjusting said brake.

12. The combination with driving and driven shafts, and a clutch connecting said shafts, of a braking element on one of the shafts, a non-rotating coöperating braking element, yielding means under constant tension tending to cause egagement of said elements, and an adjustable stop for determining the inoperative position of the non-rotating element.

13. In a motor vehicle, the combination with a supporting casing, driving and driven shafts therein, and a clutch connecting said shafts, of an annular brake shoe surrounding said driven shaft and movable with the operating part of the clutch, a coöperating brake shoe surrounding the driven shaft and mounted on the casing in sliding relation therewith, a rock shaft mounted on and extending through the casing, connections from the rock shaft to the sliding brake shoe, a spring on the outside

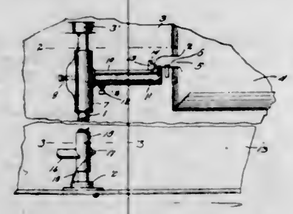
of the casing for controlling said rock shaft, and a stop adjustably mounted on the outside of the casing for limiting the action of said spring.



19. In a motor vehicle, the combination with driving and driven shafts, a clutch therebetween, a braking element on said driven shaft, and a non-rotating braking element, of means tending to cause said elements to cooperate in a substantially equal degree when the clutch lever is partially and completely operated.

[Claims 3 to 11, 13, 14, 16 to 18, and 20 to 24 not printed in the Gazette.]

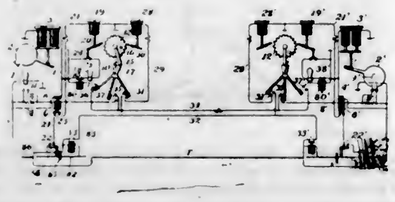
1,241,061. FURNACE-DOOR OPENER. MORRIS WALTON, Delaware, Ohio. Filed Oct. 2, 1916. Serial No. 123,357. (Cl. 110—178.)



1. The combination with a door having a lug and a catch disposed for engagement with the lug, of a shaft journaled adjacent the door, a sleeve carried by the shaft, a cam plate carried by the sleeve constructed and arranged to engage the lug on the door with its cam surface to disengage said lug from the catch during the rotation of the shaft, a second sleeve carried by the shaft, a shaft operating foot piece carried by said second sleeve, and means for reversely operating the shaft when the foot piece is released.

2. The combination with a door having a lug and a catch disposed for engagement with the lug, of a shaft journaled adjacent the door, a sleeve adjustably carried by the upper portion of the shaft, an arm carried by the sleeve, a cam plate carried by the arm constructed and arranged to engage the lug on the door with its cam surface to disengage said lug from the catch during the rotation of the shaft, a sleeve adjustably carried by the lower portion of the shaft, a shaft operating foot piece carried by the sleeve, and means for reversely operating the shaft when the foot piece is released.

1,241,062. ELECTRIC SIGNALING SYSTEM. SAMUEL M. WARD, Jr., Woodmere, N. Y., assignor to John T. Clarke, New York, N. Y. Filed Dec. 24, 1907, Serial No. 407,936. Renewed Dec. 15, 1916. Serial No. 137,265. (Cl. 246—36.)



1. In a block signaling system, a signal line wire extending along the block, switches at each end of the block normally connecting the line wire to the same side of a source of power, a signal at the remote end of the block, signal-setting means at said end operatively related to the line wire and controlled through said line wire from the near end of the block for setting the signal, and a signal at the near end of the block operatively related to said line wire and controlled through said line wire to be set in response to said signal-setting means at the remote end of the block.

2. In a block signaling system, a signal at one end of the block, means for setting said signal, a signal circuit extending along the block for controlling said setting means, a signal at the opposite end of the block set through said circuit, and means for operating said last signal on the entrance of each car of a possible series into the block while a preceding car occupies the block.

3. In a block signaling system, the combination of a signal, means for operating the signal, signal controllers one at each end of the block, means for operating the controllers, a signal circuit extending along the block, and electromagnetically-operated means at one end of the block operated through said circuit in response to the operation of one of said controllers for governing the setting of the signal and preventing the operation of the other controller while the signal is set.

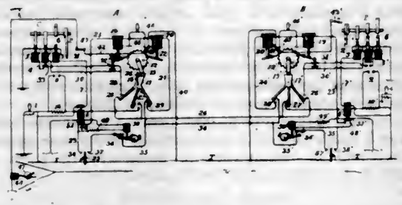
4. In a block signaling system, a signal circuit extending along the block, signal setting means at one end controlled through said circuit by the first car of a possible series entering the block for setting the signal at that end, a signal at the other end controlled through said circuit by the setting of the first signal, and a switch operated in advancing the controller and controlled by the entry of each succeeding car of the series for causing an indication of the controller movement to be given each of said cars without affecting said first signal.

5. In a signaling system, the combination with a step by step controller, of electromagnetically-controlled means for advancing and restoring the controller in response to each car of a possible series entering and leaving the block respectively, a signal set in response to the first movement of the controller, electromagnetic means for operating the signal, and means for assuring the operation of the controller by each car when cars enter and leave the block simultaneously.

[Claims 6 to 64 not printed in the Gazette.]

1,241,063. ELECTRIC SIGNALING SYSTEM. SAMUEL M. WARD, Jr., Woodmere, N. Y., assignor to John T. Clarke, New York, N. Y. Filed Oct. 14, 1908, Serial No. 457,743. Renewed Dec. 15, 1916. Serial No. 137,266. (Cl. 246—36.)

1. In a block signaling system, the combination of a signal to be displayed when a car enters the block, means including a circuit controlling the setting of said signal, means including a circuit energized in response to cars leaving the block for restoring the signal, a track switch, and means operatively related with the track switch and said last circuit to prevent a car which has overrun said signal from affecting the same when it leaves the block.



2. In a block signaling system, the combination of a step by step controller, a signal at each end of the block controlled by the same, means including a circuit energized when cars enter the block to advance the controller to set the signals, means including a circuit energized when cars leave the block to restore the controller, and means including a track switch and contacts in said last circuit operatively related to the track switch to prevent a car which has overrun a signal and entered the block at one end, from affecting the signals when it leaves the block at said end.

3. In a block signaling system, the combination of a signal, electromagnetic means including a circuit for causing the setting of the signal when a car enters the block, means including a circuit for controlling the clearing of the signal, means energizing said circuit by a car leaving the block, a track switch, and contacts operatively related to the clearing circuit and operated when the track switch is thrown to prevent the clearing of the signal by a car leaving the block.

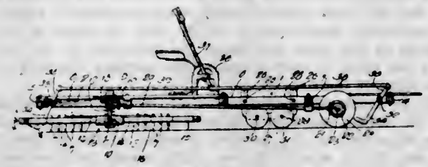
4. In a block signaling system, the combination of turnouts, a signal, electromagnetic means including a circuit causing the setting of a signal when a car enters the block, electromagnetic means including a circuit controlling the clearing of the signal, means operatively controlling said last circuit when a car leaves the block to clear the signal, means adjacent the end of the block and in the path of travel of a part of the car and having either of two positions according to whether the car is entering from or backing into one of said turn-outs, and means operated when said last means is moved from one position to the other, to prevent the clearing of the signal by the car in leaving for said turn-out.

5. In a block signaling system, the combination of a section of single track constituting a block, a double track at the end of said block, a signal, electromagnetic means including a circuit causing the setting of the signal when a car enters the block from one of the two abutting tracks constituting the double track, means including a circuit controlling the clearing of the signal, means energizing said circuit when the car leaves the block for the other abutting track, means adjacent said end of the block and in the path of travel of a part of said car and having either of two positions according to whether the car is passing from the block to one or the other of said abutting tracks, and a contact operatively related with said clearing circuit and last means and operated when said last means is moved from its normal position to prevent the clearing of the signal by the car passing from the block to the track from which it entered.

[Claims 6 to 23 not printed in the Gazette.]

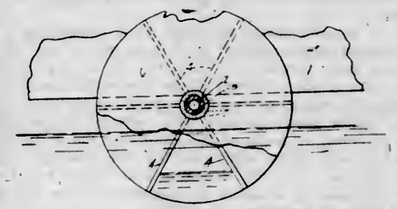
1,241,064. HARROW. BENJAMIN W. WEATHERSPOON, Snyder, Okla. Filed Oct. 2, 1916. Serial No. 123,401. (Cl. 55—20.)

A device of the class described comprising a rectangular frame, a transverse axle provided with ground wheels revolubly mounted at the forward end of said frame, a vertically extending bearing mounted upon said frame at a point near the rear end thereof and midway of the width of the same, an upright shaft revolubly mounted at its upper end in said bearing and depending below said frame, a head upon the lower end of said upright shaft, a horizontal circular tooth-carrying member slidably but non-rotatably mounted upon the lower end of said upright shaft and resting upon said head, longitudinally alined bearings mounted upon the lower side of said frame midway of the width thereof, a longitudinal shaft revolubly



mounted in said alined bearings, gears fixed upon said shafts and said axle, the gear upon said upright shaft being at a point near the upper end thereof, and a coiled spring surrounding said upright shaft and having its opposite ends bearing upon the last mentioned gear and said tooth-carrying member for normally holding the latter against said head.

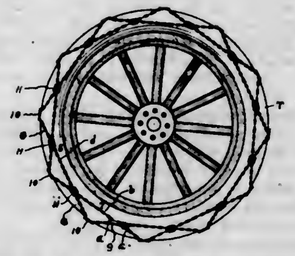
1,241,065. BOAT. HENRY WEBER, Langley, Wash. Filed June 26, 1916. Serial No. 105,789. (Cl. 115—19.)



1. In a device of the class described which includes a pair of housed paddle wheels, hollow hubs upon which the said wheels are secured, a hollow shaft upon which said hubs are revolubly mounted, the combination of ports in the hubs of the said wheels between each pair of paddles, other ports in the underside of the shaft and adapted to register with each of the said ports in the hubs in turn as the wheel revolves on the shafts, whereby air which is inclosed between the said paddles is equalized in both wheels by virtue of their communication.

2. In a housed paddle wheel which includes a hollow hub revolubly mounted on a hollow and stationary shaft, the combination of radial ports in said hub between each pair of adjacent paddles, another port in the said shaft and adapted to register in turn with each of the ports in said hub.

1,241,066. ANTISKID DEVICE FOR WHEEL-TIRES. DAVID H. WEIR, Omaha, Nebr. Filed Dec. 16, 1916. Serial No. 137,426. (Cl. 152—14.)



1. A non-slipping device for wheel tires, comprising a pair of endless chains adapted to be mounted on the tire

and having intersecting parts at the sides and periphery of the tire, each endless chain being arranged to permit a movement longitudinally of the tire, the parts thereof at the sides moving to the periphery of the tire.

2. In a non-slip device for wheel tires, comprising a pair of endless chains adapted to be mounted on the tire and having intersecting parts at the sides and periphery of the tire, each endless chain being arranged to permit a movement longitudinally of the tire, the parts of the chains at the sides moving to the periphery of the tire and the parts of said chains at the periphery moving to the sides of the tire.

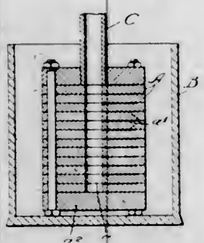
3. In a non-skid device for wheel tires, the combination of an endless chain having portions embracing parts of the sides and having portions disposed at the periphery of the tire, a second endless chain having portions embracing parts of the sides and having portions disposed at the periphery of the tire, and a plurality of holder-members disposed at longitudinal intervals of the tire for engaging said endless chains, the engagement of said holder members with the chains being such as to permit one of the endless chains to be shifted longitudinally of the tire independently of a movement of the other endless chain.

4. An anti-skid device for wheel tires, comprising a pair of endless chains mounted on the tire, clamping members for removably connecting terminal parts of said chains, and holder-members disposed at longitudinal intervals of the tire for engaging and for permitting the chains to be shifted longitudinally of the tire independently of each other.

5. A non-slip device for wheel tires, comprising a pair of endless chains adapted to be mounted on the tire and having parts disposed at the sides and having intersecting parts at the periphery of the tire, holder-members for removably engaging the endless chains at the sides of the tire, hollow plates open at their ends for circumscribing the intersecting parts of the chains at the periphery of the tire, said plates being provided with inwardly projecting lugs for removably engaging said chains and having flat portions for engaging the periphery of the tire when said device is inverted.

[Claims 6 and 7 not printed in the Gazette.]

1,241,067. PAINT AND PROCESS OF MAKING SAME. WALTER A. WEST, Elkhorn, Wis. Filed Aug. 18, 1916. Serial No. 115,676. (Cl. 134—39.)



1. The process of making paint, consisting, first, in making a mixture of the paint oil and a diluent; second, homogenizing said mixture by forcing it under pressure exceeding five hundred pounds to the square inch, through a medium which is impermeable to it under less pressure, mixing the homogeneous resulting liquid with a body material.

2. The process of making paint, which consists in first, making a mixture of paint oil and a diluent; second, homogenizing said mixture by forcing it under pressure exceeding five hundred pounds to the square inch through a medium which is impermeable to it under less pressure; third, mixing the homogenized resulting liquid with a body material and an additional diluent liquid.

3. The process of making paint which consists in, first, making a mixture of a paint oil and a diluent; second, homogenizing said mixture by forcing it under pressure exceeding five hundred pounds to the square inch through a medium which is impermeable to it under less pressure; third, mixing the homogeneous resulting liquid with a body material and skim milk.

4. The process of making paint which consists in, first, making a mixture of a paint oil and skim milk; second, homogenizing said mixture by forcing it under pressure exceeding five hundred pounds to the square inch through a medium which is impermeable to it under less pressure; third, mixing the homogeneous resulting liquid with a body material, a pigment and an additional diluent.

5. For the purpose of making paint, a permanent emulsion of a paint oil and a diluent liquid of different specific gravity, and not making chemical union with the paint oil.

[Claim 6 not printed in the Gazette.]

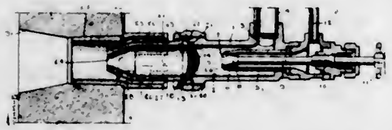
1,241,068. PLASTIC COMPOSITION. ARNOLD WEXLER, New York, N. Y. Filed Jan. 20, 1917. Serial No. 143,446. (Cl. 106—34.)

1. A new composition of matter containing fibrous material, plaster of Paris, glue and resin.

7. A new composition of matter the major portion by weight of which consists of finely-divided paper pulp and the balance of substantially equal quantities of plaster of Paris, resin, and of a mixture composed of glue and shellac.

[Claims 2 to 6 not printed in the Gazette.]

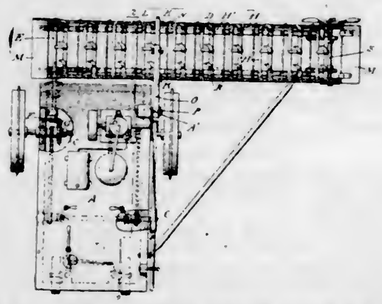
1,241,069. HYDROCARBON-BURNER. LEE WHITTAKER, Butler, Pa. Filed Oct. 5, 1916. Serial No. 123,819. (Cl. 158—77.)



3. A hydrocarbon burner comprising a hollow body provided with a discharge nozzle, air admission means intermediate the ends of said body, an oil nozzle arranged within said body in alinement with said discharge nozzle and extending beyond said air admission means, means at the end of said oil nozzle for spraying the oil in a thin conical sheet, and a diaphragm arranged between said oil nozzle and said discharge nozzle and of greater diameter than the base of the conical spray ejected against the same from said oil nozzle, and said diaphragm being formed of wire mesh and convex toward said oil nozzle, substantially as described.

[Claims 1, 2, and 4 not printed in the Gazette.]

1,241,070. APPARATUS FOR GRADING ROADS, &c. WILLIAM J. WILLIAMSON and JOHN F. SHOEMAKER, Jennings, La. Filed Mar. 9, 1917. Serial No. 153,742. (Cl. 37—48.)



An apparatus for grading, cleaning ditches, etc., comprising a truck, a motor mounted therein, a shaft journaled in said truck and having gear connection with the motor, a swinging frame pivotally mounted upon said shaft, sprocket wheels upon the latter and upon the free swinging ends of the frame, an endless chain conveyer passing about said sprocket wheels, bars connecting said endless conveyer plates, scrapers having flanged ends secured to the sprocket chains, curved cutter blades secured to said bars which connect the sprocket chains and intermediate the scrapers, cutter blades secured to and rotating with the sprocket wheels at the free swinging end of the frame, adapted to cut into the bank as the sprocket wheels are rotated, and means for raising and lowering the frame.

1,241,071. PORTABLE ELECTRIC LIGHT. WILLIAM H. ZACHMANN, Woodhaven, N. Y., assignor to National Carbon Company, Long Island City, N. Y., a Corporation of New Jersey. Filed Jan. 19, 1917. Serial No. 143,221. (Cl. 240—8.5.)

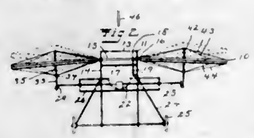


1. An oblong flat casing for a portable electric light divided into front and rear halves along its largest dimensions, a hinge uniting the two halves at one end, a lamp socket carried by the rear half at the end thereof opposite to the hinge, a battery support in the rear casing half adjacent to the lamp socket, and a releasable catch for the hinged halves having a stationary catch part carried by the said battery support adjacent to the lamp socket and having a movable catch part carried by the front casing half.

7. A casing for a portable electric light, comprising two casing halves, and a hinge uniting the two casing halves and provided with a battery support.

[Claims 2 to 6, 8, and 9 not printed in the Gazette.]

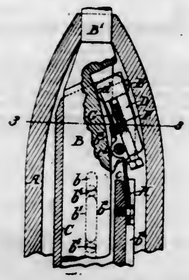
1,241,072. FLYING-MACHINE. STANISLAW PAUL ZYWNO, Middletown, Conn. Filed Jan. 16, 1917. Serial No. 142,626. (Cl. 244—17.)



In combination in a flying machine, a house having a skeleton frame structure, a tail structure extending rearwardly from the said house, a lateral rudder mounted on the end of the said tail, a pair of elevation control wings mounted on the said tail, means for tilting the said wings, an air plane serving as the roof for the said house, a control shaft extending through the upper part of the said house, means for rotating the said control shaft, a main shaft extending through the said house, a motor operatively connected to the said main shaft, crank arms on the ends of the said main shaft, a pair of main wings connected each by one end to one of the ends of the said control shaft, and connecting rods serving to operatively connect the body portion of each of the said main wings with one of the said crank arms.

1,241,073. BORING-BAR. HERBERT AUSTIN, Bromsgrove, England. Filed Aug. 21, 1916. Serial No. 116,011. (Cl. 77—56.)

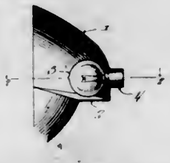
2. A boring bar comprising a guide bar having a "former" surface including a straight portion parallel to the axis thereof and a curved portion continuous with said straight portion, a sleeve slidable on said guide bar and held against rotation thereon, and a boring means pivotally connected to said sleeve and guided by said "former" surface of said bar.



6. A boring bar for forming a tapered bore comprising a guide bar having a "former" surface, a sleeve slidable on said guide bar and held against rotation thereon, and a tool holder pivoted to said sleeve and provided at its forward end with a contact nose adapted to engage said "former" surface, a spring secured to said sleeve, engaging the rear end of said tool holder and operative to hold said nose in contact with said "former," and a boring tool carried by said tool holder.

[Claims 1, 3 to 5, and 7 not printed in the Gazette.]

1,241,074. NON-GLARE HEADLIGHT-DEFLECTOR. ARCHIBALD BAILEY, Jr., Milwaukee, Wis. Filed Oct. 16, 1916. Serial No. 125,843. (Cl. 240—41.)



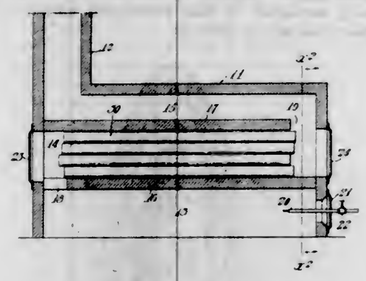
1. A deflector for the purpose specified comprising a hemispherical shell having a crescent shaped horizontally disposed ledge intersecting its hemispherical surface at a point below the center of the same, and a lamp nested within the shell above the widest portion of said ledge, the narrowest portion thereof being adjacent edge of the shell.

2. In a device of the class described, a one piece deflector comprising an upper quadrispherical portion, a horizontally disposed crescent shaped ledge, one edge being formed integrally with the bottom edge of the upper portion, the outer edge of the ledge being merged into its first mentioned edge and the outer edge of the upper portion, and a concavo-convex apron having its upper edge formed integrally with the outer edge of the ledge, the outer edge of the apron forming a circle in relation to the outer edge of the upper portion.

1,241,075. PROCESS AND APPARATUS FOR ANNEALING PIPE. HUGH A. BARDEEN, Venice, Cal., assignor to The Bardeen Corporation, Los Angeles, Cal., a Corportion of California. Filed Apr. 10, 1916. Serial No. 90,268. (Cl. 263—5.)

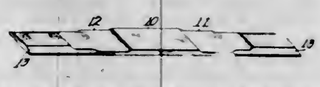
1. In a furnace, the combination of a combustion chamber, a heating chamber and a return chamber, arranged in horizontal parallel arrangement, connections between the heating chamber and the other chambers respectively provided at the opposite ends of the furnace, and a stack of pipes positioned horizontally between the said con-

nections so as to afford passages through and around the pipes for the products of combustion.



2. In the process of annealing pipes, the step of passing heated gases of substantially equal temperature through and outside of the pipes in a general direction parallel to their axes.

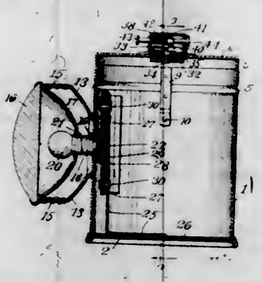
1,241,076. SHUTTLE-SPRING. WILLIAM A. BASHAW, Wilkinsonville, Mass. Filed May 25, 1917. Serial No. 170,992. (Cl. 139—27.)



1. As an article of manufacture, a shuttle spring formed of a single continuous strip of material, the shank and end portions of said spring being relatively thick and stiff, and the remaining intermediate portions being of less thickness and of greater resilience.

[Claims 2 and 3 not printed in the Gazette.]

1,241,077. PORTABLE ELECTRIC LIGHT. WALTER BAUER, New York, N. Y., assignor to National Carbon Company, New York, N. Y., a Corporation of New Jersey. Filed June 2, 1916. Serial No. 101,215. (Cl. 240—8.5.)

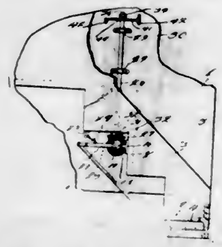


1. A portable electric light comprising a cylindrical electrically conductive battery-containing casing, an electrically conductive supporting plate secured at opposite edges to the inside of the cylindrical casing wall and forming a bridge extending across in spaced relation to the cylindrically curved inner surface of the casing, means for supporting an incandescent electric lamp with the base terminal in electrically conductive relation to the casing and with its central terminal exposed at the inside of the cylindrical casing wall in the space provided by the supporting plate, an electrically conductive circuit-completing strip supported by and insulated from the supporting plate in contact with the exposed central terminal of the lamp and extending into a position to be engaged by one of the battery contact terminals, and a circuit controller on the casing for electrically conductively connecting the casing to the other contact terminal of the battery.

6. A portable electric light comprising a battery-containing casing having an electrically conductive casing part including a wall of the casing, an electrically conductive tubular housing mounted on and projecting from the outside of said casing wall, such housing being closed at its outer end and the casing wall forming a closure for the bottom of the housing, a contact member supported on and insulated from the casing wall within the housing, and a slidable circuit controller coöperative with the contact member at the inside of the housing for opening or closing the circuit and projecting to the outside of the housing at opposite sides thereof for manual actuation.

[Claims 2 to 5 not printed in the Gazette.]

1,241,078. FOLDABLE TREAD AND RISER FOR CAR-STEPS. WALTER LEE BEARD, Wilburton, Okla. Filed June 22, 1917. Serial No. 176,332. (Cl. 105—86.)



1. In combination with the rigid steps of a car, a tread and a riser of a car step pivotally united, said riser having pivotal connections with the outer portion of the lowermost rigid step, whereby said tread and riser may collapse beneath the lower rigid step, said tread having inwardly and upwardly inclined rigid links, a rock shaft mounted in bearings of the upper inner portion of the rigid car steps provided with levers adjacent its opposite ends pivotally connected to the inner upper ends of the links, an additional lever on said shaft, a spring having one end connected to the rigid car step and its other end to the additional lever, and means having gear connections with said rock shaft for imparting movement thereto to lower the tread and riser against the action of said spring.

[Claim 2 not printed in the Gazette.]

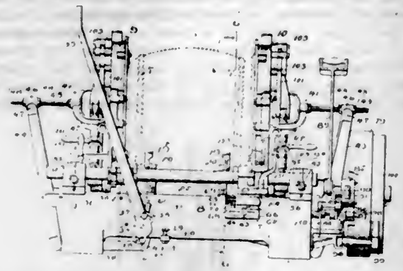
1,241,079. DRAFTING-PEN. PER BERGGREN, Bridgeport, Conn. Filed Feb. 21, 1916. Serial No. 79,527. (Cl. 33—41.)



1. In a drafting pen of the class described, the combination with a pair of blades and a screw for adjusting the position of the same with reference to each other, of a guide mounted upon the face of one of the blades and having a divided lower end portion forming two fingers which are deflected inward, forward and aft of the wheel and adjacent to one face thereof.

[Claim 2 not printed in the Gazette.]

1,241,080. MACHINE FOR PREPARING BARREL-SHELLS TO RECEIVE HEADS. EDWIN F. BEUGLER, Buffalo, N. Y., assignor to E. & B. Holmes Machinery Company, Buffalo, N. Y., a Corporation of New York. Filed July 18, 1914. Serial No. 851,810. (Cl. 147—17.)



1. In a machine of the character described, the combination of a main frame, head stocks slidable on said frame toward and from each other, a chucking device mounted on each of said stocks and adapted to engage one end of a barrel shell, and means for shifting said head stocks comprising shifting members each of which is connected with one of said head stocks on substantially diametrically opposite sides thereof and pressure means connected with said shifting members axially in line with said head stocks and chucking devices.

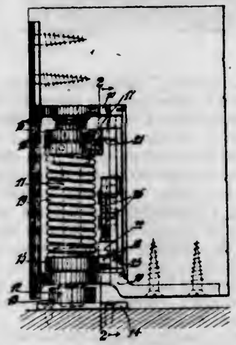
2. In a machine of the character described, the combination of a main frame, head stocks slidable on said frame toward and from each other, chucking devices mounted on said head stocks and adapted to engage opposite ends of a barrel shell, and means for shifting said head stocks comprising a yoke connected with each of said head stocks at substantially opposite sides thereof, a horizontal shifting rod connected with said yoke and arranged axially in line with the respective chucking device, and rock levers pivoted on said frame and each connected with one of said shifting rods.

8. In a machine of the character described, the combination of a head stock, a main cutter lever pivoted on the head stock and provided with a cutter adapted to approach the barrel shell from the inner side of the latter, an auxiliary cutter lever independent of said main lever pivoted on the head stock and provided with a cutter adapted to approach the barrel shell from the outer side thereof, and means for transmitting motion from said main cutter lever to said auxiliary cutter lever comprising an adjustable tappet which is curved concentrically with the main cutter lever and engages said auxiliary cutter lever, and a clamping screw for adjustably securing said tappet in an opening in said main cutter lever, said main and auxiliary cutter levers having their axes arranged out of line with each other, the bearing face of said tappet which engages said auxiliary cutter lever being arranged radially with reference to the axis of the main cutter lever on which it is mounted.

12. In a machine of the character described, the combination of a main frame, head stocks mounted on said frame, chuck rings rotatable in said stocks, a driving shaft journaled on the main frame and operatively connected with said chuck rings, a clutch disk secured to said driving shaft, a driving pulley mounted loosely on said driving shaft, a shifting block mounted on said driving shaft and engaging said pulley, a spring for moving said shifting block and engaging said pulley with said clutch disk, cutter levers mounted on said head stocks, an operating shaft journaled on the main frame and operatively connected with said cutter levers, an intermediate lever connected with said shifting block, a cam mounted on said operating shaft and engaging said intermediate lever, and means for holding said shifting block in an inoperative position independently of said operating shaft comprising a tappet connected with said shifting block and a cam lever pivoted on the main frame and having a cam engaging with said tappet.

[Claims 4 to 11 and 13 to 16 not printed in the Gazette.]

1,241,081. SPRING-HINGE. EMIL BOMMER, Brooklyn, N. Y. Filed May 2, 1914. Serial No. 835,888. (Cl. 16—25.)



1. In a spring hinge, the combination of a hinge frame, a spring control element comprising a spindle and a spring actuated member carried thereby, and rotatable with respect thereto during spring action of the door, means adapted to be moved with respect to the said spring control element to make the spring action thereof inactive with respect to the door, a casing inclosing said hinge, said casing and said first named means being provided with registering passages in the inactive position of said spring control element forming an uninterrupted passage through the hinge, and independent means separate and detached from said hinge adapted to be engaged with said registering passages from either side of the door to retain said first named means in said moved position until said independent means is removed, said casing forming an immovable support at each side of the hinge for said independent means.

2. In a spring hinge, the combination of a hinge frame, a spring control element comprising a spindle and a spring actuated member carried thereby and rotatable with respect thereto during spring action of the door, means adapted to be moved with respect to said spring control element to make the spring action thereof inactive with respect to the door, said means normally adapted to return to its original position upon the closing of the door, a casing inclosing said hinge, said casing and said first named means being provided with registering passages in the inactive position of said spring control element forming an uninterrupted passage through the hinge, and independent means separate and detached from said hinge adapted to be engaged with said registering passages to retain said first named means in the said moved position until said independent means is removed, said casing forming an immovable support at each side of the hinge for said independent means.

3. In a spring hinge, the combination of a hinge frame, a spring control element comprising a spindle and a spring actuated member carried thereby and rotatable with respect thereto during spring action of the door, means adapted to engage the spring control element to establish connection between the same and the door, means adapted to be operated to disengage said first named means from said spring control element, a casing for said hinge, said casing and said disengaging means being provided with registering means in the inactive position of said spring control element, and independent means separate and de-

tached from said hinge, adapted to engage said registering means to retain said disengaging means in disengaging position until said independent means is removed.

1,241,082. DOOR-CHECKING HINGE. EMIL BOMMER, Brooklyn, N. Y. Filed May 13, 1914. Serial No. 838,328. (Cl. 16—88.)



1. A door-checking hinge, comprising barrels, a connecting member for the barrels having a channel communicating with the interior of each of the barrels for equalizing the checking liquid in the barrels and channel, and means causing the flow of the checking liquid from one barrel to the other, through the channel in the connecting member.

2. A door-checking hinge, comprising barrels, a web for the barrels having a channel communicating with the interior of each of the barrels for equalizing the checking liquid in the barrels and channel, and means for causing the flow of the checking liquid into either of the barrels and forcing the checking liquid, caused to flow into one of the barrels, back again through the channel into the other of the barrels.

3. A door-checking hinge, comprising barrels, a web for the barrels having a channel communicating with the interior of each of the barrels for equalizing the checking liquid in the barrels and channel, and an oscillating shaft in each barrel having means thereon for causing the flow of the checking liquid into either of the barrels and forcing the checking liquid, caused to flow into one of the barrels, back again through the channel into the other of the barrels.

4. A door-checking hinge, comprising barrels, a web for the barrels having a channel communicating with the interior of each of the barrels for equalizing the checking liquid in the barrels and channel, an obstructing wall within one of the barrels, an oscillating shaft contacting with the obstructing wall, and forming a substantially liquid-tight contact therewith, a wing on the shaft, and a projecting finger on the wing adapted to open and close the end of the channel on the oscillation of the shaft.

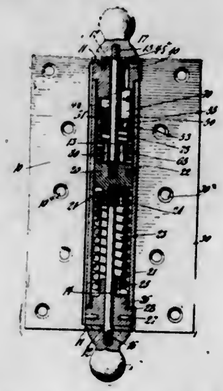
5. A door-checking hinge, comprising barrels, a web for the barrels having a channel communicating with the interior of each of the barrels for equalizing the checking liquid in the barrels and channel, an obstructing wall in each of the barrels, an oscillating shaft in each of the barrels, a wing on the shaft, and a projecting finger on the wing adapted to open and close the end of the channel on the oscillation of the shaft, said projecting finger having an opening near the end thereof adapted to register with the end of the channel.

[Claims 6 to 18 not printed in the Gazette.]

1,241,083. CHECKING-HINGE. EMIL BOMMER, Brooklyn, N. Y. Filed May 28, 1914. Serial No. 841,468. (Cl. 16—88.)

1. A checking-hinge, comprising a barrel, a leaf for said barrel, a second leaf having ears, a pintle for the ears and barrel, a cam-surface member movable with an ear of the leaf, a vertically movable cam-surface member coöperating with the first cam-surface member, a piston for the second cam-surface member, a ball-valve in the piston, a checking-valve in the piston, a spring acting on the piston for forcing the second cam-surface member against the first cam-surface member, a sleeve on the piston surrounding the pintle and movable in a bore of the first cam-surface member, and a cylindrical extension on the piston movable on the interior of the barrel, the upper end of the cylindrical member being shaped to form the second cam-surface member.

2. A checking-hinge, comprising a barrel, a leaf for said barrel, a second leaf having ears, a pintle for the ears and barrel, a cam-surface member rigidly connected with an ear of the leaf and movable within the barrel, said cam-surface member being provided with a vertical channel, a screw-plug for said channel, a second cam-surface member also movable within the barrel coöperating with the first cam-surface member, a piston for the second cam-surface member, a ball-valve in the piston, a checking-valve in the piston, said checking-valve being adapted to be brought in alinement with the vertical channel of the first cam member, a spring acting on the piston for forcing the second cam-surface member against the first cam-surface member, a sleeve on the piston surrounding the pintle and movable in a bore of the first cam-surface member, and a cylindrical extension on the piston, non-rotatably fixed and vertically movable on the interior of the barrel, the upper end of the cylindrical member being shaped to form the second cam-surface member.

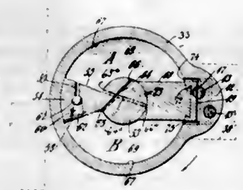


3. A checking-hinge, comprising a barrel, a leaf for said barrel, a second leaf having ears, a cam-surface member fixed to one of the ears and movable within said barrel, a second cam-surface member also movable within the barrel coöperating with the fixed cam-surface member, a piston for the second cam-surface member, a ball-valve in the piston, a checking-valve in the piston, a spring acting on the piston for forcing the second cam-surface member against the first cam-surface member, a checking-liquid chamber on the piston, and means intermediate of the piston and the barrel for preventing the rotary movement of the piston in respect to the pintle.

4. A checking-hinge, comprising a barrel, a leaf for said barrel, a second leaf having ears, a cam-surface member fixed to one of the ears, a cam-surface member movable within the barrel coöperating with the fixed cam-surface member, a piston member on the second cam-surface member, a ball-valve in the piston, a checking-valve in the piston, a spring acting on the piston for forcing the second cam-surface member against the first cam-surface member, an intermediate member rigidly fastened to the barrel, within the barrel, for engaging the pintle, a second pintle engaging the intermediate member, a fixed and a movable spring-holder for the second pintle, and a coil-spring between the spring-holders for the second pintle, the said second pintle and spring-holders and coil-spring being all arranged within the same barrel containing the movable piston and cam-surfaces.

1,241,084. CHECKING DEVICE FOR OSCILLATORY MOVEMENT. EMIL BOMMER, Brooklyn, N. Y. Filed Mar. 11, 1915. Serial No. 13,697. (Cl. 16—88.)

1. A checking device, comprising a checking liquid containing chamber, dividing means therein forming compartments therein, comprising a stationary abutment and a shaft member provided with a winged extension oscillable with respect thereto, to change the relative volume of the compartments of said chamber, the said shaft being provided with channel means for the transference of liquid from one compartment to the other, and coöperating with the said abutment during the closing movement of said shaft to successively permit and prevent for relatively long periods, and permit for a relatively short period at the end of the closing movement, the flow of liquid from one compartment to the other, means in the said wing for permitting and preventing the flow of liquid therethrough respectively during the opening and closing oscillatory movement thereof, and means adapted to permit the flow of the liquid from one compartment to the other in either direction of movement of the said oscillatory means.

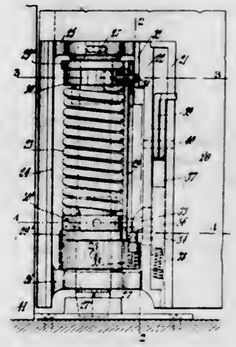


2. A checking device, comprising a checking liquid containing chamber, dividing means therein forming compartments, and comprising a stationary abutment, and a shaft member provided with a winged extension, oscillable with respect thereto to change the relative volume of the compartments of said chamber, the said shaft being provided with channel means for the transference of liquid from one compartment to the other, and coöperating with the said abutment during the closing movement of said shaft to successively permit and prevent for relatively long periods, and permit for a relatively short period at the end of the closing movement, the flow of liquid from one compartment to the other, means in the said wing for permitting and preventing the flow of liquid therethrough respectively during the opening and closing oscillatory movement thereof, and channel means extending through the stationary part of said chamber adapted to permit the flow of liquid from one compartment to the other in either direction of movement of the said oscillatory means.

3. A checking device, comprising a checking liquid containing chamber dividing means therein comprising a stationary abutment, and a shaft member provided with a winged extension oscillable with respect thereto, to change the relative volume of the compartments of said chamber, the said shaft being provided with channel means for the transference of liquid from one compartment to the other, and coöperating with the said abutment during the closing movement of the shaft to successively permit, prevent and permit the flow of liquid from one compartment to the other, means in said wing for permitting and preventing the flow of liquid therethrough respectively during the opening and closing oscillatory movement thereof, channel means extending through the stationary part of said chamber adapted to permit the flow of liquid from one compartment to the other in either direction of movement of the said oscillatory means, and means controllable from the exterior of said chamber for regulating the flow of liquid through said last named channel means.

4. A checking device, comprising a checking liquid containing chamber, an oscillable shaft, a disk partition on the shaft, means above and below the disk partition, one operating reversely in respect to the other, with one opposing passage and the other permitting passage of the checking liquid, and each comprising a wing on the shaft having means permitting the flow of a checking liquid therethrough when the shaft is moved in one direction, and preventing the flow of checking liquid therethrough when moved in the other direction, the said means of each wing operating reversely, a fixed abutment in the containing member, the abutment, wings, and shaft dividing the containing member into two compartments, channel means in the shaft for the transference of the liquid from one compartment to the other, and coöperating with the said abutment during the respective closing movement of the shaft to successively permit, prevent and permit the flow of liquid from one compartment to the other, channel means above and below the disk extending through the stationary part of said chamber adapted to permit the flow of liquid from one compartment to the other in either direction of movement of said shaft, and means controllable from the exterior of the said chamber for regulating the flow of liquid through said last named channel means.

1,241,085. SPRING-HINGE. EMIL BOMMER, Brooklyn, N. Y. Filed May 29, 1917. Serial No. 171,632. (Cl. 16—25.)

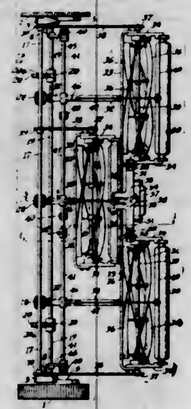


1. In combination with a door or other member mounted to swing about a hinge pivot, a torsional spring coiled to surround the axis of said pivot, a stop bar extending exteriorly of said spring and adapted to swing about the axis of said pivot, means for normally holding said bar stationary, projections connected with the respective ends of the spring and mounted to swing with such spring ends, about the axis of said pivot, said projections being adapted to engage said bar on opposite sides and also to be engaged and swung by the said swinging member, and means for releasing said bar so that it may swing with the spring.

2. In combination with a door or other member mounted to swing about a pivot axis, a torsional spring coiled around said axis, a stop member arranged exteriorly of the spring, means for holding said stop member stationary, and projections connected with the respective ends of the spring and mounted to swing with such spring ends, about the pivot axis, said projections being adapted to engage said bar on opposite sides and also to be engaged and swung by said swinging member.

3. In combination with a door or other swinging member, a stationary axle forming a hinge pivot for said member, a stationary collar secured to said axle, a torsional spring coiled to surround said axle, two collars mounted on said axle loosely, one of said loose collars being adjacent to said stationary collar, a stop bar connecting said loose collars and extending exteriorly of said spring, a movable pin adapted to connect said stationary collar with the adjacent loose collar, means for moving said pin from its coupling position to a releasing position, and projections connected with the ends of the spring and mounted to swing with such spring ends, about the pivot axis, said projections being adapted to engage said stop bar on opposite sides and also to be engaged and swung by said swinging member.

1,241,086. GANG-MOWER. JOHN F. BRAUN, Merion Station, Pa., assignor to Pennsylvania Lawn Mower Works, Philadelphia, Pa., a Corporation of Pennsylvania. Filed May 19, 1916. Serial No. 98,516. (Cl. 56—19.)



1. In a gang mower, a ground engaging wheel, a plurality of individual rotary cutter mechanisms disposed in different rows, a shaft common to said cutter mechanisms driven by said wheel, driving connections between said shaft and each of said cutter mechanisms, a frame, a connection from each of said cutter mechanisms to said frame for moving the cutter mechanisms over the ground, and means allowing pivotal movement of said connection about said shaft.

15. In a gang mower, the combination with a ground engaging wheel, a frame, a plurality of cutter mechanisms, a connection from each cutter mechanism to said frame for moving said cutter mechanism over the ground, a transversely extending shaft driven by said wheel, and a sprocket chain for each cutter mechanism driving the same and driven by said shaft.

16. In a gang mower, the combination with a ground engaging wheel, a frame, a plurality of cutter mechanisms, a shaft driven by said wheel, an independent driving connection between each cutter mechanism and said shaft, a pivot for each cutter mechanism carried by said frame, and a member having movement on said pivot and connected to said cutter mechanism.

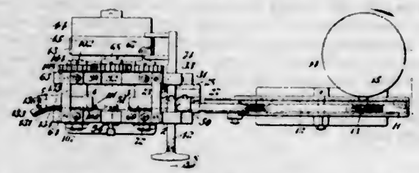
17. In a gang mower, the combination with ground engaging wheels, of a frame carried thereby, a plurality of individual mower units each comprising a ground engaging roller and a cutter mechanism, means driven from at least one of said wheels for driving said cutter mechanisms of said units, and means connecting said mower units to said frame for moving said mower units over the ground independently of said driving means.

[Claims 2 to 14 not printed in the Gazette.]

1,241,087. WELT-PREPARING MACHINE. JAMES A. BROGAN, Lawrence, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 24, 1913. Serial No. 797,025. (Cl. 12—67.)

1. A machine for preparing welting for use in the manufacture of welt shoes having, in combination, a plurality of coöperating pressing members for successively acting on a welt strip for progressively displacing the material under pressure on the under face of the welt strip near the inner edge to form a longitudinal stitch-receiving groove, and for molding the material under pressure at the inner margin of the upper face of the welt strip to form a bevel at the inner margin of the upper face, substantially as described.

2. A machine for preparing welting for use in the manufacture of welt shoes having, in combination, a knife for making a cut in the under face of the welt strip near the inner edge extending partially through the material, and a plurality of coöperating pressing members for successively acting on a welt strip for enlarging the cut into a stitch-receiving groove by compressing the material at the sides and bottom of the cut, substantially as described.



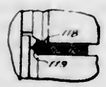
6. A machine for preparing welting for use in the manufacture of welt shoes having, in combination, means for molding the welting under pressure to form a longitudinal stitch-receiving groove in its under face near the inner edge and to form a bevel at the inner margin of its upper face, and means for laterally deflecting or bending the welt strip toward its inner edge, substantially as described.

7. A machine for preparing welting for use in the manufacture of welt shoes having, in combination, means for tempering the welt strip, means for molding the tempered material to form a longitudinal stitch-receiving groove in the under face of the strip near the inner edge, and means thereafter operating upon the tempered material for permanently bending the strip comprising a deflector for molding or deflecting the strip laterally toward its inner edge, substantially as described.

16. An edgewise bending machine for leather, comprising a pair of feed rollers having parallel axes for feeding the leather strip between them and acting on the strip for its full width, an intake guide bearing against the edge of the leather strip on the intake side of the rollers, and a bending guide bearing against the same edge of said leather strip on the discharge side of the rollers, said bending guide being displaced toward the leather strip from that plane perpendicular to the axes of the rollers which contains the intake guide.

[Claims 3 to 5, 8 to 15, and 17 to 19 not printed in the Gazette.]

1,241,088. WELTING. JAMES A. BROGAN, Lawrence, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Oct. 24, 1913, Serial No. 797,025. Divided and this application filed Dec. 19, 1914. Serial No. 878,176. (Cl. 36—78.)



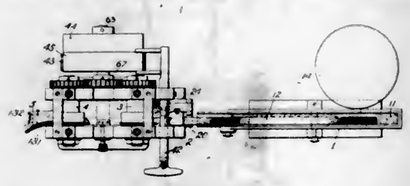
2. As an article of manufacture a strip of welting for use in the manufacture of welt shoes, consisting of a strip of welt material having the material at its under face near the inner edge compressed to mold a longitudinal stitch-receiving groove in its under face, said groove being of sufficient depth to receive a major portion of the inseam stitch, substantially as described.

3. As an article of manufacture a strip of welting for use in the manufacture of welt shoes, consisting of a strip of welt material having the material at the inner margin of its upper face compressed toward its under face to form a bevel at the inner margin of the upper face, substantially as described.

7. As an article of manufacture a strip of welting of indeterminate length for use in the manufacture of welt shoes, consisting of a strip of welt material bent or deflected laterally throughout its length to concave and convex the inner and outer edges, respectively, the fiber of the inner edge being crowded together, substantially as described.

[Claims 1, 4 to 6, and 8 not printed in the Gazette.]

1,241,089. METHOD FOR PREPARING A WELTING. JAMES A. BROGAN, Lawrence, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Oct. 24, 1913, Serial No. 797,025. Divided and this application filed Dec. 19, 1914. Serial No. 878,177. (Cl. 12—146.)



1. The method of preparing a strip of welting for use in the manufacture of welt shoes which consists in forming a longitudinal inseam stitch-receiving groove in its under face near the inner edge, in forming a bevel at the inner margin of its upper face to fit against the shoulder of an insole, and in permanently compressing or consolidating the material between the groove and bevel through which the inseam is sewed.

2. The method of preparing a strip of welting of indefinite length for use in the manufacture of welt shoes which consists in applying pressure progressively longitudinally of the strip to mold at the inner margin of its upper face a permanent bevel to fit against the shoulder of an insole.

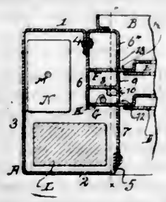
3. The method of preparing a strip of welting of indefinite length for use in the manufacture of welt shoes which consists in applying pressure progressively longitudinally of the strip to mold a permanent stitch receiving groove in the strip on its under face and near its inner edge.

4. The method of preparing a strip of welting of indefinite length for use in the manufacture of welt shoes which consists in applying pressure progressively longitudinally of the strip to mold a permanent stitch receiving groove in the strip on its under face and near its inner edge and to mold at the inner margin of the upper face of the strip a permanent bevel to fit against the shoulder of an insole.

5. The method of preparing a strip of welting of indefinite length for use in the manufacture of welt shoes which consists in making a cut in the under face of the strip near its inner edge of less depth than the thickness of the strip and extending longitudinally of the strip and in applying pressure progressively longitudinally of the strip to mold at said cut a permanent stitch receiving groove in the strip.

[Claims 6 to 9 not printed in the Gazette.]

1,241,090. METAL WINDOW FRAME AND SASH. HARRY E. CAMPBELL, New York, N. Y. Filed Mar. 8, 1917. Serial No. 153,256. (Cl. 189—75.)



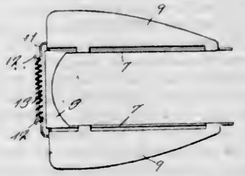
1. A metal window-frame, comprising a hollow jamb having a vertical opening in its inner side wall, a partition in said jamb parallel to said side wall and extending across said opening and partly across said jamb, a sliding sash in said frame, and a plate laterally projecting from said sash, passing through said opening and having its edge in sliding contact with said partition.

2. A metal window-frame, comprising a hollow jamb having a vertical opening in its inner side wall, a partition in said jamb parallel to said side wall and extending across said opening and partly across said jamb, a sliding sash in said frame, a plate laterally projecting from said sash, passing through said opening and having its edge in sliding contact with said partition, suspension means for said sash, and a counterweight carried by said suspension means and disposed within said jamb and between the outer side wall of said jamb and said partition.

3. A metal window-frame, comprising a hollow jamb having a vertical opening in its inner side wall, a partition in said jamb parallel to said side wall and extending across said opening and partly across said jamb, a sliding sash in said frame, a plate laterally projecting from said sash, passing through said opening and having its edge in sliding contact with said partition, suspension means for said sash, and a counter-weight carried by said suspension means and disposed within said jamb and in the space between the free edge of said partition and a jamb wall.

[Claims 4 to 6 not printed in the Gazette.]

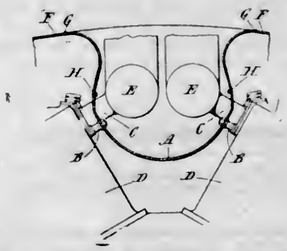
1,241,091. MUD-GUARD FOR BICYCLES AND THE LIKE. ALBERT B. CHAPMAN, Lockport, N. Y. Filed Mar. 6, 1917. Serial No. 152,697. (Cl. 208—140.)



1. A mud guard comprising side members arranged on each side of a wheel and having their forward ends connected to the axle thereof, wings pivotally connected to said side members and normally extending in a substantially horizontal plane, means carried by each wing for limiting the downward movement thereof, and means connecting the last named means for yieldably maintaining said wings in normal position.

[Claims 2 to 5 not printed in the Gazette.]

1,241,092. INTERNAL-COMBUSTION ENGINE FOR AEROPLANES. LOUIS COATALEN, Wolverhampton, England, assignor of one-half to Sunbeam Motor Car Company Limited, Wolverhampton, England. Filed Oct. 24, 1916. Serial No. 127,493. (Cl. 244—31.)

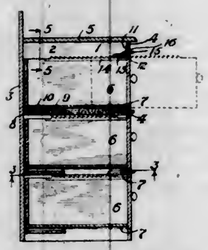


1. In an aeroplane, the combination of an internal combustion engine having rows of cylinders, a trough shaped shield between said rows and attached to said cylinders, exhaust pipes within said trough shaped shield, and a

fuselage cowling joined to the edges of said shield, substantially as set forth.

2. In an aeroplane, the combination of an engine having rows of cylinders, a trough shaped shield between said cylinders, exhaust pipes within said trough shaped shield, attachments securing said exhaust pipes and said shield to said cylinders, and a fuselage cowling joined to the edges of said shield, substantially as set forth.

1,241,093. AUTOMATIC DRAWER LOCKING AND CLOSING DEVICE. WILLIAM A. COLLINGS, Kansas City, Mo. Filed May 24, 1915. Serial No. 30,002. (Cl. 45—94.)



1. A device of the class described comprising a cabinet, a slidable drawer therein, a rack bar secured on each side of said drawer, a rotatable rod extending longitudinally of the cabinet above said drawer, pawls on said rod adapted to engage said rack bars, a lever on one of said pawls adapted to rotate said rod and thereby release the pawls from said rack bars, and means adapted to automatically close the drawers when said pawls are released.

2. In a device of the class described comprising a cabinet, a drawer slidable therein, a rack bar on the upper edge of each side of the drawer, a rotatable rod on the inner face of the front of said cabinet above said drawer, a pawl secured to each end of the rod adapted to engage said rack bars, a lever secured to one of said pawls projecting outwardly through a slot in said cabinet and adapted to rotate said rod and thereby release the pawls from said rack bars, and springs beneath the drawer connected to the drawer and to said cabinet to automatically close the drawer when said pawls are released.

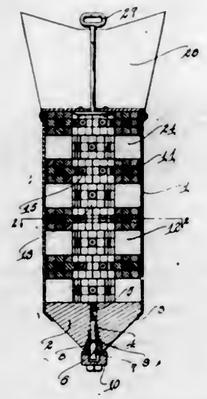
3. In a device of the class described, the combination with a cabinet and a drawer, of a rack bar secured on the upper edge of each side of the drawer, a rod rotatably mounted in said cabinet above said drawer, pawls secured on said rod adapted to engage said rack bars to hold said drawer locked in open position, a lever integrally formed on one of said pawls projecting outwardly through the cabinet and adapted to actuate said rod and pawls to release the pawls from said rack bars, and means underneath the drawer adapted to automatically close the same with the release of said pawls.

1,241,094. METHOD FOR RENEWING WORN-OUT PLOW-POINTS. CYRUS J. CONARD, Olney Springs, Colo. Filed Mar. 22, 1916. Serial No. 85,877. (Cl. 29—14.)



The method herein described of renewing the point of a worn out plow, consisting in applying to one side of the worn point a plate of suitable size and shape and having a spur adjacent one edge thereof, driving said spur entirely through the plow point, heading the projecting end thereof, bending the plate around the worn point, heating the whole to a welding heat, and then welding the whole together, by percussive blows, and simultaneously drawing out the metal of the plate to form the renewed point.

1,241,095. AERIAL MULTIPLE EXPLOSIVE BOMB. HENRY L. COURTESY, Spokane, Wash., assignor of one-half to William A. Scamahorn, Spokane, Wash. Filed Oct. 16, 1916. Serial No. 125,887. (Cl. 102—29.)

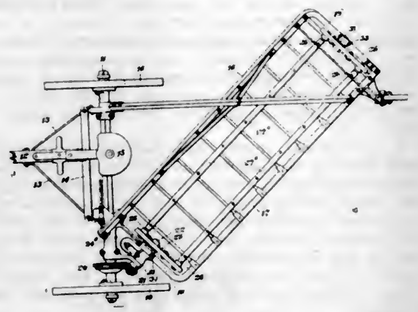


1. A multiple explosive bomb consisting of a tubular metallic casing, a weighted closure for the firing end, a primary detonating means mounted in said closure, a plurality of tiers of incased cubical secondary explosive bombs composed of tertiary or smaller cubical explosive bombs formed of metallic cubical projectile elements, a self-contained explosive charge and igniting means for each tertiary bomb adapted to be separately fired by the explosion in each secondary bomb and subsequent to the explosion of the secondary bomb, said secondary bombs being disposed within and arranged about the inner circumference of the casing; a main explosive chamber formed centrally of the casing and in communication with the primary detonating means; self-contained explosive charges for the secondary bombs, fuses for igniting said charges and means for igniting said fuses by the explosion within the main explosive chamber, and a plurality of combined bomb retaining projectile elements disposed within the casing between the adjacent faces of the secondary bombs.

2. A multiple explosive bomb consisting of a casing, a main explosive chamber contained therein, secondary bombs disposed about said chamber, fuses adapted to ignite said secondary bombs through the effect of the explosion in said main explosive chamber, self-contained explosive charges for the secondary bombs, tertiary or smaller bombs composing the secondary bomb structure, means for exploding said tertiary bombs through the effect of the explosion of the secondary bombs, a plurality of combined bomb retaining and projectile elements disposed within the casing between the adjacent faces of the secondary bombs, and means for exploding by impact the explosive charge within the main explosive chamber of the casing.

1,241,096. SIDE-DELIVERY RAKE. JOSEPH DAIN, Moline, Ill., assignor to Dain Manufacturing Company, Ottumwa, Iowa, a Corporation of Iowa. Filed May 15, 1916. Serial No. 97,657. (Cl. 56—115.)

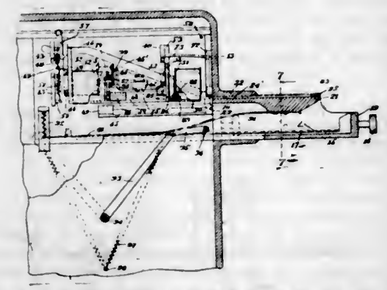
1. In a side-delivery rake, the combination with a wheeled frame, of a diagonally-arranged reel-supporting frame in rear of and attached to said wheeled frame, a reel supported in said reel-frame and comprising two heads rotatably connected with opposite ends of said reel-frame and teeth-carrying bars constituting the only direct operative connection between the heads, means for applying power to one head to rotate the reel, and means carried by each head and connected with said bars for transmitting the driving power through said bars from one head to the other head and also holding the various teeth in substantially vertical position.



2. In a side-delivery rake, the combination with a wheeled frame, of a diagonally-arranged reel-supporting frame in rear of and attached to said wheeled frame, a reel supported in said reel-frame and comprising two heads rotatably connected with opposite ends of said reel-frame and teeth-carrying bars constituting the only direct operative connection between the heads, means for applying power to one head to rotate the reel, and a train of gearing carried by each head, said bars being rigidly secured to corresponding members of each train whereby the driving power is transmitted from one head to the other and the various teeth are maintained in substantially vertical position.

3. In a side-delivery rake, the combination with a wheeled frame, of a diagonally-arranged reel-supporting frame in rear of and attached to said wheeled frame, a reel supported in said reel-frame and comprising two heads rotatably connected with opposite ends of said reel-frame and teeth-carrying bars constituting the only direct operative connection between the heads, teeth on said bars of a length to extend downward past the axis of rotation of the reel when in their uppermost position, means for applying power to one head to rotate the reel, and a train of gearing carried by each head, said bars being rigidly secured to corresponding members of each train whereby the driving power is transmitted from one head to the other and the various teeth are maintained in substantially vertical position.

1,241,097. IMPRESS-RECORD APPARATUS. TRIMBLE DE ROODE, New York, N. Y. Filed Apr. 24, 1912. Serial No. 692,843. (Cl. 101—45.)



1. An impress record apparatus adapted to receive articles to be impressed and to receive and to be operated by or permitted to be operated by objects of utility made primarily for purposes other than recording, said apparatus comprising means to operatively locate said object or objects relative to the articles inserted therewith to be impressed; impress means adapted to cause said articles to be impressed with said object or objects intended to be impressed thereon; means for impressing upon each of the articles a complementary identifying means differing for each article; a totalizer adapted to carry totals of the impressions; and means for impressing upon the article the total carried by the totalizer at the moment.

2. An impress record apparatus adapted to receive articles to be impressed and to receive and to be operated by or permitted to be operated by objects of utility made primarily for purposes other than recording, said apparatus comprising means to operatively locate said object or objects relative to the articles inserted therewith to be impressed; impress means adapted to cause said articles to be impressed with said object or objects intended to be impressed thereon; and a totalizer adapted to carry totals of the impressions.

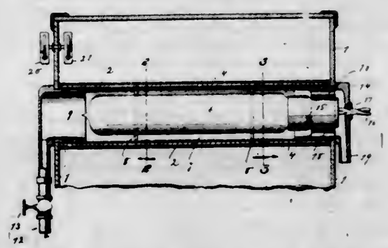
3. An impress record apparatus adapted to receive articles to be impressed and to receive and to be operated by or permitted to be operated by objects of utility made primarily for purposes other than recording, said apparatus comprising means to operatively locate said object or objects relative to the articles inserted therewith to be impressed; impress means adapted to cause said articles to be impressed with said object or objects intended to be impressed thereon; means for impressing upon each of the articles a complementary identifying means differing for each article; and a totalizer adapted to carry totals of the impressions.

4. An impress record apparatus adapted to receive articles to be impressed and to receive and to be operated by or permitted to be operated by objects of utility made primarily for purposes other than recording, said apparatus comprising means to operatively locate said object or objects relative to the articles inserted therewith to be impressed; impress means adapted to cause said articles to be impressed with said object or objects intended to be impressed thereon; means for impressing upon each of the articles a complementary identifying means differing for each article; a totalizer adapted to carry totals of the impressions; and means for impressing upon the article the total carried by the totalizer at the moment.

5. An impress record apparatus adapted to receive articles to be impressed and to receive and to be operated by or permitted to be operated by objects of utility made primarily for purposes other than recording, said apparatus comprising means to operatively locate said object or objects relative to the articles inserted therewith to be impressed; impress means adapted to cause said articles to be impressed with said object or objects intended to be impressed thereon; and complementary recording mechanism comprising a plurality of adjustable members severally adapted to coact with and be positioned by said objects when of different sizes, diameter or contour, such mechanism being operable to cause impression of such objects upon a permanent record remaining within the device after the removal of the article impressed, to identify the particular object inserted with each individual article.

[Claims 6 to 33 not printed in the Gazette.]

1,241,098. SHOW-CASE LIGHT. JOHN F. DOYLE, Jr., Garden City, and MANUEL D. AVILLAR, New York, N. Y. Filed Jan. 13, 1917. Serial No. 142,126. (Cl. 240—6.)

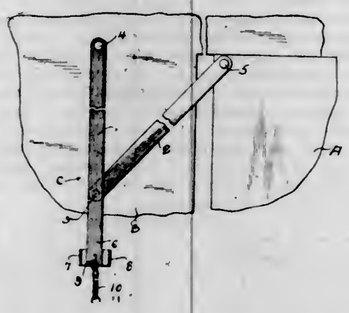


1. A show case having a pair of apertured sides combined with a pair of nozzles fitted into said sides, a glass

tube engaging the nozzles within the show case, a shield partly encompassing said tube, a light bulb mounted within the tube, and means for sending a current of air through the tube.

2. A show case light comprising a glass tube, an electric light bulb mounted therein, means for admitting compressed air into one end of said tube, and an air outlet nozzle at the other end of the tube, said nozzle being provided with a central opening receiving the lamp socket, and with a plurality of surrounding air outlet ports.

1,241,099. DOOR-HOLDER. CLARENCE E. DRAKE, Union, N. Y. Filed Mar. 30, 1916. Serial No. 87,822. (Cl. 16—6.)

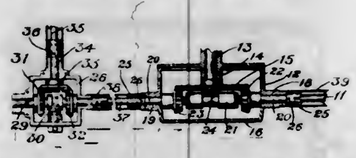


1. The combination with a door and frame, of a toggle connecting the said door and frame, one link of said toggle being longer than the other and the shorter link being pivoted to the longer link inwardly from the outer end thereof, and lips projecting laterally from the longitudinal edges of one of said links for engagement with the corresponding edges of the opposing link when said links are alined.

2. The combination with a door and frame, of a toggle connecting the said door and frame, one link of said toggle being longer than the other, and the shorter link being pivoted to the longer link inwardly from the outer end thereof, lips projecting from the longitudinal edges of said longer link at the free end thereof, said lips being bent inwardly out of the plane of said longer link and then being flared outwardly, and a chain connected to the said free end of said longer link.

3. The combination with a sliding door and frame, of a toggle link having one end pivoted to the door frame and the other end pivoted to the door, said toggle being arranged to straighten out as the door is moved to the open position, lips carried by one part of the toggle for engagement with the other part thereof when the toggle parts are in alinement to prevent the toggle from breaking and thereby hold the door in an open position, and means for manually bending said toggle to permit closing of the door.

1,241,100. DRIVING MEANS. HAROLD W. EDEN, Chicago, Ill., assignor to Brokaw-Eden Manufacturing Company, a Corporation of Missouri. Filed Jan. 26, 1914. Serial No. 814,411. (Cl. 64—30.)

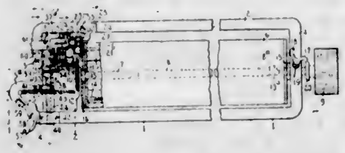


1. In a device of the class described a plurality of shaft sections, pins associated therewith, collars having apertures near one end thereof adapted to receive said pins for rigidly and detachably securing said collars on the ends of said sections, said collars having slots in the other end thereof, a plurality of shaft sections, and pins mounted at right angles to each other in the opposite ends thereof adapted to engage in said slots to transmit the drive between said shaft sections.

2. In a device of the class described a plurality of shaft sections, slotted and apertured cylindrical collars removably secured on said sections, a plurality of intermediate shaft sections adapted to transmit the drive between said shaft sections, and pins secured in said intermediate sections, and in said shaft sections adapted to engage in the slots and apertures in said collars, thus affording a flexible connection between said shaft sections.

3. In a device of the class described a plurality of shaft sections, bearings for said shaft sections, intermediate shafts adapted to connect said shaft sections, cylindrical collars having apertures and slots therein adapted to properly maintain the shaft sections in the supporting bearings therefor, and pins in said shaft sections and in said intermediate shafts adapted respectively to engage in said apertures and slots in said collars to afford a flexible driving connection between said shaft sections.

1,241,101. TYPE-WRITING MACHINE. HERMANN V. FENGLER, Philadelphia, Pa., assignor to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed July 24, 1914. Serial No. 852,814. (Cl. 197—114.)



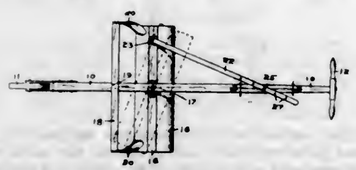
1. In a typewriting machine, the combination of a platen and line spacing devices comprising a driving member, means for driving said member engaging therewith from the beginning of the actuating stroke, the platen being caused to turn as soon as movement of said driving member begins, and means for varying the effect of said driving member, as it operates, on said platen.

3. In a typewriting machine, the combination of a platen, a line space actuator, and frictional devices operative by said actuator for line spacing said platen, the platen being caused to turn as soon as movement of said frictional devices begins, said devices being variable in their effect one on the other to vary the extent of line spacing movement of said platen.

5. In a typewriting machine, the combination of a platen, a line spacing wheel, means for giving said wheel an unvarying line spacing movement, and connections between said wheel and said platen for varying the extent of line spacing movement which the platen receives.

[Claims 2, 4, and 6 to 32 not printed in the Gazette.]

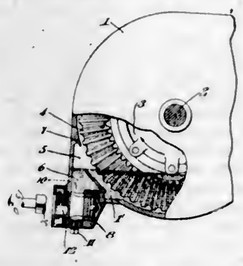
1,241,102. SNOW-REMOVER. CHARLES FERGER, Indianapolis, Ind. Filed June 25, 1917. Serial No. 176,662. (Cl. 37—5.)



A device of the character described comprising a roller-mounted beam, a transverse bar pivotally secured

to said beam intermediate its length, a scraper-blade carried by said bar, a rod for changing the angularity of said bar to said beam, a stationary bar arranged in advance of the pivoted bar, means for rigidly securing said stationary bar to said beam, a guard-blade secured to each end of said stationary bar, for closing the adjacent end of the scraper-blade when the latter stands in an inclined position.

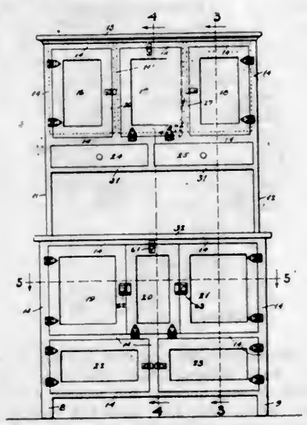
1,241,103. LUBRICANT-CIRCULATION SYSTEM. JOSEPH B. FERGUSON, New York, N. Y. Filed Oct. 19, 1916. Serial No. 126,527. (Cl. 184—13.)



2. A mechanism container adapted to contain lubricant, mechanism in said container whereby lubricant is thrown against the side of said container, means to retard upward flow of lubricant on said side, and a sediment trap below said means, said means also acting to deflect lubricant back into said trap.

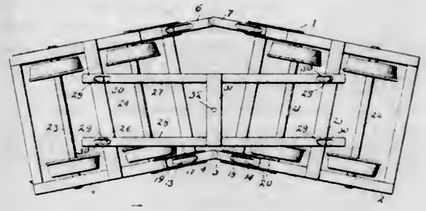
[Claims 1, 3, and 4 not printed in the Gazette.]

1,241,104. COMBINED CABINET AND REFRIGERATOR. THOMAS C. FLEMING, Vancouver, British Columbia, Canada. Filed Nov. 20, 1916. Serial No. 132,474. (Cl. 45—16.)



A combined cabinet and refrigerator comprising a single structure which embodies a refrigerator portion having a plurality of compartments divided by transverse partitions provided with air passageways through their upper and lower portions; a separate door for each of said compartments, the door of one of said compartments being hinged at its botom edge portion to its door frame to adapt it to be opened by swinging it outwardly and downwardly to a horizontal plane; means for supporting said door of said one compartment in said horizontal plane; cleats adapted to support an ice tray and secured within said one of said compartments and disposed so that their top surfaces register with the plane of the inner side surface of said door of said one compartment when said door is disposed in its horizontal position; an ice tray adapted to be disposed upon said cleats to be slidably movable between its position thereon and a position on said door of said one compartment when said door is in said horizontal plane; and the door of each adjacent compartment being operatively disposed to adapt it to engage with one of the side edge portions of the door of said one of said compartments when said door is in its closed position.

1,241,105. RAILROAD-CAR TRUCK. JOSEPH Z. FRINDT, Hutchinson, Kans., assignor of one-half to Christian Gansle, Hutchinson, Kans. Filed Mar. 10, 1917. Serial No. 153,944. (Cl. 105—137.)



1. A car truck comprising a pair of wheel frames connected to each other at both sides of their adjacent ends through telescoping hinged joints, each of said joints consisting of a leaf-hinge having its leaves or hinge members formed with slide fingers meshing with complementary slide fingers in the adjacent ends of the said wheel frames and limited in their relative movement with said latter slide fingers by bolts carried by the slide fingers on the wheel frames and passing through elongated eyes in the slide fingers of said hinge members, guide plates extending along the sides of said intermeshing slide fingers to confine their relative movement to a given direction, reaches extending between said wheel frames and connected through a lost-motion connection to said wheel frames at points on each frame spaced from the center thereof, and a car support or bolster carried by said reaches.

2. A car truck comprising a pair of wheel frames juxtaposed in tandem, slide fingers carried by said wheel frames at the sides of their adjacent ends, a leaf-hinge for each side having slide fingers meshing with the slide fingers of said wheel frames on a given side, guide plates carried by said wheel frames and extending over the sides of each group of intermeshing slide fingers to confine their relative movement to a straight line, bolts carried by certain relatively fixed slide fingers and extending through elongated eyes in the slide fingers meshing therewith to limit their relative movement, and rigid connecting means extending between said wheel frames and connected through lost-motion connections with each wheel frame at points spaced from the center thereof, said lost-motion connections having play in the direction of a line passing through the centers of said wheel frames.

3. A car truck comprising a pair of wheel frames juxtaposed in tandem, slide fingers carried by said wheel frames at the sides of their adjacent ends, a leaf-hinge for each side having slide fingers meshing with the slide fingers of said wheel frames on a given side, guide plates carried by said wheel frames and extending over the sides of each group of intermeshing slide fingers to confine their relative movement to a straight line, bolts carried by certain relatively fixed slide fingers and extending through elongated eyes in the slide fingers meshing therewith to limit their relative movement, and rigid connecting means extending between said wheel frames and connected through lost-motion connections with each wheel frame at points spaced from the center thereof, said lost-motion connections having play in the direction of a line passing through the centers of said wheel frames, together with a car supporting bolster carried by said connecting means.

[Claims 4 to 9 not printed in the Gazette.]

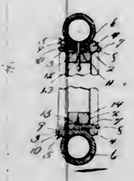
1,241,106. ELECTRIC-SIGN RECEPTACLE. ROMNALD M. FRYDRYCHOWICZ, Stevens Point, Wis. Filed Jan. 12, 1917. Serial No. 142,044. (Cl. 173—337.)



1. In an electric sign receptacle, an outer casing having a nipple integral therewith and a projection on its interior where the nipple opens into it, an insulating sleeve adapted to be held in place by engagement with said projection, a pair of lamp sockets similarly secured by said projection, and means for simultaneously securing electric conducting wires to the proper parts of the lamp sockets when securing said lamp sockets in position.

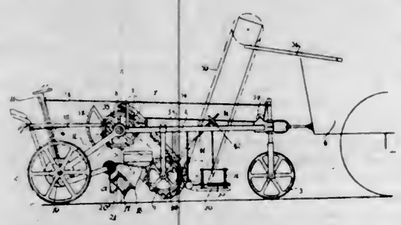
[Claim 2 not printed in the Gazette.]

1,241,107. SEPARABLE RIM. HENRY GALE and WILLIAM B. ROMEISER, Timken, Kans. Filed Jan. 11, 1916. Serial No. 71,496. (Cl. 152—21.)



In a separable rim, a pair of rim sections consisting of thin bands, one overlapping the other a distance substantially the width of the rim, the outer edges of said band rim sections having annular beads, the underlapping band rim section having its bead provided with a plurality of openings, the bead of the overlapping band rim section having radially disposed recesses, a plurality of pins passing through said openings, whereby the shanks of the pins pass between the band rim sections, the extremities of the pins being bent radially and into engagement with the recesses of the bead of the overlapping rim section, whereby axial and rotatable displacements of said pins are prevented.

1,241,108. ROOT-HARVESTING MACHINE. ROGER GITTINS, Shrewsbury, England. Filed June 18, 1917. Serial No. 175,497. (Cl. 55—108.)



1. In a root harvesting machine the combination of two rows of grippers carried by endless chains traveling in the direction of the travel of the machine, spring means for pressing the rows of grippers toward each other so as to engage with the roots; means for retracting the grippers and holding them out of engagement with the roots; a knife of V shape for cutting off a portion of the roots; and spring means for resiliently supporting said knife for permitting it to move when engaged by the root itself.

5. In a root harvesting machine the combination of a pair of endless chains formed by gripper carriers pivoted together; a series of grippers carried by said chains; sliding shafts carrying the grippers; spring means for pressing the grippers toward the roots; means for retracting the grippers against the action of the springs; a projection on each of the gripper shafts; and rotating wheels having projections adapted to engage with said gripper shaft projections and to thus retract the grippers.

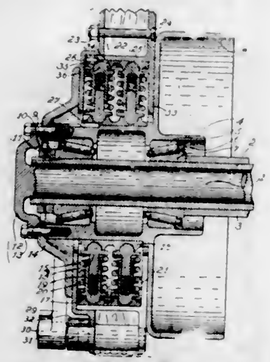
7. In a root harvesting machine the combination of a pair of endless chains formed by gripper carriers pivoted together; a series of grippers carried by said chains; sliding shafts carrying the grippers; spring means for pressing the grippers toward the roots; means for retracting the grippers against the action of the springs; a projection on each of the gripper shafts; rotating wheels having projections adapted to engage with said gripper shaft projections and to thus retract the grippers; and means for preventing involuntary retraction of the grippers.

9. In a root harvesting machine in combination, means for holding and conveying the roots, a knife of V shape for cutting off a portion of the root, spring means for resiliently supporting said knife for permitting it to move when engaged by the root itself, and rollers on the knife adapted to be engaged by the root.

10. In a root harvesting machine in combination, means for holding and conveying the roots, a knife of V shape for cutting off a portion of the root, and spring means for resiliently supporting said knife for permitting it to move when engaged by the root itself, and rotating brushes for holding the part of the root to be cut off clear of the knife.

[Claims 2 to 4, 6, and 8 not printed in the Gazette.]

1,241,109. RESILIENT SHOCK-ABSORBING HUB UNIT. GEORGE T. GREELEY, Chicago, Ill. Filed Mar. 19, 1917. Serial No. 155,792. (Cl. 152—45.)



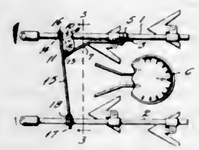
1. The combination with an axle having an enlarged outer end, a fixed housing about the axle, a hub rotatably mounted on said housing and secured detachably to the enlarged end of said axle, said hub having an integral annular flange, an annular web positioned coaxially about and spaced from said hub in contact with said annular flange, said web having an annular rim coaxial with the hub and spaced therefrom, spaced annular cylindrical rings positioned between said hub and said annular rim and keyed thereto respectively to permit relative longitudinal displacement only of the rings, an annular face-plate detachably secured to said web and centrally offset to cover the interspace of said hub and annular rim, radially disposed resilient elements engaged between said hub and annular rim, and separable relatively movable connecting means between said axle, said hub and said web.

2. In combination, an axle, a fixed housing about the axle, a hub rotatably mounted on said housing and having an integral annular flange, an annular web positioned about and spaced from said hub in contact with said annular flange and having an annular spoke-carrying rim, a plurality of yieldable resilient bodies mounted between said hub and said annular rim, an annular face-plate detachably secured to said web and covering the interspace of said annular rim and said hub, an annular plate detachably secured to the outer end of said hub, contacting with the outer face of said face-plate, means for detachably securing said annular plate to said axle, and separable relatively movable connecting means between said web, said hub and said axle.

5. In combination, a relatively fixed tubular housing, an axle rotatably mounted within the housing, a hub rotatably non-slidably mounted upon the housing, an annular rim positioned about said hub and movable only radially from said hub, elastic supporting means mounted between said hub and rim, and connecting-means between said rim, hub and axle permitting said radial displacement only of the rim relative to the hub and axle.

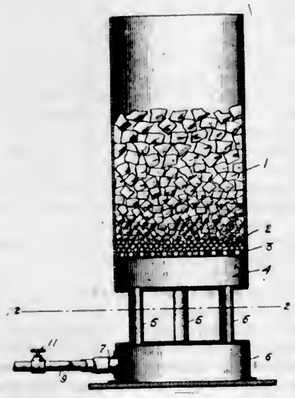
[Claims 3 and 4 not printed in the Gazette.]

1,241,110. CULTIVATOR-HOBBLE. JOHN H. HACKFELD, Crawford, Tex. Filed Jan. 16, 1917. Serial No. 142,590. (Cl. 97—35.)



In a cultivator hobble, a socket having a clamp for engaging a cultivator beam, a flat segmental lever having a depending pivot stud positioned eccentrically, said stud engaging in the socket, a hand lever, a pitman connecting the hand lever with the long leg of the segmental lever, an arch bar connected with the short leg of the segmental lever, and a socket-clamp having pivotal connection with the other end of the arch bar and arranged to engage on a cultivator beam.

1,241,111. BURNER. ALBERT HAYES, New York, N. Y., assignor to Carnot Development Corporation, a Corporation of New York. Filed Feb. 10, 1916. Serial No. 77,498. (Cl. 158—99.)



1. The herein described burner comprising a vertical tube closed at its lower end and having a grid extending across it near its lower end, means for supplying hydrocarbon gas and oxygen carrying gas to the space below the grid, a layer of relatively fine fragments of refractory material immediately above the grid and relatively large fragments of refractory material above and resting on the layer of relatively fine fragments.

2. The herein described burner comprising a vertical tube closed at its lower end and having a grid extending across it near its lower end, a layer of relatively fine fragments of refractory material immediately above the grid and relatively large fragments of refractory material above and resting on the layer of relatively fine fragments, a chamber below the bottom of the tube, tubes of relatively small diameter leading from the chamber to the space between the bottom of the tube and the grid, and means for supplying hydrocarbon gas and oxygen carrying gas to said chamber.

1,241,112. PROCESS FOR THE TREATMENT OF IRON OR STEEL. ALBERT HAYES, New York, N. Y., assignor to Carnot Development Corporation, a Corporation of New York. Filed Mar. 31, 1916. Serial No. 88,046. (Cl. 148—38.)

1. The herein described process of treating iron or steel which consists in heating the iron or steel and quenching it in a solution containing sal-ammoniac, common salt, a substance capable of yielding fluorin and a reagent.

2. The herein described process of treating iron or steel which consists in heating the iron or steel and quenching it in a heated solution containing sal-ammoniac, common salt, a substance capable of yielding fluorin and a reagent.

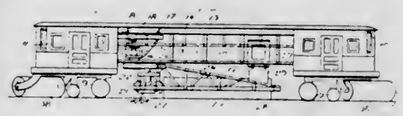
1,241,113. SOLUTION FOR THE TREATMENT OF IRON OR STEEL. ALBERT HAYES, New York, N. Y., assignor to Carnot Development Corporation, a Corporation of New York. Filed Mar. 31, 1916. Serial No. 88,047. (Cl. 148—38.)

1. A solution for the treatment of iron or steel containing hydrochloric acid, free chlorin and a substance capable of yielding fluorin.

2. A solution for the treatment of iron or steel containing chlorid of sodium, hydrochloric acid, free chlorin and a substance capable of yielding fluorin.

3. A solution for the treatment of iron or steel containing sal-ammoniac, chlorid of sodium, hydrochloric acid, free chlorin and a substance capable of yielding fluorin.

1,241,114. STREET-SWEEPING MACHINE. FRANK HEDLEY, Yonkers, and JAMES S. DOYLE, Mount Vernon, N. Y. Filed Oct. 14, 1914. Serial No. 866,610. (Cl. 15—17.)



1. In a street sweeping machine, a vehicle having an elevated body portion, a laterally movable horizontal supporting frame disposed beneath said elevated body portion and carried at one end thereby, a sweeper carried by said frame, means for rotating said sweeper, and means for rocking said frame horizontally.

2. In a street sweeping machine, a vehicle having an elevated body portion, a laterally movable vertically tilting horizontal supporting frame disposed beneath said elevated body portion and carried at one end thereby, a sweeper carried by said frame, and means for driving said sweeper.

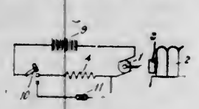
3. In a street sweeping machine, a vehicle having an elevated body portion, a laterally movable horizontal supporting frame pivotally suspended at one end thereof beneath said elevated body portion, a sweeper carried by said frame, and means for driving said sweeper.

4. In a street sweeping machine, a vehicle, a vertically disposed shaft journaled therein, a frame carried at one end by said shaft to revolve therewith, a horizontally disposed sweeper carried by said frame, means for rotating the sweeper, and means for rocking said shaft.

5. In a street sweeping machine, a vehicle, a vertically disposed shaft journaled therein, a frame carried at one end by said shaft to revolve therewith, a sweeper frame pivotally suspended from said first mentioned frame, a sweeper carried in said sweeper frame, means to rotate the sweeper and means to rock said shaft.

[Claims 6 to 18 not printed in the Gazette.]

1,241,115. STARTING INTERNAL-COMBUSTION ENGINES. OTTO HEINS, New York, N. Y., and CHARLES M. WILD, Springfield, Mass., assignors to Bosch Magneto Company, New York, N. Y., a Corporation of New York. Filed June 12, 1915. Serial No. 33,726. (Cl. 172—239.)



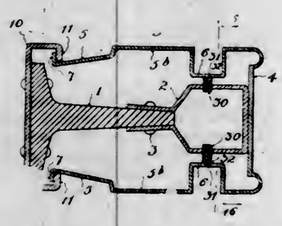
1. The method of bringing an internal combustion engine up to its critical speed by means of a motor connected thereto, which consists in initiating the starting operation with the motor arranged for developing a predetermined speed-torque characteristic at the engine shaft, and changing the speed-torque characteristic at the engine shaft at substantially the time the engine reaches its normal critical speed.

6. The method of bringing an internal combustion engine up to its critical speed by means of an electric motor connected thereto, which consists in connecting a source of current supply to the motor terminals to cause the motor to develop a predetermined speed torque characteristic, and changing the motor to a different speed-torque characteristic at substantially the time the engine reaches its normal critical speed by decreasing the field ampere-turns of the motor.

7. The method of bringing an internal combustion engine up to its critical speed by means of an electric motor connected thereto, which consists in adapting the motor to reach its maximum output at substantially the time the engine reaches its normal critical speed, and changing the speed-torque characteristic developed by the motor at the engine shaft during the starting period to cause the motor to reach another point of maximum output at a higher speed.

[Claims 2 to 5 and 8 not printed in the Gazette.]

1,241,116. RAILWAY-CAR CONSTRUCTION. WILLIAM H. HEULINGS, Jr., Philadelphia, Pa. Filed June 18, 1915. Serial No. 34,884. (Cl. 189—73.)



1. A window frame for railway cars comprising a post, a series of clips on said post, a casing for the post, a series of clips on said casing adapted to engage the clips on the post and retain the casing about the post, said casing having flexible sides adapted to resiliently bear against the edges of the sash and grooves in said sides for the reception of the window sash.

2. A window frame for railway cars comprising a post, a series of clips secured to said post, a casing for the post, a series of clips on said casing adapted to engage the clips on the post and retain the casing about the post, said casing having flexible sides, grooves in said sides for the reception of the window sash, flanges on said flexible sides, plates secured to the posts and having flanges adapted to engage with the flanges on the sides of the post casing and limit the outward springing movement of said sides.

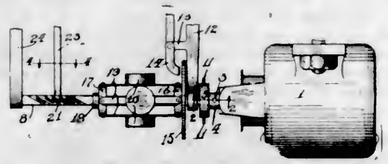
3. A window frame for railway cars comprising a post, series of clips secured to said post, a detachable casing for the post, a series of clips adapted to engage detachably the clips on the post and retain the casing about the post, the post casing having a slot in its upper end for allowing an upward movement of the casing and a beveled lower end on the casing adapted to fit a sill of the same contour.

4. A window frame for railway cars comprising a post, a series of clips secured to said post, a detachable casing for the post, a series of clips secured to said casing and adapted to detachably engage the clips on the post and retain the casing in position about the post, a block secured to the post adjacent its upper end, a beveled sill secured to said post, the upper end of the post casing being slotted to surround the block and a beveled lower end on the post casing adapted to fit the beveled sill.

5. A window frame for railway cars and the like comprising a post, a series of clips secured to said post, a detachable casing for said post, a series of clips secured to said casing, and adapted to detachably engage the clips on the post and retain the casing in position about the post, a block secured adjacent the upper end of said post, the upper end of the post casing having a slot surrounding the block, a molding strip secured to the block across the slot in the post casing, a beveled sill at the lower end of the post casing, said lower end of the post casing being beveled to correspond to the beveled sill.

[Claims 6 to 8 not printed in the Gazette.]

1,241,117. CONSTANT-SPEED DRIVING DEVICE. LUTHER S. HOPKINS, Dubuque, Iowa. Filed Jan. 5, 1916. Serial No. 70,361. (Cl. 64—13.)



1. In a device of the class described, the combination with a motor shaft, of a casing secured thereon, friction members removably secured on the inner wall of said casing, adjusting members projecting into said casing to contact said friction members, a driven shaft, and friction means thereon contacted by said friction members to cause said shaft to rotate at a predetermined constant speed.

2. In a device of the class described, a casing removably mounted upon a motor shaft, friction members therein, a shaft extending into said casing, friction means thereon adapted to be engaged by said friction members to cause said second mentioned shaft to rotate at a constant speed when said motor shaft is rotated, and adjusting screws projecting into said casing adapted to adjust said members to vary the degree of friction between said friction members and said friction means to change the predetermined speed of rotation of said second mentioned shaft.

[Claims 3 to 10 not printed in the Gazette.]

1,241,118. COÖRDINATED SPHERICAL RADIAL GEAR ADAPTED TO TRANSMIT ROTARY MOTION IN THE SAME AXIAL LINE OR AT AN ANGLE. GEORGE JOHN HOSKINS, Burwood, New South Wales, Australia. Filed Nov. 12, 1915. Serial No. 61,071. (Cl. 74—19.)

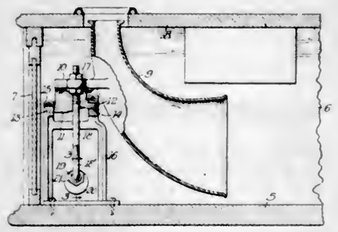
1. A spherical radial gear for transmitting motion from one shaft to an intersecting shaft arranged at a variable angle thereto, comprising intermeshing gear members disposed on said shafts with their centers coincident with the point of intersection of the axes of the shafts, said gear members having teeth, the elements of the faces of which radiate from said centers, and the center lines of which faces are equidistant from the said centers, the outlines of said teeth being such that the teeth are widest at the plane through the center of the sphere at right angles to the shafts when the latter are in line, and have the ends rounded above and the roots tapered below this plane so as to allow of all teeth in mesh having a smooth bearing against the adjacent tooth for all the various angular positions of the shafts.



4. A spherical radial gear for transmitting rotary motion, from a relatively fixed shaft to a movable shaft in the same axial line or at an angle thereto, comprising crown gear members having intermeshing teeth with heads semi-circular in cross section, each semi-circular head tapering down to a thinner shank, and then, by enlargement, merging into the shanks of the next teeth, the frictional surfaces of the teeth thus formed being, in every part, radial with a point formed by the intersection of the axial lines of the two shafts when they are at an angle, the pitch-line of the crown gear teeth when the two shafts are in the same axial line being intermediate between the rows of centers from which the semi-circular heads of the teeth are struck, the parts being so designed that when the two shafts are at an angle the two pitch-lines intersect at opposite points at right angles to the plane of movement of the movable shaft and at which two opposite points the corresponding teeth of the two members of the spherical gear will be in frictional contact, substantially as described.

[Claims 2 and 3 not printed in the Gazette.]

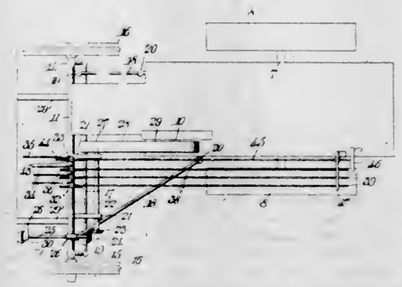
1,241,119. COUNTERBALANCE FOR PHONOGRAPH-HORNS. ALBERT A. HUSEBY, Chicago, Ill. Filed Apr. 18, 1917. Serial No. 162,876. (Cl. 274—16.)



1. In a mechanism of the character described, the combination with a sound conveyer, of a stationary supporting member having bearings, a hinge member rigid with said sound conveyer and having pinties engaging said bearings, a pair of spaced rods suspended from said hinge member on opposite sides of the axial line of said bearings respectively, a horizontal member supported by and between the lower ends of said rods, a counterweight slidably mounted on said horizontal member, and means for securing said counterweight in any adjustable position on said horizontal member.

2. In a mechanism of the character described, the combination with a sound conveyer, of a stationary supporting member having bearings, a hinge member rigid with said sound conveyer and having pinties engaging said bearings, a pair of spaced rods suspended from said hinge member on opposite sides of the axial line of said bearings respectively and formed with inwardly turned lower ends, an externally threaded horizontal member having hollow ends by which it is supported by and between the inturned ends of said rods, a counterweight slidably mounted on said horizontal member, and nuts on said horizontal member engaging the opposite ends of said counterweight.

1,241,120. ATTACHMENT FOR TRACTORS. GEORGE J. HUTTER, Cherryvale, Kans. Filed June 27, 1916. Serial No. 106,141. (Cl. 21—114.)



1. In a tractor, a front and rear axle supporting said tractor, said front axle being extended at one side of said tractor longer than at the other, a lever on said axle, and means for propelling said tractor, substantially as described.

2. In a tractor, a frame, a front and rear axle supporting said frame, said front axle being extended at one side of said frame longer than the other, a lever mounted on said front axle, and means for propelling said tractor, substantially as described.

3. In a tractor, a frame, a front and rear axle supporting said frame, a pair of shafts rotatably mounted on said front axle, means for imparting power from one shaft to the other, means for imparting movement to one of said shafts from said frame, and a gear on the other of said shafts, substantially as described.

4. In a tractor, a frame, a front and rear axle supporting said frame, said front axle being extended to project laterally beyond said tractor a distance greater at one side than at the other, and a brace rod pivotally connected at its opposite ends to said front axle and frame respectively at the opposite ends of the former, substantially as described.

5. In a tractor, a frame, a front and rear axle supporting said frame, said front axle being extended to project laterally beyond said tractor a distance greater at one side than at the other, a shaft mounted for rotation and to extend longitudinally of said axle adjacent its extended end, a second shaft mounted upon said axle to extend transversely thereof and to project forwardly therefrom, beveled gears on each of said shafts enmeshed with each other, a pulley on said first shaft, and means for imparting power from said tractor to said pulley, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,241,121. PATTERN-MAKING INSTRUMENT. ELIZABETH M. JACKSON, Toledo, Ohio. Filed June 24, 1916. Serial No. 105,598. (Cl. 33—11.)

1. An instrument to be used in pattern making having thereon a scale, the scale having a plurality of numbers each corresponding to a division line of the scale and a plurality of starting points which each corresponds to a particular body line, the distances between the starting points corresponding to any body line, and the division

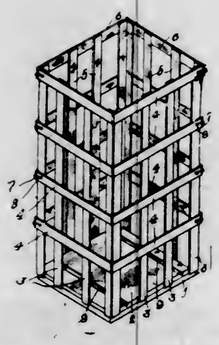
point of the scale designated by a number which is the same as that designating the body measurement along said line, having a fixed ratio to the said measurement and constituting a dimension of a properly formed pattern portion as measured along a line corresponding to said body line.



2. An instrument to be used in pattern making having thereon a scale, the scale having a plurality of numbers each corresponding to a division line of the scale and a plurality of starting points which each corresponds to a particular body line, the distances between the starting points corresponding to any body line, and the division point of the scale designated by a number which is the same as that designating the body measurement along said line, having a fixed ratio to the said measurement and constituting a dimension of a properly formed pattern portion as measured along a line corresponding to said body line, the said instrument having curved edges and designating letters which when placed at points determined by the scale and the edges of the instrument placed on other points determined by the scale, determine the contour of the pattern between lines of measurement of the pattern beginning at the letter designating points and ending at the said other points of the pattern measure.

[Claim 3 not printed in the Gazette.]

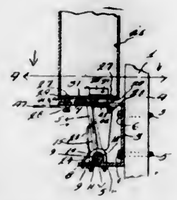
1,241,122. HOUSEHOLD BALING-PRESS. JOHN T. JOHNSEN, Chicago, Ill. Filed June 5, 1916. Serial No. 101,689. (Cl. 100—19.)



1. A baling press, comprising a bottom member, two side wall members rigidly secured thereto and to each other at an angle, and wall sections movable with respect thereto and adapted to be locked to said fixed wall members to form a box-like structure to receive material stacked therein.

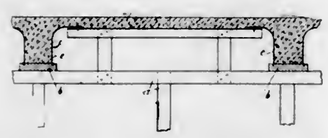
2. A baling press, comprising a bottom member, two side wall members rigidly secured thereto and to each other at an angle, another bottom member, and two other side wall members rigidly secured thereto and to each other at an angle, the two sections formed by said bottom members and side wall members adapted to be locked to each other with one of said bottom members overlying the other and with the side wall members forming the four sides of a box-like structure.

1,241,123. DROP-FEED FOR SEEDERS AND PLANTERS. MAT P. JOHNSON, Chico, Tex. Filed Nov. 15, 1916, Serial No. 131,522. Renewed Aug. 15, 1917. Serial No. 186,422. (Cl. 275—9.)



In combination with a planter, a seed receptacle having its bottom provided with a slot, a supporting bracket upon the frame of the planter for said receptacle, said bracket having an aperture registering with one end of said slot, a plate pivoted on the bracket between the bracket and the bottom of the receptacle and provided with an aperture to normally register with the other end of said slot, and means actuated intermittently by a member on one of the wheels of the planter to actuate said plate intermittently, whereby its aperture will intermittently register with the aperture of the bracket, to feed seed one at a time from the receptacle, and a casing arching the greater portion of the slot, to prevent the seed from entering the aperture of the bracket until the aperture of the plate registers with the aperture of the bracket, and a guard pivoted in said casing and provided with a spring to hold it in engagement with said plate, to prevent the seed from entering the casing at one end when the plate is actuated, means for returning the first means and said plate to their initial positions, and means for throwing the plate and its actuating means out of operation.

1,241,124. CENTERING FOR REINFORCED-CONCRETE FLOORS AND ROOFS. ANDERS JORDAHL, Berlin, Germany. Filed Nov. 14, 1914. Serial No. 872,161. (Cl. 25—131.5.)



1. In centering for reinforced concrete floors and roofs of the type consisting of beams and slabs the combination with longitudinal members immediately supporting the beams and being provided with longitudinal grooves and a removable upper longitudinal support under the slab, of a pair of L-shaped molds the horizontal legs of which rest on and are attached by means of nails to the said removable support under the slab and the vertical legs of which rest in grooves in the said longitudinal members under the beams, said grooves having inner walls substantially in alinement with the walls of the beams and outer walls permitting downward movement of the molds out of contact with respect to the beams.

2. In centering for reinforced concrete floors and roofs of the type consisting of beams and slabs the combination with longitudinal memoers immediately supporting the beams and being provided with longitudinal grooves and a removable upper longitudinal support under the slab, of a pair of L-shaped molds each having legs of unequal length, the horizontal legs of which rest on and are attached to the said removable support under the slab and the vertical legs of which rest in grooves in the said longitudinal members under the beams, said grooves being located inwardly of or under the vertical faces of the beams whereby the molds may swing downwardly out of contact with any portion of the beams for removal without injuring the same.

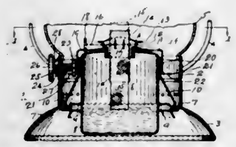
3. In centering for reinforced concrete floors and roofs of the type consisting of beams and slabs, the combination with scaffolding of longitudinal members carried by same immediately supporting the beams and being provided with grooves, a removable intermediate support under the slab carried by the scaffolding and a pair of L-shaped molds carried in the grooves or the like of longitudinal members under the beams and by the intermediate support under the slab, said grooves having vertical walls toward the beams and outer walls extending therefrom, whereby the molds may be caused to bear against said vertical walls below the beams when displaced from the beams and slabs.

4. In centering for reinforced concrete floors and roofs of the type consisting of beams and slabs, the combination with scaffolding; of longitudinal members carried by same immediately supporting the beams and being provided with grooves, a removable intermediate support under the slab carried by the scaffolding, a flat sheet of metal plate carried by the intermediate support and a pair of L-shaped sheet metal molds carried by said plate and resting in the grooves of the longitudinal members supporting the beams, said grooves having vertical walls to limit the displacement of the molds toward each other at their portions engaging the grooves but to permit free swinging of the molds in the opposite directions as and for the purposes specified.

5. In a centering for reinforced concrete floors and roofs having beams and slabs, supporting members, spaced and horizontally extending form-sections, a pair of L-shaped form-sections for each of said horizontal sections, each L-shaped form-section having one leg supported on an opposite longitudinal edge of the horizontal form-section in a vertical position and having the other leg extending laterally in an opposite direction, a removable intermediate form-section supported by said supporting members and having the free ends of the opposing horizontal legs of the L-shaped form-sections to rest thereupon, and means for normally preventing lateral movement of the vertical legs of the said L-shaped form-sections, but adapted to permit said L-shaped sections to be tipped inwardly away from the beams when the intermediate form-section is removed, whereby the beams will not be injured by the edges of the first-named leg portions which rest on the horizontal form-sections.

[Claims 6 and 7 not printed in the Gazette.]

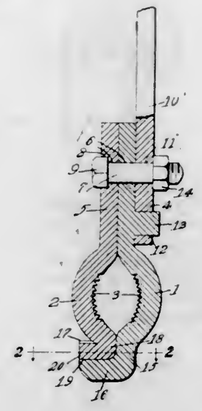
1,241,125. WICK-RAISING MECHANISM FOR LANTERNS. RICHARD J. KELLY, Syracuse, N. Y. Substitute for application Serial No. 38,398, filed July 7, 1915. This application filed May 15, 1917. Serial No. 168,760½. (Cl. 67—65.)



1. In a lantern, the combination with the guard-ring, the oil-pot, and the burner, of a wick-raising mechanism comprising a bell-shaped part journaled on the burner and telescoping the oil-pot, the top of said part having a circular rack concentric to the burner, the bottom of said part having an annular flange facing the guard ring, the said flange comprising a second circular rack, a wick raising spindle having a pinion engaging the first rack, and a shaft journaled in one side of the guard ring and supporting a pinion engaging the second rack.

[Claims 2 and 3 not printed on the Gazette.]

1,241,126. PIPE-CLAMP. IRVIN A. KIDD, Salisbury, N. C., assignor of one-half to Thomas Henry Kritzer, Spencer, N. C. Filed Oct. 31, 1916. Serial No. 128,787. (Cl. 248—36.)



1. A clamp embodying a pair of clamp members having coöperating jaws and shanks extending from certain ends thereof to bear against one another, said shanks having registering apertures for the reception of a bolt to clamp them against a support, and one shank having an outstanding stud to enter an aperture in said support.

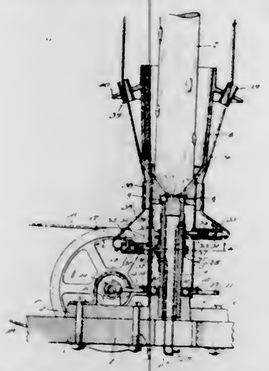
2. A clamp embodying a pair of clamp members having coöperating jaws and shanks extending from certain ends thereof to bear against one another, said shanks having registering apertures for the reception of a bolt to clamp them against a support, and one shank having an outstanding stud between its aperture and the respective jaw to enter an aperture in the support.

3. A clamp embodying a pair of clamp members having coöperating jaws, shanks projecting from certain ends of the jaws and adapted to bear against one another, a portion projecting from the other end of one jaw, a portion extending at an angle from said portion, a lip extending at an angle from the second mentioned portion toward the other jaw and having a notch, a lip extending from the other end of the last mentioned jaw to fit snugly between the aforesaid lip and first mentioned portion, the second mentioned lip having an outstanding lug to fit snugly in said notch.

1,241,127. CHRISTMAS-TREE HOLDER. FREDERICK W. KRAPF, Jr., Chicago, Ill., assignor of one-half to William F. Wilken, Chicago, Ill. Filed Sept. 16, 1914. Serial No. 861,985. (Cl. 177—348.)

1. In a device of the class described, the combination of a base; a socket member, adapted to accommodate a Christmas tree, rotatably supported by said base; electric conductor wires leading to said base; electric conductor wires leading from said socket to a series of lights in the tree; means for rotating said socket; means for intermittently making and breaking a circuit through said conductor wires during rotation of said socket, and means carried by said socket member inclosing said circuit making and breaking means, substantially as described.

2. In a device of the class described, the combination of a base; a socket member, adapted to accommodate a Christmas tree, rotatably supported by said base; electric conductor wires leading to said base; electric conductor wires leading from said socket to a series of lights in the tree; means for rotating said socket; means for closing a circuit through said conductor wires during rotation of said socket; and tubular members of insulating material on said socket through which the conductor wires leading from said socket pass for holding said wires in close proximity with the axis of rotation of the tree, substantially as described.



3. In a device of the class described, the combination of a base; a socket member, adapted to accommodate a Christmas tree, rotatably supported by said base; electric conductor wires leading to said base; electric conductor wires leading from said socket to a series of lights in the tree; means for rotating said socket; means for closing a circuit through said conductor wires during rotation of said socket; tubular members of insulating material on said socket through which the conductor wires leading from said socket pass; and a ring of insulating material encircling said socket and embracing said wires for holding the latter in close proximity with the outer surface of said socket, substantially as described.

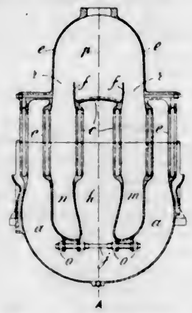
4. In a device of the class described, the combination of a base; a socket member, adapted to accommodate a Christmas tree, rotatably supported by said base; electric conductor wires leading to said base; electric conductor wires leading from said socket to series of lights in the tree; means for rotating said socket; means for intermittently making and breaking the circuit through some of said conductor wires and constantly closing the circuit through the other of said contact wires during rotation of said socket, and means carried by said socket member inclosing said circuit making and breaking means, substantially as described.

5. In a device of the class described, the combination of a base; a socket member, adapted to accommodate a Christmas tree, rotatably supported by said base; electric conductor wires leading to said base; electric conductor wires leading from said socket to series of lights in the tree; means for rotating said socket; and means for successively intermittently making and breaking the circuit through some of said conductor wires and constantly closing the circuit through the other of said wires during rotation of said socket, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,241,128. CENTRIFUGAL PUMP. CHARLES RUSSELL LANG, Cathcart, Glasgow, Scotland, assignor to G. & J. Weir, Limited, Glasgow, Scotland. Filed Feb. 14, 1917. Serial No. 148,576. (Cl. 253—191.)

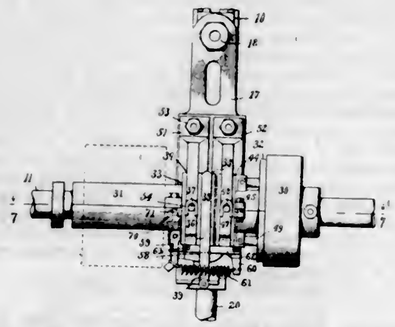
1. A casing for a centrifugal pump with twin rotors in parallel, the said casing containing a wheel and volute chamber for each rotor, a suction port, a suction chamber situated both outside and between the two wheel and volute chambers, a discharge chamber, and a discharge port, and the said casing being divided into two portions, one of which contains the said suction port and the greater part of the said suction chamber while the other contains the said discharge chamber and the said discharge port, the former portion being made up of three pieces, one of which forms the outside walls of a



part of the said suction chamber while the other two form the walls of a part of the wheel and volute chambers of the two rotors respectively, and the latter portion being made up of two pieces one of which includes the outside walls of the said discharge chamber while the other includes the partition separating the discharge chamber from that portion of the suction chamber which is situated between the two wheel and volute chambers.

[Claims 2 to 4 not printed in the Gazette.]

1,241,129. POSITIVE FRICTION-CLUTCH. HERBERT V. LECKIE, Bridgeport, Conn. Filed May 15, 1916. Serial No. 97,456. (Cl. 192—4.)



1. In a clutch of the class described, the combination with a shaft, of a driving clutch member secured thereon having an annular friction face and sockets to receive lock pins, a second clutch member slidable upon the shaft and having an annular surface to engage the driving clutch member, a sleeve upon the movable clutch member, pins carried by the sleeve on the movable clutch member to engage the sockets of the fixed clutch member, a shipper lever, operating arms pivotally connected to the shipper lever, one of said arms being operatively connected to the friction clutch and the other of said arms connected with the sleeve carrying the pins to engage the fixed clutch member, a trip lever pivoted to one of the arms to detachably engage the other arm and a pin carried by the last named arm to disengage the said lever.

4. In a clutch of the class described, the combination with a shaft, of a driving clutch member secured thereon having an annular friction face and sockets to receive lock pins, a second clutch member slidable upon the shaft and having an annular surface to engage the driving clutch member, a sleeve upon the movable clutch member, pins carried by the sleeve on the movable clutch member to engage the sockets of the fixed clutch member, a shipper lever, operating arms pivotally connected to the shipper lever, one of said arms being operatively connected to the friction clutch and the other of said arms connected with the sleeve carrying the pins, a spring actuated trip lever to insure the two said arms moving together with the shipper lever for a time to engage the frictions, and mechanism for releasing the lever to free one of said arms after its friction has been engaged.

5. In a clutch of the class described, the combination with a shaft, of a driving clutch member secured thereon, a second clutch member slidable upon the shaft and having means to engage the driving clutch member, a sleeve upon the movable clutch member, pins carried by the sleeve on the movable clutch member to further engage the fixed clutch member, a shipper lever, means connected with the shipper lever for operating the slidable clutch member, separate means carried by the shipper lever, for operating the sleeve and pins, mechanism for locking the two said operating means together and automatic means for releasing said locking device to insure the engagement of the pins carried by the movable clutch member.

[Claims 2, 3, and 5 to 7 not printed in the Gazette.]

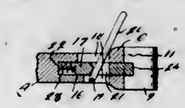
1,241,130. COPY-HOLDER. JOHN FRANCIS LEIGH, Perry, Ark. Filed Mar. 21, 1913, Serial No. 756,016. Renewed Feb. 28, 1917. Serial No. 151,568. (Cl. 120—28.)



1. In a copy-holder, the combination of a plate, a shelf hinged to the lower edge thereof and capable of two positions in one of which it extends forwardly substantially at a right angle to the plate and in the other of which it is substantially in the same plane with the plate, an arm extending rearwardly from the under side of the shelf, an upwardly extending pawl pivoted to said arm and located back of the plate, said plate being formed with a lug against which said pawl engages to hold the shelf in its right-angular position, a casing secured to the back of the plate and inclosing the upper end of the pawl, and a spring secured to the casing and bearing against the pawl to force the pawl into locking engagement with the lug, said pawl being formed with a finger-piece that extends below the pivot.

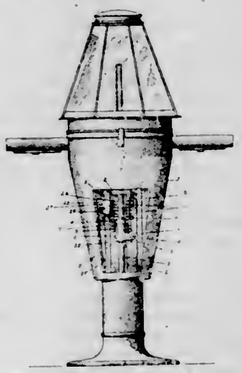
2. In a copy-holder, the combination of a main supporting plate, a shelf hinged to the lower edge thereof, an arm secured to said shelf and extending rearwardly from the under side thereof, a latch pivoted at its lower end to the rear end of said arm, said plate being formed with a rearwardly extending lug against which said pawl has locking engagement, and a spring forcing the pawl into engagement with the lug, said pawl being adapted to engage the lug and hold the shelf in a holding position substantially at right angles to the plane of the plate, and adapted when released from the lug to permit the shelf to oscillate downwardly on its hinge.

1,241,131. CAR-COUPLING. THOMAS H. LEWIS, Pana, Ill., assignor of three-tenths to J. J. Pierpont, Pana, Ill. Filed Mar. 29, 1917. Serial No. 158,281. (Cl. 213—8.)



In a car coupler, a pair of draw bars having adjacent coupler heads, a pair of knuckles pivoted diagonally in said coupler heads and adapted to interlock, said draw bars having bores or hollows rectangular in cross section extending back from the heads, a spring tensioned bolt rectangular in cross section slidably fitting said bore or hollow to hold its knuckle in engagement with the adjacent knuckle and having a slot midway its ends, one end of said slot having a rounded or curved bearing surface, said draw bar having its upper and lower walls provided with registering slots with which the slot of the bolt substantially registers and a straight lever having its lower end pivoted in the lower slot of the draw bar and projecting through the slot of the bolt and the upper slot of the draw bar, and extending upwardly beyond the plane of the upper surface of the coupler head, whereby it may be engaged and oscillated by an oscillated lever, thereby causing the pivoted lever to ride against said rounded or curved bearing surface.

1,241,132. COMPENSATING BINNACLE. ADOLPH LIETZ, San Rafael, Cal. Filed May 15, 1916. Serial No. 98,995. (Cl. 33—225.)



1. The combination with a binnacle and compass therein of parallel vertically disposed tubes; a magnet tray slidably mounted upon each tube; means operatively connected to each tube and the tray thereon adapted to elevate either tray independently of the other; and means secured to each tray and adapted to secure the position thereof.

2. The combination with a binnacle and compass therein of a central vertically disposed tube having a rack thereon; a second vertically disposed tube having a rack thereon; a magnet tray slidably mounted upon each tube; a pinion rotatably mounted upon each tray and meshing

with the rack on the tube; means operatively connected to each pinion whereby the same may be operated to raise or lower the tray on which it is mounted; and means secured to each tray and adapted to secure the same against movement on its respective tube.

3. The combination with a binnacle and compass therein of a vertically disposed central tube having a rack thereon; a second vertically disposed tube adjacent to and parallel with the first mentioned tube and having a rack thereon; a magnet tray having a split sleeve slidably mounted upon each tube; a pinion rotatably mounted upon each tray and meshing with the rack on each tube; means operatively connected to each pinion whereby the same may be operated and thereby raise or lower the tray on which it is mounted; and means secured to each split sleeve and adapted to open or close the same and thereby release the said sleeve from or secure the same to the tube on which it is mounted.

1,241,133. PHOTOGRAPHIC EXPOSURE-METER. JOHN T. MACCURDY, New York, N. Y. Filed June 20, 1916. Serial No. 104,687. (Cl. 88—23.)



1. A photographic time exposure meter, comprising a photometric wedge, means for moving the same past a field of vision, a relatively fixed scale of camera stops, and a scale of exposure times movable with the wedge, whereby after movement of the wedge until a desired standard of visibility is arrived at for an object within the field of vision, the proper exposure time for any camera stop may be read directly from the movable scale.

2. A photographic time exposure meter, comprising a photometric wedge, with its power of transmitting light varied according to a logarithmic law, a relatively fixed scale of camera stops, and a scale of exposure times adapted to be moved in harmony with the movement of the photometric wedge.

7. In an instrument of the kind described, a photometric wedge, in combination with means for moving it past a field of vision, the wedge having a progressively varying light transmitting power, and means for prolonging its range without altering its dimensions, including a plurality of screens, the light transmitting power of each screen in the series being equal to that of the darkest part of the wedge plus that of the preceding screen.

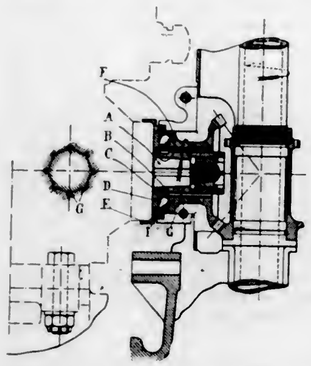
19. In an instrument of the kind described, a casing, a shaft, a disk carrying a photometric wedge rigidly mounted on the shaft, a second disk carrying one or more screens loosely mounted on the same shaft, and means for automatically intermittently coupling the two disks.

25. In an instrument of the character described, the combination with a casing having spaced walls and view openings through said walls of rotatable photometric wedge and screen members mounted in the casing on a common axis, a transversely sliding pin mounted in one member and arranged to periodically engage the other to move the latter, and a came carried by one of the walls and disposed in the path of the movement of the pin to cause its engagement with said other member.

[Claims 3 to 6, 8 to 18, and 20 to 24 not printed in the Gazette.]

1,241,134. DRIVING MECHANISM FOR MAGNETOS. AUGUSTE MAIRE, Argenteuil, France, assignor to Societe Lorraine Des Anciens Etablissements De Dietrich & Cie. De Luneville, Paris, France. Filed Mar. 24, 1917. Serial No. 157,235. (Cl. 74—8.)

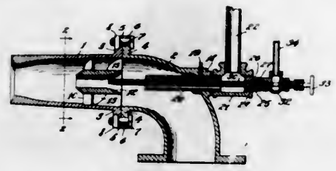
2. In driving mechanism for ignition magnetos, the combination with a side plate of the magneto, of the magneto shaft having a portion projecting beyond the said side plate, a hub fixed to the projecting portion of the shaft, a sleeve slidable longitudinally upon but not rotatable about said hub, said sleeve having a pinion at one end thereof and a flange at the other end substantially parallel to the said side plate, and ball bearings interposed between said flange and side plate.



3. A driving mechanism for ignition magnetos comprising in combination: the shaft of the magneto, a hub fixed on this shaft and provided with feather-keys formed on its periphery, a sleeve mounted upon this hub and provided with grooves corresponding with the feather-keys of the hub, a driving pinion fixed to this sleeve, the forward side plate of the magneto and a ball bearing interposed between the rear end of the said sleeve and the said forward side plate of the magneto, substantially as described and for the purpose set forth.

[Claim 1 not printed in the Gazette.]

1,241,135. BURNER. HENRY J. MASTENBROOK, Lakewood, Ohio, assignor to The Ohio Blower Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 12, 1917. Serial No. 154,141. (Cl. 158—74.)

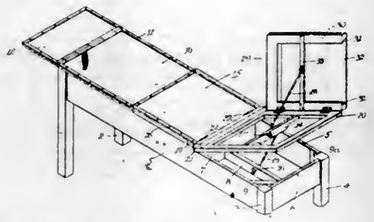


1. In a burner of the character set forth, the combination of a casing having a discharge orifice, an air director within the casing and comprising a sleeve the bore whereof is substantially in axial alinement with the outlet orifice, said director involving spiral vanes which extend outward from said sleeve, and a fuel injector pipe supported within the casing substantially central of and spaced from the aforesaid sleeve.

6. In a burner of the character set forth, the combination of a casing having a bore which terminates at one end in a discharge orifice, a fuel injector pipe supported within the casing with its axis substantially coincident with the central axis of the bore, a second fuel injector pipe supported substantially central of the first and projecting beyond the discharge end thereof into the casing and an air director within the casing between the injector pipes and discharge orifice and comprising a central sleeve and outwardly extending spiral vanes, the fuel injector pipes being adjustable with respect to the casing.

[Claims 2 to 5 and 7 to 11 not printed in the Gazette.]

1,241,136. THERAPEUTIC APPARATUS. WILLIAM MEYER, Chicago, Ill. Filed Jan. 17, 1916. Serial No. 72,381. (Cl. 250—34.)



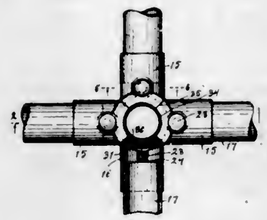
3. In combination, a table frame, a stationary top portion secured thereto, a plurality of top portions hinged together, said portions being arranged to swing in different planes, and supporting means for holding said swinging portions in adjusted position with respect to each other and to said stationary top portion.

5. In combination, a table frame, a stationary top portion having a light metallic surface thereupon, a hinged top portion having a light metallic surface thereupon, and a conductor joining said metallic surfaces.

6. In combination a table frame, a stationary top portion having a light metallic surface thereupon, said surface being substantially transparent to X-rays, a hinged top portion having a light metallic surface thereupon, said surface being substantially transparent to X-ray, a conductor joining said metallic surfaces and means for supporting plate holders under each of said surfaces.

[Claims 1, 2, 4, and 7 to 9 not printed in the Gazette.]

1,241,137. COUPLING. WILLIAM MITCHELL, Milwaukee, Wis. Filed Apr. 26, 1916. Serial No. 93,602. (Cl. 189—36.)



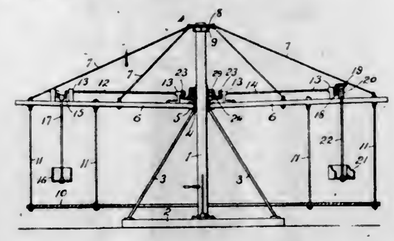
1. A coupling device for connecting members extending at an angle to each other comprising a pair of mating clamping members having bodies adapted to substantially conform to the contour of the members to be connected together, one of said clamping members being provided with a wedge lug, means for securing said clamping members to one of the members to be connected, a wedging member mounted on and surrounding the other member to be connected and having wedging engagement with wedge lug of said clamping member and the member upon which it is mounted.

2. A coupling device for connecting together members extending at an angle to each other consisting of a wedge member surrounding one of the members to be connected, a pair of mating clamping members secured to the other member to be connected and provided with means for wedgingly engaging said wedge member and the member which it surrounds on the tightening up of the clamping members.

3. A coupling device for connecting together members extending at an angle to each other consisting of a member surrounding one of the members to be connected and provided with a wedge portion, a pair of mating members having bodies adapted to substantially conform to the contour of the members to be held, means for securing said clamping members to one of the members to be connected, and a wedge lug on one of said clamps for wedging engagement with said wedge portion and the other member.

[Claims 4 to 8 not printed in the Gazette.]

1,241,138. CAROUSEL. CHARLES E. MORRIS, Leavenworth, Kans., assignor to Charles W. Parker, Leavenworth, Kans. Filed Nov. 16, 1916. Serial No. 131,697 (Cl. 46—27.)



1. In a carousel, revoluble supporting means, a support for a person carried thereby and adapted for movement relative thereto, operating means adapted to be actuated by said supporting means for imparting such relative movement to said support, and controlling means for gradually rendering said operating means active or inactive irrespective of the speed of movement of said supporting means.

2. In a carousel, revoluble supporting means, a support for a person carried thereby and adapted for movement relative thereto, operating means adapted to be actuated by said supporting means for imparting such relative movement to said support, and including a frictional clutch mechanism connecting said supporting means and said operating means, means for rendering said operating means active or inactive.

3. In a carousel, revoluble supporting means, a support for a person carried thereby and adapted for movement relative thereto, operating means actuated by said supporting means for imparting such relative movement to said support, and controlling means by which the operating means may, at the option of the operator, gradually initiate such relative movement of the support irrespective of the speed of movement of said supporting means.

4. In a carousel, revoluble supporting means, a stationary support therefor, a member revoluble on said support, releasable means for locking said member to said support, a support for a person carried by said revoluble supporting means and adapted for movement relative thereto, and means permanently connecting said revoluble member and said support for a person for imparting such relative movement to said last named support when the revoluble member is locked to said stationary support.

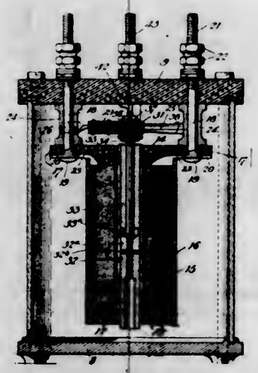
5. In a carousel, revoluble supporting means, a stationary support therefor, a gear wheel revoluble on said support, releasable means for locking said gear wheel to said support, a pinion meshing with said gear wheel, a support for a person carried by said revoluble supporting means and adapted for movement relative thereto, and means actuated by said pinion for imparting such relative movement to said last named support.

[Claims 6 to 11 not printed in the Gazette.]

1,241,139. ELECTROMAGNETIC DEVICE. WILL C. NEAHR, Denver, Colo., assignor to The Protective Signal Manufacturing Company, Denver, Colo., a Corporation of Colorado. Filed Nov. 14, 1916. Serial No. 131,336. (Cl. 175—323.)

2. In a device of the character set forth, the combination with a casing having a cap, of an electro-magnet having spaced heads, one of which is adjacent to but spaced from the cap, bolts passing through the heads and cap for securing the two together, means on the bolts

interposed between the head and cap, an armature receiving sleeve connecting the heads of the electro-magnet, an armature movable in the sleeve, and a device actuated by the armature and located in the space between the head and cap.



5. In an electro-magnetic device for use with alternating currents, the combination with a coil, of an armature therein comprising a fixed member of magnetic material and a plunger member movable toward and from the fixed member, said plunger member comprising sections of magnetic material, and a section of non-magnetic material interposed between the sections of magnetic material, one of the sections of magnetic material operating adjacent to and being attracted by the fixed member and being so proportioned with respect thereto as to hold the plunger against retrograde movement during the change in current and permit the retrograde movement of the plunger when the coil is deënergized.

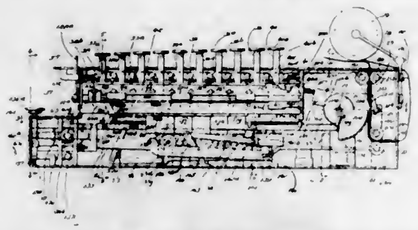
8. In an electro-magnetic device for use with alternating currents, the combination with a coil, of a fixed armature member and a plunger armature member in the coil, one of said members comprising sections of magnetic material and a section of non-magnetic material between said sections, one of the sections of magnetic material directly coacting with the other member and being so proportioned thereto that it will retain its attracted relation with respect to said other member during the change of current, but will be retracted from said position when the current ceases.

9. In an electro-magnetic device for use with alternating currents, the combination with a coil, of a fixed armature member, a stem slidable through said fixed armature member, a movable armature section carried by the end of the stem, a second armature section cooperating with the fixed member and detachably carried by the stem, and a section of non-magnetic material interposed between the two sections and detachably carried by the stem.

[Claims 1, 3, 4, 6, and 7 not printed in the Gazette.]

1,241,140. TABULATING-MACHINE. CHARLES E. NICHOLSON, Berwyn, Ill. Filed Sept. 8, 1914. Serial No. 860,687. (Cl. 235—60.)

1. In a device of the class described, numeral keys, a movable member located below said keys, said member being provided with shoulders spaced apart, the distance between each pair of shoulders corresponding to the numeral carried by the corresponding key, pin members located intermediate said keys and said movable member, each of said pins being arranged to be actuated by operation with a corresponding key to move between a corresponding pair of shoulders on said movable member, means to initially move said pin after depression thereof into contact with one of said adjacent shoulders, and secondly to move said pin and shoulder carrying member, and indicating mechanism actuatable on said movement of said shoulder carrying member to record the numeral corresponding to that of said actuated key.



12. In a device of the class described, numeral keys, printing mechanism, a character bearing wheel, actuating mechanism adapted after depression of one of said keys to aline the numeral on said wheel corresponding to that on said depressed key with said printing mechanism, said actuating mechanism comprising reciprocable strips, said strips being provided with teeth, said character wheels being provided with teeth adapted to mesh with said teeth of said strip, whereby the operation of said actuating mechanism after depressing a key will cause said reciprocation of said strip and partial rotation of said wheel, said wheel and strip being out of toothed engagement when in normal or rest position, means to cause meshing of said character wheel with said strip upon operation of said actuating mechanism, said means comprising a lug eccentrically mounted on said wheel, and an arm carried by said strip and arranged to contact with said lug to partially rotate said wheel until the teeth thereof mesh with those of said strip, numerals on said character wheel arranged so that such movement into meshing engagement with said strip will result in the first integer of said numerals being alined with said printing mechanism.

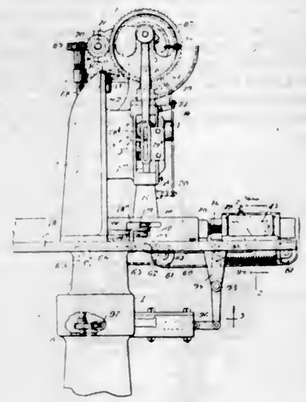
15. In a device of the class described, a plurality of rows of numeral keys, character wheels, one of each of said wheels corresponding to a row of numeral keys, said wheels being rotatably mounted and provided with numeral characters corresponding to those of said keys, printing mechanism, actuating mechanism adapted to rotate said character wheels when a key in the corresponding row of numeral keys has been depressed whereby the numerals carried by said depressed keys will be printed, means coacting with said character wheels to cause actuation of the latter to print where no key in the corresponding row of numeral keys has been depressed and when such row lies to the right of a row in which a key has been depressed, said means comprising pivotally mounted members associated with said character wheels, and springs operating to actuate said last named members to cause said character wheels to present zeros to said printing mechanism.

18. In a device of the class described, a plurality of numeral keys, indicator wheels mutually adjacent and relatively rotatable, actuating mechanism operable to actuate said indicator wheels to indicate the amount of numerals on any of said keys which may be actuated, said indicator wheels being each provided with a tooth on one side thereof, a gear actuatable by said tooth, a shaft carried by said gear, and a pinion on said shaft, each of said wheels being provided with gear teeth at one side thereof, said pinion being adapted to engage said teeth of an adjacent wheel when said gear wheel is actuated, said pinion being normally out of engagement with said teeth of said adjacent wheel.

22. In a device of the class described, indicator wheels, character wheels, a bar extending between each pair of character and indicator wheels, each of the latter being provided with a ratchet wheel, said bar having teeth arranged to engage said ratchet wheel, said character wheels being toothed, said bars having teeth adapted to mesh with said teeth of said character wheels, and mechanism arranged to operate said bars to move said indicator wheels to said position, said bars being adapted to simultaneously move said indicator wheels to said position, said bars being adapted to simultaneously move said character wheels to a position in which numerals thereon similar to those on said indicator wheels previous to their resetting will be recorded.

[Claims 2 to 11, 13, 14, 16, 17, 19 to 21, and 23 to 29 not printed in the Gazette.]

1,241,141. BOTTLE-CAPPING MACHINE. THOMAS O'BRIEN, New York, N. Y. Filed Feb. 6, 1915. Serial No. 6,555. (Cl. 113—4.)



1. A capping member having a recess, jaws within the recess adapted to coact with a cap, means to support said jaws for lateral movement, a ring coacting with said jaws, means to frictionally resist movement of said ring by said jaws, and means to retain a cap in operative position with respect to said jaws.

2. A capping member having a recess, jaws within the recess adapted to coact with a cap, means to support said jaws for lateral movement, a ring coacting with said jaws, one of more springs interposed between said ring and, member to frictionally resist movement of said ring by said jaws, and means to retain a cap in operative position with respect to said jaws.

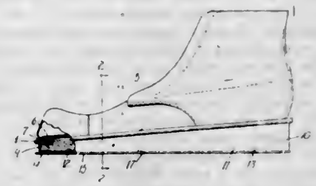
3. A capping member having a recess, jaws within the recess adapted to coact with a cap, means to support said jaws for lateral movement, a ring coacting with said jaws, means to frictionally resist movement of said ring by said jaws, means to retain a cap in operative position with respect to said jaws, a plunger slidable within said jaws and a spring normally pushing said plunger outwardly.

4. A capping member having a recess, jaws within the recess adapted to coact with a cap, means to support said jaws for lateral movement, a ring coacting with said jaws, means to frictionally resist movement of said ring by said jaws, means to retain a cap in operative position with respect to said jaws, a plunger slidable within said jaws, and a spring normally pushing said plunger outwardly, said plunger having means coacting with said ring to normally push said ring outwardly.

5. A capping member having a recess, jaws within the recess adapted to coact with a cap, means to support said jaws for lateral movement and prevent longitudinal movement thereof within said member, a movable ring coacting with said jaws, said ring and jaws having coacting inclined faces, a plunger to eject a capped bottle and coactive with said ring to restore it to the normal position, and means to retain a cap in operative position with respect to said jaws.

[Claims 6 to 35 not printed in the Gazette.]

1,241,142. SHOE-SOLE. JAMES E. O'HARA, Whitman, Mass. Filed Jan. 10, 1916. Serial No. 71,373. (Cl. 36—28.)



1. The combination with a shoe upper, of a sole embodying a casing member having a transverse portion, extending entirely across the sole, provided with a side wall disposed substantially at right angles to and integral with said transverse portion, said side wall gradually decreasing in depth from heel to toe, the edge of said side wall terminating in an outwardly projecting rim, means for securing said casing to said upper, a filler of resilient material for said casing, and an outer sole attached to said casing.

2. The combination with a shoe upper, of a sole embodying a casing member having a transverse portion, extending entirely across the sole, provided with a side wall disposed substantially at right angles to and integral with said transverse portion, said side wall gradually decreasing in depth from heel to toe, the edge of said side wall terminating in an outwardly projecting rim, means for securing said transverse portion to said upper, a cushion member constructed of felt adapted to fill said casing, and an outer sole attached to the rim of said casing.

1,241,143. BIT-BRACE EXTENSION. HARRY E. PARKER, New Britain, Conn., assignor to The Stanley Rule & Level Company, New Britain, Conn., a Corporation of Connecticut. Filed Jan. 17, 1917. Serial No. 142,811. (Cl. 145—92.)



1. A tool chuck comprising a shank having longitudinal grooves in opposite sides thereof and extending inwardly from the end of the shank, said grooves being laterally enlarged at points inward from the end of the shank to form enlarged seats at the inner ends of the grooves, jaws having shank portions guided in the longitudinal slots and laterally enlarged heads engaged in the seats aforesaid, said heads thereby holding the jaws against longitudinal withdrawal from the grooves and said heads having a pivoting action in the seats, provided therefor to enable opening and closing movement of the jaws, springs bearing on the jaw heads to hold them engaged in the seats provided therefor and jaw closing means engaging over the jaws.

2. A tool chuck comprising a shank having a threaded portion disposed at a point inward from the end thereof and grooves in opposite sides thereof with laterally enlarged seats at the inner ends of said grooves, jaws mounted at the end of the shank engaged in said grooves having heads at the ends thereof pivotally engaged in the enlarged seats aforesaid, a jaw closing sleeve slidably engaged over the tool shank at a point between the jaws thereon and the threaded portion, and an internally threaded operating sleeve engaged over the threaded portion of the tool shank and arranged to force the slidable jaw closing sleeve longitudinally over the jaws.

3. A tool chuck comprising a shank having a threaded portion disposed at a point inward from the end thereof and grooves in opposite sides thereof with laterally enlarged seats at the inner ends of said grooves, jaws mounted at the end of the shank engaged in said grooves having heads at the ends thereof pivotally engaged in the enlarged seats aforesaid, a jaw closing sleeve slidably engaged over the tool shank at a point between the jaws thereon and the threaded portion, an internally threaded operating sleeve engaged over the threaded portion of the tool shank and arranged to force the slidable jaw closing sleeve longitudinally over the jaws and a loose thrust ring interposed between the adjoining ends of the jaw closing sleeve and the threaded operating sleeve.

4. A tool chuck comprising a shank having longitudinal channels in opposite sides thereof extending inward from the end of the shank and provided with enlarged portions disposed inward from the end of the shank and reduced portions extending inward from said enlarged portions, jaws having shank portions guided in the outer portions of the channels and laterally enlarged heads on the ends of said shank portions having rounded under surfaces bearing in the enlarged portions of the channels, springs secured in the reduced portions of the channels at the inner ends of the enlargements therein and bearing on the enlarged head portions at the ends of the jaws, said head portions having grooves in the outer faces thereof receiving the springs aforesaid and said springs projecting inwardly into engagement with the end portions of the jaws to thereby rock the curved heads of the jaws in their seats and separate the outer ends of the jaws and jaw closing means for said jaws.

1,241,144. PROCESS OF MOLDING CONCRETE. EDMUND S. PARSONS, Ilion, N. Y. Filed Jan. 10, 1916. Serial No. 71,148. (Cl. 25—155.)

1. The process of casting concrete that consists in forming a mold in absorbent material, coating the walls of the mold cavity with a dissoluble film and filling the mold with a wet mixture of concrete.

2. The process of casting concrete that consists in forming a mold in wet sand, coating the walls of the mold cavity with a dissoluble film and pouring the mixture of concrete into the mold.

3. The process of casting concrete that consists in forming a mold in wet sand, spraying the walls of the mold cavity with a dissoluble substance adapted to form a thin film and pouring a wet mixture of concrete into the wet mold.

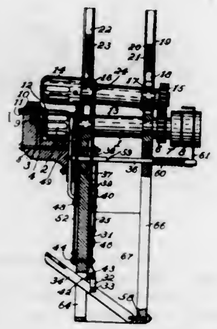
4. The process of casting concrete that consists in forming a mold in wet sand, spraying the walls of the mold cavity with a mixture of glue and hot water to form a thin dissoluble film, and pouring a thin mixture of concrete into the mold.

5. The process of casting concrete that consists in forming a mold in wet sand, spraying the walls of the mold cavity with a mixture of glue and hot water to form a thin dissoluble film, pouring a thin mixture of concrete into the mold, and vibrating the mold while the concrete is being introduced.

[Claims 6 to 12 not printed in the Gazette.]

1,241,145. CRIMPING-MACHINE. TRUMAN J. PEET, Monticello, Iowa. Filed June 21, 1916. Serial No. 104,971. (Cl. 153—7.)

1. In a crimping-machine, a rotatable positively-driven crimping-head, a counterpart crimping-head movable into coaction therewith, mechanism connected yieldingly and resiliently to said movable crimping-head for shifting it into coaction with the other crimping-head and containing co-acting locking elements arranged to lock it therewith, comprising a pivoted lever, a reciprocatory bearing in which said counterpart crimping-head is rotatably mounted, an arm pivoted at one end to said bearing, a link pivoted at one end to said lever and at the other end to the adjacent end of said arm, a fixed support, another arm pivoted at one end to said support and pivoted at the other end to the first-mentioned arm, whereby said bearing is held fixedly when the pivotal connections of said parts are shifted to a dead center, mechanism connected to and adapted to act on said shifting-mechanism to unlock said shifting-mechanism and allow the resilient connection to react and shift the movable crimping-head out of coaction with the other crimping-head, and means for stopping the rotation of said crimping-heads when out of coaction with each other, said last-mentioned means being connected to and operated by said shifting and locking mechanism to be automatically actuated thereby when the latter is acting to unlock the crimping-heads from each other.



2. In a crimping-machine, a supporting-frame, rotatable coacting counterpart crimping-heads having circumferential longitudinal flutings, one being movable to and from the other, the said movable crimping-head having crimping flutings on its end, and a third rotatable crimping-head mounted at an angle to and counterpart of the fluted end of said movable crimping-head and also adapted to coact with the end flutings thereof when the movable head is moved toward it and the other crimping-head to bend over and crimp an edge or a plate between them.

3. In a crimping-machine, a supporting frame, rotatable coacting counterpart crimping-heads, one movable to and from the other, the other being positively driven, driving-connections between said crimping-heads, a third crimping-head adapted to coact with said movable head when the latter is in coaction with the other head, driving-connections between said other head and said third crimping-head, means for shifting said movable crimping-head into and out of coaction with the other crimping-heads, said means including an element positioned near the movable crimping-head and movable by engagement with a moving projecting part of the article being crimped to operate the means in swinging said movable head out of coaction with the other heads.

4. In a crimping-machine, a rotatable crimping-head with corrugated convex outer end, and a rotatable crimping-head of concavous conoidal form coacting with the end of the first-mentioned crimping-head, said crimping-heads having axes disposed angularly relative to each other.

5. In a crimping-machine, a rotatable corrugated forming-head, another rotatable corrugated forming-head mounted to coact with an extremity of the first-mentioned head to shape a plate inserted between them, the second-mentioned head and the end of the first-mentioned head being counterparts to form the plate into a hollow body with an inwardly-bent corrugated edge, said forming-heads having axes disposed angularly relative to each other.

1,241,146. PROCESS OF JOINING SHEETS OF COMPOSITION ROOFING. RAY P. PERRY, Montclair, N. J., assignor to Barrett Manufacturing Company, a Corporation of West Virginia. Filed Mar. 24, 1915. Serial No. 16,581. (Cl. 108—6.



1. The process of joining sheets of composition roofing which consists in bringing outer surfaces of said sheets together while in a sticky condition and then applying pressure thereto and thus causing said outer surfaces to be united directly to each other without the interposition of additional cementing material.

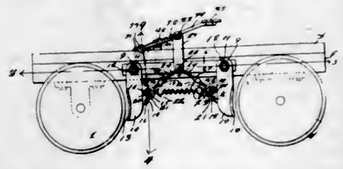
4. The process of joining sheets of composition roofing which consists in bringing outer surfaces of said sheets together, heating *in situ* the contacting portion of at least one of said sheets sufficiently to convert the composition of said outer surfaces to a sticky condition and then applying pressure thereto and thus causing said outer surfaces to be united directly to each other without the interposition of additional cementing material.

6. The process of uniting adjoining lapped sheets of composition roofing which consists in converting the material at the edge of the upper sheet of said roofing *in situ* to a sticky condition throughout the thickness of such sheet and wiping some of said material in such sticky condition onto the lower adjoining sheet of the roofing so as to unite said sheets without the interposition of additional cementing material.

7. The process of covering a roof which consists in applying thereon overlapping sheets composed homogeneously throughout their thickness of fibrous bituminous composition, bringing said composition in the edge of at least one of said sheets to a sticky condition and then applying pressure to cause said sheets to be united directly to each other without the interposition of additional cementing material and with the fibers of one sheet interlaced with those of the next so as to produce a roof covering which is of continuous fibrous bituminous character.

[Claims 2, 3, 5, and 8 not printed in the Gazette.]

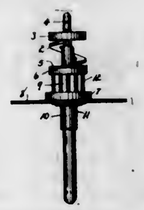
1,241,147. CAR-BRAKE. EMIL PLATH, Maza, N. D. Filed Apr. 12, 1917. Serial No. 161,463. (Cl. 188—24.)



1. A foot brake for railroad motor cars comprising brakes designed for pivotal mounting on the car, a spring tensioned between the brakes, eye bars pivotally connected with the brakes, a connecting bar, the eye bars having a common pivotal connection therewith, and a U-shaped foot lever for pivotal mounting on the car, one leg of the foot lever pivotally engaging the connecting bar and the other leg of said lever being designed to receive the pressure of the foot.

2. A foot brake for railroad motor cars comprising brakes designed for pivotal mounting on the car, eye bars pivotally connected with the brakes and being adjustable in the direction of their lengths, a connecting bar, the eye bars having a common pivotal connection therewith, and a U-shaped foot lever for pivotal mounting on the car, one leg of the foot lever pivotally engaging the connecting bar and the other leg of said lever being designed to receive the pressure of the foot.

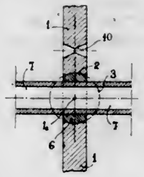
1,241,148. CENTER-FRICTION FOR CLOCKS AND WATCHES. WILSON E. PORTER, New Haven, Conn., assignor to New Haven Clock Co., New Haven, Conn., a Corporation. Filed Oct. 27, 1913. Serial No. 797,541. (Cl. 58—139.)



2. A center-friction for clocks and watches, characterized by the employment of a sheet-metal friction washer having a key-hole slot wide enough to prevent the ends of the slot from coming into contact when the washer is compressed to substantial flatness, the said washer having its ends offset in opposite directions from its plane and being loosely mounted upon the center arbor of a clock-movement and interposed between an adjusting-collar mounted upon the said arbor and a pinion loosely mounted upon the said arbor, and the said washer being compressed by setting the adjusting collar upon the arbor and when so compressed, exerting a constant effort to hold the said pinion against rotation thereupon.

[Claim 1 not printed in the Gazette.]

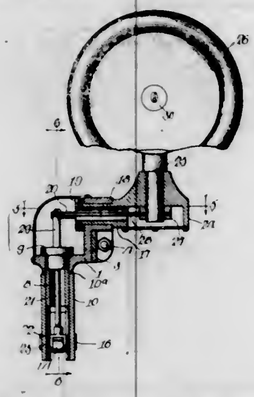
1,241,149. BALL-AND-SOCKET JOINT FOR MOUNTING FIREARMS ON SHIELDS, PARAPETS, AND THE LIKE. ABIEL BETEL REVELLI, Turin, Italy. Filed Oct. 16, 1916. Serial No. 126,006. (Cl. 42—94.)



1. In a socket and ball joint for mounting firearms on shields, parapets and the like, an opening provided in these latter in form of a spherical zone and cut in a number of parts to allow the introduction of a plate also in form of a spherical zone and cut in a corresponding number of parts, the two surfaces in form of spherical zone sliding on one another with a soft friction.

2. In a socket and ball joint for mounting firearms on a support, an opening provided in the support, the inner surface of which is in form of a spherical zone having two cylindrical portions of the same diameter as the spherical zone, said portions measuring less than ¼ the circumference of said zone and extending suitably on one half of the thickness of the shield,—a central plate on which is secured the barrel of the firearm, two opposite sides of which have the form of a spherical zone corresponding to that of the opening, while the intermediate sides are cylindrical and of a diameter slightly smaller than the shortest diameter of the spherical zone, in order to allow its introduction in the shield opening when in the right position and to secure it in place by means of a rotation of 90°, thus allowing the sighting in all directions through displacement about the center of the spherical surface.

1,241,150. ADJUSTABLE LAMP-HOLDER. CLAYTON E. RICE, Chicago, Ill. Filed Mar. 26, 1917. Serial No. 157,433. (Cl. 240—61.)

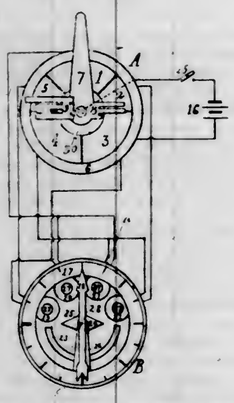


1. An adjustable device of the class described, comprising, in combination, a stationary support, a tubular rocking member journaled therein upon a horizontal axis, a lamp directly supported upon said rocking member upon a pivotal support the axis of which is at right angles to that of said tubular member, an actuating lever arranged to tilt said rocking member while free to be moved upon an axis at right angles to that of the latter and movable connecting means for operatively connecting said pivotal support with said lever.

6. An adjustable lamp holder comprising, in combination, a stationary support, a tubular rocking member journaled therein upon a horizontal axis, a lamp having a support journaled in said rocking member upon a normally vertical axis, a tubular member swiveled in said stationary support upon a vertical axis, an actuating lever fulcrumed upon said tubular member with its short end extending therein, means for connecting the same with a crank-arm upon said rocking member, a crank-arm upon the upper end of said tubular member, a crank-arm upon the lower end of said normally vertical lamp support and means within said rocking member for connecting said crank-arms.

[Claims 2 to 5 not printed in the Gazette.]

1,241,151. ELECTRIC INDICATOR. HENRY H. RIGGS, Kharput, Turkey. Filed Oct. 8, 1913. Serial No. 794,148. (Cl. 177—337.)



1. In an electric indicator, an electro-magnet having a plurality of windings on poles arranged in a semi-circle, alternately connected together in pairs of like polarity, and a magnetic needle rotatably mounted in the field of force of said electro-magnet, substantially as shown.

2. In an electric indicator, an electro-magnet having a plurality of active poles arranged in a semicircle, and a curved pole-piece in effect completing the circle, with a magnetic needle rotatably mounted within that circle.

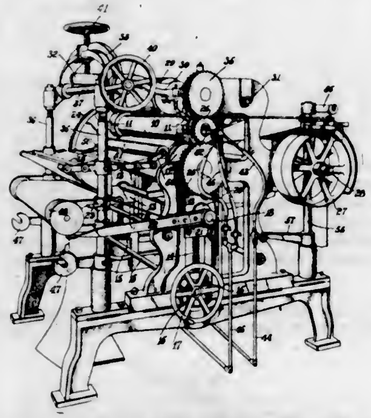
3. In an electric indicator, an electro-magnet having a plurality of windings arranged in a semicircle, a rotating member, and means operated by the rotating member to furnish current to said windings successively, in one direction during one half of the rotation of said rotating member, and in the opposite direction during the other half of the same rotation.

4. In an electric indicator, an electro-magnet having a plurality of windings arranged in a semicircle, a rotating member, and means operated by the rotating member to furnish current alternately to single windings and to pairs of adjacent windings, substantially as shown.

5. In an electric indicator, the combination of an electro-magnet having a plurality of active poles arranged in a semicircle, with a rotating member, a commutator adjacent thereto, said commutator being composed of a plurality of segments connected with the windings on the electro-magnet and a pair of rings, and a pair of brushes carried by the rotating member which take current from the rings and deliver it through the segments to the windings.

[Claims 6 and 7 not printed in the Gazette.]

1,241,152. EMBOSSING-MACHINE. HENRY D. SCHMIDT, New York, N. Y. Filed June 10, 1916. Serial No. 102,809. (Cl. 101—25.)



1. An embossing machine embodying therein a pattern roller mounted in fixed bearings, movable sectional bearings, a platen roller mounted in one of the sections of said bearings, a cam shaft mounted in one of the sections of said bearings, cams carried thereby and acting upon the other section whereby said platen roller may be moved toward or from said pattern roller, feed screws acting upon said bearings respectively, worm wheels carried by said feed screws, a worm shaft coöperating with both of said worm wheels whereby said bearings may be simultaneously advanced and to the same extent toward said pattern roller and independently operative actuating means for said cam shaft and said worm shaft whereby said bearings may be set for a definite pressure and said platen roller may be moved into and out of engagement with the pattern roller without disturbing the said adjustment for pressure.

2. An embossing machine embodying therein a pattern roller, a platen roller, means whereby movement is imparted to one of said rollers relative to the other to develop the required pressure, a counter-pressure roller of short length supported adjacent the center of said pattern roller and means whereby said counter-pressure roller may be forced into engagement with said pattern roller to prevent said pattern roller intermediate its ends springing away from said platen roller.

3. An embossing machine embodying therein a pattern roller, a platen roller, means whereby relative movement is imparted to said rollers to develop the required pressure, a counterpressure roller of short length supported adjacent the center of said pattern roller and means whereby said counterpressure roller may be forced into engagement with said pattern roller to prevent said pattern roller intermediate its ends springing away from said platen roller, said last named means including therein a throw-off mechanism whereby said counter-pressure roller after said means has been set for a definite pressure may be moved toward or from said pattern roller without disturbing said adjustment for pressure.

4. An embossing machine embodying therein a pattern roller, a platen roller, means whereby relative movement is imparted to said rollers to develop the required pressure, a yoke pivotally mounted at one side of the bearings for said pattern roller, a counter-pressure roller pivotally mounted in said yoke above said pattern roller, a projection carried by said yoke and a screw adapted to bear upon said projection and force said counter-pressure roller into engagement with said pattern roller to prevent said pattern roller intermediate its end springing away from said platen roller.

5. An embossing machine embodying therein a pattern roller, a platen roller, means whereby relative movement is imparted to said rollers to develop the required pressure, a counterpressure roller of short length supported adjacent the center of said pattern roller and means whereby sand counterpressure roller may be forced into engagement with said pattern roller to prevent said pattern roller intermediate its ends, springing away from said platen roller, entrained gears carried by the said pattern roller, said platen roller, and said counter-pressure roller whereby said rollers are simultaneously rotated at the same peripheral speed and a connection having universal joints between the gear for said counterpressure roller and the shaft of said roller.

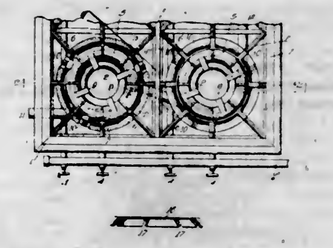
[Claims 6 to 9 not printed in the Gazette.]

1,241,153. DISAZO DYESTUFF AND PROCESS OF MAKING SAME. RUDOLF SCHÜLE, Frankfort-on-the-Main, Germany. Filed Mar. 20, 1916. Serial No. 85,506. (Cl. 23—24.)

1. The process of producing a new disazodyestuff which consists in diazotizing the aminoazocompound obtained from the diazo derivative of p-nitroanilin and aminocresol-alkylether and combining the diazoazocompound thus formed in an alkaline solution with m-aminophenyl-8-oxy-1.2-naphthimidazole-3.6-disulfonic acid, the dyestuff thus obtained dyeing cotton bluish black shades which are turned into green shades by diazotizing on the fiber and developing with 1-phenyl-3-methyl-5-pyrazolone, phenol, cresol or resorcinol, and also by aftertreatment with the diazo derivative of p-nitroanilin, substantially as described.

2. The herein described new disazodyestuff obtained by combining the diazocompound of p-nitrobenzeneazoaminocresolmethylether in alkaline solution with m-aminophenyl-8-oxy-1.2-naphthimidazole-3.6-disulfonic acid, the said disazodyestuff being a dark powder soluble in water with a bluish black color, in concentrated sulfuric acid with a green color, dyeing cotton bluish black shades, which are turned into green shades by developing on the fiber with 1-phenyl-3-methyl-5-pyrazolone, phenol, cresol or resorcinol, and also by aftertreatment with the diazo derivative of p-nitroanilin, and yielding by treatment with stannous chlorid p-phenylenediamin, diaminocresol-methylether and m-aminophenyl-7-amino-8-oxy-1.2-naphthimidazole-3.6-disulfonic acid, substantially as described.

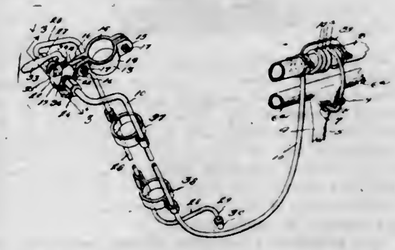
1,241,154. WATER-HEATER. JOHN SETECKA, Chicago, Ill., assignor to James Teteak, Chicago, Ill. Filed Feb. 23, 1915. Serial No. 10,065. (Cl. 126—53.)



1. A water heating attachment for gas stoves, comprising a tubular annular member, having an inlet and an outlet at the under side thereof, means for supporting said member from the top of the stove, consisting of a plurality of arms extending radially from the exterior, for engagement with said stove top, said member provided with a plurality of inwardly extending tubular vessel supporting arms, and a sheet metal baffle member formed to overlie the radially extending supporting arms to be supported thereby, and bent down, at an angle between the arms with a space between the baffle and outer and upper sides of the annular member.

2. A water heating attachment for gas stoves, comprising a tubular annular member, having an inlet and outlet at the underside thereof, adjustable means for supporting said member from the top of the stove, consisting of a plurality of arms extending radially from the exterior of the member, and having extending parts adjustably secured thereto, and formed for engagement with said stove top, said member provided with a plurality of inwardly extending tubular vessel supporting arms, and a detachable baffle member consisting of a sheet metal plate formed to overlie said radially extending supporting arms, and bent down between the arms at an inclination, and spaced from the annular member at the outer and upper sides of the same.

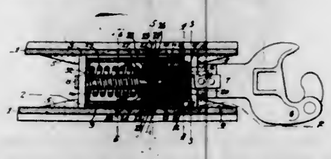
1,241,155. AUXILIARY AIR-INLET DEVICE FOR INTERNAL-COMBUSTION ENGINES. EDWARD C. SEVIGNY, Jacksonville, Fla., assignor of one-half to Ebenezer S. Bacon, Jacksonville, Fla. Filed Feb. 8, 1917. Serial No. 147,353. (Cl. 137—26.)



1. In a device for manually controlling the admission of air to the gaseous mixture in the intake manifold between the carbureter and the intake ports of an internal combustion engine, said device being located upon the steering post and in juxtaposition to the steering wheel and comprising a two way valve, the inlet end of said valve being connected by means of a pipe with an inlet end remote from the steering wheel and having screens to prevent entrance of foreign substances and a pipe connected to the outlet end of said valve and passing around and clamped to the exhaust manifold and having its free end connected to the intake manifold.

2. In combination with the steering means of a motor vehicle; a valve on said means in close position to the operator's hands; a connection between said valve and the intake manifold of the motor; and an air intake member connected to said valve and having its intake end remote from said valve.

1,241,156. FRICTION DRAFT-GEAR. CLIFTON W. SHERMAN, Buffalo, N. Y. Filed Apr. 23, 1914. Serial No. 833,898. (Cl. 213—64.)

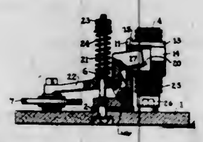


1. A friction draft gear comprising a friction member, a plurality of sets of friction shoes and wedge sections arranged tandem, each of said sets comprising a plurality of friction shoes bearing against the friction member and a plurality of wedge sections in wedging engagement with the companion shoes, a spring interposed between the wedge sections of each set, the inner ends of the wedge sections of the outer set bearing against the outer ends of the wedge sections of the inner set, and yielding means which resist the inward movement of said sets of shoes and wedge sections.

5. A friction draft gear comprising a friction member, a set of outer friction shoes bearing against the friction member, a set of outer wedge sections engaging the outer shoes, a set of inner shoes bearing against the friction member, and a set of inner wedge sections engaging the inner shoes and also engaging the outer wedge sections.

[Claims 2 to 4 not printed in the Gazette.]

1,241,157. ELECTRIC SWITCH. ARTHUR SIMON, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Original application filed June 1, 1909, Serial No. 499,545. Divided and this application filed June 29, 1914. Serial No. 847,936. (Cl. 175—281.)



1. In a polyphase alternating current switch, in combination, a base, a bar of magnetic material mounted thereon, a plurality of magnetic members extending substantially perpendicularly from said bar, each of said members having a tubular part, a phase winding mounted on the tubular part of each of said members, a common armature for said windings supported adjacent thereto and having a plurality of extensions to respectively enter said tubular parts of said magnetic members and a switch contact operable by said armature.

2. In a polyphase alternating current switch, in combination, a base, a bar of magnetic material mounted thereon, a plurality of magnetic members extending substantially perpendicularly from said bar, each of said members having a split tubular part closed at one end by a similarly split plug, a phase winding mounted on the tubular part of each of said members, a common armature for said windings supported adjacent thereto and having a plurality of extensions to respectively enter said tubular parts of said magnetic members, and a switch contact operable by said armature.

3. In a polyphase alternating current switch, in combination, a base, a bar of magnetic material mounted thereon, a plurality of magnetic members extending substantially perpendicularly from said bar, each of said members having a tubular part, a phase winding comprising a flat conductive strip wound flatwise about the tubular part of each of said members and initially in contact therewith, a common armature for said windings supported adjacent thereto and having a plurality of extensions to respectively enter said tubular parts of said magnetic members, and a switch contact operable by said armature.

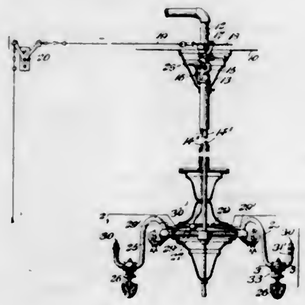
4. In a polyphase alternating current switch, in combination, a base, a bar of magnetic material mounted thereon, a plurality of magnetic members extending substantially perpendicularly from said bar, each of said members having a tubular part, a phase winding mounted on the tubular part of each of said members, a common armature for said windings pivoted for movement relative thereto, said armature including an elongated body having angularly extending parallel portions movable within the tubular parts of the respective magnetic members, and a contact carrying arm extending from the opposite side of said body.

1,241,158. CONNECTOR FOR ELECTRIC WIRES. ALEXANDER B. SIMPSON, Jersey City, N. J. Filed May 6, 1916. Serial No. 95,907. (Cl. 173—263.)



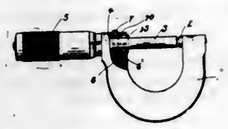
A connector consisting of a strip of pliable metal bent into four folds, forming loops at the bends, alined post holes for each bending post in the opposite folds, threaded binding posts through said alined holes, and having a head on one end and a nut screwed on the other end respectively bearing against the outer folds, the loops having been cut away from under the screw head and from under the nut, the nuts being screwed upon the binding screw to clamp and connect the wires without materially altering the shape of the loops.

1,241,159. GAS-CHANDELIER. ADOLPH SPIELMAN, Philadelphia, Pa. Filed July 6, 1917. Serial No. 178,954. (Cl. 67—16.)



Apparatus of the character stated embracing the combination of a conventional form of gas chandelier including the casing and canopy, supply pipe, burner brackets and burner-valves with a gas-control valve for the supply pipe and located at the top of the chandelier and concealed by the canopy thereof, a pilot-tube manifold located at the bottom of the chandelier within the casing, pilot tubing connecting the control valve parts with said manifold, pilot-tubing connecting the manifold with one side of a burner-valve and pilot-tubing connecting the other side of a burner-valve with a burner there being a passage-way through a burner-valve to establish communication between the tubing which tubing is concealed by a burner bracket.

1,241,160. MICROMETER. LEROY S. STARRETT, Athol, Mass. Filed Dec. 8, 1915. Serial No. 65,819. (Cl. 33—164.)



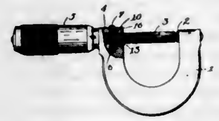
1. In combination with the hub of a micrometer, said hub having a bearing transversely slotted and longitudinally counterbored, a spindle lock comprising a longitudinally slotted spindle clamping element disposed in said counterbore about said spindle and having a shoulder at one end sealing the open end of said counterbore, and an externally disposed operating member in said slot of the bearing having a threaded connection with said clamping member effective to contract said member about said spindle in one direction of movement of the operating member without imparting longitudinal movement to said spindle clamping member.

2. In combination with the hub of a micrometer, said hub having a bearing for the micrometer spindle and said bearing longitudinally counter-bored, a spindle lock comprising a compressible tubular spindle clamp disposed in said counter-bore about said spindle and having a portion at one end sealing the open end of said bore, and externally operable means for contracting said clamping member about said bore without imparting longitudinal movement to said spindle clamping member.

5. In combination with the hub of a micrometer, said hub having a bearing for the micrometer spindle and said bearing transversely slotted and longitudinally counterbored, a spindle lock comprising a compressible spindle clamping element disposed in said counter-bore about said spindle and having a shoulder at one end sealing the open end of said counter-bore, and an externally disposed operating member in said slot of the bearing and encircling said spindle clamping member, and a suitably-shaped thread between said operating and clamping members effective to contract said clamping member about said spindle in one direction of movement of said operating member without imparting longitudinal movement to said spindle clamping member.

[Claims 3 and 4 not printed in the Gazette.]

1,241,161. MICROMETER. LEROY S. STARRETT, Athol, Mass. Filed June 13, 1916. Serial No. 103,574. (Cl. 33—164.)



1. In a micrometer, a hub having a spindle bearing and a transverse slot intersecting said bearing, a spindle in said bearing, a longitudinally split compressible bushing inclosing said spindle and having a continuous circumferential thread intersecting said split and having a head interlockingly engaged with the adjacent end of the hub to hold the bushing against longitudinal movement in said bearing, and an operating nut held against longitudinal movement in said transverse slot and having a threaded engagement with the thread of the bushing.

2. In a micrometer, a hub having a spindle bearing and a transverse slot intersecting said bearing, a spindle in said bearing, a compressible bushing inclosing said spindle, said bushing split longitudinally at a plurality of places and provided with a short series of continuous circumferential ratchet threads intersecting said splits, and having a head interlockingly engaged with the adjacent end of the hub to hold the bushing against longitudinal movement in said bearing, and an operating nut held against longitudinal movement in said transverse slot and having a ratchet threaded engagement with the ratchet threads of the bushing.

3. In a micrometer, a hub having a bearing, and a transverse slot intersecting said bearing, a spindle in said bearing, a compressible bushing in said bearing inclosing said spindle, said bushing symmetrically split in the direction of its length and weakened radially intermediate its ends, and provided at one end with a short series of continuous circumferential threads intersecting said splits and having its other end interlockingly engaged with the adjacent end of the hub to seal the bearing against ingress of foreign matter and to hold the bushing against longitudinal movement in said bearing, and an operating nut rotatable in said transverse slot and having a threaded engagement with said threads of the bushing.

1,241,162. [WITHDRAWN.]

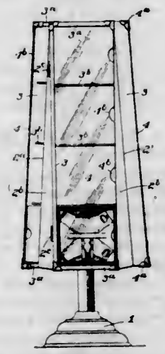
1,241,163. PROCESS FOR CANNING RICE AND MILK. WILLIAM H. STEVENS, Portland, and SCOTT C. DUNLAP, Amity, Oreg. Substitute for application Serial No. 126,807, filed Oct. 20, 1916. This application filed May 2, 1917. Serial No. 166,503. (Cl. 99—8.)

1. The process of canning milk and cereal which consists in first heating the milk from 160 to 170 degrees Fahrenheit for a period of approximately 15 minutes; then adding to each 13½ ounces of the milk so treated approximately 2 ounces of cereal; then placing the two articles commingled in a container and hermetically sealing the latter; then gradually heating the container from atmospheric temperature to approximately 236 degrees Fahrenheit, raising the temperature gradually to the higher degree in a period of approximately 8 minutes, and then holding the temperature of the container at approximately 236 degrees Fahrenheit for a further period of approximately twenty minutes, agitating the container constantly during the last mentioned heating process.

6. The process of canning milk and cereal which consists in adding cereal to a quantity of milk in desired proportions, then placing the two articles commingled in a container and hermetically sealing the latter, then gradually heating the container from atmospheric temperature to a degree sufficient to cook the cereal, and then holding the temperature at such degree for a time sufficient to thoroughly cook the cereal without rendering the same mushy.

[Claims 2 to 5 not printed in the Gazette.]

1,241,164. DISPLAY-CABINET. CHARLES BLAIR SWARTZ, Bradford, Pa. Filed May 24, 1916. Serial No. 99,638. (Cl. 211—20.)

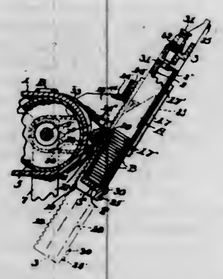


1. A display cabinet having a central storage space and a plurality of display compartments carried by the walls

thereof, one of said walls being hinged to provide access to the storage space, said compartments having glass covers and lateral openings to permit boxes carrying the articles to be displayed to be laterally inserted in said compartments.

2. A display cabinet comprising a suitable base and a cabinet rotatably mounted thereon and comprising a plurality of side walls forming a central storage space, one of said walls being hinged to afford access to the storage space and said side walls having a side and transverse projecting members forming compartments opened at the other side and glass panes removably held over said compartments, substantially as described.

1,241,165. STACKER FOR CONFECTIONS. WILLIAM J. SWARTZ and EDWARD H. WAUGH, Seattle, Wash., assignors to Automatic Candy Machine Company, a Corporation of Washington. Filed Mar. 13, 1914. Serial No. 824,441. (Cl. 107—45.)



1. In apparatus of the character set forth, article advancing means, a carrier, means for operating the carrier transversely of the direction of movement of the advancing means, a stack holding container detachably supported in the carrier and having a lower interlocking engagement therewith, and a latch for detachably engaging the upper portion of the holding means to secure the same in the carrier.

2. In apparatus of the character set forth, article advancing means, guideways disposed at the delivery end thereof and extending transversely of the direction of movement of the article by the advancing means, a reciprocatory carrier slidable in the guideways, said carrier having an open rear and front portion, a stack holding tray securable in the opening of said carrier and removable through one side of the carrier, said tray having an open side facing the advancing means, and means for detachably holding the tray in the carrier.

3. In apparatus of the character set forth, stack forming means supported to have a reciprocatory and a swinging movement, article advancing means for the stack forming means, and operating means for effecting a reciprocatory movement of the stack forming means, said stack forming means being held in engagement with the operating means by gravity and disengaged by said swinging movement.

4. In a device of the kind set forth, a carrier having stack forming compartments, a carrier holding frame having seats for receiving said carrier, means for releasably holding the carrier in its frame, a swingingly mounted guide frame having guiding engagement with the carrier frame conforming to the axes of the stack forming compartments, and a carrier frame feeding means releasable by the swinging of said guide frame.

5. In a device of the kind set forth, a carrier having stack forming compartments, a carrier frame adapted to disengageably receive said carrier, a hinged guide frame, said guide frame and carrier frame having complemental guides conforming in direction with that of the stack forming compartments, means for feeding said carrier frame comprising a rack and gear one on the carrier frame and the other in fixed position and engageable by gravity and disengageable by swinging the guide frame upward.

[Claim 6 not printed in the Gazette.]

1,241,166. NOISELESS FAN. CARL G. SWENSON, Indianapolis, Ind., assignor to The Oakes Company, Indianapolis, Ind., a Corporation of Indiana. Filed Jan. 25, 1917. Serial No. 144,336. (Cl. 170—159.)

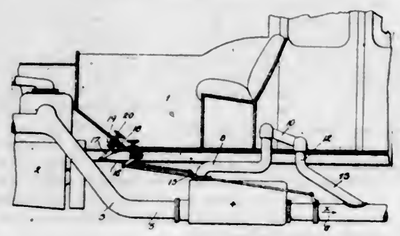


3. A sheet metal fan blade having a concave air-pushing face, said fan blade comprising a single piece of sheet metal which at the rear edge is of but a single thickness but is folded back on itself on the pushing face at the advancing edge.

5. A sheet metal fan blade having a concave air-pushing face, said fan blade comprising a single piece of sheet metal which at the rear edge is of but a single thickness but is folded back on itself on said concave face at the advancing edge to form a blunt rounded fold.

[Claims 1, 2, and 4 not printed in the Gazette.]

1,241,167. HEATING DEVICE. CARROLL M. TAYLOR, Coatesville, and WALTER R. SHEARER, Hanover, Pa. Filed June 8, 1916. Serial No. 102,374. (Cl. 237—21.)



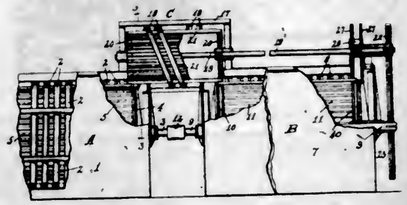
1. The combination with an internal combustion engine of an exhaust pipe, a tank providing a relatively large chamber, said tank being positioned between and in communication with two sections of the exhaust pipe, a closed radiator having an inlet and an outlet passage, a pipe communicating with the inlet passage of the radiator and with the chamber, a second pipe of smaller cross section than the outlet section of the exhaust pipe and communicating with the outlet passage of the radiator and with the outlet section of the exhaust pipe properly within its length, and a valve for regulating the passage of gas through the radiator and being operative independently of the exhaust pipe so as not to prevent passage of the gas therethrough, substantially as described.

2. The combination of a tank providing a tapering chamber and having an inlet passage entering the larger portion of said chamber, and an outlet passage at the narrow portion of said chamber, an exhaust pipe communicating with the inlet passage of said tank to supply heated exhaust gas thereto, and a second exhaust pipe communicating with the outlet passage of said tank to receive the gas as it passes through said chamber, a radiator having an inlet and an outlet passage, a pipe connecting the large portion of said chamber with the inlet passage of the radiator, and a second pipe connecting the outlet passage of the radiator with said second exhaust pipe, substantially as described.

4. In a heating system, the combination with an exhaust pipe, of means for collecting the lighter products of combustion passing through the pipe without interfering with the passage through the pipe of the heavier products of combustion, a radiator, connecting means of relatively small capacity between the radiator and the collector means, an outlet provided for the radiator, and means for controlling passage through said radiator.

[Claims 3, 5, and 6 not printed in the Gazette.]

1,241,168. COMBINED COOKER AND COOLER. ALBERT R. THOMPSON, San Jose, Cal., assignor to Anderson-Barngrover Mfg. Co., San Jose, Cal., a Corporation of California. Filed Nov. 25, 1916. Serial No. 133,471. (Cl. 126—272.)



1. A combined cooker and cooler consisting of adjacent independent, individually inclosed cooker and cooler members each comprising a box, a fixed helically directed rail within the box and a reel of rails parallel with the axis of the helically directed rail and forming therewith a helical can path; a shaft common to both rail-reels for rotating them in timely unison; an independent transfer member intermediate and exterior to the cooker and cooler members and comprising a fixed helically directed rail and a reel of rails parallel with the axis of the helically directed rail and forming therewith a helical can path; means operated by the rail-reel driving shaft of the cooker and cooler members for rotating the rail-reel of the transfer member in timely unison, the ends of the can path rails of the transfer member being in immediate relation to the adjacent ends of the rails of the can-paths of the cooker and cooler members respectively.

2. A combined cooker and cooler consisting of adjacent independent, individually inclosed cooker and cooler members each comprising a box, a fixed helically directed rail within the box and a reel of rails parallel with the axis of the helically directed rail and forming therewith a helical can path; a shaft common to both rail-reels for rotating them in timely unison; an independent transfer member intermediate and exterior to the cooker and cooler members and comprising a fixed helically directed rail and a reel of rails parallel with the axis of the helically directed rail and forming therewith a helical can path; a shaft driven from the common rail-reel driving shaft of the cooker and cooler members for rotating the rail-reel of the transfer member in timely unison; the ends of the can-path rails of the transfer member being in immediate relation to the adjacent ends of the rails of the can-paths of the cooker and cooler member respectively; means for positively delivering the cans from the cooler member in fixed relation; and a delivery device on the rail-reel driving shaft of the transfer member for the timely removal of the cans.

3. In a combined cooker and cooler and in combination with adjacent cooker and cooler members thereof each having an internal can-path composed of a fixed helically directed rail and a reel of rails parallel with the axis of the helically directed rail, and means for rotating said rail-reels of both members in timely unison and in the same direction, a transfer member intermediate the cooker and cooler members, and having a can path composed of a fixed helically directed rail oppositely pitched to the pitch of the helical rails in the cooker and cooler members, and a rotatable reel of rails, the path of rotation of which approaches closely to that of the rail-reels in the cooker and cooler members and is reversed in direction thereto, and the helical rail of said transfer member in part meeting the adjacent helical rails in the cooker and cooler members respectively and in part overlapping them with an extension curved about the same axis and lying at the ends of the reel-rails.

4. In a combined cooker and cooler as herein described and composed of a cooker member, a cooler member and a transfer member intermediate the cooker and cooler members, all of said members having a continuous can-path composed of the uninterruptedly related and coacting fixed helically directed rails and rotating rail-reels, the delivering means from the end of the cooler member comprising an ogee cam track at the end of the cooler rail-reel, and spaced pocket disks coacting with said cam-track; a fixed discharge finger between the disks; and means for operating said disks in unison with the rail-reels.

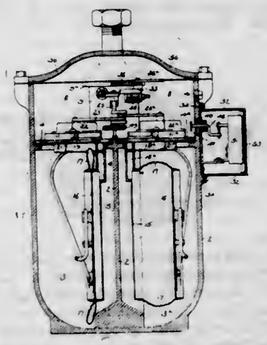
1,241,169. METALLIC DISH-RACK. ANDREW M. VANDERBEEK, Plainfield, N. J. Filed Sept. 30, 1915. Serial No. 53,340. (Cl. 65—53.)



1. In a device of the class described, an endless loop having a transverse bar and longitudinal bars all welded together, some of said longitudinal bars being provided with loops to form feet.

2. In a device of the class described, a rubber shoe having a perforated bottom and a longitudinally disposed opening adapted to pass over the foot of a rack.

1,241,170. FLUID-METER. FREDERICK C. VINEY, Philadelphia, Pa., assignor to John H. Biye, Philadelphia, Pa. Filed Aug. 16, 1916. Serial No. 115,166. (Cl. 73—1.)



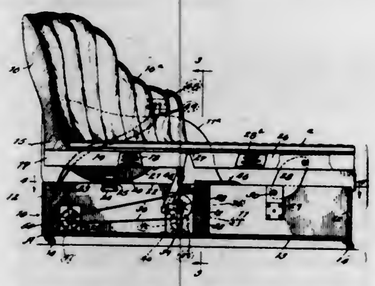
1. In a duplex fluid meter, the combination of a casing having a central partition with a chamber on each side thereof, independent cap plates for closing said chambers, and a bellows structure carried by each cap plate.

6. In a fluid meter, the combination of a crank shaft having a duplex arm with one part adjustable in respect to the other, an adjusting device having as elements a worm, a threaded worm shaft, a bearing therefor, a lock nut on said shaft, said nut engaging the bearing at one end of said shaft, a meter casing having therein an opening through which said nut is accessible from the outside of the casing, and a plug for normally closing said opening.

8. In a fluid meter, the combination of a main casing having a feed or discharge casing projecting therefrom, and having a flange in line with the top thereof, with a cover recessed for the reception of said projecting casing, said cover being seated on the main casing and on said flange.

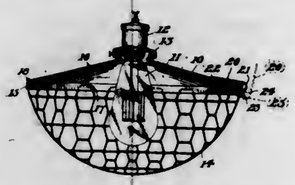
[Claims 2 to 5, 7, and 9 not printed in the Gazette.]

1,241,171. ROCKING-CHAIR. JOHN B. VITULLO, Chicago, Ill. Filed Oct. 11, 1916. Serial No. 124,925. (Cl. 155—20.)



In a rocking chair the combination with an elongated box like structure, of a seat rockingly mounted on the rear portion of said structure, a leg rest extension having a hinge connection at its rear end with the said seat and its front end free to move up and down, a supporting link pivotally secured to each side of said structure at its lower end approximately midway between the seat and the front end of the structure and pivotally secured at its upper end to said extension beyond the vertical plane of its connection to the structure and in a vertical plane nearer the front end of said structure, so that said links, are inclined toward the front end of the structure when the seat is in normal position, whereby when the seat is rocked the supporting links swing upward and rearward.

1,241,172. ELECTRIC-LAMP GUARD. CYRIL VONDRASHEK, La Crosse, Wis. Filed Feb. 19, 1917. Serial No. 149,503. (Cl. 240—102.)

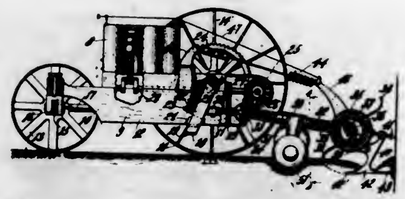


1. A lamp guard comprising a wire mesh basket substantially semi-circular in cross-section, a rim U-shaped in cross-section inclosingly overlying the edge of the basket, a bail positioned in cordal relations with respect to the rim having outwardly projecting substantially U-shaped end portions and an arcuate portion therebetween, the terminal portions of the bail extending through the sides of the rim and the adjacent portions of the basket positioned therebetween, securing means between the ends of the bail and the inner face of the rim, and a resilient retaining latch hinged to the rim at a point thereon diametrically opposite from the center of the bail.

3. A lamp guard comprising a foraminous basket, a circular rim secured in binding engagement with the edge thereof, an arcuate bail secured between opposite points of the rim in the plane of a cord of said rim and a resilient retaining latch pivoted to the rim at a point diametrically opposite the line of center of said bail.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,241,173. TILLING-MACHINE. KONRAD VICTOR VON MEYENBURG, Basel, Switzerland, assignor to Motoculture Ltd., Basel, Switzerland. Filed Feb. 4, 1914. Serial No. 816,515. (Cl. 97—71.)



1. A tilling machine, comprising a motor driven vehicle upon which is mounted a transmission mechanism, axles forming part of the vehicle and upon which the supporting and traction wheels are mounted, said traction wheels having a connection with the transmission mechanism and being driven thereby, a tiltable shaft connected to the vehicle and to the transmission mechanism, and a transversely extending rotary tilling member connected medially to and driven by the tiltable shaft.

4. A tilling machine, comprising a motor driven vehicle, a transmission mechanism forming part thereof, means for driving the transmission mechanism, axles connected to the vehicle and upon which the traction and supporting wheels are mounted, a driving connection between the transmission mechanism and the traction wheels, a tiltable arm pivotally connected to the vehicle and extending medially rearwardly therefrom, a transversely extending rotary tilling member journaled in the rear end portion of the tiltable arm, a driving connection between the transmission mechanism and the tilling member, a transversely extending tiltable member connected to the tiltable arm and having wheels on its outer ends for guiding the tilling member in a line approximately parallel with an adjacent furrow, and a means connected to the tiltable arm for controlling the depth of the furrow cut by the tilling member.

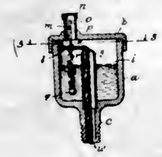
6. A tilling machine, comprising a motor driven wheel, a transmission mechanism forming part thereof, means for driving the transmission mechanism, axles connected to the vehicle and upon which the traction and supporting wheels are mounted, a driving connection between the transmission mechanism and the traction wheels, a tiltable arm pivotally connected to the vehicle and extending medially rearwardly therefrom, a transversely extending rotary tilling member journaled in the rear end portion of the tiltable arm, a driving connection between the transmission mechanism and the tilling member, a transversely extending tiltable member connected to the tiltable arm and having means on its outer ends for guiding the tilling member in a line approximately parallel with an adjacent furrow, and a shoe member pivotally connected to the rear end portion of the tiltable arm for controlling the depth of the furrow cut by the tilling machine and for breaking up a portion of the soil unworked by the tilling member.

8. A tilling machine, comprising a motor driven vehicle, an arm having a universal joint connection with the rear portion of the vehicle, a transversely extending rotary tilling member medially journaled in the rear end portion of the arm, a driving connection between the transmission mechanism of the motor of the vehicle and the tilling member, and means for regulating the depth of the cut of the tilling member.

10. A tilling machine, comprising a motor driven vehicle on which is contained the transmission mechanism and to which the supporting and traction wheels are connected, a shaft having a universal joint connection with the transmission mechanism and depending rearwardly therefrom, a transversely extending rotary tilling member having a medial driving connection with the free end of said shaft, and an arm flexibly connected to the vehicle structure and connected to the tilling member and inclosing the shaft and the driving connection thereof.

[Claims 2, 3, 5, 7, and 9 not printed in the Gazette.]

1,241,174. VIBRATORY CONTACT-LUBRICATOR. WILLIAM VON WOLFFRADT, Cleveland, Ohio; Wm. E. Patterson executor of said William von Wolffradt, deceased. Filed Mar. 3, 1917. Serial No. 152,173. (Cl. 184—64.)



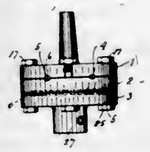
1. A lubricator having a feeder-wick, and an oscillatory wick adapted to dip into oil and to make contact when vibrated with said feeder-wick.

3. In a lubricator, a stationary feeder-wick terminating in a loop, and an oscillatory wick extended through said loop and supplied with lubricant.

6. In a lubricator, an oil receptacle, an oscillatory wick dipping into said receptacle having means for communicating to it vibrations of the lubricator structure, a wad of said wick high up in said receptacle, and a feeder-wick fixed in juxtaposition to said wad.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,241,175. FLOATING TOOL-CHUCK. HARRY J. WATTS, Turtle Creek, Pa. Filed Nov. 30, 1915. Serial No. 64,211. (Cl. 77—61.)



1. A floating tool chuck comprising a slotted disk having a rearwardly extending shank, a shiftable slotted disk having a forwardly extending socket for connecting a tool therewith, a shiftable element interposed between and carrying means extending through the slots of said disks for limiting the shifting movement of said element relatively to the disk having the shank and the shifting movement of the disk having the socket relatively to said element, said means connecting the disks and element together and further providing for the bodily rotating of said disk and element.

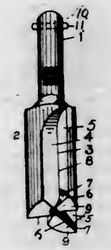
2. A floating tool chuck comprising a disk having its rear face provided with means for connection with a prime mover, a plurality of opposed members capable of shifting parallel with each other and with the inner of said opposed members shiftable across the forward face of said disk, means carried by said inner member for permanently connecting said members and disks together whereby said members and disks will bodily rotate when said disk is rotated, said means limiting the shifting of said members parallel to each other and to said disk, and the outer of said members having its forward face provided with means for connecting a tool therewith.

3. A floating tool chuck comprising a disk, a plurality of opposed members capable of shifting parallel with respect to each other and each capable of shifting beyond the edge of the other and one capable of shifting across the forward face of and beyond the edge of said disk, means carried by the inner one of said opposed members for connecting said members and disk together, said means limiting the shifting of said members with respect to each other and with respect to said disk, and the outer of said members having its forward face provided with means for connecting a tool therewith.

4. A floating tool chuck comprising a flat disk, a plurality of opposed flat members capable of shifting parallel to each other and to said disk, means carried by the inner one of said opposed members and extending through the outer member and disk for connecting said members and disk together for bodily rotation and to limit the shifting movement of said members relatively to each other and to the disk.

5. A floating tool chuck comprising a flat disk, a plurality of opposed flat members capable of shifting parallel to each other and to said disk, means carried by the inner one of said opposed members and extending through the outer member and disk for connecting said members and disk together for bodily rotation and to limit the shifting movement of said members relatively to each other and to the disk, said disk having its forward face and said outer member having its rear face transversely grooved and said inner member having both of its faces provided with transverse grooves opposing the grooves of the disk and outer member, and bearing balls mounted in said opposing grooves.

1,241,176. DRILL OR BORING MEMBER. HARRY J. WATTS, Turtle Creek, Pa. Filed Nov. 1, 1916. Serial No. 128,880. (Cl. 77—61.)



1. A tool for the purpose set forth comprising a body portion having lands with the periphery thereof disposed eccentrically with respect to the axis of the body portion, said body portion further having one end provided with cutting edges disposed eccentrically with respect to the axis thereof, and said body portion further having lengthwise grooves between the lands, said grooves leading from the cutting edges and each having one wall thereof in proximity to a cutting edge provided with a concavity disposed at an angle with respect to the direction of length of the groove.

2. A tool for the purpose set forth comprising a body portion having lands with the periphery thereof disposed eccentrically with respect to the axis of the body portion, said body portion further having one end provided with cutting edges disposed eccentrically with respect to the axis thereof, and said body portion further having lengthwise grooves between the lands, said grooves leading from the cutting edges and each having one wall thereof in proximity to a cutting edge provided with a concavity disposed at an angle with respect to the direction of length of the groove, a shank integral with said body portion, and each of said grooves having the rear end curved outwardly to discharge the chips or cuttings away from the shank.

3. A tool for the purpose set forth comprising a body portion having lands with the periphery thereof disposed eccentrically with respect to the axis of the body portion, said body portion further having one end provided with cutting edges disposed eccentrically with respect to the axis thereof, and said body portion further having lengthwise grooves between the lands, said grooves extending from the cutting edges.

1,241,177. FLOATING TOOL-CHUCK. HARRY J. WATTS, Turtle Creek, Pa. Filed Nov. 22, 1916. Serial No. 132,775. (Cl. 29—108.)



1. A floating tool chuck comprising a carrier having means for connection with a prime mover, a plurality of inter engaging spring controlled elements normally alining with each other and with said carrier and slidably connected together and with the carrier, said elements capable of being shifted in parallel planes with respect to the carrier and with respect to each other, means for locking said elements when shifted from normal position, and one of said elements having means for attaching a tool therewith.

2. A floating tool chuck comprising a carrier having means for connection with a prime mover, a plurality of inter engaging elements normally alining with each other and with said carrier and slidably connected together and with the carrier, said elements capable of being shifted in parallel planes with respect to the carrier and with respect to each other, means for locking said elements when shifted from normal position, and one of said elements having means for attaching a tool therewith, and resilient members mounted in the carrier and in one of said elements for restoring said element to normal position when released.

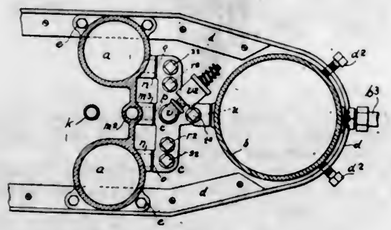
3. A floating tool chuck comprising a carrier having means for connection with a prime mover, a plurality of inter engaging elements normally alining with each other and with said carrier and slidably connected together and with the carrier, said elements capable of being shifted in parallel planes with respect to the carrier and with respect to each other, means for locking said elements when shifted from normal position, and one of said elements having means for attaching a tool therewith, and resilient members mounted in the carrier and in one of said elements for restoring said element to normal position when released, and means supported by the carrier and one of said elements for regulating the tension of said members.

4. A floating tool chuck comprising a carrier having means for connection with a prime mover, a plurality of inter engaging elements normally alining with each other and with said carrier and slidably connected together and with the carrier, said elements capable of being shifted in parallel planes with respect to the carrier and with respect to each other, means for locking said elements when shifted from normal position, and one of said elements having means for attaching a tool therewith, and resilient members mounted in the carrier and in one of said elements for restoring said element to normal position when released, and abutments carried by said elements for compressing the resilient members when said elements are shifted in either direction whereby when the elements are released they will return to normal position.

5. A floating tool chuck comprising a carrier having means for connection with a prime mover, a plurality of inter engaging elements normally alining with each other and with said carrier and slidably connected together and with the carrier, said elements capable of being shifted in parallel planes with respect to the carrier and with respect to each other, means for locking said elements when shifted from normal position, and one of said elements having means for attaching a tool therewith, and resilient members mounted in the carrier and in one of said elements for restoring said element to normal position when released, and means supported by the carrier and one of said elements for regulating the tension of said members, and abutments carried by said elements for compressing the resilient members when said elements are shifted in either direction whereby when the elements are released they will return to normal position.

[Claims 6 to 12 not printed in the Gazette.]

1,241,178. SPRAYING-PUMP. FRED S. WELCH, Pontiac, Mich., assignor to Pontiac Tractor Company, Pontiac, Mich., a Corporation of Michigan. Filed Jan. 8, 1916. Serial No. 71,093. (Cl. 103—81.)



1. In an apparatus of the kind described, an angle iron bent into parallel portions joined by a loop, one flange of the angle iron being horizontal, a pump secured to said parallel portion upon the horizontal flange, and a pressure tank secured in said loop.

2. In an apparatus of the kind described, an angle iron bent into parallel portions joined by a loop, a pump secured to said parallel portions, and a pressure tank secured in said loop, a manifold located between said pump and pressure tank, and means engaging said loop for forcing said tank toward said pump for the purpose described.

3. The combination of a pump, having an aperture with engaging walls, a pressure tank having an aperture with engaging walls, a valve manifold having an aperture, the walls surrounding said aperture engaging walls surrounding said aperture in the pump, and an aperture having a wall engaging said aperture in the pressure tank, and means for forcing said pump and tank toward each other to form tight joints, at said engaging walls.

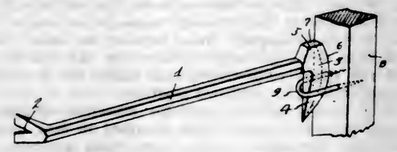
4. In an apparatus of the kind described, a manifold having a laterally extending intake passage, a second and third laterally extending passage, a wall above said intake passage, a valve in said wall opening to the second passage, a wall above said second passage in part dividing the same from the outer air and in part dividing the same from the third passage, a valve opening from said second passage to the third passage, the wall above said second passage being provided with an aperture adapted to permit the removal of the valve located between said passage and the intake passage, and a removable means for closing said aperture, a pump having a cylinder and an aperture opening from said cylinder communicating with said second passage, and a discharge orifice leading from said third passage.

5. In an apparatus of the kind described, an angle iron bent in parallel portions joined by a loop one flange of the angle iron being horizontal and cut away at the loop portion, a pump secured to said parallel portions upon the horizontal flange, and a pressure tank secured in said loop.

[Claims 6 to 8 not printed in the Gazette.]

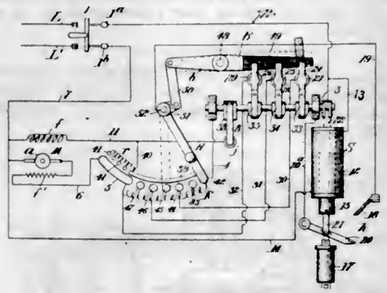
1,241,179. STAPLE-EXTRACTOR. CLAYTON O. WHITE, Deansboro, N. Y. Filed Mar. 29, 1917. Serial No. 158,271. (Cl. 254—28.)

In a tool as set forth, a handle member having a staple extractor at one end, comprising a head, said head at one end merging into a tapered part, the other end of the head having a hammer poll to receive successive hammer blows to drive the tapered part under the arch of the staple, said head having a curved outer surface or wall extending from the end of the poll to the extremity of the tapered part, said curved surface or wall provided



with a groove extending from the poll almost to the extremity of the tapered part, said groove adapted to arch the fence wire and provided with transverse substantially V-shaped ribs to bite into the fence wire to prevent slipping of the head when rocked to extract the staple.

1,241,180. CONTROLLER FOR ELECTRIC MOTORS. GEORGE H. WHITTINGHAM, Pikesville, Md., assignor to Monitor Controller Company, Baltimore, Md., a Corporation of Maryland. Filed Dec. 3, 1914. Serial No. 875,318. (Cl. 172—179.)



1. In an electric motor controlling apparatus, the combination with a resistance for the armature circuit and a device adjustable at will for varying the resistance in said circuit, of an automatic starter for cutting resistance out of said circuit, and a barrier controlled by said device adapted to render the starter more or less inoperative, according to the position of said device.

2. In an electric motor controlling apparatus, a resistance for the armature circuit, an automatic starter for cutting resistance out of said circuit comprising movable contact members and means for moving said members into and out of engagement with the resistance contacts, a manually operable device for regulating the running resistance in the armature circuit, and a barrier adjustable by said device for obstructing the closing movements of more or less of said members according to the position of said device.

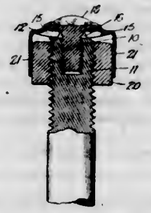
3. In an electric motor controlling apparatus, a resistance for the armature circuit, an automatic starter for cutting resistance out of said circuit, said starter comprising a plurality of independently movable contact fingers, each adapted to engage a separate contact of the resistance, and electromagnetically operated means for moving said fingers to engage their respective contacts, a manually controlled device engaging contacts of the resistance for regulating the running speed of the motor, and a barrier movable by said device and adapted to obstruct the closing movements of more or less of said fingers in the slower speed positions of said device and to permit all of said fingers to close in the normal speed position of the device.

4. In a controlling lever for electric motors, a resistance for the armature circuit, a starter for cutting resistance out of the circuit comprising contact members adapted to engage separate contacts of the resistance, an electromagnetic device for moving said members to engage the contacts and yielding connections between said members and device, permitting the device to move after the members have engaged the contacts, a switch adapted to be closed by said device after the members have engaged their contacts, and a manually adjustable member for adjusting the running resistance adapted to be connected to the supply circuit by said switch.

5. In a controlling device for electric motors, a resistance for the armature circuit, an automatic starter for cutting resistance out of said circuit comprising an electromagnetic device having a fixed range of movement, and one or more yieldingly connected contact members movable thereby, a barrier for stopping the movement of the contact member or members while permitting said device to complete its movement, a switch adapted to be closed by said device at or near the completion of its movement, and a manually controlled member for varying the running resistance of the motor adapted to be connected to the supply circuit by said switch.

[Claims 6 to 10 not printed in the Gazette.]

1,241,181. NUT-LOCK. JOHN FREDERICK WILHELM, Buffalo, N. Y. Filed May 5, 1916, Serial No. 95,561. Renewed July 5, 1917. Serial No. 178,786. (Cl. 151—29.)

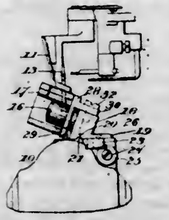


1. In a nut lock, the combination with a bolt having indents and a tapped hole at its end, of a screw for the hole, a nut, and means connected with the indents and preventing the rotation of the nut and the screw.

5. In a nut lock, the combination with a bolt tapped at its end and having notches thereat, of a screw for the end of the bolt, a nut, a washer adapted to be held in place by the screw, fingers on the washer to prevent the rotation of the screw, prongs on the under side of the washer to fit the notches, and flanges adapted to be bent below the notches to fit the sides of the nut.

[Claims 2 to 4 not printed in the Gazette.]

1,241,182. LOOP-SEWING ATTACHMENT FOR SEWING-MACHINES. WILLIAM WILSON, Boston, Mass., assignor to Campbell Bosworth Machinery Company, Portland, Me., a Corporation of Maine. Filed Apr. 16, 1915. Serial No. 21,775. (Cl. 112—29.)



1. A loop-sewing attachment for sewing machines having, in combination, a shuttle-race, and a loop-holder mounted thereon comprising a work table tipped obliquely with relation to the path of the needle so that the part of

the loop resting on the work table may be pierced by the needle while the under part of the loop is cleared thereby, means secured to the shuttle-race for supporting the work table in its oblique position, and means surrounding the work table and against which one end of the loop is adapted to abut, for preventing the under part of the loop from interfering with the needle and for determining the width of the margin formed between the seam and the edge of the loop.

2. A loop-sewing atachment for sewing machines having, in combination, a shuttle-race and a loop-holder mounted thereon, comprising a base, an upright, a work table for presenting loops to the needle, and an edge gage movable longitudinally of the work table for regulating the width of the margin formed between the seam and the edge of the loop.

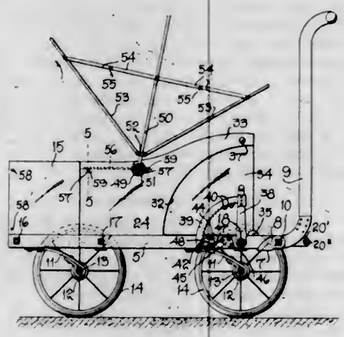
3. A loop-sewing atachment for sewing machines having, in combination, a shuttle-race, and a loop-holder mounted thereon comprising a work table tipped obliquely with relation to the path of the needle so that the part of the loop resting on the work table may be pierced by the needle while the under part of the loop is cleared thereby, an upright to which the work table is secured, and a base adapted to be fastened to the shuttle-race, for supporting the upright, said upright and said base having an angular relation equal to the angle between the work table and the path of the needle.

4. A loop-sewing attachment for sewing machines having, in combination, a shuttle-race and a loop-holder mounted on the shuttle-race, having provision for longitudinal adjustment thereon.

5. A loop-sewing attachment for sewing machines having, in combination, a work table, a support therefor for presenting the loop at the proper angle to the needle and an edge gage having provision for movement longitudinally of the work table for regulating the width of the margin formed between the seam and the edge of the loop.

[Claim 6 not printed in the Gazette.]

1,241,183. ADJUSTABLE GO-CART. GOO KOON WO, Honolulu, Hawaii. Filed Feb. 26, 1917. Serial No. 151,027. (Cl. 21—12.)

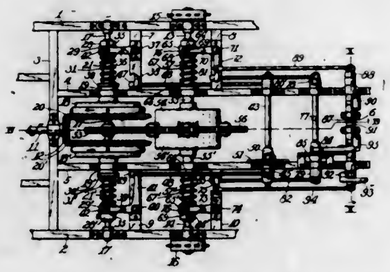


1. In a go-cart, a wheel supported frame, a body section fixed in the forward end of said frame, a rear vertically movable body section, foldable links mounted in the frame and connected to the latter body section, means for operating said link connections to extend the same and elevate the latter body section above the fixed body section or fold said links and position the movable body section in allnement with the fixed section, and an end gate provided with means for interchangeably mounting the same in one end of the fixed body section or in one end of the movable body section.

2. A vehicle of the character described including a wheel supported frame, a vertically adjustable body, a rectangular frame bar, pairs of links pivotally connected to the opposite ends of the frame bar and movable in a vertical plane with respect to said bar, the corresponding links in each pair being pivotally connected to the vehicle body and the remaining links pivotally mounted in said frame, means for positively folding the pairs of links or spreading the same apart to raise or lower the vehicle body, additional pairs of links slidably connected at one of their ends to said rectangular frame member, the other ends of said links being pivotally connected to the vehicle body and the frame respectively, and means for locking the vehicle body in its adjusted position.

3. A vehicle of the character described including a frame, spaced transverse rods mounted in said frame, a vertically adjustable vehicle body, links pivotally connected at one of their ends to said body, links pivotally mounted upon one of said shafts, a rectangular frame to which the other ends of said links are pivotally connected, additional links fixed upon the other of said shafts, corresponding links pivotally connected to the other end of said body, said latter links and the additional links being pivoted to the other end of said rectangular frame, additional pairs of links slidably connected at one of their ends to said rectangular frame, the other ends of the respective last named links being pivotally connected to the vehicle body and to the last named shaft respectively, an operating lever fixed to said shaft, a rack carried by said lever, and a pivoted dog to cooperate with the rack and hold the lever against movement, whereby the vehicle body is sustained in its adjusted position.

1,241,184. REVERSING AND STEERING DRIVING-GEARING. CHARLES A. WOOD, Carr Creek township, Mitchell county, Kans. Filed Apr. 6, 1917. Serial No. 160,220. (Cl. 74—59.)



1. A reversing controllable driving gearing including a rotary driver pinion, a plurality of driven shafts, a reversing shaft, two gears on the reversing shaft in mesh with the pinion, clutch systems normally connecting the gears to the reversing shaft, means for controlling the clutch systems to release either one of the gears from the reversing shaft, and gearing connecting the driven shafts with the reversing shaft.

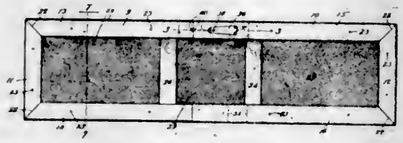
4. In a reversing controllable driving gearing, the combination of a rotatable shaft, a sleeve splined to the shaft and having a clutch disk fixed thereto, a toothed gear wheel rotatable on the sleeve and adapted to constitute a clutch member to drive said disk, a driving gear in mesh with the toothed gear wheel, a spring-seat on the sleeve opposite to the toothed gear wheel, a device for preventing the spring-seat from moving on the sleeve in the direction from the toothed gear wheel, a spring on the sleeve and supported at one end, the opposite end of the spring being in contact with the spring-seat, and a supported shifting-fork in connection with the spring-seat.

6. In a reversible controllable driving gearing, the combination of a rotatable driving shaft, a beveled pinion secured to the driving shaft, two driven shafts rotatably supported at right angles to the axis of rotation of the driving shaft, a reversing shaft rotatably supported between the pinion and the driven shafts and parallel to the shafts, two dished bevel gear wheels arranged to rotate on the reversing shaft in mesh with the bevel pinion, clutch means in each of the bevel gear wheels to cooperate therewith and with the reversing shaft, a spur-tooth wheel secured to the reversing shaft between the bevel gear wheels, a casing arranged to rotate on the driven shafts and having a gear wheel fixed thereon that meshes with the spur-tooth wheel, and two clutch systems inclosed in the casing to coöperate with the driven shafts respectively and also with the inside of the casing.

8. In a controllable driving gearing, the combination of two rotatable shafts, a hollow gear wheel arranged to rotate on said shafts, means for rotating said gear wheel, two clutch systems inclosed in said wheel, one of said systems being provided with an actuating spring controlling the system to connect one of said shafts to the inside of said gear wheel, the remaining one of said systems being provided with an actuating spring controlling the system to connect the remaining one of said shafts to the inside of said gear wheel, two spring-seats engaging the springs respectively, two shifting-forks pivotally supported and operatively connected with the spring-seats respectively and having each an operating-arm, a supported rock-shaft having two arms extending from opposite sides respectively of the axis of rotation thereof, a pull-rod connected to one of the arms and having a slip-connection with the operating-arm of one of the shifting-forks, a pull-rod connected to the remaining one of the arms of the rock-shaft and having a slip-connection with the operating-arm of the remaining one of the shifting forks, a supported quadrant, a lever fixed to the rock-shaft to coöperate with the quadrant, two independently-movable foot-levers, connections between one of the foot-levers and one of said operating-arms, and connections between the remaining one of the foot levers and the remaining one of said operating-arms.

[Claims 2, 3, 5, and 7 not printed in the Gazette.]

1,241,185. WINDOW-VENTILATOR. JOHN P. ADAMS and GEORGE I. LEONARD, Chicago, Ill. Filed Feb. 2, 1917. Serial No. 146,101. (Cl. 156—38.)

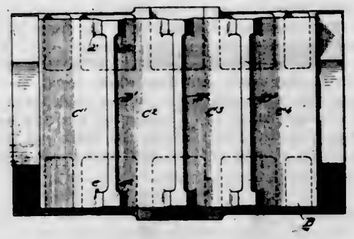


8. A ventilator comprising a frame formed of telescoping sections and containing grooves in its outer edges, the bases of said grooves in the top and bottom of said frame alining respectively, screening material extending over a face of said frame, and cleats in said grooves securing said material at its edges to said frame, the outer sides of said cleats at the top and bottom of said frame alining with each other, respectively.

12. A window ventilator formed of a frame work provided in two sections telescoping with each other at their ends, said sections being formed of hollow sheet metal members and a filler of wood partially filling the said members, said sections containing a groove extending along the outer edge of the ventilator, screening material extending over the entire area of one side of the ventilator, clamping means engaging said screening material and extending into said groove for holding the screening material in stretched condition over the frame work, and a ratchet spring catch coöperating with both of said sections and adapted to permit said sections to be spread apart to fit the ventilator to the window opening and automatically clamp said sections in extended position.

[Claims 1 to 7, 9 to 11, and 13 not printed in the Gazette.]

1,241,186. COMBINED JOURNAL-BEARING AND ROLLER-SEAT. FRANKLIN L. BARBER, Chicago, Ill., assignor to Standard Car Truck Company, a Corporation of New Jersey. Filed Apr. 3, 1916. Serial No. 88,555. (Cl. 64—20.)



1. In a lateral motion car truck, a combined axle journal bearing and roller seat formed in a single integral casting and comprising a curved undersurface conforming to the curvature of the axle journal, and roller seats formed in its upper surface.

2. In a lateral motion car truck, a combined axle journal bearing and roller seat formed in a single integral casting and comprising a curved undersurface conforming to the curvature of the axle journal, spaced recesses in the sides thereof intermediate its upper and lower surfaces, and roller seats formed in its upper surface.

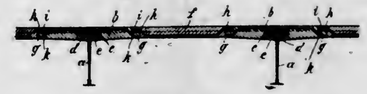
3. A combined journal bearing and roller seat for lateral motion car trucks formed in a single integral bronze casting and comprising a curved undersurface corresponding to the curvature of the axle journal, and roller seats formed in its upper surface.

4. A combined axle journal bearing and roller seat for lateral motion car trucks formed in a single integral bronze casting comprising a curved undersurface conforming to the curvature of the axle journal, roller seats formed in its upper surface, and spaced recesses in its sides intermediate its upper and lower surfaces.

5. A bearing member composed entirely of the usual bearing metal and housing on its upper surface a plurality of roller seats, the metal in the body of the bearing being cored out at intervals, a wall between the spaces thus formed falling at the point of repose of rollers in said seats, substantially as described.

[Claim 6 not printed in the Gazette.]

1,241,187. MIXED REINFORCED CONCRETE CONSTRUCTION WITHOUT COFFERING. JOSEPH BERLIAT, Grenoble, France. Filed Feb. 19, 1917. Serial No. 149,605. (Cl. 72—68.)

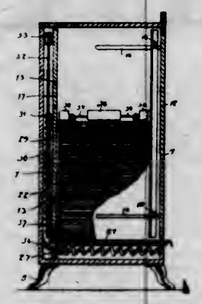


A reinforced concrete construction of the character described, comprising in combination, metal girders, rectangular elements of reinforced concrete constituting the upper sole, prepared beforehand, assembled *in situ*, arranged above said girders and having grooved edges, reinforced concrete plates connecting said elements and resting on the grooved edges of the same, said grooved edges being filled with concrete, and bars for reinforcing said concrete, substantially as described.

1,241,188. TICKET-CASE. ALFRED BLAKEMORE, Kimsquit, British Columbia, Canada. Filed July 5, 1916. Serial No. 107,686. (Cl. 211—8.)

A ticket case consisting of a casing mounted on suitable legs having a lockable door hinged on its front, the in-

side of said casing being provided with an inside second wall on each side parallel to outer side walls and an inside second back parallel to outer back, slots, parallel to top of back are cut in said inner back through which pass bolts holding an upright partition in position, slots, parallel to the top of sides are cut in one of the inner said sides through which pass bolts holding an upright partition, a draw-member, consisting of a flat frame having a counter-sunk upper side, a tray mounted and a set of screws in said counter-sunk portion, the outer end of said frame extending under said door when closed, and being provided with a handle, inner end of said frame being provided with a flange on its underside, a spring fastened at one end to said flange and at the other end to inner side of front of said casing, said draw-member further



consisting of bendable portion made of a pliable top having slats fastened to the underside of same, said last mentioned portion being attached to the inner end of said frame, a slot cut in the lower end of said inner back adapted to allow said bendable portion of said draw-member to run up between said back and said inside back, a cord attached to end of said bendable portion and extending over suitably mounted pulleys to a weight between one of said side walls and one of said inside walls, a set of weights adapted to lie on tickets inside said casing, said weights being joined together by means of a thumb-screw passing through connecting members attached to said weights, said connecting members being slotted and curved, a coin-lock control between one of said walls and one of inside side walls.

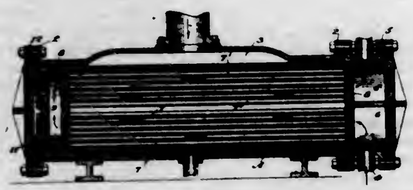
1,241,189. TOOL-HANDLE. LESLIE VASTINE BOONE, Bridgeport, Cal. Filed May 28, 1917. Serial No. 171,521. (Cl. 55—116.)



1. The combination with a tool body, of a tubular shank fixed thereto, a sectional handle, the handle sections being provided with means for detachable interlocking connection to each other, one of said handle sections having a reduced extension provided with threads on diametrically opposite sides thereof and flattened faces extending between said threads, said tubular shank being provided with internal interrupted threads for engagement by the threads on the extension of said handle section.

[Claim 2 not printed in the Gazette.]

1,241,190. FEED-WATER HEATER. CARL F. BRAUN, San Francisco, Cal. Filed June 21, 1915. Serial No. 35,297. (Cl. 257—236.)



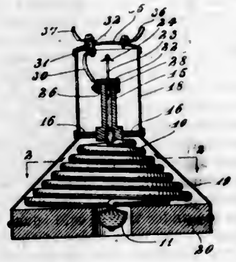
1. A water heater including a horizontally disposed shell having its ends provided with outwardly extending flanges, said shell having its top portion formed with a longitudinally extending outwardly bulging steam dome, a feed head having an end wall and a fixed partition, means to removably bolt said end wall to one of the shell flanges, a floating head, a plurality of nests of tubes connected to the end wall of the feed head and to the inner wall of the floating head, a plate removably bolted to the feed head and abutting the outer end of the fixed partition thereof, the outer wall of the floating head having openings in register with the tubes, screw plugs removably secured in said openings, and a plate removably bolted to the other flange of the shell.

2. A water heater including a shell, a two-compartment feed head secured to one end of the shell, a floating head in the shell, a plurality of nests of tubes connected to the respective compartments of the feed head and to the floating head, said floating head having a series of apertures in register with the tubes, screw plugs closing said apertures, a plate secured to the feed head, and a plate secured to the other end of the shell, said securing means for the feed head being removable at will to allow the tubes, floating head and the feed head with the plate of the latter to be removed as a unit from the shell, and said plate of the feed head being removable at will from the latter to allow access to the tubes without removing the feed head from the shell, and said plate of the shell being removable at will to allow access to the screw plugs while the feed head remains in normal position.

3. A feed water heater including a shell, a feed head detachably secured to one end of the shell and formed with an end wall and a fixed partition, a floating head, a plurality of nests of tubes connected to the end wall of the feed head and to the inner wall of the floating head, a plate removably bolted to the feed head and abutting the outer end of the fixed partition thereof, the outer wall of the floating head having openings in register with the tubes, screw plugs removably secured in said openings, and a plate removably bolted to the other end of the shell.

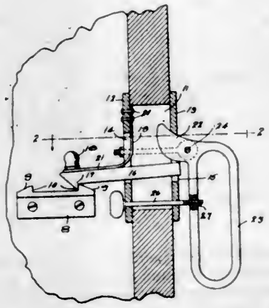
1,241,191. AUTOMATIC CONTROL FOR VALVES. JOSEF BAUCKNER and FRANZ HAMBERGER, Brooklyn, N. Y. Filed Mar. 9, 1916. Serial No. 83,067. (Cl. 236—4.)

1. In a valve control system, the combination with a normally open gate valve, an operating lever engaged therewith, a magnet, an armature operated by said magnet having a catch engageable with said lever, a source of electric energy connected with said magnet, a make and break switch in the electric connections, means combined with said switch operable by the action of said lever when released, whereby the circuit is broken, releasing the armature, a thermostatic coil containing an expansible medium, a plunger operated thereby, means combined with said plunger for closing the electric circuit whereby said magnet is energized, and a manually operated resetting means for said lever.



2. In a valve control system, a helically coiled tube and an expansible medium contained in said tube, of a sleeve engaged with the upper convolution of said coil, means for holding said sleeve rigidly, a piston operative in said sleeve, an insulated cap carried by said sleeve, a source of electric energy, one wire from which is connected with said cap, and the other wire with said sleeve, a contacting element carried by said piston, whereby as it descends, the electric circuit is closed, a gate valve, and means for opening said valve, said means being operated through said electric current.

1,241,192. DOOR-FASTENER. LEO BRUDER, Avon, Ohio. Filed Apr. 14, 1917. Serial No. 161,993. (Cl. 70—45.)



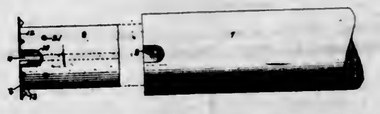
1. In a door fastener, a latch arm, a bent spring by which the arm is suspended in position to engage a keeper at one end, and a lever bearing upon the arm and adapted to lift said end.

2. A door fastener comprising a fixture adapted to be attached to the door, a latch arm having a hooked end, a bent spring attached to the fixture and suspending the arm in position for said end to engage a keeper, and a lever pivoted to the fixture and adapted to bear on the other end of the arm, to lift and release said hooked end.

4. In a door fastener, the combination of a latch projecting at one side of the door, an operating lever mounted on the opposite side of the door and adapted to engage the latch, and a screw rod extending through the door and adapted to be screwed into the lever to prevent operation thereof.

[Claim 3 not printed in the Gazette.]

1,241,193. WINDING-CORE BUSHING. LUIGI CARLINO, Niagara Falls, and JOSEPH CARLINO, Buffalo, N. Y. Filed Aug. 20, 1915. Serial No. 46,542. (Cl. 242—68.)



1. A bushing comprisng a cylindrical body having separate peripheral flange sections at one end and a U-flange connecting with the opposing ends of said flange sections.

2. A self expanding cylindrical bushing having an open-ended notch in one end and having an outwardly extending U-flange around the sides of the notch.

3. A sheet metal bushing having a cylindrical portion adapted to be fitted within a plane-ended tube and having a peripheral flange formed with sharp projections struck up therefrom and extending along axially parallel lines and in position to penetrate the plane end surface of said tube.

5. A bushing comprising an expansible cylinder having a blade thereon and being adapted to be fitted within a tube with said blade embedded in the tube, said cylinder being formed with a peripheral flange having projections thereon in position to be embedded in the end of said tube.

10. A bushing comprising an expandible cylindrical body adapted to be fitted within a tube and having an end flange adapted to be fitted against the end of said tube and being provided with projections adapted to be embedded in the walls of the tube, said cylindrical body being notched at the end adjacent to said flange, and formed with an up-turned edge at the margin of said notch, and a U-flange fitted against and secured to said up-turned edge and said end flange.

[Claims 4, 6 to 9, 11, and 12 not printed in the Gazette.]

1,241,194. MANUFACTURE OF BILLIARD-CUES. OLAF CARLSON and HUGO PICK, Chicago, Ill., assignors to Albert Pick & Company, Chicago, Ill., a Corporation of Illinois. Filed June 7, 1915. Serial No. 32,519. (Cl. 46—9.)



1. That improvement in the manufacture of handles, which consists in cutting strips of different stock longitudinally, arranging and securing the strips in alternating relation, cutting the composite strip transversely to form composite sections, and then rearranging the sections and securing them together in handle form so that the different portions of contiguous sections will be disposed alternately and longitudinally.

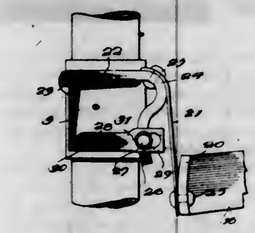
2. That improvement in the manufacture of handles, which consists in placing longitudinally extending strips of different material together in alternating relation, forming a hole longitudinally through the composite strip, cutting the composite strip transversely to form composite rings, and rearranging the rings and securing them together in handle form so that different portions of the contiguous rings will be disposed alternately and lengthwise of the handle.

3. A cue, comprising a body, a tip, and a handle formed of rings, said rings each being formed of segmental alternating sections of different material, the segments of one ring being disposed alternately with respect to the like segments of continuous rings.

4. A cue, comprising a body, a tip, a handle formed of rings, said rings each being formed of segmental alter-

nating sections of different material, the segments of one ring being disposed alternately with respect to the like segments of contiguous rings, and a pin on the cue body and extending through said rings.

1,241,195. BED. COLBY B. CHENAULT, Oklahoma, Okla. Filed Apr. 28, 1916. Serial No. 94,182. (Cl. 5—49.)

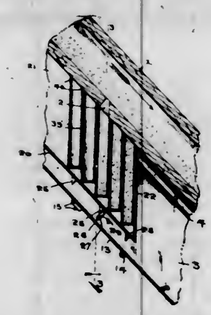


1. The combination with a bedstead, and a bed bottom, of equalizing levers supporting the bed bottom, suspending hooks adapted to engage the bedstead and having curved necks at the inner portions, curved attaching arms at the outer ends of the equalizing levers, and leaf springs having their lower ends secured to said attaching arms and their upper ends secured upon said curved necks.

2. The combination with a bedstead, and a bed bottom, of equalizing levers supporting the bed bottom, suspending hooks adapted to engage the bedstead, and resilient connections between said hooks and the equalizing levers, and stay bars carried by said hooks and adapted to engage the bedstead.

3. The combination with a bedstead, and a bed bottom, of equalizing levers supporting the bed bottom, suspending hooks adapted to engage the bedstead and having downwardly extending portions on their inner sides, resilient connections between said hooks and the equalizing levers, lugs on the downwardly extending portions of said hooks, and stay bars having a slidable and pivotal engagement with the said lugs and adapted to engage against the bedstead.

1,241,196. AUTOMATIC SAMPLER. SEWARD E. COGSWELL, Central City, Nebr. Filed June 13, 1916. Serial No. 103,506. (Cl. 226—9.)

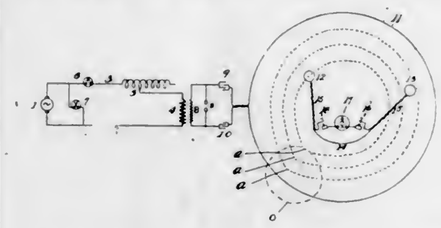


1. In a device of the character described, the combination with an inclined spout for conveying a material therethrough and provided with an orifice in its under side, of a casing secured upon said spout and extending for a distance at either side of said orifice, a tray for traveling within said casing, a plurality of receptacles within said tray for receiving a sample of said material through said orifice when positioned therebeneath, and means upon said tray cooperating with means within said casing to provide for the intermittent travel of said tray at predetermined periods of time.

2. In a device of the character described, the combination with an inclined spout for conveying a material therethrough and provided with an orifice in its under side and having divergent walls, of an elongated casing secured to the under side of said spout beneath said orifice, a tray slidably mounted within said casing and adapted to travel therein from end to end, a plurality of receptacles carried by said tray adapted to be positioned successively beneath said orifice for obtaining various samples from said material during its course through said spout, lugs upon said tray, and a bar operating within said casing and coacting with said lugs of said tray for alternately checking and releasing said tray during its travel within said casing at predetermined periods of time.

3. In a device of the character described, the combination with a spout for conveying a material therethrough and provided with a transverse orifice in its under side having downwardly diverging side walls, of an elongated casing secured to the under side of said spout beneath said orifice, ribs formed at the inner sides of the side walls of said casing, a tray provided with flanges upon its upper edges for slidably engaging the ribs of said casing and adapted to gravitate therethrough, a plurality of receptacles positioned in succession within said tray in juxtaposition to each other for receiving a sample of the material in said spout through said orifice when positioned therebeneath, alternately staggered lugs upon the bottom of said tray, a bar operating within said casing provided with means for alternately engaging and releasing said alternate lugs of said tray for controlling the movements of said tray, and means for operating said bar at a predetermined rate of speed for positioning a receptacle beneath said orifice at predetermined intervals.

1,241,197. METHOD AND APPARATUS FOR DETERMINING SUBTERRANEOUS CONDUCTORS. HARRY R. CONKLIN, Joplin, Mo. Filed Nov. 6, 1916. Serial No. 129,772. (Cl. 175—182.)



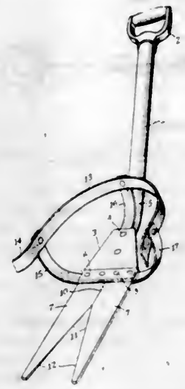
1. The method of determining a subterranean conductor, which comprises forming an oscillating magnetic field at the surface of the ground the axis of which field is substantially perpendicular to the surface being explored, and determining the distortion of said field due to the influence of the subterranean conductor.

2. The method of determining a subterranean conductor, which comprises forming at the surface of the ground an oscillating magnetic field the axis of which field is substantially perpendicular to the surface being explored, exploring said field to determine contours of equal magnetic flux, the deviation of said contours in shape from the line of generation of said oscillating magnetic field determining the presence of the subterranean conductor.

3. The method of determining a subterranean conductor, which comprises forming an oscillating magnetic field at the surface of the ground the axis of which field is substantially perpendicular to the surface being explored, inducing currents in a pair of exploring coils within said field, and plotting the positions of said coils for minimum readings of opposed currents from the coils.

[Claims 4 to 8 not printed in the Gazette.]

1,241,198. HARVESTER FOR CABBAGE AND SIMILAR PLANTS. ABRAM E. CRANE, Fairport, N. Y., assignor of one-half to James T. Enter, Fairport, N. Y. Filed May 21, 1917. Serial No. 170,050. (Cl. 56—99.)



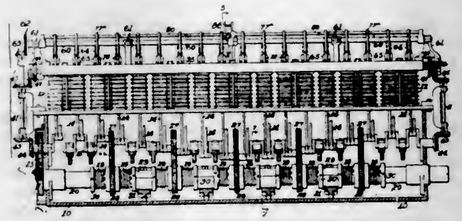
1. A harvester for cabbage or the like comprising a handle, a head at one end of the handle, two blades each detachably secured to the head at one end and having their opposed sides abutting at their inner ends and diverging toward their free ends, the diverging sides being formed with cutting edges.

2. A harvester for cabbage or the like comprising a handle, a head at one end of the handle, two blades each detachably secured to the head at one end and having edges in proximity to the head in abutment, and edges diverging from said abutting edges, said diverging edges being sharp adjacent the abutting portions and blunt at the free ends of the blades.

3. A harvester for cabbage or the like comprising a handle, a head at one end of the handle, a pair of blades detachably secured to the head and having their opposed sides abutting at their inner ends and diverging toward their free ends, the diverging sides being formed with cutting edges, and a basket supported by the head to permit the removal of the blades.

[Claim 4 not printed in the Gazette.]

1,241,199. GAS-ENGINE. CHARLES CROMPTON, Worcester, Mass. Filed Jan. 3, 1916. Serial No. 69,815. (Cl. 123—59.)

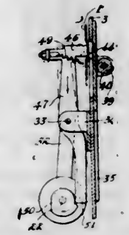


1. A gas engine having, in combination, a plurality of cylinders, a piston for each cylinder, a crank shaft, connections from each of said pistons to said crank shaft, a transmission shaft supported in fixed relation to said crank shaft, and a plurality of separate driving connections from said crank shaft to said transmission shaft, said cylinders being arranged in successive groups and certain of said driving connections being disposed between adjacent groups.

2. A gas engine having, in combination, a frame, a plurality of cylinders, a piston for each cylinder, a crank shaft, connections from each of said pistons to said crank shaft, a transmission shaft supported in said frame parallel to said crank shaft, a series of spaced gears fixed to said crank shaft, a corresponding series of gears loosely mounted on said transmission shaft, and resilient connections between said last named gears and said transmission shaft.

3. A gas engine having, in combination, a frame, a plurality of cylinders, a piston for each cylinder, a single crank shaft formed in sections rigidly secured together, each section being connected to the pistons of a group of cylinders, a series of gears disposed at the ends of the crank shaft sections, a transmission shaft supported adjacent said crank shaft, and a second series of gears mounted on said transmission shaft and meshing with said first named gears.

1,241,200. FILM-FEEDING MECHANISM. HENRY CSANYI, New York, N. Y. Original application filed July 29, 1915, Serial No. 42,523. Divided and this application filed Dec. 29, 1915. Serial No. 69,190. (Cl. 74—53.)



1. A film feeding mechanism, including co-acting elements, arranged adjacent the opposite side edges of the film to grip the same by flexing portions thereof at predetermined times, and means for reciprocating said elements.

3. In a mechanism for feeding imperforate films, the combination with a power shaft, of a sliding plate with spaced projections, said sliding plate being connected with and operable from the power shaft, and a pair of pivoted film-engaging members also operable from the power shaft for intermittently clamping portions of the film against said projections.

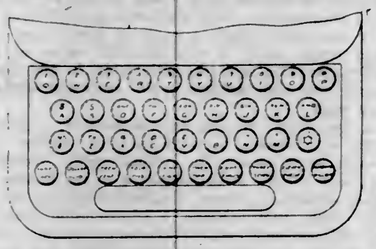
8. In a mechanism for feeding imperforate film, the combination of a reciprocating member having spaced projections with grooved film-engaging faces, spaced pivoted clamping members having clamping feet operating in conjunction with said projections for flexing and clamping portions of the film at the opposite side edges thereof and for moving said film, a power shaft, power transmission connections between the power shaft and the reciprocating member for moving the latter, and means including cams carried by the power shaft for actuating the clamping members to move the latter into and out of engagement with the film.

[Claims 2, 4 to 7, and 9 not printed in the Gazette.]

1,241,201. KEYBOARD FOR TYPE-WRITERS. WALTER R. DIEHL and WILLARD H. TOWNSEND, Pittsburgh, Pa. Filed May 19, 1915. Serial No. 29,151. (Cl. 197—100.)

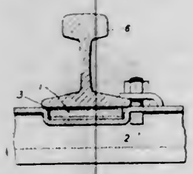
In a typewriter, a check writing keyboard comprising the combination of keys bearing alphabetical letters for writing the name of the payee and words and syllables for printing syllabically the amount for which the check is drawn, the numbers having the common numerical terminations being printed syllabically by striking the proper combinations of keys and the numbers without such terminations being printed at a single stroke of a key, the type for printing words and syllables being such that

the shorter words and syllables may be placed on the alphabetical keys to occupy the same line space as the



alphabetical letters and being printed instead of the latter by means of a simple shift key operation.

1,241,202. ANTICREEPING DEVICE. WALTER R. DIEHL, Pittsburgh, Pa. Filed Dec. 19, 1916. Serial No. 137,767. (Cl. 238—4.)



1. An anti-creeping device for railway rails comprising a rocker member extending transversely of the rail and having a concave upper surface, and means for supporting said member and normally maintaining it in contact with the under surface of the rail.

3. An anti-creeping device for railway rails comprising a rocker member arranged to extend transversely of the rail and provided on its upper surface with sharp rail-engaging means, and rigid means for maintaining said rail-engaging means in contact with the under surface of the rail, said rocker member and supporting means being so arranged that tendency of the rail to creep in either longitudinal direction will be met and checked by the consequent tendency to rotation of the rocker member.

4. An anti-creeping device for railway rails comprising a rocker member and supporting means therefor, said rocker member being supported on a relatively narrow base and having a relatively broad upper surface having edges arranged to engage the under surface of the rail, and said supporting means being so arranged as to permit rotation of the rocker member in either direction longitudinally of the rail and to prevent displacement of the upper edges thereof from contact with the under surface of the rail.

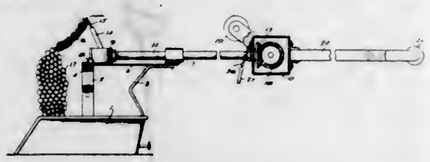
7. An anti-creeping device for railway rails comprising a rocker member, and a rigid rail supporting member provided with a transverse seat arranged to inclose and to support said rocker member in contact with the under surface of the rail, said rocker member and supporting member being so arranged as to resist movement of the rail in either direction longitudinally thereof.

[Claims 2, 5, and 6 not printed in the Gazette.]

1,241,203. SPITTOON-CLEANER. WICENTY DROZDZ, Cleveland, Ohio, assignor of one-half to Marian B. Barszczewski, Cleveland, Ohio. Filed May 12, 1917. Serial No. 168,321. (Cl. 141—7.)

1. A spittoon cleaner, comprising a scoop in which the spittoon may be carried, a handle connected to the scoop, and a cleaner supported by the handle and projecting therefrom in position to extend into a spittoon in the scoop.

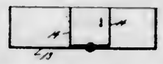
2. A spittoon cleaner, comprising a scoop in which the spittoon may be carried, a handle pivoted to the scoop, and a movable cleaning device mounted on the handle and projecting at the inner end thereof, in position to be swung into and out of a spittoon in the scoop by swinging the handle up or down.



3. A spittoon cleaner, comprising a scoop in which the spittoon may be carried, a handle pivoted to the sides of the scoop, and a shaft supported by the handle and provided with a cleaner at its inner end and means to rotate the same at its outer end.

4. A spittoon cleaner comprising a scoop in which the spittoon may be carried, a handle pivoted to the scoop, a catch to engage the handle at the back of the scoop, for operation in the manner of a shovel, and a cleaning device mounted on the handle and projecting from the inner end thereof to extend into a spittoon in the scoop when the handle is swung up.

1,241,204. COMPARTMENT CONVEYER. NILS O. ERICKSON, Black River Falls, Wis. Filed Jan. 23, 1915. Serial No. 3,964. (Cl. 193—28.)



1. In a compartment conveyer, buckets, transverse partitions for said buckets, said partitions being formed with bases slidably arranged upon each other and upon the bucket-bottoms and means connecting said buckets and partitions for limiting the relative movement of the latter members.

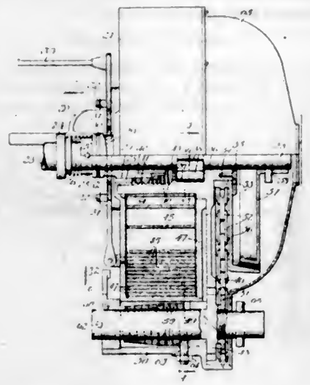
2. In a compartment conveyer, buckets, transverse partitions each movable longitudinally of said buckets and formed with longitudinally slotted bases arranged upon each other and upon the bucket-bottoms, and bolts carried by said bucket-bottoms and entending through the slotted portions of said partition bases.

1,241,205. PULVERIZER. BYRON GALE and JOSEPH ALLEN GALE, Stettler, Alberta, Canada. Filed July 5, 1916. Serial No. 107,681. (Cl. 55—23.)



A pulverizer, consisting of a number of sections, each section consisting of a platform formed of planking members and square piping attached together by means of angle-iron strips, said platform being turned up at its front end, said platform having piping attached to its under side, said square-piping having cutting members attached to their under side, said cutting members being formed from rectangular pieces of metal and being bent diagonally so that one-half is at right angles to the other half and having their long sides sharpened, the front of said platform being provided with a looped attachment member, a cross-piping carrying a number of curved flat-springs, each of said flat-springs having a grubber foot attached to its end, said cross-piping being mounted in guides attached to the rear of said platform, said sections being connected together by means of hook and eye members.

1,241,206. STARTER FOR INTERNAL-COMBUSTION ENGINES. EDWIN ALLEN GARDNER, Chicago, Ill. Filed Nov. 16, 1915. Serial No. 61,749. (Cl. 185—41.)



1. In a spring starter for internal combustion engines, a stationary housing, a starter shaft connected with the engine and shiftable longitudinally, a spring surrounding the said shaft and having one end connected therewith and one end connected with the housing, means for rewinding the said spring from said shaft, a clutch for operating said rewind mechanism, and means operable by shifting movement of the shaft for controlling the said clutch.

2. The combination with an internal combustion engine and mechanism driven thereby of a clutch adapted to releasably connect the said engine and the said mechanism, a spring-starter housing member, a starter shaft connected with the engine and shiftable longitudinally, a starter spring surrounding the shaft and having one end connected thereto and one end connected with the housing, means for rewinding the said spring from the said shaft, means operable by shifting movement of the shaft for controlling the said rewind mechanism and connections between said clutch and said shaft for simultaneously moving the two.

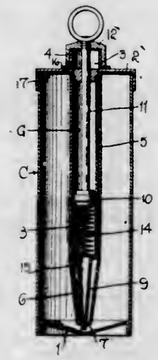
3. In combination, an internal combustion engine, mechanism driven thereby, a clutch interposed between the said engine and the said mechanism, a spring starting motor connected with the said engine, means for rewinding the spring of the said motor from the said engine, and connections whereby the movement of the said clutch controls the said rewind mechanism.

7. The combination with an internal combustion engine and mechanism driven thereby of a clutch interposed between said engine and said mechanism, a spring starter motor, a longitudinally shiftable shaft forming a connection between the said motor and the said engine, connections between the said shaft and the spring of the said motor for rewinding the latter from the former, said connections being operable by shifting movement of the said shaft, and means for shifting the said shaft by a disengaging movement of the said clutch.

[Claims 4 to 6 and 8 to 13 not printed in the Gazette.]

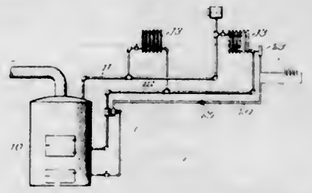
1,241,207. OILER. GEORGE O. GILBERT, Montrose, Colo. Filed Dec. 26, 1916. Serial No. 138,914. (Cl. 221—51.)

An oiler comprising, in combination, a container having one end closed and the opposite end open, a cap co-acting with the open end of the container, said cap being provided with an opening defined by an outstanding annular flange, an inwardly directed tube carried by the cap and in continuation of the annular flange, the inner end of the tube being provided with a restricted opening, an oil gun including a barrel, a piston and an operating rod for the piston, said barrel being insertible within the tube and provided with a tapering nozzle adapted to extend through the restricted opening of the tube, said nozzle when extended through the restricted opening of the tube terminating in close proximity to but spaced from the closed end of the container, said closed end being substantially cone shaped with the apex thereof disposed outwardly, a cap carried by the outer end portion of the rod and engageable with the outstanding flange of



the first named cap for holding the gun within the tube and maintaining the piston of the gun at the limit of its inward movement, said rod being of a length less than the length of the barrel, the inner end portion of the barrel being provided with an inwardly directed shoulder, and an expansible member positioned within the barrel intermediate the piston and the shoulder of the barrel for constantly urging said piston outwardly.

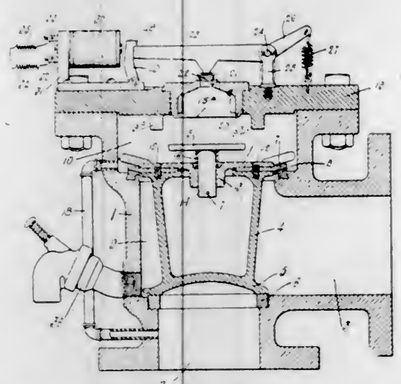
1,241,208. HOT-WATER HEATING SYSTEM. ALEXANDER M. GOW, Duluth, Minn., assignor of one-half to Stacy H. Hill, Duluth, Minn. Filed Feb. 3, 1916. Serial No. 75,922. (Cl. 103—43.)



1. In a liquid supply system, the combination of pipes, a casing interposed in one of said pipes, said casing having a plurality of compartments, one of which compartments is in the line of flow of water and another of which is outside of the line of flow, a pump in the last named compartment, and oppositely disposed inlet and outlet pipes for said pump, said pipes terminating in the first mentioned compartment and being of such size relative to the compartment as not to materially interfere with the flow of water therethrough when the pump is not in operation, substantially as described.

2. In a liquid supply system, the combination of pipes, an accelerator disposed in one of said pipes, said accelerator comprising a double compartment casing, one compartment being located in the line of flow of the water through the pipe and the other compartment being located at one side of the line of flow, a pump in said last named compartment, and inlet and outlet pipes for said pump, said inlet and outlet pipes being located concentrically within the first mentioned compartment and being so proportioned as not to materially interfere with the flow of water through the pipe, substantially as described.

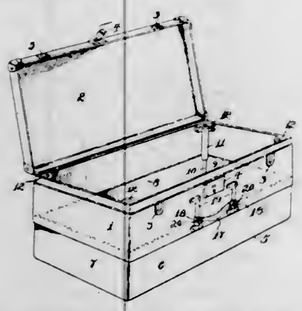
1,241,209. DRY-PIPE VALVE. RUSSELL GRINNELL, Providence, R. I., assignor to General Fire Extinguisher Company, New York, N. Y., a Corporation of New York. Filed May 26, 1910. Serial No. 563,616. (Cl. 169—22.)



1. In a dry pipe valve, the combination of a main chamber, a supplemental chamber, a differential valve, means for admitting pressure from the supply pipe to said supplemental chamber for holding said differential valve closed, an opening from said supplemental chamber, a valve for normally closing said opening, and a second valve for closing said opening after it has been opened, said second valve being yieldingly supported to act as a cushion for said differential valve in opening.

2. In a dry pipe valve, the combination of a main chamber, a supplemental chamber, a differential valve, means for admitting pressure from the supply pipe to said supplemental chamber, for holding said differential valve closed, an opening from said supplemental chamber, a valve for normally closing said opening, and a second valve for closing said opening after it has been opened, said second valve being connected to said differential valve and adapted to hold the same in its open position.

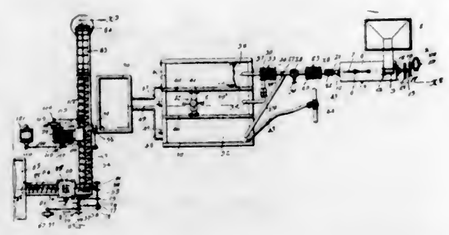
1,241,210. EXTENSIBLE SUITCASE. OSCAR HARVEY, Debden Station, Saskatchewan, Canada. Filed May 3, 1915, Serial No. 25,649. Renewed Jan. 29, 1917. Serial No. 145,312. (Cl. 190—45.)



1. In an extensible suit case, a body portion open at both sides, a side wall hinged to said body portion and forming a lid to close one of said open sides, a movable side wall slidable within said body portion toward said hinged side and forming a closure to the other open side of the body, guiding members secured to said body and movable wall and a carrying handle supported by said body portion and adjustable in the same direction as said movable side.

2. In an extensible suit case, a body portion, a hinged lid closing one side of said body portion, a movable wall closing the other side of said body portion and slidable therein toward said hinged side, reinforcing members crossing said movable wall and a pull handle centrally secured to said reinforcing members.

1,241,211. PROCESS OF MAKING PLASTER AND MORTAR. WILLIAM C. HAY, Los Angeles, Cal. Filed Oct. 19, 1916. Serial No. 126,513. (Cl. 106—24.)



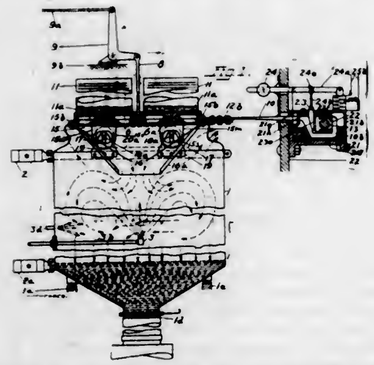
1. The process of making mortar and plaster having a lime base, which process comprises aging slaked lime to form lime putty, adding water to the lime putty to thin it, beating and whipping the thinned lime putty to aerate it, and then mixing sand with the aerated thinned lime putty.

4. The process of making mortar and plaster having a lime base, which process comprises aging slaked lime to form lime putty, adding water to the lime putty to thin it, beating and whipping the thinned lime putty to aerate it, mixing a hardener and sand with the aerated thinned lime putty, and blowing finely separated strands of fiber into the resulting mixture.

10. The process of making mortar and plaster having a lime base, which process comprises aging lime putty, adding water to the aged lime putty, violently agitating the putty after the water is added to reduce the putty to flowing consistency, causing sand to move in a continuous stream, feeding a hardening agent at a determined rate into the moving stream of sand, discharging the thinned putty at a determined rate of flow into the moving stream of sand and said agent, and discharging separated strands of fiber at a determined rate of flow into the moving mixture of sand, said agent and putty.

[Claims 2, 3, and 5 to 9 not printed in the Gazette.]

1,241,212. POWDER-BLENDING APPARATUS. CHARLES L. HEISLER, Schenectady, N. Y. Filed June 23, 1916. Serial No. 105,505. (Cl. 83—73.)



1. In a blending apparatus, the combination of a plurality of means for sifting comminuted substances, means for supporting said substances after being sifted, a plurality of weighing beams, means for coupling said weighing beams to the sifting means, means for controlling the sifting means by a movement of the weighing beams, and adjustable means adapted to couple the weighing beams and proportion their leverages so as to correspond with the predetermined proportions of the comminuted ingredients desired in a blend.

2. In a powder blending apparatus, the combination with a blending chamber, of a plurality of independent sifting screens above said chamber, supports for inverted powder cans above said screens, independent mechanisms for vibrating said screens, a plurality of weighing devices for supporting said screens, and connections between said weighing devices and said vibrating mechanisms whereby the operation of the latter is controlled by the amount of powder on said screens.

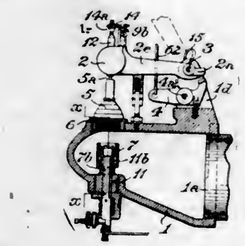
3. In a powder blending apparatus, the combination with a blending chamber, of a plurality of independent sifting screens above said chamber, supports for inverted powder cans above said screens, independent mechanisms for vibrating said screens, a plurality of weighing beams, connections therefrom to support said screens, means to render each of said vibrating mechanisms inoperative, and electrical connections between said beams and said means, whereby the latter are actuated whenever the amount of powder on any screen exceeds the amount required for the blend.

4. In a powder blending apparatus, the combination with a blending chamber, of a plurality of pairs of sifting screens, a frame for each pair provided with means to hold inverted powder cans, rods connected to said frames, eccentrics for reciprocating said rods, wedges interposed between said eccentrics and said rods, means to raise and lower said wedges, independent means to suspend each of said frames, scale beams connected to each of said independent means, and connections between said beams and said wedge raising and lowering means, whereby the reciprocation of each of said rods is controlled by the amount of powder on the frame connected to said rod.

5. In a powder blending apparatus, the combination with a blending chamber, of a plurality of sifting screens, independent means to suspend said screens above said chamber, means to support inverted powder cans above said screens, independent means to vibrate the latter, means to control the operation of said vibrating means, weighing beams connected to said suspending means, and electrical circuits governed by said beams and including means to actuate said controlling means.

[Claims 6 and 7 not printed in the Gazette.]

1,241,213. PROJECTILE-FUSE-TESTING APPARATUS. CHARLES L. HEISLER, Schenectady, N. Y. Filed July 18, 1916. Serial No. 109,908. (Cl. 234—36.5.)

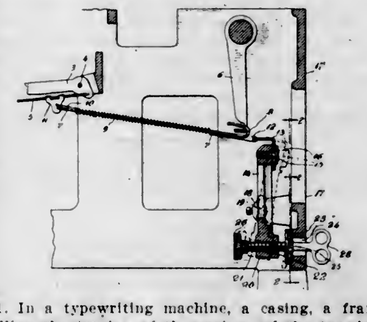


1. The combination, in a fuse testing apparatus, of a recording chronometer; a supporting member having a fuse seat formed thereon; a firing hammer supported above said supporting member; means for releasing the hammer and causing it to strike a fuse supported on said seat; electrical contact members supported on the hammer and adapted to be connected and establish electrical communication with the recording chronometer; and a reciprocating member carrying one of said contact members, and adapted to interrupt said electrical communication at the instant the hammer fires the fuse.

4. The combination, in a fuse testing apparatus, of a recording chronometer; a supporting member having a fuse seat formed thereon; a firing hammer; means for pivotally mounting the hammer on the supporting member; means for releasing the hammer and causing it to strike a fuse when disposed on said seat; a movable electrical contact member carried by the hammer; electrical interrupting means, comprising a vertically reciprocating interrupting plunger disposed beneath the fuse, in axial alinement therewith; and electrical communicating means connected to said contact member carried by the hammer, to the interrupting means, and to the recording chronometer, and adapted to transmit to the chronometer, the instant of firing and time of burning the fuse timing powder train, for the purpose of making a record thereof.

[Claims 2, 3, and 5 to 13 not printed in the Gazette.]

1,241,214. TYPE-BAR-TENSION-ADJUSTING MEANS. EDWARD B. HESS, Brooklyn, N. Y., assignor to Royal Typewriter Company, Inc., New York, N. Y., a Corporation of New York. Filed May 10, 1917. Serial No. 167,642. (Cl. 197—33.)



1. In a typewriting machine, a casing, a frame, controlling the tension of the springs of the type-bars, pivotally supported within the casing and having a member abutting against the rear wall thereof under tension of the springs, and detachable means extending through the rear wall of the casing from the exterior thereof for adjusting the position of the frame with respect to the casing to vary the tension of the springs.

3. In a typewriting machine, a casing, whose rear wall is provided with an aperture extending through said wall, said aperture terminating on the inside of the rear wall in a concave bearing surface surrounding the aperture, a frame, controlling the tension of the springs of the type-bars, pivotally supported within the casing at a point between its upper and lower ends so that the lower end thereof is normally urged toward the rear wall of the casing under the tension of the springs, an adjustable member in said frame having a convex head in engagement with the concavity of the rear wall, and means extending through said aperture for adjusting said member in the frame to thereby turn the frame on its pivot to vary the tension of the springs.

6. In a typewriting machine a casing, a frame, controlling the tension of the springs of the type bars, pivotally supported within the casing, an adjusting screw or member for the frame, and detachable means extending through the rear of the casing from the exterior thereof for additionally adjusting the position of the frame and thereby varying the tension of the springs.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,241,215. EXTENSION-CLAMP. LOUIS HOFFMAN, San Francisco, Cal. Filed Jan. 26, 1916. Serial No. 74,352. (Cl. 144—299.)

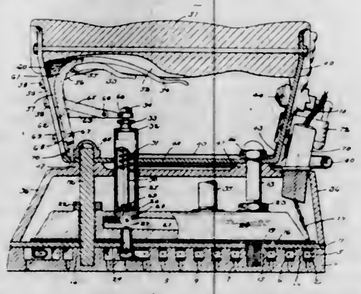
1. An adjustable clamp comprising a slotted, tubular outer member having a movable clamp jaw, means to advance or retract the jaw, a tubular inner member slid-

able within the first member and having an enlargement at its outer end of the same diameter as the outer member, an opposed clamp jaw having a spring-pressed latch and engageable with and slidable upon the outer tubular member and the enlargement, a lug projecting from the inner end of the inner member through the slot in the outer member, a latch carried by the lug, said outer member having notches upon the edges of the slot with which the said last named latch may engage to retain the inner member in position and also to engage said first mentioned latch and lock the opposing clamp jaw to the inner or the outer member.



2. In an extension clamp of the character described, an outer tubular slotted member and an inner telescopically slidable member, a jaw on the outer member, means borne by the outer member to actuate said jaw, an opposed jaw upon the outer end of the inner slidable member, a notched bearing upon the outer end of the inner member registering with the end of the outer member to allow the clamp to be moved from one member to the other, a spring-pressed latch carried by the inner end of the inner member, and a spring-pressed latch carried by said opposed jaw, said outer member having notches with which each of said latches are engageable.

1,241,216. SAD-IRON. LOUIS HOFFMAN, Duluth, Minn. Filed Feb. 3, 1917. Serial No. 146,507. (Cl. 38—26.)



1. A sadiron of the character described, comprising in combination a base having a plurality of transverse conduits therein with perforations in the conduits through the face of the iron and a longitudinal conduit communicating with the transverse conduits, a perforated distributing pipe extending the full length of the longitudinal conduit, a covering plate on top of the base, a heating element resting upon the covering plate, a chambered steam generator resting upon the heating element, a pipe connection between the perforated distributing pipe and the steam generating chamber, a water supply for the steam chamber, a water supply for the pipe connection with the perforated pipe and means for controlling the water supplies independently or simultaneously, substantially as and for the purpose described.

4. The combination with a heated sadiron of the character described, having steam generating means therein, a perforated base communicating with the steam generator, a water supply connected with the iron of two independently controlled water circuits within the iron, one of which discharges directly into the steam generator and the other discharging through the steam generator to the perforated base of the iron, substantially as and for the purpose described.

[Claims 2 and 3 not printed in the Gazette.]

1,241,217. LEGGING. DANIEL W. HOUSE, Mobridge, S. D. Filed Mar. 10, 1917. Serial No. 153,942. (Cl. 36—2.)



1. In combination, a legging provided with longitudinal margins adapted to overlie, the under longitudinal marginal portion having its lower end extended to afford a strap to extend below the arch of the foot when the legging is in applied position, the upper end portion of said under longitudinal margin being extended to afford a flap, the outer longitudinal marginal portion being provided with openings, a plurality of loop members secured to the under longitudinal marginal portion of the legging and to the strap, certain of said loop members being adapted to be directed through the openings in the outer longitudinal margin of the legging, each of said loop members being also adapted to be disposed through the loop immediately therebelow, and means carried by the outer marginal portion of the legging and cooperating with the flap and uppermost loop for holding the loops in assembled relation.

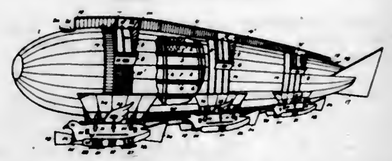
[Claim 2 not printed in the Gazette.]

1,241,218. BOOK-REST. J ELWIN JARGO, Pasadena, Cal.; W. W. Benedict administrator of said J. Elwin Jargo, deceased. Filed July 28, 1915. Serial No. 42,370. Renewed Jan. 6, 1917. Serial No. 141,056. (Cl. 45—59.)



A book rest formed from a single length of wire bent between its ends to form a book supporting ledge and thence having its side portions extending upwardly in converging lines and twisted together and thence bent to form oppositely extending bows forming a book rest located above said supporting ledge and in back thereof, the said side portions of the wire below the bows being twisted together to form a standard and the ends of the said portions below the twisted standard portion being bent laterally to diverge in a downward direction.

1,241,219. DIRIGIBLE AIRSHIP FOR MILITARY PURPOSES. MARTIN JELALIAN, Cranston, R. I. Filed May 2, 1917. Serial No. 165,958. (Cl. 244—9.)



1. An apparatus of the character described comprising a gas-bag inclosing frame divided into a plurality of compartments, each compartment containing a gas-bag detachably secured within the compartment and adapted to fill out the same, a narrow space between adjacent compartments and said spaces having fixed platforms extending transversely to said inclosing frame, cylindrical water tanks mounted within said spaces and located upon said platforms, and said water tanks having water-pipe connections extending from each end of said cylindrical water tanks and projecting outwardly to the inclosing frame of said gas bags.

2. An apparatus of the character described comprising a gas bag inclosing frame divided into a plurality of compartments and each compartment containing a gas bag, said frame consisting of a series of flat vertically arranged circular rings located transversely to the frame and provided with equi-spaced perforations arranged in pairs and encircling said rings, a series of tubular rods arranged in pairs, extending longitudinally to said frame and projecting through said perforations of said rings and having one of their ends secured to a flat circular support located centrally at the forward end of the inclosing mechanism of said gas bags and the other ends similarly connected to a small flat circular support provided at the rear end, and a flat outwardly extending tail portion projecting outwardly from the rear end of said mechanism.

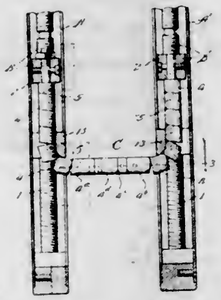
3. An apparatus of the character described comprising a gas bag inclosing frame having a plurality of compartments, said frame made of a series of flat vertically arranged circular rings provided with equi-spaced perforations, a series of longitudinally extending rods arranged in pairs and each pair having connecting wires there between encircling said rings and projecting through said perforations, a pair of closely located rings arranged between adjacent compartments of the frame and said rings having flat vertical circular planes each composed of a series of connecting supports, a wire netting and a layer of fine tin, said planes dividing the compartments of the gas bags and forming a space there between, a wire netting carried by said frame and layers of fine tin secured to the latter between each of said compartments and encircling said spaces.

4. An apparatus of the character described comprising a gas bag inclosing frame divided into a plurality of compartments and having a combined outer layer of fine tin and canvas, a platform arranged between each compartment and having a cylindrical water tank mounted upon the same, fixed platforms projecting outwardly from each side of said inclosing frame, and water pipe connections extending from each end of said water tanks to said outwardly extending platforms and also water pipe connections projecting centrally from the bottom of said cylindrical water tanks into the cars located beneath the frame of said gas bags.

5. An apparatus of the character described comprising a gas bag inclosing frame having spaces arranged between the compartments of the same, similarly constructed cars carried by said frame and located directly beneath said spaces formed between said compartments, ladders extending from said cars through said spaces into fixed platforms located within said spaces and extending transversely to said frame, platforms projecting outwardly from each side of the latter and the same having connecting main twisted wires extending from the outer ends of said outwardly projecting platforms into a longitudinally extending gangway arranged upon the top of said frame.

[Claims 6 to 12 not printed in the Gazette.]

1,241,220. LOOSE-LEAF BINDER. WILLIAM GIFFORD JONES, Evanston, Ill., assignor to Accounting Devices Company, Evanston, Ill., a Corporation of Illinois. Filed Aug. 28, 1916. Serial No. 117,350. (Cl. 129—41.)



1. In a binder, the combination with clamping-members equipped with take-up mechanisms, of a flexible post connected at its extremities with said take-up mechanisms and provided at an intermediate point with an extension insert, whereby said post may be lengthened at will without detachment from said take-up mechanisms.

2. In a binder, the combination with clamping-members, at least one of which is provided with take-up mechanism, of a chain-post connecting said clamping-members and having an extremity connected with said take-up mechanism, said chain-post provided at an intermediate point with links adapted to receive post-inserts, whereby said post may be lengthened without disturbing the connections at the extremities.

3. In a binder, the combination with clamping-members, at least one of which is provided with take-up mechanism, of a chain-post connecting said clamping-members and having an extremity connected with said take-up mechanism, said chain-post provided at an intermediate point with links having socket-connections, whereby insert post-sections may be interposed to enable the chain-post to be lengthened without disturbing the connections with the clamping-members.

5. In a binder, the combination with clamping-members equipped with take-up mechanisms, of a chain-post connected at its extremities with said take-up mechanisms, said chain-post having a link equipped with a swiveled post-section and another link provided with a socket, and an insert post-section between said swiveled post-section and said last-named link.

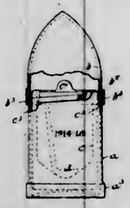
7. In a binder, the combination with clamping-members, at least one of which is provided with take-up mechanism, of a chain-post connecting said clamping-members and having an extremity connected with said take-up mechanism, said chain-post having an intermediate link provided with a swiveled member and socket-connections between said swiveled member and an adjacent link, whereby insert post-sections may be interposed to enable the chain-post to be lengthened without disturbing the connections with the clamping-members.

[Claims 4 and 6 not printed in the Gazette.]

1,241,221. POT FOR MUSTARD, JAM, MARMALADE, HONEY, &c. HANS KÄGI, Winterthur, Switzerland. Filed Feb. 18, 1916. Serial No. 79,165. (Cl. 65—15.)

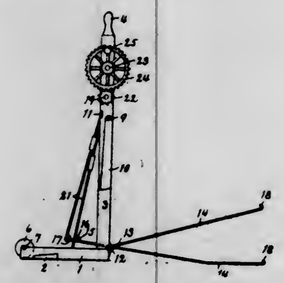
A pot for mustard, jam, marmalade, honey and the like comprising in combination, a casing adapted to hous s

spoon, a cover on said casing, studs on said cover, a cup, lugs on said cup, and ribs on the inside of said casing, which constitute grooves on the outside of the casing, said



inside ribs engaging said lugs on the cup, and said outside grooves receiving said studs on the cover for forming a joint, substantially as described and for the purpose set forth.

1,241,222. CARPET-BEATER. HARRISON D. KEMPTON, Cranston, R. I. Filed Jan. 26, 1917. Serial No. 144,744. (Cl. 15—8.)



1. The combination, in a carpet beater, with a frame comprising a base and a stand joined to said base at one end of the latter, anti-friction means at the other end of said base, and a supporting member arranged to swing from said stand, the construction and arrangement of parts being such that said frame can be tilted from a vertical to a horizontal position onto such anti-friction means, and can be permitted to rest on said anti-friction means and said supporting member, of beating elements mounted in said frame, and operating mechanism, carried by said frame, for said beating elements.

2. The combination, in a carpet beater, with a frame comprising a base and a stand connected with said base at one end of the latter, anti-friction means at the other end of said base, legs pivotally attached to said stand, and stops arranged on said stand in the path of said legs when in operative position, the construction and arrangement of parts being such that said frame can be tilted from a vertical to a horizontal position onto said anti-friction means, and can be permitted to rest on said anti-friction means and said legs, of beating elements mounted in said frame, and actuating mechanism, carried by said frame, for said beating elements.

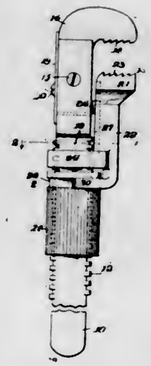
3. The combination, in a carpet beater, with a frame provided with a supporting rod, a plurality of beating elements mounted for oscillatory and lateral movement on said rod, and a rod loosely connecting the rear terminals of said beating elements, of means to oscillate said elements as a group, said means being carried by said frame.

4. The combination, in a carpet beater, with a frame provided with a supporting rod, a plurality of beating elements mounted for oscillatory and lateral movement on said rod, and rods loosely connecting the rear terminals of said beating elements and dividing said elements into groups, of means adapted to oscillate such groups independently, said means being carried by said frame.

5. The combination, in a carpet beater, with a frame provided with a supporting rod, and equipped with operating mechanism, said mechanism consisting in part of connecting-rods, of a plurality of beating elements mounted for oscillatory and lateral movement on said rod, and rods loosely connecting the rear terminals of said beating elements and separating said elements into groups, each of said connecting-rods operatively engaging one of the beating elements in each group.

[Claims 6 to 8 not printed in the Gazette.]

1,241,223. WRENCH. JOSEPH KNOWLES, Edmonds, Wash. Filed Dec. 4, 1916. Serial No. 134,972. (Cl. 81—99.)

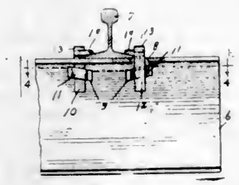


1. In a wrench, a stock having an outwardly opening socket, an outer jaw including a head and a reduced portion with the reduced portion engaging in said socket, a pivot uniting the socket portion of the stock and the reduced portion of the outer jaw, a resilient member attached to the reduced portion of the outer jaw and corresponding in width to the stock and extending over the reduced portion of the outer jaw and partly over the head of the same and forming a housing to protect the joint between the stock and outer jaw, said resilient member operating to yieldably maintain the outer jaw with its socket engaging portion normally in alinement with the stock, an inner jaw, means for adjusting said inner jaw longitudinally of the stock, and a stud and guide channel carried by said outer and inner jaws and coacting to prevent lateral displacement of the inner jaw.

2. In a wrench the combination of a stock having an outwardly opening socket, an outer jaw including a head and a reduced portion engaging in said socket and provided with an outwardly directed stud, a pivot extending through the socket portion of the stock and the reduced portion of the outer jaw, a resilient member attached to the reduced portion of the outer jaw and corresponding in width to the stock and extending over the reduced portion of the outer jaw and partly over the head of the same and forming a housing to protect the joint between the stock and the outer jaw, said resilient member operating to yieldably maintain the outer jaw wtih its socket engaging portion normally in alinement with the stock, an inner jaw having a longitudinally directed channel to receive said stud, and means for adjusting said inner jaw longitudinally of the stock.

1,241,224. RAIL-FASTENER FOR METAL TIES. FRED H. KRUPP, Northfield, Minn., assignor of two-fifths to Burton C. Swenson, New London, Minn. Filed Feb. 21, 1917. Serial No. 150,222. (Cl. 238—4.)

1. The combination with a tie having a vertical web, and a rail supported on said tie, of a link seated in an aperture in the web of the tie with freedom for endwise movement longitudinally of the rail, a spike having its body extending into said link and its head engaging the base flange of the rail, and a wedge inserted into said link on the opposite side of the web of the tie from the spike for holding the link in engagement with the spike.

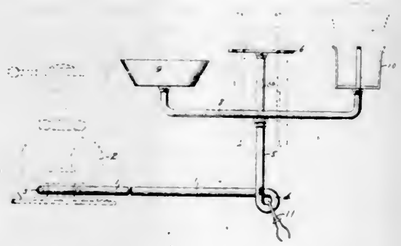


2. The combination with a tie having a vertical web, and a rail supported on said tie, of a link seated in an aperture in the web of the tie with freedom for endwise movement longitudinally of the rail, a spike having its body extending into said link and its head engaging the base flange of the rail, a wedge inserted into said link on the opposite side of the web of the tie from the spike for holding the link in engagement with the spike and a key for holding the wedge against lifting movement.

4. The combination with a tie having a vertical web, and a rail supported on said tie, of a link seated in an aperture in the web of the tie with freedom for endwise movement longitudinally of the rail, a spike having an upwardly tapered body extending into said link and its head engaging the base flange of the rail, and a wedge inserted into said link on the opposite side of the web of the tie from the spike, the inner walls of the ends of the link being beveled to engage the correspondingly formed engaging surfaces of the bodies of the spike and wedge.

[Claims 3, 5, and 6 not printed in the Gazette.]

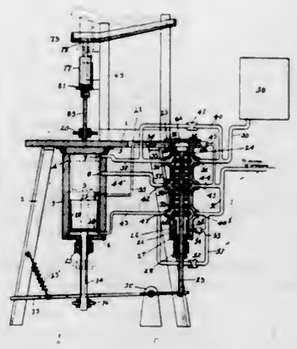
1,241,225. COMBINATION TOILET-ARTICLE HOLDER. HARRY J. KUHN, Middletown, N. Y. Filed July 29, 1915. Serial No. 42,568. (Cl. 248—20.)



An article holder comprising a rod, a recess formed adjacent one end thereof and a clamp member provided with a corresponding recess, providing means for supporting the article holder in an upright position, said rod being bent upon itself to provide relatively right angular portions and forming a loop thereon, a standard formed in continuation of said loop, a cross bar mounted transversely of said standard, a receptacle receiving member associated with the ends of said cross bar, and a second standard connected with the first said standard retaining the cross bar in position, said second standard having an aperture provided at one end thereof, and a disk member having an extension thereon adapted to be mounted in said opening for a purpose specified.

1,241,226. DRY-CELL-TAMPING APPARATUS. HENRY T. LANG, Fremont, Ohio, assignor, by mesne assignments, to National Carbon Company, Inc., a Corporation of New York. Filed Nov. 29, 1915. Serial No. 64,118. (Cl. 100—57.)

1. In dry cell tampers, a can carriage, means for tamping the mix in the can, means adapted to permit yieldingly resisting movement between said carriage and tamping means as the mix is tamped into the can and means whereby the can carriage and the tamping means are automatically separated when the mix reaches a predetermined height in the can.



2. In dry cell tampers, a movable can carriage, means for tamping the mix in the can, means for yieldingly resisting the movement of said can carriage as the mix is tamped in the can and means whereby the can carriage is automatically withdrawn from the tamping means when the mix reaches a predetermined height in the can.

3. In dry cell tampers, a carriage adapted to support a dry cell can and to move parallel to the can's axis, means for tamping the mix in the can, means including a piston adapted to yieldingly resist the movement of said carriage, and means for admitting pressure to the piston to forcibly remove the can carriage from the tamping region when the mix reaches a predetermined height in the can.

4. In dry cell tampers, a can carriage, a cylinder, a piston in the cylinder connected to the carriage, means for yieldingly resisting movement of the can carriage, a connection adapted to admit pressure to the cylinder at one side of the piston, and means for closing said connection until the mix is tamped to a predetermined height in the can.

5. In dry cell tampers, a can carriage, a cylinder, a piston in the cylinder connected to the carriage, a connection adapted to admit fluid pressure in the cylinder at one side of the piston, a connection adapted to admit fluid pressure to the other side of said piston and means for closing said last mentioned connection until the mix is tamped to a predetermined height in said can.

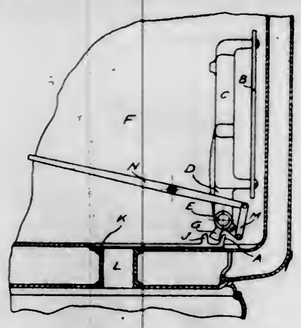
[Claims 6 to 16 not printed in the Gazette.]

1,241,227. STOVE. FRANK O. LARSON, Aurora, Ill., assignor to Rathbone, Sard & Company, Albany, N. Y., a Corporation. Filed June 7, 1917. Serial No. 173,355. (Cl. 126—36.)

1. In a stove provided with an oven, a gas oven bottom; a burner connected therewith; rotatable means for mounting said burner and oven bottom within the oven; a pinion projecting from said means adapted to engage one of two teeth between which the said pinion is projected; a sliding damper adapted to reciprocate along the bottom of the oven; an air inlet in the bottom of the oven over which said damper may be moved, closing the orifice of said inlet in the oven; and means for raising or lowering said oven bottom and burner and regulating the admission of air to the oven from the outside of the stove.

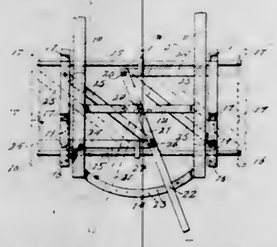
2. The combination of a stove provided with an oven; a gas oven bottom; a burner connected therewith; rotatable means for mounting said gas oven bottom and burner within the oven; a pinion connected with said means; a sliding damper; a rack on said sliding damper

adapted to be operated by said pinion; an air inlet in the bottom of said oven adapted to be closed by said damper;



and means without the oven for moving said gas oven bottom and said damper simultaneously.

1,241,228. CONCRETE-BLOCK MACHINE. SAMUEL DAVID LINDSAY, Orlando, Fla. Filed Jan. 18, 1915. Serial No. 2,867. (Cl. 25—41.)



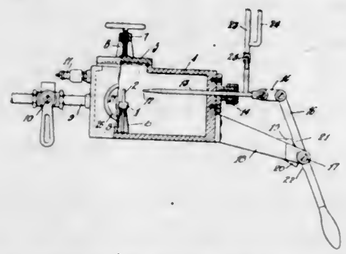
1. A concrete block machine comprising a support; parallel guides in said support; a form having end walls slidably mounted on said guides; a lever pivoted in said support between said end walls; two converging members, having their diverging ends secured to one of the end walls and their converging ends disposed adjacent one of said guides; slot and pin connections between the converging ends of said members with said lever; and supports secured to certain of said members adjacent said slot and pin connections and slidably mounted on one of the guides.

2. A concrete block machine comprising a support; two parallel guides in the support; a block molding form having end walls; supporting members carrying said end walls and each of said supporting members having two points of support slidably mounted on one of the guides and one point of support slidably mounted on the other of said guides, said supporting members being adapted to maintain the end walls in substantially parallel relation in all of their positions on said guides; and a lever pivoted in the frame between said end walls and connected to said supporting members for moving the latter simultaneously on said guides.

3. A concrete block machine comprising a support; parallel guide bars in the support; two parallel members disposed transversely of and slidably mounted on said guide bars; a molding form on the support, the sides and bottom of the form being mounted on the support and the ends of said form being mounted on said parallel members; a lever pivoted in the support between the parallel members; connecting bars having one end of each secured to one of the parallel members and the other end of each connected by means of a pin and slot connection with the lever; and members secured on certain of the connecting bars adjacent the lever and slidably mounted on the guide bars.

4. A concrete block machine comprising a support; parallel guide bars in the support; two parallel members disposed transversely of and slidably mounted on said guide bars; a molding form on the support, the sides and bottom of the form being mounted on the support and the ends of the form being mounted on said parallel members; a lever pivoted in the support between the parallel members; pairs of connecting bars, each pair comprising two bars disposed at an angle to each other with their diverging ends secured to one of said parallel members and their converging ends connected with said lever; members, each secured to one of said connecting bars near the connection of the latter with said lever and slidably mounted on one of the guide bars, said last mentioned members and said parallel members providing three-point supports for the end walls maintaining said end walls parallel in all of their positions on said guide bars.

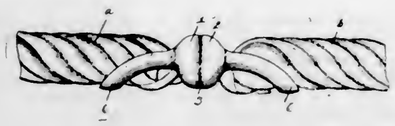
1,241,229. METHOD OF SEALING GLASS BULBS. ALBERT J. LOEPSINGER, Providence, R. I., assignor to General Fire Extinguisher Company, New York, N. Y., a Corporation of New York. Original application filed July 3, 1912, Serial No. 707,472. Divided and this application filed Mar. 11, 1916. Serial No. 83,682. (Cl. 49—77.)



1. The method of sealing glass bulbs containing a gas in solution which consists in placing the bulb in a closed receptacle and there sealing the bulb under pressure.

2. The method of sealing a glass bulb provided with an elongated neck and containing a gas in solution which consists in placing the bulb in a closed receptacle and there fusing the end of the neck under pressure.

1,241,230. ROPE-COUPLING. VICTOR H. MCENTIRE, Conneaut Lake, Pa. Filed Jan. 9, 1917. Serial No. 141,428. (Cl. 24—123.)



1. A rope coupling comprising a central body portion, looped portions extended in a curved line from the opposite ends of the body portion, said looped portions being adapted to have the knoted ends of rope extended therethrough.

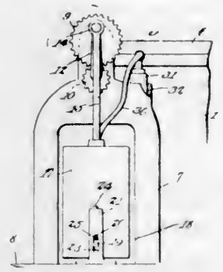
2. A rope coupling comprising a central body portion of substantially the same diameter of the rope to be engaged thereby, looped portions one extended in a curved line from each end of the body portion and adapted to have the knotted end of the rope extended therethrough and engaged thereby, said looped portions extending within the plane of the central portion.

3. A rope coupling comprising a central body portion, rope engaging loop portions, one extending from each end of the body portion in a curved line, said looped portions extending and lying within the plane of the body portion, the knotted ends of the rope being adapted to extend through each of the looped portions, the knot on the end of the rope being adapted to be accommodated in the recess provided by the concave face of said looped portion.

4. A rope coupling comprising a central portion consisting of two swivelly connected members, each of said members having a looped portion axially extended on a curved line therefrom, said looped portions extending in opposite directions and adapted to have the knotted ends of rope extended therethrough.

5. A rope coupling comprising a central body portion consisting of two members having substantially flat juxtaopposing faces, means for swivelly connecting said members together, a looped portion axially extended in the curved line of each of said members and lying within the plane of said body portions, said looped portions being adapted to be engaged by the knotted ends of rope.

1,241,231. CLOSET ATTACHMENT. CLARKSON W. MACY, Converse, Ind. Filed May 4, 1917. Serial No. 166,459. (Cl. 4—30.)



1. In a device of the class described, a water closet bowl; a movable seat for the bowl; a shaft whereon the seat is carried; driving mechanism connected with the shaft and including a crank; a cylinder; bearings wherein the cylinder is mounted to rock; a piston working in the cylinder and pivoted to the crank; a sprayer discharging into the bowl; and a conduit leading from the cylinder to the sprayer.

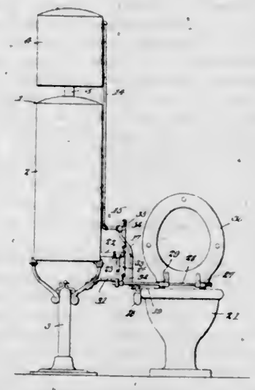
4. In a device of the class described, a water closet bowl; a movable member operating above the bowl; a fluid pressure cylinder; a piston working in the cylinder; means for operatively connecting the piston with the movable member; a sprayer discharging into the bowl; a conduit leading from the cylinder to the sprayer; and means for mounting the cylinder yieldably for limited movement responsive to the pressure created in the cylinder by the piston.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,241,232. CLOSET ATTACHMENT. CLARKSON W. MACY, Converse, Ind. Filed May 10, 1917. Serial No. 167,762. (Cl. 4—30.)

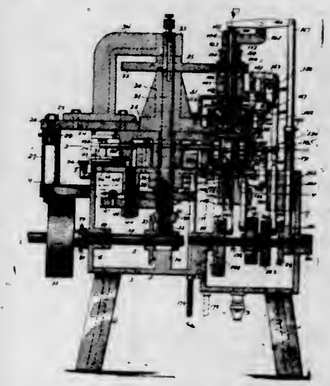
1. In a device of the class described, a container including a water space and an air space; means for supplying water to the water space; means for draining the water space; a first valve coöperating with each of said means to dispose the same one at a time in communication with the water space; a bowl; an atomizer discharging into the bowl; an air conduit leading from the air space to the atomizer; a second valve in the air conduit; a member movable with respect to the bowl and under the control of an operator; and an operative communication between said member and both valves whereby the valves will be actuated when the movable member is actuated.

2. A device constructed as described in claim 1, in combination with a normally open valve controlling the



passage of air from the air space to the water space and movable to a closed position, responsive to pressure in the air space, when pressure in the water space is reduced.

1,241,233. CAN-CAPPING MACHINE. ADOLPH K. MALMQUIST, South Bellingham, Wash., assignor to Perfect Vacuum Canning Company, South Bellingham, Wash. Filed Mar. 4, 1916. Serial No. 82,161. (Cl. 113—14.)



1. In a can capping machine, the combination with a seaming head and a can and cap carrier, of seaming devices within the seaming head, means for rotating said seaming devices, a controlling device for said seaming devices located within the seaming head, a lever mounted within the seaming head and connected with said controlling device, a lever mounted exteriorly of the seaming head, a longitudinally adjustable connection between said levers, a cam, means for driving the same, and a connection between said exterior lever and said cam.

5. In a can capping machine, the combination with a can and cap carrier, seaming devices, and a controlling device for said seaming devices, of a rod comprising two sections removably connected together, connections between one end of said rod and said controlling device, a cam with which the other end of the rod is connected, a push rod connected with one section of said rod and adapted to enter the carrier, and means for moving said rod into the carrier, whereby the sections of said two part rod will be disconnected and said controlling device ren-

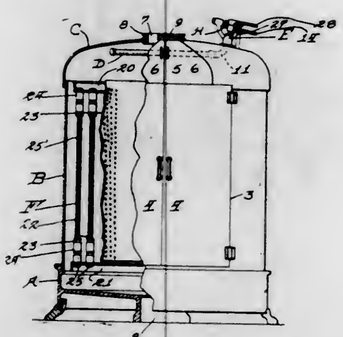
dered inoperative if no can is in position in the carrier to receive said push rod.

9. In a can capping machine, the combination with a gear casing adapted to contain lubricant, a superstructure, a can and cap carrier mounted in said superstructure, and two sets of seaming mechanisms also supported by said superstructure, of a main driving shaft in the gear casing, gearing between said shaft and said carrier, two radiating shafts in the gear casing under the respective seaming mechanisms, gears carried by said radiating shafts, a gear secured to the main driving shaft and meshing with the gears on the radiating shafts, gearing between the seaming mechanisms and the main driving shaft, controlling means for the respective seaming mechanisms, cams on the respective radiating shafts, and connecting devices between said cams and the respective controlling means.

11. In a can capping machine, the combination with a rotary carrier having pockets, seaming mechanism, a main driving shaft, and mechanism actuated from said driving shaft for operating said carrier and seaming mechanism, of a can conveyer, guiding means for directing a can to a pocket of the carrier, a driving shaft for said conveyer, gearing between said shaft and the main driving shaft, a cap magazine over the carrier, a sliding cap discharging plate at the bottom of the magazine, a pivoted lever connected with said sliding plate and having a part disposed in the path of the can over said guiding means whereby said sliding plate will be operated in one direction by the movement of a can entering the carrier, a cam on the conveyer shaft for moving the lever and sliding plate in the reverse direction to discharge a cap onto the carrier over the can therein, and means for subsequently presenting the can and cap to the seaming mechanism.

[Claims 2 to 4, 6 to 8, 10, and 12 to 16 not printed in the Gazette.]

1,241,234. ELECTRIC BATH-CABINET. HONORA C. MARRINAN, St. Paul, Minn. Filed Oct. 7, 1916. Serial No. 124,415. (Cl. 219—19.)



1. A combination bath and heating cabinet, comprising, in combination, an inclosing chamber having an upwardly projecting body, a heating element in said chamber comprising a supporting frame mounted upon said body having upper and lower bracket members, electrical insulating cores secured between said bracket members, heating coils of electrical resistance wire mounted upon and supported by said cores, said coils being connected with a switch controlled current supply, a valve controlled shower disposed on said cabinet and means interposed between and coöperating with the switch of said current supply and the valve of said shower, whereby the turning on of said switch or valve prevents the turning of the other.

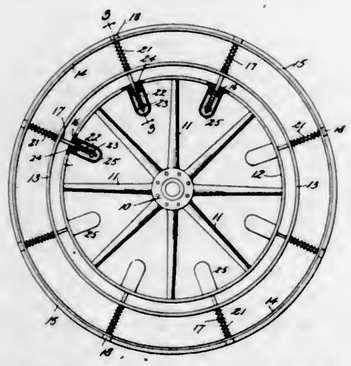
2. A combination bath and heating cabinet, comprising, in combination, an inclosing chamber having an upwardly projecting body, a heating element in said chamber comprising a supporting frame mounted upon said body having upper and lower bracket members, electrical insulating cores secured between said bracket members, heating coils of electrical resistance wire mounted upon and supported by said cores and connected with a switch controlled current supply arranged so that only a portion or all of said coils may be operated at a time, whereby a hot or medium temperature can be maintained within the cabinet, a valve controlled shower disposed on said cabinet and means interposed between and coöperating with the switch of said current supply and the valve of said shower, whereby the turning on of said switch or valve prevents the turning of the other.

3. A combination bath and heating cabinet, comprising, in combination, an inclosing chamber having an upwardly projecting body, a heating element in said chamber comprising a switch controlled electrical resistance circuit, a valve controlled shower disposed in said cabinet and means interposed between and coöperating with the switch of said circuit and the valve of said shower, whereby the turning on of said switch or valve presents the turning of the other.

4. A combination bath and heating device, comprising, in combination, a cabinet, a heater in said cabinet, means for controlling the heater, a shower device in said cabinet, means for controlling the operation of said shower device, and means associated with said heat controlling means and with said shower controlling means for governing their simultaneous operation.

5. A combination bath and heating cabinet, comprising, in combination, an inclosing chamber, a heater in said chamber, a bath shower also in said chamber, a valve for controlling said shower, an electrical heater in said cabinet, a switch for controlling said heater, and means associated with said switch and valve for causing one or the other to be locked against movement when one is operated.

1,241,235. RESILIENT WHEEL. ARLOW G. MARSDEN, Fort Atkinson, Wis. Filed Feb. 15, 1917. Serial No. 148,845. (Cl. 152—8.)

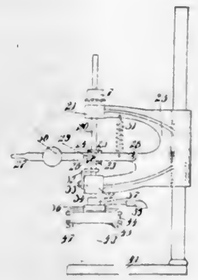


1. A resilient tire for wheels comprising a pair of rims circumferentially disposed about the rim of a wheel and spaced therefrom, radial bolts extending through the tire and the wheel rim, a spring member surrounding each bolt between the aforesaid pair of rims, and a like spring around each bolt within the wheel rim.

2. A resilient tire for wheels comprising an outer rim and an intermediate concentric rim spaced apart and encircling the rim of a wheel at a short distance therefrom, radially disposed bolts slidably extending through the outer and intermediate rims of the tire and the rim of the wheel, a coil spring around each bolt between the outer and intermediate rims, a shallow cup slidable on each bolt, a spring on each bolt with one end in the cup and holding it against the rim of the wheel, and a nut adjustable on the end of each bolt and against the other end of the last named spring.

3. A resilient tire for wheels comprising an outer and an intermediate concentric rim spaced apart and encircling the rim of a wheel at a short distance therefrom, radially disposed bolts slidably extending through openings in said rims and projecting inwardly beyond the rim of the wheel, a coil spring around each bolt between the outer and the intermediate rims and a similar spring around the inner end of said bolt, a shallow cup slidable on the inner end of each bolt in which one end of the latter spring is seated and by means of which the cup is maintained in contact with the rim of the wheel, a nut on each bolt pressing upon the inner spring and adapted to adjust the tension thereof, and a cap extending over the inner end of each of said bolts and the springs surrounding the same, and threaded upon the shallow cup and movable longitudinally therewith.

1,241,236. MACHINE FOR GRINDING THE RIMS OF GLASS VESSELS. MAURICE MATHY, Flémalle-Grande, Belgium. Filed June 8, 1915. Serial No. 32,877. (Cl. 51—11.)



1. In a machine for grinding the rims of glass vessels, the combination of a vertical shaft, a grindstone attached to the lower end of said shaft, means for counterbalancing the vertical shaft and appendant parts, driving gear for rotating said shaft, means for fixing the glass vessel so that the rim thereof is presented to the grindstone, a pivoted lever operatively connected to said shaft, an adjustable weight on said lever to gravitate the same and impart axial movement to the shaft so that the grindstone thereon engages the rim of the glass vessel with predetermined pressure, and central and radial conduits for conducting water to the cutting surface of the grindstone.

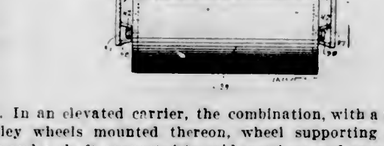
2. In a machine for grinding the rims of glass vessels, the combination of a vertical shaft, a grindstone attached to the lower end of said shaft, means for fixing the glass vessel so that the rim thereof is presented to the grindstone, means for axially displacing the vertical shaft so that the grindstone engages the rim of the glass vessel, and a central conduit and adjustable radial conduits for conducting water to the cutting surface of the grindstone.

3. In a machine for grinding the rims of glass vessels, the combination of a vertical shaft, a grindstone attached to the lower end of said shaft, means for fixing the glass vessel so that the rim thereof is presented to the grindstone, means for axially displacing the vertical shaft so that the grindstone engages the rim of the glass vessel, and a conduit branching, in proximity to the grindstone, into a plurality of central and radial conduits, the latter being adapted to direct the flow of water against the inner face of the grindstone.

1,241,237. BASCULE-BRIDGE. CHARLES H. MERCER, Steelton, and CHARLES H. WOEHLE, Paxtang, Pa. Filed Nov. 15, 1915. Serial No. 61,516. (Cl. 14—36.)

1. In a bascule bridge, the combination with two pivoted leaves and their counterweight structure, of mechanism for imparting endwise movement to the movable leaf of the bridge, and its counter-weighting structure.

2. In a bascule bridge, the combination with a pivoted leaf of the bridge having trusses and counterweight structure connected to said trusses; and rollers on which said structure and leaf are supported of means to simultaneously or separately move said trusses.

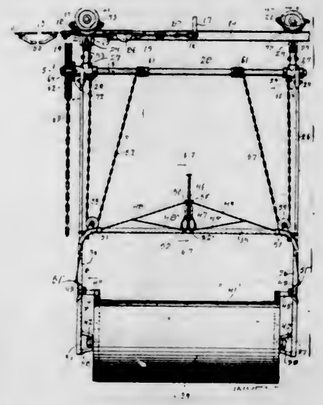


3. In a bascule bridge, the combination with a pivoted leaf of the bridge having trusses, means to pivotally support the trusses, and means to counterweight the leaf; of a fluid motor device for each truss and means to separately or simultaneously operate the motor devices to move the leaf or either truss either forward or backward.

4. In a bascule bridge, the combination with a pivoted leaf of the bridge having trusses, means to pivotally support said trusses at one end, and a counterbalance mechanism on said supporting means, of a hydraulic cylinder and piston adjacent each truss, the piston thereof directly connected to the supporting means, rollers on which said suporting means is mounted, and hydraulic mechanism for operating the pistons simultaneously or independently in either direction.

[Claims 5 to 9 not printed in the Gazette.]

1,241,238. CARRIER. WILLIAM MITCHELL, Milwaukee, Wis., assignor to Mitchell Manufacturing Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Dec. 8, 1915. Serial No. 65,650. (Cl. 212—137.)



1. In an elevated carrier, the combination, with a track, trolley wheels mounted thereon, wheel supporting members and a shaft connected to said members and suspended below said track, of a frame suspended below said shaft, means for raising and lowering said frame, a bucket swingingly mounted in said frame and normally movable to discharging position, means for securing said bucket in upright loading position, and means for automatically releasing said locking means to trip said bucket comprising a bracket pivotally mounted for limited movement on said frame, a trip lever pivotally mounted on said bracket and provided with a hook for engaging said shaft, a trip-shoe normally disposed in inclined position, but movable to upright position on the engagement of the hook with said shaft, and a cam plate on said track for engaging said lever.

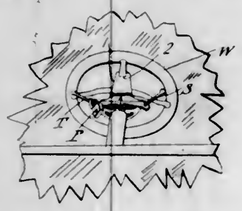
2. In an elevated carrier, the combination, with a track, trolley-wheels mounted thereon, wheel supporting mem-

bers, a main carrier frame connected to said members and suspended below said track including a shaft and a wheel and chain for revolving said shaft, a bucket carried by said frame, and means connected to said shaft for raising and lowering said bucket, of a brake for said shaft comprising brake-members loosely mounted on said shaft and carrying a brake-shoe, one of said brake-members having a cam slot therein, and a fixed member engaging in said slot to automatically move said brake-members to bring the brake-shoe against the wheel when the chain is released by the operator.

3. In an elevated carrier, the combination, with a main carrier frame including a revoluble shaft provided with a wheel, of a carrier suspended below said frame, means connected to the carrier and said shaft for raising and lowering the carrier on the turning of said shaft, means for turning said shaft, and a brake comprising a pair of brake shoes disposed on opposite sides of said wheel and, means for bringing said shoes into alternate frictional engagement with said wheel.

4. In an elevated carrier the combination, with a main carrier frame including a revoluble shaft provided with a wheel, of a carrier suspended below said frame, means connected to the carrier and said shaft for raising and lowering the carrier on the turning of said shaft, and a brake comprising a clutch shoe for automatically frictionally engaging said wheel on the release of said turning means on the raising of the carrier and a brake shoe for retarding said wheel when the clutch shoe is out on the lowering of the carrier.

1,241,239. AUTOMOBILE-LOCK. CARL M. MUELLER, Rock Island, Ill., assignor of one-half to William Mueller, Moline, Ill. Filed Nov. 9, 1916. Serial No. 130,402. (Cl. 70—126.)

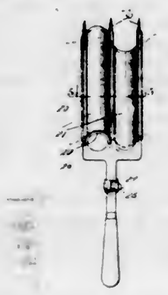


An automobile lock including a tongue having a notch for the reception of a spoke of a steering wheel, a head at one end of and disposed at an angle to the tongue, said head having arms extending laterally beyond the tongue, one of said arms having an aperture for the reception of a spark lever, the other arm having a longitudinally slotted arcuate portion adapted to straddle a throttle lever, and means for engaging the straddled portion of the throttle lever to hold the tongue and head in engagement with the spoke and spark lever.

1,241,240. HAIR WAVER OR CURLER. FRANZISKA MÜLLER, Atlantic City, N. J. Filed Oct. 2, 1916. Serial No. 123,273. (Cl. 132—18.)

1. In a hair waver, a matrix member, comprising a plurality of arches having recesses therebetween and at the sides, a fork member having prongs corresponding in number to said recesses and adapted to fit into said recesses, handles on said matrix member and fork member, and means pivotally connecting said handles.

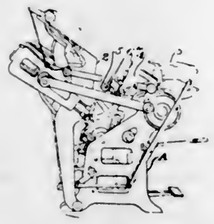
5. In a hair waver, composed of a matrix member and a fork member, both formed with handles and connected pivotally, said matrix member comprising longitudinally-extending contiguous portions which have convex surfaces facing in the same direction, adjacent convex-surfaced portions being separated by a longitudinal depression, the matrix member having similar longitudinal depressions adjacent its opposite longitudinal edges, and that edge of the matrix member which is nearest the handle being recessed at one of said portions and projected toward the handle at the adjacent portion, while the reverse arrangement obtains at the edge farthest away from the handle, and the



fork member having prongs adapted to fit into said depressions.

[Claims 2 to 4, 6, and 7 not printed in the Gazette.]

1,241,241. AUTOMATIC PAPER-ADJUSTER AND GAGE-PIN FOR PLATEN PRINTING-PRESSES. CHARLES A. NACE, Santa Clara, Cal. Filed Sept. 11, 1916. Serial No. 119,463. (Cl. 101—414.)



1. In a printing press, a sliding gage, a member pivoted at one end, a link pivotally connected to the gage and to the other end of the pivoted member, and means operable by closing of the press to swing the pivoted member and thereby the link and gage.

2. In a printing press, sheet engaging means to effect adjustment of the sheet, means to actuate said first means including an arched spring, and a reversely arched spring connected at its center to the first arched spring and adapted to have its ends compressed by impact against the furniture of the press.

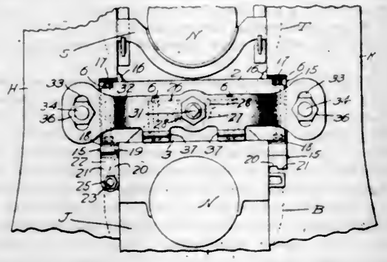
3. In a printing press, separate means formed so as to be carried by one of the gripper arms for automatically adjusting a sheet placed on the platen in diverse directions to assume a predetermined position before the impression is made.

4. In a printing press, means formed so as to be carried by one of the gripper arms for automatically adjusting a sheet placed on the platen to assume a predetermined position before the impression is made, said means comprising a movable gage and an independent swinging finger both engageable with the sheet.

5. In a printing press, means formed so as to be carried by one of the gripper arms for automatically adjusting a sheet placed on the platen to assume a predetermined position before the impression is made, said means comprising a movable gage and a finger both engageable with the sheet, and means connected with said gage and finger engageable with the bed of the press when the platen swings up to take the impression, said means when engaging with the bed, being adapted to transmit a swinging movement to the finger, and a reciprocating movement to the gage.

[Claims 6 to 14 not printed in the Gazette.]

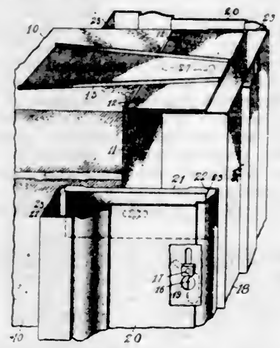
1,241,242. ROLLING-MILL. ARTHUR F. NELSON, Harrisburg, Pa. Filed Sept. 11, 1915. Serial No. 50,236. (Cl. 80—34.)



3. In a rolling mill, the combination with a housing having recesses therein; of a side roll and a side roll casing comprising an upper and a lower portion connected together, liner retaining flanges on the upper casing portion adjacent said housing recesses, inclines on said lower casing portion depending in said recesses, adjustable wedges supporting said inclines and whose lower surfaces are stepped and engage corresponding surfaces in the bottoms of said recesses, lugs on said wedges, bolts anchored in said housing and passing through said lugs, nuts on said bolts on both sides of said lugs, a stationary yoke, and a screw in said yoke for moving said casing back and forth.

[Claims 1, 2, and 4 not printed in the Gazette.]

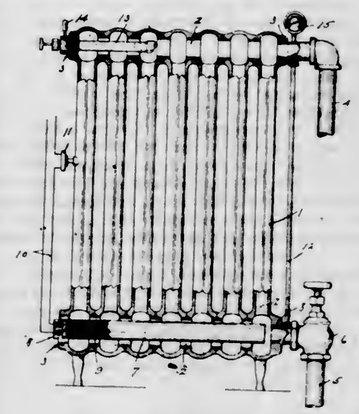
1,241,243. SHEET-METAL FRAME. OTHO M. OTTS, Jamestown, N. Y. Filed Mar. 16, 1916. Serial No. 84,528. (Cl. 189—46.)



1. In sheet metal construction, a channel-shaped buck member, a channel-shaped finishing member fitting over said buck member, the flanges of each of said channel members having elongated slots, a bolt for locking said members together, said slots having enlarged parts of a size to enable the head of the bolt to be received therethrough upon registry of said enlarged parts and engaged with the inner face of the flange of the buck member, and while the finishing member remains fitted over said buck member, the major parts of said slots being of a width so as to allow the shank of the bolt to be moved therealong to obtain different adjustments of the finishing member, and a nut on the bolt engaging the outer face of the finishing member to rigidly secure same to the buck member, the slot of one of said members having a part thereof inclined with respect to the slot of the other member whereby to obtain various characters of adjustments of the finishing member.

[Claim 2 not printed in the Gazette.]

1,241,244. ELECTRICALLY-HEATED WATER-CONTAINING RADIATOR. OTTO A. PALMER, Wayzata, Minn., assignor of one-half to Paul W. Tibbits, Wayzata, Minn. Filed Mar. 9, 1917. Serial No. 153,541. (Cl. 219—38.)

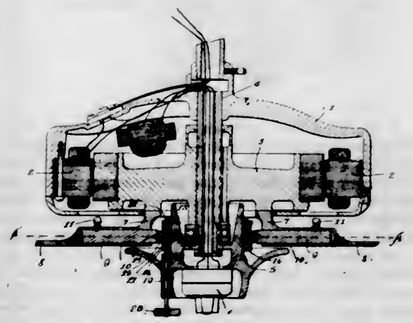


1. An electric radiator having a supply of liquid therein, a heating element in said liquid, and means for producing a partial vacuum in the radiator.

3. An electric radiator comprising a plurality of radiator sections having alined communicating openings at the bottoms thereof and a supply of liquid therein, an external opening in the radiator alined with said communicating openings and a heating element inserted through said alined openings into the liquid, said heating element having at its outer end a plug secured in said external opening and from which plug the heating element is supported.

[Claims 2 and 4 not printed in the Gazette.]

1,241,245. MOTOR-FAN. LINUS J. PARKER, Fulton, N. Y., assignor to Hunter Fan and Motor Co., Fulton, N. Y., a Corporation of New York. Filed July 23, 1915. Serial No. 41,539. (Cl. 170—163.)



1. A motor fan comprising a rotating carrier, vanes journaled in the carrier, a fixed frame element extending axially into the carrier, and means for shifting the vanes comprising a ring encircling said element and movable axially thereof and connected to the vanes, substantially as and for the purpose described.

2. A motor fan comprising a rotating carrier, vanes journaled in the carrier, a fixed frame element extending axially into the carrier, and means for shifting the vanes comprising a ring encircling said element and movable axially thereof and connected to the vanes, and a part

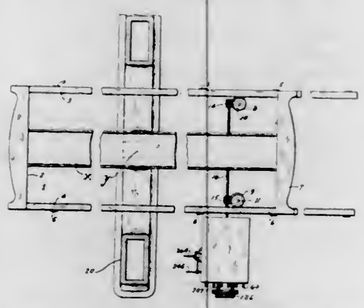
fixed from rotation for moving the ring axially, substantially as and for the purpose specified.

3. A motor fan comprising a frame including a central element, a carrier rotatable about said element, vanes having shanks journaled in the carrier, inner and outer concentric rings encircling said element and shiftable axially thereof, the rings having interlocking means whereby the axial movement of one is transferred to the other, the outer ring being rotatable and connected to the vanes to shift the same during the axial movement of the ring and means connected to the inner ring to shift the same axially, substantially as and for the purpose set forth.

4. A motor fan comprising a rotating carrier, vanes journaled in the carrier, a fixed element extending axially into the carriage, and means for shifting the vanes comprising a ring encircling said element and movable axially thereof and connected to the vanes, and means fixed from rotation for moving the ring axially, said means being carried by said element and extending lengthwise thereof, substantially as and for the purpose described.

5. A motor fan comprising a frame including a central element, a carrier rotatable about said element, vanes having shanks journaled in the carrier, inner and outer concentric rings encircling said element and shiftable axially thereof, the outer ring being rotatable and connected to the vanes to shift the same during the axial movement of the ring, the rings having interlocking means whereby the axial movement of one is transferred to the other, and an operating member extending lengthwise of said element and connected to the inner ring.

1,241,246. METAL-WORKING MACHINE. THEODORE P. PAYNE, Newark, N. J., assignor to Steel Utilities, Incorporated, a Corporation of New York. Filed June 20, 1912. Serial No. 704,819. Renewed May 28, 1915. Serial No. 31,085. (Cl. 164—87.)



1. A machine for operating upon structural shapes including in combination tool equipped means, means for progressing a shape relatively to said tool equipped means, driving means for said shape progressing means, and means for positioning and stopping said progressed shape relatively to said tool equipped means, including a series of settable devices arranged together in a group similar to a keyboard and mounted apart from said work progressing means, said devices representing distances of travel of the shape progressing means, and connections between said driving means and said shape progressing means controlled by said settable devices whereby said driving means will move said shape progressing means a distance corresponding to the setting of said settable devices.

2. A machine for operating upon structural shapes including in combination tool equipped means, means for progressing a shape relatively to said tool equipped means, driving means for said shape progressing means, and means for positioning and stopping said progressed shape relatively to said tool equipped means, including a series of settable devices arranged together in a group similar to a keyboard and mounted apart from said work progressing means, said devices representing distances of travel of the shape progressing means, and connections between said driving means and said shape progressing means, said connections including a movable member cooperating with a set distance representing device to arrest said shape progressing means when it has traveled the distance for which said distance representing device was set.

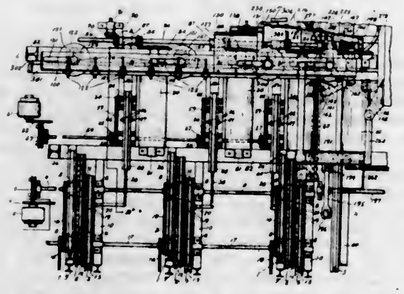
3. A machine for operating upon structural shapes including in combination tool equipped means, means for progressing a shape relatively to said tool equipped means, driving means for said shape progressing means, and means for positioning and stopping said progressed shape relatively to said tool equipped means, including a series of settable devices arranged together in a group similar to a keyboard and mounted apart from said work progressing means, said devices representing distances of travel of the shape progressing means, and connections between said driving means and said shape progressing means, said connections including a plurality of movable members each coöperating with a plurality of settable devices to control the travel of said shape progressing means in accordance with the setting of said settable devices.

4. A machine for operating upon structural shapes including in combination tool equipped means, means for progressing a shape relatively to said tool equipped means, driving means for said progressing means, means for positioning and stopping said progressed shape relatively to said tool equipped means, comprising a plurality of traveling members, a series of settable devices, said members and devices representing the one distance denominations and the other various distances of the different denominations, said travel of said members being controlled by the set devices to control the action of said driving means on said shape progressing means whereby said progressing means is moved a distance corresponding to the setting of said settable devices.

5. A machine for operating upon structural shapes including in combination tool equipped means, means for progressing a shape relatively to said tool equipped means, driving means for said progressing means, means for positioning and stopping said progressed shape relatively to said tool equipped means, comprising a member traveling in predetermined relation to the travel of said shape progressing means, a plurality of devices settable into the path of said traveling member at various points, whereby said traveling member controls the action of said driving means on said progressing means to stop same at a corresponding point in its travel.

[Claims 6 to 89 not printed in the Gazette.]

1,241,247. METAL-WORKING MACHINE. THEODORE P. PAYNE, Newark, N. J., assignor to Steel Utilities, Incorporated, a Corporation of New York. Filed Sept. 16, 1913. Serial No. 790,085. (Cl. 164—87.)



1. A machine for perforating structural shapes, including in combination tool equipped means, shape progressing and positioning means comprising a head movable along the path of said shape and means frictionally holding the shape to said head, and distance determining device controlling the movements and positions of said head.

2. A machine for perforating structural shapes, including in combination tool equipped means, shape progressing and positioning means comprising a head movable along the path of said shape, and means frictionally holding the shape to said head and settable distance determining devices comprising a keyboard having keys representing distance denominations and values and controlling the movements and positions of said head.

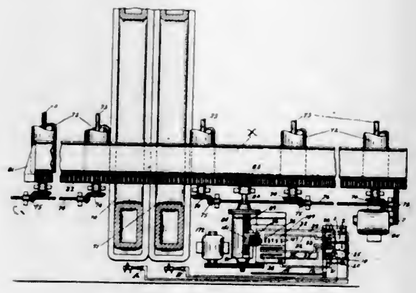
3. A machine for perforating structural shapes including in combination tool equipped means, shape progressing and arresting means comprising a head movable along the path of said shape and acting to permit or prevent the travel of said shape, and distance determining devices including selectively settable members representing distance denominations and values and controlling the movements and position of said head.

4. A machine for perforating structural shapes including in combination tool equipped means, shape progressing and arresting means comprising a head movable along the path of said shape and acting to permit or prevent the travel of said shape, distance determining devices controlling the movements and position of said head, and means impelling said shape continuously forward against said head.

5. A machine for perforating structural shapes including in combination tool equipped means, means for progressing a shape along a path past said tool equipped means, said progressing means comprising a plurality of driven members upon which the shape rests and by which it is progressed, and distance determining devices for permitting and preventing the movement of said shape with respect to the tool equipped means.

[Claims 6 to 63 not printed in the Gazette.]

1,241,248. METAL-WORKING MACHINE. THEODORE P. PAYNE, Newark, N. J., assignor to Steel Utilities, Incorporated, a Corporation of New York. Filed Jan. 26, 1914. Serial No. 814,380. (Cl. 164—113.)



1. A machine for operating upon structural shapes including in combination tool-equipped means, means for progressing a shape widely varying successive distances relatively to the tool-equipped means, distance determining means for positioning the work relatively to the tool-equipped means through such widely varying successive distances to be operated upon thereby, and a distance record device governing the operation of said distance determining means.

2. A machine for operating upon structural beams including in combination tool-equipped means, and means for causing a beam to travel and stop relatively to the tool-equipped means to correctly position the beams for successive operations, said means including a distance record device adapted to feed and stop through irregular and widely varying distances and mechanism governed thereby to properly travel and stop the beam, and means for feeding the distance record device.

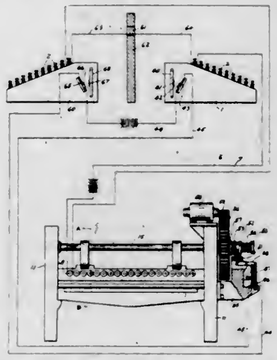
3. A machine for operating upon structural beams including in combination tool-equipped means, and means for causing a beam to travel and stop relatively to the tool-equipped means to correctly position the beams for successive operations, said means including a distance record device, a head traveling in fixed relation with the beam and mechanism automatically governed by the distance record device to stop the head and the beam in positions corresponding to the readings of the distance record device.

4. A machine for operating upon structural beams including in combination tool-equipped means, and means for causing a beam to travel and stop relatively to the tool-equipped means to correctly position the beams for successive operations, said means including a distance record device and mechanism governed thereby to successively stop the beam in accordance with the readings of the distance record device, said mechanism including a traveling head engaged by the forward end of the beam and stopped by the distance record device.

5. A machine for operating upon structural beams including in combination tool-equipped means, and means for causing a beam to travel and stop relatively to the tool-equipped means to correctly position the beams for successive operations, said means including a distance record device and mechanism governed thereby to automatically and successively properly travel and stop the beam.

[Claims 6 to 69 not printed in the Gazette]

1,241,249. MACHINE FOR MAKING DISTANCE-RECORD DEVICES FOR METAL-WORKING MACHINES. THEODORE P. PAYNE, Newark, N. J., assignor to Steel Utilities, Incorporated, a Corporation of New York. Filed Mar. 2, 1914. Serial No. 821,990. (Cl. 101—11.)



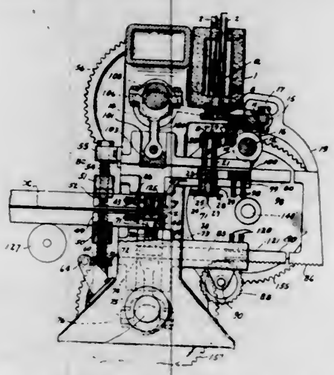
1. A machine for making distance record sheets for shape punching machines including in combination means for presenting a sheet to be punched, including devices for imparting uniform lengthwise feed to the sheet between each actuation of the punches, a plurality of punches each representing a distance value arranged in a series across the sheet, a corresponding series of dies arranged in a series on the opposite side of the sheet, a keyboard having keys corresponding to the respective punches, numeral printing mechanism, connections whereby the actuation of a key will select a particular punch and a corresponding numeral, and means subsequently actuable by the operator for simultaneously actuating a plurality of the punches to punch the sheet and simultaneously to print all the corresponding numerical values.

5. A machine for making distance record sheets for shape punching machines including in combination means for presenting a sheet to be punched, a series of punches each representing a distance value, a series of interponents corresponding to the punches, punch actuating mechanism comprising a shaft and a clutch, numeral printing mechanism, a keyboard having keys corresponding to the inter-

ponents and selecting corresponding numerals to be printed, electrical circuits controlled by the respective keys and electromagnetic means therein for selecting the corresponding interponents, and means subsequently operable by the operator for causing the selected punches to punch the sheet and the printing mechanism to print the corresponding number, said subsequently operable means comprising an electrical circuit and electromagnetic means for releasing the clutch.

[Claims 2 to 4 not printed in the Gazette.]

1,241,250. RIVETING-MACHINE. THEODORE P. PAYNE, Newark, N. J., assignor to Steel Utilities, Incorporated, a Corporation of New York. Filed Mar. 5, 1914. Serial No. 822,759. (Cl. 78—49.)



1. A machine for riveting together structural shapes including in combination means for heating the end of a rod, means for advancing the heated rod longitudinally to cutting devices, means for cutting a rivet length from the heated end, means for alining and clamping a plurality of punched structural shapes, means for inserting the hot rivet in the rivet holes, and means for forming the rivet.

18. A machine for riveting together structural shapes including in combination means for supporting a plurality of assembled shapes, a head on one side of, and reciprocating to and from said shapes, a carrier traveling transversely to the path of travel of said head, said carrier having a plurality of rivet forming devices, a head on the opposite side of the work, a carrier traveling transversely to the path of travel of said head and having rivet forming devices adapted to coöperate with the rivet forming devices on the other carrier, said carriers each engaging its head to be thereby caused to coöperate and to rivet the shapes together.

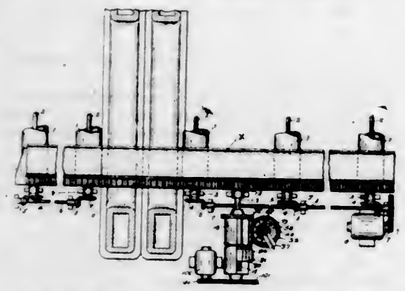
22. A machine for riveting together structural shapes including in combination rod heating means including a refractory envelop about the rod, means for cutting off a blank from the heated end of the rod, means for placing the blank in the rivet holes of an angle plate and a beam, and means for forming the rivet.

24. A machine for riveting together structural shapes including in combination alining means comprising a pin entering the rivet holes in superposed structural members to aline the holes, and devices for pushing the pin into a hole and withdrawing it therefrom, and means for inserting a rivet blank through the alined holes from which the pin has been withdrawn, and means for forming the rivet.

28. A machine for riveting together structural shapes including in combination means engaging the transverse legs or flanges of two angle plates to aline their rivet holes, means, including a series of rollers upon which the beam rests on its flanges, for moving the end of a beam between the angle plates and means for riveting the beam and angle plates together.

[Claims 2 to 17, 19 to 21, 23, and 25 to 27 not printed in the Gazette.]

1,241,251. METAL-WORKING MACHINE. LOUIS A. HAWTHORNE, Newark, N. J., assignor to Steel Utilities, Incorporated, a Corporation of New York. Filed Mar. 13, 1914. Serial No. 824,385. (Cl. 164—87.)



1. A machine for punching structural shapes including in combination punching means, and means for successively progressing and stopping a shape in proper position to be punched, said means including a head against which the end of the shape abuts as it travels, a rack bar extending along the shape and traveling therewith, and a distance determining device comprising a pinion meshing with said rack, a shaft upon which said pinion is fixed, an externally threaded nut rotating with and traveling along said shaft, an internally threaded cylinder inclosing said nut and with which the thread on said nut engages, a rack bar connected to travel with said nut, and a plurality of concentric rotatable disks, one of said disks having a gear meshing with said last mentioned rack bar, various disks having slots therein, and having also keys adapted to be set to engage in slots on an adjacent disk to determine the amount of travel of one disk with respect to another.

2. A machine for punching structural shapes including in combination punching means, and means for successively progressing and stopping a shape in proper position to be punched, said means including a head against which the end of the shape abuts as it travels, a rack bar extending along the shape and traveling therewith, and a distance determining device comprising a pinion meshing with said rack, a shaft upon which said pinion is fixed, an externally threaded nut rotating with and traveling along said shaft, an internally threaded cylinder inclosing said nut and with which the thread on said nut engages, a rack bar connected to travel with said nut, and a plurality of concentric rotatable disks, said disks representing distance denominations and having arcuate slots representing respectively values in said distance denomination, and a series of keys carried by said respective disks the keys representing distance values and being projectable into the slots on an adjacent disk to determine the amount of travel of one disk with respect to another, one of said disks having a gear meshing with said rack.

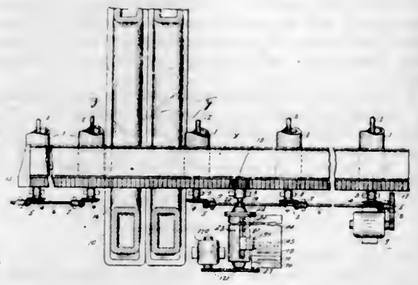
3. A machine for punching structural shapes including in combination punching means, and means for successively progressing and stopping a shape in proper position to be punched, said means including a head against which the end of the shape abuts as it travels, a rack bar extending along the shape and traveling therewith, and a distance determining device comprising a pinion meshing with said rack, a shaft upon which said pinion is fixed, an externally threaded nut rotating with and traveling along said shaft, an internally threaded cylinder inclosing said nut and with which the thread on said nut engages, a rack bar connected to travel with said nut, and a plurality of concentric rotatable disks, one of said disks having a gear meshing with said last mentioned rack bar, various disks having slots therein, and having also keys adapted to be set to engage in slots on an adjacent disk to determine the amount of travel of one disk with respect to another, said disks having an initial position and means for automatically restoring them to such position.

4. A machine for punching structural shapes including in combination punching means and means for successively progressing and stopping a shape in proper position to be punched, said means including a head against which the end of the shape abuts as it travels, a rack bar extending along the shape and traveling therewith, and a distance determining device comprising a pinion meshing with said rack, a shaft upon which said pinion is fixed, an externally threaded nut rotating with and traveling along said shaft, an internally threaded cylinder inclosing said nut and with which the thread on said nut engages, a rack bar connected to travel with said nut, and a plurality of concentric rotatable disks, one of said disks having a gear meshing with said last mentioned rack bar, various disks having slots therein, and having also keys adapted to be set to engage in slots on an adjacent disk to determine the amount of travel of one disk with respect to another, said disks having an initial position and spring means for automatically restoring them to such position.

5. A machine for punching structural shapes including in combination punching means, and means for successively progressing and stopping a shape in proper position to be punched, said means including a head against which the end of the shape abuts as it travels, a rack bar extending along the shape and traveling therewith, and a distance determining device comprising a pinion meshing with said rack, a shaft upon which said pinion is fixed, an externally threaded nut rotating with and traveling long said shaft, an internally threaded cylinder inclosing said nut and with which the thread on said nut engages, a rack bar connected to travel with said nut, and a plurality of concentric rotatable disks, one of said disks having a gear meshing with said last mentioned rack bar, various disks having slots therein, and having also keys adapted to be set to engage in slots on an adjacent disk to determine the amount of travel of one disk with respect to another, and a stationary series of keys coöperating with one of said disks.

[Claims 6 to 53 not printed in the Gazette.]

1,241,252. METAL-WORKING MACHINE. LOUIS A. HAWTHORNE, Newark, N. J., assignor to Steel Utilities, Incorporated, a Corporation of New York. Filed Mar. 13, 1914. Serial No. 824,386. (Cl. 164—87.)



1. A machine for punching structural shapes including in combination punching means, and means for successively progressing and stopping a shape in proper positions to be punched, said means including a plurality of members representing distance denominations and being movable relatively to each other, connections for causing said members to have a total movement proportionate to the travel of the shape, and devices for distributing the total movement of all said members between the various members, to control the travel and stopping of said shape relatively to said punching means, and means for restoring said relatively movable members.

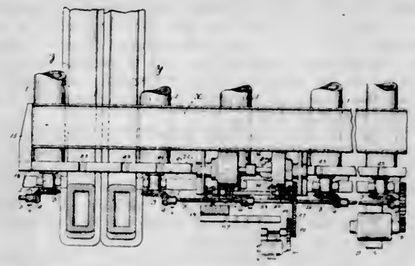
3. A machine for punching structural shapes including in combination punching means, and means for successively progressing and stopping a shape in proper positions to be punched, said means including a plurality of members representing distance denominations and being movable relatively to each other, connections for causing said members to have a total movement proportionate to the travel of the shape, selectively settable devices for distributing the total movement of all said members between the various members, to control the travel and stopping of said shape relatively to said punching means, and means for restoring said relatively movable members preparatory to a new setting.

4. A machine for punching structural shapes including in combination punching means, and means for successively progressing and stopping a shape in proper positions to be punched, said means including a plurality of members representing distance denominations and being movable relatively to each other, connections for causing said members to have a total movement proportionate to the travel of the shape, and devices mounted upon said relatively movable members for distributing the total movement of all said members between the various members, to control the travel and stopping of said shape relatively to said punching means.

5. A machine for punching structural shapes including in combination punching means, and means for successively progressing and stopping a shape in proper positions to be punched, said means including a plurality of members representing distance denominations and being movable relatively to each other, connections for causing said members to have a total movement proportionate to the travel of the shape, and selectively settable devices mounted upon said relatively movable members for distributing the total movement of all said members between the various members, to control the travel and stopping of said shape relatively to said punching means and means for restoring said relatively movable members preparatory to a new setting.

[Claims 6 to 83 not printed in the Gazette.]

1,241,253. METAL-WORKING MACHINE. JOHN D. MORGAN, Summit, N. J., assignor to Steel Utilities, Incorporated, a Corporation of New York. Filed Apr. 25, 1914. Serial No. 834,332. (Cl. 164—87.)



1. A machine for punching structural shapes including in combination punching means, and means for successively traveling and stopping the shape relatively to the punching means to be punched thereby, said means including members varying in size by distance unit changes.

2. A machine for punching structural shapes including in combination punching means, and means for successively traveling and stopping the shape relatively to the punching means to be punched thereby, said means includ-

ing settable members variable in length by distance unit changes and means for setting said members for the desired distances.

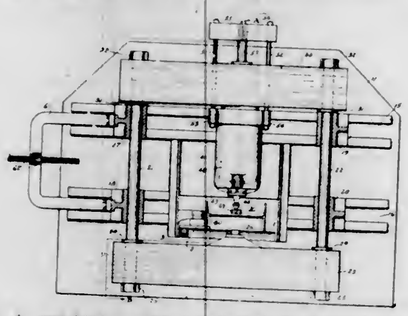
3. A machine for punching structural shapes including in combination punching means, and means for successively traveling and stopping the shape relatively to the punching means to be punched thereby, said means including members varying in size by fractional distance unit changes.

4. A machine for punching structural shapes including in combination punching means, and means for successively traveling and stopping the shape relatively to the punching means to be punched thereby, said means including settable members variable in length by fractional distance unit changes and means for setting said members for the desired distances.

5. A machine for punching structural shapes including in combination punching means, and means for successively traveling and stopping the shape relatively to the punching means to be punched thereby, said means including members varying in size both by distance units and fractions of a distance unit.

[Claims 6 to 108 not printed in the Gazette.]

1,241,254. METAL-WORKING MACHINE. THEODORE P. PAYNE, Newark, N. J., and EDWARD V. WURTS, Pittsburgh, Pa., assignors to Steel Utilities, Incorporated, a Corporation of New York. Filed Apr. 28, 1914. Serial No. 834,895. (Cl. 164—87.)



5. A punching machine including in combination a punching member, a coöperating die member, and power means for bringing said punch and die members variable distances into engagement with the work and for punching the work, and automatic means for applying the power.

20. A punching machine including in combination, a punch member, a die member, and means for applying power thereto to bring one and then the other of said members to the work and then to punch the work, means for traveling and stopping the work in various desired positions to be punched, and coöperating automatically operating means for controlling the application of power to the punching devices.

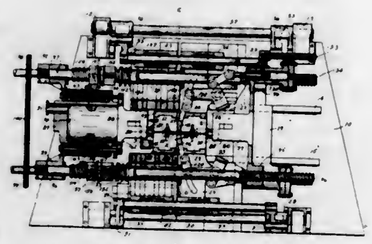
39. A punching machine including in combination a cylinder, a plunger, a punch connected to one of them, a die connected to the other, means for supplying pressure fluid therebetween including a valve device and means for controlling same including a distance record device and means for traveling said punch and die by distance values to properly position the holes in the work.

60. A punching machine including in combination a plurality of punches arranged in a series and including a flange punch and a web punch, and means including a distance determining device for traveling and stopping a shape relatively to said punches and controlling means therefor whereby the flange and web rivet holes are punched in once running the shape through the machine.

76. A punching machine including in combination a punch carrier having a plurality of punches, a die carrier having a plurality of dies, and means, including a single distance record device for both varying the transverse position of the plurality of punches and dies relative to the work and the distance between the respective pairs of punches and dies.

[Claims 1 to 4, 6 to 19, 21 to 38, 40 to 59, and 61 to 75 not printed in the Gazette.]

1,241,255. METAL-PUNCHING MACHINE. LOUIS A. HAWTHORNE, Newark, N. J., assignor to Steel Utilities, Incorporated, a Corporation of New York. Filed Apr. 28, 1914. Serial No. 834,908. (Cl. 164—87.)



1. A machine for punching structural shapes including in combination means for supporting shapes of various sizes, punch and die mechanism for punching the shape flanges, and means for centering the punch and die mechanism relatively to shapes of different sizes.

2. A machine for punching structural shapes including in combination means for supporting shapes of various sizes, punch and die mechanism for punching the shape flanges, and means acting automatically to center the punch and die mechanism toward and from the support for shapes of different sizes.

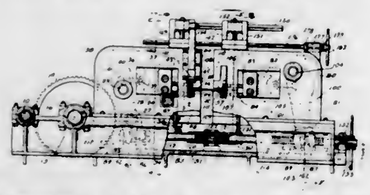
3. A machine for punching structural shapes including in combination means for supporting shapes of various sizes, punch and die mechanism for punching the shape flanges, and means controlled by a distance record device for centering the punch and die mechanism relatively to shapes of different sizes.

4. A machine for punching structural shapes including in combination means for supporting shapes of various sizes, punch and die mechanism for punching the shape flanges, and means for centering the punch and die mechanism transversely to the shape for shapes of different sizes.

5. A machine for punching structural shapes including in combination means for supporting shapes of various sizes, punch and die mechanism for punching the shape flanges, and means controlled by a distance record device for centering the punch and die mechanism vertically relatively to shapes of different sizes.

[Claims 6 to 72 not printed in the Gazette.]

1,241,256. METAL-WORKING MACHINE. LOUIS A. HAWTHORNE, Newark, N. J., assignor to Steel Utilities, Incorporated, a Corporation of New York. Filed May 16, 1914. Serial No. 838,954. (Cl. 164—87.)



1. A punching machine including in combination a slidable punch and die carrying frame adapted to receive

a beam flange, an oposed punch and die carrying frame adapted to receive the other flange of the beam, movable punch actuating devices mounted on said slidable frames, actuating levers conected to said slidable frames and to said punch actuating devices.

2. A punching machine including in combination a slidable punch and die carrying frame adapted to receive a beam flange, an oposed punch and die carrying frame adapted to receive the other flange of the beam, movable punch actuating devices mounted on said slidable frames, actuating levers connected to said slidable frames and to said punch actuating devices and connections between said levers.

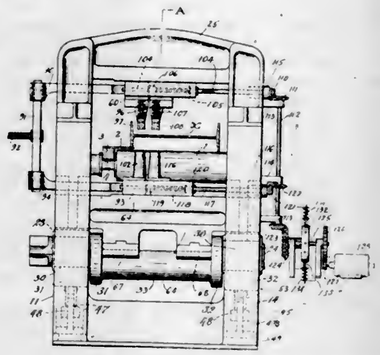
3. A punching machine including in combination a slidable punch and die carrying frame adapted to receive a beam flange, an opposed punch and die carrying frame adapted to receive the other flange of the beam, movable punch actuating devices mounted on said slidable frames, actuating levers pivoted upon said slidable frames and to said punch actuating devices and connections between said levers.

4. A punching machine including in combination a slidable punch and die carrying frame adapted to receive a beam flange, an opposed punch and die carrying frame adapted to receive the other flange of the beam, movable punch actuating devices mounted on said slidable frames, actuating levers connected to said slidable frames and to said punch actuating devices and connections between said levers for causing them to move together.

5. A punching machine including in combination a slidable punch and die carrying frame adapted to receive a beam flange, an opposed punch and die carrying frame adapted to receive the other flange of the beam, movable punch actuating devices mounted on said slidable frames, an actuating lever pivoted to one of said sliding frames at a medial point and connected at one of its ends to the corresponding movable punch actuating device, an actuating lever pivoted at one of its ends to the other sliding frame and connected at a medial point to the corresponding movable punch actuating device.

[Claims 6 to 59 not printed in the Gazette.]

1,241,257. METAL-WORKING MACHINE. EDWARD V. WURTS and JOHN J. SWINBANK, Pittsburgh, Pa., assignors to Steel Utilities, Incorporated, a Corporation of New York. Filed May 18, 1914. Serial No. 839,368. (Cl. 164—102.)



1. A punching machine including in combination a punch carrying frame movable toward and from the work, a die carrying frame movable toward and from the work, a floating shaft having a single eccentric portion, the shaft and one of said frames moving together, and the other of said frames and the eccentric portion of said shaft moving together.

9. A punching machine including in combination a punch carrying frame movable toward and from the work, a die carrying frame movable toward and from the work, a shaft having an eccentric portion, the shaft and one of said frames moving together, and the other of said frames and the eccentric portion of said shaft moving together, and devices including an automatic distance determining device for traveling the shape and stopping it relatively to the punching mechanism longitudinally and transversely.

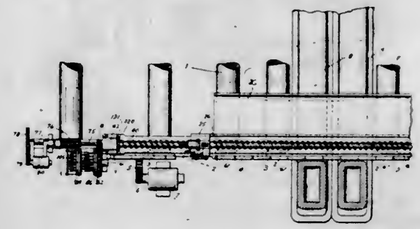
21. A punching machine including in combination a floating shaft having an eccentric portion, a punch carrying frame, a die carrying frame, one of said frames being carried to the work by the shaft and the other being carried to the work by the eccentric portion of the shaft, and means for causing relative movement between the punch and die and the shape to locate the perforations transversely in the shape.

37. A punching machine including in combination upright guiding members, a frame vertically slidable on said guiding members, a shaft carried by said frame and having an eccentric portion, a second frame slidable vertically relatively to said first mentioned frame and moving with the eccentric part of said shaft, a punch carrier movable on one of said frames transversely to the shape, a die carrier movable on the other of said frames transversely to said shape, and means for so moving said carriers together.

55. A punching machine including in combination vertical guiding members, a frame comprising substantially parallel members vertically slidable on said guiding members, a shaft journaled in said parallel members away from said cross member and having an eccentric portion between said parallel members, a second cross member slidable on said parallel members to and from said first mentioned cross member and moved by said ecentric portion of said shaft, a punch carried by one of said cross members and a die by the other of said cross members, a rotating device, and flexible connections between said rotating device and said shaft.

[Claims 2 to 8, 10 to 20, 22 to 36, and 38 to 54 not printed in the Gazette.]

1,241,258. METAL-PUNCHING MACHINE. LOUIS A. HAWTHORNE, Newark, N. J., assignor to Steel Utilities, Incorporated, a Corporation of New York. Filed June 1, 1914. Serial No. 842,231. (Cl. 164—87.)



1. A machine for punching structural shapes, including in combination punching devices, means for successively traveling and stopping the shape relatively to the punching devices, said means including a member not traveling with the shape, and another member traveling with the shape and adapted to engage and disengage said first mentioned member and means for moving said members while in engagement to give additional travel of the shape relatively to the punching devices.

2. A machine for punching structural shapes, including in combination punching devices, means for successively traveling and stopping the shape relatively to the punching devices, said means including a member not traveling with the shape and another member traveling with the shape and adapted to engage and disengage said first mentioned member while said first mentioned member is at rest and means for moving said members while in engagement to give additional travel of the shape relatively to the punching devices.

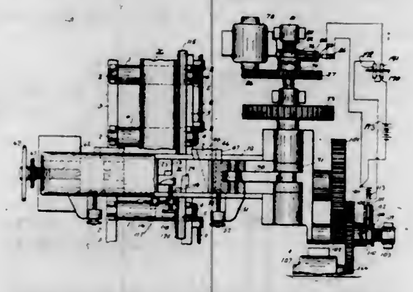
3. A machine for punching structural shapes, including in combination punching devices, means for successively traveling and stopping the shape relatively to the punching devices, said means including a member not traveling with the shape and another member traveling with the shape and adapted to engage said first mentioned member after the shape has traveled a selected number of units of one distance denomination, and means for causing additional travel of the shape after such engagement.

4. A machine for punching structural shapes, including in combination punching devices, means for successively traveling and stopping the shape relatively to the punching devices, said means including a member not traveling with the shape and another member traveling with the shape and adapted to engage said first mentioned member after the shape has traveled a selected number of units of one distance denomination and means for causing additional travel of the shape for a selected distance after such engagement.

5. A machine for punching structural shapes, including in combination punching devices, means for successively traveling and stopping the shape relatively to the punching devices, said means including a member not traveling with the shape and another member traveling with the shape and adapted to engage said first mentioned member after the shape has traveled a selected number of units of one distance denomination and means for moving said members while in engagement to cause addtional travel of the shape for a selected distance.

[Claims 6 to 70 not printed in the Gazette.]

1,241,259. MACHINE FOR OPERATING ON STRUCTURAL BEAMS. EDWARD V. WURTS, Pittsburgh, Pa., assignor to Steel Utilities, Incorporated, a Corporation of New York. Filed Aug. 8, 1914. Serial No. 855,816. (Cl. 164—15.)



1. A machine for operating upon structural beams, including in combination a head carrying a group of cutters for one side of the beam, a head carrying a group of cutters for the other side of the beam, a shaft connecting said heads, said shaft being movable to space the heads for beams of different sizes and to cause the cutters of each group to cut, one of said movements being rotative and the other reciprocable.

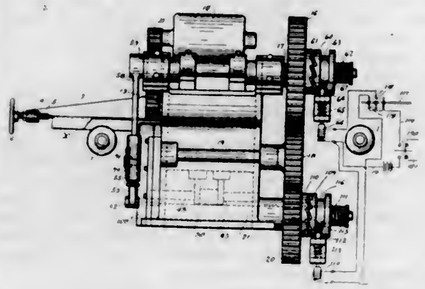
5. A machine for operating upon structural beams, including in combination a head carrying a group of cutters for one side of the beam, a head carrying a group of cutters for the other side of the beam, a shaft connecting said heads, said shaft being rotatable to space said heads for beams of different sizes and being reciprocable to cause each group of cutters to cut the beam, and means for positioning the beam transversely with respect to the cutters.

17. A machine for operating upon structural beams, including in combination, a head carrying a stationary cutter and a movable cutter, a second head carrying a stationary and a movable cutter, a rotatable and longitudinally reciprocable shaft, a sleeve about said shaft and rotatable with but slidable along the shaft, and connections from said shaft to said movable cutters to effect the cutting action by the longitudinal reciprocation of said shaft.

34. A machine for operating upon structural beams including in combination means for presenting a beam to be cut, means for cutting the beam including stationary cutters within the flange, traveling cutters on the exterior of the flange having cutting edges for cutting the flange transversely, said cutting edges on either side of the web being staggered to effect successive cuts, said members having edges for cutting the flange along the web likewise staggered to effect successive cuts, said members also having beveled web cutting edges, and means for moving said movable cutters in transverse directions to effect the flange and web cuts.

[Claims 2 to 4, 6 to 16, and 18 to 33 not printed in the Gazette.]

1,241,260. MACHINE FOR PUNCHING AND CUTTING ANGLE-PLATES. EDWARD V. WURTS, Pittsburgh, Pa., and LOUIS A. HAWTHORNE, Newark, N. J., assignors to Steel Utilities, Incorporated, a Corporation of New York. Filed Aug. 8, 1914. Serial No. 855,817. (Cl. 164—15.)



11. A machine for operating upon angle plates including in combination means for feeding an angle bar, means for determining the length of the successive feeds, means for punching the successive lengths, and means for cutting the successive lengths, and starting the stopping means for both the punching means and the cutting means, and a common continuously running drive for both the punching and cutting mechanism.

23. A machine for operating upon angle plates including in combination means for imparting successive feeds to an angle bar, means for punching said angle bar, means for cutting said angle bar, means for determining the amounts of the successive feeds of the angle bar, and devices for varying the distance between said cutting means and said punching means to punch and cut off angle plates of different lengths.

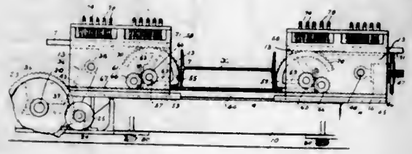
34. A machine for operating upon angle plates including in combination means for cutting an angle bar into plates, punching devices for one leg of the angle plate, punching devices for the other leg of the angle plate, and separate actuating means for said two punching devices, said actuating means operating simultaneously or either operating alone, and a shear located between said stop and said punching means.

50. A machine for operating upon angle plates including in combination an anvil formed to receive the vertex of the angle plate, means for pressing the vertex of the angle plate thereinto, and means for punching both legs of the angle plate, means for shearing the angle plate, and an adjustable stop on the opposite side of said shear from said punching means, for positioning the angle plate, and actuating means remaining in operative relation with the punches in the various positions into which they may be moved.

60. A machine for operating upon angle plates including in combination means for punching in both legs of an angle bar a group of holes for an angle plate, a stationary shear for cutting off the punched angle plate from the bar, and a stop on the opposite side of the shear from the punching means, the punching means and stop being positionable toward and away from the shear.

[Claims 1 to 10, 12 to 22, 24 to 33, 35 to 49, and 51 to 59 not printed in the Gazette.]

1,241,261. MACHINE FOR IDENTIFYING STRUCTURAL BEAMS. LOUIS A. HAWTHORNE, Newark, N. J., assignor to Steel Utilities, Incorporated, a Corporation of New York. Filed Aug. 28, 1914. Serial No. 859,016. (Cl. 101—4.)



1. A machine for placing identifying marks upon structural shapes including in combination means for positioning the shape, selectively settable means for composing a series of identifying characters, and means for simultaneously impressing the identifying characters upon the shape.

2. A machine for placing identifying marks upon structural shapes including in combination means for traveling a shape along a pathway, selectively settable means for composing a series of identifying characters located alongside the path of travel of the shape, and means for impressing the series of identifying characters upon the shape.

3. A machine for placing identifying marks upon structural shapes including in combination means for traveling a shape alog a pathway, selectively settable means for composing a series of identifying characters located alongside the path of travel of the shape, and means for simultaneously sinking said series of characters into the metal of the shape.

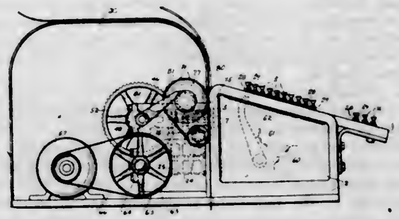
4. A machine for placing identifying marks upon structural shapes including in combination means for positioning the shape, means having identifying characters thereon, means having identifying characters thereon, means on, means for moving said character-bearing means to and impressing the characters upon the shape, and means moving to the opposite side of the shape and pressing thereagainst during the impressment of the character.

5. A machine for placing identifying marks upon structural shapes including in combination means for traveling a shape longitudinally along a pathway, means bearing identifying characters adjacent said pathway, and means for moving said character-bearing means transversely to the direction of travel of the shape and for impressing said characters upon the shape, and means moving transversely to the direction of travel of the shape and pressing thereagainst in opposition to said character impression means during the impressment of the characters upon the shape.

[Claims 6 to 64 not printed in the Gazette.]

1,241,262. MACHINE FOR MAKING DISTANCE-RECORD SHEETS FOR METAL-WORKING MACHINES. LOUIS A. HAWTHORNE, Newark, N. J., assignor to Steel Utilities, Incorporated, a Corporation of New York. Filed Nov. 17, 1914. Serial No. 872,593. (Cl. 101—19.)

1. A machine for making distance record sheets for shape punching machines including in combination means for presenting and feeding a distace record sheet to be punched, including devices for imparting lengthwise equidistant feed to the sheet between each actuation of the punches, a group of punches representing distance values, a group of numeral marking devices arranged to imprint on the sheet in transverse alinement alongside the punches, and a common keyboard for the punches, and numeral marking devices.

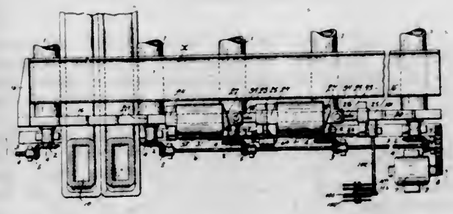


4. A machine for making distance record sheets for shape punching machines including in combination means for presenting and feeding a distance record sheet to be punched, a series of web marking punches arranged transversely of the sheet, a series of numeral marking devices located on the opposite side of the sheet to be marked and arranged to imprint alongside the punches and in transverse alinement therewith, and a common keyboard for selecting desired punches and the corresponding numeral marking devices.

11. A machine for making distance record sheets for shape punching machines including in combination means for presenting and feeding a distance record sheet to be punched, including devices for imparting lengthwise equidistant feed to the sheet between each actuation of the punches, a group of punches representing distance values for the web of a beam, a group of punches representing distance values for the flange of a beam, keyboard equipped means for selecting the punches for any desired distance value for either the flange or web, means for causing the selected punches to punch the sheet, and printing means for imprinting such value contiguous to the perforations in the sheet and indicating whether it is for the flange or web.

[Claims 2, 3, and 5 to 10 not printed in the Gazette.]

1,241,263. METAL-WORKING MACHINE. JOHN D. MORGAN, Summit, and LOUIS A. HAWTHORNE, Newark, N. J., assignors to Steel Utilities, Incorporated, a Corporation of New York. Filed Apr. 1, 1915. Serial No. 18,502. (Cl. 164—87.)



1. A machine for punching structural shapes including in combination punching mechanism, and means for successively traveling and stopping the shape in desired positions relatively to the punching mechanism, said means including a plurality of distance determining devices operating alternately to stop and position the shape relatively to the punching mechanism.

2. A machine for punching structural shapes including in combination punching mechanism, and means for successively traveling and stopping the shape in desired positions relatively to the punching mechanism, said means including a plurality of distance determining devices operating alternately to stop and position the shape relatively to the punching mechanism and settable means controlling said distance determining devices.

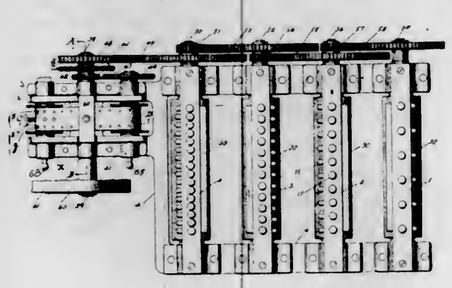
3. A machine for punching structural shapes including in combination punching mechanism, and means for successively traveling and stopping the shape in desired positions relatively to the punching mechanism, said means including a plurality of distance determining devices operating alternately to stop and position the shape relatively to the punching mechanism and a single settable means controlling a plurality of said distance determining devices.

4. A machine for punching structural shapes including in combination punching mechanism, and means for successively traveling and stopping the shape in desired positions relatively to the punching mechanism, said means including a plurality of distance determining devices operating alternately to stop and position the shape relatively to the punching mechanism and a single settable means controlling alternately a plurality of said distance determining devices.

5. A machine for punching structural shapes including in combination punching mechanism, means for successively traveling and stopping the shape in desired positions relatively to the punching mechanism, said means including a plurality of distance determining devices operating alternately to stop and position the shape relatively to the punching mechanism and settable means controlling said distance determining devices operating alternately thereon.

[Claims 6 to 101 not printed in the Gazette.]

1,241,264. MACHINE FOR MAKING TEMPLET-STRIPS FOR METAL-PUNCHING MACHINES. JOHN D. MORGAN, Summit, N. J., assignor to Steel Utilities, Incorporated, a Corporation of New York. Filed May 14, 1915. Serial No. 28,023. (Cl. 164—113.)



1. A machine for making templet strips for metal punching machines, including in combination settable means representing distance denominations, means for feeding the strip proportionately to the setting of the settable means and means for marking the strip.

2. A machine for making templet strips for metal punching machines, including in combination settable means representing distance denominations, means for feeding the strip proportionately to the setting of the settable means, and means for punching the strip.

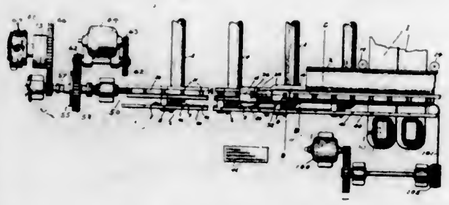
3. A machine for making templet strips for metal punching machines, including in combination settable means representing distance denominations, means for feeding the strip proportionately to the setting of the settable means, means for accurately positioning the strip, and means for marking the strip.

4. A machine for making templet strips for metal punching machines, including in combination distance determining means including a keyboard representing distance denominations and values, means for feeding the strip proportionately to the setting of the keyboard and means for punching the strip.

5. A machine for making templet strips for metal punching machines, including in combination distance determining means including a keyboard representing distance denominations and values, means for feeding the strip proportionately to the setting of the keyboard, means for accurately positioning the strip, and means for marking the strip.

[Claims 6 to 55 not printed in the Gazette.]

1,241,265. METAL-WORKING MACHINE. GEORGE G. FRELINGHUYSEN, Morris county, N. J., assignor to Steel Utilities, Incorporated, a Corporation of New York. Filed May 25, 1915. Serial No. 30,277. (Cl. 164—87.)



1. A machine for punching structural shapes including in combination, punching mechanism, and means for traveling and stopping a shape relative to said punching mechanism, said means comprising an engaging device traveling with the shape, a stationary device with which the traveling device engages, and means for imparting longitudinal movement to both said devices while in engagement to complete the traveling and positioning of the shape relatively to the punching mechanism.

2. A machine for punching structural shapes including in combination, punching mechanism, and means for traveling and stopping a shape relative to said punching mechanism, said means comprising an engaging device traveling with the shape, a stationary member arranged along the path of travel of the shape and having a plurality of spaced devices with which the traveling device may engage, and means for imparting measured movement to said stationary member after such engagement to complete the travel and positioning of the shape relatively to the punching mechanism.

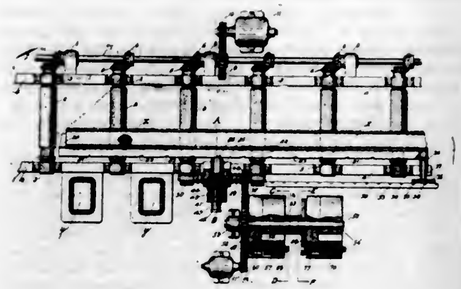
3. A machine for punching structural shapes including in combination, punching mechanism, and means for traveling and stopping a shape relative to said punching mechanism, said means comprising a head with which the forward end of the shape engages, a plurality of engaging devices along the path of the shape, a device carried by said head and movable to selectively engage a desired one of said plurality of engaging devices, and means for moving said devices together after they have engaged, to complete a distance setting.

4. A machine for punching structural shapes including in combination, punching mechanism, and means for traveling and stopping a shape relative to said punching mechanism, said means comprising a guideway, a head traveling along said guideway and in fixed relation to the shape, a plurality of engaging devices along the path of the shape, a device carried by said head and movable to selectively engage a desired one of said plurality of engaging devices, and means for moving said devices together after they have engaged, to complete a distance setting.

5. A machine for punching structural shapes including in combination, punching mechanism, and means for traveling and stopping a shape relative to said punching mechanism, said means imparting endwise travel to the shape, and means for stopping the travel of the shape, said stopping means comprising an engaging device traveling with the shape, a series of stationary devices arranged along the path of travel of the shape with which the traveling engaging device is adapted to selectively engage, and means for traveling said devices after they have engaged to complete a distance setting.

[Claims 6 to 70 not printed in the Gazette.]

1,241,266. METAL-WORKING MACHINE. EDWARD V. WURTS, Pittsburgh, Pa., assignor to Steel Utilities, Incorporated, a Corporation of New York. Filed July 10, 1915. Serial No. 39,080. (Cl. 164—87.)



1. A machine for punching structural shapes at predetermined points, including in combination punching mechanism, a plurality of engageable devices arranged distance units apart and traveling with the work, a stationary engaging device for engaging with a selected engaging device, and means for causing a further travel of said devices while in engagement to complete the desired travel of the shape.

12. A machine for punching structural shapes at predetermined points, including in combination punching mechanism, means for traveling and stopping the shape to be punched at predetermined points, said means including a plurality of engageable devices, an engaging device, means for selectively causing engagement therebetween, said means including a series of contacts and a traveling circuit controlling device to selectively effect the engagement at the proper engageable device for the desired distance of travel of the shape and means for effecting additional measured travel of said devices while in engagement to complete the desired distance of travel of the shape.

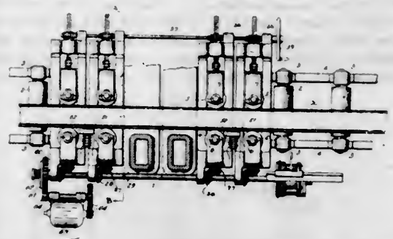
27. A machine for punching structural shapes at predetermined points, including in combination punching mechanism, means for traveling and stopping the shape to be punched at predetermined points, said means including an interponent, a member traveling with the shape and engaged by the interponent, a screw threaded shaft with which said interponent engages, means for controlling the rotation of said shaft to give measured longitudinal movement to the interponent, said means including a plurality of settable devices representing distance values controlling said rotatable member and thereby the longitudinal movement of said interponent and a distance record sheet.

39. In a distance determining device for a metal working machine, a plurality of engageable devices traveling with the work, an interponent, and its carrier, a guide therefor, a screw threaded shaft upon which the interponent guide is mounted, and means for controlling the rotation of said screw shaft.

[Claims 2 to 11, 13 to 26, 28 to 38, and 40 to 42 not printed in the Gazette.]

1,241,267. METAL-PUNCHING MACHINE. LOUIS A. HAWTHORNE, Newark, N. J., assignor to Steel Utilities, Incorporated, a Corporation of New York. Filed July 10, 1915. Serial No. 39,082. (Cl. 164—115.)

1. A machine for punching structural shapes including in combination punching mechanism, and means for successively positioning and stopping the shape relatively to the punching mechanism, said means including stationary devices arranged in series at different points along the path of travel of the shape, said devices frictionally engaging the shape to progress it and to stop it in desired positions for punching, and distance determining means controlling the progressing and stopping action of said frictionally acting devices upon the shape.



14. A machine for punching structural shapes including in combination punching mechanism, and means for successively positioning and stopping the shape relatively to the punching mechanism, said means including electromagnetic devices acting magnetically upon the shape to stop it in predetermined position relatively to the punching mechanism.

25. A machine for punching structural shapes including in combination punching mechanism, means for progressing a shape past said punching mechanism, a pair of rolls pressing against opposite sides of the shape, said rolls being connected to rotate together, and means acting automatically to stop said rolls after predetermined distance of travel of the shape, said means including a preliminarily prepared distance record device.

30. A metal punching machine including in combination means for punching the shape and means for successively progressing and stopping the shape relatively to the punching means, said progressing means including a distance determining device comprising members having travel proportional to the work and having settable devices representing distance denominations and values, and connections through said traveling members and settable devices for stopping the progress of the work.

38. In a metal working machine tool equipped means, means for successively traveling and stopping the work relatively thereto, said means comprising a plurality of circuit gaps, one for each value in each denomination and submultiple thereof, means for selectively energizing one contact in each denomination and submultiple group for the desired selected value in each, and means for simultaneously closing all of said gaps only at the selected distance.

[Claims 2 to 13, 15 to 24, 26 to 29, and 31 to 37 not printed in the Gazette.]

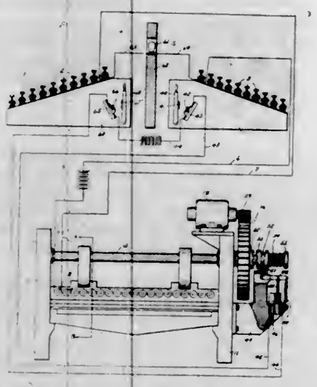
1,241,268. MACHINE FOR MAKING DISTANCE-RECORD DEVICES FOR METAL-WORKING MACHINES. THEODORE P. PAYNE, Newark, N. J., assignor to Steel Utilities, Incorporated, a Corporation of New York. Original application filed Mar. 2, 1914, Serial No. 821,990. Divided and this application filed Aug. 10, 1916. Serial No. 114,113. (Cl. 164—113.)

1. A machine for making distance record sheets for operating shape punching machines including in combination a plurality of means selectively settable to select a plurality of distance values, means for perforating said values in a distance record sheet and means for preventing the recording of non-identical settings of said settable means.

3. A machine for making distance record sheets for operating shape punching machines including in combination means selectively settable to select a plurality of distance values, means for perforating said values in a distance record device, and means for indicating a correct setting prior to its being perforated in said distance record device.

8. A machine for making distance record sheets for operating shape punching machines including in combination intermittently acting strip or sheet feeding means, settable distance indicating means, solenoids in circuit

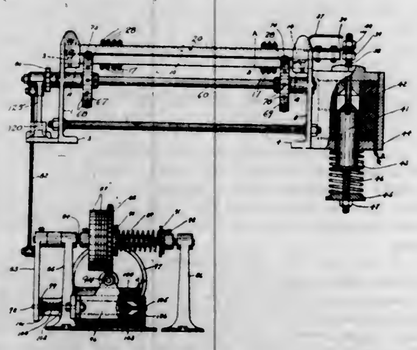
with and controlled by said settable means, a series of punches corresponding to the distance indicating means, and a series of interponents for said punches operated by said solenoids, and means for simultaneously actuating a plurality of said punches after a plurality of interponents have been successively set, said sheet or strip feeding means operating intermittently between each successive operation of the punches.



14. A machine for making distance record sheets for operating shape punching machines including in combination, settable distance indicating means including a keyboard, a group of punches one for each key and arranged in a series transversely to the sheet to be punched, means for feeding the sheet always a uniform fixed distance between successive punchings, interponents one for each of said punches, each interponent being set by its corresponding key, and means operable at the will of the operator for simultaneously actuating a plurality of punches after a plurality of interponents have been successively set to make the perforations across the sheet for a distance reading, said actuating means including a traveling head engaging the interponents to cause the selected punches to perforate the strip.

[Claims 2, 4 to 7, and 9 to 13 not printed in the Gazette.]

1,241,269. METAL-PUNCHING MACHINE. EDWARD V. WURTS, Pittsburgh, Pa., assignor to Steel Utilities, Incorporated, a Corporation of New York. Filed Sept. 19, 1916. Serial No. 120,921. (Cl. 164—115.)



1. A distance controlling device for metal punching machines including in combination a distance record sheet having spaced feeding perforations at the sides thereof, a plurality of wheels in alinement at each side of the distance record sheet, an endless band passing over the alined wheels at each side and having projections engaging the feeding perforations in the distance record sheet, means including a pawl and ratchet mechanism for imparting intermittent rotation to said wheels and a friction drive and automatic release therefor.

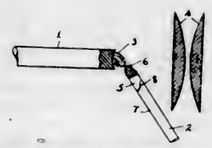
5. A mechanism coöperating with a distance record sheet having successive rows of perforations thereacross to control metal punching machines and the like, including in combination a series of contacts coöperating with said sheet, and means for intermittently feeding the sheet forward, said means including driving means and a release therefor operated by a solenoid and its circuit, the circuit being governed by the controlled machine.

10. A mechanism for controlling a metal punching machine for structural shapes and the like, including in combination distance determining means for traveling and stopping the shape relatively to the punch to locate the rivet holes at the proper points in the shape, and mechanism coöperating with a distance record sheet to successively set the distance determining means for the successive required distances, means for intermittently feeding the distance record sheet forward between successive settings of the distance determining means, and means for insuring alternate operation of the sheet feeding means and the distance determining device.

15. A mechanism coöperating with a distance record sheet to control a metal punching machine, the sheet having successive rows of perforations arranged across the sheet, the rows being equally spaced apart along the sheet, said mechanism including in combination a bank of coöperating contacts arranged across the sheet and in yielding engagement therewith, means for intermittently feeding forward said sheet a fixed distance from one transverse series of perforations to the next, a series of coils controlling the distance determining means of the punching machine and in circuit with the respective contacts in said bank, and means for alternating the feeding movement of the sheet with the feeding movement of the work in the punching machine.

[Claims 2 to 4, 6 to 9, and 11 to 14 not printed in the Gazette.]

1,241,270. PROJECTOR ARC-LAMP. BEN PERRIS, Lakewood, Ohio, assignor, by mesne assignments, to National Carbon Company, Inc., a Corporation of New York. Filed June 13, 1916. Serial No. 103,405. (Cl. 176—51.)



1. In projector arc lamps, a positive electrode, a negative electrode, a heavy copper coating on the negative electrode to conduct the current and a second coating of metal adapted to form a slag with the first mentioned coating to prevent beads of molten metal from collecting on the tip of the negative electrode.

2. In projector arc lamps, a condensing lens, a positive electrode closely adjacent thereto, a negative electrode having a cross section smaller than that necessary to main an equal burning rate between said electrodes, a heavy copper coating on said negative electrode to conduct the current and to equalize the buring rate and a second coating of metal on the first mentioned coating adapted to prevent beads of molten metal from collecting on the tip of the negative electrode and spattering said condenser lens when the arc springs therefrom.

3. In projector lamps, a condensing lens, a positive electrode closely adjacent thereto, a negative electrode having a cross section smaller than that necessary to maintain an equal burning rate between said electrodes and a heavy coating of metal on said negative electrode to conduct the current and to equalize the burning rate, said coating consisting of a plurality of thin layers of copper and nickel, alternately arranged to approximate a uniform composition of said metals whereby molten beads of metal will not collect on the negative electrode tip but will run down the electrode out of the path of the arc.

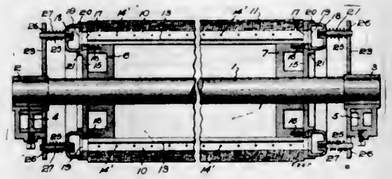
1,241,271. POWER-WHEEL FOR GRAB-BUCKETS. ERNEST B. PERRY, Bay City, Mich. Filed May 3, 1915. Serial No. 25,463. (Cl. 254—135.)



1. In a grab bucket having a closing device comprising a sheave, means for rotating said sheave, an equalizer link passing through an opening formed in the web of said sheave, a pair of side chains secured to the ends of said equalizer link, a pair of oppositely-extending hubs fixed to said sheave, each hub formed with a socket to receive one end of the equalizer link and having an outwardly-extending helical groove formed in its periphery adapted to receive a chain when the sheave is revolved.

[Claim 2 not printed in the Gazette.]

1,241,272. FELT-COVERED SUCTION COUCH-CYLINDER. EDWARD V. PHELPS, Nashua, N. H., assignor to Improved Paper Machinery Company, Nashua, N. H., a Corporation of Maine. Filed Aug. 4, 1915. Serial No. 43,677. (Cl. 92—47.)

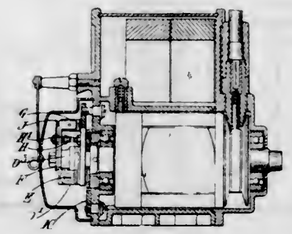


1. A roll having a permeable surface, a supporting body therefor having longitudinally extending suction chambers, perforated rings at the ends of said roll, relatively stationary annular chambers mounted upon said ring, means for yieldingly supporting said annular chambers, and means for applying suction to said chambers.

[Claims 2 to 13 not printed in the Gazette.]

1,241,273. ROTATABLE CONTACT-BREAKER FOR MAGNETOS AND OTHER PURPOSES. ERIC JULIUS PILBLAD, Leicester, England, assignor to Imperial Typewriter Company, Limited, Leicester, England. Filed Mar. 10, 1917. Serial No. 153,919. (Cl. 123—149.)

1. In a magneto contact-breaker, the combination of two contact-carrying members simultaneously rotatable about the same axis and whereof one is periodically moved to open the contacts by carrying one of them away from the other in a direction parallel to the said axis of rotation, means to connect the said moved member to the other said member so that the two rotate in unison but so that the said moved member is movable relatively to the other so as to carry the contact upon it away from the other and expose the working faces of both the said contacts simultaneously to view and means normally to maintain the said moved member in the operative position, substantially as set forth.



2. In a magneto contact-breaker, the combination of two contact-carrying members simultaneously rotatable about the same axis and whereof one is periodically moved to open the contacts by carrying one of them away from the other in a direction parallel to the said axis of rotation, a hinge so to connect the said moved member to the other that the two rotate in unison but the said moved member is movable relatively to the other so as to carry the contact upon it away from the other and expose the working faces of both the said contacts simultaneously to view and means normally to maintain the said moved member in the operative position, substantially as set forth.

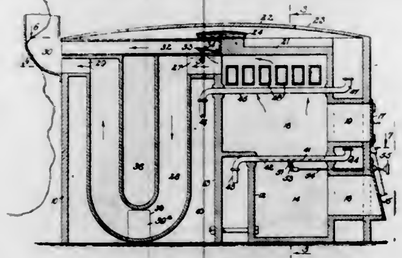
3. In a magneto contact-breaker, the combination of two contact-carrying members simultaneously rotatable about the same axis and whereof one is periodically moved to open the contacts by carrying one of them away from from the other in a direction parallel to the said axis of rotation, a hinge so to connect the said moved member to the other that the two rotate in unison but the said moved member is movable relatively to the other so as to carry the contact upon it away from the other and expose the working faces of both the said contacts simultaneously to view and displaceable locking-means to maintain the said moved member normally in the operative position, substantially as set forth.

4. In a magneto contact-breaker, the combination of two contact-carrying members simultaneously rotatable about the same axis and whereof one is periodically moved to open the contacts by carrying one of them away from the other in a direction parallel to the said axis of rotation, a hinge so to connect the said moved member to the other that the two rotate in unison but so that the said moved member is movable relatively to the other so as to carry the contact upon it away from the other and expose the working faces of both the said contacts simultaneously to view, and a resilient finger constituting the resilient control normally to hold the contacts closed supported from the said other member to be pivotally movable relatively thereto about the said axis of rotation from its normal position to one in which it permits the said moved member to be swung away from the other about the said hinge, substantially as set forth.

5. In a magneto contact-breaker, the combination of two contact-carrying members simultaneously rotatable about the same axis and whereof one is periodically moved to open the contacts by carrying one of them away from the other in a direction parallel to the said axis of rotation, a hinge by which the said moved member is so connected to the other as to be movable about an axis transverse to the axis of rotation, and an axial support connected to the said other member and extending through a clearance aperture in the said moved member and provided with a resilient finger which normally bears

upon the said moved member but is pivotally movable upon said support to free the moved member, substantially as set forth.

1,241,274. HOT-AIR FURNACE. ROBERT LINCOLN POLLOCK, Sterling, Kans. Filed Mar. 31, 1917. Serial No. 158,834. (Cl. 126—99.)



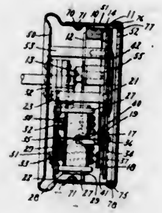
1. A hot-air furnace having inner and outer walls forming an air space therebetween, there being a communicating air space at the top of the furnace, a fire box, a smoke flue, a U-shaped smoke passage communicating with the fire box and with the smoke flue and having the bend thereof near the bottom of the furnace in the rear of the fire box, a vertical air chamber, said U-shaped smoke passage extending at the front and back of and beneath the said vertical chamber, the said vertical air chamber and U-shaped smoke passage extending approximately from one inner side wall to the other, and vertical air shafts between the inner and outer side walls adjacent to the ends of the said vertical air chamber, said air shafts having air inlets at their lower ends and communicating at the sides with the said vertical air chamber and at the upper ends with the air space at the top of the furnace.

2. A hot-air furnace comprising inner and outer walls forming an air space around the furnace at all sides, a fire box in the furnace near the front within the inner walls, a smoke flue at the back of the furnace, a U-shaped smoke passage communicating with the fire box and with said smoke flue, a vertical air chamber at the front and back of and beneath which the said smoke passage extends, vertical air shafts between the inner and outer walls at the sides of the said vertical air chamber and communicating therewith, and a vertical air chamber between the back of the fire box and the front portion of the said U-shaped smoke passage.

3. A hot-air furnace having an outer wall, an inner structure within the outer wall and forming an air space within the latter, said inner structure including a fire box, air pipes disposed in the fire box and extending through opposite walls thereof, the respective ends of the air pipes forming air inlets and outlets communicating with the air space of the furnace, and air boxes disposed in the fire box above and at right angles to the said air pipes, said air boxes extending through opposite walls of the fire box one end of each air box being open at the under side for the inlet of air and the opposite end being open at the upper side for the outlet of air, the inlets and outlets of alternate air boxes being reversely disposed.

1,241,275. ELECTRICAL MEASURING INSTRUMENT. WILLARD E. PORTER and ALVARADO L. R. ELLIS, Lynn, Mass., assignors to General Electric Company, a Corporation of New York. Filed May 6, 1914. Serial No. 836,647. (Cl. 171—95.)

1. In an electrical measuring instrument, a permanent magnet, a stationary current carrying coil, a movable armature arranged within the influence of the magnet and coil, a damping member operatively connected to said armature and having a hole therein, a pointer secured to said damping member, a spring clip having two projections extending through said hole, and a threaded counterbalance arm operatively engaging said projections.

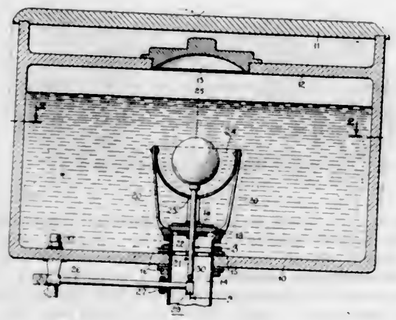


5. In an electrical measuring instrument, a permanent magnet, a stationary current carrying coil, a movable magnetic armature arranged within the influence of the magnet and coil, a damping member operatively connected to said armature and having a circular hole therein, a pointer secured to said damping member, a spring clip of greater length than the diameter of said hole and having two projections extending through the hole, and a counterbalance arm operatively threaded in said projections.

6. An electrical measuring instrument comprising a permanent magnet, a magnetic member separated from the poles of said magnet by small air gaps and positioned to provide a path for the greater part of the flux of said magnet, a magnetic shield positioned to provide a path for some of the stray flux of said magnet, a movable element having a damping member movably positioned in said air gaps and a magnetic armature positioned within the influence of the stray flux of said magnet, members of magnetic material adjustably secured to said shield and adapted by their adjusting to vary the amount of stray flux which influences said armature, and a coil operatively related to said armature and arranged to produce a magnetic field at an angle to the magnetic field acting on said armature and due to the stray flux of said magnet.

[Claims 2 to 4 and 7 to 10 not printed in the Gazette.]

1,241,276. FLUSH-TANK. NORMAN PRICE, Brooklyn, N. Y. Filed Jan. 24, 1917. Serial No. 144,149. (Cl. 4—5.)

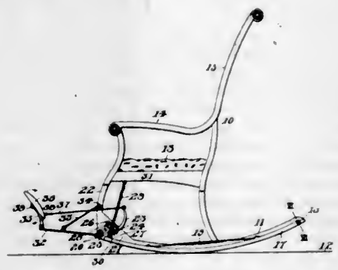


1. In a flush tank, the combination of an outlet spud, a valve seat fixed upon the upper end thereof, a valve normally seated on said seat and guarding the delivery through the spud, said valve having a rigid stem extending above the valve, a float secured upon the upper end of said stem, a cup having a hole in its bottom through which said stem is guided, said cup being adapted to hold a predetermined quantity of water deliverable through said guide hole to provide for the refill of the bowl, supporting means for the cup extending from the valve seat, means to deliver water into the tank and cup, and means to unseat the valve to initiate the flow of water from the tank.

2. The combination with a flush tank and inlet and outlet pipes therefor, of valve mechanism controlling the delivery of water through the outlet pipe, said valve mechanism comprising a spider having a base secured upon the upper end of the outlet pipe and constituting a valve seat, said spider also including a plurality of upwardly projecting arms, a cup supported by said arms and having a hole in its bottom, a valve seated normally on said seat and having a rigid stem projecting upwardly through said hole into the cup, a float secured to the upper end of the stem within the cup and serving when the valve is unseated to lift it free from the seat allowing the bulk of the water in the tank to discharge through the outlet pipe, the cup and the hole in its bottom being so designed to provide for the water from the cup to follow the bulk of the water from the tank, and means acting through the outlet pipe to unseat the valve.

3. The combination of a flush tank including an air-tight top having a sealing plug, a valveless inlet pipe leading into the tank, a delivery spud fitted into the bottom of the tank in alinement with said plug, a guide member fitted centrally in the spud, a valve seat fitted upon the upper end of the spud and having upwardly projecting arms, the valve seat and the arms constituting a spider adapted to be introduced into the tank through the top, a cup supported upon the arms and having a guide hole in its bottom, a normally closed valve coöperating with said seat and having a rigid stem extending both above and below the valve and guided in said guide member and cup hole, a float connected to the upper end of the valve stem within the cup, and means to unseat the valve comprising a rock shaft journaled in the side of the spud and a cam secured to the inner end of the rock shaft and adapted to coöperate with the lower end of the valve stem.

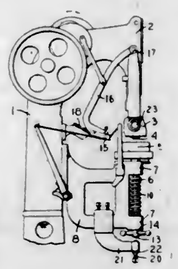
1,241,277. MANUALLY-OPERABLE ROCKING-CHAIR. ALAJOS PHOSTREDNY, Johnstown, Pa. Filed Jan. 10, 1917. Serial No. 141,564. (Cl. 155—18.)



2. A rocking means comprising in combination with a chair having curved mounting rockers, auxiliary rockers pivoted at their rear ends to the inner faces of said chair rockers, mounting plates carried by the chair adjacent the forward ends of said auxiliary rockers, angular levers pivoted to the said plates, pivotal link connections between the said levers and the forward ends of the auxiliary rockers, movement limiting stop pins for the said levers carried by the said plates, normally positioning return springs for the said auxiliary rockers, a platform hingedly mounted forwardly of the chair adjacent the forward ends of the chair rockers, supporting hooks pivoted to the platform and having detachable connection with the chair, swinging arms carried by the forward end of the platform, a foot board pivoted between the free ends of the said arms, and flexible connections between the lower edge of the board and the upper free ends of said levers, the boards, arm and platform being adapted for folding relation beneath the chair when not in use.

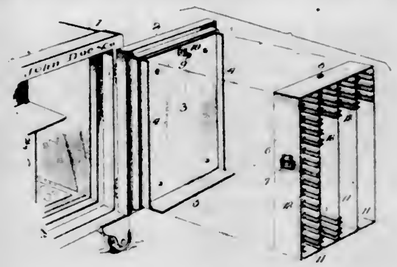
[Claim 1 not printed in the Gazette.]

1,241,278. EMBOSSING-MACHINE. FRED A. PUTNAM, Melrose, Mass., assignor to Markem Machine Company, Boston, Mass., a Corporation of Massachusetts. Filed May 4, 1915. Serial No. 25,836. (Cl. 101—27.)



In an embossing machine, the combination with a frame, of a head mounted thereon for vertical movement, an embossing die carried by said head, a bracket secured to said frame, a work support mounted on the bracket and provided with a stem extending through the bracket, a spring acting on said stem and yieldingly sustaining the work support slightly above the bracket, means to move the head toward and from the work support, such means operating to bring the embossing die into engagement with the work before the head completes its movement toward the work support whereby the work support is caused to yield, and a stop to engage said stem before the head completes its downward movement.

1,241,279. FILE ATTACHMENT FOR SAFES. PAUL E. PYLE, La Fayette, Ind., assignor to Schwab Safe Company, La Fayette, Ind., a Corporation of Indiana. Filed Jan. 7, 1916. Serial No. 70,792. (Cl. 45—2.)



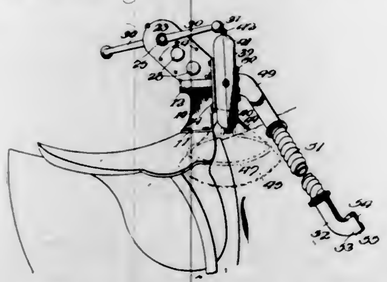
1. The combination with a fire-proof safe having a swinging door, of a plate secured to the inner face of said door having a substantially U-shaped flange, a housing extending from said plate, a pivoted latch mounted in said housing, and a removable file case arranged within the flange of said plate having a catch coöperating with said latch for holding said file case in position therein.

2. The combination with a safe door, of a plate secured to the inner face of said door having a substantially U-shaped flange, the horizontal portion of which is extended to form a support, a removable file case arranged on said support between the vertical flanges thereof, a catch carried by said file case, and a pivoted latch carried by said support coöperating with said catch.

1,241,280. COTTON-PICKER. HORACE M. REESE, Atlanta, Ga. Filed June 30, 1916. Serial No. 106,837. (Cl. 56—117.)

1. A cotton picker for attachment to a riding saddle including a base, means connecting the base with the bow of the saddle, a fan mounted upon the base, a casing sur-

rounding said fan and provided with a discharge opening, a picker element leading into the casing, a gear casing extending from the base rearwardly over the seat of the saddle, and means for rotating the fan and arranged within the gear casing, said means including a drive shaft carried by the gear casing, and a crank mounted upon the shaft and arranged for actuation by an operator seated upon the saddle.

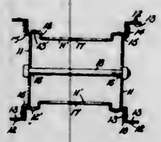


2. A cotton picker for attachment to a riding saddle including a flanged base having a flat lower terminal seating upon the bow of the saddle, means extending through said flanges and connecting the base with the bow, a fan, means for rotating the fan, a casing surounding the fan and provided with a discharge opening, and a picker element leading into the fan casing.

3. A cotton picker for attachment to a riding saddle including a base formed to seat upon the saddle bow, means connecting the base with the bow of the saddle, a fan mounted upon the base, means for rotating the fan, a casing surrounding the fan and provided with a discharge opening, and a picker element leading into the casing, the said picker element including a bifurcated inner terminal secured to the casing with its furcations projecting laterally in opposite directions with respect to the saddle, and flexible terminals secured to the said furcations.

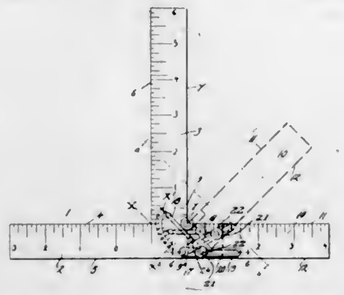
4. A cotton picker adapted for attachment to a riding saddle and including a base formed to seat upon the saddle bow, means connecting the base with the bow of the saddle, a fan rotatable upon the base, a gear casing projecting from the base rearwardly over the seat of the saddle, means upon the outer extremity of said casing and arranged above the saddle seat for rotating the said fan, a casing surrounding the fan, and a picker element leading into the said casing.

1,241,281. TOY BUILDING ELEMENT. FRANKLIN REISS, Camden, N. J. Filed July 19, 1916. Serial No. 110,035. (Cl. 189—34.)



The herein described toy building beam comprising an assemblage of four channel members arranged opposite each other in pairs, each channel comprising a web, outwardly projecting beads arranged along the edges of the web, shoulder portions extending outwardly from the outer edges of the beads and outer free edge flange portions extending outwardly with respect to the median line of the beam from the outer edges of the shoulder portions, the shoulder and flange portions having interlocking lugs and depressions, the lugs of the free flange portions of one pair of channels projecting outwardly into the sockets formed in the shoulder portions of the outer pair of channels, while the free flange portions of the latter pair of channels extend outwardly from and beyond the lines of coöperation between the parts aforesaid having the lugs and depressions coöperating with each other, and means extending between the channels of the latter pair holding all of the parts together.

1,241,282. COMBINATION-SQUARE. ALEXANDER M. REMER, Philadelphia, Pa., and FREDERICK HUGHES, Camden, N. J. Filed Apr. 19, 1916. Serial No. 92,262. (Cl. 33—93.)



1. An instrument having legs extending at an angle to each other, an additional leg rectangular in shape and having one of its corners pivoted to the outer edge of one of said other legs, the pivot axis being positioned between the ends of said edge, said additional leg being movable into positions to have a side and end edge abut said outer edge of said first-mentioned leg, said edges directly intersecting each other at the axis, substantially as described.

2. An instrument having legs extending at an angle to each other, an additional leg pivoted to one of said other legs, the pivot axis of said additional leg being included in the plaine of one of its edges, said axis also being included in the same plane, with the outer edge surface of the leg to which it is pivoted and spaced inwardly from one end thereof a distance equal to the width of the other of said first legs, said edges directly intersecting each other at the axis, substantially as described.

3. An instrument having legs extending at an angle to each other, an additional leg pivoted to one of said other legs, the pivot axis of said additional leg being included in the plane of one of its edges, said axis also being included in the same plane with one edge surface of the leg to which it is pivoted, said edges directly intersecting each other at the axis, an indicating arrow secured to said pivoted leg, said body portion having markings thereon indicating the path of the indicating arrow when said pivoted leg is moved, said body portion also being marked to form sub-divisions of said path of movement of the arrow, and means for securing the pivoted leg against movement in any of its pivotal positions, substantially as described.

4. An instrument having a body portion comprising two legs arranged at right angles to each other and each having parallel edges, a leg pivoted to the body portion, the pivot axis of said pivoted leg being included in the same plane with the outer edge surface of the leg to which it is pivoted, an indicating arrow secured to said pivoted leg, said body portion having markings thereon indicating the path of the indicating arrow when said pivoted leg is moved, said body portion also being marked to form sub-divisions of said path of movement of the arrow, a link pivoted on said body portion and having a slot, a member on said pivoted leg extending through the slot, and clamping means on said member for engagement with the link whereby the pivoted member is secured against movement in any of its pivotal positions, substantially as described.

5. An instrument having two legs extending at right angles to each other, the inner intersecting edges of said legs being graduated, said graduations being identical in size and of standard distances apart, the divisions of each of said edges being numerically marked, the markings of one edge being in unitary numerical advance over the markings of the other edge beginning at the point of intersection of said edges, a third leg being movably secured to and designed for alinement with one of said first legs, the other of said first legs being of a width equal to one of said divisions, said third leg having graduations similar to said other graduations, said graduations of the third leg starting at its junction with the leg to which it is connected, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

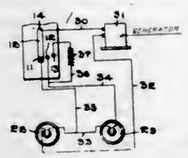
1,241,283. TIRE FOR WHEELS. GIUSEPPE RESTUCCI, Naples, Italy, assignor to the Firm; Restucci, Musso & Co., Naples, Italy. Filed July 28, 1916. Serial No. 111,810. (Cl. 152—8.)



1. An elastic tire for wheels, comprising side plates adapted to be secured to the rim of the wheel and having projections on their inner faces, a spring band between the side plates and engaging the projections thereof, a plurality of blocks of double T-form connected together, said blocks being of a width approximately equal to the distance between the side plates and resting on the band, and rollers arranged between the said blocks.

2. An elastic tire, comprising side plates adapted to be secured to the rim of the wheel and having projections on their inner faces, a spring band between the side plates and engaging the projections thereof, a plurality of blocks of a width approximately equal to the distance between the side plates and resting upon the band and having recesses in their sides intermediate of their ends, rollers mounted in the side plates and extending between the blocks in the said recesses, means for connecting the blocks together, and a covering secured to the outer faces of the blocks.

1,241,284. MEANS FOR AUTOMATICALLY REGULATING AUTOMOBILE-HEADLIGHTS. LEWIS T. RHOADES, Mont Clare, Pa., assignor to New York Coil Company, Incorporated, New York, N. Y. Filed May 5, 1915. Serial No. 26,088. (Cl. 171—312.)



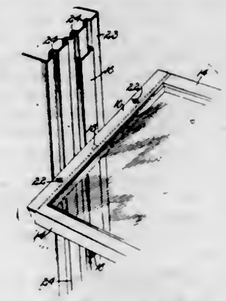
1. The combination with a vehicle including an engine, a plurality of electric lamps, a generator for supplying electric current to the lamps and operated by said engine, a movable electric controller operative to cause the current to be supplied first to certain of said lamps and subsequently to be supplied simultaneously to all of said lamps, and means operated by the engine for producing a draft of air whereby the controller is operated, substantially as described.

3. In a vehicle having an engine for driving the vehicle, the combination with a plurality of electric lamps, a generator adapted to supply said lamps and having a speed controlled by and proportionate to the speed of the engine, a fan driven by said engine, and an electric controller operated by a draft of air from said fan to vary the resistance of the lamp circuit to minimize variations in current through the lamps produced by changes in generator speed, substantially as described.

8. In a controller for automobile head lights, the combination of a support, a series of contacts thereon, a movable vane-like switch lever pivotally connected with said support and adapted to engage said contacts, and having a broad vane-like portion whereby it may be shifted in one direction by air pressure, a generator operated by the motor shaft; electric lights; and electrical connections between said contacts, the generator and the lights whereby the current may be regulated through the lights; with a fan operable from the motor shaft and adapted to produce air currents to act upon the vane-like portion of the switch lever and shift the switch according to the pressure of air developed by the fan, and a spring for returning the switch lever to normal position.

[Claims 2 and 4 to 7 not printed in the Gazette.]

1,241,285. WINDOW SASH AND FRAME. HERMAN ROSENZWEIG, New York, N. Y. Filed Sept. 22, 1916. Serial No 121,632. (Cl. 189—67.)

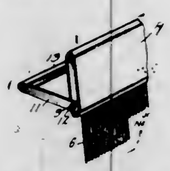


1. The combination of a window frame having side stiles provided with narrow parallel vertical grooves, said grooves being disposed in pairs, the grooves of each pair being separated a distance approximately equal to the thickness of the sash accommodated by said frame, the inner grooves of said pairs being adjacently disposed; guide members having side flanges fitting in said grooves; sashes pivoted on said guide members to swing between said guide members; and means for holding said sashes and said guide members in fixed relation.

2. The combination of a window frame having side stiles provided with narrow parallel vertical grooves, said grooves being disposed in pairs, the grooves of each pair being separated a distance approximately equal to the thickness of the sash accommodated by said frame, the inner grooves of said pairs being adjacently disposed; guide members having side flanges fitting in said grooves; sashes pivoted on said guide member to swing between said guide members; means for holding said sashes and said guide members in fixed relation; and movable flanges slidably mounted on said sashes, said flanges being adapted to close the joint between said sashes and said guide members to prevent the passage of air therebetween.

3. The combination of a window frame having side stiles provided with narrow parallel vertical grooves, said grooves being disposed in pairs, the members of each pair being spaced apart; guide members having flanges fitting said grooves to slide therein, the width of said flanges being greater than the depth of said grooves for forming between said flanges and the body of each of said members and the adjacent sash, expansion chambers for preventing the free passage of air between the sashes and frames; sashes pivoted on said guide members to swing between the same; and means for holding said sashes and guide members fixed in service relation.

1,241,286. SANITARY COMB. JOHN EARNEST SAGE and NELS VALDEMAR BORGESON, Province of Rizal, Philippine Islands. Filed Apr. 26, 1917. Serial No. 164,687. (Cl. 132—17.)

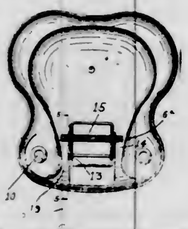


1. The combination with a comb, of a flattened open-ended tubular casing of a width substantially equal to the width of the comb in which casing the comb back is contained, said casing being slidable laterally over the back and having at one end a plurality of perforations through which the comb teeth slidably extend, pins projecting longitudinally from the ends of the comb back, links having slots at one end through which the pins extend, a substantially U-shaped guard fixedly secured to the opposite ends of the links, said links being of a shape and dimensions conforming substantially to the cross sectional shape and dimensions of the said casing.

4. The combination with a comb, of a casing through which the comb is laterally slidable, said casing being provided with openings through which the comb teeth slidably extend, and a guard having a pivotal and lost motion connection with the comb and adapted when the comb is withdrawn into the casing to be moved into position for closing the perforations in the casing.

[Claims 2 and 3 not printed in the Gazette.]

1,241,287. CASKET-HANDLE. EDWARD R. SARGENT, New Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Sept. 14, 1916. Serial No. 120,090. (Cl. 16—103.)



1. In a casket or like handle, the combination of a sheet metal socket plate having an opening with inturned edges, a pin entending between the inturned edge portions of said opening and mounted therein, said pin lying at the rear of the front wall of said plate, a separate arm pivoted to the plate by means of said pin and extending through said opening, and means bent up from the front wall of the plate adjacent the ends of the pin for preventing longitudinal displacement of the latter; substantially as described.

2. In a casket or like handle, the combination of a sheet metal socket plate having an opening therein and parallel inwardly extending walls turned in from the body of the socket plate at the respective sides of said opening, the inner edges of said walls having notches therein, a pin engaging said notches and extending across said opening and clenched in said notches to prevent lateral movement out of the same, means adjacent the end of the pin for preventing lengthwise movement thereof, and a separate sheet metal arm passing through said opening and having side walls through which said pin is passed, said arm pivoted to said plate by means of said pin; substantially as described.

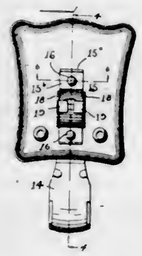
3. In a casket or like handle, the combination of a sheet metal socket plate having an opening therein and inwardly extending substantially parallel walls formed integral with said plate at the respective sides of said opening, said walls formed to present stops, a pin engaging said walls and extending therebetween, and a separate arm in said opening pivoted to said plate by means of said pin and having parts to coöperate with said stops, substantially as described.

4. In a casket or like handle, the combination of a sheet metal socket plate having an opening and parallel inwardly extending walls with notches at the inner edges thereof, a pin extending between and engaged in said notches, the walls of said notches being bent to close the same and prevent rearward movement of said pin out of said notches, said plate being bent rearwardly adjacent the ends of said pin for preventing endwise movement of the pin, and a separate arm located between said parallel walls and pivoted to said plate by means of said pin; substantially as described.

5. In a casket or like handle, the combination of a sheet metal socket plate having an opening in the front wall thereof with inwardly extending parallel side walls at the side edges of said opening, said inwardly extending walls having notches at their inner edges, a transverse pin extending between said walls and fitting in said notches, said notches being closed to retain the pin therein, said plate having bent portions in its front wall adjacent the respective ends of said pin, so as to limit the longitudinal movement of the latter, and an arm extending through said opening in the socket plate, and through which said pin is passed transversely, the inner end of said arm having abutments, and stops formed on said inwardly extending walls below said pin to coöperate with said abutments; substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,241,288. CASKET-HANDLE. EDWARD R. SARGENT, New Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed June 2, 1917. Serial No. 172,465. (Cl. 16—103.)



1. A casket handle or the like, comprising a plate having a rearwardly sunken, semi-cylindrical socket, and an arm in said socket having a pair of securing lugs passing behind the socket portion and bent over so as to ride on the rear surface of the rear wall of said socket.

2. A casket handle or the like, comprising a plate having a rearwardly sunken, semi-cylindrical socket, the rear wall of said socket being of less width than the opening at the front of the socket, and an arm fitting in said socket and having securing lugs at the sides of said rear wall bent over toward each other into engagement with the rear surface of said wall.

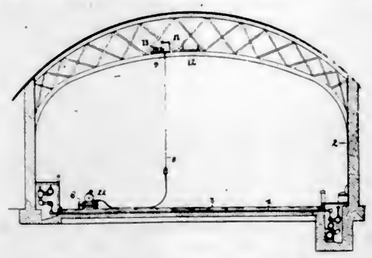
3. A casket handle or the like, comprising a plate having an aperture, a curved bridge piece applied to the rear surface of the plate behind said aperture, and an arm having securing lugs at the sides engaging said bridge piece.

4. In a casket handle or the like, the combination of a plate having an aperture, a curved bridge piece applied to the rear surface of the plate and of less width than said aperture, and a sheet metal arm having integral lugs at the sides bent over toward each other and against the rear surface of said bridge piece.

5. In a casket handle or the like, the combination of a plate having an aperture, a bridge piece extending vertically across said aperture at the rear of the plate, rivets for securing said bridge piece to the plate, the wall of said bridge piece located behind said aperture being curved to present a substantially semi-cylindrical socket, and an arm having a head engaging said socket and provided at the sides with lugs guided on the rear surface of the bridge piece.

[Claims 6 to 12 not printed in the Gazette.]

1,241,289. ELECTRICALLY-OPERATED APPARATUS FOR ICE-RINKS. DUDLEY H. SCOTT, Cleveland, Ohio. Filed Mar. 24, 1917. Serial No. 157,239. (Cl. 191—12.)



1. In electrically-operated apparatus adapted for use in a skating rink, an electric-current distributing device and an electrical cable in rotatable connection therewith, in combination with an electrically-propelled apparatus having an electrical coupling for said cable.

8. A vehicle having electrical propelling mechanism and a trailing electrical connection therefor, in combination with a revoluble electric-current distributing appliance having coupled union with said connections, and means to revolve said appliance and connection upon a circuitous travel of said vehicle.

11. In an ice rink, an electric-current distributer having a rotatable member mounted substantially centrally in an elevated position above the floor of the rink, electrical wires and a flexible conduit therefor suspended from said member and rotatable therewith, and separate coupling devices for the ends of said wires and conduit respectively, in combination with an electrically propelled apparatus adapted to travel over the ice rink floor having coupling connection with said coupling devices.

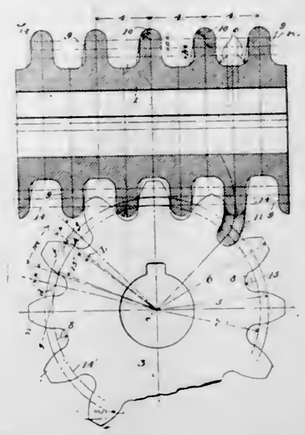
[Claims 2 to 7, 9, 10, and 12 not printed in the Gazette.]

1,241,290. PUSH MAP-TACK. HERMAN F. SENFTNER, Berkeley, Cal. Filed Apr. 30, 1917. Serial No. 165,309. (Cl. 40—25.)



In combination with a barb-like member, a disk secured to said member, and a series of independent spaced bendable projections integrally connected at one end to the disk periphery, said projections being bent inwardly to overlie the outer face of the disk and being bent outwardly to form shoulders and having their free ends extending inwardly to lie substantially parallel to the outer face of the disk, and a label seated on the outer face of the disk and having its periphery engaged with said shoulders and its outer face engaged with said free ends of the fingers, said label being of less diameter than that of the disk so as to have its periphery protected by the part of the disk which extends out from the label periphery.

1,241,291. HOB FOR CUTTING INVOLUTE GEARS. OLIVER G. SIMMONS, Rochester, N. Y. Filed Nov. 6, 1916. Serial No. 129,670. (Cl. 29—103.)



3. A hob for cutting involute gears having the cutting points of its teeth confined within parallel lines defining the width of the teeth at the base line of the hob.

7. A hob for cutting involute gears, the cutting teeth whereof are provided with peripheral cutting points having the form of a curve of a circle with a radius corresponding to one-half of the arc between the adjacent involute curves of the gear measured on the base circle of the base gear.

9. A hob for cutting involute gears having a normal pitch equal to the base circle pitch of the gear to be cut, and the teeth whereof have their cutting points confined within parallel lines perpendicular to the axis of the hob.

[Claims 1, 2, 4 to 6, and 8 not printed in the Gazette.]

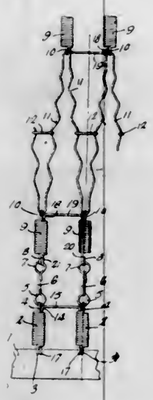
1,241,292. LICENSE-TAG OR SIGN-PLATE. CHARLES M. SLICK, Hagerstown, Md. Filed Feb. 19, 1917. Serial No. 149,502. (Cl. 40—133.)



1. A license tag or plate comprising a plate of sheet material bearing sign matter thereon, said sign matter embodying characters each consisting of a painted ground or field portion and a marginal portion, said marginal portion being embossed or struck out from the plate and comprising spaced walls connected at intervals by cross pieces, said walls extending outwardly on relatively converging lines.

2. A license tag or plate comprising a plate of sheet material bearing sign matter thereon, said sign matter embodying characters each consisting of a painted ground or field portion and a perforated marginal portion, said marginal portion being embossed or struck out from the plate and comprising spaced walls connected at intervals by cross pieces.

1,241,293. BED-SPRING. CHARLES GILES SMITH, Lakeland, Mich. Filed Nov. 21, 1916. Serial No. 132,630. (Cl. 5—40.)



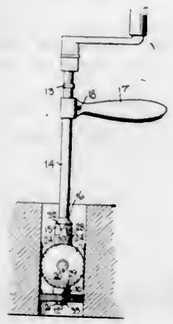
1. In a device of the class described, a frame; helical springs located side by side and connected at their outer ends with the frame; a bed support; means for attaching the bed support to the inner ends of the springs; and a stop bail including arms extended entirely through the springs and connected at their outer ends with the frame, and an intermediate portion located in front of the inner ends of the springs, and connecting the inner ends of the arms, the intermediate portion of the bail constituting a stop which limits the expansion of both springs, and constituting, also, a tie between the arms, whereby the arms will regulate and control the lateral movements of both springs, throughout the entire length of each spring.

2. In a device of the class described, a frame; outer springs; means for securing the outer ends of the outer springs to the frame; inner helical springs located side by side; connectors uniting the outer ends of the inner springs with the inner ends of the outer springs; a stop-bail including an intermediate portion spaced from the inner ends of the inner springs, and arms extended through the inner springs; means for uniting the arms with the connectors; a bed support; and means for connecting the bed support with the inner ends of the inner springs.

3. In a device of the class described, a frame; outer helical springs located side by side and having their outer ends united with the frame; a stop-bail including an intermediate portion spaced from the inner ends of the outer springs, and arms extended through the outer springs; means for anchoring the arms with respect to the frame; inner helical springs located side by side; connectors uniting the outer ends of the inner springs with the inner ends of the outer springs; a stop-bail including an intermediate portion spaced from the inner ends of the inner springs, and arms extending through the inner springs; means for uniting the arms of the last specified bail with the connectors; a bed support; and means for connecting the bed support with the inner ends of the inner springs.

1,241,294. BIT FOR BORING SQUARE HOLES. WILLIAM H. SMITH, Pasadena, Cal. Filed Apr. 22, 1916. Serial No. 93,001. (Cl. 145—121.)

1. A boring tool comprising a driving shaft, a feed screw carried at the lower end of the driving shaft and rotating in a plane at right angles to the axis of the shaft, a sleeve supported upon the lower end of the driving shaft and having a beveled gear wheel thereon operating in a plane at right angles to the axis of the shaft, a sleeve surrounding the driving shaft and bearing against the upper end of the first-named sleeve and having a plurality of radiating stub shafts, a sleeve surrounding the upper portion of the driving shaft and bearing against the upper end of the second named sleeve, a handle mounted upon the uppermost sleeve and operatively engaging the second-named sleeve to prevent its rotation, gear wheels mounted upon the stub shafts and having tubular shanks, and circular saws mounted upon said shanks and disposed in quadrilateral relation to each other.



2. A boring tool comprising a driving shaft, a sleeve surrounding the driving shaft, and detachably engaged for rotation therewith, a driving gear wheel mounted on the sleeve, a housing slidably mounted upon and inclosing the sleeve and having quadrilateral bearings, saw shafts mounted in the bearings each having a beveled gear wheel engaged by the driving beveled gear wheel, saws carried by said shafts and disposed in quadrilateral relation, and means for holding the sleeve and housing in detachable engagement with the driving shaft.

3. In a boring tool of the character described, a central shaft, a sleeve mounted upon the shaft, means for holding the sleeve from rotation, a plurality of stub shafts extending radially from the sleeve and carrying saws, gearing operatively engaging the said saws with the central shaft, and a housing formed in two sections detachably supported around the central shaft and inclosing the gearing, the sections meeting on a plane coincident with the axes of the several stub shafts, and means operatively engaging the central shaft and detachably holding said housing sections in place.

4. In a boring tool of the character described, a central shaft, a sleeve surrounding the major portion of the shaft and having an angularly projecting handle, a sleeve surrounding the lower portion of the shaft and operatively engaged therewith for rotation, said sleeve carrying a beveled gear wheel, a sleeve resting upon the second named sleeve and bearing at its upper end against the lower end of the first-named sleeve and having a plurality of radiating stub shafts, a plurality of circular saws having tubular shanks mounted upon said stub shafts, said tubular shanks having the beveled gear-wheels engaging with the driving beveled gear wheel, a lower housing section having a rectangular hollow body and a tubular neck surrounding the second-named sleeve, an upper housing section having a rectangular hollow body and a tubular neck, the tubular neck surrounding the third-named sleeve, the side walls of the housing sections being cut away to surround the tubular shanks of the saws a feed screw carried upon the lower extremity of the driving shaft and bearing against the lower end of the lower housing section, and the lower end of the first-named sleeve and operatively connected with the shaft to rotate therewith, and a key detachably engaging the lower extremity of the shaft and holding the several sleeves, the feed screw and the housing sections in place.

5. In a boring tool of the character described, a central shaft, a sleeve surrounding the upper portion of the shaft and having a handle, a bevel gear wheel detachably mounted upon the lower end of the driving shaft, a sleeve disposed around said shaft and above the bevel gear wheel and bearing at its upper end against the lower end of said first named sleeve and carrying a plurality of radiating stub shafts, a plurality of circular saws having tubular shanks mounted upon said stub shafts, said tubular shanks having bevel gear wheels engaging with the driving bevel gear wheel, a lower housing section, and an upper housing section inclosing said gear wheels, the side walls of the housing sections being cut away to surround the tubular shanks of the saws, and means detachably holding the first named gear wheels and said housing sections in place.

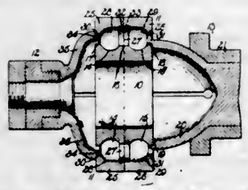
[Claim 6 not printed in the Gazette.]

1,241,295. LAMP-SUPPORTING BRACKET. WILLIAM L. SMITH, Wheatland, N. D. Filed Nov. 6, 1916. Serial No. 129,807. (Cl. 240—53.)



A lamp support including a base member, an adjustable arm carried by the base member, and a lamp retaining means on the outer end of the arm consisting of a yoke, an adjustable lamp encircling ring pivotally mounted on one arm of the yoke, an arcuate plate carried by the pivoted portion of the ring, said plate being formed with a plurality of openings arranged in a circular line concentrically with the pivot of the ring, a clamping screw carried by the other arm of the yoke for binding engagement with the adjacent side of the ring, and a set screw carried by the first-named arm of the yoke for interchangeable engagement in the openings of said plate.

1,241,296. BALL AND ROLLER BEARING. FRANK STARIN, Springfield, Mass. Filed Oct. 31, 1916. Serial No. 128,661. (Cl. 29—111.)



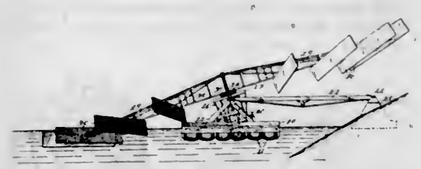
1. In the art of grinding bearing rings, the combination of a bearing ring having an annular race and having a reëntrant annular seat, and a chuck having gripping members shaped to correspond to the said seat to hold the ring on one face and to permit finishing the other three faces.

4. In the art of grinding bearing rings, the combination of a bearing ring having an annular race and having a reëntrant annular seat on each side of the said race and forming with the adjacent side of the ring an annular shoulder, and a chuck having resilient gripping members shaped to correspond to the said shoulders and gripping one of the same at a time to permit of finishing the said ball race, the annular face opposite the said ball race and the side adjacent the other non-gripped shoulder while the ring is held in the chuck.

[Claims 2 and 3 not printed in the Gazette.]

1,241,297. WATER-ELEVATOR. BENJAMIN F. STAUBER, Spokane, Wash. Filed July 10, 1914. Serial No. 850,178. (Cl. 170—117.)

1. A device of the class described, comprising a floating support, a frame pivotally and adjustably hung thereon, a shaft in said frame, a water-wheel carried by said shaft, a pump carried by the frame and projecting through the said support, means for operating the pump from said shaft, and means for locking said frame in desired position to submerge a portion of said water-wheel, and maintain said pump in submerged position.



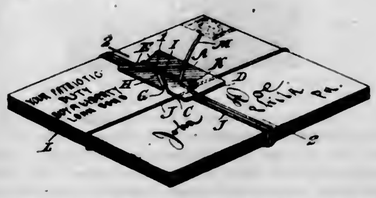
2. A device of the class described, comprising a floating support, a frame pivotally and adjustably hung thereon, a shaft in said frame, a water-wheel carried by said shaft a pump carried by the frame and projecting through the said support, means for operating the pump from said shaft, a pipe communicating said pump with the shore of a stream, means for maintaining said float in position with respect to said shore, and means for locking said frame at a desired angle to submerge said water-wheel, at one side thereof, and maintain said pump in submerged position, said pipe being of flexible construction to accommodate the same to the vertical tidal movement of said float.

3. A device of the class described, comprising an apertured float having upwardly extending members, a frame pivoted to the upper ends of the said members, a pump carried by the frame and extending through the aperture of the float, a shaft mounted in the frame and projecting above the same, a water wheel mounted on the upper end of the shaft, gearing between the pump and shaft, and means for adjusting the frame with respect to the support whereby to submerge the water wheel and maintain the pump in submerged position.

4. A device of the class described, comprising a float having upwardly extending members, a frame pivoted to the upper ends of the said members, a shaft mounted in the frame and projecting above the same, a water wheel on the upper end of the shaft, rollers between the hub of the wheel and the top of the frame, a pump, means for operating the pump from the said shaft, and means for adjusting the said frame with respect to the float.

5. In a device of the class described, a float having upwardly extending members, a frame pivoted to the upper ends of the said members, a screw pivoted to said frame and mounted in a support carried by one of the members of the float and having a hand wheel mounted thereon, a water wheel mounted on said frame, a pump, and means for operating the pump from the shaft of the water wheel.

1,241,298. PACKAGE-TIE. GEORGE W. STOUT, Merchantville, N. J., assignor to American Vulcanized Fibre Company, Wilmington, Del., a Corporation of Delaware. Filed June 11, 1917. Serial No. 174,125. (Cl. 24—18.)

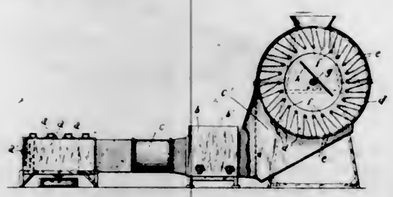


2. As a new article of manufacture, a tie plate having an angular recess provided with outwardly diverging walls at one end and having an oblique slot reaching inwardly from one of its side edges and terminating in proximity

to the deepest portion of said recess and also having a longitudinal slot communicating at one end with the inner end of the oblique slot and arranged with one of its ends adjacent to the deepest portion of the recess.

[Claim 1 not printed in the Gazette.]

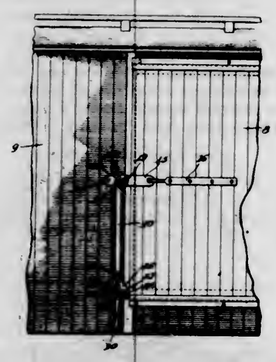
1,241,299. DRYING APPARATUS. GERARDUS HENDRIKUS STROBAND and JOHANES HENRICUS STROBAND, Amsterdam, Netherlands. Filed Apr. 5, 1916. Serial No. 89,237. (Cl. 34—5.)



1. A drying apparatus of the character described the combination of a primary moisture absorbing and air heating apparatus, of a revolving cylinder having a plurality of openings formed in the periphery thereof, a plurality of wire gauze members extending inwardly within said cylinder and extending over said openings, an angularly arranged plate arranged within said cylinder, and means for rotating said cylinder substantially as and for the purpose specified.

2. In a drying apparatus of the character described the combination of a primary moisture absorbing and air heating apparatus, of a rotatable cylinder having a plurality of openings in the periphery thereof, a plurality of perforated pockets extending inwardly within said cylinder and out of direct line of the radii of said cylinder, a shaft for supporting said cylinder, an angularly arranged plate supported upon said shaft whereby upon the rotation of said cylinder air will be drawn from said primary heating and absorbing apparatuses and subsequently caused to pass through said cylinder substantially as and for the purpose specified.

1,241,300. SLIDING-DOOR OPENER AND CLOSER. SWAN R. STROM and CHARLES W. MOURER, Chicago, Ill. Filed Aug. 14, 1915. Serial No. 45,450. (Cl. 70—102.)



1. The combination with a sliding door and a frame therefor, of a lever pivoted to said frame; a link pivoted to said door and detachably connected with said lever cooperating with said lever to serve as a means for performing the initial opening and final closing of said door; and automatic interlocking means on said link and lever arranged to engage and prevent detachment of said link when said door is in closed position, substantially as described.

2. The combination with a sliding door and a frame therefor, of a lever pivoted to said frame; a stud on said lever; a link detachably connected with said stud and pivotally connected with said door, said link and lever being arranged to effect initial opening and final closing of said door; an outwardly and upwardly offset jaw on said lever arranged to embrace said link when said door is closed; and an outwardly extending lug on said link arranged to engage said jaw, said lug and jaw being perforated for the passage of a seal, substantially as described.

3. The combination with a sliding door and a frame therefor, of a lever pivoted to said frame; a stud on said lever; a link detachably connected with said stud and pivotally connected with said door, said link and lever being arranged to effect initial opening and final closing of said door; an outwardly and upwardly offset jaw on said lever arranged to embrace said link when said door is closed; an outwardly extending lug on said link arranged to engage said jaw, said lug and jaw being perforated for the passage of a seal; a locking head slidably mounted on said lever; a perforated locking finger on said head; and an eye adapted to receive said finger, said eye being perforated to register with the perforation in said finger for the reception of a seal, substantially as described.

1,241,301. ATTACHED BAND-FASTENER. GEORGE H. TAYLOR, Richmond, Va. Filed Mar. 2, 1917. Serial No. 152,058. (Cl. 24—23.)



3. In a band fastener, a bendable band, a fastener plate to be applied at one end thereof, projecting means upon one of said members to engage an edge wall of the other, and means to connect the end of said band beyond said lug to said plate.

7. In a band fastener, a band of bendable material formed adjacent one end thereof with a retaining lug projected toward the free end of the band, and fastening means adapted to be engaged at opposite edges by said lug and the free end of the band.

10. In a band fastener, a bendable band provided with a projecting retaining means, a fastener plate adapted to be attached thereto by said means and provided with parallel clamping lugs and a slot within the body thereof.

11. In a band fastener, a bendable band provided with a projecting retaining means, a fastener plate adapted to be attached thereto by said means and provided with parallel clamping lugs and a slot within the body thereof, and a holding lug at one edge of said plate adapted to embrace the end of said band beyond said means.

[Claims 1, 2, 4 to 6, 8, and 9 not printed in the Gazette.]

1,241,302. SHIPPING-TAG. GEORGE H. TAYLOR, Richmond, Va. Filed Mar. 23, 1917. Serial No. 156,810. (Cl. 40—20.)

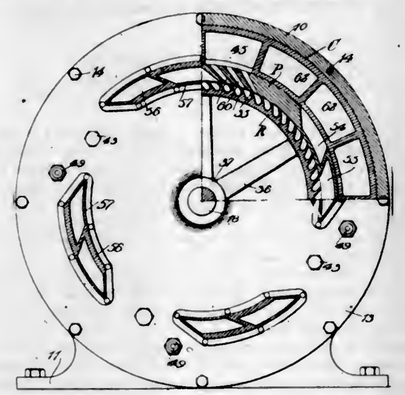


1. A tag having a bendable portion to embrace material to which it is applied, and means disposed at the end of the fold line of said portion with an edge immediately adjacent said line to engage and compress said material at the line of fold and bendable upon the tag to clamp the folded portions thereof together.

5. A tag comprising a plate provided with lugs extended at a right angle in opposite directions from one end thereof, said plate being adapted to be folded upon itself upon a line coincident with one edge of said lugs to embrace material, whereby the lugs when bent at an angle to the plate compress said material at the fold line and clamp said folded portion thereof, and a lever end of said plate beyond said lugs and fold line.

[Claims 2 to 4 not printed in the Gazette.]

1,241,303. ROTARY INTERNAL-COMBUSTION ENGINE. MARSHALL K. THAYER, Red Rock, Mont. Filed Sept. 25, 1916. Serial No. 122,026. (Cl. 123—9.)



1. In a rotary internal combustion engine, the combination of a casing, a charge directing stationary plate therein, a charge carrying element and a rotor arranged on said plate and revolving in opposite directions thereabout, and said plate being provided with intake and exhaust ports.

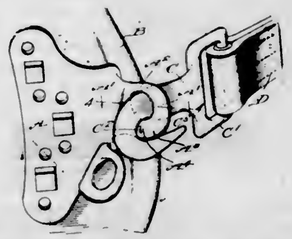
2. In a rotary internal combustion engine, the combination of a casing, a charge directing stationary plate therein, a charge carrying element and a rotor rotatable about said plate, said charge carrying element having a plurality of combustion chambers, said plate having charge directing ports for communication with said combustion chambers, at times, and said plate also having intake and exhaust ports.

3. In a rotary internal combustion engine, the combination of a casing, a rotor therein, a plate having charge directing ports and intake and exhaust ports, a charge carrying element formed with combustion chambers rotatable about said plate in a direction opposite to that of the rotor, said combustion chambers alternately registering with intake and charge directing ports to drive the rotor.

4. In a rotary internal combustion engine, the combination of a casing, a charge carrying device rotatable in said casing, a stationary cylindrical charge directing plate concentrically arranged within the casing, and a rotor concentrically arranged within the casing and within said plate, said rotor and charge carrying element rotating in opposite directions on opposite sides of said charge directing plate for the purpose specified.

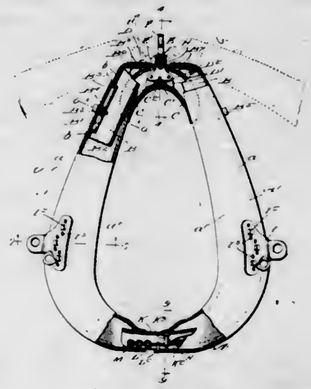
5. In a rotary internal combustion engine, the combination of a casing having end walls, bearings in said end walls, a shaft in said bearings, a rotor carried by said shaft and provided with a plurality of blades, a charge carrying element rotatable within said casing and having a plurality of combustion chambers therein, a stationary cylindrical plate mounted within the charge carrying device, the latter rotatable thereabout, gearing for imparting motion from said rotor shaft to said charge carrying element, said rotor and charge carrying element rotating in opposite directions, said charge directing plate having a plurality of ports therein for affording communication between the combustion chambers, at times, and said rotor, means for igniting the charge within said combustion chamber when the latter is in communication with the rotor, and intake and exhaust conduits associated with said charge directing plate.

1,241,304. SAFETY-TRACE CONNECTION. ALEXANDER THOMSON, Fitchburg, Mass. Filed Jan. 18, 1916. Serial No. 72,712. (Cl. 54—30.)



A safety connection of the character described, comprising a hook having a reduced throat portion, and a fastener having an outstanding eye thickened at one side for engagement in operation by the hook, and having a relatively thin opposite side for reception by the reduced throat portion of the hook when the latter is inserted in place, the said thickened side portion of the said eye having an enlargement engaging one side of the hook in operative position to prevent upward swinging movement of the hook in the eye.

1,241,305. HORSE-COLLAR. ALEXANDER THOMSON, Fitchburg, Mass. Filed Jan. 18, 1916. Serial No. 72,713. (Cl. 54—19.)



1. A metallic horse collar comprising tubular sides having side apertures, and harness fastenings adjacent said apertures, nut holders secured within said tubular sides and having nut holding recesses below said apertures, and fastening bolts extending through said harness fastenings and said apertures, and engaging the nuts carried by said nut holders.

4. A metallic horse collar having tubular sheet metal sides adjustably connected at their upper and lower ends, and a tubular extension telescoped within the upper end of each of said sides and having an upper inturned annular portion provided with a pocket.

5. A metallic horse collar having tubular sheet metal sides adjustably connected at their upper and lower ends, and a tubular extension telescoped within the upper end

of each of said sides and adjustably connected thereto, said extension having a longitudinal slot and an opening at the end of said slot, and a nut holder secured within the extension in alinement with the slot thereof, a nut slidably disposed within said holder and movable lengthwise of the slot, and a bolt extending through the respective collar side and engaging the nut in adjusted position through the slot of the extension.

[Claims 2, 3, 6, and 7 not printed in the Gazette.]

1,241,306. HOLDER FOR FLEXIBLE SHEETS. GUY S. THORSON, Minneapolis, Minn., assignor, by mesne assignments, to Murphy-Travis Company, Minneapolis, Minn., a Corporation. Filed Jan. 6, 1914. Serial No. 810,626. (Cl. 24—66.)

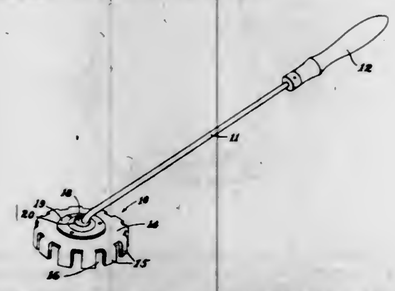


1. A holder for flexible sheets comprising a bar having a raised middle portion provided with offsets at its ends forming feet, said feet having upwardly turned portions provided with slots therein, a locking bar having end portions fitting within and slidable in said slots and adapted to clamp flexible sheets on the raised portion of said bar.

2. A holder for flexible sheets comprising a bar having a raised middle portion and downwardly turned portions terminating in upwardly projecting ends having slots therein, the middle portion of said bar forming a seat for a triplicate sales book, a locking bar mounted for longitudinal movement in the slot of one of said ends and having means for entering the slot in the other end, the middle portion of said locking bar and said seat being curved in cross section to provide opposing edges between which the sheets are gripped.

3. A sales book holder comprising a bar having a raised seat portion and slotted end portions, a bar loosely hinged to one of said slotted end portions and capable of longitudinal movement thereon and having a tongue to engage the other slotted end portion, said bar extending over said raised seat portion.

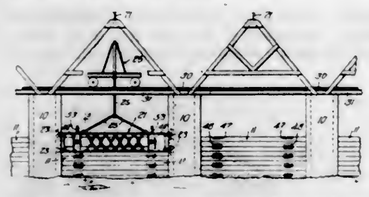
1,241,307. STIRRING IMPLEMENT. CHARLES B. TOMPKINS, Los Angeles, Cal. Filed Dec. 14, 1916. Serial No. 136,946. (Cl. 65—12.)



In a stirring implement, a disk, a handle, means forming a ball and socket connection between the handle and the center of the disk, said handle being bent to an incline relative to the vertical axis of the ball and socket joint, and blades extending from the periphery of the disk at right angles.

1,241,308. FLASH-BOARD SKIMMING-GATE. WILLIAM VAN DEN HEUVEL, Los Angeles, Cal. Filed Sept. 23, 1916. Serial No. 121,861. (Cl. 61—46.)

1. In combination, a gate structure having vertical flash-board ways and vertical carriage ways, a plurality of superimposed flash-boards in said flash-board ways, said flash-boards fitting said ways loosely so that they may be moved to a central position in the ways and there be free from frictional engagement with the ways, a carriage mounted upon rolling bearings in said vertical carriage ways, means for hoisting said carriage, and jack mechanism carried by said carriage and adapted to engage a flash-board and move it horizontally to a central position in its ways, and means for moving a flash-board away from the upper ends of the ways.



3. In combination, a gate structure having a series of gate openings, each provided with vertical flash-board ways and with vertical carriage ways, superimposed flash-boards in said flash-board ways, a carriage adapted to operate in said carriage ways, means upon the carriage to engage a flash-board, and means to move the carriage to and from the several sets of carriage ways, and to move it vertically in the carriage ways.

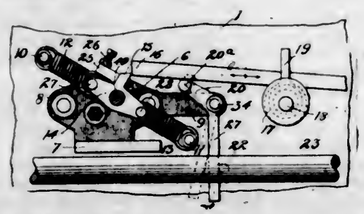
4. In combination, a gate structure having a series of gate openings, each provided with vertical flash-board ways and with vertical carriage ways, superimposed flash-boards in said flash-board ways, a carriage adapted to operate in said carriage ways, means upon the carriage to engage a flash-board, and means to move the carriage to and from the several sets of carriage ways and to move it vertically in the carriage ways, said means embodying a hoist movable horizontally from position over one gate to position over another.

6. In combination, a gate structure having flash-board ways, a plurality of flash-boards on the ways, and a single anti-friction carriage means adapted to be moved into proximity with any one of the flash-boards and provided with means to detachably engage a flash-board and to move it off the flash-board ways.

7. In combination, a gate structure having flash-board ways and adjacent carriage ways, a plurality of flash-boards on said flash-board ways, a single carriage with rolling bearings on the carriage ways and adapted to be moved into proximity with any one of the flash-boards, means for hoisting and lowering the carriage, and means on the carriage to detachably engage any flash-board and move it off the flash-board ways.

[Claims 2, 5, 8, and 9 not printed in the Gazette.]

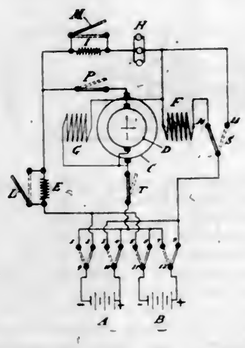
1,241,309. IGNITER MECHANISM FOR INTERNAL-COMBUSTION ENGINES. HARRY RANDOLPH VAN DEVENTER, Sumter, S. C., assignor, by mesne assignments, to Splitdorf Electrical Company, Newark, N. J., a Corporation of New Jersey. Filed Dec. 31, 1914. Serial No. 879,940. (Cl. 123—164.)



1. An ignition mechanism for internal combustion engines comprising a bracket, an igniter, a magneto carried by said bracket, an actuator or trip lever for operating the igniter and magneto, anchoring devices carried by the engine independently of said bracket, and tension means for operating the trip lever extending between said trip lever and the anchoring devices.

2. An ignition mechanism for internal combustion engines comprising a bracket, a magneto and an igniter and operating parts therefor assembled and carried as a unit on said bracket, anchor posts independently carried on the engine, and tension means connected to the anchor posts and said operating parts for actuating the same.

1,241,310. ELECTRIC LIGHTING AND HEATING OF RAILWAY AND OTHER VEHICLES. CHARLES HENRY VIDAL, London, England. Filed Sept. 3, 1915. Serial No. 48,866. (Cl. 171—313.)



In combination, a dynamo driven from an axle of a train, the said dynamo having two armature windings electrically separated and two commutators with a common field, the armature windings being in series with each other and with the external load, one of the said windings generating an electromotive force sufficient to charge one half of the divided battery, the other half of which serves to control the voltage delivered to the external load, and a battery of cells adapted in series to suitably energize the external load, when the train is at a standstill.

1,241,311. HOLDER FOR FOUNTAIN-PENS. ELIZABETH F. VILKOMERSON, New York, N. Y. Filed Jan. 9, 1917. Serial No. 141,458. (Cl. 24—12.)



1. A fountain pen holder comprising a pen engaging member, an apertured ear thereon, a garment engaging member, a tongue on said garment engaging member engageable within said ear, and releasable spring locking means, on said last named member engaging said tongue.

[Claims 2 to 4 not printed in the Gazette.]

1,241,312. GAME-CUE. WILLIAM VIRNIG, Bemidji, Minn. Filed Jan. 8, 1916. Serial No. 71,025. (Cl. 46—9.)



A game cue comprising a casing, a cue slidably mounted within and having its ends projecting beyond the casing, the cue being provided between its ends with an elongated slot extending longitudinally thereof, cushion and projecting coiled springs located within the casing and surrounding the cue with their opposing ends relatively spaced, means securing the remote ends of the springs to the casing, and means connected to the opposite ends of the springs and slidably passing the slot near the ends thereof so that the movement of the cue in one direction will expand the projecting spring and slide through the cushion spring and the movement of the cue under the influence of the projecting spring will near the end of said movement expand the cushion spring.

1,241,313. SHEET-METAL SHEARS. CLINTON DE WITT WAGNER, Cedar Rapids, Iowa. Filed May 9, 1917. Serial No. 167,415. (Cl. 164—77.)



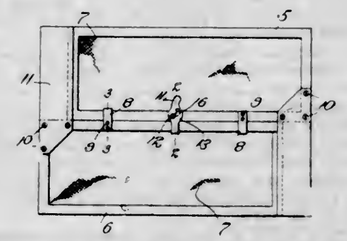
1. In a metal-slitting shear of the designated type, the combination of a track having parallel sides and a tapered entering end, and a shear-guide embracing the sides of the track at the top, bottom and edges, and provided with a vertically flared mouth to readily admit the entering end of the track.

2. Combined with a track having tapered sides at the entering end, a shear-guide embracing the track at each side on the top, bottom and edge, and having its top portion extended forward of the sides and bottom portions, whereby the guide may be rested on the end of the track before entering, substantially as described.

3. A shear-guide composed of a top-plate and a pair of folded lower plates, one permanently attached to the top-plate, as by rivets through the plate and the upper fold of the lower-plate, and the other lower-plate attached by bolts through its upper fold and through the top plate, the holes for said bolts being slotted to allow for lateral adjustment.

4. The combination with a metal slitting shear of the type herein designated, of a guide, comprising a track, a guide-plate adapted to slide thereon, means adapted to secure the guide-plate adjustably to the under side of the shear at the rear, and a pivotal connection of the guide-plate and said shear at the front, whereby the shear may be alined for work by fastening somewhat loosely at both connections, drawing the shear along its track until it finds its own alinement for clean cutting, and then securing the guide-plate tightly at the front and rear.

1,241,314. WINDOW-SCREEN. ERASTUS A. WARE, Groton, Conn. Filed Jan. 9, 1917. Serial No. 141,400. (Cl. 156—38.)

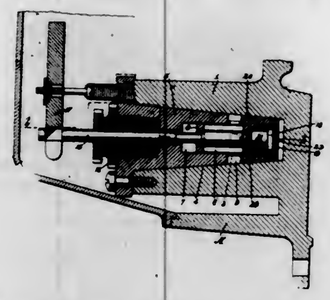


An adjustable window screen comprising a pair of frame sections disposed in a common plane with their adjacent edges in mutual engagement, a guide clip carried by the inner portion of each frame and engaged over the adjacent portion of the other frame in a way to prevent separation of the frame sections but to permit sliding movement thereof with respect to each other, a clamp carried by one

frame section and engaging the other frame section, said clamp being operable to hold the two sections against movement with respect to each other, and plates carried by the frame sections at opposite ends thereof, the plate of each section being disposed in position to overlap the other section throughout the entire width thereof.

1,241,315. [WITHDRAWN.]

1,241,316. STEAM-TURBINE VALVE. EDWARD H. WERZNER, Evansville, Ind., assignor to Schroeder Headlight Co., Inc., Evansville, Ind., a Corporation of Indiana. Filed Apr. 17, 1917. Serial No. 162,657. (Cl. 137—4.)



1. A turbine structure including an inlet passage for the fluid and a delivery passage for conducting the fluid to a nozzle, and a valve device between the passages, said device comprising a body having connected chambers, the passage surrounding the body and communicating with the inlet passage, ports between the surrounding passage and one of the chambers, a valve in the body for controlling communication between the chambers, a third chamber having a restricted communication with the delivery passage, a piston connected with the valve and disposed in and spaced from the walls of the last-mentioned chamber, and a seat with which the piston cooperates to control the flow of fluid into the piston chamber to act on the piston and balance the pressure on the valve.

2. A valve device comprising a structure formed with a tapering hole and having an inlet passage and a delivery passage, a tapering body disposed in said hole and formed with an intermediate chamber and two outer chambers, one of the outer chambers having a free communication with the delivery passage and the other a restricted communication, means connecting the inlet passage with the intermediate chamber, ported walls between the intermediate and outer chambers and having seats, a valve in the intermediate chamber and formed with a shoulder to engage one of the seats, a piston connected with the valve and disposed in and spaced from the walls of the chamber having a restricted communication with the delivery passage, the piston being formed with a shoulder to engage the other valve seat, a stem connected with the valve and passing through the chamber having the free communication with the delivery passage and extending out of the body, and a governor-actuated device connected with the valve stem, said intermediate chamber having restricted communication with the piston chamber to admit fluid into the latter for acting on the piston to balance the fluid pressure on the valve.

3. A valve device of the class described comprising a structure formed with a chamber and an inlet passage and a delivery passage, a body fitted in the said chamber and formed with a chamber in communication with the inlet passage and another chamber having free communication with the delivery passage, a ported wall between said chambers and formed with a valve seat, a valve in the first-named chamber and adapted to engage the said seat, a stem connected with the valve and extending axially through the body, a chambered plug in the body, a ported wall between the chamber of the plug and the first-named chamber, and a piston in the chambered plug and of such size as to permit a limited amount of fluid to enter the chambered plug when the valve is open, said plug having a restricted port whereby the chamber of the plug communicates with the delivery passage, said plug being removable to permit the valve and piston and stem to be removed from said body.

1,241,317. SYNCHRONOUS DYNAMO-ELECTRIC MACHINE. FRANK P. WHITAKER, Rugby, England, assignor to General Electric Company, a Corporation of New York. Filed July 25, 1916. Serial No. 111,230. (Cl. 172—279.)



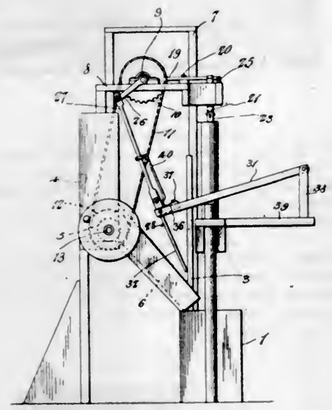
1. In combination, alternating current mains, a synchronous dynamo electric machine, and means for starting said machine comprising an alternating current motor, the rotatable member of which is mechanically connected to the rotatable member of said synchronous machine so as to drive the same at a predetermined angular speed ratio, said motor having two primary windings of different pole numbers, the number of poles of one of said windings being equal to the number of poles of said synchronous machine divided by said speed ratio and the number of poles of the other of said windings being less than the number of poles of said synchronous machine divided by the speed ratio.

2. In combination, alternating current mains, a synchronous dynamo electric machine, and means for starting said machine comprising an alternating current motor, the rotatable member of which is mechanically connected to the rotatable member of said synchronous machine so as to drive the same at a predetermined angular speed ratio, said motor having two primary windings of different pole numbers, the number of poles of one of said windings, and of said rotatable member of the motor being equal to the number of poles of said synchronous machine divided by said speed ratio and the number of poles of the other of said windings being less than the number of poles of said synchronous machine divided by the speed ratio.

3. In combination, alternating current mains, a synchronous dynamo electric machine, and means for starting said machine comprising an alternating current motor, the rotatable member of which is mechanically connected to the rotatable member of said synchronous machine so as to drive the same at a predetermined angular speed ratio, said motor having two primary windings of different pole numbers, connected in series with the windings of said synchronous machine, the number of poles of one of said windings being equal to the number of poles of said synchronous machine divided by said speed ratio and the number of poles of the other of said windings being less than the number of poles of said synchronous machine divided by the speed ratio.

4. In combination, alternating current mains, a synchronous dynamo electric machine, and means for starting said machine comprising an alternating current motor, the rotatable member of which is mechanically connected to the rotatable member of said synchronous machine so as to drive the same at a predetermined angular speed ratio, said motor having two primary windings of different pole numbers, connected in series with the windings of said synchronous machine, the number of poles of said windings, and of said rotatable member of the motor being equal to the number of poles of said synchronous machine divided by said speed ratio and the number of poles of the other of said windings being less than the number of poles of said synchronous machine divided by the speed ratio.

1,241,318. COTTON-DISTRIBUTER. WILLIAM WHITE, Granite, Okla. Filed Feb. 15, 1916. Serial No. 78,454. (Cl. 100—25.)



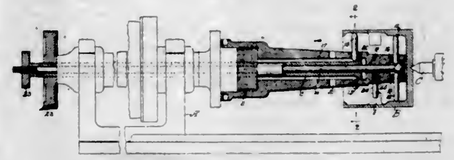
1. In a feeder for cotton presses, a frame structure, a shaft rotatably supported by said frame structure and operatively connected to a power source, a crank arm formed upon said shaft, a cotton distributing fork, handle for said fork, said handle connected to said crank for operating said fork upon rotation of the shaft, a pivotally mounted supporting structure connected to said fork, said fork being connected to said pivotally mounted supporting structure for independent pivotal movement.

2. In a feeder for cotton presses, a frame structure, a shaft rotatably supported by said frame structure and operatively connected to a power source, a crank formed upon said shaft, a cotton distributing fork including a back bar, a plurality of tines carried by said back bar, a handle structure pivotally connected to said back bar, said handle being connected to said crank for operating said fork upon rotation of the shaft, and means for limiting the pivotal movement of said handle independent of said back bar.

3. In a feeder for cotton presses, a frame structure, a shaft rotatably supported by said frame structure and operatively connected to a suitable power source, a crank formed upon said shaft, a cotton distributing fork including a handle, said handle being connected to said crank for operating said fork upon rotation of the shaft, a pivotally mounted supporting structure connected to said fork, said fork being connected to said pivotally mounted supporting structure for independent pivotal movement, and means for limiting the independent pivotal movement of the fork.

4. In a feeder for cotton presses, a frame structure, a shaft rotatably supported by said frame structure and operatively connected to a power source, a crank formed upon said shaft, a cotton distributing fork including a back bar, a plurality of tines carried by said back bar, a handle structure pivotally connected to said back bar, said handle being connected to said crank for operating said fork upon rotation of the shaft, and means for limiting the pivotal movement of said handle independent of said back bar, a pivotally mounted supporting structure pivotally connected to said back bar, and means for limiting the pivotal movement of said fork structure independently of movement of said pivoted supporting structure.

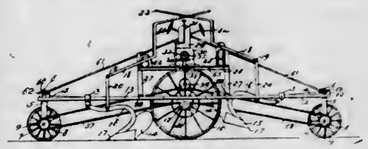
1,241,319. SELF-CENTERING WORK-HOLDER. DANA WILEY, Long Beach, Cal. Filed Mar. 22, 1917. Serial No. 156,545. (Cl. 82—44.)



2. A centering device of the class described, including a mandrel body, front and rear sets of radially movable centering pins thereon, a rod co-axial with the mandrel and adapted to extend through and beyond the spindle of a head-stock, a tube surrounding the rod and extending adjacent to the rear end thereof, said tube and rod each having a conical head to bear against the respective sets of pins, the rear ends of said rod and tube being threaded, a nut on the threaded end of the tube adapted to bear against the lathe spindle, and a nut on the threaded end of the rod and movable thereon to engage the rear end of the tube, the rod and tube being adapted to be separately and independently actuated by the respective nuts to independently expand the respective sets of centering elements to produce initially an approximate adjustment thereof, and the nut of the tube being adapted to give a final movement to the tube and cause it to act on the nut of the rod to thereby simultaneously effect the final adjustment of both sets of elements.

[Claims 1, 3, and 4 not printed in the Gazette.]

1,241,320. MOTOR-PLOW. JAMES E. WILLIAMSON, Mansfield borough, Pa. Filed Feb. 24, 1917. Serial No. 150,675. (Cl. 97—50.)



1. A motor plow including a frame, head wheels connected at the respective ends of one side of the frame, another wheel rotatably mounted on the other side of the frame approximately intermediate the ends thereof, plowing means mounted at the respective ends of the frame, means for adjusting the plowing means, propelling means, means for operably connecting the propelling means with the intermediate wheel, means for shifting the head wheels, means operably connected to the propelling means for rotating the head wheels, means for reversing the movement of the wheels, and clutch means for disconnecting the head wheels from the propelling means while they are being shifted.

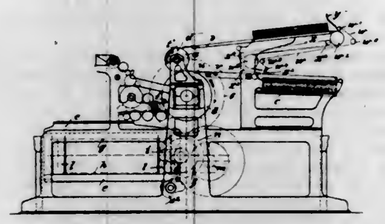
[Claim 2 not printed in the Gazette.]

1,241,321. PRINTING-MACHINE HAVING A CONTINUOUSLY-ROTATING CYLINDER. CARL WINKLER, Berne, Switzerland. Filed Oct. 7, 1915. Serial No. 54,543. (Cl. 101—280.)

1. A printing machine, comprising a feed table, a delivery table below the feed table, a feed-device for feeding the sheets from the feed-table, a continuously rotating impression cylinder, said cylinder rotating in the direction of the feed and delivery tables, a reciprocating form-carriage below the cylinder, and conveying means conveying the sheets from the cylinder to the delivery table, substantially as set forth.

2. In a printing machine, a feed table, a feed-cylinder, a continuously rotating impression cylinder, means for

intermittently operating the feed cylinder from the impression cylinder, a reciprocating form carriage below the impression cylinder, a delivery table below the feed table, a conveying device leading from said impression cylinder to the delivery table, and means to divert the front edge of the printed sheets from said continuously rotating cylinder, said means in one position permitting the sheet on the cylinder to be carried along by said cylinder and when moved into another position serving to direct the sheet on to said conveying device.



3. A printing machine, comprising a feed table, a delivery table below the feed table, a feed device for feeding the sheets from the fed table, a continuously rotating impression cylinder, said cylinder rotating in the direction of the feed and delivery tables, a reciprocating form carriage below the cylinder, conveying means conveying the sheets from the cylinder to the delivery table, and means between the feed and delivery tables for placing a protecting sheet on each sheet placed on the delivery table.

4. In a printing machine, a feed table, a feed cylinder, a continuously rotating impression cylinder, means for intermittently operating the feed cylinder from the impression cylinder, a reciprocating form carriage below the impression cylinder, a delivery table below the feed table, a conveying device leading from the impression cylinder to the delivery table, and pivoted tongues adapted to be moved toward and from the impression cylinder, said tongues when moved away from the cylinder permitting the sheet on the cylinder to be carried along by said cylinder and when moved toward the cylinder serving to direct the sheets on to said conveying device.

1,241,322. INKING-PAD. EDWARD GRAHAM WOODY, New York, N. Y. Filed June 1, 1917. Serial No. 172,256. (Cl. 91—54.5.)

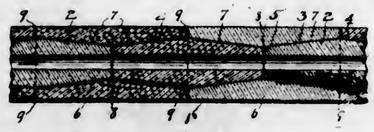


An inking pad comprising a containing box-like case, and a reservoir pad disposed in said case, said pad being constructed of material adapted to be saturated with inking fluid, and a distributing pad for said reservoir, the pad being adapted to fit said case, said distributing pad constructed of artificially constructed porous mineral.

1,241,323. CONCRETE-PIPE JOINT. MARSHALL J. WYERS, Phoenix, Ariz. Filed Apr. 21, 1917. Serial No. 163,662. (Cl. 72—53.)

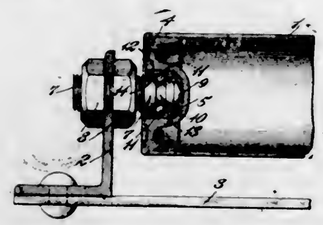
1. In a built up pipe, the combination of a plurality of inner hollow sections each having an enlarged middle portion and an outer surface tapering from said enlarged middle portion to each end, a plurality of outer hollow sections each having an enlarged middle portion and adapted to fit over the inner sections and the inner surface of each tapering from said enlarged portion to each end, the enlarged middle portions of the inner sections reinforcing the connection between the end portions of the outer sections and the enlarged middle portions of the outer sections reinforcing the connection between the end portions of the inner sections thereby forming a pipe of uniform diameter throughout.

2. In a built up pipe, the combination of a plurality of inner hollow sections the ends of which are contracted and abut against each other and the middle portions of which are enlarged, a plurality of outer hollow sections the middle portions of which are enlarged and the ends of which abut against each other, the connection between said ends being reinforced by the said enlarged portions



of the inner sections, and the inner surfaces of the outer sections fitting the contour of the outer surfaces of the inner sections and the connection between the ends of the inner sections being reinforced by the enlarged portions of the outer sections thereby forming a pipe of uniform diameter throughout.

1,241,324. BEARING FOR CONVEYER-ROLLERS. JOHN A. ALVEY, St. Louis, Mo., assignor to Alvey Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed June 14, 1917. Serial No. 174,701. (Cl. 64—36.)



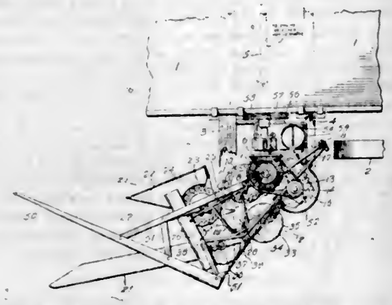
1. A roller conveyer comprising spaced supporting rails, oppositely disposed spaced bearing spindles adjustably secured to said supporting rails, bearing rings sleeved on the inner end of the bearing spindles, antifriction members arranged between the bearing rings and the bearing spindles, the bearing rings projecting into the ends of conveyer rollers and arranged for rotation with said rollers, and means for retaining the bearing rings and antifriction members on the spindles when the conveyer rollers are removed.

2. In a bearing for conveyer rollers, a roller, a cap fastened to each end of the roller having its central portion cup-shaped, an adjustably mounted bearing spindle located at each end of the roller, said bearing spindle projecting into and bearing against the bottom of the cup-shaped portion of the cap, a cylindrical ring sleeved on the bearing spindle and frictionally engaging the walls of the cup portion of the cap, antifriction members positioned around the bearing spindle, and means for retaining the antifriction members on the bearing spindle when the conveyer roller is withdrawn.

4. In a bearing for conveyer rollers, a tubular roller, a cap for each end of said roller, each cap being provided at its center with a depression, spindles projecting into each depression, a bearing ring for each spindle engaging the wall of the adjacent depression and spaced away from the spindle, bearing balls located in a race-way on each spindle and engaging the inner wall of the bearing ring, said bearing ring having a flange located at one end thereof to limit its endwise movement, and a retaining ring pressed into the opposite end of the bearing ring, that wall of said retaining ring which engages the inner wall of the bearing ring being roughened to hold the retaining ring firmly in the end of the bearing ring

[Claim 3 not printed in the Gazette.]

1,241,325. ENSILAGE-HARVESTING MACHINE. MONT ANGUS, Terry, Mont. Filed Apr. 3, 1917. Serial No. 159,441. (Cl. 56—131.)



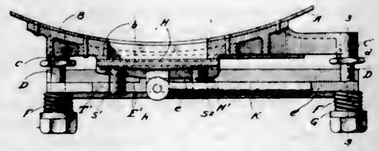
1. In a machine of the character specified, guards disposed to form a flaring passage, feed drums arranged at the sides of the passage, each adapted to revolve about a vertically disposed axis, a rotary cutter in the rear of the feed drums and in the plane of their lower ends, a toothed wheel mounted on one of the feed drums and having its toothed portion disposed to operate across the passage and the space formed between the drums and over the rotary cutter to coact therewith.

2. In a harvesting machine of the character specified, feed drums arranged to revolve about vertically disposed axes, the one having a fixed axis and the other movable laterally, a rotary cutter in the rear of the feed drums and opposite the space formed between them, and a toothed wheel mounted on the drum having a fixed axis and having its toothed portion projecting to operate across the space formed between the drums and over the rotary cutter and in contact therewith.

3. In a harvesting machine of the character set forth, feed drums arranged to revolve about vertically disposed axes, a rotary cutter in the rear of the drums and in the plane of their lower ends, and a toothed wheel connected with the lower end of one of said drums to rotate therewith and having its toothed portion extending to operate across the space formed between the drums and over the rotary cutter, and in contact therewith.

[Claims 4 to 7 not printed in the Gazette.]

1,241,326. OUTLET-VALVE FOR WASHING-MACHINES. WILLIAM BARTHOLOMEW, Chicago, Ill., assignor to Troy Laundry Machinery Company, a Corporation of New York. Filed Feb. 8, 1915. Serial No. 6,776. (Cl. 137—5.)



1. The combination with a valve seat surrounding a passageway, of a valve coöperating with said seat to open and close the passageway therethrough, a track upon which said valve is movably supported, resilient means for supporting said track, and coöperating wedge surfaces on said valve and track for forcing said valve when in registry with said seat into contact therewith.

2. The combination with a valve seat surrounding a passageway, of a valve coöperating with said seat to open and close the passageway therethrough, a track upon which said valve is movably supported, and springs engaging said track for moving the same toward said valve seat and thereby resiliently retaining said valve in tightly closed position.

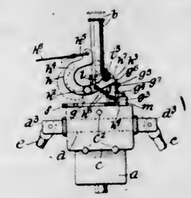
3. The combination with a valve seat surrounding a passageway, of a slide valve coöperating with said seat to open and close the passageway therethrough, a track upon which said valve is movably supported, coöperating wedge surfaces on said valve and track for forcing said valve when in registry with said seat into contact therewith, and springs engaging said track for moving the same toward said valve seat and thereby resiliently retaining said valve in tightly closed position.

4. The combination with a valve seat surrounding a passageway, of a valve coöperating with said seat to open and close the passageway therethrough, a pair of parallel tracks on opposite sides of and spaced away from said valve seat, means for resiliently supporting said tracks, flanges on the opposite sides of said valve resting upon said tracks, and coöperating wedge surfaces on said flanges and tracks for forcing said valve when in registry with said seat into contact therewith.

5. The combination with a valve seat surrounding a passageway, of a valve coöperating with said seat to open and close the passageway therethrough, a pair of parallel tracks on opposite sides of and spaced away from said valve seat, flanges on the opposite sides of said valve resting upon said tracks, coöperating wedge surfaces on said flanges and tracks for forcing said valve when in registry with said seat into contact therewith, and springs engaging said tracks for moving the same toward said valve seat and thereby resiliently retaining said valve in tightly closed position.

[Claims 6 to 10 not printed in the Gazette.]

1,241,327. DRILL-HOLDER. AUGUST M. BECKER, Cliffside, N. J. Filed June 11, 1917. Serial No. 173,922. (Cl. 255—44.)



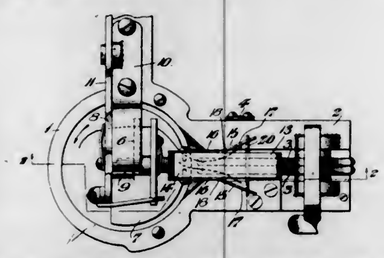
1. In a device of the class described, a main frame, adjustable means for supporting said frame, means for supporting a drill in said frame, a supplemental frame adjustably mounted on the main frame, a wrench device mounted on said supplemental frame and adapted to operate in connection with said drill, and means mounted on said supplemental frame for operating said wrench device to give the drill a vertical and rotary movement.

4. In a device of the class described, a main frame, a yoke-shaped frame connected therewith, telescoping legs pivoted to said yoke-shaped frame, means for supporting a drill in said frame, a supplemental frame mounted on the main frame, a wrench device mounted on said supplemental frame and adapted to operate in connection with said drill, tensional means for holding said wrench device in position to engage said drill, means for locking said wrench device against movement, and means for releasing said locking means.

7. In a device of the class described, a main frame, means for supporting a drill in said frame, a supplemental frame adjustably mounted on the main frame and provided with a raised arc-shaped and beveled hub portion, a drill shifting device one end portion of which is mounted on said hub portion and provided with a jaw adapted to engage said drill, means on said supplemental frame operating in connection with the other end portion of said device and adapted to move the same to rotate said drill, and automatically operated means mounted on the supplemental frame for locking said drill shifting device against movement.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,241,328. YARN-TRAP FOR HOSIERY-KNITTING MACHINES. JOSEPH BENNETT, Philadelphia, Pa., assignor to Germania Hosiery Mills, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 10, 1917. Serial No. 147,775. (Cl. 66—12.)



1. In a device of the character described, thread carrying fingers pivotally mounted, tension springs having substantially parallel portions and portions extending at an angle therefrom with their ends free and having slots, and a pin passed through said slots and serving to guide the salient portions of said springs, said springs being so located with relation to the tension device that the said pin prevents the thread from swinging out of operative relation to the tension device upon movement of said fingers.

[Claim 2 not printed in the Gazette.]

1,241,329. TENSION DEVICE FOR HOSIERY-KNITTING MACHINES. JOSEPH BENNETT, Philadelphia, Pa., assignor to Germania Hosiery Mills, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 10, 1917. Serial No. 147,776. (Cl. 242—149.)

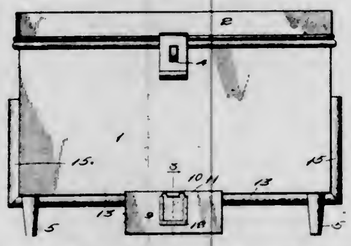


1. A thread-tension spring for hosiery knitting machines formed of plates, said spring being provided intermediate its ends with eyes turned out from said plates, said spring serving both as a tension device and guide.

3. A thread-tension spring for hosiery knitting machines, the same composed of plates having intermediate their ends oppositely outturned portions forming eyes, the adjacent faces of the plates upon opposite sides of said eyes being in close contact with each other, and means for securing one end of said plates together, said spring serving both as a tension device and guide.

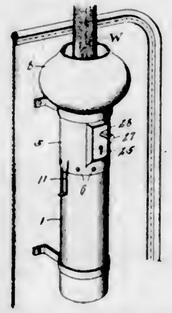
[Claim 2 not printed in the Gazette.]

1,241,330. BREAD-BOX. ROBERT H. BERKSTRESSER, York, Pa. Filed May 12, 1915, Serial No. 27,596. Renewed Feb. 26, 1917. Serial No. 151,142. (Cl. 131—30.)



An apparatus for the purpose described, comprising a shell having apertures in the upper portions of opposite upright walls and lower apertures in said walls and also having central apertures in its bottom wall and other apertures in said bottom wall, between the central apertures and said opposite upright walls, a casing fixed below the central portion of the bottom of said shell and open at one end and having openings in its side walls, horizontal conduit-portions communicating with said openings and also communicating with the last-named apertures in the bottom wall of the shell, upright conduit portions communicating with the horizontal conduit portions and the lower apertures in said opposite upright walls of the shell and closed at their upper ends, a slidable drawer disposed in said casing and open at its upper side and having an opening in its outer end wall and also having openings in its side walls adapted to be moved into and out of registration with the inner ends of the horizontal conduit portions, and a valve carried by the drawer and arranged to control the opening in the outer end wall thereof.

1,241,331. WHIP-SOCKET LOCK. PETER H. BETHEA, Washington, D. C. Filed Mar. 30, 1917. Serial No. 158,704. (Cl. 21—130.)

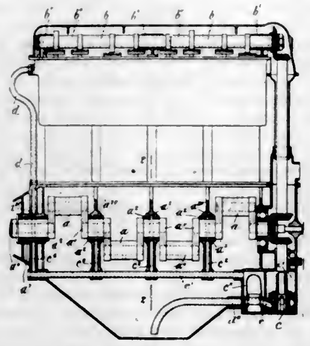


1. In a whip socket lock, the combination with a barrel having a series of spring tongues at its upper end, each provided with an inwardly facing jaw, and a sleeve secured to the barrel and surrounding said tongues; of an annular wedge interposed between the sleeve and tongues, a spring for holding the wedge normally raised, a strip depending from the wedge between the barrel and sleeve and having a hand-hold outside the barrel for moving the wedge downward against the tension of said spring, a latch on the sleeve for engaging said wedge in its depressed position, and a lock for the latch.

2. In a whip socket lock, the combination with a tubular barrel shouldered at its upper end and continued thence upward in spring tongues, a sleeve secured at its lower end to the upper end of said barrel and surrounding said tongues, a coiled spring surrounding the tongues and resting on said shoulder, and an annular wedge whose lower end rests on said spring and whose outer face is provided with an upright series of recesses; of means for manually depressing the wedge from the exterior of the sleeve, a spring latch on its interior having a tongue adapted to engage any of said recesses, means for locking the latch to prevent the disengagement of the tongue from a recess, and means for retracting the latch when the lock is retracted.

3. In a whip socket lock, the combination with a tubular barrel shouldered at its upper end and continued thence upward in spring tongues, a sleeve secured at its lower end to the upper end of said barrel and surrounding said tongues, a coiled spring surrounding the tongues and resting on said shoulder, and an annular wedge whose lower edge rests on said spring and whose outer face is provided with an upright series of recesses; of means for manually depressing the wedge from the exterior of the sleeve, a latch of inverted V-shape whose outer leaf in secured within the sleeve and whose inner leaf has a tongue adapted to engage any of said recesses, a handle connected with said inner leaf and extending through the outer leaf and sleeve to within reach of the user, and a lock secured within said sleeve and having a bolt adapted to be raised behind the inner leaf to prevent the movement of the latter to disengage it from said recesses.

1,241,332. FORCED LUBRICATION. MARC BIRKIGT, Bois-Colombes, France. Filed Jan. 4, 1916. Serial No. 70,255. (Cl. 184—6.)

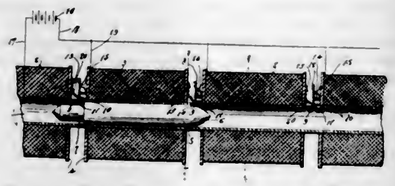


1. In a lubricating system, the combination of a shaft having a central conduit; a bearing for said shaft; and means for supplying lubricant to said bearing, said shaft and said bearing constituting a pair of companion parts in port communication with the conduit in said shaft, one of such parts having a radial port, and the other part having a plurality of radial ports adapted to successively register with the first-named port, whereby the lubricant supplied to said bearing may pass from the latter to said shaft a predetermined number of times for each revolution of the shaft.

3. In a lubricating system, the combination of a crank shaft, a plurality of bearings for said shaft, said shaft having a central conduit and said bearings having a passage, a conduit connected with said passages in the bearings for distributing lubricant to the latter, means for forcing the lubricant through said conduit and bushings interposed between each bearing and shaft each having a plurality of openings therein communicating with the passage of the bearing, said shaft having passages extending from the periphery thereof to the conduit therein and adapted to consecutively register with openings of the bushings whereby the lubricant may pass a predetermined number of times for each revolution of the shaft from said passages of the bearings to the conduit of said shaft.

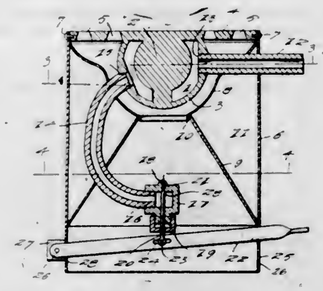
[Claim 2 not printed in the Gazette.]

1,241,333. GUN. LEVI M. BOWMAN, Tulsa, Okla., assignor of one-half to William A. Smith, Bartlesville, Okla. Filed Sept. 30, 1916. Serial No. 123,090. (Cl. 172—285.)



A gun comprising a barrel having a plurality of relatively spaced slots, magnets carried by the barrel and positioned between each of the slots, a lever pivoted in each of said slots, contacts secured to the free ends of said levers, contacts carried by the magnets, an electrical source connected to the last named contacts and barrel, stops carried by the magnets, springs connected to the levers and magnets for holding said levers normally in engagement with the stops, and arms formed on the pivoted ends of the levers and adapted to be engaged by a projectile in the barrel to move the contacts into engagement with each other for energizing the magnets.

1,241,334. HYDROCARBON-BURNER. LEVI M. BOWMAN, Tulsa, Okla. Filed Mar. 10, 1917. Serial No. 153,893. (Cl. 158—65.)

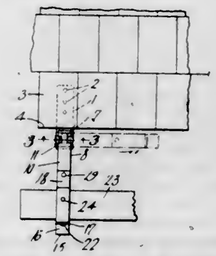


1. A hydro-carbon burner including an outer casing, upper and lower oppositely tapered members arranged within the casing and connected at their adjacent ends and forming an intervening space between them and the casing, said space tapering upwardly and downwardly from an intermediate point, a gas generating device located within the upper member and provided with an interior cracking chamber, an inlet pipe connected with the cracking chamber for supplying oil to the same, and a gas outlet pipe extending downwardly from the cracking chamber and provided with a valve located within the said lower member below the generating device.

7. A hydro-carbon burner including an approximately hemispherical generator body having an annular cracking chamber forming an interior ball shaped portion and an outer jacket, an inlet pipe connected with the cracking chamber for supplying oil to the generator, a gas outlet pipe extending from the cracking chamber to a point below the generator, and a valve connected with the lower end of the gas outlet pipe.

[Claims 2 to 6, 8, and 9 not printed in the Gazette.]

1,241,335. ROOFING-BRACKET. JOHN ROBERT BOYD, Asheville, N. C. Filed Jan. 3, 1917. Serial No. 140,400. (Cl. 20—86.)

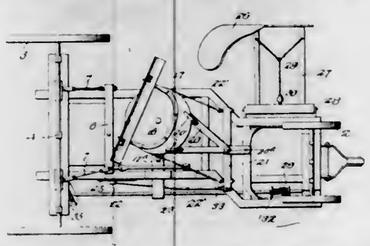


1. In a device of the class described, a support having an elongated opening; means for securing the support to a roof; and a hanger including spaced parts connected by a reduced neck having depending arms provided with outstanding fingers, the fingers being insertible through the opening in the support when the hanger stands approxi-

mately at right angles to the support, the fingers engaging beneath the support, on opposite sides of the opening, when the hanger is disposed in alinement with the support.

2. In a device of the class described, a support; means for securing the support to a roof; a strip the lower end of which is bent to form an inclined brace having an outstanding foot; a stirrup including a base engaged by the foot, a free arm, and an arm coöperating with the strip; means for securing the last specified arm of the stirrup to the strip to serve as a reinforcement for the strip; and detachably interengaging elements carried by the strip and the support.

1,241,336. GRADER. HERMAN BRAND, Breese, Ill. Filed July 11, 1916. Serial No. 108,679. (Cl. 37—49.)



A grader comprising a body provided with front and rear wheels, a turn table adjustably secured to said frame and carrying a grader blade, a lever pivoted to the grader body, a cable secured to each end of said lever and engaging the turn table, a link connected to one end of the pivoted lever and a manually operated lever connected to said link for adjusting the turn table.

1,241,337. TIE-FASTENER. JULIUS G. BREITENSTEIN, Chicago, Ill. Filed May 24, 1915. Serial No. 29,980. (Cl. 132—22.)



1. The combination of a grip device, comprising a cupped member, a flat member and connecting means by which they are secured together, with the flange of the cupped member engaging the surface of the flat member, but yieldingly separable therefrom, and a flexible tie formed in a loop outside the grip device, with its two end portions entering said device through separate apertures therein and adapted to emerge in opposite directions respectively between the edge of the cupped member and the face of the flat member, to be gripped thereby.

2. The combination of a grip device, comprising two members, one of which is of cupped form disposed with the edge of its flange opposite to the other member, together with connecting means by which said parts are secured together in such position, but yieldingly separable at their most closely adjacent portions, and a flexible tie formed in a loop outside the device, with its two end portions entering said device through separate apertures therein, and adapted to emerge in opposite directions respectively between the edge of the flange of said cupped member and the opposed portion of the other member and to be gripped thereby.

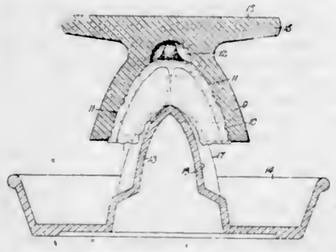
3. The combination of a grip device, comprising a cupped member, a flat member and connecting means by which they are secured together with the flange of the cupped member engaging the surface of the flat member, but yieldingly separable therefrom, and a flexible tie formed in a loop outside the grip device, with its two end portions entering such device through separate apertures therein, and arranged to emerge in opposite directions between the edge of the cupped member and the opposing portion of the flat member to be gripped thereby, one of said members having a notch in its edge, into which one end portion of the tie may be slid for releasing the grip of the device upon it.

4. The combination of a grip device, comprising a cupped member, a flat member and connecting means by which they are secured together, with the flange of the cupped member engaging the surface of the flat member, but yieldingly separable therefrom, and a flexible tie formed in a loop outside the grip device, with its two end portions entering said device through separate apertures therein and adapted to emerge in opposite directions respectively, between the edge of the cupped member and the face of the flat member, to be gripped thereby, the said cupped member having a notch in its flange substantially as large as the cross-section of the tie to accommodate one end portion of said tie for releasing the grip of the device upon it.

5. The combination of a grip device, comprising a cupped member, a flat member and connecting means by which they are secured together, with the flange of the cupped member engaging the surface of the flat member, but yieldingly separable therefrom, and a flexible tie formed in a loop outside the grip device, with its two end portions entering said device through separate apertures therein, and each adapted to bend abruptly about a portion of the said connecting means and to emerge from the device between the edge of the cupped member and the face of the flat member to be gripped thereby.

[Claims 6 to 8 not printed in the Gazette.]

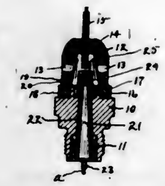
1,241,338. FRUIT-HOLDER. WILLIAM ESTEE BROWN, Sacramento, Cal. Filed Oct. 25, 1916. Serial No. 127,580. (Cl. 100—49.)



As an article of manufacture, a holder as characterized having an inverted globular bowl, the inner surface whereof is provided with retaining burs, said burs being arranged to form circular rings with interposed smooth sections for retaining the fruit within the grasp of said bowl; and a handle mounted on said bowl at the apex thereof.

1,241,339. COMBINED SPARK-PLUG AND SPARK-GAP. WILLIAM C. BRUNKE, Omaha, Nebr., assignor to Efficiency Motor-Device Corporation, Omaha, Nebr. Filed June 25, 1917. Serial No. 176,665. (Cl. 123—169.)

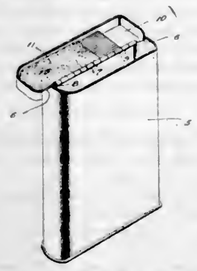
1. In devices for the purposes described, an elongated, metallic plug having a cylindrical chamber opening on its outer end and an annular flange projecting beyond its inner end, a tapered electrode longitudinally traversing the plug, its part of greater divergence being disposed in said chamber and its part of lesser divergence being disposed centrally of and projecting beyond the end of said annular flange, an insulating jacket disposed within said plug and circumscribing the electrode, a tapered insulating-sleeve mounted on the plug and circumscribing the insulating jacket, an electrical conductor bearing on the insulating sleeve and having a threaded connection with the electrode, an insulating dome having sight-apertures in its sides and having a metallic base for a threaded connection with the annular flange of said plug, and an electrical conductor mounted for longitudinal adjustments in the dome to provide a spark gap substantially in line with the sight-apertures of said dome.



2. In devices for the purposes described, an elongated, metallic plug having a cylindrical chamber opening on one of its ends and having an annular flange projecting beyond its opposite end, a tapered insulated electrode longitudinally traversing the plug, its part of greater divergence being disposed in said chamber and its part of lesser divergence being disposed centrally of and projecting beyond the end of said annular flange, a tapered insulating-sleeve mounted on the plug and circumscribing the insulated electrode, a metallic part bearing on the insulating sleeve and having a threaded connection with the insulated electrode, an insulating dome having sight-apertures and having a metallic base for a threaded connection with the annular flange of said plug, and an electrical conductor mounted in the dome to provide a spark gap adjacent to the sight-apertures of said dome.

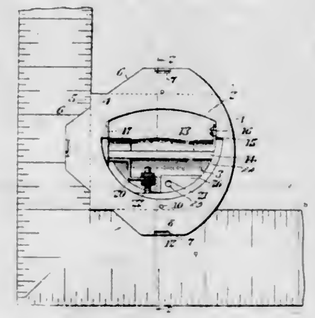
3. In devices for the purposes described, a metallic plug having a cylindrical chamber opening in one of its ends and having an annular flange projecting beyond its opposite end, a tapered electrode longitudinally traversing the plug, its part of greater divergence being disposed in said chamber and its part of lesser divergence being disposed centrally of and projecting beyond the end of said annular flange, an insulating jacket disposed within said plug and circumscribing the electrode, an insulating-sleeve mounted on the plug and circumscribing the insulating jacket, a metallic element bearing on the insulating sleeve and having a threaded connection with the electrode, a dome provided with a sight-aperture and having a part threaded on the annular flange of said plug, and an insulated electrical conductor mounted for longitudinal adjustments in the dome to provide a spark gap in combination with the metallic element on said insulating sleeve, said spark gap being disposed adjacent to the sight-aperture of the dome.

1,241,340. COMBINATION TOBACCO AND MATCH BOX. CHARLES M. BURR, Bardane, W. Va. Filed May 3, 1916. Serial No. 95,149. (Cl. 206—38.)



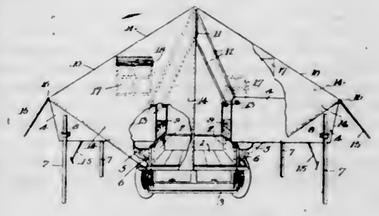
In a device of the class described in combination a can, a lid adapted to close said can and having four flanges, said lid being hingedly mounted on one edge of said can, a match striker formed entirely from a sheet of sand paper, said sheet of sand paper having folded sides adapted to form a box of lesser length and width with respect to the length and width of said cover, the base portions of said box having their rough surface adhesively secured to the bottom of said cover so as to have an outer smooth surface forming the bottom of said box and whereupon the sides of said box are spaced from the side flanges of the cover to allow the flanges of the cover to engage the sides of the can, said box receiving a series of loosely arranged matches and being of a lesser length with respect to the latter so that portions of said matches may project outside of the box and be also spaced apart from the adjacent transverse flange of said cover so as to provide a space in which said matches may be manipulated for removal by a sliding movement upon the bottom of the lid, the outer exposed or top side of said box having a sand paper surface.

1,241,341. LEVEL. DARELL M. CHAMBERS, San Diego, Cal. Filed May 13, 1916. Serial No. 97,339. (Cl. 33—207.)



A level device for use in connection with a try-square and comprising a body having angularly related faces each provided with two spaced walls to receive the arms of a try-square and enable the device to be arranged in the angle between said arms, said walls having notches in their outer edges, U-shaped clamping members arranged between said walls, having their intermediate portions secured in recesses in the body and having their arms provided with out-turned ends which operate in said notches, and a spirit tube carried on said body.

1,241,342. FOLDING CAMP BED AND TENT. GEORGE P. CHAPMAN, Fort Collins, Colo. Filed Aug. 19, 1916. Serial No. 115,902. (Cl. 21—7.)



1. The combination of two bed frames adapted to close together and open apart, with tent pole framework hinged to said bed frames and adapted to be raised bodily upward by the opening of said bed frames and lowered by the closing of said bed frames.

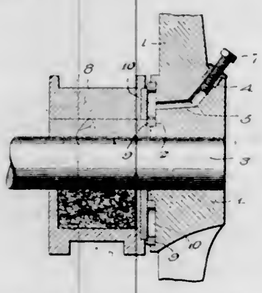
2. In a camp bed and tent attachment for automobile trailers and a pair of bed frames adapted to close to-

gether forming a box, hinges on the bottoms of said bed frames to support each frame upon opposite sides of the trailer and allow said frames to close together and open outward in extended position, folding tent pole framework hinged to the inner edges of said bed frames and adapted to be lowered and folded in the box formed by the closed frames and unfolded and lifted bodily upward by the opening of said bed frames.

3. The combination of two beds adapted to close together so that their frames form a closed box and to open apart in extended position, a tent fastened to the sides of said beds and extending over and above said beds when said beds are opened and adapted to fold between said beds when said beds are closed together, tent pole framework hinged to the upper inside edges of the frames of said beds and under said tent so as to be lifted bodily upward by the opening of the beds and lowered bodily between the beds by the closing of the beds, substantially as described.

4. In combination with a camp trailer two bed frames hinged to opposite sides of said trailer and adapted to swing upon their hinges and close together forming a closed box in the trailer and to open in extended position to the sides of the trailer, a tent fastened to the outer edges of said bed frames and adapted to extend across and above said frames and trailer when the frames are opened in extended position, tent pole framework hinged to the inner edges of said bed frames and under said tent so as to be raised bodily upward to lift said tent when the bed frames are opened and to be lowered and folded with said tent between said bed frames when said frames are closed, substantially as described.

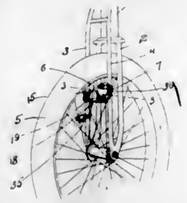
1,241,343. WHEEL-HUB PLATE. MATTHIAS CHRISTMAN, Springfield, Mo. Filed Mar. 1, 1916. Serial No. 81,499. (Cl. 64—25.)



In combination with a wheel and axle and with a bearing box for the axle, said wheel having an annular recess concentric with and spaced from the axle and in the side of the wheel opposed to the bearing box, an annular hub plate fitted in said recess and of a thickness exceeding the depth of said recess so that a space is formed around the axle and between the opposing sides of the wheel and bearing box, said hub plate having a series of elongated radially arranged pockets extending transversely entirely therethrough and open at each side of said hub plate, and dowel pins securing said hub plate to the axle and arranged at points intermediate the pockets, the wheel being provided with means to supply lubricant to one of said pockets, the other pockets being not in communication with the lubricant supply means on the side toward the wheel.

1,241,344. VEHICLE ATTACHMENT. FREDERICK M. CRANE, Halsey, Oreg. Filed June 6, 1916. Serial No. 102,007. (Cl. 248—20.)

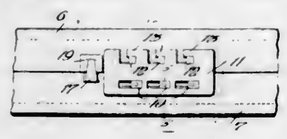
1. In a device of the class described, a lock and a support for said lock including a plate, a strip of material at one end of said plate bent upon itself to provide a bracket having spaced sides, overlapping portions on said sides and one end of said bracket, a clamp interposed between the overlapping portions of said sides and plate, a binding screw passing through said plate, the clamp and the overlapping portions of said sides, and a nut on said screw between the sides of said bracket and engaged thereby.



2. In a device of the class described, a lock and a support for said lock comprising a plate, a clamp at one end of said plate, a bracket at one end of said clamp, means for connecting the bracket, the clamp, and the plate, an arm at the other end of said plate underlying said bracket and having an opening therein, and a finger at one end of said arm.

3. In a device of the class described, a lock and a support for said lock comprising a plate having an angularly extending arm at one end thereof, a bracket upon the opposite side and at the other end of said plate, a clamp above said arm passing between said plate and bracket and connected therewith, said clamp having spaced arms thereon, a binding screw connecting said arms, and a nut on said screw bearing against one of said arms.

1,241,345. COUPLING MEANS FOR DEMOUNTABLE-RIM SECTIONS. FREDERICK B. CUMPSTON, Blooming Grove, Tex. Filed Nov. 29, 1916. Serial No. 134,053. (Cl. 152—21.)

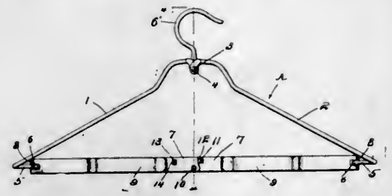


1. The combination with a circumferentially divided rim, of a plurality of bevel edged guide lugs carried on the under side of one of the rim sections, a securing device for the rim sections comprising a plate having bevel edged guide slots engaging the said guide lugs, said slots being of a length greater than the length of the guide lugs, said plate adapted when the sections are placed together to overlie the opposite rim section on the under side thereof, a plurality of bevel edged keeper lugs carried by said opposite rim section on its under side, said plate being provided with bevel edged angular slots adapted to be engaged over the keeper lugs whereby to couple the rim sections together, and coacting means between the rim sections for guiding them together and for preventing creeping movement of the sections relatively to each other.

[Claim 2 not printed in the Gazette.]

1,241,346. FOLDING GARMENT-HANGER. LLOYD H. DALTON, Nevada, Mo. Filed Aug. 28, 1916. Serial No. 117,310. (Cl. 211—13.)

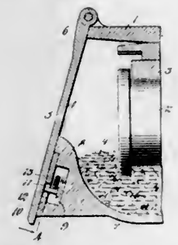
1. A garment hanger, the combination with an arch member, of a garment supporting bar arranged between the extremities of said member and including two resilient sections, each section being substantially U-shaped and having relatively long and short limbs, said sections at their bend being pivotally connected with the adjacent extremity of said member, said long limbs of the respective sections having their adjacent extremities pivotally connected together, means for holding the sections fixed relatively, and the extremity of each short limb being curved outwardly as described.



2. A foldable garment hanger embodying a pair of pivotally associated oppositely disposed arms, a garment supporting bar arranged between said arms and including two sections, each section being substantially U-shaped and pivotally connected with the extremity of one of said arms, the said U-shaped sections having relatively long and short limbs, the adjacent extremities of the longer limbs of the respective sections being pivotally connected, coöperating means carried by said long limbs for holding said sections fixed relatively, and the short limb of each section having its free end curved outwardly as described.

3. A foldable garment hanger embodying an arch member including pivotally connected sections, each section embodying a pair of convergently disposed members having their outer extremities curved inwardly in spaced relation, a garment supporting bar embodying a pair of U-shaped pivotally connected members, each member being pivoted at one end between the said extremities of the arch-shaped member, one limb of each U-shaped member being free and curved outwardly, and means for holding the pivotally connected U-shaped members fixed relatively.

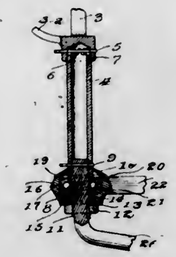
1,241,347. LOCK FOR JOURNAL-BOXES. FRED HENRY DAY, Hopewell, Va. Filed May 9, 1917. Serial No. 167,405. (Cl. 70—27.)



1. The combination of a bearing box having in the lower portion of its front wall a chamber which is out of communication with the interior of the box, said chamber having spaced apertures in its front wall, a spring pressed locking member in the said chamber, and a lid hinged to the upper portion of the box to swing vertically, said lid having a portion extending over one of the apertures of the chamber and provided on the inner face of said portion with a catch extending into said aperture and engaging the said locking member, the uncovered aperture serving as keyhole.

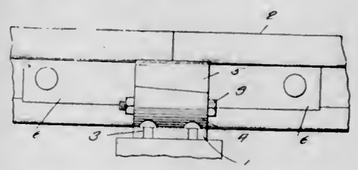
2. A journal bearing box having its bottom formed with a thickened wall which is provided with a chamber out of communication with the interior of the box, a plate closing one side of the chamber and having spaced apertures, a pivoted latch in the chamber, spring means for holding the latch in locking position, a hinged lid having a portion arranged to cover one of the apertures of the plate, and a catch on the lid to extend into the said aperture and interengage with the latch, the uncovered aperture serving as a key opening to receive a key to release the latch.

1,241,348. DIRIGIBLE HEAD-LAMP. WILLIAM T. DELONY, Castleberry, Ala. Filed May 23, 1917. Serial No. 170,517. (Cl. 240—62.)



In a dirigible headlamp for motor vehicles, the combination of a bearing bracket embodying a lamp supporting arm, said bearing bracket being formed with a vertical bore and being counterbored to receive a ball bearing, a ball bearing inserted in the counterbore of said bracket, a lamp post extending through the bore of the bearing portion of said bracket and comprising upper and lower sections having a threaded and adjustable connection with each other above said ball bearing, a lamp turning arm extending at an angle to the lower lamp post section and connected with an element of the steering mechanism, and a nut threaded on said lower lamp post section and bearing against the bottom of said bracket, said nut and the threaded adjustment between the upper and lower lamp post sections providing means for taking up wear in the ball bearing.

1,241,349. LOCK FOR RAILWAY-RAILS. HENRY DES ROSIER, Havre, Mont., assignor of one-half to Peter Des Rosier, Havre, Mont. Filed Dec. 21, 1915. Serial No. 68,084. (Cl. 239—6.)

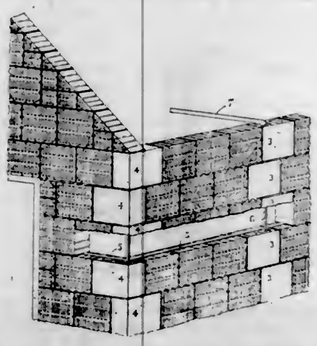


A rail joint locking device comprising a base member, upwardly extending spaced shoulders carried by the base member and having convergent inner faces, said faces of the shoulders being also inclined downwardly and outwardly, a pair of locking members disposed between the shoulders, said locking members having outer faces formed to fit against the inner faces of the shoulders and disposed thereagainst, said shoulders and locking members having alining openings formed therethrough opening through their side faces and fastener devices engaged through the openings, said locking members being arranged for engagement of their inner faces against a rail web and having lateral plates the inner faces of which are flush with the inner faces of the locking members.

1,241,350. BUILDING-TILE AND WALL. FRANKLIN DICKEY, Oak Park, Ill. Filed Feb. 21, 1916. Serial No. 79,691. (Cl. 72—41.)

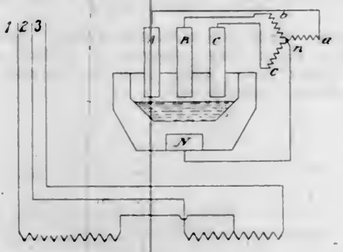
1. A building tile adapted for use in erecting the walls of corn-cribs and other structures wherein ventilating passages through such walls are essential and to be laid in level courses in building such walls and to constitute a complete section of a course thereof, consisting of a rectangular tile having the depth and thickness required to form the thickness of the wall to be erected, and provided with a comparatively large number of narrow ven-

tilating apertures therethrough, whereby the entrance of weather and rodents is effectually prevented.



2. A wall for corn-cribs and other structures comprised of rectangular tiles laid in level courses and each constituting a complete section of a course thereof, each of said tiles being of a substantial depth and of a thickness to form the wall, and provided with a comparatively large number of narrow ventilating apertures therethrough, whereby the entrance of weather and rodents is effectually prevented.

1,241,351. ELECTRIC FURNACE. JOSEPH L. DIXON, Sheffield, England. Filed Feb. 23, 1915. Serial No. 9,782. (Cl. 204—64.)

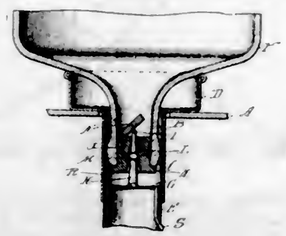


1. An electric furnace having suitable upper electrodes and a lower electrode, main leads for supplying three-phase alternating current, transformers having their primaries so connected with said main leads as to deliver two-phase current from their secondaries, two or more switches in circuit between said main leads and said primaries and adapted to alter the phase relations in said transformers, a common connection between the terminals of two of said secondaries and the lower electrode, and suitable connections between the secondaries of said transformers and said upper electrodes.

2. An electric furnace having suitable upper electrodes and a lower electrode, main leads for supplying three-phase alternating current, transformers less in number than said upper electrodes and so connected with said main leads as to deliver two phase current from their secondaries, switches suitably connected with the primary circuits for producing alterations in phase relations in said transformers, and suitable connections between said electrodes and the secondaries of said transformers.

3. An electric furnace having six upper electrodes and a lower electrode, two pairs of transformers, means for supplying alternating current to the primaries thereof, conductors connecting the outer terminals of one pair of transformer secondaries each to two of the upper electrodes, conductors connecting one secondary terminal of each of the other transformers with one of the remaining upper electrodes, and a common connection between the remaining secondary terminals and said lower electrode.

1,241,352. WATER-DISPENSING DEVICE. CHARLES DOERING, Jr., Oak Park, and MAX A. DOERING, Chicago, Ill. Filed Feb. 23, 1915. Serial No. 9,923. (Cl. 225—21.)



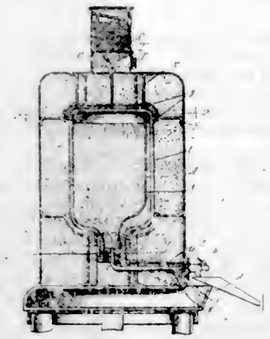
1. In a liquid dispensing device of the kind specified, the combination with a receiving receptacle, and a removable reservoir, of a nozzle on the receptacle adapted to project into the reservoir, and a valved stopper for the reservoir normally maintaining the latter sealed and adapted to receive said nozzle, the nozzle automatically opening the valve of said stopper, the stopper provided with a circumferential enlargement below its upper end adapted to maintain a fluid-tight joint around the exterior of said nozzle for preventing leakage from said reservoir as said valve is opened.

2. In a liquid dispensing apparatus of the kind specified, the combination with a receiving receptacle and a removable reservoir for liquid, of automatically coacting means for effecting connection between the interiors of said parts, comprising a yielding stopper for the removable reservoir having an opening therethrough and a valve at the inner end thereof for controlling said opening for preventing flow of liquid from the reservoir, and a nozzle rigid with a part of the receiving receptacle and provided with an opening for admitting liquid to the latter, said nozzle being adapted to pass through the opening in said stopper and open the valve controlling the same to permit passage of liquid into said nozzle, and a circumferential enlargement on the nozzle between its ends for compressing the body of the nozzle below its inner end to effect a fluid tight joint between the nozzle and the stopper.

3. The improvements herein described comprising a closed liquid reservoir, a compressible closure therefor having a passage adapted to afford communication with the interior of the reservoir, an integral valve located at and normally closing the inner end of said passage, a liquid receiving receptacle an upstanding rigid nozzle thereon adapted when the reservoir is superposed upon the receptacle to enter said passage open said valve and permit the liquid to flow from the reservoir into the receptacle, said nozzle provided with a rounded enlargement removed from its free end adapted to compress the walls of the closure below the inner end thereof to form a fluid tight joint therebetween.

1,241,353. LIQUID-DISPENSING APPARATUS. CHARLES DOERING, Jr., Oak Park, Ill. Filed Mar. 25, 1915. Serial No. 16,958. (Cl. 225—21.)

1. A liquid dispensing device comprising a housing, an inverted bottle mounted within the same concentric therewith and between the ends thereof, there being a space completely surrounding said bottle and constituting insulation containing space for preventing changes in temperature of the bottle and its contents, a stopper for the mouth of the bottle, a faucet on the housing connection between said faucet and said bottle through said stopper, and an air tube having one end opening externally of said housing and projecting above the normal water level within the bottle, the latter adapted to be filled with liquid and emptied through said faucet and a dished plate on said housing from which said faucet projects, said plate covering the mouth of said air tube, there being an opening between said plate and said housing for the passage of air.



2. A liquid dispensing device comprising a receptacle for the liquid, a housing for the same, a faucet on the exterior of said housing connected with the discharge end of said receptacle, an air inlet and outlet tube extending from a point above the normal water level in said receptacle to an opening in said housing, said receptacle adapted to be filled with liquid and emptied through said faucet and a dished plate on said housing from which said faucet projects, said plate covering the mouth of said air tube, there being an opening between said plate and said housing for the passage of air.

3. A liquid dispensing device comprising a portable housing adapted to receive and discharge liquid, a hollow base rigid with said housing, a faucet on the latter, there being an opening in said hollow base below said faucet for receiving drippings therefrom, the walls of said opening disposed relatively adjacent to the delivery end of the faucet to prevent placing a tumbler or the like under said faucet and whereby the lower side of a drinking vessel will be disposed nearly horizontally to receive liquid from said faucet.

4. A liquid dispensing device comprising a portable housing adapted to receive and discharge liquid, a hollow base rigid with said housing, a faucet on the latter, there being an opening in said hollow base below said faucet for receiving drippings therefrom, the walls of said opening terminating adjacent to said faucet to prevent the use of a tumbler whereby when a drinking vessel is placed to receive liquid from the faucet the lower side wall thereof will be positioned nearly horizontally, and means at the top of the housing for removably mounting a flexible drinking cup dispensing device.

5. A liquid dispensing apparatus, comprising a closed rigid, metallic housing or casing, a liquid-holding non-metallic receptacle of smaller dimensions than the housing or casing interior and mounted therein so as to provide space entirely about said receptacle, a faucet secured to the housing or casing, a conduit intermediate of the faucet and the lower end of said receptacle for conveying the liquid when the faucet is opened, the portion of said conduit adjacent the inner end of the faucet being non-metallic and yielding, and air-conducting means intermediate of the housing or casing exterior and the upper portion of said receptacle interior.

[Claim 6 not printed in the Gazette.]

1,241,354. METHOD OF STORING MICROSCOPE-SLIDES. ROBERT DONALD, Highgate Road, London, England. Filed Aug. 14, 1917. Serial No. 186,206. (Cl. 88—40.)



1. A microscope slide provided with separating strips at both of its ends, said strips being attached to the slide and of a thickness greater than that of the mounted preparation on the slide, thereby enabling the slide to be safely stored.

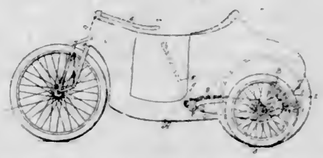
2. A microscope slide provided with a separating strip at one of its ends, said strip being attached to the slide and of a thickness greater than that of the mounted preparation on the slide, thereby enabling the slide to be safely stored.

3. The combination, with a microscope slide having a mounted preparation thereon, of an independent separating strip having one of its ends thickened and of greater thickness than that of the mounted preparation, whereby the slide can be safely stored with others.

4. The combination with a microscope slide having a mounted preparation thereon, of an independent separating strip having both of its ends thickened and of greater thickness than that of the mounted preparation, whereby the slide can be safely stored with others.

5. A microscope slide comprising a slide of glass, a preparation mounted on said slide and protected by a cover glass, and one or more separating strips attached to or disposed in front of one or both ends of the slide and of a thickness greater than said cover glass, so that the complete slide can be safely stored without injury to the cover glass and preparation.

1,241,355. MOTOR-VEHICLE. LLOYD HAMILTON DONNELL, Syracuse, N. Y. Filed Nov. 29, 1916. Serial No. 134,031. (Cl. 21—90.)



1. A vehicle comprising a body, a pair of body-supporting wheels disposed in tandem relation, a pair of driving wheels disposed at opposite sides of one of the first-mentioned wheels, and adjustable spring means acting downwardly on the driving wheels.

2. A vehicle comprising a body, front and rear wheels in tandem relation, pivoted arms on the body, power driven wheels mounted on the arms and disposed at opposite sides of the plane of the first-mentioned wheels, springs mounted on the body and pressing downwardly on the arms, and means for varying the tension of the springs.

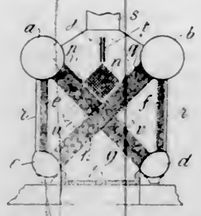
3. The combination of a vehicle body, front and rear body supporting wheels disposed in tandem relation, a pair of side wheels adjacent one of the first-mentioned wheels, arms connecting the side wheels with the body, motor means operatively connected with the side wheels, and operator-controlled means for exerting a variable tension downwardly on the arms.

4. The combination of a vehicle body, front and rear body supporting wheels, side wheels disposed at opposite sides of the first-mentioned wheels, means for movably connecting the side wheels with the body, motor means for applying power to the side wheels, spring means between the body and side wheels, and operator-controlled means for adjusting the spring means.

1,241,356. WATER-TUBE STEAM-GENERATOR WITH SUPERHEATER. JAMES DORNAN, Dalmuir, Scotland. Filed Oct. 16, 1916. Serial No. 125,956. (Cl. 122—476.)

1. In a water-tube steam generator the combination with a casing, a firegrate, and four drums with horizontal axes arranged in quadrilateral fashion, two at the sides of the firegrate and the other two above these two, of four banks of tubes which connect each lower drum with each upper drum, two of said banks thus intersecting, a superheater consisting of a block of limbs located in the angular space immediately above the intersection of the said intersecting

banks of tubes, said superheater block being capable of being withdrawn laterally from the generator, dampers, and means for causing said dampers to cover or uncover the faces of the said superheater block.

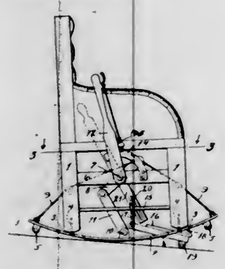


6. In a water-tube steam generator the combination with a casing, a firegrate, and four drums with horizontal axes arranged in quadrilateral fashion, two at the sides of the firegrate and the other two above these two, of four banks of tubes which connect each lower drum with each upper drum, two of said banks thus intersecting, a superheater consisting of a block of limbs, the block being of prismatic form with horizontal axis and having four faces parallel to its axis, and the two lower of these faces being in close proximity to the upper members of the intersecting banks of generator tubes, an upper pair of dampers adapted to cover respectively the two upper faces of the superheater block, means for swinging these dampers, butterfly-wing fashion, about their contiguous sides above the center of the superheater block, a lower pair of dampers adapted to cover respectively the two lower faces of the superheater block, and means for sliding these latter dampers along the upper surfaces of the intersecting banks of generator tubes.

9. In a water-tube steam generator the combination with a casing, a firegrate, and four drums with horizontal axes arranged in quadrilateral fashion, two at the sides of the fire-grate and the other two above these two, of four banks of tubes which connect each lower drum with each upper drum, two of said banks thus intersecting, a superheater consisting of a block of limbs, the block being of prismatic form with horizontal axis and having four faces parallel to its axis, and the two lower of these faces being in close proximity to the upper members of the intersecting banks of generator tubes, a pair of auxiliary superheaters placed respectively in the triangular spaces between the intersecting and the non-intersecting banks of generator tubes, pipe connections whereby the steam can first be passed through the first mentioned superheater and then divided and passed in parallel through the two auxiliary superheaters, four dampers, and means for causing said dampers to cover or uncover the said superheater block.

[Claims 2 to 5, 7, and 8 not printed in the Gazette.]

1,241,357. ROCKING-CHAIR. WILLIAM DROSDOWET, Zoria, Manitoba, Canada. Filed Apr. 6, 1917. Serial No. 160,299. (Cl. 155—18.)

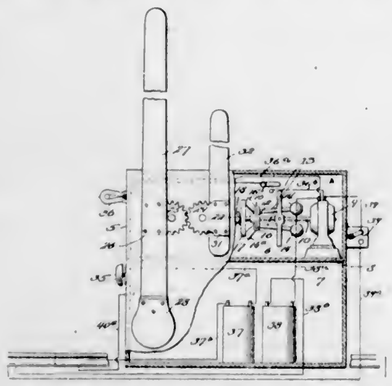


1. A convertible rocking chair comprising in combination, with a chair body, a pair of flexible steel rockers mounted upon the lower ends of the legs of the body, and means operative by the occupant of the chair for flexing the rockers into their curved positions or into straight position.

2. A convertible rocking chair comprising in combination, with a chair body, a pair of flexible steel rockers mounted upon the lower ends of the legs of the body, and means operative by the occupant of the chair for flexing the rockers into their curved position or into straight position, and casters mounted upon the extremities of the rockers.

3. A convertible rocking chair comprising in combination, with a chair body, a pair of flexible steel rockers mounted upon the lower ends of the legs of the body, a rock shaft pivoted between the sides of the body, rock arms mounted upon the shaft, levers connected to the rock arms and pivoted in the middle portions of the rockers, cables extending from the opposite end of the rock arms and connected to the extremities of the rockers, and means for operating said rock shaft to simultaneously cause the lever to bow downwardly the middle of the rockers and cause the cables to flex upwardly the extremities of the rockers.

1,241,358. AUTOMATIC ELECTRIC SAFETY-GATE. RODGER EADES, Winchester, Ky., assignor of one-fourth to J. Smith Hays, Winchester, Ky., and one-fourth to Floyd H. McClung, Ashland, Ky., and Herbert H. Moore, Winchester, Ky. Filed Nov. 15, 1916. Serial No. 131,492. (Cl. 269—3.)



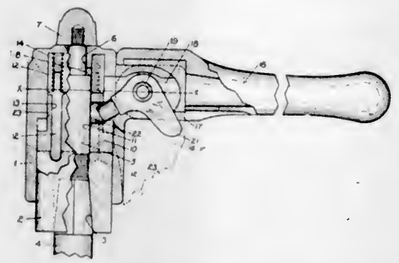
1. In a railroad crossing gate of the class specified, the combination of an electric motor having an extended armature shaft, a governor mounted on the shaft and having expanding arms with free ends, gear shifting means slidably mounted on said shaft and rotatable therewith, the gear shifting means being provided with a gear device and a part thereof having the free ends of the expanding governor arms in loose contact therewith to push the gear shifting means, a gate operating shaft carrying a gate arm and having a gear which is engaged by the gear device of the gear shifting means, and electrical block connections and a source of electrical generation for actuating the motor and gate arm.

2. In a railroad crossing gate of the class specified, the combination of a motor having an extended armature shaft with a governor slidably mounted thereon and provided with arms having free ends, a spring-actuated gear shifting means also mounted on the said shaft and having a disk at one end in engagement with the free ends of the governor arms and the opposite end provided with a gear device, a gate arm operating shaft having gate arms thereon and also provided with a gear with which the said gear device has engagement at intervals, a source of electrical generation, and electrical block connections for a railroad track and providing circuits in which the motor and source of electrical generation are included.

3. In a railroad crossing gate of the class specified, the combination of a motor having an extended armature shaft, a governor mounted on the motor and having expanding arms with free ends, a gear shifting member slidably mounted on said shaft and rotatable therewith and having a disk at one end loosely engaged by the free ends of the governor arms, the gear shifting member having a gear device, a gate operating shaft carrying a gate arm and having a gear loosely mounted thereon with which said gear device is thrown into operative engagement, a spring clutch means engaging one face of the said loosely mounted gear for holding the said gear on the gate arm shaft in sufficiently tight engagement with the latter shaft to effect a lowering of the arm but permitting the said gear to run free when the arm is fully lowered or raised, and electrical block connections and a source of electrical generation for actuating the motor and gate arm.

4. In a railroad crossing gate of the class specified, the combination of a gate arm having a shaft with a gear loosely mounted thereon and provided with a recess in one face, the shaft at one end being continued as a screw terminal, a fixed collar on the shaft engaging the recess in one face of the gear, a spring clutch plate fitted over the screw terminal and having arms engaging the adjacent face of the gear, clamping and set devices engaging the screw terminal to hold the spring clutch in position, an electric motor having shifting means including a gear device to engage the loosely mounted gear on the gate arm shaft, and electrical connections for the motor for automatically operating the latter and the gate arm.

1,241,359. BRAKE-HANDLE. JOSEPH ECKERT, Dayton, Ohio, assignor to The Dayton Manufacturing Company, Dayton, Ohio, a Corporation of Ohio. Filed Dec. 20, 1915. Serial No. 67,709. (Cl. 74—33.)

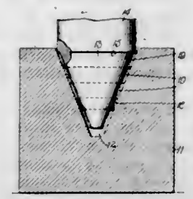


1. A device of the character described, comprising a rotatable housing, a member rotatably mounted in said housing and having teeth at one end thereof, a second member mounted in said housing for movement therein toward and away from the toothed member, pins slidably mounted in said second member for movement both with and independently of the same toward and away from said toothed member, a handle mounted on said supporting structure to rotate the same and having pivotal movement relatively thereto, and a device pivotally mounted on said housing, having one end connected with said second member and having its other end arranged to be engaged by said handle when pivotal movement is imparted to the latter, whereby the pivotal movement of said handle will move said second member and its pins away from said toothed member.

12. In a device of the character described, a rotatable member having ratchet teeth at one end thereof, a second member mounted for movement toward and away from the first-mentioned member and having pawls to cooperate with the teeth of the first-mentioned member, a handle mounted independently of said second member and capable of two movements, a connection between said handle and said second member to cause rotatory movement to be imparted to said second member and its pawls by one movement of said handle, and a lever pivotally mounted independently of both said handle and said second member, having one end operatively connected with said second member and having its other end arranged to be engaged by said handle during the other movement thereof to cause axial movement to be imparted to said second member and its pawls.

[Claims 2 to 11 not printed in the Gazette.]

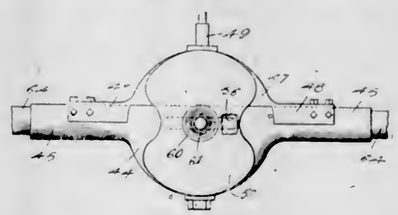
1,241,360. SWAGING-DIE. ABRAHAM L. ELIASOFF, New York, N. Y., assignor to Eliasoff & Birnbaum, a Copartnership composed of Abraham L. Eliasoff and Charles Birnbaum, New York, N. Y. Filed Oct. 14, 1916. Serial No. 125,541. (Cl. 29—8.)



1. A swaging die comprising a die block having an upwardly-flared die socket; and a punch having an evenly tapered head corresponding with said socket, said head terminating in an annular undercut abutment forming the boundary of the upper end of the taper of said head.

2. A swaging die comprising a die block having an outwardly-flared die socket; a punch having a head corresponding with said socket, said head terminating in an annular undercut abutment forming the boundary of the upper end of said head; and a plurality of filler members corresponding in thickness to the offset of said abutment, the edges of said filler members being parallel with said abutment.

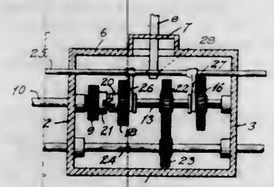
1,241,361. DIFFERENTIAL GEAR FOR MOTOR-VEHICLES. FREDERICK ELLWEIN, Hazen, N. D. Filed June 7, 1916. Serial No. 102,245. (Cl. 74—34.)



1. In a motor vehicle, a differential comprising a differential housing, a main differential drive gear horizontally rotatable within said housing, drive axles, the inner ends of the drive axles extending into the differential housing, gears on said inner ends, a differential frame rotatable on the inner ends of the drive axles, pinions mounted in said frame and meshing with the gears on the ends of the axles and a gear carried by the frame and meshing with the drive gear whereby when said drive gear is set in motion the axles will be driven.

2. In a differential for motor vehicles, a differential housing, a horizontally rotatable gear mounted in said housing, a drive pinion meshing therewith, drive axles extending into the housing gears at the inner end of the drive axles, a differential frame mounted to rotate on said axles, pinions on the frame and meshing with the gears on the inner ends of the axles, a gear on the frame meshing with the horizontal drive gear and roller bearings supporting the drive gear and the axles.

1,241,362. TRANSMISSION-GEARING. FREDERICK ELLWEIN, Hazen, N. D. Filed May 18, 1917. Serial No. 169,461. (Cl. 74—58.)

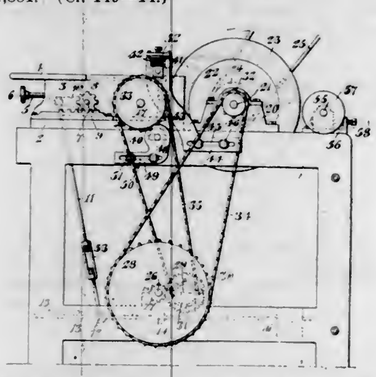


1. A transmission including a power shaft, a drive shaft, an idler shaft connected to the drive shaft, a counter shaft continuously driven by the power shaft, sliding gears on the idler shaft, and stationary gears on the counter shaft adapted to mesh with the sliding gears, whereby the speed of rotation of the idler shaft may be varied.

3. A transmission gearing including a power shaft, an idler shaft alined with the power shaft but independently rotatable with respect thereto, a counter shaft, a pinion on the power shaft, a gear on the counter shaft meshing with the pinion, whereby upon rotation of the drive shaft the counter shaft will be driven, gears on the counter shaft non-sliding thereop, gears slidable on the idler shaft adapted to engage the non-sliding gears on the counter shaft, a drive shaft, and gears on the idler and on the drive shafts whereby upon rotation of the idler shaft the drive shaft will be rotated.

[Claim 2 not printed in the Gazette.]

1,241,363. LEATHER-DRESSING MACHINE. OTTO FELIX FEIX, Gloversville, N. Y., assignor to Gloversville Abrading Company, Gloversville, N. Y., a Corporation of New York. Filed Nov. 17, 1916. Serial No. 131,881. (Cl. 149—14.)



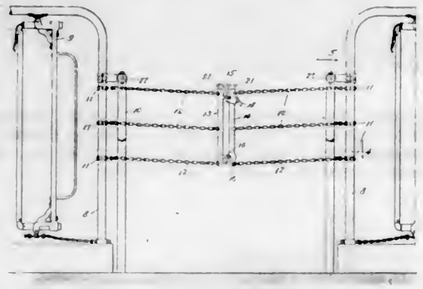
1. In a machine for treating fine tanned leather, a positively driven abrasive roller, a positively driven presser roller movable toward and from the abrasive roller, means for rotating the presser roller at a slower peripheral speed than that of the abrasive roller, and an idler guide roller having a fixed mounting with relation to the abrasive roller and associated with the presser roller in operative relation thereto when the presser roller is in operative relation to the abrasive roller.

5. In a machine for treating fine tanned leather, a positively driven abrasive roller, a positively driven presser roller, means for driving the presser roller at a slower peripheral speed than the abrasive roller, a mounting for the presser roller movable with relation to the abrasive roller to correspondingly move the presser roller toward or from the abrasive roller, and guide means for the leather associated with the abrasive and presser rollers, said guiding means having supporting means in normally fixed relation to the abrasive roller.

11. In a machine for treating fine tanned leather, an abrasive roller, a presser roller, means for positively rotating the abrasive and presser rollers at predetermined relative speeds, a carriage on which the presser roller is mounted, and means for moving the carriage and the presser roller with it toward and from the abrasive roller, comprising rack members on a fixed portion of the machine, pinion members on the carriage and meshing with the rack members, a treadle connected to the pinion members to rotate them, and overbalancing weights on the treadle to normally constrain the carriage toward the abrasive roller, the machine also having idler guide rollers associated with the abrasive and presser rollers, and supports for the idler guide rollers having adjustable connections with the fixed portion of the machine for fixedly positioning the guide rollers in chosen relations to the presser roller.

[Claims 2 to 4, 6 to 10, and 12 not printed in the Gazette.]

1,241,364. GATE FOR STALL CONSTRUCTION. HENRY L. FERRIS, Harvard, Ill., assignor to Hunt, Helm, Ferris & Co., Harvard, Ill., a Corporation of Illinois. Filed Dec. 26, 1916. Serial No. 138,810. (Cl. 39—74.)



1. In combination, two supporting posts flanking a passageway and a gate extending therebetween formed of a plurality of flexible chain-like members adjustably secured at one end to the upper part of one post and two mutually engageable sets of fastening means one of which is adjustably supported from the upper part of one post and the other at the ends of said flexible chain-like members whereby on disconnecting said members they will automatically drop relatively away from each other to open said passageway.

3. In combination two supporting posts separated by a passageway, a gate for closing said passageway comprising a plurality of flexible members adjustably secured to the upper part of each of said posts and having at their free ends a vertical bar and two mutually engageable sets of fastening means associated with said bars including eyes and coacting hook and latch elements.

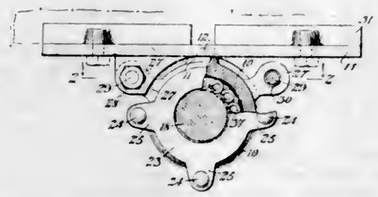
5. In combination two supporting posts separated by a passageway, two gate sections each formed of a plurality of horizontally disposed flexible members connected together intermediate their ends and supported at one end to the upper part of the posts, two vertical bars associated with the adjacent free ends of said flexible members, eyes on one of said bars and a hook and a spring actuated beveled latch on the other bar adapted to coact with said eyes whereby the bars may be pressed together and locked in closed position, said bars being so supported that when the latch is released the gate sections will automatically drop to one side to open the passageway.

[Claims 2 and 4 not printed in the Gazette.]

1,241,365. CAR-AXLE JOURNAL-BOX AND SUPPORT THEREFOR. JAMES R. FLEMING, Scranton, Pa. Filed Aug. 12, 1916. Serial No. 114,614. (Cl. 64—10.)

1. A box as characterized comprising a cylindrical body having a weight-supporting member providing a rocking surface for the weight carried thereby, and a positioning member integrally formed with said supporting member for holding said box in permanent relation to the body of a vehicle to which said box is applied; a pillar plate; and means for detachably securing said box to said plate.

2. A box as characterized comprising a cylindrical body having a weight-supporting member providing a rocking surface for the weight carried thereby, and a positioning member integrally formed with said supporting member for holding said box in permanent relation to the body of a vehicle to which said box is applied; a pillar plate; and means for detachably securing said box to said plate, said means embodying lugs on said plate and said box, said lugs being perforated to correspond and to receive a retaining member therethrough.



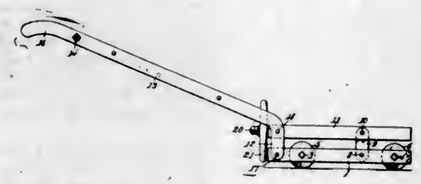
3. A box as characterized comprising a cylindrical body having a weight-supporting member providing a rocking surface for the weight carried thereby, and a positioning member integrally formed with said supporting member for holding said box in permanent relation to the body of a vehicle to which said box is applied; a pillar plate; and means for detachably securing said box to said plate, said means embodying lugs on said plate and said box, said lugs being perforated to correspond and to receive a retaining member therethrough, said perforations being enlarged for permitting a rocking action of said box when in service.

4. The combination of a car body having lateral sills; pillar plates mounted under said sills; carrying axles for said car body; wheels on said axles; and journal boxes for said axles, said boxes being reversible end for end and having at each end a wearing plate for receiving the wear of said wheels.

5. The combination of a car body having lateral sills; wearing plates mounted under said sills; carrying axles for said car body; wheels on said axles; and journal boxes for said axles, said boxes being reversible end for end and having at each end a wearing plate for receiving the wear of said wheels, said boxes being provided with oil channels and pouring openings therefor, said openings being juxtaposed to the ends of said boxes and said wearing plates.

[Claims 6 to 8 not printed in the Gazette.]

1,241,366. HAND-TRUCK. EMANUEL FORNEY, Everett, Pa. Filed May 11, 1917. Serial No. 167,907. (Cl. 254—10.)



1. In an elevating truck, a wheeled main frame, an elevatable platform frame mounted upon said main frame, means for elevating said platform frame, and a transversely disposed wheel carried by the rear end of said platform frame and adapted to support the rear ends of both frames when the platform frame is in lowered position.

8. In an elevating truck, a wheeled main frame, an elevatable platform frame mounted upon said main frame, means for elevating said platform frame, said means including levers having angularly disposed terminal arms which have pivotal connection with both of said frames, and a transversely disposed wheel carried by the rear end of said platform frame, whereon said frame may be swung for changing the direction of travel, said wheel being elevated above the floor when said platform frame is at its upper limit of movement and being lowered into engagement with the floor for assuming supporting relation to the adjacent ends of said frames when said platform frame is lowered, the arrangement of said angular arms with respect to said frames being such that when said wheel seats upon the floor they serve to elevate the rear end of said main frame.

[Claims 2 to 7 not printed in the Gazette.]

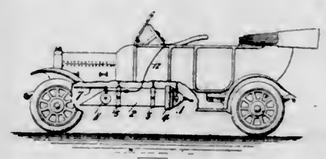
1,241,367. REVERSIBLE BOAT. THOMAS HERBERT GASKIN, Woodford, England, assignor to The G. L. B. Syndicate Limited, London, England. Filed Apr. 17, 1917. Serial No. 162,762. (Cl. 9—11.)



2. In a reversible boat of the kind referred to, the combination with a peripheral buoyancy chamber whereof the depth is substantially equal to the total depth of the structure, of two decks separated by an interspace and each occupying substantially the entire area of the corresponding well of the boat, a series of hermetically-sealed air-tanks independent of the structure of the boat housed within the peripheral buoyancy chamber and the interspace between the decks, a series of cross beams extending from side to side of the frame of the boat through the peripheral buoyancy chamber and the interspace between the decks, and a central longitudinal beam extending between the stern port and stern-post and intersecting said cross beams.

[Claims 1 and 3 not printed in the Gazette.]

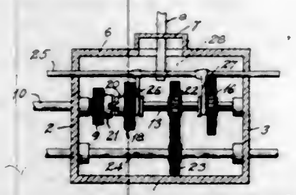
1,241,368. LAMP FOR ROAD-VEHICLES. EDWARD LYCETT GREEN, Ashfield, York, England. Filed Jan. 30, 1917. Serial No. 145,552. (Cl. 240—7.)



1. In lamps for motor road vehicles; the combination of a relatively long open-ended tube, means for supporting said tube with its axis horizontal from the vehicle, a lamp located at the rear end of said tube through which latter the rays of light therefrom pass, means for supporting said lamp, a flap hinged to the upper edge of the forward open end of said tube and adapted to be capable of closing said open end, an arm pendent from said flap at about the axis thereof, and a counterweight fixed on said pendent arm to normally hold said flap horizontal and maintain the forward end of said tube open and calculated to close the open forward end of said tube automatically by the adjustment of said flap about its hinge in accordance with the gradient up which the vehicle travels,

2. In lamps for motor road vehicles; the combination of a relatively long open-ended tube, means for supporting said tube with its axis horizontal from the vehicle, a lamp located at the rear end of said tube through which

1,241,362. TRANSMISSION-GEARING. FREDERICK ELLWEIN, Hazen, N. D. Filed May 18, 1917. Serial No. 169,461. (Cl. 74—58.)

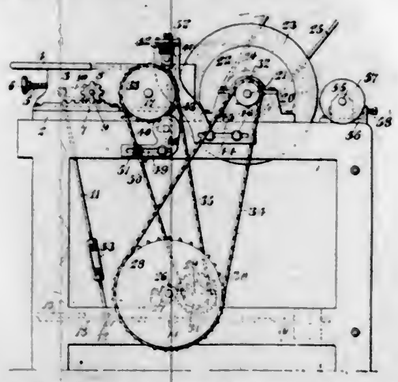


1. A transmission including a power shaft, a drive shaft, an idler shaft connected to the drive shaft, a counter shaft continuously driven by the power shaft, sliding gears on the idler shaft, and stationary gears on the counter shaft adapted to mesh with the sliding gears, whereby the speed of rotation of the idler shaft may be varied.

3. A transmission gearing including a power shaft, an idler shaft alined with the power shaft but independently rotatable with respect thereto, a counter shaft, a pinion on the power shaft, a gear on the counter shaft meshing with the pinion, whereby upon rotation of the drive shaft the counter shaft will be driven, gears on the counter shaft non-sliding thereon, gears slidable on the idler shaft adapted to engage the non-sliding gears on the counter shaft, a drive shaft, and gears on the idler and on the drive shafts whereby upon rotation of the idler shaft the drive shaft will be rotated.

[Claim 2 not printed in the Gazette.]

1,241,363. LEATHER-DRESSING MACHINE. OTTO FELIX FELIX, Gloversville, N. Y., assignor to Gloversville Abrading Company, Gloversville, N. Y., a Corporation of New York. Filed Nov. 17, 1916. Serial No. 131,881. (Cl. 149—14.)



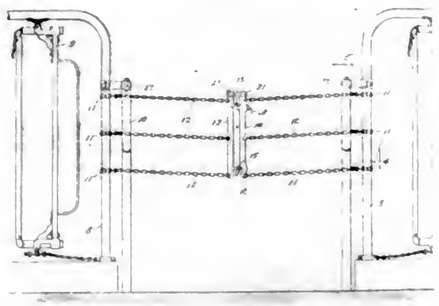
1. In a machine for treating fine tanned leather, a positively driven abrasive roller, a positively driven presser roller movable toward and from the abrasive roller, means for rotating the presser roller at a slower peripheral speed than that of the abrasive roller, and an idler guide roller having a fixed mounting with relation to the abrasive roller and associated with the presser roller in operative relation thereto when the presser roller is in operative relation to the abrasive roller.

5. In a machine for treating fine tanned leather, a positively driven abrasive roller, a positively driven presser roller, means for driving the presser roller at a slower peripheral speed than the abrasive roller, a mounting for the presser roller movable with relation to the abrasive roller to correspondingly move the presser roller toward or from the abrasive roller, and guide means for the leather associated with the abrasive and presser rollers, said guiding means having supporting means in normally fixed relation to the abrasive roller.

11. In a machine for treating fine tanned leather, an abrasive roller, a presser roller, means for positively rotating the abrasive and presser rollers at predetermined relative speeds, a carriage on which the presser roller is mounted, and means for moving the carriage and the presser roller with it toward and from the abrasive roller, comprising rack members on a fixed portion of the machine, pinion members on the carriage and meshing with the rack members, a treadle connected to the pinion members to rotate them, and overbalancing weights on the treadle to normally constrain the carriage toward the abrasive roller, the machine also having idler guide rollers associated with the abrasive and presser rollers, and supports for the idler guide rollers having adjustable connections with the fixed portion of the machine for fixedly positioning the guide rollers in chosen relations to the presser roller.

[Claims 2 to 4, 6 to 10, and 12 not printed in the Gazette.]

1,241,364. GATE FOR STALL CONSTRUCTION. HENRY L. FERRIS, Harvard, Ill., assignor to Hunt, Helm, Ferris & Co., Harvard, Ill., a Corporation of Illinois. Filed Dec. 26, 1916. Serial No. 138,810. (Cl. 39—74.)



1. In combination, two supporting posts flanking a passageway and a gate extending therebetween formed of a plurality of flexible chain-like members adjustably secured at one end to the upper part of one post and two mutually engageable sets of fastening means one of which is adjustably supported from the upper part of one post and the other at the ends of said flexible chain-like members whereby on disconnecting said members they will automatically drop relatively away from each other to open said passageway.

3. In combination two supporting posts separated by a passageway, a gate for closing said passageway comprising a plurality of flexible members adjustably secured to the upper part of each of said posts and having at their free ends a vertical bar and two mutually engageable sets of fastening means associated with said bars including eyes and coacting hook and latch elements.

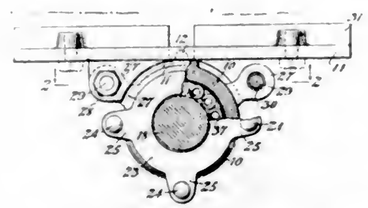
5. In combination two supporting posts separated by a passageway, two gate sections each formed of a plurality of horizontally disposed flexible members connected together intermediate their ends and supported at one end to the upper part of the posts, two vertical bars associated with the adjacent free ends of said flexible members, eyes on one of said bars and a hook and a spring actuated beveled latch on the other bar adapted to coact with said eyes whereby the bars may be pressed together and locked in closed position, said bars being so supported that when the latch is released the gate sections will automatically drop to one side to open the passageway.

[Claims 2 and 4 not printed in the Gazette.]

1,241,365. CAR-AXLE JOURNAL-BOX AND SUPPORT THEREFOR. JAMES R. FLEMING, Scranton, Pa. Filed Aug. 12, 1916. Serial No. 114,614. (Cl. 64—10.)

1. A box as characterized comprising a cylindrical body having a weight-supporting member providing a rocking surface for the weight carried thereby, and a positioning member integrally formed with said supporting member for holding said box in permanent relation to the body of a vehicle to which said box is applied; a pillar plate; and means for detachably securing said box to said plate.

2. A box as characterized comprising a cylindrical body having a weight-supporting member providing a rocking surface for the weight carried thereby, and a positioning member integrally formed with said supporting member for holding said box in permanent relation to the body of a vehicle to which said box is applied; a pillar plate; and means for detachably securing said box to said plate, said means embodying lugs on said plate and said box, said lugs being perforated to correspond and to receive a retaining member therethrough.



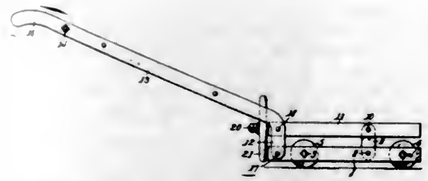
3. A box as characterized comprising a cylindrical body having a weight-supporting member providing a rocking surface for the weight carried thereby, and a positioning member integrally formed with said supporting member for holding said box in permanent relation to the body of a vehicle to which said box is applied; a pillar plate; and means for detachably securing said box to said plate, said means embodying lugs on said plate and said box, said lugs being perforated to correspond and to receive a retaining member therethrough, said perforations being enlarged for permitting a rocking action of said box when in service.

4. The combination of a car body having lateral sills; pillar plates mounted under said sills; carrying axles for said car body; wheels on said axles; and journal boxes for said axles, said boxes being reversible end for end and having at each end a wearing plate for receiving the wear of said wheels.

5. The combination of a car body having lateral sills; wearing plates mounted under said sills; carrying axles for said car body; wheels on said axles; and journal boxes for said axles, said boxes being reversible end for end and having at each end a wearing plate for receiving the wear of said wheels, said boxes being provided with oil channels and pouring openings therefor, said openings being juxtaposed to the ends of said boxes and said wearing plates.

[Claims 6 to 8 not printed in the Gazette.]

1,241,366. HAND-TRUCK. EMANUEL FORNEY, Everett, Pa. Filed May 11, 1917. Serial No. 167,907. (Cl. 254—10.)

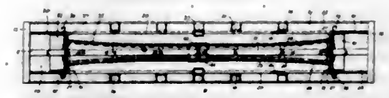


1. In an elevating truck, a wheeled main frame, an elevatable platform frame mounted upon said main frame, means for elevating said platform frame, and a transversely disposed wheel carried by the rear end of said platform frame and adapted to support the rear ends of both frames when the platform frame is in lowered position.

8. In an elevating truck, a wheeled main frame, an elevatable platform frame mounted upon said main frame, means for elevating said platform frame, said means including levers having angularly disposed terminal arms which have pivotal connection with both of said frames, and a transversely disposed wheel carried by the rear end of said platform frame, whereon said frame may be swung for changing the direction of travel, said wheel being elevated above the floor when said platform frame is at its upper limit of movement and being lowered into engagement with the floor for assuming supporting relation to the adjacent ends of said frames when said platform frame is lowered, the arrangement of said angular arms with respect to said frames being such that when said wheel seats upon the floor they serve to elevate the rear end of said main frame.

[Claims 2 to 7 not printed in the Gazette.]

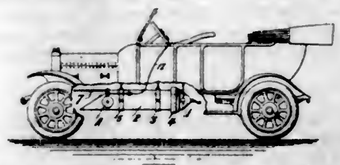
1,241,367. REVERSIBLE BOAT. THOMAS HERBERT GASKIN, Woodford, England, assignor to The G. L. B. Syndicate Limited, London, England. Filed Apr. 17, 1917. Serial No. 162,762. (Cl. 9—11.)



2. In a reversible boat of the kind referred to, the combination with a peripheral buoyancy chamber whereof the depth is substantially equal to the total depth of the structure, of two decks separated by an interspace and each occupying substantially the entire area of the corresponding well of the boat, a series of hermetically-sealed air-tanks independent of the structure of the boat housed within the peripheral buoyancy chamber and the interspace between the decks, a series of cross beams extending from side to side of the frame of the boat through the peripheral buoyancy chamber and the interspace between the decks, and a central longitudinal beam extending between the stern port and stern-post and intersecting said cross beams.

[Claims 1 and 3 not printed in the Gazette.]

1,241,368. LAMP FOR ROAD-VEHICLES. EDWARD LYCETT GREEN, Ashfield, York, England. Filed Jan. 30, 1917. Serial No. 145,552. (Cl. 240—7.)



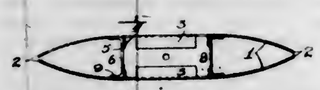
1. In lamps for motor road vehicles; the combination of a relatively long open-ended tube, means for supporting said tube with its axis horizontal from the vehicle, a lamp located at the rear end of said tube through which latter the rays of light therefrom pass, means for supporting said lamp, a flap hinged to the upper edge of the forward open end of said tube and adapted to be capable of closing said open end, an arm pendent from said flap at about the axis thereof, and a counterweight fixed on said pendent arm to normally hold said flap horizontal and maintain the forward end of said tube open and calculated to close the open forward end of said tube automatically by the adjustment of said flap about its hinge in accordance with the gradient up which the vehicle travels.

2. In lamps for motor road vehicles; the combination of a relatively long open-ended tube, means for supporting said tube with its axis horizontal from the vehicle, a lamp located at the rear end of said tube through which

latter the rays of light therefrom pass, means for supporting said lamp, a flap hinged to the upper edge of the forward open end of said tube and adapted to be capable of closing said open end, an arm pendent from said flap at about the axis thereof, a counterweight fixed on said pendent arm to normally hold said flap horizontal and maintain the forward end of said tube open and calculated to close the open forward end of said tube automatically by the adjustment of said flap about its hinge in accordance with the gradient up which the vehicle travels, and means operable by the driver of the vehicle to mechanically move said flap about its hinge to control the open end of said tube at the option of the driver.

[Claim 3 not printed in the Gazette.]

1,241,369. TATTING-SHUTTLE. HERBERT P. GREEN, Kansas City, Mo., assignor of one-half to William Arthur Collings, Kansas City, Mo. Filed Apr. 19, 1916. Serial No. 92,115. (Cl. 66—10.)



1. In a device of the class described, an apertured rectangular spool, integral extensions thereon, tatting members, side and end extensions struck inwardly therefrom, nubs formed on said end extensions adapted to be sprung into locking engagement with the apertures in said spool, and said side extensions adapted to prevent lateral movement of said tatting members.

2. A tatting shuttle of the class described comprising a rectangular spool having apertures in the end walls thereof, and side members adapted to be lockingly sprung into engagement with said apertures.

3. In a tatting device of the class described a spool having apertures in the walls thereof, tapered side members, and nubbed extensions integrally formed on the inner surface of said members adapted to be sprung into locking engagement with said apertures.

4. In a device of the class described a spool comprising end and side walls having apertures therein, a plurality of integral extensions on each of said walls adapted for guiding and holding thread on said spool, curved shuttle side members, integral side and end extensions on the inner face of said members, said end extensions adapted to be sprung into locking engagement with the apertures in said end walls, and said side extensions adapted to prevent said shuttle side members from lateral movement.

5. In a tatting device of the class described curved tapered sides, projections struck inwardly therefrom, and a spool having apertures in the walls thereof adapted to lockingly receive said projection in said apertures to form a shuttle.

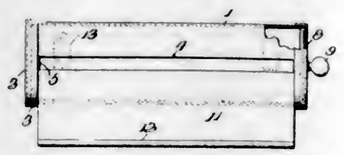
1,241,370. MANDOLIN BOW OR PICK. FRANCIS TAYLOR GRIFFIN, Ulm, Mont. Filed Mar. 27, 1917. Serial No. 157,775. (Cl. 84—117.)



1. A device for actuating the strings of a mandolin comprising a body presenting a hand grip, said body having a head terminating in a convex cylindrical surface, hair on the head, and means for securing the hair to said head along the cylindrical surface.

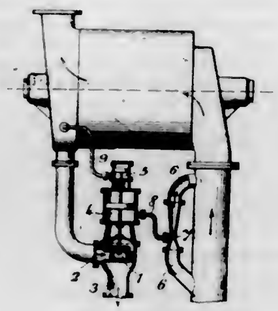
[Claim 2 not printed in the Gazette.]

1,241,371. MILK-SHEET PROTECTOR. THEODORE GRINDER, Perry, Wis. Filed Aug. 30, 1916. Serial No. 117,697. (Cl. 11—22.)



A device of the character described including a hollow cylindrical container, having one wall extended to form a platform having one side disposed substantially radially relative to the container, and the other side tangentially relative thereto, the extension being curved at its extreme outer edge to form a pencil rest, said container having a longitudinally extending opening located at the juncture of the radial surface with the surface of the cotnainer, a pair of hangers secured to the container whereby to support the same in a position to dispose the radial surface at an inclination, a roller journaled within the container, means for rotating the roller, and a cap to close one end of the cylinder.

1,241,372. APPARATUS FOR OPERATING THE BLOW-OFF VALVES OF CENTRIFUGAL COMPRESSORS OR PUMPS. HANS GUYER, Zurich, Switzerland, assignor to Aktiengesellschaft Der Maschinenfabriken Escher, Wyss & Co., Zurich, Switzerland. Filed July 8, 1913. Serial No. 777,904. (Cl. 230—24.)



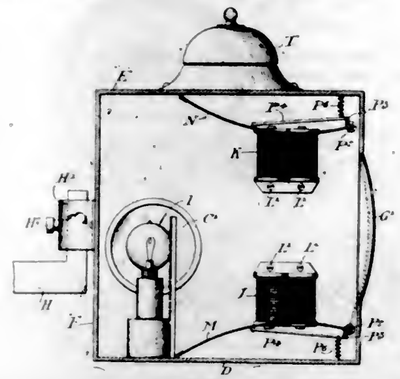
1. In a centrifugal compressor or pump, the combination with a blow-off valve, of controlling mechanism for said valve, means for placing said mechanism under the influence of the delivery pressure and means for placing said mechanism under the influence of the quantity of fluid flowing through the compressor, so that the blow-off valve will be opened by said controlling mechanism at all speeds whenever the point indicating the momentary delivery in the quantity pressure diagram falls on that side of the stability limiting curve where pumping or surging occurs.

10. In a centrifugal compressor, an intake and a discharge line, a demand measuring device, a blow off valve in said discharge line, means operated from said demand measuring device for opening said blow off valve at a determined minimum volume and means to vary said determined minimum in accordance with the pressure in said discharge line.

12. In a centrifugal compressor, an inlet and discharge line for said compressor, a demand measuring device in the inlet of said compressor, a blow off valve in the discharge line of said compressor and a conduit for leading the blow off air back to the inlet of said compressor.

[Claims 2 to 9 and 11 not printed in the Gazette.]

1,241,373. SIGNALING DEVICE FOR ROAD-VEHICLES. CHARLES O. HALL, New York, N. Y. Filed Nov. 28, 1914. Serial No. 874,375. (Cl. 40—52.)

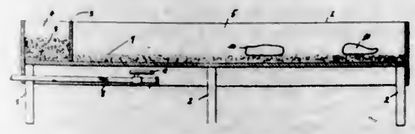


1. The combination with a plurality of indicating plates normally located in different planes, of means for moving said plates, one at a time, from said normal locations into a location common to all the plates, and electromagnetic means for operating said moving means.

2. The combination with a plurality of indicating plates normally located in different planes, of means for moving said plates, one at a time, from said normal locations into a location common to all the plates, and electromagnetic means for operating said moving means, and means for returning said plates to normal location.

3. The combination with a plurality of indicating plates normally located in different planes, of means for moving said plates, one at a time, from said normal locations into a location common to all the plates and in a plane substantially at right angles to said first planes, electromagnetic means for operating said moving means, and automatic means adapted to be overcome by said electromagnetic means, for returning said plates to normal location.

1,241,374. MEAT-CURING PROCESS. JAMES W. HAMMETT, Eureka, W. Va. Filed Jan. 26, 1917. Serial No. 144,689. (Cl. 99—1.)



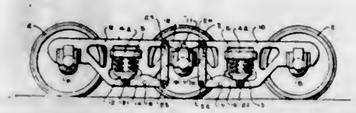
1. The hereindescribed process of curing edible flesh, which consists in supporting the flesh upon a mass of dry common salt; applying heat to the salt to keep the same dry; rubbing the dry salt into the flesh at intervals until no moisture appears on the surface of the flesh; and coating the salted flesh with a dry pungent spice.

2. The hereindescribed process of curing edible flesh, which consists in supporting the flesh upon a mass of dry common salt; applying heat to the salt to keep the same dry; and rubbing the dry salt into the flesh at intervals until no moisture appears on the surface of the flesh.

3. The hereindescribed process of curing edible flesh, which consists in supporting the flesh upon a mass of dry common salt; rubbing the dry salt into the flesh at intervals until no moisture appears on the surface of the flesh; and coating the salted flesh with a dry pungent spice.

4. The hereindescribed process of curing edible flesh, which consists in rubbing dry salt into the flesh at intervals until no moisture appears on the surface of the flesh; and coating the salted flesh with a dry pungent spice.

1,241,375. CAR-TRUCK. CYRUS HANKINS, Roanoke, Va. Filed Aug. 2, 1916. Serial No. 112,737. (Cl. 105—244.)



1. In a car truck, a plurality of wheels, axles and oil boxes, a load-carrying frame extending between adjacent oil boxes and supported thereby, means for imparting the superimposed load of the car body to the said frame in such manner as will tend to produce unequal oil box loadings, and means connected therewith for exerting an upward influence upon the said frame in such manner, at such a point, and of sufficient moment as to correct the said tendency to unequal loading.

2. In a car truck, a plurality of wheels, axles and oil boxes, side frames extending between adjacent oil boxes and supported thereby, means for imparting the superimposed load of the car body to the side frames, said means being so arranged as to deliver primary forces to the side frames in excess of the superimposed loads and in such locations as to tend to overload one of the oil boxes, said means being further adapted to exert an upward force at the overloaded oil box of such magnitude as to produce a final resultant downward force equal to that on the other oil boxes, and means for receiving the load from the car body and delivering it to the said load imparting means.

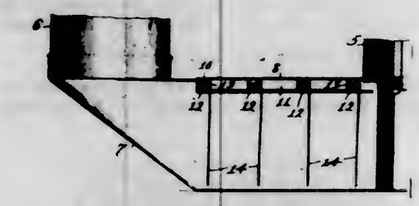
3. In a car truck, a plurality of wheels, axles and oil boxes, frames extending between adjacent oil boxes adapted to tie the same together and to impart loads thereto, means for imparting loads to the said frames, said means being so arranged as to deliver loads to the frames in excess of the superimposed loads and in such locations as to tend to overload one of the oil boxes, the said load imparting means being further adapted to exert a corrective force to the said frames which will counteract the tendency to overload the said oil box, and means for receiving the load from the car body and delivering it to the said load imparting means.

4. In a car truck, a plurality of wheels and axles with oil boxes on the ends thereof, a jointed, sectional, side frame disposed along each side of the truck and supported upon the said oil boxes, a truck bolster having means thereon for receiving the load from the car body and supporting the same, means for transferring the load from said bolster to the oil boxes, said means embodying levers pivoted between their extremities to the said frames and each carrying at its one end a seat for supporting the said bolster, the opposite end of each of said levers reacting against a portion of the truck other than the portion of the side frame to which it is pivoted.

5. In a six-wheel car truck, a plurality of wheels and axles with oil boxes on the ends thereof, a rigid and an articulated side frame along each side of the truck, the same being coupled together at their inner ends and the oil boxes for an end and for the middle axle being secured to the rigid side frame, the oil box for the other outer axle being secured to the articulated side frame, a lever pivoted between its extremities to each of said side frames, a bolster having means for receiving the load from the car body, seats on the one end of each of said levers for supporting the said bolster, the other end of the levers at each side of the truck being provided with means for transferring their upward reactions to a member other than the side frame to which that lever is pivoted.

[Claims 6 to 9 not printed in the Gazette.]

1,241,376. AIR-FILTER. JOHN ZACIUS HANSON, Pocatello, Idaho. Filed Dec. 12, 1916. Serial No. 136,579. (Cl. 261—103.)

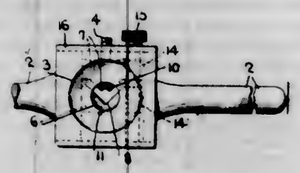


1. A device of the class described for use in the return connection of a furnace, comprising a plurality of units longitudinally placed in such connection and consisting each of a plurality of absorbent strips the strips of each unit staggered with relation to those of adjacent units and means for maintaining said strips in a state of saturation.

4. As an article of manufacture, for use in a warm air return connection from a furnace, a casing provided with a channel at the top of each side thereof, and a plurality of channels joining said side channels and spaced apart, means for supplying water to said channels, and a plurality of absorbent strips depending from each transverse channel and having their upper ends in the water in said channel.

[Claims 2 and 3 not printed in the Gazette.]

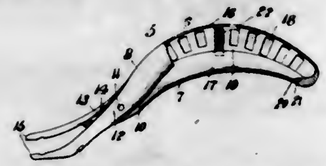
1,241,377. DIE-STOCK. RAOUL J. HEBERT, Worcester, Mass. Filed Apr. 21, 1917. Serial No. 163,733. (Cl. 10—127.)



A die stock comprising a rectangular block having integral arms extending from diametrically opposite side edges thereof, a die seat in one face and a jaw seat extending transversely across the other parallel face from edge to edge thereof and opening through said edges, a relatively small opening connecting said seats, the side walls of said jaw seat being undercut, jaws fitting the undercut walls of said jaw seat and slidable therein across said opening, said jaws having registering oppositely threaded bores extending parallel with said under cut seat walls, an adjusting screw threaded to operate in said bores to move said jaws toward and away from each other, and plates closing the end of said jaw seat and in which said screw is mounted to rotate to adapt it to maintain a predetermined position relative to said jaws when rotated to insure their free sliding movement in said seat.

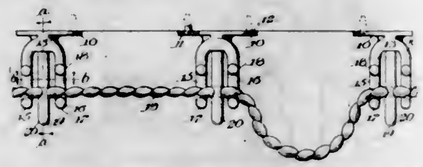
1,241,378. STOVE-LID LIFTER. JENNIE A. HENDEE, Marietta, Ill., assignor of one-half to Lewis B. Hendee, Marietta, Ill. Filed Feb. 16, 1916. Serial No. 78,705. (Cl. 126—323.)

A stove lid lifter embodying upper and lower crossed tong members, the said lower tong member being provided at its inner end with a downwardly and inwardly beveled portion, a coil spring connected at one end with the inner wall of the upper tong member and the opposite end of said spring being seated in a notch formed in the inner wall of the lower tong member, said spring tending to automatically open the clamping ends of the tong members and force the downwardly and forwardly beveled extremity of the lower tong member into engagement with a correspondingly formed shoulder on the inner extremity



of the upper tong member for limiting the opening action of the tongs, substantially as and for the purpose specified.

1,241,379. ROPE-CLAMPING DEVICE. JOHN H. HEUSER, Chicago, Ill. Filed Nov. 30, 1914. Serial No. 874,582. (Cl. 24—132.)



1. A clamping device comprising a plate one face of which is constructed to be placed against a wall, a pair of separated arms secured to and extending from the other face of said plate which rests against said wall, and a clamping member also extending from the last mentioned face and arranged to coöperate with said separated arms and mounted so as to have sufficient movement relatively to the same to permit the clamping of a rope or similar article between said member and said arms.

2. A device of the class specified comprising a plate one face of which is adapted to be placed against a wall, a pair of separated arms secured to the other face of said plate and means projecting from the last mentioned face whereby a clamping member may be pivotally connected with said plate and arranged to swing relatively to said arms in such a manner as to permit a clamping action between said member and said arms.

3. A device of the class sepecified comprising a plate one face of which is constructed to be placed against a wall, a pair of separated arms secured to the other face of said plate member, a lug projecting from the last mentioned face of said plate member and a clamping member pivotally connected to said lug and arranged to swing relatively to said arms so as to permit a clamping action therewith.

4. In a clamping device, in combination, a plate constructed to be secured to a wall, a pair of laterally separated arms extending at right angles to the wall plate, each of which is provided with a laterally extending lug, a clamping member, one end of which is permanently secured to the wall plate, the opposite end being permitted to be moved between the laterally separated arms, and means provided upon the plate which carries said clamping member whereby the clamping member is secured thereon beyond the plate, said means comprising a split lug into which the end of the movable member is inserted when open, and which when closed forms a means whereby the clamping member is secured to the plate.

5. In a clamping device in combination, a plate constructed to be secured to a wall, a pair of laterally separated arms extending from the wall plate, a clamping member secured at one of its ends to the wall plate, the opposite end being permitted to be moved between the laterally separated arms, and means whereby said clamping member is secured to the wall plate, said means comprising a separable member constructed to receive the clamping member when open and which when closed forms a means whereby the clamping member is secured to the plate.

[Claim 6 not printed in the Gazette.]

1,241,380. CUSHION-TIRE. ANDREW C. HILEMAN, Butler, Pa., assignor, by direct and mesne assignments, to Triple Airless Tire Company, a Corporation of Delaware. Filed May 18, 1916, Serial No. 98,409. Renewed Aug. 10, 1917. Serial No. 185,632. (Cl. 152—5.)

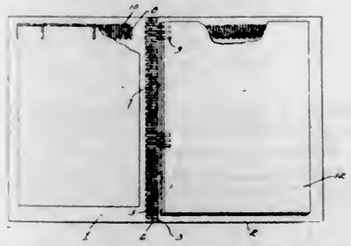


1. A composite cushion tire comprising a casing having a supplemental lining, a bridge provided with a peripheral groove and a pair of diametrically opposed side grooves, the outer portion of the bridge being vulcanized to said lining while the inner portion is reduced and confined between the beads of said casing.

2. A composite cushion tire comprising a casing having a supplemental lining, a bridge provided with a peripheral groove and a pair of diametrically opposed grooves, the outer portion of the bridge being vulcanized to said lining while the inner portion is reduced and confined between the beads of said casing, and said peripheral groove having a width substantially equal to the width of the said reduced portion.

3. A composite cushion tire comprising a casing having a supplemental lining, a substantially Y-shaped bridge, the forked extremities of which are vulcanized to said lining, while the base of the bridge is reduced and confined between the beads of the casing.

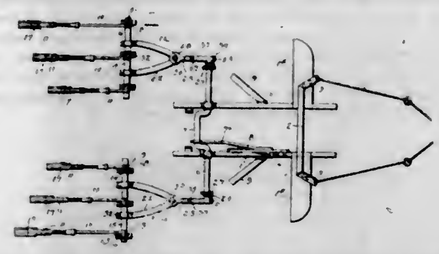
1,241,381. FOLDER. HARRY H. HOLLIDOE, Oakland, Cal. Filed June 13, 1916. Serial No. 103,414. (Cl. 129—19.)



A file folder comprising a sheet forming two leaves, a plurality of tabs cut from said leaves adjacent the top edges and having one end unsevered.

1,241,382. CULTIVATOR. QUINTON S. HOWARD, Lorenzo, Tex. Filed Mar. 3, 1916. Serial No. 81,934. (Cl. 97—31.)

1. A cultivator of the class described including a frame having spaced runners having bearings, a transverse rock shaft journaled in the bearings and having a crank extending across the space between the runners, said rock shaft extending from opposite sides thereof, arms located at opposite sides of the frame and mounted on the rock shaft for independent vertical, pivotal adjustment, transverse bars or beams carried by the said arms, standards secured to the transverse bars or beams and provided with soil engaging devices and means for partially rotating the rock shaft to adjust the arms simultaneously and for adjusting the arms independently of each other on the rock shaft.



2. A cultivator of the class described including a frame having spaced runners having bearings, a transverse rock shaft journaled in the bearings and having a crank extending across the space between the runners, said rock shaft extending from opposite sides thereof, arms located at opposite sides of the frame and mounted on the rock shaft for vertical, pivotal adjustment, transverse bars or beams carried by the said arms, standards secured to the transverse bars or beams and provided with soil engaging devices and means for partially rotating the rock shaft to adjust the arms simultaneously and for adjusting the arms independently of each other on the rock shaft, said arms being provided with front and rear sections pivotally connected to permit a lateral pivotal adjustment of the said bars or beams.

3. A cultivator of the class described including a frame, a transverse rock shaft extending from opposite sides of the frame, arms mounted on the transverse rock shaft and located exteriorly of the frame at opposite sides thereof, each of said arms being composed of an approximately straight front section or stem and a rear approximately V-shaped section pivotally connected to such front section or stem for angular adjustment, said front section or stem and rear section being provided with means for securing them in such angular adjustment, opposite transverse bars or beams spaced apart and mounted on the rear sections of the said arms, and standards mounted on the transverse bars or beams and provided with soil-engaging devices.

4. A cultivator of the class described including a transverse bar provided with spaced upwardly extending arms, standards having cultivating devices and provided with an attaching portion secured to the said upwardly extending arms, and wedges interposed between the attaching portions of the standards and the said arms and presenting vertical faces to the arms and inclined faces to the said attaching portions, said wedges being adjustable to vary the relative positions of the cultivating devices.

5. A cultivator of the class described including a transverse bar provided with spaced upwardly extending arms, standards having pendent attaching portions arranged at the sides of the said arms, fastening devices piercing the arms and the attaching portions of the standards, and wedges interposed between the arms and the said attaching portions and presenting vertical faces to the arms and inclined faces to the attaching portions and capable of adjustment to effect a lateral tilt to the standards, said wedges being slotted to receive the fastening devices and provided with flanges for engaging the upwardly extending arms.

1,241,383. DUMPING-SCRAPER. OSCAR V. HOWELL. Nemaha, Nebr. Filed Feb. 3, 1917. Serial No. 146,437. (Cl. 37—40.)

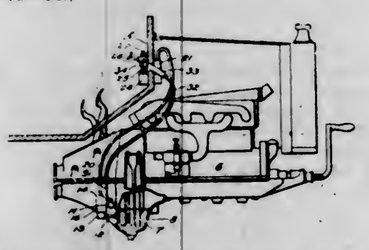
1. In a scraper structure, the combination, of a scraper bottom, a clevis pivotally connected to the sides of said bottom and extending forwardly therefrom, a substantially U-shaped bar, the forward ends of the legs of said bar being pivotally connected to said clevis, handles attached to the rear ends of the legs of said bar, the sides of said scraper bottom being provided with longitudinally extending slots, resilient arms carried by the legs of the

U-shaped member and having their rear ends bent and extending through the legs and into said slots for connecting said handles and U-shaped member to said scraper bottom, the legs of said U-shaped member being connected to said clevis eccentrically of the pivot connected between the clevis and the scraper bottom so that the angle ends of said resilient rods will move out of said slots for disconnecting said scraper bottom and said handles when the scraper bottom reaches substantially a perpendicular position during its dumping movement.



2. In a scraper structure, the combination, of a scraper bottom, a clevis pivotally connected to the sides of said bottom and extending forwardly therefrom, a substantially U-shaped bar, the forward ends of the legs of said bar being pivotally connected to said clevis, handles attached to the rear ends of the legs of said bar, the sides of said scraper bottom being provided with longitudinally extending slots, resilient arms carried by the legs of the U-shaped member and having their rear ends bent and extending through the legs and into said slots for connecting said handles and U-shaped member to said scraper bottom, the legs of said U-shaped member being connected to said clevis eccentrically of the pivot connected between the clevis and the scraper bottom so that the angle ends of said resilient rods will move out of said slots for disconnecting said scraper bottom and said handles when the scraper bottom reaches substantially a perpendicular position during its dumping movement, a pair of spurs attached to and projecting beyond the upper edge of the rear side of said scraper bottom and adapted for embedding in the ground when the scraper bottom is in a dumped position for causing the scraper bottom to right itself upon forward pulling movement thereupon.

1,241,384. LIQUID-LEVEL INDICATOR. HENRY HUEBNER, Seattle, Wash., assignor to Arnold A. Barkey, Seattle, Wash. Filed Feb. 23, 1917. Serial No. 150,349. (Cl. 73—54.)

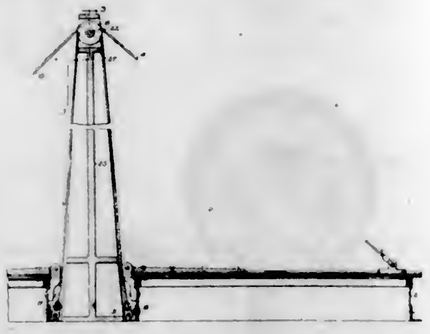


2. In apparatus of the class described, a vessel containing oil, a receptacle and a communicating glass tube partly filled with an indicating liquid whose elevation in the tube is discernible through the latter, a flexible tube having an extension submerged in the oil and its other end connected with the space above the indicating liquid in said receptacle, and means to temporarily withdraw said extension from the oil.

3. In apparatus of the class described, a vessel containing oil, a cover therefor having a chambered portion extending into said oil, a receptacle, a glass tube communicating at its upper end with the external atmosphere and at its lower end with said receptacle, said receptacle and tube being partly filled with an indicating liquid, a tube connecting the upper part of the chamber in the referred-to cover-portion with the space above the indicating liquid in said receptacle, and means for elevating and lowering said cover whereby the chambered portion thereof may be withdrawn from or introduced into the oil contained in said vessel.

[Claim 1 not printed in the Gazette.]

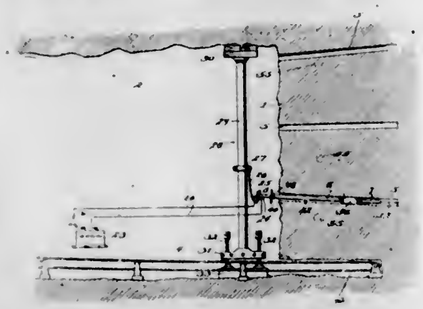
1,241,385. HATCH-COVER LIFT. WILLIAM H. HUNT, New York, N. Y. Filed Apr. 28, 1917. Serial No. 165,103. (Cl. 114—201.)



1. A lifting device for hatch covers, comprising lifting cables, pulleys for guiding said lifting cables, and a standard for carrying some of said pulleys, said standard comprising an upright member having a boxing or casing at the upper end for receiving the journal member of some of said pulleys, and a base capable of receiving securing means for securing the standard to a ship.

2. A hatch cover lift, comprising a cable for each cover, means for connecting said cables to said covers, a plurality of pulleys for guiding said cables, and a standard for supporting some of said pulleys, said standard being formed with a central web and a pair of side webs for bracing the central web, said side webs merging into a casing at the upper end open on two sides for carrying the journal of the pulleys supported by the standard and for protecting said last mentioned pulleys.

1,241,386. BLASTING DEVICE. ERNEST HUTTON, Wayland, Ky. Filed Nov. 24, 1916. Serial No. 133,254. (Cl. 102—5.)



1. A mining gun for insertion in a drill hole or bore, comprising, in combination, a tubular body; a barrel slidably mounted upon the forward end thereof, and provided with a charge-containing socket; means for exploding the charge; and a buffer mounted on said body and adapted to be expanded by the recoil of said barrel consequent upon explosion, so as to wedge said buffer tightly against the walls of said bore and thus prevent blow-out therethrough.

4. A mining gun for insertion in a drill hole or bore, having a charge-containing socket, and also having a buffer adapted to be expanded automatically consequent upon explosion of the charge, so as to wedge said buffer tightly against the walls of said bore and thus prevent blow-out therethrough.

10. A mining gun for insertion in a drill hole or bore, having a charge-receiving socket, and also having a buffer; and a pair of co-acting reversely-tapered members

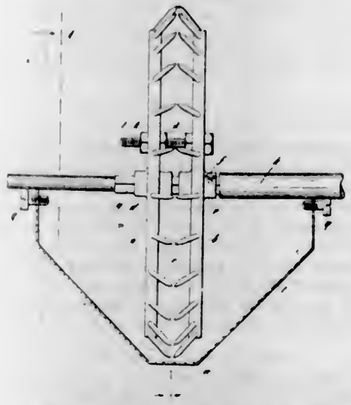
capable of relative movement toward each other to expand said buffer and thereby cause it to become tightly wedged in said bore.

21. A mining gun, provided with a barrel having a charge-receiving socket at its outer end; a spark plug fitted in the bore of said barrel in rear of said socket and having a narrow, pointed bridge-piece at its front end, which projects directly into the charge and constitutes an electrical contact or terminal; and means for producing an electric spark at said bridge-piece, to explode the charge.

23. Mining apparatus of the character specified, comprising, in combination, a conveyer having its receiving end adapted for disposition in an opening or recess cut in the bottom of the face of the vein to be mined; a mining gun for insertion in a horizontal drill hole or bore located directly over said conveyer end, said gun having a socket to contain a cartridge of explosive material; means on said gun for maintaining it in place in the bore and for preventing blow-out therethrough, and means for exploding said cartridge, so as to cause the force of the explosion to break down the material being mined directly upon the said conveyer end, to be removed by said conveyer.

[Claims 2, 3, 5 to 9, 11 to 20, 22, and 24 to 26 not printed in the Gazette.]

1,241,387. MACHINE FOR SOWING SEEDS OR THE LIKE. JOHN HUTTON, Kilminning, Crail, Scotland. Filed Jan. 28, 1916. Serial No. 74,760. (Cl. 193—1.)



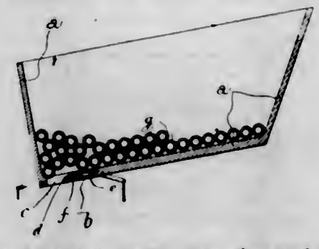
1. In a machine for sowing seeds at predetermined intervals, a box having a seed-discharge opening, two series of coöperating arms rotatably mounted in said box for conveying seeds to the opening, and means for relatively adjusting the two series of arms, to sow seeds of different sizes.

3. In a machine for sowing seeds at predetermined intervals, a box having a seed-discharge opening, a shaft rotatably mounted in said box, two wheels within the box and rotatable with the shaft, means for relatively adjusting the distance between the wheels, and arms carried by the wheels and coöperating to push seeds to said opening.

[Claim 2 not printed in the Gazette.]

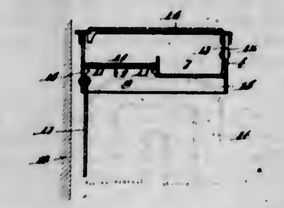
1,241,388. FEEDING DEVICE. IWAN IMBERT, Ramonchamp, France. Filed Mar. 16, 1915. Serial No. 14,851. (Cl. 139—85.)

A cop-feeding attachment for looms, comprising a magazine to contain the cops, having a downwardly-inclined bottom wall formed at its lower end with a discharge opening of substantially the same size as the cops, toward which said cops tend to roll and through which they are adapted to pass one by one, said wall being also formed with a recess directly in rear of said opening so as to constitute a continuation thereof; and a shutter for controlling the discharge of the cops through said opening pivoted at its rear end to the side walls of the magazine and normally resting in said recess with its front edge coinciding with the rear edge of said opening,



said shutter having a convex upper face and being arranged to swing upwardly and rearwardly so as to engage the cops throughout their length and break arches formed by them at said opening, whereby said cops will be caused to roll along the convex face of the shutter during such swinging movement without being injured.

1,241,389. RADIATOR ATTACHMENT. ROBERT E. INGAL, Chicago, Ill. Filed Oct. 15, 1915. Serial No. 56,112. (Cl. 237—78.)



1. A device of the class described comprising a vessel arranged to be positioned on top of a radiator, there being an opening in the bottom of said vessel extending along one side thereof; a water pan occupying the other side of the bottom of said vessel; a reinforcing and supporting bar traversing said opening; a screen arranged over said opening and resting on said bar; and a screened opening in the side of said vessel above said water pan opposite the opening in the bottom thereof, substantially as described.

2. A device of the class described comprising a vessel arranged to be positioned on top of a radiator, there being an opening in the bottom of said vessel extending along one side thereof; a water pan occupying the other side of the bottom of said vessel; a reinforcing and supporting bar traversing said opening; a screen arranged over said opening and resting on said bar; a screened opening in the side of said vessel above said water pan opposite the opening in the bottom thereof; and a depending apron on said vessel on the side opposite said screened opening, substantially as described.

1,241,390. DOUGH-MIXING APPARATUS. ELMER H. JACKSON, Seattle, Wash. Filed Oct. 30, 1916. Serial No. 128,799. (Cl. 259—109.)

1. A dough mixer of the class described comprising a casing having an arcuate bottom, an axially disposed shaft in said casing, means for rotating said shaft, and outwardly projecting paddles secured to said shaft said paddles having curved outer portions in a direction opposite to the direction of rotation of said shaft and angularly formed ends disposed to slightly clear the arcuate walls of said casing and gradually work dough toward one end of said casing when said shaft is rotated.

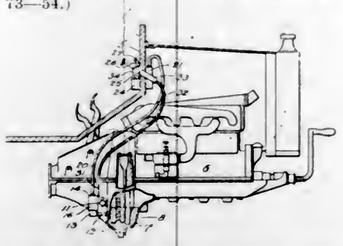
2. A dough mixer of the class described, comprising a casing having an arcuate bottom, an axially disposed rotatable member, radially disposed paddles projecting at frequent intervals from said rotatable member, said paddles having curved outer portions in a direction opposite

U-shaped member and having their rear ends bent and extending through the legs and into said slots for connecting said handles and U-shaped member to said scraper bottom, the legs of said U-shaped member being connected to said clevis eccentrically of the pivot connected between the clevis and the scraper bottom so that the angle-ends of said resilient rods will move out of said slots for disconnecting said scraper bottom and said handles when the scraper bottom reaches substantially a perpendicular position during its dumping movement.



2. In a scraper structure, the combination, of a scraper bottom, a clevis pivotally connected to the sides of said bottom and extending forwardly therefrom, a substantially U-shaped bar, the forward ends of the legs of said bar being pivotally connected to said clevis, handles attached to the rear ends of the legs of said bar, the sides of said scraper bottom being provided with longitudinally extending slots, resilient arms carried by the legs of the U-shaped member and having their rear ends bent and extending through the legs and into said slots for connecting said handles and U-shaped member to said scraper bottom, the legs of said U-shaped member being connected to said clevis eccentrically of the pivot connected between the clevis and the scraper bottom so that the angle ends of said resilient rods will move out of said slots for disconnecting said scraper bottom and said handles when the scraper bottom reaches substantially a perpendicular position during its dumping movement, a pair of spurs attached to and projecting beyond the upper edge of the rear side of said scraper bottom and adapted for embedding in the ground when the scraper bottom is in a dumped position for causing the scraper bottom to right itself upon forward pulling movement thereupon.

1,241,384. LIQUID-LEVEL INDICATOR. HENRY HUEBER, Seattle, Wash., assignor to Arnold A. Barkey, Seattle, Wash. Filed Feb. 23, 1917. Serial No. 150,349. (Cl. 73—54.)

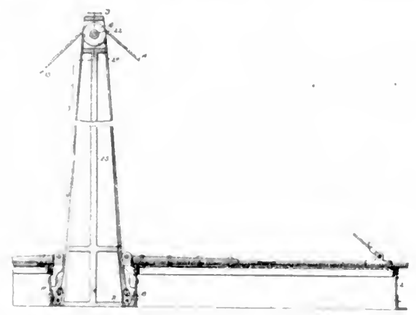


2. In apparatus of the class described, a vessel containing oil, a receptacle and a communicating glass tube partly filled with an indicating liquid whose elevation in the tube is discernible through the latter, a flexible tube having an extension submerged in the oil and its other end connected with the space above the indicating liquid in said receptacle, and means to temporarily withdraw said extension from the oil.

3. In apparatus of the class described, a vessel containing oil, a cover therefor having a chambered portion extending into said oil, a receptacle, a glass tube communicating at its upper end with the external atmosphere and at its lower end with said receptacle, said receptacle and tube being partly filled with an indicating liquid, a tube connecting the upper part of the chamber in the referred-to cover-portion with the space above the indicating liquid in said receptacle, and means for elevating and lowering said cover whereby the chambered portion thereof may be withdrawn from or introduced into the oil contained in said vessel.

[Claim 1 not printed in the Gazette.]

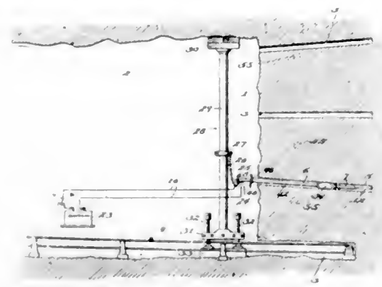
1,241,385. HATCH-COVER LIFT. WILLIAM H. HUNT, New York, N. Y. Filed Apr. 28, 1917. Serial No. 165,103. (Cl. 114—201.)



1. A lifting device for hatch covers, comprising lifting cables, pulleys for guiding said lifting cables, and a standard for carrying some of said pulleys, said standard comprising an upright member having a boxing or casing at the upper end for receiving the journal member of some of said pulleys, and a base capable of receiving securing means for securing the standard to a ship.

2. A hatch cover lift, comprising a cable for each cover, means for connecting said cables to said covers, a plurality of pulleys for guiding said cables, and a standard for supporting some of said pulleys, said standard being formed with a central web and a pair of side webs for bracing the central web, said side webs merging into a casing at the upper end open on two sides for carrying the journal of the pulleys supported by the standard and for protecting said last mentioned pulleys.

1,241,386. BLASTING DEVICE. ERNEST HUTTON, Wayland, Ky. Filed Nov. 24, 1916. Serial No. 133,254. (Cl. 102—5.)



1. A mining gun for insertion in a drill hole or bore, comprising, in combination, a tubular body; a barrel slidably mounted upon the forward end thereof, and provided with a charge-containing socket; means for exploding the charge; and a buffer mounted on said body and adapted to be expanded by the recoil of said barrel consequent upon explosion, so as to wedge said buffer tightly against the walls of said bore and thus prevent blow-out therethrough.

4. A mining gun for insertion in a drill hole or bore, having a charge-containing socket, and also having a buffer adapted to be expanded automatically consequent upon explosion of the charge, so as to wedge said buffer tightly against the walls of said bore and thus prevent blow-out therethrough.

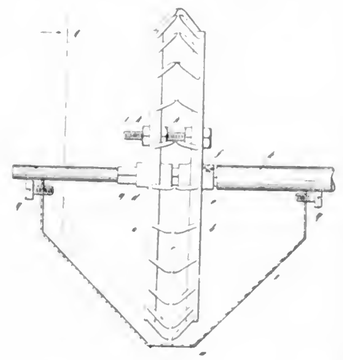
10. A mining gun for insertion in a drill hole or bore, having a charge-receiving socket, and also having a buffer; and a pair of co-acting reversely-tapered members capable of relative movement toward each other to expand said buffer and thereby cause it to become tightly wedged in said bore.

21. A mining gun, provided with a barrel having a charge-receiving socket at its outer end; a spark plug fitted in the bore of said barrel in rear of said socket and having a narrow, pointed bridge-piece at its front end, which projects directly into the charge and constitutes an electrical contact or terminal; and means for producing an electric spark at said bridge-piece, to explode the charge.

23. Mining apparatus of the character specified, comprising, in combination, a conveyer having its receiving end adapted for disposition in an opening or recess cut in the bottom of the face of the vein to be mined; a mining gun for insertion in a horizontal drill hole or bore located directly over said conveyer end, said gun having a socket to contain a cartridge of explosive material; means on said gun for maintaining it in place in the bore and for preventing blow-out therethrough, and means for exploding said cartridge, so as to cause the force of the explosion to break down the material being mined directly upon the said conveyer end, to be removed by said conveyer.

[Claims 2, 3, 5 to 9, 11 to 20, 22, and 24 to 26 not printed in the Gazette.]

1,241,387. MACHINE FOR SOWING SEEDS OR THE LIKE. JOHN HUTTON, Kilmining, Crail, Scotland. Filed Jan. 28, 1916. Serial No. 74,760. (Cl. 193—1.)



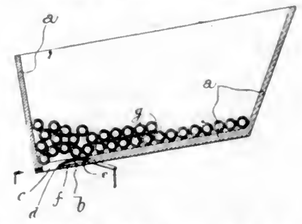
1. In a machine for sowing seeds at predetermined intervals, a box having a seed-discharge opening, two series of coöperating arms rotatably mounted in said box for conveying seeds to the opening, and means for relatively adjusting the two series of arms, to sow seeds of different sizes.

3. In a machine for sowing seeds at predetermined intervals, a box having a seed-discharge opening, a shaft rotatably mounted in said box, two wheels within the box and rotatable with the shaft, means for relatively adjusting the distance between the wheels, and arms carried by the wheels and coöperating to push seeds to said opening.

[Claim 2 not printed in the Gazette.]

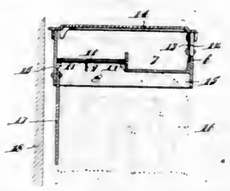
1,241,388. FEEDING DEVICE. IWAN IMBERT, Ramonchamp, France. Filed Mar. 16, 1915. Serial No. 14,851. (Cl. 139—85.)

A cop-feeding attachment for looms, comprising a magazine to contain the cops, having a downwardly-inclined bottom wall formed at its lower end with a discharge opening of substantially the same size as the cops, toward which said cops tend to roll and through which they are adapted to pass one by one, said wall being also formed with a recess directly in rear of said opening so as to constitute a continuation thereof; and a shutter for controlling the discharge of the cops through said opening pivoted at its rear end to the side walls of the magazine and normally resting in said recess with its front edge coinciding with the rear edge of said opening,



said shutter having a convex upper face and being arranged to swing upwardly and rearwardly so as to engage the cops throughout their length and break arches formed by them at said opening, whereby said cops will be caused to roll along the convex face of the shutter during such swinging movement without being injured.

1,241,389. RADIATOR ATTACHMENT. ROBERT E. INGAL, Chicago, Ill. Filed Oct. 15, 1915. Serial No. 56,112. (Cl. 237—78.)



1. A device of the class described comprising a vessel arranged to be positioned on top of a radiator, there being an opening in the bottom of said vessel extending along one side thereof; a water pan occupying the other side of the bottom of said vessel; a reinforcing and supporting bar traversing said opening; a screen arranged over said opening and resting on said bar; and a screened opening in the side of said vessel above said water pan opposite the opening in the bottom thereof, substantially as described.

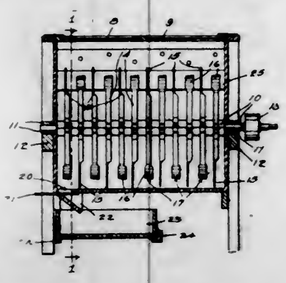
2. A device of the class described comprising a vessel arranged to be positioned on top of a radiator, there being an opening in the bottom of said vessel extending along one side thereof; a water pan occupying the other side of the bottom of said vessel; a reinforcing and supporting bar traversing said opening; a screen arranged over said opening and resting on said bar; a screened opening in the side of said vessel above said water pan opposite the opening in the bottom thereof; and a depending apron on said vessel on the side opposite said screened opening, substantially as described.

1,241,390. DOUGH-MIXING APPARATUS. ELMER H. JACKSON, Seattle, Wash. Filed Oct. 30, 1916. Serial No. 128,799. (Cl. 259—109.)

1. A dough mixer of the class described comprising a casing having an arcuate bottom, an axially disposed shaft in said casing, means for rotating said shaft, and outwardly projecting paddles secured to said shaft said paddles having curved outer portions in a direction opposite to the direction of rotation of said shaft and angularly formed ends disposed to slightly clear the arcuate walls of said casing and gradually work dough toward one end of said casing when said shaft is rotated.

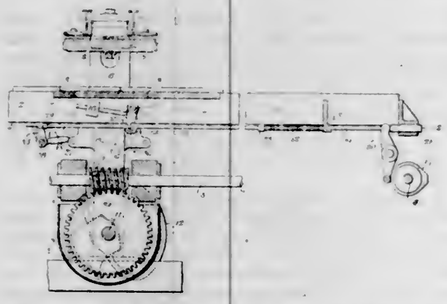
2. A dough mixer of the class described, comprising a casing having an arcuate bottom, an axially disposed rotatable member, radially disposed paddles projecting at frequent intervals from said rotatable member, said paddles having curved outer portions in a direction opposite

to the direction of rotation of said shaft and angularly formed ends adapted to slightly clear the arcuate walls of said casing and knife blades projecting outwardly from said rotatable member into close proximity to said casing.



3. A dough mixer of the class described comprising a casing having an arcuate dough receptacle, an axially disposed shaft in said receptacle, paddles having uncurbed angled ends secured to said shaft to project outwardly therefrom, knife blades secured to said shaft, alternating knife blades projecting outwardly from said shaft into close proximity to said casing, to project outwardly therefrom and a deflector plate in the top portion of said casing to remove dough that may be carried around by said paddles and said knives.

1,241,391. BLOCK-PRINTING MACHINE. RALPH G. JACKSON, Chester, Pa., assignor to The Congoleum Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Nov. 16, 1916. Serial No. 131,700. Cl. 101—198.)

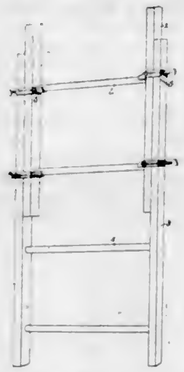


1. The combination in a block printing machine, of means for intermittently feeding the material through the machine; a printing block carrier; means for lifting the carrier; means for holding the carrier out of action; mechanically operated means for releasing the carrier; and hand operated means for releasing the carrier to be actuated out of time with the mechanically operated means.

2. The combination in a block printing machine of the type having a series of intermittently reciprocating block carriers and means for intermittently moving the material through the machine, of a block carrier; a counter-balanced latch for the carrier; a rod for actuating the latch; a spring for moving the rod in one direction; a cam for moving the rod in the opposite direction; and hand operated means for moving the rod in the same direction as the cam to compress the spring and to release the carrier from the control of the latch.

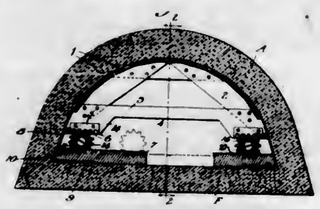
3. The combination in a block printing machine, of a bed; means for intermittently carrying the material over the bed; a block carrier; means for actuating said carrier to allow the block to make an impression; a latch at the carrier arranged to hold it out of position; a counterbalance for each latch so that when the said latch is released it will move away from the carrier; a rock shaft on which the latch is mounted; an arm on said shaft; an actuating rod having a collar bearing against the arm; a spring for moving the rod in one direction; mechanically operated means for moving the rod in the opposite direction; and a hand operated rock shaft having an arm engaging the rod so that when it is desired to release the carrier and to allow the printing block to make an impression the hand operated rock shaft is turned, causing the controlling rod to move against the pressure of the spring to release the latch.

1,241,392. LADDER-CLAMP. PHER EDWARD JOHNSON and EDWARD ANDERSON, Brooklyn, N. Y. Filed Aug. 10, 1916. Serial No. 114,153. (Cl. 228—28.)



The combination with a ladder formed in sections having overlapping ends, of a clamp for binding said sections together at the part that overlaps, said clamp comprising a spanning body for spanning said sections, a clamping screw arranged on one part of said body adapted to press against one of said sections and draw the opposite section against the first mentioned section, and a bracing extension shaped to partly surround one of the rungs of one of said sections for preventing independent movement of said last mentioned section in respect to said clamp.

1,241,393. MOLD FOR CULVERTS. WALTER W. JOHNSTON, Gadsden, Ala. Original application filed May 27, 1916, Serial No. 100,277. Divided and this application filed Jan. 18, 1917. Serial No. 143,156. (Cl. 25—131.5.)



2. In a mold for culverts, etc., an arch structure, and a set of rolling, longitudinal supports for sustaining the structure and adapted to be rolled inwardly from engagement therewith to permit the latter to be lowered and withdrawn from the finished culvert.

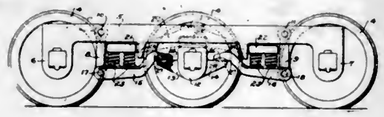
3. In a mold for concrete culverts, an arch structure, and a set of detached supports for the structure and having rolling disengagement therefrom.

5. In a mold for concrete culverts, a form structure having downwardly extending side walls, and rotary shims for sustaining said walls and adapted to be rolled laterally as to the walls to release the form, said supports having meshing engagement with the lower portion of the wall structure.

6. In a mold for concrete structures, a form adapted to be erected in position with relation to a fixed part, rack sections secured to said form, and removable temporary supports having engagement with said racks.

[Claims 1 and 4 not printed in the Gazette.]

1,241,394. CAR-TRUCK. BYERS W. KADEL, Roanoke county, Va. Filed Aug. 17, 1916. Serial No. 115,506. (Cl. 105—244.)



1. In a six-wheel car truck, three axles with the customary wheels and oil boxes mounted thereon, the oil box for the middle axle having oppositely extending arms and comprising a centrally disposed longitudinal lever rotatable about the middle axle as a center, a pair of end lever members extending in opposite directions from opposite ends of the said central lever and supported at their inner ends thereby, the outer ends of said end levers being supported by the oil boxes of the end axles, the support of the end lever members upon the central lever being so formed as to offer resistance to any swiveling of the central lever about the center axle out of its normal position and to always return the lever to its normal position.

2. In a six-wheel car truck, three axles with the customary wheels and oil boxes mounted thereon, the oil box for the middle axle having oppositely extending arms and comprising a centrally disposed longtiudinal lever rotatable about the middle axle as a center, a pair of end lever members extending in opposite direction from opposite ends of the said central lever and supported at their inner ends thereby, the outer ends of said end levers being supported by the oil boxes of the end axles, the end lever members being supported by the central lever in such manner as to change the relative lengths of the levers when the central lever swivels around the middle axle out of its normal position.

3. In a six-wheel car truck, three axles with the customary wheels and oil boxes mounted thereon, the oil box for the middle axle having oppositely extending arms and comprising a centrally disposed longitudinal lever rotatable about the middle axle as a center, a pair of end lever members extending in opposite direction from opposite ends of the said central lever and supported at their inner ends thereby, the outer ends of said end levers being supported by the oil boxes of the end axles, an end lever member being supported upon the central lever at two points spaced one from the other longitudinally of the truck.

4. In a six-wheel car truck, three axles with the customary wheels and oil boxes mounted thereon, a longitudinally extending side bar to the opposite ends of which are rigidly secured oil boxes for the two outer truck axles, the said side bar being supported upon the said end oil boxes, the oil box for the middle axle carrying longitudinally extending arms at either of its sides and forming a central lever rotatable about the middle axle as a center, end levers extending longitudinally from said central lever toward each end of the truck and being supported upon the said central lever at their inner ends, the outer ends of the end levers being supported upon the said side bar, and means for applying the load of the car body to the said end levers between the extremities thereof.

5. In a six-wheel car truck, three axles with the customary wheels and oil boxes mounted thereon, a longitudinally extending side bar to the opposite ends of which are rigidly secured oil boxes for the two outer truck axles, the said side bar being supported upon the said end oil boxes, a centrally disposed longitudinally extending lever to which is rigidly secured the middle oil box, said lever being rotatable about the middle axle as a center but only in harmony with the axial movement of the attached oil box, end levers extending longitudinally from said central lever toward each end of the truck and being supported upon the said central lever at their inner ends, the outer ends of the end levers being supported upon the said side bar, and means for applying the load of the car body to the said end levers between the extremities thereof.

[Claims 6 and 7 not printed in the Gazette.]

1,241,395. CAR-TRUCK BRAKE. BYERS W. KADEL, Roanoke county, Va. Continuation in part of application Serial No. 99,994, filed May 26, 1916. This application filed Aug. 21, 1916. Serial No. 116,044. (Cl. 188—24.)



1. In a car truck brake, brake hangers, a side frame, a brake hanger bracket extending inwardly therefrom, said bracket originating near the lower edge of said side frame and being carried inwardly beneath the truck springs and upwardly toward the truck center and away from the rail, and there being means at the upper extremity of said bracket for the atachment thereto of a brake hanger.

2. In a car truck brake, brake hangers, a side frame, a brake hanger bracket extending inwardly therefrom, said bracket originating near the lower edge of said side frame and being carried horizontally inward and then vertically upward toward the truck center and away from the rail, and there being means at the upper extremity of said bracket for the attachment thereto of a brake hanger.

3. In a car truck brake, brake hangers, a side frame having the customary window opening therein with upper and lower arch members, a brake hanger bracket extending inwardly from the said lower arch member and being carried upwardly away from the rail, and means at the upper extremity of said bracket for the attachment thereto of a brake hanger.

4. In a car truck brake, brake hangers, a side frame, a brake hanger bracket extending inwardly therefrom, said bracket originating near the lower edge of said side frame and being carried inwardly and upwardly toward the truck center and away from the rail and carrying at its upper end a pair of branches which extend in opposite directions longitudinally of the truck, the same being provided at their extremities with means for the attachment thereto of the brake hangers.

5. In a car truck brake, brake hangers, a side frame having the customary window opening therein with upper and lower arch members, a brake hanger bracket extending inwardly from one of the said arch members and being then extended vertically toward the central, horizontal plane of the truck wheels, and a pair of branches extending from the end of the vertical stem of said bracket in opposite directions longitudinally of the truck, the same being provided at their extremities with means for the attachment thereto of the brake hangers.

[Claims 6 to 20 not printed in the Gazette.]

1,241,396. TRUCK SIDE BEARING. BYERS W. KADEL, Roanoke county, Va. Filed Aug. 21, 1916. Serial No. 116,045. (Cl. 105—244.)

1. In a side bearing for car trucks, a truck bolster having a pair of spaced, transverse, load-carrying members having upper and lower flanges, means for supporting the

ends of the same, and means for applying car-body loads thereto between the said supports, a side-bearing bar extending therebetween and supported thereby intermediate the ends of the bolster members and within the load-carrying zones of the same, said bar being supported upon one of said sets of flanges and there being means carried by the other set for guiding and alining the said bar without materially cuting away the metal of either flange.

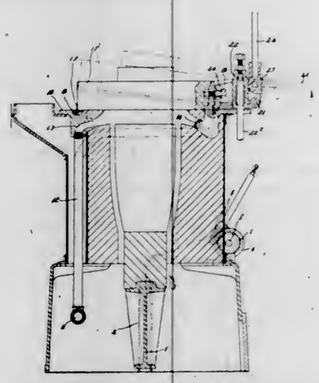


2. In a side bearing for car trucks, a truck bolster having a pair of spaced, transverse, load-carrying members having upper and lower flanges and being yieldable with respect to each other in and out of a horizontal plane, means for supporting the ends of the same, and means for applying car-body loads thereto between the said supports, a side-bearing bar extending therebetween and yieldably supported thereby intermediate the ends of the bolster members and within the load-carrying zones of the same, said bar being supported upon one of the said sets of flanges and guided by the other set without materially cuting away the metal of either flange.

3. In a side bearing for car trucks, a truck bolster having a pair of spaced, transverse members with upper and lower flanges and with open adjacent sides, a side-bearing bar extending therebetween with its ends extending within the open sides of said bolster members, and supported upon the lower flanges thereof, there being coöperating means carried by the other flanges and the ends of the bar for holding the bar in vertical alinement, and a side bearing on the said bar.

4. In a side bearing for car trucks, a truck bolster having a pair of spaced transverse members with upper and lower flanges, and with open adjacent sides, said bolster members being yieldable with respect to each other in and out of a horizontal plane, a side-bearing bar extending therebetween and yieldably supported upon the lower flanges thereof, there being coöperating means carried by the upper flanges and the ends of the bar for holding the bar in its normal position, and a side bearing on the said bar.

1,241,397. CRUCIBLE-FURNACE. GEORGE KEITH, London, England, assignor of one-half to James Keith, London, England. Filed Oct. 23, 1916. Serial No. 127,176. (Cl. 263—14.)

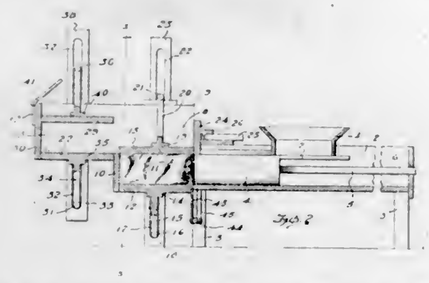


1. In combination, a gas-fired crucible furnace presenting a recess adjacent to the upper end thereof and constituting an initial combustion chamber, and means for introducing combustible mixture tangentially and with a slight upward inclination into said recess and for reflecting downward the heat and combustion products.

2. In combination, a gas-fired crucible furnace having a liner, said furnace presenting a recess adjacent to the upper end thereof and constituting an initial combustion chamber, means for introducing combustible mixture tangentially and with a slight upward inclination into said recess and for reflecting downward the heat and combustion products, a crucible within said furnace, and means for effecting relative vertical movements of said crucible and liner.

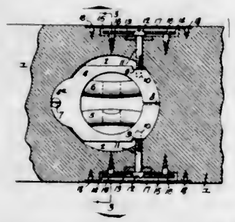
[Claims 3 to 6 not printed in the Gazette.]

1,241,398. BRICK-MACHINE. WILLIAM KESPOHL, Hannibal, Mo. Filed Sept. 29, 1914. Serial No. 864,076. (Cl. 25—85.)



A brick machine comprising a casing having an elongated feeding chamber, a main compressing chamber associated with the feeding chamber, and an auxiliary compressing chamber associated with and located in a plane above the main compressing chamber, a hopper located within the feeding chamber, a plunger reciprocally mounted within the feeding chamber and adapted to move material into the main compressing chamber, a cut off plate formed on the rear end of the plunger and adapted to close the hopper upon forward movement of the plunger, upper and lower compressing pistons located in the main compressing chamber and adapted to receive material therebetween, piston rods upon said pistons, transversely extending members upon said piston rods, hangers carried by said casing and having elongated slots to receive the transverse members, means for raising said members to raise the compressed material in a plane with the auxiliary compressing chamber, a plunger for moving said compressed material into the auxiliary compressing chamber, and upper and lower pistons located within the auxiliary compressing chamber.

1,241,399. LEVEL. ERNEST A. KING, Philadelphia, Pa., assignor to Henry Disston & Sons, Incorporated, Philadelphia, Pa., a Corporation of Pennsylvania. Filed May 2, 1917. Serial No. 165,927. (Cl. 33—214.)

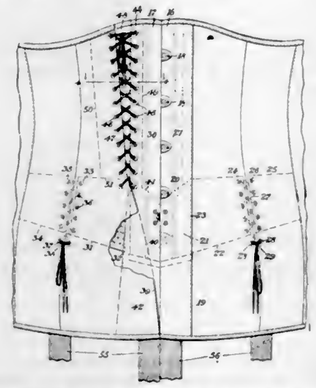


1. The combination in a level, of a body portion having an opening therein; a forked frame mounted in the opening; a glass tube carried by each fork of the frame; and means for independently adjusting each fork of the frame.

7. The combination of a body portion having a shouldered opening therein extending from one side of the body portion to the other; a glazed frame extending into the opening at each side and secured to the body portion; a forked frame resting on the shoulder and secured to the body portion at one side and free to move at the opposite side; an adjusting screw engaging each fork of the frame and extending toward each edge of the body portion; a plate; and a washer mounted in a recess in the edge of the frame and arranged to clamp the head of each screw; and a cover plate for closing the recess.

[Claims 2 to 6 not printed in the Gazette.]

1,241,400. APPAREL-CORSET. DANIEL KOPS, New York, N. Y. Filed May 28, 1917. Serial No. 171,337. (Cl. 2—74.)

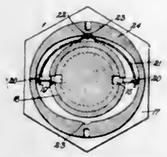


1. An apparel corset comprising a body member, front steels, a lacing device for connecting one front steel to its portion of the body member, a tongue underlying the said lacing device, and means associated with the tongue for determining the extent to which the lacing device must be adjusted to make the parts of the garment symmetrical on both sides thereof.

3. An apparel corset comprising a body member, front steels, a lacing device for connecting one front steel to its portion of the body member, a tongue connected along one edge to a front steel section and along the opposite edge to the body of the garment, and stays secured in said tongue in such a position as to determine the extent to which the lacing device must be adjusted to make the parts of the garment symmetrical on both sides thereof.

[Claims 2 and 4 not printed in the Gazette.]

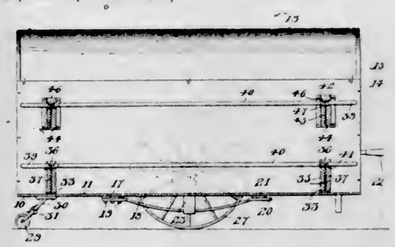
1,241,401. NUT-LOCK. JAROSLAV A. KUSÝ, New York, N. Y. Filed Mar. 20, 1917. Serial No. 156,005. (Cl. 151—5.)



1. The combination of a bolt having a plurality of longitudinally-disposed grooves in the threaded section of said bolt; a nut having a circular groove and passages extending from said groove to the bolt opening of said nut; a plurality of pin-like members mounted in said passages for extension therethrough to engage said grooves in said bolt; resilient supports for said pin-like members for normally holding said pin-like members outwardly extended from engagement with said grooves; a collar surrounding said resilient supports for compressing the same to move said pin-like members toward the center of said nut when said collar is rotated; and means for locking said collar in position to hold said resilient supports under compression.

2. The combination of a bolt having a plurality of longitudinally-disposed grooves in the threaded section of said bolt; a nut having a circular groove and passages extending from said groove to the bolt opening of said nut, a plurality of pin-like members mounted in said passages for extension therethrough to engage said grooves in said bolt; spring supports for said pin-like members for normally holding said pin-like members outwardly extended from engagement with said grooves; a collar surrounding said spring supports for compressing the same to move said pin-like members toward the center of said nut when said collar is rotated; means for locking said collar in position to hold said spring supports under compression; and means for manually releasing said collar for movement of said collar out of the position where said collar controls said spring supports.

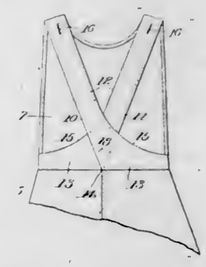
1,241,402. ARMY-AMBULANCE. STANLEY KUTERBACH, Philadelphia, Pa. Filed Nov. 20, 1916. Serial No. 132,408. (Cl. 21—80.)



1. An ambulance comprising a body, supports arranged in different planes within the body, resiliently mounted slats carried by the said supports and formed with transverse stretcher bar receiving grooves, and slidable pivotal connections between corresponding ends of the upper slats and the upper supports adjacent one side of the body.

2. An ambulance comprising a body, a stretcher mount arranged adjacent the bottom of said body, oppositely positioned channeled brackets of U-form in cross section carried by the sides of the body above the said mount and having inwardly projecting feet, springs mounted upon the said feet, slats mounted upon the said springs with their ends slidably arranged within the channels of the said brackets, the said slats having transverse grooves adapted for the reception of stretcher bars and placed apart substantially the width of a stretcher, and slidable pivotal connections between the sides of corresponding ones of the said brackets and the adjacent ends of said slats.

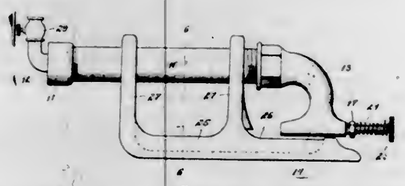
1,241,403. COMBINED STRAP AND WAISTBAND. JOHN LANDERS, Lebanon, N. H., assignor to H. W. Carter & Sons, Lebanon, N. H., a Firm composed of A. H. Carter and H. B. Jackson. Filed May 22, 1917. Serial No. 170,215. (Cl. 2—144.)



1. The herein described combined strap and waist band consisting of two substantially L-shaped pieces of material crossing one over the other and secured together at the junction of the strap and waist band portions.

2. The herein described combined strap and waist band consisting of two substantially L-shaped pieces of material crossing one over the other and secured together at the junction of the strap and waist band portions the inner lines being curved to afford a high back.

1,241,404. OIL-BURNER. ELMER G. LANTZ, Tillamook, Oreg. Filed Dec. 29, 1916. Serial No. 139,602. (Cl. 158—63.)

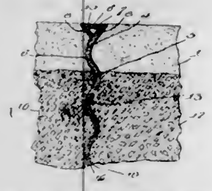


1. A burner of the class described comprising a generating tube, a burner nozzle connected therewith and having an aperture, a tubular bushing threaded into the burner nozzle opposite said aperture, a valve rod slidable through said bushing, a head on the valve rod, the bushing being internally threaded and the head being externally threaded for engagement with the interior threads of the bushing whereby the head is locked against movement, a spring for retracting the head and means for rotating the valve rod to engage or disengage the head from the bushing.

2. A burner of the class described comprising a generating tube, a burner nozzle connected therewith and having a discharge aperture, a tubular bushing threaded into the burner opposite the discharge aperture, a valve rod slidable through the bushing, a head on the valve rod having a cleaning tip adapted to be inserted in said aperture, spring means for retracting the head, the bushing being internally threaded and the head being exteriorly threaded and means for rotating the valve rod to lockingly engage the head with or to disengage the head from the internal threads of the bushing.

3. A burner of the class described, comprising a horizontal generating tube, a burner nozzle connected therewith having a discharge aperture with its axis substantially parallel with the generating tube, a trough like combustion pan, a pair of ears formed on the combustion pan and slidably engaging the generating tube to support the combustion pan, the ear adjacent the nozzle being spaced from the bottom of the pan thus allowing passage of flame to the rear of the pan and the second ear serving to close such end of the combustion pan.

1,241,405. EXPANSION-JOINT FOR CONCRETE SECTIONS. WILLIS E. LEACH, Litchfield, Ohio. Filed Feb. 27, 1917. Serial No. 151,317. (Cl. 94—1.)



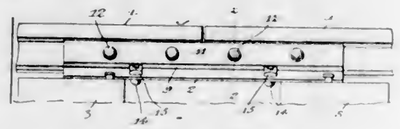
1. A joint for concrete sections comprising two members arranged side by side and fluted throughout the length thereof whereby the depressed portions of one of the members will be arranged in the projected portions of the other member and whereby the ends of the concrete will be received between the flutes in both of the members, and a compressible element between the said members.

2. A joint for concrete sections comprising two connected members arranged side by side, and formed with longitudinal depressions and extensions between the said depressions, the extensions of one of the said members being received in the depressions of the other member and the concrete sections being received between the depressions and projections upon the sides of both of the members, and a compressible element between said members.

3. A joint for concrete sections comprising two connected plates arranged side by side and having longitudinal interengaging projections and depressions throughout the length and width thereof, a compressible element between the sections, adhesive means for securing the said element to the sections, and the abutting ends of the concrete sections being received in the projections and depressions upon the outer faces of the said sections.

4. An expansion joint strip comprising a compressible longitudinally corrugated body portion and a compressible V-shaped head portion, the corrugations of said body being adapted to form mating projections and depressions in the concrete sections of a pavement cast against said strip, whereby the pavement sections will be held against vertical displacement relative to each other.

1,241,406. RAIL-JOINT. MOSES LEONARD, Saginaw, Mich. Filed Nov. 7, 1916. Serial No. 130,049. (Cl. 239—6.)

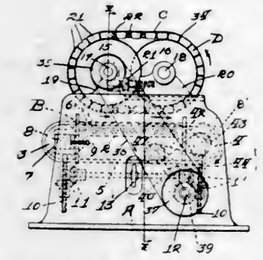


In a rail joint, the combination with the abutting ends of two rails and supporting ties therefor, of a joint chair for the rails, including a base upon which the rails rest and having vertically disposed flanges adjacent the edges thereof and the said edges notched, one of said flanges being arranged at an angle with respect to the central plane of the base and being undercut throughout the length thereof, the opposite flange being vertically straight and the upper surfaces of both of the flanges being inclined to the edges of the plate, openings passing through the upper face of the vertical flange and through the base, a fish plate for each side of the rails, one of said fish plates having its horizontal flange provided with a rib upon its underface that contacts with the straight flange, the said horizontal flange of this fish plate having openings registering with the openings in the base and having notches registering with the notches in the said base, spikes passing through the notches and entering the ties, bolts passing through the openings, nuts for the bolts, the angular flange of the other plate being notched adjacent to the wider portion thereof and the base of the plate having an opening communicating with the notch, the second fish plate having its horizontal flange arranged at an inclination with respect to its vertical flange, the edge of the said horizontal flange being beveled to be received in an undercut angular flange of the base, the edge of the horizontal flange of the fish plate being provided with spaced notches one of which being adapted to register with the notch in the said flange of the base whereby a spike may pass through the said registering notches and enter one of the ties, the vertical flange of the referred to fish plate being provided with spaced openings to register with the bolt openings in the rails and in the vertical flange of the first mentioned fish plate, bolts passing through the registering openings, nuts for the bolts, and the last mentioned fish plate being of a greater length than the base and of a greater length than the first mentioned fish plate.

1,241,407. SANDPAPERING-MACHINE. CARL AXEL LIND, Minneapolis, Minn. Filed Feb. 3, 1916. Serial No. 75,947. (Cl. 51—13.)

1. A sand papering machine, comprising, in combination, a main frame, a table adjustable in elevation upon said frame, a feed belt having a flat side traveling over

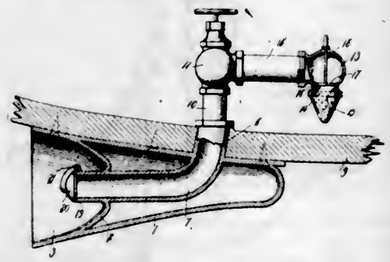
the surface of said table, a supporting belt having a flat side traveling adjacent to the flat side of said feed belt and an endless band of abrasive material carried by said supporting belt, said supporting belt consisting of a series of transverse bars linked freely together, each bar having a convex outer surface and inwardly tapering clearance sides, whereby the abrasive belt is carried without any uneven stretching.



2. A sand papering machine, comprising, in combination, a main frame, a table adjustably supported in elevation upon said frame, a feed belt having a flat side traveling over the surface of said table, a series of antifriction rollers on said table over which the flat side of said belt travels, a supporting belt having a flat side traveling adjacent to the flat side of said feed belt and an endless band of abrasive material carried by said supporting belt, said supporting belt consisting of a series of transverse bars linked freely together, each bar having clearance surfaces, whereby the abrasive belt is carried without any uneven stretching.

3. A sand papering machine, comprising, in combination, a main frame, a table adjustably supported in elevation upon said frame, a feed belt movably mounted upon said table and having a flat side traveling over the surface of said table, means operative from a single hand device for raising and lowering said table, a supporting belt having a flat side adjacent to the flat side of said feed belt, an endless band of abrasive material carried by said supporting belt, means for driving said belts with their adjacent sides in the same direction and at different speeds, said supporting belt consisting of a series of transverse bars freely linked together, each bar having a convex outer surface and each pair of adjacent bars having adjacent side clearance surfaces, whereby the abrasive belt is carried by said supporting belt without any uneven stretching.

1,241,408. BAILING-VALVE. FRANCISCO ADOLFO LIZARRAGA, Corozal, British Honduras. Filed Dec. 22, 1916. Serial No. 138,521. (Cl. 114—185.)



8. A bailing valve comprising a shield made of substantially truncated cone shape and open at the larger end with a substantially cupped shape formation within this open end, said shield being shaped to be secured exteriorly on the hull of a vessel with the open end thereof disposed from the direction of travel of the vessel, a suction pipe extending from the cupped end of the shield to the interior of the hull of the vessel, extension pipes leading from the inner end of the suction pipe, a valve casing mounted on the open end of the extension and provided with an intake opening, a check valve mounted on that end of the suction pipe within the cupped formation of the shield to stop flow through said pipe into the vessel, a check valve mounted in the valve casing over the intake opening to form a second stop against the inflow of water, said check valves adapted to be opened by suction created through the suction pipe, and a manually operable valve connected in said suction pipe to close the same.

[Claims 1 to 7 not printed in the Gazette.]

1,241,409. PROJECTILE. FRANCISCO ADOLFO LIZARRAGA, Corozal, British Honduras. Filed Dec. 22, 1916. Serial No. 138,522. (Cl. 102—26.)



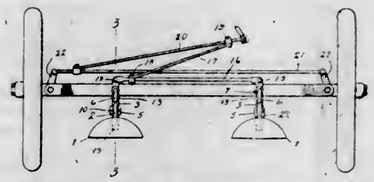
1. A projectile having notches formed therein for passage of air in the flight of the projectile, which notches are shaped to have one of the sides thereof extend substantially parallel with the axis of the projectile and with the remaining side given a helicoidal curve.

6. A projectile having the rear end thereof notched to permit passage of air rearwardly on and within the outline of the same during flight, and a disk shaped to be fitted against the rear end of the projectile to receive impelling force and to bear against and move the projectile.

9. A projectile of elongated form adapted for use in conjunction with the gun having the barrel thereof rifled, said projectile having the body portion thereof notched to partake of a helicoidal curve to follow the pitch of the rifling of the barrel, and a disk shaped to be fitted against the rear end of the projectile to receive impelling force and to bear against and move the projectile.

[Claims 2 to 5, 7, and 8 not printed in the Gazette.]

1,241,410. DIRIGIBLE HEADLIGHT. HARRY DENOON MCLEAN and CHARLES WARING, Olds, Alberta, Canada. Filed May 29, 1917. Serial No. 171,796. (Cl. 240—62.)



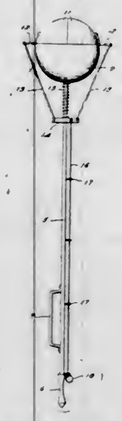
1. A dirigible headlamp structure comprising, in combination, a pair of head-lamps, lamp carrying posts mounted to turn on substantially vertical axes, bearing cages for said posts, a lamp supporting bracket for each bearing cage, a lamp supporting arm extending rearwardly from each post, a lamp arm extending upwardly from said lamp supporting arm and curving forwardly over said bearing cage and having the respective lamp attached thereto, a lamp turning arm extending forwardly from said post, recurved and extended rearwardly under said bearing cage, a lamp arm connecting rod having both lamp arms attached thereto, and a coupling rod having one end attached to said lamp arm connecting rod and having its other end connected to the coupling rod of the steering gear of the vehicle.

[Claim 2 not printed in the Gazette.]

1,241,411. FRUIT-PICKER. BRYAN MCNEILL, Wattensaw, Ark. Filed Mar. 11, 1916. Serial No. 83,543. Renewed July 30, 1917. Serial No. 183,647. (Cl. 56—99.)

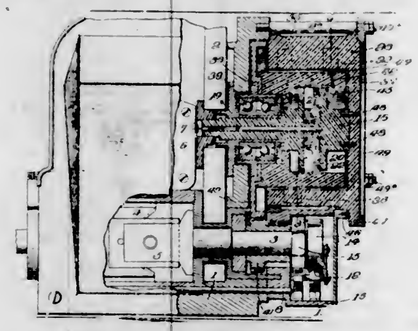
In a fruit picker, the combination of a hollow body open at its upper end, a staff secured to the lower end of

said body for supporting it, a pair of cover sections hinged at diametrically opposite points to the upper edge of said body, an arm projecting outwardly from each cover section at the hinged end thereof, a cross arm slidable on said staff beneath the body, a spring connecting the cross arm to the body to urge the cross arm upwardly toward



the body, two links, each pivotally connected at its opposite ends to one end of said cross arm and one of said outwardly extending arms to swing the sections into open and closed position upon sliding movement of the cross arm upon the staff, and a pull wire rigidly connected at one end of the cross arm and slidably mounted on the staff for facilitating the operation of the cross arm.

1,241,412. ROCKING DISTRIBUTER FOR IGNITION SYSTEMS. CHARLES THOMAS MASON, Sumter, S. C. Filed Nov. 16, 1916. Serial No. 131,729. (Cl. 123—168.)



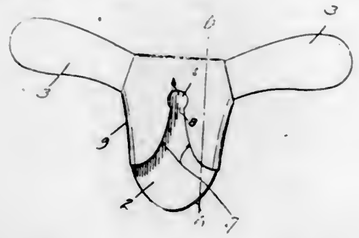
1. An ignition system including in combination, a source of current, a circuit breaker, a distributer having a casing and a movable member therein mounted independently of the circuit breaker, and means for simultaneously shifting the circuit breaker and said casing relative to said movable member for timing purposes.

2. An ignition system including in combination, a source of current, a circuit breaker, a distributer mounted independently of the circuit breaker, means for shifting the circuit breaker for timing purposes, and for simultaneously shifting the distributer in an opposite direction through a corresponding angle.

3. An ignition system including in combination, a rotor shaft, a cam carried thereby, a circuit breaker operated by said cam, means for shifting said circuit breaker about the cam for timing purposes, a distributer operated at a different speed from said cam, and means for shifting said distributer simultaneously with the circuit breaker.

[Claims 4 to 6 not printed in the Gazette.]

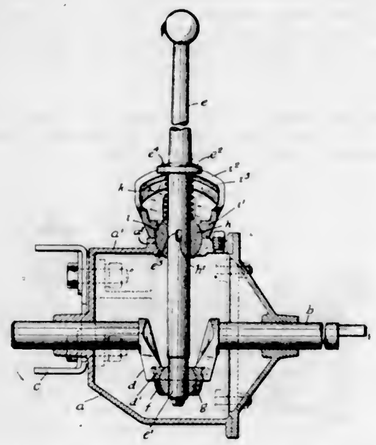
1,241,413. NECKTIE-FORM. GARRETT C. MASON, Dos Palos, Cal. Filed Apr. 3, 1916. Serial No. 88,599. (Cl. 2—84.)



1. A necktie form comprising a concavo-convex front plate provided with laterally extended curved wings shaped to be passed beneath a collar, and an oppositely curved concavo-convex rear plate integrally connected with the front plate at the top and side edges, said rear plate having a button engaging slot.

2. A necktie form comprising a sheet metal plate folded to provide front and rear plates, said plates being of concavo-convex form and of opposite curvature, the side edges of one of said plates being folded over the contiguous edges of the other plate, the front plate having laterally extended curved wings shaped to be passed beneath a collar, the rear plate having a button-engaging slot.

1,241,414. GEAR-SHIFTING MECHANISM. ALFRED F. MASURY and ALEXANDER GRISWOLD HERRESHOFF, New York, N. Y., assignors to International Motor Company, New York, N. Y., a Corporation of Delaware. Filed May 10, 1917. Serial No. 167,716. (Cl. 74—39.)

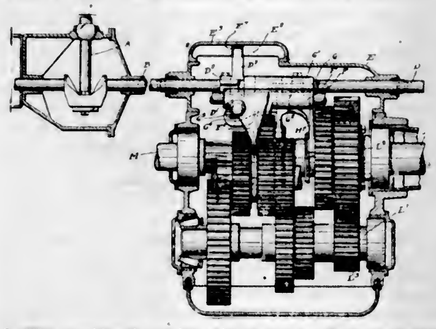


1. In gear shifting mechanism, a shifting lever having a universal movement and movable laterally into two extreme positions, a housing in which the lever is supported and coöperating abutments on the lever and the housing to hold the lever normally against lateral movement beyond such two positions, said lever being slidable axially to disaline said abutments.

5. In a gear shifting mechanism in combination with a rock shaft, a shifting lever connected flexibly thereto and movable laterally into two extreme positions for four forward speeds, a universal bearing in which the lever is slidably mounted, a slot and stud connection between the lever and the bearing to limit the axial movement of the lever, coöperating abutments on the lever and the housing to hold the lever against lateral movement beyond such two positions and a spring to maintain the abutments yieldingly in alinement, said lever being capable of depression manually against the action of the spring to disaline the abutments for movement into reverse position.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,241,415. FOUR-SPEED TRANSMISSION. ALFRED F. MASURY and ALEXANDER GRISWOLD HERRESHOFF, New York, N. Y., assignors to International Motor Company, New York, N. Y., a Corporation of Delaware. Filed June 5, 1917. Serial No. 172,857. (Cl. 74—58.)



1. The combination with sliding gears, of gear shifting mechanism comprising a slidable rock shaft, independent shafts, shifter forks slidably mounted on said last named shafts respectively and engaging the sliding gears respectively, devices carried on the rock shaft and adapted to be engaged with one or another of the shifter forks to connect the rock shaft operatively with one of the forks, means to operate the rock shaft and a lock on the rock shaft to hold one of said forks from movement when any one of the remaining forks is to be shifted.

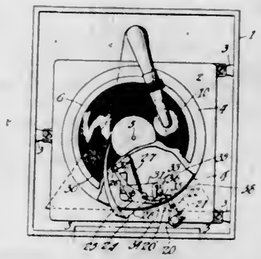
3. The combination with sliding gears and the casing therefor, of gear shifting mechanism comprising a slidable rock shaft journaled in said casing, independent shafts mounted in the end walls of the casing and extending parallel with the rock shaft and disposed respectively on opposite sides thereof, shifter forks slidably mounted on said last named shafts respectively and engaging the sliding gears respectively, a finger fixed on the rock shaft, ears carried on the shifter forks and adapted to be engaged by the finger when the rock shaft is oscillated, locking device carried by certain of the shifter forks to hold such forks against sliding movement, said devices being released automatically by movement of the finger into operative relation with said ears, means to operate the rock shaft, and a separate lock for one of the shifter forks on the rock shaft, the operative relation of which to its fork is determined by the angular position of the rock shaft.

5. The combination with sliding gears, of gear shifting mechanism for four, speeds forward and reverse, comprising a slidable rock shaft, independent shafts, three shifter forks slidably mounted on said last named shafts respectively and engaging the sliding gears respectively, devices carried on the rock shaft and adapted to be engaged with one or another of the shifter forks to connect the rock shaft operatively with one of the forks, said rock shaft being movable into three angular positions to engage operatively one of said forks in each such position and means to operate the rock shaft.

8. In gear shifting mechanism, a slidable rock shaft adapted to be engaged operatively with said gears and movable into three angular positions for operative engagement with gears for different combinations, a finger carried on the rock shaft and spaced ribs with which the finger coöperates to guide the rock shaft in its sliding movement in each one of its three angular positions, said ribs being provided with a transverse slot therethrough for movement of the finger when the shaft is rocked.

[Claims 2, 4, 6, 7, and 9 not printed in the Gazette.]

1,241,416. STOP MECHANISM. WALTER H. MILLER, Orange, N. J. Filed July 6, 1916. Serial No. 107,724. (Cl. 74—46.)



1. The combination with a rotatable member and a second member movable relatively to each other, braking means for said rotatable member, automatic means for effecting the operation of said braking means during the relative movement of said members, and unitary means for rendering said braking means inoperative and for controlling the relative position between said members at which said automatic means is rendered operative, substantially as described.

2. The combination of a rotatable member, a traveling member movable relatively thereto, braking means for said rotatable member, means for holding said braking means in inoperative position, means for automatically releasing said braking means from said holding means during the movement of said traveling member, and unitary means for rendering said holding means operative and for varying the position of said traveling member at which said releasing means is rendered operative, substantially as described.

3. The combination of a rotatable member, a traveling member movable relatively thereto, braking means for said rotatable member, latching means for holding said braking means in inoperative position, means for automatically releasing said latching means when said traveling member has reached a predetermined position in its movement, and unitary means for setting said latching means and for controlling the position of said traveling member at which said releasing means is rendered operative, substantially as described.

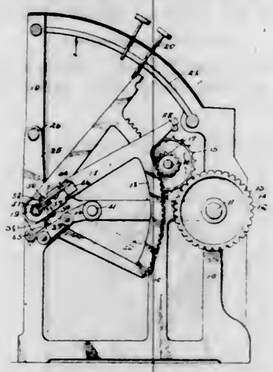
[Claims 4 to 15 not printed in the Gazette.]

1,241,417. LAUNDRY-MARKING MACHINE. CLARENCE C. MITCHELL, Cincinnati, Ohio, assignor to The National Marking Machine Company, Cincinnati, Ohio. Filed Apr. 21, 1916. Serial No. 92,683. (Cl. 101—95.)

1. In a machine of the class described, the combination of a series of sectors adapted to operate type wheel devices, a rack bar capable of movement successively to the several sectors, said rack bar also being capable of a rocking movement, means carried by the rack bar for successive engagement with the several sectors for moving them for the purpose of operating the corresponding type wheels, a handle, a pawl device operated by the handle for advancing the rack bar, and means also operated by the same handle for rocking the rack bar.

12. In a machine of the character described, the combination of a series of sectors adapted to operate type

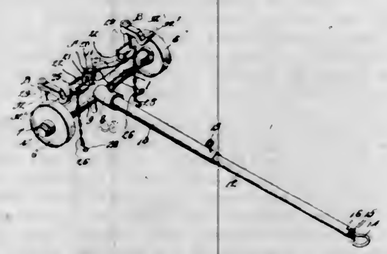
wheel devices, a hollow shaft adapted to have the sectors rotatably mounted thereon, and provided with a slot adjacent to the sectors, a rack bar slidably received within the hollow shaft, a lug secured to the end of the rack bar and adapted to project through said slot to selectively engage each of the sectors, a spring adapted to yieldingly hold the rack bar at one limit of its motion, a pawl device adapted to move the rack bar step by step toward



the other limit of its motion, a hub mounted on the hollow shaft, having a cam formed thereon, a crank adapted to operate said hub, and a slide bar operated from the cam and operatively connected with the pawl, whereby movement of the hub may release the pawls to permit the rack bar to be returned to the limit of its movement by the spring.

[Claims 2 to 11 not printed in the Gazette.]

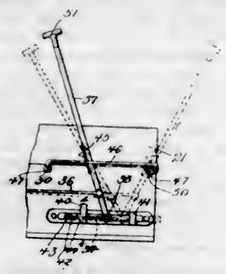
1,241,418. AUTOMOBILE-AMBULANCE. IRA S. MOSHER, Chicago, Ill. Filed Nov. 25, 1916. Serial No. 133,462. (Cl. 21—120.)



In a wrecking truck, an axle housing, a draft pole or tongue detachably connected thereto, a rotatable axle extending through said housing and projecting beyond the ends thereof, carrying wheels journaled on the projecting ends of said axle, a tubular socket located mid-way between the ends of said housing and formed integrally therewith, other sockets formed integrally with said housing and located equi-distantly at opposite sides of the first named socket, and a plurality of axle supporting members detachably and adjustably mounted in said sockets, each of said supporting members comprising a post slidably fitted in the respective socket, and a vehicle axle supporting saddle carried by each post and located in advance of the truck axle.

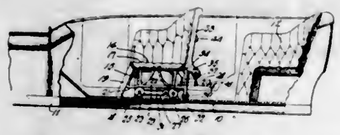
1,241,419. WAGON-BRAKE LEVER. WILBUR MOSSMAN, Oreana, Idaho. Filed Nov. 18, 1916. Serial No. 132,174. (Cl. 21—10.)

A brake lever, a notched slide on which the lever is fulcrumed, a base plate having keepers in which said slide is supported, one of said keepers being of dimensions to permit swinging movement of one end of the slide, and a pin



connecting said keeper with the base plate for engagement with the notched slide.

1,241,420. AUTOMOBILE-COUCH. MICHAEL D. MURRAY, Ambridge, Pa. Filed Feb. 16, 1916. Serial No. 78,651. (Cl. 21—43.)



1. A couch seat, comprising a frame, a stationary seat section carried thereby, two movable extension seat sections carried thereby, a tooth segment connected to each extension seat section, two shafts journaled in the frame and mounted for simultaneous movement, gears mounted upon the shafts and operably connected to the segments, and means for operating the shafts to extend or collapse the extension seat sections.

2. A couch seat, comprising a frame, a stationary section carried thereby, two extension seat sections hingedly connected thereto, a slidable frame mounted within the frame, and mechanism interposed between the slidable frame and the extension seat sections, whereby as the slidable frame is moved the extension seat sections are moved simultaneously.

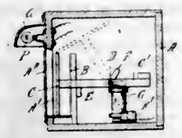
3. A couch seat, comprising a stationary frame, a slidable frame mounted therein, two hinged seat sections, a stationary seat section carried by the stationary frame and intermediate of the two hinged seat sections, two shafts journaled in the stationary frame, and means connecting the shafts together and to the two extension seat sections and the slidable frame, whereby as the frame is slid the extension seat sections are extended or collapsed.

4. A couch seat, comprising a stationary frame, a fixed seat section carried thereby, two hinged extension seat sections connected to the stationary frame for coöperation with the fixed section, a sliding frame mounted in the stationary frame, two shafts operably connected together and journaled in the stationary frame, means operably connecting each extension seat section to its shaft, and means connecting the sliding frame to one of the shafts, whereby as the sliding frame is operated the extension seat sections are simultaneously moved.

5. A couch seat including a main frame, a stationary seat section carried thereby, movable sections pivoted to the front and rear edges of the stationary seat section, actuating means mounted in the frame for extending the movable sections, a sliding frame mounted in the main frame for operating the actuating means so as to extend the movable sections simultaneously with outward movement of the sliding frame, and another section serving as a back for the stationary seat section pivotally and adjustably connected to the sliding frame.

[Claims 6 and 7 not printed in the Gazette.]

1,241,421. SAFETY-SIGNAL FOR POWER-VEHICLES. WILLIAM MURRAY, Brooklyn, N. Y., assignor of one-half to James H. Murphy, Bayonne, N. J. Filed June 8, 1916. Serial No. 102,386. (Cl. 40—52.)

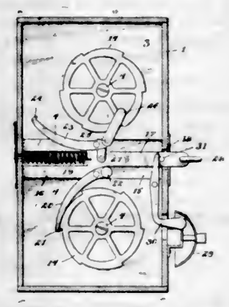


2. A signal, particularly for power vehicles, provided with a swinging member movable from an active position to an inactive position, a slide movable in a direction parallel to the axis about which said member swings, and adapted to lock said member, and means for effecting movement of said slide and of said swinging member.

4. A signal, particularly for power vehicles, provided with a member movable from an active position to an inactive position, a pivoted arm extending from said member to and beyond the axis on which said member swings with said arm, a device for engaging and locking said arm on the side of the said axis opposite to said member, said device being of magnetic material, an armature connected with said member, an electro-magnet located in attracting relation to said armature and to said locking device, a circuit-closer in operative relation to said swinging parts, and a circuit associated with said circuit-closer and including means for calling attention to the signal when said swinging member reaches its signaling position.

[Claims 1 and 3 not printed in the Gazette.]

1,241,422. STREET OR STATION INDICATOR. GEORGE A. MYERS, Kalamazoo, Mich. Filed Apr. 3, 1916. Serial No. 88,544. (Cl. 40—87.)

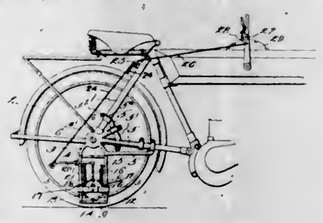


1. In an indicator of the class described, the combination with a transverse strip having an upright face, drums near the upper and lower edges of said strip, and a casing inclosing said elements and having a sight opening forward of the strip, bearings for the shafts of said drums, and slotted bearings inclined respectively toward those for said shafts; of weighted drums whose trunnions are mounted in said slotted bearings so that both these drums normally gravitate into contact with the others, a web wound on the drums and passing over the first-named drums and across the face of said strip, the web being provided with equally spaced indications on its front face, and means for selectively turning either of the first-named drums to draw the web across said strip in steps corresponding with the spacing of its indications.

2. In an indicator of the class described, the combination with superposed drums having ratchet wheels fast on their shafts, a casing in which the latter are journaled and having an opening between the drums and a guideway opposite said opening, and a web movable over the drums and past said opening and bearing indications at spaced points on its face; of a manually operable block slidably mounted in said guideway, levers pivoted between their ends to said block and each having a dog on its long arm for engaging one of said ratchet wheels, a weight on the short arm of the upper lever whereby its dog is held normally in said engagement, the dog of the lower lever being held normally in such engagement by its own gravity, and a cam pivoted to the block between the short arms of the levers and adapted to be turned into contact with either so as to hold its dog out of engagement with the ratchet wheel, for the purpose set forth.

3. In a device of the class described, the combination with rotary elements mounted one above the other and having ratchet wheels on their shafts, a manually reciprocable member mounted to move between said elements on a line at right angles to a line through their axes, and levers pivoted between their ends to said member and each having a boss on its short arm and a dog on its long arm to engage the teeth of one of the ratchet wheels; of a weighted arm connected to the boss of the upper lever to hold its dog normally in such engagement, the dog of the lower lever maintaining such engagement by its own gravity, and a cam movably mounted on said member between the bosses and capable of being set into contact with either so as to swing its dog out of such engagement, while permitting the dog of the other lever to maintain such engagement, for the purpose set forth.

1,241,423. MOTOR-CYCLE ATTACHMENT. CECIL MYRIE, St. Andrew, Jamaica. Filed June 1, 1917. Serial No. 172,261. (Cl. 208—84.)



1. In combination with a motor-cycle, of frame members secured to the opposite sides thereof and including parallel depending arms, an elliptical member connecting the arms at the ends thereof, a slidable member between the arms of each frame and having bearings engaging with the said arms, spring means for normally moving the slidable members upward of the respective frames, buffer members for the slidable members, wheel members carried by the slidable members designed when the slidable members are moved downwardly of the respective frames to project through the elliptical ends of the said frames and contacting with the ground with which the driving wheel of the motor-cycle engages, a pivoted lever for each of the frames and connected one with each of the slidable members, a flexible connection for each of the levers, guide means for the flexible members, a strand connecting the flexible members, and operating mechanism connected with the strand and arranged in close proximity to the driver's seat.

[Claim 2 not printed in the Gazette.]

1,241,424. SUPPORT FOR WINDOW-WASHERS. KIYOHIKO NAMBU, Seattle, Wash. Filed Oct. 12, 1916. Serial No. 125,258. (Cl. 20—87.)

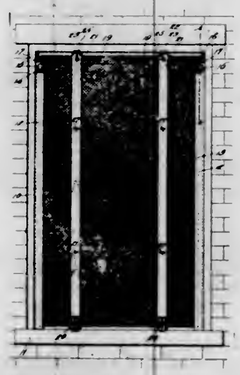
1. A window-bracket comprising a cross-bar for engagement with the stiles of a casing, a pair of arms each comprising a frame within which said bar is slidably embraced, screws at one end of the frame to adjust the bar against the casing, downwardly extending lugs on the lower side of the frames carrying screws to abut the sill-plate, and a seat attached to said frames.

2. A window-bracket comprising a cross-bar to bear against the inner stiles of a casing, and frames in which said bar is mounted, comprising each an upper and a lower element, a perpendicular connection at the inner



end thereof, set screws in said connections to adjust the bar, a brace at the outer end of each frame, a downwardly extending lug on each frame having a set screw to engage the sill-plate and a seat connecting the frames.

1,241,425. WINDOW-SCREEN. MARTIN OSCAR NELSON, Brooklyn, N. Y. Filed Apr. 13, 1917. Serial No. 161,831. (Cl. 156—39.)



1. In combination with a window casing, channel members upon the sides thereof, a spring pressed roller at the top and journaled in bearings, a screen wound around said roller and adapted to have its edges received in the channel members, vertically disposed guide plates upon the sill arranged in pairs for receiving the screen therebetween, and means for adjustably securing the screen between the plates.

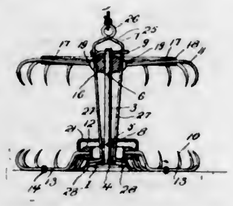
2. In combination with a window casing, channel members secured to the sides thereof, a spring actuated roller journaled in bearings at the top of the casing, a screen wound around said rollers and adapted to have its edges received in U-shaped members, an adjustable guide bar for the screen at the top of the casing, vertically disposed guide plates for the screen each comprising an inner and an outer member, means for removably securing the outer member to the casing, and means for removably securing the inner member to the outer member, and said means adapted to engage with the screen.

3. In combination with a window casing, vertically disposed U-shaped members to the sides thereof, a horizontally disposed spring actuated roller journaled in bearings at the top of the casing, a screen wound around the roller, an adjustable bar for the screen between the roller and the U-shaped members, a housing for the roller and guide bar, vertically disposed guide plates adapted to receive the screen therebetween when the screen is moved over the casing and the edges thereof arranged in the U-shaped members, toothed elements upon the guide plates, one of said elements being adjustable, and means for retaining the said element adjusted, binding elements between the spaced pairs of plates, whereby to removably connect the inner to the outer plates, the screen having openings provided with reinforcements, the said binding elements adapted to pass through the reinforced openings to secure the screen between the guide plates.

5. In combination with a window casing, channel members upon the confronting sides thereof, a spring actuated roller journaled upon the sides of the casing, a screen wound around said roller, a guide roller for the screen, means associated with the guide roller and operative to move the said roller toward the horizontal member of the casing, and means for co-engaging with the screen for securing the said screen against the influence of the spring actuated roller.

[Claim 4 not printed in the Gazette.]

1,241,426. SHELL-FISH TRAP. OSCAR NELSON, Long Beach, Cal. Filed May 25, 1917. Serial No. 170,806. (Cl. 43—21.)



2. A convertible set trap and snag comprising a standard, upper and lower members arranged for vertical movement on the standard, means to lock either of said members against and release the other for such movement, a trigger carried by the lower member, a yoke controlled by the trigger to initially hold the upper member in raised position when the device is used as a set trap, said yoke also serving for the attachment of a line thereto to enable the lower member to be drawn upward and closed toward the upper member when the device is used as a snag.

[Claims 1 and 3 not printed in the Gazette.]

1,241,427. NEEDLE-THREADER. MARTIN NIELSEN, East Seattle, Wash. Filed Dec. 28, 1916. Serial No. 139,231. (Cl. 223—36.)



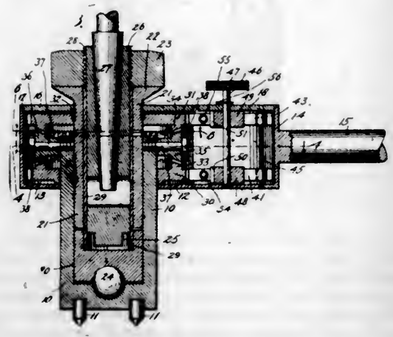
1. A needle threader comprising, a magnifying glass, a suitable holder for the glass to protect its surface from injury, and a foldable member secured to the holder adapted to present a socket for a needle in a line lying in the focal plane of the magnifying glass.

[Claims 2 and 3 not printed in the Gazette.]

1,241,428. RATCHET-DRILL. CHARLES G. W. NITZ, Wauwatosa, Wis. Filed Jan. 17, 1917. Serial No. 142,908. (Cl. 77—48.)

1. The combination in a ratchet drill, of a chuck, a ratchet wheel keyed to said chuck, a second ratchet wheel concentric with the first ratchet and rotatable freely about said chuck, gearing between said ratchet wheels for causing their rotation in opposite directions, an operating handle adapted to rotate about said chuck, two pairs of pawls carried by said handle, each pair adapted to coöperate with one of said ratchet wheels, and rotating means carried by said handle for moving said pawls into and out of engagement with the ratchet wheels.

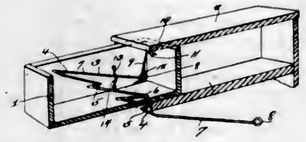
4. The combination in a ratchet drill, of a socket, a chuck mounted to rotate freely within said socket, means for moving said chuck longitudinally as desired, a ratchet wheel keyed to said chuck for rotating the same, a second ratchet wheel concentric with the first ratchet wheel and rotatable freely about said chuck, a gear ring on each of said ratchet wheels, a pinion meshing with said gear



rings for causing opposite rotation of said ratchet wheels, bearing pins projecting from said socket for rotatably supporting said pinions, a pair of pawls movable into engagement with each ratchet wheel for causing rotation thereof, and a rotatable shifting device between each pair of pawls for optionally engaging one or the other with said ratchet wheel to vary the movement of the chuck.

[Claims 2, 3, and 5 to 7 not printed in the Gazette.]

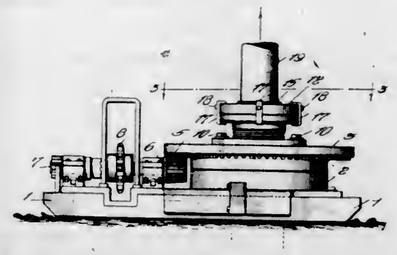
1,241,429. PAPER-LIFT FOR DRAWERS AND THE LIKE. REGNAR NORTVIG, Askov, Minn. Filed May 3, 1916. Serial No. 95,122. (Cl. 45—2.)



A paper lift for a drawer or the like, comprising an arched member constructed from a single length of wire and provided with correspondingly oppositely arranged arms, means for pivoting said arms to the opposite sides of the drawer, spring means for holding the lift normally against the bottom of the drawer, the arched or transverse part of the lift extending transversely on the bottom of the drawer and under the papers, letters or the like, one of the arms having an extension beyond its pivot terminating in a lateral part, a pin carried by the casing of the drawer to be engaged by the lateral part to automatically elevate the lift as the drawer is withdrawn, and means upon the side of the drawer to be engaged by one of the arms to hold the paper lift in an elevated position while the drawer is open, said means comprising, an arched member attached to the side of the drawer and having a projection over which an arm of the lift cams.

1,241,430. PIPE-PULLING DEVICE. WILLIAM R. OSBORNE, Electra, Tex. Filed June 11, 1917. Serial No. 173,970. (Cl. 29—88.2.)

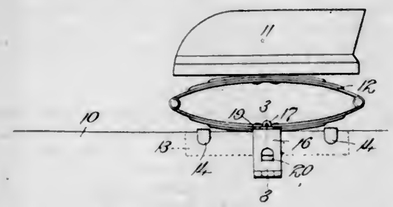
1. A pipe pulling device comprising a sleeve threaded on its exterior portion and having a head at its upper end, a nut arranged to engage a sleeve, a table having an opening arranged to receive a portion of the nut, means for securing the nut to the table, means for rotating the table to cause the rotation of the nut, a collar arranged to surround the pipe, anti-friction bearings between said collar and said head, wedges between said collar and said pipe,



and means carried by the collar for holding the collar in position with respect to the head, if the pipe should break.

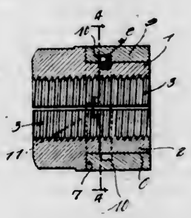
[Claim 2 not printed in the Gazette.]

1,241,431. WAGON-SEAT LOCK. WILLIAM W. PARKER, Edgerton, Alberta, Canada. Filed Dec. 4, 1916. Serial No. 135,042. (Cl. 21—41.)



In a seat locking device, the combination with the side of a wagon box and the spring supporting strip of the seat thereof, of an inverted U-shaped member secured at one end to the strip and straddling the side of the wagon box, the outer portion of said member being formed with an opening, the side of the wagon box being formed with an opening registering with the first-named opening, a member hinged to the said outer portion and having a tongue engaging through said openings, and a member hinged to the upper end of the inner portion of the U-shaped member for interlocking engagement with the first-named hinged member.

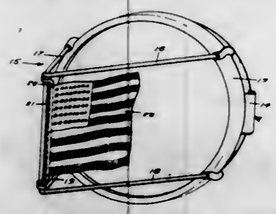
1,241,432. SPLIT NUT. HARRY CLASE PELTZ, Lansford, Pa. Filed Nov. 20, 1916. Serial No. 132,386. (Cl. 85—32.)



1. A split nut comprising a plurality of segmental sections threaded internally for engagement with threads on a bolt, an external projection on one of said sections, and a sleeve surrounding said sections to hold them in operative relation, said sleeve having an internal circumferentially extending groove receiving said projection, and a passage leading from said groove through one end of said sleeve.

[Claim 2 not printed in the Gazette.]

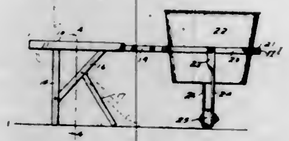
1,241,433. HEADLIGHT FLAG-SUPPORTING DEVICE. CLIFFORD P. PENTONEY, Pasadena, Cal. Filed June 4, 1917. Serial No. 172,630. (Cl. 116—12.)



1. A flag support comprising a vertically disposed flag supporting staff, arms extending from said staff, and means whereby said arms may engage a headlight in a manner to support the staff vertically and a distance in front of the headlight.

2. A flag support comprising a pair of vertical supporting members between which the fabric of a flag may be placed and around one of which the flag may be secured, semi-rigid supporting arms extending from the top and bottom of said supporting members, the arms being formed with bent end portions adapted to conform to the sectional contour of the rim of a headlight, and rubber coverings, positioned over said bent end portions whereby the arms may engage the lamp rim and will support the flag supporting members therebefore.

1,241,434. COMBINATION MOVABLE SEAT AND SUPPORT. CHARLES J. PERKINS, Des Moines, Iowa. Filed Dec. 27, 1915. Serial No. 68,885. (Cl. 31—13.)

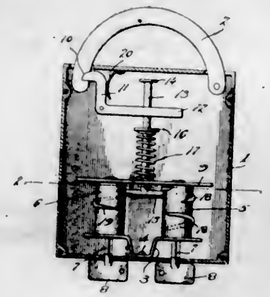


1. In a milking stool, a bail adapted to hold the pail, a seat member, means for rigidly supporting the bail and seat member spaced from each other and substantially in horizontal alinement, a plate pivotally mounted beneath the seat member, a pair of spaced vertical legs extending downwardly from the plate, and a downwardly extending inclined leg having its upper end pivotally mounted relative to the plate.

2. In a device of the class described, a bail, a seat member, means for supporting the seat member and bail in substantial horizontal alinement and spaced from each other, a plate below the seat member, a pivot pin extended through the center of the seat member and the plate, a pair of vertical legs extended downwardly from the plate from points on the opposite side of the pivot pin from the bail, a downwardly extending inclined leg having its upper end pivotally mounted relative to the plate whereby said last described leg may reciprocate in a vertical plane, which would pass through the centers of the seat member and the bail, and a supporting wheel secured to the bail with its axis substantially parallel with a radial line from the pivotal point.

1,241,435. PERMUTATION-PADLOCK. CHARLIE W. PETERSON, Grayson, Nebr. Filed Mar. 27, 1917. Serial No. 157,796. (Cl. 70—112.)

1. A lock comprising a casing having barrels mounted therein, the barrels being arranged in spaced relation and provided with helical threads extending partially around the cylinder, operating means disposed within the casing and associated with the said cylinders whereby engagement with the said helical threads will operate the said operating means when the barrels are rotated, a shackle, and a latch associated with the operating means and engageable with the said shackle.



2. A lock comprising a casing provided on its interior with a pair of spaced apart barrels, means exteriorly mounted for rotating the barrels, an operating rod having a connecting rod, the terminals of which engage the proximate surfaces of the barrel, and means mounted on the barrels and engageable with the ends of the said connecting rod for longitudinally moving the said rod when the barrels are rotated by the said means.

3. A lock comprising a casing having a latch pivotally mounted therein, a shackle engageable with the latch for holding the shackle in locked position, an operating rod, a pair of barrels rotatably mounted and arranged in spaced relation, a connecting rod carried by the operating rod and engageable with the proximate surfaces of the barrels, one of said barrels having a pair of helical threads, the other barrel having a single helical thread, and means for rotating the barrels whereby engagement of the said threads with the said connecting rod will move the latter longitudinally for releasing the said latch.

4. A lock comprising a casing having a shackle mounted thereon and provided with a latch pivotally mounted to engage the shackle, a bracket mounted in the casing, a pair of barrels rotatably mounted on the bracket and provided with helical threads extending partially around each barrel to provide spaces between the terminals of the threads, an operating rod engageable with the latch, and a connecting rod carried by the operating rod and coöperating with the said threads to move the operating rod when the said barrels are rotated.

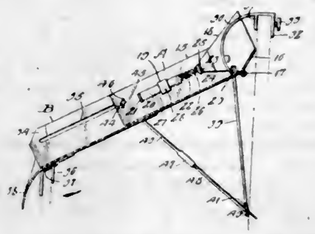
5. A lock comprising a casing having a shackle mounted thereon and provided with a latch pivotally mounted to engage the shackle, a bracket mounted in the casing, a pair of barrels rotatably mounted on the bracket and provided with helical threads extending partially around each barrel to provide spaces between the terminals of the threads, an operating rod engageable with the latch, a connecting rod carried by the operating rod and cooperating with the said threads to move the operating rod when the said barrels are rotated, and an expansible element mounted on the operating rod for moving the latter back to normal position after the said connecting rod has been released from engagement with the threads.

1,241,436. LOADING AND UNLOADING CHUTE. CLARENCE PETERSON, Elm Springs, S. D. Filed Apr. 17, 1917. Serial No. 162,741. (Cl. 193—34.)

1. In a device of the class described, a member consisting of a plate having upstanding flanges at the sides thereof, a wing hinged at one end of said plate, and pivotal hooks overhanging the wing and having terminal clamps provided with set screws.

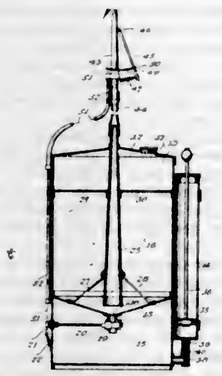
2. In a device of the class described, a member having upstanding flanges at the sides thereof, a wing hinged at one end of said member, pivotally supported hooks overhanging the wing and having terminal clamps provided with tightening screws, a transverse rod on which the pivoted hooks are supported, said rod extending through

and beyond the upstanding flanges, brace members having eyes at one end engaging said rod, and other eyes at their opposite ends, a second member having upstanding slotted flanges between which the first member is guided, said second member being provided at its lower edge with a flexible apron and with U-shaped clamps, and extension braces comprising upper members provided at their upper



ends with fingers extending through the flanges of the two members engaging the slots in the flanges of the second member and provided at their lower ends with slots having set screws, and extension members adjustable in said slots and provided at their lower ends with prongs engaging the eyes at the lower ends of the first mentioned brace members.

1,241,437. DEVICE FOR SPRAYING POWDER AND LIQUID. JOHN DAL PIAN, Detroit, Mich. Filed June 2, 1917. Serial No. 172,448. (Cl. 43—14.)

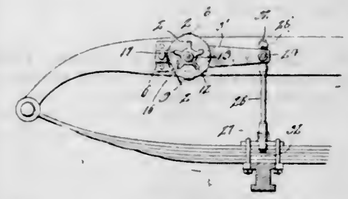


1. In a device of the class described, a receptacle comprising a plurality of chambers one of which is adapted to contain air under pressure and the other of which contains the material to be sprayed, said chamber last mentioned having an inlet at the bottom thereof, a valve for controlling said inlet, a feed tube within the chamber last named, said tube having its lower end open and in alinement with the aforesaid air inlet, and the bottom of the chamber being depressed below the end of the tube permitting the material to be fed by gravity to a point between the inlet and the lower end of the tube and a discharge nozzle having connection with the upper end of said tube.

2. In a device of the class described, a receptacle comprising an upper chamber for receiving the material to be sprayed, a lower chamber for containing air under pressure, air compressing means, a partition member separating said chambers and being downwardly deflected at its central portion, said central portion having an air inlet, a valve controlling said inlet, a feed tube positioned centrally within the upper chamber and having its lower end terminating at a point immediately above the air inlet, a nozzle connected with the upper end of said tube, operating means mounted on said nozzle, and means connected therewith for controlling the valve.

[Claim 3 not printed in the Gazette.]

1,241,438. SHOCK-ABSORBER. DAVID CARL PICKETT, Canton, Ill. Filed Feb. 14, 1917. Serial No. 148,540. (Cl. 21—105.)



1. In a shock absorber, the combination of stationary abutment members arranged in spaced relation to each other, a movable abutment member interposed between said stationary abutment members, friction members arranged at opposite sides of said movable abutment member and between the latter and the stationary abutment members, a bolt passing through all of said members, and tensioning means on said bolt for increasing and decreasing the frictional contact between said abutment and friction members, one of said stationary abutment members having a key at the outer margin and the other abutment member having means coacting with said key to prevent relative rotative movement of said stationary abutment members.

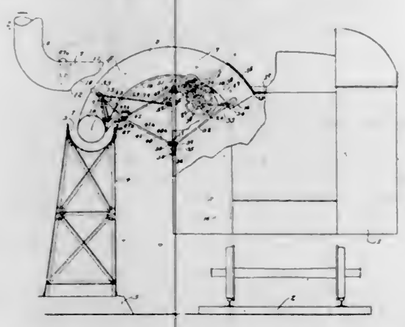
2. In a shock absorber, the combination of stationary abutment members arranged in spaced relation to each other, a movable abutment member interposed between said stationary abutment members, friction members arranged at opposite sides of said movable abutment member and between the latter and the stationary abutment members, a bolt passing through all of said members, and tensioning means on said bolt for increasing and decreasing the frictional contact between said abutment and friction members, one of said stationary abutment members having a key at the outer margin and the other abutment member having means coacting with said abutment members, said key and coacting means having a relative sliding movement and overlapping relation permitting one of said stationary abutment members to be adjusted toward and away from the other stationary abutment member.

3. In a shock absorber, the combination of stationary abutment members arranged in spaced relation to each other, a movable abutment member interposed between said stationary abutment members, friction members arranged at opposite sides of said movable abutment member and between the latter and the stationary abutment members, a bolt passing through all of said members, tensioning means on said bolt for increasing and decreasing the frictional contact between said abutment and friction members, one of said stationary abutment members having a key at the outer margin and the other abutment member having means coacting with said key to prevent relative rotative movement of said stationary abutment members, said tensioning means comprising a tension equalizing member on said bolt at the outer side of the adjacent stationary abutment member, and a circular series of yieldable members interposed between said tension equalizing member and the adjacent stationary abutment member.

4. In a shock absorber, the combination of stationary abutment members arranged in spaced relation to each other, a movable abutment member interposed between said stationary abutment members, friction members arranged at opposite sides of said movable abutment member and between the latter and the stationary abutment members, a bolt passing through all of said members, ten

sioning means on said bolt for increasing and decreasing the frictional contact between said abutment and friction members, one of said stationary abutment members having a key at the outer margin and the other abutment member having means coacting with said key to prevent relative rotative movement of said stationary abutment members, a ball bearing located within the movable abutment member and surrounding said bolt, and a flexible spring pressed dust guard surrounding said bolt and lying in contact with the outer face of one of said stationary abutment members.

1,241,439. LOCOMOTIVE-TENDER-TANK FEEDER. JOHN A. PILCHER, Roanoke, Va. Filed Oct. 17, 1914. Serial No. 867,131. (Cl. 103—51.)



1. In a locomotive tender tank feeding apparatus the combination with a locomotive tender provided with a tank, of a track tank placed parallel to the track and at one side thereof, a water scoop movably attached to the tender and adapted to be projected into the said track tank, the said scoop having a tubular portion which is in constant communication with the interior of the tender tank, and means for projecting and withdrawing said scoop in a direction transverse to the line of travel of the tender and coincident with the axis of said tubular portion.

2. In a locomotive tender tank feeding apparatus, the combination with a tender provided with a closed tank having an aperture in its top wall, of a track tank placed parallel to the track and at one side thereof, a water scoop movably attached to the tender and having a tubular portion which always passes through said aperture, and means for projecting and withdrawing said scoop to and from a position in which the scooping end may enter the track tank, the path of travel of the said scoop when being so projected and withdrawn being in a direction transverse to the track and coincident with the axis of said tubular portion.

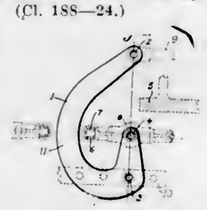
3. In a locomotive tender tank feeding apparatus, the combination with a tender provided with a closed tank having an aperture in its top wall, of a track tank placed parallel to the track and at one side thereof, a water scoop movably attached to the tender and comprising a portion of a tubular ring which always passes in an arcuate path through said aperture, and means for projecting and withdrawing said scoop to and from a position in which the scooping end may enter the track tank, the path of travel of said scoop when being so projected and withdrawn being in a direction transverse to the track and coincident with the arcuate axis of said scoop.

4. In a locomotive tender tank feeder the combination with the locomotive tender of a track tank disposed longitudinally of the track and to the side thereof, a water scoop affixed to the said tender and adapted to be projected into and withdrawn from the said track tank, a runway rail secured to said track tank and disposed longitudinally of the same, and a runway shoe secured to said water scoop and adapted to coöperate with said runway rail when the said water scoop is projected into the said track tank.

5. In a locomotive tender tank feeding apparatus the combination with a locomotive tender provided with a tank, of a track tank of semicircular cross section placed parallel to the track and at one side thereof, a water scoop movably attached to the tender and adapted to be projected into the said track tank, the said scoop having a tubular portion which is in constant communication with the interior of the tender tank, and means for projecting and withdrawing said scoop in a direction transverse to the line of travel of the tender and coincident with the axis of said tubular portion, the said scoop being provided with a cylindrical, longitudinal extension at its outer end of a size suitable for admission within the said track tank.

[Claims 6 to 15 not printed in the Gazette.]

1,241,440. BRAKE-LEVER FOR CAR-TRUCKS. JOHN A. PILCHER, Roanoke, Va. Filed Apr. 1, 1916. Serial No. 88,279 (Cl. 188—24.)



1. A lever having three holes therein in substantial alinement, the lever progressing in a path originating at the middle hole, progressing thence to an end hole and thence to the other end hole, where the same terminates.

2. A lever having three holes therein in substantial alinement, the lever originating at the middle hole and progressing in a direct path to the hole at the lower extremity and progressing thence in a curved path to the hole at the upper extremity.

3. A lever having three holes therein in substantial alinement, the lever originating at the middle hole and progressing in a direct path to the hole at the lower extremity and progressing thence in an arcuate path to the hole at the upper extremity, the said arcuate path being swung about the axis of the middle hole as a center.

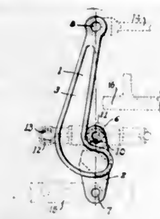
4. A lever having three holes therein in substantial alinement, there being a bar of metal extending between the middle hole and the hole at the lower extremity and a bar of metal extending between the two extreme holes, but there being no direct connecting metal between the middle hole and the hole at the upper extremity.

5. In combination, a brake beam having a bar member with a fulcrum member attached to the front side thereof, a brake lever having three holes in substantial alinement, the said lever being pivoted to the said fulcrum at the middle one of its three holes, the remaining two of said holes being disposed respectively above and below the said fulcrum, there being a portion of the lever extending from the said middle hole thereof to the bottom hole and a portion curved around the back of the said bar member and extending from the bottom hole to the top hole, but no direct connecting portion between the middle hole and the top hole.

[Claim 6 not printed in the Gazette.]

1,241,441. BRAKE-LEVER FOR CAR-TRUCKS. JOHN A. PILCHER, Roanoke, Va. Filed Apr. 1, 1916. Serial No. 88,280. (Cl. 188—24.)

1. A three-hole lever composed of two portions occupying substantially parallel planes and having a torsional connecting member, two of the holes thereof being respectively in the extremities of the first of said portions and the third hole being in the one extremity of the second portion, the said torsional member being affixed to the said first portion between the two said holes therein and being affixed to the said second portion at the unpierced extremity thereof.



2. A three-hole lever having a first portion thereof extending in a continuous plane and in the extremities of which portion are located two adjacent of the said holes, the said lever having a second portion thereof originating as an outward offset from the side of the said first portion between the two holes therein and then traversing for a portion of its length a plane substantially parallel with but removed from that of the said first portion, and being finally inwardly offset so as to terminate in substantially the same plane as that of the said first portion, in which terminal is located the third of said holes.

3. A three-hole lever composed of two spaced portions occupying adjacent and substantially parallel planes and having a torsional connecting member, two of the holes thereof being respectively in the extremities of the first of said portions and the third hole being in the one extremity of the second portion, the said torsional member being affixed to the said first portion between the two said holes therein and being affixed to the said second portion at the unpierced extremity thereof, the said second portion extending from its point of origin in the same general direction as and to a position beyond the one extremity of the said first portion.

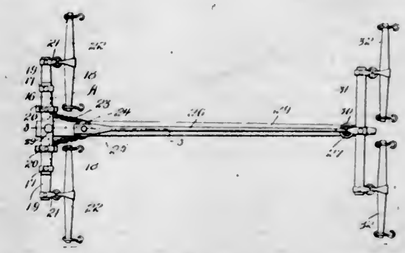
4. A three-hole lever composed of two spaced portions occupying adjacent and substantially parallel planes and having a torsional connecting member, two of the holes thereof being respectively in the extremities of the first of said portions and the third hole being in the one extremity of the second portion, the said torsional member being affixed to the said first portion between the two said holes therein and being affixed to the said second portion at the unpierced extremity thereof, the said second portion extending from its point of origin in the same general direction as and to a position beyond the one extremity of the said first portion, but being curved away from the line of the said first portion in the vicinity of the over-traveled hole therein in such manner as to entirely uncover the said hole.

5. A three-hole lever composed of two spaced portions occupying adjacent and substantially parallel planes and having a torsional connecting member, two of the holes thereof being respectively in the extremities of the first of said portions and the third hole being in the one extremity of the second portion, the said torsional member being affixed to the said first portion between the two said holes therein and being affixed to the said second portion at the unpierced extremity thereof, the said second portion extending from its point of connection to the said first portion in the same general direction as and to a position beyond the one extremity of the said first portion, but being curved away from the line of the said first portion in the vicinity of the over-traveled hole therein in such manner as to entirely uncover the said hole, the said curved portion following substantially an arcuate path about the axis of asid hole as a center.

[Claims 6 and 7 not printed in the Gazette.]

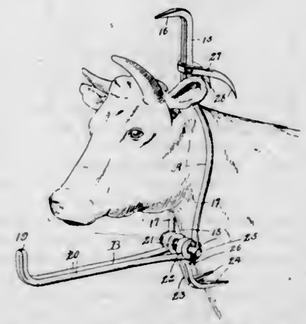
1,241,442. DRAFT-EQUALIZER. CLAUDE B. POWELL, Guymon, Okla. Filed Jan. 29, 1916. Serial No. 75,122. (Cl. 21—76.)

1. In a draft equalizer, a main doubletree comprising top and bottom bars, clips, connecting the same near the ends thereof, bolts extending vertically through the clips, levers pivoted on the bolts intermediate the top and bottom bars, and limiting straps surrounding the top and bottom bars and having forwardly and rearwardly offset portions corresponding with the intervening space between the top and bottom bars to limit the swinging movement of the levers, swingletrees connected with the outer ends of the levers, a chain connecting the inner ends of the levers together, a tongue on which the main doubletree is mounted, said tongue having a hold-back stud near its forward end, and a draft bar carrying a pulley over which the chain connecting the inner ends of the levers is guided, said draft bar having at its front end a link which may be placed on the end of the tongue in engagement with the hold-back stud when the draft bar is drawn forward to place the inner ends of the equalizing levers substantially in engagement with the limiting straps.



2. A vehicle tongue having a hold-back stud, an equalizer pivoted on the tongue and comprising a main doubletree, equalizing levers fulcrumed therein and having swingletrees at their outer ends, and a chain connecting together the inner ends of the equalizing levers, means for limiting the swinging movement of the equalizing levers, a draft bar having at its rear end a pulley over which the chain is guided, a second chain loosely connecting the forward end of the draft bar with the hold-back stud, and a link at the forward end of the draft bar which may be engaged with the front end of the tongue to abut on the hold-back member and to hold the inner ends of the equalizing levers in substantial engagement with the means for limiting the movement thereof.

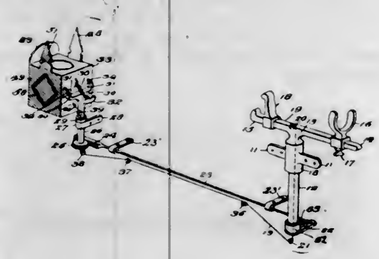
1,241,443. ANIMAL-YOKE. SILAS P. PROCK, Erick, Okla. Filed Nov. 23, 1915. Serial No. 63,008. (Cl. 119—139.)



An animal poke comprising a yoke having an upwardly extending integral arm provided with a forwardly extending hook, the limbs of the yoke being bent to form eyes at the lower ends thereof, a fork secured on the upwardly extending arm and having rearwardly extending downturned prongs, a poke bar having an upwardly extending hook at its forward end the rearward portion of said bar

being bifurcated to form limbs having rearwardly extending prongs and said limbs being bent to form eyes substantially at the juncture thereof with the body of the bar, said eyes being positioned intermediate the eyes formed at the lower ends of the limbs of the yoke, and a pivot member extending through the several eyes to form a pivotal connection between the yoke and the poke bar.

1,241,444. AUTOMOBILE-SIGNAL. JOSEPH C. ROEBER, New York, N. Y. Filed Apr. 14, 1915. Serial No. 21,406. Renewed Aug. 27, 1917. Serial No. 188,489. (Cl. 116—31.)

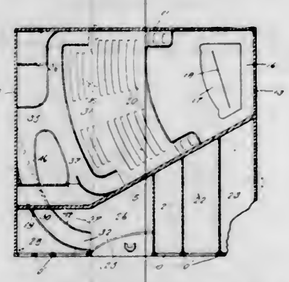


1. In a signal, a movable arm, a yoke carried by said arm to receive an operator's arm, a slide also carried by the arm to receive movement from an operator's elbow, a rotatable housing, said housing being fulcrumed to tilt and connections from said yoke and slide to said housing to rotate or tilt the same.

2. In a signal of the class described, a housing, an illuminating element in said housing, translucent side walls for said housing, said housing being rotatable to present certain of the side walls to view, said housing being fulcrumed to present the normal top as a side wall, pointers extending from the edges of some of said side walls, and means for rotating or tilting said housing.

[Claim 3 not printed in the Gazette.]

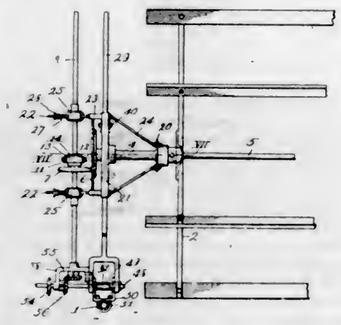
1,241,445. BUILDING CONSTRUCTION. HENDERSON RYAN, Seattle, Wash. Filed July 1, 1916. Serial No. 107,031. (Cl. 20—1.12.)



1. In a building of the class described, including an auditorium on its main floor and a balcony, a foyer positioned at the rear of said auditorium having an entrance at one end of said foyer, and a ramp having its lower end positioned adjacent the entrance end of said foyer upon the side opposite from the auditorium, and crossing over said foyer at approximately the midlength of the foyer to afford access to the balcony.

2. In a building of the class described, including an auditorium on its main floor and a balcony, a foyer positioned at the rear of said auditorium having an entrance at one end of said foyer, and a ramp having its lower end positioned adjacent the entrance end of said foyer upon the side opposite from the auditorium, crossing over said foyer at approximately the midlength of the foyer and extending in branch inclined approaches to afford access to either side of said balcony.

1,241,446. VARIABLE-SPEED GEARING FOR THE REELS OF AGRICULTURAL MACHINERY. BENJAMIN P. SAUNDERS, Iatan, and OSCAR WILLIAMS, Weston, Mo. Filed Sept. 18, 1916. Serial No. 120,661. (Cl. 56—22.)



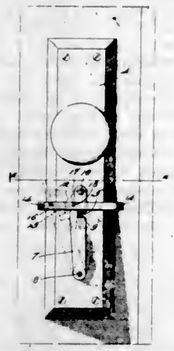
2. In combination with a reel shaft and a driven shaft, a bearing provided near one end with a peripheral flange and in which the reel shaft is journaled, a frame from which said bearing projects, a suitable support for said frame, brace members secured to the flange on the bearing at one end and secured to the frame at their opposite end, unions threaded on the last-mentioned ends of said brace members and baring against the frame, pins threaded into said unions, transverse members through which said pins loosely extend and in which the driven shaft is mounted, coil springs embracing said pins and bearing against the transverse members, a friction wheel mounted on the reel shaft to drive the same, a friction wheel mounted on the driven shaft and engaging the first friction wheel to drive the same, means for adjusting the second friction wheel radially of the first friction wheel, and means operably-engaging the pins and bearing against the coil springs to tension the same and regulate the pressure of the second friction wheel against the first friction wheel.

3. In combination with a shaft, a reel mounted on said shaft and a rockable driven shaft, means for driving said reel at variable speeds, a bearing in which the reel shaft is journaled, a rectangular frame carrying said bearing and provided with two tubular portions, a rockable bifurcated member extending through the tubular portions and on which said frame is slidably mounted, a latch mounted on the frame to engage said rockable bifurcated member and secure the frame at any point of its adjustment, a lever having a forked end pivotally-connected to the reel shaft bearing and to the frame to slide the same on the bifurcated member and also to rock said bifurcated member and the driven shaft, means mounted on said lever for actuating the latch, a pair of links between the upper ends of which said lever is fulcrumed, a notched sector to which the lower ends of said links are pivotally-connected to rock with the bifurcated member and the driven shaft, and a latch mounted on said lever and adapted to engage the notched sector to secure the links at any point of their pivotal adjustment.

[Claim 1 not printed in the Gazette.]

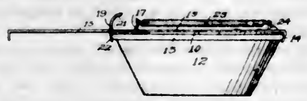
1,241,447. LOCK ATTACHMENT. GEORGE SCHLEICHER, Belleville, Ill. Filed May 22, 1916. Serial No. 99,159. (Cl. 70—7.)

The combination with a lock and removable key therefor; of a keeper spanning said lock above the keyhole thereof, the said keeper comprising a narrow metal strip spaced from the exterior of the casing of said lock and parallel therewith, a lever pivoted at one end to the exterior of said casing below and in vertical alinement with said keyhole, the upper end of said lever being confined between said keeper and lock casing, the said lever having a notch in one edge adapted to aline with said keyhole when the said lever is in vertical position, a shoulder in the opposite edge of said lever disposed below the upper



edge of said keeper, a latch comprising a bar pivoted at one end upon the under surface of said keeper near one end thereof, the said keeper being provided in its upper edge with a notch in register with said shoulder when the lever is in vertical position, and an offset on the free end of said latch adapted to rest in said keeper and against said shoulder.

1,241,448. ADJUSTABLE STRAINER FOR COOKING VESSELS. RALPH L. SHERMAN, Des Moines, Iowa. Filed Dec. 19, 1916. Serial No. 137,758. (Cl. 53—8.)

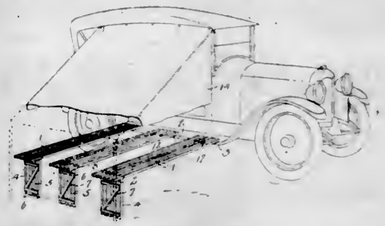


1. In a device of the class described, a perforated strainer member having a hook member extending downwardly from one edge, a handle extending away from the opposite edge of said strainer member, a plate slidably mounted on said handle having at its ends a pair of spaced upwardly extending members provided with slots to receive said handle and having downwardly extending hook members, and a spring having one end secured to said plate, and the other end fixed on said handle, one of said upwardly extending members being accessible to the fingers of a hand grasping said handle, whereby the strainer may be installed on a cooking vessel with one hand.

2. In a device of the class described, a perforated strainer member, a cooking member engaging device extending downwardly from one edge of said strainer member, a handle secured to said strainer member and extending away from the opposite edge thereof, a sliding member mounted on said handle having means thereon for engaging and gripping the cooking member, a yielding device secured at one end to said sliding member, and having its other end fixed on said handle, said sliding member having a member adapted to be engaged by the hand whereby the sliding member may be manipulated by a hand grasping said handle.

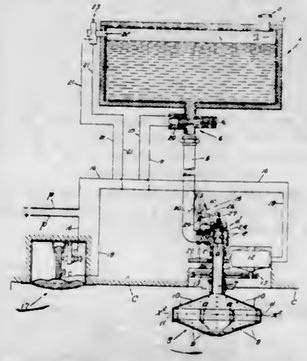
1,241,449. TOURING ACCESSORY FOR AUTOMOBILES. OLOF SUNDQUIST, Pueblo, Colo. Filed Feb. 17, 1917. Serial No. 149,298. (Cl. 5—5.)

An automobile accessory consisting of a bench composed of parallel slats secured in fixed but spaced relation to each other and forming a bench of substantially the same width as the running board of an automobile and adapted to be placed flat-wise upon and carried by such running board, a slatted and foldable support having a pivotal connection with said bench adjacent to one end thereof and adapted to lie between the slats of the bench when folded, clamping means for securing the opposite end of the bench to said running board, said clamping



means comprising a substantially U-shaped hanger having oppositely extending extremities and adapted to be inserted between adjacent slats of the bench, and a clamping bar extending through said hanger and located beneath the bench in position to engage the running board and hold the latter securely clamped against the under-side of the bench.

1,241,450. ROTARY-SPRINKLER THERMOSTATIC FIRE-EXTINGUISHER. HAROLD FLETCHER TAYLOR, Los Angeles, Cal., assignor of fifty-one one-hundredths to Joseph Mesmer, Los Angeles, Cal. Filed May 2, 1916. Serial No. 94,996. (Cl. 169—14.)



1. A fire extinguisher comprising a tank, a rotary sprinkler on a lower level than the tank, a pipe line connecting the sprinkler to the tank, a thermostatically controlled electro-magnetic valve in the pipe line, a motor for operating the sprinkler, and a governor for regulating the flow of water to the sprinkler.

2. A fire extinguisher comprising a rotary sprinkler head, a motor to rotate the sprinkler head, means to supply liquid to the sprinkler head, valve means to control said supply means, thermostatic means to control the valve means and the motor; a governor valve to control the supply of liquid to the sprinkler, and governor means to control the governor valve.

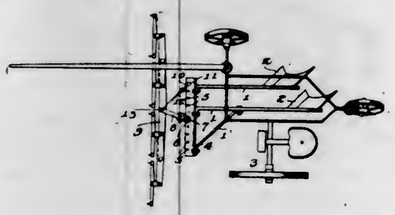
3. A fire extinguisher comprising a rotary sprinkler, a motor to rotate the sprinkler, means to supply liquid to the sprinkler, valve means to control said supply means, thermostatic means to control the valve means and the motor, a governor valve to control the supply of liquid to the sprinkler, and governor means operated by the motor to control the governor valve.

4. A fire extinguisher comprising a tank, a rotary sprinkler on a lower level than the tank, a pipe line connecting the sprinkler to the tank, a thermostatically con-

trolled valve in the pipe line, a thermostatically controlled vent in the tank, and a governor for regulating the flow of water to the sprinkler.

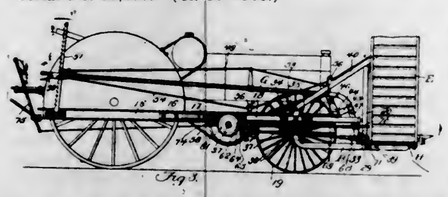
5. A fire extinguisher comprising a tank, a thermostatically controlled vent for the tank, an outlet pipe for the tank, an electro-magnetic valve in the outlet pipe, a thermostat for controlling the valve, a rotary sprinkler to receive the flow of water from the tank through the pipe, a motor for rotating the sprinkler, and a governor for regulating the flow.

1,241,451. HEAD END AND CLEVIS. WILLIE D. THOMAS, Golden City, Mo. Filed July 21, 1916. Serial No. 110,570. (Cl. 97—4.)



A device of the character described comprising a bar adapted to be attached in fixed position to a plurality of beams, said bar having a series of perforations arranged in a row extending longitudinally thereof, a clevis mounted on the bar, a pin passing through the clevis and one of the perforations whereby the clevis may swing horizontally only, a link pivotally connected with the clevis for vertical swinging movement, a loop mounted on the bar, a pin passing through the loop, and in one of the perforations in the bar whereby the loop may swing horizontally only, and a link pivotally connected with the loop for universal swinging movement and pivotally connected with the forward end of the first mentioned link, the parts being so arranged that the clevis and loop may be adjusted toward or away from each other to vary the angular disposition of the link and also to vary the positions of the clevis and loop transversely of the beams.

1,241,452. HEADER ATTACHMENT FOR TRACTORS. MICHAEL J. UNREIN, Hays, Kans. Filed May 23, 1916. Serial No. 99,400. (Cl. 56—100.)

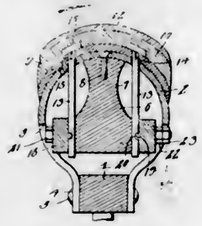


2. In a device of the class described, the combination with a tractor frame, of a detachable frame structure connected with and surrounding the forward portion of the tractor frame, said frame structure including arms forming side members and a front cross bar, angle braces connecting the front cross bar with the tractor frame, a rock shaft supported on the angle braces and having radial forwardly and upwardly extending arms, L-shaped supporting members pivoted on the side members of the detachable frame structure and having forwardly extending arms and a cross bar connecting said arms, a header frame mounted on the arms of the supporting members and connected detachably with the cross bar, hook members connected with the forwardly extending radial arms of the rock shaft and engaging the cross bar with which the header frame is connected, and an adjusting lever fixedly connected with one of the radial arms of the rock shaft.

3. In a device of the class described, the combination with a tractor frame, of a detachable frame structure connected with and surrounding the forward portion of the tractor frame, said frame structure including arms forming side members and a front cross bar, angle braces connecting the front cross bar with the tractor frame, a rock shaft supported on the angle braces and having radial forwardly and upwardly extending arms, L-shaped supporting members pivoted on the side members of the detachable frame structure and having forwardly extending arms and a cross bar connecting said arms, a header frame mounted on the arms of the supporting members and connected detachably with the cross bar, hook members connected with the forwardly extending radial arms of the rock shaft and engaging the cross bar with which the header frame is connected, and an adjusting lever hingedly connected with one of the radial arms of the rock shaft, in combination with a lifting spring connecting a radial arm of the rock shaft with the tractor frame.

[Claim 1 not printed in the Gazette.]

1,241,453. SPRING-TIRE. ALBERT VANBLOM, Rockford, Ill. Filed Apr. 24, 1917. Serial No. 164,192. (Cl. 152—8.)



1. A hollow tire of resilient metal having spaced radial tongues at its sides to engage opposite sides of a wheel felly, blocks arranged and secured in the tire, segmental plates on the tire and having cushioning members on their outer sides, pins extending inwardly from said plates through openings in the tire and means to detachably secure said pins to said blocks.

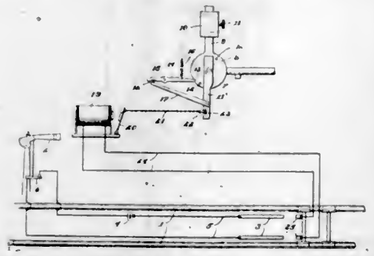
2. A hollow tire of resilient metal having spaced radial tongues at its sides to engage opposite sides of a wheel felly, blocks arranged and secured in the tire, segmental plates on the tire and having cushioning members on their outer sides, pins extending inwardly from said plates through openings in the tire, means to detachably secure said pins to said blocks, said securing means comprising locking bars to engage said pins and blocks and means to detachably secure said locking bars to the blocks.

3. A hollow tire of resilient metal having spaced radial tongues at its sides to engage opposite sides of a wheel felly, blocks arranged and secured in the tire, segmental plates on the tire and having cushioning members on their outer sides, pins extending inwardly from said plates through openings in the tire, means to detachably secure said pins to said blocks, said securing means comprising locking bars to engage said pins and blocks, means to detachably secure said locking bars to the blocks, said blocks and pins having grooves and said locking bars having tongues to engage in the grooves of the blocks and pins.

4. A hollow tire of resilient metal having spaced radial tongues at its sides to engage opposite sides of a wheel felly, blocks arranged in and secured to the tire and bearing against the inner periphery thereof, segmental plates on the tire and securing means for said segmental plates, said securing means extending through the tire and being attached to said blocks.

1,241,454. AUTOMATIC TRAIN CONTROL. FRANK ALBERT WALTON, Sparks, Nev., assignor of one-third to Fred William Steiner, Sparks, Nev. Filed Oct. 31, 1916. Serial No. 128,736. (Cl. 137—7.)

1. In automatic train stopping apparatus, a valve connected in the air line and operable to secure an application of the brakes, a disk connected with the stem of said valve, pins in said disk, a lever connected to said disk and projecting normally upward to hold the valve in normal position, and a weight on the outer end of said lever adapted to swing the latter to operate the valve to brake applying position, combined with a second lever loosely mounted on the valve stem alongside said disk and capable of slight lost motion between said pins when moved on its pivot, and mechanism for swinging the second-named lever to start the movement of the disk and throw the first-named lever and its weight out of a strictly vertical position, for the purpose set forth.

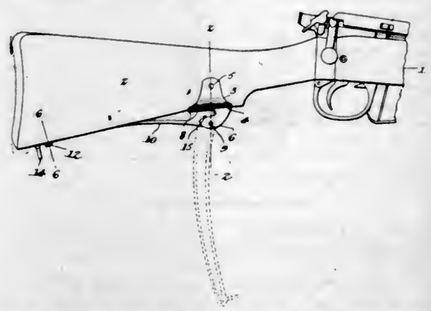


3. In automatic train stopping mechanism, a valve connected in the air line and operable to secure an application of the brakes, a disk connected with the stem of said valve, a lever connected to said disk and projecting normally upward to hold the valve in normal position, a weight on the outer end of said lever adapted to swing the latter to operate the valve to brake applying position, a lever loosely mounted upon said valve stem and depending from the valve, means for operating this lever to initially move the first mentioned lever, and latching mechanism for said disk under the control of the second named lever.

4. In automatic train stopping mechanism, a valve connected in the air line and operable to secure an application of the brakes, a disk connected with the stem of said valve, a lever connected to said disk and projecting normally upward to hold the valve in normal position, a weight on the outer end of said lever adapted to swing the latter to operate the valve to brake applying position, a lever loosely mounted upon said valve stem and depending from the valve, means for operating this lever to initially move the first mentioned lever, said disk being formed with a notch, a pawl fulcrumed between its ends and having one end normally engaging said notch to hold the disk against movement, and a rod connected to said second named lever and adapted to actuate the pawl to release the disk upon the movement of the second named lever.

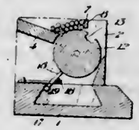
[Claim 2 not printed in the Gazette.]

1,241,455. WIRE-CUTTING DEVICE. FREDERICK A. WARNER, Halifax, Nova Scotia, Canada. Filed Jan. 18, 1916, Serial No. 72,844. Renewed Aug. 8, 1917. Serial No. 185,188. (Cl. 42—90.)



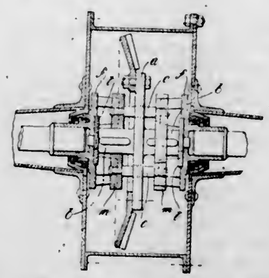
The combination with a rifle stock, of a yoke member having its arms secured thereto, said yoke having its central portion formed with a pair of spaced substantially L-shaped jaws, and being provided with a slot between the jaws, a lever having a widened head provided with a cutting edge pivotally secured between the jaws, said lever being I-shaped in cross section and gradually decreasing in diameter from its head to its free end, the stock having a longitudinal channel to receive the end of the lever, a spring pressed catch in the channel, said catch including a handle portion and an offset portion, said offset portion adapted to engage in the depression in one of the sides of the lever.

1,241,456. SINGLE-DELIVERY MATCH-SAFE. MARTIN L. WEEKS, Spartanburg, S. C. Filed May 25, 1917. Serial No. 170,970. (Cl. 206—22.)



A match safe of the class described having an inclined bottom, a base above which the inclined bottom is spaced, the said base being provided with a slot, a wall having its lower edge spaced above the base and also spaced from the lower end of the inclined bottom, a roller mounted for oscillatory movement and arranged with its upper side in the space between the lower ends of the inclined bottom and said wall, said roller having a match receiving groove arranged when the roller is in initial position without the said wall and when said roller is in another position in rear of said wall and within the match safe, said roller having a tappet pin arranged to operate in the slot in the base, and a spring secured on the base and having an arm engaging said tappet pin and normally holding the roller with its groove without and in front of said wall and its tappet pin at the rear end of said slot, the end of the said slot forming stops to coact with the tappet pin and limit the extent of movement of the roller.

1,241,457. DIFFERENTIAL AXLE. RAYMOND CORDEUX WETHERELL, Slough, England. Filed Nov. 23, 1915. Serial No. 63,102. (Cl. 74—7.)



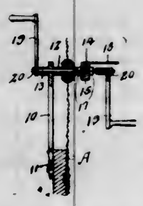
1. In a differential axle for motor vehicles, the combination of a driving member provided with stub axles, one on each side thereof, two plates, one located each side of the driving member, tie rods connecting together said plates and passing through appropriate apertures in the driving member, the element constituted by the said plates and the tie rods rotating with the stub axles while being free to move longitudinally with respect thereto, said plates having peripherally arranged teeth, said teeth having flat inclined surfaces at the sides and plane surfaces at the ends, and other plates carrying the ordinary half axles, and provided with correspondingly shaped teeth having inclined surfaces at the sides and

plane surfaces at the ends, the last mentioned plates being at such a distance apart that the element constituted by the first mentioned plates and tie rods can slide into such a position that when the teeth on one of the first mentioned plates are fully in engagement with those on the plate in connection with the corresponding axle, those on the other first mentioned plate are entirely disengaged from the other last mentioned plate, for the purposes set forth.

3. In a differential axle for motor vehicles, the combination of a driving crown bevel wheel having a disk attached thereto, stub axles, one on each side thereof, two plates, one located on each side of the said disk, tie rods connecting together said plates and passing through appropriate apertures in the said disk, the element constituted by the said plates and the tie rods forming keys and key-ways and rotating with the stub axles, while being free to move longitudinally with respect thereto, said plates having peripherally arranged male dog teeth, said teeth having flat inclined surfaces at the sides and plane surfaces at the ends, thrust disks at the ends of the stub axles, and other plates carrying the ordinary half axles and provided with seatings for the accommodation of the before mentioned thrust disks and with female dog teeth corresponding in shape to those on the before mentioned plates, the last mentioned plates being at such a distance apart that the element constituted by the first mentioned plates and the tie rods can slide into such a position that when the teeth on one of the first mentioned plates are fully in engagement with those on the plate in connection with the corresponding axle, those on the other first mentioned plate are entirely disengaged from the other last mentioned plate for the purposes set forth.

[Claim 2 not printed in the Gazette.]

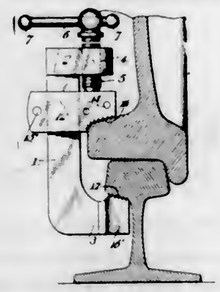
1,241,458. DOOR ATTACHMENT. EVERETT WILEY, Yates City, Ill. Filed Feb. 7, 1916. Serial No. 76,827. (Cl. 230—7.)



An attachment for screen doors comprising in combination, an inverted T-shaped bracket, the head of said bracket being secured to the cross piece of the door frame with the stem of said bracket disposed vertically, a hollow tubular member carried by the stem adjacent its free extremity and projecting beyond the opposite sides of the stem and through the wire screen fabric, washers arranged at the opposite sides of the fabric, means for securing said washers together to reinforce the fabric at the point through which the said tubular member projects, a shaft passed through said tubular member and mounted for rotation therein, said shaft being smooth for a portion of its length, and having a threaded portion projecting beyond said tubular member, an elongated element having a central opening receiving the threaded portion of said shaft, nuts associated with said threaded portion and disposed at the opposite sides of said element for holding the latter fixed relative to the shaft for rotation therewith, said element constituting in part a fan, fan blades carried by said element, and a crank handle associated with each end of the shaft and at opposite sides of the screen fabric for rotating said shaft as described.

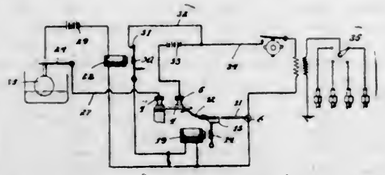
1,241,459. WHEEL-CLAMP. JAMES I. WOODARD, Waycross, Ga. Filed Feb. 17, 1917. Serial No. 149,308. (Cl. 188—48.)

In a device for the purpose set forth, a substantially rectangular shank having its ends provided with lateral extensions projecting in the same direction, one of said extensions being widened and centrally provided with a threaded bore, a screw member engaging with the threads of the bore, a slidable handle for the screw, a reduced extension upon one end of the screw, a flange formed with the said extension, a slidable jaw upon the shank and comprising two similar members, said members having their confronting faces provided with a socket to receive the reduced extension of the sleeve, and the flange thereon,



said members having their confronting edges slotted to receive the shank, studs upon one of the members, the other member having openings to receive the studs, a removable element connecting the members, said jaw having its working face rounded and provided with transverse teeth, the second mentioned extension of the shank projecting beyond the movable jaw and having its end widened to provide a jaw, said head having its working face angular and formed with transverse teeth.

1,241,460. ELECTRICAL SYSTEM. HENRY WULFF, Grafton, Wis. Filed Aug. 30, 1916. Serial No. 117,729. (Cl. 123—198.)



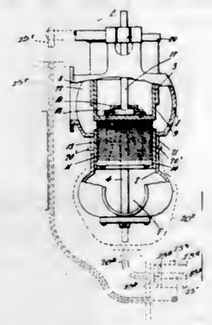
1. A system of the class described comprising a normally open circuit including a source of current and a relay, means including a float for closing said circuit, and an ignition system having its primary circuit normally closed, and means for simultaneously breaking both of said circuits upon current flow through said first circuit.

3. A circuit breaker comprising a base shaped to have an overhanging extremity, a plate slidably mounted on the base, but insulated therefrom, a lever having one end pivotally connected to said plate and its other end arranged to engage said overhanging extremity, a block carried by said lever, a relay having its armature arranged under said block for holding the adjacent extremity of the lever in engagement with said overhanging extremity when the armature is in one position and adjustable means for giving movement to said lever for varying the relative positions of said block and armature.

[Claim 2 not printed in the Gazette.]

1,241,461. CARBURETER. JOHN CHRISTIE ADAM, North Kensington, London, England. Filed Mar. 27, 1917. Serial No. 157,677. (Cl. 261—44.)

1. A carbureter comprising a movable choke device having a central space of cross sectional area varying along its axis within which a fuel jet is arranged and having passages through it which are adapted to be uncovered or covered progressively as the choke device is moved relatively to the fuel jet and means for maintaining the number of said passages which are uncovered constant though the choke tube is moved relatively to the jet.

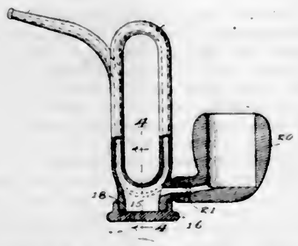


2. A carbureter having a choke device comprising a number of annular plates arranged one above another, spaced apart and of different internal diameters within which a fuel is arranged, the device being movable within a cylinder so that by withdrawing it from the cylinder a passage of variable area of cross-section through the device is provided, and a sleeve interposed between the choke device and the said cylinder the movement of said sleeve serving to permit of the area of cross-section of the said passage being maintained constant though the choke device is moved relatively to the jet.

4. A carbureter having a choke device comprising a number of annular plates arranged one above another, spaced apart and of different internal diameters within which a fuel jet is arranged, a cylinder within which the choke device can move and a sleeve having openings through it interposed between the choke device and the cylinder, the arrangement being such that as the choke tube is withdrawn from the cylinder a passage of varying area of cross-section to the induction pipe is provided and the choking effect on the fuel jet is varied while by moving the said sleeve the area of cross-section of the said passage may be maintained constant though the choke device is moved relatively to the jet.

[Claim 3 not printed in the Gazette.]

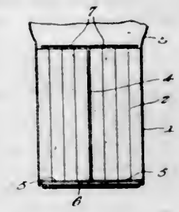
1,241,462. SMOKING-PIPE. WARREN M. BAECHTEL, Hagerstown, Md. Filed Feb. 19, 1917. Serial No. 149,517. (Cl. 131—12.)



1. In a smoking pipe, a bowl portion, a stem comprising a cylindrical tubular member and formed of a plurality of coils having their walls connected at their lower ends and slotted to form a plurality of openings extending in the same direction, means for connecting one of said openings and coils with the bowl, and single means for closing all of the other openings, and sealing the coils for the purpose of forming a continuous duct.

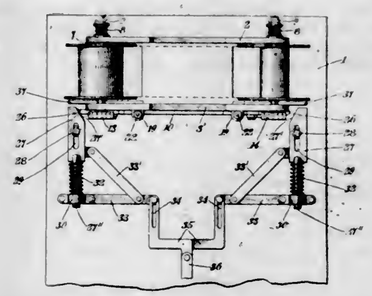
[Claims 2 and 3 not printed in the Gazette.]

1,241,463. CIGARETTE-LIFTER. JULIUS P. BARNETT, Donnellson, Iowa. Filed Dec. 22, 1916. Serial No. 138,432. (Cl. 206—56.)



In combination with a carton, a lifter comprising strips having intermediate portions in close proximity to each other and provided at their lower ends with angularly disposed extremities and a third strip secured to the lower surfaces of the said extremities and traversing the length thereof and serving to hold the intermediate portions of the first mentioned strips at right angles to their lower extremities.

1,241,464. RIBBON-SUPPORTING MECHANISM. PERCIVAL DIGNAN, New York, N. Y. Continuation in part of application Serial No. 61,004, filed Nov. 12, 1915. This application filed May 13, 1916. Serial No. 97,378. (Cl. 197—162.)



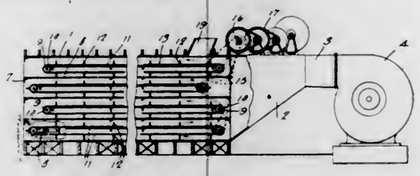
1. In a ribbon-supporting mechanism, a plurality of ribbon reels, a reel-rotating member adjustable to cooperate with either of said reels, means for imparting motion thereto to effect the adjustment thereof and to effect the rotation of said reels, the result effected being dependent upon the extent of action of said means, and means for controlling the extent of such action, dependent upon the condition of the ribbon.

5. In a ribbon-supporting mechanism, a ribbon reel, means for rotating said reel, including a reciprocating member, means for actuating said reciprocating member in one direction, a stationary member, a two-faced cam formed on one of said members, and a yieldably-supported cam mounted on said other member and coöperating with said first-named cam to restore said reciprocating member or carry it from coöperative relation with said reel according to the face of said two-faced cam acted upon by said other cam.

13. In a ribbon-supporting mechanism, a plurality of ribbon reels, reversible rotating mechanism for said reels, mechanism for actuating and reversing said first-named mechanism including a movable cam, a member for limiting the movement of said cam but permitting it to actuate said first-named mechanism to rotate said reels, and ribbon-controlled means for rendering inoperative said limiting member to permit said cam to reverse said first-named mechanism.

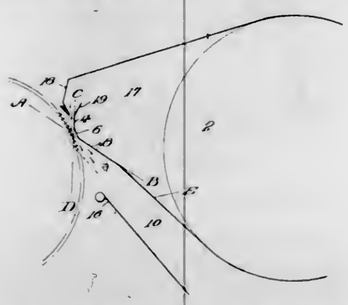
[Claims 2 to 4, 6 to 12, and 14 to 24 not printed in the Gazette.]

1,241,465. BEAN-DRIER. GEORGE G. EGGE, Montgomery, Ala., assignor of fifty-one one-hundredths to himself and forty-nine one-hundredths to J. C. Fischesser, Montgomery, Ala. Filed Dec. 26, 1916. Serial No. 138,880. (Cl. 34—26.)



The combination with a housing having open ends, of superposed endless conveyers within the housing, means for driving each conveyer in a direction opposite to the adjoining conveyers, a floor under the upper flight of each conveyer, means for directing material onto one end of the floor of the uppermost conveyer, each conveyer constituting means for discharging material from one end of its floor onto one end of the floor of the next adjoining conveyer, means extending under each conveyer for supporting the lower flight thereof, and means for directing a hot air blast longitudinally of the housing and over and between the conveyers, said blast being coextensive of the height and width of the interior of the housing.

1,241,466. COTTON-GIN. THADDEUS S. GRIMES, Columbus, Ga., assignor to Lummus Cotton Gin Company, Columbus, Ga., a Corporation of Georgia. Filed June 1, 1915. Serial No. 31,541. (Cl. 13—9.)

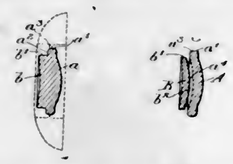


1. In a cotton gin, a gin saw, an air supply having a nozzle, a deflecting surface to direct the air current from said nozzle to the saw teeth angularly with respect to a plane tangent to the periphery of the saw, a substantially straight deflecting surface arranged at an angle to the first mentioned surface and occupying a plane parallel with said tangent plane and close to the ends of the saw teeth, and a substantially straight deflecting surface arranged at an angle to the second deflecting surface and approximately in line with said teeth for directing the discharge of the air current from the saw.

2. In a cotton gin, a gin saw, an air supply chute having a deflecting surface formed with a double break, to constitute a plurality of substantially straight portions, one of its portions being adapted to direct an air current to the saw at an angle to a plane tangent to the periphery of the saw, a second portion angularly related to the first mentioned portion and lying substantially parallel with said plane, and a third portion arranged to direct the discharge of the air current, the angle presented by said third and second portions being substantially equal to the angle presented by said first and second portions.

[Claims 3 and 4 not printed in the Gazette.]

1,241,467. METHOD OF FORMING BUTTONS. HERBERT HASTINGS, Rochester, N. Y., assignor to Art in Buttons, Incorporated, a Corporation of New York. Filed Apr. 8, 1912, Serial No. 689,258. Renewed Feb. 20, 1917. Serial No. 149,936. (Cl. 79—1.)



1. The method of forming buttons consisting in severing a doublet button blank into two separate buttons by a transverse cut forming concentric spherical surfaces, intermediate the front and rear faces of the doublet.

2. The method of forming buttons from a doublet blank consisting in severing it so as to form a convex surface on one button and a concave surface on the other.

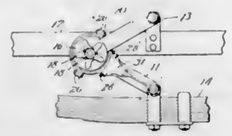
3. The method of forming buttons consisting in first forming a multiple blank each of the two sides of which shall be a finished side of one of the buttons formed therefrom and secondly severing said blank transversely so as to form a concave side on one of said buttons and a convex side on the other.

4. The method of forming buttons consisting in first forming a doublet blank with substantially concentric curved front and rear faces and secondly severing it to form curved surfaces substantially concentric with the first mentioned surfaces.

5. The method of forming buttons consisting in first forming a doublet blank with one side of two buttons thereon and secondly severing said blank so that the second side of one of said buttons is formed with a concave surface and the second side of the other button is formed within said concavity.

[Claim 6 not printed in the Gazette.]

1,241,468. SHOCK-ABSORBER. FRANK X. MUDD, Chicago, Ill. Filed Dec. 18, 1915. Serial No. 67,581. (Cl. 21—105.)

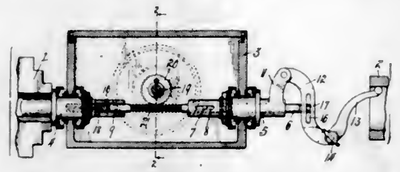


A shock-absorber comprising a friction pivot member, an arm oscillatable thereabout and having an arcuate slot in the plane of the said member, spaced excrescences on the said member working in the said slot, a radial leaf spring secured at its outer end to the said arm and having its inner end extending between the opposed faces of the said excrescences, means for pivotally attaching the outer end of said arm to a vehicle, a second friction pivot member concentrically arranged with reference to said first member, means for forcing the friction surfaces of said members into engagement, an arm mounted upon said second friction pivot member, and means for pivotally attaching the outer end of said arm to a relatively movable part of the said vehicle.

1,241,469. TEST-INDICATOR. PARL W. PAYNE, Toledo, Ohio, assignor of one-half to Rolin E. Kilpatrick, Toledo, Ohio. Filed Aug. 25, 1916. Serial No. 116,822. (Cl. 33—172.)

1. In a device of the class described, a rotatable and axially movable rack bar, indicator means having a pinion in mesh with said rack bar, and work-coacting lever means connected to said rack bar for rotation therewith and movable to impart reciprocatory movements thereto.

2. In a device of the class described, a reciprocally movable rack bar, indicator means having a pinion in mesh with said rack bar, and work-coacting lever means having connection with said rack bar and operable when rocked to impart axial movements to said bar, said lever means mounted for turning movements in a plane at right angles to the rocking movement thereof.



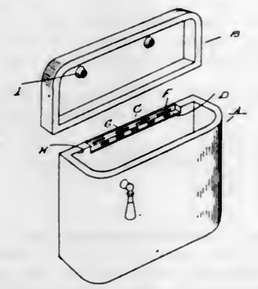
3. In a device of the class described, a rotatable shaft, work-engaging means movably carried by said shaft for rotation therewith and movable with respect to the shaft by irregularities in a work surface with which it has contact, and indicator means having rack and pinion connection with said work-engaging means and movable by movements of said means relative to the shaft.

4. In a device of the class described, a rotatable shaft, a work-coacting means fulcrumed to said shaft at one side of its axis for turning movements therewith and rocking movements relative thereto, a reciprocally movable rack bar connected to and movable by rocking movements of said work-coacting means, and indicator means having a pinion in connection with said rack bar and operable by movements of said bar.

5. In a device of the class described, a rotatable shaft, work-coacting means fulcrumed to said shaft at one side of its axis for turning movements therewith and rocking movements lengthwise thereof, a reciprocally movable rack bar having connection with said work-coacting means and movable by rocking movements thereof, a scale, an indicator finger in connection with said scale, a shaft carrying said finger, and a pinion carried by said shaft and in mesh with the teeth on said rack bar.

[Claims 6 to 9 not printed in the Gazette.]

1,241,470. FLUSHING-TANK. JAMES M. TEAHEN, Detroit, Mich. Filed Nov. 6, 1916. Serial No. 129,841. (Cl. 72—101.)

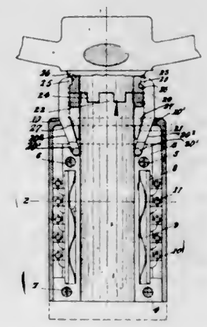


1. The combination with a composite tank, of an anchoring device therefor, comprising a metallic angle strip extending longitudinally of the wall of the tank and in a recess therein, with its upper edge substantially flush with the upper edge of the wall, said strip having anchoring prongs embedded in the wall and a slotted flange for engagement with the securing devices, and a cover seated upon the upper edge of said tank.

2. The combination with a composite tank, of an anchoring device therefor, comprising a metallic angle strip having a vertical flange arranged substantially flush with the rear face of the tank wall and a horizontal flange extending along the face of a recess in said wall, said horizontal flange being provided with struck-out prongs embedded in the composite body and the vertical flange being provided with a series of slots for the adjustable engagement of securing devices, and a cover seated upon the upper edge of said tank.

3. The combination with a composite open-topped tank having a recess at the top of one of its walls, of an anchoring device for said tank within said recess, said device comprising a metallic angle strip having a horizontal flange rigidly engaged with the recessed wall, and having a vertical flange, the upper edge of which is substantially flush with the upper edge of said wall, and a cover seated upon the upper edge of said tank.

1,241,471. AUTOMOBILE-LOCK. HARRY A. WILLIAMS, Thane, Alaska. Filed June 22, 1916. Serial No. 105,160. (Cl. 70—129.)



1. In a locking device for automobiles, the combination with the steering column and wheel, of a casing secured to the column, means carried by the casing for locking the wheel against rotation, a separate means carried by the casing for locking the wheel against upward movement, and a lock for holding said means in engagement with the wheel.

2. In a locking device for automobiles, the combination with the steering column and wheel, of a casing secured to the steering column, means carried by the casing for locking the wheel against upward movement, a sliding sleeve carried by the casing for operating said locking means, means carried by the sleeve for locking the wheel against rotation and a lock for holding the sleeve in a position with the means engaging the wheel.

3. In a locking device for automobiles, the combination with the steering column and wheel, of a casing removably secured to the column below the wheel, a vertically movable member carried by the casing and engaging the steering wheel, pivoted members carried by the casing and engaging the wheel, and a lock within the casing for locking the sliding and pivoted members in engagement with the wheel.

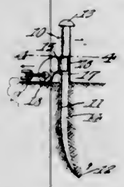
4. In a locking device for automobiles, the combination with the steering column and wheel, of a casing removably secured to the column below the wheel, a vertically movable member carried by the casing and engaging the steering wheel, pivoted members carried by the casing and engaging the wheel, sliding members carried by the casing and locking the sliding and pivoted members in engagement with the wheel, and sliding tumblers locking the means.

5. In a locking device for automobiles, the combination with the steering column and wheel, of a casing removably secured to the column and surrounding the same below the wheel, pivoted members carried by the casing and engaging the steering wheel, a vertically sliding member engaging the pivoted members and holding them in en-

gagement with the wheel and having notches adapted to interlock with notches on the wheel, and means for locking said vertically sliding member in its upward position.

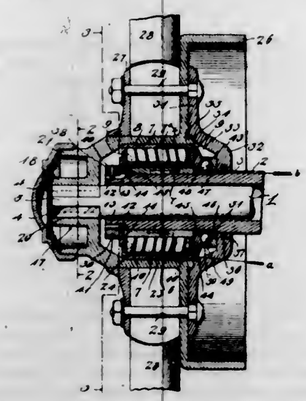
[Claim 6 not printed in the Gazette.]

1,241,472. DEVICE FOR PULLING AUTOMOBILES FROM MUD-HOLES. LEE H. ADAMSON, Rogers, Ark. Filed May 4, 1916. Serial No. 95,419. (Cl. 189—90.)



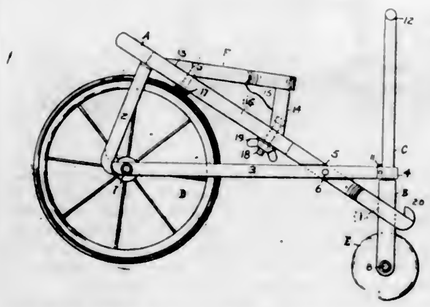
An anchor stake embodying a flat shank having one end pointed and curved toward one side from the plane of said shank, said shank having a head at its other end and a longitudinal stiffening rib between its edges and extending from said pointed end of the shank to said head, said rib being disposed at that side of the shank toward which the pointed end is curved, and a clip having reflexed portions engaging said shank, the clip being disposed at that side of the shank opposite said rib, and having a downturned apertured lobe for the engagement of a flexible element.

1,241,473. WHEEL-HUB. ELMER F. ALTMAN, Minneapolis, Minn., assignor of one-half to Orin M. Oulman, Minneapolis, Minn. Filed Sept. 9, 1912, Serial No. 719,497. Renewed Feb. 26, 1917. Serial No. 151,125. (Cl. 21—90.)



The combination with a nonrotatable axle, a substantially cylindrical hub revolubly mounted on one end thereof and adapted to slide endwise therefrom, an annular thrust member on the axle adjacent the inner end of the hub, a plurality of spokes abutting the periphery of the hub and radiating therefrom, said spokes being free to slide endwise from the hub as a unit, a fixed spoke clamping ring surrounding the inner end of the hub and formed integrally therewith, and a movable spoke clamping ring surrounding the outer end of said hub to slide endwise therefrom, the spokes being disposed between the two clamping rings; of an annular retaining plate surrounding the axle and contacting with the inner end of the annular thrust member thereon, said plate also contacting with the fixed clamping ring, and a series of bolts passing removably through said retaining plate, through the fixed and movable clamping rings, and through the intervening spokes, whereby the retaining plate, the bolts, and the movable clamping rings are the sole means to retain the entire hub on the axle and for retaining the spokes on the hub.

1,241,474. CHILD'S VEHICLE. THOMAS O. MASON, Bellevue borough, Pa., assignor to T. O. M. Manufacturing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 2, 1917. Serial No. 165,808. (Cl. 21—191.)



1. In a child's vehicle of the character described, the combination of a forwardly and downwardly inclined platform, front and rear wheels supporting said platform, a horizontal seat having its rear end resting on said platform, and a vertical support having its upper end secured to the front end of said seat and its lower end resting on said platform.

2. In a child's vehicle of the character described, the combination of a forwardly and downwardly inclined platform, front and rear wheels supporting said platform, and a seat mounted to slide on the inclined upper surface of said platform and adjustable at various levers thereon.

3. In a child's vehicle of the character described, the combination of a forwardly and downwardly extending platform, a wheel supporting the rear of said platform, a smaller steering wheel supporting the front of said platform, a horizontal seat having its rear end resting upon said platform, and a vertical support having its upper end secured to the front end of said seat and its lower end resting upon said platform.

4. In a child's vehicle of the character described, the combination of a forwardly and downwardly inclined platform, a wheel supporting the rear of said platform, a smaller steering wheel supporting the front of said platform, and a seat mounted to slide on the inclined upper surface of said platform and adjustable at various levels thereon.

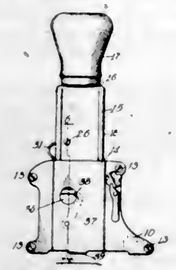
5. In a child's vehicle of the character described, the combination of a forwardly and downwardly inclined platform, a frame supporting the rear of said platform, a rear wheel journaled in said frame, and a steering wheel mounted in the forward part of said frame.

[Claims 6 to 9 not printed in the Gazette.]

1,241,475. SELF-INKING HAND-STAMP. HARRY S. FOLGER and TOREY ROSS, Chicago, Ill.; said Ross assignor to said Folger. Filed Feb. 10, 1915. Serial No. 7,224. (Cl. 101—333.)

1. In a self inking hand stamp, two independent side plates each providing vertical guides, slides operating in said guides, an arm pivoted to each side plate, a link connecting each slide to the arm pivoted to the side plate in which it slides, and separate pieces forming variable length connections between the parts on opposite sides of the stamp, said connections consisting of bridges connecting the slides, a bridge connecting the outer ends of the arms, and ties between the side plates.

2. In a self inking hand stamp, the combination with a side plate, a slide, and an arm on each side of the stamp, of variable length connecting pieces arranged to be attached to the parts on opposite sides of the stamp to connect them together, said connecting pieces consisting of handle-holding and die-holding bridges connecting the slides, a pad holding bridge connecting the arms, and tie-bolts connecting the side plates.



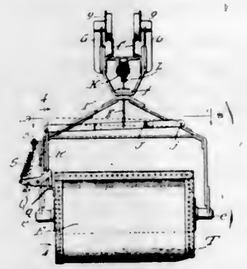
3. In a self inking hand stamp, the combination with a frame providing guides, slides operating in said guides and arranged to provide channels between said guides and slides, and a spring for supporting the slides at an elevated position, of a locking device located in one of said channels and arranged to hold said slides in a depressed position.

4. In a self inking hand stamp, a frame providing guides, slides operating in said guides, said slides having their lower ends bent inward and upward to form lips, a bridge connecting the lips of opposite slides, a second bridge connecting the upper ends of said slides, a stamp mounted upon the first bridge, a handle mounted upon the second bridge, and a spring supporting said slides in said frame.

5. In a self inking hand stamp, the combination with a frame providing guides, slides operating in said guides, the lower ends of said guides having lips bent inward and upward so as to provide pockets between the slides and the lips, and a stamp supported between the lips of opposite slides, of a pad supported in said frame, and connections in said pockets from the slides to the pad for moving it.

[Claim 6 not printed in the Gazette.]

1,241,476. TRAVELING-BUCKET APPARATUS. JAMES C. FRENCH, Kenosha, Wis., assignor to Frederick C. Austin, Chicago, Ill. Filed Feb. 15, 1915. Serial No. 8,284. (Cl. 214—14.)



1. An apparatus for conveying materials from one place to another, comprising a track, a bucket, means traveling on said track to support the bucket, connections for operating said bucket back and forth on said track, and mechanism for automatically dumping the load by reversing the motion of said bucket at any point in the path of travel thereof, said mechanism including a lever pivoted at one end thereof to extend crosswise of said bucket, and a latch connected with and operated by the raising of said lever at the other end thereof to dump the load, said connections comprising a line attached to said lever between its ends and arranged for pulling said bucket back to loading position after the initial pull thereon has raised the lever and thereby dumped the load, said mechanism having a support to engage said line above said lever.

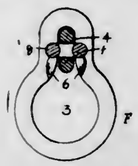
6. In combination, a track having a bucket mounted to travel thereon, mechanism to dump the load at any desired point along said track, a swivel to permit rotation of the bucket about a vertical axis, so that the bucket may turn around and dump at any point along said track, devices to operate the bucket along its path of travel, a connection to control said mechanism at will and to return the bucket along said track to loading position, and means to automatically restore the bucket to carrying condition after the dumping of the load.

10. The combination of a track, a carrier to travel on said track, a bucket having a bail, a swivel to support said bail on said carrier, dumping mechanism on said bail, means to move the carrier forward on said track, and a line to draw the carrier backward, said line extending downward through said swivel to operate said mechanism, and means to automatically restore the bucket to carrying condition while the bucket is turned in any direction on said swivel, so that the load is dumped at will by upward movement of the line in said swivel, and whereby said bucket can turn around and be dumped at different points along said track by the initial pull on said line.

12. In combination, a track having a bucket mounted to travel thereon, a swivel to permit rotation of the bucket about a vertical axis, so that the bucket may turn around freely at any point along said track, devices to operate the bucket along its path of travel, means operative in any rotated position of the bucket for at will controlling the bucket through said swivel to dump the load at any desired point along said track and for returning the bucket to loading position, whereby the bucket is under control at all times and while free to turn in any direction, and means operable to automatically restore the bucket to carrying condition after each dumping operation and before reaching the loading position.

[Claims 2 to 5, 7 to 9, 11, and 13 not printed in the Gazette.]

1,241,477. LOCKING MECHANISM FOR CHAINS. ALBERT J. HEINSIUS, Pittsburgh, Pa. Filed Jan. 9, 1917. Serial No. 141,440. (Cl. 24—116.)



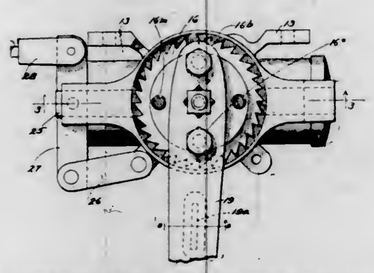
2. A locking member for chain comprising a ring, provided with a main bore, through which the chain may pass freely, and said bore being extended at one side to form a radial slot of sufficient width to accommodate a link of the chain when turned edgewise, a pair of projections, one on either wall of the slot adjacent to its mouth, extending from the face of the ring and adapted to contact with the next adjacent link to prevent the escape of the first mentioned link from said slot, and a pair of recesses in the walls of said slot on the opposite face of the ring from said projections, so that by inserting the end of the next adjacent link on the opposite side of the first mentioned link from the second mentioned link into said recesses, the first mentioned link may be moved longitudinally to enable the second mentioned link to over-ride said projections, substantially as and for the purposes described.

3. A locking member for chain comprising a ring, provided with a main bore, through which the chain may pass freely, and said bore being extended at one side to form a radial slot of sufficient width to accommodate a link of the chain when turned edgewise, a pair of projections, one on either wall of the slot adjacent to its mouth, extending from the face of the ring and adapted to contact with the next adjacent link to prevent the escape of the first mentioned link from said slot, and a pair of recesses in

the walls of said slot on the opposite face of the ring from said projections, so that by inserting the end of the next adjacent link on the opposite side of the first mentioned link from the second mentioned link into said recesses, the first mentioned link may be moved longitudinally to enable the second mentioned link to override said projections, said recesses being nearer to the central axis of said ring than said projections, thus requiring said third mentioned link to be moved toward said axis to enter said recesses, substantially as and for the purposes described.

[Claim 1 not printed in the Gazette.]

1,241,478. DOOR-HOLDER. JOSEPH NEMEC, Chicago, Ill., assignor of one-third to Albert L. Beardsley and one-third to Charles E. Oliver, Chicago, Ill. Filed Feb. 13, 1915. Serial No. 8,053. (Cl. 16—46.)



1. A rotatable shaft, a ratchet member carried thereby, means to resist movement from normal or rest position of said shaft and member, said means being adapted to normally return said shaft and members to rest position, and a pawl member arranged to engage said ratchet member to prevent return thereof to normal position.

2. A rotatable shaft, a ratchet member carried thereby, means to resist movement from normal or rest position of said shaft and member, said means being adapted to normally return said shaft and members to rest position, a pawl member arranged to engage said ratchet member to prevent return thereof to normal position, and means controlled from a position removed from said ratchet member to move said pawl out of engagement with said ratchet.

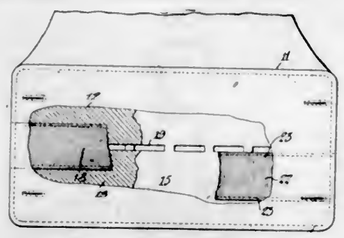
3. A rotatable shaft, a ratchet member carried thereby, means to resist movement from normal or rest position of said shaft and member, said means being adapted to normally return said shaft and members to rest position, a pawl member arranged to engage said ratchet member to prevent return thereof to normal position, means to move said pawl out of engagement with said ratchet, and means to hold the same out of engagement.

4. A rotatable shaft, a ratchet member carried thereby, means to resist movement from normal or rest position of said shaft and member, said means being adapted to normally return said shaft and members to rest position, a pawl member arranged to engage said ratchet member to prevent return thereof to normal position, means to move said pawl out of engagement with said ratchet, said means comprising a bell crank, a rod attached thereto, and a second rod also attached thereto and arranged for manual operation.

5. A rotatable shaft, a ratchet member carried thereby, means to resist movement from normal or rest position of said shaft and member, said means being adapted to normally return said shaft and members to rest position, a pawl member arranged to engage said ratchet member to prevent return thereof to normal position, means to move said pawl out of engagement with said ratchet, said means comprising a bell crank, a rod attached thereto, a second rod also attached thereto, and a manually engageable member carried by said last named rod, said member being provided with a portion mounted in a slotted plate.

[Claims 6 to 9 not printed in the Gazette.]

1,241,479. CUFF. FRANK M. PRESTWICH, New York, N. Y. Filed Apr. 6, 1916. Serial No. 89,276. (Cl. 2—79.)



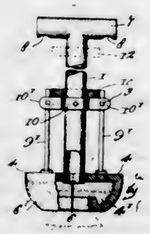
1. A reversible cuff, foldable in either direction upon itself, so as to provide a flap for attachment to a sleeve and a free flap adapted to lie against either face of the attachment flap; said cuff comprising two outer faces stitched togther along their marginal edges, a separate interlining piece for each flap of the cuff, said interlining pieces substantially coming up to the fold line of the cuff but slightly spaced apart at such line, and means within the cuff for holding said interlining pieces in place at the fold and permitting said outer cuff faces to slide freely relative to each other at the fold.

4. The combination with a sleeve, of a foldable cuff having outer faces foldable on themselves, a reinforcement lying in the free flap portion of said cuff and terminating along the folding edge, an interlining overlapping said reinforcement and stitching for holding said reinforcement and interlining in place.

5. A reversible cuff, foldable in either direction upon itself, so as to provide a flap for attachment to a sleeve and a free flap adapted to lie against either face of the attachment flap; said cuff comprising two outer faces stitched together along their marginal edges, an interlining piece for each flap of the cuff, said interlining pieces coming substantially up to the fold line of the cuff but slightly spaced apart at said line, a weaker interlining joining the first-named interlinings for holding the same in place at the fold and permitting said outer cuff faces to slide freely relative to each other at the fold, and an additional interlining covering substantially the entire face of the cuff, and which is perforated at the fold of the cuff.

[Claims 2 and 3 not printed in the Gazette.]

1,241,480. PROCESS FOR MAKING GLASS OBJECTS. ARTHUR E. SPINASSE, Mount Vernon, Ohio. Filed Apr. 12, 1917. Serial No. 161,592. (Cl. 49—83.1.)



3. The process of drawing glass cylinders, which consists in heating a hollow bait to glass-adhesion temperature, applying lime to the glass-contacting surfaces of said heated bait, immersing said bait while still heated, in molten glass, forming a novel, and drawing.

5. The procesa of drawing glass objects, which consists in applying to glass-contacting surfaces of a glass engaging bait, an adhesion preventing substance, and drawing.

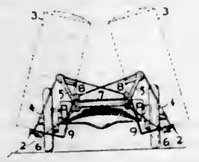
13. The method of drawing articles which consists in heating a bait, coating said bait with an adhesion-preventing substance, and drawing.

14. The method of drawing articles which consists in heating a bait, coating said bait with an adhesion-preventing substance, causing said bait to engage in interlocking but non-adhesive relation with the material to be drawn, and drawing.

18. The method of drawing glass cylinders with a sectional bait forming a bottom-opened chamber of a resilient character, which comprises heating said bait, coating the glass-contacting surfaces of said bait with a lubricant or adhesion-preventing substance, producing with the aid of said bait, a non-adherent plastic novel, forming said novel while plastic to maintain relative supporting relation between the novel and bait, and as the glass sets in more or less annealed condition, drawing the cylinder.

[Claims 1, 2, 4, 6 to 12, 15 to 17, and 19 to 24 not printed in the Gazette.]

1,241,481. TRUCK. JOHN BRISBEN WALKER, New York, N. Y. Filed Oct. 31, 1916. Serial No. 128,715. (Cl. 21—182.)



1. In a four-wheeled vehicle, the combination of main side frames overlying the wheel-axles, supporting means below the level of the wheel-axles for the support of a plurality of containers in inclined positions on each side of the vehicle, and lateral connections between the side frames and the container-supporting means, substantially as described.

2. In a four-wheeled vehicle, the combination of main side frames overlying the wheel-axles, supporting means below the level of the wheel-axles for the support of a plurality of containers on each side of the vehicle, and lateral connections between the side frames and the container-supporting means spaced so that a container may be placed between each two adjacent lateral connections, substantially as described.

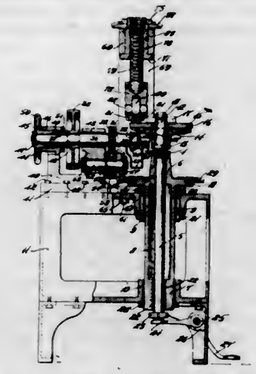
3. In a four-wheeled vehicle, the combination of main side frames overlying the wheel-axles, supporting means below the level of the wheel-axis for the support of a plurality of containers on each side of the vehicle, and lateral connections between the side frames and the container-supporting means spaced so that a container may be placed between each two adjacent lateral connections and confined thereby against longitudinal displacement, substantially as described.

4. In a four-wheeled vehicle, the combination of main side frames, longitudinal supporting rails below the level of the wheel-axles for the support of a plurality of containers on each side of the vehicle, and lateral cantaliver connections between the side frames and the supporting rails, substantially as described.

5. In a four-wheeled vehicle, the combination of main side frames overlying the wheel-axles, longitudinal supporting rails below the level of the wheel-axles for the support of plurality of cylindrical containers on each side of the vehicle, lateral cantaliver connections between the side frames and the supporting rails including struts from the side frames to the upper chords of the cantalivers, and a band connected between the struts of each two adjacent cantalivers for the support of the side of a container in an inclined position, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,241,482. HOT-ROLLING MACHINE. ROBERT B. WEAVER, Detroit, Mich., assignor, by mesne assignments, to The Anderson Rolled Gear Company, Cleveland, Ohio, a Corporation of Ohio. Filed Feb. 12, 1912. Serial No. 677,105. (Cl. 80—16.)



10. In a metal-working machine, a stock, a die-carrying shaft rotatably mounted in said stock, a rotatable work-support with its axis of rotation at an angle to the axis of said shaft, means for moving the work-support along its axis, and toothed gearing connecting said work-support with said shaft, said toothed gearing having a sliding driving-engagement with said work-support whereby a uniform speed-ratio between said work-support and shaft is maintained during the axial movement of said work-support.

12. In a machine for forming bevel-gear teeth, a power-driven spindle, a die-roll non-rotatably secured on said spindle, a rotatable arbor carrying clamping means for a gear-blank, said arbor being arranged at an angle to said spindle, means for axially adjusting said die-roll into operative position to form teeth on said gear-blank, a pressure-roller bearing upon said gear-blank clamping-means adjacent the back face of the gear-blank at a point opposite the working position of the die roll, and means for advancing said pressure-roller and clamping-means toward said die-roll as the tooth-forming operation progresses.

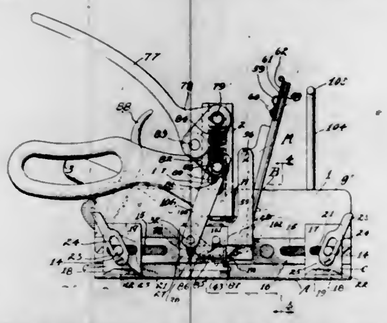
14. In a machine for forming bevel-gear teeth, a stock, a die-spindle rotatably mounted in said stock, manually operated means for adjusting said spindle longitudinally with respect to said stock, a vertical hollow spindle rotatably mounted in the frame in the plane of the die-spindle, a bevel-gear carried by said hollow-spindle and a bevel-pinion rotatably mounted on said stock, said gear and pinion having their teeth in driving engagement, a driving connection between said die-spindle and said bevel-pinion, a vertically slidable arbor axially arranged in said hollow-spindle, said arbor having a driving connection with said hollow-spindle, an adjustable stop on said arbor for limiting its vertical movement, clamping-means for a gear-blank upon said arbor, said clamping means being arranged to support the gear-blank in a horizontal plane spaced from the axis of the die-spindle, a means for raising said arbor, and a means for applying pressure in a vertical direction to said clamping means.

[Claims 1 to 9, 11, 13, and 15 to 25 not printed in the Gazette.]

1,241,483. TOOL FOR TIGHTENING AND FASTENING BALE-BANDS. GEORGE M. WILLIAMS, Elizabeth, N. J., assignor to P. Lorillard Company, New York, N. Y., a Corporation of New Jersey. Filed Jan. 3, 1916. Serial No. 69,845. (Cl. 100—15.)

1. In a tool for tensioning and attaching the ends of a band, means for imparting tension to the overlapping ends of a band, and means, forming a part of the tool, for fastening the ends of the band together while said ends are held under tension.

15. In a tool for tensioning and attaching the ends of a band, the combination with a frame, of means carried by the frame for applying tension to the ends of the band to draw the latter into tensioned overlapping relation, and means including a plunger and a punch driven thereby for inserting a fastening device through the overlapping ends of the band to unite such ends while under tension.



26. In a tool of the class described, the combination with a frame, of means carried thereby for tensioning the ends of a band, a sliding head block, a pair of punches carried by said head block, a plunger for operating said punch, a lever for operating the punch, means for sliding the same to selectively bring the punches in position to be operated upon by the plunger, and means for feeding fastening devices to one of said punches when the latter is in operative position relative to the plunger.

30. In a tool of the class described, the combination with a base plate, of a pair of spaced gripping members located above the base plate, each of said members having a relatively thin foot plate imposed upon the base plate, a sliding head block having an anvil plate substantially equal in thickness to the foot plates of the gripping members, a pair of reciprocating punches carried by the head block and adapted to be driven toward the anvil plate, a vertically reciprocating plunger for driving said punches, means for moving the head block to selectively bring the punches into alinement with the plunger, a support carried by the head block, a fastener magazine pivoted to rock upon this support and adapted to present a fastener to one of said punches when said punch is in operative position relative to the plunger.

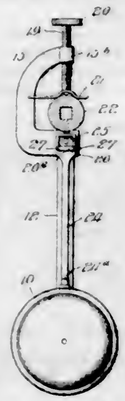
32. In a tool of the class described, the combination with a vertically disposed reciprocating plunger, of a horizontally sliding head block, a pair of vertically reciprocating punches carried by the head block and adapted to be moved one at a time beneath the plunger and to be actuated on the down stroke of the plunger, and means for automatically sliding the head block to bring a selected punch into operative position directly beneath the plunger.

[Claims 2 to 14, 16 to 25, 27 to 29, and 31 not printed in the Gazette.]

1,241,484. PORTABLE BURGLAR-ALARM. JAMES M. BUTCHER, Chicago, Ill., assignor to William L. Rohrer, Chicago, Ill. Filed Nov. 23, 1914. Serial No. 873,631. (Cl. 116—44.)

1. An alarm, comprising a bell having an operating member, a standard by which said bell is carried, a clamp member to which the standard is pivoted, and an actuating member for operating said operating member, said actuating member being reciprocably mounted on and supported by said clamp member and arranged to be actuated by the rotation of said clamp member with respect to said standard.

2. An alarm, comprising a bell having an operating member, a standard by which said bell is carried, a clamp member to which the standard is pivoted, and an actuating member engaging said operating member, said actuating member being provided with a rectangular slot and said clamp member being provided with a part to engage said slot and support said actuating member.



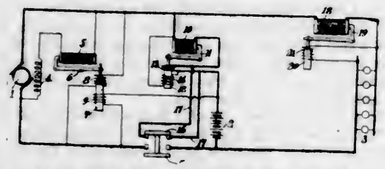
3. An alarm, comprising a bell having an operating member, a standard by which said bell is carried, a clamp member to which the standard is pivoted, and an actuating member engaging said operating member, said actuating member being provided with a rectangular slot and said clamp member being provided with a part to engage said slot and support said actuating member, said operating member being adapted to maintain said actuating member in normal relation to said clamp member.

4. In an alarm, the combination of a bell having an operating member, a standard by which said bell is carried, a clamp member to which said standard is pivoted and which is adapted to be secured to the shank of a door knob, and an actuating member arranged to engage said operating member and reciprocably mounted on said clamp member, whereby when said shank is rotated in either direction the weight of said bell will tend to maintain said standard in a vertical position and thereby cause said actuating member to ring said bell.

5. In an alarm, a bell having an operating member, a standard by which said bell is carried, a clamp member on which the standard is pivoted, an actuating member engaging said operating member and operatively connected to said clamp member to be operated by a relative angular movement of said clamp member and said standard, and supporting means carried by said clamp member for limiting the angular movement of said standard.

[Claims 6 and 7 not printed in the Gazette.]

1,241,485. ELECTRICAL SYSTEM OF DISTRIBUTION. GORHAM CROSBY, Glen Ridge, N. J., assignor to Gould Coupler Company, a Corporation of New York. Filed May 12, 1916. Serial No. 96,986. (Cl. 171—313.)



1. An electrical system of distribution having in combination a variable speed generator, a storage battery connected to be supplied thereby, means regulating the generator voltage, a voltage coil controlling said means, means for changing the resistance in circuit with the battery to regulate the battery charging current, and a coil affecting said regulating means and acting to cause a decrease in generator voltage when the battery is in a discharged condition.

2. An electrical system of distribution having in combination a variable speed generator, a storage battery connected to be supplied thereby, means regulating the generator voltage, a voltage coil controlling said means, means for changing the resistance in circuit with the battery to regulate the battery charging current, and a coil affecting said regulating means and acting to cause a decrease in generator voltage when the battery is in a discharged condition, said last mentioned coil being responsive to changes in the battery back pressure.

3. An electrical system of distribution having in combination a variable speed generator, a storage battery connected to be supplied thereby, means regulating the generator voltage, a voltage coil controlling said means, means for changing the resistance in circuit with the battery to regulate the battery charging current, a current coil controlling said resistance changing means and a coil affecting said resistance changing means and acting to tend to weaken the battery charging current as the battery becomes charged.

4. An electrical system of distribution having in combination a variable speed generator, a storage battery connected to be supplied thereby, means regulating the generator voltage, a voltage coil controlling said means, means for changing the resistance in circuit with the battery to regulate the battery charging current, a current coil controlling said resistance changing means and a coil affecting said resistance changing means and acting to tend to weaken the battery charging current as the battery becomes charged, said last mentioned coil being responsive to changes in voltage drops across the resistance in circuit with the battery.

5. An electrical system of distribution having in combination a generator, a storage battery and translating devices connected to be supplied thereby in parallel, means for regulating the voltage upon the translating devices, means for regulating the generator voltage, a voltage coil controlling said last mentioned means, a coil affecting said last mentioned means and acting to cause a decrease in generator voltage when the battery is in a discharged condition, means for changing the resistance in the battery circuit to regulate the battery charging current, a current coil controlling said resistance changing means and a coil affecting said resistance changing means and acting to tend to weaken the battery charging current as the battery becomes charged.

[Claim 6 not printed in the Gazette.]

REISSUES.

14,364. METHOD OF MAKING INDOXYL AND DERIVATIVES. LEE E. H. CONE, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a Corporation of Michigan. Filed June 18, 1917. Serial No. 175,500. Original No. 1,211,413, dated Jan. 9, 1917, Serial No. 105,078, filed June 21, 1916. (Cl. 8—1.)

1. In a method of making indoxyl and its derivatives, the step which consists in heating a phenyl-glycin body with a mixture of caustic alkali, alkaline-earth oxid and metallic sodium present as such, substantially as set forth.

2. In a method of making indoxyl and its derivatives, the step which consists in heating a phenyl-glycin body with a mixture of potassium hydroxid, lime and metallic sodium present as such, substantially as set forth.

3. In a method of making indoxyl and its derivatives, the step which consists in heating a phenyl-glycin body with a mixture of sodium and potassium hydroxids, lime and metallic sodium present as such, substantially as set forth.

4. In a method of making indoxyl and its derivatives, the steps which consist in first fusing together caustic alkali, alkaline-earth oxid and metallic sodium, the latter remaining present as such; and then adding a phenyl-glycin body to such mixture.

5. In a method of making indoxyl and its derivatives, the steps which consist in fusing together a phenyl-glycin body with a mixture of caustic alkali, alkaline-earth oxid and metallic sodium present as such; and then passing the resulting product, while still in fused state, into water.

6. In a method of making indoxyl and its derivatives, the steps which consist in fusing together a phenyl-glycin body with a mixture of caustic alkali, alkaline-earth oxid and metallic sodium present as such; and then passing the resulting product, while still in fused state, into water, out of contact with air.

7. In a method of making indoxyl and its derivatives, the steps which consist in first fusing together caustic alkali, alkaline-earth oxid and metallic sodium, the latter remaining present as such; adding a phenyl-glycin body to such mixture; and then passing the resulting product, while still in fused state, into water out of contact with air.

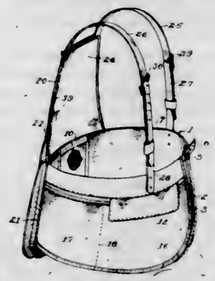
8. In a method of making indoxyl and its derivatives, the steps which consist in fusing together a phenyl-glycin body with a caustic alkali melt; and then passing the resulting product, while still in fused state, into water.

9. In a method of making indoxyl and its derivatives, the steps which consist in fusing together a phenyl-glycin body with a caustic alkali melt; and then passing the resulting product, while still in fused state, into water, out of contact with air.

10. The method of dissolving indoxyl, which consists in passing the same, while in fused state, into water.

11. The method of dissolving indoxyl, which consists in passing the same, while in fused state, into water, out of contact with air.

14,365. COMBINED GAME AND SHELL BAG. JACOB DANZ, 2d, Los Angeles, Cal. Filed Dec. 2, 1916. Serial No. 134,755. Original No. 1,141,941, dated June 8, 1915, Serial No. 7,011, filed Feb. 9, 1915. (Cl. 224—7.)



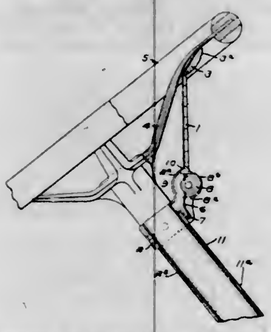
1. A belt, shell compartment secured to the ends of the belt, an inner section secured to the center of the belt and overlapping the shell compartment, an outer section parallel with the inner section, an accordion plait connecting the outer section and the inner section below the belt, said outer and inner sections extending some distance above the belt with their edges unconnected and straps connecting the upper ends of the inner and outer sections to rear the ends of the belt.

2. A combined game and shell bag, comprising a belt, shell compartments secured to the ends of the belt and extending downwardly, an inner section secured to the center of the belt and extending upwardly and downwardly and overlapping the shell compartments, an outer section parallel with the inner section, an accordion plait connecting the outer section and the inner section along the edges below the belt, the outer and inner sections being unconnected along their side edges above the belt and connected together across their upper edges, and straps connecting the upper corners of the inner and outer sections to near the ends of the belt.

3. A game bag construction, comprising a body structure adapted to be suspended from a person's body and having shell compartments arranged to be disposed upon

the opposite sides of the body, and an expansible game bag secured to the rear of said body structure overlapping the shell compartments, said bag comprising outer, inner and vertical side faces, the outer face of said game bag extending upwardly and beyond the side faces thereof and having its terminating upper edge secured to the body structure whereby opposing side openings are formed therein.

14,366. DIRIGIBLE HEADLIGHT. JOSEPH P. FOX, Providence, R. I., assignor of one-half to Otto Riemann, Chemnitz, Germany. Filed Oct. 25, 1913. Serial No. 797,345. Original No. 1,038,739, dated Sept. 17, 1912, Serial No. 633,581, filed June 16, 1911. (Cl. 240—62.)



1. In means for adjusting the lamps of motor-driven vehicles in various directions, the combination, with the steering-gear and rotatably mounted lamps on the vehicle, of means comprising a detachable clutch member adapted to be driven both by a part of the steering-gear within reach of the driver's seat and by hand from the driver's seat for adjusting the position of the lamps and holding them stationary.

2. In means for adjusting the lights of motor driven vehicles in various directions, the combination, with the steering-gear and rotatably mounted lights on the vehicle, of means controlled from the driver's seat, connecting the lights with the steering-gear, said means comprising a resilient clutch member automatically and manually detachable.

3. In means for adjusting the lamps of motor driven vehicles in various directions, the combination, with the steering-column having a steering-wheel, a transmission member and rotatably mounted lamps on the vehicle, of means for adjusting the position of the lamps, comprising a lever having one end pivotally connected with the transmission member 2 for controlling the lamps and the other end detachably connected with the steering-wheel.

4. In means for adjusting the lamps of motor driven vehicles in various directions, the combination, with the steering-column, having a steering-wheel, a transmission member and rotatably mounted lamps on the vehicle, of means for adjusting the position of the lamps, comprising a resilient lever having one end pivotally connected with the transmission member 2 for controlling the lamps and the other end normally detachably connected with the steering-wheel, and a spring normally holding the lever in position, said lever being adapted to be locked by the spring after it has been disengaged from the steering-wheel.

5. In means for adjusting a motor-driven vehicle lamp, the combination with the steering gear and a lamp mounted upon the vehicle for turning movement, and a lamp-turning clutch mounted co-axially with said steering gear and operable from the driver's seat, said clutch being detachably connected with and directly driven by the steering gear.

6. In means for adjusting a lamp of a motor driven vehicle, the combination with steering gear including a steering column and its wheel, of a lamp rotatably mounted upon the vehicle, and means including a member within reach of the driver's seat for detachable connection with the steering gear, whereby the position of the lamp may be adjusted by the motion of the steering gear or manually independently of it.

7. In means for adjusting a lamp of a motor driven vehicle, the combination with means manually operable to steer the vehicle, of a lamp rotatably mounted upon the vehicle, and means adapted to be operated by said steering means having provision for ready detachable connection therewith within reach of the driver's seat, whereby the position of the lamp may be adjusted by the motion of said steering means or manually independently of it.

8. In means for directing the lights of motor-driven vehicles in various directions relative to the vehicle, the combination with the steering gear and movably mounted lights on the vehicle, of clutch means for engagement with a part of the steering gear for directing the lights by the movement of the steering gear and for disengagement from said steering gear for directing the lamps independently of movement of said steering gear.

9. In dirigible lighting apparatus for a motor-driven vehicle, the combination of a steering post, an annular member rotatably surrounding said steering post, a lever pivoted on said annular member, and flexible transmission means for transmitting movement from said lever to the lights of the motor vehicle.

14,367. INDICATING-SIGNAL FOR VEHICLES. WILLIAM P. HAMMOND, Passaic, N. J. Filed July 7, 1917. Serial No. 179,293. Original No. 1,199,545, dated Sept. 26, 1916, Serial No. 599,527, filed Dec. 27, 1910. (Cl. 177—31.7.)



1. A direction indicator for vehicles, including a cover plate provided with a plurality of independent transparent areas, complemental design elements upon the transparent areas, said design elements having such a relation to each other that selected sets thereof taken independently form complete direction indicating designs, independent illuminating means behind the respective areas of the transparent plate, means for confining the light from each illuminating means to the particular area of the transparent plate, and selective means for controlling the independent illuminating means whereby any selected set of the design elements can be illuminated to indicate the desired direction.

2. A direction indicator for vehicles, including a cover plate provided with a plurality of independent transparent areas, a continuous design extending over the various transparent areas, the various elements of the design being of a complemental nature and having such a relation to each other that selective sets thereof taken independently form complete direction indicating designs, independent illuminating means behind the respective transparent areas of the cover plate, means for confining the light from each illuminating means to the particular area of the cover plate, and selective means for controlling the independent illuminating means whereby any selected set of the element of the design can be illuminated.

3. A direction indicator for vehicles and the like including a transparent plate subdivided into a central area and end areas, said plate being provided with a unitary design extending over all of the areas and the portions thereof over the different areas having such a relation to each other that the central portion in combination with either of the end portions forms a complete direction indicating design, independent illuminating means behind the respective areas of the transparent plate, means for confining the light of each illuminating means to its particular area, and selective means for controlling the independent illuminating means whereby the central area of the transparent plate can be illuminated in combination with either one of the end areas thereof.

4. A direction indicator for vehicles and the like, including a casing, partitions dividing the casing into a central compartment and opposite end compartments, a transparent plate extending across the several compartments and having a double headed arrow marked thereon, the shaft of the arrow extending across the central compartment while the arrow heads point in opposite directions and are disposed over the opposite end compartments, independent illuminating means within the several compartments, and selective means for controlling the illuminating means to illuminate the central compartment in combination with either of the end compartments.

5. A signal as characterized, comprising a containing case having a cover, said cover being provided with transparent sections laterally extended and centrally united to indicate opposite lateral directions; a plurality of illuminating members for said sections; a plurality of partitions confining a central portion to exclude the light thereof from the other portions; and means for selectively illuminating the said members.

6. A signal as characterized, comprising a containing case having a cover, said cover being provided with transparent sections laterally extended and centrally united, design elements upon the transparent sections of the cover, independent illuminating means for said sections, partitions confining a central section to exclude the light thereof from the other sections, and selective means for controlling the illuminating means, the before mentioned design elements having a complemental relation so that selected sets thereof taken independently form complete direction indicating designs.

7. A signal as characterized, comprising a containing case having a cover, said cover being provided with transparent sections laterally extended and centrally united to indicate opposite lateral directions, a plurality of illuminating members for said sections; a plurality of partitions confining a central portion to exclude the light thereof from the other portions; and means for illuminating the central member and one of the side members to secure the combined symbolical effect of the designs of said sections.

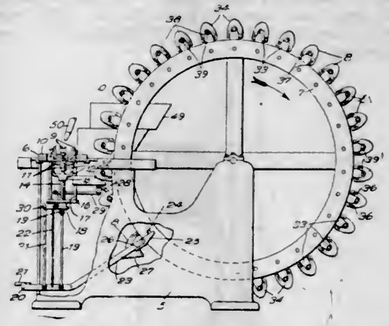
8. A signal as characterized, comprising a containing case provided with sections laterally extended and centrally united and provided with designs to indicate opposite lateral directions, a plurality of illuminating members for said sections; a plurality of partitions confining a central portion to exclude the light thereof from the other portions; and means for illuminating the central member and one of the side members to secure the combined symbolical effect of the designs of said sections.

9. A signal as characterized, comprising a containing case having a cover, said cover being provided with transparent sections laterally extended and centrally united to indicate opposite lateral directions; a plurality of illuminating members for said sections, a plurality of partitions confining a central portion to exclude the light thereof from the other portions, and means for illuminating said members so that the center member and a side member are in indicating condition simultaneously.

10. A signal as characterized, comprising a containing case provided with sections laterally extended and centrally united and provided with designs to indicate opposite lateral directions; a plurality of illuminating members for said sections; a plurality of partitions confining a central portion to exclude the light thereof from the other portions; and means for illuminating said members so that the central member and a side member are in indicating condition simultaneously.

14,368. HEEL-BUILDING MACHINE. ALEXANDER A. HUDSON, Cincinnati, Ohio. Filed Sept. 18, 1916. Serial No. 120,896. Original No. 1,156,842, dated Oct. 12, 1915, Serial No. 12,753, filed Mar. 8, 1915. (Cl. 12—50.)

1. In combination in a heel building machine, a blank assembling device, clamps, a rotatable support for said clamps located adjacent to said assembling device, a treadle bar, and means operatively connecting the treadle bar with the clamp support and the blank assembling device, whereby movement of said treadle bar causes simultaneous movement of said asembling device and said clamp support.



2. A heel building machine comprising a blank assembling device, a series of clamps rotatively mounted adjacent to the assembling device, and means adapted to simultaneously operate the assembling device and release the clamps.

3. In a heel building machine the combination of a blank asembling device, a series of clamps rotatively mounted adjacent to the assembling device, and means adapted to simultaneously operate the assembling device, rotate the clamps, and release the clamps.

4. In combination in a heel building machine, a blank assembling device, a series of clamps, and a vertically rotatable wheel adapted to mount the clamps on its rim adjacent to the blank assembling device, each of said clamps consisting of a base, a jaw reciprocally mounted at one end of the base, a jaw adjustably mounted at the opposite end of the base, means adapted to swivelly mount the second mentioned jaw in its adjusted positions, and a second means adapted to move the first mentioned jaw toward the second mentioned jaw to clamp a heel block between them.

5. A heel building machine consisting of a vertically positioned wheel, a series of heel clamps mounted upon each quarter of the wheel and adapted to receive freshly glued heels and means to impart a step by step rotation to the wheel, whereby the step by step movements necessary to make one revolution of the wheel consume the time necessary for the glue to set.

6. In a heel building machine, the combination of a table, a wheel positioned vertically adjacent to the table, a series of clamps positioned upon each quarter of the wheel and adapted to receive freshly glued heels, a clamp releasing mechanism mounted adjacent to the table and means to impart a step by step movement to the wheel whereby in one revolution of the wheel the glue may be set and the heel released from its clamp upon its return to the table.

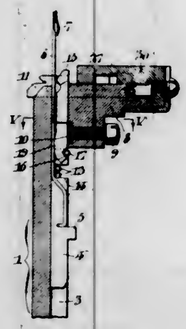
14,369. KNITTING-MACHINE. ALBERT M. PIGEON, Norristown, Pa., assignor to Wildman Mfg. Co., Norristown, Pa., a Corporation of Pennsylvania. Filed July 5, 1917. Serial No. 178,873. Original No. 1,213,004, dated Jan. 16, 1917, Serial No. 20,053, filed Apr. 8, 1915. (Cl. 66—21.)

1. In a knitting machine, the combination of a needle carrier; spring beard needles mounted therein; means for closing the needle beards to permit the shedding of the loops; and means for engaging the beards, whereby vibration thereof, after the shedding of the loops, is prevented.

2. In a knitting machine, the combination of a needle carrier; spring beard needles mounted therein; means for moving said needles longitudinally; means for closing the beards of said needles to permit the shedding of the yarn

loops over the same; and means for engaging the beards of the needles when said needles are approaching the end of their receding movement; whereby vibration of the needle beards, after the shedding of the loops, is prevented.

3. In a knitting machine, the combination of a needle cylinder; a series of spring beard needles carried thereby; means for closing the needle beards to permit the shedding of the loops; and means for engaging the needle beards, whereby vibration thereof after the shedding of the loops, is prevented.



4. In a knitting machine, the combination of a needle cylinder; a series of spring beard needles carried thereby, and means for engaging the beards of the needles for closing said needle beards for shedding the yarn loops over the same and for engaging the beards of the needles when said needles are at the lower end of their stroke for preventing vibration of the needle beards upon reversal of the movement of the needles.

5. In a knitting machine, the combination of a needle cylinder; a series of spring beard needles carried thereby; a beard presser for each needle mounted on the needle cylinder and having means for engaging and closing the beard of the needle for shedding the yarn loops over the same, and means for engaging the needle beard when the needle is at the lower end of its reciprocation for preventing vibration of said needle beard upon the reversal of the movement of the needle.

6. In a knitting machine, the combination of a needle cylinder; a series of spring beard needles carried thereby; a beard presser for each needle mounted on the needle cylinder; means for engaging said beard pressers for causing said pressers to close the beards for shedding the yarn loops over the same, and said pressers having means for engaging the needle beards when the needles are at the lower end of their reciprocation for preventing vibration of said needle beards upon the reversal of the movement of the needles.

7. In a knitting machine, the combination of a needle cylinder having needle grooves therein; a series of spring beard needles located in said grooves; a beard presser for each needle located in each needle groove, cams for engaging the upper ends of said beard pressers for swinging the same to close the beards of the needles to permit the yarn loops to pass over the same, said beard pressers having means for engaging the spring beards and placing the same under tension while the needles are at the lower end of their stroke.

8. In a knitting machine, the combination of a needle cylinder having a series of spaced partitions forming needle grooves, spring beard needles located in said grooves, said partitions being cut away at the upper ends thereof to a point below the lowest extreme position of the needle beards during the reciprocation of the needles, a beard presser for each needle located between the partitions on the cylinder, said beard pressers being thickened above the ends of the cut away partitions, so as to provide a wide bearing surface for engaging the beard of the needle.

9. In a knitting machine, the combination of a needle cylinder having a series of spaced partitions forming needle grooves; spring beard needles located in said grooves, said partitions being cut away at the upper ends thereof to a point below the lowest extreme position of the needle beards during the reciprocation of the needles, a beard presser for each needle located in the groove between the partitions and extending above the cut away ends of the partitions, said beard presser being thickened above said ends of the partitions to provide a wide bearing surface for the beard of the needle, and said pressers being constructed so as to engage the beards of the needles while the needles are at the lower ends of their stroke for preventing the beards from vibrating.

10. In a knitting machine, the combination of a needle cylinder having a series of spaced partitions forming needle grooves, said partitions being cut away at their upper ends, a series of spring beard needles mounted in said grooves, a beard presser for each needle mounted in the needle grooves, and extending above the needle cylinder, said beard presser having a cam surface at its upper end and thickened to form a wide surface for engaging the beard of the needle for closing the same to shed the yarn loop, and a cut away portion beneath said widened portion, providing a clearance space for said loop.

11. In a knitting machine, the combination of a needle cylinder having a series of spaced partitions forming needle grooves, said partitions being cut away at their upper ends, a series of spring beard needles mounted in said grooves, a beard presser for each needle mounted in the needle groove, and extending above the needle cylinder, said beard presser having a cam surface at its upper end and thickened to form a wide surface for engaging the beard of the needle for closing the same to shed the yarn loop, and a cut away portion beneath said widened portion for forming a clearance space for said loop, each beard presser being thickened beneath said cut away portion and constructed so as to form a wide surface for engaging the spring beard of the needle while said needle is at the lower end of its stroke and reversing its movement.

12. In a knitting machine, the combination of a needle cylinder having a series of grooves formed therein, a spring beard needle for each groove, a beard presser for each needle located in the needle groove, said beard presser having a rounded lower end adapted to engage the needle, a tapered upper end, a notch beneath said tapered upper end, and a widened surface below said notch adapted to engage the beard of the needle when said needle is at the lower end of its stroke.

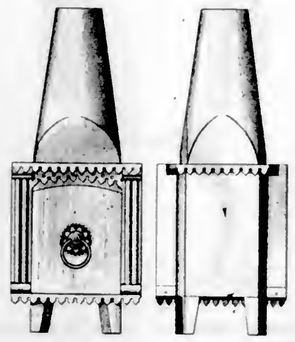
DESIGNS.

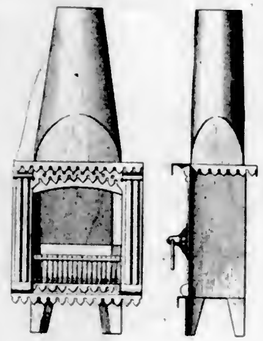
51,294. LIGHTING-FIXTURE. HARRY C. ADAM, St. Louis, Mo. Filed July 19, 1917. Serial No. 181,656. Term of patent 14 years.

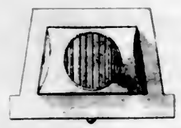


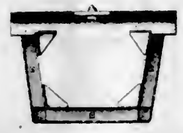
The ornamental design for a lighting fixture, as shown.

51,295. PORTABLE FIREPLACE. NUMA L. AUCOIN, Delcambre, La. Filed June 29, 1917. Serial No. 177,812. Term of patent 7 years.



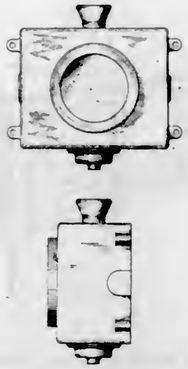






The ornamental design for a portable fire place as shown.

51,296. HUMIDIFIER. ESTEN B. BEELER, New York, N. Y., assignor to Esta Water Auxiliator Co., Inc., New York, N. Y., a Corporation of New York. Filed June 13, 1917. Serial No. 174,631. Term of patent 14 years.



The ornamental design for a humidifier, as shown.

51,297. FINGER-RING. ISIDOAR BERNSTEIN, Brooklyn, N. Y. Filed June 21, 1917. Serial No. 176,244. Term of patent 7 years.



The ornamental design for a finger ring, as shown.

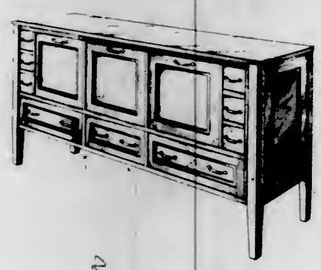
51,298. WATCHCASE-PROTECTOR. GILBERTH BROWN, Providence, R. I., assignor to The E. A. Potter Co., Providence, R. I., a Corporation of Rhode Island. Filed July 30, 1917. Serial No. 183,632. Term of patent 3½ years.





The ornamental design for a watch case protector as shown.

51,299. SALES COUNTER OR CABINET. HENRY ALLEN DALLEY, Philadelphia, Pa., assignor to The Unit Construction Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Nov. 20, 1916. Serial No. 132,480. Term of patent 7 years.



The ornamental design for a sales counter or cabinet as shown.

51,300. TEXTILE FABRIC. EMMA W. DOUGHTY, Cresskill, N. J., assignor to Cheney Brothers, South Manchester, Conn., a Corporation of Connecticut. Filed Aug. 14, 1917. Serial No. 186,242. Term of patent 3½ years.



The ornamental design for a textile fabric as shown.

51,301. TEXTILE FABRIC. EMMA W. DOUGHTY, Cresskill, N. J., assignor to Cheney Brothers, South Manchester, Conn., a Corporation of Connecticut. Filed Aug. 14, 1917. Serial No. 186,243. Term of patent 3½ years.



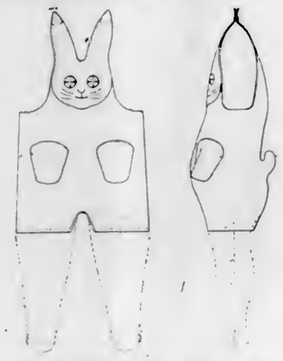
The ornamental design for a textile fabric as shown.

51,302. FINGER-RING OR SIMILAR ARTICLE. CHARLES FISCHER, New York, N. Y. Filed Aug. 9, 1917. Serial No. 185,364. Term of patent 3½ years.



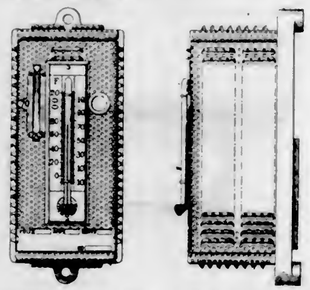
The ornamental design for a finger ring or similar article, as shown.

51,303. CHILD'S OUTER GARMENT. ELIZABETH T. HINCKS, Cambridge, Mass. Filed May 28, 1917. Serial No. 171,588. Term of patent 7 years.



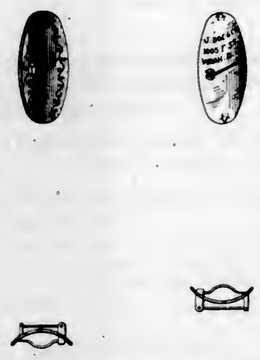
The ornamental design for a child's outer garment, as shown.

51,304. CASING FOR THERMOSTATS. ELLWOOD C. JOHNS, Jersey City, N. J., assignor to Gold Car Heating & Lighting Company, New York, N. Y., a Corporation of New York. Filed June 20, 1917. Serial No. 175,825. Term of patent 14 years.



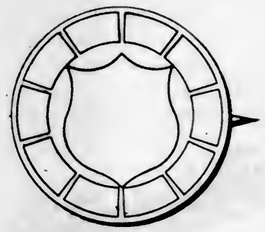
The ornamental design for a casing for thermostats, as shown.

51,305. COMBINATION FLOWER-HOLDER AND DRESS-PROTECTOR. GLADYS C. KANE, Washington, D. C. Filed Apr. 2, 1917. Serial No. 159,350. Term of patent 14 years.



The ornamental design for a combination flower holder and dress protector, as shown.

51,306. BADGE. GHISLAINE KÉFER, New York, N. Y. Filed May 12, 1917. Serial No. 168,286. Term of patent 3½ years.



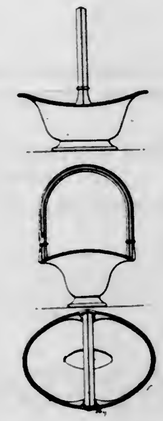
The ornamental design for a badge, as shown.

51,307. STATUETTE. BEATRICE E. MCKENZIE, Wilmette, Ill. Filed Jan. 22, 1917. Serial No. 143,869. Term of patent 7 years.



The ornamental design for a statuette as shown.

51,308. BASKET. ANDREW J. SANFORD, Newark, Ohio, assignor to A. H. Heisey & Co., Newark, Ohio. Filed June 30, 1917. Serial No. 178,041. Term of patent 14 years.



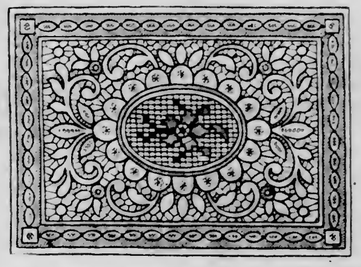
The ornamental design for a basket as shown.

51,309. TOY MONKEY. STEPHEN G. SZOPKO, New York, N. Y. Filed Mar. 28, 1917. Serial No. 158,136. Term of patent 3½ years.



The ornamental design for a toy monkey, as shown.

51,310. LACE PANEL. CHARLES J. WATTERS, Philadelphia, Pa., assignor to North American Lace Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Apr. 17, 1917. Serial No. 162,772. Term of patent 3½ years.



The ornamental design for an article of textile manufacture, substantially as shown and described.

TRADE-MARKS

PUBLISHED SEPTEMBER 25, 1917.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 78,074. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) SAMUEL GOLDEN, New York, N. Y. Filed May 7, 1914.

HULLFIN

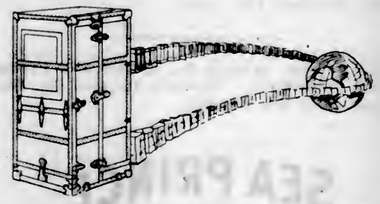
Particular description of goods.—All Boats Having a Subhull Manufactured and Sold by Me.
Claims use since Feb. 1, 1913.

Ser. No. 88,111. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) EASTMAN KODAK CO., Rochester, N. Y. Filed July 22, 1915.

Autographic

Particular description of goods.—Photographic Cameras, Camera Backs and Film.
Claims use since Mar. 10, 1914.

Ser. No. 90,212. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) MAYME JEFFERSON PEPPARD, Minneapolis, Minn. Filed Oct. 29, 1915.



No claim being made to the representation of the trunk apart from the mark shown in the drawing.
Particular description of goods.—Trunks.
Claims use since about September, 1912.

Ser. No. 91,570. (CLASS 38. PRINTS AND PUBLICATIONS.) MAUDE MCGEHEE HANKINS, Nashville, Tenn. Filed Dec. 18, 1915.

DADDY GANDER

Particular description of goods.—For and as the General Title of a Series of Printed and Published Rhymes and Short Prose Compositions for Children on Various Topics.
Claims use since Aug. 15, 1915.

Ser. No. 92,753. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) L. RAY LENICH, Union City, Ind. Filed Feb. 10, 1916.



Consisting of an oval ground of red encircled by an oval border of gold or yellow, the word "Union" being displayed therein in gold or yellow.
Particular description of goods.—Rubber Bumpers for Closet-Seats; Rubber Stoppers for Lavatories, Sinks, and Bath; Rubber Screw and Tack Bumpers, and Closet-Seats.
Claims use since on or about May 1, 1915.

Ser. No. 93,486. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE SOUTHWESTERN MILLING CO. INC., New York, N. Y., and Kansas City, Mo. Filed May 27, 1916.

LA PERLA

Particular description of goods.—Wheat-Flour, Rye-Flour, Self-Rising and Prepared Flour.
Claims use since October, 1914.

Ser. No. 96,429. (CLASS 30. CROCKERY, EARTHENWARE, AND PORCELAIN.) GOLDENBERG'S, Washington, D. C. Filed July 8, 1916. Under ten-year proviso.

Goldenberg's

THE DEPENDABLE STORE.

Particular description of goods.—Teapots, Pitchers, Vases, Salad Sets, Tea Sets, Bureau Sets, Jardinières, Sugar and Cream Sets, Dinner Sets, Dinnerware, Bowls, Umbrella-Racks, Hair-Receivers, Puff-Boxes, Comb and Brush Sets, Comb-Trays, Plaques, Toilet Sets, Chambers, Cuspidors, and Mugs.
Claims use since January, 1895.

Ser. No. 96,430. (CLASS 32. FURNITURE AND UPHOLSTERY.) GOLDENBERG'S, Washington, D. C. Filed July 8, 1916. Under ten-year proviso.

Goldenberg's

THE DEPENDABLE STORE.

Particular description of goods.—Kitchen, Dining-Room, and Parlor Tables; Chairs for Household, Office, and Store Use; Stools for Household, Office, and Store Use; Settees, Sofas, Divans, Desks, Furniture-Cabinets, Bookcases, Book-Racks, Hat-Racks, Music-Racks, Beds, Cradles, Swings, Cupboards, Benches, Couches, Curtain-Poles, Window-Shades and Brackets, Furniture-Coverings.
Claims use since January, 1895.

Ser. No. 98,448. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HUGH C. SMALL, Chicago, Ill. Filed Oct. 5, 1916.

SUM-ORE

Particular description of goods.—Candy Kisses, Crackers, and Cereal Breakfast Food.
Claims use since about June 10, 1915.

Ser. No. 98,768. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) MELODOGRAPH CORPORATION, New York, N. Y. Filed Oct. 19, 1916.

Melodograph

Particular description of goods.—Phonographs, Talking-Machines.
Claims use since June 1, 1916.

Ser. No. 98,771. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) NORTH AMERICAN WATCH CO. INC., Mansfield, Ohio. Filed Oct. 19, 1916.

Nawco

Particular description of goods.—Lockets, Fobs, Brooches, Pendants, and Articles of Jewelry Having a Casing-Body Arranged to Hold Pictures and other Valuable or Valued Mementoes.
Claims use since July 18, 1916.

Ser. No. 100,360. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) ARTHUR SILWIERSKY, Detroit, Mich., assignor to Operollo Phonograph Co., Inc., Detroit, Mich., a Corporation of Michigan. Filed Jan. 4, 1917.

OPEROLLO

Particular description of goods.—Phonographs, Talking Machines, Records.
Claims use since Oct. 20, 1916.

Ser. No. 100,816. (CLASS 37. PAPER AND STATIONERY.) NEENAH PAPER COMPANY, Neenah, Wis. Filed Jan. 22, 1917.

NEENAH

Particular description of goods.—Bond and Ledger Paper and Writing-Papers.
Claims use since July 1, 1915.

Ser. No. 102,369. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CARLISLE PACKING CO., Seattle, Wash. Filed Mar. 23, 1917.

SEA PRINCE

Particular description of goods.—Canned Salmon.
Claims use since Aug. 5, 1916.

Ser. No. 102,470. (CLASS 38. PRINTS AND PUBLICATIONS.) HOMER A. RODEHEAVER, Chicago, Ill. Filed Mar. 26, 1917.



Particular description of goods.—Sheet, Pamphlets, and Books of Music.
Claims use since about Jan. 20, 1915.

Ser. No. 102,711. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PETER CAILLER KOHLER SWISS CHOCOLATES CO., INC., New York, N. Y. Filed Apr. 4, 1917.



Particular description of goods.—Milk-Chocolate.
Claims use since Oct. 15, 1915.

Ser. No. 103,065. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE WILLIAM S. MERRELL CHEMICAL COMPANY, Cincinnati, Ohio. Filed Apr. 17, 1917.

MERCO

Particular description of goods.—Flavoring Extracts for Making Soda-Fountain Syrups and for Use in Cooking.
Claims use since Mar. 26, 1917.

Ser. No. 103,560. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) J. B. GREEN, Houston, Tex. Filed May 5, 1917.

Texberry

Particular description of goods.—A Soft Drink.
Claims use since Mar. 15, 1917.

Ser. No. 103,632. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) B. CAMP Y CA S. EN C., Santiago, Cuba. Filed May 8, 1917.



Particular description of goods.—Rum.
Claims use since January, 1904.

Ser. No. 103,761. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MATASHIRO AKAMATSU, Hiroshima, Japan. Filed May 14, 1917. Under ten-year proviso.



Particular description of goods.—A Menstrual Medicine.
Claims use since July 23, 1894.

Ser. No. 103,916. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) A. BOURJOIS & CO., INC., New York, N. Y. Filed May 18, 1917.

NOVITA

Particular description of goods.—Face-Powder, Toilet Waters, Rouge, Lip-Sticks, Perfumes, Eyebrow-Pencils, and Pomades.
Claims use since Nov. 19, 1902.

Ser. No. 103,920. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) A. BOURJOIS & CO., INC., New York, N. Y. Filed May 18, 1917.

Fyta

Particular description of goods.—Face-Powder and Rouge.
Claims use since September, 1916.

Ser. No. 103,922. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) A. BOURJOIS & Co., INC., New York, N. Y. Filed May 18, 1917.

NINETTA

Particular description of goods.—Face-Powder.
Claims use since Jan. 17, 1901.

Ser. No. 104,062. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CLARENCE ARTHUR CRANE, Cleveland, Ohio. Filed May 25, 1917.

SUNKIST

Particular description of goods.—Candy.
Claims use since Apr. 12, 1917.

Ser. No. 104,108. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) TEXAS STAR FLOUR MILLS, Galveston, Tex. Filed May 26, 1917.

NEW-WAY

Particular description of goods.—Wheat-Flour.
Claims use since Nov. 2, 1916.

Ser. No. 104,182. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) MANUEL GOMEZ, Habana, Cuba. Filed June 1, 1917.

GENESIS

Particular description of goods.—Cognac.
Claims use since January, 1914.

Ser. No. 104,191. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) INNIS, SPEIDEN & CO. INC., New York, N. Y. Filed June 1, 1917.

SNOW FLAKE

Particular description of goods.—Phosphoric Paste and Phosphates.
Claims use since 1911.

Ser. No. 104,355. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE ARLINGTON CHEMICAL CO., Yonkers, N. Y. Filed June 9, 1917.

Bacid

Particular description of goods.—Medicinal Preparation on the Order of the Bulgarian Bacillus.
Claims use since Feb. 7, 1917.

Ser. No. 104,363. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CARRIE N. REIDER, Cincinnati, Ohio. Filed June 9, 1917.



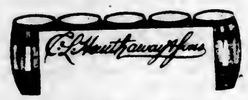
The portrait shown being that of the applicant.
Particular description of goods.—Hair-Tonics.
Claims use since February, 1916.

Ser. No. 104,409. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) HENRY W. FISHEL & SONS, INC., New York, N. Y. Filed June 12, 1917.

FISHSON

Particular description of goods.—Finger-Rings, Ear-Rings, Bandeaux, Scarf-Pins, Hat-Pins, Bar-Pins, Cuff-Links, Cuff-Pins, Veil-Pins, Bow-Pins, Lavallières, Ornaments and Clasps for Velvet Collars and Ribbon Sautoires, Pendant Sautoires, Bracelets, Pendants, Necklaces, Brooches, Lorgnettes, Lorgnons, Monocles, Shoe-Buckles, Ornaments for Combs, Braid-Pins, Barrettes, and Lingerie-Clasps Made of Silver and of Alloys of Metals in Imitation of Silver.
Claims use since about Feb. 16, 1917.

Ser. No. 104,440. (CLASS 5. ADHESIVES.) C. L. HAUTHAWAY & SONS, INC., Boston, Mass. Filed June 14, 1917.



Said trade-mark consists of the name "C. L. Hauthaway & Sons" in the facsimile handwriting of C. L. Hauthaway, the founder of the business, said name being embroidered at the top and two ends by the representation of a row of portions of barrels, the top border-line consisting of the representation of the top portion of the barrels, and the end border-lines consisting of portions of the two end barrels, the whole giving the appearance of a large placard bearing the facsimile signature "C. L. Hauthaway & Sons" placed in front of a row of barrels, concealing portions of the barrels.
Particular description of goods.—Cement for Boots, Shoes, and other Leather Articles.
Claims use since Jan. 1, 1917.

Ser. No. 104,448. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BAKER PACKING COMPANY, Chicago, Ill. Filed June 15, 1917.

DELICIA

The diamond-shaped figure being produced in red.
Particular description of goods.—Canned Meats and Canned Meat Products, as follows: Boiled Beef, Corned Beef, Corned-Beef Hash, Deviled-Meat Products, Hamburger Steak, Luncheon-Loaf, Lunch-Tongue, Ox-Tongue, Potted Meat Products, Roast Beef, Sliced Beef, Vienna-Style Sausage, Sausage-Meat, Tripe, Veal-Loaf, and Southern-Style Hash.
Claims use since May 1, 1917.

Ser. No. 104,492. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CLYDE L. LE BARON, Valley Ford, Cal. Filed June 18, 1917.

BLU'N GOLD

The word "Blu" being lined for blue, the letter "N" being lined for red, and the word "Gold" being lined for gold.
Particular description of goods.—Evaporated Milk.
Claims use since May 22, 1917.

Ser. No. 104,701. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BRIAR MILLS, Keokuk, Iowa. Filed June 26, 1917.

SWEET BRIAR

Particular description of goods.—Wheat-Flour.
Claims use since Mar. 24, 1917.

Ser. No. 104,789. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) AIR REDUCTION COMPANY, New York, N. Y. Filed July 2, 1917.

AIRCO

Particular description of goods.—Oxyacetylene Welding and Cutting Apparatus.
Claims use since May 23, 1917.

Ser. No. 104,793. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) DEERE & COMPANY, Moline, Ill. Filed July 2, 1917.

TRACTIVATOR.

Consists of the word "Tractivator."
Particular description of goods.—Power or Self-Propelled Farm Engines or Tractors Adapted for Drawing, Propelling, or Operating Agricultural Implements and Farm Machinery.
Claims use since June 4, 1917

Ser. No. 104,803. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SANKO COMPANY, Cincinnati, Ohio Filed July 2, 1917.

SANZET

Particular description of goods.—Candies.
Claims use since on or about June 2, 1917.

Ser. No. 104,837. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AUGUSTE FRANÇOIS PAUL DU PONT, New York, N. Y. Filed July 5, 1917.

Du Pont

The same being a facsimile of the applicant's signature.

Particular description of goods.—Concentrated Vegetable Soup and Purée Tablets and Packages, also Bouillon and Consommé Boxes, Tablets, and Packages.

Claims use since June 28, 1917.

Ser. No. 104,848. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE GUTTA PERCHA & RUBBER MANUFACTURING COMPANY, New York, N. Y. Filed July 5, 1917. Under ten-year proviso.

MONTANA

Particular description of goods.—Belting of Rubber and Fabric.

Claims use since 1894.

Ser. No. 104,852. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE GUTTA PERCHA & RUBBER MANUFACTURING COMPANY, New York, N. Y. Filed July 5, 1917. Under ten-year proviso.

SPADONE EDGE

Particular description of goods.—Belting of Rubber and Fabric.

Claims use since Apr. 1, 1894.

Ser. No. 104,867. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN MORRELL & CO., Ottumwa, Iowa. Filed July 5, 1917.



Particular description of goods.—Canned Goods—Namely, Pork-Tenderloins, Calf-Sweetbreads, Beef-Sweetbreads, Brains, Beef-Tongues, Boneless Butts, Cooked Boneless Hocks, Sliced Bacon; Chilli-Con-Carne, Concentrated and Mexican Style; Cooked Calf-Tongues, Corned Beef, Corn-Beef Hash, Dried Beef, Deviled Meat, Extract of Beef, Ham Ends, Lunch-Tongue, Cooked Luncheon-Maws, Loin Ends, Cooked Lamb-Tongues, Meat-Loaf, Luncheon-Meat, Mince-Meat, Ox-Tongue, Ox-Tail Soup, Cooked Pig-Tongues, Cooked Pig-Hearts, Cooked Pig-Feet, Potted Meat, Potted Meat Products; Pork and Beans, Plain and with Tomato Sauce; Roast Beef, Sausage-Meat, Roast-Beef Hash, Summer-Sausage, Souse, Tomato Soup; Tripe, Plain and Family Style; Vegetable Soup; Veal, Pork, and Beef Loaf; Vienna-Style Sausage, Plain and with Tomato Sauce.

Claims use since May, 1902, on corned beef, dried beef, lunch-tongue, ox-tongue, potted meat, roast beef, Vienna sausage, plain; since July, 1902, on sliced bacon, pork and beans, plain and with tomato sauce; since November, 1902, on hocks, lamb-tongues, pig-feet, pig-hearts, tripe, plain; since August, 1903, on extract of beef, corned-beef hash, summer-sausage; since September, 1903, on meat-loaf; veal, pork, and beef-loaf; pig-tongues; since September, 1904, on tripe, family style; since September, 1905, on chilli-con-carne, Mexican style; since May, 1906, on calf-tongues; since December, 1906, on ox-tail soup; since May, 1907, on deviled meat, Vienna-style sausage with tomato sauce; since October, 1907, on souse; since December, 1907, on tomato soup, vegetable soup; since May, 1909, on roast-beef hash; since August, 1909, on beef-tongues; since July, 1911, on sausage-meat; since January, 1913, on mince-meat; since April, 1914, on luncheon-maws; since September, 1914, on boneless butts; since October, 1914, on chilli-con-carne, concentrated; since June, 1915, on potted meat products; since October, 1915, on ham ends; since October, 1916, on calf-sweetbreads and brains; since November, 1915, on loin ends; since February, 1917, on luncheon-meats; since November, 1916, on pork-tenderloins and beef-sweetbreads.

Ser. No. 104,870. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN MORRELL & CO., Ottumwa, Iowa. Filed July 5, 1917.



Particular description of goods.—Mince-Meat.

Claims use since April, 1914.

Ser. No. 104,904. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BRUNO KORNAU, New York, N. Y. Filed July 7, 1917.

CHARBONOX

Particular description of goods.—A Salve for the Treatment of Boils, Carbuncles, and the Like.

Claims use since about June 27, 1917.

Ser. No. 104,920. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) BEGGS & COBB, INC., Boston, Mass. Filed July 9, 1917.

SNOBUCK

Particular description of goods.—Upper-Leather for Boots and Shoes.

Claims use since January, 1917.

Ser. No. 105,016. (CLASS 37. PAPER AND STATIONERY.) ESLEECK MANUFACTURING CO., Turners Falls, Mass. Filed July 13, 1917.



Particular description of goods.—Bond, Correspondence, Non-Carbonized Type-Writing, and Manifold Papers and Onion-Skin Paper.

Claims use since June 1, 1917.

Ser. No. 105,055. (CLASS 38. PRINTS AND PUBLICATIONS.) BRUCE V. CRANDALL, Kenilworth, Ill. Filed July 16, 1917.

Car Insurance

Particular description of goods.—A Magazine Published Monthly.

Claims use since Sept. 25, 1912.

Ser. No. 105,061. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) KEROSENE MOTOR APPLIANCE COMPANY, New York, N. Y. Filed July 16, 1917.

J. E. S.

Particular description of goods.—Carbureting and Gasifying Apparatus for Internal-Combustion Engines.

Claims use since about Mar. 1, 1917.

Ser. No. 105,065. (CLASS 38. PRINTS AND PUBLICATIONS.) PERIODICAL PUBLISHING CO., Grand Rapids, Mich. Filed July 16, 1917.

The Furniture Record

Particular description of goods.—A Periodical Published Monthly.

Claims use since April, 1917.

Ser. No. 105,066. (CLASS 38. PRINTS AND PUBLICATIONS.) PERIODICAL PUBLISHING CO., Grand Rapids, Mich. Filed July 16, 1917.

The Grand Rapids Furniture Record

Particular description of goods.—A Periodical Published Monthly.

Claims use since June, 1900.

Ser. No. 105,087. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ROLLIN CHEMICAL COMPANY INCORPORATED, Charleston, W. Va. Filed July 17, 1917.

CHLOR-BAR

Particular description of goods.—Chemical Compounds of Barium, Strontium, Sodium, and Chlorin, Also Carbon Bisulfid, Said Compound Being Sold to the Chemical Trade and Used in the Chemical and Allied Industries as Chemical Compounds.

Claims use since June 19, 1917.

Ser. No. 105,093. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) FISHER, BRUCE & CO., Philadelphia, Pa. Filed July 18, 1917.

SIX-IN-ONE

Particular description of goods.—Rubber Rings for Fruit-Jars.

Claims use since Mar. 17, 1917.

Ser. No. 105,174. (CLASS 43. THREAD AND YARN.) ARLINGTON MILLS, Lawrence and Boston, Mass. Filed July 21, 1917. Under ten-year proviso.

ARLINGTON

Particular description of goods.—Worsted Yarns.

Claims use since February, 1865.

Ser. No. 105,195. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) INTERNATIONAL HARVESTER CORPORATION, Chicago, Ill. Filed July 23, 1917.

INTERNATIONAL

Particular description of goods.—Tractors and Fluid-Pressure Engines and Parts Thereof.

Claims use since 1906 for tractors and since June, 1916, for fluid-pressure engines.

Ser. No. 105,228. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) GURNEY BALL BEARING COMPANY, Jamestown, N. Y. Filed July 24, 1917.

RADIO

Particular description of goods.—Ball-Bearings and Parts Thereof.
Claims use since June 1, 1911.

Ser. No. 105,229. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) GURNEY BALL BEARING COMPANY, Jamestown, N. Y. Filed July 24, 1917.

R-T

Particular description of goods.—Ball-Bearings and Parts Thereof.
Claims use since June 1, 1911.

Ser. No. 105,232. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HOOTON COCOA COMPANY, Newark, N. J. Filed July 24, 1917.

Harvest

Particular description of goods.—Breakfast-Cocoa, Powdered Sweet Cocoa, Premium-Chocolate, Sweet Chocolate.
Claims use since Jan. 1, 1917.

Ser. No. 105,245. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WEDDLE TEA COMPANY, New York, N. Y. Filed July 24, 1917.

PRIDE OF
POONA
GARDEN

Particular description of goods.—Tea.
Claims use since Feb. 9, 1917.

Ser. No. 105,286. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) COLUMBIA LEATHER GOODS MFG. CO. INC., New York, N. Y. Filed July 26, 1917.

EXCLUSO

Particular description of goods.—Men's Belts.
Claims use since July 6, 1917.

Ser. No. 105,306. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WILLIAM M. JENKINS, Dallas, Tex. Filed July 26, 1917.

SUGAR BILL

Particular description of goods.—Table-Syrup.
Claims use since Nov. 1, 1915.

Ser. No. 105,323. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE ROESSLER & HASSLACHER CHEMICAL CO., New York, N. Y. Filed July 27, 1917.

SOLOZONE

Particular description of goods.—Materials Carrying Oxygen in Available Form for the Generation of Oxygen and Peroxid of Hydrogen for Industrial and Therapeutical Uses.
Claims use since July 7, 1917.

Ser. No. 105,426. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) B. HELLER & COMPANY, Chicago, Ill. Filed Aug. 2, 1917.

LIONOX

Particular description of goods.—Dyspepsia-Tablets and Laxative Tablets.
Claims use since July 28, 1917.

Ser. No. 105,484. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE ANTHONY ICE & SALT COMPANY, Anthony, Kans. Filed Aug. 6, 1917.

SIFTO

Particular description of goods.—Table-Salt.
Claims use since Apr. 17, 1917.

Ser. No. 105,497. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) MULTIPULL MANUFACTURING COMPANY, St. Louis, Mo. Filed Aug. 6, 1917.

Multipull

Particular description of goods.—A Tool More Particularly Described as a Folding Windlass and Its Appurtenances.
Claims use since July 5, 1917.

Ser. No. 105,513. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BERLIN ANILINE WORKS, New York, N. Y. Filed Aug. 7, 1917.

Emergol

Particular description of goods.—A Preparation for Developing Photographic Films, Plates, and Papers.
Claims use since Sept. 11, 1914.

Ser. No. 105,522. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) W. B. MCVICKER COMPANY, New York, N. Y. Filed Aug. 7, 1917.

PROTEX

Particular description of goods.—A Cleansing Disinfectant and Germicide.
Claims use since June 16, 1917.

Ser. No. 105,566. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ATLAS AUTO SPECIALTIES CORPORATION, New York, N. Y. Filed Aug. 10, 1917.

GED

Particular description of goods.—Auxiliary Carbureters.
Claims use since July 31, 1917.

Ser. No. 105,703. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) PYRENE MANUFACTURING COMPANY, New York, N. Y. Filed Aug. 17, 1917.

Pyrene

Particular description of goods.—Syringes for Use with Fire-Extinguishing Compounds.
Claims use since Jan. 5, 1916.

Ser. No. 105,760. (CLASS 37. PAPER AND STATIONERY.) TAYLOR-LOGAN CO. PAPERMAKERS, Holyoke, Mass. Filed Aug. 20, 1917.

SEVEN SEAS

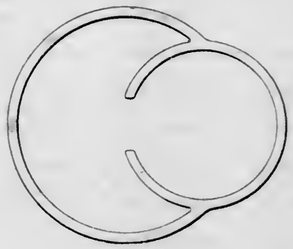
Particular description of goods.—Writing, Ledger, Record, Bond, Vellum, Envelop, Text, Book, Coated, and Cover Papers, Cover-Boards, Cardboards, Announcement-Boards, and Bristol-Boards, Wall and Tissue Paper.
Claims use since July 10, 1917.

Ser. No. 105,858. (CLASS 37. PAPER AND STATIONERY.) EBERHARD FABER, New York, N. Y. Filed Aug. 24, 1917.

BANNER

Particular description of goods.—Rubber Bands.
Claims use since December, 1916.

Ser. No. 105,912. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE BLANCHARD MACHINE COMPANY, Cambridge, Mass. Filed Aug. 28, 1917.



Particular description of goods.—Grinding-Machines.
Claims use since May 29, 1917.

TRADE-MARK REGISTRATIONS GRANTED

SEPTEMBER 25, 1917.

118,613. FLOUR-MILLS. THE ANGLO-AMERICAN MILL CO., Owensboro, Ky.
Filed September 26, 1916. Serial No. 98,234. PUBLISHED JULY 3, 1917.

118,614. ELECTRIC SPITTERS. ALBERT J. AVERELL, Medford, Oreg.
Filed April 4, 1917. Serial No. 102,706. PUBLISHED JUNE 19, 1917.

118,615. SOAP POWDER. B. T. BABBITT, Jersey City, N. J., and New York, N. Y.
Filed June 7, 1917. Serial No. 104,310. PUBLISHED JULY 17, 1917.

118,616. MALT LIQUORS. MARTIN BAILEY, Jersey City, N. J.
Filed June 19, 1917. Serial No. 104,514. PUBLISHED JULY 24, 1917.

118,617. BOTH POSITIVE AND NEGATIVE CINEOGRAPH AND MOVING-PICTURE FILMS. BALBOA AMUSEMENT PRODUCING COMPANY, Long Beach, Cal.
Filed February 8, 1917. Serial No. 101,226. PUBLISHED JULY 3, 1917.

118,618. CERTAIN POLISH FOR POLISHING FLOOR-SURFACES, FURNITURE, AND AUTOMOBILES. ELIJAH F. BALLARD, Dallas, Tex.
Filed December 12, 1916. Serial No. 99,871. PUBLISHED JUNE 5, 1917.

118,619. COTTON CLOTH IN THE SHAPE OF PIECE GOODS. BIBB MANUFACTURING COMPANY, Macon, Ga.
Filed May 16, 1917. Serial No. 103,857. PUBLISHED JULY 10, 1917.

118,620. CORSETS. BIRDSEY-SOMERS COMPANY, New York, N. Y.
Filed January 2, 1914. Serial No. 74,931. PUBLISHED OCTOBER 24, 1916.

118,621. HACKSAW-BLADES. L. C. BLANCKE CO. INC., New York, N. Y.
Filed May 3, 1917. Serial No. 103,495. PUBLISHED JUNE 19, 1917.

118,622. ELECTRIC LAMPS. H. BOKER & CO. INC., New York, N. Y.
Filed May 9, 1917. Serial No. 103,661. PUBLISHED JUNE 26, 1917.

118,623. CERTAIN NAMED CHEMICALS AND PHARMACEUTICAL PREPARATIONS. GEORGE BORGFELDT & CO., New York, N. Y.
Filed September 1, 1916. Serial No. 97,744. PUBLISHED MAY 1, 1917.

118,624. CERTAIN NAMED OIL-WELL SUPPLIES. BRADFORD MOTOR WORKS, Bradford, Pa.
Filed April 6, 1917. Serial No. 102,764. PUBLISHED JULY 17, 1917.

118,625. LIQUID CLEANSING COMPOUND. ROBERT M. CALLAWAY, Atlanta, Ga., assignor to Wunda-lusta Company of America, Atlanta, Ga., a Corporation of Georgia.
Filed October 26, 1916. Serial No. 98,898. PUBLISHED FEBRUARY 27, 1917.

118,626. MIDDY-BLOUSES, MIDDY-SKIRTS, AND MIDDY-SUITS FOR CHILDREN, MISSES, AND LADIES AND FOR CHILDREN'S DRESSES. CARMEL & GOODMAN, Baltimore, Md.
Filed June 5, 1917. Serial No. 104,278. PUBLISHED JULY 10, 1917.

118,627. SOAPS. COLGATE & CO., Jersey City, N. J., and New York, N. Y.
Filed May 18, 1917. Serial No. 103,924. PUBLISHED JULY 17, 1917.

118,628. INTERNAL-COMBUSTION ENGINES, CLUTCHES, AND THEIR PARTS. CONTINENTAL MOTORS CORPORATION, Detroit and Muskegon, Mich.
Filed May 3, 1917. Serial No. 103,497. PUBLISHED JULY 17, 1917.

118,629. OVERALLS AND ONE-PIECE OVERALL-SUITS. THE CROWN OVERALL MANUFACTURING COMPANY, Cincinnati, Ohio.
Filed May 5, 1917. Serial No. 103,554. PUBLISHED JULY 10, 1917.

118,630. DYES IN SOLUBLE TABLET FORM. DE LUXE MFG. CO., Chicago, Ill.
Filed February 14, 1917. Serial No. 101,356. PUBLISHED JUNE 19, 1917.

118,631. CERTAIN NAMED PAINTS AND PAINTERS' MATERIALS. THE DELSCAMP-ROEMHILDT COMPANY, Dayton, Ohio.
Filed April 16, 1917. Serial No. 103,018. PUBLISHED JULY 3, 1917.

118,632. CERTAIN NAMED CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS. AVERY GEORGE DEUEL, Rock Springs, Wyo.
Filed December 20, 1916. Serial No. 100,054. PUBLISHED JULY 24, 1917.

118,633. CERTAIN NAMED INKS AND INKING MATERIALS. DIAMOND INK CO., Milwaukee, Wis.
Filed March 12, 1917. Serial No. 102,071. PUBLISHED JULY 17, 1917.

118,634. MILK-CURDLING PRODUCTS. DIGESTIVE FERMENTS CO., Detroit, Mich.
Filed March 8, 1917. Serial No. 101,983. PUBLISHED MAY 8, 1917.

118,635. WATCHES. DUBOIS WATCH CASE COMPANY, Brooklyn, N. Y.
Filed May 23, 1917. Serial No. 104,021. PUBLISHED JULY 3, 1917.

118,636. PAINT-PIGMENTS, ENAMELS, AND READY-MIXED PAINTS FOR WALL-FINISHING. DUREX CHEMICAL CORPORATION, New York, N. Y., and Sweetwater, Tenn.
Filed April 12, 1917. Serial No. 102,905. PUBLISHED JUNE 19, 1917.

118,637. PHOTOGRAPHIC PLATES. EASTMAN KODAK CO., Rochester, N. Y.
Filed February 1, 1917. Serial No. 101,088. PUBLISHED JULY 3, 1917.

118,638. PHOTOGRAPHIC PAPER. EASTMAN KODAK CO., Rochester, N. Y.
Filed February 1, 1917. Serial No. 101,091. PUBLISHED JULY 17, 1917.

118,639. PHOTOGRAPHIC PLATES. EASTMAN KODAK CO., Rochester, N. Y.
Filed February 5, 1917. Serial No. 101,169. PUBLISHED JULY 3, 1917.

118,640. RUBBER-COVERED ELECTRICAL WIRES AND CABLES. THE ELECTRIC CABLE CO., Bridgeport, Conn.
Filed February 4, 1916. Serial No. 92,614. PUBLISHED JULY 17, 1917.

118,641. CERTAIN NAMED ELECTRICAL APPLIANCES. ELECTRIC IGNITION COMPANY (1913) LIMITED, Birmingham, England.
Filed February 17, 1917. Serial No. 101,441. PUBLISHED JUNE 19, 1917.

118,642. BATTERIES, GENERATORS, AND SWITCHBOARDS. ELITE ELECTRIC CO., Cleveland, Wis.
Filed May 3, 1917. Serial No. 103,499. PUBLISHED JULY 10, 1917.

118,643. CERTAIN NAMED ELECTRICAL APPARATUS AND SUPPLIES. ENTERPRISE ELECTRIC NOVELTY CO. INC., New York, N. Y.
Filed January 2, 1917. Serial No. 100,286. PUBLISHED JUNE 19, 1917.

118,644. HUMIDIFIERS FOR INTERNAL-COMBUSTION ENGINES. ESTA WATER AUXILIATOR CO. INC., New York, N. Y.
Filed June 20, 1917. Serial No. 104,546. PUBLISHED JULY 24, 1917.

118,645. HUMIDIFIERS FOR INTERNAL-COMBUSTION ENGINES. ESTA WATER AUXILIATOR CO. INC., New York, N. Y.
Filed June 20, 1917. Serial No. 104,547. PUBLISHED JULY 24, 1917.

118,646. CERTAIN NAMED METALS AND METAL CASTINGS AND FORGINGS. THE FAIRLEY-DAVIDSON STEEL CO. INC., New York, N. Y.
Filed June 9, 1917. Serial No. 104,359. PUBLISHED JULY 10, 1917.

118,647. CONCRETE-BLOCK-MAKING MACHINERY. THE FERGUSON SYNSTONE COMPANY, Denver, Colo.
Filed May 17, 1916. Serial No. 95,202. PUBLISHED JUNE 19, 1917.

118,648. WATERPROOF OUTER CLOTHING—VIZ., RAIN-COATS. BENJAMIN FLIGEL, New York, N. Y.
Filed June 6, 1917. Serial No. 104,297. PUBLISHED JULY 10, 1917.

118,649. CERTAIN NAMED CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF. S. FLORY MFG. CO., Bangor, Pa.
Filed March 13, 1917. Serial No. 102,113. PUBLISHED JULY 17, 1917.

118,650. WOOLEN AND WORSTED PIECE GOODS. FORSTMANN & HUFFMANN CO., Passaic, N. J.
Filed February 14, 1917. Serial No. 101,362. PUBLISHED JULY 10, 1917.

118,651. STEEL RODS AND BARS, COLD-ROLLED SHEET AND STRIP STEEL, AND STEEL WIRES. PETER A. FRASSE & CO. INC., New York, N. Y.
Filed August 10, 1916. Serial No. 97,246. PUBLISHED JULY 3, 1917.

118,652. CERTAIN NAMED CLOTHING FOR MEN AND WOMEN. GOLDMAN COSTUME COMPANY, New York, N. Y.
Filed January 13, 1917. Serial No. 100,597. PUBLISHED JULY 10, 1917.

118,653. CERTAIN NAMED MEASURING AND SCIENTIFIC APPLIANCES. GOLDMAN COSTUME COMPANY, New York, N. Y.
Filed January 24, 1917. Serial No. 100,883. PUBLISHED JUNE 19, 1917.

118,654. CANDLES, TYPE-WRITER AND MACHINE OIL, LUBRICANTS, AND PARAFFIN. GOLDMAN COSTUME COMPANY, New York, N. Y.
Filed January 24, 1917. Serial No. 100,884. PUBLISHED JUNE 5, 1917.

118,655. EDGE-STAIN FOR SHOE SOLES AND HEELS. THE GOODYEAR TIRE & RUBBER COMPANY, Akron, Ohio.
Filed August 5, 1916. Serial No. 97,116. PUBLISHED JULY 17, 1917.

118,656. SHAVING-CREAM. WILFORD HALL LABORATORIES, Scarsdale, N. Y., and Greenwich, Conn.
Filed May 14, 1917. Serial No. 103,806. PUBLISHED JULY 17, 1917.

118,657. HAIR-TONIC. MARY ABBIE HALL, Tulsa, Okla.
Filed January 18, 1917. Serial No. 100,708. PUBLISHED JUNE 5, 1917.

118,658. POLISHES FOR WOODWORK, FLOORS, FURNITURE, PIANOS, AUTOMOBILES, CARRIAGES, &c. H. M. HALLETT & CO., Ludington, Mich.
Filed June 29, 1916. Serial No. 96,232. PUBLISHED SEPTEMBER 12, 1916.

118,659. PARING-MACHINE. JOHN H. HAMLIN, New York, N. Y.
Filed June 8, 1917. Serial No. 104,338. PUBLISHED JULY 24, 1917.

118,660. ELECTRICAL CABLES OR CONDUCTORS. HAZARD MANUFACTURING COMPANY, Wilkes-Barre, Pa.
Filed May 24, 1917. Serial No. 104,042. PUBLISHED JUNE 19, 1917.

118,661. SEWING-MACHINES, PARTS THEREOF, AND CERTAIN NAMED ATTACHMENTS THEREFOR. HEXAGON SEWING MACHINE COMPANY, New York, N. Y.
Filed April 19, 1917. Serial No. 103,113. PUBLISHED JUNE 19, 1917.

118,662. SEWING-MACHINES, PARTS THEREOF, AND CERTAIN NAMED ATTACHMENTS THEREFOR. HEXAGON SEWING MACHINE COMPANY, New York, N. Y.
Filed April 19, 1917. Serial No. 103,114. PUBLISHED JUNE 19, 1917.

118,663. ELECTRIC LAMPS. HOWE MANUFACTURING COMPANY, Chicago, Ill.
Filed November 13, 1916. Serial No. 99,274. PUBLISHED FEBRUARY 13, 1917.

118,664. CERTAIN NAMED CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF. ILLINOIS TOOL WORKS, Chicago, Ill.
Filed February 12, 1917. Serial No. 101,330. PUBLISHED JULY 3, 1917.

118,665. CERTAIN NAMED CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF. INTERNATIONAL CLAY MACHINERY CO., Dayton, Ohio.
Filed January 4, 1917. Serial No. 100,353. PUBLISHED JUNE 5, 1917.

118,666. SOFT SOAP. INTERNATIONAL SOAP & MANUFACTURING CO., Scranton, Pa.
Filed January 12, 1917. Serial No. 100,551. PUBLISHED JULY 3, 1917.

118,667. TOILET PREPARATION—NAMELY, A HAIR-TONIC. KARATOL LABORATORIES, Binghamton, N. Y.
Filed March 12, 1917. Serial No. 102,078. PUBLISHED JULY 24, 1917.

118,668. SOAP. KELLOGG TOASTED CORN FLAKE CO., Battle Creek, Mich.
Filed May 21, 1917. Serial No. 103,986. PUBLISHED JULY 17, 1917.

118,669. SOAP. KELLOGG TOASTED CORN FLAKE CO., Battle Creek, Mich.
Filed June 19, 1917. Serial No. 104,527. PUBLISHED JULY 17, 1917.

118,670. FURNITURE-POLISH. W. D. KIBLER CO., Indianapolis, Ind.
Filed January 12, 1917. Serial No. 100,554. PUBLISHED JUNE 19, 1917.

118,671. CARTRIDGE AND PLUG FUSES FOR ELECTRICAL PURPOSES. KIRKMAN ENGINEERING CORPORATION, New York, N. Y.
Filed May 24, 1917. Serial No. 104,046. PUBLISHED JULY 10, 1917.

118,672. REMEDY FOR CONSTIPATION, COLIC. DANIEL KOVACS, Duquesne, Pa.
Filed April 23, 1917. Serial No. 103,209. PUBLISHED JULY 24, 1917.

118,673. CERTAIN NAMED HARDWARE, PLUMBING, AND STEAM-FITTING SUPPLIES. A. KREAMER INC., Brooklyn, N. Y.
Filed December 16, 1916. Serial No. 99,985. PUBLISHED JUNE 19, 1917.

118,674. MARKING-POTS. A. KREAMER INC., Brooklyn, N. Y.
Filed May 10, 1917. Serial No. 103,697. PUBLISHED JULY 10, 1917.

118,675. ALLOY OF BASE METAL. LANDERS, FRARY & CLARK, New Britain, Conn.
Filed May 25, 1916. Serial No. 95,424. PUBLISHED JULY 3, 1917.

118,676. CERTAIN NAMED CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF. LAWSON & COMPANY, INCORPORATED, New York, N. Y.
Filed June 21, 1917. Serial No. 104,586. PUBLISHED JULY 24, 1917.

118,677. FLUID-OPERATED DRILL-SHARPENING MACHINES. THE J. GEO. LEYNER ENGINEERING WORKS COMPANY, Littleton, Colo.
Filed May 10, 1917. Serial No. 103,699. PUBLISHED JUNE 19, 1917.

118,678. CERTAIN NAMED ABRASIVE, DETERGENT, AND POLISHING MATERIALS. CHAS. F. L'HOMMEDIEU & SONS CO., Chicago, Ill.
Filed October 16, 1916. Serial No. 98,716. PUBLISHED JULY 17, 1917.

118,679. STEAM-LOCOMOTIVES. LIMA LOCOMOTIVE WORKS, INC., Lima, Ohio.
Filed May 3, 1917. Serial No. 103,506. PUBLISHED JULY 17, 1917.

118,680. LUBRICATING OILS AND GREASES. LUBREX OIL & GREASE COMPANY, Pittsburgh, Pa.
Filed October 25, 1916. Serial No. 98,885. PUBLISHED JANUARY 2, 1917.

118,681. MEN'S AND WOMEN'S OVERALLS, WORK-PANTS, AND SHIRTS. D. L. MARX CO., Cairo, Ill.
Filed June 2, 1917. Serial No. 104,224. PUBLISHED JULY 10, 1917.

118,682. ALUMINUM ALLOY (MCADAMITE) IN VARIOUS FORMS, CASTINGS, AND INGOTS. MCADAMITE-ALUMINUM COMPANY, Detroit, Mich.
Filed March 16, 1917. Serial No. 102,194. PUBLISHED JULY 3, 1917.

118,683. GEARS. MEISEL PRESS MANUFACTURING COMPANY, Boston, Mass.
Filed June 12, 1917. Serial No. 104,412. PUBLISHED JULY 24, 1917.

118,684. TRACTION-ENGINES. MOLINE PLOW CO., Moline, Ill.
Filed February 28, 1917. Serial No. 101,790. PUBLISHED JUNE 26, 1917.

118,685. READY-MIXED PAINTS. MORTON & MAGUIRE INC., Paterson, N. J.
Filed June 8, 1917. Serial No. 104,342. PUBLISHED JULY 10, 1917.

118,686. TEXTILE FABRICS COMPRISING CLOTHS MADE FROM CERTAIN MATERIALS OR A MIXTURE OF SAME. MORTON SUNDOUR FABRICS, LTD., Carlisle, England.
Filed March 16, 1917. Serial No. 102,196. PUBLISHED JULY 10, 1917.

118,687. LUBRICATING MOTOR-OIL. MOTOR SALES GARAGE COMPANY, East Orange, N. J.
Filed August 17, 1916. Serial No. 97,384. PUBLISHED MAY 22, 1917.

118,688. NEAR BEER. THE NEEF BROS. BREWING COMPANY, Denver, Colo.
Filed June 21, 1917. Serial No. 104,592. PUBLISHED JULY 24, 1917.

118,689. CERTAIN NAMED CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF. NILES-BEMENT-POND COMPANY, New York, N. Y.
Filed May 2, 1917. Serial No. 103,476. PUBLISHED JULY 3, 1917.

118,690. ELECTRIC MOTORS, DYNAMOS, ELECTRIC COKE-OVEN PRESSURE-REGULATORS, AND ELECTRIC COKE-OVEN EXHAUSTER-REGULATORS. THE NORTHWESTERN MANUFACTURING COMPANY, Milwaukee, Wis.
Filed April 21, 1917. Serial No. 103,181. PUBLISHED JULY 17, 1917.

118,691. STANDARD PYROMETRIC CONES. EDWARD ORTON, Jr., Columbus, Ohio.
Filed April 7, 1917. Serial No. 102,785. PUBLISHED JULY 3, 1917.

118,692. WRITING-PAPER. THE A. N. PALMER COMPANY, Cedar Rapids, Iowa, and New York, N. Y.
Filed April 30, 1917. Serial No. 103,429. PUBLISHED JULY 17, 1917.

118,693. PHOTOGRAPHIC FILMS, INCLUDING MOTION-PICTURE FILMS. PETER PAN FILM CORPORATION, Eddyville, N. Y.
Filed January 9, 1917. Serial No. 100,489. PUBLISHED MAY 29, 1917.

118,694. ELECTRICAL SIGNAL AND ALARM BELLS AND HORNS. ANDREW TRUST POEHLMANN, Baltimore, Md.
Filed May 26, 1917. Serial No. 104,102. PUBLISHED JUNE 26, 1917.

118,695. CERTAIN NAMED CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF. PRATT & WHITNEY COMPANY, New York, N. Y.
Filed May 4, 1917. Serial No. 103,540. PUBLISHED JULY 17, 1917.

118,696. LIQUID POLISH FOR CLEANING AND POLISHING PAINTED, VARNISHED, AND AUTO-BODY ENAMELED SURFACES. RAPID-SHINE PRODUCTS CO., St. Louis, Mo.
Filed March 31, 1916. Serial No. 94,020. PUBLISHED JULY 3, 1917.

118,697. ELECTRIC STOVES AND RANGES. RATHBONE SARD ELECTRIC COMPANY, INC., Albany, N. Y.
Filed April 26, 1917. Serial No. 103,333. PUBLISHED JUNE 26, 1917.

118,698 DIRECT AND ALTERNATING CURRENT ELECTRIC MOTORS. THE RELIANCE ELECTRIC & ENGINEERING COMPANY, Cleveland, Ohio.
Filed January 20, 1917. Serial No. 100,781. PUBLISHED JUNE 26, 1917.

118,699. CHAMBRAY. RELIANCE MANUFACTURING COMPANY, Chicago, Ill.
Filed April 16, 1917. Serial No. 103,042. PUBLISHED JULY 10, 1917.

118,700. MEDICAL PREPARATION USED FOR EXTERNAL APPLICATION AS AN EYE REMEDY. OSCAR R. REMINGTON, Chicago, Ill.
Filed April 6, 1917. Serial No. 102,782. PUBLISHED JULY 24, 1917.

118,701. ANEMIA-TABLETS. CARLOS M. RIVEROLL, Laredo, Tex.
Filed March 12, 1917. Serial No. 102,103. PUBLISHED JULY 24, 1917.

118,702. LUBRICATING-GREASES, LUBRICATING AND ILLUMINATING OILS, CARBON-OIL, PETROLEUM, KEROSENE, GASOLENE, BENZIN, AND NAPHTHA. RIVERSIDE OIL COMPANY, Pittsburgh, Pa.
Filed November 23, 1915. Serial No. 90,882. PUBLISHED JANUARY 11, 1916.

118,703. WATCHES. RODE WATCH COMPANY, New York, N. Y.
Filed June 2, 1917. Serial No. 104,232. PUBLISHED JULY 3, 1917.

118,704. TOILET-PAPER. SAUQUOIT TOILET PAPER CO., New Hartford, N. Y.
Filed May 21, 1917. Serial No. 103,992. PUBLISHED JULY 24, 1917.

118,705. TOILET-PAPER. SAUQUOIT TOILET PAPER CO., New Hartford, N. Y.
Filed May 21, 1917. Serial No. 103,993. PUBLISHED JULY 24, 1917.

118,706. CARBON-IMPRESSION TABLETS AND CARBON AND COPYING PAPERS. SHEA SMITH & CO., Chicago, Ill.
Filed March 29, 1917. Serial No. 102,575. PUBLISHED JULY 17, 1917.

118,707. CUSTOM TOP DRESS, NEGLIGÉE, AND WORK SHIRTS. CHARLES E. SHEDAKER & SONS. Philadelphia, Pa.
Filed February 8, 1917. Serial No. 101,247. PUBLISHED JULY 10, 1917.

118,708. ELECTRIC MOTORS FOR SEWING-MACHINES AND CONTROLLERS THEREFOR. THE SINGER MANUFACTURING COMPANY, New York, N. Y.
Filed March 28, 1917. Serial No. 102,539. PUBLISHED JUNE 19, 1917.

118,709. ELECTRIC MOTORS FOR SEWING-MACHINES AND CONTROLLERS THEREFOR. THE SINGER MANUFACTURING COMPANY, New York, N. Y.
Filed March 28, 1917. Serial No. 102,540. PUBLISHED JULY 3, 1917.

118,710. ELECTRIC MOTORS FOR SEWING-MACHINES AND CONTROLLERS THEREFOR. THE SINGER MANUFACTURING COMPANY, New York, N. Y.
Filed March 28, 1917. Serial No. 102,541. PUBLISHED JUNE 19, 1917.

118,711. ELECTRIC MOTORS FOR SEWING-MACHINES AND CONTROLLERS THEREFOR. THE SINGER MANUFACTURING COMPANY, New York, N. Y.
Filed March 29, 1917. Serial No. 102,577. PUBLISHED JULY 3, 1917.

118,712. BATH-CABINETS. JOHN A. SOLOMON, Omaha, Nebr.
Filed February 9, 1917. Serial No. 101,277. PUBLISHED JULY 17, 1917.

118,713. SCOOPS, SHOVELS, SPADES, PICKS, AND HOES. SOUTHERN RAILWAY SUPPLY AND EQUIPMENT CO., St. Louis, Mo.
Filed January 25, 1917. Serial No. 100,941. PUBLISHED JULY 10, 1917.

118,714. NEGATIVE CARBON USED FOR ILLUMINATION AND PROJECTION. SPEER CARBON COMPANY, St. Marys, Pa.
Filed April 12, 1917. Serial No. 102,914. PUBLISHED JUNE 26, 1917.

118,715. TRACTORS. E. G. STAUDE MANUFACTURING CO., St. Paul, Minn.
Filed June 18, 1917. Serial No. 104,498. PUBLISHED JULY 24, 1917.

118,716. HAMMERS, SAWS, AND ICE-PICKS. STEEL AND IRON MONGERS INC., Newark, N. J.
Filed January 15, 1917. Serial No. 100,633. PUBLISHED JUNE 26, 1917.

118,717. KEROSENE. THE TEXAS COMPANY, Houston and Port Arthur, Tex., and New York, N. Y.
Filed May 25, 1917. Serial No. 104,092. PUBLISHED JULY 10, 1917.

118,718. REFINED PETROLEUM-OIL. TIDE WATER OIL CO., New York, N. Y.
Filed April 16, 1917. Serial No. 103,047. PUBLISHED JULY 10, 1917.

118,719. COLD-CREAM. TRYON HONEY BALM COMPANY, Tryon, N. C.
Filed November 29, 1916. Serial No. 99,635. PUBLISHED MAY 1, 1917.

118,720. CIGARS. UNITED CIGAR MANUFACTURERS COMPANY, (now by change of name General Cigar Co. Inc.,) New York, N. Y.
Filed July 27, 1916. Serial No. 96,912. PUBLISHED JULY 17, 1917.

118,721. FOUNTAIN-PENS. WEIDLICH-SIMPSON PEN COMPANY, Cincinnati, Ohio.
Filed December 28, 1916. Serial No. 100,230. PUBLISHED JULY 24, 1917.

118,722. CERTAIN NAMED MEASURING AND SCIENTIFIC APPLIANCES. WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, East Pittsburgh, Pa.
Filed December 4, 1915. Serial No. 91,177. PUBLISHED JANUARY 23, 1917.

118,723. SEWING-MACHINES. THE CHARLES WILLIAM STORES, INC., Brooklyn, N. Y.
Filed January 22, 1917. Serial No. 100,830. PUBLISHED JULY 10, 1917.

118,724. LUBRICATING OILS AND GREASES. WINONA OIL COMPANY, Winona, Minn.
Filed March 19, 1917. Serial No. 102,273. PUBLISHED JULY 10, 1917.

118,725. VARNISHES. WOOD & VAN DERWERKEN VARNISH CO. INC., Brooklyn, N. Y.
Filed April 24, 1917. Serial No. 103,276. PUBLISHED JUNE 19, 1917.

118,726. SHOVELS, SPADES, AND SCOOPS. THE WYOMING SHOVEL WORKS, Wyoming, Pa.
Filed January 18, 1917. Serial No. 100,732. PUBLISHED JUNE 19, 1917.

TRADE-MARK REGISTRATIONS RENEWED.

14,651. REMEDY FOR TREATING HORSES' HOOFS. JAMES B. CAMPBELL, Chicago, Ill.
Registered August 2, 1887. Renewed August 2, 1917.

LABELS

REGISTERED SEPTEMBER 25, 1917.

20,286.—*Title:* "DURABL-INKS." (For Inks.) DURABL-INK COMPANY, Chicago, Ill. Filed August 6, 1917.

20,287.—*Title:* "FLORA DE ARK BLOOM OF EDEN LOTION." (For a Complexion-Lotion.) M. E. TURNER MFG. CO., St. Louis, Mo. Filed June 23, 1917.

20,288.—*Title:* "BLUE BIRD." (For Ginger-Ale.) BLUE BIRD BEVERAGE COMPANY, New Orleans, La. Filed September 5, 1917.

20,289.—*Title:* "SUNSWEET." (For Dried Prunes.) CALIFORNIA PRUNE AND APRICOT GROWERS, INC., San Jose, Cal. Filed September 5, 1917.

20,290.—*Title:* "ITEN'S KORN KRACKERS." (For Crackers.) ITEN BISCUIT CO., Clinton, Iowa, and Omaha, Nebr. Filed September 5, 1917.

20,291.—*Title:* "PYRAMID." (For Flour.) TACOMA GRAIN COMPANY, Tacoma, Wash. Filed August 21, 1917.

20,292.—*Title:* "KAL I-FORNIA BATHING SUIT." (For Bathing-Suits.) ASBURY MILLS, New York, N. Y. Filed August 16, 1917.

20,293.—*Title:* "KHAKI-TEX." (For Khaki-Colored Cloth.) WINDSOR PRINT WORKS, North Adams, Mass., and New York, N. Y. Filed July 12, 1917.

20,294.—*Title:* "WARTIME." (For Flour.) BAY STATE MILLING CO., Winona, Minn. Filed June 9, 1917.

20,295.—*Title:* "COLUMBIA CORN DISTILLERS GRAINS." (For Dried Distillers' Grains Made from Corn and Malt.) J. M. MURPHY, New York, N. Y. Filed November 27, 1916.

20,296.—*Title:* "TRE-COL ORE." (For Macaroni.) M. STROLLO AND SONS, LTD., Barnesboro, Pa. Filed September 5, 1917.

20,297.—*Title:* "DOLLY VARDEN WHISKEY." (For Bottles of Whisky.) JAMES HARRIS, New York, N. Y. Filed October 30, 1916.

PRINTS

REGISTERED SEPTEMBER 25, 1917.

4,793.—*Title:* "COLORITE." (For a Dye for Satin, Silk, and Canvas Slippers, and Basketry.) CARPENTER-MORTON CO., Boston, Mass. Filed September 4, 1917.

4,794.—*Title:* "HERE'S SOMETHING FOR YOU!" (For Shoes.) THE STETSON SHOE CO., South Weymouth, Mass. Filed September 4, 1917.

4,795.—*Title:* "FOR PROTECTION BESTOL." (For Bestol Dental Cream, Mouth-Wash, and Tooth-Brushes.) THE BESTOL CO., Boston, Mass. Filed September 4, 1917.

4,796.—*Title:* "VITRALITE, THE LONG-LIFE WHITE ENAMEL." (For Vitralite Enamel.) PRATT & LAMBERT, INC., Buffalo, N. Y. Filed September 7, 1917.

4,797.—*Title:* "'61' FLOOR VARNISH." (For "61" Floor-Varnish.) PRATT & LAMBERT, INC., Buffalo, N. Y. Filed September 7, 1917.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

IN RE MINOR.

Decided January 2, 1917.

45 APP. D. C., 555.

1. PATENTABILITY—ANTICIPATION.

Claims for a can-opener the distinctive features of which were a curved forward cutting edge related both in construction and position to a pivot edge or fixed axis of revolution as described and a spherically-shaped blade positioned as described with relation to the pivot edge or fixed axis of revolution were *Held* anticipated by a French patent for a can-opener describing a blade always forming a constant angle with the cover of the can, whatever the inclination of the handle, and pointing out how to plot a tool mathematically, so as to bring about this relation of the parts, and a British patent describing a can-opener with a curved cutting edge, but with a fixed pivot to form a fulcrum and to grip the edge of the tin can or box to "facilitate the feed" of the knife.

2. SAME—SUBSTITUTION OF PARTS.

It is not invention to merely make a selection of old parts which bear substantially the same relation to the operation of a tool that they did to tools in which they were used separately before the supposed invention.

3. SAME—SAME—DEGREE.

No new result is attained by a can-opener because it has a longer cut than one already patented, where the latter cuts more rapidly, as the entire operation of opening a can may be effected as quickly by one as the other.

4. SAME—JUDICIAL NOTICE.

Tool-handles designed to fit the hands are very old and of infinite variety, and the court will take judicial notice of that fact in sustaining a ruling of the Patent Office rejecting a claim for a handle of a can-opener so shaped as to fit the hand and to make it light in weight.

5. SAME—INTERDEPENDENT CLAIMS.

Where an applicant concedes that certain devices described in three of his claims are old and states that they are claimed only in combination with the devices of a fourth claim and that claim is rejected, the other three claims fall with it.

Mr. James L. Norris and *Mr. C. A. Bateman* for the appellant.

Mr. William R. Ballard for the appellee.

McCOY, *J.:*

This is an appeal from a decision of the Patent Office rejecting claims 1 to 8 inclusive of an application for a patent. The application states that the invention for which a patent is claimed relates to can-openers and has reference more particularly to the class comprising a lever of the first order with flat blades as well as those which are convexed.

For the purposes of this decision it will be sufficient to set forth in full claims 1, 2 and 4, which are as follows:

1. In a device of the class described, a blade having projecting from its outer surface a pivot with an edge forming a fixed axis of revolution positioned normally to said surface, the blade having also a curved forward cutting edge, lying in said surface, and being a curve so generated and positioned, on a flat pattern, with relation to the projection of said axis, that a straight line drawn from the projection of said axis to any point on said curve will form a substantially constant angle approximating 45 degrees with a tangent to said curve at the same point.

2. In a device of the class described, a blade having a spherical outer, convex surface, containing a forward cutting edge, and, projecting from said surface, a pivot with an edge forming a fixed axis of revolution, said axis being positioned radially with relation to said surface.

4. In a device of the class described, a handle having in combination, a curving end and back to fit the hollow of the hand, curves beneath to receive and fit the fingers in grasping a flat portion at proper angle to receive a blade, and a ridge on the back of the handle, said handle being apertured to lighten and strengthen same.

The object of the invention is to provide a can-opener which will cut out the top of a can easily and quickly making a clean smooth cut close to the vertical walls of the can.

The application states that the efficiency of the can-opener depends upon the relation (of construction and position) between the curved forward cutting edge and the pivot edge (the axis of revolution) projected at a certain point in the tool. It describes the method of generating the curve of the cutting edge with reference to a flat blade, and says that a pattern of the flat blade having been obtained, it can be convexed into the desired spherical shape, giving a pattern for the spherically-shaped blade, the projection of which will differ but slightly from the pattern of the flat blade; that the angle of forty-five degrees is taken for the constant angle between the straight line from the center of revolution to any point on the curve and a tangent to the curve at the same point because that angle combines the compatible maxima of advantage or facility in cutting and of speed in cutting; that it is the proper angle for ordinary uses of the tool but that the constant angle approximating forty-five degrees may be substituted; and, further, that the claims are made broad enough to cover a cutting edge constructed and positioned with reference to any angle approximating forty-five degrees.

The application with some unsubstantial amendments states particularly in regard to the device to which the second claim applies as follows:

For use on cylindrical cans the blade of the can opener has on its outer surface the form of a sphere of same diameter as that of can to be opened, or of most commonly

used size of can, this outer or convex spherical surface of the blade (containing the curved forward cutting edge) being positioned with relation to the pivot edge, or fixed axis of the can opener in operation, so that a diameter of the sphere of which the outer or convex surface of the blade is a part, will coincide (in position and direction) with said axis of revolution, and so that throughout the revolution of the can opener, in operation, the spherical outer or convex surface of the blade (including every point of the curved forward cutting edge) will pass tangent to the cylindrical wall of the can, just at the rim; whereby the top of the can will be cut by said cutting edge just at or close to the rim and the blade be held steadily in position, throughout the operation of the tool.

It is stated further that the tool designed for cutting cylindrical cans must have the shape of a sphere, with a diameter equal to the diameter of the can to be opened, coinciding (in position and direction) with the convexed axis of revolution of the tool in operation, the result of which it is said will be that in all positions of the revolving movements of the can-opener in operation the blade will everywhere fit snugly against the cylindrical wall of the can. It is stated however that in practical operation it is sometimes convenient to lean the handle a little outward to avoid obstructions on the inner wall of the can, such as a seam, and that the operator can with his hands so control the position of the tool and blade as to maintain a proper adjustment of the blade where such adjustment is not perfectly effected by means of the spherical shape and the positioning of the blade and by a flange on the end of the pivot, which flange in operation is on the outside of the can. The application states also that although for use on cylindrical cans the proper shape of the outer or convexed surface of the blade is that of a sphere with the diameter equal to the diameter of the can to be opened, a blade constructed or shaped to any particular diameter will work satisfactorily on cans with diameters varying considerably above and below the diameter of the construction; and that the practical utility of the can-opener would be increased by adopting ordinarily the diameter of the most commonly used size of can; and, further, that the spherically-shaped blade is available and intended for use on curved cans which are not cylindrical, though it is not as perfectly adapted to the latter as to cylindrical cans.

The two main and distinctive features of his invention are said to be, first, the curved forward cutting edge of the peculiar construction and positioning described, that is, related both in construction and position to the pivot edge or fixed axis of revolution as described; and, second, the spherically-shaped blade positioned as described with relation to the pivot edge or fixed axis of revolution. The can-opener with the first feature and without the flat blade is for straight-line cutting and this feature is separately claimed. The second feature is separately claimed but it is said that the can-opener embodying the second feature without the first while it works more satisfactorily than any can-opener except that of the appellant will work to best advantage in combination with the first feature. The two features are claimed in combination as well as separately.

Claim 1 was rejected on a French patent to Odend'hal, No. 420,623, February 3, 1911, and a British patent to Parrott, No. 950, of 1896. Odend'hal's invention is of a tool specially designed for opening preserving-cans. He states the characteristic feature of it to be that the blade will always form a constant angle with the cover of the can whatever may be the inclination of the handle and points out how to plot a tool mathematically so as to bring about this relation of the parts. In the Odend'hal tool at the heel of the blade is a striated projection which rests on the cover of the can and prevents the tool from moving back, serving also as a point of support. This projection is cylindrical in shape, the result being that the axis of revolution is a shifting axis as the tool is operated. Parrott describes a can-opener with a curved cutting edge but with a fixed pivot serving to form a fulcrum and to grip the edge of the tin can or box to "*facilitate the feed*" of the knife. It is admitted that the use of fixed pivots in can-openers is not only old but common. The appellant in his brief in the Patent Office states that there can be no appropriation of any particular angle or of constancy of angle considered abstractly. He claims however that to plot the curved edge of the tool with reference to a fixed axis instead of a constantly-changing axis involves invention, this being he says the adoption of a distinctive means and mode of maintaining such constant angle, and especially because the mode of operation in the one case is different from that in the other. But the axis fixed or changing is not a means or mode of maintaining a constant angle. It is merely a point necessarily adopted for the mathematical calculation involved in plotting the tool. His argument with reference to the mode of operation consists in contrasting his invention with Odend'hal's:

Odend'hal's can opener, rolling back on its bearings, recedes from its work * * * but my can opener, revolving on a fixed axis, stands up firmly against its work throughout each cut.

This simply leaves Parrott's prior invention out of consideration. The appellant could just as well say that he avoids the receding action by using a blade like Odend'hal's with a fixed pivot instead of the blade Parrott uses. The advantage in the cutting operation effected by a tool with a curved cutting edge positioned identically at every point with relation to an axis is exactly what Odend'hal claimed. Parrott uses a fixed pivot and in his patent points out its advantage in "facilitating the feed." The applicant has simply made a selection of old parts which bear substantially the same relation to the operation of the tool that they did to the tools in which they were used separately before his invention.

Appellant claims a practical advantage for his tool in that it makes a longer cut than Odend'hal's and urges that invention should be conceded him for this reason. It would be a sufficient answer to this contention to say that Parrott's tool also makes a long cut. Moreover, when a pivot and curved cutting edge are present the operation of the cut-

ting is partly forward and partly backward whether the pivotage is on a so-called fixed pivot or on different pivots successively; that is to say, there is a drawing action to the cutting operation in both cases, but with the former it is less than with the latter. In other words, it is only a question of degree. If the appellant's tool makes a longer cut undoubtedly Odend'hal's cuts more rapidly owing to its greater drawing action, and the entire operation of opening a can is undoubtedly effected as quickly by one as by the other. So there is no new result from the use of the tool as constructed by the appellant, and as already shown, what the appellant claims as subsidiary functions; namely, the accentuation of the forward movement and the maintenance of the constant angle, are both old.

The convexed can-opener to which claim 2 relates is stated in the application to have the advantage that in operation the blade will everywhere fit snugly against the cylindrical wall of the can, but after making such claim the appellant proceeds as shown above to state that in practical operation it is sometimes convenient to turn the handle outward for the purpose there stated, and generally that the person using the opener can adjust the blade to suit the circumstances; in other words, the tool is not so devised as to automatically keep the curved blade against the side of the can; consequently his device has no advantage over that of Smith, December 29, 1908, No. 908,346, or that of Franken, June 21, 1910, No. 961,946, and is not substantially different from them in form. Smith shows a curved blade adapted he says to cutting a straight or a circular line which he describes as having a "concavo-convex" formation. Franken also shows a convexed cutting-blade and states that the object of so shaping it is to make the cut in the can-top close to the vertical wall of the can. The appellant says, however, that the pivot or pivot edge in the Smith and Franken devices is not positioned radially to the surface of the blade. Neither Franken nor Smith make any claim to an axis so positioned, but in Franken's device especially it is apparent from the drawings that the pivot-point bears substantially, if not quite, that relation to the surface of the blade. Moreover as pointed out above there is no practical utility gained from the construction claimed. Claim 2 was therefore properly refused.

Claim 3 is substantially a combination of claims 1 and 2 and for reasons already given was properly refused. As stated by the Assistant Commissioner of Patents there was no invention involved in giving a blade formed after the manner of the Odend'hal patent a spherical outer surface in view of the patent to Franken. Moreover, as pointed out above the appellant admits that the two features embodied in claim 3 are independent.

Claims 4 and 5 were unanimously refused by the officials in the Patent Office. They relate to the design of the handle of the tool so as to produce a shape which will fit the hand and make it light in weight. The court will take judicial notice of the fact that tool-handles designed to fit the hands are very old and of infinite variety and on this ground alone would uphold the ruling in the Patent Office. If this were not so the reference would sustain the action of the Patent Office. The ruling as to claim 4 is also applicable to claim 5.

The appellant says in his brief that the bevel, point and flange mentioned in claims 6, 7 and 8, respectively, are all old devices and that they are claimed only in combination with the devices of claim 1. The last mentioned claim having been held to be properly refused the other three claims fall with it. As pointed out in the brief of counsel for defendant the details mentioned in claims 6, 7 and 8 have no functional or patentable relation to the specific shape of the cutting edge described in claim 1.

The decision of the Assistant Commissioner of Patents is affirmed.

The clerk will certify this opinion as required by law.

Court of Appeals of the District of Columbia.

IN RE VREELAND.

Decided May 26, 1917.

PATENTABILITY—INVENTION—RADIOTELEGRAPHY.

The appealed claims compared with the reference Fessenden, No. 1,050,441, and *Held* to involve no patentable novelty.

[Note.—This application has resulted in Patent No. 1,186,109.]

Mr. F. L. Dyer, *Mr. L. S. Bacon*, and *Mr. J. H. Milans* for the appellant.

Mr. Theodore A. Hostetler for the Commissioner of Patents.

VAN ORSDEL, *J.*:

This appeal is from the decision of the Commissioner of Patents denying appellant certain claims in an application for a patent relating to a method of receiving wireless signals.

The rejected claims in issue are as follows:

44. The method of detecting sustained alternating signal impulses which consists in combining in a common element of a circuit the signal impulses and sustained oscillations from a local source of slightly different frequency and detecting the beats thus produced, substantially as set forth.

45. The method of detecting sustained high frequency signal impulses which consists in breaking up the continuous signal impulses into an intermittent or pulsating one by combining it in a common element of a circuit with a locally generated sustained oscillation of slightly different frequency and detecting the beats thus produced, substantially as set forth.

49. The method of detecting signal impulses which consists in setting up in a closed tuned oscillating circuit oscillations separate from the signal impulses, superimposing thereon the impulses to be detected and detecting the variations in these oscillations caused by the signal impulses, substantially as set forth.

The issue relates to an improvement in receiving signals, as practised in the extremely-complicated art of radiotelegraphy. It consists in reducing the frequency of electrical oscillations within the range of human audibility. This is accomplished by establishing a local circuit at the receiving-station which produces electrical oscillations at a different frequency from that produced at the signaling-station. For example, let it be assumed that the signal oscillations have a frequency of 100,000 per second, and

the local oscillations have a frequency of 99,500 per second. A combination of these two oscillations will produce beats. These pulsations or beats always occur at a rate equal to the difference between the two frequencies. In other words, in the example stated, the frequency of the beats would be at the rate of 500 per second.

Counsel for appellant in his brief describes appellant's invention as—

> combining in a local circuit, or at least in a part or common element of a local circuit, of the two continuous or undamped oscillations of slightly different frequencies, one from the distant source and the other from the local source, whereby electric beats or surges or variations in amplitude will be set up, corresponding in frequency to the difference between the frequencies of the two oscillations, and in utilizing in connection with the local circuit suitable detecting means by which these electric beats or surges can be detected. The key to appellant's invention is the local circuit in which the two oscillations are combined, because by combining the two oscillations in the local circuit it becomes possible to utilize highly efficient devices for amplifying and detecting the beats.

The tribunals of the Patent Office justify their rejection of the claims by reference to a patent to one Fessenden. Fessenden, in his specification, after stating that he has a "variety of forms of receiving device," says that—

> it is preferred, therefore, to have the frequency of the dynamo producing a field * * * different from the frequency of the received oscillations, and this difference may amount preferably to about one-fifth (⅕) of one per cent. (1%), though a larger or a smaller difference may be used.

Fessenden uses an example of two frequencies, one of 100,000 and the other one-fifth of one per cent. different, and states that—

> beats will be produced which will cause the telephone diaphragm to vibrate and emit a musical note. * * * The pitch of the note may be altered at will so as to produce mechanical resonance with the telephone diaphragm. * * * Another advantage of the beats method herein described, as against having the same frequency at the sending end, is that if the frequency at the receiving end were the same as that at the sending end, (though this is commercially impracticable) the fixed coil would generate by induction current in the moving coil many thousand times greater than the current to be received, and hence the effect of the received impulses would be drowned by the current generated by the local or fixed coils. * * * Where desired, all or any of the circuits may be electrically tuned, in accordance with methods well known in the art, the advantages and effects of such tuning being well known.

An examination of the claims of the Fessenden patent discloses, we think, a complete anticipation of the claims in issue. His claim 19 reads as follows:

> In a high frequency signaling system the combination at the receiving station of two fixed coils, one operatively connected to antenna and the other operatively connected to a frequency determining element of slightly different frequency, a ring arranged in the fields of said coils and an indicating mechanism controlled by said ring.

The specification points out that the oscillations on the antenna, or the receiving-wire of the signal-circuit at the receiving-station, are in themselves too rapid to affect the ring, and consequently have no influence upon the detecting mechanism or indicating instrument, and likewise that the oscillations of different frequency in the local circuit have independently no effect upon the ring or detecting devices. But, by combining the oscillations of different frequency, the ring readily responds to the pulsations or beats, which can be detected by placing the indicating instrument in proximity to the ring.

The improvement attained, if any, by appellant over Fessenden is in degree, not invention. We, therefore, agree with the Commissioner that appellant in the allowed claims has been awarded everything to which he is entitled.

The decision of the Commissioner of Patents is affirmed, and the clerk is directed to certify these proceedings as by law required.

Affirmed.

Union of South Africa— Proclamation Relating to Patents, Trade-Marks, Etc.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., September 15, 1917.

The following proclamation, which appeared in the *Government Gazette* for the Union of South Africa of June 22, 1917, and section 4 of the Public Welfare and Moratorium Act (Amendment Act) of 1917, so far as relates to patents, is published for the information of those concerned:

(No. 115, 1917.)

Whereas it has been provided by section one hundred and ninety-one of the Patents, Designs, Trade-Marks, and Copyright Act, 1916, that the provisions of subsections (2) and (3) of section forty-one and the provisions of subsections (4) and (5) of section eighty shall not apply to any country outside the Union unless and until the Governor-General has, by proclamation in the *Gazette*, declared that such country affords privileges similar to those described in the said subsections respectively to persons residing in the Union;

And whereas it has been ascertained that similar privileges to those described in the said subsections (2) and (3) of section forty-one of the Patents, Designs, Trade-Marks, and Copyright Act, 1916, are provided for in section eight of the Patent Act (Revised Statutes of Canada, 1906) of the Dominion of Canada, and similar privileges to those described in subsections (2) and (3) of section forty-one and subsections (4) and (5) of section eighty of the Patents, Designs, Trade-Marks, and Copyright Act, 1916, are provided for in section four thousand eight hundred and eighty-seven of the Revised Statutes, 1878, of the United States of America;

Now, therefore, under and by virtue of the powers and authority in me vested by section one hundred and ninety-one of the Patents, Designs, Trade-Marks, and Copyright Act, 1916, I do hereby declare, proclaim, and make known that—

1. The Dominion of Canada affords privileges similar to those described in subsections (2) and (3) of section forty-one of the Patents, Designs, Trade-Marks, and Copyright Act, 1916, to persons residing in the Union.
2. The United States of America affords privileges similar to those described in subsections (2) and (3) of section forty-one and subsections (4) and (5) of section eighty to persons residing in the Union.

GOD SAVE THE KING.

Given under my hand and the great seal of the Union of South Africa at Cape Town this eighth day of June, in the year one thousand nine hundred and seventeen.

BUXTON, *Governor-General.*

ACT OF 1917.

4. Section five of the said act is hereby further amended by the addition thereto of the following new subsections (8) and (9):

(9) The Registrar of Patents, Designs, Trade-Marks, and Copyright may, during the continuance of the present war and upon such terms and subject to such conditions as he may think fit, extend the time prescribed by Act No. 9 of 1916 or any regulations made thereunder for doing any act or lodging any document when it is shown to his satisfaction that the applicant, opponent, patentee or proprietor, as the case may be, was prevented from doing the said act or lodging the said document by reason of his being on active service or his enforced absence from the Union or any other circumstances arising out of the present state of war which, in the registrar's opinion, would justify an extension of time.

INDEX

TO THE

DECISIONS OF THE COMMISSIONER OF PATENTS AND OF THE UNITED STATES COURTS.

SEPTEMBER, 1917.

[Decisions of the Court of Appeals of the District of Columbia are indicated by a star (*) and of the United States Circuit Court of Appeals by the letter d.]

TABLE OF CASES.

	Page.
*Auflero *v.* Monnot	750
Campbell *v.* Dyson *v.* Dunham	253
*Coffin Redington Co. *v.* Turner	751
Herber. *Ex parte*	749
*Herber. *In re*	749
*Macwilliam *v.* President Suspender Company	255
*Minor. *In re*	993
dNorth American Chemical Co. *v.* Keno Supply Co	515
*Vreeland. *In re*	995

SUBJECT-MATTER INDEX.

	Page.
*Construction of claims, anticipation, *in re* Minor	993
In re Herber	749
*Comparison with reference shows nothing patentable, *in re* Vreeland	995
dReference to specification for explanation frequently necessary, North American Chemical Co. *v.* Keno Supply Co	515
Substitution of equivalents, *ex parte* Herber	749
*Interdependent claims, where three claims are old and the devices therein are claimed only in combination with devices of a fourth claim, if this claim falls the other claims fall therewith, *in re* Minor	993
Interference, effect of dissolution, Campbell *v.* Dyson *v.* Dunham	253
Where interference between two parties is dissolved because one party has no right to make claim and another party has made some of the claims before dissolution of interference, the right of the third party to make such claims is not *res adjudicata*, Campbell *v.* Dyson *v.* Dunham	253
Interference proceedings, not for the purpose of determining patentability, Campbell *v.* Dyson *v.* Dunham	253
*Invention, change in degree only, not new result, *in re* Minor	993
*Judicial notice, fact that devices of the same character are old and in great variety will be noticed in sustaining rulings of Patent Office in rejection of claims, *in re* Minor	993
dParticular patents, Arnold, No. 808,227, shoe-filling machine, void for lack of invention, not infringed, North American Chemical Co. *v.* Keno Supply Co	515
dThoma, No. 808,224, process of filling shoe-bottoms, void for lack of invention, North American Chemical Co. *v.* Keno Supply Co	515
dParticular patents, etc.—continued.	
dThoma, No. 832,002, shoe-bottom filler, valid and infringed, North American Chemical Co. *v.* Keno Supply Co	515
*Reduction to practice, delay in filing application, Auflero *v.* Monnot	750
Second interference, previous interference terminated without final hearing does not work estoppel against contest as to priority by common assignee, Campbell *v.* Dyson *v.* Dunham	253
*Substitution of parts not invention, *in re* Minor	993
*Trade-marks, bill in equity not maintained unless use of mark has been honest and free from false and fraudulent representation, Coffin Redington Co. *v.* Turner	751
*Conveyance of business carries with it trade-mark used in connection therewith whether mentioned in the instrument or not, Macwilliam *v.* President Suspender Company	255
*Owner of mark who grants right to use to another by license or sale and abandons it himself cannot deprive that other of the use or set up adverse use, Macwilliam *v.* President Suspender Company	255
*Rights acquired by license, Macwilliam *v.* President Suspender Company	255
*Where the mark itself is not deceptive, but the accompanying statements are, registration on the ground of prior use should be denied, Coffin Redington Co. *v.* Turner	751

DIGEST

OF THE

DECISIONS OF THE COMMISSIONER OF PATENTS AND OF THE UNITED STATES COURTS.

SEPTEMBER, 1917.

[Decisions of the Court of Appeals of the District of Columbia are indicated by a star (*) and of the United States Circuit Court of Appeals by the letter d.]

ABANDONMENT OF TRADE-MARK.

See Right to Use Trade-Mark.

ANTICIPATION.

See Construction of Claims, 2, 3, 4.

BILL IN EQUITY.

See Registration of Trade-Marks, 1.

COMBINATION.

See Interdependent Claims.

CONCEPTION OF INVENTION.

See Reduction to Practice.

CONSTRUCTION OF CLAIMS.

1. REFERENCE TO SPECIFICATION.
Claims in a patent are frequently explained and must necessarily be explained by reference to the specification; but claims which are lacking in the definiteness or clearness required by statute cannot be thus made good.
[d North American Chemical Co. *v.* Keno Supply Co., 515.

2. PATENTABILITY—SUBSTITUTION OF EQUIVALENTS—CRACKING OIL.
Claims for a method of cracking oil by the direct application of heat thereto *Held* unpatentable over a reference disclosing a similar method in which another well-known way of heating the oil is used.
[*Ex parte* Herber, 749.

3. SAME—INVENTION—SEPARATING OIL.
The appealed claims compared with the reference Forward, 1,189,083, and *Held* to be completely anticipated thereby.
[**In re* Herber, 749.

4. SAME—ANTICIPATION.
Claims for a can-opener the distinctive features of which were a curved forward cutting edge related both in construction and position to a pivot edge or fixed axis of revolution as described and a spherically-shaped blade positioned as described with relation to the pivot edge or fixed axis of revolution were *Held* anticipated by a French patent for a can-opener describing a blade always forming a constant angle with the cover of the can, whatever the inclination of the handle, and pointing out how to plot a tool mathematically, so as to bring about this relation of the parts, and a British patent describing a can-opener with a curved cutting edge, but with a fixed pivot to form a fulcrum and to grip the edge of the tin can or box to "facilitate the feed" of the knife.
[**In re* Minor, 993.

5. SAME—INVENTION—RADIOTELEGRAPHY.
The appealed claims compared with the reference Fessenden, No. 1,050,441, and *Held* to involve no patentable novelty.
[*In re* Vreeland, 995.

DECEPTIVE TRADE-MARK.

See Registration of Trade-Marks, 2.

DELAY IN FILING APPLICATIONS.

INTERFERENCE—REDUCTION TO PRACTICE.
Where A. reduced to practice in July, 1910, in the presence of several witnesses under no injunction of secrecy, and thereafter exhibited the invention to R., with a view to having it exploited, the mere fact that he delayed the filing of his application until June 12, 1912, is not sufficient to deprive him of the fruits of his discovery where there is no evidence that he was induced to file because of any activity on the part of another; nor are there any circumstances tending to impugn his good faith in any way. (*Gaisman* v. *Gillette*, 165 O. G., 244; 36 App. D. C., 440; *Hubbard* v. *Berg*, 195 O. G., 818; 40 App. D. C., 577; *Stewart* v. *Thomas*, 202 O. G., 1263; 42 App. D. C., 222; *Piermann* v. *Chisholm*, 225 O. G., 1106; 44 App. D. C., 460.)
[*Auflero v. Monnot, 750.

DISCLOSURE OF INVENTION.

See Reduction to Practice.

DISSOLUTION OF INTERFERENCE.

See Interference, 1, 4.

EQUIVALENTS.

See Construction of Claims, 2.

ESTOPPEL.

See Interference, 4.

FINAL HEARING.

See Interference, 4.

FORMER DECISIONS CITED.

See Delay in Filing Applications; Reduction to Practice; Registration of Trade-Marks, 1.

FRAUD.

See Registration of Trade-Marks, 1.

INDEFINITENESS.

See Construction of Claims, 1.

INFRINGEMENT.

See Particular Patents, 1, 3.

INTERDEPENDENT CLAIMS.

COMBINATION.
Where an applicant concedes that certain devices described in three of his claims are old and states that they are claimed only in combination with the devices of a fourth claim and that claim is rejected, the other three claims fall with it.
[**In re* Minor, 993.

INTERFERENCE.

See Delay in Filing Applications; Reduction to Practice.

1. SECOND DECLARATION.
Where an interference declared between parties K. and D. was dissolved on the ground that K. had no right to make a claim suggested to him by the Office, and C., also assignor to the assignee of K., had before the dissolution made some of the claims of the issue, *Held* that the right of C. to make the claim was not *res adjudicata* by reason of the dissolution of the first interference.
[Campbell *v.* Dyson *v.* Dunham, 253.

2. PURPOSE—NOT TO DETERMINE PATENTABILITY.
An interference is not a proceeding to determine whether the parties have a right to a patent. It starts with the assumption that both parties have a clear right to a patent except for the simultaneous claim of the other. [Id.

3. DISSOLUTION—EFFECT OF.
The dissolution of an interference on the ground that one of the parties has no right to make any of the claims of the issue is merely a ruling that it was a mistake to declare the interference as to that party. [Id.

4. SAME—SAME.
A previous interference which terminated without final hearing and decided nothing more than that one of the parties thereto did not have the invention in issue does not work estoppel against a common assignee to contest priority with the successful party on the basis of another application which prior to the termination of the prior interference contained claims corresponding to the issue thereof and a request to be included therein. [Id.

INVENTION.

See Construction of Claims, 2, 3, 5; Particular Patents, 1, 2.

1. SUBSTITUTION OF PARTS.
It is not invention to merely make a selection of old parts which bear substantially the same relation to the operation of a tool that they did to tools in which they were used separately before the supposed invention. [*In re* Minor, 993.

2. SAME—DEGREE.
No new result is attained by a can-opener because it has a longer cut than one already patented, where the latter cuts more rapidly, as the entire operation of opening a can may be effected as quickly by one as the other. [*Id.

3. JUDICIAL NOTICE.
Tool-handles designed to fit the hands are very old and of infinite variety, and the court will take judicial notice of that fact in sustaining a ruling of the Patent Office rejecting a claim for a handle of a can-opener so shaped as to fit the hand and to make it light in weight. [*Id.

JUDICIAL NOTICE.

See Invention, 3.

LICENSE.

See Opposition to Registration of Trade-Marks; Registration of Trade-Marks.

NEW RESULTS.

See Invention, 1.

OLD DEVICES.

See Interdependent Claims; Invention.

OPPOSITION TO REGISTRATION OF TRADE-MARKS.

See Right to Use Trade-Mark.

SUSTAINED—"PRESIDENT" FOR SUSPENDERS.
Where appellant, being owner of a patent and engaged in manufacturing suspenders thereunder and having adopted and used as a trade-mark thereon the word "President" on a colored banner, granted to the predecessor of appellee an exclusive license under the patent and agreed to transfer and turn over the good-will of his business and all orders he had or might thereafter have for said suspenders, the license to continue during the life of the patent, and at request of licensee registered the trade-mark, *Held* when appellee's right to continue business became absolute with the expiration of the patent it had acquired a title to the use of the mark of which it could not be divested by appellant and that the opposition to appellant's application for registration filed June 26, 1914, must be sustained.
[*Macwilliam *v.* President Suspender Company, 255.

PARTICULAR PATENTS.

1. ARNOLD—NO. 808,227—SHOE-FILLING APPARATUS—VALIDITY AND INFRINGEMENT.
The Arnold patent, No. 808,227, for a shoe-filling apparatus, *Held* void for lack of invention and also not infringed.
[d North American Chemical Co. *v.* Keno Supply Co., 515.

2. THOMA—NO. 808,224—PROCESS OF FILLING SHOE-BOTTOMS—INVENTION.
The Thoma patent, No. 808,224, for the art of filling shoes, *Held* void for lack of invention. [d Id.

3. THOMA—NO. 832,002—SHOE-BOTTOM FILLER—INFRINGEMENT.
A decree affirmed which holds valid and infringed the Thoma patent, No. 832,002, for a shoe-bottom filler. [d Id.

PATENTABILITY.

See Construction of Claims; Interference, 2; Invention.

PRIOR INTERFERENCE.

See Interference, 4.

PRIOR USE.

See Registration of Trade-Marks, 2.

REDUCTION TO PRACTICE.

See Delay in Filing Applications.

INTERFERENCE—TEST.
Where A.'s conception and disclosure of the invention on May 23, 1909, is conceded, and where A., assisted by a mechanic, commenced early in 1910 a horn embodying the invention, completing the same in May or June of that year, and where this horn was satisfactorily and successfully operated in July, 1910, in the presence of four witnesses and shown to be a practical automobile-horn so far as sound production is concerned, and where the count of the issue does not define the invention either as an automobile-horn or as a device adapted for use on an automobile, *Held* that this test amounted to a reduction to practice, according to prior rulings of this court. (See *Stanbon* v. *Howe*, 153 O. G., 823; 34 App. D. C., 418; *Gaisman* v. *Gillette*, 165 O. G., 244; 36 App. D. C., 440; *Hopkins* v. *Peters*, 199 O. G., 1243; 41 App. D. C., 302; *Manly* v. *Janney*, 235 O. G., 325; 45 App. D. C., 516.)
[*Auflero *v.* Monnot, 750.

REFERENCES.

See Construction of Claims, 2, 3, 5.

REGISTRATION OF TRADE-MARKS.

1. MISREPRESENTATIONS.
"One cannot maintain a bill in equity for the protection of a trade-mark unless his own use of the mark has been honest and free from false and fraudulent representations touching the article sold under the mark; and it is the duty of the Patent Office to refuse registration to one whose use of the mark has been of such a character that a court of equity would, upon the foregoing principle, deny him protection," (citing *Levy* v. *Uri*, 135 O. G., 1363; 31 App. D. C., 441.)
[*Coffin Redington Co. *v.* Turner, 751.

2. SAME—PRIOR USE.
Where appellee's labels stated that the face-cream to which they were applied were purely vegetable and would remove freckles or wrinkles, but upon examination she persistently refused to state whether the cream did not contain mineral ingredients and whether she had any ground for believing it would remove freckles or wrinkles, *Held* her refusal fairly shows the statement concerning the removal of wrinkles and freckles to have been made without regard to their truth and justifies the finding that it was not purely vegetable and *Held* that while the mark or name was not itself deceptive the accompanying statements were and the registration on the ground of prior use should have been denied.
[*Id.

REJECTION OF CLAIMS.

See Interdependent Claims; Invention, 3.

RES ADJUDICATA.

See Interference, 1

RIGHT TO MAKE CLAIMS.

See Interference, 1, 3.

RIGHT TO PATENT.

See Interference, 2.

RIGHT TO USE TRADE-MARK.

See Opposition to Registration of Trade-Marks.

1. LICENSE TO USE—RIGHT ACQUIRED EXCLUSIVE.
Where owner of a trade-mark grants the right to another, either by sale or license, to use the mark on goods with which its use is connected and abandons its use himself, he cannot afterward either deprive his assignee of the right to its use or set up an adverse use. [*Macwilliam *v.* President Suspender Company, 255.

2. SALE OF BUSINESS—CARRIES TRADE-MARK.
It is well settled that the conveyance of a business with its good-will, either by sale or license, carries with it a trade-mark used in connection therewith, whether expressly mentioned in the instrument or not. [*Id.

SALE OF BUSINESS.

See Opposition to Registration of Trade-Marks: Registration of Trade-Marks.

SECOND INTERFERENCE.

See Interference, 1.

SPECIFICATIONS.

See Construction of Claims, 1

SUBSTITUTION OF PARTS.

See Invention, 1.

TEST.

See Reduction to Practice.

TITLE TO TRADE-MARK.

See Opposition to Registration of Trade-Marks; Right to Use Trade-Mark.

TRADE-MARKS.

See Opposition to Registration of Trade-Marks; Registration of Trade-Marks; Right to Use Trade-Mark.

VALID PATENTS.

See Particular Patents, 3.

VOID PATENTS.

See Particular Patents, 1, 2.

WITNESSES.

See Delay in Filing Applications; Reduction to Practice.

ALPHABETICAL LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED DURING THE MONTH OF SEPTEMBER, 1917.

[Abbreviations: "Gaz."—Official Gazette.]

Abadie, Jean L., Santa Barbara, Cal. Portable serving-buffet. No. 1,240,163; Sept. 18; v. 242; p. 523.
Abraham, Gabriel. (See Grabau, Hans E., assignor.)
Abram Cox Stove Company. (See Wood and Epright, assignors.)
Accounting Devices Company. (See Jones, William G., assignor.)
Actus Carbureter & Manufacturing Co. (See Prochaska, Carroll W., assignor.)
Adam, John C., North Kensington, London, England. Carbureter. No. 1,241,461; Sept. 25; v. 242; p. 960.
Adams, Allen F., Madrid, Iowa. Acetylene miner's lamp. No. 1,238,729; Sept. 4; v. 242; p. 3.
Adams, Charles S., Buffalo, N. Y., assignor to Rice & Adams Corporation. Valve for filling bottles. No. 1,239,068; Sept. 4; v. 242; p. 111.
Adams, James D., and A. G. Johnson, Monessen, assignors to Pittsburgh Steel Co., Pittsburgh, Pa. Core for wire-reels. No. 1,239,069; Sept. 4; v. 242; p. 112.
Adams, John P., and G. I. Leonard, Chicago, Ill. Window-ventilator. No. 1,241,185; Sept. 25; v. 242; p. 875.
Adams, Walter S., assignor to The J. G. Brill Company, Philadelphia, Pa. Journal-box lid. No. 1,240,002; Sept. 11; v. 242; p. 437.
Adamsen, James J., Seattle, Wash. Vehicle-wheel. No. 1,239,658; Sept. 11; v. 242; p. 327.
Adamson, Lee H., Rogers, Ark. Device for pulling automobiles from mud-holes. No. 1,241,472; Sept. 25; v. 242; p. 964.
Adder Machine Company, The. (See Pentecost, Arthur, assignor.)
Addressograph Company. (See Duncan, Joseph S., assignor.)
Adt, Leo F., Albany, N. Y. Eyeglass-guard. No. 1,239,245; Sept. 4; v. 242; p. 169.
Advance Machine Co. (See Antoine, Gebert, and Travis, assignors.)
Aeolian Company, The. (See Empson, Frederick J., assignor.)
Aked, Thomas O., St. Thomas, Ontario, Canada. Spinning-machine spindle. No. 1,240,803; Sept. 25; v. 242; p. 755.
Aktiebolaget Ljungströms Angturbin, (Manufacturers.) (See Ljungström, Fredrik, assignor.) (Reissue.)
Aktiengesellschaft der Maschinenfabriken Escher, Wyss & Co. (See Guyer, Hans, assignor.)
Aktiengesellschaft der Maschininfabriken Escher, Wyss & Co. (See Huguenin, Albert, assignor.)
Albert Pick & Company. (See Carlson and Pick, assignors.)
Aldridge, Frederick R., Yonkers, N. Y. Detachable button. No. 1,239,070; Sept. 4; v. 242; p. 112.
Alexander, Carl Z. and E. S., Newark, N. J. Steam-boiler. No. 1,240,804; Sept. 25; v. 242; p. 755.
Alexander, David A., Rochester, N. Y. Strut for automatic sprinkler-heads. No. 1,240,292; Sept. 18; v. 242; p. 565.
Alexander, Earl S. (See Alexander, Carl Z. and E. S.)
Alexander, H. Walter, Sac City, Iowa, assignor of one-half to B. R. Greenblatt, Omaha, Nebr. Art of molding. No. 1,239,152; Sept. 4; v. 242; p. 139.
Alexander, Sherman G., St. Louis, Mo. Automatic stop for phonograph-records. No. 1,240,401; Sept. 18; v. 242; p. 599.
Allan, Charles F. F., Sydney, New South Wales, Australia. Baker's oven. No. 1,239,246; Sept. 4; v. 242; p. 169.
Allen, Charles H., assignor to C. H. Allen & Co., Attleboro, Mass. Watch-holder. No. 1,240,527; Sept. 18; v. 242; p. 638.
Allen & Co., C. H. (See Allen, Charles H., assignor.)
Allen, Edward B., Bridgeport, Conn., assignor to The Singer Manufacturing Company. Work-holder for buttonhole-sewing machines. No. 1,240,642; Sept. 18; v. 242; p. 672.
Allen, George H. H. (See Thornton, Ray, assignor.)
Allen, Gilbert W., Cherry Creek, N. Y. Thermostatically-operated burner for lamps for heating incubators. No. 1,239,859; Sept. 11; v. 242; p. 393.
Allen, John D., Philadelphia, Pa. Compensating driving mechanism. No. 1,238,730; Sept. 4; v. 242; p. 3.
Allender, Charles H., New York, N. Y. Clamp for plant-forcing devices. No. 1,239,071; Sept. 4; v. 242; p. 112.
Allis-Chalmers Manufacturing Company. (See Cheney, Herbert W., assignor.)
Allis-Chalmers Manufacturing Company. (See Search, Charles E., assignor.)
Allis-Chalmers Manufacturing Company. (See Williamson, Robert B., assignor.)
Allis-Chalmers Manufacturing Company. (See Yates, Charles M., assignor.)
Allison, Charles H., Glendale, Cal. Subaqueous blasting system. No. 1,239,247; Sept. 4; v. 242; p. 170.
Allison, I. M. (See Daniel, Albert J., assignor.)
Allmand, John T., assignor to Fisher Closed Body Company, Detroit, Mich. Door-bumper. No. 1,239,441; Sept. 11; v. 242; p. 259.
Almon, Charles W., Youngstown, Ohio. Cabinet. No. 1,240,402; Sept. 18; v. 242; p. 599.
Alsworth, Louie F., Chicago, Ill. Device for truing wheels. No. 1,240,528; Sept. 18; v. 242; p. 638.
Altman, Elmer F., assignor of one-half to O. M. Oulman, Minneapolis, Minn. Wheel-hub. No. 1,241,473; Sept. 25; v. 242; p. 964.
Alvey, John A., assignor to Alvey Manufacturing Company, St. Louis, Mo. Bearing for conveyer-rollers. No. 1,241,324; Sept. 25; v. 242; p. 920.
Alvey Manufacturing Company. (See Alvey, John P., assignor.)
Amato, Frank, New York, N. Y. Door-lock. No. 1,240,403; Sept. 18; v. 242; p. 599.
American Bank Note Company. (See Smith, Amos H., assignor.)
American Brake Company, The. (See Burton, Thomas L., assignor.)
American Brake Shoe & Foundry Company, The. (See Armbrust, Charles W., assignor.)
American Brake Shoe and Foundry Company, The. (See Winter, Charles N., assignor.)
American Can Company. (See Cullen, William J., assignor.)
American Can Company. (See Hodgson, John G., assignor.)
American Can Company. (See Ross, Conrad, assignor.)
American Laundry Machinery Company. (See Binder, Gottlob, assignor.)
American Laundry Machinery Company. (See Couch, Forrest J., assignor.)
American Mechanical Improvement Company. (See Slate, Thomas B., assignor.)
American Playground Device Company. (See Townsend, Paul V., assignor.)
American Radiator Company. (See Courtot, Louis, assignor.)
American Radiator Company. (See Howell, Frank B., assignor.)
American Radiator Company. (See Hutsel, Robert, assignor.)
American Steel Foundries. (See Carscadin and Woodman, assignors.)
American Steel Foundries. (See Stearns, Walter A., assignor.)
American Telephone and Telegraph Company. (See Hoyt, Ray S., assignor.)
American Train Control Company, The. (See Scott, Thomas W., assignor.)
American Vulcanized Fibre Company. (See Stout, George W., assignor.)
Anderson, Adolph, assignor to Aurora Automatic Machinery Co., Chicago, Ill. Gun-carriage. No. 1,239,860; Sept. 11; v. 242; p. 393.
Anderson-Barngrover Mfg. Co. (See Thompson, Albert R., assignor.)
Anderson, C. K. (See Henry, Charles A., assignor.) (Reissue.)
Anderson, Edward. (See Johnson and Anderson.)
Anderson, George H., Battle Creek, Mich. Centrifugal pump. No. 1,238,731; Sept. 4; v. 242; p. 3.
Anderson, Harold N., Cleveland, Ohio. Making gears. No. 1,240,919; Sept. 25; v. 242; p. 793.
Anderson, Harold N., Dayton, assignor to The Anderson Rolled Gear Company, Cleveland, Ohio. Gear-forming machine. No. 1,240,913; Sept. 25; v. 242; p. 791.
Anderson, Harold N., assignor to The Anderson Rolled Gear Company, Cleveland, Ohio. Gear-rolling machine. No. 1,240,914; Sept. 25; v. 242; p. 791.

Anderson, Harold N., assignor to The Anderson Rolled Gear Company, Cleveland, Ohio. Gear-rolling machine. No. 1,240,915; Sept. 25; v. 242; p. 791.

Anderson, Harold N., assignor to The Anderson Rolled Gear Company, Cleveland, Ohio. Gear-rolling machine. No. 1,240,916; Sept. 25; v. 242; p. 792.

Anderson, Harold N., assignor to The Anderson Rolled Gear Company, Cleveland, Ohio. Gear-rolling machine. No. 1,240,917; Sept. 25; v. 242; p. 792.

Anderson, Harold N., assignor to The Anderson Rolled Gear Company, Cleveland, Ohio. Gear-rolling machine. No. 1,240,918; Sept. 25; v. 242; p. 793.

Anderson, Hiram C., New York, N. Y. Resilient wheel. No. 1,239,333; Sept. 4; v. 242; p. 196.

Anderson, Holton A., *et al.* (See Kittredge, Harold S., assignor.)

Anderson, John, Bluefield, W. Va., assignor of one-half to J. W. Auren, East Liberty, Pittsburgh, Pa. Spring-wheel. No. 1,240,805; Sept. 25; v. 242; p. 755.

Anderson, John W. (See Davison and Anderson.)

Anderson, Per G., assignor to Bathrick & Palmer Machine Co. Incorporated, Elkhart, Ind. Wheel. No. 1,240,003; Sept. 11; v. 242; p. 437.

Anderson Rolled Gear Company, The. (See Anderson, Harold N., assignor.)

Anderson Rolled Gear Company, The. (See Weaver, Robert B., assignor.)

Anderson, Vernhard C. J., Chicago, Ill. Carbureter. No. 1,239,442; Sept. 11; v. 242; p. 259.

Andrews, George W. (See Rigby and Andrews.)

Andrews, George C., Minneapolis, Minn. Traction-engine. No. 1,238,732; Sept. 4; v. 242; p. 4.

Andrews, William C., assignor to H. A. Auer, Cleveland, Ohio. Cutting-tool. No. 1,239,659; Sept. 11; v. 242; p. 327.

Andrews, William C., and H. A. Auer, Cleveland, Ohio; said Andrews assignor to said Auer. Tool for rifling and planing gun-barrels. No. 1,239,660; Sept. 11; v. 242; p. 328.

Angelillo, Patrick, Vaudreuil Station, Quebec, Canada. Automobile-fender. No. 1,240,004; Sept. 11; v. 242; p. 437.

Anglo-American Mill Co., The. (See Little, Lucius F., assignor.)

Angus, Henry W., and A. W. Chamberlin, North Bay, Ontario, Canada. Toy building construction. No. 1,240,807; Sept. 25; v. 242; p. 756.

Angus, Mont, Terry, Mont. Ensilage-harvesting machine. No. 1,241,325; Sept. 25; v. 242; p. 921.

Anker, Knute O., St. Paul, Minn. Torpedo-guard for ships. No. 1,238,977; Sept. 4; v. 242; p. 83.

Antisell, Frank L., Perth Amboy, N. J. Apparatus for electrolytic deposition. No. 1,239,443; Sept. 11; v. 242; p. 259.

Antoine, Alfred D., A. E. Gebert, Chicago, and C. C. Travis, Evanston, assignors to Advance Machine Co., Chicago, Ill. Vending-machine. No. 1,239,753; Sept. 11; v. 242; p. 358.

Anton Krieghoff Company. (See Krieghoff, Anton, assignor.)

Antrim, Peter H., Orting, Wash. Rail-joint lock. No. 1,239,334; Sept. 4; v. 242; p. 196.

Apple, Vincent G. (See Tomlinson, Edward J., assignor.)

Apple, Vincent G., Dayton, Ohio. Building commutators for armatures. No. 1,240,806; Sept. 25; v. 242; p. 756.

Arazoza, Rafael de, Habana, Cuba. Means for raising sunken vessels. No. 1,240,180; Sept. 18; v. 242; p. 528.

Archer, Charles L., Minneapolis, Minn. Cord tire. No. 1,239,553; Sept. 11; v. 242; p. 294.

Arcus, James S., Chicago, Ill. Check holding and notching device. No. 1,239,861; Sept. 11; v. 242; p. 394.

Arden, Thomas R., assignor to M. Gropper & Sons, Brooklyn, N. Y. Liquid-pistol. No. 1,238,733; Sept. 4; v. 242; p. 4.

Armbrust, Charles W., Chicago, Ill., assignor, by mesne assignments, to The American Brake Shoe & Foundry Company, Wilmington, Del. Brake-shoe. No. 1,239,444; Sept. 11; v. 242; p. 260.

Armbrust, Charles W., Chicago, Ill., assignor, by mesne assignments, to The American Brake Shoe & Foundry Company, Wilmington, Del. Brake-shoe. No. 1,239,445; Sept. 11; v. 242; p. 260.

Armbrust, Charles W., Chicago, Ill., assignor, by mesne assignments, to The American Brake Shoe & Foundry Company, Wilmington, Del. Brake-shoe. No. 1,239,446; Sept. 11; v. 242; p. 260.

Armbrust, Charles W., Chicago, Ill., assignor, by mesne assignments, to The American Brake Shoe & Foundry Company, Wilmington, Del. Brake-shoe. No. 1,239,447; Sept. 11; v. 242; p. 261.

Armbrust, Charles W., Chicago, Ill., assignor, by mesne assignments, to The American Brake Shoe & Foundry Company, Wilmington, Del. Brake-shoe. No. 1,239,448; Sept. 11; v. 242; p. 261.

Armitage, Le Roy, East Orange, N. J. Automatic stop for talking-machines. No. 1,239,335; Sept. 4; v. 242; p. 196.

Armour Fertilizer Works. (See Hershman, Paul R., assignor.)

Armstrong, Arthur H., New York, N. Y. Egg-carrier. No. 1,239,661; Sept. 11; v. 242; p. 328.

Armstrong, Denson H., Grand Rapids, Mich. Projectile and making the same. No. 1,240,293; Sept. 18; v. 242; p. 565.

Armstrong, Edwin J., and H. Rommerdale, assignors to Ball Engine Company, Erie, Pa. Power-shovel. No. 1,239,554; Sept. 11; v. 242; p. 294.

Arnett, John P., and J. T. Fairchild, Salyersville, Ky. Club. No. 1,240,005; Sept. 11; v. 242; p. 438.

Arnò, Riccardo, Milan, Italy. System for generating high-frequency currents. No. 1,240,294; Sept. 18; v. 242; p. 565.

Arnold, Lucien H. (See Tucker and Arnold.)

Arrington, Archibald H. (See Brogdon, Joel E., assignor.)

Art in Buttons, Incorporated. (See Hastings, Herbert, assignor.)

Arthur, Alexander J., Fort Dodge, Iowa. Lead-pointer. No. 1,238,978; Sept. 4; v. 242; p. 83.

Ascue, William H., Wichita, Kans. Corn-harvester and ensilage-cutter. No. 1,240,164; Sept. 18; v. 242; p. 523.

Ashland Products Co., The. (See Willour, Le Roy, assignor.)

Åslund, Felix. (See Boberg, Söderlund, and Åslund.)

Aspinwall, Lewis A., Jackson, Mich., assignor to Aspinwall Manufacturing Company. Potato-planter. No. 1,240,529; Sept. 18; v. 242; p. 638.

Aspinwall Manufacturing Company. (See Aspinwall, Lewis A., assignor.)

Associated Engineers Company. (See Van Diest, Edmond C., assignor.)

Atkinson, Henry T., Oakland, Cal. Window. No. 1,239,449; Sept. 11; v. 242; p. 261.

Atterbury, Thomas W., Dansville, N. Y., and P. W. Matthews, Scottdale, assignors of five-twelfths to said P. W. Matthews, Dorment, five-twelfths to F. E. Bedale, Mount Pleasant, Pa., and two-twelfths to J. F. Brandenburg, Mahwah, N. J. Charging mechanism. No. 1,240,295; Sept. 18; v. 242; p. 566.

Atwood, Benjamin S., Milford, Mass. Hand threading attachment for loom-shuttles. No. 1,240,643; Sept. 18; v. 242; p. 672.

Auer, Harry A. (See Andrews and Auer.)

Auer, Harry A. (See Andrews, William C., assignor.)

Aufiero, Emanuel, Brooklyn, N. Y. Mechanical horn. No. 1,239,425; Sept. 4; v. 242; p. 224.

Aufiero, Emanuel, Brooklyn, N. Y. Mechanical horn. No. 1,239,426; Sept. 4; v. 242; p. 224.

Augustine, Benjamin F., Buffalo, N. Y. Rotary engine. No. 1,238,870; Sept. 4; v. 242; p. 48.

Aull, Jerome J., assignor to The Lunkenheimer Company, Cincinnati, Ohio. Gas-engine primer. No. 1,240,404; Sept. 18; v. 242; p. 599.

Auren, John W. (See Anderson, John, assignor.)

Aurora Automatic Machinery Co. (See Anderson, Adolph, assignor.)

Austin, Frederick C. (See French, James C., assignor.)

Austin, Herbert, Bromsgrove, England. Boring-bar. No. 1,241,073; Sept. 25; v. 242; p. 839.

Austin, Jesse M. (See Miller and Austin.)

Austin, Samuel E., Garden City, Kans. Attachment for automobiles. No. 1,240,006; Sept. 11; v. 242; p. 438.

Automatic Candy Machine Company. (See Swartz and Waugh, assignors.)

Automatic Coin-Wrapping Machine Company. (See Batdorf, Charles S., assignor.)

Automatic Electric Company. (See Gifford, Roy C., assignor.)

Automatic Electric Company. (See Meyer, Trygve E., assignor.)

Autosales Gum and Chocolate Company. (See Bridges, Charles E., assignor.)

Averill, Charles C., Trees, La. Making lampblack and hydrochloric acid. No. 1,238,734; Sept. 4; v. 242; p. 5.

Avillar, Manuel D. (See Doyle and Avillar.)

Avram, Mois H., New York, N. Y., assignor to Standard Silica Brick Machinery Company, Wilmington, Del. Brick-press. No. 1,239,072; Sept. 4; v. 242; p. 112.

B. F. Goodrich Company, The. (See Shaw, Edwin C., assignor.)

Babcock, Guilford C., Evanston, Ill., assignor to Wirebounds Patents Company, Kittery, Me. Box. No. 1,240,296; Sept. 18; v. 242; p. 566.

Babcock, Guilford C., Evanston, Ill., assignor to Wirebounds Patents Company, Kittery, Me. Box. No. 1,240,297; Sept. 18; v. 242; p. 566.

Bache, Otto, and C. Berg, San Francisco, Cal. Scraper for boiler hand-holes. No. 1,239,754; Sept. 11; v. 242; p. 358.

Bache-Wiig, Carl, Portland, Me. Preparing sulfite cellulose. No. 1,240,920; Sept. 25; v. 242; p. 793.

Bacon, Ebenezer S. (See Sevigny, Edward C., assignor.)

Bacon, Geo. M., *et al.*, executors. (See Baum, Jacob.)

Bacon, Samuel V., Akron, Ohio. Plastic tie. No. 1,239,073; Sept. 4; v. 242; p. 113.

Bader, Herbert D., and J. C. Wassell, assignors to Simmons Hardware Company, St. Louis, Mo. Pack-saddle. No. 1,239,755; Sept. 11; v. 242; p. 359.

Bader, Herbert D., and J. C. Wassell, assignors to Simmons Hardware Company, St. Louis, Mo. Pack-saddle. No. 1,239,756; Sept. 11; v. 242; p. 359.

Badische Anilin & Soda Fabrik. (See Münch, Eduard, assignor.)

Badische Anilin & Soda Fabrik. (See Nawiasky, Paul, assignor.)

Baechtel, Warren M., Hagerstown, Md. Smoking-pipe. No. 1,241,462; Sept. 25; v. 242; p. 961.

Bagley, Peter, Farnsworth, England. Umbrella. No. 1,239,757; Sept. 11; v. 242; p. 359.

Bagnall, Arthur G., and J. A. Taylor, assignors to C. H. Parkin, Cleveland, Ohio. Coating surfaces. No. 1,239,074; Sept. 4; v. 242; p. 113.

Bagnall, Arthur G., and J. A. Taylor, assignors to C. H. Parkin, Cleveland, Ohio. Nozzle for applying adhesive coating material. No. 1,239,075; Sept. 4; v. 242; p. 113.

Bailey, Archibald, Jr., Milwaukee, Wis. Non-glare headlight-deflector. No. 1,241,074; Sept. 25; v. 242; p. 839.

Bailey, Clinton B., *et al.* (See Walter, Ira D., assignor.)

Bailey, Marcus B. (See Williams and Bailey.)

Bailey, Percy S., West Lynn, Mass., assignor to General Electric Company. Lighting unit. No. 1,240,644; Sept. 18; v. 242; p. 672.

Bair, George R., and N. W. Greene, assignors of one-third to C. E. Jones, Columbus, Kans. Level. No. 1,239,336; Sept. 4; v. 242; p. 197.

Baird, Archie M., Topeka, Kans. Riveting-machine. No. 1,239,862; Sept. 11; v. 242; p. 394.

Baird, Edward P., assignor to The King Lock Company, Chicago, Ill. Manufacture of locks. No. 1,240,530; Sept. 18; v. 242; p. 638.

Baker Brothers. (See Hallenbeck, George E., assignor.)

Baker, Charles L., and J. E. Klos, Lancaster, Pa. Umbrella-runner. No. 1,240,645; Sept. 18; v. 242; p. 673.

Baker, Frederick, Blackheath, assignor to Baker Sewing Machine Trust, Limited, London, England. Sewing-machine. No. 1,238,979; Sept. 4; v. 242; p. 83.

Baker, Haydn M., Jr., assignor to A. Treadwell, Jr., Brooklyn, N. Y. Speed-control device. No. 1,239,758; Sept. 11; v. 242; p. 359.

Baker, Haydn M., Jr., assignor to A. Treadwell, Jr., Brooklyn, N. Y. Automatic electric-arc-control mechanism. No. 1,239,759; Sept. 11; v. 242; p. 360.

Baker, Horace G., assignor of one-half to W. H. Townsan, Harlan, Iowa. Automatic display-rack. No. 1,239,662; Sept. 11; v. 242; p. 328.

Baker, John C., *et al.* (See Clawson, Charles F., assignor.)

Baker Sewing Machine Trust. (See Baker, Frederick, assignor.)

Baker, Stephen D., New York, N. Y. Soap-receptacle. No. 1,239,076; Sept. 4; v. 242; p. 114.

Bakewell, Henry, Lowell, Mass. Side-car wind-shield. No. 1,240,646; Sept. 18; v. 242; p. 673.

Balbach, Edward, Springfield, Ohio. Electrical signal. No. 1,240,647; Sept. 18; v. 242; p. 673.

Baldwin, Arthur S., Baltimore, Md. Safety-fuse. No. 1,239,248; Sept. 4; v. 242; p. 170.

Baldwin, Emerson F., Philadelphia, Pa. Exercising device. No. 1,240,809; Sept. 25; v. 242; p. 757.

Balkwill, Wesley J., assignor to Multiport Company, Rochester, N. Y. Stamp-affixer. No. 1,240,808; Sept. 25; v. 242; p. 756.

Ball, Elmer D., Logan, Utah. Beet-harvester. No. 1,239,337; Sept. 4; v. 242; p. 197.

Ball Engine Company. (See Armstrong and Rommerdale, assignors.)

Ball Grain Explosives Company. (See Du Pont, Ernest, assignor.)

Ball Grain Explosives Company. (See Du Pont, Francis I., assignor.)

Ballman, Edwin C., Kirkwood, Mo. Rectifier for alternating currents. No. 1,239,249; Sept. 4; v. 242; p. 170.

Balzari, Julio, Buenos Aires, Argentina. Preparation of the flesh of animals of the bovine genus. No. 1,240,165; Sept. 18; v. 242; p. 523.

Bamford, Cyril J. (See Bamford, Joseph and C. J.)

Bamford, Joseph and C. J., Uttoxeter, England. Combined side-delivery hay rake, tedder, and swath turner. No. 1,239,153; Sept. 4; v. 242; p. 139.

Banks, William D., Clarksburg, W. Va. Boiler-stand. No. 1,240,648; Sept. 18; v. 242; p. 674.

Banner, Otto, Easton, Pa., assignor to Ingersoll-Rand Company, Jersey City, N. J. Regulating mechanism for centrifugal compressors. No. 1,240,531; Sept. 18; v. 242; p. 639.

Banneyer, Joseph, Chicago, Ill. Electric alarm. No. 1,239,450; Sept. 11; v. 242; p. 262.

Barber-Colman Company. (See Colman, Howard D., assignor.)

Barber, Franklin L., Chicago, Ill., assignor to Standard Car Truck Company. Combined journal-bearing and roller-seat. No. 1,241,186; Sept. 25; v. 242; p. 875.

Barber, Franklin L., and E. W. Webb, assignors to Standard Car Truck Company, Chicago, Ill. Car-truck. No. 1,240,166; Sept. 18; v. 242; p. 523.

Barbey, Francis A., *et al.* (See McManama, John W., assignor.)

Barbieri, Cesare, Chicago, assignor to Black Products Co., Riverdale, Ill. Molding-machine for plastic material. No. 1,238,980; Sept. 4; v. 242; p. 84.

Barchel, John E. (See Roberts and Barchel.)

Bardeen Corporation, The. (See Bardeen, Hugh A., assignor.)

Bardeen, Hugh A., Venice, assignor to The Bardeen Corporation, Los Angeles, Cal. Process and apparatus for annealing pipe. No. 1,241,075; Sept. 25; v. 242; p. 839.

Barkey, Arnold A. (See Hueber, Henry, assignor.)

Barlow, John B., Walker township, Kent county, Mich. Holder for phonograph-records. No. 1,238,735; Sept. 4; v. 242; p. 5.

Barnes, John E. L. (See Sloan and Barnes.)

Barnett, Julius P., Donnellson, Iowa. Cigarette-lifter. No. 1,241,463; Sept. 25; v. 242; p. 961.

Barrett Changer Co. (See Barrett, Glenn J., assignor.)

Barrett, Glenn J., Grand Rapids, Mich., assignor to Barrett Changer Co., Chicago, Ill. Coin-delivery means for change-making machines and the like. No. 1,238,736; Sept. 4; v. 242; p. 5.

Barrett, Halsey M., *et al.*, receivers. (See Kroger, Fred H., assignor.)

Barrett Manufacturing Company. (See Perry, Ray P., assignor.)

Barringer, Worth R., Grand Junction, Colo. Evaporation-refrigerator. No. 1,239,250; Sept. 4; v. 242; p. 171.

Barron, William L., New York, N. Y., and F. E. Osol, Elizabeth, N. J., assignors to The Singer Manufacturing Company. Button-sewing machine. No. 1,240,921; Sept. 25; v. 242; p. 794.

Barrow, Charles A., and J. Karpen, Racine, Wis. Siphon. No. 1,240,532; Sept. 18; v. 242; p. 639.

Barsby, Harry H., A. G. Stephenson, and W. C. Browne, Denver, Colo. Safety disappearing car and house steps. No. 1,240,922; Sept. 25; v. 242; p. 794.

Barszczewski, Marian B. (See Drozdz, Wicenty, assignor.)

Bartholomew, William, Chicago, Ill., assignor to Troy Laundry Machinery Company. Outlet-valve for washing-machines. No. 1,241,326; Sept. 25; v. 242; p. 921.

Bartlett, Henry T. and J. E., and J. T. Robinson, Montgomery, Ala. Delivery-cabinet. No. 1,239,663; Sept. 11; v. 242; p. 329.

Bartlett, John E. (See Bartlett and Robinson.)

Bartley, Joseph S., Denver, Colo. Classifier. No. 1,240,923; Sept. 25; v. 242; p. 794.

Barton, Bernard C., North Ferriby, England. Press. No. 1,238,981; Sept. 4; v. 242; p. 84.

Barton, Louis E., Niagara Falls, assignor to The Titanium Alloy Manufacturing Company, New York, N. Y. Method for producing composite titanic-oxid products. No. 1,240,405; Sept. 18; v. 242; p. 600.

Bartran, Clarence D., Laurel, Miss. Device for holding a cover or chest-lid. No. 1,238,871; Sept. 4; v. 242; p. 48.

Bashaw, William A., Wilkinsonville, Mass. Shuttle-spring. No. 1,241,076; Sept. 25; v. 242; p. 840.

Bassett, Charles N., *et al.* (See Brown, Archie E., assignor.)

Batdorf, Charles S., Brooklyn, assignor to Automatic Coin-Wrapping Machine Company, New York, N. Y. Coin-handling machine. No. 1,239,251; Sept. 4; v. 242; p. 171.

Bathrick & Palmer Machine Co. (See Anderson, Per G., assignor.)

Bauer, Walter, assignor to National Carbon Company, New York, N. Y. Portable electric light. No. 1,241,077; Sept. 25; v. 242; p. 840.

Baukat, John G., Toronto, Ontario, Canada. Controlling means for power transmission. No. 1,239,252; Sept. 4; v. 242; p. 172.

Baum, Anna W., *et al.*, executors. (See Baum, Jacob.)

Baum, Jacob, deceased, Cincinnati, Ohio; A. W. Baum, M. B. Birnbryer, G. M. Bacon, and J. B. Derbes, executors. Combination-lock. No. 1,240,114; Sept. 11; v. 242; p. 409.

Baumgartner, Moses M., Freeport, Ill. Treating rice and product thereof. No. 1,239,555; Sept. 11; v. 242; p. 295.

Baumhover, Frank W., Carroll, Iowa. Device for protecting ships. No. 1,240,007; Sept. 11; v. 242; p. 438.

Baush Machine Tool Company. (See Calkins, Charles H., assignor.)

Baxter, John B., assignor to Covert Manufacturing Company, Watervliet, N. Y. Hook. No. 1,240,810; Sept. 25; v. 242; p. 757.

Baxter, William C., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Leveling-machine. No. 1,239,664; Sept. 11; v. 242; p. 329.

Bayles, Lewis C., Easton, Pa., assignor to Ingersoll-Rand Company, Jersey City, N. J. Tool-retainer for hammer-drills. No. 1,240,649; Sept. 18; v. 242; p. 674.

Beach, Clarence E., Binghamton, N. Y., assignor, by mesne assignments, to The Gamewell Fire Alarm Telegraph Company. Signaling system. No. 1,240,811; Sept. 25; v. 242; p. 757.

Beacon Miniature Electric Co. (See Benedict, Bernard, assignor.)

Beam, Harry E. (See Swenson, Otto J., assignor.)

Beam, Oliver N., assignor of one-third to J. F. Wilhite, Los Angeles, Cal. Railway-crossing. No. 1,239,338; Sept. 4; v. 242; p. 197.

Beard, Walter L., Wilburton, Okla. Foldable tread and riser for car-steps. No. 1,241,078; Sept. 25; v. 242; p. 840.

Beardslee Chandelier Manufacturing Company. (See Beardslee, George M., assignor.)

Beardslee, George M., Chicago, Ill., assignor to Beardslee Chandelier Manufacturing Company. Lighting-fixture. No. 1,239,556; Sept. 11; v. 242; p. 295.

Beardsley, Albert L., *et al.* (See Nemec, Joseph, assignor.)

Beattey, Earle J. R., assignor to Universal Optical Corporation, Providence, R. I. Eyeglass-mounting. No. 1,240,533; Sept. 18; v. 242; p. 639.

Beatty, Robert R., Harver, Pa. Farm-tractor. No. 1,240,650; Sept. 18; v. 242; p. 675.

Bechman, Henry F., assignor to Duplex Printing Press Company, Battle Creek, Mich. Rotary cylinder printing-press. No. 1,240,008; Sept. 11; v. 242; p. 439.

Bechman, Henry F., assignor to Duplex Printing Press Company, Battle Creek, Mich. Rotary printing-press. No. 1,240,009; Sept. 11; v. 242; p. 439.

Bechman, Henry F., assignor to Duplex Printing Press Company, Battle Creek, Mich. Rotary printing-press. No. 1,240,010; Sept. 11; v. 242; p. 439.

Bechman, Henry F., assignor to Duplex Printing Press Company, Battle Creek, Mich. Rotary printing-press and folder. No. 1,240,011; Sept. 11; v. 242; p. 440.

Bechman, Henry F., assignor to Duplex Printing Press Company, Battle Creek, Mich. Rotary press. No. 1,240,012; Sept. 11; v. 242; p. 440.

Bechman, Henry F., assignor to Duplex Printing Press Company, Battle Creek, Mich. Rotary printing-press. No. 1,240,013; Sept. 11; v. 242; p. 440.

Bechman, Henry F., assignor to Duplex Printing Press Company, Battle Creek, Mich. Rotary printing-press. No. 1,240,014; Sept. 11; v. 242; p. 440.

Bechman, Henry F., assignor to Duplex Printing Press Company, Battle Creek, Mich. Rotary web-printing press. No. 1,240,015; Sept. 11; v. 242; p. 441.

Becker, August M., Cliffside, N. J. Drill-holder. No. 1,241,327; Sept. 25; v. 242; p. 921.

Becker, Joseph, Washington, D. C., assignor to Eastman Kodak Company, Rochester, N. Y. Focusing-camera. No. 1,240,651; Sept. 18; v. 242; p. 675.

Becker, Joseph, Washington, D. C., assignor to Eastman Kodak Company, Rochester, N. Y. Focusing-camera. No. 1,240,788; Sept. 18; v. 242; p. 718.

Beckwith Box Toe Company. (See Presby, George P., assignor.)

Beckwith Company, The. (See Howes, George W., assignor.)

Bedale, Frederick E., *et al.* (See Atterbury and Matthews, assignors.)

Beebe, Elmer J., and C. C. MacGregor, Flint, Mich. Combination freight and grain car. No. 1,239,863; Sept. 11; v. 242; p. 395.

Beebe, Kenneth, Portland, Oreg. Anchor. No. 1,239,557; Sept. 11; v. 242; p. 295.

Beechlyn, John T., Lynn, Mass., assignor to General Electric Company. Maximum-demand indicator. No. 1,239,339; Sept. 4; v. 242; p. 198.

Beerhalter, John, Duluth, Minn. Preparing a non-alcoholic chill-proof beverage. No. 1,240,016; Sept. 11; v. 242; p. 441.

Beevers, Alice F., Cleveland, Miss. Hose-supporter. No. 1,240,652; Sept. 18; v. 242; p. 676.

Begg, Alexander L. W., New York, N. Y. System of locomotion. No. 1,239,077; Sept. 4; v. 242; p. 114.

Beggs, Thomas R., New York, N. Y. Heat-insulating structure. No. 1,238,737; Sept. 4; v. 242; p. 5.

Behrman, Marcus B., New York, N. Y. Seal. No. 1,239,665; Sept. 11; v. 242; p. 330.

Belknap, Edwin D., East Orange, N. J. Stencil-card. No. 1,239,760; Sept. 11; v. 242; p. 360.

Bell, Alonzo C. and T. R., Westfield, N. J. Alternating-current motor. No. 1,239,761; Sept. 11; v. 242; p. 360.

Bell, Charles E., Beaver Falls, Pa. Ladder. No. 1,240,653; Sept. 18; v. 242; p. 676.

Bell, Harry A., and C. Swoboda, assignors to Hide, Leather & Belting Company, Indianapolis, Ind. Clutch-facing. No. 1,239,864; Sept. 11; v. 242; p. 395.

Bell, James H. (See Small, Howard, assignor.)

Bell, John B. E., Iola, Colo. Radium-applicator. No. 1,238,872; Sept. 4; v. 242; p. 49.

Bell, Thaddeus R. (See Bell, Alonzo C. and T. R.)

Bellodi, Vasco, Sunlight, Colo. Candlestick-holder. No. 1,240,654; Sept. 18; v. 242; p. 676.

Belmore, Edwin, Portland, Oreg. Extension-table. No. 1,239,340; Sept. 4; v. 242; p. 198.

Belz, Louis C., Philadelphia, Pa. Process and means for making drawn-wire articles. No. 1,239,451; Sept. 11; v. 242; p. 262.

Bender, Horace G., assignor of one-half to L. H. Bender, Akron, Ohio. Bag-making machine. No. 1,240,924; Sept. 25; v. 242; p. 795.

Bender, Llewellyn H. (See Bender, Horace G., assignor.)

Benedict, Bernard, assignor to Beacon Miniature Electric Co., Inc., New York, N. Y. Flash-light. No. 1,239,078; Sept. 4; v. 242; p. 114.

Benedict, Frank L., Harrisburg, Pa. Paint-brush. No. 1,240,017; Sept. 11; v. 242; p. 441.

Benedict, W. W., administrator. (See Jargo, J. Elwin.)

Bengtson, Albert. (See Stadtherr and Bengtson.)

Benjamin, George H., New York, N. Y. Purifying raw wool. No. 1,238,873; Sept. 4; v. 242; p. 50.

Benjamin, William T., Newark, assignor to United Shoe Machinery Company, Paterson, N. J. Lap-seaming mechanism. No. 1,238,857; Sept. 4; v. 242; p. 44.

Benners, Edwin H., Elizabeth, N. J. Producing paving-blocks. No. 1,239,762; Sept. 11; v. 242; p. 360.

Bennett, Frank M., Berkeley, Cal. Gas-compressor. No. 1,240,925; Sept. 25; v. 242; p. 795.

Bennett, Gordon C. and J. C., Detroit, Mich. Soot-blower for boilers. No. 1,240,926; Sept. 25; v. 242; p. 796.

Bennett, James C. (See Bennett, Gordon C. and J. C.)

Bennett, Joseph, assignor to Germania Hosiery Mills, Philadelphia, Pa. Yarn-trap for hosiery-knitting machines. No. 1,241,328; Sept. 25; v. 242; p. 922.

Bennett, Joseph, assignor to Germania Hosiery Mills, Philadelphia, Pa. Tension device for hosiery-knitting machines. No. 1,241,329; Sept. 25; v. 242; p. 922.

Benson, Charles, Coscob, Conn. Combination-rack. No. 1,240,655; Sept. 18; v. 242; p. 676.

Benson, Frank V., and R. Sandstrom, assignors of one-fourth to H. I. Thompson and one-fourth to N. H. Cederquist, Los Angeles, Cal. Air and temperature modifying means. No. 1,240,656; Sept. 18; v. 242; p. 677.

Benson, Ralph W. (See Lacerda, Harry A., assignor.)

Bentz, Addison J., Ashland, Ohio. Signal-lamp for vehicles. No. 1,240,115; Sept. 11; v. 242; p. 470.

Berg, Charles. (See Bache and Berg.)

Berg, Joseph, assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill. Vehicle-bumper support. No. 1,240,167; Sept. 18; v. 242; p. 523.

Berggren, Per, Bridgeport, Conn. Drafting-pen. No. 1,241,079; Sept. 25; v. 242; p. 840.

Bergman, Sven R., Nahant, Mass., assignor to General Electric Company. Alternating-current motor. No. 1,240,018; Sept. 11; v. 242; p. 442.

Bergsten, John, Taft, Cal. Temper-screw connection. No. 1,239,865; Sept. 11; v. 242; p. 395.

Bergström, Gunnar. (See Carlson and Bergström.)

Bering, August C., Jr., Houston, Tex. Receptacle. No. 1,240,927; Sept. 25; v. 242; p. 796.

Berkstresser, Robert H., York, Pa. Bread-box. No. 1,241,330; Sept. 25; v. 242; p. 922.

Berliat, Joseph, Grenoble, France. Mixed reinforced concrete construction without cofering. No. 1,241,187; Sept. 25; v. 242; p. 875.

Bernard, John A. (See Updegraff, Charles D., assignor.)

Bernstein, Gustave, Royat, France. Vulcanization of rubber and other similar substances. No. 1,240,116; Sept. 11; v. 242; p. 470.

Besaw, Willie O., Reedley, Cal. Fuse-plug. No. 1,240,157; Sept. 11; v. 242; p. 482.

Best, Leonard S., assignor of one-half to J. J. Birmingham, Suisun, Cal. Dish-washing machine. No. 1,240,298; Sept. 18; v. 242; p. 567.

Bethard, Fred D. (See Lindner, Arthur, assignor.)

Bethea, Peter H., Washington, D. C. Whip-socket lock. No. 1,241,331; Sept. 25; v. 242; p. 922.

Bettis, William I., Los Angeles, assignor of one-half to Western Well Works, San Francisco, Cal. Lubricating system. No. 1,239,452; Sept. 11; v. 242; p. 263.

Betts, Benjamin B., St. Louis, Mo. Combined anticreeping rail and tie-plate. No. 1,240,406; Sept. 18; v. 242; p. 600.

Betts, Benjamin B., St. Louis, Mo. Combined anticreeping rail and tie-plate. No. 1,240,407; Sept. 18; v. 242; p. 600.

Betts, Benjamin B., St. Louis, Mo. Multiple-rail chair. No. 1,240,408; Sept. 18; v. 242; p. 601.

Betts, Edward E., Evanston, Ill. Combined stock and gondola car. No. 1,239,558; Sept. 11; v. 242; p. 296.

Beugler, Edwin F., assignor to E. & B. Holmes Machinery Company, Buffalo, N. Y. Machine for preparing barrel-shells to receive heads. No. 1,241,080; Sept. 25; v. 242; p. 841.

Beville, Webster J., Holloway, London, England. Illuminated sign or advertisement. No. 1,239,154; Sept. 4; v. 242; p. 140.

Bevington, John E., Cleveland, assignor of one-half to A. H. Greeley, West Dover, Ohio. Valve-packing. No. 1,239,866; Sept. 11; v. 242; p. 396.

Bhisey, Shanker A., assignor to R. Tata, London, England. Type-casting machine. No. 1,240,168; Sept. 18; v. 242; p. 524.

Biebinger, David A., assignor to La Crosse Plow Company, La Crosse, Wis. Tractor-plow. No. 1,239,559; Sept. 11; v. 242; p. 296.

Biela, Joseph C., Chicago, Ill. Freight-car construction. No. 1,238,874; Sept. 4; v. 242; p. 50.

Binder, Gottlob, assignor to American Laundry Machinery Company, Rochester, N. Y. Ironing-machine. No. 1,238,875; Sept. 4; v. 242; p. 50.

Binkley, Robah J., Pomona, Cal. Beet-cutting machine. No. 1,238,982; Sept. 4; v. 242; p. 85.

Binks, Charles, Manchester, England. Fuel-vaporizer for internal-combustion engines. No. 1,239,079; Sept. 4; v. 242; p. 115.

Birchwood, Charles W. (See McBean and Birchwood.)

Bird, Walter, Cincinnati, Ohio. Oven. No. 1,239,841; Sept. 4; v. 242; p. 198.

Birkigt, Marc, Bois-Colombes, France. Forced lubrication. No. 1,241,332; Sept. 25; v. 242; p. 923.

Birmingham, John J. (See Best, Leonard S., assignor.)

Birnbryer, Mary B., *et al.*, executors. (See Baum, Jacob.)

Bishop, George E., Cleveland, Ohio. Automobile-curtain. No. 1,240,928; Sept. 25; v. 242; p. 796.

Bishop, George T. (See Glaeser, Walter, assignor.)

Bissell, Lindon B., North Yakima, Wash. Vehicle-spring. No. 1,240,929; Sept. 25; v. 242; p. 797.

Bituminized Road Company. (See Popkess, Michael A., assignor.)

Black, John A., assignor of one-half to R. R. Menaugh, Chicago, Ill. Means for lining furnace-bottoms. No. 1,240,409; Sept. 18; v. 242; p. 601.

Black Products Co. (See Barbieri, Cesare, assignor.)

Black, Robert, Scarsdale, N. Y., assignor to The Dressel Railway Lamp Works. Glass-holder for headlights. No. 1,240,299; Sept. 18; v. 242; p. 567.

Black, Roe, Oskaloosa, Iowa. Hay-rake attachment. No. 1,239,768; Sept. 11; v. 242; p. 361.

Blackburn, Jasper, Webster Groves, Mo. Cable-hanger. No. 1,240,160; Sept. 18; v. 242; p. 524.

Blackburn, Lloyd C., Akron, Ohio. Indicator for mail-boxes. No. 1,239,342; Sept. 4; v. 242; p. 199.

Blackmore, William, assignor to The National Malleable Castings Company, Cleveland, Ohio. Coupling-yoke. No. 1,239,764; Sept. 11; v. 242; p. 361.

Blackwell, John B., San Antonio, Tex. Gasolene-torch. No. 1,240,117; Sept. 11; v. 242; p. 470.

Bladholm, Axel L. (See Bladholm, John F. and A. L.)

Bladholm, John F. and A. L., Marshall, Minn. Harness-hanger. No. 1,239,666; Sept. 11; v. 242; p. 330.

Blagden, John W., Heidelberg, assignor to C. F. Boehringer & Soehne, Mannheim-Waldhof, Germany. Hydrogenating organic substances. No. 1,239,867; Sept. 11; v. 242; p. 396.

Blair, Robert M., Quebec, Quebec, Canada. Sight for firearms. No. 1,240,300; Sept. 18; v. 242; p. 567.

Blakemore, Alfred, Kimsquit, British Columbia, Canada. Ticket-case. No. 1,241,188; Sept. 25; v. 242; p. 875.

Blank, Richard O., Readfield, Wis. Cuspidor-carrier. No. 1,239,868; Sept. 11; v. 242; p. 396.

Bliss, William L., assignor, by mesne assignments, to U. S. Light & Heat Corporation, Niagara Falls, N. Y. Foot-cap. No. 1,238,738; Sept. 4; v. 242; p. 6.

Block, Louis, Mamaroneck, N. Y. Gas-compressor. No. 1,239,869; Sept. 11; v. 242; p. 396.

Block, Mandel, Chicago, Ill. Drum-trap cover. No. 1,239,453; Sept. 11; v. 242; p. 263.

Block, Mandel, Chicago, Ill. Spring. No. 1,240,170; Sept. 18; v. 242; p. 524.

Blondin, Joseph A., Los Angeles, Cal. Aeroplane construction. No. 1,240,812; Sept. 25; v. 242; p. 758.

Blye, Harold, Grand Rapids, Mich. Refrigerator-latch. No. 1,238,876; Sept. 4; v. 242; p. 50.

Blye, John H. (See Viney, Frederick C., assignor.)

Board, Okey J., Gay, W. Va. Bearing. No. 1,240,019; Sept. 11; v. 242; p. 442.

Boberg, Teofron, O. Söderlund, and F. Åslund, assignors to Techno-Chemical Laboratories Limited, London, England. Concentrated food product and the like. No. 1,240,020; Sept. 11; v. 242; p. 442.

Bobo, Hiram M., and H. C. Harrington, Rome, Ga. Heat-indicator. No. 1,240,813; Sept. 25; v. 242; p. 758.

Bock, Laurenz, Bad Homburg Kirdorf, Germany. Manufacture of ultramarine. No. 1,239,080; Sept. 4; v. 242; p. 115.

Boddie, Clarence A., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electrical regulator. No. 1,240,930; Sept. 25; v. 242; p. 797.

Bodkin, Morris A. (See Lee and Bodkin.)

Boehringer & Soehne, C. F. (See Blagden, John W., assignor.)

Boig, James H. C., Pasadena, Cal. Cotton-picker nozzle. No. 1,239,343; Sept. 4; v. 242; p. 199.

Bolick, Lester W., Newton, N. C. Bottle-opener. No. 1,240,657; Sept. 18; v. 242; p. 677.

Bollin, Theodore, Okmulgee, Okla. Electrical massage apparatus. No. 1,240,410; Sept. 18; v. 242; p. 601.

Bommer, Emil, Brooklyn, N. Y. Spring-hinge. No. 1,241,081; Sept. 25; v. 242; p. 841.

Bommer, Emil, Brooklyn, N. Y. Door-checking hinge. No. 1,241,082; Sept. 25; v. 242; p. 842.

Bommer, Emil, Brooklyn, N. Y. Checking-hinge. No. 1,241,083; Sept. 25; v. 242; p. 842.

Bommer, Emil, Brooklyn, N. Y. Checking device for oscillatory movement. No. 1,241,084; Sept. 25; v. 242; p. 842.

Bommer, Emil. Brooklyn, N. Y. Spring-hinge. No. 1,241,085; Sept. 25; v. 242; p. 843.

Bon Aurora Manufacturing and Machine Company, The. (See Gray, Halla F., assignor.)

Bond, George T., Huntington, W. Va. Bending-machine. No. 1,240,534; Sept. 18; v. 242; p. 640.

Bond, William F., Morrisdale, Pa. Railway construction. No. 1,240,658; Sept. 18; v. 242; p. 678.

Boone, Anne, New York, N. Y. Corn-pad. No. 1,240,021; Sept. 11; v. 242; p. 442.

Boone, Leslie V., Bridgeport, Cal. Tool-handle. No. 1,241,189; Sept. 25; v. 242; p. 876.

Booraem, John F., Greenwich, Conn. Nozzle for baths. No. 1,240,411; Sept. 18; v. 242; p. 602.

Booth, James A., Springfield, Ill. Trolley. No. 1,240,814; Sept. 25; v. 242; p. 759.

Booth, William, East Liverpool, Ohio. Telephone-mouthpiece. No. 1,240,659; Sept. 18; v. 242; p. 678.

Booth, William N., assignor to Kelsey Wheel Company, Inc., Detroit, Mich. Split dencher demountable rim and locking and alining device therefor. No. 1,240,789; Sept. 18; v. 242; p. 718.

Borgeson, Nels V. (See Sage and Borgeson.)

Bosch Magneto Company. (See Heins and Wild, assignors.)

Boston Last Company. (See Chandler, Edwin N., assignor.)

Bott, Walter C. (See Clemens and Bott.)

Bouchard, Auguste C. A., Nice, France. Device for automatically controlling lighting-gas conduits, electric circuits, and the like. No. 1,240,535; Sept. 18; v. 242; p. 640.

Bouda, Bohumil, Austin, Minn. Steam and gas boiler. No. 1,238,877; Sept. 4; v. 242; p. 51.

Bound Brook Engine & Mfg. Co. (See Hensley, William T., assignor.)

Bovee, Ransom Y., Bloomington, Ill. Wrench. No. 1,240,171; Sept. 18; v. 242; p. 525.

Bowdidge, Frederick C., and P. C. McMullen, Albany, N. Y. Illuminated display apparatus. No. 1,238,739; Sept. 4; v. 242; p. 6.

Bower, Bert H., assignor of one-third to J. W. Inch and one-third to J. S. Zuckerman, Gloversville, N. Y. Foot-rest and foot-warmer. No. 1,240,301; Sept. 18; v. 242; p. 567.

Bowles, William M., Sapulpa, Okla. Safety-vent for crude-oil-storage tanks. No. 1,238,983; Sept. 4; v. 242; p. 85.

Bowman, Levi M., Tulsa, Okla. Hydrocarbon-burner. No. 1,241,334; Sept. 25; v. 242; p. 923.

Bowman, Levi M., Tulsa, assignor of one-half to W. A. Smith, Bartlesville, Okla. Gun. No. 1,241,333; Sept. 25; v. 242; p. 923.

Bowman, Levi M., and W. A. Smith, Tulsa, Okla. Electrical gun. No. 1,239,344; Sept. 4; v. 242; p. 199.

Bowyer, Thomas J., Duluth, Minn. Sewing-machine threading attachment. No. 1,239,765; Sept. 11; v. 242; p. 361.

Boxall, Arthur R., Rome, N. Y. Door-operating mechanism. No. 1,238,740; Sept. 4; v. 242; p. 6.

Boyd, Clarence A., Milwaukee, Wis. Tire-removing tool. No. 1,239,454; Sept. 11; v. 242; p. 263.

Boyd, John R., Asheville, N. C. Roofing-bracket. No. 1,241,335; Sept. 25; v. 242; p. 923.

Boys, Charles V. (See Shuman and Boys.)

Bradford, Charles W., Los Angeles, Cal. Antitheft device for contents of gas and other pipe-line systems. No. 1,239,870; Sept. 11; v. 242; p. 397.

Bradley, Charles E., Mishawaka, Ind., assignor to Mishawaka Woolen Manufacturing Company. Form for rubber articles. No. 1,240,931; Sept. 25; v. 242; p. 797.

Bradley, John M., and C. F. Pike, Philadelphia, Pa. Eye-glass-case. No. 1,240,536; Sept. 18; v. 242; p. 641.

Braine, Bancroft G., New York, N. Y., assignor to The Rail Joint Company. Insulated rail-joint. No. 1,240,660; Sept. 18; v. 242; p. 678.

Brand, Herman, Breese, Ill. Grader. No. 1,241,336; Sept. 25; v. 242; p. 924.

Brandenburg, Joseph F., *et al.* (See Atterbury and Matthews, assignors.)

Brandt, Fokko H. G., and J. R. Evans, assignors to Evans-Brandt Manufacturing Company, Kansas City, Kans. Baling-press. No. 1,239,871; Sept. 11; v. 242; p. 397.

Brandt, John, New York, N. Y. Tool for type-setters. No. 1,239,455; Sept. 11; v. 242; p. 264.

Branstrator, Clem G., Monmouth, Ill., assignor of one-fourth to H. G. Herring. Driving mechanism for power transmission. No. 1,240,302; Sept. 18; v. 242; p. 568.

Brantingham, Allen C., Toledo, Ohio, and L. R. Key, Guelph, Ontario, Canada; said Key assignor to Huntley Manufacturing Company, Silver Creek, N. Y. Dust-collector. No. 1,239,456; Sept. 11; v. 242; p. 264.

Brasier, William H., Corpus Christi, Tex. Inspirator-valve for intake-manifolds. No. 1,240,303; Sept. 18; v. 242; p. 568.

Braun, Carl F., San Francisco, Cal. Feed-water heater. No. 1,241,190; Sept. 25; v. 242; p. 876.

Braun, John F., Merion Station, assignor to Pennsylvania Lawn Mower Works, Philadelphia, Pa. Gang-mower. No. 1,241,086; Sept. 25; v. 242; p. 844.

Bravo, Marcelino, Habana, Cuba. Gullet. No. 1,238,878; Sept. 4; v. 242; p. 51.

Breitenstein, Julius G., Chicago, Ill. Tie-fastener. No. 1,241,337; Sept. 25; v. 242; p. 924.

Brémont, Joseph, New York, N. Y. Expression-controlling device for mechanical musical instruments. No. 1,240,412; Sept. 18; v. 242; p. 602.

Breneman, Louis A., St. Paul, assignor to Minnesota Manufacturers' Association, North St. Paul, Minn. Elevator. No. 1,240,172; Sept. 18; v. 242; p. 525.

Brewer, Alden R., assignor of one-half to C. H. Moore, Northport, Wash. Keyhole-saw. No. 1,240,173; Sept. 18; v. 242; p. 526.

Brewster, Harry C., Shreveport, La. Fishing-tool. No. 1,240,661; Sept. 18; v. 242; p. 679.

Bridges, Charles E., Chicago, Ill., assignor, by mesne assignments, to Autosales Gum and Chocolate Company. Vending device. No. 1,240,413; Sept. 18; v. 242; p. 602.

Briggs, Arthur J., Syracuse, assignor to Remington Typewriter Company. Illon, N. Y. Type-writing machine. No. 1,239,872; Sept. 11; v. 242; p. 397.

Brigham, Arthur A., Brookline, Mass. Thread-splicing machine. No. 1,239,560; Sept. 11; v. 242; p. 296.

Bright, Fred E., Philadelphia, Pa. Chuck. No. 1,239,873; Sept. 11; v. 242; p. 398.

Bright, Fred E., Philadelphia, Pa., assignor to The Hess-Bright Manufacturing Company. Shaft-hanger. No. 1,239,874; Sept. 11; v. 242; p. 398.

Bright, William H., Bedford, Va. Dirigible lamp for automobiles. No. 1,238,984; Sept. 4; v. 242; p. 85.

Brinkerhoff, Josiah, *et al.* (See Walter, Ira D., assignor.)

Brislawn, Claude A., Sprague, Wash. Snap-hook. No. 1,240,662; Sept. 18; v. 242; p. 679.

Bristol, Edgar H., assignor to The Foxboro Company, Foxboro, Mass. Speedometer. No. 1,240,790; Sept. 18; v. 242; p. 718.

Britt, James F., Prescott, Ark. Attachment for harness. No. 1,240,304; Sept. 18; v. 242; p. 568.

Broadwin, I. Lawrence. (See Ferguson, Cara S., assignor.)

Brock, Matthias, Roxbury, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Last. No. 1,240,174; Sept. 18; v. 242; p. 526.

Brockelbank, Clarence H., Shoreham-by-Sea, England. Apparatus or device to control safe night landing of aeroplanes. No. 1,239,155; Sept. 4; v. 242; p. 140.

Brogan, James A., Lawrence, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Welt-preparing machine. No. 1,241,087; Sept. 25; v. 242; p. 844.

Brogan, James A., Lawrence, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Welting. No. 1,241,088; Sept. 25; v. 242; p. 844.

Brogan, James A., Lawrence, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Preparing a welting. No. 1,241,089; Sept. 25; v. 242; p. 845.

Brogdon, Joel E., assignor of one-fourth to A. H. Arrington, Montgomery, Ala. Reversing valve-gear. No. 1,240,663; Sept. 18; v. 242; p. 679.

Broida, Max. (See Dubinsky, Simon, assignor.)

Brokow-Eden Manufacturing Company. (See Eden, Harold W., assignor.)

Brolin, Jonas, Sioux Falls, S. D. Removing fiber from unretted flax-straw and preparing the residue for stock food. No. 1,239,667; Sept. 11; v. 242; p. 330.

Brooke Aircraft Company, The. (See Brooke, Thomas P., assignor.)

Brooke, Thomas P., Chicago, Ill., assignor to The Brooke Aircraft Company. Safety-balloonettes for boats and the like. No. 1,240,414; Sept. 18; v. 242; p. 603.

Brooks, George S., and L. G. Duncan, Depue, Ill., assignors to New Jersey Zinc Company, New York, N. Y. Filtering apparatus. No. 1,240,305; Sept. 18; v. 242; p. 569.

Brown, Archie E., assignor of one-eighth to G. D. Flory, one-eighth to C. Davis, and one-tenth to C. N. Bassett, El Paso, Tex. Centrifugal gun. No. 1,240,815; Sept. 25; v. 242; p. 759.

Brown, David, Eldorado, Ill. Fluid-coupling. No. 1,239,345; Sept. 4; v. 242; p. 200.

Brown, Earl W., Anacortes, Wash. Unloading-valve. No. 1,240,664; Sept. 18; v. 242; p. 679.

Brown, Edward R., Rocky Ford, Colo. Belt-guide. No. 1,240,537; Sept. 18; v. 242; p. 641.

Brown, Elbert, Tulare, Cal. Wheel-rim. No. 1,238,879; Sept. 4; v. 242; p. 51.

Brown, Eugene S., Oak Station, Pa. Gas-log. No. 1,239,346; Sept. 4; v. 242; p. 200.

Brown Folding Machine Company. (See Reinhold, William, assignor.)

Brown, James E., Brooklyn, N. Y. Automatic feeder for molding and matching machines. No. 1,240,665; Sept. 18; v. 242; p. 680.

Brown, Lucy E. (See Brown, Ulysses S. and L. E.)

Brown, Sidney G. (See Perry and Brown.)

Brown, Ulysses S. and L. E., Logansport, Ind. Washboard. No. 1,240,118; Sept. 11; v. 242; p. 470.

Brown, Walter. (See Brown, William and W.)

Brown, William and W., Renfrew, Scotland. Dredger. No. 1,240,932; Sept. 25; v. 242; p. 797.

Brown, William E., Sacramento, Cal. Fruit-holder. No. 1,241,338; Sept. 25; v. 242; p. 924.

Browne, Richard M., and T. D. Scott, New York, N. Y. Apparatus for raising sunken vessels. No. 1,240,538; Sept. 18; v. 242; p. 641.

Browne, William C. (See Barsby, Stephenson, and Browne.)

Brownell, William M., Brooklyn, N. Y., assignor of three-fourths to A. N. Hood, Newton, and J. T. Nightingale, Boston, Mass. Drying casein. No. 1,239,766; Sept. 11; v. 242; p. 361.

Brownell, William M., Brooklyn, N. Y., assignor of three-fourths to A. N. Hood and J. T. Nightingale, Boston, Mass. Drying casein. No. 1,240,816; Sept. 25; v. 242; p. 760.

Broyles, Charles M., Wonder, Nev., assignor of one-half to V. Eastland, Chattanooga, Tenn. Wrench. No. 1,239,156; Sept. 4; v. 242; p. 140.

Bruce, Miles D., Thedford, Ont. Lift for pump-pipes or pump-rods. No. 1,239,875; Sept. 11; v. 242; p. 399.

Bruce, William M., Jr., assignor to The United Telegraph & Cable Company, Springfield, Ohio. Telegraphy. No. 1,240,306; Sept. 18; v. 242; p. 569.

Bruck, Henry. (See Shoemaker and Bruck.)

Brückner, Josef, and F. Hamberger, Brooklyn, N. Y. Automatic control for valves. No. 1,241,191; Sept. 25; v. 242; p. 876.

Bruckner, Lloyd R., Augusta, and J. W. Murphy, Griffin, Ga. Rural mail-carrier. No. 1,240,022; Sept. 11; v. 242; p. 442.

Bruder, Leo, Avon, Ohio. Door-fastener. No. 1,241,192; Sept. 25; v. 242; p. 877.

Brumbaugh, Edward E., Imler, Pa. Collapsible receptacle. No. 1,240,817; Sept. 25; v. 242; p. 760.

Brune, Louis J., Algiers, La. Railway-car-toilet lock. No. 1,240,933; Sept. 25; v. 242; p. 798.

Brunelle, Francois X. (See Van Leeuwen and Brunelle.)

Bruner, Ben L., *et al.* (See Gault, Joseph P., assignor.)

Brunk, Hugh P., Sylvia, W. Va. Valve. No. 1,240,023; Sept. 11; v. 242; p. 443.

Brunke, William C., assignor to Efficiency Motor-Device Corporation, Omaha, Nebr. Combined spark-plug and spark-gap. No. 1,241,339; Sept. 25; v. 242; p. 924.

Brunswick-Balke-Collender Company, The. (See Taxon, Louis, assignor.)

Bryant Electric Company, The. (See Thomas, George B., assignor.)

Bryant, Richard S., assignor to The Standard Welding Company, Cleveland, Ohio. Vehicle-wheel. No. 1,238,741; Sept. 4; v. 242; p. 7.

Buck, Herman J., assignor to Mathews Gravity Carrier Company, Ellwood City, Pa. Ball-bearing for gravity-carriers. No. 1,238,880; Sept. 4; v. 242; p. 51.

Buck, Theresa L., administratrix. (See Buck, Vertrude P.)

Buck, Vertrude P., deceased, Boston, assignor of one-half to M. A. Hayward, East Bridgewater, Mass.; T. L. Buck, administratrix. Seat. No. 1,239,253; Sept. 4; v. 242; p. 172.

Buckingham, Maurice A., Frederick, Md. Hat sweat-band. No. 1,238,881; Sept. 4; v. 242; p. 51.

Buckland, George, San Francisco, Cal. Tire-holder. No. 1,239,254; Sept. 4; v. 242; p. 172.

Buckley, Andrew J., Calvert, Tex. Separating-machine. No. 1,239,561; Sept. 11; v. 242; p. 297.

Buckley, Emery L., Painted Post, N. Y., assignor to Ingersoll-Rand Company, Jersey City, N. J. Regulator for fluid-compressors. No. 1,240,539; Sept. 18; v. 242; p. 642.

Buckwalter, Tracy V., Altoona, Pa. Exhaust-muffler. No. 1,240,415; Sept. 18; v. 242; p. 603.

Buckwalter, Tracy V., Altoona, Pa. Testing-machine. No. 1,240,416; Sept. 18; v. 242; p. 603.

Buckwalter, Tracy V., Altoona, Pa. Motor-vehicle. No. 1,240,417; Sept. 18; v. 242; p. 604.

Budget Cheque Corporation, The. (See Price, Henry F., assignor.)

Buffalo Forge Company. (See Criqui, Albert A., assignor.)

Buffington, Herbert, South Bend, Wash. Waterproof paper. No. 1,240,934; Sept. 25; v. 242; p. 798.

Buford, John C. (See Horne, Henry M., assignor.)

Buhlmann, Emil, Jr., Dusseldorf, assignor to W. Hohner, manager, Trossingen, Germany. Illuminated advertising apparatus. No. 1,238,882; Sept. 4; v. 242; p. 51.

Buller, Jacob W., Hillsboro, Kans. Coupling. No. 1,240,818; Sept. 25; v. 242; p. 760.

Bumgarner, Stephen O., Given, Ohio. Elevator for silos. No. 1,240,935; Sept. 25; v. 242; p. 798.

Bundy, Elmer E. (See Crain, Kengle, and Bundy.)

Bunnell, William O., and Q. A. Gates, Wilkes-Barre, Pa. Automobile-wheel guard. No. 1,239,347; Sept. 4; v. 242; p. 201.

Bunnell, William O., and Q. A. Gates, Wilkes-Barre, Pa. Garbage-receptacle. No. 1,239,348; Sept. 4; v. 242; p. 201.

Bunnell, William O., and Q. A. Gates, Wilkes-Barre, Pa. Direction-indicator. No. 1,239,349; Sept. 4; v. 242; p. 201.

Bunnell, William O., and Q. A. Gates, Wilkes-Barre, Pa. Garbage-receptacle. No. 1,239,427; Sept. 4; v. 242; p. 225.

Burbank, Louis S., assignor, by mesne assignments, to Draper Corporation, Hopedale, Mass. Warp stop-motion for looms. No. 1,240,666; Sept. 18; v. 242; p. 680.

Burke, Alfred, Brooklyn, N. Y. Mirror-frame. No. 1,240,175; Sept. 18; v. 242; p. 526.

Burlew, Gilderoy O., Newark, N. J. Dental tool for cleaning teeth. No. 1,238,883; Sept. 4; v. 242; p. 52.

Burnett, Richard W., Chicago, Ill. Wood-veneered metal. (Reissue.) No. 14,349; Sept. 11; v. 242; p. 484.

Burnham, George A., Saugus, Mass. Electric fuse. No. 1,239,876; Sept. 11; v. 242; p. 399.

Burns, Thomas, Martinsville, N. J. Stool. No. 1,240,119; Sept. 11; v. 242; p. 471.

Burr, Charles M., Bardane, W. Va. Combination tobacco and match box. No. 1,241,340; Sept. 25; v. 242; v. 925.

Burroughs, Lucius T., La Crosse, Wis. Glove. No. 1,239,255; Sept. 4; v. 242; p. 172.

Burt, Frank I., Shallow Water, Kans. Cattle-poke. No. 1,239,562; Sept. 11; v. 242; p. 297.

Burton, Nathan L., Galesburg, Ill. Supporting device for ladies' hair. No. 1,240,307; Sept. 18; v. 242; p. 569.

Burton, Thomas L., assignor to The American Brake Company, St. Louis, Mo. Clasp-brake rigging. No. 1,240,819; Sept. 25; v. 242; p. 760.

Busch-Sulzer Bros.-Diesel Engine Company. (See Schenker, Walter, assignee.)

Buschman, Edward L., East Orange, N. J. Truck. No. 1,239,457; Sept. 11; v. 242; p. 264.

Bush, Edvard, Delray, Mich. Motor-vehicle. No. 1,240,936; Sept. 25; v. 242; p. 798.

Bush, Jane A., Middletown, N. Y. Foldable quilting-frame. No. 1,239,877; Sept. 11; v. 242; p. 399.

Butcher, James M., assignor to W. L. Rohrer, Chicago, Ill. Portable burglar-alarm. No. 1,241,484; Sept. 25; v. 242; p. 908.

Butler, David M., Augusta, Ga. Tire-bracket. No. 1,240,667; Sept. 18; v. 242; p. 680.

Butler, James A., Wollaston, Mass., assignor to Industrial Service and Equipment Company. Machine for stretching felt. No. 1,238,742; Sept. 4; v. 242; p. 7.

Butler, Louis F., *et al.* (See Shockley, Jiles S., assignor.)

Bygrave, Leonard C., assignor to The Relay Automatic Telephone Company, Limited, London, England. Telephone system. No. 1,240,418; Sept. 18; v. 242; p. 604.

C. H. Wheeler Manufacturing Company. (See Kothny and Suczek, assignors.)

C. H. Wheeler Manufacturing Company. (See Suczek, Robert, assignor.)

Cable Company, The. (See Klugh, Paul B., assignor.)

Cadillac Motor Car Company. (See Snell, Lyle K., assignor.)

Caggiano, Michael, New York, N. Y. Safety-depository for milk-bottles. No. 1,240,808; Sept. 18; v. 242; p. 569.

Cain, John D., assignor of one-half to G. A. Falls, Caney, Kans. Glass-tank floater. No. 1,240,937; Sept. 25; v. 242; p. 798.

Caldwell, Charles, and W. P. Koppe, Chicago, assignors to Deere and Company, Moline, Ill. Cotton-harvester. No. 1,239,767; Sept. 11; v. 242; p. 362.

Caldwell, Morrison H., *et al.* (See Gardner, Lee, assignor.)

Calkins, Charles H., Ludlow, Mass., assignor to Baush Machine Tool Company. Railway-car driving mechanism. No. 1,240,419; Sept. 18; v. 242; p. 604.

Cameoscope Corporation. (See Roys, Herman E., assignor.)

Cameron, Frank K., and J. A. Cullen, Washington, D. C. Treating alunite. No. 1,239,768; Sept. 11; v. 242; p. 362.

Cammarata, Frank, Amite, La. Dirigible headlight. No. 1,240,668; Sept. 18; v. 242; p. 681.

Campbell, Alphonso S., Medford, Mass. Hot-water bottle. No. 1,239,350; Sept. 4; v. 242; p. 202.

Campbell Bosworth Machinery Company. (See Wilson, William, assignor.)

Campbell, Harry E., New York, N. Y. Metal window frame and sash. No. 1,241,090; Sept. 25; v. 242; p. 845.

Candeliez, René, Uccle, Belgium. Sharpening device. No. 1,240,540; Sept. 18; v. 242; p. 642.

Canfield, Lewis T., Chicago, Ill., assignor to Union Draft Gear Co. Reinforcing-transom for railway-cars. No. 1,239,458; Sept. 11; v. 242; p. 265.

Cannon, Joseph F., *et al.* (See Gardner, Lee, assignor.)

Cappel, August. (See Kretzer and Cappel.)

Capps, Ellis, Forrest City, Ark. Flying apparatus. No. 1,240,669; Sept. 18; v. 242; p. 681.

Capshaw, James D., Monterey, Tenn. Swingletree. No. 1,240,938; Sept. 25; v. 242; p. 798.

Carborundum Company, The. (See Tone, Frank J., assignor.)

Carel, William H., assignor to J. M. Duncan, Philadelphia, Pa. Fusible link. No. 1,239,878; Sept. 11; v. 242; p. 400.

Carew, Andrew F., Coney Island, assignor to J. H. Williams & Co., Brooklyn, N. Y. Tool and tool-holder. No. 1,239,459; Sept. 11; v. 242; p. 265.

Carhart, George C., and S. L. Young, assignors to Syracuse Universal Mfg Co., Syracuse, N. Y. Switch. No. 1,240,809; Sept. 18; v. 242; p. 570.

Carlino, Joseph. (See Carlino, Luigi and J.)

Carlino, Luigi, Niagara Falls, and J. Carlino, Buffalo, N. Y. Winding-core bushing. No. 1,241,193; Sept. 25; v. 242; p. 877.

Carlson, Carl L., and G. Bergström, assignors to Svenska Diamantbergborrningsaktiebolaget, Stockholm, Sweden. Apparatus for ascertaining the direction of bore-holes. No. 1,239,351; Sept. 4; v. 242; p. 202.

Carlson, Earl R., Minneapolis, Minn. Internal-combustion engine. No. 1,239,081; Sept. 4; v. 242; p. 115.

Carlson, Herman B., Chicago, Ill. Continuous writing-tablet. No. 1,240,820; Sept. 25; v. 242; p. 761.

Carlson, Olaf, and H. Pick, assignors to Albert Pick & Company, Chicago, Ill. Manufacture of billiard-cues. No. 1,241,194; Sept. 25; v. 242; p. 877.

Carlson, Oscar, Chicago, Ill. Apparatus for handling bricks and paving blocks or stones. No. 1,239,879; Sept. 11; v. 242; p. 400.

Carlson, Theodore T., assignor to Simonds Manufacturing Company, Fitchburg, Mass. Saw-tooth. No. 1,240,939; Sept. 25; v. 242; p. 799.

Carman, Charles W., assignor of one-half to C. Carman, Newburg, W. Va. Mine-door. No. 1,240,541; Sept. 18; v. 242; p. 642.

Carman, Christiana. (See Carman, Charles W., assignor.)

Carnot Development Corporation. (See Hayes, Albert, assignor.)

Caro, Albert, Maywood, Ill. Warming-oven. No. 1,238,743; Sept. 4; v. 242; p. 7.

Carozza, Antonio T., Baltimore county, Md. Stone-breaker. No. 1,240,821; Sept. 25; v. 242; p. 761.

Carpenter, Stephen L., assignor of one-half to L. Karpen, New Rochelle, N. Y. Automobile-signal. No. 1,240,024; Sept. 11; v. 242; p. 443.

Carr, Howard G., Hoopeston, Ill. Shock-absorber. No. 1,240,822; Sept. 25; v. 242; p. 762.

Carrey, John O. (See McAneny, Michael, assignor.)

Carroll, Isabelle. ((See Paquette, Jennie, assignor.)

Carscadin, Charles A., and G. A. Woodman, assignors, by mesne assignments, to American Steel Foundries, Chicago, Ill. Draft-gear. No. 1,239,460; Sept. 11; v. 242; p. 265.

Carson, Helen S., Chicago, Ill. Window-guard. No. 1,240,025; Sept. 11; v. 242; p. 443.

Carson, William E., Riverton, Va. Hydrating lime. No. 1,239,256; Sept. 4; v. 242; p. 173.

Carter, Oscar W., Fellows, Cal. Ornamenting device. No. 1,240,940; Sept. 25; v. 242; p. 799.

Carter & Sons, H. W. (See Landers, John, assignor.)

Cartmell, Benjamin L., Dayton, Ohio. Automatic playing device for stringed instruments. No. 1,238,884; Sept. 4; v. 242; p. 52.

Carty, Charles C. (See Martz, Randolph N., assignor.)

Cary Manufacturing Company. (See Cary, Spencer C., assignor.)

Cary, Spencer C., assignor to Cary Manufacturing Company, Brooklyn, N. Y. Stand for coiled material. No. 1,239,082; Sept. 4; v. 242; p. 116.

Casablanca, Fernando, Sabadell, Barcelona, Spain. Mechanism for drawing fibers with endless belts. No. 1,240,670; Sept. 18; v. 242; p. 681.

Casanova, Eugene F. (See Harris and Casanova.)

Cassell, Charles, Weippe, Idaho. Rotary harrow. No. 1,240,542; Sept. 18; v. 242; p. 643.

Catala, Tiburce, New York, N. Y. Case for jewelry. No. 1,240,671; Sept. 18; v. 242; p. 682.

Catron, James F., and J. W., Wheeler, Thomas, Okla. Hoisting means for use in silos. No. 1,238,985; Sept. 4; v. 242; p. 86.

Cavanaugh, William M., Rosebank, assignor, by mesne assignments, to Leather Products Company, Inc., New York, N. Y. Leather fabric. No. 1,239,880; Sept. 11; v. 242; p. 400.

Cawby, Frank M., Champaign, Ill. Garbage-receptacle. No. 1,239,881; Sept. 11; v. 242; p. 400.

Cebolt, John H., and C. W. Downs, Indianapolis, Ind. Direction-signal for vehicles. No. 1,240,310; Sept. 18; v. 242; p. 570.

Cederquist, N. Herman, *et al.* (See Benson and Sandstrom, assignors.)

Central Oil & Gas Stove Company. (See White and Hooper, assignors.)

Central Scientific Company. (See De Khotinsky, Achilles, assignor.)

Chadwick, George B., Portsmouth, N. H. Adjustable reamer and similar tool. No. 1,240,311; Sept. 18; v. 242; p. 570.

Chadwick, Lee S., East Cleveland, assignor to The Cleveland Metal Products Company, Cleveland, Ohio. Liquid-fuel stove. No. 1,240,312; Sept. 18; v. 242; p. 571.

Chaffin, William, San Antonio, Tex. Signal. No. 1,239,668; Sept. 11; v. 242; p. 331.

Chalker, Charles E., assignor of one-half to W. B. Warren, Tampa, Fla. Gas and air mixing device. No. 1,239,882; Sept. 11; v. 242; p. 401.

Challet, Etienne, Geneva, Switzerland, assignor to L. Heller & Son, New York, N. Y. Automatic machine for cutting and polishing a number of jewels or precious stones simultaneously. No. 1,240,313; Sept. 18; v. 242; p. 571.

Chambe, Alfred P. (See Picard, Sidney L., assignor.)

Chamberlin, Abel W. (See Angus and Chamberlin.)

Chambers, Darell M., San Diego, Cal. Level. No. 1,241,341; Sept. 25; v. 242; p. 925.

Champlin, Porter, Powers Lake, N. D. Wrench. No. 1,239,883; Sept. 11; v. 242; p. 401.

Chandler, Edwin N., Braintree, assignor to Boston Last Company, Boston, Mass. Electrically-heated seam-rubber. No. 1,239,257; Sept. 4; v. 242; p. 173.

Chapman, Albert B., Lockport, N. Y. Mud-guard for bicycles and the like. No. 1,241,091; Sept. 25; v. 242; p. 845.

Chapman, Everett B., Philadelphia, Pa. Surgical appliance. No. 1,240,026; Sept. 11; v. 242; p. 443.

Chapman, George P., Fort Collins, Colo. Folding camp-bed and tent. No. 1,241,342; Sept. 25; v. 242; p. 925.

Chard, Nicholas D., Newcastle, Ind. Lathe-center adjusting and clamping means. No. 1,239,352; Sept. 4; v. 242; p. 202.

Charles, Alfred W. (See McDowell, Robert G., assignor.)

Charroin, Frank B., Seattle, Wash. Combined socket and handle for an air-pressure gage and hose-connector. No. 1,239,769; Sept. 11; v. 242; p. 362.

Chase, Cassius S. (See McLaughlin, William H., assignor.)

Chateauneuf, Frank, Haverhill, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Shoe-sewing machine. No. 1,240,941; Sept. 25; v. 242; p. 799.

Chatterson, James M., San Diego, Cal. Lamp for vehicles. No. 1,239,461; Sept. 11; v. 242; p. 265.

Cheatham Electric Switching Device Company. (See Cheatham and Olmsted, assignors.)

Cheatham, Robert V., St. Matthews, and E. S. Olmsted, assignors to Cheatham Electric Switching Device Company, Louisville, Ky. Automatic switching device. No. 1,239,258; Sept. 4; v. 242; p. 173.

Chenault, Colby B., Oklahoma, Okla. Bed. No. 1,241,195; Sept. 25; v. 242; p. 878.

Cheney, Herbert W., Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company. Oil-switch. No. 1,240,314; Sept. 18; v. 242; p. 572.

Chicago Railway Equipment Company. (See Williams, Charles H., assignor.)

Chicago Railway Signal and Supply Company. (See Vogel, Eugene W., assignor.)

Childress, Henderson P., Memphis, Tenn. Bale-buckle. No. 1,240,672; Sept. 18; v. 242; p. 682.

Chmela, Albert, assignor to Splitdorf Electrical Company, Newark, N. J. Junction-box. No. 1,238,885; Sept. 4; v. 242; p. 53.

Chrisman, Rufe F., assignor of one-half to E. W. Reed, Nashville, Tenn. Adjustable supporting-base for printing-plates. No. 1,240,315; Sept. 18; v. 242; p. 572.

Christensen, Niels C., Jr., assignor, by mesne assignments, to Holt-Christensen Process Company, Salt Lake City, Utah. Treating ores. No. 1,239,157; Sept. 4; v. 242; p. 140.

Christiansen, Christian, Sioux Falls, S. D. Fender-brace. No. 1,240,942; Sept. 25; v. 242; p. 799.

Christie, Alexander, Seattle, Wash. Hasp-fastener. No. 1,240,316; Sept. 18; v. 242; p. 573.
Christman, Matthias, Springfield, Mo. Wheel-hub plate. No. 1,241,343; Sept. 25; v. 242; p. 926.
Church, Joseph W., San Francisco, Cal. Means for recovering stranded ships. No. 1,240,120; Sept. 11; v. 242; p. 471.
Church, William H., Superb, Saskatchewan, Canada. Grain-stooker. No. 1,240,823; Sept. 25; v. 242; p. 762.
Cipra, William J., Cleveland, Ohio. Collar. No. 1,239,503; Sept. 11; v. 242; p. 287.
Clark, Charles C., Buffalo, N. Y. Rolling-stock. No. 1,240,673; Sept. 18; v. 242; p. 682.
Clark, Ewen A., Revere, Mass. Torpedo-net. No. 1,240,317; Sept. 18; v. 242; p. 573.
Clark, Franklin S., Dallas, Tex. Surveying instrument. No. 1,239,083; Sept. 4; v. 242; p. 116.
Clark, Gordon H. (See Henry, Edward P., assignor.)
Clark, Melville, assignor to Melville Clark Piano Company, Chicago, Ill. Phonograph-tone-arm joint. No. 1,240,943; Sept. 25; v. 242; p. 800.
Clarke, John T. (See Ward, Samuel M., Jr., assignor.)
Clarkson, Thomas A. (See Kirchhofer, August, assignor.)
Claude, Horace, Clarkstown, Ottawa, and O. Lacombe, Ottawa, Ontario, Canada. Automobile-indicator. No. 1,240,176; Sept. 18; v. 242; p. 527.
Claus, Emil A., assignor to Public Service Cup Company, Brooklyn, N. Y. Vending-machine. No. 1,239,884; Sept. 11; v. 242; p. 401.
Clawson, Charles F., assignor of one-third to J. T. Corcoran and one-third to J. C. Baker, Mount Pleasant, Iowa. Rail-anchor. No. 1,240,674; Sept. 18; v. 242; p. 688.
Clawson, Selden I., Salt Lake City, Utah. Concentration of metalliferous ores. No. 1,240,824; Sept. 25; v. 242; p. 762.
Clay, Adelaide M., San Francisco, Cal. Powder-puff retainer. No. 1,240,944; Sept. 25; v. 242; p. 800.
Clayton, James, Coventry, assignor to Courtaulds, Limited, London, England. Apparatus used in the manufacture of artificial silk. No. 1,240,675; Sept. 18; v. 242; p. 683.
Cleaveland, J. W. (See Williams, Martin L., assignor.)
Cleaves, Harold E., Washington, D. C. Treating ores. No. 1,239,885; Sept. 11; v. 242; p. 402.
Clemens, Chester E., and R. K. Johnson, assignors, by mesne assignments, to The Standard Parts Company, Cleveland, Ohio. Vehicle-spring. No. 1,239,084; Sept. 4; v. 242; p. 116.
Clemens, Oliver P., and W. C. Bott, Walla Walla, Wash. Cuspidor. No. 1,240,945; Sept. 25; v. 242; p. 800.
Clement, Charles G. (See Menhall and Clement.)
Clements Company, The. (See Kennedy, Joseph, assignor.)
Cleveland Metal Products Company, The. (See Chadwick, Lee S., assignor.)
Clinkunbroomer, Peter H., Evanston, Ill. Mold for concrete construction. No. 1,239,462; Sept. 11; v. 242; p. 265.
Clinton Cam Company. (See Taylor, Andrew, assignor.)
Clinton Switch Company. (See Lowe, Harry L., assignor.)
Clipper Belt Lacer Company. (See Vanderveld, Anthony, assignor.)
Close, James, Newark, assignor to New Jersey Tube Company, Harrison, N. J. Bed and other article of furniture. No. 1,239,158; Sept. 4; v. 242; p. 140.
Clot, August P., Weehawken Heights, N. J. Multibladed knife. No. 1,240,946; Sept. 25; v. 242; p. 800.
Clothier, Willis, New Castle, Del. Automatic weighing-machine. No. 1,238,886; Sept. 4; v. 242; p. 53.
Coatalen, Louis, assignor of one-half to Sunbeam Motor Car Company Limited, Wolverhampton, England. Camshaft driving mechanism. No. 1,240,420; Sept. 18; v. 242; p. 605.
Coatalen, Louis, assignor of one-half to Sunbeam Motor Car Company Limited, Wolverhampton, England. Piston for internal-combustion engines. No. 1,240,421; Sept. 18; v. 242; p. 605.
Coatalen, Louis, assignor of one-half to Sunbeam Motor Car Company Limited, Wolverhampton, England. Starting mechanism for internal-combustion engines. No. 1,240,422; Sept. 18; v. 242; p. 605.
Coatalen, Louis, assignor of one-half to Sunbeam Motor Car Company Limited, Wolverhampton, England. Internal-combustion engine for aeroplanes. No. 1,241,092; Sept. 25; v. 242; p. 845.
Coats, George S., Visalia, Cal. Key-seating tool. No. 1,239,159; Sept. 4; v. 242; p. 141.
Cochrane, James P., Edinburgh, and J. Patrick, Leith, Scotland. Golf-club shaft. No. 1,239,356; Sept. 4; v. 242; p. 204.
Code, James T. (See Fowler, William E., assignor.)
Cogswell, Seward E., Central City, Nebr. Automatic sampler. No. 1,241,196; Sept. 25; v. 242; p. 878.
Coin Time Lock Co. (See Williams, Edward L., assignor.)
Coin Time Lock Co. (See Wyckoff, Amos A., assignor.)
Colburn, Frederick H., Concord, N. H., assignor, by mesne assignments, to the Government of the United States. Relief-alidade. No. 1,240,676; Sept. 18; v. 242; p. 683.
Colby, Frank W., assignor to Standard Spiral Pipe Works, Chicago, Ill. Making reinforced spiral pipe. No. 1,238,986; Sept. 4; v. 242; p. 86.
Colby, Frank W., assignor to Standard Spiral Pipe Works, Chicago, Ill. Apparatus for making reinforced spiral pipe. No. 1,238,987; Sept. 4; v. 242; p. 86.
Cole, Arthur D., Fort Pierre, S. D. Traction-engine. No. 1,240,423; Sept. 18; v. 242; p. 605.
Cole, Benjamin F., *et al.* (See Walter, Ira D., assignor.)
Cole, Ernest E., Chicago, Ill. Pneumatic tire. No. 1,239,886; Sept. 11; v. 242; p. 402.
Cole, Frank L., La Fayette, Pa. Rotary internal-combustion engine. No. 1,240,947; Sept. 25; v. 242; p. 801.
Cole, Frederick W., Newton Highlands, Mass. Fire-alarm signal-box. No. 1,239,887; Sept. 11; v. 242; p. 402.
Coleman, Abigail, *et al.* (See Coleman, George W., assignor.)
Coleman, Clyde J., New York, N. Y., assignor, by mesne assignments, to Isko, Incorporated, Detroit, Mich. Heat-insulating wall. No. 1,239,770; Sept. 11; v. 242; p. 363.
Coleman, George W., assignor of three-fourths to A. Coleman and one-fourth to J. N. Ramsey, Cincinnati, Ohio. Heating system. No. 1,239,564; Sept. 11; v. 242; p. 297.
Coleman, John P., Edgewood borough, assignor to The Union Switch & Signal Company, Swissvale, Pa. Railway-traffic-controlling apparatus. No. 1,238,887; Sept. 4; v. 242; p. 53.
Coleman, John P., Edgewood borough, assignor to The Union Switch & Signal Company, Swissvale, Pa. Railway-traffic-controlling apparatus. No. 1,238,888; Sept. 4; v. 242; p. 54.
Coleman, John P., Edgewood borough, assignor to The Union Switch & Signal Company, Swissvale, Pa. Railway-traffic-control apparatus. No. 1,238,889; Sept. 4; v. 242; p. 54.
Coleman, Richard H., Eunice, La. Spoke-billet, manufacture and product. No. 1,238,890; Sept. 4; v. 242; p. 54.
Colgate, Henry A., West Orange, N. J. Holder for shaving-sticks. No. 1,238,744; Sept. 4; v. 242; p. 8.
Collings, William A. (See Green, Herbert P., assignor.)
Collings, William A., Kansas City, Mo. Automatic drawer locking and closing device. No. 1,241,093; Sept. 25; v. 242; p. 846.
Collins, Walter L., Milford, Mass. Building-wall. No. 1,240,121; Sept. 11; v. 242; p. 471.
Collins, William A., Kewanna, Ind. Green-corn cutter. No. 1,239,353; Sept. 4; v. 242; p. 203.
Collinson, Francis E., London, England, assignor of one-half to Taylor Instrument Companies, Rochester, N. Y. Safety device for pressure-indicators. No. 1,239,565; Sept. 11; v. 242; p. 298.
Collis Co., The. (See Collis, George, assignor.)
Collis, George, assignor to The Collis Co., Clinton, Iowa. Truck. No. 1,239,771; Sept. 11; v. 242; p. 363.
Colman, Howard D., assignor to Barber-Colman Company, Rockford, Ill. Traverse mechanism for winding-machines. No. 1,239,669; Sept. 11; v. 242; p. 331.
Colman, Howard D., assignor to Barber-Colman Company, Rockford, Ill. Winder. No. 1,239,670; Sept. 11; v. 242; p. 331.
Commercial Truck Company of America. (See Mella, Martin, assignor.)
Comstock, Clark S., Sr., East Orange, N. J. Garment-slide. No. 1,240,825; Sept. 25; v. 242; p. 762.
Comstock, Joseph. (See Phelps, Kirk, and Comstock.)
Conard, Cyrus J., Olney Springs, Colo. Renewing worn-out plow-points. No. 1,241,094; Aug. 25; v. 242; p. 846.
Conditto, George C., Wingdale, N. Y. Lifting-jack. No. 1,240,122; Sept. 11; v. 242; p. 471.
Cone, Lee E. H., assignor to The Dow Chemical Company, Midland, Mich. Making indoxyl and derivatives. (Reissue.) No. 14,364; Sept. 25; v. 242; p. 969.
Congoleum Company, The. (See Jackson, Ralph G., assignor.)
Conklin, Harry R., Joplin, Mo. Method and apparatus for determining subterraneous conductors. No. 1,241,197; Sept. 25; v. 242; p. 878.
Conlon, Walter J., Chicago, Ill. Wringer-reversing-gear box. No. 1,238,745; Sept. 4; v. 242; p. 8.
Conn, Charles G., Elkhart, Ind. Cornet. No. 1,240,177; Sept. 18; v. 242; p. 527.
Connecticut Telephone & Electric Company. (See Donle, Harold P., assignor.)
Connor, Thomas F., Decorah, Iowa. Display device. No. 1,238,988; Sept. 4; v. 242; p. 87.
Conrader, Rudolph, Erie, Pa. Unloader for compressors. No. 1,239,566; Sept. 11; v. 242; p. 298.
Conrader, Rudolph, Erie, Pa. Compressor. No. 1,239,567; Sept. 11; v. 242; p. 299.
Conrader, Rudolph, Erie, Pa. Relief device for compressors. No. 1,239,568; Sept. 11; v. 242; p. 299.
Considine, Edward H. (See Prescott and Considine.)
Consor, Herbert A. (See Weis and Consor.)
Cook, Gustav, Gillett, Wis. Fishing-reel. No. 1,240,677; Sept. 18; v. 242; p. 683.
Cook, Horace T., Boone, Iowa. Pocket. No. 1,239,888; Sept. 11; v. 242; p. 403.
Cook, Stanley W., trustee. (See Wood, William H., assignor.)
Coolidge, Roger E., assignor to Litchfield Shuttle Company, Southbridge, Mass. Shuttle-tip. No. 1,239,085; Sept. 4; v. 242; p. 117.
Cooper, Walter J., assignor of one-half to M. J. Maruna, Cleveland, Ohio. Shut-off for carburetors in motor-vehicles. No. 1,238,989; Sept. 4; v. 242; p. 87.

Cooper, William, deceased, Pittsburgh, Pa., Westinghouse Electric & Manufacturing Company. Railway-vehicle. (Reissue.) No. 14,350; Sept. 11; v. 242; p. 484.
Copeland, Wilson M., Evansville, Ind. Auxiliary transmission for motor-vehicles. No. 1,240,318; Sept. 18; v. 242; p. 573.
Copony, Alfred, Chicago, Ill. Yoke for draft-riggings. No. 1,240,948; Sept. 25; v. 242; p. 801.
Corcoran, John T., *et al.* (See Clawson, Charles F., assignor.)
Cordley and Hayes. (See Long, George R., assignor.)
Cordrey, Oliver, Laurel, Del. Potato-digger. No. 1,239,354; Sept. 4; v. 242; p. 204.
Cornell, Robert F., assignor of one-fourth to H. C. Scovel, San Diego, Cal. Unicycle. No. 1,240,678; Sept. 18; v. 242; p. 683.
Correll, William M. (See Mayer and Correll.)
Corswandt, Moritz F., Chicago, Ill. Attachment to a trowel. No. 1,239,671; Sept. 11; v. 242; p. 332.
Cottier, Francis A., Jr., Cleveland, Ohio. Stove or heater. No. 1,240,679; Sept. 18; v. 242; p. 684.
Cotton, James H., Toronto, Ontario, Canada. Manometer. No. 1,240,123; Sept. 11; v. 242; p. 472.
Cotton, Walter H., Chicago, Ill., assignor to Old Dutch Manufacturing Co., Huron, S. D. Self-cleaning sparkplug. No. 1,238,990; Sept. 4; v. 242; p. 87.
Couch, Buel, *et al.* (See Twitchell, Myron A., assignor.)
Couch, Forrest J., assignor to American Laundry Machinery Company, Rochester, N. Y. Ironing-machine. No. 1,238,891; Sept. 4; v. 242; p. 55.
Courtaulds, Limited. (See Clayton, James, assignor.)
Courtesy, Henry L., assignor of one-half to W. A. Scamahorn, Spokane, Wash. Aerial multiple explosive bomb. No. 1,241,095; Sept. 25; v. 242; p 846.
Courtot, Louis, Paris, France, assignor to American Radiator Company, Chicago, Ill. Radiator. No. 1,239,428; Sept. 4; v. 242; p. 225.
Covert, Erskine M., South Bend, Ind. Feeding mechanism for stamping-presses. No. 1,239,463; Sept. 11; v. 242; p. 266.
Covert Manufacturing Company. (See Baxter, John B., assignor.)
Cowan, Park W. (See Morgan, Victor G., assignor.)
Cowell, William B., Catford, England. Bituminous paving composition and making it. No. 1,239,160; Sept. 4; v. 242; p. 141.
Cowl, William H., San Francisco, Cal. Device for fastening shoe-laces. No. 1,239,355; Sept. 4; v. 242; p. 204.
Cozel, Stanislaw, Wilmington, Del. Nested lunch-container. No. 1,238,746; Sept. 4; v. 242; p. 8.
Crabtree, Isaac W., Cairo, Ill. Fan attachment for swings. No. 1,239,161; Sept. 4; v. 242; p. 142.
Crabtree, John I., assignor to Eastman Kodak Company, Rochester, N. Y. Flash-powder. No. 1,240,027; Sept. 11; v. 242; p. 444.
Craig, Alexander, Sydney, New South Wales, Australia. Heel screw or protector for footwear. No. 1,240,680; Sept. 18; v. 242; p. 684.
Crain, Harry, H. V. Kengle, and E. E. Bundy, Enid, Okla. Truck. No. 1,240,178; Sept. 18; v. 242; p. 527.
Cramer, William D., Philadelphia, Pa. Wire screen. No. 1,238,747; Sept. 4; v. 242; p. 8.
Crandall, Chauncey C., *et al.* (See Twitchell, Myron A., assignor.)
Crandall, John P., Buffalo, N. Y. Electrically-controlled releasing means. No. 1,239,569; Sept. 11; v. 242; p. 300.
Crandall, Milton S., *et al.* (See Twitchell, Myron A., assignor.)
Crane, Abram E., assignor of one-half to J. T. Enter, Fairport, N. Y. Harvester for cabbage and similar plants. No. 1,241,198; Sept. 25; v. 242; p. 879.
Crane, Frederick M., Halsey, Oreg. Vehicle attachment. No. 1,241,844; Sept. 25; v. 242; p. 926.
Crane, William H., Poughkeepsie, N. Y., assignor to Moline Plow Company. Grain harvester and binder. No. 1,240,028; Sept. 11; v. 242; p. 444.
Crane, William H., Poughkeepsie, N. Y., assignor to Moline Plow Company. Wind-shield for harvesters. No. 1,240,424; Sept. 18; v. 242; p. 606.
Cranston, Edith M., *et al.* (See Van Esbroeck, François, assignor.)
Crawford, Fred, Prosser, Wash. Cutting apparatus for mowers. No. 1,239,570; Sept. 11; v. 242; p. 300.
Crawford, Jefferson D. (See Snyder and Crawford.)
Crawford, John S., and B. Moses, Ottawa, Ontario, Canada. Chemical fire-extinguisher. No. 1,239,259; Sept. 4; v. 242; p. 174.
Crecelius, Carl F., Falmouth, Ky. Tooth-brush and dentifrice holder. No. 1,240,681; Sept. 18; v. 242; p. 685.
Creveling, John L., New York, N. Y., assignor to Safety Car Heating and Lighting Company. Electric regulation. No. 1,239,772; Sept. 11; v. 242; p. 364.
Criqui, Albert A., assignor to Buffalo Forge Company, Buffalo, N. Y. Centrifugal fan. No. 1,240,949; Sept. 25; v. 242; p. 801.
Crompton, Charles, Worcester, Mass. Gas-engine. No. 1,241,199; Sept. 25; v. 242; p. 879.
Crompton & Knowles Loom Works. (See Ryon, Eppa H., assignor.)
Crompton, Thomas A., Jr., London, England. Double-acting valve. No. 1,240,682; Sept. 18; v. 242; p. 685.
Cronick, Joseph H., Uniontown, Pa. Tree-stand. No. 1,240,319; Sept. 18; v. 242; p. 574.
Crosby, Gorham, Glen Ridge, N. J., assignor to Gould Coupler Company. Electrical system of distribution. No. 1,241,485; Sept. 25; v. 242; p. 968.
Crusey, Elmer, Sidney, Ohio. Photographic-print-washing machine. No. 1,240,425; Sept. 18; v. 242; p. 606.
Csanyi, Henry, New York, N. Y. Film-feeding mechanism. No. 1,241,200; Sept. 25; v. 242; p. 879.
Cullen, John A. (See Cameron and Cullen.)
Cullen, William J., Joliet, Ill., assignor to American Can Company, New York, N. Y. Container-body. No. 1,239,162; Sept. 4; v. 242; p. 142.
Cullen, William J., Joliet, Ill., assignor to American Can Company, New York, N. Y. Container-body. No. 1,239,163; Sept. 4; v. 242; p. 142.
Cumpston, Frederick B., Blooming Grove, Tex. Coupling means for demountable-rim sections. No. 1,241,345; Sept. 25; v. 242; p. 926.
Cunniff, Edward A., New Bedford, J. V. Cunniff, Fall River, and J. K. Lanning, Boston, Mass.; said Edward A. Cunniff and said J. V. Cunniff assignors to said J. K. Lanning. Weft-replenishing mechanism for looms. No. 1,239,086; Sept. 4; v. 242; p. 117.
Cunniff, John V. (See Cunniff and Lanning.)
Cunningham, William R., Toledo, Ohio. Automatic stop means for awning-rolls. No. 1,240,179; Sept. 18; v. 242; p. 527.
Cureton, Horace A., Los Angeles, Cal. Radiator. No. 1,240,543; Sept. 18; v. 242; p. 643.
Currier, Hiram D., Chicago, and R. I. Utter, Oak Park, assignors to Kellogg Switchboard and Supply Company, Chicago, Ill. Multi-exchange telephone system. No. 1,238,748; Sept. 4; v. 242; p. 9.
Currier, Hiram D., and L. Ericson, assignors to Kellogg Switchboard and Supply Company, Chicago, Ill. Relay. No. 1,239,357; Sept. 4; v. 242; p. 204.
Curtis, Arthur P., assignor to The Hunter Arms Co., Fulton, N. Y. Means for holding the fore-ends of fire-arms in position. No. 1,239,889; Sept. 11; v. 242; p. 403.
Curtis, Charles A., Louisville, Ky. Level. No. 1,238,991; Sept. 4; v. 242; p. 88.
Curtis & Co. Mfg. Co. (See Steedman, George F., assignor.)
Curtiss, Charles H., Detroit, Mich. Device for raising sunken ships. No. 1,239,260; Sept. 4; v. 242; p. 174.
Curtiss, Theron C., San Francisco, Cal. Oil-burner. No. 1,240,683; Sept. 18; v. 242; p. 685.
Cutler, Burwell S., assignor to Cutler Desk Co., Buffalo, N. Y. Telephone-stand. No. 1,239,890; Sept. 11; v. 242; p. 403.
Cutler, Charles J., Butte, Mont. Brake. No. 1,239,358; Sept. 4; v. 242; p. 205.
Cutler Desk Co. (See Cutler, Burwell S., assignor.)
Cutler-Hammer Mfg. Co., The. (See Henderson, Clark T., assignor.)
Cutler-Hammer Mfg. Co., The. (See Johannsmeyer, Frederick, assignor.)
Cutler-Hammer Mfg. Co., The. (See Klein, Charles J., assignor.)
Cutler-Hammer Mfg. Co., The. (See Simon, Arthur, assignor.)
Cutler-Hammer Mfg. Co., The. (See Tatum, Lewis L., assignor.)
Cutler, William C., North Glendale, Cal. Underreamer. No. 1,239,087; Sept. 4; v. 242; p. 117.
Cutler, William C., North Glendale, Cal. Vanity-case. No. 1,239,164; Sept. 4; v. 242; p. 142.
Czajka, John, Chicago, Ill. Machine for forming sheet material. No. 1,240,791; Sept. 18; v. 242; p. 719.
Dahl, Hans, Wilmersdorf, Berlin, Germany. Signal device for speed-indicators. No. 1,239,672; Sept. 11; v. 242; p. 332.
Dahl, James T., Seattle, Wash. Safety device for submarines. No. 1,238,892; Sept. 4; v. 242; p. 55.
Dahleen, Le Roy E., Yankton, S. D. Power potato-cutter. No. 1,238,893; Sept. 4; v. 242; p. 55.
Dain, Joseph, Moline, Ill., assignor to Dain Manufacturing Company, Ottumwa, Iowa. Side-delivery rake. No. 1,241,096; Sept. 25; v. 242; p. 846.
Dain Manufacturing Company. (See Dain, Joseph, assignor.)
Daisy Manufacturing Company. (See Lefever, Charles F., assignor.)
Dake, Charles W., assignor to Pyle-National Electric Headlight Company, Chicago, Ill. Car end. No. 1,239,773; Sept. 11; v. 242; p. 364.
Dalton, Lloyd H., Nevada, Mo. Folding garment-hanger. No. 1,241,346; Sept. 25; v. 242; p. 926.
Dameron, Edward P., Denver, Colo. Dental and surgical instrument. No. 1,240,320; Sept. 18; v. 242; p. 574.
Damon, William H., Los Angeles, Cal. Non-cumulative wax polish. No. 1,240,544; Sept. 18; v. 242; p. 643.
Damon, William H., Los Angeles, Cal. Non-cumulative wax polish. No. 1,240,545; Sept. 18; v. 242; p. 643.
Daniel, Albert J., assignor of one-half to I. M. Allison, Boone, Iowa. Tobacco-lift. No. 1,239,359; Sept. 4; v. 242; p. 205.
Danley, William L., *et al.* (See Shockley, Jiles S., assignor.)
Danz, Jacob, 2d, Los Angeles, Cal. Combined game and shell bag. (Reissue.) No. 14,365; Sept. 25; v. 242; p. 969.
Darley, John W., Jr., Baltimore, Md., assignor to The Universal Steel Package Co. Metallic barrel. No. 1,240,029; Sept. 11; v. 242; p. 444.

Darley, John W., Jr., Baltimore, Md., assignor to The Universal Steel Package Co. Metallic barrel. No. 1,240,030; Sept. 11; v. 242; p. 444.
Dauernheim, Philip J., St. Louis, Mo. Limekiln. No. 1,240,950; Sept. 25; v. 242; p. 801.
Daugherty, Watt C., assignor of one-half to P. Ginsberg, Monongahela, Pa. Charging device. No. 1,239,571; Sept. 11; v. 242; p. 301.
Davenport, Herman A., Brockton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Heel-support for lasts. No. 1,238,894; Sept. 4; v. 242; p. 56.
Davis, Albert S., executor. (See Hagar, Franklin W.)
Davis, Charles, *et al.* (See Brown, Archie E., assignor.)
Davis, Frank, North Adams, Mass. Door-lock. No. 1,239,360; Sept. 4; v. 242; p. 205.
Davis, George L., Binghamton, N. Y. Agitator for washing-machines. No. 1,240,826; Sept. 25; v. 242; p. 762.
Davis, Harry W., Swissvale, assignor of one-half to W. C. Frost, East Pittsburgh, Pa. Section-switch. No. 1,239,464; Sept. 11; v. 242; p. 266.
Davis, Oscar C., Brockton, Mass. Pieced outer sole. No. 1,239,361; Sept. 4; v. 242; p. 205.
Davis, Ray L., and G. C. Moyers, Wheeling, W. Va. Pipe-bending apparatus. No. 1,239,165; Sept. 4; v. 242; p. 143.
Davis, Robert W., East Orange, N. J. Swimming appliance. No. 1,239,088; Sept. 4; v. 242; p. 118.
Davis, William J., Redig, S. D. Spring-wheel. No. 1,240,951; Sept. 25; v. 242; p. 802.
Davison, Gregory C., and J. W. Anderson, New London, Conn., assignors to Electric Boat Company, New York, N. Y. Double-acting Diesel engine. No. 1,240,827; Sept. 25; v. 242; p. 763.
Day, Charles, G. E. Windeler, and P. Grant, Hazel Grove, near Stockport, England, assignors to General Electric Company. Internal-combustion engine. (Reissue.) No. 14,359; Sept. 18; v. 242; p. 723.
Day, Fred H., Hopewell, Va. Lock for journal-boxes. No. 1,241,347; Sept. 25; v. 242; p. 927.
Day, Herbert W., Wollaston, assignor to Spray Engineering Company, Boston, Mass. Applying coating material. No. 1,239,089; Sept. 4; v. 242; p. 118.
Day, William A., Bellingham, Wash. Composition of matter. No. 1,239,465; Sept. 11; v. 242; p. 267.
Day, William P., Cleveland, Ohio. Railway-tie. No. 1,240,952; Sept. 25; v. 242; p. 802.
Dayton Engineering Laboratories Co., The. (See Kettering, Charles F., assignor.)
Dayton Manufacturing Company, The. (See Eckert, Joseph, assignor.)
Dayton Pipe Coupling Company, The. (See Price, William W., assignor.)
De Arrigunaga, Manuel, New York, N. Y. Auxiliary steering device (Reissue.) No. 14,348; Sept. 4; v. 242; p. 230.
De Camp, Charles E., *et al.* (See De Camp, James W., assignor.) (Reissue.)
De Camp, James W., Blackwell, Okla., assignor of one-fourth to J. P. Miller, McAllen, Tex., and one-fourth to C. E. De Camp, Blackwell, Okla. Glass casket. (Reissue.) No. 14,357; Sept. 11; v. 242; p. 489.
De Groat, Harry D., Cortland, N. Y. Educational appliance. No. 1,240,031; Sept. 11; v. 242; p. 445.
De Khotinsky, Achilles, assignor to Central Scientific Company, Chicago, Ill. Precision temperature apparatus. No. 1,239,572; Sept. 11; v. 242; p. 301.
De Kines, William O. (See Williams and De Kines.)
De Lance, Chandler P., Columbus, Nebr. Adjustable window-ventilator. No. 1,240,958; Sept. 25; v. 242; p. 802.
De Laval, George, Orange, N. J., assignor to The T. A. Gillespie Company, New York, N. Y. Lathe. No. 1,240,032; Sept. 11; v. 242; p. 445.
De Laval, George, Orange, N. J., assignor to T. A. Gillespie Company, New York, N. Y. Drill. No. 1,240,158; Sept. 11; v. 242; p. 482.
De Laval Separator Company, The. (See Leitch, Meredith, assignor.)
De Lavaud, Dimitri S., Buffalo, N. Y. Centrifugal casting-machine. No. 1,240,546; Sept. 18; v. 242; p. 643.
De Luca, Pirro, Rome, Italy. Pocket life-buoy. No. 1,240,686; Sept. 18; v. 242; p. 686.
De Lucchi, Frank L., Novato, Cal. Currycomb. No. 1,240,124; Sept. 11; v. 242; p. 472.
De Meir, Auld W., Providence, R. I. Fastener. No. 1,239,362; Sept. 4; v. 242; p. 206.
De Mond, John A., Richmond, Cal. Expansion-joint for concrete constructions. No. 1,239,573; Sept. 11; v. 242; p. 301.
De Roode, Trimble, New York, N. Y. Impress-record apparatus. No. 1,241,097; Sept. 25; v. 242; p. 847.
De Rycke, Adolph R., Kewanee, Ill. Steel rail-tie. No. 1,239,363; Sept. 4; v. 242; p. 206.
De Smidt, Jacobus H., Sheboygan, Wis. Spring-wheel. No. 1,239,891; Sept. 11; v. 242; p. 403.
De Voe, Albert H., Westfield, N. J., assignor to The Singer Manufacturing Company. Edge-finishing seam. No. 1,239,674; Sept. 11; v. 242; p. 332.
De Voe, Albert H., Westfield, N. J., assignor to The Singer Manufacturing Company. Ornamental edge-finishing seam. No. 1,239,675; Sept. 11; v. 242; p. 333.
De Voe, Albert H., Westfield, N. J., assignor to The Singer Manufacturing Company. Article-presenting means for sewing-machines. No. 1,239,676; Sept. 11; v. 242; p. 333.
De Voe, Albert H., Westfield, N. J., assignor to The Singer Manufacturing Company. Ruffling mechanism for sewing-machines. No. 1,240,956; Sept. 25; v. 242; p. 803.
Des Rosier, Henry, assignor of one-half to P. Des Rosier, Havre, Mont. Lock for railway-rails. No. 1,241,349; Sept. 25; v. 242; p. 927.
Des Rosier, Peter. (See Des Rosier, Henry, assignor.)
De Bos Monteros, Gustavo E., El Paso, Tex. Blast device for shoe-polishing machines. No. 1,239,673; Sept. 11; v. 242; p. 332.
Dealy, Hubert T., Alfalfa, Oreg. Piston-head for engines. No. 1,240,684; Sept. 18; v. 242; p. 685.
Dean, Arthur M., assignor to The Templar Motors Corporation, Cleveland, Ohio. Seating for vehicles. No. 1,239,166; Sept. 4; v. 242; p. 143.
Dean, John W. (See Williams and Dean.)
Deaver, James E. (See Kennedy, George W., assignor.)
Decker, Alonzo E., Fremont, Ohio. Weather-strip. No. 1,240,685; Sept. 18; v. 242; p. 686.
Deere and Company. (See Caldwell and Koppe, assignors.)
Deere & Company. (See Paul, Wesley A., assignor.)
Defiance Manufacturing Company. (See Dietz, Paul, assignor.)
Defiance Manufacturing Company. (See Marx, Richard, assignor.)
Defiance Pressed Steel Company, The. (See Klenk, Gottlieb, assignor.)
Delmas, Anne M., Chicago, Ill. Support for motion-picture films. No. 1,240,954; Sept. 25; v. 242; p. 803.
Delony, William T., Castleberry, Ala. Dirigible headlamp. No. 1,241,348; Sept. 25; v. 242; p. 927.
Dempsey, Arthur E., Council Bluffs, Iowa. Nested-cup separator. No. 1,238,895; Sept. 4; v. 242; p. 56.
Denburger, Joseph D., Lents, Oreg. Beet-harvester. No. 1,240,955; Sept. 25; v. 242; p. 803.
Dennett, Fred A., assignor to Wisconsin Chair Company, Port Washington, Wis. Cabinet for talking-machines. No. 1,239,774; Sept. 11; v. 242; p. 364.
Dennis, Adolphus S., Lakewood, Ohio, assignor to H. W. Smith, M. S. Eylar, C. Gabrielson, and W. L. Smith, Syracuse, N. Y. Type-writing machine. No. 1,239,466; Sept. 11; v. 242; p. 267.
Depollier, Charles L., Brooklyn, N. Y. Watch bezel and crystal. No. 1,239,467; Sept. 11; v. 242; p. 267.
Derbes, Joseph B., *et al.*, executors. (See Baum, Jacob.)
Desplats, Domingo, Buenos Aires, Argentina. Packet-holder. No. 1,239,468; Sept. 11; v. 242; p. 267.
Detroit Organic Chemical Co. (See Olson, Edgar T., assignor.)
Detwiler, Forest V., Chicago, Ill. Hydrocarbon-burner. No. 1,239,775; Sept. 11; v. 242; p. 364.
Dial, Henry M. (See Duke, Luther V., assignor.)
Diamond Drill Contracting Company. (See Stone, Frederick, assignor.) (Reissue.)
Dickerson, William. (See McCann, Robert B., assignor.)
Dickey, Franklin, Oak Park, Ill. Building-tile and wall. No. 1,241,350; Sept. 25; v. 242; p. 927.
Dickinson, Fairleigh S., Rutherford, N. J. Hypodermic syringe. No. 1,240,033; Sept. 11; v. 242; p. 445.
Dickinson, Harry S., Moline, Ill., assignor to Moline Plow Company. Wheeled plow, &c. No. 1,239,090; Sept. 4; v. 242; p. 118.
Dickinson, Harry S., Moline, Ill., assignor to Moline Plow Company. Disk harrow. No. 1,239,091; Sept. 4; v. 242; p. 119.
Dickinson, Joseph C., Cottondale, Ala., assignor of one-half to J. D. Wright, Toomsuba, Miss. Bottle-vending machine. No. 1,240,321; Sept. 18; v. 242; p. 574.
Dickson, George F., Chicago, Ill. Manufacture of candy. No. 1,239,167; Sept. 4; v. 242; p. 143.
Diehl, Walter R., Pittsburgh, Pa. Anticreeping device. No. 1,241,202; Sept. 25; v. 242; p. 880.
Diehl, Walter R., and W. H. Townsend, Pittsburgh, Pa. Keyboard for type-writers. No. 1,241,201; Sept. 25; v. 242; p. 879.
Dietz, Paul, assignor to Defiance Manufacturing Company, Philadelphia, Pa. Focusing device for photographic cameras. No. 1,239,469; Sept. 11; v. 242; p. 267.
Diffenbaugh, John D., Monmouth, Ill. Wagon-sign. No. 1,238,749; Sept. 4; v. 242; p. 9.
Dignan, Percival, New York, N. Y. Ribbon-supporting mechanism. No. 1,241,464; Sept. 25; v. 242; p. 961.
Dignan, Percival, New York, N. Y., assignor to R. H. Macy & Co. Printing-machine. No. 1,240,828; Sept. 25; v. 242; p. 763.
Dignan, Percival, New York, N. Y., assignor to R. H. Macy & Co. Clutch. No. 1,240,829; Sept. 25; v. 242; p. 763.
Dilley, Arzeno J., Ionia, Mich., assignor to Stanley Vehicle Spring Company, Inc., Syracuse, N. Y. Self-lubricating vehicle-spring. No. 1,240,322; Sept. 18; v. 242; p. 574.
Dinkel, Andrew J., and H. C. Hartman, Clarinda, Iowa. Shade and curtain fixture. No. 1,239,364; Sept. 4; v. 242; p. 206.
Dinkel, Andrew J., assignor of one-half to H. C. Hartman, Clarinda, Iowa. Spark-plug. No. 1,239,365; Sept. 4; v. 242; p. 206.
Dixon, Joseph L., Sheffield, England. Electric furnace. No. 1,241,351; Sept. 25; v. 242; p. 928.
Dobbs, Robert, Newkirk, Okla. Projector. No. 1,240,034; Sept. 11; v. 242; p. 446.
Doble, William A., assignor to Pelton Water Wheel Company, San Francisco, Cal. Manufacture of cylinders, pipes, &c. No. 1,240,957; Sept. 25; v. 242; p. 804.

Dodson, John C., Stone Mountain, Ga. Stone-dresser. No. 1,240,687; Sept. 18; v. 242; p. 686.
Doehler Die Casting Company. (See Kralund, John, assignor.)
Doering, Charles, Jr., Chicago, Ill. Disinfecting device. No. 1,240,831; Sept. 25; v. 242; p. 765.
Doering, Charles, Jr., Oak Park, Ill. Liquid-dispensing apparatus. No. 1,241,353; Sept. 25; v. 242; p. 928.
Doering, Charles, Jr., and H. H., Chicago, Ill. Device for dispensing liquids. No. 1,240,830; Sept. 25; v. 242; p. 764.
Doering, Charles, Jr., Oak Park, and M. A. Doering, Chicago, Ill. Water-dispensing device. No. 1,241,352; Sept. 25; v. 242; p. 928.
Doering, Henry H. (See Doering, Charles, Jr., and H. H.)
Doering, Max A. (See Doering, Charles, Jr., and M. A.)
Dohm, Robert O., Dane, Wis. Drain-valve. No. 1,239,574; Sept. 11; v. 242; p. 301.
Dolbear, Samuel H., San Francisco, Cal. Guard for cement work. No. 1,238,992; Sept. 4; v. 242; p. 88.
Doman, Albert E., Elbridge, assignor, by mesne assignments, to Dyneto Electric Corporation, Syracuse, N. Y. Automatic regulator for combined dynamo and storage-battery circuits. No. 1,238,896; Sept. 4; v. 242; p. 57.
Doman, Herman C., Oshkosh, Wis. Washing-machine mechanism. No. 1,240,426; Sept. 18; v. 242; p. 606.
Domestic Talking Machine Corporation. (See Sheble and Kraemer, assignors.)
Donald, Robert, Highgate Road, London, England. Storing microscope-slides. No. 1,241,354; Sept. 25; v. 242; p. 929.
Donle, Harold P., Belmont, Mass., assignor to Connecticut Telephone & Electric Company, Meriden, Conn. Condenser. No. 1,240,958; Sept. 25; v. 242; p. 804.
Donnell, Lloyd H., Syracuse, N. Y. Motor-vehicle. No. 1,241,355; Sept. 25; v. 242; p. 929.
Donnelly, Norman S., Detroit, Mich. Arch-supporting shoe. No. 1,239,575; Sept. 11; v. 242; p. 302.
Dorman, George M., St. Joseph, Mo. Animal anesthetic apparatus. No. 1,239,576; Sept. 11; v. 242; p. 302.
Dorman, James, Dalmuir, Scotland. Water-tube steam-generator with superheater. No. 1,241,356; Sept. 25; v. 242; p. 929.
Dorsey, Charles J., Baltimore, Md. Toy animal. No. 1,240,181; Sept. 18; v. 242; p. 528.
Dorsey, Farnum F. Winchester, Mass. Safety-razor. No. 1,239,577; Sept. 11; v. 242; p. 302.
Doud, Benjamin M., Gillette, Wyo. Surgical appliance. No. 1,240,125; Sept. 11; v. 242; p. 472.
Dougherty, John P., Hazleton, Pa. Cooking utensil. No. 1,240,427; Sept. 18; v. 242; p. 607.
Douglass, Samuel F., Prairie du Rocher, Ill., assignor to Vehicle Signal Company. Vehicle-signal. No. 1,238,750; Sept. 4; v. 242; p. 10.
Douthitt, Frank H., Clinton, Iowa. Silo-roof. No. 1,240,182; Sept. 18; v. 242; p. 528.
Dow Chemical Company, The. (See Cone, Lee E. H., assignor.) (Reissue.)
Downs, Clarence W. (See Cebolt and Downs.)
Doyle, James S. (See Hedley and Doyle.)
Doyle, John F., Jr., Garden City, and M. D. Avillar, New York, N. Y. Show-case light. No. 1,241,098; Sept. 25; v. 242; p. 847.
Drägerwerk, Heinr. & Bernh. Dräger. (See Stelzner, Hermann, assignor.)
Drake, Clarence E., Union, N. Y. Door-holder. No. 1,241,099; Sept. 25; v. 242; p. 848.
Draper, Charles E., Larrabee, Iowa. Hose-coupling. No. 1,240,183; Sept. 18; v. 242; p. 528.
Draper Corporation. (See Burbank, Louis S., assignor.)
Dresher, Samuel S., Omaha, Nebr. Dry-cleaning fume-extractor. No. 1,240,323; Sept. 18; v. 242; p. 574.
Dressel Railway Lamp Works, The. (See Black, Robert, assignor.)
Drew, Wilfred J., Carlisle, Pa., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for forming shoes. (Reissue.) No. 14,351; Sept. 11; v. 242; p. 486.
Drosdowet, William, Zoria, Manitoba, Canada. Rocking-chair. No. 1,241,357; Sept. 25; v. 242; p. 930.
Dross, Phillip, and F. D. McLean, Meridian, Miss. Column and base. No. 1,240,959; Sept. 25; v. 242; p. 804.
Drozdz, Wicenty, assignor of one-half to M. B. Barszczewski, Cleveland, Ohio. Spittoon-cleaner. No. 1,241,203; Sept. 25; v. 242; p. 880.
Druckemiller, Alfred L., Great Falls, Mont. Framing-square. No. 1,240,035; Sept. 11; v. 242; p. 446.
Drucker and Boss Machine Manufacturing Company. (See Drucker, William J., assignor.)
Drucker, William J., New York, N. Y., assignor to Drucker and Boss Machine Manufacturing Company. Mayonnaise-mixer. No. 1,240,688; Sept. 18; v. 242; p. 687.
Du Pont, Eleuthere P., Wilmington, Del. Means for insuring the safe manipulation of explosives. No. 1,240,548; Sept. 18; v. 242; p. 644.
Du Pont, Ernest, assignor to Ball Grain Explosives Company, Wilmington, Del. Finishing explosive powder. No. 1,240,549; Sept. 18; v. 242; p. 644.
Du Pont, Francis I., assignor to Ball Grain Explosives Company, Wilmington, Del. Process of and apparatus for polishing explosive powder. No. 1,239,368; Sept. 4; v. 242; p. 207.
Dubinsky, Simon, Bonne Terre, assignor of one-half to M. Broida, St. Louis, Mo. Safety-pocket for garments. No. 1,239,578; Sept. 11; v. 242; p. 302.
Dubois, Henry J., assignor of one-half to B. E. Howard, Putnam, Conn. Antirattling gear. No. 1,240,126; Sept. 11; v. 242; p. 472.
Dudek, John, Campbell, Nebr. Road-drag. No. 1,239,366. Sept. 4; v. 242; p. 207.
Dudley, Chester W., Boston, Mass. Bottle-cap. No. 1,239,261; Sept. 4; v. 242; p. 174.
Duke, Luther V., Pine Bluff, assignor of one-half to H. M. Dial, Kedron, Ark. Sliding-door support. No. 1,240,832; Sept. 25; v. 242; p. 763.
Duncan, John M. (See Carel, William H., assignor.)
Duncan, Joseph S., assignor to Addressograph Company, Chicago, Ill. Machine for leveling printing characters. No. 1,239,677; Sept. 11; v. 242; p. 334.
Duncan, Joseph S., assignor to Addressograph Company, Chicago, Ill. Automatic machine for leveling printing characters. No. 1,239,678; Sept. 11; v. 242; p. 334.
Duncan, Joseph S., assignor to Addressograph Company, Chicago, Ill. Machine for rolling printing-plates. No. 1,239,679; Sept. 11; v. 242; p. 335.
Duncan, Lawrence G. (See Brooks and Duncan.)
Dunderdale, Herbert, Cleveland, Ohio. Movable step for vehicles. No. 1,239,892; Sept. 11; v. 242; p. 404.
Dunham, Henry V., Bainbridge, N. Y., assignor to Hall Motor Fuel, Limited, London, England. Making paraffinum liquidum. No. 1,240,792; Sept. 18; v. 242; p. 719.
Dunham, Otis E., Beverly, Mass. Waxed-paper-cleaning mechanism for confectionery-machines. No. 1,238,897; Sept. 4; v. 242; p. 57.
Dunham, William P. (See Keen, Eliot, assignor.)
Dunlap, Scott C. (See Stevens and Dunlap.)
Dunn, William F., Talent, assignor of one-third to F. G. Swedenburg, Ashland, and one-third to J. M. Kerby, Talent, Oreg. Draft-bar. No. 1,239,367; Sept. 4; v. 242; p. 207.
Duntley Pneumatic Sweeper Company. (See Ferguson, Leonard L., assignor.)
Duplex Printing Press Company. (See Bechman, Henry F., assignor.)
Durning, Thomas F., Newark, N. J. Oil-can vent. No. 1,240,689; Sept. 18; v. 242; p. 687.
Dusenbery, Gowan, *et al.* (See Gardner, Lee, assignor.)
Duzey, Michael W., assignor of one-half to M. Kurylio, Seymour, Conn. Sandpapering-machine. No. 1,240,428; Sept. 18; v. 242; p. 607.
Dwyer, William M., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Hand-brake for railway-cars. No. 1,240,324; Sept. 18; v. 242; p. 575.
Dyneto Electric Corporation. (See Doman, Albert E., assignor.)
Dziatkiewicz, Jacob, Perth Amboy, N. J. Rail-joint. No. 1,240,429; Sept. 18; v. 242; p. 607.
E. & B. Holmes Machinery Company. (See Beugler, Edwin F., assignor.)
E. A. Potter Company. (See Potter, Alfred K., assignor.)
E. I. du Pont de Nemours Powder Company. (See Stowe, Floyd D., assignor.)
Eades, Rodger, assignor of one-fourth to J. S. Hays, Winchester, and one-fourth to F. H. McClung, Ashland, and H. H. Moore, Winchester, Ky. Automatic electric safety-gate. No. 1,241,358; Sept. 25; v. 242; p. 930.
Eager, George T., Ridgewood, N. J. Display device for veiling and the like. No. 1,238,898; Sept. 4; v. 242; p. 57.
Earl, George G., New Orleans, La. Automatic controlling or regulating apparatus. No. 1,240,325; Sept. 18; v. 242; p. 575.
Earle, Reginald W., assignor to K. F. Goodyear, New York, N. Y. Gas-lighting system. No. 1,239,092; Sept. 4; v. 242; p. 119.
Eastland, Van. (See Broyles, Charles M., assignor.)
Eastman Kodak Company. (See Becker, Joseph, assignor.)
Eastman Kodak Company. (See Crabtree, John I., assignor.)
Eastman Kodak Company. (See Folmer, William F., assignor.)
Eastman Kodak Company. (See Kroedel, Robert, assignor.)
Eastman Kodak Company. (See Marks, Paul J., assignor.)
Eastern Steel Company, The. (See Knapp, David R., assignor.)
Eaton, George M., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Axle-collar. No. 1,239,893; Sept. 11; v. 242; p. 404.
Eckert, Joseph, assignor to The Dayton Manufacturing Company, Dayton, Ohio. Brake-handle. No. 1,241,359; Sept. 25; v. 242; p. 931.
Economic Machinery Company. (See Woodland, Frank O., assignor.)
Eden, Harold W., Chicago, Ill., assignor to Brokaw-Eden Manufacturing Company. Driving means. No. 1,241,100; Sept. 25; v. 242; p. 848.
Edgecomb, Henry R., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Process of and apparatus for manufacturing composite sheet material. No. 1,239,894; Sept. 11; v. 242; p. 404.
Edison Storage Battery Company. (See Kammerhoff, Heinrich H. M., assignor.)
Edwards, Albert, Brooklyn, N. Y., assignor to John Simmons Company. Self-closing receptacle. No. 1,238,993; Sept. 4; v. 242; p. 88.

Edwards, James B., assignor of one-half to Gibbes Machinery Company, Columbia, S. C. Machine for turning off crank-pins and like parts. No. 1,239,369; Sept. 4; v. 242; p. 207.

Efficiency Motor-Device Corporation. (See Brunke, William C., assignor.)

Egge, George G., assignor of fifty-one one-hundredths to himself and forty-nine one-hundredths to J. C. Fischesser, Montgomery, Ala. Bean-drier. No. 1,241,465; Sept. 25; v. 242; p. 962.

Egloff, Leopold C., Forest Park, Ill. Concrete wall construction. No. 1,240,690; Sept. 18; v. 242; p. 687.

Einstein, Alfred C., deceased; B. B. Einstein, administratrix, assignor to Union Electric Light and Power Company, St. Louis, Mo. Meter. No. 1,239,680; Sept. 11; v. 242; p. 335.

Einstein, Blanche B., administratrix. (See Einstein, Alfred C.)

Ekelund, John A., Minneapolis, Minn. Bottle-cap puller. No. 1,240,833; Sept. 25; v. 242; p. 766.

Electric Boat Company. (See Davison and Anderson, assignors.)

Electro Metallurgical Company. (See Price, Edgar F., assignor.)

Electro Set Company, The. (See Newman, Joseph S., assignor.)

Eliasoff, Abraham L., assignor to Eliasoff & Birnbaum, New York, N. Y. Swaging-die. No. 1,241,360; Sept. 25; v. 242; p. 931.

Eliasoff & Birnbaum. (See Eliasoff, Abraham L., assignor.)

Elliott, William J. (See Kenney and Elliott.)

Ellis, Alvarado L. R. (See Porter and Ellis.)

Ellis, Carleton, Montclair, N. J., assignor to Radiant Heating Limited, Armley, Leeds, England. Producing heat. No. 1,239,776; Sept. 11; v. 242; p. 365.

Ellis, Ferrand F., Oneida, and S. R. Leonard, Kenwood, assignors to Oneida Community, Ltd., Oneida, N. Y. Animal-trap. No. 1,240,036; Sept. 11; v. 242; p. 446.

Ellis, George T., Brooklyn, N. Y. Washtub and washboard combined. No. 1,240,037; Sept. 11; v. 242; p. 446.

Ellwein, Frederick, Hazen, N. D. Differential gear for motor-vehicles. No. 1,241,361; Sept. 25; v. 242; p. 931.

Ellwein, Frederick, Hazen, N. D. Transmission-gearing. No. 1,241,362; Sept. 25; v. 242; p. 932.

Elmer, William, Buffalo, N. Y. Locomotive stack and draft device. No. 1,239,370; Sept. 4; v. 242; p. 207.

Elwood Coal Service. (See Wood, Walter E., assignor.)

Emond, Ernest, *et al.* (See Winston, Abner C., assignor.)

Empson, Frederick J., Sydney, New South Wales, Australia, assignor to The Aeolian Company. Talking-machine. No. 1,240,038; Sept. 11; v. 242; p. 446.

Eneas, Aubrey G., Winthrop, assignor to Spray Engineering Company, Boston, Mass. Distributing liquid. No. 1,239,168; Sept. 4; v. 242; p. 143.

Enell, Otto E., Jersey City, N. J., assignor, by mesne assignments, to Telephone Directory Cabinet Company, Incorporated, New York, N. Y. Hook-holder. No. 1,238,899; Sept. 4; v. 242; p. 58.

English, Andrew J., assignor to G. J. Uckotter, Cincinnati, Ohio. Gas-burner. No. 1,239,681; Sept. 11; v. 242; p. 336.

Enter, James T. (See Crane, Abram E., assignor.)

Entz, Justus B., assignor to E. L. Thurston, trustee, Cleveland, Ohio. Starting and lighting system. No. 1,239,777; Sept. 11; v. 242; p. 365.

Epright, Daniel C. (See Wood and Epright.)

Equilibrator Company. (See Fuerth, William G., assignor.)

Erickson, Frederic W., New York, N. Y. Pipe-coupling. No. 1,238,994; Sept. 4; v. 242; p. 88.

Erickson, Nils O., Black River Falls, Wis. Compartment conveyer. No. 1,241,204; Sept. 25; v. 242; p. 880.

Erickson, Oscar G., Detroit, Mich. Carbureter. No. 1,240,960; Sept. 25; v. 242; p. 805.

Erickson, Peter, Chicago, Ill. Cutter-guard. No. 1,240,430; Sept. 18; v. 242; p. 607.

Erickson, Thomas M., Chicago, Ill. Electric railway. No. 1,240,184; Sept. 18; v. 242; p. 529.

Ericson, George W., assignor to W. E. Hamerstrom, Galesburg, Ill. Hog-oiler. No. 1,238,900; Sept. 4; v. 242; p. 58.

Ericson, Lawrence. (See Currier and Ericson.)

Errett, Thomas A., Portland, Oreg. Mandrel for welding sections of sheet-metal conduit or pipe together. No. 1,240,326; Sept. 18; v. 242; p. 576.

Estock, John, Yonkers, N. Y. Mechanical movement. No. 1,239,169; Sept. 4; v. 242; p. 144.

Etablissements De Dion Bouton, Société Anonyme. (See Gallet, Henri, assignor.)

Ette, Charles G., St. Louis, Mo. Traffic-directing signal for vehicles. No. 1,239,093; Sept. 4; v. 242; p. 120.

Eureka Silo Company. (See Wolf, Charles, assignor.)

Evans-Brandt Manufacturing Company. (See Brandt and Evans, assignors.)

Evans, Francis D., Denver, assignor of one-third to P. A. Kinzie, Littleton, Colo. Spring-controlled split switch for railway-tracks. No. 1,239,262; Sept. 4; v. 242; p. 174.

Evans, Henry R., New York, N. Y. Combined reflector and source of light in the same. No. 1,239,371; Sept. 4; v. 242; p. 208.

Evans, John R. (See Brandt and Evans.)

Evans, Lewis S., Pittsburgh, Pa. Filling-valve. No. 1,240,431; Sept. 18; v. 242; p. 608.

Evans, Owen J. (See Lyda, Arthur W., assignor.)

Evans Stamping & Plating Company. (See Tuttle, Henry A., assignor.)

Everlastik, Incorporated. (See Kendrick, Solomon, assignor.)

Evers, William H., Lakewood, assignor, by mesne assignments, to trustees of The R. C. Products Trust, Cleveland, Ohio. Building construction. (Reissue.) No. 14,352; Sept. 11; v. 242; p. 487.

Ewing, Ernest E., Spokane, Wash. Brake appliance. No. 1,240,127; Sept. 11; v. 242; p. 473.

Ewing, Robert E., assignor to Welsbach Light Company, Gloucester, N. J. Globe-holder for incandescent gas-lamps. No. 1,239,372; Sept. 4; v. 242; p. 208.

Ewing, Robert G., Toledo, Ohio. Continuous glass-drawing apparatus. No. 1,240,185; Sept. 18; v. 242; p. 529.

Ewing, William C., Los Angeles, Cal. White cement. No. 1,239,579; Sept. 11; v. 242; p. 303.

Eylar, Mathew S., *et al.* (See Dennis, Adolphus S., assignor.)

F. A. Hardy & Company. (See Troppman, Charles J., assignor.)

F. H. Smith Manufacturing Company. (See Larsen, Ivert, assignor.)

F. H. Weeks Lumber Company, The. (See Weeks, Frederick H., assignor.)

Fahnestock, Ernest B., Brooklyn, N. Y. Spring-terminal connection. No. 1,240,186; Sept. 18; v. 242; p. 530.

Fahrner, William E., McKittrick, Mo. Pump-chain. No. 1,240,550; Sept. 18; v. 242; p. 644.

Fain, Edward C., Wetumpka, Ala. Coin-controlled mechanism for vending-machines. No. 1,240,187; Sept. 18; v. 242; p. 530.

Fairbanks, Morse & Company. (See Morse and Hobart, assignors.)

Fairchild, James T. (See Arnett and Fairchild.)

Falkenberg, Bjarne. (See Laraway and Falkenberg.)

Falls, George A. (See Cain, John D., assignor.)

Farbwerke vorm. Meister Lucius & Bruning. (See Schmidt, Albrecht, assignor.)

Farles Manufacturing Co. (See Surface, William E., assignor.)

Farley, John W. (See Trambley, George W., assignor.)

Farmer, Cornelius D., G. N. Frazer, Sr., and G. N., Jr., and W. B. Farmer, Eugene, Oreg. Street-flushing nozzle. No. 1,239,373; Sept. 4; v. 242; p. 208.

Farmer, Frank H., and E. W. Huiet, assignors, by mesne assignments, to The White Motor Company, Cleveland, Ohio. Friction-clutch. No. 1,239,778; Sept. 11; v. 242; p. 366.

Farmer, Frank T., Chicago, Ill., assignor to The Whitman & Barnes Manufacturing Company, Akron, Ohio. Wheel. No. 1,239,580; Sept. 11; v. 242; p. 303.

Farmer, Wash B. (See Farmer, Frazer, and Farmer.)

Farnsworth, Hiland R., Sandusky, Ohio. Roll for paper-making machines. No. 1,239,895; Sept. 11; v. 242; p. 405.

Farrell, Archie W., Maple Park, Ill. Differential mechanism or equalizing-gearing for motor-driven vehicles. No. 1,240,551; Sept. 18; v. 242; p. 644.

Farrer, Lionel L., Fort William, Ontario, Canada. Folding and adjustable child's seat. No. 1,239,470; Sept. 11; v. 242; p. 268.

Farwell, John C. (See Hiscock, Emory C., assignor.)

Fath, George H. (See Peters, Fath, and Miller.)

Faulds, John, Oak Park, assignor of one-half to J. I. Marshall, Chicago, Ill. Combined portable oven and proof-box. No. 1,238,995; Sept. 4; v. 242; p. 89.

Feddern, Meno, Middle Village, N. Y. Paper-holder. No. 1,240,691; Sept. 18; v. 242; p. 687.

Felx, Otto F., assignor to Gloversville Abrading Company, Gloversville, N. Y. Leather-dressing machine. No. 1,241,363; Sept. 25; v. 242; p. 932.

Felleman, Irving J., Gridley, Cal. Milk-powdering machine. No. 1,239,471; Sept. 11; v. 242; p. 268.

Fellows, Daniel W., Los Angeles, Cal. Fruit-picker. No. 1,240,128; Sept. 11; v. 242; p. 473.

Fellows, Melchizedk, Chicago, Ill. Carrier for pneumatic-tube apparatus. No. 1,240,327; Sept. 18; v. 242; p. 576.

Fengler, Hermann V., Philadelphia, Pa., assignor to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,241,101; Sept. 25; v. 242; p. 848.

Fenton, John A., Oakland, Cal. Folding wicker chair. No. 1,240,692; Sept. 18; v. 242; p. 688.

Fenwick, Thomas, Mobile, Ala. Ship-hull construction. No. 1,240,129; Sept. 11; v. 242; p. 473.

Ferger, Charles, Indianapolis, Ind. Snow-remover. No. 1,241,102; Sept. 25; v. 242; p. 848.

Ferguson, Cara S., Columbus, Ohio, assignor of one-half to I. L. Broadwin, New York, N. Y. Hot-water bandage. No. 1,238,901; Sept. 4; v. 242; p. 59.

Ferguson, Fergus R., Cleveland, Ohio. Transmission-lock. No. 1,239,374; Sept. 4; v. 242; p. 209.

Ferguson, Joseph B., New York, N. Y. Lubricant-circulation system. No. 1,241,103; Sept. 25; v. 242; p. 849.

Ferguson, Leonard L., assignor, by mesne assignments, to Duntley Pneumatic Sweeper Company, Chicago, Ill. Cleaning device. No. 1,239,581; Sept. 11; v. 242; p. 303.

Ferrell, Albert T., Saginaw, Mich. Roll adjustment for bean-picking machines. No. 1,240,693; Sept. 18; v. 242; p. 688.

Ferris, Henry L., assignor to Hunt-Helm Ferris & Co., Harvard, Ill. Hog-pen. No. 1,239,170; Sept. 4; v. 242; p. 144.

Ferris, Henry L., assignor to Hunt, Helm, Ferris & Co., Harvard, Ill. Gate for stall construction. No. 1,241,364; Sept. 25; v. 242; p. 932.

Ferris, William S. (See MacLachlan, Elizabeth, assignor.)

Fessenden, Reginald A., Brookline, Mass., assignor to Submarine Signal Company, Waterville, Me. Method and apparatus for locating ore-bodies. No. 1,240,328; Sept. 18; v. 242; p. 576.

Fiat-San Giorgio Società Anonima. (See Fornaca, Guido, assignor.)

Fillman, Edward A., Monmouth, Ill. Water-tank heater. No. 1,239,263; Sept. 4; v. 242; p. 175.

Filzer, Christian G., Erie, Pa. Door-bracing device. No. 1,239,582; Sept. 11; v. 242; p. 303.

Fingerle, Hermann, and K. Kroupa, New York, N. Y. Logdyeing machine. No. 1,239,429; Sept. 4; v. 242; p. 225.

Finkelstein, Philip, James City, Pa. Manually-removable bottle-cap. No. 1,238,902; Sept. 4; v. 242; p. 59.

Finley, Charles W., Battle Creek, Mich. Electrical-conduit bushing. No. 1,240,188; Sept. 18; v. 242; p. 531.

Finley Robertson Porter Company. (See Porter, Finley R., assignor.)

Finney, George, Plummer, Idaho. Saw-set. No. 1,239,779; Sept. 11; v. 242; p. 367.

Firestone, Adrian A., Cleveland, Ohio. Spring-tire. No. 1,240,432; Sept. 18; v. 242; p. 608.

Fischer, Albert T., Cleveland, Ohio. Vending-carton. No. 1,239,094; Sept. 4; v. 242; p. 120.

Fischer, Ernst M., Dölzschen, near Dresden, Germany. Device for arranging articles in rows. No. 1,240,834; Sept. 25; v. 242; p. 766.

Fischesser, J. C. (See Egge, George G., assignor.)

Fisher, Alva J., Evanston, assignor to Hurley Machine Company, Chicago, Ill. Vacuum-cleaner nozzle. No. 1,238,903; Sept. 4; v. 242; p. 59.

Fisher Closed Body Company. (See Allmand, John T., assignor.)

Fisher, Harry P., Chicago, Ill. Elevator. No. 1,240,552; Sept. 18; v. 242; p. 645.

Fisher, Ira S., Molino, Mo. Concrete tie. No. 1,240,039; Sept. 11; v. 242; p. 447.

Fisher, Samuel, Hampton, Va. Vending-machine. No. 1,239,375; Sept. 4; v. 242; p. 209.

Fisk Rubber Company, The. (See Foote, Frank J., assignor.)

Fitch, Benjamin F., Evanston, Ill., assignor to The Motor Terminals Company, Cleveland, Ohio. Freight-terminal. No. 1,239,264; Sept. 4; v. 242; p. 175.

Fitzgerald, James J., Pittsburgh, Pa. Safety-razor. No. 1,238,751; Sept. 4; v. 242; p. 10.

Fleming, James R., Scranton, Pa. Car-axle journal-box and support therefor. No. 1,241,365; Sept. 25; v. 242; p. 932.

Fleming, Thomas C., Vancouver, British Columbia, Canada. Combined cabinet and refrigerator. No. 1,241,104; Sept. 25; v. 242; p. 849.

Flintkote Company, The. (See Overbury, Frederick C., assignor.)

Florian, Joseph H., Toledo, Ohio. Window-cage. No. 1,239,472; Sept. 11; v. 242; p. 269.

Flory Carry Iron Company. (See Westlake, Charles T., assignor.)

Flory, George D., *et al.* (See Brown, Archie E., assignor.)

Flory, Jesse D., Camden, Ohio. Tractor. No. 1,238,752; Sept. 4; v. 242; p. 10.

Flournoy, Thomas, *et al.* (See Walter, Ira D., assignor.)

Floussfisch, Pablo, New York, N. Y. Time-controlled fare-indicator. No. 1,239,095; Sept. 4; v. 242; p. 120.

Fodor, Andrew E., New York, N. Y., assignor to Sanitcap Co., Inc. Cap or head-covering. No. 1,239,376; Sept. 4; v. 242; p. 210.

Föhrenbach, Willy. (See Fonio and Föhrenbach.)

Folding-Stand Company. (See Stone, Harry A., assignor.)

Foley, John J., San Francisco, Cal. Sectional rim. No. 1,238,996; Sept. 4; v. 242; p. 89.

Folger, Harry S., and T. Ross, Chicago, Ill.; said Ross assignor to said Folger. Self-inking hand-stamp. No. 1,241,475; Sept. 25; v. 242; p. 964.

Folmer, William F., assignor to Eastman Kodak Company, Rochester, N. Y. Aerial carrier for photographic films. No. 1,238,904; Sept. 4; v. 242; p. 59.

Folsom, Charles W., Cambridge, Mass. Theft-indicating mechanism for motor-vehicles. No. 1,239,780; Sept. 11; v. 242; p. 367.

Foltz, Ira W., Chicago, Ill. Drill. No. 1,240,553; Sept. 18; v. 242; p. 645.

Fonio, Anton, Langnau, and W. Föhrenbach, assignors to Society of Chemical Industry in Basle, Basel, Switzerland. Lipoidlike, blood-clotting substance and making same. No. 1,240,694; Sept. 18; v. 242; p. 688.

Foote, Frank J., assignor to The Fisk Rubber Company, Chicopee Falls, Mass. Air-bag. No. 1,240,433; Sept. 18; v. 242; p. 608.

Forboro Company, The. (See Bristol, Edgar H., assignor.)

Ford, Bruce, Philadelphia, Pa. Handle for battery-boxes and means for locking same. No. 1,238,753; Sept. 4; v. 242; p. 11.

Ford, Bruce, Philadelphia, Pa. Secondary or storage battery. No. 1,238,754; Sept. 4; v. 242; p. 11.

Ford, Bruce, Philadelphia, Pa. Secondary or storage battery. No. 1,238,755; Sept. 4; v. 242; p. 11.

Ford, John W., assignor to W. R. Gilbert, St. Louis, Mo. Cable-ring-forming machine. No. 1,239,583; Sept. 11; v. 242; p. 304.

Forest City Engineering Company, The. (See Zwick, William S. J., assignor.)

Forgus, Frederic W., assignor to S. Scott, Jr., St. Louis, Mo. Folder-envelop. No. 1,240,961; Sept. 25; v. 242; p. 805.

Fornaca, Guido, Turin, assignor to Fiat-San Giorgio, Società Anonima, Spezia, Italy. Ballast control for submarines. No. 1,240,189; Sept. 18; v. 242; p. 531.

Forney, Emanuel, Everett, Pa. Hand-truck. No. 1,241,366; Sept. 25; v. 242; p. 933.

Fort, Clarence E., and A. S. Horton, Rockford, Ill. Windshield and protector for cigars. No. 1,240,329; Sept. 18; v. 242; p. 576.

Fort, Louis, Jersey City, N. J. Insulator and support therefor. No. 1,240,330; Sept. 18; v. 242; p. 576.

Fort Pitt Bedding Company. (See Sleeth, Montgomery, assignor.)

Fortain, Jenny B., Redondo Beach, and M. Viets, Los Angeles, Cal. Combination corset-cover and chemise. No. 1,240,554; Sept. 18; v. 242; p. 645.

Fortescue, Charles L., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, Transformer. No. 1,239,896; Sept. 11; v. 242; p. 405.

Forth, Charles, Ottawa, Ontario, Canada. Postal box. No. 1,240,190; Sept. 18; v. 242; p. 531.

Forward, Alfred T., Manton, Cal. Transmission-gear. No. 1,239,781; Sept. 11; v. 242; p. 367.

Fosha, Irvin J., Madison township, Riley county, Kans. Automatic guiding attachment for automobiles. No. 1,240,555; Sept. 18; v. 242; p. 646.

Foster Brothers Manufacturing Company. (See Foster, William S., assignor.)

Foster, Ernest H., Dongan Hills, assignor to Power Specialty Company, New York, N. Y. Fuel-economizer. No. 1,239,377; Sept. 4; v. 242; p. 210.

Foster, William S., assignor to Foster Brothers Manufacturing Company, Utica, N. Y. Chain-tightener. No. 1,238,905; Sept. 4; v. 242; p. 60.

Foster, Winifred S., San Francisco, Cal. Candy-package. No. 1,239,378; Sept. 4; v. 242; p. 210.

Foundry Equipment Company, The. (See Moore and Hawkins, assignors.)

Fountain, Claude R., Athens, Ga. Automatic transmission-gearing. No. 1,239,379; Sept. 4; v. 242; p. 210.

Fowler, Charles W., Baltimore, Md. Two-cycle combustion-engine. No. 1,240,798; Sept. 18; v. 242; p. 721.

Fowler, Lloyd, South Britain, Conn. Valve-unseating clip for tire-valves. No. 1,240,040; Sept. 11; v. 242; p. 447.

Fowler, William E., Dixon, assignor of one-half to James T. Code, Springfield, Mo. Supplying fuel to internal-combustion engines. No. 1,238,997; Sept. 4; v. 242; p. 89.

Fox, Ivan, near Media, Pa. Auto-exercising apparatus. No. 1,240,191; Sept. 18; v. 242; p. 532.

Fox, John H., Berea, Ohio. Educational device. No. 1,240,556; Sept. 18; v. 242; p. 646.

Fox, Joseph P., Providence, R. I. Dirigible headlight. No. 1,240,695; Sept. 18; v. 242; p. 688.

Fox, Joseph P., Providence, R. I., assignor of one-half to O. Riemann, Chemnitz, Germany. Dirigible headlight. (Reissue.) No. 14,366; Sept. 25; v. 242; p. 970.

Fox, William H., Hollywood, Cal. Water-vaporizer for internal-combustion engines. No. 1,239,380; Sept. 4; v. 242; p. 211.

Fraize, John A., Framingham, Mass. Spring-bed. No. 1,239,171; Sept. 4; v. 242; p. 144.

Francis, John C., Canton, Mass., assignor to Samson Electric Company. Signaling system. No. 1,239,381; Sept. 4; v. 242; p. 211.

Frank Adam Electric Company. (See Wuensch, Charles, assignor.)

Frank, Felix, Berkeley, Cal. Disinfecting and ventilating device. No. 1,239,584; Sept. 11; v. 242; p. 304.

Frank, Harry A., Toledo, Ohio. Folding table. No. 1,240,962; Sept. 25; v. 242; p. 805.

Frank, Harry A., Toledo, Ohio. Folding table. No. 1,240,963; Sept. 25; v. 242; p. 805.

Frank, Harry A., Toledo, Ohio. Folding table. No. 1,240,964; Sept. 25; v. 242; p. 806.

Frank, Herman, assignor of one-half to J. F. Rutz, Chicago, Ill. Flash-igniter for gas-burners. No. 1,240,835; Sept. 25; v. 242; p. 766.

Franklin, Benjamin, assignor to Security Window Guard Company, Chicago, Ill. Window-guard. No. 1,239,478; Sept. 11; v. 242; p. 269.

Frazer, George N., Jr. (See Farmer, Frazer, and Farmer.)

Frederick Osann Company. (See Lyons, Robert L., assignor.)

Fredericks, William L., Minneapolis, Minn. Bed-rail coupling. No. 1,240,696; Sept. 18; v. 242; p. 689.

Fredericks, William L., assignor to Minneapolis Bedding Company, Minneapolis, Minn. Bed-frame. No. 1,240,697; Sept. 18; v. 242; p. 689.

Free, John H., Portland, Oreg. Saw. No. 1,240,331; Sept. 18; v. 242; p. 577.

Freeman, Willard S., Richmond, Va. Laundry-book. No. 1,240,698; Sept. 18; v. 242; p. 689.

Freitag, Max, Alfeld, Germany. Machine for punching and setting fasteners in paper. No. 1,239,382; Sept. 4; v. 242; p. 211.

Frelinghuysen, George G., Morris county, N. J., assignor to Steel Utilities, Incorporated. Metal-working machine. No. 1,241,265; Sept. 25; v. 242; p. 902.

French, James C., Kenosha, Wis., assignor to F. C. Austin, Chicago, Ill. Trenching-machine. No. 1,239,474; Sept. 11; v. 242; p. 269.

French, James C., Kenosha, Wis., assignor to F. C. Austin, Chicago, Ill. Oscillating trench-machine. No. 1,239,897; Sept. 11; v. 242; p. 405.

French, James C., Kenosha, Wis., assignor to F. C. Austin, Chicago, Ill. Traveling-bucket apparatus. No. 1,241,476; Sept. 25; v. 242; p. 965.

French, Louis O., Milwaukee, Wis. Combined stanchion and guard. No. 1,239,782; Sept. 11; v. 242; p. 368.

French, Louis O., Milwaukee, Wis. Stanchion. No. 1,239,783; Sept. 11; v. 242; p. 368.

French, Louis O., Milwaukee, Wis. Stanchion. No. 1,239,784; Sept. 11; v. 242; p. 369.

French, Will R., Detroit, Mich. Automobile-seat. No. 1,240,192; Sept. 18; v. 242; p. 532.

Frenier, William, Corliss, Wis. Wheel-clamp. No. 1,240,836; Sept. 25; v. 242; p. 766.

Fretwell, John A., Bradford, Ark. Convertible riding, driving, and veterinary bridle-bit. No. 1,240,041; Sept. 11; v. 242; p. 447.

Frey, Erwin S., and A. E. Wrigley, Brooklyn, N. Y. Tool-holder. No. 1,240,699; Sept. 18; v. 242; p. 689.

Fried, Ostermann, Meyer Co. (See Ostermann, Edwin C., assignor.)

Friede, Samuel M., New York, N. Y., and W. B. Hutchinson, Newark, N. J., assignors to H. & F. Match Machine Corporation, New York, N. Y. Match-machine. No. 1,240,837; Sept. 25; v. 242; p. 767.

Friederich, Ernst, Berlin, Germany, assignor to General Electric Company. Incandescent tungsten lamp. No. 1,240,700; Sept. 18; v. 242; p. 690.

Friend, Hardy A., Marshalltown, Iowa. Liquid-hydrocarbon burner. No. 1,240,130; Sept. 11; v. 242; p. 473.

Frindt, Joseph Z., assignor of one-half to C. Gansle, Hutchinson, Kans. Railway-car truck. No. 1,241,105; Sept. 25; v. 242; p. 849.

Frison, Robert E., Tensleep, Wyo. Starting device for explosion-engines. No. 1,240,332; Sept. 18; v. 242; p. 577.

Fritts, Joseph W., Bradford, Pa. Transplanting device. No. 1,238,756; Sept. 4; v. 242; p. 11.

Fromhold, Alexander, Rutherford, N. J., assignor to S. H. Pomeroy Company, New York, N. Y. Metal window construction. No. 1,240,193; Sept. 18; v. 242; p. 533.

Frost, William C. (See Davis, Harry W., assignor.)

Frydrychowicz, Rommald M., Stevens Point, Wis. Electric-sign receptacle. No. 1,241,106; Sept. 25; v. 242; p. 850.

Fuerth, William G., assignor to Equilibrator Company, Newark, N. J. Stenciling. No. 1,238,906; Sept. 4; v. 242; p. 60.

Fuller, Franz A., assignor to The J. E. Mergott Company, Newark, N. J. Bag-frame. No. 1,240,557; Sept. 18; v. 242; p. 646.

Fuller & Johnson Mfg. Co. (See Gore, Warren W., assignor.)

G. & J. Weir, Limited. (See Lang, Charles R., assignor.)

G. L. B. Syndicate Limited, The. (See Gaskin, Thomas H., assignor.)

Gable, Roy L. (See Hinshaw and Gable.)

Gabrielson, Carl, *et al.* (See Dennis, Adolphus S., assignor.)

Gagnon, Frederick J., deceased, Detroit, Mich.; G. McIntosh, executrix. Valve. No. 1,239,898; Sept. 11; v. 242; p. 406.

Galbally, David B., New York, N. Y., assignor to The Universal Steel Package Co., Dover, Del. Machine for applying binding-wire. No. 1,240,042; Sept. 11; v. 242; p. 447.

Gale, Byron and J. A., Stettler, Alberta, Canada. Pulverizer. No. 1,241,205; Sept. 25; v. 242; p. 880.

Gale, Henry, and W. B. Romeiser, Timken, Kans. Separable rim. No. 1,241,107; Sept. 25; v. 242; p. 850.

Gale, Joseph A. (See Gale, Byron and J. A.)

Gallagher, Eugene F. (See Griffith and Gallagher.)

Gallet, Henri, assignor to Etablissements De Dion Bouton, Société Anonyme, Puteaux, France. Plug contact-maker. No. 1,240,965; Sept. 25; v. 242; p. 806.

Gamewell Fire Alarm Telegraph Company, The. (See Beach, Clarence E., assignor.)

Gansle, Christian. (See Frindt, Joseph Z., assignor.)

Gant, Jodie G., *et al.* (See Walter, Ira D., assignor.)

Ganus, Joseph, Nocatee, Fla. Hose-coupling for railway air-brakes. No. 1,239,172; Sept. 4; v. 242; p. 144.

Gardiner, Charles H., Bouton, Iowa. Disk-cultivator attachment. No. 1,238,998; Sept. 4; v. 242; p. 90.

Gardiner, George, East Cleveland, Ohio. Soldering compound. No. 1,239,785; Sept. 11; v. 242; p. 369.

Gardner, Edwin A., Chicago, Ill. Starter for internal-combustion engines. No. 1,241,206; Sept. 25; v. 242; p. 881.

Gardner, Lee, assignor of forty-five one-hundredths to J. F. Cannon, G. Dusenbery, and M. H. Caldwell, Concord, N. C. Hydrocarbon-burner. No. 1,240,333; Sept. 18; v. 242; p. 577.

Gardner, Levi S., Cedar Grove, La. Rotary drill. No. 1,238,757; Sept. 4; v. 242; p. 12.

Gardner, Wallace E., St. Joseph, Mo. End-gate and locking means therefor. No. 1,239,899; Sept. 11; v. 242; p. 406.

Gareiss, Adam H., New York, N. Y. Folding furniture. No. 1,239,096; Sept. 4; v. 242; p. 121.

Garman, Charlie O., Goshen, Wash. Folding table. No. 1,238,999; Sept. 4; v. 242; p. 90.

Garvey, James D., Chicago, Ill. Brush. No. 1,240,558; Sept. 18; v. 242; p. 647.

Gaskell, Ellsworth F., assignor of one-half to C. G. Goddard, New York, N. Y. Hydrocarbon-engine. No. 1,239,682; Sept. 11; v. 242; p. 336.

Gaskin, Thomas H., Woodford, assignor to The G. L. B. Syndicate Limited, London, England. Reversible boat. No. 1,241,367; Sept. 25; v. 242; p. 933.

Gates, Quincy A. (See Bunnell and Gates.)

Gault, Joseph P., assignor of one-third to W. Phillips and one-third to V. L. Bruner, Louisville, Ky. Engineer's brake-valve. No. 1,239,585; Sept. 11; v. 242; p. 304.

Gavelek, Oscar, Chicago, Ill. Carbureter. No. 1,239,173; Sept. 4; v. 242; p. 145.

Gebert, Albert E. (See Antoine, Gebert, and Travis.)

Gebhard, George M., Rochester, N. Y. Fire and rain alarm. No. 1,239,383; Sept. 4; v. 242; p. 212.

Gebhard, John W., Vandergrift, assignor to United Engineering & Foundry Company, Pittsburgh, Pa. Hardening castings. No. 1,239,586; Sept. 11; v. 242; p. 305.

Gehrig, William F., Newark, N. J. Detonating toy. No. 1,240,434; Sept. 18; v. 242; p. 609.

Geier, John H., Galion, Ohio. Adjustable sole-pattern. No. 1,239,475; Sept. 11; v. 242; p. 269.

Geitner, Alexander L., Rochester, N. Y. Facing-tool. No. 1,240,701; Sept. 18; v. 242; p. 690.

Gendron, Armini, and J. R. Richardson, Madera, Cal. Mold for constructing concrete walls. No. 1,240,435; Sept. 18; v. 242; p. 609.

Gendron, Armini, and J. R. Richardson, Madera, Cal. Mold for constructing hollow walls of concrete. No. 1,240,436; Sept. 18; v. 242; p. 609.

General Electric Company. (See Bailey, Percy S., assignor.)

General Electric Company. (See Beechlyn, John T., assignor.)

General Electric Company. (See Bergman, Sven R., assignor.)

General Electric Company. (See Day, Windeler, and Grant, assignors.) (Reissue.)

General Electric Company. (See Friederich, Ernst, assignor.)

General Electric Company. (See Hall, Chester I., assignor.)

General Electric Company. (See Jacobs, Ernest H., assignor.)

General Electric Company. (See Lemp, Hermann, assignor.)

General Electric Company. (See Loewenstein, Louis C., assignor.)

General Electric Company. (See Mackay, George M. J., assignor.)

General Electric Company. (See Nicol, August, assignor.)

General Electric Company. (See Nordgren, Werner, assignor.)

General Electric Company. (See Parkhurst, Lon F., assignor.)

General Electric Company. (See Perkins, Harry F., assignor.)

General Electric Company. (See Porter and Ellis, assignors.)

General Electric Company. (See Steinmetz, Charles P., assignor.)

General Electric Company. (See Stevens, George E., assignor.)

General Electric Company. (See Taylor, Carl P., assignor.)

General Electric Company. (See Tornberg, Knut, assignor.)

General Electric Company. (See Ver Planck, William E., assignor.)

General Electric Company. (See Whitaker, Frank P., assignor.)

General Fire Extinguisher Company. (See Grinnell, Russell, assignor.)

General Fire Extinguisher Company. (See Loepsinger, Albert J., assignor.)

Gentry, Oliver H., Westwood, N. J. Power-transmitting mechanism. No. 1,239,900; Sept. 11; v. 242; p. 406.

Georgi, John J. (See Sauer and Georgi.)

German-American Button Company. (See Hastings, Herbert, assignor.)

Germania Hosiery Mills. (See Bennett, Joseph, assignor.)

Germless Paper Cup Company, The. (See Klin, John R., assignor.)

Gessner, David, Worcester, Mass. Napping-machine. No. 1,240,194; Sept. 18; v. 242; p. 533.

Gest, Clarence O., Indianapolis, Ind. Spring-support for motor-vehicles. No. 1,239,901; Sept. 11; v. 242; p. 407.

Gheffoli, Benedetto, San Anselmo, Cal. End-gate for motor-trucks. No. 1,239,174; Sept. 4; v. 242; p. 145.

Gibbes Machinery Company. (See Edwards, James B., assignor.)

Gibbs, Thomas R., Belhaven, N. C. Ice-cream freezer. No. 1,240,131; Sept. 11; v. 242; p. 474.

Gibson, Arthur H., Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Electropneumatic channeling-machine. No. 1,240,559; Sept. 18; v. 242; p. 647.

Gifford, Roy C., Chicago, Ill., assignor, by mesne assignments, to Automatic Electric Company. Measured-service telephone system. No. 1,239,587; Sept. 11; v. 242; p. 305.

Gilbert, Albert P., Durham, N. C. Wire-straightening machine. No. 1,239,175; Sept. 4; v. 242; p. 145.

Gilbert, Clark, Bridgeport, Ohio, and E. J. Ornold, assignors of one-third to R. Stalnaker, Wheeling, W. Va. Rectifier for alternating electric currents. No. 1,239,588; Sept. 11; v. 242; p. 305.

Gilbert, George O., Montrose, Colo. Oiler. No. 1,241,207; Sept. 25; v. 242; p. 881.

Gilbert, Harvey N., Niagara Falls, N. Y. Sanitary washing apparatus. No. 1,239,176; Sept. 4; v. 242; p. 146.

Gilbert, John H., Plant City, Fla. Lock. No. 1,240,838; Sept. 25; v. 242; p. 767.

Gilbert, John H., Plant City, Fla. Lock. No. 1,240,839; Sept. 25; v. 242; p. 767.

Gilbert, William R. (See Ford, John W., assignor.)

Gilbertson, Gustav A., Benson, Minn. Transmission device. No. 1,240,334; Sept. 18; v. 242; p. 577.

Gilhousen, Chase S., Marbleton, Wyo. Speculum. No. 1,239,000; Sept. 4; v. 242; p. 90.

Gilles, Pierre, Springfield, Mass. Fuel-feeding device for carbureters. No. 1,240,840; Sept. 25; v. 242; p. 767.

Gilles, Pierre, Springfield, Mass. Carbureter. No. 1,240,841; Sept. 25; v. 242; p. 768.

Gilles, Pierre, Springfield, Mass. Vacuum-feed carbureter. No. 1,240,842; Sept. 25; v. 242; p. 769.

Gillett, Charles W. (See Tonon, Adone P., assignor.)

Gillette Motors Company. (See Williams, Martin L., assignor.)

Gillmor, Horatio G., Washington, D. C. Anticreeper for railway-rails. No. 1,240,843; Sept. 25; v. 242; p. 769.

Gilmore, John F., New York, N. Y. Friction gravity-drive. No. 1,240,560; Sept. 18; v. 242; p. 648.

Gindele, Harrison, Cincinnati, Ohio. Photographic-film cartridge. No. 1,240,335; Sept. 18; v. 242; p. 578.

Ginsberg, Philip. (See Daugherty, Watt C., assignor.)

Gisch, Anthony, Carson, La. Motor-operated saw. No. 1,239,384; Sept. 4; v. 242; p. 212.

Gittins, Roger, Shrewsbury, England. Root-harvesting machine. No. 1,241,108; Sept. 25; v. 242; p. 850.

Glader, Frank, Chicago, Ill. Hoop-beading machine. No. 1,239,437; Sept. 4; v. 242; p. 228.

Glaeser, Walter, Brooklyn, N. Y., assignor to G. T. Bishop, Macedonia, Ohio. Treating feldspar, feldspathic rock, and similar material. No. 1,239,787; Sept. 11; v. 242; p. 369.

Glasheen, John B., *et al.* (See La Rock, John, assignor.)

Glass, Luther. (See Jones and Glass.)

Glass, Vernon D. (See Morrison, Oscar P., assignor.)

Gleason, William, Rahway, N. J. Flushing apparatus. No. 1,240,132; Sept. 11; v. 242; p. 474.

Glenn L. Martin Company. (See Martin, Glenn L., assignor.)

Globe Stove & Range Company. (See Jackson, Jesse, assignor.)

Globe Stove & Range Company, The. (See Louth and Jackson, assignors.)

Globe Stove & Range Company. (See Patten, James C., assignor.)

Gloversville Abrading Company. (See Feix, Otto F., assignor.)

Goddard, Conrad G. (See Gaskell, Ellsworth F., assignor.)

Goddard, Frederick M., Brooklyn, N. Y. Armored motorcycle. No. 1,239,476; Sept. 11; v. 242; p. 270.

Goddard, Walter T., Hamilton, Ontario, Canada. Insulator. No. 1,239,902; Sept. 11; v. 242; p. 407.

Goetz, Henry F., assignor to Waterbury Mfg. Co., Waterbury, Conn. Float-wire guide. No. 1,239,903; Sept. 11; v. 242; p. 407.

Gohlke, Max, Pankow, near Berlin, Germany, assignor to The Hess-Bright Manufacturing Company. Ball-bearing. No. 1,239,904; Sept. 11; v. 242; p. 407.

Goldberg, Louis B. and N., Denver, Colo. Frame for tent-openings. No. 1,240,133; Sept. 11; v. 242; p. 474.

Goldberg, Nathan. (See Goldberg, Louis B. and N.)

Golden, George, Lackawanna, N. Y. Bedstead. No. 1,240,195; Sept. 18; v. 242; p. 534.

Goldsmith, George H., Old Orchard, Me., assignor to Saco-Lowell Shops, Boston, Mass. Attachment for spoolers. No. 1,239,385; Sept. 4; v. 242; p. 212.

Goldsmith, George H., Old Orchard, Me., assignor to Saco-Lowell Shops, Boston, Mass. Mangle-gear. No. 1,239,386; Sept. 4; v. 242; p. 213.

Gonsalves, Antonio I., Funchal, Madeira Islands. Device for preparing infusions. No. 1,238,759; Sept. 4; v. 242; p. 12.

Goodchild, Euclid P., Spokane, Wash. Automobile-signal. No. 1,240,702; Sept. 18; v. 242; p. 690.

Goodell, John H., Marseilles, Ill. Billiard-cue. No. 1,240,336; Sept. 18; v. 242; p. 578.

Goodyear, Katharine F. (See Earle, Reginald W., assignor.)

Gordon, Charles E., Marlboro, Mass. Aerohydro-ship. No. 1,238,907; Sept. 4; v. 242; p. 60.

Gordon, Joseph M., Eureka, Kans. Mode of protecting storage structures from lightning. No. 1,239,477; Sept. 11; v. 242; p. 270.

Gore, Emmet, and G. S. Henson, Rushville, Mo. Hog-feeder. No. 1,240,437; Sept. 18; v. 242; p. 610.

Gore, Marcus J., Bay City, Wis. Curtain-pole support and shade-bracket. No. 1,239,387; Sept. 4; v. 242; p. 213.

Gore, Warren W., assignor to Fuller & Johnson Mfg. Co., Madison, Wis. Power lawn-mower. No. 1,240,561; Sept. 18; v. 242; p. 648.

Gould Coupler Company. (See Crosby, Gorham, assignor.)

Gould Coupler Company. (See Jepson, John W., assignor.)

Gould Coupler Company. (See McGary, Alexander, assignor.)

Gould, Millard H., Pittsburgh, Pa. Clamp. No. 1,240,966; Sept. 25; v. 242; p. 806.

Gouldbourn, Joseph, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J. Dashpot mechanism. No. 1,240,196; Sept. 18; v. 242; p. 534.

Government of the United States. (See Colburn, Frederick H., assignor.)

Gow, Alexander M., assignor of one-half to S. H. Hill, Duluth, Minn. Hot-water heating system. No. 1,241,208; Sept. 25; v. 242; p. 881.

Grabau, Hans E., Long Island City, assignor to G. Abraham, New York, N. Y. Garment-supporter. No. 1,239,683; Sept. 11; v. 242; p. 337.

Grabe, Georg, Nikolassee, near Berlin, assignor to Siemens & Halske, A. G., Berlin, Germany. Telephone system. No. 1,239,097; Sept. 4; v. 242; p. 121.

Graffam, Walter S., West Newton, Mass. Antirattling device for control-rods. No. 1,240,562; Sept. 18; v. 242; p. 648.

Graham, Andrew W., Buffalo, N. Y., assignor of one-half to E. M. Treat, Pittsburgh, Pa. Damp-proofing burial-vaults. No. 1,238,760; Sept. 4; v. 242; p. 12.

Graham, William D., Lake Pickett, Fla. Feed-trough. No. 1,240,134; Sept. 11; v. 242; p. 474.

Grand Rapids School Equipment Co. (See Mentzer, Walter Y., assignor.)

Grand Rapids Show Case Company. (See Vanderveld, Anthony, assignor.)

Grant, Franklin F., San Diego, Cal. Safety-clutch for starting explosive-engines. No. 1,239,265; Sept. 4; v. 242; p. 175.

Grant, James W., *et al.* (See Walter, Ira D., assignor.)

Grant, Peter. (See Day, Windeler, and Grant.) (Reissue.)

Granz, Josef, Plauen, Germany. Device for forming shuttles. No. 1,239,177; Sept. 4; v. 242; p. 146.

Graves, James N., San Saba, Tex. Boll-weevil destroyer. No. 1,239,684; Sept. 11; v. 242; p. 337.

Graves, Mark S., North Yakima, Wash. Switch-frog. No. 1,239,001; Sept. 4; v. 242; p. 90.

Graves, Robert W., Elizabeth, N. J. Tobacco-pipe. No. 1,239,589; Sept. 11; v. 242; p. 306.

Gray, Addison F., Warren, Ohio. Curtain-pole. No. 1,239,905; Sept. 11; v. 242; p. 408.

Gray, Albert E., Goodland, Ind. Sand-rim for automobiles. No. 1,240,337; Sept. 18; v. 242; p. 579.

Gray, Carl C., Wapakoneta, Ohio. Mud-hook clamp. No. 1,240,703; Sept. 18; v. 242; p. 690.

Gray, Charles N., Yankton, S. D. Apparatus for carbureting air. No. 1,239,098; Sept. 4; v. 242; p. 121.

Gray, Halla F., assignor to The Bon Aurora Manufacturing and Machine Company, Denver, Colo. Carpet washing and rinsing machine. No. 1,240,799; Sept. 18; v. 242; p. 721.

Greeley, Alton H. (See Bevington, John E., assignor.)

Greeley, George T., Chicago, Ill. Resilient shock-absorbing hub unit. No. 1,241,109; Sept. 25; v. 242; p. 850.

Green, Clarence A. (See Twitchell, Myron A., assignor.)

Green, Edward L., Ashfield, York, England. Lamp for road-vehicles. No. 1,241,368; Sept. 25; v. 242; p. 933.

Green, Herbert P., assignor of one-half to W. A. Collings, Kansas City, Mo. Tatting-shuttle. No. 1,241,369; Sept. 25; v. 242; p. 934.

Greenberg, Jacob, *et al.* (See Mallove, Morris, assignor.)

Greenblatt, B. R. (See Alexander, H. Walter, assignor.)

Greene, Robert E., Memphis, Tenn. Delivery-vehicle body. No. 1,240,704; Sept. 18; v. 242; p. 691.

Greene, Vorvelle W. (See Bair and Greene.)

Greer, Albert L. (See Wiloth and Greer.)

Gregory, Walter W., and P. D. Maire, Lakewood; said Maire assignor to W. R. White, Cleveland, Ohio. Fish-line bob or float. No. 1,240,043; Sept. 11; v. 242; p. 448.

Gregur, Franck S., West Brownsville, Pa. Insulator. No. 1,240,844; Sept. 25; v. 242; p. 769.

Grey, Charles R., Thermopolis, Wyo. Developing-tray. No. 1,239,438; Sept. 4; v. 242; p. 229.

Griffin, Charles W., assignor to Taylor, Stiles & Company, Riegelsville, N. J. Adjustable bearing. No. 1,239,266; Sept. 4; v. 242; p. 176.

Griffin, Francis T., Ulm, Mont. Mandolin bow or pick. No. 1,241,370; Sept. 25; v. 242; p. 934.

Griffin, James E., New Britain, Conn. Level. No. 1,239,590; Sept. 11; v. 242; p. 306.

Griffith, George E., and E. F. Gallagher, Detroit, Mich. Cigarette-box. No. 1,240,563; Sept. 18; v. 242; p. 648.

Griffith, Victor, San Francisco, Cal. Internal-combustion pump. No. 1,240,967; Sept. 25; v. 242; p. 806.

Griffiths, Richard T., assignor to The Miller Rubber Company, Akron, Ohio. Playing-ball and making the same. No. 1,240,438; Sept. 18; v. 242; p. 610.

Griffiths, Richard T., Akron, Ohio, assignor to The Miller Rubber Company. Manufacturing playing-balls. No. 1,240,439; Sept. 18; v. 242; p. 610.

Griffiths, William U., Philadelphia, Pa. Flushing apparatus for water-closets. No. 1,240,197; Sept. 18; v. 242; p. 534.

Grikscheit, William, Detroit, Mich., assignor of two-thirds to W. D. Reid, Montreal, Quebec, and one-third to R. G. Reid, St. Johns, Newfoundland, Canada. Carbureter apparatus for internal-combustion engines. No. 1,240,440; Sept. 18; vol. 242; p. 610.

Grimes, Thaddeus S., assignor to Lummus Cotton Gin Company, Columbus, Ga. Cotton-gin. No. 1,241,466; Sept. 25; v. 242; p. 962.

Grinder, Theodore, Perry, Wis. Milk-sheet protector. No. 1,241,371; Sept. 25; v. 242; p. 934.

Grinnell, Russell, Providence, R. I., assignor to General Fire Extinguisher Company, New York, N. Y. Dry-pipe valve. No. 1,241,209; Sept. 25; v. 242; p. 882.

Grode, Frank P., Kansas City, Mo. Cue-holder. No. 1,240,705; Sept. 18; vol. 242; p. 691.

Gropengieser, Fred J., Onida, S. D. Pen-holder. No. 1,240,706; Sept. 18; vol. 242; p. 691.

Gropper & Sons, M. (See Arden, Thomas, assignor.)

Grosvenor, William M., Ridgewood, N. J. Obtaining alkali-earth metals. No. 1,239,178; Sept. 4; v. 242; p. 146.

Grourke, James A., Jr. (See Jacobucci, Raphael, assignor.)

Groves, Joseph L., Los Angeles, Cal. Automatic water-feed device for steam-generators, oil-burners, &c. No. 1,239,267; Sept. 4; v. 242; p. 176.

Gruben, Edward J., Royston, Tex. Row-binder. No. 1,239,685; Sept. 11; v. 242; p. 337.

Gruenhagen, Henry. (See Webster, Ernest C., assignor.)

Guard, Abiah H., Colfax, Ind. Tractor. No. 1,240,338; Sept. 18; vol. 242; p. 579.

Gullborg, Gustaf F., Renova, Pa. Sash-strip fastener. No. 1,240,044; Sept. 11; v. 242; p. 448.

Gummerson, Gust, Iron Mountain, Mich. Article-holding device. No. 1,238,761; Sept. 4; v. 242; p. 13.

Gutenberger, Frederick C., Sacramento, Cal. Electric lighter for gas-stoves. No. 1,240,707; Sept. 18; vol. 242; p. 691.

Gutenkunst, William, Milwaukee, Wis. Cattle-stanchion. No. 1,239,906; Sept. 11; v. 242; p. 408.

Guthrie, Charles G., Glasgow, and L. W. Neilson, Helensburgh, Scotland. Machine for registering the trajectories of captive balls. No. 1,240,198; Sept. 18; vol. 242; p. 535.

Guyer, Hans, assignor to Aktiengesellschaft der Maschinenfabriken Escher, Wyss & Co., Zurich, Switzerland. Apparatus for operating the blow-off valves of centrifugal compressors or pumps. No. 1,241,372; Sept. 25; v. 242; p. 934.

H. & F. Match Machine Corporation. (See Friede and Hutchinson, assignors.)

H. W. Roundtree & Brother Trunk and Bag Co. (See James, Arthur P., assignor.)

Haak, William, Madison, Wis. Stock-tank heater. No. 1,240,339; Sept. 18; vol. 242; p. 579.

Haas, William H., Raub, Ind. Hoe. No. 1,240,199; Sept. 18; vol. 242; p. 536.

Hackfeld, John H., Crawford, Tex. Cultivator-hobble. No. 1,241,110; Sept. 25; v. 242; p. 850.

Haeseler, Charles H., Philadelphia, Pa. Pneumatic percussive tool. No. 1,240,708; Sept. 18; vol. 242; p. 692.

Haeseler, Charles H., Philadelphia, Pa. Pneumatic percussive tool. No. 1,240,709; Sept. 18; v. 242; p. 692.

Hagar, Franklin W., deceased, Nashville, Tenn., A. S. Davis, executor. Float feed-chamber and float for carbureters. No. 1,240,200; Sept. 18; v. 242; p. 536.

Hage, Anna C., Toronto, S. D. Guard for link cuff-buttons. No. 1,240,845; Sept. 25; v. 242; p. 770.

Hagelstein, Christian H. T., assignor to The Reece Button Hole Machine Company, Boston, Mass. Thead-controlling device for sewing-machines. No. 1,239,907; Sept. 11; v. 242; p. 409.

Haggerty, James S., Mannington, W. Va. Cigar and stogy bunching and rolling machine. No. 1,239,002; Sept. 4; v. 242; p. 91.

Haggerty, James S., Mannington, W. Va. Tobacco bunching and rolling machine. No. 1,239,003; Sept. 4; v. 242; p. 91.

Haggerty, James S., Mannington, W. Va. Cigar and stogy making machine. No. 1,239,004; Sept. 4; v. 242; p. 91.

Haines, Jones & Cadbury. (See Sharp, Joseph W., Jr., assignor.)

Hall, Charles O., New York, N. Y. Signaling device for road-vehicles. No. 1,241,373; Sept. 25; v. 242; p. 935.

Hall, Chester I., Fort Wayne, Ind., assignor to General Electric Company. Power-factor meter. No. 1,240,710; Sept. 18; v. 242; p. 692.

Hall, Chester I., Fort Wayne, Ind., assignor to General Electric Company. Talking-machine. No. 1,240,711; Sept. 18; vol. 242; p. 693.

Hall, Frank C., Hartford, N. Y. Silo. No. 1,240,135; Sept. 11; v. 242; p. 475.

Hall, Joseph W., Virginia, Ill. Halter-lead. No. 1,239,591; Sept. 11; v. 242; p. 306.

Hall Motor Fuel. (See Dunham, Henry V., assignor.)

Hall, William A., New York, N. Y. Hydrocarbon product. No. 1,239,099; Sept. 4; v. 242; p. 121.

Hall, William A., New York, N. Y. Liquid fuel. No. 1,239,100; Sept. 4; v. 242; p. 122.

Halladay, Lewis P., Streator, Ill. Shock-absorber. No. 1,240,441; Sept. 18; vol. 242; p. 611.

Hallenbeck, George E., assignor to Baker Brothers, Toledo, Ohio. Multiple-speed machine-tool. No. 1,240,136; Sept. 11; v. 242; p. 475.

Haluska, Stefan, Johnstown, Pa. Clothes-boiler. No. 1,239,686; Sept. 11; v. 242; p. 337.

Hamberger, Franz. (See Brückner and Hamberger.)

Hamerstrom, William E. (See Ericson, George W., assignor.)

Hamilton, Ed, *et al.* (See Walter, Ira D., assignor.)

Hamilton, Harry, Lebanon, Ind. Double-acting pump. No. 1,240,712; Sept. 18; vol. 242; p. 693.

Hammett, James W., Eureka, W. Va. Meat-curing process. No. 1,241,374; Sept. 25; v. 242; p. 935.

Hammon, James H., Vincennes, Ind. Tool and work holder and driver. No. 1,239,268; Sept. 4; v. 242; p. 177.

Hammond, John H., Jr., Gloucester, Mass. System of multiple control. No. 1,239,592; Sept. 11; v. 242; p. 306.

Hammond-Knowlton, Clarence A., New York, N. Y. Container. No. 1,240,045; Sept. 11; v. 242; p. 448.

Hammond, William P., Passaic, N. J. Indicating-signal for vehicles. (Reissue.) No. 14,367; Sept. 25; v. 242; p. 970.

Hamner, Theodosia, Los Angeles, Cal. Strainer. No. 1,239,388; Sept. 4; v. 242; p. 213.

Hampeter, Armin, St. Louis, Mo. Extra-tire carrier. No. 1,240,340; Sept. 18; vol. 242; p. 579.

Hanamma, Tomokichi, Alameda, Cal. Lawn-rake. No. 1,239,687; Sept. 11; v. 242; p. 338.

Haniach, Albert J., Oak Park, Ill. Blanket for horses. No. 1,239,478; Sept. 11; v. 242; p. 270.

Hankins, Cyrus, Roanoke, Va. Car-truck. No. 1,241,375; Sept. 25; v. 242; p. 935.

Hanna, William T., assignor to The Mechanical Construction Company, Cincinnati, Ohio. Locomotive-tender stoker mechanism. No. 1,239,101; Sept. 4; v. 242; p. 122.

Hansen, George A., *et al.* (See Headding, Clay N., assignor.)

Hansen, Joakime C., Grand Marais, Minn. Culinary utensil. No. 1,239,593; Sept. 11; v. 242; p. 307.

Hanson, Anders C., Stanton, Iowa. Fabric-stretcher. No. 1,239,479; Sept. 11; v. 242; p. 270.

Hanson, John Z., Pocatello, Idaho. Air-filter. No. 1,241,376; Sept. 25; v. 242; p. 936.

Hanson, Oscar P. W., Spokane, Wash. Back for theater-seats. No. 1,239,389; Sept. 4; v. 242; p. 213.

Hapeman, Harry D., La Grange, Ill. Attachable tractor for automobiles. No. 1,238,762; Sept. 4; v. 242; p. 13.

Hara, Yasavro, San Francisco, Cal. Collapsible pillow. No. 1,240,968; Sept. 25; v. 242; p. 807.

Hardie, Robert W., White Plains, N. Y. Air-moistener. No. 1,239,908; Sept. 11; v. 242; p. 409.

Hardin, Jacques J., Oak Park, Ill. Brick-cleaning machine. No. 1,239,480; Sept. 11; v. 242; p. 271.

Harding, Philip O., Rancagua, Chile. Machinery for agglomerating ore. No. 1,239,179; Sept. 4; v. 242; p. 146.

Hards, Edward, Phœnix, Ariz. Pump-jack. No. 1,239,909; Sept. 11; v. 242; p. 409.

Harley-Davidson Motor Co. (See Harley, William S., assignor.)

Harley, William S., assignor to Harley-Davidson Motor Co., Milwaukee, Wis. Circuit-breaker. No. 1,240,442; Sept. 18; v. 242; p. 611.

Harlow, Lee H., Galesburg, Ill., assignor to Minneapolis Heat Regulator Company, Minneapolis, Minn. Heat-regulator. No. 1,239,594; Sept. 11; v. 242; p. 307.

Harrington, Edward C., St. Louis, Mo. Folding drinking-cup. No. 1,240,564; Sept. 18; v. 242; p. 649.

Harrington, Harry C. (See Bobo and Harrington.)

Harris, Alfred M., assignor of three-eighths to J. J. Sullivan, Detroit, Mich. Direction-indicator. No. 1,238,763; Sept. 4; v. 242; p. 13.

Harris, Arthur L., and E. F. Casanova, San Francisco, Cal. Incandescent-lamp-attaching member. No. 1,239,005; Sept. 4; v. 242; p. 92.

Harris, Daniel G., and G. O. Mason, Homer, Nebr. Loading and unloading device. No. 1,240,713; Sept. 18; vol. 242; p. 693.

Harris, George F., Brooklyn, N. Y. Combination petcock wrench and cleaning tool. No. 1,239,688; Sept. 11; v. 242; p. 338.

Harris, Jonathan W., Montclair, N. J., assignor, by mesne assignments, to Western Electric Company, Incorporated. Insulating compound and forming the same. No. 1,240,565; Sept. 18; vol. 242; p. 649.

Harris, Jonathan W., Montclair, N. J., assignor, by mesne assignments, to Western Electric Company, Incorporated. Insulating compound and forming the same. No. 1,240,566; Sept. 18; vol. 242; p. 649.

Harris, Jonathan W., Montclair, N. J., assignor, by mesne assignments, to Western Electric Company, Incorporated. Insulating compound and forming the same. No. 1,240,567; Sept. 18; vol. 242; p. 649.

Harris, Joseph A., and A. W. Howard, Clarendon, Tex. Nut-lock. No. 1,240,568; Sept. 18; vol. 242; p. 649.

Harris, Mary J., San Francisco, assignor of one-half to M. M. Sutton, Los Angeles, Cal. Head-covering. No. 1,239,910; Sept. 11; v. 242; p. 409.

Harris, Phil B., Los Angeles, Cal. Cushioned railway-crossing. No. 1,239,269; Sept. 4; v. 242; p. 177.

Harris, Rufus A., Salem, Oreg. Music-turner. No. 1,239,006; Sept. 4; v. 242; p. 92.

Harrison, James R., Peoria, Ill. Catch-basin or sewer-inlet. No. 1,239,102; Sept. 4; v. 242; p. 123.

Harrison Manufacturing Company. (See Roberts and Barchel, assignors.)

Harrison, Marion M., Akron, Ohio. Coloring rubber balloons. No. 1,239,180; Sept. 4; v. 242; p. 147.

Hart, Edwin J., Philadelphia, Pa. Underfeed stoker. No. 1,240,969; Sept. 25; v. 242; p. 807.

Hart, Frank B. and T. G. Van Sant, Poplar Bluff, Mo. Refrigerator or ice-box. No. 1,239,481; Sept. 11; v. 242; p. 271.

Hart, Frederick A., Newark, N. J., assignor to Underwood Computing Machine Company, New York, N. Y. Typewriting machine. No. 1,238,908; Sept. 4; v. 242; p. 60.

Hart, Jacob O., Lancaster, Pa. Carrier. No. 1,238,909; Sept. 4; v. 242; p. 61.

Hartman, Harry C. (See Dinkel, Andrew J., assignor.)

Hartman, Harry C. (See Dinkel and Hartman.)

Hartman, Rudolph B., Milwaukee, Wis. Reinforcement system for concreate beams. No. 1,240,137; Sept. 11; v. 242; p. 475.

Hartmann, Ernest F., New York, N. Y. Apparatus for treating timber. No. 1,240,443; Sept. 18; vol. 242; p. 612.

Hartnett, John J., Worden, Ill. Rail tie and fastener. No. 1,240,970; Sept. 25; v. 242; p. 807.

Harvey, Frank E., White Hall, Ill. Dirigible automobile-lamp. No. 1,239,482; Sept. 11; v. 242; p. 271.

Harvey, Oscar, Debden Station, Saskatchewan, Canada. Extensible suitcase. No. 1,241,210; Sept. 25; v. 242; p. 882.

Haseltine, Stacy B., assignor to W. H. Miner, Chicago, Ill. Means of connecting draw-bars to draft-yokes in railway draft-rigging. No. 1,240,341; Sept. 18; vol. 242; p. 580.

Haskes, Samuel, Brooklyn, N. Y. Bedside-guard. No. 1,240,201; Sept. 18; vol. 242; p. 536.

Hassel-Jensen, Johannes, Copenhagen, Denmark. Fire-box. No. 1,240,971; Sept. 25; v. 242; p. 808.

Hastings, Cornelius G., West Hoboken, N. J., assignor to Hastings Tunnel System Company. Tunnel construction. No. 1,240,444; Sept. 18; vol. 242; p. 612.

Hastings, Cornelius G., Glendale, Cal., assignor to Hastings Tunnel System Company. Excavator. No. 1,240,445; Sept. 18; vol. 242; p. 613.

Hastings, Cornelius G., Glendale, Cal., assignor to Hastings Tunnel System Company. Tunnel-shield. No. 1,240,446; Sept. 18; vol. 242; p. 613.

Hastings, Cornelius G., Glendale, Cal., assignor to Hastings Tunnel System Company. Tunnel and retaining wall construction. No. 1,240,447; Sept. 18; vol. 242; p. 614.

Hastings, Herbert, assignor to German-American Button Company, Rochester, N. Y. Button-feeding machine. No. 1,240,202; Sept. 18; vol. 242; p. 536.

Hastings, Herbert, Rochester, N. Y., assignor to Art in Buttons, Incorporated. Forming buttons. No. 1,241,467; Sept. 25; v. 242; p. 962.

Hastings Tunnel System Company. (See Hastings, Cornelius G., assignor.)

Hatch, George F., Atwater, Cal. Trap-nest. No. 1,240,972; Sept. 25; v. 242; p. 808.

Hattersley and Sons, George. (See Shackleton, George W., assignor.)

Hatton, Albert A., Halls, Mo. Road-drag. No. 1,240,714; Sept. 18; vol. 242; p. 694.

Hauenstein, John, assignor of one-fourth to T. E. Lander, Kansas City, Mo. Cooking-utensil attachment. No. 1,239,788; Sept. 11; v. 242; p. 369.

Haufe, Otto A., Secaucus, N. J. Screw-holding attachment for screw-drivers. No. 1,240,138; Sept. 11; v. 242; p. 476.

Hawkins, David S. (See Moore and Hawkins.)

Hawks, Moses L., New York, N. Y. Needle-threader. No. 1,239,270; Sept. 4; v. 242; p. 177.

Hawksworth, William. (See Thickett and Hawksworth.)

Hawley, George W., Bridgeport, Conn., assignor to Knyscheerer Corporation, New York, N. Y. Foot-support. No. 1,239,789; Sept. 11; v. 242; p. 369.

Hawley, William D., Syracuse, assignor to International Time Recording Company of New York, Endicott, N. Y. Time-recorder. No. 1,240,203; Sept. 18; vol. 242; p. 537.

Hawthorne, Ellsworth A., Bridgeport, Conn. Clamp. No. 1,239,595; Sept. 11; v. 242; p. 307.

Hawthorne, Louis A. (See Morgan and Hawthorne.)

Hawthorne, Louis A. (See Wurts and Hawthorne.)

Hawthorne, Louis A., Newark, N. J., assignor to Steel Utilities, Incorporated. Metal-working machine. No. 1,241,251; Sept. 25; v. 242; p. 896.

Hawthorne, Louis A., Newark, N. J., assignor to Steel Utilities, Incorporated. Metal-working machine. No. 1,241,252; Sept. 25; v. 242; p. 897.

Hawthorne, Louis A., Newark, N. J., assignor to Steel Utilities, Incorporated. Metal-punching machine. No. 1,241,255; Sept. 25; v. 242; p. 898.

Hawthorne, Louis A., Newark, N. J., assignor to Steel Utilities, Incorporated. Metal-working machine. No. 1,241,256; Sept. 25; v. 242; p. 898.

Hawthorne, Louis A., Newark, N. J., assignor to Steel Utilities, Incorporated. Metal-punching machine. No. 1,241,258; Sept. 25; v. 242; p. 899.

Hawthorne, Louis A., Newark, N. J., assignor to Steel Utilities, Incorporated. Machine for identifying structural beams. No. 1,241,261; Sept. 25; v. 242; p. 901.

Hawthorne, Louis A., Newark, N. J., assignor to Steel Utilities, Incorporated. Machine for making distance-record sheets for metal-working machines. No. 1,241,262; Sept. 25; v. 242; p. 901.

Hawthorne, Louis A., Newark, N. J., assignor to Steel Utilities, Incorporated. Metal-punching machine. No. 1,241,267; Sept. 25; v. 242; p. 903.

Hay, William C., Los Angeles, Cal. Making plaster and mortar. No. 1,231,211; Sept. 25; v. 242; p. 882.

Hayes, Albert, New York, N. Y., assignor to Carnot Development Corporation. Burner. No. 1,241,111; Sept. 25; v. 242; p. 851.

Hayes, Albert, New York, N. Y., assignor to Carnot Development Corporation. Treatment of iron or steel. No. 1,241,112; Sept. 25; v. 242; p. 851.

Hayes, Albert, New York, N. Y., assignor to Carnot Development Corporation. Solution for the treatment of iron or steel. No. 1,241,113; Sept. 25; v. 242; p. 851.

Hayes, Thomas F., Jackson, Tenn. Belt and trousers supporter. No. 1,239,439; Sept. 4; v. 242; p. 229.

Haymond, Walter O., Muncie, Ind. Thermostat. No. 1,240,139; Sept. 11; v. 242; p. 476.

Hayne, Edward G., Ottawa, Ill. Sound-conveyer arm. No. 1,240,342; Sept. 18; vol. 242; p. 580.

Haynes, Robert J., Razor, Tex. Gathering and exterminating machine. No. 1,239,103; Sept. 4; v. 242; p. 123.

Hays, J. Smith, *et al.* (See Eades, Rodger, assignor.)

Hayward Company, The. (See Morris, Charles A., assignor.)

Hayward, Martin A. (See Buck, Vertrude P., assignor.)

Hazelett, Earl T., Phoenix, Ariz. Case for check and memorandum pads. No. 1,239,596; Sept. 11; v. 242; p. 308.

Headding, Charles B., *et al.* (See Headding, Clay N., assignor.)

Headding, Clay N., Chehalis, assignor of one-third to G. A. Hansen, Centralia, one-sixth to C. B. Headding, and one-sixth to N. J. Headding, Chehalis, Wash. Car-coupling. No. 1,238,764; Sept. 4; v. 242; p. 13.

Headding, Newton J., *et al.* (See Headding, Clay N., assignor.)

Heald, Leonard, Montreal, Quebec, Canada. Hydraulic mechanism for railway devices. No. 1,239,007; Sept. 4; v. 242; p. 92.

Healey, Arthur W., Jamestown, N. D. Operating mechanism for washing-machines. No. 1,240,204; Sept. 18; vol. 242; p. 537.

Healey, Arthur W., Jamestown, N. D. Washing apparatus. No. 1,240,205; Sept. 18; vol. 242; p. 538.

Heaslet, James G., Detroit, Mich., assignor to The Studebaker Corporation. Spark control in combustion-engines. No. 1,239,689; Sept. 11; v. 242; p. 338.

Hebert, Raoul J., Worcester, Mass. Die-stock. No. 1,241,377; Sept. 25; v. 242; p. 936.

Heck, Augustus, Springfield, Mass. Wrapping-machine. No. 1,239,597; Sept. 11; v. 242; p. 308.

Heckmann, George T., St. Louis, Mo. Clamp for antiskid devices. No. 1,238,765; Sept. 4; v. 242; p. 14.

Hedley, Frank, Yonkers, and J. S. Doyle, Mount Vernon, N. Y. Street-sweeping machine. No. 1,241,114; Sept. 25; v. 242; p. 851.

Heeter, Charles M., Butler, Pa. Samson-post and rig-iron. No. 1,240,715; Sept. 18; v. 242; p. 694.

Heindl, William C., East Orange, assignor to The Whitehead & Hoag Company, Newark, N. J. Spout attachment for powder-containing receptacles. No. 1,239,181; Sept. 4; v. 242; p. 147.

Heins, Otto, New York, N. Y., and C. M. Wild, Springfield, Mass., assignors to Bosch Magneto Company, New York, N. Y. Starting internal-combustion engines. No. 1,240,973; Sept. 25; v. 242; p. 808.

Heins, Otto, New York, N. Y., and C. M. Wild, Springfield, Mass., assignors to Bosch Magneto Company, New York, N. Y. Starting internal-combustion engines. No. 1,241,115; Sept. 25; v. 242; p. 852.

Heinsius, Albert J., Pittsburgh, Pa. Locking mechanism for chains. No. 1,241,477; Sept. 25; v. 242; p. 965.

Heinzerling, Theodore, Brooklyn, N. Y. Rim for vehicle-wheels and means for securing it. No. 1,238,766; Sept. 4; v. 242; p. 14.

Heising, Raymond A., East Orange, N. J., assignor, by mesne assignments, to Western Electric Company, Incorporated. Oscillation-generator. No. 1,240,206; Sept. 18; v. 242; p. 538.

Heisler, Charles L., Schenectady, N. Y. Milling-machine. No. 1,239,911; Sept. 11; v. 242; p. 410.

Heisler, Charles L., Schenectady, N. Y. Powder-blending apparatus. No. 1,241,212; Sept. 25; v. 242; p. 882.

Heisler, Charles L., Schenectady, N. Y. Projectile-fuse-testing apparatus. No. 1,241,213; Sept. 25; v. 242; p. 883.

Helbronner, André, Paris, France. Manufacture of cement. No. 1,239,912; Sept. 11; v. 242; p. 410.

Helfenbein, Harry, Cleveland, Ohio. Hoisting apparatus. No. 1,239,271; Sept. 4; v. 242; p. 178.

Heller & Son, L. (See Challet, Etienne, assignor.)

Hellström, Carl O. F., Stockholm, Sweden. Detachable button. No. 1,239,104; Sept. 4; v. 242; p. 123.

Hendee, Jennie A., assignor of one-half to L. B. Hendee, Marietta, Ill. Stool-lifter. No. 1,241,378; Sept. 25; v. 242; p. 936

Hendee, Lewis B. (See Hendee, Jennie A., assignor.)
Henderson, Clark T., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Vehicle-controller. No. 1,238,910; Sept. 4; v. 242; p. 61.
Henderson, Clark T., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electromagnetic winding. No. 1,239,008; Sept. 4; v. 242; p. 93.
Henderson, Edwin L., assignor to The Kemper-Thomas Company, Norwood, Ohio. Paper hat. No. 1,239,483; Sept. 11; v. 242; p. 272.
Henderson, Rufus C., Kankakee, Ill. Intermittent operating mechanism. No. 1,240,140; Sept. 11; v. 242; p. 477.
Hendricks, Walter L., Aurora, Ill. Power-truck for harvesters and the like. No. 1,239,484; Sept. 11; v. 242; p. 272.
Hendrickson, John E., Wollaston, Mass. Combination-lock for electric circuits. No. 1,239,790; Sept. 11; v. 242; p. 370.
Henger, Edwin W., assignor to Waterbury Mfg. Co., Waterbury, Conn. Mounting-shell for incandescent electric lamps. No. 1,239,182; Sept. 4; v. 242; p. 147.
Henke, William, St. Louis, Mo. Automobile-fender. No. 1,240,141; Sept. 11; v. 242; p. 477.
Henriod-Schweizer, Fritz, Neuchatel, Switzerland. Change-speed gear. No. 1,239,272; Sept. 4; v. 242; p. 178.
Henry, Charles A., assignor, by mesne assignments, to C. K. Anderson, Chicago, Ill. Adjustable metallic frame for screens and the like. (Reissue.) No. 14,360; Sept. 18; v. 242; p. 723.
Henry Disston & Sons. (See King, Ernest A., assignor.)
Henry, Edward P., assignor of one-half to G. H. Clark, Long Beach, Cal. Mold for casting concrete structures. No. 1,239,390; Sept. 4; v. 242; p. 214.
Henry, Irwin E., New Ringgold, Pa. Speed-regulator for automobiles. No. 1,239,391; Sept. 4; v. 242; p. 214.
Henry, James A. (See Kirsch and Henry.)
Henry, William W., Wollaston, assignor to S. H. Couch Company, Inc., Atlantic, Mass. Telephone wall set. No. 1,240,974; Sept. 25; v. 242; p. 809.
Henshaw, Francis M., Oklahoma, Okla. Grinding device. No. 1,240,716; Sept. 18; v. 242; p. 694.
Hensley, William T., Connersville, Ind., assignor, by mesne assignments, to Bound Brook Engine & Mfg. Co. Sheet-metal form for armature-coils. No. 1,238,911; Sept. 4; v. 242; p. 62.
Hensley, William T., Boundbrook, N. J., assignor, by mesne assignments, to Bound Brook Engine & Mfg. Co. Implement for winding armatures. No. 1,240,448; Sept. 18; v. 242; p. 614.
Hensley, William T., Boundbrook, N. J., assignor, by mesne assignments, to Bound Brook Engine & Mfg. Co. Commutator. No. 1,240,975; Sept. 25; v. 242; p. 809.
Henson, George S. (See Gore and Henson.)
Herbolsheimer, Charles F., Denver, Colo. Door attachment. No. 1,240,846; Sept. 25; v. 242; p. 770.
Herman, Frederick W., Jr., Salina, Kans. High chair. No. 1,238,767; Sept. 4; v. 242; p. 14.
Herreshoff, Alexander G. (See Masury and Herreshoff.)
Herring, Harvey G. (See Brandstrator, Clem G., assignor.)
Hershberger, Elmer F., Kokomo, Ind. Threader, holder, and cutter for thread. No. 1,240,142; Sept. 11; v. 242; v. 477.
Hershman, Paul R., Chicago, Ill., assignor to The Mineral Products Company, New York, N. Y. Production of refractories. No. 1,240,569; Sept. 18; v. 242; p. 650.
Hershman, Paul R., assignor to Armour Fertilizer Works, Chicago, Ill. Production of aluminate from alunite. No. 1,240,570; Sept. 18; v. 242; p. 650.
Hershman, Paul R., assignor to Armour Fertilizer Works, Chicago, Ill. Manufacture of barium aluminate and sulfur. No. 1,240,571; Sept. 18; v. 242; p. 650.
Hershman, Paul R., assignor to Armour Fertilizer Works, Chicago, Ill. Production of barium aluminate. No. 1,240,572; Sept. 18; v. 242; p. 650.
Heser, John J., Tamora, Nebr. Corn-husker. No. 1,239,913; Sept. 11; v. 242; p. 410.
Hess-Bright Manufacturing Company, The. (See Bright, Fred E., assignor.)
Hess-Bright Manufacturing Company, The. (See Gohlke, Max, assignor.)
Hess-Bright Manufacturing Company, The. (See Kayser, Eugen, assignor.)
Hess, Edward B., Brooklyn, assignor to Royal Typewriter Company, Inc., New York, N. Y. Type-bar-tension-adjusting means. No. 1,241,214; Sept. 25; v. 242; p. 883.
Hess, Harry H., assignor to Vapor-Vacuum Heating Co., Philadelphia, Pa. Air and vacuum controlling device. No. 1,239,440; Sept. 4; v. 242; p. 229.
Hessong, John L., Kapowsin, Wash. Soap-holder. No. 1,239,392; Sept. 4; v. 242; p. 215.
Heulings, William H., Jr., Philadelphia, Pa. Railway-car construction. No. 1,241,116; Sept. 25; v. 242; p. 852.
Heuser, Frederick O., Chicago, Ill. Calculating-machine. No. 1,239,598; Sept. 11; v. 242; p. 308.
Heuser, John H., Chicago, Ill. Rope-clamping device. No. 1,241,379; Sept. 25; v. 242; p. 936.
Heywood Brothers and Wakefield Company. (See Ogle, George M., assignor.)
Heywood, Robert R., New York, N. Y. Adjustable show-card. No. 1,239,485; Sept. 11; v. 242; p. 272.
Hibbs, William, Oskaloosa, Iowa. Corn-harvester. No. 1,240,847; Sept. 25; v. 242; p. 770.
Hicks, Presley N., St. Louis, Mo. Ship-propelling apparatus. No. 1,239,009; Sept. 4; v. 242; p. 93.
Hicks, Thomas W., assignor to Scientific Farming Machinery Company, Minneapolis, Minn. Preparing seed-beds. No. 1,239,599; Sept. 11; v. 242; p. 309.
Hide, Leather & Belting Company. (See Bell and Swoboda, assignors.)
High, Luther W. (See Perryclear, William E., assignor.)
Highams, Frank T., Houston, Tex. Cutter. No. 1,239,486; Sept. 11; v. 242; p. 273.
Hilbers, George H., Hooper, Nebr. Locking device for cranks. No. 1,238,912; Sept. 4; v. 242; p. 62.
Hileman, Andrew C., Butler, Pa., assignor to Triple Airless Tire Company. Cushion-tire. No. 1,241,380; Sept. 25; v. 242; p. 937.
Hill, Arthur L., Faxon, Okla. Fishing-hook. No. 1,239,487; Sept. 11; v. 242; p. 273.
Hill, Charles V., and H. H. K. Schwerdtmann, assignors to Hill Manufacturing Company, St. Louis, Mo. Combined shelf and shield for radiators. No. 1,240,573; Sept. 18; v. 242; p. 650.
Hill, Frank H., and H. Jeffrey, assignors of one-third to O. Knudson, Grand Forks, N. D. Railway-car seat. No. 1,238,913; Sept. 4; v. 242; p. 62.
Hill, Gregory C., Victor, N. Y. Insulator. No. 1,238,768; Sept. 4; v. 242; p. 14.
Hill & Griffith Company, The. (See Weissmann, Frederick W., assignor.)
Hill Manufacturing Company. (See Hill and Schwerdtmann, assignors.)
Hill, Stacy H. (See Gow, Alexander M., assignor.)
Hill, Wilfrid. (See Wilks, Joseph P., assignor.)
Hilliard, Thomas A., Sioux City, Iowa. Pocket-receptacle for lighted cigars. No. 1,238,914; Sept. 4; v. 242; p. 62.
Hinchcliff, Henry C., Brooklyn, N. Y. Punching and setting machine. No. 1,240,207; Sept. 18; v. 242; p. 538.
Hinshaw, Claude J., and R. L. Gable, Shelbyville, Ind. Electrically-heated valve. No. 1,240,449; Sept. 18; v. 242; p. 614.
Hintz, Julius C., Dayton, Ohio. Washing-machine. No. 1,239,600; Sept. 11; v. 242; p. 309.
Hiscock, Emory C., Oak Park, assignor to J. C. Farwell, Chicago, Ill. Valve for pneumatic player-actions. No. 1,240,848; Sept. 25; v. 242; p. 770.
Hoag, James W., Oakland, Cal. Speed-governor. No. 1,240,450; Sept. 18; v. 242; p. 615.
Hobart, Franklin G. (See Morse and Hobart.)
Hodges, Edward T., Haverhill, Mass. Permutation-lock. No. 1,239,010; Sept. 4; v. 242; p. 93.
Hodgman Rubber Co. (See Whiteside, John C., assignor.)
Hodgson, John G., Maywood, Ill., assignor to American Can Company, New York, N. Y. Triple-seal can. No. 1,239,183; Sept. 4; v. 242; p. 147.
Hodgson, John G., Maywood, Ill., assignor to American Can Company, New York, N. Y. Combined friction and hermetically-sealed can. No. 1,240,976; Sept. 25; v. 242; p. 809.
Hoffman, Louis, San Francisco, Cal. Extension-clamp. No. 1,241,215; Sept. 25; v. 242; p. 883.
Hoffman, Louis, Duluth, Minn. Sad-iron. No. 1,241,216; Sept. 25; v. 242; p. 884.
Hoffman, Morris J., Chicago, Ill. Machine for rewinding woven fabrics. No. 1,240,800; Sept. 18; v. 242; p. 722.
Hoglund, Eric. (See Strom and Hoglund.)
Hohner, Will, manager. (See Buhlmann, Emil, Jr., assignor.)
Hohorst, George R., New York, N. Y. Securing means for bolts. No. 1,238,915; Sept. 4; v. 242; p. 62.
Holden, John E., South Boston, assignor of one-third to E. I. Jackson, Newton, and one-third to T. W. Moran, South Boston, Mass. Clutch-controlling device. No. 1,240,343; Sept. 18; v. 242; p. 581.
Holeproof Hosiery Co. (See Peters, Herman, assignor.)
Hollidge, Harry H., Oakland, Cal. Folder. No. 1,241,381; Sept. 25; v. 242; p. 937.
Hollister, Bertram K., Chicago, Ill., assignor to The Hollister-Wilson Laboratories, Portland, Me. Surgical ligature. No. 1,239,690; Sept. 11; v. 242; p. 339.
Hollister-Wilson Laboratories, The. (See Hollister, Bertram K., assignor.)
Holm, John, Juneau, Alaska. Plumb-level. No. 1,240,849; Sept. 25; v. 242; p. 770.
Holmberg, Alfred E., Maple Lake, Minn. Grain-binder deck. No. 1,239,791; Sept. 11; v. 242; p. 370.
Holmstrand, Per. (See Jern, Emil, assignor.)
Holt-Christensen Process Company. (See Christensen, Niels C., Jr., assignor.)
Holt, William P., Wilson, Ark. Vending-machine. No. 1,240,717; Sept. 18; v. 242; p. 694.
Holtmeyer, John J., Cincinnati, Ohio. Table-cap. No. 1,240,208; Sept. 18; v. 242; p. 538.
Holtvolgt, Henry B., assignor to The Ohio Rake Company, Dayton, Ohio. Side-delivery rake. No. 1,240,451; Sept. 18; v. 242; p. 615.
Holtzer-Cabot Electric Company, The. (See Kennedy, Carlton L., assignor.)
Hood, Arthur N., *et al.* (See Brownell, William M., assignor.)
Hood, Lemuel L., Wichita Falls, Tex. Crossing-gate. No. 1,240,718; Sept. 18; v. 242; p. 695.
Hooper, Frederick E. (See White and Hooper.)

Hoover, Charles P., Columbus, Ohio. Making metal-hydroxid solutions. No. 1,238,916; Sept. 4; v. 242; p. 63.
Hope, Walter R., Wilmington, Del. Making drawings or pictures. No. 1,240,143; Sept. 11; v. 242; p. 478.
Hopkins, Charles E., New York, N. Y. Machine for making stereotype-plates. No. 1,240,209; Sept. 18; v. 242; p. 539.
Hopkins, Charles E., Worcester, Mass. Apparatus for finishing curved stereotypes. No. 1,240,850; Sept. 25; v. 242; p. 771.
Hopkins, Edward L., Columbus, Ohio, assignor to The Jeffrey Manufacturing Company. Anchor-jack. No. 1,240,210; Sept. 18; v. 242; p. 539.
Hopkins, Frank H., Montreal, Quebec, Canada. Handle. No. 1,239,184; Sept. 4; v. 242; p. 148.
Hopkins, Luther S., Dubuque, Iowa. Constant-speed driving device. No. 1,241,117; Sept. 25; v. 242; p. 852.
Hopkinson, Ernest, East Orange, N. J. Tire-carrying rim. No. 1,238,769; Sept. 4; v. 242; p. 15.
Hoppes, John J., assignor to The Hoppes Manufacturing Company, Springfield, Ohio. Weir-tank. No. 1,239,601; Sept. 11; v. 242; p. 309.
Hoppes Manufacturing Company, The. (See Hoppes, John J., assignor.)
Horikawa, Kornakichi, Seattle, Wash. Sash-fastener. No. 1,239,105; Sept. 4; v. 242; p. 124.
Horn, George P., Lansdowne, Pa. Means for removing carbon from explosive-engine cylinders. No. 1,240,977; Sept. 25; v. 242; p. 810.
Horne, Henry M., assignor of fifty one-hundredths to J. C. Buford, Sulphur Springs, Tex. Vehicle-tire. No. 1,240,793; Sept. 18; v. 242; p. 719.
Horras, William W., *et al.* (See Morse, George O., assignor.)
Horton, Augustus S. (See Fort and Horton.)
Horton Manufacturing Company. (See Peters, Arthur H., assignor.)
Horvath, Geza, Detroit, Mich. Pump. No. 1,240,211; Sept. 18; v. 242; p. 540.
Horvath, Geza, Detroit, Mich. Sheet-metal-working machine. No. 1,240,212; Sept. 18; v. 242; p. 540.
Horwitz, Ray, Cleveland, Ohio. Maternity-dress. No. 1,238,917; Sept. 4; v. 242; p. 63.
Hoseck, Johan C., 's-Gravenhage, Netherlands. Collapsible boat. No. 1,240,978; Sept. 25; v. 242; p. 810.
Hoshel, William F., assignor to Sheffield Car Company, Three Rivers, Mich. Internal-combustion engine. No. 1,239,488; Sept. 11; v. 242; p. 273.
Hoshino, Yoshisaburo, Denver, Colo. Lunch-kit. No. 1,240,144; Sept. 11; v. 242; p. 478.
Hosking, Richard T., Saginaw, Mich. Device for controlling the speed of disk records. No. 1,238,918; Sept. 4; v. 242; p. 63.
Hosking, Richard T., Saginaw, Mich. Seal. No. 1,240,719; Sept. 18; v. 242; p. 695.
Hoskins, George J., Burwood, New South Wales, Australia. Coördinated spherical radial gear adapted to transmit rotary motion in the same axial line or at an angle. No. 1,241,118; Sept. 25; v. 242; p. 852.
Hostetler, Alvin E., and W. E. Richards, Hutchinson, Kans. One-piece garment. No. 1,238,770; Sept. 4; v. 242; p. 15.
Hotchkin, Paul M., Chicago, Ill. Floodlight-projector. No. 1,240,452; Sept. 18; v. 242; p. 615.
Hotchkiss, Andrew T., New Haven, Conn. Blind-buffer. No. 1,239,393; Sept. 4; v. 242; p. 215.
Hotpoint Electric Heating Company. (See Laraway and Falkenberg, assignors.)
Houghton, Harry A., Seville, Ohio. Boat-raising device. No. 1,240,453; Sept. 18; v. 242; p. 616.
House, Daniel W., Mobridge, S. D. Legging. No. 1,241,217; Sept. 25; v. 242; p. 884.
Hover, Charles F., Conrad, Mont. Sickle-bar. No. 1,240,720; Sept. 18; v. 242; p. 696.
Hovhannesian, Kricor, Middletown, Conn., assignor of one-half to H. Pilikian. Combination-tool. No. 1,239,394; Sept. 4; v. 242; p. 215.
Howard, Arthur W. (See Harris and Howard.)
Howard, Byron E. (See Dubois, Henry J., assignor.)
Howard, Charles N. (See Martin, Charles L., assignor.)
Howard, Quinton S., Lorenzo, Tex. Cultivator. No. 1,241,382; Sept 25; v 242; p. 937.
Howe, Fred C., New Haven, Conn. Automobile-goggles. No. 1,239,691; Sept. 11; v. 242; p. 339.
Howell, Frank B., Buffalo, N. Y., assignor to American Radiator Company, Chicago, Ill. Heating apparatus. No. 1,239,430; Sept. 4; v. 242; p. 226.
Howell, Oscar V., Nemaha, Nebr. Dumping-scraper. No. 1,241,383; Sept. 25; v. 242; p. 937.
Howes, George W., assignor to The Beckwith Company, Dowagiac, Mich. Humidifier for hot-air furnaces. No. 1,238,771; Sept. 4; v. 242; p. 15.
Hoyt, Ray S., Brooklyn, N. Y., assignor to American Telephone and Telegraph Company. Artificial line. No. 1,240,213; Sept. 18; v. 242; p. 540.
Hoyt, Richard F., Olney, Pa., assignor, by mesne assignments, to Underwood Computing Machine Company, New York, N. Y. Type-writing machine. No. 1,238,919; Sept. 4; v. 242; p. 63.
Hubbard, Charles W., Boston, Mass. Spinning and twisting apparatus. No. 1,240,214; Sept. 18; v. 242; p. 541.
Hubener, William A., New York, N. Y. Nut-lock. No. 1,240,046; Sept. 11; v. 242; p. 448.
Hubler, John, Brandon, Wis. Scutching-machine. No. 1,239,914; Sept. 11; v. 242; p. 410.
Hubner, Milton H., assignor of one-half to N. W. Mahaffey, Stockton, Cal. Window-sash. No. 1,240,454; Sept. 18; v. 242; p. 616.
Hudson, Alexander A., Cincinnati, Ohio. Heel-building machine. (Reissue.) No. 14,368; Sept. 25; v. 242; p. 971.
Hudson Railway Signal Company. (See Hudson, Robert F., assignor.)
Hudson, Robert F., assignor, by mesne assignments, to Hudson Railway Signal Company, Inc., Richmond, Va. Railway-signal. No. 1,238,772; Sept. 4; v. 242; p. 16.
Hueber, Henry, assignor to A. A. Barkey, Seattle, Wash. Liquid-level indicator. No. 1,241,384; Sept. 25; v. 242; p. 938.
Hughes, Frederick. (See Remer and Hughes.)
Huguenin, Albert, assignor to Aktiengesellschaft der Maschinenfabriken Escher, Wyss & Co., Zurich, Switzerland. Spiral casing for water-turbines. No. 1,239,395; Sept. 4; v. 242; p. 215.
Hulehan, Owen E. (See Tervo, Charley, assignor.)
Hulet, Ernest W. (See Farmer and Hulet.)
Hultgreen, Frank F., Berkeley, Cal. Auxiliary spark-gap. No. 1,240,721; Sept. 18; v. 242; p. 696.
Hultman, Carl A. W., Stockholm, Sweden. Automatic telephone-exchange system. No. 1,239,011; Sept. 4; v. 242; p. 94.
Hume, Edward P., Moorcroft, Wyo. Water-elevator. No. 1,239,692; Sept. 11; v. 242; p. 339.
Hunt-Helm Ferris & Co. (See Ferris, Henry L., assignor.)
Hunt, Martin W., Portland, Oreg. Cleansing grain. No. 1,239,396; Sept. 4; v. 242; p. 216.
Hunt, Martin W., Portland, Oreg. Machine for cleansing grain. No. 1,239,397; Sept. 4; v. 242; p. 216.
Hunt, Ormund E., assignor to Packard Motor Car Company, Detroit, Mich. Folding seat. No. 1,239,185; Sept. 4; v. 242; p. 148.
Hunt, William F., New Brighton, N. Y. Coaling apparatus. No. 1,240,215; Sept. 18; v. 242; p. 541.
Hunt, William H., New York, N. Y. Hatch-cover lift. No. 1,241,385; Sept. 25; v. 242; p. 938.
Hunter Arms Co., The. (See Curtis, Arthur P., assignor.)
Hunter, David E., assignor to The Shaw-Walker Company, Muskegon, Mich. Sectional filing-cabinet. No. 1,240,851; Sept. 25; v. 242; p. 771.
Hunter Fan and Motor Co. (See Parker, Linus J., assignor.)
Hunter, Freeman D. A., *et al.* (See Kittredge, Harold S., assignor.)
Huntley Manufacturing Company. (See Brantingham and Key, assignors.)
Hurley Machine Company. (See Fisher, Alva J., assignor.)
Hurley, Ralph W., Brookvale, Colo. Combined ruler and pencil-sharpener. No. 1,240,145; Sept. 11; v. 242; p. 478.
Hurt, Henry H., assignor to Robeson Process Company, New York, N. Y. Molded article and making the same. No. 1,239,273; Sept. 4; v. 242; p. 178.
Huseby, Albert A., Chicago, Ill. Sound-box mounting. No. 1,239,693; Sept. 11; v. 242; p. 339.
Huseby, Albert A., Chicago, Ill. Motor-controlling mechanism for talking-machines. No. 1,240,455; Sept. 18; v. 242; p. 616.
Huseby, Albert A., Chicago, Ill. Counterbalance for phonograph-horns. No. 1,241,110; Sept. 25; v. 242; p. 853.
Huston, Charles L., Coatesville, Pa. Pouring-head for ingot-molds. No. 1,240,722; Sept. 18; v. 242; p. 696.
Hutchinson, Warren B. (See Friede and Hutchinson.)
Hutchison, William T., South Bend, Ind. Plow. No. 1,240,047; Sept. 11; v. 242; p. 449.
Hutsel, Robert, Kingston-upon-Hull, England, assignor to American Radiator Company, Chicago, Ill. Casing or jacket for boilers. No. 1,239,100; Sept. 4; v. 242; p. 124.
Hutter, George J., Cherryvale, Kans. Attachment for tractors. No. 1,241,120; Sept. 25; v. 242; p. 853.
Hutton, Ernest, Wayland, Ky. Blasting device. No. 1,241,386; Sept. 25; v. 242; p. 938.
Hutton, John, Kilmirning, Crail, Scotland. Machine for sowing seeds or the like. No. 1,241,387; Sept. 25; v. 242; p. 939.
Hybinette, Noak V., Christiania, Norway. Electrolytic cell. No. 1,239,012; Sept. 4; v. 242; p. 94.
Ihnat, Michael, Detroit, Mich. Fender. No. 1,240,216; Sept. 18; v. 242; p. 541.
Illescas, Francisco, Mexico, Mexico. Circulating and protective means for steam-boilers. No. 1,238,773; Sept. 4; v. 242; p. 16.
Illinois Tool Works. (See Olson, Carl G., assignor.)
Imbert, Iwan, Ramonchamp, France. Feeding device. No. 1,241,388; Sept. 25; v. 242; p. 939.
Imperial Typewriter Company. (See Pilblad, Eric J., assignor.)
Improved Paper Machinery Company. (See Phelps, Edward V., assignor.)
In Vu Co. Inc. (See Sickels, Harry P., assignor.)
Inch, John W., *et al.* (See Power, Bert H., assignor.)
Industrial Service and Equipment Company. (See Butler, James A., assignor.)
Ingal, Robert E., Chicago, Ill. Radiator attachment. No. 1,241,389; Sept. 25; v. 242; p. 939.

Ingersoll-Rand Company. (See Banner, Otto, assignor.)
Ingersoll-Rand Company. (See Bayles, Lewis C., assignor.)
Ingersoll-Rand Company. (See Buckley, Emery L., assignor.)
Ingersoll-Rand Company. (See Gibson, Arthur H., assignor.)
Ingram, William C., Grand Rapids, Mich. Shrapnel-shell. No. 1,240,217; Sept. 18; v. 242; p. 541.
Ingram, William T., Ruleton, Kans. Internal-combustion engine. No. 1,239,274; Sept. 4; v. 242; p. 179.
Innes, Frank R., Detroit, Mich. Current-jack for electrical meters. No. 1,240,574; Sept. 18; v. 242; p. 651.
International Art Publishing Company. (See Scott, John G., Jr., assignor.)
International Callaphone Corporation. (See Kurman, Nathan A., assignor.)
International Harvester Company of New Jersey. (See Pearson, Charles, assignor.)
International Harvester Company of New Jersey. (See Raney, Clemma R., assignor.)
International Motor Company. (See Masury and Hereshoff, assignors.)
International Time Recording Company of New York. (See Hawley, William D., assignor.)
Ionides, Alexander C., Jr., London, England. Apparatus for heating water and other liquids. No. 1,239,398; Sept. 4; v. 242; p. 216.
Isko, Incorporated. (See Coleman, Clyde J., assignor.)
Israelson, Peter, Ramey, Minn. Bag-holder. No. 1,240,852; Sept. 25; v. 242; p. 771.
Ittner, Martin H., Jersey City, N. J. Catalyzer for hydrogenating oils and the like. No. 1,238,774; Sept. 4; v. 242; p. 17.
Ives, Frederic E., Woodcliff-on-Hudson, N. J. Color photography. No. 1,238,775; Sept. 4; v. 242; p. 17.
Ives, Frederic E., Philadelphia, Pa. Photographic film. No. 1,240,344; Sept. 18; v. 242; p. 581.
J. C. Deagan Musical Bells. (See Little, Frederick B., assignor.)
J. E. Mergott Company, The. (See Fuller, Franz A., assignor.)
J. E. Peckham Co. (See Peckham, Joseph E., assignor.)
J. G. Brill Company, The. (See Adams, Walter S., assignor.)
J. G. Brill Company, The. (See Kohler, George B., assignor.)
J. H. Williams & Co. (See Carew, Andrew F., assignor.)
J. S. McChesney & Co. (See McChesney, John S., assignor.)
Jachimowicz, Szymon, Zurich, Switzerland. Beam-compass. No. 1,240,853; Sept. 25; v. 242; p. 771.
Jackman, Charles W. (See Jackman, Miles M. and C. W.)
Jackman, Miles M. and C. W., Waterloo, Ind. Rotary engine. No. 1,239,694; Sept. 11; v. 242; p. 340.
Jackson, Edith L., *et al.* (See Holden, John E., assignor.)
Jackson, Elizabeth M., Toledo, Ohio. Pattern-making instrument. No. 1,241,121; Sept. 25; v. 242; p. 853.
Jackson, Elmer H., Seattle, Wash. Dough-mixing apparatus. No. 1,241,390; Sept. 25; v. 242; p. 939.
Jackson, Frank, Chicago, Ill. Skinning-tool. No. 1,239,489; Sept. 11; v. 242; p. 273.
Jackson, Irl E., Casa, Ark. Permutation tire-lock. No. 1,240,146; Sept. 11; v. 242; p. 478.
Jackson, Jesse. (See Louth and Jackson.)
Jackson, Jesse, Kokomo, Ind., assignor to Globe Stove & Range Company, Kokomo, Mich. Thermostatic trip-switch device. No. 1,238,776; Sept. 4; v. 242; p. 17.
Jackson, Ralph G., Chester, assignor to The Congoleum Company, Philadelphia, Pa. Block-printing machine. No. 1,241,391; Sept. 25; v. 242; p. 940.
Jackson, Simeon S., assignor to The Stafford Company, Boston, Mass. Warp stop-motion for looms. No. 1,239,792; Sept. 11; v. 242; p. 370.
Jacob, Max, Berlin, Germany, assignor to The National Cash Register Company, Dayton, Ohio. Slip printing and feeding mechanism for accounting-machines. No. 1,238,777; Sept. 4; v. 242; p. 17.
Jacob, Max, Berlin, Germany, assignor to The National Cash Register Company, Dayton, Ohio. Accounting-machine. No. 1,240,218; Sept. 18; v. 242; p. 542.
Jacobs, Ernest H., Schenectady, N. Y., assignor to General Electric Company. Time-limit relay. No. 1,240,723; Sept. 18; v. 242; p. 697.
Jacobucci, Raphael, assignor of one-half to J. A. Grourke, Jr., Fall River, Mass. Multicolor-printing machine. No. 1,240,159; Sept. 11; v. 242; p. 483.
Jacoby, Benjamin. (See King, Jacoby, and Johnson.)
Jaenichen, Louis, assignor to The Standard Computing Scale Company, Detroit, Mich. Scale. No. 1,240,219; Sept. 18; v. 242; p. 542.
James, Arthur P., assignor to H. W. Roundtree & Brother Trunk and Bag Co., Richmond, Va. Wardrobe-trunk-drawer-locking device. No. 1,240,048; Sept. 11; v. 242; p. 449.
James, Thomas C., Chicago, Ill. Solution for waterproofing fabrics. No. 1,240,345; Sept. 18; v. 242; p. 581.
James, William T., Chicago, Ill. Conveyer. No. 1,239,490; Sept. 11; v. 242; p. 274.
Jargo, J. Elwin, deceased, Pasadena, Cal.; W. W. Benedict, administrator. Book-rest. No. 1,241,218; Sept. 25; v. 242; p. 884.
Jaros, Ernest S., assignor to The United Demonstrating Machine Company, Columbus, Ohio. Advertising novelty. No. 1,239,013; Sept. 4; v. 242; p. 95.
Jaros, Ernest S., assignor to The United Demonstrating Machine Company, Columbus, Ohio. Advertising device. No. 1,239,014; Sept. 4; v. 242; p. 95.
Jarvis, Dwight, *et al.* (See Morse, George O., assignor.)
Jay, Webb, Chicago, Ill. Liquid-feeding apparatus. (Reissue.) No. 14,353; Sept. 11; v. 242; p. 487.
Jefferies, Ebenezer A. W., assignor to Morgan Construction Company, Worcester, Mass. Gas-producer. No. 1,240,220; Sept. 18; v. 242; p. 542.
Jeffery, Joseph A., Detroit, Mich. Preparing ceramic articles for handling. No. 1,240,575; Sept. 18; v. 242; p. 651.
Jeffrey, Harvey. (See Hill and Jeffrey.)
Jeffrey Manufacturing Company, The. (See Hopkins, Edward L., assignor.)
Jeffrey Manufacturing Company, The. (See Mueller, George H., assignor.)
Jelalian, Martin, Cranston, R. I. Dirigible airship for military purposes. No. 1,241,219; Sept. 25; v. 242; p. 885.
Jenckes Knitting Machine Company. (See Miller, Max C., assignor.)
Jenkins, Edward W., Norristown, Pa. Knot-tying device for grain-binders. No. 1,239,793; Sept. 11; v. 242; p. 371.
Jenne, Christian J., San Francisco, Cal. Fire-alarm. No. 1,240,049; Sept. 11; v. 242; p. 449.
Jensen, Augustus H., Cheney, Wash. Container and cutter for rubber-dam sheets. No. 1,239,695; Sept. 11; v. 242; p. 340.
Jensen, George C., Oakland, Cal. Apparatus for locking levers. No. 1,240,346; Sept. 18; v. 242; p. 581.
Jepson, John W., Depew, N. Y., assignor to Gould Coupler Company. Engine appliance. No. 1,240,724; Sept. 18; v. 242; p. 697.
Jepson, John W., Depew, N. Y., assignor to Gould Coupler Company. Engine appliance. No. 1,240,725; Sept. 18; v. 242; p. 697.
Jepson, John W., Depew, N. Y., assignor to Gould Coupler Company. Engine-starting arrangement. No. 1,240,726; Sept. 18; v. 242; p. 698.
Jerich, Frank, Ely, Minn. Rail-joint. No. 1,240,727; Sept. 18; v. 242; p. 698.
Jern, Emil A., assignor to P. Holmstrand, Gefle, Sweden. Transmission for motor-driven vehicles. No. 1,238,778; Sept. 4; v. 242; p. 18.
Jessup, Orson E., Springfield, Mass. Machine for straightening gun-barrels. No. 1,240,576; Sept. 18; v. 242; p. 651.
Jewett, Murrit M., Corning, N. Y. Coating-machine. No. 1,239,399; Sept. 4; v. 242; p. 217.
Jochumsen, John, Independence, Iowa. Swing. No. 1,238,920; Sept. 4; v. 242; p. 64.
Johannsmeyer, Frederick, assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Spool construction. No. 1,238,921; Sept. 4; v. 242; p. 64.
John Simmons Company. (See Edwards, Albert, assignor.)
Johnsen, Andrew, Vancouver, British Columbia, Canada. Means for connecting the ends of lifting-ropes together under the hull of a submerged vessel. No. 1,240,979; Sept. 25; v. 242; p. 811.
Johnsen, John T., Chicago, Ill. Household baling-press. No. 1,241,122; Sept. 25; v. 242; p. 854.
Johnson, Albert H., Glens Falls, N. Y. Blow-off valve. No. 1,238,779; Sept. 4; v. 242; p. 18.
Johnson, August G. (See Adams and Johnson.)
Johnson, Charles E., Muskegon, Mich. Piston and piston-ring. No. 1,240,456; Sept. 18; v. 242; p. 617.
Johnson, Charles S. (See King, Jacoby, and Johnson.)
Johnson, Correl W., New York, N. Y. Sound-clarifier for sound producing or reproducing instruments. No. 1,240,050; Sept. 11; v. 242; p. 450.
Johnson, Cyrus C., McPherson, Kans. Oil-burner. No. 1,238,780; Sept. 4; v. 242; p. 18.
Johnson, Deforest E., Hinsdale, N. Y. Pneumatic tire. No. 1,240,051; Sept. 11; v. 242; p. 450.
Johnson, Eugene C., Los Angeles, Cal. Rail-contactor. No. 1,238,922; Sept. 4; v. 242; p. 64.
Johnson, Gustaf E., Chicago, assignor to S. S. Vaughan, Oak Park, Ill. Engraving-machine. No. 1,239,696; Sept. 11; v. 242; p. 340.
Johnson, Henry L., Ewing, Mo. Cuspidor. No. 1,240,577; Sept. 18; v. 242; p. 652.
Johnson, Iver R. (See Schuster and Johnson.)
Johnson, John A., Westerly, R. I. Crank-casing support. No. 1,239,915; Sept. 11; v. 242; p. 411.
Johnson, Mat P., Chico, Tex. Drop-feed for seeders and planters. No. 1,241,123; Sept. 25; v. 242; p. 854.
Johnson, Oscar J., Cloquet, Minn. Garment-hanger. No. 1,238,781; Sept. 4; v. 242; p. 19.
Johnson, Pher E., and E. Anderson, Brooklyn, N. Y. Ladder-clamp. No. 1,241,392; Sept. 25; v. 242; p. 940.
Johnson, Royal K. (See Clemens and Johnson.)
Johnson, William N., Minnedosa, Manitoba, Canada. Vehicle-license-number exhibitor. No. 1,240,347; Sept. 18; v. 242; p. 582.
Johnston, Benjamin F., assignor of one-half to W. B. Mowbray, Ogden, Utah. Alarm device for motor-vehicles. No. 1,239,602; Sept. 11; v. 242; p. 309.
Johnston, Henry A. (See Pidgin, Charles F., assignor.)

Johnston, James O., Gem, Idaho. Neck-yoke. No. 1,240,052; Sept. 11; v. 242; p. 450.
Johnston, John. (See McKim and Johnston.)
Johnston, Robert P., Asheville, N. C. Circuit-closing device. No. 1,240,147; Sept. 11; v. 242; p. 479.
Johnston, Walter W., Gadsden, Ala. Mold for culverts. No. 1,241,393; Sept. 25; v. 242; p. 940.
Jolley, Jasper W. (See Robbins and Jolley.)
Jones, Albert C. (See Wade, Edwin T., assignor.)
Jones, Charles E. (See Bair and Greene, assignors.)
Jones, Columbus, Washington, Kans. Revolving hay-rack. No. 1,239,107; Sept. 4; v. 242; p. 124.
Jones, Frederick W., and L. Glass, Milwaukee, Wis. Permutation-lock. No. 1,240,854; Sept. 25; v. 242; p. 772.
Jones, George, Manor Park, England. Conveyer for coaling ships and other such purposes. No. 1,239,400; Sept. 4; v. 242; p. 217.
Jones, Howard B., Evanston, Ill. Pump. No. 1,240,855; Sept. 25; v. 242; p. 772.
Jones, Maxwell M., Chicago, Ill. Bath-cabinet heater. No. 1,240,053; Sept. 11; v. 242; p. 451.
Jones, Richard E., Hagerstown, Md. Latch. No. 1,240,578; Sept. 18; v. 242; p. 652.
Jones, Wiley, Westerly, W. Va. Speeder mechanism for motor-boats. No. 1,239,186; Sept. 4; v. 242; p. 148.
Jones, William G., assignor to Accounting Devices Company, Evanston, Ill. Loose-leaf binder. No. 1,241,220; Sept. 25; v. 242; p. 885.
Jordahl, Anders, Berlin, Germany. Centering for reinforced-concrete floors and roofs. No. 1,241,124; Sept. 25; v. 242; p. 854.
Jordon, Mamie S., South Haven, Minn. Mitt. No. 1,240,728; Sept. 18; v. 242; p. 699.
Jose, Harry T., Biddeford, Me. Wind-shield for motor-cycles. No. 1,239,916; Sept. 11; v. 242; p. 411.
Josleyn, Hubbard N., Syracuse, assignor to Remington Typewriter Company, Ilion, N. Y. Pawl-and-ratchet mechanism. No. 1,239,917; Sept. 11; v. 242; p. 412.
Judd, Henry S., and H. Pietsch, assignors to Judd Laundry Machine Company, Chicago, Ill. Driving mechanism for washing-machines. No. 1,240,801; Sept. 18; v. 242; p. 722.
Judd Laundry Machine Company. (See Judd and Pietsch, assignors.)
Juengst, Charles A., Croton Falls, N. Y. Internal-combustion engine. No. 1,240,980; Sept. 25; v. 242; p. 811.
Junior Monarch Hay Press Company. (See Miller and Toffelmier, assignors.)
Kabo Corset Company. (See Mortara, Ugo, assignor.)
Kadel, Byers W., Roanoke county, Va. Car-truck. No. 1,241,394; Sept. 25; v. 242; p. 941.
Kadel, Byers W., Roanoke county, Va. Car-truck brake. No. 1,241,395; Sept. 25; v. 242; p. 941.
Kadel, Byers W., Roanoke county, Va. Truck side bearing. No. 1,241,396; Sept. 25; v. 242; p. 941.
Kägi, Hans, Winterthur, Switzerland. Pot for mustard, jam, marmalade, honey, &c. No. 1,241,221; Sept. 25; v. 242; p. 885.
Kail, Wilbert S. (See Mortland and Kail.)
Kaiser Company. (See Meyer, Frederick P., assignor.)
Keith, George, assignor of one-half to J. Keith, London, England. Crucible-furnace. No. 1,241,397; Sept. 25; v. 242; p. 942.
Keith, James. (See Keith, George, assignor.)
Kammerhoff, Heinrich H. M., Orange, assignor to Edison Storage Battery Company, West Orange, N. J. Galvanic battery. No. 1,240,856; Sept. 25; v. 242; p. 772.
Karpen, John. (See Barrow and Karpen.)
Karpen, Leopold. (See Carpenter, Stephen L., assignor.)
Kasperson, Frank H., New Haven, Conn. Tool-holding device. No. 1,240,729; Sept. 18; v. 242; p. 699.
Katzmarek, Michael, Duluth, Minn. Rod trimmer or reducer. No. 1,240,221; Sept. 18; v. 242; p. 543.
Kaye, Melvin W., Monaca, Pa. Body-rest. No. 1,238,782; Sept. 4; v. 242; p. 19.
Kayser, Eugen, Berlin, Germany, assignor to The Hess-Bright Manufacturing Company, Philadelphia, Pa. Ball-bearing. No. 1,238,783; Sept. 4; v. 242; p. 19.
Kearby, John G., and Z. Robinson, Mineral Wells, Tex. Electric connection for automobile-lamps. No. 1,239,697; Sept. 11; v. 242; p. 341.
Keary, William J., Schenectady, N. Y. Grinding-mill. No. 1,238,784; Sept. 4; v. 242; p. 19.
Keating, Robert M., Springfield, Mass. Wire wheel. No. 1,239,794; Sept. 11; v. 242; p. 371.
Keegan, Francis W., assignor to D. M. Livingston, New York, N. Y. Radiator. No. 1,239,491; Sept. 11; v. 242; p. 274.
Keen, Eliot, Brooklyn, assignor to W. P. Dunham, New York, N. Y. Control-switch for electric lamps. No. 1,239,275; Sept. 4; v. 242; p. 179.
Keene Shock Absorber Company. (See Olsen, George, assignor.)
Keeney, Robert M., and L. F. Vogt, Washington, assignors to Standard Chemical Company, Pittsburgh, Pa. Ferro-uranium alloy. No. 1,240,054; Sept. 11; v. 242; p. 451.
Keeney, Robert M., and L. F. Vogt, Washington, assignors to Standard Chemical Company, Pittsburgh, Pa. Nickel-uranium alloy. No. 1,240,055; Sept. 11; v. 242; p. 451.
Keeney, Robert M., and L. F. Vogt, Washington, assignors to Standard Chemical Company, Pittsburgh, Pa. Manufacturing ferro-uranium. No. 1,240,056; Sept. 11; v. 242; p. 451.
Keepfer, Thomas, Philadelphia, Pa. Winding-signal for a talking-machine. No. 1,240,730; Sept. 18; v. 242; p. 699.
Keller, Louis A. (See Phillips and Keller.)
Keller, William H., Norton, Va. Electric resistance device. No. 1,240,457; Sept. 18; v. 242; p. 617.
Kelley, Arthur F., *et al.*, administrators. (See Woodland, Frank O.)
Kelley, George B., Flushing, assignor to Transport Tractor Company, Inc., Long Island City, N. Y. Cushion-spring for three-wheeled tractors. No. 1,239,603; Sept. 11; v. 242; p. 310.
Kellogg Switchboard and Supply Company. (See Currier and Ericson, assignors.)
Kellogg Switchboard and Supply Company. (See Currier and Utter, assignors.)
Kellogg Switchboard and Supply Company. (See Mueller, George E., assignor.)
Kelly, Burt O., Shelby, Mich. Oil-burner. No. 1,239,276; Sept. 4; v. 242; p. 179.
Kelly, John W., Silver City, Miss. Station-indicator. No. 1,239,401; Sept. 4; v. 242; p. 217.
Kelly, Richard J., Syracuse, N. Y. Wick-raising mechanism for lanterns. No. 1,241,125; Sept. 25; v. 242; p. 855.
Kelsey Wheel Company. (See Booth, William N., assignor.)
Kelso, William, assignor to The McConway & Torley Company, Pittsburgh, Pa. Car-coupling. No. 1,239,187; Sept. 4; v. 242; p. 149.
Kemper-Thomas Company, The. (See Henderson, Edwin L., assignor.)
Kempler, Benjamin, assignor of one-half to S. Wald, New York, N. Y. Automobile-fender. No. 1,240,057; Sept. 11; v. 242; p. 451.
Kempton, Harrison D., Cranston, R. I. Carpet-beater. No. 1,241,222; Sept. 25; v. 242; p. 886.
Kendrick, Solomon, Revere, assignor to Everlastik, Incorporated, Boston, Mass. Needle-loom. No. 1,239,604; Sept. 11; v. 242; p. 310.
Kendrick, Solomon, Revere, assignor to Everlastik, Incorporated, Boston, Mass. Needle-loom. No. 1,239,605; Sept. 11; v. 242; p. 311.
Kengle, Harry V. (See Crain, Kengle, and Bundy.)
Kennecott Copper Corporation. (See Stannard, Earl T., assignor.)
Kennedy, Carlton L., South Braintree, assignor to The Holtzer-Cabot Electric Company, Roxbury, Mass. Dynamo-electric machine. No. 1,238,923; Sept. 4; v. 242; p. 65.
Kennedy, George W., Columbia, assignor of one-half to J. E. Deaver, Paris, Mo. Lock-keeper. No. 1,238,924; Sept. 4; v. 242; p. 65.
Kennedy, Harry A., Clearfield, Pa. Basic brick. No. 1,240,148; Sept. 11; v. 242; p. 479.
Kennedy, Joseph, assignor to The Clements Company, New York, N. Y. Cable-hanger. No. 1,239,108; Sept. 4; v. 242; p. 125.
Kenney, Francis P., and W. J. Elliott, Philadelphia, Pa. Riveting-machine. No. 1,238,785; Sept. 4; v. 242; p. 20.
Kerby, Joe M., *et al.* (See Dunn, William F., assignor.)
Kershaw, Joseph, Joplin, Mo. Dancing doll. No. 1,238,786; Sept. 4; v. 242; p. 20.
Kespohl, William, Hannibal, Mo. Brick-machine. No. 1,241,308; Sept. 25; v. 242; p. 942.
Kettering, Charles F., Dayton, Ohio, assignor to The Dayton Engineering Laboratories Co., Engine-starting device. No. 1,240,548; Sept. 18; v. 242; p. 582.
Key, Lewis R. (See Brantingham and Key.)
Key, Thomas D., Alexandria, Egypt. Disk valve. No. 1,239,015; Sept. 4; v. 242; p. 95.
Kidd, Irvin A., Salisbury, assignor of one-half to T. H. Kritzer, Spencer, N. C. Pipe-clamp. No. 1,241,126; Sept. 25; v. 242; p. 855.
Kidd, Lewis, Indianapolis, Ind. Reinforced-concrete railway-tie. No. 1,239,402; Sept. 4; v. 242; p. 217.
Kidder, Wellington P., Boston, Mass. Carbureter. No. 1,238,787; Sept. 4; v. 242; p. 20.
Kidwell, Edgar, Washington, D. C., assignor to Waste Utilities Company of Delaware, New York, N. Y. Refuse-furnace. No. 1,239,403; Sept. 4; v. 242; p. 218.
Kieves, Philip, *et al.* (See Mallove, Morris, assignor.)
Kilpatrick, Rollin E. (See Payne, Parl W., assignor.)
Kinder, Halsey G., assignor to The Widney Company, Chicago, Ill. Electropneumatic organ-valve. No. 1,239,698; Sept. 11; v. 242; p. 341.
Kinehan, John J., Los Angeles, Cal. Orthodontic appliance. No. 1,240,731; Sept. 18; v. 242; p. 700.
King, Charles B., B. Jacoby, and C. S. Johnson, assignors to The Marion Steam Shovel Company, Marion, Ohio. Tripping device. No. 1,240,222; Sept. 18; v. 242; p. 543.
King, Ernest A., assignor to Henry Disston & Sons, Incorporated, Philadelphia, Pa. Level. No. 1,241,399; Sept. 25; v. 242; p. 942.
King, John W., Alpha, Idaho. Dehorning implement. No. 1,239,016; Sept. 4; v. 242; p. 96.
King Lock Company, The. (See Baird, Edward P., assignor.)
King, Lowell M., Oregon, Ill. Railway-gate apparatus. No. 1,240,149; Sept. 11; v. 242; p. 479.
Kingsland, John C., Arlington, N. J. Truss. No. 1,240,732; Sept. 18; v. 242; p. 700.
Kinion, Archie A., Sand Springs, Okla. Collar-fastening. No. 1,240,857; Sept. 25; v. 242; p. 773.

Kintner, Charles J., New York, N. Y. Railway signaling. No. 1,239,699; Sept. 11; v. 242; p. 342.

Kintner, Samuel M., *et al.*, receivers. (See Kroger, Fred H., assignor.)

Kinzie, Phillip A. (See Evans, Francis D., assignor.)

Kiraly, John. (See Virovatz, Joseph, assignor.)

Kirchhofer, August, assigner of one-half to T. A. Clarkson, Nashville, Tenn. Pulverized-coal-burning means for locomotives. No. 1,239,918; Sept. 11; v. 242; p. 412.

Kirk, Bernard T. (See Phelps, Kirk, and Comstock.)

Kirsch, Charles W., Sturgis, Mich. Portière-hanger. No. 1,239,919; Sept. 11; v. 242; p. 412.

Kirsch, Charles W., Sturgis, Mich. Shade-roller. No. 1,240,579; Sept. 18; v. 242; p. 652.

Kirsch, Charles W., assignor to Kirsch Manufacturing Co., Sturgis, Mich. Curtain-rod. No. 1,240,582; Sept. 18; v. 242; p. 653.

Kirsch, Charles W., and J. A. Henry, assignors to Kirsch Manufacturing Co., Sturgis, Mich. Shade-roller. No. 1,240,580; Sept. 18; v. 242; p. 653.

Kirsch, Charles W., and H. J. Lahmeyer, Sturgis, Mich. Panel-curtain frame. No. 1,240,581; Sept. 18; v. 242; p. 653.

Kirsch Manufacturing Co. (See Kirsch, Charles W., assignor.)

Kirsch Manufacturing Co. (See Kirsch and Henry, assignors.)

Kiso, Henry K., New York, N. Y. Letter-file. No. 1,240,058; Sept. 11; v. 242; p. 451.

Kittredge, Harold S., assignor of one-half to H. A. Anderson, Chicago, Ill., and one-half to F. D. A. Hunter, Fort Wayne, Ind. Signal-lamp. No. 1,240,458; Sept. 18; v. 242; p. 617.

Klauberg, Charles, New York, N. Y. Bottle-holder. No. 1,239,109; Sept. 4; v. 242; p. 125.

Klausing, Frank W. T., Lakewood, and W. C. Tackaberry, Cleveland, Ohio. Toggle-locking follower-holder. No. 1,240,223; Sept. 18; v. 242; p. 545.

Kleckner, William R., Cowell, Cal. Device for applying substances to trees, shrubs, and vines. No. 1,240,733; Sept. 18; v. 242; p. 700.

Klein, Charles J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electric switch. No. 1,240,459; Sept. 18; v. 242; p. 617.

Klein, Henry F., St. Anthony, N. D. Demountable rim. No. 1,239,606; Sept. 11; v. 242; p. 311.

Klenk, Gottlieb, Defiance, Ohio, assignor to The Defiance Pressed Steel Company, Sheet-metal box. No. 1,240,224; Sept. 18; v. 242; p. 544.

Klimas, William, Paterson, N. J. Railway-tie. No. 1,238,788; Sept. 4; v. 242; p. 21.

Kiln, John R., assignor to The Germless Paper Cup Company, Dayton, Ohio. Holder for paper cups. No. 1,239,277; Sept. 4; v. 242; p. 180.

Kling-Müller, Eugén, Philadelphia, Pa. Electric clock. No. 1,239,507; Sept. 11; v. 242; p. 279.

Klipphahn, Ernest O. E., Dobbins, Cal. Protective device. No. 1,239,795; Sept. 11; v. 242; p. 371.

Klos, John E. (See Baker and Klos.)

Klugh, Paul B., assignor to The Cable Company, Chicago, Ill. Music-sheet-controlling device. No. 1,240,160; Sept. 11; v. 242; p. 483.

Knapp, David R., assignor to The Eastern Steel Company, Pottsville, Pa. Electric furnace. No. 1,240,460; Sept. 18; v. 242; p. 618.

Knisley, George F., Charleston, S. C. Emergency-brake. No. 1,240,150; Sept. 11; v. 242; p. 480.

Knoll, George W., Jr., Philadelphia, Pa. Poultry-feeding device. No. 1,239,404; Sept. 4; v. 242; p. 218.

Knowles, Henry R., Ridley Park, Pa. Concealing-screen for visible type-writers. No. 1,240,349; Sept. 18; v. 242; p. 582.

Knowles, Joseph, Edmonds, Wash. Wrench. No. 1,241,223; Sept. 25; v. 242; p. 886.

Knowlton, William N., Brooklyn, N. Y. Vehicle-wheel tire. No. 1,240,059; Sept. 11; v. 242; p. 452.

Knudson, Oscar. (See Hill and Jeffrey, assignors.)

Knutson, Alfred W., assignor to Rowe Manufacturing Co., Galesburg, Ill. Hoisting device. No. 1,239,110; Sept. 4; v. 242; p. 125.

Knutson, Alfred W., assignor to Rowe Manufacturing Co., Galesburg, Ill. Gearing. No. 1,239,111; Sept. 4; v. 242; p. 126.

Kny-Scheerer Corporation. (See Hawley, George W., assignor.)

Koeppe, Adolph G., Palmyra, Ill. Lock-valve. No. 1,240,734; Sept. 18; v. 242; p. 700.

Kohl, Eduard F., Vienna, Austria. Keyless lock. No. 1,240,981; Sept. 25; v. 242; p. 811.

Kohlberger, Charles F., New York, N. Y. Lock. No. 1,239,188; Sept. 4; v. 242; p. 149.

Kohler, George B., assignor to The J. G. Brill Company, Philadelphia, Pa. Window-frame. No. 1,240,735; Sept. 18; v. 242; p. 701.

Konczak, Ignatius, Osakis, Minn. Hay-sling release. No. 1,239,700; Sept. 11; v. 242; p. 342.

Kopetschny, Alexander H., Jersey City, N. J. Scapular-ring. No. 1,239,405; Sept. 4; v. 242; p. 218.

Koppe, William P. (See Caldwell and Koppe.)

Kops, Daniel, New York, N. Y. Apparel-corset. No. 1,241,400; Sept. 25; v. 242; p. 943.

Kost, Joseph L., assignor of one-half to J. H. Shively, Galveston, Tex. Mail-handling device. No. 1,239,492; Sept. 11; v. 242; p. 274.

Kothny, Gottdank L., and R. Suczek, assignors to C. H. Wheeler Manufacturing Company, Philadelphia, Pa. Automatic ejector control. No. 1,240,858; Sept. 25; v. 242; p. 773.

Kraemer, Thomas. (See Sheble and Kraemer.)

Kralund, John, Brooklyn, N. Y., assignor to Doehler Die Casting Company. Making commercial castings. No. 1,238,789; Sept. 4; v. 242; p. 21.

Krapf, Frederick W., Jr., assignor of one-half to W. F. Wilken, Chicago, Ill. Christmas-tree holder. No. 1,241,127; Sept. 25; v. 242; p. 855.

Krauleidas, Martin. (See Wagner, John, assignor.)

Kraus, Albert L., assignor to Kraus, Millett & Company, Peabody, Mass. Buffing-wheel. No. 1,238,925; Sept. 4; v. 242; p. 65.

Kraus, Millett & Company. (See Kraus, Albert L., assignor.)

Krementz & Co. (See Underwood, Earl, assignor.)

Kretzer, Heinrich, Wallersheim, near Coblenz, and A. Cappel, Coblenz, Germany; said Cappel assignor to said Kretzer. Producing well-clouded enamels or glazes by means of substitutes for stannic oxid. No. 1,239,112; Sept. 4; v. 242; p. 126.

Krieghoff, Anton, assignor to Anton Krieghoff Company, Boston, Mass. Piano. No. 1,239,113; Sept. 4; v. 242; p. 127.

Kritzer, Thomas H. (See Kidd, Irvin A., assignor.)

Krizan, Joseph, Jr., Groom, Tex. Automatic flame-regulator. No. 1,240,982; Sept. 25; v. 242; p. 812.

Kroedel, Robert, assignor to Eastman Kodak Company, Rochester, N. Y. Photographic camera. No. 1,239,017; Sept. 4; v. 242; p. 96.

Kroehler, Peter E. (See Seng, Wendelin P., assignor.)

Kroger, Fred H., Brooklyn, N. Y., assignor to S. M. Kintner and H. M. Barrett, receivers, Pittsburgh, Pa. Circuit-breaker. No. 1,239,114; Sept. 4; v. 242; p. 127.

Kroupa, Karl. (See Fingerle and Kroupa.)

Krueger, Edward H., Kimberly, Wis. Device for removing putty from window-panes. No. 1,239,406; Sept. 4; v. 242; p. 219.

Krueger, Theodore H., New York, N. Y. Gummed sticker or label. No. 1,239,701; Sept. 11; v. 242; p. 342.

Krump, Nic, Chicago, Ill. Clutch mechanism. No. 1,240,225; Sept. 18; v. 242; p. 544.

Krupp, Fred H., Northfield, assignor of two-fifths to B. C. Swenson, New London, Minn. Rail-fastener for metal ties. No. 1,241,224; Sept. 25; v. 242; p. 886.

Kubly, John C., Monroe, Wis. Swingletree-clip. No. 1,240,983; Sept. 25; v. 242; p. 812.

Kuhn, Harry J., Middletown, N. Y. Combination toilet-article holder. No. 1,241,225; Sept. 25; v. 242; p. 887.

Kulick, Abraham, New York, N. Y. Hand-bag. No. 1,240,060; Sept. 11; v. 242; p. 452.

Kunst, John, New York, N. Y. Rollomobile. No. 1,240,226; Sept. 18; v. 242; p. 544.

Kurman, Nathan A., Oakland, Cal., assignor, by mesne assignments, to International Callaphone Corporation, New York, N. Y. Telephonic paging system. No. 1,239,607; Sept. 11; v. 242; p. 311.

Kurth, Max, Waldron, Ark. Evaporating-pan. No. 1,240,984; Sept. 25; v. 242; p. 812.

Kuryllo, Mik. (See Duzey, Michael W., assignor.)

Kusý, Jaroslav A., New York, N. Y. Nut-lock. No. 1,241,401; Sept. 25; v. 242; p. 943.

Kuterbach, Stanley, Philadelphia, Pa. Army-ambulance. No. 1,241,402; Sept. 25; v. 242; p. 943.

Kyser, George E., *et al.* (See Webb, Benjamin T., assignor.)

Kyser, George E., Birmingham, and J. U. Till, McWilliams, assignors to Till Manufacturing Co., Birmingham, Ala. Device for catching boll-weevils. No. 1,240,736; Sept. 18; v. 242; p. 701.

La Bombard, Leon E., Chelsea, Mass., and M. H. Sidebotham, assignors to E. W. Labombarde, Nashua, N. H. Feed mechanism for blank-treating machines. No. 1,238,790; Sept. 4; v. 242; p. 21.

La Crosse Plow Company. (See Biebinger, David A., assignor.)

La Fleur, Benjamin S., Beverly, Mass. Back-gage for shoe-sewing machines. No. 1,240,985; Sept. 25; v. 242; p. 812.

La Rock, John, assignor of one-third to J. B. Glasheen and one-third to W. C. Morrell, Chicago, Ill. Stretching-machine. No. 1,239,522; Sept. 11; v. 242; p. 284.

Labombarde, Elie W. (See La Bombard and Sidebotham, assignors.)

Lacerda, Harry A., Schenectady, assignor of one-half to R. W. Benson, Mount Vernon, N. Y. Hydrocarbon-burner. No. 1,240,061; Sept. 11; v. 242; p. 452.

Lacombe, Orvila. (See Claude and Lacombe.)

Lagus, Robert, Abo, Finland, Russia. Telephone for long distances or for deaf persons. No. 1,239,702; Sept. 11; v. 242; p. 342.

Lahmeyer, Henry J. (See Kirsch and Lahmeyer.)

Laird, Frederick, assignor of one-half to J. T. Prince, Claypool, Okla. Seed-planter. No. 1,240,227; Sept. 18; v. 242; p. 545.

Lakin, Harry W., Boston, Mass. Headlight for motor-vehicles, &c. No. 1,240,583; Sept. 18; v. 242; p. 654.

Lalliberte, Henri J., St. Johnsbury, Vt. Hook. No. 1,240,986; Sept. 25; v. 242; p. 812.

Lalley Electro-Lighting Corporation. (See Okey, Perry, assignor.)

Lallman, Gilbert F., Arlington, Nebr. Ammunition-primer. No. 1,240,859; Sept. 25; v. 242; p. 773.

Lamb, Clarence M. (See Smith and Lamb.)

Lamb, George A., Los Angeles, Cal. Incinerating kelp. No. 1,240,737; Sept. 18; v. 242; p. 701.

Lamb, Richard R., Arrowsmith, Ill. Cement-finishing tool. No. 1,239,608; Sept. 11; v. 242; p. 312.

Lambert, Frank B., assignor to Lambert Process Company, Chicago, Ill. Burning bricks. No. 1,239,189; Sept. 4; v. 242; p. 149.

Lambert Process Company. (See Lambert, Frank B., assignor.)

Lampert, George, New York, N. Y. Desk or table lamp. No. 1,239,493; Sept. 11; v. 242; p. 275.

Lamson Company, The. (See Pearsall, Albert W., assignor.)

Lander, Thomas E. (See Hauenstein, John, assignor.)

Landers, Frary & Clark. (See Smart, Joseph F., assignor.)

Landers, John, assignor to H. W. Carter & Sons, Lebanon, N. H. Combined strap and waistband. No. 1,241,403; Sept. 25; v. 242; p. 943.

Landor, Arnold H. S., Florence, Italy. Airship. No. 1,239,796; Sept. 11; v. 242; p. 372.

Lang, Charles R., Cathcart, assignor to G. & J. Weir, Limited, Glasgow, Scotland. Centrifugal pump. No. 1,241,128; Sept. 25; v. 242; p. 856.

Lang, Henry T., Fremont, Ohio, assignor, by mesne assignments, to National Carbon Company, Inc. Dry-cell-tamping apparatus. No. 1,241,226; Sept. 25; v. 242; p. 887.

Lange, Hugo A., Little Rock, Ark. Graver-sharpener. No. 1,239,494; Sept. 11; v. 242; p. 275.

Lanning, James K. (See Cunniff and Lanning.)

Lanning, James K., Fall River, Mass. Picker-check. No. 1,238,791; Sept. 4; v. 242; p. 22.

Lantz, Elmer G., Tillamook, Oreg. Oil-burner. No. 1,241,404; Sept. 25; v. 242; p. 944.

Laraway, Henry D., and B. Falkenberg, assignors to Hotpoint Electric Heating Company, Ontario, Cal. Articulated metal shell for an electric hot-pad. No. 1,240,584; Sept. 18; v. 242; p. 654.

Larrabee, Samuel O. (See Phinney and Larrabee.)

Larrimer, Jesse P., Brooklyn, N. Y. Tire. No. 1,239,278; Sept. 4; v. 242; p. 180.

Larsen, Ivert, assignor to F. H. Smith Manufacturing Company, Chicago, Ill. Button-feeding mechanism. No. 1,239,797; Sept. 11; v. 242; p. 372.

Larsen, Peter, Cattaraugus, N. Y. Milking apparatus. No. 1,239,407; Sept. 4; v. 242; p. 219.

Larson, Edward, Lerdala, Sweden. Safety device for fire-arms. No. 1,239,920; Sept. 11; v. 242; p. 413.

Larson, Frank O., Aurora, Ill., assignor to Rathbone, Sard & Company, Albany, N. Y. Stove. No. 1,241,227; Sept. 25; v. 242; p. 887.

Larson, Oscar J., Le Roy, Minn. Advertising and book-holding apparatus. No. 1,240,151; Sept. 11; v. 242; p. 480.

Latimer, Samuel A., *et al.* (See Walter, Ira D., assignor.)

Lauritzen, Albert, Charlotte, Mich. Potato-digger. No. 1,239,921; Sept. 11; v. 242; p. 413.

Lauritzen, Albert, Charlotte, Mich. Potato-separator. No. 1,239,922; Sept. 11; v. 242; p. 413.

Lawson, John A., Hardin, Mo. Header-box. No. 1,239,408; Sept. 4; v. 242; p. 219.

Le Suer, Herbert D., Seymour, Iowa. Miter-box. No. 1,240,228; Sept. 18; v. 242; p. 545.

Leach, Willis E., Litchfield, Ohio. Expansion-joint for concrete sections. No. 1,241,405; Sept. 25; v. 242; p. 944.

Leaman, William H., Jr., Meriden, Conn. Holder for fly-paper. No. 1,239,703; Sept. 11; v. 242; p. 343.

Leather Products Company. (See Cavanaugh, William M., assignor.)

Leavitt, Samuel A., Appleton, Wis. Paint composition. No. 1,239,190; Sept. 4; v. 242; p. 150.

Leckie, Herbert V., Bridgeport, Conn. Positive friction-clutch. No. 1,241,129; Sept. 25; v. 242; p. 856.

Lee, Earle P. and T. L., assignors to North East Electric Company, Rochester, N. Y. Brush-mounting. No. 1,240,738; Sept. 18; v. 242; p. 702.

Lee, Harry W. and T. J., and C. M. Sims, Anniston, Ala. Locking-closure. No. 1,239,704; Sept. 11; v. 242; p. 343.

Lee, Thomas J. (See Lee and Sims.)

Lee, Thomas L. (See Lee, Earle P. and T. L.)

Lee, Thomas L., assignor to North East Electric Company, Rochester, N. Y. Brush-mounting for electric motors or generators. No. 1,240,585; Sept. 18; v. 242; p. 654.

Lee, Wellington B., and M. A. Bogkin, New York, N. Y. Device for stopping and derailing cars. No. 1,239,191; Sept. 4; v. 242; p. 150.

Lefever, Charles F., assignor to Daisy Manufacturing Company, Plymouth, Mich. Spring-gun. No. 1,240,987; Sept. 25; v. 242; p. 813.

Lefever, Charles F., assignor to Daisy Manufacturing Company, Plymouth, Mich. Gun. No. 1,240,988; Sept. 25; v. 242; p. 813.

Lefever, Charles F., assignor to Daisy Manufacturing Company, Plymouth, Mich. Air-gun. No. 1,240,989; Sept. 25; v. 242; p. 813.

Lefever, Charles F., assignor to Daisy Manufacturing Company, Plymouth, Mich. Pop-gun. No. 1,240,990; Sept. 25; v. 242; p. 814.

Lefever, Charles F., assignor to Daisy Manufacturing Company, Plymouth, Mich. Gun. No. 1,240,991; Sept. 25; v. 242; p. 814.

Leigh, John F., Perry, Ark. Copy-holder. No. 1,241,130; Sept. 25; v. 242; p. 857.

Leinert, Charles H., Chicago, Ill. Valve for compressors. No. 1,240,461; Sept. 18; v. 242; p. 618.

Leitch, Meredith, Poughkeepsie, N. Y., assignor to The De Laval Separator Company. Milking-machine teat-cup. No. 1,239,923; Sept. 11; v. 242; p. 414.

Lelless, Frank A., and J. M. Nangle, Greensburg, Pa. Alarm apparatus. No. 1,240,062; Sept. 11; v. 242; p. 453.

Lemp, Hermann, Erie, Pa., assignor to General Electric Company. Governing mechanism for engines. No. 1,240,739; Sept. 18; v. 242; p. 702.

Leonard, George I. (See Adams and Leonard.)

Leonard, Moses, Saginaw, Mich. Rail-joint. No. 1,241,406; Sept. 25; v. 242; p. 944.

Leonard, Stephen R. (See Ellis and Leonard.)

Leustig, Benno B., Cleveland, Ohio. Flexible metal casing for laminated springs. No. 1,240,350; Sept. 18; v. 242; p. 583.

Levett, Julius L., New York, N. Y. Garbage-can. No. 1,240,740; Sept. 18; v. 242; p. 702.

Levy, David, New York, N. Y. Brush. No. 1,240,860; Sept. 25; v. 242; p. 773.

Levy, Julius, Roland Park, Md. Torpedo-guard. No. 1,240,152; Sept. 11; v. 242; p. 480.

Lewis, Frank H. (See Mansfield, George F., assignor.)

Lewis, Homer M., assignor of one-half to A. G. Swayzee, Springfield, Ill. Cone-clutch. No. 1,240,741; Sept. 18; v. 242; p. 703.

Lewis, Raymond J., Elwood, Ind. Railway-track gage. No. 1,239,192; Sept. 4; v. 242; p. 150.

Lewis, Thomas H., assignor of three-tenths to J. J. Pierpont, Pana, Ill. Car-coupling. No. 1,241,131; Sept. 25; v. 242; p. 857.

Liberman, Bernard, W. M. Reichart, and J. C. Wobensmith, Philadelphia, Pa.; said Reichart and said Wobensmith assignors to said Liberman. Tobacco stripping and booking machine. No. 1,239,115; Sept. 4; v. 242; p. 128.

Liebowitz, Benjamin, New York, N. Y. Vehicle suspension. No. 1,240,992; Sept. 25; v. 242; p. 814.

Lietz, Adolph, San Rafael, Cal. Compensating binnacle. No. 1,241,132; Sept. 25; v. 242; p. 857.

Lillich, Frederick, Philadelphia, Pa. Fender. No. 1,239,705; Sept. 11; v. 242; p. 343.

Lilly, William J., Butte, Mont. Alarm for hoisting-engines. No. 1,239,409; Sept. 4; v. 242; p. 220.

Lilly, William T., Glen Morgan, assignor of one-fourth to H. M. Scott and one-fourth to C. H. Meador, Beckley, W. Va. Attachment for chairs. No. 1,239,018; Sept. 4; v. 242; p. 96.

Lind, Carl A., Minneapolis, Minn. Sandpapering-machine. No. 1,241,407; Sept. 25; v. 242; p. 944.

Lindner, Arthur, assignor of one-half to F. D. Bethard, Richmond, Ind. Feed screw-adjusting mechanism. No. 1,239,193; Sept. 4; v. 242; p. 151.

Lindquist, August, Sisseton, S. D. Feed-box. No. 1,239,116; Sept. 4; v. 242; p. 128.

Lindsay, Samuel D., Orlando, Fla. Concrete-block machine. No. 1,241,228; Sept. 25; v. 242; p. 888.

Linn, Alexander M., *et al.* (See Morse, George O., assignor.)

Linotype and Machinery Limited. (See Parker and Shuttleworth, assignors.)

Lippert, Samuel, East Cleveland, Ohio. Rotary deep-well pump. No. 1,239,706; Sept. 11; v. 242; p. 344.

Lipps, Emory J., Fountain Hill borough, Pa. Thread-traverse means for winding-machines and the like. No. 1,240,352; Sept. 18; v. 242; p. 583.

Lister, Charles H., North St. Paul, Minn. Mold for casting-machines. No. 1,240,229; Sept. 18; v. 242; p. 545.

Lister, Frank O., Altoona, Pa. Floor-cleaning device. No. 1,240,742; Sept. 18; v. 242; p. 703.

Litchfield Shuttle Company. (See Coolidge, Roger E., assignor.)

Little, Frederick B., Indianapolis, Ind. Electric control apparatus for musical instruments. No. 1,239,609; Sept. 11; v. 242; p. 312.

Little, Frederick B., assignor, by mesne assignments, to J. C. Deagan Musical Bells, Chicago, Ill. Vibrating mechanism. No. 1,240,351; Sept. 18; v. 242; p. 583.

Little, John O. (See Meadwell, William E., assignor.)

Little, Lucius F., assignor to The Anglo-American Mill Co., Owensboro, Ky. Roller-mill. No. 1,239,707; Sept. 11; v. 242; p. 344.

Littlefield, Augustine F., Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Sole-rounder pattern. No. 1,239,798; Sept. 11; v. 242; p. 372.

Livingston, D. McRa. (See Keegan, Francis W., assignor.)

Livingston, D McRa, New York, N. Y. Radiator. No. 1,239,495; Sept. 11; v. 242; p. 275.

Livingston, D McRa, New York, N. Y. Spring suspension means. No. 1,240,063; Sept. 11; v. 242; p. 453.

Livy, Ernest B., assignor to Wortendyke Manufacturing Co., Richmond, Va. Cable construction. No. 1,239,410; Sept. 4; v. 242; p. 220.

Lizarraga, Francisco A., Corozal, British Honduras. Bailing-valve. No. 1,241,408; Sept. 25; v. 242; p. 945.

Lizarraga, Francisco A., Corozal, British Honduras. Projectile. No. 1,241,409; Sept. 25; v. 242; p. 945.

Ljungström, Fredrik, assignor to Aktiebolaget Ljungströms Ångturbin, (Manufacturers,) Liljeholmen, Stockholm, Sweden. Steam-turbine. (Reissue.) No. 14,355; Sept. 11; v. 242; p. 488.

Lloyd, Llewellyn N., Bombay, India. Underframe for railway and other vehicles. No. 1,240,064; Sept. 11; v. 242; p. 453.

Lloyd, Nafew J., Butte, Mont. Wrapping-machine. No. 1,239,019; Sept. 4; v. 242; p. 96.

Locomotive Stoker Company. (See Lower, Nathan M., assignor.)

Loebleln & Deitzel. (See Loeblein, William P., assignor.)

Loeblein, William P., Lakewood, Ohio, assignor to Loeblein & Deitzel. Chair. No. 1,239,279; Sept. 4; v. 242; p. 180.

Loepsinger, Albert J., Providence, R. I., assignor to General Fire Extinguisher Company, New York, N. Y. Sealing glass bulbs. No. 1,241,229; Sept. 25; v. 242; p. 888.

Loewenbach, Hugo, Milwaukee, Wis. Pin-setting mechanism. No. 1,239,280; Sept. 4; v. 242; p. 181.

Loewensteln, Louis C., Lynn, Mass., assignor to General Electric Company. Elastic-fluid turbine. No. 1,240,743; Sept. 18; v. 242; p. 703.

Lohse, John C., Glen Ridge, N. J. Heat-insulating unit. No. 1,240,462; Sept. 18; v. 242; p. 618.

Long, George R., Waterbury, Conn., assignor, by mesne assignments, to Cordley and Hayes, New York, N. Y. Faucet. No. 1,238,926; Sept. 4; v. 242; p. 66.

Long, James F., San Francisco, Cal. Camping outfit. No. 1,240,353; Sept. 18; v. 242; p. 583.

Long-Landreth Schneider Co., The. (See Schneider, Frederick D., assignor.)

Long, Minnie A., Lake Charles, La. Folding crate. No. 1,240,463; Sept. 18; v. 242; p. 618.

Longauer, Hubert, Lyndon Station, Wis. Exterminator. No. 1,239,799; Sept. 11; v. 242; p. 373.

Longhed, Arvid, Georgetown, Conn. Automatic train-stopping apparatus. No. 1,240,744; Sept. 18; v. 242; p. 704.

Loomis, Allen, assignor to Packard Motor Car Company, Detroit, Mich. Motor-vehicle. No. 1,239,194; Sept. 4; v. 242; p. 151.

Lord, Frederick W., New York, N. Y. Anchorage for tennis-nets and the like. No. 1,239,924; Sept. 11; v. 242; p. 414.

Lord, Harry G., Philadelphia, Pa. Torsional equalizer for transmission of power. No. 1,240,065; Sept. 11; v. 242; p. 453.

Lord, Richard, Cedar Rapids, Iowa. Tank-heater. No. 1,239,925; Sept. 11; v. 242; p. 414.

Lorentowicz, Leonard, Irvington, N. J. Composition for repairing scored cylinders. No. 1,239,195; Sept. 4; v. 242; p. 152.

Louth, Maurice E., and J. Jackson, assignors to The Globe Stove & Range Company, Kokomo, Ind. Electric hot-plate or heat unit. No. 1,238,792; Sept. 4; v. 242; p. 22.

Louth, Maurice E., and J. Jackson, assignors to The Globe Stove & Range Company, Kokomo, Ind. Electric heat-storage heating unit. No. 1,238,793; Sept. 4; v. 242; p. 23.

Love, Lee K., St. Louis, Mo. Range-cover. No. 1,240,745; Sept. 18; v. 242; p. 704.

Lowe, Harry L., assignor to Clinton Switch Company, Clinton, Ind. Car-coupling. No. 1,240,066; Sept. 11; v. 242; p. 454.

Lowe, Harry L., assignor to Clinton Switch Company, Clinton, Ind. Insulator and cut-out switch. No. 1,240,067; Sept. 11; v. 242; p. 454.

Lower, Nathan M., assignor to Locomotive Stoker Company, Pittsburgh, Pa. Locomotive-tender. No. 1,240,861; Sept. 25; v. 242; p. 774.

Lowry, Reginald N., Mount Lebanon, Pa. Power lifting-machine. No. 1,239,020; Sept. 4; v. 242; p. 97.

Loyland, Betsie K. H., Thief River Falls, Minn. Shoe-fastener. No. 1,239,610; Sept. 11; v. 242; p. 312.

Luce, Thomas C., Stratford, assignor to Pratt & Cady Company, Incorporated, Hartford, Conn. Valve attachment. No. 1,240,230; Sept. 18; v. 242; p. 546.

Luciano, Achille, Silver Lake, N. J. Combined talking and picture-projecting machine. No. 1,239,800; Sept. 11; v. 242; p. 373.

Ludlow Typograph Company. (See Reade, William A., assignor.)

Luer, Herman, Alton, Ill. Meat-cutting machine. No. 1,239,926; Sept. 11; v. 242; p. 414.

Lumley, Wilfrid, Conneaut, Ohio. Corrugated stock or board. No. 1,240,231; Sept. 18; v. 242; p. 546.

Lummus Cotton Gin Company. (See Grimes, Thaddeus S., assignor.)

Lundell, Alben E. (See Reeves and Lundell.)

Lundgaard, Ivar, Rochester, N. Y. Refrigerating-machine. No. 1,240,862; Sept. 25; v. 242; p. 774.

Lundquist, Ernest F. T., Chicago, Ill. Coaster. No. 1,239,196; Sept. 4; v. 242; p. 152.

Lunkenheimer Company, The. (See Aull, Jerome J., assignor.)

Luskey, Harry W., and L. C. Payne, Pensacola, Fla. Combination carpenter's plane. No. 1,239,127; Sept. 4; v. 242; p. 152.

Lyda, Arthur W., New Berlin, assignor of one-half to O. J. Evans, Canton, Ohio. Tubular adjustable curtain-hanger. No. 1,240,803; Sept. 25; v. 242; p. 774.

Lynch, Charles E., Brooklyn, N. Y. Shoe construction. No. 1,239,411; Sept. 4; v. 242; p. 220.

Lyon, Eva M., Escondido, Cal. Dirigible headlight for vehicles. No. 1,240,354; Sept. 18; v. 242; p. 584.

Lyons, Robert L., Waltham, Mass., assignor to F. Osanu Company, New York, N. Y. Sewing-machine. No. 1,238,794; Sept. 4; v. 242; p. 23.

Lytton, Edward, London, England. Firing mechanism for small-arms. No. 1,240,068; Sept. 11; v. 242; p. 454.

MacCurdy, John T., New York, N. Y. Photographic exposure-meter. No. 1,241,133; Sept. 25; v. 242; p. 858.

MacGregor, Clide C. (See Beebe and MacGregor.)

MacKay, John J., Lake Charles, La. Nut-lock. No. 1,239,414; Sept. 4; v. 242; p. 221.

MacLachlan, Elizabeth, assignor to W. S. Ferris, Elkhart, Ind. Cutting and cleaning tool. No. 1,239,201; Sept. 4; v. 242; p. 153.

MacMoran, Henrietta K., Burlington, Wash. Egg-beater. No. 1,240,355; Sept. 18; v. 242; p. 584.

MacVicar, Donald, Norfolk, Conn. Coop. No. 1,240,467; Sept. 18; v. 242; p. 620.

Macbeth, Jeremont J., Dayton, Ohio. Shock-absorber. No. 1,239,200; Sept. 4; v. 242; p. 153.

Macbeth, Robert A., Brooklyn, N. Y. Door-securer. No. 1,239,802; Sept. 11; v. 242; p. 374.

Mackay, George M. J., Schenectady, N. Y., assignor to General Electric Company. Incandescent lamp. No. 1,239,413; Sept. 4; v. 242; p. 221.

Macklind, William R., Cleveland, Ohio. Drying-table. No. 1,239,415; Sept. 4; v. 242; p. 221.

Macy, Clarkson W., Converse, Ind. Closet attachment. No. 1,241,231; Sept. 25; v. 242; p. 889.

Macy, Clarkson W., Converse, Ind. Closet attachment. No. 1,241,232; Sept. 25; v. 242; p. 889.

Macy & Co., R. H. (See Dignan, Percival, assignor.)

Madigan, Patrick J., Chicago, Ill. Truck. No. 1,239,498; Sept. 11; v. 242; p. 276.

Magee, James, 2d. (See McCollum, Alfred F., assignor.)

Magrath, Henry J., Poplar, London, England. Treatment of water for softening, purifying, and like purposes. No. 1,239,202; Sept. 4; v. 242; p. 154.

Mahaffey, N. W. (See Hubner, Milton H., assignor.)

Malden, Leaman A., Newberry, Fla. Bottle. No. 1,240,072; Sept. 11; v. 242; p. 455.

Mainwaring, Richard L., Brooklyn, N. Y. Cleaning and polishing composition. No. 1,239,416; Sept. 4; v. 242; p. 222.

Maire, Auguste, Argenteuil, assignor to Societe Lorraine Des Anciens Etablissements De Dietrich & Cie. De Luneville, Paris, France. Driving mechanism for magnetos. No. 1,241,134; Sept. 25; v. 242; p. 858.

Maire, Peter D. (See Gregory and Maire.)

Majestic Electric Development Company. (See Shoenberg, Milton H., assignor.)

Malgam Brush Company. (See Tucker and Arnold, assignors.)

Mallove, Morris, Brooklyn, assignor of thirty-five one-hundredths to J. Greenberg and P. Kleves, New York, N. Y. Pipe claw-vise. No. 1,239,431; Sept. 4; v. 242; p. 226.

Malmquist, Adolph K., assignor to Perfect Vacuum Canning Company, South Bellingham, Wash. Can-capping machine. No. 1,241,233; Sept. 25; v. 242; p. 889.

Manifold, Richard G., Riverside, Cal. Gearing for motor-vehicles. No. 1,240,748; Sept. 18; v. 242; p. 704.

Manly, Charles M., Brooklyn, N. Y. Power-transmission device. No. 1,238,927; Sept. 4; v. 242; p. 66.

Manning, Herbert B., Fall River Mills, Cal. Demountable rim. No. 1,239,118; Sept. 4; v. 242; p. 128.

Manning, Stephen W., Sapulpa, Okla. Method of and apparatus for drawing glass. No. 1,239,024; Sept. 4; v. 242; p. 98.

Manny, Eugène S., Montreal, Quebec, Canada. Pipe attachment for tubular furnaces. No. 1,240,994; Sept. 25; v. 242; p. 815.

Mansfield, George F., Pascagoula, Miss., assignor of one-half to F. H. Lewis, Pascagoula, Miss. Cloth-measuring machine. No. 1,238,798; Sept. 4; v. 242; p. 24.

Marchand, Louis, Jr., Pittsburgh, Pa. Connector for flexible armored conductors. No. 1,238,799; Sept. 4; v. 242; p. 25.

Marconi Wireless Telegraph Company of America. (See Wright, George M., assignor.)

Marcowitz, William, New York, N. Y. Bicycle-lamp bracket. No. 1,240,233; Sept. 18; v. 242; p. 546.

Marcus, Charles L., New York, N. Y. Pass-book. No. 1,239,285; Sept. 4; v. 242; p. 182.

Marcy, Frank E., Salt Lake City, Utah. Roller-mill. No. 1,239,286; Sept. 4; v. 242; p. 182.

Marion Steam Shovel Company, The. (See King, Jacoby, and Johnson, assignors.)

Markem Machine Company. (See Putnam, Fred A., assignor.)

Marks, Paul J., assignor to Eastman Kodak Company, Rochester, N. Y. Photographic shutter. No. 1,239,025; Sept. 4; v. 242; p. 98.

Marks, Paul J., assignor to Eastman Kodak Company, Rochester, N. Y. Controlling mechanism for photographic shutters. No. 1,240,073; Sept. 11; v. 242; p. 450.

Markwardt, Gustave P., Winona, Minn. Vehicle-spring jack. No. 1,239,499; Sept. 11; v. 242; p. 277.

Marrinan, Honora C., St. Paul, Minn. Electric bath-cabinet. No. 1,241,234; Sept. 25; v. 242; p. 890.

Mars, Jesse B., and N. Stramaglia, Gary, Ind. Non-refillable bottle. No. 1,239,803; Sept. 11; v. 242; p. 374.

Marsden, Arlow G., Fort Atkinson, Wis. Resilient wheel. No. 1,241,235; Sept. 25; v. 242; p. 890.

Marsden, Benjamin F., Plad, Mo. Ironing and pressing board. No. 1,239,928; Sept. 11; v. 242; p. 415.

Marsh, John, Chicago, Ill. Container. No. 1,239,417; Sept. 4; v. 242; p. 222.

Marshall, John I. (See Faulds, John, assignor.)

Martin, Charles L., assignor of one-half to C. N. Howard, Los Angeles, Cal. Sash-weight. No. 1,239,418; Sept. 4; v. 242; p. 222.

Martin, Frank D., Chester, Vt. Tooth-gage device for circular saws. No. 1,240,074; Sept. 11; v. 242; p. 456.

Martin, Glenn L., assignor to Glenn L. Martin Company, Los Angeles, Cal. Flying-boat. No. 1,239,500; Sept. 11; v. 242; p. 277.

Martin, Haakon A., assignor to The National Cash Register Company, Dayton, Ohio. Cash-register. No. 1,240,231; Sept. 18; v. 242; p. 547.

Martin, Milford B., Spokane, Wash. Print-drying apparatus. No. 1,240,468; Sept. 18; v. 242; p. 620.

Martz, Randolph N., assignor to C. C. Carty, Frederick, Md. Hose-coupling. No. 1,238,928; Sept. 4; v. 242, p. 66.

Maruna, Michael J. (See Cooper, Walter J., assignor.)

Marx, Richard, Philadelphia, Pa. Safety device for wringers. No. 1,240,751; Sept. 18; v. 242; p. 706.

Marx, Richard, assignor to Defiance Manufacturing Company, Philadelphia, Pa. Corn-razor. No. 1,239,419; Sept. 4; v. 242; p. 222.

Marx, Richard, Philadelphia, assignor to Defiance Manufacturing Company, Summerdale, Pa. Embossing-press. No. 1,240,750; Sept. 18; v. 242; p. 705.

Mason, Charles T., Sumter, S. C. Rocking distributer for ignition systems. No. 1,241,412; Sept. 25; v. 242; p. 946.

Mason, Garrett C., Dos Palos, Cal. Necktie-form. No. 1,241,413; Sept. 25; v. 242; p. 946.

Mason, Garrett O. (See Harris and Mason.)

Mason, Irving W., Aberdeen, Wash. Insect-killer. No. 1,239,501; Sept. 11; v. 242; p. 277.

Mason Steam System. (See Weiss, Charles A., assignor.)

Mason, Thomas O., Bellevue borough, assignor to T. O. M. Manufacturing Company, Pittsburgh, Pa. Child's vehicle. No. 1,241,474; Sept. 25; v. 242; p. 964.

Mastenbrook, Henry J., Lakewood, assignor to The Ohio Blower Company, Cleveland, Ohio. Burner. No. 1,241,135; Sept. 25; v. 242; p. 858.

Masterton, Hugh M., Paterson, N. J. Gun attachment. No. 1,239,287; Sept. 4; v. 242; p. 182.

Masury, Alfred F., and A. G. Herreshoff, assignors to International Motor Company, New York, N. Y. Gear-shifting mechanism. No. 1,241,414; Sept. 25; v. 242; p. 946.

Masury, Alfred F., and A. G. Herreshoff, assignors to International Motor Company, New York, N. Y. Four-speed transmission. No. 1,241,415; Sept. 25; v. 242; p. 947.

Mathews Gravity Carrier Company. (See Buck, Herman J., assignor.)

Mathison, George W., Denver, Colo. Food-package. No. 1,240,235; Sept. 18; v. 242; p. 547.

Mathy, Maurice, Flémalle-Grande, Belgium. Machine for grinding the rims of glass vessels. No. 1,241,236; Sept. 25; v. 242; p. 891.

Matsuoka, Thomas S., Arrow, Colo. Tie-plate. No. 1,240,865; Sept. 25; v. 242; p. 775.

Matter, Oskar, Troisdorf, Germany. Detonating cap. No. 1,239,613; Sept. 11; v. 242; p. 313.

Matthews, Milton J., Detroit, Mich. Time-controlled mechanism. No. 1,240,749; Sept. 18; v. 242; p. 705.

Matthews, Percy W. (See Atterbury and Matthews.)

Matthews, William H., Dayton, Ohio. Computing device. No. 1,238,800; Sept. 4; v. 242; p. 25.

Mattison, Charles D., Hasbrouck Heights, N. J., assignor to The Unitrim Company, Inc., New York, N. Y. Trimming-machine. No. 1,240,237; Sept. 18; v. 242; p. 547.

Mayer, Edward, and W. M. Correll, Ashland, Nebr. Signal apparatus. No. 1,240,075; Sept. 11; v. 242; p. 456.

McAneny Michael, assignor, by mesne assignments, to J. O. Carrey, St. Louis, Mo. Cigar-lighter. No. 1,239,501; Sept. 11; v. 242; p. 373.

McBean, George B., and C. W. Birchwood, assignors to Mechanical & Electrical Manufacturing Company, Chicago, Ill. Carbureter. No. 1,239,611; Sept. 11; v. 242; p. 312.

McBride, Thomas C., Philadelphia, Pa. Surface condenser. No. 1,239,198; Sept. 4; v. 242; p. 152.

McBurney, Elmer, Oakland, Cal. Cabinet for vehicles. No. 1,239,021; Sept. 4; v. 242; p. 97.

McCafferty, Walter M., Montrose, Colo. Plow. No. 1,239,281; Sept. 4; v. 242; p. 181.

McCall, Edwin T., Laurinburg, N. C. Spark-plug. No. 1,239,117; Sept. 4; v. 242; p. 128.

McCallister, Thomas F., Prineville, Oreg. Power-transmission and driving mechanism for automobiles. No. 1,240,069; Sept. 11; v. 242; p. 454.

McCann, Robert B., assignor of one-fourth to W. Dickerson, Chicago, Ill. Aeroplane. No. 1,240,070; Sept. 11; v. 242; p. 455.

McCarthy, John J., Ouray, Colo. System of ruling. No. 1,238,795; Sept. 4; v. 242; p. 23.

McChesney, John S., assignor to J. S. McChesney & Co., Chicago, Ill. Stapling-machine. No. 1,239,496; Sept. 11; v. 242; p. 276.

McClave-Brooks Company. (See McClave, William, assignor.)

McClave, William, assignor to McClave-Brooks Company, Scranton, Pa. Fuel-feeding device. No. 1,239,612; Sept. 11; v. 242; p. 313.

McClean, Lucian B., Green Bay, Wis. Pressure-regulating valve. No. 1,239,022; Sept. 4; v. 242; p. 97.

McClung, Floyd H., *et al.* (See Eades, Rodger, assignor.)

McCollom, William R., Chicago, Ill. Nut-lock. No. 1,238,796; Sept. 4; v. 242; p. 24.

McCollough, William A., Webster City, Iowa. Feeding-trough. No. 1,240,864; Sept. 25; v. 242; p. 775.

McCollum, Alfred F., assignor of three-fifths to J. Magee, 2d, Bloomsburg, Pa. Knife-carrier for booms. No. 1,240,071; Sept. 11; v. 242; p. 455.

McConnell, James M., Greensburg, Ind. Fire and burglar alarm. No. 1,239,497; Sept. 11; v. 242; p. 276.

McConnell, Thomas, assignor to W. D. Murray, Hawera, New Zealand. Paint composition. No. 1,238,797; Sept. 4; v. 242; p. 24.

McConway & Torley Company, The. (See Kelso, William, assignor.)

McCormack, George B., Jersey City, N. J. Paper-feeder. No. 1,240,464; Sept. 18; v. 242; p. 619.

McCormick, Frank L. (See Wurlitzer and McCormick.)

McCoy, William D., New York, N. Y., Indicating, registering, recording, and check-printing mechanism. No. 1,239,708; Sept. 11; v. 242; p. 345.

McCracken, Emily Hastings, Nebr. Silencing device for covers of commodes. No. 1,240,746; Sept. 18; v. 242; p. 704.

McCulley, Elmer E., St. Louis, Mo. Rotary motor. No. 1,239,412; Sept. 4; v. 242; p. 220.

McDaniel, Walter, Spokane, Wash. Saw-clamp. No. 1,239,709; Sept. 11; v. 242; p. 345.

McDowell, Robert G., Walkerville, assignor of one-half to A. W. Charles, Butte, Mont. Valve. No. 1,240,586; Sept. 18; v. 242; p. 655.

McElhinny, John W., Chicago, assignor of one-half to W. M. Roberts, Oak Park, Ill. Table and kit-carrier. No. 1,239,023; Sept. 4; v. 242; p. 98.

McEntire, Victor H., Conneaut Lake, Pa. Rope-coupling. No. 1,241,230; Sept. 25; v. 242; p. 888.

McGahan, Frederick L., Los Angeles, Cal. Treatment of ores and substances. No. 1,239,282; Sept. 4; v. 242; p. 181.

McGary, Alexander, New York, N. Y., assignor to Gould Coupler Company. Electrical system of distribution. No. 1,239,710; Sept. 11; v. 242; p. 346.

McIntosh, Grace, executrix. (See Gagnon, Frederick J.)

McKeone, Thomas J., Philadelphia, Pa. Drain-pipe pocket. No. 1,240,747; Sept. 18; v. 242; p. 704.

McKim, John L., London, and J. Johnston, Westminster, London, England; said Johnston assignor to said McKim. Pneumatic apparatus for applying rough-cast or other plaster to the walls of buildings or structures or other surfaces. No. 1,239,283; Sept. 4; v. 242; p. 181.

McLaughlin, William H., assignor to C. S. Chase, Hartford, Conn. Antiskidding device. No. 1,240,465; Sept. 18; v. 242; p. 619.

McLaughlin, William H., assignor, by mesne assignments, to C. S. Chase, Hartford, Conn. Chain-link connector. (Reissue.) No. 14,361; Sept. 18; v. 242; p. 725.

McLean, Fred M. (See Dross and McLean.)

McLean, Harry D., and C. Warling, Olds, Alberta, Canada. Dirigible headlight. No. 1,241,410; Sept. 25; v. 242; p. 945.

McManama, John W., Waltham, assignor of one-third to S. W. Simonds and one-third to F. A. Barbey, Cambridge, Mass. Inner rail for railway-track curves. No. 1,239,927; Sept. 11; v. 242; p. 415.

McMillan, Frank G. and H. O., Minneapolis, Minn. Metallic insert. No. 1,240,993; Sept. 25; v. 242; p. 815.

McMillan, Howard O. (See McMillan, Frank G. and H. O.)

McMullen, Preston C. (See Rowlidge and McMullen.)

McMullin, Charles S., Worcester, Mass. Box. No. 1,239,284; Sept. 4; v. 242; p. 181.

McMyler Interstate Company, The. (See McMyler, John, assignor.)

McMyler, John, Cleveland, assignor to The McMyler Interstate Company, Bedford, Ohio. Car-handling system. No. 1,240,466; Sept. 18; v. 242; p. 620.

McNamee, Dwight B., Heman, Okla. Skate. No. 1,240,232; Sept. 18; v. 242; p. 546.

McNeil, Benjamin H., Chicago, Ill. Switch-lock. No. 1,239,199; Sept. 4; v. 242; p. 153.

McNeill, Bryan, Watteusaw, Ark. Fruit-picker. No. 1,241,411; Sept. 25; v. 242; p. 945.

Meador, Cyrus H., *et al.* (See Lilly, William T., assignor.)

Meadwell, William E., Ithaca, N. Y., assignor of one-third to J. O. Little, Pittsburgh, Pa. Measuring instrument. No. 1,239,502; Sept. 11; v. 242; p. 277.

Mears, Robert S., Arkansas City, Kans. Grid for battery-plates. No. 1,240,076; Sept. 11; v. 242; p. 457.

Mecham, James G., San Diego, Cal., assignor to Mecham Manufacturing Co. Hydropneumatic vaporizing apparatus for gas-engines. No. 1,239,929; Sept. 11; v. 242; p. 415.

Mecham Manufacturing Co. (See Mecham, James G., assignor.)

Mechanical Construction Company, The. (See Hanna, William T., assignor.)
Mechanical & Electrical Manufacturing Company. (See McBean and Birchwood, assignors.)
Meckel, Frank A., Lakewood, Ohio. Lubricator. No. 1,239,203; Sept. 4; v. 242; p. 154.
Medley, John E., Portland, Oreg., assignor of one-half to W. B. Schuette, Morristown, Minn. Lawn-mower sharpener. No. 1,240,469; Sept. 18; v. 242; p. 620.
Mehlfelder, Anton, New York, N. Y. Locking device for intermittent driving mechanism. No. 1,239,119; Sept. 4; v. 242; p. 129.
Meier, Edward C., Phoenixville, Pa. Boiler. No. 1,239,026; Sept. 4; v. 242; p. 99.
Meier, John, and J. F. Wallace, Dallas, Tex. Cotton harvesting and cleaning machine. No. 1,239,614; Sept. 11; v. 242; p. 313.
Meitner, Rudolph J., Dodge City, Kans. Number-illuminating device for motor-vehicles. No. 1,240,470; Sept. 18; v. 242; p. 621.
Melger, Joseph C., Walla Walla, Wash. Swingletree-clip. No. 1,240,238; Sept. 18; v. 242; p. 548.
Melia, Martin, assignor to Commercial Truck Company of America, Philadelphia, Pa. Battery-element puller. No. 1,239,420; Sept. 4; v. 242; p. 222.
Melius, Esley V. C., Newark, N. J. Package-tie. No. 1,240,077; Sept. 11; v. 242; p. 457.
Melville Clark Piano Company. (See Clark, Melville, assignor.)
Menaugh, Robert R. (See Black, John A., assignor.)
Menhall, James W., and C. G. Clement, Beloit, Wis. Tractor-trailer coupling. No. 1,240,995; Sept. 25; v. 242; p. 815.
Mentzer, Walter Y., assignor to Grand Rapids School Equipment Co., Grand Rapids, Mich. Lathe-center. No. 1,239,027; Sept. 4; v. 242; p. 99.
Mercer, Charles H., Steelton, and C. H. Woehle, Paxtang, Pa. Bascule-bridge. No. 1,241,237; Sept. 25; v. 242; p. 891.
Merkel, James B. (See Reynolds, Walter M., assignor.)
Merrick, Ernest, assignor to Merrick Fireproof Construction Co., Elizabeth, N. J. Fireproof construction. No. 1,239,503; Sept. 11; v. 242; p. 278.
Merrick Fireproof Construction Co. (See Merrick, Ernest, assignor.)
Mesecar, George E., Sierra Madre, Cal. Fence post. No. 1,239,120; Sept. 4; v. 242; p. 129.
Mesinger, Frederick, New York, N. Y. Saddle for motorcycles. No. 1,240,587; Sept. 18; v. 242; p. 655.
Mesmer, Joseph. (See Taylor, Harold F., assignor.)
Messler, Fred E., Canton, Ill. Non-skid chain. No. 1,239,711; Sept. 11; v. 242; p. 346.
Metals Recovery Company. (See Perkins, Clement L., assignor.)
Metzger, Theodore M., Los Angeles, Cal. Skylight. No. 1,239,421; Sept. 4; v. 242; p. 223.
Meyenburg, Konrad V. von, assignor to Motoculture Ltd., Basel, Switzerland. Tilling-machine. No. 1,241,173; Sept. 25; v. 242; p. 870.
Meyer, Albert F. W., Chicago, Ill. Coffee-clearing composition. No. 1,239,930; Sept. 11; v. 242; p. 416.
Meyer, Frederick P., assignor to Kaiser Company, Chicago, Ill. Receptacle. No. 1,239,204; Sept. 4; v. 242; p. 154.
Meyer, Trygve E., Chicago, Ill., assignor, by mesne assignments, to Automatic Electric Company. Telephone-exchange system. No. 1,239,205; Sept. 4; v. 242; p. 155.
Meyer, William, Chicago, Ill. Therapeutic apparatus. No. 1,241,136; Sept. 25; v. 242; p. 859.
Michel-Lévy, Henri, assignor to Société Anonyme des Etablissement Lejeune & H. Michel-Levy, Paris, France. Templet-lathe. No. 1,239,422; Sept. 4; v. 242; p. 223.
Middleton, Charles S., and D. B. Thompson, Blakely, Ga. Cotton-elevator. No. 1,240,752; Sept. 18; v. 242; p. 706.
Miehle, Robert, Chicago, Ill. Blotting or offsetting mechanism for printing-presses. No. 1,240,996; Sept. 25; v. 242; p. 816.
Mikkelsen, Peder. (See Potter and Mikkelsen.)
Miles, Sherman, Washington, D. C. Bedding-roll. No. 1,239,712; Sept. 11; v. 242; p. 346.
Millar, William E., Chicago, Ill. Reel for picture-machines. No. 1,239,504; Sept. 11; v. 242; p. 278.
Miller, Albert F. (See Peters, Fath, and Miller.)
Miller, Charles C., Pittsburg, Kans. Steam-dome separator and boiler-skimmer. No. 1,239,931; Sept. 11; v. 242; p. 416.
Miller, Charles L., and L. J. Toffelmier, assignors to Junior Monarch Hay Press Company, San Leandro, Cal. Baling-press. No. 1,239,932; Sept. 11; v. 242; p. 416.
Miller, Daniel D., New York, N. Y., assignor, by mesne assignments, to Western Electric Company, Incorporated. Electromagnetic device. No. 1,240,471; Sept. 18; v. 242; p. 621.
Miller, Dalbert J., Green Bay, Wis., and J. M. Austin, Chicago, Ill. Valve-gear. No. 1,239,933; Sept. 11; v. 242; p. 416.
Miller, Henry, Bristol, Pa. Brake-beam hanger. No 1,239,206; Sept. 4; v. 242; p. 155.
Miller, Henry C., Milwaukee, Wis. Loose-leaf binder. No. 1,240,356; Sept. 18; v. 242; p. 584.
Miller, John P., *et al.* (See De Camp, James W., assignor.) (Reissue.)
Miller, Max C., Providence, assignor to Jenckes Knitting Machine Company, Pawtucket, R. I. Circular-knitting machine. No. 1,239,713; Sept. 11; v. 242; p. 347.
Miller Rubber Company, The. (See Griffiths, Richard T., assignor.)
Miller, Walter A., East Milwaukee, Wis. Automobile transmission. No. 1,239,505; Sept. 11; v. 242; p. 278.
Miller, Walter H., Orange, N. J. Stop mechanism. No. 1,241,416; Sept. 25; v. 242; p. 947.
Miller, William, Newport, Ky., assignor to The P. Goldsmith's Sons Company, Cincinnati, Ohio. Inflated game-ball. No. 1,240,866; Sept. 25; v. 242; p. 775.
Miller, William A., Los Angeles, Cal. Indicator for vehicles. No. 1,239,934; Sept. 11; v. 242; p. 417.
Milliken, John T. (See Smith, Arthur D., assignor.)
Miner, Frank J., Detroit, Mich. Bearing-wheel. No. 1,239,288; Sept. 4; v. 242; p. 183.
Miner, William H. (See Dwyer, William M., assignor.)
Miner, William H. (See Haseltine, Stacy B., assignor.)
Mineral Products Company, The. (See Hershman, Paul R., assignor.)
Minneapolis Bedding Company. (See Fredericks, William L., assignor.)
Minneapolis Heat Regulator Company. (See Harlow, Lee H., assignor.)
Minnesota Manufacturers' Association. (See Breneman, Louis A., assignor.)
Minogue, Martin T., Philadelphia, Pa. Spark-plug for explosive-engines. No. 1,239,121; Sept. 4; v. 242; p. 129.
Mintz, Gabriel, Brooklyn, N. Y. Cutting-die. No. 1,239,289; Sept. 4; v. 242; p. 183.
Mishawaka Woolen Manufacturing Company. (See Bradley, Charles E., assignor.)
Mitchell, Arthur J., Connersville, Ind. Gearing. No. 1,239,804; Sept. 11; v. 242; p. 374.
Mitchell, Clarence C., assignor to The National Marking Machine Company, Cincinnati, Ohio. Laundry-marking machine. No. 1,241,417; Sept. 25; v. 242; p. 947.
Mitchell, David C., Monongahela, Pa. Train-pipe valve. No. 1,240,472; Sept. 18; v. 242; p. 621.
Mitchell, Frank, St. Jo, Tex. Plate-lifter. No. 1,239,615; Sept. 11; v. 242; p. 314.
Mitchell Manufacturing Co. (See Mitchell, William, assignor.)
Mitchell, William, Milwaukee, Wis. Coupling. No. 1,241,137; Sept. 25; v. 242; p. 859.
Mitchell, William, assignor to Mitchell Manufacturing Co., Milwaukee, Wis. Carrier. No. 1,241,238; Sept. 25; v. 242; p. 891.
Mixsell, Ward T., Washington, D. C. Heating system. No. 1,239,805; Sept. 11; v. 242; p. 375.
Mize, George M., assignor of one-half to W. F. Wood, De Queen, Ark. Peanut and potato harvester. No. 1,239,935; Sept. 11; v. 242; p. 417.
Moffat, John A., Hamilton, Ontario, Canada. Implement for applying glaziers' points. No. 1,240,473; Sept. 18; v. 242; p. 622.
Moffatt, James R., assignor to Union Special Machine Company, Chicago, Ill. Trimming mechanism for sewing-machines. No. 1,240,753; Sept. 18; v. 242; p. 706.
Moffatt, James R., assignor to Union Special Machine Company, Chicago, Ill. Forming belt-loops. No. 1,240,754; Sept. 18; v. 242; p. 707.
Moffett, Marcus H., Lakewood, Ohio, assignor, by mesne assignments, to National Carbon Company, Inc. Battery-case. No. 1,240,239; Sept. 18; v. 242; p. 548.
Moline Plow Company. (See Crane, William H., assignor.)
Moline Plow Company. (See Dickinson, Harry S., assignor.)
Monitor Controller Company. (See Whittingham, George H., assignor.)
Monroe, George T., Alva, Okla. Hame-tug and trace. No. 1,239,290; Sept. 4; v. 242; p. 183.
Montgomery Ward & Co. (See Weaver, Ira A., assignor.)
Montstream, John H., Hartford, Conn. Bed-spring-reinforcing member. No. 1,240,755; Sept. 18; v. 242; p. 707.
Moore, Arthur J., Kenwood Park, Iowa. Game-board. No. 1,240,756; Sept. 18; v. 242; p. 707.
Moore, Charles H. (See Brewer, Aiden R., assignor.)
Moore, Clarence E., Virginia, Minn. Rod packing-ring. No. 1,239,028; Sept. 4; v. 242; p. 99.
Moore, Edmund L., Vega Baja, Porto Rico. Motor attachment. No. 1,239,714; Sept. 11; v. 242; p. 347.
Moore, Edward D., Utica, N. Y. Portfolio-kitchenette. No. 1,240,997; Sept. 25; v. 242; p. 816.
Moore, Edward J., and D. S. Hawkins, assignors to The Foundry Equipment Company, Cleveland, Ohio. Lathe. No. 1,240,474; Sept. 18; v. 242; p. 622.
Moore, Hebert H., *et al.* (See Eades, Rodger, assignor.)
Moore, William J. P., New York, N. Y. Demountable rim. No. 1,239,506; Sept. 11; v. 242; p. 279.
Moran, Thomas W., *et al.* (See Holden, John E., assignor.)
Moraski, Ambrose, Houston, Mo. Compound engine. No. 1,239,029. Sept. 4; v. 242; p. 99.
Morgan Construction Company. (See Jefferies, Ebenezer A. W., assignor.)
Morgan Engineering Company, The. (See Reese, Carl N., assignor.)
Morgan, John D., Summit, N. J., assignor to Steel Utilities, Incorporated. Metal-working machine. No. 1,241,253; Sept. 25; v. 242; p. 897.

Morgan, John D., Summit, N. J., assignor to Steel Utilities, Incorporated. Machine for making templet-strips for metal-punching machines. No. 1,241,264; Sept. 25; v. 242; p. 902.
Morgan, John D., Summit, and L. A. Hawthorne, Newark, N. J., assignors to Steel Utilities, Incorporated. Metal-working machine. No. 1,241,263; Sept. 25; v. 242; p. 901.
Morgan, Victor G., assignor to P. W. Cowan, Los Angeles, Cal. Adjusting means for printing-press rollers. No. 1,240,078; Sept. 11; v. 242; p. 457.
Morrell, Walter C., *et al.* (See La Rock, John, assignor.)
Morris, Albert W., Philadelphia, Pa., assignor to Morris Process of New York, Incorporated, New York, N. Y. Casting-machine. No. 1,239,806; Sept. 11; v. 242; p. 375.
Morris, Albert W., Springfield, Mass., assignor to Morris Process of New York, Incorporated, New York, N. Y. Die-casting machine. No. 1,239,807; Sept. 11; v. 242; p. 376.
Morris, Albert W., Springfield, Mass., assignor to Morris Process of New York, Inc., New York, N. Y. Die casting or forging apparatus. No. 1,239,808; Sept. 11; v. 242; p. 376.
Morris, Albert W., Springfield, Mass., assignor to Morris Process of New York, Incorporated, New York, N. Y. Manufacture of cartridge-cases. No. 1,239,809; Sept. 11; v. 242; p. 377.
Morris, Charles A., deceased, Montclair, N. J.; C. R. Morris, executrix, assignor to The Hayward Company, New York, N. Y. Excavating system. No. 1,238,801; Sept. 4; v. 242; p. 25.
Morris, Charles E., assignor to C. W. Parker, Leavenworth, Kans. Carousel. No. 1,241,138; Sept. 25; v. 242; p. 859.
Morris, Clara R., executrix. (See Morris, Charles A.)
Morris Process of New York. (See Morris, Albert W., assignor.)
Morrison, Oscar P., Maud, assignor to Morrison Tie Plate Company, Texarkana, Tex. Tie-plate for railway-rails. (Reissue.) No. 14,358; Sept. 11; v. 242; p. 490.
Morrison, Oscar P., assignor of one-half to V. D. Glass, Bloomburg, Tex. Switch-point hold-down. No. 1,240,588; Sept. 18; v. 242; p. 655.
Morrison Tie Plate Company. (See Morrison, Oscar P., assignor.) (Reissue.)
Morse, Charles H., Jr., Chicago, Ill., and F. G. Hobart, Beloit, Wis., assignors to Fairbanks, Morse & Company, Chicago, Ill. Combined pump and reservoir. No. 1,240,079; Sept. 11; v. 242; p. 457.
Morse, Charles H., Jr., Chicago, Ill., and F. G. Hobart, Beloit, Wis., assignors to Fairbanks, Morse & Co., Chicago, Ill. Priming device. No. 1,240,080; Sept. 11; v. 242; p. 458.
Morse, George O., Des Moines, Iowa, assignor of one-sixth to A. M. Linn, one-sixth to D. Jarvis, and one-sixth to W. W. Horras. Making material for puncture-proof tires. No. 1,239,291; Sept. 4; v. 242; p. 183.
Mortara, Odo, Chicago, Ill. Corset-stay tip. No. 1,240,998; Sept. 25; v. 242; p. 817.
Mortara, Ugo, assignor to Kabo Corset Company, Chicago, Ill. Mounting for clasp-studs. No. 1,240,240; Sept 18; v. 242; p. 548.
Mortland, Ross R., and W. S. Kall, Scio, Ohio. Folding crate. No. 1,240,757; Sept. 18; v. 242; p. 708.
Morton, David N., Mitchell, Nebr. Wagon-jack and wrench. No. 1,239,936; Sept. 11; v. 242; p. 417.
Morton, Rolla A., Gallon, Ohio. Plow draw-bar head and leveler for tractors. No. 1,240,758; Sept. 18; v. 242; p. 708.
Morton, Thomas F., Sabinsville, Pa. Dirigible headlight attachment for automobiles. No. 1,240,759; Sept. 18; v. 242; p. 708.
Moses, Byron. (See Crawford and Moses.)
Mosher, Ira S., Chicago, Ill. Automobile-ambulance. No. 1,241,418; Sept. 25; v. 242; p. 948.
Mosman, Eula A., Allegany, N. Y. Desk. No. 1,239,937; Sept. 11; v. 242; p. 417.
Moss, Charles R., Richmond, Va. Dust-pan. No. 1,240,241; Sept. 18; v. 242; p. 548.
Moss, Francis E., Worthington, near Wigan, England. Apparatus for separating solid matters from fluids or fluids from fluids. No. 1,240,081; Sept. 11; v. 242; p. 458.
Mossman, Wilbur, Oreana, Idaho. Wagon-brake lever. No. 1,241,419; Sept. 25; v. 242; p. 948.
Motoculture Ltd. (See Meyenburg, Konrad V. von, assignor.)
Motor Terminals Company, The. (See Fitch, Benjamin F., assignor.)
Mott, William R., Lakewood, Ohio, assignor, by mesne assignments, to National Carbon Company, Inc. Arc-lamp electrode. No. 1,239,810; Sept. 11; v. 242; p. 377.
Mourer, Charles W. (See Strom and Mourer.)
Mowbray, Winfred B. (See Johnston, Benjamin F., assignor.)
Mower, Edward I., Cresson, Pa. Resilient wheel. No. 1,240,357; Sept. 18; v. 242; p. 585.
Moyers, Guy C. (See Davis and Moyers.)
Mrasek, Vincent, Burbank, Fla. Stovepipe-shelf. No. 1,239,938; Sept. 11; v. 242; p. 418.
Mudd, Frank X., Chicago, Ill. Shock-absorber. No. 1,241,468; Sept. 25; v. 242; p. 962.
Mueller, Carl M., Rock Island, assignor of one-half to W. Mueller, Moline, Ill. Automobile-lock. No. 1,241,239; Sept. 25; v. 242; p. 892.
Mueller, Ernst H., Menfro, Mo. Bean-separator. No. 1,240,999; Sept. 25; v. 242; p. 817.
Mueller, Friedrich, Irvington, N. J., assignor to Westinghouse Electric and Manufacturing Company. Jewel-grinding machine. No. 1,239,939; Sept. 11; v. 242; p. 418.
Mueller, George E., La Grange, assignor to Kellogg Switchboard and Supply Company, Chicago, Ill. Automatic telephone system. No. 1,239,207; Sept. 4; v. 242; p. 155.
Mueller, George H., assignor to The Jeffrey Manufacturing Company, Columbus, Ohio. Car-dumping apparatus. No. 1,240,867; Sept. 25; v. 242; p. 775.
Mueller, William. (See Mueller, Carl M., assignor.)
Müller, Franziska, Atlantic City, N. J. Hair waver or curler. No. 1,241,240; Sept. 25; v. 242; p. 892.
Müller, Paul, Berlin, Germany. Attachment for metal-working machines. No. 1,238,929; Sept. 4; v. 242; p. 67.
Multiport Company. (See Balkwill, Wesley J., assignor.)
Mulvey, Robert J., Chicago, Ill. Toy. No. 1,241,000; Sept. 25; v. 242; p. 817.
Münch, Eduard, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Synthetic product resembling caoutchouc. No. 1,238,930; Sept. 4; v. 242; p. 67.
Munday, Robert. (See Tullis, John T., assignor.)
Mundell, Robert L., Albion, Iowa. Safety-lock for switch plugs or keys of motor-vehicles. No. 1,239,292; Sept. 4; v. 242; p. 184.
Munn, William B., Selma, Ala. Supporter. No. 1,239,030; Sept. 4; v. 242; p. 100.
Murcek, John, Hazleton, Pa. Lamp-extinguisher. No. 1,240,475; Sept. 18; v. 242; p. 622.
Mureau, Désiré, Paris, France. Drawer-lock. No. 1,240,760; Sept. 18; v. 242; p. 709.
Murnane, Cornelius, Haberfield, New South Wales, Australia. Farm-tractor. No. 1,240,761; Sept. 18; v. 242; p. 709.
Murphy, James H. (See Murray, William, assignor.)
Murphy, John M., Elgin, Ill. Street-sweeping machine. No. 1,239,293; Sept. 4; v. 242; p. 184.
Murphy, John W. (See Bruckner and Murphy.)
Murphy-Travis Company. (See Thorson, Guy S., assignor.)
Murphy, Walter P., Chicago, Ill., assignor to P. H. Murphy Company, Parnassus, Pa. Car-roof. No. 1,241,001; Sept. 25; v. 242; p. 818.
Murray, Edward, Detroit, Mich. Adjustable window-shade fixture and curtain-pole bracket. No. 1,238,931; Sept. 4; v. 242; p. 68.
Murray, Michael D., Ambridge, Pa. Automobile-couch. No. 1,241,420; Sept. 25; v. 242; p. 948.
Murray, Richard F., Fort Edward, N. Y. Paper-making machine. No. 1,240,589; Sept. 18; v. 242; p. 655.
Murray, Thomas B., Scotstoun, Scotland. Friction-clutch. No. 1,239,940; Sept. 11; v. 242; p. 418.
Murray, William, Brooklyn, N. Y., assignor of one-half to J. H. Murphy, Bayonne, N. J. Safety-signal for power-vehicles. No. 1,241,421; Sept. 25; v. 242; p. 949.
Murray, William D. (See McConnell, Thomas, assignor.)
Myers, George A., Kalamazoo, Mich. Street or station indicator. No. 1,241,422; Sept. 25; v. 242; p. 949.
Myers, Walter, Bridgeport, Conn., assignor to The Singer Manufacturing Company. Ornamental-stitch sewing-machine. No. 1,239,715; Sept. 11; v. 242; p. 347.
Myrle, Cecil, St. Andrew, Jamaica. Motor-cycle attachment. No. 1,241,423; Sept. 25; v. 242; p. 949.
Nace, Charles A., Santa Clara, Cal. Automatic paper-adjuster and gage-pin for platen printing-presses. No. 1,241,241; Sept. 25; v. 242; p. 892.
Nader, Joseph. (See Stock and Nader.)
Nagel, August A., Antioch, Cal. Trap for sinks, &c. No. 1,238,802; Sept. 4; v. 242; p. 26.
Nambu, Kiyohiko, Seattle, Wash. Support for window-washers. No. 1,241,424; Sept. 25; v. 242; p. 949.
Nangle, James M. (See Lelless and Nangle.)
Napier & Son Limited, D. (See Rowledge, Arthur J., assignor.)
Nasmith, John W., Stockport, England. Combing-machine. No. 1,239,122; Sept. 4; v. 242; p. 130.
Nasmith, John W., Stockport, England. Combing-machine. No. 1,239,123; Sept. 4; v. 242; p. 130.
Nathan, Edwin B., New York, N. Y. Legging. No. 1,240,082; Sept. 11; v. 242; p. 458.
National Carbon Company. (See Bauer, Walter, assignor.)
National Carbon Company. (See Lang, Henry T., assignor.)
National Carbon Company. (See Moffett, Marcus H., assignor.)
National Carbon Company. (See Mott, William R., assignor.)
National Carbon Company. (See Perris, Ben, assignor.)
National Carbon Company. (See Wacker, George W., assignor.)
National Carbon Company. (See Zachmann, William H., assignor.)
National Cash Register Company, The. (See Jacob, Max, assignor.)
National Cash Register Company, The. (See Martin, Haakon, assignor.)

National Cash Register Company, The. (See Skerl, Francesco, assignor.)
National Malleable Castings Company, The. (See Blackmore, William, assignor.)
National Marking Machine Company, The. (See Mitchell, Clarence C., assignor.)
Nawlasky, Paul, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Anthraquinone compound. No. 1,238,932; Sept. 4; v. 242; p. 68.
Neahr, Will C., assignor to The Protective Signal Manufacturing Company, Denver, Colo. Electromagnetic device. No. 1,241,139; Sept. 25; v. 242; p. 859.
Neal, Albert, Kokomo, Ind. Lifting-jack. No. 1,239,941; Sept. 11; v. 242; p. 419.
Neal, James, Phoenix, Ariz. Gate-latching device. No. 1,240,242; Sept. 18; v. 242; p. 548.
Neilson, Lyon W. (See Guthrie and Neilson.)
Nells, Thomas J., Frankford, Pa. Collar-button. No. 1,240,476; Sept. 18; v. 242; p. 622.
Nelson, Al, Ripley, Tenn. Submerged heater. No. 1,240,477; Sept. 18; v. 242; p. 623.
Nelson, Algernon W., *et al.* (See Webb, Benjamin T., assignor.)
Nelson, Arthur F., Harrisburg, Pa. Rolling-mill. No. 1,241,242; Sept. 25; v. 242; p. 893.
Nelson, Charles A., Utica, N. Y., assignor to Savage Arms Corporation. Firearm. No. 1,239,124; Sept. 4; v. 242; p. 130.
Nelson, Frans A., Chicago, Ill. Music-indicator. No. 1,240,083; Sept. 11; v. 242; p. 459.
Nelson, George W., assignor to The Standard Sewing Machine Company, Cleveland, Ohio. Thread-controlling mechanism for sewing-machines. No. 1,240,868; Sept. 25; v. 242; p. 776.
Nelson, Herbert G., New Kamiche, Wash. Flying-machine. No. 1,239,942; Sept. 11; v. 242; p. 419.
Nelson, Ludvig, Deary, Idaho. Wrench. No. 1,240,762; Sept. 18; v. 242; p. 709.
Nelson, Martin O., Brooklyn, N. Y. Window-screen. No. 1,241,425; Sept. 25; v. 242; p. 950.
Nelson, Nicholaus B., East Chicago, Ind. Pistol-sword. No. 1,240,478; Sept. 18; v. 242; p. 623.
Nelson, Oscar, Long Beach, Cal. Shell-fish trap. No. 1,241,426; Sept. 25; v. 242; p. 950.
Nemec, Joseph, assignor of one-third to A. L. Beardsley and one-third to C. E. Oliver, Chicago, Ill. Door-holder. No. 1,241,478; Sept. 25; v. 242; p. 966.
Nesbitt, William J., Los Angeles, Cal. Heel-cutting apparatus. No. 1,239,208; Sept. 4; v. 242; p. 156.
Nesbitt, William J., Los Angeles, Cal. Heel-cutting apparatus. No. 1,239,209; Sept. 4; v. 242; p. 156.
Nesbitt, William J., Los Angeles, Cal. Heel-cutting apparatus. No. 1,239,210; Sept. 4; v. 242; p. 157.
Neuens, Nick H., Pierce, Nebr. Boiler attachment. No. 1,241,002; Sept. 25; v. 242; p. 818.
Neville, Asa G., Wellsburg, W. Va. Steering-wheel. No. 1,239,943; Sept. 11; v. 242; p. 420.
New Haven Clock Co. (See Porter, Wilson E., assignor.)
New Jersey Tube Company. (See Close, James, assignor.)
New Jersey Zinc Company. (See Brooks and Duncan, assignors.)
New York Coil Company. (See Rhoades, Lewis T., assignor.)
New York Couch Bed Company. (See Sisbower and Pittoni, assignors.)
Newberry, Spencer B., Baybridge, Ohio. Recovering alkalis from cement materials. No. 1,239,616; Sept. 11; v. 242; p. 314.
Newcomb, Delancy E., Sydney, Nova Scotia, Canada. Nut-lock. No. 1,238,933; Sept. 4; v. 242; p. 68.
Newcombe, Charles W., Tacoma, Wash. Drain-valve. No. 1,239,617; Sept. 11; v. 242; p. 314.
Newman, Harry D., Manasquan, N. J. Cuff-protector. No. 1,239,944; Sept. 11; v. 242; p. 420.
Newman, Joseph S., assignor to The Electro Set Company, Cleveland, Ohio. Toy telephone system. No. 1,239,508; Sept. 11; v. 242; p. 280.
Newsom, Eli, Center Valley, N. Mex. Well or subterranean reservoir for use in irrigation and other purposes. No. 1,241,003; Sept. 25; v. 242; p. 818.
Ney, Jacob, Canton, Ohio. Gripping device for manually-propelled vehicles. No. 1,239,509; Sept. 11; v. 242; p. 280.
Nicholas, Wilbur H., Indianapolis, Ind. Speed-varying drive. No. 1,241,004; Sept. 25; v. 242; p. 819.
Nichols, John L., and C. J. Olson, Muskegon, Mich. Bath-tub seat. No. 1,240,479; Sept. 18; v. 242; p. 623.
Nichols, Noah E., Gillett, Ark. Cultivator. No. 1,239,945; Sept. 11; v. 242; p. 420.
Nicholson, Charles E., Berwyn, Ill. Tabulating-machine. No. 1,241,140; Sept. 25; v. 242; p. 860.
Nicol, August, Nieder-Schönhausen, Germany, assignor to General Electric Company. System for recording the condition of apparatus. No. 1,240,763; Sept. 18; v. 242; p. 710.
Nielsen, Martin, East Seattle, Wash. Needle-threader. No. 1,241,427; Sept. 25; v. 242; p. 950.
Nienstadt, August E., Bensonhurst, N. Y. Paraffin powder and making it. No. 1,239,618; Sept. 11; v. 242; p. 315.
Nightingale, John T., *et al.* (See Brownell, William M., assignor.)
Niles Invisible Door Check Company, The. (See Nordquist, Ronald E. J., assignor.)
Nilsen, Aimer L., Walford, N. D. Revolving drag. No. 1,239,294; Sept. 4; v. 242; p. 184.
Nilson, Nils, Wayzata, Minn. Scale. No. 1,240,084; Sept. 11; v. 242; p. 459.
Nisbet, Theodore B., Irvington, N. Y. Wind-shield for automobiles. No. 1,238,803; Sept. 4; v. 242; p. 26.
Nitz, Charles G. W., Wauwatosa, Wis. Ratchet-drill. No. 1,241,428; Sept. 25; v. 242; p. 950.
Nitzsche, August, Monroe township, Madison county, Iowa. Automatic railway-switch. No. 1,239,031; Sept. 4; v. 242; p. 100.
Noble, Guy L., Chicago, Ill. Oleo-stock clarifier, seeder, and breaker. No. 1,240,869; Sept. 25; v. 242; p. 776.
Noble, Marcos E., Elgin, Tex. Motion-picture-film cleaner No. 1,239,295; Sept. 4; v. 242; p. 185.
Nogar, August, Reading, Pa. Life-preserving garment. No. 1,239,296; Sept. 4; v. 242; p. 185.
Noll, Charles, assignor of one-third to E. C. Render and one-third to I. A. Reader, Cleveland, Ohio. Plaster composition. No. 1,239,032; Sept. 4; v. 242; p. 100.
Norberti, Giovanni, Boston, Mass. Collapsible and convertible chair. No. 1,240,243; Sept. 18; v. 242; p. 549.
Nordberg, Bruno V., Milwaukee, Wis. Link-motion. No. 1,239,297; Sept. 4; v. 242; p. 185.
Nordberg, Bruno V., Milwaukee, Wis. Unloading and capacity-regulating mechanism for compressors. No. 1,239,916; Sept. 11; v. 242; p. 420.
Nordgren, Werner, Charlottenburg, Germany, assignor to General Electric Company. Piston-ring-locking device. No. 1,240,764; Sept. 18; v. 242; p. 710.
Nordquist, Ronald E. J., Oak Park, Ill., assignor to The Niles Invisible Door Check Company, Niles, Mich. Door-check. No. 1,239,510; Sept. 11; v. 242; p. 280.
Nordqvist, John, Angora, Minn. Watering system. No. 1,241,005; Sept. 25; v. 242; p. 819.
Norman, Ernest, Lachine, Quebec, Canada. Clothes-pin bag. No. 1,239,298; Sept. 4; v. 242; p. 186.
Norris, Marvin L., Fort Wayne, Ind. Milking-machine. No. 1,240,765; Sept. 18; v. 242; p. 711.
Norstog, Bjorgulo, Watford City, N. D. Dirigible headlight. No. 1,239,034; Sept. 4; v. 242; p. 101.
North East Electric Company. (See Lee, Earle P. and T. L., assignors.)
North East Electric Company. (See Lee, Thomas L., assignor.)
Norton Company. (See Saunders and White, assignors.)
Nortvig, Regnar, Askov, Minn. Paper-lift for drawers and the like. No. 1,241,429; Sept. 25; v. 242; p. 951.
Norwood, Harry Y., Rochester, N. Y. Sign. No. 1,239,033; Sept. 4; v. 242; p. 100.
Nystrum, Conrad E., assignor of one-fourth to E. M. White, Medford, Wis. Cuspidor. No. 1,239,716; Sept. 11; v. 242; p. 348.
O'Brien, Thomas, New York, N. Y. Bottle-capping machine. No. 1,241,141; Sept. 25; v. 242; p. 861.
O'Connell, John, Cohoes, N. Y. Cotton-cleaning apparatus. No. 1,239,432; Sept. 4; v. 242; p. 227.
O'Hara, James E., Whitman, Mass. Shoe-sole. No. 1,241,142; Sept. 25; v. 242; p. 861.
O'Malley, Charles E., Mansfield, Mass. Bottle-cap. No. 1,240,767; Sept. 18; v. 242; p. 711.
O'Neil, Hugh, assignor to Simplex Air Brake and Manufacturing Co., Pittsburgh, Pa. Draft-controlling mechanism. No. 1,240,870; Sept. 25; v. 242; p. 777.
O'Neill, David, Woodside, N. Y. Rolling window-screen. No. 1,240,768; Sept. 18; v. 242; p. 712.
O'Reilly, Bernard, Rochester, N. Y. Corpse-carrier. No. 1,240,359; Sept. 18; v. 242; p. 585.
O'Rourke, Frank J., New York, N. Y. Fountain-syringe. No. 1,239,947; Sept. 11; v. 242; p. 421.
Oakes Company, The. (See Swenson, Carl G., assignor.)
Oatman, Duke, Corpus Christi, Tex. Tire-armor. No. 1,241,006; Sept. 25; v. 242; p. 819.
Ogburn, Rollin C., Des Moines, Iowa. Molding and setting table for plastic bodies. No. 1,241,007; Sept. 25; v. 242; p. 819.
Ogle, George M., assignor to Heywood Brothers and Wakefield Company, Wakefield, Mass. Car-seat. No. 1,240,244; Sept. 18; v. 242; p. 549.
Ohio Blower Company, The. (See Mastenbrook, Henry J., assignor.)
Ohio Rake Company, The. (See Holtvoigt, Henry B., assignor.)
Okey, Perry, Columbus, Ohio, assignor, by mesne assignments, to Lalley Electro-Lighting Corporation, Detroit, Mich. Governor for regulating the overcharge for storage batteries. No. 1,240,590; Sept. 18; v. 242; p. 656.
Old Dutch Manufacturing Co. (See Cotton, Walter H., assignor.)
Olds, Alfred W., Windsor, Conn. Movement-indicating apparatus for vehicles. No. 1,239,511; Sept. 11; v. 242; p. 280.
Olds, Frank W., Bismarck, N. D. Wall gas-cock and coupling. No. 1,240,161; Sept. 11; v. 242; p. 483.
Oliver, Charles E., *et al.* (See Nemec, Joseph, assignor.)
Oliver, Thomas C., Charlotte, N. C. Method and apparatus for concentrating liquids. No. 1,240,591; Sept. 18; v. 242; p. 656.
Ollard, James C., Tacoma, Wash., assignor to Ollard Trolley Wheel Company, Dover, Del. Compound trolley-wheel. No. 1,240,358; Sept. 18; v. 242; p. 585.
Ollard Trolley Wheel Company. (See Ollard, James C., assignor.)

Oller, Oscar L., Los Angeles, assignor of one-half to H. F. Schulz, Santa Anita, Cal. Nut-lock. No. 1,240,245; Sept. 18; v. 242; p. 550.
Olmsted, Elmer S. (See Cheatham and Olmsted.)
Olmsted, Perry. (See Shelby and Olmsted.)
Olsen, George, assignor to Keene Shock Asborber Company, Trenton, N. J. Pneumatic cushion for shoes. No. 1,240,153; Sept. 11; v. 242; p. 481.
Olson, Carl G., assignor to Illinois Tool Works, Chicago, Ill. Lathe. No. 1,238,934; Sept. 4; v. 242; p. 68.
Olson, Carl G., assignor to Illinois Tool Works, Chicago, Ill. Lathe. No. 1,238,935; Sept. 4; v. 242; p. 68.
Olson, Charles J. (See Nichols and Olson.)
Olson, Edgar T., Ann Arbor, assignor to Detroit Organic Chemical Co., Detroit, Mich. Production of lactic acid. No. 1,240,766; Sept. 18; v. 242; p. 711.
Onderdonk, Lansing, New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill. Sewing-machine. No. 1,240,085; Sept. 11; v. 242; p. 459.
Oneida Community, Ltd. (See Ellis and Leonard, assignors.)
Ornold, Edwin J. (See Gilbert and Ornold.)
Osborn, Samuel C., Chicago, Ill. Zither. No. 1,239,811; Sept. 11; v. 242; p. 377.
Osborne, William R., Electra, Tex. Pipe-pulling device. No. 1,241,430; Sept. 25; v. 242; p. 951.
Oslus, Frederick J., Racine, Wis. Electric motor. No. 1,240,802; Sept. 18; v. 242; p. 722.
Osol, Fritz E. (See Barron and Osol.)
Osteman, Carl G., South Boston, Mass., assignor to S. A. Woods Machine Company. Planing-machine. No. 1,240,769; Sept. 18; v. 242; p. 712.
Ostermann, Edwin C., assignor to Fried. Ostermann, Meyer Co., Milwaukee, Wis. Glove. No. 1,238,804; Sept. 4; v. 242; p. 27.
Oswald, Kolmen, New York, N. Y., assignor to C. M. Peabody, South Orange, N. J. Watchman's clock. No. 1,239,812; Sept. 11; v. 242; p. 377.
Otis Elevator Company. (See Sundh, August, assignor.)
Otte, George T., Greenwich, Conn. Automobile steering-wheel. No. 1,239,948; Sept. 11; v. 242; p. 421.
Otte, Otho M., Jamestown, N. Y. Sheet-metal frame. No. 1,241,243; Sept. 25; v. 242; p. 893.
Oulman, Orin M. (See Altman, Elmer F., assignor.)
Overbury, Frederick C., Hillsdale, N. J., assignor, by mesne assignments, to The Flintkote Company, Boston, Mass. Mineral-surfaced roofing material. No. 1,238,805; Sept. 4; v. 242; p. 27.
Overman, Philip, Santa Barbara, Cal. Flexible closure for tire-casings. No. 1,239,813; Sept. 11; v. 242; p. 378.
Owen, Henry A., assignor to Whitin Machine Works, Whitinsville, Mass. Deferred-action indicating device for looms. No. 1,240,592; Sept. 18; v. 242; p. 656.
Oyston, Edward J., Chicago, Ill. Loose-leaf-binder post. No. 1,241,008; Sept. 25; v. 242; p. 820.
P. Goldsmith's Sons Company, The. (See Miller, William, assignor.)
P. Lorillard Company. (See Williams, George M., assignor.)
P. H. Murphy Company. (See Murphy, Walter P., assignor.)
P. H. Murphy Company. (See Tatum, John J., assignor.)
Pace, James H., Mansfield, Ga. Controlling apparatus for automobiles. No. 1,239,949; Sept. 11; v. 242; p. 422.
Packard Motor Car Company. (See Hunt, Ormund E., assignor.)
Packard Motor Car Company. (See Loomis, Allen, assignor.)
Packard Motor Car Company. (See Vincent, Jesse G., assignor.)
Painter, Albert E. and W., Reno, Nev. Rotary internal-combustion engine. No. 1,238,806; Sept. 4; v. 242; p. 27.
Painter, Waterfield. (See Painter, Albert E. and W.)
Pajeau, Charles H., Evanston, Ill. Alphabetical construction toy. No. 1,241,009; Sept. 25; v. 242; p. 820.
Palmer, George L. W., Roxbury, Mass. Projecting apparatus. No. 1,240,593; Sept. 18; v. 242; p. 657.
Palmer, Jefferson D., Warrenton, N. C. Milk and cream separator. No. 1,240,360; Sept. 18; v. 242; p. 585.
Palmer, Otto A., assignor of one-half to P. W. Tibbits, Wayzata, Minn. Electrically-heated water-containing radiator. No. 1,241,244; Sept. 25; v. 242; p. 893.
Pangman, Everett A., Gilboa, N. Y. Shock-absorber attachment for bicycles. No. 1,239,035; Sept. 4; v. 242; p. 101.
Papa, Nicola, Utica, N. Y. Electric-light apparatus. No. 1,240,770; Sept. 18; v. 242; p. 712.
Paquette, Jennie, assignor to I. Carroll, Chicago, Ill. Cooking utensil. No. 1,241,010; Sept. 25; v. 242; p. 820.
Park, George M., Blackburn, England. Apparatus for cooling clinker in the manufacture of cement. No. 1,240,480; Sept. 18; v. 242; p. 623.
Parker, Charles C., Baltimore, Md. Jar-closure. No. 1,239,299; Sept. 4; v. 242; p. 186.
Parker, Charles W. (See Morris, Charles E., assignor.)
Parker, Harry E., assignor The Stanley Rule & Level Company, New Britain, Conn. Bit-brace extension. No. 1,241,143; Sept. 25; v. 242; p. 861.
Parker, Hollon N. D., Washington, D. C. Adjuster for pneumatic mechanotherapeutic receivers. No. 1,240,246; Sept. 18; v. 242; p. 550.
Parker, Linus J., assignor to Hunter Fan and Motor Co., Fulton, N. Y. Motor-fan. No. 1,241,245; Sept. 25; v. 242; p. 893.
Parker, Thomas, Diss, England. Fastening for sliding windows and the like. No. 1,240,086; Sept. 11; v. 242; p. 460.
Parker, Thomas R. G., and J. Shuttleworth, Broadheath, Chester, assignors to Linotype and Machinery Limited, London, England. Device for clamping printing-plates to the cylinders of printing-presses. No. 1,240,247; Sept. 18; v. 242; p. 550.
Parker, William W., Edgerton, Alberta, Canada. Wagon-seat lock. No. 1,241,431; Sept. 25; v. 242; p. 951.
Parkhurst, Leon F., Pittsfield, Mass., assignor to General Electric Company. Electric heating unit. No. 1,240,771; Sept. 18; v. 242; p. 712.
Parkin, Charles H. (See Bagnall and Taylor, assignors.)
Parks, George E., Detroit, Mich. Spring suspension for railway-trucks. No. 1,239,211; Sept. 4; v. 242; p. 157.
Parmenter, Frank R., Lansing Mich. Automobile-jack. No. 1,241,011; Sept. 25; v. 242; p. 821.
Parrish, Bert N., Jackson, Mich. Heater for the intake-manifolds of internal-combustion engines. No. 1,241,871; Sept. 25; v. 242; p. 777.
Parsons, Charles L., Washington, D. C. Oxidizing ammonia and catalytic bodies therefor. No. 1,239,125; Sept. 4; v. 242; p. 130.
Parsons, Edmund S., Ilion, N. Y. Molding concrete. No. 1,241,144; Sept. 25; v. 242; p. 862.
Paterson, William, London, England. Apparatus for measuring and recording the quantity of flow of liquids. No. 1,239,300; Sept. 4; v. 242; p. 186.
Patery, Le Roy, Portland, Oreg. Automobile-goggles. No. 1,240,594; Sept. 18; v. 242; p. 657.
Patrick, John. (See Cochrane and Patrick.)
Patten, James C., assignor to Globe Stove & Range Company, Kokomo, Ind. Electric hot-plate or heating unit. No. 1,238,807; Sept. 4; v. 242; p. 28.
Patten, James C., assignor to Globe Stove & Range Co., Kokomo, Ind. Electric hot-plate or heating unit. No. 1,238,808; Sept. 4; v. 242; p. 28.
Patterson, Wm. E., executor. (See Von Wolffradt, William.)
Patton, Samuel J., Helena, Ala. Boll-weevil destroyer. No. 1,241,012; Sept. 25; v. 242; p. 821.
Paul, Wesley A., assignor to Deere & Company, Moline, Ill. Gang-plow. No. 1,240,087; Sept. 11; v. 242; p. 460.
Paull, Allen, *et al.* (See Van Esbroeck, François, assignor.)
Paulson, Charles J. (See Simpson and Paulson.)
Payne, Lawrence C. (See Luskey and Payne.)
Payne, Parl W., assignor of one-half to R. E. Kilpatrick, Toledo, Ohio. Test-indicator. No. 1,241,469; Sept. 25; v. 242; p. 962.
Payne, Theodore P., Newark, N. J., assignor to Steel Utilities, Incorporated. Metal-working machine. No. 1,241,246; Sept. 25; v. 242; p. 894.
Payne, Theodore P., Newark, N. J., assignor to Steel Utilities, Incorporated. Metal-working machine. No. 1,241,247; Sept. 25; v. 242; p. 894.
Payne, Theodore P., Newark, N. J., assignor to Steel Utilities, Incorporated. Metal-working machine. No. 1,241,248; Sept. 25; v. 242; p. 895.
Payne, Theodore P., Newark, N. J., assignor to Steel Utilities, Incorporated. Machine for making distance-record devices for metal-working machines. No. 1,241,249; Sept. 25; v. 242; p. 895.
Payne, Theodore P., Newark, N. J., assignor to Steel Utilities, Incorporated. Riveting-machine. No. 1,241,250; Sept. 25; v. 242; p. 896.
Payne, Theodore P., Newark, N. J., assignor to Steel Utilities, Incorporated. Machine for making distance-record devices for metal-working machines. No. 1,241,268; Sept. 25; v. 242; p. 903.
Payne, Theodore P., Newark, N. J., and E. V. Wurts, Pittsburgh, Pa., assignors to Steel Utilities, Incorporated. Metal-working machine. No. 1,241,254; Sept. 25; v. 242; p. 898.
Paynter, Herbert A. (See Paynter, Howard W., assignor.)
Paynter, Howard W., assignor of one-half to H. A. Paynter, Philadelphia, Pa. Transparent license-tag and holder. No. 1,238,936; Sept. 4; v. 242; p. 69.
Peabody, C. Maurice. (See Oswald, Kolmen, assignor.)
Pearsall, Albert W., Lowell, assignor to The Lamson Company, Boston, Mass. Vacuum-pneumatic-carrier-dispatch system. No. 1,240,362; Sept. 18; v. 242; p. 586.
Pearson, Charles, Chicago, Ill., assignor to International Harvester Company of New Jersey. Mowing-machine. No. 1,240,361; Sept. 18; v. 242; p. 586.
Pearson, Ernest E. and W. H., Mitchellville, Iowa. Insect-trap. No. 1,239,302; Sept. 4; v. 242; p. 187.
Pearson, Neis, Deep Bay, British Columbia, Canada. Bull-hook. No. 1,239,301; Sept. 4; v. 242; p. 186.
Pearson, Richmond D., Gulford, Me. Package-tie. No. 1,239,950; Sept. 11; v. 242; p. 422.
Pearson, William H. (See Pearson, Ernest E. and W. H.)
Pease, Louis, and A. W. Schoenheit, Pittsburgh, Pa. Animal-trap. No. 1,240,248; Sept. 18; v. 242; p. 550.
Peckham, Edgar, and S. Thomas, London, England. Axle-truck for railway, tramway, and like vehicles. No. 1,239,212; Sept. 4; v. 242; p. 157.
Peckham, Edwin C., Brooklyn, N. Y. Hair-measurer. No. 1,239,951; Sept. 11; v. 242; p. 422.

Peckham, Joseph E., Newton Highlands, assignor to J. E. Peckham Co., Inc., Boston, Mass. Shank-stiffener. No. 1,240,249; Sept. 18; v. 242; p. 551.
Peet, Truman J., Monticello, Iowa. Crimping-machine. No. 1,241,145; Sept. 25; v. 242; p. 862.
Pelton Water Wheel Company. (See Doble, William A., assignor.)
Peltz, Harry C., Lansford, Pa. Split nut. No. 1,241,432; Sept. 25; v. 242; p. 951.
Pembroke, Winfield P., Rochester, N. Y. Carbureter. No. 1,241,013; Sept. 25; v. 242; p. 821.
Pembroke, Winfield P., Rochester, N. Y. Carbureter. No. 1,241,014; Sept. 25; v. 242; p. 822.
Pennsylvania Lawn Mower Works. (See Braun, John F., assignor.)
Pentecost, Arthur, East Orange, N. J., assignor to The Adder Machine Company, Wilkes-Barre, Pa. Calculating-machine. No. 1,238,809; Sept. 4; v. 242; p. 28.
Pentoney, Clifford P., Pasadena, Cal. Headlight flag-supporting device. No. 1,241,433; Sept. 25; v. 242; p. 952.
Pepin, Joseph N. (See Pepin, Jule C., and J. N.)
Pepin, Jule C. and J. N., East Chicago, Ind. Elevating and folding trestle. No. 1,239,814; Sept. 11; v. 242; p. 378.
Perfect, Eber M., assignor of one-half to F. W. Winans, Evansville, Ind. Delivery mechanism for vending-machines. No. 1,240,595; Sept. 18; v. 242; p. 658.
Perfect, Eber M., Crafton, Pa., assignor of one-half to F. W. Winans, Evansville, Ind. Coin weighing and blocking device for vending-machines. No. 1,240,596; Sept. 18; v. 242; p. 658.
Perfect Vacuum Canning Company. (See Malmquist, Adolph K., assignor.)
Perkins, Charles J., Des Moines, Iowa. Combination movable seat and support. No. 1,241,434; Sept. 25; v. 242; p. 952.
Perkins, Clement L., Pittsburgh, Pa., assignor to Metals Recovery Company, New York, N. Y. Flotation of minerals. No. 1,240,597; Sept. 18; v. 242; p. 658.
Perkins, Clement L., Pittsburgh, Pa., assignor to Metals Recovery Company, New York, N. Y. Flotation of minerals. No. 1,240,598; Sept. 18; v. 242; p. 658.
Perkins, Clement L., Pittsburgh, Pa., assignor to Metals Recovery Company, New York, N. Y. Flotation of minerals. No. 1,240,599; Sept. 18; v. 242; p. 659.
Perkins, Frank G., deceased; G. S. Perkins, executrix, Lansdale, Pa., assignor to Perkins Glue Co. Glue-spreader. No. 1,238,810; Sept. 4; v. 242; p. 29.
Perkins, Gertrude S., executrix. (See Perkins, Frank G.)
Perkins Glue Co. (See Perkins, Frank G., assignor.)
Perkins, Harry F., Schenectady, N. Y., assignor to General Electric Company. Vapor electric device. No. 1,240,772; Sept. 18; v. 242; p. 713.
Perkins, Julius A., Omaha, Nebr. Roller-bearing. No. 1,239,619; Sept. 11; v. 242; p. 315.
Perris, Ben, Lakewood, Ohio, assignor, by mesne assignments, to National Carbon Company, Inc. Projector arc-lamp. No. 1,241,270; Sept. 25; v. 242; p. 904.
Perry, Charles H., Miami, Fla. Sprinkler-head. No. 1,239,952; Sept. 11; v. 242; p. 422.
Perry, Ernest B., Bay City, Mich. Power-wheel for grab-buckets. No. 1,241,271; Sept. 25; v. 242; p. 905.
Perry, Frank B., Newton Center, Mass. Signaling device. No. 1,238,937; Sept. 4; v. 242; p. 69.
Perry, James E., Los Angeles, Cal. Oil-burning heater. No. 1,239,303; Sept. 4; v. 242; p. 187.
Perry, John, Kensington, London, and S. G. Brown, North Acton, England. Gyro-compass. No. 1,240,872; Sept. 25; v. 242; p. 777.
Perry, John H., Middletown, N. Y. Sheet-metal roof. No. 1,240,773; Sept. 18; v. 242; p. 713.
Perry, Lee J., assignor to Vesta Accumulator Company, Chicago, Ill. Accumulator-cell. No. 1,239,513; Sept. 11; v. 242; p. 281.
Perry, Ray P., Montclair, N. J., assignor to Barrett Manufacturing Company. Joining sheets of composition roofing. No. 1,241,146; Sept. 25; v. 242; p. 863.
Perry, Robert S., Cave Spring, Ga. Painting porous surfaces. No. 1,239,953; Sept. 11; v. 242; p. 423.
Perryclear, William E., Savannah, Ga., assignor of one-half to L. W. High, Wilson, N. C. Stove. No. 1,239,514; Sept. 11; v. 242; p. 281.
Persak, Joseph, Burwell, Nebr. Buoyancy attachment for ships. No. 1,240,873; Sept. 25; v. 242; p. 778.
Petermann, Jacob G. (See Stenert, John A., assignor.)
Peters, Arthur H., Fort Wayne, Ind., assignor to Horton Manufacturing Company. Safety device for wringers. No. 1,238,938; Sept. 4; v. 242; p. 69.
Peters, Herman, assignor to Holeproof Hosiery Co., Milwaukee, Wis. Knitting-machine. No. 1,240,250; Sept. 18; v. 242; p. 551.
Peters, Melville E., G. H. Fath, and A. F. Miller, assignors to The Peters Patent Rights Company, Denver, Colo. Pneumatically-controlled blank-gumming machine. No. 1,239,815; Sept. 11; v. 242; p. 378.
Peters, Melville E., G. H. Fath, and A. F. Miller, assignors to The Peters Patent Rights Company, Denver, Colo. Gap and segment blank-gumming cylinder. No. 1,239,816; Sept. 11; v. 242; p. 379.
Peters, Melville E., G. H. Fath, and A. F. Miller, assignors to The Peters Patent Rights Company, Denver, Colo. Blank-feeder for gumming-machines. No. 1,239,817; Sept. 11; v. 242; p. 379.
Peters, Melville E., G. H. Fath, and A. F. Miller, assignors to The Peters Patent Rights Company, Denver, Colo. Blank-edge-exposing mechanism for blank-gumming cylinders. No. 1,239,818; Sept. 11; v. 242; p. 379.
Peters, Melville E., G. H. Fath, and A. F. Miller, assignors to The Peters Patent Rights Company, Denver, Colo. Box-transferring mechanism for box or package transmission machines. No. 1,239,819; Sept. 11; v. 242; p. 380.
Peters Patent Rights Company, The. (See Peters, Fath, and Miller, assignors.)
Peterson, Andrew, Newark, N. J. Machine for ozonizing air. No. 1,239,515; Sept. 11; v. 242; p. 282.
Peterson, Charlie W., Grayson, Nebr. Permutation-padlock. No. 1,241,435; Sept. 25; v. 242; p. 952.
Peterson, Clarence, Elm Springs, S. D. Loading and unloading chute. No. 1,241,436; Sept. 25; v. 242; p. 952.
Peterson, Gilbert E., Clinton, Minn. Anchor. No. 1,239,820; Sept. 11; v. 242; p. 380.
Peterson, John, Seattle, Wash. Mechanism for converting motion. No. 1,241,015; Sept. 25; v. 242; p. 822.
Peterson, John W., and J. P. Quam, assignors to The Richardson-Phoenix Co., Milwaukee, Wis. Oil-filter. No. 1,239,512; Sept. 11; v. 242; p. 281.
Petit, Eugene E., Charleston, S. C. Train-controller. No. 1,239,954; Sept. 11; v. 242; p. 423.
Petrelli, Joseph V., New Haven, Conn. Reversing mechanism. No. 1,239,213; Sept. 4; v. 242; p. 157.
Petric, Martin, Detroit, Mich. Horseshoe. No. 1,241,016; Sept. 25; v. 242; p. 822.
Pfeifer, Ferdinand A., Springfield, Ohio. Mechanical horn. No. 1,239,036; Sept. 4; v. 242; p. 101.
Pfleeger, Raymond J., Deerfield, N. Y. Oil-pump. No. 1,238,939; Sept. 4; v. 242; p. 70.
Phelps, Edward V., assignor to Improved Paper Machinery Company, Nashua, N. H. Felt-covered suction couch-cylinder. No. 1,241,272; Sept. 25; v. 242; p. 905.
Phelps, Henry E., B. T. Kirk, and J. Comstock, Rifle, Colo. Advertising-machine. No. 1,239,037; Sept. 4; v. 242; p. 101.
Philipp, Herbert, Perth Amboy, N. J., assignor to The Roessler & Hasslacher Chemical Co., New York, N. Y. Removing carbonic-acid gas from nitrogen gas. No. 1,239,516; Sept. 11; v. 242; p. 282.
Phillips, Gerard J., and L. A. Keller, London, England. Stowing and transference of boats on board ship. No. 1,239,821; Sept. 11; v. 242; p. 381.
Phillips, James A., Drumright, Okla. Cable-socket. No. 1,238,811; Sept. 4; v. 242; p. 29.
Phillips, Ross M. G., West Haven, assignor to The Sentinel Mfg. Co., New Haven, Conn. Timing mechanism. No. 1,239,955; Sept. 11; v. 242; p. 423.
Phillips, William, *et al.* (See Gault, Joseph P., assignor.)
Phinney, Willis E., Coldwater, Mich. Artificial bait. No. 1,239,956; Sept. 11; v. 242; p. 423.
Phinney, Willis E., and S. O. Larrabee, Coldwater, Mich. Artificial bait. No. 1,239,957; Sept. 11; v. 242; p. 424.
Pian, John D., Detroit, Mich. Device for spraying powder and liquid. No. 1,241,437; Sept. 25; v. 242; p. 953.
Picard, Sidney L., assignor of one-half to A. P. Chambe, Detroit, Mich. Carbureter. No. 1,238,812; Sept. 4; v. 242; p. 29.
Pick, Hugo. (See Carlson and Pick.)
Pick, Samuel. (See Taylor, Isaac F., assignor.)
Pickard, William. (See Skelton and Pickard.)
Pickée, Daniël. (See Rücker and Pickée.)
Pickett, David C., Canton, Ill. Shock-absorber. No. 1,241,438; Sept. 25; v. 242; p. 953.
Pidgin, Charles F., Winthrop, Mass., assignor of six-tenths to H. A. Johnston, Riverdale, Md. Motion-picture and producing the same. No. 1,240,774; Sept. 18; v. 242; p. 713.
Piepgras, Herman J., Caldwell, Idaho. Grain-polishing machine. No. 1,240,775; Sept. 18; v. 242; p. 713.
Pierce, George F., Chicago, Ill. Furnace-grate. No. 1,239,717; Sept. 11; v. 242; p. 348.
Pierpont, J. J. (See Lewis, Thomas H., assignor.)
Pigeon, Albert M., assignor to Wildman Mfg. Co., Norristown, Pa. Knitting-machine. (Reissue.) No. 14,369; Sept. 25; v. 242; p. 971.
Piguet, Alfred E. Steinbuch, and R. Stocker, assignors to Society of Chemical Industry in Basle, Basel, Switzerland. Manufacture of aromatic amino-oxy-compounds. No. 1,239,822; Sept. 11; v. 242; p. 381.
Pike, Charles F. (See Bradley and Pike.)
Pilblad, Eric J., assignor to Imperial Typewriter Company, Limited, Leicester, England. Rotatable contact-breaker for magnetos and other purposes. No. 1,241,273; Sept. 25; v. 242; p. 905.
Pilcher, John A., Roanoke, Va. Locomotive-tender-tank feeder. No. 1,241,439; Sept. 25; v. 242; p. 954.
Pilcher, John A., Roanoke, Va. Brake-lever for car-trucks. No. 1,241,440; Sept. 25; v. 242; p. 954.
Pilcher, John A., Roanoke, Va. Brake-lever for car-trucks. No. 1,241,441; Sept. 25; v. 242; p. 954.
Pilikian, Henry. (See Hovhannesian, Krikor, assignor.)
Pinder, Percy H., New York, N. Y., assignor to The Standard Steam Specialty Company. Steam-separator. No. 1,239,823; Sept. 11; v. 242; p. 381.
Pingel, Will G., assignor of one-half to W. Rohan, Withee, Wis. Nut-lock. No. 1,239,958; Sept. 11; v. 242; p. 424.

Pinkney, Bryan D., assignor to The Triumph Manufacturing Company, Cincinnati, Ohio. Weighing apparatus. No. 1,240,600; Sept. 18; v. 242; p. 659.
Pitcher, Henry, Orange, Cal. Combined ridger and blocker. No. 1,240,088; Sept. 11; v. 242; p. 460.
Pittoni, Louis E. (See Sisbower and Pittoni.)
Pittsburgh-Hickson Company. (See Reynders, Augustus J., assignor.)
Pittsburgh Steel Co. (See Adams and Johnson, assignors.)
Plantinga, Pierre, Cleveland, Ohio. Retort. No. 1,239,517; Sept. 11; v. 242; p. 282.
Plath, Emil, Maza, N. D. Car-brake. No. 1,241,147; Sept. 25; v. 242; p. 863.
Platt, Clarence D., Bridgeport, Conn. Cover-locking means. No. 1,239,718; Sept. 11; v. 242; p. 348.
Platt, Clarence D., Bridgeport, Conn. Meter-testing-switch construction. No. 1,240,363; Sept. 18; v. 242; p. 587.
Platt, Clarence D., Bridgeport, Conn. Inclosed-switch construction. No. 1,240,364; Sept. 18; v. 242; p. 587.
Plaut, Herman, *et al.* (See Smith, Esmond M., assignor.)
Plaut, Leopold, *et al.* (See Smith, Esmond M., assignor.)
Pless, Ernest E., Morristown, Tenn. Glove-former. No. 1,239,959; Sept. 11; v. 242; p. 424.
Pletsch, Henry. (See Judd and Pletsch.)
Plotnik, Frank, Browerville, Minn. Vise. No. 1,239,620; Sept. 11; v. 242; p. 315.
Plumb, Robert F., Tennant, Iowa. Seed-corn drier. No. 1,240,365; Sept. 18; v. 242; p. 587.
Pocock, Francis A., Philadelphia, Pa. Water-gage. No. 1,239,304; Sept. 4; v. 242; p. 187.
Pocock, Francis A., Philadelphia, Pa. Water-gage. No. 1,240,251; Sept. 18; v. 242; p. 552.
Podobiedoff, Iwan, Petrograd, Russia. Apparatus for washing with slime the bore end of a well. No. 1,240,776; Sept. 18; v. 242; p. 714.
Poenisch, Otto, West Allis, Wis. Fire-alarm mechanism. No. 1,238,813; Sept. 4; v. 242; p. 30.
Pohlman, Elmer L., Indianapolis, Ind. Receptacle for retaining brake-band lining and the like. No. 1,239,960; Sept. 11; v. 242; p. 425.
Polhemus, Frank D., Atlantic City, N. J. Automatic lubricator for switch-points. No. 1,239,719; Sept. 11; v. 242; p. 348.
Pollock, Robert L., Sterling, Kans. Hot-air furnace. No. 1,241,274; Sept. 25; v. 242; p. 906.
Pomeroy, Henry W., Northampton, Mass. Screw-driver. No. 1,239,961; Sept. 11; v. 242; p. 425.
Pomeroy, Le Dru R., assignor to The Toledo Button Machine Company, Toledo, Ohio. Shoe-button-fastening machine. No. 1,240,874; Sept. 25; v. 242; p. 778.
Pond, Clarke P., Philadelphia, Pa. Sash construction. No. 1,240,777; Sept. 18; v. 242; p. 714.
Pontiac Tractor Company. (See Welch, Fred S., assignor.)
Pool, John G., Lynn, Mass. Machine for making wooden heels for boots and shoes and the like. No. 1,238,814; Sept. 4; v. 242; p. 30.
Pool, John G., Lynn, Mass. Machine for making heels for boots and shoes and the like. No. 1,238,815; Sept. 4; v. 242; p. 30.
Poole, Elmer E., Boston, Mass. Holder for tail-lights and number-plates for automobiles. No. 1,238,816; Sept. 4; v. 242; p. 31.
Popkess, Michael A., New York, N. Y. Plastic composition and method of making the same. No. 1,240,253; Sept. 18; v. 242; p. 552.
Popkess, Michael A., New York, N. Y. Process of and machine for treating earthy material. No. 1,240,481; Sept. 18; v. 242; p. 624.
Popkess, Michael A., Kansas City, Mo., assignor to Bituminized Road Company. Manufacture of plastics. No. 1,240,252; Sept. 18; v. 242; p. 552.
Porter, Finley R., assignor to Finley Robertson Porter Company, Inc., Port Jefferson, N. Y. Oil-pump. No. 1,238,817; Sept. 4; v. 242; p. 31.
Porter, Finley R., assignor to Finley Robertson Porter Company, Inc., Port Jefferson, N. Y. Oil-pump. No. 1,238,818; Sept. 4; v. 242; p. 32.
Porter, Finley R., assignor to Finley Robertson Porter Company, Inc., Port Jefferson, N. Y. Oil-pump. No. 1,238,819; Sept. 4; v. 242; p. 32.
Porter, Willard E., and A. L. R. Ellis, Lynn, Mass., assignors to General Electric Company. Electrical measuring instrument. No. 1,241,275; Sept. 25; v. 242; p. 906.
Porter, Wilson E., assignor to New Haven Clock Co., New Haven, Conn. Alarm-clock. No. 1,240,482; Sept. 18; v. 242; p. 624.
Porter, Wilson E., assignor to New Haven Clock Co., New Haven, Conn. Alarm-clock. No. 1,240,483; Sept. 18; v. 242; p. 625.
Porter, Wilson E., assignor to New Haven Clock Co., New Haven, Conn. Alarm-clock. No. 1,240,484; Sept. 18; v. 242; p. 625.
Porter, Wilson E., assignor to New Haven Clock Co., New Haven, Conn. Center-friction for clocks and watches. No. 1,241,148; Sept. 25; v. 242; p. 863.
Postcraft Company, The. (See Reichheim, George L., assignor.)
Potter, Alfred K., assignor to E. A. Potter Company, Providence, R. I. Pocket manicure implement. No. 1,240,485; Sept. 18; v. 242; p. 625.
Potter, Robert S., Greenwich, and P. Mikkelsen, assignors to The Yale & Towne Manufacturing Company, Stamford, Conn. Door check and closer. No. 1,240,778; Sept. 18; v. 242; p. 714.
Potter, William J., Weston, Mass. Device for priming internal-combustion motors. No. 1,239,518; Sept. 11; v. 242; p. 282.
Pottinger, Ray W., Charleston, S. C. Swing. No. 1,240,089; Sept. 11; v. 242; p. 460.
Pound, Elmer A., Venice, Cal. Automatic traffic-regulator. No. 1,240,090; Sept. 11; v. 242; p. 461.
Powell, Alfred S., New York, N. Y. Semi-indirect lighting device. No. 1,239,038; Sept. 4; v. 242; p. 102.
Powell, Claude B., Guymon, Okla. Draft-equalizer. No. 1,241,442; Sept. 25; v. 242; p. 955.
Power Specialty Company. (See Foster, Ernest H., assignor.)
Powers Accounting Machine Company. (See Powers, James, assignor.)
Powers, Herman M., Pierce City, Mo. Flue-cutter. No. 1,240,779; Sept. 18; v. 242; p. 715.
Powers, James, assignor, by mesne assignments, to Powers Accounting Machine Company, New York, N. Y. Selective and totalizing count-action for card-sorting machines. No. 1,240,601; Sept. 18; v. 242; p. 659.
Pratt & Cady Company. (See Luce, Thomas C., assignor.)
Pratt, Chelsea C., Mankato, Minn. Automobile-headlight. No. 1,240,780; Sept. 18; v. 242; p. 715.
Pratt, Merrill E. (See Young, Laurence C., assignor.)
Pratt, William B., Wellesley, Mass. Gum and making the same. No. 1,240,875; Sept. 25; v. 242; p. 778.
Preddey, Walter G., San Francisco, Cal. Carbon-feeding mechanism. No. 1,239,720; Sept. 11; v. 242; p. 348.
Presby, George P., West Bridgewater, Mass., assignor to Beckwith Box Toe Company, Dover, N. H. Making shoes. No. 1,240,794; Sept. 18; v. 242; p. 719.
Prescott, Harry H., and E. H. Considine, Chicago, Ill. Double check-valve. No. 1,240,254; Sept. 18; v. 242; p. 553.
Prestwich, Frank M., New York, N. Y. Cuff. No. 1,241,479; Sept. 25; v. 242; p. 966.
Price, Edgar F., Port Chester, assignor to Electro Metallurgical Company, New York, N. Y. Electric furnace. No. 1,239,214; Sept. 4; v. 242; p. 158.
Price, Edgar F., Port Chester, assignor to Electro Metallurgical Company, New York, N. Y. Electric furnace. No. 1,239,215; Sept. 4; v. 242; p. 158.
Price, Henry F., Riverside, Conn., assignor, by mesne assignments, to The Budget Cheque Corporation, Chicago, Ill. Bill-payment form. No. 1,240,255; Sept. 18; v. 242; p. 553.
Price, Norman, Brooklyn, N. Y. Flush-tank. No. 1,241,276; Sept. 25; v. 242; p. 906.
Price, Thomas M., and J. W. Tillman, Cooper, Tex. Clothes pin or retainer. No. 1,239,962; Sept. 11; v. 242; p. 425.
Price, William W., assignor to The Dayton Pipe Coupling Company, Dayton, Ohio. Clamp for couplings. No. 1,240,486; Sept. 18; v. 242; p. 625.
Priest, Charles H., Los Angeles, Cal. Grease-arrester for shafts. No. 1,240,602; Sept. 18; v. 242; p. 660.
Prince, Joseph T. (See Laird, Frederick, assignor.)
Prinz, Charles H., Fruitvale, Cal. Lock. No. 1,239,039; Sept. 4; v. 242; p. 102.
Prochaska, Carroll W., New York, N. Y., assignor, by mesne assignments, to Actus Carburetor & Manufacturing Co., Inc. Carbureter. No. 1,240,876; Sept. 25; v. 242; p. 778.
Prock, Silas P., Erick, Okla. Animal-yoke. No. 1,241,443; Sept. 25; v. 242; p. 955.
Proctor, William R., Athena, Oreg. Weather-strip. No. 1,240,603; Sept. 18; v. 242; p. 660.
Prostredny, Alajos, Johnstown, Pa. Manually-operable rocking-chair. No. 1,241,277; Sept. 25; v. 242; p. 907.
Protective Signal Manufacturing Company, The. (See Neahr, Will C., assignor.)
Public Service Cup Company. (See Claus, Emil A., assignor.)
Pugh, John V., Allesley, assignor to Rudge Whitworth, Limited, Coventry, England. Twin rim for wire-spoked vehicle-wheels. No. 1,239,824; Sept. 11; v. 242; p. 382.
Putnam, Fred A., Melrose, assignor to Markem Machine Company, Boston, Mass. Embossing-machine. No. 1,241,278; Sept. 25; v. 242; p. 907.
Pyle-National Electric Headlight Company. (See Dake, Charles W., assignor.)
Pyle, Paul E., assignor to Schwab Safe Company, La Fayette, Ind. File attachment for safes. No. 1,241,279; Sept. 25; v. 242; p. 907.
Pys, Pawel, Detroit, Mich. Weapon. No. 1,238,820; Sept. 4; v. 242; p. 32.
Quam, James P. (See Peterson and Quam.)
Quartieri, Ferdinando, Milan, Italy. Manufacture of trinitrotoluene. No. 1,241,017; Sept. 25; v. 242; p. 823.
Quentell, William P., New York, N. Y. Number-printing mechanism. No. 1,240,256; Sept. 18; v. 242; p. 553.
Quinn, Patrick F., Corona, N. Y. Dress-form. No. 1,239,721; Sept. 11; v. 242; p. 349.
R. Williamson & Co. (See Yardley, Horace R., assignor.)
R. C. Products Trust, The, trustees. (See Evers, William H., assignor.) (Reissue.)
Radiant Heating Limited. (See Ellis, Carleton, assignor.)

Radkoff, Stoyan K., Detroit, Mich. Window-display and advertising device. No. 1,239,040; Sept. 4; v. 242; p. 102.

Rail Joint Company, The. (See Braine, Bancroft G., assignor.)

Rail Joint Company, The. (See Ten Eyck, Peter G., assignor.) (Reissue.)

Ramer, George W., Davis Creek, Cal. Releasing-penholder. No. 1,239,126; Sept. 4; v. 242; p. 131.

Ramsaier, William J., New York, N. Y. Changer for inking apparatus for printing-presses. No. 1,239,127; Sept. 4; v. 242; p. 131.

Ramsaier, William J., New York, N. Y. Printing-press. No. 1,239,128; Sept. 4; v. 242; p. 131.

Ramsaier, William J., New York, N. Y. Ink-distributer. No. 1,239,129; Sept. 4; v. 242; p. 132.

Ramsey, James N., *et al.* (See Coleman, George W., assignor.)

Rand, McNally Company. (See Smith, Albert S., assignor.)

Randall, Harrie E., Vandalia, Ohio. Automobile-curtain carrier. No. 1,240,091; Sept. 11; v. 242; p. 461.

Randall, Harry L., trustee. (See Van Leeuwen and Brunelle, assignors.)

Randolph, Oliver W., Toledo, Ohio. Grain-drier. No. 1,239,216; Sept. 4; v. 242; p. 159.

Raney, Clemma R., Chicago, Ill., assignor to International Harvester Company of New Jersey. Adjusting mechanism for shocking-machines. No. 1,239,621; Sept. 11; v. 242; p. 315.

Rasmesen, George, Jr., Winnetka, Ill. Brush. No. 1,240,604; Sept. 18; v. 242; p. 660.

Rasmusen, Andrew, Jr., Ridgway, Colo. Gasolene-engine. No. 1,240,366; Sept. 18; v. 242; p. 587.

Rassmann, Hugo C., Beaver Dam, Wis. Stanchion. No. 1,239,963; Sept. 11; v. 242; p. 425.

Rathbone, Sard & Company. (See Larson, Frank O., assignor.)

Raubitschek, William. (See Rogers, William R., assignor.)

Raubitschek, William. (See Rogers, William R., assignor.)

Rauchwetter, Franz, Berlin-Friedenau, Germany. Keyboard adding-machine. No. 1,239,622; Sept. 11; v. 242; p. 316.

Rawles, William L., South Norfolk, Va. Washer-cutter. No. 1,241,018; Sept. 25; v. 242; p. 823.

Rayson, Russell, Melbourne, Victoria, Australia. Air-admission device for air-circulation storage-chambers. No. 1,240,367; Sept. 18; v. 242; p. 588.

Reade, William A., assignor to Ludlow Typograph Company, Cleveland, Ohio. Type-bar or casting-slug. No. 1,241,019; Sept. 25; v. 242; p. 823.

Reader, Edward C., *et al.* (See Noll, Charles, assignor.)

Reader, Irwin A., *et al.* (See Noll, Charles, assignor.)

Rechter, George, San Francisco, Cal. Comb-cleaner. No. 1,239,964; Sept. 11; v. 242; p. 426.

Rector, Alcorn, assignor to Rector Gas Lamp Company, New York, N. Y. Power-generator. No. 1,239,519; Sept. 11; v. 242; p. 288.

Rector Gas Lamp Company. (See Rector, Alcorn, assignor.)

Redfield, Cleveland, Ogden, Utah. Controlling mechanism for electric motors. No. 1,240,877; Sept. 25; v. 242; p. 779.

Reece Button Hole Machine Company, The. (See Hagelstein, Christian H. T., assignor.)

Reed, Edward W. (See Chrisman, Rufe F., assignor.)

Reed, Harvey F., New York, N. Y. Collapsible trap-nest. No. 1,240,487; Sept. 18; v. 242; p. 626.

Reed, James H., Swampscott, Mass. Construction of buttonholes and reinforcement thereof. No. 1,239,433; Sept. 4; v. 242; p. 227.

Reed, Robert E. (See Throckmorton, Harry S., assignor.)

Reese, Carl N., assignor to The Morgan Engineering Company, Alliance, Ohio. Manipulator for roller-tables. No. 1,239,623; Sept. 11; v. 242; p. 316.

Reese, Claude E., Caney, Kans. Gas-purifier. No. 1,240,368; Sept. 18; v. 242; p. 588.

Reese, Horace M., Atlanta, Ga. Cotton-picker. No. 1,241,280; Sept. 25; v. 242; p. 907.

Reese, Stephen, Sumner, Wash. Animal-trap. No. 1,239,722; Sept. 11; v. 242; p. 349.

Reeve, Henry E., New York, N. Y. Fuel-regulator. No. 1,238,940; Sept. 4; v. 242; p. 70.

Reeves, Frank N., Newark, N. J., and A. E. Lundell, assignors to Western Electric Company, Incorporated, New York, N. Y. Telephone system. No. 1,240,257; Sept. 18; v. 242; p. 554.

Reeves, George C., Oak Park, Ill. Tank-ball. No. 1,239,520; Sept. 11; v. 242; p. 283.

Reichart, William M. (See Liberman, Reichart, and Wohensmith.)

Reichhelm, George L., New Haven, Conn., assignor to The Postcraft Company, Inc., New York, N. Y. Stamp-affixing machine. No. 1,239,624; Sept. 11; v. 242; p. 316.

Reid, James H., Newark, N. J. Making calcium or other metal cyanamid. No. 1,241,020; Sept. 25; v. 242; p. 823.

Reid, Robert G., *et al.* (See Grikschelt, William, assignor.)

Reid, William D., *et al.* (See Grikschelt, William, assignor.)

Reigel, John W., Bradford, Pa. Torque-arm for automobiles. No. 1,239,521; Sept. 11; v. 242; p. 283.

Reilly, Edward B., assignor of four-fifths to H. R. Young, Atlantic City, N. J. Submarine boat. No. 1,239,723; Sept. 11; v. 242; p. 349.

Reilly, S. H. (See Swedberg, Peter O., assignor.)

Reimers, Terry, Omaha, Nebr. Artificial bass-bait or frog. No. 1,239,724; Sept. 11; v. 242; p. 350.

Reinhold, William, assignor to Brown Folding Machine Company, Erie, Pa. Folding-machine. No. 1,239,965; Sept. 11; v. 242; p. 426.

Reiss, Franklin, Camden, N. J. Toy building element. No. 1,241,281; Sept. 25; v. 242; p. 908.

Relay Automatic Telephone Company, The. (See Bygrave, Leonard C., assignor.)

Remer, Alexander M., Philadelphia, Pa., and F. Hughes, Camden, N. J. Combination-square. No. 1,241,282; Sept. 25; v. 242; p. 908.

Remington Typewriter Company. (See Briggs, Arthur J., assignor.)

Remington Typewriter Company. (See Fengler, Hermann V., assignor.)

Remington Typewriter Company. (See Josleyn, Hubbard N., assignor.)

Repetto, Augustine B., Margate City, N. J. Saw-set. No. 1,239,217; Sept. 4; v. 242; p. 159.

Respiratory Apparatus Company, The. (See Tullar, William E., assignor.)

Restucci, Giuseppe, assignor to Restucci, Musso & Co., Naples, Italy. Tire for wheels. No. 1,241,283; Sept. 25; v. 242; p. 909.

Restucci, Musso & Co. (See Restucci, Giuseppe, assignor.)

Revelli, Abiel B., Turin, Italy. Ball-and-socket joint for mounting firearms on shields, parapets, and the like. No. 1,241,149; Sept. 25; v. 242; p. 863.

Reynders, Augustus J., assignor to Pittsburgh-Hickson Company, Butler, Pa. Tube-bending mechanism. No. 1,238,941; Sept. 4; v. 242; p. 70.

Reynolds, Charles J., Melrose, Mass. Seal. No. 1,239,966; Sept. 11; v. 242; p. 426.

Reynolds, Frank W., New Washington, Ohio. Combined simmer-burner and lighter for gas-stoves. No. 1,240,369; Sept. 18; v. 242; p. 589.

Reynolds, Walter M., Hattiesburg, Miss. Automobile-fan-belt tightener. No. 1,238,822; Sept. 4; v. 242; p. 33.

Reynolds, Walter M., assignor of one-half to J. B. Merkel, Hattiesburg, Miss. Cultivator. No. 1,238,821; Sept. 4; v. 242; p. 32.

Rhoades, Lewis T., Mont Clare, Pa., assignor to New York Coil Company, Incorporated, New York, N. Y. Means for automatically regulating automobile-headlights. No. 1,241,284; Sept. 25; v. 242; p. 909.

Riblet, Byron C. and R. N., Spokane, Wash. Tractor. No. 1,240,488; Sept. 18; v. 242; p. 626.

Riblet, Royal N. (See Riblet, Byron C. and R. N.)

Rice & Adams Corporation. (See Adams, Charles S., assignor.)

Rice, Clayton E., Chicago, Ill. Adjustable lamp-holder. No. 1,241,150; Sept. 25; v. 242; p. 864.

Richards, Hugh R., Indianapolis, Ind. Chocolate-heater. No. 1,239,218; Sept. 4; v. 242; p. 160.

Richards, William E. (See Hostetler and Richards.)

Richardson, David J., Pittsburgh, Pa. Lock for boxes. No. 1,239,725; Sept. 11; v. 242; p. 350.

Richardson, Ellen E., Boston, Mass. Lace-fastener. No. 1,241,021; Sept. 25; v. 242; p. 823.

Richardson, John R. (See Gendron and Richardson.)

Richardson-Phenix Co., The. (See Petersen and Quam, assignors.)

Richardson, Walter, New York, N. Y. Apparatus for applying fastenings to envelops, &c. No. 1,239,968; Sept. 11; v. 242; p. 427.

Richardson, William S., Canton, Mass., assignor to United States Fastener Company. Snap-fastener socket. No. 1,240,878; Sept. 25; v. 242; p. 779.

Ricke, George H., Cincinnati, Ohio. Rail-joint. No. 1,240,092; Sept. 11; v. 242; p. 461.

Riddell, William W., Chicago, Ill. Valve. No. 1,240,879; Sept. 25; v. 242; p. 779.

Ridley, Grahame B., San Francisco, Cal. Motor-vehicle. No. 1,239,219; Sept. 4; v. 242; p. 160.

Riehe, Theodore C. (See Rogers and Riehe.)

Riemann, Otto. (See Fox, Joseph P., assignor.) (Reissue.)

Riener, Charles, Philadelphia, Pa. Operating mechanism for signals. No. 1,240,370; Sept. 18; v. 242; p. 589.

Rigby, Thomas, and G. W. Andrew, Dumfries, Scotland, assignors to Wetcarbonizing Limited, London, England. Working of by-product-recovery gas-producers. No. 1,239,969; Sept. 11; v. 242; p. 427.

Riggs, Henry H., Kharput, Turkey. Electric indicator. No. 1,241,151; Sept. 25; v. 242; p. 864.

Ringe, John C., Bridgeport, Conn., assignor to The Singer Manufacturing Company. Embroidering-machine. No. 1,241,022; Sept. 25; v. 242; p. 824.

Rink, George W., Washington, Pa. Combined scale sheath and cleaner. No. 1,240,880; Sept. 25; v. 242; p. 780.

Rizk, Elias, Sioux City, Iowa. Hog-oiler. No. 1,241,023; Sept. 25; v. 242; p. 824.

Robb, Robert F., Glasgow, Scotland. Artificial tooth. No. 1,240,258; Sept. 18; v. 242; p. 554.

Robbins, Charles A., Nevada, and J. W. Jolley, Morral, Ohio. Fire-pot for stoves and furnaces. No. 1,238,942; Sept. 4; v. 242; p. 71.

Roberts, Charles C., and J. E. Barchel, assignors to Harrison Manufacturing Company, Lockport, N. Y. Suspension for radiator-cores. No. 1,238,943; Sept. 4; v. 242; p. 71.

Roberts, Charles D., Monroe, N. C. Nut-lock. No. 1,240,781; Sept. 18; v. 242; p. 716.

Roberts, William M. (See McElhinny, John W., assignor.)

Robeson Process Company. (See Hurt, Henry H., assignor.)

Robinson, Jesse T. (See Bartlett and Robinson.)

Robinson, William C., Grinnell, Iowa. Landing-chassis for aeroplanes. No. 1,240,371; Sept. 18; v. 242; p. 589.

Robinson, Zephaniah. (See Kearby and Robinson.)

Roden, Ephraim H., Chicago, Ill. Calendar. No. 1,239,220; Sept. 4; v. 242; p. 160.

Roderick Lean Manufacturing Company. (See Warne, Frederick C., assignor.)

Rodgers, Charles L., Newton, Kans. Fuel-heating device for internal-combustion engines. No. 1,240,372; Sept. 18; v. 242; p. 589.

Rodman Chemical Co., The. (See Rodman, Hugh, assignor.)

Rodman, Hugh, Edgewood, Pa., assignor to The Rodman Chemical Co. Agglomerating finely-divided material. No. 1,239,221; Sept. 4; v. 242; p. 161.

Roe, Alliott V., Manchester, England. Belt-support for aviators. No. 1,239,041; Sept. 4; v. 242; p. 102.

Roeber, Joseph C., New York, N. Y. Automobile-signal. No. 1,241,444; Sept. 25; v. 242; p. 956.

Roeder, Peter, Brooklyn, N. Y. Protective burglary-alarm for buildings, &c. No. 1,238,823; Sept. 4; v. 242; p. 33.

Roessler & Hasslacher Chemical Co., The. (See Philipp, Herbert, assignor.)

Rogers, Edward J. (See Westerfield and Rogers.)

Rogers, Edwin A., Brunswick, Me. Apparatus for applying powdered material to plants, &c. No. 1,239,042; Sept. 4; v. 242; p. 103.

Rogers, Edwin W., and T. C. Riebe, assignors to Rogers Motor Lock Company, Chicago, Ill. Locking-valve. No. 1,238,944; Sept. 4; v. 242; p. 71.

Rogers, Edwin W., and T. C. Riebe, assignors to Rogers Motor Lock Company, Chicago, Ill. Automobile-lock. No. 1,238,945; Sept. 4; v. 242; p. 72.

Rogers, John R., Brooklyn, N. Y. Internal-combustion engine. No. 1,239,528; Sept. 11; v. 242; p. 284.

Rogers Motor Lock Company. (See Rogers and Riebe, assignors.)

Rogers, William R., Newark, N. J., assignor to W. Raubitschek, New York, N. Y. Sewing-machine. No. 1,239,825; Sept. 11; v. 242; p. 382.

Rogers, William R., Newark, N. J., assignor to W. Raubitschek, Brooklyn, N. Y. Machine to sew seams with gaps. No. 1,240,259; Sept. 18; v. 242; p. 554.

Roggi, Viola V. (See Weidemann, Theodore E., assignor.)

Rohan, Will. (See Pingel, Will G., assignor.)

Rohrer, William L. (See Butcher, James M., assignor.)

Romeiser, William B. (See Gale and Romeiser.)

Rommerdale, Holger. (See Armstrong and Rommerdale.)

Ronan, John T. (See Tallmage, Millard S., assignor.)

Ronda, Stanley T., Toledo, Ohio. Clothes-rack. No. 1,238,824; Sept. 4; v. 242; p. 33.

Rood, Fletcher C., Portland, Oreg. Rotary pump. No. 1,240,489; Sept. 18; v. 242; p. 626.

Root, Francis S., Springfield, Mass. Invalid-lifting device. No. 1,239,524; Sept. 11; v. 242; p. 284.

Rosback, Frederick P., Benton Harbor, Mich. Permutation-lock. No. 1,239,222; Sept. 4; v. 242; p. 161.

Rosenzweig, Herman, New York, N. Y. Window sash and frame. No. 1,241,285; Sept. 25; v. 242; p. 909.

Rosenzweig, Siegfried, New York, N. Y. Steam-engine. No. 1,239,826; Sept. 11; v. 242; p. 382.

Rosenzweig, Siegfried, New York, N. Y. Steam-engine. No. 1,239,827; Sept. 11; v. 242; p. 383.

Rosenzweig, Siegfried, New York, N. Y. Centrifugal governor for steam-engines. No. 1,239,828; Sept. 11; v. 242; p. 383.

Ross, Conrad, East Orange, N. J., assignor to American Can Company, New York, N. Y. Sheet-metal herring-box. No. 1,239,223; Sept. 4; v. 242; p. 162.

Ross, Edward T., Detroit, Mich. Cylinder-head. No. 1,241,024; Sept. 25; v. 242; p. 824.

Ross, Frank A., Evanston, assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill. Demountable pump. No. 1,239,625; Sept. 11; v. 242; p. 317.

Ross, Louis S., Newtonville, Mass. Means for preventing boiler explosions, leakage, &c. No. 1,238,825; Sept. 4; v. 242; p. 33.

Ross, Louis S., Newtonville, Mass. Apparatus for thawing hydrants. No. 1,238,826; Sept. 4; v. 242; p. 34.

Ross, Torey. (See Folger and Ross.)

Roszkowski, Adolph, Petrograd, Russia. Pneumatic hydrostatic system. No. 1,240,373; Sept. 18; v. 242; p. 589.

Rotter, Anton, Rorschach, Switzerland. Bobbin-winder. No. 1,240,881; Sept. 25; v. 242; p. 780.

Rowe Manufacturing Co. (See Knutson, Alfred W., assignor.)

Rowledge, Arthur J., assignor to D. Napier & Son Limited, London, England. Mechanism for the operation and control of variable-speed gears. No. 1,240,374; Sept. 18; v. 242; p. 590.

Royal Typewriter Company. (See Hess, Edward B., assignor.)

Royle, Vernon, Paterson, N. J. Edging-machine. No. 1,239,525; Sept. 11; v. 242; p. 284.

Roys, Herman E., New York, N. Y., assignor, by mesne assignments, to Cameoscope Corporation. Moving-picture machine. No. 1,240,882; Sept. 25; v. 242; p. 780.

Rücker, Karl, and D. Pickée, Marienfelde, near Berlin, Germany. Arrangement for flaming. No. 1,240,606; Sept. 18; v. 242; p. 660.

Rudge Whitworth Limited. (See Pugh, John V., assignor.)

Rudolph, Corrie F., Washington, D. C. Combination faucet and drinking-fountain. No. 1,240,260; Sept. 18; v. 242; p. 555.

Rudolph Wurlitzer Manufacturing Company, The. (See Wurlitzer and McCormick, assignors.)

Rudqwist, Carl, Munich, Germany. Two-stroke combustion-engine. No. 1,239,224; Sept. 4; v. 242; p. 162.

Ruff, William J., Quincy, Ill. Fountain-pen. No. 1,239,971; Sept. 11; v. 242; p. 427.

Ruff, William J., Quincy, Ill. Fountain-pen. No. 1,239,972; Sept. 11; v. 242; p. 428.

Russell, Arthur B., Chicago, Ill. Joint connection. No. 1,239,043; Sept. 4; v. 242; p. 108.

Rutz, Julius F. (See Frank, Herman, assignor.)

Ryan, Henderson, Seattle, Wash. Building construction. No. 1,241,445; Sept. 25; v. 242; p. 956.

Ryan, John H., Dayville, Conn. Washboard. No. 1,240,093; Sept. 11; v. 242; p. 462.

Ryder, Arthur H., Brooklyn, N. Y. Reproducer or sound-box for talking-machines. No. 1,239,044; Sept. 4; v. 242; p. 103.

Ryerson, Charles S., Detroit, Mich. Apparatus for bending pipes. No. 1,240,605; Sept. 18; v. 242; p. 660.

Ryon, Eppa H., Waltham, assignor to Crompton & Knowles Loom Works, Worcester, Mass. Loom controlling mechanism. No. 1,240,375; Sept. 18; v. 242; p. 590.

S. Slater & Sons. (See Taylor, George N., assignor.)

S. A. Woods Machine Company. (See Osteman, Carl G., assignor.)

S. H. Couch Company. (See Henry, William W., assignor.)

S. H. Pomeroy Company. (See Fromhold, Alexander, assignor.)

Saco-Lowell Shops. (See Goldsmith, George H., assignor.)

Safeguard Tag Company. (See Tewksbury, Charles B., assignor.)

Safety Car Heating and Lighting Company. (See Creveling, John L., assignor.)

Sage, John E., and N. V. Borgeson, Province of Rizal, Philippine Islands. Sanitary comb. No. 1,241,286; Sept. 25; v. 242; p. 910.

Sagerstrom, Charles G., Chicago, Ill. Shield for icemen and others. No. 1,241,025; Sept. 25; v. 242; p. 825.

Samples, William P. (See Vaughn and Samples.)

Sampson, Carlos E., Shale, Cal. Line-spacer. No. 1,241,026; Sept. 25; v. 242; p. 825.

Sampson, Robert W., Whitestone, N. Y. Stopper. No. 1,239,225; Sept. 4; v. 242; p. 162.

Samson Electric Company. (See Francis, John C., assignor.)

Samuel Fox & Company Limited. (See Thickett and Hawksworth, assignors.)

Samuel, Wilfred S., London, England. Talking-machine. No. 1,239,805; Sept. 4; v. 242; p. 188.

Sanburn, Willis H., Springfield, assignor to Strathmore Paper Company, Mittineague, Mass. Paper-sizing apparatus. No. 1,240,154; Sept. 11; v. 242; p. 481.

Sander, Henry C., Newark, N. J. Machine for slicing meat, vegetables, &c. No. 1,240,261; Sept. 18; v. 242; p. 555.

Sander, Wilhelm, Zurich, Switzerland. Abrading-machine. No. 1,241,027; Sept. 25; v. 242; p. 825.

Sanderson, Harvey L., Chewelah, Wash. Floor-laying tool. No. 1,239,306; Sept. 4; v. 242; p. 188.

Sandstrom, Robert. (See Benson and Sandstrom.)

Sanford, Alfred C., Grangeville, Idaho. Threshing-machine. No. 1,241,028; Sept. 25; v. 242; p. 825.

Sanitcap Co. (See Fodor, Andrew E., assignor.)

Sargent & Company. (See Sargent, Edward R., assignor.)

Sargent, Edward R., assignor to Sargent & Company, New Haven, Conn. Casket-handle. No. 1,241,287; Sept. 25; v. 242; p. 910.

Sargent, Edward R., assignor to Sargent & Company, New Haven, Conn. Casket-handle. No. 1,241,288; Sept. 25; v. 242; p. 910.

Sarich, Louis G., South Chicago, Ill. Couch-platform for ships. No. 1,239,226; Sept. 4; v. 242; p. 163.

Sattler, Hans, Sheborgan, Wis. Vibration-recorder. No. 1,240,883; Sept. 25; v. 242; p. 781.

Saubermann, Siegmund, Charlottenburg, Germany. Apparatus for impregnating water with radium emanations. No. 1,239,227; Sept. 4; v. 242; p. 163.

Saucier, Charles, Minneapolis, Minn. Christmas-tree stand. No. 1,240,376; Sept. 18; v. 242; p. 591.

Sauer, Arthur J., and J. J. Georgi, assignors to Sauer-Georgi Manufacturing Company, Inc., Buffalo, N. Y. Piston-ring. No. 1,239,726; Sept. 11; v. 242; p. 350.

Sauer, Frederick W., Brooklyn, N. Y. Safety-release for wringers. No. 1,239,045; Sept. 4; v. 242; p. 104.

Sauer-Georgi Manufacturing Company. (See Sauer and Georgi, assignors.)

Saunders, Benjamin P., Iatan, and O. Williams, Weston, Mo. Variable-speed gearing for the reels of agricultural machinery. No. 1,241,446; Sept. 25; v. 242; p. 956.

Saunders, Daniel G., Jr., Kansas City, Mo. Method of and apparatus for defense. No. 1,238,827; Sept. 4; v. 242; p. 34.

Saunders, Edwin M., Los Angeles, Cal. Plaster-bandage roller. No. 1,241,029; Sept. 25; v. 242; p. 826.

Saunders, Emmett A., South Bend, Ind. Rubber overshoe. No. 1,239,434; Sept. 4; v. 242; p. 227.

Saunders, Lewis E., and R. H. White, Niagara Falls, N. Y., assignors to Norton Company, Worcester, Mass. Composition containing alumina and zirconia. No. 1,240,490; Sept. 18; v. 242; p. 627.

Saunders, Lewis E., and R. H. White, Niagara Falls, N. Y., assignors to Norton Company, Worcester, Mass. Aluminous abrasive and preparing the same. No. 1,240,491; Sept. 18; v. 242; p. 627.

Saurusaitis, Peter, Waterbury, Conn. Altar-bread softener. No. 1,239,973; Sept. 11; v. 242; p. 428.

Savage Arms Corporation. (See Nelson, Charles A., assignor.)

Savidge, William, Alton, Ill. Tractor. No. 1,240,782; Sept. 18; v. 242; p. 716.

Sawyer, Frank M., Alhambra, Cal. Building construction. No. 1,240,492; Sept. 18; v. 242; p. 627.

Scamahorn, William A. (See Courtesy, Henry L., assignor.)

Schade, Wilfred, St. Louis, Mo. Swivel electric connection. No. 1,241,030; Sept. 25; v. 242; p. 826.

Schaefer, Frederic, Pittsburgh, Pa. Connecting-bar. No. 1,240,493; Sept. 18; v. 242; p. 627.

Scheel, Hans P., Tenino, Wash. Gas-collecting attachment for coke-ovens. No. 1,240,494; Sept. 18; v. 242; p. 628.

Scheelke, Emil, St. Louis, Mo. Torpedo-net. No. 1,240,495; Sept. 18; v. 242; p. 628.

Schenker, Walter, Winterthur, Switzerland, assignor to Busch-Sulzer Broe.-Diesel Engine Company, St. Louis, Mo. Fuel-injector. No. 1,238,828; Sept. 4; v. 242; p. 34.

Schenker, Walter, Winterthur, Switzerland, assignor to Busch-Sulzer Bros.-Diesel Engine Company, St. Louis, Mo. Internal-combustion engine. No. 1,240,884; Sept. 25; v. 242; p. 781.

Schickerling, Alfred, Mount Vernon, N. Y. Safety-match-pad case. No. 1,240,262; Sept. 18; v. 242; p. 555.

Schlacks, Henry J., Chicago, Ill. Illuminating means. No. 1,241,031; Sept. 25; v. 242; p. 827.

Schlatter, Moses, Hollywood, Cal. Combined ditch cleaner and former. No. 1,239,727; Sept. 11; v. 242; p. 350.

Schleicher, George, Belleville, Ill. Lock attachment. No. 1,241,447; Sept. 25; v. 242; p. 956.

Schleppy, Salem L., Chicago, Ill. Internal-combustion engine. No. 1,239,728; Sept. 11; v. 242; p. 351.

Schlichter, Enos F. (See Walter, Frank, assignor.)

Schlundt, Herman, Columbia, Mo. Concentrating carnotite ores. No. 1,240,607; Sept. 18; v. 242; p. 661.

Schluter, William, Parkersburg, Iowa. Belt attachment for motor-vehicles. No. 1,238,946; Sept. 4; v. 242; p. 72.

Schmid, Werner, New York, N. Y. Garbage-can. No. 1,239,307; Sept. 4; v. 242; p. 188.

Schmidt, Albrecht, assignor to Farbwerke vorm. Meister Lucius & Bruning, Höchst-on-the-Main, Germany. Stable concentrated preparation for the indigo fermentation-vat. No. 1,239,526; Sept. 11; v. 242; p. 285.

Schmidt, Henry D., New York, N. Y. Embossing-machine. No. 1,241,152; Sept. 25; v. 242; p. 864.

Schmidt, Hugo B., Charleston, S. C. Jeweler's tool. No. 1,240,783; Sept. 18; v. 242; p. 716.

Schneible, Joseph, Chicago, Ill. Separator. No. 1,238,829; Sept. 4; v. 242; p. 35.

Schneider, Frederick D., assignor to The Long-Landreth Schneider Co., New Brunswick, N. J. Burner. No. 1,241,032; Sept. 25; v. 242; p. 827.

Schoenheit, August W. (See Pease and Schoenheit.)

Schroeder Headlight Co. (See Werzner, Edward H., assignor.)

Schrum, George H., Templeton, Iowa. Harrow. No. 1,241,033; Sept. 25; v. 242; p. 827.

Schuette, Walter B. (See Medley, John E., assignor.)

Schuid, Mayme, Detroit, Mich. Umbrella-holder. No. 1,239,228; Sept. 4; v. 242; p. 163.

Schüle, Rudolf, Frankfort-on-the-Main, Germany. Disazo dyestuff and making same. No. 1,241,153; Sept. 25; v. 242; p. 865.

Schulz, H. F. (See Oller, Oscar B., assignor.)

Schuman, Julius, San Francisco, Cal. Handle attachment for suit-boxes. No. 1,239,130; Sept. 4; v. 242; p. 132.

Schuster, August G. F., and I. R. Johnson, Chicago, Ill. Container. No. 1,238,830; Sept. 4; v. 242; p. 35.

Schuster-Patent-Gesellschaft. (See Schuster, Richard, assignor.)

Schuster, Richard, Puppling, assignor, by mesne assignments, to Schuster-Patent-Gesellschaft, Berlin, Germany. Galvanic battery. No. 1,240,885; Sept. 25; v. 242; p. 781.

Schuster, Richard, Puppling, assignor to Schuster-Patent-Gesellschaft m. b. H., Berlin, Germany. Galvanic battery. No. 1,240,886; Sept. 25; v. 242; p. 781.

Schwab Safe Company. (See Pyle, Paul E., assignor.)

Schwartz, Charles S., Kirksville, Mo. End-gate fastener. No. 1,240,608; Sept. 18; v. 242; p. 661.

Schwarz, Alfred, New York, assignor to W. Scully, trustee, Brooklyn, N. Y. Rotary engine. No. 1,239,829; Sept. 11; v. 242; p. 383.

Schweitzer & Conrad. (See Schweitzer, Edmund O., assignor.)

Schweitzer, Edmund O., assignor to Schweitzer & Conrad, Chicago, Ill. Fuse device. No. 1,240,795; Sept. 18; v. 242; p. 720.

Schwerdtmann, Herman H. K. (See Hill and Schwerdtmann.)

Scientific Farming Machinery Company. (See Hicks, Thomas W., assignor.)

Scott, Blaine W., Nacosari, Mexico. Case for hypodermic instruments. No. 1,239,308; Sept. 4; v. 242; p. 189.

Scott, Dudley H., Cleveland, Ohio. Electrically-operated apparatus for ice-rinks. No. 1,241,289; Sept. 25; v. 242; p. 911.

Scott, Halleck M., *et al.* (See Lilly, William T., assignor.)

Scott, James, Cleveland, Ohio. Overhead-trolley suspension and feed-in ear. No. 1,240,263; Sept. 18; v. 242; p. 555.

Scott, John G., Jr., assignor to International Art Publishing Company, Philadelphia, Pa. Pictorial device. No. 1,240,887; Sept. 25; v. 242; p. 782.

Scott, Robert W., assignor to Scott & Williams, Incorporated, Boston, Mass. Device for knitting upon transferred fabric sections. No. 1,239,527; Sept. 11; v. 242; p. 285.

Scott, Stewart, Jr. (See Forgus, Frederic W., assignor.)

Scott, Thomas D. (See Browne and Scott.)

Scott, Thomas W., assignor to The American Train Control Company, Baltimore, Md. Air-brake-controlling mechanism. No. 1,240,796; Sept. 18; v. 242; p. 720.

Scott & Williams. (See Scott, Robert W., assignor.)

Scovel, Harley C. (See Cornell, Robert F., assignor.)

Scully, William, trustee. (See Schwarz, Alfred, assignor.)

Seaman, Stewart E., Brooklyn, assignor to Seaman Waste Wood Chemical Company, New York, N. Y. Cooling apparatus. No. 1,240,609; Sept. 18; v. 242; p. 661.

Seaman Waste Wood Chemical Company. (See Seaman, Stewart E., assignor.)

Search, Charles E., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis. Tractor. No. 1,241,034; Sept. 25; v. 242; p. 828.

Sears, Johnie W., Hale Center, Tex. Dirigible automobile-headlight. No. 1,240,784; Sept. 18; v. 242; p. 717.

Sebring, Harry O., Deer Wood, Minn. Knife-guard. No. 1,239,626; Sept. 11; v. 242; p. 317.

Sechler, William L., Braddock, Pa. Projectile-protector. No. 1,239,309; Sept. 4; v. 242; p. 189.

Security Window Guard Company. (See Franklin, Benjamin, assignor.)

Seelig, John G., Ripon, Wis. Washing-machine mechanism. No. 1,239,046; Sept. 4; v. 242; p. 104.

Seely, Thomas H., Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Sewing-machine. No. 1,240,094; Sept. 11; v. 242; p. 462.

Seivert, Lawrence W., Elkton, S. D. Automatic vehicle-brake. No. 1,241,035; Sept. 25; v. 242; p. 828.

Senftner, Herman F., Berkeley, Cal. Push map-tack. No. 1,241,290; Sept. 25; v. 242; p. 911.

Seng, Wendelin P., Chicago, Ill. Flag-holder attachment for automobiles. No. 1,240,377; Sept. 18; v. 242; p. 591.

Seng, Wendelin P., Chicago, assignor to P. E. Kroehler, Naperville, Ill. Folding-couch lock. No. 1,239,528; Sept. 11; v. 242; p. 285.

Sentinel Mfg. Co., The. (See Phillips, Ross M. G., assignor.)

Setecka, John, assignor to J. Teteak, Chicago, Ill. Water-heater. No. 1,241,154; Sept. 25; v. 242; p. 865.

Severance, Edwin P. (See Tucker, Frank S., assignor.)

Sevigny, Edward C., assignor of one-half to E. S. Bacon, Jacksonville, Fla. Auxiliary air-inlet device for internal-combustion engines. No. 1,241,155; Sept. 25; v. 242; p. 865.

Sexton, George A., Fitchburg, Mass. Belt-shifting device. No. 1,241,036; Sept. 25; v. 242; p. 828.

Seymour, Clayton, Burlington, Vt. Gas-engine tester. No. 1,239,974; Sept. 11; v. 242; p. 428.

Seymour, Dudley S., Oak Park, assignor to Union Special Machine Company, Chicago, Ill. Filled-bag-sewing machine. No. 1,240,095; Sept. 11; v. 242; p. 463.

Seymour, Oliver E., assignor of one-half to W. J. Thomas, Milwaukee, Wis. Automobile-lifting apparatus. No. 1,240,496; Sept. 18; v. 242; p. 628.

Shackleton, George W., Braithwaite, assignor to G. Hattersley and Sons, Limited, Keighley, England. Pick-finding mechanism for looms. No. 1,238,947; Sept. 4; v. 242; p. 73.

Shafer, Edward B., Decatur, Ill. Actuating device for toy vehicles. No. 1,239,729; Sept. 11; v. 242; p. 351.

Shannon, Woodford, Louisville, Ky. Spring structure. No. 1,239,529; Sept. 11; v. 242; p. 286.

Sharp, Joseph W., Jr. Berwyn, Pa., assignor to Haines, Jones, & Cadbury, Incorporated. Water-flushing control. No. 1,241,037; Sept. 25; v. 242; p. 829.

Sharples, David T., West Chester, Pa. Method and apparatus for milking. No. 1,238,831; Sept. 4; v. 242; p. 36.

Shauver, Fred, *et al.* (See Walter, Ira D., assignor.)

Shauver, Harvey C., *et al.* (See Walter, Ira D., assignor.)

Shaw, Edwin C., Akron, Ohio, assignor, by mesne assignments, to The B. F. Goodrich Company. Vehicle-wheel rim. No. 1,240,888; Sept. 25; v. 242; p. 782.

Shaw, Leonard, Miami, Fla. Sprinkler. No. 1,239,229; Sept. 4; v. 242; p. 163.

Shaw, Leonard, Miami, Fla. Sprinkler. No. 1,239,230; Sept. 4; v. 242; p. 164.

Shaw-Walker Company, The. (See Hunter, David E., assignor.)

Shaw, William V., Riverside, Iowa. Watering-trough. No. 1,240,785; Sept. 18; v. 242; p. 717.

Shay, Ira D., Baltimore, Md. Screw-driver. No. 1,239,131; Sept. 4; v. 242; p. 133.

Shearer, Walter E. (See Taylor and Shearer.)

Sheble, Horace, and T. Kraemer, assignors to Domestic Talking Machine Corporation, Philadelphia, Pa. Talking-machine. No. 1,240,497; Sept. 18; v. 242; p. 629.

Shefield Car Company. (See Hoshel, William F., assignor.)

Shelby, Fitz Gerald, and P. Olmsted, Los Angeles, Cal. Folding combination pocket-square. No. 1,238,882; Sept. 4; v. 242; p. 36.

Shelby, Fitz Gerald, and P. Olmsted, Los Angeles, Cal. Computing folding square. No. 1,238,883; Sept. 4; v. 242; p. 37.

Sheldon, Corliss, Saratoga Springs, N. Y. Circuit-closer. No. 1,239,830; Sept. 11; v. 242; p. 388.

Shelton, William G., New York, N. Y. Operating device for mixing-machines. No. 1,238,834; Sept. 4; v. 242; p. 37.

Shepard, Wilbur L., West Hartford, Conn. Internal-combustion engine. No. 1,239,310; Sept. 4; v. 242; p. 189.

Shepherd, Frank D., Salt Lake City, Utah. Puppet-valve for internal-combustion engines. No. 1,240,378; Sept. 18; v. 242; p. 591.

Shepp, Daniel B., Philadelphia, Pa. Alarm. No. 1,240,889; Sept. 25; v. 242; p. 782.

Sheppard, Herbert V., Worcester, Mass. Apparatus for operating flash-lights. No. 1,238,948; Sept. 4; v. 242; p. 73.

Sheppard, Herbert V., Worcester, Mass. Advertising device. No. 1,240,879; Sept. 18; v. 242; p. 592.

Sheridan, John, San Francisco, Cal. Cork-puller. No. 1,240,610; Sept. 18; v. 242; p. 661.

Sherman, Clifton W., Buffalo, N. Y. Friction draft-gear. No. 1,241,156; Sept. 25; v. 242; p. 866.

Sherman, Ralph L., Des Moines, Iowa. Adjustable strainer for cooking vessels. No. 1,241,448; Sept. 25; v. 242; p. 957.

Sherwin, Frank, Brookings, S. D. Harrow-tooth. No. 1,239,627; Sept. 11; v. 242; p. 317.

Sherwood, Aaron W., Hoosick Falls, N. Y. Apparatus for laying out tennis-courts. No. 1,240,498; Sept. 18; v. 242; p. 629.

Shields, Frank S., Cleveland, Ohio. Making hobs. No. 1,239,047; Sept. 4; v. 242; p. 104.

Shirley, Isaac J., and G. Wolfgang, Tampa, Fla. Spark or cinder arrester or collector. No. 1,239,730; Sept. 11; v. 242; p. 351.

Shipp, Edward L., Princeton, W. Va. Grease-cup. No. 1,239,311; Sept. 4; v. 242; p. 190.

Shively, James H. (See Kost, Joseph L., assignor.)

Shockley, Jiles S., assignor of ten one-hundredths to W. L. Danley and eighty one-hundredths to L. F. Butler, Nashville, Tenn. Rotary pump. No. 1,240,264; Sept. 18; v. 242; p. 556.

Shoemaker, Daniel N., Caineswille, Mo. Gate-operating device. No. 1,240,096; Sept. 11; v. 242; p. 463.

Shoemaker, John F. (See Williamson and Shoemaker.)

Shoemaker, John H., and H. Bruck, Portland, Oreg. Shoe tap or half-sole. No. 1,239,628; Sept. 11; v. 242; p. 317.

Shoenberg, Milton H., San Francisco, Cal., assignor to Majestic Electric Development Company. Separable supporting and polarity attachment-plug. No. 1,239,731; Sept. 11; v. 242; p. 352.

Shoenberg, Milton H., San Francisco, Cal., assignor to Majestic Electric Development Company. Faucet and hose attachment clamp. No. 1,239,732; Sept. 11; v. 242; p. 352.

Shriver, Harry T., West Orange, N. J. Electrolytic apparatus. No. 1,239,530; Sept. 11; v. 242; p. 286.

Shuman, Frank, Philadelphia, Pa., and C. V. Boys, Westminster, London, England. Sun-boiler. No. 1,240,890; Sept. 25; v. 242; p. 782.

Shuman, Jesse J. (See Svenson, John A., assignor.)

Shurtleff, Wilfred, Moline, Ill. Fluid-flow control. No. 1,241,038; Sept. 25; v. 242; p. 829.

Shurtleff, Wilfred, Moline, Ill. Vacuum fuel-feeding system for gas-engines. No. 1,241,039; Sept. 25; v. 242; p. 829.

Shuttleworth, John. (See Parker and Shuttleworth.)

Sickels, Harry P., assignor to In Vu Co. Inc., Rochester, N. Y. Mail-box. No. 1,239,733; Sept. 11; v. 242; p. 352.

Sidebotham, Melvin H. (See La Bombard and Sidebotham.)

Siemens & Halske, A. G. (See Grabe, Georg, assignor.)

Signor, Hannah A., Schenectady, N. Y. Strainer. No. 1,239,975; Sept. 11; v. 242; p. 428.

Silen, Erick, Mayger, Oreg. Violin-piano. No. 1,238,835; Sept. 4; v. 242; p. 37.

Simmen, Paul J., Indianapolis, Ind. Railway signal system. No. 1,239,048; Sept. 4; v. 242; p. 105.

Simmen, Paul J., Indianapolis, Ind. Railway signal system. No. 1,239,049; Sept. 4; v. 242; p. 105.

Simmons Hardware Company. (See Bader and Wassell, assignors.)

Simmons, Oliver G., Rochester, N. Y. Hobbing-cutter. No. 1,241,040; Sept. 25; v. 242; p. 829.

Simmons, Oliver G., Rochester, N. Y. Hob for cutting involute gears. No. 1,241,291; Sept. 25; v. 242; p. 911.

Simon, Arthur, assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electric switch. No. 1,241,157; Sept. 25; v. 242; p. 866.

Simonds Manufacturing Company. (See Carlson, Theodore T., assignor.)

Simonds, Samuel W., *et al.* (See McManama, John W., assignor.)

Simonson, Edward, Buffalo, N. Y. Securing means for the outer ends of pulp-rolls. No. 1,239,976; Sept. 11; v. 242; p. 429.

Simplex Air Brake and Manufacturing Co. (See O'Neil, Hugh, assignor.)

Simpson, Alexander B., Jersey City, N. J. Connector for electric wires. No. 1,241,158; Sept. 25; v. 242; p. 866.

Simpson, Frederick G., Seattle, Wash. Wireless telegraphy. No. 1,239,831; Sept. 11; v. 242; p. 384.

Simpson, James E., and C. J. Paulson, Brooklyn, assignors, by mesne assignments, to Todd Protectograph Company, Rochester, N. Y. Check-protector. No. 1,240,891; Sept. 25; v. 242; p. 783.

Sims, Charles M. (See Lee and Sims.)

Singer Auto Traffic Signal Company. (See Singer, Charles A., assignor.)

Singer, Charles A., assignor to Singer Auto Traffic Signal Company, St. Louis, Mo. Traffic-directing signaling device. No. 1,239,832; Sept. 11; v. 242; p. 384.

Singer, Charles A., assignor to Singer Auto Traffic Signal Company, St. Louis, Mo. Multiple switch. No. 1,239,833; Sept. 11; v. 242; p. 384.

Singer, Charles A., assignor to Singer Auto Traffic Signal Company, St. Louis, Mo. Traffic-directing signal for vehicles. No. 1,240,380; Sept. 18; v. 242; p. 592.

Singer Manufacturing Company, The. (See Allen, Edward B., assignor.)

Singer Manufacturing Company, The. (See Barron and Osol, assignors.)

Singer Manufacturing Company, The. (See De Voe, Albert H., assignor.)

Singer Manufacturing Company, The. (See Myers, Walter, assignor.)

Singer Manufacturing Company, The. (See Ringe, John C., assignor.)

Sisbower, George F., East Orange, N. J., and L. E. Pittoni, assignors to New York Couch Bed Company, New York, N. Y. Folding hammock. No. 1,240,499; Sept. 18; v. 242; p. 629.

Sisbower, George F., East Orange, N. J., and L. E. Pittoni, assignors to New York Couch Bed Company, New York, N. Y. Convertible couch. No. 1,240,500; Sept. 18; v. 242; p. 630.

Sisbower, George F., East Orange, N. J., and L. E. Pittoni, assignors to New York Couch Bed Company, New York, N. Y. Mattress. No. 1,240,501; Sept. 18; v. 242; p. 630.

Skelton, Frederick, Burlington, Ontario, Canada. Reinforced D-handle. No. 1,240,503; Sept. 18; v. 242; p. 631.

Skelton, Frederick, Burlington, and W. Pickard, Bartonville, Ontario, Canada; said Pickard assignor to said Skelton. D-handle. No. 1,240,502; Sept. 18; v. 242; p. 630.

Skerl, Francesco, assignor to The National Cash Register Company, Dayton, Ohio. Ticket-issuing machine. No. 1,238,836; Sept. 4; v. 242; p. 38.

Skinder, Joseph K., Bridgeport, Conn. Shoe-cleaning apparatus. No. 1,238,837; Sept. 4; v. 242; p. 38.

Skinner, Stephen G., Wilmette, Ill. Compressor. No. 1,240,892; Sept. 25; v. 242; p. 783.

Slate, Thomas B., assignor to American Mechanical Improvement Company, Washington, D. C. Air-propeller. No. 1,238,838; Sept. 4; v. 242; p. 38.

Slate, Thomas B., assignor to American Mechanical Improvement Company, Washington, D. C. Aero-vehicle body. No. 1,238,839; Sept. 4; v. 242; p. 39.

Sleeth, Montgomery, Bellevue, assignor to Fort Pitt Bedding Company, Pittsburgh, Pa. Separating device. No. 1,238,949; Sept. 4; v. 242; p. 74.

Slick, Charles M., Hagerstown, Md. License-tag or sign-plate. No. 1,241,292; Sept. 25; v. 242; p. 911.

Slick, Edwin E., Westmont borough, Pa. Metal railing. No. 1,241,041; Sept. 25; v. 242; p. 830.

Sloan, Robert A., and J. E. L. Barnes, Liverpool, England. Centrifugal apparatus for cleansing liquids. No. 1,239,734; Sept. 11; v. 242; p. 352.

Small, Frederick P., Ridgefield, N. J. Combined way-bill and accounting-coupon. No. 1,239,977; Sept. 11; v. 242; p. 429.

Small, Howard, Jenkintown, assignor to J. H. Bell, Philadelphia, Pa. Vacuum-cleaner. No. 1,240,155; Sept. 11; v. 242; p. 481.

Small, Jesse, Arlington, Md. Corner-joint. No. 1,241,042; Sept. 25; v. 242; p. 830.

Smart, Joseph F., assignor to Landers, Frary & Clark, New Britain, Conn. Connector. No. 1,239,531; Sept. 11; v. 242; p. 287.

Smith, Albert S., New York, N. Y., assignor to Rand, McNally Company. Suspending apparatus for geographic globes. No. 1,239,231; Sept. 4; v. 242; p. 164.

Smith, Amos H., New York, N. Y., assignor to American Bank Note Company. Numbering-machine. No. 1,240,893; Sept. 25; v. 242; p. 784.

Smith, Arthur B., Rosston, Ark. Harp. No. 1,239,050; Sept. 4; v. 242; p. 106.

Smith, Arthur D., Vinita, Okla., assignor, by mesne assignments, to J. T. Milliken, St. Louis, Mo. Manufacture of gasolene. No. 1,239,428; Sept. 4; v. 242; p. 223.

Smith, Bert H., assignor to Wilbert Manufacturing Company, Fairbury, Nebr. Lubricating-gland for stuffing-boxes. No. 1,239,132; Sept. 4; v. 242; p. 133.

Smith, Charles G., Lakeland, Mich. Bed-spring. No. 1,241,293; Sept. 25; v. 242; p. 912.

Smith, Chauncey W., and C. M. Lamb, San Bernardino, Cal. Rake. No. 1,239,735; Sept. 11; v. 242; p. 353.

Smith, Edward G., Syracuse, N. Y. Phonographic reproducer. No. 1,240,504; Sept. 18; v. 242; p. 631.

Smith, Esmond M., assignor of one-half to L. Plaut and one-half to H. Plaut, New York, N. Y. Lighting-fixture. No. 1,240,505; Sept. 18; v. 242; p. 631.

Smith, Eugene R., Baltimore, Md. Display device. No. 1,240,611; Sept. 18; v. 242; p. 662.

Smith, George, Blairsville, Pa. Sack-holder. No. 1,240,612; Sept. 18; v. 242; p. 662.

Smith, Hurlbut W., *et al.* (See Dennis, Adolphus S., assignor.)

Smith, John H., Los Angeles, Cal. Ship-armor. No. 1,238,840; Sept. 4; v. 242; p. 39.

Smith, Marvin A., Cottonwood, Ala. Dish-pan. No. 1,239,834; Sept. 11; v. 242; p. 385.

Smith, Maurice A., Jeannette, Pa. Making glassware. No. 1,239,051; Sept. 4; v. 242; p. 106.

Smith, Patrick, Foresthill, Cal. Grip for automobile-tires. No. 1,239,312; Sept. 4; v. 242; p. 190.

Smith, Roland L., Everett, Mass. Storage battery and making same. No. 1,239,835; Sept. 11; v. 242; p. 385.

Smith, Roy H., Cleveland, Ohio. Metal-working machine. No. 1,239,052; Sept. 4; v. 242; p. 106.

Smith, Roy H., Cleveland, Ohio. Metal-working machine. No. 1,239,053; Sept. 4; v. 242; p. 107.

Smith, Wilbert L., *et al.* (See Dennis, Adolphus S., assignor.)

Smith, Willard L., Los Angeles, Cal. Snap-hook. No. 1,240,331; Sept. 18; v. 242; p. 593.

Smith, William A. (See Bowman, Levi M., assignor.)

Smith, William A. (See Bowman and Smith.)

Smith, William F., Brooklyn, N. Y., assignor, by mesne assignments, to Western Electric Company, Incorporated. Winding-machine. No. 1,240,506; Sept. 18; v. 242; p. 632.

Smith, William H., Pasadena, Cal. Bit for boring square holes. No. 1,241,294; Sept. 25; v. 242; p. 912.

Smith, William L., Wheatland, N. D. Lamp-supporting bracket. No. 1,241,295; Sept. 25; v. 242; p. 913.

Snell, Lyle K., assignor to Cadillac Motor Car Company, Detroit, Mich. Hydrocarbon-motor. No. 1,239,133; Sept. 4; v. 242; p. 133.

Snelling, Walter O., Pittsburgh, Pa. Sealing-wax. No. 1,239,629; Sept. 11; v. 242; p. 318.

Snider, Clarence A., Indianapolis, Ind. Tape-measure attachment. No. 1,238,841; Sept. 4; v. 242; p. 39.

Snyder, Edgar W., Los Angeles, Cal. Chewing-gum. No. 1,239,313; Sept. 4; v. 242; p. 190.

Snyder, Edgar W., Los Angeles, and J. D. Crawford, San Francisco, Cal.; said Crawford assignor to said Snyder. Apparatus for treating the ocotillo-plant for extracting gum therefrom. No. 1,240,894; Sept. 25; v. 242; p. 784.

Soâne, Charles E., Hornsey, London, assignor of one-half to Usher-Walker Limited, London, England. Resilient composition for printers' rollers. No. 1,239,630; Sept. 11; v. 242; p. 318.

Sobolewski, Joseph. (See Zemojtal, Fabian, assignor.)

Société Anonyme des Etablissement Lejeune & H. Michel-Lévy. (See Michel-Lévy, Henri, assignor.)

Societe Lorraine Des Anciens Etablissements De Dietrich & Cie. De Luneville. (See Maire, Auguste, assignor.)

Society of Chemical Industry in Basle. (See Fonio and Föhrenbach, assignors.)

Society of Chemical Industry in Basle. (See Piguet, Steinbuch, and Stocker.)

Sopwith, Thomas, Kingston-on-Thames, England. Landing-chassis or under-carriage of aeroplanes and the like. No. 1,239,736; Sept. 11; v. 242; p. 353.

Spangler, Harry W., Allentown, Pa. Bottle-closure. No. 1,239,836; Sept. 11; v. 242; p. 385.

Sparks, William, Jackson, Mich., assignor to The Sparks-Withington Company. Electric push-button. No. 1,239,054; Sept. 4; v. 242; p. 107.

Sparks, William, Jackson, Mich., assignor to The Sparks-Withington Company. Operating mechanism for signals and the like. No. 1,239,055; Sept. 4; v. 242; p. 107.

Sparks, William, Jackson, Mich., assignor to The Sparks-Withington Company. Electric motor. No. 1,239,056; Sept. 4; v. 242; p. 107.

Sparks, William, Jackson, Mich., assignor to The Sparks-Withington Company. Bearing for shafts. No. 1,239,057; Sept. 4; v. 242; p. 108.

Sparks, William, Jackson, Mich., assignor to The Sparks-Withington Company. Signal. No. 1,240,156; Sept. 11; v. 242; p. 481.

Sparks-Withington Company, The. (See Sparks, William, assignor.)

Spasier, Morris, Los Angeles, Cal. Soap. No. 1,241,043; Sept. 25; v. 242; p. 830.

Spasier, Morris, Los Angeles, Cal. Washing-crystal. No. 1,241,044; Sept. 25; v. 242; p. 830.

Spellmeyer, Albert H., St. Louis, Mo. Combined beverage and water cooler and dispenser. No. 1,238,842; Sept. 4; v. 242; p. 39.

Spellmeyer, Albert H., St. Louis, Mo. Faucet. No. 1,238,843; Sept. 4; v. 242; p. 40.

Spence, Charles L., Sturgis, Mich. Manifolding sales-book. No. 1,240,618; Sept. 18; v. 242; p. 662.

Spencer, Louis R., Hartford, Conn. Antifriction-bearing. No. 1,240,382; Sept. 18; v. 242; p. 593.

Sperry Gyroscope Company, The. (See Sperry, Lawrence B., assignor.)

Sperry, Lawrence B., assignor to The Sperry Gyroscope Company, Brooklyn, N. Y. Universal control-handle. No. 1,239,837; Sept. 11; v. 242; p. 386.

Spiekerman, Ewald M., Lodi, Cal. Sealing device for pipe-joints. No. 1,240,507; Sept. 18; v. 242; p. 632.

Spielman, Adolph, Philadelphia, Pa. Wall-switch for distant control of gas-supply. No. 1,240,895; Sept. 25; v. 242; p. 784.

Spielman, Adolph, Philadelphia, Pa. Gas-chandelier. No. 1,241,159; Sept. 25; v. 242; p. 866.

Spielman, Maximillian H., New York, N. Y. Safety device for electrical circuits. No. 1,240,896; Sept. 25; v. 242; p. 785.

Spinasse, Arthur E., Mount Vernon, Ohio. Making glass objects. No. 1,241,480; Sept. 25; v. 242; p. 966.

Spilitdorf Electrical Company. (See Chmela, Albert, assignor.)

Spilitdorf Electrical Company. (See Tomlinson, Edward J., assignor.)

Spilitdorf Electrical Company. (See Van Deventer, Harry R., assignor.)

Sponsel, Charles W., assignor to The Sponsel Company, Hartford, Conn. Machine for calibrating and straightening gun-barrels. No. 1,239,532; Sept. 11; v. 242; p. 287.

Sponsel, Charles W., assignor to The Sponsel Company, Hartford, Conn. Machine for straightening gun-barrels. No. 1,239,533; Sept. 11; v. 242; p. 288.

Sponsel, Charles W., assignor to The Sponsel Company, Hartford, Conn. Machine for calibrating gun-barrels. No. 1,239,534; Sept. 11; v. 242; p. 282.

Sponsel Company, The. (See Sponsel, Charles W., assignor.)

Sprague, Edward W., Allentown, Pa. Automatic stoker. No. 1,240,614; Sept. 18; v. 242; p. 662.

Spray Engineering Company. (See Day, Herbert H., assignor.)

Spray Engineering Company. (See Eneas, Aubrey G., assignor.)

Spuchler, George, Kansas City, Mo. Card-holder. No. 1,239,838; Sept. 11; v. 242; p. 386.

Sramcik, Vendel, Senecaville, Ohio. Tamping device. No. 1,239,631; Sept. 11; v. 242; p. 318.

Staaf, Werner I., assignor to E. B. Tyler, Pittsburgh, Pa. Mechanism for weighing liquids. No. 1,239,839; Sept. 11; v. 242; p. 386.

Stadtherr, John, and A. Bengtson, Gibbon, Minn. Grain-separator. No. 1,241,045; Sept. 25; v. 242; p. 830.

Stafford Company, The. (See Jackson, Simeon S., assignor.)

Stalnaker, Randolph. (See Gilbert and Ornold, assignors.)

Standard Car Truck Company. (See Barber, Franklin L., assignor.)

Standard Car Truck Company. (See Barber and Webb, assignors.)

Standard Car Truck Company. (See Webb, Edwin W., assignor.)

Standard Chemical Company. (See Keeney and Vogt, assignors.)

Standard Computing Scale Company, The. (See Jaenichen, Louis, assignor.)

Standard Parts Company, The. (See Clemens and Johnson, assignors.)

Standard Sewing Machine Company, The. (See Nelson, George W., assignor.)

Standard Silica Brick Machinery Company. (See Avram, Mois H., assignor.)

Standard Spiral Pipe Works. (See Colby, Frank W., assignor.)

Standard Steam Specialty Company, The. (See Pinder, Percy H., assignor.)

Standard Welding Company, The. (See Bryant, Richard S., assignor.)

Standley, John M., Logan, Utah. Land-leveler. No. 1,239,058; Sept. 4; v. 242; p. 108.

Stanley, George E., Coventry, England. Driving mechanism. No. 1,238,950; Sept. 4; v. 242; p. 74.

Stanley Rule & Level Company, The. (See Parker, Harry E., assignor.)

Stanley Vehicle Spring Company. (See Dilley, Arzeno J., assignor.)

Stannard, Earl T., Kennecott, Alaska, assignor to Kennecott Copper Corporation, New York, N. Y. Extracting metals from ores. No. 1,238,951; Sept. 4; v. 242; p. 74.

Stansberry, Warren H., *et al.* (See Vorce, Albert F., assignor.)

Star, Richard, Newport, R. I. Apparatus for indicating the speed of ships. No. 1,239,978; Sept. 11; v. 242; p. 429.

Starin, Frank, Springfield, Mass. Ball and roller bearing. No. 1,241,296; Sept. 25; v. 242; p. 913.

Stark, Helon M., Williams, Ariz. Rotary wheel-harrow. No. 1,241,046; Sept. 25; v. 242; p. 831.

Stark, John R., assignor to The Webster Electric Company, Racine, Wis. High-tension magneto. No. 1,240,615; Sept. 18; v. 242; p. 663.

Starner, Victor E., Chicago, Ill. Refinishing painted, varnished, or filled surfaces. No. 1,240,616; Sept. 18; v. 242; p. 663.

Starrett, Laroy S., Athol, Mass. Micrometer. No. 1,241,160; Sept. 25; v. 242; p. 867.

Starrett, Laroy S., Athol, Mass. Micrometer. No. 1,241,161; Sept. 25; v. 242; p. 867.

Stauber, Benjamin F., Spokane, Wash. Water-elevator. No. 1,241,297; Sept. 25; v. 242; p. 913.

Stearns, Walter A., Chicago, Ill., assignor to American Steel Foundries, New York, N. Y. Car-underframe. No. 1,241,047; Sept. 25; v. 242; p. 831.

Steedman, George F., St. Louis, assignor to Curtis & Co. Mfg. Co., Wellston, Mo. Tire-inflating apparatus. No. 1,239,737; Sept. 11; v. 242; p. 353.

Steel, John R., San Francisco, Cal. Gas and shrapnel land-mine. No. 1,239,134; Sept. 4; v. 242; p. 134.

Steel Utilities. (See Freilinghuysen, George G., assignor.)

Steel Utilities. (See Hawthorne, Louis A., assignor.)

Steel Utilities. (See Morgan and Hawthorne, assignors.)

Steel Utilities. (See Morgan, John D., assignor.)

Steel Utilities. (See Payne, Theodore P., assignor.)

Steel Utilities. (See Payne and Wurts, assignors.)

Steel Utilities. (See Wurts, Edward V., assignor.)

Steel Utilities. (See Wurts and Hawthorne, assignors.)

Steel Utilities. (See Wurts and Swinbank, assignors.)

Steffenberg, Arthur J., Pittsburgh, Pa. Pipe-threading die. No. 1,241,048; Sept. 25; v. 242; p. 831.

Steinbuch, Ewald. (See Piguet, Steinbuch, and Stocker.)

Steiner, Fred W. (See Walton, Frank A., assignor.)

Steinert, John A., assignor of one-half to J. G. Petermann, New York, N. Y. Hernia-truss. No. 1,239,314; Sept. 4; v. 242; p. 190.

Steinmetz, Charles P., Schenectady, N. Y., assignor to General Electric Company. Alternating-current motor. No. 1,239,979; Sept. 11; v. 242; p. 430.

Steisner, Hermann, assignor to Drägerwerk, Heinr. & Bernh. Dräger, Lübeck, Germany. Diving-gear. No. 1,238,952; Sept. 4; v. 242; p. 74.

Stephenson, Axel G. (See Barsby, Stephenson, and Browne.)

Stevens, Frank M., Ridgewood, N. J. Combined place-marking and advertising device for directories, &c. No. 1,241,049; Sept. 25; v. 242; p. 832.

Stevens, George E., Lynn, Mass., assignor to General Electric Company. Hydraulic press. No. 1,240,617; Sept. 18; v. 242; p. 663.

Stevens, John, Launceston, Tasmania, Australia. Combined alarm-clock and fire-signal. No. 1,240,618; Sept. 18; v. 242; p. 664.

Stevens, William H., Portland, and S. C. Dunlap, Amity, Oreg. Canning rice and milk. No. 1,241,163; Sept. 25; v. 242; p. 867.

Stevenson, Mabel B., Guelph, Ontario, Canada. Hair-curler. No. 1,240,508; Sept. 18; v. 242; p. 632.

Steward, Louise D., Boise, Idaho. Attachment for ovens. No. 1,240,632; Sept. 11; v. 242; p. 318.

Stewart, Walter L., Des Moines, Iowa. Body-protector. No. 1,239,980; Sept. 11; v. 242; p. 430.

Stewart-Warner Speedometer Corporation. (See Berg, Joseph, assignor.)

Stewart-Warner Speedometer Corporation. (See Ross, Frank A., assignor.)

Stichtenoth, Peter C., Cincinnati, Ohio. Game apparatus. No. 1,241,050; Sept. 25; v. 242; p. 832.

Stickler, Frank H., Akron, Ohio. Dental-floss holder. No. 1,239,633; Sept. 11; v. 242; p. 319.

Stiegelmayer, Karl, Chicago, Ill. Cutter. No. 1,240,619; Sept. 18; v. 242; p. 664.

Stilwell, Charles B., Wayne, Pa. Faucet. No. 1,240,265; Sept. 18; v. 242; p. 556.

Stilwell, Claude D., Hamar, N. D. Well-auger. No. 1,241,051; Sept. 25; v. 242; p. 832.

Stine, William E., Padroni, Colo. Alarm for grain-bins. No. 1,239,315; Sept. 4; v. 242; p. 191.

Stires, John D., Columbus, Nebr. Folding crate. No. 1,240,097; Sept. 11; v. 242; p. 463.

Stock, Henry F., and J. Nader, Waukesha, Wis. Bottle-stopper. No. 1,240,383; Sept. 18; v. 242; p. 593.

Stocker, Robert. (See Piguet, Steinbuch, and Stocker.)

Stockton, Frank W., Chicago, Ill. Towel-cabinet. No. 1,240,620; Sept. 18; v. 242; p. 664.

Stoiber, Herbert A., Brooklyn, N. Y. Ticket. No. 1,240,266; Sept. 18; v. 242; p. 556.

Stone, Frederick, assignor to Diamond Drill Contracting Company, Spokane, Wash. Core-drill. (Reissue.) No. 14,356; Sept. 11; v. 242; p. 488.

Stone, Harry A., Philadelphia, Pa., assignor to Folding-Stand Company, Inc., New York, N. Y. Extension-leaf for type-writers. No. 1,239,135; Sept. 4; v. 242; p. 134.

Stone, Harry A., Philadelphia, Pa., assignor to Folding-Stand Company, Inc., New York, N. Y. Folding table. No. 1,239,136; Sept. 4; v. 242; p. 134.

Storer, Norman W., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Control system for electric motors. No. 1,239,840; Sept. 11; v. 242; p. 387.

Storer, Norman W., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Mercury-rectifier distributing system. No. 1,239,841; Sept. 11; v. 242; p. 387.

Storm Company, The. (See Storm, James A., assignor.)

Storm, James A., assignor to The Storm Company, Chicago, Ill. Ticket-dispenser. No. 1,239,981; Sept. 11; v. 242; p. 431.

Story, Leonard L., East Fairfield, Vt. Accounting device. No. 1,240,621; Sept. 18; v. 242; p. 665.

Stout, George W., Merchantville, N. J., assignor to American Vulcanized Fibre Company, Wilmington, Del. Package-tie. No. 1,241,298; Sept. 25; v. 242; p. 913.

Stowe, Floyd D., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Painting-machine. No. 1,239,738; Sept. 11; v. 242; p. 354.

Stramaglia, Nick. (See Mars and Stramaglia.)

Strathmore Paper Company. (See Sanburn, Willis H., assignor.)

Strauss, Joseph B., Chicago, Ill. Bridge. No. 1,241,052; Sept. 25; v. 242; p. 832.

Stroband, Gerardus H. and J. H., Amsterdam, Netherlands. Drying apparatus. No. 1,241,299; Sept. 25; v. 242; p. 914.

Stroband, Johanes H. (See Stroband, Gerardus H. and J. H.)

Strobel & Wilken Company, The. (See Vierlinger, Herman K., assignor.)

Strom, Matt, and E. Hoglund, Duluth, Minn. Soil-cultivator. No. 1,238,953; Sept. 4; v. 242; p. 75.

Strom, Swan R., and C. W. Mourer, Chicago, Ill. Sliding-door opener and closer. No. 1,241,300; Sept. 25; v. 242; p. 914.

Stromquist, Carl E., Coffeyville, Kans. Headlight-steering mechanism. No. 1,240,509; Sept. 18; v. 242; p. 632.

Stuart, Francis L., Baltimore, Md. Loading and storing apparatus. No. 1,241,053; Sept. 25; v. 242; p. 833.

Stuart, Frank J., St. Louis, Mo. Medical appliance. No. 1,239,634; Sept. 11; v. 242; p. 319.

Stuart, Kenneth E., Philadelphia, Pa. Electric-railway system. No. 1,240,897; Sept. 25; v. 242; p. 785.

Stuart, Kenneth E., London, England. Electric-railway system. No. 1,240,898; Sept. 25; v. 242; p. 785.

Studebaker Corporation, The. (See Heaslet, James G., assignor.)

Submarine Signal Company. (See Fessenden, Reginald A., assignor.)

Sucsek, Robert. (See Kothny and Sucsek.)

Suczek, Robert, assignor to C. H. Wheeler Manufacturing Company, Philadelphia, Pa. Ejector-control apparatus. No. 1,239,535; Sept. 11; v. 242; p. 288.

Sullivan, Joseph J. (See Harris, Alfred M., assignor.)

Summerfield, Frederick W., Toledo, Ohio. Bee-shipping package. No. 1,239,536; Sept. 11; v. 242; p. 289.

Summers, Raymond A., Reeds, Mo. Gate-operating mechanism. No. 1,238,844; Sept. 4; v. 242; p. 40.

Sunbeam Motor Car Company Limited. (See Coatalen, Louis, assignor.)

Sundh, August, Hastings-upon-Hudson, N. Y., assignor to Otis Elevator Company. Pump. No. 1,239,059; Sept. 4; v. 242; p. 108.

Sundh, August, Hastings-upon-Hudson, N. Y., assignor to Otis Elevator Company. Variable-stroke pump. No. 1,239,060; Sept. 4; v. 242; p. 109.

Sundin, John P., Salem, Oreg. Clothes-drainer. No. 1,238,954; Sept. 4; v. 242; p. 75.

Sundquist, Olof, Pueblo, Colo. Touring accessory for automobiles. No. 1,241,449; Sept. 25; v. 242; p. 957.

Sunshine, Monroe, New York, N. Y. Sad-iron. No. 1,238,955; Sept. 4; v. 242; p. 75.

Surface, William E., assignor to Faries Manufacturing Co., Decatur, Ill. Bowl-support. No. 1,239,842; Sept. 11; v. 242; p. 387.

Surface, William E., assignor to Faries Manufacturing Co., Decatur, Ill. Candle-tube support. No. 1,239,843; Sept. 11; v. 242; p. 388.

Sussman, Cornelia M., Long Branch, N. J. Shirt-cuff. No. 1,239,137; Sept. 4; v. 242; p. 135.

Sutton, Margaret M. (See Harris, Mary J., assignor.)

Svendsen, Severin B., Espanola, Fla. Weeder. No. 1,239,316; Sept. 4; v. 242; p. 191.

Svenska Diamantbergborrningsaktiebolaget. (See Carlson and Bergstrom, assignors.)

Svenson, John A., assignor of one-half to J. J. Shuman, Pittsburgh, Pa. Mixing-machine. No. 1,239,537; Sept. 11; v. 242; p. 289.

Swan, John B., Gladstone, Mich. Adjustable wedge. No. 1,239,538; Sept. 11; v. 242; p. 289.

Swartz, Charles B., Bradford, Pa. Display-cabinet. No. 1,241,164; Sept. 25; v. 242; p. 867.

Swartz, William J., and E. H. Waugh, Seattle, Wash., assignors to Automatic Candy Machine Company. Stacker for confections. No. 1,241,165; Sept. 25; v. 242; p. 868.

Swayzee, Alba G. (See Lewis, Homer M., assignor.)

Swedberg, Peter O., assignor of one-half to S. H. Reilly, Marshalltown, Iowa. Automobile-signal device. No. 1,240,899; Sept. 25; v. 242; p. 786.

Swedenburg, Francis G., *et al.* (See Dunn, William F., assignor.)

Sweeney, Morgan L., assignor to Western Pipe and Steel Company of California, Los Angeles, Cal. Pipe or well-casing. No. 1,240,098; Sept. 11; v. 242; p. 464.

Sweet, Alvin H., San Diego, Cal. Sectional toy animal. No. 1,239,982; Sept. 11; v. 242; p. 431.
Sweet, Frederick D., assignor to The Sweet-Webster Manufacturing Company, Cleveland, Ohio. Sewing-machine attachment. No. 1,240,384; Sept. 18; v. 242; p. 593.
Sweet-Webster Manufacturing Company, The. (See Sweet, Frederick D., assignor.)
Sweetland, Ernest J., Montclair, N. J. Filter. No. 1,240,385; Sept. 18; v. 242; p. 594.
Swengel, William W., Bloomsburg, Pa. Rotary drier. No. 1,240,386; Sept. 18; v. 242; p. 594.
Swenson, Burton C. (See Krupp, Fred H., assignor.)
Swenson, Carl G., assignor to The Oakes Company, Indianapolis, Ind. Nolseless fan. No. 1,241,166; Sept. 25; v. 242; p. 868.
Swenson, Otto J., assignor of one-half to H. E. Beam, Los Angeles, Cal. Massaging device. No. 1,239,539; Sept. 11; v. 242; p. 290.
Swinbank, John J. (See Wurts and Swinbank.)
Swoboda, Charles. (See Bell and Swoboda.)
Symons, Wilson E., New York, N. Y. Electric welding-tool. No. 1,240,900; Sept. 25; v. 242; p. 786.
Symons, Wilson E., New York, N. Y. Electric welding-tool. No. 1,240,901; Sept. 25; v. 242; p. 787.
Syracuse Universal Mfg. Co. (See Carhart and Young, assignors.)
T. A. Gillespie Company, The. (See De Laval, George, assignor.)
T. O. M. Manufacturing Company. (See Mason, Thomas O., assignor.)
Tackaberry, Willoughby C. (See Klausing and Tackaberry.)
Takahashi, Dannojo, Portland, Oreg. Butter-cutter. No. 1,240,387; Sept. 18; v. 242; p. 595.
Talimage, Millard S., assignor of one-half to J. T. Ronan, Buffalo, N. Y. Air-moistening attachment for hot-air furnaces. No. 1,240,388; Sept. 18; v. 242; p. 595.
Tangen, Reinhart O., Beach, N. D. Wire-stretcher. No. 1,239,061; Sept. 4; v. 242; p. 109.
Taray, John, Woodriver, Ill. Metallic tie and rail-fastener. No. 1,239,739; Sept. 11; v. 242; p. 354.
Tarbox, John P., Buffalo, N. Y., assignor to Tarbox Safety Aircraft Company. Balancing mechanism. No. 1,239,635; Sept. 11; v. 242; p. 319.
Tarbox, John P., Buffalo, N. Y., assignor to Tarbox Safety Aircraft Company. Balancing system for aircraft. No. 1,239,636; Sept. 11; v. 242; p. 320.
Tarbox Safety Aircraft Company. (See Tarbox, John P., assignor.)
Tata, Ratan. (See Bhisey, Shanker A., assignor.)
Tatman, Joseph M., Taft, Cal. Oil-separator. No. 1,240,099; Sept. 11; v. 242; p. 464.
Tatum, John J., Baltimore, Md., assignor, by mesne assignments, to P. H. Murphy Company, Parnassus, Pa. Car-roof. No. 1,239,740; Sept. 11; v. 242; p. 354.
Tatum, John J., Baltimore, Md., assignor, by mesne assignments, to P. H. Murphy Company, Parnassus, Pa. Car. No. 1,240,622; Sept. 18; v. 242; p. 666.
Tatum, Lewis L., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Meter. No. 1,240,797; Sept. 18; v. 242; p. 720.
Taxon, Louis, Rockford, assignor, by mesne assignments, to The Brunswick-Balke-Collender Company, Chicago, Ill. Universal sound reproducer and arm. No. 1,240,267; Sept. 18; v. 242; p. 557.
Taylor, Andrew, Goldville, assignor to Clinton Cam Company, Clinton, S. C. Bobbin-skewer. No. 1,239,138; Sept. 4; v. 242; p. 135.
Taylor, Andrew, Goldville, assignor to Clinton Cam Company, Clinton, S. C. Bobbin-skewer. No. 1,239,139; Sept. 4; v. 242; p. 135.
Taylor, Arthur B., Detroit, Mich. Chain. No. 1,239,232; Sept. 4; v. 242; p. 104.
Taylor, Bayard E., Oak Park, Ill. Lock-adjuster for windows. No. 1,240,002; Sept. 25; v. 242; p. 787.
Taylor, Carl P., Roanoke, Va., assignor to General Electric Company. Motor-control system. No. 1,240,623; Sept. 18; v. 242; p. 665.
Taylor, Carroll M., Coatesville, and W. R. Shearer, Hanover, Pa. Heating device. No. 1,241,167; Sept. 25; v. 242; p. 868.
Taylor, Charles E., Seattle, Wash. Mechanically-operated indicator. No. 1,239,741; Sept. 11; v. 242; p. 353.
Taylor, Charles H., South Orange, N. J. Disappearing bed. No. 1,239,540; Sept. 11; v. 242; p. 290.
Taylor, Edward D., Kalamazoo, Mich. Brooder. No. 1,239,637; Sept. 11; v. 242; p. 320.
Taylor, Frank, Ponsonby, Auckland, New Zealand. Resilient wheel. No. 1,240,624; Sept. 18; v. 242; p. 656.
Taylor, George H., Richmond, Va. Attached hand-fastener. No. 1,241,301; Sept. 25; v. 242; p. 914.
Taylor, George H., Richmond, Va. Shipping-tag. No. 1,241,302; Sept. 25; v. 242; p. 914.
Taylor, George N., East Providence, R. I., assignor to S. Slater & Sons, Webster, Mass. Yarn-moistening device. No. 1,240,625; Sept. 18; v. 242; p. 666.
Taylor, Harold F., assignor of fifty-one one-hundredths to J. Mesmer, Los Angeles, Cal. Rotary-sprinkler thermostatic fire-extinguisher. No. 1,241,450; Sept. 25; v. 242; p. 957.
Taylor Instrument Companies. (See Collinson, Francis E., assignor.)
Taylor, Isaac F., East Dulwich, assignor of one-half to S. Pick, London, England. Apparatus for storing ships' boats and facilitating the lowering of same. No. 1,240,100; Sept. 11; v. 242; p. 464.
Taylor, Izora. (See Taylor, James H. and I.)
Taylor, James A. (See Bagnall and Taylor.)
Taylor, James H. and I., Philadelphia, Pa. Corset. No. 1,240,510; Sept. 18; v. 242; p. 633.
Taylor, Martin L., Menard, Tex. Dirigible automobile-headlight. No. 1,240,626; Sept. 18; v. 242; p. 666.
Taylor, Sam, Morgantown, N. C. Carpenter's square. No. 1,239,742; Sept. 11; v. 242; p. 355.
Taylor, Stiles & Company. (See Griffin, Charles W., assignor.)
Taylor, Timothy E., Webster, Mass. Wooden lug-strap. No. 1,240,268; Sept. 18; v. 242; p. 557.
Teahen, James M., Detroit, Mich. Flushing-tank. No. 1,241,470; Sept. 25; v. 242; p. 963.
Techno-Chemical Laboratories Limited. (See Boberg, Söderlund, and Åslund, assignors.)
Teed, Charles E. (See Timmerhoff, Ernest, assignor.)
Telephone Directory Cabinet Company. (See Enell, Otto E., assignor.)
Templar Motors Corporation, The. (See Dean, Arthur M., assignor.)
Ten Eyck, Peter G., Albany, N. Y., assignor to The Rail Joint Company. Insulated rail-joint. (Reissue.) No. 14,362; Sept. 18; v. 242; p. 725.
Tervo, Charley, Mack, assignor of one-third to O. E. Hulehan, Deer River, Minn. Wire staple. No. 1,241,054; Sept. 25; v. 242; p. 833.
Teteak, James. (See Setecka, John, assignor.)
Tewksbury, Charles B., Boston, Mass., assignor, by mesne assignments, to Safeguard Tag Company, Portland, Me. Tag. No. 1,239,844; Sept. 11; v. 242; p. 388.
Thatcher, Charles F., Providence, R. I. Fastener for bottle-stoppers. No. 1,240,511; Sept. 18; v. 242; p. 633.
Thayer, Marshall K., Red Rock, Mont. Rotary internal-combustion engine. No. 1,241,303; Sept. 25; v. 242; p. 915.
Theriot, James C., Taft, Cal. Gib and key for adjustable journal-boxes. No. 1,240,512; Sept. 18; v. 242; p. 633.
Thickett, Charles, and W. Hawksworth, Deepcar, near Sheffield, assignors to Samuel Fox & Company Limited, Sheffield, England. Rolling-mill. No. 1,239,749; Sept. 11; v. 242; p. 355.
Thomas, George B., assignor to The Bryant Electric Company, Bridgeport, Conn. Lamp-socket. No. 1,239,817; Sept. 4; v. 242; p. 191.
Thomas, Sidney. (See Peckham and Thomas.)
Thomas, Walter K., Brooklyn, N. Y. Variable-speed transmission mechanism for automobiles. No. 1,239,541; Sept. 11; v. 242; p. 291.
Thomas, William J. (See Seymour, Oliver E., assignor.)
Thomas, Willie D., Golden City, Mo. Head end and clevis. No. 1,241,451; Sept. 25; v. 242; p. 958.
Thompson, Albert R., assignor to Anderson-Barngrover Mfg. Co., San Jose, Cal. Combined cooker and cooler. No. 1,241,168; Sept. 25; v. 242; p. 869.
Thompson, Alfred H., Venice, Cal. Hot-water pressure combined domestic and heating system. No. 1,240,101; Sept. 11; v. 242; p. 464.
Thompson, Alfred H., Venice, Cal. Regulator. No. 1,240,102; Sept. 11; v. 242; p. 465.
Thompson, Drewdie B. (See Middleton and Thompson.)
Thompson Electric Clock Company. (See Thompson, William H., assignor.)
Thompson, Emmett G., Brighton, Colo. Fly-screen. No. 1,240,627; Sept. 18; v. 242; p. 667.
Thompson, Harry I., *et al.* (See Benson and Sandstrom, assignors.)
Thompson, William H., assignor to Thompson Electric Clock Company, Memphis, Tenn. Electric automobile-clock. No. 1,241,055; Sept. 25; v. 242; p. 834.
Thomson, Alexander, Fitchburg, Mass. Safety trace connection. No. 1,241,304; Sept. 25; v. 242; p. 915.
Thomson, Alexander, Fitchburg, Mass. Horse-collar. No. 1,241,305; Sept. 25; v. 242; p. 915.
Thoner, Peder C., Everett, Mass. Locking-switch. No. 1,238,845; Sept. 4; v. 242; p. 40.
Thoner, Peder C., Everett, Mass. Locking-switch. No. 1,239,062; Sept. 4; v. 242; p. 109.
Thornton, Ray, assignor to G. H. H. Allen, New Bedford, Mass. Section-beam head. No. 1,239,744; Sept. 11; v. 242; p. 355.
Thorson, Guy S., assignor, by mesne assignments, to Murphy-Travis Company, Minneapolis, Minn. Holder for flexible sheets. No. 1,241,306; Sept. 25; v. 242; p. 916.
Throckmorton, Harry S., assignor of one-half to R. E. Reed, Muskogee, Okla. Paint-brush protector. No. 1,239,638; Sept. 11; v. 242; p. 321.
Thunell, Fred, Salt Lake City, Utah. Sign-letter and holder. No. 1,239,983; Sept. 11; v. 242; p. 431.
Thurston, Edwin L., trustee. (See Entz, Justus B., assignor.)
Thust, George J., Milwaukee, Wis. Tube-rolling apparatus. No. 1,240,513; Sept. 18; v. 242; p. 633.
Tibbetts, Clyde S. and W., Indianapolis, Ind. Adjustable window shade and curtain support. No. 1,239,845; Sept. 11; v. 242; p. 388.
Tibbetts, Walter. (See Tibbetts, Clyde S. and W.)
Tibbits, Paul W. (See Palmer, Otto A., assignor.)
Tiefel, Charles G. (See Todd and Tiefel.)

Tiffany, Henry L., South Dartmouth, Mass. Cone-tube. No. 1,240,103; Sept. 11; v. 242; p. 466.
Tiffany, Henry L., South Dartmouth, Mass. Protector for wound-yarn-mass supports, &c. No. 1,240,104; Sept. 11; v. 242; p. 466.
Till, Jimie U. (See Kyser and Till.)
Till Manufacturing Co. (See Kyser and Till, assignors.)
Tillery, Noah F., Oregon, assignor of one-half to O. Wall, St. Joseph, Mo. Electric lamp-adapter. No. 1,240,786; Sept. 18; v. 242; p. 717.
Tillman, John W. (See Price and Tillman.)
Timerman, Eugene J. C., Syracuse, N. Y. Chain-lock. No. 1,239,745; Sept. 11; v. 242; p. 356.
Timmerhoff, Ernest, assignor of one-half to C. E. Teed, Elkhart, Ind. Radiator-cap. No. 1,239,542; Sept. 11; v. 242; p. 291.
Tipton, Clay, Menard, Tex. Boxing and bearing. No. 1,239,543; Sept. 11; v. 242; p. 291.
Titanium Alloy Manufacturing Company, The. (See Barton, Louis E., assignor.)
Tjossem, Earl G., Des Moines, Iowa. Seed-corn-testing machine. No. 1,238,956; Sept. 4; v. 242; p. 75.
Tobey, Fred W., Grand Rapids, Mich. Cabinet. No. 1,238,957; Sept. 4; v. 242; p. 76.
Toble, Edward P., Providence, R. I. Necktie-clasp. No. 1,239,746; Sept. 11; v. 242; p. 356.
Todd, Leonard P., Stoke Newington, London, England. Steam-engine. No. 1,239,747; Sept. 11; v. 242; p. 356.
Todd, Libanus M., and C. G. Tiefel, assignors, by mesne assignments, to Todd Protectograph Company, Rochester, N. Y. Check-writing machine. No. 1,240,903; Sept. 25; v. 242; p. 787.
Todd Protectograph Company. (See Simpson and Paulson, assignors.)
Todd Protectograph Company. (See Todd and Tiefel, assignors.)
Toffelmier, Lance J. (See Miller and Toffelmier.)
Toledo Button Machine Company, The. (See Pomeroy, Le Dru R., assignor.)
Tolin, Albert E., assignor, by mesne assignments, to W. J. Woolley, Anderson, Ind. Button-feeding mechanism for button-attaching machines. No. 1,239,846; Sept. 11; v. 242; p. 389.
Tolley, Lavinia D., St. Louis, Mo. Safety bath-tub mat. No. 1,239,642; Sept. 11; v. 242; p. 322.
Tomlinson, Edward J., assignor to Splitdorf Electrical Company, Newark, N. J. Engine-starting device. No. 1,238,958; Sept. 4; v. 242; p. 76.
Tomlinson, Edward J., assignor to V. G. Apple, Dayton, Ohio. Terminal-bending tool for armatures. No. 1,238,959; Sept. 4; v. 242; p. 77.
Tompkins, Charles B., Los Angeles, Cal. Stirring implement. No. 1,241,307; Sept. 25; v. 242; p. 916.
Tompkins, Henry H., Jr., Jersey City, N. J. Talking-machine. No. 1,239,063; Sept. 4; v. 242; p. 110.
Tone, Frank J., assignor to The Carborundum Company, Niagara Falls, N. Y. Manufacture of crystalline fused alumina. No. 1,239,984; Sept. 11; v. 242; p. 431.
Tonon, Adone P., assignor to C. W. Gillett, Chicago, Ill. Automobile. No. 1,239,643; Sept. 11; v. 242; p. 322.
Toole, L. Julian, *et al.* (See Webb, Benjamin T., assignor.)
Torchio, Alberto, Oyster Bay, N. Y. Fire-alarm apparatus. No. 1,239,140; Sept. 4; v. 242; p. 185.
Tornberg, Knut, Lynn, Mass., assignor to General Electric Company. Arc-light electrode. No. 1,240,628; Sept. 18; v. 242; p. 667.
Torr, John G., Sydney, New South Wales, Australia. Mechanism for facilitating the instruction of drivers of self-propelled vehicles. No. 1,240,629; Sept. 18; v. 242; p. 667.
Torrens, John A., Somerset, Coleraine, Ireland. Auxiliary air-inlet valve for gas-engines. No. 1,239,639; Sept. 11; v. 242; p. 321.
Torrey, Margaret E., Cleveland, Ohio. Advertising device. No. 1,238,960; Sept. 4; v. 242; p. 77.
Tourtel, John M., Ealing, London, England. Apparatus for stropping razor-blades. No. 1,240,514; Sept. 18; v. 242; p. 634.
Tourtel, John M., Watertown, N. Y. Stropping device. No. 1,240,515; Sept. 18; v. 242; p. 634.
Townill, George, Plainfield, Ill. Universal screw-driver. No. 1,239,847; Sept. 11; v. 242; p. 389.
Townsan, William H. (See Baker, Horace G., assignor.)
Townsend, Ernest W., Ogden, Utah. Revolving display-rack. No. 1,240,105; Sept. 11; v. 242; p. 466.
Townsend, Paul V., assignor to American Playground Device Company, Anderson, Ind. Wave coaster-slide. No. 1,239,848; Sept. 11; v. 242; p. 389.
Townsend, Willard H. (See Diehl and Townsend.)
Trambley, George W., assignor of one-third to J. W. Farley, Chicago, Ill. Jack-truck. No. 1,239,640; Sept. 11; v. 242; p. 321.
Transport Tractor Company. (See Kelley, George B., assignor.)
Trautman, August G., New York, N. Y. Vehicle wheel and tire. No. 1,240,630; Sept. 18; v. 242; p. 668.
Travis, Albertus, Johnstown, N. Y. Fleshing-machine. No. 1,239,748; Sept. 11; v. 242; p. 356.
Travis, Albertus, Johnstown, N. Y. Clutch. No. 1,239,985; Sept. 11; v. 242; p. 432.
Travis, Clarence C. (See Antoine, Gebert, and Travis.)
Treadwell, Augustus, Jr. (See Baker, Haydn M., Jr., assignor.)
Treat, Ellis M. (See Graham, Andrew W., assignor.)
Treat, Ellis M., Buffalo, N. Y. Sepulcher. No. 1,240,106; Sept. 11; v. 242; p. 466.
Trent, Lamartine C., Los Angeles, Cal. Leaching apparatus. No. 1,240,904; Sept. 25; v. 242; p. 788.
Trescott, Charles B., Chicago, Ill. Cooking apparatus. No. 1,239,641; Sept. 11; v. 242; p. 322.
Trier, James M., New York, N. Y. Tension-equalizer for printing-press webs. No. 1,240,631; Sept. 18; v. 242; p. 668.
Triple Airless Tire Company. (See Hileman, Andrew C., assignor.)
Triumph Manufacturing Company, The. (See Pinkney, Bryan D., assignor.)
Troppman, Charles J., assignor to F. A. Hardy & Company, Chicago, Ill. Binocular magnifier. No. 1,240,905; Sept. 25; v. 242; p. 788.
Trott, Alfred B., Denver, Colo. Door construction for vehicles. No. 1,239,986; Sept. 11; v. 242; p. 432.
Trotta, Giuseppe P., Wilkes-Barre, Pa. Horseshoe. No. 1,239,987; Sept. 11; v. 242; p. 432.
Trowbridge, Paul W., Franklin, La. Soldering-vise. No. 1,239,233; Sept. 4; v. 242; p. 165.
Troy Laundry Machinery Company. (See Bartholomew, William, assignor.)
Truhan, Mike, Bridger, Mont. Fluid-heater for lamps. No. 1,240,389; Sept. 18; v. 242; p. 595.
Trussell, Clarence D., assignor to Trussell Manufacturing Company, Poughkeepsie, N. Y. Loose-leaf binder. No. 1,238,846; Sept. 4; v. 242; p. 40.
Trussell Manufacturing Company. (See Trussell, Clarence D., assignor.)
Tucker, Benjamin W., South Orange, N. J., and L. H. Arnold, Chicago, Ill., assignors to Malgam Brush Company, Inc. Brush-making machine. No. 1,240,516; Sept. 18; v. 242; p. 634.
Tucker, Frank S., Boston, assignor of one-half to E. P. Severance, Brockton, Mass. Electric signaling apparatus. No. 1,239,141; Sept. 4; v. 242; p. 135.
Tucker, Oscar W., Lagrange, Ga. Sash-locking mechanism. No. 1,239,544; Sept. 11; v. 242; p. 292.
Tullar, William E., assignor to The Respiratory Apparatus Company, Chicago, Ill. Apparatus for producing artificial respiration. No. 1,241,056; Sept. 25; v. 242; p. 834.
Tullis, John T., Hope, assignor of one-half to R. Munday, Fulton, Ark. Cloth measuring and folding machine. No. 1,238,961; Sept. 4; v. 242; p. 77.
Tumalty, John W., Chicago, Ill. Carbureter. No. 1,239,234; Sept. 4; v. 242; p. 165.
Tuttle, George H., Lincoln, Nebr. Razor. No. 1,239,644; Sept. 11; v. 242; p. 323.
Tuttle, Henry A., assignor to Evans Stamping & Plating Company, Taunton, Mass. Clutch mechanism for reversing-gearing. No. 1,241,057; Sept. 25; v. 242; p. 834.
Twin City Four-Wheel Drive Company. (See Ware, Joseph L., assignor.)
Twitchell, Myron A., Elk Point, S. D., assignor of one-half to C. A. Green, Sioux City, Iowa. Lock-washer. No. 1,238,962; Sept. 4; v. 242; p. 78.
Twitchell, Myron A., Elk Point, assignor to C. C. Crandall, Sioux Falls, S. D., B. Couch and M. S. Crandall, Sioux City, Iowa. Animal-trap. No. 1,241,058; Sept. 25; v. 242; p. 835.
Tyden, Emil, Evanston, Ill. Friction-locked grease-cup. No. 1,240,906; Sept. 25; v. 242; p. 789.
Tyler, Edward B. (See Staaf, Werner I., assignor.)
Tyler, Wilson S., Keota, Colo. Tag fastener and protector. No. 1,239,545; Sept. 11; v. 242; p. 292.
U. S. Light & Heat Corporation. (See Bliss, William L., assignor.)
Uckotter, George J. (See English, Andrew J., assignor.)
Uhl, Clement R., Toledo, Ohio. Article of furniture. No. 1,240,390; Sept. 18; v. 242; p. 596.
Underwood Computing Machine Company. (See Hart, Frederick A., assignor.)
Underwood Computing Machine Company. (See Hoyt, Richard F., assignor.)
Underwood, Earl, New York, N. Y., assignor to Krementz & Co., Newark, N. J. Display-card. No. 1,239,235; Sept. 4; v. 242; p. 166.
Union Draft Gear Co. (See Canfield, Lewis T., assignor.)
Union Electric light and Power Company. (See Einstein, Alfred C., assignor.)
Union Special Machine Company. (See Moffatt, James R., assignor.)
Union Special Machine Company. (See Onderdonk, Lansing, assignor.)
Union Special Machine Company. (See Seymour, Dudley S., assignor.)
Union Switch & Signal Company, The. (See Coleman, John P., assignor.)
United Demonstrating Machine Company, The. (See Jaros, Ernest S., assignor.)
United Engineering & Foundry Company. (See Gebhard, John W., assignor.)
United Shoe Machinery Company. (See Baxter, William C., assignor.)
United Shoe Machinery Company. (See Benjamin, William T., assignor.)
United Shoe Machinery Company. (See Brock, Matthias, assignor.)

United Shoe Machinery Company. (See Brogan, James A., assignor.)
United Shoe Machinery Company. (See Chateauneuf, Frank, assignor.)
United Shoe Machinery Company. (See Davenport, Herman A., assignor.)
United Shoe Machinery Company. (See Drey, Wilfred J., assignor.) (Reissue.)
United Shoe Machinery Company. (See Gouldbourn, Joseph, assignor.)
United Shoe Machinery Company. (See Littlefield, Augustine F., assignor.)
United Shoe Machinery Company. (See Seely, Thomas H., assignor.)
United Shoe Machinery Company. (See Whelan, Thomas F., assignor.)
United Shoe Machinery Company. (See Winkley, Erastus E., assignor.)
United States Fastener Company. (See Richardson, William S., assignor.)
United Telegraph & Cable Company, The. (See Bruce, William M., Jr., assignor.)
Unitrim Company, The. (See Mattison, Charles D., assignor.)
Universal Optical Corporation. (See Beattey, Earle J. B., assignor.)
Universal Steel Package Co., The. (See Darley, John W., Jr., assignor.)
Universal Steel Package Co., The. (See Galbally, David B., assignor.)
Unrein, Michael J., Hays, Kans. Header attachment for tractors. No. 1,241,452; Sept. 25; v. 242; p. 958.
Updegraff, Charles D., assignor of one-half to J. A. Bernard, Portland, Oreg. Lunch-carrier for automobiles. No. 1,240,391; Sept. 18; v. 242; p. 596.
Upham, Charles M., Stoughton, Mass. Surfacing material for roads. No. 1,240,269; Sept. 18; v. 242; p. 557.
Urmston, Abner C., assignor of one-half to E. Emond and G. H. Urmston, Brooklyn, N. Y. Preventing formation of moisture on the exposed surface of transparent members. No. 1,238,963; Sept. 4; v. 242; p. 78.
Urmston, George H., *et al.* (See Urmston, Abner C., assignor.)
Usher-Walker Limited. (See Soane, Charles E., assignor.)
Utter, Richard I. (See Currier and Utter.)
Valente, Edmund, New York, N. Y. Process and apparatus for making Panama hats. No. 1,239,064; Sept. 4; v. 242; p. 110.
Valeri, Olindo, Turin, Italy. Means for fixing railway-lines. No. 1,239,318; Sept. 4; v. 242; p. 191.
Vampa, Giosepe S., New York, N. Y. Closet-bowl. No. 1,239,319; Sept. 4; v. 242; p. 192.
Van Deventer, Harry R., Sumter, S. C., assignor, by mesne assignments, to Splitdorf Electrical Company, Newark, N. J. Igniter mechanism for internal-combustion engines. No. 1,241,309; Sept. 25; v. 242; p. 916.
Van Diest, Edmond C., Colorado Springs, Colo., assignor to Associated Engineers Company. Cross-arm. No. 1,239,142; Sept. 4; v. 242; p. 136.
Van Esbroeck, François, London, assignor to E. M. Cranston, Southsea, and A. Paull, Kingswood, England. Apparatus for detecting subaqueous sounds. No. 1,239,320; Sept. 4; v. 242; p. 192.
Van Horn, Charles S., assignor of one-half to H. R. Whitaker, Los Angeles, Cal. Folding fish-landing net. No. 1,240,787; Sept. 18; v. 242; p. 717.
Van Horn, Thomas M., Chicago, Ill. Spark-arrester. No. 1,241,059; Sept. 25; v. 242; p. 835.
Van Horn, Vandiver J., Chicago, Ill. Coin-savings receptacle. No. 1,239,143; Sept. 4; v. 242; p. 136.
Van Leeuwen, Adrian, Jr., and F. X. Brunelle, Worcester, Mass., assignors of one-fourth to F. X. Brunelle and three-fourths to H. I. Randall, trustee. Furnace. No. 1,240,517; Sept. 18; v. 242; p. 634.
Van Sant, Thomas G. (See Hart and Van Sant.)
Vanden Heuvel, William, Los Angeles, Cal. Flash-board skimming-gate. No. 1,241,308; Sept. 25; v. 242; p. 916.
Vanblom, Albert, Rockford, Ill. Spring-tire. No. 1,241,453; Sept. 25; v. 242; p. 958.
Vanderbeek, Andrew M., Plainfield, N. J. Metallic dish-rack. No. 1,241,169; Sept. 25; v. 242; p. 869.
Vandercook, Frank E., Waterbury, Conn. Buckle. No. 1,239,849; Sept. 11; v. 242; p. 390.
Vander Putten, John R., New Philadelphia, Ohio. Handle-attaching device. No. 1,239,645; Sept. 11; v. 242; p. 323.
Vanderveld, Anthony, Grand Rapids, Mich. Belt-stapling machine. No. 1,238,964; Sept. 4; v. 242; p. 78.
Vanderveld, Anthony, assignor to Grand Rapids Show Case Company, Grand Rapids, Mich. Chain. No. 1,238,847; Sept. 4; v. 242; p. 41.
Vanderveld, Anthony, Grand Rapids, Mich., assignor to Clipper Belt Lacer Company. Tool for handling belt-staples. No. 1,238,965; Sept. 4; v. 242; p. 79.
Vapor-Vacuum Heating Co. (See Hess, Harry H., assignor.)
Vasconcellos, José M., Rio de Janeiro, Brazil. Planter. No. 1,239,646; Sept. 11; v. 242; p. 323.
Vaughan, Henry H., Montreal, Quebec, Canada. Headgear. No. 1,238,966; Sept. 4; v. 242; p. 79.
Vaughan, Sanford S. (See Johnson, Gustaf E., assignor.)
Vaughn, Lorenzo D., and W. P. Samples, Grafton, W. Va. Rail-fastening device. No. 1,239,321; Sept. 4; v. 242; p. 192.
Vecchio, Louis, Albany, N. Y. Electric thermal cut-out device. No. 1,239,322; Sept. 4; v. 242; p. 193.
Vehicle Signal Company. (See Douglass, Samuel F., assignor.)
Veltung, Ernest, New York, N. Y. Non-skidding and tire-holding device for pneumatic tires. No. 1,239,749; Sept. 11; v. 242; p. 357.
Ver Planck, William E., Erie, Pa., assignor to General Electric Company. Ventilating system for car-motors. No. 1,239,647; Sept. 11; v. 242; p. 323.
Ver Planck, William E., Erie, Pa., assignor to General Electric Company. Air-starting system for internal-combustion engines. No. 1,239,648; Sept. 11; v. 242; p. 324.
Vesta Accumulator Company. (See Perry, Lee J., assignor.)
Victor Electric Corporation. (See Wantz, Julius B., assignor.)
Victor, Frank, Ridgway, Pa. Window sash and ventilator. No. 1,240,107; Sept. 11; v. 242; p. 467.
Vidal, Charles H., London, England. Electric lighting and heating of railway and other vehicles. No. 1,241,310; Sept. 25; v. 242; p. 917.
Vierlinger, Herman K., Brooklyn, N. Y., assignor to The Strobel & Wilken Company, Cincinnati, Ohio. Artificial Christmas tree. No. 1,240,892; Sept. 18; v. 242; p. 596.
Vlets, Minna. (See Fortain and Vlets.)
Vilkomerson, Elizabeth F., New York, N. Y. Holder for fountain-pens. No. 1,241,311; Sept. 25; v. 242; p. 917.
Vincent, Jesse G., assignor to Packard Motor Car Company, Detroit, Mich. Clutch mechanism. No. 1,241,060; Sept. 25; v. 242; p. 835.
Viney, Frederick C., assignor to J. H. Blye, Philadelphia, Pa. Fluid-meter. No. 1,241,170; Sept. 25; v. 242; p. 869.
Virnig, William, Bemidji, Minn. Game-cue. No. 1,241,312; Sept. 25; v. 242; p. 917.
Virovatz, Joseph, assignor of one-half to J. Kiraly, Cudahy, Wis. Combination mail and milk box. No. 1,239,323; Sept. 4; v. 242; p. 193.
Vitullo, John B., Chicago, Ill. Rocking-chair. No. 1,241,171; Sept. 25; v. 242; p. 870.
Vogel, Eugene W., Oak Park, assignor to Chicago Railway Signal and Supply Company, Carpentersville, Ill. Highway signaling apparatus. No. 1,238,848; Sept. 4; v. 242; p. 41.
Vogel, Eugene W., Oak Park, assignor to Chicago Railway Signal and Supply Company, Carpentersville, Ill. Crossing-bell. No. 1,239,850; Sept. 11; v. 242; p. 390.
Vogt, Louis F. (See Keeney and Vogt.)
Voight, George F., San Francisco, Cal. Electric-circuit closer for automobiles. No. 1,239,236; Sept. 4; v. 242; p. 166.
Von Wolfradt, William, deceased, Cleveland, Ohio; W. E. Patterson, executor. Vibratory contact-lubricator. No. 1,241,174; Sept. 25; v. 242; p. 871.
Von Wolforsdorf, Hans, Indianapolis, Ind. Meat-cutting knife. No. 1,239,237; Sept. 4; v. 242; p. 166.
Vondrashek, Cyril, La Crosse, Wis. Electric-lamp guard. No. 1,241,172; Sept. 25; v. 242; p. 870.
Vorce, Albert F., Grand Rapids, assignor of one-third to W. H. Stansberry and one-third to E. H. Witherell, Grand Haven, Mich. Machine for making crochet-needles. No. 1,239,851; Sept. 11; v. 242; p. 390.
Voss, Albert H., Davenport, Iowa. Truck-frame and bolster. No. 1,240,270; Sept. 18; v. 242; p. 557.
Vreeland Apparatus Company. (See Vreeland, Frederick K., assignor.)
Vreeland, Frederick K., Montclair, N. J., assignor to Vreeland Apparatus Company, Inc., New York, N. Y. Receiver of electrical impulses. No. 1,239,852; Sept. 11; v. 242; p. 391.
Wacker, George W., Rutherford, N. J., assignor to National Carbon Company, New York, N. Y. Lamp-socket. No. 1,238,849; Sept. 4; v. 242; p. 41.
Wacker, George W., Rutherford, N. J., assignor to National Carbon Company, New York, N. Y. Portable electric light. No. 1,238,850; Sept. 4; v. 242; p. 42.
Wade, Edwin T., assignor of one-third to A. C. Jones, Jackson, Miss. Rail tie and fastener. No. 1,239,750; Sept. 11; v. 242; p. 357.
Wagner, Clinton D., Cedar Rapids, Iowa. Sheet-metal shears. No. 1,241,313; Sept. 25; v. 242; p. 917.
Wagner, Edwin, Molalla, Oreg. Equalizer. No. 1,239,988; Sept. 11; v. 242; p. 433.
Wagner, John, Howe, assignor of three-fourths to M. Kraulelder, Taber, Idaho. Lacing-hook. No. 1,240,271; Sept. 18; v. 242; p. 558.
Wagstaff, Alfred, Jr., New York, N. Y. Radiator-shield for automobiles. No. 1,239,144; Sept. 4; v. 242; p. 137.
Wain, William C., North Sydney, New South Wales, Australia. Chlorate explosive of the Sprengel class. No. 1,240,272; Sept. 18; v. 242; p. 558.
Wait, Alfred H., Lincoln, Kans. Garment. No. 1,239,989; Sept. 11; v. 242; p. 433.
Wait, William, Jr., Peekskill, N. Y. Range-finder for use upon aerial vehicles or machines. No. 1,238,967; Sept. 4; v. 242; p. 79.
Waite, Guy B., New York, N. Y. Concrete-reinforcement. No. 1,239,649; Sept. 11; p. 242; p. 324.
Wald, Samuel. (See Kempler, Benjamin, assignor.)
Walker, John B., New York, N. Y. Truck. No. 1,241,481; Sept. 25; v. 242; p. 967.
Wall, Ottie. (See Tillery, Noah F., assignor.)

Wallace, James F. (See Meier and Wallace.)
Wallace, MacKee B., San Francisco, Cal. Egg-carrier. No. 1,240,518; Sept. 18; v. 242; p. 635.
Wallace, William F., Scooba, Miss. Kitchen-cabinet. No. 1,240,519; Sept. 18; v. 242; p. 635.
Wallen, Oliver H., Marshalltown, Iowa. Radiator for hot-air furnaces. No. 1,238,851; Sept. 4; v. 242; p. 42.
Walrath, Burton A., Rock Valley, Iowa. Gear-shifting mechanism. No. 1,239,435; Sept. 4; v. 242; p. 227.
Walrath, Burton A., Rock Valley, Iowa. Gear-shifting mechanism. No. 1,239,436; Sept. 4; v. 242; p. 228.
Walter, Frank, assignor to E. F. Schlichter, Philadelphia, Pa. Rotary internal-combustion engine. No. 1,239,853; Sept. 11; v. 242; p. 391.
Walter, Ira D., Harrisburg, Ark., assignor of one-twentieth to T. Flourney, one-tenth to B. F. Cole, thirty-six one-hundredths to J. Brinkerhoff, one-twentieth to J. G. Gant, one-fiftieth to S. A. Latimer, Harrisburg, one-twentieth to E. Hamilton, one-twentieth to C. B. Bailey, Wynne, one-twentieth to F. Shauver and H. C. Shauver, Nettleton, and one-fiftieth to J. W. Gant, Harrisburg, Ark. Demountable rim for tires. No. 1,240,162; Sept. 11; v. 242; p. 484.
Walter, Joseph L., Jr., Columbus, Ohio. Combined heat and moisture generator. No. 1,240,108; Sept. 11; v. 242; p. 467.
Walters, James, Cass City, Mich. Steering-knuckle joint. No. 1,238,852; Sept. 4; v. 242; p. 42.
Walton, Frank A., assignor of one-third to F. W. Steiner, Sparks, Nev. Automatic train control. No. 1,241,454; Sept. 25; v. 242; p. 958.
Walton, Morris, Delaware, Ohio. Furnace-door opener. No. 1,241,061; Sept. 25; v. 242; p. 836.
Walton, Samuel A., West Hampstead, London, England. Abdominal support for medical and surgical use. No. 1,240,109; Sept. 11; v. 242; p. 467.
Wantz, Julius B., assignor, by mesne assignments, to Victor Electric Corporation, Chicago, Ill. X-ray apparatus. No. 1,239,145; Sept. 4; v. 242; p. 137.
Wantz, Julius B., assignor, by mesne assignments, to Victor Electric Corporation, Chicago, Ill. X-ray table. No. 1,239,146; Sept. 4; v. 242; p. 137.
Ward, Samuel M., Jr., Woodmere, assignor to J. T. Clarke, New York, N. Y. Electric signaling system. No. 1,241,062; Sept. 25; v. 242; p. 836.
Ward, Samuel M., Jr., Woodmere, assignor to J. T. Clarke, New York, N. Y. Electric signaling system. No. 1,241,063; Sept. 25; v. 241; p. 836.
Ware, Erastus A., Groton, Conn. Window-screen. No. 1,241,314; Sept. 25; v. 242; p. 917.
Ware, Joseph L., assignor to Twin City Four-Wheel Drive Company, St. Paul, Minn. Four-wheel driving device. No. 1,239,990; Sept. 11; v. 242; p. 433.
Waring, Charles. (See McLean and Waring.)
Warne, Frederick C., assignor to Roderick Lean Manufacturing Company, Mansfield, Ohio. Draft-equalizer. No. 1,239,147; Sept. 4; v. 242; p. 138.
Warner, Clarendon G., Holyoke, Mass. Boiler. No. 1,239,546; Sept. 11; v. 242; p. 292.
Warner, Frederick A., Halifax, Nova Scotia, Canada. Wire-cutting device. No. 1,241,455; Sept. 25; v. 242; p. 959.
Warren, Carl, Sebree, Ky. Ditching-machine. No. 1,239,650; Sept. 11; v. 242; p. 324.
Warren, William B. (See Chalker, Charles E., assignor.)
Wassell, James C. (See Bader and Wassell.)
Waste Utilities Company of Delaware. (See Kidwell, Edgar, assignor.)
Waterbury Mfg. Co. (See Goetz, Henry F., assignor.)
Waterbury Mfg. Co. (See Henger, Edwin W., assignor.)
Waterous, Charles P., assignor to Waterous Engine Works Company, St. Paul, Minn. Fire-engine. No. 1,238,853; Sept. 4; v. 242; p. 42.
Waterous Engine Works Company. (See Waterous, Charles P., assignor.)
Watkins, Frederick A., Chicago, Ill. Electric wiring system. No. 1,240,907; Sept. 25; v. 242; p. 789.
Watson, William C., Ponsonby, Auckland, New Zealand. Vote-recording machine. No. 1,240,632; Sept. 18; v. 242; p. 669.
Watson, William W., Jamestown, N. Y. Sheet-metal window-screen for railway-cars. No. 1,238,854; Sept. 4; v. 242; p. 43.
Watts, Harry J., Turtle Creek, Pa. Floating tool-chuck. No. 1,241,176; Sept. 25; v. 242; p. 871.
Watts, Harry J., Turtle Creek, Pa. Drill or boring member. No. 1,241,176; Sept. 25; v. 242; p. 871.
Watts, Harry J., Turtle Creek, Pa. Floating tool-chuck. No. 1,241,177; Sept. 25; v. 242; p. 872.
Watts, Julius R., Atlanta, Ga. Sash-fastener. No. 1,238,968; Sept. 4; v. 242; p. 80.
Waugh, Edward H. (See Swartz and Waugh.)
Weatherspoon, Benjamin W., Snyder, Okla. Harrow. No. 1,241,064; Sept. 25; v. 242; p. 837.
Weaver, Ira A., Springfield, assignor, by mesne assignments, to Montgomery Ward & Co., Incorporated, Chicago, Ill. Light-tractor gang-plow. No. 1,238,969; Sept. 4; v. 242; p. 80.
Weaver, Robert B., Detroit, Mich., assignor, by mesne assignments, to The Anderson Rolled Gear Company, Cleveland, Ohio. Hot-rolling machine. No. 1,241,482; Sept. 25; v. 242; p. 967.
Webb, Benjamin T., Birmingham, Ala., assignor of one-fourth to L. J. Toole, one-fourth to G. E. Kyser, and one-fourth to A. W. Nelson. Bottle-case. No. 1,240,520; Sept. 18; v. 242; p. 636.
Webb, Charles J., Russellville, Ark. Bulletin. No. 1,239,324; Sept. 4; v. 242; p. 193.
Webb, Edwin W. (See Barber and Webb.)
Webb, Edwin W., assignor to Standard Car Truck Company, Chicago, Ill. Roller side bearing for cars. No. 1,239,547; Sept. 11; v. 242; p. 292.
Weber, Henry, Langley, Wash. Boat. No. 1,241,065; Sept. 25; v. 242; p. 837.
Webster Electric Company, The. (See Stark, John R., assignor.)
Webster, Ernest C., assignor of one-half to H. Gruenhagen, Oakland, Cal. Electric water-heater. No. 1,239,325; Sept. 4; v. 242; p. 193.
Webster, George S., Mason City, Iowa. Railway-truck weed-cutter. No. 1,238,855; Sept. 4; v. 242; p. 43.
Weeks, Frederick H., assignor to The F. H. Weeks Lumber Company, Akron, Ohio. Machine for forming openings in window-stiles. No. 1,240,893; Sept. 18; v. 242; p. 596.
Weeks, Martin L., Spartanburg, S. C. Single-delivery match-safe. No. 1,241,456; Sept. 25; v. 242; p. 959.
Weidemann, Theodore R., Jersey City, assignor to V. V. Roggi, Arlington, N. J. Hand-bag and similar article. No. 1,239,327; Sept. 4; v. 242; p. 194.
Weir, David H., Omaha, Nebr. Antiskid device for wheel-tires. No. 1,241,066; Sept. 25; v. 242; p. 837.
Weis, Harry C., and H. A. Consor, assignor to The Weis Manufacturing Company, Monroe, Mich. Tray-holder. No. 1,240,908; Sept. 25; v. 242; p. 789.
Weis Manufacturing Company, The. (See Weis and Consor, assignors.)
Weiss, Charles A., Brooklyn, assignor, by mesne assignments, to Mason Steam System, Inc., New York, N. Y. Cloth-steam-sponging device. No. 1,239,991; Sept. 11; v. 242; p. 433.
Weissmann, Frederick W., assignor to The Hill & Griffith Company, Cincinnati, Ohio. Recovering graphitic carbon from graphite scale. No. 1,239,992; Sept. 11; v. 242; p. 433.
Welch, Fred S., assignor to Pontiac Tractor Company, Pontiac, Mich. Spraying-pump. No. 1,241,178; Sept. 25; v. 242; p. 872.
Welch, Horace H., Chicago, Ill. Power-indicator for vehicles. No. 1,240,273; Sept. 18; v. 242; p. 558.
Wells, Clarence C., Fort Worth, Tex. Composition of matter for the welding and soldering of articles constructed of aluminum. No. 1,239,854; Sept. 11; v. 242; p. 392.
Welsbach Light Company. (See Ewing, Robert E., assignor.)
Welzenbach, George A., Peoria, Ill. Mixing-machine. No. 1,240,274; Sept. 18; v. 242; p. 559.
Wende, Herman O., Chicago, Ill. Fly-catcher. No. 1,239,148; Sept. 4; v. 242; p. 138.
Wendland, Charles F., Brooklyn, N. Y. Shock and sound arrester. No. 1,240,521; Sept. 18; v. 242; p. 636.
Werda, Joel E., New York, N. Y. Printing the Assyrian language. No. 1,240,633; Sept. 18; v. 242; p. 669.
Wert, Cyrus S., Kendallville, Ind. Block-machine. No. 1,239,326; Sept. 4; v. 242; p. 194.
Werzner, Edward H., assignor to Schroeder Headlight Co., Inc., Evansville, Ind. Steam-turbine valve. No. 1,241,316; Sept. 25; v. 242; p. 918.
Wesley, Eugene M., Tacoma, Wash. Game apparatus. No. 1,240,394; Sept. 18; v. 242; p. 597.
Wessel, Karl, St. Paul, Minn. Machine for making ice-cream cones. No. 1,240,909; Sept. 25; v. 242; p. 789.
West, Frank L., Cleveland Heights, Ohio. Connecting and retaining device. No. 1,239,993; Sept. 11; v. 242; p. 434.
West, Walter A., Elkhorn, Wis. Paint and making same. No. 1,241,067; Sept. 25; v. 242; p. 838.
Westerfield, Don C., Dayton, and E. J. Rogers, Miamisburg, Ohio. Composition for protecting metallic surfaces against corrosion. No. 1,240,395; Sept. 18; v. 242; p. 597.
Western Electric Company. (See Harris, Jonathan W., assignor.)
Western Electric Company. (See Heising, Raymond A., assignor.)
Western Electric Company. (See Miller, Daniel D., assignor.)
Western Electric Company. (See Reeves and Lundell, assignors.)
Western Electric Company. (See Smith, William F., assignor.)
Western Pipe and Steel Company of California. (See Sweeney, Morgan L., assignor.)
Western Well Works. (See Bettis, William I., assignor.)
Westinghouse Electric and Manufacturing Company. (See Boddie, Clarence A., assignor.)
Westinghouse Electric & Manufacturing Company. (See Cooper, William, assignor.) (Reissue.)
Westinghouse Electric and Manufacturing Company. (See Eaton, George M., assignor.)
Westinghouse Electric and Manufacturing Company. (See Edgecomb, Henry R., assignor.)
Westinghouse Electric and Manufacturing Company. (See Fortescue, Charles L., assignor.)
Westinghouse Electric and Manufacturing Company. (See Mueller, Friedrich, assignor.)
Westinghouse Electric and Manufacturing Company. (See Storer, Norman W., assignor.)
Westlake, Charles T., assignor to Flory Carry Iron Company, St. Louis, Mo. Draw-bar carry-iron. No. 1,239,651; Sept. 11; v. 242; p. 325.

Wetcarbonizing Limited. (See Rigby and Andrew, assignors.)
Wetherell, Raymond C., Slough, England. Differential axle. No. 1,241,457; Sept. 25; v. 242; p. 959.
Wexler, Arnold, New York, N. Y. Plastic composition. No. 1,241,068; Sept. 25; v. 242; p. 838.
Weymouth, Lucius B., Hyde Park, Mass. Machine for applying metallic leaf. No. 1,239,149; Sept. 4; v. 242; p. 138.
Whalbe, Jacob M., New York, N. Y. Elevator. (Reissue.) No. 14,363; Sept. 18; v. 242; p. 726.
Wheeler, John L., St. Louis, Mo. Spindle for milling-machines. No. 1,239,855; Sept. 11; v. 242; p. 392.
Wheeler, John W. (See Catron and Wheeler.)
Wheelock, Edwin M., Winona, Minn. Automatic shock-threshing machine. No. 1,238,970; Sept. 4; v. 242; p. 80.
Whelan, Thomas F., East Orange, assignor to United Shoe Machinery Company, Paterson, N. J. Shoe and making the same. No. 1,238,856; Sept. 4; v. 242; p. 43.
Whitaker, Frank P., Rugby, England, assignor to General Electric Company. Synchronous dynamo-electric machine. No. 1,241,317; Sept. 25; v. 242; p. 918.
Whitaker, Harry E. (See Van Horn, Charles S., assignor.)
Whitcomb, George B., Morgan, Oreg. Tractor-engine. No. 1,239,328; Sept. 4; v. 242; p. 195.
White, Clayton O., Deansboro, N. Y. Staple-extractor. No. 1,241,179; Sept. 25; v. 242; p. 872.
White, Edgar C., Belmar, N. J. Plant-box. No. 1,239,994; Sept. 11; v. 242; p. 434.
White, Ernest V., Chatham, Ontario, Canada. Bottle-cap. No. 1,239,238; Sept. 4; v. 242; p. 167.
White, Eugene M. (See Nystrum, Conrad E., assignor.)
White, Fred E., and F. E. Hooper, assignors to Central Oil & Gas Stove Company, Gardner, Mass. Oil-stove. No. 1,240,522; Sept. 18; v. 242; p. 636.
White, Gustine S., Dunmore, Pa. Index. No. 1,239,751; Sept. 11; v. 242; p. 357.
White Motor Company, The. (See Farmer and Hulet, assignors.)
White, Ray H. (See Saunders and White.)
White, William, Granite, Okla. Cotton-distributer. No. 1,241,318; Sept. 25; v. 242; p. 919.
White, W. R. (See Gregory and Maire, assignors.)
Whitehead & Hoag Company, The. (See Heindl, William C., assignor.)
Whitelaw, James, St. Louis, Mo. Sewing-machine work-handling mechanism. No. 1,239,239; Sept. 4; v. 242; p. 167.
Whiteside, John C., Rutherford, N. J., assignor to Hodgman Rubber Co., Yonkers, N. Y. Convertible coat and cape. No. 1,239,995; Sept. 11; v. 242; p. 434.
Whitin Machine Works. (See Owen, Henry A., assignor.)
Whitman & Barnes Manufacturing Company, The. (See Farmer, Frank T., assignor.)
Whittaker, Lee, Butler, Pa. Hydrocarbon-burner. No. 1,241,069; Sept. 25; v. 242; p. 838.
Whitted, John B., Elizabethtown, N. C. Rotary engine. No. 1,239,752; Sept. 11; v. 242; p. 358.
Whittingham, George H., Pikesville, assignor to Monitor Controller Company, Baltimore, Md. Controller for electric motors. No. 1,241,180; Sept. 25; v. 242; p. 878.
Wickey, Andrew, East Chicago, Ind. Eyeglass-guard. No. 1,238,971; Sept. 4; v. 242; p. 81.
Wickham, Henry A., London, England. Press-mold. No. 1,239,652; Sept. 11; v. 242; p. 325.
Wickwire, Wilford E., Lehigh, Iowa. Antislipping device. No. 1,239,856; Sept. 11; v. 242; p. 392.
Widmer, Arthur J., Webster Groves, assignor, by mesne assignments, to Widmer Engineering Company, St. Louis, Mo. Apparatus for constructing ribbed concrete floors. No. 1,238,858; Sept. 4; v. 242; p. 44.
Widmer Engineering Company. (See Widmer, Arthur J., assignor.)
Widney Company, The. (See Kinder, Halsey G., assignor.)
Wightman, Mark A., Prattsburg, N. Y. Tire-chain lock. No. 1,238,859; Sept. 4; v. 242; p. 45.
Wigiert, Joe J., assignor of one-half to S. Wigiert, Bremond, Tex. Combined sword and pistol. No. 1,239,065; Sept. 4; v. 242; p. 110.
Wigiert, Stash. (See Wigiert, Joe J., assignor.)
Wild, Charles M. (See Heins and Wild.)
Wildman Mfg. Co. (See Pigeon, Albert M., assignor.) (Reissue.)
Wiley, Dana, Long Beach, Cal. Self-centering work-holder. No. 1,241,319; Sept. 25; v. 242; p. 919.
Wiley, Everett, Yates City, Ill. Door attachment. No. 1,241,458; Sept. 25; v. 242; p. 960.
Wilhelm, John F., Buffalo, N. Y. Nut-lock. No. 1,241,181; Sept. 25; v. 242; p. 873.
Wilhite, James F. (See Beam, Oliver N., assignor.)
Wilken, William F. (See Krapf, Frederick W., Jr., assignor.)
Wilks, Joseph P., Uttoxeter, assignor of one-half to W. Hill, Birmingham, England. Bullet-proof and like garment and covering for horses and articles exposed to acts of warfare. No. 1,239,329; Sept. 4; v. 242; p. 195.
Willard, George D., Spearfish, S. D. Combination hoe and implement. No. 1,239,658; Sept. 11; v. 242; p. 325.
Willbert Manufacturing Company. (See Smith, Bert H., assignor.)
Willett, John H., Chicago, Ill. Arch-support. No. 1,240,275; Sept. 18; v. 242; p. 559.
Williams, Albert W., and W. O. De Kines, St. Louis, Mo. Dust-pan. No. 1,238,860; Sept. 4; v. 242; p. 45.
Williams, Charles F., assignor to Williams Tool Company, Erie, Pa. Lathe. No. 1,239,857; Sept. 11; v. 242; p. 392.
Williams, Charles H., assignor to Chicago Railway Equipment Company, Chicago, Ill. Rail-brace. No. 1,240,276; Sept. 18; v. 242; p. 560.
Williams, Clement V., Loveland, Okla. Marking device for hens' nests. No. 1,240,277; Sept. 18; v. 242; p. 560.
Williams, Edward L., Santa Cruz, Cal., assignor to Coin Time Lock Co., Chicago, Ill. Lock. No. 1,239,240; Sept. 4; v. 242; p. 167.
Williams, George M., Elizabeth, N. J., assignor to P. Lorillard Company, New York, N. Y. Tool for tightening and fastening bale-bands. No. 1,241,483; Sept. 25; v. 242; p. 967.
Williams, Harry A., Thane, Alaska. Automobile-lock. No. 1,241,471; Sept. 25; v. 242; p. 963.
Williams, Harry M., and J. W. Dean, Little Rock, Ark. Weed-destroyer. No. 1,238,861; Sept. 4; v. 242; p. 45.
Williams, Louis N. D., Ogontz, Pa. Machine for uniting knitted webs. No. 1,239,241; Sept. 4; v. 242; p. 168.
Williams, Martin L., South Bend, Ind., assignor, by mesne assignments, to Gillette Motors Company, Chicago, Ill. Motor-car manifold. No. 1,238,862; Sept. 4; v. 242; p. 45.
Williams, Martin L., South Bend, Ind., assignor to J. W. Cleaveland, Chicago, Ill. Manifold for motor-cars. No. 1,239,424; Sept. 4; v. 242; p. 223.
Williams, Oscar. (See Saunders and Williams.)
Williams, Theodore E., and M. B. Bailey, New York, N. Y. Gas-thimble. No. 1,239,150; Sept. 4; v. 242; p. 139.
Williams Tool Company. (See Williams, Charles F., assignor.)
Williams, William E., Chicago, Ill. Steel end for freight-cars. No. 1,240,110; Sept. 11; v. 242; p. 467.
Williams, William E., Chicago, Ill. Railway-car door. No. 1,240,634; Sept. 18; v. 242; p. 669.
Williams, William E., Chicago, Ill. Metal sheathing for cars and houses. No. 1,240,635; Sept. 18; v. 242; p. 669.
Williams, William E., Chicago, Ill. Roller side bearing for railway-cars. No. 1,240,636; Sept. 18; v. 242; p. 670.
Williamson, George W., Petaluma, Cal. Advertising-kiosk. No. 1,240,637; Sept. 18; v. 242; p. 670.
Williamson, James E., Mansfield borough, Pa. Motor-plow. No. 1,241,320; Sept. 25; v. 242; p. 919.
Williamson, Robert B., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis. Electrical apparatus. No. 1,239,654; Sept. 11; v. 242; p. 326.
Williamson, William J., and J. F. Shoemaker, Jennings, La. Apparatus for grading roads, &c. No. 1,241,070; Sept. 25; v. 242; p. 838.
Willour, Le Roy, assignor to The Ashland Products Co., Ashland, Ohio. Jack. No. 1,238,863; Sept. 4; v. 242; p. 46.
Willour, Le Roy, assignor to The Ashland Products Co., Ashland, Ohio. Jack. No. 1,240,278; Sept. 18; v. 242; p. 560.
Wills, William S., Covington, Va. Vehicle-truck. No. 1,239,996; Sept. 11; v. 242; p. 434.
Willson, William N. C., Berryville, Va. Poultry-fetter. No. 1,240,111; Sept. 11; v. 242; p. 468.
Wilmans, Lloyd L., Irving, Tex. Line-type-casting machine. No. 1,238,972; Sept. 4; v. 242; p. 81.
Wilmot, Roy, Larimore, N. D. Autographic camera. No. 1,240,910; Sept. 25; v. 242; p. 790.
Wiloth, Leo, and A. L. Greer, Denver, Colo.; said Wiloth assignor to said Greer. Bath-cabinet. No. 1,240,911; Sept. 25; v. 242; p. 790.
Wilson, Albert B., Lowell, Mass. Moistening device. No. 1,240,279; Sept. 18; v. 242; p. 560.
Wilson, David H., Paterson, N. J. Storage battery. No. 1,240,280; Sept. 18; v. 242; p. 561.
Wilson, William, Boston, Mass., assignor to Campbell Bosworth Machinery Company, Portland, Me. Loop-sewing attachment for sewing-machines. No. 1,241,182; Sept. 25; v. 242; p. 873.
Wilson, William H., St. Paul, Minn. Six-wheeled car-truck. No. 1,240,638; Sept. 18; v. 242; p. 670.
Winans, Francis W. (See Perfect, Eber M., assignor.)
Winchester, Sherman L., Weiser, Idaho. Gold-saving pan. No. 1,240,396; Sept. 18; v. 242; p. 597.
Windeler, George E. (See Day, Windeler, and Grant.) (Reissue.)
Wing, Luman B., Brooklyn, N. Y. Expression-indicator for musical instruments. No. 1,238,864; Sept. 4; v. 242; p. 46.
Winger, Stover C., Pasadena, Cal. Rotary engine. No. 1,240,112; Sept. 11; v. 242; p. 468.
Winkler, Carl, Berne, Switzerland. Printing-machine having a continuously-rotating cylinder. No. 1,241,321; Sept. 25; v. 242; p. 919.
Winkley, Erastus E., Lynn, Mass. Carbureter. No. 1,240,281; Sept. 18; v. 242; p. 561.
Winkley, Erastus E., Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Leveling-machine. No. 1,238,866; Sept. 4; v. 242; p. 46.
Winkley, Erastus E., Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Leveling-machine. No. 1,238,865; Sept. 4; v. 242; p. 47.
Winston, Hollis T., Washington, D. C. Direction-signal. No. 1,240,639; Sept. 18; v. 242; p. 671.
Winston, Hollis T., U. S. Navy. Traffic-signal. No. 1,240,640; Sept. 18; v. 242; p. 671.
Winston, Overton, Minneapolis, Minn. Headlight. No. 1,240,282; Sept. 18; v. 242; p. 561.

Winter, Charles N., Roanoke, Va., assignor to The American Brake Shoe and Foundry Company, Wilmington, Del. Brake-shoe. No. 1,238,867; Sept. 4; v. 242; p. 47.
Winters, Conrad A., Anaconda, Mont. Cleaner for conveyer-belts. No. 1,239,066; Sept. 4; v. 242; p. 110.
Winters, Lee L., Monroe, Mich. Dimmer-light-switch support. No. 1,240,283; Sept. 18; v. 242; p. 562.
Wirebounds Patents Company. (See Babcock, Guilford C., assignor.)
Wirt, Charles, assignor to Wirt Company, Philadelphia, Pa. Electric-lighting apparatus. No. 1,238,868; Sept. 4; v. 242; p. 47.
Wirt Company. (See Wirt, Charles, assignor.)
Wirtz, Nicholas H., Watertown, S. D. Combination liquid-lock for automobiles. No. 1,239,997; Sept. 11; v. 242; p. 435.
Wisconsin Chair Company. (See Dennett, Fred A., assignor.)
Wisznlewska, Bronislawa, Sault Ste. Marie, Mich. Waffle-iron. No. 1,238,974; Sept. 4; v. 242; p. 82.
Witherell, Edwin H., *et al.* (See Vorce, Albert F., assignor.)
Wo, Goo K., Honolulu, Hawaii. Adjustable go-cart. No. 1,241,183; Sept. 25; v. 242; p. 874.
Wobensmith, James C. (See Liberman, Reichart, and Wobensmith.)
Woehle, Charles H. (See Mercer and Woehle.)
Wolf, Charles, Spokane, assignor to Eureka Silo Company, Bellingham, Wash. Silo construction. No. 1,240,284; Sept. 18; v. 242; p. 562.
Wolf, Linus, Chicago, Ill. Apparatus for producing liquefied gas. No. 1,240,397; Sept. 18; v. 242; p. 597.
Wolff, Albert, Hamburg, Germany. Production of sulfonic-acid salts from mineral-oil waste liquors. No. 1,240,523; Sept. 18; v. 242; p. 636.
Wolfgang, George. (See Shifley and Wolfgang.)
Wolpert, Pet T., Atlanta, Ga. Toy roundabout. No. 1,240,285; Sept. 18; v. 242; p. 562.
Wood, Albert A., Atlanta, Ga. Cotton-seed-delinting saw. No. 1,239,998; Sept. 11; v. 242; p. 435.
Wood, Anna E., Cincinnati, Ohio. Book-holder. No. 1,239,655; Sept. 11; v. 242; p. 326.
Wood, Charles A., Carr Creek township, Mitchell county, Kans. Reversing and steering driving-gearing. No. 1,241,184; Sept. 25; v. 242; p. 874.
Wood, Chester G., assignor to G. S. Wood, Chicago, Ill. Self-oiled mechanism. No. 1,239,548; Sept. 11; v. 242; p. 293.
Wood, Guilford S. (See Wood, Chester G., assignor.)
Wood, Henry A. W., assignor, by mesne assignments, to Wood Newspaper Machinery Corporation, New York, N. Y. Machine for finishing and cooling stereotype printing-plates. No. 1,238,973; Sept. 4; v. 242; p. 82.
Wood, Henry A. W., assignor to Wood & Nathan Company, New York, N. Y. Mechanism for printing from intaglio printing-plates. No. 1,239,242; Sept. 4; v. 242; p. 168.
Wood, John R., Newark, N. J., and D. C. Epright, Spring City, assignors, by mesne assignments, to Abram Cox Stove Company, Philadelphia, Pa. Molding-machine. No. 1,239,656; Sept. 11; v. 242; p. 326.
Wood & Nathan Company. (See Wood, Henry A. W., assignor.)
Wood Newspaper Machinery Corporation. (See Wood, Henry A. W., assignor.)
Wood, Robert W., Baltimore, Md. Making light-diffusing screens. No. 1,240,398; Sept. 18; v. 242; p. 598.
Wood, Walter E., assignor to Elwood Coal Service, Rochester, N. Y. Coal-shield. No. 1,239,549; Sept. 11; v. 242; p. 293.
Wood, William F. (See Mize, George M., assignor.)
Wood, William H., Cleveland, Ohio, assignor to S. W. Cook, trustee, Chicago, Ill. Orthopedic appliance for foot treatment. No. 1,240,286; Sept. 18; v. 242; p. 563.
Woodard, James I., Waycross, Ga. Wheel-clamp. No. 1,241,459; Sept. 25; v. 242; p. 960.
Woodland, Frances S., *et al.*, administrators. (See Woodland, Frank O.)
Woodland, Frank O., deceased; F. S. Woodland, Worcester, and A. F. Kelley, Grafton, adminstrators, assignors to Economic Machinery Company, Worcester, Mass. Wiper mechanism for labeling-machines. No. 1,239,858; Sept. 11; v. 242; p. 393.
Woodley, James C., Evanston, Ill. Manufacturing fibrous composition. No. 1,240,524; Sept. 18; v. 242; p. 637.
Woodman, George A. (See Carscadin and Woodman.)
Woods, George A., Winchester, Mass. Drinking-fountain. No. 1,239,151; Sept. 4; v. 242; p. 139.
Woodward, Charles D., Providence, R. I. Device for navigating by the north star. No. 1,240,525; Sept. 18; v. 242; p. 637.
Woodward, Edwin C., assignor to E. P. Woodward, Dallas, and E. R. Woodward, Fort Worth, Tex. Sealing pipe-joints. No. 1,240,287; Sept. 18; v. 242; p. 563.
Woodward, Edwin C., assignor to E. P. Woodward, Dallas, and E. R. Woodward, Fort Worth, Tex. Apparatus for sealing pipe-joints. No. 1,240,288; Sept. 18; v. 242; p. 563.
Woodward, E. P., *et al.* (See Woodward, Edwin C., assignor.)
Woodward, E. R., *et al.* (See Woodward, Edwin C., assignor.)
Woody, Edward G., New York, N. Y. Inking-pad. No. 1,241,322; Sept. 25; v. 242; p. 920.
Woolf, Michael, New York, N. Y. Optical instrument. No. 1,240,289; Sept. 18; v. 242; p. 563.
Woolley, William J. (See Tolin, Albert E., assignor.)
Wooster, Philip L., Yonkers, N. Y. Cleaning filters in connection with the purification of sugar, oils, and chemicals. No. 1,240,290; Sept. 18; v. 242; p. 564.
Wortendyke Manufacturing Company. (See Livy, Ernest B., assignor.)
Worthington, Henry R., Dunnfield, N. J. Signaling apparatus. No. 1,238,975; Sept. 4; v. 242; p. 82.
Wragg, William E., Philadelphia, Pa. Control for elevator-doors. No. 1,240,291; Sept. 18; v. 242; p. 564.
Wright, Frederick C., Halifax, Nova Scotia, Canada. Pipe-cleaner. No. 1,240,641; Sept. 18; v. 242; p. 671.
Wright, George M., London, England, assignor to Marconi Wireless Telegraph Company of America, New York, N. Y. Valve-receiver for wireless signals. No. 1,238,869; Sept. 4; v. 242; p. 48.
Wright, J. D. (See Dickinson, Joseph C., assignor.)
Wrigley, Albert E. (See Frey and Wrigley.)
Wuensch, Charles, assignor to Frank Adam Electric Company, St. Louis, Mo. Hole-plug for junction-boxes and similar structures. No. 1,239,243; Sept. 4; v. 242; p. 168.
Wulff, Henry, Grafton, Wis. Electrical system. No. 1,241,460; Sept. 25; v. 242; p. 960.
Wurlitzer, Farny R., and F. L. McCormick, assignors to The Rudolph Wurlitzer Manufacturing Company, North Tonawanda, N. Y. Duplex tracker for musical instruments. No. 1,240,113; Sept. 11; v. 242; p. 469.
Wurts, Edward V. (See Payne and Wurts.)
Wurts, Edward V., and J. J. Swinbank, Pittsburgh, Pa., assignors to Steel Utilities, Incorporated. Metal-working machine. No. 1,241,257; Sept. 25; v. 242; p. 899.
Wurts, Edward V., Pittsburgh, Pa., assignor to Steel Utilities, Incorporated. Machine for operating on structural beams. No. 1,241,259; Sept. 25; v. 242; p. 900.
Wurts, Edward V., Pittsburgh, Pa., and L. A. Hawthorne, Newark, N. J., assignors to Steel Utilities, Incorporated. Machine for punching and cutting angle-plates. No. 1,241,260; Sept. 25; v. 242; p. 900.
Wurts, Edward V., Pittsburgh, Pa., assignor to Steel Utilities, Incorporated. Metal-working machine. No. 1,241,266; Sept. 25; v. 242; p. 903.
Wurts, Edward V., Pittsburgh, Pa., assignor to Steel Utilities, Incorporated. Metal-punching machine. No. 1,241,269; Sept. 25; v. 242; p. 904.
Wyckoff, Amos A., Santa Cruz, Cal., assignor to Coin Time Lock Co., Chicago, Ill. Lock. No. 1,239,244; Sept. 4; v. 242; p. 169.
Wyers, Marshall J., Phoenix, Ariz. Concrete-pipe joint. No. 1,241,823; Sept. 25; v. 242; p. 920.
Wykert, Henry R., Council Bluffs, Iowa. Tent. No. 1,239,550; Sept. 11; v. 242; p. 293.
Yale & Towne Manufacturing Company, The. (See Potter and Mikkelsen, assignors.)
Yardley, Horace R., assignor to R. Williamson & Co., Chicago, Ill. Lighting-bowl hanger. No. 1,239,657; Sept. 11; v. 242; p. 327.
Yarrow, Harold E., Scotstoun, Glasgow, Scotland. Emptying and filling the ballast-tanks of submarine vessels. No. 1,239,999; Sept. 11; v. 242; p. 436.
Yartin, Joseph, New York, N. Y. Tobacco-pipe. No. 1,240,399; Sept. 18; v. 242; p. 598.
Yates, Charles M., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis. Condenser. No. 1,239,067; Sept. 4; v. 242; p. 111.
Yere, Louis, San Francisco, Cal. Bakery appliance. No. 1,240,000; Sept. 11; v. 242; p. 436.
Yost, Winfield H., Montreal, Quebec, Canada. Shaft-rotating means. No. 1,239,551; Sept. 11; v. 242; p. 293.
Young, Harry R. (See Reilly, Edward B., assignor.)
Young, Laurence C., Montgomery, assignor of one-half to M. E. Pratt, Prattville, Ala. Machine for hulling peas, beans, and the like. No. 1,240,912; Sept. 25; v. 242; p. 790.
Young, Stephen L. (See Carhart and Young.)
Youngren, Carl O., Downing, Wis. Folding umbrella. No. 1,240,001; Sept. 11; v. 242; p. 436.
Zacharias, Edwin H., Reading, Pa. Garment-seam-pressing iron. No. 1,239,552; Sept. 11; v. 242; p. 294.
Zachmann, William H., Woodhaven, assignor to National Carbon Company, Long Island City, N. Y. Portable electric light. No. 1,241,071; Sept. 25; v. 242; p. 839.
Zbikowski, Frank, Bessemer, Pa. Milk-box. No. 1,239,330; Sept. 4; v. 242; p. 195.
Zemojtel, Fabian, assignor of one-third to J. Sobolewski, Philadelphia, Pa. Launching device for aeroplanes. No. 1,240,400; Sept. 18; v. 242; p. 598.
Ziebarth, William C., Sioux Falls, S. D. Vending-machine for newspapers and similar articles. No. 1,240,526; Sept. 18; v. 242; p. 637.
Zika, Louis J., Cedar Rapids, Mich. Street-sign support. No. 1,238,976; Sept. 4; v. 242; p. 83.
Zuckerman, John S., *et al.* (See Bower, Bert H., assignor.)
Zwick, William S. J., assignor to The Forest City Engineering Company, Cleveland, Ohio. Roof structure. No. 1,239,331; Sept. 4; v. 242; p. 195.
Zwick, William S. J., assignor to The Forest City Engineering Company, Cleveland, Ohio. Roof structure. No. 1,239,332; Sept. 4; v. 242; p. 195.
Zywno, Stanislaw P., Middletown, Conn. Flying-machine. No. 1,241,072; Sept. 25; v. 242; p. 839.

ALPHABETICAL LIST OF PATENTEES OF DESIGNS.

A. C. Gilbert Company. (See Gilbert, Alfred C., assignor.)
Adam, Harry C., St. Louis, Mo. Lighting-fixture. No. 51,294; Sept. 25; v. 242; p. 972.
Alexander Smith & Sons Carpet Company. (See Fulton, James C., assignor.)
Alness, Mark G. (See Cross and Alness.)
American Lace Paper Company. (See Conrad, Fred, assignor.)
Aucoin, Numa L., Delcambre, La. Portable fireplace. No. 51,295; Sept. 25; v. 242; p. 973.
Baker, Stephen D., New York, N. Y. Wall-receptacle for soap and other toilet articles. No. 51,249; Sept. 11; v. 242; p. 490.
Beeler, Esten B., assignor to Esta Water Auxiliator Co., Inc., New York, N. Y. Humidifier. No. 51,296; Sept. 25; v. 242; p. 973.
Bernstein, Isidoar, Brooklyn, N. Y. Finger-ring. No. 51,297; Sept. 25; v. 242; p. 973.
Borggrafe, Edward W., assignor to Electric Specialty Co., Stamford, Conn. Casing for radiogenerators. No. 51,250; Sept. 11; v. 242; p. 490.
Braunstein, Simon, New York, N. Y. Electric-light fixture. Nos. 51,251–2; Sept. 11; v. 242; p. 491.
Brown, Edmund N., San Francisco, Cal. Electric-heater casing. Nos. 51,275–6; Sept. 18; v. 242; pp. 726–7.
Brown, Edmund N., San Francisco, Cal., assignor to Majestic Electric Development Company. Electric-heater casing. No. 51,253; Sept. 11; v. 242; p. 491.
Brown, Gilbreth, assignor to The E. A. Potter Co., Providence, R. I. Watchcase-protector. No. 51,298; Sept. 25; v. 242; p. 973.
Bryant Electric Company, The. (See Thomas, George B., assignor.)
Bulla, Fayette D., assignor to George Cutter Company, South Bend, Ind. Lighting-post. No. 51,221; Sept. 4; v. 242; p. 231.
Burfeind, Richard F., assignor to Keystone Type Foundry, Philadelphia, Pa. Font of type. No. 51,254; Sept. 11; v. 242; p. 491.
Bush, Jacob J., Lima, Ohio. Combination-cabinet. No. 51,222; Sept. 4; v. 242; p. 231.
Cassidy, George W., New York, N. Y. Lamp. No. 51,255; Sept. 11; v. 242; p. 491.
Cheney Brothers. (See Doughty, Emma W., assignor.)
Conrad, Fred, Milwaukee, Wis., assignor to American Lace Paper Company. Paper doily. No. 51,223; Sept. 4; v. 242; p. 232.
Cross, Joseph G., and M. G. Alness, Everett, Wash. Priming-cup. No. 51,224; Sept. 4; v. 242; p. 232.
Crowell, Frank S., assignor to The Western Gas Fixture Co., Toledo, Ohio. Arm for lighting-fixtures. Nos. 51,256–7; Sept. 11; v. 242; p. 492.
Crowell, Frank S., assignor to The Western Gas Fixture Co., Toledo, Ohio. Bracket-back for lighting-fixtures. No. 51,258; Sept. 11; v. 242; p. 492.
Dalley, Henry A., assignor to The Unit Construction Company, Philadelphia, Pa. Sales counter or cabinet. No. 51,299; Sept. 25; v. 242; p. 974.
Dean, Calvin, Providence, R. I. Protector for articles to be worn on the wrist. No. 51,225; Sept. 4; v. 242; p. 232.
Desenfant, George A., San Francisco, Cal. Stick-pin. No. 51,226; Sept. 4; v. 242; p. 232.
Divine, Charles A., Columbus, Ohio. Set of letters and numerals for signs. No. 51,259; Sept. 11; v. 242; p. 492.
Doughty, Emma W., Cresskill, N. J., assignor to Cheney Brothers, South Manchester, Conn. Textile fabric. Nos. 51,300–1; Sept. 25; v. 242; p. 974.
Doyle, John, New York, N. Y. Lighting-fixture. No. 51,227; Sept. 4; v. 242; p. 232.
Drefs, John, Omaha, Nebr. Badge. No. 51,260; Sept. 11; v. 242; p. 493.
Dreyfus, Nathan, New York, N. Y. Clock. No. 51,278; Sept. 18; v. 242; p. 727.
Dyson, George H., assignor to The Porter & Dyson Company, New Britain, Conn. Pin. No. 51,228; Sept. 4; v. 242; p. 232.
E. Kopriwa Company. (See Kopriwa, Emanuel, assignor.)
E. A. Potter Co., The. (See Brown, Gilbreth, assignor.)
Eisinger, Ernest F., assignor to La France Novelty Co., New York, N. Y. Textile trimming. No. 51,229; Sept. 4; v. 242; p. 233.
Electric Specialty Co. (See Borggrafe, Edward W., assignor.)
Elms & Sellon. (See Scholle, Charles F., assignor.)
Esta Water Auxiliator Co. (See Beeler, Esten B., assignor.)
Fischer, Charles, New York, N. Y. Finger-ring or similar article. No. 51,302; Sept. 25; v. 242; p. 974.
Fontana, Frank, San Francisco, Cal. Street-clock. No. 51,280; Sept. 18; v. 242; p. 728.
Forster, Henry C., Omaha, Nebr. Lamp-lens. No. 51,279; Sept. 18; v. 242; p. 727.
Fulton, James C., assignor to Alexander Smith & Sons Carpet Company, Yonkers, N. Y. Carpet. No. 51,261; Sept. 11; v. 242; p. 493.
George Cutter Company. (See Bulla, Fayette D., assignor.)
Gilbert, Alfred C., assignor to The A. C. Gilbert Company, New Haven, Conn. Toy building element. No. 51,277; Sept. 18; v. 242; p. 727.
Goetze, Christopher A., Minneapolis, Minn. Tire-tread. Nos. 51,230–1; Sept. 4; v. 242; p. 233.
Gold Car Heating & Lighting Company. (See Johns, Ellwood C., assignor.)
Grammes, Harry A., Allentown, Pa. Metal paper fastener or clip. No. 51,263; Sept. 11; v. 242; p. 493.
Griswold, Marius E., Burlington, Iowa. Juvenile vehicle. No. 51,281; Sept. 18; v. 242; p. 728.
Gylywaichuk, John, Tolstoi, Manitoba, Canada. Lavalliere. No. 51,232; Sept. 4; v. 242; p. 233.
Gylywaichuk, John, Tolstoi, Manitoba, Canada. Tie-pin. No. 51,233; Sept. 4; v. 242; p. 234.
Harris, Mary E., San Francisco, Cal. Doll. No. 51,234; Sept. 4; v. 242; p. 234.
Heisey & Co., A. H. (See Sanford, Andrew J., assignor.)
Hibbard, Spencer, Bartlett & Company. (See Stewart, Pritchard, assignor.)
Hincks, Elizabeth T., Cambridge, Mass. Child's outer garment. No. 51,303; Sept. 25; v. 242; p. 974.
Howard, Frank H., Reading, Pa. Chain-welding-machine frame. No. 51,282; Sept. 18; v. 242; p. 728.
Hoyer, Edward J. (See Seror and Hoyer.)
Inflexible Co. (See Schwarber, Henry, assignor.)
Isko, Incorporated. (See McCuen, Charles L., assignor.)
Jacobson, Abraham, Chicago, Ill. Ring. No. 51,264; Sept. 11; v. 242; p. 493.
Johns, Ellwood C., Jersey City, N. J., assignor to Gold Car Heating & Lighting Company, New York, N. Y. Casing for thermostats. No. 51,304; Sept. 25; v. 242; p. 974.
Kane, Gladys C., Washington, D. C. Combination flower-holder and dress-protector. No. 51,305; Sept. 25; v. 242; p. 975.
Kéfer, Ghislaine, New York, N. Y. Badge. No. 51,306; Sept. 25; v. 242; p. 975.
Keystone Type Foundry. (See Burfeind, Richard F., assignor.)
Koch, Alexander R., assignor to F. Meyer, New York, N. Y. Lace. Nos. 51,265–6; Sept. 11; v. 242; pp. 493–4.
Kopriwa, Emanuel, assignor to E. Kopriwa Company, Chicago, Ill. Standard for a lamp or similar article. Nos. 51,283–4; Sept. 18; v. 242; p. 728.
La France Novelty Co. (See Eisinger, Ernest F., assignor.)
Lee, William E., Columbus, Ohio. Wind-wheel. No. 51,235; Sept. 4; v. 242; p. 234.
Lighting Corporation, The. (See Robb and Young, assignors.)
Majestic Electric Development Company. (See Brown, Edmund N., assignor.)
Mapel, Lewis A., assignor to Mechanical Development Company, St. Louis, Mo. Gage-casing. No. 51,285; Sept. 18; v. 242; p. 728.
McCuen, Charles L., assignor to Isko, Incorporated, Detroit, Mich. Fly-wheel or similar device. No. 51,236; Sept. 4; v. 242; p. 234.
McKenzie, Beatrice E., Wilmette, Ill. Statuette. No. 51,307; Sept. 25; v. 242; p. 975.
Mechanical Development Company. (See Mapel, Lewis A., assignor.)
Meyer, Felix. (See Koch, Alexander R., assignor.)
Monsarrat, Jane M., Providence, R. I. Work bag or basket. No. 51,237; Sept. 4; v. 242; p. 234.
Newell, Nora, New York, N. Y. Picture or photograph frame. No. 51,286; Sept. 18; v. 242; p. 729.
Norris, Albert F., Stoughton, and C. H. Norris, Boston, Mass. Pedal. No. 51,238; Sept. 4; v. 242; p. 234.
Norris, Clifton H. (See Norris, Albert F., assignor.)
North American Lace Company. (See Watters, Charles J., assignor.)
Pattee, Herbert H., New York, N. Y. Badge. No. 51,267; Sept. 11; v. 242; p. 494.
Porter & Dyson Company, The. (See Dyson, George H., assignor.)
Purver, George M., Brooklyn, N. Y. Wrist-watch holder. No. 51,239; Sept. 4; v. 242; p. 235.
Rastija, Jozo, Akron, Ohio. Shrine. No. 51,240; Sept. 4; v. 242; p. 235.

Richard Auto Mfg. Company, The. (See Richard, François, assignor.)
Richard, François, assignor to The Richard Auto Mfg. Company, Cleveland, Ohio. Automobile-top. No. 51,268; Sept. 11; v. 242; p. 494.
Robb, James T., Bay Shore, and L. W. Young, assignors to The Lighting Corporation, New York, N. Y. Portable lamp. No. 51,269; Sept. 11; v. 242; p. 494.
Rothenberg, Harry, Ridgewood, N. Y. Switch-slide for portable electric lights. No. 51,241; Sept. 4; v. 242; p. 235.
Sanford, Andrew J., assignor to A. H. Heisey & Co., Newark, Ohio. Basket. No. 51,306; Sept. 25; v. 242; p. 975.
Scholle, Charles F., assignor to Elms & Sellon, New York, N. Y. Textile fabric or similar article. No. 51,242; Sept. 4; v. 242; p. 235.
Schwarber, Henry, Weehawken, assignor to Inflexible Co., West New York, N. J. Embroidered lace. Nos. 51,287–8; Sept. 18; v. 242; p. 729.
Seror, Albert Z., and E. J. Hojer, Chicago, Ill. Fan. No. 51,270; Sept. 11; v. 242; p. 494.
Sharp, Elmer R., Davenport, Iowa. Vending-machine casing. No. 51,243; Sept. 4; v. 242; p. 235.
Shibley, Edward H., St. Paul, Minn. Dental sanitary fountain. No. 51,289; Sept. 18; v. 242; p. 729.
Smith, Charles E., Leamington, Ontario, Canada. Lamp. No. 51,244; Sept. 4; v. 242; p. 235.
Sountag, August, Steinway, assignor to Weiner Brothers, New York, N. Y. Textile fabric. No. 51,290; Sept. 18; v. 242; p. 729.
Stewart, Pritchard, assignor to Hibbard, Spencer, Bartlett & Company, Chicago, Ill. Spoon, fork, or similar article. No. 51,245; Sept. 4; v. 242; p. 236.
Szopko, Stephen G., New York, N. Y. Toy monkey. No. 51,309; Sept. 25; v. 242; p. 975.
Thomas, George B., assignor to The Bryant Electric Company, Bridgeport, Conn. Snap-switch cover. No. 51,271; Sept. 11; v. 242; p. 495.
Tiffany & Co. (See Whitehouse, Frederick W., assignor.)
Turner, Enid, Los Gatos, Cal. Toy. No. 51,246; Sept. 4; v. 242; p. 336.
Unit Construction Company, The. (See Dalley, Henry A., assignor.)
Vorel, Frank, Roy, Mont. Screw. No. 51,291; Sept. 18; v. 242; p. 729.
Watson, James H., Jr., Bronxville, N. Y. Tobacco-pouch. No. 51,247; Sept. 4; v. 242; p. 236.
Watters, Charles J., assignor to North American Lace Company, Philadelphia, Pa. Lace panel. No. 51,310; Sept. 25; v. 242; p. 975.
Weiner Brothers. (See Sonntag, August, assignor.)
Werner, Charles, Cleveland, Ohio. Arm for lighting-fixtures. Nos. 51,292–3; Sept. 18; v. 242; p. 730.
Western Gas Fixture Co., The. (See Crowell, Frank S., assignor.)
White, Edwin L., Brooklyn, N. Y. Hanger for light-transmitting bowls. No. 51,272; Sept. 11; v. 242; p. 495.
Whitehouse, Frederick W., Pelham, assignor to Tiffany & Co., New York, N. Y. Badge or emblem. No. 51,248; Sept. 4; v. 242; p. 236.
Winters, Harry E., Davenport, Iowa. Casing for egg-candling devices. No. 51,273; Sept. 11; v. 242; p. 495.
Woodbury, Carl, Los Angeles, Cal. Headlight-lens. No. 51,274; Sept. 11; v. 242; p. 495.
Young, Lorin W. (See Robb and Young.)
Zagora, Joseph, Racine, Wis. Footstool. No. 51,262; Sept. 11; v. 242; p. 493.

ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

A. Kreamer, Inc., Brooklyn, N. Y. Certain named hardware, plumbing, and steam-fitting supplies. No. 118,673; Sept. 25; v. 242; p. 988.
A. Kreamer, Inc., Brooklyn, N. Y. Marking-pots. No. 118,674; Sept. 25; v. 242; p. 989.
A. J. Long Cigar & Grocery Co., Macon, Ga. Self-rising wheat-flour. No. 118,422; Sept. 4; v. 242; p. 250.
A. N. Palmer Company, The, Cedar Rapids, Iowa. Writing-paper. No. 118,692; Sept. 25; v. 242; p. 989.
Acushnet Process Co., New Bedford, Mass. Rubber. No. 118,479; Sept. 18; v. 242; p. 743.
Adirondack Leather Co. Inc., New York, N. Y. Patent upper-leathers. No. 118,370; Sept. 4; v. 242; p. 249.
Aladdin Products Co., New York, N. Y. Incense vessels. No. 118,481; Sept. 18; v. 242; p. 743.
Alexe, Frank, New York, N. Y. Sole-leather mat and runner. No. 118,482; Sept. 18; v. 242; p. 743.
Alfred J. Brown Seed Co., Grand Rapids, Mich. Seeds. No. 118,379; Sept. 4; v. 242; p. 249.
Allworth Company, The, Chicago, Ill. Carbon-remover. No. 118,371; Sept. 4; v. 242; p. 249.
American Papeterie Company, Albany and New York, N. Y.; Chicago, Ill., and San Francisco, Cal. Writing-paper. No. 118,483; Sept. 18; v. 242; p. 743.
American Tobacco Co., The, New York, N. Y. Smoking and chewing tobacco, tobacco plugs, and cigarettes. No. 118,372; Sept. 4; v. 242; p. 249.
American Wringer Company, The, New York, N. Y. Clothes-wringers and parts thereof. No. 118,458; Sept. 11; v. 242; p. 513.
Anciens Etablissements A. Combe & Fils & Cie., Paris, France. Leather and skins. No. 118,459; Sept. 11; v. 242; p. 513.
Anglo-American Mill Co., The, Owensboro, Ky. Flour-mills. No. 118,613; Sept. 25; v. 242; p. 987.
Armstrong Packing Company, Dallas, Tex. Bacon. No. 118,373; Sept. 4; v. 242; p. 249.
Armstrong Packing Company, Dallas, Tex. Lard substitute compound of cotton-seed oil and oleo-stearin. No. 118,484; Sept. 18; v. 242; p. 743.
Armstrong Packing Company, Dallas, Tex. Shortening composed of cotton-seed oil and oleo-stearin. No. 118,485; Sept. 18; v. 242; p. 743.
Armstrong Seatag Corporation, Hampton, Va. Canned raw oysters. No. 118,374; Sept. 4; v. 242; p. 249.
Ash Grove Lime & Portland Cement Co., Kansas City, Mo. Soil corrective and fertilizer. No. 118,460; Sept. 11; v. 242; p. 513.
Atlantic Trust Company, Jacksonville, Fla. Brooms. No. 118,375; Sept. 4; v. 242; p. 249.
Automobile Accessories Co., Baltimore, Md. Piston-rings. No. 118,486; Sept. 18; v. 242; p. 743.
Averell, Albert J., Medford, Oreg. Electric spitters. No. 118,614; Sept. 25; v. 242; p. 987.
B. T. Babbitt Corporation, Jersey City, N. J., and New York, N. Y. Soap powder. No. 118,615; Sept. 25; v. 242; p. 987.
Baers', Canton, Ohio. Monthly publication. No. 118,487; Sept. 18; v. 242; p. 743.
Bailey, Martin, Jersey City, N. J. Malt liquors. No. 118,616; Sept. 25; v. 242; p. 987.
Balboa Amusement Producing Company, Long Beach, Cal. Both positive and negative cineograph and moving-picture films. No. 118,617; Sept. 25; v. 242; p. 987.
Ballard, Elijah F., Dallas, Tex. Certain polish for floor-surfaces, furniture, and automobiles. No. 118,618; Sept. 25; v. 242; p. 987.
Beau-Site Company, New York, N. Y. Coffee. No. 118,376; Sept. 4; v. 242; p. 249.
Beaver Motor Devices Co., Buffalo, N. Y. Baggage-carriers used as attachments to vehicles. No. 118,377; Sept. 4; v. 242; p. 249.
Beggs Manufacturing Company, Chicago, Ill. Medicinal preparation with laxative or cathartic properties. No. 118,488; Sept. 18; v. 242; p. 743.
Bender Company, J. S., New York, N. Y., assignors to Bender-Spitz Company. Hair-nets. No. 118,378; Sept. 4; v. 242; p. 249.
Bender-Spitz Company. (See Bender Company, J. S., assignors.)
Berninger & Henry, Allentown, Pa. Cigars, cheroots, and little cigars. No. 118,489; Sept. 18; v. 242; p. 743.
Bibb Manufacturing Company, Macon, Ga. Cotton cloth in the shape of piece goods. No. 118,619; Sept. 25; v. 242; p. 987.
Birdsey-Somers Company, New York, N. Y. Corsets. No. 118,620; Sept. 25; v. 242; p. 987.
Bowden & Company, J. B., New York, N. Y. Finger-rings of all kinds. No. 118,491; Sept. 18; v. 242; p. 743.
Bradford Motor Works, Bradford, Pa. Certain named oil-well supplies. No. 118,624; Sept. 25; v. 242; p. 987.
Brown Durrell Co., Boston, Mass. Certain named fancy goods, furnishings, and notions. No. 118,380; Sept. 4; v. 242; p. 249.
Buckhorn Lithia Water Co., Bullock, N. C. Non-alcoholic carbonated tonic beverage to be sold as a soft drink. No. 118,492; Sept. 18; v. 242; p. 743.
Buffalo House Wrecking & Salvage Co., Buffalo, N. Y. Rubber roofing and is a prepared roofing made of asphalt, rags, &c. No. 118,462; Sept. 11; v. 242; p. 513.
Burger, Iwan, New York, N. Y. Canned sardines. No. 118,493; Sept. 18; v. 242; p. 743.
Burgess Sulphite Fibre Co., Berlin, N. H. Caustic soda. No. 118,494; Sept. 18; v. 242; p. 743.
Busch, Arthur H., Cleveland, Ohio. Salves and pastes for diseases of the skin, external infections, sores, burns, &c. No. 118,495; Sept. 18; v. 242; p. 743.
Callaway, Robert M., assignor to Wanda-lusta Company of America, Atlanta, Ga. Liquid cleansing compound. No. 118,625; Sept. 25; v. 242; p. 987.
Capital City Dairy Company, Columbus, Ohio. Oleomargarin. No. 118,463; Sept. 11; v. 242; p. 513.
Carmel & Goodman, Baltimore, Md. Middy blouses, skirts, and suits for children, misses, and ladies and children's dresses. No. 118,626; Sept. 25; v. 242; p. 987.
Charles E. Shedaker & Sons, Philadelphia, Pa. Custom top dress, negligée, and work shirts. No. 118,707; Sept. 25; v. 242; p. 990.
Charles E. Weyand & Co. Inc., New York, N. Y. Writing-paper and envelops. Nos. 118,604–7; Sept. 18; v. 242; p. 747.
Charles William Stores, Inc., The, Brooklyn, N. Y. Sewing-machines. No. 118,723; Sept. 25; v. 242; p. 990.
Chas. F. L'Hommedieu & Sons Co., Chicago, Ill. Certain named abrasive, detergent, and polishing materials. No. 118,678; Sept. 25; v. 242; p. 989.
Chase & Company, L. C., Boston, Mass. Certain named knitted, netted, and textile fabrics. No. 118,383; Sept. 4; v. 242; p. 249.
Chicago Record-Herald Company, The, Chicago, Ill. Series of cartoons. No. 118,496; Sept. 18; v. 242; p. 743.
Childs Company, New York, N. Y. Monthly periodical. No. 118,384; Sept. 4; v. 242; p. 249.
Cloutier & Jarvis, Claremont, N. H. Hair-wash. No. 118,385; Sept. 4; v. 242; p. 249.
Cluett, Peabody & Co. Inc., Troy, N. Y. Collars, shirts, cuffs, pajamas, and bath-robes. No. 118,386; Sept. 4; v. 242; p. 249.
Cocotone Chemical Company, Los Angeles, Cal. Hair-tonic, dandruff-remover, scalp-cleanser. No. 118,498; Sept. 18; v. 242; p. 743.
Colgate & Co., Jersey City, N. J., and New York, N. Y. Soaps. No. 118,627; Sept. 25; v. 242; p. 987.
Columbia Leather Goods Mfg. Co. Inc., New York, N. Y. Men's belts. No. 118,387; Sept. 4; v. 242; p. 249.
Community Marvel Millers' Association, Owensboro, Ky. Wheat-flour. No. 118,388; Sept. 4; v. 242; p. 249.
Continental Motors Corporation, Detroit, Mich. Internal-combustion engines, clutches, and their parts. No. 118,628; Sept. 25; v. 242; p. 987.
Converse Rubber Shoe Co., Malden, Mass. Boots and shoes made of rubber and canvas. No. 118,389; Sept. 4; v. 242; p. 249.
Coventry Chain Company Ltd., The, Coventry, England. Drive-chains of ordinary metal for general purposes in the transmission of power. No. 118,390; Sept. 4; v. 242; p. 249.
Crown Overall Manufacturing Company, The, Cincinnati, Ohio. Overalls and one-piece overall-suits. No. 118,629; Sept. 25; v. 242; p. 987.
D. L. Marx Co., Cairo, Ill. Men's and women's overalls, work-pants, and shirts. No. 118,681; Sept. 25; v. 242; p. 989.
Daniels, Jay V., Chicago, Ill. Preparation for removing superfluous hair. No. 118,500; Sept. 18; v. 242; p. 743.
Darling & Company, Chicago, Ill. Foods—namely, prepared stock and poultry foods. No. 118,501; Sept. 18; v. 242; p. 743.
Darling & Company, Chicago, Ill. Prepared animal and poultry foods. No. 118,391; Sept. 4; v. 242; p. 249.
De Luxe Mfg. Co., Chicago, Ill. Dyes in soluble tablet form. No. 118,630; Sept. 25; v. 242; p. 987.
Delscamp-Roemhildt Company, Dayton, Ohio. Certain named paints and painters' materials. No. 118,631; Sept. 25; v. 242; p. 987.
Deuel, Avery G., Rock Springs, Wyo. Certain named chemicals, medicines, and pharmaceutical preparations. No. 118,632; Sept. 25; v. 242; p. 987.
Diamond Ink Co., Milwaukee, Wis. Writing fluid, red ink, fountain-pen ink. No. 118,392; Sept. 4; v. 242; p. 249.
Diamond Ink Co., Milwaukee, Wis. Certain named inks and inking materials. No. 118,633; Sept. 25; v. 242; p. 987.

Digestive Ferments Co., Detroit, Mich. Milk-curdling products. No. 118,634; Sept. 25; v. 242; p. 987.
Draper Corporation, Hopedale, Mass. Serial publication. No. 118,502; Sept. 18; v. 242; p. 743.
Dry Milk Company, The, New York, N. Y. Desiccated milk. No. 118,503; Sept. 18; v. 242; p. 743.
Dubois Watch Case Company, Brooklyn, N. Y. Watches. No. 118,635; Sept. 25; v. 242; p. 987.
Dun Co., R. G., New York, N. Y. Title of a monthly publication. No. 118,504; Sept. 18; v. 242; p. 743.
Duncan, William, Toronto, Ontario, Canada. Bacterolysin for certain named animal complaints. No. 118,505; Sept. 18; v. 242; p. 743.
Durex Chemical Corporation, New York, N. Y., and Sweetwater, Tenn. Filler or pigment for use in the manufacture of rubber tires. No. 118,393; Sept. 4; v. 242; p. 249.
Durex Chemical Corporation, New York, N. Y., and Sweetwater, Tenn. Paint-pigments, enamels, and ready-mixed paints for wall-finishing. No. 118,636; Sept. 25; v. 242; p. 987.
Durkee-Atwood Co., Minneapolis, Minn. Automobile-patches. No. 118,394; Sept. 4; v. 242; p. 249.
E. G. Stande Manufacturing Co., St. Paul, Minn. Tractors. No. 118,715; Sept. 25; v. 242; p. 990.
E. S. Kibbe Company, The, Hartford, Conn. Canned vegetables and fruits. No. 118,541; Sept. 18; v. 242; p. 745.
E. W. Conklin & Son, Inc., Binghamton, N. Y. Seed-corn, timothy and clover seeds. No. 118,499; Sept. 18; v. 242; p. 743.
Eastman Kodak Co., Rochester, N. Y. Photographic plates. No. 118,637; Sept. 25; v. 242; p. 987.
Eastman Kodak Co., Rochester, N. Y. Photographic paper. No. 118,638; Sept. 25; v. 242; p. 987.
Eastman Kodak Co., Rochester, N. Y. Photographic plates. No. 118,639; Sept. 25; v. 242; p. 987.
Edmands Coffee Company, Boston and Worcester, Mass., and Detroit, Mich. Coffee, tea, and cocoa. No. 118,395; Sept. 4; v. 242; p. 249.
Egypt Silk Mills Corporation, Egypt, Pa., and New York, N. Y. Piece goods in silk, known as broad silks. No. 118,464; Sept. 11; v. 242; p. 513.
El Moro Co., Schenectady, N. Y. Face rouge and powder. No. 118,397; Sept. 4; v. 242; p. 249.
Elacs Co., The, Greenville, S. C. Salves and ointments for certain named afflictions. No. 118,506; Sept. 18; v. 242; p. 744.
Electric Cable Co., The, Bridgeport, Conn. Rubber-covered electrical wires and cables. No. 118,640; Sept. 25; v. 242; p. 987.
Electric Ignition Company (1913) Limited, Birmingham, England. Certain named electrical appliances. No. 118,641; Sept. 25; v. 242; p. 988.
Elite Electric Co., Cleveland, Wis. Batteries, generators, and switchboards. No. 118,642; Sept. 25; v. 242; p. 988.
Emerson Electric Manufacturing Company, The, St. Louis, Mo. Title of a monthly publication. No. 118,507; Sept. 18; v. 242; p. 744.
Enterprise Electric Novelty Co. Inc., New York, N. Y. Certain named electrical apparatus and supplies. No. 118,643; Sept. 25; v. 242; p. 988.
Erdeky, Kálmán, Pittsburgh, Pa. Certain named pharmaceutical preparation. No. 118,508; Sept. 18; v. 242; p. 744.
Esta Water Auxiliator Co. Inc., New York, N. Y. Humidifiers for internal-combustion engines. Nos. 118,644–5; Sept. 25; v. 242; p. 988.
Estate of H. C. Minor, Houma, La. Stock feed. No. 118,427; Sept. 4; v. 242; p. 250.
Estate Henry C. Miner, Incorporated, New York, N. Y. Face-powders. No. 118,426; Sept. 4; v. 242; p. 250.
Esterbrook Steel Pen Mfg. Co., The, Camden, N. J. Writing-pens of all kinds. No. 118,509; Sept. 18; v. 242; p. 744.
F. Blumenthal Company, New York, N. Y. Leather. No. 118,490; Sept. 18; v. 242; p. 743.
Fairley-Davidson Steel Co. Inc., The, New York, N. Y. Certain named metals and metal castings and forgings. No. 118,646; Sept. 25; v. 242; p. 988.
Favorita Co., The, New York, N. Y. Remedy for removing dandruff. No. 118,510; Sept. 18; v. 242; p. 744.
Fe-Te-Zo Company, The, Greenville, Tex. Medical preparation for diseases of the human feet. No. 118,513; Sept. 18; v. 242; p. 744.
Fellows Medical Manufacturing Company Inc., New York, N. Y. Preparation of hypophosphites. No. 118,398; Sept. 4; v. 242; p. 249.
Felsenthal Bros. & Co., Chicago, Ill. Imitation leather. No. 118,511; Sept. 18; v. 242; p. 744.
Ferguson Synstone Company, The, Denver, Colo. Concrete-block-making machinery. No. 118,647; Sept. 25; v. 242; p. 988.
Fernandez & Sons, Celestino, New York, N. Y. Writing and printing paper. No. 118,512; Sept. 18; v. 242; p. 744.
Field, William A., Kansas City, Mo. Brooms. No. 118,399; Sept. 4; v. 242; p. 250.
Fisher Flouring Mills Company, Seattle, Wash. Wheat-flour. No. 118,465; Sept. 11; v. 242; p. 513.
Fisher, George A., Merchantville, N. J. Plastic roof-covering compound. No. 118,400; Sept. 4; v. 242; p. 250.
Fligel, Benjamin, New York, N. Y. Rain-coats. No. 118,648; Sept. 25; v. 242; p. 988.
Forstmann & Huffmann Co., Passaic, N. J. Woolen and worsted piece goods. No. 118,650; Sept. 25; v. 242; p. 988.
Fort Smith Coffee Company, Fort Smith, Ark. Rice. No. 118,401; Sept. 4; v. 242; p. 250.
Frank Jones Brewing Co. Ltd., London, England, and Portsmouth, N. H. Maltless beverage to be sold as a soft drink. No. 118,536; Sept. 18; v. 242; p. 744.
General Fireproofing Company, The, Youngstown, Ohio. Monthly furniture house organ periodicals. No. 118,515; Sept. 18; v. 242; p. 744.
George Borgfeldt & Co., New York, N. Y. Tooth, nail, hair, clothes, and kitchen brushes. No. 118,461; Sept. 11; v. 242; p. 513.
George Borgfeldt & Co., New York, N. Y. Certain named chemicals and pharmaceutical preparations. No. 118,623; Sept. 25; v. 242; p. 987.
Gessner Co., G. F., Cleveland, Ohio. Certain named foods and ingredients of foods. No. 118,516; Sept. 18; v. 242; p. 744.
Goldman Costume Company, New York, N. Y. Certain named brushes, brooms, and dusters. No. 118,402; Sept. 4; v. 242; p. 250.
Goldman Costume Company, New York, N. Y. Certain named knitted, netted, and textile fabrics. No. 118,403; Sept. 4; v. 242; p. 250.
Goldman Costume Company, New York, N. Y. Certain named electrical apparatus, machines, and supplies. No. 118,404; Sept. 4; v. 242; p. 250.
Goldman Costume Company, New York, N. Y. Certain named paints and painters' materials. No. 118,405; Sept. 4; v. 242; p. 250.
Goldman Costume Company, New York, N. Y. Certain named fancy goods, furnishings, and notions. No. 118,406; Sept. 4; v. 242; p. 250.
Goldman Costume Company, New York, N. Y. Crockery, earthenware, porcelain and china dishes, and kitchen-receptacles. No. 118,466; Sept. 11; v. 242; p. 513.
Goldman Costume Company, New York, N. Y. Certain named jewelry and precious-metal ware. No. 118,517; Sept. 18; v. 242; p. 744.
Goldman Costume Company, New York, N. Y. Certain named games, toys, and sporting goods. No. 118,518; Sept. 18; v. 242; p. 744.
Goldman Costume Company, New York, N. Y. Certain named smokers' articles. No. 118,519; Sept. 18; v. 242; p. 744.
Goldman Costume Company, New York, N. Y. Certain named clothing for men and women. No. 118,652; Sept. 25; v. 242; p. 988.
Goldman Costume Company, New York, N. Y. Certain named measuring and scientific appliances. No. 118,653; Sept. 25; v. 242; p. 988.
Goldman Costume Company, New York, N. Y. Candles, type-writer and machine oil, lubricants, and paraffin. No. 118,654; Sept. 25; v. 242; p. 988.
Goodyear Tire and Rubber Company, The, Akron, Ohio. Edge-stain for shoe soles and heels. No. 118,655; Sept. 25; v. 242; p. 988.
Goss, a Firm, W. H., Stoke-upon-Trent, England. Certain named articles made of porcelain, china, or earthenware. No. 118,407; Sept. 4; v. 242; p. 250.
Grain Belt Mills Company, South St. Joseph, Mo. Mixed feeds for animals, manufactured from various grains, &c. No. 118,520; Sept. 18; v. 242; p. 744.
Great Radium Spring Water Company, Inc., Brooklyn, N. Y. Lemon-soda, ginger-ale, orangeade, birch-beer, &c. No. 118,521; Sept. 18; v. 242; p. 744.
Grosvenor Nicholas & Co. Inc., New York, N. Y. Cigarettes. No. 118,563; Sept. 18; v. 242; p. 745.
H. Boker & Co., Inc., New York, N. Y. Electric lamps. No. 118,622; Sept. 25; v. 242; p. 987.
Hackner, Barnett A., Chicago, Ill. Outer shirts, including dress, negligée, and work shirts. No. 118,522; Sept. 18; v. 242; p. 744.
Hall, Mary A., Tulsa, Okla. Hair-tonic. No. 118,657; Sept. 25; v. 242; p. 988.
Haller Baking Company, Pittsburgh, Pa. Bread. No. 118,408; Sept. 4; v. 242; p. 250.
Hallett & Co., H. M., Ludington, Mich. Polishes for woodwork, floors, furniture, &c. No. 118,658; Sept. 25; v. 242; p. 988.
Hamlin, John H., New York, N. Y. Paring-machine. No. 118,659; Sept. 25; v. 242; p. 988.
Harris, P. Stephen, Kansas City, Mo. Hair-remedy compound. No. 118,523; Sept. 18; v. 242; p. 744.
Harrison, David A., Los Angeles, Cal. Breakfast cereals and remedial foods. No. 118,524; Sept. 18; v. 242; p. 744.
Harrison, Thomas F., Augusta, Ga. Fountain-brushes and clamp for connecting water-supply-hose nozzles with the brushes. No. 118,409; Sept. 4; v. 242; p. 250.
Hazard Manufacturing Company, Wilkes-Barre, Pa. Electrical cables or conductors. No. 118,660; Sept. 25; v. 242; p. 988.
Hecker-Jones-Jewell Milling Company, New York, N. Y. Wheat-flour. No. 118,525; Sept. 18; v. 242; p. 744.
Heller & Co., B., Chicago, Ill. Ant-destroyer. No. 118,410; Sept. 4; v. 242; p. 250.
Heller & Co., B., Chicago, Ill. Bedbug-destroyer. No. 118,526; Sept. 18; v. 242; p. 744.
Heller & Co., B., Chicago, Ill. Ant-destroyer. No. 118,527; Sept. 18; v. 242; p. 744.

Hellstern, William J., New Haven, Conn. Biscuits. No. 118,411; Sept. 4; v. 242; p. 250.
Helvetia Milk Condensing Company, Highland, Ill. Canned condensed milk. No. 118,412; Sept. 4; v. 242; p. 250.
Henry Thayer & Company, Cambridge, Mass. Pills or tablets for the treatment of piles. No. 118,590; Sept. 18; v. 242; p. 746.
Hexagon Sewing Machine Company, New York, N. Y. Sewing-machines, parts thereof, and attachments. Nos. 118,661–2; Sept. 25; v. 242; p. 988.
Hogan, Samuel T., Creedmoor, Tex. Substitute for coffee. No. 118,528; Sept. 18; v. 242; p. 744.
Honolulu Ad Club, Honolulu, Hawaii. Ukuleles, musical instruments made in Hawaii. No. 118,529; Sept. 18; v. 242; p. 744.
Hosch Bros. Co., Gainesville, Ga. Overalls, dress-shirts, negligées, and work-shirts. No. 118,413; Sept. 4; v. 242; p. 250.
Howe Manufacturing Company, Chicago, Ill. Electric lamps. No. 118,663; Sept. 25; v. 242; p. 988.
Huntington, Lawrence D., Jr., Miami, Fla. Lime-juice. No. 118,467; Sept. 11; v. 242; p. 513.
Hurlock Bros. Company, Philadelphia, Pa. Paper illustration, mat, photo-mount, &c., boards. No. 118,530; Sept. 18; v. 242; p. 744.
Illinois Tool Works, Chicago, Ill. Certain named cutlery, machinery, and tools, and parts thereof. No. 118,664; Sept. 25; v. 242; p. 988.
International Clay Machinery Co., The, Dayton, Ohio. Certain named cutlery, machinery, and tools, and parts thereof. No. 118,665; Sept. 25; v. 242; p. 988.
Imperial Chemical Co. Ltd., The, Altoona, Pa. Liniments and medicinal preparations for treating certain named diseases and ailments. No. 118,414; Sept. 4; v. 242; p. 250.
Independent Trading Co. Inc., New York, N. Y. Laxative in tablet form. No. 118,531; Sept. 18; v. 242; p. 744.
International Drug Company, Wilmington, Del. Certain named chemicals, medicines, and pharmaceutical preparations. No. 118,532; Sept. 18; v. 242; p. 744.
International Soap & Manufacturing Co., Scranton, Pa. Soft soap. No. 118,666; Sept. 25; v. 242; p. 988.
Iowa City Produce Company, Iowa City, Iowa. Butter. No. 118,415; Sept. 4; v. 242; p. 250.
J. Geo. Leyner Engineering Works Company, The, Littleton, Colo. Fluid-operated drill-sharpening machines. No. 118,677; Sept. 25; v. 242; p. 989.
J. H. Burton & Co. Inc., New York, N. Y. Portable buildings. No. 118,382; Sept. 4; v. 242; p. 249.
Jablow, Jacob M., New York, N. Y. Gold and platinum chains, bracelets. No. 118,533; Sept. 18; v. 242; p. 744.
Jennings, George E., New York, N. Y. Weekly publication. No. 118,535; Sept. 18; v. 242; p. 744.
John F. Jelke Company, Chicago, Ill. Oleomargarin. No. 118,534; Sept. 18; v. 242; p. 744.
John Wyeth & Brother Incorporated, Philadelphia, Pa. Ammonium ichthosulfonate. No. 118,609; Sept. 18; v. 242; p. 747.
Joseph N. Eisendrath Company, The, Chicago, Ill. Leather. No. 118,396; Sept. 4; v. 242; p. 249.
Kamnetzky, David, Cleveland, Ohio. Title or heading of a column of humorous matter in a periodical publication. No. 118,416; Sept. 4; v. 242; p. 250.
Karatol Laboratories, Binghamton, N. Y. Toilet preparation—namely, a hair-tonic. No. 118,667; Sept. 25; v. 242; p. 988.
Karr, Charles D., Holland, Mich. Poultry-feeders. No. 118,537; Sept. 18; v. 242; p. 744.
Katama Mills, Boston, Mass. Cotton duck and bagging, tire fabric, canvas, sail and tent cloths. No. 118,417; Sept. 4; v. 242; p. 250.
Keen Kleener Manufacturing Company, Ottawa, Ill. Cleaning and scouring preparation. No. 118,538; Sept. 18; v. 242; p. 744.
Kelley-Clarke Co., Seattle, Tacoma, and Spokane, Wash.; Portland, Oreg.; San Francisco and Los Angeles, Cal.; Boise, Idaho; Vancouver, Canada, and New York, N. Y. Weekly and monthly publications. No. 118,539; Sept. 18; v. 242; p. 745.
Kellogg Toasted Corn Flake Co., Battle Creek, Mich. Soap. Nos. 118,668–9; Sept. 25; v. 242; p. 988.
Kentucky Lithograph Stone Co., Louisville, Ky. Crushed-limestone chicken-grit. No. 118,540; Sept. 18; v. 242; p. 745.
Kirkman Engineering Corporation, New York, N. Y. Cartridge and plug fuses for electrical purposes. No. 118,671; Sept. 25; v. 242; p. 988.
Konishi, Koji, Nakabashi, Tokyo, Japan. Watch-glass. No. 118,542; Sept. 18; v. 242; p. 745.
Kovacs, Daniel, Duquesne, Pa. Remedy for constipation, colic. No. 118,672; Sept. 25; v. 242; p. 988.
Kuhmarker Manufacturing Company, New York, N. Y. Waxed wrapping-paper. No. 118,543; Sept. 18; v. 242; p. 745.
L. C. Blancke Co. Inc., New York, N. Y. Hacksaw-blades. No. 118,621; Sept. 25; v. 242; p. 987.
La Favorite Rubber Manufacturing Co., Paterson, N. J. Sheet and piston packings, gaskets composed of or containing rubber. No. 118,544; Sept. 18; v. 242; p. 745.
Lake, Fred O., Washington, D. C. Outfits for vulcanizing rubber tires. No. 118,418; Sept. 4; v. 242; p. 250.
Landers, Frary & Clark, New Britain, Conn. Alloy of base metal. No. 118,675; Sept. 25; v. 242; p. 989.
Langenberg Milling Company, Republic, Mo. Wheat-flour. Nos. 118,545–6; Sept. 18; v. 242; p. 745.
Lawson & Company, Incorporated, New York, N. Y. Certain named cutlery, machinery, and tools, and parts thereof. No. 118,676; Sept. 25; v. 242; p. 989.
Lerman, Alexander, Philadelphia, Pa. Wheat-flour. No. 118,419; Sept. 4; v. 242; p. 250.
Liberty Motor Car Company, Detroit, Mich. Automobiles. No. 118,420; Sept. 4; v. 242; p. 250.
Lima Locomotive Works, Inc., Lima, Ohio. Steam-locomotives. No. 118,679; Sept. 25; v. 242; p. 989.
Linograph Company, The, Davenport, Iowa. Publication published at irregular intervals. No. 118,547; Sept. 18; v. 242; p. 746.
Loeb & Schoenfeld Company, Wilmington, Del.; Camden, N. J., and New York, N. Y. Lace curtains, draperies, and ornamental door and window hangings of textile material. No. 118,421; Sept. 4; v. 242; p. 250.
London, Christiane R., Chicago, Ill. Hair-tonics. No. 118,611; Sept. 18; v. 242; p. 747.
Lubrex Oil & Grease Company, Pittsburgh, Pa. Lubricating oils and greases. No. 118,680; Sept. 25; v. 242; p. 989.
M. A. Gedney Company, Minneapolis, Minn. Sauer-kraut and dill pickles. No. 118,514; Sept. 18; v. 242; p. 744.
Maass & Kemper (a New Jersey Corp.), Baltimore, Md. Middy-blouses, children's dresses, misses' and ladies' cotton suits. No. 118,423; Sept. 4; v. 242; p. 250.
Machine Appliance Corporation, Brooklyn, N. Y. Eyelets for fastening purposes. No. 118,550; Sept. 18; v. 242; p. 745.
Maley, Charles E., Little York, Ill. Liniments and remedies for bruises, sores, internal and external wounds, abrasions. No. 118,424; Sept. 4; v. 242; p. 250.
Martin, G. B., Frankfort, Ind. Certain named chemicals, medicines, and pharmaceutical preparations. No. 118,551; Sept. 18; v. 242; p. 745.
Martins Birmingham Limited, Birmingham, England. Certain named fancy goods, furnishings, and notions. No. 118,425; Sept. 4; v. 242; p. 250.
McAdamite-Aluminum Company, Detroit, Mich. Aluminum alloy (McAdamite) in various forms, castings, and ingots. No. 118,682; Sept. 25; v. 242; p. 989.
McLeod, William A., Joliet, Ill., and South Bend, Ind. Cold-cream, complexion-powder, rouge, toilet water, perfume, and shampoo. No. 118,548; Sept. 18; v. 242; p. 745.
McNamara & Marlow, Inc., Big Sandy, Mont. White, whole-wheat, and Graham flours, bran, and shorts. No. 118,549; Sept. 18; v. 242; p. 745.
Mead Pulp and Paper Co., The, Dayton, Ohio. Print-paper in sheet form. No. 118,552; Sept. 18; v. 242; p. 745.
Mead Pulp and Paper Co., The, Dayton, Ohio. Sheet-paper for the printing trade. No. 118,553; Sept. 18; v. 242; p. 745.
Meisel Press Manufacturing Company, Boston, Mass. Gears. No. 118,683; Sept. 25; v. 242; p. 989.
Michael, John M., Aberdeen, Md. Canned vegetables. No. 118,554; Sept. 18; v. 242; p. 745.
Michele Ajello Co. Inc., Brooklyn, N. Y. Canned olive-oil. No. 118,480; Sept. 18; v. 242; p. 743.
Miller Safety Tooth Brush Company, Boston, Mass. Tooth, hair, and shaving brushes. No. 118,468; Sept. 11; v. 242; p. 513.
Milo Beverage Co., Milwaukee, Wis. Non-intoxicating malt beverage sold as a soft drink. No. 118,469; Sept. 11; v. 242; p. 513.
Mitchell, Ralph, Aberdeen, Md. Canned vegetables. No. 118,428; Sept. 4; v. 242; p. 250.
Mixola Company, New Haven, Conn. Soft drinks. No. 118,555; Sept. 18; v. 242; p. 745.
Modern Flour Mills, Macon, Ga. Self-rising wheat-flour. No. 118,556; Sept. 18; v. 242; p. 745.
Mohawk Valley Supply Co., Inc., Herkimer, N. Y. Preparation for removing tar and similar spots from vehicle-bodies, fabrics, and the like. No. 118,557; Sept. 18; v. 242; p. 745.
Moline Plow Co., Moline, Ill. Traction-engines. No. 118,684; Sept. 25; v. 242; p. 989.
Morton & Maguire Inc., Paterson, N. J. Ready-mixed paints. No. 118,685; Sept. 25; v. 242; p. 989.
Morton Sundour Fabrics, Ltd., Carlisle, England. Textile fabrics comprising cloths made from certain materials or a mixture of same. No. 118,686; Sept. 25; v. 242; p. 989.
Mosso, Bessie L., Chicago, Ill. Dressing for open wounds and a liniment for external use for the relief of pain. No. 118,558; Sept. 18; v. 242; p. 745.
Motor Sales Garage Company, East Orange, N. J. Lubricating motor-oil. No. 118,687; Sept. 25; v. 242; p. 989.
Murigillo, Rocco M. S. G., Morristown, N. J. Abscesses and cataracts. No. 118,559; Sept. 18; v. 242; p. 745.
National Candy Company, Jersey City, N. J., and St. Louis, Mo. Candies. No. 118,560; Sept. 18; v. 242; p. 745.
National Supply Company, The, Toledo, Ohio. Certain named belting, hose, tubing, packing, gaskets, and washers. No. 118,561; Sept. 18; v. 242; p. 745.
Neef Bros. Brewing Company, The, Denver, Colo. Near beer. No. 118,688; Sept. 25; v. 242; p. 989.
Nelson H. Brown, Boston, Mass. Clocks. No. 118,381; Sept. 4; v. 242; p. 249.

New York Grocery Company, Newark, N. J. Coffee. No. 118,562; Sept. 18; v. 242; p. 745.
Niles-Bement-Pond Company, New York, N. Y. Certain named cutlery, machinery, and tools, and parts thereof. No. 118,689; Sept. 25; v. 242; p. 989.
Northwestern Manufacturing Company, The, Milwaukee, Wis. Electric motors, dynamos, &c. No. 118,690; Sept. 25; v. 242; p. 989.
Nut Products Co., New Haven, Conn. Nut paste for the preparation of certain named foods. No. 118,564; Sept. 18; v. 242; p. 745.
Oakland Motor Car Co. of Michigan, Pontiac, Mich. Automobiles. No. 118,565; Sept. 18; v. 242; p. 745.
Olivoint Chemical Company, San Francisco, Cal. Skin irritations, sun and wind burn, poison-oak, cuts, &c. No. 118,566; Sept. 18; v. 242; p. 745.
Oneida Community, Limited, Oneida, N. Y. Animal-traps. No. 118,567; Sept. 18; v. 242; p. 745.
Orton, Edward, Jr., Columbus, Ohio. Standard pyrometric cones. No. 118,691; Sept. 25; v. 242; p. 989.
Owens, George L., Sioux City, Iowa. Medicated salt preparations for live stock. No. 118,568; Sept. 18; v. 242; p. 745.
P. E. Sharpless Company, Philadelphia, Pa. Soft cheese. No. 118,476; Sept. 11; v. 242; p. 513.
Pabst Brewing Company, Milwaukee, Wis. Certain named non-alcoholic beverages. No. 118,470; Sept. 11; v. 242; p. 513.
Parker, James D., Kansas City, Mo. Ventilating, circulating, exhaust fans, ventilating-blowers, steam, hot-water, and fluid-heat radiators. No. 118,471; Sept. 11; v. 242; p. 513.
Peabody & Company, Henry W., New York, N. Y. Cigars. No. 118,569; Sept. 18; v. 242; p. 745.
Pejepscot Paper Company, New York, N. Y. News-print paper. No. 118,429; Sept. 4; v. 242; p. 250.
Peter A. Frasse & Co., Inc., New York, N. Y. Steel rods, bars, and wires, cold-rolled sheet and strip steel. No. 118,651; Sept. 25; v. 242; p. 988.
Peter Pan Film Corporation, Eddyville, N. Y. Photographic films, including motion-picture films. No. 118,693; Sept. 25; v. 242; p. 989.
Philadelphia Quartz Company, Philadelphia, Pa. Sodium silicate. No. 118,571; Sept. 18; v. 242; p. 745.
Poehlmann, Andrew T., Baltimore, Md. Electrical signal and alarm bells and horns. No. 118,694; Sept. 25; v. 242; p. 989.
Porcupine Publishing Company, Inc., New York, N. Y. Periodicals published monthly. No. 118,572; Sept. 18; v. 242; p. 746.
Pratt & Whitney Company, New York, N. Y. Certain named cutlery, machinery, and tools, and parts thereof. No. 118,695; Sept. 25; v. 242; p. 989.
President Suspender Company, Shirley, Mass. Suspenders. No. 118,573; Sept. 18; v. 242; p. 746.
Quincy Show Case Works, Quincy, Ill. Wall-case. No. 118,472; Sept. 11; v. 242; p. 513.
Rapid-Shine Products Co., St. Louis, Mo. Liquid polish for cleaning and polishing painted, varnished, and auto-body enameled surfaces. No. 118,696; Sept. 25; v. 242; p. 989.
Rathbone Sard Electric Company, Inc., Albany, N. Y. Electric stoves and ranges. No. 118,697; Sept. 25; v. 242; p. 989.
Reliance Electric & Engineering Company, The, Cleveland, Ohio. Direct and alternating current electric motors. No. 118,698; Sept. 25; v. 242; p. 989.
Reliance Manufacturing Company, Chicago, Ill. Chambray. No. 118,699; Sept. 25; v. 242; p. 989.
Remington, Oscar R., Chicago, Ill. Medical preparation used for external application as an eye remedy. No. 118,700; Sept. 25; v. 242; p. 989.
Rice & Hutchins, Incorporated, Boston, Mass. Certain named clothing for men, women, and children. No. 118,430; Sept. 4; v. 242; p. 250.
Ritchie, William J., Allentown, Pa. Remedies for indigestion and stomach disorders. No. 118,574; Sept. 18; v. 242; p. 746.
Riveroll, Carlos M., Laredo, Tex. Anemia-tablets. No. 118,701; Sept. 25; v. 242; p. 989.
Riverside Oil Company, Pittsburgh, Pa. Lubricating-grease and illuminating-oils, carbon-oil, petroleum, &c. No. 118,702; Sept. 25; v. 242; p. 989.
Rode Watch Company, New York, N. Y. Watches. No. 118,703; Sept. 25; v. 242; p. 989.
Rose Patch & Label Co., The, Grand Rapids, Mich. Blank labels. No. 118,575; Sept. 18; v. 242; p. 746.
Roussel, Jules G., New Orleans, La. Liniment for certain named ailments. No. 118,576; Sept. 18; v. 242; p. 746.
S. Flory Mfg. Co., Bangor, Pa. Certain named cutlery, machinery, and tools, and parts thereof. No. 118,649; Sept. 25; v. 242; p. 988.
Sanger Brothers, Dallas and Waco, Tex., and New York, N. Y. Ladies' and children's dresses, aprons, and apron-dress. No. 118,431; Sept. 4; v. 242; p. 251.
Sauquoit Toilet Paper Co., New Hartford, N. Y. Toilet-paper. Nos. 118,704–5; Sept. 25; v. 242; pp. 989–90.
Scher, Barney, New York, N. Y. Kitchen and parlor chairs, bedsteads, rockers, &c. No. 118,473; Sept. 11; v. 242; p. 513.
Schickel Motor Co., The, Stamford, Conn. Motor-cycles. No. 118,474; Sept. 11; v. 242; p. 513.
Scott County Milling Company, Sikeston, Mo. Wheat-flour. Nos. 118,432–5; Sept. 4; v. 242; p. 251.
Scott County Milling Company, Sikeston, Mo. Self-rising wheat-flour. No. 118,436; Sept. 4; v. 242; p. 251.
Scott County Milling Company, Sikeston, Mo. Self-rising wheat-flour. No. 118,475; Sept. 11; v. 242; p. 513.
Sears, Roebuck and Co., Chicago, Ill. Certain named undermuslins. No. 118,437; Sept. 4; v. 242; p. 251.
Seneca Food & Drug Co., Waterloo, N. Y. Food for infants and invalids. No. 118,577; Sept. 18; v. 242; p. 746.
Service Motor Supply Company, Chicago, Ill. Monthly magazine. No. 118,578; Sept. 18; v. 242; p. 746.
Shapero, Lewis & Co., New York, N. Y. Ladies' and misses' dresses. No. 118,438; Sept. 4; v. 242; p. 251.
Shatto, Clyde O., Sharon, Pa. Preparation in powder form for curing perspiration of the feet. No. 118,579; Sept. 18; v. 242; p. 746.
Shea Smith & Co., Chicago, Ill. Certain named paper and stationery. No. 118,580; Sept. 18; v. 242; p. 746.
Shea Smith & Co., Chicago, Ill. Carbon-impression tablets and carbon and copying papers. No. 118,706; Sept. 25; v. 242; p. 990.
Sheldon School, The, Area and Chicago, Ill. Publications used in teaching scientific salesmanship, published periodically. Nos. 118,439–40; Sept. 4; v. 242; p. 251.
Shoemaker, John F., Des Moines, Iowa. Checks, check-books, and check-book holders or temporary binders. No. 118,581; Sept. 18; v. 242; p. 746.
Singer Manufacturing Company, The, New York, N. Y. Electric motors for sewing-machines and controllers therefor. Nos. 118,708–11; Sept. 25; v. 242; p. 990.
Society of Chemical Industry in Basle, Basel, Switzerland. Pharmaceutical product containing all the alkaloids of opium and particularly applicable for sedative purposes. No. 118,582; Sept. 18; v. 242; p. 746.
Society of Chemical Industry in Basle, Basel, Switzerland. Certain named pharmaceutical product. No. 118,583; Sept. 18; v. 242; p. 746.
Solomon, John A., Omaha, Nebr. Bath-cabinets. No. 118,712; Sept. 25; v. 242; p. 990.
Sonora Phonograph Corporation, New York, N. Y. Certain named musical instruments and supplies. No. 118,584; Sept. 18; v. 242; p. 746.
South American Shipping Company, New York, N. Y. Structural cement. No. 118,441; Sept. 4; v. 242; p. 251.
Southern Railway Supply and Equipment Co., St. Louis, Mo. Rubber and fabric hose, rubber belting and packing. No. 118,442; Sept. 4; v. 242; p. 251.
Southern Railway Supply and Equipment Co., St. Louis, Mo. Scoops, shovels, spades, picks, and hoes. No. 118,713; Sept. 25; v. 242; p. 990.
Southland Garment Mfg. Company, Houston, Tex. Dresses, outer skirts, shirt-waists, middy-blouses. No. 118,443; Sept. 4; v. 242; p. 251.
Southwestern Milling Company, Inc., New York, N. Y., and Kansas City, Mo. Wheat-flour. No. 118,612; Sept. 18; v. 242; p. 747.
Sparhawk, Charles V., New York, N. Y. Certain named chemicals, medicines, and pharmaceutical preparations. No. 118,585; Sept. 18; v. 242; p. 746.
Speer Carbon Company, St. Marys, Pa. Negative carbon used for illumination and projection. No. 118,714; Sept. 25; v. 242; p. 990.
Stanick, Joseph, Saginaw, Mich. Certain named theatrical make-up cosmetics. No. 118,586; Sept. 18; v. 242; p. 746.
Staso Laminated Slate Company, Chicago, Ill. Crushed slate for use as a surfacing-grit for prepared roofings. No. 118,444; Sept. 4; v. 242; p. 251.
Staybestos Manufacturing Company, Philadelphia, Pa. Brakelinings and transmission-linings. No. 118,445; Sept. 4; v. 242; p. 251.
Steel and Iron Mongers Inc., Newark, N. J. Hammers, saws, and ice-picks. No. 118,716; Sept. 25; v. 242; p. 990.
Sterilized Egg Co., Chicago, Ill. Compound of neutral mineral oil used in a process for sterilizing eggs. No. 118,587; Sept. 18; v. 242; p. 746.
Sterling Equipment & Supply Company, Wilmington, Del., and Philadelphia, Pa. Certain named chemicals for treating boilers and neutralizing acids of the feed-water. No. 118,588; Sept. 18; v. 242; p. 746.
Sulloway Mills, Franklin, N. H. Hosiery. No. 118,446; Sept. 4; v. 242; p. 251.
Texas Company, The, Houston and Port Arthur, Tex., and New York, N. Y. Kerosene. No. 118,717; Sept. 25; v. 242; p. 990.
Textile Publishing Company, New York, N. Y. Certain named prints and publications. No. 118,589; Sept. 18; v. 242; p. 746.
Theodoropoulos, George E., New York, N. Y. Tooth-powder. No. 118,591; Sept. 18; v. 242; p. 746.
Thermoid Rubber Company, Hamilton township, Trenton, Mercer county, N. J. Certain belting, hose, machinery packing, and non-metallic tires. No. 118,447; Sept. 4; v. 242; p. 251.
Thomas Advertising Service, The, Jacksonville, Fla. Soft drink. No. 118,592; Sept. 18; v. 242; p. 746.
Thornton & Chester Milling Co., Buffalo, N. Y. Wheat-flour. No. 118,448; Sept. 4; v. 242; p. 251.
Tide Water Oil Co., New York, N. Y. Refined petroleum-oil. No. 118,718; Sept. 25; v. 242; p. 990.

Titanium Alloy Manufacturing Company, The, New York, N. Y. Compositions containing titanium or its compounds employed as purifiers in metallurgical operations. No. 118,593; Sept. 18; v. 242; p. 746.
Tryon Honey Balm Company, Tryon, N. C. Cold-cream. No. 118,719; Sept. 25; v. 242; p. 990.
Union Fibre Company, Winona, Minn. Composite sound-deadener made of vegetable fibers. No. 118,477; Sept. 11; v. 242; p. 513.
United Association of Plumbers and Steam Fitters of the United States and Canada, Chicago, Ill. Certain prints and publications. No. 118,594; Sept. 18; v. 242; p. 746.
United Cigar Manufacturers Company, (now by change of name General Cigar Co., Inc.,) New York, N. Y. Cigars. No. 118,595; Sept. 18; v. 242; p. 746.
United Cigar Manufacturers Company, (now by change of name General Cigar Co. Inc.,) New York, N. Y. Cigars. No. 118,720; Sept. 25; v. 242; p. 990.
Van Antwerp's Drug Corporation, Inc., Mobile, Ala. Preparation for the relief of all raw and irritated skin surfaces. No. 118,596; Sept. 18; v. 242; p. 746.
Virginia Baking Co. Inc., Richmond, Va. Biscuit. No. 118,449; Sept. 4; v. 242; p. 251.
W. D. Kibler Co., Indianapolis, Ind. Furniture-polish. No. 118,670; Sept. 25; v. 242; p. 988.
W. N. Clark Company, Rochester, N. Y. Canned fruits, berries, sweet pickled peaches and pears, and vegetables. No. 118,497; Sept. 18; v. 242; p. 743.
Wagner, Henry, *et al.*, executors. (See Weinhard, Henry.)
Waldes & Co., Prague-Wrschowitz, Austria-Hungary, assignor to Waldes & Company of New Jersey. Snap-fasteners of all kinds. No. 118,450; Sept. 4; v. 242; p. 251.
Waldes & Co., Prague-Wrschowitz, Austria, assignor to Waldes & Company of New Jersey. Snap-buttons used as garment-fasteners. No. 118,597; Sept. 18; v. 242; p. 746.
Waldes & Co., Prague-Wrschowitz, Austria, assignor to Waldes & Company of New Jersey. Certain named fancy goods, furnishings, and notions. No. 118,598; Sept. 18; v. 242; p. 746.
Waldes & Company of New Jersey. (See Waldes & Co., assignor.)
Waldes & Company of New Jersey, New York, N. Y. Snap and placket fasteners. No. 118,599; Sept. 18; v. 242; p. 746.
Warner Bros. Co., The, Bridgeport, Conn. Corsets. Nos. 118,451–2; Sept. 4; v. 242; p. 251.
Warren Webster and Company, Camden, N. J. Certain named heating, lighting, and ventilating apparatus. Nos. 118,601–2; Sept. 18; v. 242; pp. 746–7.
Waterloo Creamery Company, Council Bluffs, Iowa. Evaporated milk. No. 118,453; Sept. 4; v. 242; p. 251.
Weaver, John J., New York, N. Y. Photographs and photographic enlargements. No. 118,600; Sept. 18; v. 242; p. 746.
Weidlich-Simpson Pen Company, Cincinnati, Ohio. Fountain-pens. No. 118,721; Sept. 25; v. 242; p. 990.
Weinhard, Henry, deceased, Portland, Oreg.; L. Weinhard, A. and P. Wessinger, and H. Wagner, executrices. Apple-juice. No. 118,454; Sept. 4; v. 242; p. 251.
Weinhard, Louise, *et al.*, executors. (See Weinhard, Henry.)
Wessinger, Anna, *et al.*, executors. (See Weinhard, Henry.)
Wessinger, Paul, *et al.*, executors. (See Weinhard, Henry.)
Western Grocer Company, Oskaloosa, Iowa. Certain named foods. No. 118,603; Sept. 18; v. 242; p. 747.
Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa. Certain named measuring and scientific appliances. No. 118,722; Sept. 25; v. 242; p. 990.
White Star Canning Co., East San Pedro, Cal. Canned sardines. No. 118,608; Sept. 18; v. 242; p. 747.
Wilford Hall Laboratories, Scarsdale, N. Y., and Greenwich, Conn. Shaving-cream. No. 118,656; Sept. 25; v. 242; p. 988.
William Penn Hotel Company, Pittsburgh, Pa. Candy. No. 118,570; Sept. 18; v. 242; p. 745.
Winona Oil Company, Winona, Minn. Lubricating oils and greases. No. 118,724; Sept. 25; v. 242; p. 990.
Winton Company, The, Cleveland, Ohio. Automobiles. No. 118,455; Sept. 4; v. 242; p. 251.
Wittwer, John J., Sr., Seattle, Wash. Shampoo preparation. No. 118,456; Sept. 4; v. 242; p. 251.
Wood & Van Derwerken Varnish Co. Inc., Brooklyn, N. Y. Varnishes. No. 118,725; Sept. 25; v. 242; p. 990.
Wunda-lusta Company of America. (See Callaway, Robert M., assignor.)
Wyoming Shovel Works, The, Wyoming, Pa. Shovels, spades, and scoops. No. 118,726; Sept. 25; v. 242; p. 990.
York-Bradford Co., San Francisco, Cal. Paper boxes. No. 118,478; Sept. 11; v. 242; p. 513.
Young, Frederick H., Toledo, Ohio. Toilet creams and powders. No. 118,457; Sept. 4; v. 242; p. 251.
Zechnowitz, Samuel, New York, N. Y. Cocoa. No. 118,610; Sept. 18; v. 242; p. 747.

ALPHABETICAL LIST OF REGISTRANTS OF LABELS.

Asbury Mills, New York, N. Y. "Kal-I-Fornia Bathing Suit." (For Bathing-Suits.) No. 20,292; Sept. 25; v. 242; p. 991.

Bay State Milling Co., Winona, Minn. "Wartime." (For Flour.) No. 20,294; Sept. 25; v. 242; p. 991.

Blue Bird Beverage Company, New Orleans, La. "Blue Bird." (For Ginger-Ale.) No. 20,288; Sept. 25; v. 242; p. 991.

California Prune and Apricot Growers, Inc., San Jose, Cal. "Sunsweet." (For Dried Prunes.) No. 20,289; Sept. 25; v. 242; p. 991.

Conrad, Charles F., New York, N. Y. "The Naturopath." (For Cigarettes.) No. 20,262; Sept. 4; v. 242; p. 252.

Conrad, Charles F., New York, N. Y. "The Naturopath." (For Cigars.) No. 20,263; Sept. 4; v. 242; p. 252.

Conrad, Charles F., New York, N. Y. "The Osteopath." (For Cigars.) No. 20,264; Sept. 4; v. 242; p. 252.

Conrad, Charles F., New York, N. Y. "The Osteopath." (For Cigarettes.) No. 20,265; Sept. 4; v. 242; p. 252.

Conrad, Charles F., New York, N. Y. "Peace (P. O. E.)." (For Cigars.) No. 20,278; Sept. 11; v. 242; p. 514.

Conrad, Charles F., New York, N. Y. "Peace (P. O. E.)." (For Cigarettes.) No. 20,279; Sept. 11; v. 242; p. 514.

Crowley, Harry R., Philadelphia, Pa. "American Tutti-Frutti Uncle Sam's Choice Confections." (For Tutti-Frutti Tablets.) No. 20,266; Sept. 4; v. 242; p. 252.

Du Pont, Auguste F. P., New York, N. Y. "Potage Du Pont." (For Concentrated Vegetable Soups Containing Beans.) No. 20,272; Sept. 4; v. 242; p. 252.

Du Pont, Auguste F. P., New York, N. Y. "Puree Du Pont." (For Concentrated Vegetable Dish Containing Peas but Not Soup.) No. 20,273; Sept. 4; v. 242; p. 252.

Du Pont, Auguste F. P., New York, N. Y. "Du Pont Soups Tri-Color Brand." (For Concentrated Soup Containing Green Vegetables.) No. 20,274; Sept. 4; v. 242; p. 252.

Du Pont, Auguste F. P., New York, N. Y. "Du Pont Puree Tri-Color Brand." (For Concentrated Vegetable Dish Other Than Soups.) No. 20,275; Sept. 4; v. 242; p. 252.

Du Pont, Auguste F. P., New York, N. Y. "Du Pont Concentrated Vegetable Soup." (For Soups Made of Vegetables.) No. 20,276; Sept. 4; v. 242; p. 252.

Du Pont, Auguste F. P., New York, N. Y. "Du Pont Concentrated Vegetable Dish." (For Concentrated Vegetable Dish Containing Beans.) No. 20,277; Sept. 4; v. 242; p. 252.

Durabl-Ink Company, Chicago, Ill. "Durabl-Inks." (For Inks.) No. 20,286; Sept. 25; v. 242; p. 991.

E. B. Polish Co., Harrisville, R. I. "The E. B. Water Proof Polish For Cleaning and Polishing." (For Water-proof Polish.) No. 20,267; Sept. 4; v. 242; p. 252.

Haak & Company, H. C., Scranton, Pa. "Dr. King's Health Pills." (For a Health-Restorative Pill.) No. 20,284; Sept. 18; v. 242; p. 748.

Haak & Company, H. C., Scranton, Pa. "Dr. King's Headache Powders." (For a Headache-Powder.) No. 20,285; Sept. 18; v. 242; p. 748.

Harris, James, New York, N. Y. "Dolly Varden Whiskey." (For Bottles of Whisky.) No. 20,297; Sept. 25; v. 242; p. 991.

Iten Biscuit Co., Clinton, Iowa, and Omaha, Nebr. "Iten's Korn Krackers." (For Crackers.) No. 20,290; Sept. 25; v. 242; p. 991.

Kroeze, Nicholas V., Paterson, N. J. "Kindermeel." (For Baby Food.) No. 20,281; Sept. 11; v. 242; p. 514.

Murphy, J. M., New York, N. Y. "Columbia Corn Distillers Grains." (For Dried Distillers' Grains Made from Corn and Malt.) No. 20,295; Sept. 25; v. 242; p. 991.

Radium Golf Ball Co. Ltd., New York, N. Y. "Radio." (For Golf-Balls.) No. 20,282; Sept. 11; v. 242; p. 514.

Rodrigues, Lisardo, Milwaukee, Wis. "Arbella." (For Cigars.) No. 20,268; Sept. 4; v. 242; p. 252.

Strollo and Sons, Ltd., M., Barnesboro, Pa. "Tre-Col-Ore." (For Macaroni.) No. 20,296; Sept. 25; v. 242; p. 991.

Tacoma Grain Company, Tacoma, Wash. "Pyramid." (For Flour.) No. 20,291; Sept. 25; v. 242; p. 991.

Terre Haute Brewing Co., Terre Haute, Ind. "C. V." (For a Non-Intoxicating Beverage.) No. 20,269; Sept. 4; v. 242; p. 252.

Turner Mfg. Co., M. E., St. Louis, Mo. "Flora de Ark Bloom of Eden Lotion." (For a Complexion-Lotion.) No. 20,287; Sept. 25; v. 242; p. 991.

Val Blatz Jr. Candy Co., Milwaukee, Wis. "Assorted Chocolates To-morrows." (For Candy-Boxes.) No. 20,270; Sept. 4; v. 242; p. 252.

Val Blatz Jr. Candy Co., Milwaukee, Wis. "Yesterday's Chocolates Assorted." (For Candy-Boxes.) No. 20,271; Sept. 4; v. 242; p. 252.

W. S. Forbes & Co. Inc., Richmond, Va. "We Root For Forbes' Pure Food Products." (For Lard.) No. 20,280; Sept. 11; v. 242; p. 514.

Wenatchee Realty & Investment Co., Wenatchee, Wash. "Eden Orchards." (For Boxed Apples.) No. 20,283; Sept. 11; v. 242; p. 514.

Windsor Print Works, North Adams, Mass., and New York, N. Y. "Khaki-Tex." (For Khaki-Colored Cloth.) No. 20,293; Sept. 25; v. 242; p. 991.

PRINTS.

Bestol Co., The, Boston, Mass. "For Protection Bestol." (For Bestol Dental Cream, Mouth-Wash, and Tooth-Brushes.) No. 4,795; Sept. 25; v. 242; p. 991.

Carpenter-Morton Co., Boston, Mass. "Colorite." (For a Dye for Satin, Silk, and Canvas Slippers and Basketry.) No. 4,793; Sept. 25; v. 242; p. 991.

Cream of Wheat Co., Minneapolis, Minn. "Preparedness." (For Wheat Breakfast Food.) No. 4,789; Sept. 11; v. 242; p. 514.

E. A. Mallory & Sons Inc., Danbury, Conn. "Mallory Hats." (For Hats.) No. 4,791; Sept. 11; v. 242; p. 514.

James S. Kirk & Company, Chicago, Ill. "That Wonderful White Laundry Soap." (For Soap.) No. 4,788; Sept. 4; v. 242; p. 252.

Kirkman & Son, Brooklyn, N. Y. "Tobie Pringkens." (For Soap.) No. 4,790; Sept. 11; v. 242; p. 514.

Monitor Stove & Range Co., The, Cincinnati, Ohio. "Furnace Heat For Every Home." (For Pipeless Hot-Air Furnaces.) No. 4,792; Sept. 11; v. 242; p. 514.

Pratt & Lambert, Inc., Buffalo, N. Y. "Vitralite, The Long-Life White Enamel." (For Vitralite Enamel.) No. 4,796; Sept. 25; v. 242; p. 991.

Pratt & Lambert, Inc., Buffalo, N. Y. "'61' Floor Varnish." (For "61" Floor-Varnish.) No. 4,797; Sept. 25; v. 242; p. 991.

Stetson Shoe Co., The, South Weymouth, Mass. "Here's Something for You." (For Shoes.) No. 4,794; Sept. 25; v. 242; p. 991.

DISCLAIMERS.

Down, Thomas M., London, England; disclaimer filed by assignee, Winchester Repeating Arms Co. Bullet for kinema-targets. No. 1,107,593; disclaimer filed Sept. 13, 1917; v. 242; p. 521.

Jones, William, New York, N. Y.; disclaimer filed by patentee. Apparatus for the production of oxygen and hydrogen gases. No. 1,212,229; disclaimer filed Sept. 1, 1917; v. 242; p. 521.

ALPHABETICAL LIST OF INVENTIONS

FOR WHICH

PATENTS WERE ISSUED DURING THE MONTH OF SEPTEMBER, 1917.

[Abbreviations: "Gaz."—Official Gazette.]

Abdominal support for medical and surgical use. S. A. Walton. No. 1,240,109; Sept. 11; v. 242; p. 467.

Abrading-machine. W. Sander. No. 1,241,027; Sept. 25; v. 242; p. 825.

Accounting device. L. L. Story. No. 1,240,621; Sept. 18; v. 242; p. 665.

Accounting-machine. M. Jacob. No. 1,240,218; Sept. 18; v. 242; p. 542.

Accumulator-cell. L. J. Perry. No. 1,239,513; Sept. 11; v. 242; p. 281.

Adding-machine, Keyboard. F. Rauchwetter. No. 1,239,622; Sept. 11; v. 242; p. 816.

Advertising and book-holding apparatus. O. J. Larson. No. 1,240,151; Sept. 11; v. 242; p. 480.

Advertising apparatus, Illuminated. E. Buhlmann, Jr. No. 1,238,882; Sept. 4; v. 242; p. 51.

Advertising device. E. S. Jaros. No. 1,239,014; Sept. 4; v. 242; p. 95.

Advertising device. H. V. Sheppard. No. 1,240,379; Sept. 18; v. 242; p. 592.

Advertising device. M. E. Torrey. No. 1,238,960; Sept. 4; v. 242; p. 77.

Advertising-kiosk. G. W. Williamson. No. 1,240,637; Sept. 18; v. 242; p. 670.

Advertising-machine. H. E. Phelps, B. T. Kirk, and J. Comstock. No. 1,239,037; Sept. 4; v. 242; p. 101.

Advertising novelty. E. S. Jaros. No. 1,239,013; Sept. 4; v. 242; p. 95.

Aero-vehicle body. T. B. Slate. No. 1,238,839; Sept. 4; v. 242; p. 89.

Aerohydro-ship. C. E. Gordon. No. 1,238,907; Sept. 4; v. 242; p. 60.

Aeroplane. R. B. McCann. No. 1,240,070; Sept. 11; v. 242; p. 455.

Aeroplane construction. J. A. Blondin. No. 1,240,812; Sept. 25; v. 242; p. 758.

Aeroplane-launching device. F. Zemojtel. No. 1,240,400; Sept. 18; v. 242; p. 598.

Aeroplanes and the like, Landing-chassis or under-carriage of. T. Sopwith. No. 1,239,736; Sept. 11; v. 242; p. 353.

Aeroplanes, Apparatus or device to control safe night landing of. C. H. Brockelbank. No. 1,239,155; Sept. 4; v. 242; p. 140.

Aeroplanes, Landing-chassis for. W. C. Robinson. No. 1,240,371; Sept. 18; v. 242; p. 589.

Agglomerating finely-divided material. H. Rodman. No. 1,239,221; Sept. 4; v. 242; p. 101.

Air and temperature modifying means. F. V. Benson, and R. Sandstrom. No. 1,240,656; Sept. 18; v. 242; p. 677.

Air and vacuum controlling device. H. H. Hess. No. 1,239,440; Sept. 4; v. 242; p. 229.

Air-bag. F. J. Foote. No. 1,240,433; Sept. 18; v. 242; p. 608.

Air-brake-controlling mechanism. T. W. Scott. No. 1,240,796; Sept. 18; v. 242; p. 720.

Air-carbureting apparatus. C. N. Gray. No. 1,239,098; Sept. 4; v. 242; p. 121.

Air-moistener. R. W. Hardie. No. 1,239,908; Sept. 11; v. 242; p. 409.

Air-ozonizing machine. A. Peterson. No. 1,239,515; Sept. 11; v. 242; p. 282.

Air-propeller. T. B. Slate. No. 1,238,838; Sept. 4; v. 242; p. 38.

Aircraft-balancing system. J. P. Tarbox. No. 1,239,636; Sept. 11; v. 242; p. 320.

Airship. A. H. S. Landor. No. 1,239,796; Sept. 11; v. 242; p. 372.

Airship for military purposes, Dirigible. M. Jelalian. No. 1,241,219; Sept. 25; v. 242; p. 885.

Alarm: *See*—

Burglar-alarm.	Fire-alarm.
Burglary-alarm.	Fire and burglar alarm.
Electric alarm.	Fire and rain alarm.
Engine-alarm.	Grain-bin alarm.

Alarm. D. B. Shepp. No. 1,240,889; Sept. 25; v. 242; p. 782.

Alarm apparatus. F. A. Lelless and J. M. Nangle. No. 1,240,062; Sept. 11; v. 242; p. 453.

Alkali-earth metals, Obtaining. W. M. Grosvenor. No. 1,239,178; Sept. 4; v. 242; p. 146.

Alkalis from cement materials, Recovering. S. B. Newberry. No. 1,239,616; Sept. 11; v. 242; p. 314.

Alloy, Ferro-uranium. R. M. Keeney and L. F. Vogt. No. 1,240,054; Sept. 11; v. 242; p. 451.

Alloy, Nickel-uranium. R. M. Keeney and L. F. Vogt. No. 1,240,055; Sept. 11; v. 242; p. 451.

Alumina and zirconia, Composition containing. L. E. Saunders and R. H. White. No. 1,240,490; Sept. 18; v. 242; p. 627.

Alumina, Manufacture of crystalline fused. F. J. Tone. No. 1,239,984; Sept. 11; v. 242; p. 431.

Aluminate and sulfur, Manufacture of barium. P. R. Hershman. No. 1,240,571; Sept. 18; v. 242; p. 650.

Aluminate from alunite, Production of. P. R. Hershman. No. 1,240,570; Sept. 18; v. 242; p. 650.

Aluminate, Production of barium. P. R. Hershman. No. 1,240,572; Sept. 18; v. 242; p. 650.

Aluminous abrasive and preparing same. L. E. Saunders and R. H. White. No. 1,240,491; Sept. 18; v. 242; p. 627.

Alunite, Treating. F. K. Cameron and J. A. Cullen. No. 1,239,768; Sept. 11; v. 242; p. 362.

Ambulance, Army-. S. Kuterbach. No. 1,241,402; Sept. 25; v. 242; p. 948.

Ammonia and catalytic bodies therefor, Oxidizing. C. L. Parsons. No. 1,239,125; Sept. 4; v. 242; p. 130.

Ammunition-primer. G. F. Lallman. No. 1,240,859; Sept. 25; v. 242; p. 773.

Anchor. K. Beebe. No. 1,239,557; Sept. 11; v. 242; p. 295.

Anchor. G. E. Peterson. No. 1,239,820; Sept. 11; v. 242; p. 380.

Anchor-jack. E. L. Hopkins. No. 1,240,210; Sept. 18; v. 242; p. 539.

Anesthetic apparatus, Animal. G. M. Dorman. No. 1,239,576; Sept. 11; v. 242; p. 302.

Angle-plates, Machine for punching and cutting. E. V. Wurts and L. A. Hawthorne. No. 1,241,260; Sept. 25; v. 242; p. 900.

Animal-trap. F. F. Ellis and S. R. Leonard. No. 1,240,036; Sept. 11; v. 242; p. 446.

Animal-trap. L. Pease and A. W. Schoenheit. No. 1,240,248; Sept. 18; v. 242; p. 550.

Animal-trap. S. Reese. No. 1,239,722; Sept. 11; v. 242; p. 349.

Animal-trap. M. A. Twitchell. No. 1,241,058; Sept. 25; v. 242; p. 835.

Anthraquinone compound. P. Nawiasky. No. 1,238,932; Sept. 4; v. 242; p. 68.

Anticreeping device. W. R. Diehl. No. 1,241,202; Sept. 25; v. 242; p. 880.

Antirattling device for control-rods. W. S. Graffam. No. 1,240,562; Sept. 18; v. 242; p. 648.

Antiskid-device clamp. G. T. Heckmann. No. 1,238,765; Sept. 4; v. 242; p. 14.

Antiskid device for wheel-tires. D. H. Weir. No. 1,241,066; Sept. 25; v. 242; p. 837.

Antiskidding device. W. H. McLaughlin. No. 1,240,465; Sept. 18; v. 242; p. 619.

Antislipping device. M. E. Wickwire. No. 1,239,856; Sept. 11; v. 242; p. 392.

Arch-support. J. H. Willett. No. 1,240,275; Sept. 18; v. 242; p. 559.

Armature-coils, Sheet-metal form for. W. T. Hensley. No. 1,238,911; Sept. 4; v. 242; p. 62.

Armature-winding implement. W. T. Hensley. No. 1,240,448; Sept. 18; v. 242; p. 614.

Armatures, Terminal-bending tool for. E. J. Tomlinson. No. 1,238,959; Sept. 4; v. 242; p. 77.

Aromatic amino-oxy-compounds, Manufacture of. A. Piguet, E. Steinbuch, and R. Stocker. No. 1,239,822; Sept. 11; v. 242; p. 381.

Article-holding device. G. Gummerson. No. 1,238,761; Sept. 4; v. 242; p. 13.

Automobile. A. P. Tonon. No. 1,239,643; Sept. 11; v. 242; p. 322.

Automobile ambulance. I. S. Mosher. No. 1,241,418; Sept. 25; v. 242; p. 948.

Automobile attachment. S. E. Austin. No. 1,240,006; Sept. 11; v. 242; p. 438.

Automobile-controlling apparatus. J. H. Pace. No. 1,239,949; Sept. 11; v. 242; p. 422.

Automobile-couch. M. D. Murray. No. 1,241,420; Sept. 25; v. 242; p. 948.
Automobile-curtain. G. E. Bishop. No. 1,240,928; Sept. 25; v. 242; p. 796.
Automobile-curtain carrier. H. E. Randall. No. 1,240,091; Sept. 11; v. 242; p. 461.
Automobile-fan-belt tighteners. W. M. Reynolds. No. 1,238,822; Sept. 4; v. 242; p. 33.
Automobile-fender. P. Angelillo. No. 1,240,004; Sept. 11; v. 242; p. 437.
Automobile-fender. W. Henke. No. 1,240,141; Sept. 11, v. 242; p. 477.
Automobile-fender. B. Kempler. No. 1,240,057; Sept. 11; v. 242; p. 451.
Automobile-indicator. H. Claude and O. Lacombe. No. 1,240,176; Sept. 18; v. 242; p. 527.
Automobile-jack. F. R. Parmenter. No. 1,241,011; Sept. 25; v. 242; p. 821.
Automobile-lifting apparatus. O. E. Seymour. No. 1,240,496; Sept. 18; v. 242; p. 628.
Automobile-lock. C. M. Mueller. No. 1,241,239; Sept. 25; v. 242; p. 892.
Automobile-lock. E. W. Rogers and T. C. Riebe. No. 1,238,945; Sept. 4; v. 242; p. 72.
Automobile-lock. H. A. Williams. No. 1,240,471; Sept. 25; v. 242; p. 963.
Automobile-seat. W. R. French. No. 1,240,192; Sept. 18; v. 242; p. 532.
Automobile-signal. S. L. Carpenter. No. 1,240,024; Sept. 11; v. 242; p. 443.
Automobile-signal. E. P. Goodchild. No. 1,240,702; Sept. 18; v. 242; p. 690.
Automobile-signal. J. C. Roeber. No. 1,241,444; Sept. 25; v. 242; p. 956.
Automobile signal device. P. O. Swedberg. No. 1,240,899; Sept. 25; v. 242; p. 786.
Automobile speed-regulator. I. E. Henry. No. 1,239,391; Sept. 4; v. 242; p. 214.
Automobile steering-wheel. G. T. Otte. No. 1,239,948; Sept. 11; v. 242; p. 421.
Automobile torque-arm. J. W. Relgel. No. 1,239,521; Sept. 11; v. 242; p. 283.
Automobile transmission. W. A. Miller. No. 1,239,505; Sept. 11; v. 242; p. 278.
Automobile-wheel guard. W. D. Bunnell and Q. A. Gates. No. 1,239,347; Sept. 4; v. 242; p. 201.
Automobile wind-shield. T. B. Nisbet. No. 1,238,803; Sept. 4; v. 242; p. 26.
Automobiles, Attachable tractor for. H. D. Hapeman. No. 1,238,762; Sept. 4; v. 242; p. 13.
Automobiles, Automatic guiding attachment for. I. J. Fosha. No. 1,240,555; Sept. 18; v. 242; p. 646.
Automobiles, Combination liquid-lock for. N. H. Wirtz. No. 1,239,997; Sept. 11; v. 242; p. 435.
Automobiles, Electric-circuit closer for. G. F. Voight. No. 1,239,236; Sept. 4; v. 242; p. 166.
Automobiles, Flag-holder attachment for. W. P. Seng. No. 1,240,377; Sept. 18; v. 242; p. 591.
Automobiles from mud-holes, Device for pulling. L. H. Adamson. No. 1,240,472; Sept. 25; v. 242; p. 964.
Automobiles, Holder for tail-lights and number-plates for. E. E. Poole. No. 1,238,816; Sept. 4; v. 242; p. 31.
Automobiles, Lunch-carrier for. C. D. Updegraff. No. 1,240,391; Sept. 18; v. 242; p. 596.
Automobiles, Power-transmission and driving mechanism for. T. F. McCallister. No. 1,240,069; Sept. 11; v. 242; p. 454.
Automobiles, Sand-rim for. A. E. Gray. No. 1,240,337; Sept. 18; v. 242; p. 579.
Automobiles, Touring accessory for. O. Sundquist. No. 1,241,449; Sept. 25; v. 242; p. 957.
Automobiles, Variable-speed transmission mechanisms for. W. K. Thomas. No. 1,239,541; Sept. 11; v. 242; p. 291.
Aviator's belt-support. A. V. Roe. No. 1,239,041; Sept. 4; v. 242; p. 102.
Awning-rolls, Automatic stop means for. W. R. Cunningham. No. 1,240,179; Sept. 18; v. 242; p. 527.
Axle-collar. G. M. Eaton. No. 1,239,893; Sept. 11; v. 242; p. 404.
Axle, Differential. R. C. Wetherell. No. 1,241,457; Sept. 25; v. 242; p. 959.
Bag: *See*—
Air-bag.
Clothes-pin bag.
Game and shell bag.
Hand-bag.
Bag-frame. F. A. Fuller. No. 1,240,557; Sept. 18; v. 242; p. 646.
Bag-holder. P. Israelson. No. 1,240,852; Sept. 25; v. 242; p. 771.
Bag-making machine. H. G. Bender. No. 1,240,924; Sept. 25; v. 242; p. 795.
Bait, Artificial. W. E. Phinney. No. 1,239,956; Sept. 11; v. 242; p. 423.
Bait, Artificial. W. E. Phinney and S. O. Larrabee. No. 1,239,957; Sept. 11; v. 242; p. 424.
Bait or frog, Artificial bass-. T. Reimere. No. 1,239,724; Sept. 11; v. 242; p. 350.
Bakery appliance. L. Yore. No. 1,240,000; Sept. 11; v. 242; p. 436.
Balancing mechanism. J. P. Tarbox. No. 1,239,635; Sept. 11; v. 242; p. 319.
Bale-bands, Tool for tightening and fastening. G. M. Williams. No. 1,241,483; Sept. 25; v. 242; p. 967.
Baling-press. F. H. G. Brandt and J. R. Evans. No. 1,239,871; Sept. 11; v. 242; p. 397.
Baling-press. C. L. Miller and L. J. Toffelmier. No. 1,239,932; Sept. 11; v. 242; p. 416.
Baling-press, Household. J. T. Johnsen. No. 1,241,122; Sept. 25; v. 242; p. 854.
Ball: *See*—
Game-ball.
Playing-ball.
Tank-ball.
Balls, Machine for registering the trajectories of captive. C. G. Guthrie and L. W. Neilson. No. 1,240,198; Sept. 18; v. 242; p. 535.
Balloons, Coloring rubber. M. M. Harrison. No. 1,239,180; Sept. 4; v. 242; p. 147.
Bandage, Hot-water. C. S. Ferguson. No. 1,238,901; Sept. 4; v. 242; p. 59.
Bandage roller, Plaster-. E. M. Saunders. No. 1,241,029; Sept. 25; v. 242; p. 826.
Bar: *See*—
Boring-bar.
Connecting-bar.
Draft-bar.
Sickle-bar.
Type-bar.
Barrel, Metallic. J. W. Darley, Jr. No. 1,240,029; Sept. 11; v. 242; p. 444.
Barrel, Metallic. J. W. Darley, Jr. No. 1,240,030; Sept. 11; v. 242; p. 444.
Barrel-shells to receive heads, Machine for preparing. E. F. Beugler. No. 1,241,080; Sept. 25; v. 242; p. 841.
Bath-cabinet. L. Wiloth and A. L. Greer. No. 1,240,911; Sept. 25; v. 242; p. 790.
Bath-cabinet, Electric. H. C. Marrinan. No. 1,241,234; Sept. 25; v. 242; p. 890.
Bath-cabinet heater. M. M. Jones. No. 1,240,053; Sept. 11; v. 242; p. 451.
Bath-tub mat, Safety. L. D. Tolley. No. 1,239,642; Sept. 11; v. 242; p. 322.
Bath-tub seat. J. L. Nichols and C. J. Olson. No. 1,240,479; Sept. 18; v. 242; p. 623.
Batteries, Governor for regulating the overcharge for storage. P. Okey. No. 1,240,590; Sept. 18; v. 242; p. 656.
Battery: *See*—
Galvanic battery.
Secondary or storage battery.
Storage battery.
Battery-boxes and means for locking same, Handle for. B. Ford. No. 1,238,753; Sept. 4; v. 242; p. 11.
Battery-case. M. H. Moffett. No. 1,240,239; Sept. 18; v. 242; p. 548.
Battery circuits, Automatic regulator for combined dynamo and storage-. A. E. Doman. No. 1,238,896; Sept. 4; v. 242; p. 57.
Battery-element puller. M. Mella. No. 1,239,420; Sept. 4; v. 242; p. 222.
Battery-plates, Grid for-. R. S. Mears. No. 1,240,075; Sept. 11; v. 242; p. 457.
Beam head, Section-. R. Thornton. No. 1,239,744; Sept. 11; v. 242; p. 355.
Bean-drier. G. G. Egge. No. 1,241,465; Sept. 25; v. 242; p. 962.
Bean-picking machines, Roll adjustment for. A. T. Ferrell. No. 1,240,693; Sept. 18; v. 242; p. 688.
Bean-separator. E. H. Mueller. No. 1,240,999; Sept. 25; v. 242; p. 817.
Bearing. O. J. Board. No. 1,240,019; Sept. 11; v. 242; p. 442.
Bearing, Adjustable. C. W. Griffin. No. 1,239,266; Sept. 4; v. 242; p. 176.
Bearing, Antifriction-. L. R. Spencer. No. 1,240,382; Sept. 18; v. 242; p. 593.
Bearing, Ball-. M. Gohlke. No. 1,239,904; Sept. 11; v. 242; p. 407.
Bearing, Ball-. E. Kayser. No. 1,238,783; Sept. 4; v. 242; p. 19.
Bearing, Ball-and-roller. F. Starin. No. 1,241,296; Sept. 25; v. 242; p. 913.
Bearing for conveyer-rollers. J. A. Alvey. No. 1,241,324; Sept. 25; v. 242; p. 920.
Bearing for gravity-carriers, Ball-. H. J. Buck. No. 1,238,880; Sept. 4; v. 242; p. 51.
Bearing, Roller-. J. A. Perkins. No. 1,239,619; Sept. 11; v. 242; p. 315.
Bearing, Shaft-. W. Sparks. No. 1,239,057; Sept. 4; v. 242; p. 108.
Bearing, Truck side. B. W. Kadel. No. 1,241,396; Sept. 25; v. 242; p. 941.
Bearing-wheel. F. J. Miner. No. 1,239,288; Sept. 4; v. 242; p. 183.
Bed. C. B. Chenault. No. 1,241,195; Sept. 25; v. 242; p. 878.
Bed and other article of furniture. J. Close. No. 1,239,158; Sept. 4; v. 242; p. 140.
Bed and tent, Folding camp. G. P. Chapman. No. 1,241,342; Sept. 25; v. 242; p. 925.
Bed, Disappearing. C. H. Taylor. No. 1,239,540; Sept 11; v. 242; p. 290.
Bed-frame. W. L. Fredericks. No. 1,240,697; Sept. 18; v. 242; p. 689.
Bed-rail coupling. W. L. Fredericks. No. 1,240,696; Sept. 18; v. 242; p. 689.
Bed, Spring-. J. A. Fraize. No. 1,239,171; Sept. 4; v. 242; p. 144.
Bed-spring. C. G. Smith. No. 1,241,293; Sept. 25; v. 242; p. 912.
Bed-spring-reinforcing member. J. H. Montstream. No. 1,240,755; Sept. 18; v. 242; p. 707.
Bedding-roll. S. Miles. No. 1,239,712; Sept. 11; v. 242; p. 346.

Bedside-guard. S. Haskes. No. 1,240,201; Sept. 18; v. 242; p. 536.
Bedstead. G. Golden. No. 1,240,195; Sept. 18; v. 242; p. 534.
Bee-shipping package. F. W. Summerfield. No. 1,239,536; Sept. 11; v. 242; p. 289.
Beet-cutting machine. R. J. Binkley. No. 1,238,982; Sept. 4; v. 242; p. 85.
Bell, Crossing-. E. W. Vogel. No. 1,239,850; Sept. 11; v. 242; p. 390.
Belt and trousers-supporter. T. F. Hayes. No. 1,239,439; Sept. 4; v. 242; p. 229.
Belt cleaner, Conveyer-. C. A. Winters. No. 1,239,066; Sept. 4; v. 242; p. 110.
Belt-guide. E. R. Brown. No. 1,240,537; Sept. 18; v. 242; p. 641.
Belt-loops, Forming. J. R. Moffatt. No. 1,240,754; Sept. 18; v. 242; p. 707.
Belt-shifting device. G. A. Sexton. No. 1,241,036; Sept. 25; v. 242; p. 828.
Belt-staples, Tool for handling. A. Vanderveld. No. 1,238,965; Sept. 4; v. 242; p. 79.
Belt-stapling machine. A. Vanderveld. No. 1,238,964; Sept. 4; v. 242; p. 78.
Bending-machine. G. T. Bond. No. 1,240,534; Sept. 18; v. 242; p. 640.
Beverage and water cooler and dispenser, Combined. A. H. Spellmeyer. No. 1,238,842; Sept. 4; v. 242; p. 39.
Beverage, Preparing a non-alcoholic chill-proof. J. Beerhalter. No. 1,240,016; Sept. 11; v. 242; p. 441.
Bicycles and the like, Mud-guard for. A. B. Chapman. No. 1,241,091; Sept. 25; v. 242; p. 845.
Bill-payment form. H. F. Price. No. 1,240,255; Sept. 18; v. 242; p. 553.
Billiard-cue. J. H. Goodell. No. 1,240,336; Sept. 18; v. 242; p. 578.
Billiard-cues, Manufacture of. O. Carlson and H. Pick. No. 1,241,194; Sept. 25; v. 242; p. 877.
Binder, Loose-leaf. W. G. Jones. No. 1,241,220; Sept. 25; v. 242; p. 885.
Binder, Loose-leaf. H. C. Miller. No. 1,240,356; Sept. 18; v. 242; p. 584.
Binder, Loose-leaf. C. D. Trussell. No. 1,238,846; Sept. 4; v. 242; p. 40.
Binder post, Loose-leaf-. E. J. Oyston. No. 1,241,008; Sept. 25; v. 242; p. 820.
Binder, Row-. E. J. Gruben. No. 1,239,685; Sept. 11; v. 242; p. 337.
Binnacle, Compensating. A. Lietz. No. 1,241,132; Sept. 25; v. 242; p. 857.
Binocular-magnifier. C. J. Troppman. No. 1,240,905; Sept. 25; v. 242; p. 788.
Bit: *See*—
Bridle-bit.
Bit-brace extension. H. E. Parker. No. 1,241,143; Sept. 25; v. 242; v. 861.
Blank-treating machines, Feed mechanism for. L. E. La Bombard and M. H. Sidebotham. No. 1,238,790; Sept. 4; v. 242; p. 21.
Blanket, Horse-. A. J. Hanisch. No. 1,239,478; Sept. 11; v. 242; p. 270.
Blasting device. E. Hutton. No. 1,241,386; Sept. 25; v. 242; p. 938.
Blasting system, Subaqueous-. C. H. Allison. No. 1,239,247; Sept. 4; v. 242; p. 170.
Blind-buffer. A. T. Hotchkiss. No. 1,239,393; Sept. 4; v. 242; p. 215.
Block-machine. C. S. Wert. No. 1,239,326; Sept. 4; v. 242; p. 194.
Board: *See*—
Game-board.
Ironing and pressing board.
Boat: *See*—
Collapsible boat.
Flying-boat.
Reversible boat.
Submarine boat.
Boat. H. Weber. No. 1,241,065; Sept. 25; v. 242; p. 837.
Boat-raising device. H. A. Houghton. No. 1,240,453; Sept. 18; v. 242; p. 616.
Boats and the like, Safety-balloonette for. T. P. Brooke. No. 1,240,414; Sept. 18; v. 242; p. 603.
Bobbin-skewer. A. Taylor. No. 1,239,138; Sept. 4; v. 242; p. 135.
Bobbin-skewer. A. Taylor. No. 1,239,139; Sept. 4; v. 242; p. 135.
Bobbin-winder. A. Rotter. No. 1,240,881; Sept. 25; v. 242; p. 780.
Body-protector. W. L. Stewart. No. 1,239,980; Sept. 11; v. 242; p. 430.
Body-rest. M. W. Kaye. No. 1,238,782; Sept. 4; v. 242; p. 19.
Boiler: *See*—
Clothes-boiler.
Steam and gas boiler.
Steam-boiler.
Sun-boiler.
Boiler. E. C. Meier. No. 1,239,026; Sept. 4; v. 242; p. 99.
Boiler. C. G. Warner. No. 1,239,546; Sept. 11; v. 242; p. 292.
Boiler attachment. N. H. Neuens. No. 1,241,002; Sept. 25; v. 242; p. 818.
Boiler casing or jacket. R. Hutsel. No. 1,239,106; Sept. 4; v. 242; p. 124.
Boiler explosions, leakage, &c., Means for preventing. L. S. Ross. No. 1,238,825; Sept. 4; v. 242; p. 33.
Boiler-hand-hole scraper. O. Bache and C. Berg. No. 1,239,754; Sept. 11; v. 242; p. 358.
Boiler-stand. W. D. Banks. No. 1,240,648; Sept. 18; v. 242; p. 674.
Boilers, Circulating and protective means for steam-. F. Illescas. No. 1,238,773; Sept. 4; v. 242; p. 16.
Boilers, Soot-blower for. G. C. and J. C. Bennett. No. 1,240,926; Sept. 25; v. 242; p. 796.
Boll-weevil destroyer. J. N. Graves. No. 1,239,684; Sept. 11; v. 242; p. 337.
Boll-weevil destroyer. S. J. Patton. No. 1,241,012; Sept. 25; v. 242; p. 821.
Boll-weevils, Device for catching. G. E. Keyser and J. U. Till. No. 1,240,736; Sept. 18; v. 242; p. 701.
Bolt-securing means. G. R. Hohorst. No. 1,238,915; Sept. 4; v. 242; p. 62.
Bomb, Aerial multiple explosive. H. L. Courtesy. No. 1,241,095; Sept. 25; v. 242; p. 846.
Book-holder. O. E. Enell. No. 1,238,899; Sept. 4; v. 242; p. 58.
Book-holder. A. E. Wood. No. 1,239,655; Sept. 11; v. 242; p. 326.
Book, Laundry-. W. S. Freeman. No. 1,240,698; Sept. 18; v. 242; p. 689.
Book, Manifolding sales-. C. L. Spence. No. 1,240,613; Sept. 18; v. 242; p. 662.
Book, Pass-. C. L. Marcus. No. 1,239,285; Sept. 4; v. 242; p. 182.
Book-rest. J. E. Jargo. No. 1,241,218; Sept. 25; v. 242; p. 884.
Bore-holes, Apparatus for ascertaining the direction of. C. L. Carlson and G. Bergström. No. 1,239,351; Sept. 4; v. 242; p. 202.
Boring-bar. H. Austin. No. 1,241,073; Sept. 25; v. 242; p. 839.
Boring square holes, Bit for. W. H. Smith. No. 1,241,294; Sept. 25; v. 242; p. 912.
Bottle. L. A. Malden. No. 1,240,072; Sept. 11; v. 242; p. 455.
Bottle-cap. C. W. Dudley. No. 1,239,261; Sept. 4; v. 242; p. 174.
Bottle-cap. C. E. O'Malley. No. 1,240,767; Sept. 18; v. 242; p. 711.
Bottle-cap. E. V. White. No. 1,239,238; Sept. 4; v. 242; p. 167.
Bottle-cap, Manually-removable. P. Finkelstein. No. 1,238,902; Sept. 4; v. 242; p. 59.
Bottle-cap puller. J. A. Ekelund. No. 1,240,833; Sept. 25; v. 242; p. 766.
Bottle-capping machine. T. O'Brien. No. 1,241,141; Sept. 25; v. 242; p. 861.
Bottle-case. B. T. Webb. No. 1,240,520; Sept. 18; v. 242; p. 636.
Bottle-closure. H. W. Spangler. No. 1,239,836; Sept. 11; v. 242; p. 385.
Bottle-holder. C. Klauberg. No. 1,239,109; Sept. 4; v. 242; p. 125.
Bottle, Hot-water. A. S. Campbell. No. 1,239,350; Sept. 4; v. 242; p. 202.
Bottle, Non-refillable. J. B. Mars and N. Stramaglia. No. 1,239,803; Sept. 11; v. 242; p. 374.
Bottle-opener. L. W. Bolick. No. 1,240,657; Sept. 18; v. 242; p. 677.
Bottle-stopper. H. F. Stock and J. Nader. No. 1,240,383; Sept. 18; v. 242; p. 593.
Bottle-stopper fastener. C. F. Thatcher. No. 1,240,511; Sept. 18; v. 242; p. 633.
Bottles, Safety depository for milk-. M. Caggiano. No. 1,240,308; Sept. 18; v. 242; p. 569.
Bowl-support. W. E. Surface. No. 1,239,842; Sept. 11; v. 242; p. 387.
Box: *See*—
Bread-box.
Cigarette-box.
Feed-box.
Fire-alarm signal-box.
Fire-box.
Header-box.
Herring-box.
Journal-box.
Junction-box.
Mail and milk box.
Mail-box.
Milk-box.
Miter-box.
Plant-box.
Postal box.
Sheet-metal box.
Tobacco and match box.
Box. G. C. Babcock. No. 1,240,296; Sept. 18; v. 242; p. 566.
Box. G. C. Babcock. No. 1,240,297; Sept. 18; v. 242; p. 566.
Box. C. S. McMullin. No. 1,239,284; Sept. 4; v. 242; p. 181.
Box handle attachment, Suit-. J. Schuman. No. 1,239,130; Sept. 4; v. 242; p. 132.
Box-lock. D. J. Richardson. No. 1,239,725; Sept. 11; v. 242; p. 350.
Box-transferring mechanism for box or package transmission machines. M. E. Peters, G. H. Fath, and A. F. Miller. No. 1,239,819; Sept. 11; v. 242; p. 380.
Boxing and bearing. C. Tipton. No. 1,239,543; Sept. 11; v. 242; p. 291.
Brace: *See*—
Fender-brace.
Rail-brace.
Bracket: *See*—
Lamp-bracket.
Lamp-supporting bracket.
Roofing-bracket.
Tire-bracket.
Brake: *See*—
Car-brake.
Car hand-brake.
Emergency-brake.
Truck-brake.
Vehicle-brake.
Brake. C. J. Cutler. No. 1,239,358; Sept. 4; v. 242; p. 205.

Brake appliance. E. E. Ewing. No. 1,240,127; Sept. 11; v. 242; p. 473.
Brake-band lining and the like, Receptacle for retaining. E. L. Pohlman. No. 1,239,960; Sept. 11; v. 242; p. 425.
Brake-beam hanger. H. Miller. No. 1,239,206; Sept. 4; v. 242; p. 155.
Brake-handle. J. Eckert. No. 1,241,359; Sept. 25; v. 242; p. 931.
Brake-lever, Car-truck. J. A. Pilcher. No. 1,241,440; Sept. 25; v. 242; p. 954.
Brake-lever, Car-truck. J. A. Pilcher. No. 1,241,441; Sept. 25; v. 242; p. 954.
Brake lever, Wagon-. W. Mossman. No. 1,241,419; Sept. 25; v. 242; p. 948.
Brake-rigging, Clasp. T. L. Burton. No. 1,240,819; Sept. 25; v. 242; p. 760.
Brake-shoe. C. W. Armbrust. No. 1,239,444; Sept. 11; v. 242; p. 260.
Brake-shoe. C. W. Armbrust. No. 1,239,445; Sept. 11; v. 242; p. 260.
Brake-shoe. C. W. Armbrust. No. 1,239,446; Sept. 11; v. 242; p. 260.
Brake-shoe. C. W. Armbrust. No. 1,239,447; Sept. 11; v. 242; p. 261.
Brake-shoe. C. W. Armbrust. No. 1,239,448; Sept. 11; v. 242; p. 261.
Brake-shoe. C. N. Winter. No. 1,238,867; Sept. 4; v. 242; p. 47.
Bread-box. R. H. Berkstresser. No. 1,241,330; Sept. 25; v. 242; p. 922.
Bread softener, Altar-. P. Saurusaitis. No. 1,239,973; Sept. 11; v. 242; p. 428.
Brick, Basic. H. A. Kennedy. No. 1,240,148; Sept. 11; v. 242; p. 479.
Brick-cleaning machine. J. J. Hardin. No. 1,239,480; Sept. 11; v. 242; p. 271.
Brick-machine. W. Kespohl. No. 1,241,398; Sept. 25; v. 242; p. 942.
Brick-press. M. H. Avram. No. 1,239,072; Sept. 4; v. 242; p. 112.
Bricks and paving blocks or stones, Apparatus for handling. O. Carlson. No. 1,239,879; Sept. 11; v. 242; p. 400.
Bricks, Burning. F. B. Lambert. No. 1,239,189; Sept. 4; v. 242; p. 149.
Bridge. J. B. Strauss. No. 1,241,052; Sept. 25; v. 242; p. 832.
Bridge, Bascule-. C. H. Mercer and C. H. Woehle. No. 1,241,237; Sept. 25; v. 242; p. 891.
Bridle-bit, Convertible riding, driving, and veterinary. J. A. Fretwell. No. 1,240,041; Sept. 11; v. 242; p. 447.
Brooder. E. D. Taylor. No. 1,239,637; Sept. 11; v. 242; p. 320.
Brush. J. D. Garvey. No. 1,240,558; Sept. 18; v. 242; p. 647.
Brush. D. Levy. No. 1,240,860; Sept. 25; v. 242; p. 773.
Brush. G. Rasmusen, Jr. No. 1,240,604; Sept. 18; v. 242; p. 660.
Brush and dentifrice holder, Tooth-. C. F. Crecelius. No. 1,240,681; Sept. 18; v. 242; p. 685.
Brush-making machine. B. W. Tucker and L. H. Arnold. No. 1,240,516; Sept. 18; v. 242; p. 634.
Brush-mounting. E. P. and T. L. Lee. No. 1,240,738; Sept. 18; v. 242; p. 702.
Brush, Paint-. F. L. Benedict. No. 1,240,017; Sept. 11; v. 242; p. 441.
Brush protector, Paint-. H. S. Throckmorton. No. 1,239,638; Sept. 11; v. 242; p. 321.
Bucket apparatus, Traveling-. J. C. French. No. 1,241,476; Sept. 25; v. 242; p. 965.
Buckle. F. E. Vandercook. No. 1,239,849; Sept. 11; v. 242; p. 390.
Buckle, Bale-. H. P. Childress. No. 1,240,672; Sept. 18; v. 242; p. 682.
Buffet, Portable serving-. J. L. Abadie. No. 1,240,163; Sept. 18; v. 242; p. 523.
Buffing-wheel. A. L. Kraus. No. 1,238,925; Sept. 4; v. 242; p. 65.
Building construction. W. H. Evers. (Reissue.) No. 14,352; Sept. 11; v. 242; p. 487.
Building construction. H. Ryan. No. 1,241,445; Sept. 25; v. 242; p. 956.
Building construction. F. M. Sawyer. No. 1,240,492; Sept. 18; v. 242; p. 627.
Bull-hook. N. Pearson. No. 1,239,301; Sept. 4; v. 242; p. 186.
Bullet-proof and like garment and covering for horses and articles exposed to acts of warfare. J. P. Wilke. No. 1,239,329; Sept. 4; v. 242; p. 195.
Bulletin. C. J. Webb. No. 1,239,324; Sept. 4; v. 242; p. 193.
Burglary-alarm for buildings, &c., Protective. P. Roeder. No. 1,238,823; Sept. 4; v. 242; p. 33.
Burglar-alarm, Portable. J. M. Butcher. No. 1,241,484; Sept. 25; v. 242; p. 968.
Burner: *See*—
Gas-burner. Oil-burner.
Hydrocarbon-burner.
Burner. A. Hayes. No. 1,241,111; Sept. 25; v. 242; p. 851.
Burner. H. J. Mastenbrook. No. 1,241,135; Sept. 25; v. 242; p. 858.
Burner. F. B. Schneider. No. 1,241,032; Sept. 25; v. 242; p. 827.
Bushing, Winding-core. L. and J. Carlino. No. 1,241,193; Sept. 25; v. 242; p. 877.
Butter-cutter. D. Takahashi. No. 1,240,387; Sept. 18; v. 242; p. 595.
Button-attaching machines, Button-feeding mechanism for. A. E. Tolin. No. 1,239,846; Sept. 11; v. 242; p. 389.
Button, Collar-. T. J. Nelis. No. 1,240,476; Sept. 18; v. 242; p. 622.
Button, Detachable. F. R. Aldridge. No. 1,239,070; Sept. 4; v. 242; p. 112.
Button, Detachable. C. O. F. Hellström. No. 1,239,104; Sept. 4; v. 242; p. 123.
Button-fastening machine, Shoe-. L. R. Pomeroy. No. 1,240,874; Sept. 25; v. 242; p. 778.
Button-feeding machine. H. Hastings. No. 1,240,202; Sept. 18; v. 242; p. 536.
Button-feeding mechanism. I. Larsen. No. 1,239,797; Sept. 11; v. 242; p. 372.
Buttons, Forming. H. Hastings. No. 1,241,467; Sept. 25; v. 242; p. 962.
Buttons, Guard for link cuff-. A. C. Hage. No. 1,240,845; Sept. 25; v. 242; p. 770.
Buttonholes and reinforcement thereof, Construction of. J. H. Reed. No. 1,239,433; Sept. 4; v. 242; p. 227.
Cabinet. C. W. Almon. No. 1,240,402; Sept. 18; v. 242; p. 599.
Cabinet. F. W. Tobey. No. 1,238,957; Sept. 4; v. 242; p. 76.
Cabinet and refrigerator, Combined. T. C. Fleming. No. 1,241,104; Sept. 25; v. 242; p. 849.
Cabinet Delivery-. H. T. and J. E. Bartlett, and J. T. Robinson. No. 1,239,663; Sept. 11; v. 242; p. 329.
Cabinet, Display-. C. B. Swartz. No. 1,241,164; Sept. 25; v. 242; p. 867.
Cabinet for vehicles. E. McBurney. No. 1,239,021; Sept. 4; v. 242; p. 97.
Cabinet, Kitchen-. W. F. Wallace. No. 1,240,519; Sept. 18; v. 242; p. 635.
Cabinet, Towel-. F. W. Stockton. No. 1,240,620; Sept. 18; v. 242; p. 664.
Cable construction. E. B. Livy. No. 1,239,410; Sept. 4; v. 242; p. 220.
Cable-hanger. J. Blackburn. No. 1,240,169; Sept. 18; v. 242; p. 524.
Cable-hanger. J. Kennedy. No. 1,239,108; Sept. 4; v. 242; p. 125.
Cable-ring-forming machine. J. W. Ford. No. 1,239,583; Sept. 11; v. 242; p. 304.
Cable-socket. J. A. Phillips. No. 1,238,811; Sept. 4; v. 242; p. 29.
Calcium or other metal cyanamid, Making. J. H. Reed. No. 1,241,020; Sept. 25; v. 242; p. 823.
Calculating-machine. F. O. Heuser. No. 1,239,598; Sept. 11; v. 242; p. 308.
Calculating-machine. A. Pentecost. No. 1,238,809; Sept. 4; v. 242; p. 28.
Calendar. E. H. Roden. No. 1,239,220; Sept. 4; v. 242; p. 160.
Cam-shaft driving mechanism. L. Contalen. No. 1,240,420; Sept. 18; v. 242; p. 605.
Camera, Autographic. R. Wilmot. No. 1,240,910; Sept. 25; v. 242; p. 790.
Camera, Focusing-. J. Becker. No. 1,240,651; Sept. 18; v. 242; p. 675.
Camera, Focusing-. J. Becker. No. 1,240,788; Sept. 18; v. 242; p. 718.
Camera, Photographic. R. Kroedel. No. 1,239,017; Sept. 4; v. 242; p. 96.
Cameras, Focusing device for photographic. P. Dietz. No. 1,239,469; Sept. 11; v. 242; p. 267.
Camping outfit. J. F. Long. No. 1,240,353; Sept. 18; v. 242; p. 583.
Can: *See*—
Garbage-can. Triple-seal can.
Can-capping machine. A. K. Malmquist. No. 1,241,233; Sept. 25; v. 242; p. 889.
Can vent, Oil-. T. F. Durning. No. 1,240,689; Sept. 18; v. 242; p. 687.
Canning rice and milk. W. H. Stevens and S. C. Dunlap. No. 1,241,163; Sept. 25; v. 242; p. 867.
Candle-tube support. W. E. Surface. No. 1,239,843; Sept. 11; v. 242; p. 388.
Candlestick-holder. V. Bellodi. No. 1,240,654; Sept. 18; v. 242; p. 676.
Candy, Manufacture of. G. F. Dickson. No. 1,239,167; Sept. 4; v. 242; p. 143.
Candy-package. W. S. Foster. No. 1,239,378; Sept. 4; v. 242; p. 210.
Cap or head-covering. A. E. Fodor. No. 1,239,376; Sept. 4; v. 242; p. 210.
Car. J. J. Tatum. No. 1,240,622; Sept. 18; v. 242; p. 665.
Car and house steps, Safety disappearing. H. H. Barsby, A. G. Stephenson, and W. C. Browne. No. 1,240,922; Sept. 25; v. 242; p. 794.
Car-brake. E. Plath. No. 1,241,147; Sept. 25; v. 242; p. 863.
Car, Combination freight and grain. E. J. Beebe and C. C. MacGregor. No. 1,239,863; Sept. 11; v. 242; p. 395.
Car, Combined stock and gondola. E. E. Betts. No. 1,239,558; Sept. 11; v. 242; p. 296.
Car construction, Freight-. J. C. Biela. No. 1,238,874; Sept. 4; v. 242; p. 50.

Car construction, Railway-. W. H. Heulings, Jr. No. 1,241,116; Sept. 25; v. 242; p. 852.
Car-coupling. C. N. Headding. No. 1,238,764; Sept. 4; v. 242; p. 13.
Car-coupling. W. Kelso. No. 1,239,187; Sept. 4; v. 242; p. 149.
Car-coupling. T. H. Lewis. No. 1,241,131; Sept. 25; v. 242; p. 857.
Car-coupling. H. L. Lowe. No. 1,240,066; Sept. 11; v. 242; p. 454.
Car door, Railway-. W. E. Williams. No. 1,240,634; Sept. 18; v. 242; p. 669.
Car driving mechanism, Railway-. C. H. Calkins. No. 1,240,419; Sept. 18; v. 242; p. 604.
Car-dumping apparatus. G. H. Mueller. No. 1,240,867; Sept. 25; v. 242; p. 775.
Car end. C. W. Dake. No. 1,239,773; Sept. 11; v. 242; p. 364.
Car hand-brake, Railway-. W. M. Dwyer. No. 1,240,324; Sept. 18; v. 242; p. 575.
Car-handling system. J. McMyler. No. 1,240,466; Sept. 18; v. 242; p. 620.
Car manifold, Motor-. M. L. Williams. No. 1,238,862; Sept. 4; v. 242; p. 45.
Car-motor-ventilating system. W. E. Ver Planck. No. 1,239,647; Sept. 11; v. 242; p. 323.
Car roller side bearing. E. W. Webb. No. 1,239,547; Sept. 11; v. 242; p. 292.
Car roller side bearing, Railway-. W. E. Williams. No. 1,240,636; Sept. 18; v. 242; p. 670.
Car-roof. W. P. Murphy. No. 1,241,001; Sept. 25; v. 242; p. 818.
Car-roof. J. J. Tatum. No. 1,239,740; Sept. 11; v. 242; p. 354.
Car-seat. G. M. Ogle. No. 1,240,244; Sept. 18; v. 242; p. 549.
Car seat, Railway-. F. H. Hill and H. Jeffrey. No. 1,238,913; Sept. 4; v. 242; p. 62.
Car-steps, Foldable tread and riser for. W. L. Beard. No. 1,241,078; Sept. 25; v. 242; p. 840.
Car stopping and derailing device. W. B. Lee and M. A. Bodkin. No. 1,239,191; Sept. 4; v. 242; p. 150.
Car-toilet lock, Railway-. L. J. Brune. No. 1,240,933; Sept. 25; v. 242; p. 798.
Car-underframe. W. A. Stearns. No. 1,241,047; Sept. 25; v. 242; p. 831.
Car wind-shield, Side-. H. Bakewell. No. 1,240,646; Sept. 18; v. 242; p. 673.
Cars and houses, Metal sheathing for. W. E. Williams. No. 1,240,635; Sept. 18; v. 242; p. 669.
Cars, Manifold for motor-. M. L. Williams. No. 1,239,424; Sept. 4; v. 242; p. 228.
Cars, Reinforcing-transom for railway-. L. T. Canfield. No. 1,239,458; Sept. 11; v. 242; p. 265.
Cars, Steel end for freight-. W. E. Williams. No. 1,240,110; Sept. 11; v. 242; p. 467.
Carbon-feeding mechanism. W. G. Preddey. No. 1,239,720; Sept. 11; v. 242; p. 348.
Carbonic-acid gas from nitrogen gas, Removing. H. Philipp. No. 1,239,516; Sept. 11; v. 242; p. 282.
Carbureter. J. C. Adam. No. 1,241,461; Sept. 25; v. 242; p. 960.
Carbureter. B. C. J. Anderson. No. 1,239,442; Sept. 11; v. 242; p. 259.
Carbureter. O. G. Erickson. No. 1,240,960; Sept. 25; v. 242; p. 805.
Carbureter. O. Gavelek. No. 1,239,173; Sept. 4; v. 242; p. 145.
Carbureter. P. Gilles. No. 1,240,841; Sept. 25; v. 242; p. 768.
Carbureter. W. P. Kidder. No. 1,238,787; Sept. 4; v. 242; p. 20.
Carbureter. G. B. McBean and C. W. Birchwood. No. 1,239,611; Sept. 11; v. 242; p. 312.
Carbureter. W. P. Pembroke. No. 1,241,013; Sept. 25; v. 242; p. 821.
Carbureter. W. P. Pembroke. No. 1,241,014; Sept. 25; v. 242; p. 822.
Carbureter. S. L. Picard. No. 1,238,812; Sept. 4; v. 242; p. 29.
Carbureter. C. W. Prochaska. No. 1,240,876; Sept. 25; v. 242; p. 778.
Carbureter. J. W. Tumalty. No. 1,239,234; Sept. 4; v. 242; p. 165.
Carbureter. E. E. Winkley. No. 1,240,281; Sept. 18; v. 242; p. 561.
Carbureter, Vacuum-feed. P. Gilles. No. 1,240,842; Sept. 25; v. 242; p. 769.
Carbureters, Float feed-chamber and float for. F. W. Hagar. No. 1,240,200; Sept. 18; v. 242; p. 536.
Carbureters, Fuel-feeding device for. P. Gilles. No. 1,240,840; Sept. 25; v. 242; p. 767.
Carbureters in motor-vehicles, Shut-off for. W. J. Cooper. No. 1,238,989; Sept. 4; v. 242; p. 87.
Card, Adjustable show-. R. R. Heywood. No. 1,239,485; Sept. 11; v. 242; p. 272.
Card-holder. G. Spuchler. No. 1,239,838; Sept. 11; v. 242; p. 386.
Card-sorting machines, Selective and totalizing count-action for. J. Powers. No. 1,240,601; Sept. 18; v. 242; p. 659.
Card, Stencil-. E. D. Belknap. No. 1,239,760; Sept. 11; v. 242; p. 360.
Carousel. C. E. Morris. No. 1,241,138; Sept. 25; v. 242; p. 859.
Carpet-beater. H. D. Kempton. No. 1,241,222; Sept. 25; v. 242; p. 886.
Carpet washing and rinsing machine. H. F. Gray. No. 1,240,799; Sept. 18; v. 242; p. 721.
Carrier: *See*—
Automobile-curtain carrier. Mail-carrier.
Corpse-carrier. Table and kit-carrier.
Cuspidor-carrier. Tire-carrier.
Egg-carrier.
Carrier. J. O. Hart. No. 1,238,909; Sept. 4; v. 242; p. 61.
Carrier. W. Mitchell. No. 1,241,238; Sept. 25; v. 242; p. 891.
Cartridge-cases, Manufacture of. A. W. Morris. No. 1,239,809; Sept. 11; v. 242; p. 377.
Case: *See*—
Battery-case. Match-pad case.
Bottle-case. Suitcase.
Eyeglass-case. Ticket-case.
Jewelry-case. Vanity-case.
Hypodermic-instrument case.
Cash-register. H. A. Martin. No. 1,240,284; Sept. 18; v. 242; p. 647.
Casting-machine. A. W. Morris. No. 1,239,806; Sept. 11; v. 242; p. 375.
Casket-handle. E. R. Sargent. No. 1,241,287; Sept. 25; v. 242; p. 910.
Casket-handle. E. R. Sargent. No. 1,241,288; Sept. 25; v. 242; p. 910.
Casting-machine, Centrifugal. D. S. De Lavaud. No. 1,240,546; Sept. 18; v. 242; p. 643.
Casting-machine mold. C. H. Lister. No. 1,240,229; Sept. 18; v. 242; p. 545.
Castings, Hardening. J. W. Gebhard. No. 1,239,586; Sept. 11; v. 242; p. 305.
Castings, Making commercial. J. Kralund. No. 1,238,789; Sept. 4; v. 242; p. 21.
Catalyzer for hydrogenating oils and the like. M. H. Ittner. No. 1,238,774; Sept. 4; v. 242; p. 17.
Catch-basin or sewer-inlet. J. R. Harrison. No. 1,239,102; Sept. 4; v. 242; p. 123.
Cellulose, Preparing sulfite. C. Bache-Wiig. No. 1,240,920; Sept. 25; v. 242; p. 793.
Cement, Apparatus for cooling clinker in the manufacture of. G. M. Park. No. 1,240,480; Sept. 18; v. 242; p. 623.
Cement-finishing tool. R. R. Lamb. No. 1,239,608; Sept. 11; v. 242; p. 312.
Cement, Manufacture of. A. Helbronner. No. 1,239,012; Sept. 11; v. 242; p. 410.
Cement, White. W. C. Ewing. No. 1,239,579; Sept. 11; v. 242; p. 303.
Cement-work guard. S. H. Dolbear. No. 1,238,992; Sept. 4; v. 242; p. 88.
Centrifugal compressors or pumps, Apparatus for operating the blow-off valves of. H. Guyer. No. 1,241,372; Sept. 25; v. 242; p. 934.
Ceramic articles for handling, Preparing. J. A. Jeffery. No. 1,240,575; Sept. 18; v. 242; p. 651.
Chain. A. B. Taylor. No. 1,239,232; Sept. 4; v. 242; p. 164.
Chain. A. Vanderveld. No. 1,238,847; Sept. 4; v. 242; p. 41.
Chain-link connector. W. H. McLaughlin. (Reissue.) No. 14,361; Sept. 18; v. 242; p. 725.
Chain-lock. E. J. C. Timerman. No. 1,239,745; Sept. 11; v. 242; p. 356.
Chain, Non-skid. F. E. Messler. No. 1,239,711; Sept. 11; v. 242; p. 346.
Chain-tightener. W. S. Foster. No. 1,238,905; Sept. 4; v. 242; p. 60.
Chains, Locking mechanism for. A. J. Heinsius. No. 1,241,477; Sept. 25; v. 242; p. 965.
Chair: *See*—
Collapsible and convertible chair. Rail-chair.
High chair. Rocking-chair.
Wicker chair.
Chair. W. P. Loeblein. No. 1,239,279; Sept. 4; v. 242; p. 180.
Chair attachment. W. T. Lilly. No. 1,239,018; Sept. 4; v. 242; p. 96.
Chandelier, Gas-. A. Spielman. No. 1,241,159; Sept. 25; v. 242; p. 866.
Channeling-machine, Electropneumatic. A. H. Gibson. No. 1,240,559; Sept. 18; v. 242; p. 647.
Charging device. W. C. Daugherty. No. 1,239,571; Sept. 11; v. 242; p. 301.
Charging mechanism. T. W. Atterbury and P. W. Matthews. No. 1,240,295; Sept. 18; v. 242; p. 566.
Check and memorandum pad case. E. T. Hazelett. No. 1,239,596; Sept. 11; v. 242; p. 308.
Check holding and notching device. J. S. Arcus. No. 1,239,861; Sept. 11; v. 242; p. 394.
Check-protector. J. E. Simpson and C. J. Paulson. No. 1,240,891; Sept. 25; v. 242; p. 783.
Child's seat, Folding and adjustable. L. L. Farrer. No. 1,239,470; Sept. 11; v. 242; p. 268.
Chocolate-heater. H. R. Richards. No. 1,239,218; Sept. 4; v. 242; p. 160.
Christmas tree, Artificial. H. K. Vierlinger. No. 1,240,392; Sept. 18; v. 242; p. 596.
Christmas-tree holder. F. W. Krapf, Jr. No. 1,241,127; Sept. 25; v. 242; p. 855.
Christmas-tree stand. C. Saucier. No. 1,240,376; Sept. 18; v. 242; p. 591.

Chuck. F. E. Bright. No. 1,239,873; Sept. 11; v. 242; p. 398.
Chuck, Floating tool-. H. J. Watts. No. 1,241,175; Sept. 25; v. 242; p. 871.
Chuck, Floating tool. H. J. Watts. No. 1,241,177; Sept. 25; v. 242; p. 872.
Chute, Loading and unloading. C. Peterson. No. 1,241,436; Sept. 25; v. 242; p. 952.
Cigar and stogy bunching and rolling machine. J. S. Haggerty. No. 1,239,002; Sept. 4; v. 242; p. 91.
Cigar and stogy making machine. J. S. Haggerty. No. 1,239,004; Sept. 4; v. 242; p. 91.
Cigar-lighter. M. McAneny. No. 1,239,801; Sept. 11; v. 242; p. 373.
Cigars, Pocket-receptacle for lighted. T. A. Hilliard. No. 1,238,914; Sept. 4; v. 242; p. 62.
Cigars, Wind-shield and protector for. C. E. Fort and A. S. Horton. No. 1,240,329; Sept. 18; v. 242; p. 576.
Cigarette-box. G. E. Griffith and E. F. Gallagher. No. 1,240,563; Sept. 18; v. 242; p. 648.
Cigarette-lifter. J. P. Barnett. No. 1,241,463; Sept. 25; v. 242; p. 961.
Circuit-breaker. W. S. Harley. No. 1,240,442; Sept. 18; v. 242; p. 611.
Circuit-breaker. F. H. Kroger. No. 1,239,114; Sept. 4; v. 242; p. 127.
Circuit-closer. C. Sheldon. No. 1,239,830; Sept. 11; v. 242; p. 383.
Circuit-closing device. R. P. Johnston. No. 1,240,147; Sept. 11; v. 242; p. 479.
Clamp; *See*—
Antiskid-device clamp. Mud-hook clamp.
Coupling-clamp. Pipe-clamp.
Extension-clamp. Saw-clamp.
Ladder-clamp. Wheel-clamp.
Clamp. M. H. Gould. No. 1,240,966; Sept. 25; v. 242; p. 806.
Clamp. E. A. Hawthorne. No. 1,239,595; Sept. 11; v. 242; p. 307.
Clasp; *See*—
Necktie-clasp.
Classifier. J. S. Bartley. No. 1,240,923; Sept. 25; v. 242; p. 794.
Cleaner; *See*—
Belt-cleaner. Picture-film cleaner.
Comb-cleaner. Pipe-cleaner.
Ditch-cleaner. Spittoon-cleaner.
Cleaning and polishing composition. R. L. Mainwaring. No. 1,239,416; Sept. 4; v. 242; p. 222.
Cleaning device. L. L. Ferguson. No. 1,239,581; Sept. 11; v. 242; p. 303.
Clip; *See*—
Swingletree-clip
Clock, Alarm-. W. E. Porter. No. 1,240,482; Sept. 18; v. 242; p. 624.
Clock, Alarm-. W. E. Porter. No. 1,240,483; Sept. 18; v. 242; p. 625.
Clock, Alarm-. W. E. Porter. No. 1,240,484; Sept. 18; v. 242; p. 625.
Clock and fire-signal, Combined alarm-. J. Stevens. No. 1,240,618; Sept. 18; v. 242; p. 664.
Clock, Electric. E. Kling-Müller. No. 1,239,507; Sept. 11; v. 242; p. 279.
Clock, Electric automobile-. W. H. Thompson. No. 1,241,055; Sept. 25; v. 242; p. 834.
Clock, Watchman's. K. Oswald. No. 1,239,812; Sept. 11; v. 242; p. 377.
Clocks and watches, Center-friction for. W. E. Porter. No. 1,241,148; Sept. 25; v. 242; p. 863.
Closet attachment. C. W. Macy. No. 1,241,231; Sept. 25; v. 242; p. 889.
Closet attachment. C. W. Macy. No. 1,241,232; Sept. 25; v. 242; p. 889.
Closet-bowl. G. S. Vampa. No. 1,239,319; Sept. 4; v. 242; p. 192.
Closure, Locking-. H. W. and T. J. Lee and C. M. Sims. No. 1,239,704; Sept. 11; v. 242; p. 343.
Cloth measuring and folding machine. J. T. Tullis. No. 1,238,961; Sept. 4; v. 242; p. 77.
Clothes-boiler. S. Haluska. No. 1,239,686; Sept. 11; v. 242; p. 337.
Clothes-drainer. J. P. Sundin. No. 1,238,954; Sept. 4; v. 242; p. 75.
Clothes-pin bag. E. Norman. No. 1,239,298; Sept. 4; v. 242; p. 186.
Clothes pin or retainer. T. M. Price and J. W. Tillman. No. 1,239,962; Sept. 11; v. 242; p. 425.
Clothes-rack. S. T. Ronda. No. 1,238,824; Sept. 4; v. 242; p. 33.
Club. J. P. Arnett and J. T. Fairchild. No. 1,240,005; Sept. 11; v. 242; p. 438.
Clutch. P. Dignan. No. 1,240,829; Sept. 25; v. 242; p. 763.
Clutch. A. Travis. No. 1,239,985; Sept. 11; v. 242; p. 432.
Clutch, Cone-. H. M. Lewis. No. 1,240,741; Sept. 18; v. 242; p. 703.
Clutch-controlling device. J. E. Holden. No. 1,240,343; Sept. 18; v. 242; p. 581.
Clutch-facing. H. A. Bell and C. Swoboda. No. 1,239,864; Sept. 11; v. 242; p. 395.
Clutch, Friction-. F. H. Farmer and E. W. Hulet. No. 1,239,778; Sept. 11; v. 242; p. 366.
Clutch, Friction-. T. B. Murray. No. 1,239,940; Sept. 11; v. 242; p. 418.
Clutch mechanism. N. Krump. No. 1,240,225; Sept. 18; v. 242; p. 544.
Clutch mechanism. J. G. Vincent. No. 1,241,060; Sept. 25; v. 242; p. 835.
Clutch mechanism for reversing-gearing. H. A. Tuttle. No. 1,241,057; Sept. 25; v. 242; p. 834.
Clutch, Positive friction-. H. V. Leckie. No. 1,241,129; Sept. 25; v. 242; p. 856.
Coal-shield. W. E. Wood. No. 1,239,549; Sept. 11; v. 242; p. 293.
Coaling apparatus. W. F. Hunt. No. 1,240,215; Sept. 18; v. 242; p. 541.
Coaster. E. F. T. Lundquist. No. 1,239,196; Sept. 4; v. 242; p. 152.
Coaster-slide, Wave. P. V. Townsend. No. 1,239,848; Sept. 11; v. 242; p. 389.
Coat and cape, Convertible. J. C. Whiteside. No. 1,239,995; Sept. 11; v. 242; p. 434.
Coating-machine. M. M. Jewett. No. 1,239,399; Sept. 4; v. 242; p. 217.
Coating material, Applying. H. W. Day. No. 1,239,089; Sept. 4; v. 242; p. 118.
Coating surfaces. A. G. Bagnall and J. A. Taylor. No. 1,239,074; Sept. 4; v. 242; p. 113.
Cock and coupling, Wall gas-. F. W. Olds. No. 1,240,161; Sept. 11; v. 242; p. 483.
Coffee-cleaning composition. A. F. W. Meyer. No. 1,239,930; Sept. 11; v. 242; p. 416.
Coin-delivery means for change-making machines and the like. G. J. Barrett. No. 1,238,736; Sept. 4; v. 242; p. 5.
Coin-handling machine. C. S. Batdorf. No. 1,239,251; Sept. 4; v. 242; p. 171.
Coin-savings receptacle. V. J. Van Horn. No. 1,239,143; Sept. 4; v. 242; p. 136.
Coke-ovens, Gas-collecting attachment for. H. P. Scheel. No. 1,240,494; Sept. 18; v. 242; p. 628.
Collapsible and convertible chair. G. Norberti. No. 1,240,243; Sept. 18; v. 242; p. 549.
Collapsible boat. J. C. Hoseck. No. 1,240,978; Sept. 25; v. 242; p. 810.
Collar. W. J. Cipra. No. 1,239,563; Sept. 11; v. 242; p. 297.
Collar-fastening. A. A. Kinion. No. 1,240,857; Sept. 25; v. 242; p. 773.
Collar, Horse-. A. Thomson. No. 1,241,305; Sept. 25; v. 242; p. 915.
Column and base. P. Dross and F. M. McLean. No. 1,240,959; Sept. 25; v. 242; p. 804.
Comb; *See*—
Currycomb. Sanitary comb.
Comb-cleaner. G. Rechter. No. 1,239,964; Sept. 11; v. 242; p. 426.
Combination-lock. J. Baum. No. 1,240,114; Sept. 11; v. 242; p. 469.
Combination-rack. C. Benson. No. 1,240,655; Sept. 18; v. 242; p. 676.
Combing-machine. J. W. Nasmith. No. 1,239,122; Sept. 4; v. 242; p. 130.
Combing-machine. J. W. Nasmith. No. 1,239,123; Sept. 4; v. 242; p. 130.
Combustion-engine, Two-cycle. C. W. Fowler. No. 1,240,798; Sept. 18; v. 242; p. 721.
Combustion-engine, Two-stroke. C. Rudqwist. No. 1,239,224; Sept. 4; v. 242; p. 162.
Commode-cover-silencing device. E. McCracken. No. 1,240,746; Sept. 18; v. 242; p. 704.
Commutator. W. T. Hensley. No. 1,240,975; Sept. 25; v. 242; p. 809.
Commutators for armatures, Building. V. G. Apple. No. 1,240,806; Sept. 25; v. 242; p. 756.
Compass, Beam-. S. Jachimowicz. No. 1,240,853; Sept. 25; v. 242; p. 771.
Compass, Gyro-. J. Perry and S. G. Brown. No. 1,240,872; Sept. 25; v. 242; p. 777.
Composition of matter. W. A. Day. No. 1,239,465; Sept. 11; v. 242; p. 267.
Compound engine. A. Moraski. No. 1,239,02[illegible]; Sept. 4; v. 242; p. 99.
Compressor. R. Conrader. No. 1,239,567; Sept. 11; v. 242; p. 299.
Compressor. S. G. Skinner. No. 1,240,892; Sept. 25; v. 242; p. 783.
Compressor-unloader. R. Conrader. No. 1,239,566; Sept. 11; v. 242; p. 298.
Compressors, Regulating mechanism for centrifugal. O. Banner. No. 1,240,531; Sept. 18; v. 242; p. 639.
Compressors, Regulator for fluid-. E. L. Buckley. No. 1,240,539; Sept. 18; v. 242; p. 642.
Compressors, Relief device for. R. Conrader. No. 1,239,568; Sept. 11; v. 242; p. 299.
Compressors, Unloading and capacity-regulating mechanism for. B. V. Novdberg. No. 1,239,946; Sept. 11; v. 242; p. 420.
Computing device. W. H. Matthews. No. 1,238,800; Sept. 4; v. 242; p. 25.
Concrete beams, Reinforcement system for. R. B. Hartman. No. 1,240,137; Sept. 11; v. 242; p. 475.
Concrete-block machine. S. D. Lindsay. No. 1,241,228; Sept. 25; v. 242; p. 888.
Concrete-construction mold. P. H. Clinkunbroomer. No. 1,239,462; Sept. 11; v. 242; p. 265.
Concrete construction without coffering, Mixed reinforced. J. Berliat. No. 1,241,187; Sept. 25; v. 242; p. 875.

Concrete constructions, Expansion-joint for. J. A. De Mond. No. 1,239,573; Sept. 11; v. 242; p. 301.
Concrete floors and roofs, Centering for reinforced-. A. Jordahl. No. 1,241,124; Sept. 25; v. 242; p. 854.
Concrete floors, Apparatus for constructing ribbed. A. J. Widmer. No. 1,238,858; Sept. 4; v. 242; p. 44.
Concrete, Mold for constructing hollow walls of. A. Gendron and J. R. Richardson. No. 1,240,436; Sept. 18; v. 242; p. 609.
Concrete, Molding. E. S. Parsons. No. 1,241,144; Sept. 25; v. 242; p. 862.
Concrete-pipe joint. M. J. Wyers. No. 1,241,323; Sept. 25; v. 242; p. 920.
Concrete-reinforcement. G. B. Waite. No. 1,239,649; Sept. 11; v. 242; p. 324.
Concrete sections, Expansion-joint for. W. E. Leach. No. 1,241,405; Sept. 25; v. 242; p. 944.
Concrete structures, Mold for casting. E. P. Henry. No. 1,239,390; Sept. 4; v. 242; p. 214.
Concrete tie. I. S. Fisher. No. 1,240,039; Sept. 11; v. 242; p. 447.
Concrete wall construction. L. C. Egloff. No. 1,240,690; Sept. 18; v. 242; p. 687.
Concrete walls, Mold for constructing. A. Gendron and J. R. Richardson. No. 1,240,435; Sept. 18; v. 242; p. 609.
Condenser. H. P. Donle. No. 1,240,958; Sept. 25; v. 242; p. 804.
Condenser. C. M. Yates. No. 1,239,067; Sept. 4; v. 242; p. 111.
Condenser, Surface. T. C. McBride. No. 1,239,198; Sept. 4; v. 242; p. 152.
Conductors, Connector for flexible armored. L. Marchand, Jr. No. 1,238,799; Sept. 4; v. 242; p. 25.
Cone-tube. H. L. Tiffany. No. 1,240,103; Sept. 11; v. 242; p. 466.
Confection-stacker. W. J. Swartz and E. H. Waugh. No. 1,241,165; Sept. 25; v. 242; p. 868.
Confectionery-machines, Waxed-paper-cleaning mechanism for. O. E. Dunham. No. 1,238,897; Sept. 4; v. 242; p. 57.
Connecting and retaining device. F. L. West. No. 1,239,993; Sept. 11; v. 242; p. 434.
Connecting-bar. F. Schaefer. No. 1,240,493; Sept. 18; v. 242; p. 627.
Connector. J. F. Smart. No. 1,239,531; Sept. 11; v. 242; p. 287.
Contact-lubricator, Vibratory. W. Von Wolffradt. No. 1,241,174; Sept. 25; v. 242; p. 871.
Container. C. A. Hammond-Knowlton. No. 1,240,045; Sept. 11; v. 242; p. 448.
Container. J. Marsh. No. 1,239,417; Sept. 4; v. 242; p. 222.
Container. A. G. F. Schuster and I. R. Johnson. No. 1,238,830; Sept. 4; v. 242; p. 35.
Container-body. W. J. Cullen. No. 1,239,162; Sept. 4; v. 242; p. 142.
Container-body. W. J. Cullen. No. 1,239,163; Sept. 4; v. 242; p. 142.
Control system, Multiple-. J. H. Hammond, Jr. No. 1,239,592; Sept. 11; v. 242; p. 306.
Controlling or regulating apparatus, Automatic. G. G. Earl. No. 1,240,325; Sept. 18; v. 242; p. 575.
Conveyer. W. T. James. No. 1,239,490; Sept. 11; v. 242; p. 274.
Conveyer, Compartment. N. O. Erickson. No. 1,241,204; Sept. 25; v. 242; p. 880.
Cooker and cooler, Combined. A. R. Thompson. No. 1,241,168; Sept. 25; v. 242; p. 869.
Cooking apparatus. C. B. Trescott. No. 1,239,641; Sept. 11; v. 242; p. 322.
Cooking utensil. J. P. Dougherty. No. 1,240,427; Sept. 18; v. 242; p. 607.
Cooking utensil. J. Paquette. No. 1,241,010; Sept. 25; v. 242; p. 820.
Cooking-utensil attachment. J. Hauenstein. No. 1,239,788; Sept. 11; v. 242; p. 369.
Cooling apparatus. S. E. Seaman. No. 1,240,609; Sept. 18; v. 242; p. 661.
Coop. D. MacVicar. No. 1,240,467; Sept. 18; v. 242; p. 620.
Copy-holder. J. F. Leigh. No. 1,241,130; Sept. 25; v. 242; p. 857.
Core-drill. F. Stone. (Reissue.) No. 14,356; Sept. 11; v. 242; p. 488.
Cork-puller. J. Sheridan. No. 1,240,610; Sept. 18; v. 242; p. 661.
Corn cutter, Green-. W. A. Collins. No. 1,239,353; Sept. 4; v. 242; p. 203.
Corn drier, Seed-. R. F. Plumb. No. 1,240,365; Sept. 18; v. 242; p. 587.
Corn-husker. J. J. Heser. No. 1,239,913; Sept. 11; v. 242; p. 410.
Corn-pad. A. Boone. No. 1,240,021; Sept. 11; v. 242; p. 442.
Corn-testing machine, Seed-. E. G. Tjossem. No. 1,238,956; Sept. 4; v. 242; p. 75.
Corner-joint. J. Small. No. 1,241,042; Sept. 25; v. 242; p. 830.
Cornet. C. G. Conn. No. 1,240,177; Sept. 18; v. 242; p. 527.
Corpse-carrier. B. O'Reilly. No. 1,240,357; Sept. 18; v. 242; p. 585.
Corrosion, Composition for protecting metallic surfaces against. D. C. Westerfield and E. J. Rogers. No. 1,240,395; Sept. 18; v. 242; p. 597.
Corset. J. H. and I. Taylor. No. 1,240,510; Sept. 18; v. 242; p. 633.
Corset, Apparel-. D. Kops. No. 1,241,400; Sept. 25; v. 242; p. 943.
Corset-cover and chemise, Combination. J. B. Fortain and M. Viets. No. 1,240,554; Sept. 18; v. 242; p. 645.
Corset-stay tip. O. Mortara. No. 1,240,998; Sept. 25; v. 242; p. 817.
Cotton-cleaning apparatus. J. O'Connell. No. 1,239,432; Sept. 4; v. 242; p. 227.
Cotton-distributer. W. White. No. 1,241,318; Sept. 25; v. 242; p. 919.
Cotton-elevator. C. S. Middleton and D. B. Thompson. No. 1,240,752; Sept. 18; v. 242; p. 706.
Cotton-gin. T. S. Grimes. No. 1,241,466; Sept. 25; v. 242; p. 962.
Cotton-picker. H. M. Reese. No. 1,241,280; Sept. 25; v. 242; p. 907.
Couch, Convertible. G. F. Sisbower and L. E. Pittoni. No. 1,240,500; Sept. 18; v. 242; p. 630.
Couch-cylinder, Felt-covered suction. E. V. Phelps. No. 1,241,272; Sept. 25; v. 242; p. 905.
Couch lock, Folding-. W. P. Seng. No. 1,239,528; Sept. 11; v. 242; p. 285.
Coupling; *See*—
Bed-rail coupling. Pipe-coupling.
Car-coupling. Rope-coupling.
Fluid-coupling. Tractor-trailer coupling.
Hose-coupling.
Coupling. J. W. Buller. No. 1,240,818; Sept. 25; v. 242; p. 760.
Coupling. W. Mitchell. No. 1,241,137; Sept. 25; v. 242; p. 859.
Coupling-clamp. W. W. Price. No. 1,240,486; Sept. 18; v. 242; p. 625.
Cover-locking means. C. D. Platt. No. 1,239,718; Sept. 11; v. 242; p. 348.
Cover or chest-lid, Device for holding a. C. D. Bartran. No. 1,238,871; Sept. 4; v. 242; p. 48.
Crank-casing support. J. A. Johnson. No. 1,239,915; Sept. 11; v. 242; p. 411.
Crank-locking device. G. H. Hilbers. No. 1,238,912; Sept. 4; v. 242; p. 62.
Crank-pins and the like, Machine for turning off. J. B. Edwards. No. 1,239,869; Sept. 4; v. 242; p. 207.
Crate, Folding. M. A. Long. No. 1,240,463; Sept. 18; v. 242; p. 618.
Crate, Folding. R. R. Mortland and W. S. Kail. No. 1,240,757; Sept. 18; v. 242; p. 708.
Crate, Folding. J. D. Stires. No. 1,240,097; Sept. 11; v. 242; p. 463.
Crimping-machine. T. J. Peet. No. 1,241,145; Sept. 25; v. 242; p. 862.
Cross-arm. E. C. Van Diest. No. 1,239,142; Sept. 4; v. 242; p. 136.
Crossing-gate. L. L. Hood. No. 1,240,718; Sept. 18; v. 242; p. 695.
Crucible-furnace. G. Keith. No. 1,241,397; Sept. 25; v. 242; p. 942.
Cue-holder. F. P. Grode. No. 1,240,705; Sept. 18; v. 242; p. 691.
Cuff. F. M. Prestwich. No. 1,241,479; Sept. 25; v. 242; p. 966.
Cuff-protector. H. D. Newman. No. 1,239,944; Sept. 11; v. 242; p. 420.
Cuff, Shirt-. C. M. Sussman. No. 1,239,137; Sept. 4; v. 242; p. 135.
Culinary utensil. J. C. Hansen. No. 1,239,593; Sept. 11; v. 242; p. 307.
Cultivator. Q. S. Howard. No. 1,241,382; Sept. 25; v. 242; p. 937.
Cultivator. N. E. Nichols. No. 1,239,945; Sept. 11; v. 242; p. 420.
Cultivator. W. M. Reynolds. No. 1,238,821; Sept. 4; v. 242; p. 32.
Cultivator attachment, Disk-. C. H. Gardiner. No. 1,238,998; Sept. 4; v. 242; p. 90.
Cultivator-hobble. J. H. Hackfeld. No. 1,241,110; Sept. 25; v. 242; p. 851.
Cultivator, Soil-. M. Strom and E. Hoglund. No. 1,238,953; Sept. 4; v. 242; p. 75.
Culvert-mold. W. W. Johnston. No. 1,241,393; Sept. 25; v. 242; p. 940.
Cup; *See*—
Drinking-cup. Grease-cup.
Cup separator, Nested-. A. E. Dempsey. No. 1,238,895; Sept. 4; v. 242; p. 56.
Current motor, Alternating-. A. C. and T. R. Bell. No. 1,239,761; Sept. 11; v. 242; p. 360.
Current motor, Alternating-. S. R. Bergman. No. 1,240,018; Sept. 11; v. 242; p. 442.
Current motor, Alternating-. C. P. Steinmetz. No. 1,239,979; Sept. 11; v. 242; p. 430.
Current rectifier, Alternating-. E. C. Ballman. No. 1,239,249; Sept. 4; v. 242; p. 170.
Currents, System for generating high-frequency. R. Arnò. No. 1,240,294; Sept. 18; v. 242; p. 565.
Currycomb. F. L. De Lucchi. No. 1,240,124; Sept. 11; v. 242; p. 472.

Curtain frame, Panel-. C. W. Kirsch and H. J. Lahmeyer. No. 1,240,581; Sept. 18; v. 242; p. 653.
Curtain-hanger, Tubular adjustable. A. W. Lyda. No. 1,240,863; Sept. 25; v. 242; p. 774.
Curtain-pole. A. F. Gray. No. 1,239,905; Sept. 11; v. 242; p. 408.
Curtain-pole support and shade-bracket. M. J. Gore. No. 1,239,387; Sept. 4; v. 242; p. 213.
Curtain-rod. C. W. Kirsch. No. 1,240,582; Sept. 18; v. 242; p. 653.
Cushion-spring for three-wheeled tractors. G. B. Kelley. No. 1,239,603; Sept. 11; v. 242; p. 310.
Cuspidor. O. P. Clemens and W. C. Bott. No. 1,240,945; Sept. 25; v. 242; p. 800.
Cuspidor. H. L. Johnson. No. 1,240,577; Sept. 18; v. 242; p. 652.
Cuspidor. C. E. Nystrum. No. 1,239,716; Sept. 11; v. 242; p. 348.
Cuspidor-carrier. R. O. Blank. No. 1,239,868; Sept. 11; v. 242; p. 396.
Cutter: *See*—
Butter-cutter. Potato-cutter.
Corn-cutter. Railway-track weed-cutter.
Flue-cutter. Washer-cutter.
Hobbing-cutter.
Cutter. F. T. Highams. No. 1,239,486; Sept. 11; v. 242; p. 273.
Cutter. K. Stiegelmayer. No. 1,240,619; Sept. 18; v. 242; p. 664.
Cutter-guard. P. Erickson. No. 1,240,430; Sept. 18; v. 242; p. 607.
Cutting and cleaning tool. E. MacLachlan. No. 1,239,201; Sept. 4; v. 242; p. 153.
Cutting-die. G. Mints. No. 1,239,289; Sept. 4; v. 242; p. 183.
Cutting-tool. W. C. Andrews. No. 1,239,659; Sept. 11; v. 242; p. 327.
Cycle, Armored motor-. F. M. Goddard. No. 1,239,476; Sept. 11; v. 242; p. 270.
Cycle attachment, Motor-. C. Myrle. No. 1,241,423; Sept. 25; v. 242; p. 949.
Cycle saddle, Motor-. F. Mesinger. No. 1,240,587; Sept. 18; v. 242; p. 655.
Cycle wind-shield, Motor-. H. T. Jose. No. 1,239,916; Sept. 11; v. 242; p. 411.
Cylinder-head. E. T. Ross. No. 1,241,024; Sept. 25; v. 242; p. 824.
Cylinders, Composition for repairing scored. L. Lorentowicz. No. 1,239,195; Sept. 4; v. 242; p. 152.
Cylinders, pipes, &c., Manufacture of. W. A. Doble. No. 1,240,957; Sept. 25; v. 242; p. 804.
Dash-pot mechanism. J. Gouldbourn. No. 1,240,196; Sept. 18; v. 242; p. 534.
Defense, Method of and apparatus for. D. G. Saunders, Jr. No. 1,238,827; Sept. 4; v. 242; p. 34.
Dehorning implement. J. W. King. No. 1,239,016; Sept. 4; v. 242; p. 96.
Dental and surgical instrument. E. P. Dameron. No. 1,240,320; Sept. 18; v. 242; p. 574.
Dental-floss holder. F. H. Stickler. No. 1,239,633; Sept. 11; v. 242; p. 319.
Dental tool for cleaning teeth. G. O. Burlew. No. 1,238,883; Sept. 4; v. 242; p. 52.
Desk. E. A. Mosman. No. 1,239,937; Sept. 11; v. 242; p. 417.
Despatch system, Vacuum-plenum pneumatic-carrier-. A. W. Pearsall. No. 1,240,362; Sept. 18; v. 242; p. 586.
Detonating cap. O. Matter. No. 1,239,613; Sept. 11; v. 242; p. 313.
D-handle. F. Skelton and W. Pickard. No. 1,240,502; Sept. 18; v. 242; p. 630.
D-handle, Reinforced. F. Skelton. No. 1,240,503; Sept. 18; v. 242; p. 631.
Die: *See*—
Cutting-die. Swaging-die.
Pipe-threading die.
Die-casting machine. A. W. Morris. No. 1,239,807; Sept. 11; v. 242; p. 376.
Die casting or forging apparatus. A. W. Morris. No. 1,239,808; Sept. 11; v. 242; p. 376.
Die-stock. R. J. Hebert. No. 1,241,377; Sept. 25; v. 242; p. 936.
Diesel engine, Double-acting. G. C. Davison and J. W. Anderson. No. 1,240,827; Sept. 25; v. 242; p. 763.
Digger: *See*—
Potato-digger.
Direction-indicator. W. O. Bunnell and Q. A. Gates. No. 1,239,349; Sept. 4; v. 242; p. 201.
Direction-indicator. A. M. Harris. No. 1,238,763; Sept. 4; v. 242; p. 13.
Direction-signal. H. T. Winston. No. 1,240,639; Sept. 18; v. 242; p. 671.
Directories, &c., Combined place-marking and advertising device for. F. M. Stevens. No. 1,241,049; Sept. 25; v. 242; p. 832.
Dish-pan. M. A. Smith. No. 1,239,834; Sept. 11; v. 242; p. 385.
Dish-rack, Metallic. A. M. Vanderbeek. No. 1,241,169; Sept. 25; v. 242; p. 869.
Dish-washing machine. L. S. Best. No. 1,240,298; Sept. 18; v. 242; p. 567.
Disinfecting and ventilating device. F. Frank. No. 1,239,584; Sept. 11; v. 242; p. 304.
Disinfecting device. C. Doering, Jr. No. 1,240,831; Sept. 25; v. 242; p. 765.
Disk records, Device for controlling the speed of. R. T. Hosking. No. 1,238,918; Sept. 4; v. 242; p. 63.
Display and advertising device, Window-. S. K. Radkoff. No. 1,239,040; Sept. 4; v. 242; p. 102.
Display apparatus, Illuminated. F. C. Bowdidge and P. C. McMullen. No. 1,238,739; Sept. 4; v. 242; p. 6.
Display-card. E. Underwood. No. 1,239,235; Sept. 4; v. 242; p. 166.
Display device. T. F. Connor. No. 1,238,988; Sept. 4; v. 242; p. 87.
Display device. E. R. Smith. No. 1,240,611; Sept. 18; v. 242; p. 662.
Display device for veiling, &c. G. T. Eager. No. 1,238,898; Sept. 4; v. 242; p. 57.
Display-rack, Automatic. H. G. Baker. No. 1,239,662; Sept. 11; v. 242; p. 328.
Display-rack, Revolving. E. W. Townsend. No. 1,240,105; Sept. 11; v. 242; p. 466.
Ditch cleaner and former, Combined. M. Schlatter. No. 1,239,727; Sept. 11; v. 242; p. 350.
Ditching-machine. C. Warren. No. 1,239,650; Sept. 11; v. 242; p. 324.
Doll, Dancing. J. Kershaw. No. 1,238,786; Sept. 4; v. 242; p. 20.
Door attachment. C. F. Herbolsheimer. No. 1,240,846; Sept. 25; v. 242; p. 770.
Door attachment. E. Wiley. No. 1,241,458; Sept. 25; v. 242; p. 960.
Door-bracing device. C. G. Filzer. No. 1,239,582; Sept. 11; v. 242; p. 303.
Door-bumper. J. T. Allmand. No. 1,239,441; Sept. 11; v. 242; p. 259.
Door-cheek. R. E. J. Nordquist. No. 1,239,510; Sept. 11; v. 242; p. 280.
Door check and closer. R. S. Potter and P. Mikkelsen. No. 1,240,778; Sept. 18; v. 242; p. 714.
Door-fastener. L. Bruder. No. 1,241,192; Sept. 25; v. 242; p. 877.
Door-holder. C. E. Drake. No. 1,241,099; Sept. 25; v. 242; p. 848.
Door-holder. J. Nemec. No. 1,241,478; Sept. 25; v. 242; p. 966.
Door-lock. F. Amato. No. 1,240,403; Sept. 18; v. 242; p. 599.
Door-lock. F. Davis. No. 1,239,360; Sept. 4; v. 242; p. 205.
Door-opener and closer, Sliding-. S. R. Strom and C. W. Mourer. No. 1,241,300; Sept. 25; v. 242; p. 914.
Door-operating mechanism. A. R. Boxall. No. 1,238,740; Sept. 4; v. 242; p. 6.
Door-securer. R. A. Macbeth. No. 1,239,802; Sept. 11; v. 242; p. 374.
Door support, Sliding-. L. V. Duke. No. 1,240,832; Sept. 25; v. 242; p. 765.
Dough-mixing apparatus. E. H. Jackson. No. 1,241,390; Sept. 25; v. 242; p. 939.
Draft-bar. W. F. Dunn. No. 1,239,367; Sept. 4; v. 242; p. 207.
Draft-controlling mechanism. H. O'Neil. No. 1,240,870; Sept. 25; v. 242; p. 777.
Draft-equalizer. C. B. Powell. No. 1,241,442; Sept. 25; v. 242; p. 955.
Draft-equalizer. F. C. Warne. No. 1,239,147; Sept. 4; v. 242; p. 138.
Draft-gear. C. A. Carscadin and G. A. Woodman. No. 1,239,460; Sept. 11; v. 242; p. 265.
Draft-gear, Friction. C. W. Sherman. No. 1,241,156; Sept. 25; v. 242; p. 866.
Drag, Revolving. A. L. Nilsen. No. 1,239,294; Sept. 4; v. 242; p. 184.
Drag, Road-. J. Dudek. No. 1,239,366; Sept. 4; v. 242; p. 207.
Drag, Road-. A. A. Hatton. No. 1,240,714; Sept. 18; v. 242; p. 694.
Draw-bar carry-iron. C. T. Westlake. No. 1,239,651; Sept. 11; v. 242; p. 325.
Drawer-lock. D. Mureau. No. 1,240,760; Sept. 18; v. 242; p. 709.
Drawer locking and closing device, Automatic. W. A. Collings. No. 1,241,093; Sept. 25; v. 242; p. 846.
Drawer-locking device, Wardrobe-trunk-. A. P. James. No. 1,240,048; Sept. 11; v. 242; p. 449.
Drawings or pictures, Making. W. R. Hope. No. 1,240,143; Sept. 11; v. 242; p. 478.
Dredger. W. and W. Brown. No. 1,240,932; Sept. 25; v. 242; p. 797.
Dress, Maternity-. R. Horwitz. No. 1,238,917; Sept. 4; v. 242; p. 63.
Drier: *See*—
Bean-drier. Grain-drier.
Corn-drier. Rotary drier.
Dry-cell-tamping apparatus. H. T. Lang. No. 1,241,226; Sept. 25; v. 242; p. 887.
Drying apparatus. G. H. and J. H. Stroband. No. 1,241,299; Sept. 25; v. 242; p. 914.
Drying casein. W. M. Brownell. No. 1,239,766; Sept. 11; v. 242; p. 361.
Drying casein. W. M. Brownell. No. 1,240,816; Sept. 25; v. 242; p. 760.
Drying-table. W. R. Macklind. No. 1,239,415; Sept. 4; v. 242; p. 221.
Drill: *See*—
Core-drill. Rotary drill.
Ratchet-drill.

Drill. G. De Laval. No. 1,240,158; Sept. 11; v. 242; p. 482.
Drill. I. W. Foltz. No. 1,240,553; Sept. 18; v. 242; p. 645.
Drill-holder. A. M. Becker. No. 1,241,327; Sept. 25; v. 242; p. 921.
Drill or boring member. H. J. Watts. No. 1,241,176; Sept. 25; v. 242; p. 871.
Drinking-cup, Folding. E. C. Harrington. No. 1,240,564; Sept. 18; v. 242; p. 649.
Drinking-fountain. G. A. Woods. No. 1,239,151; Sept. 4; v. 242; p. 139.
Drive, Speed-varying. W. H. Nicholas. No. 1,241,004; Sept. 25; v. 242; p. 819.
Driving device, Constant-speed. L. S. Hopkins. No. 1,241,117; Sept. 25; v. 242; p. 852.
Driving device, Four-wheel. J. L. Ware. No. 1,239,990; Sept. 11; v. 242; p. 433.
Driving-gear. H. Stelzner. No. 1,238,952; Sept. 4; v. 242; p. 74.
Driving means. H. W. Eden. No. 1,241,100; Sept. 25; v. 242; p. 848.
Driving mechanism. G. E. Stanley. No. 1,238,950; Sept. 4; v. 242; p. 74.
Driving mechanism, Compensating. J. D. Allen. No. 1,238,730; Sept. 4; v. 242; p. 3.
Driving mechanism, Locking device for intermittent. A. Mehlfelder. No. 1,239,119; Sept. 4; v. 242; p. 129.
Dust-collector. A. C. Brantingham and L. R. Key. No. 1,239,456; Sept. 11; v. 242; p. 264.
Dust-pan. C. R. Moss. No. 1,240,241; Sept. 18; v. 242; p. 548.
Dust-pan. A. W. Williams and W. O. De Kines. No. 1,238,860; Sept. 4; v. 242; p. 45.
Dyeing machine, Log-. H. Flingerle and K. Kroupa. No. 1,239,429; Sept. 4; v. 242; p. 225.
Dyestuff and making same, Disazo. R. Echüle. No. 1,241,153; Sept. 25; v. 242; p. 865.
Earthy material, Process of and machine for treating. M. A. Popkess. No. 1,240,481; Sept. 18; v. 242; p. 624.
Edging-machine. V. Royle. No. 1,239,525; Sept. 11; v. 242; p. 284.
Educational appliance. H. D. De Groat. No. 1,240,031; Sept. 11; v. 242; p. 445.
Educational device. J. H. Fox. No. 1,240,556; Sept. 18; v. 242; p. 646.
Egg-beater. H. K. MacMoran. No. 1,240,355; Sept. 18; v. 242; p. 584.
Egg-carrier. A. H. Armstrong. No. 1,239,661; Sept. 11; v. 242; p. 328.
Egg-carrier. M. B. Wallace. No. 1,240,518; Sept. 18; v. 242; p. 635.
Ejector-control apparatus. R. Suczek. No. 1,239,535; Sept. 11; v. 242; p. 288.
Ejector control, Automatic. G. L. Kothny and R. Suczek. No. 1,240,858; Sept. 25; v. 242; p. 773.
Electric alarm. J. Banneyer. No. 1,239,450; Sept. 11; v. 242; p. 262.
Electric-arc-control mechanism, Automatic. H. M. Baker, Jr. No. 1,239,759; Sept. 11; v. 242; p. 360.
Electric circuits, Combination-lock for. J. F. Hendrickson. No. 1,239,790; Sept. 11; v. 242; p. 370.
Electric connection, Swivel. W. Schade. No. 1,241,080; Sept. 25; v. 242; p. 826.
Electric currents, Rectifier for alternating. C. Gilbert and E. J. Ornold. No. 1,239,588; Sept. 11; v. 242; p. 305.
Electric device, Vapor. H. F. Perkins. No. 1,240,772; Sept. 18; v. 242; p. 715.
Electric furnace. J. L. Dixon. No. 1,241,351; Sept. 25; v. 242; p. 928.
Electric furnace. D. R. Knapp. No. 1,240,460; Sept. 18; v. 242; p. 618.
Electric furnace. E. F. Price. No. 1,239,214; Sept. 4; v. 242; p. 158.
Electric furnace. E. F. Price. No. 1,239,215; Sept. 4; v. 242; p. 158.
Electric heat-storage heating unit. M. E. Louth and J. Jackson. No. 1,238,793; Sept. 4; v. 242; p. 23.
Electric hot-pad, Articulated metal shell for an. H. D. Laraway and B. Falkenberg. No. 1,240,584; Sept. 18; v. 242; p. 654.
Electric hot-plate or heat unit. M. E. Louth and J. Jackson. No. 1,238,792; Sept. 4; v. 242; p. 22.
Electric hot-plate or heating unit. J. C. Patten. No. 1,238,807; Sept. 4; v. 242; p. 28.
Electric hot-plate or heating unit. J. C. Patten. No. 1,238,808; Sept. 4; v. 242; p. 28.
Electric indicator. H. H. Riggs. No. 1,241,151; Sept. 25; v. 242; p. 864.
Electric-light apparatus. N. Papa. No. 1,240,770; Sept. 18; v. 242; p. 712.
Electric light, Portable. W. Bauer. No. 1,241,077; Sept. 25; v. 242; p. 840.
Electric light, Portable. G. W. Wacker. No. 1,238,850; Sept. 4; v. 242; p. 42.
Electric light, Portable. W. H. Zachmann. No. 1,241,071; Sept. 25; v. 242; p. 839.
Electric lighting and heating of railway and other vehicles. C. H. Vidal. No. 1,241,310; Sept. 25; v. 242; p. 917.
Electric-lighting apparatus. C. Wirt. No. 1,238,868; Sept. 4; v. 242; p. 47.
Electric machine, Dynamo-. C. L. Kennedy. No. 1,238,923; Sept. 4; v. 242; p. 65.
Electric machine, Synchronous dynamo-. F. P. Whitaker. No. 1,241,317; Sept. 25; v. 242; p. 918.
Electric motor. F. J. Osius. No. 1,240,802; Sept. 18; v. 242; p. 722.
Electric motor. W. Sparks. No. 1,239,056; Sept. 4; v. 242; p. 107.
Electric push-button. W. Sparks. No. 1,239,054; Sept. 4; v. 242; p. 107.
Electric regulation. J. L. Creveling. No. 1,239,772; Sept. 11; v. 242; p. 364.
Electric-resistance device. W. H. Keller. No. 1,240,457; Sept. 18; v. 242; p. 617.
Electric switch. C. J. Klein. No. 1,240,459; Sept. 18; v. 242; p. 617.
Electric switch. A. Simon. No. 1,241,157; Sept. 25; v. 242; p. 866.
Electric thermal cut-out device. L. Vecchio. No. 1,239,322; Sept. 4; v. 242; p. 193.
Electric-wire connector. A. B. Simpson. No. 1,241,158; Sept. 25; v. 242; p. 866.
Electric-wiring system. F. A. Watkins. No. 1,240,907; Sept. 25; v. 242; p. 789.
Electrical apparatus. R. B. Williamson. No. 1,239,654; Sept. 11; v. 242; p. 326.
Electrical circuits, Safety device for. M. H. Spielman. No. 1,240,896; Sept. 25; v. 242; p. 785.
Electrical-conduit bushing. C. W. Finley. No. 1,240,188; Sept. 18; v. 242; p. 531.
Electrical distribution system. G. Crosby. No. 1,241,485; Sept. 25; v. 242; p. 968.
Electrical distribution system. A. McGary. No. 1,239,710; Sept. 11; v. 242; p. 346.
Electrical impulses, Receiver for. F. K. Vreeland. No. 1,239,852; Sept. 11; v. 242; p. 391.
Electrical meters, Current-jack for. F. R. Innes. No. 1,240,574; Sept. 18; v. 242; p. 651.
Electrical regulator. C. A. Boddie. No. 1,240,930; Sept. 25; v. 242; p. 797.
Electrical signal. E. Balbach. No. 1,240,647; Sept. 18; v. 242; p. 673.
Electrical system. H. Wulff. No. 1,241,460; Sept. 25; v. 242; p. 960.
Electrode, Arc-lamp. W. R. Mott. No. 1,239,810; Sept. 11; v. 242; p. 377.
Electrode, Arc-light. K. Tornberg. No. 1,240,628; Sept. 18; v. 242; p. 667.
Electrolytic apparatus. H. T. Shriver. No. 1,239,530; Sept. 11; v. 242; p. 286.
Electrolytic cell. N. V. Hybinette. No. 1,239,012; Sept. 4; v. 242; p. 94.
Electrolytic deposition, Apparatus for. F. L. Antisell. No. 1,239,443; Sept. 11; v. 242; p. 259.
Electromagnetic device. D. D. Miller. No. 1,240,471; Sept. 18; v. 242; p. 621.
Electromagnetic device. W. C. Neahr. No. 1,241,139; Sept. 25; v. 242; p. 859.
Electromagnetic winding. C. T. Henderson. No. 1,239,008; Sept. 4; v. 242; p. 93.
Elevator: *See*—
Silo-elevator. Water-elevator.
Elevator. L. A. Breneman. No. 1,240,172; Sept. 18; v. 242; p. 525.
Elevator. H. P. Fisher. No. 1,240,552; Sept. 18; v. 242; p. 645.
Elevator. J. M. Whalbe. (Reissue.) No. 14,363; Sept. 18; v. 242; p. 726.
Elevator-door control. W. E. Wragg. No. 1,240,291; Sept. 18; v. 242; p. 564.
Embossing-machine. F. A. Putnam. No. 1,241,278; Sept. 25; v. 242; p. 907.
Embossing-machine. H. D. Schmidt. No. 1,241,152; Sept. 25; v. 242; p. 864.
Embossing-press. R. Marx. No. 1,240,750; Sept. 18; v. 242; p. 705.
Embroidering-machine. J. C. Ringe. No. 1,241,022; Sept. 25; v. 242; p. 824.
Emergency-brake. G. F. Knisley. No. 1,240,150; Sept. 11; v. 242; p. 480.
Enamels or glazes by means of substitutes for stannic oxid, Producing well-clouded. H. Kretzer and A. Cappel. No. 1,239,112; Sept. 4; v. 242; p. 126.
End-gate and locking means therefor. W. E. Gardner. No. 1,239,899; Sept. 11; v. 242; p. 406.
End-gate fastener. C. S. Schwartz. No. 1,240,608; Sept. 18; v. 242; p. 661.
End-gate for motor-trucks. B. Gheffoli. No. 1,239,174; Sept. 4; v. 242; p. 145.
Engine: *See*—
Combustion-engine. Internal-combustion engine.
Compound engine. Rotary engine.
Diesel engine. Rotary internal-combustion engine.
Fire-engine. Steam-engine.
Gas-engine. Traction-engine.
Gasolene-engine. Tractor-engine.
Hydrocarbon-engine.
Engine alarm, Hoisting-. W. J. Lilly. No. 1,239,409; Sept. 4; v. 242; p. 220.
Engine appliance. J. W. Jepson. No. 1,240,724; Sept. 18; v. 242; p. 697.
Engine appliance. J. W. Jepson. No. 1,240,725; Sept. 18; v. 242; p. 697.
Engine cylinders, Means for removing carbon from explosive-. G. P. Horn. No. 1,240,977; Sept. 25; v. 242; p. 870.

Engine-governing mechanism. H. Lemp. No. 1,240,739; Sept. 18; v. 242; p. 702.
Engine igniter mechanism, Internal-combustion-. H. R. Van Deventer. No. 1,241,309; Sept. 25; v. 242; p. 916.
Engine primer, Gas-. J. J. Aull. No. 1,240,404; Sept. 18; v. 242; p. 599.
Engine starter, Internal-combustion-. E. A. Gardner. No. 1,241,206; Sept. 25; v. 242; p. 881.
Engine-starting arrangement. J. W. Jepson. No. 1,240,726; Sept. 18; v. 242; p. 698.
Engine-starting device. C. F. Kettering. No. 1,240,348; Sept. 18; v. 242; p. 582.
Engine-starting device. E. J. Tomlinson. No. 1,238,958; Sept. 4; v. 242; p. 76.
Engine-starting device, Explosion-. R. E. Frison. No. 1,240,332; Sept. 18; v. 242; p. 577.
Engine-starting mechanism, Internal-combustion-. L. Coatalen. No. 1,240,422; Sept. 18; v. 242; p. 605.
Engine tester, Gas-. C. Seymour. No. 1,239,974; Sept. 11; v. 242; p. 428.
Engines, Air-starting system for internal-combustion. W. E. Ver Planck. No. 1,239,648; Sept. 11; v. 242; p. 324.
Engines, Auxiliary air-inlet device for internal-combustion. E. C. Sevigny. No. 1,241,155; Sept. 25; v. 242; p. 865.
Engines, Carbureter apparatus for internal-combustion. W. Grikscheit. No. 1,240,440; Sept. 18; v. 242; p. 610.
Engines, Fuel-heating device for internal-combustion. C. L. Rodgers. No. 1,240,372; Sept. 18; v. 242; p. 589.
Engines, Fuel-vaporizer for internal-combustion. C. Binks. No. 1,239,079; Sept. 4; v. 242; p. 115.
Engines, Heater for the intake-manifolds of internal-combustion. B. N. Parrish. No. 1,240,871; Sept. 25; v. 242; p. 777.
Engines, Hydropneumatic vaporizing apparatus for gas-. J. G. Mecham. No. 1,239,929; Sept. 11; v. 242; p. 415.
Engines, Safety-clutch for starting explosive-. F. F. Grant. No. 1,239,265; Sept. 4; v. 242; p. 175.
Engines, Spark control in combustion-. J. G. Heaslet. No. 1,239,689; Sept. 11; v. 242; p. 338.
Engines, Starting internal-combustion. O. Heins and C. M. Wild. No. 1,240,973; Sept. 25; v. 242; p. 808.
Engines, Starting internal-combustion. O. Heins and C. M. Wild. No. 1,241,115; Sept. 25; v. 242; p. 852.
Engines, Supplying fuel to internal-combustion. W. E. Fowler. No. 1,238,997; Sept. 4; v. 242; p. 89.
Engines, Vacuum fuel-feeding system for gas-. W. Shurtleff. No. 1,241,039; Sept. 25; v. 242; p. 829.
Engines, Water-vaporizer for internal-combustion. W. H. Fox. No. 1,239,380; Sept. 4; v. 242; p. 211.
Engraving-machine. G. E. Johnson. No. 1,239,696; Sept. 11; v. 242; p. 340.
Envelop, Folder-. F. W. Forgus. No. 1,240,961; Sept. 25; v. 242; p. 805.
Envelops, &c., Apparatus for applying fastenings to. W. Richardson. No. 1,239,968; Sept. 11; v. 242; p. 427.
Equalizer. E. Wagner. No. 1,239,988; Sept. 11; v. 242; p. 433.
Evaporating-pan. M. Kurth. No. 1,240,984; Sept. 25; v. 242; p. 812.
Excavating system. C. A. Morris. No. 1,238,801; Sept. 4; v. 242; p. 25.
Excavator. C. G. Hastings. No. 1,240,445; Sept. 18; v. 242; p. 613.
Exercising apparatus, Auto-. I. Fox. No. 1,240,191; Sept. 18; v. 242; p. 532.
Exercising device. E. F. Baldwin. No. 1,240,809; Sept. 25; v. 242; p. 757.
Explosive of the Sprengel class, Chlorate. W. C. Wain. No. 1,240,272; Sept. 18; v. 242; p. 558.
Explosive powder, Finishing. E. Du Pont. No. 1,240,549; Sept. 18; v. 242; p. 644.
Explosive powder, Process of and apparatus for polishing. F. I. Du Pont. No. 1,239,368; Sept. 4; v. 242; p. 207.
Explosives, Means for insuring the safe manipulation of. E. P. Du Pont. No. 1,240,548; Sept. 18; v. 242; p. 644.
Extension-clamp. L. Hoffman. No. 1,241,215; Sept. 25; v. 242; p. 883.
Extension-table. E. Belmore. No. 1,239,340; Sept. 4; v. 242; p. 198.
Exterminator. H. Longauer. No. 1,239,799; Sept. 11; v. 242; p. 373.
Extractor: *See*—
Fume-extractor. Staple-extractor.
Eyeglass-case. J. M. Bradley and C. F. Pike. No. 1,240,536; Sept. 18; v. 242; p. 641.
Eyeglass-guard. L. F. Adt. No. 1,239,245; Sept. 4; v. 242; p. 169.
Eyeglass-guard. A. Wickey. No. 1,238,971; Sept. 4; v. 242; p. 81.
Eyeglass-mounting. E. J. R. Beattey, No. 1,240,533; Sept. 18; v. 242; p. 639.
Fabric: *See*—
Leather fabric.
Fabric-stretcher. A. C. Hanson. No. 1,239,479; Sept. 11; v. 242; p. 270.
Facing-tool. A. L. Geitner. No. 1,240,701; Sept. 18; v. 242; p. 690.
Fan, Centrifugal. A. A. Criqui. No. 1,240,949; Sept. 25; v. 242; p. 801.
Fan, Motor-. L. J. Parker. No. 1,241,245; Sept. 25; v. 242; p. 893.
Fan, Noiseless. C. G. Swenson. No. 1,241,166; Sept. 25; v. 242; p. 868.
Fare-indicator, Time-controlled. P. Floussfisch. No. 1,239,095; Sept. 4; v. 242; p. 120.
Fastener. A. W. De Meir. No. 1,239,362; Sept. 4; v. 242; p. 206.
Fastener, Attached band-. G. H. Taylor. No. 1,241,301; Sept. 25; v. 242; p. 914.
Fastener socket, Snap-. W. S. Richardson. No. 1,240,878; Sept. 25; v. 242; p. 779.
Fasteners in paper, Machine for punching and setting. M. Freitag. No. 1,239,382; Sept. 4; v. 242; p. 211.
Faucet. G. R. Long. No. 1,238,926; Sept. 4; v. 242; p. 66.
Faucet. A. H. Spellmeyer. No. 1,238,843; Sept. 4; v. 242; p. 40.
Faucet. C. B. Stillwell. No. 1,240,265; Sept. 18; v. 242; p. 556.
Faucet and drinking-fountain, Combination. C. F. Rudolph. No. 1,240,260; Sept. 18; v. 242; p. 555.
Faucet and hose attachment clamp. M. H. Shoenberg. No. 1,239,732; Sept. 11; v. 242; p. 352.
Feed-box. A. Lindquist. No. 1,239,116; Sept. 4; v. 242; p. 128.
Feed-trough. W. D. Graham. No. 1,240,134; Sept. 11; v. 242; p. 474.
Feed-water heater. C. F. Braun. No. 1,241,190; Sept. 25; v. 242; p. 876.
Feeder, Hog-. E. Gore and G. S. Henson. No. 1,240,437; Sept. 18; v. 242; p. 610.
Feeding device. I. Imbert. No. 1,241,388; Sept. 25; v. 242; p. 939.
Feeding device, Poultry-. G. W. Knoll, Jr. No. 1,239,404; Sept. 4; v. 242; p. 218.
Feeding-trough. W. A. McCollough. No. 1,240,864; Sept. 25; v. 242; p. 775.
Feldspar, feldspathic rock, and similar material, Treating. W. Glaeser. No. 1,239,787; Sept. 11; v. 242; p. 369.
Felt-stretching machine. J. A. Butler. No. 1,238,742; Sept. 4; v. 242; p. 7.
Fence-post. G. E. Mesecar. No. 1,239,120; Sept. 4; v. 242; p. 129.
Fender: *See*—
Automobile-fender.
Fender. M. Ihnat. No. 1,240,216; Sept. 18; v. 242; p. 541.
Fender. F. Lillich. No. 1,239,705; Sept. 11; v. 242; p. 343.
Fender-brace. C. Christiansen. No. 1,240,942; Sept. 25; v. 242; p. 799.
Ferro-uranium, Manufacturing. R. M. Keeney and L. F. Vogt. No. 1,240,056; Sept. 11; v. 242; p. 451.
Fibers with endless belts, Mechanism for drawing. F. Casablancas. No. 1,240,670; Sept. 18; v. 242; p. 681.
Fibrous composition, Manufacturing. J. C. Woodley. No. 1,240,524; Sept. 18; v. 242; p. 637.
File, Letter-. H. K. Kiso. No. 1,240,058; Sept. 11; v. 242; p. 451.
Filing-cabinet, Sectional. D. E. Hunter. No. 1,240,851; Sept. 25; v. 242; p. 771.
Film-feeding mechanism. H. Csanyi. No. 1,241,200; Sept. 25; v. 242; p. 879.
Filter. E. J. Sweetland. No. 1,240,385; Sept. 18; v. 242; p. 594.
Filter, Air-. J. Z. Hanson. No. 1,241,376; Sept. 25; v. 242; p. 936.
Filter, Oil-. J. W. Peterson and J. P. Quam. No. 1,239,512; Sept. 11; v. 242; p. 281.
Filters in connection with the purification of sugar, oils, and chemicals, Cleaning. P. L. Wooster. No. 1,240,290; Sept. 18; v. 242; p. 564.
Filtering apparatus. G. S. Brooks and L. G. Duncan. No. 1,240,305; Sept. 18; v. 242; p. 569.
Fire-alarm. C. J. Jenne. No. 1,240,049; Sept. 11; v. 242; p. 449.
Fire-alarm apparatus. A. Torchio. No. 1,239,140; Sept. 4; v. 242; p. 135.
Fire-alarm mechanism. O. Poenisch. No. 1,238,813; Sept. 4; v. 242; p. 30.
Fire-alarm signal-box. F. W. Cole. No. 1,239,887; Sept. 11; v. 242; p. 402.
Fire and burglar alarm. J. M. McConnell. No. 1,239,497; Sept. 11; v. 242; p. 276.
Fire and rain alarm. G. M. Gebhard. No. 1,239,383; Sept. 4; v. 242; p. 212.
Fire-box. J. Hassel-Jensen. No. 1,240,971; Sept. 25; v. 242; p. 808.
Fire-engine. C. P. Waterous. No. 1,238,853; Sept. 4; v. 242; p. 42.
Fire-extinguisher, Chemical. J. S. Crawford and B. Moses. No. 1,239,259; Sept. 4; v. 242; p. 174.
Fire-extinguisher, Rotary-sprinkler thermostatic. H. F. Taylor. No. 1,241,450; Sept. 25; v. 242; p. 957.
Firearm. C. A. Nelson. No. 1,239,124; Sept. 4; v. 242; p. 130.
Firearm safety device. E. Larson. No. 1,239,920; Sept. 11; v. 242; p. 413.
Firearm-sight. R. M. Blair. No. 1,240,300; Sept. 18; v. 242; p. 567.
Firearms in position, Means for holding the fore-ends of. A. P. Curtis. No. 1,239,889; Sept. 11; v. 242; p. 408.
Firearms on shields, parapets, and the like, Ball-and-socket joint for mounting. A. B. Revelli. No. 1,241,149; Sept. 25; v. 242; p. 863.

Fireproof construction. E. Merrick. No. 1,239,503; Sept. 11; v. 242; p. 278.
Firing mechanism for small-arms. E. Lytton. No. 1,240,068; Sept. 11; v. 242; p. 454.
Fish-line bob or float. W. W. Gregory and P. D. Maire. No. 1,240,043; Sept. 11; v. 242; p. 448.
Fish trap, Shell-. O. Nelson. No. 1,241,426; Sept. 25; v. 242; p. 950.
Fishing-hook. A. L. Hill. No. 1,239,487; Sept. 11; v. 242; p. 273.
Fishing-reel. G. Cook. No. 1,240,677; Sept. 18; v. 242; p. 683.
Fishing-tool. H. C. Brewster. No. 1,240,661; Sept. 18; v. 242; p. 679.
Flame-regulator, Automatic. J. Krizan, Jr. No. 1,240,982; Sept. 25; v. 242; p. 812.
Flaming arrangement. K. Rücker and D. Pickée. No. 1,240,606; Sept. 18; v. 242; p. 660.
Flash-board skimming-gate. W. Vanden Heuvel. No. 1,241,308; Sept. 25; v. 242; p. 916.
Flash-light. B. Benedict. No. 1,239,078; Sept. 4; v. 242; p. 114.
Flash-light-operating apparatus. H. V. Sheppard. No. 1,238,948; Sept. 4; v. 242; p. 73.
Flax-straw and preparing the residue for stock food, Removing fiber from unretted. J. Brolin. No. 1,239,667; Sept. 11; v. 242; p. 330.
Flesh of animals of the bovine genus, Preparation of the. J. Balzari. No. 1,240,165; Sept. 18; v. 242; p. 523.
Fleshing-machine. A. Travis. No. 1,239,748; Sept. 11; v. 242; p. 356.
Float-wire guide. H. F. Goetz. No. 1,239,903; Sept. 11; v. 242; p. 407.
Floodlight-projector. P. M. Holchtsin. No. 1,240,452; Sept. 18; v. 242; p. 615.
Floor-cleaning device. F. O. Lister. No. 1,240,742; Sept. 18; v. 242; p. 703.
Floor-laying tool. H. L. Sanderson. No. 1,239,306; Sept. 4; v. 242; p. 188.
Flow control, Fluid-. W. Shurtleff. No. 1,241,038; Sept. 25; v. 242; p. 829.
Flow of liquids, Apparatus for measuring and recording the quantity of. W. Paterson. No. 1,239,300; Sept. 4; v. 242; p. 186.
Flue-cutter. H. M. Powers. No. 1,240,779; Sept. 18; v. 242; p. 765.
Fluid-coupling. D. Brown. No. 1,239,345; Sept. 4; v. 242; p. 200.
Fluid-meter. F. C. Viney. No. 1,241,170; Sept. 25; v. 242; p. 869.
Flush-tank. N. Price. No. 1,241,276; Sept. 25; v. 242; p. 906.
Flushing apparatus. W. Gleason. No. 1,240,132; Sept. 11; v. 242; p. 474.
Flushing apparatus for water-closets. W. U. Griffiths. No. 1,240,197; Sept. 18; v. 242; p. 534.
Flushing control, Water-. J. W. Sharp, Jr. No. 1,241,037; Sept. 25; v. 242; p. 829.
Flushing-tank. J. M. Teahen. No. 1,240,470; Sept. 25; v. 242; p. 963.
Fly-catcher. H. O. Wende. No. 1,239,148; Sept. 4; v. 242; p. 138.
Fly-paper holder. W. H. Leaman, Jr. No. 1,239,703; Sept. 11; v. 242; p. 343.
Fly-screen. E. G. Thompson. No. 1,240,627; Sept. 18; v. 242; p. 667.
Flying apparatus. E. Capps. No. 1,240,669; Sept. 18; v. 242; p. 681.
Flying-boat. G. L. Martin. No. 1,239,500; Sept. 11; v. 242; p. 277.
Flying-machine. H. G. Nelson. No. 1,239,942; Sept. 11; v. 242; p. 419.
Flying-machine. S. P. Zywno. No. 1,241,072; Sept. 25; v. 242; p. 839.
Folder. H. H. Hollidge. No. 1,241,381; Sept. 25; v. 242; p. 937.
Folding-machine. W. Reinhold. No. 1,239,965; Sept. 11; v. 242; p. 426.
Folding seat. O. E. Hunt. No. 1,239,185; Sept. 4; v. 242; p. 148.
Folding table. H. A. Frank. No. 1,240,962; Sept. 25; v. 242; p. 805.
Folding table. H. A. Frank. No. 1,240,963; Sept. 25; v. 242; p. 805.
Folding table. H. A. Frank. No. 1,240,964; Sept. 25; v. 242; p. 806.
Folding table. C. O. Garman. No. 1,238,999; Sept. 4; v. 242; p. 90.
Folding table. H. A. Stone. No. 1,239,136; Sept. 4; v. 242; p. 134.
Food-package. G. W. Mathison. No. 1,240,235; Sept. 18; v. 242; p. 547.
Food product and the like, Concentrated. T. Boberg, O. Söderlund, and F. Åslund. No. 1,240,029; Sept. 11; v. 242; p. 442.
Foot-cap. W. L. Bliss. No. 1,238,738; Sept. 4; v. 242; p. 6.
Foot-rest and foot-warmer. B. H. Bower. No. 1,240,301; Sept. 18; v. 242; p. 567.
Foot-support. G. W. Hawley. No. 1,239,789; Sept. 11; v. 242; p. 369.
Form, Dress-. P. F. Quinn. No. 1,239,721; Sept. 11; v. 242; p. 349.
Fountain: *See*—
Drinking-fountain.
Frame: *See*—
Bag-frame. Sheet-metal frame.
Bed-frame. Tent-opening frame.
Curtain-frame. Truck-frame.
Mirror-frame. Window-frame.
Quilting-frame.
Freight-terminal. B. F. Fitch. No. 1,239,264; Sept. 4; v. 242; p. 175.
Friction and hermetically-sealed can, Combined. J. G. Hodgson. No. 1,240,976; Sept. 25; v. 242; p. 809.
Friction gravity-drive. J. F. Gilmore. No. 1,240,560; Sept. 18; v. 242; p. 648.
Fruit-holder. W. E. Brown. No. 1,241,338; Sept. 25; v. 242; p. 924.
Fruit-picker. D. W. Fellows. No. 1,240,128; Sept. 11; v. 242; p. 473.
Fruit-picker. B. McNeill. No. 1,241,411; Sept. 25; v. 242; p. 945.
Fuel-economizer. E. H. Foster. No. 1,239,377; Sept. 4; v. 242; p. 210.
Fuel-feeding device. W. McClave. No. 1,239,612; Sept. 11; v. 242; p. 313.
Fuel-injector. W. Schenker. No. 1,238,828; Sept. 4; v. 242; p. 34.
Fuel-regulator. H. E. Reeve. No. 1,238,940; Sept. 4; v. 242; p. 70.
Fume-extracter, Dry-cleaning. S. S. Dresher. No. 1,240,323; Sept. 18; v. 242; p. 574.
Furnace: *See*—
Crucible-furnace. Hot-air furnace.
Electric furnace. Refuse-furnace.
Furnace. A. Van Leeuwen, Jr., and F. X. Brunelle. No. 1,240,517; Sept. 18; v. 242; p. 634.
Furnace-bottoms, Means for lining. J. A. Black. No. 1,240,409; Sept. 18; v. 242; p. 601.
Furnace-door opener. M. Walton. No. 1,241,061; Sept. 25; v. 242; p. 836.
Furnace-grate. G. F. Pierce. No. 1,239,717; Sept. 11; v. 242; p. 348.
Furnaces, Air-moistening attachment for hot-air. M. S. Tallmage. No. 1,240,388; Sept. 18; v. 242; p. 595.
Furnaces, Humidifier for hot-air. G. W. Howes. No. 1,238,771; Sept. 4; v. 242; p. 15.
Furnaces, Pipe attachment for tubular. E. S. Manny. No. 1,240,994; Sept. 25; v. 242; p. 815.
Furnaces, Radiator for hot-air. O. H. Wallen. No. 1,238,851; Sept. 4; v. 242; p. 42.
Furniture, Article of. C. R. Uhl. No. 1,240,390; Sept. 18; v. 242; p. 596.
Furniture, Folding. A. H. Gareiss. No. 1,239,096; Sept. 4; v. 242; p. 121.
Fuse device. E. O. Schweitzer. No. 1,240,795; Sept. 18; v. 242; p. 720.
Fuse, Electric. G. A. Burnham. No. 1,239,876; Sept. 11; v. 242; p. 399.
Fuse-plug. W. O. Besaw. No. 1,240,157; Sept. 11; v. 242; p. 482.
Fuse, Safety-. A. S. Baldwin. No. 1,239,248; Sept. 4; v. 242; p. 170.
Gage: *See*—
Railway-track gage. Water-gage.
Galvanic battery. H. H. M. Kammerhoff. No. 1,240,856; Sept. 25; v. 242; p. 772.
Galvanic battery. R. Schuster. No. 1,240,885; Sept. 25; v. 242; p. 781.
Galvanic battery. R. Schuster. No. 1,240,886; Sept. 25; v. 242; p. 781.
Game and shell bag, Combined. J. Danz, 2d. (Reissue.) No. 14,365; Sept. 25; v. 242; p. 969.
Game apparatus. P. C. Stichtenoth. No. 1,241,050; Sept. 25; v. 242; p. 832.
Game apparatus. E. M. Wesley. No. 1,240,394; Sept. 18; v. 242; p. 597.
Game-ball, Inflated. W. Miller. No. 1,240,866; Sept. 25; v. 242; p. 775.
Game-board. A. J. Moore. No. 1,240,756; Sept. 18; v. 242; p. 707.
Game-cue. W. Virnig. No. 1,241,312; Sept. 25; v. 242; p. 917.
Garbage-can. J. I. Levett. No. 1,240,740; Sept. 18; v. 242; p. 702.
Garbage-can. W. Schmid. No. 1,239,307; Sept. 4; v. 242; p. 188.
Garbage-receptacle. F. M. Cawby. No. 1,239,881; Sept. 11; v. 242; p. 400.
Garbage-receptacle. W. O. Bunnell and Q. A. Gates. No. 1,239,348; Sept. 4; v. 242; p. 201.
Garbage-receptacle. W. O. Bunnell and Q. A. Gates. No. 1,239,427; Sept. 4; v. 242; p. 225.
Garment. A. H. Walt. No. 1,239,989; Sept. 11; v. 242; p. 433.
Garment-hanger. O. J. Johnson. No. 1,238,781; Sept. 4; v. 242; p. 19.
Garment-hanger, Folding. L. H. Dalton. No. 1,241,346; Sept. 25; v. 242; p. 926.
Garment, One-piece. A. E. Hostetter and W. E. Richards. No. 1,238,770; Sept. 4; v. 242; p. 15.
Garment-slide. C. S. Comstock, Sr. No. 1,240,825; Sept. 25; v. 242; p. 762.

Garment-supporter. H. E. Grabau. No. 1,239,683; Sept. 11; v. 242; p. 337.
Gas and air mixing device. C. E. Chalker. No. 1,239,882; Sept. 11; v. 242; p. 401.
Gas and other pipe-line systems, Antitheft device for contents of. C. W. Bradford. No. 1,239,870; Sept. 11; v. 242; p. 397.
Gas, Apparatus for producing liquefied. L. Wolf. No. 1,240,397; Sept. 18; v. 242; p. 597.
Gas-burner. A. J. English. No. 1,239,681; Sept. 11; v. 242; p. 336.
Gas-burners, Flash-igniter for. H. Frank. No. 1,240,835; Sept. 25; v. 242; p. 766.
Gas-compressor. F. M. Bennett. No. 1,240,925; Sept. 25; v. 242; p. 795.
Gas-compressor. L. Block. No. 1,239,869; Sept. 11; v. 242; p. 396.
Gas-conduits, electric circuits, and the like, Device for automatically controlling lighting. A. C. A. Bouchard. No. 1,240,535; Sept. 18; v. 242; p. 640.
Gas-engine. C. Crompton. No. 1,241,199; Sept. 25; v. 242; p. 879.
Gas-lighting system. R. W. Earle. No. 1,239,092; Sept. 4; v. 242; p. 119.
Gas-log. E. S. Brown. No. 1,239,346; Sept. 4; v. 242; p. 200.
Gas-producer. E. A. W. Jefferies. No. 1,240,220; Sept. 18; v. 242; p. 542.
Gas-producers, Working of by-product-recovery. T. Rigby and G. W. Andrew. No. 1,239,969; Sept. 11; v. 242; p. 427.
Gas-purifier. C. E. Reese. No. 1,240,368; Sept. 18; v. 242; p. 588.
Gas-supply, Wall-switch for distant control of. A. Spielman. No. 1,240,895; Sept. 25; v. 242; p. 784.
Gas-thimble. T. E. Williams and M. B. Bailey. No. 1,239,150; Sept. 4; v. 242; p. 139.
Gasolene-engine. A. Rasmussen, Jr. No. 1,240,366; Sept. 18; v. 242; p. 587.
Gasolene, Manufacture of. A. D. Smith. No. 1,239,423; Sept. 4; v. 242; p. 223.
Gate: *See*—
Crossing-gate.
End-gate.
Flash-board skimming-gate.
Safety-gate.
Stall-construction gate.
Gate-operating device. D. N. Shoemaker. No. 1,240,096; Sept. 11; v. 242; p. 463.
Gate-operating mechanism. R. A. Summers. No. 1,238,844; Sept. 4; v. 242; p. 40.
Gathering and exterminating machine. R. J. Haynes. No. 1,239,103; Sept. 4; v. 242; p. 123.
Gear adapted to transmit rotary motion in the same axial line or at an angle, Coördinated spherical radial. G. J. Hoskins. No. 1,241,118; Sept. 25; v. 242; p. 852.
Gear, Antirattling. H. J. Dubois. No. 1,240,126; Sept. 11; v. 242; p. 472.
Gear, Change-speed. F. Henriod-Schweizer. No. 1,239,272; Sept. 4; v. 242; p. 178.
Gear-forming machine. H. N. Anderson. No. 1,240,913; Sept. 25; v. 242; p. 791.
Gear-rolling machine. H. N. Anderson. No. 1,240,914; Sept. 25; v. 242; p. 791.
Gear-rolling machine. H. N. Anderson. No. 1,240,915; Sept. 25; v. 242; p. 791.
Gear-rolling machine. H. N. Anderson. No. 1,240,916; Sept. 25; v. 242; p. 792.
Gear-rolling machine. H. N. Anderson. No. 1,240,917; Sept. 25; v. 242; p. 792.
Gear-rolling machine. H. N. Anderson. No. 1,240,918; Sept. 25; v. 242; p. 793.
Gear-shifting mechanism. A. F. Masury and A. G. Hereshoff. No. 1,241,414; Sept. 25; v. 242; p. 946.
Gear-shifting mechanism. B. A. Walrath. No. 1,239,435; Sept. 4; v. 242; p. 227.
Gear-shifting mechanism. B. A. Walrath. No. 1,239,436; Sept. 4; v. 242; p. 228.
Gear, Transmission-. A. T. Forward. No. 1,239,781; Sept. 11; v. 242; p. 367.
Gears, Hub for cutting involute. O. G. Simmons. No. 1,241,291; Sept. 25; v. 242; p. 911.
Gears, Making. H. N. Anderson. No. 1,240,919; Sept. 25; v. 242; p. 793.
Gears, Mechanism for the operation and control of variable-speed. A. J. Rowledge. No. 1,240,374; Sept. 18; v. 242; p. 590.
Gearing. A. W. Knutson. No. 1,239,111; Sept. 4; v. 242; p. 126.
Gearing. A. J. Mitchell. No. 1,239,804; Sept. 11; v. 242; p. 374.
Gearing, Automatic transmission-. C. R. Fountain. No. 1,239,379; Sept. 4; v. 242; p. 210.
Gearing for motor-vehicles. R. G. Manifold. No. 1,240,748; Sept. 18; v. 242; p. 704.
Gearing for the reels of agricultural machinery, Variable-speed. B. P. Saunders and O. Williams. No. 1,241,446; Sept. 25; v. 242; p. 956.
Gearing, Reversing and steering driving-. C. A. Wood. No. 1,241,184; Sept. 25; v. 242; p. 874.
Gearing, Transmission-. F. Ellwein. No. 1,241,362; Sept. 25; v. 242; p. 932.
Generator: *See*—
Heat and moisture generator.
Oscillation-generator.
Power-generator.
Steam-generator.
Glass casket. J. W. De Camp. (Reissue.) No. 14,357; Sept. 11; v. 242; p. 489.
Glass-drawing apparatus, Continuous. R. G. Ewing. No. 1,240,185; Sept. 18; v. 242; p. 529.
Glass-drawing method and apparatus. S. W. Manning. No. 1,239,024; Sept. 4; v. 242; p. 98.
Glass objects, Making. A. E. Spinasse. No. 1,241,480; Sept. 25; v. 242; p. 966.
Glass-tank floater. J. D. Cain. No. 1,240,937; Sept. 25; v. 242; p. 798.
Glassware, Making. M. A. Smith. No. 1,239,051; Sept. 4; v. 242; p. 106.
Glaziers' points, Implement for applying. J. A. Moffat. No. 1,240,473; Sept. 18; v. 242; p. 622.
Globe-suspending apparatus, Geographic-. A. S. Smith. No. 1,239,231; Sept. 4; v. 242; p. 164.
Glove. L. T. Burroughs. No. 1,239,255; Sept. 4; v. 242; p. 172.
Glove. E. C. Ostermann. No. 1,238,804; Sept. 4; v. 242; p. 27.
Glove-former. E. E. Pless. No. 1,239,959; Sept. 11; v. 242; p. 424.
Glue-spreader. F. G. Perkins. No. 1,238,810; Sept. 4; v. 242; p. 29.
Go-cart, Adjustable. G. K. Wo. No. 1,241,183; Sept. 25; v. 242; p. 874.
Goggles, Automobile-. F. C. Howe. No. 1,239,691; Sept. 11; v. 242; p. 339.
Goggles, Automobile-. L. Patery. No. 1,240,594; Sept. 18; v. 242; p. 657.
Gold-saving pan. S. L. Winchester. No. 1,240,396; Sept. 18; v. 242; p. 597.
Golf-club shaft. J. P. Cochrane and J. Patrick. No. 1,239,356; Sept. 4; v. 242; p. 204.
Governor for steam-engines, Centrifugal. S. Rosenzweig. No. 1,239,828; Sept. 11; v. 242; p. 383.
Grader. H. Brand. No. 1,241,336; Sept. 25; v. 242; p. 924.
Grading apparatus, Road, &c. W. J. Williamson and J. F. Shoemaker. No. 1,241,070; Sept. 25; v. 242; p. 838.
Grain-bin alarm. W. E. Stine. No. 1,239,315; Sept. 4; v. 242; p. 191.
Grain-binder deck. A. E. Holmberg. No. 1,239,791; Sept. 11; v. 242; p. 370.
Grain-binder knot-tying device. E. W. Jenkins. No. 1,239,793; Sept. 11; v. 242; p. 371.
Grain, Cleansing. M. W. Hunt. No. 1,239,396; Sept. 4; v. 242; p. 216.
Grain-cleansing machine. M. W. Hunt. No. 1,239,397; Sept. 4; v. 242; p. 216.
Grain-drier. O. W. Randolph. No. 1,239,216; Sept. 4; v. 242; p. 159.
Grain-polishing machine. H. J. Piepgras. No. 1,240,775; Sept. 18; v. 242; p. 713.
Grain-separator. J. Stadtherr and A. Bengtson. No. 1,241,045; Sept. 25; v. 242; p. 830.
Grain-stooker. W. H. Church. No. 1,240,823; Sept. 25; v. 242; p. 762.
Graphitic carbon from graphite scale, Recovering. F. W. Weissmann. No. 1,239,992; Sept. 11; v. 242; p. 433.
Grease-cup. E. L. Shipp. No. 1,239,311; Sept. 4; v. 242; p. 190.
Grease-cup, Friction-locked. E. Tyden. No. 1,240,906; Sept. 25; v. 242; p. 789.
Grinding device. F. M. Henshaw. No. 1,240,716; Sept. 18; v. 242; p. 694.
Grinding-mill. W. J. Keary. No. 1,238,784; Sept. 4; v. 242; p. 19.
Grinding the rims of glass vessels, Machine for. M. Mathy. No. 1,241,236; Sept. 25; v. 242; p. 891.
Gullet. M. Bravo. No. 1,238,878; Sept. 4; v. 242; p. 51.
Gum and making the same. W. B. Pratt. No. 1,240,875; Sept. 25; v. 242; p. 778.
Gum, Chewing-. E. W. Snyder. No. 1,239,313; Sept. 4; v. 242; p. 190.
Gumming cylinder, Gap and segment blank-. M. E. Peters, G. H. Fath, and A. F. Miller. No. 1,239,876; Sept. 11; v. 242; p. 379.
Gumming cylinders, Blank-edge-exposing mechanism for blank-. M. E. Peters, G. H. Fath, and A. F. Miller. No. 1,239,818; Sept. 11; v. 242; p. 379.
Gumming machine, Pneumatically-controlled blank-. M. E. Peters, G. H. Fath, and A. F. Miller. No. 1,239,875; Sept. 11; v. 242; p. 378.
Gumming-machine, Blank-feeder for. M. E. Peters, G. H. Fath, and A. F. Miller. No. 1,239,817; Sept. 11; v. 242; p. 379.
Gun. L. M. Bowman. No. 1,241,333; Sept. 25; v. 242; p. 923.
Gun. C. F. Lefever. No. 1,240,988; Sept. 25; v. 242; p. 813.
Gun. C. F. Lefever. No. 1,240,991; Sept. 25; v. 242; p. 814.
Gun, Air-. C. F. Lefever. No. 1,240,989; Sept. 25; v. 242; p. 813.
Gun attachment. H. M. Masterton. No. 1,239,287; Sept. 4; v. 242; p. 182.
Gun-barrel calibrating and straightening machine. C. W. Sponsel. No. 1,239,532; Sept. 11; v. 242; p. 287.
Gun-barrel-calibrating machine. C. W. Sponsel. No. 1,239,534; Sept. 11; v. 242; p. 288.
Gun-barrel rifling and planing tool. W. C. Andrews and H. A. Auer. No. 1,239,660; Sept. 11; v. 242; p. 328.

Gun-barrel-straightening machine. C. W. Sponsel. No. 1,239,533; Sept. 11; v. 242; p. 288.
Gun-barrel-straightening machine. O. E. Jessup. No. 1,240,576; Sept. 18; v. 242; p. 651.
Gun-carriage. A. Anderson. No. 1,239,860; Sept. 11; v. 242; p. 393.
Gun, Centrifugal. A. E. Brown. No. 1,240,815; Sept. 25; v. 242; p. 759.
Gun, Electrical. L. M. Bowman and W. A. Smith. No. 1,239,344; Sept. 4; v. 242; p. 199.
Gun, Pop-. C. F. Lefever. No. 1,240,990; Sept. 25; v. 242; p. 814.
Gun, Spring-. C. F. Lefever. No. 1,240,987; Sept. 25; v. 242; p. 813.
Hair-curler. M. B. Stevenson. No. 1,240,508; Sept. 18; v. 242; p. 632.
Hair-measurer. E. C. Peckham. No. 1,239,951; Sept. 11; v. 242; p. 422.
Hair-supporting device, Ladies'-. N. L. Burton. No. 1,240,307; Sept. 18; v. 242; p. 569.
Hair waver or curler. F. Müller. No. 1,241,240; Sept. 25; v. 242; p. 892.
Halter-lead. J. W. Hall. No. 1,239,591; Sept. 11; v. 242; p. 306.
Hammer-drills, Tool-retainer for. L. C. Bayles. No. 1,240,649; Sept. 18; v. 242; p. 674.
Hammock, Folding. G. F. Sisbower and L. E. Pittoni. No. 1,240,499; Sept. 18; v. 242; p. 629.
Hand-bag. A. Kulick. No. 1,240,060; Sept. 11; v. 242; p. 452.
Hand-bag and similar article. T. R. Weidemann. No. 1,239,327; Sept. 4; v. 242; p. 194.
Handle: *See*—
Brake-handle.
Casket-handle.
D-handle.
Tool-handle.
Universal control-handle.
Handle. F. H. Hopkins. No. 1,239,184; Sept. 4; v. 242; p. 148.
Handle-attaching device. J. R. Vander Putten. No. 1,239,645; Sept. 11; v. 242; p. 323.
Hanger: *See*—
Brake-beam hanger.
Cable-hanger.
Curtain-hanger.
Garment-hanger.
Harness-hanger.
Lighting-bowl hanger.
Portière-hanger.
Shaft-hanger.
Harness attachment. J. F. Britt. No. 1,240,304; Sept. 18; v. 242; p. 568.
Harness-hanger. J. F. and A. L. Bladholm. No. 1,239,666; Sept. 11; v. 242; p. 330.
Harp. A. B. Smith. No. 1,239,050; Sept. 4; v. 242; p. 106.
Harrow. G. H. Schrum. No. 1,241,033; Sept. 25; v. 242; p. 827.
Harrow. B. W. Weatherspoon. No. 1,241,064; Sept. 25; v. 242; p. 837.
Harrow, Disk. H. S. Dickinson. No. 1,239,091; Sept. 4; v. 242; p. 119.
Harrow, Rotary. C. Cassell. No. 1,240,542; Sept. 18; v. 242; p. 643.
Harrow, Rotary wheel-. H. M. Stark. No. 1,241,046; Sept. 25; v. 242; p. 831.
Harvester and binder, Grain. W. H. Crane. No. 1,240,028; Sept. 11; v. 242; p. 444.
Harvester and ensilage-cutter, Corn-. W. H. Ascue. No. 1,240,164; Sept. 18; v. 242; p. 523.
Harvester, Beet-. E. D. Ball. No. 1,239,337; Sept. 4; v. 242; p. 197.
Harvester, Beet-. J. D. Denburger. No. 1,240,955; Sept. 25; v. 242; p. 803.
Harvester, Corn-. W. Hibbs. No. 1,240,847; Sept. 25; v. 242; p. 770.
Harvester, Cotton-. C. Caldwell and W. P. Koppe. No. 1,239,767; Sept. 11; v. 242; p. 362.
Harvester for cabbage and similar plants. A. E. Crane. No. 1,241,198; Sept. 25; v. 242; p. 879.
Harvester, Peanut and potato. G. M. Mize. No. 1,239,935; Sept. 11; v. 242; p. 417.
Harvester wind-shield. W. H. Crane. No. 1,240,424; Sept. 18; v. 242; p. 606.
Harvesting and cleaning machine, Cotton. J. Meier and J. F. Wallace. No. 1,239,614; Sept. 11; v. 242; p. 313.
Harvesting machine, Ensilage-. M. Angus. No. 1,241,325; Sept. 25; v. 242; p. 921.
Harvesting machine, Root-. R. Gittins. No. 1,241,108; Sept. 25; v. 242; p. 850.
Hasp-fastener. A. Christie. No. 1,240,316; Sept. 18; v. 242; p. 573.
Hat sweat-band. M. A. Buckingham. No. 1,238,881; Sept. 4; v. 242; p. 51.
Hats, Process of and apparatus for making Panama. E. Valente. No. 1,239,064; Sept. 4; v. 242; p. 110.
Hatch-cover lift. W. H. Hunt. No. 1,241,385; Sept. 25; v. 242; p. 938.
Hay-rack, Revolving. C. Jones. No. 1,239,107; Sept. 4; v. 242; p. 124.
Hay rake, tedder, and swath turner, Combined side-delivery. J. and C. J. Bamford. No. 1,239,153; Sept. 4; v. 242; p. 139.
Hay-sling release. I. Konczak. No. 1,239,700; Sept. 11; v. 242; p. 342.
Head-covering. M. J. Harris. No. 1,239,910; Sept. 11; v. 242; p. 409.
Head, end and clevis. W. D. Thomas. No. 1,241,451; Sept. 25; v. 242; p. 958.
Head-gear. H. H. Vaughan. No. 1,238,966; Sept. 4; v. 242; p. 79.
Header-box. J. A. Lawson. No. 1,239,408; Sept. 4; v. 242; p. 219.
Head-lamp, Dirigible. W. T. Delony. No. 1,241,348; Sept. 25; v. 242; p. 927.
Headlight. O. Winston. No. 1,240,282; Sept. 18; v. 242; p. 561.
Headlight attachment for automobiles, Dirigible. T. F. Morton. No. 1,240,759; Sept. 18; v. 242; p. 708.
Headlight, Automobile-. C. C. Pratt. No. 1,240,780; Sept. 18; v. 242; p. 715.
Headlight-deflector, Non-glare. A. Bailey, Jr. No. 1,241,074; Sept. 25; v. 242; p. 839.
Headlight, Dirigible. F. Cammarata. No. 1,240,668; Sept. 18; v. 242; p. 681.
Headlight, Dirigible. J. P. Fox. No. 1,240,695; Sept. 18; v. 242; p. 688.
Headlight, Dirigible. J. P. Fox. (Reissue.) No. 14,366; Sept. 25; v. 242; p. 970.
Headlight, Dirigible. H. D. McLean and C. Waring. No. 1,241,410; Sept. 25; v. 242; p. 945.
Headlight, Dirigible. B. Norstog. No. 1,239,034; Sept. 4; v. 242; p. 101.
Headlight, Dirigible automobile-. J. W. Sears. No. 1,240,784; Sept. 18; v. 242; p. 717.
Headlight, Dirigible automobile-. M. L. Taylor. No. 1,240,626; Sept. 18; v. 242; p. 666.
Headlight flag-supporting device. C. P. Pentoney. No. 1,241,433; Sept. 25; v. 242; p. 952.
Headlight for motor-vehicles, &c. H. W. Lakin. No. 1,240,583; Sept. 18; v. 242; p. 654.
Headlight for vehicles, Dirigible. E. M. Lyon. No. 1,240,354; Sept. 18; v. 242; p. 584.
Headlight-steering mechanism. C. E. Stromquist. No. 1,240,509; Sept. 18; v. 242; p. 632.
Headlights, Glass-holder for. R. Black. No. 1,240,299; Sept. 18; v. 242; p. 567.
Headlights, Means for automatically regulating automobile-. L. T. Rhoades. No. 1,241,284; Sept. 25; v. 242; p. 909.
Heat and moisture generator, Combined. J. L. Walter, Jr. No. 1,240,108; Sept. 11; v. 242; p. 467.
Heat-indicator. H. M. Bobo and H. C. Harrington. No. 1,240,813; Sept. 25; v. 242; p. 758.
Heat-insulating structure. T. R. Beggs. No. 1,238,737; Sept. 4; v. 242; p. 5.
Heat-insulating unit. J. C. Lohse. No. 1,240,462; Sept. 18; v. 242; p. 618.
Heat, Producing. C. Ellis. No. 1,239,776; Sept. 11; v. 242; p. 365.
Heat-regulator. L. H. Harlow. No. 1,239,594; Sept. 11; v. 242; p. 307.
Heater: *See*—
Bath-cabinet heater.
Chocolate-heater.
Feed-water heater.
Oil-burning heater.
Submerged heater.
Tank-heater.
Water-heater.
Heating apparatus. F. B. Howell. No. 1,239,430; Sept. 4; v. 242; p. 226.
Heating device. C. M. Taylor and W. R. Shearer. No. 1,241,167; Sept. 25; v. 242; p. 868.
Heating system. G. W. Coleman. No. 1,239,564; Sept. 11; v. 242; p. 297.
Heating system. W. T. Mixsell. No. 1,239,805; Sept. 11; v. 242; p. 375.
Heating system, Hot-water. A. M. Gow. No. 1,241,208; Sept. 25; v. 242; p. 881.
Heating unit, Electric. L. F. Parkhurst. No. 1,240,771; Sept. 18; v. 242; p. 712.
Heating water and other liquids, Apparatus for. A. C. Ionides, Jr. No. 1,239,398; Sept. 4; v. 242; p. 216.
Heel-building machine. A. A. Hudson. (Reissue.) No. 14,368; Sept. 25; v. 242; p. 971.
Heel-cutting apparatus. W. J. Nesbitt. No. 1,239,208; Sept. 4; v. 242; p. 156.
Heel-cutting apparatus. W. J. Nesbitt. No. 1,239,209; Sept. 4; v. 242; p. 156.
Heel-cutting apparatus. W. J. Nesbitt. No. 1,239,210; Sept. 4; v. 242; p. 157.
Heel screw or protector for footwear. A. Craig. No. 1,240,680; Sept. 18; v. 242; p. 684.
Heels for boots and shoes and the like, Machine for making. J. G. Pool. No. 1,238,815; Sept. 4; v. 242; p. 30.
Heels for boots and shoes and the like, Machine for making wooden. J. G. Pool. No. 1,238,814; Sept. 4; v. 242; p. 30.
Herring-box, Sheet-metal. C. Ross. No. 1,239,223; Sept. 4; v. 242; p. 162.
High chair. F. W. Herman, Jr. No. 1,238,767; Sept. 4; v. 242; p. 14.
Hinge, Checking-. E. Bommer. No. 1,241,083; Sept. 25; v. 242; p. 842.
Hinge, Door-checking. E. Bommer. No. 1,241,082; Sept. 25; v. 242; p. 842.
Hinge, Spring-. E. Bommer. No. 1,241,081; Sept. 25; v. 242; p. 841.
Hinge, Spring-. E. Bommer. No. 1,241,085; Sept. 25; v. 242; p. 843.
Hobbing-cutter. O. G. Simmons. No. 1,241,040; Sept. 25; v. 242; p. 829.
Hobs, Making. F. S. Shields. No. 1,239,047; Sept. 4; v. 242; p. 104.
Hoe. W. H. Haas. No. 1,240,199; Sept. 18; v. 242; p. 536.

Hoe and implement, Combination. G. D. Willard. No. 1,239,653; Sept. 11; v. 242; p. 325.
Hoisting apparatus. H. Helfenbein. No. 1,239,271; Sept. 4; v. 242; p. 178.
Hoisting device. A. W. Knutson. No. 1,239,110; Sept. 4; v. 242; p. 125.
Hoisting means for use in silos. J. F. Catron and J. W. Wheeler. No. 1,238,985; Sept. 4; v. 242; p. 86.
Hook: *See*—
Bull-hook. Fishing-hook. Lacing-hook. Snap-hook.
Hook. J. B. Baxter. No. 1,240,810; Sept. 25; v. 242; p. 757.
Hook. H. J. Laliberte. No. 1,240,986; Sept. 25; v. 242; p. 812.
Hoop-beading machine. F. Glader. No. 1,239,437; Sept. 4; v. 242; p. 228.
Horn, Mechanical. E. Auñero. No. 1,239,425; Sept. 4; v. 242; p. 224.
Horn, Mechanical. E. Auñero. No. 1,239,426; Sept. 4; v. 242; p. 224.
Horn, Mechanical. F. A. Pfeifer. No. 1,239,036; Sept. 4; v. 242; p. 101.
Horseshoe. M. Petric. No. 1,241,016; Sept. 25; v. 242; p. 822.
Horseshoe. G. P. Trotta. No. 1,239,987; Sept. 11; v. 242; p. 432.
Hose-coupling. C. E. Draper. No. 1,240,183; Sept. 18; v. 242; p. 528.
Hose-coupling. R. N. Martz. No. 1,238,928; Sept. 4; v. 242; p. 66.
Hose-coupling for railway air-brakes. J. Ganus. No. 1,239,172; Sept. 4; v. 242; p. 144.
Hose-supporter. A. F. Beevers. No. 1,240,652; Sept. 18; v. 242; p. 676.
Hot-air furnace. R. L. Pollock. No. 1,241,274; Sept. 25; v. 242; p. 906.
Hot-water pressure combined domestic and heating system. A. H. Thompson. No. 1,240,101; Sept. 11; v. 242; p. 464.
Hub plate, Wheel-. M. Christman. No. 1,241,343; Sept. 25; v. 242; p. 926.
Hub, Wheel-. E. F. Altman. No. 1,241,473; Sept. 25; v. 242; p. 964.
Hydrants, Apparatus for thawing. L. S. Ross. No. 1,238,826; Sept. 4; v. 242; p. 34.
Hydraulic press. G. E. Stevens. No. 1,240,617; Sept. 18; v. 242; p. 663.
Hydrocarbon-burner. L. M. Bowman. No. 1,241,334; Sept. 25; v. 242; p. 923.
Hydrocarbon-burner. F. V. Detwiler. No. 1,239,775; Sept. 11; v. 242; p. 364.
Hydrocarbon-burner. L. Gardner. No. 1,240,333; Sept. 18; v. 242; p. 577.
Hydrocarbon-burner. H. A. Lacerda. No. 1,240,061; Sept. 11; v. 242; p. 452.
Hydrocarbon-burner. L. Whittaker. No. 1,241,069; Sept. 25; v. 242; p. 838.
Hydrocarbon burner, Liquid-. H. A. Friend. No. 1,240,130; Sept. 11; v. 242; p. 473.
Hydrocarbon-engine. E. F. Gaskell. No. 1,239,682; Sept. 11; v. 242; p. 386.
Hydrocarbon-motor. L. K. Snell. No. 1,239,133; Sept. 4; v. 242; p. 133.
Hydrocarbon product. W. A. Hall. No. 1,239,099; Sept. 4; v. 242; p. 121.
Hydrogenating organic substances. J. W. Blagden. No. 1,239,867; Sept. 11; v. 242; p. 396.
Hypodermic-instrument case. B. W. Scott. No. 1,239,308; Sept. 4; v. 242; p. 189.
Ice-cream cones, Machine for making. K. Wessel. No. 1,240,909; Sept. 25; v. 242; p. 789.
Ice-cream freezer. T. R. Gibbs. No. 1,240,131; Sept. 11; v. 242; p. 474.
Ice-rinks, Electrically-operated apparatus for. D. H. Scott. No. 1,241,289; Sept. 25; v. 242; p. 911.
Ignition systems, Rocking distributer for. C. T. Mason. No. 1,241,412; Sept. 25; v. 242; p. 946.
Illuminating means. H. J. Schlacks. No. 1,241,031; Sept. 25; v. 242; p. 827.
Impress-record apparatus. T. De Roode. No. 1,241,097; Sept. 25; v. 242; p. 847.
Index. G. S. White. No. 1,239,751; Sept. 11; v. 242; p. 357.
Indicating, registering, recording, and check-printing mechanism. W. D. McCoy. No. 1,239,708; Sept. 11; v. 242; p. 345.
Indicator: *See*—
Automobile-indicator. Direction-indicator. Electric indicator. Fare-indicator. Heat-indicator. Liquid-level indicator. Mail-box indicator. Maximum-demand indicator. Music-indicator. Station-indicator. Street or station indicator. Test-indicator. Vehicle-indicator.
Indigo fermentation-vat, Stable concentrated preparation for the. A. Schmidt. No. 1,239,526; Sept. 11; v. 242; p. 285.
Indoxyl and derivatives, Making. L. E. H. Cone. (Reissue.) No. 14,364; Sept. 25; v. 242; p. 969.
Infusions, Device for preparing. A. I. Gonsalves. No. 1,238,759; Sept. 4; v. 242; p. 12.
Ingot-molds, Pouring-head for. C. L. Huston. No. 1,240,722; Sept. 18; v. 242; p. 696.
Ink-distributer. W. J. Ramsaier. No. 1,239,129; Sept. 4; v. 242; p. 132.
Inking-pad. E. G. Woody. No. 1,241,322; Sept. 25; v. 242; p. 920.
Insect-killer. I. W. Mason. No. 1,239,501; Sept. 11; v. 242; p. 277.
Insect-trap. E. E. and W. H. Pearson. No. 1,239,302; Sept. 4; v. 242; p. 187.
Insert, Metallic. F. G. and H. O. McMillan. No. 1,240,993; Sept. 25; v. 242; p. 815.
Insulating compound and forming the same. J. W. Harris. No. 1,240,565; Sept. 18; v. 242; p. 649.
Insulating compound and forming the same. J. W. Harris. No. 1,240,566; Sept. 18; v. 242; p. 649.
Insulating compound and forming the same. J. W. Harris. No. 1,240,567; Sept. 18; v. 242; p. 649.
Insulator. W. T. Goddard. No. 1,239,902; Sept. 11; v. 242; p. 407.
Insulator. F. S. Gregur. No. 1,240,844; Sept. 25; v. 242; p. 769.
Insulator. G. C. Hill. No. 1,238,768; Sept. 4; v. 242; p. 14.
Insulator and cut-out switch. H. L. Lowe. No. 1,240,067; Sept. 11; v. 242; p. 454.
Insulator and support therefor. L. Fort. No. 1,240,330; Sept. 18; v. 242; p. 576.
Intermittent operating mechanism. R. C. Henderson. No. 1,240,140; Sept. 11; v. 242; p. 477.
Internal-combustion engine. E. R. Carlson. No. 1,239,081; Sept. 4; v. 242; p. 115.
Internal-combustion engine. C. Day, G. E. Windeler, and P. Grant. (Reissue.) No. 14,359; Sept. 18; v. 242; p. 723.
Internal-combustion engine. W. F. Hoshel. No. 1,239,488; Sept. 11; v. 242; p. 273.
Internal-combustion engine. W. T. Ingram. No. 1,239,274; Sept. 4; v. 242; p. 179.
Internal-combustion engine. C. A. Juengst. No. 1,240,980; Sept. 25; v. 242; p. 811.
Internal-combustion engine. J. R. Rogers. No. 1,239,523; Sept. 11; v. 242; p. 284.
Internal-combustion engine. W. Schenker. No. 1,240,884; Sept. 25; v. 242; p. 781.
Internal-combustion engine. S. L. Schleppy. No. 1,239,728; Sept. 11; v. 242; p. 351.
Internal-combustion engine. W. L. Shepard. No. 1,239,310; Sept. 4; v. 242; p. 189.
Internal-combustion engine for aeroplanes. L. Coatalen. No. 1,241,092; Sept. 25; v. 242; p. 845.
Invalid-lifting device. F. S. Root. No. 1,239,524; Sept. 11; v. 242; p. 284.
Iron: *See*—
Draw-bar carry-iron. Pressing-iron. Sad-iron. Waffle-iron.
Iron or steel, Solution for the treatment of. A. Hayes. No. 1,241,113; Sept. 25; v. 242; p. 851.
Iron or steel, Treatment of. A. Hayes. No. 1,241,112; Sept. 25; v. 242; p. 851.
Ironing and pressing board. B. F. Marsden. No. 1,239,928; Sept. 11; v. 242; p. 415.
Ironing-machine. G. Binder. No. 1,238,875; Sept. 4; v. 242; p. 50.
Ironing-machine. F. J. Couch. No. 1,238,891; Sept. 4; v. 242; p. 55.
Jack: *See*—
Anchor-jack. Automobile-jack. Lifting-jack. Pump-jack. Vehicle-spring jack. Wagon-jack.
Jack. L. Willour. No. 1,238,863; Sept. 4; v. 242; p. 46.
Jack. L. Willour. No. 1,240,278; Sept. 18; v. 242; p. 560.
Jar-closure. C. C. Parker. No. 1,239,290; Sept. 4; v. 242; p. 186.
Jewel-grinding machine. F. Mueller. No. 1,239,939; Sept. 11; v. 242; p. 418.
Jeweler's tool. H. B. Schmidt. No. 1,240,783; Sept. 18; v. 242; p. 716.
Jewelry-case. T. Catala. No. 1,240,671; Sept. 18; v. 242; p. 682.
Jewels or precious stones simultaneously, Automatic machine for cutting and polishing a number of. E. Challet. No. 1,240,313; Sept. 18; v. 242; p. 571.
Joint: *See*—
Concrete-pipe joint. Corner-joint. Phonograph-tone-arm joint. Rail-joint. Steering-knuckle joint.
Joint connection. A. B. Russell. No. 1,239,043; Sept. 4; v. 242; p. 103.
Journal-bearing and roller-seat, Combined. F. L. Barber. No. 1,241,186; Sept. 25; v. 242; p. 875.
Journal-box and support therefor, Car-axle. J. R. Fleming. No. 1,241,365; Sept. 25; v. 242; p. 932.
Journal-box lid. W. S. Adams. No. 1,240,002; Sept. 11; v. 242; p. 437.
Journal-box lock. F. H. Day. No. 1,241,347; Sept. 25; v. 242; p. 927.
Journal-boxes, Gib and key for adjustable. J. C. Theriot. No. 1,240,512; Sept. 18; v. 242; p. 633.
Junction-box. A. Chmela. No. 1,238,885; Sept. 4; v. 242; p. 53.
Kelp, Incinerating. G. A. Lamb. No. 1,240,737; Sept. 18; v. 242; p. 701.
Key-seating tool. G. S. Coats. No. 1,239,159; Sept. 4; v. 242; p. 141.

Keyless lock. E. F. Kohl. No. 1,240,981; Sept. 25; v. 242; p. 811.
Kiln: *See*—
Limekiln.
Kitchenette, Portfolio-. E. D. Moore. No. 1,240,997; Sept. 25; v. 242; p. 816.
Knife: *See*—
Meat-cutting knife. Multibladed knife.
Knife-guard. H. O. Sebring. No. 1,239,626; Sept. 11; v. 242; p. 317.
Knitted webs, Machine for uniting. L. N. D. Williams. No. 1,239,241; Sept. 4; v. 242; p. 168.
Knitting-machine. H. Peters. No. 1,240,250; Sept. 18; v. 242; p. 551.
Knitting-machine. A. M. Pigeon. (Reissue.) No. 14,369; Sept. 25; v. 242; p. 971.
Knitting machine, Circular-. M. C. Miller. No. 1,239,713; Sept. 11; v. 242; p. 347.
Knitting machines, Tension device for hosiery-. J. Bennett. No. 1,241,329; Sept. 25; v. 242; p. 922.
Knitting machines, Yarn-trap for hosiery-. J. Bennett. No. 1,241,328; Sept. 25; v. 242; p. 922.
Knitting upon transferred fabric sections, Device for. R. W. Scott. No. 1,239,527; Sept. 11; v. 242; p. 285.
Labeling-machines, Wiper mechanism for. F. O. Woodland. No. 1,239,858; Sept. 11; v. 242; p. 393.
Lace-fastener. E. E. Richardson. No. 1,241,021; Sept. 25; v. 242; p. 823.
Lace-fastening device, Shoe-. W. H. Cowl. No. 1,239,355; Sept. 4; v. 242; p. 204.
Lacing-hook. J. Wagner. No. 1,240,271; Sept. 18; v. 242; p. 558.
Lactic acid, Production of. E. T. Olson. No. 1,240,766; Sept. 18; v. 242; p. 711.
Ladder. C. E. Bell. No. 1,240,653; Sept. 18; v. 242; p. 676.
Ladder-clamp. P. E. Johnson and E. Anderson. No. 1,241,392; Sept. 25; v. 242; p. 940.
Lamp, Acetylene miner's. A. F. Adams. No. 1,238,729; Sept. 4; v. 242; p. 3.
Lamp-adapter, Electric. N. F. Tillery. No. 1,240,786; Sept. 18; v. 242; p. 717.
Lamp-attaching member, Incandescent-. A. L. Harris and E. F. Casanova. No. 1,239,005; Sept. 4; v. 242; p. 92.
Lamp bracket, Bicycle-. W. Marcowitz. No. 1,240,233; Sept. 18; v. 242; p. 546.
Lamp, Desk or table. G. Lampert. No. 1,239,493; Sept. 11; v. 242; p. 275.
Lamp, Dirigible automobile-. F. E. Harvey. No. 1,239,482; Sept. 11; v. 242; p. 271.
Lamp-extinguisher. J. Murcek. No. 1,240,475; Sept. 18; v. 242; p. 622.
Lamp for automobiles, Dirigible. W. H. Bright. No. 1,238,984; Sept. 4; v. 242; p. 85.
Lamp for road-vehicles. E. L. Green. No. 1,241,368; Sept. 25; v. 242; p. 933.
Lamp for vehicles, Signal-. A. J. Bentz. No. 1,240,115; Sept. 11; v. 242; p. 470.
Lamp-globe holder, Incandescent-gas-. R. E. Ewing. No. 1,239,372; Sept. 4; v. 242; p. 208.
Lamp guard, Electric-. C. Vondrashek. No. 1,241,172; Sept. 25; v. 242; p. 870.
Lamp-holder, Adjustable. C. E. Rice. No. 1,241,150; Sept. 25; v. 242; p. 864.
Lamp, Incandescent. G. M. J. Mackay. No. 1,239,413; Sept. 4; v. 242; p. 221.
Lamp, Incandescent tungsten. E. Friederich. No. 1,240,700; Sept. 18; v. 242; p. 690.
Lamp, Projector arc-. B. Perris. No. 1,241,270; Sept. 25; v. 242; p. 904.
Lamp, Signal-. H. S. Kittredge. No. 1,240,458; Sept. 18; v. 242; p. 617.
Lamp-socket. G. B. Thomas. No. 1,239,317; Sept. 4; v. 242; p. 191.
Lamp-socket. G. W. Wacker. No. 1,238,849; Sept. 4; v. 242; p. 41.
Lamp-supporting bracket. W. L. Smith. No. 1,241,295; Sept. 25; v. 242; p. 913.
Lamp, Vehicle-. J. M. Chatterson. No. 1,239,461; Sept 11; v. 242; p. 265.
Lamps, Control-switch for electric. E. Keen. No. 1,239,275; Sept. 4; v. 242; p. 179.
Lamps, Electric connection for automobile-. J. G. Kearby and Z. Robinson. No. 1,239,697; Sept. 11; v. 242; p. 341.
Lamps, Fluid-heater for. M. Truhan. No. 1,240,389; Sept. 18; v. 242; p. 595.
Lamps for heating incubators, Thermostatically-operated burner for. G. W. Allen. No. 1,239,859; Sept. 11; v. 242; p. 393.
Lamps, Mounting-shell for incandescent electric. E. W. Henger. No. 1,239,182; Sept. 4; v. 242; p. 147.
Lampblack and hydrochloric acid, Making. C. C. Averill. No. 1,238,734; Sept. 4; v. 242; p. 5.
Land-leveler. J. M. Standley. No. 1,239,058; Sept. 4; v. 242; p. 108.
Lanterns, Wick-raising mechanism for. R. J. Kelly. No. 1,241,125; Sept. 25; v. 242; p. 855.
Last. M. Brock. No. 1,240,174; Sept. 18; v. 242; p. 526.
Lasts, Heel-support for. H. A. Davenport. No. 1,238,894; Sept. 4; v. 242; p. 56.
Latch. R. E. Jones. No. 1,240,578; Sept. 18; v. 242; p. 652.
Latch, Refrigerator-. H. Blye. No. 1,238,876; Sept. 4; v. 242; p. 50.
Latching device, Gate-. J. Neal. No. 1,240,242; Sept. 18; v. 242; p. 548.
Lathe. G. De Laval. No. 1,240,032; Sept. 11; v. 242; p. 445.
Lathe. E. J. Moore and D. S. Hawkins. No. 1,240,474; Sept. 18; v. 242; p. 622.
Lathe. C. G. Olson. No. 1,238,934; Sept. 4; v. 242; p. 68.
Lathe. C. G. Olson. No. 1,238,935; Sept. 4; v. 242; p. 68.
Lathe. C. F. Williams. No. 1,239,857; Sept. 11; v. 242; p. 392.
Lathe-center. W. Y. Mentzer. No. 1,239,027; Sept. 4; v. 242; p. 99.
Lathe-center adjusting and clamping means. N. D. Chard. No. 1,239,352; Sept. 4; v. 242; p. 202.
Lathe, Templet-. H. Michel-Lévy. No. 1,239,422; Sept. 4; v. 242; p. 223.
Laundry-marking machine. C. C. Mitchell. No. 1,241,417; Sept. 25; v. 242; p. 947.
Lawn-rake. T. Hanamma. No. 1,239,687; Sept. 11; v. 242; p. 338.
Leaching apparatus. L. C. Trent. No. 1,240,904; Sept. 25; v. 242; p. 788.
Lead-pointer. A. J. Arthur. No. 1,238,978; Sept. 4; v. 242; p. 83.
Leather-dressing machine. O. F. Felx. No. 1,241,363; Sept. 25; v. 242; p. 932.
Leather fabric. W. M. Cavanaugh. No. 1,239,880; Sept. 11; v. 242; p. 400.
Legging. D. W. House. No. 1,241,217; Sept. 25; v. 242; p. 884.
Legging. E. B. Nathan. No. 1,240,082; Sept. 11; v. 242; p. 458.
Level. G. R. Bair and N. W. Greene. No. 1,239,336; Sept. 4; v. 242; p. 197.
Level. D. M. Chambers. No. 1,241,341; Sept. 25; v. 242; p. 925.
Level. C. A. Curtis. No. 1,238,991; Sept. 4; v. 242; p. 88.
Level. J. E. Griffin. No. 1,239,590; Sept. 11; v. 242; p. 306.
Level. E. A. King. No. 1,241,399; Sept. 25; v. 242; p. 942.
Level, Plumb-. J. Holm. No. 1,240,849; Sept. 25; v. 242; p. 770.
Leveling-machine. W. C. Baxter. No. 1,239,664; Sept. 11; v. 242; p. 329.
Leveling-machine. E. E. Winkley. No. 1,238,865; Sept. 4; v. 242; p. 46.
Leveling-machine. E. E. Winkley. No. 1,238,866; Sept. 4; v. 242; p. 47.
Lever-locking apparatus. G. C. Jensen. No. 1,240,346; Sept. 18; v. 242; p. 581.
License-number exhibitor, Vehicle-. W. N. Johnson. No. 1,240,347; Sept. 18; v. 242; p. 582.
Life-buoy, Pocket. P. De Luca. No. 1,240,686; Sept. 18; v. 242; p. 686.
Life-preserving garment. A. Nogar. No. 1,239,296; Sept. 4; v. 242; p. 185.
Lifter: *See*—
Cigarette-lifter. Plate-lifter. Stove-lid lifter.
Lifting-jack. G. C. Condito. No. 1,240,122; Sept. 11; v. 242; p. 471.
Lifting-jack. A. Neal. No. 1,239,941; Sept. 11; v. 242; p. 419.
Light: *See*—
Electric light. Flash-light. Show-case light.
Light-diffusing screens, Making. R. W. Wood. No. 1,240,398; Sept. 18; v. 242; p. 598.
Light-switch support, Dimmer-. L. L. Winters. No. 1,240,283; Sept. 18; v. 242; p. 562.
Lighting-bowl hanger. H. R. Yardley. No. 1,239,657; Sept. 11; v. 242; p. 327.
Lighting device, Semi-indirect-. A. S. Powell. No. 1,239,038; Sept. 4; v. 242; p. 102.
Lighting-fixture. G. M. Beardslee. No. 1,239,556; Sept. 11; v. 242; p. 295.
Lighting-fixture. E. M. Smith. No. 1,240,505; Sept. 18; v. 242; p. 631.
Lighting unit. P. S. Bailey. No. 1,240,644; Sept. 18; v. 242; p. 672.
Lime, Hydrating. W. E. Carson. No. 1,239,256; Sept. 4; v. 242; p. 173.
Limekiln. P. J. Dauernheim. No. 1,240,950; Sept. 25; v. 242; p. 801.
Line, Artificial. R. S. Hoyt. No. 1,240,213; Sept. 18; v. 242; p. 540.
Line-spacer. C. E. Sampson. No. 1,241,026; Sept. 25; v. 242; p. 825.
Line-type-casting machine. L. I. Wilmans. No. 1,238,872; Sept. 4; v. 242; p. 81.
Link, Fusible. W. H. Carel. No. 1,239,878; Sept. 11; v. 242; p. 400.
Link-motion. B. V. Nordberg. No. 1,239,297; Sept. 4; v. 242; p. 185.
Lipoidlike, blood-clotting substance and making same. A. Fonio and W. Föhrenbach. No. 1,240,694; Sept. 18; v. 242; p. 688.
Liquid-dispensing apparatus. C. Doering, Jr. No. 1,241,353; Sept. 25; v. 242; p. 928.

Liquid-dispensing device. C. Jr., and H. H. Doering. No. 1,240,830; Sept. 25; v. 242; p. 764.
Liquid-feeding apparatus. W. Jay. (Reissue.) No. 14,353; Sept. 11; v. 242; p. 487.
Liquid fuel. W. A. Hall. No. 1,239,100; Sept. 4; v. 242; p. 122.
Liquid-level indicator. H. Hueber. No. 1,241,384; Sept. 25; v. 242; p. 938.
Liquid-weighing mechanism. W. I. Staaf. No. 1,239,839; Sept. 11; v. 242; p. 386.
Liquids, Centrifugal apparatus for cleansing. R. A. Sloan and J. E. L. Barnes. No. 1,239,734; Sept. 11; v. 242; p. 352.
Liquids, Distributing. A. G. Eneas. No. 1,239,168; Sept. 4; v. 242; p. 143.
Liquids, Method and apparatus for concentrating. T. C. Oliver. No. 1,240,591; Sept. 18; v. 242; p. 656.
Loading and storing apparatus. F. L. Stuart. No. 1,241,063; Sept. 25; v. 242; p. 833.
Loading and unloading device. D. G. Harris and G. O. Mason. No. 1,240,713; Sept. 18; v. 242; p. 693.
Lock: *See*—
Automobile-lock.
Box-lock.
Car-toilet lock.
Chain-lock.
Combination-lock.
Couch-lock.
Door-lock.
Drawer-lock.
Journal-box lock.
Keyless lock.
Nut-lock.
Padlock.
Permutation-lock.
Rail-joint lock.
Railway-rail lock.
Switch-lock.
Tire-chain lock.
Tire-lock.
Transmission-lock.
Wagon-seat lock.
Whip-socket lock.
Lock. J. H. Gilbert. No. 1,240,838; Sept. 25; v. 242; p. 767.
Lock. J. H. Gilbert. No. 1,240,839; Sept. 25; v. 242; p. 767.
Lock. C. F. Kohlberger. No. 1,239,188; Sept. 4; v. 242; p. 149.
Lock. C. H. Prinz. No. 1,239,039; Sept. 4; v. 242; p. 102.
Lock. E. L. Williams. No. 1,239,240; Sept. 4; v. 242; p. 167.
Lock. A. A. Wyckoff. No. 1,239,244; Sept. 4; v. 242; p. 169.
Lock adjuster, Window-. B. E. Taylor. No. 1,240,902; Sept. 25; v. 242; p. 787.
Lock attachment. G. Schleicher. No. 1,241,447; Sept. 25; v. 242; p. 956.
Lock-keeper. G. W. Kennedy. No. 1,238,924; Sept. 4; v. 242; p. 65.
Lock-washer. M. A. Twitchell. No. 1,238,962; Sept. 4; v. 242; p. 78.
Locks, Manufacture of. E. P. Baird. No. 1,240,530; Sept. 18; v. 242; p. 638.
Locking-switch. P. C. Thoner. No. 1,238,845; Sept. 4; v. 242; p. 40.
Locking-switch. P. C. Thoner. No. 1,239,062; Sept. 4; v. 242; p. 109.
Locomotion, System of. A. L. W. Begg. No. 1,239,077; Sept. 4; v. 242; p. 114.
Locomotive stack and draft device. W. Elmer. No. 1,239,370; Sept. 4; v. 242; p. 207.
Locomotive-tender stoker mechanism. W. T. Hanna. No. 1,239,101; Sept. 4; v. 242; p. 122.
Locomotive-tender. N. M. Lower. No. 1,240,861; Sept. 25; v. 242; p. 774.
Locomotive-tender-tank feeder. J. A. Pilcher. No. 1,241,439; Sept. 25; v. 242; p. 954.
Locomotives, Pulverized-coal-burning means for. A. Kirchhofer. No. 1,239,918; Sept. 11; v. 242; p. 412.
Loom controlling mechanism. E. H. Ryon. No. 1,240,375; Sept. 18; v. 242; p. 590.
Loom, Needle-. S. Kendrick. No. 1,239,604; Sept. 11; v. 242; p. 310.
Loom, Needle-. S. Kendrick. No. 1,239,605; Sept. 11; v. 242; p. 311.
Loom-shuttles, Hand-threading attachment for. B. S. Atwood. No. 1,240,643; Sept. 18; v. 242; p. 672.
Loom warp stop-motion. L. S. Burbank. No. 1,240,666; Sept. 18; v. 242; p. 680.
Loom warp stop-motion. S. S. Jackson. No. 1,239,792; Sept. 11; v. 242; p. 370.
Loom weft-replenishing mechanism. E. A. and J. V. Cunniff and J. K. Lanning. No. 1,239,086; Sept. 4; v. 242; p. 117.
Looms, Deferred-action indicating device for. H. A. Owen. No. 1,240,592; Sept. 18; v. 242; p. 656.
Looms, Knife-carrier for. A. F. McCollum. No. 1,240,071; Sept. 11; v. 242; p. 455.
Looms, Pick-finding mechanism for. G. W. Shackleton. No. 1,238,947; Sept. 4; v. 242; p. 73.
Lubricant-circulation system. J. B. Ferguson. No. 1,241,103; Sept. 25; v. 242; p. 849.
Lubricating system. W. I. Bettis. No. 1,239,452; Sept. 11; v. 242; p. 263.
Lubrication, Forced. M. Birkigt. No. 1,241,332; Sept. 25; v. 242; p. 923.
Lubricator: *See*—
Contact-lubricator.
Lubricator. F. A. Meckel. No. 1,239,208; Sept. 4; v. 242; p. 154.
Lug-strap, Wooden. T. E. Taylor. No. 1,240,268; Sept. 18; v. 242; p. 557.
Lunch-container, Nested. S. Cozel. No. 1,238,746; Sept. 4; v. 242; p. 8.
Lunch-kit. Y. Hoshino. No. 1,240,144; Sept. 11; v. 242; p. 478.
Machine-tool, Multiple-speed. G. E. Hallenbeck. No. 1,240,136; Sept. 11; v. 242; p. 475.
Magneto, High-tension. J. R. Stark. No. 1,240,615; Sept. 18; v. 242; p. 663.
Magnetos and other purposes, Rotatable contact-breaker for. E. J. Pilblad. No. 1,241,273; Sept. 25; v. 242; p. 905.
Magnetos, Driving mechanism for. A. Maire. No. 1,241,134; Sept. 25; v. 242; p. 858.
Mail and milk box, Combination. J. Virovatz. No. 1,239,323; Sept. 4; v. 242; p. 193.
Mail-box. H. P. Sickels. No. 1,239,733; Sept. 11; v. 242; p. 352.
Mail-box indicator. L. C. Blackburn. No. 1,239,342; Sept. 4; v. 242; p. 199.
Mail-carrier, Rural. L. R. Bruckner and J. W. Murphy. No. 1,240,022; Sept. 11; v. 242; p. 442.
Mail-handling device. J. L. Kost. No. 1,239,492; Sept. 11; v. 242; p. 274.
Mandolin bow or pick. F. T. Griffin. No. 1,241,870; Sept. 25; v. 242; p. 934.
Mandrel for welding sections of sheet-metal conduit or pipe together. T. A. Errett. No. 1,240,326; Sept. 18; v. 242; p. 576.
Mangle-gear. G. H. Goldsmith. No. 1,239,386; Sept. 4; v. 242; p. 213.
Manicure implement, Pocket. A. K. Potter. No. 1,240,485; Sept. 18; v. 242; p. 625.
Manometer. J. H. Cotton. No. 1,240,123; Sept. 11; v. 242; p. 472.
Massage apparatus, Electrical. T. Bollin. No. 1,240,410; Sept. 18; v. 242; p. 601.
Massaging device. O. J. Swenson. No. 1,239,539; Sept. 11; v. 242; p. 290.
Mat: *See*—
Bath-tub mat.
Match-machine. S. M. Friede and W. B. Hutchinson. No. 1,240,837; Sept. 25; v. 242; p. 767.
Match-pad case, Safety-. A. Schickerling. No. 1,240,262; Sept. 18; v. 242; p. 555.
Match-safe, Single-delivery. M. L. Weeks. No. 1,241,456; Sept. 25; v. 242; p. 959.
Mattress. G. F. Sisbower and L. E. Pittoni. No. 1,240,501; Sept. 18; v. 242; p. 630.
Maximum-demand indicator. J. T. Beechlyn. No. 1,239,339; Sept. 4; v. 242; p. 198.
Mayonnaise-mixer. W. J. Drucker. No. 1,240,688; Sept. 18; v. 242; p. 687.
Measuring instrument. W. E. Meadwell. No. 1,239,502; Sept. 11; v. 242; p. 277.
Measuring instrument, Electrical. W. E. Porter and A. L. R. Ellis. No. 1,241,275; Sept. 25; v. 242; p. 906.
Measuring machine, Cloth-. G. F. Mansfield. No. 1,238,798; Sept. 4; v. 242; p. 24.
Meat-curing process. J. W. Hammett. No. 1,241,374; Sept. 25; v. 242; p. 935.
Meat-cutting knife. H. Von Wolforsdorf. No. 1,239,237; Sept. 4; v. 242; p. 166.
Meat-cutting machine. H. Luer. No. 1,239,926; Sept. 11; v. 242; p. 414.
Mechanical movement. J. Estock. No. 1,239,169; Sept. 4; v. 242; p. 144.
Mechanically-operated indicator. C. E. Taylor. No. 1,239,741; Sept. 11; v. 242; p. 355.
Mechanotherapeutic receivers, Adjuster for pneumatic. H. N. D. Parker. No. 1,240,246; Sept. 18; v. 242; p. 550.
Medical appliance. F. J. Stuart. No. 1,239,634; Sept. 11; v. 242; p. 319.
Mercury-rectifier distributing system. N. W. Storer. No. 1,239,841; Sept. 11; v. 242; p. 387.
Metal-hydroxid solutions, Making. C. P. Hoover. No. 1,238,916; Sept. 4; v. 242; p. 63.
Metal-punching machine. L. A. Hawthorne. No. 1,241,255; Sept. 25; v. 242; p. 898.
Metal-punching machine. L. A. Hawthorne. No. 1,241,258; Sept. 25; v. 242; p. 899.
Metal-punching machine. L. A. Hawthorne. No. 1,241,267; Sept. 25; v. 242; p. 903.
Metal-punching machine. E. V. Wurts. No. 1,241,269; Sept. 25; v. 242; p. 904.
Metal-punching machines, Machine for making templet-strips for. J. D. Morgan. No. 1,241,264; Sept. 25; v. 242; p. 902.
Metal, Wood-veneered. R. W. Burnett. (Reissue.) No. 14,349; Sept. 11; v. 242; p. 484.
Metal-working machine. G. G. Frelinghuysen. No. 1,241,265; Sept. 25; v. 242; p. 902.
Metal-working machine. L. A. Hawthorne. No. 1,241,251; Sept. 25; v. 242; p. 896.
Metal-working machine. L. A. Hawthorne. No. 1,241,252; Sept. 25; v. 242; p. 897.
Metal-working machine. L. A. Hawthorne. No. 1,241,256; Sept. 25; v. 242; p. 898.
Metal-working machine. J. D. Morgan. No. 1,241,253; Sept. 25; v. 242; p. 897.
Metal-working machine. J. D. Morgan and L. A. Hawthorne. No. 1,241,263; Sept. 25; v. 242; p. 901.
Metal-working machine. T. P. Payne. No. 1,241,246; Sept. 25; v. 242; p. 894.

Metal-working machine. T. P. Payne. No. 1,241,247; Sept. 25; v. 242; p. 894.
Metal-working machine. T. P. Payne. No. 1,241,248; Sept. 25; v. 242; p. 895.
Metal-working machine. T. P. Payne and E. V. Wurts. No. 1,241,254; Sept. 25; v. 242; p. 898.
Metal-working machine. R. H. Smith. No. 1,239,052; Sept. 4; v. 242; p. 106.
Metal-working machine. R. H. Smith. No. 1,239,053; Sept. 4; v. 242; p. 107.
Metal-working machine. E. V. Wurts. No. 1,241,266; Sept. 25; v. 242; p. 903.
Metal-working machine. E. V. Wurts and J. J. Swinbank. No. 1,241,257; Sept. 25; v. 242; p. 899.
Metal-working-machine attachment. P. Müller. No. 1,238,929; Sept. 4; v. 242; p. 67.
Metal-working machines, Machine for making distance-record devices for. T. P. Payne. No. 1,241,268; Sept. 25; v. 242; p. 903.
Metal-working machines, Machine for making distance-record devices for. T. P. Payne. No. 1,241,249; Sept. 25; v. 242; p. 895.
Metal-working machines, Machine for making distance-record sheets for. L. A. Hawthorne. No. 1,241,262; Sept. 25; v. 242; p. 901.
Metals from ores, Extracting. E. T. Stannard. No. 1,238,951; Sept. 4; v. 242; p. 74.
Metallic leaf, Machine for applying. L. B. Weymouth. No. 1,239,149; Sept. 4; v. 242; p. 138.
Metallic tie and rail-fastener. J. Taray. No. 1,239,739; Sept. 11; v. 242; p. 354.
Meter: *See*—
Fluid-meter.
Photographic exposure-meter.
Power-factor meter.
Meter. A. C. Einstein. No. 1,239,680; Sept. 11; v. 242; p. 335.
Meter. L. L. Tatum. No. 1,240,797; Sept. 18; v. 242; p. 720.
Micrometer. L. S. Starrett. No. 1,241,160; Sept. 25; v. 242; p. 867.
Micrometer. L. S. Starrett. No. 1,241,161; Sept. 25; v. 242; p. 867.
Microscope-slides, Storing. R. Donald. No. 1,241,354; Sept. 25; v. 242; p. 928.
Milk and cream separator. J. D. Palmer. No. 1,240,360; Sept. 18; v. 242; p. 585.
Milk-box. F. Zbikowski. No. 1,239,330; Sept. 4; v. 242; p. 195.
Milk-powdering machine. I. J. Felleman. No. 1,239,471; Sept. 11; v. 242; p. 268.
Milk-sheet protector. T. Grinder. No. 1,241,371; Sept. 25; v. 242; p. 934.
Milking apparatus. P. Larsen. No. 1,239,407; Sept. 4; v. 242; p. 219.
Milking-machine. M. L. Norris. No. 1,240,765; Sept. 18; v. 242; p. 711.
Milking-machine teat-cup. M. Leitch. No. 1,239,928; Sept. 11; v. 242; p. 414.
Milking method and apparatus. D. T. Sharples. No. 1,238,631; Sept. 4; v. 242; p. 36.
Mill: *See*—
Grinding-mill.
Roller-mill.
Rolling-mill.
Milling-machine. C. L. Heisler. No. 1,239,911; Sept. 11; v. 242; p. 410.
Milling-machine spindle. J. L. Wheeler. No. 1,239,855; Sept. 11; v. 242; p. 392.
Mine-door. C. W. Carman. No. 1,240,541; Sept. 18; v. 242; p. 642.
Mine, Gas and shrapnel land-. J. R. Steel. No. 1,239,134; Sept. 4; v. 242; p. 134.
Minerals, Flotation of. C. L. Perkins. No. 1,240,597; Sept. 18; v. 242; p. 658.
Minerals, Flotation of. C. L. Perkins. No. 1,240,598; Sept. 18; v. 242; p. 658.
Minerals, Flotation of. C. L. Perkins. No. 1,240,599; Sept. 18; v. 242; p. 659.
Mirror-frame. A. Burke. No. 1,240,175; Sept. 18; v. 242; p. 526.
Miter-box. H. D. Le Suer. No. 1,240,228; Sept. 18; v. 242; p. 545.
Mitt. M. S. Jordon. No. 1,240,728; Sept. 18; v. 242; p. 699.
Mixer: *See*—
Mayonnaise-mixer.
Mixing-machine. J. A. Svenson. No. 1,239,537; Sept. 11; v. 242; p. 289.
Mixing-machine. G. A. Welzenbach. No. 1,240,274; Sept. 18; v. 242; p. 559.
Mixing-machine-operating device. W. G. Shelton. No. 1,238,834; Sept. 4; v. 242; p. 37.
Moistening device. A. B. Wilson. No. 1,240,279; Sept. 18; v. 242; p. 560.
Moisture on the exposed surface of transparent members, Preventing formation of. A. C. Urmston. No. 1,238,963; Sept. 4; v. 242; p. 78.
Mold: *See*—
Casting-machine mold.
Culvert-mold.
Press-mold.
Molded article and making the same. H. H. Hurt. No. 1,239,273; Sept. 4; v. 242; p. 178.
Molding and matching machines, Automatic feeder for. J. F. Brown. No. 1,240,665; Sept. 18; v. 242; p. 680.
Molding and setting table for plastic bodies. R. C. Ogburn. No. 1,241,007; Sept. 25; v. 242; p. 819.
Molding, Art of. H. W. Alexander. No. 1,239,152; Sept. 4; v. 242; p. 139.
Molding-machine. J. R. Wood and D. C. Epright. No. 1,239,656; Sept. 11; v. 242; p. 326.
Molding-machine for plastic material. C. Barbieri. No. 1,238,980; Sept. 4; v. 242; p. 84.
Motion-converting mechanism. J. Peterson. No. 1,241,015; Sept. 25; v. 242; p. 822.
Motor: *See*—
Current-motor.
Electric motor.
Fluid-driven motor.
Hydrocarbon-motor.
Rotary motor.
Motor attachment. E. L. Moore. No. 1,239,714; Sept. 11; v. 242; p. 347.
Motor-boats, Speeder mechanism for. W. Jones. No. 1,239,186; Sept. 4; v. 242; p. 148.
Motor-control system. C. P. Taylor. No. 1,240,623; Sept. 18; v. 242; p. 665.
Motor control system, Electric-. N. W. Storer. No. 1,239,840; Sept. 11; v. 242; p. 387.
Motor controller, Electric-. G. H. Whittingham. No. 1,241,180; Sept. 25; v. 242; p. 873.
Motor-controlling mechanism, Electric-. C. Redfield. No. 1,240,877; Sept. 25; v. 242; p. 779.
Motors, Device for priming internal-combustion. W. J. Potter. No. 1,239,518; Sept. 11; v. 242; p. 282.
Motors or generators, Brush-mounting for electric. T. L. Lee. No. 1,240,585; Sept. 18; v. 242; p. 654.
Movable seat and support, Combination. C. J. Perkins. No. 1,241,434; Sept. 25; v. 242; p. 952.
Mower, Gang-. J. F. Braun. No. 1,241,086; Sept. 25; v. 242; p. 844.
Mower, Power lawn-. W. W. Gore. No. 1,240,561; Sept. 18; v. 242; p. 648.
Mowers, Cutting apparatus for. F. Crawford. No. 1,239,570; Sept. 11; v. 242; p. 300.
Mowing-machine. C. Pearson. No. 1,240,361; Sept. 18; v. 242; p. 586.
Mud-hook clamp. C. C. Gray. No. 1,240,703; Sept. 18; v. 242; p. 690.
Muffler, Exhaust-. T. V. Buckwalter. No. 1,240,415; Sept. 18; v. 242; p. 608.
Multibladed knife. A. P. Olot. No. 1,240,946; Sept. 25; v. 242; p. 800.
Multiple switch. C. A. Singer. No. 1,239,883; Sept. 11; v. 242; p. 384.
Music-indicator. F. A. Nelson. No. 1,240,083; Sept. 11; v. 242; p. 459.
Music-sheet-controlling device. P. B. Klugh. No. 1,240,160; Sept. 11; v. 242; p. 483.
Music-turner. R. A. Harris. No. 1,239,006; Sept. 4; v. 242; p. 92.
Musical instruments, Duplex tracker for. F. R. Wurlitzer and F. L. McCormick. No. 1,240,118; Sept. 11; v. 242; p. 469.
Musical instruments, Electric control apparatus for. F. B. Little. No. 1,239,609; Sept. 11; v. 242; p. 312.
Musical instruments, Expression-controlling device for mechanical. J. Brimont. No. 1,240,412; Sept. 18; v. 242; p. 602.
Musical instruments, Expression-indicator for. L. B. Wing. No. 1,238,864; Sept. 4; v. 242; p. 46.
Napping-machine. D. Gessner. No. 1,240,194; Sept. 18; v. 242; p. 533.
Navigating by the north star, Device for. C. D. Woodward. No. 1,240,525; Sept. 18; v. 242; p. 687.
Necktie-clasp. E. P. Tobie. No. 1,239,746; Sept. 11; v. 242; p. 356.
Necktie-form. G. C. Mason. No. 1,241,413; Sept. 25; v. 242; p. 946.
Needle-threader. M. L. Hawks. No. 1,239,270; Sept. 4; v. 242; p. 177.
Needle-threader. M. Nielsen. No. 1,241,427; Sept. 25; v. 242; p. 950.
Needles, Machine for making crochet-. A. F. Vorce. No. 1,239,851; Sept. 11; v. 242; p. 390.
Nest, Collapsible trap-. H. F. Reed. No. 1,240,487; Sept. 18; v. 242; p. 626.
Nest-marking device, Hen's-. C. V. Williams. No. 1,240,277; Sept. 18; v. 242; p. 560.
Nest, Trap-. G. F. Hatch. No. 1,240,972; Sept. 25; v. 242; p. 808.
Net, Folding fish-landing. C. S. Van Horn. No. 1,240,787; Sept. 18; v. 242; p. 717.
Non-skidding and tire-holding device for pneumatic tires. E. Veltung. No. 1,239,749; Sept. 11; v. 242; p. 357.
Nozzle, Cotton-picker. J. H. C. Boig. No. 1,239,843; Sept. 4; v. 242; p. 199.
Nozzle for applying adhesive coating material. A. G. Baguall and J. A. Taylor. No. 1,239,075; Sept. 4; v. 242; p. 113.
Nozzle for baths. J. F. Booraem. No. 1,240,411; Sept. 18; v. 242; p. 602.
Nozzle, Street-flushing. C. D. Farmer, G. N., Sr., and G. N. Frazer, Jr., and W. B. Farmer. No. 1,239,873; Sept. 4; v. 242; p. 208.
Nozzle, Vacuum-cleaner. A. J. Fisher. No. 1,238,908; Sept. 4; v. 242; p. 59.
Numbering-machine. A. H. Smith. No. 1,240,893; Sept. 25; v. 242; p. 784.
Nut-lock. J. A. Harris and A. W. Howard. No. 1,240,568; Sept. 18; v. 242; p. 649.
Nut-lock. W. A. Hubener. No. 1,240,046; Sept. 11; v. 242; p. 448.

Nut-lock. J. A. Kusy. No. 1,241,401; Sept. 25; v. 242; p. 943.
Nut-lock. J. J. MacKay. No. 1,239,414; Sept. 4; v. 242; p. 221.
Nut-lock. W. R. McCollom. No. 1,238,796; Sept. 4; v. 242; p. 24.
Nut-lock. D. E. Newcomb. No. 1,238,933; Sept. 4; v. 242; p. 68.
Nut-lock. O. B. Oller. No. 1,240,245; Sept. 18; v. 242; p. 550.
Nut-lock. W. G. Pingel. No. 1,239,958; Sept. 11; v. 242; p. 424.
Nut-lock. C. D. Roberts. No. 1,240,781; Sept. 18; v. 242; p. 716.
Nut-lock. J. F. Wilhelm. No. 1,241,181; Sept. 25; v. 242; p. 873.
Nut, Split. H. C. Peltz. No. 1,241,432; Sept. 25; v. 242; p. 951.
Ocotillo-plant for extracting gum therefrom, Apparatus for treating the. E. W. Snyder and J. D. Crawford. No. 1,240,894; Sept. 25; v. 242; p. 784.
Oil-burner. T. C. Curtiss. No. 1,240,683; Sept. 18; v. 242; p. 685.
Oil-burner. C. C. Johnson. No. 1,238,780; Sept. 4; v. 242; p. 18.
Oil-burner. B. O. Kelly. No. 1,239,276; Sept. 4; v. 242; p. 179.
Oil-burner. E. G. Lantz. No. 1,241,404; Sept. 25; v. 242; p. 944.
Oil-burning heater. J. E. Perry. No. 1,239,303; Sept. 4; v. 242; p. 187.
Oil-separator. J. M. Tatman. No. 1,240,099; Sept. 11; v. 242; p. 464.
Oil-storage tanks, Safety-vent for crude-. W. M. Bowles. No. 1,238,983; Sept. 4; v. 242; p. 85.
Oil-switch. H. W. Cheney. No. 1,240,314; Sept. 18; v. 242; p. 572.
Oiler. G. O. Gilbert. No. 1,241,207; Sept. 25; v. 242; p. 881.
Oiler, Hog-. G. W. Ericson. No. 1,238,900; Sept. 4; v. 242; p. 58.
Oiler, Hog-. E. Rizk. No. 1,241,023; Sept. 25; v. 242; p. 824.
Oleo-stock clarifier, seeder, and breaker. G. L. Noble. No. 1,240,869; Sept. 25; v. 242; p. 776.
Optical instrument. M. Woolf. No. 1,240,289; Sept. 18; v. 242; p. 563.
Ore-bodies, Method and apparatus for locating. R. A. Fessenden. No. 1,240,328; Sept. 18; v. 242; p. 576.
Ore, Machinery for agglomerating. P. O. Harding. No. 1,239,179; Sept. 4; v. 242; p. 146.
Ores and substances, Treatment of. F. L. McGahan. No. 1,239,282; Sept. 4; v. 242; p. 181.
Ores, Concentrating carnotite. H. Schlundt. No. 1,240,607; Sept. 18; v. 242; p. 661.
Ores, Concentration of metalliferous. S. I. Clawson. No. 1,240,824; Sept. 25; v. 242; p. 762.
Ores, Treating. N. C. Christensen, Jr. No. 1,239,157; Sept. 4; v. 242; p. 140.
Ores, Treating. H. E. Cleaves. No. 1,239,885; Sept. 11; v. 242; p. 402.
Organ-valve, Electropneumatic. H. G. Kinder. No. 1,239,698; Sept. 11; v. 242; p. 341.
Ornamenting device. O. W. Carter. No. 1,240,940; Sept. 25; v. 242; p. 799.
Orthodontic appliance. J. J. Kinehan. No. 1,240,731; Sept. 18; v. 242; p. 700.
Orthopedic appliance for foot treatment. W. H. Wood. No. 1,240,286; Sept. 18; v. 242; p. 503.
Oscillation-generator. R. A. Heising. No. 1,240,206; Sept. 18; v. 242; p. 538.
Oscillatory movement, Checking device for. E. Bommer. No. 1,241,084; Sept. 25; v. 242; p. 842.
Oven. W. Bird. No. 1,239,341; Sept. 4; v. 242; p. 198.
Oven and proof-box, Combined portable. J. Faulds. No. 1,238,995; Sept. 4; v. 242; p. 89.
Oven attachment. L. D. Steward. No. 1,239,632; Sept. 11; v. 242; p. 318.
Oven, Baker's. C. F. F. Allan. No. 1,239,246; Sept. 4; v. 242; p. 169.
Oven, Warming-. A. Caro. No. 1,238,743; Sept. 4; v. 242; p. 7.
Overshoe, Rubber. E. A. Saunders. No. 1,239,434; Sept. 4; v. 242; p. 227.
Package-tie. E. V. C. Mellus. No. 1,240,077; Sept. 11; v. 242; p. 457.
Package-tie. R. D. Pearson. No. 1,239,950; Sept. 11; v. 242; p. 422.
Package-tie. G. W. Stout. No. 1,241,298; Sept. 25; v. 242; p. 913.
Packet-holder. D. Desplats. No. 1,239,468; Sept. 11; v. 242; p. 267.
Packing-ring, Rod. C. E. Moore. No. 1,239,028; Sept. 4; v. 242; p. 99.
Packing, Valve-. J. E. Bevington. No. 1,239,866; Sept. 11; v. 242; p. 396.
Pad: *See*—
Corn-pad. Inking-pad.
Padlock, Permutation-. C. W. Peterson. No. 1,241,435; Sept. 25; v. 242; p. 952.
Paint and making same. W. A. West. No. 1,241,067; Sept. 25; v. 242; p. 838.
Paint composition. S. A. Leavitt. No. 1,239,190; Sept. 4; v. 242; p. 150.
Paint composition. T. McConnell. No. 1,238,797; Sept. 4; v. 242; p. 24.
Painted, varnished, or filled surfaces, Refinishing. V. E. Starner. No. 1,240,616; Sept. 18; v. 242; p. 663.
Painting-machine. F. D. Stowe. No. 1,239,738; Sept 11; v. 242; p. 354.
Painting porous surfaces. R. S. Perry. No. 1,239,953; Sept. 11; v. 242; p. 423.
Pan: *See*—
Dish-pan. Evaporating-pan.
Dust-pan. Gold-saving pan.
Paper-cup holder. J. R. Klin. No. 1,239,277; Sept. 4; v. 242; p. 180.
Paper-feeder. G. B. McCormack. No. 1,240,464; Sept. 18; v. 242; p. 619.
Paper hat. E. L. Henderson. No. 1,239,483; Sept. 11; v. 242; p. 272.
Paper-holder. M. Feddern. No. 1,240,691; Sept. 18; v. 242; p. 687.
Paper-lift for drawers and the like. R. Nortvig. No. 1,241,429; Sept. 25; v. 242; p. 951.
Paper-making machine. R. F. Murray. No. 1,240,589; Sept. 18; v. 242; p. 655.
Paper-making machines, Roll for. H. R. Farnsworth. No. 1,239,895; Sept. 11; v. 242; p. 405.
Paper-sizing apparatus. W. H. Sanburn. No. 1,240,154; Sept. 11; v. 242; p. 481.
Paper, Waterproof. H. Buffington. No. 1,240,934; Sept. 25; v. 242; p. 798.
Paraffin powder and making it. A. E. Nienstadt. No. 1,239,618; Sept. 11; v. 242; p. 315.
Paraffinum liquidum, Making. H. V. Dunham. No. 1,240,792; Sept. 18; v. 242; p. 719.
Pattern: *See*—
Sole-pattern. Sole-rounder pattern.
Pattern-making instrument. E. M. Jackson. No. 1,241,121; Sept. 25; v. 242; p. 853.
Paving-blocks, Producing. E. H. Benners. No. 1,239,762; Sept. 11; v. 242; p. 360.
Paving composition and making it, Bituminous. W. B. Cowell. No. 1,239,160; Sept. 4; v. 242; p. 141.
Pawl-and-ratchet mechanism. H. N. Josleyn. No. 1,239,917; Sept. 11; v. 242; p. 412.
Peas, beans, and the like, Machine for hulling. L. C. Young. No. 1,240,912; Sept. 25; v. 242; p. 790.
Pen, Drafting-. P. Berggren. No. 1,241,079; Sept. 25; v. 242; p. 840.
Pen, Fountain-. W. J. Ruff. No. 1,239,971; Sept. 11; v. 242; p. 427.
Pen, Fountain-. W. J. Ruff. No. 1,239,972; Sept. 11; v. 242; p. 428.
Pen, Hog-. H. L. Ferris. No. 1,239,170; Sept. 4; v. 242; p. 144.
Pen-holder. F. J. Gropengieser. No. 1,240,706; Sept. 18; v. 242; p. 691.
Pen holder, Fountain-. E. F. Vilkomerson. No. 1,241,311; Sept. 25; v. 242; p. 917.
Penholder, Releasing-. G. W. Ramer. No. 1,239,126; Sept. 4; v. 242; p. 131.
Permutation-lock. E. T. Hodges. No. 1,239,010; Sept. 4; v. 242; p. 93.
Permutation-lock. F. W. Jones and L. Glass. No. 1,240,854; Sept. 25; v. 242; p. 772.
Permutation-lock. F. P. Rosback. No. 1,239,222; Sept. 4; v. 242; p. 161.
Petcock wrench and cleaning tool, Combination. G. F. Harris. No. 1,239,688; Sept. 11; v. 242; p. 338.
Phonograph-horns, Counterbalance for. A. A. Huseby. No. 1,241,119; Sept. 25; v. 242; p. 853.
Phonograph-record holder. J. B. Barlow. No. 1,238,735; Sept. 4; v. 242; p. 5.
Phonograph-records, Automatic stop for. S. G. Alexander. No. 1,240,401; Sept. 18; v. 242; p. 599.
Phonograph-tone-arm joint. M. Clark. No. 1,240,943; Sept. 25; v. 242; p. 800.
Phonographic reproducer. E. G. Smith. No. 1,240,504; Sept. 18; v. 242; p. 631
Photographic exposure-meter. J. T. MacCurdy. No. 1,241,133; Sept. 25; v. 242; p. 858.
Photographic film. F. E. Ives. No. 1,240,344; Sept. 18; v. 242; p. 581.
Photographic-film cartridge. H. Gindele. No. 1,240,335; Sept. 18; v. 242; p. 578.
Photographic films, Aerial carrier for. W. F. Folmer. No. 1,238,904; Sept. 4; v. 242; p. 59.
Photographic-print-washing machine. E. Crusey. No. 1,240,425; Sept. 18; v. 242; p. 606.
Photographic shutter. P. J. Marks. No. 1,239,025; Sept. 4; v. 242; p. 98.
Photographic shutters, Controlling mechanism for. P. J. Marks. No. 1,240,073; Sept. 11; v. 242; p. 456.
Photography, Color. F. E. Ives. No. 1,238,775; Sept. 4; v. 242; p. 17.
Piano. A. Krieghoff. No. 1,239,113; Sept. 4; v. 242; p. 127.
Piano, Violin-. E. Silen. No. 1,238,635; Sept. 4; v. 242; p. 37.
Picker: *See*—
Cotton-picker. Fruit-picker.
Picker-check. J. K. Lanning. No. 1,238,791; Sept. 4; v. 242; p. 22.
Pictorial device. J. G. Scott, Jr. No. 1,240,887; Sept. 25; v. 242; p. 782.
Picture and producing the same, Motion-. C. F. Pidgin. No. 1,240,774; Sept. 18; v. 242; p. 713.

Picture-film cleaner, Motion-. M. E. Noble. No. 1,239,295; Sept. 4; v. 242; p. 185.
Picture films, Support for motion-. A. M. Delmas. No. 1,240,954; Sept. 25; v. 242; p. 803.
Picture machine, Moving-. H. E. Roys. No. 1,240,882; Sept. 25; v. 242; p. 780.
Picture-machine reel. W. E. Millar. No. 1,239,504; Sept. 11; v. 242; p. 278.
Pillow, Collapsible. Y. Hara. No. 1,240,968; Sept. 25; v. 242; p. 807.
Pin-setting mechanism. H. Loewenbach. No. 1,239,280; Sept. 4; v. 242; p. 181.
Pipe: *See*—
Smoking-pipe. Tobacco-pipe.
Pipe-annealing process and apparatus. H. A. Bardeen. No. 1,241,075; Sept. 25; v. 242; p. 839.
Pipe, Apparatus for making reinforced spiral. F. W. Colby. No. 1,238,987; Sept. 4; v. 242; p. 86.
Pipe-bending apparatus. R. L. Davis and G. C. Moyers. No. 1,239,165; Sept. 4; v. 242; p. 143.
Pipe-bending apparatus. C. S. Ryerson. No. 1,240,605; Sept. 18; v. 242; p. 660.
Pipe-clamp. I. A. Kidd. No. 1,241,126; Sept. 25; v. 242; p. 855.
Pipe-cleaner. F. C. Wright. No. 1,240,641; Sept. 18; v. 242; p. 671.
Pipe-coupling. F. W. Erickson. No. 1,238,994; Sept. 4; v. 242; p. 88.
Pipe-joint-sealing apparatus. E. C. Woodward. No. 1,240,288; Sept. 18; v. 242; p. 563.
Pipe-joint-sealing device. E. M. Spiekerman. No. 1,240,507; Sept. 18; v. 242; p. 632.
Pipe-joints, Sealing. E. C. Woodward. No. 1,240,287; Sept. 18; v. 242; p. 563.
Pipe, Making reinforced spiral. F. W. Colby. No. 1,238,986; Sept. 4; v. 242; p. 86.
Pipe or well-casing. M. L. Sweeney. No. 1,240,098; Sept. 11; v. 242; p. 464.
Pipe pocket Drain-. T. J. McKeone. No. 1,240,747; Sept. 18; v. 242; p. 704.
Pipe-pulling device. W. R. Osborne. No. 1,241,430; Sept. 25; v. 242; p. 951.
Pipe-threading die. A. J. Steffenberg. No. 1,241,048; Sept. 25; v. 242; p. 831.
Pistol, Liquid-. T. R. Arden. No. 1,238,733; Sept. 4; v. 242; p. 4.
Pistol-sword. N. B. Nelson. No. 1,240,478; Sept. 18; v. 242; p. 623.
Piston and piston-ring. C. E. Johnson. No. 1,240,456; Sept. 18; v. 242; p. 617.
Piston for internal-combustion engines. L. Coatalen. No. 1,240,421; Sept. 18; v. 242; p. 605.
Piston-head for engines. H. T. Dealy. No. 1,240,684; Sept. 18; v. 242; p. 685.
Piston-ring. A. J. Sauer and J. J. Georgi. No. 1,239,726; Sept. 11; v. 242; p. 350.
Piston-ring-locking device. W. Nordgren. No. 1,240,764; Sept. 18; v. 242; p. 710.
Plane, Combination carpenter's. H. W. Luskey and L. C. Payne. No. 1,239,197; Sept. 4; v. 242; p. 152.
Planing-machine. C. G. Ostemann. No. 1,240,769; Sept. 18; v. 242; p. 712.
Plant-box. E. C. White. No. 1,239,994; Sept 11; v. 242; p. 434.
Plant-forcing-device clamp. C. H. Allender. No. 1,239,071; Sept. 4; v. 242; p. 112.
Plants, &c., Apparatus for applying powdered material to. E. A. Rogers. No. 1,239,042; Sept. 4; v. 242; p. 103.
Planter. J. M. Vasconcellos. No. 1,239,646; Sept. 11; v. 242; p. 323.
Planter, Potato-. L. A. Aspinwall. No. 1,240,529; Sept. 18; v. 242; p. 638.
Planter, Seed-. F. Laird. No. 1,240,227; Sept. 18; v. 242; p. 545.
Plaster and mortar, Making. W. C. Hay. No. 1,241,211; Sept. 25; v. 242; p. 882.
Plaster composition. C. Noll. No. 1,239,032; Sept. 4; v. 242; p. 100.
Plastic composition. A. Wexler. No. 1,241,068; Sept. 25; v. 242; p. 838.
Plastic composition and making same. M. A. Popkess. No. 1,240,253; Sept. 18; v. 242; p. 552.
Plastic tie. S. V. Bacon. No. 1,239,073; Sept. 4; v. 242; p. 113.
Plastics, Manufacture of. M. A. Popkess. No. 1,240,252; Sept. 18; v. 242; p. 552.
Plate-lifter. F. Mitchell. No. 1,239,615; Sept. 11; v. 242; p. 314.
Player-actions, Valve for pneumatic. E. C. Hiscock. No. 1,240,848; Sept. 25; v. 242; p. 770.
Playing-ball and making the same. R. T. Griffiths. No. 1,240,438; Sept. 18; v. 242; p. 610.
Playing-balls, Manufacturing. R. T. Griffiths. No. 1,240,439; Sept. 18; v. 242; p. 610.
Playing device for stringed instruments, Automatic. B. L. Cartmell. No. 1,238,884; Sept. 4; v. 242; p. 52.
Plow. W. T. Hutchison. No. 1,240,047; Sept. 11; v. 242; p. 449.
Plow. W. M. McCafferty. No. 1,239,281; Sept. 4; v. 242; p. 181.
Plow, Gang-. W. A. Paul. No. 1,240,087; Sept. 11; v. 242; p. 460.
Plow, Light-tractor gang-. I. A. Weaver. No. 1,238,969; Sept. 4; v. 242; p. 80.
Plow, Motor-. J. E. Williamson. No. 1,241,320; Sept. 25; v. 242; p. 910.
Plow-points, Renewing worn-out. C. J. Conard. No. 1,241,094; Sept. 25; v. 242; p. 846.
Plow, Tractor-. D. A. Blebinger. No. 1,239,559; Sept. 11; v. 242; p. 296.
Plow, &c., Wheeled. H. S. Dickinson. No. 1,239,090; Sept. 4; v. 242; p. 118.
Plug contact-maker. H. Gallet. No. 1,240,965; Sept. 25; v. 242; p. 806.
Plug for junction-boxes and similar structures, Hole-. C. Wuensch. No. 1,239,243; Sept. 4; v. 242; p. 168.
Plug, Separable supporting and polarity attachment-. M. H. Shoenberg. No. 1,239,731; Sept. 11; v. 242; p. 352.
Pneumatic hydrostatic system. A. Roszkowski. No. 1,240,373; Sept. 18; v. 242; p. 589.
Pocket. H. T. Cook. No. 1,239,888; Sept. 11; v. 242; p. 403.
Pocket for garments, Safety-. S. Dublinsky. No. 1,239,578; Sept. 11; v. 242; p. 302.
Poke, Cattle-. F. I. Burt. No. 1,239,562; Sept. 11; v. 242; p. 297.
Polish, Non-cumulative wax. W. H. Damon. No. 1,240,544; Sept. 18; v. 242; p. 643.
Polish, Non-cumulative wax. W. H. Damon. No. 1,240,545; Sept. 18; v. 242; p. 643.
Portière-hanger. C. W. Kirsch. No. 1,239,919; Sept. 11; v. 242; p. 412.
Post: *See*—
Binder-post. Fence-post.
Post and rig-iron, Samson-. C. M. Heeter. No. 1,240,715; Sept. 18; v. 242; p. 694.
Postal box. C. Forth. No. 1,240,190; Sept. 18; v. 242; p. 531.
Pot for mustard, jam, marmalade, honey, &c. H. Kägi. No. 1,241,221; Sept. 25; v. 242; p. 885.
Potato-cutter, Power. L. E. Dahleen. No. 1,238,893; Sept. 4; v. 242; p. 55.
Potato-digger. O. Cordrey. No. 1,239,354; Sept. 4; v. 242; p. 204.
Potato-digger. A. Lauritzen. No. 1,239,921; Sept. 11; v. 242; p. 413.
Potato-separator. A. Lauritzen. No. 1,239,922; Sept. 11; v. 242; p. 413.
Poultry-fetter. W. N. C. Willson. No. 1,240,111; Sept. 11; v. 242; p. 468.
Powder-blending apparatus. C. L. Heisler. No. 1,241,212; Sept. 25; v. 242; p. 882.
Powder-containing receptacles, Spout attachment for. W. C. Heindl. No. 1,239,181; Sept. 4; v. 242; p. 147.
Powder, Flash-. J. I. Crabtree. No. 1,240,027; Sept. 11; v. 242; p. 444.
Powder-puff retainer. A. M. Clay. No. 1,240,944; Sept. 25; v. 242; p. 800.
Power-factor meter. C. I. Hall. No. 1,240,710; Sept. 18; v. 242; p. 692.
Power-generator. A. Rector. No. 1,239,519; Sept. 11; v. 242; p. 283.
Power lifting-machine. R. N. Lowry. No. 1,239,020; Sept. 4; v. 242; p. 97.
Power-shovel. E. J. Armstrong and H. Rommerdale. No. 1,239,554; Sept. 11; v. 242; p. 294.
Power, Torsional equalizer for transmission of. H. G. Lord. No. 1,240,065; Sept. 11; v. 242; p. 453.
Power transmission, Controlling means for. J. G. Baukat. No. 1,239,252; Sept. 4; v. 242; p. 172.
Power-transmission device. C. M. Manly. No. 1,238,927; Sept. 4; v. 242; p. 66.
Power transmission, Driving mechanism for. C. G. Branstrator. No. 1,240,302; Sept. 18; v. 242; p. 568.
Power-transmitting mechanism. O. H. Gentry. No. 1,239,900; Sept. 11; v. 242; p. 406.
Power-wheel for grab-buckets. E. B. Perry. No. 1,241,271; Sept. 25; v. 242; p. 905.
Press: *See*—
Baling-press. Hydraulic press.
Brick-press. Printing-press.
Embossing-press. Rotary press.
Press. B. C. Barton. No. 1,238,981; Sept. 4; v. 242; p. 84.
Press-mold. H. A. Wickham. No. 1,239,652; Sept. 11; v. 242; p. 325.
Pressing iron, Garment-seam-. E. H. Zacharias. No. 1,239,552; Sept. 11; v. 242; p. 294.
Pressure-indicator safety device. F. E. Collinson. No. 1,239,565; Sept. 11; v. 242; p. 298.
Priming device. C. H. Morse, Jr., and F. G. Hobart. No. 1,240,080; Sept. 11; v. 242; p. 458.
Print-drying apparatus. M. B. Martin. No. 1,240,468; Sept. 18; v. 242; p. 620.
Printers' rollers, Resilient composition for. C. E. Soane. No. 1,239,630; Sept. 11; v. 242; p. 318.
Printing and feeding mechanism for accounting-machines, Slip. M. Jacob. No. 1,238,777; Sept. 4; v. 242; p. 17.
Printing characters, Automatic machine for leveling. J. S. Duncan. No. 1,239,678; Sept. 11; v. 242; p. 334.
Printing characters, Machine for leveling. J. S. Duncan. No. 1,239,677; Sept. 11; v. 242; p. 334.
Printing from intaglio printing-plates, Mechanism for. H. A. W. Wood. No. 1,239,242; Sept. 4; v. 242; p. 168.
Printing-machine. P. Dignan. No. 1,240,828; Sept. 25; v. 242; p. 768.
Printing machine, Block-. R. G. Jackson. No. 1,241,391; Sept. 25; v. 242; p. 940.

Printing-machine having a continuously-rotating cylinder. C. Winkler. No. 1,241,321; Sept. 25; v. 242; p. 919.
Printing machine, Multicolor-. R. Jacobucci. No. 1,240,159; Sept. 11; v. 242; p. 483.
Printing mechanism, Number-. W. P. Quentell. No. 1,240,256; Sept. 18; v. 242; p. 553.
Printing-plates, Adjustable supporting-base for. R. F. Chrisman. No. 1,240,315; Sept. 18; v. 242; p. 572.
Printing-plates, Machine for rolling. J. S. Duncan. No. 1,239,679; Sept. 11; v. 242; p. 335.
Printing-press. W. J. Ramsaier. No. 1,239,128; Sept. 4; v. 242; p. 131.
Printing-press and folder, Rotary. H. F. Bechman. No. 1,240,011; Sept. 11; v. 242; p. 440.
Printing-press rollers, Adjusting means for. V. G. Morgan. No. 1,240,078; Sept. 11; v. 242; p. 457.
Printing-press, Rotary. H. F. Bechman. No. 1,240,009; Sept. 11; v. 242; p. 439.
Printing-press, Rotary. H. F. Bechman. No. 1,240,010; Sept. 11; v. 242; p. 439.
Printing-press, Rotary. H. F. Bechman. No. 1,240,013; Sept. 11; v. 242; p. 440.
Printing-press, Rotary. H. F. Bechman. No. 1,240,014; Sept. 11; v. 242; p. 440.
Printing-press, Rotary cylinder. H. F. Bechman. No. 1,240,008; Sept. 11; v. 242; p. 439.
Printing press, Rotary web-. H. F. Bechman. No. 1,240,015; Sept. 11; v. 242; p. 441.
Printing-press webs, Tension-equalizer for. J. M. Trier. No. 1,240,631; Sept. 18; v. 242; p. 668.
Printing-presses, Automatic paper-adjuster and gage-pin for platen. C. A. Nace. No. 1,241,241; Sept. 25; v. 242; p. 892.
Printing-presses, Blotting or offsetting mechanism for. R. Miehle. No. 1,240,996; Sept. 25; v. 242; p. 816.
Printing-presses, Changer for inking apparatus for. W. J. Ramsaier. No. 1,239,127; Sept. 4; v. 242; p. 131.
Printing-presses, Device for clamping printing-plates to the cylinders of. T. R. G. Parker and J. Shuttleworth. No. 1,240,247; Sept. 18; v. 242; p. 550.
Printing the Assyrian language. J. E. Werda. No. 1,240,633; Sept. 18; v. 242; p. 669.
Projectile. F. A. Lizarraga. No. 1,241,409; Sept. 25; v. 242; p. 945.
Projectile and making the same. D. H. Armstrong. No. 1,240,293; Sept. 18; v. 242; p. 565.
Projectile-fuse-testing apparatus. C. L. Heisler. No. 1,241,213; Sept. 25; v. 242; p. 883.
Projectile-protector. W. L. Sechler. No. 1,239,309; Sept. 4; v. 242; p. 189.
Projecting apparatus. G. L. W. Palmer. No. 1,240,593; Sept. 18; v. 242; p. 657.
Projector. R. Dobbs. No. 1,240,034; Sept. 11; v. 242; p. 446.
Propelling apparatus, Ship-. P. N. Hicks. No. 1,239,009; Sept. 4; v. 242; p. 93.
Protective device. E. O. E. Klipphahn. No. 1,239,795; Sept. 11; v. 242; p. 371.
Puller: *See*—
Battery-element puller. Cork-puller.
Bottle-cap puller.
Pulp-rolls, Securing means for the outer ends of. E. Simonson. No. 1,239,976; Sept. 11; v. 242; p. 429.
Pulverizer. B. and J. A. Gale. No. 1,241,205; Sept. 25; v. 242; p. 880.
Pump. G. Horvath. No. 1,240,211; Sept. 18; v. 242; p. 540.
Pump. H. B. Jones. No. 1,240,855; Sept. 25; p. 242; p. 772.
Pump. A. Sundh. No. 1,239,059; Sept. 4; v. 242; p. 108.
Pump and reservoir, Combined. C. H. Morse, Jr., and F. G. Hobart. No. 1,240,079; Sept. 11; v. 242; p. 457.
Pump, Centrifugal. G. H. Anderson. No. 1,238,731; Sept. 4; v. 242; p. 3.
Pump, Centrifugal. C. R. Lang. No. 1,241,128; Sept. 25; v. 242; p. 856.
Pump-chain. W. E. Fahrner. No. 1,240,550; Sept. 18; v. 242; p. 644.
Pump, Demountable. F. A. Ross. No. 1,239,625; Sept. 11; v. 242; p. 317.
Pump, Double-acting. H. Hamilton. No. 1,240,712; Sept. 18; v. 242; p. 693.
Pump, Internal-combustion. V. Grimith. No. 1,240,967; Sept. 25; v. 242; p. 806.
Pump-jack. E. Hards. No. 1,239,909; Sept. 11; v. 242; p. 409.
Pump, Oil-. R. J. Pfeeger. No. 1,238,939; Sept. 4; v. 242; p. 70.
Pump, Oil-. F. R. Porter. No. 1,238,817; Sept. 4; v. 242; p. 31.
Pump, Oil-. F. R. Porter. No. 1,238,818; Sept. 4; v. 242; p. 32.
Pump, Oil-. F. R. Porter. No. 1,238,819; Sept. 4; v. 242; p. 32.
Pump-pipes or pump-rods, Lift for. M. D. Bruce. No. 1,239,875; Sept. 11; v. 242; p. 399.
Pump, Rotary. F. C. Rood. No. 1,240,489; Sept. 18; v. 242; p. 626.
Pump, Rotary. J. S. Shockley. No. 1,240,264; Sept. 18; v. 242; p. 556.
Pump, Rotary deep-well. S. Lippert. No. 1,239,706; Sept. 11; v. 242; p. 344.
Pump, Spraying. F. S. Welch. No. 1,241,178; Sept. 25; v. 242; p. 872.
Pump, Variable-stroke. A. Sundh. No. 1,239,060; Sept. 4; v. 242; p. 109.
Punching and setting machine. H. C. Hinchcliffe. No. 1,240,207; Sept. 18; v. 242; p. 588.
Quilting-frame, Foldable. J. A. Bush. No. 1,239,877; Sept. 11; v. 242; p. 399.
Rack: *See*—
Clothes-rack. Display-rack.
Combination-rack. Hay-rack.
Dish-rack. Seat-rack.
Radiator. H. A. Cureton. No. 1,240,543; Sept. 18; v. 242; p. 643.
Radiator. L. Courtot. No. 1,239,428; Sept. 4; v. 242; p. 225.
Radiator. F. W. Keegan. No. 1,239,491; Sept. 11; v. 242; p. 274.
Radiator. D. M. Livingston. No. 1,239,495; Sept. 11; v. 242; p. 275.
Radiator attachment. R. E. Ingal. No. 1,241,389; Sept. 25; v. 242; p. 939.
Radiator-cap. E. Timmerhoff. No. 1,239,542; Sept. 11; v. 242; p. 291.
Radiator-cores, Suspension for. C. C. Roberts and J. E. Barchel. No. 1,238,943; Sept. 4; v. 242; p. 71.
Radiator, Electrically-heated water-containing. O. A. Palmer. No. 1,241,244; Sept. 25; v. 242; p. 893.
Radiator-shield, Automobile. A. Wagstaff, Jr. No. 1,239,144; Sept. 4; v. 242; p. 137.
Radiators, Combined shelf and shield for. C. V. Hill and H. H. K. Schwerdtmann. No. 1,240,573; Sept. 18; v. 242; p. 650.
Radium-applicator. J. B. E. Bell. No. 1,238,872; Sept. 4; v. 242; p. 49.
Rail-anchor. C. F. Clawson. No. 1,240,674; Sept. 18; v. 242; p. 683.
Rail and tie-plate, Combined anticreeping. B. B. Betts. No. 1,240,406; Sept. 18; v. 242; p. 600.
Rail and tie-plate, Combined anticreeping. B. B. Betts. No. 1,240,407; Sept. 18; v. 242; p. 600.
Rail-brace. C. H. Williams. No. 1,240,276; Sept. 18; v. 242; p. 560.
Rail chair, Multiple-. B. B. Betts. No. 1,240,408; Sept. 18; v. 242; p. 601.
Rail-contactor. E. C. Johnson. No. 1,238,922; Sept. 4; v. 242; p. 64.
Rail-fastener for metal ties. F. H. Krupp. No. 1,241,224; Sept. 25; v. 242; p. 886.
Rail-fastening device. L. D. Vaughn and W. P. Samples. No. 1,239,321; Sept. 4; v. 242; p. 192.
Rail-joint. J. Dziatkiewicz. No. 1,240,429; Sept. 18; v. 242; p. 607.
Rail-joint. F. Jerieh. No. 1,240,727; Sept. 18; v. 242; p. 698.
Rail-joint. M. Leonard. No. 1,241,406; Sept. 25; v. 242; p. 944.
Rail-joint. G. H. Ricke. No. 1,240,092; Sept. 11; v. 242; p. 461.
Rail-joint, Insulated. B. G. Braine. No. 1,240,660; Sept. 18; v. 242; p. 678.
Rail-joint, Insulated. P. G. Ten Eyck. (Reissue.) No. 14,362; Sept. 18; v. 242; p. 725.
Rail-joint lock. P. H. Antrim. No. 1,239,334; Sept. 4; v. 242; p. 196.
Rail tie and fastener. J. J. Hartnett. No. 1,240,970; Sept. 25; v. 242; p. 807.
Rail tie and fastener. E. T. Wade. No. 1,239,750; Sept. 11; v. 242; p. 357.
Rail-tie, Steel. A. R. De Rycke. No. 1,239,363; Sept. 4; v. 242; p. 206.
Railing, Metal. E. E. Slick. No. 1,241,041; Sept. 25; v. 242; p. 830.
Railway and other vehicles, Underframe for. L. N. Lloyd. No. 1,240,064; Sept. 11; v. 242; p. 453.
Railway construction. W. F. Bond. No. 1,240,658; Sept. 18; v. 242; p. 678.
Railway-crossing. O. N. Beam. No. 1,239,338; Sept. 4; v. 242; p. 197.
Railway-crossing, Cushioned. P. B. Harris. No. 1,239,269; Sept. 4; v. 242; p. 177.
Railway devices, Hydraulic mechanism for. L. Heald. No. 1,239,007; Sept. 4; v. 242; p. 92.
Railway draft-rigging, Means of connecting draw-bars to draft-yokes in. S. B. Haseltine. No. 1,240,341; Sept. 18; v. 242; p. 580.
Railway, Electric. T. M. Erickson. No. 1,240,184; Sept. 18; v. 242; p. 529.
Railway-gate apparatus. L. M. King. No. 1,240,149; Sept. 11; v. 242; p. 479.
Railway-lines, Means for fixing. O. Valeri. No. 1,239,318; Sept. 4; v. 242; p. 191.
Railway-rail lock. H. Des Rosier. No. 1,241,349; Sept. 25; v. 242; p. 927.
Railway-rails, Anticreeper for. H. G. Gillmor. No. 1,240,843; Sept. 25; v. 242; p. 769.
Railway-rails, Tie-plate for. O. P. Morrison. (Reissue.) No. 14,358; Sept. 11; v. 242; p. 490.
Railway-signal. R. F. Hudson. No. 1,238,772; Sept. 4; v. 242; p. 16.
Railway signal system. P. J. Simmen. No. 1,239,048; Sept. 4; v. 242; p. 105.
Railway signal system. P. J. Simmen. No. 1,239,049; Sept. 4; v. 242; p. 105.
Railway signaling. C. J. Kintner. No. 1,239,699; Sept. 11; v. 242; p. 342.

Railway-switch, Automatic. A. Nitzsche. No. 1,239,031; Sept. 4; v. 242; p. 100.
Railway system, Electric-. K. E. Stuart. No. 1,240,897; Sept. 25; v. 242; p. 785.
Railway system, Electric-. K. E. Stuart. No. 1,240,898; Sept. 25; v. 242; p. 785.
Railway-tie. W. P. Day. No. 1,240,952; Sept. 25; v. 242; p. 802.
Railway-tie. W. Klimas. No. 1,238,788; Sept. 4; v. 242; p. 21.
Railway-tie, Reinforced-concrete. L. Kidd. No. 1,239,402; Sept. 4; v. 242; p. 217.
Railway-track curves, Inner rail for. J. W. McManama. No. 1,239,927; Sept. 11; v. 242; p. 415.
Railway-track gage. R. J. Lewis. No. 1,239,192; Sept. 4; v. 242; p. 150.
Railway-track weed-cutter. G. S. Webster. No. 1,238,855; Sept. 4; v. 242; p. 43.
Railway-tracks, Spring-controlled split switch for. F. D. Evans. No. 1,239,262; Sept. 4; v. 242; p. 174.
Railway-traffic-control apparatus. J. P. Coleman. No. 1,238,889; Sept. 4; v. 242; p. 54.
Railway-traffic-controlling apparatus. J. P. Coleman. No. 1,238,887; Sept. 4; v. 242; p. 53.
Railway-traffic-controlling apparatus. J. P. Coleman. No. 1,238,888; Sept. 4; v. 242; p. 54.
Railway-vehicle. W. Cooper. (Reissue.) No. 14,350; Sept. 11; v. 242; p. 484.
Rake: *See*—
Hay-rake. Side-delivery rake.
Lawn-rake.
Rake. C. W. Smith and C. M. Lamb. No. 1,239,735; Sept. 11; v. 242; p. 353.
Rake attachment, Hay-. R. Black. No. 1,239,763; Sept. 11; v. 242; p. 361.
Range-cover. L. K. Love. No. 1,240,745; Sept. 18; v. 242; p. 704.
Range-finder for use upon aerial vehicles or machines. W. Wait, Jr. No. 1,238,967; Sept. 4; v. 242; p. 79.
Ratchet-drill. C. G. W. Nitz. No. 1,241,428; Sept. 25; c. 242; p. 950.
Razor. G. H. Tuttle. No. 1,239,644; Sept. 11; v. 242; p. 323.
Razor-blade-stropping apparatus. J. M. Tourtel. No. 1,240,514; Sept. 18; v. 242; p. 634.
Razor, Corn-. R. Marx. No. 1,239,419; Sept. 4; v. 242; p. 222.
Razor, Safety-. F. F. Dorsey. No. 1,239,577; Sept. 11; v. 242; p. 302.
Razor, Safety-. J. J. Fitzgerald. No. 1,238,751; Sept. 4; v. 242; p. 10.
Reamer and similar tool, Adjustable. G. B. Chadwick. No. 1,240,311; Sept. 18; v. 242; p. 570.
Receptacle. A. C. Bering, Jr. No. 1,240,927; Sept. 25; v. 242; p. 796.
Receptacle. F. P. Meyer. No. 1,239,204; Sept. 4; v. 242; p. 154.
Receptacle, Collapsible. E. E. Brumbaugh. No. 1,240,817; Sept. 25; v. 242; p. 760.
Receptacle, Self-closing. A. Edwards. No. 1,238,993; Sept. 4; v. 242; p. 88.
Recorder: *See*—
Time-recorder. Vibration-recorder.
Recording the condition of apparatus, System for. A. Nicol. No. 1,240,763; Sept. 18; v. 242; p. 710.
Reel: *See*—
Fishing-reel. Picture-machine reel.
Reflector and source of light in the same, Combined. H. R. Evans. No. 1,239,371; Sept. 4; v. 242; p. 208.
Refractories, Production of. P. R. Hershman. No. 1,240,569; Sept. 18; v. 242; p. 650.
Refrigerating-machine. I. Lundgaard. No. 1,240,862; Sept. 25; v. 242; p. 774.
Refrigerator, Evaporation-. W. R. Barringer. No. 1,239,250; Sept. 4; v. 242; p. 171.
Refrigerator or ice-box. F. B. Hart and T. G. Van Sant. No. 1,239,481; Sept. 11; v. 242; p. 271.
Refuse-furnace. E. Kidwell. No. 1,239,403; Sept. 4; v. 242; p. 218.
Register: *See*—
Cash-register.
Regulator: *See*—
Automobile speed-regulator. Fuel-regulator.
Electrical regulator. Traffic-regulator.
Flame-regulator.
Regulator. A. H. Thompson. No. 1,240,102; Sept. 11; v. 242; p. 465.
Relay. H. D. Currier and L. Ericson. No. 1,239,357; Sept. 4; v. 242; p. 204.
Relay, Time-limit. E. H. Jacobs. No. 1,240,723; Sept. 18; v. 242; p. 697.
Releasing means, Electrically-controlled. J. P. Crandall. No. 1,239,569; Sept. 11; v. 242; p. 300.
Relief-alidade. F. H. Colburn. No. 1,240,676; Sept. 18; v. 242; p. 683.
Resilient wheel. H. C. Anderson. No. 1,239,333; Sept. 4; v. 242; p. 196.
Resilient wheel. A. G. Marsden. No. 1,241,285; Sept. 25; v. 242; p. 890.
Resilient wheel. E. I. Mower. No. 1,240,357; Sept. 18; v. 242; p. 585.
Resilient wheel. F. Taylor. No. 1,240,624; Sept. 18; v. 242; p. 666.
Respiration, Apparatus for producing artificial. W. E. Tullar. No. 1,241,056; Sept. 25; v. 242; p. 834.
Retort. P. Plantinga. No. 1,239,517; Sept. 11; v. 242; p. 282.
Reversible boat. T. H. Gaskin. No. 1,241,367; Sept. 25; v. 242; p. 933.
Reversing mechanism. J. V. Petrelli. No. 1,239,213; Sept. 4; v. 242; p. 157.
Rewinding woven fabrics, Machine for. M. J. Hoffman. No. 1,240,800; Sept. 18; v. 242; p. 722.
Ribbon-supporting mechanism. P. Dignan. No. 1,241,464; Sept. 25; v. 242; p. 961.
Rice and product thereof, Treating. M. M. Baumgartner. No. 1,239,555; Sept. 11; v. 242; p. 295.
Ridger and blocker, Combined. H. Pitcher. No. 1,240,088; Sept. 11; v. 242; p. 460.
Rim and locking and aligning device therefor, Split clencher demountable. W. N. Booth. No. 1,240,789; Sept. 18; v. 242; p. 718.
Rim, Demountable. H. F. Klein. No. 1,239,606; Sept. 11; v. 242; p. 311.
Rim, Demountable. H. B. Manning. No. 1,239,118; Sept. 4; v. 242; p. 128.
Rim, Demountable. W. J. P. Moore. No. 1,239,506; Sept. 11; v. 242; p. 279.
Rim, Sectional. J. J. Foley. No. 1,238,996; Sept. 4; v. 242; p. 89.
Rim sections, Coupling means for demountable-. F. B. Cumpston. No. 1,241,345; Sept. 25; v. 242; p. 926.
Rim, Separable. H. Gale and W. B. Romeiser. No. 1,241,107; Sept. 25; v. 242; p. 850.
Rim, Tire-carrying. E. Hopkinson. No. 1,238,769; Sept. 4; v. 242; p. 15.
Ring: *See*—
Packing-ring. Scapular-ring.
Piston-ring.
Riveting-machine. A. M. Baird. No. 1,239,862; Sept. 11; v. 242; p. 394.
Riveting-machine. F. P. Kenney and W. J. Elliott. No. 1,238,785; Sept. 4; v. 242; p. 20.
Riveting-machine. T. P. Payne. No. 1,241,250; Sept. 25; v. 242; p. 896.
Road-surfacing material. C. M. Upham. No. 1,240,269; Sept. 18; v. 242; p. 557.
Rocking-chair. W. Drosdowet. No. 1,241,357; Sept. 25; v. 242; p. 930.
Rocking-chair. J. B. Vitullo. No. 1,241,171; Sept. 25; v. 242; p. 870.
Rocking-chair, Manually-operable. A. Prostredny. No. 1,241,277; Sept. 25; v. 242; p. 907.
Rod: *See*—
Curtain-rod.
Rod trimmer or reducer. M. Katzmarek. No. 1,240,221; Sept. 18; v. 242; p. 543.
Roller: *See*—
Bandage-roller. Shade-roller.
Roller-mill. L. F. Little. No. 1,239,707; Sept. 11; v. 242; p. 344.
Roller-mill. F. E. Marcy. No. 1,239,286; Sept. 4; v. 242; p. 182.
Roller-tables, Manipulator for. C. N. Reese. No. 1,239,623; Sept. 11; v. 242; p. 316.
Rolling machine, Hot-. R. B. Weaver. No. 1,241,482; Sept. 25; v. 242; p. 967.
Rolling-mill. A. F. Nelson. No. 1,241,242; Sept. 25; v. 242; p. 893.
Rolling-mill. C. Thickett and W. Hawksworth. No. 1,239,743; Sept. 11; v. 242; p. 355.
Rolling-stock. C. C. Clark. No. 1,240,673; Sept. 18; v. 242; p. 682.
Rollomobile. J. Kunst. No. 1,240,226; Sept. 18; v. 242; p. 544.
Roof, Sheet-metal. J. H. Perry. No. 1,240,773; Sept. 18; v. 242; p. 713.
Roof structure. W. S. J. Zwick. No. 1,239,331; Sept. 4; v. 242; p. 195.
Roof structure. W. S. J. Zwick. No. 1,239,332; Sept. 4; v. 242; p. 195.
Roofing-bracket. J. R. Boyd. No. 1,241,335; Sept. 25; v. 242; p. 923.
Roofing, Joining sheets of composition. R. P. Perry. No. 1,241,146; Sept. 25; v. 242; p. 863.
Roofing material, Mineral-surfaced. F. C. Overbury. No. 1,238,805; Sept. 4; v. 242; p. 27.
Rope-clamping device. J. H. Heuser. No. 1,241,379; Sept. 25; v. 242; p. 936.
Rope-coupling. V. H. McEntire. No. 1,241,230; Sept. 25; v. 242; p. 888.
Rotary drier. W. W. Swengel. No. 1,240,386; Sept. 18; v. 242; p. 594.
Rotary drill. L. S. Gardner. No. 1,238,757; Sept. 4; v. 242; p. 12.
Rotary engine. B. F. Augustine. No. 1,238,870; Sept. 4; v. 242; p. 48.
Rotary engine. M. M. and C. W. Jackman. No. 1,239,694; Sept. 11; v. 242; p. 340.
Rotary engine. A. Schwarz. No. 1,239,829; Sept. 11; v. 242; p. 383.
Rotary engine. J. B. Whitted. No. 1,239,752; Sept. 11; v. 242; p. 358.
Rotary engine. S. C. Winger. No. 1,240,112; Sept. 11; v. 242; p. 468.
Rotary internal-combustion engine. F. L. Cole. No. 1,240,947; Sept. 25; v. 242; p. 801.
Rotary internal-combustion engine. A. E. and W. Painter. No. 1,238,806; Sept. 4; v. 242; p. 27.

Rotary internal-combustion engine. M. K. Thayer. No. 1,241,303; Sept. 25; v. 242; p. 915.
Rotary internal-combustion engine. F. Walter. No. 1,239,853; Sept. 11; v. 242; p. 391.
Rotary motor. E. E. McCulley. No. 1,239,412; Sept. 4; v. 242; p. 220.
Rotary press. H. F. Beckman. No. 1,240,012; Sept. 11; v. 242; p. 440.
Rows, Device for arranging articles in. E. M. Fischer. No. 1,240,834; Sept. 25; v. 242; p. 766.
Rubber and other similar substances, Vulcanization of. G. Bernstein. No. 1,240,116; Sept. 11; v. 242; p. 470.
Rubber articles, Form for. C. E. Bradley. No. 1,240,931; Sept. 25; v. 242; p. 797.
Rubber-dam sheets, Container and cutter for. A. H. Jensen. No. 1,239,695; Sept. 11; v. 242; p. 340.
Rubber, Electrically-heated seam-. E. N. Chandler. No. 1,239,257; Sept. 4; v. 242; p. 173.
Ruler and pencil-sharpener, Combined. R. W. Hurley. No. 1,240,145; Sept. 11; v. 242; p. 478.
Ruling system. J. J. McCarthy. No. 1,238,795; Sept. 4; v. 242; p. 23.
Sack-holder. G. Smith. No. 1,240,612; Sept. 18; v. 242; p. 662.
Sad-iron. L. Hoffman. No. 1,241,216; Sept. 25; v. 242; p. 884.
Sad-iron. M. Sunshine. No. 1,238,955; Sept. 4; v. 242; p. 75.
Saddle, Pack-. H. D. Bader and J. C. Wassell. No. 1,239,755; Sept. 11; v. 242; p. 359.
Saddle, Pack-. H. D. Bader and J. C. Wassell. No. 1,239,756; Sept. 11; v. 242; p. 359.
Safes, File attachment for. P. E. Pyle. No. 1,241,279; Sept. 25; v. 242; p. 907.
Safety-gate, Automatic electric. R. Eades. No. 1,241,358; Sept. 25; v. 242; p. 930.
Sampler, Automatic. S. E. Cogswell. No. 1,241,196; Sept. 25; v. 242; p. 878.
Sandpapering-machine. M. W. Duzey. No. 1,240,428; Sept. 18; v. 242; p. 607.
Sandpapering-machine. C. A. Lind. No. 1,241,407; Sept. 25; v. 242; p. 944.
Sanitary comb. J. E. Sage and N. V. Borgeson. No. 1,241,286; Sept. 25; v. 242; p. 910.
Sash and frame, Window. H. Rosenzweig. No. 1,241,285; Sept. 25; v. 242; p. 909.
Sash and ventilator, Window. F. Victor. No. 1,240,107; Sept. 11; v. 242; p. 467.
Sash construction. C. P. Pond. No. 1,240,777; Sept. 18; v. 242; p. 714.
Sash-fastener. K. Horikawa. No. 1,239,105; Sept. 4; v. 242; p. 124.
Sash-fastener. J. R. Watts. No. 1,238,968; Sept. 4; v. 242; p. 80.
Sash-locking mechanism. O. W. Tucker. No. 1,239,544; Sept. 11; v. 242; p. 292.
Sash-strip fastener. G. F. Gullborg. No. 1,240,044; Sept. 11; v. 242; p. 448.
Sash-weight. C. L. Martin. No. 1,239,418; Sept. 4; v. 242; p. 222.
Sash, Window-. M. H. Hubner. No. 1,240,454; Sept. 18; v. 242; p. 616.
Saw. J. H. Free. No. 1,240,331; Sept. 18; v. 242; p. 577.
Saw-clamp. W. McDaniel. No. 1,239,709; Sept. 11; v. 242; p. 345.
Saw, Cotton-seed-delinting. A. A. Wood. No. 1,239,998; Sept. 11; v. 242; p. 435.
Saw, Keyhole-. A. R. Brewer. No. 1,240,173; Sept. 18; v. 242; p. 526.
Saw, Motor-operated. A. Gisch. No. 1,239,384; Sept. 4; v. 242; p. 212.
Saw-set. G. Finney. No. 1,239,779; Sept. 11; v. 242; p. 367.
Saw-set. A. B. Repetto. No. 1,239,217; Sept. 4; v. 242; p. 159.
Saw-tooth. T. T. Carlson. No. 1,240,939; Sept. 25; v. 242; p. 799.
Saws, Tooth-gage device for circular. F. D. Martin. No. 1,240,074; Sept. 11; v. 242; p. 456.
Scale. L. Jaenichen. No. 1,240,219; Sept. 18; v. 242; p. 542.
Scale. N. Nilson. No. 1,240,084; Sept. 11; v. 242; p. 459.
Scale sheath and cleaner, Combined. G. W. Rink. No. 1,240,880; Sept. 25; v. 242; p. 780.
Scapular-ring. A. H. Kopetschny. No. 1,239,405; Sept. 4; v. 242; p. 218.
Scraper, Dumping-. O. V. Howell. No. 1,241,383; Sept. 25; v. 242; p. 937.
Screen: *See*—
Fly-screen.
Wire screen.
Window-screen.
Screens and the like, Adjustable metallic frame for. C. A. Henry. (Reissue.) No. 14,360; Sept. 18; v. 242; p. 723.
Screw-adjusting mechanism, Feed-. A. Lindner. No. 1,239,193; Sept. 4; v. 242; p. 151.
Screw connection, Temper-. J. Bergsten. No. 1,239,865; Sept. 11; v. 242; p. 395.
Screw-driver. H. W. Pomeroy. No. 1,239,961; Sept. 11; v. 242; p. 425.
Screw-driver. I. D. Shay. No. 1,239,131; Sept. 4; v. 242; p. 133.
Screw-driver, Universal. G. Townill. No. 1,239,847; Sept. 11; v. 242; p. 389.
Screw-drivers, Screw-holding attachment for. O. A. Haufe. No. 1,240,138; Sept. 11; v. 242; p. 476.
Scutching-machine. J. Hubler. No. 1,239,914; Sept. 11; v. 242; p. 410.
Seal. M. B. Behrman. No. 1,239,665; Sept. 11; v. 242; p. 330.
Seal. R. T. Hosking. No. 1,240,719; Sept. 18; v. 242; p. 695.
Seal. C. J. Reynolds. No. 1,239,966; Sept. 11; v. 242; p. 426.
Sealing glass bulbs. A. J. Loepsinger. No. 1,241,229; Sept. 25; v. 242; p. 888.
Seam, Edge-finishing. A. H. De Voe. No. 1,239,674; Sept. 4; v. 242; p. 332.
Seam, Ornamental edge-finishing. A. H. De Voe. No. 1,239,675; Sept. 11; v. 242; p. 333.
Seaming mechanism, Lap-. W. T. Benjamin. No. 1,238,857; Sept. 4; v. 242; p. 44.
Seat: *See*—
Automobile-seat.
Bath-tub seat.
Car-seat.
Child's seat.
Folding seat.
Movable seat.
Seat. V. P. Buck. No. 1,239,253; Sept. 4; v. 242; p. 172.
Seat rack, Theater-. O. P. W. Hanson. No. 1,239,389; Sept. 4; v. 242; p. 213.
Secondary or storage battery. B. Ford. No. 1,238,754; Sept. 4; v. 242; p. 11.
Secondary or storage battery. B. Ford. No. 1,238,755; Sept. 4; v. 242; p. 11.
Section-switch. H. W. Davis. No. 1,239,464; Sept. 11; v. 242; p. 266.
Seed-beds, Preparing. T. W. Hicks. No. 1,239,599; Sept. 11; v. 242; p. 309.
Seeds or the like, Machine for sowing. J. Hutton. No. 1,241,387; Sept. 25; v. 242; p. 939.
Seeders and planters, Drop-feed for. M. P. Johnson. No. 1,241,123; Sept. 25; v. 242; p. 854.
Self-oiled mechanism. C. G. Wood. No. 1,239,548; Sept. 11; v. 242; p. 293.
Separating device. M. Sleeth. No. 1,238,949; Sept. 4; v. 242; p. 74.
Separating-machine. A. J. Buckley. No. 1,239,561; Sept. 11; v. 242; p. 297.
Separator: *See*—
Bean-separator.
Cup-separator.
Grain-separator.
Milk and cream separator.
Oil-separator.
Potato-separator.
Steam-dome separator.
Steam-separator.
Separator. J. Schnelble. No. 1,238,829; Sept. 4; v. 242; p. 35.
Sepulcher. E. M. Treat. No. 1,240,106; Sept. 11; v. 242; p. 466.
Sew seams with gaps, Machine to. W. R. Rogers. No. 1,240,259; Sept. 18; v. 242; p. 554.
Sewing-machine. F. Baker. No. 1,238,979; Sept. 4; v. 242; p. 83.
Sewing-machine. R. L. Lyons. No. 1,238,794; Sept. 4; v. 242; p. 23.
Sewing-machine. L. Onderdonk. No. 1,240,085; Sept. 11; v. 242; p. 459.
Sewing-machine. W. R. Rogers. No. 1,239,825; Sept. 11; v. 242; p. 382.
Sewing-machine. T. H. Seely. No. 1,240,094; Sept. 11; v. 242; p. 462.
Sewing-machine attachment. F. D. Sweet. No. 1,240,384; Sept. 18; v. 242; p. 593.
Sewing machine, Button-. W. L. Barron and F. E. Osol. No. 1,240,921; Sept. 25; v. 242; p. 794.
Sewing machine, Filled-bag-. D. S. Seymour. No. 1,240,095; Sept. 11; v. 242; p. 463.
Sewing-machine loop-sewing attachment. W. Wilson. No. 1,241,182; Sept. 25; v. 242; p. 873.
Sewing-machine, Ornamental-stitch. W. Myers. No. 1,239,715; Sept. 11; v. 242; p. 347.
Sewing-machine ruffling mechanism. A. H. De Voe. No. 1,240,956; Sept. 25; v. 242; p. 803.
Sewing machine, Shoe-. F. Chateauneuf. No. 1,240,941; Sept. 25; v. 242; p. 799.
Sewing-machine thread-controlling device. C. H. T. Hagelstein. No. 1,239,907; Sept. 11; v. 242; p. 409.
Sewing-machine thread-controlling mechanism. G. W. Nelson. No. 1,240,868; Sept. 25; v. 242; p. 776.
Sewing-machine threading attachment. T. J. Bowyer. No. 1,239,765; Sept. 11; v. 242; p. 361.
Sewing-machine trimming mechanism. J. R. Moffatt. No. 1,240,753; Sept. 18; v. 242; p. 706.
Sewing-machine work-handling mechanism. J. Whitelaw. No. 1,239,239; Sept. 4; v. 242; p. 167.
Sewing-machines, Article-presenting means for. A. H. De Voe. No. 1,239,676; Sept. 11; v. 242; p. 333.
Sewing machines, Back-gage for shoe-. B. S. La Fleur. No. 1,240,985; Sept. 25; v. 242; p. 812.
Sewing machines, Work-holder for buttonhole-. E. B. Allen. No. 1,240,642; Sept. 18; v. 242; p. 672.
Shade and curtain fixture. A. J. Dinkel and H. C. Hartman. No. 1,239,864; Sept. 4; v. 242; p. 206.
Shade and curtain support, Adjustable window. C. S. and W. Tibbetts. No. 1,239,845; Sept. 11; v. 242; p. 388.
Shade fixture and curtain-pole bracket, Adjustable window-. E. Murray. No. 1,238,931; Sept. 4; v. 242; p. 68.
Shade-roller. C. W. Kirsch. No. 1,240,579; Sept. 18; v. 242; p. 652.

Shade-roller. C. W. Kirsch and J. A. Henry. No. 1,240,580; Sept. 18; v. 242; p. 653.
Shaft-hanger. F. E. Bright. No. 1,239,874; Sept. 11; v. 242; p. 398.
Shaft-rotating means. W. H. Yost. No. 1,239,551; Sept. 11; v. 242; p. 293.
Shafts, Grease-arrester for. C. H. Priest. No. 1,240,602; Sept. 18; v. 242; p. 660.
Shank-stiffener. J. E. Peckham. No. 1,240,249; Sept. 18; v. 242; p. 551.
Sharpener, Graver-. H. A. Lange. No. 1,239,494; Sept. 11; v. 242; p. 275.
Sharpener, Lawn-mower. J. E. Medley. No. 1,240,469; Sept. 18; v. 242; p. 620.
Sharpening device. R. Candelier. No. 1,240,540; Sept. 18; v. 242; p. 642.
Shaving-stick holder. H. A. Colgate. No. 1,238,744; Sept. 4; v. 242; p. 8.
Shears: *See*—
Sheet-metal shears.
Sheet material, Machine for forming. J. Czajka. No. 1,240,791; Sept. 18; v. 242; p. 719.
Sheet material, Process of and apparatus for manufacturing composite. H. R. Edgecomb. No. 1,239,894; Sept. 11; v. 242; p. 404.
Sheet-metal box. G. Klenk. No. 1,240,224; Sept. 18; v. 242; p. 544.
Sheet-metal frame. O. M. Otte. No. 1,241,243; Sept. 25; v. 242; p. 893.
Sheet-metal shears. C. D. Wagner. No. 1,241,313; Sept. 25; v. 242; p. 917.
Sheet-metal-working machine. G. Horvath. No. 1,240,212; Sept. 18; v. 242; p. 540.
Sheets, Holder for flexible. G. S. Thorson. No. 1,241,306; Sept. 25; v. 242; p. 916.
Shell, Shrapnel-. W. C. Ingram. No. 1,240,217; Sept. 18; v. 242; p. 541.
Shield for icemen and others. C. G. Sagerstrom. No. 1,241,025; Sept. 25; v. 242; p. 825.
Ship-armor. J. H. Smith. No. 1,238,840; Sept. 4; v. 242; p. 39.
Ship-hull construction. T. Fenwick. No. 1,240,129; Sept. 11; v. 242; p. 473.
Ship-protecting device. F. W. Baumhover. No. 1,240,007; Sept. 11; v. 242; p. 438.
Ship, Stowing and transference of boats on board. G. J. Phillips and L. A. Keller. No. 1,239,821; Sept. 11; v. 242; p. 381.
Ships and other purposes, Conveyer for coaling. G. Jones. No. 1,239,400; Sept. 4; v. 242; p. 217.
Ships, Apparatus for indicating the speed of. R. Star. No. 1,239,978; Sept. 11; v. 242; p. 429.
Ships' boats and facilitating the lowering of same, Apparatus for storing. I. F. Taylor. No. 1,240,100; Sept. 11; v. 242; p. 464.
Ships, Buoyancy attachment for. J. Persak. No. 1,240,873; Sept. 25; v. 242; p. 778.
Ships, Couch-platform for. L. G. Sarich. No. 1,239,226; Sept. 4; v. 242; p. 163.
Ships, Device for raising sunken. C. H. Curtiss. No. 1,239,260; Sept. 4; v. 242; p. 174.
Ships, Means for recovering stranded. J. W. Church. No. 1,240,120; Sept. 11; v. 242; p. 471.
Shock-absorber. H. G. Carr. No. 1,240,822; Sept. 25; v. 242; p. 762.
Shock-absorber. L. P. Halladay. No. 1,240,441; Sept. 18; v. 242; p. 611.
Shock-absorber. J. J. Macbeth. No. 1,239,200; Sept. 4; v. 242; p. 153.
Shock-absorber. F. X. Mudd. No. 1,241,468; Sept. 25; v. 242; p. 902.
Shock-absorber. D. C. Pickett. No. 1,241,438; Sept. 25; v. 242; p. 953.
Shock-absorber attachment for bicycles. E. A. Pangman. No. 1,239,035; Sept. 4; v. 242; p. 101.
Shock-absorbing hub unit, Resilient. G. T. Greeley. No. 1,241,109; Sept. 25; v. 242; p. 850.
Shock and sound arrester. C. F. Wendland. No. 1,240,521; Sept. 18; v. 242; p. 636.
Shocking-machine-adjusting mechanism. C. R. Raney. No. 1,239,621; Sept. 11; v. 242; p. 315.
Shoe and making the same. T. F. Whelan. No. 1,238,856; Sept. 4; v. 242; p. 43.
Shoe, Arch-supporting. N. S. Donnelly. No. 1,239,575; Sept. 11; v. 242; p. 302.
Shoe-cleaning apparatus. J. K. Skinder. No. 1,238,837; Sept. 4; v. 242; p. 38.
Shoe construction. C. E. Lynch. No. 1,239,411; Sept. 4; v. 242; p. 220.
Shoe-fastener. B. K. H. Loyland. No. 1,239,610; Sept. 11; v. 242; p. 312.
Shoe-forming machine. W. J. Drey. (Reissue.) No. 14,351; Sept. 11; v. 242; p. 486.
Shoe-polishing machines, Blast device for. G. E. De Los Monteros. No. 1,239,673; Sept. 11; v. 242; p. 332.
Shoe tap or half-sole. J. H. Shoemaker and H. Bruck. No. 1,239,628; Sept. 11; v. 242; p. 317.
Shoes, Making. G. P. Presby. No. 1,240,794; Sept. 18; v. 242; p. 719.
Shoes, Pneumatic cushion for. G. Olsen. No. 1,240,153; Sept. 11; v. 242; p. 481.
Shovel: *See*—
Power-shovel.
Show-case light. J. F. Doyle, Jr., and M. B. Avillar. No. 1,241,098; Sept. 25; v. 242; p. 847.
Shuttle-forming device. J. Granz. No. 1,239,177; Sept. 4; v. 242; p. 146.
Shuttle-spring. W. A. Bashaw. No. 1,241,076; Sept. 25; v. 242; p. 840.
Shuttle-tip. R. E. Coolidge. No. 1,239,085; Sept. 4; v. 242; p. 117.
Sickle-bar. C. F. Hover. No. 1,240,720; Sept. 18; v. 242; p. 696.
Side-delivery rake. J. Dain. No. 1,241,096; Sept. 25; v. 242; p. 846.
Side-delivery brake. H. B. Holtvoigt. No. 1,240,451; Sept. 18; v. 242; p. 615.
Sign. H. Y. Norwood. No. 1,239,033; Sept. 4; v. 242; p. 106.
Sign-letter and holder. F. Thunell. No. 1,239,983; Sept. 11; v. 242; p. 431.
Sign or advertisement, Illuminated. W. J. Beville. No. 1,239,154; Sept. 4; v. 242; p. 140.
Sign receptacle, Electric-. R. M. Frydryhowicz. No. 1,241,106; Sept. 25; v. 242; p. 850.
Sign support, Street-. L. J. Zika. No. 1,238,976; Sept. 4; v. 242; p. 83.
Sign, Wagon-. J. D. Diffenbaugh. No. 1,238,749; Sept. 4; v. 242; p. 9.
Signal: *See*—
Automobile-signal.
Direction-signal.
Electrical signal.
Railway-signal.
Traffic-directing signal.
Traffic-signal.
Vehicle direction-signal.
Vehicle indicating-signal.
Vehicle safety-signal.
Vehicle-signal.
Vehicle traffic-directing signal.
Signal. W. Chaffin. No. 1,239,668; Sept. 11; v. 242; p. 331.
Signal. W. Sparks. No. 1,240,156; Sept. 11; v. 242; p. 481.
Signal apparatus. E. Mayer and W. M. Correll. No. 1,240,075; Sept. 11; v. 242; p. 456.
Signal-operating mechanism. C. Riener. No. 1,240,370; Sept. 18; v. 242; p. 589.
Signals and the like, Operating mechanism for. W. Sparks. No. 1,239,055; Sept. 4; v. 242; p. 107.
Signaling apparatus. H. R. Worthington. No. 1,238,975; Sept. 4; v. 242; p. 82.
Signaling apparatus, Electric. F. S. Tucker. No. 1,239,141; Sept. 4; v. 242; p. 135.
Signaling apparatus, Highway. E. W. Vogel-. No. 1,238,848; Sept. 4; v. 242; p. 41.
Signaling device. F. B. Perry. No. 1,238,937; Sept. 4; v. 242; p. 60.
Signaling system. C. E. Beach. No. 1,240,811; Sept. 25; v. 242; p. 757.
Signaling system. J. C. Francis. No. 1,239,381; Sept. 4; v. 242; p. 211.
Signaling system, Electric. S. M. Ward, Jr. No. 1,241,062; Sept. 25; v. 242; p. 836.
Signaling system, Electric. S. M. Ward, Jr. No. 1,241,063; Sept. 25; v. 242; p. 836.
Silk, Apparatus used in the manufacture of artificial. J. Clayton. No. 1,240,675; Sept. 18; v. 242; p. 683.
Silo. F. C. Hall. No. 1,240,135; Sept. 11; v. 242; p. 475.
Silo construction. C. Wolf. No. 1,240,284; Sept. 18; v. 242; p. 562.
Silo-elevator. S. O. Bumgarner. No. 1,240,935; Sept. 25; v. 242; p. 798.
Silo-roof. F. H. Douthitt. No. 1,240,182; Sept. 18; v. 242; p. 528.
Sink, &c., trap. A. A. Nagel. No. 1,238,802; Sept. 4; v. 242; p. 26.
Siphon. C. A. Barrow and J. Karpen. No. 1,240,532; Sept. 18; v. 242; p. 639.
Skate. D. B. McNamee. No. 1,240,232; Sept. 18; v. 242; p. 546.
Skinning-tool. F. Jackson. No. 1,239,489; Sept. 11; v. 242; p. 273.
Skylight. T. M. Metzger. No. 1,239,421; Sept. 4; v. 242; p. 223.
Slicing meat, vegetables, &c., Machine for. H. C. Sander. No. 1,240,261; Sept. 18; v. 242; p. 555.
Smoking-pipe. W. M. Baechtel. No. 1,241,462; Sept. 25; v. 242; p. 961.
Snap-hook. C. A. Brislawn. No. 1,240,662; Sept. 18; v. 242; p. 679.
Snap-hook. W. L. Smith. No. 1,240,381; Sept. 18; v. 242; p. 593.
Snow-remover. C. Ferger. No. 1,241,102; Sept. 25; v. 242; p. 848.
Soap. M. Spazier. No. 1,241,043; Sept. 25; v. 242; p. 830.
Soap-holder. J. L. Hessong. No. 1,239,392; Sept. 4; v. 242; p. 215.
Soap-receptacle. S. D. Baker. No. 1,239,076; Sept. 4; v. 242; p. 114.
Socket and handle for an air-pressure gage and hose connector, Combined. F. B. Charroin. No. 1,239,769; Sept. 11; v. 242; p. 362.
Soldering compound. G. Gardiner. No. 1,239,785; Sept. 11; v. 242; p. 369.
Sole-pattern, Adjustable. J. H. Geier. No. 1,239,475; Sept. 11; v. 242; p. 269.
Sole, Pieced outer-. O. C. Davis. No. 1,239,361; Sept. 4; v. 242; p. 205.
Sole-rounder pattern. A. F. Littlefield. No. 1,239,798; Sept. 11; v. 242; p. 372.
Sole, Shoe-. J. E. O'Hara. No. 1,241,142; Sept. 25; v. 242; p. 861.

Solid matters from fluids or fluids from fluids, Apparatus for separating. F. E. Moas. No. 1,240,081; Sept. 11; v. 242; p. 458.
Sound-box mounting. A. A. Huseby. No. 1,239,693; Sept. 11; v. 242; p. 339.
Sound-clarifier for sound producing or reproducing instruments. C. W. Johnson. No. 1,240,050; Sept. 11; v. 242; p. 450.
Sound-conveyer arm. E. G. Hayne. No. 1,240,342; Sept. 18; v. 242; p. 580.
Sound reproducer and arm, Universal. L. Taxon. No. 1,240,267; Sept. 18; v. 242; p. 557.
Spark-arrester. T. M. Van Horn. No. 1,241,059; Sept. 25; v. 242; p. 835.
Spark-gap, Auxiliary. F. F. Hultgreen. No. 1,240,721; Sept. 18; v. 242; p. 696.
Spark or cinder arrester or collector. I. J. Shifley and G. Wolfgang. No. 1,239,730; Sept. 11; v. 242; p. 351.
Spark-plug. A. J. Dinkel. No. 1,239,365; Sept. 4; v. 242; p. 206.
Spark-plug. E. T. McCall. No. 1,239,117; Sept. 4; v. 242; p. 128.
Spark-plug and spark-gap, Combined. W. C. Brunke. No. 1,241,339; Sept. 25; v. 242; p. 924.
Spark-plug for explosive-engines. M. T. Minogue. No. 1,239,121; Sept. 4; v. 242; p. 129.
Spark-plug, Self-cleaning. W. H. Cotton. No. 1,238,990; Sept. 4; v. 242; p. 87.
Speculum. C. S. Gilhousen. No. 1,239,000; Sept. 4; v. 242; p. 90.
Speed-control device. H. M. Baker, Jr. No. 1,239,758; Sept. 11; v. 242; p. 359.
Speed-governor. J. W. Hoag. No. 1,240,450; Sept. 18; v. 242; p. 615.
Speed-indicators, Signal device for. H. Dahl. No. 1,239,672; Sept. 11; v. 242; p. 332.
Speed transmission, Four-. A. F. Masury and A. G. Herrenhoff. No. 1,241,415; Sept. 25; v. 242; p. 947.
Speedometer. E. H. Bristol. No. 1,240,790; Sept. 18; v. 242; p. 718.
Spindle: *See*—
Milling-machine spindle. Spinning-machine spindle.
Spinning-machine spindle. T. O. Aked. No. 1,240,803; Sept. 25; v. 242; p. 755.
Spinning and twisting apparatus. C. W. Hubbard. No. 1,240,214; Sept. 18; v. 242; p. 541.
Spittoon-cleaner. W. Drozdz. No. 1,241,203; Sept. 25; v. 242; p. 880.
Spoke-billet manufacture and product. R. H. Coleman. No. 1,238,890; Sept. 4; v. 242; p. 54.
Sponging device, Cloth-steam-. C. A. Weiss. No. 1,239,991; Sept. 11; v. 242; p. 433.
Spool construction. F. Johannsmeyer. No. 1,238,921; Sept. 4; v. 242; p. 64.
Spooler attachment. G. H. Goldsmith. No. 1,239,385; Sept. 4; v. 242; p. 212.
Spraying powder and liquid, Device for. J. D. Plan. No. 1,241,437; Sept. 25; v. 242; p. 953.
Spring: *See*—
Bed-spring. Vehicle-spring.
Shuttle-spring.
Spring. M. Block. No. 1,240,170; Sept. 18; v. 242; p. 524.
Spring structure. W. Shannon. No. 1,239,529; Sept. 11; v. 242; p. 286.
Spring suspension means. D. M. Livingston. No. 1,240,063; Sept. 11; v. 242; p. 453.
Spring terminal connection. E. B. Fahnestock. No. 1,240,186; Sept. 18; v. 242; p. 530.
Spring-wheel. J. Anderson. No. 1,240,805; Sept. 25; v. 242; p. 755.
Spring-wheel. W. J. Davis. No. 1,240,951; Sept. 25; v. 242; p. 802.
Spring-wheel. J. H. De Smidt. No. 1,239,891; Sept. 11; v. 242; p. 403.
Springs, Flexible metal casing for laminated. B. B. Leustig. No. 1,240,350; Sept. 18; v. 242; p. 583.
Sprinkler. L. Shaw. No. 1,239,229; Sept. 4; v. 242; p. 163.
Sprinkler. L. Shaw. No. 1,239,230; Sept. 4; v. 242; p. 164.
Sprinkler-head. C. H. Perry. No. 1,239,952; Sept. 11; v. 242; p. 422.
Sprinkler-heads, Strut for automatic. D. A. Alexander. No. 1,240,292; Sept. 18; v. 242; p. 565.
Square, Carpenter's. S. Taylor. No. 1,239,742; Sept. 11; v. 242; p. 355.
Square, Combination-. A. M. Remer and F. Hughes. No. 1,241,282; Sept. 25; v. 242; p. 908.
Square, Computing folding. F. Shelby and P. Olmsted. No. 1,238,833; Sept. 4; v. 242; p. 37.
Square, Folding combination pocket-. F. Shelby and P. Olmsted. No. 1,238,832; Sept. 4; v. 242; p. 36.
Square, Framing-. A. L. Druckemiller. No. 1,240,035; Sept. 11; v. 242; p. 446.
Stall-construction gate. H. L. Ferris. No. 1,241,364; Sept. 25; v. 242; p. 932.
Stamp-affixer. W. J. Balkwill. No. 1,240,808; Sept. 25; v. 242; p. 756.
Stamp-affixing machine. G. L. Reichheim. No. 1,239,624; Sept. 11; v. 242; p. 316.
Stamp, Self-inking hand-. H. S. Folger and T. Ross. No. 1,241,475; Sept. 25; v. 242; p. 964.
Stamping-press-feeding mechanism. E. M. Covert. No. 1,239,463; Sept. 11; v. 242; p. 266.
Stanchion. L. O. French. No. 1,239,783; Sept. 11; v. 242; p. 368.
Stanchion. L. O. French. No. 1,239,784; Sept. 11; v. 242; p. 369.
Stanchion. H. C. Rassmann. No. 1,239,963; Sept. 11; v. 242; p. 425.
Stanchion and guard, Combined. L. O. French. No. 1,239,782; Sept. 11; v. 242; p. 368.
Stanchion, Cattle-. W. Gutenkunst. No. 1,239,906; Sept. 11; v. 242; p. 408.
Stand: *See*—
Boiler-stand. Telephone-stand.
Christmas-tree stand. Tree-stand.
Stand for coiled material. S. C. Cary. No. 1,239,082; Sept. 4; v. 242; p. 116.
Staple-extractor. C. O. White. No. 1,241,179; Sept. 25; v. 242; p. 872.
Staple, Wire. C. Tervo. No. 1,240,054; Sept. 25; v. 242; p. 833.
Stapling device. J. S. McChesney. No. 1,239,496; Sept. 11; v. 242; p. 276.
Starting and lighting system. J. B. Entz. No. 1,239,777; Sept. 11; v. 242; p. 365.
Station-indicator. J. W. Kelly. No. 1,239,401; Sept. 4; v. 242; p. 217.
Steam and gas boiler. B. Bouda. No. 1,238,877; Sept. 4; v. 242; p. 51.
Steam-boiler. C. Z. and E. S. Alexander. No. 1,240,804; Sept. 25; v. 242; p. 755.
Steam-dome separator and boiler-skimmer. C. C. Miller. No. 1,239,931; Sept. 11; v. 242; p. 416.
Steam-engine. S. Rosenzweig. No. 1,239,826; Sept. 11; v. 242; p. 382.
Steam-engine. S. Rosenzweig. No. 1,239,827; Sept. 11; v. 242; p. 383.
Steam-engine. L. J. Todd. No. 1,239,747; Sept. 11; v. 242; p. 356.
Steam-generator with superheater, Water-tube. J. Dornan. No. 1,241,356; Sept. 25; v. 242; p. 929.
Steam-generators, oil-burners, &c., Automatic water-feed device for. J. L. Groves. No. 1,239,267; Sept. 4; v. 242; p. 176.
Steam-separator. P. H. Pinder. No. 1,239,823; Sept. 11; v. 242; p. 381.
Steering device, Auxiliary. M. De Arrigunaga. (Reissue.) No. 14,348; Sept. 4; v. 242; p. 230.
Steering-knuckle joint. J. Walters. No. 1,238,852; Sept. 4; v. 242; p. 42.
Steering-wheel. A. G. Neville. No. 1,239,943; Sept. 11; v. 242; p. 420.
Stenciling. W. G. Fuerth. No. 1,238,906; Sept. 4; v. 242; p. 60.
Stereotype-plates, Machine for making. C. E. Hopkins. No. 1,240,209; Sept. 18; v. 242; p. 539.
Stereotype printing-plates, Machine for finishing and cooling. H. A. W. Wood. No. 1,238,973; Sept. 4; v. 242; p. 82.
Stereotypes, Apparatus for finishing curved. C. E. Hopkins. No. 1,240,850; Sept. 25; v. 242; p. 771.
Sticker or label, Gummed. T. H. Krueger. No. 1,239,701; Sept. 11; v. 242; p. 342.
Stirring implement. C. B. Tompkins. No. 1,241,307; Sept. 25; v. 242; p. 916.
Stock or board, Corrugated. W. Lumley. No. 1,240,231; Sept. 18; v. 242; p. 546.
Stoker, Automatic. E. W. Sprague. No. 1,240,614; Sept. 18; v. 242; p. 662.
Stoker, Underfeed. E. J. Hart. No. 1,240,969; Sept. 25; v. 242; p. 807.
Stone-breaker. A. T. Carozza. No. 1,240,821; Sept. 25; v. 242; p. 761.
Stone-dresser. J. C. Dodson. No. 1,240,687; Sept. 18; v. 242; p. 686.
Stool. T. Burns. No. 1,240,119; Sept. 11; v. 242; p. 471.
Stop mechanism. W. H. Miller. No. 1,241,416; Sept. 25; v. 242; p. 947.
Stopper: *See*—
Bottle-stopper.
Stopper. R. W. Sampson. No. 1,239,225; Sept. 4; v. 242; p. 162.
Storage battery. D. H. Wilson. No. 1,240,280; Sept. 18; v. 242; p. 561.
Storage battery and making same. R. L. Smith. No. 1,239,835; Sept. 11; v. 242; p. 385.
Storage chambers, Air-admission device for air-circulation. R. Rayson. No. 1,240,367; Sept. 18; v. 242; p. 588.
Storage structures from lightning, Protecting. J. M. Gordon. No. 1,239,477; Sept. 11; v. 242; p. 270.
Stove. F. O. Larson. No. 1,241,227; Sept. 25; v. 242; p. 887.
Stove. W. E. Perryclear. No. 1,239,514; Sept. 11; v. 242; p. 281.
Stove-lid lifter. J. A. Hendee. No. 1,241,378; Sept. 25; v. 242; p. 936.
Stove, Liquid-fuel. L. S. Chadwick. No. 1,240,312; Sept. 18; v. 242; p. 571.
Stove, Oil-. F. E. White and F. E. Hooper. No. 1,240,522; Sept. 18; v. 242; p. 636.
Stove or heater. F. A. Cottler, Jr. No. 1,240,679; Sept. 18; v. 242; p. 684.
Stoves and furnaces, Fire-pot for. C. A. Robbins and J. W. Jolley. No. 1,238,942; Sept. 4; v. 242; p. 71.

Stoves, Combined simmer-burner or lighter for gas-. F. W. Reynolds. No. 1,240,369; Sept. 18; v. 242; p. 589.
Stoves, Electric lighter for gas-. F. C. Gutenbeger. No. 1,240,707; Sept. 18; v. 242; p. 691.
Stovepipe-shelf. V. Mrasek. No. 1,239,938; Sept. 11; v. 242; p. 418.
Strainer. T. Hamner. No. 1,239,388; Sept. 4; v. 242; p. 213.
Strainer. H. A. Signor. No. 1,239,975; Sept. 11; v. 242; p. 428.
Strainer for cooking vessels, Adjustable. R. L. Sherman. No. 1,241,448; Sept. 25; v. 242; p. 957.
Strap: *See*—
Lug-strap.
Strap and waistband, Combined. J. Landers. No. 1,241,403; Sept. 25; v. 242; p. 943.
Street or station indicator. G. A. Myers. No. 1,241,422; Sept. 25; v. 242; p. 949.
Street-sweeping machine. F. Hedley and J. S. Doyle. No. 1,241,114; Sept. 25; v. 242; p. 851.
Street-sweeping machine. J. M. Murphy. No. 1,239,298; Sept. 4; v. 242; p. 184.
Stretching-machine. J. La Rock. No. 1,239,522; Sept. 11; v. 242; p. 284.
Stropping device. J. M. Tourtel. No. 1,240,515; Sept. 18; v. 242; p. 634.
Structural beams, Machine for identifying. L. A. Hawthorne. No. 1,241,261; Sept. 25; v. 242; p. 901.
Structural beams, Machine for operating on. E. V. Wurts. No. 1,241,259; Sept. 25; v. 242; p. 900.
Stud mounting, Clasp-. U. Mortara. No. 1,240,240; Sept. 18; v. 242; p. 548.
Stuffing-boxes, Lubricating-gland for. B. H. Smith. No. 1,239,132; Sept. 4; v. 242; p. 133.
Subaqueous sounds, Apparatus for detecting. F. Van Eshroeck. No. 1,239,320; Sept. 4; v. 242; p. 192.
Submarine boat. E. B. Reilly. No. 1,239,723; Sept. 11; v. 242; p. 349.
Submarine vessels, Emptying and filling the ballast-tanks of. H. E. Yarrow. No. 1,239,999; Sept. 11; v. 242; p. 436.
Submarines, Ballast control for. G. Fornaca. No. 1,240,189; Sept. 18; v. 242; p. 531.
Submarines, Safety device for. J. T. Dahl. No. 1,238,892; Sept. 4; v. 242; p. 55.
Submerged heater. A. Nelson. No. 1,240,477; Sept. 18; v. 242; p. 623.
Subterraneous conductors, Method and apparatus for determining. H. R. Conklin. No. 1,241,197; Sept. 25; v. 242; p. 878.
Suitcase, Extensible. O. Harvey. No. 1,241,210; Sept. 25; v. 242; p. 882.
Sulfonic-acid salts from mineral-oil waste liquors, Production of. A. Wolff. No. 1,240,523; Sept. 18; v. 242; p. 636.
Sun-boiler. F. Shuman and C. V. Boys. No. 1,240,890; Sept. 25; v. 242; p. 782.
Supporter. W. B. Munn. No. 1,239,030; Sept. 4; v. 242; p. 100.
Surgical appliance. E. B. Chapman. No. 1,240,026; Sept. 11; v. 242; p. 443.
Surgical appliance. B. M. Doud. No. 1,240,125; Sept 11; v. 242; p. 472.
Surgical ligature. B. K. Hollister. No. 1,239,690; Sept. 11; v. 242; p. 339.
Surveying instrument. F. S. Clark. No. 1,239,083; Sept. 4; v. 242; p. 116.
Swaging-die. A. L. Eliasoff. No. 1,241,360; Sept. 25; v. 242; p. 931.
Swimming appliance. R. W. Davis. No. 1,239,088; Sept. 4; v. 242; p. 118.
Swing. J. Jochumsen. No. 1,238,920; Sept. 4; v. 242; p. 64.
Swing. R. W. Pottinger. No. 1,240,089; Sept. 11; v. 242; p. 460.
Swings, Fan attachment for. I. W. Crabtree. No. 1,239,161; Sept. 4; v. 242; p. 142.
Swingletree. J. D. Capshaw. No. 1,240,938; Sept. 25; v. 242; p. 798.
Swingletree-clip. J. C. Kubly. No. 1,240,983; Sept. 25; v. 242; p. 812.
Swingletree-clip. J. C. Melger. No. 1,240,238; Sept. 18; v. 242; p. 548.
Switch: *See*—
Electric switch. Oil-switch.
Locking-switch. Railway-switch.
Multiple switch. Section-switch.
Switch. G. C. Carhart and S. L. Young. No. 1,240,309; Sept. 18; v. 242; p. 570.
Switch construction, Inclosed-. C. D. Platt. No. 1,240,364; Sept. 18; v. 242; p. 587.
Switch construction, Meter-testing-. C. D. Platt. No. 1,240,363; Sept. 18; v. 242; p. 587.
Switch-frog. M. S. Graves. No. 1,239,001; Sept. 4; v. 242; p. 90.
Switch-lock. R. H. McNeil. No. 1,239,199; Sept. 4; v. 242; p. 153.
Switch-point hold-down. O. P. Morrison. No. 1,240,588; Sept. 18; v. 242; p. 655.
Switch-points, Automatic lubricator for. F. D. Polhemus. No. 1,239,719; Sept. 11; v. 242; p. 348.
Switch plugs or keys of motor-vehicles, Safety-lock for. R. L. Mundell. No. 1,239,292; Sept. 4; v. 242; p. 184.
Switching device, Automatic. R. V. Cheatham and E. S. Olmsted. No. 1,239,258; Sept. 4; v. 242; p. 173.
Sword and pistol, Combined. J. J. Wigiert. No. 1,239,065; Sept. 4; v. 242; p. 110.
Synthetic product resembling caoutchouc. E. Münch. No. 1,238,930; Sept. 4; v. 242; p. 67.
Syringe, Fountain-. F. J. O'Rourke. No. 1,239,947; Sept. 11; v. 242; p. 421.
Syringe, Hypodermic. F. S. Dickinson. No. 1,240,033; Sept. 11; v. 242; p. 445.
Table: *See*—
Drying-table. Molding and setting table.
Extension-table. X-ray table.
Folding table.
Table and kit-carrier. J. W. McElhinny. No. 1,239,023; Sept. 4; v. 242; p. 98.
Table-cap. J. J. Holtmeyer. No. 1,240,208; Sept. 18; v. 242; p. 538.
Tabulating-machine. C. E. Nicholson. No. 1,241,140; Sept. 25; v. 242; p. 860.
Tack, Push map-. H. F. Senftner. No. 1,241,290; Sept. 25; v. 242; p. 911.
Tag. C. B. Tewksbury. No. 1,239,844; Sept. 11; v. 242; p. 388.
Tag and holder, Transparent license-. H. W. Paynter. No. 1,238,936; Sept. 4; v. 242; p. 69.
Tag fastener and protector. W. S. Tyler. No. 1,239,545; Sept. 11; v. 242; p. 292.
Tag or sign-plate, License-. C. M. Slick. No. 1,241,292; Sept. 25; v. 242; p. 911.
Tag, Shipping-. G. H. Taylor. No. 1,241,302; Sept. 25; v. 242; p. 914.
Talking and picture-projecting machine, Combined. A. Luciano. No. 1,239,800; Sept. 11; v. 242; p. 373.
Talking-machine. F. J. Empson. No. 1,240,038; Sept. 11; v. 242; p. 446.
Talking-machine. C. I. Hall. No. 1,240,711; Sept. 18; v. 242; p. 693.
Talking-machine. W. S. Samuel. No. 1,239,305; Sept. 4; v. 242; p. 188.
Talking-machine. H. Sheble and T. Kraemer. No. 1,240,497; Sept. 18; v. 242; p. 629.
Talking-machine. H. H. Tompkins. No. 1,239,063; Sept. 4; v. 242; p. 110.
Talking-machine, Cabinet. F. A. Dennett. No. 1,239,774; Sept. 11; v. 242; p. 364.
Talking-machine, Winding-signal for a. T. Keepfer. No. 1,240,730; Sept. 18; v. 242; p. 699.
Talking-machines, Automatic stop for. L. Armitage. No. 1,239,335; Sept. 4; v. 242; p. 196.
Talking-machines, Motor-controlling mechanism for. A. A. Huseby. No. 1,240,455; Sept. 18; v. 242; p. 616.
Talking-machines, Reproducer or sound-box for. A. H. Ryder. No. 1,239,044; Sept. 4; v. 242; p. 103.
Tamping device. V. Sramcik. No. 1,239,631; Sept. 11; v. 242; p. 318.
Tank: *See*—
Flush-tank. Weir-tank.
Flushing-tank.
Tank-ball. G. C. Reeves. No. 1,239,520; Sept. 11; v. 242; p. 283.
Tank-heater. R. Lord. No. 1,239,925; Sept. 11; v. 242; p. 414.
Tank heater, Stock-. W. Haak. No. 1,240,339; Sept. 18; v. 242; p. 579.
Tank heater, Water-. E. A. Filliman. No. 1,239,263; Sept. 4; v. 242; p. 175.
Tape-measure attachment. C. A. Snider. No. 1,238,841; Sept. 4; v. 242; p. 39.
Tatting-shuttle. H. P. Green. No. 1,241,369; Sept. 25; v. 242; p. 934.
Telegraphy. W. M. Bruce, Jr. No. 1,240,306; Sept. 18; v. 242; p. 569.
Telegraphy, Wireless. F. G. Simpson. No. 1,239,831; Sept. 11; v. 242; p. 384.
Telephone-exchange system, Automatic. C. A. W. Hultman. No. 1,239,011; Sept. 4; v. 242; p. 94.
Telephone-exchange system. T. E. Meyer. No. 1,239,205; Sept. 4; v. 242; p. 155.
Telephone for long distances or for deaf persons. R. Lagus. No. 1,239,702; Sept. 11; v. 242; p. 342.
Telephone-mouthpiece. W. Booth. No. 1,240,659; Sept. 18; v. 242; p. 678.
Telephone-stand. B. S. Cutler. No. 1,239,890; Sept. 11; v. 242; p. 403.
Telephone system. L. C. Bygrave. No. 1,240,418; Sept. 18; v. 242; p. 604.
Telephone system. G. Grabe. No. 1,239,097; Sept. 4; v. 242; p. 121.
Telephone system. F. N. Reeves and A. E. Lundell. No. 1,240,257; Sept. 18; v. 242; p. 554.
Telephone system, Automatic. G. E. Mueller. No. 1,239,207; Sept. 4; v. 242; p. 155.
Telephone system, Measured-service. R. C. Gifford. No. 1,239,587; Sept. 11; v. 242; p. 305.
Telephone system, Multi-exchange. H. D. Currier and R. I. Utter. No. 1,238,748; Sept. 4; v. 242; p. 9.
Telephone wall set. W. W. Henry. No. 1,240,974; Sept. 25; v. 242; p. 809.
Telephonic paging system. N. A. Kurman. No. 1,239,607; Sept. 11; v. 242; p. 311.
Temperature apparatus, Precision. A. De Khotinsky. No. 1,239,572; Sept. 11; v. 242; p. 301.
Tennis-courts, Apparatus for laying out. A. W. Sherwood. No. 1,240,498; Sept. 18; v. 242; p. 629.
Tennis-nets and the like, Anchorage for. F. W. Lord. No. 1,239,924; Sept. 11; v. 242; p. 414.

Tent. H. R. Wykert. No. 1,239,550; Sept. 11; v. 242; p. 293.
Tent-opening frame. L. B. and N. Goldberg. No. 1,240,133; Sept. 11; v. 242; p. 474.
Test-indicator. P. W. Payne. No. 1,241,469; Sept. 25; v. 242; p. 962.
Testing-machine. T. V. Buckwalter. No. 1,240,416; Sept. 18; v. 242; p. 603.
Therapeutic apparatus. W. Meyer. No. 1,241,136; Sept. 25; v. 242; p. 859.
Thermostat. W. O. Haymond. No. 1,240,139; Sept. 11; v. 242; p. 476.
Thermostatic trip-switch device. J. Jackson. No. 1,238,776; Sept. 4; v. 242; p. 17.
Thread-splicing machine. A. A. Brigham. No. 1,239,560; Sept. 11; v. 242; p. 296.
Thread, Threader, holder, and cutter for. E. F. Hershberger. No. 1,240,142; Sept. 11; v. 242; p. 477.
Threshing-machine. A. C. Sanford. No. 1,241,028; Sept. 25; v. 242; p. 825.
Threshing machine, Automatic shock-. E. M. Wheelock. No. 1,238,970; Sept. 4; v. 242; p. 80.
Ticket. H. A. Stolber. No. 1,240,266; Sept. 18; v. 242; p. 556.
Ticket-case. A. Blakemore. No. 1,241,188; Sept. 25; v. 242; p. 875.
Ticket-dispenser. J. A. Storm. No. 1,239,981; Sept. 11; v. 242; p. 431.
Ticket-issuing machine. F. Skerl. No. 1,238,836; Sept. 4; v. 242; p. 38.
Tie: *See*—
Concrete tie.
Metallic tie.
Package-tie.
Plastic tie.
Rail-tie.
Railway-tie.
Tie-plate. T. S. Matsuoka. No. 1,240,865; Sept. 25; v. 242; p. 775.
Tie-fastener. J. G. Breitenstein. No. 1,241,337; Sept. 25; v. 242; p. 924.
Tile and wall, Building-. F. Dickey. No. 1,241,350; Sept. 25; v. 242; p. 927.
Tilling-machine. K. V. von Meyenburg. No. 1,241,173; Sept. 25; v. 242; p. 870.
Timber-treating apparatus. E. F. Hartmann. No. 1,240,443; Sept. 18; v. 242; p. 612.
Time-controlled mechanism. M. J. Matthews. No. 1,240,749; Sept. 18; v. 242; p. 705.
Time-recorder. W. D. Hawley. No. 1,240,203; Sept. 18; v. 242; p. 537.
Timing mechanism. R. M. G. Phillips. No. 1,239,955; Sept. 11; v. 242; p. 423.
Tire. J. P. Larrimer. No. 1,239,278; Sept. 4; v. 242; p. 180.
Tire-armor. D. Oatman. No. 1,241,006; Sept. 25; v. 242; p. 819.
Tire-bracket. D. M. Butler. No. 1,240,667; Sept. 18; v. 242; p. 680.
Tire carrier, Extra-. A. Hampeter. No. 1,240,340; Sept. 18; v. 242; p. 579.
Tire-casings, Flexible closure for. P. Overman. No. 1,239,813; Sept. 11; v. 242; p. 378.
Tire-chain lock. M. A. Wightman. No. 1,238,859; Sept. 4; v. 242; p. 45.
Tire, Cord. C. L. Archer. No. 1,239,553; Sept. 11; v. 242; p. 294.
Tire, Cushion-. A. C. Hileman. No. 1,241,380; Sept. 25; v. 242; p. 937.
Tire grip, Automobile-. P. Smith. No. 1,239,312; Sept. 4; v. 242; p. 190.
Tire-holder. G. G. Buckland. No. 1,239,254; Sept. 4; v. 242; p. 172.
Tire-inflating apparatus. G. F. Steedman. No. 1,239,737; Sept. 11; v. 242; p. 353.
Tire-lock, Permutation. I. E. Jackson. No. 1,240,146; Sept. 11; v. 242; p. 478.
Tire, Pneumatic. E. E. Cole. No. 1,239,886; Sept. 11; v. 242; p. 402.
Tire, Pneumatic. D. E. Johnson. No. 1,240,051; Sept. 11; v. 242; p. 450.
Tire-removing tool. C. A. Boyd. No. 1,239,454; Sept. 11; v. 242; p. 263.
Tire-rim, Demountable. I. D. Walter. No. 1,240,162; Sept. 11; v. 242; p. 484.
Tire, Spring-. A. A. Firestone. No. 1,240,432; Sept. 18; v. 242; p. 608.
Tire, Spring-. A. Vanblom. No. 1,241,453; Sept. 25; v. 242; p. 958.
Tire-valves, Valve-unseating clip for. L. Fowler. No. 1,240,040; Sept. 11; v. 242; p. 447.
Tire, Vehicle-. H. M. Horne. No. 1,240,793; Sept. 18; v. 242; p. 719.
Tire, Vehicle-wheel. W. N. Knowlton. No. 1,240,059; Sept. 11; v. 242; p. 452.
Tire, Wheel-. G. Restucci. No. 1,241,283; Sept. 25; v. 242; p. 909.
Tires, Making material for puncture-proof. G. O. Morse. No. 1,239,291; Sept. 4; v. 242; p. 183.
Titanic-oxid products, Producing composite. L. E. Barton. No. 1,240,405; Sept. 18; v. 242; p. 600.
Tobacco and match box, Combination. C. M. Burr. No. 1,241,340; Sept. 25; v. 242; p. 925.
Tobacco bunching and rolling machine. J. S. Haggerty. No. 1,239,003; Sept. 4; v. 242; p. 91.
Tobacco-lift. A. J. Daniel. No. 1,239,359; Sept. 4; v. 242; p. 205.
Tobacco-pipe. R. W. Graves. No. 1,239,589; Sept. 11; v. 242; p. 306.
Tobacco-pipe. J. Yartin. No. 1,240,399; Sept. 18; v. 242; p. 598.
Tobacco stripping and booking machine. B. Liberman, W. M. Reichart, and J. C. Wobensmith. No. 1,239,115; Sept. 4; v. 242; p. 128.
Toggle-locking follower-holder. F. W. T. Klausing and W. C. Tackaberry. No. 1,240,223; Sept. 18; v. 242; p. 543.
Toilet-article holder, Combination. H. L. Kuhn. No. 1,241,225; Sept. 25; v. 242; p. 887.
Tool and tool-holder. A. F. Carew. No. 1,239,459; Sept. 11; v. 242; p. 265.
Tool and work holder and driver. J. H. Hammon. No. 1,239,268; Sept. 4; v. 242; p. 177.
Tool, Combination-. K. Hovhannesian. No. 1,239,394; Sept. 4; v. 242; p. 215.
Tool-handle. L. V. Boone. No. 1,241,189; Sept. 25; v. 242; p. 876.
Tool-holder. E. S. Frey and A. E. Wrigley. No. 1,240,699; Sept. 18; v. 242; p. 689.
Tool-holding device. F. H. Kasperson. No. 1,240,729; Sept. 18; v. 242; p. 699.
Tool, Pneumatic percussive. C. H. Haeseler. No. 1,240,708; Sept. 18; v. 242; p. 692.
Tool, Pneumatic percussive. C. H. Haeseler. No 1,240,709; Sept. 18; v. 242; p. 692.
Tooth, Artificial-. R. F. Robb. No. 1,240,258; Sept. 18; v. 242; p. 554.
Tooth, Harrow-. F. Sherwin. No. 1,239,627; Sept. 11; v. 242; p. 317.
Torch, Gasolene-. J. B. Blackwell. No. 1,240,117; Sept. 11; v. 242; p. 470.
Torpedo-guard. J. Levy. No. 1,240,152; Sept. 11; v. 242; p. 480.
Torpedo-guard for ships. K. O. Anker. No. 1,238,977; Sept. 4; v. 242; p. 83.
Torpedo-net. E. A. Clark. No. 1,240,317; Sept. 18; v. 242; p. 573.
Torpedo-net. E. Scheelke. No. 1,240,495; Sept. 18; v. 242; p. 628.
Toy. R. J. Mulvey. No. 1,241,000; Sept. 25; v. 242; p. 817.
Toy. Alphabetical construction. C. H. Pajeau. No. 1,241,009; Sept. 25; v. 242; p. 820.
Toy animal. C. J. Dorsey. No. 1,240,181; Sept. 18; v. 242; p. 528.
Toy animal, Sectional. A. H. Sweet. No. 1,239,982; Sept. 11; v. 242; p. 431.
Toy building construction. H. W. Angus and A. W. Chamberlin. No. 1,240,807; Sept. 25; v. 242; p. 756.
Toy building element. F. Reiss. No. 1,241,281; Sept. 25; v. 242; p. 908.
Toy, Detonating. W. F. Gehrig. No. 1,240,434; Sept. 18; v. 242; p. 609.
Toy roundabout. P. T. Wolpert. No. 1,240,285; Sept. 18; v. 242; p. 562.
Toy telephone system. J. S. Newman. No. 1,239,508; Sept. 11; v. 242; p. 280.
Toy vehicles, Actuating device for. E. B. Shafer. No. 1,239,729; Sept. 11; v. 242; p. 351.
Trace connection, Safety-. A. Thomson. No. 1,241,304; Sept. 25; v. 242; p. 915.
Traction-engine. G. C. Andrews. No. 1,238,732; Sept. 4; v. 242; p. 4.
Traction-engine. A. D. Cole. No. 1,240,423; Sept. 18; v. 242; p. 605.
Tractor. J. D. Flory. No. 1,238,752; Sept. 4; v. 242; p. 10.
Tractor. A. H. Guard. No. 1,240,388; Sept. 18; v. 242; p. 579.
Tractor. B. C. and R. N. Riblet. No. 1,240,488; Sept. 18; v. 242; p. 626.
Tractor. W. Savidge. No. 1,240,782; Sept. 18; v. 242; p. 716.
Tractor. C. E. Search. No. 1,241,034; Sept. 25; v. 242; p. 828.
Tractor attachment. G. J. Hutter. No. 1,241,120; Sept. 25; v. 242; p. 853.
Tractor-engine. G. B. Whitcomb. No. 1,239,328; Sept. 4; v. 242; p. 195.
Tractor, Farm-. R. R. Beatty. No. 1,240,650; Sept. 18; v. 242; p. 675.
Tractor, Farm-. C. Murnane. No. 1,240,761; Sept. 18; v. 242; p. 709.
Tractor header attachment. M. J. Unrein. No. 1,241,452; Sept. 25; v. 242; p. 958.
Tractor-trailer coupling. J. W. Menhall and C. G. Clement. No. 1,240,995; Sept. 25; v. 242; p. 815.
Tractors, Plow draw-bar head and leveler for. R. A. Morton. No. 1,240,758; Sept. 18; v. 242; p. 708.
Traffic-directing signal for vehicles. C. G. Ette. No. 1,239,093; Sept. 4; v. 242; p. 120.
Traffic-directing signaling device. C. A. Singer. No. 1,239,832; Sept. 11; v. 242; p. 384.
Traffic-regulator, Automatic. E. A. Pound. No. 1,240,090; Sept. 11; v. 242; p. 460.
Traffic-signal. H. T. Winston. No. 1,240,640; Sept. 18; v. 242; p. 671.
Train control, Automatic. F. A. Walton. No. 1,241,454; Sept. 25; v. 242; p. 958.
Train-controller. E. E. Petit. No. 1,239,954; Sept. 11; v. 242; p. 423.

Train-stopping apparatus, Automatic. A. Longhed. No. 1,240,744; Sept. 18; v. 242; p. 704.
Transformer. C. L. Fortescue. No. 1,239,896; Sept. 11; v. 242; p. 405.
Transmission device. G. A. Gilbertson. No. 1,240,334; Sept. 18; v. 242; p. 577.
Transmission-lock. F. R. Ferguson. No. 1,239,374; Sept. 4; v. 242; p. 209.
Transplanting device. J. W. Fritts. No. 1,238,756; Sept. 4; v. 242; p. 11.
Trap: *See*—
Animal-trap.
Fish-trap.
Insect-trap.
Trap cover, Drum-. M. Block. No. 1,239,453; Sept. 11; v. 242; p. 263.
Tray, Developing-. C. R. Grey. No. 1,238,438; Sept. 4; v. 242; p. 229.
Tray-holder. H. C. Weis and H. A. Consor. No. 1,240,908; Sept. 25; v. 242; p. 789.
Tree: *See*—
Christmas tree.
Tree-stand. J. H. Gronick. No. 1,240,319; Sept. 18; v. 242; p. 574.
Trees, shrubs, and vines, Device for applying substances to. W. R. Kleckner. No. 1,240,733; Sept. 18; v. 242; p. 700.
Trench-machine, Oscillating. J. C. French. No. 1,239,897; Sept. 11; v. 242; p. 405.
Trenching-machine. J. C. French. No. 1,239,474; Sept. 11; v. 242; p. 269.
Trestle, Elevating and folding. J. C. and J. N. Pepin. No. 1,239,814; Sept. 11; v. 242; p. 378.
Trimmer: *See*—
Rod-trimmer.
Trimming-machine. C. D. Mattison. No. 1,240,237; Sept. 18; v. 242; p. 547.
Trinitrotoluene, Manufacture of. F. Quartieri. No. 1,241,017; Sept. 25; v. 242; p. 823.
Triple-seal can. J. G. Hodgson. No. 1,239,183; Sept. 4; v. 242; p. 147.
Tripping device. C. B. King, B. Jacoby, and C. S. Johnson. No. 1,240,222; Sept. 18; v. 242; p. 543.
Trolley. J. A. Booth. No. 1,240,814; Sept. 25; v. 242; p. 759.
Trolley suspension and feed-in ear, Overhead-. J. Scott. No. 1,240,263; Sept. 18; v. 242; p. 555.
Trolley-wheel, Compound. J. C. Ollard. No. 1,240,358; Sept. 18; v. 242; p. 585.
Trough: *See*—
Feed-trough.
Feeding-trough.
Watering-trough.
Trowel attachment. M. F. Corswandt. No. 1,239,671; Sept. 11; v. 242; p. 332.
Truck. E. L. Buschman. No. 1,239,457; Sept. 11; v. 242; p. 264.
Truck. G. Collis. No. 1,239,771; Sept. 11; v. 242; p. 363.
Truck. H. Crain, H. V. Kengle, and E. E. Bundy. No. 1,240,178; Sept. 18; v. 242; p. 527.
Truck. P. J. Madigan. No. 1,239,498; Sept. 11; v. 242; p. 276.
Truck. J. B. Walker. No. 1,241,481; Sept. 25; v. 242; p. 967.
Truck brake, Car-. B. W. Kadel. No. 1,241,395; Sept. 25; v. 242; p. 941.
Truck, Car-. F. L. Barber and E. W. Webb. No. 1,240,166; Sept. 18; v. 242; p. 523.
Truck, Car-. C. Hankins. No. 1,241,375; Sept. 25; v. 242; p. 935.
Truck, Car-. B. W. Kadel. No. 1,241,394; Sept. 25; v. 242; p. 941.
Truck for harvesters and the like, Power-. W. L. Hendricks. No. 1,239,484; Sept. 11; v. 242; p. 272.
Truck for railway, tramway, and like vehicles, Axle-. E. Peckham and S. Thomas. No. 1,239,212; Sept. 4; v. 242; p. 157.
Truck-frame and bolster. A. H. Voss. No. 1,240,270; Sept. 18; v. 242; p. 557.
Truck, Hand-. E. Forney. No. 1,241,366; Sept. 25; v. 242; p. 933.
Truck, Jack-. G. W. Trambley. No. 1,239,640; Sept. 11; v. 242; p. 321.
Truck, Railway-car. J. Z. Friudt. No. 1,241,105; Sept. 25; v. 242; p. 849.
Truck, Six-wheeled car-. W. H. Wilson. No. 1,240,638; Sept. 18; v. 242; p. 670.
Truck spring suspension, Railway-. G. E. Parks. No. 1,239,211; Sept. 4; v. 242; p. 157.
Truck, Vehicle-. W. S. Wills. No. 1,239,996; Sept. 11; v. 242; p. 434.
Truss. J. C. Kingsland. No. 1,240,732; Sept. 18; v. 242; p. 700.
Truss, Hernia-. J. A. Steinert. No. 1,239,314; Sept. 4; v. 242; p. 190.
Tube: *See*—
Cone-tube.
Tube apparatus, Carrier for pneumatic-. M. Fellows. No. 1,240,327; Sept. 18; v. 242; p. 576.
Tube-bending mechanism. A. J. Reynders. No. 1,238,941; Sept. 4; v. 242; p. 70.
Tube-rolling apparatus. G. J. Thust. No. 1,240,513; Sept. 18; v. 242; p. 633.
Tug and trace, Hame-. G. T. Monroe. No. 1,239,290; Sept. 4; v. 242; p. 183.
Tunnel and retaining wall construction. C. G. Hastings. No. 1,240,447; Sept. 18; v. 242; p. 614.
Tunnel construction. C. G. Hastings. No. 1,240,444; Sept. 18; v. 242; p. 612.
Tunnel-shield. C. G. Hastings. No. 1,240,446; Sept. 18; v. 242; p. 613.
Turbine, Elastic-fluid. L. C. Loewenstein. No. 1,240,743; Sept. 18; v. 242; p. 703.
Turbine, Steam-. F. Ljungström. (Reissue.) No. 14,355; Sept. 11; v. 242; p. 488.
Turbines, Spiral casing for water-. A. Huguenin. No. 1,239,395; Sept. 4; v. 242; p. 215.
Type-bar or casting-slug. W. A. Reade. No. 1,241,019; Sept. 25; v. 242; p. 823.
Type-bar-tension-adjusting means. E. B. Hess. No. 1,241,214; Sept. 25; v. 242; p. 883.
Type-casting machine. S. A. Bhisey. No. 1,240,168; Sept. 18; v. 242; p. 524.
Type-setters, Tool for. J. Brandt. No. 1,239,455; Sept. 11; v. 242; p. 264.
Type-writer keyboard. W. R. Diehl and W. H. Townsend. No. 1,241,201; Sept. 25; v. 242; p. 879.
Type-writers, Concealing-screen for visible. H. R. Knowles. No. 1,240,349; Sept. 18; v. 242; p. 582.
Type-writers, Extension-leaf for. H. A. Stone. No. 1,239,135; Sept. 4; v. 242; p. 134.
Type-writing machine. A. J. Briggs. No. 1,239,872; Sept. 11; v. 242; p. 397.
Type-writing machine. A. S. Dennis. No. 1,239,466; Sept. 11; v. 242; p. 267.
Type-writing machine. H. V. Fengler. No. 1,241,101; Sept. 25; v. 242; p. 848.
Type-writing machine. F. A. Hart. No. 1,238,908; Sept. 4; v. 242; p. 60.
Type-writing machine. R. F. Hoyt. No. 1,238,919; Sept. 4; v. 242; p. 63.
Ultramarine, Manufacture of. L. Bock. No. 1,239,080; Sept. 4; v. 242; p. 115.
Umbrella. P. Bagley. No. 1,239,757; Sept. 11; v. 242; p. 359.
Umbrella, Folding. C. O. Youngren. No. 1,240,001; Sept. 11; v. 242; p. 436.
Umbrella-holder. M. Schuld. No. 1,239,228; Sept. 4; v. 242; p. 163.
Umbrella-runner. C. L. Baker and J. E. Klos. No. 1,240,645; Sept. 18; v. 242; p. 673.
Underreamer. W. C. Cutler. No. 1,239,087; Sept. 4; v. 242; p. 117.
Unicycle. R. F. Cornell. No. 1,240,678; Sept. 18; v. 242; p. 683.
Universal control-handle. L. B. Sperry. No. 1,239,837; Sept. 11; v. 242; p. 386.
Vacuum-cleaner. H. Small. No. 1,240,155; Sept. 11; v. 242; p. 481.
Valve. H. P. Brunk. No. 1,240,023; Sept. 11; v. 242; p. 443.
Valve. F. J. Gagnon. No. 1,239,898; Sept. 11; v. 242; p. 406.
Valve. R. G. McDowell. No. 1,240,586; Sept. 18; v. 242; p. 655.
Valve. W. W. Riddell. No. 1,240,879; Sept. 25; v. 242; p. 779.
Valve attachment. T. C. Luce. No. 1,240,230; Sept. 18; v. 242; p. 546.
Valve, Bailing-. F. A. Lizarraga. No. 1,241,408; Sept. 25; v. 242; p. 945.
Valve, Blow-off. A. H. Johnson. No. 1,238,779; Sept. 4; v. 242; p. 18.
Valve, Disk. T. D. Key. No. 1,239,015; Sept. 4; v. 242; p. 95.
Valve, Double-acting. T. A. Crompton, Jr. No. 1,240,682; Sept. 18; v. 242; p. 685.
Valve, Double check-. H. H. Prescott and E. H. Considine. No. 1,240,254; Sept. 18; v. 242; p. 553.
Valve, Drain-. R. O. Dohm. No. 1,239,574; Sept. 11; v. 242; p. 301.
Valve, Drain-. C. W. Newcombe. No. 1,239,617; Sept. 11; v. 242; p. 314.
Valve, Dry-pipe. R. Grinnell. No. 1,241,209; Sept. 25; v. 242; p. 882.
Valve, Electrically-heated. C. J. Hinshaw and R. L. Gable. No. 1,240,449; Sept. 18; v. 242; p. 614.
Valve, Engineer's brake-. J. P. Gault. No. 1,239,585; Sept. 11; v. 242; p. 304.
Valve, Filling-. L. S. Evans. No. 1,240,431; Sept. 18; v. 242; p. 608.
Valve for compressors. C. H. Leinert. No. 1,240,461; Sept. 18; v. 242; p. 618.
Valve for filling bottles. C. S. Adams. No. 1,239,068; Sept. 4; v. 242; p. 111.
Valve for gas-engines, Auxiliary air-inlet. J. A. Torrens. No. 1,239,639; Sept. 11; v. 242; p. 321.
Valve for intake-manifolds, Inspirator-. W. H. Brasier. No. 1,240,303; Sept. 18; v. 242; p. 568.
Valve for internal-combustion engines, Puppet-. F. D. Shepherd. No. 1,240,378; Sept. 18; v. 242; p. 591.
Valve-gear. D. J. Miller and J. M. Austin. No. 1,239,933; Sept. 11; v. 242; p. 416.
Valve-gear, Reversing. J. E. Brogdon. No. 1,240,663; Sept. 18; v. 242; p. 679.
Valve, Lock-. A. G. Koeppe. No. 1,240,734; Sept. 18; v. 242; p. 700.
Valve, Locking-. E. W. Rogers and T. C. Riebe. No. 1,238,944; Sept. 4; v. 242; p. 71.
Valve, Pressure-regulating. L. B. McClean. No. 1,239,022; Sept. 4; v. 242; p. 97.

Valve, Steam-turbine. E. H. Werzner. No. 1,241,316; Sept. 25; v. 242; p. 918.
Valve, Train-pipe. D. C. Mitchell. No. 1,240,472; Sept. 18; v. 242; p. 621.
Valve, Unloading-. E. W. Brown. No. 1,240,664; Sept. 18; v. 242; p. 679.
Valves, Automatic control for. J. Brückner and F. Hamberger. No. 1,241,191; Sept. 25; v. 242; p. 876.
Vanity-case. W. C. Cutler. No. 1,239,164; Sept. 4; v. 242; p. 142.
Vaults, Damp-proofing burial-. A. W. Graham. No. 1,238,760; Sept. 4; v. 242; p. 12.
Vehicle alarm device, Motor-. B. F. Johnston. No. 1,239,602; Sept. 11; v. 242; p. 309.
Vehicle attachment. F. M. Crane. No. 1,241,344; Sept. 25; v. 242; p. 926.
Vehicle body, Delivery-. R. E. Greene. No. 1,240,704; Sept. 18; v. 242; p. 691.
Vehicle-brake, Automatic. L. W. Selvert. No. 1,241,035; Sept. 25; v. 242; p. 828.
Vehicle-bumper support. J. Berg. No. 1,240,167; Sept. 18; v. 242; p. 523.
Vehicle, Child's. T. O. Mason. No. 1,241,474; Sept. 25; v. 242; p. 964.
Vehicle-controller. C. T. Henderson. No. 1,238,910; Sept. 4; v. 242; p. 61.
Vehicle direction-signal. J. H. Cebolt and C. W. Downs. No. 1,240,310; Sept. 18; v. 242; p. 570.
Vehicle-door construction. A. B. Trott. No. 1,239,986; Sept. 11; v. 242; p. 432.
Vehicle indicating-signal. W. P. Hammond. (Reissue.) No. 14,367; Sept. 25; v. 242; p. 970.
Vehicle-indicator. W. A. Miller. No. 1,239,934; Sept. 11; v. 242; p. 417.
Vehicle, Motor-. T. V. Buckwalter. No. 1,240,417; Sept. 18; v. 242; p. 604.
Vehicle, Motor-. E. Bush. No. 1,240,936; Sept. 25; v. 242; p. 798.
Vehicle, Motor-. L. H. Donnell. No. 1,241,355; Sept. 25; v. 242; p. 929.
Vehicle, Motor-. A. Loomis. No. 1,239,194; Sept. 4; v. 242; p. 151.
Vehicle, Motor-. G. B. Ridley. No. 1,239,219; Sept. 4; v. 242; p. 160.
Vehicle-movement-indicating apparatus. A. W. Olds. No. 1,239,511; Sept. 11; v. 242; p. 280.
Vehicle safety-signal, Power-. W. Murray. No. 1,241,421; Sept. 25; v. 242; p. 949.
Vehicle-signal. S. F. Douglass. No. 1,238,750; Sept. 4; v. 242; p. 10.
Vehicle signaling device, Road-. C. O. Hall. No. 1,241,373; Sept. 25; v. 242; p. 935.
Vehicle-spring. L. B. Bissell. No. 1,240,929; Sept. 25; v. 242; p. 797.
Vehicle-spring. C. E. Clemens and R. K. Johnson. No. 1,239,084; Sept. 4; v. 242; p. 116.
Vehicle-spring jack. G. P. Markwardt. No. 1,239,499; Sept. 11; v. 242; p. 277.
Vehicle-spring, Self-lubricating. A. J. Dilley. No. 1,240,322; Sept. 18; v. 242; p. 574.
Vehicle spring-support, Motor-. C. O. Gest. No. 1,239,901; Sept. 11; v. 242; p. 407.
Vehicle suspension. B. Liebowitz. No. 1,240,992; Sept. 25; v. 242; p. 814.
Vehicle-traffic-directing signal. C. A. Singer. No. 1,240,380; Sept. 18; v. 242; p. 592.
Vehicle-wheel. J. J. Adamsen. No. 1,239,658; Sept. 11; v. 242; p. 327.
Vehicle-wheel. R. S. Bryant. No. 1,238,741; Sept. 4; v. 242; p. 7.
Vehicles, Auxiliary transmission for motor-. W. M. Copeland. No. 1,240,318; Sept. 18; v. 242; p. 573.
Vehicles, Belt attachment for motor-. W. Schluter. No. 1,238,946; Sept. 4; v. 242; p. 72.
Vehicles, Differential gear for motor-. F. Ellwein. No. 1,241,361; Sept. 25; v. 242; p. 931.
Vehicles, Differential mechanism or equalizing-gearing for motor-driven. A. W. Farrell. No. 1,240,551; Sept. 18; v. 242; p. 644.
Vehicles, Gripping device for manually-propelled. J. Ney. No. 1,239,509; Sept. 11; v. 242; p. 280.
Vehicles, Mechanism for facilitating the instruction of drivers of self-propelled. J. G. Torr. No. 1,240,629; Sept. 18; v. 242; p. 667.
Vehicles, Movable step for. H. Dunderdale. No. 1,239,892; Sept. 11; v. 242; p. 404.
Vehicles, Number-illuminating device for motor-. R. J. Meitner. No. 1,240,470; Sept. 18; v. 242; p. 621.
Vehicles, Power-indicator for. H. H. Welch. No. 1,240,273; Sept. 18; v. 242; p. 558.
Vehicles, Seating for. A. M. Dean. No. 1,239,166; Sept. 4; v. 242; p. 143.
Vehicles, Theft-indicating mechanism for motor-. C. W. Folsom. No. 1,239,780; Sept. 11; v. 242; p. 367.
Vehicles, Transmission for motor-driven. A. E. Jern. No. 1,238,778; Sept. 4; v. 242; p. 18.
Vending-carton. A. T. Fischer. No. 1,239,094; Sept. 4; v. 242; p. 120.
Vending device. C. E. Bridges. No. 1,240,413; Sept. 18; v. 242; p. 602.
Vending-machine. A. D. Antoine, A. E. Gebert, and C. C. Travis. No. 1,239,753; Sept. 11; v. 242; p. 358.
Vending-machine. E. A. Claus. No. 1,239,864; Sept. 11; v. 242; p. 401.
Vending-machine. S. Fisher. No. 1,239,375; Sept. 4; v. 242; p. 209.
Vending-machine. W. P. Holt. No. 1,240,717; Sept. 18; v. 242; p. 694.
Vending machine, Bottle-. J. C. Dickinson. No. 1,240,321; Sept. 18; v. 242; p. 574.
Vending-machine delivery mechanism. E. M. Perfect. No. 1,240,595; Sept. 18; v. 242; p. 658.
Vending-machine for newspapers and similar articles. W. C. Ziebarth. No. 1,240,526; Sept. 18; v. 242; p. 637.
Vending-machines, Coin-controlled mechanism for. E. C. Fain. No. 1,240,187; Sept. 18; v. 242; p. 530.
Vending-machines, Coin weighing and blocking device for. E. M. Perfect. No. 1,240,596; Sept. 18; v. 242; p. 658.
Ventilator: *See*—
Window-ventilator.
Vessel, Means for connecting the ends of lifting-ropes together under the hull of a submerged. A. Johnsen. No. 1,240,979; Sept. 25; v. 242; p. 811.
Vessels, Apparatus for raising sunken. R. M. Browne and T. D. Scott. No. 1,240,538; Sept. 18; v. 242; p. 641.
Vessels, Means for raising sunken. R. de Arazoza. No. 1,240,180; Sept. 18; v. 242; p. 528.
Vibrating mechanism. F. B. Little. No. 1,240,351; Sept. 18; v. 242; p. 583.
Vibration-recorder. H. Sattler. No. 1,240,883; Sept. 25; v. 242; p. 781.
Vise. F. Plotnik. No. 1,239,620; Sept. 11; v. 242; p. 315.
Vise, Pipe claw-. M. Mallove. No. 1,239,431; Sept. 4; v. 242; p. 226.
Vise, Soldering-. P. W. Trowbridge. No. 1,239,233; Sept. 4; v. 242; p. 165.
Vote-recording machine. W. C. Watson. No. 1,240,632; Sept. 18; v. 242; p. 669.
Waffle-iron. B. Wiszniewska. No. 1,238,974; Sept. 4; v. 242; p. 82.
Wagon-jack and wrench. D. N. Morton. No. 1,239,936; Sept. 11; v. 242; p. 417.
Wagon-seat lock. W. W. Parker. No. 1,241,431; Sept. 25; v. 242; p. 951.
Wall, Building-. W. L. Collins. No. 1,240,121; Sept. 11; v. 242; p. 471.
Wall, Heat-insulating. C. J. Coleman. No. 1,239,770; Sept. 11; v. 242; p. 363.
Walls of buildings or structures or other surfaces, Pneumatic apparatus for applying rough-cast or other plaster to the. J. L. McKim and J. Johnston. No. 1,239,283; Sept. 4; v. 242; p. 181.
Washboard. U. S. and L. E. Brown. No. 1,240,118; Sept. 11; v. 242; p. 470.
Washboard. J. H. Ryan. No. 1,240,093; Sept. 11; v. 242; p. 462.
Washer: *See*—
Lock-washer.
Washer-cutter. W. L. Rawles. No. 1,241,018; Sept. 25; v. 242; p. 823.
Washing apparatus. A. W. Healey. No. 1,240,205; Sept. 18; v. 242; p. 538.
Washing apparatus, Sanitary. H. N. Gilbert. No. 1,239,176; Sept. 4; v. 242; p. 146.
Washing-crystal. M. Spazier. No. 1,241,044; Sept. 25; v. 242; p. 830.
Washing-machine. J. C. Hintz. No. 1,239,600; Sept. 11; v. 242; p. 309.
Washing-machine agitator. G. L. Davis. No. 1,240,826; Sept. 25; v. 242; p. 762.
Washing-machine-driving mechanism. H. S. Judd and H. Pletsch. No. 1,240,801; Sept. 18; v. 242; p. 722.
Washing-machine outlet-valve. W. Bartholomew. No. 1,241,326; Sept. 25; v. 242; p. 921.
Washing-machine mechanism. H. C. Doman. No. 1,240,426; Sept. 18; v. 242; p. 606.
Washing-machine mechanism. J. G. Seelig. No. 1,239,046; Sept. 4; v. 242; p. 104.
Washing-machine-operating mechanism. A. W. Healey. No. 1,240,204; Sept. 18; v. 242; p. 537.
Washtub and washboard, Combined. G. T. Ellis. No. 1,240,037; Sept. 11; v. 242; p. 446.
Watch bezel and crystal. C. L. Depollier. No. 1,239,467; Sept. 11; v. 242; p. 267.
Watch-holder. C. H. Allen. No. 1,240,527; Sept. 18; v. 242; p. 638.
Water-dispensing device. C., Jr., and M. A. Doering. No. 1,241,352; Sept. 25; v. 242; p. 928.
Water-elevator. E. P. Hume. No. 1,239,692; Sept. 11; v. 242; p. 339.
Water-elevator. B. F. Stauber. No. 1,241,297; Sept. 25; v. 242; p. 913.
Water for softening, purifying, and like purposes, Treatment of. H. J. Magrath. No. 1,239,202; Sept. 4; v. 242; p. 154.
Water-gage. F. A. Pocock. No. 1,239,304; Sept. 4; v. 242; p. 187.
Water-gage. F. A. Pocock. No. 1,240,251; Sept. 18; v. 242; p. 552.
Water-heater. J. Setecka. No. 1,241,154; Sept. 25; v. 242; p. 865.
Water-heater, Electric. E. C. Webster. No. 1,239,325; Sept. 4; v. 242; p. 193.

Water with radium emanations, Apparatus for impregnating. S. Saubermann. No. 1,239,227; Sept. 4; v. 242; p. 163.
Watering system. J. Nordqvist. No. 1,241,005; Sept. 25; v. 242; p. 819.
Watering-trough. W. V. Shaw. No. 1,240,785; Sept. 18; v. 242; p. 717.
Waterproofing fabrics, Solution for. T. C. James. No. 1,240,345; Sept. 18; v. 242; p. 581.
Wax, Sealing-. W. O. Snelling. No. 1,239,629; Sept. 11; v. 242; p. 318.
Way-bill and accounting-coupon, Combined. F. P. Small. No. 1,239,977; Sept. 11; v. 242; p. 429.
Weapon. P. Pys. No. 1,238,820; Sept. 4; v. 242; p. 32.
Weather-strip. A. E. Decker. No. 1,240,685; Sept. 18; v. 242; p. 686.
Weather-strip. W. R. Proctor. No. 1,240,603; Sept. 18; v. 242; p. 660.
Wedge, Adjustable. J. B. Swan. No. 1,239,538; Sept. 11; v. 242; p. 289.
Weed-destroyer. H. M. Williams and J. W. Dean. No. 1,238,861; Sept. 4; v. 242; p. 45.
Weeder. S. B. Svendsen. No. 1,239,316; Sept. 4; v. 242; p. 191.
Weighing apparatus. B. D. Pinkney. No. 1,240,600; Sept. 18; v. 242; p. 659.
Weighing machine, Automatic. W. Clothier. No. 1,238,886; Sept. 4; v. 242; p. 53.
Weir-tank. J. J. Hoppes. No. 1,239,601; Sept. 11; v. 242; p. 309.
Welding and soldering of articles constructed of aluminum, Composition of matter for the. C. C. Wells. No. 1,239,854; Sept. 11; v. 242; p. 392.
Welding-tool, Electric. W. E. Symons. No. 1,240,900; Sept. 25; v. 242; p. 786.
Welding-tool, Electric. W. E. Symons. No. 1,240,901; Sept. 25; v. 242; p. 787.
Well, Apparatus for washing with slime the bore end of a. I. Podobiedoff. No. 1,240,776; Sept. 18; v. 242; p. 714.
Well-auger. C. D. Stillwell. No. 1,241,051; Sept. 25; v. 242; p. 832.
Well or subterranean reservoir for use in irrigation and other purposes. E. Newsom. No. 1,241,003; Sept. 25; v. 242; p. 818.
Welt-preparing machine. J. A. Brogan. No. 1,241,087; Sept. 25; v. 242; p. 844.
Welting. J. A. Brogan. No. 1,241,088; Sept. 25; v. 242; p. 844.
Welting, Preparing. J. A. Brogan. No. 1,241,089; Sept. 25; v. 242; p. 845.
Wheel: *See*—
Automobile steering-wheel.
Bearing-wheel.
Buffing-wheel.
Power-wheel.
Resilient wheel.
Spring-wheel.
Steering-wheel.
Trolley-wheel.
Vehicle-wheel.
Wire wheel.
Wheel. P. G. Anderson. No. 1,240,003; Sept. 11; v. 242; p. 437.
Wheel. F. T. Farmer. No. 1,239,580; Sept. 11; v. 242; p. 303.
Wheel and tire, Vehicle. A. G. Trautman. No. 1,240,630; Sept. 18; v. 242; p. 668.
Wheel-clamp. W. Frenier. No. 1,240,836; Sept. 25; v. 242; p. 766.
Wheel-clamp. J. I. Woodard. No. 1,241,459; Sept. 25; v. 242; p. 960.
Wheel-rim. E. Brown. No. 1,238,879; Sept. 4; v. 242; p. 51.
Wheel rim, Vehicle-. E. C. Shaw. No. 1,240,888; Sept. 25; v. 242; p. 782.
Wheel-truing device. L. F. Alsworth. No. 1,240,528; Sept. 18; v. 242; p. 638.
Wheels and means for securing it, Rim for vehicle-. T. Heinzerling. No. 1,238,766; Sept. 4; v. 242; p. 14.
Wheels, Twin rim for wire-spoked vehicle-. J. V. Pugh. No. 1,239,824; Sept. 11; v. 242; p. 382.
Whip-socket lock. P. H. Bethea. No. 1,241,331; Sept. 25; v. 242; p. 922.
Wicker chair, Folding. J. A. Fenton. No. 1,240,692; Sept. 18; v. 242; p. 688.
Winder. H. D. Colman. No. 1,239,670; Sept. 11; v. 242; p. 331.
Winding-machine. W. F. Smith. No. 1,240,506; Sept. 18; v. 242; p. 632.
Winding-machines and the like, Thread-traverse means for. E. J. Lipps. No. 1,240,352; Sept. 18; v. 242; p. 583.
Winding-machines, Traverse mechanism for. H. D. Colman. No. 1,239,669; Sept. 11; v. 242; p. 331.
Window. H. T. Atkinson. No. 1,239,449; Sept. 11; v. 242; p. 261.
Window-cage. J. H. Florian. No. 1,239,472; Sept. 11; v. 242; p. 269.
Window construction, Metal. A. Fromhold. No. 1,240,193; Sept. 18; v. 242; p. 533.
Window-frame. G. B. Kohler. No. 1,240,735; Sept. 18; v. 242; p. 701.
Window frame and sash, Metal. H. E. Campbell. No. 1,241,090; Sept. 25; v. 242; p. 845.
Window-guard. H. S. Carson. No. 1,240,025; Sept. 11; v. 242; p. 443.
Window-guard. B. Franklin. No. 1,239,473; Sept. 11; v. 242; p. 269.
Window-panes, Device for removing putty from. E. H. Krueger. No. 1,239,406; Sept. 4; v. 242; p. 219.
Window-screen. M. O. Nelson. No. 1,241,425; Sept. 25; v. 242; p. 950.
Window-screen. E. A. Ware. No. 1,241,314; Sept. 25; v. 242; p. 917.
Window-screen for railway-cars, Sheet-metal. W. W. Watson. No. 1,238,854; Sept. 4; v. 242; p. 43.
Window-screen, Rolling. D. O'Neill. No. 1,240,768; Sept. 18; v. 242; p. 712.
Window-stiles, Machine for forming openings in. F. H. Weeks. No. 1,240,393; Sept. 18; v. 242; p. 596.
Window-ventilator. J. P. Adams and G. I. Leonard. No. 1,241,185; Sept. 25; v. 242; p. 875.
Window-ventilator, Adjustable. C. P. De Lance. No. 1,240,953; Sept. 25; v. 242; p. 802.
Window-washers, Support for. K. Nambu. No. 1,241,424; Sept. 25; v. 242; p. 949.
Windows and the like, Fastening for sliding. T. Parker. No. 1,240,086; Sept. 11; v. 242; p. 460.
Wire articles, Process and means for making drawn-. L. C. Belz. No. 1,239,451; Sept. 11; v. 242; p. 262.
Wire-cutting device. F. A. Warner. No. 1,241,455; Sept. 25; v. 242; p. 959.
Wire, Machine for applying binding-. D. B. Galbally. No. 1,240,042; Sept. 11; v. 242; p. 447.
Wire-reels, Core for. J. D. Adams and A. G. Johnson. No. 1,239,069; Sept. 4; v. 242; p. 112.
Wire screen. W. D. Cramer. No. 1,238,747; Sept. 4; v. 242; p. 8.
Wire-straightening machine. A. P. Gilbert. No. 1,239,175; Sept. 4; v. 242; p. 145.
Wire-stretcher. R. O. Tangen. No. 1,239,061; Sept. 4; v. 242; p. 109.
Wire wheel. R. M. Keating. No. 1,239,794; Sept. 11; v. 242; p. 371.
Wireless signals, Valve-receiver for. G. M. Wright. No. 1,238,869; Sept. 4; v. 242; p. 48.
Wool, Purifying raw. G. H. Benjamin. No. 1,238,873; Sept. 4; v. 242; p. 50.
Work-holder, Self-centering. D. Wiley. No. 1,241,319; Sept. 25; v. 242; p. 919.
Wrapping-machine. A. Heck. No. 1,239,597; Sept. 11; v. 242; p. 308.
Wrapping-machine. N. J. Lloyd. No. 1,239,019; Sept. 4; v. 242; p. 96.
Wrench: *See*—
Petcock-wrench.
Wrench. R. Y. Bovee. No. 1,240,171; Sept. 18; v. 242; p. 525.
Wrench. C. M. Broyles. No. 1,239,156; Sept. 4; v. 242; p. 140.
Wrench. P. Champlin. No. 1,239,883; Sept. 11; v. 242; p. 401.
Wrench. J. Knowles. No. 1,241,223; Sept. 25; v. 242; p. 886.
Wrench. L. Nelson. No. 1,240,762; Sept. 18; v. 242; p. 709.
Wringer-reversing-gear box. W. J. Conlon. No. 1,238,745; Sept. 4; v. 242; p. 8.
Wringer safety device. R. Marx. No. 1,240,751; Sept. 18; v. 242; p. 706.
Wringer safety device. A. H. Peters. No. 1,238,938; Sept. 4; v. 242; p. 69.
Wringer safety-release. F. W. Sauer. No. 1,239,045; Sept. 4; v. 242; p. 104.
Writing machine, Check-. L. M. Todd and C. G. Tiefel. No. 1,240,903; Sept. 25; v. 242; p. 787.
Writing-tablet, Continuous. H. B. Carlson. No. 1,240,820; Sept. 25; v. 242; p. 761.
X-ray apparatus. J. B. Wantz. No. 1,239,145; Sept. 4; v. 242; p. 137.
X-ray table. J. B. Wantz. No. 1,239,146; Sept. 4; v. 242; p. 137.
Yarn-mass supports, &c., Protector for wound-. H. L. Tiffany. No. 1,240,104; Sept. 11; v. 242; p. 466.
Yarn-moistening device. G. N. Taylor. No. 1,240,625; Sept. 18; v. 242; p. 666.
Yoke, Animal-. S. P. Prock. No. 1,241,443; Sept. 25; v. 242; p. 955.
Yoke, Coupling-. W. Blackmore. No. 1,239,764; Sept. 11; v. 242; p. 361.
Yoke for draft-riggings. A. Copony. No. 1,240,948; Sept. 25; v. 242; p. 801.
Yoke, Neck-. J. O. Johnston. No. 1,240,052; Sept. 11; v. 242; p. 450.
Zither. S. C. Osborn. No. 1,239,811; Sept. 11; v. 242; p. 377.

ALPHABETICAL LIST OF DESIGNS.

Articles to be worn on the wrist, Protector for. C. Dean. No. 51,225; Sept. 4; v. 242; p. 232.
Automobile-top. F. Richard. No. 51,268; Sept. 11; v. 242; p. 494.
Badge. J. Drefs. No. 51,260; Sept. 11; v. 242; p. 493.
Badge. G. Kéfer. No. 51,306; Sept. 25; v. 242; p. 975.
Badge. H. H. Pattee. No. 51,267; Sept. 11; v. 242; p. 494.
Badge or emblem. F. W. Whitehouse. No. 51,248; Sept. 4; v. 242; p. 236.
Basket. A. J. Sanford. No. 51,308; Sept. 25; v. 242; p. 975.
Cabinet, Combination-. J. Bush. No. 51,222; Sept. 4; v. 242; p. 231.
Carpet. J. C. Fulton. No. 51,261; Sept. 11; v. 242; p. 493.
Clock. N. Dreyfus. No. 51,278; Sept. 18; v. 242; p. 727.
Clock, Street-. F. Fontana. No. 51,280; Sept. 18; v. 242; p. 728.
Counter or cabinet, Sales. H. A. Dalley. No. 51,299; Sept. 25; v. 242; p. 974.
Dental sanitary fountain. E. H. Shibley. No. 51,289; Sept. 18; v. 242; p. 729.
Doll. M. E. Harris. No. 51,234; Sept. 4; v. 242; p. 234.
Egg-candling devices, Casing for. H. E. Winters. No. 51,273; Sept. 11; v. 242; p. 495.
Electric-heater casing. E. N. Brown. No. 51,253; Sept. 11; v. 242; p. 491.
Electric-heater casing. E. N. Brown. Nos. 51,275–6; Sept. 18; v. 242; pp. 726–7.
Electric-light fixture. S. Braunstein. Nos. 51,251–2; Sept. 11; v. 242; p. 491.
Electric lights, Switch-slide for portable. H. Rothenberg. No. 51,241; Sept. 4; v. 242; p. 235.
Fabric or similar article, Textile. C. F. Scholle. No. 51,242; Sept. 4; v. 242; p. 235.
Fabric, Textile. E. W. Doughty. Nos. 51,300–1; Sept. 25; v. 242; p. 974.
Fabric, Textile. A. Sonntag. No. 51,290; Sept. 18; v. 242; p. 729.
Fan. A. Z. Seror and E. J. Hoyer. No. 51,270; Sept. 11; v. 242; p. 494.
Fireplace, Portable. N. L. Aucoin. No. 51,295; Sept. 25; v. 242; p. 973.
Flower-holder and dress-protector, Combination. G. C. Kane. No. 51,305; Sept. 25; v. 242; p. 975.
Fly-wheel or similar device. C. L. McCuen. No. 51,236; Sept. 4; v. 242; p. 234.
Footstool. J. Zagora. No. 51,262; Sept. 11; v. 242; p. 493.
Gage-casing. L. A. Mapel. No. 51,285; Sept. 18; v. 242; p. 728.
Garment, Child's outer. E. T. Hincks. No. 51,303; Sept. 25; v. 242; p. 974.
Headlight-lens. C. Woodbury. No. 51,274; Sept. 11; v. 242; p. 495.
Humidifier. E. B. Beeler. No. 51,296; Sept. 25; v. 242; p. 973.
Lace. A. R. Koch. Nos. 51,265–6; Sept. 11; v. 242; pp. 493–4.
Lace, Embroidered. H. Schwarber. No. 51,287; Sept. 18; v. 242; p. 729.
Lace panel. C. J. Watters. No. 51,310; Sept. 25; v. 242; p. 975.
Lamp. G. W. Cassidy. No. 51,255; Sept. 11; v. 242; p. 491.
Lamp. C. E. Smith. No. 51,244; Sept. 4; v. 242; p. 235.
Lamp-lens. H. C. Forster. No. 51,279; Sept. 18; v. 242; p. 727.
Lamp or similar article, Standard for a. E. Kopriwa. Nos. 51,283–4; Sept. 18; v. 242; p. 728.
Lamp, Portable. J. F. Robb and L. W. Young. No. 51,269; Sept. 11; v. 242; p. 494.
Lavallière. J. Gylywaichuk. No. 51,232; Sept. 4; v. 242; p. 233.
Letters and numerals for signs, Set of. C. A. Divine. No. 51,259; Sept. 11; v. 242; p. 492.
Light-transmitting-bowl hanger. E. L. White. No. 51,272; Sept. 11; v. 242; p. 495.
Lighting-fixture. H. C. Adam. No. 51,294; Sept. 25; v. 242; p. 972.
Lighting-fixture. J. Doyle. No. 51,227. Sept. 4; v. 242; p. 232.
Lighting-fixture arm. F. S. Crowell. Nos. 51,256–7; Sept. 11; v. 242; p. 492.
Lighting-fixture arm. C. Werner. Nos. 51,292–3; Sept. 18; v. 242; p. 730.
Lighting-fixture bracket-back. F. S. Crowell. No. 51,258; Sept. 11; v. 242; p. 492.
Lighting-post. F. L. Bulla. No. 51,221; Sept. 4; v. 242; p. 231.
Paper dolly. F. Conrad. No. 51,223; Sept. 4; v. 242; p. 232.
Paper fastener or clip, Metal. H. A. Grammes. No. 51,263; Sept. 11; v. 242; p. 493.
Pedal. A. F. and C. H. Norris. No. 51,238; Sept. 4; v. 242; p. 234.
Picture or photograph frame. N. Newell. No. 51,286; Sept. 18; v. 242; p. 729.
Pin. G. H. Dyson. No. 51,228; Sept. 4; v. 242; p. 232.
Priming-cup. J. G. Cross and M. G. Alness. No. 51,224; Sept. 4; v. 242; p. 232.
Radiogenerators, Casing for. E. W. Borggrafe. No. 51,250; Sept. 11; v. 242; p. 490.
Ring. A. Jacobson. No. 51,264; Sept. 11; v. 242; p. 493.
Ring, Finger-. I. Bernstein. No. 51,297; Sept. 25; v. 242; p. 973.
Ring or similar article, Finger-. C. Fischer. No. 51,302; Sept. 25; v. 242; p. 974.
Screw. F. Vorel. No. 51,291; Sept. 18; v. 242; p. 729.
Shrine. J. Rastija. No. 51,240; Sept. 4; v. 242; p. 235.
Snap-switch cover. G. B. Thomas. No. 51,271; Sept. 11; v. 242; p. 495.
Soap and other toilet articles, Wall-receptacle for. S. D. Baker. No. 51,249; Sept. 11; v. 242; p. 490.
Spoon, fork, or similar article. P. Stewart. No. 51,245; Sept. 4; v. 242; p. 236.
Statuette. B. E. McKenzie. No. 51,307; Sept. 25; v. 242; p. 975.
Stick-pin. G. A. Desenfant. No. 51,226; Sept. 4; v. 242; p. 232.
Thermostats, Casing for. E. C. Johns. No. 51,304; Sept. 25; v. 242; p. 974.
Tie-pin. J. Gylywaichuk. No. 51,233; Sept. 4; v. 242; p. 234.
Tire-tread. C. A. Goetze. Nos. 51,230–1; Sept. 4; v. 242; p. 233.
Tobacco-pouch. J. H. Watson, Jr. No. 51,247; Sept. 4; v. 242; p. 236.
Toy. E. Turner. No. 51,246; Sept. 4; v. 242; p. 236.
Toy building element. A. C. Gilbert. No. 51,277; Sept. 18; v. 242; p. 727.
Toy monkey. S. G. Szopko. No. 51,309; Sept. 25; v. 242; p. 975.
Trimming, Textile. E. F. Elsinger. No. 51,229; Sept. 4; v. 242; p. 233.
Type, Font of. R. F. Burfeind. No. 51,254; Sept. 11; v. 242; p. 491.
Vehicle, Juvenile. M. E. Griswold. No. 51,281; Sept. 18; v. 242; p. 728.
Vending-machine casing. E. R. Sharp. No. 51,243; Sept. 4; v. 242; p. 235.
Watch holder, Wrist-. G. M. Purver. No. 51,239; Sept. 4; v. 242; p. 235.
Watchcase-protector. G. Brown. No. 51,298; Sept. 25; v. 242; p. 973.
Welding-machine frame, Chain-. F. H. Howard. No. 51,282; Sept. 18; v. 242; p. 728.
Wind-wheel. W. E. Lee. No. 51,235; Sept. 4; v. 242; p. 234.
Work bag or basket. J. M. Monsarrat. No. 51,237; Sept. 4; v. 242; p. 234.

ALPHABETICAL LIST OF TRADE-MARKS

Abrasive, detergent, and polishing materials, Certain named. Chas. F. L'Hommedieu & Sons Co. No. 118,678; Sept. 25; v. 242; p. 989.

Abscesses and cataracts. R. M. S. G. Murigilio. No. 118,559; Sept. 18; v. 242; p. 745.

Alloy of base metal. Landers, Frary & Clark. No. 118,675; Sept. 25; v. 242; p. 989.

Aluminum alloy (McAdamite) in various forms, castings, and ingots. McAdamite-Aluminum Company. No. 118,682; Sept. 25; v. 242; p. 989.

Ammonium ichthosulfonate. John Wyeth & Brothers. No. 118,609; Sept. 18; v. 242; p. 747.

Ant-destroyer. B. Heller & Co. No. 118,410; Sept. 4; v. 242; p. 250.

Ant-destroyer. B. Heller & Company. No. 118,527; Sept. 18; v. 242; p. 744.

Apple-juice. Henry Weinhard Estate. No. 118,454; Sept. 4; v. 242; p. 251.

Automobile-patches. Durkee-Atwood Co. No. 118,394; Sept. 4; v. 242; p. 249.

Automobiles. Liberty Motor Car Company. No. 118,420; Sept. 4; v. 242; p. 250.

Automobiles. Oakland Motor Car Co. of Michigan. No. 118,565; Sept. 18; v. 242; p. 745.

Automobiles. The Winton Company. No. 118,455; Sept. 4; v. 242; p. 255.

Bacon. Armstrong Packing Company. No. 118,373; Sept. 4; v. 242; p. 249.

Bacterolysin for distemper and other animal complaints. W. Duncan. No. 118,505; Sept. 18; v. 242; p. 743.

Baggage-carriers used as attachments to vehicles. Beaver Motor Devices Co. No. 118,377; Sept. 4; v. 242; p. 249.

Bath-cabinets. J. A. Solomon. No. 118,712; Sept. 25; v. 242; p. 990.

Batteries, generators, and switchboards. Elite Electric Co. No. 118,642; Sept. 25; v. 242; p. 988.

Bedbug-destroyer. B. Heller & Co. No. 118,526; Sept. 18; v. 242; p. 744.

Beer, Near. The Neef Bros. Brewing Company. No. 118,688; Sept. 25; v. 242; p. 989.

Bells and horns, Electrical signal and alarm. A. T. Poehlmann. No. 118,694; Sept. 25; v. 242; p. 989.

Belting, hose, machinery packing, and non-metallic tires, Certain. Thermoid Rubber Company. No. 118,447; Sept. 4; v. 242; p. 251.

Belting, hose, tubing, packing, gaskets, and washers. The National Supply Company. No. 118,561; Sept. 18; v. 242; p. 745.

Belts, Men's. Columbia Leather Goods Mfg. Co. No. 118,387; Sept. 4; v. 242; p. 249.

Beverage, Non-alcoholic artificially-carbonated. Pabst Brewing Company. No. 118,470; Sept. 11; v. 242; p. 513.

Beverage sold as a soft drink, Non-intoxicating malt. Milo Brewing Co. No. 118,469; Sept. 11; v. 242; p. 513.

Beverage to be sold as a soft drink, Maltless. Frank Jones Brewing Co. No. 118,506; Sept. 18; v. 242; p. 744.

Beverage to be sold as a soft drink, Non-alcoholic carbonated tonic. Buckhorn Lithia Water Co. No. 118,492; Sept. 18; v. 242; p. 743.

Biscuit. Virginia Baking Co. No. 118,449; Sept. 4; v. 242; p. 251.

Biscuits. W. J. Hellstern. No. 118,411; Sept. 4; v. 242; p. 250.

Boots and shoes made of rubber and canvas. Converse Rubber Shoe Co. No. 118,389; Sept. 4; v. 242; p. 249.

Brakelinings and transmission-linings. Staybestos Manufacturing Company. No. 118,445; Sept. 4; v. 242; p. 251.

Bread. Haller Baking Company. No. 118,408; Sept. 4; v. 242; p. 250.

Brooms. Atlantic Trust Company. No. 118,375; Sept. 4; v. 242; p. 249.

Brooms. W. A. Field. No. 118,399; Sept. 4; v. 242; p. 255.

Brushes and a clamp for connecting water-supply-hose nozzles with the brushes, Fountain-. T. F. Harrison. No. 118,409; Sept. 4; v. 242; p. 250.

Brushes, brooms, and dusters, Certain named. Goldman Costume Company. No. 118,402; Sept. 4; v. 242; p. 250.

Brushes, Tooth, hair, and shaving. Miller Safety Tooth Brush Company. No. 118,468; Sept. 11; v. 242; p. 513.

Brushes, Tooth, nail, hair, clothes, and kitchen. George Borgfeldt & Co. No. 118,461; Sept. 11; v. 242; p. 513.

Buildings, Portable. J. H. Burton & Co. No. 118,382; Sept. 4; v. 242; p. 249.

Butter. Iowa City Produce Company. No. 118,415; Sept. 4; v. 242; p. 250.

Buttons used as garment fasteners, Snap-. Waldes & Co. No. 118,597; Sept. 18; v. 242; p. 746.

Candies. National Candy Company. No. 118,560; Sept. 18; v. 242; p. 745.

Candy. William Penn Hotel Company. No. 118,570; Sept. 18; v. 242; p. 745.

Candles, type-writer and machine oil, lubricants, paraffin. Goldman Costume Company. No. 118,654; Sept. 25; v. 242; p. 988.

Canned condensed milk. Helvetia Milk Condensing Company. No. 118,412; Sept. 4; v. 242; p. 250.

Canned fruits, berries, sweet-pickled peaches and pears, and vegetables. W. N. Clark Company. No. 118,497; Sept. 18; v. 242; p. 743.

Canned olive-oil. Michele Ajello Co. No. 118,480; Sept. 18; v. 242; p. 743.

Canned raw oysters. Armstrong Seatag Corporation. No. 118,374; Sept. 4; v. 242; p. 249.

Canned sardines. I. Burger. No. 118,493; Sept. 18; v. 242; p. 743.

Canned sardines. White Star Canning Co. No. 118,608; Sept. 18; v. 242; p. 747.

Canned vegetables. J. M. Michael. No. 118,554; Sept. 18; v. 242; p. 745.

Canned vegetables. R. Mitchell. No. 118,428; Sept. 4; v. 242; p. 250.

Canned vegetables and fruits. The E. S. Kibbe Company. No. 118,541; Sept. 18; v. 242; p. 745.

Carbon-impression tablets and carbon and copying papers. Shea Smith & Co. No. 118,706; Sept. 25; v. 242; p. 990.

Carbon-remover. The Allworth Company. No. 118,371; Sept. 4; v. 242; p. 249.

Carbon used for illumination and projection, Negative. Speer Carbon Company. No. 118,714; Sept. 25; v. 242; p. 990.

Cartoon series. The Chicago Record-Herald Company. No. 118,496; Sept. 18; v. 242; p. 743.

Cement, Structural. South American Shipping Company. No. 118,441; Sept. 4; v. 242; p. 251.

Cereals and remedial foods, Breakfast. D. A. Harrison. No. 118,524; Sept. 18; v. 242; p. 744.

Chains, bracelets, Gold and platinum. J. M. Jablow. No. 118,533; Sept. 18; v. 242; p. 744.

Chains of ordinary metal for general purposes in the transmission of power, Drive-. The Coventry Chain Company. No. 118,390; Sept. 4; v. 242; p. 249.

Chairs, bedsteads, rockers, buffets, &c. B. Scher. No. 118,473; Sept. 11; v. 242; p. 513.

Chambray. Reliance Manufacturing Company. No. 118,699; Sept. 25; v. 242; p. 989.

Checks, check-books, and check-book holders or temporary binders. J. F. Shoemaker. No. 118,581; Sept. 18; v. 242; p. 746.

Cheese, Soft. P. E. Sharpless Company. No. 118,476; Sept. 11; v. 242; p. 513.

Chemicals and pharmaceutical preparations, Certain named. George Borgfeldt & Co. No. 118,623; Sept. 25; v. 242; p. 987.

Chemicals for treating boilers and neutralizing acids of the feed-water, Certain named. Sterling Equipment & Supply Company. No. 118,588; Sept. 18; v. 242; p. 746.

Chemicals, medicines, and pharmaceutical preparations, Certain named. A. G. Deuel. No. 118,632; Sept. 25; v. 242; p. 987.

Chemicals, medicines, and pharmaceutical preparations, Certain named. International Drug Company. No. 118,532; Sept. 18; v. 242; p. 744.

Chemicals, medicines, and pharmaceutical preparations, Certain named. G. B. Martin. No. 118,551; Sept. 18; v. 242; p. 745.

Chemicals, medicines, and pharmaceutical preparations, Certain named. C. V. Sparhawk. No. 118,585; Sept. 18; v. 242; p. 746.

Cigarette-papers, tobacco-pouches, pipes, &c. Goldman Costume Company. No. 118,519; Sept. 18; v. 242; p. 744.

Cigarettes. Grosvenor Nicholas & Co. No. 118,563; Sept. 18; v. 242; p. 745.

Cigars. H. W. Peabody & Company. No. 118,569; Sept. 18; v. 242; p. 745.

Cigars. United Cigar Manufacturers Company, (now by change of name General Cigar Co.) No. 118,720; Sept. 25; v. 242; p. 990.

Cigars. United Cigar Manufacturers Company. No. 118,595; Sept. 18; v. 242; p. 746.

Cigars, cheroots, and little cigars. Berninger & Henry. No. 118,489; Sept. 18; v. 242; p. 743.

Cineograph and moving-picture films, Positive and negative. Balboa Amusement Producing Company. No. 118,617; Sept. 25; v. 242; p. 989.
Cleaning and scouring preparation. Keen Kleener Manufacturing Company. No. 118,538; Sept. 18; v. 242; p. 744.
Cleansing compound, Liquid. Robert M. Callaway. No. 118,625; Sept. 25; v. 242; p. 987.
Clocks. Nelson H. Brown. No. 118,381; Sept. 4; v. 242; p. 249.
Clothing, Certain named. Goldman Costume Company. No. 118,652; Sept. 25; v. 242; p. 988.
Clothing for men, women, and children, Certain named. Rice & Hutchins. No. 118,430; Sept. 4; v. 242; p. 250.
Cocoa. S. Zechnowitz. No. 118,610; Sept. 18; v. 242; p. 747.
Coffee. Beau-Site Company. No. 118,376; Sept. 4; v. 242; p. 249.
Coffee. New York Grocery Company. No. 118,562; Sept. 18; v. 242; p. 745.
Coffee substitute. S. T. Hogan. No. 118,528; Sept. 18; v. 242; p. 744.
Coffee, tea, and cocoa. Edmands Coffee Company. No. 118,395; Sept. 4; v. 242; p. 249.
Collars, shirts, cuffs, pajamas, bath-robes. Cluett, Peabody & Co. No. 118,386; Sept. 4; v. 242; p. 249.
Concrete-block-making machinery. The Ferguson Syn-stone Company. No. 118,647; Sept. 25; v. 242; p. 988.
Corn, timothy and clover seeds, Seed-. E. W. Conklin & Son. No. 118,499; Sept. 18; v. 242; p. 743.
Corsets. Birdsey-Somers Company. No. 118,620; Sept. 25; v. 242; p. 987.
Corsets. The Warner Bros. Co. Nos. 118,451–2; Sept. 4; v. 242; p. 251.
Cosmetics, Theatrical make-up. J. Stanick. No. 118,586; Sept. 18; v. 242; p. 746.
Cotton cloth in the shape of piece goods. Bibb Manufacturing Company. No. 118,619; Sept. 25; v. 242; p. 987.
Cream, Cold-. Tryon Honey Balm Company. No. 118,719; Sept. 25; v. 242; p. 990.
Cream, complexion-powder, rouge, &c., Cold-. W. A. McLeod. No. 118,548; Sept. 18; v. 242; p. 745.
Cream, Shaving-. Wilford Hall Laboratories. No. 118,656; Sept. 25; v. 242; p. 988.
Creams and powders, Toilet. F. H. Young. No. 118,457; Sept. 4; v. 242; p. 251.
Crockery, earthenware, porcelain and china dishes, kitchen-receptacles. Goldman Costume Company. No. 118,466; Sept. 11; v. 242; p. 513.
Curtains, draperies, and ornamental door and window hangings of textile material, Lace. Loeb & Schoenfeld Company. No. 118,421; Sept. 4; v. 242; p. 250.
Cutlery, machinery, and tools, and parts thereof, Certain named. S. Flory Mfg. Co. No. 118,649; Sept. 25; v. 242; p. 988.
Cutlery, machinery, and tools, and parts thereof, Certain named. Illinois Tool Works. No. 118,664; Sept. 25; v. 242; p. 988.
Cutlery, machinery, and tools, and parts thereof, Certain named. International Clay Machinery Co. No. 118,665; Sept. 25; v. 242; p. 988.
Cutlery, machinery, and tools, and parts thereof, Certain named. Lawson & Company. No. 118,676; Sept. 25; v. 242; p. 989.
Cutlery, machinery, and tools, and parts thereof, Certain named. Niles-Bement-Pond Company. No. 118,689; Sept. 25; v. 242; p. 989.
Cutlery, machinery, and tools, and parts thereof, Certain named. Pratt & Whitney Company. No. 118,695; Sept. 25; v. 242; p. 989.
Dresses, aprons, and apron-dress, Ladies' and children's. Sanger Brothers. No. 118,431; Sept. 4; v. 242; p. 251.
Dresses, Ladies' and misses'. Shapero, Lewis & Co. No. 118,438; Sept. 4; v. 242; p. 251.
Dresses, outer skirts, shirt-waists, middy-blouses. Southland Garment Mfg. Company. No. 118,443; Sept. 4; v. 242; p. 251.
Dressing for open wounds and liniment for the relief of pain. B. L. Mosso. No. 118,558; Sept. 18; v. 242; p. 745.
Drill-sharpening machines, Fluid-operated. The J. Geo. Leyner Engineering Works Company. No. 118,677; Sept. 25; v. 242; p. 989.
Drink, Soft. The Thomas Advertising Service. No. 118,592; Sept. 18; v. 242; p. 746.
Drinks, Soft. Mixola Company. No. 118,555; Sept. 18; v. 242; p. 745.
Duck, tire fabric, canvas, sail and tent cloths, cotton bagging. Katama Mills. No. 118,417; Sept. 4; v. 242; p. 250.
Dyes in soluble tablet form. De Luxe Mfg. Co. No. 118,630; Sept. 25; v. 242; p. 987.
Electric spitters. A. J. Averell. No. 118,614; Sept. 25; v. 242; p. 987.
Electrical apparatus and supplies, Certain named. Enterprise Electric Novelty Co. No. 118,643; Sept. 25; v. 242; p. 988.
Electrical apparatus, machines, and appliances, Certain named. Goldman Costume Company. No. 118,404; Sept. 4; v. 242; p. 250.
Electrical appliances, Certain named. Electric Ignition Company. No. 118,641; Sept. 25; v. 242; p. 988.
Electrical cables or conductors. Hazard Manufacturing Company. No. 118,660; Sept. 25; v. 242; p. 988.
Electrical wires and cables, Rubber-covered. The Electric Cable Co. No. 118,640; Sept. 25; v. 242; p. 987.
Eyelets for fastening purposes. Machine Appliance Corporation. No. 118,550; Sept. 18; v. 242; p. 745.
Engines, clutches, and their parts, Internal-combustion. Continental Motors Corporation. No. 118,628; Sept. 25; v. 242; p. 987.
Engines, Traction-. Moline Plow Co. No. 118,684; Sept. 25; v. 242; p. 989.
Fancy goods, furnishings, and notions, Certain named. Waldes & Co. No. 118,598; Sept. 18; v. 242; p. 746.
Fancy goods, furnishings, and notions, Certain named. Brown Durrell Co. No. 118,380; Sept. 4; v. 242; p. 249.
Fancy goods, furnishings, and notions, Certain named. Goldman Costume Company. No. 118,406; Sept. 4; v. 242; p. 250.
Fancy goods, furnishings, and notions, Certain named. Martins Birmingham Limited. No. 118,425; Sept. 4; v. 242; p. 250.
Fans, blowers, and radiators, Ventilating, circulating, and exhaust. J. D. Parker. No. 118,471; Sept. 11; v. 242; p. 513.
Feed, Stock. Estate of H. C. Minor. No. 118,427; Sept. 4; v. 242; p. 250.
Feeds for animals, Mixed. Grain Belt Mills Company. No. 118,520; Sept. 18; v. 242; p. 744.
Floor-surface, furniture, and automobile polish. E. F. Ballard. No. 118,618; Sept. 25; v. 242; p. 987.
Flour, Self-rising wheat-. A. J. Long Cigar & Grocery Co. No. 118,422; Sept. 4; v. 242; p. 250.
Flour, Self-rising wheat-. Modern Flour Mills. No. 118,556; Sept. 18; v. 242; p. 745.
Flour, Self-rising wheat-. Scott County Milling Company. No. 118,436; Sept. 4; v. 242; p. 251.
Flour, Wheat-. Community Marvel Millers' Association. No. 118,388; Sept. 4; v. 242; p. 249.
Flour, Wheat-. Fisher Flouring Mills Company. No. 118,465; Sept. 11; v. 242; p. 513.
Flour, Wheat-. Hecker-Jones-Jewell Milling Company. No. 118,525; Sept. 18; v. 242; p. 744.
Flour, Wheat-. Langenberg Milling Company. Nos. 118,545–6; Sept. 18; v. 242; p. 745.
Flour, Wheat-. A. Lerman. No. 118,419; Sept. 4; v. 242; p. 250.
Flour, Wheat-. Scott County Milling Company. Nos. 118,432–5; Sept. 4; v. 242; p. 251.
Flour, Wheat-. Scott County Milling Company. No. 118,475; Sept. 11; v. 242; p. 513.
Flour, Wheat-. The Southwestern Milling Company. No. 118,612; Sept. 18; v. 242; p. 747.
Flour, Wheat-. Thornton & Chester Milling Company. No. 118,448; Sept. 4; v. 242; p. 251.
Flours, bran, shorts, White, whole-wheat, and Graham. McNamara & Marlow. No. 118,549; Sept. 18; v. 242; p. 745.
Food for infants and invalids. Seneca Food & Drug Co. No. 118,577; Sept. 18; v. 242; p. 746.
Foods and ingredients of foods, Certain named. G. F. Gessmer Co. No. 118,516; Sept. 18; v. 242; p. 744.
Foods, Certain named. Western Grocer Company. No. 118,603; Sept. 18; v. 242; p. 747.
Foods, Nut paste for the preparation of certain. Nut Products Co. No. 118,564; Sept. 18; v. 242; p. 745.
Foods, Prepared animal and poultry. Darling & Company. No. 118,391; Sept. 4; v. 242; p. 249.
Foods, Stock and poultry. Darling & Company. No. 118,501; Sept. 18; v. 242; p. 743.
Furniture-polish. W. D. Kibler Co. No. 118,670; Sept. 25; v. 242; p. 988.
Fuses for electrical purposes, Cartridge and plug. Kirkman Engineering Corporation. No. 118,671; Sept. 25; v. 242; p. 988.
Games, toys, and sporting goods, Certain named. Goldman Costume Company. No. 118,518; Sept. 18; v. 242; p. 744.
Gears. Meisel Press Manufacturing Company. No. 118,683; Sept. 25; v. 242; p. 989.
Grit, Chrushed-limestone chicken-. Kentucky Lithograph Stone Co. No. 118,540; Sept. 18; v. 242; p. 745.
Hacksaw-blades. L. C. Blancke Co. No. 118,621; Sept. 25; v. 242; p. 987.
Hair-nets. J. S. Bender Company. No. 118,378; Sept. 4; v. 242; p. 249.
Hair-remedy compound. P. S. Harris. No. 118,523; Sept. 18; v. 242; p. 744.
Hair-removing preparation, Superfluous-. J. V. Daniels. No. 118,500; Sept. 18; v. 242; p. 743.
Hair-tonic. Karatol Laboratories. No. 118,667; Sept. 25; v. 242; p. 988.
Hair-tonic and scalp treatment. M. A. Hall. No. 118,657; Sept. 25; v. 242; p. 988.
Hair-tonic, dandruff-remover, and scalp-cleanser. Cocotone Chemical Company. No. 118,498; Sept. 18; v. 242; p. 743.
Hair-tonics. C. R. London. No. 118,611; Sept. 18; v. 242; p. 747.
Hair-wash. Cloutier & Jarvis. No. 118,385; Sept. 4; v. 242; p. 249.
Hammers, saws, and ice-picks. Steel and Iron Mongers. No. 118,716; Sept. 25; v. 242; p. 990.
Hardware, plumbing, and steam-fitting supplies, Certain named. A. Kreamer Inc. No. 118,673; Sept. 25; v. 242; p. 988.

Heating, lighting, and ventilating apparatus, Certain named. Warren Webster and Company. Nos. 118,601–2; Sept. 18; v. 242; pp. 746–7.
Hosiery. Sulloway Mills. No. 118,446; Sept. 4; v. 242; p. 251.
Humidifiers for internal-combustion engines. Esta Water Auxiliator Co. Nos. 118,644–5; Sept. 25; v. 242; p. 988.
Hypophosphites, Preparation of. Fellows Medical Manufacturing Company. No. 118,398; Sept. 4; v. 242; p. 249.
Incense vessels. Aladdin Products Co. No. 118,481; Sept. 18; v. 242; p. 743.
Inks and writing fluids, Writing, &c. Diamond Ink Co. No. 118,633; Sept. 25; v. 242; p. 987.
Jewelry and precious-metal ware, Certain named. Goldman Costume Company. No. 118,517; Sept. 18; v. 242; p. 744.
Kerosene. The Texas Company. No. 118,717; Sept. 25; v. 242; p. 990.
Knitted, netted, and textile fabrics, Certain named. L. C. Chase & Company. No. 118,383; Sept. 4; v. 242; p. 249.
Knitted, netted, and textile fabrics, Certain named. Goldman Costume Company. No. 118,403; Sept. 4; v. 242; p. 250.
Labels, Blank. The Rose Patch & Label Co. No. 118,575; Sept. 18; v. 242; p. 746.
Lamps, Electric. H. Boker & Co. No. 118,622; Sept. 25; v. 242; p. 987.
Lamps, Electric. Howe Manufacturing Company. No. 118,663; Sept. 25; v. 242; p. 988.
Lard substitute compound. Armstrong Packing Company. No. 118,484; Sept. 18; v. 242; p. 743.
Laxative in tablet form. Independent Trading Co. No. 118,531; Sept. 18; v. 242; p. 744.
Leather. F. Blumenthal Company. No. 118,490; Sept. 18; v. 242; p. 743.
Leather. The Joseph N. Eisendrath Company. No. 118,396; Sept. 4; v. 242; p. 249.
Leather and skins. Anciens Etablissements A. Combe & Fils & Cie. No. 118,459; Sept. 11; v. 242; p. 513.
Leather, Imitation. Felsenthal Bros. & Co. No. 118,511; Sept. 18; v. 242; p. 744.
Leathers, Patent upper-. Adirondack Leather Co. No. 118,370; Sept. 4; v. 242; p. 249.
Lemon and club sodas, ginger-ale, orangeade, &c. Great Radium Spring Water Company. No. 118,521; Sept. 18; v. 242; p. 744.
Lime-juice. L. D. Huntington, Jr. No. 118,467; Sept. 11; v. 242; p. 513.
Liniment for certain named ailments. J. G. Roussel. No. 118,576; Sept. 18; v. 242; p. 746.
Liniments and medicinal preparations for treating certain named ailments and diseases. The Imperial Chemical Co. No. 118,414; Sept. 4; v. 242; p. 250.
Liniments and remedies for bruises, sores, wounds, abrasions. C. E. Maley. No. 118,424; Sept. 4; v. 242; p. 250.
Liquors, Malt. M. Bailey. No. 118,616; Sept. 25; v. 242; p. 987.
Locomotives, Steam-. Lima Locomotive Works. No. 118,679; Sept. 25; v. 242; p. 989.
Lubricating-greases, lubricating and illuminating oils, &c. Riverside Oil Company. No. 118,702; Sept. 25; v. 242; p. 989.
Magazine, Monthly. Service Motor Supply Company. No. 118,578; Sept. 18; v. 242; p. 746.
Marking-pots. A. Kreamer, Inc. No. 118,674; Sept. 25; v. 242; p. 989.
Mat and runner, Solé-leather. F. Alexe. No. 118,482; Sept. 18; v. 242; p. 743.
Measuring and scientific appliances, Certain named. Goldman Costume Company. No. 118,653; Sept. 25; v. 242; p. 988.
Measuring and scientific appliances, Certain named. Westinghouse Electric & Manufacturing Company. No. 118,722; Sept. 25; v. 242; p. 990.
Medical preparation for diseases of the human feet. The Fe-Te-Zo Company. No. 118,513; Sept. 18; v. 242; p. 744.
Medicinal preparation having laxative or cathartic properties. Beggs Manufacturing Company. No. 118,488; Sept. 18; v. 242; p. 743.
Metals and metal castings and forgings, Certain named. The Fairley-Davidson Steel Co. No. 118,646; Sept. 25; v. 242; p. 988.
Middy-blouses, children's dresses, misses' and ladies' cotton suits. Maas & Kemper (a New Jersey Corporation). No. 118,423; Sept. 4; v. 242; p. 250.
Middy blouses, skirts, and suits for children, misses, and ladies, and children's dresses. Carmel & Goldman. No. 118,626; Sept. 25; v. 242; p. 987.
Milk-curdling products. Digestive Ferments Co. No. 118,634; Sept. 25; v. 242; p. 987.
Milk, Dessicated. The Dry Milk Company. No. 118,503; Sept. 18; v. 242; p. 743.
Milk, Evaporated. Waterloo Creamery Company. No. 118,453; Sept. 4; v. 242; p. 251.
Mills, Flour-. The Anglo-American Mills Co. No. 118,613; Sept. 25; v. 242; p. 987.
Motor-cycles. The Schickel Motor Co. No. 118,474; Sept. 11; v. 242; p. 513.
Motors, Direct and alternating current electric. The Reliance Electric & Engineering Company. No. 118,698; Sept. 25; v. 242; p. 989.
Motors, dynamos, &c., Electric. The Northwestern Manufacturing Company. No. 118,690; Sept. 25; v. 242; p. 989.
Motors for sewing-machines and controllers therefor, Electric. The Singer Manufacturing Company. Nos. 118,708–11; Sept. 25; v. 242; p. 990.
Oil, Lubricating motor-. Motor Sales Garage Company. No. 118,687; Sept. 25; v. 242; p. 989.
Oil, Refined petroleum-. The Tide Water Oil Co. No. 118,718; Sept. 25; v. 242; p. 990.
Oil used in a process for sterilizing eggs, Neutral mineral. Sterilized Egg Co. No. 118,587; Sept. 18; v. 242; p. 746.
Oil-well supplies. Bradford Motor Works. No. 118,624; Sept. 25; v. 242; p. 987.
Oils and greases, Lubricating. Lubrex Oil & Grease Company. No. 118,680; Sept. 25; v. 242; p. 989.
Oils and greases, Lubricating. Winona Oil Company. No. 118,724; Sept. 25; v. 242; p. 990.
Oleomargarin. Capital City Dairy Company. No. 118,463; Sept. 11; v. 242; p. 513.
Oleomargarin. J. F. Jelke Company. No. 118,534; Sept. 18; v. 242; p. 744.
Overalls and one-piece overall-suits. The Crown Overall Manufacturing Company. No. 118,629; Sept. 25; v. 242; p. 987.
Overalls, dress-shirts, negligées, and work-shirts. Hosch Bros. Co. No. 118,413; Sept. 4; v. 242; p. 250.
Overalls, work-pants, and shirts, Men's and women's. D. L. Marx Co. No. 118,681; Sept. 25; v. 242; p. 989.
Packings and gaskets composed of or containing rubber, Sheet and piston. La Favorite Rubber Manufacturing Co. No. 118,544; Sept. 18; v. 242; p. 745.
Paint-pigments, enamels, and ready-mixed paints. Durex Chemical Corporation. No. 118,636; Sept. 25; v. 242; p. 987.
Paints and painters' material, Certain named. The Delscamp-Roemhildt Company. No. 118,631; Sept. 25; v. 242; p. 987.
Paints and painters' materials, Certain named. Goldman Costume Company. No. 118,405; Sept. 4; v. 242; p. 250.
Paints, Ready-mixed. Morton & Maguire. No. 118,685; Sept. 25; v. 242; p. 889.
Paper and envelops, Writing-. Charles E. Weyand & Co. Nos. 118,604–7; Sept. 18; v. 242; p. 747.
Paper and stationery, Certain named. Shea Smith & Co. No. 118,580; Sept. 18; v. 242; p. 746.
Paper boxes. York-Bradford Co. No. 118,478; Sept. 11; v. 242; p. 513.
Paper illustration mat, photo-mount, &c., boards. Hurlock Bros. Company. No. 118,530; Sept. 18; v. 242; p. 744.
Paper in sheet form, Print-. The Mead Pulp and Paper Co. Nos. 118,552–3; Sept. 18; v. 242; p. 745.
Paper, News-print. Pejepscot Paper Company. No. 118,429; Sept. 4; v. 242; p. 250.
Paper, Toilet-. Sauquoit Toilet Paper Co. Nos. 118,704–5; Sept. 25; v. 242; pp. 989–90.
Paper, Waxed wrapping-. Kuhmarker Manufacturing Company. No. 118,543; Sept. 18; v. 242; p. 745.
Paper, Writing-. American Papeterie Company. No. 118,483; Sept. 18; v. 242; p. 743.
Paper, Writing-. The A. N. Palmer Company. No. 118,692; Sept. 25; v. 242; p. 989.
Paper, Writing and printing. C. Fernandez & Sons. No. 118,512; Sept. 18; v. 242; p. 744.
Paring-machine. J. H. Hamlin. No. 118,659; Sept. 25; v. 242; p. 988.
Pens, Fountain-. Weidlich-Simpson Pen Company. No. 118,721; Sept. 25; v. 242; p. 990.
Pens of all kinds, Writing-. The Esterbrook Steel Pen Mfg. Co. No. 118,509; Sept. 18; v. 242; p. 744.
Periodical, Monthly. Childs Company. No. 118,384; Sept. 4; v. 242; p. 249.
Periodicals, Monthly furniture house organ. The General Fireproofing Company. No. 118,515; Sept. 18; v. 242; p. 744.
Periodicals published monthly. Porcupine Publishing Company. No. 118,572; Sept. 18; v. 242; p. 746.
Pharmaceutical preparations, Certain named. K. Erdeky. No. 118,508; Sept. 18; v. 242; p. 744.
Pharmaceutical product. Society of Chemical Industry in Basle. No. 118,583; Sept. 18; v. 242; p. 746.
Pharmaceutical product containing all the alkaloids of opium. Society of Chemical Industry in Basle. No. 118,582; Sept. 18; v. 242; p. 746.
Photographic films, including motion-picture films. Peter Pan Film Corporation. No. 118,693; Sept. 25; v. 242; p. 989.
Photographic paper. Eastman Kodak Co. Nos. 118,638–9; Sept. 25; v. 242; p. 987.
Photographic plates. Eastman Kodak Co. No. 118,637; Sept. 25; v. 242; p. 987.
Photographs and photographic enlargements. J. J. Weaver. No. 118,600; Sept. 18; v. 242; p. 746.
Pills or tablets for the treatment of piles. Henry Thayer & Company. No. 118,590; Sept. 18; v. 242; p. 746.
Piston-rings. Automobile Accessories Co. No. 118,486; Sept. 18; v. 242; p. 743.

Polish for cleaning and polishing painted, varnished, and auto-body enameled surfaces. Rapid-Shine Products Co. No. 118,696; Sept. 25; v. 242; p. 989.
Polishes for woodwork, floors, furniture, &c. H. M. Hallett & Co. No. 118,658; Sept. 25; v. 242; p. 988.
Porcelain, china, or earthenware articles. W. H. Goss, a firm. No. 118,407; Sept. 4; v. 242; p. 250.
Poultry-feeders. C. D. Karr. No. 118,537; Sept. 18; v. 242; p. 744.
Powder, Tooth-. G. E. Theodoropoulos. No. 118,591; Sept. 18; v. 242; p. 746.
Powders, Face-. Estate Henry C. Miner. No. 118,426; Sept. 4; v. 242; p. 250.
Preparation for curing perspiration of the feet. C. O. Shatto. No. 118,579; Sept. 18; v. 242; p. 746.
Preparation for removing tar and similar spots from vehicle-bodies, fabrics, &c. Mohawk Valley Supply Co. No. 118,557; Sept. 18; v. 242; p. 745.
Preparation for the relief of all raw and irritated skin surfaces. Van Antwerp's Drug Corporation. No. 118,596; Sept. 18; v. 242; p. 746.
Prints and publications, Certain. United Association of Plumbers and Steam Fitters of the United States and Canada. No. 118,594; Sept. 18; v. 242; p. 746.
Prints and publications, Certain named. Textile Publishing Company. No. 118,589; Sept. 18; v. 242; p. 746.
Publication. Linograph Company. No. 118,547; Sept. 18; v. 242; p. 745.
Publication column of humorous matter, Title or heading of. D. Kamnetzky. No. 118,416; Sept. 4; v. 242; p. 250.
Publication, Monthly. Baers'. No. 118,487; Sept. 18; v. 242; p. 743.
Publication, Serial. Draper Corporation. No. 118,502; Sept. 18; v. 242; p. 743.
Publication title, Monthly-. R. G. Dun & Co. No. 118,504; Sept. 18; v. 242; p. 743.
Publication title, Monthly-. The Emerson Electric Manufacturing Company. No. 118,507; Sept. 18; v. 242; p. 744.
Publication, Weekly. G. E. Jennings. No. 118,535; Sept. 18; v. 242; p. 744.
Publications used in teaching scientific salesmanship, Periodical. The Sheldon School. Nos. 118,439–40; Sept. 4; v. 242; p. 251.
Publications, Weekly and monthly. Kelley-Clarke Co. No. 118,539; Sept. 18; v. 242; p. 745.
Pyrometric cones, Standard. E. Orton, Jr. No. 118,691; Sept. 25; v. 242; p. 989.
Rain-coats. B. Filgel. No. 118,648; Sept. 25; v. 242; p. 988.
Remedies for indigestion and stomach disorders. W. J. Ritchie. No. 118,574; Sept. 18; v. 242; p. 746.
Remedy, Eye. O. R. Remington. No. 118,700; Sept. 25; v. 242; p. 989.
Remedy for constipation, colic. D. Kovacs. No. 118,672; Sept. 25; v. 242; p. 988.
Remedy for removing dandruff. The Favorita Co. No. 118,510; Sept. 18; v. 242; p. 744.
Rice. Fort Smith Coffee Company. No. 118,401; Sept. 4; v. 242; p. 250.
Rings of all kinds, Finger-. J. B. Bowden & Company. No. 118,491; Sept. 18; v. 242; p. 743.
Roof-covering compound, Plastic. G. A. Fisher. No. 118,400; Sept. 4; v. 242; p. 250.
Rouge and powder, Face. El Moro Co. No. 118,397; Sept. 4; v. 242; p. 249.
Rubber. Acushnet Procesa Co. No. 118,479; Sept. 18; v. 242; p. 743.
Rubber and fabric hose, rubber belting and packing. Southern Railway Supply and Equipment Co. No. 118,442; Sept. 4; v. 242; p. 251.
Rubber roofing, and is a prepared roofing made of asphalt, rags, &c. Buffalo House Wrecking & Salvage Co. No. 118,462; Sept. 11; v. 242; p. 513.
Salt preparations for live stock, Medicated. G. L. Owens. No. 118,568; Sept. 18; v. 242; p. 745.
Salves and ointments for sores, bruises, burns, &c. The Elacs Co. No. 118,506; Sept. 18; v. 242; p. 744.
Salves and pastes for diseases of the skin, external infections, sores, burns, &c. A. H. Busch. No. 118,495; Sept. 18; v. 242; p. 743.
Sauer-kraut and dill pickles. M. A. Gedney Company. No. 118,514; Sept. 18; v. 242; p. 744.
Scoops, shovels, spades, picks, and hoes. Southern Railway Supply and Equipment Co. No. 118,713; Sept. 25; v. 242; p. 990.
Seeds. Alfred J. Brown Seed Co. No. 118,379; Sept. 4; v. 242; p. 249.
Sewing-machines. The Charles William Stores, Inc. No. 118,723; Sept. 25; v. 242; p. 990.
Sewing-machines, parts thereof, and attachments. Hexagon Sewing Machine Company. Nos. 118,661–2; Sept. 25; v. 242; p. 988.
Shampoo preparation. J. J. Wittwer, Sr. No. 118,456; Sept. 4; v. 242; p. 251.
Shirts, Custom top dress, negligée, and work. Charles E. Shedaker & Sons. No. 118,707; Sept. 25; v. 242; p. 990.
Shirts, including dress, negligée, and work shirts, Outer. B. A. Hackner. No. 118,522; Sept. 18; v. 242; p. 744.
Shoe sole and heel edge stain. The Goodyear Tire & Rubber Company. No. 118,655; Sept. 25; v. 242; p. 988.
Shortening composed of cotton-seed oil and oleo-stearin. Armstrong Packing Company. No. 118,485; Sept. 18; v. 242; p. 743.
Shovels, spades, and scoops. The Wyoming Shovel Works. No. 118,726; Sept. 25; v. 242; p. 990.
Silk piece goods. Egypt Silk Mills Corporation. No. 118,464; Sept. 11; v. 242; p. 513.
Skin irritations, sun and wind burn, poison-oak, cuts, &c. Olivoint Chemical Company. No. 118,566; Sept. 18; v. 242; p. 745.
Slate for use as a surfacing-grit for prepared roofings, Crushed. Staso Laminated Slate Company. No. 118,444; Sept. 4; v. 242; p. 251.
Snap and placket fasteners. Waldes & Company of New Jersey. No. 118,599; Sept. 18; v. 242; p. 746.
Snap-fasteners of all kinds. Waldes & Co. No. 118,450; Sept. 4; v. 242; p. 251.
Soap. Kellogg Toasted Corn Flake Co. Nos. 118,668–9; Sept. 25; v. 242; p. 988.
Soap powder. B. T. Babbitt. No. 118,615; Sept. 25; v. 242; p. 987.
Soap, Soft. International Soap & Manufacturing Co. No. 118,666; Sept. 25; v. 242; p. 988.
Soaps. Colgate & Co. No. 118,627; Sept. 25; v. 242; p. 987.
Soda, Caustic. Burgess Sulphite Fibre Co. No. 118,494; Sept. 18; v. 242; p. 743.
Sodium silicate. Philadelphia Quartz Company. No. 118,571; Sept. 18; v. 242; p. 745.
Soil corrective and fertilizer. Ash Grove Lime & Portland Cement Co. No. 118,460; Sept. 11; v. 242; p. 513.
Sound-deadener made of vegetable fibers, Composite. Union Fibre Company. No. 118,477; Sept. 11; v. 242; p. 513.
Steel rods, bars, and wires, cold-rolled sheet and strip steel. Peter A. Frasse & Co. No. 118,651; Sept. 25; v. 242; p. 988.
Stoves and ranges, Electric. Rathbone Sard Electric Company. No. 118,697; Sept. 25; v. 242; p. 989.
Suspenders. President Suspender Company. No. 118,573; Sept. 18; v. 242; p. 746.
Tablets, Anemia-. C. M. Riveroll. No. 118,701; Sept. 25; v. 242; p. 989.
Talking-machines, phonographs, records, &c. Sonora Phonograph Corporation. No. 118,584; Sept. 18; v. 242; p. 746.
Textile fabrics comprising cloths made from certain materials or a mixture of said materials. Morton Sundour Fabrics. No. 118,686; Sept. 25; v. 242; p. 989.
Tire-vulcanizing outfits, Rubber-. F. O. Lake. No. 118,418; Sept. 4; v. 242; p. 250.
Tires, Filler or pigment for use in the manufacture of rubber. Durex Chemical Corporation. No. 118,393; Sept. 4; v. 242; p. 249.
Titanium or its compounds employed as purifiers in metallurgical operations, Compositions containing. The Titanium Alloy Manufacturing Company. No. 118,593; Sept. 18; v. 242; p. 746.
Tobacco, tobacco plugs, and cigarettes, Smoking and chewing. The American Tobacco Co. No. 118,372; Sept. 4; v. 242; p. 249.
Tractors. E. G. Staude Manufacturing Co. No. 118,715; Sept. 25; v. 242; p. 990.
Traps, Animal-. Oneida Community. No. 118,567; Sept. 18; v. 242; p. 745.
Ukuleles, musical instruments made in Hawaii. Honolulu Ad Club. No. 118,529; Sept. 18; v. 242; p. 744.
Undermuslins, Certain named. Sears, Roebuck and Co. No. 118,437; Sept. 4; v. 242; p. 251.
Varnishes. Wood & Van Derwerken Varnish Co. No. 118,725; Sept. 25; v. 242; p. 990.
Wall-cases. Quincy Show Case Works. No. 118,472; Sept. 11; v. 242; p. 513.
Watch-glass. K. Konishi. No. 118,542; Sept. 18; v. 242; p. 745.
Watches. Dubois Watch Case Company. No. 118,635; Sept. 25; v. 242; p. 987.
Watches. Rode Watch Company. No. 118,703; Sept. 25; v. 242; p. 989.
Woolen and worsted piece goods. Forstmann & Huffmann Co. No. 118,650; Sept. 25; v. 242; p. 988.
Wringers and parts thereof, Clothes-. The American Wringer Company. No. 118,458; Sept. 11; v. 242; p. 513.
Writing fluid, red ink, fountain-pen ink. Diamond Ink Co. No. 118,392; Sept. 4; v. 242; p. 249.

ALPHABETICAL LIST OF LABELS.

"American Tutti-Frutti Uncle Sam's Choice Confections." (For Tutti-Frutti Tablets.) H. R. Crowley. No. 20,266; Sept. 4; v. 242; p. 252.
"Arbella." (For Cigars.) L. Rodriguez. No. 20,268; Sept. 4; v. 242; p. 252.
"Assorted Chocolates To-morrows." (For Candy-Boxes.) Val Blatz Jr. Candy Co. No. 20,270; Sept. 4; v. 242; p. 252.
"Blue Bird." (For Ginger-Ale.) Blue Bird Beverage Company. No. 20,288; Sept. 25; v. 242; p. 991.
"C. V." (For a Non-Intoxicating Beverage.) Terre Haute Brewing Co. No. 20,269; Sept. 4; v. 242; p. 252.
"Columbia Corn Distillers Grains." (For Dried Distillers' Grains Made from Corn and Malt.) J. M. Murphy. No. 20,295; Sept. 25; v. 242; p. 991.
"Dolly Varden Whiskey." (For Bottles of Whisky.) J. Harris No. 20,297; Sept. 25; v. 242; p. 991.
"Dr. King's Headache Powders." (For a Headache-Powder.) H. C. Haak & Company. No. 20,285; Sept. 18; v. 242; p. 748.
"Dr. King's Health Pills." (For a Health-Restorative Pill.) H. C. Haak & Company. No. 20,284; Sept. 18; v. 242; p. 748.
"Du Pont Concentrated Vegetable Dish." (For Concentrated Vegetable Dish Containing Beans.) A. F. P. Du Pont. No. 20,277; Sept. 4; v. 242; p. 252.
"Du Pont Concentrated Vegetable Soup." (For Soups Made of Vegetables.) A. F. P. Du Pont. No. 20,276; Sept. 4; v. 242; p. 252.
"Du Pont Puree Tri-Color Brand." (For Concentrated Vegetable Dish Other Than Soups.) A. F. P. Du Pont. No. 20,275; Sept. 4; v. 242; p. 252.
"Du Pont Soups Tri-Color Brand." (For Concentrated Soups Containing Green Vegetables.) A. F. P. Du Pont. No. 20,274; Sept. 4; v. 242; p. 252.
"Durabl-Inks." (For Inks.) Durabl-Ink Company. No. 20,286; Sept. 25; v. 242; p. 991.
"Eden Orchards." (For Boxed Apples.) Wenatchee Realty & Investment Co. No. 20,283; Sept. 11; v. 242; p. 514.
"Flora de Ark Bloom of Eden Lotion." (For a Complexion-Lotion.) M. E. Turner Mfg. Co. No. 20,287; Sept. 25; v. 242; p. 991.
"Iten's Korn Krackers." (For Crackers.) Iten Biscuit Co. No. 20,290; Sept. 25; v. 242; p. 991.
"Kal-I-Fornia Bathing Suit." (For Bathing-Suits.) Asbury Mills. No. 20,292; Sept. 25; v. 242; p. 991.
"Khaki-Tex." (For Khaki-Colored Cloth.) Windsor Print Works. No. 20,293; Sept. 25; v. 242; p. 991.
"Kindermeel." (For Baby Food.) N. V. Kroze. No. 20,281; Sept. 11; v. 242; p. 514.
"Peace (P. O. E.)." (For Cigarettes.) C. F. Conrad. No. 20,279; Sept. 11; v. 242; p. 514.
"Peace (P. O. E.)." (For Cigars.) C. F. Conrad. No. 20,278; Sept. 11; v. 242; p. 514.
"Potage Du Pont." (For Concentrated Vegetable Soups Containing Beans.) A. F. P. Du Pont. No. 20,272; Sept. 4; v. 242; p. 252.
"Puree Du Pont." (For Concentrated Vegetable Dish Containing Peas but Not Soup.) A. F. P. Du Pont. No. 20,273; Sept. 4; v. 242; p. 252.
"Pyramid." (For Flour.) Tacoma Grain Company. No. 20,291; Sept. 25; v. 242; p. 991.
"Radio." (For Golf-Balls.) Radium Golf Ball Co. No. 20,282; Sept. 11; v. 242; p. 514.
"Sunsweet." (For Dried Prunes.) California Prune and Apricot Growers. No. 20,289; Sept. 25; v. 242; p. 991.
"The E. B. Water Proof Polish For Cleaning and Polishing." (For Waterproof Polish.) E. B. Polish Co. No. 20,267; Sept. 4; v. 242; p. 252.
"The Naturopath." (For Cigarettes.) C. F. Conrad. No. 20,262; Sept. 4; v. 242; p. 252.
"The Naturopath." (For Cigars.) C. F. Conrad. No. 20,263; Sept. 4; v. 242; p. 252.
"The Osteopath. (For Cigars.) C. F. Conrad. No. 20,264; Sept. 4; v. 242; p. 252.
"The Osteopath." (For Cigarettes.) C. F. Conrad. No. 20,265; Sept. 4; v. 242; p. 252.
"Tre-Col-Ore." (For Macaroni.) M. Strollo and Sons. No. 20,296; Sept. 25; v. 242; p. 991.
"Wartime." (For Flour.) Bay State Milling Co. No. 20,294; Sept. 25; v. 242; p. 991.
"We Root For Forbes' Pure Food Products." (For Lard.) W. S. Forbes & Co. No. 20,280; Sept. 11; v. 242; p. 514.
"Yesterday's Chocolates Assorted." (For Candy-Boxes.) Val Blatz Jr. Candy Co. No. 20,271; Sept. 4; v. 242; p. 252.

PRINTS.

"Colorite." (For a Dye for Satin, Silk, and Canvas Slippers and Basketry.) Carpenter-Morton Co. No. 4,793; Sept. 25; v. 242; p. 991.
"For Protection Bestol." (For Bestol Dental Cream.) The Bestol Co. No. 4,795; Sept. 25; v. 242; p. 991.
"Furnace Heat For Every Home." (For Pipeless Hot-Air Furnaces.) The Monitor Stove & Range Co. No. 4,792; Sept. 11; v. 242; p. 514.
"Here's Something for You!" (For Shoes.) The Stetson Shoe Co. No. 4,794; Sept. 25; v. 242; p. 991.
"Mallory Hats." (For Hats.) E. A. Mallory & Sons. No. 4,791; Sept. 11; v. 242; p. 514.
"Preparedness." (For Wheat Breakfast Food.) Cream of Wheat Co. No. 4,789; Sept. 11; v. 242; p. 514.
"'61' Floor Varnish." (For "61" Floor-Varnish.) Pratt & Lambert. No. 4,797; Sept. 25; v. 242; p. 991.
"That Wonderful White Laundry Soap." (For Soap.) James S. Kirk & Company. No. 4,788; Sept. 4; v. 242; p. 252.
"Tobie Pringkens." (For Soap.) Kirkman & Son. No. 4,790; Sept. 11; v. 242; p. 514.
"Vitralite, The Long Life White Enamel." (For Vitralite Enamel.) Pratt & Lambert. No. 4,796; Sept. 25; v. 242; p. 991.

DISCLAIMERS.

Bullet for kinema-targets. T. M. Down. No. 1,107,593; date of patent Aug. 18, 1914; disclaimer filed Sept. 13, 1917; v. 242; p. 521.
Gases, Apparatus for the production of oxygen and hydrogen. W. Jones. No. 1,212,229; date of patent Jan. 16, 1917; disclaimer filed Sept. 1, 1917; v. 242; p. 521.

CLASSIFICATION OF PATENTS

SEPTEMBER, 1917.

NOTE.—First number=class, second number=subclass, third number=patent number.

1— 3: 1,238,964
4: 1,239,496
44: 1,240,473
49: 1,238,965
2— 9: 1,238,804
1,239,255
15: 1,239,573
1,239,588
57: 1,239,433
69: 1,239,563
1,240,557
73: 1,240,510
74: 1,241,400
76: 1,240,998
79: 1,239,137
1,239,944
1,241,479
84: 1,241,413
86: 1,239,995
98: 1,239,989
106: 1,239,376
107: 1,238,966
109: 1,239,483
114: 1,238,881
118: 1,239,910
144: 1,238,770
1,241,403
145: 1,238,917
1,240,554
146: 1,239,674
1,239,675
149: 1,239,691
1,240,594
190: 1,239,980
1,241,025
4— 1: 1,240,132
2: 1,240,479
5: 1,239,520
1,239,903
1,241,276
13: 1,240,911
20: 1,240,933
23: 1,239,319
27: 1,239,642
30: 1,241,231
1,241,232
33: 1,240,746
38: 1,239,716
1,240,577
5— 4: 1,240,195
5: 1,241,449
10: 1,239,712
15: 1,240,968
26: 1,240,755
29: 1,239,529
37: 1,239,540
39: 1,240,501
40: 1,241,283
41: 1,240,201
44: 1,239,524
47: 1,240,500
49: 1,241,195
51: 1,239,528
55: 1,239,158
56: 1,240,499
63: 1,240,696
64: 1,240,697
65: 1,239,171
6— 10: 1,239,536
7— 17: 1,239,455
8— 1: 1,238,932
R. 14,364
5: 1,239,180
6: 1,239,526
9— 2: 1,240,978
11: 1,241,367
18: 1,239,088
19: 1,240,686
20: 1,239,296
22: 1,239,821
1,240,100
1,240,453
10— 25: 1,239,052
75: 1,239,053
121: 1,241,048
127: 1,241,377
11— 7: 1,239,751
1,241,049
13: 1,240,255
15: 1,240,266
11— 19: 1,239,285
1,239,977
1,240,621
1,240,698
22: 1,240,820
1,241,371
23: 1,240,613
12— 21: R. 14,351
34: 1,238,805
1,238,806
1,239,664
42: 1,239,208
1,239,209
1,239,210
50: R. 14,368
67: 1,241,087
87: 1,238,614
1,238,615
126: 1,238,894
136: 1,240,174
142: 1,240,794
146: 1,238,856
1,241,089
13— 9: 1,241,466
14: 1,239,998
17: 1,239,432
18: 1,239,914
19: 1,240,752
87: 1,239,382
14— 36: 1,241,237
38: 1,241,052
15— 2: 1,238,807
7: 1,240,516
8: 1,239,295
1,240,799
1,241,222
17: 1,239,293
1,241,114
24: 1,239,645
37: 1,240,604
51: 1,240,558
55: 1,240,742
60: 1,238,903
1,239,581
16— 6: 1,241,099
8: 1,239,802
10: 1,238,753
20: 1,239,418
22: 1,240,902
25: 1,241,081
1,241,085
29: 1,240,044
46: 1,241,478
52: 1,239,544
58: 1,240,086
64: 1,239,360
77: 1,239,441
88: 1,239,510
1,241,082
1,241,083
1,241,084
90: 1,240,832
103: 1,241,287
1,241,288
129: 1,239,393
144: 1,239,105
146: 1,238,968
17— 13: 1,239,489
18: 1,239,926
20: 1,239,237
18— 2: 1,240,894
5: 1,241,029
6: 1,240,931
8: 1,240,675
21: 1,238,980
45: 1,240,433
48: 1,239,221
51: 1,240,175
53: 1,240,116
19— 6: 1,239,122
1,239,123
29: 1,240,670
20— 1.12: 1,241,445
1.4: 1,240,135
1,240,182
1,240,284
4: 1,239,770
38: 1,239,582
42: 1,239,449
49: 1,240,454
20— 52.1: 1,240,735
68: 1,240,603
1,240,685
71: 1,239,473
1,240,025
81.7: 1,239,814
86: 1,241,335
87: 1,239,472
1,241,424
92: 1,239,043
1,241,042
21— 7. 1,240,353
1,240,704
1,241,342
8: 1,239,194
1,240,150
1,240,178
9: 1,241,035
10: 1,241,419
12: 1,241,183
21: 1,239,174
1,239,899
1,240,608
30: 1,239,580
41: 1,241,431
42: 1,239,166
43: 1,240,192
1,241,420
55: 1,240,942
62: 1,239,986
1,240,006
1,240,091
65: 1,239,498
69: 1,239,794
1,239,824
1,240,003
1,240,630
74: 1,239,107
1,239,408
76: 1,239,988
1,241,442
77: 1,240,052
79: 1,240,238
1,240,938
1,240,983
80: 1,240,359
1,241,402
90: 1,238,946
1,239,505
1,239,521
1,239,714
1,239,990
1,239,996
1,240,302
1,240,678
1,241,355
1,241,473
94: 1,241,315
96: 1,239,196
105: 1,241,438
1,241,468
114: 1,238,732
1,239,328
1,239,484
1,240,338
1,240,423
1,240,488
1,240,650
1,240,761
1,240,782
1,240,995
1,241,034
1,241,120
118: 1,239,640
120: 1,241,418
130: 1,241,331
148: 1,238,803
1,240,616
1,240,940
150: 1,239,288
161: 1,240,337
182: 1,241,481
191: 1,240,226
1,241,474
192: R. 14,348
197: 1,239,358
200: 1,240,555
201: 1,240,936
202: 1,239,603
220: 1,240,928
22— 3: 1,240,209
57: 1,239,806
65: 1,240,546
69: 1,239,807
76: 1,240,229
77: 1,239,808
80: 1,238,972
96: 1,239,656
141: 1,240,722
188: 1,239,152
196: 1,238,789
203: 1,239,809
215: 1,239,586
23— 1: 1,239,125
1,240,591
10: 1,239,516
13: 1,239,768
1,239,885
1,240,570
1,240,571
1,240,572
1,240,607
1,241,020
22: 1,238,916
1,239,616
1,239,787
24: 1,238,930
1,239,786
1,239,867
1,240,523
1,240,766
1,241,017
1,241,153
28: 1,238,774
31: 1,240,904
24— 12: 1,241,311
18: 1,239,950
1,240,077
1,241,298
23: 1,241,301
26: 1,240,672
66: 1,241,306
67: 1,239,701
68: 1,239,610
1,240,703
81: 1,239,071
1,239,746
84: 1,240,986
90.5: 1,240,845
101: 1,239,362
1,240,476
103: 1,239,104
104: 1,239,070
116: 1,241,477
121: 1,239,355
123: 1,241,230
125: 1,238,811
132: 1,241,379
134: 1,239,061
1,240,966
139: 1,239,962
147: 1,240,271
200: 1,239,849
1,240,525
201: 1,240,066
216: 1,240,878
235: 1,240,810
239: 1,239,745
1,240,662
241: 1,238,859
1,239,993
242: 1,239,301
1,240,381
245: 1,239,683
1,240,240
250: 1,239,595
257: 1,240,377
263: 1,238,765
1,240,465
25— 1: 1,241,907
41: 1,239,326
1,241,228
55: 1,239,072
85: 1,241,398
118: 1,239,462
131: 1,239,390
1,240,435
1,240,436
131.5: 1,238,858
1,241,124
25—131.5: 1,241,393
165: 1,241,144
166: 1,240,575
167: 1,239,189
26— 8: 1,238,742
9: 1,240,946
19: 1,240,194
27— 8: R. 14,357
28— 6: 1,240,506
14: 1,239,670
21: 1,239,560
29— 1.23: 1,240,293
8: 1,241,360
14: 1,241,094
21: 1,238,973
1,240,591
1,239,525
1,240,850
84: 1,239,420
85: 1,240,288
88.2: 1,241,430
100: 1,239,459
1,240,699
103: 1,239,047
1,241,040
1,241,291
105: 1,240,701
108: 1,241,177
111: 1,241,296
120: 1,239,573
145: 1,240,729
148: 1,238,911
1,240,530
30— 9: 1,239,626
12: 1,238,751
1,239,419
1,239,577
1,239,644
31— 13: 1,241,434
65: 1,240,387
98: 1,238,881
1,239,407
1,240,765
102: 1,239,923
32— 9: 1,240,258
19: 1,240,731
33— 1: 1,239,155
5: 1,239,475
1,239,798
11: 1,241,121
32: 1,238,833
41: 1,241,079
42: 1,238,832
47: 1,240,300
67: 1,240,676
70: 1,239,083
72: 1,240,525
93: 1,241,282
97: 1,239,502
113: 1,239,742
116: 1,240,035
130: 1,238,961
131: 1,238,798
137: 1,240,498
146: 1,239,192
158: 1,240,853
164: 1,241,160
1,241,161
172: 1,239,532
1,239,534
1,241,469
179: 1,238,841
202: 1,240,074
203: 1,240,528
207: 1,241,341
214: 1,239,590
1,241,399
215: 1,239,336
1,240,849
221: 1,238,991
225: 1,241,132
34— 4: 1,240,468
5: 1,240,323
1,241,299
6: 1,240,386
13: 1,240,108
22: 1,240,984
26: 1,240,307
1,240,365
1,241,465
34: 1,239,216
35— 1: 1,241,009
2: 1,240,031
5: 1,239,231
9: 1,240,556
12: 1,240,629
36— 2: 1,240,062
1,241,217
27: 1,239,575
28: 1,241,142
30: 1,239,361
32: 1,239,628
37: 1,240,153
58.5: 1,239,434
71: 1,239,411
1,240,275
73: 1,240,680
76: 1,240,249
78: 1,241,088
37— 5: 1,239,058
1,239,366
1,241,102
16: 1,239,554
1,240,222
19: 1,238,801
24: 1,239,474
1,239,897
25: 1,239,650
29: 1,239,727
40: 1,241,383
42: 1,240,714
48: 1,241,070
49: 1,241,336
39— 6: 1,241,349
33: 1,240,096
36: 1,238,844
74: 1,241,364
40— 7: 1,239,094
16: 1,239,838
20: 1,241,302
25: 1,239,545
1,241,290
27: 1,239,844
33: 1,238,960
1,240,090
35: 1,239,662
52: 1,239,832
1,240,380
1,240,647
1,241,373
1,241,421
53: 1,240,637
65: 1,239,324
1,239,342
77: 1,239,093
1,239,511
1,240,024
87: 1,241,422
123: 1,239,220
124: 1,238,988
126: 1,239,040
129: 1,238,749
130: 1,238,882
131: 1,238,763
1,238,816
1,240,347
132: 1,238,750
1,238,936
1,239,154
1,240,379
1,240,470
133: 1,241,292
139: 1,238,739
142: 1,239,983
145: 1,238,976
41— 7: 1,239,149
15: 1,240,392
26: 1,240,143
38.5: 1,238,906
39: 1,240,398
16: 1,239,124
42— 53: 1,238,820
1,239,065
1,240,478
56: 1,238,733
69: 1,240,068
70: 1,239,920
75: 1,239,889
77: 1,239,287
84: 1,239,344
90: 1,241,455

| | | |

151— 29: 1,241,181
55: 1,238,933
152— 5: 1,241,380
7: 1,238,741
8: 1,239,278
1,239,658
1,240,059
1,240,432
1,241,235
1,241,283
1,241,453
12: 1,240,040
13: 1,239,553
1,239,813
14: 1,239,711
1,239,749
1,239,856
1,241,066
16: 1,239,312
1,241,006
18: 1,240,051
21: 1,238,766
1,238,769
1,238,879
1,238,996
1,239,118
1,239,254
1,239,506
1,239,606
1,240,162
1,240,739
1,240,888
1,241,107
1,241,345
22: 1,239,886
28: 1,240,357
32: 1,239,891
1,240,793
1,240,951
37: 1,240,624
41: 1,239,333
44: 1,240,805
45: 1,241,109
153— 2: 1,240,212
7: 1,241,145
16: 1,239,851
32: 1,239,533
1,239,678
1,239,679
1,240,576
40: 1,238,941
1,240,605
46: 1,239,165
48: 1,239,437
68: 1,240,534
154— 1: 1,239,894
2: 1,238,758
14: 1,239,291
17: 1,240,438
1,240,439
44: 1,239,106
45: 1,240,462
45.9: R.14,349
46: 1,239,880
55: 1,240,231
155— 2: 1,238,913
1,240,244
3: 1,239,279
1,240,692
9: 1,240,301
12: 1,238,767
18: 1,241,277
1,241,357
20: 1,241,171
22: 1,239,185
1,239,253
26: 1,238,782
1,239,380
1,239,470
30: 1,240,243
32: 1,240,119
35: 1,238,920
1,240,089
156— 10: 1,240,581
14: R.14,360
1,238,854
19: 1,239,905
1,240,582
20: 1,239,919
22: 1,240,863
23: 1,239,364
1,239,387
24: 1,238,931
1,239,845
36: 1,240,579
1,240,580
37: 1,240,627
38: 1,238,747
1,241,185
1,241,314
39: 1,240,768
1,241,425
44: 1,240,179
157— 6: 1,239,454
158— 13: 1,240,333
23.1: 1,238,955
33: 1,240,117
36: R.14,353
1,240,840
1,240,842
1,241,088
1,241,089
41: 1,240,312
50.1: 1,240,606
54: 1,239,775
63: 1,240,130
1,241,404
64: 1,239,276
65: 1,241,334
74: 1,241,135
77: 1,240,683
1,241,069
79: 1,240,061
91: 1,238,780
99: 1,241,111
106: 1,239,681
114: 1,241,032
115: 1,240,369
1,240,535
117.5: 1,239,776
160— 1: 1,240,967
161— 8: 1,240,749
9: 1,239,955
1,240,535
10: 1,239,404
31: 1,239,289
48: 1,240,237
77: 1,241,313
82: 1,241,018
87: 1,241,246
1,241,247
1,241,251
1,241,252
1,241,253
1,241,254
1,241,255
1,241,256
1,241,258
1,241,263
1,241,265
1,241,266
102: 1,241,257
113: 1,241,348
1,241,264
1,241,268
115: 1,241,267
1,241,269
166— 5: 1,241,089
167— 3: 1,239,515
1,239,584
7: 1,240,094
9: 1,239,227
168— 11: 1,239,987
1,241,016
169— 5: 1,240,292
7: 1,239,239
14: 1,241,450
22: 1,241,209
170— 108: 1,239,970
117: 1,241,297
159: 1,241,166
162: 1,238,838
163: 1,241,245
171— 34: 1,239,339
95: 1,241,275
97: 1,238,868
123: 1,238,923
229: 1,240,930
252: 1,239,654
312: 1,241,284
313: 1,238,896
1,239,710
1,239,772
1,241,310
314: 1,240,590
315: 1,239,647
1,240,348
1,240,724
1,240,725
172— 120: 1,240,018
179: 1,239,219
1,239,840
1,240,877
1,241,180
233: 1,239,979
239: 1,240,726
1,240,973
1,241,115
240: 1,240,351
1,240,623
245: 1,240,710
278: 1,240,711
279: 1,239,761
1,241,317
285: 1,241,333
173— 31: 1,239,477
209: 1,240,186
178— 263: 1,241,158
264: 1,239,410
314: 1,240,330
1,240,844
322: 1,239,531
324: 1,241,030
328: 1,238,849
1,239,317
1,239,697
337: 1,241,106
339: 1,240,907
343: 1,239,731
369: 1,239,005
366: 1,238,768
1,239,902
174— 89: 1,240,410
177: 1,239,539
175— 21: 1,239,008
91: 1,240,707
182: 1,240,328
1,241,197
183: 1,239,974
1,240,363
1,240,574
1,240,721
270: 1,240,723
273: 1,239,876
1,240,795
277: 1,239,322
278: 1,240,157
281: 1,239,114
1,241,157
282: 1,241,845
1,239,062
1,239,199
1,239,790
1,239,833
1,240,309
1,240,458
283: 1,240,314
284: 1,240,459
292: 1,240,364
293: 1,239,275
294: 1,239,777
1,239,795
1,239,841
320: 1,240,306
323: 1,241,139
325: 1,239,357
1,240,471
354: 1,240,772
363: 1,239,896
364: 1,239,588
365: 1,239,249
176— 16: 1,239,413
1,240,700
51: 1,241,270
67: 1,239,720
73: 1,239,759
126: 1,239,810
1,240,628
177— 7: 1,239,850
1,240,156
31.7: R.14,367
288: 1,238,848
311: 1,239,934
1,240,176
314: 1,239,602
337: 1,238,975
1,239,141
339: 1,240,075
346: 1,238,948
348: 1,240,770
1,241,127
352: 1,239,320
364: 1,239,381
377: 1,239,887
382: 1,240,049
178— 44: 1,240,213
115: 1,238,977
179— 5: 1,240,811
9: 1,238,587
17: 1,239,205
18: 1,239,207
1,240,418
22: 1,239,011
27: 1,239,097
1,240,257
49: 1,238,748
70: 1,239,607
81: 1,239,508
100: 1,240,974
171: 1,239,702
187: 1,240,659
314: 1,238,823
180— 9: 1,238,762
41: 1,238,752
70: 1,239,643
181— 27: 1,240,088
1,240,060
182— 10: 1,239,102
14: 1,238,578
183— 57: 1,240,305
79: 1,238,829
79: 1,240,368
85: 1,239,456
103: 1,239,730
106: 1,239,823
107: 1,240,081
184— 3: 1,239,719
6: 1,241,332
13: 1,241,103
33: 1,238,818
1,238,819
48: 1,239,311
1,240,906
54: 1,239,452
64: 1,241,174
185— 41: 1,241,206
44: 1,240,730
187— 8: 1,240,935
49: R.14,363
60: 1,240,291
188— 1: 1,239,391
4: 1,240,796
7: 1,239,585
13: 1,239,172
1,239,345
24: 1,240,638
1,240,819
1,241,147
1,241,395
1,241,440
1,241,441
27: 1,239,448
31: 1,239,447
1,240,324
48: 1,241,459
70: 1,239,206
81: 1,240,127
82: 1,238,867
1,239,444
1,239,445
1,239,446
189— 28: 1,240,959
31: 1,239,820
33: 1,239,142
34: 1,241,281
36: 1,241,137
46: 1,240,634
1,241,243
67: 1,241,285
73: 1,241,116
75: 1,241,090
76: 1,240,193
85: 1,240,635
90: 1,240,210
1,241,472
190— 11: 1,239,023
12: 1,239,021
36: 1,240,223
45: 1,241,210
57: 1,239,130
191— 12: 1,241,289
39: 1,239,464
1,240,067
43: 1,240,263
63: 1,240,358
78: 1,240,814
192— 1: 1,239,864
1,240,343
4: 1,241,129
7: 1,239,778
1,239,940
1,240,225
8: 1,240,741
9: 1,240,334
10: 1,241,057
193— 1: 1,239,879
1,241,387
6: 1,238,490
8: 1,239,271
1,240,172
10: 1,238,895
11: 1,239,819
1,240,295
13: 1,239,101
14: 1,238,970
19: 1,239,179
1,239,400
24: 1,240,202
28: 1,241,204
34: 1,241,436
37: 1,240,215
194— 54: 1,239,375
64: 1,239,039
79: 1,238,836
80: 1,240,717
85: 1,239,884
1,240,412
91: 1,240,187
103: 1,240,506
1: 1,240,090
25: 1,239,423
26: 1,240,792
197— 5: 1,239,495
6: 1,240,891
6.4: 1,240,903
197— 33: 1,241,214
63: 1,239,872
66: 1,238,905
1,238,919
100: 1,241,201
105: 1,240,349
113: 1,240,547
114: 1,241,026
1,241,101
162: 1,241,464
199— 81: 1,240,168
200— 12: 1,240,975
24: 1,239,056
1,240,585
1,240,738
27: 1,238,967
1,239,054
1,239,236
1,240,147
1,240,896
31: 1,238,776
33: 1,238,813
1,239,140
1,239,383
1,239,450
1,239,830
1,240,062
202— 3: 1,240,494
208— 6: 1,239,969
204— 1: 1,239,530
5: 1,239,012
1,239,443
1,239,822
29: 1,238,754
1,238,755
1,239,513
1,239,835
1,240,076
1,240,280
1,240,856
40: 1,240,886
41: 1,240,885
53: 1,240,239
63: 1,239,178
64: 1,239,214
1,239,215
1,239,984
1,240,460
1,240,490
1,240,491
1,241,351
205— 16: 1,239,451
206— 5: 1,240,536
15.1: 1,240,681
22: 1,241,456
33: 1,240,262
38: 1,239,164
1,241,340
1,238,914
42: 1,240,026
43: 1,239,308
51: 1,241,021
56: 1,238,744
1,239,359
1,241,463
59: 1,239,976
208— 1: 1,239,611
84: 1,241,423
94: 1,239,035
138: 1,240,587
140: 1,241,091
150: 1,239,916
210— 1: 1,239,202
8: 1,240,290
9: 1,240,385
10: 1,239,512
1,239,975
16: 1,239,388
1,240,747
211— 8: 1,239,663
1,239,753
1,240,321
212— 137: 1,241,238
213— 8: 1,241,131
10: 1,239,187
39: 1,240,167
213— 42: 1,239,460
1,239,651
1,239,764
1,240,341
1,240,948
51: 1,238,764
64: 1,241,156
67: 1,240,818
214— 1: 1,238,985
1,240,834
1,241,053
2: 1,240,552
8: 1,240,867
14: 1,241,476
215— 3: 1,240,072
10: 1,238,902
1,239,238
1,240,383
1,240,767
14: 1,239,299
1,239,836
19: 1,239,225
26: 1,240,511
34: 1,239,261
69: 1,239,803
216— 13: 1,239,358
28: 1,240,808
29: 1,239,624
217— 5: 1,240,297
12: 1,240,296
15: 1,240,463
22: 1,240,520
27: 1,239,661
29: 1,240,518
47: 1,240,097
60: 1,238,871
125: 1,239,184
218— 2: 1,239,967
1,240,207
12: 1,239,797
1,239,846
1,240,874
219— 8: 1,240,806
17: 1,240,900
1,240,901
19: 1,241,234
20: 1,239,594
21: 1,239,257
37: 1,238,792
1,238,793
1,238,807
1,238,808
38: 1,240,449
1,240,871
1,240,944
39: 1,239,572
40: 1,239,325
46: 1,240,584
63: 1,240,771
69: 1,240,457
220— 4: 1,240,029
1,240,030
10: 1,239,223
14: 1,240,144
22: 1,240,740
76: 1,240,689
77: 1,239,183
1,240,976
92: 1,239,417
110: 1,239,737
111: 1,240,224
115: 1,238,993
1,239,307
1,239,348
1,239,427
1,239,881
121: 1,238,983
124: 1,239,026
1,239,542
132: 1,240,757
136: 1,240,945
138: 1,238,737
221— 11: 1,239,181
51: 1,241,207
117: 1,240,830
127: 1,240,529
222— 4: 1,239,256
7: 1,240,480
223— 17: 1,239,959
22: 1,239,064
36: 1,239,270
1,240,142
1,241,427
224— 2: 1,240,880
4: 1,240,527
5: 1,240,728
7: R.14,365
57: 1,239,468
29: 1,240,340
1,240,667
225— 21: 1,241,352
1,241,353
28: 1,238,842
226— 9: 1,241,196
12: 1,239,068

228— 6: 1,240,653
23: 1,241,392
229— 8.5: 1,239,143
17: 1,240,563
22: 1,240,564
45: 1,239,284
48: 1,239,162
1,239,163
92.3: 1,240,961
230— 1: 1,239,673
5: 1,240,155
6: 1,239,809
7: 1,239,161
1,240,846
1,241,458
13: 1,240,858
24: 1,239,566
1,239,567
1,239,568
1,240,539
1,240,664
1,240,892
1,241,372
27: 1,239,625
1,240,855
32: 1,240,925
232— 1: 1,239,323
33: 1,238,761
1,239,733
40: 1,240,022
1,240,190
41: 1,239,330
42: 1,240,308
233— 37: 1,239,734
234— 1: 1,239,351
10: 1,239,300
35: 1,239,680
36: 1,240,883
36.5: 1,240,763
1,241,213
39: 1,239,812
43: 1,240,203
235— 3: 1,238,777
1,239,708
9: 1,240,234
20: 1,239,095
55: 1,240,632
59: 1,239,598
60: 1,238,809
1,241,140
61: 1,238,800
82: 1,239,622
91: 1,240,601
101: 1,240,218
236— 4: 1,241,191
5: 1,239,859
1,240,982
6: 1,240,102
236— 7: 1,240,139
9: 1,239,440
16: 1,238,825
1,239,578
237— 19: 1,240,101
21: 1,241,167
68: 1,239,805
78: 1,239,908
1,241,389
238— 2: 1,240,406
1,240,407
1,240,865
3: 1,238,788
1,239,073
1,239,402
1,239,750
1,240,039
4: 1,240,674
1,240,843
1,240,970
1,241,202
1,241,224
5: 1,239,321
1,239,363
1,239,739
1,240,658
241— 1: 1,239,030
1,240,952
1,240,652
6: 1,239,318
239— 5: R.14,362
1,240,660
6: 1,240,727
1,241,406
9: 1,240,429
11: 1,239,334
13: 1,240,092
14: 1,239,927
18: 1,240,276
1,240,405
240— 3: 1,241,031
4: 1,239,493
6: 1,241,098
7: 1,241,368
8.6: 1,238,350
1,239,078
1,241,071
1,241,077
22: 1,239,672
23: 1,240,899
37: 1,240,786
41: 1,239,371
1,239,461
1,240,299
1,240,452
1,240,583
1,240,644
1,241,074
44: 1,240,282
52: 1,239,843
240— 53: 1,241,295
58: 1,240,233
61: 1,241,150
62: R.14,366
1,238,984
1,239,034
1,239,482
1,240,354
1,240,509
1,240,626
1,240,668
1,240,695
1,240,759
1,240,780
1,240,784
1,241,348
1,241,410
78: 1,239,182
91: 1,239,657
1,239,842
92: 1,239,038
1,240,505
102: 1,241,172
115: 1,239,556
123: 1,240,895
241— 1: 1,239,030
1,240,652
11: 1,239,439
242— 6: 1,239,019
1,241,162
13: 1,240,448
18: 1,240,352
41: 1,240,881
44: 1,239,385
1,239,669
61: 1,240,800
68: 1,241,193
72: 1,239,069
77: 1,240,954
84.5: 1,240,677
105: 1,239,082
119: 1,238,921
122: 1,240,108
124: 1,239,744
130: 1,239,138
1,239,139
149: 1,241,329
159: 1,240,045
1,240,104
243— 13: 1,240,362
39: 1,240,327
244— 1: 1,239,041
2: 1,239,500
1,239,736
1,240,371
1,240,400
6: 1,239,796
7: 1,239,942
244— 9: 1,241,219
12: 1,238,907
14: 1,240,070
1,240,569
17: 1,241,072
21: 1,238,904
29: 1,239,535
1,239,536
1,239,537
30: 1,238,839
31: 1,240,812
1,241,092
246— 25: 1,239,048
1,239,049
30: 1,239,099
34: 1,238,772
35: 1,238,922
36: 1,240,898
1,241,062
1,241,063
58: 1,240,744
59: 1,239,007
1,239,954
72: R.14,356
75: 1,238,757
78: 1,239,087
247— 1: 1,238,799
1,240,188
7: 1,239,243
12: 1,238,885
248— 3: 1,240,253
20: 1,239,109
1,239,890
1,241,225
1,241,344
22: 1,239,666
30: 1,240,573
31: 1,240,521
33: 1,239,108
1,240,169
36: 1,241,126
38: 1,240,319
1,240,376
41: 1,240,648
63: 1,239,638
250— 2: 1,239,582
20: 1,239,852
24: 1,239,946
27: 1,238,899
34: 1,239,145
1,239,146
1,241,136
261— 9: 1,240,440
18: 1,240,841
41: 1,241,014
44: 1,239,173
1,239,442
1,240,281
252— 1,239,992
253— 16: 1,239,539
83: R.14,355
120: 1,239,395
188: 1,238,731
253— 191: 1,241,128
200: 1,240,949
254— 4: 1,239,771
10: 1,241,366
15: 1,239,306
28: 1,241,179
31: 1,239,575
33: 1,240,536
67: 1,240,042
73: 1,238,905
84: 1,239,571
89: 1,240,496
91: 1,241,011
96: 1,240,122
103: 1,238,863
110: 1,239,941
111: 1,240,278
135: 1,241,271
176: 1,239,110
255— 15: 1,239,865
24: 1,240,776
44: 1,241,327
67: 1,241,051
72: R.14,356
75: 1,238,757
78: 1,239,087
256— 21: 1,241,041
52: 1,239,120
257— 43: 1,239,108
56: 1,240,609
116: 1,239,415
125: 1,238,943
130: 1,239,491
1,239,495
1,240,543
270— 5: 1,240,008
1,240,009
1,240,011
1,240,012
1,240,013
1,240,015
1,240,010
1,240,014
61: 1,239,965
258— 8: 1,239,463
28: 1,239,817
39: 1,240,464
1,240,631
274— 2: 1,239,063
1,239,306
16: 1,241,119
23: 1,240,267
1,240,342
1,240,943
24: 1,239,668
27: 1,240,504
35: 1,239,044
275— 2: 1,239,042
9: 1,241,123
261— 52: 1,241,013
53: 1,238,812
92: 1,240,656
102: 1,239,098
103: 1,241,376
105: 1,239,234
113: 1,239,067
263— 5: 1,241,075
14: 1,241,397
264— 2: 1,240,739
8: 1,239,828
265— 1: 1,240,273
13: 1,240,198
1,240,416
36: 1,240,219
68: 1,240,600
267— 8: 1,240,992
14: 1,240,170
19: 1,239,300
1,239,499
1,240,441
1,240,822
27: 1,240,929
28: 1,240,350
33: 1,240,322
34: 1,239,901
37: 1,239,084
1,239,203
52: 1,240,068
268— 5: 1,238,740
1,240,718
269— 3: 1,241,358
5: 1,240,140
6: 1,240,841
8: 1,240,008
1,240,009
1,240,011
1,240,012
1,240,013
1,240,015
1,240,010
1,240,014
61: 1,239,965
271— 8: 1,239,463
28: 1,239,817
39: 1,240,464
1,240,631
273— 1,240,631
274— 2: 1,239,063
1,239,306
16: 1,241,119
23: 1,240,267
1,240,342
1,240,943
24: 1,239,668
27: 1,240,504
35: 1,239,044
275— 2: 1,239,042
9: 1,241,123

OFFICIAL GAZETTE

OF THE

UNITED STATES PATENT OFFICE

VOLUME CCXLIII.

OCTOBER,

1917.

WASHINGTON
GOVERNMENT PRINTING OFFICE
1918

ERRATA.

1,242,579, page 395, first claim, line 2, for the word "surface" read *means*.

1,242,643, page 415, strike out all after number, heading, drawing, and claims, and insert the wor
WITHDRAWN.

1,248,013, page 566, in heading, assignment, name of assignee, for "Sefton Manufacturing Company" read *Sefton Manufacturing Association*.

1,243,668, page 763, in heading, assignment, residence of assignee, for "Springfield, Ohio," read *Springfield, Massachusetts*.

1,243,671, page 764, strike out assignment and insert *assignor, by mesne assignments, to The Foxboro Company, Foxboro, Mass., a corporation of Massachusetts*.

1,243,944, page 885, first claim, line 4, for the word "is" read *was*.

1,244,753, page 1167, fifth claim, line 5, for the words "ductile casing" read *malleable casting*.

1,244,932, page 1221, in heading, strike out the assignment.

CONTENTS.

	Page.
PATENTS AND DESIGNS GRANTED, October 2, 9, 16, 23, 30	3, 247, 531, 799, 1075
TRADE-MARKS PUBLISHED AND REGISTERED, October 2, 9, 16, 23, 30	239, 523, 792, 1064, 1308
LABELS AND PRINTS REGISTERED, October 2, 9, 16, 23, 30	241, 525, 793, 1065, 1309
DECISIONS OF THE COMMISSIONER OF PATENTS, October 2, 9, 16, 23, 30	1313
INDEX TO THE DECISIONS OF THE COMMISSIONER OF PATENTS	I
ALPHABETICAL LIST OF PATENTEES AND INVENTIONS	

ANNOUNCEMENTS.

	Page.
ADVERSE DECISIONS IN INTERFERENCE—	245
Dunbar, No. 1,133,113	1
Ellis, No. 1,092,206	1073
Holstein, No. 1,203,339	1073
Kindl, No. 1,097,759	1069
McBerty, No. 1,167,646	1073
Powell, No. 1,112,720	245
Shevill, No. 1,126,104	
APPLICATIONS—	2, 246, 530, 798, 1074
Condition of pending	
ATTORNEYS—	1
Order disbarring Adriaans, John H	
CLASSIFICATION OF INVENTIONS—	244
Order 2346	1069
Order 2347	1069
Order 2348	1069
Order 2349	1069
DISCLAIMER—	1069
Huff, Russell	
INTERFERENCE NOTICES—	529, 797, 1073
Borland, James M	1, 245
George, Philip T., Jr	245, 529, 797
Hupp, Robert C., 2d	1, 245
Nethery, Wilmot B	1073
Oneida Leather Co	1073
Rimmer, Emma	
LIBERTY LOAN—	1, 245, 529, 797
Notice relative to second issue	
PATENTS—	1
Date of—Rule 207	244, 528, 529
List of adjudicated	
TRADING WITH THE ENEMY ACT—	1070
Executive order	797
Withholding grants in time of war—act to prevent publication of inventions	

INDEX

TO THE

DECISIONS OF THE COMMISSIONER OF PATENTS AND OF THE UNITED STATES COURTS.

OCTOBER, 1917.

Decisions of the Court of Appeals of the District of Columbia are indicated by a star (*); of the United States Circuit Court of Appeals by the letter ᵈ, and of the Supreme Court of the United States by two stars (**).]

TABLE OF CASES.

	Page.
ᵈ Barrett Co. *et al. v.* Ewing, Commissioner of Patents	1065
*Bradford Dyeing Association. *In re*	1309
**Du Pont de Nemours Powder Company *et al.*, E. I., *v.* Masland *et al.*	795
ᵈ Goessling Box Co. *et al.*, Wm. F., *v.* Gumb *et al.*	241
Jepson. *Ex parte*	525
*Kellogg Food Company *et al.*, The, *v.* Kellogg Toasted Corn Flake Company	1310
*Packard Motor Car Company. *In re*	1311
Rieder. *Ex parte*	1309
*Simplex Electric Heating Company *v.* The Ramey Company	793

SUBJECT-MATTER INDEX.

	Page.
Act August 17, 1916, extension of time under not limited to citizens of foreign countries, *ex parte* Rieder	1309
ᵈ Anticipation, prior patent not to be admitted as evidence of when later patent covers an invention made before issue of earlier patent, Wm. F. Goessling Box Co. *et al. v.* Gumb *et al.*	241
Claims, applicant pointing out exact invention in claim, may set apart the old parts of the structure in a preamble, *ex parte* Jepson	525
Effect of introductory phrases, *ex parte* Jepson	525
*Commissioner of Patents, as the officer who administers the law, may in the exercise of such function base his opinion upon any pertinent fact capable of proof, which may be verified upon appeal, since the duty of the court is to determine if he has applied correctly the law to the facts in his possession, *in re* Bradford Dyeing Association	1309
Construction of act August 17, 1916, *ex parte* Rieder	1309
ᵈ Construction of claims, function and purpose remote, no anticipation, Wm. F. Goessling Box Co. *et al. v.* Gumb *et al.*	241
ᵈ Construction of statutes, section 4915, Revised Statutes, Barrett Co. *et al. v.* Ewing, Commissioner of Patents	1065
Delay in prosecution of application, citizen of the United States entitled to extension of time if delay was caused by "existing and continuing state of war," *ex parte* Rieder	1309
*Device in remote art, patent neither anticipated nor limited in scope by device or combination designed to peform another function and used under radically-different circumstances, Wm. F. Goessling Box Co. *et al. v.* Gumb *et al.*	241
Elements, between the old and the new in which the invention actually resides, the claims should show a clear line of demarcation, *ex parte* Jepson	525
Infringement, change in form or of some element of combination where same principle or mode of operation is used does not avoid infringement unless such change is leading characteristic of invention, Wm. F. Goessling Box Co. *et al. v.* Gumb *et al.*	241
Injunction, disclosure of trade secrets by witnesses and counsel, E. I. du Pont de Nemours Powder Company *et al. v.* Masland *et al.*	795
ᵈ Particular patents, Hubbell, No. 158,415, street-pavements, Barrett Co. *et al. v.* Ewing, Commissioner of Patents	1065
ᵈ Kerkow, No. 970,237, shipping-case, discloses patentable invention, is not anticipated, but is infringed, Wm. F. Goessling Box Co. *et al. v.* Gumb *et al.*	241
Preamble of claims, double function, completing setting of invention and disclaiming old parts which are setting, only, *ex parte* Jepson	525
May be mere explanatory name and title or an actual limitation if invention cannot exist apart from it, *ex parte* Jepson	525
Renewal of application, petition after expiration of two years, but within nine months of such expiration, granted when cause of delay is "existing and continuing state of war," *ex parte* Rieder	1309
ᵈ Suits against the Commissioner of Patents, if brought against him in his official capacity, should be brought in the district of his official residence, but under certain circumstances he may be sued outside of such district, Barrett Co. *et al. v.* Ewing, Commissioner of Patents	1065
*Trade-marks, descriptive marks to be considered in relation to their significance to purchaser, *in re* Packard Motor Car Company	1311
*Foreign words and phrases, when descriptive, prohibited for the same reason as descriptive English words, *in re* Bradford Dyeing Association	1309
*Motion to dismiss opposition to registration of trade-mark, The Kellogg Food Company *et al. v.* Kellogg Toasted Corn Flake Company	1310
*Names, individual or corporate, expressly prohibited from registration under the Trade-Mark Act, Simplex Electric Heating Company *v.* The Ramey Company	793
*Opposition to registration, showing of interest by opposer, The Kellogg Food Company *et al. v.* Kellogg Toasted Corn Flake Company	1310

*Trade-marks, etc—Continued.	Page.
*Similarity of goods, Simplex Electric Heating Company *v.* The Ramey Company	793
*The words "E'clatant," for satin-finished piece goods, refused registration as descriptive mark, *in re* Bradford Dyeing Association	1309
*"Twin-Six" refused registration as descriptive mark, *in re* Packard Motor Car Company	1311
*While a word in foreign language may not be within scope of judicial notice, it is a fact capable of proof, *in re* Bradford Dyeing Association	1309
**Trade secrets, the word "property" as applied thereto defined, E. I. du Pont de Nemours Powder Company *et al. v.* Masland *et al.*	795
**Trusts, fraudulent abuse of, E. I. du Pont de Nemours Powder Company *et al. v.* Masland *et al.*	795

DIGEST

OF THE

DECISIONS OF THE COMMISSIONER OF PATENTS AND OF THE UNITED STATES COURTS.

OCTOBER, 1917.

[Decisions of the Court of Appeals of the District of Columbia are indicated by a star (*), of the United States Circuit Court of Appeals by the letter d, and of the Supreme Court of the United States by two stars (**).]

ANTICIPATION.

See Construction of Specifications and Patents; Particular Patents.

1. PATENTS—PRIOR PATENT.
A patent is not admissible in evidence as an anticipation of another patent which, although later in date of issue, covers an invention shown to have been made before the issue of the earlier patent and upon an application filed several months prior thereto.
dWm. F. Goessling Box Co. *et al. v.* Gumb *et al.*, 241.

2. SAME—SAME.
Finger-holes in mortise-locks for sliding doors *Held* so remote in purpose and function as not to anticipate a patent for shipping-cases for bottled goods having protected hand-holes for lifting the cases. [d Id.

3. SAME—DEVICE IN REMOTE ART.
A mechanical device or combination which was not designed by its maker or actually used or apparently adapted to perform the function of a patented device or combination, but which was discovered in a remote art, where it was conceived and used under radically-different circumstances to perform another function, neither anticipates nor limits the scope of the patent. [d Id.

BILL IN EQUITY.

See Construction of Statutes, 1.

CHANGE OF FORM.

See Infringement.

CITIZEN OF THE UNITED STATES.

See Construction of Statutes, 2.

CLAIMS.

1. INTRODUCTORY PHRASES—EFFECT OF.
Cases reviewed in which the introductory phrases of claims operated to limit the invention claimed. *Ex parte* Jepsen, 525.

2. RELATION OF THE OLD AND THE NEW ELEMENTS.
Old elements should not be catalogued with equal emphasis with the new. The claim should be so written as to make at once apparent a clear line of demarcation between the old structure and those elements which really constitute the invention. [Id.

3. SAME—DOUBLE FUNCTION.
The preamble of a claim may perform the double function of completing the setting of the real invention claimed and of also disclaiming the old parts of the apparatus, which constitute nothing but setting. [Id.

4. SAME—WHEN AND WHEN NOT LIMITATION.
The preamble may be an actual limitation if the real invention cannot exist apart from it, whereas if the real invention does not at all depend upon it then the preamble is a mere explanatory name and title. [Id.

5. REAL INVENTION SEPARATED FROM THE PREAMBLE.
When an applicant presents a claim, as in this case, which particularly points out his exact invention, there is nothing in the law to interdict his doing it by including the old parts of the structure in a preamble and set apart from the structure which constitutes the real invention. [Id.

COMMISSIONER OF PATENTS.

See Construction of Statutes, 1; Registration of Trade-Marks, 4.

COURTS—FEDERAL COURTS—DISTRICT IN WHICH SUIT SHOULD BE BROUGHT.
As the official residence of the Commissioner of Patents is in the District of Columbia, suits against him in his official capacity should be commenced in that district.
d Barrett Co. *et al. v.* Ewing, Commissioner of Patents, 1065.

CONDITIONS EXISTING BY REASON OF A STATE OF WAR.

See Construction of Statutes, 2.

CONSTRUCTION OF SPECIFICATIONS AND PATENTS.

ANTICIPATION—IMPROVEMENT IN STREET-PAVEMENTS.
An alleged invention of an improvement in street-pavements, consisting of the application to the surface of a concrete pavement of a thin layer of bituminous compound and the sprinkling or spreading and embedding of sand or small stone fragments into this compound, was anticipated by the Hubbell patent, No. 158,415, covering a process consisting in saturating the concrete forming the wearing-surface of a pavement with a thin body or solution of hot pitch or bitumen, though Portland cement, used in the art to which the alleged invention relates, was not used in commercial pavements until after the date of the Hubbell patent.
d Barrett Co. *et al. v.* Ewing, Commissioner of Patents, 1065.

CONSTRUCTION OF STATUTES.

See Registration of Trade-Marks, 1, 3.

1. DISTRICT IN WHICH SUIT MAY BE BROUGHT—CONSENT.
Revised Statute section 4915 (Comp. St., 1916, sec. 9460) provides that when a patent is refused the applicant may have remedy by bill in equity; that the court having cognizance thereof may adjudge that such applicant is entitled to a patent; that any such adjudication, if in favor of the applicant, shall authorize the Commissioner to issue such patent on the applicant filing in the Patent Office a copy of the adjudication, and that where there is no opposing party a copy of the bill shall be served on the Commissioner. *Held* that where there is no opposing party the Commissioner may, with his consent, be sued outside the District of Columbia.
d Barrett Co. *et al. v.* Ewing, Commissioner of Patents, 1065.

2. EXTENSION OF TIME—ACT OF AUGUST 17, 1916—CITIZENS OF THIS COUNTRY.
The act of August 17, 1916, (229 O. G., 1257) is not limited to granting extensions to citizens of foreign countries, but entitles a citizen of this country to the extension if the delay was occasioned by the "existing and continuing state of the war."
Ex parte Rieder, 1300.

DEFENSE.

See Disclosure of Trade Secrets, 1, 2.

DELAY IN PROSECUTING APPLICATIONS.

See Construction of Statutes, 2.

DESCRIPTIVE TERMS.

See Goods of Same Descriptive Properties; Registration of Trade-Marks, 2, 5, 6.

DISCLOSURE OF INVENTION

See Particular Patents

DISCLOSURE OF TRADE SECRETS

1. INJUNCTION—WITNESSES AND COUNSEL.
In a suit to enjoin defendant from using or disclosing secret processes of plaintiffs' business defendant, while in effect conceding that he learned them through his former confidential employment by plaintiffs, denied that they were secret and insisted on his right to use them as processes well known to the trade and to reveal them to expert witnesses in making his defense. *Held* that during the taking of proofs defendant might properly be enjoined from disclosing the processes to experts or other witnesses, the restraint not extending to his own counsel, and that the trial judge in his discretion might reveal them to such persons at such times and under such precautions as he might deem necessary in the progress of the case.
[** E. I. du Pont de Nemours Powder Company *et al.* v. Masland *et al.*, 795.

2. SAME—DEFENSE LIMITED BY TRUST IMPOSED.
In such a case the right of the defendant to make a full defense is limited by his duty to abstain from any fraudulent abuse of the trust which was reposed in him by the plaintiffs. [** Id.

3. "PROPERTY" AS APPLIED TO TRADE SECRETS DEFINED.
The word "property" as applied to trade-marks and trade secrets is an unanalyzed expression of certain secondary consequences of the primary fact that the law makes some rudimentary requirements of good faith. [** Id.

EARLIER AND LATER PATENTS

See Anticipation, 1

ELEMENTS

See Claims, 2; Infringement

EVIDENCE

See Anticipation, 1

EXTENSION OF TIME

See Construction of Statutes, 2

FEDERAL COURTS.

See Commissioner of Patents; Construction of Statutes, 1; Registration of Trade-Marks, 4

FOREIGN LANGUAGE.

See Judicial Notice; Registration of Trade-Marks, 2, 3

FUNCTION.

See Anticipation, 2, 3; Claims, 3.

GOODS OF SAME DESCRIPTIVE PROPERTIES

See Opposition to Registration of Trade-Marks, 1.

REGISTRATION.
Electric vacuum-cleaners are of the same descriptive properties as electrically-operated devices for household and other purposes.
[*Simplex Electric Heating Company v. The Ramey Company, 793

INFRINGEMENT

See Particular Patents.

CHANGE OF FORM.
Mere changes in the form of a device or of some of the mechanical elements of a combination, where the principle or mode of operation is adopted or used, will not avoid infringement unless the form of the machine or of the element or elements changed is the distinguishing characteristic of the invention.
[*Wm. F. Goessling Box Co. *et al.* v. Gumb *et al.*, 241

INJUNCTION.

See Disclosure of Trade Secrets, 1, 2

INVENTION.

See Claims; Construction of Specifications and Patents; Infringement; Particular Patents.

JUDICIAL NOTICE.

FOREIGN LANGUAGES—TRADE-MARKS.
"While the meaning of a word in a foreign language may not be within the scope of judicial notice in construing the application of the law, it is nevertheless a fact capable of proof."
In re Bradford Dyeing Association, 1309

LIMITATION OF CLAIMS.

See Anticipation, 3; Claims, 1, 4

MOTION TO DISMISS OPPOSITION TO REGISTRATION

See Opposition to Registration of Trade-Marks, 2.

NAME OF PERSON OR CORPORATION

See Opposition to Registration of Trade-Marks; Registration of Trade-Marks, 1.

OFFICIAL RESIDENCE.

See Commissioner of Patents

OLD ELEMENTS.

See Claims, 2, 3, 5

OPPOSITION TO REGISTRATION OF TRADE-MARKS

1. SHOWING OF INTEREST.
In opposition proceedings when it is clearly averred that the opposer's goods, of the same general descriptive properties as applicant's, were known as "Kellogg's" foods before applicant's entry into the field and applicant and opposer had entered into an agreement restricting applicant's use of the word "Kellogg's" as a mark *Held* this constitutes a sufficient showing of interest in the mark by the opposer.
[*The Kellogg Food Company *et al.* v. Kellogg Toasted Corn Flake Company, 1310.

2. DISMISSAL ON MOTION.
Where it is apparent from the averment of the motion to dismiss that applicant understood that the right to register an essential part of the name of the opposer was being challenged and it further appears that the question was pressed before both tribunals, *Held* the opposition should not be dismissed on motion. [*Id.

PARTICULAR PATENTS.

See Construction of Specifications and Patents.

KERKOW—NO. 970,237—SHIPPING-CASE—VALIDITY AND INFRINGEMENT.
The Kerkow patent, No. 970,237, for a shipping-case for bottled goods, was not anticipated, but discloses patentable novelty and invention; also *Held* infringed.
[*Wm. F. Goessling Box Co. *et al.* v. Gumb *et al.*, 241

PRIOR PATENTS.

See Anticipation, 1, 2

PROOF.

See Registration of Trade-Marks, 4.

REGISTRATION OF TRADE-MARKS.

See Opposition to Registration of Trade-Marks, 2.

1. CORPORATE NAMES.
The Trade-Mark Act expressly prohibits the registration of the name of any person or corporation as a trade-mark.
[*Simplex Electric Heating Company v. The Ramey Company, 793

DESCRIPTIVE—FOREIGN WORDS—"E'CLATANT."
"E'clatant," for satin-finished cotton piece goods, *Held* to be not registrable because descriptive, meaning brilliant, shining, glittering, etc., which are characteristics and qualities of the goods to which it is applied.
[*In re* Bradford Dyeing Association, 1309.

3. SAME—SAME.
The reason for bringing foreign words and phrases which are descriptive within the prohibition of the statute is apparent, since the public would soon become informed of such meaning and the user of the mark would appreciate the advantage of disseminating such information by advertisement or otherwise. [*Id.

4. SAME—SAME.
The Commissioner of Patents is the officer upon whom is cast the burden of administering the law, including the limitation forbidding the registration of descriptive marks, in accordance with its intent, and in the exercise of this function he may base his opinion upon any pertinent fact capable of proof from a reliable source of information, and a fact so found may be verified upon appeal, since the duty of the court is to determine broadly whether or not he has correctly applied the law to the competent facts in his possession. [*Id.

5. "TWIN-SIX" DESCRIPTIVE.
"Twin-Six" as applied to motor-vehicles *Held* to be descriptive and not registrable as a trade-mark.
[*In re* Packard Motor Car Company, 1311.

6. SIGNIFICANCE TO A PURCHASER.
The question of the descriptiveness of a mark must be considered in the light of its significance to the purchaser. [*Id.

SCOPE OF PATENT.

See Anticipation, 3.

SHOWING OF INTEREST.

See Opposition to Registration of Trade-Marks, 1.

SUITS UNDER SECTION 4915, REVISED STATUTES.

See Commissioner of Patents; Construction of Statutes, 1.

TERMINOLOGY.

See Disclosure of Trade Secrets, 3; Judicial Notice; Registration of Trade-Marks, 2.

TRADE-MARK STATUTES.

See Registration of Trade-Marks, 1, 3, 4.

WITNESSES.

See Disclosure of Trade Secrets, 1, 2.

THE OFFICIAL GAZETTE OF THE United States Patent Office.

Vol. 243—No. 1. TUESDAY, OCTOBER 2, 1917. Price—$5 per year.

The OFFICIAL GAZETTE is mailed under the direction of the Superintendent of Documents, Government Printing Office, to whom all subscriptions should be made payable and all communications respecting the Gazette should be addressed. Issued weekly. Subscriptions, $5.00 per annum; single numbers, 10 cents each.

Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

CONTENTS.

	Page.
Issue of October 2, 1917	1
Notice—Attorneys	1
Adverse Decisions in Interference	1
Interference Notices	1
Date of Patent	2
Applications Under Examination	3
Patents Granted	206
Reissues	210
Designs	213
Trade-Marks—Registration Applied for	235
Trade-Mark Registrations Granted	239
Labels and Prints	
Decisions of the U. S. Courts—	
Wm. F. Goessling Box Co. *et al. v.* Gumb *et al*	241
Adjudicated Patents	244
Changes in Classification	244

Issue of October 2, 1917.

Patents	631—No.	1,241,486 to No.	1,242,116, inclusive.
Designs	15—No.	51,311 to No.	51,325, inclusive.
Trade-Marks	115—No.	118,727 to No.	118,841, inclusive.
Labels	14—No.	20,298 to No.	20,311, inclusive.
Prints	6—No.	4,798 to No.	4,803, inclusive.
Reissues	4—No.	14,370 to No.	14,373, inclusive.
Total	785		

"Shall we be more tender with our dollars than with the lives of our sons?"—W. G. McAdoo, Secretary of the Treasury.

SAVE YOUR MONEY

to

BUY A U. S. GOVERNMENT BOND

of the

SECOND LIBERTY LOAN

of 1917

To Help Your Country and Yourself.

Notice—Attorneys.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., September 22, 1917.

This Office has been advised, under date of the 8th instant, by the Secretary of the Interior, of the disbarment from practice before the Department and its bureaus and offices of John H. Adriaans, of Washington, D. C.

J. T. NEWTON,
Commissioner of Patents.

Adverse Decisions in Interference.

PATENT No. 1,092,206.

On August 27, 1917, a decision was rendered that Carleton Ellis was not the first inventor of the subject-matter covered by claims 1, 2, 3, and 4 of his Patent No. 1,092,206, subject, "Catalyzer and process of making same," and no appeal having been taken within the time allowed such decision has become final.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., September 14, 1917.

Wilmot B. Nethery, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Fred Miller Brewing Co., Fortieth and State streets, Milwaukee, Wis., for registration of a trade-mark and trade-mark registered January 5, 1909, No. 72,160, to Wilmot B. Nethery, 506 Whitehall street, Atlanta, Ga., and a notice of such declaration sent by registered mail to said Wilmot B. Nethery at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Wilmot B. Nethery, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD,
First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., September 15, 1917.

Philip T. George, Jr., his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Pierce Oil Corporation, of 25 Broad street, New York, N. Y., for registration of a trade-mark and trade-mark registered March 14, 1899, No. 32,591, to Philip T. George, Jr., of Philadelphia, Pa., and a notice of such declaration sent by registered mail to said Philip T. George, Jr., at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Philip T. George, Jr., his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD,
First Assistant Commissioner.

Date of Patent.

RULE 207. The weekly issue closes on Thursday, and the patents of that issue bear date as of the fourth Tuesday thereafter. If the final fee in any application is not paid on or before Thursday, the patent will not go to issue until the following week.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business September 28, 1917.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended.	No. of applications awaiting action.
314	1. Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Railway Gates; Planting; Scattering Unloaders; Trees, Plants, and Flowers.	July 18	July 26	370
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	May 14	June 13	350
176	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Founding; Metallurgical Apparatus; Metallurgy; Plastic Metal Working.	Sept. 11	Aug. 11	92
284	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Pushing and Pulling Implements; Railway Mail Delivery; Store-Service; Traversing Hoists.	Aug. 8	Aug. 27	167
167	5. Bookbinding; Harvesters; Jewelry; Music	June 25	June 22	312
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Substance Preparation.	Mar 31	June 18	499
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes	Apr. 18	June 25	742
133	8. Beds; Chairs; Flexible-Sheet Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	May 19	Aug. 15	689
221	9. Air and Gas Pumps; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Marine Propulsion.	Apr. 9	Sept. 7	548
235	10. Carriages and Wagons; Motor Vehicles	May 5	Aug. 7	846
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Spring Devices; Whips and Whip Apparatus.	June 19	Aug. 20	229
332	12. Journal-Boxes, Pulleys, and Shafting; Machine Elements	May 28	June 19	677
339	13. Ammunition and Explosive Charge, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	June 7	Aug. 11	611
323	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	May 31	July 18	268
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Aug. 8	Sept. 1	295
112	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony	Apr. 21	Aug. 8	471
307	17. Ornamentation; Paper Manufactures; Printing; Type Casting; Sheet Material Associating or Folding; Sheet Feeding or Delivering; Type Setting.	July 3	Aug. 11	138
229	18. Fluid-Pressure Regulators; Injectors and Ejectors; Liquid Heaters and Vaporizers; Lubrication; Miscellaneous Heat-Engine Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	July 9	Aug. 17	261
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels	Apr. 26	July 16	476
179	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Aug. 27	Aug. 14	238
212	21. Brakes and Gins; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Apr. 11	June 13	344
249	22. Aeronautics; Firearms; Ordnance	May 16	June 19	308
219	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	June 8	Dec. 20	358
144	24. Apparel; Apparel Apparatus; Sewing-Machines; Garment Supporters	July 28	Aug. 11	295
315	25. Agitating; Butchering; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separation.	Aug. 3	Aug. 13	134
105	26. Electricity, Generation; Motive Power	Feb. 19	Mar. 23	622
214	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus	July 12	Aug. 18	351
226	28. Internal-Combustion Engines	June 29	Aug. 2	524
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking Tools.	May 31	July 18	345
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines	July 2	Aug. 24	382
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Sugar and Salt.	July 24	Aug. 17	198
278	32. Dispensing Beverages; Dispensing; Gas and Liquid Contact Apparatus; Heat Exchange; Packaging Liquids; Refrigeration.			
70	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	Aug. 1	Aug. 14	245
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling Stock; Railway Ties and Fasteners.	June 12	Aug. 2	205
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Signals; Toilet	May 4	Aug. 1	584
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography; Force Measuring	June 25	Aug. 7	639
107	37. Electric Lamps; Electricity, Circuit Makers and Breakers; Electricity, Conduits; Electricity, General Applications.	May 3	July 12	630
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells	Aug. 11	Aug. 23	167
220	39. Water Distribution; Multiple Valves	Apr. 20	June 7	438
275	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	June 30	Sept. 4	397
126	41. Railway Draft Appliances; Resilient Tires and Wheels	June 7	Aug. 6	393
114	42. Electricity, Conductors; Railway Signaling; Electricity-Transmission to Vehicles; Electric Signaling.	Apr. 18	July 5	681
332	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Aug. 6	Aug. 10	174
263	44. Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Ships	May 25	Aug. 21	467

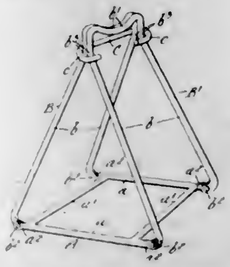
Oldest new case, Feb. 19; oldest amended, Dec. 20.
Total number of applications awaiting action 18,153

168	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	July 26	Aug. 22	1187
	Designs	Sept. 4	Sept. 14	142
	Labels and Prints	Sept. 14	Sept. 15	62

PATENTS

GRANTED OCTOBER 2, 1917.

1,241,486. **FOLDING STAND OR SUPPORT.** WESLEY J. ARMSTRONG, Buffalo, N. Y., assignor to McKinnon Dash Company, Buffalo, N. Y. Filed Sept. 23, 1915. Serial No. 52,218. (Cl. 208—91.)



1. A supporting device, comprising a base, frames pivoted at the base and adapted to swing into positions substantially parallel with the base and into inclined positions in which the frames converge upwardly toward each other and in which the upper ends of said frames bear against each other for supporting each other in their inclined positions, and means for securing the frames together when in their inclined positions.

2. A supporting device, comprising a base, frames pivoted at the base and adapted to swing into positions substantially parallel with the base and into inclined positions in which the frames converge upwardly toward each other, the upper portions of the frames being bent to bear one against the other when the frames are in their inclined positions, and means engaging the upper portions of the frames to limit the movement of the frames relatively to each other.

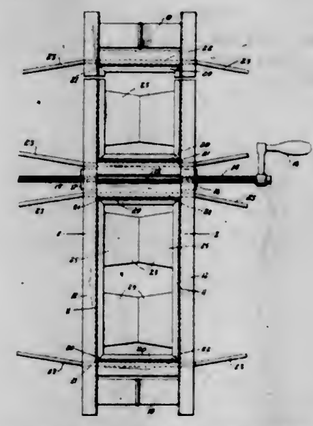
3. A supporting device, comprising a base, frames pivoted at the base and adapted to swing into positions substantially parallel with the base and into inclined positions in which the frames converge upwardly toward each other and having their upper ends shaped to support an object, said frames being held in engagement by the weight of said object, and hooks connecting said upper portions of the frames for releasably holding the frames together when in their inclined positions.

4. A supporting device comprising a base, frames pivoted to the base and adapted to swing into positions substantially parallel with the base and into inclined positions in which the frames converge upwardly toward each other and rest against each other to support an object at their upper ends, said frames being held in engagement by the weight of said object, and means for holding the frames in their inclined positions.

5. A supporting device comprising a base, swinging frames pivoted on said base and adapted to swing into positions substantially parallel with the base and into inclined positions in which the frames converge upwardly toward each other, the upper portions of the frames being bent to assume substantially vertical positions when said frames are in their inclined positions, and rigid hooked portions secured to the upper portion of one of said frames and having parts with which the vertical portion of the other frame can be moved into engagement for holding said frames in their inclined positions.

[Claims 6 to 9 not printed in the Gazette.]

1,241,487. **MOLD.** GROSVENOR ATTERBURY, New York, N. Y. Filed Apr. 19, 1916. Serial No. 92,192. (Cl. 25—41.)



1. A mold for casting a block of cementitious material, comprising a pair of substantially parallel side pieces, a pair of end pieces interposed therebetween, means operable at will for simultaneously retracting the side pieces from the block, and means operated by the retractile movement of the side pieces for retracting the end pieces from the block, said last mentioned means being so constructed that they become operative to retract the end pieces after the side pieces have been retracted for a predetermined distance.

2. A mold for casting a block of cementitious material, comprising a pair of substantially parallel side pieces, provided with apertures, a pair of substantially parallel end pieces interposed therebetween, means operable at will for simultaneously retracting the side pieces from the block, and a pair of angularly bent members secured to each of said end pieces adjacent opposite ends thereof and passing through the apertures in said side pieces whereby the retractile movement of the side pieces will cause the retraction of the end pieces from the block, and the end pieces will be maintained in parallelism during their retraction.

3. A mold for casting a block of cementitious material, comprising a pair of substantially parallel side pieces provided with apertures, a pair of end pieces interposed therebetween, means operable at will for simultaneously retracting the side pieces from the block, and rods secured to the end pieces and passing through the apertures in the side pieces, each of said rods comprising an intermediate portion of greater length than the end piece to which it is secured and parallel thereto, and end portions disposed angularly to said end pieces whereby the end pieces will remain stationary during the initial retractile movement of the side pieces and will thereafter be retracted thereby.

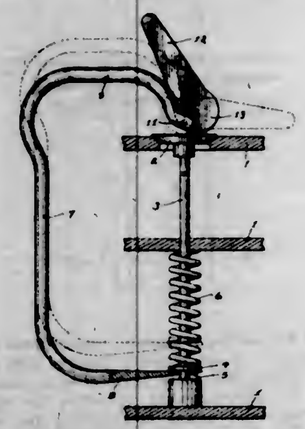
4. A mold for casting a block of cementitious material, comprising a pair of substantially parallel side pieces, a pair of end pieces interposed therebetween, means operable at will for simultaneously retracting the side pieces from the block, a plurality of hinges having their ends

pivoted to said side pieces for maintaining the side pieces in parallelism during their retraction and means operated by the retractile movement of the side pieces for retracting the end pieces from the block.

5. A mold for casting a block of cementitious material, comprising a pair of substantially parallel side pieces, a pair of substantially parallel end pieces interposed therebetween, an actuator provided with oppositely threaded portions in threaded engagement respectively with said side pieces for retracting said side pieces from the block, and means operated by the retractile movement of the side pieces and adapted to come into operation subsequently to the retraction of the side pieces from the block for retracting the end pieces from the block and for maintaining them in parallelism during such retraction.

[Claims 6 to 9 not printed in the Gazette.]

1,241,488. LIFTER. EDSON L. BRANDELEY, Columbus, Ohio. Filed Sept. 21, 1916. Serial No. 121,498. (Cl. 29—87.1.)



A lifter for use in removing the spring holding pin of a valve stem comprising a substantially U-shaped yoke member, one leg of said member being bifurcated to fit the valve stem beneath the spring encircling the same, the other leg of said member having its outer end bent down to lie adjacent the top of the head of said stem, and a cam lever pivotally carried by said downwardly bent end and arranged so that its hump bears directly on the head of said stem for lifting said yoke member against the tension of the valve spring.

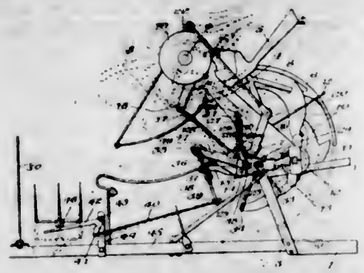
1,241,489. PULLEY-BLOCK. FRANZ BELT, Vienna, Austria. Filed July 6, 1916, Serial No. 107,762. Renewed May 24, 1917. Serial No. 170,780. (Cl. 254—192.)



3. A pulley block having a sheet metal housing consisting of an inner member having flat sides and a connecting bow part having upwardly turned edges and an outer member having flat sides to engage over the sides of the inner member and a connecting bow part between the two sides having downwardly turned edges to engage with the edges of the inner member and a pivot to connect the two parts and support the pulley rolls substantially as described.

[Claims 1 and 2 not printed in the Gazette.]

1,241,490. GRAIN-BINDER. BERT R. BENJAMIN, Oak Park, Ill., assignor to International Harvester Company of New Jersey, a Corporation of New Jersey. Filed May 11, 1914, Serial No. 837,682. Renewed Mar. 28, 1917. Serial No. 158,119. (Cl. 56—121.)



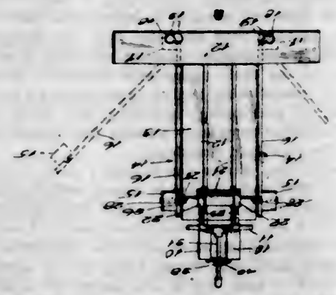
1. In a binder, a frame, a compressor trip, a shaft movable bodily with respect to said frame upon actuation of said trip, and means operatively connecting said frame and shaft movable about a fixed axis on said frame.

2. In a binder, a frame, a compressor shaft movable bodily with respect thereto, and a link pivotally connected directly between said frame and said shaft for connecting the latter to said frame.

20. In a binder, a frame, a binder clutch thereon, clutch controlling mechanism therefor including a clutch controlling member, a supplemental clutch controlling member reciprocable with respect to said frame, and means for throwing said clutch controlling members alternately into engagement with said binder clutch.

[Claims 3 to 19 and 21 to 35 not printed in the Gazette.]

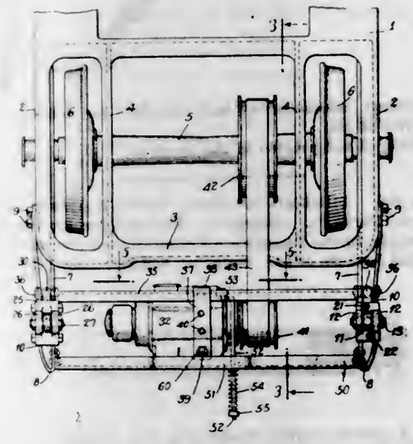
1,241,491. BALING-PRESS. JOHN D. BICKERSTAFF, Hobart, Okla. Filed Nov. 3, 1916. Serial No. 129,359. (Cl. 100—19.)



1. The combination of a press comprising upper longitudinal stationary beams and vertically swinging side members, of cylinders arranged near the ends of the upper beams and extending transversely thereof and connected thereto for support, a conduit provided at its ends with approximately U-shaped branches having their ends leading into the opposite ends of the cylinder, means for supplying pressure into the conduits and exhausting pressure therefrom, pistons mounted to slide within the cylinders, and means for detachably connecting the pistons with the side members.

2. The combination with a press comprising upper longitudinal beams and vertically swinging side members; of cylinders arranged near and below the ends of the upper beams, a conduit provided at its ends with approximately U-shaped branches having transverse portions to contact with the lower portions of the upper beams and their ends leading into the opposite ends of the cylinders, means for suspending the conduit from the upper longitudinal beams, means for supplying pressure into the conduit and exhausting pressure therefrom, pistons mounted to slide within the cylinders, and means for detachably connecting the pistons with the side members.

1,241,492. DYNAMO SUSPENSION. WILLIAM F. BOUCHÉ, Buffalo, N. Y., assignor to Gould Coupler Company, a Corporation of New York. Filed June 18, 1915. Serial No. 34,865. (Cl. 105—238.)



1. An arrangement of the class described, having in combination with a car truck, supporting bars, extending from the truck, means for pivotally suspending a dynamo from said bars, a depressed cross member connecting the outer ends of said bars, means for driving the dynamo from an axle of the truck, and a tension device carried by said cross member and tending to swing the dynamo away from the axle.

2. An arrangement of the class described, having in combination with a car truck, two supporting bars extending substantially horizontally from the truck, means for pivotally suspending a dynamo from said bars outside of the truck, a centrally depressed cross member connecting the outer ends of said bars, means for driving the dynamo from an axle of the truck, and a tension device carried at the centrally depressed portion of the cross bar and tending to swing the dynamo away from the axle.

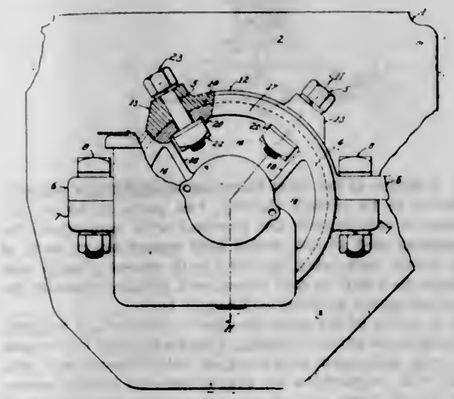
3. An arrangement of the class described, having in combination with a car truck, supporting bars extending from the truck, a swinging V-shaped member pivotally supported at each end by one of said bars respectively, a dynamo carried on the base of said V-shaped member and means for driving the dynamo from an axle of the truck.

4. An arrangement of the class described, having in combination with a car truck, supporting bars extending from the truck, a swinging member supported at each end by one of said bars respectively, said member having downwardly extending parts, the upper ends of which are pivotally supported by said bars, said downwardly extending parts being bent rearwardly toward the truck, and a dynamo driven from an axle of the truck supported on the base of said member.

5. An arrangement of the class described, having in combination with a car truck, supporting bars extending from the truck, a swinging member supported at each end by one of said bars respectively, said member having downwardly extending laterally inclined parts, the upper ends of which are pivotally supported by said bars, said downwardly extending parts being bent rearwardly toward the truck, and a dynamo driven from an axle of the truck, supported on the base of said member, the pivotal axis of said member being substantially directly above the axis of the dynamo.

[Claims 6 to 20 not printed in the Gazette.]

1,241,493. BEARING. AUBREY L. BROOMALL, Wilkinsburg, and EDWIN G. TIDLUND, Pittsburgh, Pa., assignors to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Oct. 9, 1914. Serial No. 865,843. (Cl. 64—10.)



1. In a dynamo-electric machine, the combination with a split magnetizable frame having circular end openings therein and circular outer end flanges, of removable bearing housings adapted to be seated in said circular end openings and having corresponding circular outer end flanges, and a plurality of radially-disposed bolts projecting through said corresponding flanges for rigidly securing said housings in position.

2. In a split-frame motor having circular end openings, the combination with bearing housings disposed in said openings and having outwardly projecting circular flanges, of corresponding circular flanges upon the upper half of said motor frame, and a plurality of radially disposed bolts projecting entirely through said corresponding flanges for securing said housings to the upper half of the frame.

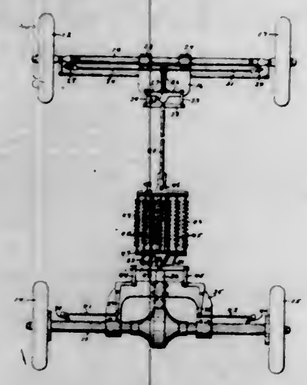
3. In a split-frame motor having a circular end opening, the combination with a circular flange around the opening in the upper half of the frame, of a circular bearing housing disposed in said opening and having pockets in the upper part thereof, through-bolts projecting through said circular flange and through the portion of the housing between its outer edge and said pockets, and nuts disposed in said pockets and coöperating with said bolts for clamping said housing rigidly in position, said nuts being held against turning in said pockets.

4. In a split-frame motor having a circular end opening, the combination with a circular housing disposed in said opening, of a plurality of through-bolts projecting radially through portions of said frame and said housings, and nuts coöperating therewith for clamping said housing in position.

5. The combination with a hollow frame having upper and lower halves, and provided with a circular end opening and an integral projecting flange partially surrounding said opening, of a circular member disposed within said opening and having a corresponding projecting flange adapted to fit within said first flange, and through-bolts projecting through said flanges in a radial direction for securing said member to one half of said frame.

[Claims 6 to 8 not printed in the Gazette.]

1,241,494. AUTOMATIC EQUALIZER FOR VEHICLES. JOHN LOUCIEN CHESNUTT, Kansas City, Mo. Filed June 28, 1916. Serial No. 105,376. (Cl. 21—105.)



1. A device of the class described, comprising a support, a device to be carried thereby, two pairs of levers fulcrumed on said support and provided with connections for supporting said device, evener bars spaced apart, each of said evener bars being provided with spaced pivotal connections to a pair of said levers, and yielding pressure devices interposed between said evener bars.

2. A device of the class described, comprising a support, a device to be carried thereby, levers arranged in forward and rear pairs and fulcrumed on said support and provided with connections for supporting said device, evener bars spaced apart and pivotally connected respectively to the forward and rear pair of lever devices, and yielding pressure devices interposed between said evener bars, whereby shock is equalized and distributed between the four corners of said device.

3. A device of the class described, comprising a support, a device to be carried thereby, a lever fulcrumed adjacent each corner of said support and provided with connections for supporting said device, evener bars spaced apart, each of said evener bars being provided with spaced pivotal connections to two of said levers, and yielding pressure devices interposed between said evener bars and connected thereto intermediate of said spaced pivotal connections, whereby shock and rebound communicated from said support are equalized and distributed to the four corners of said device.

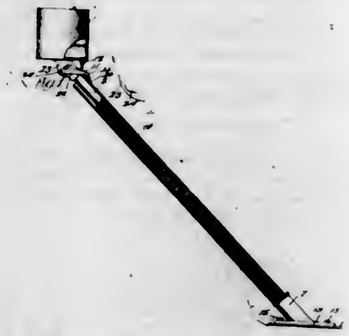
4. A device of the class described, comprising a support, a device to be carried thereby, levers fulcrumed on said support and provided with connections for supporting said device, bell-crank levers mounted for oscillation, pivotal connections between said levers and bell-crank levers, evener bars spaced apart and pivotally connected to said bell-crank levers, and yielding pressure devices between said evener bars.

5. A device of the class described, comprising a support, a device to be carried thereby, levers arranged in forward and rear pairs and fulcrumed on said support and provided with connections for supporting said device, transversely arranged evener bars spaced apart and pivotally connected respectively to forward and rear pairs of said levers and retractile springs interposed between said evener bars.

[Claims 6 to 8 not printed in the Gazette.]

1,241,495. HOG-OILER. FRANK R. CHILDREN, Council Bluffs, Iowa, assignor to R. Children's Sons Manufacturing Co., Council Bluffs, Iowa, a Corporation of Iowa. Filed Apr. 19, 1915. Serial No. 22,289. (Cl. 119—157.)

2. A hog oiler comprising a support and a laterally movable and rotatable member loosely surrounding the same and against which the hog may rub and sufficiently inclined to admit of the animal bringing substantially all portions of its body in contact therewith, a reservoir for delivering oil to said member and a valve member operable



by lateral movement of said member for delivering a quantity of oil.

[Claim 1 not printed in the Gazette.]

1,241,496. THERMO-COUPLE. LEWIS W. CHUBB, Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed June 20, 1914. Serial No. 846,278. (Cl. 171—73.)



1. A thermo-couple comprising two dissimilar metals welded end-to-end and rolled to form a flat flexible engaging surface and means for so mounting the said thermo-couple that its entire flat surface may engage a surface the temperature of which is to be determined.

2. A thermo-couple comprising two dissimilar metals flattened at the junction thereof and so folded as to constitute a substantially flat flexible engaging surface that may so engage the surface the temperature of which is to be determined that the thermal resistance between the couple and the surface will be relatively small.

3. A thermo-couple comprising two substantially flat dissimilar metals so folded as to constitute a flexible engaging surface that is adapted to conform to the surface the temperature of which is to be determined.

4. A thermo-couple comprising two dissimilar metals welded end to end and rolled, and conductors connected thereto, said thermo-couple having a flexible flat engaging surface relatively larger than the surface of the said conductors.

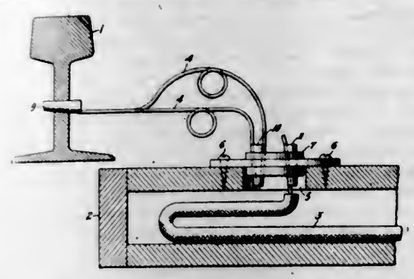
5. A thermo-couple comprising two dissimilar metals folded to form substantially a straight flat section, an insulating member for resiliently supporting said thermo-couple in engagement with the surface the temperature of which is to be determined, a handle for said couple, and means for detachably connecting said thermo-couple to said handle.

[Claims 6 to 12 not printed in the Gazette.]

1,241,497. BOND-WIRE CONNECTOR. WILLIAM W. COLEMAN, New York, N. Y. Filed Dec. 9, 1916. Serial No. 135,970. (Cl. 173—262.)

1. In a railway track circuit connection, in combination; a rail; a wire connected to said rail; a wire for connection to said first wire; trunking in which said second wire is located formed with a hole therein; means for forming said connection and closing said hole comprising a metallic block formed with a hole therein, a channel pin

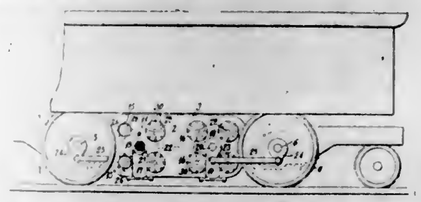
for binding said first mentioned wire electrically to said block in said hole and means for binding said second wire



to said block; and means for binding said block to said trunking.

[Claim 2 not printed in the Gazette.]

1,241,498. ELECTRIC LOCOMOTIVE. JOSEPH LE CONTE DAVIS, deceased, Pittsburgh, Pa., by Myra Shields Davis, administratrix, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed June 29, 1914. Serial No. 847,814. (Cl. 105—220.)



1. In a vehicle having driving wheels, the combination with a plurality of side frames, a motor mounted between said frames, and a driving mechanism associated with said motor and disposed outside of said side frames, of means for supporting said motor in said side frames, permitting the removal of one of its members through the side frame and maintaining the position of the driving wheels relative to said side frames.

2. In a vehicle having axles and driving wheels, the combination with a plurality of side frames having correspondingly disposed openings therein, said openings being disposed a greater distance from each driving axle than the radius of the driving wheels, and a plurality of bearing members disposed in said openings and detachably secured to said side frames, of a rotatable motor member supported by said bearing members and adapted to be removed through one of the side frame openings.

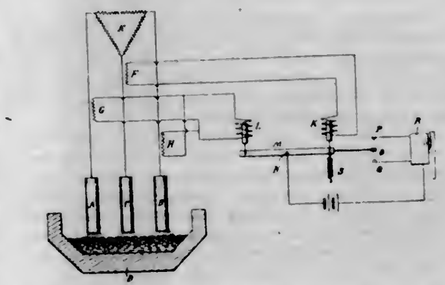
3. In a vehicle having axles and driving wheels, the combination with a plurality of side frames, one of which is provided with an opening therein, said opening being disposed a greater distance from each axle than the radius of the driving wheels, and a motor member disposed between said side frames and adapted to be removed through said opening, of a supporting member for said motor member disposed within said opening and detachably secured to said side frame.

4. In a vehicle having axles and driving wheels, the combination with a plurality of side frames, one of which is provided with an opening therein, said opening being disposed a greater distance from each axle than the radius of the driving wheels, and a motor armature disposed between said side frames and adapted to be removed through said frame-opening, of bearing means associated with said side frames for supporting said motor armature, one of said bearing means being disposed within said frame opening.

5. In a vehicle having axles and driving wheels, the combination with a plurality of side frames, at least one of which is provided with an opening therein, of a detachable member disposed within said opening and secured to said side frame, and an armature located between said side frames and supported by said detachable member, said armature being adapted to be removed through said opening when the supporting member is detached, while maintaining the position of the driving wheels relative to the side frames unchanged.

[Claims 6 to 12 not printed in the Gazette.]

1,241,499. POLYPHASE ELECTRIC FURNACE. JOSEPH L. DIXON, Detroit, Mich. Filed June 26, 1917. Serial No. 176,971. (Cl. 204—64.)



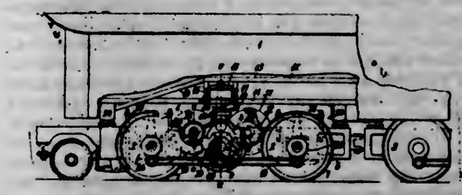
1. The combination with any one of the electrodes, of a polyphase electric furnace of regulating means therefor, comprising a magnetic element energized by the current flowing through the said electrode and when operating adapted to decrease the said current, and a partly counterbalancing opposing magnetic element energized by a resultant of the currents flowing through the other electrodes, as set forth.

3. In a polyphase electric furnace, the combination with each electrode therein, of a magnet or solenoid energized by currents induced from that flowing through the said electrode and adapted on a given increase in the energizing current to reduce the flow of current through the electrode, and a partly counterbalancing opposing magnet or solenoid energized by a resultant of currents induced from those flowing through the other electrodes and adapted when operative to overbalance the effect of the other magnet to increase the current inducing the energizing current of the latter.

5. The combination with one of the electrodes, of a polyphase furnace, of a solenoid energized by current flowing through said electrode, a solenoid of lesser power energized by a resultant of the currents flowing through the other electrodes, a pivoted beam oppositely attracted by the two solenoids, a compensating device acting thereon to assist the weaker solenoid to maintain the beam in balance, a circuit controller operated by the movement of the beam, and a motor operated in either direction according to the position of the beam for raising and lowering the said electrode.

[Claims 2 and 4 not printed in the Gazette.]

1,241,500. LOCOMOTIVE. GEORGE M. EATON, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed May 11, 1914. Serial No. 837,745. (Cl. 105—259.)



1. In a vehicle, the combination with side frames having correspondingly disposed upwardly projecting mem-

bers associated therewith, and a removable cross-tie joining the upper ends of said members, of a centering device associated with said cross-tie.

2. In a vehicle, the combination with side frames having correspondingly disposed upwardly projecting members associated therewith, and removable means for joining said upwardly projecting members, of centering means associated with said joining means.

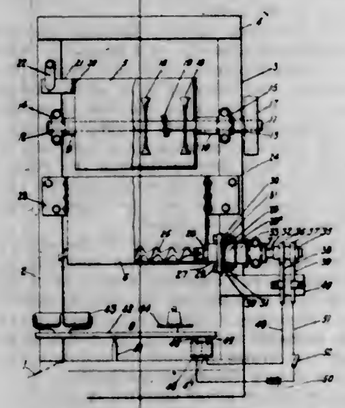
3. In a vehicle, the combination with side frames having correspondingly disposed upwardly projecting members associated therewith, and a cross member removably secured to the upper ends of said upwardly projecting members, of a center-pin carried by said cross member.

4. In a vehicle, the combination with side frames having correspondingly disposed upwardly projecting members associated therewith, and a cross member coöperatively engaging the upper ends of said upwardly projecting members, of a center-pin associated with said cross member, and detachable means for securing said cross member to said projecting members.

5. In a vehicle, the combination with side frames having correspondingly disposed upwardly projecting members associated therewith and a cross-member having end openings to receive the upper ends of said upwardly projecting members, of locking means for securing said cross member to said upwardly projecting members and a centering device associated with said cross member.

[Claims 6 to 31 not printed in the Gazette.]

1,241,501. MIXING AND MEASURING MACHINE. HENRY R. EDGCOMB, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 4, 1914. Serial No. 875,443. (Cl. 73—176.)



1. A mixing and weighing machine comprising a feeding device including a feed screw, a weighing scale adapted to receive material from the said feeding device, an electromagnetic clutch adapted to drive the said feed screw, and a circuit adapted to be controlled by the movement of the said weighing scale for energizing the said electromagnetic clutch.

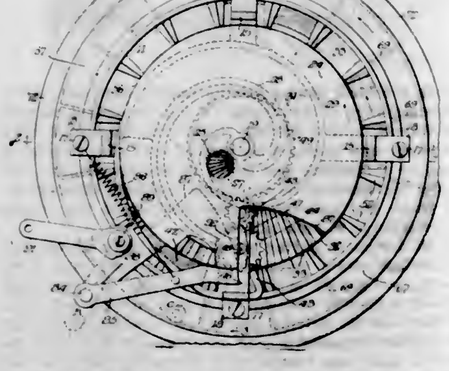
2. A mixing and weighing machine comprising a feeding device including a feed screw, a weighing scale adapted to receive material from the said feeding device, an electromagnetic clutch adapted to drive the said feed screw, and a circuit adapted to be controlled by the movement of the said weighing scale for energizing the said electromagnetic clutch, the said circuit including a primary battery, a shaft secured to the driving portion of the said clutch, slip rings disposed on the said shaft and electrically connected to the winding of the said clutch, brushes engaging the said slip rings, spaced mercury contact members, and other contact members secured to the said scale and adapted to coöperate with the said first-named contact members.

3. A mixing and weighing machine comprising a pivoted mixing hopper, a set of mixing blades disposed therein, a feeding hopper disposed below the said mixing hopper and adapted to receive material therefrom, a weighing scale disposed below the said feeding hopper and a feeding screw adapted to deliver material from the feeding hopper to the said scale.

4. A mixing and weighing machine comprising a mixing hopper, a mixing device disposed therein, a feeding hopper adapted to receive material from the said mixing hopper, a feeding screw disposed in the said feeding hopper, a weighing scale adapted to receive material from the said feeding hopper, and electrically actuated means for controlling the operation of the said feeding screw in accordance with the amount of material delivered to the said scale.

5. A mixing and weighing machine comprising a feeding device including a feed screw, a weighing scale adapted to receive material from the said feeding device, an electromagnetic clutch adapted, when electrically energized, to drive the feed screw, and a circuit for energizing the said electromagnetic clutch and including contact members associated with the said weighing scale and adapted to close the said circuit while the said scale is in position to receive material from the said feeding device and to open the said circuit when a predetermined amount of material has been deposited upon the said scale.

1,241,502. CORN-PLANTER. LEWIS E. FAGAN, Chicago, Ill. Filed Oct. 30, 1916. Serial No. 128,392. (Cl. 111—35.)



1. In a planter, the combination of a hopper, means for delivering kernels from the hopper, means for separating the kernels delivered from the hopper irrespective of the size and shape of said kernels, and means for intermittently discharging a predetermined number of said separated kernels.

2. In a planter, the combination of a hopper, means for delivering seed kernels therefrom, means outside the hopper for positively separating the seed kernels one from another irrespective of the size and shape of said kernels, an accumulator adapted to receive said separated kernels, and means for intermittently discharging a predetermined number of said separated kernels from said accumulator.

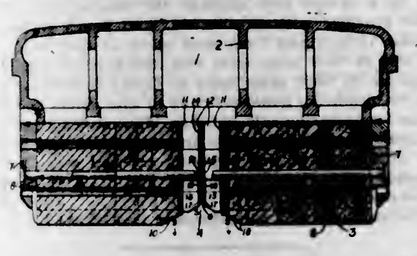
3. In a planter, the combination of an accumulator provided with a series of compartments, means for separating and delivering one kernel of seed to each of said compartments in succession, and means for discharging the kernels from a predetermined number of said compartments simultaneously.

4. In a planter, the combination of an accumulator provided with a series of seed compartments, a hopper adapted to contain the seed, means for removing seed from said hopper and depositing one kernel thereof in each of said compartments in succession, means for discharging a predetermined number of kernels from said accumulator, and means for returning the surplus kernels from the accumulator to said hopper.

5. In a planter, the combination of a seed-containing hopper, an accumulator comprising a series of compartments, means for removing a plurality of seed kernels from the hopper, means for separating said removed kernels one from another and depositing them singly in successive compartments of said accumulator, means for simultaneously discharging a predetermined number of said kernels from said compartments, means whereby the number of kernels so discharged may be varied at will, and means for returning the surplus kernels from said accumulator to the hopper.

[Claims 6 to 23 not printed in the Gazette.]

1,241,503. DYNAMO-ELECTRIC MACHINE. ALLAN B. FIELD, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Aug. 22, 1913. Serial No. 786,063. (Cl. 171—252.)



1. In a dynamo-electric machine comprising a field magnet member and a magnetizable core member having an annular vent space, the combination with the said core member, of means for directing the magnetic lines of force in the said vent space in a path parallel to that of the lines of force traversing the said field magnet and magnetizable core members.

2. In a dynamo-electric machine comprising a field magnet member and a magnetizable core member having an annular vent space, the combination with the said core member, of means for preventing a portion of the magnetic lines of force in the said vent space from entering the sides thereof.

3. In a dynamo-electric machine, the combination with a magnetizable core member having an annular vent-space and a plurality of spacing fingers disposed therein, of magnetizable material supported by said fingers at a predetermined distance from the entrance of said vent-space and from the sides thereof.

10. In a dynamo-electric machine, the combination with a magnetizable core member comprising a plurality of sections having an annular vent-space disposed intermediate the same, and a plurality of spacing fingers disposed in said space and having portions of non-magnetizable material, of a laminated ring of magnetizable material mechanically associated with the non-magnetizable portions of said fingers at a predetermined distance within said vent-space, said sections embodying a series of intro-gressively stepped portions on each side of said vent-space.

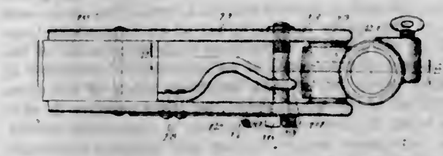
11. In a dynamo-electric machine comprising a field magnet member and a magnetizable core member having an annular vent space, the combination with the said core member, of means for reducing the eddy currents in the magnetizable material along the sides of the said vent space.

[Claims 4 to 9 not printed in the Gazette.]

1,241,504. PITMAN CONNECTION FOR MOWERS. HAROLD FLATER, Norrköping, Sweden. Filed June 29, 1917. Serial No. 177,709. (Cl. 74—17.)

In a pitman connection, a pitman having resilient straps, and means located between said straps for forcing the straps toward each other and thereby compensating for wear between the straps and the coöperating member.

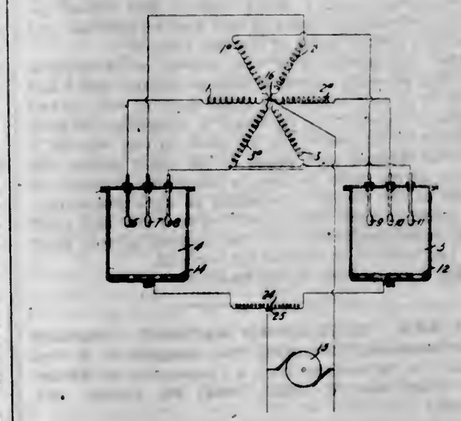
4. In a pitman connection, a pitman having resilient straps provided with conical bearing surfaces on the ends thereof, a bearing box having sockets for receiving said



bearing surfaces, a clamping bolt loosely carried by one of said straps and threaded into the other of said straps, and means fixedly secured to one of said straps and coöperating with said clamping bolt for forcing said straps and bearing surfaces into said sockets.

[Claims 2, 3, and 5 to 9 not printed in the Gazette.]

1,241,505. MULTIPHASE RECTIFYING SYSTEM. CHARLES LE G. FORTESCUE, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Mar. 30, 1914. Serial No. 828,210. (Cl. 175—363.)



1. The combination with a source of multiphase alternating currents provided with a neutral point, of two groups of asymmetric conductors, a connection from each phase of the source to a terminal of one of said asymmetric conductors, all such terminals being of like polarity, successive phases being connected alternatively to asymmetric conductors of each group, and all the terminals of the other polarity in each of the groups of asymmetric conductors being in electrical connection with each other, a conductor containing an inductive winding connecting each of said groups of common terminals, and a circuit between an intermediate point of said inductive winding and the neutral point of the source of alternating currents.

2. The combination with a polyphase source of alternating currents provided with a neutral point and having an even number of phases, of two groups of asymmetric conductors, a connection from each of one half of said phases to a terminal of an asymmetric conductor of one of said groups, a connection from each of the remaining phases to a terminal of an asymmetric conductor of the other of said groups, said terminals all being of like polarity, and all the terminals of the other polarity in each group being in electrical connection, a connection including an impedance device between the common terminals, and a load circuit connecting an intermediate point of the impedance device and the neutral point of the source of alternating currents.

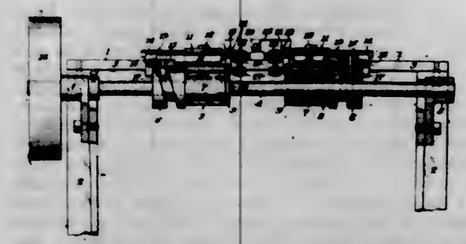
3. The combination with two polyphase sources of alternating currents having the same phase angle and differing from each other in phase by one-half the common phase angle, each of said sources being provided with a neutral point, of two groups of asymmetric conductors, there being as many asymmetric conductors in each group as there are phases in each source, a connection from each phase of one source to a terminal of an asymmetric conductor in one group, a connection from each phase of the other source to a terminal of an asymmetric conductor of the other group, all of said terminals being of the same polarity, all of the terminals of the other polarity in each group being in electrical connection, a connection including an impedance device between said common terminals, and a direct-current load circuit between an intermediate point of the impedance and the neutral points of the two sources.

4. The combination with two sources of three-phase alternating currents having a common neutral point and differing from each other by a phase angle of substantially 60°, of two three-phase rectifying devices, a connection between each phase of one source and a terminal of one of the rectifying devices, a connection between each phase of the other source and a terminal of the other rectifying device, all of said terminals being of the same polarity, all the terminals of the opposite polarity in each rectifying device being in electrical connection, a connection between said common terminals including an auto-transformer, and a direct current load circuit between an intermediate point in said auto-transformer and the common neutral point of the two sources.

5. The combination with two sources of three-phase alternating currents having a common neutral point and differing from each other by a phase angle of 80°; of two three-phase mercury arc rectifiers, a connection between each phase of one source and an anode of one rectifier, a connection between each phase of the other source and an anode of the other rectifier, a connection between the cathodes of the rectifiers including an auto-transformer, and a direct-current load circuit between the mid point of said auto-transformer and the common neutral point of the two sources of alternating currents.

[Claim 6 not printed in the Gazette.]

1,241,506. THUMB-HOLE MACHINE. FRIEDRICH GRAFFENBERGER, Milwaukee, Wis., assignor to A. Geo. Schulz Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Mar. 1, 1915. Serial No. 11,858. (Cl. 93—58.)



1. In a thumb hole machine the combination with parallel ways, of a rotary shaft parallel with said ways, cams splined on said shaft, thrust bearings for the cams, punch guides fastened with the cam bearings to said ways parallel with and adjustable lengthwise of the cam shaft, and dies attached to the inner ends of the punch guides in alinement and adjustable therewith, and reciprocating punches fitted in said guides and having projections engaging with the cams.

3. In a thumb hole machine the combination with a frame or bed having parallel ways, of a rotary shaft parallel with said ways, cams splined on and adjustable lengthwise of said shaft, thrust bearings for the cams, punch guides removably clamped with said bearings to said ways parallel with the cam shaft and adjustable lengthwise thereof with the cams, dies attached to the inner ends of said guides, reciprocating cross heads guided on said ways in engagement with the cams, and punches fitting in said guides and dies and removably engaged with said cross heads.

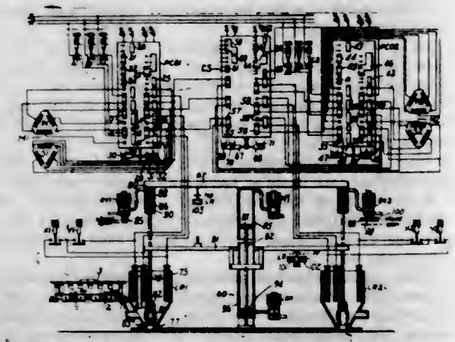
5. In a thumb hole machine the combination with a frame provided with parallel ways, of punch guides adjustable toward and from each other on said ways and provided at their inner ends with dies, punches fitted in said guides and dies, means for actuating said punches, and gages adjustable transversely to and lengthwise of said ways and adapted to fit into the corners of a box and determine the proper position of the box for the operation of the punches.

6. In a thumb hole machine the combination with a frame provided with parallel ways, of punch guides adjustable toward and from each other on said ways and provided at their inner ends with dies, punches fitting in said guides and dies, means for operating the punches, and L-shaped internal box-corner gages mounted on said ways and adjustable lengthwise thereof and transversely thereto.

8. In a thumb hole machine the combination with a frame provided with parallel ways, of punch guides adjustable toward and from each other on said ways and provided at their inner ends with dies partially separated therefrom on their upper sides by flaring transverse openings, reciprocating punches fitting in said guides and dies, means for operating said punches, internal box gages having rounded ends adjustable transversely to and lengthwise of the guides, and opposing external gages having rounded ends adjustable toward and from each other transversely to said ways.

[Claims 2, 4, and 7 not printed in the Gazette.]

1,241,507. CONTROL SYSTEM. ARTHUR J. HALL, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Sept. 8, 1914. Serial No. 860,607. (Cl. 172—179.)



1. In a control system, the combination with a source of energy, a plurality of polyphase motors, and means for connecting said motors to said source, of a plurality of switching devices for arranging the circuit connections of said motors for different ranges of operating speeds, and means for preventing the operation of said switching devices when said connecting means is in its closed position.

5. In a control system, the combination with a source of energy, a plurality of polyphase motors, and means for connecting said motors to said source, of a plurality of switching devices for changing the number of poles of said motors, and a switching device for connecting said motors in cascade or in parallel relation, whereby said motors are adapted for different ranges of operating speeds, electrical means for controlling and operating said switching devices, and interlocking means associated with said connecting means for preventing the actuation of said switching devices when said connecting means is closed to supply energy to said motors.

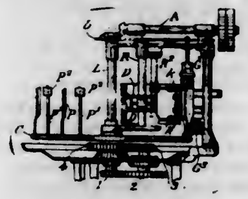
17. In a control system, the combination with a source of energy, a plurality of polyphase motors, and means for connecting said motors in cascade and in parallel relation for different speed ranges, of a plurality of liquid rheostats for governing the acceleration of said motors and severally having electrically operated discharge valves, and means for preventing the actuation of one of said discharge valves when said motors are connected in cascade arrangement.

32. In a control system, the combination with a source of energy, a polyphase induction motor adapted to be connected for a plurality of ranges of operating speeds, and liquid rheostats for governing the acceleration of said motor during each speed range, of line switching devices for connecting said motors to said source, and means for causing said liquid rheostats to interrupt the motor current during transitions in speed connections of said motors.

50. In a system of control, the combination with a source of energy, a plurality of polyphase induction motors, and a plurality of electrically operated speed-changing switches for arranging the motor connections for different ranges of speeds and each embodying an operating electromagnet for actuating its switch in one direction and a plurality of operating electromagnets for actuating its switch in the opposite direction, of controllable means for governing the energization of said electromagnets.

[Claims 2 to 4, 6 to 16, 18 to 31, 33 to 49, and 51 to 59 not printed in the Gazette].

1,241,508. BOTTLE-WASHER. CHARLES HAMANN, Brooklyn, N. Y. Filed Aug. 27, 1913. Serial No. 786,905. (Cl. 141—7.)



1. An improved bottle washer comprising a main carrier shaft, means for rotating the same, a bottle carrier rotatably mounted upon said shaft, means operated by said shaft for rotating said carrier, a brush belt having a portion traveling in a route parallel with the route of the bottles on said carrier, and means operated by said carrier shaft for actuating said brush belt.

2. An improved bottle washer comprising a main carrier shaft, means for rotating the same, a bottle carrier rotatably mounted upon said carrier shaft, means operated by said carrier shaft for rotating said carrier, and means also operated by said main carrier shaft for cleaning the exteriors of bottles on said carrier.

3. An improved bottle washer comprising a main carrier shaft, means for rotating the same, a bottle carrier rotatably mounted upon said carrier shaft, means operated by said carrier shaft for rotating said carrier, means also operated by said main carrier shaft for cleaning the exteriors of bottles on said carrier, and means also operated by the carrier shaft for rotating the bottles.

4. An improved bottle washer comprising a main carrier shaft, means for rotating the same, a bottle carrier rotatably mounted upon said carrier shaft, means operated by said carrier shaft for rotating said carrier, a brush belt having a portion traveling in a route parallel with the route of the bottles on said carrier, means operated by said carrier shaft for actuating said brush belt, and means also operated by the main carrier shaft for rotating the bottles.

5. An improved bottle washer comprising a main carrier shaft, means for rotating the same, a bottle carrier rotatable upon said carrier shaft, spaced apart posts rotatably supported above said bottle carrier, double sprocket wheels attached to the respective posts, sprocket chains connecting the sprocket wheels of the respective posts, brush sections attached to said chains, and means operated by said main carrier shaft for rotating one of said posts.

[Claim 6 not printed in the Gazette.]

1,241,509. FORMATION OF BOTTLE-CAPS. CHARLES HAMMER, Queens, N. Y., assignor, by direct and mesne assignments, to American Metal Cap Co., Brooklyn, N. Y. Filed Aug. 30, 1916. Serial No. 117,602. (Cl. 215—13.)



1. A closure cap comprising a body portion formed of a sheet metal strip bent into the proximate form of a cylinder with the end portions lapping and the inner edge being given a single bend back on itself outwardly and lying beneath the lapping unbent cylindrical outer edge to conceal the raw edge and prevent its access from the inside of the cap, the outer lapping portions being provided with integral locking means, and an end member closing one end of the cylinder.

2. A closure cap comprising a body portion formed of a sheet metal strip bent into the proximate form of a cylinder with the end portions lapping and the inner edge being given a single bend back on itself outwardly and lying beneath the lapping unbent cylindrical outer edge to conceal the raw edge and prevent its access from the inside of the cap, the outer lapping portions being provided with locking means in the form of a lug, and an end member closing one end of the cylinder.

3. A closure cap comprising a body portion formed of a sheet metal strip bent into the proximate form of a cylinder with the end portions lapping and the inner edge bent back on itself outwardly and lying beneath the lapping unbent cylindrical outer edge to conceal the raw edge and prevent its access from the inside of the cap, an end member closing one end of the cylinder, the open end of the cap being rolled into a bead, and integral locking means at said lapping portions that is included in said beaded end portion.

4. A closure cap comprising a body portion formed of a sheet metal strip bent into the proximate form of a cylinder with the end portions lapping and the inner edge bent back on itself outwardly and lying beneath the lapping unbent cylindrical outer edge to conceal the raw edge and prevent its access from the inside of the cap, an end member closing one end of the cylinder, the open end of the cap being rolled into a bead, and integral locking means in the form of a lug at said lapping portions that is included in said beaded end portion.

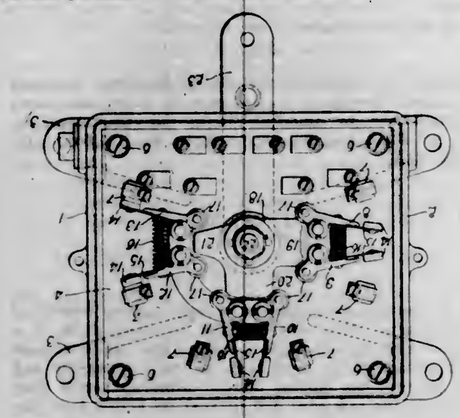
5. A closure cap comprising a body portion formed of a sheet metal strip bent into the proximate form of a cylinder with the end portions lapping and the inner edge bent back on itself outwardly and lying beneath the lapping unbent cylindrical outer edge to conceal the raw edge and prevent its access from the inside of the cap, the outer lapping portions being provided with an integral lug that projects rearwardly beneath the said folded edge to lock the edges together, and an end member closing one end of the cylinder.

[Claims 6 to 8 not printed in the Gazette.]

1,241,510. CONTROLLER. EDWARD A. HANFF, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Sept. 10, 1914. Serial No. 860,968. (Cl. 172—179.)

1. The combination with a plurality of pairs of movable switch members, of actuating means therefor comprising a member having radially-projecting arms corresponding

in number to the pairs of switch members, said switch members and said arms being in substantially the same plane, said arms being movable in opposite directions from neutral positions to control said switches.



2. The combination with a plurality of pairs of coacting stationary and movable contact members mounted in substantially the same plane, of an actuating member between each pair of movable contact members, said actuating member being movable in either direction from an inoperative position to respectively effect the engagement and disengagement of each pair of contact members.

3. The combination with a plurality of pairs of movable switch members, of actuating means therefor comprising a member having a plurality of radially-projecting arms which extend between the members of the respective pairs of switches and are of such widths as to retain certain of said pairs of switch members in an open position and to permit other of said pairs of switch members to be retained in a closed position.

4. The combination with a plurality of pairs of relatively movable contact members, of a cam mechanism for controlling said contact members, said mechanism having an inoperative position in which part of said contact members are in engaged positions and the other of said contact members are in disengaged positions, and having also two operative positions for controlling the positions of said contact members.

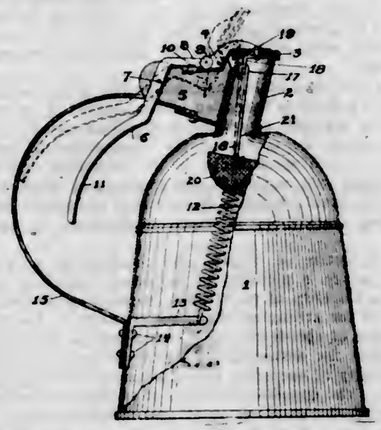
5. The combination with an electric motor, and a plurality of switches for controlling the direction of rotation of said motor, of a plurality of movable switch members for controlling the switches, and a cam mechanism for actuating said switch members, said switches and said cam mechanism being mounted in substantially the same plane.

[Claims 6 to 13 not printed in the Gazette.]

1,241,511. SAFETY OIL-CAN. AUGIE L. HANSEN, Evanston, Ill., assignor to Justrite Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 5, 1913. Serial No. 788,230. (Cl. 221—15.)

1. The combination with a can having a single opening, of a pivoted cap closing said opening, said cap having an outwardly extending portion, a pivoted lever having a roller mounted on one end thereof which engages the said outwardly extending portion adjacent the pivot, and a coil spring located within said can connected to and adapted to hold said cap closed.

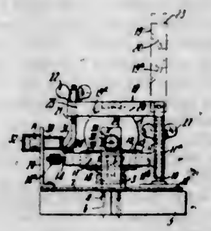
6. The combination with a can having a single opening, of a pivoted cap closing said opening, said cap having an outwardly extending portion, a pivoted lever having a roller mounted on one end thereof which engages the said outwardly extending portion adjacent the pivot, a coil spring located within said can adapted to hold said cap closed, the upper end of said spring being formed in a straight portion terminating in a hook, a lug on said cap engaged by said hook, said straight portion extending through the opening when the cap is open, a cup formed of wire gauze carried by said spring which automatically closes the opening whenever the cap is open.



13. The combination with a can having a spout, of a pivoted cap for the outer end thereof, said cap having a laterally extending shelf, a lever engaging at its inner end with said shelf close to the cap pivot when the cap is closed, said lever being so pivoted that when its other end is swung outwardly its inner end will move away from the cap pivot to increase the leverage of the lever to facilitate opening of the cap, and spring means tending to resist such opening.

[Claims 2 to 5, 7 to 12, and 14 not printed in the Gazette.]

1,241,512. ADJUSTING INCANDESCENT LAMPS. CLINTON O. HARRINGTON, Edgewood borough, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed Mar. 13, 1914. Serial No. 824,469. (Cl. 176—7.)



1. The method of adjusting incandescent electric lamps which consists in locating the bulb by optical means in such position that the filament occupies a predetermined positions with relation to a given member, locating the lamp base also in a predetermined position with relation to said member, and then securing the bulb and the base together.

2. In combination, a base member, means associated therewith for mounting a lamp base in a predetermined position in said base member, means for adjustably mounting a lamp bulb, and optical means for determining when the filament in said bulb occupies a predetermined position with respect to said base member.

3. In combination, a base member, means associated therewith for holding a lamp base in a predetermined position thereon, a frame movable with relation to said base member, means for constraining said frame to move in a given path with relation to said base member, means carried by said frame for adjustably mounting a lamp bulb therein, and optical means for determining when the filament in said bulb occupies a predetermined position with relation to said frame.

4. An incandescent electric lamp comprising a bulb, a filament located therein with usual commercial accuracy, and a member attached to said bulb and located in a predetermined position with respect to said filament.

5. An incandescent electric lamp comprising a bulb, a concentrated filament located therein with usual commercial accuracy, and a member attached to said bulb and located in a predetermined position with respect to said filament.

[Claims 6 and 7 not printed in the Gazette.]

1,241,513. PUMP. GEORGE C. HICKS, Jr., Connersville, Ind. Filed Feb. 7, 1917. Serial No. 147,051. (Cl. 103—44.)



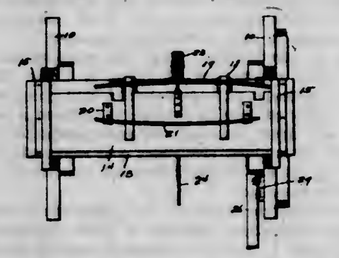
2. A pump comprising, a casing provided with an inlet and an outlet and with an impeller-chamber having a segmental bore, an impeller-shaft journaled in the casing concentric with said bore, an elliptical impeller carried by said shaft and adapted to have its major extremities sweep said bore, a pivot carried by the casing parallel with the impeller-shaft between the impeller and the casing-inlet, an abutment mounted for oscillation on said pivot as an axis and having a pair of arms provided with faces at right angles to each other and tangential to the periphery of the impeller and having their extremities formed in circular arcs concentric with said pivot, said oscillating abutment separating the impeller-chamber from the casing-inlet, and a pair of concave surfaces carried by the casing concentric with said pivot and adapted to be swept by the extremities of the arms of the abutment, combined substantially as set forth.

10. A pump comprising, a casing provided with an inlet and an outlet and with an impeller-chamber having a segmental bore, an impeller-shaft journaled in the casing concentric with said bore, an elliptical impeller carried by said shaft and adapted to have its major extremities sweep said bore, an abutment-shaft carried by the casing parallel with the impeller-shaft between the impeller and the casing-inlet, an abutment fast on the abutment-shaft and having a pair of arms provided with faces at right angles to each other and tangential to the periphery of the impeller, said oscillating abutment separating the impeller-chamber from the casing-inlet, means for maintaining the ends of the arms of the abutment in running relationship with the casing as the abutment oscillates, prolongations of the abutment-shaft and impeller-shaft, an elliptical cam fast on the prolongations of the impeller-shaft, a fork fast on the prolongation of the abutment-shaft and having a pair of arms provided with faces at right angles to each other and tangential to the periphery of the cam, a housing having a pair of side members carrying bearings for the prolongations of the shafts and disposed axially at the sides of the cam and fork, an oil-tank inclosing the space between the side-members of the housing and inclosing said fork and cam, and oil-passages placing the shaft-bearings in the housing in communication with the oil-tank, combined substantially as set forth.

[Claims 1, 3 to 9, and 11 not printed in the Gazette.]

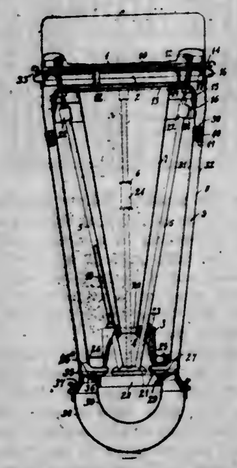
1,241,514. OPERATING-TABLE. SAMUEL H. HILL, Arcadia, Ind. Filed Feb. 23, 1917. Serial No. 150,575. (Cl. 119—98.)

1. An operating table comprising a stationary platform, supporting bars at each end of said platform, an animal clamping member fixed to said stationary platform, a movable platform adapted to slide over the stationary platform, guide members for retaining the sliding platform in proper alinement with the stationary platform, a clamping member carried by the movable platform adapted to coöperate with the clamping member of the stationary platform, a shaft rotatably mounted in the platform supporting bars, a lever fixed at one end of said shaft and projecting outwardly from the side of the table having the movable platform and clamping member, a chain connected at one end to said lever at a point between its ends, the opposite end of said chain being attached to the movable platform, a pulley rotatably mounted on one edge of the stationary platform over which said chain passes, a foot lever also fixed to one end of said shaft and projecting outwardly from the side of the table having the movable platform and clamping member, a ratchet carried by one of the platform supports with which said foot lever engages to hold the foot lever in its lowered position, and a spring controlled rod attached at one end to the foot lever and at its upper end to the upper portion of the platform support for returning said levers to their upward positions when the foot lever is released from the ratchet, without affecting the movement of the movable platform.



[Claim 2 not printed in the Gazette.]

1,241,515. ARC-LAMP. ALFRED HUTTAR, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed July 24, 1911. Serial No. 640,172. (Cl. 176—52.)



1. In an electric arc lamp, the combination with an arc-inclosing combustion chamber, a draft chamber and an unobstructed conical conduit of full circular area between said chambers, of an outer shell and an inner shell enveloping said parts and forming an annular passage for the circulation of gases between said draft chamber and said combustion chamber.

2. In an electric arc lamp, the combination with an arc-inclosing combustion chamber, a draft chamber disposed above it and a centrally disposed downwardly

tapering unobstructed conduit between said chambers, and inclined electrodes disposed outside of said conduit, of substantially concentric shells exteriorly disposed around said parts and located the one within the other to form a passage having a large cooling surface and adapted to conduct the gases from the draft chamber to the combustion chamber.

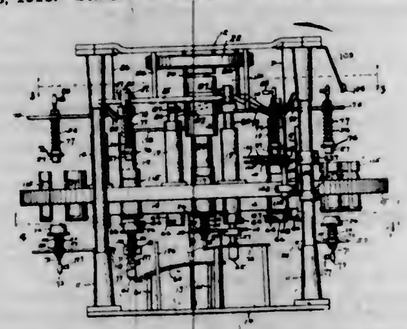
3. In an electric arc lamp, the combination with an arc-inclosing combustion chamber having side openings, a draft chamber disposed above it and an entirely hollow conduit between the respective upper and lower walls of said chambers, of a conduit enveloping said parts, spaced from said first-named conduit and interposed between a circumferential opening in said draft chamber and the side openings in said combustion chamber.

4. In an electric arc lamp, the combination with an arc-inclosing combustion chamber, a draft chamber, a centrally disposed passage between said chambers, and a double casing enveloping said parts to form a passage between said draft chamber and said combustion chamber, of a pair of inclined electrodes and magnetic means for influencing the arc disposed between said central and said enveloping passages.

5. In an electric arc lamp, the combination with an arc-inclosing combustion chamber, a draft chamber disposed above it, and a centrally disposed conduit between said chambers, of a pair of converging electrodes arranged exteriorly of said conduit, an inner shell enveloping said parts, and an outer shell which, in conjunction with said inner shell, forms an annular passage between said draft chamber and said combustion chamber.

[Claims 6 to 18 not printed in the Gazette.]

1,241,516. **MACHINE FOR MAKING HOLLOW GLASSWARE.** EDWARD S. HUTTON, Lapel, Ind. Filed Sept. 16, 1915. Serial No. 51,108. (Cl. 49—9.)



1. A machine for making hollow glassware including a rotary table, a series of pairs of molds mounted in said table, each pair consisting of a press mold and a blow mold, the upper and lower ends in all of said molds being open, a blow head and a bottom for each pair of said molds, and means mounted in connection with the table for transferring said blow head and bottom from one mold of each pair to the other.

10. A machine for making hollow glassware including a rotary table, a pair of press molds and blow molds mounted on said table and open at both ends, a blow head for closing the upper ends of said molds, a bottom for closing the lower ends of said molds, a vertical column extending through and mounted on said table, a tube vertically reciprocable in said column and having a U-shaped slot therein, a rod slidably mounted in said column and tube and having a U-shaped slot therein, said tube and rod extending respectively beyond the ends of said column, a key secured on said column which projects into the slots in said tube and rod, arms on said tube and rod for supporting the blow head and bottom, means for reciprocating said tube and rod simultaneously in opposite directions, and means for causing the oscillation of them to bring the blow head and bottom into registry with the said press and blow molds alternately.

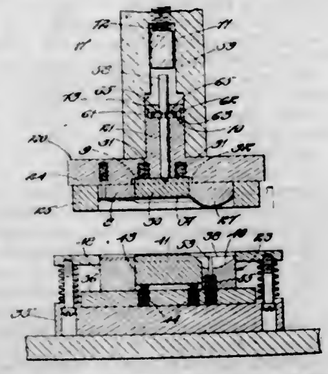
15. A machine for making hollow glassware including a press mold, a blow mold, a lift-over insertible within the press mold and into the neck of the blank about which the neck of the blank is formed and with its side provided with downward and outward inclinations, and means slidably mounted on said lift-over so as to move downward on said inclinations and spread and engage the inner surface of the neck of the blank so that it will be supported by said lift-over.

16. A machine for making hollow glassware including a rotary table, a table support having an annular channel therein, a mold formed of two vertical sections, radially slidable frames in said table for carrying said sections, rods extending radially inward from said frames, blocks secured to and extending downward from the inner end of each rod, and two successive sets of spring cams secured in the channel of the table support in position to engage said blocks, the spring cams of one set converging so as to bring the mold sections together and the spring cams of the next set formed so as to cause the separation of said mold sections.

19. A machine for making hollow glassware including a press mold having a blank chamber, the lower end reduced to form the neck of the blank and with a recess below said blank chamber in the lower end of said mold, a bottom for closing said recess in the lower end of the mold and having a central opening through it and an annular depression in the top thereof surrounding said opening, a plunger in the opening of the bottom and of the same diameter as said opening, a plunger rod extending downward therefrom, a tubular upright supporting said bottom and limiting the downward movement of said plunger so that the upper end thereof will be flush with the upper surface of the bottom, a blow mold with the lower end thereof provided with a recess similar to the recess in the lower end of the press mold and adapted to receive said bottom and shape the lower end of the blown article, an oscillatory arm for supporting said tubular upright, and means for oscillating said arm for transferring the bottom from one of said molds to the other.

[Claims 2 to 9, 11 to 14, 17, and 18 not printed in the Gazette.]

1,241,517. **MACHINE FOR CUTTING AND FORMING SPOONS FROM SHEET MATERIAL.** LEO D. JACOBY, Boston, Mass., assignor to The Sanispoon Company, Boston, Mass., a Corporation of Massachusetts. Filed Nov. 27, 1916. Serial No. 133,605. (Cl. 113—50.)



1. In a machine of the character described, the combination of a pair of forming dies, one of which is reciprocable with relation to the other, a coöperating block movably mounted in the said movable die, a spring which engages with said block and tends to push said block outwardly with relation to said die, a spindle secured to said block and loosely mounted in said movable die and having an annular groove therein, an apertured shank through which said spindle loosely passes, a plurality of segmental jaws mounted concentrically on said shank in

such a manner as to have a radial movement and which are adapted to engage with the annular groove in said spindle, and a spring which tends to press said segmental jaws radially toward each other and which holds the said jaws in engagement with said annular groove when the said annular groove is in alinement with said jaws.

2. In a machine of the character described, the combination of a pair of forming dies, one of which is reciprocable with relation to the other, a coöperating block movably mounted in the said movable die, a spring which engages with said block and tends to push said block outwardly with relation to said die, a spindle secured to said block and loosely mounted in said movable die and having an annular groove therein, an apertured shank through which said spindle loosely passes, a plurality of segmental jaws mounted concentrically on said shank in such a manner as to have a radial movement and which are adapted to engage with the annular groove in said spindle, a spring which tends to press said segmental jaws radially toward each other and which holds the said jaws in engagement with said annular groove when the said annular groove is in alinement with said jaws, said segmental jaws and asid annular groove having cooperating cam-shaped surfaces whereby said die and shank may be moved rearwardly while the said spindle is held at rest, causing the said segmental jaws to move radially outward and be released from the groove and allowing the said block to be thrust outward by its spring.

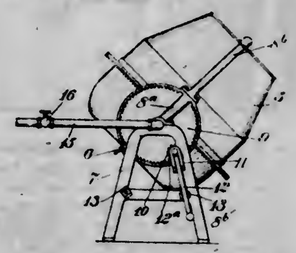
3. In a machine of the character described, the combination of a pair of forming dies, one of which is reciprocable with relation to the other, a block movably mounted in the said movable die, a spring which engages with said block and tends to push said block outwardly with relation to said die, a spindle secured to said block and loosely mounted in said die and having an annular groove therein, a plurality of segmental jaws mounted concentrically on said movable die in such a manner as to have a radial movement and which are adapted to engage with the annular groove in said spindle, and a spring which tends to press said segmental jaws radially toward each other and which holds said jaws in engagement with the said annular groove when the said annular groove is in alinement with said jaws.

4. In a machine of the character described, the combination of a pair of forming dies, one of which is reciprocable with relation to the other, a block movably mounted in the said movable die, a spring which engages with said block and tends to push said block outwardly with relation to said die, a spindle secured to said block and loosely mounted in said die and having an annular groove therein, a plurality of segmental jaws mounted concentrically on said movable die in such a manner as to have a radial movement and which are adapted to engage with the annular groove in said spindle, and a spring which tends to press said segmental jaws radially toward each other and which holds said jaws in engagement with the said annular groove when the said annular groove is in alinement with said jaws, said annular groove and jaws having coöperating cam faces whereby when the said jaws are engaged in said groove and the spindle is held stationary, the said movable die is permitted to be moved with relation to the spindle and the jaws are thereby given a radial movement outwardly from engagement with said annular groove.

5. In a machine of the character described, the combination of a pair of forming dies, one of which is reciprocable with relation to the other, a block movably mounted in the said movable die, a spring which engages with said block and tends to push said block outwardly with relation to said die, a spindle secured to said block and loosely mounted in said movable die and having an annular groove therein, a plurality of segmental jaws mounted concentrically on said movable die in such a manner as to have a radial movement and which are adapted to engage with the annular groove in said spindle, said jaws being each formed with a groove in the outer periphery thereof, and an annular spiral spring seated in said grooves and maintaining said jaws in engagement with said spindle under a yielding tension which causes said jaws to snap into engagement with the groove in the spindle when the said jaws are in alinement with said grooves, and which yields to allow spreading movement of the jaws when the movable die is moved outward with relation to the spindle.

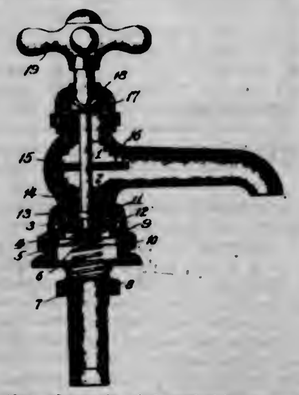
[Claims 6 to 8 not printed in the Gazette.]

1,241,518. **MEANS FOR SUPPLYING WATER TO CONCRETE-MIXERS.** GERHARD JAEGER, Columbus, Ohio. Filed Feb. 8, 1915. Serial No. 6,699. (Cl. 83—73.)



In combination with a mixing drum having a single opening for both supplying and discharging the materials and water to be mixed, a drum-supporting yoke, means whereby the drum may be both oscillated and rotated on said yoke, a water conductor formed on said means and a pipe connected with said conductor at the axis of oscillation of the drum to discharge through said opening.

1,241,519. **VALVE.** JOHN H. JOHNSON, Chicago, Ill., assignor to Federal-Huber Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 24, 1913. Serial No. 756,293. (Cl. 137—4.)

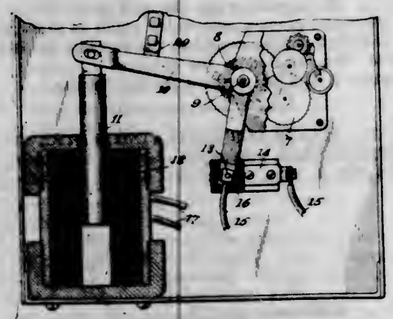


The combination of a pair of detachably connected conduits, one of said conduits having a valve seat and a valve therefor, the other conduit having an internal shoulder, a movable strainer in said other conduit and against the shoulder, and a spring disposed between and exerting pressure in opposite directions against the strainer and the valve to yieldably maintain the strainer and the valve in their normal positions, the strainer being attached to the spring and removable therewith.

1,241,520. **ELECTRIC-LIGHT-CONTROL SYSTEM.** JOHN H. JORDAN, Scranton, Pa. Filed Feb. 21, 1917. Serial No. 149,999. (Cl. 161—25.)

1. In a time switch mechanism, the combination of a switch, a lever positively attached to the movable member of said switch, a clock mechanism positively connected with said lever for moving the switch continuously from its closed position to its open position, a solenoid for

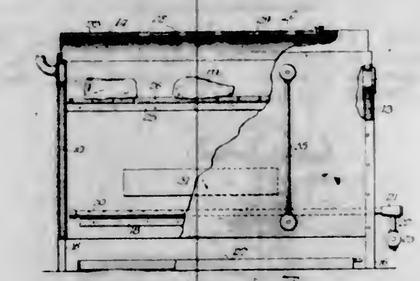
actuating said lever to close the switch, and a hand operated switch for closing the solenoid circuit.



2. In a time switch mechanism, the combination of a switch, a lever having one arm carrying the movable member of said switch, a clock mechanism positively connected with said lever, and operating to move said switch continuously from its closed position to its open position, a solenoid connected to the other arm of said lever, and a hand operated switch for closing the solenoid circuit.

[Claim 3 not printed in the Gazette.]

1,241,521. OVEN. BRUNO KAHN, Chicago, Ill., assignor to Fred C. Hess, Chicago, Ill. Filed July 13, 1916. Serial No. 108,981. (Cl. 126—39.)

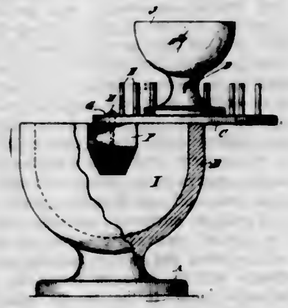


1. In an oven of the class described, the combination of a rectangular body part entirely open at its lower end to the air, a cover for the top of said body part, the front and end walls of said body part being water-jacketed and the rear wall and said cover being unjacketed, a burner adjacent the front wall near the lower end thereof, a burner adjacent the rear wall near the lower end thereof, a support above the burners for material to be treated, adjustable vent openings in the cover, and an adjustable air inlet to the body part above the level of the burners.

2. In an oven of the class described, the combination of a rectangular body part entirely open at its lower end to the air, a cover for the top of said body part, the front and end walls of said body part being water-jacketed and the rear wall and said cover being unjacketed, a burner adjacent the front wall near the lower end thereof, a burner adjacent the rear wall near the lower end thereof, and a support above the burners for material to be treated.

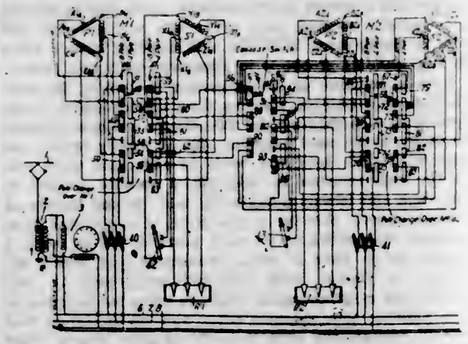
3. In an oven of the class described, the combination of a rectangular body part entirely open at its lower end and having a cover concave on its inside, a support at the top of the body part for material to be treated, one wall of said body part being water-jacketed and the opposite wall being unjacketed, a gas burner running alongside of the jacketed wall near the lower end thereof, another gas burner running alongside of the opposite wall near the lower end thereof, said burners being sufficiently far apart so that the heated air rising above the one burner will absorb moisture of condensation from the jacketed wall and the dry heated air above the opposite burner will rise and mingle at the top of the body part with the moist heated air, and the mixture then flowing downwardly through the body part and out from the bottom thereof after having circulated about the material at the top of the body part to be treated.

1,241,522. SEWING-BOWL. MARY F. KELLNER, Chicago, Ill. Filed Oct. 30, 1915. Serial No. 58,910. (Cl. 223—57.)



A spool holder comprising a bowl B provided with a one piece cover pivoted to one side of the bowl, said cover carrying spindles for spools and a stand D adapted to support a pin cushion as and for the purpose set forth.

1,241,523. CONTROL SYSTEM. BENJAMIN G. LAMME, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 25, 1914. Serial No. 820,817. (Cl. 172—274.)



2. In a control system, the combination with a plurality of induction motors severally provided with a single primary and a single secondary winding, of means for connecting the windings of each of said motors in delta and in parallel star, and means for connecting said motors in cascade and in parallel.

3. In a control system, the combination with a plurality of induction motors severally having windings permanently connected in delta, of means for connecting said motors in cascade, and for subsequently establishing connections to the mid-points of the several motor windings and connecting said motors in parallel.

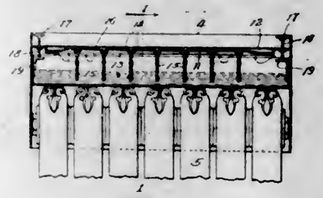
4. The method of operating a plurality of induction motors severally provided with a single primary and a single secondary winding which consists in connecting said motors in cascade relation with the windings of each of the motors in delta relation, changing from cascade to parallel connection of the motors, and changing to parallel-star relation of the windings of each of the motors.

5. The combination with a pair of two-speed polyphase induction motors having primary and secondary windings, of a switching device for each motor adapted in one position to connect the windings thereof for one number of poles and in another position to connect the windings for half said number of poles, and another switching device adapted in one position to connect the secondary windings of said motors together for cascade operation with the larger number of poles and in another position to connect the windings of said motors for parallel operation with the smaller number of poles.

6. The method of operating a plurality of induction motors severally provided with interconnected windings which consists in cascading the motors with the windings connected in delta relation to provided a relatively large number of poles paralleling the motors with the same internal connections, and paralleling the motors with windings connected in parallel-star to provide a relatively small number of poles.

[Claims 1 and 7 not printed in the Gazette.]

1,241,524. HUMIDIFYING DEVICE. VICTOR A. LARSON, Chicago, Ill. Filed Mar. 6, 1917. Serial No. 152,802. (Cl. 237—78.)



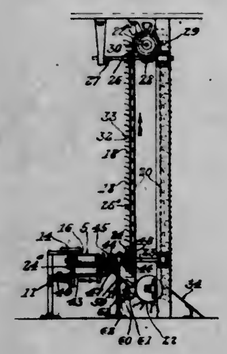
1. A device of the character set forth comprising a housing adapted to be positioned on the top of a radiator, a pan for water in said housing and spaced from the latter to provide passage for air, a substantially horizontal partition in said housing above said pan and open at its central portion and arranged to prevent the air from passing from said housing excepting through the open portion of said partition, and means in said housing extending across and substantially covering said opening and extending ito said pan for presenting a water-soaked surface to the currents of air rising through said housing and the open portion of said partition.

8. In a device of the character set forth, the combination of a housing, a pan in said housing and spaced therefrom to provide passage for air, said device being provided with an opening directly above said pan for the outlet of the heated air passing through said passage, absorbent material extending across said opening and substantially parallel therewith to substantially cover said opening and arranged directly above said pan for subjection to the air currents, and a series of depending members of absorbent material in contact with the absorbent material extending across said opening, and extending into said pan.

[Claims 2 to 7 not printed in the Gazette.]

1,241,525. CONVEYER. CLIFTON F. LEATHERBEE, Newton, Mass., assignor to Painting Machine Company, Kittery, Me., a Corporation of Maine. Original application filed Apr. 4, 1910, Serial No. 553,330. Divided and this application filed Aug. 17, 1910. Serial No. 577,624. (Cl. 193—1.)

1. In an apparatus of the character described, in combination, a pair of conveyers substantially at right angles, one arranged in a horizontal plane and the other arranged in a substantially vertical plane, guide means between the two conveyers, and intermittently movable means arranged for movement transversely of the first mentioned conveyer for removing material bodily laterally therefrom and delivering it to said second conveyer without changing the parallelism of the material to said first mentioned conveyer.



2. In apparatus of the character described, in combination, a conveyer belt having a series of inverted V-shaped cleats extending transversely thereof, said cleats being adapted to support elongated pieces of material which extend parallel with the length of the belt and overlie a plurality of seat cleats, and a member of length greater than twice the distance between the cleats, arranged for movement transversely of the belt and in a plane parallel to the latter, for removing the pieces of material therefrom, without changing the parallelism of the said pieces with respect to the belt.

3. In apparatus of the character described, in combination, a conveyer belt having a series of inverted V-shaped cleats extending transversely thereof, said cleats being adapted to support elongated pieces of material which extend parallel with the length of the belt and overlie a plurality of said cleats, a member of length greater than twice the distance between the cleats, arranged for movement transversely of the belt and in a plane parallel to the latter, for removing the pieces of material therefrom, without changing the parallelism of the said pieces with respect to the belt, and means for imparting rapid and intermittent movement to said member.

4. In an apparatus of the character described in combination a substantially horizontal conveyer, a substantially vertical second conveyer, adjacent thereto, intermittently movable means for removing the material laterally from one conveyer to the other and means for moving the vertical conveyer one step for each movement of said intermittently movable means.

5. In an apparatus of the character described in combination a substantially horizontal conveyer, a substantially vertical second conveyer adjacent thereto, intermittently movable means arranged for movement transversely of said horisontal conveyer for removal of material laterally therefrom and delivering it to said second conveyer, a clutch for said second conveyer thrown into operation by the movement of said intermittently movable means and a trip device for throwing out said clutch after said vertical conveyer has moved one step forward.

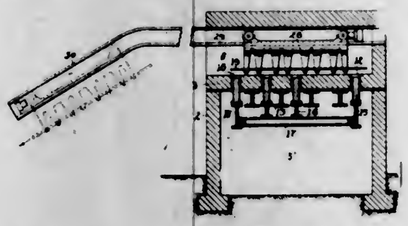
[Claims 6 to 10 not printed in the Gazette.]

1,241,526. METAL-HEATING FURNACE. ZENAS BELDON LEONARD, Cleveland, Ohio. Filed May 20, 1916. Serial No. 98,720. (Cl. 214—23.)

2. A furnace having a device to deliver a batch of metal strips in pre-arranged separated relation thereinto, means to convey each batch of strips as pre-arranged step by step through the furnace, means to remove each batch of strips collectively in separated relation from the furnace and means to discharge each batch of strips endwise to other apparatus.

3. A furnace having a conveyer located therein for feeding groups of metal strips of different lengths therethrough in the horizontal plane and with the strips of each

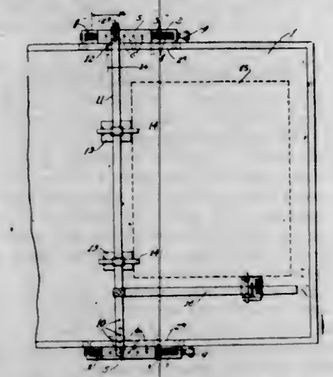
group separated, means to deliver each group of strips to said conveyer in pre-arranged separated and staggered relation, and means to remove each group of strips from said conveyer in the same arrangement and order as delivered to the furnace.



6. A heating furnace having a conveyer in its bottom for the material to be heated, in combination with an elevated track at one end of the furnace having an inclined portion, and a carrier suspended from said track having prongs to co-act with said conveyer to receive the material from said conveyer and to be tilted by the inclined portion of the track.

[Claims 1, 4, and 5 not printed in the Gazette.]

1,241,527. REGISTERING DEVICE FOR PRINTING-PRESSES. ISADORE LEVIN, Chicago, Ill. Filed Dec. 16, 1916. Serial No. 137,362. (Cl. 101—413.)



1. A registering device for printing presses comprising frames secured to each side of the presa plate, guide pin blocks slidably carried by said frames, manually operable means for actuating said guide pin blocks, guide pins carried by said guide pin blocks, a guide strap connecting the pins of one block with the pins of the other pin block, registers slidably arranged upon said guide strap and fingers carried by said registers.

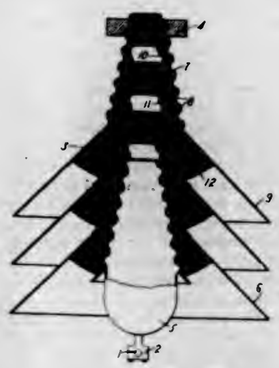
2. A registering device for printing presses comprising frames secured to each side of the press plate, screw shafts carried by said frames, guide pin blocks slidably carried by said frames and operably associated with said screw shafts, guide pins carried by said guide pin blocks, a guide strap connecting the pins of one pin block with the pins of the other pin block, registers slidably arranged upon said guide strap and fingers carried by said registers.

3. A registering device for printing presses comprising frames secured to each side of the press plate, guide pin blocks slidably carried by said frames, manually operable means for actuating said guide pin blocks, guide pins carried by said guide pin blocks, a guide strap connecting the pins of one pin block with the pins of the other pin block, registers slidably arranged upon said guide strap, fingers carried by said registers, an auxiliary guide strap secured to said guide strap and disposed in a plane at right angles to the plane of said guide strap and a telescoping register slidably carried by said auxiliary guide strap.

4. A registering device for printing presses comprising frames secured to each side of the press plate, guide pin blocks slidably carried by said frames, manually operable means for actuating said guide pin blocks, guide pins carried by said guide pin blocks, a guide strap connecting the pins of one pin block with the pins of the other pin block, registers slidably arranged upon said guide strap, fingers carried by said registers, an auxiliary guide strap secured to said strap and disposed in a plane at right angles to the plane of said guide strap, a tongue formed with rows of staggered graduations adjustably secured to said strap, and a casing adapted for telescoping relation with said tongue.

5. A registering device for printing presses comprising frames secured to each side of the press plate, guide pin blocks slidably carried by said frames, manually operable means for actuating said guide pin blocks, guide pins carried by said guide-pin blocks, a guide strap connecting the guide pins of one pin block with the pins of the other pin block, registers slidably arranged upon said guide strap, fingers carried by said registers, an auxiliary guide strap secured to said guide strap and disposed in a plane at right angles to the plane of said guide strap, a tongue formed with rows of staggered graduations adjustably secured to said strap, a casing adapted for telescoping relation with said tongue and for movement in a plane at right angles to the plane of said auxiliary guide strap, alined ears carried by said casing and a finger arranged in said ears.

1,241,528. INSULATOR. PAUL M. LINCOLN, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed July 13, 1914. Serial No. 850,681. (Cl. 173—318.)



1. An insulating structure comprising a conducting member having an exteriorly threaded upper portion and a laterally extending petticoat portion, an interiorly threaded shell nested in said upper portion, and an insulating body interposed between the conducting member and said shell, the exposed surfaces of the insulating body being shaped to substantially conform to the electric flow-lines emanating from said conducting member.

2. An insulating structure comprising a conducting member having an upper portion provided with an exterior screw thread and a laterally extending lower portion, a shell inserted in the upper portion only of said conducting member, said shell being provided with an inner screw thread nested therein, and insulating material disposed between the conducting member and said shell.

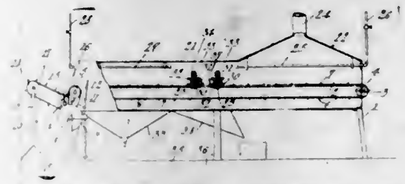
3. An insulating structure comprising a conducting member having an exteriorly-threaded upper portion and a laterally-extending lower portion, and an insulating body contained in the conducting member which is provided with a recess having threaded walls that extend into the said upper portion of the conducting member, the exposed surfaces of the insulating body being shaped to substantially conform to the electric flow lines emanating from said conducting member.

4. An insulating structure comprising a plurality of nested and similar conducting members each having threaded upper portions and lower petticoat portions, an insulating body contained in each conducting member having a recess formed therein which is threaded to receive the threaded upper portion of the next succeeding conducting member, the exposed surfaces of the insulating bodies interposed between adjacent conducting members being shaped to substantially conform to the electric flow lines extending between adjacent conducting members.

5. An insulating structure comprising a conducting member having a threaded upper portion and a laterally extending lower portion, a shell nested therein, and insulating material interposed between the conducting member and said shell, the exposed portions of which are shaped to substantially conform to the direction of the lines of force of the electric field existing between the adjacent conducting parts, the conducting members extending laterally beyond the insulating body.

[Claims 6 and 7 not printed in the Gazette.]

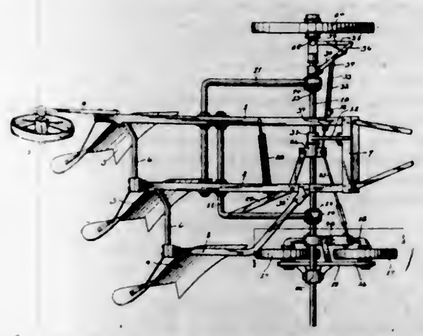
1,241,529. MACHINE FOR PEELING TOMATOES. JOHN W. LINVILLE and CARL C. TILLMAN, Toledo, Ohio, assignors to Linville, Tillman & Co., Toledo, Ohio. Filed Feb. 10, 1915. Serial No. 7,393. (Cl. 146—14.)



1. In a machine for peeling tomatoes and the like, spaced brushes, means for rotating the brushes simultaneously in the same direction, a carrier passing between the brushes, means for pivotally securing a tomato or the like on the carrier, and means to propel the carrier to draw the article between the rotating brushes and subject it to the action thereof.

2. In a machine for peeling tomatoes and the like, the combination with steaming means and washing means, of spaced brushes between the steaming and washing means, means for simultaneously rotating the brushes in the same direction, and a conveyer including means for pivoting an article thereon for drawing an article from the steaming means and between and across the faces of the brushes while said article is being subjected to the action of the rotating brushes.

1,241,530. PLOW. ADELBERT C. LOVELL, McComb, Ohio. Filed Mar. 28, 1917. Serial No. 158,093. (Cl. 97—36.)



1. A wheel plow comprising a main framework, a plurality of plow blades mounted thereon, a land wheel permanently mounted in connection therewith, a furrow wheel mounted in connection therewith capable of lateral movement, one of said blades being located directly in rear of said furrow wheel when the latter is in its normal position and being effective only when said furrow wheel is moved outwardly.

2. A wheel plow comprising a main framework, a plurality of plow blades mounted thereon, a land wheel permanently mounted in connection therewith, a furrow wheel mounted in connection therewith capable of lateral movement, one of said blades being located directly in the rear of said furrow wheel when the latter is in its normal position and being effective only when said furrow wheel is moved outwardly, and means for alternating the steering angularity of said land wheel when said furrow wheel is moved outwardly.

6. A wheel plow comprising a main framework, a plurality of plow blades mounted thereon, a land wheel permanently mounted in connection therewith, a furrow wheel mounted in connection therewith capable of lateral movement, one of said blades being located directly in the rear of said furrow wheel when the latter is in its normal position and being effective only when said furrow wheel is moved outwardly when a curve in the furrow is encountered, spring means for automatically returning said furrow wheel to its normal position when the curve in the furrow is passed, and means operated by said furrow wheel when it has reached the limit of its outward movement for altering the steering angularity of said land wheel.

[Claims 3 to 5 and 7 not printed in the Gazette.]

1,241,531. CEMENT. LEON MCCULLOCH, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Jan. 7, 1914. Serial No. 810,782. (Cl. 106—29.)

1. A cement of the oxychlorid type which contracts on setting.

2. An oxychlorid cement containing a saccharate.

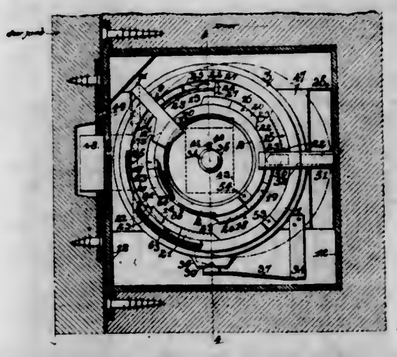
3. A cement of the oxychlorid type containing a substance formed by reaction between an alkali and a sugar.

4. A cement of the oxychlorid type containing calcium saccharate.

5. A cement composed of magnesium oxychlorid and calcium saccharate.

[Claims 6 to 8 not printed in the Gazette.]

1,241,532. KEYLESS LOCK. JULES MACÉ, Grasse, France. Filed Sept. 6, 1916. Serial No. 118,613. (Cl. 70—58.)



1. In a lock; the combination of a casing, tumblers concentrically disposed, permutation elements having shoulders arranged on the tumblers in annular opposition, a latch between the tumblers normally disposed out of alinement with the permutation elements, and means for coaxially advancing the permutation elements into alinement with the latch and for bodily moving the tumblers in unlocking.

2. In a lock; the combination of a casing, a bolt plate having a bolt, circular tumblers concentrically disposed supported by said bolt plate, each of said tumblers having a bit passage, bits supported by the casing in engagement with the tumblers, permutation elements having shoulders arranged on the tumblers in annular opposition, a latch between the tumblers normally disposed out of alinement with the permutation elements, means for laterally advancing the permutation elements into alinement with the latch, and associated means for rotating the tumblers and bodily moving them whereby to bring the bit passages into registration with the bits.

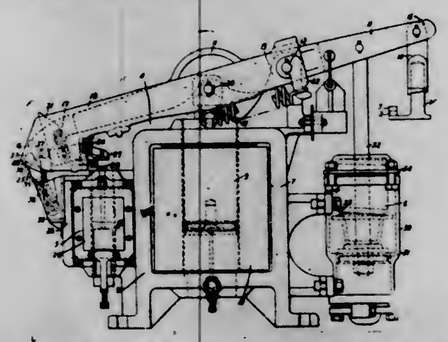
3. In a lock; the combination of a casing, tumblers concentrically disposed, each of the tumblers having a bit passage, a bolt plate supporting the tumblers, bits fixed on the casing and engaged by the tumblers, permutation elements on the tumblers, a latch between the tumblers normally out of alinement with the permutation elements, means for laterally advancing the tumblers and permutation elements into alinement with the latch, and means for advancing the tumbler bit passages into registration with the bits, said means being normally ineffectual and for bodily moving the tumblers in unlocking.

4. In a lock; the combination of a casing, tumblers concentrically disposed, each of the tumblers having a bit passage, a bolt plate having a locking bolt, bits on the casing in engagement with the tumblers, permutation elements on the tumblers, a latch between the tumblers normally out of alinement with the permutation elements, means for laterally advancing the permutation elements into alinement with the latch, means adapted to advance the tumbler bit passages into registration with the bits, said means being normally ineffectual, and a head portion having a shoulder included in each permutation element engageable by the latch for retarding the advance of the tumblers, said tumblers being bodily movable in unlocking.

5. In a lock; the combination of a fixed latch, laterally movable and rotatable tumblers, permutation elements on the tumblers in annular opposition and normally out of the plane of the latch, means for advancing the permutation elements laterally into the plane of the latch, and means for subsequently rotating the tumblers, said tumblers being bodily movable in unlocking.

[Claims 6 to 25 not printed in the Gazette.]

1,241,533. CIRCUIT-INTERRUPTER. JOHN B. MACNEILL, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Aug. 10, 1916. Serial No. 114,161. (Cl. 175—267.)



1. An electric switch comprising a movable contact-carrying member having a pin therein and a cam surface at one of its ends, an operating lever having a cam surface and a latch for engaging the pin in the contact-carrying member, and a pivotally-mounted member having a pin therein that is adapted to so engage the cam surface of the operating lever and to be held in such position by the cam surface of the contact-carrying member that the operating lever is held in its closed position.

2. In a circuit-closing device, the combination with two pivotally-mounted members and means for latching them together, of a pivotally-mounted spring-restrained member having a pin therein, each of the pivotally-mounted members having a cam surface therein adapted to so engage the pin in the spring-restrained members that the pivotally-mounted members are secured in their closed position.

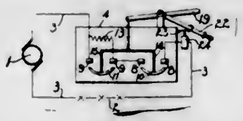
3. The combination with two pivotally-mounted levers and means for latching them together, of a pivotally-mounted member having a pin therein that is adapted to be so lodged between the two levers as to hold them in a predetermined position.

4. The combination with two pivotally-mounted levers, and means for latching them together, of a pivotally-mounted member having a pin therein that is adapted to be so lodged between the two levers as to hold them in predetermined positions and to permit their successive operation when the latch that normally holds them together is released.

5. In a circuit interrupter, the combination with a contact-carrying lever and an actuating lever, of means for latching the levers together, and a pivotally-mounted member adapted to become so lodged between the two levers as to hold them in predetermined positions.

[Claims 6 to 10 not printed in the Gazette.]

1,241,534. CIRCUIT-INTERRUPTER. JOSEPH N. MAHONEY, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Oct. 15, 1914. Serial No. 866,796. (Cl. 175—282.)



1. A circuit interrupter comprising two sets of movable and stationary contact members connected in series relation, means for so connecting the said movable contact members mechanically together that they open simultaneously and a reactor connected in shunt relation to one of said sets of stationary contact members.

2. A switch for an electric circuit comprising a plurality of sets of coöperating contact members connected in series relation to the circuit, means for opening the sets simultaneously and a reactor connected in shunt relation to one of said sets of contact members.

3. A switch for an electric circuit comprising two sets of stationary and movable contact members connected in series relation to the circuit, means for causing the said movable contact members to open at the same time and a reactor connected in shunt relation to one of said sets of stationary contact members.

4. A switch for an electric circuit comprising a plurality of sets of contact members connected in the said circuit, means for opening the said sets of contact members simultaneously and an energy-absorbing device connected in shunt relation to one of said sets of contact members.

5. A switch for an electric circuit comprising a plurality of sets of movable and stationary contact members connected in series relation to the said circuit, means for so operatively connecting the movable contact members together that they open simultaneously, and an energy-absorbing means connected in shunt relation to one set of the said stationary contact members.

[Claims 6 to 9 not printed in the Gazette.]

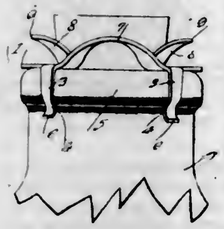
1,241,535. TOY. JEROME J. MANCHESTER, Indianapolis, Ind. Filed Feb. 23, 1917. Serial No. 150,434. (Cl. 46—37.)

1. In a toy, the combination with a spiral guide, a winged traveling member, and a vertical member within said guide, of pairs of bars joining said winged member to said vertical member with a point on the upper side of each of one pair of bars and a point on the underside of each of another pair of bars bearing on said guide, whereby said winged member will be caused to revolve during the downward movement thereof.



2. In a toy, the combination with a spirally coiled guide, a traveling member having oppositely extending wings, and a vertical member within said guide, of an arm joining each of said wings to the upper portion of said vertical member and an arm joining each of said wings to the lower portion of said vertical member whereby each of said arms will have bearings at opposite sides of said spiral guide, and one of said arms will bear on the upper side and one will bear on the underside of said guide whereby said winged member will be caused to revolve during its downward movement.

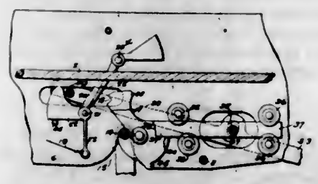
1,241,536. POISON-INDICATOR. IRVING W. MASON, Aberdeen, Wash. Filed Apr. 24, 1917. Serial No. 164,219. (Cl. 215—113.)



2. A poison indicator comprising an annular body portion, an arch formed in the body portion, gripping fingers spaced about the outer periphery of the body portion, and prongs struck up from the material at the center of the body portion.

[Claim 1 not printed in the Gazette.]

1,241,537. CARRIAGE FOR OVERHEAD TRACKS. JAMES MATTHEWS, Vancouver, British Columbia, Canada. Filed Oct. 17, 1916. Serial No. 126,109. (Cl. 212—98.)



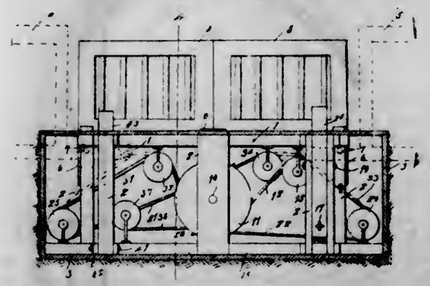
1. A carriage for an elevated track, comprising the combination with a suitable frame provided with sheaves to run on the track and a hauling rope by which the load may be elevated to the carriage and the carriage drawn along the track in one direction, of means at each end of the carriage for securing it to a stop at any predetermined positions on the track, means for directly connecting the load bearing block to the carriage when lifted into engagement therewith, means coöperative with the securing means of the carriage to either track stop for securing the said load connecting means, supplementary means coöperative with engagement of the carriage with the track stop at one end of the track for securing said load connecting means, and means coöperative with release of the carriage from the same end of the track for releasing said supplementary securing means.

3. A carriage for an elevated track, comprising the combination with a suitable frame provided with sheaves to run on the track and a hauling rope by which the load may be elevated to the carriage and the carriage drawn in one direction along the track, of means at each end of the carriage for securing it to the track at any predetermined positions, a hook member pivotally mounted on the carriage to retain the load bearing hook thereto when the same is drawn up into engagement with it but unstable in such position until locked, a lock bolt by which the hook member may be secured to sustain the load bearing hook, means directly connecting together the track securing means at each end of the carriage that they may be coöperative, and means connecting the track securing connection to the hook lock that the hook may be locked as the carriage is released from the track stop.

7. In an apparatus of the class described, the combination with the track rope and the stops secured to the track rope at intervals, of a frame having sheaves for running on the track rope, a hauling rope one end of which is connected to the frame, a sheave on the frame over which said hauling rope passes, a fall block around which said hauling rope passes before it passes over said last named sheave, a latch on the rear of the carriage for engaging the other track stop, a connecting bar between said latches for effecting simultaneous movements of the same, said carriage having a front and a back slotted opening, a pin on said bar projected through said front slotted opening, a lock bolt mounted on the carriage, a pin connecting said lock bolt with said connecting bar and passing through said rear slotted opening of the carriage, a counter weighted pawl pivoted on said carriage and coöperating with said first mentioned pin, a trigger member pivoted on said carriage adjacent to the front track stop catch and coöperatively connected with said check pawl, a pawl guard pivoted on said carriage and coöperating with said check pawl, said carriage having a notch, a hook member pivoted on said carriage adjacent to said notch and coöperative with said sheave block, said lock bar, with said check pawl and with said pawl guard all being arranged substantially as shown and for the purposes described.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,241,538. OPERATING STRUCTURE FOR CLOSURES. CHARLES B. MATTSON, Puyallup, Wash., assignor of one-half to Emma P. Chadwick, Olympia, Wash. Filed Apr. 13, 1917. Serial No. 161,860. (Cl. 39—61.)



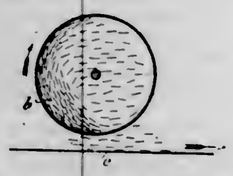
1. In a device as set forth, the combination with a pair of pivotally mounted closure members, of cables connected to said members, a rotatably mounted shaft, a rod ex-

tending diametrically through said shaft, said cables connected to the ends of said rod for pivotally moving said closure members upon rotation of said shaft, a drum mounted upon said shaft, a pair of cables connected to said drum and wound about the drum in opposite directions, whereby when one of said cables is unwound from the drum said shaft will be rotated in one direction and when the other cable is unwound from the drum, the shaft will be rotated in an opposite direction, whereby said closure members may be moved in and out of closing position.

4. In a device as set forth, a pair of pivotally mounted closure members, depending arms formed upon said closure members and extending downwardly from their pivoted corners, cables connected to said arms, a rotatably mounted rectangular shaft, a rod extending diametrically through said shaft, said cables connected to the ends of said rod for moving said closure members into an open or closed position upon rotary movement of said shaft, a drum mounted upon said shaft, cables connected to said drum, a pair of pivotally mounted trip levers, said last named cables being connected to said trip levers for rotating said drum and shaft upon pivotal movement of said trip levers.

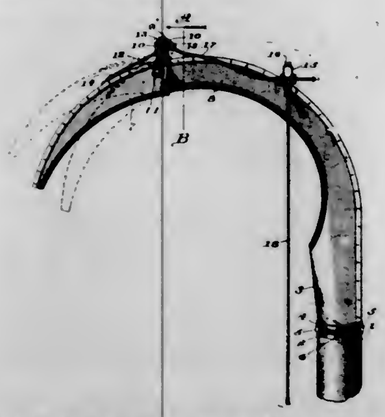
[Claims 2 and 3 not printed in the Gazette.]

1,241,539. MAKING MICA PLATES. MAX MEIROWSKY, Cologne-Lindenthal, Germany. Filed July 8, 1913. Serial No. 777,820. (Cl. 83—60.)



The process of treating mica in bulk for the separation and delivery of single flakes or sheets therefrom, which consists in revolving the mass for the separation and removal of the finer or useless particles therefrom, and subsequently revolving the remainder *in situ* in a manner, whereby the flakes or sheets are separated and delivered singly, substantially as and for the purpose set forth.

1,241,540. DELIVERY-PIPE FOR FODDER-CUTTERS. GEORGE M. MERWIN, Berwyn, Ill., assignor to International Harvester Company of New Jersey, a Corporation of New Jersey. Filed Nov. 4, 1912. Serial No. 729,366. (Cl. 198—21.)



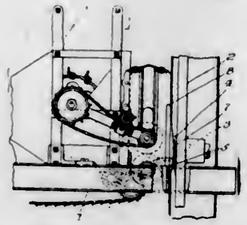
1. In an ensilage delivery mechanism, a delivery section, an adjustable section hingedly connected thereto and forming a continuation thereof, a sheave carried by said delivery section and having a threaded axial opening therein, a rod having a threaded end received in the axial opening in said sheave and its opposite end thereof connected with said adjustable section, and means for rotating said sheave in opposite directions.

3. In an ensilage delivery mechanism, a delivery member having an upstanding delivery end, an ensilage deflector fitting the delivery end of said member and pivotally connected thereto, a bracket member carried on said delivery member, a sheave carried by said bracket and disposed transversely with respect to said delivery member, and a threaded member movable longitudinally by said sheave as the latter is rotated, having one end extending through said sheave and the other end pivotally connected to said deflector.

5. In an ensilage delivery mechanism, a delivery section curved upwardly and laterally, and adjustable section hingedly connected therewith, an upstanding bracket member secured to said adjustable section, a bracket member attached to the side of said delivery section, a sheave carried on said last mentioned bracket having a threaded axial opening therein, a rod having a threaded end received in said axial opening and its opposite end pivotally connected to the bracket on said adjustable section, and a rope engaging said sheave whereby it may be rotated in opposite directions.

[Claims 2 and 4 not printed in the Gazette.]

1,241,541. ENSILAGE-CUTTER. GEORGE M. MERWIN, Berwyn, Ill., assignor to International Harvester Company of New Jersey, a Corporation of New Jersey. Filed July 6, 1915. Serial No. 38,300. (Cl. 146—27.)



1. In an ensilage cutter, a frame, a cutter bar thereon, a cutter head thereon, a knife on said cutter head, and supplemental means located between said cutter head and bar for preventing conflict between said knife and cutter bar.

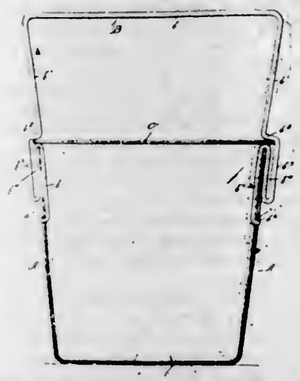
2. In an ensilage cutter, a frame, a cutter bar thereon, a cutter head thereon, a knife on said cutter head, a lug on said cutter head extending slightly beyond the plane of said knife, and means on said frame engageable with said lug to prevent conflict between said knife and cutter bar.

3. In an ensilage cutter, a knife, and a cutter head carrying the same and having a lug adjacent its periphery sloping toward the edge of the knife and extending slightly beyond the plane of the knife edge, said lug having a grooved portion forming a support for the tip of the knife.

4. In an ensilage cutter, a frame, a cutter bar thereon, a coöperating cutting member including a knife associated therewith, and means separate from said knife having a camming action between the cutter bar and cutting member for preventing conflict between said knife and cutter bar.

1,241,542. BASKET AND HANDLE THEREFOR. JAMES B. MILLER, Rochester, N. Y., assignor, by mesne assignments, to The Fi-Bo-Pak Company, Rochester, N. Y., a Corporation of New York. Filed Mar. 22, 1915. Serial No. 16,124. Renewed July 28, 1917. Serial No. 183,382. (Cl. 217—125.)

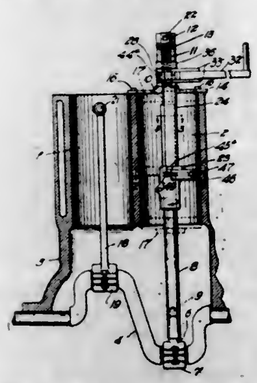
1. The combination with a basket and a cover therefor, of a handle for the basket, the handle comprising downwardly extending arms having end parts, each terminating in an outwardly extending portion projecting outwardly through the walls of the basket, the end parts each having above the outwardly extending portion thereon three parallel portions, two of which straddle the walls of the basket, and the third of which is connected to one of the downwardly extending arms by a shoulder located above and retaining the cover in place.



2. A handle for a basket comprising a handle portion and downwardly extending arms, each of which terminates in an outwardly extending end part, each downwardly extending arm having above such end part three parallel portions, two of which are adapted to straddle the walls of the basket, and the third of which is connected to the two parallel portions which are adapted to straddle the basket by a shoulder extending outwardly therefrom and located adjacent to said outwardly extending end part, and a shoulder connecting the handle portion and end parts.

3. A handle for a basket comprising a carrying section substantially parallel with the bottom of said basket, and downwardly extending arms attached to each end of said carrying section, said downwardly extending arms each being formed with two convolutions and having an inner projecting shoulder above the said convolutions, and an outer projecting end part below the said convolutions, the inner one of the said two convolutions being adapted to overlap the wall of the said basket, and the said outer projecting end part adapted to pass through the wall of the said basket.

1,241,543. CYLINDER-REBORING MACHINE. QUILLAIN R. MURPHY, Birmingham, Ala., assignor of one-half to Robert D. Mills, Birmingham, Ala. Filed July 3, 1916. Serial No. 107,404. (Cl. 77—2.)



1. A cylinder reboring device comprising a cutter carrying shaft, a top bearing therefor adapted to be attached on the cylinder and a bottom bearing therefor adapted to be attached on the engine crank shaft, means to adjust said bearings to center said shaft in the cylinder, means to hold the crank shaft against movement, and boring mechanism on said shaft.

2. An apparatus for reboring a cylinder comprising in combination, a cutter carrying shaft, a centering bearing for the lower end of the cutter shaft, means to mount said bearing on the engine crank shaft, a top bearing, means to adjustably mount the top bearing on the cylinder, means to center the cutter shaft and its bearings in axial alinement with the cylinder, and means to hold the crank shaft against movement, substantially as described.

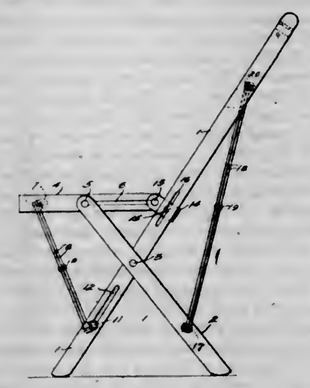
3. In an apparatus for reboring cylinders, in combination, means for engaging and holding the engine crank shaft against movement, a cutter carrying shaft, a top bearing for the cutter shaft adapted to be mounted on the cylinder, a bottom bearing for the cutter shaft adapted to be mounted on the crank shaft in line with the cylinder, means to center the cutter carrying shaft and its bearings in the cylinder, means for making fast the bearings in their adjusted positions, and boring machanism mounted on said cutter shaft.

4. A device for reboring cylinders comprising a non-rotatable cutter carrying shaft, adjustable bearings for the shaft, means for alining the shaft and its bearings axially with the bore of the cylinder, a cutter head rotatable on and adjustable along the shaft, a feed and drive mechanism for the cutter head, and a detachable driving connection between the feed mechanism and the cutter head.

5. In a device for reboring cylinders, a centering shaft having a feed screw at its upper end, means to mount said shaft in axial alinement with the cylinder bore, a screw feed drive means for the cutter head mounted on the threaded end of said shaft, a cutter head mounted to turn on and slide along said shaft, and detachable driving connections between the head and its operating mechanism and rotatable about said shaft, substantially as described.

[Claims 6 to 18 not printed in the Gazette.]

1,241,544. FOLDING CHAIR. JOHN ALBIN OSTMAN, Techny, Ill. Filed Feb. 1, 1917. Serial No. 145,896. (Cl. 155—30.)

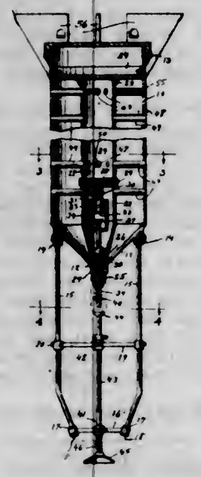


1. In a folding chair, two sets of crossed pivoted bars, each set comprising a pair of parallel members and one of said sets being formed with longitudinally extending slots; a longitudinally slotted seat, pivot bolts connecting one pair of said bars with the slotted portions of said seat, brace arms connecting one end of said seat with the longitudinally slotted portion of the other set of bars, straps slidably and adjustably carried by the said slotted bars and pivotally supporting the inner or adjacent end of said seat and means for normally retaining said sets of crossed pivoted bars in assembled or extended relation.

2. In a folding chair, two sets of crossed pivoted bars, each set comprising a pair of parallel members and one of

said slots being formed with longitudinally extending slots; a longitudinally slotted seat, pivot bolts connecting one pair of the aforesaid bars with the slotted portions of said seat to form a fulcrum for said last named member, pivotally connected cross arms connecting one end of said seat with the longitudinally slotted portions of the other set of bars, straps slidably and adjustably carried by the said slotted bars and pivotally supporting the inner or adjacent end of said seat, brace arms pivoted together and connecting the two sets of crossed pivoted bars and a sectional hinged spacer member connecting the component members of one of said sets of bars.

1,241,545. AERIAL TORPEDO. FRANK H. PATTON, Flagstaff, Ariz. Filed June 22, 1917. Serial No. 176,262. (Cl. 102—29.)



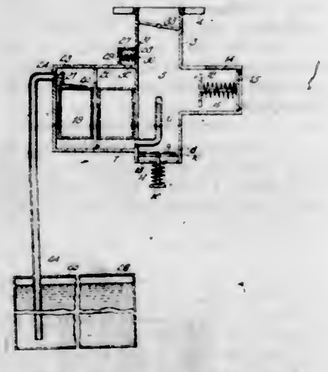
1. An aerial torpedo comprising an outer casing closed at the ends thereof except centrally of the lower end thereof; an inner casing within said outer casing having a closed upper end and a port in its lower end adapted to register with the port in the lower end of the outer casing; a powder chamber within said inner casing; means to hold the ports in the lower end of said casings in register; a plurality of missile tubes extending from said powder chamber to atmosphere; missiles in said tubes; means to cause said torpedo to maintain a vertical longitudinal position during its downward descent; means to explode said powder; and means to operate said exploding means.

2. An aerial torpedo comprising an outer cylindrical casing having a tapered lower end, said lower end having a port in the center thereof; a closure for the upper end of said outer casing; an inner cylindrical casing having a tapered lower end mounted within said outer casing concentric therewith said last lower end having a port therein centrally thereof adapted to register with the port in the tapered end of the outer casing; an explosive chamber in said inner casing; a closure for the upper end of said inner casing; a bushing having a tapered head mounted in the lower end of said inner casing and extending downwardly through the ports in said outer and inner casings; means to detachably secure said bushing in a position of use; a port extending longitudinally through said bushing; a plurality of radially extending missile containers extending from said explosive chamber to the atmosphere; a firing tube mounted within said explosive chamber; a percussion cap on the lower end of said tube; a casing mounted on said firing tube to surround the lower end thereof having a firing chamber therein; a firing pin slidably mounted in said bushing and extending upwardly into said firing chamber and terminating in a tapered head immediately below said firing tube and in alinement therewith, the other end of said firing pin projecting downwardly through said bushing a short distance and terminating in a screwthreaded end; a stop pin extending through said firing pin transversely thereof near its lower end; a spring coiled around said firing pin between the lower end of said bushing and said stop pin; extension arms extending downwardly from the lower end of said outer casing and having their lower ends bent inwardly; a spider having a central bearing mounted on the lower ends of said arms; another spider having a central bearing mounted on said arms intermediate the ends thereof; a trigger slidably mounted in said central bearings the upper end thereof terminating in a head adjacent to the lower end of said firing pin and its other end extending for a distance below the ends of said extension arms and being threaded; a striking disk detachably mounted on the lower end of said trigger; a spring coiled around said trigger between the underside of said spider bearing and said striking disk; explosive material in said explosive chamber; missiles in said missile containers; and means to normally close the ends of said containers whereby said missiles are normally retained within said containers; and steering planes secured to said casing closure.

5. An aerial torpedo comprising an inner and an outer casing having lower tapered ends, said casings being mounted concentrically and being secured together at their lower ends, said inner casing forming an explosive chamber; a plurality of missile containers extending from said explosive chamber to atmosphere; a removable closure for each end of said missile containers; a closure for the upper ends of each of said casings; steering planes secured to the upper end of said outer casing adapted to maintain said casings in a vertical position during its descent; and means projecting from the lower ends of said casings adapted to explode the explosive charge and expel said missiles at a predetermined distance above an obstruction upon striking the same.

[Claims 3 and 4 not printed in the Gazette.]

1,241,546. CARBURETER. ARTHUR L. PAYTON, Chicago, Ill. Filed Jan. 19, 1916. Serial No. 72,944. (Cl. 158—36.)



1. A carbureter provided with a fuel chamber, an atomizing chamber and an opening affording communication between the atomizing chamber and fuel chamber, located above the normal fuel level within the fuel chamber, and a valve adapted to close said opening when a certain predetermined reduction of pressure has been produced in the fuel chamber.

2. A carbureter provided with a fuel chamber, an atomizing chamber and an opening affording communication between the atomizing chamber and fuel chamber, located above the normal fuel level within the fuel chamber, and an atmospherically operated valve adapted to close said opening when a certain predetermined reduction of pressure has been produced in the fuel chamber.

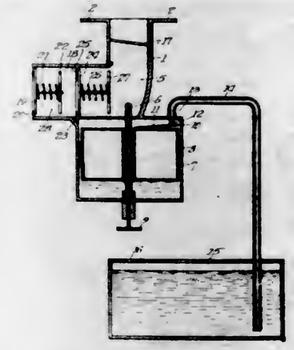
3. A carbureter provided with a fuel chamber, an atomizing chamber, and an opening affording communication between the atomizing chamber and the fuel chamber located above the normal fuel level within the fuel chamber, a valve adapted to close said opening when a certain predetermined reduction of pressure has been produced in the fuel chamber, a float in said fuel chamber, a supply reservoir located below the normal level of the fuel within the fuel chamber, a conduit connecting the supply reservoir and fuel chamber, and a valve operated by the float for controlling the passage of fuel through the conduit into the fuel chamber.

4. A carbureter provided with a fuel chamber, an atomizing chamber, and an opening affording communication between the atomizing chamber and fuel chamber, located above the normal fuel level within the fuel chamber, an atmospherically operated valve adapted to close said opening when a certain predetermined reduction of pressure has been produced in the fuel chamber, a float in said fuel chamber, a supply reservoir located below the normal level of the fuel within the fuel chamber, a conduit connecting the supply reservoir and fuel chamber and a valve operated by the float for controlling the passage of fuel through the conduit into the fuel chamber.

5. A carbureter provided with a suction chamber, a float chamber, a spray nozzle in the suction chamber, a diaphragm valve controlling an opening between the suction chamber and the upper part of the float chamber, the diaphragm controlling said valve having atmospheric pressure upon one of its faces and the pressure within the float chamber upon the other of its faces, said valve being so arranged as to close when a predetermined depression in pressure exists in the float chamber, whereby fuel may be sucked into the float chamber from a source at a lower level than the level of the gasolene in the float chamber.

[Claim 6 not printed in the Gazette.]

1,241,547. CARBURETER. ARTHUR L. PAYTON, Chicago, Ill. Filed Jan. 19, 1916. Serial No. 72,945. (Cl. 158—36.)



1. A carbureter provided with a passageway therethrough terminating in intake and outlet ports, and a fuel chamber, a fuel nozzle affording communication between the fuel chamber and the passageway, an automatic valve seating against atmospheric pressure disposed in the passageway between the fuel nozzle and the intake port for restricting the passage of air through the carbureter, the valve being arranged, when closed, to entirely prevent the passage of air through the passageway, and a second automatic valve normally seated against atmospheric pressure disposed in the passageway between the first mentioned valve and intake port for restricting the passageway of air through the carbureter, said valves serving to maintain a substantially constant pressure reduction for the space between them, the portion of the fuel chamber above the normal fuel level therein communicating with the passageway at a point between the two valves.

2. A carbureter provided with a passageway therethrough terminating in intake and outlet ports, and a fuel chamber, a fuel nozzle affording communication between the fuel chamber and the passageway, an automatic valve seating against atmospheric pressure disposed in the passageway between the fuel nozzle and intake port for restricting the passage of air through the carbureter, the valve being arranged, when closed, to entirely prevent the passage of air through the passageway, a second automatic valve, normally seating against atmospheric pressure disposed in the passageway between the first mentioned valve and the intake port for restricting the passage of air through the carbureter, said valves serving to maintain a substantially constant pressure reduction for the space between them, the portion of the fuel chamber above the normal fuel level therein communicating with the passageway at a point between the two valves, a supply reservoir, a conduit connecting the reservoir with the fuel chamber, a valve for controlling the transportation of fuel through the conduit and a float in the fuel chamber for operating the valve.

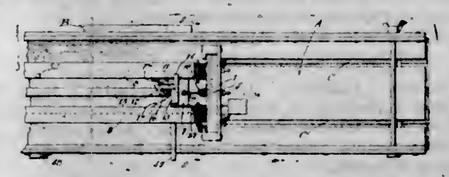
3. A suction feed carbureter provided with a single air intake, a pair of automatic valves serially situated in the air intake anterior to the atomizing chamber of the carbureter, and a throttle posterior to said atomizing chamber, a supply reservoir adjacent the atomizing chamber, a spray nozzle in the atomizing chamber and conductively connected with the gasolene of the reservoir, the upper spaces of the reservoir above the gasolene therein being conductively connected with the space between said serially arranged automatic valves, whereby the suction producing means for the carbureter will maintain a pressure in the reservoir, which is a differential between the atmospheric pressure and that within the atomizing chamber of the carbureter.

4. A carbureter provided with an atomizing chamber and a float chamber, a main source of supply below the level of the float chamber, a pair of serially arranged automatic valves through which all of the air admitted to said atomizing chamber passes, a manually operated throttle posterior to said atomizing chamber, a duct connecting the spaces between said automatic valves with the upper part of the float chamber, a spray nozzle in the atomizing chamber and a duct connecting said spray nozzle with the lower part of said float chamber.

5. A carbureter of the suction type provided with an atomizing chamber, a throttle posterior to said chamber and a pair of serially arranged automatic valves anterior to said atomizing chamber, a float chamber, a main source of fuel supply, a conduit extending from said main source of fuel supply and communicating with the upper part of said float chamber, a valve for closing the opening between said conduit and float chamber, a float in the float chamber controlling said valve, a spray nozzle in the atomizing chamber conductively communicating with the lower part of the float chamber and conduit connecting the upper parts of the float chamber with the space between said automatic valves.

[Claim 6 not printed in the Gazette.]

1,241,548. HAY-BALER. HERMAN PEACOCK, Plainfield, Ind. Filed Feb. 29, 1916. Serial No. 81,222. (Cl. 100—20.)



1. The combination with a baling press including a plunger, of bale tying mechanism, comprising a needle bar for carrying a wire loop transversely across the baling press, a cross head movable longitudinally of the baling

press, flexible means for connecting the cross-head to the needle bar, releasable means for connecting the cross-head to the plunger, whereby upon a rearward movement of the plunger the cross-head is simultaneously moved therewith and the needle bar caused to move transversely of the baling press, resilient means for returning the needle bar to its starting position when the cross-head connecting means is released, and wire knotting mechanism.

2. The combination in a hay baling press including a plunger, of a knotting mechanism comprising a horizontal rotating element, a wire twisting pinion stationarily mounted at the center of the rotating element means on the element for holding the free end of the wire, an upstanding post on the rotating element for holding the end portion of the wire within the wire twisting pinion, said wire extending from the post and partly surrounding a bale compressed within the press, means for threading the wire in form of a loop across the free end of the bale, means for securing the loop, means for rotating the element to bring the free end portion and one strand of the loop into parallelism, and within the wire twisting pinion, and means for actuating the loop holding means to sever the other strand of the loop.

3. The combination in a baling press including a plunger of knotting mechanism which comprises a horizontal rotatable element formed on its periphery with gear teeth and a central aperture, a stationary platform for supporting the element and having a raised portion which fits within the aperture, a wire twisting pinion mounted on the raised portion, shearing elements located at diametrically opposite points on the rotating element, pivoted wire engaging standards mounted on the rotating element, a pinion wheel meshing with the periphery of the rotating element, a pawl also engaging the periphery of the rotating element to prevent backward rotation thereof, and means operated by the plunger for rotating the pinion.

4. The combination in a baling press including a plunger of knotting mechanism which comprises a horizontal rotating element provided with gear teeth and a central aperture a stationary platform having a raised portion provided with a wire twisting pinion, a bridge piece which extends across and above the said pinion and is secured at its ends to the rotative element, shearing elements at each end of the bridge piece, upstanding wire engaging posts on the rotative element and means for rotating said element.

5. The combination in a baling press including a plunger of knotting mechanism which comprises a horizontal rotating gear which is formed with a central aperture, a stationary platform formed with an upstanding portion which extends through the aperture for rotation, a wire twisting pinion mounted in bearings on the upstanding portion, a cover partly surrounding the pinion, a bridge piece secured to the gear and extending diametrically across the gear and over the pinion, the bridge piece being provided at each end with cutting edges, shearing blades pivoted to the gear and having cutting edges which co-act with the aforesaid cutting edges of the bridge piece, rollers on the shear blades which bear upon the surface of the platform and are adapted to engage one of the aforesaid depressed portions formed therein, upstanding posts pivoted to the gear at opposite points and which are provided with lateral portions which bear upon the platform and engage the second set of depressions, and means for rotating the gear.

[Claims 6 to 8 not printed in the Gazette.]

1,241,549. LIMITING REACTANCE-COIL. JOHN F. PETERS, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 5, 1914. Serial No. 816,717. (Cl. 175—360.)

1. A reactance coil comprising a plurality of superposed spirals consisting of conductors electrically connected in multiple and severally occupying substantially peripheral spaces of equal magnitude in the convolutions of the spirals.

2. A reactance coil comprising a plurality of conductors electrically connected in parallel and severally wound in the form of spirals, the conductors occupying separate peripheral spaces of substantially equal magnitude at equal distances from the center of the coil.



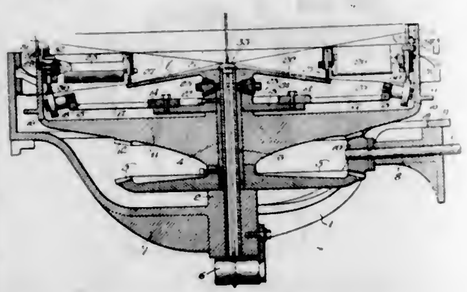
3. A reactance coil comprising a plurality of spaced conductors electrically connected in parallel, the said conductors being severally wound in the form of spirals and separately occupying substantially equal peripheral spaces at equal distances from the center of the coil, a plurality of such spirals comprising each of the superposed layers forming the coil.

4. A reactance coil comprising a plurality of conductors electrically connected in parallel and severally wound in the form of independent spirals that are superposed upon one another, said conductors being so disposed relative to one another as to be simultaneously cut by equal quantities of magnetic flux.

5. A reactance coil comprising a plurality of conductors electrically connected in parallel and severally wound in the form of independent spirals, said conductors being so disposed that substantially equal segments of the independent spirals are separately cut by magnetic fields of equal intensity.

[Claims 6 to 9 not printed in the Gazette.]

1,241,550. BRAIDING-MACHINE. ANKER PETERSEN, Winthrop, Mass. Filed Mar. 25, 1916, Serial No. 86,754. Renewed Feb. 23, 1917. Serial No. 150,621. (Cl. 28—4.)



1. In a braiding machine, a main revolving frame having an annular track, a revolving roller frame, means to drive said frames in opposite directions, a thread carrier supporting disk, a series of thread carriers, each having at the outer end a roller mounted to rotate in a horizontal plane and running in said annular track adapted to support the thread carrier at its outer end and to receive centrifugal thrust, and also having at the inner end a roller mounted to rotate in a vertical plane and running on said thread carrier supporting disk, a roller mounted to rotate in a vertical plane at the under side of each thread carrier near its outer end, and rollers arranged in pairs on radially disposed axes carried by said roller frame, adapted to engage the last named rollers on the thread carriers to drive the thread carriers in a circular path about the machine.

2. In a braiding machine, a main revolving frame having an annular track, a revolving roller frame, means to drive said frames in opposite directions, a thread carrier supporting disk, means to revolve said disk in the same direction as said main frame, a series of thread carriers, each having at the outer end a roller mounted to rotate in a horizontal plane and running in said annular track adapted to support the thread carrier at its outer end and to receive centrifugal thrust, and also having at the inner end a roller mounted to rotate in a vertical plane and running on said thread carrier supporting disk, a roller mounted to rotate in a vertical plane at the under side of each thread carrier near its outer end, and rollers arranged in pairs on radially disposed axes carried by said roller frame, adapted to engage the last named rollers on the thread carriers to drive the thread carriers in a circular path about the machine.

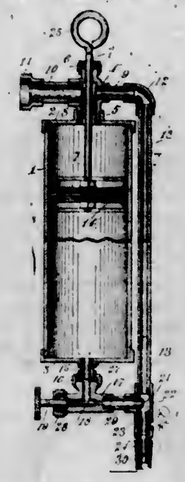
3. In a braiding machine, a main revolving frame having an annular track, a revolving roller frame, means to drive said frames in opposite directions, a thread carrier supporting disk, a series of thread carriers, each having at the outer end a roller mounted to rotate in a horizontal plane and running in said annular track adapted to support the thread carrier at its outer end and to receive centrifugal thrust, and also having at the inner end a roller mounted to rotate in a vertical plane and running on said thread carrier supporting disk, a roller mounted to rotate in a vertical plane at the under side of each thread carrier near its outer end, rollers arranged in pairs on radially disposed axes carried by said roller frame, adapted to engage the last named rollers on the thread carriers to drive the thread carriers in a circular path about the machine, a guard ring carried by said main frame and a roller mounted on the top of the thread carrier, engaging said guard ring to prevent the carrier from being dislodged inwardly.

4. In a braiding machine, a main revolving frame, a revolving roller frame for supporting one end of the thread carriers, and a revolving thread carrier suppoting disk for supporting the other end of the thread carriers, means to drive said main frame and said disk in the same direction, and means to drive said roller frame in the opposite direction.

5. In a braiding machine, a stationary central shaft, a sleeve rotatable on said shaft, a main revolving frame turning on said sleeve, means to drive said main frame and said sleeve in opposite directions, a roller frame fixed to said sleeve and turning therewith, a thread carrier supporting disk revolving on said central shaft, and radially disposed pinions secured to said central shaft between said roller frame and disk, through which the disk is driven by and in the opposite direction from the roller frame.

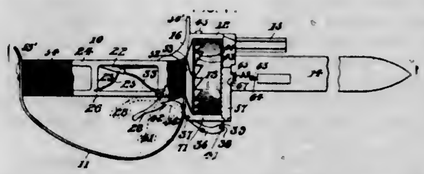
1,241,551. SPRAYING APPARATUS. DARWIN E. PRESTON and HARRY E. PRISER, Dayton, Ohio. Filed June 13, 1916. Serial No. 103,406. (Cl. 137—67.)

A spraying apparatus comprising a container adapted to hold a spraying solution, a piston in said container adapted to act upon said solution to cause its discharge from one end of said container, a rod extending from said piston and affording means for restoring the piston to the normal position, a chambered member mounted on the cover of said container and through which said piston rod extends, said chambered member communicating with the upper end of the container and having oppositely disposed lateral pipe-connecting apertures, an inlet pipe connected with one of said lateral apertures and through which water under pressure is discharged to said chambered member and thence to the upper portion of the container, an outlet pipe of smaller diameter connected with the other of said lateral apertures and also receiving a portion of the water driven to said chambered member, a pipe connected to said outlet pipe and forming a water conduit from said chambered member, a valve casing coupled to an outlet aperture in the other end of said container, a nipple connected to and forming an outlet from said valve casing, a chambered fitting forming a connection between said water conduit, said valve casing and a hose coupling, and wherein the solution from the container and the water passing through the conduit are



mixed, and a needle-valve within said valve casing controlling the outlet from the container to said mixing chamber, as herein shown and described.

1,241,552. SWORD-PISTOL. ANTON RAMOCKI, North Tonawanda, N. Y., assignor of one-third to Marcin Gill, North Tonawanda, N. Y. Filed Apr. 7, 1917. Serial No. 160,430. (Cl. 42—53.)



1. A pistol sword comprising a skeleton hilt frame, a cartridge magazine frame forwardly secured thereto, a cooperating trigger and hammer pivoted in the said skeleton frame, a loop within said skeleton frame, an operating spring projecting through said loop secured at one end to the skeleton frame with its opposite end in engagement with said hammer, and a leaf spring carried by the free end of said loop in operative engagement with the said trigger.

2. A pistol sword comprising a skeleton hilt frame, a cartridge magazine frame forwardly secured thereto, a cooperating trigger and hammer pivoted in the said skeleton frame, a loop within said skeleton frame, an operating spring projecting through said loop secured at one end to the skeleton frame with its opposite end in engagement with said hammer, a leaf spring carried by the free end of said loop in operative engagement with the said trigger, the rear side of the magazine frame having central and upwardly positioned openings therethrough, a firing pin upon said hammer adapted for projection through said upper opening, a cartridge magazine revolubly mounted within said magazine chamber, and a pusher rod for said magazine pivoted to the trigger operatively arranged through the said central opening.

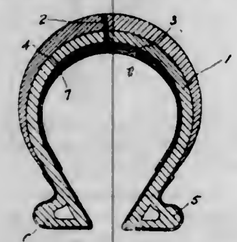
8. A pistol sword comprising a hilt, a cartridge magazine frame carried by the hilt, pistol mechanism including a trigger having a receiving notch carried by said hilt, a hand guard carried by the frame and hilt provided with a slot in the lower portion thereof, a safety catch hinged to said frame having a path of movement through the said slot adapted for engaging within the said notch when

the trigger is in its elevated inoperative position after the firing operation.

9. A pistol sword comprising a hilt, a cartridge magazine frame carried by the hilt, pistol mechanism including a trigger having a receiving notch carried by said hilt, a hand guard carried by the frame and hilt provided with a slot in the lower portion thereof, a safety catch hinged to said frame having a path of movement through the said slot adapted for engaging within the said notch when the trigger is in its elevated inoperative position after the firing operation, the said safety catch having a forked free end, a projecting spring carried by said frame adapted for engaging the forked end of said catch when the latter is in its inoperative position, a cartridge magazine within said frame operatively associated with the said trigger, and a barrel forwardly carried by said frame.

[Claims 3 to 7 not printed in the Gazette.]

1,241,553. TIRE-REPAIR METHOD. WILLIAM MARCHANT RAND, Vancouver, British Columbia, Canada. Filed Apr. 21, 1917. Serial No. 163,668. (Cl. 152—26.)



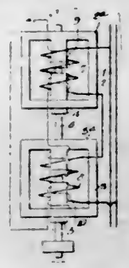
1. The method of repairing punctured pneumatic tire casings which consists in first attaching a rubber cushion to the inner wall of the casing so as to cover the puncture, then attaching a fabric shoe to the rubber portion and to the casing, and then disposing and attaching a strip of fabric longitudinally of the casing on the inside of the shoe, said strip being of a width sufficient to cover substantially the semi-circular surface of the shoe and having its ends extending beyond the ends of the shoe and attached to the casing.

2. The method of repairing punctured pneumatic tire casings which consists in first attaching a rubber cushion to the inner wall of the casing so as to cover the puncture, then attaching a fabric shoe to the rubber portion and to the casing, then disposing and attaching a strip of fabric longitudinally of the casing on the inside of the shoe, said strip being of a width sufficient to cover substantially the semi-circular surface of the shoe and having its ends extending beyond the ends of the shoe and attached to the casing, and finally attaching strips of rubber to the ends of the fabric strip and to the casing so as to cover the end edges of the strip.

3. A shoe for punctured pneumatic tire casings formed of fabric, a sheet of rubber disposed on the fabric to cover the puncture in the casing when the shoe is placed therein to form a cushion between the shoe and the casing whereby friction therebetween is eliminated, a fabric strip extending longitudinally of the casing on the inside of the shoe of sufficient width to cover the semicircular service of the shoe and having its ends extending beyond the ends of the shoe, and strips of rubber covering the juncture of the fabric and the casing.

1,241,554. ELECTROMAGNETIC DEVICE. KARL C. RANDALL, Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Mar. 23, 1914. Serial No. 826,555. (Cl. 175—338.)

1. In an electromagnetic device, the combination with two stationary core members and two movable core members, of a primary winding for each pair of core members, and a secondary winding for each pair of core members, the ratios of the numbers of turns of the said windings on the respective pairs of core members being different.



2. An electromagnetic device comprising two stationary core members, two movable core members operatively connected together, main windings for the pairs of the said core members connected in series relation, and an auxiliary winding for each of the two pairs of core members, the effective ratios of the numbers of turns in the windings on the respective core members being different.

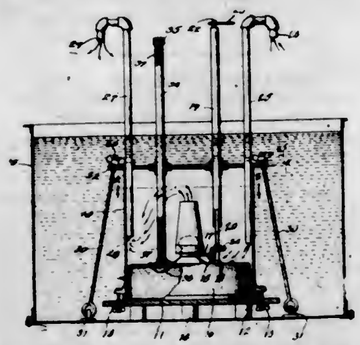
3. An electromagnetic device comprising two stationary core members having the same vertical axis, two movable core members mechanically connected together, coils for energizing the respective pairs of core members, and auxiliary coils for the respective pairs of members, the effective ratio of the turns in one pair of coils being substantially different from that of the other pair.

4. An electromagnetic device comprising two magnetizable structures, main windings for the said structures connected in series relation, and auxiliary windings therefor, the effective ratio of the numbers of turns in the windings of one structure being substantially different from that of the numbers of turns in the windings of the other structure.

5. In an electromagnetic device, the combination with a plurality of electromagnets, of means for supplying single-phase electric current thereto, and means for so distorting the magnetizing forces of the said electromagnets that they attain their maximum values alternately at intervals of substantially 90 electrical degrees.

[Claims 6 and 7 not printed in the Gazette.]

1,241,555. TANK-HEATER. NELSON D. RIEMENSCHNEIDER, State Center, Iowa. Filed Nov. 17, 1916. Serial No. 131,838. (Cl. 126—360.)



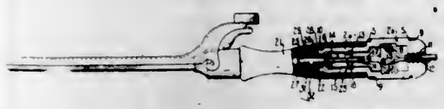
1. A tank heater embodying a heating chamber, a burner within the chamber, a feed pipe for the burner extending through the top of the chamber, an upright air inlet pipe extending into the chamber through the top thereof and terminating adjacent the burner, an upright air outlet pipe also extending through the top of the chamber and terminating adjacent the burner, the ends of the air pipes within the chamber terminating in different horizontal planes, a burner controlling shaft extending through the top of the chamber, an upright casing for the shaft, said casing extending through the top of the chamber.

2. A tank heater embodying a heating chamber, a burner within the chamber, a feed pipe for the burner extending through the top of the chamber, an upright air inlet pipe extending into the chamber through the top thereof and terminating adjacent the burner, an upright air outlet pipe also extending through the top of the chamber and terminating adjacent the burner, the ends of the air pipes within the chamber terminating in different horizontal planes, a burner controlling shaft extending through the top of the chamber, an upright casing for the shaft, said casing extending through the top of the chamber, said chamber having an open botom, a closure for the bottom, and fastening means for securing the closure.

3. A tank heater embodying a heating chamber, a burner within the chamber, a feed pipe for the burner extending through the top of the chamber, an upright air inlet pipe extending into the chamber through the top thereof and terminating adjacent the burner, an upright air outlet pipe also extending through the top of the chamber and terminating adjacent the burner, the ends of the air pipes within the chamber terminating in different horizontal planes, a burner controlling shaft extending through the top of the chamber, an upright casing for the shaft, said casing extending through the top of the chamber, a tank adapted to receive the heater, and anchor rods connected with the tank, said rods having detachable connection with the heater for removably securing the heater in position.

4. A tank heater embodying a heating chamber, a burner within the chamber, a feed pipe for the burner extending through the top of the chamber, an upright air inlet pipe extending into the chamber through the top thereof and terminating adjacent the burner, an upright air outlet pipe also extending through the top of the chamber and terminating adjacent the burner, the ends of the air pipes within the chamber terminating in different horizontal planes, a burner controlling shaft extending through the top of the chamber, an upright casing for the shaft, said casing extending through the top of the chamber, a tank adapted to receive the heater, anchor rods connected with the tank, said rods having detachable connection with the heater for removably securing the heater in position, and a coil within the chamber, both ends of the coil passing through the wall of the chamber and having communication with the interior of the tank.

1,241,556. ELECTRICAL CONNECTOR. EDWARD E. ROSE, Swissvale, and ORA A. COLBY, Wilkinsburg, Pa., assignors to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Nov. 5, 1913. Serial No. 799,272. (Cl. 173—328.)



1. An electrical connector comprising oppositely-disposed supporting parts of insulating material each having a plurality of external grooves and a relatively shallow and a deeper internal recess, a plurality of contact clips severally having one end attached within the deeper recesses for connection to an external source of electrical energy, and a plurality of clamping rings detachably disposed in the said grooves.

2. In an electrical apparatus, the combination with a plurality of terminal members, one of which has an external groove therein, of an electrical connector comprising a plurality of sets of concentrically disposed and independent resilient contact members, said contact members being adapted for rotative engagement with the said terminal members and one set of the said contact members being provided with bent ends for engaging the groove in one of the terminal members to secure the same together.

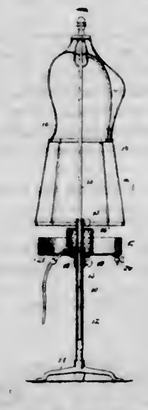
3. In an electrical apparatus, the combination with a base member, of a plurality of concentrically related terminal members, means for securing the terminal members in the base member in any desired position, and coöperating contact members for engaging the said terminal members.

4. In an electrical apparatus, the combination with a base member, of a plurality of concentrically related terminal members, one of which has a circumferential groove therein, means for adjustably securing the terminal members in the base member, and coöperating concentrically disposed contact members for engaging the said terminal members, the said contact members being adapted to grip the groove in the terminal member to retain the same in engagement.

5. In an electrical apparatus, the combination with a base member having an internal recess therein, of concentric contact members disposed within the recess, an annular member disposed within the recess and around the contact members, and a plurality of screws disposed in the said base member for extending through the annular member to retain the contact members in any desired position.

[Claims 6 to 8 not printed in the Gazette.]

1,241,557. APPARATUS FOR RENOVATING WEARING-APPAREL. NATHAN RUBENSTEIN, New York, N. Y. Filed Feb. 6, 1917. Serial No. 146,912. (Cl. 223—17.)



1. An apparatus of the class described comprising a base including a pedestal, a garment form supported upon said pedestal, a tray mounted upon said pedestal, a steam-distributing chamber carried by said tray, and means for supplying steam to said steam-distributing chamber.

[Claims 2 and 3 not printed in the Gazette.]

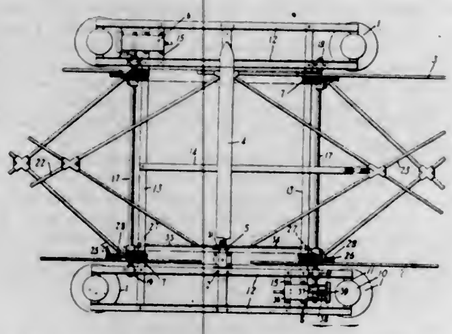
1,241,558. TROLLEY. WILLIAM SCHAAKE, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 12, 1915. Serial No. 20,644. (Cl. 191—65.)

1. In a trolley, the combination with a supporting frame, a plurality of transverse rotatable shafts, bearing members for supporting the ends of said shafts upon said frame, and a pantograph frame mounted upon said shafts and adapted to be raised into its operative position, of means disposed at the side of said pantograph frame and coöperating with said shafts for lowering said pantograph frame.

2. In a trolley, the combination with a supporting frame, a plurality of transverse rotatable shafts carried thereby, a pantograph frame mounted upon said shafts, and means coöperating therewith for elevating said frame, of means disposed on the respective sides of said pantograph frame and severally coöperating with said respective shafts for lowering said pantograph frame.

3. In a trolley, the combination with a supporting frame, a plurality of transverse rotatable shafts, and a

pantograph frame mounted upon said shafts, of a plurality of fluid-actuated devices carried by said supporting frame and severally associated with the respective shafts and disposed on the opposite sides of said pantograph frame for actuating said frame.

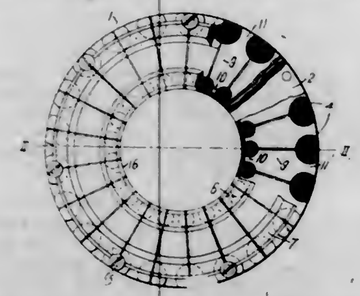


4. In a trolley, the combination with a substantially square supporting structure, and a pantograph frame mounted thereon and adapted to be raised and lowered in position, of means mounted upon diametrically opposite corners of said supporting structure for actuating the said pantograph frame to only a lowered position.

5. In a trolley, the combination with a supporting structure, and a pantograph frame mounted thereon and adapted to be raised and lowered in position, of a plurality of actuating means independently carried by said supporting structure and respectively disposed at diametrically opposite corners of the pantograph frame, said actuating means adapted to operate only for lowering said frame.

[Claims 6 to 10 not printed in the Gazette.]

1,241,559. COMMUTATOR. HAROLD M. SCHEIBE, Somerville, Mass., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 31, 1913. Serial No. 809,650. (Cl. 200—12.)



1. A commutator comprising a disk-shaped supporting member of insulating material having a plurality of annular flanges disposed thereon, and a plurality of radially disposed conducting segments having their end portions embedded in the said flanges.

2. A commutator comprising a disk-shaped supporting member of insulating material having a plurality of concentric annular flanges disposed thereon, and a plurality of radially disposed conducting segments having reduced end portions, said reduced portions being embedded in the said flanges.

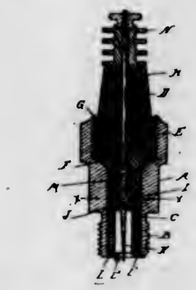
3. A commutator comprising an annular disk-shaped supporting member of insulating material having a plurality of concentric flanges disposed thereon and a plurality of radially disposed conducting segments having their ends portions embedded in the said flanges.

4. A commutator comprising an annular disk-shaped supporting member of insulating material having concentric flanges disposed adjacent to the inner and outer peripheries thereof, and a plurality of radially disposed conducting segments having reduced end portions, said reduced portions being embedded in the said flanges.

5. A commutator comprising a body member of insulating material, and a plurality of metal segments having reduced end portions, said reduced portions being wholly embedded in said body member.

[Claims 6 to 13 not printed in the Gazette.]

1,241,560. SPARK-PLUG. ALBERT SCHMIDT, Flint, Mich., assignor to Champion Ignition Company, Flint, Mich., a Corporation of Michigan. Filed July 29, 1916. Serial No. 112,038. (Cl. 123—169.)



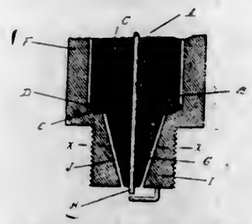
1. In a spark plug, the combination with the casing, of an insulator secured in the upper portion of said casing, an electrode passing through said insulator and provided with an enlargement at the inner end thereof, a tubular insulator seated at one end upon said enlargement of the electrode and forming a gas-tight seal therewith, and an inturned flange on said casing abutting against the opposite end of said insulator tube and forming a gas-tight seal therewith.

2. In a spark-plug, the combination with a casing, of an insulator secured in the outer portion of said casing, an electrode passing through said insulator and provided with an enlargement at the inner end thereof, a tubular insulator within the inner portion of said casing having one end seated upon and forming a gas-tight seal with said enlarged portion of the electrode, an inturned flange at the inner end of said casing overlapping and sealing the inner end of said tube, and an insulator sleeve surrounding the adjacent portions of the inner and outer insulators and bridging the gap therebetween.

3. In a spark plug, the combination with a casing, of an insulator secured in the outer portion thereof, an electrode passing through said insulator and having an integral enlargement at the inner end thereof, an insulator tube within the inner portion of said casing having one end seated upon and forming a gas-tight seal with said enlargement upon the electrode, a grounded electrode having an annular portion adjacent to the inner end of said insulator tube, and an inturned flange on said casing for clamping said annular portion of the grounded electrode against the insulator and forming a gas-tight seal.

4. In a spark plug, the combination with a casing, of an insulator secured in the outer portion thereof, an electrode passing through said insulator and having an integral enlargement seated on the inner end thereof, an insulator tube within the inner portion of said electrode, having one end seated upon and forming a gas-tight seal with the enlargement of said electrode, a grounded electrode having an annular portion contacting with the inner end of said insulator tube, a flange on said casing turned in upon said annular electrode and forming a gas-tight seal, and an insulator-sleeve surrounding adjacent portions of said inner and outer insulators and bridging the gap therebetween.

1,241,561. SPARK-PLUG. ALBERT SCHMIDT, Flint, Mich., assignor to Champion Ignition Company, Flint, Mich., a Corporation of Michigan. Filed Jan. 18, 1917. Serial No. 143,149. (Cl. 123—169.)



1. In a spark-plug, the combination with an insulator having a tapering inner end, of a casing surrounding said insulator, having the recesses therein correspondingly tapered, said casing being slightly spaced from said insulator to leave a restricted annular space.

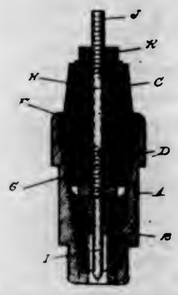
2. In a spark-plug, the combination with an insulator having a shouldered portion and a tapering inner end extending therefrom, of a casing having an opposed shoulder providing a seat for the shouldered portion of the insulator, said casing being also provided with a tapering recess surrounding and corresponding to the tapering portion of the insulator.

3. In a spark-plug, the combination with an insulator having a tapering inner end portion and an enlargement providing a shoulder beyond said tapering portion, of a casing having a shoulder opposed to the shoulder on the insulator, a gasket forming a bearing and seal for the insulator on the casing, and said casing having a tapering recess surrounding and corresponding to the taper of the insulator, to restrict the volume of space within the casing exposed to the flame.

4. In a spark-plug, a casing having a shouldered portion and a threaded nipple, the nipple portion having a tapering recess therein, of an insulator seated on said shouldered portion and having a tapering inner end portion fitting within and uniformly spaced from the walls of said tapering recess, for the purpose described.

5. In a spark-plug, a casing having its nipple portion provided with a recess tapering from its outer end forward its inner end, and an insulator within said tapering recess.

1,241,562. SPARK-PLUG. ALBERT SCHMIDT, Flint, Mich., assignor to Champion Ignition Company, Flint, Mich., a Corporation of Michigan. Filed Mar. 8, 1917. Serial No. 153,233. (Cl. 123—169.)



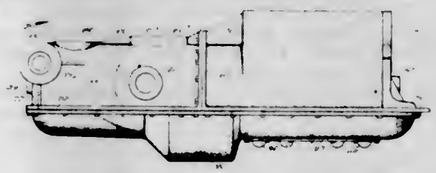
1. In a spark plug, the combination with an insulator, of an electrode insertible through said insulator from the outer end thereof, said electrode being of a diminishing cross section from its outer to its inner end, means provided by said insulator engageable with said electrode during the insertion and anchoring the latter from outward movement, and coöperating means at the outer end of said electrode for clamping the same to said insulator.

3. In a spark plug, the combination of an electrode formed in outer and inner sections having a recess therebetween, an insulator wrapping for bridging the joint between said sections, a casing in which said sections are mounted and held in fixed relation to each other, a threaded member in the recess between said sections, and an electrode insertible through said sections from the outer end thereof and threaded for engagement with said threaded member.

5. In a spark plug, the combination with an insulator, of an electrode insertible through said insulator from the outer end thereof, said electrode and insulator having a shouldered engagement, and means for retaining said members in engagement.

[Claims 2, 4, 6, and 7 not printed in the Gazette.]

1,241,563. TRACTOR. HUGO F. SCHMIDT, Chicago, Ill. Filed June 3, 1916. Serial No. 101,515. (Cl. 21—114.)



1. In a tractor, or similar vehicle, a unitary frame structure divided horizontally, the upper half including the substantial part of an engine structure and a transmission gear housing, and the lower half being made in one piece joined to the upper half and extending substantially the entire length of the frame structure.

2. In a tractor, or similar vehicle, a unitary frame structure divided horizontally, the upper half including the substantial part of an engine structure and a transmission gear housing secured rigidly together and adapted to rest on two axles, and the lower half being made in one piece joined to both parts of the upper half and extending substantially the entire length of the frame structure.

3. In a tractor, or similar vehicle, a unitary frame structure divided horizontally, the upper half being adapted to rest on two axles and providing journals for all moving parts, and the lower half being made in one piece joined to the upper half and extending substantially the entire length of the frame structure.

4. In a tractor or similar vehicle, a unitary frame structure providing journals for all moving parts and supported on two axles, such frame structure being divided horizontally throughout its entire length and the lower part being made in one piece from end to end.

1,241,564. TICKET-HOLDER. EDWARD A. SCHREIBER, Chicago, Ill., assignor to Egbert H. Gold, Chicago, Ill. Filed Mar. 27, 1916. Serial No. 86,922. (Cl. 40—11.)



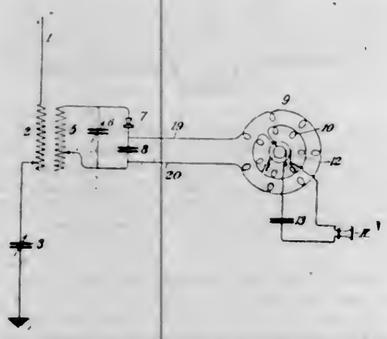
1. A ticket holder for a railway car consisting of a wire bent to form a plurality of spring ticket holding loops, said loops lying for most of their length flatwise against the side of the car to which the device is attached with their extremities arranged a trifle from the same.

2. A ticket holder for a railway car consisting of a single wire, which does not cross itself at any point, bent to form four radially arranged loops, and attaching means which engages the wire at the central point between said loops, and attaching means for securing the wire to a part of the car at a point between said loops.

3. A ticket holder for a railway car consisting of a wire bent to form a plurality of spring loops for supporting tickets between said loops and the part of the car to which the device is attached, and attaching means for engaging the wire at a central point between the loops and for holding said loops in ticket-holding position against the said part of the car to which the device is attached.

[Claim 4 not printed in the Gazette.]

1,241,565. METHOD OF AND APPARATUS FOR RADIOSIGNALING. HARRY SHOEMAKER, Jersey City, N. J., assignor to Marconi Wireless Telegraph Company of America, New York, N. Y., a Corporation of New Jersey. Filed Oct. 4, 1913. Serial No. 793,278. (Cl. 250—8.)



1. In an apparatus of the kind described, means for receiving and rectifying continuous undamped oscillations, a generator, the fields of which are arranged so as to be excited by the rectified oscillations, and a receiving device operated by the current from the armature of said generator.

2. In an apparatus of the kind described, means for receiving oscillations, a generator, the fields of which are arranged so as to be excited by the rectified oscillations, and a receiving device operated by the current from the armature of said generator, the frequency of said current being independent of all frequency characteristics of the received oscillations.

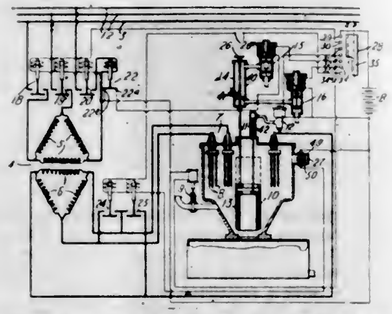
3. In an apparatus of the kind described, means for receiving and rectifying oscillations, a generator, the fields of which are arranged so as to be excited by the rectified oscillations, and a receiving device operated by the current from the armature of said generator, said current being of a different frequency than the group frequency of the received oscillations.

4. In an apparatus of the kind described, means for receiving and rectifying continuous undamped oscillations, a telephone adapted to respond with maximum effect to current having a definite frequency, an alternating current generator having a frequency corresponding to that of the telephone, and means for energizing the field coils of said generator by the received rectified oscillations.

5. In an apparatus of the kind described, means for receiving and rectifying oscillations, a telephone adapted to respond with maximum effect to current having a definite frequency, differing from the group frequency of the received oscillations, an alternating current generator having a frequency corresponding to that of the telephone, and means for energizing the field coils of said generator by the received rectified oscillations.

[Claims 6 to 21 not printed in the Gazette.]

1,241,566. CONTROL SYSTEM. KARL A. SIMMON and ARTHUR J. HALL, Wilkinsburg, Pa., assignors to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 6, 1914. Serial No. 830,096. (Cl. 172—289.)



1. The combination with a liquid rheostat and a plurality of auxiliary spaced and insulated contact members associated therewith and adapted to be bridged by the electrolyte, of a source of alternating current connected through said contact members, whereby electrolysis of said members is prevented.

2. The combination with a liquid rheostat and an electrolytic interlock switch associated therewith and comprising a plurality of spaced and insulated contact members adapted to be bridged by the electrolyte, of an auxiliary circuit connected through said electrolytic interlock switch and a source of alternating current energy for supplying energy to said circuit.

3. The combination with a liquid rheostat having an electrolytic interlock switch associated therewith and adapted to be closed when the electrolyte reaches a predetermined height, and an alternating current relay in circuit with said electrolytic interlock, of means dependent upon said relay for short-circuiting said rheostat.

4. The combination with a liquid rheostat having an electrolytic interlock switch associated therewith and adapted to be closed when the electrolyte reaches a predetermined height, and an alternating current relay in circuit with said electrolytic interlock, of an electrically operated short-circuiting switch, and a control circuit therefor governed by said relay.

5. The combination with a liquid rheostat, a source of alternating current energy connected thereto, and means for short-circuiting said rheostat, of a plurality of insulated contact members associated with said rheostat and adapted to be immersed in the electrolyte, under predetermined conditions, an alternating current relay connected to said source and having a circuit including said contact members, and means coöperating with said relay for actuating said short-circuiting means.

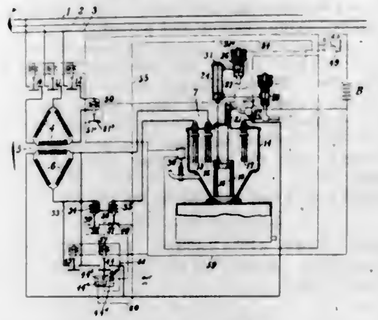
[Claims 6 and 7 not printed in the Gazette.]

1,241,567. CONTROL SYSTEM. KARL A. SIMMON and ARTHUR J. HALL, Wilkinsburg, Pa., assignors to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 6, 1914. Serial No. 830,098. (Cl. 172—289.)

1. The combination with translating means, a liquid rheostat having coöperating electrodes, means for admitting electrolyte into said rheostat, and means for short-circuiting said rheostat, of means for preventing the operation of said short-circuiting means until said rheostat is filled with electrolyte and predetermined current conditions of said translating means are established.

2. The combination with a liquid rheostat having coöperating electrodes, means for admitting electrolyte into said rheostat, and means for short-circuiting said rheostat, of means dependent upon predetermined conditions of said rheostat and predetermined current conditions for governing the operation of said short-circuiting means.

3. The combination with a liquid rheostat having coöperating electrodes, means for admitting electrolyte into said rheostat, and means for short-circuiting said rheostat, of means dependent upon electrolyte in said rheostat and upon the current traversing said rheostat for governing the operation of said short-circuiting means.

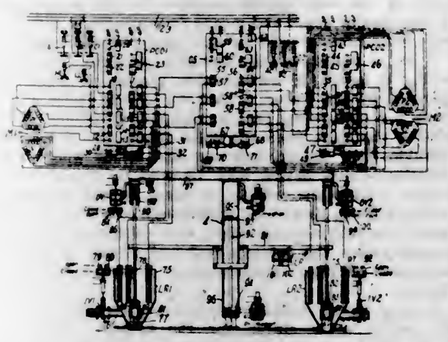


4. The combination with a liquid rheostat having coöperating electrodes, means for admitting electrolyte into said rheostat, and means for short-circuiting said rheostat, of a plurality of relays severally dependent upon the current traversing said rheostat for acting concurrently to govern the operation of said short-circuiting means.

5. The combination with a liquid rheostat having coöperating electrodes, means for admitting electrolyte into said rheostat, and means for short-circuiting said rheostat, of a plurality of relays respectively dependent upon different predetermined currents traversing said rheostat for acting concurrently and conjointly to govern the operation of said short-circuiting means.

[Claims 6 to 15 not printed in the Gazette.]

1,241,568. CONTROL SYSTEM. KARL A. SIMMON and ARTHUR J. HALL, Wilkinsburg, Pa., assignors to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed June 20, 1914. Serial No. 846,287. (Cl. 172—179.)



1. In a control system, the combination with a source of energy and an electric motor, of means embodying a master controller for reconnecting the motor windings for a plurality of ranges of speed, and means embodying a master controller for adjusting the rate of acceleration of said motor.

2. In a control system, the combination with a source of energy and an electric motor, of means embodying a master controller for reconnecting the motor windings for a plurality of ranges of speed, automatic means for effecting the acceleration of said motor at a uniform rate, and means for selectively adjusting the rate of acceleration.

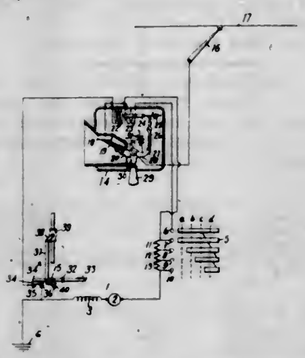
3. In a control system, the combination with a source of energy and an electric motor, of means embodying a master controller for reconnecting the motor windings for a plurality of ranges of speed, automatic means for effecting the acceleration of said motor at a uniform rate, and selective means for influencing the operation of said automatic means.

4. In a control system, the combination with a source of energy and an electric motor, of means embodying a master controller for reconnecting the motor windings for a plurality of ranges of speed, automatic means for effecting the acceleration of said motor at a uniform rate, and a second master controller for adjusting the rate of acceleration for any speed range of motor connections.

5. In a control system, the combination with a source of energy and an electric motor, of means embodying a plurality of adjustable master controllers for governing the operation of said motor, and means associated therewith for necessitating repeated alternate manipulation of said controllers to effect continued operation of said motors.

[Claims 6 to 25 not printed in the Gazette.]

1,241,569. CONTROL SYSTEM. KARL A. SIMMON, Edgewood Park, and JOSEPH D. BIRRELL, Wilkinsburg, Pa., assignors to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Nov. 29, 1915. Serial No. 64,038. (Cl. 172—179.)



1. In a control system, the combination with an automatic tripping switch, a controller, and an auxiliary switch, of means for tripping said automatic switch in case said auxiliary switch is closed while said controller is in an operative position, or in case said controller is operated while said auxiliary switch is in a closed position.

2. In a control system, the combination with a power circuit, a motor, an automatic tripping switch, a controller, and an auxiliary switch, of means for tripping said automatic switch to disconnect said motor from the power circuit in case said controller is operated while the auxiliary switch is in a closed position or in case said auxiliary switch is closed while the controller is in an operative position.

3. In a control system, the combination with an automatic tripping switch, a power circuit, a motor, a controller, and an auxiliary switch which is biased to closed position and which is opened when pressure is applied thereon, of means for connecting said motor to the power circuit in case said controller is operated while pressure is being applied to said auxiliary switch and means for tripping said automatic switch to break the motor circuit in case said auxiliary switch is released.

4. In a control system, the combination with an automatic tripping switch, an auxiliary switch and a fluid valve, of means for tripping said automatic switch and for operating said fluid valve in case said auxiliary switch is moved to a closed position.

5. In a control system, the combination with a power circuit, a motor, an automatic tripping switch, a controller, an auxiliary switch and a fluid valve, of means for

tripping said automatic switch to disconnect said motor from the power circuit and means for automatically operating said fluid valve in case said auxiliary switch is closed while the controller is in an operative position.

[Claims 6 to 11 not printed in the Gazette.]

1,241,570. ATTACHMENT FOR CHECK-WRITING MACHINES. JAMES E. SIMPSON and CHARLES J. PAULSON, Brooklyn, N. Y., assignors to Todd Protectograph Company, Rochester, N. Y., a Corporation of New York. Filed Mar. 13, 1916. Serial No. 83,949. (Cl. 197—6.2.)



6. The combination with a printing machine comprising a printing couple the members of which are relatively movable to print and disrupt the paper, and means for feeding the work between the members of the printing couple; of a pointed part movable to engage the paper from below by said relative movement of the members of said printing couple, and adapted to yield to permit said paper to be fed but to bear against said paper during the feeding movement in order to engage and tear a portion of the paper disrupted by a previous impression of the machine.

[Claims 1 to 5 not printed in the Gazette.]

1,241,571. ELECTRICAL PROTECTIVE DEVICE. BENJAMIN H. SMITH, Turtle Creek, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Aug. 6, 1915. Serial No. 43,975. (Cl. 175—294.)

1. In a polyphase electric circuit, the combination with circuit interrupters and relays for controlling the tripping of the said interrupters, of saturated transformers that are star connected to the circuit for supplying current to the current windings of the watt relays, the potential windings of the relays being delta connected to the circuit.

2. In a polyphase electric circuit, the combination with circuit interrupters and relays for controlling the tripping of the said interrupters, of star-connected means for supplying the current windings of the relays with substantially constant current, and means for so connecting the potential windings of the relays to the circuit that the phase-angular relation between the currents traversing the windings of the respective relays will be less than ninety degrees.

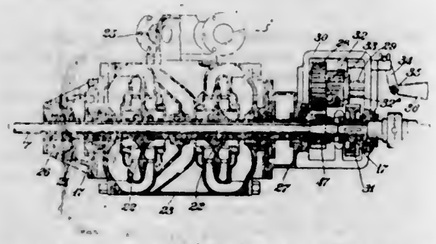
3. In a polyphase electric circuit, the combination with circuit interrupters and relays for controlling the tripping thereof, of means for supplying the current windings of the relays with substantially constant current, said means being star connected to the circuit, the potential windings of the relays being delta connected to the circuit.

4. In a polyphase electric circuit, the combination with watt relays having current and potential windings thereon, of means for supplying the current windings with substantially constant current, said means and the potential windings being so connected to the circuit that the current traversing the potential windings is thirty degrees ahead of the normal current traversing the circuit.

5. In a polyphase electric circuit, the combination with watt relays having current and potential windings thereon, of means operatively connected between the current windings and the circuit for causing the current that traverses the current windings to be substantially constant above a predetermined value, the potential winding being so connected to the circuit that the current that traverses the potential windings is a predetermined angle out of phase with the current that traverses the current windings.

[Claims 6 to 9 not printed in the Gazette.]

1,241,572. FIRE APPARATUS. JULIUS F. STONE, Columbus, Ohio. Filed Dec. 24, 1915. Serial No. 68,483. (Cl. 169—19.)



1. In a motor vehicle pumping apparatus, the combination with the chassis having main longitudinal frame members, of a motor, main clutch for the vehicle, transmission gearing and propeller shaft disposed between the main clutch and the transmission gearing, a pump casing, transverse frame members supporting the pump casing between the main frame members of the chassis and disposed between the ends of the propeller shaft, bearings supported by the pump casing, a tubular shaft through which the propeller shaft passes journaled rotatably in the bearings, an impeller for the pump carried by the tubular shaft and means for operatively connecting and disconnecting said tubular and propeller shafts.

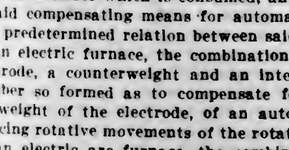
2. In a motor vehicle pumping apparatus, a chassis having a motor, a transmission gearing, a drive shaft operated by the motor, a shiftable clutch device on said shaft for connecting the transmission with and disconnecting the same from the drive shaft, said clutch being operable from the driver's seat and means whereby said shiftable clutch device may likewise be operated by a person outside the vehicle, a pump having an impeller shaft, shiftable means for operatively connecting and disconnecting said impeller shaft, said shiftable means being operable from the driver's seat and means whereby the same may be likewise operated by a person outside the vehicle.

3. In a motor vehicle, the combination with the chassis, motor, main clutch for the vehicle, change-speed gearing, and propeller shaft interposed between the clutch and the gearing, of a tubular shaft through which the propeller shaft passes loosely, means for mounting the tubular shaft rotatably on the chassis, a pump connected to said tubular shaft, and clutch means between the tubular shaft and the propeller shaft for connecting the shaft to and disconnecting it from the pump at will.

[Claims 4 to 6 not printed in the Gazette.]

1,241,573. MILK-STRAINER SUPPORT. JOHN TRONDSVAREN, Fayette, N. D. Filed Mar. 23, 1916. Serial No. 86,246. (Cl. 248—30.)

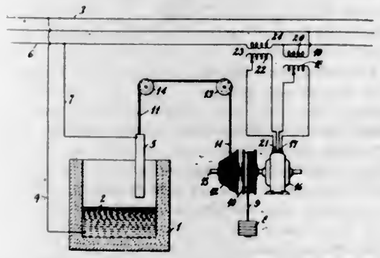
1. A reversible strainer support for cream separator tanks comprising spaced annular members, legs connecting said members and projected therebeyond, pairs of fingers formed integral with the said leg projections, said fingers being adapted for joint engagement with the bead of the separator tank in one position of the strainer support and only one finger of each pair being adapted for engagement with the bead of the separator tank in the reversed position of the strainer support.



3. A reversible strainer support for cream separator tanks comprising spaced annular members of different diameters, the smaller of said members receiving the strainer direct, inclined legs connecting said members and projected beyond the larger member, pairs of fingers formed integral with the said leg projections, both fingers of each pair being adapted for engagement with the bead of the separator tank in one position of the strainer support with the smaller annular member positioned above the said tank bead and only one finger of each pair being adapted for engagement with the bead of the separator tank in the reversed position of the strainer support with the smaller annular member positioned below the said tank bead.

[Claim 2 not printed in the Gazette.]

1,241,574. REGULATING APPARATUS FOR ELECTRIC FURNACES. WILFRED SYKES, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 12, 1912. Serial No. 690,443. (Cl. 204—64.)



1. The combination with a pair of coöperating relatively movable members, one of which is gradually consumed, of means for compensating for the variations of weight in the member which is consumed, and means comprising said compensating means for automatically maintaining a predetermined relation between said members.

2. In an electric furnace, the combination with a movable electrode, a counterweight and an interposed rotatable member so formed as to compensate for the variations in weight of the electrode, of an automatic means for producing rotative movements of the rotatable member.

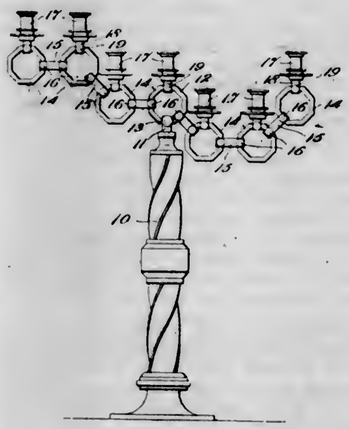
3. In an electric arc furnace, the combination with a movable electrode, a counterweight and an interposed rotatable member so formed as to compensate for the variations in weight of the electrode, of automatic means dependent upon the current traversing the arc for producing rotative movements of the rotatable member.

4. The combination with an electric furnace having a consumable electrode, of means for compensating for variations in the weight of the electrode as it is consumed, and means comprising said compensating means for automatically regulating the position of the said electrode relatively to the remainder of the furnace in accordance with variations of an electrical condition within the furnace.

5. The combination with an electric furnace having a consumable electrode, of means for compensating for variations in the weight of said electrode, and an electric motor for automatically varying the position of the electrode relatively to the remainder of the furnace, the said motor being supplied with current that is dependent in value upon the current traversing the furnace arc.

[Claims 6 to 8 not printed in the Gazette.]

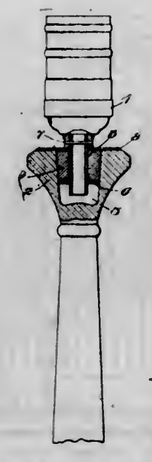
1,241,575. CANDELABRUM. STEPHEN SZIOETHY, New York, N. Y. Filed Mar. 28, 1917. Serial No. 157,873. (Cl. 67—25.)



1. A candelabrum comprising a support, a plurality of polygonal members, light holders, and detachable links for connecting said light holders and said polygonal members each of which links is adapted to embrace the different sides of a polygonal member so as to be removably affixed thereto.

[Claim 2 not printed in the Gazette.]

1,241,576. HOLDER FOR CANDLES AND THE LIKE. HORACE B. S. TEAGUE, Melrose Highlands, Mass., assignor to Edward Miller & Company, Boston, Mass., a Corporation of Connecticut. Filed Dec. 22, 1916. Serial No. 138,302. (Cl. 240—81.)

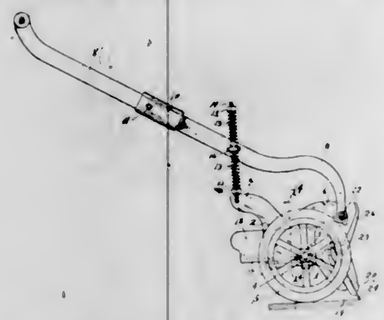


2. In a device of the character described, the combination of a holder provided with a threaded stem carrying a nut on its outer end, a freely-rotatable collar mounted on said stem and adapted to extend laterally over and bear upon the top of a candle-stick or the like, and a plug of compressible and elastic material mounted on

said stem between the collar and the nut, in engagement with both, and having a normal diameter not less than that of the nut.

[Claim 1 not printed in the Gazette.]

1,241,577. FLOOR-SCRAPER. LEWIS P. THOMPSON, Minneapolis, Minn. Filed Aug. 17, 1914. Serial No. 857,155. (Cl. 145—47.)

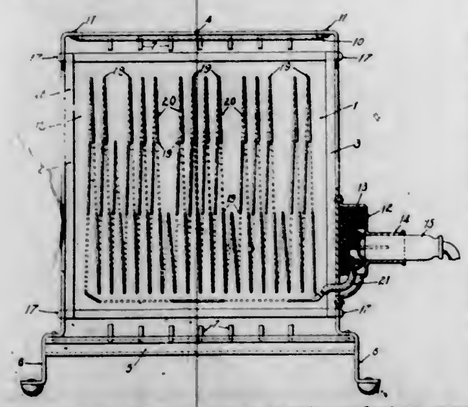


1. In a floor scraper, the combination with a wheel-supported main frame, of a supplemental frame resiliently supported on the main frame at its transverse center and having its ends out of contact therewith, a scraper blade clamp carried by the supplemental frame, and means for propelling the scraper.

4. In a floor scraper, the combination with a wheel-supported main frame, of a supplemental frame resiliently supported on the main frame at its transverse center and having its ends out of contact therewith, said supplemental frame having a downwardly and outwardly projecting flange, a scraper blade clamp having its lower edge portion bearing on the lower edge portion of said flange, a resilient device interposed between the upper edge portions of said flange and clamp and located intermediately of the ends thereof, and means for propelling the scraper.

[Claims 2 and 3 not printed in the Gazette.]

1,241,578. ELECTRIC HEATING APPARATUS. FRANK THORNTON, Jr., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 12, 1915. Serial No. 20,695. (Cl. 219—19.)



1. The method of mounting electric conductors upon insulating supports that comprises uniting a fragmentary insulating material into a coherent structure by means of a binder, mounting a body of conducting material on the said structure, and removing the said binder.

2. The method of mounting electric conductors upon insulating supports that comprises uniting flakes of mica into a coherent structure by means of a binder, mounting a body of conducting material on the said structure and removing the said binder.

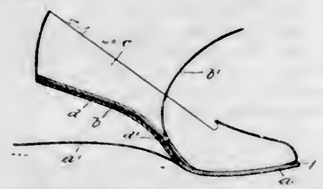
3. The method of mounting electric conductors upon insulating supports that comprises uniting flakes of mica into a coherent structure by means of a binder, mounting a body of conducting material upon the said structure in such a manner as to hold the flakes together, and removing the said binder.

4. The method of mounting electric conductors upon insulating supports that comprises forming a composite sheet of a fragmentary insulating material and a binder, perforating the said sheet, passing a body of conducting material through the perforations in the said sheet, and removing the said binder.

5. The method of mounting electric conductors upon insulating supports that comprises forming a composite sheet of mica flakes and a binder, perforating the said sheet, passing a body of conducting material through the perforations in the said sheet, and removing the said binder.

[Claims 6 to 14 not printed in the Gazette.]

1,241,579. TURNED SHOE. JAMES B. TILTON, Haverhill, Mass. Filed Dec. 27, 1915. Serial No. 68,598. (Cl. 36—18.)



1. A turned shoe having a tongue split from the outer side of the shank portion of the sole thereof, a shank stiffener on the inner side of the sole, and fastening means disposed in the stiffener and in the portion of the sole from which the tongue was split, to secure the same together, said tongue being secured to the surface from which it was split, to cover said fastening means.

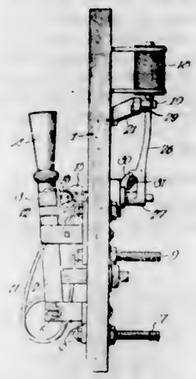
2. A turned shoe having a tongue split from the outer side of the shank portion of the sole thereof, a shank stiffener on the inner side of the sole, a metal reinforcing strip disposed between the sole and the stiffener and extending throughout approximately the length of the shank, and a row of fasteners disposed in the stiffener and extending through the sole, to its split-off surface, at each side of said metal strip, said tongue being adhesively connected to said surface to cover said fastening means.

3. A turned shoe having a tongue split from the outer side of the sole from the heel end of the shoe to points adjacent the front end of the shank portion, a shank-stiffener on the inner side of the sole, and fastening means disposed in the stiffener, and extending through the shank portion of the sole, to the surface from which the tongue was split, said tongue being adhesively connected to said surface.

4. A turned shoe having a tongue split from the outer side of the shank portion of the sole thereof, a shank stiffener on the inner side of the sole, a metal reinforcing strip disposed between the sole and the stiffener and extending throughout the length of the shank, and a row of stitches disposed in the stiffener, at each side of said metal strip and through the edge portion of the upper and extending through the sole, to its split-off surface, between the upper-attaching stitches and the sole edge, said tongue being adhesively connected to said surface to cover said stitches.

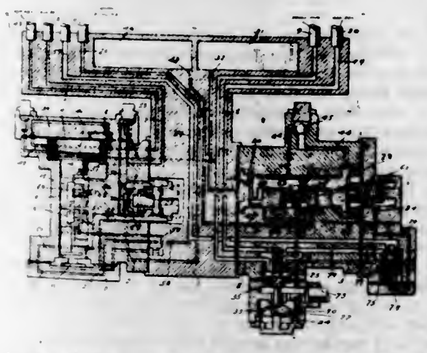
5. A turned shoe having a leather shank-stiffener, extending over the sole from its heel end to points adjacent the front end of its shank, a tongue split from the inner side of the stiffener from its heel end to a point adjacent its front end and a tongue split from the outer side of the sole, from its heel end, to points adjacent the ball, fastening means extending through the stiffener and sole from one of the split-off surfaces to the other, said tongues being adhesively connected to the respective surfaces from which they were split.

1,241,580. AUTOMATIC CUT-OUT FOR SWITCHES. ALFRED R. TRILLITSCH, Chicago, Ill. Filed Jan. 29, 1916. Serial No. 74,997. (Cl. 175—268.)



In a device of the class described, the combination with a manually operable spring opened switch, of a spring pressed catch on said switch, trigger mechanism engaging the catch to hold the switch closed, means for tripping said mechanism to release it to the action of the catch and a resilient member which automatically resets the trigger mechanism; said mechanism being independent of the switch and maintaining its set position when the switch is manually operated.

1,241,581. FLUID-PRESSURE BRAKE APPARATUS. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Aug. 7, 1914. Serial No. 855,676. (Cl. 188—15.)



1. In a fluid pressure brake, the combination with a brake pipe and an equalizing valve device operated upon a gradual reduction in brake pipe pressure for effecting a service application of the brakes, of an emergency valve mechanism comprising an piston subject to the opposing pressures of the brake pipe and a chamber, a main valve, and a graduating valve, said graduating valve being operated by said piston without moving the main valve upon a gradual reduction in brake pipe pressure for venting fluid from said chamber.

2. In a fluid pressure brake, the combination with a brake pipe, and an equalizing valve device operated upon a gradual reduction in brake pipe pressure for effecting a service application of the brakes, of an emergency valve mechanism comprising a piston subject to the opposing pressures of the brake pipe and a chamber, a main valve, and a graduating valve, said graduating valve being movable by said piston relatively to said main valve upon a gradual reduction in brake pipe pressure to a postion for venting fluid from the chamber.

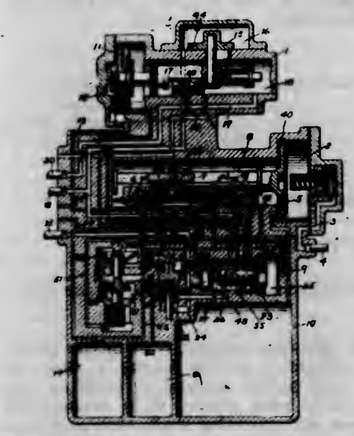
3. In a fluid pressure brake, the combination with a brake pipe, and an equalizing valve device operated upon a gradual reduction in brake pipe pressure for effecting a service application of the brakes of an emergency valve mechanism comprising a valve and a piston subject to the opposing pressures of the brake pipe and a chamber for operating said valve upon a sudden reduction in brake pipe pressure, and a feed passage through which the chamber is charged from the brake pipe and containing a check valve for preventing back flow, said valve mechanism being operated upon a gradual reduction in brake pipe pressure for venting fluid from said chamber.

4. In a fluid pressure brake, the combination with a brake pipe and an equalising valve device operated upon a gradual reduction in brake pipe pressure for effecting a service application of the brakes, of an emergency valve mechanism subject to the opposing pressures of the brake pipe and a chamber, and a feed passage for charging the chamber from the brake pipe and containing a check valve for preventing back flow from the chamber to the brake pipe, said valve mechanism being operative upon a gradual reduction in brake pipe pressure for venting fluid from said chamber.

5. In a fluid pressure brake, the combination with a brake pipe, of an emergency valve mechanism comprising a piston subject to the opposing pressures of the brake pipe and a chamber, a main valve, and a graduating valve movable with the piston relatively to said main valve upon a gradual reduction in brake pipe pressure to a position for venting fluid from said chamber, and a yielding stop device for defining said position of the emergency valve mechanism.

[Claims 6 to 12 not printed in the Gazette.]

1,241,582. FLUID-PRESSURE BRAKE APPARATUS. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed May 18, 1915. Serial No. 28,944. (Cl. 188—15.)



1. In a fluid pressure brake, the combination with a brake pipe, a service brake cylinder, and a valve mechanism operated upon a gradual reduction in brake pipe pressure for supplying fluid to said brake cylinder, of an emergency brake cylinder and means operated in an emergency application of the brakes for first venting fluid from the brake pipe to the emergency brake cylinder and then from a source of fluid under pressure.

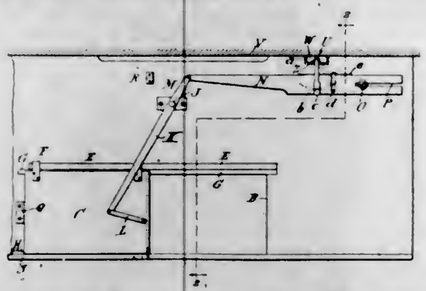
2. In a fluid pressure brake, the combination with a brake pipe, a service brake cylinder, and a valve mechanism operated upon a gradual reduction in brake pipe pressure for supplying fluid to said brake cylinder, of an emergency brake cylinder, a reservoir normally charged with fluid under pressure, and means operated upon an emergency application of the brakes for first venting fluid from the brake pipe to said emergency brake cylinder and then from said reservoir.

3. In a fluid pressure brake, the combination with a brake pipe, a service brake cylinder, a reservoir normally charged with fluid under pressure, and a valve mechanism operated upon a gradual reduction in brake pipe pressure for supplying fluid from said reservoir to the brake cylinder, of an emergency brake cylinder, and means operative upon a sudden reduction in brake pipe pressure for first supplying fluid from the brake pipe to the emergency brake cylinder and then from said reservoir.

4. In a fluid pressure brake, the combination with a brake pipe, a service brake cylinder and an emergency brake cylinder, of a quick action valve device operated upon a sudden reduction in brake pipe pressure for venting fluid from the brake pipe and a change over valve device operated by flow of fluid vented from the brake pipe for opening communication from the brake pipe to the emergency brake cylinder, said change over valve device being operated at a predetermined reduction in brake pipe pressure for opening communication from another source of fluid under pressure to the emergency brake cylinder.

5. In a fluid pressure brake, the combination with a brake pipe, a service brake cylinder, an emergency brake cylinder, and a reservoir normally charged with fluid under pressure, of a quick action valve device operated upon a sudden reduction in brake pipe pressure for venting fluid from the brake pipe, and a change over valve device subject on one side to the flow of fluid vented from the brake pipe and on the opposite side to reservoir pressure for first opening communication for venting fluid from the brake pipe to the emergency brake cylinder and then operating upon a predetermined reduction in brake pipe pressure for opening communication from the reservoir to the emergency brake cylinder.

1,241,583. DOOR-OPERATING MECHANISM FOR PLAYER-PIANOS. EUGENE T. TURNEY, New York, N. Y., assignor to American Player Action Company, a Corporation of West Virginia. Filed Aug. 22, 1914. Serial No. 858,037. (Cl. 84—169.)



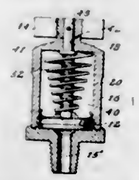
1. A door operating mechanism for player pianos comprising a removable portion having a slide mounted thereon, a fixed portion adapted to carry an operating shaft, said slide being adapted to be automatically disengaged from said operating shaft when said removable portion is removed and to be automatically engaged with said operating shaft when said removable portion is replaced.

2. A door operating mechanism for player pianos comprising a handle supported from the underside of the key bed of the piano and means for transmitting the movement of the handle to the door, said means being mounted on the bottom frame of the piano and being detachable from the handle by the mere removal of the bottom frame.

3. A door operating mechanism for player pianos comprising a slide mounted on the bottom frame of the piano, an operating shaft mounted on a fixed part of the piano and having an arm overlying said slide, said slide and arm having a pin and slot adapted to be engaged with each other or disengaged from each other so as to permit a removal of said frame without removing the operating shaft.

4. A door operating mechanism for player pianos comprising a slide N mounted on the inner face of the bottom frame of the piano, an operating shaft U having an arm c overlying the inner face of said slide and a spring tending to press said shaft forward, said slide and arm having a pin and slot adapted to be engaged with each other by a forward movement of the shaft when the shaft is turned to bring them into register with each other and to be disengaged by a forward movement of the bottom frame carrying the slide.

1,241,584. GREASE-CUP. DANIEL H. TWAITS, Chicago, Ill. Filed Dec. 29, 1913. Serial No. 809,147. (Cl. 184—38.)



1. In a grease cup, the combination of a base having a male threaded portion and a shoulder extending outwardly beneath the threads, a cap having internal threads coöperating with the male portion and having a notch in its lower edge, and a detent spring carried by said shoulder and engaging said notch.

2. In a grease cup, the combination of a base having a male threaded portion and a shoulder extending outwardly beneath the threaded portion, a cap having internal threads fitting the threads of the base and having notches in its lower edge, an annular groove in said shoulder, and a detent spring secured in the bottom of the groove and having an upward projection engaging the notch in the cap.

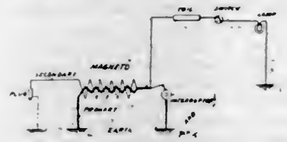
3. In a grease cup, the combination of a base having a male threaded portion, an outwardly extending shoulder beneath said threaded portion, a cap having internal threads fitting the threads of the base and having a notch in its lower edge, an annular groove in said shoulder opening upwardly, and means in the annular groove engaging the notch in the cap, said cap having its lower edges engaging the sides of the groove.

4. In a grease cup, the combination of a base having a threaded nipple and an upwardly extending male threaded portion and a shoulder extending outwardly beneath said threaded portion, a cap having internal threads fitting said threaded portion and having a series of notches in its lower edge, and a detent spring secured in the bottom of the groove having upward projections adapted to engage said notches in the cap said groove having flaring sides, said cap having beveled edges engaging said flaring sides when in position.

5. In a grease cup, the combination with a base having an upwardly extending threaded portion and a shoulder extending outwardly at one end of the threaded portion, of a cap having threads fitting said threaded portion and having a series of notches in its lower edge, a detent spring secured to said shoulder at the notched edge of the cap and having projections adapted to engage the notches in the cap, and an annular flange on said shoulder projecting toward the cap and adapted to tightly engage the cap adjacent the notches.

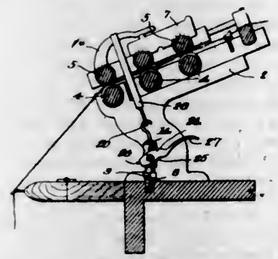
[Claims 6 to 11 not printed in the Gazette.]

1,241,585. LIGHTING SYSTEM. ALBERT EDWARD TWIDDY and JOHN STALLY, Seven-Oaks, England. Filed Mar. 28, 1914. Serial No. 828,044. (Cl. 171—242.)



In apparatus for the production of light from high tension magneto machines used for ignition purposes, the combination of a high-tension magneto machine having primary and secondary circuits, an interrupter in the primary circuit, a lamp circuit shunted around the interrupter and a reactor in series in the lamp circuit.

1,241,586. PRESSURE MECHANISM FOR ROLLER-BED SADDLES. EDWARD J. VALES and JAMES T. BISHOP, Augusta, Ga. Filed Jan. 9, 1917. Serial No. 141,435. (Cl. 19—34.)



1. In a device of the character described, in combination, a roll stand, a set of lower feed rolls mounted upon said roll stand, an upper set of feed rolls mounted over said lower feed rolls, a pair of saddles upon said upper feed rolls, a link connected with one of said saddles, a bed plate carrying said roll stand, an anchor bolt secured within said bed plate, a member mounted upon said anchor bolt and adapted to have reciprocatory and rotary movement relative thereto, a lever having its fulcrum upon said anchor bolt, and a cam face upon said lever adapted to coöperate with said member, a compression spring, a spring carrier, a connection between said spring carrier and said link, and means on said spring carrier to cause said spring to be compressed between said means and said member when the said lever operates to move said member toward the bed plate.

4. In a device of the character described, in combination, a roll stand bed, a roll stand mounted upon said bed, lower feed rolls carried by said roll stand, upper feed rolls carried by said roll stand, saddles bearing on said upper feed rolls, an anchor bolt mounted in said roll stand bed, a link operatively connected with said saddles and extending toward said anchor bolt, a cap rotatably and slidably mounted upon said anchor bolt, said anchor bolt being provided on its upper portion with an annular groove, said cap being provided on the side portions with a pair of longitudinal slots, a lever having wings extending over said slots, a pair of pivoted screws carried by said wings and extending through said slots and into said annular groove, a compression spring mounted in the upper portion of said cap, means operatively connecting said spring and said link, projections upon said cap, and cam portions having dwells formed upon the wing members of the said lever, whereby said cam portions and said dwells may coöperate with the projections on said cap to compress said cap to compress said spring.

7. As an article of manufacture, a substitute for the weight system of a roll stand, said article comprising an anchor bolt having a screw threaded portion and a cylindrical portion, a cap slidably mounted upon said cylindrical portion, a spring under said cap and completely covered by said cap, a member extending through said cap and operatively connected with said spring, and means whereby said cap may be moved relatively to said anchor bolt to compress said spring.

[Claims 2, 3, and 6 not printed in the Gazette.]

1,241,587. GASKET. JOSEPH B. VICTOR, Chicago, Ill., assignor to Victor Manufacturing & Gasket Co., Chicago, Ill., a Corporation of Illinois. Filed Nov. 23, 1916. Serial No. 133,022. (Cl. 137—121.)



1. A gasket composed of a sheet of fibrous, compressible material and facings on opposite sides of said sheet, one of which consists of relatively non-absorbent, heat-resisting paper, and the aforesaid three elements of the gasket provided with a metal beading inclosing the edge of the sheet of fibrous material, overlapping the corresponding marginal portion of said paper facing, and securing said elements together so as to form thereof a unitary structure.

2. A gasket composed of a sheet of fibrous, compressible material and facings on opposite sides of said sheet, one of which consists of relatively non-absorbent, heat-resisting paper, and the aforesaid three elements of the gasket being formed with substantially coincident openings and being provided with a metal beading inclosing the edge of said sheet of fibrous material around said opening, overlapping the corresponding marginal portion of the paper facing, and uniting said elements together to form thereof a unitary structure.

3. A gasket composed of a sheet of fibrous, compressible material and facings on opposite sides of said sheet, one of which consists of relatively non-absorbent, heat-resisting paper and the other being of metal, the aforesaid three elements of the gasket provided with a metal beading inclosing the edge of the sheet of fibrous material, overlapping the corresponding marginal portion of said paper facing, and securing said elements together so as to form thereof a unitary structure.

14. A gasket adapted to pack the joint between the cylinder block and head block of an internal combustion engine comprising a sheet of metal, a sheet of asbestos and a sheet of relatively non-absorbent, heat-resisting paper superposed one upon the other in that order, said elements being formed with a plurality of openings and the metal sheet being formed so as to provide a beading around said openings which serves to unite said elements and which overlaps the marginal portions of the paper element so as to protect the same and the edges of the asbestos sheet.

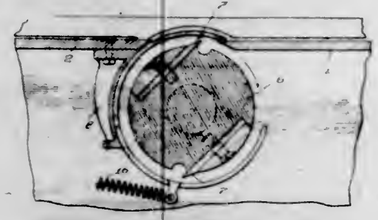
15. A gasket adapted to pack the joint between the cylinder block and head block of an internal combustion engine comprising a sheet of metal, a sheet of asbestos and a sheet of relatively non-absorbent, heat-resisting paper superposed one upon the other in that order, said elements being formed with a plurality of openings and the metal sheet being formed so as to provide a beading around said openings and around the outer edge of the gasket which serves to unite said elements and which overlaps the marginal portions of the paper element so as to protect the same and the edges of the asbestos sheet.

[Claims 4 to 13 not printed in the Gazette.]

1,241,588. SAFETY-GUARD FOR ROTARY PLANERS. JOHN D. WALLACE, Chicago, Ill. Filed May 7, 1915. Serial No. 26,488. (Cl. 144—251.)

1. In a machine having a rotary cutter projecting through an opening in a table, a guard normally closing said opening and presenting a portion disposed in the path of the stock fed to the cutter, said portion being movable in the general direction in which the stock is

fed and being equipped with projections adapted to be engaged by the stock when the latter is superimposed on the guard.

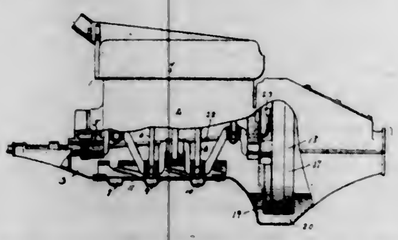


3. In a machine having a table equipped with an opening and a rotary cutter member operating through said opening, the combination of an upper guard movable laterally of the cutter member and having a cam surface adapted to be engaged by a lateral edge of the stock for effecting such lateral motion, and a lower guard movable circumferentially of the cutter member and having a tip adapted to be engaged by the end of the stock for effecting such circumferential motion, each of said guards normally entirely covering the portion of the cutter member exposed through the said opening, said guards being independently movable, the cam surface upon the upper guard being so disposed that said guard will be laterally moved for a distance corresponding to the width of the stock before the end of the latter engages the tip of the lower guard, the upper guard having a stock engaging portion disposed farther rearward of the machine than the said opening, thereby permitting the lower guard to move to its safety position before the upper guard returns to its normal position.

5. In a machine having a table equipped with an opening and a rotary cutter member operating through said opening, the combination with supporting means presenting opposed annular grooved formations substantially concentric with the cutter member, of a guard comprising a metal element curved in longitudinally split cylindrical formation and having oppositely directed portions slidably housed respectively by the said grooved formations, the said element being outwardly roughened adjacent to one edge of its longitudinal opening and being cut away intermediate of its ends along the other edge, the said cutting away affording a passage for particles detached by the cutter member when the latter is in operation.

[Claims 2 and 4 not printed in the Gazette.]

1,241,589. **INTERCEPTER FOR SPLASH-LUBRICATION CRANK-CASES.** ERNEST M. WHITE, Detroit, Mich. Filed Dec. 26, 1916. Serial No. 138,952. (Cl. 184—13.)



1. The combination of a crank case, an oil reservoir in constant communication therewith, a crank shaft in said crank case and connecting rods attached thereto, a plate below the shaft formed with depressions constituting oil receptacles from which connecting rods may splash up oil, and an intercepter positioned apart from the plate on that side of the crank case toward which the connecting rods move as they splash up said oil and having a concave lower face to intercept a portion of the oil thus splashed up.

2. The combination of a crank case, a crank shaft and connecting rods, said crank case being provided with a series of oil receptacles from which the connecting rods may splash up lubricating oil, and an intercepter mounted in the crank case and projecting from the side of the crank case toward the crank shaft to partially obstruct one side of the crank case and intercept a portion of the splashed up oil, the other side of the crank case being unobstructed by said intercepter, the lower side of the intercepter being concave.

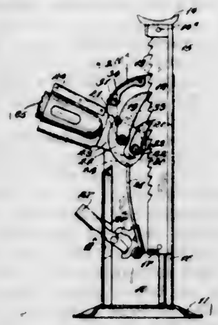
3. In a multi-cylinder mechanism, a crank case provided with an oil receptacle, a sheet metal plate comprising a plurality of parts at an angle to each other, one of said parts having openings to receive bolts normally used to secure together parts of the crank case, another part extending toward the crank shaft of the engine to intercept a portion of the lubricant splashed up from said receptacle and carried around by said crank shaft.

4. The combination of cylinders and connecting rods, a crank case and a crank shaft therein, said crank case constituting a main oil reservoir, an oil pan mounted in the crank case below the crank shaft and formed with auxiliary oil receptacles into which the lower ends of the connecting rods may dip to splash oil up into the cylinders, means to convey longitudinally of the crank shaft into the main reservoir a portion of the oil splashed out of said auxiliary receptacles, and an intercepter to block a portion of the oil splashed out of said auxiliary receptacles and divert it back into said auxiliary receptacles, and means to convey the lubricating oil from the main reservoir to said auxiliary receptacles.

5. The combination of a crank case, a crank shaft therein, connecting rods on the shaft, a series of oil receptacles from which the connecting rods may splash up oil, and an intercepter spaced from said receptacles to intercept a portion of the splashed up oil and formed with a series of holes to permit the passage of such oil as may fall on the intercepter.

[Claims 6 to 18 not printed in the Gazette.]

1,241,590. **JACK.** WALTER L. WIDLAR, Lakewood, Ohio assignor to The Jiffy Jack Company, Cleveland, Ohio, a Corporation of Ohio. Filed Oct. 20, 1916. Serial No. 126,707. (Cl. 254—111.)



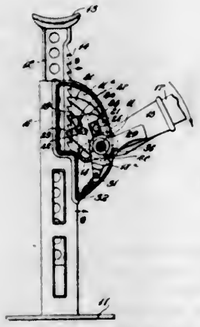
5. In a device of the kind described, the combination with a standard, of a lifting member movable therein, a lever pivoted thereto, a lifting pawl connected to the end of said lever, a holding pawl connected to the pivot of said lever, a cam connected also to said lever pivot and adapted to engage said pawls, a spring rod engaging said cam together with means for shifting the position of said spring rod for the purpose specified.

7. In a device of the kind described, the combination with a standard, of a lifting member movable therein, a lever pivoted thereto said lever having a working and a holding pawl connected therewith, a cam also carried by said lever, said cam having fingers and a head portion

adapted to engage said pawls, a spring rod operative upon said cam, a pivoted plate to which said rod is attached, and a shifting lever operable upon said plate for the purpose specified.

[Claims 1 to 4 and 6 not printed in the Gazette.]

1,241,591. **JACK.** WALTER L. WIDLAR, Lakewood, Ohio, assignor to The Jiffy Jack Company, Cleveland, Ohio, a Corporation of Ohio. Filed Oct. 20, 1916. Serial No. 126,708. (Cl. 254—111.)



2. In a device of the kind described, the combination with a standard, lifting bar and lever, of a working pawl connected to the end of said lever, a holding pawl arranged upon the lever pivot, said pawls having laterally projecting pins, a cam arranged upon the lever pivot and having an opening and a slot adapted to receive respectively the pins of the holding and working pawls, and a spring actuated shifting lever mounted also upon the lever pivot, said shifting lever being adapted to engage the cam and in one position bias the holding pawl toward said lifting member and in the other position bias the same in the opposite direction.

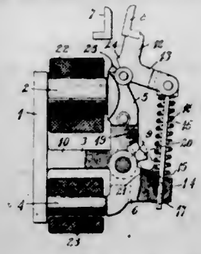
4. In a device of the kind described, the combination with a standard, of a lifting member movable therein, a lever pivoted thereto, a holding pawl connected to the lever pivot, said holding pawl having thereon a laterally projecting pin, a working pawl connected to the end of lever, a shifting cam having a finger adapted to engage the working pawl, said cam also having a lost motion connection with the pin on said holding pawl, and a spring actuated shifting lever having a lost motion connection with said cam, said shifting lever being adapted in one position to bias said cam and said holding pawl toward the lifting member and in the other position to bias them in the opposite direction.

[Claims 1 and 3 not printed in the Gazette.]

1,241,592. **SWITCH FOR ELECTRIC CIRCUITS.** RAGNAR WIKANDER, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Mar. 23, 1911. Serial No. 616,780. (Cl. 175—281.)

1. A switch for electric circuits comprising stationary and movable contact members, a substantially E-shaped stationary core member, a pair of movable armatures pivoted at the outer end of the intermediate arm of the E-shaped core member, a yielding connection between the two movable armatures tending to prevent their simultaneous engagement with the corresponding arms of the stationary core member, said movable contact member being supported on one of said movable armatures, and means for energizing said core members.

2. A switch for electric circuits comprising stationary and movable contact members, a substantially E-shaped stationary core member, a pair of movable armatures pivoted at the outer end of the intermediate arm of the E-shaped core member, a yielding connection between the two movable armatures tending to prevent their simultaneous engagement with the corresponding arms of the stationary core member, said movable contact member being pivotally supported on one of said movable armatures and yieldingly connected to the other armature, and means for energizing said core member.



3. A switch for electric circuits comprising stationary and movable contact members, a substantially E-shaped stationary core member, a pair of movable armatures pivoted at the outer end of the intermediate arm of the E-shaped core member, a yielding connection between the two movable armatures tending to prevent their simultaneous engagement with the corresponding arms of the stationary core member, opposed magnet coils respectively mounted on the outer arms of the stationary core member, said movable contact member being responsive to the action of one of said movable armatures.

4. A switch comprising stationary and movable contact members, and operating mechanism therefor comprising a pair of relatively movable armature members having a common pivotal support, a spring for yieldingly connecting said armature members, a shunt coil for actuating one of said armature members to place said spring under stress and a series coil for actuating the other of said armatures to oppose the force of said spring and for permitting the engagement of said contact members when the current traversing the series coil falls to a predetermined value.

5. A switch comprising a pair of relatively movable contact members, a pair of opposed magnet windings respectively connected in series and in shunt relation to said switch, means comprising a spring and a pair of relatively movable pivotally mounted armature members controlled by said magnet windings whereby said shunt winding actuates one of said armature members to place said spring under stress and thereby tend to close said switch and said series winding retains the other armature member in its normal position to prevent the closing of said switch so long as the current traversing said series coil exceeds a predetermined value.

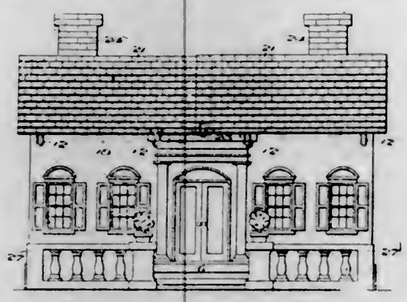
1,241,593. **TROUSERS-STRETCHER.** HELMER WIKSTROM, Silverdale, Minn. Filed Feb. 11, 1916. Serial No. 77,766. (Cl. 223—19.)



In a trousers-stretcher, the combination with two stretcher bars slotted between their ends, one of said

bars being formed with an inwardly extended hook, of a sleeve pivotally supported in the slotted portion of one of said bars, a rod pivotally secured in the slotted portion of the other bar and adapted for telescopic engagement with the said sleeve, and a coil spring disposed about said sleeve and bar and having its ends embedded in the said stretcher bars.

1,241,594. SECTIONAL OR KNOCKDOWN DOLL-HOUSE. MARTHA WILLIAMS, Terre Haute, Ind. Filed Dec. 1, 1916. Serial No. 134,308. (Cl. 46—35.)



1. A sectional or knock down doll house comprising a base or foundation composed of box or container sections for the collapsible parts of the house, said sections being arranged edge to edge with their sides facing each other, and a knock down or collapsible superstructure whose parts are adapted to be erected on the respective parts of the container and are constructed to hold the parts of the container together in the aforesaid manner.

2. A sectional or knock down doll house comprising a base or foundation composed of box or container sections for the collapsible parts of the house, said sections being arranged edge to edge with their sides facing each other, a knock down or collapsible superstructure the portions of which are located on the parts of the container and have room-forming partitions respectively located on opposite sides of the adjoining sides of the said container parts, and means connecting the upper portions of the partitions together, whereby the connection of the respective superstructure parts holds the container parts together.

3. A sectional or knock down doll house having walls provided with flanges, a connector or joist for said walls, and detachable paper clips connecting the joist to the flanges.

4. A sectional or knock down doll house having outer walls and inner upright partitions, a joist or connector which connects said walls and partitions together, and a removable wall which exposes the interior of the rooms when said wall is taken off, the joist then holding the upright partitions and walls erect.

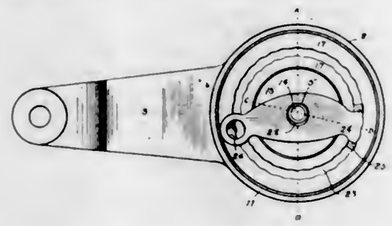
5. A sectional or knock down doll house comprising a container having sides, knock down walls and upright partitions setting within said container and having flanges and detachable paper clips engaging the flanges and detachably holding the walls and partitions together.

[Claims 6 to 8 not printed in the Gazette.]

1,241,595. SHOCK-ABSORBER. SYLVESTER WILSON, Cloquet, Minn. Filed Feb. 3, 1917. Serial No. 146,496. (Cl. 21—105.)

1. A shock absorber comprising two oppositely disposed recessed coöperating, frictionally engaged disks each having rigidly fixed thereto independent external engaging means, an axle uniting the disks and upon which they are assembled, a clutch loosely mounted upon the axle intermediate the disks and frictionally contacting one of the disks, means carried by the axle and controlled by the other disk for interlockingly engaging and disengaging the clutch.

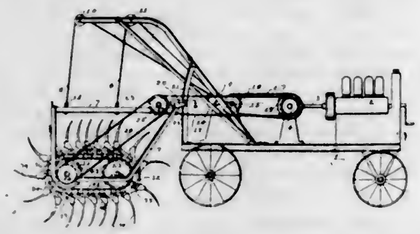
2. In a shock absorber, an axle, two oppositely disposed recessed disks mounted upon the axle, and in constant frictional engagement with each other, one revoluble with the axle and the other revoluble independent of the axle, independently operative means rigidly fixed to each disk, a clutch member loosely mounted upon the axle and in constant frictional engagement with one of the disks, and means upon the axle controlled by the other disk for engagement and disengagement with the clutch, whereby revolving relation between the disks is retarded in one direction only.



3. The combination with a shock absorber of the character described, comprising two coöperative frictionally engaged disks having independent operating means, of a second frictional engaging means within the disks and means operative alternately by gravity and by one of the disks for locking and unlocking respectively the second frictional engagement of the disks.

4. A shock absorber comprising a pair of coöperatively engaged disks, an axle upon which the disks are mounted and being carried by one of the disks, a friction clutch within the disks, a pawl mounted upon the axle and operated in one direction by one of the disks and in the opposite direction by gravity and which latter operation brings into action the friction clutch to retard the relative motion of the disks.

1,241,596. TILLING IMPLEMENT. ERNEST L. WOODARD, Eureka township, Montcalm county, Mich. Filed Mar. 26, 1917. Serial No. 157,293. (Cl. 97—66.)



7. In an implement of the character described; a vehicle; a carriage carried thereby and adapted to be raised and lowered relatively thereto to different positions wherein the planes in which lie the axes of both rotatable members hereinafter mentioned are parallelly disposed; spaced rotatable members mounted on the carriage and whose axes are transverse to the vehicle's traveling movement; a belt carried on said members and driven by one of them and having tilling means; means carried by the vehicle for rotating said members; means carried by the vehicle for raising and lowering the carriage; the axes of said rotatable members being so positioned as to carry the lower portion of the belt which is between said members parallelly with the ground.

9. In an implement of the character described; a vehicle having a guide arcuate in the vehicle's vertical longitudinal plane; a carriage carried by the vehicle and adapted to be raised and lowered relatively thereto, guided by the guide, to different positions wherein the planes in which lie the axes of both rotatable members hereinafter mentioned are parallelly disposed; spaced rotatable members mounted on the carriage and whose axes are transverse to the vehicle's traveling movement; a belt carried on said members and driven by one of them and having tilling means; a rotatable driving element carried by the vehicle and concentric with the guide and adapted to rotate said driving member; means carried by the vehicle for raising and lowering the carriage.

10. In an implement of the character described; a vehicle having a rotatable drum and sheaves spaced in the vehicle's longitudinal direction; a carriage carried by the vehicle and adapted to be raised and lowered relatively thereto in an arcuate movement; rotatable tilling means mounted on the carriage and whose axes are transverse to the vehicle's traveling movement; flexible elements wound on the drum and passing over the sheaves and attached to the carriage at points spaced correspondingly to the spacing of the sheaves, for raising and lowering the carriage by the drum.

12. In an implement of the character described; rotatable members; a belt carried on said members and driven by one of them and comprising pivotally-connected links; tilling means pivotally mounted directly on the several links; springs adapted to yieldingly press the tilling means forwardly on their pivotal mountings.

[Claims 1 to 6, 8, 11, 13, and 14 not printed in the Gazette.]

1,241,597. BOILER-REPAIR PLUG. EDWIN C. WORNS, New York, N. Y. Filed May 5, 1916. Serial No. 95,573. (Cl. 137—99.)



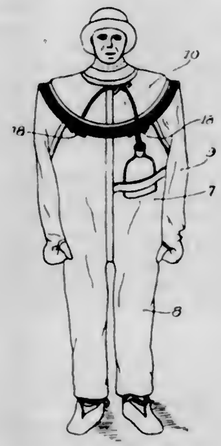
A sealing plug of the class described including an inner clamp plate, a lateral stud thereon at the center, said stud having a smooth conical base, threads beyond the base, and an eye at the end of the stud beyond the threads; an outer clamp plate having a threaded bore to take onto the said stud, and provided on the outer face thereof with wings constituting the said plate a wing nut, and separate washers on the opposed faces of the said clamp plates, the said opposed faces being concave and having grooves therein for engagement with the adjacent faces of the washers.

1,241,598. CLOSURE FOR LIFE-SAVING SUITS. OSCAR ANDREW YOUNGREN, New York, N. Y., assignor to National Life Preserver Company, Sheridan, Wyo., a Corporation of Wyoming. Filed Sept. 27, 1916. Serial No. 122,419. (Cl. 9—20.)

1. A device of the character described comprising a single bar and a double bar hingedly connected, a projecting member on one of said bars, and a lever pivotally mounted on the other bar, said lever constructed with a cam edge adapted to engage said member to close the single bar between the members of the double bar and having a notch to receive the member and secure said bars in locked relation, substantially as set forth.

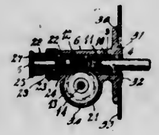
2. A device of the character described comprising a double bar, a single bar pivotally mounted between the members of said bar, a projecting member on said double bar, and a lever pivotally mounted on said single bar, said lever constructed with a cam edge adapted to engage the projecting member and close the bars, and having a recess to receive said member and secure the bars in locked relation substantially as set forth.

3. A device of the character described comprising a double bar, a single bar hingedly mounted between the members of said bar, a hook on the double bar, a lever pivotally mounted on the single bar constructed to engage with said hook to close and lock the bars, and a retraction spring associated with said lever, substantially as set forth.



4. The combination of a life saving suit having an entrance opening therein disposed from shoulder to shoulder and across the chest of the wearer, of a closure for said opening comprising a pair of bars secured to the suit along the respective edges of said opening, said bars forming a water-tight closure with the material of the suit, members projecting from one of said bars, and a pair of levers pivotally mounted on the other bar, said levers constructed to engage said projecting members to draw the bars together and secure the same in locked relation, substantially as set forth.

1,241,599. OSCILLATING FAN-MOTOR. CHRISTIAN AALBORG, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 26, 1911. Serial No. 667,921. (Cl. 230—1.)



1. In a revoluble motor-driven fan, the combination with an armature shaft and operating means normally coupled thereto for effecting an oscillatory movement of said fan, of means for uncoupling said operating means from said shaft and locking said fan in position.

2. In a revoluble motor-driven fan, the combination with an armature shaft and mechanical means normally coupled thereto for effecting an oscillatory movement of said fan, of means for uncoupling said mechanical means from said shaft and means, including a part of the aforesaid means, for retaining the said fan in position when the said parts are uncoupled.

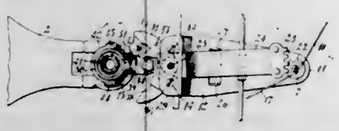
3. In a revoluble motor-driven fan, the combination with an armature shaft, a worm member normally coupled to the end of said shaft and mechanical operating means cooperating with said worm member for imparting an oscillatory movement to said fan, of manually operated means associated with said worm member for uncoupling said member from said shaft and locking the said fan in position.

4. In a revoluble motor-driven fan, the combination with an armature shaft and mechanical means normally coupled thereto for effecting an oscillatory movement of said fan, of means for uncoupling said mechanical means from said shaft and means, including a part of the aforesaid means, for restraining further oscillatory movement of said fan when the said parts are uncoupled.

5. In a revoluble motor-driven fan, the combination with a rotatable armature shaft, a worm member having a tongue and slot connection with the end of said shaft, and mechanical means associated with said worm member for imparting an oscillatory movement to said fan, of relatively stationary means having a loose connection to said worm member for effecting a longitudinal movement thereof, whereby said member is disengaged from said shaft.

[Claims 6 to 14 not printed in the Gazette.]

1,241,600. OSCILLATING FAN. CHRISTIAN AALBORG, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 26, 1911. Serial No. 667,922. (Cl. 230—1.)



1. The combination with a pivotally mounted motor-driven fan, movable vanes associated therewith for effecting an oscillatory movement thereof, and means for limiting the travel thereof, of means for completely reversing said vanes a predetermined interval prior to the operation of said limiting means.

2. The combination with a pivotally mounted motor-driven fan, movable vanes associated therewith for effecting an oscillatory movement thereof, and means for limiting the travel thereof, of means independent of said limiting means for actuating said vanes a predetermined time before the operation of said limiting means.

3. The combination with a pivotally mounted fan, movable vanes associated therewith for effecting oscillatory movements thereof, and means for limiting the travel of said fan, of means for completely reversing said vanes to retard the movement of said fan a predetermined interval prior to the action of said limiting means.

4. The combination with a pivotally mounted fan, having an adjustable supporting base, and movable vanes for effecting an oscillatory movement of said fan, of means independent of said base for causing said vanes to retard the movement of said fan as it approaches its limits of travel.

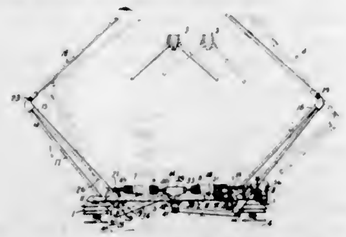
5. The combination with a pivotally mounted fan, movable vanes associated therewith for effecting an oscillatory movement thereof, and an adjustable supporting base, of means for limiting the travel of said fan and means for reversing the position of said vanes prior to the ends of travel, both of said means being independent of said supporting base.

[Claims 6 to 12 not printed in the Gazette.]

1,241,601. TROLLEY. CHRISTIAN AALBORG, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 12, 1915. Serial No. 20,680. (Cl. 191—65.)

1. In a trolley, the combination with a pantograph frame having widely separated supporting points, and a current-collecting device carried by said frame, of means disposed between said supporting points and operatively connected to said pantograph frame for elevating said frame and permitting tilting movements thereof.

2. In a trolley, the combination with a supporting structure, a pantograph frame mounted thereon at widely separate points, and a current-collecting device carried by said frame, of means mounted between said points for elevating said frame, and means coöperating therewith for permitting tilting movements thereof.



3. In a trolley, the combination with a pantograph frame having a plurality of pivotally joined arms, and a current-collecting device carried thereby, of resilient means disposed between said arms for elevating said frame, and a mechanical linkage coöperating therewith for permitting tilting movements thereof.

4. In a trolley, the combination with a pantograph frame having a plurality of arms and a current-collecting device carried thereby, of a plurality of coil springs disposed between said arms for raising the said frame in position, and mechanical means interposed between said springs and cooperating with said pantograph frame for permitting tilting movements thereof while biasing the frame to a predetermined position.

5. In a trolley, the combination with a supporting frame, a plurality of transverse shafts, bearing members for supporting the ends of the shafts, a pantograph frame mounted on said shafts, and a current-collecting device carried by said frame, of a plurality of coil springs interposed between said shafts and operatively connected to said frame for conjointly actuating it to its upper position, a pivotal member interposed between said springs and to which the adjacent ends of said springs are connected, and means cooperating with said pantograph frame and said pivotal member for permitting tilting movements of said frame and for biasing said frame to its initial position.

[Claims 6 to 19 not printed in the Gazette.]

1,241,602. SHIP-PROTECTOR. GEORGE N. ANDRICOPOULOS, Springfield, Mass. Filed Nov. 22, 1916. Serial No. 132,887. (Cl. 114—240.)

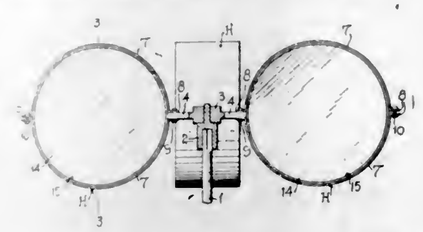


A protection device for a ship comprising armored sections each consisting of a plurality of vertical plates inclining outwardly and rearwardly from the ship, angle members between and securing the plates together, and pivoted arms carried by the ship and pivotally connected to the sections, whereby said sections are capable of being raised and lowered.

1,241,603. SIGNAL. WILLIAM H. ASHWORTH and JOHN C. CROUT, Pelion, S. C. Filed Sept. 9, 1916. Serial No. 119,291. (Cl. 88—67.)

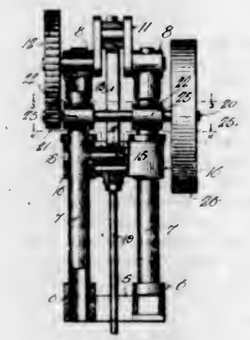
A signal of the character described comprising an arm, a vertically disposed disk secured to said arm and extending above and below the arm, a housing surrounding the disk and comprising two substantially semi-circular sections, the inner end portions of the sections being secured to the outer end portion of the arm, a clamping member co

acting with the opposite end portions of the sections, and a reflector positioned within the housing adjacent the disk,



said housing serving to clamp the reflector in applied position.

1,241,604. DEEP-WELL-PUMP HEAD. JOHN ASTROM, Fort Wayne, Ind., assignor to Fort Wayne Engineering and Manufacturing Company, Fort Wayne, Ind. Filed Mar. 12, 1917. Serial No. 154,147. (Cl. 103—62.)



1. A structure of the class described comprising a pair of parallel members, a crank shaft journally carried by adjacent ends of said members, a cross head slidably mounted on said members and a pitman connecting the cross head and crank shaft.

3. A structure of the class described and comprising a pair of parallel members, a transversely disposed crank shaft carried by adjacent ends of said members, a cross head including sleeves slidably mounted on said members and a connecting web portion and a pitman connected with the crank shaft and cross head.

6. A deep well pump head comprising a base portion, a pair of columns upstanding from said base portion, a crank shaft transversely journally carried by the upper ends of the columns, a cross head slidably carried by the columns and a pitman connecting the crank shaft and cross head.

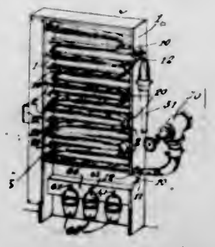
[Claims 2, 4, 5, and 7 not printed in the Gazette.]

1,241,605. COMBINED HOSE AND BUCKET RACK. ALBERT M. BARCUS, Raymond, Wash. Filed Jan. 13, 1915. Serial No. 1,995. (Cl. 137—31.)

1. A hose rack comprising a frame having vertical side pieces, a series of superposed shelves supported within and extending between said side pieces, the opposite ends of successive shelves being cut away to permit passage of the hose thereabout in a zig-zag disposition.

2. A hose rack comprising a frame having vertical sides, a series of shelves supported within and extending between said sides and inclined lengthwise, the inclination of said shelves alternating with successive shelves, the lower ends of the shelves being cut away to permit passage of the hose thereabout.

4. A hose rack having a frame containing vertical side pieces and a series of shelves extending between said side pieces, said shelves being cut away alternately at opposite ends to permit passage of the hose thereabout, the side pieces being cut to permit passage of the ends of the hose.



4. A hose rack having a frame containing vertical side pieces and a series of shelves extending between the side pieces, said shelves being cut away alternately at opposite ends to permit passage of the hose thereabout, and being pivoted upon axes extending lengthwise thereof and rearwardly of their center of gravity, and a releasable catch normally holding the front sides of the shelves in raised position.

5. A hose rack having a series of superposed shelves upon which a hose may be placed in zig-zag position, said shelves being mounted upon pivot axes extending lengthwise thereof, a bar connecting all said shelves to control their position alike, a catch normally engaging said connecting bar to hold the shelves in hose-retaining position, and means for releasing said catch.

[Claims 6 to 23 not printed in the Gazette.]

1,241,606. SEAT-COVER PIN. FRED L. BECKER, Chicago, Ill. Filed Jan. 15, 1917. Serial No. 142,376. (Cl. 24—152.)



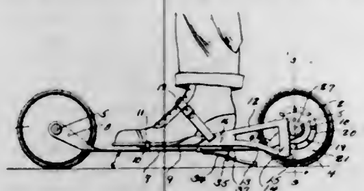
1. In a seat cover pin of the class described, a button head, a flange integrally formed thereon affording a recess between the button head and said flange, an attaching pin disposed in a plane parallel to the plane of said flange, a curved T-shaped head integrally formed on the upper end of said attaching pin bent inwardly and upwardly to fit in said recess below said flange, indents in said flange to prevent sliding movement of said attaching pin in said recess, and a prong formed on said button head at a point opposite said indents to prevent said button head from being bent away from said attaching pin when the seat cover pin is mounted to hold a cover upon a seat.

[Claims 2 and 3 not printed in the Gazette.]

1,241,607. BICYCLE-SKATE. BENJAMIN F. BOWEN, Richmond, Cal. Filed Mar. 16, 1916. Serial No. 84,689. (Cl. 46—51.)

1. In a bicycle skate, the combination with a frame having a wheel mounted at each end, the said wheels carrying journals associated with the ends of the frame, a foot plate hingedly mounted upon the frame, a pair of arms extending rearwardly from each side of the plate, a rack bar connecting the terminals of each pair of arms and disposed on opposite sides of the rear wheel, the side edges of a portion of the foot plate being bent to provide heel embracing portions, the material displaced from the space between each pair of said arms being bent to extend around the rear portion of the heel of the wearer, and means associated with the rear wheel and engageable

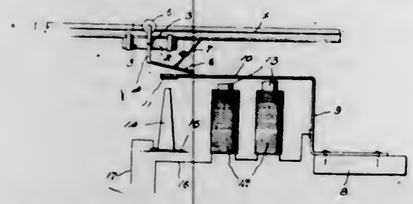
with the said rack bar whereby the wheel may be rotated when the said foot plate is reciprocated on the said hinge.



3. In a bicycle skate, the combination with a frame and wheels for supporting the frame, the said wheels being provided with journals, a casing mounted upon the journal of the rear wheel and fastened to the wheel, a friction clutch member mounted upon the journal and provided with clutch fingers adapted to intermittently engage the inner periphery of the casing, a foot plate mounted for reciprocatory movement on the frame, the said casing including longitudinally alined bearings at each end of the casing embracing the ends of the said journal, the ends of the frame being mounted upon the said bearings, pinions carried by the ends of the journal beyond the ends of the said bearings, the said pinions being rigidly fixed to the said journal, rack bars movably mounted on each side of the said wheel and each engageable with one of the said pinions, the said rack bars being connected to the said foot plate.

[Claim 2 not printed in the Gazette.]

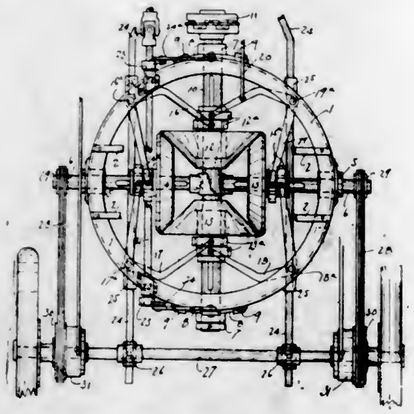
1,241,608. CROSSING-SIGNAL FOR RAILROADS. KYSTER B. COLEMAN, Scottsburg, Va., assignor of one-half to James E. Green, Jr., Clover, Va. Filed Sept. 22, 1915. Serial No. 52,084. (Cl. 246—35.)



A track instrument for railroad signals comprising a lever pivoted below a rail and projecting slightly above the rail, said lever being adapted to be engaged by a train when passing over the rail, an arm on the underside of the lever, and a spring normally holding the arm in a substantially horizontal position, of an L-shaped contact arm, adapted to be engaged by the end of the arm on the lever, a contact for engagement by the contact arm, an electric circuit closed by said contact arm and magnets in series in said circuit and positioned beneath said contact arm whereby when the arm is initially moved to close the circuit the magnet will be energized to hold said arm in circuit closing position.

1,241,609. FRICTION TRANSMISSION. LEWIS W. DAVIS, Seattle, Wash. Filed Oct. 17, 1916. Serial No. 126,060. (Cl. 21—90.)

1. In a variable speed transmisaion device, the combination of a supporting frame, a driving shaft mounted thereon and horizontally slidable thereon, a pair of similar jack shafts arranged at right angles to the said driving shaft and having solid bearings upon the said frame, a pair of friction driving cones feather keyed to the driving shaft, a pair of driven friction disks similarly keyed one to each of the jack shafs, means for simultaneously moving the said cones and disks along their respective shaft, means for horizontally rotating the said driving shaft with respect to the frame and said jack shafts, whereby either friction cone is brought into contact with either friction disk thereby driving the jack shafts either forward or backward.



2. In a variable speed transmission device, the combination of a supporting frame, a driving shaft mounted thereon and horizontally slidable therewith, a pair of similar jack shafts arranged at right angles to the said driving shaft and having solid bearings upon the said frame, a pair of friction driving cones feather keyed to the driving shaft, a pair of driven friction disks similarly keyed one to each of the jack shafts, means for simultaneously moving the said cones and disks along their respective shaft, means for horizontally rotating the said driving shaft with respect to the frame and said jack shafts, whereby either friction cone is brought into contact with either friction disk, thereby driving the jack shafts either forward or backward; said rotating means including oppositely disposed eccentrics mounted upon a common and independent shaft, driving shaft bearings slidably mounted upon said supporting frame and connecting means between the said bearings and the said eccentrics, whereby the movement of the eccentrics moves the said bearings and driving shaft.

3. The combination with a rear axle and chassis and traction wheels of an automobile, of truss rods one end of each of which is slidably suspended from said rear axle, a circular supporting frame slidably mounted upon said truss rods, a driving shaft mounted on said supporting frame and horizontally slidable therewith, a pair of jack shafts arranged at right angles to said driving shaft and having solid bearings upon the said frame, a pair of similar friction driving cones feather keyed to the driving shaft, a pair of friction disks similarly keyed one to each of the jack shafts, means for simultaneously moving the cones and disks along the shafts and with respect to each other, means for moving the said driving shaft horizontally about the center of the said supporting frame, whereby either friction cone is brought into contact with either friction disk, thereby driving the jack shafts either forward or backward, and transmission means connecting the said jack shafts with the said traction wheels, whereby the traction wheels are driven either forward or backward.

4. The combination with a rear axle and chassis and traction wheels of an automobile, of truss rods one end of each of which is slidably suspended from said rear axle, a circular supporting frame slidably mounted upon said truss rods, a driving shaft mounted on said supporting frame and horizontally slidable therewith, a pair of jack shafts arrranged at right angles to said driving shaft and having solid bearings upon the said frame, a pair of similar friction driving cones feather keyed to the driving shaft, a pair of friction disks similarly keyed one to each of the jack shafts, means for simultaneously moving the cones and disks along the shafts and with respect to each other, means for moving the said driving

shaft horizontally about the center of the said supporting frame, said last mentioned means including oppositely disposed eccentrics mounted upon a common and independent shaft and drive shaft bearings horizontally and slidably mounted upon the circular supporting frame and rods connecting the said bearings and the said eccentrics, whereby when the said independent shaft is revolved in either direction certain pairs of friction cones and disks are brought into contact.

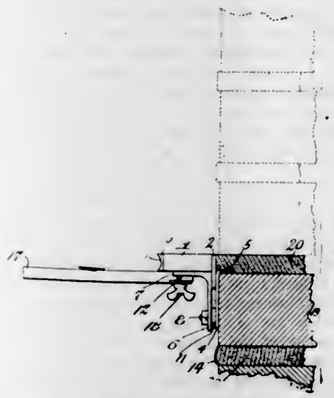
1,241,610. BINDER. ALEXANDER DOM, Cincinnati, Ohio, assignor to The Samuel C. Tatum Company, Cincinnati, Ohio, a Corporation of Ohio. Filed May 10, 1916. Serial No. 96,504. (Cl. 129—37.)



1. In a device of the nature disclosed, top and bottom leaf binder members formed with down and up turned flanges, terminating in outturned, horizontally alined intermeshing bearings, a hinge rod supported in said bearings, a stop member on said rod with its ends extended rearwardly of said hinge rod in the path of the movement of the opening binder members, to determine the leaf receiving position, and a spring back connecting said binder members and inclosing said rod and stop.

2. In a device of the nature disclosed, two leaf binder members having inturned flanges terminating with intermeshing hinge elements, a hinge rod joining said hinge elements, a stop member on said rod extending outwardly to intercept the inturned flanges to limit the opening movements of the binder members, and a spring back connecting the binder members.

1,241,611. MORTAR-GAGE. DIX D. DRAKE, Buffalo, N. Y. Filed Apr. 5, 1916. Serial No. 89,106. Cl. 33—85.)



1. A mortar-gage for laying bricks, &c., comprising a horizontally extending gage-bar adapted to be arranged adjacent to the outer upper corner of a layer of bricks, and a hanging device adapted to rest on the upper side of said layer and to support said bar with the top of the latter at a distance above the top of said layer.

2. A mortar-gage for laying bricks, &c., comprising a horizontally extending gage-bar adapted to be arranged adjacent to the outer upper corner of a layer of bricks, a hanging device adapted to rest on the upper side of said layer and to support said bar with the top of the latter at a distance above the top of said layer, and means for adjustably securing said bar vertically relatively to said hanging device.

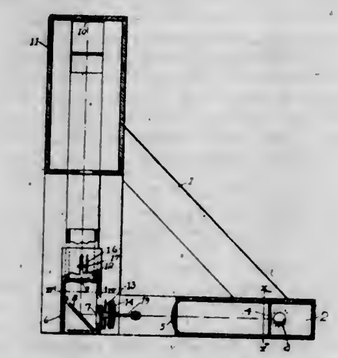
3. A mortar-gage for laying bricks, &c., comprising a gage-bar adapted to be arranged adjacent to the outer upper corner of a layer of bricks, a hanging device adapted to rest on the upper side of said layer and to support said bar with the top of the latter at a distance above the top of said layer, and means for adjustably securing said bar horizontally relatively to said hanging device.

4. A mortar-gage for laying bricks, &c., comprising a gage-bar adapted to be arranged adjacent to the outer upper corner of a layer of bricks, a hanging device adapted to rest on the upper side of said layer and to support said bar with the top of the latter at a distance above the top of said layer, and means for adjustably securing said bar vertically and horizontally relatively to said hanging device.

5. A mortar-gage for laying bricks, &c., comprising a gage-bar adapted to be arranged with its front edge adjacent to the outer upper corner of a layer of bricks, a hanging device comprising two vertical arms adapted to engage the outer side of said layer and each provided at its upper end with a finger adapted to rest on top of said layer, two L-shaped couplings each having a vertical leg arranged adjacent to the rear side of one of said arms and a horizontal leg arranged adjacent to the underside of said bar, and bolts connecting the legs of said couplings with said bar and arms respectively.

[Claims 6 to 9 not printed in the Gazette.]

1,241,612. LENS-TESTING INSTRUMENT. ALFRED H. EMERSON, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a Corporation of Massachusetts. Filed May 31, 1913. Serial No. 771,021. (Cl. 88—56.)



1. In a lens testing instrument, the combination with means for projecting an image, of a converging lens and an image screen in the path of the rays, means for holding a lens to be tested intermediate the projecting means and the screen, means for approximately neutralizing the lens to be tested, and means for accurately determining the residual power of the lens.

2. In a lens testing instrument, the combination with means for projecting an image, of a converging lens and an image screen in the path of projection, means for holding a lens to be tested in said path, means for approximately neutralizing the lens to be tested, and a diaphragm adjacent the converging lens having a plurality of transparent portions and having a central opaque portion whereby a plurality of images are produced on the image screen when there is residual power in the lens after approximate neutralization thereof.

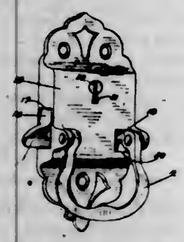
4. In a lens testing instrument, the combination with means for projecting an image, of a converging lens and screen in the path of projection for forming the image, means for holding a lens to be tested in the path of projection, means for compensating for the power of the lens, and a diaphragm inserted in the path of projection whereby four separated images are produced on the screen on improper adjustment of the compensating means.

5. In a lens testing instrument, the combination with means for projecting the image of a cross, of a condensing

lens, an image screen in the path of projection, means for holding a lens to be tested in the path of projection, means for compensating for the power of the lens to be tested, and a four hole diaphragm disposed in the path of the projection whereby the effect of a double line cross is produced in one or both meridians upon improper adjustment of the compensating means, substantially as described.

[Claim 3 not printed in the Gazette.]

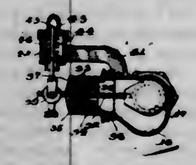
1,241,613. LOCKING-LATCH. ARTHUR R. ENQUIST, Meriden, Conn., assignor to Foster, Merriam & Company, Meriden, Conn., a Corporation of Connecticut. Filed Dec. 20, 1916. Serial No. 137,994. (Cl. 70—29.)



1. A lock of the character described comprising a case provided with a chamber, studs projecting from one marginal wall of said chamber, a key hub projecting from the front wall of said chamber and staggered with respect to said studs, a latch, and a resilient locking member having a straight arm slidably mounted between and guided by said studs and said key hub, said locking member also having a curved arm bearing against said latch, said straight arm having a locking projection coöperating with one of said studs and also having a bend forming a key-engaging recess.

2. A lock of the character described comprising a case provided with a chamber, studs projecting from one marginal wall of said chamber, a key hub projecting from the front wall of the chamber and staggered with respect to said studs, a latch, and a resilient locking member formed of flat resilient material, having a straight arm slidably mounted between and guided by said studs and said key hub, said locking member also having an arm provided with a portion at right angles with the straight portion and integral therewith, said angularly disposed portion extending from the straight arm a subatantial distance and terminating in a continuously curved arm bearing against said latch, said straight arm having bends forming a locking projection and a key-engaging recess, respectively, said locking projection coöperating with one of the said studs.

1,241,614. VALVE MECHANISM FOR VENTILATING WATER-CLOSETS. HENRY C. FARRELL, Buffalo, N. Y., assignor of one-half to George B. Burd, Buffalo, N. Y. Filed June 30, 1915. Serial No. 37,188. (Cl. 137—69.)

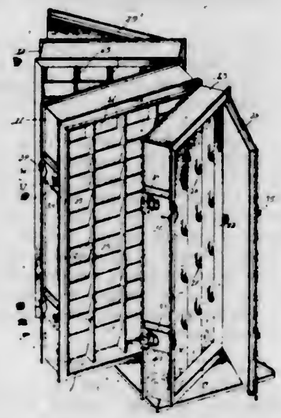


1. A valve comprising a casing having inlet and outlet nipples which have their opposing inner ends arranged at an angle relatively to each other, a V-shaped gate arranged in the casing and movable transversely into and out of engagement with the inner ends of said nipples, and a rock lever pivoted on said casing and having its inner arm arranged within the valve casing and carrying said gate.

3. A valve comprising a casing having inlet and outlet nipples, a gate arranged in the valve casing and movable transversely into and out of engagement with the inner ends of said nipples, a rock lever pivoted on said valve casing and having its inner arm arranged within said casing and carrying said gate, and a spring operating on said valve for turning the same in the direction in which the gate engages with said nipples.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,241,615. MULTIPLE-SECTION FIREPROOF CABINET FOR DUPLICATE SALES-BOOKS AND THE LIKE. HOMER J. FARROW, Denver, Colo. Filed Aug. 7, 1916. Serial No. 113,529. (Cl. 45—3.)



1. A fire-proof cabinet for the purpose described, comprising a plurality of sections in the form of hollow vertical frames hinged together in leaf fashion and which are filled with fire-proof material, partitions extending midway of the depth of said frames, spaced division plates extending at right angles to said partitions, spaced inclined plates between said division plates having rolled edges, supporting wires extending through the inner wall of the section, the division plates and the rolled edges of the inclined plates, means for locking said section in closed relation, and means secured to the rear portion of the middle section for revolubly supporting said cabinet.

2. A fire-proof cabinet for the purpose described, comprising a plurality of sections in the form of hollow vertically arranged frames filled with fire-proof material and which are hinged together in leaf fashion, the outer sections forming closures for the inner section, plates in said sections which are bent both to form partitions which extend centrally of the depth of said sections, and also a series of spaced walls which are at right angles to the partition wall, spaced inclined plates arranged between said walls in a manner to form pockets and having rolled upper and lower edges, and rods extending through said walls and said rolled edges, beads projecting from the inner frame which fit into the outer frames when the cabinet is closed, locking means for holding said sections in closed relation, and means secured to the rear edge of the middle section for revolubly supporting said cabinet.

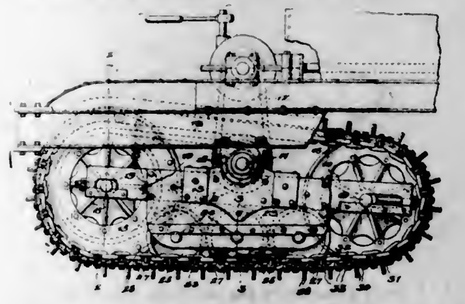
5. A fire-proof cabinet, comprising a plurality of vertical sections hinged together in leaf form, each section consisting of a hollow metallic frame filled with fire-proof material, a partition extending centrally of the depth of said frame so as to divide the frame into two compartments, a plurality of spaced division walls formed at right angles to the partition wall, tiers of spaced inclined plates having rolled upper and lower edges and arranged between said division walls in a manner to form pockets, rods extending through said walls, said rolled edges, and

through the inner walls of the frames, a stationary base, and a standard secured to said cabinet, and rotatably mounted on said base.

[Claims 3, 4, and 6 not printed in the Gazette.]

1,241,616. [WITHDRAWN.]

1,241,617. TRACTOR. CHARLES M. FULLER, El Segundo, Cal., and JOHN W. LAMBERT, Anderson, Ind. Filed Dec. 18, 1916. Serial No. 137,702. (Cl. 180—9.)



1. In a tractor of the type set forth, a toothed traction belt, and a pair of wheels for carrying and driving the belt, each of said wheels consisting of a pair of separated peripheral rings adapted to bear against the inner face of the belt and straddle the teeth on the belt, and teeth-engaging rollers mounted between the plates.

2. In a machine of the class set forth, a toothed belt, belt-driving and supporting wheels, each consisting of a spider-hub, a pair of ring-plates fastened to the outer ends of the spokes of the spider and thereby held apart from each other, and teeth-engaging means carried between said rings.

3. In a tractor of the class set forth, a tiltable frame supported on the tractor, belt-carrying wheels at the opposite end of the frame, a belt carried by said wheels and provided with a row of teeth on its interior face, and a pair of connected wheels engaging the inner face of the belt intermediate said two belt-carrying wheels, these connected wheels being spaced apart sufficiently to bear against the belt closely adjacent to the opposite side of said row of teeth, so as to thereby assist in preventing lateral distortion of the belt.

4. In a tractor of the class set forth, a tiltable frame supported on the tractor, belt-carrying wheels at the opposite ends of said frame, a toothed traction belt carried by said wheels, and a plurality of wheels engaging the inner face of the belt intermediate said two belt-carrying wheels, a pair of said intermediate wheels being arranged to straddle the row of teeth on the inner face of the belt, for the purpose set forth.

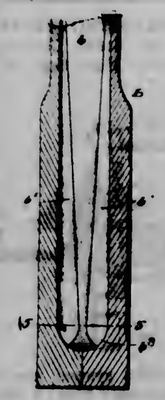
5. A traction belt for tractors provided on its inner face with means for engaging the belt driving wheels, said belt consisting of a series of tread-slots, and means applied to the inner face of the belt for linking said slats together, said means consisting of a plurality of chains each embodying a series of main links secured edgewisely upright to the inner faces of the slats, and a series of connecting links arranged at the joints between the slats.

[Claim 6 not printed in the Gazette.]

1,241,618. INGOT AND INGOT-MOLD. EMIL GATHMANN, Baltimore, Md. Filed Nov. 23, 1912. Serial No. 733,062. (Cl. 22—139.)

1. An ingot having two of its opposite sides approximately straight and equidistant from the vertical central axis of the ingot at its upper and lower portions and two intervening sides inclined and converging from the [illegible] toward the ingot bottom.

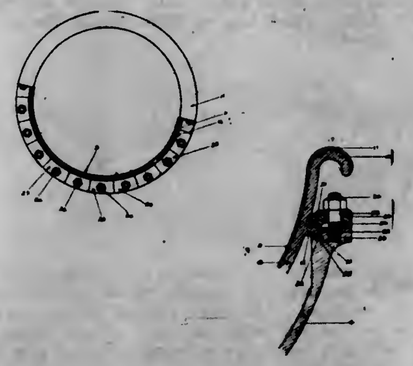
2. A metallic mold in which the mold cavity has some of its sides approximately straight and parallel while others are relatively tapered or inclined from the upper end of the mold downwardly toward the bottom thereof.



3. A metallic mold in which the mold cavity has some of its sides approximately straight and parallel, while others are relatively tapered or inclined from the upper end of the mold downwardly toward the bottom thereof, said mold cavity being of greater cross section at top than at bottom and the walls of said mold being made to absorb heat more rapidly at its lower portion than at its upper portion.

4. A metallic mold, in which the mold cavity has some of its sides approximately straight and parallel while others are relatively tapered or inclined from the upper end of the mold downwardly toward the bottom thereof, the walls on diametrically opposite sides of the mold cavity at the lower portion of the mold being thicker than the remaining or intervening walls.

1,241,619. KETTLE. RUDOLF F. GOECKE, Elyria, Ohio. Filed Mar. 24, 1917. Serial No. 157,083. (Cl. 126—370.)



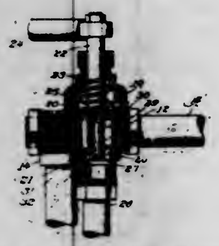
1. In combination, a jacket provided with a flange about its mouth having an annular recess in the inner edge thereof forming a seat for a kettle flange, a kettle provided with an annular flange on the outside wall thereof and below the edge of the kettle, said flange fitting in said recess and resting on said flange seat, a plurality of clamp members, each provided with a heel resting upon the jacket flange and a toe resting upon the kettle flange and means for drawing said clamps down upon said flanges to hold said kettle and jacket together.

4. In combination, a jacket and a kettle provided with an annular flange, clamping means for clamping the

flange to the jacket, and devices for causing said means to exert different pressures at different points about said flange.

[Claims 2, 3, and 5 to 8 not printed in the Gazette.]

1,241,620. STEAM-HEATING SYSTEM. EGBERT H. GOLD and ELMER W. RIETZ, Chicago, Ill.; said Rietz assignor to said Gold. Filed Sept. 3, 1915. Serial No. 48,903. (Cl. 237—27.)



1. In a steam heating system, the combination of a radiating element; a supply pipe; a discharge pipe; and a valve comprising a four-chambered casing, two of the chambers of which communicate with the radiating element and the other two with said supply and discharge pipes respectively, and a valve body revolubly arranged between said chambers so that it may assume positions at right angles to each other to either direct the steam from the supply pipe through the radiator to the discharge pipe or to short circuit the steam from the supply pipe directly to the discharge pipe and put the chambers open to the radiator in communication with each other; said valve body being formed with an upright web and a bottom disk each provided with a port opening into the radiator side of the valve casing the port in the web at a point near the top of the web and the bottom of the casing being formed with ports open to the atmosphere with which the ports in said valve body are adapted to register, respectively, only when the valve body is in the short circuiting position.

[Claims 2 and 3 not printed in the Gazette.]

1,241,621. NON-SKID TIRE-GRIP. HAROLD D. GREENE, Britt, Iowa. Filed May 6, 1916. Serial No. 95,789. (Cl. 152—14.)

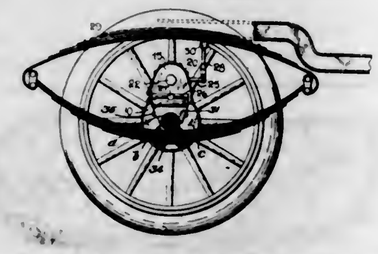


1. A non-skid tire grip made up of a centrally located jointed circumferentially extended tread bar and curved laterally extended tread bars pivoted thereto, flexible spacing devices connecting the ends of said transverse tread bars, and means for securing said tire grip to a wheel rim and tire 3.

2. A non-skid tire grip made up of a centrally located jointed circumferentially extended tread bar and curved laterally extended tread bars pivoted thereto, and a flexible saddle plate comprising a central circumferential strip and laterally projecting strips, the former being located under the circumferentially connected tread members, and the latter being located under said transverse tread bars.

3. A non-skid tire grip made up of a multiplicity of flat tread blocks with longitudinally and laterally projecting pivot lugs, relatively narrow circumferentially extended tread links pivotally connected at their ends to the longitudinal lugs of said tread blocks, curved circumferentially spaced transversely extended tread bars pivotally connected to the transverse pivot lugs of said tread blocks, and spacing devices flexibly connecting the extended ends of said tread bars, and said tread links and tread bars being relatively very narrow, as compared with said tread blocks.

1,241,622. SHOCK-ABSORBER FOR AUTOMOBILES. CLARENCE L. GRIDER, Ely, Nev., assignor of one-tenth to Frank E. Grider, Ely, Nev. Filed June 13, 1917. Serial No. 174,574. (Cl. 21—105.)



1. A shock absorber of the character described comprising a cylinder adapted to be filled with liquid, a piston in the cylinder, a rotatable member mounted exterior to the cylinder, a flexible connection attached to the piston extending out at opposite ends of the cylinder and operatively connected to said rotatable member, a bypass between the opposite end portions of the cylinder, and means whereby said rotatable member may be operatively connected to a part of a vehicle.

2. A device of the character described comprising a cylinder having a bypass connecting opposite end portions of the cylinder, a piston operating within the cylinder, rollers mounted upon the ends of the cylinder, a wheel mounted adjacent to the cylinder, a flexible connection attached to the piston, passing out at opposite ends of the cylinder and over said rollers and around said wheel, and an arm projecting from the shaft of the wheel adapted to be operatively connected to a part of the vehicle.

3. A shock absorber comprising a cylinder adapted to contain liquid, a bypass connecting opposite portions of the cylinder, a valve in said bypass controlling the passage of liquid therethrough, rollers mounted upon opposite ends of the cylinder, a wheel operatively supported adjacent to the cylinder, a flexible connection attached to the piston and passing in opposite directions through the ends of the cylinder over said rollers and attached to said wheel to be wound thereon, a housing for the wheel, a shaft upon which the wheel is mounted extending through said housing, an arm on the shaft and an operative connection extending from the arm and adapted to be connected to a part of the vehicle.

4. A shock absorber of the character described comprising a cylinder at its opposite ends, a bypass pipe opening into the cylinder inward of its opposite ends and having a controlling valve, rollers mounted upon opposite ends of the cylinder adjacent said openings, side plates extending outward from the cylinder in spaced relation to each other, a shaft passing through the side plates and having an arm, a grooved wheel mounted upon the shaft to turn therewith, a piston disposed in the cylinder, a flexible connection attached to the piston extending out through said openings and ends of the cylinder over said rollers and partly around the wheel and attached thereto, flanges extending upward from the ends of the cylinder on each side of the rollers, and a cover plate attached to said flanges and to the edges of the side plates and entirely housing the rollers and said wheel and cable, whereby the space inclosed by said cover plate may be filled with oil, an arm attached to the shaft, and a lever connected to the arm and adapted to be connected to a part of the vehicle.

1,241,623. AERIAL VESSEL. ARTHUR L. GUSEY, Walla Walla, Wash. Filed June 12, 1917. Serial No. 174,359. (Cl. 244—6.)



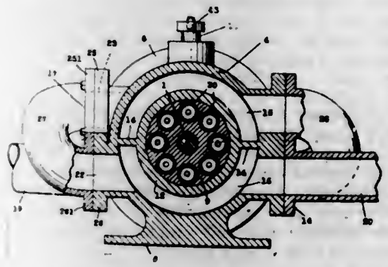
1. In an aerial craft, superposed elongated balloon casings, the top casing being wider than the bottom casing and the latter being positioned centrally with respect to the former, a plurality of gas containers in the casings, a pair of gas conduits, a connection between said conduits, delivery pipes leading from one conduit and discharging into the gas containers of the casing, delivery pipes leading from the other conduit and discharging into the gas containers of the other casing, and a partition in each gas container dividing the same into separate compartments into which the respective delivery pipes discharge.

2. In an aerial craft, superposed elongated balloon structures, the top balloon structure being wider than the bottom one, and the latter being positioned centrally with respect to the former, and elevating planes fore and aft and on both sides of the craft, said planes being located below the top balloon structure and alongside the bottom balloon structure.

3. In an aerial craft, a balloon supported structure, propelling means, engines for driving the propelling means, exhaust conducting tubes leading from the engines and discharging to the rear of the craft, and fans associated with said tubes for forcing the exhaust gases therethrough.

4. In an aerial craft, a balloon casing comprising a frame consisting of side bars and longitudinal bars fastened thereto, the latter being on the outside, nailing strips carried by the upper sides of the longitudinal bars, and a sheathing secured to said strips and covering the frame.

1,241,624. ROTARY PISTON-PUMP. GEORGE E. GUY, Tottenville, N. Y., assignor of one-third to Walter H. Samuel and one-third to Howard H. Samuel, Bloomfield, N. J. Filed Apr. 23, 1913. Serial No. 762,991. (Cl. 103—44.)



1. In a rotary piston pump, the combination of a shaft, a cylinder barrel on said shaft having an annular series of cylinders parallel theerto, a casing providing a bearing for said shaft and the end of the cylinder barrel and having a transverse annular partition encircling the barrel and adapted at its inner edge to engage the cylindrical surface of said barrel, pistons in said cylinders, means for causing said pistons to move in an elliptical path as the cylinder barrel rotates, and means for supplying and discharging fluid.

2. In a rotary piston pump, the combination of a shaft, a cylinder barrel on said shaft having an annular series of cylinders parallel thereto, a casing providing a bearing for said shaft and the end of the cylinder barrel and having a transverse annular partition encircling the barrel and adapted at its inner edge to engage the cylindrical surface of said barrel, said casing forming between said annular partition and its closed end a compartment divided into inlet and outlet chambers, pistons in said cylinders, means for causing said pistons to move in an elliptical path as the cylinder barrel rotates, and means for supplying and discharging fluid.

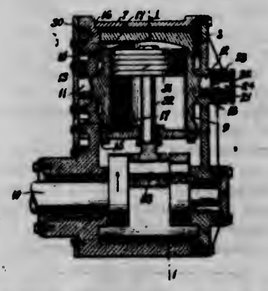
3. In a rotary piston pump, the combination of a shaft, a cylinder barrel on said shaft having an annular series of cylinders parallel thereto, a casing inclosing said cylinder barrel and providing bearings for said shaft and the ends of the cylinder barrels, said casing having a transverse annular partition encircling the barrel and provided at its inner edge with a cylindrical flange adapted to engage the cylinder barrel, pistons in said cylinders, means for causing said pistons to move in an elliptical path as the cylinder barrel rotates, and means for supplying and discharging fluid.

4. In a rotary piston pump, the combination of a cylindrical casing divided transversely into two halves or similar end sections, a shaft mounted centrally and longitudinally of said casing, cylinder barrels on said shaft abutting at their adjacent ends and seating at their opposite ends against the casing, means for securing said casing sections together, pistons in said cylinders, means for causing said pistons to move in an elliptical path as the cylinder barrel rotates, and means for supplying and discharging fluid.

5. In a rotary piston pump, the combination of a shaft, cylinder barrels mounted on said shaft, pistons in the cylinders, a casing inclosing said cylinder barrels and providing bearings for said shaft, said casing having transverse annular partitions encircling their respective barrels and adapted to engage at their inner edges the cylindrical surface of said cylinder barrels, a tilting head between said partitions connected to said pistons, longitudinal radial partitions dividing the end compartments into inlet and outlet chambers, and means for supplying and discharging fluid.

[Claims 6 to 21 not printed in the Gazette.]

1,241,625. MOTOR FOR STARTING ENGINES. LOUIS HACHENBERG, New York, N. Y. Filed Aug. 31, 1916. Serial No. 117,830. (Cl. 121—42.)



A starting motor comprising a motor casing open at the front and having integral side and rear walls, said fixed rear wall having open inlet and exhaust channels extending across the upper part of the outer exposed face thereof and open inlet and exhaust channels extending across the lower part of the outer exposed face thereof, said fixed rear wall further having inlet ports extending from said inlet channels through to the opposite inner face of the rear wall and exhaust ports adjacent the inlet ports and extending from the exhaust channels through to the inner face of the rear wall, a cover plate removably secured to said rear casing wall and covering the open channels therein, said cover plate having inlet and exhaust ducts

therein communicating with the inlet and exhaust channels respectively, raised valve faces on the inner side of the fixed rear wall and through which the inlet and exhaust ports extend, a front wall for the casing closing the open front of the casing and removably secured in place, a crank shaft in the lower central portion of the casing journaled between the fixed rear wall and the removable front wall, a pair of cylinders within the casing above the crank shaft and at opposite sides of the same and provided with trunnions intermediate the ends thereof, journaled between the fixed rear and removable front walls, said cylinders each having raised valve faces on the side thereof adjoining the rear casing wall and bearing on the valve faces on said rear wall, each of said cylinders further having ports at the opposite ends thereof extending directly through the side wall of the cylinder and through to the valve faces thereof, in position to register with the inlet and exhaust ports, and pistons in the cylinders connected with the crank shaft.

1,241,626. HOSE-COUPLING. FREDERICK HACHMANN, St. Louis, Mo., assignor of one-half to Fred C. Schoenthaler, St. Louis, Mo. Filed Oct. 26, 1914. Serial No. 868,658. (Cl. 137—23.)



1. A hose coupling comprising a split sheet metal sleeve having its edges bent over to form longitudinally extending lips, inwardly projecting hose engaging flanges on said sleeve, and a sliding sheet metal member having bent over flanges adapted to take over said lips, constructed to yieldingly contract said sleeve.

2. A hose coupling comprising a split sleeve adapted to encircle a hose, inwardly projecting hose engaging flanges on said sleeve, and a yielding member adapted to engage the opposed free edges of said sleeve to contract the same, said yielding member adapting the sleeve to hose of different sizes or thicknesses.

3. A hose coupling comprising a split sleeve adapted to encircle a hose, inwardly projecting hose engaging flanges on said sleeve, and a member adapted to engage the opposed free edges of said sleeve to contract the same, said member being yieldable transversely, adapting the sleeve to hose of different sizes or thicknesses.

4. A hose coupling comprising a split sleeve adapted to encircle a hose, an inwardly projecting hose engaging flange on said sleeve, and a yielding sliding taper key adapted to engage the opposed free edges of said sleeve to contract the same, said yielding key adapting the sleeve to hose of different sizes or thicknesses.

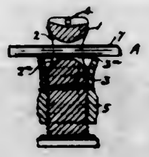
5. A hose coupling comprising a split sleeve adapted to encircle a hose, an inwardly projecting end flange on said sleeve, and a sliding taper key adapted to engage the free ends of said sleeve to contract the same, said key having a struck up rib extending therealong to render it yielding.

[Claims 6 to 12 not printed in the Gazette.]

1,241,627. TERMINAL FOR ELECTRICAL APPLIANCES. FREDERICK J. HADFIELD, Oulton Broad, near Lowestoft, England. Filed Mar. 1, 1917. Serial No. 151,848. (Cl. 173—259.)

2. A terminal for electrical machinery and appliances comprising a pillar having a flared transverse perforation which forms a convex tube therein and provided with an adjustable sleeve adapted to bend and clamp a conductor or conductors around the convex surface of said flared perforation.

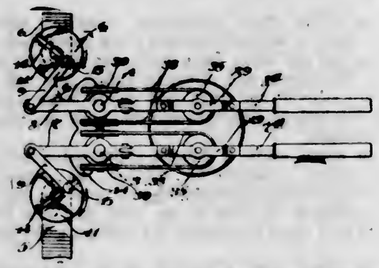
4. A terminal for electrical machinery and appliances comprising a pillar having one or more flared perforations formed therein and a sliding flared sleeve mounted on said pillar together with means thereon for controlling and locking said sleeve so as to clamp one or more conductors in said flared perforation or perforations substantially as described.



5. A terminal for electrical machinery and appliances comprising a pillar having one or more flared perforations formed therein and a sliding flared sleeve mounted on said pillar together with a screw nut for controlling and locking said sleeve so as to clamp one or more conductors in said flared perforation or perforations substantially as described.

[Claims 1 and 3 not printed in the Gazette.]

1,241,628. MACHINE FOR GRINDING MULTIFOCAL LENSES. CHARLES A. HOFFMAN, Minneapolis, Minn. Filed May 17, 1913. Serial No. 768,289. (Cl. 51—3.)



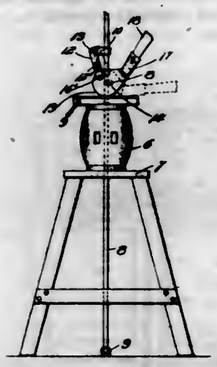
1. A machine for grinding multifocal lenses comprising two oscillatory spindle supports, rotary spindles carried by said supports and provided each with its own grinding tool for operation on different zones of the lens, the said spindles having independent actuating means including pulleys on the said spindles, and one of said spindles being shorter than the other and terminating below the pulley of the longer spindle.

2. A machine for grinding multifocal lenses comprising two oscillatory spindle supports, rotary spindles carried by said supports and provided each with its own grinding tool for operation on different zones of the lens, the said spindles having independent actuating means including pulleys on the said spindles, one of said spindles being shorter than the other and terminating below the pulley of the longer spindle, and independently driven variable throw crank connections for oscillating said spindle supports substantially as described.

3. A machine for grinding multifocal lenses, comprising two oscillatory spindle supports, rotary spindles carried by said supports and provided each with its own grinding tool for operating on different zones of the lens, the said spindles having independent actuating means associated with the spindles, one of said spindles being shorter than the other and terminating below the actuating means for the longer spindle.

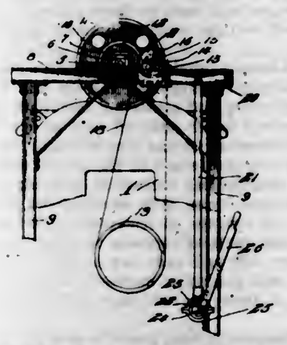
1,241,629. CLAMPING DEVICE. BENJAMIN J. HUDSON, Wilsey, Kans. Filed June 27, 1916. Serial No. 106,235. (Cl. 144—288.)

1. In a clamping device, the combination with an anchor rod, of a dog having a pinching engagement with the anchor rod, a cam having spaced walls to permit the passage of the anchor rod therethrough, the cam including a handle projecting therefrom, an abutment between the walls adapted to engage the anchor rod on one side, and connecting links between the free ends of the dog and the cam at the other side of the rod.



2. In a clamping device, the combination with an anchor rod, of a handled cam having spaced walls adapted to receive the anchor therebetween, a curved abutment secured to the side walls of the cam and being adapted to engage the anchor, link members fulcrumed to the side walls of the cam the fulcrumed points of the links being normally at one side of the anchor, and a dog fulcrumed at the upper ends of the links said dog having an opening arranged to permit passage of the anchor rod therethrough, the diagonally opposite edges of said opening being adapted to engage and bite into the anchor rod upon rotation of the cam, said dog and cam being locked to said rotated position by the displacement of the link fulcrums to the other side of the anchor rod.

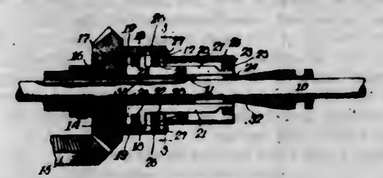
1,241,630. RAISING AND LOWERING DEVICE FOR ROLLS. WILLIAM W. HUMES, Youngstown, Ohio. Filed Sept. 25, 1916. Serial No. 122,150. (Cl. 74—26.)



In a device of the character described, a supporting member having a post and a beam carried by said post, a wheel having a pair of flanges, a slide movable upon said beam and having a bearing, a shaft journaled in said bearing, a wheel carried by said shaft between and engageable with said flanges, toggle links having their remote ends pivoted to said slide and beam on a substantially horisontal line, a manually operable eccentric carried by said post, and a substantially vertical bar having its upper end pivoted to the joint of the toggle links and having an eccentric strap at its lower end embracing said eccentric.

1,241,631. CLUTCH. ALBERT JAUCH, Chicago, Ill. Filed Nov. 27, 1916. Serial No. 133,523. (Cl. 192—6.)

In combination, a rotatable element, a rotatable member, a collar axially slotted and fixed to said element, a sleeve having an annular flange protruding from it and fixed to said member, clutch arms carried in the slots of said collar and transversely channeled at one end to receive said flange, and a tapered device movable against said arms to bind their channeled ends about said flange.



5. In combination a rotatable element, a rotatable member, a collar axially slotted and fixed to said element, a sleeve having an annular inturned flange providing an inwardly exposed channel and fixed to said member, clutch arms carried in the slots of said collar, projecting into said channel, and themselves transversely channeled at one end to receive said flange, a tapered device movable against said arms to bind their channeled ends about said flange, a casing carried by said element and projecting over the slots of said collar, and coil springs interposed between each arm and said casing.

6. In combination a rotatable element, a rotatable member, a collar axially slotted and fixed to said element, a sleeve having an annular inturned flange providing an inwardly exposed channel and fixed to said member, clutch arms carried in the slots of said collar, projecting into said channel, and themselves transversely channeled at one end to receive said flange, a tapered device movable against said arms to bind their channeled ends about said flange, a casing carried by said element and projecting over the slots of said collar, and coil springs interposed between each arm and said casing, the outer ends of said arms carrying adjustable inwardly exposed antifriction pieces for engagement with said tapered device.

8. In combination, a rotatable element, a rotatable member, a collar axially slotted and fixed to said element, a sleeve hollowed at one end provided with an inturned flange, and fixed to said member, clutch arms carried in the slots of said collar and formed to receive said flange, a shoulder on said element substantially opposite the inner edge of said flange, means for separating the free ends of said arms, and resilient devices maintaining said arms normally out of contact with the flange.

[Claims 2 to 4 and 7 not printed in the Gazette.]

1,241,632. COIN-HOLDER FOR COIN-COUNTING MACHINES. JAY M. JOHNSON, Chicago, Ill. Filed June 21, 1915. Serial No. 35,246. (Cl. 133—1.)



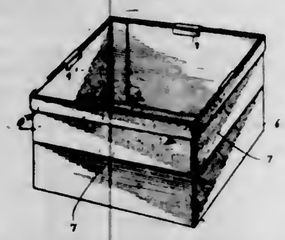
1. In a device of the class described a long tube having slots therein, a double throw lever positioned for either

one of the two ends of said lever to project through one of the slots in said tube to limit the insertion of a coin carton in said tube, and means pivotally mounted on said tube adapted to swing into the lower end thereof to support the carton and coins therein within the tube.

4. In a device of the class described a coin tube, means limiting the insertion of a coin carton thereinto, and mechanism adapted to be swung beneath the lower end of said carton creasing the lower margin thereof inwardly and upwardly and acting to sustain the weight of coins stacked within said carton.

[Claims 2 and 3 not printed in the Gazette.]

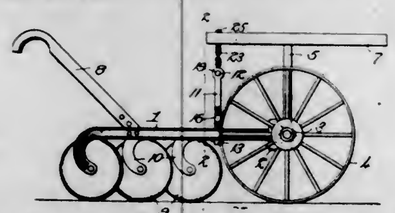
1,241,633. METAL TIERING AND FLAP-RETAINING MEANS FOR BOXES. JOHN C. JOHNSON, Milwaukee, Wis., assignor to Hummel & Downing Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Oct. 7, 1915. Serial No. 54,477. (Cl. 229—49.)



2. An article of the character described, comprising an endless metal hollow frame adapted for detachable and snug engagement entirely around the open mouth of a goods container having closing flaps and made of material incapable of supporting the weight of a plurality of said containers filled with goods, whereby the open mouth of said container is made temporarily rigid to support the load imposed upon it, and means embodying a plurality of members formed to lie parallel with the sides of said hollow frame and integral therewith and adapted to retain said hollow frame in position adjacent the open edge of the container and clamp said closing flaps against the sides of the container.

[Claim 1 not printed in the Gazette.]

1,241,634. CULTIVATOR-ARCH. JOEL R. KELLEY, Owasso, Okla. Filed Jan. 15, 1917. Serial No. 142,489. (Cl. 97—35.)

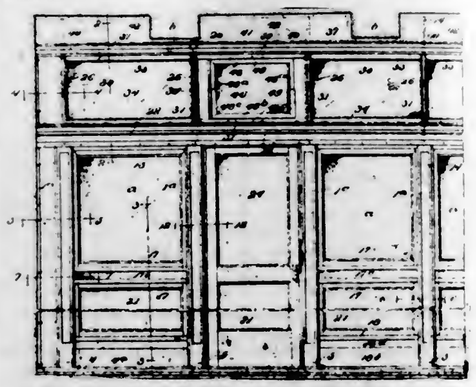


1. The combination with the supporting gear, tongue and beams of a walking cultivator, of an arch spanning the beams and having a flexible connection with the tongue, whereby the beams are adjustably suspended from the latter, but may be freely lifted.

2. The combination with the supporting gear, tongue and beams of a walking cultivator, of an arch spanning the beams and having a flexible connection with the tongue, said arch consisting of standards pivotally mounted on the beams and a connecting bar rigidly spacing said standards, whereby the arch may fall below the tongue when the beams are raised.

1,241,635. STEEL PARTITION AND THE LIKE. HENRY KLEIN, New York, N. Y. Filed Dec. 30, 1913. Serial No. 809,563. (Cl. 189—34.)

1. A partition comprising a main partition, and a superstructure secured thereto and rising therefrom and consisting essentially of vertical panels vertical post-like extension members vertically adjustable with respect to said main partition when being set up, and vertically adjustable ends for said members adapted to be projected upwardly therefrom to the ceiling, substantially as described.



2. A partition comprising a main partition, and a superstructure secured thereto and rising therefrom and consisting essentially of vertical extension members provided with ends, each end being longitudinally adjustable with respect to its member and adapted to be projected upwardly therefrom to the ceiling, means for securing each adjustable end to its member in the desired adjustment, and panel sections for filling in the spaces between the members and upwardly projected ends.

3. A partition provided with a superstructure comprising post-like extensions, panel sections between the same, adjustable ends projecting upwardly from certain of said extensions, filling panels between said ends, a cornice traversing said extensions and panel sections, and means securing said cornice to said extensions, said means also serving to secure said ends to their respective extensions in the desired vertical adjustment with respect to said extensions.

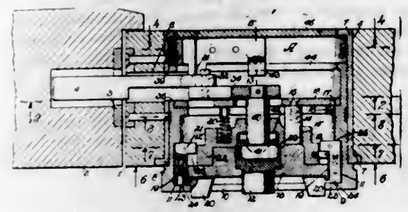
4. A knock-down partition comprising a main partition, and a superstructure supported thereby and rising from the top edge thereof and consisting essentially of vertical panels, upper and lower rails for said panels, and vertical extension members having longitudinally beaded edges to receive the vertical edges of the panels and also having pairs of longitudinal sockets in said edges, the ends of said upper and lower rails having pairs of longitudinally projecting tongues to removably enter said sockets and intervening vertical recesses to receive said beaded edges whereby said rail ends can be fitted to and interlocked with said extension members at any portions of the lengths of their beaded edges, substantially as described.

5. A partition comprising post-like members having longitudinal edges formed with pairs of longitudinal sockets said edges between the sockets of each pair being formed to receive and secure panels, and panel holding rails having their end edges formed to fit said member edges between the sockets and provided with pairs of tongues entering said sockets, substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

1,241,636. PERMUTATION-LOCK. OSKÁR KLEIN, New York, N. Y., assignor to Jacob Truchinsky, New York N. Y. Filed Dec. 22, 1916. Serial No. 138,393. (Cl. 70—18.)

1. A lock comprising a stationary casing having a slot a barrel within the casing and having a slot, a single bolt mounted within the barrel on a fixed pivotal center and having its end normally disposed in the slot and adapted to be engaged by opposite edges of the slot in the barrel for projecting or retracting the bolt by the relative turning of the casing and barrel, means normally preventing the relative turning of the casing and barrel, and a tumbler mechanism for unlocking the barrel from the casing for permitting relative rotation.



2. A permutation lock comprising a casing, a barrel rotatably mounted therein, said casing and barrel having registering slots, a bolt mounted in the barrel and movable through the slots by the relative rotation of the casing and barrel, a baffle element normally held from rotation and operatively connected with the barrel for preventing turning thereof, tumblers controlling the unlocking of the baffle element from the said holding means, and means for moving the baffle element to unlocked position when the tumblers are in a predetermined position, whereby the barrel can turn.

3. A permutation lock comprising a casing, a barrel rotatable therein, a swinging bolt movable out of the barrel and casing in a plane transverse to the axis of rotation of the barrel, and a tumbler-controlled means normally holding the barrel against rotation, the pivotal center on which the bolt swings being eccentric to the axis of the barrel and the barrel having spaced means engageable with the opposite sides of the bolt for swinging the same inwardly or outwardly.

4. A permutation lock comprising a bolt, fixed means on which the bolt is mounted, a rotary element normally stationary and adapted upon rotation to actuate the bolt, a plurality of tumblers, a baffle plate coöperating with the tumblers, a push button for moving the baffle plate when the tumblers are in a predetermined position, whereby the rotatable element is unlocked and can be turned.

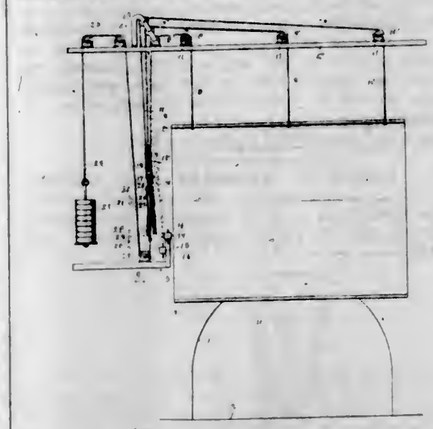
5. A permutation lock comprising a casing, a barrel rotatable therein, a bolt adapted to be actuated by the barrel, a plurality of tumblers disposed in the barrel, a baffle plate mounted in the barrel and coöperating with the tumblers, means fixed in the barrel and normally engaged with the baffle plate for preventing rotation of the barrel, and a pushbutton capable of being pressed when the tumblers are in a predetermined position for disengaging the tumbler plate from the said fixed means and permitting the tumbler to be turned.

[Claims 6 and 7 not printed in the Gazette.]

1,241,637. SCENE-SHIFTING APPARATUS. GUSTAV KNICKELBEIN, Milwaukee, Wis. Filed June 7, 1916. Serial No. 102,119. (Cl. 254—141.)

1. The combination, with a plurality of scenes, a plurality of ropes for suspending each of said scenes, and a pin rail in the fly gallery for tying off the ropes for each scene, of a counter weight mechanism comprising a rope and a weight suspended by said rope from the stage loft, a detachable connection between said rope and the ropes for any one of said scenes, and means for lengthening and shortening said counter weight rope to facilitate the change of the counter weight mechanism from one scene to another.

2. The combination, with a plurality of scenes, a plurality of ropes for suspending each of said scenes, and a pin rail in the fly gallery for tying off the ropes for each scene, of an equalizer secured to the ropes for each scene, pulleys in the stage loft and a pulley on the floor of the fly gallery, a rope running over pulleys in the stage loft and the pulley on the floor of the fly gallery, a counter weight secured to the end of the rope at a distance from the pin rail, an extensible connection on the end of the rope over the pulley on the floor of the fly gallery, a member slidably mounted on said extensible portion of the counter weight rope, and a detachable connection between said member and said equalizer.



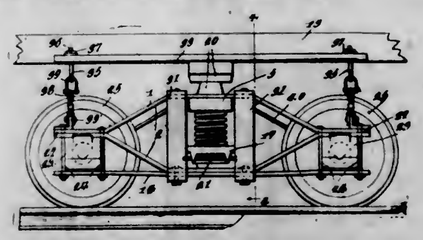
3. The combination, with a plurality of scenes, a plurality of ropes for suspending each of said scenes, and means for tying off each of said scenes, of a counter weight mechanism comprising a rope and a weight connected thereto, a detachable connection between said rope and the ropes for any one of said scenes, and means for lengthening or shortening said counter-weight rope while the change of the counter weight mechanism from one scene to another is being made.

4. The combination, with a plurality of scenes, a plurality of ropes for suspending each of said scenes, and means for tying off each of said scenes, of an equalizer secured to the ropes for each scene, a counter weight mechanism adapted to be detachably connected to any one of said equalizers comprising a rope and a counter weight connected thereto, one end of said rope having a loop therein formed by detachably connecting this end of the rope to an intermediate portion thereof, a member slidably mounted on the loop, and a detachable connection between said member and said equalizer.

5. The combination, with a plurality of scenes, a plurality of ropes for suspending each of said scenes, and means for tying off each of said scenes, of a counter weight mechanism comprising a rope and a weight connected thereto, a detachable connection between said rope and the ropes for any one of said scenes, means for limiting the travel of the counter weight and rope, and means for lengthening or shortening said counter weight rope while the change of the counter weight mechanism from one scene to another is being made.

[Claims 6 and 7 not printed in the Gazette.]

1,241,638. RAILWAY-CAR TRUCK. JOHN LAUGHLIN and PETER A. ELSETH, Crookston, Minn. Filed Nov. 19, 1915. Serial No. 62,351. (Cl. 105—114.)



1. The combination with a railway car and a truck therefor, of longitudinally disposed parallel arranged securing bars affixed to the car, and suspending means swiveled to the opposite ends of said securing bar for supporting the truck independently of the journal boxes.

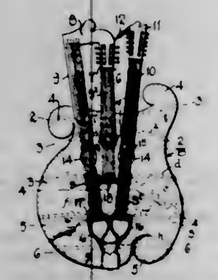
2. The combination with a railway car and a truck therefor, of longitudinal parallel arranged bars secured

to the car, and flexible connections loosely engaged with the opposite ends of said bars for supporting the truck independently of the journal boxes.

3. The combination with a railway car and a truck therefor, of pairs of longitudinally disposed parallel arranged bars secured to the car, U-shaped brackets engaged with the opposite ends of said bars, and flexible connections secured to said brackets for supporting the truck independently of the journal boxes.

[Claims 4 to 7 not printed in the Gazette.]

1,241,639. COMBINED MANDOLIN AND GUITAR. HARRY G. LUIS, San Quentin, Cal., assignor of forty-nine one-hundredths to Clyde Hendricks, San Quentin, Cal. Filed Apr. 7, 1917. Serial No. 160,495. (Cl. 84—133.)



1. A combined mandolin and guitar comprising a hollow body having a scroll formed at the lower end thereof to provide an echo chamber, a plurality of necks extending from the opposite end of the body, strings on each neck, the body being provided with sound openings beneath the strings and a tube positioned beneath the sound openings of the central neck, and bridges for the strings mounted on the body, the central bridge being positioned over one end of the tube.

2. A combined mandolin and guitar comprising a hollow body having a plurality of sound openings arranged in its face, bridges attached to the body, necks extending from the end of the body opposite that to which the bridges are connected, a head connecting one pair of necks, a head on the opposite neck, a turn-buckle connecting the heads, strings on the necks and passing over the bridges, a tube secured beneath the centermost bridge and extending to a point immediately beneath the central opening and a horn at the end of the sound tube.

[Claim 2 not printed in the Gazette.]

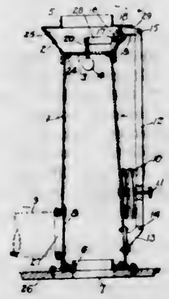
1,241,640. CASING FOR BOTTLES. ISABELLA MCINTYRE, Bryn Mawr, Pa. Filed Feb. 20, 1917. Serial No. 149,757. (Cl. 215—3.)



4. A bottle casing comprising two separate series of sections, one series encircling the bottom portion of the bottle, the other of said series encircling the neck portion of the bottle, means for adjustably securing the sections of each series together, and means for securing the sections of one series to the sections of the other series, the bottoms of the sections of the first-mentioned series having lips designed to extend across the bottom of the bottle and upon which the bottle rests, said casing forming a complete closure for the bottle, substantially as described.

[Claims 1 to 3 not printed in the Gazette.]

1,241,641. AIR-SUPPLY DEVICE FOR BROODERS AND THE LIKE. JOHN F. MACKAY, Bordentown, N. J. Filed Apr. 14, 1915. Serial No. 21,401. (Cl. 236—6.)



1. A device for supplying colony or other brooders or like apparatus with pure fresh air, consisting of a main barrel adapted to be located in a heated chamber, means for admitting fresh air to said barrel, an outlet valve for said air located within the barrel transversely of the same at a point below the upper end of the latter so that an outlet chamber is provided above said valve, and a thermostatic appliance external to the barrel and within the heated chamber, which appliance operates the outlet valve.

2. A unitary self-contained device for automatically supplying fresh air to a brooder, incubator, or the like, consisting of a main upright barrel or casing, an outlet valve therein near the upper end consisting of a vertically movable transverse plate located at a distance below the top of the casing, there being a chamber above said valve, means for admitting pure air in the lower portion of the main barrel, a thermostatic appliance on the outside of the barrel and subject to the influence of heated air in a brooder or the like, and lever connections between said appliance and the outlet valve for operating the latter.

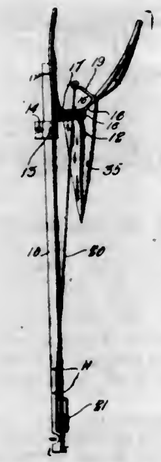
3. An anti-draft device for supplying pure air to a brooder or the like, consisting of a vertical barrel having a flanged top, a cover resting on said top and vertically movable with relation thereto so as to serve as a valve, a casting supported on the upper end of the barrel above the valve and serving as an outlet chamber for the air, means for admitting cold air at the lower end of the main barrel, an external thermostatic appliance on said barrel subject to the influence of heated air, and lever connections between said appliance and the outlet valve whereby the latter is opened as required.

1,241,642. FRUIT-PICKER. JOHN MAINWARING, Spring Green, Wis. Filed June 4, 1917. Serial No. 172,787. (Cl. 56—99.)

1. A device of the character described comprising in combination, a handle, a bracket removably secured to said handle, a pair of spaced legs projecting angularly from said bracket, a frame member carried by the legs of said bracket in fixed relation thereto, a second frame member pivotally carried by the legs of said bracket, a pocket depending from said frame members, and means for rocking the pivoted frame member in its bearings.

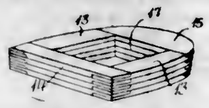
2. A device of the character described comprising in combination with a pole or handle, a bracket member comprising a pair of pole engaging ears, means passing

through said ears for securing the bracket to the pole, a body portion extending at right angles to the securing ears, a pair of legs projecting from said body portion and provided with alined spaced perforations, a frame mounted at the other two of said spaced perforations, and held



against pivotal movement therein, a second frame pivotally mounted at the other two of said spaced perforations, a crank projecting from the pivoted frame, and means connected with said crank for rocking the pivoted frame about its pivotal point.

1,241,643. COMPOSITE HEEL. CONRAD B. MANSBACH, Brockton, Mass., assignor of one-half to Frank L. Price, Brockton, Mass. Filed June 4, 1917. Serial No. 172,598. (Cl. 36—34.)



1. A heel comprising an internal portion or core, made from a leather substitute, and an external portion including a plurality of superimposed pieced frame-shaped lifts surrounding the core and having outer edge portions closely abutted together to form exposed continuous rear, side and breast surfaces, composed entirely of the material of the lifts, and adapted to be uniformly finished.

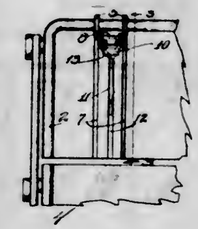
3. A heel as specified by claim 2, the walls of said opening being provided with alternating projections and recesses interlocked with said internal portion.

[Claim 2 not printed in the Gazette.]

1,241,644. WIND-SHIELD CLEANER. HARRY R. MANSFIELD, Racine, Wis., assignor to Racine Handy Manufacturing Company, a Corporation of Wisconsin. Filed July 15, 1916. Serial No. 109,447. (Cl. 15—59.)

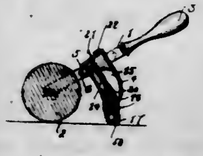
1. In a device of the class described for cleaning an automobile wind shield, a pair of parallel arms, a hook formed on the upper end of each of said arms, a cross bar connecting the ends of said hooks, a hanger secured on said cross bar, a loop engaged on said hanger, a middle arm integral with one side of said loop, a handle for actuating the device integral with the other side of said loop, rubber tubes on said arms, and a spring engaging said loop and coiled around each end of said cross bar with the ends of said spring secured to said hooks.

2. In a device of the class described, unitary means comprising parallel rubber covered arms, a hook formed on the upper end of each of said arms, and a cross bar connecting said hooks, a hanger secured to said cross bar, a second unitary means comprising a loop for engaging said hanger, a rubber covered arm, and a handle, and a spring engaging both of said unitary means and said hanger to hold said arms pressed against the surfaces of the glass of a wind shield to permit simultaneous cleaning of said surfaces when said device is moved across the wind shield by said handle.



3. A wind shield cleaner comprising a plurality of arms, a hoop formed at the upper end of each arm, a rubber tube investing each arm and hook, a cross bar connecting the hooked ends of the arms, an arm pivoted to said bar, a coiled spring secured on the bar acting to draw the pivoted arm toward the first named arms and a handle for actuating the cleaner.

1,241,645. ENVELOP MOISTENER AND SEALER. JOHN ALOYSIUS MATHERS, Grenfell, Saskatchewan, Canada, assignor of one-third to Marcus Hibbits Neill and Garnet Cedric Neff. Filed Mar. 9, 1917. Serial No. 153,556. (Cl. 15—66.)



1. In a device of the character described the combination of a supporting frame, of a tank pivotally and detachably connected to said supporting frame, a partition formed within said tank for dividing the same into two compartments, a valve controlled opening being arranged within said partition, a pair of rollers journaled within one of said compartments, a moistener carried by said rollers and extending over the lower end of said tank substantially as and for the purpose specified.

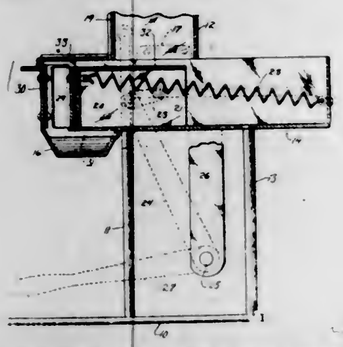
2. An envelop moistener of the character set forth comprising in combination a U-shaped frame, a tank, means for pivotally and detachably connecting said tank within said U-shaped frame, a spring actuated bracket carried by said U-shaped frame and adapted to rest upon said tank, a moistener carried by the lower end of said tank and a handle carried by the medial portion of said U-shaped frame.

1,241,646. DISPENSING-MACHINE. GEORGE W. MATHISON, Denver, Colo. Filed May 31, 1917. Serial No. 171,842. (Cl. 146—15.)

1. In a dispensing device, a horizontal plunger chamber, a vertical magazine in communication with said plunger chamber and located above the same intermediate the ends thereof, said plunger chamber being closed on the side and front walls and having an opening in the bottom thereof adjacent said front wall and out of line with said magazine, a plunger in said chamber, and means for reciprocating said plunger from a position to the rear of said magazine to a position closely adjacent the front wall of said plunger chamber.

7. In a dispensing device, a vertical magazine, a horizontal plunger chamber communicating with the bottom of said magazine, said plunger chamber being closed on the

top, side and front walls and having an opening in the bottom thereof adjacent said front wall, a plurality of cutting elementa disposed across said opening below the plane of the bottom of said chamber, a plunger in said chamber,



cutting elements carried by the face of said plunger, cutting elements carried by the inner face of the front wall of said chamber, and means for reciprocating said plunger.

[Claims 2 to 6 not printed in the Gazette.]

1,241,647. PACKAGE-TIE. OTTO L. MERTZ, Gladstone, Mich. Filed Jan. 8, 1916. Serial No. 70,995. (Cl. 24—18.)



1. A package tie comprising a rectangular plate having a finger aperture in one corner thereof, a lateral extension formed integrally with one corner of the plate and having an opening in which one end of the tying cord is secured, a spring clip, a plurality of clamping ribs arranged in spaced relation upon the inner surface of said spring clip, said cord adapted to be secured under the spring clip.

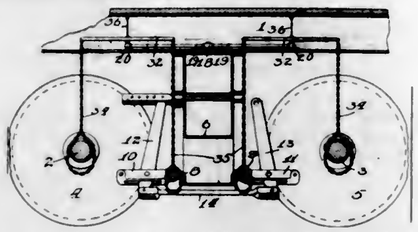
2. A package tie comprising a rectangular plate, said plate having a finger receiving aperture at one corner thereof, a lateral extension formed at one corner of the plate provided with an opening to receive one end of a cord therein, a spring clip struck up from said plate, a plurality of ribs formed upon the inner surface of said clip for retaining a portion of the cord in engagement with the plate, and clips struck up from the plate to permit the cord to be arranged thereover for permitting the cord to be arranged longitudinally and transversely about a package.

1,241,648. PROCESS FOR MANUFACTURING FUEL. JOHN MILLER, Seattle, Wash., assignor of one-fourth to Nels Krantz and one-fourth to Hansene Krantz, King county, Wash. Filed Apr. 18, 1916. Serial No. 91,852. (Cl. 44—1.)

The herein described process of manufacturing fuel, consisting in drying combustible refuse, grinding the dried refuse into particles of substantially uniform size, adding to fifty per cent. of the dried ground refuse while in a heated state twenty per cent. of crude oil, twenty per cent. of pitch and ten per cent. of a mixture of rosin, charcoal and gasolene, and then molding the mixture in blocks.

1,241,649. SAFETY AIR-RELEASE FOR CARS. MICHAEL D. MORAN, Chicago, Ill., assignor of one-half to Joseph L. Lynch, Chicago, Ill. Filed Sept. 10, 1915. Serial No. 49,990. (Cl. 188—81.)

2. In an apparatus of the class described the combination with a car, its trucks, and the main air line for the brakes, of chains connected to the axles and brake beams of the trucks, and release valves connected to said chains for operation thereby and connected to said main air line to release the air in said line in the event of accident to said truck axles or brake beams.

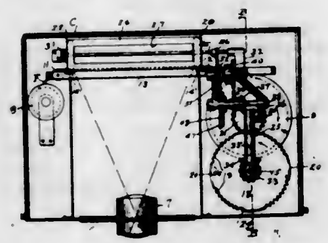


3. In a device of the class described the combination with a car truck, the wheels and axles thereof, and air brake line, of release valves connected to said air brake line, actuating levers for said valves, breakable means supporting the same, and chains connected to said actuating levers and to the brake beams and axles of said truck to cause actuation of said levers and opening of said valves in the event of dragging of a brake beam or breaking of an axle or wheel of the truck causing said supporting means to break.

7. A safety appliance for cars comprising a venting valve connected to the air brake system of the car, a member detachably secured to the car through the medium of breakable connections, and positioned to be engaged by the car axle by downward movement of the latter so that the added weight of the axle will break the connections and allow said member to fall, and connections between said member and the valve whereby the falling movement of the member will open said valve.

[Claims 1 and 4 to 6 not printed in the Gazette.]

1,241,650. AUTOMATIC CAMERA. AUGUST J. MOTTLAU, Philadelphia, Pa., assignor, by direct and mesne assignments, to G. E. M. Engineering Company, Philadelphia, Pa., a Corporation of Delaware. Original application filed Apr. 28, 1916, Serial No. 94,280. Divided and this application filed Nov. 15, 1916. Serial No. 131,364. (Cl. 88—18.)



1. In a camera the combination with a lens and a web film intermittently movable across said lens, of an endless apertured curtain movable transversely of the film to intersect the path of movement of the film and successively expose portions transversely thereof, and said film passing between said curtain, and means to actuate the curtain alternately with the movement of the film, substantially as and for the purpose specified.

4. In a camera the combination of a lens; a web film; a rotatable shaft; a spring to continuously rotate said shaft; means operable from said shaft to intermittently feed the film across the lens; an endless apertured curtain movable across the path of movement of the film; rotatable wheels to support said curtain; and means to intermittently move said curtain to intercept the light rays through the lens to a portion of the film during the movement of the film and to expose a portion of the film through an aperture in the curtain during the periods of rest of the film.

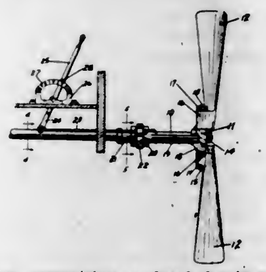
7. In a camera the combination of a lens; a continuously rotating shaft; a web film operable from the shaft to intermittently move the film across the lens; an endless apertured curtain intersecting the film with the film engaging between said curtain; means operable from the shaft to impart movement to the curtain; and means actuated by the shaft to control the movement of the curtain to intermittently move the curtain alternately with the movement of the film, substantially as and for the purpose specified.

10. In a camera the combination of a lens; a web film; a rotatable shaft; a spring to continuously rotate said shaft; means operable from said shaft to intermittently feed the film across the lens; an endless apertured curtain movable across the path of movement of the film; rotatable wheels to support said curtain; and means to intermittently move said curtain to cause said curtain to intercept the light rays through the lens to a portion of the film during the movement of the film and to expose a portion of the film through an aperture in the curtain during the periods of rest of the film, comprising a pinion continuously rotated from the shaft, a second pinion rotatable from and in the same direction as the first pinion, a gear fixed on the shaft of the second pinion, a pinion rotatable with one of the curtain wheels meshing with said gear, and escapement mechanism controlled by the two pinions to intermittently operate the gear and thereby the curtain.

14. In a camera, the combination with a lens and a web film intermittently fed across said lens, of an apertured curtain interposed between the lens and film movable transversely of the film; and means to intermittently move said curtain to cause an unapertured portion thereof to intercept the light rays through the lens during the movement of the film and expose successive portions of the film through an aperture in said curtain during the periods of rest of the film.

[Claims 2, 3, 5, 6, 8, 9, and 11 to 13 not printed in the Gazette.]

1,241,651. REVERSIBLE PROPELLER. PAUL J. MURCKO, Bridgeport, Conn. Filed Aug. 14, 1916. Serial No. 114,715. (Cl. 170—163.)



A propeller comprising a head having studs, blades widest at their outer ends and tapering inward, hubs offset laterally from the blades and pivoted on the studs, arms extending from the hubs, a collar rotating with the head, links pivoted to the arms and to the collar, and means for reciprocating the collar, whereby the blades may be adjusted or reversed.

1,241,652. CATAMENIAL APPLIANCE. LESTER E. NORQUIST, Denver, Colo. Filed July 20, 1917. Serial No. 181,845. (Cl. 128—5.)

1. In a device of the character described, a cup or vessel for retaining an absorbent element, having a flared rim portion and apertures which extend through its wall, the lower end of said vessel terminating in a finger receiving member.

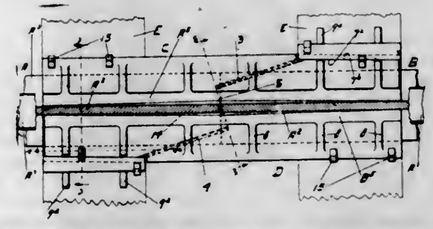
2. In a device of the character described, a cup or vessel the lower portion of which tapers toward its end and terminates in a ring, while the upper portion terminates in a flared rim, said vessel having holes extending through its wall at a downward inclination from the outside of the wall, and a channel having a similarly inclined lip connecting said holes, said vessel being adapted to hold an absorbent element.



5. In a device of the character described, an elongated cup or vessel, the lower portion of which terminates in a ring, while the upper portion terminates in a flared rim, an annular lip intermediate of the end of the vessel arranged to form a channel, the vessel having holes extending through its wall at a downward inclination from the channel, and being adapted to hold an absorbent element.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,241,653. RAIL-JOINT. NICHOLAS OKLER, Aurora, Ill. Filed May 8, 1916. Serial No. 96,006. (Cl. 239—6.)



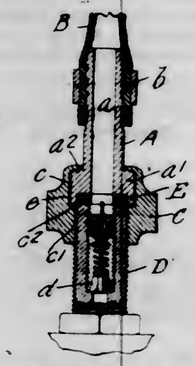
1. In a rail joint of the class described, the combination of a base plate comprising a seat for the rail and divided into two sections, on an angularly disposed line providing a wedge action between the two sections and operating to force the sections toward the rail when said sections are moved longitudinally, a clamping member formed on each section of said base plate and extending along the web of the rail, and having a wedge surface adjacent one end, a coöperating wedge surface on the other section of the base plate, said wedge portion being operable to force the clamping members in engagement with the web of the rail when the base plate sections are forced longitudinally of each other.

2. In a rail joint, the combination of a base member divided on an irregular line into two divisions, portions of the edges of said divisions being beveled in opposite direction to form an interlock to prevent relative displacement of the sections, a wedge member on each base plate division on the side of the rail opposite to that on the other base plate division, a clamping member formed integral with each base plate division and having a wedge portion adapted to coöperate with the wedge portion of the other base plate division whereby to grip the rail between said clamping members, and means for locking the base plate divisions against retrogressive movement.

3. In a rail joint, the combination of a base member divided on an irregular line into two divisions, portions of the edges of said divisions being beveled in opposite direction to form an interlock to prevent relative displacement of the sections, a wedge member on each base plate division on the side of the rail opposite to that on the other base plate division, a clamping member formed integral with each base plate division and having a wedge portion adapted to coöperate with the wedge portion of the other base plate division whereby to grip the rail between said clamping members, said clamping members having gripping surfaces formed to grip the rails at the end portions thereof.

4. In a rail joint, the combination of a pair of rail web gripping members disposed on opposite sides of the rail web and having their gripping faces formed to grip the rail web at the end portions initially of said gripping members and then gradually the other portions toward the center thereof by the spring of the material, a base member for each gripping member having a wedge surface coöperating with a like wedge surface of the other member at substantially the central portion of the joint and operating to bring the central portions of the gripping members against the rail web, a wedge portion formed at the end of each gripping member arranged to coöperate with a wedge portion formed at the end of the base member of the other gripping member and operating to force the end portions of said gripping members into engagement with the rail.

1,241,654. HOSE-COUPLING. JOHN L. OSGOOD, Buffalo, N. Y. Filed Oct. 30, 1913. Serial No. 798,200. (Cl. 137—28.)



In a hose coupling, the combination of a nipple having a passage extending lengthwise thereof and provided with a head, a coupling member having a cavity in which said head is held and adapted to turn relatively to said head, said member having a threaded passage connecting with the passage in said nipple, a rigid ring in said recess adjacent to said threaded passage and forming a bearing between said nipple and said coupling member, the internal diameter of said ring being greater than the diameter of said passage in the coupling member, and a packing washer removably arranged in said ring and held against radial expansion thereby and yieldingly retained in position in said ring by the threads in the passage in said coupling member, said ring holding said washer against contact with said coupling member.

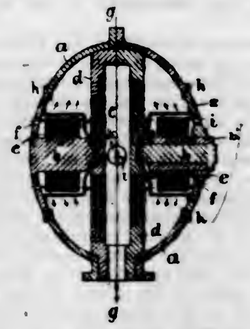
1,241,655. ELECTRIC-ARC FURNACE. OLAF JOHAN STOUD PLATOU, Christiania, Norway, assignor to Norsk Hydro-elektrisk Kvaelstofaktieselskab, Christiania, Norway. Filed June 2, 1916. Serial No. 101,425. (Cl. 204—31.)

1. In an electric arc furnace having a magnetically spread flame; a reaction chamber surrounded by a metal shell, said shell constituting part of the magnetic construction uniting the magnetic poles.

3. In an electric arc furnace having a magnetically spread flame; a reaction chamber surrounded by a shell, said shell being constituted by the magnet construction of the furnace and having approximately spherical shape forming a free space between the outside of the reaction chamber and said shell.

4. In an electric furnace having a pair of opposed magnets and a reaction chamber between them, the novelty which comprises extending the metallic magnet cores in the form of a casing for said chamber, thereby utilizing said extended metallic portion both as a casing for said chamber and as a metallic portion of the magnetic circuit between the opposed magnets.

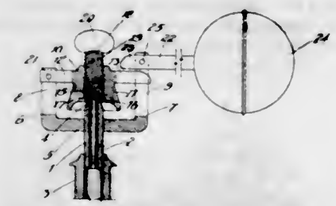
5. In an electric furnace having a pair of magnets in operative relation to a furnace chamber between them, a metallic casing for said chamber forming air spaces between the casing and chamber, said casing having suitable openings therein for said magnets, closing plates for said openings, each closing plate forming a flange on the metallic core of a magnet.



6. In an electric furnace having a pair of magnets in operative relation to a furnace chamber between them, a metallic casing for said chamber forming air spaces between said casing and chamber, said casing being in two dome-shaped portions, each portion having an opening therein for a magnet, and a closure for each opening constituted by a flange on the magnet core.

[Claim 2 not printed in the Gazette.]

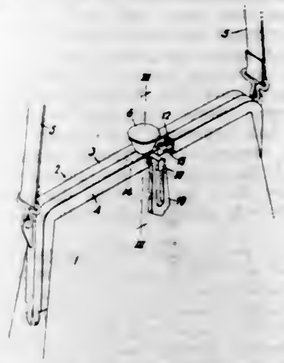
1,241,656. INLET-VALVE FOR FLUSH-TANKS. LUTHER B. POWERS, San Diego, Cal. Filed May 24, 1917. Serial No. 170,591. (Cl. 137—104.)



The combination with an inlet pipe for a flush tank of a shut off member having a cone-shaped portion, two oppositely disposed arm portions, a bore through said cone-shaped portion and an annular projection at the bottom of said bore, a gasket adapted to fit in said bore on said annular projection, a threaded member adapted to be screwed into said threaded bore and hold said gasket firmly against said annular projection, a collar member carried by the inlet pipe and having two oppositely disposed upwardly extended arms, in one of which said arms one of the arms of said shut off member is pivotally mounted, and in the other the other arm of said shut off member is guided, means pivotally mounted on said last-mentioned arm for engaging the valve and automatically closing said feed pipe by the rise of the water in said flush tank.

1,241,657. CLASP FOR HAND-BAGS. FRANK J. QUIGAN, Brooklyn, N. Y., assignor to Simon Zian Inc., a Corporation of New York. Filed Feb. 9, 1917. Serial No. 147,535. (Cl. 70—116.)

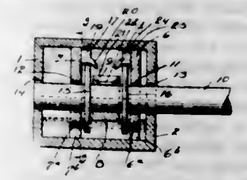
1. A clasp for hand bags, comprising a pair of pivoted members having a U-shaped cross section, a resilient latching member mounted within the U-shaped portion of one of said members, a lateral projection carried upon the other of said members and provided with a recess for the accommodation of said resilient member, and means for effecting the engagement or disengagement of said resilient member with said recess, said means including a rotatably mounted member having a cam surface and an operating member for actuating said rotating member.



2. A clasp for hand bags, comprising a pair of pivoted frame members having a U-shaped cross section, a resilient latching member mounted within the U-shaped portion of one of said members, an aperture in one of the side walls of said member, said aperture being formed beneath the normal position of said resilient member, a projection carried upon the other of said members and adapted to enter said aperture, said projection being provided with a recess for the accommodation of said resilient member, and means for effecting the engagement or disengagement of said resilient member with said recess, said means including a rotatably mounted member having a cam surface, and an operating member for actuating said rotatable member.

3. A clasp for hand bags comprising a pair of pivoted frame members having a U-shaped cross section, a resilient latching member concealed within one of said frame members and having one of its ends secured to the base of the U-shaped portion, the free end to said resilient member having a tension in a direction away from its support, an aperture in one of the side walls of said frame member, said aperture being formed beneath the normal position of the free end of said resilient member, a projection carried upon the other of said frame members and adapted to enter said aperture, said projection being provided with a recess for the accommodation of said resilient member, and means for effecting the engagement or disengagement of said resilient member with said recess, said means including a rotatably mounted member having an active and an inactive surface adapted to engage said resilient member, whereby said resilient member is rendered effective when said inactive surface is functioning and ineffective when said active surface is functioning.

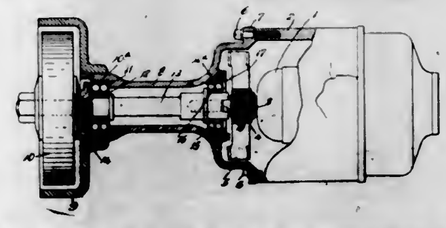
1,241,658. JOURNAL-BOX. WILLIAM J. RAY, Fort Smith, Ark. Filed Feb. 26, 1917. Serial No. 151,116. (Cl. 64—24.)



2. In lubricating means, a casing adapted to contain a lubricant, a bearing member carried thereby for rotatably receiving a shaft, a shaft mounted in said member, a partition member intermediate said bearing member and one end of the casing, a disk secured on the shaft intermediate said partition member and the bearing member, the bearing member and partition members being provided with openings in their under faces so as to permit free circulation of a lubricant about and through said members, and means carried by the casing and in engagement with the disk for removing lubricant from said disk when the shaft is rotated and for discharging this lubricant onto the bearing surface of said shaft.

[Claim 1 not printed in the Gazette.]

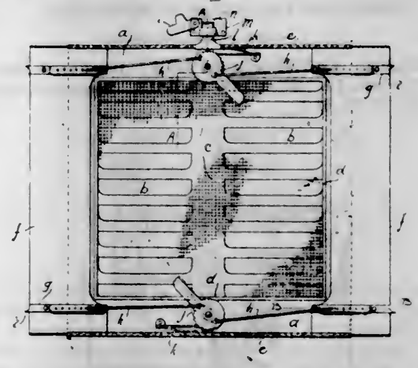
1,241,659. ELECTRIC PORTABLE GRINDER. EMIL RITZ, Jr., Cincinnati, Ohio, assignor to The Hisey-Wolf Machine Company, Cincinnati, Ohio, a Corporation of Ohio. Filed May 14, 1917. Serial No. 168,520. (Cl. 64—10.)



3. In a portable electric grinder, the combination of a motor and a casing therefor, a rotor therein having a shaft, a removable extension casing mounted on the motor casing, a grinder shaft supported in the removable casing, means for coupling together the rotor and grinder shafts comprising a squared opening in the end of the grinder shaft terminating in an elongated socket, and a projection on the end of the rotor shaft adapted to fit into the grinder shaft, said projection terminating in a squared portion adapted to fit the squared opening in the end of the grinder shaft, a bearing at the inner end of the removable casing through which the inner end of the grinder shaft extends, said socket in said shaft positioned so that it lies within the said bearing.

[Claims 1, 2, and 4 not printed in the Gazette.]

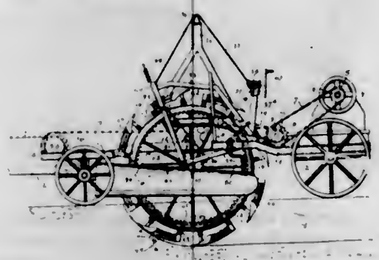
1,241,660. VENTILATOR. MARSHAL G. ROBERTS, Detroit, Mich. Filed Nov. 13, 1916. Serial No. 130,954. (Cl. 98—31.)



1. A ventilator, comprising a sheet of metal provided with slides at opposite sides of the sheet metal, guides at the top and bottom of the sheet metal for the slides, a pair of levers, one fulcrumed at the top and one at the bottom of the sheet metal, rods in pairs connecting the slides at the top and bottom thereof, one rod of a pair engaging the lever at one side of the fulcrum and the other rod of a pair engaging the lever at the other side of the fulcrum, and means for locking the levers at different positions of their throws, and means for locking the sheet of metal to the window sash.

2. A ventilator, comprising a sheet of metal provided with ventilating openings therein, slides at opposite sides of the sheet metal and guided therein, a pair of levers, one fulcrumed at the top and one at the bottom of the sheet of metal, spurs on the outside edges of the slides, rods connecting the slides in pairs at the top and bottom, one rod of a pair engaging the lever at one side of the fulcrum and the other rod of a pair engaging the lever at the other side of the fulcrum, means for locking the levers in various positions of their thrust and means for locking the sheet of metal to the window sash.

1,241,661. DITCHING-MACHINE. BENJAMIN M. ROLPH, Dixon, Ill. Filed Dec. 26, 1914. Serial No. 878,999. (Cl. 37—29.)

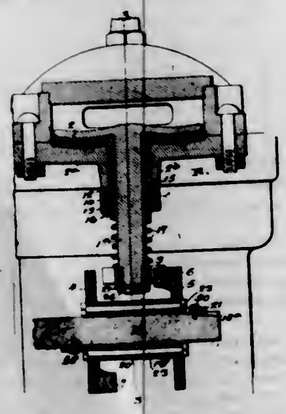


1. In a device of the class described, in combination with a ditching wheel rotatably mounted, a scoop having a substantially V-shaped cutting member, provided at its point with a detachable cutting point, and a pair of standards connecting the opposite ends of said scoop with said wheel, the standard at the forward end of said scoop being attached to said cutting member midway the cutting point and base thereof.

2. In a ditching machine the combination of a portable frame; a frame pivotally supported in said main frame so as to be vertically movable therein; an excavating wheel rotatably mounted in said last named frame and adapted to deliver the excavated material at each side thereof; a pair of scrapers secured to the sides of the main frame so as to be longitudinally movable, and operatively connected with said vertically movable frame, so as to be actuated by the movement theerof.

[Claims 3 and 4 not printed in the Gazette.]

1,241,662. VALVE MECHANISM. DOMENICO RONCONI, Chicago, Ill. Filed Jan. 18, 1917. Serial No. 143,066. (Cl. 123—81.)

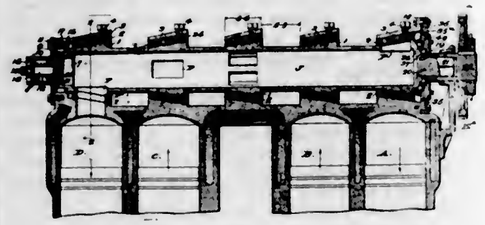


1. In a valve mechanism of the character described, the combination with a cylinder, a casing having a valve seat including a hollow stem and a port in communication with the compression end of the cylinder above the valve seat, a fluid passage for connection with the intake or exhaust manifold of the engine and a port in the valve seat in connection with the said fluid passage; of an oscillating disk valve, said valve including a stem that passes through the valve seat stem mounted upon the valve seat, means for holding the valve to the seat, engine power controlled means for intermittently oscillating the valve to move it to the open and closed positions, the said engine power controlled means including a rotary shaft and coöperative intermittently engaging connections for transmitting alternate oscillations to the valve through the rotation of the said shaft, and devices on the rotary shaft for adjusting the said connection whereby to provide predetermined time movements of the valve.

7. In a valve mechanism of the class described in which is included an oscillatable valve having at least one port, said valve including a stem, and a cam element on the stem, a removable valve seat including a hollow stem through which the valve stem passes, a rotary shaft, a pair of oppositely acting cams on the shaft that cooperate with the valve stem cam element and means mounted on the removable valve seat stem for restricting the oscillations of the valve stem.

[Claims 2 to 6 not printed in the Gazette.]

1,241,663. SELF-GRINDING ROTARY VALVE. DOMENICO RONCONI, Chicago, Ill. Filed Feb. 21, 1917. Serial No. 150,135. (Cl. 123—59.)



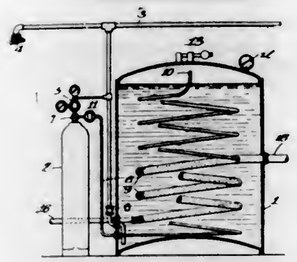
1. In an explosive engine having one or more explosion cylinders, each having induction and education ports; a tapering valve casing for each cylinder, each having an induction and an eduction port alining for communicating with their respective engine cylinders; of a hollow cylindrical valve having ports for controlling the ports in the tapering valve casing, said valve including tapering portions for seating in the tapering valve casings for the engine cylinders, means for holding the valve constantly against its seats and means for rotating the valve.

2. A hollow cylindrical valve having induction and eduction ports, a tapering casing section having induction and eduction ports communicating with the valve, other tapering casing sections, one for each of the engine cylinders, said valve having tapering bearings for coengaging with the tapering casing sections and a single means for constantly holding the tapered valve bearings in tight engagement with their respective tapered casing sections and means for rotating the valve.

8. As an improvement in internal combustion engines, the combination with a plurality of explosive cylinders, each having a port for the induction and eduction of the working agent, a valve casing consisting of a tapering valve seat located midway a pair of the cylinders, other tapering valve seats, one for each of the cylinders, each of the other valve seats having ports alining the ports to their respective cylinders; of a rotary valve common to all of the valve seats and the several cylinders, the said valve having ports for successively alining the ports to the cylinders and for communication with the induction and eduction ports in the tapering valve seat midway the pair of cylinders, the said valve being a hollow cylindrical body of uniform diameter its length and having external tapering bearing sections for coengaging the several tapering valve casings, and means for holding the valve with its tapering sections in grinding contact with their respective valve casings and other means for rotating the valve.

[Claims 3 to 7 not printed in the Gazette.]

1,241,664. FIRE-EXTINGUISHING SYSTEM. FRANS JOHAN HENRIK RUSTIGE, Stockholm, Sweden. Filed June 16, 1915. Serial No. 34,383. (Cl. 169—25.)



1. A fire extinguishing apparatus comprising a system of pipes provided with exposed automatic sprinkler heads, a tank containing liquid carbon dioxid, a water tank having a connection at its bottom part with said system of pipes, a conduit connecting said carbon dioxid tank with said water tank arranged to pass through and open above the water in said latter tank, a valve disposed in said conduit, and means for opening said valve on the opening of a sprinkler head.

4. A fire extinguishing apparatus comprising a series of pipes arranged about a room or building and provided with exposed automatic sprinkler heads, a tank containing liquid carbon dioxid and a tank containing water, a conduit connecting the former tank with the sprinkler pipes, a pressure reducing valve in said conduit, another conduit connecting said former tank with the water tank, a valve opening at a decrease of pressure on the low pressure side of the reduction valve disposed in said other conduit, said other conduit passing through and opening above the water in the tank, heating means surrounding the said other conduit, and a conduit between the lower part of the water tank and the sprinkler pipes.

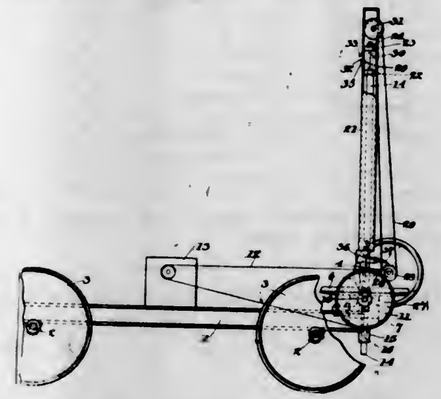
[Claims 2 and 3 not printed in the Gazette.]

1,241,665. EARTH-BORING MACHINE. JOHN F. SAUERMAN, Little Rock, Ark., assignor of forty-eight one-hundredths to Ben D. Schaad, Little Rock, Ark. Filed June 8, 1917. Serial No. 173,454. (Cl. 255—22.)

1. In an earth boring machine, the combination with a rotatable and axially movable boring tool, of means for rotating said tool, a cross-head operatively connected to said tool, guide rails for the cross-head, means for moving the tool axially including a sprocket wheel and chain, and a sheave supported by said guide rails above the cross head, said chain being fastened at its ends to the cross-head and having one end portion passed over said sheave.

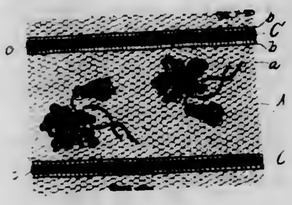
2. In an earth boring machine, the combination with a rotatable and axially movable boring tool, of means for rotating said tool, a cross-head operatively connected to the tool, guide rails for the cross-head, a sheave supported by said guide rails above the cross-head, a rotatable sprocket wheel, a sprocket chain engaging said sprocket wheel and passed over said sheave, the ends of said chain being fastened to said cross-head, and a plate adjustable on the cross-head, and connected to one end of the sprocket chain, whereby slack may be taken up in said chain.

3. In an earth boring machine, the combination with a rotatable and axially movable boring tool, of means for rotating said tool, a cross-head operatively connected to the tool, means for guiding the cross-head, a sheave supported by said guiding means above the cross-head, a rotatable sprocket wheel, a sprocket chain engaging said wheel and passed over said sheave, the ends of said chain being fastened to said cross-head, a plate adjustable on the cross-head, and a hook on said plate adapted to engage any one of the links of one end portion of the sprocket chain for the purpose specified.



4. In an earth boring machine, the combination with a supporting frame, of a gear journaled therein and having an angular passage therethrough, a rod angular in cross section fitted in said passage in the gear, means for rotating the gear, a cross head operatively connected to the tool, means for guiding the cross-head, a sheave supported by said guiding means above the cross head, a shaft also journaled in the frame, means for rotating said shaft, a sprocket wheel on said shaft, a sprocket chain engaging said sprocket wheel and passed over said sheave, the ends of said chain being connected to the rod for moving the same axially, a ratchet wheel also mounted on said shaft, and a pivoted pawl normally held by gravity in engagement with said ratchet wheel for the purpose specified.

1,241,666. LACE. ALFRED J. SAYWELL, Pawtucket, R. I. Filed July 10, 1916. Serial No. 108,384. (Cl. 66—4.)



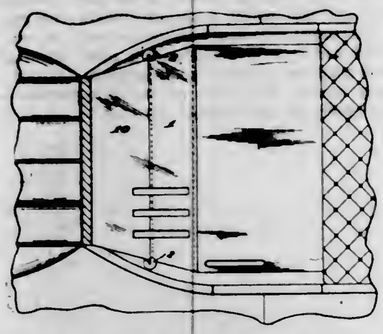
2. A corset lace strip or the like, comprising a body composed of a cotton net work of one color, longitudinally disposed oblong areas of closely set parallel silk threads of another color in contact with each other, and groups of vertically disposed cotton threads of like color to the network separating the areas, whereby the appearance of an inserted ribbon is produced.

[Claims 1 and 3 not printed in the Gazette.]

1,241,667. LOCKING MEANS FOR FLOOR-BOARDS. OTTO A. SCHANZ, Port Townsend, Wash. Filed June 21, 1917. Serial No. 176,072. (Cl. 16—30.)

A button for securing down the floor boards of automobiles, having a pivot and a notch extending inward from one edge and adapted to have its side edges register

with portions of adjacent side edges of one of the boards to be secured, the metal along a side of said notch being



turned down to form a flange which is normal to the bottom face of the button.

1,241,668. EXPANSIBLE REAMER. CHARLES O. SCHELLENBACH, Cincinnati, Ohio. Filed June 21, 1917. Serial No. 175,995. (Cl. 77—76.)



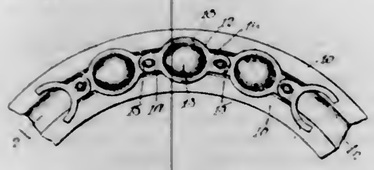
1. An expansible reamer comprising a centrally taper-bored, longitudinally-split blade portion, having a reduced diameter externally screw threaded end, a taper plug having an externally screw threaded end, and a member having internal screw threads to respectively engage the reamer and the plug threads.

4. An expansible reamer comprising a longitudinally-split blade portion, centrally taper-bored and terminating with a screw threaded stud end defining a tapered seat, a clamp element periphery flanged to engage over said tapered seat and internally screw threaded for a coöperative screw thread engagement with the screw threaded stud end, and an expander plug screw threaded in the clamp element and projecting within the taper-bore.

6. An expansible reamer comprising a longitudinally-split, centrally bored blade portion, a clamp element screw threaded thereon and an expander plug screw threaded in the clamp element and provided with a tapered end projecting within the bore of the blade portion to engage and expand the blades.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,241,669. BALL-RETAINER. STEFAN SCHNEIDER, Chicago, Ill. Filed Apr. 28, 1917. Serial No. 165,088. (Cl. 64—59.)



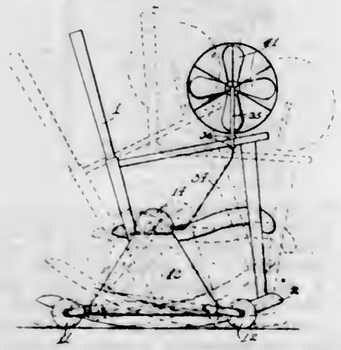
1. In a ball retainer the combination with a pocket comprising two bottomless cups having their concavities opposed and each provided with arms having elongated slots in register of a plurality of similar pockets forming an annulus, and rivets loosely engaging the registering slots of adjacent pocket arms.

2. In a ball retainer the combination with a pocket comprising two bottomless cups having their concavities opposed and each provided with anticlinal arms having elongated slots in register of a plurality of similar pockets forming an annulus, rivets loosely engaging the registering slots of adjacent pocket arms, and bearing balls loosely retained in said pockets.

5. A ball retainer comprising an annulus formed of ball retaining elements loosely linked together for relative arcuate play about the axis of the bearing, each of said elements having opposite oval side openings, and an interior larger than the ball to be retained, whereby the ball is permitted play axially of the bearing.

[Claims 3 and 4 not printed in the Gazette.]

1,241,670. ROCKING-CHAIR FAN ATTACHMENT. ANTHONY J. SCHROEDER, Donaldsonville, La. Filed Apr. 10, 1916. Serial No. 90,135. (Cl. 230—7.)



1. The combination with a rocking chair, of a fan attachment therefor, comprising a housing adapted to be secured rigidly to the rocking chair, actuating levers pivotally mounted therein with their ends projecting in opposite directions therefrom, means on the ends thereof for contact with the floor, a driving gear, clutch mechanisms interposed between said driving gear and levers whereby rotation of said gear in one direction only is effected by the movement of said levers, a fan mounted upon the rocking chair, and flexible driving connections between said fan and said gear.

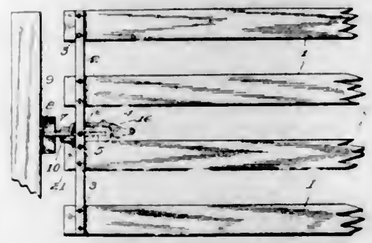
2. The combination with a rocking chair, of a fan attachment therefor comprising a housing adapted to be secured rigidly to the rocking chair, actuating levers pivotally mounted therein with their ends projecting in opposite directions therefrom, means on the ends thereof for contact with the floor, drums mounted within said housing, cables wound around said drums and each connected to the inner ends of both of said actuating levers, a driving gear, clutch mechanisms interposed between said driving gear and drums whereby rotation of said gear in one direction only is effected by the movement of said drums, a fan mounted upon the rocking chair, and flexible driving connections between said fan and said gear.

3. The combination with a rocking chair, of a fan attachment, comprising a pair of actuating levers, cables connected thereto, drums around which said cables are wound, a driving gear, clutch mechanisms interposed between said drums and said driving gear whereby said gear is driven in one direction by said drums driven by the cables, a pinion operated by said driving gear, a flexible shaft connected to said pinion, a fan adjustably mounted upon the rocking chair, and clutch mechanisms interposed between said flexible driving shaft and said fan whereby the fan is driven thereby.

1,241,671. GATE-LATCH. ISAAC PHILIP SMITH, Peoria, Ill., assignor to Self Closing Gate Co., Lowpoint, Ill., a Corporation. Filed Feb. 25, 1916. Serial No. 80,338. (Cl. 70—28.)

1. In a gate-latch, the combination of a gate structure comprising in part a pair of vertical metal bars at the

free end thereof, a latch body provided with a slotted opening and mounted on said gate structure and between said bars, a clamping-bolt passing through said bars and the slotted opening of said latch-body whereby when the tension of said clamping-bolt is relieved said latch-body may be adjusted with relation to said gate-structure, stops carried by said body to limit its adjustment in one direction, a swinging fork mounted on said body, a pair of fingers mounted on said body and extended to said swinging fork whereby said fork may be locked against movement or when either of said fingers is operated said fork may be swung in one direction, and a keeper attached to a gate-post adjacent said gate-structure and adapted to be engaged by said swinging fork.

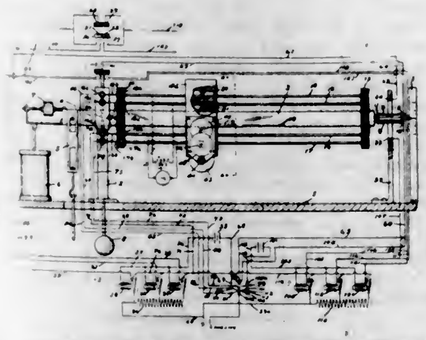


2. In a gate-latch, a latch-body, a swinging-fork mounted thereon, a pair of stops on said fork and adapted to limit the movement of said fork, a tension device for holding said fork when the latter is swung out of its locked position, a pair of fingers pivoted to said latch-body and extending to and adapted to engage said swinging fork to prevent movement thereof, means for causing the disengagement of said fingers from said fork, and means for adjustably mounting said latch-structure on a gate.

3. In a gate-latch, a body-structure provided with means for mounting a swinging fork, a swinging fork mounted within said means, a tension device mounted within said body and having contact with said fork and adapted to retain said fork in either of its swung positions, stops on said fork to limit the swing thereof, pivoted fingers mounted upon said body and operated in one direction by gravity to lock said fork against swinging, and means for raising the locking ends of said fingers.

[Claims 4 to 6 not printed in the Gazette.]

1,241,672. AUTOMATIC SCALE. WALTER STANDISH SMITH, Columbus, Ohio, assignor to Lewis R. Drake, Columbus, Ohio. Filed Jan. 25, 1912. Serial No. 673,403. (Cl. 73—101.)



A scale comprising a beam, a counter-balance weight, electric motor controlling the movement of said weight point of perfect balance, a plurality of circuits of ing resistance, circuit closers, means for causing of said beam independent of said weight upon the approach of said weight to a perfect balance position, and means operable by the tilting of said beam to successively close said circuits through said motor by the operation of said circuit closers and thereby operate the motor at varying speeds to return said weight to a point of perfect balance.

2. A steelyard scale comprising a beam, a weight, an electric motor for controlling the movement of said weight to a point of perfect balance, a plurality of rheostatic circuits, and a circuit closing structure automatically operative by tilting of said beam to successively close said circuits through said motor in overlapping relation to vary the speed of travel of said weight in its approach to such point of perfect balance.

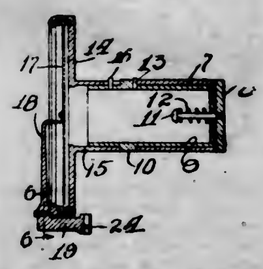
3. A steelyard scale comprising a beam, a weight, an electric motor for controlling the movement of said weight to a point of perfect balance, a plurality of rheostatic circuits, a circuit closing device operative by tilting of the scale beam to close one of said circuits through said motor for initiating movement of said weight, a plurality of contact elements arranged in overlapping relation, and a bridging device therefor rendered operative by tilting of the beam for successively closing said circuits through said motor to maintain the movement of said weight at varying speeds until the point of perfect balance is reached.

4. A steelyard scale comprising a beam, a weight, an electric motor for controlling the movement of said weight to a point of perfect balance, a starting circuit through said motor, means for closing said circuit by the tilting of the beam under applied weight on the scale, a plurality of circuits of stepped degrees of resistance, and a circuit closing device for successively closing said circuits through said motor by further tilting of the beam to propel said weight at varying speeds until the perfect balance point is reached.

5. A steelyard scale comprising a beam, a weight, an electric motor for controlling the movement of said weight to a point of perfect balance, a starting circuit through said motor closed by the tilting of the beam under applied weight on the scale, a plurality of circuits of stepped degrees of resistance, and a circuit closing device for successively closing said circuits through said motor by further tilting of the beam to propel said weight at varying speeds until the perfect balance point is reached, said circuits being all closed in overlapping relation.

[Claims 6 to 13 not printed in the Gazette.]

1,241,673. REPRODUCER FOR PHONOGRAPHS. PETER S. SORENSEN, North Milwaukee, Wis. Filed July 1, 1916. Serial No. 107,011. (Cl. 274—28.)



1. A reproducer for phonograph machines capable of use on different types of disk records comprising a diaphragm carrying head, a vibratory arm pivoted thereon, a tracing stylus mounted in said arm, resiliently connected means permitting adjustment of said diaphragm head to change the angle of contact of said stylus with the playing record, and a pin and notch mechanism for retaining said diaphragm head in fixed adjusted positions.

2. In a reproducer of the class described, a rotatable adjustable diaphragm head, means positively latching the same in different positions of adjustment, a vibratory arm pivoted on said head, a diaphragm mounted on said

head contacted by said arm, and a tracing stylus mounted in said arm adapted to be shifted on said head to different angular positions with reference to records played.

4. In a device of the class described the combination with a tubular arm, of a cylindrical extension thereon, a sound box comprising a diaphragm head, a cylindrical member associated therewith and interfitting with said cylindrical member on the arm, a spring coiled within said interfitting cylindrical members to hold the same resiliently associated with one another and permitting rotation or adjustment thereof, and a pin and latch mechanism between said cylindrical members to lock the sound box in different adjusted positions with respect to said cylindrical member on said arm.

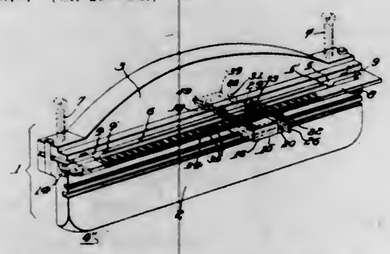
[Claims 3 and 5 not printed in the Gazette.]

1,241,674. CAM MECHANISM. WILLIAM SPARKS, Jackson, Mich., assignor to The Sparks-Withington Company, a Corporation of Ohio. Filed Nov. 6, 1914. Serial No. 870,649. (Cl. 74—1.)



An article of the class described formed of a substantially circular sheet metal disk and having a substantially flat central portion and radially extending teeth struck up therefrom and projecting wholly to one side of the flat central portion, thereby forming a series of radial recesses in one side of the article, and a series of radiating teeth projecting from the other side, the walls of the recesses being substantially parallel with corresponding outer walls of the teeth, said teeth gradually increasing in altitude and width as they extend toward the periphery of the disk.

1,241,675. ADJUSTABLE LINER. CHARLES A. SPICKLER, Philadelphia, Pa. Filed Nov. 20, 1915. Serial No. 62,670. (Cl. 29—84.)



1. In an adjustable liner, the combination of a gage, means to hold said gage pressed against one end of a mold of a line-casting machine and parallel to the mold slot in said mold, a carrier slidable longitudinally of said gage, and means to lock said carrier to said gage in different positions and to simultaneously insert a stop-off slug into the mold.

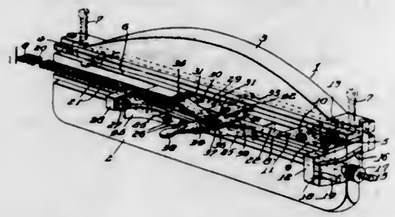
3. In an adjustable liner, a gage having half pica graduations thereon, means on said gage to position and hold said gage pressed against the right hand end of a mold of a line-casting machine and parallel to the mold slot in said mold, a carrier slidable longitudinally of said gage, means to lock said carrier to said gage in positions differing from each other in terms of half a pica and to simultaneously insert a stop-off slug into said mold at a distance from said right hand of said mold equal to that indicated by the position of said carrier on said gage.

11. In an adjustable liner, a gage having one-half pica graduations and having surfaces adapted to fit against the front and ends of a line-casting mold, a carrier mounted to slide longitudinally of said gage and having a guiding member extending transversely rearwardly of said gage, a member spaced from and parallel to said guiding member, said second mentioned member being slidable rearwardly of said gage parallel to said first mentioned member to insert a stop-off slug in a mold of a line-casting machine and to lock said carrier to said gage.

16. In an adjustable liner, a gage having one-half pica graduations, a carrier mounted to slide longitudinally of said gage, means to lock said carrier at any predetermined point on said gage in positions differing from each other in terms of one-half a pica and means to move said carrier transversely of said gage.

[Claims 2, 4 to 10, and 12 to 15 not printed in the Gazette.]

1,241,676. ADJUSTABLE LINER. CHARLES A. SPICKLER, Philadelphia, Pa. Filed May 6, 1916. Serial No. 95,769. (Cl. 29—84.)



1. In an adjustable liner, the combination of a gage, means to hold said gage pressed against the inner end of a mold of a line casting machine, said gage extending parallel to said mold, a carrier slidable longitudinally of said gage, means to lock said carrier to said gage in different positions, and means mounted on said carrier to insert a stop-off slug or liner into said mold.

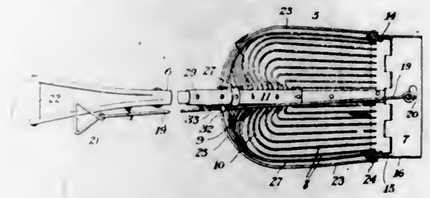
2. In an adjustable liner, the combination of a gage, means to hold said gage pressed against the right hand inner end of a mold of a line casting machine, and parallel to the mold slot in said mold, a carrier slidable longitudinally of said mold to lock said carrier to said gage in positions differing from each other in terms of one-half a pica, and means to insert a stop-off slug into said mold at a distance from the right hand end of said mold equal to that indicated by the position of said carrier on said gage.

12. In an adjustable liner, the combination of a gage having graduations on the top thereof and notches in the front edge thereof and provided with a surface extending rearwardly adjacent one end thereof disposed in a plane normal to the front edge of said gage, means to clamp said gage to the mold of a line-casting machine with said surface held squarely against the inner end of the mold, a slot in said mold, a carrier slidable longitudinally of said gage having a finger provided with a guiding surface extending rearwardly parallel to said first mentioned surface, means mounted on said carrier and arranged to fit into any one of said notches to lock said carrier to said gage, means mounted on said carrier to hold a stop-off slug or liner squarely against said guiding surface to slide said slug rearwardly into said mold, and a stop on the rear end of said guiding surface to limit the movement of said slug rearwardly.

[Claims 3 to 11 and 13 to 15 not printed in the Gazette.]

1,241,677. SHOVEL. ALBERT F. STAPLES, New York, N. Y. Filed Nov. 6, 1915. Serial No. 60,057. (Cl. 83—60.)

1. In a shovel, the combination, with a foraminous body, of a manually operable member pivoted to the forward end of the body and movable into position to constitute, alternatively, an end-closure and a lip, said member comprising also supports movable into and out of a position in which they project to a substantial distance below the body; the supports having convex portions, on their forward edges below the pivotal axis, which project slightly below the body, in the rear of the pivotal axis, when said manually operable member is in position to act as a lip, so that said convex portions are adapted to act as runners for the shovel and to maintain the lip in depressed position.



2. In a shovel, the combination, with a foraminous body and a member pivoted to the forward end of the body and manually movable into position to constitute, alternatively, an end-closure and a lip for the body, of runners extending longitudinally below the body; and means for lowering and raising the runners according as the end-closure is in closed or open position.

3. In a shovel, the combination, with a foraminous body and a member pivoted to the forward end of the body and manually movable into position to constitute, alternatively, an end-closure and a lip for the body, of runners extending longitudinally below the body and pivoted, at their forward ends, to said member so as to be raised when said member is in open position and lowered when it is in closed position.

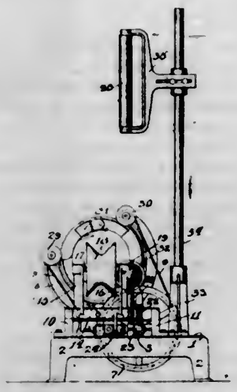
4. In a shovel, the combination, with a foraminous body and a member pivoted to the forward end of the body and manually movable into position to constitute, alternatively, an end-closure and a lip for the body, of parallel runners extending longitudinally below the body and formed by a generally U-shaped rod having its ends pivoted to said manually movable member; and a link pivoted at its ends, respectively, to the middle portion of said rod and to the body of the sifter.

5. A shovel having, in combination, a shank channel-shaped in cross-section and provided with a series of notches in the edges of its side-flanges, a series of wires bent to provide side-members substantially parallel and extending forwardly from the shank, and middle-portions seated in said notches, a clamping-member extending across the middle-portions of the wires on the opposite side from the shank, and means for fixing the clamping-member to the shank so as to clamp the wires in the notches.

[Claims 6 to 9 not printed in the Gazette.]

1,241,678. ADJUSTING MEANS FOR WRAPPING-MACHINES. WILLIAM C. STEVENS, Akron, Ohio, assignor to Pierce Wrapping Machine Company, Chicago, Ill., a Corporation of Illinois. Original application filed Aug. 19, 1912, Serial No. 715,745. Divided and this application filed Oct. 15, 1915. Serial No. 56,076. (Cl. 74—31.)

1. In a device of the class described a frame, a table top thereon, bearing members secured on said table top, an adjusting shaft journaled therein, an eccentric portion on said adjusting shaft, a sleeve journaled on the eccentric portion of said adjusting shaft, means holding said sleeve and eccentric portion to rotate together or relatively of each other, arms connected to said sleeve, a roller rotatably mounted at the upper ends of said arms, a depending arm on said sleeve, a pivoted nut on the end of said depending arm, a pivotally mounted screw shaft engaging the pivoted nut of the depending arm of said sleeve acting when rotated to actuate said sleeve to tilt said roller, and driving means for the roller in any tilted position.



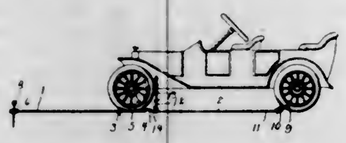
2. In a device of the class described a frame, a table top thereon, bearings secured upon said table top, an eccentric shaft journaled in said bearings, a sleeve secured on said eccentric shaft, normally rotatable therewith and also rotatable relatively thereof, arms on said sleeve, a roller rotatably mounted in the ends thereof adapted to be tilted when said sleeve is rotated, driving means for said roller rotatably mounted on the end of said eccentric shaft, and driving connections between said driving means and said roller, said eccentric shaft when adjusted relatively of the sleeve, serving to vary the tension on said driving connections.

3. In a device of the class described a frame, a table top secured thereon, bearings secured upon said table top, a shaft journaled in said bearings having an eccentric portion integral therewith, a sleeve on said shaft on the eccentric portion thereof, means adapted to secure the sleeve to the eccentric portion to turn together or to release one from the other to permit relative turning, arms secured integrally on said sleeve, a rotatably mounted roller in said arms, driving means for said roller rotatably mounted on the end of said shaft, a sprocket chain connecting said driving means to drive said roller whereby the tension of said sprocket chain may be varied by rotating said shaft to vary the position of the sleeve thereon relative to the eccentric portion of said shaft, a depending integral arm on said sleeve, a screw shaft pivotally mounted transversely beneath said sleeve, and pivoted means on said depending arm having threaded connection with said screw shaft whereby said sleeve may be adjusted with said eccentric shaft by rotation of said screw shaft.

4. In a device of the class described the combination with a frame, of bearings mounted thereon, an eccentric shaft journaled in said bearings, a sleeve on said eccentric shaft adapted to be raised and lowered by relative adjustment between the same and said shaft, means for swinging said sleeve and said eccentric shaft comprising a screw shaft rotatably mounted transversely beneath said sleeve, and a depending arm on said sleeve operatively connected with said screw shaft, a roller supported by the sleeve and mechanism for rotating the same.

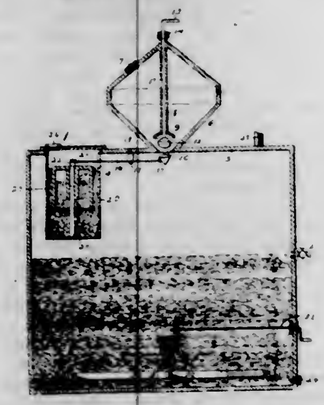
5. In a device of the class described a shaft, an eccentric portion thereon, a sleeve rotatably mounted on the eccentric portion of said shaft, a lead screw operatively connected with said sleeve to oscillate the same and said eccentric portion, a roller supported by said sleeve, driving means therefor mounted on said shaft, driving connections between said roller and said driving means, and means for adjusting said sleeve to vary the position of the sleeve and the roller supported thereby with respect to the driving means to change the tension on said driving connections.

1,241,679. DEVICE FOR REMOVING STALLED AUTOMOBILES. EDWARD STIPKENS, Pingree, N. D. Filed July 31, 1916. Serial No. 112,396. (Cl. 21—114.)



A device for removing automobiles from stalled positions including a pair of belts, said belts having their adjacent ends connected by straps, means for connecting one of the belts to the rear wheel of the automobile, means for anchoring the other belt, a yoke carried by one of the belts, rods carried by the yoke, said yoke being adapted to engage the rear wheel whereby the straps will engage the rods, as and for the purpose set forth.

1,241,680. ACETYLENE-GAS GENERATOR. LAURIE H. THALMAN, San Diego, Cal. Filed Sept. 2, 1915, Serial No. 48,682. Renewed June 22, 1917. Serial No. 176,425. (Cl. 48—53.4.)

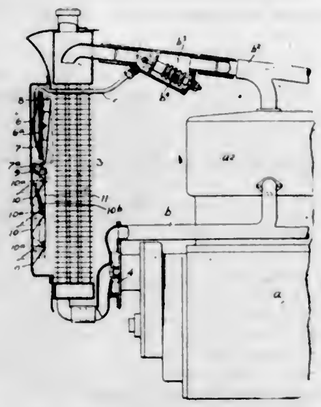


1. In a device of the character described, the combination with a main tank, of a carbid receptacle mounted upon the top thereof and having an opening formed in its bottom through which the carbid is discharged into the main tank, a float tank supported from the top of the main tank and depending into said main tank, said float tank being provided with an overflow opening which discharges into the first named tank, a float of inverted cup shape disposed within the float tank, a lever pivoted intermediate its ends and pivoted at one of its ends to said float, a valve carried by the upper end of said lever and arranged to close the opening formed in the bottom of said carbid receptacle, said float tank being materially smaller than the main tank, the gas pressure generated in the main tank passing through the overflow opening and acting upon the surface of the water contained within the float tank to cause a compression of the air within the float and a consequent lowering of the water level and the float to thereby close the valve.

[Claims 2 and 3 not printed in the Gazette.]

1,241,681. COOLING APPARATUS FOR AUTOMOBILES. HORACE T. THOMAS, Lansing, Mich. Filed Mar. 17, 1916. Serial No. 84,915. (Cl. 123—174.)

1. A combination including an internal combustion engine having a cooling system consisting in a complete circuit returning upon itself in which cooling liquid is circulated, said cooling system including a radiator, an out-flow conduit leading from said engine to said radiator, a thermostat located in said out-flow conduit and adapted to substantially stop the circulation of liquid therein when said liquid is cool and to open said conduit when the water adjacent to said thermostat rises in temperature, whereby the water in said engine is held at rest until its temperature has risen to the desired temperature and is then permitted to circulate to regulate the temperature of the engine.



2. A combination including an internal combustion engine having a cooling circuit provided with a radiator, an out-flow conduit leading from said engine to said radiator, a thermostat located on the out-flow side of the engine and adapted to approximately close the out-flow conduit when the water is cool and to leave said conduit open when the water is heated, a circulating pump and a motor communicating with the circuit beyond the thermostat, adapted to open up the radiator to the admission of air when a predetermined pressure due to the inertia of the water and a predetermined temperature has been developed.

3. A combination including an internal combustion engine having a cooling circuit provided with a radiator and circulating pump, and a motor communicating with said circuit and adapted to be actuated by the pressure of the liquid therein due to the inertia of the water, said motor being adapted to open up the radiator to the admission of air.

4. A combination including an internal combustion engine having a cooling circuit provided with a radiator and circulating pump, and a motor communicating with said circuit and adapted to be actuated by the pressure of the liquid therein due to the inertia of the water, said motor being adapted to open up the radiator to the admission of air, said motor being connected to said circulating system adjacent to a variation in the area of the passageway through said system.

5. The combination of an internal combustion engine having a cooling circuit provided with a radiator and a motor adapted to be operated by the pressure due to the inertia of the water in said system for opening up the radiator to the admission of air.

[Claim 6 not printed in the Gazette.]

1,241,682. STRUCTURAL TOY. WILLIAM B. THURMAN, Madera, Cal. Filed Jan. 22, 1916. Serial No. 73,723. (Cl. 46—35.)



1. A structural toy comprising a longitudinally grooved right angled block having transverse holes therethrough parallel to one of its faces.

2. A structural toy comprising an oblong block in the form of a parallelepiped, said block having longitudinal grooves therein and having also transverse holes therethrough parallel to one of its faces.

3. A structural toy comprising in combination two longitudinally grooved blocks having end apertures, a dowel loose in said apertures, a wheel on said dowel having a central aperture for receiving the dowel and having also an eccentric aperture and a pin in said eccentric aperture engaging a slot in one of said blocks.

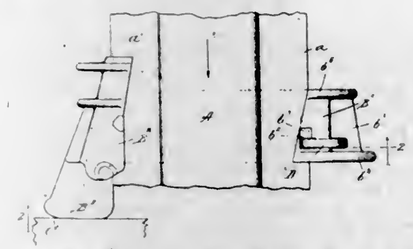
1,241,683. PIPE-SUPPORT. GOTTFRIED TITTMANN, Brooklyn, N. Y. Filed Apr. 3, 1917. Serial No. 159,589. (Cl. 131—12.)



1. A support for a smoking pipe, comprising a band having a recess in its bottom and a cross piece extending over said recess, members pivotally supported in said band and a spring extending between said cross piece and said members and acting on the latter.

2. A support for a smoking pipe or the like, comprising an annular band split to be adjustable for different sizes of pipes, said band being recessed in its bottom and having a cross piece extending over the recess, members having pivotal projections engaging cavities in said band and a spring supported between said cross piece and said members and acting on the latter.

1,241,684. RAIL-ANCHOR. ARNOLD H. TOLD, New York, N. Y., assignor to Positive Rail Anchor Company, Marion, Ind., a Corporation. Filed May 14, 1917. Serial No. 168,427. (Cl. 238—4.)



1. An anti-creeping device for railway rails, comprising a member adapted to extend beneath the base of the rail, said member being provided at its opposite ends with rail gripping jaws, and a guard spring secured to said member adjacent one of said jaws, said guard spring being formed separate from said member and having its free end arranged to grip one of the base flanges of the rail and oppose the horizontal turning of said member.

2. An anti-creeping device for railway rails, comprising a member adapted to extend beneath the base of the rail, said member being provided at its opposite ends with rail gripping jaws and at one end with a depending abutment engaging a cross tie, and a guard spring formed separate from and arranged at the opposite end of said member and adapted to engage the adjacent base flange of the rail.

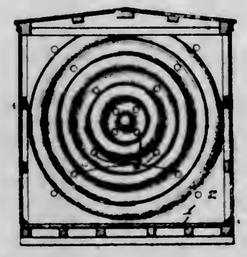
3. An anti-creeping device for railway rails comprising a member adapted to extend beneath the base of the rail, said member being provided at its opposite ends with rail gripping jaws, and a guard spring secured to said member and having a free end extending around one of said jaws and adapted to engage one of the base flanges of the rail.

4. An anti-creeping device for railway rails comprising a member adapted to extend beneath the base of the rail, said member being provided at its opposite ends with rail gripping jaws and having a cutaway flange extending outwardly from one of said gripping jaws, and a guard spring secured to said member and having a portion extending through said cutaway flange and around the adjacent gripping jaw to engage one of the base flanges of the rail.

10. An anti-creeping device for railway rails comprising a member adapted to extend beneath the base of the rail, said member being provided at its opposite ends with rail gripping jaws, and a guard spring secured to said member and having a bowed portion extending around one of said jaws and having a pointed free end to engage one of the base flanges of the rail.

[Claims 4 to 7 and 9 not printed in the Gazette.]

1,241,685. CAR-END CONSTRUCTION. HERBERT E. VAN DORN, Chicago, Ill. Filed Nov. 26, 1915. Serial No. 63,633. (Cl. 189—85.)



1. A structure comprising concentrically corrugated metal sheets with the corrugations of one of the metal sheets directed inwardly from the main surface and the corrugations of the other metal sheet directed outwardly from the main surface, and with said sheets secured to one another with the corrugations thereon registering to afford an air space between said sheets.

2. A structure of the class described comprising a pair of circularly and concentrically corrugated plates secured flat against one another affording a plurality of circular concentric air spaces therebetween, and with means secured to and through said plates between said air spaces to hold said plates attached to one another.

3. A structure of the class described comprising concentrically corrugated plates having circular corrugations, and with said plates laid flat against one another with the corrugations registering to afford circular air spaces between said plates, and attaching means secured through said plates to hold the same attached at contacting points of said plates between said circular air spaces.

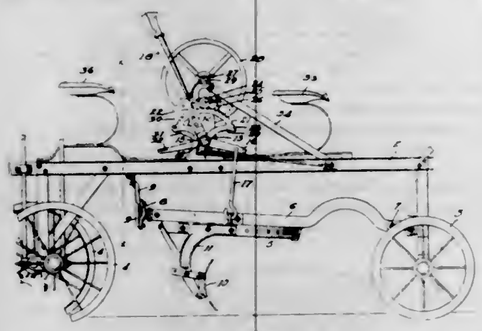
4. A structure of the class described comprising plates having curved concentric corrugations therein of varying depth, said plates secured flat against one another with the corrugations in register to afford a plurality of air spaces circular and concentric with respect to one another, and each of different depth, and means securing said plates one to another.

1,241,686. GRADING-MACHINE. RAYMOND WATERMAN, Minneapolis, Minn. Filed Nov. 24, 1914. Serial No. 873,744. (Cl. 37—49.)

1. The combination, with a frame having carrying wheels, of a scraper blade, mechanism on each side of said frame for raising or lowering either end of said scraper blade for a deep cut, and hand wheels mounted on said frame adjacent to said raising and lowering mechanism and geared thereto, for raising or lowering either end of said blade for a shallow cut.

2. The combination, with a frame having carrying wheels, of a scraper blade, loosely mounted quadrants on each side of said frame, levers loosely mounted, concentric with said quadrants and connected with said blade and having means for engaging the teeth of said quadrants, said levers having a movement independent of said quad-

rants for raising or lowering said blade, loosely mounted hand wheels having means for normally locking them and geared to said quadrants for rocking either quadrant and its lever independently of the other quadrant and its lever for slowly raising or lowering said blade for a shallow cut.



3. The combination, with a frame having carrying wheels, of a scraper blade, toothed quadrants provided on each side of said frame, lifting levers operatively connected with said scraper blade and movable independently of said quadrants for rapidly raising and lowering said blade for a deep cut, and means adjacent to each quadrant and geared thereto for tilting it and its lever simultaneously to adjust said blade for a shallow cut.

4. The combination, with a frame having carrying wheels, of a scraper blade, a shaft mounted on said frame, toothed quadrants loosely mounted on said shaft, levers loosely mounted on said shaft and operatively connected with said blade and having latches for the teeth of said quadrants, said levers having a movement independent of said quadrants for the rapid adjustment of said blade in a deep cut, said quadrants also having gear racks thereon and a gear mechanism engaging said racks for simultaneously rocking said quadrants and levers to adjust said blade for a shallow cut.

5. The combination, with a frame having carrying wheels, of a scraper blade, a shaft mounted on said frame, lifting levers loosely mounted on said shaft and operatively connected with said blade and having locking latches, normally stationary racks having teeth for said latches and over which racks said levers are movable to raise or lower either end of said blade, means for locking said racks against premature movement and means for moving either one of them simultaneously with its lever to adjust said blade for a shallow cut when said locking means is released.

[Claim 6 not printed in the Gazette.]

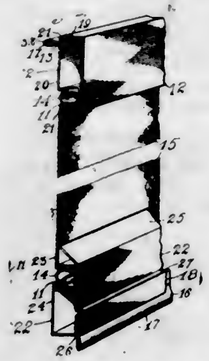
1,241,687. WEATHER-STRIP FOR SHEET-METAL WINDOW-SCREENS. WILLIAM W. WATSON, Jamestown, N. Y. Filed Mar. 20, 1917. Serial No. 157,360. (Cl. 156—14.)

1. In a window screen, a sheet metal frame having a groove, a folded strip of resilient material, and a strip of sheet metal folded over the edges of said folded strip to bind the same and received in the frame groove.

3. In a sheet metal window or screen, the combination of the frame with a groove enlarging inwardly, a resilient folded metal strip forming a filling piece adapted to be inserted and lock in said groove, and resilient weather stripping retained in said folded metal strip to project beyond the wall of said frame.

4. In a sheet metal window or screen, a sheet metal frame having a groove, a projection in the groove, a resilient strip of material, and a metal casing for said strip having a projection engaged with the groove projection to lock the casing in the groove.

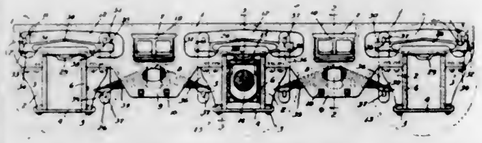
7. In a sheet metal window or screen, a frame formed of a member shaped to form two grooves and a second member connected to the first member and having its opposite edges extending into the respective grooves, a flexible strip, and a casing for holding the strip received in



one of the grooves and engaged with one of said edges to lock the casing therein.

[Claims 2, 5, 6, and 8 not printed in the Gazette.]

1,241,688. CAR-TRUCK. EDWIN W. WEBB and CHARLES S. WALTON, Chicago, Ill., assignors to Standard Car Truck Company, Chicago, Ill., a Corporation of New Jersey. Filed Sept. 9, 1916. Serial No. 119,240. (Cl. 105—244.)



1. In a car truck, the combination with side frames, a bolster, anti-friction bearing devices supporting the bolster from the side frames and journal boxes, of equalizers, and leaf springs carried by the equalizers and supporting the side frames under the bolster.

2. In a car truck, the combination with side frames and journal boxes, of equalizing levers intermediately fulcrumed on the journal boxes, abutments between the outer ends of the equalizing levers and side frames, leaf springs carried by the inner ends of the equalizing levers and supporting the side frames, and anti-friction bearing devices on the side frames over the springs.

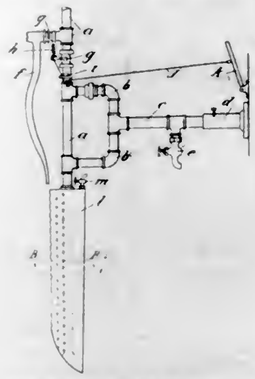
3. In a car truck, the combination with side frames and journal boxes, of equalizing levers intermediately fulcrumed on the journal boxes, abutments between the outer ends of the equalizing levers and side frames, leaf springs carried by the inner ends of the equalizing levers and supporting the side frames, lateral motion bearing devices on the side frames over the springs, and a bolster carried by the lateral motion bearing devices.

[Claims 4 to 10 not printed in the Gazette.]

1,241,689. PLUSH-COAT-SLEEVE-STEAMING DEVICE. FRANK WELLEN, Paterson, N. J., assignor of one-half to Gustave Krogel, Paterson, N. J. Filed Dec. 1, 1916. Serial No. 134,219. (Cl. 26—7.)

1. A device of the character described, comprising a perforated support for plush fabric; imperforate means for covering the fabric when so supported, but not in contact with it; means for delivering steam under pressure outwardly through the fabric from the inside or so-called wrong side thereof; and auxiliary means for driving steam over the surface of the fabric.

5. A device of the type described comprising, in combination with a source of steam supply, a perforate cylinder for supporting plush goods, a connection extending from said supply for delivering steam into said cylinder and thence through said goods from one side thereof, a treadle-actuated valve located in said connection for governing the flow of steam to said cylinder, and a second



connection having a swivel valve jointure with said supply for delivering a spray of steam upon and across the goods on the other side thereof.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,241,690. SPECTACLES. JOEL C. WELLS, Southbridge, Mass. Filed Dec. 18, 1913. Serial No. 807,482. (Cl. 88—50.)



1. In an ophthalmic mounting, the combination with a support, of a resilient non-pivoted pad carried thereby, a pad arm pivoted to the support, means for actuating said pad, the relationship of the pads being such that the pivoted pad arm will contact with and spring the resilient pad outwardly upon actuation of the arm about its pivot, substantially as and for the purpose described.

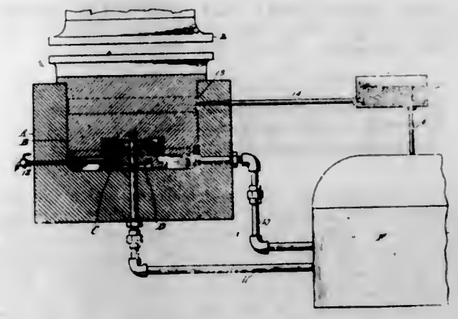
2. In an ophthalmic mounting, the combination with a support, of a resilient upper bearing pad carried thereby, a main pad arm pivotally secured to the support, means for manually actuating the arm in one direction and for resiliently actuating it in the opposite direction, the support for the resilient pad extending transversely of the plane of movement of the pivoted arm, and the relative adjustment of the parts being such that the arm will contact with the resilient pad support and spring the support outwardly upon manual actuation of the arm.

3. In a spectacle mounting, the combination with a support, of a guard carried thereby, a pad resiliently supported upon said guard for independent movement relative thereto, and a second pad rotatably mounted on said support, said resiliently supported pad being actuated through movement of said second pad.

4. In a spectacle mounting, the combination with a support, of a guard carried thereby, an arm carried by said guard, a pad carried by said arm, and a second pad rotatably mounted on said support, said arm lying in the path of movement of said second pad.

5. In a spectacle mounting, the combination with a support, of a guard carried thereby, an arm carried by said guard, a pad carried by said arm, and a second pad rotatably mounted on said support, said arm lying in the path of movement of said second pad, means to automatically actuate said second pad in one direction, and means for manually actuating the same in the other direction.

1,241,691. HYDRAULIC PRESS. BRUCE C. WHITE, New York, N. Y., assignor to R. Hoe and Co., New York, N. Y., a Corporation of New York. Filed July 13, 1915. Serial No. 39,540. (Cl. 138—17.)



1. In a hydraulic press apparatus, the combination with low pressure and high pressure plungers, of pumping mechanism acting to force fluid against the low pressure plunger, a connection from the force passage of the pumping mechanism for delivering fluid against the high pressure plunger, a valve normally closing said connection and opened by the pressure of the fluid pumped to supply fluid to the high pressure plunger through said connection when the pressure reaches a certain point, a pressure-operated relief valve for the system, and manually-operated means for stopping the pumping mechanism and opening the relief valve to relieve the pressure in the system.

2. In a hydraulic press apparatus, the combination with low pressure and high pressure plungers, of pumping mechanism acting to force fluid against the low pressure plunger, a connection from the force passage of the pumping mechanism for delivering fluid against the high pressure plunger, a valve normally closing said connection and opened by the pressure of the fluid pumped to supply fluid to the high pressure plunger through said connection when the pressure reaches a certain point, normally closed return valves on the force passage of the pumping mechanism and on the connection for the high pressure plunger, a pressure-operated relief valve on the system, devices for opening said return valves on the force passage and high pressure plunger connection to permit the escape of the fluid for the return of the plungers, and a single manually-operated member acting to stop the pumping mechanism and open the relief valve to relieve the pressure in the system, and to operate said devices for the return of the plungers.

3. In a hydraulic press apparatus, the combination with the main plunger and its cylinder, of a small plunger carried by the main plunger, pressure fluid apparatus for supplying pressure fluid against the small plunger at the beginning of the plunger stroke and to the main plunger at a later point in the stroke, and an air connection for withdrawing air from the main plunger cylinder.

4. In a hydraulic press apparatus, the combination with the main plunger and its cylinder, of a small plunger carried by the main plunger, pressure fluid apparatus for supplying pressure fluid against the small plunger at the beginning of the plunger stroke and to the main plunger at a later point in the stroke, an air connection for withdrawing air from the main plunger cylinder, and a liquid air seal between the main plunger and its cylinder wall.

5. The combination with the pump plunger *a* and its cylinder *b* and means for actuating said plunger, of force valve *l*, low pressure connection 11 beyond the force valve, pressure-operated valve *n*, high pressure connection 10 controlled by valve *n*, release valve *k* in line with valve *l*, release valve *r* on the high pressure connection, manually-operated devices for opening valves *k*, *r* to permit the escape of fluid, and an extension on valve *k* engaging valve *l* to open the latter on the opening movement of valve *k*, driving mechanism for said pump, and manually-

controlled shaft 25 operating to throw the driving mechanism out of operation to stop the pump and carrying cam 36 for operating the devices to open valves *k*, *r*.

[Claims 6 to 10 not printed in the Gazette.]

1,241,692. BACK-FRAME FOR LOOSE-LEAF BOOKS. RALPH G. WHITLOCK, Los Angeles, Cal. Filed Oct. 16, 1916. Serial No. 126,045. (Cl. 129—17.)



1. A back frame for loose leaf books in which the ring members, the hinge members and body members, and brace members are formed from blanks stamped from sheet metal, said ring and brace members being on opposite edges of the body members when first stamped, said brace members being adapted to be bent and pressed into the grooves in the backs of the ring members, the different parts of the blank being pressed into appropriate shape, the same shaped blank being used for either side.

3. A back frame for loose leaf books in which the ring members, the hinge members and body members, and brace members are formed from blanks stamped from sheet metal; said ring and brace members being on opposite edges of the body members when first stamped, said brace members being adapted to be bent and pressed into the grooves in the backs of the ring members, the different parts of the blank being pressed into appropriate shape, the same shaped blank being used for either side; and a pintle rod connecting the parts of one side of the back frame with those of the other side; and a spring coiled on said pintle rod and having its free ends bearing against the body members to close and hold the ring members closed.

4. A back frame for loose leaf books in which the ring members, the hinge members and body members, and brace members are formed from blanks stamped from sheet metal; said ring and brace members being on opposite edges of the body members when first stamped, said brace members being adapted to be bent and pressed into the grooves in the backs of the ring members, the different parts of the blank being pressed into appropriate shape, the same shaped blank being used for either side; and a pintle rod connecting the parts of one side of the back frame with those of the other side; and a spring coiled on said pintle rod and having its free ends bearing against the body members to close and hold the ring members closed; and an opening lever operatively connected to said pintle rod adapted to open and hold open the ring members and to hold the ring members locked when in their closed position.

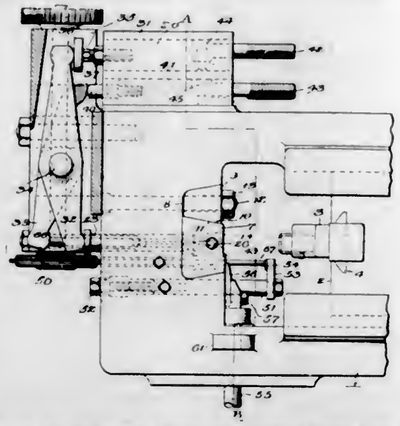
7. In a skeleton back frame for loose leaf books blanked from sheet metal, side members formed into circular tubes; and ring members, each formed with a trough in its outer surface, said members being integral.

11. In a skeleton back frame for loose leaf books of the character described, the combination of side members hingedly connected by a pintle rod; with an L-shaped operating lever consisting of shanks and a cutout body at right angles to the shanks, said shanks being hingedly connected to the pintle rod; and a lug secured to said shanks adapted to lie between the ends of the side members when the parts are in their closed position and lock them from opening accidentally.

[Claims 2, 5, 6, and 8 to 10 not printed in the Gazette.]

1,241,693. HEADER. RICHARD LESTER WILCOX, Waterbury, Conn., assignor to The Waterbury Farrel Foundry and Machine Company, Waterbury, Conn., a Corporation of Connecticut. Filed Aug. 23, 1915. Serial No. 46,939. (Cl. 10—17.)

1. In an open die header, the combination with a plurality of die sections, each of said sections having a recess in one face thereof; a reciprocating punch; means for mounting said sections, whereby said punch will move said die sections in a path substantially parallel therewith; and positively actuated independent means for moving said die sections in the opposite direction.



2. In an open die header, the combination with a plurality of die sections, each of said sections having a recess in one face thereof; a reciprocating punch; means for mounting said sections, whereby said punch will move said die sections in a path substantially parallel therewith; a reciprocating member having contact with said die sections for moving said die sections in a path substantially parallel therewith but in a direction opposite to that imparted by said punch; and positive means for actuating said reciprocating member.

3. In a header, the combination with a plurality of independent die sections, each having a tapered exterior and a face that contacts with a similar face upon an adjacent die section; of means for moving said die sections toward each other and in a path at substantially a right angle thereto, said means comprising a block having a tapered opening therein, a reciprocating member, having contact with said sections at one end, a reciprocating member, having contact with said sections at the opposite end, and positively actuated means for independently moving each of said reciprocating members in one direction.

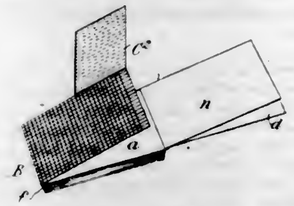
4. In an open die header, the combination with a plurality of die sections, each of said sections having a recess in one face thereof; a reciprocating punch movable toward and away from said die sections; means for mounting said die sections whereby they will be opened and closed while traveling in a path substantially parallel with said punch and so that the heading pressure of said punch thereon will have a tendency to maintain the dies in their closed relation; and means for ejecting a blank from between said sections.

5. In an open die header, the combination with a plurality of die sections, each of said sections having a recess in one face thereof; a reciprocating punch movable toward and away from said die sections; means for mounting said die sections whereby they will be opened and closed while traveling in a path substantially parallel with said punch and so that the heading pressure of said punch thereon will have a tendency to maintain the dies in their closed relation; means for ejecting a blank from between said sections; and means for imparting an independent movement to said ejecting means.

[Claims 6 to 16 not printed in the Gazette.]

1,241,694. WRITING-TABLET. ELMER MCCLELLAN AFRICA, Huntingdon, Pa., and BARTHOLOMEW E. MCSHEEHY, Nutley, N. J., assignors to J. C. Blair Company, Huntingdon, Pa., a Corporation of Pennsylvania. Filed Jan. 18, 1908. Serial No. 411,445. (Cl. 11—11.)

1. A tablet having a plurality of sheets of paper and having a guide sheet having guiding provisions on a surface thereof, said guiding provisions being adapted to be visible through one of said sheets of paper, and said guide sheet being substantially half the length of said tablet, and means for hinging said guide sheet to said tablet.



2. A tablet having a plurality of sheets of paper and having a guide sheet having guiding provisions on a surface thereof, said guiding provisions being adapted to be visible through one of said sheets of paper, and said guide sheet being substantially half the length of said tablet, and means for hinging said guide sheet to the binding edge of said tablet.

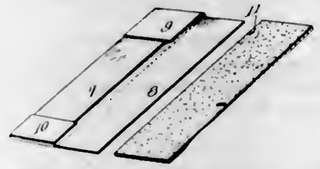
3. A tablet having a plurality of sheets of paper and having a guide sheet having guiding lines on both of its surfaces, said guiding provisions being adapted to be visible through one of said sheets of paper, and said guide sheet being substantially half the length of the tablet, and means for hinging said sheet to said tablet.

4. The combination in a tablet of a guide sheet having guide lines thereon, said sheet being substantially half the size of the tablet, means for hinging said sheet to the tablet, a full length sheet and means for hinging said last-named sheet to the tablet.

5. The combination in a tablet of a guide sheet having guide lines on both sides, said sheet being substantially half the size of the tablet, means for hinging said guide sheet to the tablet, a full length guide sheet having guide lines extending lengthwise of the tablet and means for hinging said full length sheet to the tablet.

[Claims 6 and 7 not printed in the Gazette.]

1,241,695. HUMIDIFIER. ALDEN MITCHELL ALEXANDER, Chicago, Ill. Filed May 9, 1917. Serial No. 167,434. (Cl. 131—30.)

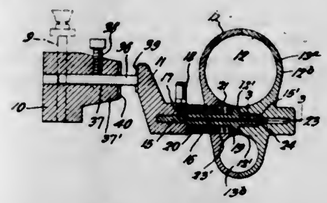


1. In a humidifying device for tobacco receptacles, the combination with a moisture carrying pad, of a flexible envelop of waterproof paper adapted to inclose said pad and provided with apertures on one of its faces for permitting moisture from said pad to be transmitted through the walls of said envelop.

2. A humidifying device for tobacco receptacles, comprising a blank formed of flexible waterproof material having a perforated face and side and end flaps and adapted to be folded on itself to form an envelop to contain a moisture carrying pad, the whole being capable of being readily folded to dimensions suitable to fit within the receptacle.

1,241,696. PUMP ATTACHMENT. HOMER H. ARNETT, Osgood, Ohio. Filed Oct. 19, 1916. Serial No. 126,589. (Cl. 152—11.)

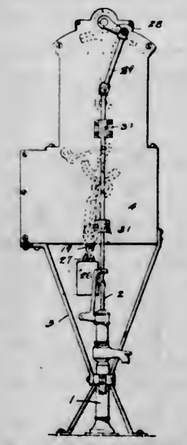
1. In a device of the character described, a member adapted to be carried by and rotated with a wheel, a pump holder assembled with said member to permit said member to rotate relative thereto, said holder having a passage to communicate with the pump, and said member having a passage registering with the aforesaid passage and adapted to be connected to a tire upon said wheel.



2. In a device of the character described, a member applicable to a wheel to rotate therewith, an angularly adjustable crank carried by said member, and a pump holder assembled with said crank to permit the crank to rotate relative thereto, said holder having a passage for receiving air from a pump, and the crank having means for conducting air from said passage to a tire upon said wheel.

3. In a device of the character described, a member applicable to and rotatable with a wheel, a crank having one terminal engaged adjustably with said member, an outstanding pintle carried by the other terminal of the crank and having an air conducting passage adapted to be connected with a tire on said wheel, a pump holder mounted upon said pintle and having a passage to receive air from a pump and communicating with the aforesaid passage, and spring means for holding the pintle and pump holder seated to provide a tight joint between said passages.

1,241,697. MECHANICAL MOVEMENT. EDWIN EARL ARNEY and DAVID ARNEY, Parker, S. D. Filed Feb. 9, 1917. Serial No. 147,625. (Cl. 74—14.)

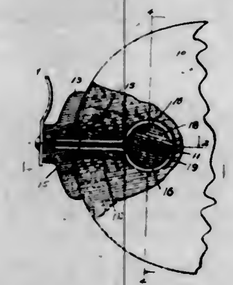


The combination with a prime motor adapted to impart rotary motion, of a housing, a crank shaft and crank supported in the housing, a rack wheel and rack lever and a link connecting the crank and lever, an oscillatable lever arm pivoted in the housing, a rock lever actuated by said rack wheel and adapted to oscillate said arm, and a flexibly connected weight depending from the arm, a segmental gear at the upper end of the arm, a rack gear actuated by said segmental gear, a rocker arm actuated by the rack gear, and a link and pitman connection for said rocker arm for the purpose described.

1,241,698. LENS-MOUNTING. LEW ARNTZ, Des Moines, Iowa. Filed Mar. 13, 1917. Serial No. 154,620. (Cl. 88—47.)

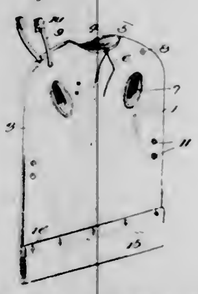
1. In a device of the class described, the combination of a lens having near one edge an opening and having a

comparatively narrow slot extending from said opening to the edge of the lens with a mounting comprising a body having spaced opposite engaging members receiving between them said lens, opposite spaced spring devices extending from said body between said members through said slot and onto said opening, said spring devices having within said opening outwardly curved portions for engaging the lens and yieldingly gripping it between said last named spring portions and said mounting on it.



2. In a device of the class described, the combination of a lens having near one edge an opening, and having a comparatively narrow slot from said opening to the edge of said lens, with a mounting comprising a body, opposite engaging members on said body receiving between them said lens, said engaging members being adapted to cover said opening and slot, and opposite spaced spring devices extending from said body inwardly through said slot, and having outwardly curved inner ends received within said opening, and engaging the lens thereon for gripping the portions of the lens between said last described portions of said spring devices and the mounting body, a pin or the like mounted in said engaging members, and extended through said opening, and cement for filling said opening and slot.

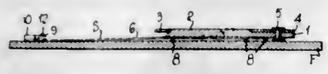
1,241,699. SLEEPING-BAG. PEARL V. BARNES, Seattle, Wash. Filed Jan. 26, 1916. Serial No. 74,379. (Cl. 5—5.)



A sleeping bag having a front and a back permanently united along their side edges and along portions of their upper edges, the central portion of their upper edges being ununited to form a neck opening, the front being provided with arm openings at opposite sides of its medial longitudinal line and between said line and its side edges, and the front and back being both provided near each side edge with spaced eyes, a flexible attaching element threaded through the eyes at each edge with its intermediate portion extending between the eyes, and attaching means at both ends of each of said elements.

1,241,700. ROBE-HOLDER. RALPH W. BEEBE, Mount Hermon, Mass. Filed Sept. 23, 1916. Serial No. 121,851. (Cl. 45—13.)

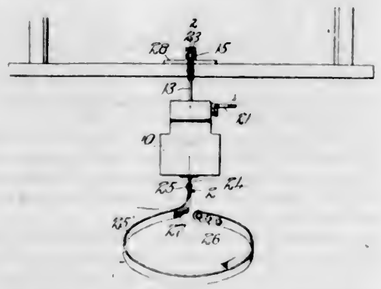
2. In combination with a surface, a body, spring means secured to the body and the surface for constantly urging the body toward the surface, and a pivoted clamping member carried by the body.



3. In combination with a surface, a body, spring means secured to the body and the surface for constantly urging the body toward the surface, and a pivot clamping member carried by the body, said clamping member being provided with an opening and said body being provided with a raised portion coacting with the opening of the clamping member for increasing the clamping action of said member.

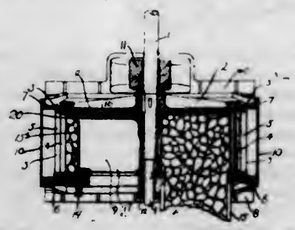
[Claim 1 not printed in the Gazette.]

1,241,701. FIRE-ESCAPE. MATTHEW BENCUR, Sacket Harbor, N. Y. Filed Oct. 9, 1916. Serial No. 124,588. (Cl. 227—28.)



A fire escape including a casing, a drum mounted in the casing, a plurality of stationary convex disks disposed in the casing, a cable carried by the drum and extending upwardly through the casing and engaging with said disks, spring pressed convex disks disposed opposite the stationary disks and engaging with the cable and with the first disks, said disks being held in such position that the cable is prevented from passing therebetween but must slide thereon, and a manually operable means for further increasing the tension of the spring pressed disks.

1,241,702. BEET-CUTTER. ROBAH J. BINKLEY, Pomona, and ROBERT A. STEPS, Los Angeles, Cal. Filed Apr. 6, 1917. Serial No. 160,126. (Cl. 146—11.)



1. In a beet-cutter, the combination of a revoluble drum adapted to hold beets the axis of rotation of said drum being substantially horizontal, a stationary side member mounted beside said revoluble drum, a movable gate in said drum, and a chute leading from said gate out through said stationary side member.

6. In a beet cutter the combination of a revoluble drum adapted to hold beets, the axis of rotation of said drum being substantially horizontal, beet knives mounted on the internal periphery of said drum, a stationary side member mounted beside said drum, said side member having an aperture therein, a stationary apron member mounted in said drum the lower face of the lower portion of said apron member being curved to press the beets onto said knives, and the upper face of said lower portion of the apron member being a chute curved downward and outward with its lower portion adjacent the aperture in said side member, a web formed across the upper portion of said apron member dividing same into two compartments, a brush in the upper of said two compartments, and the lower compartment being bounded below by said chute, said web also having an aperture therein located so that the debris brushed from the knives can pass from the uppermost of said compartments through the lowermost compartment and out of the cutter past the chute and aperture in said side member.

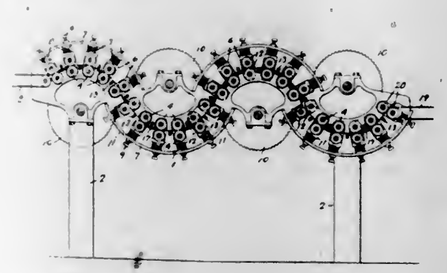
7. A spider for beet cutting machines comprising a circular portion and arms projecting transversely therefrom, the said arms having an inner driving portion and an outer strength giving portion, the inner driving portion being narrower circumferentially than the outer strength giving portion.

13. A curved knife box for beet cutting machines, comprising side members and cross bars connecting said side members, a plurality of guide bars carried on the forward sides of said cross bars and a plurality of knives carried on the rear sides of said cross bars, a long wedge between the guide bar and cross bar for adjusting the height of the guide bar evenly without tilting the guide bar in any direction, a stud fastened to the guide bar and reaching down past the wedge, and a nut coöperating with the stud for fastening the guide bar to the box.

16. A curved knife box for beet cutting machines, comprising side members and cross bars connecting said side members, guide bars carried on the forward sides of said cross bars and knives carried on the rear sides of said cross bars, a long wedge between the guide bar and cross bar for adjusting the height of the guide bar evenly without tilting the guide bar in any direction, the wedge having a long slot running lengthwise thereof, a stud fastened to the guide bar and reaching down past the wedge through said slot, the cross bar having an aperture below the guide bar for the purpose of receiving the stud, the aperture being counterbored from the lower side of the said cross bar, and a nut located in said counterbored portion of the bar for coöperating with said stud in fastening the guide bar to the box.

[Claims 2 to 5, 8 to 12, 14, 15, and 17 to 20 not printed in the Gazette.]

1,241,703. MACHINE FOR TREATING FLAX AND OTHER FIBROUS PLANTS. HOWARD ROGERS BONNY, New York, N. Y. Filed July 19, 1915. Serial No. 40,603. (Cl. 13—21.)

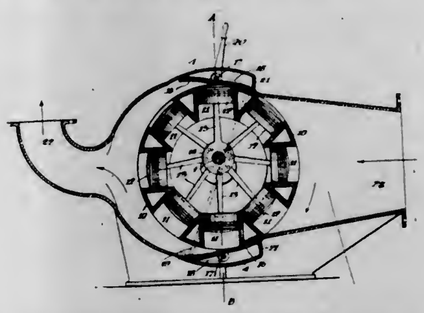


1. In a machine of the character described, the combination with decorticating rolls, of stripping plates placed between the rolls and over which the fibers are drawn to remove adhering shive, and means for causing said plates to intersect in variable degree the path of the fiber between rolls.

[illegible] In a machine of the character described, the combination of a plurality of pairs of decorticating rolls arranged in a sinuous series, stripping plates disposed between the pairs of rolls alternately above and beneath the passing webs of plants, and curved guides opposite the working edges of the stripping plates which are above.

[Claims 2 and 3 not printed in the Gazette.]

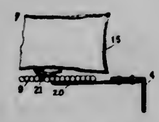
1,241,704. ROTARY PUMP. ANTONIO BORRÁS and FERNANDO IBIARTE, Buenos Aires, Argentina. Filed Mar. 1, 1916. Serial No. 81,319. (Cl. 103—44.)



1. In a rotary pump, an outer casing, an inner casing, a predetermined number of cylinders arranged peripherally within said inner casing, a shaft eccentric relative to said inner casing, plungers disposed within said cylinders, connecting rods fastened at one end to said plungers and concentrically supported at the other end about said shaft, means for rotating said inner casing, a passage having an inner opening embracing a number of the openings of said cylinders less than one-half said predetermined number of cylinders, a passage arranged oppositely to said passage and extending over the openings of the remainder of said cylinders and a movable element within said second named passage having a length greater than the diameter of one of said cylinders.

2. In a rotary pump, an outer casing, an inner casing, a shaft disposed eccentrically relative to said inner casing, a socket on said shaft, a predetermined number of cylinders arranged peripherally within said inner casing, a plurality of plungers disposed within said cylinders, connecting rods for the plungers fastened at one end to the respective plungers and fastened at the other end to a common point on said socket, said connecting rods being arranged concentrically about said shaft, means for rotating said inner casing, a passage having an effective inner opening embracing a number of the openings of said cylinders less than one half said predetermined number of cylinders, a passage arranged oppositely to said passage and extending over the openings of the remainder of said predetermined number of cylinders, oppositely arranged elements movable within said second named passage each having a length greater than the diameter of one of said cylinders, and common means for operating said elements.

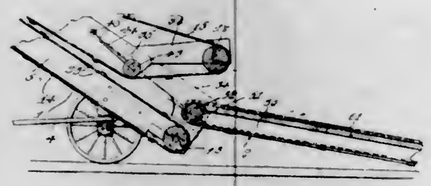
1,241,705. FOLDING BED. HENRIETTE BRANDT, New York, N. Y. Filed Sept. 18, 1912. Serial No. 721,105. (Cl. 5—18.)



A folding bed comprising upright rear legs, a frame pivotally connected therewith and adapted to be moved to a horizontal operative position and to a vertical inoperative position, foldable front legs for supporting said frame in its operative position, a woven wire fabric in said frame, means for attaching the opposite ends of said fabric to said frame, members rigidly secured to the free

longitudinal edge of said frame at intervals and extending beneath the opposed longitudinal edge of said wire fabric whereby the latter is supported against undue depression under a downward strain, and hooks forming part of said members and extending through said wire fabric to support same against downward sagging in the vertical position of said frame, said hooks being further arranged for detachable connection with a mattress for suspending same.

1,241,706. FEEDER. JOHN M. BUSSEY, Bluecreek, W. Va. Filed Mar. 18, 1915. Serial No. 15,369. (Cl. 193—4.)



1. In feeder apparatus, a conveyer comprising endless elements mounted to operate in substantially parallel spaced relation and in adjacent proximity, means to drive the respective elements in opposite directions, and movable means supporting the receiving terminal of one of said elements whereby said terminal may be moved away from the receiving terminal of the other of said elements without moving either element as an entirety.

2. In feeder apparatus, a conveyer structure comprising a frame, means to position and maintain the frame at an inclination, superposed coacting endless elements mounted on the frame, means to drive the respective elements in opposite directions, a support pivotally connected to the frame and affording a support for the receiving terminal of the uppermost element, said support being movable relatively to the frame to space the said receiving terminal away from the adjacent receiving terminal of the lowermost element without spacing the element as an entirety and without varying the relation of the adjacent atretches of the elements, and means maintaining the said support in its elevated position.

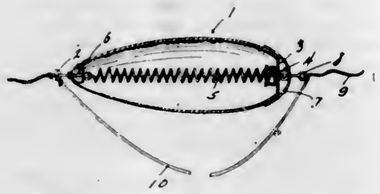
3. In feeder apparatus, a pair of coacting superposed endless elements, means to drive the respective elements in opposite directions, a support for the receiving terminal of the uppermost element having pivotal connection with the conveyer frame, means maintaining the said support in an elevated position to space the receiving terminal of the uppermost endless element away from the receiving terminal of the lowermost element, and means engaging the uppermost element in spaced relation to its receiving terminal to maintain said element throughout the greater portion of its length in parallelism to the lowermost element.

4. In feeder apparatus, coacting superposed endless elements mounted to extend normally in parallelism, means to drive the respective elements in opposite directions, a frame for the apparatus, a support having pivotal connection with the frame, the said support being movable relatively to the frame, to space the receiving terminal of the uppermost element away from the adjacent terminal of the lowermost element without moving said element as an entirety, and without varying the relation of the adjacent stretches of the elements, and means engaging the uppermost element to maintain the coacting portion of the respective elements in parallelism throughout the greater portion of the length of the conveyer.

5. In feeder apparatus, a primary conveyer structure comprising coacting superposed endless conveyer elements, means to drive the respective elements in opposite directions, movable means supporting the receiving terminal of one of said elements whereby said terminal may be moved relatively to the adjacent terminal of the other of said elements without moving either element as an entirety, and a secondary endless element mounted to overlap the receiving terminal of the lowermost element first mentioned and to fit the space created by the elevation of the uppermost element first mentioned, as and for the purpose set forth.

[Claims 6 to 11 not printed in the Gazette.]

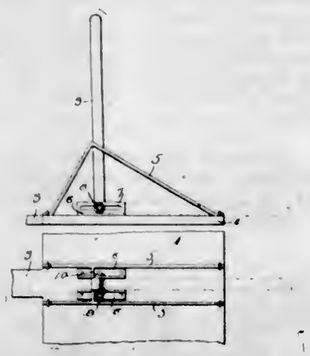
1,241,707. FISHING-FLOAT. CARMINE CAPOOCH, Danbury, and ERNEST DESSUREAU, Meriden, Conn. Filed May 16, 1917. Serial No. 169,147. (Cl. 43—4.)



1. A combination float and casting device, comprising in combination, a float body, a separable cap therefor, a resilient element connecting the float and cap, and means for connecting a line to the float and cap.

2. A combination float and casting device, comprising in combination a hollow float body, having an opening at one end, a closure cap for the opening, a resilient element in the float body and having its ends connected to the latter and the cap respectively, means for connecting the bight of a line to the closed end of a float body, means for connecting another portion of the line to the top of the cap, said connections permitting regulated amounts of slack line to be carried between the float and cap.

1,241,708. FISH-GUARD. GEORGE O. CHICK, Wirth, Ark. Filed Sept. 14, 1916. Serial No. 120,158. (Cl. 61—5.)

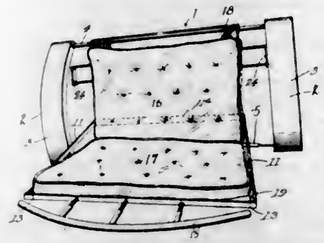


In a fish guard, the combination of a rotatable drum, arms rotatably secured thereto and each provided at its outer end with an integral paddle, a pair of parallel spaced rectangular frames secured to the paddle and having their apexes connected by a cross bar, a pair of spaced angle plates secured to the paddle beneath the said frames, said angle plates being provided with alined slots through their vertical walls, a striking rod, and a pivot bolt passed through the lower end of the striking rod and through the slots of the said angle plates.

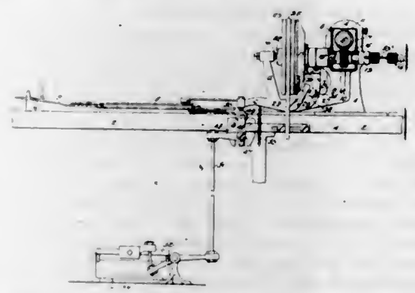
1,241,709. COLLAPSIBLE AUTOMOBILE-FENDER. WILLIAM COLVIN, Cincinnati, Ohio. Filed July 29, 1916. Serial No. 112,048. (Cl. 105—252.)

In a collapsible fender for automobiles, the combination of a pair of side bars bowed intermediate their ends,

rods connecting said side bars at their upper and lower ends thereof, an upper frame connected to said rods, a lower frame fulcrumed to the lower rod and movable upwardly against the outer side of the upper frame, braces pivotally connected to the upper frame and having detachable connection to said lower frame, said braces being foldable inwardly between said frames when the fender is collapsed, and removable cushions supported upon said frames.



1,241,710. SEWING-MACHINE. HERBERT CORRALL, Helensburgh, and JAMES MOIR FORBES, Scotstoun, Glasgow, Scotland, assignors to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Feb. 9, 1914. Serial No. 817,458. (Cl. 112—29.)

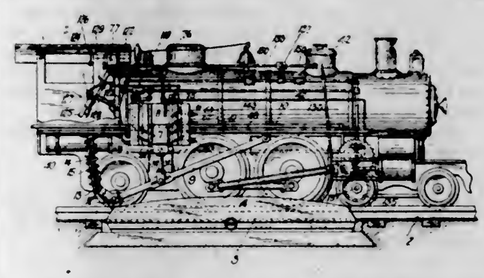


1. The combination with a train of embroidery sewing machines, a series of workholders, a pantograph and a bar connecting said work-holders and pantograph, of a rotatable shaft and connections between said shaft and said machines for actuating all said machines in definitely timed relation to each other, frictional driving means under the control of the operator for initiating at will the simultaneous operation of all of said machines, and mechanism including braking means, whereby all of said machines may be arrested at a predetermined period in the cycle of their operations after the completion of each stitch, or may be arrested at such period after the completion of any desired number of stitches.

2. The combination with a plurality of embroidery sewing machines, each machine including a main-shaft, of a rotatable shaft separate from but having operative connections with the main-shafts of the machines for actuating said machines in definitely timed relation to each other, friction clutch elements adapted when engaged to cause rotation of said rotatable shaft, and means under the control of the operator adapted to effect engagement of said clutch elements, and to disconnect said clutch elements and arrest the rotation of said shaft at a predetermined period in the cycle of operations either on the production of a single stitch or on the production of any desired number of stitches.

3. The combination of a train of embroidery sewing machines, a series of work-holders, a pantograph and a bar connecting said work-holders and pantograph, of a rotatable shaft and connections between said shaft and said machines for actuating all of said machines in definitely timed relation to each other, driving means, a starting and stopping device connecting said driving means with said rotatable shaft, means including a treadle-controlled rock-lever for controlling the action of said starting and stopping device, and operative connections between said rock-lever and starting and stopping device whereby the movement of said rock-lever from either of its extreme positions to the other will initiate the formation of one complete stitch by each machine and cause said machines to stop at a predetermined period in the cycle of their operations.

1,241,711. MOVEMENT-CONTROLLING MECHANISM FOR POWER-DRIVEN VEHICLES. JAMES CULTON, Denver, Colo. Filed July 20, 1915. Serial No. 40,898. (Cl. 246—59.)



1. In a system of the character described, the combination with an air brake system of a power-driven vehicle, of a plurality of valve-units separately connected in an air-brake system and adapted to reduce the pressure therein to different predetermined degrees, and a medium carried on the vehicle for the successive operation of said units, by contact with a series of devices placed in its path at distances apart which relatively are in ratio to the spaces between the said units.

3. In a system of the character described, the combination with an air-brake system of a power-driven vehicle, of a controller-element on the vehicle, for the gradual reduction of the normal air-pressure in the air-brake system, comprising a series of units each adapted to operate for effecting a discharge of air from the air-brake system until its pressure is reduced to a predetermined degree, the said element having outlets for the separate discharge of air from the air-brake system in the operation of each of said units, a medium carried on the vehicle, for the successive operation of said units by contact with devices placed in its path, and an indicator for denoting the operation of the element at a point remote therefrom, including a series of indicatory devices adapted to operate by air pressure and connected respectively with the said outlets.

10. In a system of the character described, the combination with an air-brake system of a power-driven vehicle, of a controller element including a duct for the discharge of air from the air-brake system, and a piston chamber in connection with said duct, a valve normally closing said duct, a second valve adapted to close the duct after it has been opened by operation of the other valve, a piston in the piston chamber, in connection with the second valve, exposed to the pressure of air in the air brake-system at one side, a spring bearing upon the opposite side of the piston for moving it to close the duct by means of the second valve when the pressure in the air-brake system is reduced to a predetermined degree, means for regulating the pressure exerted by the spring, and a medium for operating the first-mentioned valve.

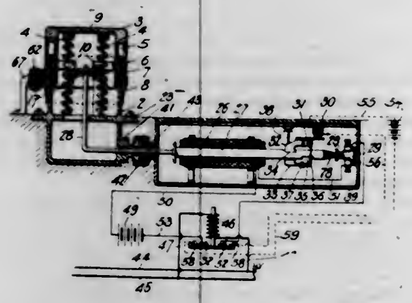
12. In a system of the character described, the combination with an air-brake system of a motor driven vehicle, an appliance for discontinuing the supply of motive fluid to the propelling mechanism of the vehicle and a sand-box on the vehicle, of a source of fluid-supply, a controller-element including a connection between said source and

said appliance, a connection between the source and the sand-box, means for effecting a reduction in the air-pressure in the brake-system, and automatic valves normally closing said connections, a medium for operating said means and opening said valves, by contact with an element placed in its path, a governor connected to be driven from a rotary part of the vehicle, a secondary valve connected in the brake system for the escape of air therefrom, secondary connections between said source, said appliance and the sand box, a secondary valve in said secondary connections, and a contrivance actuated by the governor when the velocity of the said rotary part of the vehicle exceeds a predetermined limit, for opening said secondary valves.

22. In a system of the character described, the combination with movement-controlling mechanism of a power-driven vehicle, of means for automatically effecting an operation of said mechanism to reduce the speed of the vehicle, and an operating medium carried on the vehicle for the actuation of said means by contact with an element placed in its path, including an operative member having a working part capable of being placed in effective and ineffective conditions, and key-controlled mechanism for placing and locking said part in either condition.

[Claims 2, 4 to 9, 11, 13 to 21, and 23 to 36 not printed in the Gazette.]

1,241,712. RAILWAY-TRACK TRIP. JAMES CULTON, Denver, Colo. Filed July 20, 1915. Serial No. 40,899. (Cl. 246—59.)



1. A track appliance of the character described comprising a base, a trip-rail yieldably mounted thereon, spring-operated means for blocking the movement of the rail, a device for retracting said means to an inoperative position, and a device coöperative with the first-mentioned device to hold the said means in the retracted position.

3. A track appliance of the character described comprising a base, a trip rail yieldably mounted thereon, spring-operated means for blocking the movement of the rail, a circuit, a solenoid for retracting the said means to an inoperative position, in said circuit, a second circuit, an electro-magnetic device for locking the core of the solenoid in a determinate position, in said second circuit, a third circuit and a relay in said third circuit, controlling the circuits of the solenoid and the said electro-magnetic device.

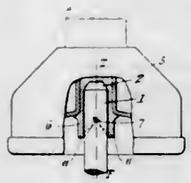
12. A track element of the character described comprising a base, a rail yieldably mounted thereon, an anvil, mechanism for limiting the movement of the rail, including a projectable part, a detonator-signal apparatus carrying a series of detonators, and coöperative means on the rail and the said appliance for feeding the said detonators to an operative position between the said part and the said anvil.

16. The combination with the line circuit of a railway block signaling system, of a track appliance including mechanism for placing it in an operative condition, an electric device controlling said mechanism, and a relay controlling the circuit of said device and connected in the line circuit.

21. In combination, a yieldably held trip, an appliance adapted to block yielding movement thereof, normally active means to impel said appliance to its blocking position, a circuit, an electric apparatus connected therein and adapted to move said appliance to an inoperative position against the action of its said impellent means, said apparatus including an electrical device for locking the appliance in its said inoperative condition, and a circuit-breaker interrupting the circuit while the appliance is in its inoperative condition and closing the same by its movement to its operative position when released.

[Claims 2, 4 to 11, 13 to 15, and 17 to 20 not printed in the Gazette.]

1,241,713. COUPLING DEVICE FOR SEPARATOR DRUMS. JOHN ALFRED DAHLQVIST, Nyhem, Huddinge, Sweden, assignor to Aktiebolaget Salenius Werkstäder, Sundbyberg, Sweden, a Corporation of Sweden. Filed Nov. 25, 1913. Serial No. 802,953. (Cl. 64—13.)



1. In a centrifugal liquid separator, the combination of a spindle; a drum loosely carried thereon; and coupling members transmitting motion from the spindle to the drum and comprising a part having a substantially axial slot open at one end; and a member received in said slot, said slot flaring toward its open part, the open part of said slot terminating in a sharp edge.

4. In a centrifugal separator, the combination of a spindle; a drum loosely carried thereon; and coupling members transmitting motion from the spindle to the drum, and comprising a part having a pair of slots extending longitudinally of the axis of said part, each slot having an open end having sides flaring from each other toward the open end, the flaring sides of one slot meeting the flaring sides of the adjacent slots in distinct edges and forming projections tapering in the direction of the open ends of the slots, said slots loosely receiving the other member.

6. In centrifugal liquid separators, the combination of a spindle, a drum loosely slidden on the same, and coupling members transmitting the motion of the spindle to the drum, one of the said coupling members carrying a projection and the other coupling member comprising a sleeve, located in the hub of the drum, said sleeve having a substantially axial slot, the end portion of which is open and increases in width outwardly and is limited by portions tapering toward one end of the axis of the member and forming a distinct edge, the said slot receiving loosely the said projection.

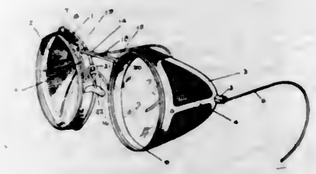
[Claims 2, 3, and 5 not printed in the Gazette.]

1,241,714. EYE-PROTECTOR. GEORGE H. DAY, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a Voluntary Association of Massachusetts. Filed Dec. 19, 1914. Serial No. 878,178. (Cl. 88—41.)

1. In an eye protector, the combination with a pair of lens retaining frames, of members connecting the frames, said members having one end secured to each of the frames, and having a bent portion intermediate their ends adapted to be straightened upon separation of the frames, substantially as and for the purpose described.

3. A bridge for a device of the character described, comprising a pair of angle members oppositely disposed and each having one end secured to one of the lens frames and the opposite end secured to the other lens frame.

4. The combination with a pair of lens frames, of an arched member connecting the same, and a second arched member extending from each end of the first arch and having its terminus secured to the opposite lens frame from that to which the end of the arch from which it proceeds is secured.



5. The combination with a pair of lens frames, of an arched member connecting the same, a nose engaging device adjustably secured to and depending from the arched member, and supplemental diagonally arranged pliable members connected at their ends to the opposite lens frame and intermediately crossing each other, substantially as and for the purpose described.

9. The combination with a pair of lens frames, of pliable members connecting the frames, said members having an initial deflection therein, whereby compression or pull will advance or withdraw the lens frames horizontally toward or away from each other through variance of the said deflection of the members, substantially as illustrated.

[Claims 2, 6 to 8, and 10 not printed in the Gazette.]

1,241,715. EYE-PROTECTOR. GEORGE H. DAY, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a Voluntary Association of Massachusetts. Original application filed Dec. 19, 1914, Serial No. 878,178. Divided and this application filed Nov. 9, 1916. Serial No. 130,396. (Cl. 88—41.)



1. In an eye protector, the combination with a pair of lens frames, of an upper member having its ends connected to the two frames and having a central loop formed therein, and a second member having its ends connected to the frames below the ends of the first and being similarly provided with a loop whereby the distance between the frames may be readily adjusted by opening or closing of the loop while maintaining the horizontal relationship of the frames.

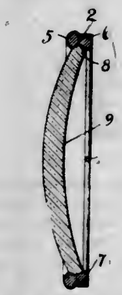
2. In an eye protector, the combination with a pair of lens frames, of an upper member having its ends connected to the two frames and having a central loop formed therein, and a second member having its ends connected to the frames below the ends of the first and being similarly provided with a loop whereby the distance between the frames may be readily adjusted by opening or closing of the loop while maintaining the horizontal relationship of the frames, and a nose engaging member carried by one of said looped members.

3. In a device of the character described, the combination with a pair of lens frames, of similar upper and lower connecting bars for the frames, each of said bars being provided with a central loop, and a nose engaging member carried by the lower of said bars, substantially as and for the purpose described.

4. The combination with a pair of lens frames, of means for connecting said frames, said means comprising a bar secured to the upper portion of the two frames and formed with a central depending looped portion, a second bar secured to the two frames below the point of attachment of the first and formed with a centrally upwardly extending looped portion, a nose rest, and a pliable post having one end secured to the nose rest and the other end secured to one of the loops for adjustably connecting the rest to the lens connecting member.

5. In a device of the character described, the combination with a pair of lens frames, of an upper and a lower connecting bar for said frames, said upper bar being formed with a central downwardly extending looped portion and said lower bar being formed with a central upwardly extending looped portion, whereby the lenses may be given a parallel adjustment by corresponding opening or closing of the looped portion.

1,241,716. OPHTHALMIC MOUNTING. GEORGE H. DAY, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a Voluntary Association of Massachusetts. Filed July 27, 1916. Serial No. 111,591. (Cl. 88—47.)



1. A non-metallic lens securing frame for an ophthalmic mounting comprising an interiorly grooved annulus having a continuous ring at one side and a split ring at the opposite side thereof, whereby the split portion may be sprung to facilitate the insertion of a lens into the interior groove of the device.

2. In an ophthalmic mounting, the combination with a lens retaining device having a continuous annular portion at one side thereof and a slotted portion at the opposite side thereof, said annulus having a central lens receiving groove, of a rim member embracing the slotted portion to clamp the parts together and secure a lens in position therein.

1,241,717. OPHTHALMIC MOUNTING. GEORGE H. DAY and OSWALD B. CARSON, Southbridge, Mass., assignors to American Optical Company, Southbridge, Mass., a Voluntary Association of Massachusetts. Filed Aug. 11, 1916. Serial No. 114,383. (Cl. 88—47.)



1. The combination with a metallic lens receiving frame having end piece members extending outwardly therefrom, of a non-metallic frame member surrounding the metallic frame member and having its ends secured to the outwardly extending end pieces whereby the parts are firmly held together in a unitary structure when the frame is opened for insertion or removal of a lens.

4. In an ophthalmic mounting, the combination with a metallic lens receiving frame, of a non-metallic ornamental frame extending therearound and means for positively uniting the frame members one to the other.

7. In an ophthalmic mounting, the combination with a metallic lens embracing member, of a non-metallic rim disposed exterior to the metallic member, and bands encircling the non-metallic member and engaging the metallic member to securely connect the parts.

8. In a device of the character described, the combination with a metallic rim and an encircling non-metallic portion, one of said members having apertured portions and the other having extensions fitting within said apertures and means for locking the extensions within the apertures.

11. In an ophthalmic mounting, a pair of continuous metallic eye wires, abutments at the ends of said eye wires, means for securing the abutments together, a pair of non-metallic eye wires encircling the metallic eye wires and terminating at the abutments thereof, means for holding the non-metallic eye wires in place on the metallic eye wires, and a bridge uniting the two metallic eye wires.

[Claims 2, 3, 5, 6, 9, and 10 not printed in the Gazette.]

1,241,718. OPHTHALMIC MOUNTING. GEORGE H. DAY, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a Voluntary Association of Massachusetts. Filed Dec. 11, 1916. Serial No. 136,254. (Cl. 88—47.)



1. In a mounting of the character described, the combination with a metallic bridge, of metallic lens frames secured thereto and having interior grooves to receive a lens and non-metallic frames having channels receiving the metallic frames, said non-metallic frames encircling the metallic frames and having their ends secured to the ends of the metallic frames by threaded fastening devices.

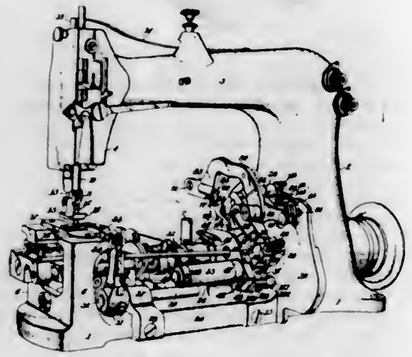
2. In a ophthalmic mounting, the combination with a metallic frame embracing a lens, said frame being split at one side and having end pieces secured to its ends and extending outwardly therefrom, of a non-metallic frame member having a channel receiving the metallic frame member and extending around said frame member, and threaded fastening devices passing through the end piece sections and into the ends of the non-metallic frame member for tightening said ends against the end pieces and positively securing the non-metallic frame in position around the metallic frame.

3. In an ophthalmic mounting, the combination with a bridge, of metallic frames secured thereto and adapted to directly engage the lenses, said frames being split at one side and provided with suitable end pieces, a non-metallic frame fitting around the metallic frame and terminating adjacent the end pieces, fastening devices passing through the end pieces and engaged in the ends of the non-metallic frame for securing it in position about the metallic frame, and supplemental fingers carried by the metallic frame and encircling the non-metallic frame for supplementing the action of said fastening devices in positively securing the parts together.

4. In an ophthalmic mounting, the combination with a metallic lens encircling rim having laterally extending connecting plates or end pieces secured to its ends, said end pieces having apertures formed therethrough immediately adjacent their points of attachment to the metallic frames, of non-metallic frames encircling the metallic frames and having channels receiving and concealing said metallic frames, said non-metallic frames terminating at and abutting the outer faces of the connecting plates or end pieces and overlying the apertures therein, and fastening devices each engaged in one of the apertures and projecting therethrough into engagement with the adjacent end of the non-metallic frame member to firmly secure the non-metallic frame member to the connecting plate or end piece and lock the metallic frame member within the groove of the non-metallic frame member, substantially as illustrated.

5. In an ophthalmic mounting, the combination with a metallic lens receiving frame for direct engagement with the lens, of a non-metallic frame surrounding and concealing the metallic frame, the said metallic and non-metallic frames being split at one side to facilitate insertion or removal of the lens, and fastening devices securing the ends of the non-metallic to the ends of the metallic frame to securely unite the two frames.

1,241,719. RUFFLING MECHANISM FOR SEWING-MACHINES. ALBERT H. DE VOE, Westfield, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Nov. 14, 1912. Serial No. 731,251. (Cl. 112—16.)



1. The ruffling mechanism comprising an actuating rock-shaft provided with a radial arm, a ruffler rock-shaft also provided with a radial arm, said arms extending from the same side of their respective shafts, a ruffling blade operatively connected with said rock-shaft, blocks slidingly mounted upon said arms, a pivotal pin connecting said blocks and occupying initial position substantially coaxial with said actuating rock-shaft, means for manually shifting said blocks upon their respective arms, and automatically acting means for returning said block to initial position.

2. The ruffling mechanism comprising an actuating rock-shaft provided with a radial arm, a ruffler rock-shaft also provided with a radial arm, said arms extending from the same side of their respective shafts, a ruffler blade operatively connected independently of said arms with said rock-shaft, blocks slidingly mounted upon said arms, a pivotal pin connecting said blocks, means including a shift-lever sustaining said pin for manually shifting said blocks from an initial position radially upon their respective arms, and automatically acting means for returning said blocks to initial position.

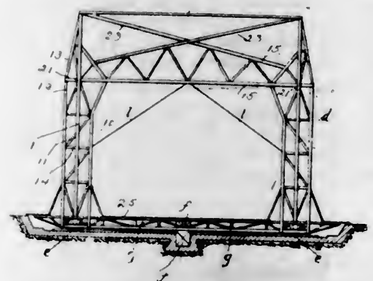
3. The ruffling mechanism comprising an actuating rock-shaft provided with a radial arm, a ruffler rock-shaft also provided with a radial arm, said arms extending from the same side of their respective shafts, a ruffling blade operatively connected with said ruffler rock-shaft, blocks slidingly mounted upon said arms, a pivotal pin connecting said blocks and rigidly connected with a plunger-pin extending transversely thereto, and a shift-lever mounted upon a fulcrum at one side of the axes of movement of said rock-shafts and provided with a socket entered by said plunger-pin.

4. The ruffling mechanism comprising a bracket constructed independently of and adapted for attachment to a sewing machine frame and provided with parallel bearings and carrying a fulcrum-stud at one side of and parallel with said bearings, parallel actuating and ruffler rock-shafts journaled in said bearings and each having a radial arm extending therefrom in the same direction, a ruffling blade operatively connected with the ruffler rock-shaft, blocks slidingly mounted upon said arms, a pivotal pin connecting said blocks, and a shift-lever journaled upon said fulcrum-stud and adapted to sustain said pivotal pin and provided with means for moving it to change the connection of said shafts.

5. The ruffling mechanism comprising a bracket constructed independently of and adapted for attachment to a sewing machine frame and provided with parallel bearings and carrying a fulcrum-stud at one side of and parallel with said bearings, parallel actuating and ruffler rock-shafts journaled in said bearings and each having a radial arm extending therefrom in the same direction, a ruffling blade operatively connected with the ruffler rock-shaft, blocks slidingly mounted upon said arms, a plunger-pin carrying a transverse pivotal pin connecting said blocks, and a shift-lever journaled upon said fulcrum-stud and provided with a socket entered by said plunger-pin and with means for moving it to shift the position of the blocks upon their respective radial arms.

[Claims 6 to 26 not printed in the Gazette.]

1,241,720. ROTATABLE AIRSHIP-SHED. CLAUDE DORNIER, Friedrichshafen, Germany, assignor to the Firm of Luftschiffbau Zeppelin G. M. B. H., Friedrichshafen, Germany. Filed Sept. 24, 1913. Serial No. 791,526. (Cl. 20—1.)



1. An airship shed comprising in combination a rotatable tower having a central through passage, and beams constituting side walls of the shed suspended from the tower by being fixed at one end thereto.

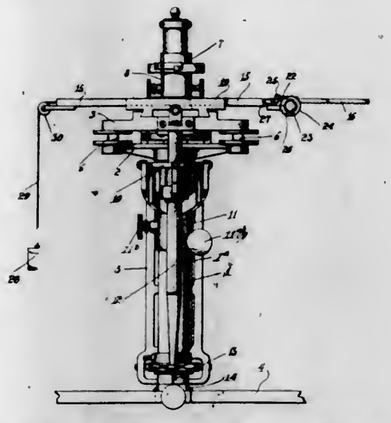
6. An airship shed comprising in combination a rotatable tower having an unobstructed central chamber, and beams constituting side walls of the shed suspended from the tower by being fixed at one end thereto and forming a continuation of the tower chamber, a rotation roller path, wheels carrying the tower and movable on the roller path, and wind bracing attached to the tower and supported by said walls.

7. An air-ship shed comprising in combination, a tower structure having a clear passage therethrough, means to rotatably mount the tower, parallel cantaliver latticed beams supported by the tower and projecting in opposite directions from the tower and forming the side walls of the shed and between them a chamber continuous with said passage, a roof structure carried by said beams and removable crossed guy members connecting the free cantaliver ends.

[Claims 2 to 5 and 8 to 10 not printed in the Gazette.]

1,241,721. GEOMETRICAL MACHINE. WILLIAM S. EATON, Sag Harbor, N. Y., assignor to American Bank Note Company, a Corporation of New York. Filed Oct. 23, 1913. Serial No. 796,816. (Cl. 33—24.)

1. A geometrical machine embodying a fixed support for an elementary outline, character or base, a movable support for a work plate or sheet, means whereby a step by step lineal traverse may be imparted to said movable support, and reproducing means including therein a work point, a tracing stylus adapted to coöperate with said elementary outline character or base, and supporting means for said stylus adapted to impart relative movement to said work point, and said movable support as determined by said elementary outline, character or base, whereby a reproduction of said elementary outline, character or base may be described upon a work plate or sheet, succeeding reproductions of said outline, character or base being spaced apart by said means imparting lineal traverse to said movable support.



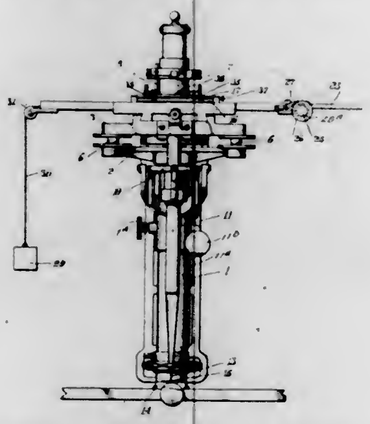
3. A geometrical machine embodying a fixed support for an elementary outline, character or base, a work table universally movable upon a single plane, an oscillatory transmitter, adapted to carry a stylus adapted to follow said elementary outline, character or base and transmit similar movement to said work table, an adjustable pivotal support for said transmitter, whereby the scale of reproduction may be varied, a support for a work plate or sheet, slidably mounted upon said work table, a carrier, a work point supported by said carrier, and means whereby a step by step lineal traverse may be imparted to said support independently of said transmitter.

4. A geometrical machine embodying a fixed support for an elementary outline, character or base, a movable work table adapted to have universal movement upon a single plane, a work point, a transmitter, a stylus carried by said transmitter adapted to follow said elementary outline, character or base whereby said work table is actuated in accordance with said elementary outline, character or base and a reproduction of said elementary outline, character or base may be described upon a work plate or sheet, a lineally movable support for said work plate or sheet mounted upon said work table, a rack and gear mechanism acting upon said last named support whereby lineal traverse may be imparted thereto independently of said transmitter and succeeding outlines described upon said work plate or sheet will be spaced apart, and means whereby accuracy or uniformity in succeeding feeding movements of said support by said rack and gear mechanism may be secured.

6. A geometrical machine embodying a fixed support for an elementary outline, character or base, a movable work table adapted to have universal movement upon a single plane, a work point, a transmitter, a stylus carried by said transmitter adapted to follow said elementary outline, character or base whereby said work table is actuated in accordance with said elementary outline, character or base and a reproduction of said elementary outline, character or base may be described upon a work plate or sheet, a lineally movable support for said work plate or sheet mounted upon said work table, a rack and gear mechanism acting upon said last named support whereby lineal traverse may be imparted thereto independently of said transmitter, and succeeding outlines described upon said work plate or sheet will be spaced apart, a ratchet wheel carried by said gear, a spring pressed pawl carried by said work table, whereby accuracy or uniformity in succeeding feeding movements of said support by said rack and gear mechanism may be secured, and a resistance device adapted to prevent overrunning of said ratchet relatively to said pawl.

[Claims 2, 5, 7, and 8 not printed in the Gazette.]

1,241,722. GEOMETRICAL MACHINE. WILLIAM S. EATON, Sag Harbor, N. Y., assignor to American Bank Note Company, a Corporation of New York. Filed Oct. 23, 1913. Serial No. 796,817. (Cl. 33—24.)



1. A geometrical machine embodying a support for an elementary outline, character or base, a movable support for a work plate or sheet, a work point, means adapted to follow said elementary outline, character or base, and cause relative movement of said movable support and said work point whereby a reproduction of said elementary outline, character or base, may be described upon a work plate or sheet, means whereby a step by step traverse in one direction may be imparted to said movable support to space succeeding reproductions of said elementary outline, character or base apart, and means for simultaneously imparting movement to said movable support in another direction whereby an irregular outline is imparted to the created design.

2. A geometrical machine embodying a support for an elementary outline, character or base, a movable support for a work plate or sheet, a work point, means adapted to follow said elementary outline, character or base, and cause relative movement of said movable support and said work point whereby a reproduction of said elementary outline, character or base may be described upon a work plate or sheet, and a plurality of means whereby simultaneous movement in different directions may be imparted to said movable support to space succeeding reproductions of said outline, character or base apart and create an elongated design having an irregular outline.

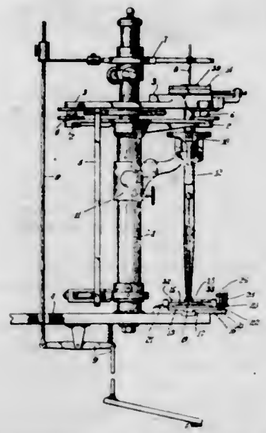
3. A geometrical machine embodying a support for an elementary outline, character or base, a movable support for a work plate or sheet, a work point, means adapted to follow said elementary outline, character or base and cause relative movement of said movable support and said work point whereby a reproduction of said elementary outline, character or base may be described upon a work plate or sheet, means whereby a step by step traverse in one direction may be imparted to said movable support to space succeeding reproductions of said outline, character or base apart and a controlling or cam plate having an irregular operative surface adapted to impart movement in another direction to said movable support whereby an irregular outline is imparted to the created design.

4. A geometrical machine embodying a support for an elementary outline, character or base, a movable support for a work plate or sheet, a work point, means adapted to follow said elementary outline, character or base and cause relative movement of said movable support and said work point whereby a reproduction of said elementary outline, character or base may be described upon a work plate or sheet, means whereby a step by step traverse in one direction may be imparted to said movable support to space succeeding reproductions of said outline, character or base apart, a controlling or cam plate having an irregular operative surface adapted to impart movement in another direction to said movable support whereby an irregular outline is imparted to the created design, and means whereby said controlling or cam plate may be removably mounted in the operative relation to said movable support to permit the substitution of a plate of one contour for one of another contour.

5. A geometrical machine embodying a support for an elementary outline, character or base, a movable support for a work plate or sheet, a work point, means adapted to follow said elementary outline, character or base, and cause relative movement of said movable support and said work point whereby a reproduction of said elementary outline, character or base may be described upon a work plate or sheet, means whereby a step by step traverse in one direction may be imparted to said movable support to space succeeding reproductions of said outline, character or base apart, a controlling or cam plate having an irregular operative surface adapted to impart movement in another direction to said movable support whereby an irregular outline is imparted to the created design, and means whereby said controlling or cam plate may be adjusted in the direction of said step by step traverse to superimpose a plurality of similar designs, one upon the other, in a manner to vary the outline of the completed design and the tone values therein.

[Claims 6 to 16 not printed in the Gazette]

1,241,723. GEOMETRICAL MACHINE. WILLIAM S. EATON, Sag Harbor, N. Y., assignor to American Bank Note Company, a Corporation of New York. Filed Oct. 23, 1913. Serial No. 796,818. (Cl. 33—24.)



1. A geometrical machine embodying a support for an elementary outline, character or base, a support for a work plate or sheet, a work point, means adapted to follow said elementary outline, character or base and cause relative movement of said support for a work plate or sheet and said work point whereby a reproduction of said elementary outline, character or base may be described upon said work plate or sheet, and means whereby lineal traverse may be imparted to said support for the elementary outline, character or base to effect the spacing of succeeding reproductions thereof.

2. A geometrical machine embodying a support for an elementary outline, character or base, a support for a work plate or sheet, a work point, means adapted to follow said elementary outline, character or base and cause relative movement of said support for a work plate or sheet and said work point whereby a reproduction of said elementary outline, character or base may be described upon said work plate or sheet, means whereby lineal traverse may be imparted to said support for the elementary outline, character or base to effect the spacing of succeeding reproductions thereof, and means whereby the direction of said traverse may be varied.

3. A geometrical machine embodying a support for an elementary outline, character or base, a support for a work plate or sheet, a work point, means adapted to follow said elementary outline, character or base and cause relative movement of said support for a work plate or sheet and said work point whereby a reproduction of said elementary outline, character or base may be described upon said work plate or sheet, a rack carried by and movable with said first named support, a gear meshing with said rack, means whereby said gear may be intermittently actuated, and a pawl and ratchet mechanism acting upon said gear, whereby lineal step by step traverse may be imparted to said support for the elementary outline, character or base, to effect the spacing of succeeding reproductions thereof.

4. A geometrical machine embodying a support for a work plate or sheet, a work point, a support for an elementary outline, character or base, comprising a plurality of superimposed plates adapted to have simultaneous movement in directions perpendicular to each other, means adapted to follow said elementary outline, character or base and cause relative movement of said support for a work plate or sheet and said work point whereby a reproduction of said elementary outline, character or base may be described upon said work plate or sheet, means imparting movement to the lowermost of said superimposed plates in one direction, and means defining the movement of the uppermost of said plates in another direction, whereby the direction of traverse of the elementary outline, character or base is varied.

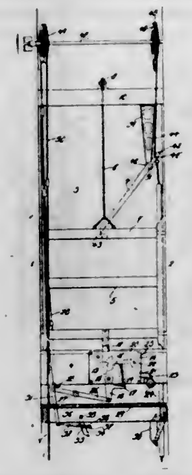
5. A geometrical machine embodying a support for a work plate or sheet, a work point, a support for an elementary outline, character or base, comprising a plurality of superimposed plates adapted to have simultaneous movement in directions perpendicular to each other, means adapted to follow said elementary outline, character or base and cause relative movement of said support for a work plate or sheet and said work point whereby a reproduction of said elementary outline, character or base may be described upon said work plate or sheet, means imparting movement to the lowermost of said superimposed plates in one direction, a controlling or cam plate mounted in a fixed position adjacent the uppermost of said superimposed plates, a contact carried by said last named plate, and means whereby said contact is held in normal engagement with said controlling or cam plate.

[Claims 6 to 12 not printed in the Gazette.]

1,241,724. ELEVATOR CONSTRUCTION. PAUL F. ELLMER and CHARLES STREFF, Philadelphia, Pa. Filed Feb. 21, 1917. Serial No. 150,002. (Cl. 187—49.)

1. The combination in an elevator construction, of a supporting structure including a floor, a movable gate, a car, a locking lever, a detent lever, means on said gate for engagement with the locking lever, a detent on said detent lever designed to normally prevent movement of said locking lever, means on said car for actuating said detent lever to move the detent out of the path of movement of said locking lever, a casing inclosing said levers and including a wall having an opening therein through which a portion of said detent lever extends, said wall forming means for limiting the movement of said detent lever in one direction, and a spring connecting said locking lever and the detent lever whereby the detent lever is held in engagement with said wall and the locking lever is moved toward said means on the gate, substantially as described.

2. The combination in an elevator construction, of a movable gate, a car, means for normally locking the gate in its closed position and including a detent for preventing movement of said locking means, means operative to move said locking means when the detent has been moved out of operative position, means operated through the medium of movement of said car for moving the detent into an inoperative position, means operative by the opening movement of said gate to stop said car, and means for automatically moving said gate to its open position, substantially as described.



10. The combination in an elevator construction, of a supporting structure including a floor, a movable gate, a car, a locking lever, a detent lever, means on said gate for engagement with the locking lever, a detent on said detent lever designed to normally prevent movement of said locking lever, means on said car for actuating said detent lever to move the detent out of the path of movement of said locking lever, means adjacent said floor for moving said locking lever into its inoperative position, means on said car for moving said locking lever into its inoperative position, means for automatically moving said gate into its open position, and means operated by the opening movement of said gate to effect the stopping of the car, substantially as described.

16. The combination in an elevator construction, of a gate, means for normally locking the gate in a closed position, a car, means operative to effect movement of the car, means for moving said locking means into an inoperative position to free the gate, means for automatically raising the gate when thus freed, a cable movable to effect the stopping of said car, and a lever having a hole therein through which said cable passes, means movable in conjunction with said cable and of larger cross section than the cross section of said hole in the lever, said lever being movable by said gate to actuate said means on the cable, whereby the latter is moved to effect the stopping of the car, substantially as described.

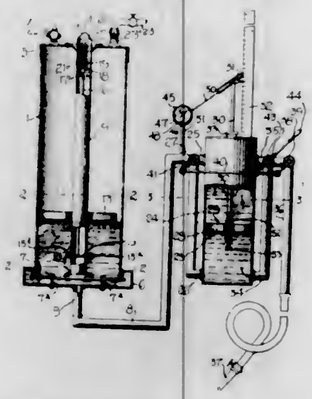
[Claims 3 to 9, 11 to 15, and 17 not printed in the Gazette.]

1,241,725. GREASE-GUN. HOWARD E. EMIGH, Santa Cruz, Cal. Filed Oct. 30, 1915. Serial No. 58,891. (Cl. 221—103.)

1. The combination with a container having a discharge orifice in its lower end, the container at its lower end being laterally enlarged, conventric to the orifice, of a baffle plate disposed over and in spaced relation to the orifice and having a diameter greater than the internal diameter of the body of the container but less than the internal diameter of the container at its bottom, and means for admitting fluid under pressure to the upper portion of the container.

2. A container for liquid or semi-liquid substance having a discharge orifice, means for admitting fluid under pressure to one end of the container to force the material therein out through said discharge orifice, and means acting automatically upon a discharge of the contents to a predetermined extent to relieve the pressure of the fluid within the container.

3. A container for liquid or semi-liquid substances having a discharge orifice at its lower end, means for admitting fluid under pressure to the upper end of the container, and a pressure relief valve actuated by a descent of the contents of the container below a certain predetermined point.

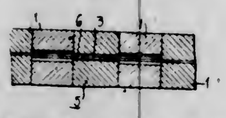


4. A container for liquid or semi-liquid substances having a discharge orifice in its lower end, means for admitting fluid under pressure to the upper end of the container, and means for reducing the pressure of the fluid within the container before the contents of the container have been entirely discharged through the orifice.

5. A container for delivering liquid or semi-liquid substances having a discharge orifice in its bottom, a baffle plate disposed over the orifice in spaced relation thereto and larger than the orifice, means for admitting fluid under pressure to the upper portion of the container to cause the discharge of the contents thereof, and means for reducing the pressure of the fluid within the container before the contents thereof have been entirely discharged.

[Claims 6 to 13 not printed in the Gazette.]

1,241,726. PULLEY ATTACHMENT. AUGUST FONTAINE, Green Bay, Wis. Filed Mar. 31, 1917. Serial No. 158,928. (Cl. 64—8.)



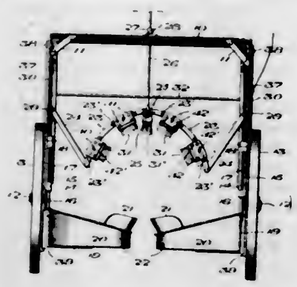
1. An attachment for a pulley adapted to be disposed circumferentially therearound and comprising a plurality of separable blocks, a flexible member loosely directed through said blocks and having its extremities disposed through two adjacent blocks with one extremity interlocking with one of said blocks and its opposite extremity interlocking with the second of the blocks, and a wedge member insertible between said two last named blocks.

3. An attachment for a pulley adapted to be disposed circumferentially therearound and comprising a plurality of separable blocks, a flexible member loosely directed through said blocks and having its extremities disposed through two adjacent blocks with one extremity interlocking with one of said blocks and its opposite extremity interlocking with the second of the blocks, a wedge member insertible between said two last named blocks, and means coacting with the wedge member for securing the attachment to the pulley.

[Claim 2 not printed in the Gazette.]

1,241,727. BOLL-WEEVIL DESTROYER. WILLIAM W. FULLER, West Point, Ga. Filed May 23, 1917. Serial No. 170,336. (Cl. 43—1.)

1. In a boll weevil destroyer, the combination with a frame adapted to be passed over rows of plants, of catching pans suspended from the frame in the opposite sides thereof, and vibrating means including a sectional arched brush frame and brushes therein, said brush frame being adjustably suspended at its intermediate portion from the top of the main frame and being adjustably connected at its ends to the sides of the main frame for applying the brushes to plants of various sizes.

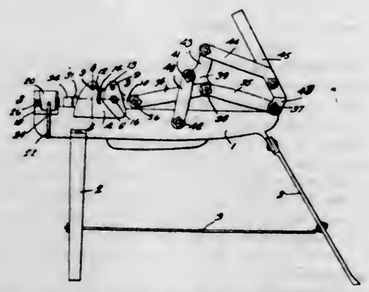


3. In a boll weevil destroyer, the combination of a main frame adapted to straddle a row of plants, collecting means carried in the lower opposite sides of the main frame, a vertically adjustable rod carried intermediately in the main frame, a pair of bars hinged to the lower end of the rod, a pair of links hingedly connecting the free ends of said bars to the main frame and having adjustable connections with the latter, and a plurality of brushes mounted upon said bars for movement therewith into adjustment against the sides of plants varying in size.

5. In a boll weevil destroyer, the combination of an arched frame adapted to straddle a row of plants, collectors supported in the lower opposite sides of the arched frame, an adjustable brush frame arranged in the upper end of the arched frame over said collectors, links adjustably connecting the sides of the brush frame to the sides of the arched frame, and a vertically adjustable rod mounted in the upper end of the arched frame and having connection at its lower end to the brush frame for supporting it, the lower end of said rod being offset forwardly to advance the brush frame forwardly from the transverse plane of the arched frame.

[Claims 2 and 4 not printed in the Gazette.]

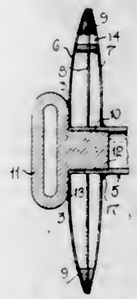
1,241,728. OPERATING MECHANISM FOR BOLT HEADERS AND SHEARS. NAPOLEON GRANDCHAMP, Raymond, Wash., assignor of one-half to Charles Myers, Raymond, Wash. Filed Oct. 5, 1916. Serial No. 123,996. (Cl. 74—5.)



1. A machine of the character described embodying a body, a slide movable along the body to operate upon a bolt or other object, the body having a guide for said slide, a pair of toggle links having their remote ends pivoted to the slide and body, a floating lever pivoted to the joint of said links, and a link connecting said floating lever and body.

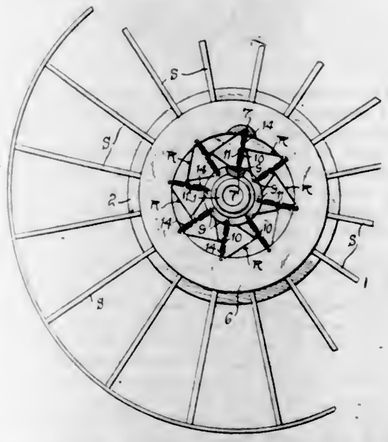
2. A machine of the character described embodying a body, a slide movable along the body to operate upon a bolt or other object, the body having a guide for said slide, a pair of toggle links having their remote ends pivoted to the slide and body, a floating lever pivoted to the joint of said links, a link connecting said floating lever and body, the floating lever having an arm projecting therefrom, a hand lever having as its fulcrum the pivot between the body and the respective toggle link, and a link connecting the hand lever and said arm of the floating lever.

1,241,729. BRIDLE-BIT. JOSEPH H. GRANT, Huron, S. D. Filed May 19, 1917. Serial No. 169,738. (Cl. 54—7.)



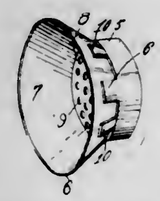
A bridle bit including a tubular bit bar and a guard on each end of said bar, each of said guards consisting of inner and outer concavo-convex circular plates having their concave faces opposed, an intermediate reinforcing plate, said plates being permanently soldered to each other at their outer edges and provided with spaced openings extending through the connected portions of the plates for the connection of the bridle straps thereto, and means for permanently securing said plates upon the bit bar including an eye threaded in the end of the tubular bar and permanently secured to the convex face of the outer guard plate.

1,241,730. RESILIENT WHEEL. MACK H. HARRIS, Higginsville, Mo., assignor of one-half to John Klein, Higginsville, Mo. Filed Jan. 22, 1917. Serial No. 143,725. (Cl. 152—44.)



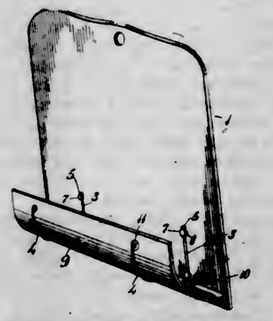
A hub structure comprising a tubular member provided with spaced annular flanges, one of said flanges being removable, an annular member positioned between said flanges and capable of movement relative to the tubular member, a substantially V-shaped resilient member interposed between the tubular member and the annular member, the free end portions and the apex portion of said resilient member being provided with a barrel, a pin removably insertible within the tubular member and through the barrel at the inner end of the resilient member, a pin removably insertible through the annular member and through the barrel at the outer end of the resilient member, a pin disposed through the barrel at the apex portion of the member, each of said barrels being provided with a cut-out portion, a coil spring engageable with the pin at the apex portion of the resilient member at the cut-out portion of the adjacent barrel and with the pin coacting with the inner end portion of the resilient member at the cut-out portion of said inner barrel, and a coil spring interposed between the pin at the apex portion of the resilient member at the cut-out portion of said barrel and with the pin at the outer end of the resilient member and at the cut-out portion of said outer barrel.

1,241,731. TELEPHONE-MOUTHPIECE. JOSEPH F. HAVLENA, Detroit, Mich. Filed May 25, 1917. Serial No. 170,896. (Cl. 179—185.



A mouth-piece for telephone transmitters consisting of a circular band having integral fingers extending from one edge, a speaking tube secured by said fingers to the band, and a sound penetrable diaphragm interposed between said band and tube and having also integral fingers secured to the latter.

1,241,732. WALL-BRACKET. CHARLES F. HENDERSON, Madisonville, Ohio, assignor to The Kemper-Thomas Company, Norwood, Ohio, a Corporation of New Jersey. Filed Jan. 9, 1914. Serial No. 811,134. (Cl. 45—64.)



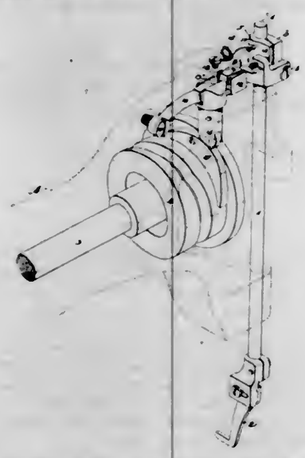
1. In a device of the character described, a backing piece adapted to hang on a wall, a plurality of supporting members having arms adapted to lie along the backing and return bend extensions, means for revolubly mounting the said members on the backing so that the extensions will swing away from the board, a pocket forming piece and means for detachably mounting it on the extensions comprising devices to engage the pocket forming piece to hold the same in place.

3. A wall bracket comprising a board adapted to hang against a wall, a separate pocket forming piece formed in a curve shape and means for detachably mounting the pocket forming piece on the board, comprising members having a straight portion, and a return bend in the same plane to the straight portion, and means on the board for revolubly mounting the straight portion so that when

the pocket forming piece is detached the return bend may be swung so as to lie along the board for shipment, said pocket forming piece having notches to engage over the straight portions of said members, when in operative position, hooks on the ends of the return bends and apertures in the pocket forming piece to engage said hooks.

[Claim 2 not printed in the Gazette.]

1,241,733. PRESSER-FOOT-LIFTING MECHANISM FOR SEWING-MACHINES. PARK A. HERR, Saybrook, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed June 23, 1914. Serial No. 846,726. (Cl. 112—13.)



1. In presser-foot lifting mechanism for sewing machines, the combination with a presser-bar, of a collar loosely fitted upon said presser-bar, said collar being split at one point circumferentially thereof, thereby defining two relatively movable portions, and being continuous at all other points circumferentially thereof, whereby it may resist a circumferential tensile stress, means acting on said portions of the collar to force them toward each other, thereby causing said collar to grip the bar, said means acting subsequently to lift the bar.

2. In presser-foot lifting mechanism for sewing machines, the combination with a presser-bar, of a split collar loosely fitted upon said presser-bar, means acting upon the portions of said collar adjacent said split with a force directed in a plane spaced from said presser-bar to draw said collar tightly about said presser-bar, said means acting subsequently to lift the bar.

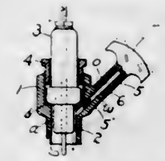
3. In presser-foot lifting mechanism for sewing machines, the combination with a presser-bar, of a vertically movable split collar loosely fitted upon the presser-bar, lifting means adapted to decrease the normal diameter of said collar, said lifting means acting upon the collar with a force directed in a plane spaced from the presser-bar.

4. In presser-foot mechanism for sewing machines, the combination with a vertically movable collar adapted to be loosely fitted upon the presser-bar of a sewing machine and formed with a laterally extending split portion affording circumferentially spaced sections, of a clamping lever fulcrumed upon one section of said split portion of the collar and having a member adapted to apply a force to the opposite section thereof directed toward the first mentioned section in a plane spaced from the axis of the presser-bar, whereby said collar is caused to securely grip the presser-bar.

5. In presser-foot lifting mechanism for sewing machines, the combination with a presser-bar, of a split collar in the form of a flexible strap substantially surrounding said presser-bar and having two relatively movable end-portions disposed at one side of the presser-bar, means for forcing the end-portions of said strap toward each other, thereby tightening said strap about the presser-bar, said means acting subsequently to lift the bar.

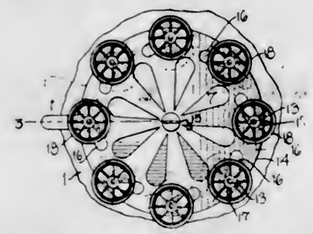
[Claims 6 and 7 not printed in the Gazette.]

1,241,734. SPARK-PLUG. HARRY H. HOFF and FRANK E. TALLEUR, St. Louis, Mo. Filed Mar. 3, 1917. Serial No. 152,324. (Cl. 123—169.)



In combination with a spark plug comprising an outer tubular socket and an inner insulating plug shouldered thereto on the inside of the socket and extending beyond the shoulder, said extension being spaced from the inner walls of the socket, an open-ended tube on the socket terminating in an enlarged basal portion, and disposed at an incline to the axis of the socket and discharging into the bore of the socket below the shoulder aforesaid, the outer wall of the tube being screw-threaded, said screw-threaded portion having a peripheral opening formed thereon, and an imperforate screw-cap passed over the screw-threaded portion and operating to tightly seal said opening, said screw-cap being limited by the enlarged basal portion of the tube aforesaid.

1,241,735. TANK CLOSURE OR COVER. LAFAYETTE HOLT, Burlington, N. C., assignor of one-half to Eugene Holt, Burlington, N. C. Filed June 10, 1915. Serial No. 33,337. (Cl. 220—124.)



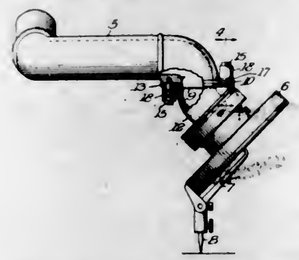
1. The combination with a tank having an opening, of a flanged member surrounding said opening and having peripheral slots, means for closing said opening including a cover plate having apertures therein corresponding with the slots in said flanged member, cover clamping members loosely carried in said apertures for movement into and out of engagement with said flanged member, means for simultaneously moving all of said clamping members into and out of said slots, and means for securing said clamping members in the inward position, substantially as described.

2. The combination with a tank having an opening, of a flanged member surrounding said opening and having peripheral slots, means movable in a plane parallel with said cover for closing said opening including a cover having apertures therein corresponding with said slots, cover clamping members having squared shanks slidable in said apertures and slots for movement into and out of engagement with said flanged member, means for simultaneously moving all of said clamping members, and means for securing said clamping members in the inward position to retain said cover in place, substantially as described.

3. The combination with a tank having a circular opening, of a flanged member surrounding said opening and having radially extending peripheral slots, means for closing said opening including a cover having radially extending apertures corresponding with said slots, cover clamping members movable in said apertures and slots for movement into and out of engagement with said flanged member, and a rotatable member superposed on said cover and having spirally arranged slots engaging said clamping members to move the latter in said apertures and slots, and means for securing said clamping members in the clamped position, substantially as described.

[Claims 4 and 5 not printed in the Gazette.]

1,241,736. UNIVERSAL REPRODUCER FOR TALKING-MACHINES. ALBERT A. HUSEBY, Chicago, Ill. Filed May 2, 1917. Serial No. 165,971. (Cl. 274—24.)

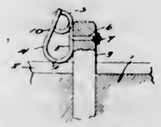


1. The combination with a tone arm having a circular flange at one end, and a sound box, of a coupling member forming an extension of the tone arm and secured to the sound box said coupling member having a circular flange registering with the flange of said tone arm, and means engaging and holding said flanges in register with capacity for a relative turning movement about their common axis.

3. The combination with a tone arm having a circular flange at one end, and a sound box, of a coupling member forming an extension of the tone arm and secured to the sound box, said coupling member having a circular flange registering with the flange of said tone arm, one of said flanges having an arcuate slot and the other flange carrying a headed stud extending through said slot, and a spring confined between the head of said stud and said slotted flange.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,241,737. CONNECTOR FOR BATTTERIES. CLARENCE B. JOHNSON, Norfolk, Va., assignor of one-third to Palmer R. Ingram and one-third to J. Edward Cole, Norfolk, Va. Filed Oct. 7, 1914. Serial No. 865,515. (Cl 173—259.)



1. A connector for batteries, having one portion twisted to form a loop to receive a wire, said loop terminating in an end adapted to connect to a support, and having its other end turned into a second loop and adapted to traverse the first loop and lock a wire therein.

[Claim 2 not printed in the Gazette.]

1,241,738. PLASTIC COMPOSITION AND PROCESS OF PRODUCING IT. FRITZ KLATTE and ADOLF ROLLETT, Schwanheim-on-the-Main, Germany, assignors to the firm of Chemische Fabrik Griesheim-Elektron, Frankfort-on-the-Main, Germany, a Corporation of Germany. Filed July 2, 1914. Serial No. 848,689. (Cl. 106—40.)

The process of producting a plastic composition which comprises causing a plurality of molecules of the vinyl ester of an argonic acid to combine together.

27. As a new lacquer a mixture comprising a polymerized vinyl ester of an acetic acid compound and solvent therefor.

28. As a lacquer a mixture comprising a polymerized vinyl ester of an acetic acid compound, a solvent therefor and a non-solvent liquid.

[Claims 2 to 26 not printed in the Gazette.]

1,241,739. FELLING DEVICE FOR SEWING-MACHINES. BERNARD M. KRELL and MICHAEL ZUCKERMAN, New York, N. Y. Filed Apr. 10, 1917. Serial No. 160,940. (Cl. 270—34.)



1. In a device of the character described, the combination of a part having a curved face; an S-shaped scroll; and an upwardly curved C-shaped extension scroll joining the S-shaped scroll, the S-shaped scroll coöperating with the C-shaped extension scroll and said curved face to form a pair of C-shaped slots, the arm of one slot being received between the arms of the other slot, said S-shaped scroll being cut away at the middle of its rear part whereby it is much shorter than said C-shaped extension scroll.

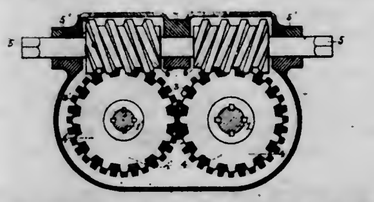
7. In a device of the character described, the combination of a part having a curved face; an S-shaped scroll; and an upwardly curved C-shaped extension scroll joining the S-shaped scroll, the S-shaped scroll coöperating with the C-shaped extension scroll and said curved face to form a pair of C-shaped slots, the arm of one slot being received between the arms of the other slot, said S-shaped scroll being cut away at the middle of its rear part whereby it is much shorter than said C-shaped extension scroll, said curved face and the upper part and the lower part of said S-shaped scroll being provided with rearward extensions converging toward each other.

12. In a device of the character described, the combination of a base piece provided with a curved face and a positioning edge, a scroll plate on said base piece and provided with a shoulder engaging said edge and with a scroll coöperating with said face and means adjustably securing said plate on said base piece.

14. In a device of the character described, the combination of a base piece provided with an elevation having a curved end and a cut-away intermediate part forming a positioning edge, a scroll plate provided with a scroll cooperating with said curved end to form a guide slot, means for adjustably securing the plate on the elevation, and a shoulder formed on said plate and engaging said edge.

[Claims 2 to 6, 8 to 11, and 13 not printed in the Gazette.]

1,241,740. POWER TRANSMISSION. ANTHONY KUEFER, Toledo, Ohio, assignor to Robert B. Wilson, trustee, Toledo, Ohio. Filed Jan. 22, 1916. Serial No 73,576. (Cl. 74—36.)

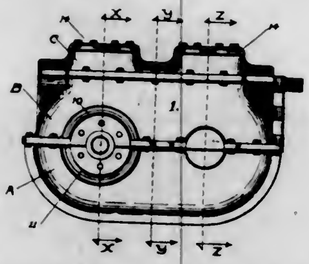


1. An article of manufacture adapted to be utilized as a unit in driving different mechanisms, comprising an inclosing casing, a single driving shaft extending through the casing from end to end, opposed worms carried thereby within the casing, parallel shafts extending laterally through the casing, worm gears thereon meshing with the

worms, and meshing spur gears also carried by said shafts within the casing to balance the worm gearing and prevent end thrust, both ends of the driving shaft being adapted for engagement with the source of power and each end of each of the other shafts adapted to be connected to a mechanism to be driven, substantially as described.

[Claim 2 not printed in the Gazette.]

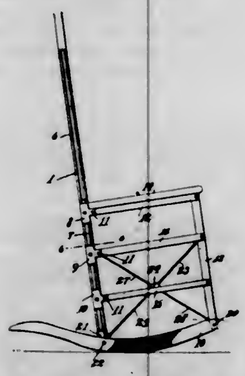
1,241,741. UNIT OF POWER TRANSMISSION. ANTHONY KUEFER, Toledo, Ohio, assignor to Robert B. Wilson, trustee. Filed Jan. 11, 1917. Serial No. 141,756. (Cl. 74—36.)



2. An article of manufacture adapted to be utilized as a unit to drive different mechanisms, comprising an inclosing casing, a single shaft extending lengthwise in the upper portion of the casing and having a protruding end portion for connection, a pair of opposed worms carried by said shaft within the casing, parallel shafts extending laterally, one through and the other within the lower portion of the casing, the ends of said first parallel shaft protruding for connection, interchangeably with the protruding portion of said worm carrying shaft, with the source of power and with the parts to be driven, a pair of opposed worm gears carried by said parallel shafts within the casing and meshing with the worms of said worm shaft, and a pair of spur gears also carried by and independently mounted on said parallel shafts within the casing, and meshing with each other, whereby the gears are balanced and end thrust is neutralized.

[Claims 1 and 3 not printed in the Gazette.]

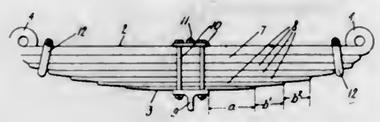
1,241,742. FOLDING CHAIR. THOMAS LAMBETH, Rachel, N. C. Filed Sept. 28, 1916. Serial No. 122,707. (Cl. 155—8.)



1. In a folding chair, the combination of a back frame having a longitudinally extending groove, a rod slidably mounted in said groove, a plurality of clips secured to said rod, a front leg mounted in spaced relation to the back frame, a plurality of bars pivotally secured at their outer ends to the said leg and at their inner ends to said clips, and a rocker pivotally secured adjacent its outer end to the lower end of said leg and at an intermediate point to the lower end of said rod.

2. In a folding chair, the combination of a back frame having a longitudinally extending groove, a rod slidably mounted in said groove, a plurality of clips secured to said rod, a front leg mounted in spaced relation to the back frame, a plurality of bars pivotally secured at their outer ends to the said leg and at their inner ends to said clips, a rocker pivotally secured adjacent its outer end to the lower end of said leg and at an intermediate point to the lower end of said rod, and a pair of slidably connected diagonally disposed brace rods pivotally secured to the said leg and to the back frame.

1,241,743. LAMINATED SPRING. DAVID LANDAU, New York, N. Y. Filed Aug. 22, 1916. Serial No. 116,284. (Cl. 267—33.)



1. A laminated leaf spring having the end portions of certain of the leaves tapered, the tapers decreasing in flexibility from the shorter to the longer plates.

2. A laminated leaf spring in which the stepped lengths or overhangs of the leaves decrease in length from the shorter to the longer plates, the ends of certain of the leaves being tapered and the tapers decreasing in flexibility from the shorter to the longer plates.

3. A graded laminated leaf spring having the master leaf thicker than the short plates and in which the stepped lengths or overhangs of the leaves decrease from the shorter plates toward the longer plates.

4. A graded laminated leaf spring in which the master leaf is thicker than the short plates, the stepped lengths or overhangs of the leaves decreasing from the shorter plates toward the longer plates, the ends of certain of the leaves being tapered, the flexibility of the tapers decreasing from the shorter plates toward the longer plates.

5. A graded laminated leaf spring, in which the master leaf is thicker than the short plates, the flexural characteristics of the successive leaves being so proportioned that the reactions between the leaves increase from the short plate to the final reaction between the master leaf and the long plate, said final reaction being insufficient to cause the master leaf to break first.

[Claims 6 to 20 not printed in the Gazette.]

1,241,744. SPRING. DAVID LANDAU, New York, N. Y. Filed Sept. 13, 1916. Serial No. 119,814. (Cl. 267—33.)



1. A leaf for a laminated spring having tapers in the plane of its thickness and in the plane of its width, both of said tapers having the outlines of a trapezoid.

2. A laminated leaf spring comprising a plurality of leaves having central portions of substantial length and of uniform dimensions in thickness and width, said leaves having end portions tapered in the planes of their width and thickness in the outlines of a trapezoid, the ends of the tapered portions of the shorter leaves overlapping the bases of the tapers of the respective next longer leaves.

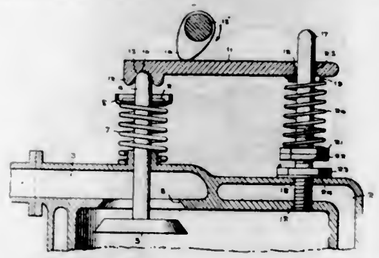
3. A leaf for a laminated spring having its end portion tapered both in the plane of its width and plane of its thickness, the taper in both planes having the outlines of a trapezoid, said leaf being provided adjacent to the base of the taper with a stress rectifying slot.

4. A laminated leaf spring in which certain of the leaves have end portions tapered in both the planes of thickness and width, the taper in both planes having the outlines of a trapezoid, the ends of certain of the leaves being also provided with stress rectifying slots within the areas covered by the ends of the next shorter leaves.

5. A laminated leaf spring in which certain of the leaves are provided with stress rectifying slots within the areas covered by the end portions of the next shorter leaves, said shorter leaves being provided with beads cooperating with the walls of said slots in the adjacent longer leaves to maintain the leaves in alinement.

[Claims 6 and 7 not printed in the Gazette.]

1,241,745. CUSHIONED VALVE-TAPPET. JESSE D. LANGDON, Waterville, Wash., assignor to The Auxiliary Cooler Company, a Corporation of Washington. Filed Nov. 2, 1916. Serial No. 129,111. (Cl. 121—97.)



1. The combination with a puppet valve, and valve actuating cam, of a tappet arm having one end interdisposed between and bearing against the puppet valve and the valve actuating cam, and elastic means for supporting the opposite end of the tappet arm.

2. The combination with a puppet valve, and a valve actuating cam, of an intermediary tappet arm, and variable tension means engaging the tappet arm and serving to hold the tappet arm in operative position between the puppet valve and actuating cam and maintain a continuous contact between said puppet valve, valve actuating cam and tappet arm.

3. In an engine, the combination with the cam shaft having a cam thereon, and a spring pressed valve thereof embodying a valve stem, of a tappet arm fulcrumed on and positioned between said cam and valve stem, and means for yieldingly connecting it to the engine, said connecting means serving to cushion the valve tappet arm between the cam and the valve stem.

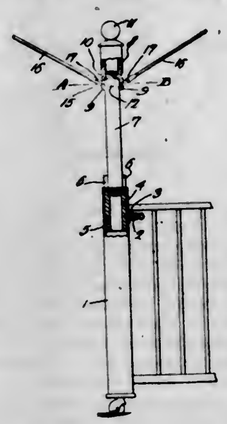
4. In an internal combustion engine, the combination with the cam shaft having a cam thereon and a spring pressed valve therefor embodying a valve stem, of a cushioned valve tappet comprising a tappet arm having one end resting against the outer free end of said valve stem, and means yieldingly connecting the opposite end of said tappet arm to the engine, said tappet arm adapted to be fulcrumed on the cam between its ends and cushioned between the cam, the valve stem and said yielding connecting means.

5. In an internal combustion engine, the combination with the cam shaft having a cam thereon, and a spring pressed valve thereof embodying a valve stem, of a cushioned valve tappet comprising a tappet arm designed to have one end fulcrumed on and interdisposed between said cam and valve stem, and means for elastically connecting the opposite end of said tappet arm with the engine, said elastic connection serving to cushion the tappet arm between the cam and valve stem.

[Claims 6 to 9 not printed in the Gazette.]

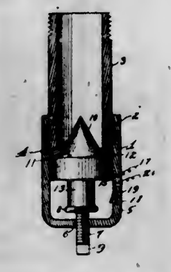
1,241,746. CLOTHES-RACK. MONT J. LEABO, Iola, Kans. Filed May 4, 1916. Serial No. 95,414. (Cl. 65—23.)

In combination with a tubular housing member, of upper and lower sleeves, a standard of less diameter than said sleeves and connecting said sleeves, the said sleeves and standard being adapted to be housed within or to be supported above the housing member, a ring arranged within the upper sleeve and having offset portions, there being slots in the upper sleeve for the reception of said offset portions, arms arranged within the slots in the upper sleeve and having longitudinal slots for the reception of said offset portions, there being recesses in the standard



and adjacent the slots in the upper sleeve for the reception of the inner end of the inner arms thereby to hold said arms in outwardly extending or active position, said arms being slidable outwardly and adapted to swing downwardly into position along the outer surface of the standard thereby to be housed with the sleeves and the standard within the housing member.

1,241,747. SPRINKLER-HEAD. JOSEPH J. LINEHAN, White Plains, N. Y. Filed Feb. 17, 1916. Serial No. 78,954. (Cl. 169—5.)

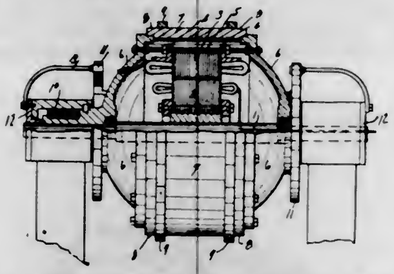


A sprinkler head comprising a casing provided with a depending yoke having a recess in one of the side members thereof, a valve movable longitudinally in said casing and engageable with the inner surfaces of said side members, means adjustably carried by the bight portion of said yoke for supporting a fusible block in engagement with said valve whereby the same is normally retained in its closed position, a counter sunk contact plate carried by said valve, a second contact plate mounted in the recess formed in the side member of said yoke and having a portion thereof in the path of movement of said valve and adapted to be engaged by the first named contact plate to close a circuit when said fusible block is melted.

1,241,748. MONORAIL TRACTION-WHEEL. ROYAL A. MCCLURE, Seattle, Wash., assignor to Universal Elevated Railway Company, Incorporated, Seattle, Wash. Filed Apr. 26, 1916. Serial No. 93,593. (Cl. 105—233.)

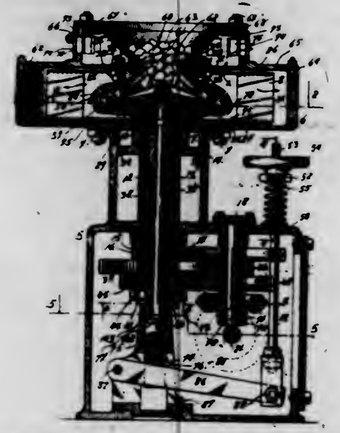
1. In a mono-rail system, the combination of a traction wheel including a tapered outer rim, a pair of flangeless tires removably secured to the tapered portion of said

rim and positioned in parallel spaced relation to each other, end flanges revolubly mounted on a central shaft and secured to said rim.



2. In a mono-rail traction wheel which includes stationary motor fields secured to a shaft and revoluble motor fields secured to clamp rings, the combination of an outer rim with tapered ends, spherical end flanges revolubly mounted on said shaft and supporting said rim, the said rim holding the flanges in spaced relation to each other, bolts connecting the said flanges and clamp rings together, whereby the flanges and rim and revoluble fields are fastened together, and a pair of similar tapered tires, one on either tapered end of said outer rim.

1,241,749. GRINDING-MILL. EDWARD F. MCCOOL, Victor, Colo., assignor to The McCool Mfg. & Trading Co. Victor, Colo., a Corporation of Colorado. Filed Dec. 16, 1915. Serial No. 806,952. (Cl. 83—10.)



1. The combination of two coöperating disks having interposed grinding balls, and means for imparting a rotary movement to one disk on its own axis, means for simultaneously imparting an orbital travel to the last named disk, and means for feeding material to be treated to the disks for grinding purposes.

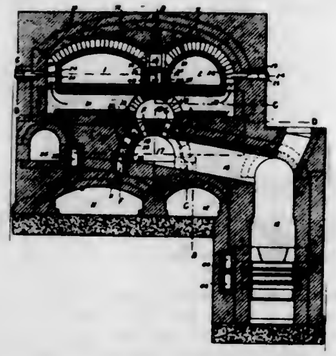
2. The combination of two coöperating disks, having interposed balls located in a race formed in the adjacent faces of the disks, the race being enlarged to permit lateral movement of the balls therein, and means for simultaneously imparting both rotary and orbital travel to one of the disks.

3. The combination of two coöperating grinding members, having outer and inner areas, in one of which is formed a race in which balls are located, the race being larger than the balls to facilitate lateral movement of one member with respect to the other.

4. The combination in a grinding mill of grinding members, a chamber in which the members are located, a fan surrounding the grinding members for expelling the pulverized product, the said chamber being provided with a separating device located near the outer wall of its exit opening, forming an outer passage for the escape from the chamber of a relatively coarse grade of material which is carried outwardly by centrifugal force.

5. A grinding mill comprising grinding elements, a chamber in which the said elements are located, the chamber being provided with an exit for the pulverized product, a fan located within the said chamber in the vicinity of said elements for expelling the pulverized product, the fan chamber being provided with an adjustable device located near the outer wall and adjacent its exit opening for separating the coarser product from the finer material, and expelling it separately from the chamber.

1,241,750. FURNACE FOR ANNEALING METALS. RICHARD MASTERS, Dudley, England. Filed Aug. 11, 1914. Serial No. 856,173. (Cl. 263—38.)



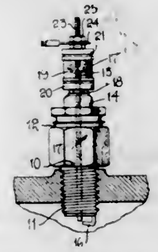
1. An annealing furnace comprising an elongated retort, an elongated waste gas chamber at the side of the retort and co-extensive therewith, a waste gas flue below the retort and co-extensive therewith, downdraft flues near the ends of the retort connected terminally with the waste gas chamber and the waste gas flue respectively, a combustion chamber arranged immediately below the said waste gas chamber and co-extensive therewith, the retort being provided in its walls with circumferentially extending passages communicating terminally with the combustion chamber and waste gas chamber respectively and being separated by imperforate longitudinally spaced partitions, means for supplying combustible fluid to the combustion chamber, and independently operable means for controlling the flow of gas through the said passages of the retort.

2. An annealing furnace comprising an elongated retort, an elongated waste gas chamber at the side of the retort and co-extensive therewith, a waste gas flue below the retort and co-extensive therewith, downdraft flues near the ends of the retort connected terminally with the waste gas chamber and the waste gas flue respectively, a combustion chamber arranged immediately below said waste gas chamber and co-extensive therewith, the retort being provided in its walls with circumferentially extending passages communicating terminally with the combustion chamber and waste gas chamber respectively and being separated by imperforate longitudinally spaced partitions, independently operable means for controlling the flow of gas through the said passages of the retort, an arched gas flue disposed beneath the combustion chamber and having gas passages in its arched wall communicating with the latter, means for supplying hot producer gas to the said flue, the arched wall of the gas flue being provided further with tortuous air passages leading from the atmosphere to the combustion chamber to supply secondary air thereto.

3. An annealing furnace comprising a pair of elongated retorts disposed in parallel and spaced relation to each other horizontally, a waste gas chamber disposed between the retorts and co-extensive therewith, a waste gas flue below the retorts and co-extensive therewith, downdraft flues near the ends of the retorts connected terminally with the waste gas chamber and the waste gas flue respectively, a combustion chamber arranged immediately below the said waste gas chamber and co-extensive therewith, the retorts being provided in their walls with circumferentially extending passages communicating terminally with the combustion chamber and waste gas chamber respectively and being separated by imperforate longitudinally spaced partitions, means for supplying combustible fluid to the combustion chamber, and independently operable means for controlling the flow of gas through the said passages of the retort.

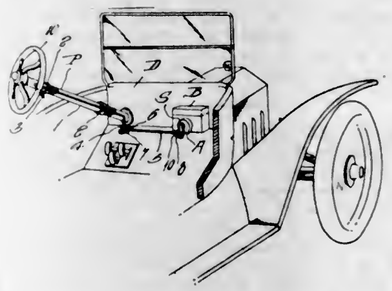
[Claim 4 not printed in the Gazette.]

1,241,751. SPARK-PLUG ATTACHMENT. NORMAN R. MICHAEL, Mainville, Pa. Filed Apr. 28, 1917. Serial No. 165,236. (Cl. 123—169.)



A spark plug attachment comprising a cylindrical transparent housing formed with annular grooves adjacent its opposite ends, metallic caps embracing the ends of the housing and having beads engaging in said grooves, each of said caps having a screw-threaded central aperture, one of said apertures being adapted to receive the electrode of a spark plug, an electrode section passing through the screw-threaded aperture of the other cap and adjustable therethrough, and binding nuts on the electrode section.

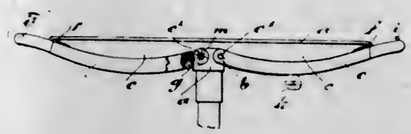
1,241,752. AUTOMOBILE-SWITCH CONTROL. HOMER ERNEST MILLER, Columbus, Ga., assignor of one-half to William Ephraim Knowles and one-half to Edward Ellis Yonge. Filed Oct. 16, 1916. Serial No. 125,962. (Cl. 74—39.)



1. A device for controlling the dashboard switches of automobiles from the steering wheels thereof comprising an inclined rock shaft and means for supporting it from the steering post, a laterally extending operating arm on the upper end of said shaft, a crank arm on the lower end thereof, a link pivoted to said crank arm, means on the free end of said link for connecting it to the laterally swinging operating arm of the switch, and a laterally extending stop finger on the free end of said crank arm for contact with the link to limit the relative movement of the two.

[Claims 2 to 5 not printed in the Gazette.]

1,241,753. FOLDING SEAT-STICK. WILLIAM MILES, Birmingham, England. Filed Aug. 9, 1915. Serial No. 44,550. (Cl. 155—42.)

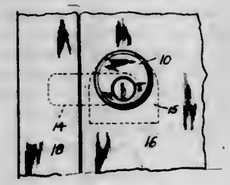


3. A seat stick comprising a rod, a pair of yoke shaped arms pivoted at their inner ends to the head of the rod, cross bars provided upon such arms adjacent their extremities, such bars being mounted above the arms and a seat strap whose ends are connected to the bars, such strap extending so closely above the head of the rod as to bear thereon when in use whereby said strap accommodates the contour of the body.

4. A seat stick comprising a rod, a pair of arms being pivoted to the head of same at their inner ends, locking means provided at the outer ends of the arms, comprising a male member secured to the outer end of one of the arms and a female member secured to the outer end of the second arm, spring engagement between the two being effected by means of positioning them slightly out of center.

[Claims 1 and 2 not printed in the Gazette.]

1,241,754. LOCK. HARRY MOLDEN, Sydney, Australia, assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed July 3, 1916. Serial No. 107,277. (Cl. 70—47.)



1. In a lock for lockers and the like, the combination of a door member and a jamb member, a pin tumbler lock located in a bore in one of said members and having a key plug, a plate applied flatwise to the inner surface of said member back of said pin tumbler lock, screws supporting said pin tumbler lock from said plate, a key rod connected with and extending rearwardly from said key plug through an opening in said plate, a swinging catch member mounted on the plate immediately at the rear surface thereof close to said first-named member and having non-rotative engagement with the key rod so that it is actuated thereby, the end of said catch member extending beyond the edge of said plate and being offset from the body portion of said member and engageable directly with the rear face of the other of said first named members to lock the door; substantially as described.

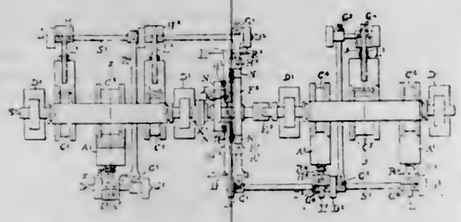
2. In a lock for lockers and the like, the combination of a door member and a jamb member, a pin tumbelr lock located in a bore in one of said members and having a key plug, a plate applied flatwise to the rear surface of said first named member back of said pin tumbler lock, means supporting said pin tumbler lock from said plate, a key rod connected with the rear end of the key plug and extending rearwardly beyond said plate through an opening therein, a catch member mounted immediately at the rear surface of said plate to swing on said plate and having non-rotative but slidable engagement with the portion of the key rod which extends rearwardly through the plate so that the lock is applicable to doors of different thickness, the free end of said catch member being extended beyond the margin of said plate and offset so as to

directly engage the rear surface of the other of said pair of first mentioned members to lock the door; substantially as described.

3. In a lock for lockers and the like, the combination of door and jamb members, a pin tumbler lock mounted in one of said members and having a key plug, a key rod connected with the rear end of said key plug, a plate applied flatwise to the inner face of said last named member, a swinging catch member swiveled on said plate, said plate and catch member having openings through which said key rod passes, said swinging catch member being located at the rear of said plate but having a free end portion offset into the plane of the plate to engage directly the rear face of the other of said first named members; substantially as described.

[Claims 4 to 18 not printed in the Gazette.]

1,241,755. ROTARY ENGINE. FRANK NEARING, New York, N. Y. Filed July 12, 1916. Serial No. 108,878. (Cl. 121—69.)



1. In a rotary engine having a plural number of segmental cylinders in separate groups and provided with intake and exhaust ports, the combination with the shaft carrying within said cylinders loosely keyed drums carrying radially and longitudinally expansive pistons on opposite sides of the shaft in each group, of the eccentric disks fixed on said shaft and the connecting mechanism for moving the abutments within said cylinders substantially as shown and described.

[Claims 2 and 3 not printed in the Gazette.]

1,241,756. WIRE COILING AND CLAMPING DEVICE. JULIAN J. NIELSEN, Chicago, Ill., assignor to John Cuthbert, Chicago, Ill. Filed Dec. 18, 1915. Serial No. 67,539. (Cl. 173—259.)



1. The combination with a rotatable wire clamping member, of a wire coiling member detachably associated with the wire clamping member and having an abutment for engagement with a rotating tool, and a wire engaging and coiling projection thereon.

2. The combination with a rotatable wire clamping member, of a wire coiling member detachably associated with the wire clamping member and comprising a flat body part, a wire engaging and coiling projection on the under side thereof, and lugs projecting in the opposite direction to provide a screw driver receiving slot.

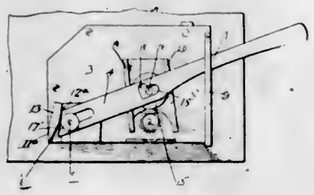
3. The combination with a wire clamping screw having a slotted head, of a wire coiling member detachably associated with the wire clamping screw and positioned to underlie the head thereof, a wire engaging and coiling shoulder on said member, and a part projecting above the member into the path of the screw driver whereby to rotate said member when the screw is rotated.

4. A wire coiling member for the removal from and replacement on a clamping screw and rotatable independently thereof, comprising a part to underlie the head of a screw, a part in the path of the screw driver whereby to rotate said device when the screw is rotated and a part to engage a wire to coil it about the shank of the screw, said screw driver engaging part permitting independent rotation of the screw.

5. The combination with a wire clamping screw having a slotted head, of a wire coiling member detachably associated with the wire clamping screw and positioned to underlie the head thereof, a wire engaging and coiling shoulder on said member, and lugs integral with the said member and extending over the edges of the head at each side of the slot for engagement with a screw driver.

[Claim 6 not printed in the Gazette.]

1,241,757. CLOSURE FOR BUNG-HOLES. ROY H. NORTON, Putnam Station, N. Y. Filed Jan. 31, 1912. Serial No. 674,523. (Cl. 137—51.)



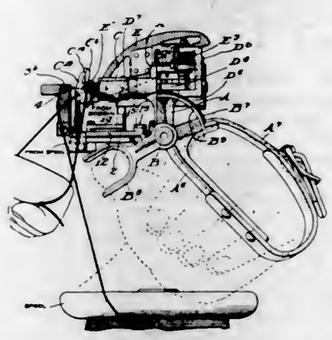
In a device of the kind described, in combination, a receptacle having a bunghole, a pair of inclined members secured to said receptacle on opposite sides of said bunghole, a stopper slidable between said inclined members and adapted to close said bung-hole, a member secured opposite said bung-hole and formed with an abutment having one side inclining in opposite directions, a pin on said last-named member arranged opposite the juncture of said oppositely-inclined surfaces, a handle portion having a substantially L-shaped slot, a pin carried by said stopper projecting into said L-shaped slot, the outer edge of said handle portion being beveled and the outer end thereof formed with a slot into which said first-named pin projects, a head on said first-named pin contacting said handle-portion, the arrangement being such that when the beveled edge of the handle portion is in contact with the upper inclined side of said abutment said last-named pin lies in the horizontal portion of the L-shaped slot, and said stopper will be in open position and when in contact with the lower inclined side of said abutment said last-named pin lies in the vertical portion of said L-shaped slot, whereupon said stopper will close said bung-hole.

1,241,758. KNOTTER. EARLE D. PARKER, Rockford, Ill., assignor to Howard D. Colman, Luther L. Miller, and Harry A. Severson, Copartners doing business as Barber-Colman Company, Rockford, Ill. Filed June 7, 1913. Serial No. 772,439. (Cl. 28—33.)

1. In a knot-tying mechanism, in combination, a rotary tying bill; means for supporting a thread extending across the tying bill, said bill being adapted to shear and clamp said thread; means for supporting a thread which is doubled over the other thread; a shear for severing a portion of said doubled thread; means for revolving the tying bill against the doubled thread, the other thread being thereafter caught by the tying bill and sheared and clamped; and means for actuating the shear.

2. In a knot-tying mechanism, in combination, a rotary tying bill; means for supporting a thread extending across the tying bill, said bill being adapted to shear and clamp said thread; two thread guides for supporting a thread which is doubled over the other thread, said guides being spaced apart so as to support the strands of the doubled thread at an angle to each other; means for shearing one of said strands of the doubled thread; and means for actuating the tying bill and the shearing means.

3. In a knot-tying mechanism, in combination, a rotary tying bill; an oscillatory thread-holding arm adapted to clamp the thread and move away from the tying bill to tighten the knot and strip the thread from the tying bill; means for supporting a thread which is doubled over the other thread; means for shearing a portion of said doubled thread; and means for rotating said tying bill and for moving said arm, and for actuating said shearing means.

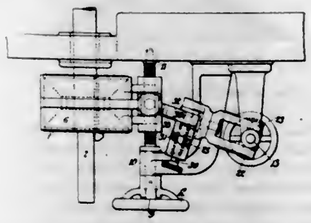


4. In a knot-tying mechanism, in combination, a rotary tying bill; means for supporting a thread extending across the tying bill, said bill being adapted to shear and clamp said thread; two thread guides for supporting a thread which is doubled over the other thread, one of said guides being below the other; means adapted to advance to grasp and shear the strand that lies in said lower guide; and means for actuating the tying bill and the grasping and shearing means.

5. In a knot-tying mechanism, in combination, a rotary shaft; a tying bill on said shaft; means for supporting a thread extending across the tying bill, said bill being adapted to shear and clamp said thread; two thread guides for supporting a thread which is doubled over the other thread, one of said guides being in the horizontal plane of the tying bill shaft, and the other guide being below said plane; means adapted to advance to grasp and shear the strand held by the lower guide; and means for actuating said tying bill shaft and said shearing means.

[Claims 6 to 20 not printed in the Gazette.]

1,241,759. REEL-BRAKE FOR WEB-PRINTING MACHINES. THOMAS ROBERT GILLETT PARKER, WILLIAM EDWARD BENNISON, and WALTER LEE, Broadheath, England, assignors to Linotype and Machinery Limited, London, England. Filed Jan. 25, 1915. Serial No. 4,128. (Cl. 74—13.)



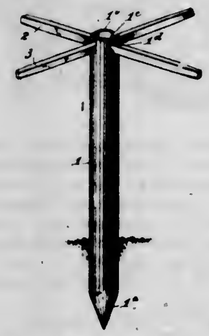
1. In a reel brake, the combination with a brake drum and a shaft whose axis is parallel with that of the brake drum, of a brake lever comprising a first part mounted upon and adapted to rock about the axis of, the said shaft, a second part, and a stud directly pivoting the second part to the first part and having its axis perpendicular to that of the said shaft.

2. In a reel brake, the combination with a brake drum and a shaft whose axis is parallel with that of the brake drum, of a brake lever comprising a first part mounted upon and adapted to rock about the axis of, the said shaft, a second part pivoted to the first part and adapted to turn about an axis perpendicular to that of the said shaft, and a third part swiveled to the second part and adapted to turn about an axis perpendicular to and intersecting the axis of the pivot which connects together the first and second parts.

3. In a reel brake, the combination with a brake drum and a shaft whose axis is parallel with that of the brake drum, of a brake lever comprising a first part mounted upon, and adapted to rock about the axis of, the said shaft, a second part pivoted to the first part and adapted to turn about an axis perpendicular to that of the said shaft, a third part pivoted to the second part and adapted to turn relatively thereto about an axis lying in a plane perpendicular to that containing the axis of the pivot connecting together the first and second parts, a fourth part swiveled to the third part and adapted to turn about an axis perpendicular to and intersecting the axis of the pivot connecting together the second and third parts, and means for locking together the said second and third parts in different positions relatively to each other.

[Claims 4 to 12 not printed in the Gazette.]

1,241,760. COLLAPSIBLE CAMP-STOVE. CHARLES F. PENN, Des Moines, Iowa. Filed Feb. 13, 1917. Serial No. 148,460. (Cl. 126—30.)



1. A collapsible camp stove, comprising a tubular arm carrying member, and article supporting arms mounted within said member when collapsed and interlocking therewith and with each other when set up.

2. A collapsible camp stove, comprising a pointed tubular arm carrying member, and article supporting arms mounted within said member when collapsed and interlocking in crossed relation therewith when set up.

3. A collapsible camp stove, comprising a pointed tubular support having an open head, and male and female article supporting arms extending through said open head in crossed interlocking relation to each other.

4. A collapsible camp stove, comprising a pointed tubular support having an open head, and male and female article supporting arms extending transversely through said open head in crossed interlocking relation to each other.

5. A collapsible camp stove, comprising a tubular member provided at one end with diametrically opposite arm receiving openings and recesses, and male and female cross arms mounted in said openings and recesses, respectively.

[Claims 6 to 14 not printed in the Gazette.]

1,241,761. BEET-TOPPING MACHINE. WALTER T. POMRANKE, Chilton, Wis. Filed Apr. 7, 1916. Serial No. 89,677. (Cl. 55—9.)

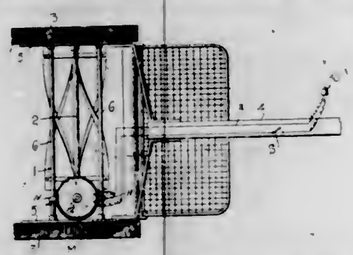
1. A machine of the class described comprising a frame, slotted plates depending therefrom, ground engaging shoes carried by said plates, and a second frame having a shaft slidably engaged in the slots in said plates.

2. A machine of the class described comprising a frame, slotted plates depending therefrom, ground engaging shoes carried by said plates, a second frame having a shaft



slidably engaging in the slots in said plates, and means on the first named frame for vertically adjusting said shaft to raise and lower the forward end of the second named frame.

1,241,762. LAWN-MOWER. LENORA PRATT, Visalia, Cal. Filed Apr. 25, 1917. Serial No. 164,454. (Cl. 56—19.)



1. In combination with a lawn mower including a frame embodying end plates, rods connecting said ends plates, a reel rotatably supported by the end plates and positioned below the rods; an electrical motor supported by the rods and an end plate of the frame, said motor including a vertically disposed drive shaft having its lower end portion operatively engaged with the reel, and means for connecting the motor with a suitable source of electrical energy.

[Claim 2 not printed in the Gazette.]

1,241,763. STOCK-GUARD. WILLIAM J. PRICE, Poteau, Okla. Filed Nov. 16, 1916. Serial No. 131,795. (Cl. 256—14.)



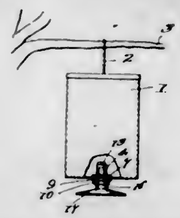
1. In a cattle guard for railway tracks the combination of a transversely arranged movable step plate, a plurality of longitudinally extending hingedly mounted guard slats normally lying flat, a connection between said slats and the plate adapted to raise said slats upon depression of the plate, and adjustable counter-balancing means in said connection whereby the minimum weight necessary to depress the plate may be varied.

3. In a cattle guard for railway tracks the combination of a transversely arranged movable step plate, a plurality of longitudinally extending hingedly mounted guard slats normally lying flat, a pair of rock shafts mounted beneath said plate and slats respectively, upwardly and downwardly extending arms on the respective shafts, a link connecting said arms, a depending projection on the plate, a supplemental arm on the shaft beneath said plate connected with said projection, and means for connecting the other shaft and the slats to raise said slats upon movement of the shaft.

5. In a cattle guard for railway tracks the combination of a transversely arranged movable step plate, a plurality of longitudinally extending hingedly mounted guard slats normally lying flat, a pair of rock shafts mounted beneath said plate and slats respectively, a connecting link between said shafts to move the same simultaneously, one shaft being operably connected with the plate, a plurality of laterally projecting arms on the other shaft, a projecting stud on the lower side of each slat, and a link connecting each stud with one of the laterally projecting arms on said last mentioned shaft.

[Claims 2, 4, and 6 not printed in the Gazette.]

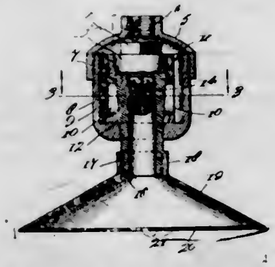
1,241,764. PORTABLE FIELD SHOWER-BATH. WILLIAM H. PRITCHETT, U. S. Marine Corps. Filed July 17, 1917. Serial No. 181,131. (Cl. 4—26.)



1. A portable field shower bath comprising a receptacle, a chambered stock projecting through the base of said receptacle and secured thereto, the said stock being provided with one or more lateral ports, a stem rotatably mounted in said stock and having one or more ports adapted to register with the ports in the stock, the said stem having its base projecting beyond the bottom of said stock, and a shower-head attached to said stem below said stock and adapted to rotate said stem when turning pressure is applied thereto, substantially as described.

[Claims 2 to 4 not printed in the Gazette.]

1,241,765. SHOWER-BATH FIXTURE. WILLIAM H. PRITCHETT, U. S. Marine Corps. Filed July 17, 1917. Serial No. 181,132. (Cl. 4—26.)

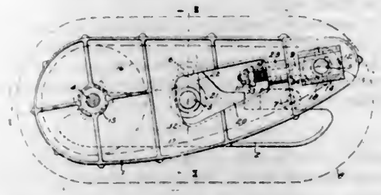


1. In a shower bath apparatus, the combination with a water main and a water pipe connected thereto, of a hollow cap connected to said pipe, a cup secured to said cap and provided with a tapered central chamber and an annular recess therein, with one or more ports connecting said annular recess with said central chamber, a tapered hollow plug rotatably mounted in said central chamber, and provided with one or more ports adapted to register with the ports in said cup, and a shower-head attached to said plug and adapted to rotate said stem when turning pressure is applied thereto, substantially as described.

[Claims 2 to 4 not printed in the Gazette.]

1,241,766. TRACTOR. ARTHUR D. REA, Milwaukee, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis., a Corporation of Delaware. Filed Dec. 18, 1915. Serial No. 67,936. (Cl. 21—114.)

1. In combination, a vehicle frame, a track frame connected thereto, an endless track carried by said track frame, mechanism mounted on said track frame for driving said endless track, means for transmitting power from said vehicle frame to said mechanism, and means for entirely inclosing said power transmitting means.



3. In combination, a vehicle frame, a track frame, an axle, means connecting together a place on each frame remote from said axle, and means for transmitting power between said places, said connecting means entirely inclosing said power transmitting means.

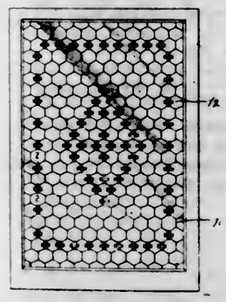
5. In combination, a vehicle frame, a track frame, an axle connecting said frames, a casing, and power transmitting means within said casing, said casing having an opening therethrough for said axle and a wall extending around said opening and closing said casing at said opening.

8. In combination, a vehicle frame having an axle, a track frame, means pivotally connected to said axle and to said track frame, and other means pivotally connected to said vehicle frame and said track frame.

9. In combination, a vehicle frame having an axle, a track frame, a link pivotally connected to said axle and to said track frame, and a casing pivotally connected to said vehicle frame and said track frame.

[Claims 2, 4, 6, 7, 10, and 11 not printed in the Gazette.]

1,241,767. ORNAMENTAL GLASS. JOHN P. RICHTER, New York, N. Y. Filed June 30, 1916. Serial No. 106,774. (Cl. 41—21.)



1. A glass plate having wires embedded therein and a plurality of units of definite substantially identical form secured to said wires and coöperating with said wires to form a design.

2. A glass plate having wires entirely embedded within the body of the glass and a plurality of units forming a design and also entirely embedded within the glass, said units being of definite form and large in respect to the diameter of the wires and spaced and positioned in respect to each other by said wires.

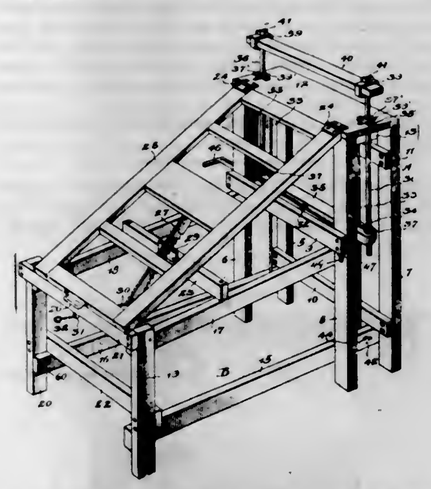
3. A glass plate having wire mesh entirely embedded within the body of the glass and a plurality of units forming a design and also entirely embedded within the glass, said units being of a size bearing a predetermined relationship to the size of the mesh and being rigidly secured to said wires prior to the introduction of said wires and units into the glass.

4. A glass plate having a wire mesh embedded therein, and a plurality of small thin plates of non-combustible material secured to said wire mesh and also embedded within the glass and each of a width materially greater than the diameter of the wires of the mesh.

5. An article of manufacture including a wire mesh, a plurality of elements secured thereto at spaced points and arranged to coöperate with the wires of the mesh to form a design, and a sheet of glass inclosing said wires and units.

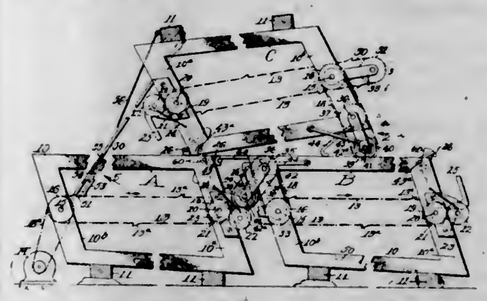
[Claims 6 to 8 not printed in the Gazette.]

1,241,768. DISPLAY-RACK. CHRIS C. RUSH, Greenville, S. C. Filed Sept. 23, 1916. Serial No. 121,736. (Cl. 211—22.)



A device of the character described, comprising a vertical frame, a cap plate carried thereby, a frame, one end of which is hinged at the edge of said cap plate, clamp rods passing through the cap plate, a clamp bar carried by the clamp rods, a cross-bar to which the clamp rods are connected, guide rods operating in slotted portions of the cross-bar, an operating handle, means for adjustably and pivotally connecting the operating handle to the vertical frame, means for pivotally connecting the operating handle to the cross-bar at a point intermediate the ends of the operating handle, a rack carried by the vertical frame with which the operating handle co-acts and a spring normally tending to impart vertical movement to the operating handle.

1,241,769. SECTIONAL TRACK. JOHN RUSSO, Fitchburg, Mass. Filed Aug. 6, 1917. Serial No. 184,621. (Cl. 104—45.)



1. A track comprising successive sections, each of said sections having driving mechanism mounted therein effective to move additional sections thereover.

6. A track comprising successive sections, means to move each new section in inverted position along the preceding sections, and means to reverse said new section into operative position at the end of the section last laid.

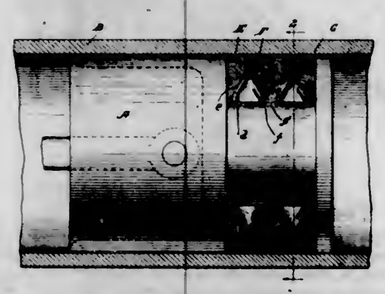
10. In a sectional track construction, a plurality of sections, means to support a new section in inverted po-

sition on the sections previously laid, conveying chains, and means on said inverted section engaging said chains whereby said section may be advanced, said means including a brace pivoted to said new section and having laterally projecting chain-engaging arms at its free end, means to hold said arms in operative position, and means to release said arms as said new section is turned to operative position.

13. A sectional track construction comprising a plurality of successive sections forming a track, means to support a new section thereon, conveying chains to advance said section along said track, means to operatively position said new section at the end of the section last laid and intermediate chains at the rear end of each section, effective to bridge the space between successive conveyer chains.

[Claims 2 to 5, 7 to 9, 11, and 12 not printed in the Gazette.]

1,241,770. PISTON-PACKING. THOMAS G. SAXTON, Lexington, Ky., assignor to Emelius M. McKee, Lexington, Ky. Filed June 6, 1916. Serial No. 101,917. (Cl. 121—108.)

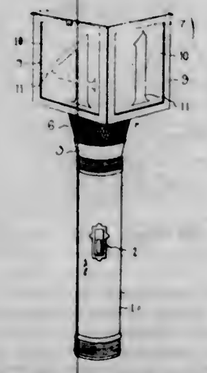


1. A packing for pistons comprising a resilient double conoidal split ring provided with open-ended slots arranged in staggered relation in the conoidal walls thereof, the open ends of the slots being at the base of the cone, together with outer split rings fitting upon the conoidal surfaces of the first mentioned ring.

2. In a piston packing, a double conoidal packing ring having open ended slots in both of its inclined walls to compensate for lateral expansion or contraction.

[Claims 3 and 4 not printed in the Gazette.]

1,241,771. PORTABLE INDICATOR. EDMUND E. SCHRAM, Detroit, Mich. Filed Nov. 15, 1916. Serial No. 131,376. (Cl. 40—77.)

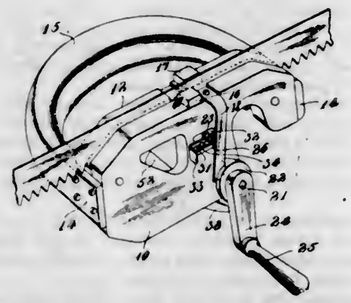


1. The combination of a flash light and an exhibitor rotatable on the outer end thereof about the longitudinal axis of the flash light and having sign displaying walls.

2. The combination of a flash light having a lamp axially of the outer end thereof, an exhibitor rotatable on the outer end of said flash light about the longitudinal axis thereof, and a lid on the outer end of said exhibitor adapted to be opened to emit rays of light from the lamp of said flash light.

3. A portable indicator comprising a flash light, a holder at the outer end thereof, an exhibitor rotatable on said holder about the longitudinal axis of said flash light and provided with sign displaying walls, and a lid closing the outer end of the exhibitor.

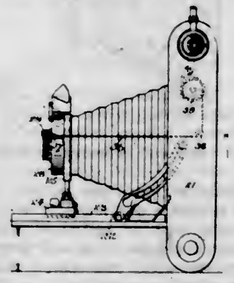
1,241,772. SAW-SET. ANTON SERFÖZÖ, Denver, Colo. Filed June 19, 1916. Serial No. 104,507. (Cl. 76—66.)



1. In a saw-set, the combination with a pair of plates, anvils disposed on the inner surface of said plates, resilient members disposed on the outer surface of said plates, plunger hammers disposed obliquely in said plates and movable therethrough in register with said anvils and adapted to be impelled by said resilient members, a shaft revolubly mounted in said plates, means for actuating said shaft, a pair of side cams each having a double throw mounted on said shaft exteriorly of said plates and adapted to impinge the resilient members, a face cam mounted on said shaft between said plates, and a floating lever for feeding the saw-blade, said lever having a part engageable by the last mentioned cam.

[Claims 2 to 4 not printed in the Gazette.]

1,241,773. CAMERA. MELVIN L. SEVERY, Los Angeles, Cal., assignor to Severy Manufacturing Company, Boston, Mass., a Corporation of Massachusetts. Filed Feb. 23, 1915. Serial No. 10,025. (Cl. 95—31.)



1. In a camera the combination of means for positioning successive sensitized media; a shutter having a setting mechanism for instantaneous exposures and independently operable means for producing other types of exposure; a locking device associated with said setting mechanism and adapted to be locked by one setting thereof to prevent a succeeding setting; and a release mechanism operatively connected with said means for positioning successive sensitized media and with said locking device and adapted to release the latter upon the positioning of a new sensitized medium.

6. The combination with a camera having a mechanism for feeding a sensitized medium and having a shutter mechanism mounted for movement relatively thereto; of a locking device operatively related to said shutter and adapted to be locked by one actuation thereof to prevent a succeeding actuation thereof; a normally tensioned flexible cord connected with said locking device to release the same by the alternate slackening and tensioning of said cord; and a releasing device operatively connected with the means for positioning the sensitized medium and adapted successively to slacken and tension said cord by the operation at the time of actuation of said positioning device.

9. In a camera the combination of a roll film-feeding device; a shutter mechanism bodily movable relatively thereto; a shutter-lock mechanism adapted to be set by one actuation of the shutter to prevent a succeeding actuation; a release for said shutter-lock mechanism adapted to be actuated by the movement of a spring-held part thereof from and back to normal position; a cord connected to said part; a spring actuated reel connected to said cord and normally tending to wind up and tension the same; a winding key for said film-feeding device adapted to be moved from inoperative to operative position; and a ratchet mechanism connected mechanically with said key and adapted to be actuated by the movement thereof to operative position to turn said reel in opposition to said spring and thereby release said cord.

[Claims 2 to 5, 7, and 8 not printed in the Gazette.]

1,241,774. FLEXIBLE DISK HARROW. HAROLD SHEMWELL, Birmingham, Ala., assignor, by mesne assignments, to Birmingham Disc Harrow Company, Birmingham, Ala. Filed Mar. 6, 1912, Serial No. 681,928. Renewed Mar. 15, 1917. Serial No. 155,089. (Cl. 55—30.)



1. A flexible disk harrow, comprising disk bearings, straight cutting disks rotatably mounted on the bearings, and means to loosely connect the bearings to form a flexible frame work in which the bearings are adapted to rise and fall freely to follow the irregularities of the ground, said disks being distributed in stepped series over said frame work to have different but closely associated lines of travel, and said means which connect said bearings having sufficient bearing engagement axially of said disk bearings to hold the bearings against relative lateral displacement which will substantially disarrange the predetermined spacing between the lines of travel of the disks.

2. In a flexible harrowing and cultivating implement, a flexible frame work comprising loosely connected cross shafts, and spaced rotatable cutting disks mounted on the shafts and arranged throughout the frame work to have different closely associated lines of travel, said disks having thin flat cutting peripheries adapted to cut deeply into the soil, in combination with a number of links connecting different shafts and having end bearings of substantial width which surround the shafts and form part of the spacing means for the disks, said links being distributed over the frame work and their bearing ends acting coöperatively to give it sufficient rigidity against angular movement in a horizontal plane to disarrange the predetermined relative working positions of the disks without interfering with their free vertical play.

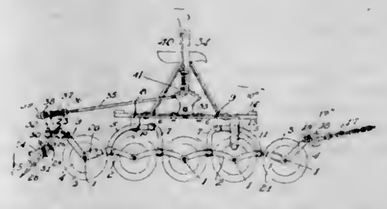
3. In a flexible disk harrow, a flexible frame work comprising a series of transverse shafts, means to loosely connect said shafts in respect to vertical movements only while positively holding them against relative displacement horizontally of the harrow, and a series of cutting disks mounted for independent rotation on each shaft and having flat sharpened annular cutting edges, and elongated cylindrical hubs forming extended bearings for the disks and adapted to coöperate with interposed shaft connecting means to space the disks on their respective shafts, substantially as described.

4. In a flexible disk harrow, a flexible frame work comprising a series of parallel shafts, links to loosely connect the shafts, and a series of disk cutters rotatably mounted on each shaft and having sharpened peripheral cutting edges and elongated cylindrical spacing hubs, which hubs and links are adapted to space the cutters equi-distantly on each shaft, and bearings at the outer ends only of said hubs on which they rotate, substantially as described.

5. In a flexible disk harrow, a flexible frame comprising a series of disk shafts, a series of spaced disks rotatably mounted on each shaft and having sharpened cutting peripheral edges and elongated hubs, and links which loosely connect the shafts and have their ends interposed between the hubs of the adjacent disks on the shafts which they serve to connect, the hubs and links serving to equi-distantly space the cutting edges of the disks on the shafts.

[Claims 6 to 29 not printed in the Gazette.]

1,241,775. FLEXIBLE-FRAME HARROW-CULTIVATOR. HAROLD SHEMWELL, Birmingham, Ala., assignor, by mesne assignments, to Birmingham Disc Harrow Company, Birmingham, Ala. Filed May 31, 1913, Serial No. 770,990. Renewed Mar. 15, 1917. Serial No. 155,090. (Cl. 55—30.)



1. In a cultivating implement, a flexible frame work comprising a series of parallel transverse tool bearing shafts and links loosely connecting said shafts, and a flexible seat support which is supported wholly by the links and is loosely and accommodatively connected at one end to said links, substantially as described.

2. A flexible disk harrow comprising transverse disk shafts, links loosely connecting said shafts, a seat support pivoted at one end to said links, and swinging supports which connect the other end of said support to said links, substantially as described.

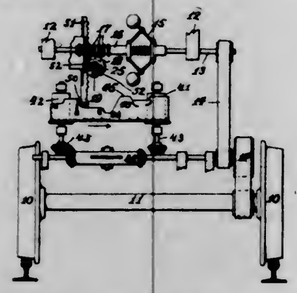
3. A flexible disk harrow comprising transverse disk shafts, links loosely connecting the shafts, and a seat support partly pivoted and partly swung from said links, substantially as described.

4. A flexible disk harrow comprising transverse disk shafts, links loosely connecting said shafts, a seat and weight frame having arched supports which are pivotally connected to links near each end of the harrow, arms pivotally connected to the arched supports near one end of the harrow, and means to swing said frame at one end from said arms and at the other end to pivot it to said supports, substantially as described.

5. A flexible disk harrow comprising transverse disk shafts, links loosely connecting said shafts, a rigid seat and weight frame having hinged arched supports at one end which are pivotally connected to links near the rear end of the harrow and to the frame, and means to swing the forward end of the frame from hinged supports which rest on links connecting three disk shafts near the front end of the harrow, substantially as described.

[Claims 6 to 18 not printed in the Gazette.]

1,241,776. TRACK-HAZARD INDICATOR. PAUL J. SIMMEN, Indianapolis, Ind. Filed Aug. 2, 1913. Serial No. 782,693. (Cl. 246—25.)



1. The combination with a vehicle, of variable indicating mechanism carried thereby and continuously controlled by and operating in accordance with the movement of the vehicle along the route for automatically indicating different speeds permissive along said route according to the hazards at the different points, traffic controlling means, and mechanism for automatically effecting the movement of the traffic controlling means when the speed of the vehicle exceeds the indicated permissive speed.

2. The combination with a vehicle, of means carried thereby for automatically indicating at every moment for every point along its line of travel a permissible speed for the vehicle and including vehicle-carried mechanism for automatically varying said permissive speed indication according to the hazards along the route, and means adapted automatically to retard or stop the vehicle if such permissible speed is exceeded.

3. The combination with a vehicle of an actual speed indicator, a permissive speed indicator, a track-hazard indicator and an operative connection between the latter and the permissive speed indicator, and means for automatically retarding the vehicle when its actual speed exceeds its permissive speed as displayed by the track-hazard indicator.

4. The combination with a vehicle of an actual speed indicator, a permissive speed indicator, a track-hazard indicator and operative connection between the latter and the permissive speed indicator, and means for automatically retarding the vehicle when its actual speed exceeds its permissive speed as displayed by the track-hazard indicator, all carried on the vehicle.

5. The combination with a vehicle of an actual speed indicator, a permissive speed indicator, a track-hazard indicator and means operated from the latter automatically to vary the position of the permissive indicator in accordance with the indicated hazards, and means for automatically retarding the vehicle when its actual speed exceeds its permissive speed, as displayed by the track-hazard indicator.

[Claims 6 to 14 not printed in the Gazette.]

1,241,777. CHANDELIER. REGINALD C. STEEPLE, Spokane, Wash. Filed Apr. 8, 1916. Serial No. 89,740. (Cl. 240—78.)

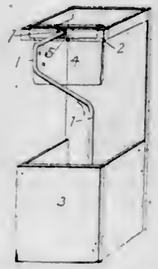


1. In a device of the class described, a support, a lamp socket and shade holder mounted upon said support, a lamp carried by said socket, a reflector and bowl supported by said shade holder and means for adjusting said bowl vertically, substantially as described.

7. In a device of the class described, a bell-shaped socket cover having its lower end flared for the reception of the neck of a shade or reflector, means directed through the lower end of said cover for clamping said neck within said flared end, a plurality of chains to support a lower bowl, and means to support said chains from the cover, said last-named means being suspended on the inside of said cover and terminating adjacent to said neck.

[Claims 2 to 6 not printed in the Gazette.]

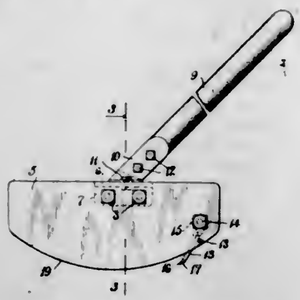
1,241,778. MULTIPLE-TOWEL HOLDER. FRANK WEBB STOCKTON, Chicago, Ill. Filed June 16, 1916. Serial No. 104,134. (Cl. 45—32.)



1. In a device of the class described, a narrow, elongated, suspending member, adapted to suspend a towel by a narrow, median portion thereby allowing its ends to hang downward over the sides of said suspending member; and an elongated retaining member, adapted to retain towels attached thereto and to guide the towels from the suspending member to a point convenient for use and then downwardly, said retaining member extending from a point midway between the ends of the suspending member in a plane at an angle to the suspending member, substantially as described.

2. In a device of the class described, a towel-suspending member and a towel-retaining member, said device being adapted for the attachment of a towel to the retaining member and its suspension over the towel-suspending member, the towel-retaining member extending outwardly from said suspending member and then downwardly sufficiently to constitute a suitable guide for a towel while in use, substantially as described.

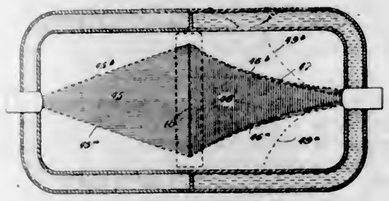
1,241,779. SNOW AND ICE REMOVER. CORNELIUS SUYDAM, Brooklyn, N. Y. Filed Sept. 26, 1916. Serial No. 122,191. (Cl. 37—42.)



1. A snow and ice remover, comprising a pair of runners, having bearing edges curved in the direction of length of the runners, a scraper blade rigidly secured at its ends to said runners and holding the same in spaced apart relation, said scraper blade having a cutting edge projecting below the plane of the curved bearing edges of the runners and a rearwardly and upwardly inclined push handle secured to the runners for pushing the device along over an icy surface and for simultaneously rocking the runners on their curved bearing edges to thereby lift or lower the cutting edge with respect to the supporting surface.

[Claims 2 and 3 not printed in the Gazette.]

1,241,780. APPARATUS FOR GENERATING AND UTILIZING MOTIVE FLUIDS. EDWIN TAYLOR, Brooklyn, and WILLIAM H. TAYLOR, New York, N. Y., assignors, by mesne assignments, to Taylor-Hubbard Company, a Corporation of New York. Filed Oct. 9, 1911. Serial No. 653,608. (Cl. 60—33.)



1. In an apparatus of the class described, the combination of a closed container and means for continuously burning hydrocarbon materials therein, means for subjecting the flaming gases to the action of fluid heat-absorbing materials therein to form a motive fluid, conducting means for leading the motive fluid from said container to a heat utilizing device, means in said conducting means for reducing the pressure of said motive fluid delivered to said device, means operated by a portion of said motive fluid at the higher pressure for supplying said hydrocarbon materials and said fluid heat-absorbing materials to said container at a pressure greater than the pressure of the gases in said container, and means for varying the temperature of the gases in said container without varying the pressure thereof.

4. In an apparatus of the class described, a generating chamber comprising a hollow body, means for admitting hydrocarbons at one side of said chamber to form a heat developing jet, means for admitting liquid at another side of said chamber to form a heat-absorbing jet, means for admitting oxygen-bearing fluid under pressure to said chamber to atomize and oxidize the materials of said jets, means for so projecting and proportioning said jets as to form a plane of impact therebetween, and means for discharging the gaseous fluid in said chamber without disturbing said plane of impact.

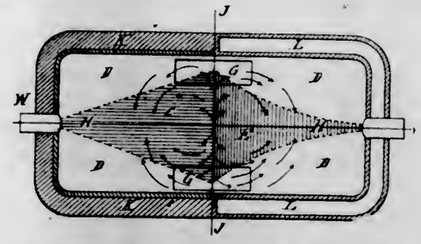
17. In an apparatus of the class described, the combination with a generating chamber of unvarying dimensions, of means for admitting thereto under fluid pressure heat developing materials and heat absorbing materials, from opposite directions, the heat developing materials being in a state of combustion in said chamber, means for positioning said materials to form an approximately circular plane of impact less than the diameter of the generating chamber, and means for varying either the temperature or pressure, or both temperature and pressure, of the gases in said chamber.

[Claims 2, 3, 5 to 16, and 18 to 32 not printed in the Gazette.]

1,241,781. METHOD OF GENERATING AND UTILIZING MOTIVE FLUIDS. EDWIN TAYLOR and WILLIAM H. TAYLOR, New York, N. Y., assignors, by mesne assignments, to Taylor-Hubbard Company, a Corporation of New York. Filed June 17, 1912. Serial No. 704,055. (Cl. 60—33.)

1. The method of generating motive fluids which consists in opposing in a confined space, currents under pressure of heat generating fluids aided in, and heat absorbing fluids refrained from dispersing heat.

2. The method of generating motive fluids which consists in directing a current of combustible fluid aided in dispersing heat, against a current of expansible fluid refrained from dispersing heat, and causing combustion of the commingling fluids.



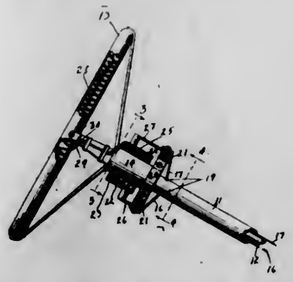
3. The method of generating motive fluids which consists in directing a current of combustible fluid aided in dispersing heat, against a current of expansible fluid refrained from dispersing heat, causing combustion of the commingling fluids, and utilizing the products of said combustion.

4. The method of generating motive fluids which consists in separately atomizing heat generating and heat absorbing materials, aiding said heat generating materials in and refraining said heat absorbing materials from dispersing heat, and causing said materials to contact under pressure at temperature of combustion.

5. The method of generating motive fluids which consists in separately atomizing heat generating and heat absorbing materials, aiding said heat generating materials in and refraining said heat absorbing materials from dispersing heat, causing said materials to contact under pressure at temperature of combustion, and utilizing the products of said combustion.

[Claims 6 to 26 not printed in the Gazette.]

1,241,782. WARMER FOR MOTOR-CARS. JAMES G. THARP, Indianola, Iowa. Filed Mar. 7, 1916. Serial No. 82,533. (Cl. 219—19.)

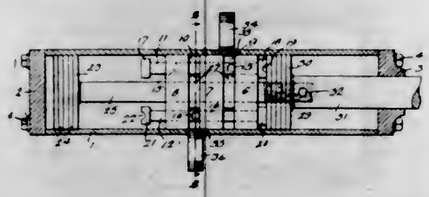


In a device of the class described, a heating element adapted to be disposed within a steering wheel, a collar of insulating material fixed to the wheel and adapted to rotate around the suporting sleeve of the steering column, a pair of spaced independent conducting rings fixed to said collar, means for electrically connecting each of said rings with the heating unit, a pair of brushes adapted to be fixed to said sleeve of the steering column and each adapted to coact with one of said rings, and means for connecting each of said brushes with one pole of a source of electrical energy.

1,241,783. COMPRESSED-AIR VIBRATOR. CHARLES W. TOCKNELL, Kenilworth, N. J. Filed Apr. 17, 1917. Serial No. 162,641. (Cl. 138—2.)

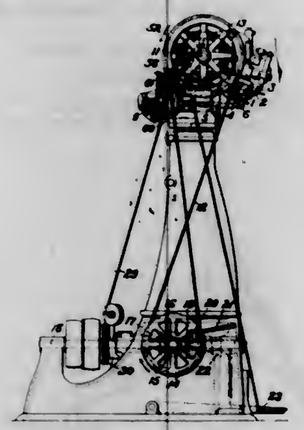
1. A compressed air vibrator, comprising a cylinder, permanently spaced pistons reciprocating in the cylinder, walls arranged transversely of the cylinder between the

pistons and defining compartments, means for admitting fluid pressure to one compartment, means for delivering the pressure from said compartment to the face of the adjacent piston, said means actuated by the other piston to deliver the fluid pressure to the other compartment to discharge said fluid.



2. A compressed air vibrator, comprising a cylinder, permanently spaced pistons reciprocating in the cylinder, walls arranged transversely of the cylinder between the pistons and defining compartments, means for admitting fluid pressure to one of the compartments, means for directing the pressure from said compartment to one end of the cylinder and from said end of the cylinder to the other compartment, and means for directing fluid pressure from the first compartment to the other end of the cylinder and from said end to the other compartment.

1,241,784. CHAIN-STITCH INSEAM SHOE-SEWING MACHINE. LAURENCE E. TOPHAM, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 24, 1916. Serial No. 73,881. (Cl. 112—20.)



1. A chain stitch inseam shoe sewing machine, having in combination, stitch forming devices including a curved hooked needle and a looper, and means operating automatically on stopping the machine to advance the needle from its retracted position to free the hook from the last needle loop and bring the needle to rest in advanced position out of engagement with the work.

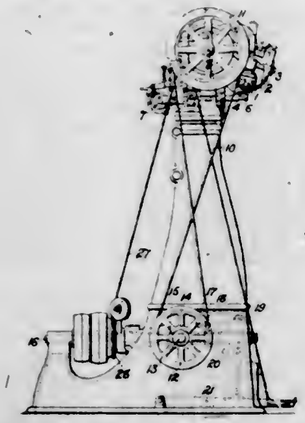
2. A chain stitch inseam shoe sewing machine, having in combination, stitch forming devices including a curved hooked needle and a looper, and means operating automatically on stopping the machine to reverse the direction of rotation of the cam shaft of the machine to advance the needle from its retracted position so as to free the hook from the last needle loop and bring the needle to rest in advanced position out of engagement with the work.

3. A chain stitch inseam shoe sewing machine, having in combination, stitch forming devices including a curved hooked needle and a looper, a work guide, means operating automatically on stopping the machine to advance the needle from its retracted position to free the barb from the last needle loop and bring the needle to rest in advanced position out of engagement with the work, and means thrown into operation on stopping the machine for retracting the work guide.

5. A chain stitch inseam shoe sewing machine, having in combination, stitch forming devices including a curved hooked needle and a looper, means operating automatically on stopping the machine to reverse the direction of rotation of the cam shaft of the machine to advance the needle from its retracted position so as to free the hook from the last needle loop and bring the needle to rest in advanced position out of engagement with the work, a work guide, a work rest, means for locking and unlocking the work guide and work rest during each cycle of operations of the machine, and means thrown into operation on stopping the machine and operating during the reverse rotation of the cam shaft to unlock the work rest and work guide and retract the work guide.

[Claim 4 not printed in the Gazette.]

1,241,785. CHAIN-STITCH INSEAM SHOE-SEWING MACHINE. LAURENCE E. TOPHAM, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 24, 1916. Serial No. 73,882. (Cl. 112—20.)

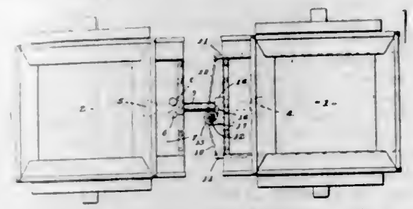


1. An inseam shoe sewing machine, having in combination, stitch forming mechanism including a curved hooked needle, a looper and devices coöperating therewith to form a chain stitch seam, and means operating automatically on stopping the machine to continue the forward rotation of the cam shaft to advance the needle from its retracted position to free the hook from the last needle loop and bring the needle to rest in advanced position out of engagement with the work.

2. A chain stitch inseam shoe sewing machine, having in combination, stitch forming devices including a curved hooked needle and a looper, a work guide, means operating automatically on stopping the machine to continue the forward rotation of the cam shaft to advance the needle from its retracted position to free the hook from the last needle loop and bring the needle to rest in advanced position out of engagement with the work, and means thrown into operation on stopping the machine for retracting the work guide.

1,241,786. STEERING MECHANISM FOR WAGON-TRAINS. WALTER A. UNDERHILL and COURTNEY C. AVERY, Auburn, N. Y., assignors to The Eagle Wagon Works, Auburn, N. Y., a Corporation of New York. Filed Dec. 8, 1913. Serial No. 805,341. (Cl. 21—137.)

1. The combination with a pair of two-wheel carts, a tongue connecting the carts and pivotally connected to the body of one cart and rigidly connected to the body of the other cart, of mechanism for turning one of the carts comprising a steering member supported by the tongue and connections extending laterally in opposite directions from the steering member and connected to the body of the cart on opposite sides of the steering member, substantially as and for the purpose set forth.



2. The combination with a pair of two-wheeled carts having a tongue connecting the same and pivotally connected to one cart and rigidly connected to the other cart, of mechanism for turning the pivoted cart comprising a block slidably carried by the tongue, whereby the block can slide thereon during the turning of one cart, and steering means carried by the block, and connections extending laterally in opposite directions therefrom and connected to the pivoted cart, substantially as and for the purpose described.

3. The combination with a pair of two-wheeled carts having means coupling the same together, said means being rigidly connected to one cart and pivoted to the other, of mechanism for turning the pivoted cart, said mechanism comprising a body carried by the coupling means and slidable lengthwise thereof, a steering post mounted on the body, and power-transmitting elements connected to the post and to the pivoted cart on opposite sides of the post, substantially as and for the purpose specified.

4. The combination of a pair of two-wheeled carts having a tongue coupling the same together, the tongue being rigidly connected to one cart and pivotally connected to the other cart and the latter cart being formed with a guide at its end opposed to the former cart, the guide extending crosswise of the tongue, a slide mounted on the tongue and movable along the guide, and steering mechanism carried by the slide and connected to the pivoted cart, substantially as and for the purpose specified.

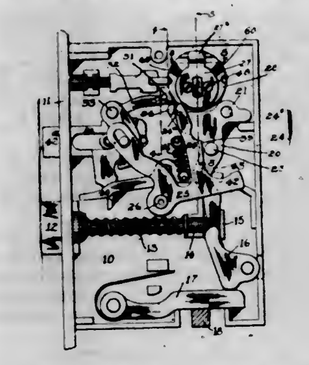
5. The combination of a pair of two-wheeled carts having a tongue coupling the same together, the tongue being rigidly connected to one cart and pivotally connected to the other cart and the latter cart being formed with a guide at its end opposed to the former cart, the guide extending crosswise of the tongue, a slide mounted on the tongue and movable along the guide, and steering mechanism including power transmitting elements connected to the slide and to the pivoted cart on opposite sides of the tongue, substantially as and for the purpose set forth.

1,241,787. LOCK. HENRY G. VOIGHT, New Britain, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Feb. 21, 1916. Serial No. 79,717. (Cl. 70—93.)

1. In a lock, a latch bolt, retracting mechanism therefor, dogging mechanism therefor, and a cylinder lock having a rollback with a single operating projection for operating said retracting mechanism or said dogging mechanism; substantially as described.

2. In a lock, a latch bolt, retracting mechanism therefor, dogging mechanism therefor, a cylinder lock, a rollback for said cylinder lock having an operating projection, a key for said cylinder lock adapted to operate said retracting mechanism through said operating projection, and another key for said cylinder lock adapted to operate said dogging mechanism through said operating projection; substantially as described.

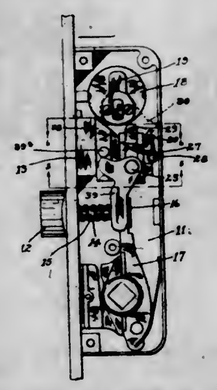
3. In a lock, a latch bolt, retracting mechanism therefor, mechanism for dogging said bolt in retracted position, a cylinder lock, a rollback for said cylinder lock, having a radial arm, a key for operating said retracting



mechanism through said rollback arm, and another key for operating said dogging mechanism through said rollback arm; substantially as described.

[Claims 4 to 20 not printed in the Gazette.]

1,241,788. LOCK. HENRY G. VOIGHT, New Britain, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Mar. 27, 1917. Serial No. 157,637. (Cl. 70—29.)



1. In a lock, a case, a latch bolt therein, a dead bolt in the case above the latch bolt, a slide mounted in said dead bolt to move up and down, a pivot pin mounted on the bolt, a lever pivoted on said pivot pin and operated by said slide to retract the latch bolt, a cylinder lock mechanism to actuate said slide, a fence for the dead bolt, and a vertically sliding tumbler on the dead bolt to coöperate with said fence guided on said pivot pin.

2. In a lock, a casing, a latch bolt therein, a dead bolt above the latch bolt, having a socket at the upper part thereof, a plunger in said socket, having a downward extension guided in a groove on the outer face of the dead bolt, a spring interposed between said plunger and the bottom of the socket in the dead bolt, a cylinder lock having a rollback adapted to engage and depress said plunger, and retracting mechanism for said latch bolt, operatively connected with the lower part of said plunger extension.

3. In a lock, a case, a dead bolt therein, a fence on the case below said dead bolt, a vertically sliding tumbler guided on said bolt, talons on the bolt at opposite sides of said tumbler, a cylinder lock to operate said bolt by cooperation with said tumbler and said talons, and a thumb

turn hub at the side of the case opposite said cylinder lock, constructed to straddle said tumbler and to operate said bolt thereby independently of said talons.

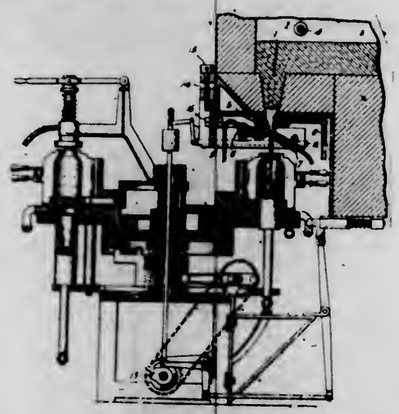
[Claims 4 to 8 not printed in the Gazette.]

1,241,789. PROCESS FOR THE DRY DISTILLATION OF MATERIALS CONTAINING CELLULOSE. HEINRICH VON HOCHSTETTER, Constance, Germany, assignor to the Firm of Holzverkohlungs-Industrie Aktien-Gesellschaft, Constance, Badenia, Germany, a Corporation of Germany. Filed Apr. 2, 1913. Serial No. 758,438. (Cl. 203—6.)

1. The process of distilling hardwood for the production of acetic acid, alcohol and charcoal which comprises continuously supplying heat during the period of exothermic reaction within the retort.

2. The process of distilling hardwood for the production of acetic acid, alcohol and charcoal which comprises raising the temperature within the retort at the beginning of the period of exothermic reaction to approximately 400° C. and maintaining that temperature throughout the process.

1,241,790. APPARATUS FOR CUTTING PLASTIC GLASS AND SIMILAR SUBSTANCES. FRANK L. O. WADSWORTH, Pittsburgh, Pa., assignor to Ball Brothers Glass Manufacturing Company, Muncie, Ind., a Corporation of Indiana. Filed Feb. 26, 1913. Serial No. 750,813. (Cl. 49—55.)



1. In a glass working apparatus, the combination of a molten-glass container having a delivery outlet through which a stream of glass may issue, a cutting mechanism comprising a pair of coöperating shear blades arranged with the cutting plane at an angle to the lineal movement of the stream, the shear blade which moves in its cutting action toward the outflow orifice having a beveled end complementing the coöperating surface of the other shear blade, and a support for said shear blades adjustable lengthwise of the movement of the stream.

2. In a glass working apparatus, the combination of a molten-glass container having a delivery outlet through which a stream of glass may issue, and a cutting mechanism comprising a pair of coöperating shear blades arranged with the cutting plane at an angle to the lineal movement of the stream, the shear blade which moves in its cutting action toward the outflow orifice having a beveled end complementing the coöperating surface of the other shear blade.

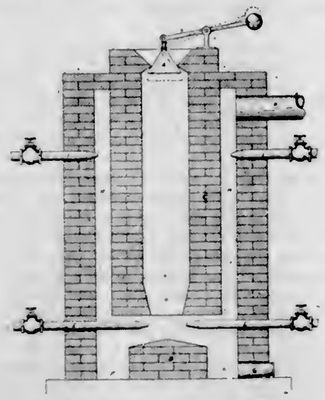
3. In a glass working apparatus, the combination of a molten-glass container having a delivery outlet through which a stream of glass may issue, a trough-like cutter with its trough presented toward the oncoming stream, a coöperating cutter fitting the trough cutter and having a semi-conoidal or semi-pyramidal recess formed in its cutting end, and a support for said shear blades adjustable lengthwise of the movement of the stream.

4. In a glass working apparatus, the combination of a molten-glass container having a delivery outlet through which a stream of glass may issue, a trough-like cutter with its trough presented toward the oncoming stream, and a coöperating cutter fitting the trough cutter and having a semi-conoidal or semi-pyramidal recess formed in its cutting end.

5. In a glass working apparatus, the combination of a molten-glass container having a delivery outlet through which a stream of glass may issue, cutting mechanism associated with said orifice and having the cutting plane separated from the orifice by such an amount that, when the glass stream is cut by the cutting mechanism, the lineal movement of the exterior of the stream will be arrested and continued lineal movement of the interior of the stream will develop into internal lateral movement swelling the diameter of the stream adjacent the cutting plane, a heat absorbing orifice-structure separated from the cutters and through which the glass stream flows, and means for varying the heat absorbing capacity of said orifice-structure relative to the flowing stream.

[Claims 6 to 11 not printed in the Gazette.]

1,241,791. APPARATUS FOR THE MANUFACTURE OF PHOSPHORIC ACID AND COMPOUNDS OF THE SAME. WILLIAM H. WAGGAMAN, HARRY BRYAN, and CARY R. WAGNER, Washington, D. C. Filed Mar. 16, 1917. Serial No. 155,372. (Cl. 23—1.) (Dedicated to the public.)



1. A blast furnace for producing phosphoric acid provided with an inner or charge chamber surrounded by, but discharging into, an outer chamber, means for introducing air into said outer chamber for burning and smelting the charge entering said chamber from the inner or charge chamber, and means for withdrawing the products of the reaction from the outer chamber, substantially as described.

2. A blast furnace for producing phosphoric acid provided with an inner or charge chamber surrounded by, but discharging into, an outer chamber, a platform below the charge chamber for receiving the discharge from the same, means for introducing air into said outer chamber for burning and smelting the charge upon the said platform, and means for withdrawing the products of the reaction from the outer chamber, substantially as described.

3. A blast furnace for producing phosphoric acid provided with an inner or charge chamber surrounded by, but discharging into, an outer chamber, a platform below the charge chamber for receiving the discharge from the same, means for introducing air into said outer chamber for burning and smelting the charge upon said platform, means for introducing a further quantity of air into the upper part of the outer chamber in order to oxidize further the volatile products of the reactions, and means for withdrawing the products of the reaction from the outer chamber, substantially as described.

1,241,792. TIRE-ARMOR. WILLIAM G. WAGNER, New York, N. Y., assignor of one-third to Benjamin Cohen and one-third to Henry Cohen, New York, N. Y. Filed Jan. 19, 1917. Serial No. 143,220. (Cl. 152—18.)



1. A tire armor comprising a peripheral protective band, a flexible carrying sheet therefor, and means for movably anchoring the protective band to the carrying sheet at spaced intervals along the edges of the protective band.

2. A tire armor comprising a plurality of metallic armor members secured together for relative movement and forming a peripheral protective band, a flexible carrying sheet for said band, and devices anchoring the opposite edges of said protective band to the carrying sheet, said anchor devices being spaced apart a distance greater than the dimensions of said metallic armor members along lines between said anchor devices, whereby some of said armor members between said anchor devices will not be directly attached to said anchor devices.

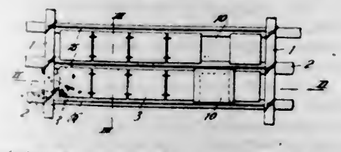
3. A tire armor comprising a plurality of metallic armor members joined together for relative movement and forming a peripheral protective band, a flexible carrying sheet for said protective band, and anchor devices connecting some of said metallic members to the carrying sheet for movement of said members relatively to said sheet, others of said metallic members being unconnected to said sheet.

4. A tire armor comprising a plurality of metallic armor members joined together for relative movement and forming a peripheral protective band, a flexible carrying sheet for said protective band, and anchor devices along the opposite edges of said band spaced a greater distance apart than the dimensions of said armor members along lines joining the successive anchor devices and movably connecting some of said armor members along the opposite edges of said band to said carrying sheet, others of said armor members being unconnected to said sheet.

5. A tire armor comprising a plurality of metallic armor members movably secured together to form a peripheral protective band, a flexible carrying sheet for said band, and circumferentially spaced anchor devices detachably securing the opposite edges of said protective band to the carrying sheet at distances apart greater than the dimensions of said band-forming members between said anchor devices.

[Claims 6 to 22 not printed in the Gazette.]

1,241,793. HOLLOW METAL TILE FOR REINFORCED-CONCRETE FLOORS. GUY B. WAITE, New York, N. Y. Filed May 14, 1914. Serial No. 838,429. (Cl. 72—66.)



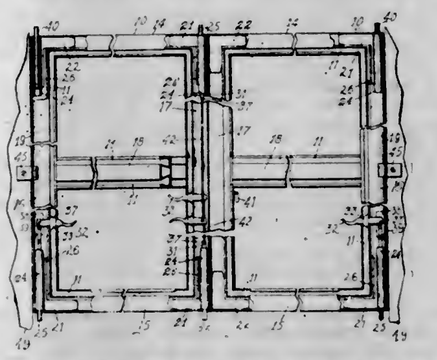
1. A reinforced concrete floor comprising supports, a series of hollow metal tiles in the form of caps having closed tops and sides and partially open ends, said tiles being arranged end to end across the space between the supports, means for closing the outer ends of the end tiles of the series, a longitudinally adjustable section in said series of tiles whereby the length of the series may be varied to fit the space between the support, and a mass of concrete covering said tiles and extending across the space between the supports.

2. A reinforced concrete floor comprising supports, a series of hollow metal tiles in the form of caps having closed tops and sides and open ends, said tiles being arranged end to end across the space between the supports, means for loosely connecting together the adjoining edges of the said tiles, means for closing the outer ends of the end tiles of the series, a longitudinally adjustable section in said series of tiles whereby the length of the series may be varied to fit the space between the supports, and a mass of concrete covering said tiles and extending across the space between the supports.

3. A reinforced concrete floor comprising supports, a series of hollow metal tiles in the form of caps having closed tops and sides and open ends, said tiles being arranged end to end across the space between the supports, means for loosely connecting together the adjoining edges of the said tiles, means for closing the outer ends of the end tiles of the series, a thin block or slab in the lower end of each tile, means for individually securing each block within its tile, and a mass of concrete covering said tiles and extending across the space between the supports.

4. A reinforced concrete floor comprising supports, a series of hollow metal tiles in the form of caps having closed tops and sides, the ends of said caps being folded inwardly from the sides and tops to stiffen and strengthen the ends of the caps, spring clips bridging the joints between adjoining caps and connecting them together along the edges of the tops, thin concrete blocks closing the bottoms of said caps and carrying wires embedded therein said wires extending through apertures in the caps to hold the blocks therein, and a mass of concrete covering said tiles and extending across the space between the supports.

1,241,794. SHEET-METAL WINDOW-SCREEN FOR CASEMENTS. WILLIAM W. WATSON, Jamestown, N. Y. Filed Mar. 26, 1917. Serial No. 157,359. (Cl. 156—14.)



1. In combination with a tubular frame corner, an interior corner brace comprising an angular tube formed from folded sheet metal to fit within said tubular frame corner, and one portion of said angular tube formed in a spring bolt barrel to receive a spring bolt therein.

4. In a sheet metal tubular frame corner, a combination corner brace and spring bolt barrel comprising a T-shaped metal plate with the central portion folded in a spring bolt barrel with flanged edges to fit within and brace against the inner walls of one of the frame sides, and the wings of said T-shaped metal plate interfolded in a tube at an angle to said bolt barrel to fit within the end of the adjacent tubular frame side.

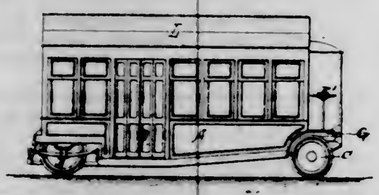
7. A casement screen comprising a pair of tubular sheet metal screen frames having folded astragals on their in-

ner tubular frame edges, combination corner braces and bolt barrels in the upper and lower outer corners, a fixed pin in one of the upper or lower bolt barrels on said outer corners, lever actuated spring bolts in the other bolt barrels on said outer corners, a combination bolt barrel and corner brace in each of the inner corners of one screen frame, a pair of spring bolts one in each of said inner corner bolt barrels to lock the frame, and a latch in the other inner frame side to lock the pair of screens.

11. In combination with a tubular sheet metal frame corner, an angular corner brace to fit within said tubular frame corner, one portion of said angular corner brace having an open ended bolt barrel therein, and a spring bolt in said barrel.

[Claims 2, 3, 5, 6, 8 to 10, and 12 to 14 not printed in the Gazette.]

1,241,795. MOTOR-OMNIBUS. HAROLD B. WEAVER, New York, N. Y., assignor to Gas-Electric Motorbus Corporation, a Corporation of New York. Filed Oct. 31, 1913, Serial No. 798,435. Renewed Feb. 20, 1917. Serial No. 149,940. (Cl. 21—14.)



1. A double-deck, stepless motor omnibus, having both decks of a continuous floor, the lower deck hung low, a stairway to the upper deck, and a prime mover and a driving axle and wheels under the stairway.

2. A double-deck, stepless motor omnibus, having both decks of a continuous floor, the lower deck hung low, a stairway to the upper deck, a side door adjacent to the stairway, a recess for the power unit underneath the stairway, and a removable power unit comprising the axle and driving wheels in said recess.

3. A double-deck, stepless omnibus, having a car body hung low, without entrance steps or chassis, a stairway to the upper deck, a removable prime mover and driving axle and wheels under the stairway, and a steering truck in front.

4. A stepless motor omnibus, having the floor hung low, without entrance steps or chassis, a removable prime mover and driving axle and wheels, and a steering truck in front.

5. A stepless motor omnibus, having the floor hung low, without entrance steps within the car or at the entrance, a side door, wheels within the contour of the car, a prime mover and a driving axle and wheels, and a steering truck in front.

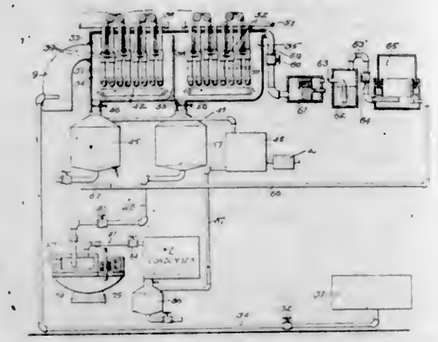
[Claims 6 to 9 not printed in the Gazette.]

1,241,796. PROCESS OF SECURING ELEMENTS FROM THEIR COMPOUNDS. VICTOR M. WEAVER, Harrisburg, Pa., assignor to Weaver Company, a Corporation of Wisconsin. Original application filed Aug. 22, 1914, Serial No. 858,001. Divided and this application filed Jan. 14, 1915. Serial No. 2,234. (Cl. 75—17.)

1. The process of securing an element from its compounds, which consists in feeding the compound to a point near the bottom of a bath of metal in molten condition, so that the compound will rise through the molten metal and so that the metal may be substituted for said element, leaving the element in its free, elemental state.

2. The process of securing an element from its chlorid, which consists in feeding the chlorid to a point near the bottom of a bath of a molten metal, so that the chlorid will rise through the molten metal and so that the metal may be substituted for said element, leaving the element in its free, elemental state.

3. The process of securing silicon from its chlorid, which consists in feeding it to a point near the bottom of a bath of molten aluminum so that the chlorid will rise in the aluminum and reaction take place so as to form aluminum chlorid and the silicon.

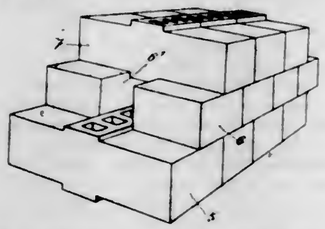


4. The process of securing silicon from its chlorid, which consists in feeding it to a point near the bottom of a bath of molten metal so that the chlorid will rise in the molten metal and reaction take place so as to form the chlorid of said metal and the silicon.

5. The process of securing silicon from its chlorid, which consists in feeding it to a bath of molten aluminum to form the chlorid of said metal and silicon, and then tapping off the silicon and collecting the aluminum chlorid.

[Claims 6 to 8 not printed in the Gazette.]

1,241,797. WALL. ERNEST WEISSBRODT, Lausanne, Switzerland. Filed Sept. 5, 1916. Serial No. 118,598. (Cl. 72—41.)



1. A wall composed of tiers of blocks, the blocks in alternate tiers being placed in rows with their inner faces spaced apart, while the blocks in intermediate rows are headers which span the space between the rows of blocks in alternate tiers, and are provided with transverse passages whereby there is in the wall a plurality of air spaces each in communication with all the others.

2. A wall composed of tiers of blocks, the blocks in alternate tiers being placed in parallel rows with their inner faces spaced apart and their outer faces parallel to the surfaces of the wall, while the blocks in intermediate rows are headers which span the spaces between the rows of blocks in alternate tiers and are provided with vertical passages whereby in the wall there is a plurality of air spaces each in communication with all the others.

3. A wall composed of tiers of blocks, the blocks in alternate tiers being placed in parallel rows with their inner faces spaced apart and their outer faces lying in the surfaces of the wall, while the blocks in intermediate tiers are headers which span the spaces between the rows of blocks in alternate tiers, have their outer faces in the surfaces of the wall, and are provided with projections extending into the spaces between the rows of blocks in alternate tiers and are also provided with vertical passages whereby in the wall there is a plurality of air spaces each in communication with all the others.

1,241,798. SHAVING DEVICE. HERMANN WERNER, Geneva, Switzerland. Filed Sept. 19, 1916. Serial No. 120,998. (Cl. 30—12.)

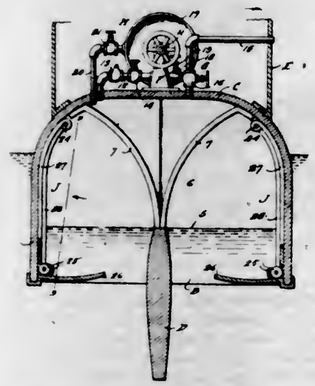


1. A shaving instrument comprising a pair of pivoted handles, a stationary cutting comb, a guard member having teeth which project materially beyond the teeth of the cutting comb, and means actuated by the operation of the handles for reciprocating the guard comb and the stationary cutting comb to cause these parts to coöperate to effect the cutting in the use of the instrument.

2. A shaving instrument comprising a pair of pivoted handles, a stationary cutting comb having a concave surface adapted to be applied to the skin, a guard member having teeth which project materially beyond the teeth of the cutting comb, and means actuated by the operation of the handles for reciprocating the guard comb on the stationary cutting comb to cause these parts to coöperate to effect the cutting in the use of the instrument.

[Claim 3 not printed in the Gazette.]

1,241,799. BOAT OR SHIP CONSTRUCTION. CLARENCE WILBUR WHITE, Chicago, Ill. Filed Mar. 1, 1916. Serial No. 81,400. (Cl. 114—68.)



1. In a boat or ship, the combination of a hull with its open portion lowermost and its upper portion above the water line normally closed to the atmosphere, and a keel below said open portion of the hull.

2. In a boat or ship, a hull providing a main cavity extending from wall to wall of the hull with its open portion lowermost and its upper portion above the water line normally closed to the atmosphere.

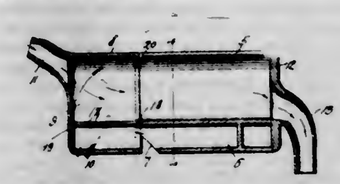
3. In a boat or ship, the combination of a hull with its open portion lowermost and its upper portion above the water line normally closed to the atmosphere, a keel below said open portion of the hull, and a waist about the upper portion of said hull.

4. In a boat or ship, the combination of a hull providing a main cavity extending from wall to wall of the hull with its open portion lowermost and its upper portion above the water line normally closed to the atmosphere, and means for introducing fluid under pressure into said cavity.

5. In a boat or ship, the combination of a hull with its open portion lowermost and its upper portion above the water line normally closed to the atmosphere, a keel below said open portion of said hull, and means for introducing fluid under pressure to within said hull.

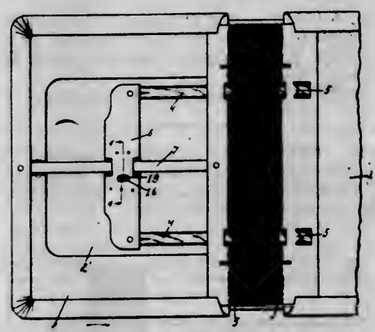
[Claims 6 to 21 not printed in the Gazette.]

1,241,800. MUFFLER-WHISTLE. BALDWIN G. WHITFIELD, Chicago, Ill. Filed Feb. 7, 1917. Serial No. 147,149. (Cl. 116—1.)



A muffler whistle comprising a muffler casing open at its ends and provided on one side with whistle tubes, an end casing section detachably connected to one end of the aforesaid casing and provided with a chamber in communication with the interior thereof, and also having an exhaust inlet, said end section being also provided with a chamber which opens to the whistle tubes, a head detachably connected to the other end of the muffler casing and closing said end, said head having an exhaust outlet, and a switch valve in the aforesaid end section for alternately cutting off its chamber from the interior of the muffler casing and from the chamber which opens to the whistle tubes.

1,241,801. TEMPORARY BINDER. GEORGE P. WIGGINTON, Kalamazoo, Mich., assignor to Kalamazoo Loose Leaf Binder Co., Kalamazoo, Mich. Filed Feb. 10, 1916. Serial No. 77,492. (Cl. 129—41.)



1. In a temporary binder, the combination with the covers, of binding strips extending between the covers, a bar disposed longitudinally of one of the covers, an adjusting member to which said binding strips are connected slidably mounted on said bar, a clutch roller having a segmental toothed portion, and means for supporting said clutch roller for lateral and rotative movement mounted on said adjusting member and comprising a rack disposed at an angle to said bar to coact with the teeth of said roller so that the roller tends to move into clutching engagement with the bar when the adjusting member is moved toward the inner end of the covers, said roller being adapted to receive an adjusting key whereby it may be rotated to and from clutching engagement with said bar, said adjusting member having an opening above said roller to receive such key.

2. In a temporary binder, the combination with the covers, of binding strips extending between the covers, a bar disposed longitudinally of one of the covers, an adjusting member to which said binding strips are connected slidably mounted on said bar, a clutch roller having a segmental toothed portion, and means for supporting said clutch roller for lateral and rotative movement mounted on said adjusting member and comprising a rack disposed at an angle to said bar to coact with the teeth of said roller so that the roller tends to move into clutching en-

gagement with the bar when the adjusting member is moved toward the inner end of the cover.

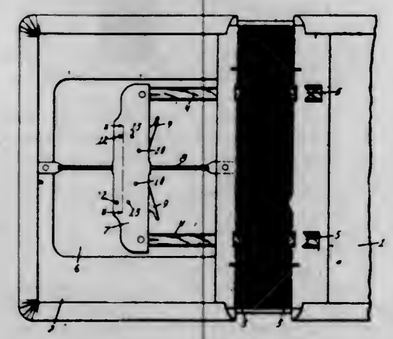
3. In a temporary binder, the combination of a binding member, an adjusting means therefor comprising a bar, an adjusting member to which said binding member is connected, a clutch roller having a segmental toothed portion, and means for supporting said clutch roller for lateral and rotative movement mounted on said adjusting member and comprising a rack disposed at an angle to said bar to coact with the teeth of said roller so that the roller is carried into clutching engagement with the bar when the roller is moved in one direction and disengaged therefrom when moved in the opposite direction, said roller being adapted to receive an adjusting key whereby it may be rotated to and from clutching engagement with said bar, said adjusting member having an opening above said roller to receive such key.

4. In a temporary binder, the combination of a binding member, an adjusting means therefor comprising a bar, an adjusting member to which said binding member is connected, a clutch roller having a segmental toothed portion, and means for supporting said clutch roller for lateral and rotative movement mounted on said adjusting member and comprising a rack disposed at an angle to said bar to coact with the teeth of said roller so that the roller is carried into clutching engagement with the bar when the roller is moved in one direction and disengaged therefrom when moved in the opposite direction.

5. In a temporary binder, the combination of a binding member, an adjusting means therefor comprising a bar, a clutch roller coacting with said bar and having a segmental toothed portion, and means for supporting said clutch roller for lateral and rotative movement comprising a rack disposed at an angle to said bar to coact with the teeth of said roller so that the roller is carried into clutching engagement with the bar when the roller is moved in one direction and disengaged therefrom when moved in the opposite direction.

[Claims 6 to 12 not printed in the Gazette.]

1,241,802. TEMPORARY BINDER. GEORGE P. WIGGINTON, Kalamazoo, Mich., assignor to Kalamazoo Loose Leaf Binder Co., Kalamazoo, Mich. Filed Feb. 14, 1916. Serial No. 78,250. (Cl. 129—41.)



1. In a temporary binder, the combination with the covers, of binding strips extending between the covers, a bar disposed longitudinally of one of the covers, an adjusting member to which said binding strips are connected slidably mounted on said bar, a pair of oppositely disposed lever-like clutches pivotally mounted on said adjusting member and having openings therein through which said bar is disposed, said clutches being positioned with their outer ends projecting at the edge of the adjusting member so that the clutches may be released and the adjusting member grasped simultaneously, springs mounted on said adjusting member for actuating said clutches to their engaging positions, and stops for said clutches when actuated to disengaged position.

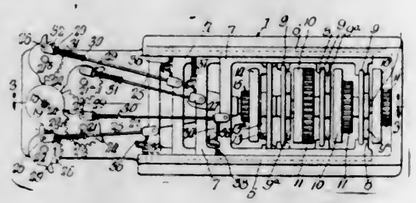
2. In a temporary binder, the combination of a binding member, a bar, an adjusting member to which said binding member is connected adjustably associated with said bar, and a pair of oppositely disposed friction clutches pivotally mounted on said adjusting member to coact with said bar.

3. In a temporary binder, the combination with the covers, and a binding strip extending between the covers, of an adjusting means carried by one of the covers and comprising a bar, and a pivoted friction clutch coacting with said bar.

4. In a temporary binder, the combination with the covers, and a binding strip extending between the covers, of an adjusting means carried by one of the covers and comprising a bar, and a spring actuated friction clutch coacting with said bar.

5. In a binder, the combination with the covers and a binding strip extending between the covers, of a bar disposed longitudinally of one of the covers, an adjusting member to which said binding strip is connected slidably mounted on said bar, a lever-like clutch pivotally mounted on said adjusting member and having an opening therein through which said bar is disposed, said clutch being positioned with its outer end projecting at the inner edge of the adjusting member so that the clutch may be released and the adjusting member grasped simultaneously, a spring mounted on said adjusting member for actuating said clutch to its engaging position, and a stop for said clutch when actuated to disengaged position.

1,241,803. GEAR-SHIFTING MECHANISM. EDWIN B. WILES, Chicago, Ill. Filed Oct. 16, 1916. Serial No. 125,871. (Cl. 74—59.)



1. The combination of a casing having longitudinally extending guide channels, a shaft, a clutch member including a gear loosely mounted on said shaft, a clutch disk keyed to said shaft and capable of being operatively connected to said gear clutch member, a shifting member for said clutch disk slidably mounted in the guide channels and means for imparting movement to said shifting member to operatively connect said clutch members.

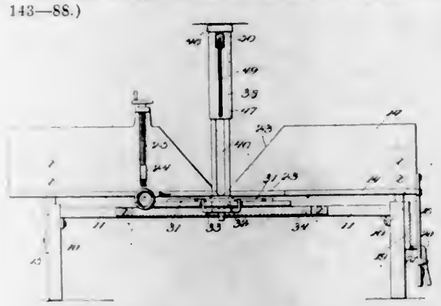
5. The combination of a casing having longitudinally extending guide channels, a shaft, a clutch member including a gear loosely mounted on said shaft, a clutch disk keyed to said shaft and capable of being operatively connected to said gear clutch member, a U-shaped yoke movable in the guide channels and adapted to engage with the clutch disk, means normally locking said yoke in said channels when the said clutch members are disengaged, a crank disk adapted for a swinging movement, a rod connecting said crank disk with said U-shaped yoke and a spring on said rod acting against two abutments, one on said rod and one on said disk, said rod including a yielding means and tranlating the swinging movement of said crank disk into longitudinal sliding movement of said yoke and acting to release said yoke locking means during the compression of said spring before imparting movement to said yoke.

10. A mechanism of the character described, comprising a casing, a shaft, a plurality of shiftable clutch members on said shaft, a master operating member, a plurality of crank members spaced about said master operating member, there being a crank member associated with each clutch member on said shaft, said master operating member and said crank members having means adapted for operative engagement when said master member is operated to successively actuate said crank members, and means operatively connecting said crank members with their associated clutch members to shift said clutch members on said shaft when said crank members are operatively engaged by the said master operating member.

13. A mechanism of the character described, comprising a casing, a shaft, a plurality of shiftable clutch members on said shaft, a yoke associated with each clutch member, a master operating segmental rack, a plurality of segmental rack disks spaced about said master operating member, there being a segmental rack disk associated with each clutch yoke, a crank pin on each segmental rack disk, said master segmental rack when operated being adapted to successively engage and actuate said segmental rack disks, rods operatively connecting said crank pins with the associated clutch yokes, to shift said yokes and associated clutch members on said shaft when said segmental rack disks are actuated by said master operating rack, and means automatically locking each of said segmental rack disks against movement other than that imparted to them by said master operating segmental rack.

[Claims 2 to 4, 6 to 9, 11, and 12 not printed in the Gazette.]

1,241,804. MITER-BOX. CHARLES E. WOOD, St. Albans, W. Va. Filed Sept. 13, 1916. Serial No. 119,900. (Cl. 143—88.)



1. A device of the character described including a base, a box carried thereby, and a saw guide mounted upon the base, the said saw guide including a body member, upstanding posts carried thereby, sleeves slidable upon said posts and formed to operatively receive a saw, co-acting pawls carried by the posts, and yieldable means bearing between the said pawls and the posts and normally urging the pawls to position for engagement with the back of a saw for automatically locking the saw in inactive position upon the elevation thereof upon the posts.

2. A device of the character described including a base, a box mounted thereon, and a saw guide carried by the base, the said guide including a body member, upstanding posts mounted upon the body member, sleeves slidable upon the said posts, and pairs of coacting pawls carried by the said posts respectively with the pawls of each pair formed adjacent the upper extermities thereof with inwardly converging shoulders, the said sleeves being adapted to operatively receive a saw having a back providing lateral shoulders at opposite sides of the saw and formed at longitudinally spaced points with inwardly beveled notches with the saw movable with the said sleeves with respect to the posts to position the saw back above the upper ends of the pawls to be automatically engaged thereby with the said ends of the pawls coacting with the shoulders of the saw back for supporting the saw in inactive elevated position with respect to the box and with the saw movable with respect to the said sleeves for disposing the said notches to receive the beveled shoulders of the said saw back whereby the saw may be moved downwardly for spreading the pawls to disengage the saw back whereby the saw may be lowered to active position.

[illegible] In a device of the character described, the combination with a saw guide including upstanding posts and co-acting locking means carried thereby, of a saw mounted upon the guide and including a saw back, the saw being shiftable upwardly between the said locking means to engage the back of the saw with the said means for locking the saw in elevated position upon the posts, and oppositely inclined shoulders formed on the sides of the saw back with the saw shiftable longitudinally to engage the said shoulders between the upper ends of the said locking means to spread the said means and permit the release of the saw.

[Claims 3 to 5 not printed in the Gazette.]

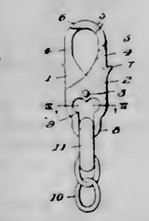
1,241,805. VEHICLE-WHEEL. JOSEPH M. WOODS, Chicago, Ill., assignor of one-half to D. W. Johnson, Chicago, Ill. Filed June 29, 1914. Serial No. 847,807. (Cl. 152—50.)



1. In a vehicle wheel comprising a plurality of spokes, means for pivotally attaching said spokes to the hub and rim so designed as to permit said spokes to adjust themselves in the plane of the wheel, said means comprising cone shaped sleeves adapted to fit into cone shaped openings and means for connecting said spokes with said sleeves and adjustably forcing the sleeves into said openings as described.

2. In a vehicle wheel comprising a hub, a rim, a plurality of spokes pivotally attached to the hub and extending away therefrom a substantial distance in a plane parallel to the plane of the wheel, and thereafter curved inwardly and pivotally attached to the rim without crossing over the medial plane of the wheel.

1,241,806. SNAP-FASTENER. SAMUEL ANDERSON, Pawtucket, R. I., assignor to The Williams & Anderson Co., Providence, R. I., a Corporation of Rhode Island. Filed June 16, 1917. Serial No. 175,080. (Cl. 24—242.)



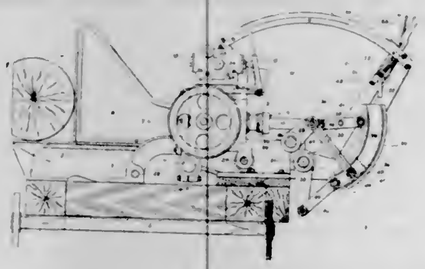
2. A snap fastener comprising a pair of companion hook members pivotally connected between their ends and provided adjacent one end with normally registering T-shaped openings, the cross bars of the T-openings being composed of interconnected circular openings, an end opening of one cross bar registering with the opposite end opening of the other cross bar when the hook members are opened, and a locking member slidable in the T-openings for engaging in their registering stems when the hook members are closed to hold them closed.

3. A snap fastener comprising a pair of companion hook members pivotally connected between their ends and

provided adjacent one end with normally registering T-shaped openings, a portion of the cross bars of the T-openings registering when the hook members are opened, and a locking member engaging in the registering portions of the openings when the members are opened and in the registering stems of said openings when the hook members are closed for holding them closed.

[Claim 1 not printed in the Gazette.]

1,241,807. SAWMILL LOG-SETTING DEVICE. WILLIAM H. APPLEMAN, Olean, N. Y. Filed Apr. 16, 1915. Serial No. 21,909. (Cl. 143—118.)



1. A machine element adjusting mechanism comprising an intermittent grip device having a back and forth motion, a constant throw fluid pressure cylinder and piston motor, having the usual unrestricted inlet passages, and having exhaust passages constantly restricted sufficiently to materially reduce the piston speed below that which the fluid pressure would otherwise impart to it, in combination with means for transmitting the constant throw of the piston to the intermittent grip device, which means is adjustable to pre-determinedly vary the range of movement imparted thereby to said grip device.

2. A machine element adjusting mechanism comprising an intermittent grip device having a back and forth motion, a constant throw fluid pressure cylinder and piston motor, having the usual unrestricted inlet passages and having exhaust passages sufficiently restricted to materially reduce the piston speed below that which the fluid pressure would otherwise impart to it, and further restricted by the advance of the piston toward the end of the stroke, in combination with means for transmitting the constant throw of the piston to the intermittent grip device, which means is adjustable to pre-determinedly vary the range of movement imparted thereby to said grip device.

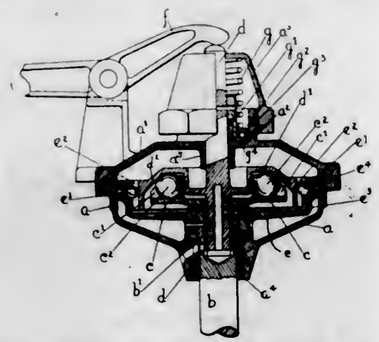
3. A machine element adjusting mechanism comprising an intermittent grip device having a back and forth motion, a fluid pressure cylinder and piston motor having the usual unrestricted inlet passages and having exhaust passages restricted throughout the entire piston stroke irrespective of any valve movement during said stroke, sufficiently to materially reduce the piston speed throughout said piston stroke, below that which the fluid pressure would otherwise impart to it, in combination with means for transmitting motion from the piston to the intermittent grip device.

4. A machine element adjusting mechanism comprising an intermittent grip device having a back and forth motion and embodying a rocking actuating shaft, a crank pin having a crank arm rigidly secured to said shaft, an oscillating member supported at one end by a fixed pivotal support, an arc shaped guide formed by said oscillating member and so set as to become concentric to said crank pin when at rest in idle or home position, a cylinder, fluid pressure motor, having a piston and piston rod working therein, a connecting rod leading direct from said piston rod to the free end of said oscillating member for imparting motion thereto, an adjustable arc shaped member carried by the arc shaped guide on said oscillating member, means for adjusting said adjustable arc shaped member upon said guide, and a link pivotally attached direct to both said arc shaped adjustable member and said crank pin, whereby a concentric guiding member having a uniform or fixed oscillatory movement and axis is actuated directly by a rod extension of said motor's piston, and at the same time becomes a direct element in affording means for changing the relative movement of the intermittent grip device and the piston of said motor.

5. A machine element adjusting mechanism comprising an intermittent grip device, having a back and forth motion, a constant throw fluid pressure cylinder and piston motor, having inlet passages of ample size to admit and maintain the full and unrestricted supply pressure upon the piston, and having exhaust passages constantly restricted sufficiently to materially reduce the piston speed below that which the fluid pressure would otherwise impart to it, in combination with means for transmitting the constant throw of the piston to the intermitent grip device, which means is adjustable to predeterminedly vary the range of movement imparted thereby to said grip device.

[Claim 6 not printed in the Gazette.]

1,241,808. GOVERNOR. CHARLES BALOUGH, Springfield, Ohio. Filed Mar. 1, 1916. Serial No. 81,388. (Cl. 264—17.)



1. In a governor, a rotatable part, a pocketed member directly connected with said rotatable part together with a series of movable devices arranged in said pockets, a second member having an inclined housing inclosing said devices, and a positive connection between said housing member and said rotatable part such as to cause the said member to rotate therewith but permit it to separate from said pocketed member under the action of said movable devices.

4. In a governor, a rotatable part, a stem slidably mounted relative to said part, separable members connected respectively to said stem and rotatable part one of which is provided with an inclined surface, a series of movable devices between said separable members, connections whereby said members revolve with said rotatable part, a nonrotatable spring exerting its influence on said stem, and antifriction bearings between said spring and stem to permit said stem to rotate relatively to said spring.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,241,809. CABLE-SPLICE. EDWIN W. BEARDSLEY, San Francisco, and PHILIP W. HAM, Oakland, Cal. Filed Jan. 5, 1916. Serial No. 70,415. (Cl. 173—263.)

2. The combination with the splice connecting a pair of lead and wire armor covered cable ends, of a pair of sleeves to the outside of the outer ends of which the wire armor is adapted to be welded and means for drawing the sleeves together to take up all slack in the wire armor and to relieve the spliced cable ends and lead covering of all mechanical strain.

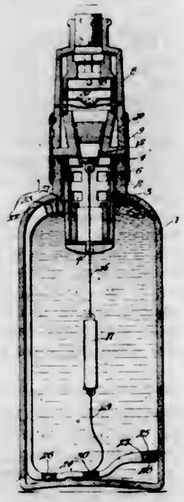
3. The combination with a pair of lead-covered spliced cable ends, and a wire armor inclosing the cables, of a pair of sleeve members to one end of which the wire armor is adapted to be welded, said sleeve members inclosing the lead covered spliced cable ends, a threaded extension on the opposite end of each sleeve, said threads being right and left-hand, and a right and left-hand threaded coupling sleeve adapted to receive the threaded ends of the sleeves.



5. The combination with the splice connecting a pair of lead and wire armor-covered cable ends, of a pair of sleeves to the outside of the outer ends of which the wire armor is adapted to be welded, and means for drawing the sleeves together to take up all slack in the wire armor and to relieve the spliced cable ends and lead covering of all mechanical strain, said sleeves being provided with openings through which water may be poured to keep the lead sheath and lead sleeve cool while the sleeves are being welded to the wire armor.

[Claims 1, 4, 6, and 7 not printed in the Gazette.]

1,241,810. NON-REFILLABLE BOTTLE. WILLIAM JAKOB BEISEL, Brooklyn, N. Y. Filed Apr. 10, 1916. Serial No. 90,199. (Cl. 215—62.)



1. In a non-refillable bottle, the combination with a bottle of means in the neck of the bottle for preventing a liquid from entering the bottle, including a tapered valve, a weight within the bottle flexibly connected to said valve, a frame of rigid material within said bottle adapted to be withdrawn through the neck, the said frame extending across the bottom and up one side of the bottle to a point adjacent the neck, means for yieldingly but firmly supporting said frame from the bottom and sides of the bottle to hold it in place, and flexible means connecting said weight to the frame at the bottom of the bottle and on substantially the center line thereof.

2. In a non-refillable bottle, the combination with a bottle of means in the neck of the bottle for preventing a liquid from entering the bottle including a tapered valve, a weight within the bottle flexibly connected to said valve, a frame of rigid material within said bottle extending from the neck portion of the bottle in close proximity to the inner surface down one side and across the bottom and provided at intervals with holes, corks in said holes projecting outwardly into contact with the inner surface of said bottle at the bottom and sides to hold said frame yieldingly but firmly in place, and flexible means connecting said weight to said frame at the bottom of the bottle and on substantially the center line of the bottle.

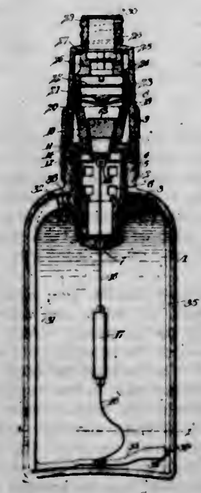
3. In a non-refillable bottle, the combination with a bottle of means in the neck of the bottle for preventing a liquid from entering the bottle including a tapered valve, a weight within the bottle flexibly connected to said valve, a frame of rigid material within said bottle adapted to be withdrawn through the neck, the said frame having a portion extending across the bottle at the bottom, means coöperating with the inner surface of the bottle for firmly but yieldingly holding said frame in place, and means for flexibly connecting said weight to said portion of the frame extending across the bottom.

4. In a non-refillable bottle, the combination with a bottle of means in the neck of the bottle for preventing a liquid from entering the bottle including a tapered valve and a cylindrical portion projecting downwardly into the bottle from the neck, a weight within the bottle flexibly connected to said valve, a frame embodying a shaft of rigid material within said bottle adapted to be withdrawn through the neck, and extending from the portion of the bottle immediately below the neck down one side to and across the bottom of the bottle, the said shaft including a portion projecting to and fitting against said cylindrical portion, yielding material secured to and projecting from said frame at intervals into contact with the walls of the bottle to hold it in place, and flexible means connecting said weight to said frame at the bottom.

5. The combination with a bottle of valve mechanism to prevent refilling in the neck thereof embodying a cylindrical portion projecting into the bottle, a shaft within said bottle and adapted to be withdrawn through the neck, the said shaft extending from the top to and across the bottom of the bottle and having a portion engaging said cylindrical portion, and yielding projections engaging the bottom, side and top of the bottle.

[Claim 6 not printed in the Gazette.]

1,241,811, NON-REFILLABLE BOTTLE. WILLIAM JAKOB BEISEL, Brooklyn, N. Y. Filed Oct. 27, 1916. Serial No. 128,072. (Cl. 215—62.)



1. In a non-refillable bottle, the combination with a bottle having an interior groove on one side extending from top to bottom, of means in the neck of the bottle for preventing a liquid from entering the bottle including a tapered valve, a weight within the bottle flexibly connected to said valve, a frame of rigid material within

said bottle adapted to be withdrawn through the neck, the said frame having a portion closely fitting in said groove from a point adjacent the neck to the bottom and a bottom portion extending across the bottom of the bottle, means for yieldingly but firmly supporting said frame from a fixed portion of the bottle at the end of said cross piece and at said neck, and flexible means connecting said weight to the frame at the bottom of the bottle and on substantially the center line thereof.

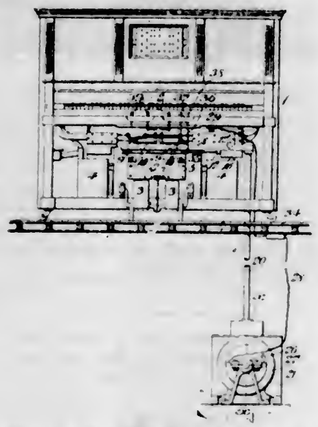
2. In a non-refillable bottle, the combination with a bottle having an interior groove on one side extending from top to bottom and an interior depression on the opposite side at the bottom, of means in the neck of the bottle for preventing a liquid from entering the bottle including a tapered valve, a weight within the bottle flexibly connected to said valve, a frame of rigid material within said bottle adapted to be withdrawn through the neck, the said frame having a portion closely fitting in said groove from a point adjacent the neck to the bottom and a bottom portion extending across the bottom of the bottle into said depression, means for yieldingly but firmly supporting said frame from a fixed portion of the bottle at the end of said cross piece and at said neck, and flexible means connecting said weight to the frame at the bottom of the bottle and on substantially the center line thereof.

3. In a non-refillable bottle, the combination with a bottle having oppositely placed interior grooves extending from the inwardly turned neck portion to the bottom, of means in the neck of the bottle for preventing a liquid from entering the bottle including a tapered valve, a weight within the bottle flexibly connected to said valve, a frame of rigid material within said bottle adapted to be withdrawn through the neck, the said frame having a vertical portion closely fitting in said groove on one side from top to bottom and having its interior face substantially flush with the interior surface of the bottle and a portion extending across said bottle at the bottom and terminating in the groove in the opposite side and compressible means for supporting said bottom portion firmly from the bottom of said groove, and yielding means above the top of said groove in which said vertical portion fits for holding said frame in position, and flexible means connecting said weight to the frame at the bottom of the bottle and on substantially the center line thereof.

4. In a non-refillable bottle, the combination with a bottle, the side wall of which is outwardly bent from the inwardly turned portion at the neck to the bottom to form an exterior rib and an interior groove, of means in the neck of the bottle for preventing a liquid from entering the bottle including a tapered valve, a weight within the bottle flexibly connected to said valve, a frame of rigid material within said bottle adapted to be withdrawn through the neck, the said frame having a portion closely fitting in said groove from a point adjacent the neck to the bottom and a bottom portion extending across the bottom of the bottle, means for yieldingly but firmly supporting said frame from a fixed portion of the bottle at the end of said cross piece and at said neck, and flexible means connecting said weight to the frame at the bottom of the bottle and on substantially the center line thereof.

5. In a non-refillable bottle, the combination with a bottle, the side walls of which are outwardly bent on opposite sides from the inwardly turned portion at the neck to the bottom to form exterior ribs and interior grooves, of means in the neck of the bottle for preventing a liquid from entering the bottle including a tapered valve, a weight within the bottle flexibly connected to said valve, a frame of rigid material within said bottle adapted to be withdrawn through the neck, the said frame having a vertical portion closely fiting in said groove on one side from top to bottom and having its interior face substantially flush with the interior surface of the bottle and a portion extending across said bottle at the bottom and terminating in the groove on the opposite side and compressible means for supporting said bottom portion firmly from the bottom of said groove and yielding means above the top of said groove in which said vertical portion fits for holding said frame in position, and flexible means connecting said weight to the frame at the bottom of the bottle and on substantially the center line thereof.

1,241,812. PNEUMATIC CONTROLLER FOR MECHANICAL PIANO-PLAYERS. HAROLD A. BIERCK, Philadelphia, Pa., assignor, by mesne assignments, to Kinetic Engineering Company, a Corporation of Pennsylvania. Filed Aug. 21, 1911. Serial No. 645,209. (Cl. 84—168.)



1. In a device of the character stated, a blower chamber, an outlet chamber, a suction conduit connecting said chambers, an exhaust chamber, a conduit communicating with said exhaust chamber, a slide valve having a port controlling the communication between the suction conduit and the conduit communicating with the exhaust chamber, the said outlet chamber having a port adapted to overlap the port in the slide valve when the latter is in one of its extreme positions.

2. In a device of the character stated, a blower chamber, an exhaust chamber, a conduit communicating with the exhaust chamber, a partition in said conduit dividing the same into inlet and outlet chambers, a chamber having ports whereby it is in communication with both the inlet and outlet chambers, and a slide valve having a port for register with said ports and arranged to overlap one of said ports when the valve is in one of its extreme positions.

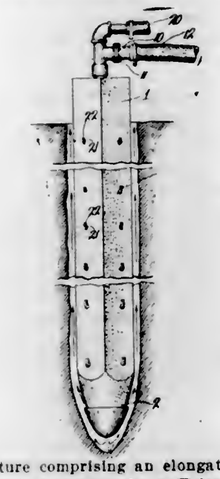
1,241,813. CONSTRUCTION OF AND METHOD OF SINKING PILES. EDWARD BIGNELL, Lincoln, Nebr., assignor to Concrete Piling Company, Seward, Nebr., a Corporation of Nebraska. Continuation of application Serial No. 773,882, filed June 16, 1913. This application filed Jan. 31, 1916. Serial No. 75,313. (Cl. 61—41.)

1. The method of sinking a structure consisting of excavating in advance of the structure and conducting displaced material upwardly to the surface of the earth into which the structure is sunk by stepped jets of water directed upwardly along the surface of the structure.

2. The method of sinking a structure consisting of excavating in advance of the structure by means of water under substantial pressure, and conducting displaced material upwardly to the surface of the earth into which the structure is sunk by stepped jets of water directed upwardly along the surface of the structure.

3. The method of sinking a structure consisting of excavating in advance of the structure and conducting displaced material upwardly to the surface of the earth into which the structure is sunk by stepped jets of water directed upwardly along the surface of the structure at sufficiently close intervals to maintain constant acceleration of the water and material from the nose of the pile to the surface of the earth.

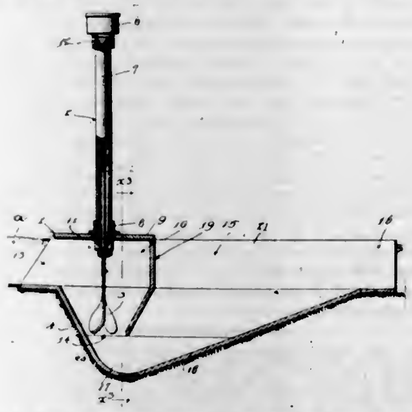
4. The method of sinking a structure which consists in excavating in advance of the structure by jetting and in then rapidly conducting by relaying the displaced material by a series of jets of water circumferentially disposed about and upwardly directed under high pressure along the surface of the structure.



10. A structure comprising an elongated body member, means for directing water under sufficient pressure in advance of the body member to loosen the material, and means for directing jets of water under sufficient pressure upwardly at intervals along the sides of the structure to relay the loosened material upwardly, said jets being so spaced and directed that the loosened material carried by one jet will be delivered to the jet above it.

[Claims 5 to 9 not printed in the Gazette.]

1,241,814. FLUID-METER. GEORGE SYDNEY BINCKLEY, Los Angeles, Cal., assignor, by mesne assignments, to D. A. Starbuck and I. B. Funk. Filed Sept. 8, 1915. Serial No. 49,420. (Cl. 73—37.)



1. A fluid meter comprising an acceleration chamber having an inlet in its upper portion and having its side walls sloping inward and downward to form a contracted throat, a diffusion chamber communicating with the lower portion of the acceleration chamber, a vertical shaft rotatively mounted on the acceleration chamber and projecting into said acceleration chamber, a fluid-propelled wheel in said throat fixed on the shaft, and a registering device connected to said shaft.

2. A fluid meter comprising two chambers one inside of the other, the inner chamber being upwardly expanding and having an inlet at its upper portion and having an outlet in its bottom and said outer chamber having an outlet, a shaft having its lower end projecting into the inner chamber, a fluid-operated wheel on the lower end of the shaft, and a registering device connected to said shaft.

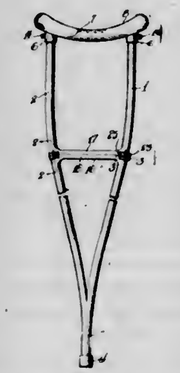
3. A fluid meter comprising an acceleration chamber having an inlet in its upper portion and having its side walls sloping inward and downward to form a contracted throat, a diffusion chamber communicating with the lower portion of the acceleration chamber and having upwardly and outwardly sloping walls, a vertical shaft rotatively mounted above the acceleration chamber and projecting down into said acceleration chamber, a fluid-propelled wheel on the lower end of the shaft, and a registering device connected to said shaft.

4. A fluid meter comprising two upwardly and outwardly expanding chambers one inside of the other, the inner chamber having an inlet at its upper portion and having an outlet in its bottom and the outer chamber having an outlet, a shaft having its lower end projecting into the inner chamber, a fluid-operated wheel on the lower end of the shaft, and a registering device connected to said shaft.

5. A fluid meter comprising a chamber having a horizontally disposed inlet and having an outlet, the axis of the outlet being vertical, a casing projecting up from the top of the chamber, a shaft journaled near the upper end of said casing and projecting into said chamber, a fluid-operated wheel on the lower end of the shaft, and a registering device connected to the upper end of said shaft.

[Claim 6 not printed in the Gazette.]

1,241,815. CRUTCH. NANCY F. BLACKARD, Kansas City, Mo. Filed Dec. 5, 1916. Serial No. 135,222. (Cl. 135—49.)



2. A crutch comprising a pair of truss arms, a retaining plate, a supporting plate, spring elements interposed between the supporting plate and the said retaining plate, the ends of the said supporting plate and of the said retaining plate being in engagement with each other, the ends of the said retaining plate being bent to provide loops extending over the proximate ends of the said supporting plate, and a flexible casing enveloping the supporting plate and the retaining plate.

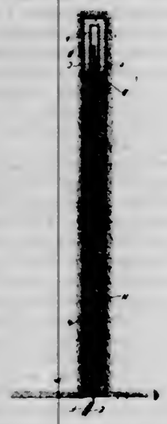
8. A crutch comprising a pair of truss arms, a cross piece connecting the arms, the cross piece being longitudinally split to divide the cross piece into upper and lower sections, the split extending through each truss arm to divide the same into upper and lower portions, and means connected to the meeting ends of the upper and lower portions in each truss arm for permitting the same to be folded upon each other.

[Claims 1, 3 to 7, 9, and 10 not printed in the Gazette.]

1,241,816. METHOD OF AND APPARATUS FOR PREPARING SOIL FOR CULTIVATION. ERICH AUGUST BOLDT, Dresden, Germany. Filed June 6, 1913. Serial No. 772,209. (Cl. 47—36.)

1. The herein described process of preparing soil for cultivation, said process consisting in placing an isolated

charge containing fertilizing material below the surface of the soil, and causing an explosion within said charge to simultaneously loosen the soil and to commingle the fertilizing material therewith.



2. The herein described process of preparing soil for cultivation, said process consisting in placing a quantity of fertilizing material below the surface of the soil, and causing an explosion adjacent to said fertilizing material, to simultaneously loosen the soil and to commingle said fertilizing material therewith.

3. An apparatus for use in preparing soil for cultivation, said device comprising means for holding fertilizing material below the surface of the soil, and also comprising means for causing an explosion adjacent to and scattering the fertilizing material held as aforesaid.

4. An apparatus for use in preparing soil for cultivation, said device comprising means for holding fertilizing material, in the form of a hollow mass, below the surface of the soil, and also comprising means, located within the hollow mass aforesaid, for causing an explosion and to scatter said fertilizing material.

1,241,817. LEAF-SPRING LUBRICATOR. WILLIAM H. BROWN, Cleveland, Ohio. Filed Jan. 24, 1917. Serial No. 144,193. (Cl. 184—1.)



1. A lubricator for leaf springs comprising an oiler at one side of the spring seat and held in fixed relation to the spring seat by means secured to said seat.

2. A lubricator for leaf springs comprising an oiler at one side of the spring seat and held in fixed relation to the spring seat by means secured to the spring supporting member to which the spring is attached.

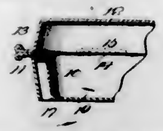
3. A lubricator for leaf springs comprising a pair of oilers, one at each side of the spring seat and held in fixed relation to the spring seat by means secured to said seat.

4. A lubricator for leaf springs comprising a pair of oilers, one at each side of the spring seat, and held in fixed relation to the spring seat by means secured to the spring supporting member to which the spring is attached.

5. The combination with a spring-seat and a multi-ply leaf spring attached thereto, of a lubricating appliance embodying a member extending along the spring, across the point of attachment of the spring to its seat, said member carrying an oiling appliance at each end, whereby the spring is oiled at each side of the point where the leaves have a fixed relation to each other.

[Claims 6 and 7 not printed in the Gazette.]

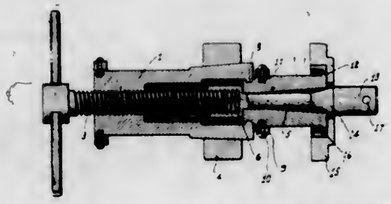
1,241,818. CULINARY UTENSIL. JOHN J. BURNS and WILLIAM H. FLYNN, Shortsville, N. Y. Filed Jan. 26, 1916. Serial No. 74,380. (Cl. 53—7.)



1. A cooking vessel including freely separable members provided with flat coacting laterally extending flanges, the peripheral edges of which are smooth and unobstructed, the flat face of the flange of one of the members being provided with a socket and the flat face of the flange of the other member with a projection adapted to enter the socket, the socket being of greater length than the projection thereby to permit rotative movement of one member with respect to the other.

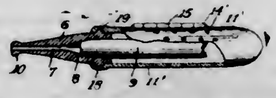
[Claim 2 not printed in the Gazette.]

1,241,819. DEVICE FOR LOOSENING OUTER RACES OF BALL-BEARINGS. ERNST P. CAMPBELL, Stockton, Cal., assignor of one-half to Joseph E. Goodman, Stockton, Cal. Filed Sept. 18, 1916. Serial No. 120,816. (Cl. 29—88.2.)



A device of the character described comprising a pin having an interiorly threaded end and a tapered shoulder at the opposite end, a plurality of finger members disposed around said pin and each being provided with recesses, a collar disposed around the finger members adjacent said recesses, set screws projecting through the collar into the recesses, the diameter of the set screws being less than the diameter of the recesses, said finger members being tapered on their inner sides whereby they will have radial movement upon the pin with respect to each other, projecting wedge-shaped flanges on the outer edges of the finger members at the end opposite said collar, said tapered shoulder on the pin being arranged to project between the finger members to expand the same as the threaded end of the pin is advanced longitudinally of the finger members.

1,241,820. HOLDER FOR CIGARS, CIGARETTES, AND THE LIKE. FRANK A. CERRUTI, New York, N. Y. Filed June 24, 1916. Serial No. 105,563. (Cl. 131—51.)



1. In a holder for cigars, cigarettes and the like, the combination of a pair of hingedly connected perforated sections, said sections being so formed that when in closed position they will form an elongated tubular receptacle closed at one end and open at the opposite end, and a stem to engage in the open end of the receptacle adapted to support and carry a cigar or cigarette, and said stem and receptacle sections having means integral therewith cooperating to connect the receptacle to the stem as the receptacle sections are moved to closed position and removable from the stem when the sections are moved to open position.

2. In a holder for cigars, cigarettes and the like, the combination of a stem having a mouth-piece at one end and adapted for the engagement of a cigar or cigarette to hold the same, an annular bead at the end of the stem opposite to the mouth-piece, and hingedly connected perforated sections arranged to provide an elongated tubular receptacle when in closed position with one end of the receptacle closed and an opening in the opposite end in which the stem is adapted to engage, and each section having a recess to provide an annular recess adjacent the open end of the sections when in closed position for the engagement of the annular bead on the stem to connect the receptacle to the stem as the receptacle sections are moved to closed position and removable from the stem when the receptacle sections are moved to open position.

1,241,821. CREEPER OR ANTISLIPPING DEVICE. FRANK A. CERRUTI, New York, N. Y. Filed Oct. 25, 1916. Serial No. 127,563. (Cl. 36—64.)



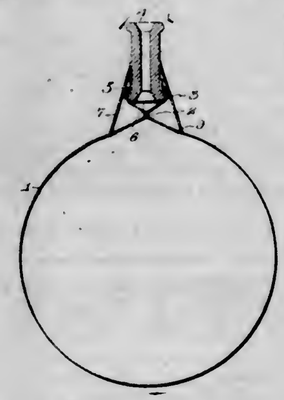
1. A creeper comprising a plate having prongs and an upstanding claw at the edge; a claw pivotally carried by the plate at the edge opposite to the first claw to cooperate with the upstanding claw as a clamp; and a bail pivotally connected to opposite sides of the plate between the claws and to which the pivoted claw is connected, said bail being operable to throw the pivotally supported claw into and out of clamping position and to lock said claw in clamping position.

2. A creeper comprising a plate provided with prongs; a clamping claw at one end of said plate; a clamping claw pivotally connected to the plate at the end opposite to the first claw; ears at opposite sides of the plate between the clamping claws; a bail pivotally connected to said ears extending opposite to the pivoted claw; and links to connect the pivoted claw with the bail to operate said claw through the lever to throw the pivoted claw into and out of clamping position.

3. A creeper comprising a prong carrying plate; an upstanding clamping claw at one end of said plate; a clamping claw pivotally connected to the plate at the end opposite to the first claw; ears at opposite sides of the plate between the clamping claws; a bail pivotally connected to the ears; and links pivotally connected at one end to the pivoted clamping claw and the other end pivotally connected to the bail, said bail being operable to throw the pivoted clamping claw into and out of clamping position; and the connection of the links with the bail and clamping claw being so arranged that when the bail is in position with the pivoted clamping claw in clamping position the pivotal connections of said links will be off line with relation to the pivotal connection of the bail with the plate ears, substantially as and for the purpose specified.

4. A creeper comprising a prong carrying plate; an upstanding clamping claw at one end of said plate; a clamping claw pivotally connected to the plate at the end opposite to the first claw; ears at opposite sides of the plate between the clamping claws; a bail pivotally connected to the ears; and links pivotally connected at one end to the pivoted clamping claw and the other end pivotally connected to the bail, said bail being operable to throw the pivoted clamping claw into and out of clamping position.

1,241,822. TOY BALLOON. JAMES E. COONEY, Pawtucket, R. I. Filed June 16, 1917. Serial No. 175,064. (Cl. 46—37.)

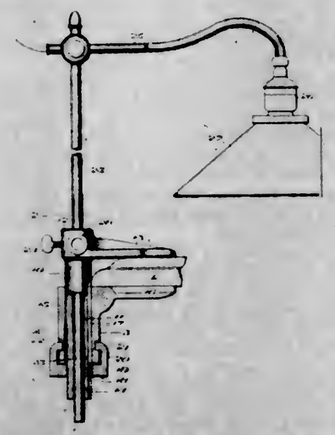


1. In a toy balloon, an inflatable body having a neck adapted to be closed by twisting, a mouth piece inserted in the neck and provided with a peripheral bead intermediate its ends, a vibratory musical cord secured across the inner end of the mouth piece, and a conical holder having its smaller end seating against the bead of the mouth piece and its larger end extended beyond the inner end of the latter for frictionally engaging the inflated body to hold the same against turning when twisted relative to the mouth piece for closing the neck.

2. In a toy balloon, an inflatable body having a neck adapted to be closed by twisting, a mouth piece inserted in the neck and provided with a peripheral bead intermediate its ends, and a conical holder carried by the mouth piece with the edge of its flared end arranged to seat on the body when inflated and hold the same against untwisting when said body is twisted to close its neck.

[Claims 3 to 6 not printed in the Gazette.]

1,241,823. CLAMP FOR BRACKETS. CHARLES C. COUPER, Norfolk, Va. Filed Apr. 5, 1917. Serial No. 160,041. (Cl. 248—3.)



1. A clamp for brackets comprising a shank portion having a through central opening adapted to receive a

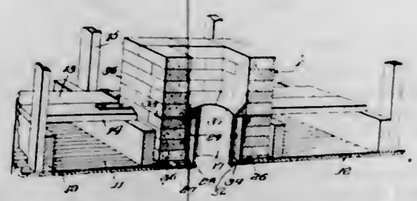
standard or rod of the bracket, a jaw carried by said shank portion, a sleeve slidably mounted about said shank portion, a jaw on said sleeve, and means for securing said sleeve in adjusted position on said shank portion.

3. A clamp for brackets comprising a shank portion having a through opening adapted to receive a standard or rod of the bracket, a fixed jaw on said shank portion, a sleeve about said shank portion, a jaw carried by said sleeve, a nut in threaded engagement with said shank portion, and a connection between said nut and sleeve permitting rotary movement therebetween.

6. A clamp for lamp brackets comprising a shank portion having a through opening adapted to receive a rod or standard of the bracket, a fixed jaw on said shank portion, a sleeve about said shank portion, a jaw carried by said sleeve, said shank portion having a groove along one side, said sleeve having an internal longitudinal rib fitting in said groove, and a nut in threaded engagement with said shank portion and engaging said sleeve for securing the sleeve in adjusted position on said shank portion.

[Claims 2, 4, 5, and 7 not printed in the Gazette.]

1,241,824. FIREPROOF SWING AND VENTILATOR. DANNIEL M. CRAVEN, Sr., Paducah, Tex. Filed May 6, 1916. Serial No. 95,858. (Cl. 72—95.)



1. In chimney construction, a metallic swing adapted to be located between adjacent ceiling supporting joists, a chimney base of brick built within the swing, a metallic flue located within the lower end of the chimney base, said flue including inner and outer cylindrical walls providing an intermediate annular chamber closed at its upper and lower ends with openings formed in the closure of the lower end of the chamber, means for supporting the flue within the chimney base, and a filling of plastic material between the upper portion of the flue and the adjacent portion of the chimney base.

2. The combination with ceiling supporting joists, of a supporting frame fixed to the upper faces of the joists, braces fixed to the joists and frame and adapted for attachment to roof supporting rafters, a swing suspended from the supporting frame between adjacent joists, a chimney base built within the swing, and a ventilated flue mounted within the chimney base and adapted to receive a stove pipe from a room below.

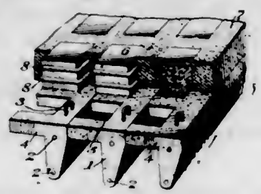
4. In chimney construction, a metallic swing provided centrally with an opening and at its edges with upwardly directed arms for attachment to a support, a metallic flue projecting through the opening and formed at its lower edge with a flange engaging against the lower face of the swing, a chimney base built upon the swing and surrounding the flue, and supporting portions extending laterally from the upper portion of the flue and embedded in the chimney base.

6. The combination with ceiling supporting joists, of a swing mounted between certain of the joists, a chimney built upon the swing to project through a roof, a flue in the lower portion of the chimney projecting through the ceiling, and bracing means secured to the ceiling about the chimney and adapted for attachment to the roof to prevent undue sagging of either the roof or ceiling.

7. In chimney construction, a swing, a chimney base supported thereby and open at its lower end, and a flue secured in the open lower end of the chimney base, said flue including an outer annular wall fitting closely within the chimney base and provided at its lower end with an outwardly directed peripheral flange, an inner annular wall spaced within the first to provide an annular chamber and provided at both ends with outwardly directed peripheral flanges, the lower flange having locking engagement about the edge of the flange of the outer member and the upper flange having locking engagement with the upper edge of the outer member, the lower flange being adapted to bear against the lower face of the swing when the flue is in place, and spaced supporting members carried by the upper portion of the flue and embedded in the chimney base.

[Claims 3 and 5 not printed in the Gazette.]

1,241,825. VAULT-LIGHT, FLOOR-LIGHT, PAVEMENT-LIGHT, OR SKYLIGHT CONSTRUCTION. ANTHONY ELTON DAVIS, Philadelphia, Pa., assignor of one-half to Frederick J. Geiger, Philadelphia, Pa. Filed May 15, 1912. Serial No. 697,381. (Cl. 94—7.)



1. In a vault light, floor light, or sky light construction, a plurality of lintels each comprising a reinforced concrete element adapted to span the opening to be covered and having transverse members to space each element from an adjacent element to form therewith lens receiving openings.

4. As a new article of manufacture, a reinforced concrete lintel having angularly disposed arms formed to interlock with an adjacent lintel and form therewith lens receiving openings, and the upper face of a lintel having bonding elements thereon.

8. In a vault light, floor light, pavement light or sky light construction, a plurality of independent and preformed reinforced concrete lintels, means to space said lintels apart and operatively connect them to form lens receiving openings, and lenses secured over said openings.

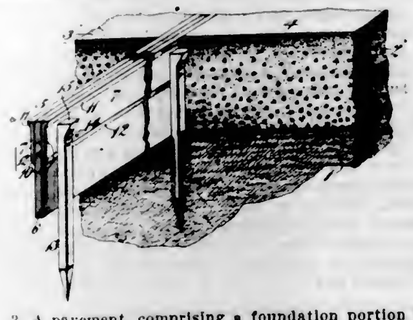
10. In a vault light, floor light, pavement light or sky light construction, a plurality of independent and preformed reinforced concrete lintels, means to space them apart and operatively connect them to form lens receiving openings, bonding elements carried by and extending above said lintels, lenses covering said openings, and a layer of binding material embedding said bonding elements and surrounding said lenses.

[Claims 2, 3, 5 to 7, and 9 not printed in the Gazette.]

1,241,826. PAVEMENT AND ARMORED JOINT-STRIP THEREFOR. ANTHONY E. DAVIS, Philadelphia, Pa., assignor of one-half to Frederick J. Geiger, Philadelphia, Pa. Filed Nov. 3, 1914. Serial No. 870,017. (Cl. 94—1.)

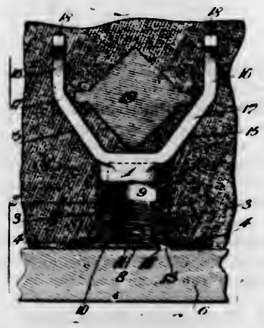
1. A pavement, comprising a foundation portion and a top portion, the latter consisting of a plurality of concrete sections separated from each other by expansion joints, the expansion joints having an armor extending along the upper portion of the edges of the concrete sections, and stakes secured to said armor and having shoulders intermediate their ends to limit the driving length of a stake and define the contour of the finished construction.

2. A pavement, comprising a foundation portion and a top portion, the latter consisting of a plurality of concrete sections separated from each other by expansion joints and an armor extending along the upper portions of the edges of said concrete sections at the joints which require reinforcement, and stakes rigidly secured directly to the outer side of said armor and having a head located beneath the upper face of the armor and adapted to receive an impact blow to drive said stake into said foundation portion to support the joint and define the finished contour of the pavement.



3. A pavement, comprising a foundation portion and a top portion, the latter consisting of concrete sections and expansion joints connecting said sections, said expansion joints comprising a joint strip, armor plates on opposite sides thereof each having wedge-shaped portions at their upper ends, and stakes rigidly secured directly to the sides of said armor plates beneath the wedge-shaped portions thereof and having a head located below said wedge-shaped portions and adapted to receive an impact blow to drive said stakes into said foundation portion.

1,241,827. CONCRETE-INSERT. ANTHONY ELTON DAVIS, Philadelphia, Pa. Filed Mar. 2, 1915. Serial No. 11,631. (Cl. 72—105.)



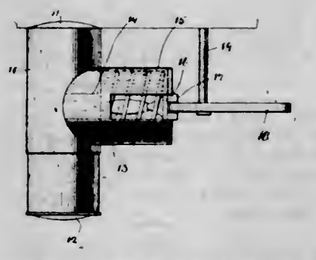
1. A device of the character stated for embedment in a concrete construction, comprising a body portion and arms extending outwardly therefrom, said body portion having an aperture opening through an end thereof and terminating inwardly in a chamber of greater diameter than the diameter of said aperture, the walls of said aperture being threaded, said body portion having a laterally extending recess near the open end of said aperture, means to secure said body portion in position and a closure independent of said body securing means and adapted to engage said recess and to be inserted thereinto by movement in a lateral direction.

2. A device of the character stated for embedment in a concrete construction, comprising a body portion, arms extending outwardly therefrom, and angularly arranged base flanges at its opposite end and provided with means to receive fastening devices, said body portion having an aperture opening thereinto and terminating inwardly in a chamber of greater diameter than the diameter of said aperture, the walls of said aperture being threaded, said body portion having a laterally directed recess surrounding said aperture, the walls of said recess forming an acute angle, and a closure shaped to engage said recess and adapted to be laterally inserted therein.

3. A device of the character stated for embedment in a concrete construction, comprising a body portion having angularly disposed base flanges at one end, certain of said flanges having V-shaped notches therein, said body portion having outwardly diverging arms extending from its opposite end, said arms terminating in parallelly arranged extensions increasing in width at their outer ends, said body portion having an aperture opening thereinto and terminating in a chamber of greater diameter than the diameter of the aperture, the outer face of said body portion having a portion of reduced diameter provided with ribs to interlock with the concrete, said body portion having a recess around said aperture near its outer end, said recess having a side wall thereof cut away, and a closure shaped to interlock with said recess and having its under face substantially flush with the under face of said base flanges.

4. A device of the character stated for embedment in a concrete construction, comprising a body portion having angularly disposed base flanges at one end, certain of said flanges having V-shaped notches therein, said body portion having outwardly diverging arms extending from its opposite end, said arms terminating in parallelly arranged extensions increasing in width at their outer ends, said body portion having an aperture opening thereinto and terminating in a chamber of greater diameter than the diameter of the aperture, the outer face of said body portion having a portion of reduced diameter surrounding the threaded portion of said aperture and provided with ribs to interlock with the concrete, said body portion having a recess around said aperture near its outer end, said recess having a side wall thereof cut away, and a closure shaped to interlock with said recess.

1,241,828. SHUTTER FOR MOVING-PICTURE MACHINES. THERON DAVIS, New York, N. Y. Filed Oct. 11, 1915. Serial No. 55,142. (Cl. 88—19.3.)



1. The combination with a moving picture machine having a complete projection lens and a film feed, of a second lens, said second lens being arranged to cross the light aperture of the machine and change the focal length of the projection thereby darkening without obscuring the picture field, and actuating mechanism independent of the film feed for moving said second lens.

2. The combination with a moving picture machine having a complete projection lens and a film feed, of a second lens intermittently crossing the projection beam of light for changing the focal length of the picture without darkening the picture field, and means independent of the film feed for actuating the second lens.

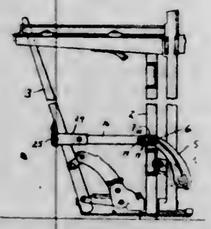
3. The combination with a moving picture machine having a projector complete in itself, of a flicker shutter comprising a lens arranged to cross the aperture of the machine, change the focal length of the projection, and cutting square across the light beam of the machine.

4. The combination with a projection tube of a moving picture machine having a projection lens complete in itself, of a transparent shutter in lens form movable transversely across the tube.

5. The combination with the tube of a moving picture machine having a projection lens complete in itself, of a lens member movable at right angles to the beam of light across the tube while the picture film is being moved, thus obscuring without darkening the picture field.

[Claim 6 not printed in the Gazette.]

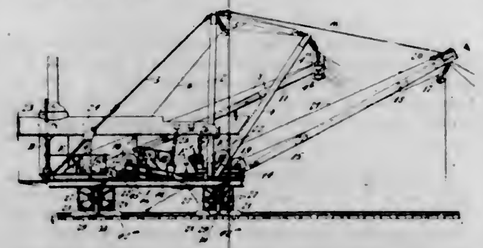
1,241,829. SWEEP-STICK COUPLING. GEORGE W. DAYMON, Philadelphia, Pa. Filed Dec. 14, 1916. Serial No. 136,914. (Cl. 139—48.)



1. In a device of the character stated, a rocker arm connection comprising a bearing sleeve having a stud opening therethrough and provided with an oil hole integral arms projecting from said bearing sleeve, a post formed integral with the outer ends of said arms, said post being circular in cross section, one of said arms and said post having an oil hole extending therethrough to a point intermediate to the ends of the post, said post having another oil hole passing transversely entirely therethrough and communicating with the first named oil hole, a sweep stick provided with an arcuate groove registering with the post of the rocker arm connection, and a strap passing around said post and adjustably connected to the sweep stick for hingedly fastening said sweep stick to the rocker arm connection.

2. In a device of the character stated a rocker arm connection comprising a bearing sleeve having a stud opening therethrough, integral arms projecting from said bearing sleeve, and a post formed integral with the outer ends of said arms, said post being circular in cross section, in combination with a sweep stick having an arcuate groove at one end to register with said post, and a strap passing around said post and adjustably connected to the sweep stick for hingedly fastening said sweep stick to the rocker arm.

1,241,830. PORTABLE LOGGING APPARATUS. JOSEPH H. DICKINSON, Montclair, and ERVIN D. SWAN, Glen Ridge, N. J., assignors to Lidgerwood Manufacturing Company, New York, N. Y., a Corporation of New York. Filed June 23, 1909. Serial No. 503,785. (Cl. 212—145.)



1. In combination, a portable platform, a substantially horizontal supporting sill carried by the platform and extending longitudinally thereof, spaced legs on the platform depending therefrom and having their lower ends normally disposed over the opposite ends of the sill, power means between said legs, and a connecting member pivoted to said means and to the sill.

2. In combination, a portable platform, a substantially horizontal supporting sill carried by the platform and extending longitudinally thereof, spaced legs on the platform depending therefrom and having their lower ends normally disposed over the opposite ends of the sill, a power means between said legs, a connecting member pivoted to said means and to the sills, and guide means for said connecting member.

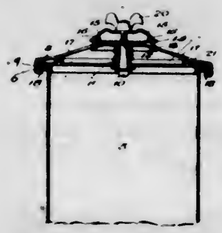
3. In a portable logging apparatus, a platform, legs permanently connected thereto, and depending therefrom, each leg comprising spaced members, a link member guided between said spaced members, means for reciprocating said link member, and a foot piece pivoted to said link member.

4. In a portable logging apparatus, a platform, legs permanently connected thereto, and depending therefrom, each leg comprising spaced members, a link member guided between said spaced members, a power cylinder mounted in the leg and the plunger of which is connected to the link member, and a foot piece pivoted to said link member.

5. In a portable logging apparatus, a platform, legs depending therefrom, each leg comprising spaced members, a power cylinder mounted between said members, the plunger of which is guided between said members, a link member connected to the plunger and also guided by said members, and a foot piece pivoted to said link member.

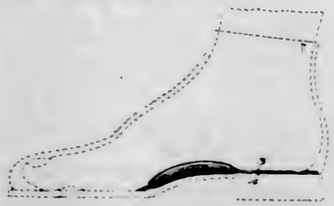
[Claims 6 and 7 not printed in the Gazette.]

1,241,831. FASTENER FOR RECEPTACLE-COVERS. ALBERT DREWITZ, Syracuse, N. Y. Filed May 16, 1916. Serial No. 97,842. (Cl. 70—3.)



A fastener adapted to be used with a receptacle having an outstanding flange at the top thereof and a closure having a gasket retaining arm fitted on the flange including a screw carried concentrically of the closure, two concavo-convex clamping disks mounted upon the screw, a spring for normally holding the disks outwardly, a plurality of levers having their inner ends slidably connected between the disks, hooks formed on the outer ends of the levers and embracing the periphery of the flange and closure, a fulcruming member for each lever carried by the closure, and a thumb nut mounted upon said screw for compressing the disks and the inner ends of said levers.

1,241,832. ARCH-SUPPORT. CHARLES H. DRUCKENMILLER, Clarendon, Va. Filed Nov. 29, 1916. Serial No. 134,096. (Cl. 36—71.)



1. An elastic arch support comprising elastic tubing disposed in a flat coil, the length of the device being such that the front portion of the coil will lie adjacent and in rear of the ball of the foot, and the rear portion will lie in front of the heel of the foot.

2. An elastic arch support comprising elastic tubing disposed in a flat coil and a portion extending rearwardly from the coil, the length of the device being such that the front portion of the coil will lie adjacent and in rear of the ball of the foot, and the rear portion will lie adjacent and in front of the heel of the foot, substantially as and for the purpose described.

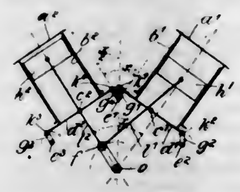
3. An elastic arch support comprising elastic tubing disposed to form a pad and having a tube portion extending rearwardly from the pad at one edge thereof, the length of the elastic arch being such that the forward portion thereof terminates adjacent but short of the ball of the foot and the rear end terminates short of and adjacent the heel of the foot.

4. An elastic arch support comprising elastic tubing disposed in a flat coil and a portion extending rearwardly from the coil, the length of the device being such that the front portion of the coil will lie adjacent and in rear of the ball of the foot, and the rear portion will lie adjacent and in front of the heel of the foot, a flap secured to the forward end of the elastic arch and adapted to lie beneath the ball of the foot, and another flap extending from the rear end of the arch support to lie beneath the heel of the foot.

5. An elastic arch support comprising elastic tubing disposed to form a pad and having a tube portion extending rearwardly from the pad at one edge thereof, the length of the elastic arch being such that the forward portion thereof terminates adjacent but short of the ball of the foot and the rear end terminates short of and adjacent the heel of the foot, a flap secured to the forward end of the elastic arch and adapted to lie beneath the ball of the foot, and another flap extending from the rear end of the arch support to lie beneath the heel of the foot.

[Claims 6 to 9 not printed in the Gazette.]

1,241,833. INTERNAL-COMBUSTION ENGINE. LÉON DUFOUR, Geneva, Switzerland. Filed Apr. 6, 1917. Serial No. 160,337. (Cl. 123—55.)

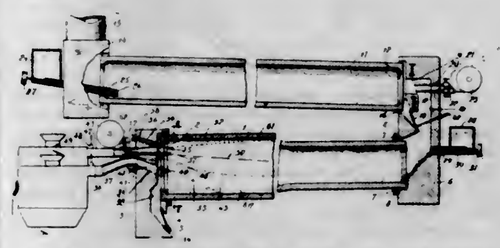


1. In an internal combustion engine the combination with a plurality of cylinders arranged in pairs with the axes of each pair of cylinders at an angle to each other, a distributing sleeve movable in each cylinder and a cross bar connected to each sleeve, of a crank shaft intermediate the pairs of cylinders and to which the adjacent ends of the cross bars of the sleeves of each pair of cylinders are connected, and crank shafts to which the distant ends of the cross bars of each pair of cylinders are connected.

2. In an internal combustion engine the combination with a plurality of cylinders arranged in pairs with the axes of the cylinders at an angle to each other, a distributing sleeve movable in each cylinder, a piston within each distributing sleeve, a drive shaft and connections between the drive shaft and the pistons, of a single crank shaft intermediate of the pairs of cylinders, and to which the adjacent ends of the cross bars of the sleeves of each pair of cylinders are connected, and crank shafts to which the other or distant ends of the cross bars for each pair of cylinders are connected.

1,241,834. PROCESS OF PRODUCING ALUMINUM NITRID. HARRY L. DUNCAN, Mahwah, N. J. Continuation in part of application Serial No. 587,419, filed Oct. 17, 1910. This application filed Oct. 12, 1916. Serial No. 125,158. (Cl. 23—13.)

1. The process of producing aluminum nitrid which consists in continuously supplying the hot carbonaceous aluminous charge of material to a rotating treating kiln, agitating and feeding said charge through said kiln in the form of an inclined bank of material, in supplying through the discharge end of said kiln a low pressure diffuse heating stream of luminous flame producer gas, in injecting substantially axially into said kiln a high pressure jet of air engaging said heating stream and forming therewith a luminous substantially centralized heating flame kept from undesirable contact with the material and kiln walls by the dead wall gases while transmitting heat thereto, in maintaining in the lower end of said kiln a nitrogenous reducing atmosphere at a pressure above that of the outside air, in injecting through the discharge end of said kiln a flattened high pressure nitrogenous treating jet of hot producer gas to impinge on the falling agitated charge of material and convert the same into nitrid without exerting undesirable action on the kiln walls and in burning the combustible gases discharged from said kiln to heat the charge of material supplied thereto.



2. The process of producing aluminum nitrid which consists in supplying the carbonaceous aluminous charge of material to a rotating treating kiln and thereby agitating and feeding said charge through said kiln, in supplying through the discharge end of said kiln a low pressure diffuse heating stream of luminous flame producer gas, in injecting substantially axially into said kiln a high pressure jet of air engaging said heating stream and forming therewith a luminous substantially centralized heating flame transmitting heat to the material and kiln walls, in maintaining in the lower end of said kiln a nitrogenous reducing atmosphere and in injecting through the discharge end of said kiln a flattened high pressure nitrogenous treating jet of hot producer gas to impinge on the material and convert the same into nitrid without exerting destructive action on the kiln walls.

3. The process of producing metallic nitrid which consists in supplying the carbonaceous charge of material to a rotating treating kiln and thereby agitating and feeding said charge through said kiln, in supplying through the discharge end of said kiln a low pressure diffuse heating stream of producer gas, in injecting substantially axially into said kiln a jet of air engaging said heating stream and forming therewith a substantially centralized heating flame transmitting heat to the material and kiln walls, in maintaining a nitrogenous reducing atmosphere in the lower end of said kiln and in injecting a high pressure treating jet of hot producer gas into said kiln to impinge on the material therein and convert the same into nitrid without exerting destructive action on the kiln walls.

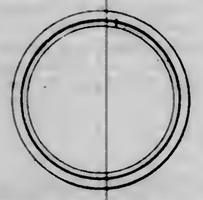
4. The process of producing metallic nitrid which consists in supplying the carbonaceous charge of material to a treating kiln, in agitating and feeding said charge through said kiln in the form of a bank of material, in injecting into said kiln a flattened high pressure nitrogenous treating jet of combustible gas to impinge on the agitated bank of material and convert the same into nitrid without exerting destructive action on the kiln walls and in injecting into said kiln a jet of air engaging said treating gas and forming therewith a heating flame transmitting heat to said material and kiln walls without undesirable action thereon.

5. The process of producing metallic nitrid which consists in supplying the charge containing reducing material to a treating kiln, in agitating and feeding said charge through said kiln in the form of a bank of material, in injecting a narrow nitrogenous treating jet into im-

pingement with the agitated charge of material to convert the same into nitrid without exerting undesirable destructive action on the kiln walls, in maintaining a ntrogenous reducing atmosphere in the lower part of said kiln and in heating said material.

[Claims 6 to 16 not printed in the Gazette.]

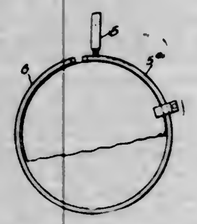
1,241,835. PISTON-RING. MILLARD L. DUNHAM, New York, N. Y., assignor of one-fourth to Louis de F. Munger, New York, N. Y. Filed Apr. 18, 1916. Serial No. 91,854. (Cl. 29—156.1.)



3. The method of making piston rings which consists in producing an annular blank, removing a section of said blank to provide opposed spaced ends, and in permanently distorting the end portions only of the blank, by inclining them inwardly, the character of said distortion enabling said blank, when contracted for service tension, to possess true circular contour.

[Claims 1 and 2 not printed in the Gazette.]

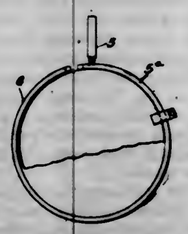
1,241,836. PISTON-RING. MILLARD L. DUNHAM, New York, N. Y., assignor of one-fourth to Louis de F. Munger, New York, N. Y. Filed Apr. 18, 1916. Serial No. 91,856. (Cl. 29—156.1.)



2. The method of producing leak-proof piston rings, consisting in removing a segment from a circular metal ring, and punching compressing depressions in its outer peripheral surface, at the end portions only thereof, thereby effecting a mass displacement in said outer surface, to draw inwardly the free end portions of said ring, whereby said ring, when contracted in service, is of true circular form.

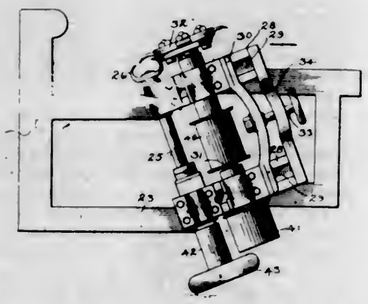
[Claim 1 not printed in the Gazette.]

1,241,837. PISTON-RING. MILLARD L. DUNHAM, New York, N. Y., assignor of one-fourth to Louis de F. Munger, New York, N. Y. Filed Apr. 18, 1916. Serial No. 91,857. (Cl. 121—108.)



A piston ring consisting of a separated, circular metal ring, whose normal diameter exceeds the inside diameter of the cylinder with which used, said ring having the mass of its outer peripheral material displaced at the end portions of the ring, giving said end portions an inward inclination, whereby the ring, when contracted in use, is of true circular form.

1,241,838. PATTERN-LATHE. ERNEST A. EASTMAN, Dayton, Ohio, assignor of one-half to The Crawford, McGregor and Canby Co., Dayton, Ohio, a Corporation of Ohio. Filed Oct. 23, 1913. Serial No. 796,957. (Cl. 142—15.)



1. In a machine of the character described, a support for the work to be operated upon, two revoluble cutter heads eccentrically mounted to engage the work in parallel adjacent planes, and means for relatively adjusting the heads, whereby one of said heads may be made to operate a greater or less distance across the center line of the other head.

2. In a machine of the character described, a support for the work, two revoluble cutter heads arranged side by side with one of the heads overlapping the other, and means for relatively adjusting the heads to vary the degree of overlap.

3. A combination with two rotary cutters, a support laterally movable to and from the rotary cutters in which the work is revolubly mounted, and a control device regulating the depth of operation of the cutters, of a movable primary support for one of the rotary cutters, a movable auxiliary support upon which the primary support is movable, a traveling carriage upon which the second rotary cutter is mounted and upon which the auxiliary support is movable in a direction angular in relation with the direction of movement of the primary support, said traveling carriage being movable in a direction angular to the direction of movement of both the said supports and means for rotating the cutters in all positions of adjustment.

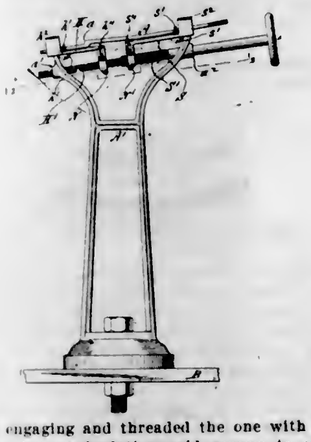
4. In a pattern lathe, means for rotating the work, a roughing cutter and a finishing cutter eccentrically mounted to rotate in parallel planes closely adjacent one to the other and engaging the same side of the work, said cutters being of different diameters, and relatively adjustable in their planes of rotation.

5. In a pattern lathe, means for rotating the work, a roughing cutter and a finishing cutter eccentrically mounted to rotate in parallel planes closely adjacent one to the other and engaging the same side of the work, said cutters being of different diameters whereby the larger cutter will project beyond the center line of the small cutter and means to adjust the cutters in their planes of rotation in relation one with the other.

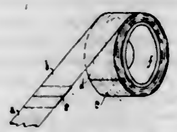
[Claims 6 and 7 not printed in the Gazette.]

1,241,839. FOOT-SUPPORT. SEBASTIAN FERRIGNO, Brooklyn, N. Y. Filed Feb. 1, 1917. Serial No. 145,857. (Cl. 15—58.)

In a foot support of the character designated, the combination with the foot plate of heel and sole clamps pivotally supported on the under side thereof, traveling nuts pivotally connected with said clamps, and screws upon which said traveling nuts are mounted, said screws telescopically engaging and threaded the one with the other, and means for manipulating said screws to advance or retract the clamps.



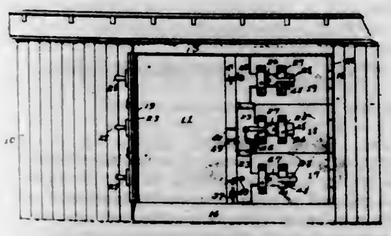
1,241,840. STRAW-COVERING MATERIAL FOR MOUTHPIECES OF CIGARETTES AND THE LIKE. ALOIS BERNHARD FISCHL, Dresden, Germany. Filed Dec. 16, 1913. Serial No. 806,993. (Cl. 131—52.)



1. A straw covering for mouthpieces of cigarettes, consisting of parallel, slitted, and flattened straw stalks, said flattened stalks being fastened together by adhesive means, and having the binding material between the fibers of the stalks stretched and loosened, the width of said strip being such that it can be directly fed into the cigarette making machine.

2. A straw covering for mouthpieces of cigarettes, consisting of a tape, said tape having fastened thereto slitted and flattened straw stalks, the adjacent edges of said stalks touching each other without over-lapping, said stalks being arranged so that their fibers are parallel, and having the binding web between said fibers stretched and loosened, the width of said tape being such that it can be fed directly into the cigarette making machine.

1,241,841. GRAIN-DOOR FOR CARS. CLARENCE FRENCH, Fernald, Iowa, assignor of one-half to Harry S. Fleagle, Fernald, Iowa. Filed May 22, 1916. Serial No. 99,220. (Cl. 20—28.)



1. In a grain door, a frame, a vertical central post therein, a plurality of doors disposed in vertical succession hinged to the inner side edge of the frame and adapted to swing through an angle of 270 degrees, said doors being of such length that their free ends may be swung past the post in either direction, and means for forming a grain tight joint between said free ends and the post and for locking same together.

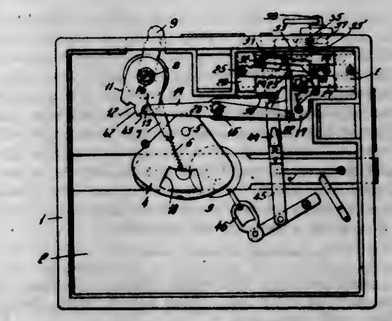
2. In a grain door, a frame, a vertical central post fixed therein, said post being adapted to be swung to a position above and adjacent to said frame, a plurality of doors disposed in vertical succession hinged to the inner side edge of the frame and adapted to swing through an angle of 270 degrees, said doors being of such length that their free ends may be swung past the post in either direction, and means for forming a grain tight joint between said free ends and the post and for locking same together.

1,241,842. ANIMAL-POKE. EDGAR G. GOFF, Chattanooga, Okla. Filed June 28, 1916, Serial No. 106,429. Renewed Mar. 22, 1917. Serial No. 156,739. (Cl. 119—139.)



An animal poke comprising a frame, said frame having its side bars twisted together at their rear ends and terminating in forwardly inclined arms, said arms terminating in downwardly directed bars having depressions formed therein, said bars terminating in arms which have their lower ends connected to the bars of the frame, a hook pivotally connected with the frame, a second hook having its shank terminating in curved arms, extensions carried by the lower ends of the last named arms, said extensions being adapted to selectively engage said depressions, as and for the purpose set forth.

1,241,843. CAMERA. GEORGE A. GOODSON, New York, N. Y. Filed Sept. 23, 1916. Serial No. 121,726. (Cl. 95—31.)



1. In a roll holding camera, the combination with a shutter, a swinging operating lever therefor having two positions of rest, and film shifting mechanism, of automatic locking mechanism for locking the shutter against a second exposure of the same film, comprising a rocking lever constructed and arranged to engage with and to be disengaged from the operating lever in either of its positions of rest, and control mechanism coöperative with the rocking lever and with the film shifting mechanism, said control mechanism being released to lock said levers in

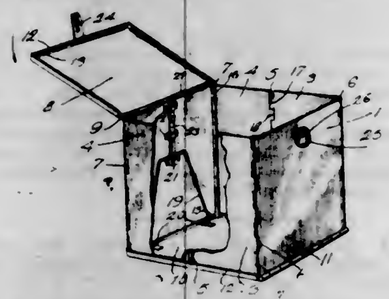
engagement when the operating lever is swung from one to another position of rest to expose the film, and being automatically moved by the film shifting mechanism to disengage the said levers when the film is shifted for the next exposure.

3. In a roll holding camera, the combination with a shutter, a swinging operating lever therefor having two positions of rest, and film shifting mechanism, of automatic locking mechanism for locking the shutter against a second exposure of the same film, comprising a rocking lever constructed and arranged to engage with and to be disengaged from the operating lever in either of its positions of rest, and control mechanism including a swinging pawl coöperative with the rocking lever and with the film shifting mechanism, said pawl being moved to a position in which said levers are locked in engagement when the operating lever is swung from one to another position of rest to expose the film, and being automatically operated by the film shifting mechanism to disengage said levers when the film is shifted for the next exposure.

6. In a camera having a shutter and mechanism for operating the same, and having a key for winding a film roll past said shutter, the combination of a cam turning with said key, a lever rocked by said cam, a pawl moved by said lever, a pair of stops moved by said pawl, a detent adapted to engage with one of said stops, and a rock lever operatively connected with said detent, said lever being adapted to lock said shutter mechanism against movement except when said detent is in engagement with its said stop; substantially as described.

[Claims 2, 4, 5, and 7 not printed in the Gazette.]

1,241,844. FOLDING BOX. LIONEL GOTTSCHALL, Dayton, Ohio. Filed May 14, 1917. Serial No. 168,532. (Cl. 220—17.)



1. In a collapsible box oof the character described, top, bottom and side wall sections hinged one to another and foldable to parallelism, a locking bail carried by the bottom section and extending within the structure when erected, a locking bolt carried by one of the side sections and adapted to be engaged with the bail to hold the bottom in adjusted position, said locking bolt being adapted to extend into the path of the top section when in disengaged position whereby said locking bolt must be moved to locking position before the top section may be closed and will be retained in locked position by said top section.

[Claims 2 to 4 not printed in the Gazette.]

1,241,845. SECTIONAL CUSHION-TIRE. EDWARD T. GRIFFITH, Indianapolis, Ind. Filed Feb. 3, 1916. Serial No. 76,048. (Cl. 152—8.)

1. A cushion tire including segmental sections to be arranged on a circle, each section having a longitudinal slot in its inner side and a recess on each side of the slot extending outwardly from the slot toward the outside of the section, and a key bar to be longitudinally driven into the slot and having longitudinally-extending lateral wings to slide in the recesses for guiding the key bar along the inner side of the section.

2. A cushion tire including segmental sections to be arranged in a circle, each section having a longitudinal slot in its inner side and a transverse recess on each side of the slot and extending from one end of the section, the opposite outer sides of the section having each a longitudinal retaining-rib thereon, and a key to be longitudinally driven into the slot and having two lateral lugs on one end thereof to be received into the recesses respectively, each lug being adapted to extend outward co-extensive with the adjacent retaining-rib.



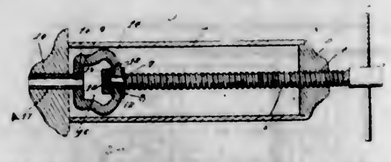
3. A cushion tire including segmental sections to be arranged in a circle, each section having a longitudinal slot in its inner side, the opposite outer sides of the section having each a longitudinal retaining-rib thereon, and key bars to be longitudinally driven into the slots to spread the retaining-ribs apart, each key bar having a projection extending from the inner side of one end thereof, the inner side of the opposite end portion of the key bar having a recess to receive the projection of an adjacent key bar, and devices for longitudinally guiding the key bar along the inner side of the section.

4. A cushion tire including segmental sections to be arranged in a circle, each section having a longitudinal slot in its inner side and a recess on each side of the slot and extending from the slot outwardly toward the outside of the section, the opposite outer sides of the section having each a longitudinal retaining-rib thereon, and key bars to be longitudinally driven into the slots, one in each slot, to spread the retaining-ribs apart, each key bar having longitudinally-extending lateral wings on its opposite sides adjacent to its inner side to slide in the recesses for guiding the key bar along the inner side of the section, the outer side of each key bar having notches therein extending transversely of the bar.

5. A cushion tire including segmental sections to be arranged in a circle, each section having an opening extending longitudinally through the section and a slot extending from the opening to the inner side of the section, the opposite outer sides of the section having each a longitudinal retaining-rib thereon, one of the sections having a recess therein extending from the opening toward the outer or peripheral portion of the section, the section having also a groove in each side of the slot extending from the inner side of the section to the recess, a key bar in the slot and having a lug on each of the two opposite sides thereof and extending into the adjacent one of the grooves to be moved therein, a bolt extending through the key bar and having a head seated on the outer side of the bar to be moved into the recess, and a key for each of the remaining sections.

[Claims 6 to 12 not printed in the Gazette.]

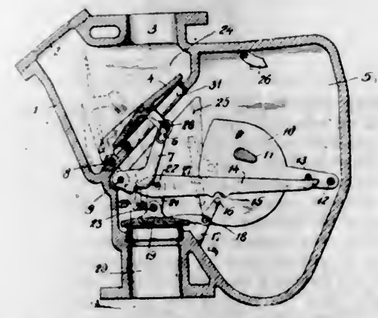
1,241,846. CAM-SHAFT-BEARING REMOVER. EDWARD H. GRONS, Lowell, Mass. Filed June 21, 1916. Serial No. 105,017. (Cl. 29—86.1.)



A cam shaft bearing remover including a body having one end closed, a screw operable in said closed end and having a reduced portion adjacent its inner end, said end of the screw being externally threaded, an object engaging member having alining openings therethrough, the reduced inner end of the screw being positioned through one of said openings, a nut on the end of the screw within

the said member to hold the same in position, external threads on the edge of the opposite opening and adapted to engage the bearing, and gripping portions on the outer side of said member whereby the same may be easily rotated to engage the bearing.

1,241,847. DRY VALVE FOR AUTOMATIC SPRINKLER SYSTEMS. JOHN R. HAMILTON, Yonkers, N. Y., assignor to Automatic Sprinkler Company of America, New York, N. Y., a Corporation of New York. Filed Nov. 4, 1913. Serial No. 799,134. (Cl. 169—23.)



1. In dry valves for automatic sprinkler systems, a valve casing comprising a hood, a water supply connection formed in said casing, a sprinkler connection formed in said hood substantially in line with said water supply connection; a pivoted water valve in said casing to normally close said water supply connection, a pivoted air valve in said hood normally closing access to said sprinkler connection and substantially in line with said water supply and sprinkler connections, a lifting lever pivoted in said casing and having a loose pin and slot connection with said air valve, a reducing lever in said casing having a lifting pin to coöperate with a notch in said lifting lever, a link loosely pivoted to said reducing lever and to said water valve, a balance weight pivoted in said casing and having a weight contact adapted to normally engage said reducing lever adjacent its end to normally hold said water valve closed and exert a reduced lifting action on said air valve, a projecting bracket in said casing and a coöperating socket in said reducing lever adapted to come into contact with said bracket but normally out of contact therewith and a striker on said balance weight normally out of contact with said reducing lever and adapted to exert an impact blow on said reducing lever under emergency conditions to release and open said valves and to swing said reducing lever and water valve around said bracket and substantially out of line with said sprinkler and water supply connections.

2. In dry valves for automatic sprinkler systems, a valve casing comprising a hood, a water supply connection formed in said casing, a sprinkler connection formed in said hood substantially in line with said water supply connection, a pivoted water valve in said casing to normally close said water supply connection, a pivoted air valve in said hood normally closing access to said sprinkler connection and substantially in line with said water supply and sprinkler connections, a lifting lever pivoted in said casing and having a loose pin and slot connection with said air valve, a reducing lever in said casing having a lifting pin to coöperate with a notch in said lifting lever, a link loosely pivoted to said reducing lever and to said water valve, a balance weight in said casing and having a weight contact adapted to normally engage said reducing lever adjacent its end to normally hold said water valve closed and exert a reduced lifting action on said air valve, a projecting bracket in said casing and a striker on said balance weight normally out of contact with said reducing lever and adapted to exert an impact blow on said reducing lever under emergency conditions to release and open said valves.

3. In dry valves for automatic sprinkler systems, a valve casing comprising a hood, a water supply connection formed in said casing, a sprinkler connection formed in said hood substantially in line with said water supply connection, a pivoted water valve in said casing to normally close said water supply connection, a pivoted air valve in said hood normally closing access to said sprinkler connection and substantially in line with said water supply and sprinkler connections, a lifting lever pivoted in said casing and having a loose connection with said air valve, a reducing lever in said casing having a lifting pin to coöperate with a notch in said lifting lever, a link loosely pivoted to said reducing lever and to said water valve, a balance weight pivoted in said casing and having a weight contact adapted to normally engage said reducing lever adjacent its end to normally hold said water valve closed and exert a reduced lifting action on said air valve, a projecting bracket in said casing and a coöperating socket in said reducing lever adapted to come into contact with said bracket but normally out of contact therewith, and a striker on said balance weight normally out of contact with said reducing lever and adapted to exert an impact blow on said reducing lever under emergency conditions to release and open said valves and to swing said reducing lever and water valve around said bracket and substantially out of line with said sprinkler and water supply connections.

4. In dry valves for automatic sprinkler systems, a valve casing comprising a water supply connection and a sprinkler connection, a pivoted water valve in said casing to normally close said water supply connection, a pivoted air valve normally closing access to said sprinkler connection substantially in line with said water supply and sprinkler connections, a lifting lever pivoted in said casing and having a loose pin and slot connection with said air valve, a compensating reducing lever in said casing having a lifting pin to coöperate with an alining recess in said lifting lever, a link connection loose between said reducing lever and said water valve, a balance weight pivoted in said casing and having a weight contact adapted to normally act on said reducing lever adjacent its end to normally hold said water valve closed and exert a predetermined reduced lifting action on said air valve, a projecting bracket in said casing and a coöperating socket in said reducing lever adapted to come into contact with said bracket but normally out of contact therewith, and a striker on said balance weight normally out of contact with said reducing lever and adapted to exert an impact blow on said reducing lever under emergency conditions to release and open said valves and to swing said reducing lever and water valve around said bracket and substantially out of line with said sprinkler and water supply connections.

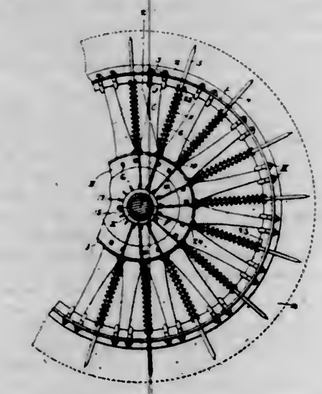
5. In dry valves for automatic sprinkler systems, a valve casing comprising a water supply connection and a sprinkler connection, a water valve in said casing to normally close said water supply connection, an air valve normally closing access to said sprinkler connection substantially in line with said water supply and sprinkler connections, a lifting lever pivoted in said casing and having a loose pin and slot connection with said air valve, a compensating reducing lever in said casing having a lifting pin to coöperate with an alining recess in said lifting lever, a link connection loose between said reducing lever and said water valve, a balance weight pivoted in said casing and having a weight contact adapted to normally act on said reducing lever adjacent its end to normally hold said water valve closed and exert a predetermined reduced lifting action on said air valve, a projecting bracket in said casing and a striker on said balance weight normally out of contact with said reducing lever and adapted to exert an impact blow on said reducing lever under emergency conditions to release and open said valves and to swing said reducing lever and water valve substantially out of line with said sprinkler and water supply connections.

[Claims 6 to 20 not printed in the Gazette.]

1,241,848. TRACTION DEVICE FOR AUTOMOBILE-WHEELS. CHARLES FREDERICK HIGHFIELD, Saltcoats, Saskatchewan, Canada. Filed Apr. 16, 1917. Serial No. 162,845. (Cl. 21—209.)

1. In an automobile, the combination with the felly and spokes therefor, of a circular ring-plate the inner edge of

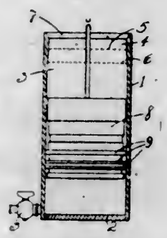
which rests against the said felly; a plurality of substantially U-shaped clamps embracing said spokes near said felly, and each having its outer ends bent at an angle substantially parallel to said spokes and projecting through holes formed in said plate; means whereby said plate and clamps are firmly connected together through the medium of the ends of said clamps; a plurality of radially-disposed traction members mounted to have movement in said ring-plate; flexible means whereby said traction members are allowed to yield according to the character of the road surface they come in contact with; means connected with said traction members for operating the same, and a suitable support for said operating means whereby said operating means has operative movement on the axis of rotation of said wheel.



2. In an automobile wheel, the combination with a felly and spokes therefor, and a metal rim carried by said felly and projecting beyond each side thereof; of a circular ring-plate the inner edge of which rests in the angle formed between one side of said felly and said metal rim, so as to be in contact with these parts; a plurality of substantially U-shaped clamps embracing said spokes near said felly, and each having its outer ends bent at an angle, substantially parallel to said spokes and projecting through holes formed in said plate; means whereby said plate and clamps are firmly connected together through the medium of the ends of said clamps; a plurality of radially-disposed traction members mounted to have movement in said ring-plate; flexible means whereby said traction members are allowed to yield according to the character of the road surface they come in contact with; means connected with said traction members for operating the same, and a suitable support for said operating means whereby said operating means has operative movement on the axis of rotation of said wheel.

3. In an automobile wheel, the combination with the felly and spokes therefor; a metal rim carried by said felly and projecting beyond each side thereof, and a ring-shaped member secured to said wheel adjacent the hub thereof, of a circular ring-plate the inner edge of which rests in the angle formed between one side of said felly and metal rim, so as to be in contact with these parts; a plurality of substantially U-shaped clamps embracing said spokes near said felly; means whereby said plate and clamps are firmly clamped together; a plurality of radially disposed traction members mounted to have movement in said ring-plate; and also in said ring-shaped member; a coiled-compression spring mounted on each of said traction members; a sleeve movably mounted on each of said traction members and positioned adjacent said ring-shaped member and designed to transmit movement outwardly to said traction members through the medium of said springs; means whereby said sleeves are permitted to retract said traction members, and means for operating said sleeves, for the purpose specified.

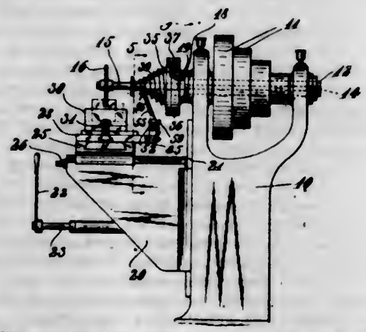
1,241,849. APPARATUS FOR DEMONSTRATING AND TESTING PISTON PACKING-RINGS. KIRK D. HOLLAND, Fort Worth, Tex. Filed June 24, 1916. Serial No. 105,775. (Cl. 73—51.)



1. Packing ring testing and demonstrating apparatus comprising an open end cylinder, a piston having grooves therein to receive packing rings to be forced into the said cylinder after packing rings are fitted thereon, a handle for operating said piston, and means for introducing air into the cylinder between the end of the piston and the closed end of the cylinder.

2. Packing ring testing and demonstrating apparatus comprising a cylinder open at one end and closed at the other end and having a smaller bore near the open end of the cylinder than the bore of the greater portion of the interior, a piston having grooves therein to receive packing rings and adapted to be forced into said cylinder after the packing rings are fitted thereon, and means for letting air into the cylinder between the end of the piston and the closed end of the cylinder.

1,241,850. FEED CONTROL FOR MILLERS. WILLIAM HUMPHREYS, New York, N. Y. Filed Feb. 16, 1917. Serial No. 148,937. (Cl. 90—21.)

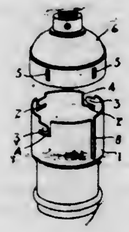


1. The combination with a rotatable spindle, a cutter carried thereby, a work-holder, and means for advancing or receding said work-holder with respect to said cutter, of a cone engaged with said spindle, an arm pivotally carried by said work-holder engageable with said cone, and means for causing said arm to traverse the length of said cone.

2. In a milling machine, the combination with a spindle, cutter and table thereof, of a cone mounted on said spindle, a spiral helix formed on said cone, a bracket carried on said table, a pivoted lever arm operable in said bracket engageable with said spiral helix, and means for returning said lever arm to its initial position after traversing the length of said cone.

3. In a milling machine, the combination with a spindle, a cutter driven thereby, a work table, means for moving said work table rectilinearly, a bracket rigidly attached to said table, an arm pivoted in said bracket, said arm having a part extending outwardly, a cone rigidly attached to said spindle, said cone having a plurality of helical convolutions formed upon its exterior engageable with said arm, means for limiting the extreme motion of said arm, and means for returning said arm to its original position.

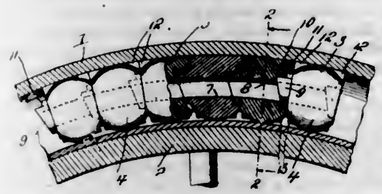
1,241,851. ELECTRIC-LAMP-SOCKET SHELL. WILLIAM ILE, Toronto, Ontario, Canada. Filed Feb. 19, 1917. Serial No. 149,459. (Cl. 173—362.)



1. An electric lamp socket shell, comprising, a separable body and cap, one of said members having laterally arranged tongues and the other having loops adapted to receive and interlock with said tongues, the member having the tongues being slotted inwardly from the edge to receive one of said loops on the interlocking of the tongues with the remaining loops.

[Claims 2 and 3 not printed in the Gazette.]

1,241,852. RESILIENT TIRE. EDWARD S. JONES, Mobile, Ala., assignor of one-tenth to Maurice W. Meyer and Norman H. Meyer, Mobile, Ala. Filed Mar. 6, 1917. Serial No. 152,748. (Cl. 152—5.)



1. A tire comprising an outer casing and a core inclosed therein, said core comprising resilient sections having rounded surfaces, the rounded surfaces of the tread portions of the sections being provided with bridging projections filling the spaces between them and forming a continuous tread surface about the outer periphery of the core.

3. A resilient tire comprising an outer casing and an inner core consisting of an annular series of resilient sections, each section having a passage, a socket at one side thereof communicating with the passage, and a tubular projection at its opposite side communicating with the passage, the sockets and projections of adjacent core sections throughout the series having interfitting engagement with each other.

7. A resilient tire comprising an outer casing and a resilient core inclosed therein, said core comprising an annular series of resilient sections, rounded in cross section, having flattened abutment faces extending at an angle to their axes and radially to the axis of the tire, said abutment faces being provided with sets of recesses and projections for interfitting and interlocking engagement, and having bridging projections filling the spaces between adjacent sections at the tread side thereof, to form a continuous bearing surface around said tread side to impinge against the tread face of the outer casing.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,241,853. FABRIC. ALFRED E. JUBY, New York, N. Y., assignor to National India Rubber Company, a Corporation of Rhode Island. Filed Mar. 17, 1917. Serial No. 155,410. (Cl. 154—46.)

1. As a new article of manufacture a plurality of layers of flexible fibrous material joined by a flexible adhesive bond consisting of a carbohydrate, water and oil held in an emulsified condition therein.

2. As a new article of manufacture a plurality of layers of fabric joined by a flexible adhesive bond consisting of a mixture of a carbohydrate water and castor oil.

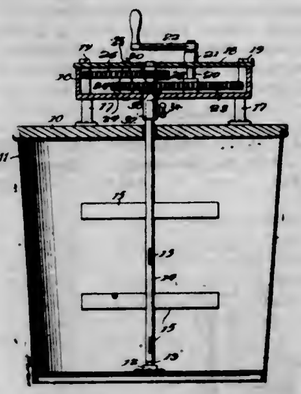
3. As a new article of manufacture a plurality of layers of fabric joined by a flexible adhesive bond comprising dextrin, water and castor oil.

1,241,854. ARTIFICIAL TOOTH. HENRY D. JUSTI. Philadelphia, Pa. Filed Oct. 19, 1916. Serial No. 126,493. (Cl. 32—9.)



An artificial tooth having a passage of angular form extending therethrough and a cavity in the lap ridge thereof, one end of said passage terminating at the lingual side of the tooth and the other end terminating at said cavity and in communication therewith.

1,241,855. GEARING. ROBERT KANE, Humboldt, Ill. Filed Mar. 3, 1916. Serial No. 81,890. (Cl. 74—7.)



In a device of the class described, a closed casing provided with depending attaching legs and having its bottom formed with transversely alined openings, a cover detachably secured to the casing and provided with an upstanding bearing sleeve, a main shaft journaled in the bearing sleeve and in an opening in the bottom of the casing and provided with a master gear, a stub shaft spaced from the main shaft and journaled in the casing, said stub shaft being provided with a pinion meshing with the master gear, oppositely disposed counter-shafts arranged within the casing and having their upper ends provided with pinions and their lower ends enlarged and extended through the adjacent openings in the bottom of the casing and provided with sockets for the reception of dasher rods, said enlarged portions being formed with annular flanges disposed within the casing and resting on the bottom thereof, a relatively large gear wheel carried by the stub shaft and meshing with the pinions on the countershafts, and a hand crank secured to the main shaft above the bearing sleeve whereby when the hand crank is operated the dasher rods will be rotated in the same direction.

1,241,856. FIRE-ESCAPE. NATHAN KAPLAN, New York, N. Y. Filed Feb. 23, 1916. Serial No. 79,854. (Cl. 227—28.)

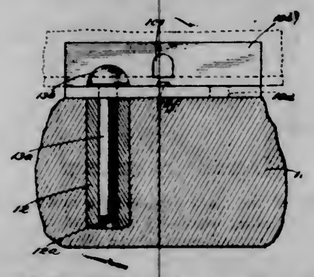
The combination in a fire escape having a plurality of suspended ropes and a body supporting means, of a fric-

tion device for controlling the descent of said body supporting means, comprising a block secured between one said rope and said body supporting means, a shaft extending through said block, a hand wheel on one end of said shaft for partially rotating said shaft, a spring secured to said block and to said shaft for returning said shaft after



each partial revolution, and a friction device upon said shaft having a plurality of projections spaced apart with an opening between them, said friction device being adapted to frictionally engage another rope by partial revolution of said hand wheel, and to automatically be disengaged therefrom by the return of said shaft by said spring as and for the purpose set forth.

1,241,857. RAIL SECURING AND SUPPORTING MEANS. JOHN W. KENDRICK, Chicago, Ill. Filed June 4, 1914. Serial No. 842,998. (Cl. 238—2.)



1. In combination with a tie, a plurality of supporting treenails embedded in said tie, a plate resting upon said tie above said treenails, the latter and said plate being apertured, and dowel pins or the like driven through said apertures in said plate into the apertures in said treenails to secure said plate to said tie, said dowel pins being of greater diameter than the apertures of said treenails.

2. In combination, a tie-plate, treenails adapted to be embedded in a tie, said plate and treenails being apertured, and fastening members adapted to be driven through the apertures in said plate into the apertures in said treenails, said members being provided with hemispherical heads, said heads being provided with a rib or shoulder on the under side thereof.

3. In combination, a tie-plate for supporting a rail, treenails adapted to be embedded in a tie, said plate and said treenails being provided with cylindrical apertures, and cylindrical fastening members adapted to be driven through the apertures in said plate into the apertures in said treenails, said fastening members being of larger size than the apertures in said treenails, said fastening members being provided with heads each having a rib or shoulder on the under side thereof.

4. In combination with a tie, a plurality of supporting treenails embedded in said tie, said treenails being of larger size than the apertures in said tie into which they are driven, a plate resting upon said tie above said treenails, said plate being adapted to support a rail and having apertures therethrough located outwardly from the edges of said rail, said treenails being provided with apertures adapted to aline with the apertures in said plate, and dowel pins driven through said apertures in said plate into the apertures in said treenails to secure said plate to said tie, said dowel pins being of greater diameter than the apertures of said treenails.

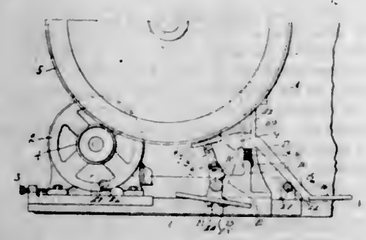
1,241,858. VEIL. KATE KOELSCH, Atchison, Kans. Filed June 7, 1917. Serial No. 173,328. (Cl. 2—116.)



1. A head and face covering comprising a veil element having a continuous holding edge consisting of separate elastic elements attached to inelastic tab members, said tab members being located at diametrically opposite points and carrying complemental fastening elements therewith.

2. A head and face covering comprising a retainer band consisting of elastic strips having their ends connected to inelastic tabs, a casing on said elastic elements, a veil secured to said casing and gathered at a point adjacent each inelastic tab portion and also secured thereto, and complemental fastening elements carried by the inelastic tab portions of said retainer band.

1,241,859. MEANS FOR STOPPING WORKING MACHINES. VICTOR NATHANAEL LANDQVIST, Gottenborg, Sweden, assignor to Aktiebolaget Princeps, Gottenborg, Sweden. Filed July 7, 1915. Serial No. 38,626. (Cl. 74—26.)

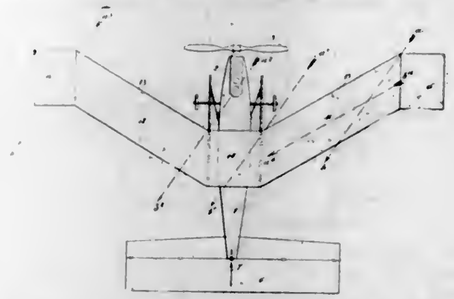


In means for stopping working machines, for instance automatic printing presses, and other motion transmitting devices, the combination of a driving friction wheel, a treadle, a yielding plate on which the said driving wheel and the treadle are located, a displaceable driven friction wheel, journaled in the frame of the machine, and a braking device connected with the said treadle and adapted to act upon the said driven wheel, substantially as described and for the purpose set forth.

1,241,860. PLANE FOR FLYING-MACHINES. JAMES S. LANG, Boston, Mass. Filed Oct. 23, 1913. Serial No. 796,835. (Cl. 244—12.)

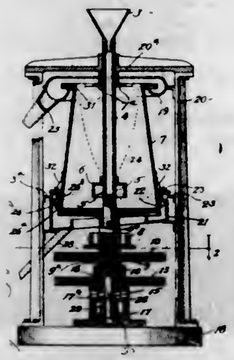
1. A lifting plane for flying machines having correlative portions lying on opposite sides of the longitudinal center

of the machine and projecting respectively outwardly and laterally therefrom, each with a forward inclination with relation to the transverse axis of the machine, and fixed laterally-extending and upwardly-inclined righting tips attached respectively to the ends of such correlative portions, the forward inclination of said portions being such that the entering edges thereof will have an angularity to the transverse axis of the machine of at least 15°.



2. A lifting plane for flying machines having correlative portions lying on opposite sides of the longitudinal center of the machine and projecting respectively outwardly and laterally therefrom, each with a forward inclination with relation to the transverse axis of the machine, and fixed laterally-extending and upwardly-inclined righting tips attached respectively to the ends of such correlative portions, the forward inclination of said portions being such that the entering edges thereof will have an inclination to the transverse axis of the machine of approximately 30° dependent upon the size and inclination of said righting tips.

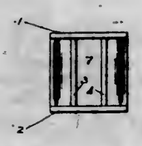
1,241,861. MACHINE FOR CONCENTRATING THE HEAVIER AND VALUABLE PORTIONS OF ORE. GEORGE I. LEONARD, Chicago, Ill. Filed Nov. 24, 1916. Serial No. 133,147. (Cl. 233—19.)



1. In a concentrating machine, the combination of a rotating receptacle, means for imparting a movement to the receptacle at an angle to the plane of its rotation, means for feeding into the receptacle the pulp to be concentrated, said receptacle containing openings in its lower portion, valves controlling the opening and closing of said openings, means for intermittently opening said valves, and means operating in timed relation to the movement of said receptacle at an angle to the plane of its rotation, for intermittently opening said valves.

2. In a concentrating machine, the combination of a rotating receptacle, a hollow shaft upon which said receptacle is mounted, said shaft containing orifices opening therethrough into the receptacle near the bottom of the latter for admitting into said receptacle, pulp introduced into the upper end of said shaft, said shaft being movable up and down, ratchet means coöperating with said shaft for producing up and down movement of the latter to effect the jarring of the receptacle, means for constantly discharging the waste-product from said receptacle, said receptacle containing orifices in its lower portion, valves controlling said orifices, and means operating intermittently and simultaneously with the said jarring action for discharging the concentrates through the orifices in said receptacle.

1,241,862. CHAPLET. STEPHEN LE VINESS, Jr., Buffalo, N. Y. Filed Oct. 14, 1916. Serial No. 125,585. (Cl. 22—184.)



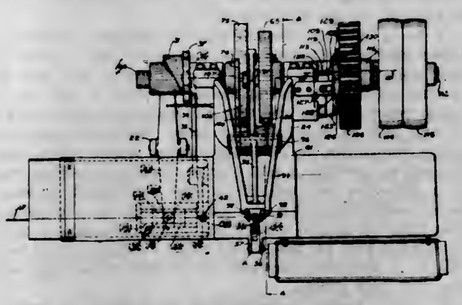
2. A chaplet formed of a single piece of material and consisting of a top, a bottom and connecting uprights at the back edges of said top and bottom, said uprights being continuous with said top and bottom at the outer corners and having portions extending between said top and bottom at an obtuse angle with said corner portions to form supports and a gas passage between them.

3. In a chaplet formed of a single piece of material of uniform thickness, a top, a bottom and a connecting upright at right angles to said top and bottom, said upright having a central opening to form a gas passage through said chaplet.

4. In a chaplet formed of a single piece of material of uniform thickness, a top, a bottom and a connecting upright at right angles to said top and bottom, said upright having a central vertical opening extending from said top to said bottom to form a gas passage through said chaplet and the sides of said upright forming supports.

[Claim 1 not printed in the Gazette.]

1,241,863. PAD AND CLIP ASSEMBLING MACHINE. ARTHUR J. LEWIS, Stratford, Conn., and ARTHUR E. MCCLAIN, WALTER OLE SKEEN, and JAMES O. MASSEY, Greenfield, Ohio, assignors, by mesne assignments, to The American Pad and Textile Company, Greenfield, Ohio, a Corporation of Ohio. Filed Nov. 12, 1915. Serial No. 61,150. (Cl. 1—2.)



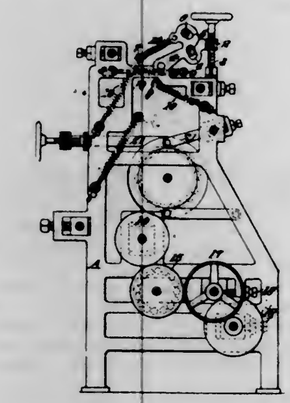
1. In a pad and clip assembling machine, the combination of a clip-holder having in its end a recess for the reception of the staple-receiving eye at one end of a clip, and having a means adjacent to its end for engaging the other end of the clip, a staple-holder opposite said clip-holder, and means for moving the clip-holder and the staple-holder toward each other to carry the prongs of the staple against the walls of the recess and into the eye of the clip.

4. In a machine for assembling pads, clips and staples, the combination of a staple forming mechanism, means coöperating with said mechanism for passing the tangs of a staple formed thereby through a pad located on the

machine and for bending the tangs into overlapping engagement with a clip located on the pad, and a washer feeding mechanism for inserting a washer between the staple and the pad before said means is brought into operation.

[Claims 2, 3, and 5 to 22 not printed in the Gazette.]

1,241,864. POWER-TRANSMITTING MECHANISM. WALTER S. LEWIS, San Francisco, Cal. Filed Nov. 28, 1916. Serial No. 133,866. (Cl. 74—26.)



1. In mechanism for transmitting motion, a frame having shaft bearings, a roller journaled in one frame bearing, a second roller on the frame spaced from the first roller, a third roller frictionally connecting the first and second rollers, spring means tending to move the third roller between the first two rollers into closer contacting relation therewith, and adjustable spring means for exerting an opposite force on said third roller to control the action of said first means.

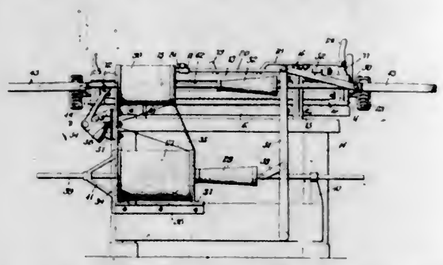
6. In a motion transmitting mechanism, a frame, a roller journaled thereon, a second roller spaced from the first roller, a third roller for connecting the first two rollers, adjustable spring means exerting a pull on the third roller between the first two rollers, and variable means exerting a pull on the third roller obtusely angular to the pull by the first means.

9. In a motion transmitting mechanism, a frame, a roller journaled thereon, a second roller spaced from the first roller, a third roller for connecting the first two rollers, adjustable spring means exerting a pull on the third roller between the first two rollers, an arm pivoted at one end to the frame, a roller journaled therein, a roller connecting the last roller to the second roller, resilient means exerting a pull on the second connecting roller in a direction between the second and fourth rollers, a roller contacting with the second roller on the opposite side from the second connecting roller, and resilient means exerting a pull on the second roller from the third roller and in a direction between the second connecting roller and the sixth roller.

11. In a motion transmitting mechanism, a frame, a roller journaled thereon, a second roller spaced from the first roller, a third roller for connecting the first two rollers, adjustable spring means exerting a pull on the third roller between the first two rollers, an arm pivoted at one end to the frame, a roller journaled therein, a roller connecting the last roller to the second roller, resilient means exerting a pull on the second connecting roller in a direction between the second and fourth rollers, a roller contacting with the second roller on the opposite side from the second connecting roller, resilient means exerting a pull on the second roller from the third roller and in a direction between the second connecting roller and the sixth roller, a ring-like journal member pivotally connected to the frame, a roller rotatable in the journal member and contacting with the sixth roller, and means for positively adjusting the journal member to move its roller in directions toward and from the seventh roller.

[Claims 2 to 5, 7, 8, 10, and 12 not printed in the Gazette.]

1,241,865. CARRIAGE CONTROL FOR TYPE-WRITERS. NAFEW J. LLOYD, Butte, Mont. Filed Feb. 3, 1917. Serial No. 146,432. (Cl. 197—66.)



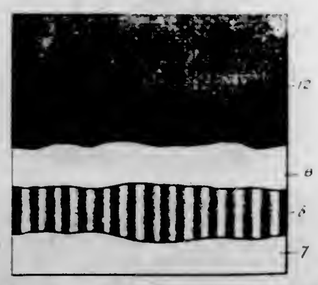
1. In a typewriter, the combination with a reciprocally mounted carriage, of a rod supported by the carriage and in parallel spaced relation thereto, a plunger carried by the rod, and a solenoid through which the rod and plunger are movable whereby energization of the solenoid may move the carriage.

8. In a typewriter, the combination with a reciprocally mounted carriage, and a platen rotatably supported thereon, of a pair of solenoids, plungers for the solenoids, and operative connections between the plungers and carriage whereby the solenoids may successively operate to produce an uninterrupted movement of the carriage.

13. In a typewriter, the combination with a frame and a carriage reciprocally mounted on the frame, of a pair of solenoids supported by the frame, plungers for the solenoids, connecting means between one of the plungers and the carriage, connecting means between the plungers, a two-branch controlling circuit, each branch including one of the solenoids, an automatic switch controlling the branches of the circuit, a forked lever for operating the switch, and an abutment carried by one of the plungers and engageable with the forked lever to control the switch.

[Claims 2 to 7 and 9 to 12 not printed in the Gazette.]

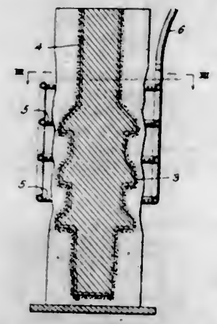
1,241,866. ARTIST'S TABLET. EMMA WAGONER LONG, St. Louis, Mo. Filed July 3, 1916. Serial No. 107,294. (Cl. 41—4.)



An article of manufacture, comprising a board adapted for use as an artist's tablet, having a cellular body and a woven fabric surface prepared for painting and adhesively secured throughout its entire surface to the front face thereof, said body being adapted to be readily severed into convenient sizes for framing.

1,241,867. MANUFACTURE OF ROLLS, &c. SAMUEL MCMILLEN, Pittsburgh, Pa. Filed Mar. 15, 1916. Serial No. 84,343. (Cl. 22—212.)

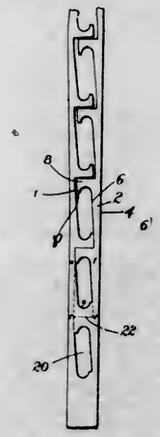
1. As an improvement in the art of making rolls, etc., the method herein described, which consists in forming a mold of finely divided material as sand within a flask, pouring the metal into the mold, removing the flask from the mold and saturating the molding material with a cooling fluid.



2. As an improvement in the art of making rolls, etc., the method herein described, which consists in forming a mold of finely divided material as sand within a flask, pouring the metal into said mold saturating the molding material with a cooling fluid, removing the flask from the mold, and gradually removing the outer portions of the mold to facilitate the cooling of the metal.

3. The method herein described, which consists in forming a mold of finely divided material as sand, in a flask, pouring the metal into the mold, removing the flask from the mold, simultaneously saturating the material of the mold with water, and progressively removing such material and discontinuing such cooling operation when the interior portions of the article are in a molten condition.

1,241,868. PROCESS OF MAKING NAIL-STRINGS. FRED L. MACKENZIE, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 14, 1914. Serial No. 866,675. (Cl. 10—34.)



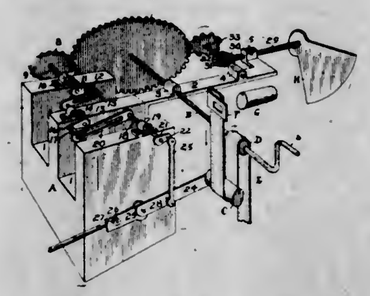
1. That improvement in processes of making nail strings composed of nails having distinct heads and shanks, which consists in removing from a ribbon or strip of material pieces each having an outline corresponding to the area between opposed nails of the desired form arranged in opposed strings with the heads of one string overlapping the heads of the other string, and separating the strip into two strings by cuts along lines corresponding to the lines of contact of opposed strings having the defined relation to each other.

2. That improvement in processes of making nail strings composed of nails having distinct heads and shanks, which consists in removing from a ribbon or strip of material pieces each having an outline corresponding to the area between opposed nails of the desired form arranged in opposed strings extending in opposite directions with the heads of one string overlapping the heads of the other string and in contact, and separating the strip into two strings by cuts along lines corresponding to the lines of contact of opposed strings having the defined relation to each other.

3. That improvement in processes of making nail strings composed of nails having heads extending to one side of the shank thereof, which consists in removing from a ribbon or strip of material pieces each having an outline corresponding to the area between opposed nails of the described form arranged in opposed strings extending in opposite directions, with the heads of one string overlapping the heads of the other string and having their end faces in contact and having their side faces in contact with the shanks of the opposed nails, and then separating the heads from each other and from the shanks of the opposed nails.

4. That improvement in processes of making nail strings composed of nails having heads extending to one side of the shanks and having projections extending from the under sides of the heads, which consists in removing from a ribbon or strip of material pieces each having an outline corresponding to the area between opposed nails of the described form arranged in opposed strings extending in opposite directions, with the heads of one string overlapping the heads of the other string, and having their end faces in contact and having their side faces, including the side faces of the downward projections, in contact with the shanks of the opposed nails, and separating the heads from each other and from the nail shanks.

1,241,869. MOVING-PICTURE MACHINE. RALPH W. MARTIN, Bellevue borough, Pa. Filed Sept. 8, 1915. Serial No. 49,510. (Cl. 88—18.6.)



1. In a moving picture machine, the combination with a moving picture film, of a gate through which said film passes, a rotary sprocket engaging said film and drawing the same through said gate, an adjustable framing lever, a swinging film dog pivotally mounted on said framing lever and engaging said film between the gate and the sprocket, and means for imparting a rocking motion to said dog whereby it intermittently pulls said film through said gate.

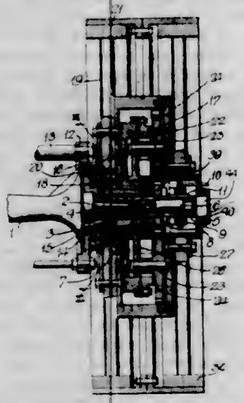
3. In a moving picture machine, the combination with a moving picture film, of a gate through which said film passes, a rotary sprocket engaging said film, a rotating shaft, a second shaft receiving rotation at variable speed from said first shaft, a third shaft rocked by said second shaft, and a looping dog engaging the film between said gate and said sprocket rocked by said third shaft.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,241,870. TRACTION BEARING-WHEEL. CHARLES F. MCCOW, Detroit, Mich. Filed July 13, 1916. Serial No. 108,971. (Cl. 21—90.)

1. In an automobile, the combination of a drive axle including an outer housing and inner drive shaft having

protruding tapered end portions of split sleeves adapted to be secured on the end portions, spiders adapted to be secured each on the end portion of the housing with a hub encircling the sleeve portion, a flanged outer hub carrying an internal gear annulus, a wheel journaled on the outer hub having a drum housing the flange and annulus, a gear rotatable concentric with the sleeve, planetary pinions carried by the wheel drum in mesh respectively with the annulus and gear, and an outer wheel body adapted to be attached to the main wheel body.

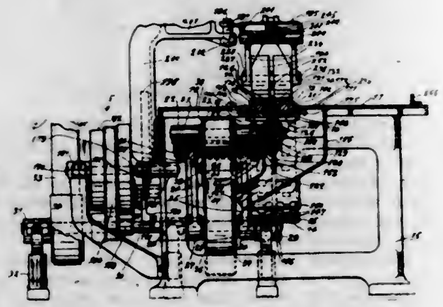


2. In an automobile, the combination of a drive axle including an outer housing and inner drive shaft having protruding tapered end portions, spiders adapted to be secured each on the end portion of the housing with a hub encircling the sleeve portion, a flanged outer hub carrying an internal gear annulus, a wheel journaled on the outer hub having a drum housing the flange and annulus, a bushing on the sleeve, a gear rotatable on the bushing, planetary pinions carried by the wheel drum in mesh respectively with the annulus and gear, an outer wheel body adapted to be attached to the main wheel body, and clutch means for detachably connecting the gear and bushing.

3. In an automobile, the combination of the driving axle thereof including a stationary housing and driving shaft with protruding tapered end portions, of spiders each adapted to be secured to the end portion of the housing and provided with an outwardly extending hub loosely encircling the tapered portion of the shaft, a split sleeve engaging each tapered end portion of the shaft, a bushing on the sleeve within the spider hub extending beyond the spider hub, a nut engaging the end portion of the drive shaft and securing the bushing and sleeve, a gear journaled in the bushing adjacent the end portion of the spider hub, a clutch ring longitudinally reciprocable and non-rotatable on the bushing adapted to interlock with the gear, means for shifting the clutch ring, a flanged bearing hub secured on the spider hub, an inner gear annulus on the flange of the bearing hub, a wheel journaled on the flanged bearing hub, a drum on the wheel carrying planetary gears meshing with the bushing gear and the annulus, and an outer wheel body adapted to be detachably secured to the inner wheel provided with means for housing the clutch ring and adjacent portions of the assembled members.

4. In an automobile, the combination of a driving axle thereof, including a stationary housing and a driving shaft having protruding tapered end portions, with spiders adapted to be secured each against an end portion of the housing and provided with outwardly tapered hubs extending over the end portions of the driving shaft, members connecting the spiders and reinforcing the housing, a tapered split sleeve engaging the end portion of each driving shaft, a key on each tapered portion of the shaft engaging the slot of the companion split sleeve, an elongated bushing on the sleeve protruding beyond the hub of the companion spider, a gear rotatable on the protruding portion of the bushing, means for clutching the gears to turn with the bushing, a flanged bearing hub on each spider hub, a wheel journaled on each hub between the flange thereof and the companion spider, an inturned gear annulus on the flange of the hub, planetary pinions on each wheel meshing with the annulus and bushing gear, and a wheel body adapted to be detachably secured to the main wheel.

1,241,871. SELF-FEED SAWING-MACHINE. JOHN J. MEYERS, Cincinnati, Ohio, assignor to J. A. Fay & Egan Company, Cincinnati, Ohio, a Corporation of West Virginia. Filed Mar. 18, 1914. Serial No. 825,555. (Cl. 143—49.)



1. A circular sawing machine comprising a circular saw-blade, endless feeding tables at the respective sides of said saw-blade traveling in parallel paths in the same direction, the proximate edges of said endless feeding tables separated a distance substantially equal to the width of the kerf of said saw-blade, and means above said endless feeding tables maintaining the board on said endless feeding tables by pressure as said board is laid on said endless feeding tables throughout the feeding movement of said board lengthwise past said saw-blade.

4. In a machine of the character described, the combination of endless feeding tables having upper material-supporting stretches traveling in closely adjacent paths in the same direction, a circular saw-blade extending upwardly between said material-supporting stretches from below into material-cutting position, and pressure-rollers respectively at front and rear of said circular saw-blade having material-contacting peripheries arranged to be received within the cylindrical projection of the circle of the cutting edge of said circular saw-blade, the material-supporting surface of said material-supporting stretches and said material-contacting peripheries provided with saw-blade slots of approximately the width of the kerf of said circular saw-blade.

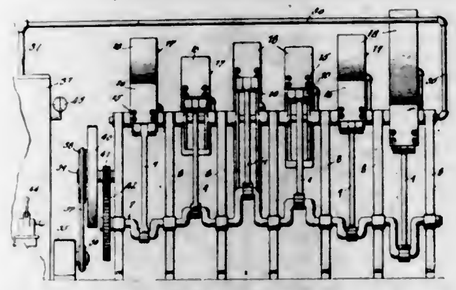
5. A circular sawing machine comprising a circular saw-blade, endless feeding tables at the respective sides of said saw-blade traveling in parallel paths in the same direction, a driving sprocket-wheel whose driving relation to both endless feeding tables is fixed, relatively loose independent driven sprocket-wheels for said endless feeding tables, the proximate edges of said endless feeding tables separated a distance substantially equal to the width of the kerf of said saw-blade, and means above said endless feeding tables maintaining the board on said endless feeding tables by pressure as said board is laid on said endless feeding table throughout the feeding movement of said board lengthwise past said saw-blade.

[Claims 2, 3, and 6 to 10 not printed in the Gazette.]

1,241,872. AIR-PUMP. ANTHONY Z. MIČIULIS, Chicago, Ill. Filed Nov. 16, 1916. Serial No. 131,781. (Cl. 230—32.)

1. A pump mechanism, comprising a crank shaft, a series of pivotally mounted cylinders, a connection between each of the cylinders and the crank shaft, pistons in opposite

ends of each of said cylinders, a weighted shiftable member associated with each cylinder, a connection between each of said pistons and the weighted member associated therewith, said crank shaft when revolved rocking said cylinders, whereby said weighted members are moved by the action of gravity in correspondence with the rocking of the cylinders causing an in and out movement of said pistons, and said cylinders and weighted members in their movements exerting a counterbalancing action on the crank shaft, a main air collecting conduit communicating with the interior of each of said cylinders, a storage tank connected to the conduit, and power driven means for actuating said crank shaft, substantially as described.



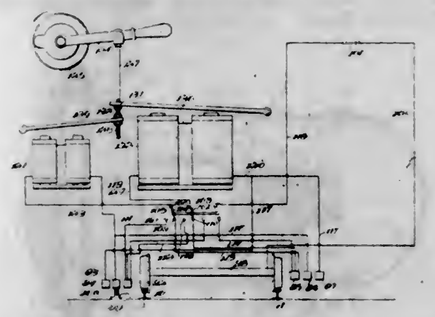
2. A pump mechanism, comprising a crank shaft, a series of pivotally mounted cylinders, a connection between each of the cylinders and the crank shaft, pistons in opposite ends of each of said cylinders, a weighted shiftable member associated with each cylinder, a connection between each of said pistons and the weighted member associated therewith, said crank shaft when revolved rocking said cylinders, whereby said weighted members are moved by the action of gravity in correspondence with the rocking of the cylinders causing an in and out movement of said pistons, and said cylinders and weighted members in their movements exerting a counterbalancing action on the crank shaft, a main air collecting conduit communicating with the interior of each of said cylinders, a storage tank connected to the conduit, a power driven means for actuating said crank shaft, and means for producing an initial pressure within the tank to form a back pressure in the cylinders which cushions the action of the weighted members, substantially as described.

6. A pump mechanism, comprising a crank shaft, a series of pivotally mounted cylinders, a connection between each of the cylinders and the crank shaft, pistons in opposite ends of each of said cylinders, a weighted shiftable member associated with each cylinder, a connection between each of said pistons and the weighted member associated therewith, said crank shaft when revolved rocking said cylinders, whereby said weighted members are moved by the action of gravity in correspondence with the rocking of the cylinders causing an in and out movement of said pistons, and said cylinders and weighted members in their movements exerting a counterbalancing action on the crank shaft, a main air collecting conduit communicating with the interior of each of said cylinders, a storage tank connected to the conduit, power driven means for actuating said crank shaft, valve mechanism associated with each cylinder for establishing communication with one end of the cylinder and the collecting conduit and between the other end of the cylinder and the outside air, and contact mechanism moving with said weighted members for actuating said valve in accordance with the rocking of the cylinders, substantially as described.

[Claims 3 to 5 not printed in the Gazette.]

1,241,873. BLOCK-SIGNALING SYSTEM. ROBLEY C. MAILLARD, Atlanta, Ga. Filed Nov. 12, 1914. Serial No. 871,766. (Cl. 246—58.)

A block signal system including a track, a plurality of circuit breakers, a plurality of contacts adjacent the track, circuits normally open between certain contacts and the track for closing the circuit breakers when the circuits are closed, circuits normally open between certain other contacts and the track for opening the circuit breakers when such circuits are closed, circuits through the circuit breakers when the latter are closed which are open between certain other contacts and the track, air valve controlling mechanism carried by the locomotive, circuits upon the locomotive including contact shoes adapted for engagement with the latter contacts to operate the air valve controlling mechanism when said latter track circuits are closed, additional circuits upon the locomotive including contact shoes adapted for engagement with the first mentioned contacts for completing circuits between said contacts and the track to close the circuit breakers, and still further circuits upon the locomotive including contact shoes for engagement with the second mentioned contacts for closing circuits between them and the track for opening the circuit breakers.



2. A block signal system including electrically bonded track rails, a locomotive carried air brake valve, magnets for giving warning and emergency openings to the valve, locomotive carried signal circuits, certain of which pass through the magnets, each signal circuit including a contact brush, contact shoes disposed adjacent the track and engageable by the brushes, and means including relays operable by engagement of certain shoes by the brushes in said signal circuits not through the magnets for placing certain other shoes in electrical connection with a track rail, whereby engagement with one of said latter shoes by one of the brushes in circuit with one of the magnets will close its circuit.

3. A block signal system including electrically bonded track rails, a locomotive carried air brake valve, magnets for giving warning and emergency openings to the valve, locomotive carried signal circuits certain of which pass through the magnets, each signal circuit including a contact brush, contact shoes disposed adjacent the track and engageable by the brushes, means including relays operable by engagement of certain shoes by the brushes in said signal circuits not through the magnets for placing certain other shoes in electrical connection with a track rail, whereby engagement with one of said latter shoes by one of the brushes in circuit with one of the magnets will close its circuit, and means operable by engagement of certain shoes by certain brushes not in the magnet circuits for rendering the shoes which have been placed in electrical connection with a track rail inactive.

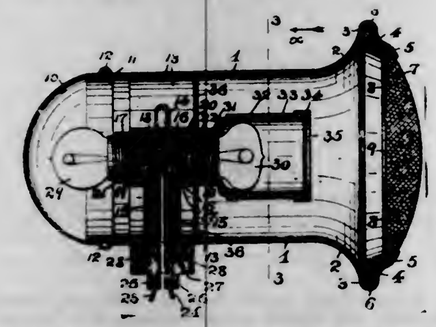
4. A block signal system including electrically bonded track rails, a locomotive carried air brake valve, magnets for giving warning and emergency openings to the valve, locomotive carried signal circuits, certain of which pass through the magnets and each of which includes a contact brush, contact shoes disposed adjacent the track and engageable by the brushes, means including relays operable by engagement of certain shoes by the brushes in said signal circuit not through the magnets for placing certain other shoes in electrical connection with a track rail, whereby engagement with one of said latter shoes by one of the brushes in circuit with one of the magnets will close its circuit, a track signal circuit, and means

operable by one of the relays controlling the signal circuit.

5. In block signal systems, a track, a plurality of track contacts, a train carried signal circuit, a train carried circuit for controlling track circuit conditions, each of such circuits having brushes for engagement with the track contacts, a pair of relays adapted to be energized by engagement of certain of the brushes with one of the track contacts and when energized to electrically connect a pair of track contacts with the track, and a pair of spaced track contacts in circuit each with one of the relays whereby the relays will be successively returned to normal by engagement of the pair of track contacts by one of the brushes.

[Claim 6 not printed in the Gazette.]

1,241,874. LAMP. HENRY MILLER, Newark, and FRITZ MUELLER, Irvington, N. J., assignors of one-third to Robert C. Hunter, Newark, N. J. Filed Apr. 23, 1915. Serial No. 23,467. (Cl. 240—41.)



1. A lamp for displaying multi-colored lights comprising a shell or casing and a lens, a lighting unit within said shell, and a colored annular transparent element mounted against the back of the lens, said annular transparent element being provided with an open portion, and means within said main shell for projecting light-rays of a different color from that of said transparent element into the said open portion and from said lens.

2. A lamp for displaying multi-colored lights comprising a shell or casing, a lens at one end of said shell, and a reflector at the other end of said shell, a lighting unit within said shell, and a colored annular transparent element mounted against the back of the lens, said annular transparent element being provided with an open portion, and means within said main shell for projecting light-rays of a different color from that of said transparent element into the said open portion and from said lens.

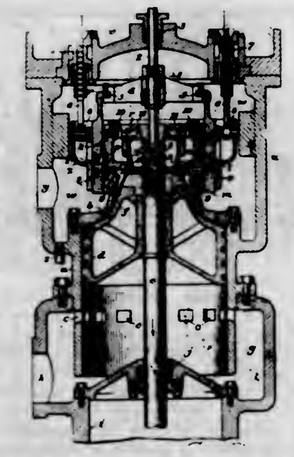
3. A lamp for displaying multi-colored lights comprising a shell or casing, and a lens, a pair of electric lights within said shell, a colored annular transparent element mounted against the back of said lens, for projecting from said lens a light of one color, said annular transparent element being provided with an open portion, and a coloring means coöperating with the other electric light for projecting a light of a different color into said open portion and from said lens.

4. A lamp for displaying multi-colored lights comprising a shell or casing, and a lens, a pair of electric lights within said shell, a colored annular transparent element mounted against the back of said lens, for projecting from said lens a light of one color, said annular transparent element being provided with an open portion, a coloring means coöperating with the other electric light for projecting a light of a different color into said open portion and from said lens, and means coöperating with said last-mentioned electric light for shutting off the light-rays of said last-mentioned electric light from said first-mentioned electric light.

5. A lamp for displaying multi-colored lights comprising a shell or casing, a lens at one end of said shell, and a reflector at the other end of said shell, a pair of electric lights within said shell, a colored annular transparent element mounted against the back of said lens, for projecting from said lens a light of one color, said annular transparent element being provided with an open portion, and a coloring means coöperating with the other electric light for projecting a light of a different color into said open portion and from said lens.

[Claims 6 to 12 not printed in the Gazette.]

1,241,875. STEAM-ENGINE. BRUNO V. NORDBERG, Milwaukee, Wis. Filed Apr. 16, 1914. Serial No. 832,192. (Cl. 121—45.)



3. In a steam engine the combination of a cylinder provided with an exhaust port adjacent to one end which is in open and constant communication with an inclosed insulating space, and at the other end with a head having a series of radial steam admission ports, a single acting piston adapted at the end of its working stroke to open the exhaust port to the admission end of the cylinder, said head and piston being formed one with a projection and the other with a corresponding cavity which is nearly filled by said projection at the end of the idle stroke of the piston, a steam heating chamber enveloping the admission end of the cylinder, a distribution valve controlling the flow of steam from said chamber through the admission ports into the cylinder, and means for maintaining a constant vacuum in said insulating space to which the inactive end of the piston is exposed.

5. In a steam engine the combination of a cylinder having an exhaust port adjacent to one end which is in open and constant communication with an exhaust connection and at the other end a recessed head formed with a series of radial admission ports opening into the recess therein, a steam heating chamber enveloping the outer side of said head, a reciprocating annular valve fitting over said head and controlling the admission of steam from said chamber through said radial ports into the cylinder, a relief valve seated in said head inside of the annular series of admission ports, a single acting piston fitting into and nearly filling the recess in said head and adapted at the end of its working stroke to open the exhaust port to the admission end of the cylinder, and means for maintaining a constant vacuum in the end of the cylinder toward which the inactive end of the piston is presented.

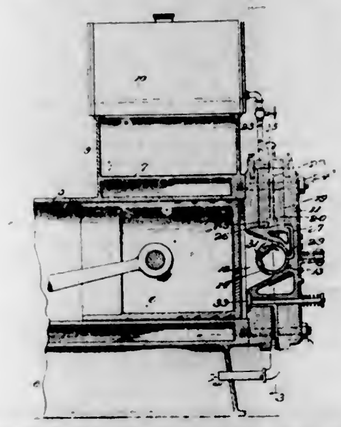
7. In a steam engine the combination of a cylinder having an annular exhaust port adjacent to one end, an inclosed insulating space in open and constant communication with said port and with the adjacent end of the cylinder, and at the other end a head formed with a cylindrical valve seat of smaller diameter than the bore of the cylinder, and a series of radial admission ports opening

[illegible] said seat into the cylinder, an annular valve [illegible] said cylindrical seat and controlling said admission ports, a steam admission and heating chamber enveloping said head and valve, a single acting piston adapted at the end of its working stroke to open the exhaust port to the admission end of the cylinder, and means for maintaining a constant vacuum in said insulating space.

9. In a steam engine the combination of a cylinder having an exhaust port adjacent to one end which is in open and constant communication with the exhaust connection and at the other end a head formed with an internal cavity, a relief valve chamber, an outer cylindrical face of smaller diameter than the bore of the cylinder, and a series of radial admission ports leading inwardly from said face into said cavity, a reciprocating annular admission valve fitting over said face and formed with ports adapted to register with said admission ports, a reciprocating annular cut-off valve fitting over said admission valve and controlling the ports therein, an outwardly opening relief valve seated in the chamber in said head, a steam admission and heating chamber enveloping said head and valves, a single acting piston adapted at the end of its working stroke to open the exhaust port to the admission end of the cylinder, and means for maintaining a constant vacuum in the end of the cylinder toward which the inactive end of the piston is presented.

[Claims 1, 2, 4, 6, 8, and 10 not printed in the Gazette.]

1,241,876. INTERNAL-COMBUSTION ENGINE. PAUL E. NUENKE, Chicago, Ill. Filed Jan. 10, 1917. Serial No. 141,565. (Cl. 123—33.)

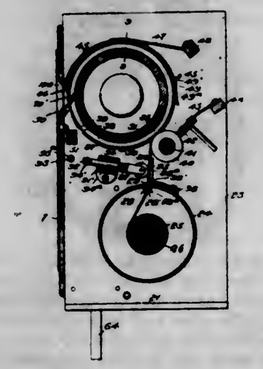


1. In an internal-combustion engine of the type described, a cylinder having a combustion cavity, a hollow oscillating valve having a portion which projects into said cavity and is provided with discharge ports of restricted area continuously opening into the cavity, and said valve also being provided with oil and air inlet ports, the interior of the valve forming a fuel receiving chamber, and oil and air supply connections to the oil and air inlet ports.

2. In an internal combustion engine of the type described, a cylinder having a combustion chamber, a hollow oscillating valve having discharge ports of restricted area continuously opening into the combustion chamber, and said valve also being provided with oil and air inlet ports, the interior of the valve forming a fuel receiving chamber, and oil and air supply connections to the oil and air inlet ports.

3. In an internal combustion engine of the type described, a cylinder, a head closing the combustion end of the cylinder and having a cavity opening thereinto, a hollow oscillating valve seating in the cylinder head and having a portion which projects into the aforesaid cavity and is provided with discharge ports of restricted area continuously opening into the cavity, and said valve also being provided with oil and air inlet ports, the interior of the valve forming a fuel receiving chamber, and oil and air supply connections to the oil and air inlet ports.

1,241,877. VENDING-MACHINE. LAYTON M. PARKHURST, Indianapolis, Ind., assignor, by mesne assignments, to George B. Pitts, trustee, Cleveland, Ohio. Original application filed Mar. 31, 1908, Serial No. 424,304. Divided and this application field June 30, 1910, Serial No. 569,750. Renewed Sept. 16, 1916. Serial No. 120,558. (Cl. 211—33.)



1. In a vending apparatus, the combination of a pin or shaft arranged to support a rolled strip, a strip guide arranged adjacent to the rolled strip and freely movable about the axis of the said pin or shaft, and means for delivering the strip through said guide.

2. In a vending apparatus, the combination of a pin or shaft arranged to support a rolled strip, a strip guide arranged adjacent to the rolled strip and comprising a pair of pins arranged parallel to each other said guide strip being freely movable about the axis of the said pin or shaft, and means for delivering the strip through said guide.

3. In apparatus of the character described, the combination of a pin or shaft arranged to support a roller strip, and a strip guide arranged to be engaged by the strip and freely movable about the axis of said pin or shaft.

4. In a device of the character described, the combination of a pin or shaft arranged to support a rolled strip, an annular member surrounding the rolled strip and formed with an opening through which the strip is delivered, and a guide for directing the strip through said opening, said guide being freely movable about said pin or shaft.

5. In a device of the character described, the combination of a support arranged to support a rolled strip, a stationary annular member surrounding the rolled strip and formed with an opening through which the strip is delivered, and a guide for directing the strip through said opening, said guide being freely movable about said support relative to the opening through said member.

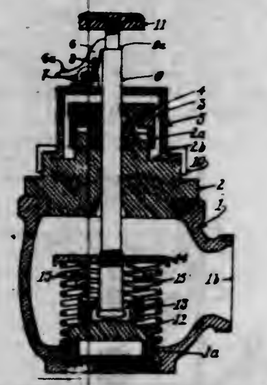
[Claims 6 to 40 not printed in the Gazette.]

1,241,878. VALVE FOR RADIATORS. EARL D. PEERSTONE, Chicago, Ill. Filed Mar. 16, 1917. Serial No. 155,214. (Cl. 137—4.)

1. A valve device comprising a casing, a valve disk, a valve stem for operating the valve disk, having an inward movement after the valve disk is seated to permit a catch to engage the valve stem and having a subsequent slight outward movement after the catch has passed into engaging position, and a catch for securing the valve stem to prevent further outward movement of the same.

2. A valve device comprising a casing, a valve disk, a valve stem for operating the valve disk, having an inward movement after valve disk is seated to permit a catch to engage the valve stem and having a subsequent slight out-

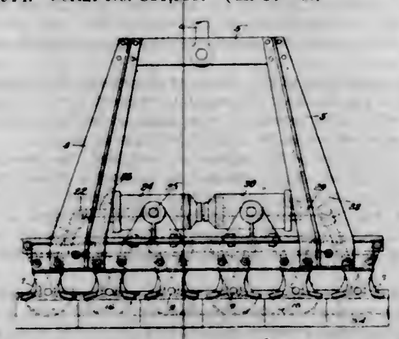
ward movement after the catch has passed into engaging position, a catch for securing the valve stem to prevent further outward movement of the same, and yielding resistance means for opposing the inward movement of the valve stem.



3. A valve device comprising a casing, a valve disk, a valve stem for operating the valve disk, having an inward movement after the valve disk is seated to permit a catch to engage the valve stem and having a subsequent slight outward movement after the catch has passed into engaging position, a catch for securing the valve stem to prevent further outward movement of the same, and a tread for releasing the catch.

[Claim 4 not printed in the Gazette.]

1,241,879. APPARATUS FOR MECHANICALLY HACKING BRICK. RAYMOND C. PENFIELD, New York, N. Y. Original application filed Nov. 29, 1912, Serial No. 733,979. Divided and this application filed Jan. 13, 1914. Serial No. 811,808. (Cl. 57—9.)



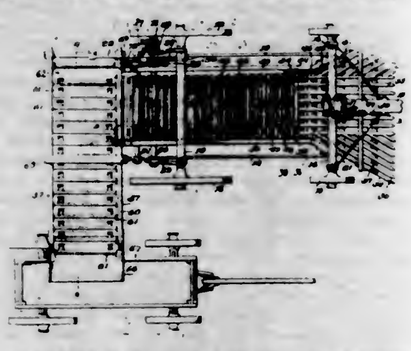
3. In a brick lifting apparatus of the kind described, means to engage and lift a plurality of brick in a plurality of streams of brick material, comprising guiding means to position the apparatus over said plurality of streams of brick, a pivoted shaft, a plurality of needle-like devices arranged in oppositely acting pairs, each pair being pivoted on said shaft and spaced to enable a pair to engage each brick, means to limit the lowering of the apparatus on said brick to be lifted and means to move said pairs of needle-like devices on their pivots toward and from each other to engage and release the brick.

[Claims 1 and 2 not printed in the Gazette.]

1,241,880. STONE-GATHERER. QUINTUS C. PENINGTON, Chapel, Okla. Filed Aug. 15, 1916. Serial No. 115,046. (Cl. 55—17.)

1. In an apparatus of the class described, a supporting frame, a gathering device carried by said frame, said gathering device including vertical gathering members converging inwardly and rearwardly, and horizontal gathering members including bars spaced apart.

2. In an apparatus of the class described, a supporting frame, a gathering device carried by said frame and converging rearwardly, said gathering device including a plurality of intermediate bars spaced apart and extending in parallel relation with each other and with the longitudinal axis of the frame, and lateral bars extending obliquely to and merging into the intermediate bars.



3. In an apparatus of the class described, a supporting frame, a gathering device carried by said frame and converging rearwardly, said gathering device including a plurality of bars spaced apart, and a member movable relative to the gathering device and having teeth operating between the bars of the same.

4. In an apparatus of the class described, a supporting frame, a gathering device carried by said frame, said gathering device including a plurality of bars spaced apart, and a member movable relative to the gathering device and having teeth operating between the bars of the same.

5. In an apparatus of the class described, a supporting frame, a gathering device carried by said frame, said gathering device including a plurality of bars spaced apart, a member movable relative to the gathering device and having teeth operating between the bars of the same, and a conveyer device coacting with the gathering device.

[Claims 6 to 11 not printed in the Gazette.]

1,241,881. BRUSH. ALPHONSE ARTHUR PICARD, New York, N. Y. Filed Dec. 14, 1916. Serial No. 136,841. (Cl. 15—24.)

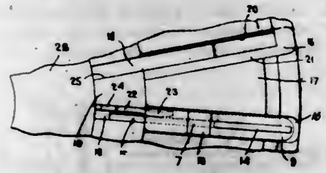


1. A brush of the character designated, comprising a handle of elastic resilient material formed with a clutch hook and with a snap hook for engagement with the under faces of a brush-member back, and a brush member having a back formed with a groove to receive the portion of the handle intermediate between said clutch hook and said snap hook.

2. A brush of the character designated, comprising a brush member having a back formed with a groove extending lengthwise therethrough, and a detachable handle therefor composed of a single piece of elastic resilient material receivable within said groove and having at one end a clutch hook engageable with the under face of the back at one end thereof, and with a resilient snap hook intermediate the ends of said handle, the terminals of said hooks extending toward each other for engagement with the under face of said back at opposite ends thereof.

1,241,882. KNITTING-MACHINE NEEDLE. FRANK POPE and ERNEST E. RANDALL, Kankakee, Ill., assignors to Paramount Knitting Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 7, 1915. Serial No. 65,603. (Cl. 66—5.)

1. In a knitting machine a needle comprising a longitudinally slotted hook member, a separate latch member provided with a shank and with a head passing through the slot of the hook member, means for securing relative, longitudinal and transverse bodily movements of said members to effect the coöperative action of the hook and latch, a needle bed provided with superimposed grooves for said members, the latch member groove being of materially greater width than the latch member and of materially less width than and extending beneath and parallel with the hook member groove, and means independent of the latch member acting to press the tail of its shank against one wall of its groove whereby the required frictional retardation of the latch member is secured while the head thereof is central of and moves in alinement with the hook member.



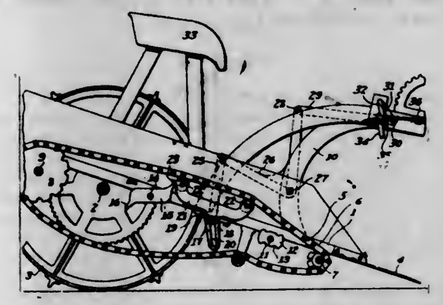
2. In a knitting machine, a needle comprising a longitudinally slotted hook member, a separate latch member provided with a shank and with a head passing through the slot of the hook member, means for securing relative, longitudinal and transverse bodily movements of said members to effect the coöperative action of the hook and latch, a needle bed provided with superimposed grooves for said members, the latch member groove being of materially greater width than the latch member and of materially less width than and extending beneath and parallel with the hook member groove, and a spring located in the latch member groove separate from the latch member and acting to press the tail of the shank of the latch member against one wall of its groove, whereby the required frictional retardation of the latch member is secured while the head thereof is central of and moves in alinement with the hook member.

3. In a knitting machine a needle comprising a longitudinally slotted hook member, a separate latch member provided with a shank and with a head passing through the slot of the hook member, means for securing relative, longitudinal and transverse bodily movements of said members to effect the coöperative action of the hook and latch, a needle bed provided with superimposed grooves for said members, the latch member groove being of materially greater width than the latch member and of materially less width than and extending beneath and parallel with the hook member groove, and a spring device located in the latch member groove separate from the latch member and acting to secure the required frictional retardation of the latch member while the head thereof is central of and moves in alinement with the hook member.

4. In a knitting machine a needle comprising a longitudinally slotted hook member, a separate latch member provided with a shank and with a head passing through the slot of the hook member, means for securing relative, longitudinal and transverse bodily movements of said members to effect the coöperative action of the hook and latch, a needle bed provided with superimposed grooves for said members, the latch member groove presenting an inner and an outer section, one side wall of the inner section lying in a plane substantially parallel with the side walls of the outer section and at a distance to one side the medial plane thereof equal to one-half the thickness of the latch member shank, and a spring located in the latch member groove and acting to hold the latch member in frictional engagement with the said side walls whereby the required frictional retardation of the latch member is secured while the head thereof is central of and moves in alinement with the hook member.

[Claims 6 to 12 not printed in the Gazette.]

1,241,883. DIGGER FOR POTATOES, PEANUTS, OR THE LIKE. THOMAS FRANCIS RICE, Henrietta, N. Y., assignor to The Rice Manufacturing Company, Rochester, N. Y., a Corporation of New York. Filed Apr. 30, 1917. Serial No. 165,369. (Cl. 55—51.)



1. A digger comprising an endless conveyer, agitating means acting on the conveyer to jar the same, and means for shifting the path of movement of the conveyer beyond that of the agitating means to render the latter inactive.

3. A digger comprising an endless conveyer, agitating means acting on the conveyer to jar the same, and movably mounted rollers for engaging the conveyer to move the latter out of the path of the agitating means.

5. In a digger, an endless conveyer, agitating means acting on the under side of the upper lap of the conveyer to jar the latter, means for elevating the path of movement of the conveyer in proximity to the agitating means to carry the conveyer out of the path of operation of the agitating means, said means comprising a rod guided for up-and-down movement, and two members supported by said rod, and each projecting from opposite sides thereof, said members having at each end thereof a roller for engaging the conveyer.

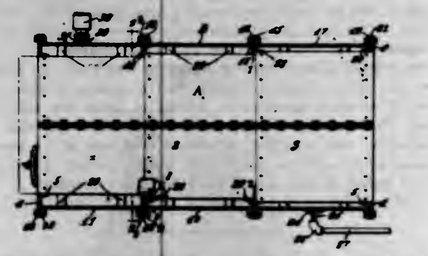
11. A digger comprising an endless conveyer, a rotary agitating device operating on the under side of the upper lap of the conveyer, means for shifting the conveyer out of the path of operation of the rotary agitator, and means movable into the path of the rotary agitator to prevent the turning of the latter when the endless conveyer has been shifted beyond the field of operation of the agitator.

[Claims 2, 4, 6 to 10, and 12 not printed in the Gazette.]

1,241,884. BOILER. GEORGE W. BIST, Havre, Mont. Filed Nov. 8, 1916. Serial No. 130,193. (Cl. 220—125.)

1. The combination of a boiler composed of a plurality of telescopically connected sections, a plurality of rings of approximately L-shape in cross section certain of said rings having their inner arms secured between the overlapping end portions of adjacent sections of the boiler, and certain other of said rings having their inner arms secured to the end sections of the boiler, and a casing mounted about the boiler in spaced relation thereto com-

posed of a plurality of sections, each of said sections being provided at each end with an outwardly directed in-



tegral flange, said flanges being secured to the vertical arms of the said rings.

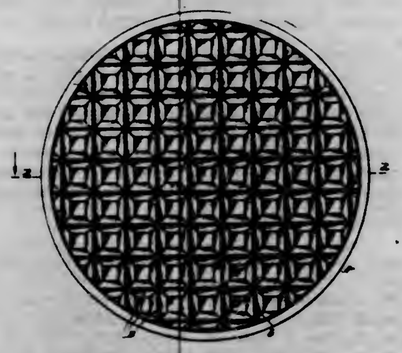
[Claim 2 not printed in the Gazette.]

1,241,885. TILING CONSTRUCTION. CHARLES ROEDER, New York, N. Y. Filed Feb. 24, 1916. Serial No. 80,243. (Cl. 72—19.)



A support for wall tiles comprising a strip of resilient material folded upon itself, the head of said folded portion being flattened out to provide two integral web portions and a body portion, the said web portions extending substantially at right angles to the upper part of the body portion, and the top surface of the two webs forming one continuous line; the two portions of said strip forming the lower part of said folded portion diverging one from the other and the free ends thereof being bent in opposite directions in a plane substantially parallel to the top surface of the said webs.

1,241,886. LENS. LEVI LEROY ROWE, Boston, Mass. Filed July 12, 1916. Serial No. 108,927. (Cl. 240—48.4.)

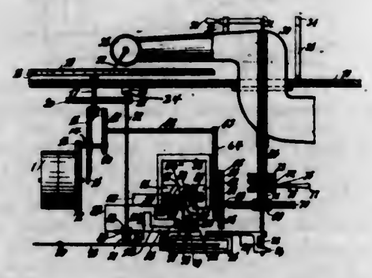


1. A lens having one flat face and an opposite indented face composed of recessed portions or figures arranged in rows and each of which has inwardly inclined sides and a flat inner central part or surface.

2. A lens having one flat face and an opposite indented face composed of recessed rectangular portions or figures arranged in rows and each of which has four equal, inwardly inclined sides and a flat inner central part or surface, said portions or figures being thus of the inverted shape of the frustum of a pyramid.

3. A lens formed of a single piece of glass and having one flat face and an opposite indented face composed of recessed rectangular portions or figures arranged in rows and each of which has four equal, inwardly inclined sides and a flat inner central part or surface, said portions or figures being thus of the inverted shape of the frustum of a pyramid.

1,241,887. SPEED-REGULATOR FOR PHONOGRAPHS. ALBERT RUCKGABER, Brooklyn, N. Y. Filed Aug. 31, 1915. Serial No. 48,146. (Cl. 74—13.)



1. In a phonograph, the combination of a record medium, a medium coacting therewith and movable thereon, means for moving the record medium, means operated by said last-named means for positively moving the coacting medium, members magnetically coacting with each other, means for changing the action of one of said magnetically coacting members upon the other, upon the change of position of the said coacting medium on the record medium, and means capable of changing the relative linear velocity of the record medium and coacting medium at their coacting point on the change of action of one of the magnetically coacting members with the other.

2. In a phonograph, the combination of a record medium, a medium coacting therewith and movable thereon, means for moving the record medium, means operated by said last-named means for positively moving the coacting medium, members magnetically coacting with each other, means for changing the action of one of said magnetically coacting members upon the other, upon the change of position of the said coacting medium on the record medium, means capable of changing the relative linear velocity of the record medium and said coacting medium at their coacting point, on the change of action of one of the magnetically coacting members with the other, means on one of said magnetically coacting members for inducing therein electric energy, and means operated by said electric energy for maintaining the relative linear velocity of the record medium and coacting medium at their coacting point, substantially constant.

3. In a phonograph, the combination of a record medium, a medium coacting therewith and movable thereon, means for moving the record medium, means operated by said last-named means for positively moving the coacting medium, members magnetically coacting with each other, means for changing the action of one of said magnetically coacting members upon the other upon the change of position of the said coacting medium on the record medium, means capable of changing the relative linear velocity of the record medium and said coacting medium at their coacting point, on the change of action of one of the magnetically coacting members with the other, means on one of said magnetically coacting members for inducing therein electromotive force, and means operated by the resulting electric energy for maintaining the induced electromotive force approximately constant.

4. In a phonograph, the combination of a record medium, a medium coacting therewith and movable thereon, members magnetically coacting with each other, means for changing the action of one of said magnetically coacting members upon the other, upon the change of position of the said coacting medium on the record medium, means capable of changing the linear velocity of the record medium relatively to the said coacting medium, on the change of action of one of the magnetically coacting members with the other, means on one of said magnetically coacting members for inducing an electromotive force, and a relay in circuit with said last-named means for maintaining the induced electromotive force approximately constant.

5. In a phonograph, the combination of a record medium, a medium coacting therewith, means for moving the record medium, members magnetically coacting with each other, one of said members being moved by the means for moving the record medium, means on one of said members for inducing therein an electromotive force, a relay in circuit with the inducing means, and electric energy absorption means operated by the relay.

[Claims 6 to 8 not printed in the Gazette.]

1,241,888. ALARM SYSTEM. JOHN H. SAFFORD, Brooklyn, N. Y. Filed Oct. 15, 1915. Serial No. 56,020. (Cl. 177—316.)



1. The combination in a safety chest of gravity means within the chest comprising a platform, a universal support therefor, a ball on the platform, and suitable instrumentalities controlled by the ball.

2. A gravity operated controlling device for safety chests comprising a self-leveling recessed platform and a ball thereon.

3. A gravity operated controlling device for safety chests comprising a platform, a universal suspension therefor, a ball on the platform, and means for holding the platform against movement on its suspension.

4. A controlling device for an alarm comprising a platform provided with a recess having sloping walls, a suspension therefor, a ball on the platform and means whereby the ball controls an electric contact.

5. Gravity-operated means for controlling an alarm comprising a self leveling platform and a ball thereon.

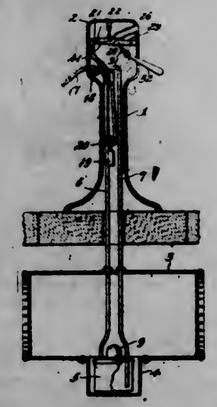
[Claims 6 to 37 not printed in the Gazette.]

1,241,889. GASOLENE-VENDING APPARATUS. WILLIAM K. SCHAUWEKER, Cleveland, Ohio. Filed Aug. 15, 1913. Serial No. 784,992. (Cl. 221—102.)

1. A liquid vending apparatus, comprising a main supply tank, a measuring tank communicating therewith, means for supporting a cartridge containing gas under pressure, and an unrestricted conduit providing free and open communication between said cartridge and measuring tank for discharging the gas from said cartridge into said measuring tank to expel the liquid therefrom.

2. A liquid vending apparatus, comprising a main supply tank, a measuring tank communicating therewith, an unrestricted conduit providing free and open communication to said measuring tank, and means for connecting a cartridge containing gas under pressure to said conduit thereby opening said cartridge and causing the gas therein to flow to said measuring tank and expel the liquid therefrom.

3. A liquid vending apparatus, comprising a main supply tank, a measuring tank communicating therewith and arranged to be completely filled by gravity therefrom, means for closing communication between said two tanks upon filling of the measuring tank, an unrestricted gas delivery pipe connected to the measuring tank, means for supporting a cartridge containing gas under pressure, and means for directly connecting the cartridge to said pipe for discharging the gas into the measuring tank to expel the liquid therefrom.

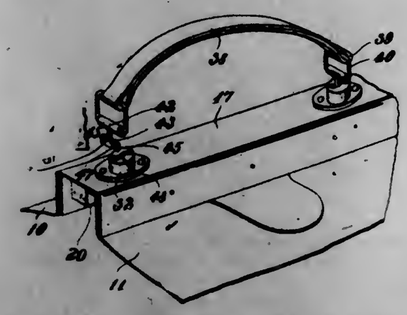


4. Vending apparatus comprising a storage tank, a measuring tank connected therewith, means for supplying a predetermined amount of liquid from the storage tank to the measuring tank, a liquid discharge pipe connected to the measuring tank, a gas delivery pipe connected to the measuring tank, a cartridge receiving carriage, means for delivering a cartridge to said carriage, and means for moving the cartridge into engagement with the gas delivery pipe and thereby establishing communication between the two.

5. Vending apparatus comprising a storage tank, a measuring tank connected therewith, means for supplying a predetermined amount of liquid from the storage tank to the measuring tank, a liquid discharge pipe connected to the measuring tank, a gas delivery pipe connected to the measuring tank, a cartridge receiving carriage, means for delivering a cartridge to said carriage, means for moving the cartridge into engagement with the gas delivery pipe and thereby establishing communication between the two.

[Claim 6 not printed in the Gazette.]

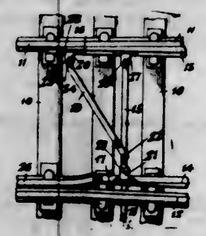
1,241,890. REMOVABLE LOCKING GRIP-HANDLE. CHRISTIAN WILHELM AUGUST SCHRADER, Philadelphia, Pa. Filed Nov. 13, 1916. Serial No. 130,993. (Cl. 190—55.)



1. The combination with a satchel, and a removable handle, of a pair of escutcheons secured to one side of the satchel, a locking means carried below each of said escutcheons, a substantially T-shaped key at each end of said handle, means within said escutcheon causing engagement of the locking device when said keys are removed.

[Claim 2 not printed in the Gazette.]

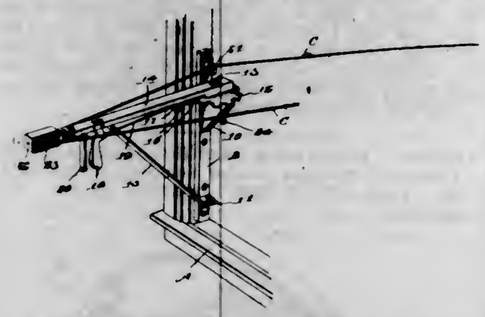
1,241,891. STAGGERED-SWITCH BRACE. THOMAS J. WOLFE, New Augustine, Fla. Filed Mar. 24, 1916. Serial No. 86,436. (Cl. 104—96.)



1. In a switch, long and short switch rails, a transversely extending tie bar connected at one end to the extremity of said short rail and at its opposite end to said long rail inwardly of the free extremity thereof, means for shifting said switch rails, and a brace bar secured at one end to the outer free extremity of said long rail and extending obliquely inward and being pivotally secured at its opposite end to the said tie bar.

2. In a switch, the combination with long and short switch rails, a tie bar extending transversely between the rails and connecting the outer end of the short rail to the long rail in rear of the outer end of the latter, and a switch bar connected with the short switch rail and extending laterally from the track in longitudinal alinement with the tie bar, of a brace bar secured at its forward end to the outer extremity of said long switch rail and having its inner end pivotally secured to the said tie bar adjacent the short rail, whereby to brace the extremity of said long switch rail beyond the tie bar and to transmit directly the pull and thrust of the switch bar to the outer extremity of said long switch rail.

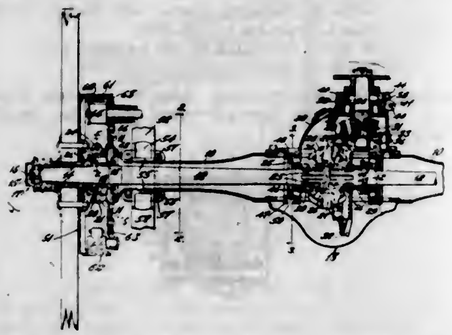
1,241,892. CLOTHES-LINE SUPPORT. AUGUST ZELLER, New York, and WILLIAM J. ZELLER, Winfield, N. Y. Filed Apr. 3, 1917. Serial No. 159,586. (Cl. 68—3.)



A clothes line support, comprising, a supporting frame, adapted to be secured to the sill of a window, an arm pivoted to the supporting frame for horizontal, radial swinging movement, a rack provided on said supporting frame, a detent slidably mounted on said arm and adapted to co-act with said rack for securing the arm in one of its several radial positions, a weighted lever pivoted to the underside of said arm and connected with the detent to cause the same to normally co-act with the rack, a pulley swiveled at the outer free extremity of the arm, a pulley mounted on the supporting frame to receive one strand of the clothes line, and a hook mounted on the supporting frame and adapted to receive the remaining strand of the clothes line when the arm is swung to an inactive position.

1,241,893. MOTOR-VEHICLE AXLE. HERBERT W. ALDEN, Detroit, Mich., assignor to The Timken-Detroit Axle Company, Detroit, Mich., a Corporation of Ohio. Filed Feb. 6, 1915. Serial No. 6,481. (Cl. 74—34.)

1. A driving axle comprising a casing having its middle enlarged and provided with an opening to receive the driving gear, said casing having hollow extremities at the ends of which the road wheels are journaled, a gear carrier secured to said casing around said opening and having two pedestals for combined radial and thrust bearings projecting through said opening into the casing in longitudinal alinement, a drum journaled in said pedestals, one of said pedestals being solid with said gear carrier and the other being split in an axial plane and provided with a removable cap and a part removable with the cap to permit endwise movement of said drum, equalizing gearing in said drum, a bevel driving gear secured to said drum, a bevel driving pinion journaled in alined bearings in said carrier, substantially at right angles to said drum and meshing with the bevel gear carried thereby, and driving shafts arranged in the hollow extremities of the casing and having at their outer ends operative engagement with the road wheels, the inner ends of said driving shafts being slidable axially through said pedestals into said drum for engagement with said equalizing gearing.



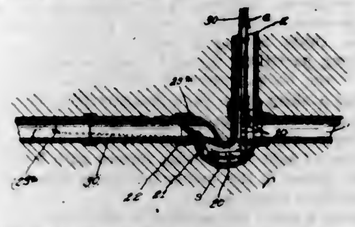
2. A driving axle comprising a unitary axle casing, driving axle sections for driving the road wheels arranged in said casing, a gear carrier secured to one side of said casing, and removable laterally therefrom, said gear carrier having two pedestals projecting into said casing in alinement with said driving axle sections, one of said pedestals being solid with said gear carrier, an equalizing gear drum journaled in said alining pedestals, a bevel driving gear secured to said drum, a bevel driving pinion arranged at right angles to said drum and meshing with the bevel gear carried thereby, said bevel driving pinion being journaled in said gear carrier, whereby said gears are rigidly maintained in relative position and alinement, and said casing being so shaped as to permit endwise movement and rotation of said drum whereby it can be removed.

3. A driving axle comprising a casing having its middle enlarged and provided with an opening to receive the driving gear, a gear carrier secured to said casing and having two pedestals for bearings projecting through said opening into the casing in longitudinal alinement, one of said pedestals being solid with said gear carrier and the other being split in an axial plane and provided with a removable cap, a drum having hubs journaled in bearings in said pedestals, and a washer between the outer end of one bearing and the split pedestal to position said bearing, and driving shafts arranged in the hollow extremities of the casing, the inner ends of said driving shafts being slidable axially through said pedestals into said drum for engagement with said equalizing gear, whereby when said driving shafts are withdrawn from said pedestals said cap and washer may be removed and said drum dismounted.

[Claims 3 and 4 not printed in the Gazette.]

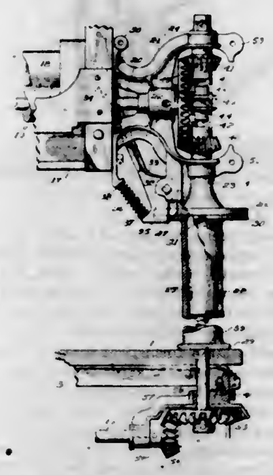
1,241,894. SEWER-OPENING APPARATUS. JACOB ALDER, Sr., St. Louis, Mo. Filed Dec. 20, 1916. Serial No. 138,070. (Cl. 137—70.)

1. A cork-screw tool, for use in cleaning out sewers and drains, and consisting of a long flexible-shaft having a cork-screw-shaped cutter at one of its ends, a long pole, and an articulated tool composed of pivoted sections which are adapted to engage and pass through traps and bends in the sewer or drain, and to engage within and carry said cork-screw-shaped cutter into and through such traps and bends, so that said cutter may reach and engage obstructions which are located beyond the traps and bends out of reach of the articulated tool alone.



2. Sewer cleaning apparatus comprising a telescopic dam, in combination with a long flexible shaft having a cutting tool at one end, said dam adapted to prevent the earth from caving upon said long flexible shaft while the tool is being used in a buried sewer or drain.

1,241,895. WASHING-MACHINE MECHANISM. ALPHEUS W. ALTORFER, Peoria, Ill., assignor to Altorfer Bros. Company, East Peoria, Ill., a Corporation of Illinois. Filed Jan. 15, 1915. Serial No. 2,364. (Cl. 74—59.)



1. In a machine of the character described, in combination, a supporting frame, a tubular standard uprising from said frame and at its upper end provided with an annular plate or flange having a plurality of radial slots, a bracket revolubly mounted at the upper end of said standard and having a sleeve journaled in the upper end of the standard and also provided with an annular plate or flange resting on the annular plate or flange of the standard, said plate or flange of the bracket provided with a radial slot adapted to be brought coincident with either of the slots in the plate or flange of the standard, means adapted to enter the slot in the plate or flange of the bracket, and either of said slots in the plate or flange of the standard for locking the bracket of the standard when swung to adjusted positions, a frame secured to said bracket, mechanism carried by said frame including an extension shaft journaled in said bracket, an operating shaft extending up through the standard and also the sleeve of the bracket, clutch controlled gearing between the operating shaft and said extension shaft, means for controlling the clutch, and means for operating said operating shaft.

2. In a machine of the character described, in combination, a supporting frame, a tubular standard uprising from said frame, a bracket revolubly mounted at the upper end of said standard and provided with spaced bearing portions in axial alinement with the standard and with a transverse bearing portion, means for locking the bracket on the standard in a plurality of adjusted positions, a frame secured to said bracket, mechanism carried by said frame including a shaft journaled in the transverse bearing portion of said bracket, an operating shaft extending up through the standard and said spaced bearing portions of the bracket in axial alinement therewith, a pair of bevel gears loosely carried on the upper end of the operating shaft and a bevel gear on the shaft forming a part of the mechanism carried by said swinging frame and meshing with the gears on the operating shaft, a clutch sleeve feathered on the operating shaft and adapted to have a clutch engagement with either of the bevel gears carried thereon, whereby a reverse movement may be transmitted from the operating shaft to the mechanism on the frame, a lever for controlling said clutch sleeve, and means for operating said operating shaft.

3. In a machine of the character described, in combination, a supporting frame, a tubular standard uprising from said frame and at its upper end provided with an annular plate or flange having a plurality of radial slots, a bracket revolubly mounted at the upper end of said standard and having a sleeve journaled in the upper end of the standard and also provided with an annular plate or flange resting on the annular plate or flange of the standard, said plate or flange of the bracket provided with a radial slot adapted to be brought coincident with either of the slots in the plate or flange of the standard, a lever fulcrumed on the bracket, and swingable therewith and having a locking end adapted to enter the slot in the plate or flange of said bracket and either of said slots in the plate or flange of the standard for locking said bracket on the standard when swung to adjusted positions, a spring yieldingly holding the locking end of the lever in operative position, a frame secured to said bracket, mechanism carried by said frame including a shaft extension journaled in said bracket, an operating shaft extending up through the standard and the sleeve of the bracket, clutch controlled gearing between the operating shaft and said shaft extension, means for controlling the clutch, and means for operating said operating shaft.

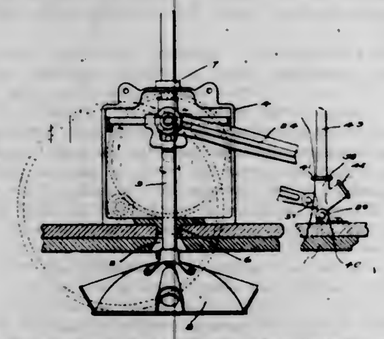
4. In a machine of the character described, in combination, a supporting frame, a tubular standard uprising from said frame, a bracket revolubly mounted at the upper end of said standard and provided with spaced bearing portions in axial alinement with the standard and with the transverse bearing portion, yielding locking means on the bracket for locking the same in a plurality of positions, a frame secured to said bracket, mechanism carried by said frame including a shaft journaled in a transverse bearing portion on said bracket, an operating shaft extending up through the standard and said spaced bearing portions of the bracket in axial alinement therewith, a pair of bevel gears loosely carried on the upper end of the operating shaft, a bevel gear on the shaft forming a part of the mechanism carried by said swinging frame and meshing with said bevel gears on the operating shaft, a clutch member feathered on the operating shaft and adapted to have a clutch engagement with either of said gears carried thereon, whereby a reverse movement may be transmitted from the operating shaft to the mechanism on the frame, a lever for controlling said clutch, a closure for said reverse gearing, and means for operating said operating shaft.

5. In a machine of the character described, in combination, a supporting frame, a tubular standard uprising from said frame, a bracket revolubly mounted at the upper end of said standard and having a depending sleeve journaled in said standard, means for locking the bracket on the standard when swung to adjusted positions, a frame secured to said bracket, mechanism carried by said frame including an extension shaft journaled in said bracket, an operating shaft extending up through the depending sleeve in said bracket, a pair of spaced bevel gears loosely

carried on the upper end of said operating shaft, a bevel gear on the outer end of the extension shaft meshing with said gears on the operating shaft, a clutch member slidably secured to the operating shaft and adapted to be moved into clutch engagement with either of said bevel gears on said operating shaft, a yoke engaging the clutch member, a bar connected with said yoke, a lever pivotally connected with said bracket and connected with said bar, means for locking the lever in adjusted positions, and means for transmitting motion from a suitable source of power to said operating shaft.

[Claims 6 and 7 not printed in the Gazette.]

1,241,896. ACTUATING MECHANISM FOR WASHING-MACHINES. ALPHEUS W. ALTORFER, Peoria, Ill., assignor to Altorfer Bros. Company, East Peoria, Ill., a Corporation of Illinois. Filed Feb. 14, 1916. Serial No. 78,140. (Cl. 74—14.)

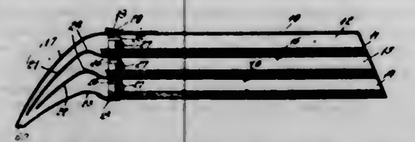


1. In a machine of the character described, in combination, a washing element, a shaft to operate said element, a casting carried on said shaft, a rotatable member, a head slidable on said casting, means connected to said rotatable member and said head to rotate said member and simultaneously reciprocate said head on said casting, the rotation of said member raising and lowering said casting and said shaft, and connections between said shaft and said head adapted to oscillate said shaft during the reciprocation of said head.

7. In a machine of the character described, in combination, a washing element, a shaft to rotate said element, a casting carried on said shaft, a head slidable on said casting, said head having a bearing, a gear wheel having a shaft journaled in the bearing on said head, a balance wheel geared to said gear wheel, a bar having a sleeve journaled on the bearing of said head, a lever for operating said bar, a rod having a pivoted connection with said head and a slidable connection with said shaft.

[Claims 2 to 6 not printed in the Gazette.]

1,241,897. PAPER-HOLDER. JOHN H. ANANSON, Stirling, N. J. Filed Apr. 4, 1917. Serial No. 159,819. (Cl. 271—36.)



1. A paper holder comprising a rectangular body having an open end, partitions dividing the interior of the body with the walls thereof into compartments adapted to contain sheets of paper, and a tapering chute having a single discharge opening, hinged at the open end of the body and having converging partitions forming continuations of the walls and partitions of the body, said chute being adapted to be opened to introduce paper into the compartments, rolls in the compartments, and means for concurrently actuating the rolls for delivering the paper to the chute sheet by sheet, whereby the sheets are discharged from the single opening of the chute in registering superposed relation.

4. A paper holder comprising a rectangular horizontal body, partitions dividing the interior of the body into compartments adapted to contain sheets of paper, and a tapering chute having a single discharge opening and converging partitions forming continuations of the partitions of the body, rollers in the compartments for discharging a sheet from each compartment, said chute being hinge-connected to the body and openable to introduce paper into the compartments, the bottom wall and partitions of said chute being formed with humps to hold back the paper in the compartments to insure delivery of a single sheet from each.

[Claims 2 and 3 not printed in the Gazette.]

1,241,898. GROUND-CLAMP. HERBERT B. ANDREWS, WILLIAM H. HART, and HOWARD B. SHERMAN, Battle Creek, Mich., assignors to H. B. Sherman Manufacturing Company, Battle Creek, Mich., a Corporation of Michigan. Filed May 31, 1916. Serial No. 100,897. (Cl. 173—273.)



1. A ground clamp formed of a strip of suitable metal, and provided at one end with a loop, and a shell in said loop closed at one end.

2. A ground clamp formed of a strip of suitable metal, having a stamped countersunk portion with an opening for the engagement of the head of a bolt, the said countersunk portion being inclined to give the head of the bolt a full bearing against the ear; and the edge of said opening being flanged to reinforce same.

3. A ground clamp formed of a strip of suitable metal, having a stamped countersunk portion with an opening in said portion for the engagement of the head of a bolt, the said countersunk portion being inclined to give the head of the bolt a full bearing against the ear.

4. A ground clamp formed of a strip of suitable metal, provided at one end with a loop for the engagement of a wire, a counter-sink adjacent said loop, and a bolt opening in the counter-sink, the edge of said opening being flanged.

5. A ground clamp formed of a strip of suitable metal, provided at one end with a socket for the engagement of a wire closed at one end, and a counter-sink adjacent said socket having an opening for the passage of a bolt.

[Claim 6 not printed in the Gazette.]

1,241,899. WELDING-ELECTRODE AND PROCESS OF WELDING. PERCY A. E. ARMSTRONG, New York, N. Y., assignor to Walter L. Clark and Arthur H. Adams, a Copartnership under the name of The Quasi-Arc Company, New York, N. Y. Filed Mar. 10, 1915. Serial No. 13,469. (Cl. 219—12.)

1. An electrode, comprising a metal core having an inner coating adapted to form a slag which will protect the deposited molten metal from gaseous attack, and an outer slag adapted to form a crucible that shall protect both said molten metal and slag, said outer coating being fusible but at a higher temperature than said inner coating.

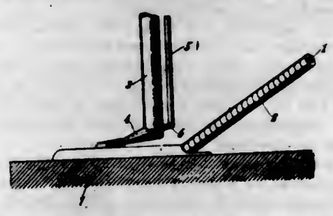
3. An electrode comprising a metal core having inner and outer coatings of insulating material that is adapted to act as a slag, said coatings having different melting points.

16. An electrode comprising a metal rod or core, and a coating of insulating material adapted to act as a slag when fused, said coating comprising alloys adapted to be combined in depositing with the metal of the core, such as a ferro-manganese, and an outer coating of insulating material adapted to act as a slag when fused, said outer coating having a higher melting point than such inner coating.

19. The process of depositing metal by means of an electric current comprising coating a metallic electrode with inner and outer coatings of insulating material adapted to act as a slag when fused, said outer coating being of a higher melting point than said inner coating, and combining with said inner coating alloying materials desired to be combined with the metal of said rod, melting said rod by means of the electric current, and so maintaining said rod near said work that said outer coating shall form a crucible protecting the molten metal.

[Claims 2, 4 to 15, 17, and 18 not printed in the Gazette.]

1,241,900. PROCESS FOR ELECTRIC WELDING. PERCY A. E. ARMSTRONG, New York, N. Y., assignor to Walter L. Clark and Arthur H. Adams, a Copartnership under the name of The Quasi-Arc Company, New York, N. Y. Filed Mar. 23, 1915. Serial No. 16,435. (Cl. 219—10.)



1. The process of depositing metal by means of an electric current, which comprises connecting the work and a metal electrode with opposite poles of a source of electricity, said electrode being coated with insulating material that is adapted to act as a slag when fused, causing the current to flow between the end of the electrode and the work, forming molten metal, and maintaining the electrode in actual touch with the molten metal, but out of actual contact with the work, and cooling the deposited metal as it is deposited, by the application of a cooling fluid thereto.

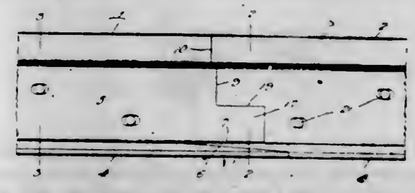
7. The process of depositing manganese steel upon work consisting of manganese steel, by means of an electric current, which comprises connecting the work and an electrode with opposite poles of a source of electricity, said electrode being coated with insulating material that is adapted to act as a slag when fused, said electrode comprising steel and manganese, melting the electrode and thus depositing manganese steel upon the work and applying cooling water to the deposited metal.

12. The process of depositing a metal of high fusing point which consists in melting the same upon the work, and applying a cooling agent to the deposited metal.

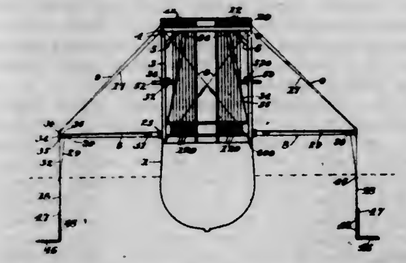
[Claims 2 to 6 and 8 to 11 not printed in the Gazette.]

1,241,901. RAIL-JOINT. LEMUAL ARLANDA AUTRY and BARNEY REAGAN, Franklin, Tex. Filed July 10, 1917. Serial No. 179,733. (Cl. 239—8.)

In a device of the class described, two rails each having projecting base portions, the base of one of the rails inward of the end thereof being formed with a V-shaped opening arranged below the base of the said rail, the other rail having its base provided with shoulders and being cut angularly from the said shoulders to the end thereof forming the same with a V-shaped element designed to be received in the referred to V-shaped opening of the first mentioned rail, said first mentioned rail having its web, at the upper portion thereof, notched longitudinally, the second mentioned rail having its web, at the lower portion thereof notched longitudinally, and the projecting portions of the webs of the respective rails designed to be received in the notches thereof, said first mentioned rail having its head adjacent the end thereof provided with transverse shoulders and with a V-shaped extension projecting from said shoulders, the second mentioned rail having its head, inward of the end thereof formed with a V-shaped depression designed to receive the V-shaped portion upon the end of the first mentioned rail, and means comprising angle bars and securing elements therefor for connecting the rail ends.



1,241,902. SHIP-PROTECTING DEVICE. GEORGE G. BABICH, New York, N. Y. Filed May 3, 1917. Serial No. 166,158. (Cl. 114—240.)



1. The combination with a ship, of a plurality of booms each hinged at one end to the ship, torpedo intercepting means attached to the free ends of the booms, means for raising and lowering said booms, means for raising and lowering the torpedo intercepting means on the free ends of the booms, and means for positively supporting said torpedo intercepting means at different distances from the free ends of the booms for the purpose specified.

3. The combination with a ship, of a plurality of booms each hinged at one end to the ship, a superstructure on the ship, sheaves on the superstructure, hoisting cables attached to the free ends of the booms and passed over said sheaves, a yoke to which the hoisting cables of all the booms on one side of the ship are connected, another yoke to which the hoisting cables of all the booms on the other side of the ship are connected, two winches, flexible connections between each yoke and corresponding winch, whereby all the booms on either side of the ship may be raised or lowered simultaneously and independently of those on the other side of the ship, and torpedo intercepting means attached to the free ends of the booms.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,241,903. OPHTHALMIC MOUNTING. NELSON M. BAKER, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a Voluntary Association of Massachusetts. Filed Apr. 3, 1914. Serial No. 829,248. (Cl. 88—50.)

1. In an ophthalmic mounting, the combination with a bridge member of bearing members rigidly secured and depending from the bridge member for supporting the weight of the mounting, guard arms pivotally supported on the bridge and having upwardly extending portions terminating in upper nose gripping pads for retaining the

mounting against forward tilting movement on the face, and supplemental resiliently actuated lower bearing pads disposed immediately adjacent, the bearing portion of the lower nose engaging members for movement inwardly relative thereto to grippingly engage the lower portion of the nose and prevent forward slipping of the weight supporting members.



2. In an ophthalmic mounting, the combination with a bridge member, of nose engaging members rigidly secured to the bridge member and depending therefrom, said members having an outer bearing portion surrounding a central aperture, upper gripping pads, mounted on the bridge for securing the mounting against tilting on the face, and supplemental lower resiliently actuated gripping members operating through the apertures in the lower nose engaging members for clampingly engaging the nose to retain the lower members in proper position thereon.

3. In an ophthalmic mounting, the combination with a bridge of perforated lower rests depending from the bridge, levers pivoted on the bridge and bearing upon clamping members for retaining the mounting against forward tilting on the face, and supplemental lower gripping members carried by the levers and having portions operating through the apertures in the lower rests to supplement the action of the rests in supporting the mounting and preventing outward swinging of the lower portions thereof, substantially as illustrated.

4. An ophthalmic mounting including a bridge for spanning the nose of the wearer, rigidly secured adjustable positioning members depending from the bridge for insuring correct positioning of the bridge on the face, and resiliently actuated means for clamping the mounting in position on the face as determined by the bridge and positioning members, said clamping means including upper pads for engaging the upper portion of the nose and preventing forward tilting movement of the mounting and lower pads for engaging the nose and preventing forward sliding or twisting movement of the positioning members.

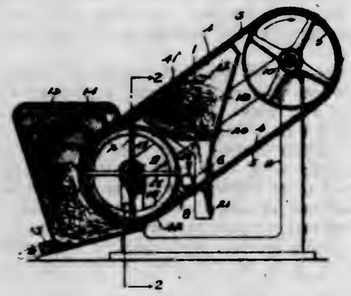
1,241,904. DIRECTION-INDICATOR FOR AUTOMOBILES. OTTO C. BAUMGART, Atascadero, Cal., assignor of one-half to Ora M. Elliott, Los Angeles, Cal. Filed Aug. 16, 1915. Serial No. 45,734. (Cl. 40—132.)



1. A direction indicator for vehicles, comprising an opaque screen provided with translucent direction-indicating indicia normally invisible in front of said screen, a lamp globe arranged rearward of said screen and formed of a color contrasting with that of the screen, a reflective surface of a color substantially corresponding to that of said lamp globe for intensifying the color rays issuing from said globe and directing the same through the said translucent indicia of said screen, and illuminating means mounted within said globe, whereby said indicia are rendered plainly visible in front of said screen.

[Claims 2 and 3 not printed in the Gazette.]

1,241,905. PROCESS OF AND APPARATUS FOR THE CONTINUOUS SEPARATION OF LIQUIDS FROM SOLIDS. HANS C. BEHR, New York, N. Y. Filed Aug. 13, 1914. Serial No. 856,841. Renewed Mar. 26, 1917. Serial No. 157,591. (Cl. 100—37.)



1. The process of separating liquids from solids which consists in subjecting the mass to be treated to pressure in thin layers between traveling foraminous surfaces, while subjecting said layers to the action of compressed air and permitting centrifugal force to aid in the separation, substantially as described.

2. In an apparatus for separating liquids from solids the combination of a pulley provided with air chambers and a perforated rim; a foraminous belt provided with strips projecting beyond its surface adapted to pass over said rim and to hold the mass being treated; and means to force compressed air through said rim and belt, substantially as described.

3. In an apparatus for separating liquids from solids the combination of a pulley having a perforated rim, air chambers connected to said rim, and a hollow journal; means to supply compressed air to said journal, air chambers and rim; a foraminous band adapted to pass over said rim; and means to feed the mass to be treated between said rim and band, substantially as described.

4. In an apparatus for separating liquids from solids the combination of a pulley provided with a perforated rim, fan blades adapted to force air through said rim, and annular flanges on said rim; and a foraminous belt provided with strips adapted to pass over said rim to hold the mass being treated, substantially as described.

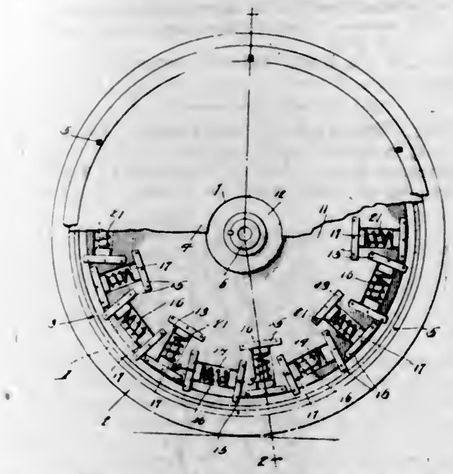
5. In an apparatus for separating liquids from solids the combination of a pulley provided with a perforated rim, fan-blades adapted to force air through said rim and annular flanges on said rim; and a foraminous belt provided with strips projecting beyond its surface adapted to pass over said rim to hold the mass being treated, substantially as described.

1,241,906. SPRING-WHEEL. FRED LEE BENEDICT, Jersey City, N. J., assignor of one-half to Anthony Meyer, Maywood, N. J. Filed Jan. 22, 1917. Serial No. 143,709. (Cl. 152—28.)

1. A resilient wheel comprising a rim, a pair of side plates extending inwardly therefrom, a hub, a disk secured to said hub and extending between said side plates, said disk having alternate radially and circumferentially extending slots, radially and circumferentially extending coiled springs located respectively in said radially and circumferentially extending slots, and abutments secured to the inner faces of the side plates and receiving the ends of said springs slidably.

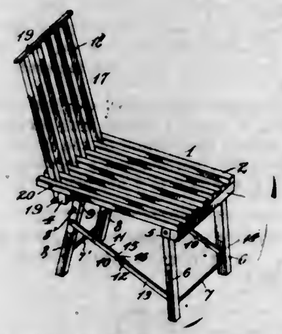
2. A spring wheel comprising a rim, a pair of side plates secured to and extending inwardly from said rim, a hub, a disk secured to said hub and extending between said side plates with its periphery spaced from the rim, said disk having alternate radially extending and circumferentially extending slots, coiled springs disposed

lengthwise in said slots, shoes on the ends of said coiled springs having ball bearings at their outer sides, and



abutments secured to the inner faces of said side plates and having grooves receiving said ball bearings therein.

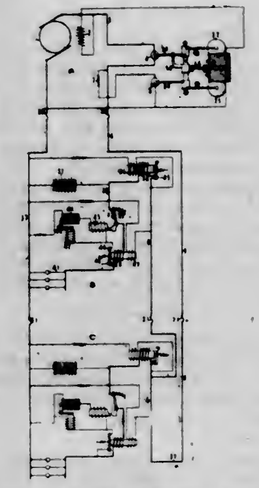
1,241,907. FOLDING CHAIR. WILLIAM A. BERNHARD, Woodhaven, N. Y. Filed Oct. 13, 1916. Serial No. 125,456. (Cl. 155—8.)



In a folding chair, the combination with a seat made up of spaced parallel slats and transverse front and rear bars upon which the slats are secured, brackets on both bars projecting inwardly beneath the slats, and folding legs carried by said brackets; of a back made of parallel spaced slats of a length equal to those of the seat-slats and alternated therewith, a pivot bolt through all slats at a point in rear of the rearmost transverse bar and equi-distant from the rear ends of the seat-slats and the lower ends of the back-slats, and transverse strips secured across the extremities of the back-slats, all as and for the purpose described.

1,241,908. RAILWAY LIGHTING APPARATUS. JOSEPH BIJUR, New York, N. Y., assignor to The Safety Car Heating and Lighting Co., New York, N. Y., a Corporation of New Jersey. Filed Dec. 1, 1910. Serial No. 595,070. (Cl. 171—313.)

1. In an axle-driven railway lighting system, in combination, a generator having a shunt field, a carbon pile regulating resistance in series with said field, a load circuit including a storage battery and lamps, two coils governing said resistance, said coils having separate cores, and connecting means between said cores and said resistance comprising coacting levers connected to the respective cores and pivoted coaxially, said means permitting regulating movement of one core independently of movement of the other core while insuring movement of the first core conjointly with regulating movement of the other core.



2. In axle-driven railway lighting systems, in combination, a generator having a shunt field, a carbon pile regulating resistance in series with said field, a load circuit including a storage battery and lamps, a current coil connected in series with the generator and at least a portion of the load circuit, a voltage coil connected across the mains, said coils having separate cores, and connecting means between said cores and said resistance comprising coacting levers connected to the respective cores and pivoted coaxially, said means permitting regulating movement of one core independently of movement of the other core while insuring movement of the first core conjointly with regulating movement of the other core.

3. In axle-driven railway lighting systems, in combination, a generator having a shunt field, a carbon pile regulating resistance in series with said field, a load circuit including a storage battery and lamps, a current coil connected in series with the generator and at least a portion of the load circuit, a voltage coil connected across the mains, said coils having separate cores, and connecting means between said cores and said resistance comprising coacting levers connected to the respective cores and pivoted coaxially, said means permitting regulating movement of said voltage core independently of movement of said current core while insuring movement of said voltage core conjointly with regulating movement of said current core.

1,241,909. CASE-HARDENING MATERIAL AND PROCESS OF MAKING SAME. ALFRED O. BLAICH, Chicago, Ill., assignor to Alfred O. Blaich Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 29, 1917. Serial No. 145,141. (Cl. 148—25.)

1. The process of making case-hardening material which comprises the following steps: first, impregnating carbon granules with an energizer by saturating the granules with a liquid solution of such energizer, and drying them at a temperature lower than will affect the energizer otherwise than by driving off the moisture; second, applying a surfacing of oil to the impregnated granules; finally, mechanically mixing the oil-surfaced granules with a pulverulent energizer.

2. The process of making case-hardening material which comprises the following steps; first, impregnating carbon granules with an energizer by saturating the granules with a liquid solution of such energizer; next, removing the granules from the liquid solution and driving off the

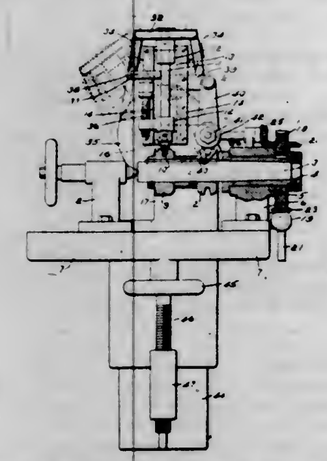
moisture by a temperature lower than will affect the energizing material otherwise than by separating the moisture; next, spraying the impregnated and dried granules with oil for surfacing them therewith; finally, mechanically mixing the oil surfaced granules with a powdered energizer.

3. The process of making case-hardening material which comprises the following steps; first, impregnating carbon granules with soda ash by saturating the granules with a hot liquid solution of soda ash and drying them at a temperature which will not affect the soda ash otherwise than by separating the mosture; next, surfacing the soda-ash-impregnated and dried granules with oil, and finally, mechanically mixing the oil surfaced granules with pulverized calcium or barium carbonate.

4. A case hardening material consisting of carbonaceous granules, each of which is impregnated with an energizer and superficially coated with a pulverulent energizer.

5. A case hardening material consisting of carbonaceous granules, each of which is impregnated with an energizer and superficially coated with oil and a different energizer.

1,241,910. MACHINE FOR CUTTING IRREGULAR THREADS. CHARLES C. BLAKE, Brookline, Mass., assignor to C. C. Blake, Incorporated, Boston, Mass., a Corporation of New York. Filed Aug. 27, 1913. Serial No. 786,908. (Cl. 90—13.4)



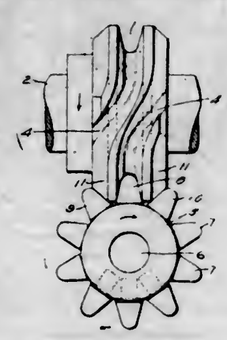
4. A machine tool, having, in combination, a shaft, a blank carried thereby, a tool mounted to tip about an axis transverse to and intersecting the longitudinal axis of the tool, means for rotating the shaft to transfer the point of operation of the tool around the blank, and means for guiding the tool during its transfer around the blank to cut in the blank a thread arranged for a substantial portion of its length in a plane normal to the axis of the shaft and terminating at its ends in oppositely disposed bends, substantially as described.

9. A machine tool, having, in combination, a blank support, a tool, means for rotating the blank to transfer the point of operation of the tool three times around the blank, and means for causing the tool to operate in an inclined position to the periphery of the blank during the first revolution of the blank to form one external bevel on the thread and one angular bend in the groove, in a plane normal to the periphery of the blank during the second revolution of the blank to form the main portion of the groove, and in a reversed inclined position to the periphery of the blank during the third revolution of the blank to form the other external bevel on the thread and the other angular bend in the groove, substantially as described.

20. The combination, with a rotary work support, and means for actuating the same, of a tool holder comprising a supporting member mounted on a fixed axis, a tool carried by said supporting member and arranged at an inclination to said axis, and an operative connection between said supporting member and the actuating mechanism for said work support to impart movement to said tool relatively to said work.

[Claims 1 to 3, 5 to 8, and 10 to 19 not printed in the Gazette.]

1,241,911. MECHANICAL MOVEMENT. CHARLES C. BLAKE, Brookline, Mass., assignor to C. C. Blake, Incorporated, Boston, Mass., a Corporation of New York. Filed Aug. 27, 1913. Serial No. 786,909. (Cl. 74—36.)



2. In a mechanical movement, a driving shaft, a driven shaft, a wheel mounted on the driven shaft provided with frusto-conical pins, and a driver mounted on the driving shaft provided with a groove encircling the peripheral edge thereof arranged, for a substantial portion of its length in a plane normal to the axis of the driving shaft and terminating in oppositely disposed bends, to engage a pin throughout a revolution of the driving shaft, substantially as described.

5. In a mechanical movement, a driver provided with a groove having a rounded bottom and straight side walls converging toward the bottom of the groove, said groove having an actuating portion and a locking portion.

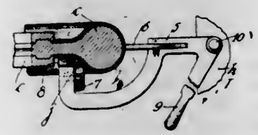
[Claims 1, 3, 4, and 6 to 9 not printed in the Gazette.]

1,241,912. SYRUP-PITCHER. ANDREW J. BOYLES, Jackson, Miss. Filed Oct. 25, 1916. Serial No. 127,671. (Cl. 65—31.)



A syrup pitcher including a body having a constricted neck portion provided with threads, a cap formed of suitable metal having a circular body portion provided adjacent one end with interior screwthreads removably fitted upon the threads of the constricted portion of the body, the upper edge of said body inclining upwardly from the medial portion toward the opposite sides thereof at diametrically opposite points to provide a pair of diametrically opposed pouring spouts, a pair of spring actuated closures hingedly secured to the medial portion of the cap having their forward ends constricted for closing the spouts, means extending from the inner edges of each of the closure caps facilitating the raising of the same to permit the contents of the body to be poured from either of the spouts, and said spring of the closures holding the same normally in closed position.

1,241,913. BEAD-POSITIONING DEVICE. JAMES FRANCIS BRADLEY, West Springfield, Mass., assignor to The Fisk Rubber Company, Chicopee Falls, Mass., a Corporation of Massachusetts. Filed July 14, 1917. Serial No. 180,613. (Cl. 154—10.)



1. In a tire building machine, a revoluble ring core upon which the tire carcass may be built, a support adjacent the core, means mounted on said support to position and set the bead of the tire upon the carcass on said core, and a guiding device on said means to ride on the tread portion of the carcass and control the proper positioning of the bead with respect to the tread, so that the latter is placed in true concentrical relation with the tread portion of the tire.

2. A tool for use in tire making, comprising, an arm, means thereon adapted to engage a tire bead, a guiding device adapted to ride on the tread portion of a partially formed tire shoe, and a lever to move said device and means, whereby the latter may be forced against the partially formed tire shoe to apply the bead thereto and said device may be held against the tread portion of the shoe to gage the positioning of the bead in proper relation therewith.

4. In a tire building machine, a revoluble ring core removably mounted therein, a turret adjacent the core, an arm movably mounted on the turret, a guide roll on the arm adapted to engage the tread portion of a partially formed tire shoe on the core, means to move the roll toward said core, bead setting rolls on the arm, and a lever portion on the latter to force said rolls toward the core, all constructed and arranged so that the bead is set in place on the partially formed tire shoe in true concentrical relation with the tread portion thereof.

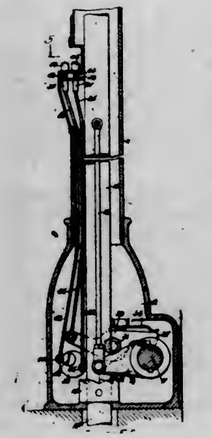
6. In a tire building machine, a revoluble ring core upon which a tire carcass may be built, a turret adjacent the core, an arm movably mounted on the turret, a guiding means on the arm to ride on the tread portion of the carcass, bead setting devices on the arm arranged to be held a constant distance from the tread portion by said means and a lever on the arm arranged for convenient actuation by the leg of the operator, all constructed and arranged so that the latter may move the lever to apply a bead ring to the carcass with both hands left free to support the bead.

[Claims 3 and 5 not printed in the Gazette.]

1,241,914. LOCKING DEVICE. GEORGE FRANCIS BRASSLER, New York, N. Y., assignor of one-half to Paul Walter, Whitestone, N. Y. Filed Jan. 30, 1917. Serial No. 145,405. (Cl. 70—54.)

1. A locking device, comprising a manually controlled locking device connected with the part to be held against turning, a second manually controlled locking device for locking and unlocking the said first-named locking device, and a manually controlled blocking device for blocking and releasing the said second locking device.

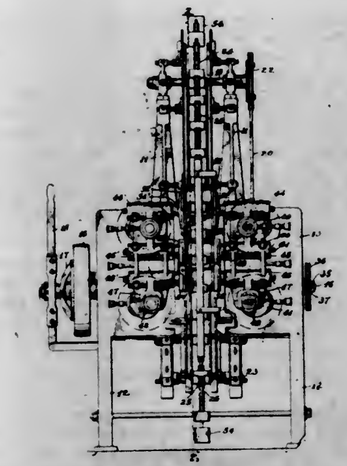
3. A locking device, comprising an manually controlled locking device connected with the part to be held against turning, a second manually controlled locking device for locking and unlocking the said first-named locking device, and a manually controlled blocking device for blocking and releasing the said second locking device, the said second locking device and the said blocking device having fingerpieces and a keyboard on which the said fingerpieces are mounted.



5. A locking device, comprising a ratchet wheel secured to the part to be locked, a locking shaft carrying a dog engaging the said ratchet wheel, a hand-operated mechanism for turning the said locking shaft to swing the dog in or out of engagement with the said ratchet wheel, and a manually controlled locking device adapted to be connected with the said locking shaft to lock the latter against turning by the said hand-operated means.

[Claims 2, 4, 6, and 7 not printed in the Gazette.]

1,241,915. FLANGING-MACHINE. JULIUS BRENZINGER, Mount Vernon, N. Y., assignor to The Max Ams Machine Company, Bridgeport, Conn., a Corporation of New York. Filed Oct. 9, 1915. Serial No. 54,942. (Cl. 153—21.)



1. In a flanging machine, the combination, with means for advancing can bodies in continuous procession through the machine, of counteracting flanging dies intermittently operable to simultaneously perform the several steps of a complete flanging operation upon both ends of a plurality of can bodies in transit without interruption of advancing movement.

2. In a flanging machine, the combination, with means for rectilineally advancing can bodies in continuous procession through the machine, of counteracting flanging dies intermittently operable to simultaneously perform the several steps of a complete flanging operation upon both ends of a plurality of can bodies in transit without interruption of advancing movement.

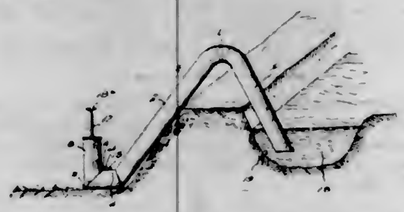
3. In a flanging machine, the combination, with means for advancing can bodies in continuous procession through the machine, of flange-forming dies and flange-finishing dies intermittently operable to form a flange at each end of an advancing can body and simultaneously finish the formed flanges on the preceding can body without interruption of advancing movement.

4. In a flanging machine, the combination, with means for advancing can bodies in continuous procession through the machine, of flange-forming dies and flange-finishing dies intermittently operable to form flanges at each end of a plurality of advancing can bodies and simultaneously finish the formed flanges on a plurality of preceding can bodies without interruption of advancing movement.

5. In a flanging machine, the combination, with means for advancing can bodies in continuous procession through the machine, of flange-forming dies and flange-finishing dies intermittently operable to form a flange at each end of an advancing can body and simultaneously finish the formed flanges on the preceding can body without interruption of advancing movement, said forming and finishing dies having common supporting and actuating means.

[Claims 6 to 21 not printed in the Gazette.]

1,241,916. SIPHON. JOHN F. BROWN, Casa Grande, Ariz. Filed July 30, 1915. Serial No. 42,768. (Cl. 137—20.)



In combination, a siphon including influent and effluent legs, said effluent leg having an angular lower end for supporting it in operative position, an angular retaining flange formed on the lower portion of the edge of the angular end, a vertically disposed pump, said pump having an angular end and an outwardly curved portion on the lower edge of the angular end adapted to engage the angular retaining flange on the effluent leg, whereby said pump can be swung downwardly, and means carried by the angular end of the effluent leg opposite the retaining flange for engagement with the upper edge of the angular end of the pump to lock the pump in position.

1,241,917. TATTING DEVICE. C LUTHER BROWN, Chandler, Okla. Filed Jan. 2, 1917. Serial No. 140,251. (Cl. 66—10.)



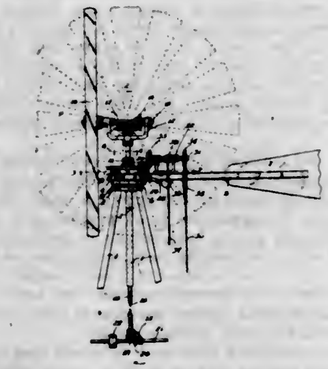
1. A device as specified comprising a handle forked at one end, a shuttle loosely mounted in said forked end, and means for carrying a supply of thread in said shuttle.

2. A device as specified comprising a handle having a pair of spaced apart prongs on its outer end, a shuttle loosely mounted between said prongs, a thread support mounted in the shuttle for carrying a quantity of thread, and means for tensioning the drawing out of said thread.

3. A device as specified comprising a handle provided at one end with spaced apart prongs, a shuttle mounted on said prongs and having loose connection therewith to permit the passage of a strand of thread around the shuttle between the prongs, a bobbin mounted for rotation in said shuttle and adapted to carry a supply of thread, and a spring pressed pawl mounted on the shuttle for engagement with said bobbin to retard the rotation thereof, and having one end projecting upwardly for engagement with the finger to release said pawl at times for permitting the free drawing out of the thread.

4. A device as specified comprising a handle having a longitudinal slot in one end, a shuttle mounted in said end and having inner and outer tapering ends, means for carrying a supply of thread for the shuttle, and a tension device on the shuttle to retard the feeding of said thread, said handle being adapted to be grasped and moved back and forth about one strand of a loop to twist the thread from the shuttle thereabout and direct said strand around the shuttle in said slotted end of the handle.

1,241,918. WINDMILL. ANTONI BRZYKCY, Minneapolis, Minn. Filed Nov. 9, 1916. Serial No. 130,322. (Cl. 170—41.)



1. In a windmill, a turntable, a vane having on the inner end of its shank a head rotatively mounted on the turntable, a gear mounted on the head for oscillatory movement, a bearing bracket secured to the gear for oscillatory movement in a horizontal plane above the head, a wind-wheel journaled on the bearing bracket, a power shaft extending axially through the turntable, head and gear, driving connections between the wind-wheel and power shaft, means for locking the gear directly to the head in either of its extreme oscillated positions, and means, including a pinion meshing with the gear, for oscillating said gear from one extreme position to the other.

2. In a windmill, a turntable, a vane having on the inner end of its shank a head rotatively mounted on the turntable, a gear mounted on the head for oscillatory movement, a bearing bracket secured to the gear, a wind-wheel journaled on the bearing bracket, a power shaft extending axially through the turntable, head and gear, driving connections between the wind-wheel and power shaft, a weighted lever having a lock pin mounted in the head and arranged to alternately enter a pair of circumferentially spaced apertures in the gear to lock said gear to the head in either of its extreme oscillated positions, means for actuating said lever to release its lock pin, and means, including a pinion meshing with the gear, for oscillating said gear from one extreme position to the other.

[Claims 3 and 4 not printed in the Gazette.]

1,241,919. PROCESS OF PRODUCING UREA. JOHN E. BUCHER, Coventry, R. I., assignor to Nitrogen Products Company, Providence, R. I., a Corporation of Rhode Island. Filed July 3, 1914. Serial No. 848,799. (Cl. 23—24.)

1. The process of forming urea which comprises reacting upon an alkali metal cyanate with an ammonium salt of carbonic acid in the presence of water, to form ammonium cyanate and a bicarbonate of said alkali metal, converting said ammonium cyanate into urea, concentrating the latter by adding solid alkali cyanate, and separating the urea from the residues of the reaction by varying the temperature, whereby to utilize the differing rates of change of solubility of the urea and said residues.

2. The process of forming urea which comprises reacting upon a compound containing carbon united to nitrogen by a plurality of bonds as one of the constituents thereof, with an ammonium acid salt of carbonic acid, to form a substance capable of being converted into urea.

3. The process of forming urea which comprises reacting with material which includes an ammonium hydrogen carbonic salt, upon a compound containing carbon united to nitrogen by a plurality of bonds to combine the carbon and nitrogen with the ammonia and to form a carbonic salt.

7. The process of forming urea which comprises reacting upon a metallic cyanate with an ammonium salt of carbolic acid in the presence of water, to form ammonium cyanate and an acid salt of carbonic acid, converting said ammonium cyanate into urea and separating the latter from the residues of the reaction, in part at least, by converting said acid salt to normal carbonate by introducing free alkali, then causing the urea to crystallize out, and introducing carbon dioxid to remove a considerable part of the remaining alkali as bicarbonate.

[Claims 4 to 6 not printed in the Gazette.]

1,241,920. PROCESS OF PRODUCING UREA. JOHN E. BUCHER, Coventry, R. I., assignor to Nitrogen Products Company, Providence, R. I., a Corporation of Rhode Island. Original application filed July 3, 1914, Serial No. 848,799. Divided and this application filed Oct. 21, 1915. Serial No. 57,095. (Cl. 23—24.)

1. The process of forming urea which comprises reacting upon a metallic cyanate, in the presence of water, with an ammonium salt of an acid which forms such a sparingly soluble acid salt with the metal of the cyanate as to give a precipitate of said acid salt when the latter is formed together with ammonium cyanate, generating said ammonium salt in the solution while effecting the reaction thereof upon said metallic cyanate, by treatment of the solution with ammonia and a gaseous reagent which combines with water to form the acid from which said ammonium salt is derived, converting said ammonium cyanate into urea, and separating said precipitate from the urea.

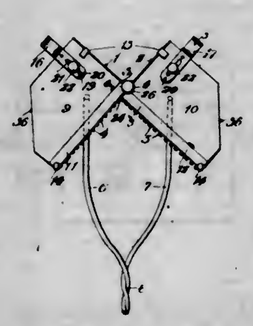
2. The process of forming urea which comprises reacting upon a metallic cyanate, in the presence of water, with an ammonium salt of an acid which forms such a sparingly soluble acid salt with the metal of the cyanate as to give a precipitate of said acid salt when the latter is formed together with ammonium cyanate, generating said ammonium salt in the solution while effecting the reaction thereof upon said metallic cyanate, converting said ammonium cyanate into urea, and separating said precipitate from the urea.

3. The process of forming urea which comprises reacting upon a metallic cyanate, in the presence of water with an ammonium salt of an acid which forms such a sparingly soluble acid salt with the metal of the cyanate as to give a precipitate of said acid salt when the latter is formed together with ammonium cyanate, generating said ammonium salt in the solution while effecting the reaction thereof upon said metallic cyanate, by treatment of the solution with ammonia and an anhydrous reagent which combines with water to form the acid from which the ammonium salt is derived, converting said ammonium cyanate into urea, and separating said precipitate from the urea.

4. The process of forming urea which comprises reacting upon a metallic cyanate, in the presence of water with an ammonium salt of an acid which forms such a sparingly soluble acid salt with the metal of the cyanate as to give a precipitate of said acid salt when the latter is formed together with ammonium cyanate, generating said ammonium salt in the solution while effecting the reaction thereof upon said metallic cyanate, by treatment of the solution with ammonia and an anhydrous reagent which combines with water to form the acid from which the ammonium salt is derived, converting said ammonium cyanate into urea, a portion at least of the required ammonia for said solution being generated by the decomposition of the said cyanogen compound in said water.

5. The process of forming urea which comprises reacting upon an alkali cyanate with an ammonium salt of carbonic acid in the presence of water, to form ammonium cyanate and an acid alkali salt of carbonic acid, converting said ammonium cyanate into urea, and separating the latter from the residues of the reaction by distilling off the water while passing carbon dioxid through the liquid to prevent the change of alkali bicarbonate to neutral carbonate.

1,241,921. SAFETY-RAZOR. AVARY B. CARROLL, Norfolk, Va. Filed Aug. 23, 1916. Serial No. 116,523. (Cl. 30—12.)

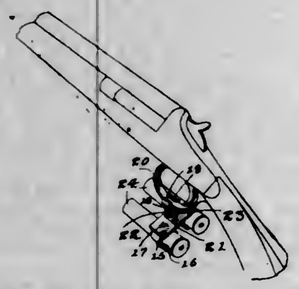


1. In a safety razor, the combination of a supporting frame including a pair of wings having their longitudinal axes relatively at right angles, a plurality of blades disposed on said wings, said blades having enlargements provided with elongated openings, and means passing through said wings and said enlargements to clampingly engage the blades and retain the same upon said wings.

2. In a safety razor, the combination of a supporting frame, handles extending therefrom, said frame being formed with wing portions, said wings having their longitudinal axes relatively at right angles, a plurality of blades to be disposed on said wings, a bolt extending through said frame to engage the adjacent corners of said blades, said corners being in offset relation to permit the path of travel of one blade to overlap that of the other, and a deflecting flange formed on said wings at the upper marginal edge thereof.

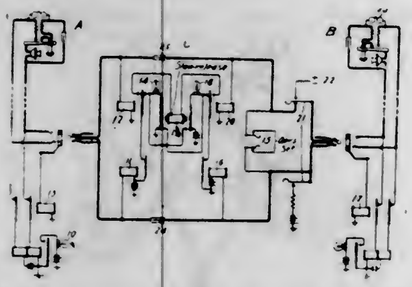
3. In a safety razor, the combination of supporting frames including a pair of wings having their longitudinal axis relatively at right angles, a strip connecting said wings adjacent their outer edges, a plurality of blades disposed on said wings, a holder for said blades, a pair of spaced tongues extending therefrom adapted to embrace the blades, means for securing the blades to said tongues, and a bolt member passing through said wings in said holder to clampingly engage the blades and retain the same upon said wings.

1,241,922. CARTRIDGE-CARRIER. JESSE C. CHAPPELL, Samantha, Ala. Filed Nov. 18, 1916. Serial No. 132,215. (Cl. 42—88.)



In a device of the class described, a resilient plate, resilient U-shaped clamps secured on one face thereof, independent clamp members secured on the other face thereof, said independent clamp members having apertured shanks and terminal hooks, and a clamp bolt extending through the apertured shanks and having a nut.

1,241,923. TELEPHONE-EXCHANGE SYSTEM. HENRY P. CLAUSEN, Mount Vernon, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Feb. 19, 1916. Serial No. 79,439. (Cl. 179—73.)



1. In a telephone system, telephone lines terminating at a central office, a link circuit thereat for interconnecting said lines, a supervisory signaling device associated with each end of the link circuit, and a slow release relay jointly controlled from the connected telephone lines to cause the simultaneous operation of the signaling devices when the receiver of one of the connected telephone lines is restored to the switchhook within a predetermined time after the other is restored.

2. In a telephone system, telephone lines terminating at a central office, a link circuit thereat for interconnecting said lines, a supervisory signaling device associated with each end of the link circuit, a supervisory relay associated with each end of the link circuit controlled over the respective connected telephone lines, and means jointly controlled by and coöperating with the supervisory relays to cause the simultaneous operation of the signaling devices when the receiver of one of the connected telephone lines is restored to the switchhook within a predetermined time after the other is restored.

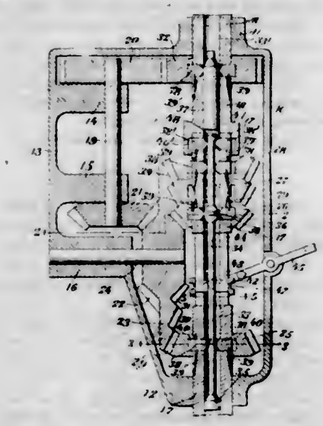
3. In a telephone system, telephone lines terminating at a central office, a link circuit thereat for interconnecting said lines, a supervisory signaling device associated with each end of the link circuit, a supervisory relay associated with each end of the link circuit controlled over the respective connected telephone lines, and a slow release relay jointly controlled by and coöperating with the supervisory relays to cause the simultaneous operation of the signaling devices when the receiver of one of the connected telephone lines is restored to the switchhook within a predetermined time after the other is restored.

4. In a telephone system, telephone lines terminating at a central office, a link circuit thereat for interconnecting said lines, a supervisory signaling device associated with each end of the link circuit, means associated with each end of the link circuit controlled over the respective connected telephone lines, and means jointly controlled by and coöperating with the aforesaid means to cause the simultaneous operation of the signaling devices when the receiver of one of the connected telephone lines is restored to the switchhook within a predetermined time after the other is restored.

6. In a telephone system, telephone lines terminating at a central office, a link circuit thereat for interconnecting said lines, a supervisory signaling device associated with each end of said link circuit, a supervisory relay associated with each end of said link circuit controlled over the respective connected telephone lines, and a switching device jointly controlled by and coöperating with the supervisory relays for delaying for a predetermined period the operation of one signaling device upon the opening of one line circuit, and for causing the simultaneous operation of both signaling devices when the other line circuit is opened within the predetermined period.

[Claim 5 not printed in the Gazette.]

1,241,924. TRANSMISSION. CHAUNCEY R. COLE, Tulsa, Okla. Filed Apr. 20, 1916. Serial No. 92,498. (Cl. 74—59.)



1. A transmission comprising a casing, a driving shaft extending into said casing, a driven shaft extending into said casing, a rod slidably mounted in said shafts and having enlargements forming cam extensions, the portion of the rod normally positioned in said driven shaft being rotatably connected with the remaining portion, means for transmitting rotary motion from the driving shaft to the driven shaft including clutch gears actuated by the cams of said rod.

2. A transmission comprising a casing, a driven shaft extending into said casing, a driving shaft extending into said casing, a rod slidably mounted in said shafts and having enlargements forming actuating cams, the portion of the rod normally positioned in the driven shaft being rotatably connected with the remaining portion, and means for transmitting rotary movement from the driving shaft to the driven shaft including gears loosely mounted upon said driving shaft and locking lugs for said gears carried by said driving shaft and moved to an operative position by the cams of said rod.

1,241,925. FEED-ROLLER CONSTRUCTION. THOMAS A. COLEMAN, Vredenburgh, Ala., assignor to Peter Vredenburgh, Jr., Vredenburgh, Ala. Filed Oct. 28, 1915. Serial No. 58,414. (Cl. 144—250.)

1. A feeding roller including a substantially cylindrical carrier, said carrier being provided with longitudinal slots extending thereinto tangentially relative to a circle concentric therewith, longitudinally extending bars seated in said slots and having projecting portions extending outwardly beyond the carrier and pitched in the direction of rotation thereof, said projecting portions being formed with beveled rear faces and with flat front work engaging faces adapted to engage material to feed it with rotary movement of the carrier, and means for securing the bars in the slots.



2. In a feeding roller including a revolubly mounted carrier, said carrier being provided with longitudinal slots about its periphery extending into the carrier tangentially relative to a circle concentric with its axis, engaging elements in the form of bars removably mounted in said slots and having portions projecting from the carrier and beveled to form hook-like members pitched in the direction of rotation of the roller and adapted to engage lumber to feed it with rotary movement of the carrier, and means coöperating with the extremities of the engaging elements to clamp them into the slots.

3. In a feeding roller, a substantially cylindrical carrier mounted for rotative movement, engaging elements in the form of bars extending longitudinally of said carrier and removably mounted therein so that they extend outwardly from the periphery of the carrier and are pitched in the direction of the latter's rotation, whereby their engagement with material when in operation tends to force them into their seats, the projecting portions of said engaging elements about the periphery of the carrier being formed with flat front faces to engage lumber to feed it upon rotative movement of the carrier.

4. A feed roller comprising the combination of a substantially cylindrical carrier, engaging elements removably seated in said carrier in positions tangential to a circle concentric with the carrier, said engaging elements having work engaging edges at opposite sides thereof adapted to engage lumber to feed it upon rotary movement of the carrier, and removable means coöperating with said engaging elements whereby to secure them in the carrier.

5. In a feed roller, the combination of a substantially cylindrical carrier, a longitudinally extending bar seated therein and extending from the periphery thereof tangentially relative to a circle concentric with the carrier, said bar having work engaging edges at the opposite sides thereof and being reversible in the carrier so as to dispose either of said edges in operative position, and means coöperating with the extremities of said bar for clamping it in the carrier.

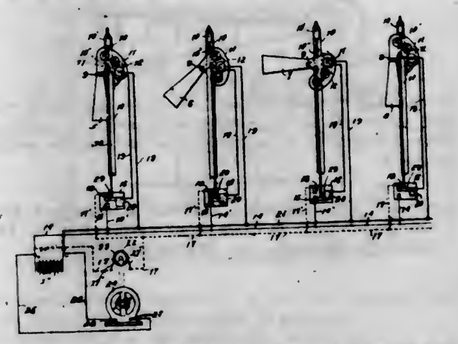
[Claims 6 to 9 not printed in the Gazette.]

1,241,926. INSULATION OF CONDENSERS FOR TELEPHONE-CIRCUITS. CARL CORDES, Magdeburg, Germany. Filed Dec. 17, 1910, Serial No. 597,882. Renewed Jan. 18, 1917. Serial No. 143,120½. (Cl. 250—41.)

The application of the solid and easily fusible product, which has a higher insulating capacity than paraffin and is obtained from castor oil by treatment with hydrogen in the presence of finely divided catalytic metal with the aid of heat, as an impregnating material for telephone condensers.

1,241,927. BLOCK-SIGNAL. DAVID F. CRAWFORD, Pittsburgh, Pa. Filed July 29, 1914. Serial No. 853,790. Renewed Mar. 7, 1917. Serial No. 153,170. (Cl. 246—37.)

1. In a semaphore, an electric lamp, a semaphore arm, signals carried by the said arm adapted to be illuminated by the electric lamp, means for moving the semaphore arm to bring the different signals into operative illuminated position, a source of electric current for the lamp, and means controlled by the semaphore arm for intermittently interrupting the current to the lamp.



2. In a semaphore, an electric lamp, a semaphore arm, a plurality of signals carried by the said arm adapted to be illuminated by the electric lamp, means for moving the semaphore arm whereby the different signals are brought into operative illuminated position, a source of current, a lamp circuit, an intermittent circuit interrupter in the lamp circuit between the current source and the lamp, and means whereby the actuation of the semaphore arm to bring a signal into operative position disconnects the circuit interrupter from the lamp circuit.

3. In a signal system, a series of semaphores, an electric main circuit comprising a current source, a positive feed wire extending to the semaphores, a negative return wire extending to the semaphores, an auxiliary positive feed wire extending to the semaphores, a lamp circuit for each semaphore having a lamp therein connected to the negative return wire, an intermittent circuit interrupter in the positive feed wire between the current source and the lamp circuits, a switch for connecting alternately the positive feed wire and the auxiliary feed wire to the lamp circuit, a semaphore arm on each semaphore, signals carried on such arm adapted to be brought into operative illuminated position by the movement of the said arm, operating means for the arm, and means whereby the operation of such means to cause a signal to be brought into operative position operates the switch to change the connection of the positive feeds with the lamp circuit.

4. A railway signal system comprising a plurality of signal stations each provided with electrically operated signals arranged at spaced intervals along the railway, a source of electrical power, two separate circuits connecting the power source with a signal of each signal station, an intermittent circuit interrupter in one of the circuits for interrupting the power in that circuit whereby the signals are intermittently interrupted in their action synchronously with the interrupter, when the signal is supplied with power through that circuit, and a switch connecting either circuit with the signals.

5. A railway signal system comprising a plurality of signal stations each provided with electrically operated signals arranged at spaced intervals along the railway, a source of electrical power, two separate circuits connecting the power source with a signal of each signal station, an intermittent circuit interrupter in one of the circuits for interrupting the power in that circuit whereby the signals are intermittently interrupted in their action synchronously with the interrupter, when the signal is supplied with power through that circuit, and a switch for each signal, connecting either circuit with the signals.

[Claim 6 not printed in the Gazette.]

1,241,928. CURRYCOMB. THOMAS J. CRIBBS, Clearwater, Fla. Filed Dec. 22, 1915. Serial No. 68,232. (Cl. 119—88.)

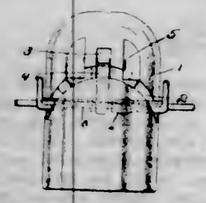
In a curry comb formed from a strip of resilient material bent to form a handle, a pair of opposed plates ex-

tending from said handle and normally positioned in spaced relation, one of the same having a plurality of teeth thereon, the other of the same having a plurality



of openings formed therein to receive said teeth when said plates are in engagement and means to releasably retain said plates in engagement as and for the purpose set forth.

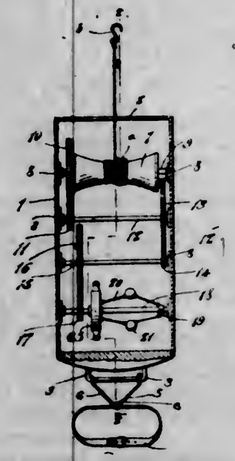
1,241,929. INSULATOR. WILLIAM A. DADE and RICHARD E. MORGAN, Orlando, Fla. Filed Jan. 5, 1917. Serial No. 140,829. (Cl. 173—313.)



1. A supporting insulator comprising a body having an inclined wire holding slot therein open at its upper end, a wire retaining finger movable across said slot, and a two-armed wire gripping clip insertible in said slot and embodying opposed inwardly deflected and serrated portions forming wire gripping jaws, and also having convergent end portions to engage the walls of the slot whereby said jaws are caused to grip the wire.

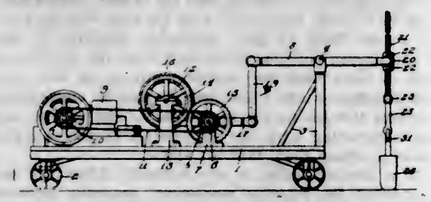
2. The combination with an insulator having a wire receiving channel, of a clip adapted to surround that portion of the wire within the channel and formed of a single length of wire bent upon itself in substantially U-shape and having the legs bent at right angles and the confronting edges of the legs, at the outer ends, formed with grooves and with inwardly bowed serrated portions inwardly of the grooves.

1,241,930. CENTRIFUGAL SPEED CONTROL FOR FIRE-ESCAPES. JAMES A. DAVIDSON, Loveland, Colo. Filed Apr. 8, 1915. Serial No. 19,997. (Cl. 74—45.)



A device of the character set forth comprising a supporting structure, a shaft journaled to said supporting structure, a casing journaled on said shaft and having an enlarged opening in one side wall thereof, a pair of oppositely disposed ears formed on said casing and having apertures therein, fastening means extending through the apertures and secured to the supporting structure for holding the casing against rotation upon the shaft, said casing having the inner face of one of the walls beveled in the direction of the openings therein, a disk journaled on said shaft and located within the casing and having one of its faces beveled to coöperate with the beveled wall of the casing, a pair of apertured lugs formed on the disk and extending through the opening in the casing, toggle links pivoted to one end of the shaft, toggle links pivoted to the apertured lugs, and balls connecting the links together for forming a governor adapted to cause the disk to frictionally engage the beveled wall of the casing to retard the speed of the shaft.

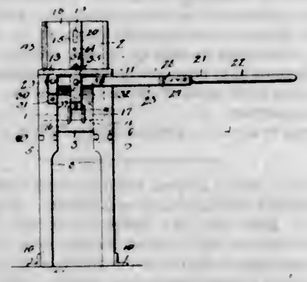
1,241,931. POST-HOLE DIGGER. DEWITT DAVIS, Jefferson City, Mo. Filed June 2, 1917. Serial No. 172,461. (Cl. 255—11.)



1. In a post hole digger a beam mounted for rocking movement, means for rocking the beam, a member carried by the beam and depending therefrom, an arm attached to said member, slidably mounted upon the arm, shafts carried by the sleeves, means for moving the shafts toward or away from each other, and blades carried by the shafts.

2. In a post hole digger a beam mounted for rocking movement, means for rocking the beam, a member depending from the beam, means for raising and lowering the member with relation to the beam, an arm carried by the member, sleeves slidably mounted upon the arm, shafts depending from the sleeves, means for moving the shafts toward or away from each other and blades carried by the shafts.

1,241,932. MACHINE FOR MOLDING CONCRETE BLOCKS. JOHN O. DAVISON, Oakland, Miss. Filed June 28, 1916. Serial No. 106,440. (Cl. 25—41.)



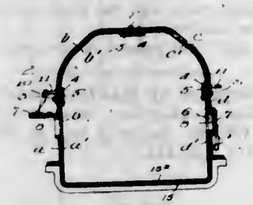
1. In a molding machine of the class described, a bed block, a supporting frame for the bed block including elements arranged at the ends of the bed block and provided with vertical guide grooves, a mold movable vertically on the bed block and provided with guides arranged to operate in said guide grooves and a lever having arms mounted on the frame and pivotally and vertically adjustably connected to the guides and arranged to operate and to permit vertical adjustment of the mold.

2. In a molding machine of the class described, a bed block, supporting legs between the upper portions of which the bed block is arranged, said supporting legs having supporting elements for the bed block, cross bars arranged at the ends of the bed block, connecting the upper ends of the legs and having vertical guide grooves, a mold having guides arranged to operate in said grooves and provided with stops to coact with the cross bars in limiting upward movement of the mold, and a lever having arms pivotally connected to two of the supporting legs and also pivotally connected to said guides.

3. In a molding machine of the class described, a bed block, supporting legs between the upper portions of which the bed block is arranged, said supporting legs having supporting elements for the bed block, cross bars arranged at the ends of the bed block, connecting the upper ends of the legs and having vertical guide grooves, a mold having guides arranged to operate in said grooves and provided with stops to coact with the cross bars in limiting upward movement of the mold, and a lever having arms pivotally connected to two of the supporting legs and also pivotally connected to said guides, the pivotal connections between said lever arms and guides permitting vertical adjustment of the mold with reference to said lever arms.

4. A mold machine comprising supporting legs, a bed block arranged between the upper portions of the supporting legs and supported thereby, cross bars arranged at the ends of the bed block, connected to the upper ends of the supporting legs and having vertical guide grooves, a mold having guides arranged to operate in said grooves, rocker links mounted on two of the supporting legs and a lever having arms pivotally connected to the guides and also pivotally connected to the rocker links.

1,241,933. AUTOMOBILE-HOOD. SID A. DEANES, West Point, Miss. Filed Feb. 16, 1917. Serial No. 149,085. (Cl. 74—56.)



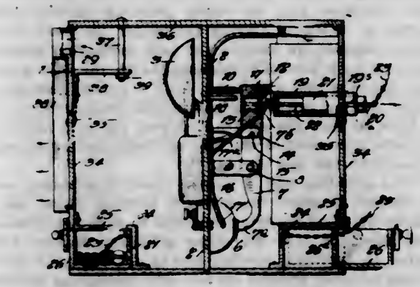
1. A hood for automobiles comprising a plurality of hinged sections, the lower section on each side of the hood having a ventilating opening, and a spring pressed door or flap for normally colsing said opening.

2. A hood for automobiles comprising a plurality of hinged sections, the lower section on each side of the hood having a ventilating opening, a spring pressed door or flap for normally closing said opening, and means carried by the door for holding the latter in open position to permit the passage of air through the opening.

3. A hood for automobiles, comprising a plurality of hinged sections, a non-heat conducting lining for each section, handles carried by certain of the upper sections, the lower section on each side being provided with a ventilating opening, a spring pressed door or flap for normally closing each said opening, and a hook carried by each said door and arranged to engage the handle on the upper section for holding the door in open position.

1,241,934. THEFT PREVENTING AND SIGNALING DEVICE. SID A. DEANES, West Point, Miss. Filed Feb. 16, 1917. Serial No. 149,086. (Cl. 177—314.)

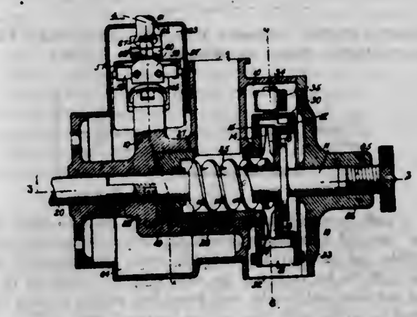
1. In a theft preventing and signaling device for automobiles, a casing, an electric bell disposed within the casing, a lever carried by the casing, the upper end of the lever having a movable latch member, a sleeve carried by the casing, a chain secured to the casing at one end, a plug secured to the opposite end, said plug having a loop being arranged to enter the sleeve, said loop being engaged by the latch on said lever, contacts carried by said casing



and arranged to be engaged by a movement of said lever when outward tension is applied to the plug.

[Claims 2 to 4 not printed in the Gazette.]

1,241,935. AUTOMATIC STOP FOR GRINDING-MILLS. LOUIS DELLERT, Brooklyn, N. Y. Filed Apr. 24, 1917. Serial No. 164,114. (Cl. 83—8.)



1. In a grinding mill, a pair of coacting grinding members adapted to grind the material between them, one of the grinding members being driven to rotate in one direction and the other grinding member being mounted to oscillate, a spring device connected with the said oscillating grinding member and placed under tension on oscillating the said oscillating grinding member in the direction in which the other grinding member is rotating, and stopping means for the mill controlled by the said spring device.

3. In a grinding mill, a pair of coacting grinding members adapted to grind the material between them, one of the grinding members being mounted to turn continuously in one direction and the other grinding member being mounted to oscillate, driving means for the said rotary grinding member, a spring connected with the said oscillating grinding member to oppose the latter's oscillation in the direction in which the other grinding member is rotating, and means connected with the said oscillating grinding member and the said driving means to stop the latter on the return movement of the oscillating grinding member.

4. In a grinding mill, a pair of coacting grinding members adapted to grind the material between them, one of the grinding members being mounted to turn continuously in one direction and the other grinding member being mounted to oscillate, an electric motor driving the said rotary grinding member, a spring opposing the said grinding member on the latter turning in the direction in which the other grinding member is rotating, and a shut-off switch for the said electric motor and connected with the said oscillating grinding member to stop the motor on the return of the said oscillating member caused by the said spring.

6. In a grinding mill, a pair of coacting grinding members adapted to grind the material between them, one of the grinding members being mounted to turn continuously in one direction and the other grinding member being mounted to oscillate, driving means for the said rotary grinding member, an arm on the said oscillating grinding member, a hook pivotally connected with the said arm, a spring pressing the said hook, and a switch controlling the said driving means and adapted to be engaged by the said hook to open the switch and stop the said motor on the return movement of the said oscillating grinding member caused by the said spring.

7. In a grinding mill, a pair of coacting grinding members adapted to grind the material between them, one of the grinding members being mounted to turn continuously in one direction and the other grinding member being mounted to oscillate, driving means for the said rotary grinding member, an arm on the said oscillating grinding member, a hook pivotally connected with the said arm, a spring pressing the said hook, a switch controlling the said driving means and adapted to be engaged by the said hook to open the switch and stop the said motor on the return movement of the said oscillating grinding member caused by the said spring, and means to disengage the said hook from the said switch after the hook has opened the switch.

[Claims 2, 5, and 8 to 10 not printed in the Gazette.]

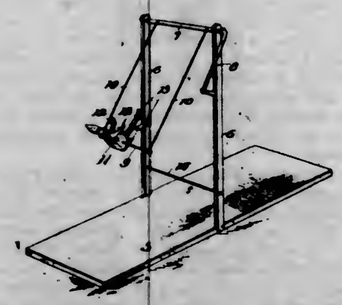
1,241,936. CUFF. CHESLY DEMPSEY, Ada, Okla. Filed Dec. 8, 1915. Serial No. 65,821. (Cl. 2—79.)



1. A cuff having button holes in both ends thereof, one end of the cuff being also provided with a transverse slot, a flexible tab projecting centrally from the opposite end of the cuff to be received by said slot, or adapted to be folded between said ends, and provided with a button hole adapted to aline with the button holes of said cuff.

2. A cuff having button holes adjacent both ends, and a transverse slot adjacent one end, a flexible tab projecting from the opposite end of the cuff and adapted to be passed through said slot when used, a tongue cut from said tab to engage the wall of said slot to hold the article in cuff form, and said tab being also foldable between the ends of the cuff and having a slot registering with said button holes of the cuff for the purpose set forth.

1,241,937. TOY. CHARLES F. DENMAN, Nicholasville, Ky. Filed Mar. 6, 1917. Serial No. 152,764. (Cl. 46—37.)

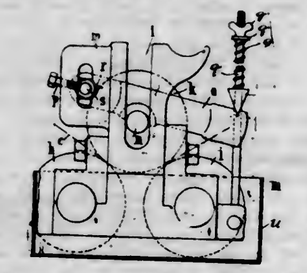


1. A toy comprising a figure, a swinging support on which said figure is free to revolve, and an abutment in the path of the figure for causing the same to revolve when striking the abutment.

3. A toy comprising a pair of laterally spaced uprights, a transverse shaft carried by the uprights, a trapeze bar suspended from the shaft to swing when said shaft is rocked, a figure pivotally mounted on the trapeze bar, and a cross bar extending between the uprights and positioned to intercept the figure and to revolve the same when struck thereby.

[Claim 2 not printed in the Gazette.]

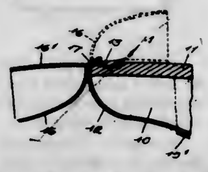
1,241,938. MACHINE FOR MANUFACTURING MATERIAL FROM ADHESIVES AND FIBERS. JAMES WALTER HENRY DEW, London, England, assignor to The Azulay Syndicate Limited, London, England. Filed May 18, 1914. Serial No. 839,384. (Cl. 91—51.)



1. A machine for forming articles or material of adhesive and fiber comprising fiber feeding mechanism, a receptacle for liquid adhesive, two rollers arranged within said receptacle and over which said fiber passes, and a third coöperating roller yieldingly mounted above said two rollers in such a manner that the space between the third roller and the lower roller at the discharge side of the machine is always slightly greater than that between said third roller and the lower roller at the entering side of the machine.

[Claims 2 and 3 not printed in the Gazette.]

1,241,939. METHOD OF MAKING TURN-SHOES. MILTON L. DODGE, Newburyport, Mass. Filed Nov. 6, 1916, Serial No. 129,660. Renewed Aug. 30, 1917. Serial No. 188,878. (Cl. 12—142.)



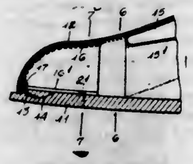
1. In the art of making turn shoes, the method comprising the steps of lasting the upper and sole without a toe box, uniting the upper and sole, securing a stiff molded toe box directly to one of the lasted elements on the exterior of the lasted shoe, and turning the shoe, thereby inclosing the toe box.

3. In the art of making turn shoes, the method comprising the steps of lasting the upper, a lining, and a sole, without a toe box, uniting the upper, the sole, and the lining, excepting the toe portion of the latter, leaving the said toe portion turned back from the toe end of the shoe, securing the toe end of a stiff molded toe box to one of the lasted elements in such relation as to enable the toe box to lie right side up on the ultimate inner face of the sole, turning the shoe, thereby inclosing the toe box, and tucking said turned-back portion of the lining into the toe box.

5. In the art of making a turn shoe, the method comprising the steps of lasting the upper and sole without a toe box, uniting the upper and sole, fastening a portion of a stiff molded toe box directly to the sole, and then turning the shoe.

[Claims 2 and 4 not printed in the Gazette.]

1,241,940. TURN-SHOE. MILTON L. DODGE, Newburyport, Mass. Original application filed Nov. 6, 1916, Serial No. 129,660. Divided and this application filed Jan. 24, 1917. Serial No. 144,186. (Cl. 36—77.)



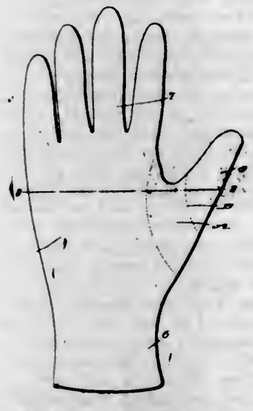
1. A turn shoe having therein a previously molded toe box, and fastening means extending through said toe box and anchored in one of the lasted elements.

4. A turn shoe having therein a previously molded toe box, the toe end of said toe box having a tab at its base, and fastening means extending through said tab and anchored in the sole, whereby the toe box is secured directly to the sole.

6. A shoe having therein a stiff molded toe box, said toe box having a flange extending inwardly from its base and arranged upon the interior face of the wear sole, and a metallic fastener extending through said flange and into said sole and having a portion lying upon the interior face of said flange to hold the latter seated upon said sole.

[Claims 2, 3, 5, and 7 not printed in the Gazette.]

1,241,941. REVERSIBLE GLOVE. JAMES EDWARD DOWD, Hiawatha, Utah. Filed Sept. 8, 1916. Serial No. 118,992. (Cl. 2—9.)

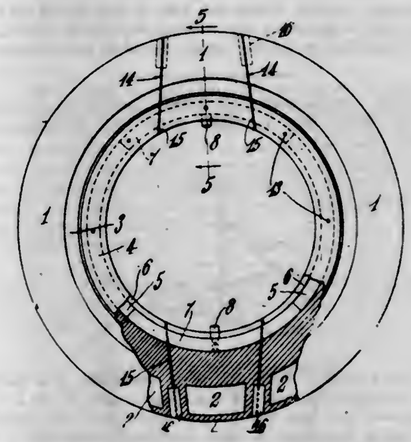


1. A surgeon's glove made of seamless material, and having its thumb arranged in a neutral position, and having an excess of material provided at the base of the thumb on both sides of the glove, whereby the glove may be turned inside out and replaced upon the same hand without affecting the fit of the glove.

2. A seamless rubber glove so shaped as to be exactly alike on both sides of a plane cutting centrally through the fingers and thumb of the glove longitudinally thereof, an excess of material being provided at the base of the thumb on both sides thereof.

1,241,942. COLLAPSIBLE CORE. WILLIAM Y. DUNCAN, Jr., Springfield, Mass., assignor to Fisk Rubber Company, Chicopee Falls, Mass., a Corporation of Massachusetts. Filed July 3, 1916. Serial No. 107,301. (Cl. 18—45.)

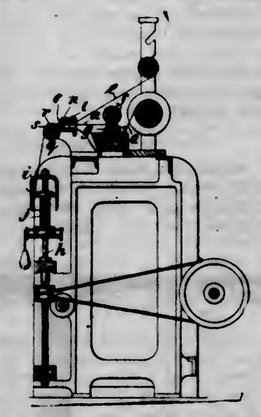
1. A collapsible core, comprising, an annular ring made up of a plurality of sections and slidable devices adapted to lie wholly within certain of said sections and adapted to be moved partially within abutting sections to overlap the joints therebetween, whereby the sections are held in coöperative relation to one another.



6. A collapsible core, comprising, an annular ring made up of four sections, two of which are relatively small and arranged for bodily removal inwardly, slots formed in each section and arranged to coincide to form a circular slot and curved keys slidable in said slots and adapted to lie wholly within the slots in the larger sections, said keys adapted to be moved to a position wherein they extend entirely through the smaller sections and project therebeyond on either side to overlap the joints between the smaller and the adjacent larger sections.

[Claims 2 to 5 not printed in the Gazette.]

1,241,943. MACHINE FOR THE MANUFACTURE OF PAPER TWINE. ARTHUR DYMOCK, Stockport, England, assignor to American Coretwine Company, Boston, Mass., a Corporation of Massachusetts. Filed June 11, 1914. Serial No. 844,564. (Cl. 28—21.)



1. In a machine for making twine of the character described, the combination of an element having a cylindrical hole, means for feeding a ribbon of suitable width through said hole in such a manner as to effect the continuance of a previously started double flat fold therein, with means for twisting the folded ribbon.

4. In a machine for making paper twine the combination of means for moistening the paper ribbon, a bar having a longitudinally straight surface for frictionally engaging the top surface of the ribbon transversely thereof, an element provided with a hole, means for feeding the ribbon in engagement with said straight surface and

through said hole, said means for feeding the ribbon, said straight surface and said hole, so constructed and relatively arranged as to effect the abrupt continuance of a previously started double flat fold in the ribbon as it is being fed, with means for twisting the folded ribbon.

[Claims 2, 3, and 5 to 16 not printed in the Gazette.]

1,241,944. MAIL-BAG CATCHER. JEFF FLEMING, Point, Tex. Filed Mar. 7, 1917. Serial No. 153,078. (Cl. 258—22.)

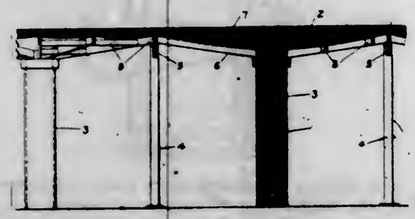


1. In a device of the character described, a U shaped spring member having its sides converging at points intermediate the ends thereof and having the free ends of said sides diverging, a link pivotally connected to the sides of said U shaped spring member at points intermediate the converging portion and the transverse end member thereof, a bracket affixed to said link, and a strut rod having one end connected to the spring member and the other end thereof connected to said bracket.

2. In a device of the character described, a U shaped spring member having its sides converging at points intermediate the ends thereof and having the free ends of said sides diverging, a link pivotally connected to the sides of said U shaped spring member at points intermediate the converging portions and the transverse end member thereof, a bracket affixed to said link and mounted for rotation, and means for locking said bracket at a predetermined position.

3. In a device of the character described, a U shaped spring member having its sides converging at points intermediate the ends thereof and having the free ends of said sides diverging, a link pivotally connected to the sides of said U shaped spring member at points intermediate the converging portions and the transverse end member thereof, a bracket affixed to said link and mounted for rotation, a means for locking said bracket at a predetermined position, and a strut rod having one end connected to said U shaped spring member and the other end thereof connected to said bracket.

1,241,945. METHOD AND MEANS FOR FORMING CONCRETE STRUCTURAL MEMBERS. MATTHEWS FLETCHER, Indianapolis, Ind. Filed May 28, 1917. Serial No. 171,540. (Cl. 25—131.5.)

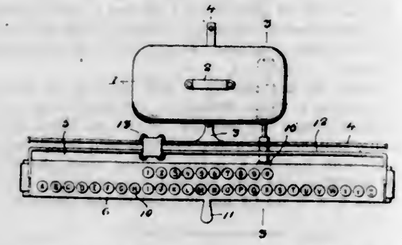


1. The method of forming substantially horizontally projected concrete structural members which consists in forming the member with an unbroken base line intermediate the ends thereof by stretching a flexible supporting body in a substantially horizontal plane between supports at such tension as to produce a molding surface for a member of true theoretical shape for obtaining the maximum strength with minimum material, and then placing concrete thereon.

2. A form for structural concrete members comprising a flexible sheathing, rigid supports for said sheathing and stretching members for the sheathing intermediate the supports.

3. A form for concrete structures adapted for collapsibility and adjustment and consisting of sheathing supporting joists, joist supporting uprights and textile material attached to a number of the joists, and spreader members between the joists adapted to be driven against the same to force the joists apart and stretch the textile material to thereby provide a flexible support for the concrete, which determines the form of the base of the section and permits of collapsibility of the form.

1,241,946. ADDRESSING-MACHINE. JAMES HAROLD FORD, Baltimore, Md. Filed Dec. 2, 1916. Serial No. 134,651. (Cl. 101—103.)



1. A machine of the class described, comprising a base, a guide rail secured to one side of the base and offset therefrom, a carriage, a guide rail secured to said carriage in a line parallel with the first-named guide rail, interconnecting rollers connecting said guide rails, whereby said carriage may be shifted longitudinally of the said base, and type blocks carried by said carrige and movable to printing and non-printing positions.

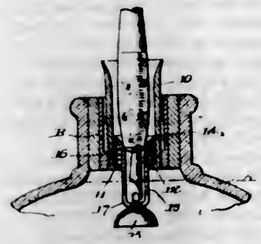
2. A machine of the class described, comprising a base, a guide rail secured to one side of the base and offset therefrom, a carriage, a guide rail secured to said carriage in a line parallel with the first-named guide rail, interconnecting rollers connecting said guide rails, whereby said carriage may be shifted longitudinally of the said base, type blocks carried by said carriage and movable to printing and non-printing positions, plungers carrying said type blocks respectively, and keys upon the upper ends of the said plungers bearing characters corresponding to the type blocks.

3. A machine of the class described, comprising a base, a guide rail secured to one side of the base and offset therefrom, a carriage, a guide rail secured to said carriage in a line parallel with the first-named guide rail, interconnecting rollers connecting said guide rails, whereby said carriage may be shifted longitudinally of the said base, type blocks carried by said carriage and movable to printing and non-printing positions, plungers carrying said type blocks, respectively, keys upon the upper ends of the said plungers bearing characters corresponding to the type blocks, and a spring surrounding said plungers, for holding type blocks normally in non-printing position.

1,241,947. INK-BOTTLE STOPPER. JOB W. FOST, Peabody, Kans. Filed Jan. 2, 1917. Serial No. 140,271. (Cl. 120—68.)

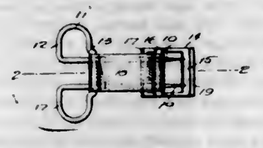
1. In combination with the neck of a bottle, of a closure therefor having an opening, a cylinder adjustably mounted within the closure provided at one end with an inwardly extending annular flange, an outwardly flared cup arranged for sliding movement within the cylinder having openings formed in the lower end thereof, a valve secured upon the lower end of the cup, and a coil spring encircling the cup and confined between the inwardly extending annular flange of the cylinder and the flared end of the cup for moving the cup to valve seating position against the flange.

2. In combination with the neck of a bottle, of a closure provided with a centrally arranged vertical opening, a cylinder adjustable within the closure, and provided with an annular flange at the bottom, an outwardly flared cup



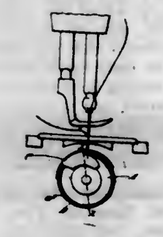
arranged for sliding movement within the cylinder, openings in the lower end of the cup, a valve secured upon the lower end of the cup, and means for moving the cup outwardly to cause the valve to seat against the annular flange.

1,241,948. SAFETY-PIN. JOHN HARTLEN FOWLER, Orbisonia, Pa. Filed May 19, 1916. Serial No. 98,600. (Cl. 24—156.)



A safety pin comprising a pair of spaced parallel prongs and a head disposed at right angles to the prongs at the rear ends thereof, said head being in the form of a laterally elongated loop having rear inwardly projecting extensions integral with the rear ends of the prongs and having a forward cross bar overlying the prongs adjacent the rear ends thereof, and a keeper having means to frictionally engage the free ends of the prongs, said keeper being flexibly connected to the said cross bar of the head.

1,241,949. SEWING-MACHINE. CHARLES EDWARD FRANCIS, Holloway, London, England, assignor to Vickers Limited, Westminster, England. Filed Apr. 18, 1917. Serial No. 162,866. (Cl. 112—38.)



1. In a lock stitch sewing machine, the combination with a rotary hook, of a bobbin case within the same, a ring holder for said case, the said case and holder having corresponding contacting faces of gradually variable contour in the direction of rotation of the hook, said bobbin case having a needle aperture therein, a radial projection on the case directly in front of said aperture, said projection having an eye therein through which the bobbin thread is led upwardly to the needle hole in the throat plate, the projection being so situated that the needle thread contacts with its inner face to help form the loop to be engaged by the rotary hook.

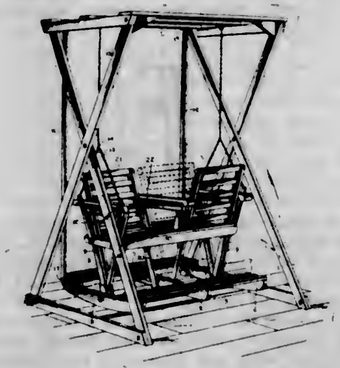
[Claim 2 not printed in the Gazette.]

1,241,950. PROCESS FOR TREATING TANNING SUBSTANCES SOLUBLE WITH DIFFICULTY CONTAINED IN CRUDE QUEBRACHO LIQUORS. HANS FRANKE, Wilsdorf, near Bodenbach, Austria, assignor of ninety one-hundredths to Albert Redlich, Vienna, Austria. Filed June 26, 1914. Serial No. 847,514. (Cl. 167—4.)

1. The process of treating crude quebracho liquors containing difficultly soluble tanning substances, which comprises heating such liquor while air is excluded therefrom with an alkaline compound of alkaline earths of a character capable of complete conversion by a suitable acid into an insoluble salt, neutralizing the liquor by adding thereto the required quantity of acid, and separating the liquor from the insoluble residue.

[Claim 2 not printed in the Gazette.]

1,241,951. SWING. EDWARD CHARLES FREMAUX, Rayne, La. Filed Mar. 9, 1917. Serial No. 153,587. (Cl. 155—35.)



1. In a swing, a foot frame, a V-shaped chair frame, a chair seat for the chair frame, there being slots in the chair frame adjacent the seat, a back for the seat having supports disposed in the slots, and pivotal means connecting the foot frame with the back supports and the chair frame adjacent the angle formed by the V of the chair frame.

2. In a swing, a foot frame, a chair frame pivoted to the foot frame, a chair seat for the chair frame, there being slots in the chair frame adjacent the seat, a back for the seat having supports disposed in the slots and pivoted to the chair frame therebelow.

3. In a swing, a foot frame, a chair frame having a seat, pivoted to the foot frame below a line substantially parallel with and equal distances from the front and back of the seat when the swing is at rest, independent means for supporting the foot frame and the seat frame, there being slots in horizontal portions of the chair frame, and a chair back with supports disposed in the slots and pivoted at the pivotal connection of the foot frame and the chair frame.

4. In a swing, a foot frame, a V-shaped chair frame, a chair seat for the chair frame, there being slots in the chair frame adjacent the seat, a back for the seat having supports disposed in the slots, pivotal means connecting the foot frame with the back supports and the chair frame adjacent the angle formed by the V of the chair frame, a rod pivoted to the foot frame and adapted to be pivoted to a support, and supporting means secured to the chair frame, extending upwardly on a line which if extended would pass through the pivotal means, and at substantially equal distances from the upper portions of the V-shaped frame.

5. In a swing, a foot frame, a chair frame having a seat pivoted at its bottom to the foot frame, and a back for the seat pivoted to the foot frame and adapted to pass from the front to the back of the seat.

[Claim 6 not printed in the Gazette.]

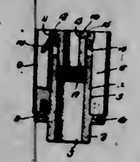
1,241,952. DOSING DEVICE FOR ANIMALS. Gus H. FRENCH, Waterloo, Iowa. Filed Apr. 24, 1917. Serial No. 164,154. (Cl. 128—27.)



1. A dosing device for animals, comprising a resilient rod bent medially downwardly to provide a yielding handle, with members positioned adjacent each other, a hollow barrel on the extremity of one member, and a body on the extremity of the other member positioned within said barrel.

[Claims 2 to 5 not printed in the Gazette.]

1,241,953. REAMER. WILLIAM H. FRICK, Philadelphia, Pa. Filed July 19, 1916, Serial No. 110,150. Renewed June 13, 1917. Serial No. 174,618. (Cl. 77—75.)



1. In a reamer, the combination of a holder, a series of rotatably adjustable cutters upon the holder provided with cam grooves, and a longitudinally movable adjusting member having projections to engage said grooves, for rotatably adjusting the cutters.

2. In a reamer, the combination of a holder, a series of rotatably adjustable cutters carried thereby, said cutters being provided with cam grooves, a longitudinally movable adjusting member having projections to engage said grooves, and an operating element for communicating motion to said rotatable adjusting member.

8. In a reamer, the combination of a holder provided with peripheral cutter seats, cutters rotatably mounted in said seats eccentric to the axis of the holder, said cutters being provided with grooves inclined to their axes, and a longitudinally movable member upon the holder provided with projections engaging said inclined grooves and forming therewith a cam mechanism for simultaneously rotating the cutters on their axes.

[Claims 3 to 7 not printed in the Gazette.]

1,241,954. GOLD-WASHING MACHINE. JOSEPH A. FURTADO, Half Moon Bay, Cal. Filed Jan. 5, 1917. Serial No. 140,808. (Cl. 83—88.)



1. In a device of the class described, a cylindrical casing, a sieve at the top of the casing having a wall provided with an outlet, and overflow diaphragms and separating pans arranged in alternate order below the sieve, each pan having an arcuate inclined riffle; and a well with which the lower ends of the riffles in the pans communicate.

2. In a device of the class described, a cylindrical casing, a sieve at the top of the casing having a wall provided with an outlet, and overflow diaphragms and separating pans arranged in alternate order below the sieve, each pan having an arcuate inclined riffle; a well with which the lower ends of the riffles in the pans communicate, and a detachable bottom closure for said well.

3. In a device of the class described, a cylindrical casing, a sieve at the top of said casing, said sieve having a centrally disposed well, overflow diaphragms and separating pans arranged in alternate order below the sieve, said diaphragms and pans being substantially cone-shaped and the pans having central openings, each pan being provided near the marginal edge thereof with an arcuate riffle having a downwardly inclined bottom portion, and a well at the low end of such riffle.

4. In a device of the class described, a cylindrical casing, a sieve at the top of said casing, said sieve having a centrally disposed well, overflow diaphragms and separating pans arranged in alternate order below the sieve, said diaphragms and pans being substantially cone-shaped and the pans having central openings, each pan being provided near the marginal edge thereof with an arcuate riffle having a downwardly inclined bottom portion, and a well at the low end of such riffle, the lowermost pan having secured to the underside thereof a receptacle provided with an outlet spout at the margin thereof and with a centrally disposed well.

5. In a device of the class described, a cylindrical casing, means for supporting the casing and for imparting thereto a gyratory movement, a sieve at the top of the casing, said sieve having a wall provided with an outlet, a conical pan within the casing connected marginally with the wall thereof, said pan having an arcuate riffle with an inclined bottom and a well at the low end of the bottom portion, said pan being also provided with a central opening, a conical overflow diaphragm supported above the pan, hangers supporting the diaphragm, and a receptacle beneath the pan to receive material through the central opening at the apex thereof, said receptacle having an outlet spout at the margin thereof and a centrally disposed well.

1,241,955. GOGGLES. LEO O. GAGNON, Southbridge, Mass. Filed Jan. 30, 1917. Serial No. 145,510. (Cl. 88—41.)

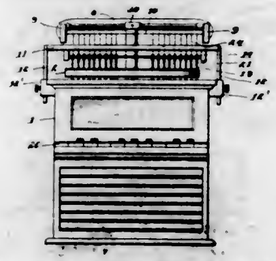


The combination with a pair of eye pieces, of a connecting yoke or frame to which the same are attached, post-holders on the inner adjacent margins of said eye pieces, posts attached thereto and extending upwardly therefrom and secured at their upper extremities to said yoke, a bridge normally resting upon said post supports and having eyes through which said posts pass, and springs coiled around said posts and interposed between the yoke and nose piece.

1,241,956. SOUND-PRODUCING APPARATUS. CHRISTIAN S. GERLACH, Brandon, Wis. Filed July 5, 1916. Serial No. 107,636. (Cl. 274—10.)

1. A sound producing apparatus comprising in combination with a talking machine having a flat turn table, a tensioned element connected to the vibratory member of the reproducer of the talking machine, a record formed with a number of concentric sound lines, means normally out of engagement with and mounted to move into engagement with the sound lines for transmitting vibratory motion from the record to said element, and means for elevating the first mentioned means a considerable distance above the turn table.

2. A sound producing apparatus comprising in combination with a talking machine, a tensioned element connected to the vibratory member of the reproducer of the talking machine, a record formed with a plurality of concentrically arranged sound lines, a plurality of stylus arms equal in number to and adapted to engage the sound lines, a frame on which said stylus arms are mounted, means for holding the stylus arms from engagement with the sound lines, and means for elevating said frame a considerable distance above the table.



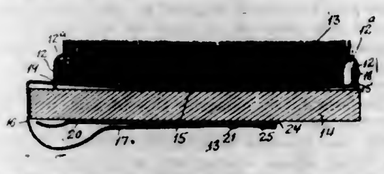
3. A sound producing apparatus comprising in combination with a talking machine having two spaced reproducers, a flexible element connecting the vibratory members of the reproducers together, means for varying the tension of said element, and a plurality of devices each capable of transmitting vibratory motion from a record to said element.

4. A sound producing apparatus comprising in combination with a talking machine having two spaced reproducers, a flexible element connecting the vibratory members of the reproducers together, means for carrying the tension of said element, a plurality of devices for independently transmitting vibratory motion from a record to a point in the length of said element, and manually controlled means for moving said devices singularly or collectively into an operative position.

5. A sound producing apparatus comprising in combination with the turn table of a talking machine a frame mounted for sliding movement above said turn table, a plurality of stylus arms carried thereby and adapted when in one position of the frame to be disposed in close proximity to the lines of a record upon said turn table, a tone arm supporting a pair of reproducers, a flexible element connecting the vibratory members of the reproducers together, other flexible elements connected at spaced points to said first element and also connected to said arms, and means for moving said arms singularly or collectively into engagement with the sound lines of the record.

[Claim 6 not printed in the Gazette.]

1,241,957. MAT-HOLDER. HARRY GOODACRE and ALBERT H. ALLEN, Wakefield, Mass., assignors to Heywood Brothers & Wakefield Company, Wakefield, Mass., a Corporation of New Jersey. Filed Feb. 2, 1917. Serial No. 146,278. (Cl. 15—62.)



1. A mat holder comprising an open frame formed to surround the margin of a mat and bear on a running-board, and having a contracted holding-down upper edge, and a plurality of elongated resilient members, including upper portions extending across the lower portion of the frame and engaged with the rear and front sides thereof, said upper portions being arranged to bear on the under surface of a mat inserted in the frame, necks bent downwardly from said upper portions and adapted to extend across the outer edge of a running-board, and clamping-arms extending rearwardly from said necks and adapted to coöperate with the under side of the running-board in yieldingly securing the holder to the board, the upper portions of said members being adapted to coöperate with said holding down edge in preventing accidental sidewise displacement of a mat in either direction.

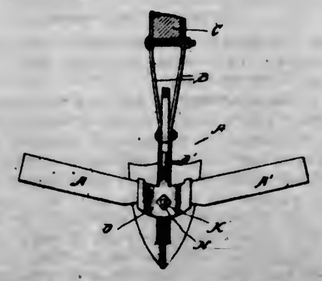
2. A mat holder comprising an open frame formed to surround the margin of a mat and bear on a running-board, and having a contracted holding-down upper edge, and a plurality of elongated resilient members, including upper portions extending across the lower portion of the frame and engaged with the rear and front sides thereof, necks bent downwardly from said upper portions and adapted to extend across the outer edge of a running-board, primary clamping-arms extending rearwardly from said necks, and supplementary clamping-arms attached to the free extremities of said primary arms and extending forward therefrom, said supplemental arms being adapted to bear on the under side of a relatively thick running-board, and their free ends being spaced from said necks and adapted to engage a flange on a relatively thin running-board.

3. A mat holder comprising an open frame formed to surround the margin of a mat and bear on a running-board, and having a contracted holding-down upper edge, and a plurality of elongated resilient members, including upper portions extending across the lower portion of the frame and engaged with the rear and front sides thereof, necks bent downwardly from said upper portions and adapted to extend across the outer edge of a running-board, clamping-arms extending rearwardly from said necks and adapted to coöperate with the under side of the running-board in yieldingly securing the holder to the board, the upper portions of said members being adapted to support a mat, and a transverse member attached to and connecting the free ends of said clamping-arms and adapted to bear on the under side of the running-board.

4. A mat holder comprising an open frame formed to surround the margin of a mat and bear on a running-board and having a contracted holding-down outer edge and apertures in its outer side near the lower edge thereof, and a plurality of elongated resilient members rigidly attached to the inner side of the frame and including upper portions extending across the frame near the lower edge thereof and passing loosely through said apertures, necks bent downwardly from the said upper portions and adapted to extend across the outer edge of a running-board, and clamping-arms extending rearwardly from the said necks and adapted to coöperate with the under side of the running-board in yieldingly securing the holder to the board, the said apertures being spaced from the lower edge of the frame and holding the upper portions of said resilient members in position to bridge a raised member on the upper side of a running-board.

5. A mat holder comprising an open frame formed to surround the margin of a mat and bear on a running-board, said frame having a contracted holding-down upper edge and spurs at its lower edge adapted to engage the upper side of the running-board, and resilient securing means engaged with said frame, and including clamping-arms adapted to coöperate with the under side of the board in yieldingly pressing said spurs against the upper side of the board.

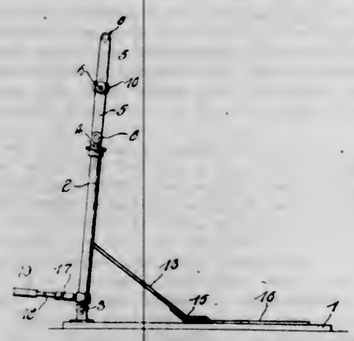
1,241,958. HEEL-SWEEP BRACE. HENRY JIMISON GOODLETT, Laneville, Tex. Filed May 18, 1917. Serial No. 169,542. (Cl. 97—11.)



In combination with a cultivator having supporting bars, a heel sweep brace made of a curved sheet of metal

and apertured, projections upon the upper edge of the brace which are bent to form hooks for engagement over the upper edges of the plow, and a curved shank portion of the plate engaging between the bars which support the cultivator.

1,241,959. FOLDING AIR-PUMP. BENNIE GOODMAN, Millican, Oreg. Filed Nov. 23, 1916. Serial No. 133,020. (Cl. 230—27.)



1. In combination a base, a pump pivotally mounted on said base for downward folding, means for operating said pump, a standard upon which said operating means are mounted, said standard being hinged to said base for downward folding, a brace pivoted to said standard for holding the same in upright position and a foot plate carried by the lower end of said brace and adapted to be held against the upper side of the base by the operator's foot.

2. A structure as specified in claim 1, said foot plate being pivoted to said brace to permit compact folding thereof.

1,241,960. HAIR-FASTENER. REUBEN GOULD, New York, N. Y. Filed Mar. 20, 1917. Serial No. 156,084. (Cl. 132—22.)

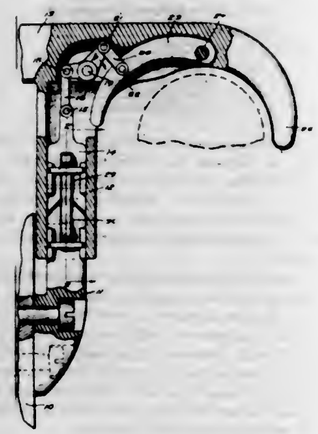


The herein described hair fastener comprising a metal body plate stamped with two rows of V-shaped incisions and the metal therein upturned into triangular teeth disposed in parallel rows projecting from the rear face of the plate and staggered with respect to each other and exposing two rows of openings between them, a hook at one end of said plate and a clasp loosely connected with the other end of said plate and adapted to be laid across its rear face and engaged with said hook.

1,241,961. BUMPER WHEEL-LOCK. WALTER D. GOZA, Los Angeles, Cal. Filed Nov. 28, 1916. Serial No. 133,940. (Cl. 21—90.)

1. In a combined bumper and lock for automobiles the combination with a vehicle frame of wheels mounted for rotation thereunder, a bumper bar disposed transversely of said frame and mounted thereon, a locking mechanism incorporated within the bumper construction and including jaws adapted to forcefully grip the wheels of said vehicle, and means whereby movement of the bumper toward the vehicle frame will act to draw the gripping jaws in engagement with the vehicle tires and thereafter draw said jaws toward each other in a manner to positively grip said tires.

2. In a combination bumper and lock for automobiles the combination with a vehicle frame of wheels mounted for rotation thereunder, a bumper bar disposed transversely of said frame and mounted thereon, a locking mechanism incorporated within the bumper construction and including jaws adapted to forcefully grip the wheels of said vehicle, means whereby movement of the bumper toward the vehicle frame will act to draw the gripping jaws in engagement with the vehicle tires and thereafter draw said jaws toward each other in a manner to positively grip said tires, and means whereby said jaws may lock in their gripped position.

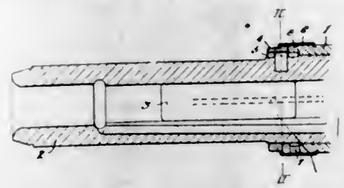


3. In a combined bumper and lock for automobiles the combination with a vehicle frame of vehicle wheels rotatably mounted thereupon, a transversely disposed bumper bar positioned in front of said frame and said wheels, a fixed gripping jaw formed integral with said bumper bar and adapted to conform to the outer contour of the tire upon said vehicle wheels, a movable inner gripping jaw adapted to be swung toward said outer jaw in a manner to engage and grip said tire, an actuating mechanism whereby movement of the bumper bar toward the vehicle frame will swing said movable jaw toward the tire, means whereby said movement of actuation may be delayed until a given point has been reached along the inward travel of said bumper bar, and means whereby said lock jaw may be posititively locked in a desired position in relation to said wheel.

4. In a combined bumper automobile lock the combination with a vehicle frame having vehicle wheels mounted thereupon, a bumper mounted on said frame transversely thereof and disposed in front of said wheels, an outer arcuate horn formed at the end of said bumper and adapted to conform to the contour of a tire mounted upon the vehicle wheel, a movable locking jaw adapted to conform to the opposite side of said tire and co-act with the horn to grip the tire, a locking standard upon which said bumper is slidably mounted in relation to the frame, means whereby the movement of the bumper toward the frame will cause the standard to actuate the locking jaw, and means whereby said horn and locking jaw may positively lock in a fixed relation to each other so that the vehicle wheel engaged thereby will be positively locked against rotation and confined against pivotal movement.

5. An automobile bumper and wheel lock, comprising a bumper bar extending transversely of the automobile frame and mounted thereon, complementary pairs of jaws mounted at the opposite ends of said bumper bar, and means whereby movement of the bar toward the frame will cause the jaws to close in upon and grip the tires of the wheels of said automobile.

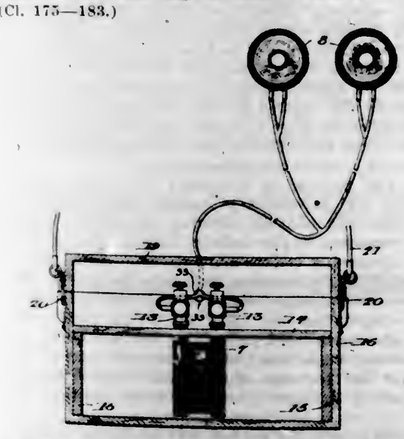
1,241,962. FLUID-OPERATED TOOL. LOUIS W. GREVE, Cleveland, Ohio, assignor to The Cleveland Pneumatic Tool Company, a Corporation of Ohio. Original application filed Jan. 7, 1916, Serial No. 70,785. Divided and this application filed June 24, 1916. Serial No. 105,772. (Cl. 151—51.)



1. In a fluid operated tool, a casing in two parts screwed together, a locking ring movable longitudinally of the parts having its inner surface provided with spaced longitudinal grooves and interlocking with one or the parts when in one extreme of movement so that relative rotation of such part and the ring is prevented, a plurality of pin sockets arranged circumferentially of the other casing part and having a spacing different from that of the said grooves, a pin adapted to fit any one socket and project above the surface of the casing part and engage one of the said grooves on the inner surface of the ring, and releasable securing means for holding the ring in locking position.

2. In a fluid operated tool, a casing in two parts screwed together, a locking ring movable longitudinally of the parts having its inner surface provided with spaced longitudinal grooves and interlocking with one of the parts when in one extreme of movement so that relative rotation of such part and the ring is prevented, a plurality of pin sockets arranged circumferentially of the other casing part and having a spacing different from that of the said grooves, a pin adapted to fit any one socket and project above the surface of the casing part and engage one of the said grooves on the inner surface of the ring, and releasable securing means for holding the ring in locking position, the said pin having its outer end eccentric with respect to the body of the pin.

1,241,963. ELECTRICAL MEANS FOR LOCATING CONCEALED PIPES. EDWARD H. GROVE, Washington, D. C., assignor of one-eighth to Albert Marks, one-eighth to Ralph A. Kern, one-eighth to Joseph F. Kreamer, and one-eighth to William F. Sullivan, Washington, D. C. Filed Aug. 21, 1912. Serial No. 716,285. (Cl. 175—183.)

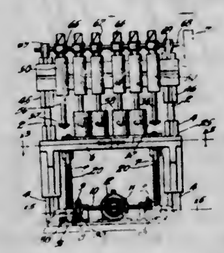


1. In a device for the purpose described, the combination with a casing comprising a body, a removable cover, and fasteners for detachably connecting the cover to the body; the body and cover having an opening formed by notches in their opposed edges, and the fasteners having swinging members, of a cable connected at its ends to said members, an electrical instrument arranged in the body of the casing, a receiver, and a flexible conductor intermediate the instrument and the receiver and extending through the said opening in the casing; the said receiver and conductor being adapted to be arranged in the casing when the device is not in use.

2. In a device for the purpose described, a casing, an exploring coil therein, a telephone receiver outside the casing, conducting means connecting the exploring coil and said receiver, and a suspending means for the casing so connected thereto that the latter may be swung in a plane passing through the axis of the exploring coil.

3. A device for the purpose described, comprising an exploring coil, a telephone receiver, conducting means between the exploring coil and the receiver, and suspending means for the exploring coil so connected thereto that the latter may be swung in a plane passing through the axis of the coil.

1,241,964. MULTIPLE-CYLINDER-GRINDING APPARATUS. CYRUS F. GROW, Alhambra, and JAMES M. COURTNEY, Los Angeles, Cal. Filed Mar. 30, 1916. Serial No. 87,686. (Cl. 51—4.)



1. A grinding machine for grinding a plurality of integral cylinders arranged side by side, comprising a plurality of grinding elements for grinding the interior surfaces of said cylinders, a table for holding said cylinders while being ground, and means for moving said table to cause said grinding elements to grind the interior of said cylinders.

2. A grinding machine for grinding a plurality of integral cylinders arranged side by side, comprising a table for holding the cylinders, a plurality of grinding elements for grinding the interior surfaces of said cylinders, means for shifting said table horizontally, and means for moving said table vertically to cause said grinding elements to grind the interior of said cylinders.

3. A grinding machine, comprising a grinding element, a table, a movable table member for supporting the work, a crank shaft journaled in said table, a crank element on said shaft engaging said movable table element, means for moving said table and table member toward the grinding element, and means for rotating said crank shaft and crank to move said movable table member to rotate the work, said grinding element being adapted to grind the work as it is rotated and reciprocated.

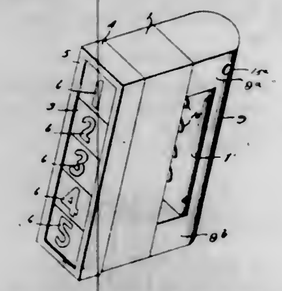
4. An automatic machine for grinding the interior surface of the cylinders of a multiple cylinder gas engine, comprising a slidable table, a movable table member mounted on said table, means for securing the cylinders of a multiple gas engine on said movable table member, grinding elements adapted to engage respectively the interior surfaces of said cylinders, means for actuating said grinding element, means for actuating said movable table member to rotate said cylinders with relation to said grinding element, and means for moving said table and table member longitudinally with relation to said grinding element.

5. An automatic machine for grinding the interior surfaces of the cylinders of a multiple cylinder gas engine, comprising a frame, a table slidably mounted on said frame, a movable table mounted on said slidable table, means for securing the cylinders of a multiple gas engine

on said movable table member, a plurality of heads mounted on said frame, a spindle journaled in each of said heads, a grinding disk secured on each of said spindles adapted to engage the inner surface of a cylinder of said engine, means for rotating said spindles and disks to cause said disks to grind the inner surfaces of said cylinders, means for actuating said movable table member to rotate said cylinders with relation to said grinding element, and means for moving said table and table member longitudinally with relation to said grinding element.

[Claims 6 to 8 not printed in the Gazette.]

1,241,965. SEAT-INDICATOR. JOHN A. GUNN, Hopkinsville, Ky. Filed Apr. 27, 1915. Serial No. 24,255. (Cl. 177—337.)



1. A seat indicator comprising a casing containing a battery, a plurality of reflectors carrying electric light bulbs, a glass in the casing, said glass having a series of ordinals thereon in alinement with each electric light bulb, a handle, and buttons connected to the handle for flashing the bulbs, and electrical connections between said buttons and bulbs.

2. An indicator for the location and number of seats in the moving picture theater comprising a casing, a battery in the casing, a series of reflectors in the casing, each reflector having an electric light bulb disposed therein, a magnifying glass before each reflector, a number indicated on said magnifying glass, a handle member, a series of buttons mounted in the inner portion of said handle, and electrical connections between said buttons and bulbs and means for moving the buttons to close the circuit.

3. An electric flasher for indicating the number of seats vacant in a picture theater comprising a casing, a battery mounted in the casing, a series of reflectors in the casing, electric light bulbs connected one to each reflector, a glass before each bulb having a number thereon, a handle member, a contact plate in the handle member, a series of buttons mounted in the handle, a spring contact plate arranged adjacent said buttons, and electrical connections from said buttons to said bulb through a battery.

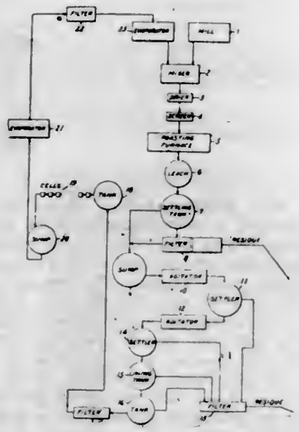
4. An electric indicator for the purpose described comprising a casing and electric light bulbs, a glass, numbers on the glass in alinement with the bulbs, a handle member secured to the casing, and means for lighting any one of the bulbs.

5. A portable seat indicator comprising a handle, a panel carried by the handle, a plurality of ordinals on the panel, and means by which any one of said ordinals may be illuminated, said means being carried by the handle.

[Claims 6 to 8 not printed in the Gazette.]

1,241,966. ZINC-EXTRACTION PROCESS. HERBERT R. HANLEY, Winthrop, Cal., assignor to Bully Hill Copper Mining & Smelting Company, a Corporation of New Jersey. Filed June 5, 1916. Serial No. 101,724. (Cl. 75—18.)

1. The process of extracting zinc from zinc-bearing material containing arsenic, antimony, selenium, tellurium, bismuth or the like, which consists in treating said materials with sulfuric acid, roasting at a temperature at which the zinc compounds are converted to zinc sulfate, and arsenic, selenium and the like are volatilized, leaching the product with water to dissolve soluble constituents, electrolyzing the solution to largely decompose the zinc sulfate forming zinc and sulfuric acid, concentrating the spent liquor, and utilizing the same for roasting with fresh quantities of zinc-bearing material.



3. The process of extracting zinc from zinc-bearing materials which consists in treating said material with sulfuric acid, roasting at a temperature high enough to volatilize arsenic, selenium or the like, leaching the roasted material with water, electrolyzing the zinc sulfate solution until about 70 to 90% of the zinc sulfate has been decomposed and concentrating the acid solution to precipitate dissolved sulfates.

4. The process of extracting zinc from zinc-bearing materials containing arsenic, antimony, selenium, tellurium, bismuth or the like, which consists in roasting said material with a substance containing a sulfuric acid radical, leaching the product to dissolve zinc sulfate, electrolyzing the solution until the zinc sulfate has been depleted to such a low value that by subsequent concentration impurities may be largely precipitated before residual zinc sulfate is precipitated, whereby zinc and sulfuric acid are generated, concentrating the spent solution, to precipitate dissolved sulfates and the like and purifying the sulfuric acid by the removal of said precipitate.

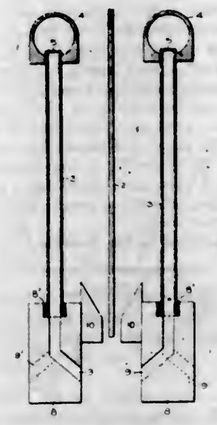
7. The process of extracting zinc from zinkiferous material containing arsenic and antimony, which consists in mixing the ores with a chemical excess of sulfuric acid at a concentration adapted to form a thick mud, drying the mud, roasting at a temperature of about 200 to 650° C. to drive off arsenic, selenium and other volatile elements, extracting the roasted product with water, electrolyzing the solution to largely recover sulfuric acid, concentrating the acid and utilizing the concentrated acid for the treatment of fresh portions of ore.

12. The process of extracting zinc from zinkiferous material which consists in mixing concentrated sulfuric acid with said material roasting the mixture to convert zinc compounds to zinc sulfate, leaching the product with water, removing metals more electro-negative than zinc, electrolyzing the solution to largely decompose the zinc sulfate thereby depositing zinc and setting free sulfuric acid, evaporating the spent electrolyte until dissolved salts are precipitated, separating sulfuric acid from the precipitated impurities and utilizing said acid at least in part for the treatment of fresh quantities of zinc ores.

[Claims 2, 5, 6, and 8 to 11 not printed in the Gazette.]

1,241,967. ELECTROLYTIC APPARATUS. HERBERT R. HANLEY, Winthrop, Cal., assignor to Bully Hill Copper Mining & Smelting Company, a Corporation of New Jersey. Filed June 5, 1916. Serial No. 101,725. (Cl. 204—11.)

1. An aerating device, comprising a receptacle containing a liquid, an air supply pipe, one or more pipes communicating therewith through a non-submerged orifice, said pipes having a submerged orifice of larger diameter than said non-submerged orifice.



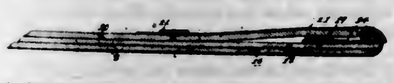
2. An electrolytic apparatus comprising a receptacle, an electrolyte therein, a cathode, anodes located on opposite sides of said cathode, each of said anodes having a plurality of openings submerged in said electrolyte, pipes communicating with said openings, and a conduit communicating with each of said pipes through non-submerged openings of smaller size than said submerged openings.

3. An electrolytic apparatus comprising a receptacle, an electrolyte therein, a cathode, an anode located adjacent said cathode comprising a plurality of pipes, a hollow base having a plurality of openings, located near the bottom of said cathode and communicating with said pipes and a conduit supplying said pipes through non-submerged openings of smaller size than the openings in said anode base.

4. An electrolytic apparatus comprising a receptacle, an electrolyte therein, a cathode plate, a row of pipes located on opposite sides of said cathode, each constituting an anode, each of said pipes having a non-submerged constricted opening, an air supply pipe communicating with said anode pipes through said constricted openings, submerged bases common to each row of anode pipes having openings communicating with said pipes of larger diameter than said constricted openings, openings in opposite bases being located opposite each other.

5. An electrolytic cell comprising a receptacle, an electrolyte therein, a cathode, a hollow anode having a plurality of openings submerged in the electrolyte, and terminating near the lower part of said cathode, means for supplying a gas to said anode to brush adhering gas bubbles from said cathode, and means for guiding the ascending bubbles to impinge on the cathode surface.

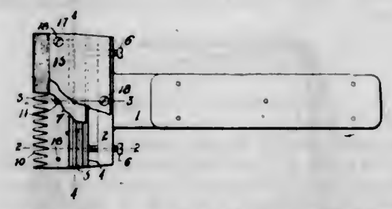
1,241,968. BED-LINEN. ANITA VON RADOSZEWSKI HANSEN, New York, N. Y. Filed Oct. 24, 1916. Serial No. 127,455. (Cl. 5—3.)



1. A device of the class described, comprising an envelop having a solid under side, flaps on its upper side at the edges thereof, the side flaps and one end flap being joined together and the other end flap being free, strips within said envelop secured with one of their longitudinal edges at the edges of the envelop whereby they are free to accommodate a blanket below as well as above the strip, and means for connecting said flaps and strips with bed coverings.

2. A device of the class described comprising, an envelop having flaps on its upper side at the edges thereof, strips within said envelop secured with one of the longitudinal edges at the secured edges of the flaps, and means for connecting said flaps and both faces of said strips with bed coverings.

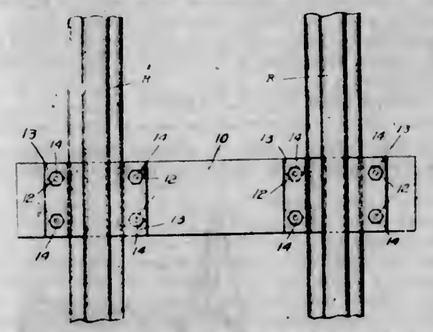
1,241,969. SKINNING-KNIFE. BERTRAND H. HARTMAN, Glenburn, N. D. Filed May 1, 1916. Serial No. 94,801. (Cl. 17—13.)



1. A skinning knife including a body portion provided with guard fingers and a longitudinal groove, a grooved plate movable in the groove, set screws mounted in the body portion and engaging the plate, a blade having a cutting edge for co-action with the guard fingers and a flange for engaging one of the grooves of the plate, and a handle formed on the body portion.

2. A skinning knife including a body portion provided with guard fingers and a longitudinal groove, a grooved plate movable in the groove, said plate having a guiding groove, a rib in the groove of the body portion and engaging the guiding groove to preclude displacement of the plate during adjustment, a blade having a flange for engaging one of the grooves of the plate, and having a guiding groove, a rib on the body portion for engaging said guiding groove to precude displacement of the blade during adjustment, set screws mounted in the body portion and engaging the grooved plate, elongated slots provided in the blade, a cover plate superposed above the blade, threaded fastenings extending through the cover plate, the elongated openings and engaging the body portion, and a handle formed on the body portion and extending at right angles thereto.

1,241,970. COMPOSITION TIE AND RAIL-FASTENER. ELMER H. HAVENS, Albany, N. Y., assignor of one-half to Charles W. Hallenbeck, Albany, N. Y. Filed Mar. 20, 1917. Serial No. 156,058. (Cl. 238—3.)



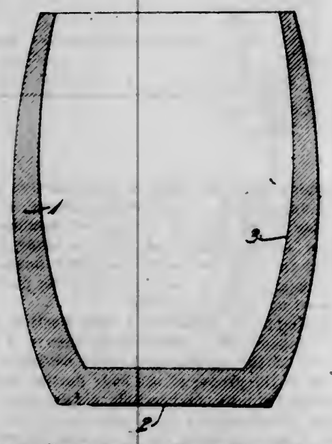
1. A tie of the class described having longitudinal reinforcing rods embedded therein, V-bolts engageable with said rods for securing rail clamps to the tie and means whereby said rods are caused to act as spreaders for said bolts.

2. A tie of the class described having V-shaped clamp securing bolts embedded therein, longitudinal reinforcing and spreading rods passing through and engaging said bolts and a longitudinal reinforcing and anchoring rod also passing through and engaging said bolts.

3. A tie of the class described having clamp securing bolts embedded therein, longitudinal reinforcing and

spreading rods passing through and engaging said bolts, a longitudinal reinforcing and anchoring rod also passing through and engaging said bolts and laterally bent ends on all of said rods.

1,241,971. MELTING-POT OR CRUCIBLE. JOHN C. HENDERSON, Washington, D. C., assignor to Driver Harris Company, Harrison, N. J., a Corporation of New Jersey. Filed July 8, 1916. Serial No. 108,102. (Cl. 75—1.)



1. A cast thin walled metallic melting pot composed of a highly refractory alloy of low heat conductivity and resistant to the action of molten brass, said pot having a refractory, non-flaking coating upon its exposed surface.

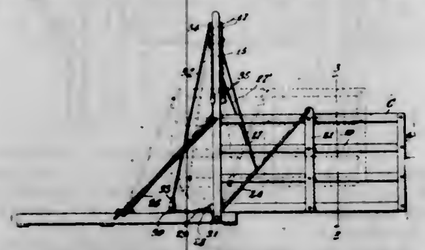
2. A cast metallic melting pot composed of a highly refractory alloy containing chromium and a metal associated with iron in Mendeleef's table and of substantially the same atomic weight as iron.

4. A cast thin walled metallic melting pot composed of a highly refractory alloy containing chromium and a metal associated with iron in Mendeleef's table and of substantially the same atomic weight as iron, said pot having a refractory, non-flaking coating upon its exposed surface, and the wall thereof increasing in thickness as it approaches the base.

5. A cast metallic melting pot, composed of a highly refractory alloy containing nickel and a metal having the characteristics of chromium, the combined nickel and said other metal amounting to at least sixty per cent. (60%) of the alloy.

[Claim 3 not printed in the Gazette.]

1,241,972. GATE. JOHN E. HENRIS, Folsom City, Cal. Filed May 17, 1916. Serial No. 98,141. (Cl. 39—64.)



1. A gate, tiltable arms supporting the gate for swinging movement, means for operating the arms to swing the gate from open to closed position, and vice versa, a latch device consisting of a rock shaft fulcrumed adjacent to the gate and having weighted arms extending in one direction, and a yoke extending in the opposite direction at an angle to said arms and positioned in the path of the heel portion of the gate, and means for rocking the latch device to move the yoke to a non-obstructing position with respect to the gate.

2. A gate, tiltable arms supporting the gate for swinging movement, means for operating the arms to swing the gate from open to closed position, and vice versa, a latch device consisting of a rock shaft fulcrumed adjacent to the gate and having weighted arms extending in one direction, and a yoke extending in the opposite direction at an angle to said arms and positioned in the path of the heel portion of the gate, and means for rocking the latch device to move the yoke to a non-obstructing position with respect to the gate, said means being operatively connected with the gate operating means so as to be operated simultaneously therewith.

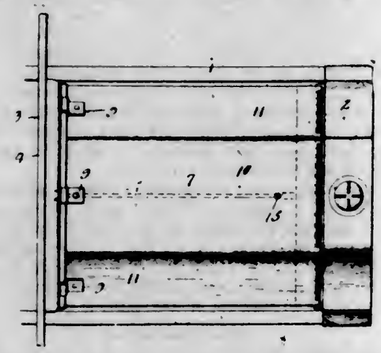
[Claim 3 not printed in the Gazette.]

1,241,973. METHOD OF TREATING PIECES OF MATERIAL OF NON-UNIFORM MOISTURE CONTENT TO AN IMPREGNATING FLUID. GEORGE H. HESS, La Grange Park, Ill. Filed May 17, 1917. Serial No. 169,265. (Cl. 92—1.)

1. The process of treating to an impregnating fluid pieces of material of non-uniform moisture-content requiring substantial uniformity of moisture-content for uniformity of treatment thereof by the impregnating fluid, which consists in causing the pieces of non-uniform moisture-content to be in contact with each other for a length of time sufficient to effect substantially uniform dissemination through the pieces of the moisture therein, to substantially equalize the moisture-content of the pieces, and subsequently thereto treating the pieces to the impregnating fluid.

[Claims 2 to 9 not printed in the Gazette.]

1,241,974. AUXILIARY HOOD FOR MOTOR-VEHICLES. CLAUD J. HICKS, Clearwater, Fla., assignor to J. R. Thomas and C. E. Thomas, Clearwater, Fla. Filed Oct. 5, 1916. Serial No. 123,931. (Cl. 74—56.)



1. In motor vehicle construction, the combination with the engine hood formed of sections, a radiator and a dashboard flange for supporting the hood, of an auxiliary hood arranged below the first-mentioned hood and having one end resting upon the radiator and the remaining end flared upwardly and disposed below a flange on the dashboard, and cleats on the flared end of said auxiliary hood engaging the upper surface of the adjacent dash board flange and coöperating with the flared end of the auxiliary hood to hold the auxiliary hood in proper position.

2. In motor vehicle construction, the combination with the engine hood formed of sections, a radiator and a dashboard flange for supporting the hood, of an auxiliary hood arranged below the first-mentioned hood and having one end resting upon the radiator and the remaining end flared upwardly and disposed below the flange on the dashboard, cleats on the flared end of said auxiliary hood engaging the upper surface of the adjacent dashboard flange and coöperating with the flared end of the hood to hold the hood in proper position, a reinforcing bar between the radiator and the dashboard, and means on the under surface of said auxiliary hood engaging the reinforcing bar.

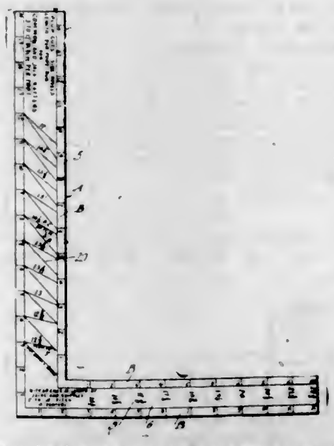
1,241,975. HOBBY-HORSE. IRA CLAY HICKS and GEORGE L. SUMMERS, Huntington, W. Va. Filed Feb. 14, 1917. Serial No. 148,549. (Cl. 208—42.)



1. A tricycle of the character set forth comprising a body portion, means for propelling the tricycle, a steering wheel having an elongated bearing, and steering mechanism connected in the elongted bearing of the steering wheel and adapted for adjustment at a point concentrically and eccentrically with the steering wheel.

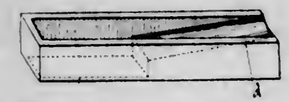
[Claims 2 and 3 not printed in the Gazette.]

1,241,976. ROOF-FRAMING SQUARE. ROWLAND HILL, Cincinnati, Ohio. Filed Dec. 11, 1915. Serial No. 66,305. (Cl. 33—113.)



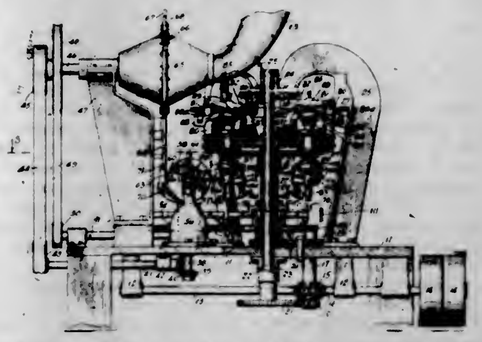
A square having a long and a short arm, the outer edge of the longer arm being calibrated to measure off 16 inches while the outer edge of the shorter arm is calibrated to measure off 12 inches, said inches being designated upon said square and run in opposite directions from the outer corner thereof, each side of the square being similarly calibrated into inches and similarly designated, one side of the longer arm of said square being inscribed with a series of diagonal lines terminating at the graduations designated 3 to 12 inclusive, said last-named arm being also inscribed with a designated series of values opposite same representing the length per foot run of jack rafters, etc., the other side of the longer arm of said square having a similar series of diagonal lines inscribed thereupon also joining the numeral 3 to 12 and having opposite the same a designated series of values representing the plumb cuts of ribs and valleys, etc., and of the diagonal lines on the first mentioned side of the long arm of said square representing the hypotenuse of a triangle having a 12 inch leg and a base of as many inches as is designated by the inch numeral opposite this line, while any of the diagonal lines on the opposite side of said arm represent the hypotenuse of a triangle whose leg is 16 inches long.

1,241,977. TOOTH-BRUSH RECEPTACLE. ALEXANDER HIPPIUS, Wiesbaden, Germany. Filed Sept. 10, 1915. Serial No. 50,056. (Cl. 132—11.)



As a new article of manufacture, a tooth brush receptacle composed of a longitudinal casing; a cavity provided at one end of the same and intended to receive the bristle part of the brush, as well as a disinfecting liquid constantly surrounding the bristles of said part; a cover merely for the said cavity, and an inclined bottom extending from the upper cross edge of the casing at the other end of the latter down to about half the height between the cavity bottom and the lower cover surface.

1,241,978. CAN-CAPPING MACHINE. JOHN EDGAR HIBBS, Philadelphia, Pa. Filed Aug. 26, 1916. Serial No. 116,976. (Cl. 113—25.)



1. The combination of a rotatable carrier, concentric cams arranged concentrically with respect to the carrier, plungers movably mounted on the carrier in spaced relation in a circle, a sleeve on each plunger, a wheel associated with each sleeve, means between each sleeve and wheel for moving the latter into and out of operative relation with the plunger by the movement of the sleeve, a lever fulcrumed adjacent one cam and extending to the other for actuation by the latter, a lever fulcrumed adjacent one cam and extending to the other for actuation thereby, means for connecting one lever with a plunger, and means for connecting the other lever with a sleeve.

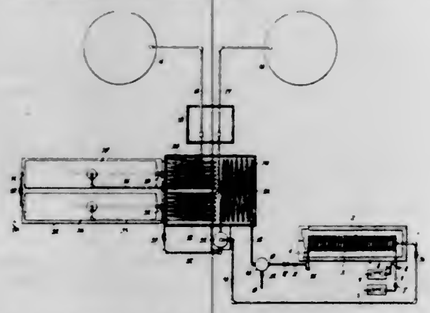
4. In a can capping machine, the combination of a plunger movable longitudinally, an actuating lever loosely connected with the plunger and preventing rotation of the latter, a longitudinally and rotatably movable sleeve on the plunger, a spring encircling the plunger and yieldingly opposing movement thereof in one direction, a ball-bearing between the sleeve and spring, means for rotating the sleeve, means for longitudinally moving the sleeve, and a crimping wheel carried by the sleeve.

6. In a can capping machine, the combination of a plunger movable longitudinally, an actuating lever loosely connected with the plunger and preventing rotation of the latter, a longitudinally and rotatably movable sleeve on the plunger, a spring encircling the plunger and yieldingly opposing movement thereof in one direction, a ball bearing between the sleeve and spring, a tubular member feathered to the sleeve, means for rotating the said mem-

ber, a lever operating on the ball bearing to move the sleeve longitudinally, a crimping wheel mounted on the member and operatively connected with the sleeve, whereby the crimping wheel is revolved around the plunger and is moved longitudinally thereof, and spring means operatively connected with the crimping wheel to retract the same from crimping position.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,241,979. PROCESS OF AND APPARATUS FOR PRODUCING LIGHT HYDROCARBONS. JOSEPH E. HOLMES, Cushing, Okla. Filed Aug. 31, 1915. Serial No. 48,318. (Cl. 196—26.)



1. An apparatus for producing gasolene or other like light hydrocarbons from a petroleum oil or distillate comprising a retort, means for supplying measured quantities of a petroleum oil or distillate and natural gas to said retort, means for heating the retort to raise the temperature and pressure of the mixture to a high degree, an expansion chamber in communication with the retort for the expansion of the mixture therein so as to condense and precipitate the heavier constituents, means in the line of communication between the retort and expansion chamber for maintaining a predetermined pressure in the retort, and permitting flow of the mixture to the expansion chamber when such pressure is exceeded, and means for separating the gas and heavy products from the lighter volatiles and condensing and collecting the latter.

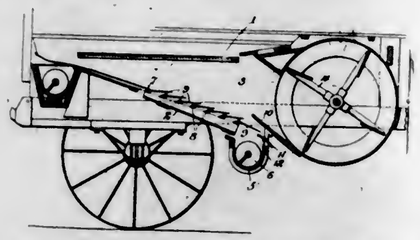
2. The hereindescribed process of producing gasolene or other like light volatile hydrocarbon from petroleum oil or distillates, which consists in distilling a mixture of the oil or distillate with natural gas under a high temperature, whereby to raise the temperature and pressure of the mixture, causing expansion of the mixture under adiabatic conditions, separating the heavier from the lighter and more volatile constituents, and then condensing and separating the vapors.

3. An apparatus for use in producing gasolene or like light hydrocarbons from a petroleum oil or distillate comprising a retort, means for supplying a mixture of a petroleum oil or distillate with a predetermined quantity of natural gas to said retort, whereby to vaporize the oil and place the mixture under high temperature and pressure, means for causing expansion of the mixture under adiabatic conditions, and means for condensing and separating the vapors.

1,241,980. RECLEANER STRUCTURE FOR THRESHING-MACHINES. JOSEPH J. HOLSEN, Manitowoc, Wis. Filed Nov. 9, 1916. Serial No. 130,409. (Cl. 130—19.)

1. A recleaner attachment for threshing machines for association with the grain auger of the machine, comprising a sieve made up of a slanting stepped series of tines with the lowermost tines overlying the grain auger, and a blind or deflector at the lower end of the series in position to receive material therefrom for directing material carried by the series of tines to a point of discharge away from the grain auger.

2. A recleaner attachment for threshing machines for association with the grain auger of the machine, comprising a sieve made up of a slanting stepped series of tines with the lowermost tines overlying the grain auger, and a blind or deflector at the lower end of the series in position to receive material therefrom for directing material carried by the series of tines to a point of discharge away from the grain auger, said blind or deflector being rockable for movement into interposing relation to a stream of material discharged from the sieve and to direct such stream to the grain auger.

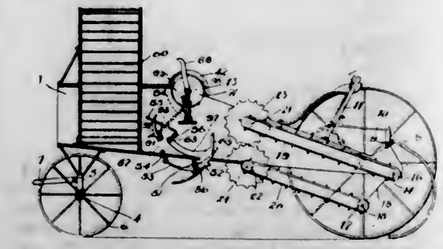


3. A recleaning attachment for threshing machines for association with the grain auger, shoe leading thereto and cleaning fan associated with the grain auger, comprising a sieve made up of a stepped series of tines slanting toward the grain auger with each series of tines having a supporting bar therefor extending crosswise of the length of the sieve and having a rising edge extending above the tines where projecting from the cross bar and into close relation to the next higher series of tines.

4. In an attachment for a threshing machine having a grain auger and a fan associated with the grain auger, a sieve extending over the grain auger and discharging beneath the fan away from the auger, and a blind or valve interposed between the grain auger and the fan and movable to close the space between the grain auger and the fan or to open the same for the passage of air both above and below the valve.

5. A recleaning attachment for a threshing machine having a grain auger and a blower fan associated therewith, comprising a sieve overlying the grain auger and having its discharge end in superposed relation to the grain auger, and a deflector underlying the discharge end of the sieve for directing material issuing therefrom away from the grain auger and out of the way of both the fan and the grain auger.

1,241,981. HAY-BALER. EDWARD T. HUDSON, Superior, Nebr. Filed Aug. 6, 1915. Serial No. 44,085. (Cl. 100—65.)



1. In a device as set forth, a supporting structure, a raking structure carried by the rear end of said supporting structure, means for moving said raking structure into or out of a raking position, a plurality of packing arms carried by said supporting structure, means operatively connected to said packing arms for operating said arms upon the travel of said supporting structure, tension levers carried by said supporting structure against which the hay is forced by said packing arms.

2. In a hay harvester, the combination, of a portable baling chamber, raking means carried by said chamber, means for feeding hay from the raking means into said chamber, a crank shaft carried by said chamber, a plurality of packing arms carried by said crank shaft, means for rotating said crank shaft for moving said packing arms into a hay engaging position, and means for passing a tying cord about the bale formed in said chamber, means for operating said twine carrying means, means operable by said last named means for ejecting a tied bale from said chamber, compressing arms carried by said chamber and adapted to move into hay from an opposite side of a bale from said packing arms.

3. In a hay harvester, the combination, of a portable baling chamber, raking means carried by said chamber, means for feeding hay from the raking means into said chamber, a crank shaft carried by said chamber, a plurality of packing arms carried by said crank shaft, means for rotating said crank shaft for moving said packing arms into a hay engaging position, and means for passing a tying cord about the bale formed in said chamber, means for operating said twine carrying means, means operable by said last named means for ejecting a tied bale from said chamber, compressing arms carried by said chamber and adapted to move into hay from an opposite side of a bale from said packing arms, and means operable by said twine carrier operating means for moving said compressing arms into a hay engaging position.

4. In a hay harvester, the combination, of a portable baling chamber, raking means carried by said chamber, means for feeding hay from the raking means into said chamber, a crank shaft carried by said chamber, a plurality of packing arms carried by said crank shaft, means for rotating said crank shaft for moving said packing arms into a hay engaging position, compressing arms carried by said chamber and adapted to move into hay from an opposite side of a bale from said packing arms.

5. In a hay harvester, the combination, of a portable baling chamber, raking means carried by said baling chamber, means for feeding hay from said raking means into said chamber, a crank shaft carried by said chamber, a plurality of packing arms carried by said crank shaft, means for rotating said crank shaft for moving said packing arms into a hay engaging position, a shaft rotatably carried by said baling chamber, a plurality of compressing arms carried by said shaft, a spring connected to said shaft, and means operatively connected to said spring for rocking said shaft for moving the compressor arms into a hay engaging position, said compressing arms being mounted for movement into hay from an opposite side of the bale from said packing arms.

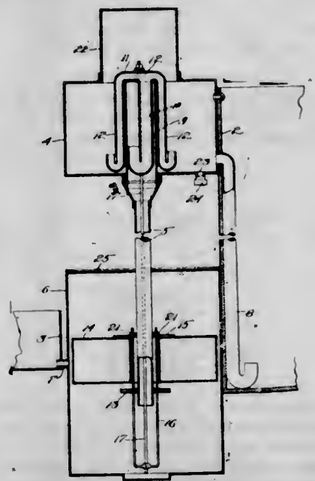
[Claim 6 not printed in the Gazette.]

1,241,982. APPARATUS FOR SUPPLYING RECEPTACLES WITH LIQUID. LOT A. HUFFERD, Detroit, Mich. Filed Nov. 13, 1916. Serial No. 130,964. (Cl. 137—68.)

1. An apparatus of the character described, comprising an upper tank having its top portion closed and also having an inlet adapted to be connected to a supply receptacle, a lower tank having an outlet adapted to be connected to a receptacle to be supplied, an open-ended pipe connecting said tanks and having its upper end located above the level of the liquid in the upper tank and its lower end located below the level of the liquid in the lower tank, and means controlled by the rise and fall of the liquid in the lower tank for regulating the flow from the upper tank into said pipe.

2. An apparatus of the character described, comprising an upper tank having its top portion closed and also having an inlet adapted to be connected to a supply receptacle, a lower tank having an outlet adapted to be connected to a receptacle to be supplied, an open-ended pipe connecting said tanks and having its upper end located above the level of the liquid in the upper tank and its lower end located below the level of the liquid in the lower tank, a float movable with the rise and fall of the liquid in the lower tank, and a siphon carried by said float and arranged to convey liquid from the upper tank into said pipe.

3. An apparatus of the character described, comprising an upper tank having its top portion closed and also having an inlet adapted to be connected to a supply receptacle, a lower tank having an outlet adapted to be connected to a receptacle to be supplied, an open-ended pipe connecting said tanks and having its upper end located above the level of the liquid in the upper tank and its lower end located below the level of the liquid in the lower tank, a float located in the lower tank and movable with the rise and fall of the liquid therein, an upright rod carried by the float and extending upward within said pipe, and a siphon carried by said rod and having its outer and inner legs located respectively in the upper tank and in the upper end of said pipe.



4. An apparatus of the character described, comprising an upper tank having its top portion closed and also having an inlet adapted to be connected to a supply receptacle, a lower tank having an outlet adapted to be connected to a receptacle to be supplied, an open-ended pipe connecting said tanks and having its upper end located above the level of the liquid in the upper tank and its lower end located below the level of the liquid in the lower tank, a float movable with the rise and fall of the liquid in the lower tank, and a siphon carried by said float and arranged to convey liquid from the upper tank into said pipe, the lower end of said pipe being provided with a downwardly-facing funnel.

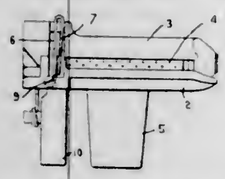
5. An apparatus of the character described, comprising an upper tank having its top portion closed and also having an inlet adapted to be connected to a supply receptacle, a lower tank having an outlet adapted to be connected to a receptacle to be supplied, an open-ended pipe connecting said tanks and having its upper end located above the level of the liquid in the upper tank and its lower end located below the level of the liquid in the lower tank, a float movable with the rise and fall of the liquid in the lower tank, a siphon carried by said float and arranged to convey liquid from the upper tank into said pipe, and means for vertically adjusting the siphon and float with respect to each other.

[Claims 6 to 11 not printed in the Gazette.]

1,241,983. THREAD-CUTTING LOOM-TEMPLE. ALFRED A. HULL, Knoxville, Tenn., assignor to Draper Corporation, Hopedale, Mass., a Corporation of Maine. Filed Apr. 11, 1917. Serial No. 161,308. (Cl. 139—36.)

1. A thread cutting temple for looms comprising a resilient cutting blade of inverted U-shape secured rigidly by one leg in vertical position in the temple head and having the other leg pressed toward the former leg by the re-

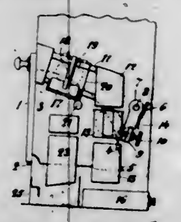
siliency of the blade, and a forwardly and backwardly movable cutting blade projecting between and contacting with both legs of the rigidly secured blade, whereby a



shearing cut is effected upon the forward movement of the movable blade and whereby the cutting edges of the blade are maintained sharp by the rubbing action.

[Claim 2 not printed in the Gazette.]

1,241,984. AUTOMATIC SALES DEVICE. HERMANN JENSEN, Copenhagen, Denmark. Filed Oct. 12, 1916. Serial No. 125,300. (Cl. 194—92.)

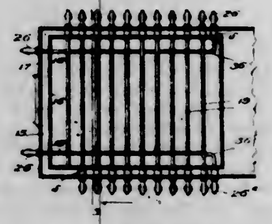


1. In a sales device, a coin chute, a door having on its inner face an inwardly projecting member, and a movable locking member projecting into the coin chute to retain a coin therein, and coöperating with the member of the door to lock the same when there is no coin in the said chute and held in inoperative locking position by a coin in the chute to permit the door to be opened.

4. In a sales device, a door having an inwardly projecting member on its inner face, a coin chute having an opening in its bottom, a resiliently mounted member in the opening of the chute, and means coacting with the member of the door for permitting the member in the opening of the coin chute to relase the coin when the door is opened.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,241,985. STEAM-BOILER. AUGUST JOHNSON, Livingston Manor, N. Y. Filed Jan. 22, 1917. Serial No. 143,636. (Cl. 122—68.)



1. The combination with a steam generator having a fire box and a water space, of an auxiliary generator including a plurality of supporting conduits mounted within the fire box and having the respective ends thereof projected through to the exterior of the boiler, a coupling member for each end of said conduits forming an exterior communicating means between the ends of the conduits and the water space of the boiler, a plurality of supported conduits disposed at right angles to the supporting conduits and having their ends disposed at different levels and projecting to the exterior of the boiler, and a coupling member for each end thereof disposed exteriorly of the boiler and providing a communicating means between each end of said supported conduits and the water space of the boiler.

2. The combination with a steam generator having a fire box and a water space, of an auxiliary generator including a plurality of supporting conduits mounted within the fire box and having the respective ends thereof projected through to the exterior of the boiler, a coupling member for each end of said conduits forming an exterior communicating means between the ends of the conduits and the water space of the boiler, a plurality of supported conduits disposed at right augles to the supporting conduits and having their ends disposed at different levels and projecting to the exterior of the boiler, a coupling member for each end thereof disposed exteriorly of the boiler and providing a communicating means between each end of said supported conduits and the water space of the boiler, and a valve mounted in each coupling member for automatically closing the end of its respective conduit due to a burst in such conduit within the fire box.

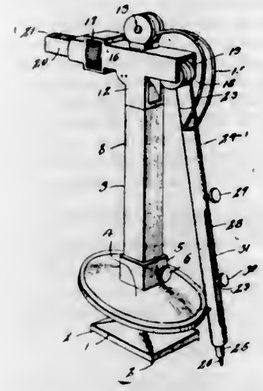
3. The combination with a steam generator having a fire box and a surrounding water space, of an auxiliary generating apparatus including two longitudinally disposed supporting conduits mounted within the fire box and having the ends thereof projected through the walls of the fire box and boiler, two coupling members to each conduit attached to the outer wall of the boiler and in communication with the end of the conduit and the boiler, a plurality of transverse conduits mounted within the fire box and resting upon the supporting conduits, each of said transverse conduits being provided with a lower terminal extending parallel to the side walls of the fire box and projecting through the water space to the exterior of the boiler, a coupling member attached to the wall of the boiler and providing communicating means with the end of said conduit and the water space of the boiler, the upper end of each transverse conduit being projected through the side wall of the fire box to the exterior of the boiler, and a coupling member attached to the outer end of said conduit and forming communicating means therewith and the steam dome of the boiler.

4. The combination with a steam generator having a fire box and a surrounding water space, of an auxiliary generating apparatus including two longitudinally disposed supporting conduits mounted within the fire box and having the ends thereof projected through the walls of the fire box and boiler, two coupling members to each conduit attached to the outer wall of the boiler and in communication with the end of the conduit and the boiler, a plurality of transverse conduits mounted within the fire box and resting upon the supporting conduits, each of said transverse conduits being provided with a lower terminal extending parallel to the side wall of the fire box and projecting through the water space to the exterior of the boiler, a coupling member attached to the wall of the boiler and providing communicating means with the end of said conduit and the water space of the boiler, the upper end of each transverse conduit being projected through the side wall of the fire box to the exterior of the boiler, a coupling member attached to the outer end of said conduit and forming communicating means therewith and the steam dome of the boiler, and a valve mounted within each coupling and disposed to automatically close the end of its respective conduit due to a burst thereof in the fire box.

1,241,986. DRAWING INSTRUMENT. CHARLES E. JOHNSON, New York, N. Y. Filed Oct. 28, 1916. Serial No. 128,267. (Cl. 33—27.)

1. In a drafting instrument, a compass including an inner and an outer leg, a body adjustably associated with the inner leg, a longitudinally adjustable element arranged transversely of the inner leg, a pivotal connection between said element and the outer leg, and spring means for swinging the outer leg into contact with the adjustable body.

2. In a drafting implement, the combination with an elliptical body, of a compass comprisig an inner and an outer leg and the said inner leg revolubly associated with the said elliptical body, an adjustable member arranged transversely of the inner leg, a pivotal connection between said member and the outer leg, and spring means connected with the inner leg and engaging with the outer leg to force the latter into contacting engagement with the elliptical body.



3. In a drafting implement, the combination with an elliptical body, of a compass comprising an inner and au outer leg and said inner leg revolubly associated with the said elliptical body, a longitudinally adjustable element arranged transversely of the inner leg, a pivotal connection between said element and the outer leg, spring means for swinging the outer leg into peripheral engagement with the elliptical body, a marking element associated with the outer leg, spring means for normally projecting the said marking element outward of the said outer leg, and adjustable means for regulating said spring means.

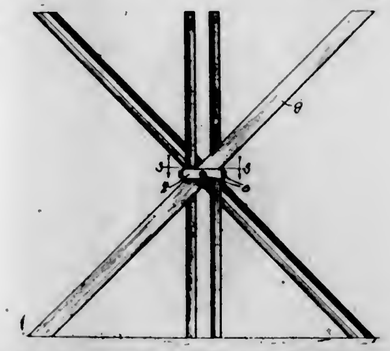
4. In a drafting implement, a foot having a sleeve projecting therefrom, an elliptical body adjustably secured to the sleeve, a compass including an inner and an outer leg, said inner leg journaled in the sleeve, laterally disposed longitudinally adjustable element associated with the inner leg, and a pivotal connection between said element and the outer leg of the compass.

5. In a drafting implement, a foot member having entering points and having a sleeve connected thereto, a compass including an inner and an outer leg, the inner leg of the compass journaled in the sleeve, a longitudinally adjustable element associated with the inner leg and disposed transversely thereof, a pivotal connection between the said element and the outer leg of the compass, spring means upon the inner leg and engaging with the outer leg for swinging the latter in the direction of the inner leg, and an adjustable body upon the sleeve disposed to contact with the said outer leg to limit the inward swinging thereof and to serve as a guide for the said outer leg when the instrument is in use.

[Claim 6 not printed in the Gazette.]

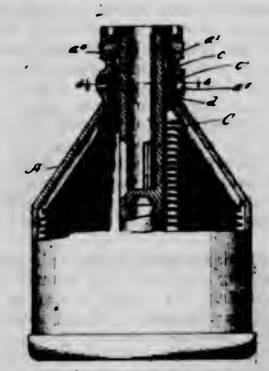
1,241,987. COLLAPSIBLE STAND AND SUPPORT. STEPHEN KALISZ, Chicago, Ill. Filed Mar. 6, 1917. Serial No. 152,760. (Cl. 45—117.)

A collapsible stand comprising a collar consisting of a polygonal middle portion, a similar outer portion connected with the middle portion by means of integral radial spokes extending from the outer corners of the middle portion to the inner corners of the outer portion and constituting the end walls of equal slots, a pivot pin spanning each slot between the ends thereof, legs pivotally mounted between their ends on said respective pins and adapted to be turned in the same direction through an arc of substantially forty-five degrees to engage said spokes, each of said spokes having beveled faces adapted to be engaged by the side edges of two adjacent legs when the latter are turned to one limit of their movement, and each of said spokes having an edge-portion positioned to engage an edge of a leg to prevent the same from being turned in the



reverse of its intended direction from collapsed to open position of the stand.

1,241,988. CREAM-SEPARATOR. HENRY B. KRIPPS, Lancaster, Pa. Filed May 12, 1917. Serial No. 168,185. (Cl. 233—46.)



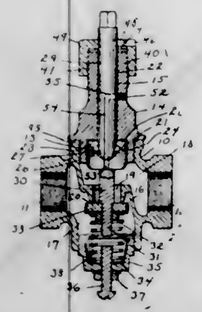
1. In a centrifugal cream separator, a separator bowl containing milk inlet and distributing and separating devices, including a member having a neck secured within the neck of the bowl, and milk and cream passages in the bowl neck separated by the neck of said member, a cream exit leading from said cream passage, and an adjustable tubular milk outlet in communication with said milk passage and an air-vent associated therewith for relieving the pressure within the bowl neck and maintaining a uniform pressure therein.

7. In a centrifugal cream separator, a bowl having a neck extension provided with a plurality of cream exits at or near the top thereof, a milk exit below said cream exit, means for separating the milk and cream exits, a tubular plug adjustably secured in said milk exit for regulating the relative proportions of milk and cream, and an air port in communication with the passage leading to the outlet for skimmed milk.

9. In combination, a bowl having a tubular neck, a milk inlet tube within said bowl having discharge openings therein, a milk distributing device surrounding said tube, a series of superposed conical plates or disks fitted upon and surrounding said milk distributing device, the uppermost disk having a tubular neck extension closely fitting within the neck of the bowl and provided with radially extending ribs, the bowl neck having a milk outlet and a tubular plug fitted therein and a cream outlet above said milk outlet and separated therefrom together with an air port in communication with the passage leading to said milk outlet.

[Claims 2 to 6 and 8 not printed in the Gazette.]

1,241,989. SPRING-COCK. MARTIN J. KELLY, New Britain, Conn. Filed Sept. 2, 1915. Serial No. 48,616. (Cl. 137—4.)



1. In combination in a cock, a body having an inlet at one side, an outlet at the other side, an end opening at the upper end, and a closed bottom, and divided in the interior by a bridge into a supply chamber on the lower end connected to the said inlet, and a delivery chamber on the upper side, connected to the said outlet, the said bridge having a valve opening and a valve seat at the lower edge thereof, a cap closing the said end opening, having in the upper portion a bore for a spindle, and in the lower portion a pair of V-shaped end cams, and a spindle member, the said spindle member comprising as one piece a spindle portion at the upper end, positioned in the said bore, an end cam portion next to the said spindle portion, having a pair of V-shaped cams, a stem portion extending downwardly from the said cam portion and passing through the said valve opening, and a reduced threaded extension below the said stem portion, a valve mounted on the said reduced threaded extension, and a spring inclosing the said reduced threaded extension, and positioned between the said valve and the said closed bottom.

2. A cock comprising a body having an opening at the upper end and having a bridge in the interior that is provided with an opening, and having a seat on the lower border of the said last named opening, a spindle member extending through the said openings, a lower end cam member and a valve on the said spindle member and on opposite sides of the said seat, and a cap engaged with the upper portion of the said spindle member, closing the said opening in the body, and provided with an upper end cam for coöperating with the said lower end cam, the said cap having an auxiliary outlet in the side wall, and the said spindle member having a passage extending along the periphery for connecting the said auxiliary outlet with the outlet side of the interior of the said body.

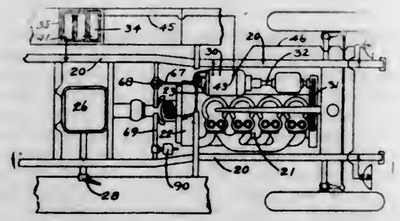
3. A cock comprising a spindle member having a spindle and a valve mounted thereon, a body in which the said spindle member is operatively housed and having a valve seat for coöperating with the said valve, coöperating end cams on the spindle and body for opening the valve, a spring tending to hold the said valve in the closed position, and a key for engaging with the said spindle for holding the said valve in the open position.

4. In combination in a cock, a body having an inlet at one side, an outlet at the other side, an end opening at the upper end, and a closed lower side, and divided in the interior by a bridge into a supply chamber on the lower side, connected to the said inlet, and a delivery chamber on the upper end, connected to the said outlet, the said bridge having a valve opening and a valve seat at the lower edge thereof, a cap closing the said end opening, having in the upper portion a bore for a spindle, and in the lower portion a pair of V-shaped end cams, and a spindle member, the said spindle member comprising as one piece a spindle portion at the upper end, positioned in the said bore, an end cam portion next to the said spindle portion, having a pair of V-shaped cams for coöperating with the said cams of the cap, a stem portion extending downwardly from the said cam portion and passing through the said valve opening, and a reduced threaded extension below the said stem portion, a valve mounted on the said reduced threaded extension, and a spring inclosing the said reduced threaded extension, and positioned between the said valve and the lower side of the body, and the said reduced threaded extension being of suitable length to cooperate with the said lower side to limit the movement of the said spindle member.

5. In a cock, a body portion provided with a bridge in the interior having a hole and a seat on one side of the said hole, a spindle member extending through the said hole, a valve mounted on the said spindle member, positioned on the said one side of the hole and end cam devices on the said spindle on the other side of the said hole, the said seat being provided on a removable valve seat member, and the said spindle member being provided with means for removing and replacing the said valve seat member.

[Claim 6 not printed in the Gazette.]

1,241,990. ENGINE-STARTING DEVICE. CHARLES F. KETTERING and WILLIAM A. CHRYST, Dayton, Ohio, assignors to The Dayton Engineering Laboratories Co., a Corporation of Ohio. Filed July 14, 1913. Serial No. 778,934. (Cl. 172—239.)



1. In a starting device for engines, the combination with an engine and a starting device therefor, comprising an electric motor; mechanical connections operable to connect said motor and engine together for starting purposes; a source of current; circuit connections between said source of current and the motor to operate the latter for starting; a plurality of commutator brushes therefor, included in said circuit connections; retracting means for normally maintaining one of said brushes in position to open said motor-starting circuit connections; and a common operating member operable on said mechanical connections to connect the engine and motor together and also operable on said retaining means to permit said brush to close the motor-starting connections.

3. In a starting device for engines, the combination with a motor and an engine; shiftable mechanical connections between said engine and motor; a storage battery adapted to be electrically connected with said motor; a commutator brush in said circuit connections, but normally maintained in inoperative position; and a common operating member for first moving said mechanical connections into coupled position, and secondly, operating to permit said brush to close the circuit between the storage battery and the motor.

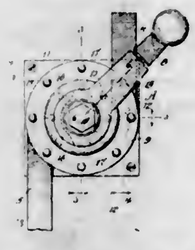
9. In a starting device for engines, the combination with an engine and a starting device therefor, including an electric motor; a source of current having circuit connections with said motor; commutator brushes included in said circuit connections, one of said brushes being movable into two operative positions; and means controlled by the position of said movable brush for permitting the closing of certain of said circuit connections to effect an initial movement preliminary to starting, when said brush is in one position, and to cause the subsequent cranking operation when said brush is in its other position.

10. In a starting device for engines, the combination with an engine and a starting device therefor including an electric motor; mechanical connections shiftable to connect the engine and the motor together; a source of current having circuit connections with said motor; a commutator brush arm normally positioned to form a part of one of said circuit connections, and adapted to break another of said connections; and means for closing the circuit which normally includes said commutator brush arm, whereby to impart an initial movement to the motor.

11. In a starting device for engines, the combination with an engine and a starting device therefor; a source of current; high resistance circuit connections between the source of current and electric motor; a commutator brush arm normally included in the high resistance circuit connections; and means for closing the high resistance circuit connections to impart an initial movement to the electric motor; and manipulative means for causing movement of said brush arm to break the high resistance circuit.

[Claims 2 and 4 to 8 not printed in the Gazette.]

1,241,991. DOUBLE-DOOR BOLT. LYMAN G. KEYES, National Military Home, Kans. Filed May 15, 1917. Serial No. 168,626. (Cl. 16—61.)



1. A bolt operating device comprising a base plate having a raised portion and arcuate slots, a stud projecting from the raised portion, a disk on the stud and extending outwardly beyond the raised portion, whereby a recess is provided between the disk and plate, bolts extending into the recess and located at opposite sides of the raised portion, means forming pivots between the disk and bolts and also forming members engaged in the slots of the base plate to limit the turning movement of the disk, and means connected with the disk for turning the same.

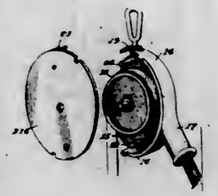
2. The combination of a plurality of bolts, with operating means therefor comprising a base plate, a central pivot stud thereon, said base plate having arcuate slots concentric with the stud, a disk on the stud, pins on the disk and to which the bolts are pivotally connected, said pins extending into the arcuate slots, a handle on the stud, and means for adjustably fastening the handle to the disk.

3. The combination of a plurality of bolts, with operating means therefor comprising a base plate, a central pivot stud thereon, said base plate having arcuate slots concentric with the stud, a disk on the stud, pins on the disk and to which the bolts are pivotally connected, said pins extending into the arcuate slots, a handle on the stud, means for adjustably fastening the handle to the disk, interengaging means between the handle and disk, whereby the handle can be adjusted to different angular positions, and fastening means securing the disk and handle together and holding the same interlocked.

1,241,992. AWNING-PULLEY. WILLIAM B. KIEHL, Pittsburgh, Pa. Filed Jan. 7, 1916. Serial No. 70,837. (Cl. 254—197.)

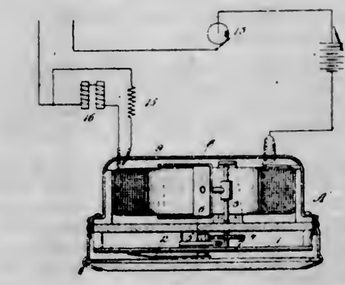
1. An awning-pulley comprising a back plate having a laterally extending flange around the front half only of the periphery thereof, said flange having a recess adjacent the top thereof and being formed intermediate its ends with an elongated tubular extension, a front plate secured to said back plate and abutting against said flange, said front plate having a portion extending into said recess, a swivel mounted in said recess, and a pulley-wheel mounted to rotate between said front and back plates.

2. An awning-pulley comprising a unitary metallic back-member including a plate-portion having a flange-portion extending partially therearound and terminating at points adjacent the top and bottom, and having an elongated tube extending angularly outward from said flange-portion intermediate the ends of the latter, said flange-portion having a transverse slot formed therein near the



top, a front-member consisting of a flat plate having a lug adapted to enter said slot when said plate is superposed on the flange of said back-member, means for securing said front-member to said back-member, a pulley rotatably mounted between said members, and a supporting swivel disposed in said slot and retained in position by said flange and said lug, for the purposes set forth.

1,241,993. ELECTRIC REVOLUTION-METER FOR INTERNAL-COMBUSTION ENGINES. JOHN KIRBY, New York, N. Y. Filed Jan. 26, 1917. Serial No. 144,797. (Cl. 175—183.)



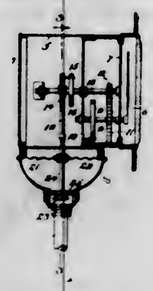
The combination with an ignition circuit of an internal combustion engine, of a revolution meter comprising an armature, a needle connected therewith, a field element magnetically related to the armature and composed of two oppositely-wound normally balanced coils each having a terminal connected with the ignition circuit, a resistance connected with one coil, a reactance connected with the other coil, and the said resistance and reactance being connected with the ignition circuit and of the same ohmic resistance, whereby the difference in the flow of current through the coils will move the armature needle to indicate the speed of the engine.

1,241,994. ENGINE-REVOLUTION INDICATOR. JOHN KIRBY, New York, N. Y. Filed Feb. 17, 1917. Serial No. 149,207. (Cl. 264—1.)

1. The combination of an engine, a revolution indicator for the crank shaft of the engine, and means responsive to the pressure condition of the engine for imparting a momentary impulse to the movable element of the indicator during each cycle of operation of the engine.

2. The combination of an engine, with a revolution indicator for the crank shaft of the engine comprising a movable indicating element, a spring yieldingly holding said element in zero position, a second spring arranged to move the indicating element against the tension of the first-mentioned spring, and means responsive to the pressure condition of the engine for imparting an instantane-

ous impulse to the second spring during each cycle of the engine to tension such spring until the springs are balanced, when the indicating element will indicate the revolutions per minute of the engine.



6. The combination of an engine, a pipe communicating with the cylinder thereof, a diaphragm arranged to be subjected to pressure in the cylinder through the said pipe, a valve connected with the diaphragm and normally open, whereby the valve prevents excessive pressure from being exerted on the diaphragm, a pawl actuated by the diaphragm, a ratchet wheel actuated by the pawl, a spring connected with the ratchet wheel and adapted to be wound thereby, an indicating element, a gearing between the spring and element, and a second spring normally holding the element in zero position and yieldingly opposing the movement of the element.

[Claims 3 to 5 not printed in the Gazette.]

1,241,995. MODIFYING ACETYL-CELLULOSES. EMIL KNOEVENAGEL, Heidelberg, Germany, assignor to the Firm of Knoll and Company, Ludwigshafen-on-the-Rhine, Germany. Filed Jan. 29, 1913. Serial No. 745,005. (Cl. 23—24.)

1. The process for the conversion of acetone-insoluble acetyl-celluloses into acetyl-celluloses, easily soluble in acetone, which consists in heating the acetone-insoluble acetyl-celluloses, in the presence of a substance which will produce only a slight hydrolytic decomposition of the acetyl cellulose until the specified solubility has been produced, substantially as described.

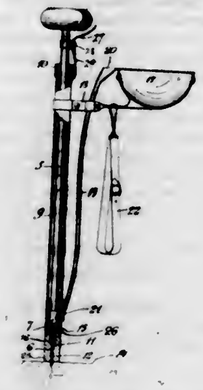
2. The process for the conversion of acetyl-celluloses insoluble in acetone into acetyl-celluloses easily soluble in acetone, which consists in dissolving the acetone-insoluble acetyl-celluloses in one of their solvents, and heating the solutions; until the specified solubility has been produced, substantially as described.

3. The process for the conversion of acetone-insoluble acetyl-celluloses into acetyl-celluloses soluble in acetone, which consists in heating the acetyl-celluloses insoluble in acetone in the presence of a substance which will produce only a slight hydrolytic decomposition of the acetyl cellulose and small quantities of water, until the specified solubility has been produced, substantially as described.

4. The process for the conversion of acetone-insoluble acetyl-celluloses into acetyl-celluloses easily soluble in acetone, which consists in heating acetone-insoluble acetyl-celluloses containing acetic anhydrid with the quantity of water necessary for the decomposition of the anhydrid, until the specified solubility has been produced, substantially as described.

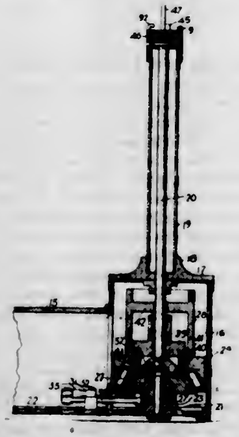
1,241,996. TOOL FOR NAILING PARQUET FLOORS. KARL O. KRISTIANSEN, New York, N. Y. Filed Dec. 19, 1916. Serial No. 137,748. (Cl. 1—46.)

A nailing machine comprising a vertical tubular member having an outlet at its lower end, a container for nails supported on said member near the upper end thereof, a nail guide leading from said container to within said tubular member above the said outlet, a hammer for driving a nail through and beyond said outlet, a stop collar on the hammer for limiting the movement thereof and



for closing the lower end of said nail guide, and means for operating the said hammer.

1,241,997. AUTOMATIC TRAIN-STOP. EDWARD LA BARRE, New York, N. Y., and WILLIAM SCHUCKAR, West New York, N. J. Filed Jan. 7, 1914. Serial No. 810,729. Renewed Mar. 9, 1917. Serial No. 153,739. (Cl. 246—59.)



1. An apparatus as characterized, comprising a rotary shaft; a cross head rigidly mounted on said shaft; interference members mounted at the ends of said cross head; a rotary block for supporting said shaft, said block having upwardly turned cam surfaces; a weighted cage supported on said block and embodying rotary members to track on said cam surfaces for rotating said block to its adjusted position; means for guiding said cage to move in a vertical direction; means loosely connecting said block and shaft to move in unison; and means remotely operative to rotate said block.

2. An apparatus as characterized, comprising a rotary shaft; a cross head mounted on said shaft; interference members mounted on the ends of said cross head; a rotary block rotatively supporting said shaft and provided at the edge thereof with upwardly turned cam surfaces; a weighted member having roller supports to track on said cam surfaces for rotating said block to its adjusted position; a fixed structure forming guides for said weighted member to move the same in a vertical direction; a cam block fixedly mounted on said shaft in superposed relation to said rotary block, said cam block being

provided with a plurality of cam surfaces upwardly turned; a minor weighted member having rolling supports to track on the cam surfaces of said cam block; guides operatively connecting said cam block and minor weighted member to guide the movement of said minor weighted member; and means operatively remote for revolving said rotary block.

3. An apparatus as characterized comprising, a signal vane; a supporting shaft therefor rigidly attached thereto; a cam block for supporting said shaft, said block having upwardly-acting cam surfaces, said surfaces being disposed at opposite sides of said block; a supporting block for normally supporting the said cam block, said supporting block being provided with upwardly-acting cam surfaces, similar in character to the cam surfaces of said cam block; a weighted member operatively connected with said supporting block for maintaining its alinement therewith, said member being free to move vertically above said supporting block; rolling means interposed between said member and said cam block for supporting said member on said block; a stationary casing for said block and parts connected therewith, said casing having vertically disposed guide members; a weighted cage surrounding said weighted member and said blocks, said member being free to move vertically in said casing and above said supporting block; rolling means interposed between said supporting block and said cage for tracking on the cam surfaces of said block for normally maintaining said supporting block in constant relation to said casing and guide members therein; and means operable at a distance from said casing for rotating said supporting block.

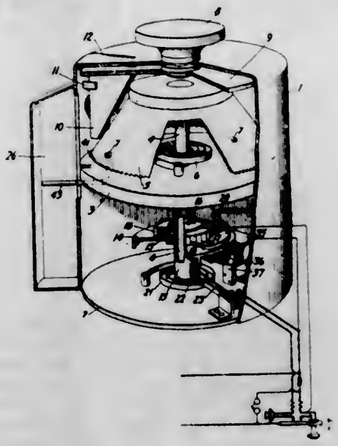
4. An apparatus as characterized comprising, a signal vane; a supporting shaft therefor rigidly attached thereto; a cam block for supporting said shaft, said block having upwardly-acting cam surfaces, said surfaces being disposed at opposite sides of said block; a supporting block for normally supporting the said cam blocks, said supporting block being provided with upwardly-acting cam surfaces, similar in character to the cam surfaces of said cam block; a weighted member operatively connected with said supporting block for maintaining its alinement therewith, said member being free to move vertically above said supporting block, means interposed between said member and said cam block for supporting said member on said block; a stationary casing for said block and parts connected therewith, said casing having vertically disposed guide members; a weighted cage surrounding said weighted member and said blocks, said member being free to move vertically in said casing and above said supporting block; means interposed between said supporting block and said cage for tracking on the cam surfaces of said block for normally maintaining said supporting block in constant relation to said casing and guide members therein; and means operable at a distance from said casing for rotating said supporting block.

1,241,998. PREPAYMENT COIN DEVICE. JACOB W. LATTIG, Glenside, Pa., and CHARLES L. GOODRUM, New York, N. Y., assignors to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Apr. 25, 1916. Serial No. 93,387. (Cl. 179—6.3.)

1. A coin collecting device including a ratchet mechanism, coin actuated means for advancing said ratchet mechanism, and means operated by a coin for restoring said ratchet advancing means to normal position.

2. A coin collecting device including a ratchet mechanism, means rendered effective by the introduction of a coin for advancing said ratchet mechanism, said means being manually operable, and means automatically operable by said coin for restoring said ratchet advancing means to normal position.

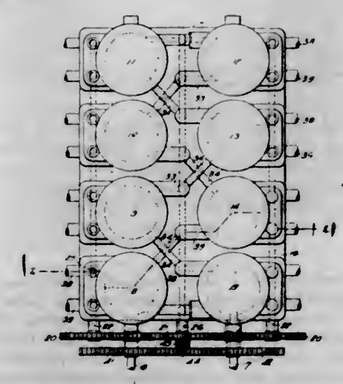
3. A coin collecting device including a ratchet mechanism, coin actuated means for advancing said ratchet mechanism, the advancement of said mechanism dependent upon the denomination of the coin introduced, said means being manually operable, and means automatically operable for restoring said ratchet mechanism to normal position.



4. The combination with a subscriber's line terminating at a central office, of a coin collecting device including a ratchet mechanism, coin actuated means for advancing said ratchet mechanism, means for restoring said ratchet mechanism to normal position, and means for disabling the transmission circuit of said subscriber's lines, said disabling means being controlled by said ratchet mechanism.

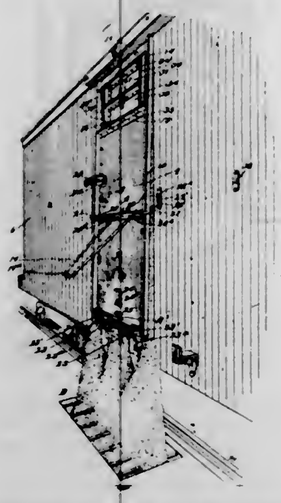
5. The combination with a subscriber's line terminating at a central office, of a coin collecting device including a ratchet mechanism, coin actuated means for advancing said ratchet mechanism, means for restoring said ratchet mechanism to normal position, and a pair of spring members for controlling the transmission circuit of said subscriber's line, said spring members being closed when said ratchet mechanism is in an off-normal position and opened when said mechanism is in normal position.

1,241,999. IGNITION SYSTEM FOR INTERNAL-COMBUSTION ENGINES. WILLARD LESLIE LEARNED, Oakdale, Cal. Filed Oct. 20, 1915. Serial No. 56,921. (Cl. 123—148.)



An engine as characterized comprising a series of progressively operatively connected power cylinders, said cylinders being arranged to progressively deliver the heated gases incident to the explosion in each thereof, to the next succeeding cylinder for exploding the compressed gases therein; valves and operating mechanism therefor controlling the passages of gas between cylinders; and manually controlled means for varying the relative timing of said mechanism.

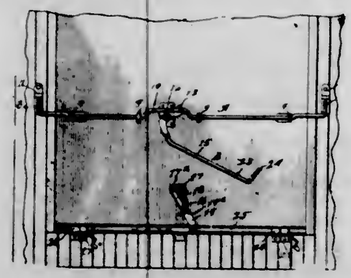
1,242,000. CAR-DOOR. FREDERICK A. LESTER, Chicago, Ill., assignor to Chicago Standard Equipment Company, Chicago, Ill., a Corporation of Maine. Filed Nov. 30, 1914. Serial No. 874,640. (Cl. 20—31.)



3. The combination with a doorway frame and its opening, of an outwardly swinging door for said opening, a bracket member mounted on said frame having an upstanding lug confronting a lower end portion of the door, and a door engaging jaw pivotally carried by said bracket and adapted to occupy a door engaging position intermediately between the door and said lug, substantially as and for the purpose set forth.

[Claims 1 and 2 not printed in the Gazette.]

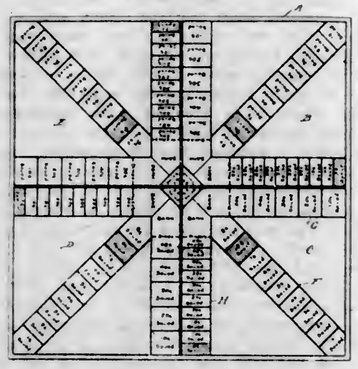
1,242,001. DOOR-ACTUATING MECHANISM. FREDERICK A. LESTER, Chicago, Ill. Filed Feb. 9, 1915. Serial No. 7,176. (Cl. 20—23.)



1. In combination, a door actuating mechanism including a lever mounted for movement in the plane of the door and having a portion thereof bent away from the door to provide a clearance therebetween, a locking device normally locking with the lever and disposed in the path of said lever, said device being mounted on said door for swinging movement into said clearance and out of the path of travel of said lever as the lever is actuated.

2. The combination with a door, of a door actuating member mounted for swinging movement in the plane of the door, and a locking device normally positioned in the path of and locking with said lever to hold the same against movement in one direction, said device pivotally mounted on the door and slotted for slidable movement relatively of its pivot whereby to clear said actuating member and permit movement of the same in both directions.

1,242,002. GAME. ALBERT H. LEWIS, Los Angeles, Cal. Filed Feb. 15, 1917. Serial No. 148,728. (Cl. 46—63.)



1. In a game, a board provided with the representation of a group of columns and a deposit space, each column being provided and having indicia to indicate the divisions, said indicia increasing in arithmetical progression from one end of the column to the other, the difference in each column being that of a denomination of money; a plurality of sets of markers, each set comprising markers provided with indicia to represent the several denominations of money indicated on the columns; and means having indicia marked thereon in units of the lowest of said denominations, said means being manually actuable to indicate by chance numbers.

2. In a game, a board provided with a representation of columns radiating from a deposit space, each column being divided into spaces marked with indicia decreasing in arithmetical progression from the deposit space, the difference in each column being that of a denomination of money; a plurality of sets of markers, each set comprising markers provided with indicia to represent the several denominations of money indicated on the spaces; and means having indicia marked thereon in units of the lowest of said denominations, said means being manually actuable to indicate by chance numbers.

3. In a game, a board provided with a representation of a deposit space, sets of three columns radiating therefrom, one column having spaces therein marked with indicia decreasing in differences of one cent from the deposit space, the second row having spaces therein marked with indicia decreasing in differences of a nickel from the deposit space and the third column having spaces marked with indicia decreasing in differences of a dime from the deposit space; a plurality of sets of markers comprising one marked a cent, another marked a nickel and a third marked a dime; and means including a die to indicate by chance numbers in units of one cent.

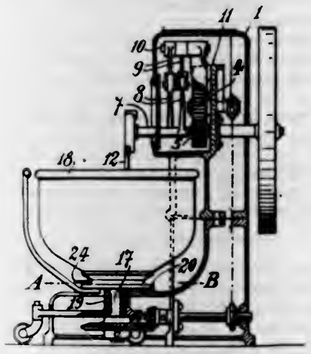
1,242,003. ELECTRICAL VALVE. HARRY LEWIS, Pittsburgh, Pa., assignor of two-thirds to Albert J. Lloyd, Pittsburgh, Pa. Filed Oct. 27, 1915. Serial No. 58,282. (Cl. 137—4.)

In combination a chambered body, open at its ends and having a lateral inlet and a lateral outlet, together with an intervening valve seat, caps of non-magnetic material for the respective ends of the said body, an electromagnet mounted externally on each cap, with its core adjustably protruding through said cap into the chamber of said body, a valve head adapted to coöperate with said seat to control communication between said inlet and said outlet, stems projecting from the respective faces of said head and serving as armatures for the respective magnets, and an adjusting screw passing obliquely through the



valve body and adapted to engage the valve head whereby the valve may be maintained off its seat.

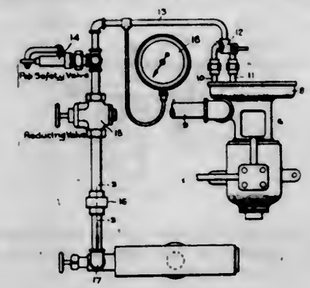
1,242,004. GEARING. JACOB LIPS, Nieder-Urdorf, Switzerland. Filed Nov. 28, 1916. Serial No. 133,889. (Cl. 74—14.)



In combination, a frame, a pair of parallel shafts mounted in the frame, a gear wheel mounted on each shaft, said gears being in meshing relation, a crank pin extending from each gear wheel, a shaft disposed above and in a central plane between the parallel shafts, arms pivoted on the crank pins and extended upwardly and across each other, a link pivotally connected to the upper end of each arm, said links being pivotally supported upon the centrally disposed shaft above the gear wheels, means for rotating one of the gear wheels, and rods mounted on the crank pins and actuated thereby.

1,242,005. ELASTIC-FLUID TURBINE. LOUIS C. LOEWENSTEIN, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Mar. 4, 1915. Serial No. 12,058. (Cl. 121—118.)

1. A locomotive having a boiler which delivers steam at varying pressure and an electric lamp, in combination with a turbine and generator driven thereby, the turbine receiving its steam from the boiler and the generator supplying current to the lamp, said turbine having an invariable steam admission and said generator having a substantially constant load, a steam conduit connecting the boiler and the turbine, and a pressure reducing valve that regulates the flow of steam from the boiler through the turbine which is set to deliver steam at a pressure below the minimum of that generated by the boiler.



2. The combination of a source of elastic fluid supply, an elastic fluid turbine, a conduit connecting the supply to the turbine, and means in said conduit for controlling and regulating the turbine, said means comprising a reducing valve which is set to reduce the pressure of the supply to the value desired for operating the turbine, a pop-safety valve located between the reducing valve and the turbine adjusted to keep the pressure below a certain maximum above that called for by the reducing valve, a member having an orifice therein which defines a passage of restricted area through the conduit, and a valve which is adapted to be opened and closed to start and stop the turbine.

3. The combination of a source of elastic fluid supply, an elastic fluid turbine, a conduit connecting the supply to the turbine, and means in said conduit for controlling and regulating the turbine, said means comprising a reducing valve which is set to reduce the pressure of the supply to the value desired for operating the turbine, a member having an orifice therein which defines a passage of restricted area through the conduit, and a valve which is adapted to be opened and closed to start and stop the turbine.

4. A locomotive having a boiler which delivers steam at varying pressure and an electric lamp, in combination with a turbine and generator thereby, the turbine receiving its steam from the boiler and the generator supplying current to the lamp, said turbine having an invariable steam admission and said generator having a substantially constant load, a steam conduit connecting the boiler and the turbine, a pressure reducing valve that regulates the flow of steam from the boiler through the turbine which is set to deliver steam at a pressure below the minimum of that generated by the boiler, and a pop-safety valve arranged between the reducing valve and the turbine.

5. The combination with a turbine and a conduit for conveying motive fluid thereto, of regulating means for the turbine comprising a reducing valve in said conduit for limiting the flow of motive fluid to the turbine, and a pop-safety valve, and a means defining a passage of restricted area in said pipe for limiting the flow upon failure of the reducing valve to function.

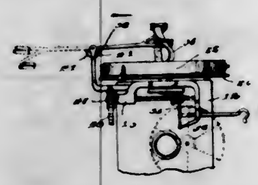
[Claim 6 not printed in the Gazette.]

1,242,006. FILM-WINDING APPARATUS FOR MOTION-PICTURE MACHINES. ERNST A. LONGNECKER, Viola, Wis. Filed Mar. 3, 1915. Serial No. 11,847. (Cl. 88—18.7.)

1. The combination with a moving picture machine, of a rotatable reel supporting element, said element comprising a base, a curved side, angular members secured to said side and base, a horizontally hinged closure for said side, other angular members for said hinged closure and a catch for securing the said closure to the side.

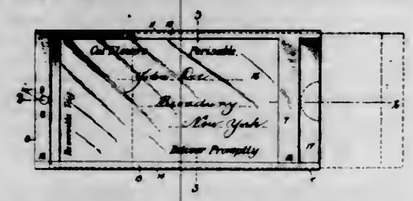
2. The combination with a moving picture machine, of a rotatable reel supporting element, said element comprising a base, a circular reel receiving sectional flange supported upon said base, said flange being of smaller diameter than

the base, one section of the flange being permanently secured to said base, while the other section is hinged to the first mentioned section to provide a horizontally movable



closure, a stop carried by said closure and adapted to contact with the upper face and edge of the base and a securing member for said closure.

1,242,007. REVERSIBLE TAG. ALFRED J. LOVELESS, Lenox, Mass. Filed Apr. 5, 1917. Serial No. 159,991. (Cl. 40—10.)



1. In a reversible tag, a body in one piece having a plurality of arms extending from a side of the body, one of the arms being disposed adjacent an end of the body, the body adjacent the arms being bent over with the terminals of the arms disposed adjacent the opposite edge of the body, which is bent over against the terminals of the arms, there being registering orifices in the said end of the body and in the arm disposed at the said end of the body, through which a cord may be disposed.

4. In a reversible tag, a body in one piece having two arms extending from a side of the body one of the arms being disposed adjacent an end of the body, the other arm being spaced from the other end of the body, the body adjacent the arms being bent over with the terminals of the arms disposed adjacent the opposite edge of the body which is bent over against the terminals of the arms, there being registering orifices in the first mentioned end of the body and the adjacent arm, a cord disposed through the registering orifices, and a card removably disposed in the guideway formed by the bent-over sides of the body, the card being removable from the second mentioned end of the body.

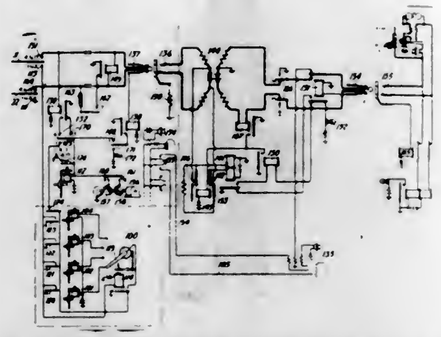
[Claims 2 and 3 not printed in the Gazette.]

1,242,008. TELEPHONE-EXCHANGE SYSTEM. ALBEN E. LUNDELL, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed May 25, 1916. Serial No. 99,748. (Cl. 179—41.)

1. In a telephone exchange system, a plurality of lines, means for interconnecting two of said lines, a signal for indicating the stage of operation of said means, a disconnect signal, switching mechanism for successively operating said signals, and means for delaying the operation of said mechanism after the actuation of the first mentioned signal for a definite interval.

2. In a telephone exchange system, a plurality of lines, a plurality of offices, means for establishing a connection between two of said lines through said offices, a signal operated upon the extension of said line from one office to the other, a disconnect signal at one of said offices, means for actuating said disconnect signal after the operation of said first mentioned signal, and means at said other office for delaying the actuation of said disconnect signal for a definite interval.

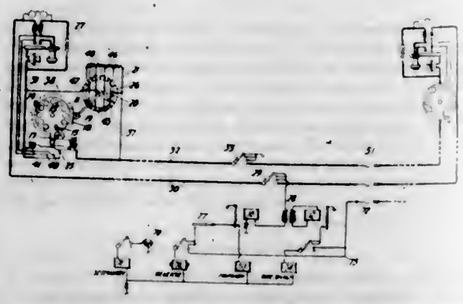
3. In a telephone exchange system, a plurality of lines, two offices, means for establishing a connection between two of said lines through said offices, a dry trunk extending between said offices, a supervisory relay at the first office, and means associated with the second office for delaying the operation of said relay for a definite interval.



4. In a telephone exchange system, a plurality of lines, a plurality of offices, means for establishing a connection between two of said lines through said offices, a trunk for interconnecting two of said offices, means for supplying current to said trunk only during the establishment and the severing of connections, supervisory means controllable over said trunk, and means for preventing the operation of said supervisory means during the establishment of the connection.

5. In a telephone exchange system, a plurality of lines, three offices, means for establishing a connection between two of said lines through said offices, a signal at the first office, a relay at the second office adapted to control said signal, a dry trunk interconnecting the second and third offices, said relay being connected to the trunk, means at the third office for connecting battery to said trunk only during the establishment and severing of the connection, and means for rendering ineffective the operation of said relay during the establishment of the connection.

1,242,009. IMPULSE-CONTROL SYSTEM. ALBEN E. LUNDELL, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed May 25, 1916. Serial No. 99,749. (Cl. 179—16.)



1. In a telephone exchange system, an incoming line and groups of outgoing lines, a selector switch, an impulse sender associated with said incoming line, means controlled by said impulse sender for producing wave-like current fluctuations in said incoming line, means responsive to said current fluctuations for causing said selector to select a desired group of outgoing lines, means controlled by said impulse sender for producing a sudden change of resistance in said incoming line, and means operative thereupon for causing said selector to hunt for an idle line in said selected group of outgoing lines.

2. In a telephone exchange system, an incoming line and groups of outgoing lines, a selector switch, an electromagnetic means for controlling said switch to select a group of outgoing lines, another electromagnetic means for controlling said switch to seize a line in the selected group, switching means for controlling the successive operation of said electromagnetic means, a relay inductively associated with said incoming line, means operable through said incoming line for actuating said relay, and means operated thereupon for actuating said switching means.

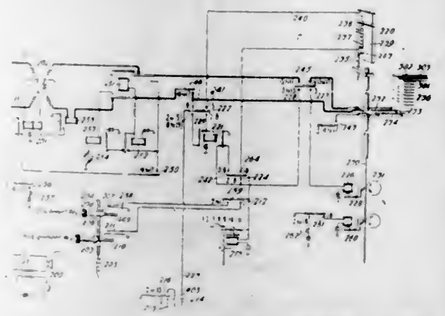
3. In a telephone exchange system, an incoming line and groups of outgoing lines, a selector switch, an electromagnetic means conductively associated with said incoming line and operable therethrough for controlling said selector to seize a group of outgoing lines, and another electromagnetic means inductively associated with said incoming line and operable therethrough for causing said selector to hunt for an idle line in the selected group of outgoing lines.

4. In a telephone exchange system, a plurality of subscribers' stations, a selector switch arranged to establish a connection from one of said stations toward another station in accordance with the group and line designation of said latter station, a circuit extending from the calling station to said selector switch, a relay included in said circuit for controlling the group selecting operation of said selector, and a relay inductively connected to said circuit and operable therethrough for controlling the line selecting operation of said selector.

5. In a telephone exchange system, a calling and a called station, a selector switch arranged to perform a primary and a secondary operation to interconnect said stations, a circuit between said calling station and said selector, electromagnetic means included in said circuit for causing the primary operation of said selector, and another electromagnetic means inductively connected to said circuit and operable therethrough for controlling the secondary operation of said selector.

[Claims 6 and 7 not printed in the Gazette.]

1,242,010. TELEPHONE-EXCHANGE SYSTEM. ALBEN E. LUNDELL, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed June 17, 1916. Serial No. 104,230. (Cl. 179—27.)

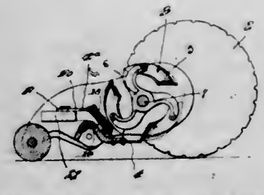


1. In a telephone exchange system, a calling and a called line, a selector switch adapted to interconnect the same, operating and releasing means for said selector, a manually controlled device for actuating said operating means, another manually controlled device for actuating the releasing means, a mechanical locking means adapted to engage one of said devices, and means operated by the other device for actuating said locking means.

2. In a telephone exchange system, a plurality of lines, a selector switch for interconnecting two of said lines, controlling apparatus for said selector switch, a key for starting and another key for releasing said controlling apparatus, and a single mechanical locking means for said keys adapted to be actuated by either one of said keys.

3. In a telephone exchange system, a plurality of lines, a selector switch for interconnecting two of said lines, a sequence switch for controlling the operation of said selector switch, a key for starting and another key for releasing said sequence switch, a bar adapted to lock said second mentioned key in its operating position, and means operable upon the actuation of said first mentioned key for releasing said bar.

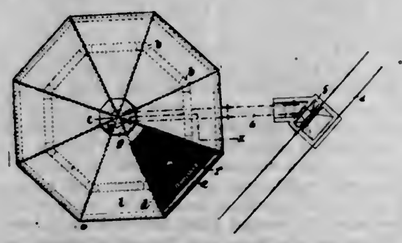
1,242,011. LAWN-MOWER SHARPENER. EDMOND F. [illegible], Charlestown, N. H. Filed Dec. 28, 1915. Serial No. 69,038. (Cl. 76—82.)



1. The combination with an ordinary lawn mower including a supporting frame, and a rotary cutting structure, said rotary cutting structure including a plurality of blades having their edges sharpened, of a substantially L-shaped plate hingedly connected to said supporting structure, whereby said substantially L-shaped plate is free to swing thereon in one direction, said L-shaped plate being positioned for normally lying out of engagement with the edges of said blade by gravity when the lawn mower is in an operative position and adapted for moving into engagement with the edges of said blades by gravity when the lawn mower is turned up side down for sharpening the blades upon reverse rotation of the cutting structure and a sharpening element detachably carried by said L-shaped plate.

2. The combination with an ordinary lawn mower including a supporting frame, a rotary cutting structure, said rotary cutting structure including a plurality of blades having the edges sharpened, of a substantially L-shaped plate hingedly connected to said supporting structure to swing thereon and positioned for normally lying out of engagement with the edges of said blade by gravity when the lawn mower is in an operative position, and adapted for movement into engagement with the edges of said blades by gravity when the lawn mower is turned up side down for sharpening the blades upon reverse rotation of the cutting structure, and a sharpening element detachably carried by said L-shaped plate, set screws carried by said L-shaped plate for engagement with the rear face of said sharpening element for adjusting its position with relation to the L-shaped plate.

1,242,012. STORING STRUCTURE. MICHAEL LYNCH, Paterson, N. J. Filed Mar. 27, 1916. Serial No. 87,030. (Cl. 72—6.)

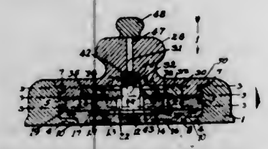


1. A storing structure consisting of a series of substantially triangular bins arranged around a common vertical axis and each laterally abutting on two other bins in said series, and spaced columns supporting said series of bins and arranged around and in substantially a

circle concentric with said axis and appreciably less in diameter than the series of bins, each bin having an outer bottom wall sloping inwardly and downwardly, and inner bottom walls sloping outwardly and downwardly, toward and meeting at said circle, the said inner bottom walls also sloping toward each other, and each bin having an outlet at substantially where the bottom walls thereof meet.

2. A storing structure consisting of a series of substantially triangular bins arranged around a common vertical axis and each laterally abutting on two other bins in said series, and spaced columns supporting said series of bins and arranged around and in substantially a circle concentric with said axis and appreciably less in diameter than the series of bins, each bin having an outer bottom wall sloping inwardly and downwardly, and inner bottom walls sloping outwardly and downwardly, toward and meeting at said circle, the said inner bottom walls also sloping toward each other, and each bin having an outlet in its outer bottom wall at the juncture of said wall with the two inner bottom walls.

1,242,013. LOCK-SWITCH. FRANK E. MATTESON, Los Angeles, Cal. Filed July 3, 1916. Serial No. 107,286. (Cl. 175—282.)



1. In a lock switch, a base having a circular chamber open at the top, insulated terminals fixed at the bottom of the chamber, an insulating disk rotatably mounted in the chamber and having conductors adapted to contact with the terminals, a knob rotatably mounted in the chamber and having insulated connected terminals adapted to contact with the conductors of the disk; interlocking notched rims and lugs upon the base and the insulating disk and the knob, a key rigid with the knob, and a key-lug rigid with the rotatable disk.

2. In a lock switch, a base having a circular chamber open at the top, and a dial around the chamber, insulated terminals fixed at the bottom of the chamber; the base being rotatable relative to the terminals before fixing; an insulating disk rotatably mounted in the chamber and having conductors adapted to contact with the terminals, a knob rotatably mounted in the chamber and registering with the dial and having insulated connected terminals adapted to contact with the conductors of the disk; permutation interlocking notched rims and lugs upon the base and the insulating disk and knob; a key inserted upwardly through the disk and fixed in the knob and having a head to hold the disk against the knob, and a key-lug rigid with the disk to be engaged by the key.

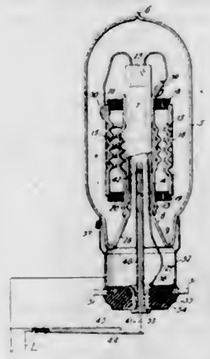
3. In a lock switch, a base having a circular chamber open at the top and a dial around the chamber and a rim extending inwardly at the bottom of the chamber, an insulating disk inserted downwardly in the chamber against the rim, said disk and base being relatively rotatable before fixing, means fixing the disk rigid with the base, terminals extending through the fixed disk, a second insulating disk rotatably mounted in the chamber upon the first disk and having conductors adapted to contact with the terminals, a knob rotatably mounted in the top of the chamber and registering with the dial and having insulated connected terminals adapted to contact with the conductors of the second disk; interlocking notched rims and lugs upon the base and the second insulating disk and the knob; a key rigid with the knob, and a key-lug rigid with the second disk.

5. In a lock switch, a base having a circular chamber open at the top and a dial around the chamber, insulated terminals fixed at the bottom of the chamber; the base being rotatable relative to the terminals before fixing; an insulating disk rotatably mounted in the chamber and having conductors adapted to contact with the terminals, a knob rotatably mounted in the chamber and registering with the dial and having insulated connected terminals adapted to contact with the conductors of the disk; permutation interlocking notched rims and lugs upon the base and the disk and the knob; a key inserted upwardly through the disk and fixed in the knob and having a head to hold the disk against the knob, a key-lug rigid with the disk to be engaged by the key; a nut fixed at the bottom of the chamber, alined openings extending upwardly from the nut through all the parts to the top of the knob, and a set-bolt inserted downwardly from the top of the knob and screw-seated in the nut and having a head to engage the top of the knob.

6. In a lock switch, a base having a circular chamber open at the top and a dial around the chamber and a rim extending inwardly at the bottom of the chamber, an insulating disk inserted downwardly in the chamber against the rim; said disk and base being relatively rotatable before fixing; means fixing the disk rigid with the base, terminals extending through the fixed disk, a second insulating disk rotatably mounted in the chamber upon the first disk and having conductors adapted to contact with the terminals, a knob rotatably mounted in the top of the chamber and registering with the dial and having insulated connected terminals adapted to contact with the conductors of the second disk; means for holding the knob in the base; a key rigid with the knob, a key-lug rigid with the second disk; a nut fixed at the bottom of the chamber, alined openings extending upwardly from the nut through all the parts to the top of the knob, and a set-bolt inserted downwardly from the top of the knob and screw-seated in the nut and having a head to engage the top of the knob.

[Claim 4 not printed in the Gazette.]

1,242,014. LIGHTNING-ARRESTER. DAVID T. MAY, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed June 5, 1916. Serial No. 101,747. (Cl. 175—30.)

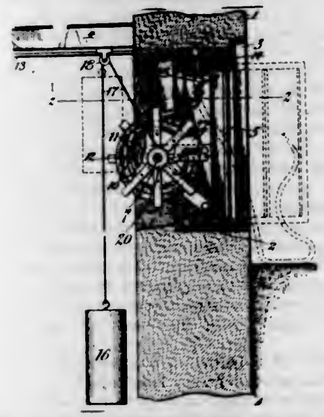


1. In a vacuum lightning arrester, an evacuated container, electrodes therein, a hollow stem projecting into said container, and means in said stem and actuated by the heat of the arc between said electrodes for electrically shunting said electrodes if an injurious arc persists between them longer than a certain period of time.

2. In a vacuum lightning arrester, an evacuated container, a hollow stem projecting into said container, electrodes supported thereby, and means projecting into said stem and actuated by the heat of the arc between said electrodes for electrically shunting said electrodes if an injurious arc persists between them longer than a certain period of time.

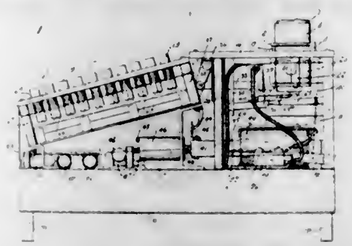
3. In a vacuum lightning arrester, an evacuated container, a hollow stem projecting into said container, hollow electrodes supported thereby, a tube within said stem, a rod extending into said tube, fusible means securing said rod to said tube at a point within said electrodes, and contact means controlled by said rod for short-circuiting said electrodes if an injurious arc persists between them longer than a certain period of time.

1,242,015. HOSE-STORING APPARATUS. AUGUSTUS MEAS and FREDERICK C. MOLL, Niagara Falls, N. Y., assignors to Niagara Automatic Hose Reel Company, Incorporated, Niagara Falls, N. Y., a Corporation of New York. Filed Dec. 14, 1914. Serial No. 877,045. (Cl. 242—86.)



A hose storing apparatus comprising a frame which is adapted to be supported within an opening in an upright wall of the basement of a building and an automatically rotated drum mounted on said frame and adapted to have a hose wound thereon, so that the latter is accessible both from the interior and the exterior of the building.

1,242,016. COIN-HANDLING MACHINE. HARRY MENDELSOHN, Westfield, N. J. Filed July 8, 1913. Serial No. 777,808. (Cl. 133—4.)



1. In a coin delivery machine, the combination with a coin holder, of an expelling member for delivering coins from the holder, operating means for operating said expelling member, controlling means for controlling said expelling member to determine whether it shall or shall not deliver a coin when operated by said operating means, and means controlled by said controlling means to cause said operating means to operate the expelling member.

5. In a coin delivery machine, the combination with a plurality of coin holders, of delivery devices for delivering coins from the holders, operating means for operating said delivery devices, a plurality of keys, means controlled by said keys for selectively rendering the delivery devices operative, means controlled by said key controlled means for causing operation of the operating means, and means controlled by the operating means for preventing repeated operation thereof while any finger key remains out of operative position.

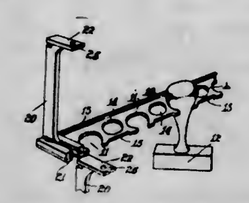
18. In a coin delivery mechanism, the combination with a coin holder having a supporting shelf, a coin expelling member mounted to move transversely of the holder and normally lying in position to move below the bottom coin in the holder, an electromagnet for operating said member, positioning means for raising said member into operative position, and means controlled by the operation of the positioning means for closing a circuit to said magnet.

20. In a coin delivery mechanism, the combination with a coin holder, of an expelling member for delivering the coins from the holder and adjustable for delivering one or a plurality of coins, and means for adjusting the expelling member comprising means for imparting adjusting movement to the member and a plurality of stops for limiting such adjusting movement, said stops being independently operable and standing normally in inoperative position.

24. In a coin delivery machine, the combination with a coin holder, of an expelling member for delivering coins from the holder which is adjustable for delivering one or a plurality of coins, and adjusting means comprising an electro-magnet for imparting adjusting movement to the expelling member and a plurality of stops for limiting the adjusting movement, each stop limiting the adjusting movement for the delivery of a particular number of coins and all of said stops except one being operated by electro-magnets, each of said stop operating magnets being independently connected in series with the movement imparting magnet.

[Claims 2 to 4, 6 to 17, 19, 21 to 23, and 25 to 32 not printed in the Gazette.]

1,242,017. STAMP-RACK. HARRY MENDELSOHN, Mount Vernon, N. Y. Filed May 1, 1914. Serial No. 835,684. (Cl. 211—43.)



2. A stamp rack unit comprising a rack bar having a plurality of spaced stamp handle receiving recesses opening inward from a longitudinal edge thereof, and having supporting means extending transversely therefrom, and having complementary connecting means at opposite extremities of the supporting means, whereby two or more similar rack units may be connected together to form a rack having a plurality of superposed rack bars.

4. A stamp rack unit comprising a rack bar having a plurality of spaced stamp handle receiving recesses opening inward from a longitudinal edge thereof and having supporting members extending transversely therefrom, the rack bar being provided with transverse slideways or sockets to receive flanged ends of supporting members of a similar rack unit.

[Claims 1, 3, and 5 not printed in the Gazette.]

1,242,018. LOOSE-LEAF BINDER. HENRY C. MILLER, Milwaukee, Wis. Filed Nov. 9, 1916. Serial No. 130,330. (Cl. 129—13.)

1. A loose leaf binder including a pair of binder heads, connecting members secured to one head and including portions flexible throughout and passed into the other head to extensibly lie therein, and means detachably engageable with the connecting members throughout their entire length for securing said members to said other

head, whereby to permit the close adjustment of the binder heads, substantially as described.

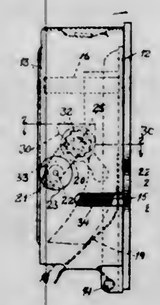
3. A loose leaf binder including a pair of binder heads, connecting members secured to one head and including portions flexible throughout and passed into the other head to extensibly lie therein, and clamping springs movably carried by the said other head for said connecting members, said springs being moved simultaneously to engage and disengage the connecting members.



5. A loose leaf binder including a pair of binder heads and connecting members each including a flexible fabric portion passed into one binder head, means for securing said fabric portion against movement in said head, and an end piece for the end of the fabric portion adjacent the other binder head adapted for securement to said head.

[Claims 2 and 4 not printed in the Gazette.]

1,242,019. PAPER-DISPENSING HOLDER. FREDERICK H. MOORE, Melrose, Mass. Filed Oct. 19, 1916. Serial No. 126,537. (Cl. 271—36.)

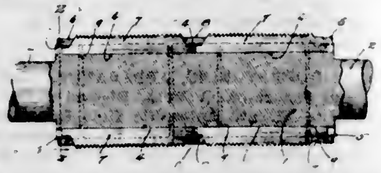


1. A dispensing holder for paper sheets, comprising a casing having internal means at one end for engaging one end portion of a pack of sheets, a back arranged to support the inner side of said pack and a delivering outlet at the opposite end, a roll carrier pivoted in said casing and composed of a pair of parallel arms and a connecting neck, a hinge connection between said carrier and the casing, permitting the outer end portions of the arms to swing by their own weight toward the back of the casing, and a feed roll journaled in the outer end portions of the arms and pressed by its own weight and by the weight of the said arm portions toward the back of the casing and against the front side of the pack therein, means being provided for rotating said roll and thereby projecting the front sheet of the pack through said outlet.

4. A dispensing holder for paper sheets, comprising a casing having a back adapted to support the inner side of a pack of sheets, an arm V-shaped in cross section attached to said back and arranged to transfix the upper end portion of said pack and prevent the pack from swinging edgewise, the salient side of said arm facing upwardly and acting as a wedge, said holder being provided at its lower end with a delivering outlet, and sheet-projecting means engaging the front side of the pack and adapted to pull the front sheet thereof downwardly and project it through said outlet, a downward pull on said sheet causing the V-shaped arm to split the upper end of the sheet.

[Claims 2 and 3 not printed in the Gazette.]

1,242,020. FEEDING-ROLLER CONSTRUCTION. THOMAS C. MORRIS, Atlanta, Ga., assignor to Peter Vredenburgh, Jr., Vredenburgh, Ala. Filed June 15, 1916. Serial No. 103,761. (Cl. 144—250.)

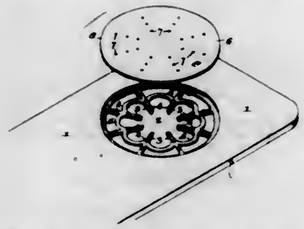


1. A feed roller construction comprising a drum provided with terminal journals and having peripheral longitudinally extending slots, a plurality of engaging elements seated in each of the slots in alinement and movable longitudinally therein, and clamping rings movable longitudinally on the outer face of the drum and adapted to cooperate with the extremities of the engaging elements on both sides thereof to clamp them into the slots.

2. A feed roller construction comprising a drum member provided with longitudinal peripherally disposed slots and having journals extending from its extremities, a plurality of engaging elements in the form of comparatively thin bars seated in each of said slots and longitudinally movable therein, a clamping ring encircling the drum member and movable longitudinally on the peripheral face thereof and adapted to engage the extremities of bars in the slots on each side thereof, and means coöperating with the other extremities of such bars for the purpose described.

3. A feed roller including a substantially cylindrical drum member provided with longitudinally extending peripheral slots, engaging elements in the form of comparatively thin bars seated in said slots and longitudinally movable therein, a terminal clamping ring having screw thread engagement with the curved face of the drum and adapted to engage the extremities of adjacent engaging elements, and an intermediate clamping ring freely movable longitudinally over the slotted portion of the drum member and adapted to coöperate with the extremities of engaging elements on both sides thereof for the purpose described.

1,242,021. TOP PLATE AND COVER FOR GAS-STOVES. ABRAM C. MOTT, Jr., Lansdale, Pa. Filed Dec. 20, 1916. Serial No. 138,044. (Cl. 126—215.)



The combination of a top plate for a gas or oil stove having an openwork supporting structure depressed below the surface of the top plate and having a series of small tapered projections thereon terminating on a plane with the upper surface of the top plate, the openwork structure being cast integral with the plate; and a detachable cover plate arranged to be mounted upon the openwork structure, the top surface of said cover plate being even with the top plate of the stove and having a series of radiating ribs on the under surface, the plate having a series of holes at the ribs for the reception of the projections on the supporting structure of the top plate of the stove so that when the cover plate is in position its surface will be on the same plane as the upper surface of the top plate of the stove.

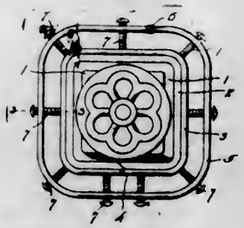
1,242,022. TRANSMITTER-MOUTHPIECE. EMIL C. G. MUELLER, Elizabeth, N. J., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed Apr. 29, 1915. Serial No. 24,799. (Cl. 179—187.)



1. In a telephone mouthpiece, a body portion, a tubular metallic attaching means therefor having a plurality of projecting members, a base for said body portion provided with a plurality of recesses corresponding in number to the number of said projecting members, and into which said members may be inserted, means on said base intermediate said recesses and coöperating with said members to prevent relative rotation of said body portion and said attaching means, said base also being provided with air vents extending laterally therethrough intermediate said recesses, and means for securing said attaching means to said body portion.

2. In a telephone mouthpiece, a body portion, a tubular metallic attaching means therefor having a plurality of projecting members, a base for said body portion provided with a plurality of recesses corresponding in number to the number of said projecting members and into which said members may be inserted, means on said base intermediate said recess and coöperating with said projecting members to prevent relative rotation of said body portion and said attaching means, said base also being provided with air vents extending laterally therethrough intermediate said recesses, an annular abutment on said attaching means against which the base of said body portion rests, and means for securing said attaching means to said body portion.

1,242,023. GAS-GATE-HOOD CLAMP. JOHN MURPHY and JOSEPH BECHTEL, Ashland, Ohio. Filed May 29, 1917. Serial No. 171,691. (Cl. 137—99.)



A clamp for the purpose described, consisting of a gasket, a compressible band engaging over the gasket, a second band larger than and spaced apart from the inner band, and a plurality of pressure-exerting members having a threaded engagement with the outer band and positioned to bear against the inner band, whereby pressure may be exerted equally over the gasket.

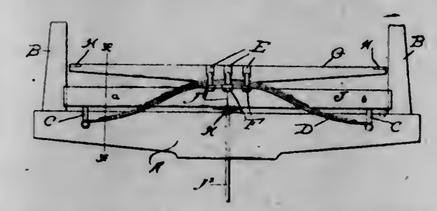
1,242,024. ADJUSTABLE SINGLE-PEDESTAL FURNITURE. HERBERT B. NICHOLS, Methuen, Mass., assignor of one-half to Henry C. Doughty, East Pepperell, Mass. Filed Sept. 20, 1916. Serial No. 121,273. (Cl. 155—34.)

1. In a device of the class described, a pedestal having a slot and teeth in the bottom of said slot in combination with a bracket adjustable on the pedestal and having an opening through which the pedestal extends, said bracket also having a slot provided with a portion coextensive in width with and also coincident with the pedestal slot, and also having a broadened portion, and a dog pivotally mounted in the slot of the bracket and having a relatively narrow portion in the narrow portion of said bracket slot and to enter the pedestal slot and engage a tooth, the dog being further provided with a broadened portion arranged in the broadened portion of the bracket slot and adapted to bear against the pedestal, when the dog is turned to disengaged position.



2. In a device of the class described, a pedestal having a slot and teeth in the bottom of said slot in combination with a bracket adjustable on the pedestal and having an opening through which the pedestal extends, said bracket also having a slot provided with a portion coextensive in width with and also coincident with the pedestal slot, and also having a broadened portion, and a dog pivotally mounted in the slot of the bracket and having a relatively narrow portion in the narrow portion of said bracket slot and to enter the pedestal slot and engage a tooth, the dog being further provided with a broadened portion arranged in the broadened portion of the bracket slot and adapted to bear against the pedestal, when the dog is turned to disengaged position, said broadened portion of the dog also having a press button on its outer side and said bracket having an opening to clear said press button.

1,242,025. DETACHABLE BUMPER FOR BOLSTER-SPRINGS. WILLIAM P. NOREEN, Watertown, Minn. Filed May 22, 1916. Serial No. 99,076. (Cl. 267—29.)

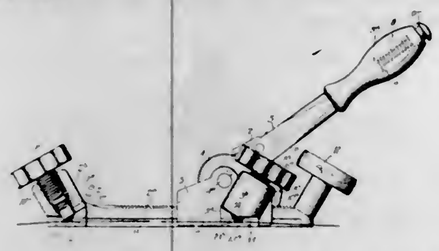


2. The combination with a bolster having standards at its opposite ends, of springs arranged at the sides of said bolster, stirrups connecting the ends of said springs and suspending them from the bolster, a frame carried by said springs, and means loosely mounted on said bolster and detachably connected with said standards for limiting the downward movement of said frame.

4. The combination with a bolster having standards at its opposite ends, of springs arranged at the sides of the bolster, stirrups connecting the ends of said springs and suspending them from the bolster, a skeleton frame carried by said springs, and a bar adapted to rest loosely upon the bolster and limit the downward movement of the frame, said bar having its ends bifurcated so as to engage the standards, and its middle portion provided with a joint to enable the bar to be passed downward and upward through the skeleton frame.

[Claims 1 and 3 not printed in the Gazette.]

1,242,026. STRAP-STRETCHER. RALPH H. NORTON and CHESTER M. MACKENZIE, Chicago, Ill., assignors to Acme Steel Goods Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 13, 1917. Serial No. 161,861. (Cl. 254—66.)



1. A strap-stretching tool comprising a base having a rack, a slide, grips on the base and slide, a gear on the slide, a driving pawl engaging the gear, a holding pawl carried by the slide and engaging the rack, and an operating lever on the slide and carrying the driving pawl and also carrying connections for disengaging said pawl from the gear, said connections operable from the handle-end of the lever, and said lever itself adapted by excess movement to disengage the holding dog from the rack.

6. A strap-stretching tool comprising an L-shaped base, a slide block on the longer leg thereof and having a lateral arm confronting the shorter leg, said arm and leg carrying strap-rests, gripping devices on said arm and leg and overhanging said rests with open spaces between for lateral ingress and egress of strap, and means located to one side of said devices for driving the slide block.

13. In a strap-stretching tool, a grip comprising a rest, an overhanging boss with an oblique bore of carrying diameter and screw-threaded for a distance from one end, a grip-plug occupying a smaller diameter portion of the bore at the other end and protruding through the same and terminating in a conical ratcheted acting portion, said plug loosely fitting the bore, a spring engaging under the head of the plug to retract it, and a knob with a screw stem engaging the threaded portion of the bore and having a rounded end to act upon the grip-plug.

[Claims 2 to 5, 7 to 12, and 14 not printed in the Gazette.]

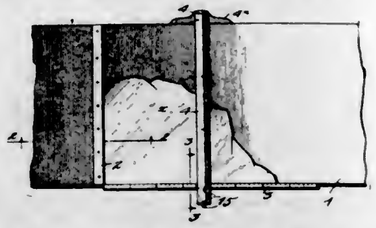
1,242,027. PISTON-RING-CLAMPING TOOL. LOUIE E. OLMSTED, St. Joseph, Mo. Filed Mar. 13, 1916. Serial No. 83,926. (Cl. 81—3.)



In a device of the class described including, a corrugated band having the free extremities thereof arranged in crossed overlapping relation, one end of the band being provided with a transversely extending slot, the opposite end of the band being reduced forming a corrugated tongue portion adapted to be inserted in the slot, the corrugations of the tongue engaging the corrugations of the opposite end of the band for a purpose specified.

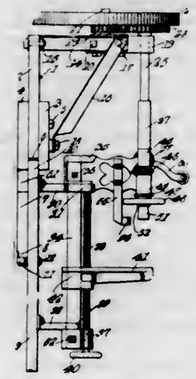
1,242,028. APPARATUS FOR USE IN CUTTING GLASS PLATES. MARTIN A. OLESON, Geraldine, Mont. Filed Aug. 15, 1916. Serial No. 114,947. (Cl. 33—80.)

An improved apparatus for use in glass cutting, the same consisting of a flat counter top or table having a cross-bar fixed transversely thereon and raised above it to serve as an abutment, a graduated bar fixed to the front edge of the counter flush with the surface of the latter,



and a movable scale bar extending across the counter and having a head at one end and a clamp at its other for engaging the counter and the graduated front bar, as described.

1,242,029. COMBINATION POST-DRILL AND PORTABLE HAND-DRILL. OSMOND A. OSMONDSON, Salina, Kans. Filed Oct. 24, 1916. Serial No. 127,466. (Cl. 77—20.)



1. In a device of the class described, a support comprising separable main and auxiliary parts; means for holding the parts of the support together detachably; an inertia drive mechanism carried by the main part of the support and including a shaft; a drill shaft mounted to rotate and to slide endwise on the auxiliary member of the support; means carried by the auxiliary member of the support for feeding the drill shaft endwise; means carried by the auxiliary member of the support for rotating the drill shaft; and a slidable connection uniting the shafts detachably for simultaneous rotation.

2. In a device of the class described, a support comprising separable main and auxiliary parts; means for holding the parts of the support together detachably; a base bar; means for holding the base bar releasably on the auxiliary part of the support; an inertia drive mechanism carried by the main part of the support and including a shaft; a drill shaft; mechanism for mounting the drill shaft to rotate and to slide endwise on the bar; bar supported means for feeding the drill shaft endwise; bar supported means for rotating the drill shaft; and a slidable connection uniting the shafts for simultaneous rotation.

3. In a device of the class described, a support including separable main and auxiliary parts; means for releasably uniting the parts of the support; an inertia drive mechanism carried by the main part of the support and including a shaft; a drill shaft mounted to rotate and to slide endwise in the auxiliary part of the support; means mounted on the auxiliary part of the support for feeding the drill shaft endwise; a beveled pinion journaled on the auxiliary part of the support, the drill shaft being splined to the beveled pinion; a third shaft journaled in the auxiliary part of the support; a beveled pinion carried by the third shaft and meshing into the first specified beveled pinion; a sliding sleeve connecting the drive shaft and the first specified shaft for simultaneous rotation; and an operating member mounted on the third shaft, the third shaft and the sleeve received end of the drill shaft being provided with duplicate elements coacting with the operating member, whereby the operating member may be shifted to the end of the drill shaft when the sleeve is retracted and when the main and auxiliary parts of the support are disconnected.

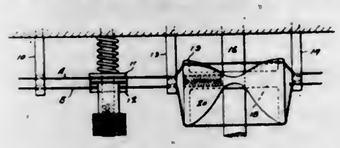
4. In a device of the class described; a support comprising separable main and auxiliary parts; means for releasably uniting the parts of the support; an inertia drive mechanism carried by the main part of the support and including a shaft; a bearing structure constituting a portion of the auxiliary part of the support; a drill shaft mounted to rotate and to slide in the bearing structure; means carried by the auxiliary part of the support for rotating the drill shaft; a sleeve having threaded connection with the bearing structure and coacting with the drill shaft to advance the drill shaft; polygonal heads carried by the first specified shaft and by the drill shaft; a sleeve slidably coacting with the said heads to connect the drill shaft and the first specified shaft for simultaneous rotation; and a stop carried by the auxiliary part of the support and coacting with the threaded sleeve to limit the advancing movement of the sleeve and the drill shaft, thereby to prevent the head on the drill shaft from binding on the bearing structure.

1,242,030. PROCESS OF PREPARING SOLUTIONS OF CELLULOSE. ZENO OSTENBERG, San Francisco, Cal., assignor to International Cellulose Company, Reno, Nev., a Corporation of Nevada. Filed Apr. 7, 1916. Serial No. 89,678. (Cl. 127—10.)

1. The process of preparing solutions of cellulose which comprises treating the cellulose with a solvent prepared by mixing a chlorid and sulfuric acid of more than 60% concentration.

[Claims 2 to 7 not printed in the Gazette.]

1,242,031. TAKE-UP. GARRET B. OSTERHOUT, Providence, R. I., assignor to Willcox & Gibbs Sewing Machine Co., New York, N. Y., a Corporation of New York. Filed Nov. 12, 1914. Serial No. 871,749. (Cl. 112—26.)



1. A two thread take-up comprising a rotary member with cam surfaces arranged to enter between a pair of threads and displace the same in opposite directions, for the purpose described.

2. A two thread take-up comprising a rotary member having cams on its opposite faces arranged to enter between a pair of threads and displace the same in opposite directions.

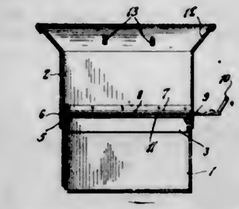
3. A two thread take-up comprising a rotary member having means on its opposite faces adapted to enter between a pair of threads and displace the same in opposite axial directions, for the purpose described.

4. A two thread take-up comprising a rotary disk having peripheral cams on its opposite faces adapted to enter between a pair of threads and displace the same in opposite axial directions, for the purpose described.

5. In mechanism of the type described, guide means for spacing apart a pair of looper threads and rotary means intermittently spacing said threads abnormally apart to afford a take-up.

[Claims 6 to 15 not printed in the Gazette.]

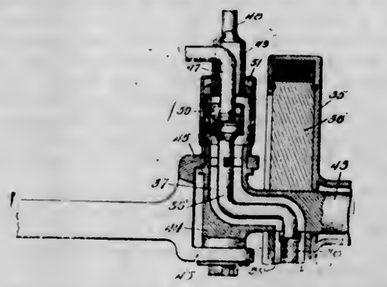
1,242,032. CEMENT-DIVIDER. HENRY OTT, Lancaster, N. Y. Filed June 2, 1916. Serial No. 101,383. (Cl. 73—62.)



1. A device of the class described comprising a lower section, an upper section detachably mounted on the lower section and having its lower end offset inwardly to provide opposed shoulders, bars located above the shoulders and in spaced relation thereto and coöperating with the shoulders to define opposed guides and a dividing element slidable through the upper section and received by the guides.

2. A divider of the class described comprising a lower section, and an upper section mounted on the lower section and having its lower end offset inwardly and detachably extending into the lower section, a dividing blade operable through the upper section and located adjacent the lower end of the upper section, and a rod extending across the lower end of the upper section and located below and adjacent to the dividing blade.

1,242,033. FLUID-PRESSURE TRANSMISSION. ALBERT E. PAINTER and WATERFIELD PAINTER, Reno, Nev. Filed June 30, 1916. Serial No. 106,894. (Cl. 138—22.)



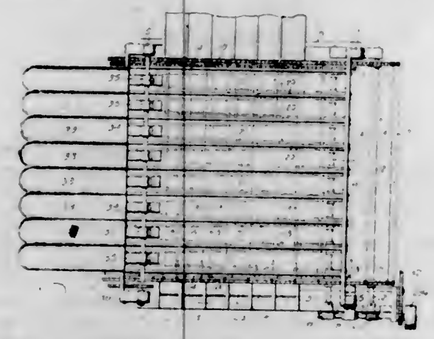
1. The combination with the driving wheel of a vehicle, of a fluid pressure motor comprising a stationary member having centrally arranged and concentric conduits for the fluid, an outer casing eccentric to said stationary member and having a fixed relation to the body of the wheel, slidable blades carried by said casing of the motor and riding in contact with the periphery of the stationary member, the latter being formed with substantially radial inlet and outlet passages communicating with said concentric conduits.

2. The combination with the driving wheel of a vehicle, of a fluid pressure motor comprising a stationary member having centrally arranged and concentric conduits for the fluid, an outer casing eccentric to said stationary member and having a fixed relation to the body of the wheel, slidable blades carried by said casing of the motor and riding in contact with the periphery of the stationary member, the latter being formed with substantially radial inlet and outlet passages communicating with said concentric conduits, and a steering knuckle by which said wheel is carried having fluid inlet and outlet passages in communication with the first named inlet and outlet passages.

1,242,034. FRUIT-SIZING MACHINE. HERBERT GUY PEARSON, Paonia, Colo. Filed Mar. 20, 1917. Serial No. 156,014. (Cl. 130—32.)

1. A fruit sizing apparatus comprising traveling bands, each of which includes spaced parallel bars, means for

driving the bands in such manner that one of them will move at a greater rate of speed than the other, so that the bars of one band will continuously move relatively to the bars of the other band, and means coöperating with the said traveling bars for defining openings of predetermined sizes at predetermined points along the course of travel of the bars.



4. A fruit sizing apparatus including a series of equally spaced parallel moving bars, a second series of equally spaced parallel moving bars, said second series of bars moving at a different rate of speed from the first series, and pairs of divergent traveling cables arranged adjacent to the traveling bars and substantially at right angles thereto, for coöperating with the traveling bars, in forming openings of predetermined sizes at predetermined points in the path of travel of the bars.

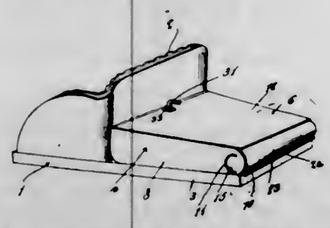
6. A fruit sizing apparatus including two traveling bands of spaced parallel bars, one of which moves at a greater rate of speed than the other, and means forming with the bands openings of predetermined sizes at predetermined points in the travel of the bands.

7. A fruit sizer including a sizing apparatus consisting of series of traveling spaced bars, traveling spaced cables coöperating with the bars, in forming openings for sizing the fruit, and means for guiding and supporting the cables.

10. In a sizing apparatus, the combination of traveling belts, of spaced parallel bars moving in a common direction and at various speeds, and cables arranged substantially at right angles to the bars, and moving in a common direction therewith.

[Claims 2, 3, 5, 8, and 9 not printed in the Gazette.]

1,242,035. AUTOMOBILE-BODY. ROSCOE W. PIERSON and THOMAS F. BRIODY, Kansas City, Mo. Filed May 12, 1916. Serial No. 97,089. (Cl. 21—7.)

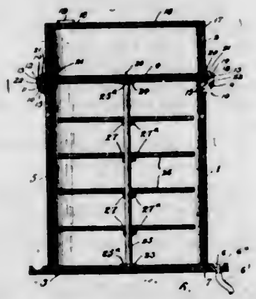


1. The combination with a vehicle body having a seat, of a box located in rear of the seat and consisting of a stationary section and a foldable section, the said stationary section having walls provided with slots, the said foldable extension being adapted when in folded position to overlie the first-mentioned section and when in unfolded position to lie in horizontal alinement with the first-mentioned section, and means carried by the foldable section and slidably received by the slots in the walls of the first-mentioned section.

2. A box of the class described comprising a stationary section having one end open, a foldable section pivotally connected to the stationary section and having one end open and adapted to aline with the open end of the stationary section when the foldable section is in unfolded position and to overlie the open end of the stationary section when the foldable section is in folded position, a gate hingedly connected with the stationary section and adapted to close the open ends of the stationary and foldable sections when the foldable section is in folded position, and means carried by the gate for extending into the interior of the foldable section when the gate is in closing position, for the purpose specified.

3. A box of the class described comprising a stationary section including side walls, a foldable section carried by the stationary section and including side walls and adapted when in folded position to overlie the stationary section and when in unfolded position to lie in horizontal alinement with the stationary section, L-shaped elements located adjacent the side walls of the stationary section and having their short arms terminally engaging the walls and secured thereto, the longer arms of the L-shaped elements being spaced from the walls so as to coöperate with the walls of the stationary section in defining recesses for the reception of the side walls of the foldable section when the latter is in unfolded position, and elements adjustably associated with the long arms of the L-shaped elements for engaging the side walls of the foldable section when the latter is in unfolded position so as to prevent vertical movement of the foldable section.

1,242,036. COOLER. VINCENT V. PITTMAN, Selma, Cal. Filed Aug. 8, 1916. Serial No. 113,788. (Cl. 62—90.)

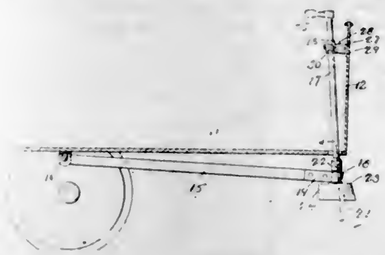


1. A cooler of the class described comprising a body, a tank thereon, an element forming the top of the body and also forming the bottom of the tank and projecting out beyond the sides of the body, the projecting portion of said element having basins in its upper side and notches in the outer walls of said basins for the escape of water therefrom, water outlets for said tank and discharging in said basins.

2. A cooler of the class described comprising a body, a tank thereon, an element forming the top of the body and also forming the bottom of the tank and projecting beyond the sides of the body, and valved water outlets for said tank, the said element having a downwardly and outwardly sloped outer portion, and a downwardly and inwardly sloped under surface upon the projecting portion, and the body of the cooler being provided on its wall with an exteriorly arranged flange spaced below the outer edge of said element and having a channel for the reception of water therefrom.

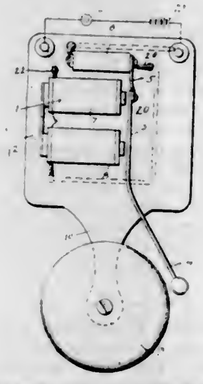
1,242,037. SWITCH-THROWER. FRED POGGEMEYER, Cook, Nebr. Filed Aug. 4, 1915. Serial No. 43,640. (Cl. 104—171.)

In a switch operating mechanism, the combination with a car platform; of a rod having one end pivoted to said platform, a casting secured to the free end of said rod and having a bearing, a switch block having a pin rotatable in said bearing, a second rod extending through said platform, and means detachably connecting one end



of said second rod with said pin whereby the first named rod may be adjusted to raise and lower the switch block and whereby said switch block may be rotated in said bearing.

1,242,038. VIBRATING SELF-INTERRUPTER FOR ELECTRIC BELLS, &c. WILLIAM E. R. RADEMAKER, Hoboken, N. J. Filed Feb. 15, 1916. Serial No. 78,453. (Cl. 177—7.)



1. A vibrating self-interrupter including relatively fixed and movable contacts, the movable contact lightly resting upon and supported by the fixed contacts and adapted to be jarred out of such contacts by the mechanical jar or vibration of the device with which the interrupter is used.

5. A vibrating interrupter including a casing hermetically sealed and provided with relatively fixed contacts contained within the said casing and a relatively movable automatically closable contact also located within the casing and lightly resting upon and supported by the relatively fixed contacts, whereby the relatively movable contact is adapted to be jarred out of electrical contact with the fixed contacts solely by the mechanical jar or vibration of the said device.

7. The combination with an electromagnet of an armature arranged to be attracted by the same, an interrupter including a casing and having relatively movable contacts, a spring connecting the armature with the casing whereby the contacts will be jarred out of electrical contact by the blows of the armature.

[Claims 2 to 4, 6, and 8 not printed in the Gazette.]

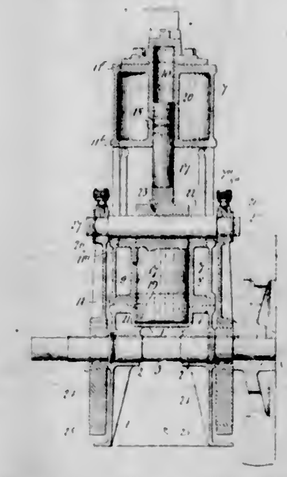
1,242,039. CONCRETE-REINFORCING PLATE. ABRAHAM RATNER, New York, N. Y. Filed Nov. 22, 1916. Serial No. 132,779. (Cl. 72—109.)

1. A reinforcing plate having ternate hollow ribs, and unribbed portions alternating with the groups of ribs, the walls of the three ribs of each group forming three open channels one of which is deeper than and extends between the others and said walls including parts capable of continuously engaging fillings of hardened plastic material at opposite sides and from end to end of each filling, and thus coacting with the fillings in producing a column composed of sections firmly united from top to bottom of the column.



2. A reinforcing plate having ternate hollow ribs, and unribbed portions alternating with the groups of ribs, one rib of each group being deeper than the others, the open sides of the two shallow ribs of each group being at one side of the plate and the open side of the deep rib being at the other side of the plate, and the plate being angulated and having one of the deep ribs at the angle, the open side of that rib being at the inner side of the angle.

1,242,040. AIR-COMPRESSOR. WILLIAM REAVELL, Ipswich, England. Filed Apr. 17, 1916. Serial No. 91,799. (Cl. 230—27.)



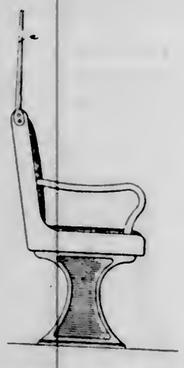
1. A two stage compressor comprising first and second stage cylinders spaced apart and oppositely arranged, a piston of two diameters working in said cylinders, a pedestal, an outer casing mounted on said pedestal, a liner having the cylinders formed in its opposite end portions and adapted to form water jacket spaces around the cylinders and between it and the casing, a connecting passage in said liner between said water jackets, the said casing and liner intermediate of the cylinders being slotted and the pedestal constituting the end portion of the lower cylinder, suction and delivery valves for said lower cylinder located in said pedestal, a cover for the upper cylinder, suction and delivery valves for said cylinder in said cover, a straight tube extending through said water jacket connecting passage and entirely surrounded by water space, said tube serving as the air connection between the first stage delivery valve and the second stage suction valve, a gudgeon pin fixed to the piston and extending through the slots in the said casing and liner, and driving means connected to said gudgeon pin substantially as described.

2. A two stage compressor comprising first and second stage cylinders spaced apart and oppositely arranged, a

piston of two diameters fitting said cylinders, a pedestal, an outer casing mounted on said pedestal, a liner having the cylinders formed in its opposite end portions and adapted to form water jacket spaces around the cylinders and between it and the casing, the said casing and liner intermediate of the cylinders being slotted and the pedestal constituting the end portion of the lower cylinder, suction and delivery valves for said lower cylinder located in said pedestal, a cover constituting the end portion of the upper cylinder, suction and delivery valves for said cylinder in said cover, a gudgeon pin fixed in the said piston and extending through the slots in the casing and liner, a transverse shaft mounted in bearings in said pedestal, eccentrics on said shaft, straps embracing said eccentrics and pivotally connected to said gudgeon pin, substantially as described.

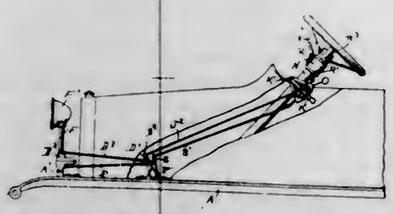
[Claim 3 not printed in the Gazette.]

1,242,041. STREET-CAR. EDMOND REDMOND, Rochester, N. Y. Filed Mar. 2, 1916. Serial No. 81,644. (Cl. 155—2.)



The combination with a car seat of a rod or tube attached to the seat, arising therefrom to above the height of the passenger, but not rigidly fixed above, and constituting a handle as and for the purpose described.

1,242,042. DIRIGIBLE-LIGHT APPARATUS FOR AUTOMOBILES. JOHN HENRY REED, Van Wert, Ohio. Filed June 8, 1917. Serial No. 173,626. (Cl. 240—61.)

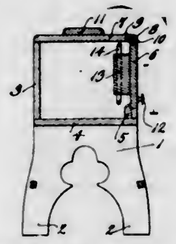


1. A manually-operated mechanism for actuating dirigible lights for vehicles, comprising a hollow shaft, shell sections secured thereto and forming housings, and adapted to rock collars having bosses thereon journaled in openings in said shell sections, lamp posts having squared portions engaging similar outlined openings in said collars, a crank arm fastened to the projecting end of one post, bar connections between said collars, a hollow rock shaft, journaled on the side bar of the vehicle, a crank arm upon the rock shaft, pivotal rod connections between said arms, lever actuated mechanism for rocking said rock shaft, and means for rocking the shell sections, as set forth.

4. A manually operated mechanism for actuating dirigible lights for vehicles, a steering shaft, a casing in which the same is mounted, a shell journaled upon said casing and provided with a diagonal slot, a bar having a pin at one end positioned within said slot connections, a rocking shaft and housings thereon, collar journaled in said housings, lamp posts mounted in said collars, and connections intermediate the latter and said pin carrying bar.

[Claims 2 and 3 not printed in the Gazette.]

1,242,043. SHOE-BLACKING STAND. EDWARD J. REILLY, Baltimore, Md. Filed Dec. 4, 1916. Serial No. 134,943. (Cl. 15—58.)



1. A shoe blacking stand, comprising a housed in case, a door therefor, a narrow strip connecting the door to the case, said narrow strip being hinged on the one side to the upper edge of the top board of the case and on the other side to the edge of the door to allow said door and strip to fold completely over the top board of the case, and means for sustaining the door in its open position in spaced relation to the top of the case.

2. A shoe blacking stand, comprising a housed in case, a door for said case, a narrow strip intermediate said door and case and forming a connecting element therefor for enabling the door and strip to fold completely over the top board of the case, a manipulating member attached to the free side of the door, and a spacing member arranged on the top of the case beneath the door when the latter is in open position and adapted to sustain the door to prevent strain on the connection, said manipulating member co-acting with the spacing member to prevent lateral movement of the door when in such open position.

1,242,044. COMBINED COVERING AND OILER FOR SPRINGS. ARTHUR L. ROBERT and EDWARD MENARD, Springfield, Mass. Filed Jan. 24, 1917. Serial No. 144,178. (Cl. 267—28.)



1. The combination, in a device of the class described, of an open-ended trough, a lining of absorbent material in the bottom and against the sides of said trough, said lining having a transverse top flap of less width than the length of the lining, an open-ended cover for said trough, said cover having an opening therein over said flap, and means to fasten said trough and cover together and to a vehicle spring.

3. The combination, in a device of the class described, of an open-ended trough, a lining of absorbent material in said trough, means to fasten the ends of said lining to said trough, an open-ended cover for said trough, and means to fasten said trough and cover together and to a vehicle spring.

[Claims 2 and 4 to 11 not printed in the Gazette.]

1,242,045. CLOSURE FOR MILK AND CREAM BOTTLES OR JARS. JOHN GEORGE ROEHM, Jr., Oneida, N. Y. Filed June 27, 1916. Serial No. 106,217. (Cl. 215—14.)

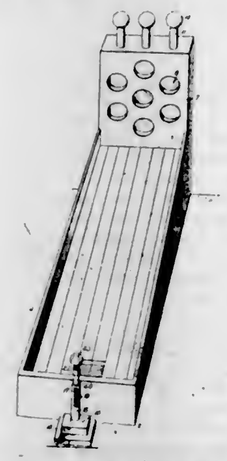
1. The combination with a disk-like cap for milk bottles or jars having a tongue stamped therefrom and normally disposed in the plane of the cap and capable of movement to a position at an angle to the plane of the cap, of a finger mounted upon said tongue and stamped to form a prong that penetrates the tongue and having one end projecting beyond the outer end of the tongue and overlying the adjacent portion of the cap to limit the movement of the tongue in one direction, and the other end formed to provide a finger hold.



2. A jar cap comprising a disk, a tongue formed in said disk within the periphery thereof, and normally disposed in the plane of the disk, a finger attached to said tongue having one end adapted to engage the disk adjacent the tongue to limit the movement of the tongue in one direction, and having the other end bent away from the disk to provide means for manually moving the tongue in the other direction; said finger having a prong constituting the means of attachment between said finger and said tongue.

3. A jar cap comprising a disk, a tongue formed in said disk within the periphery thereof, and normally disposed in the plane of the disk, a finger attached to said tongue radially of said disk having one end adapted to engage the disk adjacent the tongue to limit the movement of the tongue in one direction, and having the other end bent away from the disk to provide means for manually moving the tongue in the other direction; said finger having a prong constituting the means of attachment between said finger and said tongue.

1,242,046. BASE-BALL GAME. WILLIAM H. ROGERS, Brooklyn, N. Y. Filed Feb. 3, 1917. Serial No. 146,388. (Cl. 46—59.)

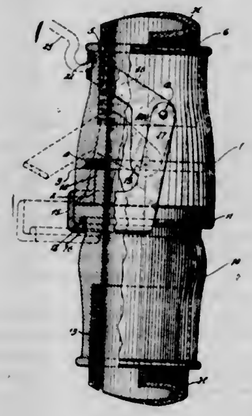


1. A base ball game comprising a body formed with means for directing balls in a given direction, a casing formed with apertures through which balls may be projected, a plurality of targets arranged above said casing, tubular supporting members for said targets, a flexible member connected with target, a weight connected to each flexible member for normally holding the targets on the upper end of said tubular members, and means for supporting a ball in position to be projected toward said apertures and toward said targets as well.

2. A base ball game comprising target members, means for directing a ball through said target members to a distant point, and a base ball stand arranged adjacent said distant point, said base ball stand being provided with a supporting construction and a rubber member of an appreciable length on top of said supporting construction, said rubber member having a depression for receiving a base ball.

3. In a base ball game of the character described, a base ball stand comprising a fixed tubular member having a plurality of notches therein, a reciprocating bar arranged in said tubular member and projecting from one end thereof, a pin connected to said bar and arranged to engage any of said notches for adjustably supporting said bar, a rubber cushioning member arranged on said bar for supporting a base ball, and target means arranged at a distance but coacting with said stand for receiving said balls when projected from the stand.

1,242,047. HOSE-COUPLING. AUGUST T. SAWYER, Livermore Falls, Me., assignor of one-half to Walter H. Dixon. Filed Sept. 18, 1915. Serial No. 51,501. (Cl. 137—28.)



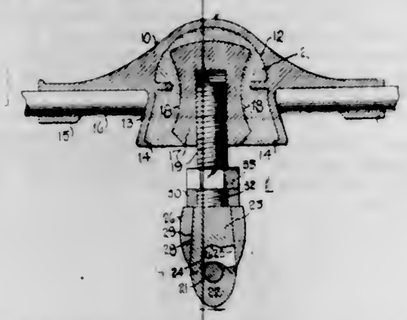
In a hose coupling, a female member having a recess in its inner face at one end, a male member having a reduced neck fitting the recess in said female member and provided with a lateral flange extending around its periphery at the base of said neck, the flanged end of said male member and the adjacent end of said female member being of uniform diameter whereby their outer faces are flush with each other when the parts are assembled, said flange having an annular groove on its rear face, a semi-circular clamp L-shaped in cross section with an inturned lip extending at right angles from the free edge of the short arm of the L, said lip being adapted to interlockingly engage the groove in the flange of the male member when the parts are assembled, the longer arm of said clamp spanning the joint between said members, a flat substantially U-shaped clamp-operating lever pivoted to the extremities of the arms of said clamp, the extremities of the lever arms being fulcrumed to said female member at points so spaced as to cause said lever to snugly engage said member when in closed position.

1,242,048. SUPPORT FOR SUSPENDED CONDUCTORS. HERMAN SCHAEFER, Astoria, N. Y. Filed Mar. 25, 1916. Serial No. 86,739. (Cl. 191—43.)

1. A hanger for electric conductors comprising a metallic ear adapted to support a single conductor extending longitudinally the full length of the ear, and means for detachably clamping the conductor in place in the ear, said means extending approximately the full length of the ear and said clamping means having an opening through its body whereby a second conductor may be passed through the clamping means and clamped to the ear in electrical engagement with the first named conductor.

2. A hanger for electric conductors comprising an ear having a shank formed with a conductor passage, the ear

having a conductor seat on its upper face extending through the passage in the shank, and a clamping member loosely surrounding the shank and extending the length of the ear and confronting said ear and adapted to clamp a conductor between the shank and the ear, the clamping member being spaced at one point from the shank to permit the introduction of a second conducting member into engagement with the ear.



3. A hanger for electric conductors comprising a support, a shank extending at right angles thereto, a clamping member surrounding the shank and confronting the support, a clamping member disposed upon the first-named clamping member and having a groove upon its under face extending to an opening in turn extending through the first named clamping member to the bottom thereof, and means for holding the clamping members in superposed relation to each other and urging said clamping members toward the supporting member.

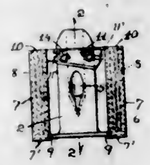
4. A hanger for electric conductors comprising an ear having a screw-threaded shank, the shank adjacent its junction with the ear being formed with a laterally opening conductor passage alining with the upper face of the ear, a bell including a screw threaded member to detachably receive the shank, a clamping member loosely surrounding the shank and vertically movable thereon and adapted to confront the ear and when in operative position close the lateral opening in the shank, and a nut engaging the shank above said clamping member and adapted to hold the clamping member in operative position in relation to the shank, there being a sufficient distance between the nut when in the last named position and the screw threaded member on the bell to permit the nut to be run up on the bell and permit the clamping member to be vertically raised to a position to disclose the opening in the shank.

5. In a support for suspended electric conductors, the combination with a bell, of an ear having a shank detachably engaged with the bell, the ear extending longitudinally and at right angles to the shank and having its upper face longitudinally grooved to form a seat for a trolley wire, the shank at its junction with the ear arching over the groove, a cap section longitudinally grooved upon its under face and having a central opening adapted to engage over the shank and surround and arch over the shank to provide an entrance opening to the seat, a rectangular cap member longitudinally grooved upon its under face and having a vertical opening through which the shank member passes, and a nut holding said cap in place.

[Claims 6 to 9 not printed in the Gazette.]

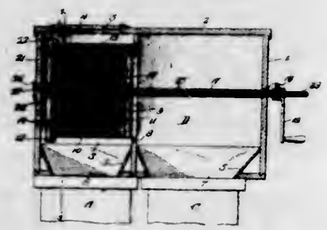
1,242,049. **PENCIL-SHARPENER.** JOSEPH SCHLICHTINGER and ERNEST KROGEL, Atlanta, Ga. Filed May 16, 1916. Serial No. 97,976. (Cl. 120—94.)

In a pencil sharpener, a member having an upper cross-head provided with longitudinal depending extensions forming a rigid part thereof and spaced apart from each other, said cross head having guideways located between said extensions, a knife located centrally of and carried by said cross-head in front of said guideways, a coöperating member provided with a lower cross-head slidably engaging said longitudinal extensions, and a central longitudinal portion projecting upwardly and slidably engaging said guideways of the first-named member, and return springs carried by said longitudinal extensions and bear



ing at their ends against the cross-heads of the two members, the upper and lower cross-heads forming finger holds in operating the device and having their longitudinal axes in substantially the same plane as the longitudinal axes of said depending extensions.

1,242,050. **ASH-SIFTER.** ANDREW P. SCHMITT, Middle Village, N. Y. Filed Feb. 27, 1917. Serial No. 151,319. (Cl. 83—60.)

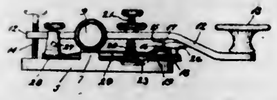


1. In an ash sifter, the combination with a casing having a partition dividing its interior into two compartments of unequal length and provided with a large opening, an outlet at the bottom of each compartment, and a filling opening at the top of the smaller compartment closed by a cover; of a rod secured to the rear wall of the casing, projecting centrally through said opening, and extending approximately to the front wall, the latter being provided with a hole concentric with the rod, a two-part tubular shaft whose inner part is rotatably and slidably mounted on the rod and whose outer part is rotatably and slidably mounted on the inner part and both of which parts extend through said hole, a crank handle on the outer part beyond the front wall of the casing, a screen having a cupped body of a size to pass through the opening of the partition, and whose bottom is mounted rigidly on said outer part, a closure for the mouth of the screen mounted on the inner part and of a size to contact with the partition around the opening therein when drawn against it, a baffle within the screen, and a door in one side of the same registering with the cover in the casing.

2. In an ash sifter, the combination with a casing having a partition dividing its interior into two compartments of unequal size, the partition being provided with a large opening, an outlet at the bottom of each compartment, and a filling opening at the top of the smaller compartment, of a rod secured to the rear wall of the casing, projecting centrally through said opening, and extending approximately to the front wall, the latter being provided with a hole concentric with the rod, a two-part tubular shaft whose inner and longer part is rotatably and slidably mounted on the rod and whose outer and shorter part is rotatably and slidably mounted on the inner part and both of which parts extend through said hole, operating means on the outer part beyond the front wall of the casing, a screen having a substantially cylindrical body of a size to pass through the opening in the partitions, and a closed bottom mounted rigidly on said outer part and, a head for the open end of the screen mounted on the inner part and adapted to close the mouth of the screen and a door in one side of the screen body adapted to register with the filling opening of the casing.

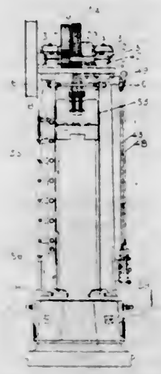
[Claims 3 and 4 not printed in the Gazette.]

1,242,051. **COMBINED TELEGRAPH-KEY AND SPRING-JACK SWITCH.** CLEMENT B. SCOLLARD, Seattle, Wash. Filed Apr. 2, 1917. Serial No. 159,370. (Cl. 178—101.)



A combined telegraph key and spring-jack switch which embodies a metal base portion; an insulated metal stud provided with a contact point and fixed in the front portion of said base portion to project therefrom; a key-lever provided with a contact point and pivotally mounted on said base portion in a position to adapt it to be manipulated to cause its contact point to engage and disengage the contact point of said insulated metal stud; a spring-jack switch contact member disposed in metallic contact with said insulated stud to extend therefrom in a plane spaced from the top surface of said base portion; a spring-jack switch arm disposed with one of its end portions mounted upon and insulated from said base portion and with its other end portion in normal engagement with the top surface of said spring-jack switch contact member to form a spring-jack switch, within which may be inserted the spring-jack wedge of a loop circuit; and means for securing a circuit wire in electrical connection with said spring-jack switch arm.

1,242,052. **FRICTION-DRIVEN DROP-HAMMER.** JAMES LIVESEY SCOTT and ERNEST SCOTT, Footscray, Victoria, Australia. Filed June 9, 1917. Serial No. 173,840. (Cl. 78—30.)



1. In a drop hammer mechanism including a hammer, a spur wheel and an oscillating or partially rotating lifter pulley carrying said hammer, clutch mechanism mounted between said wheel and pulley, a collar fixed on said pulley and a loose oscillatory collar also mounted on said pulley, each collar having mating spiral curved surfaces, and means for retarding oscillation of said oscillatory collar in either direction, to cause lateral movement thereof whereby the clutch mechanism is rendered active or passive to raise or lower the hammer.

2. In a drop hammer mechanism including a frame, a shaft thereon, and hammer, a spur wheel fixed on said shaft and having an overhanging rim, an oscillatory or partially rotatable lifter pulley mounted on the hub of said spur wheel, connecting means between the hammer and said lifter pulley, clutching means mounted between the lifter pulley and the overhanging rim of the spur wheel, means for oscillating or partially rotating said lifter pulley and putting the clutching means into operative action to lift the hammer, and means for releasing said clutching means to drop the hammer.

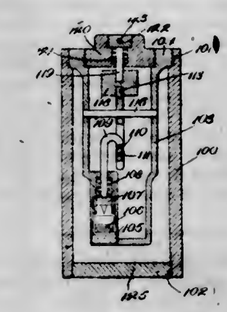
3. In a drop hammer mechanism including a hammer, a spur wheel and an oscillating or partially rotating lifter pulley having an extended boss, clutching means mounted between the spur wheel and the lifter pulley, a collar fixed on the boss of the lifter pulley, an oscillatory collar also mounted on said boss and adapted to move laterally, the adjacent faces of said collars having corresponding cam surfaces, a projection carried by the loose collar, a slide stop adapted to engage said projection and means for moving said stop into the path of said projection whereby the said clutching means couple the spur wheel and lifter pulley to raise the hammer.

4. In a drop hammer mechanism including a hammer, a spur wheel and an oscillating or partially rotating lifter pulley, said pulley having its hub extended to form a boss, clutching means mounted between said spur wheel and lifter pulley, a collar fixed on said lifter pulley, another collar mounted to oscillate on said pulley and laterally movable on said boss adjacent to the fixed collar, the adjacent faces of said collars having corresponding cam surfaces, means carried by said oscillatory collar for retarding its oscillation, step means carried by said collar to cause the hammer to drop from different heights, and means for engaging said step means for causing operation of same, substantially as and for the purpose described.

5. In a drop hammer mechanism including a hammer, a spur gear and a lifter pulley, means for causing frictional clutching action between said gear and pulley, a rigid, and an oscillatory collar mounted on the lifter pulley and having mating cam meeting edges, means for retarding oscillation of the loose collar in one direction to cause lateral movement of the collar to cause the clutching action, step means carried by the loose collar whereby the hammer is carried to different heights and dropped therefrom, a plunger for engaging said step means and means for raising and lowering said plunger.

[Claims 6 to 10 not printed in the Gazette.]

1,242,053. **HAND-GRENADE.** EDWARD M. SHINKLE U. S. Army. Filed June 22, 1916. Serial No. 105,217. (Cl. 102—29.)



1. In a hand grenade the combination of a container; a percussion firing means inside said container; a pivoted means adapted to move in three directions and to control said firing means; a safety means adapted to hold said pivoted means in a safety position; and means to release said safety means when the grenade is thrown, substantially as described.

2. In a hand grenade the combination of a container; a spring controlled firing means inside said container; means comprising a loose ball and pin for positively holding said firing means in its safety position during storage; shipment and throwing of said container; and means for removing said pin and partially unlocking said firing means

during the flight of said container, substantially as described.

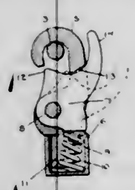
3. In a hand grenade the combination of a casing; a spring controlled firing means inside said casing; means comprising a loose member, holding devices for said member, and a lock for said devices for positively holding said firing means in its safety position during storage, shipment and throwing of said casing; means for withdrawing said lock and freeing said holding devices partially unlocking said firing means during the flight of said casing; and means for releasing said loose member from said holding devices, and completely releasing said firing means upon the impact of said casing, substantially as described.

4. In a hand grenade the combination of a container; a spring controlled member constituting a firing means; a pivoted trigger means adapted to control said firing means; a weight adapted to move said trigger means in a plurality of directions; and a locking member adapted to control the action of said weight, substantially as described.

5. In a hand grenade the combination of a container; a spring controlled member constituting a firing means; a trigger member controlling said firing means; a loose member held between said spring controlled and said trigger members; a weight actuated member controlling said trigger member; and locking member controlling said weight actuated member, substantially as described.

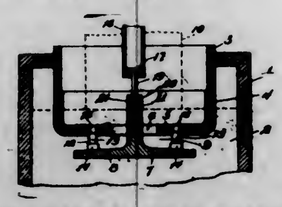
[Claims 6 to 9 not printed in the Gazette.]

1,242,054. BROOCH-FASTENING DEVICE. GUSTAVUS A. SIEFKEN, Minneapolis, Minn. Filed Nov. 20, 1916. Serial No. 132,383. (Cl. 24—157.)



The combination, with a pin guard having a hook portion and slotted opening in the shank thereof and a recess beneath said opening, of a catch pivoted near one end within said opening beneath the point of said guard, and having a lug projecting upwardly to a position adjacent to the end of said guard and also having a heel in the rear of said pivot, a spring mounted within said recess to engage said heel for normally holding said lug near the end of said guard and across the opening of said hook portion, and said catch having an upwardly projecting arm forming a finger grip for tilting said catch outwardly against the tension of said spring and moving said lug to expose the opening in the hook portion of said guard, inward pressure on said arm holding said catch in its locking position.

1,242,055. GLASS-DRAWING APPARATUS. LEVI SHERMAN SKELTON, Okmulgee, Okla. Filed June 26, 1917. Serial No. 176,974. (Cl. 49—17.1.)



1. In a glass drawing apparatus, a drawing pot having a filling and drain opening in the bottom thereof, and also having guide openings in its bottom, a baffle disk or plate disposed beneath the bottom of the pot, guiding projections extending upwardly from the disk and engaging said guide openings in the pot, whereby the disk is adjustably connected with the bottom of the pot, and stops arranged to limit the upward movement of the disk to leave a restricted channel between the pot and disk when the disk is in its uppermost position.

2. A drawing pot having a filling and drain opening in the bottom thereof, a baffle disk or plate disposed beneath the pot and adjustable toward and from the bottom thereof, and means for limiting the upward movement of the disk, to provide a restricted channel between the pot and disk at the limit of upward movement of the disk.

4. A drawing pot having a filling and drain opening in the bottom thereof, an adjustable baffle plate or disk disposed beneath the bottom of the pot, and means holding the disk in guided connection with the pot, said means being adapted to limit the upward movement of the disk to leave a restricted channel between the pot and disk in the uppermost position of the disk.

6. A glass drawing pot having a filling and drain opening in the bottom thereof, and also having guide openings in its bottom, a baffle disk or plate disposed beneath the pot and adjustable toward and from the same, guide posts projecting upwardly from the disk and engaging said guide openings, stop devices for limiting the upward movement of the disk to leave a restricted channel between the pot and disk in the uppermost position of the disk, and a projection extending upwardly from the disk into the pot through the filling and drain openings for engagement with the device whereby said disk may be depressed.

8. A drawing pot having a filling and drain opening in the bottom thereof, a baffle plate or disk disposed beneath the pot and adjustable vertically with relation thereto, means for guiding the disk and limiting the upward movement of the disk, so as to leave a restricted channel between the pot and disk when said disk is in its uppermost position, a projection extending upwardly into the pot from the disk through said filling and drain opening, said projection having a recess in the upper end thereof, a blow pipe having discharge orifices at its bottom, and a pin extending downwardly from said pipe for engagement with the recess in said projection.

[Claims 3, 5, 7, and 9 not printed in the Gazette.]

1,242,056. ANTISLIPPING ATTACHMENT. PERRY A. SKILES, Surrey, N. D. Filed Dec. 26, 1916. Serial No. 138,937. (Cl. 36—64.)

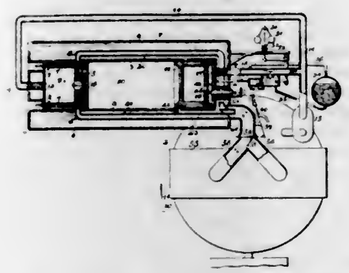


1. An ice creeper including sole pieces, a locking lever, and connecting members having a threaded adjusting means at one end in connection with the sole pieces, the other ends of the connecting members being pivoted to the locking lever and shaped to avoid each other when the ice creeper is locked, the pivot being arranged so that one is located above the other to hold the locking lever locked.

5. An anti-slipping attachment of the character described, including oppositely disposed engaging members, up-struck calks formed upon said engaging members, connecting arms adjustably secured to said engaging members, and a channeled locking lever having an elongated slot therein, one of said connecting arms being pivotally secured to one end of the locking lever and the other of said connecting arms extending through the elongated slot in the lever and pivotally connected thereto at a point out of horizontal alinement with the pivot of said first connecting arm, whereby the engaging means may be moved to and maintained in clamping position.

[Claims 2 to 4 not printed in the Gazette.]

1,242,057. GAS-TURBINE. IRA LEON SLAWTER, Grande Prairie, Alberta, Canada, assignor of one-third to Edward Rogers, Bellingham, Wash., and one-third to Earl Slawter, Grande Prairie, Alberta, Canada. Filed May 27, 1916. Serial No. 100,418. (Cl. 60—4.)

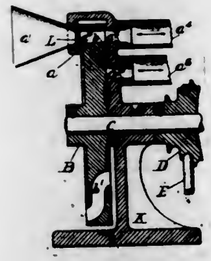


1. In a gas turbine; the combination of a rotor, a fluid generator cylinder having normally closed air and gas ports, a projectile piston in the cylinder between an explosion chamber at one side and an air compressor chamber at the other, a cushion piston forming a yielding partition in the compressor chamber, means for causing an explosion in the explosion chamber to project the projectile piston rearwardly compressing the air and opening the gas and air ports, and conduits directing the exploded gases and compressed air against the rotor.

15. In a gas turbine; the combination with the motive fluid generator having an explosion chamber, an air compressor, a mixing tube communicating with the explosion chamber and receiving air from the compressor, a pressure reducing valve for regulating the pressure of the air, a gasolene chest associated with the mixing tube, a needle valve therebetween, a gasolene reservoir having communication with the gasolene chest, and a pressure pipe between the mixing tube and the top of the fluid in the reservoir.

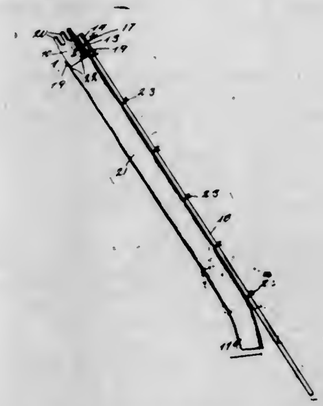
[Claims 2 to 14 and 16 to 22 not printed in the Gazette.]

1,242,058. SIGNAL MECHANISM. FRANK H. SLEEPER, Worcester, Mass., assignor of one-fourth to George Downing Hartley, Brooklyn, N. Y. Filed July 2, 1910. Serial No. 570,092. (Cl. 116—1.)



In a signal mechanism the combination of a main frame, a sound transmitting member mounted thereon, two separate sources of differing fluid pressure connected to said frame, a rotor also mounted upon said frame, interposed between said sound transmitting member and said separate sources of differing fluid pressure, and provided with two series of alternating and equally spaced openings therethrough, one series of said openings permitting free passage in one direction for fluid pressure from its source toward the sound transmitting member, and the other series of openings permitting free passage in the reverse direction for the other fluid pressure away from the sound transmitting member, said openings terminating adjacent the sound transmitting member in a common circular plane and being primarily effective in a common plane to control the fluid movements therein.

1,242,059. FRUIT-PICKER. FRED J. SLENKER, Springfield, Ill. Filed Oct. 16, 1916. Serial No. 125,915. (Cl. 56—99.)



1. A top member for fruit pickers consisting of a blank of sheet metal having a reduced end portion, a pole engaging socket formed from the reduced portion of the blank, means for securing one end of the blank to the other end of the blank to form a cylindrical member, means for securing the free edge of the pole receiving socket to the blank, and upwardly extending tongues struck out from the cylindrical portion of the blank to form hooks for the attachment of a chute, said blank further having upwardly directed fingers extending from its upper edge.

2. A top member for fruit pickers consisting of a blank of sheet metal, one end of which is reduced, means for securing the other end of the blank to the body portion thereof at the base of the reduced portion to provide a cylindrical member, a pole receiving socket formed from the reduced portion of the blank and securing its free edge to the body portion of the cylindrical member, upwardly extending tongues struck out from the blank to form a chute attaching means, and upwardly projecting fingers formed on the upper edge of the flat portion of the blank to form a cylindrical member.

[Claim 3 not printed in the Gazette.]

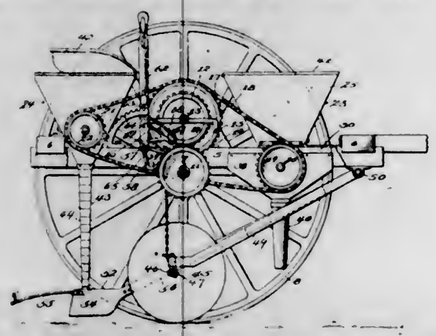
1,242,060. PIPE-PATCH. FRANK C. SMAKAL, Midas, Nev. Filed July 29, 1914. Serial No. 853,863. (Cl. 137—28.)



1. A pipe patch comprising a flexible water proof sleeve, strips secured to the flexible casing, one set of strips extending around said flexible water proof sleeve and having their ends spaced, said ends being provided with apertures, the opposite set of strips being secured to said sleeve intermediate the ends of said first mentioned strips, hooks carried by said second mentioned strips and arranged to enter the apertures and thus firmly clamp the whole together.

2. A pipe patch comprising a flexible water proof sleeve, strips secured to the flexible casing, one set of strips extending around said flexible water proof casing and having their ends spaced, said ends being provided with apertures, the opposite set of strips being secured to said sleeve intermediate the ends of said first mentioned strips, hooks pivotally secured to the second mentioned strips, reduced extensions formed on said hooks, said reduced extensions arranged to enter the apertures and thus firmly clamp the whole together.

1,242,061. FERTILIZER-DISTRIBUTER AND PLANTER. HAYES S. SMITH, Rowland, N. C. Filed Sept. 16, 1916. Serial No. 120,564. (Cl. 111—67.)



1. In a machine of the class specified, a drive axle having a gear, a power transmitting shaft carrying a sprocket wheel and gear to mesh with the gear on the drive axle and mounted to have a tilting adjustment to disengage and engage the gear thereon relatively to the gear on the axle, a fertilizer distributer having an operating shaft with a sprocket wheel, a seed box having an operating shaft also provided with a sprocket wheel, a chain belt continuously engaging the sprocket wheel on the power transmitting shaft and the sprocket wheels of the fertilizer distributer and seed box shafts, cultivating devices movably mounted below the fertilizer distributer and seed box, and mechanism for elevating the cultivating devices and tilting the power transmitting shaft to throw the gear thereof out of mesh with the gear on the drive axle.

2. In a machine of the class specified, a fertilizer distributer having feed operating means, a seed box also having feed operating means, a drive axle, mechanism between the drive axle and the feed operating means of the fertilizer distributer and seed box for actuating said means, and including tilting power transmitting devices having a normal operating association with the drive axle, cultivating devices movably mounted under the fertilizer distributer and seed box, and a rock shaft having means connected to the cultivating devices for raising and lowering the latter and also provided with a shifting lever carrying means to engage a part of the mechanism between the drive axle and the operating means for the fertilizer distributer and seed box to cause a separation of said tilting power transmitting devices from the feed operating means and effect a cessation of feed of the fertilizer distributer and seed box subsequent to the elevation of the cultivating devices and to set all of the parts in operation when the cultivating devices are lowered.

3. In a machine of the class specified, a fertilizer distributer, a seed box, cultivating devices gravitatingly mounted below the fertilizer distributer and seed box, a drive shaft having gear means, mechanism between the drive shaft and fertilizer distributer and seed box for rendering the fertilizer distributer and seed box active and inactive and comprising a tilting shaft having gear means to coöperate with the gear means of the drive shaft, and mechanism for elevating and depressing the cultivating devices and by reverse movements effecting an engagement and disengagement of the gear means on the tilting shaft relatively to the gear means of the drive shaft for rendering the fertilizer distributer and seed box active and inactive to cause a feed and a cessation of feed from the fertilizer distributer and seed box simultaneously with the depression and elevation of the cultivating devices.

4. In a machine of the class specified, a fertilizer distributer having an operating shaft with a sprocket wheel, a seed box having an operating shaft with a sprocket wheel, a drive shaft carrying a gear, a tilting power transmitting shaft carrying a gear to mesh with the gear of the drive shaft and also provided with a sprocket, a chain belt engaging the sprocket wheels of the operating shafts of the fertilizer distributer and seed box and of the power transmitting shaft, cultivating devices gravitatingly mounted below the fertilizer distributer and seed box, a rock shaft having lifters provided with chains connected to the cultivating devices, and a shifting lever connected to the rock shaft and provided with means for disengaging the gear of the power transmitting shaft from the gear of the drive shaft.

5. In a machine of the class specified, a drive shaft carrying a gear, a power transmitting shaft having a gear meshing with the gear of the drive shaft and also provided with a sprocket, the said power transmitting shaft having a tilting support at one end, a fulcrumed bar engaging one end of the power transmitting shaft for tilting the latter and having a projection, a fertilizer distributer having a feed operating shaft provided with a sprocket, a seed box having a feed operating shaft provided with a sprocket, a chain belt engaging the sprocket on the power transmitting shaft and the sprockets of the operating shafts of the fertilizer distributer and seed box, cultivating devices gravitatingly mounted below the fertilizer distributer and seed box, a rock shaft having lifters provided with chains connected to the cultivating devices for simultaneously raising and lowering the latter, and a shifting lever carrying a frame having a segmental slot merging into a cam slot and engaged by the projection of the said fulcrumed bar to effect a disengagement and engagement of the gear on the power transmitting shaft relatively to the gear on the drive shaft.

[Claim 6 not printed in the Gazette.]

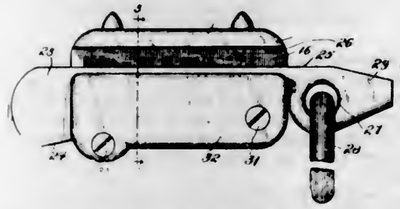
1,242,062. FOUNTAIN DRAFTING-PEN. LLOYD B. SOLEMINK, San Francisco, Cal. Filed July 13, 1916. Serial No. 109,086. (Cl. 120—50.)



1. A fountain drafting pen comprising an ink reservoir, a pair of tines extending from one end of said reservoir, one of said tines being provided with an ink duct having its upper end communicating with the reservoir the lower end of said duct opening toward the inner face of the tine adjacent its lower end, the said tine having an air passage extending therethrough in parallel relation to the ink duct the lower end of said passage opening in a plane with the opening of the ink duct and a pipe at the upper end of the passage extending through the reservoir to a point near the upper end thereof.

2. A fountain drafting pen comprising an ink reservoir, a closure at one end of the reservoir, a pair of tines connected to and extending from said closure, one of said tines being provided with an ink duct having its upper end communicating with the reservoir, said tine also having an air passage extending therethrough in spaced parallel relation to the ink duct and the lower end of said air passage and ink duct terminating flush and opening out toward the inner face of the tine adjacent its lower end, the upper end of said air passage provided with a recess the walls of which are provided with screw-threads, a pipe removably secured in the recess at the upper end of the passage and extending through the reservoir to a point near the upper end thereof, a cap removably mounted on the upper end of said reservoir forming an air tight closure therefor, as and for the purpose specified.

1,242,063. WIRE-STRETCHER. BENJAMIN H. SOUTHLAND, Sherman, Cal., assignor of one-half to Earl J. Williams, Sherman, Cal. Filed Apr. 27, 1915. Serial No. 24,289. (Cl. 24—136.)



1. A device of the class described comprising a body member having in its front face a longitudinal tapered recess producing an overhanging flange and a shoulder disposed convergently with respect to said flange, the bottom of the recess having a longitudinal groove which is parallel to the shoulder, in combination with a wedge positioned in said recess and having a longitudinal rib engaging the groove, the opposed faces of the wedge and the overhanging flange being in parallel relation, and a removable face plate secured on the bottom member to retain the wedge against lateral displacement.

2. In a device of the class described, a body member having a recess producing an overhanging flange and a shoulder disposed convergently with relation thereto, a wedge slidably guided on said shoulder with its upper face in parallel relation to the overhanging flange, said wedge having at its narrow end an offset forming a shoulder in which is formed an eye and a projection constituting an anvil, a rib formed on said wedge slidable in a slot formed in the body member whereby the shoulder is caused to engage the body member to limit its movement in one direction and a face plate secured on the body member to assemble the wedge therewith.

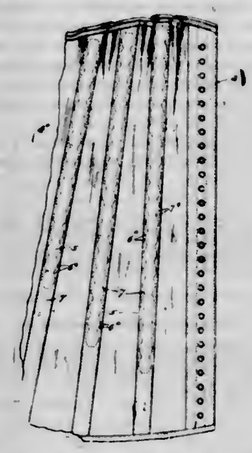
1,242,064. GARMENT-STAY. ERNEST L. SPANGLER, Chicago, Ill. Filed Nov. 6, 1916. Serial No. 129,709. (Cl. 2—76.)

1. As a new article of manufacture, a garment-stay blade having a longitudinal edge formed of convex curves in uninterrupted series, said curves resembling segments of circles and presenting expanded lobes.

2. As a new article of manufacture, a garment-stay blade of sheet-metal having its opposite longitudinal edges formed of convex curves in uninterrupted series, said curves resembling segments of circles and presenting expanded lobes.

3. A garment-stay comprising a sheath and a scalloped blade fastened therein by stitching through the sheath, the stitches extending along and conforming to the scallops.

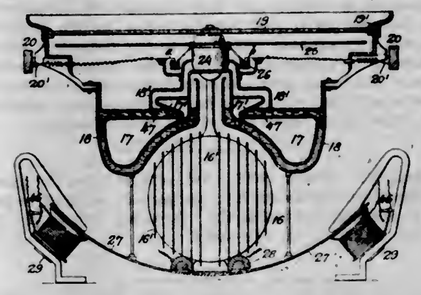
4. A garment-stay comprising a sheath and a sheet-metal blade provided with scalloped edges and fastened in the sheath by stitching therethrough, the stitches extending along and conforming to the scallops.



5. A corset or like article provided with stays, each stay comprising a sheath on the article and a scallop-edged blade fastened in the sheath by stitching, with the stitches extending along and conforming to the scallops.

[Claim 6 not printed in the Gazette.]

1,242,065. SHIP'S GYROSCOPE-COMPASS SET. ELMER A. SPERRY, Brooklyn, N. Y., assignor to Sperry Gyroscope Co., Brooklyn, N. Y., a Corporation of New York. Filed Sept. 25, 1909. Serial No. 519,533. (Cl. 33—204.)



1. In gyro navigation apparatus, a gyro wheel including an electrically driven part, a float for supporting the gyro in stable equilibrium, a central guiding member independent of said float for confining the motion of the gyro and float, a mercury cup into which the guiding member dips, electric circuits for the apparatus including said guiding member and an insulating support for said guiding member.

2. In gyro navigation apparatus an electrically operated gyro wheel including an electrically driven part, a float for supporting the gyro in stable equilibrium, a central guiding member independent of said float for confining the motion of the gyro and float, a mercury cup into which the guiding member dips, electric circuits for the apparatus including such guiding member and the float and an insulating support for such guiding member.

3. In gyro navigation apparatus, a gyro wheel including an electrically driven part, a float for supporting the gyro in stable equilibrium, a central guiding member independent of said float for confining the motion of the gyro and float, a mercury cup into which the guiding member dips, electric circuits for the apparatus including such guiding member, an insulating support for such guiding member, and an electric connection from the said

mercury cup to said electrically driven part for the gyro wheel.

4. In gyro navigation apparatus, a gyro wheel, a float supporting the wheel in stable equilibrium, and a liquid supporting said float, the emerging line or perimeter of the float being materially less in diameter than the outer diameter of the main submerged portion of such float, in combination with means containing said liquid and adapted to be mounted on a ship.

5. In a gyro navigation apparatus, a gyro wheel, a Cardan support, a pendulous support for the wheel located inside and carried by the Cardan support and allowing universal pivotal motion, a device comprising a part independent of such pendulous support for opposing motions about one axis on the part of the gyro wheel, but leaving it comparatively free for motion about a different axis.

[Claims 6 to 34 not printed in the Gazette.]

1,242,066. ADJUSTABLE BUSHING. ADOLPH STARR, New Haven, Conn. Filed Feb. 8, 1917. Serial No. 147,308. (Cl. 64—13.)

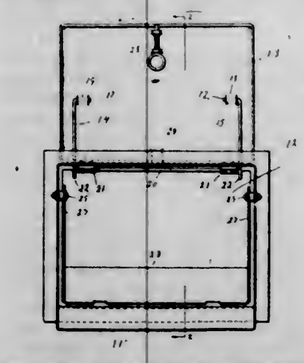


1. The combination of co-axial, relatively rotatable elements and means establishing connection between said elements and adjustable relatively thereto to determine the angular positions of given points on said elements when the latter abut.

4. The combination with rotatively coaxial elements, abutting on each other when assembled, of a bushing interiorly threaded to engage one element and exteriorly threaded to engage the other element the threads being of different pitch, said bushing being capable of rotation to vary its position relatively to the respective elements whereby to optionally determine the angular relation of given points on said elements when the elements abut, and means for locking said bushing in adjusted position.

[Claims 2, 3, and 5 not printed in the Gazette.]

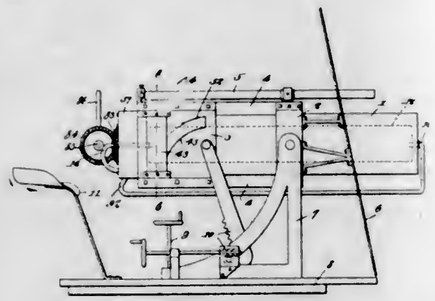
1,242,067. DOOR FOR COAL-CHUTES. CHARLES F. STIGLITZ, Louisville, Ky., assignor of one-half to Daniel R. Stiglitz, Louisville, Ky. Filed Apr. 23, 1915. Serial No. 23,280. (Cl. 189—46.)



1. In combination a vertically disposed door frame, an arm the inner end of which is pivotally connected interiorly of the frame, said arm comprising a curved portion and a rectilinear portion, said curved portion fitting about the inner edge of the frame whereby the rectilinear portion may extend about the frame exterior thereof in a plane substantially parallel with the face of the frame, a door to the inner surface of which the outer end of said arm is pivotally connected, and a lug projecting from the frame above the doorway whereon the lower edge of the door may be rested to hold it in its elevated or open position.

[Claim 2 not printed in the Gazette.]

1,242,068. MACHINE-GUN. VAUGHN STODDARD, Chelsea, Iowa. Filed Nov. 13, 1916. Serial No. 131,070. (Cl. 89—12.)



1. A machine gun embodying a rotatable barrel having an annular series of rifle bores, an endless feed chain for conveying shells to and partially around with the barrel, and means for moving the shells from the chain into said bores for firing and then withdrawing the shells from said bores while the shells are being carried around with the barrel.

5. A machine gun embodying a sleeve, a barrel rotatable therein having an annular series of rifle bores, a U-shaped guide having its ends secured to the sleeve, said sleeve having openings, and an endless feed chain movable along said guide and around the barrel through said openings for carrying shells to and partially around with the barrel.

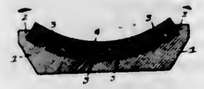
10. A machine gun embodying a barrel, an endless feed chain having a lower run movable toward the barrel for feeding shells thereto, said chain having inner shell recesses, and a magazine above the lower run of the chain for dropping shells into said recesses.

15. A machine gun embodying a rotatable barrel having an annular series of rifle bores, members movable around with the barrel and movable forwardly and rearwardly for moving the shells into and out of the bores, said members when moved forwardly being movable into locking position for locking the shells in the bores, means for conveying shells to and partially around with the barrel in rear of the bores, means for moving said members forwardly and rearwardly and for moving said members when moved forwardly to lock the shells in the bores during the firing thereof, firing pins assembled with said members, and means for striking the firing pins when the shells are locked in the bores.

20. A machine gun embodying a rotatable barrel having an annular groove and rifle bores extending rearwardly to said groove, an endless feed chain movable in said groove for carrying shells to and partially around with the barrel in rear of said bores, longitudinally slidable members carried by the barrel in rear of said groove and shell engaging means at their forward ends, the barrel and said members having coöperating means whereby said members in being moved forwardly and rotated are locked against rearward movement, a cam in rear of the barrel having means receiving the rear ends of said members, said members and cam having coöperating means whereby the members are moved forwardly and then turned into locking position for firing and then turned backwardly and moved rearwardly, spring pressed firing pins slidable in said members, a hammer for striking said pins, and means operated when the barrel is rotated for operating the hammer to strike the pins when the respective members are in locked position.

[Claims 2 to 4, 6 to 9, 11 to 14, and 16 to 19 not printed in the Gazette.]

1,242,069. COMPOSITION LINING FOR BRAKE-SHOES. ROBERT J. STOKES, Trenton, N. J. Filed Nov. 18, 1915. Serial No. 62,204. (Cl. 106—75.)



1. A brake shoe having a face consisting of a composition of ground asbestos fiber and metallic particles, the mass being impregnated with a rubber composition and shaped under pressure and vulcanized.

2. A composition for the wearing surface of a brake shoe consisting of ground asbestos fiber, particles of brass wire thoroughly mixed therewith, and a rubber composition acting as a binder, shaped under pressure and vulcanized.

1,242,070. DISPLAY DEVICE. JULIEN STRANDERS, Brooklyn, N. Y., assignor to Harry B. Kruger, New York, N. Y. Filed Jan. 24, 1917. Serial No. 144,125. (Cl. 40—146.)



1. In a device of the character described, comprising a body portion, a supporting member hingedly connected to said body portion, adapted to be folded flat against said body portion, a hinged portion connected to said body portion, and means on said supporting member engaging said hinged member, and adapted to move the same from a flat position to an inclined position in the folded and set up positions of said supporting member.

[Claims 2 and 3 not printed in the Gazette.]

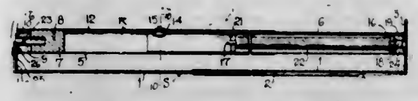
1,242,071. WRITING-MACHINE CYLINDER. HERMAN STRONGSON, New York, N. Y., assignor of one-half to Robert F. Greacen, New York, N. Y. Filed Mar. 1, 1917. Serial No. 151,687. (Cl. 197—147.)



A writing machine cylinder comprising a rubber tube body having integrally formed relatively rigid ring terminal ends; a plurality of supporting disks rigidly connected with said ends; a shaft passing centrally through said disks and rotatively connected therewith; and means mounted on said shaft for moving said disks relative each to the other, said means embodying a threaded section adjacent one end of said shaft and a screw-thread formed in one of said disks for engaging said threaded section of said shaft, and an abutment adjacent the other end of said shaft for rotatively engaging to hold in fixed lengthwise disposition the other of said disks.

1,242,072. WINDOW-SCREEN. AUGUST SWEDBERG, Kingston, Pa., assignor to Swedberg Mfg. Co., Wilkes-Barre, Pa., a Corporation of Pennsylvania. Filed Mar. 12, 1917. Serial No. 154,254. (Cl. 156—39.)

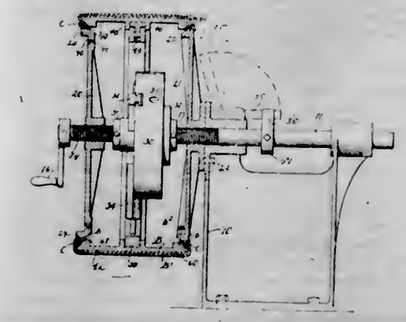
1. A device of the character described comprising a supporting member provided with lateral extensions, a roller rotatably supported by said extensions, one end portion of the roller being provided with a ratchet wheel, an arm pivotally engaged with the outer face of the extension of the supporting member adjacent the end of the roller provided with the ratchet wheel, said arm normally coacting with the ratchet wheel for holding the roller against movement in one direction, said extension being provided with an opening through which a terminal of the arm extends to engage the ratchet wheel, the outer end portion of the arm being laterally disposed in a direction inwardly of the supporting member to afford engaging means.



2. A device of the character described comprising a supporting member provided with lateral extensions, a roller rotatably supported by said extensions, one end portion of the roller being provided with a ratchet wheel, an arm pivotally engaged with the outer face of the extension of the supporting member adjacent the end of the roller provided with the ratchet wheel, said extension being provided with an opening through which a terminal of the arm extends to engage the ratchet wheel, an elongated spring anchored at one end to the outer face of said extension and having its opposite end portion bearing against an edge of the arm for normally maintaining the arm operatively engaged with the ratchet wheel of the roller for holding the roller against movement in one direction.

3. A device of the character described comprising a supporting member provided with lateral extensions, a roller rotatably supported by said extensions, one end portion of the roller being provided with a ratchet wheel, an arm pivotally engaged with the outer face of the extension of the supporting member adjacent the end of the roller provided with teeth, said extension being provided with an opening through which a terminal of the arm extends to engage the ratchet wheel, an elongated spring anchored at one end to the outer face of said extension and having its opposite end portion bearing against an edge of the arm for normally maintaining the arm operatively engaged with the ratchet wheel of the roller for holding the roller against movement in one direction, the edge of the arm with which the free end of the spring coacts being provided with a longitudinally disposed groove whereby said free end portion of the spring is maintained in requisite position with the arm.

1,242,073. METHOD OF MAKING TIRE-CASINGS. JAMES D. TAW, Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a Corporation of New York. Filed Dec. 13, 1915. Serial No. 66,406. (Cl. 154—14.)



1. The process of making tire casings consisting of forming an inner ply in a substantially cylindrical form with inwardly extending edges, securing to said edges

beads the inner faces of which constitute a substantially cylindrical surface when applied, applying an outer ply which extends over the outside of said beads, removing the carcass comprising the plies thus formed, causing it to assume a tire shape, and completing the tire.

3. The process of making tire casings consisting of forming an inner ply in a substantially cylindrical form with inwardly extending edge portions, securing to the outer faces of said edge portions beads the inner faces of which when applied constitute a substantially cylindrical surface of less diameter than that of the main portion of said inner ply, applying an outer ply which extends over the outside of said beads, removing the carcass thus formed, causing it to assume a tire shape, and completing the tire.

9. The process of making tire casings consisting of cutting bias strips from a fabric made of parallel rubberized cords, placing one of such strips about the periphery of a drum with one bias end contiguous to the other bias end and with the edges of the strip overhanging the edges of the drum, bending such edges of the strip inwardly over the edges of the drum, applying beads to the outer sides of such bent-in edges in substantially the position such beads will occupy in the completed tire, thereafter applying over the first strip a second strip, the cords extending transversely to those of the first ply, subsequently causing the carcass thus produced to assume a tire shape, and completing the casing.

13. The process of making tire casings consisting of laying a sheet of fabric over a collapsible drum the edges of the fabric extending beyond the drum, bending such edges of the fabric inwardly across the edges of the drum, applying beads to the outer sides of the bent-in fabric edges, laying a second ply of fabric onto the first ply, bending in the edges of the second ply onto the outside of the bead, collapsing the drum, removing the carcass therefrom and placing it in a holder of a shape corresponding to the wheel rim with which the tire is to be used, distending the carcass while in such rim into tire shape, and completing the construction of the tire.

18. The process of making tire casings consisting of cutting bias strips from a fabric made of parallel rubberized cords, placing one of such strips about the periphery of a collapsible drum with one bias end contiguous to the other bias end and with the edges of the strip overhanging the edges of the drum, bending inward such edges of the strip onto the edges of the drum, securing such bent-in edges of the fabric to the drum, affixing beads to the outer side of the ply at the edges of the drum, the beads standing with their bases substantially cylindrical, laying a second ply over the first, the edges of the second ply overlapping the beads and extending some distance inwardly thereof, then forcing relatively inward suitable ring members to bend the inwardly extending edges of the outer ply inwardly to a cylindrical form along the inner face of the beads, thereafter collapsing the drum and displacing one of the ring members sufficiently to allow the removal of the carcass, removing such carcass, and causing it to assume a tire shape and completing the tire casing.

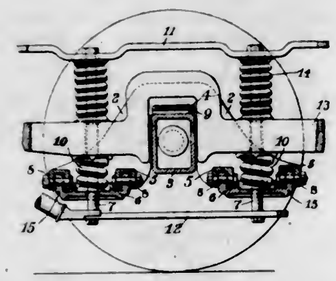
[Claims 2, 4 to 8, 10 to 12, 14 to 17, and 19 to 24 not printed in the Gazette.]

1,242,074. CHAIR-TRAY. GUYER D. THOMAS, North Yakima, Wash. Filed Apr. 6, 1915. Serial No. 19,589. (Cl. 155—12.)



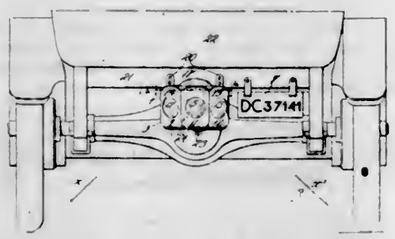
The combination with a tray supporting board of a high chair, of a tray retaining clip comprising angular members pivoted to the underside of the board and extending above the board at opposite edges thereof, hooks having downturned ends adapted to engage the upper edges and inner sides of a tray and slidably associated with the first named members, and springs mounted between the members and hooks to normally hold the hooks in engagement with the upper edges and inner sides of the tray, whereby to disengage said hooks from the tray, the same will have to be lifted up and over the sides of the tray against the tension of the springs, as and for the purpose specified.

1,242,075. TRUCK FOR RAILWAY AND TRAMWAY VEHICLES. SIDNEY THOMAS and FRANK STAIT-GARDNER, London, England. Filed Dec. 14, 1916. Serial No. 137,016. (Cl. 105—242.)



In combination a truck frame, an axle box free to move vertically and laterally, upper and lower truss frame bars, posts uniting said bars and passing through the truck frame, springs between said bars and the truck frame, a hanger, a rocking axis therefor at the top of the axle box and capable of swinging laterally relative thereto, and cap members joined to the lower part of the hanger and turnable about axes parallel to the rocking axis of the hanger at the top of the axle box, said cap members affording supports for the springs below the truck frame, substantially as described.

1,242,076. LAMP. WILLIAM S. THOMAS, Lock Haven, Pa. Filed Oct. 14, 1916. Serial No. 125,640. (Cl. 240—46.)



1. A lamp for vehicles comprising a casing having a signal lens therein, a source of light positioned within the casing and in alinement with said lens, said casing having an opening positioned with respect to said source of light to permit the rays thereof to pass therethrough and illuminate the ground, and a second source of light within the casing and in alinement with said lens, both of said sources of light being arranged to permit their rays to pass outwardly through said lens, substantially as described.

2. A lamp for vehicles comprising a casing having a signal lens therein, a source of light positioned within the casing and in alinement with said lens, said casing having an opening positioned with respect to said source of light to permit the rays thereof to pass therethrough and illuminate the ground, and a second source of light interposed between said signal lens and the first source of light and operative to illuminate said lens either independently of or together with said first source of light, substantially as described.

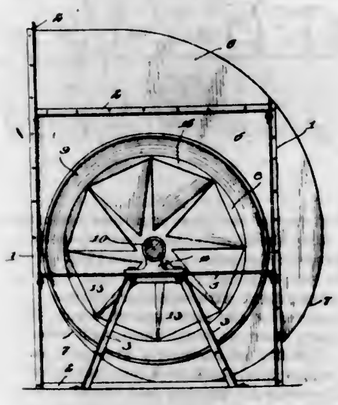
3. A lamp for vehicles comprising a casing having a signal lens therein, a source of light positioned within the casing and in alinement with said lens, said casing having an opening positioned with respect to said source of light to permit the rays thereof to pass therethrough and illuminate the ground, and a second source of light within said casing and located between the lens and said first source of light, said casing also having an opening in the side thereof in line with the second source of light, substantially as described.

4. A lamp for vehicles comprising a casing having a signal lens therein, a source of light positioned within the casing and in alinement with said lens, said casing having an opening positioned with respect to said source of light to permit the rays thereof to pass therethrough and illuminate the ground, a second source of light within said casing and located between the lens and said first source of light, said casing also having an opening in the side thereof in line with the second source of light, and a reflector for said second source of light designed to reflect the rays thereof through said latter opening, substantially as described.

5. A lamp for vehicles comprising a casing, a signal lens therein, a source of light within the casing and in alinement with said lens, said casing having openings positioned to permit the rays of light from said source to pass therethrough and to illuminate the ground, and a second source of light within said casing and located between said first source of light and the lens, said second source of light being operative to illuminate the lens either independently of or together with said first source of light, substantially as described.

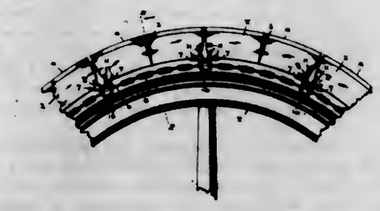
[Claims 6 to 8 not printed in the Gazette.]

1,242,077. BLOWER. ADOLPH A. THOMMEN, Chicago, Ill. Filed Sept. 11, 1915. Serial No. 50,199. (Cl. 230—11.)



In a blower, a casing having the side walls thereof formed with round openings, a frusto-conical sleeve within each of said openings and each having its wider end secured to the walls of the openings, a shaft journaled in bearings arranged concentric of the openings, a rotor upon the shaft including radially disposed blades disposed between the inner ends of the sleeves, a ring member secured to the outer edges of the said central blades, said rotor further including angularly disposed intake blades also radiating from the shaft, and inclined wing members connecting the outer ends of the blades with the ring members and providing tops for the said intake blades, and said intake blades being disposed within the referred to frusto-conical sleeves.

1,242,078. NON-SKIDDING TIRE-ARMOR. RICHARD BRUCE THOMPSON, Allerton, Ill. Filed Dec. 30, 1916. Serial No. 139,714. (Cl. 152—16.)

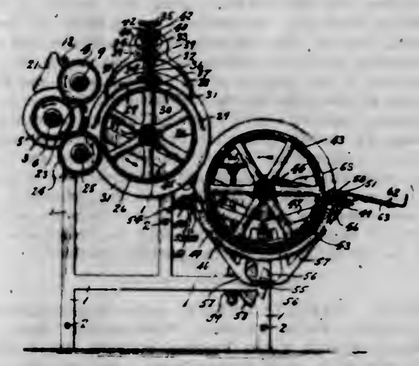


1. The combination with a tired vehicle wheel, of a non-skidding tire armor comprising a plurality of elongated concaved tread plates, each tread plate having each of its corners provided with a pair of apertures, a pair of flexible circumferential elements, and links looped through said flexible circumferential elements and having their terminal ends engaged through said pairs of apertures.

2. The combination with a tired vehicle wheel, of a non-skidding tire armor comprising a plurality of elongated concaved tread plates, each trade plate having each of its corners provided with a pair of apertures, a pair of flexible circumferential elements, each embodying a plurality of spaced rings, and links looped through the rings of said flexible circumferential elements and having their terminal ends engaged within said pairs of apertures of the tread plates.

3. The combination with a tired vehicle wheel, of a non-skidding tire armor comprising a plurality of elongated concaved tread plates, each tread plate having each of its corners out-turned and provided with a pair of apertures, a pair of flexible circumferential elements, each circumferential element embodying a plurality of spaced rings, and a pair of links looped through each ring and having their terminal ends connected to and looped through the pairs of apertures in the out-turned corners of the adjacent tread plates.

1,242,079. DOUGH-MOLDING MACHINE. CHARLES A. THOMSON, Belleville, N. J., assignor to Daniel Mellis, Belleville, N. J. Filed Dec. 10, 1914. Serial No. 876,443. (Cl. 107—9.)



1. In a dough-molding machine, the combination with a curling-drum of a curling-plate extending over a portion of the same and concentric thereto to provide a passage between the same and said curling-plate through which the dough travels, and means for adjusting said curling-plate toward or away from the surface of said curling-drum comprising, a stationary bridge-piece extending transversely above said curling-drum and provided with an internally screw-threaded opening, an adjusting-screw mounted in said opening to the lower end of which

said curling-plate is attached, a pair of oppositely extending lever-arms pivoted to said bridge-piece the lower arms of which engage the opposite free ends of said curling-plate, a cam-means connected with the upper end of said adjusting screw so as to be vertically movable therewith, and adapted to engage the upper arms of said lever-arms to oscillate said lever-arms whereby the free ends of said curling-plate are depressed toward the surface of the curling-drum when said adjusting-screw is moved to carry the main body of said curling-plate toward said curling-drum.

2. In a dough-molding machine, the combination with a pair of sheeting-rolls comprising a fixed roll and a movable roll, of means for adjusting said movable roll toward or away from said fixed roll comprising, a supporting shaft upon which said movable roll is rotatably mounted, eccentric journal portions connected with the ends of said supporting shaft, a driving-shaft having a centrally disposed longitudinal opening in which one of said eccentric journal portions is mounted, a bearing in which the opposite eccentric journal portion is mounted, a bearing in which said driving shaft is mounted, a disk portion having a radial slot formed in its face, said disk portion being connected with the inner end of said driving-shaft, a stud projecting from the side of said movable roll and entering said slot of said disk portion, means for oscillating said supporting shaft on its eccentric journal portions, and means for locking said supporting shaft in desired adjusted position.

1,242,080. MAGAZINE-PENCIL. ALFRED R. TILLY, Brooklyn, N. Y. Filed Feb. 2, 1916. Serial No. 75,719. (Cl. 120—14.)

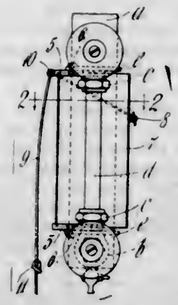


In a magazine pencil, the combination with a tubular casing 2 having a stationary member 6 therein provided with the slots 7 located adjacent to and opening into one edge of the stationary member; of a tip 8 revolubly mounted on one end of the casing and having a crayon-receiving opening therein; an extension 9 carried by the tip and extending into the tubular casing and having a longitudinally extending crayon-receiving passage 11 therein opening into the opposite ends of the extension and communicating with the opening in the end of the tip; the inner end of the passage being adapted when the tip is rotated in one direction, to register with the slot in the stationary member; said extension having a transverse passage 12 therein communicating with the longitudinal passage; a depressible element 14 mounted on the extension and having a finger 15 carried thereby and overlying the transverse passage; and means for depressing the element when the top is rotated in one direction so as to cause the finger to be inserted into the transverse passage in the extension, for the purpose specified.

1,242,081. SAFETY DEVICE FOR GAGE-GLASSES. THEODORE FELIX TRUDEAU, Willimansett, Mass., assignor to John Lewis Perkins, Holyoke, Mass. Filed Apr. 16, 1917. Serial No. 162,364. (Cl. 73—54.)

1. A safety attachment for a gage glass device, comprising in combination supporting and guiding means adapted for attachment to said device, a shield mounted in said means and constructed to turn about the gage glass, said shield arranged normally in the rear of the latter, and means to turn the shield into a protecting position, in front of the gage glass.

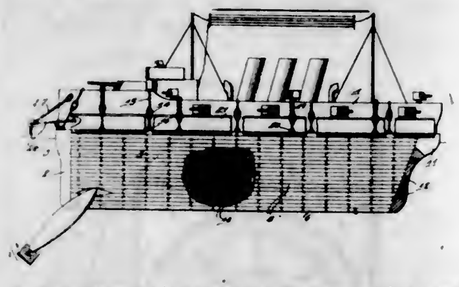
4. A protecting attachment for a gage glass device, comprising, upper and lower semi-circular tracks adapted to be secured to said device and constructed to extend from the rear to the front of the gage glass to surround a side peripheral portion thereof, a shield having a substantially semi-cylindrical surface and arranged to extend between said tracks, said shield being normally supported by a partial overlap with the tracks in a position to surround the rear peripheral portion of the gage glass, means to move the shield substantially half a revolution



around the gage glass to a protecting position wherein the shield surrounds the front peripheral portion of the gage glass, said shield adapted to drop from said tracks when moved through a further angle, and means to support the disconnected shield at a distance below the gage glass device.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,242,082. MEANS FOR PROTECTING A VESSEL AGAINST TORPEDOES. ROBERT ALEXANDER TUTE, Atlanta, Ga. Filed Sept. 30, 1916. Serial No. 123,045. (Cl. 114—240.)



1. A protector of the class described comprising a bow strip, an inner sheet, an outer sheet, yieldable means interposed between the inner and outer sheets, a stern strip, and means for detachably holding said inner and outer sheets in engagement with said stern strip.

2. A protector of the class described comprising a bow strip, an inner sheet, an outer sheet, said outer sheet comprising a plurality of compactly arranged elastic strips, yieldable means interposed between said inner and outer sheets, and means for holding said sheets around the hull of a vessel.

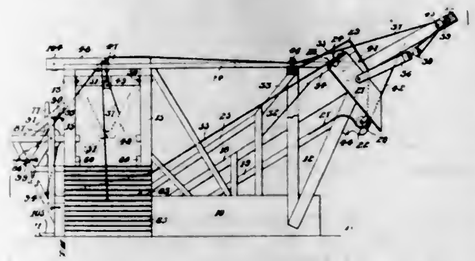
3. A protector of the class described comprising a bow strip, an inner sheet, an outer sheet, a wire mesh screen formed upon the outer face of said inner sheet, a plurality of coil springs carried by said wire mesh screen and abutting against the inner face of said outer sheet, and means for supporting said inner and outer sheets upon the hull of a vessel.

4. A protector of the class described comprising an inner sheet, an outer sheet, springs carried by said inner sheet and abutting against the inner face of said outer sheet, said outer sheet comprising a plurality of longitudinally extending closely arranged elastic strands, binding means passing through said strands for firmly holding the same together, and means engaging the upper edges of said sheets for holding said protector upon the hull of a vessel.

5. A protector of the class described comprising an inner sheet, an outer sheet, springs carried by said inner sheet and abutting against the inner face of said outer sheet, said outer sheet comprising a plurality of longitudinally extending closely arranged elastic strands, binding means passing through said strands for firmly holding the same together, means engaging the upper edges of said sheets for holding said protector upon the hull of a vessel, said springs tapering toward the centers thereof and having widened portions at the end thereof.

[Claims 6 to 8 not printed in the Gazette.]

1,242,083. MANURE-LOADER. WENZEL L. ULLSPERGER, Coleridge, Nebr. Filed Jan. 8, 1917. Serial No. 141,181. (Cl. 214—8.)



1. A loading device comprising a frame having a dumping platform at one end thereof, upper and lower tracks leading from beneath said platform upwardly to a dumping position, looped rails forming a continuation of one of the said tracks and a guard for the other and having wheel-receiving depressions therein adjacent the upper end of the lower track, a dump car having forward and rear wheels upon different levels adapted for running upon the said lower and upper tracks respectively, said forward wheels being arranged within the said depressions during the dumping operation of the car with the rear wheels of the car positioned at such times adjacent the said guard portions of the rails, and operating means for the car.

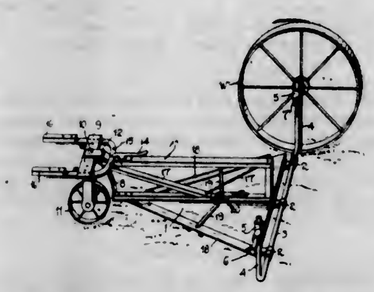
3. A loader comprising a frame having a platform, a V-shaped adjuster pivoted to the said frame normally positioned horizontally above the platform, a sheave at the apex of said adjuster, an elevating car, a hoisting rope operatively connected to the said car and arranged over the said sheave, and resilient normal positioning means attached to the said adjuster adjacent the said sheave whereby the latter is automatically returned to its horizontal position after each operation of the device.

4. A loader comprising a frame having a receiving platform at one end thereof, and an inclined track terminating adjacent the opposite end of the frame, two-part approaches hinged to the opposite edges of the platform, foldable supporting struts beneath the said approaches, a winding drum removably attached rearwardly of the said frame, and hoisting cords secured substantially centrally of the said approaches and passing over the said drum, the said approaches being in their elevated folded positions when the cords are wound upon the said drum.

[Claim 2 not printed in the Gazette.]

1,242,084. CORN-HARVESTER. EDWARD C. VARNER, Mansfield, Ohio. Filed Mar. 8, 1917. Serial No. 153,424. (Cl. 56—103.)

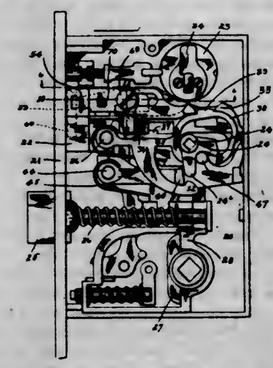
1. A device of the character described comprising a platform provided with cutting means, bearings extending rearwardly of the platform, a shaft loosely disposed through said bearings and terminating in upstanding arms, spindle-carrying sleeves engageable with said arms and movable longitudinally thereof and axially thereround, supporting wheels mounted upon the spindles, and supporting means for the forward end portion of the platform.



2. A device of the character described comprising a platform provided with cutting means, bearings extending rearwardly of the platform, a shaft loosely disposed through said bearings and terminating in upstanding arms, spindle-carrying sleeves engageable with said arms and movable longitudinally thereof and axially thereround, supporting wheels mounted upon the spindles, a vertically disposed stem rotatably supported by the forward portion of the platform, a wheel operatively engaged with the stem, and means for holding the stem against rotation.

3. A device of the character described comprising a platform provided with cutting means, bearings extending rearwardly of the platform, a shaft loosely disposed through said bearings and terminating in upstanding arms, spindle-carrying sleeves engageable with said arms and movable longitudinally thereof and axially thereround, supporting wheels mounted upon the spindles, a vertically disposed stem rotatably supported by the forward portion of the platform, a wheel operatively engaged with the stem, a lever secured to the stem for imparting rotation thereto, and means for holding the lever against movement.

1,242,085. LOCK. HENRY G. VOIGHT, New Britain, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Apr. 13, 1917. Serial No. 161,854. (Cl. 70—29.)



1. In a lock, two bolts, one of which is normally connected with the other, key actuated means for protracting both bolts by actuation of such other bolt, and thumb turn means for disconnecting said bolts from each other and protracting one independently of the other.

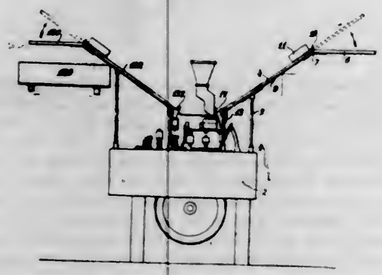
2. In a lock, two bolts, a pin normally connecting one bolt with the other, key mechanism for protracting both bolts simultaneously, and thumb turn mechanism for moving said pin to an inoperative position and protracting one bolt independently of the other.

3. In a lock, two bolts, one of said bolts being tumbler controlled, means for connecting the other bolt with and

disconnecting it from said tumbler-controlled bolt, key mechanism for protracting both bolts simultaneously, and thumb turn mechanism for disconnecting said bolts and protracting one independently of the other.

[Claims 4 to 14 not printed in the Gazette.]

1,242,086. **FEEDING DEVICE FOR MACHINES FOR LOADING CARTRIDGES.** ALFONS VON HENRIQUEZ, Wiener Neustadt, Austria, assignor to Bernhard Wetzler, Vienna, Austria. Original application filed Sept. 21, 1911, Serial No. 650,594. Divided and this application filed Apr. 24, 1913. Serial No. 763,310. (Cl. 86—46.)



1. In a cartridge loading machine, the combination of a container for parts of the cartridges, a feed plate located above said container and provided with a series of laterally spaced longitudinal grooves which occupy the same plane on the upper side of said plate and are adapted to receive such parts of the cartridges, a catching plate extending transversely across the tops of the grooves of the feed plate, and a guard on the upper side of said catching plate having sides which diverge angularly in directions downwardly and outwardly toward the opposite sides of the feed plate.

2. In a machine for filling cartridges, means for feeding cartridge cases thereto comprising, in combination, a supply hopper, an inclined feed plate leading to said hopper, and a set of guiding tubes on said feed plate for conducting the cartridge cases to said hopper, such tubes being transparent to permit observation of the cartridge cases contained therein.

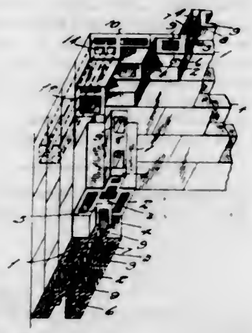
3. In a cartridge loading machine, means for supplying cartridge cases thereto comprising, in combination, a supply hopper, means for feeding cartridge cases thereto in a direction transverse to the hopper, and means for regulating and controlling the entrance of the cartridge cases into the hopper embodying a reciprocatory slide arranged at the entrance of said hopper to receive the cartridge cases in reclining position and having a toothed opening through which the case may enter the hopper while the opening in the slide is above the hopper.

13. In a cartridge loading machine, means for feeding projectiles comprising, in combination, a row of receiving hoppers, an inclined feed plate having a row of guides thereon sloping downwardly toward the corresponding row of hoppers, a bar extending longitudinally of the row of hoppers and transversely below the lower ends of said guides, and a slide located above and movable longitudinally of the row of hoppers and transversely of the guides, the slide having a set of openings for the passage of the projectiles when such openings are in alinement with the corresponding guides and are positioned above the corresponding hoppers.

[Claims 4 to 12 not printed in the Gazette.]

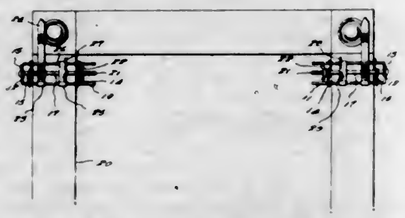
1,242,087. **INTERLOCKING TILE.** CLARENCE W. WADDELL, Dallas, Tex. Filed Mar. 23, 1916. Serial No. 86,045. (Cl. 72—38.)

An interlocking tile having a longitudinal tenon on its upper side and a longitudinal mortise in its under side, the tenon having a longitudinal passage wholly included therein, the portion of the tile intermediate the tenon and mortise having a longitudinal passage extending entirely therethrough, the tile having vertical ducts connected with the said passages and set in from the ends of the tile and extending entirely through the tile from top to bot-



tom and effecting communication between each block and the blocks above and below it, and the portions of the tile on opposite sides of the mortise each having a longitudinal passage extending entirely therethrough.

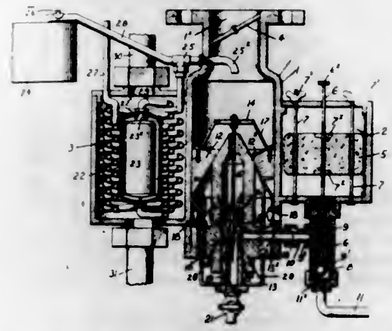
1,242,088. **CURTAIN AND SHADE BRACKET.** CHARLES R. WALKER, Waco, Tex. Filed May 29, 1916. Serial No. 100,537. (Cl. 156—24.)



In a device of the kind described comprising a U-shaped member, said member having two long parallel arms and a cross rod, a diagonally disposed central eye formed on said cross rod, a rod of substantial length to the parallel arms of said U-shaped member passed through said diagonally disposed eye and having a head adapted to engage the same, a pair of members each similar in form and constructed of wire, each of said members consisting of an arm having terminal eyes through which the arms of said member extend and an intermediate eye disposed diagonally of the arm through which said rod extends, the outer end of said rod being screw-threaded, hooked terminals carried by the opposite ends of each member and adapted to engage opposite sides of one stile of a window frame and a jam nut threadedly engaging the threaded portion of said rod and adapted to bear against the intermediate eye of one of said last-named members when the latter engages the stile in order to draw the head of the rod against the intermediate eye of said first-named member.

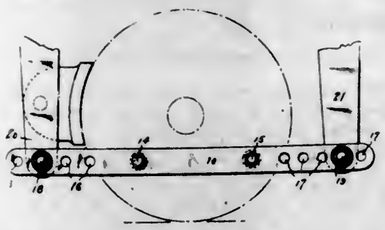
1,242,089. **CARBURETER.** JAMES L. WALKER, National, Wash. Filed July 22, 1916. Serial No. 110,734. (Cl. 261—35.)

1. A carbureter apparatus comprising a carbureter chamber provided with an air inlet and air valve recessed in one face and mounted in said chamber and adapted to be lifted from its seat by the suction of an engine, a hollow member tapering at one end and against which said valve is designed to seat, a hollow plug with a needle valve aperture at one end, a stem fixed to said valve, a plunger and a needle valve upon said stem, said plunger being arranged for movement in said hollow member and said needle valve adapted to seat in said aperture, said hollow member having a fuel outlet above said plunger, the wall of the plug being provided with an aperture leading into an annular space intermediate the wall of the plug and the wall of the chambered portion of said hollow member, the wall of the latter being provided with an inlet duct and stop means secured to said air valve and movable over said hollow plug.



2. A carbureter apparatus comprising a carbureter chamber provided with an air valve recessed on its under face, the wall of the recess being tapering, said valve adapted to be actuated by the suction of an engine, a hollow member tapering at one end and forming a seat for said valve, a hollow plug with a needle valve aperture in one end and mounted within the chambered portion of said hollow member, a bracket secured to said valve, a stem secured to said bracket, a plunger and a needle valve upon said stem, said plunger movable within said member, and the needle valve in the aperture in said hollow plug, said member having a fuel outlet above said plunger, the wall of the latter being provided with a port communicating with an annular space between the outer wall of the plug and the wall of the chamber of the hollow member.

1,242,090. **CAR-BRAKE STRUT.** FRANK D. WARD, New York, N. Y. Filed Aug. 24, 1916. Serial No. 116,638. (Cl. 74—17.)



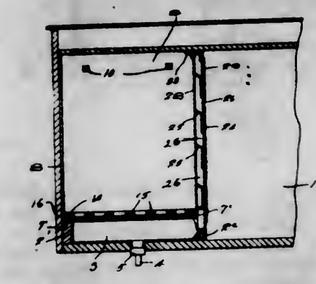
1. The combination with a pair of supports, of an inextensible connecting strut having at one end a series of eyes spaced by a unit of distance and at the other end a series of eyes spaced by a different unit of distance, and pins connecting the opposite ends of the strut to said supports.

2. A strut comprising a pair of bars rigidly united in spaced relation at their mid-portion, and having a longitudinal series of registering transverse eyes at one end of said bars and at the other end of said bars a longitudinal series of registering transverse eyes differently spaced from those of the first series.

3. A strut comprising a pair of bars, having at their opposite ends longitudinal series of eyes, spacing thimbles arranged between said bars at their mid-portion, means passing freely through said thimbles and piercing said bars and serving to unite the latter in permanent relationship, a pivot bolt at each end of said strut passing through registering eyes in the bar ends, and bearing bushings snugly fitting said bolts and spacing the bars apart at their ends.

4. A strut comprising a pair of bars, having at their opposite ends longitudinal series of eyes, spacing thimbles arranged between said bars at their mid-portion, means passing freely through said thimbles and piercing said bars and serving to unite the latter in permanent relationship, a pivot bolt at each end of said strut passing through registering eyes in the bar ends, and bearing bushings snugly fitting said bolts, in combination with a pair of supports extending between said bars and having eyes through which said pivot bolts pass, together with bearing bushings in said eyes of the supports, substantially as described.

1,242,091. **REFRIGERATOR-CAR.** GEORGE W. WATKINS, Lebo, Kans. Filed Jan. 11, 1916. Serial No. 71,517. (Cl. 62—19.)



The combination with a refrigerator car including a floor, of a frame upon the floor including side and end bars, an inner lining for said bars, said lining having a bottom wall resting upon the floor of the car forming a drip pan, a drain pipe communicating with said drip pan centrally thereof, a rectangular frame formed of angled bars secured upon the upper edges of the bars of the first named frame, a pair of hingedly mounted doors positioned within the car at the inner side of said rectangular frame forming the inner walls of the ice containing compartment, the lower edges of said doors engaging one flange of the angle bars of the second named frame, an ice supporting frame including side and end bars, grate bars secured to the side bars of the ice supporting frame, said ice supporting frame adapted to be positioned upon the angled bars of the second named frame and supported thereby.

1,242,092. **COLLAPSIBLE CORE FOR CONCRETE-MOLDS.** STANLEY F. WAZBINSKI, Bay City, Mich. Filed Apr. 15, 1916, Serial No. 91,408. Renewed May 22, 1917. Serial No. 170,272. (Cl. 25—128.)



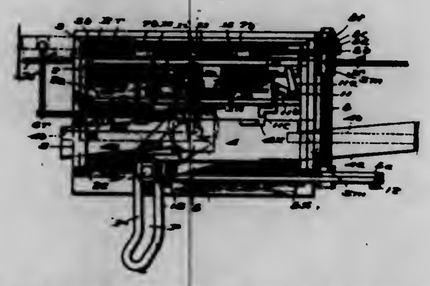
2. A core including top, bottom and side members, the longitudinal edges of said members being disposed in overlapping relation, means housed by said members for drawing the same toward and from each other, whereby to expand and contract the core, said means including a bar extending beyond one end of the core, flanges carried by each of the top, bottom and side members adjacent said end, guide pins supported by said flanges and a plate constituting a closure for the end of the mold and formed with an aperture through which said bar extends, said plate being provided with slots to receive said guide pins, whereby the members may move with respect to each other.

3. A core comprising top, bottom and side members, clips attached to the inner side of the top and bottom

members, side members each having an upper and lower flange slidably received between the clips and the top and bottom members, the edges of the top and bottom members being beveled to provide a smooth joint between the top, bottom and side members, and means for collapsing and expanding the said members.

[Claim 1 not printed in the Gazette.]

1,242,093. MEANS FOR RECORDING READINGS OF METERS. JOSEPH H. WEEKS, Battle Creek, Mich., assignor of one-half to Joseph W. Bryce, Battle Creek, Mich. Filed Mar. 22, 1916. Serial No. 85,823. (Cl. 234—35.)



1. In a recording device for registers, the combination of a casing, a registering mechanism therein, and punching devices connected with the registering devices, means for impaling a card upon said devices, and compressible cushions on the punching devices for clearing the punctured cards therefrom.

2. In a recording device for registers, the combination of a casing, a registering mechanism therein, and punching devices connected with the registering devices, means for supporting a removable card or sheet opposite said punching devices, means for impaling the card upon said devices, and compressible cushions on the punching devices for clearing the punctured cards therefrom.

3. In a recording device for registers, the combination of a casing, a registering mechanism therein, pins connected with the registering devices, means for supporting removable cards and a sheet in front of said pins; and means for causing the pins to punch the sheet and embed the parts punched therefrom into the card.

4. In a recording device for registers, the combination of a casing, a registering mechanism therein, pins connected with the registering devices, means for supporting a removable card and a sheet in front of said pins, and means for causing the pins to punch the sheet and embed the parts punctured from the sheet into the card, and means for returning the registering devices to zero after each recording operation.

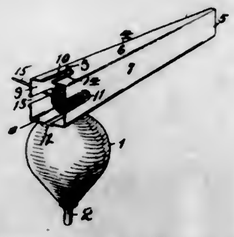
5. In a card recording device for registers, the combination of a registering mechanism provided with indicating fingers, pins on said fingers, a card or sheet holder opposite said fingers, means for relatively moving the registering mechanism and holder to punch cards placed between said holder and registering mechanism upon said pins, compressible cushions on said pins for disengaging them from the cards, and means for returning the registering devices to zero after each recording operation.

[Claims 6 to 29 not printed in the Gazette.]

1,242,094. TOY TOP. LEO WEINER, Akron, Ohio. Filed Mar. 6, 1917. Serial No. 152,538. (Cl. 46—32.)

1. A combination with a toy spinning top having a stem, of a spinning device therefor comprising a hollow member having one open end, the wall of the member further provided with a plurality of slots extending from the open end, said slots arranged in pairs with the members of each pair disposed in opposing relation and adapted to coöperate to form a temporary holding bearing for the stem of a top, and the unoccupied slots constituting guiding means for a cord employed for spinning the top.

2. A combination with a toy spinning top having a stem, of a spinning device therefor comprising a hollow member having one open end, the wall of the member further provided with a plurality of slots extending from the open end, each of said slots provided with outwardly



projecting beadings, said slots arranged in pairs with the members of each pair disposed in opposing relation and adapted to coöperate to form a temporary holding bearing for the stem of a top, and the unoccupied slots constituting guiding means for a cord employed for spinning the top.

1,242,095. SHAVING-BRUSH. JAMES W. WHITE, Tela, Honduras. Filed Apr. 11, 1917. Serial No. 161,198. (Cl. 15—50.)



1. The combination with a fountain brush of the class described including a liquid holding receptacle, and a liquid heating means carried thereby.

3. The combination with a portable fountain shaving brush including a liquid holding receptacle, of a casing in said receptacle, and an electric heater positioned within said casing to heat the liquid fed to the brush.

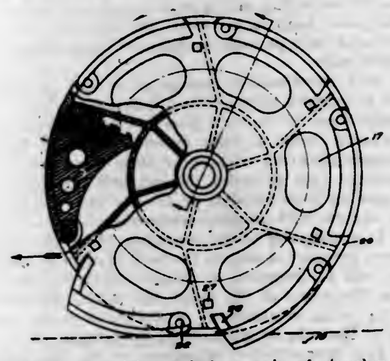
5. In a brush of the class described, the combination with a liquid holding receptacle, a brush head having its base connected with said receptacle and communicating therewith, a valve to control the flow of liquid to said brush, a handle connected with said receptacle, and an electric heater disposed in said receptacle to heat the liquid fed to the brush.

[Claims 2 and 4 not printed in the Gazette.]

1,242,096. TRACTOR-WHEEL. WILLIAM E. WILD, Gardena, Cal. Filed Feb. 2, 1917. Serial No. 146,276. (Cl. 21—211.)

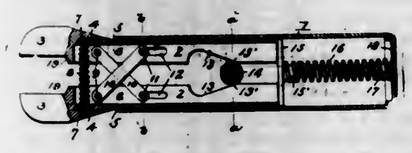
1. A vehicle wheel comprising a hub, a pair of circular disks secured thereto and in parallel relation to each other, a series of arcuate tread plates pivotally mounted at corresponding ends and disposed around the periphery of said disks, and means whereby the free ends of said plates may be adjustably secured in various projecting relations to the circumference of the disks.

2. A wheel comprising a hub, a pair of circular disks of equal size secured to said hub and extending parallel to each other, a series of fixed tread plates disposed at intervals around the periphery of said disks, a series of movable tread plates disposed between said fixed plates and pivotally held at corresponding ends, an arcuate flight plate secured at the free end of each of said movable tread plates, and extending inwardly therefrom, and means whereby said tread plates may be adjusted to expose various lengths of the flight plates.



3. A wheel comprising a hub, a pair of circular disks of equal size secured to said hub and extending parallel to each other, a series of fixed tread plates disposed at intervals around the periphery of said disks, a series of movable tread plates disposed between said fixed plates and pivotally held at corresponding ends, an arcuate flight plate secured at the free end of each of said movable tread plates and extending inwardly therefrom, means whereby said tread plates may be adjusted to expose various lengths of the flight plate, and side flanges formed upon opposite sides of said movable tread plates and adapted to overlap the edges of the circular body plates.

1,242,097. ADJUSTABLE-HEAD WRENCH. JOHN A. ANDERSON, Bridgeport, Conn. Filed Dec. 30, 1916. Serial No. 139,844. (Cl. 81—112.)



1. A wrench, comprising a hollow handle, jaw members disposed within the handle upon opposite sides of a medial line and in the same plane, and having both a limited longitudinal movement and a transverse movement toward and away from the said medial line, and crossed links arranged within the handle and between the jaw members and pivotally connected at corresponding ends to said jaw members, and having longitudinal sliding connection at their opposite ends with the said jaw members.

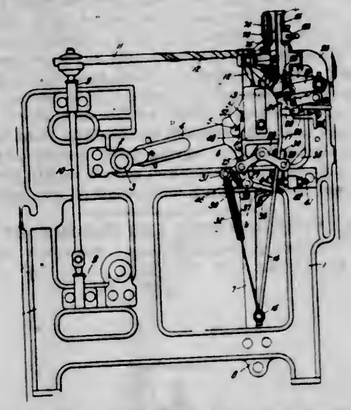
2. In a wrench, a handle section, arms mounted for limited movement therein having their outer ends terminating in jaws, said arms having beveled sections adapted for engagement by the outer end of said handle, a spring arranged between the outer ends of said arms, links connecting said arms, and a spring arranged in the inner end of said handle for normally holding said arms outwardly within the handle whereby to normally hold said jaws in an open position.

3. In a wrench, a hollow handle, arms mounted for limited movement within said handle having their outer ends terminating in jaws, a spring engaging the outer ends of said arms for normally holding said jaws in an open position, links connecting said arms for causing them to move in unison, said arms having wedge-shaped recesses formed in the sides thereof, a pin for engagement by said wedge-shaped recesses, and a spring arranged in the inner end of said handle member, as and for the purpose specified.

4. A wrench, comprising a handle, jaw members having a limited longitudinal sliding movement within the handle, means coöperating with the jaw members to insure their maintaining a parallel relation throughout their length at every stage of their adjustment, means between the jaw members for yieldably pressing them apart laterally, other means between the jaw members and the handle to yieldably press them apart longitudinally, and coöperating means between the jaw members and handle to close the jaws when the jaw members and handle are telescoped.

5. A wrench, comprising a handle, jaw members longitudinally slidable within the handle and having matched wedge-shaped recesses in their opposing faces which are rearwardly converged and formed at their inner rear ends with shoulders, a pin carried by the handle and disposed to operate in the wedge-shaped recesses and engage the inner rear shoulders thereof, coöperating means between the jaw members to maintain them in parallel relation at all stages of their adjustment, and yieldable means normally tending to press the jaw members and handle apart longitudinally.

1,242,098. FILLING-REPLENISHING LOOM. WILLIAM H. BAKER, Boston, Mass., assignor, by mesne assignments, to Draper Corporation, Hopedale, Mass., a Corporation of Maine. Filed June 21, 1915. Serial No. 35,234. (Cl. 139—85.)



1. In a filling replenishing loom, the combination of the lay and shuttle-boxes, a hopper for containing filling carriers, means for transferring a filling carrier from said hopper to one of said shuttle-boxes, and means for moving the shuttle-box to one side of the lay when a carrier is to be transferred thereto.

2. In a filling replenishing loom, the combination of the lay and shuttle-boxes, means for moving the lay and shuttle-boxes toward and from the front of the loom, filling replenishing mechanism, means for giving one of the shuttle-boxes an additional movement toward the front of the loom to position it for replenishment, and means acting through the top of the shuttle box when so positioned to effect replenishment.

7. In a filling replenishing loom, the combination of the lay, means for moving the lay backward and forward, shuttle-boxes movable with the lay, a source of filling carrier supply, a transferrer, means for moving the transferrer in a path in front of the lay when the latter is in front position, and means for moving one of the shuttle-boxes independently of the lay to place it in the path of the transferrer when the filling is to be replenished.

16. In a filling replenishing loom, the combination of the lay and shuttle-boxes, filling replenishing mechanism, a shuttle feeler for preventing the operation of the replenishing mechanism if the shuttle is not properly boxed, means for sustaining and permitting the shuttle-feeler to

remain in normal position, and means rendered effective on call for replenishment to cause the shuttle-feeler while still in normal position to determine if the shuttle is properly boxed.

26. In a filling replenishing loom, the combination of the lay and shuttle-boxes including the shuttle binders, filling replenishing mechanism and means operative only on call for replenishment for clamping the shuttle in the box adjacent the filling replenishing mechanism, during the replenishing operation.

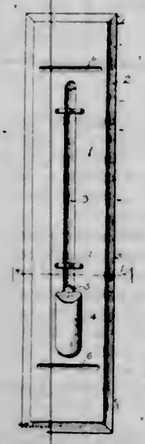
[Claims 3 to 6, 8 to 15, 17 to 25, and 27 to 30 not printed in the Gazette.]

1,242,099. VAPORIZER. MARK BRADLE, Battle Creek, Mich. Filed Mar. 13, 1916. Serial No. 83,798. (Cl. 261—64.)



In a gas engine, a fluid conveyance comprising a barrel open at either end, one end thereof being exteriorly screw-threaded and fitted within a correspondingly-fitted aperture of an engine manifold, the opposite end of the barrel having an enlarged bore and covered with a screw-threaded cap, said cap and said barrel each having an aperture capable of registering by the turning of said cap to admit or prevent air entering said barrel, a cage fitted within said barrel having an offset abutting a shoulder formed between the variable bores of said barrel, a valve seat having an aperture fitted within said offset, a valve fitted within said cage adapted to open and close the aperture in said valve seat, a spring fitted within said barrel adapted to reseat said valve, and a fluid supply pipe opening into said barrel between said manifold and said valve.

1,242,100. THERMOMETER AND BAROMETER BACK. LEE F. CHANEY, Springfield, Ohio. Filed Nov. 29, 1915. Serial No. 64,037. (Cl. 73—52.)



1. A back or support for a thermometer, barometer or similar instrument, a panel of sheet material, an elongated grooved depression in the face of said panel of sheet material to receive the neck or stem of the instrument, said depression terminating in a closed end spaced from the end of the panel, the material forming said grooved depression being projected rearward from the face of the panel, and a pocket or recess formed in the rear side of the panel at the end of the grooved depression to receive the bulb or enlarged terminal of the instrument, said pocket or recess terminating in a closed end spaced from the end of the panel, the material forming said pocket being extended forward from the face of the panel, there being an intercommunicating opening between the forward projecting pocket and the rearward projecting grooved depression through which the stem or neck of the instrument may project from one recess into the other.

2. A thermometer or barometer support comprising a panel of sheet material having integrally formed therein two oppositely disposed intercommunicating pockets or chambers extending in opposite directions from the plane of the panel adapted to receive the stem and bulb of the instrument, said pockets or chambers being closed at their extreme ends.

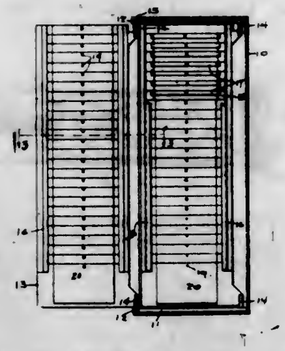
3. In a thermometer, barometer or like instrument, a panel or support having alined depressions formed in the opposite sides of the said panel or support, said depressions being closed at their extreme ends, and having an intercommunicating opening at their mean ends, and an instrument tube extended through said intercommunicating opening with its stem or neck in one of said depressions and its bulb in other depression.

4. In a structure of the character described, a panel or support recessed to receive the neck or stem of the instrument, and a corrugated or crimped retaining clip bridged across the recess of the panel, the medial indentation of the clip being substantially V shaped to engage opposite sides of the tube or stem of the instrument.

5. In a thermometer, barometer or like instrument, an elongated neck or stem, a panel or support therefor, and corrugated retaining clip having therein a plurality of alternating indentations bridged across the stem or neck of the instrument and secured to the panel or support at opposite sides thereof.

[Claims 6 and 7 not printed in the Gazette.]

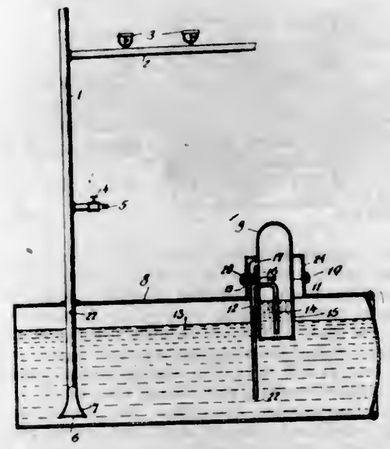
1,242,101. FILING-CASE. ERNEST E. DE BURGER, Indianapolis, Ind., assignor of one-half to Burton E. White, Cincinnati, Ohio. Filed June 26, 1916. Serial No. 105,979. (Cl. 45—2.)



1. A filing cabinet including a casing, vertically disposed panels movable edge-wise into and out of said casing, a pair of vertical parallel guides on the side of each panel, transverse strips made of resilient material and having widened plates at their ends insertible in said guides so that the end plates will rest upon each other, and an outwardly projecting pin on said strip on which the record card or the like may be hung.

2. A filing cabinet including a casing, vertically disposed panels movable edge-wise into and out of said casing, a pair of vertical parallel guides on the side of each panel, transverse strips made of resilient material and having widened plates at their ends insertible in said guides so that the end plates will rest upon each other and said plates being thicker than said strips so as to leave a space between the strips and the panel to receive cards suspended from strips above, and a pin on said strip for suspending a record card or the like.

1,242,102. CHEMICAL FIRE-EXTINGUISHING APPARATUS. JOHN R. HAMILTON, Yonkers, N. Y., assignor to Sypho-Chemical Sprinkler Corporation, Croton-on-Hudson, N. Y., a Corporation of New York. Filed Jan. 21, 1914. Serial No. 813,372. (Cl. 169—24.)



1. In chemical fire extinguishing apparatus, a dry pipe distributing system comprising automatic sprinkler heads and hose connection distributing devices, a pressure liquid supply tank charged with extinguishing liquid containing carbonate material and chemical mixing devices comprising a removable casing adapted to be secured to a flange in the upper portion of said tank, an acid chamber supported by said casing to have the normal acid level above the liquid level in said tank, the upper continuation of said acid chamber constituting an air pressure chamber communicating with said acid chamber in said casing and an acid discharge siphon having an admission leg communicating with said acid chamber and extending above the normal acid level therein and a discharge leg communicating with said tank and extending considerably below the normal level of liquid in said tank and removable with said casing, said removable casing comprising an air connection between said air chamber and the air space of said tank provided with an inwardly opening check valve and a small area equalizing passage formed in said check valve.

2. In chemical fire extinguishing apparatus, a dry pipe distributing system comprising automatic distributing devices, a pressure liquid supply tank charged with extinguishing liquid containing carbonate material and chemical mixing devices comprising a removable casing adapted to be secured to the upper portion of said tank, an acid chamber supported by said casing to have the normal acid level above the liquid level in said tank, an air pressure chamber communicating with said acid chamber in said casing and an acid discharge siphon having an admission leg communicating with said acid chamber and extending above the normal acid level therein and a discharge leg communicating with said tank and removable with said casing, said removable casing comprising an air connection between said air chamber and the air space of said tank provided with an inwardly opening check valve and a small area equalizing passage.

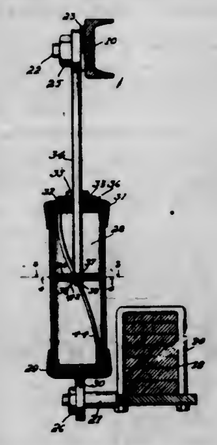
3. In chemical fire extinguishing apparatus, a dry pipe distributing system comprising automatic distributing devices, a pressure liquid supply tank charged with extinguishing liquid containing carbonate material and chemical mixing devices comprising a removable casing adapted to be secured to the upper portion of said tank, an acid chamber supported by said casing to have the normal acid level above the liquid level in said tank, an air pressure chamber communicating with said acid chamber in said casing and an acid discharge siphon having an admission leg communicating with said acid chamber and extending above the normal acid level therein and a discharge leg communicating with said tank and removable with said casing, said removable casing comprising an air connection between said air chamber and the air space of said tank provided with an inwardly opening check valve and a small area equalizing passage formed in said check valve.

4. In chemical fire extinguishing apparatus, a dry pipe distributing system comprising automatic sprinkler heads and hose connection distributing devices, a connected pressure liquid supply tank charged with extinguishing liquid containing carbonate material and chemical mixing devices comprising a removable casing adapted to be secured to the upper portion of said tank and comprising an acid chamber, a communicating air pressure chamber and an acid discharge siphon having an admission leg communicating with said acid chamber and extending above the normal acid level therein and a discharge leg communicating with said tank and extending considerably below the normal level of liquid in said tank and removable with said casing, said removable casing comprising an air connection between said air chamber and the air space of said tank provided with a check valve and a small area equalizing passage formed in said check valve.

5. In chemical fire extinguishing apparatus, a distributing system comprising distributing devices, a connected pressure liquid supply tank charged with extinguishing liquid and chemical mixing devices comprising a removable casing adapted to be secured to said tank and comprising an acid chamber, a communicating air pressure chamber and an acid discharge siphon having an admission leg communicating with said acid chamber and extending above the normal acid level therein and a discharge leg communicating with said tank, said removable casing comprising an air connection between said air chamber and the air space of said tank provided with a check valve and a small area equalizing passage.

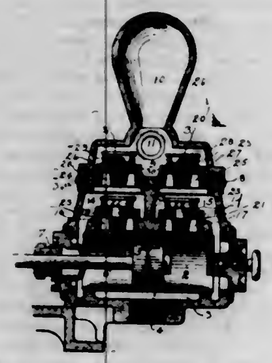
[Claims 6 to 9 not printed in the Gazette.]

1,242,103. SHOCK-ABSORBER. HERBERT H. HUNTER, Long Beach, Cal. Filed Oct. 12, 1916. Serial No. 125,305. (Cl. 21—105.)



In a shock absorber, a compression cylinder, a plunger reciprocally mounted in the compression cylinder, a valve disk fixed to the end of the plunger and adapted to reciprocate in the compression cylinder and having a clearance notch in its periphery, said valve disk having three segmental concentric ports aggregating more than half a circle, a second valve disk fitting the compression cylinder and rotatably secured to the plunger against the first valve disk and having mating ports and having an operating notch in its periphery, and a tongue extending from the inner face of the compression cylinder windingly from end to end, said tongue fitting in said notches; so that as the valve disks are reciprocated the second valve disk is rotated to move the ports into and out of registration.

1,242,104. PUMP. EVERETT P. LARSH, Dayton, Ohio, assignor to The Burnett-Larsh Manufacturing Co., Dayton, Ohio, a Corporation of Ohio. Filed Feb. 19, 1917. Serial No. 149,496. (Cl. 103—76.)



1. In a construction of the character described, a valve, a valve seat therefor, a valve stem by which the valve is guided to and from its seat, said valve stem having an auxiliary by-pass therein.

2. In a construction of the character described, a valve, a valve seat therefor, a stationary valve stem by which the valve is guided to and from its seat, said valve stem having an auxiliary by-pass therein.

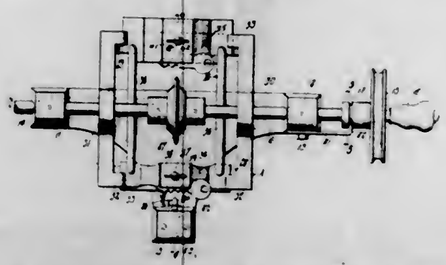
3. In a construction of the character described, a valve, a valve seat therefor, a valve stem by which the valve is guided to and from its seat, said valve stem having a by-pass provided with a laterally disposed port therein.

4. In a construction of the character described, a valve, a valve seat therefor, a valve stem by which the valve is guided to and from its seat, said valve stem having a longitudinal bore therein and a lateral bore intersecting the longitudinal bore thereby forming a by-pass in said valve stem.

5. In a construction of the character described, a port, a by-pass, and a valve common to the port and by-pass alternately opening and closing the port and the by-pass.

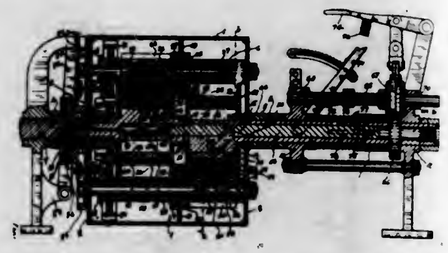
[Claims 6 to 14 not printed in the Gazette.]

1,242,105. KEY-CUTTING MACHINE. CARMINE TERRACCIANO, New York, N. Y. Filed June 29, 1915. Serial No. 37,073. (Cl. 90—13.)



In a key cutting machine, the combination of a base, a shaft rotatably mounted on the base, a cutter fixed on said shaft, an upright on the base, an adjustable gage stop mounted on the upright, spaced members slidably mounted on the shaft on both sides of the cutter, a carriage slidably mounted between the members in grooves therein for movement transversely of the shaft, means for clamping a key blank to be cut to the carriage on one side of the cutter, and means for clamping a key form to the carriage on the other side of the cutter in position for coöperation with the gage stop.

1,242,106. TRANSMISSION MECHANISM. FREDERICK THOMAS ADAMS, Vancouver, British Columbia, Canada. Filed Mar. 31, 1916. Serial No. 88,019. Renewed Aug. 30, 1917. Serial No. 189,042. (Cl. 74—54.)



1. In transmission mechanism, the combination with a power shaft, and a driven shaft, of a central gear fixed to the driven shaft, a plarality of gears engaging the central gear, and mechanism adapted for engagement with the power shaft for imparting intermittent partial rotary motion to each of the said gears whereby complete rotation of the central gear is effected, said mechanism including a yoked member coacting with each of the plurality of gears.

5. In transmission mechanism, the combination with a power shaft and a driven shaft, of a central gear fixed to the driven shaft, a plurality of sleeves rotatably mounted parallel with the said shafts, each said sleeve being provided with an integral gear engaging the central gear and having on its periphery a plurality of ratchet teeth arranged circularly equi-distant from each other, a shaft adapted for engagement with the power shaft and having diametrically opposed eccentric portions formed thereon, a strap for each sleeve mounted concentrically on the said eccentric portions, each said strap having jaws adapted to straddle its respective sleeve, pawls carried by said jaws arranged inversely to each other and adapted to normally engage the ratchet teeth of their respective sleeve on opposite sides thereof, means for imparting eccentricity to said straps, and means for predetermining and varying the amount of eccentricity imparted.

12. In transmission mechanism, the combination with a power shaft and a driven shaft, of a central gear fixed to the driven shaft, a plurality of gears engaging the central gear, and mechanism adapted for engagement with the power shaft for imparting intermittent partial rotary motion to each of the said gears at lower speeds than the maximum, said mechanism being adapted to lock said gears and prevent the said intermittent partial rotary motion thereof at the maximum speed.

[Claims 2 to 4, 6 to 11, 13, and 14 not printed in the Gazette.]

1,242,107. SHADE-HOLDER. ROBERT SHERMAN BLYTHING, Walton, N. Y. Filed Dec. 2, 1916. Serial No. 134,627. (Cl. 156—23.)

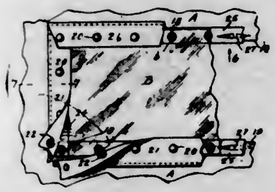


1. In an article of the class described, a bracket for use on an angular support and having a wing at one side of its base, which is bent forwardly at an angle to the base, the upper portion of the wing being bent laterally and downwardly to form the wing into an inverted U spaced from the base.

2. In an article of the class described, a bracket for use on an angular support and having a wing at one side of its base, the upper portion of the wing being severed from the bracket and spaced therefrom, the wing being bent forwardly to a position at right angles to the base and the upper portion of the wing being bent laterally and downwardly for the purpose specified.

3. In combination with a shade fastener having a member bent at an angle, a bracket having a base disposed in the rear of the member at one side of the apex of the angle, a wing at the side of the base of the bracket disposed at an angle to the base and at the outer side of the member at the other side of the apex of the angle, the upper portion of the wing being bent down against the inner side of the member at the last mentioned side of the apex of the angle.

1,242,108. CURTAIN-LIGHT FOR VEHICLE-TOPS. LOUIS BUOB, Sr., Cincinnati, Ohio. Filed Nov. 4, 1915. Serial No. 59,578. (Cl. 21—220.)



1. In a light for a vehicle top curtain which is provided with an opening therefor, the combination of a light of flexible material for this opening and provided with perforations around its edges, a metallic supporting frame for this light which is flexible to permit being rolled up with the curtain and entirely surrounds the light, means to connect this frame against one side of the curtain and along the edges of the opening therein, flaps provided around the outer edges of this frame and adapted to overlap the members thereof with the perforated edges of the light between, and fastening devices, one set provided on the frame and another set complementary thereto provided on the flaps and adapted to engage each other through the perforations in the light so as to hold the same detachably to the frame.

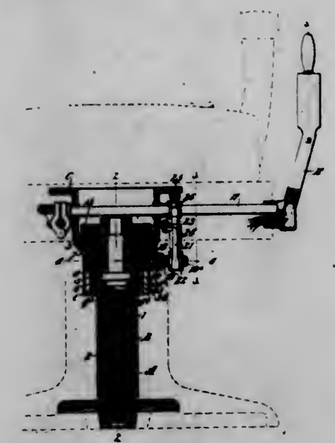
2. In combination with the curtain of a vehicle top which is adapted to be rolled up and is provided with a rectangular opening for a light, a rectangular light of flexible material for this opening, a rectangular supporting frame for this light consisting of metallic bars joined at their edges and connected to the curtain around the light-opening therein so as to extend continuously around all the edges thereof, the upright bars of this frame consisting of flexible metal to permit the frame to be rolled up with the curtain, means to detachably hold the light to this flexible frame and straps adapted to engage the rolled-up frame and to hold the same and the curtain while so rolled up.

4. As an article of manufacture an independent curtain light for a vehicle top which light consists of a metallic frame, of means for attaching this frame to one side of a curtain so as to extend continuously around all the edges of an opening provided in said curtain for the light, a sheet of flexible transparent material to close this frame and having perforations around its edges, fastening flaps provided around the outer edges of this frame and adapted to overlap the same and complementary sets of fastening devices, one set secured to the frame and the other to the flaps and adapted to engage each other through the marginal perforations in the light and with the edges of the light between them so as to detachably hold the same in place.

[Claim 3 not printed in the Gazette.]

1,242,109. BARBER'S CHAIR. WALTER F. KOKEN, St. Louis, Mo., assignor to Koken Barbers' Supply Company, St. Louis, Mo., a Corporation of Missouri. Filed Mar. 12, 1915. Serial No. 14,043. (Cl. 155—7.)

1. A chair, comprising a hollow standard provided with an internally screw-threaded part, an operating screw mounted in said part, a hollow stem snugly embracing said standard and supported by said screw, a load supporting member revolubly mounted on said stem and having a hollow portion that acts as a housing, mechanism arranged inside of said housing for rotating said screw, and a motor suspended from said load-supporting member for operating said mechanism.



2. A chair of the character described, provided with a standard, a stem that snugly surrounds said standard, an operating screw sustained by said standard and journaled in said stem, an end thrust bearing interposed between coöperating horizontally-disposed surfaces on said screw and stem, a seat frame provided with a hollow member that is revolubly mounted on said stem, an end thrust bearing interposed between said revoluble member and said stem for reducing the friction between said parts, an electric motor suspended from a laterally-projecting portion on said hollow member, and means arranged inside of said hollow member and operatively connected to said motor for driving said screw.

3. A chair, comprising a hollow standard provided with a screw-threaded portion, an operating screw mounted in said part and provided at its upper end with a non-threaded portion and a flange, a hollow stem snugly embracing said standard and sustained by said flange, a load-supporting member revolubly mounted on said stem and provided with an opening through which the upper portion of said stem passes, mechanism arranged inside of said load-supporting member for actuating said screw, and a motor carried by said load-supporting member for operating said mechanism.

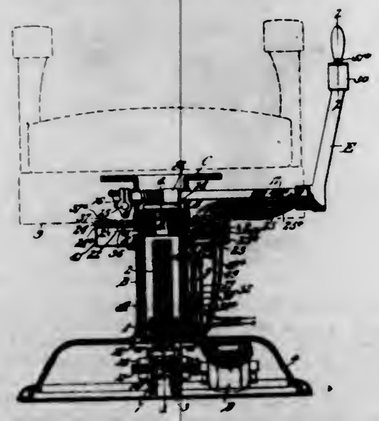
6. A barber's chair, comprising a vertically adjustable part, a member on the seat frame of the chair that is revolubly mounted on said part, a segmental clamping shoe on said member that bears against a cylindrical shaped portion on said part and thus holds the seat frame against rotary movement, a screw-threaded device in said member for moving said clamping shoe into and out of operative position, a lever connected to said device, a manually operated rock shaft mounted in said member and provided with a part that engages said lever so as to turn said device in one direction, and means connected to said lever for restoring said device to its former position when said rock shaft is restored.

8. A barber's chair provided with a standard, a stem reciprocatingly mounted on said standard, a seat frame provided with a member that is revolubly mounted on said stem, an operating screw combined with said stem and passing through an internally screw-threaded part in said standard, an electric motor, an operating mechanism on the seat frame for actuating said screw, a bracket on said standard provided with contacts to which supply conductors are connected, vertically-disposed conductor bars on said stem on which said contacts slide, contact rings con-

nected to said conductor bars, brushes on said seat frame member that travel on said contact rings, conductors leading from said brushes to said motor, the negative side of the supply circuit being split and each branch of same being connected to a separate contact that coöperates with an independent conductor bar, current-interrupting insulators in the conductor bars on the negative side of the supply circuit, and a pole-changing switch for controlling the current that energizes said motor.

[Claims 4, 5, and 7 not printed in the Gazette.]

1,242,110. BARBER'S CHAIR. WALTER F. KOKEN, St. Louis, Mo., assignor to Koken Barbers' Supply Company, St. Louis, Mo., a Corporation of Missouri. Filed Mar. 12, 1915. Serial No. 14,044. (Cl. 155—7.)



1. A chair, comprising a base provided with a vertically-disposed, tubular-shaped standard, a vertically-adjustable stem arranged inside of said standard and provided with a part that has a screw-threaded opening, a vertically-disposed operating screw journaled in a stationary bearing on the base and projecting upwardly through said screw-threaded opening, a pocket on said standard, rollers on said stem that coöperate with the side walls of said pocket to prevent the stem from turning, an electrically-operated mechanism for rotating said screw in opposite directions so as to positively raise and lower the seat frame of the chair, and conductor bars arranged in said pocket.

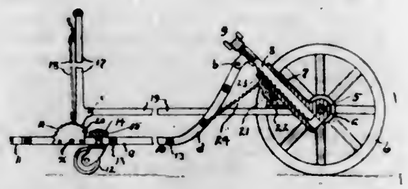
2. A barber's chair provided with a vertically adjustable stem, a seat frame revolubly mounted on said stem, a horizontally-disposed rock shaft carried by said seat frame and extending transversely across the upper end of said stem, and a cam on said shaft that is adapted to be forced into engagement with the top of said stem so as to hold the seat frame against rotary movement.

[Claims 3 and 4 not printed in the Gazette.]

1,242,111. AUTOMOBILE ROLLER-JACK. ARTHUR C. HOPKINS, Sioux Falls, S. D., assignor to Mid-West Manufacturing Co., Sioux Falls, S. D., a Corporation of South Dakota. Filed Mar. 15, 1917. Serial No. 154,956. (Cl. 254—3.)

1. In a roller-jack, an axle provided with wheels, a standard on the axle, a rack-bar carried by the standard and provided with a head-piece, an operating-bar provided with a roller-member, said bar being disposed transversely of the axle and pivotally connected with the rack-bar, a hand-lever pivotally connected with the operating-bar, and a link engaging the hand-lever and axle to cause reciprocation of the operating-bar longitudinally for moving the standard and rack-bar in the arc of a circle when the hand-lever is actuated.

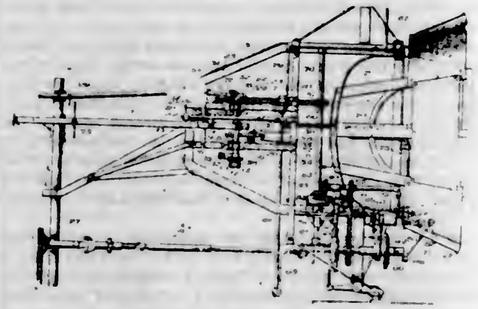
7. In a roller-jack, an axle provided with roller-members, a standard on the axle, a rack-bar carried by the standard and provided with a head-piece, an operating-bar disposed at right-angles to the axle and having a rectilinear part provided with a terminal loop and a pair of casters, and having an upwardly curved part pivotally connected with the rack-bar, a hand-lever pivotally con-



nected with the rectilinear part of the operating-bar, links engaging the axle and pivotally connected with the hand-lever, said hand-lever being movable for reciprocating the operating-bar to move the standard and rack-bar in an arc to substantially a vertical position.

[Claims 2 to 6 and 8 not printed in the Gazette.]

1,242,112. SHOCKING-MACHINE. CLEMMA R. RANEY, Chicago, Ill., assignor to International Harvester Company of New Jersey, a Corporation of New Jersey. Filed Jan. 17, 1913. Serial No. 742,535. (Cl. 56—122.)



1. In a shocking machine, means including a swinging sheaf delivering member for turning the sheaves end for end and building a prostrate shock, and means cooperating therewith independent of the number of bundles for insuring the construction of shocks of uniform size thereby under varying grain conditions.

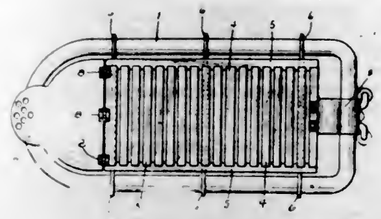
42. In a shocking machine, a movable sheaf receiving cradle, a swinging sheaf delivery member delivering sheaves in prostrate position in said cradle, mechanism for binding the sheaves therein, and a movable member engaging said sheaves when they have reached a predetermined height controlling said binding mechanism.

55. In a shocking machine, a pivoted sheaf delivery arm, mechanism for moving the same from a horizontal to a vertical position, and means connecting said mechanism and said arm and guiding the same during its entire path of movement and operated by said mechanism for deflecting said arm laterally as it moves about its pivot.

[Claims 2 to 41, 43 to 54, and 56 to 76 not printed in the Gazette.]

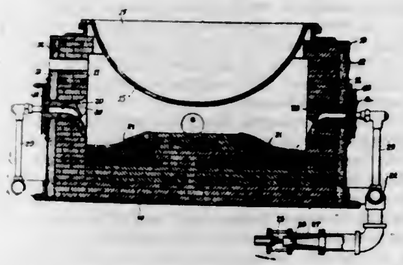
1,242,113. BATH-TUB ATTACHMENT. WILLIAM D. REBS, Columbus, Ohio. Filed Aug. 27, 1915. Serial No. 47,704. (Cl. 4—13.)

1. In combination with a bath tub having an overflow outlet, an attachment comprising a rigid shelf structure extending throughout the length of said tub, said structure being provided throughout its area with openings for the passage of steam, and means for supporting said structure within said tub in spaced relation with its bottom and between the top edge of said tub and its overflow outlet.



2. In combination with a bath tub, an attachment comprising a rigid shelf structure to fit the inside of said tub, means for supporting said structure from the top edge of the tub and in spaced relation with its bottom, and a guard piece carried by said structure arranged to cover the faucets of said tub.

1,242,114. APPARATUS FOR BURNING EXPLOSIVE GASEOUS MIXTURES. CHARLES E. RICHARDSON, New York, WILLIAM BARTON EDDISON, Irvington, and HENRY L. READ, New York, N. Y., assignors to The Surface Combustion Company, New York, N. Y., a Corporation of New York. Filed Nov. 23, 1916. Serial No. 133,086. (Cl. 158—7.)



1. Apparatus for burning explosive gaseous mixtures, comprising in combination with a furnace wall, a mixture discharge nozzle set in said wall, means for supplying an explosive gaseous mixture to said nozzle under pressure sufficient to cause the mixture to be discharged from the nozzle with a velocity greater than the rate of propagation of inflammation of the mixture, and means for causing the stream of mixture issuing from the nozzle to spread out with rapid reduction of its flow velocity, the nozzle being formed of material of high heat conductivity and being protected from direct access of the furnace heat by material of low heat conductivity forming part of the furnace wall except for a portion of the end of the nozzle immediately adjacent and surrounding its discharge orifice, such exposed portion of the end of the nozzle being of limited extent to limit the amount of heat directly absorbed by the nozzle while of sufficient extent to prevent contact of the issuing stream of mixture with any part of the material of low heat conductivity of the furnace wall, and means for withdrawing heat from the walls of the discharge orifice of the nozzle and from such exposed portion of the nozzle to maintain the temperature thereof below the ignition temperature of the mixture.

2. Apparatus for burning explosive gaseous mixtures, comprising in combination with a furnace wall, a mixture discharge nozzle set in said wall, means for supplying an explosive gaseous mixture to said nozzle under pressure sufficient to cause the mixture to be discharged from the nozzle with a velocity greater than the rate of propagation of inflammation of the mixture, and means for causing the stream of mixture issuing from the nozzle to spread out with rapid reduction of its flow velocity, the nozzle being formed of material of high heat conductivity and being protected from direct access of the furnace heat by material of low heat conductivity forming part of the furnace wall except for a portion of the end of the nozzle immediately adjacent and surrounding its discharge orifice, such exposed portion of the end of the nozzle being of limited extent to limit the amount of heat directly absorbed by the nozzle while of sufficient extent to prevent contact of the issuing stream of mixture with any part of the material of low heat conductivity of the furnace wall, and the nozzle being provided with heat discharging means outside the furnace wall and being of such mass between its exposed end and its heat discharging means that heat will be conducted away from the walls of the discharge orifice with sufficient rapidity to maintain the walls of the orifice at all times below the temperature of ignition of the mixture.

3. Apparatus for burning explosive gaseous mixtures, comprising in combination with a furnace wall, a mixture discharge nozzle set in said wall, means for supplying explosive gaseous mixture to said nozzle under pressure sufficient to cause the mixture to be discharged from the nozzle with a velocity greater than the rate of propagation for inflammation of the mixture, baffling means spaced away from the nozzle to cause the unconfined stream of mixture to spread out with rapid reduction of its flow velocity, the nozzle being formed of material of high heat conductivity and being protected from direct access of the furnace heat by material of low heat conductivity forming part of the furnace wall except for a portion of the end of the nozzle immediately adjacent and surrounding its discharge orifice, such exposed portion of the end of the nozzle being of limited extent to limit the amount of heat directly absorbed by the nozzle while of sufficient extent to prevent contact of the issuing stream of mixture with any part of the material of low heat conductivity of the furnace wall, and the nozzle being provided with heat discharging means outside the furnace wall and being of such mass between its exposed end and its heat discharging means that heat will be conducted away from the walls of the discharge orifice with sufficient rapidity to maintain the walls of the orifice at all times below the temperature of ignition of the mixture.

4. Apparatus for burning explosive gaseous mixtures, comprising means providing a mixture supply passage constricted at its discharge end to form a short discharge passage, the walls of said discharge passage being of material of high heat conductivity, means for reducing the flow velocity of a stream of the mixture escaping from said passage, and means for withdrawing heat from the walls of said discharge passage with sufficient rapidity to maintain the temperature of said walls and of the walls of the supply passage below the ignition temperature of the mixture.

5. Apparatus for burning explosive gaseous mixtures, comprising means providing a mixture supply passage constricted at its discharge end to form a short discharge passage, the walls of said discharge passage being of material of high heat conductivity, means for reducing the flow velocity of a stream of the mixture escaping from said passage, means for withdrawing heat from the walls of said discharge passage with sufficient rapidity to maintain the temperature of said walls and of the walls of the supply passage below the ignition temperature of the mixture, and means for limiting access of heat to the walls of said discharge passage.

[Claims 6 to 10 not printed in the Gazette.]

1,242,115. SWITCH FOR DENTAL INSTRUMENTS. PERCY RUSSELL, Brooklyn, N. Y., assignor to Electro Dental Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Aug. 15, 1914. Serial No. 856,940. (Cl. 175—282.)

1. The combination in an electric switch of a supporting structure formed to receive an instrument to be supplied with current; a fixed contact; a laterally flexible bridge piece; with a member slidably mounted on said supporting structure to move longitudinally thereof and opera-

tively connected to the bridge piece for moving the same into direct engagement with a terminal of the instrument and said fixed contact.



4. The combination in an electric switch of a slotted tubular structure for the reception of a portion of the instrument to be supplied with current; a relatively fixed contact and a bridge piece mounted in the structure and movable laterally thereof; with a sleeve slidably mounted on the tubular structure and having a portion projecting through the slot into engagement with the bridge piece for moving the same into engagement with the fixed contact and with a terminal on the instrument.

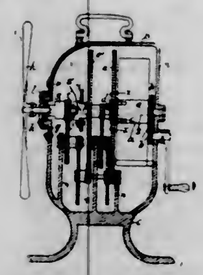
8. The combination in an electric switch of a supporting structure; a slidable sleeve permanently mounted thereon and having a projection; two relatively fixed contacts carried by the supporting structure; with a bridge piece having a shoulder and movable into engagement with said contacts when said shoulder is engaged by said projection.

12. The combination in an electric switch of a tube: a body of insulating material mounted therein; two conductors attached to said body and constituting the terminals of an electric circuit; a movable contact also carried by said insulating body; a sleeve slidable on the tube; and a member on the sleeve operative upon the movable contact for holding the same in electrical engagement with the terminals when the sleeve is in one position, said contact being disengaged from said terminals when the sleeve is in a second position.

15. The combination of a tube; two terminals extending in substantially the same straight line within said tube and forming part of an electric switch; a shouldered spring strip mounted in said tube and electrically independent of said terminals; with means for laterally moving the strip to cause it to simultaneously engage the two terminals; said means including a sleeve slidable longitudinally of the tube and operative upon the shouldered portions of said spring strip.

[Claims 2, 3, 5 to 7, 9 to 11, 13, and 14 not printed in the Gazette.]

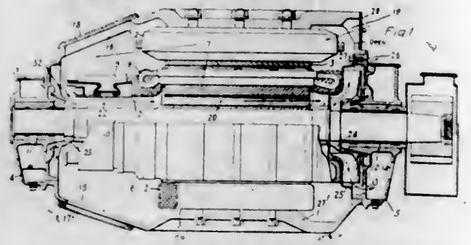
1,242,116. AIR-FAN. JOHN ANDREW SWENEY, Albuquerque, N. Mex., assignor to Lydia B. Sweney, Albuquerque, N. Mex. Filed June 19, 1915. Serial No. 35,122. (Cl. 230—1.)



In a fan, the combination with a casing, of a bearing block in its interior, a fixed shaft mounted in said bearing block and a wall of the casing, a rotary shaft in alinement with said shaft mounted in said bearing block and another wall of the casing, a fan upon said rotary shaft exterior to the casing, a motor mounted to rotate on said fixed shaft, a train of transmitting gearing between said motor and said fan shaft which comprises gear wheels mounted to rotate upon said fixed shaft and gear wheels mounted to rotate in bearings within said casing, substantially as described.

REISSUES.

14,370. DYNAMO-ELECTRIC MACHINE. JOSEPH LE C. DAVIS, deceased, Pittsburgh, Pa., by Westinghouse Electric and Mfg. Company, assignees. Filed May 4 1915. Serial No. 25,839. Original No. 1,115,406, dated Oct. 27, 1914, Serial No. 703,632, filed June 14, 1912. (Cl. 172—286.)



1. A motor comprising a stationary member, a rotatable member, a substantially closed casing, means for creating a circulation of air as the motor operates, and adjustable means for directing the circulation of air either in a closed circuit within the frame or in an open circuit including passages in the stationary and rotatable parts of the motor and openings to the outside atmosphere.

2. A dynamo-electric machine comprising a stator, an inclosing casing, a rotor, means for creating a circulation of air as the motor operates, and adjustable means for directing the circulation of air either in a closed circuit within the frame or in an open circuit including passages in the stator and rotor of the machine and openings to the outside atmosphere.

3. A dynamo-electric machine comprising a stator, an inclosing casing, a rotor, means forming a part of the rotatable member for creating a circulation of air, and adjustable means for directing the circulation of air either in a closed circuit within the frame or in an open circuit including passages in the stator and rotor of the machine, and openings to the outside atmosphere.

4. An electric motor comprising a substantially closed frame having relatively small inlet and outlet openings, a rotatable member, a fan carried by said member, a deflector secured to the stationary frame, and an adjustable damper for closing and opening the inlet in the frame, the deflector being adapted to be reversed and the damper to be adjusted to effect either a closed circulation of air within the casing or an open circulation through the inlet and outlet openings.

5. An electric motor comprising a substantially closed frame having relatively small inlet and outlet openings, a rotatable armature, a fan carried thereby, a reversible deflector secured to the stationary frame for directing the circulation of air produced by the fan, and an adjustable damper for closing and opening the inlet in the frame.

6. An electric motor comprising a substantially closed frame having relatively small inlet and outlet openings, a rotatable armature, a fan carried thereby, a reversible deflector secured to the stationary frame for directing the circulation of air produced by the fan, and an adjustable damper for closing and opening the inlet in the frame according to the position occupied by the deflector.

7. A dynamo-electric machine comprising relatively rotatable members, a substantially closed casing, means for creating a circulation of air as the machine operates and means for adapting said machine for external or for internal ventilation.

8. A dynamo-electric machine comprising relatively rotatable members, an inclosing casing therefor, means for creating a circulation of air as the machine is operated and means for converting the machine into either an internally ventilated machine or an externally ventilated machine.

9. In a dynamo-electric machine, the combination with relatively rotatable members, a frame substantially inclosing said members, and a fan associated with the rotatable member for creating a fluid circulation as the machine is operated, of means for adapting said machine for internal ventilation or for external ventilation.

10. In a dynamo-electric machine, the combination with relatively rotatable members, a frame substantially inclosing said members, and a fan associated with the rotatable member for creating a fluid circulation as the machine is operated, of means for directing the circulation of fluid either in a closed circuit within the frame or in an open circuit from the outside atmosphere through the frame and including passages in the stationary and rotatable members of the machine and openings in the inclosing frame.

11. In a dynamo-electric machine, the combination with relatively rotatable members, a frame substantially inclosing said members and a fan associated with the rotatable member for creating a fluid-circulation as the machine is operated, of adjustable means for directing the circulation of fluid either in a closed circuit within the frame or in an open circuit from the outside atmosphere through the frame.

12. A dynamo-electric machine comprising a stator, a rotor, an inclosing frame having openings therein, means associated with said rotor for creating a circulation of air when the machine is operating, and adjustable means for directing the circulation of air either in a closed circuit within the frame and including passages in the stator and the rotor or in an open circuit from the outside atmosphere through said passages and openings in said frame.

13. In a dynamo-electric machine, the combination with a stator, a rotor, and a frame substantially inclosing said parts and having openings in one end thereof, of means for creating a circulation of air when the machine is operating and removable means associated with the end of the frame having said openings and disposed intermediate said openings for the purpose of directing the circulation of ventilating air either through or away from said openings.

14. In a dynamo-electric machine, the combination with a stator, a rotor, and a frame substantially inclosing said parts and having openings in one end thereof, of a removable deflector disposed within said frame and between said end openings for directing the circulation of ventilating air.

15. In a dynamo-electric machine, the combination with a rotatable member having longitudinal openings therein, a coöperating stationary member having longitudinal passages therethrough, and a frame for substantially inclosing said members, one end of said frame having a plurality of openings, of a fan associated with said rotatable member for creating a circulation of air when said member is operated, and a removable deflecting plate attached to the end of said frame and disposed therein intermediate said end openings for directing the circulation of ventilating air.

16. A dynamo-electric machine comprising relatively rotatable members, a frame substantially inclosing said members and having an end opening, a bearing housing associated with one end of said motor and having an opening therein, a deflecting plate removably secured to said bearing housing and disposed within said frame and intermediate the end opening of said frame and the housing opening.

17. A dynamo-electric machine comprising a substantially closed frame having relatively small inlet and outlet ventilating openings, a rotatable member, a fan carried thereby for producing air currents, a detachable deflector secured to said frame intermediate said inlet opening and said outlet opening for directing the air currents and means including said deflector for closing said inlet and said outlet openings.

18. A dynamo-electric machine comprising a substantially closed frame having inlet and outlet ventilating openings, a rotatable member, a fan carried thereby for producing air currents, a detachable deflector secured to said frame intermediate said openings for directing the air away from or through said outlet opening, and an adjustable damper for closing and opening said inlet opening.

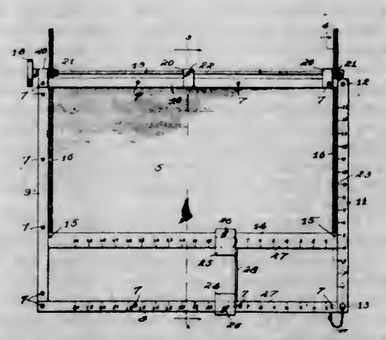
19. A dynamo-electric machine comprising a substantially closed frame having relatively small inlet and outlet ventilating openings, a rotatable member, a fan carried thereby for producing air currents, an adjustable damper for governing one of said openings, a deflector disposed intermediate said openings and associated with said frame, said deflector being adapted to be detached and reversed in position to close one of said openings, whereby the machine may be adapted for external or internal ventilation.

20. A dynamo-electric machine comprising relatively rotatable members, a substantially closed frame having a plurality of inlet and outlet openings, means associated with the rotatable member for producing a circulation of air, and an annular diaphragm adapted to be positioned between said openings and to be utilized for closing certain of said openings.

21. A dynamo-electric machine comprising a substantially closed frame having relatively small inlet and outlet openings, a rotatable fan disposed within said frame for creating currents of air, and a reversible deflector detachably secured to said frame for directing the circulation of air produced by said fan, the position of said deflector being dependent upon the type of ventilating system desired.

22. A dynamo-electric machine comprising a substantially closed frame having relatively small inlet and outlet openings, a rotatable fan disposed within said frame for creating currents of air, a reversible deflector detachably secured to said frame for directing the circulation of air produced by said fan, said deflector being adapted to be positioned to separate said openings or to close one of said openings, and other means for closing and opening the other frame opening according to the position occupied by the deflector.

14,371. CASTING-MACHINE. WILLIAM DIETRICH, Chicago, Ill., assignor, by mesne assignments, to Automatic Justifier Company, Hammond, Ind., a Corporation of Indiana. Filed Sept. 30, 1915. Serial No. 53,453. Original No. 1,104,728, dated July 21, 1914, Serial No. 804,778, filed Dec. 4, 1913. (Cl. 22—186.)



1. In a device of the class described, a table, bars disposed on the top of said table to form a rectangular frame or mold, one of said bars being movable toward and from the opposite bar, and guide blocks movably arranged on two of said bars, said bars having corresponding graduation marks thereon.

2. In a casting machine, a table, bars disposed on the top of said table to form a rectangular frame thereon, a longitudinally extending movable member lying midway between said bars, means for actuating said movable member, guide blocks mounted on said movable member and its corresponding parallel bar, a removable rule abutting the guide blocks to form one of the end walls of the mold or casting compartment of the machine.

3. In a casting machine, a table, bars arranged thereon to form a rectangular frame on said table, one of said bars being stationary and the opposite bar being movable toward and from the same, means for moving said movable bar to determine the dimensions upon two sides of the rectangle, and guide blocks on two of said bars adapted to be adjusted to the proper position to determine the dimensions upon the opposite sides of the rectangular frame.

4. In a casting machine, a table, bars arranged thereon to form a rectangular frame on said table, one of said bars being movable toward and from the opposite bar, guide blocks movable longitudinally of two of said bars, rack bars connected with the ends of said movable bar, each of said bars being provided with corresponding graduation marks on the upper face thereof.

5. In a casting machine, a table, bars arranged upon said table to form a rectangular frame, one of said bars being stationary and the opposite bar being movable from and toward the same, guide blocks carried upon the aforesaid movable and stationary bars and adapted to be arranged in different adjusted positions, a removable member abutting said guide blocks to form one end of the mold compartment, and graduations on the different bars to permit the bars to be accurately adjusted in either direction.

6. In a casting machine, a table, bars arranged upon said table to form a rectangular frame, a bar movable laterally inside of said rectangular frame, rack bars secured to said movable bar, actuating mechanism including gears meshing with said rack bars for actuating the movable bar, a guide block mounted upon said movable bar and a corresponding guide block mounted upon one side of the rectangular frame, said guide blocks adapted to be adjusted longitudinally on their respective bars.

7. In a casting machine, a table, two parallel bars resting on the top of said table, one of the aforesaid bars being stationary and the other movable from and toward the same, mechanism for actuating the aforesaid movable bar, and a third bar mounted in proximity to corresponding ends of the other two bars adapted to be moved in a horizontal plane, leaving the end of the table unobstructed for a portion of its length at the ends of the other two bars, and adjustable guides on the aforesaid parallel bars for determining the length of the block to be cast.

8. In a casting machine, a table, two parallel bars on said table, one of the aforesaid bars being stationary and the other movable from and toward the same, mechanism for actuating said movable bar, a third bar extending at right angles to the corresponding ends of the other two bars, said third bar being pivoted at one end thereof to the table and adapted to be moved in a horizontal plane, adjustable guide blocks mounted upon the aforesaid parallel bars and a removable piece abutting said guide blocks to form the fourth side of the mold or frame formed by the aforesaid bars.

9. In a casting machine, a table, a mold formed of two parallel bars arranged on said table, one of said bars being stationary and the other being movable from and toward the same, graduations on said bars, a third bar extending at right angles to and abutting the corresponding ends of the parallel bars, guide blocks adjustably mounted on said parallel bars to form the compartment of the mold, a removable piece abutting against said guide block to form the fourth wall of the mold, and means including gears and rack bars operating with said movable bar to carry it toward and from the stationary bar.

10. In a machine for casting rectangular blocks of metal, comprising a table, a stationary bar arranged at the front edge of the table and extending above the surface of the table, a bar movable laterally across said table from and toward the stationary bar, guide blocks adjustably mounted on said bars, means for engaging said movable bar at two separate points for positively moving it from and toward the stationary bar and maintaining it at all times parallel therewith, and bars at opposite ends of the aforesaid stationary and movable bars to form a rectangular frame.

11. In a machine for casting rectangular blocks of metal, a table, two bars extending parallel to each other on said table, one of which is stationary, the other movable, a third bar mounted on the table and movable from a position above the table at right angles to the movable bar, to a position away from the top of the table to provide a doorway through which the block may be removed, guide blocks adjustably mounted upon the parallel bars and a removable piece abutting said blocks to form the fourth wall of the mold.

12. In a machine for casting rectangular blocks of metal, a table, two parallel bars on said table, one of which is fixedly secured thereto and one of which is movable thereon, a third bar arranged at right angles to corresponding ends of said parallel bars, said third bar being pivotally secured at one end thereof to the table and adapted to be swung in a horizontal plane away from the movable bar to permit the cast block to be removed, guide blocks adjustably mounted on the parallel bars, and a removable piece abutting said guide blocks to form the fourth wall of the mold, and actuating means connected with the first mentioned movable bar adapted to move the same toward and from the stationary bar to maintain said bar always parallel with the stationary bar opposite thereto.

13. In a machine for casting rectangular blocks of metal, a table, a stationary bar on said table, a second bar on the table movable laterally toward and from the stationary bar, actuating mechanism for the movable bar arranged to move opposite ends of the movable bar simultaneously in the same direction and to the same extent so as always to maintain the two bars in parallelism with each other, each of said bars provided with graduations distributed lengthwise thereof, adjustable blocks movable lengthwise of said bars, and a removable piece abutting said blocks to form one lateral wall of the mold, a bar extending at right angles to corresponding ends of the parallel bars, said last named bar being pivoted at one end thereof to the table and adapted to swing in a horizontal plane to provide an opening for removing the cast block from the mold.

14. In a machine for casting blocks of metal, a table, two parallel bars mounted on said table, one of said bars being stationary, the other movable, a third bar extending at right angles to corresponding ends of said parallel bars, blocks adjustably mounted on said parallel bars, and a removable piece abutting said blocks to form the fourth side of a mold of the desired length and width to receive the molten metal therein to form the block.

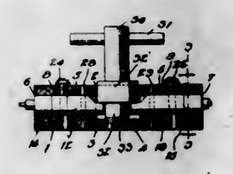
15. In a device of the class described, a suitable table, a suitable bar rigidly secured on the table at the front edge, a second bar secured rigidly on the table at the left hand edge extending from the first named bar to the rear of the table, a third bar secured on the table at the right hand edge extending from the first named bar to the rear of the table, a fourth bar slidably mounted on said table parallel to the first named bar and extending from said second named bar at the left to said third named bar at the right and means for moving said fourth named bar laterally toward and away from said first named bar comprising two rack bars connected to said fourth named bar and two gears meshing with said rack bars mounted rigidly on a common shaft.

16. In a device of the class described, a suitable table, a bar rigidly secured to the table at the front edge, a second bar rigidly secured to the table at the left hand edge extending from said first named bar to the rear of the table, a third bar secured to the table at the right hand edge extending from said first named bar to the rear of the table and mounted to swing on a pivot at one end, a fourth bar slidably mounted on said table parallel to said first named bar and extending from said second named bar to said third named bar, a rack bar connected at either end of said fourth named bar and extending laterally therefrom to the rear edge of the table, a shaft at the rear edge of the table, gears rigidly mounted on said shaft in constant mesh with said rack bars, means for rotating the said shaft and means for locking the shaft against rotation.

17. In a device of the class described, a suitable table, a bar rigidly mounted on said table at the front edge, a second bar rigidly mounted on said table at the left hand edge and extending from said first named bar to the rear edge of the table, a third bar pivotally mounted on said table with means for locking it at the right hand edge of said table extending from said first named bar to the rear edge of the table, a fourth bar movably mounted on said table parallel to said first named bar and extending from said second named bar to said third named bar, means for moving said fourth named bar laterally toward and away from said first named bar comprising two rack bars connected to said fourth named bar and a shaft carrying two gears in constant mesh with said two rack bars, a guide block slidably mounted on said first named bar and a guide block slidably mounted on said fourth named bar.

18. In a device of the class described, a suitable table, a bar rigidly mounted on said table at the front edge, a second bar rigidly mounted on said table at the left hand edge and extending from said first named bar to the rear edge of the table, a third bar mounted on the table at the right hand edge extending from said first named bar to the rear edge of the table, a fourth bar slidably mounted on said table parallel to the first named bar and extending from said second named bar at the left to said third named bar at the right, means for moving said fourth named bar laterally toward and away from said first named bar and a guide block slidably mounted on said first named bar.

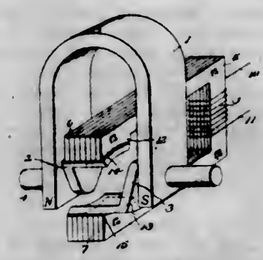
14,372. ELECTRIC SWITCH. WILLIAM H. FARMER, Boothbay Harbor, Me., assignor, by mesne assignments, of one-third to Lewis A. Dunton, Boothbay Harbor, Me. Filed Mar. 15, 1917. Serial No. 155,110. Original No. 1,156,282, dated Oct. 12, 1915, Serial No. 41,361, filed July 22, 1915. (Cl. 175—282.)



1. A switch comprising a one piece insulator block having a centrally disposed recess with a countersunk internally threaded portion therein, said block having a pair of diametrically extending passages from the recess to the ends of the block and a pair of vertically extending passages bisecting each of the first mentioned passages, conductors positioned in the diametrically extending passages projecting in spaced relation in the recess, said conductors having openings therethrough alined with the vertical passages and sockets in their outer ends to receive wires, pins extending through two of said vertical passages to hold said conductors in the block, set screws positioned in the remaining vertical passages to lock the wires in the sockets, and a movable screw member positioned in said recess operatively engaging the countersunk portion of the same and having an enlarged portion for contact with the spaced conductors in the recess.

2. A switch comprising a one piece insulator block having a recess with an internally threaded portion, said block having a pair of diametrically extending passages from the recess to the ends of the block, and a pair of passages perpendicular to and bisecting said first mentioned passages, conductors positioned in the diametrical passages and being in spaced relation in said recess, the conductors having openings alined with the perpendicular passages and sockets in their outer ends to receive wires, set screws threaded in the conductors to lock the wires in the sockets, and a removable screw plug operatively engaging the threads of the recess and having a circuit closing portion for contact with the spaced conductors.

14,373. IGNITION-DYNAMO. CHARLES THOMAS MASON, Sumter, S. C., assignor, by mesne assignments, to Splitdorf Electrical Company, Newark, N. J., a Corporation of New Jersey. Filed July 5, 1917. Serial No. 179,094. Original No. 1,081,760, dated Dec. 16, 1913, Serial No. 692,754, filed Apr. 23, 1912. (Cl. 171—209.)



1. In an igniting dynamo, a U-shaped magnet, and a rotor having a path of travel which lies entirely within the space between the poles of said magnet and comprising magnetic inductor elements in continuous magnetic contact relation with the inner cheeks of both magnet poles and thereby maintained of permanent and opposite polarity, together with a normally stationary current generating coil and a core therefor in inductive relation to said rotor.

2. In an ignition dynamo, a U-shaped field magnet having poles spaced apart, a rotor journaled to turn between said poles extending from pole to pole of the magnet, said rotor comprising magnetic elements of permanent and opposite polarity having rotary contact with the side faces of said magnet poles independently of the journal bearings and a normally stationary current generating coil and core therefor normally fixed in inductive relation to said rotor.

3. In an ignition dynamo, a U-shaped field magnet having poles spaced apart, a rotor journaled to turn between said poles extending longitudinally from pole to pole of the magnet and having suitable bearing supports, said rotor comprising a pair of axially separated magnetic members of permanent and opposite polarity having end surfaces in extended sliding contact with the inner faces of said magnet poles independently of said bearing supports, together with a normally stationary current generating coil and a core therefor in normally fixed inductive relation to said rotor.

4. In an ignition dynamo, a permanent field magnet comprising one or more individually integral U-shaped permanent magnets, said field magnet having axially alined apertures in opposite poles, a rotor having shaft extensions journaled in said apertures, and having a main body adapted to be magnetized by said permanent magnet, together with a normally stationary current generating coil in inductive relation to said rotor.

5. In an ignition dynamo, a substantially U-shaped permanent magnet having axially alined bearing apertures in its poles, a rotor journaled in said apertures and having end portions of magnetic material of permanent and opposite polarity in magnetic and conductive relation respectively to the inner faces of said poles but magnetically insulated from each other, together with a normally stationary current generating coil and core therefor in inductive relation to said rotor.

6. In an ignition dynamo, a permanent magnet having poles spaced apart and having inner cheeks opposite and parallel to each other, and a rotor between said magnet poles having a right cylindrical path of rotation and end surfaces of magnetic material rotating in contact with the inner parallel cheeks of the field poles, but magnetically insulated from each other, together with a normally stationary current generating coil in inductive relation to said rotor.

7. In an ignition dynamo, a U-shaped magnet, and a rotor having a path of travel lying entirely within the

space between the magnet poles and comprising magnetic inductor elements of permanent and opposite polarity, together with a normally stationary generating coil and core in direct inductive relation to said rotor and shiftable bodily with respect to the path of movement thereof whereby the timing of the generated electromotive force may be varied.

8. The method of producing ignition current which is constant in tension and volume through all angles of advance and retard which consists in creating a constant magneto-motive force constituting a fixed magnetic field, rotating a portion of the flux due thereto about an axis displaced from the normal to the direction of said flux portion, intermittently completing and reversing the path of said flux portion through a flux receiving circuit having an ignition current generating coil and relatively adjusting said flux receiving circuit and the rotated flux for timing purposes.

9. The method of producing ignition current which is constant in tension and volume through all angles of advance and retard which consists in creating a constant magneto-motive force constituting a fixed magnet field, rotating a portion of the flux due thereto about an axis parallel to the direction of the flux in said portion, intermittently completing and reversing the path of said flux portion through a flux receiving circuit having an ignition current generating coil and relatively adjusting said flux receiving circuit and rotated flux for timing purposes.

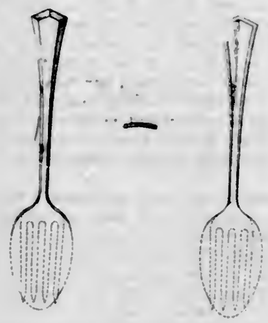
DESIGNS.

51,311. JEWELRY-RING. JOSEPH T. BAILEY, Philadelphia, Pa. Filed Aug. 15, 1917. Serial No. 186,431. Term of patent 14 years.



The ornamental design for a jewelry ring, as shown.

51,312. HANDLE FOR FORKS AND SIMILAR ARTICLES. GEORGE E. CURTISS, New Britain, Conn., assignor to Landers, Frary & Clark, New Britain, Conn., a Corporation of Connecticut. Filed Jan. 27, 1917. Serial No. 145,009. Term of patent 14 years.



The ornamental design for a handle for forks and similar articles, as shown.

51,313. STATUETTE. EMANUEL DAVIS, Brooklyn, N. Y. Filed Aug. 10, 1917. Serial No. 185,627. Term of patent 3½ years.



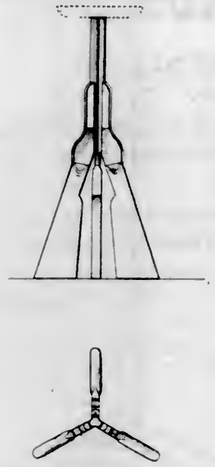
The ornamental design for a statuette as shown.

51,314. STATUETTE. EMANUEL DAVIS, Brooklyn, N. Y. Filed Aug. 10, 1917. Serial No. 185,628. Term of patent 3½ years.



The ornamental design for a statuette as shown.

51,315. SUPPORT FOR TRAYS OR SIMILAR ARTICLES. MAX HERBERT, New York, N. Y. Filed June 9, 1917. Serial No. 173,886. Term of patent 3½ years.



The ornamental design for a support for trays or similar articles, as shown and described.

51,316. HAT-DISPLAY STAND. CHARLES R. HESTER, New York, N. Y. Filed July 25, 1917. Serial No. 182,763. Term of patent 3½ years.



The ornamental design for a hat display stand, as shown.

51,317. BANK-NOTE. ALFRED S. MAJOR, New York, N. Y., assignor to American Bank Note Company, New York, N. Y., a Corporation of New York. Filed July 24, 1917. Serial No. 182,556. Term of patent 14 years.



The ornamental design for a bank note, as shown.

51,318. BUTTON. NICHOLAS MARG, Flushing, N. Y. Filed June 30, 1917. Serial No. 178,042. Term of patent 3½ years.



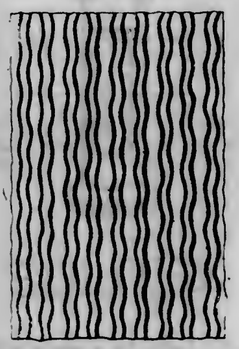
The ornamental design for a button, as shown.

51,319. SHAMPOO-BRUSH. ROBERT J. MONTGOMERY, Chicago, Ill., assignor to Sanitax Brush Company, Chicago, Ill., a Corporation of Illinois. Filed June 1, 1914. Serial No. 842,317. Term of patent 14 years.



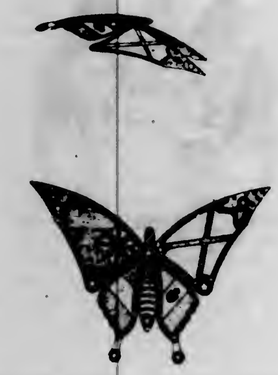
The ornamental design for a shampoo brush, as shown.

51,320. TEXTILE FABRIC. BENJAMIN NATHAN, New York, N. Y. Filed June 30, 1917. Serial No. 178,089. Term of patent 7 years.



The ornamental design for a textile fabric, as shown.

51,321. BALANCING TOY. PETER PEZUTO, Philadelphia, Pa. Filed July 7, 1917. Serial No. 179,280. Term of patent 7 years.



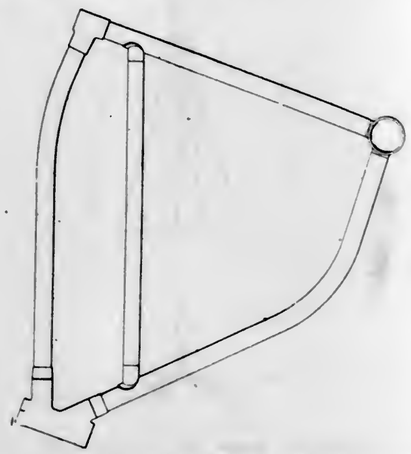
The ornamental design for a balancing toy as herein shown.

51,322. SERVICE-STATION. SAMUEL W. RAYMOND, Adrian, Mich. Filed July 9, 1917. Serial No. 179,561. Term of patent 14 years.



The ornamental design for a service station, as shown.

51,323. BICYCLE AND MOTOR-CYCLE FRAME. GEORGE V. ROTTWEILER, Dayton, Ohio, assignor to The Davis Sewing Machine Company, Dayton, Ohio, a Corporation of Ohio. Filed June 24, 1916. Serial No. 105,765. Term of patent 7 years.



The ornamental design for a bicycle and motorcycle frame, as shown.

51,324. SOFT-COLLAR RETAINER. JOHN I. WARNER, Kansas City, Mo. Filed Mar. 14, 1916. Serial No. 84,231. Term of patent 7 years.



The ornamental design for a soft collar retainer, as shown.

51,325. FLAG-HOLDER. SAMUEL A. WELLER, Zanesville, Ohio. Filed July 3, 1917. Serial No. 178,481. Term of patent 7 years.





The ornamental design for a flag holder, as shown.

TRADE-MARKS

PUBLISHED OCTOBER 2, 1917.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 88,603. (CLASS 39. CLOTHING.) JOHN WANAMAKER, NEW YORK, New York, N. Y. Filed Aug. 13, 1915.

TAPLOW

Particular description of goods.—Athletic and Sports Clothing—viz., Caps, Coats, Vests, Trousers, Outer Shirts, Slickers, and Stockings Adapted to be Worn in the Playing of Foot-Ball and Golf.
Claims use since about May 4, 1914.

Ser. No. 88,920. (CLASS 37. PAPER AND STATIONERY.) JOSEPH DIXON CRUCIBLE COMPANY, Jersey City, N. J. Filed Aug. 31, 1915. Under ten-year proviso.

M

Particular description of goods.—Lead-Pencils.
Claims use since August, 1872.

Ser. No. 88,921. (CLASS 37. PAPER AND STATIONERY.) JOSEPH DIXON CRUCIBLE COMPANY, Jersey City, N. J. Filed Aug. 31, 1915. Under ten-year proviso.

S

Particular description of goods.—Lead-Pencils.
Claims use since August, 1872.

Ser. No. 88,922. (CLASS 37. PAPER AND STATIONERY.) JOSEPH DIXON CRUCIBLE COMPANY, Jersey City, N. J. Filed Aug. 31, 1915. Under ten-year proviso.

S M

Particular description of goods.—Lead-Pencils.
Claims use since August, 1872.

Ser. No. 93,251. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) ABRAHAM & STRAUS, New York, (Brooklyn.) N. Y. Filed Mar. 3, 1916.

CARA

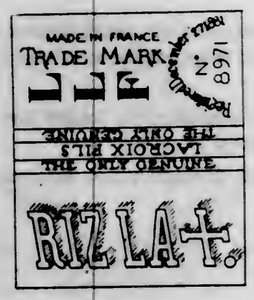
Particular description of goods—Pearls.
Claims use since Oct. 15, 1915.

Ser. No. 94,320. (CLASS 27. HOROLOGICAL INSTRUMENTS.) MARSHALL FIELD & COMPANY, Chicago, Ill. Filed Apr. 11, 1916.

SOLREX

Particular description of goods.—Watches.
Claims use since about Nov. 19, 1915.

Ser. No. 94,733. (CLASS 8. SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS.) SOCIÉTÉ ANONYME D'EXPLOITATION DES PAPETERIES L. LACROIX FILS, Angouleme, France. Filed Apr. 26, 1916. Under ten-year proviso.



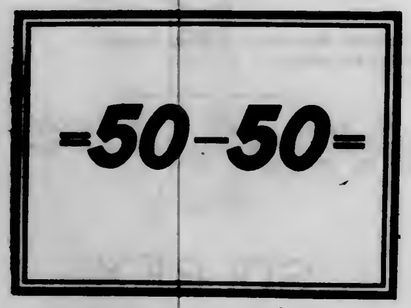
Particular description of goods.—Cigarette-Paper.
Claims use since December, 1881.

Ser. No. 95,015. (CLASS 37. PAPER AND STATIONERY.) JOSEPH T. POPE, Chicago, Ill. Filed May 9, 1916.

"Blue Label"

The right to the exclusive use of a label colored blue being disclaimed.
Particular description of goods.—Stencil-Paper, Painters' Paper Stencils and Patterns.
Claims use since Jan. 1, 1896.

Ser. No. 95,605. (CLASS 10. FERTILIZERS.) CHARLES WARNER COMPANY, Philadelphia and Cedar Hollow, Pa. Filed June 2, 1916.



Particular description of goods.—A Mixture of Hydrated Lime and Raw Limestone.
Claims use since Feb. 4, 1916.

Ser. No. 95,734. (CLASS 12. CONSTRUCTION MATERIALS.) THE SEAMAN, KENT CO. LIMITED, Meaford, Ontario, Canada. Filed June 8, 1916.



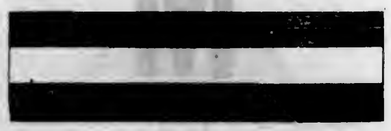
Particular description of goods.—Flooring.
Claims use since the 25th of March, 1907.

Ser. No. 96,306. (CLASS 32. FURNITURE AND UPHOLSTERY.) THE C. F. STREIT MFG. CO., Cincinnati, Ohio. Filed July 3, 1916.

UneeK

Particular description of goods.—Rail-Brackets for Beds.
Claims use since May 23, 1916.

Ser. No. 96,378. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) UNITED STATES RUBBER COMPANY, New Brunswick, N. J., and New York, N. Y. Filed July 6, 1916.



The trade-mark comprises two blue bars and one white bar of equal width, the white bar being between the two blue bars.
Particular description of goods.—Rubber Sheeting, Perforated Rubber Matting, Firemen's Rubber Landing-Mats and Rubber Blankets.
Claims use since June 30, 1916.

Ser. No. 96,544. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) IVES SALES SERVICE, Chicago, Ill. Filed July 13, 1916.

BORDO

Particular description of goods.—Shelled Pecans, Walnuts, Almonds, and Peanuts.
Claims use since Mar. 9, 1916.

Ser. No. 96,617. (CLASS 15. OILS AND GREASES.) THE CUDAHY REFINING COMPANY, Portland, Me., and Chicago, Ill. Filed July 17, 1916.

EMERALD

Particular description of goods.—Lubricating-Oils.
Claims use since Apr. 7, 1916.

Ser. No. 96,699. (CLASS 39. CLOTHING.) JACOB P. SCHNELLBACHER, Peoria, Ill. Filed July 20, 1916.

Particular description of goods.—Leather, Rubber, and Canvas Shoes.
Claims use since on or about Jan. 1, 1900.

Ser. No. 96,940. (CLASS 17. TOBACCO PRODUCTS.) AMERICAN EXCHANGE CIGAR COMPANY, New York, N. Y. Filed July 29, 1916.

DUBONNET

Particular description of goods.—Cigars.
Claims use since Feb. 11, 1909.

Ser. No. 97,090. (CLASS 37. PAPER AND STATIONERY.) NEKOOSA-EDWARDS PAPER COMPANY, Port Edwards, Wis. Filed Aug. 4, 1916.

NEPCO

Particular description of goods.—Wrapping-Paper.
Claims use since June 10, 1914.

Ser. No. 97,425. (CLASS 30. CROCKERY, EARTHENWARE, AND PORCELAIN.) LENOX INCORPORATED, Trenton, N. J. Filed Aug. 18, 1916.



Particular description of goods.—Decorated Tableware of Porcelain and Earthenware.
Claims use since February, 1906.

Ser. No. 97,495. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) COLE MOTOR CAR CO., Indianapolis, Ind. Filed Aug. 21, 1916.



Particular description of goods.—Automobiles.
Claims use since June, 1913.

Ser. No. 97,565. (CLASS 48. MALT EXTRACTS AND LIQUORS.) THE STANDARD BREWERY, Chicago, Ill. Filed Aug. 22, 1916.

MIZZ

Particular description of goods.—A Malt Beverage.
Claims use since Jan. 25, 1916.

Ser. No. 98,443. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) NORTH STAR WOOLEN MILL CO., Minneapolis, Minn. Filed Oct. 5, 1916.



Particular description of goods.—Woven Woolen Fabrics.
Claims use since about the 1st day of January, 1870.

Ser. No. 98,588. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) CARPENTER-MORTON COMPANY, Boston, Mass. Filed Oct. 12, 1916.



Particular description of goods.—Dry Paste and Mixed Paints, Varnishes, Varnish Stains, Stains, Enamels, and Oil Finishes for Wood and Like Surfaces.
Claims use since July 5, 1905.

Ser. No. 99,421. (CLASS 12. CONSTRUCTION MATERIALS.) THE NORTON BROTHERS COMPANY, Cleveland, Ohio. Filed Nov. 20, 1916.

FLEX-LOCK

Particular description of goods.—Roofing-Felt or the Like Provided with a Reinforced Edge and Used in the Construction of Flashing.
Claims use since Sept. 25, 1916.

Ser. No. 99,671. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AUNT JANE CO., Arlington, Mass. Filed Dec. 2, 1916.

Aunt Jane's

The words "Aunt Jane's."
Particular description of goods.—Horse-Radish, Piccalilli, Salad-Dressing, Mayonnaise, Tartar Sauce, Chow-Chow, Fruit Chutney, and Chili Sauce.
Claims use since Mar. 17, 1915.

Ser. No. 99,799. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) BERNHARD ULMANN CO., INC., New York, N. Y. Filed Dec. 8, 1916.

BUCILLA

Particular description of goods.—Embroidery-Work, Knitting-Work, Crocheting-Work, and Similar Fancy Work and Art Needlework, Completed, Partly Completed, Stamped, Cut, or Otherwise Prepared for Completion by the Customer, Used as or in Connection with Suitable Foundation Materials for Personal Apparel, Outfits for Children and Infants, Household and Fancy Linens, and for So-Called French Novelties and other Art Needlework; Art-Needlework-Package Outfits; Ornamental Drapery and Upholstery Trimmings, Ornamental and Decorative Cords, with or without Metallic Threads; Macramé Cord, Coronation-Cord, Fringes, Tassels, and Loops, (as Used for Pillows, Curtains, Portières, Bath-Room Girdle Sets, Laundry-Bags, Belts;) Pompons, Plush Balls, Drops, Pendants, and Chenille, (Such as Used for Trimming Pillows, Portières, Curtains, Dresses, Fancy Boxes, Bags, Lamp-Shades, Hats, Neckwear, Table-Covers, and Fancy Goods Generally;) Artificial-Flower Trimming, Embroidery Initials, Tapes, Edgings, Braids, Insertions, Ruffles, Medallions; Rings of Metal, Bone, or Glass for Fancy Works; Beads and Bells for Trimming Purposes; also Notions and Art-Needlework Implements, as Follows: Crochet-Hooks and Knitting-Needles of Metal, Bone, Celluloid, or Wood; Bodkins and Stilettos for Piercing Eyelets in Material for Embroidering Purposes, of Bone or Metal, with or without Wooden Handles; Netting, Embroidering and Hand Sewing Needles; Shuttles for Tatting, of Celluloid, Bone, or Metal; Maltese Pins, (a Fork-Shaped Article of Metal for Manipulating Thread into So-Called Maltese-Lace Designs;) Holders for Balls of Crochet Cotton or Wool; and Weaving-Frames, Embroidery-Hoops, Embroidery-Hoop Holders.
Claims use since Apr. 16, 1913.

Ser. No. 99,990. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HENRY NEWTON, Waterville, Wash. Filed Dec. 16, 1916.

Dad's Dream

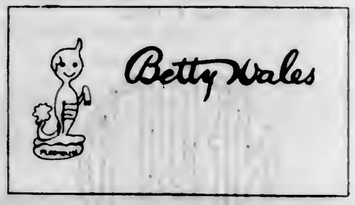
Particular description of goods.—Ointment, the Ointment Being of a Character to Aid in the Healing of Eruptive Affections, Cuts, Bruises, Sores, and Strained or Injured Tissues of the Body.
Claims use since January, 1912.

Ser. No. 100,025. (CLASS 17. TOBACCO PRODUCTS.) A. SANCHEZ & COMPANY, Key West, Fla. Filed Dec. 18, 1916.

1891

Particular description of goods.—Manufactured Cigars.
Claims use since Oct. 1, 1916.

Ser. No. 100,706. (CLASS 32. FURNITURE AND UPHOLSTERY.) GOLDMAN COSTUME COMPANY, New York, N. Y. Filed Jan. 18, 1917.



Comprising the words "Betty Wales" and "Ploshkin," with the doll figure, all within a parallelogram.
Particular description of goods.—Tables for Living-Room, Dining-Room, Bedroom, and Kitchen Use; Window-Shades; Book Cases, Shelves, and Stands; Mirrors, Desks, Cots, Screens as an Article of Furniture; Sofas, Beds, Rockers, Chairs, for Living-Room, Dining-Room, Bedroom, and Kitchen Use; Stools as Furniture; Wardrobes, Cabinets, Picture-Frames, Mattresses, Cushions as Furniture for Useful and Decorative Purposes.
Claims use since Jan. 5, 1917.

Ser. No. 100,854. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) HIDE, LEATHER & BELTING CO., Indianapolis, Ind. Filed Jan. 23, 1917.

CORTEX

Particular description of goods.—Clutch-Facing.
Claims use since Dec. 15, 1916.

Ser. No. 100,879. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) GOLDMAN COSTUME COMPANY, New York, N. Y. Filed Jan. 24, 1917.



Comprising the words "Betty Wales" and "Ploshkin," together with the doll figure, all within a rectangular border.
Particular description of goods.—Food-Choppers and Sewing-Machines, Type-Writers; Carpentry-Tools—Namely, Wrenches, Hammers, Chisels, Files, and Planes, Operated by Hand-Power—and Razors and Razor-Blades, Scissors, Shears; Knives—Namely, Base-Metal, Table, or other Knives, with the Exception of Surgical Knives; Hand Vacuum-Cleaners, Axes, Hatchets, Sewing-Machines, Needles, Printing-Presses and Check-Protectors.
Claims use since Jan. 5, 1917.

Ser. No. 100,909. (CLASS 45. BEVERAGES, NON-ALCONOHOLIC.) THE ALCONOHOLIC WINE CO., San Francisco, Cal. Filed Jan. 25, 1917.

ALCO-NO

Particular description of goods.—Non-Intoxicating Vinous Beverages.
Claims use since Jan. 4, 1917.

Ser. No. 100,914. (CLASS 39. CLOTHING.) ELDER MANUFACTURING CO., St. Louis, Mo. Filed Jan. 25, 1917.

Elco

Particular description of goods.—Men's, Boys', and Children's Underwear—Namely, Undershirts, Underdrawers, and Union-Suits, Both of Knitted and Textile Materials—and Hosiery.
Claims use since Dec. 1, 1916.

Ser. No. 101,014. (CLASS 39. CLOTHING.) NIRENBERG & SALZMAN, New York, N. Y. Filed Jan. 29, 1917.

SPEAR

Particular description of goods.—Negligée, Dress, and Work Shirts; Collars, Cuffs, Athletic Underwear, Pajamas, Neckties.
Claims use since about May 1, 1914.

Ser. No. 101,129. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) JULES LEVY & BRO., San Francisco, Cal. Filed Feb. 2, 1917.



In which the lining simply indicates shading.
Particular description of goods.—Veiling.
Claims use since Dec. 20, 1916.

Ser. No. 101,220. (CLASS 39. CLOTHING.) L. F. WANNER CO., INC., New York, N. Y. Filed Feb. 7, 1917.

COWANA

Particular description of goods.—Overcoats.
Claims use since June 1, 1914.

Ser. No. 101,480. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HENRY M. DAY, INC., New York, N. Y. Filed Feb. 19, 1917.

DAREL-

HMD INC.

Particular description of goods.—Canned Portuguese and French Sardines, Canned Spanish Pimentos, French and Italian Olive-Oil, French Bar Le Duc Jelly, Canned French Mushrooms and Vegetables, and Canned Holland Vegetables.
Claims use since Feb. 10, 1917.

Ser. No. 101,619. (CLASS 2. RECEPTACLES.) PIONEER BOX COMPANY, Crawfordsville, Ind. Filed Feb. 23, 1917.

PIONEER

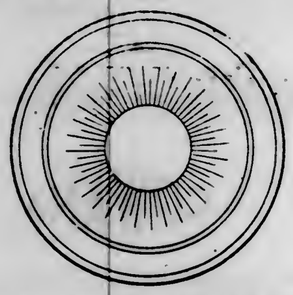
Particular description of goods.—Wire-Bound Boxes.
Claims use since April, 1916.

Ser. No. 102,337. (CLASS 39. CLOTHING.) IMPERIAL UNDERWEAR CO., Scranton, Pa., and New York, N. Y. Filed Mar. 22, 1917.

Dorothy

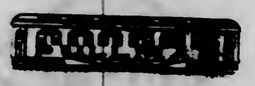
Particular description of goods.—Underdrawers and Envelop-Chemise of Muslin or other Textile Fabrics for Women.
Claims use since Jan. 17, 1909.

Ser. No. 102,604. (CLASS 12. CONSTRUCTION MATERIALS.) A. C. TUXBURY LUMBER COMPANY, Charleston, S. C. Filed Mar. 30, 1917.



Particular description of goods.—Lumber, Window-Frames, Doors, Moldings, Mantels, Balusters, Stair-Newels, Base-Boards, Casings, Porch-Newels, Columns, Scrollwork, Wainscoting, Panels, Cornices, Siding, Shingles, Laths, Blinds, Doors, Sash, Ceiling, Flooring, Colonnades in Sections.
Claims use since Oct. 1, 1916.

Ser. No. 102,775. (CLASS 39. CLOTHING.) M. GUSTIN CO., New York, N. Y. Filed Apr. 6, 1917.



No claim being made to the word "Pullman" except as associated with the representation of the car.
Particular description of goods.—Shoes and Slippers for Street, Boudoir, Bath, Lounging, and Traveling Wear; Traveling-Slippers Folded in Cases to Match the Slippers; Soles, with or without Heels, and All other Novelty Footwear Made of Leather, Canvas, Cloth, or the Like Material, Such as Mule-Slippers, Pumps, and Traveling-Slippers for Tourists.
Claims use since about October, 1913.

Ser. No. 102,815. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) RANDOLPH ROSE CO., Chattanooga, Tenn. Filed Apr. 7, 1917.

Rose-O

Particular description of goods.—A Non-Alcoholic Carbonated Beverage Sold as a Soft Drink and Syrups for Making the Same.
Claims use since Mar. 14, 1917.

Ser. No. 102,871. (CLASS 10. FERTILIZERS.) WILLIAM B. TILGHMAN COMPANY INC., Salisbury, Md. Filed Apr. 10, 1917.

P

Particular description of goods.—Fertilizers.
Claims use since Mar. 1, 1903.

Ser. No. 102,960. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ROANOKE COFFEE AND SPICE CO., Roanoke, Va. Filed Apr. 13, 1917.

AVALON

Particular description of goods.—Coffee, the Same Being Sold Usually in Packages in Roasted Whole-Bean or Ground Form.
Claims use since about June 1, 1909.

Ser. No. 103,087. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE NATIONAL SUPPLY COMPANY, Toledo, Ohio. Filed Apr. 18, 1917.



Particular description of goods.—Leather Belting and Laces Therefor, Leather Washers and Gaskets, and Leather Packing.
Claims use since October, 1915.

Ser. No. 103,310. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) SEWARD TRUNK & BAG CO., Petersburg, Va. Filed Apr. 25, 1917.

Royalrobe

Particular description of goods.—Wardrobe-Trunks.
Claims use since Jan. 1, 1917.

Ser. No. 103,359. (CLASS 2. RECEPTACLES.) THE PETROLEUM IRON WORKS COMPANY, Petroleum, Hubbard township, Trumbull county, Ohio. Filed Apr. 27, 1917.

P.I.W.

Particular description of goods.—Penstocks and Steel Tanks.
Claims use since Jan. 1, 1917.

Ser. No. 103,443. (CLASS 39. CLOTHING.) JANE W. CHICHESTER, New York, N. Y. Filed May 1, 1917.

"Tumbling Togs"

No claim is made as to the exclusive use of the word "Togs" apart from the mark as shown in the drawing.
Particular description of goods.—Children's Rompers, Dresses, and Play-Suits.
Claims use since about Apr. 1, 1917.

Ser. No. 103,457. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) COMMONWEALTH CHEMICAL CORPORATION, Hoboken, N. J. Filed May 2, 1917.

METARCO

Particular description of goods.—An Inorganic-Acid Salt Used in Place of Tartaric Acid, Used by Bakers and Confectioners.
Claims use since July 1, 1914.

Ser. No. 103,458. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) COMMONWEALTH CHEMICAL CORPORATION, Hoboken, N. J. Filed May 2, 1917.

NUTARCO

Particular description of goods.—An Inorganic-Acid Salt Which Said Corporation Manufactures and Sells and Which Takes the Place of Cream of Tartar Wherever This Latter Acid Salt Has Been Used in Baking and for the Purpose of Inverting Sugar.
Claims use since Mar. 1, 1917.

Ser. No. 103,465. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) GEORGE BORGFELDT & Co., New York, N. Y. Filed May 2, 1917.

EM-BOSS-O

Particular description of goods.—Dolls, Toy Animals, Play-Balls and Toy Balls of Paper, Rubber, Stuffed Textile Fabrics, Leather, or other Suitable Material, Paper Return-Balls, Paper Music-Balls, Paper Balls Covered with Fabric, Cups and Balls, Jack Horner Toys, Christmas-Tree Favors, Holiday Favors, Table Favors, Musical Toys, Trick Toys, Mechanical Toys, Masks, Motto Favors, Rattles and Comic Toy Lanterns.
Claims use since Apr. 15, 1917.

Ser. No. 103,474. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) NELSON BROS. CO., Saginaw, Mich. Filed May 2, 1917.

JUMBO

Particular description of goods.—Motor-Trucks and Radiator-Frames Thereof.
Claims use since Apr. 1, 1916.

Ser. No. 103,487. (CLASS 46. FOODS AND INGREDIENTS OF FOOD.) M. C. PETERS MILL CO., Omaha, Nebr. Filed May 3, 1917.

SUBMILK

Particular description of goods.—A Feed Composed of Various Meals and Used for a Milk Substitute for Growing Calves.
Claims use since Apr. 12, 1916.

Ser. No. 103,488. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) M. C. PETERS MILL CO., Omaha, Nebr. Filed May 3, 1917.

HOG-PROFIT

Particular description of goods.—A Feed Composed of Alfalfa-Meal, Meat-Meal, and Corn Feed-Meal and Used as a Feed for Swine.
Claims use since Apr. 12, 1916.

Ser. No. 103,565. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) LEE BROOM & DUSTER COMPANY, Lincoln, Nebr. Filed May 5, 1917.

DURO

Particular description of goods.—Brooms.
Claims use since about Mar. 29. 1917.

Ser. No. 103,587. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE ALLEN MOTOR CO., Fostoria, Ohio. Filed May 7, 1917.

Classic

Particular description of goods.—Automobiles.
Claims use since July, 1916.

Ser. No. 103,681. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) AERIAL CUTLERY MANUFACTURING COMPANY, Marinette, Wis. Filed May 10, 1917.



Particular description of goods.—Steel Knives, Pocket-Knives, Steel Knife-Blades, Combination-Knives, Button-Hooks, Nail-Files, Ink-Erasers, Chisels, Screw-Drivers, Saws, Awls, Punches, Reamers, Hunting-Knives, Dirks, Daggers, Razors, Razor-Blades, Pliers, Scissors, Shears, Clippers, Kitchen-Choppers, Kitchen-Cleavers, Kitchen-Forks, and Carving Sets.
Claims use since May 13, 1913.

Ser. No. 103,682. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) AUBRY SISTERS, INC., New York, N. Y. Filed May 10, 1917.

Reve d'Amour

Particular description of goods.—Extract Perfumes, Eau de Toilette, (Toilet Water,) Sachets, Face-Powder, and Talcum Powder.
Claims use since Dec. 1, 1915.

Ser. No. 103,735. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE ELECTROMOBILE COMPANY, St. Louis, Mo. Filed May 12, 1917.

ELECTROMOBILE

Particular description of goods.—Industrial, Such as Factory or Plant, Trucks.
Claims use since Dec. 1, 1912.

Ser. No. 103,833. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE LEE HARDWARE CO., Salina, Kans. Filed May 15, 1917.



Particular description of goods.—Wrenches, Forks, Hoes, Rakes, Shovels, Spades, Scoops, Post-Hole Diggers, Pocket Cutlery, Carpenters' Saws, Crosscut and Wood Saws, Files, Rasps, Chisels, Auger-Bits, Agricultural Handles, Tool-Handles, Ax-Handles, Trowels, Punches, Hammers, Hacksaw-Blades.
Claims use since 1903.

Ser. No. 103,859. (CLASS 38. PRINTS AND PUBLICATIONS.) CARTOONADAY INCORPORATED, New York, N. Y. Filed May 16, 1917.

CARTOONADAY

Particular description of goods.—Cartoons.
Claims use since Mar. 12, 1917.

Ser. No. 103,879. (CLASS 12. CONSTRUCTION MATERIALS.) AMERICAN STEEL EXPORT COMPANY, New York, N. Y. Filed May 17, 1917.

ASECO

Particular description of goods.—Structural Steel—Namely, Beams; Girders; Columns; Roof-Trusses; Channels; Angles; T-Bars and Z-Bars; Plain and Reinforced Angle-Bars; Concrete-Reinforcement Bars; Sheet-Metal Products—Namely, Metal Ceiling-Sections; Metal Sidings; Metal Wall-Coverings; Metal Roof-Ridges.
Claims use since Oct. 5, 1916.

Ser. No. 103,892. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KINNEY BROTHERS, Binghamton, N. Y. Filed May 17, 1917.



The mark being printed in red.
Particular description of goods.—Oleomargarin.
Claims use since Sept. 1, 1916.

Ser. No. 103,901. (CLASS 43. THREAD AND YARN.) NONOTUCK SILK COMPANY, Northampton, Florence, Mass. Filed May 17, 1917.

TEZOLA

Particular description of goods.—Thread and Yarn Made of Silk, Cotton, or Wool.
Claims use since about Apr. 3, 1917.

Ser. No. 103,903. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES H. L. ORTON, Pittsburgh, Pa. Filed May 17, 1917.

DOUBLE X



Particular description of goods.—Cough-Drops.
Claims use since about the 1st of September, 1885.

Ser. No. 103,949. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HECKER-JONES-JEWELL MILLING COMPANY, New York, N. Y. Filed May 19, 1917.



Particular description of goods.—Wheat-Flour.
Claims use since May 3, 1900.

Ser. No. 103,960. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) FREDERICK M. MORAN, New York, N. Y. Filed May 19, 1917.

KIT

Particular description of goods.—Paste Paints, Paint-Colors.
Claims use since Mar. 1, 1917.

Ser. No. 104,143. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GIOVANNI PIZZO, Philadelphia, Pa. Filed May 29, 1917.

PIZZADORIA

Particular description of goods.—Certain Medicinal Compounds for Malarial Fever, Asthma, Bronchitis, Coughs, Consumption, Rheumatism, Nervousness, Indigestion, Stomach Troubles, Dizziness, Poor Blood, and Venereal Diseases.
Claims use since on or about Jan. 3, 1917.

Ser. No. 104,146. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE STANDARD ULTRAMARINE CO., Huntington, W. Va. Filed May 29, 1917.

UNIVERSAL

Comprising the word "Universal."
Particular description of goods.—Laundry Blues.
Claims use since about December, 1914.

Ser. No. 104,147. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE STANDARD ULTRAMARINE CO., Huntington, W. Va. Filed May 29, 1917.

MONITOR

Comprising the word "Monitor."
Particular description of goods.—Laundry Blues.
Claims use since about April, 1917.

Ser. No. 104,148. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE STANDARD ULTRAMARINE CO., Huntington, W. Va. Filed May 29, 1917.



The background being in blue.
Particular description of goods.—Laundry Blues.
Claims use since about Apr. 1, 1917.

Ser. No. 104,235. (CLASS 39. CLOTHING.) LEVI STRAUSS & CO., San Francisco, Cal. Filed June 2, 1917.

TWO HORSE

Particular description of goods.—Overalls.
Claims use since 1907.

Ser. No. 104,280. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) HARROUN MOTORS CORPORATION, New York, N. Y. Filed June 5, 1917.



Particular description of goods.—Automobiles.
Claims use since Jan. 3, 1917.

Ser. No. 104,282. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) FLORENCE B. LOVETT, East Orange, N. J. Filed June 5, 1917.

FLORA B

Particular description of goods.—Kerosene-Oil Stoves and Kerosene-Oil Torches.
Claims use since May 1, 1915.

Ser. No. 104,283. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) FLORENCE B. LOVETT, East Orange, N. J. Filed June 5, 1917.

FLORA L

Particular description of goods.—Kerosene-Oil Stoves and Kerosene-Oil Torches.
Claims use since May 1, 1915.

Ser. No. 104,292. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM W. ALEXANDER, Manchester, Ohio. Filed June 6, 1917.

SHAMROCKS

Particular description of goods.—Preparation for Sick Headache, Biliousness, Constipation, Indigestion, Loss of Appetite, Bad Breath, Dyspepsia, and Liver Trouble.
Claims use since May, 1916.

Ser. No. 104,330. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) UNION THERMOMETER COMPANY, INC., New York, N. Y. Filed June 7, 1917.

Unico

Particular description of goods.—Clinical Thermometers.
Claims use since Mar. 5, 1917.

Ser. No. 104,344. (CLASS 12. CONSTRUCTION MATERIALS.) SILICONITE REFRACTORIES CO., Irondale, Ala. Filed June 8, 1917.

SILICONITE

Particular description of goods.—Bricks.
Claims use since Apr. 1, 1917.

Ser. No. 104,392. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) THE FRITZSCH PHONOGRAPH CO., Cincinnati, Ohio. Filed June 11, 1917.



Consisting of a phonograph-cabinet with a Cupid standing in front of the cabinet with its right hand in a listening pose and in the left hand holding a viola d'amore, no claim being made to the illustration of a phonograph-cabinet apart from the mark shown in the drawing.
Particular description of goods.—Phonographs.
Claims use since June 2, 1917.

Ser. No. 104,417. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SESAME PHARMACUTICAL CORPORATION, Enid, Okla. Filed June 12, 1917.



Particular description of goods.—A Preparation for the Sexual Organs.
Claims use since Jan. 1, 1917.

Ser. No. 104,437. (CLASS 8. SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS.) WILLIAM P. DUNHAM, New York, N. Y. Filed June 14, 1917.



Particular description of goods.—Smokers' Pipes, Cigars, and Cigarette-Holders.
Claims use since Apr. 25, 1917.

Ser. No. 104,442. (CLASS 30. CROCKERY, EARTHENWARE, AND PORCELAIN.) IROQUOIS CHINA COMPANY, Solvay, N. Y. Filed June 14, 1917.

IROQUOIS

Particular description of goods.—Chinaware.
Claims use since May 7, 1917.

Ser. No. 104,470. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SUMMERFIELD BROS., Memphis, Tenn. Filed June 16, 1917.

SURE SHOT

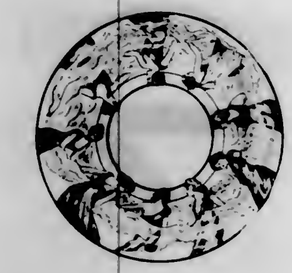
Particular description of goods.—A Preparation for Killing Trees, Stumps, Roots, and Sprouts.
Claims use since on or about the month of March, 1916.

Ser. No. 104,564. (CLASS 5. ADHESIVES.) CHAS. MORNINGSTAR & CO., INC., New York, N. Y. Filed June 20, 1917. Under ten-year proviso.

S·E·N·E·C·A

Particular description of goods.—Gum-Arabic and Mucilage.
Claims use since September, 1886.

Ser. No. 104,640. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEORGE BORGFELDT & Co., New York, N. Y. Filed June 23, 1917.



Particular description of goods.—Toilet Powder.
Claims use since June 17, 1917.

Ser. No. 104,747. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HENRY GLASS & Co., New York, N. Y. Filed June 29, 1917.

Peter Pan

Comprising the words "Peter Pan."
Particular description of goods.—Cotton Piece Goods.
Claims use since June 21, 1917.

Ser. No. 104,815. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) A. R. PRUETT, Millen, Ga. Filed July 3, 1917.

PRUETT'S



The portrait shown being that of the applicant.
Particular description of goods.—A Preparation for the Kidneys and Blood and a Pepsin Compound.
Claims use since February, 1916.

Ser. No. 104,874. (CLASS 33. GLASSWARE.) JOHN E. RYAN, Boston, Mass. Filed July 5, 1917.

FRACTORS

Particular description of goods.—Non-Glare Devices Consisting of Lenses and Attaching Means for the Headlights of Automobiles.
Claims use since about Apr. 5, 1917.

Ser. No. 104,898. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) CLOVERDALE SPRING COMPANY, Baltimore, Md. Filed July 7, 1917. Under ten-year proviso.

CLOVERDALE

Particular description of goods.—Mineral Waters and Non-Alcoholic Beverages—Namely, Ginger-Ale, Birch-Beer, Sarsaparilla, Limes and Lithia, Root-Beer, Lemon-Soda, and Cola.
Claims use since the year 1865.

Ser. No. 104,914. (CLASS 39. CLOTHING.) SHAPIRO BROS., New York, N. Y. Filed July 7, 1917.

SPEAR

Particular description of goods.—Ladies, Misses', Men's, and Boys' Knitted Underwear in One and Two Piece Garments, Hosiery, and Sweaters.
Claims use since Sept. 5, 1916.

Ser. No. 104,944. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM HARRISON PLUNKETT, Chicago, Ill. Filed July 9, 1917.

SANOFORM

Particular description of goods.—An Odorless Deodorizing Fluid for Toilets.
Claims use since July 21, 1908.

Ser. No. 104,946. (CLASS 48. MALT EXTRACTS AND LIQUORS.) ST. JOSEPH BREWING Co., St. Joseph, Mo. Filed July 9, 1917.

LACO

Particular description of goods.—Non-Intoxicating Malt Beverage to be Sold as a Soft Drink.
Claims use since July 2, 1917.

Ser. No. 104,949. (CLASS 32. FURNITURE AND UPHOLSTERY.) UNION FURNITURE & NOVELTY COMPANY, Warren, Pa. Filed July 9, 1917.

KAR-O-KID

Particular description of goods.—Folding Crib or Coop.
Claims use since on or about Dec. 1, 1915.

Ser. No. 104,952. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE S. S. WHITE DENTAL MANUFACTURING COMPANY, Philadelphia, Pa. Filed July 9, 1917. Under ten-year proviso.

SS.WHITE

Consisting of the name "S S White."
Particular description of goods.—Tooth-Powder, Tooth-Paste, Precipitated Chalk, Prepared Chalk, Tooth-Soap, Mouth-Wash, Cold-Cream, Almond-Cream, Shaving-Cream, Talcum Powder, Bay-Rum, Cologne-Water, Violet Water, Violet Ammonia, Cleansing-Powder, Cleansing-Paste, Nerve-Paste.
Claims use since or prior to the year 1869.

Ser. No. 104,953. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) BARRETT-CRAVENS COMPANY, Chicago, Ill. Filed July 10, 1917.

MULTI-TRUCK

No claim is made to the exclusive use of the word "Truck" except as a part of the compound word "Multi-Truck," as shown.
Particular description of goods.—Elevating-Trucks.
Claims use since about Nov. 4, 1914.

Ser. No. 104,976. (CLASS 37. PAPER AND STATIONERY.) THE ALLING & CORY CO., Rochester, N. Y. Filed July 11, 1917.

KreeKos

Particular description of goods.—Wrapping-Paper.
Claims use since July, 1912.

Ser. No. 104,989. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) PURO BEVERAGE CO., Mineral Point, Iowa. Filed July 11, 1917.

PURO

Particular description of goods.—A Non-Intoxicating Cereal Beverage.
Claims use since about May 1, 1917.

Ser. No. 105,003. (CLASS 39. CLOTHING.) JOHN MEIER SHOE COMPANY, St. Louis, Mo. Filed July 12, 1917.

PEACE TO YOUR
BU MP ERS

Particular description of goods.—Leather Shoes.
Claims use since May 20, 1917.

Ser. No. 105,009. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) WELSCH & CULLEY, New York, N. Y. Filed July 12, 1917.



The words and representation of the fern being in red.
Particular description of goods.—Cotton Piece Goods and Silk and Cotton Piece Goods.
Claims use since June 21, 1917.

Ser. No. 105,028. (CLASS 39. CLOTHING.) SACKMAN BROTHERS COMPANY, New York, N. Y. Filed July 13, 1917.

PLAYALLS.

Particular description of goods.—Children's Overalls, One-Piece Outer Suits, Two-Piece Outer Suits, and Rompers.
Claims use since June 21, 1917.

Ser. No. 105,031. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WEST INDIES PACKING COMPANY, McKinley, Isle of Pines. Filed July 13, 1917.

PRIMROSE PINES

Particular description of goods.—Sliced Pineapples in Cans.
Claims use since prior to Jan. 1, 1917.

Ser. No. 105,036. (CLASS 30. CROCKERY, EARTHENWARE, AND PORCELAIN.) GEORGE BORGFELDT & Co., New York, N. Y. Filed July 14, 1917.



Particular description of goods.—Chinaware, as Follows: Dinner Sets; Tea, Coffee, and Chocolate Sets; Dresser Sets, Mayonnaise Sets, Salad-Dishes, Cake-Plates, Bowls and Baskets, Cabarets, Olive-Dishes, Bulb-Bowls, Mugs, Jugs, and Pitchers, Jardinières, Candlesticks and Candelabra, and Trays.
Claims use since July 1, 1917.

Ser. No. 105,054. (CLASS 31. FILTERS AND REFRIGERATORS.) SNOLO COMPANY, Chicago, Ill. Filed July 14, 1917.

Snolo

Particular description of goods.—Fruit-Ice Making and Dispensing Machines.
Claims use since Apr. 19, 1917.

Ser. No. 105,068. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) TATE JONES & Co., INC., Pittsburgh, Pa. Filed July 16, 1917.

TJ

Particular description of goods.—Furnaces.
Claims use since May 19, 1916.

Ser. No. 105,069. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) TATE JONES & Co., INC., Pittsburgh, Pa. Filed July 16, 1917.

B G L

Particular description of goods.—Furnaces.
Claims use since May 14, 1917.

Ser. No. 105,075. (CLASS 38. PRINTS AND PUBLICATIONS.) THE CLASS JOURNAL CO., New York, N. Y. Filed July 16, 1917.

The AUTOMOBILE and Automotive Industries

Particular description of goods.—Magazine Published Weekly.
Claims use since July 5, 1917.

Ser. No. 105,085. (CLASS 37. PAPER AND STATIONERY.) ABRAHAM M. MALOUF, Salt Lake City, Utah. Filed July 17, 1917.

First National

Particular description of goods.—Steel Pens, Penholders, Lead and Graphite Pencils, and Fountain-Pens.
Claims use since Jan. 3, 1916.

Ser. No. 105,086. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) MACHINE PRODUCTS CO., St. Louis, Mo. Filed July 17, 1917.

CON-EX

Particular description of goods.—Piston-Rings.
Claims use since July 1, 1917.

Ser. No. 105,088. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) YOST-MERCHANT CO., Pittsburgh, Pa. Filed July 17, 1917.

INHALO
R
RUB
B

Particular description of goods.—A Preparation for the Treatment of Colds in Chest, Coughs, Croup, Whooping-Cough, Sore Throat, Tonsillitis, Bronchitis, Pneumonia, Catarrh, Hay-Fever, Asthma, Head-Colds, and Piles.
Claims use since Apr. 1, 1917.

Ser. No. 105,095. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GOFELD COMPANY, Philadelphia, Pa. Filed July 18, 1917.

HITS-IT

Particular description of goods.—A Preparation for Destroying Vermin.
Claims use since 1913.

Ser. No. 105,101. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) PIONEER SUSPENDER COMPANY, Philadelphia, Pa. Filed July 18, 1917.

PIONEER
JUNIOR

Particular description of goods.—Combination Suspenders and Garters.
Claims use since June 29, 1917.

Ser. No. 105,103. (CLASS 17. TOBACCO PRODUCTS.) SAN MARTIN & LEON COMPANY, Tampa, Fla. Filed July 18, 1917.

FLOR DE
SAN MARTIN Y LEON

Particular description of goods.—Cigars.
Claims use since about June 1, 1914.

Ser. No. 105,116. (CLASS 39. CLOTHING.) THE J. L. HUDSON CO., Detroit, Mich. Filed July 19, 1917.

Marona

Particular description of goods.—Corsets.
Claims use since July 1, 1917.

Ser. No. 105,143. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) COMMERCIAL CAR UNIT COMPANY, Philadelphia, Pa. Filed July 20, 1917.

TRUXTUN

Particular description of goods.—Motor-Trucks and Parts for Converting Pleasure-Car Vehicles Into Trucks.
Claims use since July 14, 1917.

Ser. No. 105,144. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CALIFORNIA PACKING CORPORATION, San Francisco, Cal. Filed July 20, 1917.

FASTER

Particular description of goods.—Dried Fruits, Raisins, and Canned Vegetables.
Claims use since Sept. 16, 1898.

Ser. No. 105,148. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) F. & J. DI PALMA, New York, N. Y. Filed July 20, 1917.



Particular description of goods.—Olive-Oil.
Claims use since Jan. 1, 1908.

Ser. No. 105,161. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM JOHN BEYERMANN, Chicago, Ill. Filed July 21, 1917.

PINO

Particular description of goods.—Rye-Water.
Claims use since June 7, 1910.

Ser. No. 105,164. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE CUBAN CONFECTIONERY AND TRADING COMPANY, INC., New York, N. Y. Filed July 21, 1917.



Particular description of goods.—Guava Jelly, Guava Paste, and Guava Cream.
Claims use since Apr. 1, 1917.

Ser. No. 105,194. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE GORDON TIRE & RUBBER COMPANY, Canton, Ohio. Filed July 28, 1917.

Extraction

Particular description of goods.—Rubber Tires.
Claims use since June 6, 1917.

Ser. No. 105,198. (CLASS 38. PRINTS AND PUBLICATIONS.) THE PRESS PUBLISHING COMPANY, New York, N. Y. Filed July 23, 1917.

The Jarr Family

Particular description of goods.—A Newspaper-Section Published Periodically.
Claims use since Aug. 15, 1906.

Ser. No. 105,199. (CLASS 38. PRINTS AND PUBLICATIONS.) THE PRESS PUBLISHING COMPANY, New York, N. Y. Filed July 23, 1917.

OLD GRINDSTONE GEORGE

Particular description of goods.—A Newspaper-Section Published Periodically.
Claims use since Mar. 5, 1917.

Ser. No. 105,200. (CLASS 38. PRINTS AND PUBLICATIONS.) THE PRESS PUBLISHING COMPANY, New York, N. Y. Filed July 23, 1917.

Hawkshaw the Detective

Particular description of goods.—A Newspaper-Section Published Periodically.
Claims use since Feb. 23, 1913.

Ser. No. 105,201. (CLASS 38. PRINTS AND PUBLICATIONS.) THE PRESS PUBLISHING COMPANY, New York, N. Y. Filed July 23, 1917.

Lady Bountiful

Particular description of goods.—A Newspaper-Section Published Periodically.
Claims use since Feb. 28, 1915.

Ser. No. 105,202. (CLASS 38. PRINTS AND PUBLICATIONS.) THE PRESS PUBLISHING COMPANY, New York, N. Y. Filed July 23, 1917.

The Day of Rest

Particular description of goods.—A Newspaper-Section Published Periodically.
Claims use since Aug. 22, 1910.

Ser. No. 105,203. (CLASS 38. PRINTS AND PUBLICATIONS.) THE PRESS PUBLISHING COMPANY, New York, N. Y. Filed July 23, 1917.

Nippy's Pop

Particular description of goods.—A Newspaper-Section Published Periodically.
Claims use since May 23, 1915.

Ser. No. 105,204. (CLASS 38. PRINTS AND PUBLICATIONS.) THE PRESS PUBLISHING COMPANY, New York, N. Y. Filed July 23, 1917.

Bachelor Girl Reflections

Particular description of goods.—A Newspaper-Section Published Periodically.
Claims use since Jan. 25, 1917.

Ser. No. 105,205. (CLASS 38. PRINTS AND PUBLICATIONS.) THE PRESS PUBLISHING COMPANY, New York, N. Y. Filed July 23, 1917.

HENRY HASENPFEFFER

Particular description of goods.—A Newspaper-Section Published Periodically.
Claims use since Jan. 26, 1916.

Ser. No. 105,206. (CLASS 38. PRINTS AND PUBLICATIONS.) THE PRESS PUBLISHING COMPANY, New York, N. Y. Filed July 23, 1917.

Poor Mr. W.

Particular description of goods.—A Newspaper-Section Published Periodically.
Claims use since Apr. 8, 1917.

Ser. No. 105,207. (CLASS 38. PRINTS AND PUBLICATIONS.) THE PRESS PUBLISHING COMPANY, New York, N. Y. Filed July 23, 1917.

Hans und Fritz

Particular description of goods.—A Newspaper-Section Published Periodically.
Claims use since May 23, 1915.

Ser. No. 105,208. (CLASS 38. PRINTS AND PUBLICATIONS.) THE PRESS PUBLISHING COMPANY, New York, N. Y. Filed July 23, 1917.

"'S'MATTER,POP?"

Particular description of goods.—A Newspaper-Section Published Periodically.
Claims use since July 12, 1911.

Ser. No. 105,209. (CLASS 38. PRINTS AND PUBLICATIONS.) THE PRESS PUBLISHING COMPANY, New York, N. Y. Filed July 23, 1917.

Can You Beat It!

Particular description of goods.—A Newspaper-Section Published Periodically.
Claims use since Nov. 11, 1910.

Ser. No. 105,224. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) JOSEPH M. DAFFRON, New York, N. Y. Filed July 24, 1917.

CHEMWOOD

Particular description of goods.—Hat-Blocks, Shoe-Lasts.
Claims use since July 1, 1915.

Ser. No. 105,236. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) GEORGE C. PENBOSS, Brooklyn, N. Y. Filed July 24, 1917. Under ten-year proviso.

"CLINTON

Particular description of goods.—Flax and Braided Fiber Packings.
Claims use since Jan. 1, 1884.

Ser. No. 105,244. (CLASS 39. CLOTHING.) A. V. VICTORICK & CO., INC., New York, N. Y. Filed July 24, 1917.

Velvet

Particular description of goods.—Hosiery.
Claims use since January, 1914.

Ser. No. 105,271. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PHOENIX PACKING CO., San Francisco, Cal. Filed July 25, 1917.

EMPEROR

Particular description of goods.—Raisins and Dried Peaches.
Claims use since the year 1901.

Ser. No. 105,300. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KLAUBER WANGENHEIM CO., San Diego, Cal. Filed July 26, 1917.

HI-PI

Particular description of goods.—Canned Fruits and Vegetables.
Claims use since August, 1914.

Ser. No. 105,343. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HERSHEY CHOCOLATE COMPANY, Hershey, Pa. Filed July 28, 1917.

ECONOMY

Particular description of goods.—Chocolate Coating for Confectioners and Bakers.
Claims use since about Jan. 1, 1903.

Ser. No. 105,382. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) THE NATIONAL SUPPLY COMPANY, Toledo, Ohio. Filed July 31, 1917.

N.S.CO

Particular description of goods.—Gas and Oil Burners, Coal Heating-Stoves, Welsbach Mantles and Burners, Gas-Burner Mixers, Portable Forges, and Oil-Lanterns.
Claims use since the year 1900.

Ser. No. 105,531. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ESTELLE WEBB, Los Angeles, Cal. Filed Aug. 7, 1917.

HAIR-LO

Particular description of goods.—A Composition of Matter Used in the Treatment of the Hair and Scalp as a Shampoo.
Claims use since May 1, 1917.

Ser. No. 105,542. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) J. L. HOPKINS & COMPANY, New York, N. Y. Filed Aug. 8, 1917.

FACTOLAC

Particular description of goods.—Emulsifier.
Claims use since 1912.

Ser. No. 105,543. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) IGNATIUS LEMPERA CO., Chicago, Ill. Filed Aug. 8, 1917.

Ignatius Lempera

The same being the signature of Ignatius Lempera, one of the members of the firm, the applicant herein.
Particular description of goods.—A Medicinal Compound for the Treatment of Lung Trouble.
Claims use since July 24, 1917.

Ser. No. 105,554. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE BAYER COMPANY, INC., New York, N. Y. Filed Aug. 9, 1917.

COMBELEN

Particular description of goods.—An Intestinal Astringent and Antispasmodic.
Claims use since May 7, 1917.

Ser. No. 105,580. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) S. PFEIFFER MFG. CO., St. Louis, Mo. Filed Aug. 10, 1917.

S.O.S.

Particular description of goods.—A Medicinal Preparation for Disorders of the Genito-Urinary Organs.
Claims use since May 1, 1917.

Ser. No. 105,585. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE WOBB DRUG CO., Scranton, Pa. Filed Aug. 10, 1917.

Di-A-Tone

Particular description of goods.—Medicinal Preparation for the Treatment of Indigestion.
Claims use since Dec. 22, 1916.

Ser. No. 105,589. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EASTMAN KODAK COMPANY, Rochester, N. Y. Filed Aug. 11, 1917.

SOLIO

Particular description of goods.—Photographic Toning Solution, Hardener, and Toning and Fixing Solution.
Claims use since May 1, 1892.

Ser. No. 105,614. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DOTHAN SYRUP COMPANY, Dothan, Ala. Filed Aug. 13, 1917.

DOTHALA

Particular description of goods.—Cane Table-Syrup.
Claims use since Dec. 1, 1916.

Ser. No. 105,615. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE ELI LILLY AND COMPANY, Indianapolis, Ind. Filed Aug. 13, 1917.

HEMAGULEN

Particular description of goods.—Hemostatics for Local Application.
Claims use since July 26, 1917.

Ser. No. 105,685. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FARQUHAR-MOON MANUFACTURING COMPANY, Chicago, Ill. Filed Aug. 16, 1917.

ENERGY NRG

Particular description of goods.—Bath-Powder.
Claims use since on or about May 15, 1917.

Ser. No. 105,710. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FOOT REMEDY COMPANY, Chicago, Ill. Filed Aug. 18, 1917.

FAIRYFOOT

Which trade-mark consists of the word "Fairyfoot."
Particular description of goods.—Corn-Plasters, Bunion-Plasters, Callus Remedy, Chilblain Remedy, Soft-Corn Remedy, and Foot-Powders.
Claims use since Aug. 13, 1917.

Ser. No. 105,717. (CLASS 37. PAPER AND STATIONERY.) LA SALLE PAPER CO., South Bend, Ind. Filed Aug. 18, 1917.

SAL-PAK

Particular description of goods.—Wrapping and Packing Paper.
Claims use since Aug. 1, 1917.

Ser. No. 105,763. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WELLS BROTHERS, Dillon, Mont. Filed Aug. 20, 1917.

BEAVER HEAD



Particular description of goods.—Wheat-Flour.
Claims use since about Jan. 1, 1917.

Ser. No. 105,785. (CLASS 37. PAPER AND STATIONERY.) WEST VIRGINIA PULP & PAPER COMPANY, New York, N. Y. Filed Aug. 21, 1917.

KEYNOTE

Particular description of goods.—Music-Paper.
Claims use since Aug. 7, 1917.

Ser. No. 105,787. (CLASS 37. PAPER AND STATIONERY.) WEST VIRGINIA PULP & PAPER COMPANY, New York, N. Y. Filed Aug. 21, 1917.

WESTMONT

Particular description of goods.—Printing-Papers.
Claims use since Aug. 8, 1917.

Ser. No. 105,790. (CLASS 37. PAPER AND STATIONERY.) WEST VIRGINIA PULP & PAPER COMPANY, New York, N. Y. Filed Aug. 21, 1917.

WESTVACO

Particular description of goods.—Printing-Papers.
Claims use since Aug. 3, 1917.

Ser. No. 105,793. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) H. C. COLE MILLING CO., Chester, Ill. Filed Aug. 22, 1917.

H.C.C.

Particular description of goods.—Self-Rising Wheat-Flour.
Claims use since May 28, 1913.

Ser. No. 105,798. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE FITCH CHEMICAL CORPORATION, Philadelphia, Pa., and Syracuse, N. Y. Filed Aug. 22, 1917.

Bon-Aura

Particular description of goods.—A Deodorant Toilet Powder.
Claims use since Aug. 1, 1917.

Ser. No. 105,811. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE MIDLAND MILLING COMPANY, Kansas City, Mo. Filed Aug. 22, 1917.



Particular description of goods.—Wheat-Flour.
Claims use since June 7, 1917.

Ser. No. 105,830. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) BAMACEA COMPANY, INC., Boston, Mass. Filed Aug. 23, 1917.

TARACEA

The word "Taracea."
Particular description of goods.—Soap.
Claims use since Feb. 2, 1917.

Ser. No. 105,836. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) GALVESTON BREWING ASSOCIATION, Galveston, Tex. Filed Aug. 23, 1917.

Galvo

Particular description of goods.—Non-Intoxicating Cereal Beverages.
Claims use since Aug. 13, 1917.

Ser. No. 105,852. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE ANTIKAMNIA CHEMICAL COMPANY, St. Louis, Mo. Filed Aug. 24, 1917.

Asco

Particular description of goods.—Medicinal Tablets for Headaches, Neuralgias, Rheumatism, and other Nerve Pains, also for La Grippe and Malaria.
Claims use since Apr. 1, 1915.

Ser. No. 105,864. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE SIDNEY ROSS CO., New York, N. Y. Filed Aug. 24, 1917.

SOSEGON

Particular description of goods.—A Remedy for Headaches, Nervous Fatigue, Neuralgia, and Irritability.
Claims use since July 1, 1917.

Ser. No. 105,884. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BYRON-PATCH CO., Boston, Mass. Filed Aug. 27, 1917.

Microform

The word "Microform."
Particular description of goods.—An Antiseptic Throat-Tablet.
Claims use since Dec. 15, 1916.

Ser. No. 105,926. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) YORK PRETZEL BAKERY, York, Pa. Filed Aug. 28, 1917.

GUDBYTE

Particular description of goods.—Pretzels, Cakes, Crackers, and Biscults.
Claims use since Aug. 21, 1917.

Ser. No. 105,950. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) B. H. TURECAN & Co., New York, N. Y. Filed Aug. 29, 1917.

ANGLE

Particular description of goods.—Powdered Shaving Soap.
Claims use since Mar. 5, 1912.

Ser. No. 105,970. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE REINHART FLOUR CO., Philadelphia, Pa. Filed Aug. 30, 1917.

AZTIC

Particular description of goods.—Wheat-Flour.
Claims use since about Oct. 1, 1910.

Ser. No. 105,999. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIAL.) LEO E. SCHOENFELD, Chicago, Ill. Filed Aug. 31, 1917.

DOMINO

Particular description of goods.—Castile Soap.
Claims use since June 1, 1917.

Ser. No. 106,001. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIAL.) LEO E. SCHOENFELD, Chicago, Ill. Filed Aug. 31, 1917.

Pall Mall

Particular description of goods.—Castile Soap.
Claims use since Aug. 25, 1917.

Ser. No. 106,175. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) FRANK FORMAN, New York, N. Y. Filed Sept. 11, 1917. Under ten-year proviso.

CARLTON CLUB

Comprising the words "Carlton Club."
Particular description of goods.—Whisky and Gin.
Claims use since about the year 1837.

TRADE-MARK REGISTRATIONS GRANTED

OCTOBER 2, 1917.

118,727. CORN-SALVE. M. ACHFELDT, New York, N. Y.
Filed April 30, 1917. Serial No. 103,403. PUBLISHED JULY 31, 1917.

118,728. MASSAGE-VIBRATORS AND ELECTRICAL-MASSAGE-TREATMENT APPARATUS. ADEBO MANUFACTURING COMPANY, Pittsburgh, Pa.
Filed May 1, 1917. Serial No. 103,441. PUBLISHED JULY 17, 1917.

118,729. AGRICULTURAL LIME. THE AGRICULTURAL AND COMMERCIAL LIME COMPANY, Canton, Ohio.
Filed May 1, 1917. Serial No. 103,438. PUBLISHED JULY 17, 1917.

118,730. WASH-WELL, SCOURING, WHITE FLOATING, NAPHTHA LAUNDRY, BORAX LAUNDRY SOAP, POWDERED CLEANSER, AND WASHING-POWDER. ALL-PACKAGE GROCERY STORES CO., New York, N. Y.
Filed May 25, 1917. Serial No. 104,057. PUBLISHED JULY 24, 1917.

118,731. GRAPE-JUICE. ALL-PACKAGE GROCERY STORES CO., New York, N. Y.
Filed July 5, 1917. Serial No. 104,822. PUBLISHED JULY 31, 1917.

118,732. UPHOLSTERED FURNITURE—NAMELY, CHAIRS AND SETTEES. B. ALTMAN & CO., New York, N. Y.
Filed January 2, 1917. Serial No. 100,276. PUBLISHED JULY 24, 1917.

118,733. MONTHLY MAGAZINES OR PERIODICALS. AMERICAN OPTICAL COMPANY, Southbridge, Mass.
Filed June 26, 1916. Serial No. 96,125. PUBLISHED JULY 31, 1917.

118,734. CERTAIN NAMED HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES. AMERICAN STEEL EXPORT COMPANY, New York, N. Y.
Filed May 17, 1917. Serial No. 103,882. PUBLISHED JULY 10, 1917.

118,735. WHEAT-FLOUR, GRAIN, AND MILL FEED. ANNAN-BURG GRAIN & MILLING COMPANY, St. Louis, Mo.
Filed October 4, 1915. Serial No. 89,619. PUBLISHED NOVEMBER 21, 1916.

118,736. ITALIAN WINES. GIOVANNI AQUINO, New York, N. Y.
Filed April 30, 1917. Serial No. 103,402. PUBLISHED JULY 31, 1917.

118,737. PANCAKE, BUCKWHEAT, CORN, AND WHEAT FLOURS. AUNT JEMIMA MILLS COMPANY, St. Joseph, Mo.
Filed April 27, 1917. Serial No. 103,342. PUBLISHED JULY 10, 1917.

118,738. SNAP-FASTENERS. THE AUTOYRE CO., Oakville, Conn.
Filed November 22, 1916. Serial No. 99,454. PUBLISHED FEBRUARY 20, 1917.

118,739. SNAP-BUTTONS USED AS GARMENT-FASTENERS. THE AUTOYRE COMPANY, Oakville, Conn.
Filed November 27, 1916. Serial No. 99,560. PUBLISHED FEBRUARY 27, 1917.

118,740. CIGARS. MORRIS H. BARNETT, Springfield, Mass.
Filed December 26, 1916. Serial No. 100,157. PUBLISHED JULY 24, 1917.

118,741. BAGGAGE—NAMELY, TRUNKS, SUITCASES, PORTFOLIOS, AUTOMOBILE-TIRE TRUNKS, AND AUTOMOBILE PICNIC-CASES. BERG AUTO TRUNK & SPECIALTY CO., New York, N. Y.
Filed March 1, 1917. Serial No. 101,814. PUBLISHED JULY 3, 1917.

118,742. MEDICATED, COURT, ISINGLASS, MUSTARD, CORN, AND BUNION PLASTERS; BEAUTY-SPOTS, FUMIGATORS, AND DEODORIZERS. BAUER & BLACK, Chicago, Ill.
Filed May 14, 1917. Serial No. 103,766. PUBLISHED JULY 31, 1917.

118,743. STEAM GENERATORS AND RADIATORS. BAYLEY MANUFACTURING COMPANY, Milwaukee, Wis.
Filed May 31, 1917. Serial No. 104,163. PUBLISHED JULY 24, 1917.

118,744. PLASTIC MOLDING MATERIAL FOR MAKING CERTAIN NAMED OBJECTS. BERNARDINI STATUARY CO., New York, N. Y.
Filed March 27, 1917. Serial No. 102,475. PUBLISHED JULY 24, 1917.

118,745. INSECTICIDE. WENDAL J. BIXLER, Fremont, Mich.
Filed May 7, 1917. Serial No. 103,588. PUBLISHED JULY 31, 1917.

118,746. SOAP COMPOUND. THE BON AURORA MANUFACTURING & MACHINE COMPANY, Denver, Colo.
Filed June 8, 1917. Serial No. 104,336. PUBLISHED JULY 24, 1917.

118,747. FISHING-LINES. CASTINE LINE & TWINE COMPANY, Castine, Me., assignor, by mesne assignments, to Gloucester Net & Twine Corporation.
Filed June 1, 1917. Serial No. 104,177. PUBLISHED JULY 17, 1917.

118,748. FISHING-LINES. CASTINE LINE & TWINE COMPANY, Castine, Me., assignor, by mesne assignments, to Gloucester Net & Twine Corporation.
Filed June 5, 1917. Serial No. 104,277. PUBLISHED JULY 17, 1917.

118,749. TABLE-TOPS OF STEEL. CHATTANOOGA STAMPING & ENAMELING COMPANY, Chattanooga, Tenn.
Filed May 12, 1917. Serial No. 103,733. PUBLISHED JULY 24, 1917.

118,750. TOILET WATERS, HANDKERCHIEF EXTRACTS, PERFUMED POWDERS, AND SACHETS. COLGATE & CO., Jersey City, N. J., and New York, N. Y.
Filed May 9, 1917. Serial No. 103,668. PUBLISHED JULY 31, 1917.

118,751. CERTAIN NAMED HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES. COLUMBIAN ENAMELING & STAMPING COMPANY, Terre Haute, Ind.
Filed February 24, 1917. Serial No. 101,639. PUBLISHED JULY 3, 1917.

118,752. MATTRESSES. THE CUDAHY PACKING COMPANY, Portland, Me., and Chicago, Ill.
Filed June 11, 1917. Serial No. 104,390. PUBLISHED JULY 17, 1917.

118,753. COTTON YARNS. CYNTHIA MILLS, Boston, Mass.
Filed May 31, 1917. Serial No. 104,159. PUBLISHED JULY 24, 1917.

118,754. CIGARS. GEORGE E. DAWSON, Clare, Mich.
Filed December 5, 1916. Serial No. 99,726. PUBLISHED JULY 24, 1917.

118,755. PREPARATION FOR THE TREATMENT OF THE SCALP. SALVADOR F. DEL VALLE, New York, N. Y.
Filed May 18, 1917. Serial No. 103,925. PUBLISHED JULY 31, 1917.

118,756. AUTOMOBILES AND MOTOR-CARS, EITHER FOR PLEASURE OR COMMERCIAL USE. THE DENNISON MOTOR COMPANY, Cleveland, Ohio.
Filed August 11, 1916. Serial No. 97,272. PUBLISHED JULY 17, 1917.

118,757. SURGICAL SPRAYING INSTRUMENT. THE DE VILBISS MANUFACTURING COMPANY, Toledo, Ohio.
Filed May 7, 1917. Serial No. 103,591. PUBLISHED JULY 24, 1917.

118,758. TOILET-PAPER. DIXIE PAPER & BOX COMPANY, Atlanta, Ga.
Filed June 1, 1917. Serial No. 104,178. PUBLISHED JULY 24, 1917.

118,759. WHEAT-FLOUR. JOHN P. DOUSMAN MILLING CO., De Pere, Wis.
Filed July 15, 1916. Serial No. 96,577. PUBLISHED AUGUST 29, 1916.

118,760. INGREDIENT USED IN PAINTS AND PAINTERS' MATERIALS. DUREX CHEMICAL CORPORATION, New York, N. Y., and Sweetwater, Tenn.
Filed April 12, 1917. Serial No. 102,904. PUBLISHED JUNE 19, 1917.

118,761. MONTHLY PUBLICATION. DWINELL-WRIGHT COMPANY, Boston, Mass.
Filed May 15, 1917. Serial No. 103,814. PUBLISHED JULY 31, 1917.

118,762. WATCHES AND WATCH-MOVEMENTS. ELGIN NATIONAL WATCH COMPANY, Chicago, Ill.
Filed May 15, 1917. Serial No. 103,816. PUBLISHED JULY 31, 1917.

118,763. WHEAT-FLOUR, WHEAT-BRAN, AND WHEAT-OFFAL—VIZ., WHEAT-SCREENINGS, WHEAT-MIDDLINGS, AND MIXED FEED. EVERETT AUGHENBAUGH & CO., Waseca, Minn.
Filed December 18, 1914. Serial No. 83,374. PUBLISHED AUGUST 3, 1915.

118,764. COAL. FERGUSON-SPEARS COAL COMPANY, Clinton, Ind.
Filed January 2, 1917. Serial No. 100,288. PUBLISHED JULY 24, 1917.

118,765. VANISHING FACE-CREAM. BORIS FONSTEIN, Chicago, Ill.
Filed May 14, 1917. Serial No. 103,772. PUBLISHED JULY 31, 1917.

118,766. CERTAIN NAMED FOODS. E. C. GATLIN IMPORTING COMPANY, Kansas City, Mo.
Filed December 7, 1916. Serial No. 99,758. PUBLISHED JUNE 19, 1917.

118,767. COMMERCIAL MOTOR-TRUCKS AND AUTOMOBILES. EUGENE GOLDMAN, Chicago, Ill., assignor to Master Trucks, Inc., Portland, Me., a Corporation of Maine.
Filed January 27, 1917. Serial No. 100,989. PUBLISHED MARCH 27, 1917.

118,768. CERTAIN NAMED BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS. GOLDMAN COSTUME COMPANY, New York, N. Y.
Filed January 25, 1917. Serial No. 100,922. PUBLISHED JUNE 26, 1917.

118,769. CERTAIN NAMED CORDAGE. GOLDMAN COSTUME COMPANY, New York, N. Y.
Filed January 25, 1917. Serial No. 100,930. PUBLISHED JUNE 26, 1917.

118,770. NON-INTOXICATING BEVERAGE OF A MALT NATURE OF THE KIND COMMONLY KNOWN AS SOFT DRINKS. GRIESEDIECK BEVERAGE COMPANY, St. Louis, Mo.
Filed April 26, 1917. Serial No. 103,326. PUBLISHED JULY 31, 1917.

118,771. PURGATIVE. HARBARD MEDICAL MFG. CO., INC., New Orleans, La.
Filed May 15, 1917. Serial No. 103,822. PUBLISHED JULY 31, 1917.

118,772. OINTMENT FOR SORES, ULCERS, AND PILES. HARBARD MEDICAL MFG. CO. INC., New Orleans, La.
Filed May 15, 1917. Serial No. 103,823. PUBLISHED JULY 31, 1917.

118,773. MEDICINE FOR IRREGULAR BOWELS AND CONSTIPATION. HARBARD MEDICAL MFG. CO., INC., New Orleans, La.
Filed May 15, 1917. Serial No. 103,824. PUBLISHED JULY 31, 1917.

118,774. HAIR AND SCALP OIL. HAIRFIDERMIS COSMETIC MANUFACTURING CO., Washington, D. C., and St. Louis, Mo.
Filed May 18, 1917. Serial No. 103,926. PUBLISHED JULY 31, 1917.

118,775. BRICK, TILE, AND BURNT CLAY FOR BUILDING PURPOSES FOR USE IN BUILDING CONSTRUCTION. ARTHUR HARDONCOURT, Jr., New York, N. Y.
Filed March 26, 1917. Serial No. 102,445. PUBLISHED JULY 17, 1917.

118,776. CERTAIN NAMED PHARMACEUTICAL PREPARATIONS. CHARLES A. HAWKINS, Indianapolis, Ind.
Filed March 19, 1917. Serial No. 102,256. PUBLISHED JULY 10, 1917.

118,777. PAPER DRINKING-CUPS. HARRIET HILL, New York, N. Y.
Filed April 3, 1917. Serial No. 102,685. PUBLISHED JULY 3, 1917.

118,778. NAIL-FILES, TWEEZERS, AND BLACKHEAD-REMOVERS. JOHN HOPKINS, New York, N. Y.
Filed March 16, 1917. Serial No. 102,184. PUBLISHED JULY 24, 1917.

118,779. MONTHLY MAGAZINES. HUBBARD MILLING CO., Mankato, Minn.
Filed June 1, 1917. Serial No. 104,187. PUBLISHED JULY 31, 1917.

118,780. BANANA-RIPENERS AND GAS-HEATERS. ILLINOIS SPECIALTY MANUFACTURING CO., Normal, Ill.
Filed November 11, 1916. Serial No. 99,247. PUBLISHED JULY 24, 1917.

118,781. FILTERS AND FILTERING APPARATUS. INDUSTRIAL FILTRATION CORPORATION, New York, N. Y.
Filed May 3, 1917. Serial No. 103,504. PUBLISHED JULY 24, 1917.

118,782. ACETYLSALICYLIC ACID. INTERNATIONAL DRUG COMPANY, Wilmington, Del.
Filed May 3, 1917. Serial No. 103,505. PUBLISHED JULY 31, 1917.

118,783. SHORTENING COMPOUND COMPOSED OF COTTON-SEED OIL AND OLEO BEEF-STEARIN. INTERSTATE COTTON OIL REFINING CO., Sherman, Tex.
Filed March 3, 1917. Serial No. 101,859. PUBLISHED APRIL 10, 1917.

118,784. DENTAL CREAM. THE IODINE PRODUCTS COMPANY, Laurel, Miss.
Filed May 18, 1917. Serial No. 103,928. PUBLISHED JULY 31, 1917.

118,785. CANNED SARDINES AND CANNED CLAMS. ARTHUR L. JOHNSON, Providence, R. I., and Boston, Mass.
Filed April 25, 1917. Serial No. 103,299. PUBLISHED JULY 24, 1917.

118,786. APERIENT, LAXATIVE, AND PURGATIVE. JULIUS KALISH INC., New York, N. Y.
Filed April 18, 1917. Serial No. 103,083. PUBLISHED JULY 31, 1917.

118,787. BAKING-PANS. EDWARD KATZINGER COMPANY, Chicago, Ill.
Filed February 26, 1917. Serial No. 101,694. PUBLISHED JUNE 19, 1917.

118,788. LAVATORIES. KOHLER CO., Kohler, Wis.
Filed May 12, 1917. Serial No. 103,720. PUBLISHED JUNE 19, 1917.

118,789. REFRIGERATORS. RICHARD H. KRALL, Camden, N. J.
Filed June 21, 1917. Serial No. 104,585. PUBLISHED JULY 24, 1917.

118,790. PIANOS. KRANICH & BACH, New York, N. Y.
Filed June 11, 1917. Serial No. 104,307. PUBLISHED JULY 31, 1917.

118,791. CANNED SALMON, COVE-OYSTERS, SHRIMP, TUNA-FISH, COCOA, CANNED PEACHES, AND CHILLI-CON-CARNE. THE KROGER GROCERY & BAKING CO., Cincinnati, Ohio.
Filed December 26, 1916. Serial No. 100,170. PUBLISHED MAY 1, 1917.

118,792. SHEET-GLASS. THE LIBBEY-OWENS SHEET GLASS COMPANY, Toledo, Ohio.
Filed May 7, 1917. Serial No. 103,599. PUBLISHED JULY 24, 1917.

118,793. ANIMAL DRINKING-BOWL. LIVESTOCK INDIVIDUAL DRINKING FOUNTAIN COMPANY, INC., Lynchburg, Va.
Filed May 4, 1917. Serial No. 103,585. PUBLISHED JULY 17, 1917.

118,794. CIGARS, CIGARETTES, CHEROOTS, STOGIES, CHEWING AND SMOKING TOBACCO. R. LORILLARD & SON, Chicago, Ill.
Filed June 4, 1917. Serial No. 104,240. PUBLISHED JULY 24, 1917.

118,795. TABLES, DESKS, MATTRESSES, PILLOWS, AND CHAIRS AND BEDSTEADS MADE OF METAL OR WOOD. ABRAHAM M. MALOUF, Salt Lake City, Utah.
Filed April 11, 1917. Serial No. 102,890. PUBLISHED JULY 17, 1917.

118,796. WHEAT-FLOUR. THE MANSFIELD MILLING CO., Mansfield, Ohio.
Filed August 4, 1915. Serial No. 88,416. PUBLISHED AUGUST 22, 1916.

118,797. FOLDING TABLES. METAL STAMPINGS CORPORATION, Streator, Ill.
Filed March 26, 1917. Serial No. 102,454. PUBLISHED JULY 17, 1917.

118,798. CANNED VEGETABLES. JOHN M. MICHAEL, Aberdeen, Md.
Filed June 4, 1917. Serial No. 104,261. PUBLISHED JULY 24, 1917.

118,799. TIRES (RUBBER) AND TUBING, (RUBBER.) THE MILLER RUBBER COMPANY, Akron, Ohio.
Filed July 31, 1916. Serial No. 96,994. PUBLISHED JULY 31, 1917.

118,800. MONTHLY PUBLICATION. THE MONITOR STOVE & RANGE CO., Cincinnati, Ohio.
Filed June 11, 1917. Serial No. 104,389. PUBLISHED JULY 24, 1917.

118,801. DEXTRINS, ADHESIVE GUMS, AND SOLUBLE STARCH GUMS. CHAS. MORNINGSTAR & CO. INC., New York, N. Y.
Filed April 9, 1917. Serial No. 102,836. PUBLISHED JULY 17, 1917.

118,802. RUBBER-CEMENT AND TIRE-TAPE. THE MUTUAL MOTOR STORES COMPANY, Cleveland, Ohio.
Filed December 28, 1916. Serial No. 100,219. PUBLISHED JULY 17, 1917.

118,803. READY-MIXED PAINT. NATIONAL LEAD COMPANY, New York, N. Y.
Filed January 17, 1917. Serial No. 100,680. PUBLISHED JUNE 26, 1917.

118,804. CERTAIN NAMED HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES. THE F. A. NEIDER COMPANY, Augusta, Ky.
Filed March 31, 1917. Serial No. 102,626. PUBLISHED JUNE 19, 1917.

118,805. METAL SHADE-FITTINGS. ORDINATOR COMPANY, INC., New York, N. Y.
Filed March 31, 1917. Serial No. 102,627. PUBLISHED JULY 3, 1917.

118,806. AUTOMOBILES. THE OWEN MAGNETIC CAR CO. OF PHILADELPHIA, of Wilmington, Del., and Philadelphia, Pa.
Filed February 23, 1917. Serial No. 101,617. PUBLISHED JULY 24, 1917.

118,807. LIQUID AND PASTE PREPARATION FOR CLEANING AND PRESERVING CERTAIN NAMED ARTICLES OF WEARING-APPAREL. PACKARD DRESSING CO., Stoughton, Mass.
Filed June 18, 1917. Serial No. 104,428. PUBLISHED JULY 31, 1917.

118,808. DYES FOR DYEING LEATHER. ALFRED PASSERO, Rochester, N. Y.
Filed May 2, 1917. Serial No. 103,459. PUBLISHED JULY 31, 1917.

118,809. NEWS-PRINT PAPER. PEJEPSCOT PAPER COMPANY, New York, N. Y.
Filed February 3, 1917. Serial No. 101,155. PUBLISHED JULY 31, 1917.

118,810. LEATHER BELTING. PENN LEATHER COMPANY, Philadelphia, Pa.
Filed February 17, 1917. Serial No. 101,456. PUBLISHED JULY 31, 1917.

118,811. POWER-TRANSMISSION LEATHER BELTING. PHILA. BELTING CO., Philadelphia, Pa.
Filed May 3, 1917. Serial No. 103,511. PUBLISHED JULY 31, 1917.

118,812. CRUCIFIXES AND HIEROLOGICAL STATUES AND RELIEFS. THE PIONEER CORPORATION, Chicago, Ill.
Filed May 5, 1917. Serial No. 103,568. PUBLISHED JULY 31, 1917.

118,813. CHILDREN'S GAMES, BUILDING-BLOCKS, AND TOY FURNITURE. THE REDSQUARE COMPANY, Chicago, Ill.
Filed November 11, 1916. Serial No. 99,256. PUBLISHED JULY 17, 1917.

118,814. HARD CANDY. REPETTI, New York, N. Y.
Filed March 22, 1917. Serial No. 102,343. PUBLISHED JULY 24, 1917.

118,815. COCOA MATS. F. G. RUDDIMAN COMPANY, Muskegon, Mich.
Filed June 4, 1917. Serial No. 104,267. PUBLISHED JULY 24, 1917.

118,816. SALVES USED ON SUPPURATING SORES, BOILS, CONTUSIONS, AND WOUNDS. JUSKO SAGAN, Wilmington, Del.
Filed December 6, 1916. Serial No. 99,750. PUBLISHED JUNE 19, 1917.

118,817. TOILET-PAPER. SAUQUOIT TOILET PAPER CO., New Hartford, N. Y.
Filed May 21, 1917. Serial No. 103,991. PUBLISHED JULY 24, 1917.

118,818. OLIVE-OIL. Leo E. Schoenfeld, Chicago, Ill. Filed April 7, 1917. Serial No. 102,821. PUBLISHED MAY 22, 1917.

118,819. PERFUMERS AND DEODORIZERS. Ernest A. F. Scott, Pasadena, Cal. Filed May 2, 1917. Serial No. 103,460. PUBLISHED JULY 31, 1917.

118,820. VENTILATORS, STOVEPIPE, ELBOWS, SHANTY-CAPS, CHIMNEY-CAPS, CHIMNEY-JACKETS, AND REGISTER-BOXES. Sheet Metal Mfg. Co. Inc., New York and Brooklyn, N. Y. Filed March 7, 1917. Serial No. 101,969. PUBLISHED JULY 24, 1917.

118,821. FEED FOR FARM-STOCK. The Shoemaker Company, Oakwood, N. Y. Filed September 25, 1916. Serial No. 98,223. PUBLISHED JUNE 12, 1917.

118,822. FEED FOR FARM-STOCK. The Shoemaker Company, Oakwood, N. Y. Filed September 25, 1916. Serial No. 98,224. PUBLISHED JUNE 19, 1917.

118,823. FEED FOR FARM-STOCK. The Shoemaker Company, Oakwood, N. Y. Filed September 25, 1916. Serial No. 98,225. PUBLISHED JUNE 12, 1917.

118,824. BIMONTHLY PUBLICATION. James E. Sitterley, New York, N. Y. Filed June 4, 1917. Serial No. 104,270. PUBLISHED JULY 31, 1917.

118,825. REMEDY FOR NEURALGIA AND RHEUMATISM IN ALL FORMS. The Smith-Dorsey Company, Lincoln, Nebr. Filed July 21, 1916. Serial No. 96,788. PUBLISHED NOVEMBER 7, 1916.

118,826. TENNIS-RACKET STRINGS. A. G. Spalding & Bros., Jersey City, N. J., and New York, N. Y. Filed May 17, 1917. Serial No. 103,908. PUBLISHED JULY 17, 1917.

118,827. SOAP. John T. Stanley Co. Inc., New York, N. Y. Filed April 20, 1915. Serial No. 86,072. PUBLISHED FEBRUARY 27, 1917.

118,828. CERTAIN NAMED SANITARY GARMENTS AND APPLIANCES. A. Stein & Company, Chicago, Ill. Filed January 21, 1916. Serial No. 92,308. PUBLISHED JULY 24, 1917.

118,829. FERTILIZER. James L. Stoltz, Cleveland, Ohio. Filed February 1, 1917. Serial No. 101,108. PUBLISHED JULY 17, 1917.

118,830. GLASSWARE. L. Straus & Sons, New York, N. Y. Filed March 27, 1917. Serial No. 102,498. PUBLISHED JULY 24, 1917.

118,831. SARDINES IN OIL, CANNED FISH, AND PRESERVED FRUITS AND DRIED AND CANNED VEGETABLES. Strohmeyer & Arpe Company, New York, N. Y. Filed May 24, 1917. Serial No. 104,053. PUBLISHED JULY 24, 1917.

118,832. BICYCLES. Swedish Separator Co., Chicago, Ill. Filed June 24, 1916. Serial No. 96,115. PUBLISHED JULY 24, 1917.

118,833. BRAKE-LINING. Thermoid Rubber Company, Hamilton township, Mercer county, N. J. Filed May 3, 1917. Serial No. 103,516. PUBLISHED JULY 31, 1917.

118,834. ELECTRICAL CONDUITS. Triangle Conduit Co. Inc., Brooklyn, N. Y. Filed February 14, 1917. Serial No. 101,872. PUBLISHED JUNE 19, 1917.

118,835. CERTAIN NAMED RUBBER GOODS. United Drug Company, Boston, Mass. Filed April 11, 1917. Serial No. 102,897. PUBLISHED JULY 17, 1917.

118,836. TOGGLE-BOLTS. U. S. Expansion Bolt Co., New York, N. Y. Filed April 2, 1917. Serial No. 102,674. PUBLISHED JULY 10, 1917.

118,837. CHOCOLATES AND CANDIES. Wallace & Co., Brooklyn, N. Y. Filed December 9, 1916. Serial No. 99,828. PUBLISHED JANUARY 23, 1917.

118,838. METALLIC VALVES FOR GENERAL PURPOSES, AND PARTICULARLY VALVES USED FOR HIGH-PRESSURE SHIPPING-CONTAINERS. Welding Supply Company Inc., New York, N. Y. Filed January 8, 1917. Serial No. 100,458. PUBLISHED JULY 3, 1917.

118,839. WITCH-HAZEL CREAM AND COLD-CREAM. Samuel Isaac Welsher, New York, N. Y. Filed May 4, 1917. Serial No. 103,550. PUBLISHED JULY 31, 1917.

118,840. PRINTED BOOKS AND PAMPHLETS. The Wild Gardens of Acadia, Bar Harbor, Me. Filed May 16, 1917. Serial No. 103,876. PUBLISHED JULY 24, 1917.

118,841. STOCK-TANK HEATER. Wills Mfg. Co., Mendota, Ill. Filed June 23, 1917. Serial No. 104,655. PUBLISHED JULY 24, 1917.

LABELS

REGISTERED OCTOBER 2, 1917.

20,298.—*Title:* "ANNETTE KELLERMANN TWO IN ONE BATHING SUIT." (For Bathing-Suits.) Leonard C. Asch, New York, N. Y. Filed August 16, 1917.

20,299.—*Title:* "DR. CONRAD'S HEALTH FOOD." (For Food.) Charles F. Conrad, New York, N. Y. Filed September 6, 1917.

20,300.—*Title:* "HOFFEX." (For a Non-Alcoholic Beverage.) Eisner-Mendelson Co., New York, N. Y. Filed September 10, 1917.

20,301.—*Title:* "BABY BUNTING POWDER." (For Toilet Powder.) Gordon-Thorne Company, Utica, N. Y. Filed September 6, 1917.

20,302.—*Title:* "HONYTONE." (For a Medicinal Preparation.) Honytone Manufacturing Company, Somerville, Mass. Filed September 24, 1917.

20,303.—*Title:* "BLUE BIRD PEARL BUTTONS." (For Pearl-Button-Display Sales-Boxes.) Iowa Pearl Button Company, Muscatine, Iowa. Filed September 10, 1917.

20,304.—*Title:* "PEARL BUTTONS OF DISTINCTION." (For Pearl-Button-Display Sales-Boxes.) Iowa Pearl Button Company, Muscatine, Iowa. Filed September 10, 1917.

20,305.—*Title:* "TRY ME." (For a Cleaner for Silver, Glassware, and Polished Metals.) J. D. Jidas, Bros., & Co., Chicago, Ill. Filed August 13, 1917.

20,306.—*Title:* "SUPEROYL." (For Rings.) McQuay-Norris Mfg. Co., St. Louis, Mo. Filed August 23, 1917.

20,307.—*Title:* "POTLICKER." (For Rings.) McQuay-Norris Mfg. Co., St. Louis, Mo. Filed August 23, 1917.

20,308.—*Title:* "AMERICAN MILK." (For Evaporated Milk.) Roger D. Pinnbo, Seattle, Wash. Filed Sept. 18, 1917.

20,309.—*Title:* "SAMMIE'S HAV-A-SAC." (For Chocolate Chips.) William E. Taylor, Battle Creek, Mich. Filed September 4, 1917.

20,310.—*Title:* "TO-DAY'S CHOCOLATES ASSORTED." (For Candy-Boxes.) Val. Blatz, Jr. Candy Co., Milwaukee, Wis. Filed July 19, 1917.

20,311.—*Title:* "ACIDULATED CARTRIDGES." (For Confectionery.) Mary L. Wenz, Boston, Mass. Filed August 28, 1917.

PRINTS

REGISTERED OCTOBER 2, 1917.

4,798.—*Title:* "HAYWARD BUCKETS DIG FOR ALL THE WORLD." (For Buckets.) The Hayward Company, New York, N. Y. Filed Aug. 22, 1917.

4,799.—*Title:* "HEMINWAY'S CROCHET SILKS." (For Crochet and Embroidery Silks.) M. Heminway & Sons Silk Co., Watertown, Conn., and New York, N. Y. Filed July 9, 1917.

4,800.—*Title:* "A SERVING OF KELLOGG'S FOR LESS THAN A CENT. THE MOST DELICIOUS THINGS SOMETIMES COST THE LEAST. WHAT IS THERE MORE TEMPTING AT BREAKFAST, BETWEEN MEALS, OR FOR THE EVENING SNACK, THAN THESE DELICATE THIN FLAKES WITH THEIR APPETIZING FLAVOR AND THE WHOLESOME QUALITY OF TOASTED CORN! KEEP SOME PACKAGES OF KELLOGG'S—THE ORIGINAL TOASTED CORN FLAKES—ALWAYS IN THE CUPBOARD, READY FOR THE CALL OF THE HEALTHY, HUNGRY YOUNG FOLKS OF THE FAMILY." (For Toasted Corn Flakes.) Kellogg Toasted Corn Flake Co., Battle Creek, Mich. Filed September 10, 1917.

4,801.—*Title:* "HELP THE FOOD SITUATION BY EATING MORE CORN. BOYS AND GIRLS, IF YOU DON'T KNOW HOW DELICIOUS A FOOD CORN CAN BE, TRY KELLOGG'S TOASTED CORN FLAKES. PATRIOTIC HOUSEWIVES WHO ARE SEEKING FOODS THAT ARE TEMPTING AND INEXPENSIVE, FIND THAT KELLOGG'S COST LESS THAN A PENNY A SERVING. KELLOGG'S ARE THE FLAKES THAT ARE DELICATELY TOASTED AND THIN—THE ORIGINAL TOASTED CORN FLAKES—TENDER AND CRISP, WITH THAT APPETIZING FLAVOR YOU CAN'T MISTAKE OR FORGET." (For Toasted Corn Flakes.) Kellogg Toasted Corn Flake Co., Battle Creek, Mich. Filed September 10, 1917.

4,802.—*Title:* "NOGLARE AUTO LENS." (For Lenses for Automobile-Lamps.) Noglare Auto Lens Co., Portland, Oreg. Filed September 10, 1917.

4,803.—*Title:* "BATTERY DISPLAY SIGN." (For Storage Batteries.) The Willard Storage Battery Company, Cleveland, Ohio. Filed August 30, 1916.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

U. S. Circuit Court of Appeals—Eighth Circuit.

WM. F. GOESSLING BOX CO. *et al. v.* GUMB *et al.*

Decided February 28, 1917.

241 Fed. Rep., 674.

1. PATENTS—ANTICIPATION—PRIOR PATENT.
   A patent is not admissible in evidence as an anticipation of another patent which, although later in date of issue, covers an invention shown to have been made before the issue of the earlier patent and upon an application filed several months prior thereto.
2. SAME—SAME.
   Finger-holes in mortise-locks for sliding doors *Held* so remote in purpose and function as not to anticipate a patent for shipping-cases for bottled goods having protected hand-holes for lifting the cases.
3. SAME—SAME—DEVICE IN REMOTE ART.
   A mechanical device or combination which was not designed by its maker or actually used or apparently adapted to perform the function of a patented device or combination, but which was discovered in a remote art, where it was conceived and used under radically-different circumstances to perform another function, neither anticipates nor limits the scope of the patent.
4. SAME—VALIDITY AND INFRINGEMENT—SHIPPING-CASE.
   The Kerkow patent, No. 970,237, for a shipping-case for bottled goods, was not anticipated, but discloses patentable novelty and invention; also *Held* infringed.
5. SAME—INFRINGEMENT—CHANGE OF FORM.
   Mere changes in the form of a device or of some of the mechanical elements of a combination, where the principle or mode of operation is adopted or used, will not avoid infringement unless the form of the machine or of the element or elements changed is the distinguishing characteristic of the invention.

APPEAL from the District Court of the United States for the Eastern District of Missouri; David P. Dyer, judge.

Mr. Alfred A. Eicks for the appellants.
Mr. Paul Bakewell for the appellees.

Before SANBORN and SMITH, Circuit Judges, and AMIDON, District Judge.

SANBORN, *Cir. J.*:

The appellants, who were the defendants below, complain of a decree of the district court, to the effect that Letters Patent No. 970,237, issued to Gustav C. Kerkow on September 13, 1910, on an application filed on July 26, 1907, now owned by the plaintiffs below, are valid, that the defendants have infringed upon the rights of the plaintiffs secured thereby, that the defendants are enjoined from further infringement, and that they account for their profits and the damages to the plaintiffs. The claim of the patent well describes the combination it secures, and it reads in this way:

A shipping case for bottled goods having in its end wall a slotlike hand-hole formed wholly therethrough, and a substantially rectangular concavo-convex dishlike cover composed of sheet material and attached to the inner face of the case, said cover being disposed with its concavity facing and wholly inclosing the hand-hole, and the upper edge of the cover being disposed sufficiently above the upper margin of the hand-hole to accommodate and protect the fingers of the hand when grasping the case, while at the same time shielding the contents of the box from the exterior.

The object of the invention was to combine with shipping-cases, and especially the beer-cases generally in use, which when loaded with bottled beer weigh from 100 to 150 pounds each, simple, inexpensive, and effectual hand-hole covers, readily attachable and detachable, which would exclude from the beer the light which causes it to become cloudy, to deteriorate in taste and flavor, and to acquire a noxious odor, which would exclude the dampness and cold, and would nevertheless permit the fingers of the hands to enter the beer-cases and wrap around the inside of the upper edge of hand-holes, so that the operator could conveniently and securely grasp the upper border of these holes when lifting and handling the loaded cases. Kerkow stated in his specification that he was aware that the light had been excluded from reaching the bottles through the hand-holes by fastening flat boards or plates upon the inside of the cases over the hand-holes, but that this method of exclusion was impracticable and almost useless, because it allowed only the tips of the fingers to be inserted in the hand-holes to lift a weight of from 100 to 150 pounds. The cover he devised was a dishlike plate of concavo-convex form, having a marginal flange whereby the cover was attachable by any suitable means, such as by tacking or nailing it to the inside of the box in such a position as to provide a hollow cavity behind and above a hand-hole, so as to permit the fingers and knuckles of the hand to enter the hand-hole, and so as to permit the hand to obtain a secure grip as freely as if the cover were not attached. The specification of Kerkow also stated that his cover was desirably made of metal, preferably stamped from sheet metal, and that it may also be stamped or formed from paper-

mâché or other suitable material, that it was strong, durable, outlasting the cases, and easily attached and removed. His hand-hole cover went into such general commercial use that more than 6,200,000 of them were made and sold between April, 1907, and April, 1916.

It is contended that the combination claimed in Kerkow's patent was anticipated by Patent No. 882,470, issued March 17, 1908, to Jetter and Drews, for an improvement in beer-curtains; by Patent No. 156,582, to Burton Mallory, issued November 3, 1874, for an improvement in mortise-locks; by Patent No. 254,899, issued to Benjamin S. Atwood on March 14, 1882, for improvements in shipping-cases for jars and bottles; and by Patent No. 710,789, issued to Augustus F. Mack on October 7, 1902, for an improvement in boxes.

(1) At the time the patent to Jetter and Drews was offered in evidence, the fact that Kerkow made his invention prior to June, 1907, had been proved, and the parties to this suit had stipulated that his application for his patent was filed on July 26, 1907. In their answer the defendants had pleaded that this patent to Jetter and Drews had shown and described the invention of Kerkow long anterior to the time when he made it. The court sustained the objection to this patent, that it was incompetent, because it was not issued until March 17, 1908, more than a year after the date of Kerkow's invention, and more than seven months after his application for his patent, and this ruling is specified as error. The ruling was not erroneous, for this patent did not tend to prove that the device or combination of Kerkow had been patented or described in any printed publication before May, 1907, when he made his invention. (Rev. Stat., secs. 4886, 4920; Comp. St., 1916, secs. 9430, 9466; *Bates* v. *Coe*, 98 U. S., 31, 33, 34; 25 L. Ed., 68; *Du Bois* v. *Kirk*, 158 U. S., 58, 64; 15 Sup. Ct., 729; 39 L. Ed., 895; *Anderson* v. *Collins*, 122 Fed., 451, 457, 458; 58 C. C. A., 669, 675, 676.)

(2, 3) The patent to Mallory was issued to secure the device of an opening through the face-plate of a mortise-lock in a sliding door into a chamber within the lock by means of which one could insert his finger through the face-plate and slide the door. But the art of constructing finger-holes and chambers in mortise-locks in sliding doors, in order to enable the operator to slide them, is so remote from that of making hand-holes for beer-boxes and shipping-cases and covers for them, the circumstances under and the purposes for which the former are useful, the essential requirements of structures for those purposes and the functions they are to perform, are so radically different from the circumstances, the objects, the essential requirements, and the functions which condition the latter that the efficiency and practicability of finger-holes and chambers in mortise-locks in sliding doors would not be likely to suggest to the mind of a skilled mechanic their use or their efficiency as hand-holes in beer-boxes to enable workmen to lift and handle weights of from 100 to 150 pounds, and the combination of covers for such holes to exclude the light from the beer. A mechanical device or combination, which was not designed by its maker, nor actually used, nor apparently adapted to perform the function of a patented device or combination, but which was discovered in a remote art, where it was conceived and used under radically-different circumstances to perform another function, neither anticipates nor limits the scope of the patent. (*Ansonia Brass & Copper Co.* v. *Electrical Supply Co.*, 144 U. S., 11, 18; 12 Sup. Ct., 601; 36 L. Ed., 327; *Topliff* v. *Topliff*, 145 U. S., 156, 161; 12 Sup. Ct., 825; 36 L. Ed., 658; *Potts* v. *Creager*, 155 U. S., 597, 608; 15 Sup. Ct., 194; 39 L. Ed., 275; *National Hollow Brake-Beam Co.* v. *Interchangeable Brake-Beam Co.*, 106 Fed., 693, 702; 45 C. C. A., 544, 553.) The patent to Mallory falls far within this rule, and it is here dismissed.

(4) Atwood stated, in the specification to his patent issued in 1882 for "improvements in shipping-cases for jars and bottles," that the objects of his invention were (1) better to adapt the boxes for retaining the strips or bars constituting the racks for the bottles and to permit the strips to be easily removed; and (2) to strengthen the ends of the boxes and render them air-tight by locating covering-pieces on the inside of the customary hand-holes or openings. Laying aside the method of construction of the sides of his boxes, which his specification describes in detail, each end was required to be made of an outside board, which covered the entire end of the box, except the hand-hole through it. This exterior board was so cut that the lower half of it was thicker than the upper half, so that it had on its inside a projected portion or shelf about half-way from the bottom to the top of the box, in which vertical grooves were cut to receive the ends of longitudinal strips that formed a part of the rack for the bottles, and on which an interior board which covered the upper half of the exterior board rested. In this interior board a cavity was cut out opposite the hand-hole in the exterior board, extending also above the upper edge of the hand-hole, and an interior portion of the exterior board, just above the upper edge of the hand-hole, was also cut out, so as to permit the hand to grasp firmly the upper edge of the hand-hole. The interior board was placed flush with the inner surface of the exterior board and permanently fastened in its place by vertical pieces located at its sides, extending from the top to the bottom of the box and so cut as to have the grain of the wood run crosswise or contrary to the grain of the end boards, in order to give increased strength to the end of the box.

Patent No. 710,789 issued October 7, 1902, to Mack, for improvements in boxes, secures improvements to the special form of box described in the specification of that patent in this way:

> The fundamental structure of the box is the rectangular frame F made of angle iron or other metallic bars or rods substantially rectangular in cross-section, the concave surfaces facing inward, so as to constitute horizontal and vertical flanges for the reception, support, and protection of the edges of the bottom, side, and end pieces of the box. The frame F is made of a single bar of angle iron or other metal, cut and bent into the rectangular form shown, the ends of the bar being welded together, so as to create a continuous integral structure consisting of the floor members *f f*, the corner posts *f' f'*, and the end cross-bars *f² f²*.

One of the improvements of this box described and claimed by Atwood was—

> the combination with the frame F, and end pieces E, of the finger shields I having at their upper ends rectangular extensions engaging the end cross-bars of said frame.

In the specification he writes that these finger-shields are of—

> ordinary construction, excepting that their upper ends are each formed with rectangular extensions *i'*, which fit into the angle iron *f²*, forming the end cross-bars of the box frame, as will be understood by reference to Fig. 6, in which it will be seen that the upper edge of the end pieces E may be fitted into the angle extension *i'* to hold the same firmly in place against and within the angle bar *f²*. This construction insures a permanent and rigid connection of the shields with the box and over the finger openings *i² i²*.

The drawings of this patent show that these finger-shields are so low, and are fastened so near to the upper edges of the hand-holes, that the fingers and hands could not be so inserted as to get a firm grasp of the upper edges of the hand-holes, and so that the finger-tips alone could be used for this purpose.

The principle and mode of operation of Kerkow's invention of hand-hole cover and box was the combination of a light, cheap, easily attachable and removable, efficient cover with any box which has hand-holes, whether the box be new or old, with a special view to the combination of this cover with the standard beer-boxes. The principles and modes of operation of the inventions of Atwood and Mack, so far as they related to hand-hole covers, were permanently to combine with the specific kinds of boxes they were respectively describing and promoting at the time when those boxes were made specific covers as integral parts of those boxes respectively. Their covers were neither easily attachable nor detachable, they were not as simple or as inexpensive as those of Kerkow, and they were not adapted to accomplish the broad purpose of his combination. They were not adapted to facile attachment to old boxes not specially prepared to receive them as a part of their construction when new. In view of these facts, neither the patent to Atwood nor that to Mack anticipates the invention of Kerkow. While it is not denied that the combinations of boxes and hand-hole covers disclosed by Atwood and Mack might exclude the light, cold, and damp from the interior of their boxes, and might permit the use of the hand-holes to move them, neither of their combinations could have accomplished those results in the simple, cheap, and effective way that Kerkow discovered and offered by his combination to the public, and this fact is ample to sustain, as against the patents of Mack and Atwood, Kerkow's claim to the title of inventor. (*New York Scaffolding Co.* v. *Whitney*, 224 Fed., 452, 458; 140 C. C. A., 138, 144; *National Cash Register Co.* v. *American Cash Register Co.*, 53 Fed., 367, 371; 3 C. C. A., 559, 563; *Pelton Water Wheel Co.* v. *Doble*, 190 Fed., 760, 766; 111 C. C. A., 488, 494; *International Mausoleum Co.* v. *Sievert*, 213 Fed., 225, 229; 129 C. C. A., 569; *Ottumwa Box Car Loader Co.* v. *Christy Box Car Loader Co.*, 215 Fed., 362; 131 C. C. A., 504; *Sanders* v. *Hancock*, 128 Fed., 424, 434; 63 C. C. A., 166, 176; *Dayton Malleable Iron Co.* v. *Forster Waterbury Co.*, C. C., 153 Fed., 201, 204; *W. W. Sly Mfg. Co.* v. *Russell & Co.*, 189 Fed., 61, 66; 110 C. C. A., 625, 630; *Burdett-Rowntree Mfg. Co.* v. *Standard Plunger Elevator Co.*, C. C., 196 Fed., 43, 46.)

For this reason, and because no device or combination prior to Kerkow's invention which resembles his patent of the combination more closely than those of Atwood and Mack, has been proved, because this result is sustained by the legal presumption of the validity of his patent and of the patentability of his invention, which always arises from the issue of a patent, and which may never be lightly disregarded (*Cantrell* v. *Wallick*, 117 U. S., 689, 695; 6 Sup. Ct., 970; 29 L. Ed., 1017; *Diamond Rubber Co.* v. *Consolidated Rubber Tire Co.*, 220 U. S., 428, 434; 31 Sup. Ct., 444; 55 L. Ed., 527), because this presumption is reinforced by the fact that the Board of Examiners-in-Chief of the Patent Office, on an appeal from the rejection of Kerkow's application, after a deliberate consideration of the patents to Atwood and Mack, reversed the decision of the Examiner below, held the combination here in suit patentable, and caused the issue of the patent (*Lehnbeuter* v. *Holthaus*, 105 U. S., 94; 26 L. Ed., 939; *Warren* v. *Casey*, 93 Fed., 963, 964; 36 C. C. A., 29; *Salt's Textile Mfg. Co.* v. *Tingue Mfg. Co.*, D. C., 227 Fed., 115, 118), because this presumption is still further strengthened by the decision of the United States district court to the same effect, because the defendants in this case by the manufacture and sale of a hand-hole cover which closely resembles that of Kerkow, and bears no resemblance to the crude and expensive covers of Atwood, Mack, and the prior art, have added the testimony of their acts to the novelty and utility of Kerkow's combination (*Griswold* v. *Harker*, 62 Fed., 389, 393; 10 C. C. A., 435, 439; *New York Scaffolding Co.* v. *Whitney*, 224 Fed., 452, 457; 140 C. C. A., 138, 143; *Iowa Washing Machine Co.* v. *Montgomery Ward & Co.*, D. C., 227 Fed., 1004, 1006), because the parties hereto are litigating the right to the use of Kerkow's combination, and because the hand-hole cover of Kerkow has gone into such general commercial use and more than 6,200,000 of them have been made and sold (*Diamond Rubber Co.* v. *Consolidated Rubber Tire Co.*, 220 U. S., 428, 441, 442; 31 Sup. Ct., 444; 55 L. Ed., 527; *National Hollow Brake-Beam Co.* v. *Interchangeable Brake-Beam Co.*, 106 Fed., 693, 707; 45 C. C. A., 544, 558; *Smith* v. *Goodyear Dental Vulcanite Co.*, 93 U. S., 486, 495, 496; 23 L. Ed., 952; *Magowan* v. *New York Belting Co.*, 141 U. S., 332, 343; 12 Sup. Ct., 71; 35 L. Ed., 781; *Meccano* v. *Wagner*, D. C., 234 Fed., 912, 924), the conclusion of this court is that the combination of Kerkow was novel and useful, that it was the product of the genius of an inventor, and not of the skill of a mechanic, and that his patent is valid.

The question of infringement which this case presents is not worthy of extended discussion. The defendants made, sold, and caused to be sold hand-hole plates or covers for use in beer-cases with the intent and purpose that they should be used as applied to beer-boxes or beer-cases in the same manner in which the covers of Kerkow are described and claimed as used in his combination of covers and shipping-cases in the specification and claim of his patent. The only difference not absolutely negligible between the hand-hole cover of Kerkow and that made and sold by the defendants is that the concavo-convex or dish-shaped part of Kerkow's cover is substantially rectangular, while the like part of the defendants' cover has its two upper corners so rounded off that the upper portion of its dish-shaped part is curved or semicircular rather than rectangular. But the flanges of the defendants' cover, like those of Kerkow's, are rectangular. The cover made by the defendants is placed in the same location as that of Kerkow on the boxes, is made of the same material, is, like the cover of Kerkow, light, inexpensive, simple, easily attachable and detachable to old and new boxes alike, excludes the light, cold, and damp, has every useful attribute and advantage of the cover of Kerkow, and performs the same functions as that cover in the same way. The change in the upper portion of the dish-shaped part of the cover of Kerkow from its rectangular form to the curved form of the defendants' cover does not affect in any way the principle or mode of operation of the cover, or of the patented combination, and it does not even tend to avoid the indubitable infringement which the facts recited establish.

(5) Mere changes in the form of a device, or of some of the mechanical elements of a combination, where the principle or mode of operation is adopted or used, will not avoid infringement, unless the form of the machine, or of the element or elements changed, is the distinguishing characteristic of the invention. (*Columbus Watch Co.* v. *Robbins*, 64 Fed., 384, 396; 12 C. C. A., 174; *New Departure Bell Co.* v. *Bevin Bros. Mfg. Co.*, C. C., 64 Fed., 859; *National Hollow B. B. Co.* v. *Interchangeable B. B. Co.*, 106 Fed., 698, 711; 45 C. C. A., 544, 562; *Machine Co.* v. *Murphy*, 97 U. S., 120, 125; 24 L. Ed., 935; *Winans* v. *Denmead*, 15 How., 330, 342; 14 L. Ed., 717; *Kinlock Tel. Co.* v. *Western Elec. Co.*, 113 Fed., 652, 655; 51 C. C. A., 362, 365; *Dowagiac Mfg. Co.* v. *Superior Drill Co.*, 115 Fed., 896, 904; 53 C. C. A., 36, 54; *Anderson* v. *Collins*, 122 Fed., 451, 455; 58 C. C. A., 669, 673; *Tompkins* v. *Terwilliger*, C. C., 124 Fed., 545, 548; *Zittlosen Mfg. Co.* v. *Boss*, 219 Fed., 887, 892; 135 C. C. A., 551, 556.)

The decree below must be affirmed; and it is so ordered.

ADJUDICATED PATENTS.

(U. S. D. C.) The Quist and Blanch reissue patent, No. 13,508, for a vacuum-sweeper, *Held* not anticipated, valid, and infringed. *Domestic Vacuum Cleaner Co.* v. *Bissell Carpet Sweeper Co.*, 242 Fed. Rep., 943.

(U. S. D. C.) The Hanson design patent, No. 50,307, for a design for a textile fabric having stripes defined by irregular and wavy dividing-lines, *Held* void for lack of invention. *Mallinson* v. *Ryan*, 242 Fed. Rep., 951.

(U. S. C. C. A.) The Johnson patent, No. 633,285, for a concrete and metal floor construction, *Held* void for lack of patentable novelty and invention. *Corrugated Bar Co.* v. *Trussed Concrete Steel Co.*, 242 Fed. Rep., 933.

(U. S. C. C. A.) The Elliott patent, No. 868,977, for a strip-serving apparatus, *Held* void for lack of invention. *National Binding Mach. Co.* v. *Harper Paper Co.*, 242 Fed. Rep., 939.

(U. S. D. C.) The Sturgeon patent, No. 996,810, for a pneumatic carpet-cleaner, *Held* void for lack of invention in view of the prior art. *M. S. Wright Co.* v. *Bissell Carpet Sweeper Co.*, 242 Fed. Rep., 950.

(U. S. D. C.) The Baender patent, No. 1,138,437, for a carpet-sweeping appliance, *Held* void for lack of invention in view of the prior art. *National Sweeper Co.* v. *Bissell Carpet Sweeper Co.*, 242 Fed. Rep., 947.

Changes in Classification.

(ORDER No. 2,347.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., September 24, 1917.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In class 175, Electricity—General Applications, (Division XXXVII,) establish subclass—

Testing—
368. Frequency.

The patents contained in this subclass have been taken from classes 172, Electricity—Motive Power, subclass 245, Transmission of power, Phase indication; 175, Electricity—General Applications, subclass 183, Testing, and 264, Speed-Responsive Devices, subclass 1, Miscellaneous.

In class 264, Speed-Responsive Devices, (Division XVIII,) establish the following subclass and definition:

21. Intermittent impulse.

21. INTERMITTENT IMPULSE. Speed-responsive devices in which a movable element under a bias toward a given position is impelled away therefrom by successive impulses, the rapidity of which varies with the speed of another element.

Search Class—
175—ELECTRICITY—GENERAL APPLICATIONS, subclass 368, Testing, Frequency, for analogous devices for detecting the frequency of electric or electromagnetic impulses, which vary with speed.

The patents contained in this subclass have been taken from class 264, Speed-Responsive Devices, subclass 1, Miscellaneous.

J. T. NEWTON,
Commissioner.

THE
OFFICIAL GAZETTE
OF THE
United States Patent Office.

Vol. 243—No. 2. TUESDAY, OCTOBER 9, 1917. Price—$5 per year.

The OFFICIAL GAZETTE is mailed under the direction of the Superintendent of Documents, Government Printing Office, to whom all subscriptions should be made payable and all communications respecting the Gazette should be addressed. Issued weekly. Subscriptions, $5.00 per annum; single numbers, 10 cents each.

Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

CONTENTS.

	Page.
ISSUE OF OCTOBER 9, 1917	245
ADVERSE DECISIONS IN INTERFERENCE	245
INTERFERENCE NOTICES	245
APPLICATIONS UNDER EXAMINATION	246
PATENTS GRANTED	247
REISSUES	496
DESIGNS	497
TRADE-MARKS—REGISTRATION APPLIED FOR	505
TRADE-MARK REGISTRATIONS GRANTED	519
LABELS AND PRINTS	523
COMMISSIONER'S DECISIONS—	
Ex parte Jepson	525
ADJUDICATED PATENTS	528

Issue of October 9, 1917.

Patents	786	No. 1,242,117 to No. 1,242,902,	inclusive.
Designs	35	No. 51,326 to No. 51,360,	inclusive.
Trade-Marks	96	No. 118,842 to No. 118,937,	inclusive.
Labels	8	No. 20,312 to No. 20,319,	inclusive.
Prints	1	No. 4,804.	
Reissues	2	No. 14,374 to No. 14,375,	inclusive.
Total	928		

"Shall we be more tender with our dollars than with the lives of our sons?"—W. G. McAdoo, Secretary of the Treasury.

SAVE YOUR MONEY

to

BUY A U. S. GOVERNMENT BOND

of the

SECOND LIBERTY LOAN

of 1917

To Help Your Country and Yourself.

Adverse Decisions in Interference.

PATENT No. 1,126,104.

On September 6, 1917, a decision was rendered that George R. Shevill was not the first inventor of the subject-matter covered by claims 1, 2, 5, 9, and 11 of his Patent No. 1,126,104, subject, "Artificial feather," and no appeal having been taken within the time allowed such decision has become final.

PATENT No. 1,133,113.

On September 7, 1917, a decision was rendered that Francis W. Dunbar was not the first inventor of the subject matter covered by claim 66 of his Patent No. 1,133,113, subject, "Telephone system," and no appeal having been taken within the time allowed such decision has become final.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., September 20, 1917.

Robert C. Hupp, 2nd, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The C. L. Cotten Perfume & Extract Co., 306 East Main street, Earlville, N. Y., for registration of a trade-mark and trade-mark registered March 4, 1902, No. 37,891, to Robert C. Hupp, 2nd, of Detroit, Mich., and a notice of such declaration sent by registered mail to said Robert C. Hupp, 2nd, at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Robert C. Hupp, 2nd, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

F. W. H. CLAY,
Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., September 14, 1917.

Wilmot B. Nethery, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Fred Miller Brewing Co., Fortieth and State streets, Milwaukee, Wis., for registration of a trade-mark and trade-mark registered January 5, 1909, No. 72,160, to Wilmot B. Nethery, 506 Whitehall street, Atlanta, Ga., and a notice of such declaration sent by registered mail to said Wilmot B. Nethery at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Wilmot B. Nethery, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD,
First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., September 15, 1917.

Philip T. George, Jr., his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Pierce Oil Corporation, of 25 Broad street, New York, N. Y., for registration of a trade-mark and trade-mark registered March 14, 1899, No. 32,591, to Philip T. George, Jr., of Philadelphia, Pa., and a notice of such declaration sent by registered mail to said Philip T. George, Jr., at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Philip T. George, Jr., his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD,
First Assistant Commissioner.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business October 5, 1917.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended.	
314	1. Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Railway Gates; Planting; Scattering Unloaders; Trees, Plants, and Flowers.	July 23	Aug. 10	365
126	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	May 22	July 14	349
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Founding; Metallurgical Apparatus; Metallurgy; Plastic Metal Working.	Sept. 11	Aug. 13	105
234	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Pushing and Pulling Implements; Railway Mail Delivery; Store-Service; Traversing Hoists.	Aug. 21	Sept. 12	159
167	5. Bookbinding; Harvesters; Jewelry; Music	July 9	Aug. 12	295
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Substance Preparation.	Apr. 16	June 18	485
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes	May 2	June 25	693
133	8. Beds; Chairs; Flexible-Sheet Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	May 26	Aug. 22	672
221	9. Air and Gas Pumps; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Marine Propulsion.	Apr. 9	Aug. 29	526
235	10. Carriages and Wagons; Motor Vehicles	May 7	Aug. 7	844
144	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Spring Devices; Whips and Whip Apparatus.	June 21	Sept. 4	228
322	12. Journal-Boxes, Pulleys, and Shafting; Machine Elements	May 29	July 5	667
320	13. Ammunition and Explosive Charge, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	June 14	Aug. 11	617
223	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	June 28	July 20	266
306	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Aug. 17	Sept. 7	290
112	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony	Apr. 25	Aug. 15	462
307	17. Ornamentation; Paper Manufactures; Printing; Type Casting; Sheet Material Associating or Folding; Sheet Feeding or Delivering; Type Setting.	July 13	Aug. 11	136
229	18. Fluid-Pressure Regulators; Injectors and Ejectors; Liquid Heaters and Vaporizers; Lubrication; Miscellaneous Heat-Engine Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	July 7	Aug. 23	248
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels	May 7	July 23	474
179	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Sept. 7	Aug. 22	243
212	21. Brakes and Gins; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Apr. 11	June 13	341
249	22. Aeronautics; Firearms; Ordnance	May 26	July 7	297
219	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	June 8	Aug. 16	.....
144	24. Apparel; Apparel Apparatus; Sewing-Machines; Garment Supporters	Aug. 8	Aug. 16	.....
315	25. Agitating; Butchering; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separation.	Aug. 8	Aug. 13	.....
105	26. Electricity, Generation; Motive Power	Feb. 28	Mar. 31	611
214	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus	July 14	Aug. 20	346
226	28. Internal-Combustion Engines	July 5	Aug. 7	552
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking Tools.	June 2	Sept. 5	343
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines	July 2	Sept. 8	368
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Sugar and Salt.	Aug. 1	Aug. 29	192
278	32. Dispensing Beverages; Dispensing; Gas and Liquid Contact Apparatus; Heat Exchange; Packaging Liquids; Refrigeration.	Mar. 12	Aug. 10	981
70	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	July 27	Aug. 15	233
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling Stock; Railway Ties and Fasteners.	June 28	Sept. 1	200
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Signals; Toilet	May 9	Aug. 1	612
204	36. Driers; Geometrical Instruments; Measuring Instruments; Photography; Force Measuring	July 3	Aug. 14	630
107	37. Electric Lamps; Electricity, Circuit Makers and Breakers; Electricity, Conduits; Electricity, General Applications.	May 11	July 12	640
278	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells	Sept. 17	Aug. 21	157
220	39. Water Distribution; Multiple Valves	Apr. 20	July 20	452
275	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	July 5	Sept. 11	396
126	41. Railway Draft Appliances; Resilient Tires and Wheels	June 11	Aug. 13	391
114	42. Electricity, Conductors; Railway Signaling; Electricity-Transmission to Vehicles; Electric Signaling.	Apr. 16	July 16	666
302	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Aug. 6	Aug. 21	164
268	44. Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Ships	May 26	Aug. 21	463

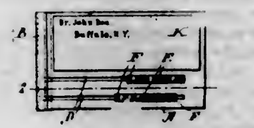
Oldest new case, Feb. 28; oldest amended, Mar. 31.
Total number of applications awaiting action 17,941

163	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	July 28	Aug. 28	1018
	Designs	Sept. 5	Sept. 19	134
	Labels and Prints	Sept. 26	Sept. 26	54

PATENTS

GRANTED OCTOBER 9, 1917.

1,242,117. NAME-PLATE FOR DUPLICATING-MACHINES. CHARLES E. ADAMSON, Buffalo, N. Y., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 8, 1914. Serial No. 865,708. (Cl. 101—370.)



1. A printing device comprising a body portion having type receiving slots opening from one end of said body portion inwardly to a point near the opposite end and a bent metal clamping member engaging the upper and lower sides of said body portion and extending about the end thereof, whereby the free end of said body portion between said slots are wholly inclosed.

2. A printing device comprising a flat body portion formed of sheet metal having parallel slots extending from a point near one end of said body portion to its other end, and a removable clamping member formed of a strip of metal bent upon itself to provide two spaced walls engaging respectively the opposite sides of said body portion and extending about the end thereof, whereby the free ends of said body portion between said slots are wholly inclosed.

3. A printing device comprising a body portion having type receiving slots extending through one end and a bent metal clamping member wholly inclosing and protecting the slotted end of said body portion and having a flared opening at its inner edge to permit the clamping member to be readily arranged in clamping relation to said body portion.

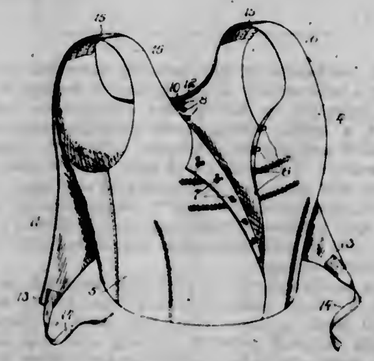
4. A printing device comprising a body portion having type receiving slots extending through one end, and a bent metal clamping member having spaced sides engaging the top and bottom, respectively, of said body portion and a closed edge, said member wholly inclosing the slotted end of said body portion and extending throughout the length of said end.

5. A printing member comprising a body portion having type receiving slots extending through one end, and a bent metal clamping member inclosing the slotted end of said body portion and having a wall projecting inwardly and engaging the respective sides thereof and a closed outer edge.

[Claims 6 to 12 not printed in the Gazette.]

1,242,118. BRASSIÈRE. GOLDIE L. ANDERMAN, Chicago, Ill., assignor to Kabo Corset Co., Chicago, Ill., a Corporation of West Virginia. Filed Dec. 19, 1916. Serial No. 137,744. (Cl. 2—98.)

1. A brassière comprising two sections, means arranged along adjoining edges of said sections at the front of the garment for detachably connecting the sections together, means at the back of the garment for permitting an adjustment between the sections to vary the size of the garment, a covering portion arranged to overlie and conceal said adjusting means, said covering portion extending across the back of the garment and secured to said garment at points adjacent the upper edges of the back of the garment and disconnected at all times at all other places from said garment, and fastening members secured to the lower ends of the covering portion, said fastening members being adapted to extend to the front of the wearer and be secured at that point, and when so secured placing a strain downwardly and forwardly on the covering member whereby said member will tend to smooth out bulging flesh at the back of the wearer- substantially as described.



2. A brassière comprising two sections, each formed with a shoulder strap, means arranged along adjoining edges of said sections at the front of the garment for detachably connecting them together, means at the back of the garment for permitting an adjustment between the sections to vary the size of the garment, a covering portion arranged to extend across the back of the garment and to overlie and conceal said adjusting means, said covering portion being attached to the shoulder straps of said garment, means for securing said covering portion in place, and said portion when secured acting to smooth out bulging flesh at the back of the wearer and acting to place a strain upon the shoulder straps to prevent slippage thereof, substantially as described.

1,242,119. INTERMITTENT-GRIP DEVICE. NILS H. ANDERSON, East Hampton, Conn., assignor to The Noiseless Typewriter Company, Middletown, Conn., a Corporation of Connecticut. Original application filed Apr. 27, 1910, Serial No. 557,925. Divided and this application filed Apr. 28, 1915. Serial No. 23,317. (Cl. 185—87.)

1. In mechanism of the character described, in combination, a bearing member, a driving shaft supported thereby, a spring driving drum coaxially supported on said shaft, a spring pressed pawl pivoted on said drum and adapted to frictionally clutch said shaft upon rotation of said driving drum in one direction, and a spring pressed pawl pivoted on said member and adapted to frictionally clutch said shaft upon rotation of said driving drum in the other direction.

2. In mechanism of the character described, in combination, a substantially U-shaped bearing member, a driving shaft supported by said member adjacent its open end, a spring driving drum coaxially supported on said shaft and partially disposed within the opening of said member, means carried by said drum to frictionally clutch said shaft on rotation of said drum in one direction, and

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business October 5, 1917.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended.	No. of applications awaiting action.
314	1. Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Railway Gates; Planting; Scattering Unloaders; Trees, Plants, and Flowers.	July 23	Aug. 10	365
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	May 22	July 14	349
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Founding; Metallurgical Apparatus; Metallurgy; Plastic Metal Working.	Sept. 11	Aug. 13	105
234	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Pushing and Pulling Implements; Railway Mail Delivery; Store-Service; Traversing Hoists.	Aug. 21	Sept. 12	159
167	5. Bookbinding; Harvesters; Jewelry; Music	July 9	Aug. 12	296
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Substance Preparation.	Apr. 16	June 18	485
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes	May 2	June 25	693
133	8. Beds; Chairs; Flexible-Sheet Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	May 26	Aug. 22	672
221	9. Air and Gas Pumps; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Marine Propulsion.	Apr. 9	Aug. 29	526
235	10. Carriages and Wagons; Motor Vehicles	May 7	Aug. 7	344
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Spring Devices; Whips and Whip Apparatus.	June 21	Sept. 4	228
322	12. Journal-Boxes, Pulleys, and Shafting; Machine Elements	May 29	July 5	667
329	13. Ammunition and Explosive Charge, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	June 14	Aug. 11	617
323	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	June 28	July 20	266
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Aug. 17	Sept. 7	290
112	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony	Apr. 25	Aug. 15	462
307	17. Ornamentation; Paper Manufactures; Printing; Type Casting; Sheet Material Associating or Folding; Sheet Feeding or Delivering; Type Setting.	July 13	Aug. 11	136
229	18. Fluid-Pressure Regulators; Injectors and Ejectors; Liquid Heaters and Vaporizers; Lubrication; Miscellaneous Heat-Engine Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	July 7	Aug. 23	248
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels	May 7	July 23	474
179	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Sept. 7	Aug. 22	243
212	21. Brakes and Gins; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Apr. 11	June 13	341
249	22. Aeronautics; Firearms; Ordnance	May 26	July 7	297
219	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	June 8	Aug. 16	.....
144	24. Apparel; Apparel Apparatus; Sewing-Machines; Garment Supporters	Aug. 8	Aug. 16	.....
315	25. Agitating; Butchering; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separation.	Aug. 3	Aug. 13	.....
105	26. Electricity, Generation; Motive Power	Feb. 23	Mar. 31	511
214	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus	July 14	Aug. 20	346
225	28. Internal-Combustion Engines	July 5	Aug. 7	552
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking Tools.	June 2	Sept. 5	343
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines	July 2	Sept. 8	368
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Sugar and Salt.	Aug. 1	Aug. 29	192
278	32. Dispensing Beverages; Dispensing; Gas and Liquid Contact Apparatus; Heat Exchange; Packaging Liquids; Refrigeration.	Mar. 12	Aug. 10	981
70	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	July 27	Aug. 15	233
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling Stock; Railway Ties and Fasteners.	June 23	Sept. 1	200
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Signals; Toilet	May 9	Aug. 1	612
204	36. Driers; Geometrical Instruments; Measuring Instruments; Photography; Force Measuring	July 3	Aug. 14	630
107	37. Electric Lamps; Electricity, Circuit Makers and Breakers; Electricity, Conduits; Electricity, General Applications.	May 11	July 12	640
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells	Sept. 17	Aug. 31	157
220	39. Water Distribution; Multiple Valves	Apr. 20	July 20	452
275	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	July 5	Sept. 11	396
125	41. Railway Draft Appliances; Resilient Tires and Wheels	June 11	Aug. 13	391
114	42. Electricity, Conductors; Railway Signaling; Electricity-Transmission to Vehicles; Electric Signaling.	Apr. 16	July 16	666
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Aug. 6	Aug. 21	164
253	44. Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Ships	May 25	Aug. 21	463

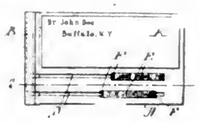
Oldest new case, Feb. 23; oldest amended, Mar. 31.
Total number of applications awaiting action 17,941

163	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	July 28	Aug. 28	1016
	Designs	Sept. 5	Sept. 19	15
	Labels and Prints	Sept. 25	Sept. 26	54

PATENTS

GRANTED OCTOBER 9, 1917.

1,242,117. NAME-PLATE FOR DUPLICATING-MACHINES. CHARLES E. ADAMSON, Buffalo, N. Y., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 8, 1914. Serial No. 865,708. (Cl. 101—370.)



1. A printing device comprising a body portion having type receiving slots opening from one end of said body portion inwardly to a point near the opposite end and a bent metal clamping member engaging the upper and lower sides of said body portion and extending about the end thereof, whereby the free end of said body portion between said slots are wholly inclosed.

2. A printing device comprising a flat body portion formed of sheet metal having parallel slots extending from a point near one end of said body portion to its other end, and a removable clamping member formed of a strip of metal bent upon itself to provide two spaced walls engaging respectively the opposite sides of said body portion and extending about the end thereof, whereby the free ends of said body portion between said slots are wholly inclosed.

3. A printing device comprising a body portion having type receiving slots extending through one end and a bent metal clamping member wholly inclosing and protecting the slotted end of said body portion and having a flared opening at its inner edge to permit the clamping member to be readily arranged in clamping relation to said body portion.

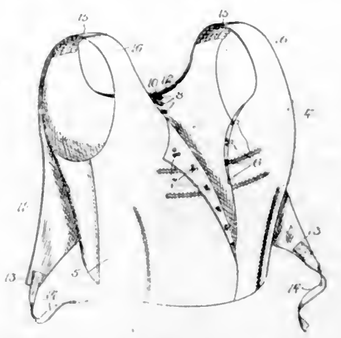
4. A printing device comprising a body portion having type receiving slots extending through one end, and a bent metal clamping member having spaced sides engaging the top and bottom, respectively, of said body portion and a closed edge, said member wholly inclosing the slotted end of said body portion and extending throughout the length of said end.

5. A printing member comprising a body portion having type receiving slots extending through one end, and a bent metal clamping member inclosing the slotted end of said body portion and having a wall projecting inwardly and engaging the respective sides thereof and a closed outer edge.

[Claims 6 to 12 not printed in the Gazette.]

1,242,118. BRASSIÈRE. GOLDIE L. ANDERMAN, Chicago, Ill., assignor to Kabo Corset Co., Chicago, Ill., a Corporation of West Virginia. Filed Dec. 19, 1916. Serial No. 137,744. (Cl. 2—98.)

1. A brassière comprising two sections, means arranged along adjoining edges of said sections at the front of the garment for detachably connecting the sections together, means at the back of the garment for permitting an adjustment between the sections to vary the size of the garment, a covering portion arranged to overlie and conceal said adjusting means, said covering portion extending across the back of the garment and secured to said garment at points adjacent the upper edges of the back of the garment and disconnected at all times at all other places from said garment, and fastening members secured to the lower ends of the covering portion, said fastening members being adapted to extend to the front of the wearer and be secured at that point, and when so secured placing a strain downwardly and forwardly on the covering member whereby said member will tend to smooth out bulging flesh at the back of the wearer- substantially as described.



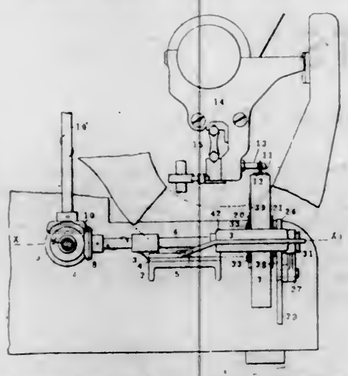
2. A brassière comprising two sections, each formed with a shoulder strap, means arranged along adjoining edges of said sections at the front of the garment for detachably connecting them together, means at the back of the garment for permitting an adjustment between the sections to vary the size of the garment, a covering portion arranged to extend across the back of the garment and to overlie and conceal said adjusting means, said covering portion being attached to the shoulder straps of said garment, means for securing said covering portion in place, and said portion when secured acting to smooth out bulging flesh at the back of the wearer and acting to place a strain upon the shoulder straps to prevent slippage thereof, substantially as described.

1,242,119. INTERMITTENT-GRIP DEVICE. NILS H. ANDERSON, East Hampton, Conn., assignor to The Noiseless Typewriter Company, Middletown, Conn., a Corporation of Connecticut. Original application filed Apr. 27, 1910, Serial No. 557,925. Divided and this application filed Apr. 23, 1915. Serial No. 23,317. (Cl. 185—37.)

1. In mechanism of the character described, in combination, a bearing member, a driving shaft supported thereby, a spring driving drum coaxially supported on said shaft, a spring pressed pawl pivoted on said drum and adapted to frictionally clutch said shaft upon rotation of said driving drum in one direction, and a spring pressed pawl pivoted on said member and adapted to frictionally clutch said shaft upon rotation of said driving drum in the other direction.

2. In mechanism of the character described, in combination, a substantially U-shaped bearing member, a driving shaft supported by said member adjacent its open end, a spring driving drum coaxially supported on said shaft and partially disposed within the opening of said member, means carried by said drum to frictionally clutch said shaft on rotation of said drum in one direction, and

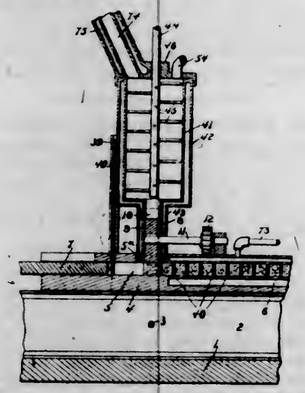
means carried by said member to frictionally clutch said shaft on rotation of said drum in the other direction.



3. In mechanism of the character described, in combination, a substantially U-shaped bearing member, a driven shaft supported by said member adjacent the open end thereof, a spring driving drum coaxially supported on said shaft and partially disposed within the opening of said member, a spacing sleeve fixed on said shaft intermediate said drum and one bearing of said shaft on said member, and clutching means to insure rotation of said shaft upon rotation of said drum in one direction and to permit rest of said shaft upon rotation of said drum in the other direction.

4. In mechanism of the character described, in combination, a driven shaft, a driving drum loosely mounted on said shaft, a sleeve about said shaft, a plurality of pivotally mounted members coacting with said sleeve to form a silent clutch for driving the shaft when the drum rotates in one direction, and spring means normally tending to force said clutch members into operative relation with said sleeve.

1,242,120. BRICKMAKING APPARATUS. MARCUS PRYTON ANDREWS, Petersburg, Va., assignor to Andrews Caoutchouc Paving Brick Company, Incorporated, a Corporation of Virginia. Filed Sept. 10, 1915. Serial No. 49,923. (Cl. 25—12.)



1. In an apparatus of the class described, a molding and forming mechanism for receiving the composition and shaping it into blocks, said mechanism comprising a tunnel, a pre-former and feeder for delivering embryo blocks to the tunnel, separating element supplying mechanism for the blocks in the tunnel, a plunger device for pressing the blocks and forcing the same through the aforesaid parts.

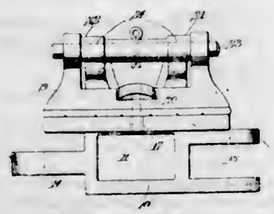
2. In an apparatus of the class described, a molding and forming mechanism for receiving the composition and shaping it into blocks, said mechanism comprising a tunnel, a pre-former and feeder for delivering embryo blocks to the tunnel, separating element supplying mechanism for the blocks in the tunnel, a plunger device for pressing the blocks and forcing the same through the aforesaid parts, said operating means including a driving shaft for the pre-former, a driving shaft for the plunger device, and a mechanical movement connecting said shafts whereby rotation of the plunger device operating shaft will impart intermittent rotation to the pre-former shaft.

3. In an apparatus of the class described, a molding and forming mechanism for receiving the composition and shaping it into blocks, said mechanism comprising a tunnel, a pre-former and feeder for delivering embryo blocks to the tunnel, means for supplying separating elements for the blocks in the tunnel, a plunger device for pressing the blocks and forcing the same through the aforesaid parts, said operating means including a driving shaft for the pre-former, a driving shaft for the plunger device, and an intermittently operated pawl and ratchet device operatively connecting the respective shafts whereby movement of the plunger device will be transmitted to the pre-former shaft.

4. In an apparatus of the class described, a molding and forming mechanism for receiving the composition and shaping it into blocks, said mechanism comprising a tunnel, a pre-former and feeder for delivering embryo blocks to the tunnel, means for delivering separating elements for the blocks in the tunnel, a plunger device for pressing the blocks and forcing the same through the aforesaid parts, said operating means including a driving shaft for the preformer, a driving shaft for the plunger device, and a pawl and ratchet cam actuated device operatively connecting said shafts whereby continuous rotation of the plunger device shaft will impart intermittent rotation to the pre-former shaft.

5. In an apparatus of the class described, a molding and forming mechanism for receiving the composition and shaping it into blocks, said mechanism comprising a tunnel, a pre-former and feeder for delivering embryo blocks to the tunnel, means for delivering separating elements for the blocks in the tunnel, a plunger device for pressing the blocks and forcing the same through the aforesaid parts, said operating means including a driving shaft for the pre-former, a driving shaft for the plunger device, a pawl and ratchet cam actuated device operatively connecting said shafts whereby continuous rotation of the plunger device shaft will impart intermittent rotation to the pre-former shaft, said pawl and ratchet cam actuated device comprising a ratchet wheel, a rocking pawl having provision for engaging said ratchet wheel and a cam driven by said plunger device shaft for engaging said pawl to rock the same at intervals and thereby impart intermittent motion to said pre-former shaft.

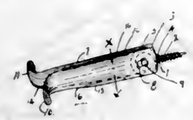
1,242,121. TENTER-CHAIN. WENDELL P. ANTHONY, Ridley Park, Pa., assignor to William Simpson & Sons, Philadelphia, Pa., a Firm composed of William P. Simpson. Filed July 13, 1915. Serial No. 39,641. (Cl. 66—8.)



A complete die-cast tenter chain link consisting of one piece only of non-rusting material and having a cloth-

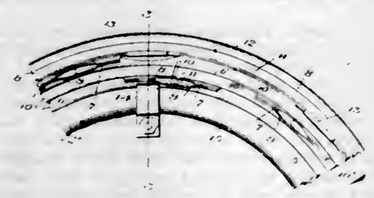
gripping surface and spaced upwardly projecting arms extending over said surface and provided with alined openings for a gripper pivot.

1,242,122. SPRING-FORKED HOLDER. FREDERICK H. APEL, Athol Springs, N. Y., assignor of one-half to Charles W. Munschauer, Buffalo, N. Y. Filed May 13, 1913. Serial No. 767,474. (Cl. 24—259.)



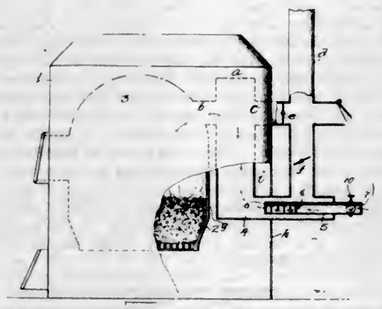
The combination in a supporting means, adapted for screw-threaded attachment to a penetrable surface, of a threaded member and a U-shaped clamping member, said U-shaped clamping member having two closely positioned long practically parallel elastic arms with opposing convexed surfaces, with out-turned ends, the said threaded member being attached at the bend of the U of said clamping member, adapting the same to be attached to or removed from said penetrable surface.

1,242,123. TIRE. JOHN ARN, Columbus, Ohio. Filed June 6, 1916. Serial No. 102,016. (Cl. 152—32.)



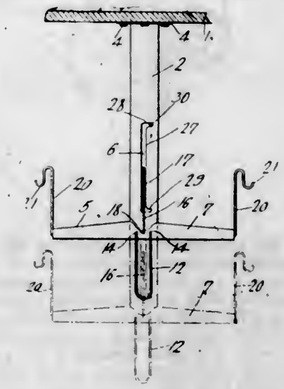
In a tire, the combination of a plurality of concentric spaced bands, pairs of connected springs arranged in circumferentially spaced relation between the bands, and resilient blocks arranged between the connected ends of the springs and the adjacent bands, the intermediate portions of said springs being bowed outwardly from each other and having securement with the adjacent bands.

1,242,124. MEANS FOR INTRODUCING AIR INTO FURNACES. EDWIN QUIN BANGS, Racine Wis. Filed July 30, 1915. Serial No. 42,788. (Cl. 110—58.)



In a furnace comprising an inner wall inclosing a combustion chamber, and an outer wall inclosing a space surrounding the combustion chamber, means for supplying air to the furnace, comprising a vertical inner box located in the space between the inner and the outer wall, a horizontal pipe connecting the inner box near its upper end with the combustion chamber, an outer vertical smoke pipe, a second horizontal pipe extending through the outer wall and connecting the inner box near its upper end with the smoke pipe, a third horizontal pipe extending through the outer wall and connecting the lower end of the inner box with the lower end of the smoke pipe, a damper in the second horizontal pipe, a damper in the smoke pipe between the second and third horizontal pipes, and a pipe section projected through the outer end wall thereof into the third horizontal pipe and having openings in its ends to permit of the passage of the outer air.

1,242,125. HARNESS-HANGER. ALBERT M. BEAN, Colville, Wash. Filed Nov. 8, 1916. Serial No. 130,218. (Cl. 248—20.)



1. A harness hanger including a guide tube; means for securing the upper end of the guide tube to an overhead support; a stem mounted to slide in the guide tube; spring means located in the guide tube and assembled with the stem for raising the stem; interengaging elements on the stem and on the guide tube coacting to hold the stem in a lowered position against the action of the spring means; a transverse head attached to the lower end of the stem and of a length to extend between the hames and the breeching of a harness; hangers carried by the ends of the head; and a hanger on the intermediate portion of the head, the last specified hanger constituting means for supporting the belly band of a harness.

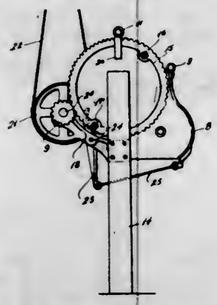
2. In a harness hanger, a guide tube; means for securing the upper end of the guide tube to a support; a rack including a stem and a transverse head, the stem being mounted to reciprocate in the guide tube; a projection on the stem, the guide tube being provided with a bayonet slot having a lateral extension wherewith the projection coacts; spring means for raising the rack; and interengaging, mutually inclined parts on the guide tube and on the rack, coacting to give rotary movement to the stem, when the rack is elevated by the spring, and to cause the projection to engage with the extension of the bayonet slot.

3. A harness hanger including a guide tube provided with a bayonet slot; means for securing the upper end of the guide tube to an overhead support; a stem mounted to slide in the guide tube; spring means located within the guide tube and assembled with the stem for raising the stem; a projection on the stem and coacting with the bayonet slot; a transverse head attached to the lower end of the stem; hangers on the ends of the head; and a hanger on the intermediate portion of the head, in alinement with the guide tube.

4. A harness hanger including a guide; means for connecting the upper end of the guide with a support; a head having a mortise; a stem mounted to slide in the guide and including a tenon received in the mortise; article

supporting means carried by the head; spring means for raising the stem in the guide; and a handle whereby the stem and the head may be pulled downwardly against the action of the spring means, the handle having an angular extension, and the head and the tenon being provided with coöperating seats in which the extension is received, whereby the extension will constitute a means for securing the head to the tenon.

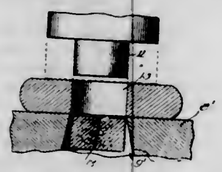
1,242,126. GIN ATTACHMENT FOR BOLLY COTTON. GEORGE T. BECKNELL, Nevada, Tex. Filed Feb. 9, 1916. Serial No. 77,252. (Cl. 13—9.)



2. In a gin attachment for controlling the passage of cotton through the cotton feed chute and for controlling the disposition of the cotton ginned, the combination with a shaft provided with suitable driving means, of a pinion fixed upon the shaft, a gear meshing with and adapted to be driven from the pinion, of a breast door pivoted in the gin stand at a point forward of the point of ginning, a valve pivoted in the cotton chute, roller pins carried upon the driven gear, a trip device correlated with the breast door, a trip device correlated with the chute valve, the arrangement of the trip devices and the roller pins being such that the trip devices are brought into operation when they are contacted by the roller pins.

[Claim 1 not printed in the Gazette.]

1,242,127. PROCESS OF MAKING BLANKS. FRANK B. BELL, Chicago Heights, Ill., assignor of one-half to Fred. C. Riddile, Chicago, Ill. Filed June 21, 1915. Serial No. 35,273. (Cl. 29—168.)

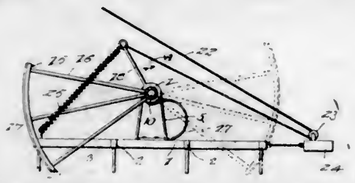


1. The process of constructing blanks for car wheels and car wheel tires and the like from an ingot portion having a central imperfection, which consists in flattening said ingot to concentrate said imperfection, and punching an aperture through said blank, said punching removing all imperfect metal.

[Claims 2 and 3 not printed in the Gazette.]

1,242,128. CLEANING ATTACHMENT FOR HARROWS. HAROLD W. BELL, Boyd, Oreg. Filed Nov. 10, 1916. Serial No. 130,576. (Cl. 55—34.)

1. In a cleaning attachment for harrows, the combination with an ordinary sectional harrow, of a plurality of brackets carried by said harrow, collars carried by said brackets, a shaft rotatably supported by said collars and brackets, hubs formed upon the ends of said shaft, segmental wheels mounted upon said hubs, a lever loosely connected to said shaft, a ratchet carried by the shaft, a pawl carried by said lever and adapted for engagement with said ratchet for rotating said shaft upon forward movement of said lever, for moving said wheel segments into a land engaging position, for raising said harrow off the ground, and a spring connected to said lever and said harrow for returning said lever to its normal position.



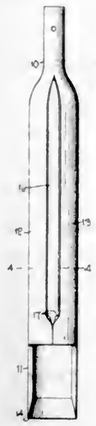
2. In a cleaning attachment for harrows, the combination with an ordinary sectional harrow, of a plurality of brackets carried by said harrow, collars carried by said brackets, a shaft rotatably supported by said collars and brackets, hubs formed upon the ends of said shaft, segmental wheels mounted upon said hubs, a lever loosely connected to said shaft, a ratchet carried by the shaft, a pawl carried by said lever and adapted for engagement with said ratchet for rotating said shaft upon forward movement of said lever, for moving said wheel segments into a land engaging position, for raising said harrow off the ground, and a spring connected to said lever and said harrow for returning said lever to its normal position.

3. In a cleaning attachment for harrows, the combination with an ordinary sectional harrow, of a plurality of brackets carried by said harrow, collars carried by said brackets, a shaft rotatably supported by said collars and brackets, hubs formed upon the ends of said shaft, segmental wheels mounted upon said hubs, a lever loosely connected to said shaft, a ratchet carried by the shaft, a pawl carried by said lever and adapted for engagement with said ratchet for rotating said shaft upon forward movement of said lever, for moving said wheel segments into a land engaging position, for raising said harrow off the ground, and a spring connected to said lever and said harrow for returning said lever to its normal position, a draft evener connected to said harrow, a pulley carried by said draft evener, a cable connected to said lever and passing about said pulley for operating the lever when the cable is pulled.

4. In a cleaning attachment for harrows, the combination with an ordinary sectional harrow, of a plurality of brackets carried by said harrow, collars carried by said brackets, a shaft rotatably supported by said collars and brackets, hubs formed upon the ends of said shaft, segmental wheels mounted upon said hubs, a lever loosely connected to said shaft, a ratchet carried by the shaft, a pawl carried by said lever and adapted for engagement with said ratchet for rotating said shaft upon forward movement of said lever, for moving said wheel segments into a land engaging position, for raising said harrow off the ground, and a spring connected to said lever and said harrow for returning said lever to its normal position, a draft evener connected to said harrow, a pulley carried by said draft evener, a cable connected to said lever and passing about said pulley for operating the lever when the cable is pulled, a bowed spring carried by one of said harrow sections and engaging the under surface of said shaft for supporting a portion of the weight of the shaft and permitting of a limited movement of the harrow section independent of the shaft.

1,242,129. FISHING-TOOL FOR UNDERREAMER-LUGS. WILLIAM W. BESS, Maricopa, Cal. Filed Feb. 28, 1917. Serial No. 151,536. (Cl. 57—9.)

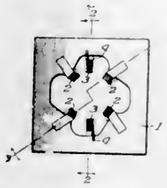
2. A fishing tool of the character described, comprising a shank, a semi-circular section attached to the shank, and a plurality of sections coacting with the semi-circular section and extending parallel thereto and together defining a semi-circle, said last named sections being shorter than the first named section and being resilient whereby their free ends may be moved outward, the inner face of said sections being formed with inwardly projecting flanges.



4. A fishing tool of the character described, comprising a plurality of approximately parallel sections, together defining a central longitudinally extending bar, one of said sections extending beyond the other section, the shortest section being resilient whereby it may move outward relative to the first named longer section and being formed with an inwardly extending detent flange adjacent its free ends.

[Claims 1 and 3 not printed in the Gazette.]

1,242,130. THREAD-CUTTING DIE. MANDEL BLOCK, Chicago, Ill. Filed Nov. 22, 1916. Serial No. 132,762. (Cl. 10—120.)

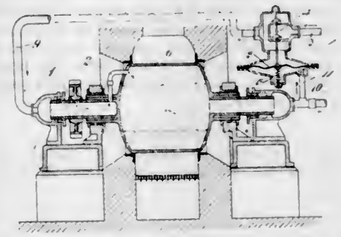


A thread cutting die having a solid body with a central opening and chasers fastened therein and extending radially inward, and a brush fastened to the body approximately midway between two chasers, the axial length of the brush being approximately as great as the axial length of the chaser, the brushes having resilient bristles for contacting and sweeping the surface of the work.

1,242,131. FEED APPARATUS FOR ROTATING BOILERS. JOHAN VIKTOR BLOMQUIST, Stockholm, Sweden. Filed Oct. 18, 1915. Serial No. 56,605. (Cl. 122—451.)

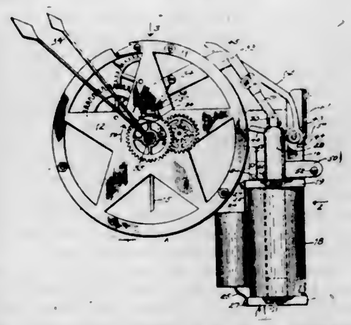
1. An apparatus for regulating the feed water to revolving boilers, comprising a feed pipe, a valve in said feed pipe, and controlling means for controlling said valve, the action of said controlling means being dependent upon the thickness of the layer of the water in said revolving boiler.

2. An apparatus for regulating the feed water to a revolving boiler, comprising a feed pipe, a valve in said feed pipe, means controlled by given difference in pressure between the water in said feed pipe and the steam in said boiler for operating said valve, and means for imparting



to the water in the feed pipe the centrifugal force of the water in the revolving boiler.

1,242,132. ELECTRIC CLOCK. GUSTAV BLUMBERG and JOHN A. BUTKUS, Baltimore, Md. Filed Oct. 13, 1915. Serial No. 55,683. (Cl. 58—41.)



1. The combination with a lever, of a solenoid core connected to said lever, a pin in said lever, a second lever having two arms mounted in the path of said pin, a spring adapted to make contact with one of said arms, and a second spring adapted to hold said second lever in either one of two positions.

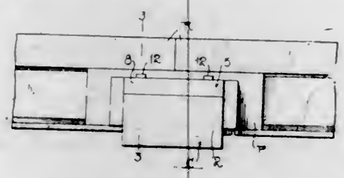
2. The combination with a lever, and a solenoid core normally moved downwardly by the force of gravity, of a solenoid and a source of electricity for moving said lever upwardly, a second lever having upper and lower arms, a pin in said first named lever located to strike said upper arm when said first named lever is moved upwardly and move said second lever in one direction and to strike said lower arm and move said second lever in the opposite direction when said first named lever is moved downwardly, and a spring acting upon said second lever to move it slightly after said lower arm has been moved by said pin and to hold said second lever after said upper arm has been moved by said pin.

3. The combination with a lever, and a solenoid core normally moved downwardly by the force of gravity, of a solenoid, a second lever, a pin carried by said first named lever and adapted to move said second lever in two directions, a source of electricity connected to said solenoid for moving said core upwardly, a circuit including said source and said solenoid and having one terminal connected to said second lever, a spring connected to the other terminal of said circuit and adapted to make and break contact with said second lever, and a second spring for holding said second lever at the limit of its movement in either direction.

4. The combination of a time train including a pintle and a ratchet wheel mounted on said pintle, with a lever, a pawl mounted on said lever and adapted to move said ratchet wheel, a solenoid core connected to said lever and

moved downwardly by the force of gravity, a solenoid and a source of electricity connected to said solenoid for moving said core upwardly, a second lever, a pin carried by said first named lever and adapted to move said second lever in two directions, a circuit including said source and said solenoid and having one terminal connected to said second lever, and a spring connected to the other terminal of said circuit and adapted to make and break contact with said second lever.

1,242,133. RAIL-JOINT. GEORGE C. BOLES, Peebles, Ohio. Filed Apr. 28, 1917. Serial No. 165,260. (Cl. 239—6.)



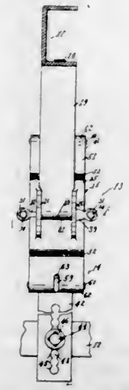
1. In combination with the meeting ends of rails, a chair upon which said meeting ends are adapted to rest, the opposite end portions of said chair being provided with upstanding blocks, the opposed faces of the blocks being provided with channels, the upper walls of said channels being longitudinally inclined, the inclination of one of said upper walls being reversed to the inclination of the upper wall of the second channel, and plates arranged at opposite sides of the meeting ends of the rails; each of said plates being provided with an outstanding block provided with a channel affording separated flanges, the upper flange of the block being adapted to overlie a block of the chair, the lower flange being wedge-like and insertible within the channel of the chair block.

2. In combination with the meeting ends of rails, a chair upon which said meeting ends are adapted to rest, the opposite end portions of said chair being provided with upstanding blocks, the opposed faces of the blocks being provided with channels, the upper walls of said channels being longitudinally inclined, the inclination of one of said upper walls being reversed to the inclination of the upper wall of the second channel, plates arranged at opposite sides of the meeting ends of the rails, each of said plates being provided with an outstanding block provided with a channel affording separated flanges, the upper flange of the block being adapted to overlie a block of the chair, the lower flange being wedge-like and insertible within the channel of the chair block; and coacting means carried by the upper flanges of the blocks of the plates and the blocks of the chair for holding said plates in applied position.

3. In combination with the meeting ends of rails, a chair upon which said meeting ends are adapted to rest, the opposite end portions of said chair being provided with upstanding blocks, the opposed faces of the blocks being provided with channels, one of the walls of each of said channels being inclined, the inclination of the wall of one of said channels being reversed to the inclination of the wall of the second channel, and plates arranged at opposite sides of the meeting ends of the rails; each of said plates having an outstanding block provided with a channel affording separated flanges, the upper flange of said block being adapted to overlie a block of the chair, the lower flange being wedge-like and insertible within the channel of the block.

4. In combination with the meeting ends of rails, a chair upon which said meeting ends are adapted to rest, the opposite end portions of said chair being provided with upstanding blocks, the opposed faces of the blocks being provided with channels, one of the walls of each of said channels being inclined, the inclination of the wall of one of said channels being reversed to the inclination of the wall of the second channel, plates arranged at opposite sides of the meeting ends of the rails, each of said plates having an outstanding block provided with a channel affording separated flanges, the upper flange of said block being adapted to overlie a block of the chair, the lower flange being wedge-like and insertible within the channel of the block; and means disposed through the upper flange of each of the blocks of the plates and engageable with the adjacent block of the chair, for holding the plate in applied position.

1,242,134. SHOCK-ABSORBER. BERNARD J. BORGMANN, Cincinnati, Ohio. Filed Feb. 15, 1917. Serial No. 148,745. (Cl. 21—105.)



1. In a shock absorber, the combination of a friction-member having opposed friction-faces of regular curvature, friction-shoes having padded friction-faces of similar regular curvature coacting with said first-named friction-faces, means for changing the curvatures of said first-named faces, means for resiliently forcing said faces toward each other, and means whereby to secure said friction-member and said friction-shoes, respectively, to two relatively vibratory parts of a vehicle.

2. In a shock absorber, the combination of a bow-spring arranged to be secured to one of two relatively vibratory parts of a vehicle, friction-shoes pivoted thereto, a friction-member arranged to be secured to the other of said relatively vibratory parts, said friction-member provided with opposed friction-faces, said friction-shoes provided with friction-faces coacting with said opposed friction-faces, pivot-pins on which said shoes are pivoted, said pivot-pins provided with eyes, springs at the respective sides of said shoes, and adjusting bolts for said springs located in said eyes.

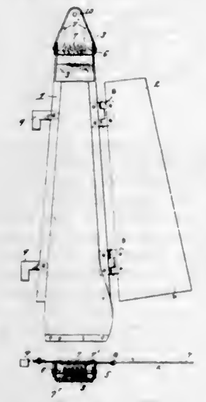
3. In a shock absorber, the combination of a bow-spring arranged to be secured to one of two relatively vibratory parts of a vehicle, a friction-member, means for adjustably securing said friction-member to the other of said relatively vibratory parts for adjustably positioning said friction-member toward or from both said parts between the limbs of said bow-spring, said friction-member provided with oppositely curved friction-faces relatively separating toward their upper ends and toward their lower ends, and friction-shoes pivoted to the outer ends of said bow-springs, said friction-shoes having opposed curved friction-faces substantially concentric with and coacting with said first-named friction-faces, and said adjusting means relatively adjusting the horizontal radial lines of said friction-faces into coincident horizontal planes.

4. In a shock-absorber, the combination of a pair of relatively movable members arranged for attachment respectively to two relatively vibratory parts of a vehicle, one of said members provided with a pair of opposingly curved friction-faces curved in the plane of the vibratory movement between said two relatively vibratory parts, and the other of said members comprising a pair of pivoted friction-shoes provided with opposingly curved friction-faces respectively coacting with said respective first-named opposingly curved friction-faces, the curvatures of said coacting curved friction-faces in said plane of vibratory movement being substantially concentric.

5. In a shock-absorber, the combination of a pair of relatively movable members arranged for attachment respectively to two relatively vibratory parts of a vehicle, one of said members provided with a pair of opposingly curved friction-faces curved in the plane of the vibratory movement between said two relatively vibratory parts, the other of said members comprising a pair of pivoted friction-shoes provided with opposingly curved friction-faces respectively coacting with said respective first-named opposingly curved friction-faces, the curvatures of said coacting curved friction-faces in said plane of vibratory movement being substantially concentric, and the radii of said curvatures being longer than the distances between the pivotal axes of said respective shoes and their respective coacting friction-faces.

[Claim 6 not printed in the Gazette.]

1,242,135. TROUSERS HANGER AND PRESSER. CLARENCE J. BROWN, Cleveland, Ohio, assignor of one-half to Thomas M. Campbell, Cleveland, Ohio. Filed Oct. 12, 1916. Serial No. 125,329. (Cl. 100—57.)

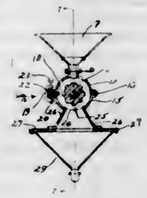


In an article of the class described, the combination of a back plate; forwardly projecting lugs secured thereto; a pressing member; means for locking the latter against said back plate; a second member; rearwardly projecting lugs secured to said second member; a rod upon which said last-named lugs are pivotally mounted and to which said first-mentioned lugs are secured, said lugs holding said second member a spaced distance from said back plate, said second member being provided with an offset portion forming a retaining element disposed adjacently to said back plate; and means tending to hold the retaining element of said second member securely against said back plate.

1,242,136. GRAIN-HULLER. BURT C. BUFFUM, Denver, Colo. Filed May 3, 1917. Serial No. 166,161. (Cl. 83—36.)

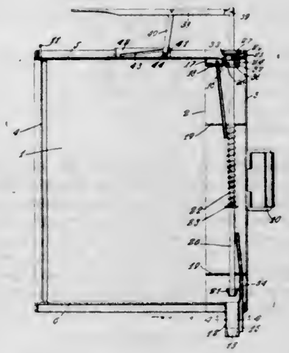
1. A grain huller including a casing, means arranged therein for separating the hulls from the grain, a casing having a screen covered discharge opening for the hulls, means independent of the feed opening of the huller for introducing air into the casing above the screen, and suction-producing means in communication with the discharge opening for the hulls.

2. A grain huller including a casing having a hinged member, means for preventing the complete closure of said member whereby a limited quantity of air is admitted to the chamber of the casing, means within the casing for removing the hulls from the grain, a screen-covered opening for the discharge of the hulls from the casing, and suction-producing means in communication with said last named opening.



3. A huller including a casing, means within the casing for removing the hulls from the material under treatment, the casing having a hull-discharge opening at its bottom, a suction box connected with said opening, suction-producing means, a conduit connecting said box with said last named means mounted upon said conduit, and means for introducing air in measured volume to said conduit.

1,242,137. LIQUID-DISPENSING CAN. NEWTON H. BULLARD, Milledgeville, Ga. Filed Feb. 2, 1916. Serial No. 75,819. (Cl. 221—17.)



1. A liquid dispensing can having a lower discharge spout, an air tube extending from the spout into the upper portion of the can for the flow of air into the can, a signal operated by the flow of air through the tube, a valve for closing the spout, and means for admitting air into the upper portion of the can and said tube when said valve is seated and for shutting off the flow of air through the upper portion of the can when the valve is unseated so that the air must flow through said tube.

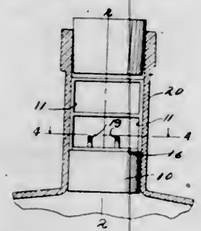
2. A liquid dispensing can having a lower discharge spout, an air tube extending from said spout into the upper portion of the can for the flow of air into the can, a signal operated by the flow of air through the tube, a valve stem slidable through the upper portion of the can and having a valve at its lower end seatable in said spout, and means whereby when the stem is lowered to seat the valve, air is admitted into the upper portion of the can and tube and when the stem is raised to unseat the valve, the flow of air into the upper portion of the can is stopped so that the air must flow through said tube.

3. A liquid dispensing can having depending discharge spout, an air tube extending from said spout into the upper portion of the can for the flow of air into the can, a signal operated by the flow of air through the tube, a depending cup carried by the top of the can, a valve stem slidable through the bottom of the cup, a valve carried by said stem seatable downwardly in the spout,

a hollow cap and plug member movable upwardly and downwardly within the cup, said plug member having an air aperture at one side adapted to be closed by the cup when said member is moved downwardly therein, the bottom of said cup and valve stem having coöperating means for admitting air into the can when the valve stem is moved downwardly to seat the valve, and means carried by said valve stem seatable upwardly against the bottom of the cup when the stem is raised to prevent the flow of air between the cup and can and constrain the air to flow through the tube into the can.

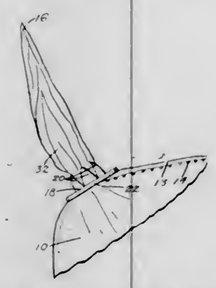
4. A liquid dispensing can having a discharge spout, a valve controlling the flow of liquid through the spout having a stem projecting above the top of the can, a lever pivoted to the upper end of said stem and movable toward the top of the can when the valve is seated, a member carried by the top of the can having a slot terminating in a notch at one end, and a fulcrum member pivoted to the lever and having a pin working in said slot and seatable in said notch to hold the lever spaced from the top of the can.

1,242,138. NON-REFILLABLE BOTTLE. MAY L. BURKE, New London, Conn. Filed Mar. 20, 1917. Serial No. 156,145. (Cl. 215—62.)



A valved device for insertion in the neck of a bottle including a tubular portion having diametrically opposite and upwardly extending arms, superimposed and oppositely apertured disks disposed in the upper portions of the arms, a stationary semi-circular plate secured to the upper edge of the tubular portion, and a movable semi-circular plate hinged to the first plate and seated on the upper edge of said tubular portion, said stationary plate having a stop lug for engagement with the movable plate.

1,242,139. MEANS FOR FASTENING SACKS. ROBERT L. CALLAHAN, Louisville, Ky. Filed Aug. 20, 1915. Serial No. 46,403. (Cl. 24—30.5.)



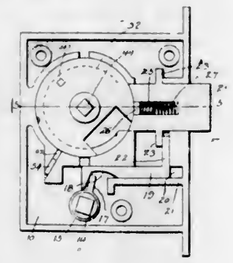
3. A sack mouth fastener formed of sheet metal comprising a flat circular body portion and a plurality of prongs pressed outward from the central portion of the disk to form a central opening for permitting the disk to be drawn over a gathered portion of a sack to close the same, said prongs holding the fastener in place thereon.

5. A sack mouth fastener formed of sheet metal comprising a flanged body portion having an opening therein and adapted to be drawn over a gathered portion of a sack to close the same, a turned-over edge on the periphery of said flanged body portion for stiffening the same and presenting a smooth surface to be grasped in applying the fastener to the sack, and means for holding the fastener in place upon the gathered portion of said sack.

7. A sack mouth fastener comprising a body portion having an opening therein provided with a continuous wall, and means issuing from said wall for holding said body in place upon a gathered portion of a sack to close the same.

[Claims 1, 2, 4, and 6 not printed in the Gazette.]

1,242,140. COMBINATION DOOR-LOCK. GEORGE D. CARR, Detroit, Mich. Filed Sept. 21, 1915. Serial No. 51,819. (Cl. 70—53.)

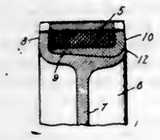


A combination lock including a casing, a circular housing in said casing having a relatively large recess and relatively small diametrically opposed recesses therein, a lug carried by the casing projecting into the relatively large recess in the housing, a bolt slidably mounted in the casing, movable into the relatively large recess in the housing and having a slot in the its inner end receiving said lug, a spring confined between the lug and bolt, a plurality of disk shaped tumblers rotatably mounted in the housing having recesses adapted to be moved into registration with the relatively large recess in the housing to receive the inner terminal of said bolt, annular spacing members interposed between the tumblers having portions cut away to receive said bolt, diametrically opposed projections on said spacing members engaged in the relatively small recesses in the housing, said tumblers each having a transverse notch in its periphery, said circular housing being provided with a groove forming a guide channel, a retaining element slidably mounted in said guide channel and adapted to engage in the notches in the tumblers, and a spring normally holding said retaining element in an extended position to hold said retaining element in engagement with the tumblers, the transverse notches and the recesses which receive the bolt in said tumblers being so arranged in relation to each other that when the retaining element is received in the transverse notches the recesses are in registration with the relatively large recess in the housing, whereby the tumblers are resiliently held in position.

1.242,141. GEAR, ROLL, AND THE LIKE. JAMES H. CARVER, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Dec. 8, 1916. Serial No. 135,893. (Cl. 74—28.)

1. In an apparatus of the character described, the combination of a compressible element and a metallic holder therefor comprising two principal parts, each comprising an annular ring with a flange on one side, said annular rings telescoping one into the other to bring the flanges into contact with the compressible element, and means for fastening the two parts together.

2. In a gear wheel, the combination of a body member of textile fibers, a metallic holder therefor comprising two annular rings, one of which telescopes into the other, and both of which have flanges forming a holder for the body member, and means for fastening the rings together.

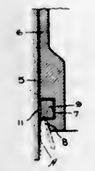


3. In an apparatus of the character described, the combination of an annular body member of compressible material, a holder therefor comprising two parts which slip within the bore of said annular body member telescoping one within the other, and have flanges which engage the body member, and means for fastening the two parts together.

4. In an apparatus of the character described, the combination of an annular body member of compressible material, a holder therefor comprising two parts which slip within the bore of said annular body member telescoping one within the other, and have flanges which engage the body member, one of said parts being turned over the other to fasten them together.

5. In a gear wheel, the combination of a body member of textile fibers, and a metallic holder therefor comprising two principal parts, one of which telescopes into the other, and both of which have flanges which are inclined with respect to each other, and between which said body member is held under compression, one of said parts being turned over the other to unite the same.

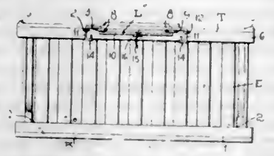
1,242,142. INTERNAL-COMBUSTION ENGINE. HENRI G. CHATAIN, Erie, Pa., assignor to General Electric Company, a Corporation of New York. Filed Feb. 7, 1916. Serial No. 76,742. (Cl. 121—108.)



2. The combination with the cylinder of an internal combustion engine, of a piston therein having a circumferential groove at its outer end, packing rings at the inner end of said piston, and a split spring packing ring in said groove, said last named ring being hollow ground on the outer surface so as to present two sharp edges to the cylinder wall which have a line contact therewith, and acting as an oil scraper.

[Claim 1 not printed in the Gazette.]

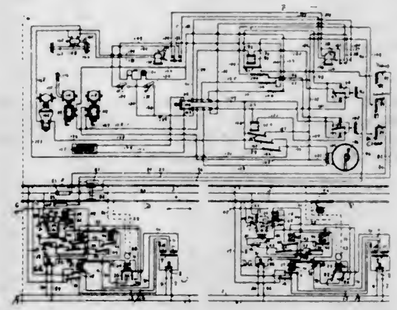
1,242,143. SHIPPING-CRATE. ARTHUR D. CHILDS, North Bradley, Mich. Filed June 30, 1917. Serial No. 177,904. (Cl. 217—47.)



1. A device of the character described comprising a bottom panel, side panels hingedly connected thereto, a top panel, means for slidably connecting the side panels with the top panel, end panels hingedly connected with the bottom panel and interposed between the side panels when said side panels are extended, arms carried by the end panels and provided with lateral extensions, the ends of the top panels being provided with slots through which said arms and angular extensions are directed, and locking members carried by the top panel to underlie the lateral extensions of the arms of the end panels for holding said end panels against inward movement.

[Claim 2 not printed in the Gazette.]

1,242,144. TRACK APPARATUS FOR INDICATING THE MOVEMENTS OF RAILWAY-TRAINS. THOMAS E. CLARK, Detroit, Mich. Filed Feb. 24, 1914. Serial No. 820,709. (Cl. 246—26.)



1. In an apparatus for indicating the movements of railway trains, the combination of a railway track divided into blocks, a circuit connecting a source of current to each block, a relay controlling each circuit, a wayside circuit for each block, a generator of high-frequency high-potential current for each wayside circuit, each generator including an oscillating circuit, a second relay to control each said oscillating circuit whereby the frequency and wave length of the current passing to its wayside circuit may be varied, a third relay to control the first and second, and a circuit between the rails of the block in advance and the third relay.

2. In an apparatus for indicating the movements of railway trains, the combination of a railway track divided into blocks, a circuit for each block connecting the rails thereof to a source of current, a relay controlling each said circuit, a wayside circuit for each block, a generator of high-frequency high-potential current for each wayside circuit, a second relay to control each said generator and vary the wave length and frequency of the current passing to the wayside circuit, a third relay to control said second relay, and a circuit between the rails of the block in advance and the third relay.

3. In an apparatus for indicating the movements of railway trains, the combination of a railway track divided into blocks, a circuit for each block connecting the rails thereof to a source of current, a relay to change the current passing over each said circuit, a wayside circuit for each block, a generator of oscillating current for each wayside circuit, a second relay to control the first relay and to control the generator of each block, and a circuit between the rails of the block in advance and said second relay.

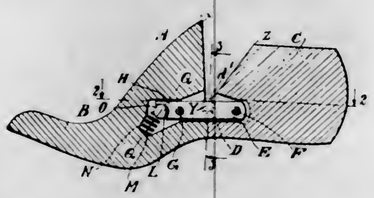
4. In an apparatus for indicating the movements of railway trains, the combination of a railway track divided into blocks, a wayside circuit for one of the blocks, a generator of oscillating current for said wayside circuit, a relay to control said generator and the wave length and frequency of the current passing to the wayside circuit, a second relay to control the first, a circuit between said second relay and the rails of the block ahead, a circuit between said rails of the block ahead and a current source, a third relay controlling said circuit to vary the current passing to said block, a circuit connecting, a fourth relay to control the third, a circuit between the rails of the

second block in advance and said fourth relay, and a circuit between said rails of the second block ahead and a current source.

5. In an apparatus for indicating the movements of railway trains, the combination of a railway track divided into blocks, a wayside circuit for one of the blocks, a generator of oscillating current for said wayside circuit, electro-magnetic means to control said generator and the wave length and frequency of the current passing to the wayside circuit, a circuit between said electro-magnetic means and the rails of the block ahead, a circuit between said rails of the block ahead and a current source, a relay controlling said circuit for controlling the direction of the current passing to said rails, electro-magnetic means controlling the position of the relay, a circuit between said last named electro-magnetic means and the rails of the second block ahead, and a circuit between the rails of the second block ahead and a current source.

[Claims 6 to 13 not printed in the Gazette.]

1,242,145. LAST. GEORGE CLAUSING, Portsmouth, Ohio, assignor to The Vulcan Last Company, Portsmouth, Ohio, a Corporation of Ohio. Filed Mar. 26, 1917. Serial No. 157,392. (Cl. 12—136.)



1. A last having a toe part, a heel part movable relative thereto, main bearing pins or members between said heel and toe parts, a link pivotally connected at one end to said heel part by a pin or rivet and at the other end to said toe part by a pin or rivet, which link has an end portion that lies beyond the rivets, and a spring holding means which engages said end portion in a manner to hold the last parts in extended or unbroken position when in said position.

5. A last having a toe part, a heel part, a link pivotally connected to the toe part, which link is also pivotally connected to the heel part, said link also having an end portion that lies beyond the set of rivets connecting the link to the toe and heel parts, and a spring means comprising a compression spring and ball, the latter of which engages the under side of said forwardly extending end portion of said link, one end of said spring engaging the ball and the other end of said spring being seated in the bottom of a cavity that is provided within the toe part.

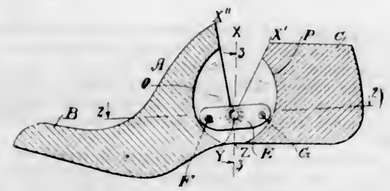
7. A last having a toe part, a heel part, a link connecting said parts, and main bearing pins between said parts, said bearing pins being provided with the flanges or collars that retain said pins in place.

[Claims 2 to 4, 6, 8, and 9 not printed in the Gazette.]

1,242,146. LAST. GEORGE CLAUSING, Portsmouth, Ohio, assignor to The Vulcan Last Company, Portsmouth, Ohio, a Corporation of Ohio. Filed Mar. 26, 1917. Serial No. 157,393. (Cl. 12—136.)

1. A last having a toe part, a heel part, a longitudinally extending link pivotally connected at one end to said toe part by a pin or rivet and at the other end to the heel part by a pin or rivet, horizontally and transversely extending main bearing pins between said heel and toe parts and arranged so that said parts can move relative to each other, and means supported by said main bearing pins which means engage side portions of said link for holding the heel and toe parts in their extended position.

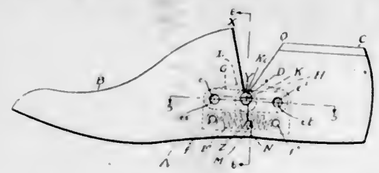
5. A last having a toe part, a heel part, horizontally and transversely extending bearing pins between said parts, a connecting link located between said bearing pins, one end of said link being connected to the heel part and the other end of said link being connected to the toe part, each of said pins being hollowed out and there being located in each of said pins a holding means comprising a compression spring and cap the latter of which engages a side portion of the link in order to hold the link when the last parts are in extended or unbroken position, said link being provided with an opening within which said caps enter.



8. A last having a toe part, a heel part, and a link connecting said parts, there being bearing members between said last parts whereby said last parts can swing relative to each other, at least one of said bearing members carrying a mechanism that engages said link and serves to hold the last parts in extended position when in said position.

[Claim 2 to 4, 6, and 7 not printed in the Gazette.]

1,242,147. LAST. GEORGE CLAUSING, Portsmouth, Ohio, assignor to The Vulcan Last Company, Portsmouth, Ohio, a Corporation of Ohio. Filed Mar. 26, 1917. Serial No. 157,394. (Cl. 12—136.)

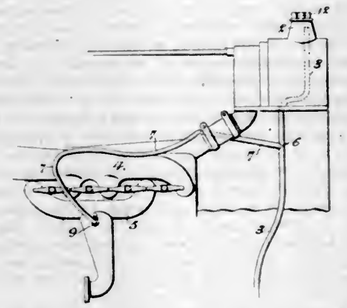


1. A last comprising a heel part and a toe part having provided between them main bearing pins against which each of the parts of the last bear, the last being provided with a connecting link composed of members which are pivotally connected, one to the other, at the central portion of the link, one end of said link being pivotally secured to the toe part and the other end being pivotally secured to the heel part whereby said link connects said toe part to the heel part, said link being positioned so that a line passing through the center of the pivots which connect said link to the heel and toe parts will be located below the center of the main bearing pins when the parts of the last are in extended position but so that said line approaches the center of said bearings upon the movement of the heel part upwardly from its extended or unbroken position, the construction being such that during a substantial part of the final movement of the operation of breaking the last the pivotally connected members of the link will be permitted to move relatively to each other due to the pivotal connection which is at the central portion of the link.

7. A last comprising in combination a toe part, a heel part movable relatively to the toe part which last parts swing relatively to each other on transversely extending bearings, and a link for connecting said last parts and for holding said last parts together in all positions which they assume relatively to each other, one end of said link being pivotally connected to the toe part of the last and the other end of said link being pivotally connected to the heel part of the last, the link being composed of members pivotally connected so that said link members can swing relatively to each other during the breaking or shortening of the last, the construction being such that the member of the link that is connected to the toe part of the last will swing relatively to the toe part and so that the member of the link that is connected to the heel part will swing relatively to said heel part, the construction also being such that the swinging of each link member relatively to the last part to which it is connected is a limited movement that takes place during the first portion of the movement for breaking the last and during the final portion of the movement toward unbroken position.

[Claims 2 to 6 and 8 to 11 not printed in the Gazette.]

1,242,148. INTERNAL-COMBUSTION ENGINE. ROBERT T. COLQUHOUN, Vancouver, British Columbia, Canada. Filed Oct. 13, 1916. Serial No. 125,451. (Cl. 123—25.)



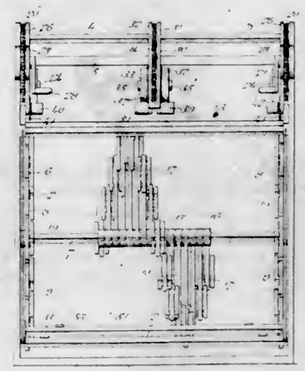
A means for supplying aqueous vapor and air to the intake manifold of an internal combustion engine, said means comprising a pipe connected to the overflow from the engine radiator at a position nearer the upper than the lower end of that pipe, a cap for the radiator filling aperture having a small aperture to insure a flow from the upper end of the overflow pipe, said pipe from the overflow being carried at a slight upward incline to the exhaust manifold of the engine and along that exhaust in intimate contact with it for a sufficient distance to insure that the vapor in the pipe is heated, and means for connecting the end of this pipe to the intake manifold of the engine with provision for admitting a small quantity of hot air to mix with the vapor, and means for controlling the amount of air and vapor delivered to the intake manifold.

1,242,149. COMBINED EXHIBITING AND DISPENSING APPARATUS. SAMUEL W. CRANE, McAlester, Okla. Filed Feb. 3, 1915. Serial No. 5,844. (Cl. 211—18.)

1. In an exhibiting apparatus, a reel structure comprising a shaft, disks mounted at opposite ends of the shaft, radial arms mounted on the shaft intermediate the disks, said arms being adjustable longitudinally of the shaft to vary the space between the arms and the disks, retaining means mounted on each of the respective lateral faces of the arms, retaining means mounted on the adjacent faces of the disks, the retaining means on one side of the several arms forming with the retaining means on the adjacent face of the disks a support for rolls of material varying in length.

2. In a display rack for rolled materials, spaced members adapted to support the remote ends of a plurality of pairs of axially alined rolls, of equal or unequal lengths, a support connecting the members permitting rotation thereof, and a plurality of means adjustable on the support for engaging between and supporting the adjacent ends of said pairs of rolls.

3. In a display rack for rolled materials, a frame, a shaft journaled for rotation therein, spaced members mounted on the shaft, circumferentially arranged means on the adjacent sides of said members for supporting the remote ends of a plurality of pairs of axially alined rolls, said supporting means on the members being in opposed relation, to dispose the pairs in parallelism and a plurality of arms on said shaft adjustable longitudinally thereon to engage the adjacent ends of each pair of rolls, and means on said arms similar to the first mentioned means for supporting said adjacent ends.



4. In a display rack for rolled materials, a frame, a shaft journaled for rotation therein, spaced members fixedly mounted on said shaft for rotation therewith, a plurality of circumferentially arranged supporting means on the adjacent faces of said members in opposed relation for supporting therebetween in parallelism a plurality of pairs of axially alined rolls of material, a plurality of radial arms, mounted on said shaft for longitudinal adjustment thereon, said arms being uniformly angularly spaced from each other in the same direction to define a helix to permit the ends of the arms to engage between the adjacent ends of the pairs of rolls thereby permitting the arrangement in the rack of rolls in circumferential order of uniform increasing and decreasing widths, and supporting means on said arms for supporting the rolls.

5. In a display rack for rolled materials, a frame, a squared shaft journaled for rotation therein, spaced disks fixedly mounted on said shaft, a plurality of circumferentially arranged supporting means on the adjacent faces of said disks, in opposed relation to support therebetween in parallelism the remote ends of a plurality of pairs of rolls of equal or unequal lengths, a plurality of arms having corresponding ends provided with squared apertures to receive the said shaft whereby the arms may be arranged radially on the shaft and maintained in angular spaced relation and adapted for adjustment longitudinally of the shaft, means for securing the arms against movement subsequent to adjustment, the opposite ends of the arms being adapted to engage between the adjacent ends of said rolls, and supporting means on the opposite sides of said arms for supporting said ends of the rolls.

[Claims 6 to 9 not printed in the Gazette.]

1,242,150. LEGGING. CARL T. DAHLIN, Stockholm, Wis. Filed June 3, 1916. Serial No. 101,494. (Cl. 36—2.)

1. A legging having a flexible body, a reinforcing strap secured to the top of the legging and adapted to be folded upon itself to form a plait, and a buckle constructed and arranged to have the folded strap passed through it for holding the plait.

2. A legging having a flexible body, a reinforcing strap secured to the top of the legging circumferentially there-

of and adapted to be folded upon itself to form a plait, a buckle constructed and arranged to have the folded strap



passed through it for holding the plait, and a flexible connection securing the buckle to the legging.

1,242,151. EASEL. ADRI DE GROOT, New York, N. Y., assignor to Edward H. Warnecke, Brooklyn, N. Y. Filed Oct. 23, 1916. Serial No. 127,068. (Cl. 45—129.)



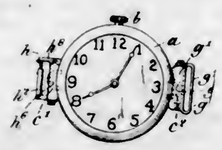
1. In combination in an easel, side-bars each having a front upright member and a rear upright member, a rear upright or prop, and a transversely-extending supporting bar for supporting a canvas or the like, each of said side-bars being provided with a slot between its front and rear upright members through which slot the supporting bar extends, the front upright of each side-bar being notched at its rear side for receiving and holding the supporting bar.

3. An easel comprising in combination a front upright having a front member notched at its rear side, a rear member having a guide-way at its front side, a transversely-extending canvas-supporting bar extending into a space between said notched member and said guide-way, a guide member on said supporting bar and coöperating with the guide-way portion of said rear member, the construction being such that the supporting bar is carried by the notched portion of the front member when the supporting bar is in its forward position and so that the supporting bar can be moved rearwardly out of engagement with the notched portion and then along the upright as the guide member on the supporting bar coöperates with the guideway portion of the rear member.

5. An easel of the class described comprising in combination front uprights or side-bars and a rear upright or prop, the rear prop being composed of an upper portion and a lower portion which are connected together by means of a hinge, each side-bar comprising spaced front and rear members each of which members comprises an upper portion and a lower portion, which portions are connected by means of hinges whereby the several members can be folded, the rear upright and the members of the side-bars or front uprights being also provided with means for securing them in their extended or unfolded position.

[Claims 2, 4, 6, and 7 not printed in the Gazette.]

1,242,152. SECURING DEVICE FOR WRIST-WATCHES. CHARLES L. DEPOLLIER, Brooklyn, N. Y. Filed June 9, 1916. Serial No. 102,676. (Cl. 224—4.)

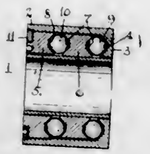


1. A securing device for securing a wristlet to a watch having an eye, comprising a broad bar having an eye in the plane of the watch and formed to overlie and conceal the eye of the watch, a stud on the under side of the bar to engage the eye of the watch, and devices on the under or reverse side of the broad bar to prevent the disengagement of said stud from the eye of the watch.

2. A securing device for securing a wristlet to a watch having an eye, comprising a broad bar having an eye in the plane of the watch and formed to overlie and conceal the eye of the watch, a hinged bar hinged to the broad bar at one end thereof, on the under or reverse side thereof, to swing in a plane transverse to the plane of the watch, a locking device at the free end of the hinged bar to hold said bars in fixed, parallel relationship, and a stud adapted to enter the eye of the watch and carried on the inner face of one of said bars with its free end in close proximity to the other of said bars.

3. A securing device for securing a wristlet to a watch having an eye, comprising a broad bar conformed to the curvature of the watch, a second bar secured to the first in the plane of the watch and adapted for engagement with a wristlet, a third bar hinged to the broad bar at one end thereof, on the under side, a locking device at the free end of the hinged bar to hold it in fixed parallel relationship with the broad bar, and a stud adapted to enter the eye of the watch and carried on the inner face of one of the bars, which are hingedly connected with its free end in close proximity to the other of said bars.

1,242,153. BALL-BEARING. HARVEY H. DICKERHOOF, Canton, Ohio. Filed Aug. 19, 1916. Serial No. 115,769. (Cl. 64—36.)



1. In a device of the character described, the combination of inner and outer, relatively rotatable tubular members; an integral flange on one end of one of said members; a corresponding flange at the other end, adjustably secured to one of said members; a ring adjustably interposed between said members intermediate of said flanges, the latter and said ring being formed on adjacent faces with grooves having angularly inclined side walls, and forming raceways; anti-friction balls disposed in such race-ways, and means for adjusting said flange and said ring.

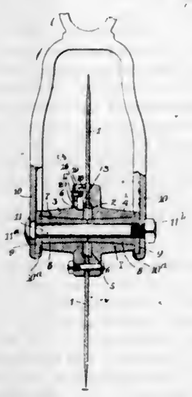
2. In a device of the character described, the combination of inner and outer, relatively rotatable tubular members; flanges on the opposed faces of said members, said flanges being formed on adjacent faces with corresponding grooves having straight side-walls angularly inclined with respect to each other and forming race-ways; anti-friction balls disposed in such race-ways; said inner flange being provided with communicating passages whereby lubricant may be introduced from one race-way to the other.

3. In a device of the character described, the combination of inner and outer, relatively rotatable tubular members; flanges on the opposed faces of said members, said flanges being formed on adjacent faces with corresponding grooves having straight side-walls angularly inclined with respect to each other and forming race-ways; anti-friction balls disposed in such race-ways, said outer tubular member and inner flange being provided with communicating passages whereby lubricant may be introduced into both race-ways from the exterior of said member.

4. In a device of the character described, the combination of inner and outer, relatively rotatable tubular members; an integral flange on one end of said inner member closing the space between the same and said outer member; a corresponding flange detachably secured to the other end of said inner member; a ring fixedly attached to said outer member intermediate of said flanges, the latter and said ring being formed on adjacent faces with corresponding grooves having straight side-walls angularly inclined with respect to each other and forming race-ways; and anti-friction balls disposed in such race-ways, said ring and outer member being provided with communicating passages whereby lubricant may be introduced into both race-ways from the exterior of said member.

5. In a device of the character described, the combination of inner and outer, relatively rotatable tubular members; flanges on the opposed faces of said members, said flanges being formed on adjacent faces with corresponding grooves having straight side-walls angularly inclined with respect to each other and forming race-ways; anti-friction balls disposed in such race-ways; the flange on said inner member being provided with communicating passages whereby lubricant may be introduced from one race-way to the other, and a lubricating passage through one of the outer members of the bearing communicating with one of the race-ways.

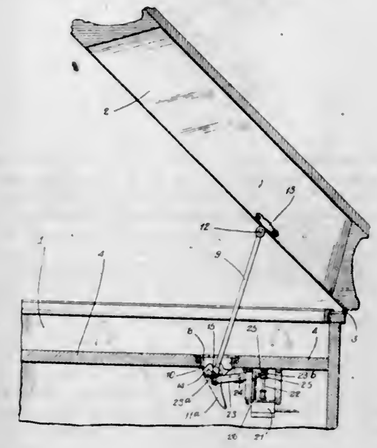
1,242,154. ROLLING COLTER. HARRY S. DICKINSON, Moline, Ill., assignor to Moline Plow Company, a Corporation of Illinois. Filed May 11, 1916. Serial No. 96,768. (Cl. 64—26.)



1. In a rolling colter, the combination of a colter blade provided with a central opening therethrough, opposing hub members fastened to opposite sides of the blade with their adjacent faces extending inwardly beyond the edge of the opening in the blade to conjointly form an annular unobstructed oil chamber, said hub members being formed with alined axial bearing openings communicating with said oil chamber, and two journal members extending into the bearing opening from opposite ends and having their inner ends exposed in said oil chamber.

[Claims 2 to 4 not printed in the Gazette.]

1,242,155. PHONOGRAPH AND THE LIKE. JOSEPH HUNTER DICKINSON, Cranford, N. J., assignor to The Aeolian Company, a Corporation of Connecticut. Filed Feb. 10, 1916. Serial No. 77,444. (Cl. 240—2.)



1. In combination, a phonograph cabinet having an interior deck and a movably connected lid, a prop for said lid connected to the same to move therewith, electric light means for lighting the interior of said cabinet, and means located below said deck and operated by the movement of said prop into lid-supporting position to automatically switch on the light-means.

2. In combination, a phonograph cabinet having an interior deck and a movably connected lid, a prop for said lid connected to the same to move therewith, electric light means for lighting the interior of said cabinet, and means located below said deck and operated by the movement of said prop into lid-supporting position to automatically switch on the light-means and otherwise to switch it off.

3. In combination, a phonograph cabinet having an interior deck and a movably connected lid, a prop for said lid connected to the same to move therewith, electric light means for lighting the interior of said cabinet, and a switch located beneath said deck for connecting and disconnecting the light-means to and from the current, said switch being normally in disconnecting condition, and being shifted into connecting condition by the movement of the prop into lid-supporting position.

4. In combination, a phonograph cabinet having an interior deck and a movably connected lid, a prop for said lid connected to the same to move therewith, electric light means for lighting the interior of said cabinet, a switch located beneath said deck for connecting and disconnecting the light-means to and from the current, and means connected with said switch and caused to be pressed in one direction to operate the switch, by the movement of said prop into lid-supporting position.

5. In combination, a phonograph cabinet having an interior deck and a movably connected lid, a prop for said lid connected to the same to move therewith, electric light means for lighting the interior of said cabinet, a switch located beneath said deck for connecting and disconnecting the light-means to and from the current, means connected with said switch and caused to be pressed in one direction to operate the switch, by the movement of

said prop into lid-supporting position, and means which when not opposed by the prop operates the switch reversely.

[Claim 6 not printed in the Gazette.]

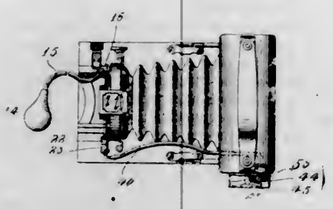
1,242,156. BALE AND PACKAGE TIE. CHRISTIAN DOUSEL, Sunnyside, Utah. Filed Jan. 7, 1916. Serial No. 70,788. (Cl. 24—18.)



1. A package tie formed from a blank of suitable material, a pair of opposed tongues struck therefrom, one of said tongues being rounded and the other tapered to receive one end and the intermediate portion of a tying element, and a plurality of spring clamping tongues struck from said blank and bent outwardly therefrom to detachably engage the free extremity of the tying element.

2. A package tie formed from a blank of metal, including a pair of opposed tongues struck up from said blank and arranged transversely thereof at one end, one of said tongues being rounded and having a permanent engagement with one end of a tying element, the other of said pair of tongues being tapered and bent outwardly from the blank to receive the intermediate portions of the tying element, and an additional pair of opposed tongues struck up from said blank and extending longitudinally thereof adjacent the opposite end to engage the free extremity of the tying element.

1,242,157. EXPOSURE-SIGNAL AND FILM-GUARD. AUGUST DROSTE, Brooklyn, N. Y. Filed May 4, 1916. Serial No. 95,391. (Cl. 95—31.)

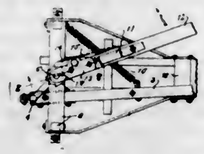


2. In a camera having pneumatic shutter operating means, and a roll film operating device, a hollow visible signal casing having transparent and opaque portions, a plunger slidable from one portion to the other of said signal, means for propelling said plunger from the opaque to the transparent portion conjunctively with operating the shutter, a cylinder arranged adjacent to said film operating device, a piston operable therein, means for normally keeping said piston in a raised position, a lever combined therewith, and means formed with said film operating device adapted to depress said lever at each revolution whereby a current of air is forced into the signal casing moving said plunger into its original position.

[Claim 1 not printed in the Gazette.]

1,242,158. HAY-PRESS. JOHN Z. DUDLEY, Lindale, Tex., assignor of one-half to Charles E. Johnston, Dallas, Tex. Filed Dec. 16, 1915. Serial No. 67,093. (Cl. 100—7.)

1. In a baling press, a crank shaft, a link connected with said shaft, a plunger operated by the link, a spring arranged to move the link and crank shaft in one direction, a ratchet mechanism secured to said shaft, and a lever arm and pawl, said lever arm arranged to swing on the shaft to operate through said pawl the ratchet mechanism and thereby operate the shaft in one direction against tension of said spring, in combination with means for locking the ratchet to said lever arm during the entire revolution of said arm.



2. In a baling press, a crank shaft, a frame wherein said shaft is arranged to turn, a plunger, a link connecting the plunger to the crank of said crank shaft, a spring extending from the frame to the link and adapted to retract the plunger, a ratchet secured to the crank shaft, a sweep arm arranged to swing on said crank shaft, brackets carried by the sweep arm and arranged adjacent to the ratchet, a pawl pivotally supported by the brackets and engaging the ratchet and a bolt removably traversing the brackets and ratchet to lock the sweep arm directly to said ratchet.

1,242,159. CHAIN-CATCH. AUGUSTUS C. DUNKLEBERGER, Erwin, Tenn. Filed Apr. 20, 1917. Serial No. 163,487. (Cl. 24—230.)

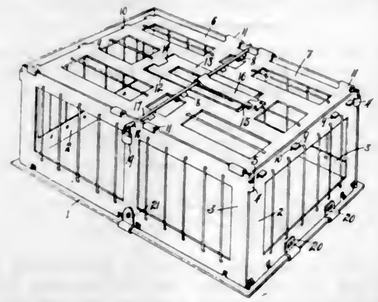


4. A catch or clasp for connecting the ends of a chain or the like comprising a hollow body having a ring at one end and an elongated opening in the other end communicating with the interior of the body, a locking member within the body formed of a strip of resilient material bent upon itself to form two spring parts that extend a determined distance toward the open end of said body then crossed and continued to said end, the terminals of said parts of the spring member being bent to lie in a plane perpendicular to the axis of the body and having notched ends, said terminals bearing against the inner end of the body having the elongated opening therein, finger pieces on each part of said locking member adapted to project through notches in opposite sides of the body, and a lock pin having a shoulder adapted to be engaged by the terminal of the locking member for holding said pin in place.

[Claims 1 to 3 not printed in the Gazette.]

1,242,160. POULTRY-CRATE. EDWARD M. EGER and RALPH D. KLEAR, Pleasant Bend, Ohio. Filed Apr. 7, 1917. Serial No. 160,498. (Cl. 220—132.)

In a crate of the class described, a bottom, side and end members hinged to said bottom for inward folding movements thereover, said members having interlocking hooked engagement at their end edges when in set-up relation and the end members having openings in their top edge portions, a top member disposed in countersunk relation to the top edges of the side and end members and having spurs at opposite ends for insertion into said end openings and having parts at its side edges for engaging over the top edges of the side members, said top member being jointed intermediate its ends to permit an outward breaking thereof and having a door opening extending on both sides of such joint, a door hinged in said opening at one end thereof, a latch member hinged to the top member at the other end of said opening and adapted to lie over the free end of said door to hold it in closed position and having an opening in its free end, a rod extended through



the top edges of the side members over the top member and door and through the free end of the latch member to retain the parts in assembled closed relation, and means for securing said rod in locked position.

1,242,161. PROCESS OF MAKING VARNISH MATERIAL. CARLETON ELLIS, Montclair, N. J., assignor, by direct and mesne assignments, of four-tenths to Ellis-Foster Company, a Corporation of New Jersey, and six-tenths to Indestructible Paint Company, Ltd., London, England, a Corporation. Filed Mar. 29, 1915. Serial No. 17,850. (Cl. 134—26.)

1. The process of making a varnish material which comprises forming the anhydrid of rosin in the presence of Kongo copal gum and heating such mixture with glycerin; whereby the esters of glycerin are obtained.

2. The process of making a varnish composition which comprises esterifying rosin and copal by heating with glycerin at substantially atmospheric pressure and at a temperature above the boiling point of glycerin.

3. The process of esterifying copal gums which comprises cracking the gum to render it soluble in oil, in esterifying the cracked product with glycerin at a temperature above 300° C., and in recracking the esterified material.

4. The process of making a varnish ester which comprises esterifying together a mixture of Kongo copal gum and ordinary rosin with glycerin.

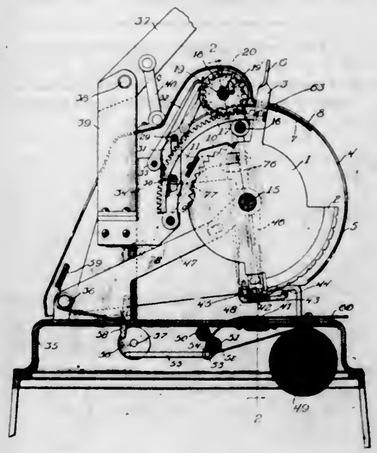
5. The process of making resin esters which comprises esterifying acid resin and glycerin with agitation in the presence of aluminum.

[Claims 6 to 19 not printed in the Gazette.]

1,242,162. CHECK-PROTECTOR. IVAN ENGSTROM, Chicago, Ill., assignor, by mesne assignments, to Carl M. Hedman and Herbert R. Hedman, Chicago, Ill. Filed July 21, 1913. Serial No. 780,121. (Cl. 235—101.)

1. In combination, ordered setting devices, a permanent register having a numeral wheel for each of the setting devices, a gear variably operated by each setting device, a spring connection between each gear and a corresponding permanent register numeral wheel, means for preventing the rotation of the numeral wheels during the setting operation of the setting devices, and mechanism for releasing the numeral wheels to permit the springs to advance them amounts corresponding to the actuations of the setting devices.

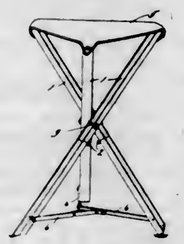
2. A device of the class described comprising a base, a casing carried by the base, a set of pivotally mounted key levers supported by the casing, each of said key levers having a segmental die and a segmental driving rack on opposite sides of its pivotal point, said dies arranged when operated to make a noneradicable impression on a check, a totalizer, mechanism for receiving energy from said driving racks and subsequently imparting it to the totalizer, and a lever for moving the casing with respect to the base to effect the operation of the printing dies and control the actuation of said mechanism to advance the totalizer an amount corresponding to the positions of the several key levers.



3. A combined adding machine and check protector comprising a plurality of key levers, each of said key levers having fixed thereto a printing die and a segmental driving rack, a plurality of numeral wheels, actuating mechanism for said numeral wheels in driven relation to said racks, said actuating mechanism arranged to receive energy from said racks and subsequently impart it to said totalizer, and mechanism for simultaneously operating the segmental printing dies and controlling the actuating mechanism to advance the totalizer an amount corresponding to the positions of the several key levers.

4. A combined adding machine and check protector comprising a plurality of printing dies, a segmental driving rack for each die, a plurality of numeral wheels, actuating mechanism for said numeral wheels in driven relation to said racks, said actuating mechanism arranged to receive energy from said racks and subsequently impart it to said totalizer, and mechanism for simultaneously operating the printing dies and controlling the actuating mechanism to advance the totalizer an amount corresponding to the positions of the several printing dies.

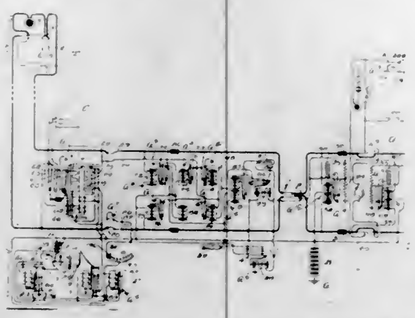
1,242,163. CAMP-STOOL. KARL GUSTAF FABIANSON, Cortland, N. Y. Filed Jan. 22, 1916. Serial No. 73,550. (Cl. 155—32.)



1. In a camp stool, folding legs provided with a seat, a triangular center piece, pivotal connection between said legs and center piece, braces pivotally connected to said legs and formed with bent terminations, and means carried by said bent terminations for releasable engagement with the straight portions of said braces.

2. In a camp stool, folding legs provided with a seat, a triangular center piece, pivotal connection between said legs and center piece, notched braces pivotally connected to said legs and formed with bent terminations and tongues formed integral with said bent terminations for engagement with the notched portions of the braces.

1,242,164. SEMI-AUTOMATIC TELEPHONE SYSTEM. EDWARD D. FALES, Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 3, 1912. Serial No. 718,335. (Cl. 179—27.)



1. In a telephone system, a plurality of groups of subscribers' lines, a plurality of operators' positions, trunk lines extending from one group to one operator's position and from a second group to a second operator's position, trunk lines from a third group distributed throughout a plurality of operator's positions, and a relay common to said trunk lines and controlled from a subscriber's line in any group for preventing a subscriber in said third group from obtaining connection with an operator's position at which there is an unanswered call.

2. In a telephone system, a group of subscribers' lines, a plurality of operators' positions, trunk lines extending from said subscribers' lines and distributed throughout said operators' positions, means on said subscribers' lines for preselecting an idle trunk, and means for preventing the trunk being seized which extends to an operator's position at which there is an unanswered call.

3. In a telephone system, a plurality of subscribers' lines, an operator's board, a plurality of trunk lines terminating in jacks on said board, automatic selecting switches for connecting said subscribers' lines with a preselected one of said trunk lines, and means for preventing seizure of a trunk extending to said operator's board when a connection has been established with said board over a second of said trunks until after the operator has answered said last-mentioned call, said means common to said trunk lines and controlled from any subscriber's line.

4. In a telephone system, a plurality of groups of subscribers' lines, a plurality of operators' positions, trunk lines extending from said subscribers' lines and distributed throughout a plurality of said operators' positions, and master switches controlling a group of said line switches for selecting a trunk extending to an idle operator's position.

5. In a telephone system, a plurality of subscribers' lines divided into groups, a plurality of operators' positions, trunk lines extending from said subscribers' lines and distributed throughout a plurality of said operators' positions and terminating in jacks thereat, an operator's plug adapted to be connected with one of said jacks in answering a call, an automatic selecting switch for connecting with a preselected idle one of said trunks to extend a connection from a subscriber's line to said operator's position, means common to said trunk lines and controlled from a subscriber's line in any group for placing a guarding potential on the other trunks leading to said operator's position when said connection is established, and means for removing said guarding potential when an operator's plug is inserted in said jack in response to the call.

[Claims 6 to 10 not printed in the Gazette.]

1,242,165. FIRE-EXTINGUISHER. JOHN W. FITZGERALD, Detroit, Mich. Filed July 12, 1916. Serial No. 108,803. (Cl. 221—60.)



1. A fire extinguisher, comprising a collapsible tube containing the extinguishing fluid and provided with a discharge nozzle, means for squeezing said tube forming a container therefor, comprising two members embracing opposite sides of the tube, hinged to each other and flanged to telescopically engage each other as the tube is collapsed between said members, the ends of said members being prolonged to form operating handles, and a bearing for supporting the bottom of the collapsible tube projecting laterally from one of said members.

2. A fire extinguisher, comprising a collapsible tube containing the extinguishing fluid and having a nozzle for discharging the fluid, means for squeezing said tube, comprising a pair of members hinged to each other at one end and centrally cut away for the passage of the nozzle, said members embracing the opposite sides of the tube and being flanged to telescopically engage each other as the tube is collapsed between said members, operating handles formed by projecting the ends of said members, and a support for the bottom of the tube struck out from one of said members to project laterally therefrom.

3. A fire extinguisher, comprising a collapsible tube containing the extinguishing fluid and provided with a discharge nozzle, means for squeezing said tube comprising a pair of members hinged to each other at one end and cut away for the passage of said nozzle, said members being concaved to embrace opposite sides of the tube and to telescopically engage each other, a support for the bottom of the tube struck out from one of said members, the opposite member being apertured to receive said struck-out portion during the collapsing of the tube.

4. A fire extinguisher, comprising a collapsible tube containing the extinguishing fluid, and means for squeezing the fluid therefrom, comprising a pair of members hinged to each other and embracing the opposite sides of said tube, said members being flanged to telescopically engage each other as the tube is collapsed between the same and being extended to form operating handles.

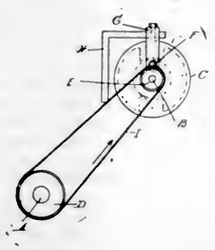
5. A fire extinguisher, comprising a collapsible container for an extinguishing fluid, and means for squeezing said container to eject the fluid therefrom, comprising a pair of members hinged to each other and embracing opposite sides of said container, said members being extended to form operating handles and having portions retaining the container against displacement in a direction parallel to the hinge axis.

[Claims 6 and 7 not printed in the Gazette.]

1,242,166. AUTOMATIC BELT-TENSIONING MEANS FOR DRIVE MECHANISM. JOHN W. FITZGERALD, Detroit, Mich. Filed Jan. 18, 1917. Serial No. 143,163. (Cl. 74—21.)

1. The combination with a drive mechanism and an electric generator driven thereby, of a friction belt transmission between said drive mechanism and the rotor of said generator, a pivotal support for said generator eccentric to the axis of said rotor and arranged to increase the tension on the belt where the magnetic load is increased.

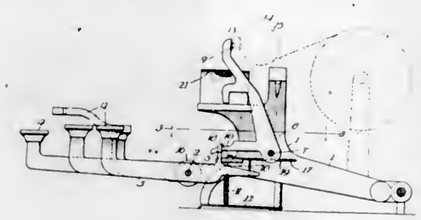
2. The combination with a drive mechanism, and an electric generator driven thereby, of a friction belt transmission therebetween, a driven pulley engaging said belt mounted on the rotor shaft of said generator, a pivotal support for the stator of the generator eccentric to and above the rotor shaft for the purpose described.



3. The combination with a dynamo electric machine, of pivotal supports for said machine spaced from the shaft of the rotor thereof, a friction transmission couple, one member of which is carried by said shaft, said couple being arranged to increase the friction when the magnetic load is increased.

4. The combination with a dynamo electric machine, of a supporting bracket for the same including depending arms at each extremity thereof, means pivotally engaging said arms with said machine at a point eccentric to the axis thereof, and a friction belt drive transmission associated with said machine and arranged to increase the tension on the belt when the magnetic load is increased.

1,242,167. WRITING-MACHINE. FRANK A. FEIEREISEL, Chicago, Ill., assignor to Shortwriter Company, Wilmington, Del., a Corporation of Delaware. Filed Jan. 8, 1916. Serial No. 70,929. (Cl. 197—22.)



1. In a writing machine, the combination of a frame, a shaft adjacent the forward extremity of said frame, a plurality of key bars pivotally mounted on said shaft, separating means on said shaft between said key bars, a plurality of type bars pivotally mounted rearwardly of said shaft, interengaging means on said key and type bars, whereby the latter are actuated, an integral member having means thereon to engage said key and type bars to maintain them in proper alinement, and separate means engaging said type bars above said member to prevent lateral movement thereof.

2. In a writing machine, the combination of a plurality of pivoted type bars, a plurality of pivoted key bars, slidably interengaging means on said key and type bars, whereby the latter are actuated by the former, separating means between said key bars at their pivotal points, means for engaging said key and type bars at their contiguous extremities to maintain them in proper alinement, and means to engage the opposite extremities of said type bars to prevent lateral movement thereof.

3. In a writing machine, the combination of a plurality of pivoted bell-crank levers, each provided with type characters adjacent the extremity of one arm thereof, a plurality of pivoted key bars having means thereon to embrace the extremities of the other arms of said bell-crank levers, separating means between said key bars at their pivotal points, means for engaging the extremities of said key bars and the pivotal portions of said bell-crank levers to maintain the latter in proper alinement with said key bars, and means engaging the type character-bearing arms of said bell-crank levers to prevent lateral movement thereof.

4. In a writing machine, the combination of a frame, a shaft adjacent the forward extremity of the frame, a plurality of key bars pivotally mounted on said shaft, a shaft supported in said frame medially thereof, a plurality of type bars pivotally mounted on said second-mentioned shaft, interengaging means on said key and type bars whereby the latter are actuated by the former, an angular plate having slots to receive the pivotally mounted ends of said type bars and a downwardly turned portion having alined slots to receive extensions of said key bars, a platen with which said type bars coöperate, and a slotted plate adjacent said platen to prevent lateral movement of the free ends of said type bars.

1,242,168. METHOD OF PRESERVING WOOD. HANS FOERSTERLING, RALPH NELSON SARGENT, and FREDERICK ALBERT KAUFMANN, Perth Amboy, N. J., assignors to The Roessler & Hasslacher Chemical Co., New York, N. Y., a Corporation of New York. Filed Dec. 27, 1915. Serial No. 68,623. (Cl. 99—12.)

1. The method of preserving wood, consisting in precipitating an insoluble metal cyanid within the intercellular spaces of the wood.

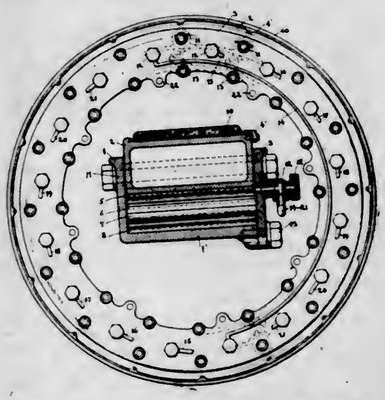
2. The method of preserving wood, consisting in precipitating copper cyanid within the intercellular spaces of the wood.

3. The method of preserving wood, consisting in precipitating copper cyanid within the intercellular spaces of the wood by the interaction of the solutions of a cyanid and of a copper salt caused to successively enter the wood.

4. The method of preserving wood, consisting in precipitating copper cyanid within the intercellular spaces of the wood, by first causing a solution of a copper salt and subsequently of a cyanid to enter the wood.

5. The method of preserving wood, consisting in precipitating copper cyanid within the intercellular spaces of the wood by first causing a solution of copper-sulfate and subsequently that of sodium cyanid to enter the wood.

1,242,169. RESILIENT WHEEL. TORSTEN FORNANDER, Alameda, Cal. Filed Aug. 31, 1916. Serial No. 117,909. (Cl. 152—38.)



1. A resilient wheel comprising a channel rim, a movable ring in said channel, a plurality of chambers formed

between the movable ring and channel, and means to convey a fluid from one chamber to an oppositely placed chamber under road stresses.

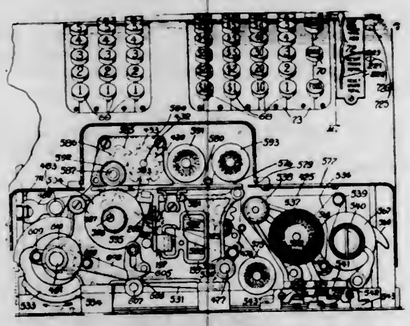
2. A resilient wheel comprising a channel rim, a ring closely fitting said channel rim, movable partitions connecting the channel rim and the ring and forming a plurality of compartments therewith, and a series of pipes for delivering fluid from one compartment to an oppositely placed compartment under road stresses.

3. A resilient wheel comprising a channel rim, a ring closely fitting said channel rim, movable partitions connecting the rim and ring, a series of tubes adapted to deliver fluid from one of the compartments formed by the partitions, rim and ring to an oppositely positioned compartment, and means for determining the rapidity with which a fluid in said compartments will be transferred from one compartment to another under road shocks.

4. A resilient wheel comprising a channel rim, a ring loosely fitting said channel rim, means to prevent the flanges of the channel rim from moving away from the ring laterally, a series of movable partitions connecting the ring and channel rim and forming therewith a plurality of fluid chambers, a series of pipes adapted to transfer the fluid from one chamber to a chamber oppositely positioned, and means to regulate the rapidity with which said transfer will be made under road shocks.

5. A resilient wheel comprising a channel rim having lugs to connect it with a wheel center, a ring closely fitting the channel member, bolts extending through the flanges of the channel member to prevent said flanges from moving laterally away from the ring, the latter having openings therethrough larger than said bolts whereby the ring may be moved with respect to the channel rim, movable partitions connecting the channel rim and ring, and means to transfer a fluid from each of the chambers thus formed to a chamber upon the opposite side of the wheel under road shocks.

1,242,170. CASH-REGISTER. FREDERICK L. FULLER, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed Dec. 21, 1914. Serial No. 878,401. (Cl. 235—3.)



1. In a machine of the class described the combination with a type carrier, of an accounting element, manipulative means, differential mechanism carrying a latch for positioning the type carrier under the control of the manipulative means, and differential mechanism carrying a second latch for coöperating with the first mentioned mechanism to operate the type carrier under the control of the accounting element.

2. In a machine of the class described the combination with a type carrier, of an accounting element, manipulative means, differential mechanism carrying a latch for positively positioning the type carrier under the control of the manipulative means, and differential mechanism carrying a second latch for coöperating with the first mentioned mechanism to position positively the type carrier under the control of the accounting element.

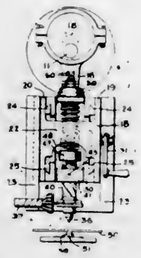
3. In a machine of the class described the combination with a type carrier, of an accounting element, manipulative means, differential mechanism for positioning the type carrier under the control of the manipulative means, a driving element for the differential mechanism, a differentially movable member, controlled by the accounting element, for also controlling the positioning of the differential mechanism, and means for rendering said member ineffective when the differential mechanism is under the control of the said manipulative means.

4. In a machine of the class described the combination with a type carrier, of an accounting element, manipulative means, differential mechanism for positioning the type carrier under the control of the manipulative means, a driving element for the differential mechanism, a differentially movable member, driven by said driving element and controlled by the accounting device, for controlling the positioning of the differential mechanism, and means for rendering said member ineffective when the differential mechanism is under the control of the manipulative means.

5. In a machine of the class described the combination with a type carrier, of an accounting element, manipulative means, differential mechanism including a latch for positioning the type carrier under the control of the manipulative means, a driving member for the differential mechanism coupled thereto by the latch, mechanism including a second latch for coöperating with said differential mechanism to position the type carrier under the control of the accounting elements the second latch being constructed to couple its mechanism to said driving element, and means controlled by the accounting mechanism for operating both the said latches when the type carrier is under the control of the accounting element.

[Claims 6 to 135 not printed in the Gazette.]

1,242,171. ELECTRIC WELDING. HENRY GEISENHÖNER, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Mar. 16, 1915. Serial No. 14,717. (Cl. 219—10.)



1. The method of electric resistance welding which consists in engaging an electrode with the work, moving said electrode on the work at a definite point and, after discontinuing said movement, passing current through the electrode into the work at that point.

2. The method of electric resistance welding which consists in pressing an electrode on the work at a point to be welded, and, while continuing such pressure, both moving said electrode on the work at that point and, after discontinuing said movement, passing current through the electrode into the work.

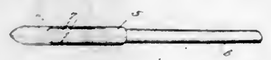
3. The method of electric resistance welding which consists in pressing an electrode on the work at a point to be welded, and, while continuing such pressure, passing current through the electrode into the work with the electrode at rest relatively to the work, and later moving said electrode on the work at that point while the work is in a softened condition.

4. The method of electric resistance welding which consists in pressing an electrode on the work at a point to be welded, and, while continuing such pressure, moving said electrode on the work to clean the surface thereof, after discontinuing such movement passing current through said electrode into said work and again moving said electrode on the work at that point while the work is in a softened condition.

5. The method of electric resistance spot welding which consists in pressing a point electrode on the work at the point to be welded, and, while continuing such pressure, rotating said electrode on the work to clean the surface thereof, after discontinuing such rotation passing current through said electrode into said work, and again rotating the electrode thereon while the work is in a softened condition.

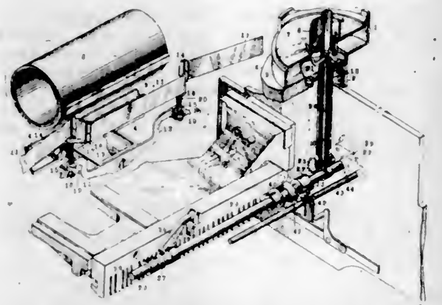
[Claims 6 to 12 not printed in the Gazette.]

1,242,172. CURTAIN-ROD ATTACHMENT. BESSIE M. GIBSON, Chicago, Ill. Filed Oct. 27, 1916. Serial No. 128,068. (Cl. 223—38.)



A device of the character described comprising a thimble closed and tapered at one end and having its other end open, said thimble being also provided with longitudinal slits terminating short of its ends and defining integral resilient tongues on the side of the thimble and projecting thereinto, the free ends of the tongues extending in the direction of the closed end of the thimble.

1,242,173. TYPE-WRITING MACHINE. GEORGE GOULD GOING, Middletown, Conn., assignor to The Noiseless Typewriter Company, Middletown, Conn., a Corporation of Connecticut. Filed Mar. 31, 1916. Serial No. 87,912. (Cl. 197—160.)



1. In a typewriting machine, in combination, ribbon spools, ribbon shafts therefor, a longitudinally movable driving shaft adapted for selective connection with said ribbon shafts, and means comprising peaked cams on said driving shaft and ribbon controlled means to engage therewith for effecting longitudinal movement of said driving shaft, said cams being keyed to said shaft with their peaks on relatively opposite sides thereof.

2. In a typewriting machine, in combination, a ribbon cup having a slotted hub, ribbon reversing means, including a lever arm adjacent said hub and adapted for control by the ribbon, and a ribbon core to encircle said hub and having a portion to fit the slot of the latter and to receive said lever arm.

3. In a typewriting machine, in combination, a ribbon cup having a slotted hub, ribbon reversing means including a lever arm adjacent said hub and adapted for control by the ribbon, and a ribbon core to encircle said hub and having an integral indented portion to fit within the slot of the latter and to receive said lever arm when actuated by the ribbon.

1,242,174. DEVICE FOR APPLYING LIQUIDS. JAMES C. GOOCH, Pittsburgh, Pa. Filed Feb. 7, 1917. Serial No. 147,137. (Cl. 128—47.)



1. A device for applying liquids, comprising a base having a cover to form a receptacle between the same, a plurality of vertically arranged holes in said base, and a hollow plug within each of said holes and provided with a closed upper end and an open lower end, said plugs being adapted to be raised and lowered and having an opening in the upper end of the same for communicating with the receptacle in their raised positions.

2. A device for applying liquids, comprising a base having a cover to form a receptacle between the same, a plurality of vertically arranged holes in said base, and a hollow plug within each of said holes and provided with a closed upper end and an open lower end, said plugs having an opening in the upper end of the same for communicating with the receptacle in their raised positions, and a threaded portion on said plugs engaging with the walls of said holes for raising and lowering the plugs.

3. A device for applying liquids, comprising a base having a cover to form a receptacle between the same, a plurality of vertically arranged holes in said base, a hollow plug within each of said holes and provided with an open lower end, said plugs being adapted to be raised and lowered and having an opening in the upper end of the same for communicating with the receptacle in their raised positions, and a head for closing said ends and for closing the plugs when in their lowered positions.

4. A device for applying liquids, comprising a base having a cover to form a receptacle between the same, a plurality of vertically arranged holes in said base, a hollow plug within each of said holes and provided with an open lower end, said plugs being adapted to be raised and lowered and having an opening in the upper end of the same for communicating with the receptacle in their raised positions, said holes having a seat around the upper end of the same, and heads on the upper ends of said plugs for closing said ends and for fitting in said seats to close the plugs when in their lowered positions.

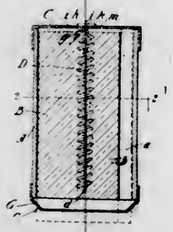
5. A device for applying liquids, comprising a base having a cover to form a receptacle between the same, a plurality of apertures in said base, and valved tubular members mounted in said apertures.

[Claim 6 not printed in the Gazette.]

1,242,175. SHAVING-STICK HOLDER. FRANK GRANT, Westfield, Mass. Filed Nov. 29, 1916. Serial No. 134,204. (Cl. 206—56.)

1. In a device of the character described, a tubular casing having a rib extending longitudinally on the inner wall, adapted to guide a grooved stick of soap and pre-

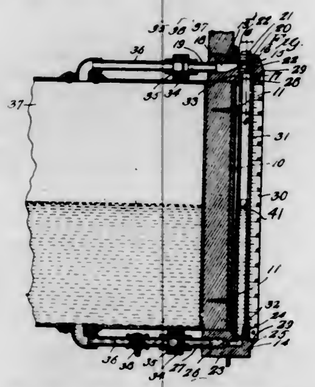
vent rotation thereof, an end member rotatable on the casing, and a wire in the form of an open helix secured to the end member and projecting axially of the casing to



enter the soap and advance it in the casing on rotation of the end member.

[Claim 2 not printed in the Gazette.]

1,242,176. GAGE FOR GASOLENE-TANKS. JOHN J. GROSS, Toledo, Ohio. Filed May 19, 1916. Serial No. 98,662. (Cl. 73—54.)

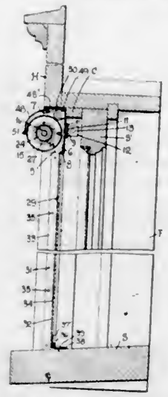


A device of the character described comprising in combination with a receptacle, pipes communicating with the receptacle at diametrically opposite points, a casting provided with right angular communicating passages and carried by the receptacle in alinement with one of said pipes, a second casting provided with a right angular passage and secured to said receptacle in alinement with the other of said pipes and having one end of its right angular passage in alinement with one end of the right angular passage in the first mentioned casting, a transparent tube having its ends secured in said castings, and an indicating scale carried by the castings and supported thereby in juxta-position to said transparent tube.

1,242,177. ROLLING SCREEN. JOSEPH GUMBER, PAUL GUMBER, and JOHN HARDER, East Moline, Ill. Filed Feb. 21, 1917. Serial No. 150,182. (Cl. 156—39.)

2. In combination, a casing open upon one side, a screen roller, means for mounting said roller at its ends for bodily movement with respect to the casing, a spring acting to wind the material upon the roller, and relatively stationary, anti-friction rollers mounted in the casing and co-acting with the roller to urge the same in an outward direction from the open side of the casing as the material is wound thereon.

14. In combination, a casing, oscillatable supports mounted upon the end walls of the casing, stop lugs on the end walls of the casing limiting the movement of the supports in one direction, a spring actuated roller rotatably mounted upon said supports, a guard plate pivotally mounted upon the end walls of the casing and extending outwardly over the roller, the free longitudinal edge of the guard plate contacting with the roller, and



means limiting the swinging movement of the supports in an opposite direction to prevent frictional contact of the roller with the casing wall when the material is withdrawn from the roller.

[Claims 1 and 3 to 13 not printed in the Gazette.]

1,242,178. CIRCUIT-CLOSING MEANS FOR FIRE-ALARMS. HARLEY W. GUTHRIE, Elmore, Ohio. Filed June 24, 1916. Serial No. 105,675. (Cl. 200—33.)



1. Circuit closing means for fire alarm apparatus embodying a pair of adjacent main conductors insulated from each other to prevent short circuits therebetween, and fusible conductors contiguous to, extending longitudinally side by side along and connected at intervals to the main conductors and adapted to fuse together for electrically connecting the main conductors in the event of an abnormal increase in temperature.

[Claims 2 to 4 not printed in the Gazette.]

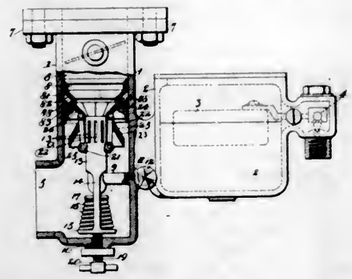
1,242,179. EVENER. FRANK A. HAGERMAN, Stromsburg, Nebr. Filed May 5, 1916. Serial No. 95,695. (Cl. 21—76.)



1. A draft equalizer comprising a draft bar and outer and relatively inner swingletrees, castings carried by said inner swingletrees, cross bars carried by said castings, guide rollers carried by said castings and cross bars, resilient members connecting said cross bars and said draft bar, guide arms terminally carried by said draft bar and flexible draft means connecting said draft bars and swingletrees and engaging with said guide rollers.

2. A draft equalizer comprising a draft bar and outer and inner swingletrees, castings carried by said inner swingletrees, cross bars carried by said castings, guide rollers carried by said castings and cross bars, supporting bars connecting said cross bars and the said draft bar, resilient members connecting said cross bars and the said draft bar, guide arms terminally carried by said draft bar and flexible draft means connecting said draft bars and swingletrees and engaging with said guide rollers.

1,242,180. CARBURETER. JOSEPH A. HAIGH, Sunbury, Pa. Filed Aug. 17, 1914, Serial No. 857,149. Renewed Feb. 27, 1917. Serial No. 151,379. (Cl. 261—44.)



1. In a carbureter, a gasolene nozzle, a casing in which the nozzle is mounted, a tube slidable on the nozzle and having air passages adjacent to one end, a device for moving the tube downwardly on the nozzle, said nozzle and tube being spaced from the said casing to leave a passage, said casing having an air intake below and a mixture outlet above said nozzle, a sliding partition in the casing for regulating the areas of the aforesaid passage and connections between the said partition and the said tube, whereby when the said tube is lowered the said passage around the tube will be closed, said partition being adapted to be opened by the suction of the engine, and means on the upper end of the nozzle for restricting the air passage between the nozzle and the said slidable tube.

2. In a carbureter, a casing having a mixing chamber and an air inlet, a fuel nozzle vertically mounted in the said casing to discharge into the mixing chamber, a partition in the passage between the feed nozzle and the casing, said partition including radially projected vanes adapted when in one position to close against each other to thereby form a restricted air passage around the nozzle, and to the mixing chamber, means tending to normally hold the vanes closed against each other, so long as the air pressure against them is below a predetermined amount, said vanes being mounted to spread apart as the air pressure exceeds the said predetermined amount.

3. In a carbureter, a casing having a mixing chamber and an air inlet below the said chamber, a fuel nozzle vertically projected within the casing to discharge into the mixing chamber, a tube slidable on the nozzle having air inlets adjacent its upper end, an apertured collar on the nozzle that forms a division between the tube and nozzle, means tending to normally slide the tube downwardly to bring its air inlets below the said apertured collar, a partition that separates the mixing chamber from the air inlet end of the casing, said partition including frusto conical shaped segments, a slideway for the segments, said segments forming when in one position, a conical air duct that surrounds the slidable tube and whose upper end closes against the upper end of the said slidable tube to thereby direct the air through the air passages in the tube and through the apertured collar on the nozzle, said segments being connected to the sliding tube to move up and down it with and to spread as the suction or air pressure against the segments overcome the means that tend to pull the said segments together.

4. In a carbureter, a casing having a mixing chamber and an air intake chamber, a nozzle for the gasolene mounted within the casing that discharges into the mixing chamber, a partition within the space between the air infeed and the mixing chamber and that surrounds the nozzle, said partition including a fixed portion having an annular slideway, a movable portion consisting of a series of segmental sections of double frusto conical shape, one portion of which is movably held in the said annular slideway, the other portion of which surrounds the nozzle, means tending to normally retract or draw the sections together to form a cone shaped air tube around the nozzle, and said segments adapted for being automatically drawn out and separated as the engine suction exceeds the retracting or back tension on the segments.

5. In a carbureter, a casing having an air inlet at the lower end and a mixing chamber at the upper end, a gasolene nozzle that extends upwardly within the casing to discharge into the mixing chamber, a partition within the passage between the nozzle and the casing, means mounted on the said partition for controlling the infeed of the air to the mixing chamber, said means including shiftable members adapted, when in one position, to close and restrict the said air passage, retracting means for normally holding the members to their closed position, said members being adapted for automatically spreading to provide freer passages for the air to the mixing chamber when the suction action of the engine is greater than the hold back tension of the retractory means that coöperate with the said members and proportionately to the engine requirements.

[Claims 6 to 9 not printed in the Gazette.]

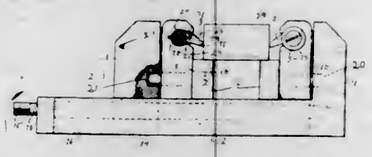
1,242,181. COOKING DEVICE. LEWIS F. HAKE, Canton, Ohio. Filed Oct. 24, 1916. Serial No. 127,383. (Cl. 126—275.)

In a cooking device of the character described, the combination of an outer vessel consisting of lower and cover portions, said lower portion adapted to receive a series of individual cooking vessels, the lower portion of the outer vessel provided with balls located upon opposite sides of the same, the upper portion provided with a pivoted handle, said handle provided with hooked outer ends extended beyond the outer points of the handle and beyond the periphery of the upper section of the vessel and adapted for engagement with the balls secure to the lower member of the vessel, said lower vessel provided with a grated bottom adapted to support said series of individual cooking vessels, substantially as described.

1,242,182. MACHINE-CHUCK. JAMES G. HALLAS, Kenosha, Wis. Filed June 15, 1916. Serial No. 103,712. (Cl. 90—60.)

1. The combination, with a vise comprising a fixed jaw member having a supporting base, a movable jaw member and means for operating said movable jaw member, of a block removably connected with one of said jaw members and slidable along the base and having a transversely extending bore near the front side thereof and a slot extending from the front side to said bore, a member

mounted within said bore for limited pivotal movement and having a gripping portion extending outwardly through the slot and provided with a work engaging edge disposed in a plane below the plane of the pivotal axis of said member to automatically exert a lateral and downward pressure against the work on the tightening up of the jaw member.

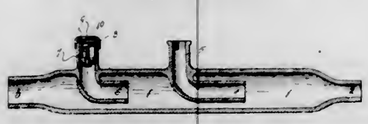


2. The combination, with a vise comprising a fixed jaw member having a supporting base, a movable jaw member and means for operating said movable jaw member, of a block operatively connected with one of said jaw members, a gripping member pivotally secured in said block and having a work engaging edge projecting outwardly from the same and disposed below its pivotal axis to automatically exert a downward pressure against the work on the tightening up of the jaw members, and means for normally maintaining said gripping member in its upper position.

3. The combination, with a vise comprising a fixed jaw member having a supporting base, a movable jaw member and means for operating said movable jaw member, of a block operatively connected with one of said jaw members, a gripping member pivotally secured in said block and having a work engaging edge projecting outwardly from the same and below its pivotal axis to automatically exert a downward pressure upon the work on the tightening up of the jaw members, and a spring secured to said block and gripping member to maintain said gripping member in its normal upper position.

4. An auxiliary attachment for a machine vise comprising a block having squared ends, a gripping member pivotally secured in said block and having a work engaging edge projecting outwardly from the same below its pivotal axis, and means for normally maintaining said gripping member in its upper position.

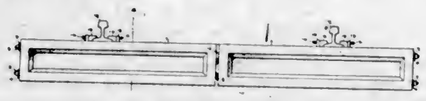
1,242,183. OIL-BURNER. WILLIAM G. HAMILTON, Cleburne, Tex. Filed May 7, 1917. Serial No. 167,030. (Cl. 158—74.)



In an oil burner, the combination with a cylindrical tube tapered at one end to form a burner orifice and reduced at the other end to form an inlet for oil, a pair of tubular connections formed in the cylindrical tube and extended into said tube where the ends thereof are open in the form of a nozzle and directed toward the burner orifice and concentrically arranged within said tube, and an automatic air valve contained within one of the tubular members for the purpose of feeding air in regulated quantities to the interior of the device, and the other tubular connection adaptable for use in connecting up with a steam or air pressure for creating a blast at the burner orifice.

1,242,184. REVERSIBLE RAILROAD-TIE. HOWARD HARSH, Osakis, Minn. Filed Feb. 17, 1917. Serial No. 149,351. (Cl. 238—3.)

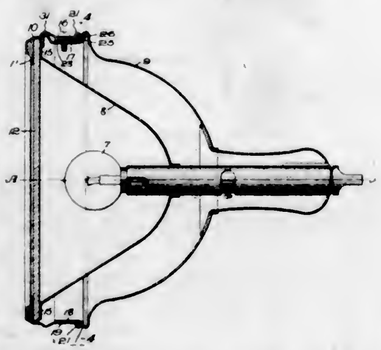
1. A reversible tie comprising a pair of tie sections, pipe casings arranged through each tie section, tie rods disposed through said pipe casings and serving to connect said tie sections together, cushioning means positioned between said sections, and means for securing a pair of rails in position upon the tie.



5. A reversible railroad tie comprising a pair of tie sections having a pair of alining sockets adjacent the top and bottom portions of said sections, removable spacing means arranged between the meeting ends and adjacent the top of said sections, a cushion spring removably arranged in the lower pair of alining sockets, and means for securing said tie sections together.

[Claims 2 to 4 not printed in the Gazette.]

1,242,185. LAMP. ELLSWORTH A. HAWTHORNE, Bridgeport, Conn. Filed May 8, 1917. Serial No. 167,183. (Cl. 240—41.)



2. In combination, a glazing, a casing having a seat for said glazing, and means for holding said glazing against said seat including a clamping member having a plurality of resilient fingers, and means to tension said fingers to cause the same to urge said glazing against said seat.

24. In combination, a casing comprising two telescopically arranged parts one of which is provided with a seat against which the other is seated by axial movement, said parts being provided, respectively, with oppositely inclined shoulders, and means for relatively moving said parts to cause such seating, said means including a radially disposed screw and means coöperating with said screw and said shoulders to translate turning movement of said screw into axial movement of said parts.

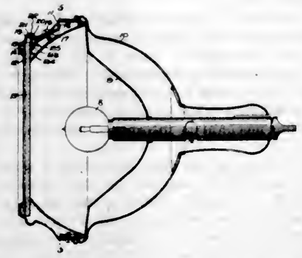
33. In combination, a glazing, a resilient seat for said glazing disposed at an acute angle to the face thereof, and means including a screw for urging said glazing against said seat and tensioning the latter.

35. In combination, a casing comprising two coaxially arranged parts, and means to lock said parts together, including a screw extending from the exterior to the interior of said casing, and a radially movable device actuated by said screw and interlocking with both of said parts.

42. In a lamp casing, the combination of a body and a closure therefor, the latter comprising a glazing and door having a resilient seat for said glazing, said seat being disposed approximately flatwise though at a slight acute angle to the contacting face of said glazing, and means to hold said glazing against said seat and to maintain the latter under tension.

[Claims 1, 3 to 23, 25 to 32, 34, and 36 to 41 not printed in the Gazette.]

1,242,186. LAMP. ELLSWORTH A. HAWTHORNE, Bridgeport, Conn. Filed May 8, 1917. Serial No. 167,184. (Cl. 240—41.)

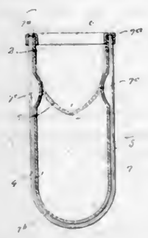


1. In combination, a glazing, a casing having a seat therefor, and means to hold said glazing seated against said seat, including a screw extending from the exterior to the interior of said casing, a nut having screw-threaded engagement with said screw within said casing, an arm carried by said nut and having interlocking engagement with said casing and another arm carried by said nut and arranged to urge said glazing against said seat.

5. In combination, a glazing, a casing having a seat therefor, and means to hold said glazing seated against said seat, including a screw extending from the exterior to the interior of said casing, a nut having screw-threaded engagement with said screw within said casing, an arm carried by said nut and having interlocking engagement with said casing, a pair of arms carried by said nut, and a plate engaged by said pair of arms and urged thereby against said glazing, said plate being provided with an arm embraced by the arms of said pair.

[Claims 2 to 4 not printed in the Gazette.]

1,242,187. EYEGLASS POLISHER-CONTAINER. HENRY A. HAYDEN, Jersey City, N. J., assignor to Moses H. Harris, New York, N. Y. Filed Aug. 9, 1915. Serial No. 44,403. (Cl. 206—5.)



1. A device of the class described, including, in combination, a flat open-topped bag of flexible material, and a flat stiffener-strip located within the bag and while inflexible across the plane of the flat of the bag resiliently flexible within said plane, said strip being intermediately bent into a reëntrant angle which constitutes a yieldable nose extending within the bag to yieldably narrow the width of the bag intermediate the top and bottom thereof.

2. A device of the class described, including, in combination, a flat open-topped bag of flexible material, and a flat stiffener-strip located within the bag and lying in substantial coincidence with the closed periphery of the bag, and inflexible across the plane of the bag, said strip being substantially U-shaped in the said plane and each leg of the U being intermediately provided with a reëntrant bend, the crests of the bends extending toward each other to narrow the width of the bag intermediate the top and bottom thereof.

1,242,188. CREOSOTE-OIL SUBSTITUTE AND PROCESS OF MAKING SAME. GEORGE EDWARD HEYL, London, England. Filed Feb. 21, 1917. Serial No. 150,017. (Cl. 99—12.)

1. A process for obtaining a substitute for creosote oil, consisting in dissolving in mineral oil, naphthalene and naphthalene derivatives obtained from coal tar distillates.

3. A process for obtaining a substitute for creosote oil, consisting in dissolving in mineral oil, naphthalene and naphthalene derivatives obtained from middle oil distilled from coal tar between 170°–230° C.

12. A substitute for creosote oil, consisting of a solution in mineral oil, of naphthalene and naphthalene derivatives obtained from the distillate creosote distilled from coal tar between 170°–270° C.

[Claims 2, 4 to 11, and 13 not printed in the Gazette.]

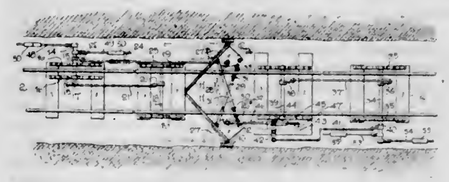
1,242,189. TREATMENT OF RUBBER OR RUBBER COMPOUNDS. CONRAD HOFER, Trenton, N. J. Filed May 2, 1917. Serial No. 165,983. (Cl. 18—53.)

1. A method of treating rubber, consisting in dipping a form in a rubber cement, then curing the rubber upon the form by sulfur chlorid fumes, then subjecting the rubber on the form to a steam cure, and then removing the rubber from the form.

4. A method of treating rubber consisting in glazing a face of the rubber and then subjecting the glazed face to a steam cure.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,242,190. MEANS FOR AUTOMATICALLY OPENING MINE-DOORS. ALBERT M. HOPPER and JAMES O. HOPPER, Pittsburg, Kans. Filed July 5, 1917. Serial No. 178,809. (Cl. 269—7.)

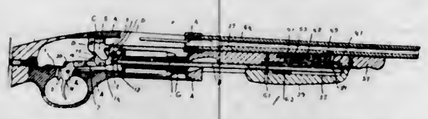


1. The combination with a pair of hinged mine doors, of car actuated door operating means including rock shafts disposed on opposite sides of the doors and having each an upwardly extending car engaging dog and having each a downwardly extending arm, members attached to each door and extending therefrom, rods operatively connecting the downwardly extending arms of each rock shaft to a corresponding member, a pair of crossed rods connecting said members, each of said cross bars being formed in two sections having sliding engagement with each other, and a spring resisting sliding movement of the rods.

4. The combination with a pair of hinged mine doors, of car actuated door operating means including rock shafts disposed on opposite sides of the doors and having each an upwardly extending car engaging dog and having each a downwardly extending arm, members attached to each door and extending inward therefrom, rods operatively connecting the downwardly extending arms of each rock shaft to a corresponding member, a pair of crossed rods connecting said members, means for returning said rock shafts to a normal position with the dogs extending upward and toward the doors, and comprising oppositely disposed weighted arms on each rock shaft, each of said arms being engaged by the rock shaft upon a movement of the rock shaft in one direction, the rock shaft having a movement independent of said arms upon a movement in the opposite direction.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,242,191. FIREARM. TIMOTHY F. HORAN, Ilion, N. Y. Filed July 12, 1915. Serial No. 39,266. (Cl. 42—19.)



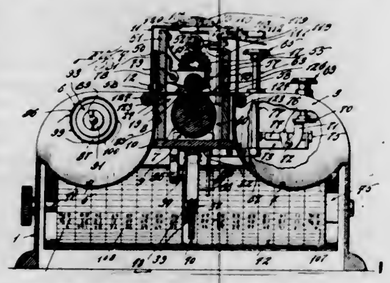
1. The combination in a firearm, of a frame, a barrel secured thereto, a rotating cartridge magazine in the frame having an opening through its axial center, mechanism in the frame for placing a cartridge in the barrel, closing the breech, cocking the arm, opening the breech and taking the cartridge from the barrel, and a member mounted to slide back and forth through said axial opening in the magazine and operated from its forward end beyond the magazine and connected at its rear end to the said mechanism in the frame whereby movement of said sliding member back and forth operates said mechanism in the frame.

2. The combination in a firearm, of a frame, a barrel secured thereto, a rotating cartridge magazine in the frame having an opening through its axial center, mechanism in the frame for placing a cartridge in the barrel, closing the breech, cocking the arm, opening the breech and taking the cartridge from the barrel, a forestock forward of the frame and secured to the barrel, a handle mounted to slide back and forth on the forestock and a connecting member extending from the sliding handle on the forestock through the axial opening of the magazine to the mechanism in the frame whereby movement of the sliding handle back and forth operates said mechanism in the frame.

4. In a pump-action magazine firearm, the combination of a frame, a barrel detachably secured thereto, a forestock having its rear end detachably connected to the forward end of the frame and detachably secured at its forward end to the barrel whereby its forward end may be swung away from the barrel, a magazine in the frame, mechanism in the frame for placing a cartridge in the barrel, closing the breech, cocking the arm, opening the breech and taking the cartridge from the barrel, a member slidingly mounted on the forestock and a pumping rod connected at its forward end to said sliding member by a joint that is rigid when the rod and sliding member are in line but detachable when the sliding member is turned at an angle by the forward end of the forestock being swung away from the barrel, the rear of said pumping rod being operatively connected to said mechanism in the frame whereby forward and backward movement of the sliding member on the forestock operates said mechanism in the frame.

[Claims 3 and 5 to 7 not printed in the Gazette.]

1,242,192. RIBBON MEASURING, COST-COMPUTING, AND WINDING MACHINE. WALTER E. HOSCH, St. Louis, Mo. Filed Feb. 8, 1915. Serial No. 6,671. (Cl. 33—131.)



1. In a machine of the class described, a frame providing an open-end recess for accommodating the bolt of ribbon from which the ribbon to be measured is to be unwound, and a supplemental support for the ribbon slidably mounted in the frame adjacent to said recess and movable in the direction of the length, and beyond the open end thereof.

2. In a machine of the class described, a frame providing on its upper side parallel circular recesses, respectively located at opposite sides of the machine, one of which recesses serves to accommodate the bolt of ribbon from which the ribbon to be measured is adapted to be unwound, a winding-drum located in the other recess, and ribbon feeding mechanism interposed between the two recesses.

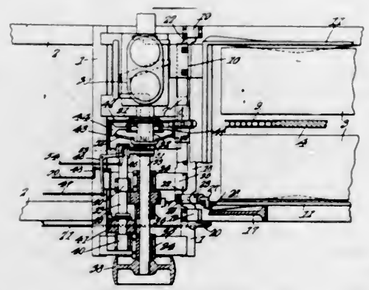
3. In a machine of the class described, a frame providing on its upper side parallel circular recesses, respectively located at opposite sides of the machine, one of which recesses serves to accommodate the bolt of ribbon from which the ribbon to be measured is adapted to be unwound, a winding-drum located in the other recess, ribbon feeding mechanism interposed between the two recesses, and a cutter interposed between the feeding mechanism and the winding-drum.

4. In a machine of the class described, in combination with a feed-roll, a friction-roll movable into and out of engagement therewith, a rotatable, spring-controlled computing-drum, gearing operatively connecting said feed-roll and computing-drum, one element of said gearing being movably associated with the computing-drum, a handle for actuating said gearing to simultaneously rotate said feed-roll and computing-drum, the latter against the resistance of its spring, and means for raising said friction-roll and simultaneously releasing said movable gear-element from engagement with said computing-drum to permit the spring controlling the latter to return it to the zero position, and a stop for arresting said computing-drum in the latter position.

5. In a machine of the class described, in combination with a ribbon-feed roll, a worm-shaft, an indicator slidably mounted adjacent to and movable by said worm-shaft, a scale operatively associated with said indicator, a winding-drum, gearing operatively connecting said worm-shaft, winding drum and roll, means for positively actuating said gearing, said gearing being proportioned to rotate said worm-shaft at a fixed ratio to the feed-roll, and said indicator being movable in the rotation of said worm-shaft to indicate on the scale the length of ribbon fed by the feed-roll, and a wheel on said worm-shaft having numbered divisions thereon corresponding in number to the number of inches measured by the circumference of the feed-roll.

[Claim 6 to 8 not printed in the Gazette.]

1,242,193. TRANSMISSION MECHANISM. JOSEPH D. INGRAM, Washburn, Tex. Filed Oct. 26, 1916. Serial No. 127,879. (Cl. 74—58.)



1. A transmission mechanism embodying a pair of gears, one movable in the plane of rotation thereof to and from the other into and out of mesh therewith, and a third gear shiftable into mesh with the aforesaid gears when they are separated in said plane.

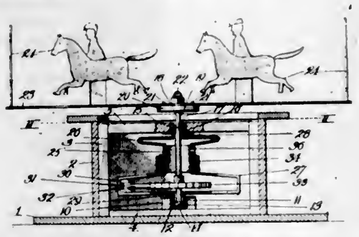
4. A transmission mechanism embodying a wheel, a U-shaped member astride said wheel and having its terminals pivotally mounted, a counter shaft journaled to the yoke portion of said member, an operative connection between said counter shaft and wheel, a gear wheel carried by the counter shaft, a gear with which the gear wheel is adapted to mesh, and means for swinging said member.

7. A transmission mechanism embodying a swinging member, a gear wheel carried thereby, gears with which said gear wheel is adapted to mesh, a rock shaft, means for rocking said shaft, said rock shaft having an eccentric portion, and a link connecting said eccentric portion and swinging member.

12. A transmission mechanism embodying a pair of alining shafts, a sleeve secured upon the end of one and receiving the end of the other, the first mentioned shaft being shiftable longitudinally for changing speed, a clutch wheel secured to the second mentioned shaft and having a friction rim, a friction shoe connected to said sleeve to engage said rim, a collar slidable upon the sleeve for bringing the shoe into and out of engagement with said rim, a member slidable with said shaft, and operating means carried by said member and connected to said collar for shifting it at various positions of the first mentioned shaft.

[Claims 2, 3, 5, 6, and 8 to 11 not printed in the Gazette.]

1,242,194. TOY. JAMES E. JEWELL, Kansas City, Mo. Filed Apr. 16, 1917. Serial No. 162,560. (Cl. 46—27.)

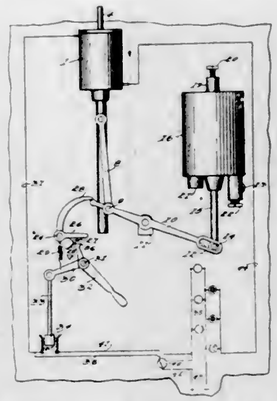


1. A toy, comprising a housing, a shaft journaled in the housing, a drum rotatable around said shaft and out of contact therewith, a retractile spring connected to the drum and to a point in fixed relation to the housing, a pull cord connected to the drum for turning the same against the resistance of said retractile spring to tension the latter to cause it to reverse the movement of the drum when the pull on the cord is relaxed, and means for transmitting power from the drum to said shaft when the drum is turned by said spring.

4. A toy, comprising a housing, a frame therein, a socket bearing carried by said frame, a sleeve bearing mounted in said frame vertically above the socket bearing and provided with a reduced V-shaped portion, a shaft journaled in the socket bearing and bearing against the underside of the V-shaped portion of the other bearing, and having a diametrically reduced portion extending up through said V-shaped portion of the bearing, a drum fitting around said shaft, and provided at its upper end with a tubular stub shaft fitting in the said sleeve bearing concentrically around and out of contact with the first-named shaft, and provided at its lower end with a depending tubular stub shaft journaled in the socket bearing and concentrically surrounding and out of contact with the first-named shaft, a pawl and ratchet wheel connection between said drum and first-named shaft, a pull cord to rotate the drum in one direction, and a spring to be tensioned by the rotation of the drum by the cord, for the purpose of reversing the rotation of the drum when the cord is released and transmiting power through said pawl and ratchet wheel connection, from the drum to said first-named shaft.

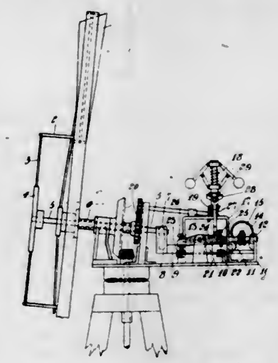
[Claims 2 and 3 not printed in the Gazette.]

1,242,195. CIRCUIT-BREAKER. ERIK WALDEMAR JOHANSON, Moline, Ill. Filed Aug. 21, 1916. Serial No. 116,067. (Cl. 161—25.)



In an adjustable circuit breaker including a pair of contact arms, a conductor adapted for releasable engagement with said contact arms, a trigger, a bell-crank-lever connecting said lever and conductor and adjustable with relation to the former member, a retractile spring connecting said trigger and bell-crank-lever, a solenoid having a freely movable core, a pitman carried by said core, a lever pivotally connected to said pitman and adapted for engagement with said trigger to actuate the same to permit said retractile spring to cause movement of said bell-crank-lever with relation to said trigger and a retarding device connected to the said lever.

1,242,196. REGULATING DEVICE FOR WIND-MOTORS. VICTOR JUNIUS JOHANSSON, Lidköping, Sweden. Filed Nov. 18, 1916. Serial No. 132,045. (Cl. 170—67.)

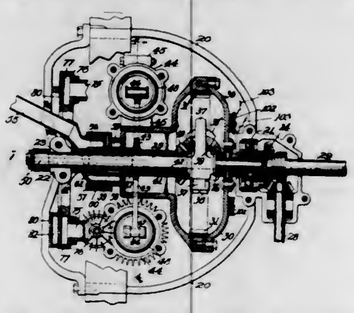


1. In a regulating device for wind motors, the combination of a wind-wheel, rotatable sails in said wind-wheel, an electric reversible servomotor, means for transmitting motion from the said servomotor to the sails so as to turn the same in one direction or the other according to the direction of rotation of the servomotor, a governor driven by the wind motor, a pole-changer connected in the circuit of the servomotor and actuated by the governor in such manner that at normal speed of the wind motor the pole-changer occupies such intermediate position that the motor circuit is broken while at increasing and decreasing speeds of the wind motor the pole-changer is operated by the governor so as to close the circuit of the servomotor in one direction or the other, and a base-plate pivoted to

the top of the wind motor mast and supporting the said wind-wheel, servomotor, governor, pole-changer and means for transmitting motion, substantially as and for the purpose set forth.

2. In a regulating device for wind motors, the combination of a wind-wheel, rotatable sails in said wind-wheel, an electric reversible servomotor, means for transmitting motion from the said servomotor to the sails so as to turn the same in one direction or the other according to the direction of rotation of the servomotor, a governor driven by the wind motor, a pole-changer connected in the circuit of the servomotor and actuated by the governor in such manner that at normal speed of the wind motor the pole-changer occupies such intermediate position that the motor circuit is broken while at increasing and decreasing speeds of the wind motor the pole-changer is operated by the governor so as to close the circuit of the servomotor in one direction or the other, said pole-changer consisting of an arm pivoted approximately at its middle point and provided with contacts at both ends, a connection between the said arm and the governor, a base-plate pivoted to the top of the wind motor mast and supporting the said wind-wheel, servomotor, governor, pole-changer and means for transmitting motion, and fixed contacts in said base plate coöperating with the contacts on said arm, substantially as and for the purpose set forth.

1,242,197. ROTARY INTERNAL-COMBUSTION ENGINE. AUGUSTUS JOHNSON, Worcester, Mass., assignor of one-half to Albert F. Richardson, Worcester, Mass. Filed Apr. 12, 1916. Serial No. 90,760. (Cl. 123—43.)



1. In an internal combustion engine, the combination of a stationary shaft, a casing rotatably mounted on the shaft and having hollow projections extending outwardly therefrom, cylindrical shells supported by said projections constituting cylinders, a hub rotatable on the shaft independently and having arms extending outwardly therefrom in said hollow projections, pistons in the cylinders connected with said arms, and means for controlling the motion of said arms around the shaft and moving them constantly in the same direction but at varying speeds.

2. In an internal combustion engine, the combination of a stationary shaft, a hub thereon having arms extending therefrom, a piston connected with each of said arms and rotatable therewith, a casing rotatable about said shaft independently of said hub, a cylinder for each of said pistons carried by said casing, means carried partly by said shaft for rotating said hub as the casing rotates, and means for varying the speed of rotation of said hub while the casing rotates at constant speed.

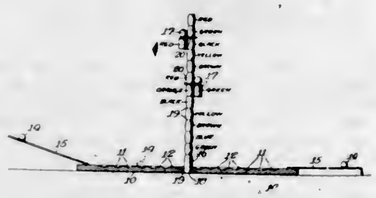
3. In an internal combustion engine, the combination of a stationary shaft, a casing rotatable about said shaft, cylinders fixedly carried by said casing and rotatable with it around the shaft, a piston located in each cylinder, a hub rotatable about the shaft, connections from the hub to said pistons for operating the pistons, a gear mounted on said casing and rotatable therewith and having two sets of gear teeth thereon, quick pitch and slow pitch teeth, a train of gearing connected with said hub for operating it and comprising a gear meshing with said gear on the casing whereby during a part of the rotation of said casing one set of teeth will drive said hub at a rapid rate and during another part of the rotation of the casing the other set of teeth will drive the hub at a slower speed to permit the pistons to be relatively retracted in the cylinders.

4. In an internal combustion engine, the combination of a stationary shaft, a casing rotatable about said shaft, cylinders fixedly carried by said casing and rotatable with it around the shaft, a piston located in each cylinder, a hub rotatable about the shaft, connections from the hub to said pistons for operating the pistons, a gear mounted on said casing and rotatable therewith and having two sets of gear teeth thereon, quick pitch and slow pitch teeth, a train of bevel gearing connected with said hub for operating it and comprising a gear meshing with said gear on the casing whereby during a part of the rotation of said casing the quick pitch teeth will drive said hub at a rapid rate and during another part of the rotation of the casing the other teeth will drive the hub at a slower speed, and a frame for supporting said train of bevel gearing, said frame being fixed to the stationary shaft.

5. In an internal combustion engine, the combination of a shaft, a rotatable casing thereon, cylinders fixedly carried by said casing and rotatable with it, a piston located in each cylinder, a gear rotatable with said casing and having two sets of teeth, quick pitch and slow pitch teeth, a train of gearing connected with said pistons for operating them and comprising a gear meshing with said quick and slow pitch gear whereby during a part of the rotation of said casing the pistons will be rotated at a rapid rate and during another part will be rotated at a slower speed to permit them to be relatively retracted in the cylinders.

[Claims 6 and 7 not printed in the Gazette.]

1,242,198. GAME APPARATUS. HOWARD B. JONES, Chicago, Ill. Filed Nov. 4, 1916. Serial No. 129,440. (Cl. 46—61.)



1. Game apparatus comprising a base having on the top surface thereof a plurality of substantially concentric grooves and intervening ridges, a track device adapted to be held in the player's hand and rested upon the marginal portion of the base, a rolling device adapted to be positioned on the track device and thereby projected substantially toward the center of said concentric grooves, said track being such that by raising or lowering one end thereof said rolling device positioned thereon will be projected over said ridges with varying forces respectively.

2. Game apparatus comprising a substantially flat base having concentric grooves and intervening ridges on the upper surface thereof, a rolling device adapted to be propelled over one or more of said ridges and to come to rest in one of said grooves, a score counting device associated with said base, and means for projecting said rolling device over one or more of said ridges from the marginal portion thereof substantially toward the center of said grooves.

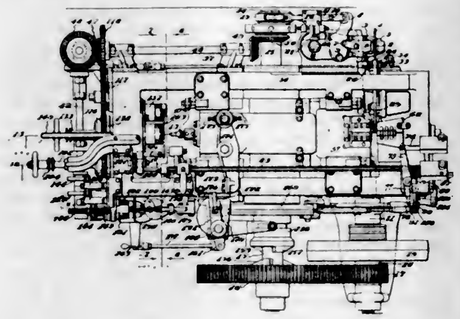
3. Game apparatus comprising a substantially flat base having a plurality of substantially parallel ridges in the upper surface thereof, a post extending upward from said base, and markers adapted to engage said post at various elevations thereon, a playing device adapted to pass over one or more of said ridges and to come to rest in one of said grooves, said markers being adjustable on said post to indicate the score or count of said playing device in the respective grooves.

4. Game apparatus comprising a substantially flat base having concentric grooves and intervening ridges in the upper surface thereof, a rolling device adapted to be propelled over one or more of said ridges and to come to rest in one of said grooves, a post upstanding from said base, a counter readily adjustable to various positions on said post, and corresponding identifying means associated with said grooves and with said post whereby a count registered by said rolling device in one of said grooves may be indicated by said counter on said post according to said corresponding identifying means.

5. Game apparatus comprising a substantially flat base having concentric grooves and intervening ridges on the top surface thereof, a post upstanding substantially from the center of said base, a plurality of counters adapted to be readily adjustable respectively at various positions on said post, a metallic ball, a track device for projecting said ball in a rolling manner over some of said ridges, said ball being adapted to come to rest in one of said grooves, said post and said grooves having respectively associated therewith corresponding indicating means, said counters being adapted to register the counts made in said respective grooves by said ball.

[Claim 6 not printed in the Gazette.]

1,242,199. NUT-MACHINE. DAVID JULIAN, Waterbury, Conn., assignor, by mesne assignments, to Russell, Burdsall & Ward Bolt and Nut Company, Port Chester, N. Y., a Corporation of New York. Filed Aug. 8, 1914. Serial No. 855,901. (Cl. 10—72.)



1. In a nut machine, in combination with a reciprocating ram and means for reciprocating said ram, blanking punches mounted on the ram at one end, finishing punches mounted on the ram at the other end, blanking dies mounted on the frame at one end, finishing dies mounted on the frame at the other end, mechanism for feeding stock between the blanking punches and dies, means for conducting the blanks from one end to the other, oscillatory mechanism for transferring the blanks from the blanking dies to and advancing them along the conductor, a rotatory carrier for presenting the blanks between the finishing punches and dies, and rotatory mechanism for transferring the blanks from the conductor to the carrier.

2. In a nut machine, in combination with a reciprocating ram and means for reciprocating said ram, punches mounted on the ram at one end, punches mounted on the ram at the other end, dies mounted on the frame at one end, dies mounted on the frame at the other end, mechanism for feeding stock between the punches and dies at one end, a track for guiding the blanks from one end of the machine to the other, oscillatory mechanism for transferring the blanks from the dies to and advancing them along the track, a carrier for presenting the blanks between the punches and dies at the other end, and rotatory mechanism for transferring the blanks from the track to the carrier.

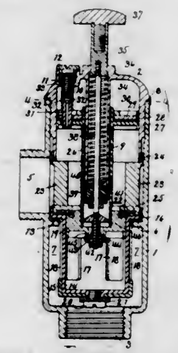
3. In a nut machine, in combination with a reciprocating ram and means for reciprocating said ram, punches mounted on the ram at one end, punches mounted on the ram at the other end, dies mounted on the frame at one end, dies mounted on the frame at the other end, oscillatory mechanism for feeding stock between the punches and dies at one end, a track for guiding the blanks from one end of the machine to the other, oscillatory mechanism for transferring the blanks from the dies to and advancing them along the track, a carrier for presenting the blanks between the punches and dies at the other end, and rotatory mechanism for transferring the blanks from the track to the carrier.

4. In a nut machine, in combination with a reciprocating ram and means for reciprocating said ram, blanking punches mounted on the ram at one end, finishing punches mounted on the ram at the other end, blanking dies mounted on the frame at one end, finishing dies mounted on the frame at the other end, mechanism for feeding stock between the blanking punches and dies, means for conducting the blanks from one end to the other, oscillatory mechanism for transferring the blanks from the blanking dies to and advancing them along the conductor, a rotatory carrier for presenting the blanks between the finishing punches and dies, rotatory mechanism for transferring the blanks from the conductor to the carrier, and mechanisms for stopping the machine should the blanks become misplaced between the finishing punches and dies.

5. In a nut machine, in combination with a reciprocating ram and means for reciprocating said ram, punches mounted on the ram at one end, punches mounted on the ram at the other end, dies mounted on the frame at one end, dies mounted on the frame at the other end, mechanism for feeding the stock between the punches and dies at one end, mechanism for feeding the blanks between the punches and dies at the other end, means for conducting the blanks from one end of the machine to the other, oscillatory mechanism for transferring the blanks from the dies at one end to the conductor, and rotatory mechanism for transferring the blanks from the conductor to said dies at the other end.

[Claims 6 to 24 not printed in the Gazette.]

1,242,200. FLUSHING-VALVE. ROBERT M. KEATING, Springfield, Mass. Filed Mar. 13, 1914. Serial No. 824,449. (Cl. 137—93.)



1. A flushing valve comprising a casing having an intake and an outlet, a valve-seat in said casing, a valve for said seat, said valve having a valve-seat and being provided with a hollow stem, a retarding piston on said stem, progressive retarding means, for said piston, within said retarding chamber and opening through said piston,

a spring-pressed plunger, a valve carried by said plunger for the seat in said first-mentioned valve, and means to unseat said first-mentioned valve after the valve carried by said plunger is unseated.

2. A flushing valve comprising a casing having an inlet and an outlet and provided with a valve seat, means to close on end of said casing, a retarding chamber at the closed end of said casing, such chamber consisting in part of a piston, a valve for said seat, a hollow stem connecting said valve and piston and opening through both, progressive retarding means for said piston, a tubular member extending from the closed end of the casing into said stem, a plunger extending through said closed end and inwardly through said valve, guide means for said stem at the inner end of said tubular member, a spring in said tubular member to actuate said plunger in one direction, a valve on said plunger for the inlet to said stem, and means to unseat the first valve after the second valve is unseated.

3. A flushing valve comprising a casing having an inlet and an outlet and provided with a valve-seat, means to close one end of said casing, a retarding chamber at the closed end of said casing, such chamber consisting in part of a piston, a tubular member extending into said chamber, a member carried by said piston in sliding relation to said tubular member, said second mentioned member opening on both sides of said piston and adapted to have the entrance thereto partially closed by said tubular member as said piston approaches the end of its outward stroke, a valve for said seat, a hollow stem connecting said valve and piston and opening through both, a tubular member extending from the closed end of the casing into said stem, a plunger extending through said closed end and inwardly through said valve, a valve on said plunger for the inlet to said stem, and means to unseat the first valve after the second valve is unseated.

4. In a flushing valve, members including a piston which assists in forming a retarding chamber, a tubular member extending into said chamber, a member carried by said piston in sliding relation to said tubular member inside, said second-mentioned member opening on both sides of said piston and adapted to have the entrance thereto partially closed by said tubular member as said piston approaches the end of its outward stroke, and an adjusting member, within said second-mentioned member, for said entrance to said second-mentioned member.

5. In a flushing valve, members including a piston which assists in forming a retarding chamber, a tubular valve member extending into said chamber from one of the walls thereof, such wall having an opening over said member, a screw-cap for said opening, a member carried by said piston in sliding relation to said valve member, said second-mentioned member opening on both sides of said piston and adapted to have the entrance thereto partially closed by said valve member as said piston approaches the end of its outward stroke, and an adjusting member for said entrance to said second-mentioned member, said adjusting member being accessible when said screw-cap is removed.

[Claims 6 and 7 not printed in the Gazette.]

1,242,201. WRENCH. CHARLES G. KELLER, Poughkeepsie, N. Y. Filed Apr. 12, 1917. Serial No. 161,410. (Cl. 81—58.)



1. A socket wrench including a handle member having a cylindrical opening therethrough terminating at opposed faces, a cylindrical socket member of uniform diameter throughout its length disposed within said opening and having opposed parallel end faces approximately flush with the faces of said handle member, an annular groove in the periphery thereof adjacent to one face, and a non-circular socket extending axially through said socket member from one face to the other, a portion of the periphery of said socket member between and spaced from the end faces thereof and at one side of said annular groove being cut away to form a recess having a face converging toward the cylindrical inner face of said opening, a roller in said recess, means tending to hold said roller against said converging faces, and a member for holding said socket member against axial movement, said member being carried by said handle member intermediate of the faces thereof and projecting into said annular groove.

2. A socket wrench, including a handle member, a socket head of substantially the same thickness, said head being formed of a single piece of metal, circular in cross-section at each end and disposed within a cylindrical aperture in said handle member, the periphery thereof intermediate of its ends having a recess, a roller within said recess and serving to prevent relative rotary movement of the handle and head in one direction and permit relative rotary movement in the opposite direction, and a member carried by said handle member intermediate of the opposed faces of the latter and engaging with the periphery of said head intermediate of one end of the latter and said recess to prevent the endwise movement of said head out of the aperture in the handle member.

3. A socket wrench, including a handle having an aperture therethrough cylindrical in form and of uniform cross section throughout its length, a head within said aperture and of cylindrical form and uniform in cross section throughout its length, with its periphery having an annular groove and a recess therein, a roller within said recess for preventing relative rotation of said head and said handle in one direction, and a member carried by said handle member and extending into said annular groove to prevent relative endwise movement of said head and handle.

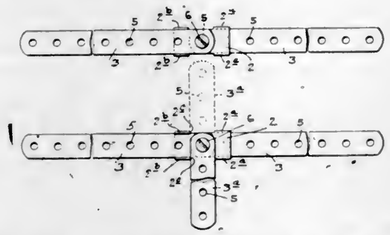
4. A wrench including a handle member having a one-piece collar integral therewith at one end thereof, a one-way-rotatable socket member encircled by said collar and of a length substantially equal to the thickness of said collar and having its periphery cylindrical and of uniform radius throughout its length with two diametrically opposite recesses therein, spaced from the ends of said socket member to leave unbroken cylindrical end portions of said socket member for bearing engagement with the end portions of the interior of said collar and forming integral end walls for said recesses, said recesses having parallel inner surfaces each along a chord of the circle of said periphery and two rollers at diametrically opposite points intermediate said parallel surfaces and the inner surface of said collar for preventing relative rotation of said socket member and collar in one direction.

5. A wrench including a handle member having a continuous integral collar at one end thereof, a socket member encircled by said collar and formed of a single piece of metal, said socket member having its end portions presenting unbroken cylindrical surfaces for bearing engagement with the inner cylindrical surface of said collar and said socket member having recesses in its periphery and rollers within said recesses engaging with the inner periphery of said collar and concealed from view and held against endwise movement by the unbroken cylindrical, integral end portions of said socket member.

1,242,202. STRUCTURAL DEVICE. JOHN R. KELLER, Crafton, Pa., assignor to The American Mechanical Toy Company, Dayton, Ohio. Filed Feb. 14, 1916. Serial No. 78,107. (Cl. 189—36.)

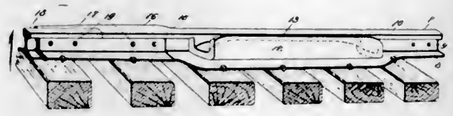
1. In a device of the character described, a plurality of separable structural pieces, each provided with a plurality of holes, a plate provided with a hole, a bolt passing through said last-mentioned hole and certain of said first-mentioned holes for detachably fastening the parts together, and lugs on said plate in engagement with other of said first-mentioned holes to prevent the rotation of the pieces around the bolt as an axis.

2. In a device of the character described, a plurality of stiff separable structural strips with their adjacent ends in overlapping position, each strip having a series of holes adapting them to various uses, a single plate lying between said strips and provided with a bolt hole, a single means for clamping said strips to said plate, comprising a device extending through one of the series of holes in each strip and through the hole of said plate for detachably clamping the same together, said plate being also provided with fixed rigid lug portions, each engaging a hole in said strips but unattached thereto to prevent the movement of the strips relatively to each other around the clamping means as an axis.



3. In a connecting plate adapted to lie between two perforated strips, a body portion having a single hole to receive a bolt, and a plurality of fixed stiff bosses struck up in opposite directions from said body portion, projecting in opposite directions therefrom, and adapted, respectively, to enter perforations in such strips.

1,242,203. RAILWAY-RAIL. PETER KIMACK, St. Louis, Mo. Filed May 7, 1917. Serial No. 166,954. (Cl. 239—17.)



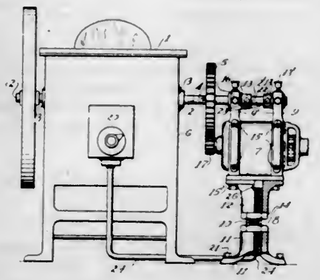
1. A rail consisting of a single hollow casting comprising a base, a pair of laterally spaced webs, a pair of laterally spaced balls and a bridge connecting the webs beneath said balls, said bridge extending throughout the guard and acting as a brace for the guard and as a foot guard between the running and guard rails.

2. A rail consisting of a single casting comprising a base, a pair of laterally spaced webs, a pair of laterally spaced balls, a bridge connecting the webs beneath said balls, and said rail being provided at one end with a recessed portion adapted to receive the end of a running rail.

3. A rail cast from manganese steel, having a hollow central body portion and comprising a running rail ball and a guard rail ball and inner and outer base flanges extending throughout the length of the rail, a pair of laterally spaced webs, a bridge connecting the webs and inclosing the space between the webs throughout the length of the guard ball and serving the purpose of a brace for the guard ball and as a foot guard between the balls, one end of the running rail ball being enlarged and a recessed portion formed in said enlarged end adapted to receive the end of a running rail.

1,242,204. MOTOR ATTACHMENT FOR POWER-DRIVEN MACHINES. AUSTIN KIMBLE, Glenellyn, Ill. Filed Nov. 17, 1916. Serial No. 131,980. (Cl. 64—52.)

1. A machine comprising a frame having a shaft journaled thereon, in combination with an attachment comprising a motor operatively connected to said shaft, a connection rigid with the frame of said motor and mounted turnably on said shaft, and an extensibly adjustable support comprising a foot part and a relatively movable body part attached to said motor.



2. A motor comprising a frame having a body part formed with outwardly facing foot or bearing surfaces and having a laterally disposed bearing part provided with a bearing positioned parallel to the motor axis.

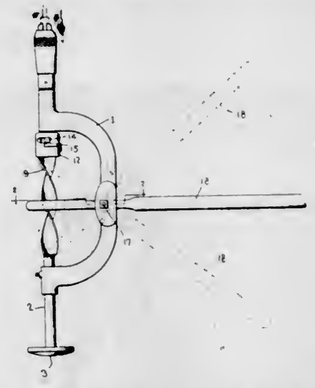
3. A motor having a frame provided with a lateral bearing member disposed parallel with the motor axis, in combination with an adjustable support adapted for attachment to said frame.

4. A power driven machine having a shaft extension, in combination with an extensibly adjustable motor attachment resting on the floor and having a bearing for said extension, said attachment including a motor operatively connected to said shaft extension.

5. A machine having a power transmitting shaft extension, in combination with a dynamo-electric machine operatively connected to said shaft, adjustable means for stationarily mounting said latter mentioned machine intermediately of said shaft extension and the floor, and in predetermined spaced relation with respect to said shaft extension.

[Claims 6 to 15 not printed in the Gazette.]

1,242,205. TOOL-DRIVER. ROBERT H. KNIGHT, Iuka, Ill. Filed Dec. 4, 1916. Serial No. 134,883. (Cl. 74—40.)



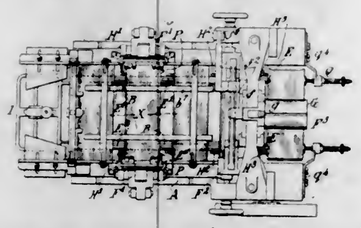
2. A device of the character described comprising a yoke, a shaft mounted in each end of the yoke, a spiral member mounted between the shafts, means for connecting the spiral member with one of the shafts, and means pivotally mounted in the yoke and engaging said spiral member to rotate the same and drive the shaft when connected thereto.

4. A device of the character described comprising a yoke member, a shaft mounted in each end of the yoke member, a spiral member mounted between the shafts, means for operatively connecting the spiral member to one of the

shafts, and a bifurcated lever pivotally mounted in the yoke at right angles to the spiral member and having its furcations embracing the same to rotate the spiral member upon rocking movement of the bifurcated lever.

[Claims 1 and 3 not printed in the Gazette.]

1,242,206. SHEET-METAL-WORKING MACHINE. PETER KRUSE, Brooklyn, N. Y., assignor to E. W. Bliss Company, Brooklyn, N. Y., a Corporation of West Virginia. Filed Oct. 8, 1915. Serial No. 54,757. (Cl. 113—113.)

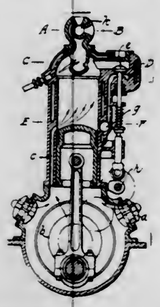


1. In sheet metal working machines, the combination of a relatively narrow support, a reciprocatory feed means adapted to feed a sheet of metal over said support with its edges projecting into space on each side of said support, said reciprocatory feed means comprising feed fingers having means thereon for supporting the projecting portions of said sheet when fed over said narrow support to prevent sag, stops for preventing back movement of said sheet, and means independent of said feed fingers for setting said sheet back against said back stop.

4. In sheet metal working machines, the combination of a relatively narrow support, a reciprocatory feed means adapted to feed a sheet of metal over said support with its edges projecting into space on each side of said support, said reciprocatory feed means comprising feed fingers having recessed portions for supporting the projecting portions of said sheet when fed over said narrow support to prevent sag, stops for preventing back movement of said sheet, and means independent of said feed fingers for setting said sheet back against said back stop, said back-setting means comprising a spring-pressed rod acting in the line of advance of the sheet.

[Claims 2 and 3 not printed in the Gazette.]

1,242,207. INTERNAL-COMBUSTION ENGINE. JUHANA KYLLIÄINEN, Helsingfors, Finland. Filed Aug. 31, 1911. Serial No. 647,114. (Cl. 123—30.)



1. In a two-cycle petrol engine, the combination of a cylinder provided at its upper part with an upper exhaust port and at its lower part with a lower exhaust port and a compressed air inlet; a piston in the cylinder and adapted to uncover said lower exhaust port and air inlet at its lower limit of movement; a valve in said upper exhaust port; means for holding open said valve only during the first part of the up-stroke; and an ignition chamber communicating with the upper part of the cylinder and having therein a hollow ignition ball communicating with the outside of the chamber.

2. In a two-cycle petrol engine, the combination of a cylinder provided at its upper part with an upper exhaust port and at its lower part with a lower exhaust port and a compressed air inlet; a piston in the cylinder and adapted to uncover said lower exhaust port and air inlet at its lower limit of movement; a valve in said upper exhaust port; means for holding open said valve only during the first part of the up-stroke; and an ignition chamber communicating with the upper part of the cylinder and having therein a hollow ignition ball communicating with the outside of the chamber by two channels at an angle to each other.

3. In a two-cycle explosion engine, the combination of a cylinder provided at its upper part with an upper exhaust port; a fuel inlet; and at its lower part with an air inlet and lower exhaust port; a piston in the cylinder and provided with an upwardly rounded upper face and adapted to uncover said air inlet and lower exhaust at its lower limit of movement; a crank case connected to the cylinder and communicating with the air inlet; a crank-shaft having its crank linked to the piston; a normally closed valve in said upper exhaust port; a cam operatively connected to the crank-shaft of the engine and adapted to hold open said valve during the first part of the up-stroke; and a spherical ignition chamber communicating with the upper part of the cylinder and provided with a hollow ignition ball communicating with the outside by two channels at right angles to each other.

1,242,208. PROCESS OF MANUFACTURING ETHYL CHLORID. BURRITT S. LACY, Sewaren, N. J., assignor to The Roessler & Hasslacher Chemical Company, New York, N. Y., a Corporation of New York. Filed July 21, 1914. Serial No. 852,164. (Cl. 23—24.)

1. The process of manufacturing ethyl-chlorid, consisting in mixing chlorin gas with a large excess of ethane and causing the mixture to react at high temperature.

2. The process of manufacturing ethyl-chlorid, consisting in mixing chlorin gas with a large excess of ethane, and heating the mixture to a temperature ranging approximately from 300°–550° C.

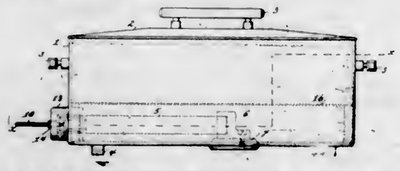
3. The process of manufacturing ethyl-chlorid, consisting in mixing chlorin gas with a large excess of moisture-containing ethane, and heating the mixture to a temperature not exceeding approximately 550° C.

4. The process of manufacturing ethyl-chlorid, consisting in mixing chlorin gas with a large excess of ethane, causing the mixture to react at a high temperature and separating the ethyl-chlorid from the reaction products.

5. The process of manufacturing ethyl-chlorid, consisting in mixing chlorin gas with a large excess of ethane, exposing said gas mixture to a temperature of about 300°–550° C., washing the obtained reaction gases with water to remove the hydrochloric acid gas, drying the remaining gases and separating the ethyl-chlorid from the unused ethane by means of suitable cold and pressure.

[Claims 6 and 7 not printed in the Gazette.]

1,242,209. ELECTRIC HEATER. WILBUR A. LA MOTTE, Elizabeth, N. J. Filed Nov. 14, 1916. Serial No. 131,224. (Cl. 219—40.)



1. An electric heater comprising a liquid receptacle, provided with a bearing at one end, and further provided with an integral seat in the bottom thereof, a support provided with recesses secured upon said seat, electrodes each having one end secured in said bearing and the other seated in the recesses of said support and electrical connections for said electrodes.

2. An electric heater comprising a receptacle having a bearing at one end, insulating bushings located in said bearing, metallic bushings secured within said insulating bushings, and metallic terminal pins extending from said bushings through the insulating bushings, means located in said bearing surrounding said terminal pins for maintaining a water-tight joint, a support provided with recesses located within the receptacle, electrodes each having a reduced end, said end being secured in said metallic bushings and the other ends of said electrodes seated in the recesses of said support.

3. An electric heater comprising a liquid receptacle, provided with a bearing at one end, and further provided with an integral seat in the bottom thereof, a support provided with recesses secured upon said seat, electrodes each having one end secured in said bearing and the other seated in the recesses of said support, and electrical connections for said electrodes and a perforated plate removably mounted in said receptacle in close proximity to and above said electrodes.

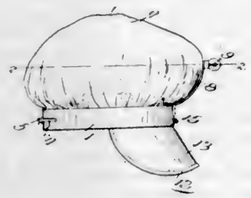
1,242,210. TRACK-GAGE. ERNEST LEGON, Sault Ste. Marie, Ontario, Canada. Filed Nov. 7, 1916. Serial No. 129,991. (Cl. 33—145.)



7. A track gage comprising a base, means for securing said base to a rail, a beam pivoted to said base and adapted to rest upon another rail, a gage plate secured to said base, and having graduations upon each side thereof, a weighted indicator pivoted to one side of the gage plate, and an indicator formed upon the pivotal end of the beam for coöperation with the weighted indicator to determine if the rails are in a horizontal plane with each other.

[Claims 1 to 6 not printed in the Gazette.]

1,242,211. CAP. JOHANE WILHELMINE AMALIE LEIHGEBER, Monessen, Pa. Filed Sept. 9, 1916. Serial No. 119,254. (Cl. 2—106.)



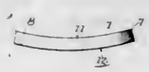
1. A cap including a band in the form of a strip bent upon itself to form a double thickness, the band being subsequently curved to annular form with its ends in overlapping engagement, one of said ends having longitudinal slots, a set screw on the other end adapted to enter said slot, and to secure the ends together subsequent to adjustment, and a crown section adapted to be secured by its edges within the double thickness of the band.

2. A cap including a band a crown section and a detachable peak having an arcuate band portion adapted to be secured to the band of the hat, and provided interiorly within the peak portion, with a reflecting surface.

3. A cap including a band, a peaked portion, a crown portion comprising spaced thicknesses having their edges secured to the band, an arcuate bracket having one end secured exteriorly to the band above the peak, and curved to conform to the contour of the crown, an incandescent lamp secured to the opposite end of the bracket, and an electric battery disposed at either side of the cap between the thicknesses of the crown with connections to the incandescent lamp.

1,242,212. [WITHDRAWN.]

1,242,213. SHOE-HEEL SECTION OR LIFT. GEORGE H. LEWIS, Elyria, Ohio. Original application filed May 15, 1916, Serial No. 97,575. Divided and this application filed Feb. 10, 1917. Serial No. 147,901. (Cl. 36—35.)

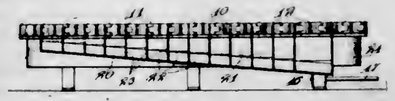


1. As an article of manufacture, a resilient shoe heel lift portion having the general outline of a shoe heel and an upper surface normally curved in one direction only, the elements perpendicular to the direction in which the lift is curved being straight, said lift adapted to be flattened against the under surface of the shoe heel when in use.

5. In combination, a shoe heel, a resilient heel lift having the general outline of said shoe heel and having upper and lower substantially smooth parallel surfaces normally curved from edge to edge in one direction only, the elements perpendicular to the direction in which the lift is curved being straight, and means to hold said lift flattened against and with its upper surface engaging said shoe heel throughout.

[Claims 2 to 4, 6, and 7 not printed in the Gazette.]

1,242,214. ASSORTING APPARATUS. JOHN LOMASNEY, Chicago, Ill. Filed Feb. 17, 1916. Serial No. 78,855. (Cl. 83—92.)



1. An apparatus for assorting articles according to length, comprising a traveling endless carrier having means for holding the articles loosely suspended in pendent position, and a stepped knock-off device mounted beneath the carrier, said device comprising a series of barriers of different heights arranged to intercept the articles, and said barriers extending at an oblique angle to the line of travel of the carrier.

2. An apparatus for assorting articles according to length, comprising an endless chain having recesses on its outer side adapted to hold the articles in loosely suspended and pendent position, and a stepped knock-off device mounted beneath the chain, the steps being of different heights and located to intercept the articles carried by the chain.

3. An apparatus for assorting articles according to length, comprising an endless chain having recesses on its outer side adapted to hold the articles in loosely suspended and pendent position, and a stepped knock-off device mounted beneath the chain, said device compris-

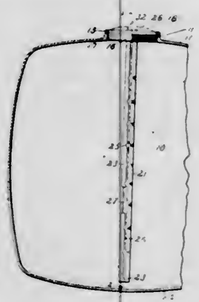
ing a series of barriers of different heights arranged to intercept the articles.

4. An apparatus for assorting articles according to length, comprising an endless chain having recesses on its outer side adapted to hold the articles in loosely suspended and pendent position and a stepped knock-off device mounted beneath the chain, said device comprising a series of barriers of different heights arranged to intercept the articles, and said barriers extending at an oblique angle to the line of travel of the carrier.

5. An apparatus for assorting articles according to length, comprising an endless chain having recesses on its outer side adapted to hold the articles in loosely suspended and pendent position, a stepped knock-off device mounted beneath the chain, said device comprising a series of barriers of different heights arranged to intercept the articles, and article-receiving compartments at the outer ends of the barriers.

[Claims 6 and 7 not printed in the Gazette.]

1,242,215. LIQUID-CARRYING AND LEVEL-INDICATING DEVICE. THOMAS A. LONG, Detroit, Mich. Filed Nov. 24, 1916. Serial No. 133,280. (Cl. 73—120.)



1. In combination, a liquid receptacle having an opening arranged above the normal level of liquid therein, a detachable cover for said opening, and a substantially vertical tube in said cover extending to a point below the level of the liquid, said tube having valveless ports adjacent its upper and lower ends respectively, said upper port being laterally arranged in said tube and being adapted to be manually closed by a finger of an operator as said tube and cover are lifted thereby.

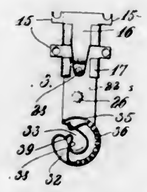
3. In combination, a receptacle having an opening in its upper wall, a detachable cover for said opening, and a transparent tube arranged substantially vertically in said cover and extending to a point adjacent the bottom of said receptacle, said tube having a port adjacent its lower end and a lateral valveless port adjacent its upper end, said cover having a lug formed thereon adjacent said upper port whereby said lug and port may be simultaneously gripped and closed, respectively by an operator.

5. In combination, a cap member, a tubular member mounted therein and having a longitudinally extending slotted portion, a transparent tube in said member, a flexible yielding collar between said tubes, said inner tube having valveless ports adjacent its upper and lower ends respectively.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,242,216. DEVICE FOR ATTACHING TIES. MICHAEL LUKACS, New York, N. Y., assignor of one-half to David Glück, New Brunswick, N. J. Filed Dec. 18, 1916. Serial No. 137,589. (Cl. 24—57.)

1. A necktie fastener comprising a plate attached to the tie, a bar slidably engaged with said plate, means for holding said bar in two different positions, an eye formed at the bottom of said bar, and means combined with said eye for resiliently engaging the shank of a button.



2. A necktie fastener comprising a plate, means for attachment to the tie, a casing on said plate, a bar slidably engaged within said casing, said bar having spaced indentations, a spring formed with said plate engageable with either of said indentations, an open eye formed with said bar, and a resilient clip engaged with said eye partially inclosing the opening thereto.

3. A necktie fastener comprising a casing adapted to be secured to the back of a tie, a slidable bar engaged within said casing, means for maintaining said slidable bar in an adjusted position, a circular head formed with said bar, said head containing a slot encompassing the center, a double pointed resilient clip partially surrounding said head having its free ends partially obstructing said slot, and means for securing said clip to said head.

1,242,217. TUNNELING. THOMAS MALCOLM MCALPINE, Westminster, London, England. Filed June 20, 1917. Serial No. 175,933. (Cl. 61—16.)



1. A method of constructing a tunnel, consisting in excavating, longitudinally of the tunnel, sections around the space to be occupied by the tunnel arch, filling said excavated section with concreate or other suitable material, said excavated sections being spaced around the arch so that when filled in the arch comprises a plurality of concreate and earth portions arranged in alternation, and excavating and filling in the intermediate sections, prior to removing the dumpling.

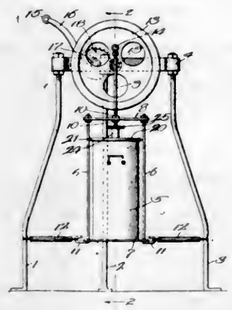
2. A method of constructing a tunnel according to claim 1, in which said excavated sections extend into the dumpling to provide passages.

3. A method of constructing a tunnel according to claim 2, in which the separated sections are separately internally widened and filled in.

1,242,218. CHURN. CHARLES A. MCCANN, Springfield, Ill. Filed Aug. 2, 1917. Serial No. 184,048. (Cl. 259—72.)

1. In a churn, the combination with a container; of two oppositely disposed coiled springs that are anchored at their outer ends and are attached at their inner ends to the container; and a fly wheel in crank connection with said container to support the same and oscillate it upon said springs and reciprocate it as it is oscillated.

2. In a churn, the combination with a container; of two oppositely disposed coiled springs that are anchored at their outer ends and are attached at their inner ends to the container; and a crank coupled with said container to support the same and oscillate it upon said springs and reciprocate it as it is oscillated.



5. In a churn, the combination with a container; of two extensible and contractible elastic members that are anchored at their outer ends and are attached at their inner ends to the container; a fly wheel in crank connection with said container to support the same and oscillate it upon said elastic members and reciprocate it as it is oscillated.

[Claims 3, 4, 6, and 7 not printed in the Gazette.]

1,242,219. MUFFLER. ROBERT L. MCELROY, New York, N. Y. Filed Dec. 23, 1915. Serial No. 68,327. (Cl. 121—116.)



1. A muffler comprising a housing forming a primary annular chamber and a secondary annular chamber, the principal planes of said chambers intersecting each other, each chamber passing through the center of and surrounding a portion of the other chamber, said chambers being connected by an annular opening disposed in that portion of the primary chamber that is surrounded by the secondary chamber, said chambers being provided respectively with lateral openings remote from said annular opening.

3. A muffler comprising a housing forming a primary annular chamber and a secondary annular chamber, the principal planes of said chambers intersecting each other at right angles, each chamber passing through the center of and surrounding a portion of the other chamber, said chambers being connected by an annular opening disposed in that portion of the primary chamber that is surrounded by the secondary chamber, said chambers being provided respectively with lateral openings remote from said annular opening.

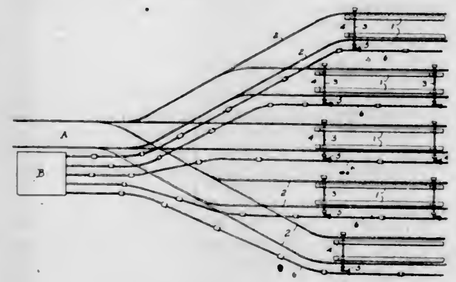
5. A muffler comprising a housing forming a primary annular chamber and a secondary annular chamber, the principal planes of said chambers intersecting each other, each chamber passing through the center of and surrounding a portion of the other chamber, said chambers being connected by an annular opening disposed in that portion of the primary chamber that is surrounded by the secondary chamber, said chambers being provided respectively with lateral openings remote from said annular opening.

6. In a muffler, the combination of a housing forming a primary annular chamber and a secondary annular chamber, the principal planes of said chambers intersecting each other, each chamber passing through the center of and surrounding a portion of the other chamber, said chambers being connected by an annular opening disposed in that portion of the primary chamber that is surrounded by the secondary chamber, said chambers being provided respectively with lateral openings remote from said annular opening, and pipes in said lateral openings co-axial with the line of intersection of said planes.

7. In a muffler, the combination of a housing forming a primary annular chamber and a secondary annular chamber, the principal planes of said chambers intersecting each other, each chamber passing through the center of and surrounding a portion of the other chambers, said chambers being connected by an annular opening disposed in that portion of the primary chamber that is surrounded by the secondary chamber, said chambers being provided respectively with lateral openings remote from said annular opening, and a fan shaped pipe connection communicating with said lateral open of the secondary chamber and having its principal plane coincident with the plane of the secondary chamber.

[Claims 2 and 4 not printed in the Gazette.]

1,242,220. DISTRIBUTION OF CARS IN YARDS. GEORGE W. MCMUNN, Pittsburgh, Pa. Filed Nov. 8, 1916, Serial No. 130,202. Renewed Aug. 23, 1917. Serial No. 187,888. (Cl. 104—62.)



1. A car distributing yard having an elevated section of track, a plurality of branch tracks, switches for connecting the branches with the delivery side of the elevated section in combination with means arranged along the branch tracks adapted, when shifted to operative position, to engage and shift a member of the brake mechanism in a car passing along a branch track.

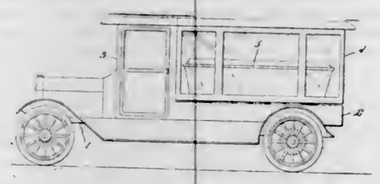
2. A car distributing yard, having an elevated section of track, a plurality of branch tracks, switches for connecting the branches with the delivery side of the elevated section in combination with rails or plates arranged along the branch tracks, means for shifting said plate sor rails to and from operative positions, and a movable member on a car having an operative connection to the brake mechanism of the car and adapted to be shifted to apply the brakes by the rails or plates when in operative positions.

[Claim 3 not printed in the Gazette.]

1,242,221. VEHICLE-BODY. JOHN H. MADISON, Jr., Lake Geneva, Wis. Filed Aug. 12, 1916. Serial No. 114,629. (Cl. 21—7.)

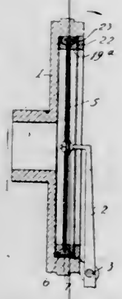
1. A vehicle body having a fixed forward cab compartment, a rear storage or receiving compartment, a pivot

bolt pivotally mounting said storage or receiving compartment to swing between a normal position and a position at right angles to the line of the vehicle, a turn table composed of parts arranged concentric with said pivot bolt for supporting the receiving compartment in its movements, segmental tracks concentric with the pivot bolt and turn table, for guiding and supporting the receiving compartment between said turn table and its end portions, a keeper member upon a fixed portion of the vehicle, a longitudinally movable spring projected bolt upon the receiving compartment to engage said keeper member, a transverse crank shaft upon the receiving compartment for actuating said bolt, and means for actuating said shaft.



2. A vehicle body including a bed or platform, a fixed forward cab compartment, a rear swinging compartment, said compartments having curved walls for contact when the swinging compartment is in normal position, turn table members carried by the swinging compartment and bed or platform, segmental track elements upon the bed or platform and swinging compartment arranged in front and rear of said turn table elements, a keeper fixed to said platform rearwardly of the rear track element, a tensioned sliding bolt carried by the bottom of the swinging compartment adapted to have the forward end thereof received in said keeper to prevent relative movement of the swinging compartment and platform, means for operating the sliding bolt, a pivot bolt upon the swinging compartment extending downwardly through the bed or platform at the center of the turn table elements, and a spring acting upon said bolts to draw the swinging compartment downwardly and hold said turn table elements and track elements in contactual relation.

1,242,222. DIAPHRAGM-MOUNTING. HARRY M. MARBLE, Newark, N. J., assignor to Magnetic Phonograph Company, New York, N. Y., a Corporation of New York. Filed Sept. 11, 1914. Serial No. 861,305. (Cl. 181—31.)



1. As an article of manufacture, a diaphragm of flexible material surrounded at its edge by a mounting ring of at least slightly yielding nature, having within it a reinforcing ring of relatively rigid material.

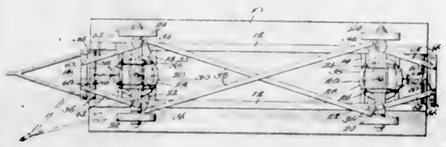
2. As an article of manufacture, a diaphragm of flexible material surrounded at its edge by a mounting ring of at least slightly yielding nature, having within it a reinforcing ring of relatively rigid material spaced away from the edge of the diaphragm.

3. As an article of manufacture, a diaphragm of flexible material surrounded at its edge by a mounting ring of at least slightly yielding nature, having within it a reinforcing ring of relatively rigid material spaced away from the edge of the diaphragm and separated from such diaphragm edge by a portion of such yielding material.

4. As an article of manufacture, a diaphragm of flexible material, surrounded at its edge by a mounting ring of at least slightly yielding nature, and a reinforcing ring secured to such yielding material for reinforcing the same.

[Claims 5 to 15 not printed in the Gazette.]

1,242,223. TRUCK. MILTON R. MUELLER, Quincy, Ill., assignor to Electric Wheel Company, Quincy, Ill., a Corporation of Illinois. Filed June 14, 1917. Serial No. 174,790. (Cl. 21—144.)



1. In a device of the class described, in combination with a vehicle body, supporting wheel devices at opposite ends thereof, fifth wheels carried by the supporting wheel devices at each end of the vehicle, corresponding fifth wheels carried by each end of the vehicle, a horizontally rotatable member between the fifth wheels at each end, connecting devices between the two horizontally rotatable members adapted to cause them to move in unison, and means for selectively locking each one of said horizontally rotatable members to either fifth wheel adjacent to it for the purposes set forth.

2. In a device of the class described, in combination with a vehicle body, supporting wheel devices at opposite ends thereof, fifth wheels carried by the supporting wheel devices at each end of the vehicle, corresponding fifth wheels carried by each end of the vehicle, a horizontally rotatable member between the fifth wheels at each end, connecting devices between the two horizontally rotatable members adapted to cause them to move in unison, and means for selectively locking each one of said horizontal rotatable members to either fifth wheel adjacent to it and to the adjacent part of the vehicle, for the purposes set forth.

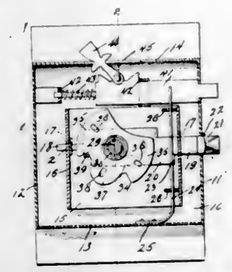
3. In a device of the class described, in combination with a vehicle body and supporting wheel devices at each end thereof, a pair of oppositely placed fifth wheels located at each end of the vehicle, one attached to the vehicle body, the other to the wheel supporting device, mechanism mounted between the fifth wheels at each end of the vehicle operatively connected together, and mechanism for selectively connecting any two of the fifth wheels at opposite ends of the vehicle to said connecting mechanism, for the purposes set forth.

4. In a device of the class described, in combination with a vehicle body and supporting wheel devices at each end thereof, a pair of oppositely placed fifth wheels located at each end of the vehicle, one attached to the vehicle body, the other to the wheel supporting device, mechanism mounted between the fifth wheels at each end of the vehicle operatively connected together, and mechanism for selectively connecting any two of the fifth wheels at opposite ends of the vehicle to said connecting mechanism and to the adjacent part of the vehicle, for the purposes set forth.

5. In a device of the class described, in combination with a vehicle body and a supporting wheel device supporting a portion thereof, a pair of oppositely positioned fifth wheels, one located on the vehicle body, the other on the wheel supporting device, an intermediate member rotatable between the fifth wheels, and means for selectively locking either one of said fifth wheels to the intermediate member, for the purposes set forth.

[Claims 6 to 9 not printed in the Gazette.]

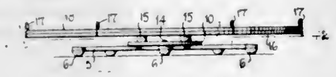
1,242,224. LOCK. MICHAEL MUTRO, Chester, Pa., assignor of ten one-hundredths to George Belisnanski, Chester, Pa. Filed May 23, 1917. Serial No. 170,400. (Cl. 70—42.)



1. A lock including a casing, a spindle extending through the casing and slidably and rotatably mounted in the walls thereof, a reciprocable bolt in said casing and projectable from one edge thereof, a lug on said bolt, a spring normally holding the bolt in projected position, a cam plate fixed on said spindle and having its edge normally engaging said lug, said plate being provided with an opening to receive said lug and lock the bolt against movement, and a spring bearing against the plate and normally holding said plate in position to engage the lug.

2. A lock including a casing having an opening in one edge, a plate fixed within said casing having oppositely disposed flanges provided with openings alined with the opening in the casing, a bolt consisting of a sheet metal plate having reduced terminal portions slidably fitted in the openings of said flanges, one of said terminal portions having a head fixed thereto and slidable in the casing, a lug at the front of said plate, a leaf spring fixed to the casing and bearing against the lug to force the bolt outward, a spindle extending through said casing and plate and slidably and rotatably mounted in the casing, a cam plate fixed to said spindle and having oppositely disposed projecting sectors each having an opening therein, a lug on the first plate against which the cam portion of the cam plate bears normally, said last lug being receivable in one of the openings of the cam plate to lock the bolt against movement and a coil spring surrounding the spindle and bearing against the cam plate to hold the latter in position to engage the last-mentioned lug.

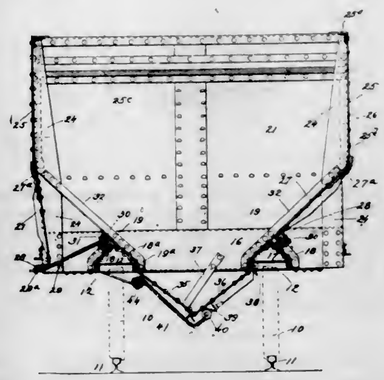
1,242,225. SERVING-STAND. THOMAS F. NASH, Baileyville, Ill. Filed Feb. 5, 1917. Serial No. 146,802. (Cl. 45—26.)



1. A serving stand including a base, a pedestal rotatably mounted on the base consisting of a ring or annulus and a plurality of equidistantly spaced standards fixed thereto, a metal disk secured upon said standards and of greater diameter than the base, a removable glass plate of the same diameter as said disk, and means on the disk to detachably hold the glass plate upon the upper surface thereof.

[Claim 2 not printed in the Gazette.]

1,242,226. DUMP-CAR. JOHN O. NEIKIRK, Lombard, Ill., assignor to Rodger Ballast Car Company, a Corporation of Maine. Filed July 15, 1916. Serial No. 109,568. (Cl. 105—185.)



1. A car having a stationary central longitudinal hopper, the sides of which are inclined downwardly and inwardly from the sides of the car, a hinged bottom door, and doors above said hopper hinged at their upper edges so as to swing outwardly, said doors forming when in closed position a portion of the hopper sides.

2. A car having a stationary longitudinal hopper the sides of which are inclined downwardly and inwardly from the sides of the car, a hinged bottom door, and doors above said hopper hinged at their upper edges and arranged to form a portion of the hopper sides when in closed position and to swing outward to discharge at the sides of the car.

3. A car having a stationary longitudinal hopper with inwardly and downwardly inclined sides, a door for permitting downward discharge from the hopper, and doors above said hopper hinged at their upper edges for swinging out to discharge at the sides of the car and arranged to occupy inclined positions and form continuations of the sides of the hopper when in closed position.

4. A car having a stationary longitudinal hopper with inwardly and downwardly inclined sides, a hinged bottom door for the hopper, and doors above said hopper hinged at their upper edges and arranged to swing in and close to occupy inclined positions in continuation of the sides of the hopper, and to swing out to discharge the contents of the car at the sides.

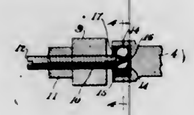
5. A car having a longitudinal hopper with inwardly and downwardly inclined sides, a hinged bottom door for the hopper, and upper doors hinged at their upper edges to the sides of the car and arranged to occupy inwardly and downwardly inclined positions in substantially the same planes as the sides of the hopper when closed, and to swing outward when opened for discharging the contents of the car at the sides, said side discharging doors being operable independently of the bottom discharging doors.

[Claims 6 and 7 not printed in the Gazette.]

1,242,227. SOUND-POST MOUNTING FOR PHONOGRAPHS. JAMES G. NOLEN, New York, N. Y. Filed June 28, 1916. Serial No. 106,293. (Cl. 274—35.)

1. A stylus bar mounting for phonograph sound boxes comprising supports carried by the sound box, a stylus

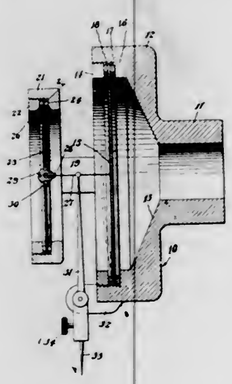
bar pivotally mounted between said supports, needle holding means and a sound post carried by the stylus bar, the said stylus bar having recessed chambers on its ends, a plurality of steel balls therein, adjustable cone pivots carried by said supports, the cone ends thereof being in contact with said steel balls, and locking means for locking said cone pointed pivots in rigid and operative connection with said balls, the recess in which said balls are mounted being filled with a pure Pará rubber.



8. A stylus bar mounting for phonograph sound boxes comprising bearings between said sound boxes and the stylus bar, said bearings comprising metal pivots and contacting metal balls, said pivots in contact with said balls, and said balls mounted in vibration absorbing material.

[Claims 2 to 7, 9, and 10 not printed in the Gazette.]

1,242,228. DIAPHRAGM-TENSIONING MEANS. JAMES G. NOLEN, New York, N. Y. Filed Mar. 19, 1917. Serial No. 155,687. (Cl. 274—35.)

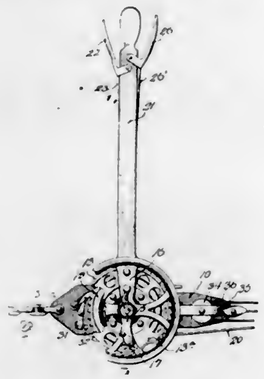


3. In a sound transmitter, the combination with a sound transmitting disk, a second disk, a needle, a wire connecting said disks to one another, means for connecting said needle to said wire, and means for drawing the disks toward one another according to the average pitch of sounds to be produced.

[Claims 1, 2, and 4 to 7 not printed in the Gazette.]

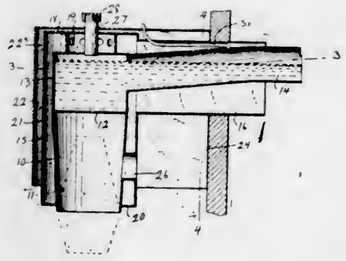
1,242,229. TAKE-UP MECHANISM. JAMES NOVOTNY, Union Center, Wis., assignor of one-half to John E. Kosack, Union Center, Wis. Filed Feb. 23, 1917. Serial No. 150,389. (Cl. 254—184.)

A device of the class described comprising a body member, a cup-shaped casting, bolts passed through the end wall of the casting and the body member, an out turned toothed flange on the free edge of the peripheral wall of said casting, a toothed take-up drum rotatably mounted on said peripheral wall of the casting, a shaft carried by the central portion of the end wall of the casting, a brake controlling wheel mounted on said shaft, a handle extending radially from the wheel, pawls carried by the handle and engageable respectively with the toothed



flange and with the drum and means for preventing retrograde movement of the drum.

1,242,230. INCUBATOR-HEATER. CLAUDE NUTTER. Montesano, Wash. Filed Feb. 9, 1916. Serial No. 77,214. (Cl. 237—15.)



1. An incubator heater comprising a centrally disposed lamp chamber, a water heating tank disposed above the lamp chamber and having a laterally extending pipe, a casing surrounding the lamp chamber and tank inclosing a fresh air heating chamber, a fresh air conduit leading therefrom and surrounding the water pipe, and a casing surrounding the fresh air chamber, spaced therefrom and having a discharge opening, and a pipe connecting the lamp chamber with the interior of said casing.

2. An incubator heater comprising a centrally disposed lamp chamber, a water heating tank disposed above the lamp chamber and having a laterally extending pipe, the bottom of the water heating chamber and the top of the lamp chamber being formed of a single septum, a casing surrounding the heating chamber and tank and in spaced relation thereto and inclosing a fresh air chamber open at its lower end and closed at its upper end, a fresh air conduit leading therefrom and surrounding the water pipe, and a casing surrounding the fresh air chamber and spaced therefrom and extending a distance along the fresh air conduit, the casing being open at its bottom and closed at its top, a pipe leading from the lamp casing into

the lower portion of said last-named casing, and means for filling and draining the water tank.

3. An incubator heater comprising a centrally disposed lamp chamber, a water heating tank disposed above the lamp chamber, the bottom of the tank forming the top of the lamp chamber and said tank having a laterally extending pipe, a casing surrounding the lamp chamber and tank, open at its bottom for the admission of fresh air and closed at its top and forming a fresh air chamber, a fresh air conduit leading therefrom surrounding the water pipe, said conduit being rectangular in cross section, and a casing surrounding the fresh air chamber but spaced therefrom and closed at its top but open at its bottom, said casing having parallel extensions or parallel walls extending on each side of and in proximity to the side of the air conduit, the space inclosed by said walls being closed at the top and open at the bottom, a pipe leading from the interior of the lamp chamber into the lower portion of said extended part of the outer casing, a filling pipe extending from the tank upward through both of said casings, a cap detachably closing the filling pipe, a tap extending from the tank outward through both of said casings, and a vent pipe connected to the water pipe and extending upward through the outer casing.

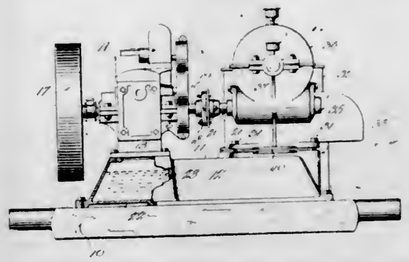
4. In an incubator heater of the character described, a lamp casing, a water tank supported thereon and having a laterally extending water pipe adapted to enter an incubator, a fresh air casing surrounding the lamp casing and the tank and spaced therefrom and having a laterally extending conduit surrounding the water pipe, an outer casing surrounding the last-named casing and spaced therefrom to form a chamber wherein the fumes from the lamp chamber may circulate and connected to said lamp chamber and having a discharge opening, a filling pipe extending through both of said casings into the water tank, a perforated annulus disposed between the water tank and the first-named casing and surrounding said filling pipe, and a vent pipe leading from the water pipe.

5. The combination with an incubator having a side wall, of a heater therefor comprising a centrally disposed lamp chamber, a tank extending across the upper end of the lamp chamber and having a laterally disposed pipe extending into the incubator, a casing surrounding the lamp chamber and the tank but terminating short of the lower end of the lamp chamber and being formed with perforations at its lower end for the entrance of fresh air, said casing closing the fresh air heating chamber, a conduit rectangular in cross section extending from the upper end of the fresh air heating chamber and surrounding said pipe, said conduit passing through the wall of the incubator, and an outer casing surrounding the fresh air heating chamber, extending over the top thereof but terminating short of the lower end of the fresh air heating chamber, said casing having lateral walls extending therefrom and disposed in proximity to the side walls of the air conduit, the lower end of the space formed by said extensions being open, said extensions being flanged and the flanges bearing against the wall of the incubator and attached thereto, and a pipe extending from the lamp chamber into the lower end of the space defined by said extensions.

1,242,231. BILGE-PUMP. ADOLPH NYDEGGER, Milwaukee, Wis., assignor to C. H. & E. Manufacturing Co., Milwaukee, Wis. Filed Jan. 24, 1917. Serial No. 144,316. (Cl. 103—10.)

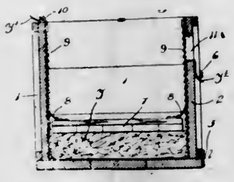
1. A combined engine and bilge pump structure comprising a single bed casting having chambers formed in its end portion, an engine secured to the bed pump over one of the chambers, a pump casing secured to the casting over the other chamber, said other chamber forming the inlet compartment of the pump and the first named chamber forming the fuel supply tank of the engine.

2. A combined bilge pump and engine structure comprising a single bed casting having a chamber in one end, a casing secured thereto in registry with the chamber, a diaphragm disposed between the chamber and casing and centrally apertured, clamping rings bolted to the diaphragm adjacent its aperture, a crank shaft extended transversely of the casing, a flexible connection



between the engine and crank shaft, a pitman connecting said crank shaft and rings, a valve slidably mounted within the rings, a centrally upstanding pin carried by the valve and slidable in the guide opening in said pitman for guiding said valve, and a spacing sleeve disposed on said pin whereby the upward movement of the valve is limited, substantially as described.

1,242,232. WASTE-PAPER PRESS. WILLIAM J. PALM. Minneapolis, Minn. Filed June 16, 1916. Serial No. 103,914. (Cl. 100—6.)

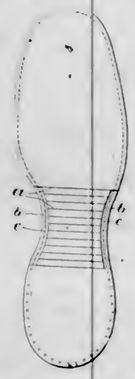


1. A press of the kind described, comprising a box and a presser plate working therein, said box having a displaceable side normally locked thereto but capable of being moved laterally to facilitate the removal of the bale, the said presser plate having a dog engageable with said displaceable side to hold said presser plate in different adjustments in said box, lateral movement of said displaceable side serving to disengage the same from the dog of said presser plate.

2. A press of the kind described, comprising a box and a presser plate working therein, said box having a fixed side and an opposing laterally displaceable side normally locked thereto but capable of lateral movement to facilitate removal of the bale, the said fixed and displaceable sides of said box having opposing serrated bars on their inner surfaces, and said presser plate having lock dogs engageable with the said serrated bars to hold said presser plate in different adjustments, lateral movement of said displaceable side serving to disconnect the same from the coöperating dog of said presser plate.

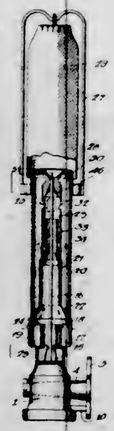
3. A press of the kind described, comprising a rectangular box having fixed ends, one fixed side and one laterally displaceable side, means for locking said displaceable side to said box and for releasing the same, serrated bars arranged in pairs and secured to the inner surfaces of the fixed and displaceable sides of said box near the ends thereof, and a presser plate working in said box and provided with dogs that engage the said serrated bars, lateral movement of said displaceable side serving to disconnect said dogs from said serrated bars.

1,242,233. SHOE-SOLE. GEORGE L. PIERCE, Brooklyn, N. Y., assignor to A. G. Spalding & Bros., New York, N. Y., a Corporation of New Jersey. Filed Mar. 31, 1917. Serial No. 158,889. (Cl. 36—25.)



A shoe sole having a zone of flexure in the narrow or shank portion of the outer sole wherein the surface of the shoe is scored or cut to make it flexible, the ends of the scored sections being free from the ordinary lines of stitching.

1,242,234. GAS-BURNER. SIMEON F. PIERCE, St. Paul, Minn. Filed Dec. 11, 1915. Serial No. 66,317. (Cl. 67—16.)



1. In a gas burner, a valve casing having a valve seat, a main passage and a laterally directed passage leading from the seat, a valve engaged on the seat and provided with a peripheral groove establishing constant communication with the lateral passage, a bracket threaded in the lateral passage of the casing and provided with a valve seat having communication with the said lateral passage, a rotatable valve engaged on the latter valve seat and being formed with an axial duct opening through both ends, and a tube threaded on each end of the last valve and provided with a longitudinal series of perforations.

2. In a gas burner, a valve casing having a nozzle discharge that is externally threaded, a cap for the nozzle engaged with the threads thereof and provided with a contracted outlet that is externally screw threaded, a base threaded on the contracted mouth of the cap and formed with vertical air passages, a pilot tube carried by the valve casing and extending upwardly through the cap mouth and base, a pair of gas discharge nipples threaded on the casing and arranged in converging relation and terminating in the cap mouth, and a mixing tube mounted on the base.

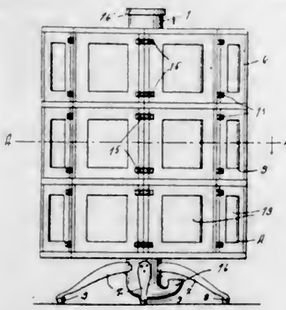
3. In a gas burner, a valve casing, a valve therein, a cap threaded on the casing and provided with a contracted mouth, a base member threaded on the contracted mouth of the cap and provided with vertical air passages, an outer cylinder mounted on the base member, an inner cylinder having a flared base portion threaded in the lower part of the outer cylinder and extending upwardly therein, and a mixing device threaded on the upper end of the inner cylinder and disposed within the outer cylinder.

4. In a gas burner, a valve casing, a valve therein, a cap threaded on the casing and provided with a contracted mouth, a base secured on the mouth of the cap and provided with vertical air passages, an outer cylinder mounted on the base, an inner cylinder arranged within the outer cylinder and provided with a flared base portion threadedly engaged with the lower part of the same, a tube threaded in the upper end of the inner cylinder and provided with side openings, a head closing the upper end of the tube, and an inside tube having a flared base portion threaded in the lower part of the first tube and terminating short of the upper end of the latter.

5. In a gas burner, a valve casing, a pilot tube extending therefrom, a cap engaged with the casing and provided with a mouth contracted partially about the tube, a base mounted on the cap mouth and provided with vertical air passages, an outer cylinder on the base, an inner cylinder carried by the outer cylinder with its upper portion spaced inwardly therefrom, a tube threaded on the upper end of the inner cylinder and provided with upper and lower series of openings, an inside tube having a flared base secured to the lower end of the second tube and extending to a point between the series of openings, and a head closing the upper end of the second tube and receiving the pilot tube.

[Claim 6 not printed in the Gazette.]

1,242,235. CABINET AND REFRIGERATOR. THOMAS JOHN POLK, Oakdale, La. Filed July 17, 1914. Serial No. 851,639. (Cl. 45—103.)



1. A device of the class described comprising a supporting base, a vertical hollow pipe secured to the base at one end thereof, a refrigerating compartment rotatably mounted adjacent the lower end of the hollow pipe, a plurality of compartments rotatably mounted in vertical spaced relation upon the upper portion of the pipe and independently rotatable of each other, said pipe provided adjacent its upper end with a plurality of circumferential longitudinally spaced openings, which openings establish a communication between the upper compartment and pipe, so as to permit a fresh circulation of air to be drawn downwardly through the pipe and forced into the compartments at all times.

2. In a device of the class described, a rotatable support, a hollow pipe secured adjacent one end of the support and extending vertically therefrom, a refrigerating compartment rotatably mounted upon said pipe adjacent the lower end thereof, a plurality of compartments rotatably mounted upon said pipe at the upper end, and rotatably mounted independent of each other, means for preventing the vertical displacement of the compartments with relation to the pipe, said pipe being provided with a plurality of openings in its upper portion, which openings are arranged circumferentially and longitudinally and establish a communication between the compartments of the cabinet and pipe, to permit the continuous circulation of fresh air into the compartments to prevent the air from becoming stagnant therein, and a closure cap for the upper end of the pipe, as and for the purpose specified.

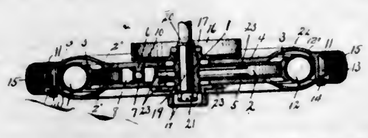
1,242,236. TREATMENT OF SLURRY. CARL PONTOPPIDAN, Brooklyn, N. Y., assignor to F. L. Smidth & Co., New York, N. Y., a Corporation of New Jersey. Filed Sept. 18, 1915. Serial No. 51,473. (Cl. 106—25.)

1. The improvement in the treatment of slurries for use in the production of Portland cement, which consists in increasing the fluidity and reducing the water content for a given consistency by the addition of an electrolyte.

4. The process of preparing slurry for the production of Portland cement, which consists in adding to the material and water sodium carbonate by which the fluidity is increased, whereby a slurry of given consistency is obtained with a smaller content of water.

[Claims 2 and 3 not printed in the Gazette.]

1,242,237. VEHICLE-WHEEL. WILLARD S. PRICE, Syracuse, N. Y. Filed Mar. 4, 1916. Serial No. 82,110. (Cl. 152—35.)



A vehicle wheel comprising a hub and rim united by a hollow annular web having a radial slot, a pneumatic tube fitted on the periphery of the rim, and a casing inclosing the rim and slidably engaged with opposite sides of the web across the slot and provided with integral lugs projecting from opposite sides thereof into the slot in spaced relation to establish a boltless driving lock between the web and casing, said casing having a tire-receiving rim supported directly upon the periphery of the pneumatic tube.

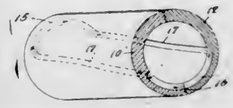
1,242,238. ANTISKIDDING DEVICE. ERNEST E. PROULX, Willimansett, Mass. Filed Nov. 30, 1915. Serial No. 64,236. (Cl. 152—14.)



1. In an anti-skid device, opposite side members each consisting of rings connected by flexible connectors, and cross members connecting the side members and each consisting of a pair of cable lengths having terminal eyes that pivotally connect the lengths and likewise connect the cross members to the side members, and anti-skid means on each length of cable.

2. In an anti-skid device for tires, opposite side members, including attaching fingers, and cross members each comprising a pair of cables having interengaging eyes at their inner ends and eyes at their outer ends detachably engaged with the fingers of said side members.

1,242,239. BEARING FOR JOURNALS, SHAFTS, AND HUBS. WILLIAM DAVID QUIGLEY, East Boston, Mass. Filed Nov. 2, 1916. Serial No. 129,224. (Cl. 64—24.)



1. A bearing having a cylindrical bore, and a single continuous channel formed in the wall of the bore which is extended around the same, and substantially throughout its length, whereby oil contained therein is caused to circulate in either direction according to the direction of rotation of the rotating element and to lubricate the bearing from end to end, and means in open communication with said channel for providing a continuous supply of oil.

2. A bearing having a cylindrical bore, and a single continuous channel formed in the wall of the bore, and opening thereinto throughout its length, which includes transverse portions at the ends, and uninterrupted spiral connecting portions therebetween, and means, in open communication with said channel, for providing a continuous supply of oil.

3. A bearing having a cylindrical bore, and a groove extended transversely around a portion of the bore at one end, and a similar groove extended transversely around an opposite portion of said bore at the other end, and two grooves in the bore extended spirally and respectively connecting the corresponding ends of the transverse grooves, all said grooves being in open communication with the interior of the bore from end to end, and forming a continuous channel for the circulation of oil in either direction.

4. A bearing having a cylindrical bore, and a groove extended transversely around a portion of the bore at one end, and a similar groove extended transversely around an opposite portion of said bore at the other end, and two grooves in the wall of the bore extended spirally and respectively connecting the corresponding ends of the transverse grooves, all said grooves being in open communication with the interior of the bore from end to end, and forming a continuous channel for the circulation of oil, and an oil receptacle arranged in open communication with said channel to afford a gravity-feed oil supply.

5. A bearing having a cylindrical bore, and a groove extended transversely around a portion of the bore at one end, and a similar groove extended transversely around an opposite portion of said bore at the other end, and two grooves in the bore extended spirally and respectively connecting the corresponding ends of the transverse grooves, all said grooves being in open communication with the interior of the bore from end to end, and forming a continuous channel for the circulation of oil, and means in open communication with the continuous channel for providing a continuous supply of oil.

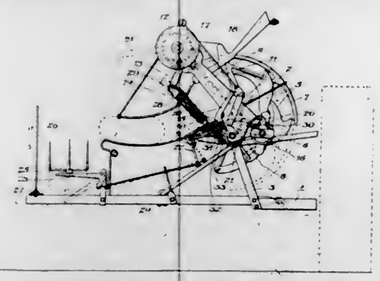
[Claim 6 not printed in the Gazette.]

1,242,240. BINDER-LOCKING MECHANISM. CLEMMA R. RANEY, Chicago, Ill., assignor to International Harvester Company of New Jersey, a Corporation of New Jersey. Filed May 13, 1914. Serial No. 838,244. Renewed Mar. 28, 1917. Serial No. 158,114. (Cl. 56—121.)

1. In combination, sheaf forming and binding mechanism, a binder clutch, a clutch controlling member, operative connections between the same and a movable part of said sheaf forming and binding mechanism, a supplemental clutch controlling member, and supplemental means directly connecting the same to said movable part.

2. In combination, sheaf forming and binding mechanism, a binder clutch, a clutch controlling member, operative connections between the same and a positively driven part of said sheaf forming and binding mechanism, a supplemental clutch controlling member, and supplemental ad-

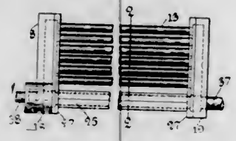
justable means directly connecting the same to said positively driven part.



3. In combination, sheaf forming and binding mechanism, a binder clutch, a clutch controlling member, operative connections between the same and a positively driven part of said sheaf forming and binding mechanism, a supplemental clutch controlling member, a link directly connected to said positively driven part, and a resilient connection between said link and said supplemental clutch controlling member.

[Claims 4 to 20 not printed in the Gazette.]

1,242,241. WATER-HEATER. ROBERT W. ROGERS, Worcester, Mass. Filed Feb. 20, 1915. Serial No. 9,569. (Cl. 126—34.)



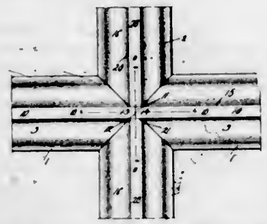
1. In a device of the class described, two sources of heat supply, piping of relatively large diameter exposed to heat from one of said sources of supply, and piping of smaller diameter so connected to the first pipe that fluid to be heated shall pass alternately through one kind of piping and then through the other, the smaller piping being exposed to heat from the second source of heat supply.

2. In a device of the class described, a water heater comprising, a fire box for the consumption of solid fuel, a fluid fuel burner, a plurality of fluid carrying pipe sections of relatively large diameter arranged substantially in the same plane to form a portion of one wall of said fire box, and pipe sections each composed of a plurality of pipes of relatively smaller diameter connecting certain ends of said large pipes to provide a circulation of the water alternately through large and small pipe sections, said small pipe sections being exposed to the heat of combustion from said fluid fuel burner.

1,242,242. METALLIC SASH-JOINT. WILLIAM ROPER, Philadelphia, Pa. Filed Jan. 9, 1917. Serial No. 141,360. (Cl. 189—36.)

1. A joint including two muntins, one muntin having a dove-tailed notch flared inwardly in the direction of the depth thereof, the other muntin being designed to straddle said first muntin and having lips designed to be forced through the narrow opening of said notch and afterward expanded therein, substantially as described.

2. A joint including two muntins, one muntin having notches formed in opposite edges, one of said notches being dove-tailed and flared inwardly in the direction of the depth thereof, said second muntin having an opening terminating in two lips at one edge, said opening being designed to transversely receive said first muntin, the portion of said second muntin between the opening and the edge opposite said first edge being designed to enter the other of said notches in the first-mentioned muntin, said lips being designed to be forced through the narrow opening of said dove-tailed notch and afterward expanded therein, substantially as described.

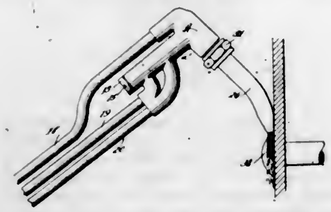


3. A joint including two muntins, one muntin having notches formed in opposite edges, one of said notches being dove-tailed in shape and flared inwardly in the direction of the depth thereof, said second muntin having an opening terminating in two lips at one edge, said opening being designed to transversely receive said first muntin, the portion of said second muntin between the opening and the edge opposite said first edge being designed to enter the other of said notches in the first-mentioned muntin, said lips being designed to be forced and expanded within said dove-tailed notch, said dove-tailed notch being of less depth than the original thickness of the lips prior to their being forced and expanded therein, to permit the outer surfaces of the lips to be flush with the adjacent outer surface of the adjoining muntin, substantially as described.

4. A joint including two muntins each having a leg portion, and a head portion extending beyond said leg portion to form recesses for glazing, the crown of the head of one of said muntins having a dove-tailed notch flared inwardly in the direction of the depth thereof, the leg portion of said latter muntin also having a notch extending inwardly from its outer edge, said other muntin having an opening in its head with an extension thereof into its leg, the portion of the opening in the head substantially corresponding in cross section with the cross section of the head of said first muntin, the crown of said second muntin being split inwardly from its outermost edge to said opening thereby providing lips, said lips being designed to be forced through the narrow opening of said dove-tailed notch and afterward expanded, the material between the extension of said opening and the adjacent edge of the leg of said second muntin being designed to fit within the notch in the leg of said first muntin, substantially as described.

[Claims 5 to 8 not printed in the Gazette.]

1,242,243. PROCESS OF CUTTING METAL. JAMES R. ROSE, Edgeworth, Pa. Original application filed July 15, 1915, Serial No. 39,936. Divided and this application filed Dec. 9, 1915. Serial No. 65,955. (Cl. 266—23.)



1. The process of cutting metal projections from bodies or plates which consists in directing an oxidizing jet along substantially the plane of junction between the body and the projection and preventing the oxidizing action from extending from the cutting plane in the direction of the body or plate.

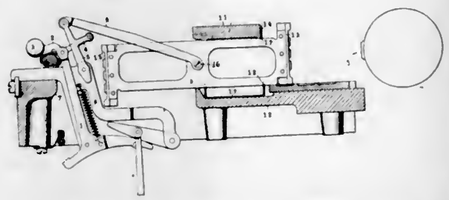
2. The process of cutting metal projections from metal bodies or plates which consists in directing an oxidizing jet and one or more ignited preheating jets along substantially the plane of junction of the body or plate and the projection and in limiting the oxidizing action to a zone extending outwardly from such plane, whereby the body or plate will not be oxidized and injured.

3. The process of cutting a metallic projection from a metallic body or plate which consists in directing an oxidizing jet and one or more ignited preheating jets against such projection and in a plane substantially coincident with the junction of said body or plate and such projection and also directing only against such projection one or more ignited heating jets in a plane spaced from the first mentioned plane, whereby the cutting of the metal of the projection will be substantially limited to the space included between said planes and oxidizing and injury to the plate or body will be avoided.

4. The process of cutting a metallic projection from a body or plate which consists in preheating such projection, directing an oxidizing jet along substantially the plane of junction of the projection and the body or plate, and softing the metal of the outer portion only of the projection whereby the cutting performed by the oxygen will not strike inwardly or toward the body or plate.

5. The process of cutting metallic projections from metallic bodies or plates which consists in directing in a plane substantially coincident with the junction of such body or plate and such projection one or more ignited preheating jets and an oxidizing jet, directing only against such metallic projection in a plane outside of and spaced from the first mentioned jet or jets one or more heating jets, and moving the jets along substantially the line of junction of the projection and the body or plate, the direction of movement being in substantially the plane of such jets.

1,242,244. TYPE-WRITING MACHINE. JOHN A. RUFFIN, Middletown, Conn., assignor to The Noiseless Typewriter Company, Middletown, Conn., a Corporation of Connecticut. Filed Mar. 31, 1916. Serial No. 87,938. (Cl. 197—25.)



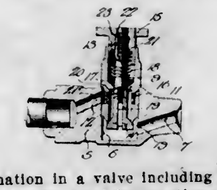
1. In a typewriting machine, in combination, a type carrier having a plurality of sets of oppositely disposed type, a power transmitting member freely pivoted to said carrier, and spaced guides for said carrier, one of said guides being removable for permitting reversal of said carrier to present selective type to print.

2. In a typewriting machine, a platen, a longitudinally movable skeleton type carrier, a power transmitting link medially connected thereto, and separate sets of type rigidly secured to opposite ends of said carrier for alternative coaction with said platen.

3. In a typewriting machine, a reciprocable type carrier mounted for movement between supporting and guiding plates, a plurality of sets of type permanently and rigidly attached to said type carrier, and means permitting reversal of said carrier for utilizing either of said sets of type to effect printing.

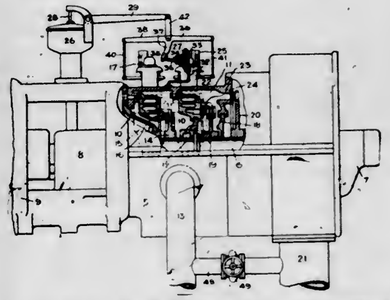
1,242,245. BY-PASS VALVE. ARNOLD O. RUTZ, Milwaukee, Wis. Filed Apr. 14, 1916. Serial No. 91,125. (Cl. 137—4.)

1. The combination in a valve including a casing having a valve seat, a valve head in coaction with said seat and a stem for actuating the head and extending outwardly of the casing, of the stem being provided with a transverse bore, the stem and head being provided with a longitudinal bore communicating with the first bore and having a reduced portion between said first bore and the valve head, and a valve pin threadedly engaged in the second bore for coaction with said reduced portion and comprising an inner section and an outer section, said outer section frictionally telescopingly engaging said inner section and threadedly connected with the stem.



2. The combination in a valve including a casing having a valve seat, a valve head for coaction with said seat a stem for actuating the head and extending outwardly of the casing, and a cap member threaded on the stem, of the stem provided with a transverse bore, the stem and head being provided throughout with a longitudinal bore communicating with the first bore and having a reduced portion between said first bore and the valve head, a valve pin passing through the cap member and disposed in the second mentioned bore for coaction with said reduced portion thereof, said valve pin being threadedly engaged with said stem, the valve pin being provided with a head at its outer end and the threads of the cap and valve pin being of different nature whereby to lock the cap on the stem.

1,242,246. ELASTIC-FLUID TURBINE. CHRISTOPHER A. SCHELLENS, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Apr. 12, 1916. Serial No. 90,771. (Cl. 121—118.)



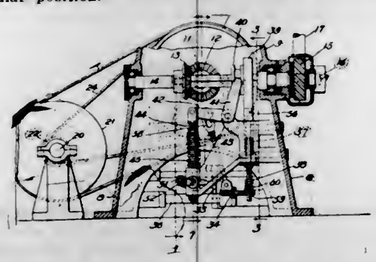
1. In an elastic fluid turbine, the combination of a high pressure non-condensing section, a high pressure condensing section, an extraction conduit connected with the noncondensing section and into which it exhausts, a valve mechanism for admitting elastic fluid to the non-condensing section, a valve mechanism for admitting elastic fluid to the condensing section, a speed governor connected to said valve mechanisms, and a pressure responsive device acting on said valve mechanisms simultaneously and in the opposite sense.

[Claims 2 and 3 not printed in the Gazette.]

1,242,247. DRIVING AND STOPPING MECHANISM. AUGUST R. SCHOENKY, Somerville, Mass., assignor to The Reece Shoe Machinery Company, Boston, Mass., a Corporation of Maine. Filed Oct. 4, 1915. Serial No. 53,883. (Cl. 74—46.)

1. A driving and stopping mechanism for a shaft of a high-speed, power-operated machine including in combina-

tion, high speed drive means, slow speed drive means, a final stop, a control part shiftable at suitable times at indeterminate positions of the shaft, connections whereby the control part when shifted may disengage the high and in the same action engage the slow speed drive means, and connections operative thereafter whereby the shaft may automatically disengage the slow speed drive means and apply the stop to stop the shaft in a predetermined angular position.

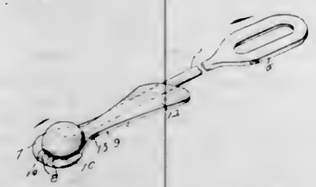


4. A driving and stopping mechanism for a shaft of a high-speed, power-operated machine including in combination, high and low speed drive means, a control lever therefor having high speed, slow speed and neutral positions, a cam rotating with the shaft for shifting said lever from low speed to neutral position, a stop device comprising rotating and non-rotating stop members for causing final stoppage in predetermined shaft position, connections controlled by the lever for restraining said cam ad stop device until after the slow speed drive means is engaged, and a device controlled by the shaft for thereafter restraining said cam and stop device to insure a minimum extent of slow speed drive engagement before the final throw out and stoppage.

11. A shaft stopping mechanism including in combination a slow speed drive adapted to be put into action between the normal running of the shaft and its final stoppage, means operable independently of the shaft position for engaging the slow drive at an indeterminate shaft position, means for maintaining such engagement for a minimum period, means controlled by the shaft itself for subsequently disengaging the slow drive at a predetermined shaft position, and a stop device for automatically finally stopping the shaft in a definite position after the period of slow drive engagement.

[Claims 2, 3, and 5 to 10 not printed in the Gazette.]

1,242,248. BUTTON-HOOK. LULA SCHWITZGEBEL, Clifton, Oreg. Filed Mar. 8, 1917. Serial No. 153,345. (Cl. 24—40.)

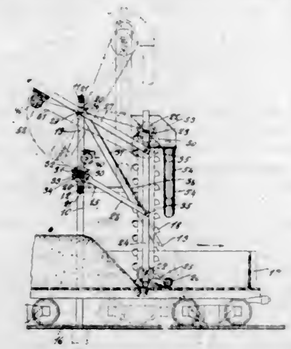


3. A buttoner including a handle provided with a button engaging hook at one end, and a lever carried by and insertible with the hooked end of the handle through a button hole provided member and movable to pass said button hole over a button engaged by the hook.

[Claims 1 and 2 not printed in the Gazette.]

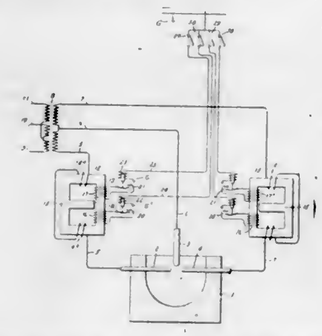
1,242,249. UNLOADING APPARATUS. JAMES B. SEAVERNS, Chicago, Ill. Filed Mar. 10, 1914, Serial No. 823,707. Renewed May 12, 1917. Serial No. 168,312. (Cl. 193—3.)

The combination of a support, a horizontally swinging frame carried by the support, vertically spaced parallel arms pivoted to the frame to swing in a vertical plane, the top arm being pivoted intermediate its ends to the frame, an elevator carried by the upper arm and braced



by the lower arm, means for swinging the arms to raise and lower the elevator, and means for swinging the aforesaid frame in a horizontal arc from side to side.

1,242,250. ELECTRIC-FURNACE CONTROL. JOHN A. SEEDE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed May 8, 1916. Serial No. 96,046. (Cl. 204—64.)



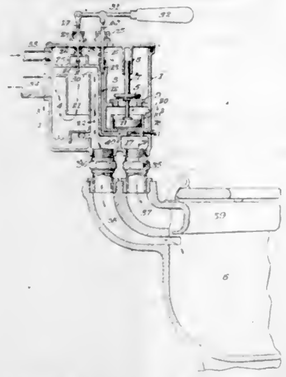
1. The combination of an electric furnace, a supply circuit therefor, a reactance coil in said supply circuit, a secondary coil in inductive relation with said coil, and means for controlling the current in said secondary coil to vary the reactance of the furnace supply circuit.

2. The combination of an electric furnace, a supply circuit therefor, a reactance coil, circuit connections including said coil in series with said supply circuit, and means external to said coil for controlling the reactance of said coil while maintaining the circuit connections of said coil undisturbed.

3. The combination of an electric furnace having arcing electrodes, supply circuits connected to said electrodes, transformers for each of said circuits having a low voltage primary winding included in the supply circuit and a high voltage secondary circuit closed upon itself, contactors in each of said secondary circuits, and remote control devices for opening and closing said contactors.

4. The combination of an electric furnace, a source of alternating current, circuit connections from said source to said furnace, reactance devices having a primary winding connected in circuit with said furnace, and a secondary winding of a greater number of turns than said primary winding, and means for controlling the current in said secondary winding.

1,242,251. FLUSHING AND VENTILATING APPARATUS. CHARLES E. SHADALL, Milwaukee, Wis., assignor to Shadall Manufacturing Company, Wauwatosa, Wis., a Corporation of Wisconsin. Filed Jan. 10, 1917. Serial No. 141,503. (Cl. 4—21.)



1. In flushing and ventilating apparatus the combination of a casing containing separate flush-valve and aspirator chambers and provided with water supply and discharge connections and a foul air discharge connection, a flush-valve controlling the flow of water through the flush valve chamber, a valve controlling the admission of water to the aspirator chamber, and means for opening either of said valves.

2. In flushing and ventilating apparatus the combination of a casing containing separate flush-valve and aspirator chambers and provided with water supply and discharge connections and a foul air discharge connection, self-closing valves controlling the passage of water through the flush-valve chamber and aspirator chamber respectively, and a lever for opening either of said valves.

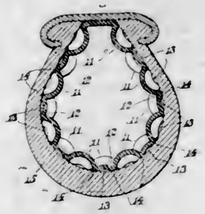
3. In flushing and ventilating apparatus the combination of a casing containing separate flush-valve and aspirator chambers and provided with water supply and discharge connections and with a foul air discharge connection, self-closing flush and aspirator valves, an expansion chamber having a movable part connected with the flush valve and provided with a water supply passage and a restricted discharge passage, a flush-controlling valve normally closing said supply passage, and means for opening either the aspirator valve or the flush-controlling valve.

4. In flushing and ventilating apparatus the combination of a casing containing flush-valve and aspirator chambers and provided with water supply and discharge connections, an air entraining conduit in the aspirator chamber having a foul air inlet connection and a water inlet at one end and communicating with the foul air discharge connection at the other end, flush and aspirator valves controlling the flow of water through said chambers and conduit, a water sealed outlet from the aspirator chamber below the foul air discharge connection, and means for opening either of said valves.

5. In flushing and ventilating apparatus the combination of a casing containing flush valve and aspirator chambers and provided with water supply and discharge connections and a foul air discharge connection, an air entraining conduit in the aspirator chamber, a port opening from the inlet side of the flush-valve chamber into the aspirator chamber adjacent to one end of said conduit, a water discharge and foul air inlet passage opening into the same end of said conduit which communicates at the other end with the foul air discharge connection, a water sealed discharge opening from the aspirator chamber into said air inlet passage below the foul air discharge connection, valves controlling the passage of water through said chambers, and means for opening either of said valves.

[Claims 6 to 8 not printed in the Gazette.]

1,242,252. INNER TUBE. AI B. SHAW, Medford, Mass., assignor to Shaw Tire Company, a Corporation of Massachusetts. Filed June 2, 1916. Serial No. 101,853. (Cl. 152—13.)



1. An inner tube provided with a plurality of inwardly extending cup-shaped members intersecting each other so that the material on each line of intersection will have an inward curvature.

2. An inner tube provided with a plurality of inwardly extending cup-shaped members intersecting each other and forming narrow dividing ridges the outer edges of which are hexagonal in outline.

1,242,253. METHOD FOR PRODUCING RADIATORS FOR AUTOMOBILES. FREDERICK SIEGEL, Irvington, N. J., assignor to Auto Radiator Company, a Corporation of New Jersey. Filed Mar. 2, 1917. Serial No. 152,036. (Cl. 204—S.)



1. A method of making radiator bodies comprising the formation from a metal of a low fusing point of a matrix core having parallel faces and beveled connecting surfaces of approximately 45° declivity, depositing a metal shell of substantially uniform thickness on said faces and said beveled surfaces; and removing the core from the shell.

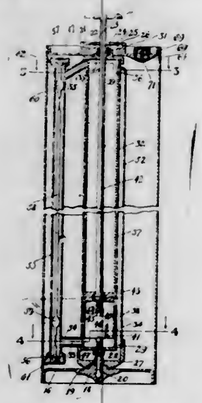
2. A method of making radiator bodies comprising the formation from a metal of a low fusing point of a matrix core having parallel faces and beveled connecting surfaces of approximately 45° declivity, depositing a metal shell of substantially uniform thickness on said faces and said beveled surfaces; and removing the core from the shell by melting the core.

1,242,254. FIRE-EXTINGUISHER. FRANK SIMONE, New York, N. Y. Filed Mar. 23, 1917. Serial No. 156,852. (Cl. 169—17.)

1. A device of the character described, including a container having a nozzle at one end, a casing rotatably mounted between the nozzle and the opposite end of the container, said casing having an inlet and an outlet at each end thereof, the outlet ports being in different transverse planes from the inlets, a compartment provided at one end of the casing in communication with the discharge aperture of the nozzle, a pipe providing communication between the outlets and said compartment, a casing shorter in length than the rotatable one sliding in the rotatable casing and adapted alternately to open and close the inlets, said slidable casing having outlets adapted to register alternately with the outlets in said rotatable casing, a piston slidably mounted in the slidable casing and adapted to move the same within its limits, and a device rotatable with the rotatable casing and communicating with the inlets thereof, whereby to control the admission of liquid thereinto as the piston is reciprocated.

2. A device of the character described, including a container having a discharge nozzle in one end, a fitting having a compartment in communication with the discharge outlet of the nozzle rotatable on said nozzle, a casing hav-

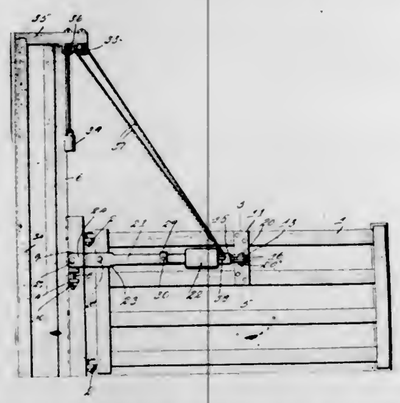
ing one end fast with said fitting and its other end rotatable in the opposite end of the container, said casing having an inlet port and an outlet port at each end thereof, the outlet ports being in different transverse planes from the inlet ports, a pipe arranged alongside the rotatable cylinder permitting communication between the outlet ports and the said compartment, a casing slidable in the rotatable casing and slightly shorter in length than the same to permit limited longitudinal movement whereby to alternately open and close the inlet ports, a piston ar-



ranged in said slidable casing to actuate the same within its limits and movable beyond the limited movement thereof, and a suction mechanism connected to and rotatable with the rotatable casing and having communication with the inlet ports thereof, said suction mechanism being adapted to control the admission of liquid from the lowest point of the container regardless of the inclined position when the piston is actuated.

[Claims 3 and 4 not printed in the Gazette.]

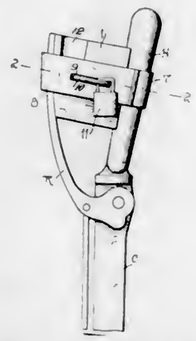
1,242,255. FARM-GATE. SILAS R. SKAGGS, Richland Springs, Tex. Filed Sept. 25, 1916. Serial No. 122,112. (Cl. 39—38.)



3. In a device of the class described, the combination of a gate, means for pivotally supporting said gate, a bolt pivotally mounted upon said gate, said bolt having a body formed thereon, a cam link having parallel ears, said ears embracing said body, a bolt passing through said ears and body for pivotally mounting said cam link upon said body, whereby said cam link may move in either a vertical plane or to one side, an operating arm pivotally mounted upon said cam link, means for pivotally supporting said operating arm, said operating arm being adapted to swing for drawing or pushing upon said link, whereby said gate may be either opened or closed.

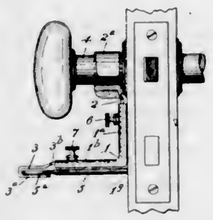
[Claims 1 and 2 not printed in the Gazette.]

1,242,256. LOCK. OTTO E. STAACK, Port Townsend, Wash. Filed June 30, 1917. Serial No. 177,929. (Cl. 70—128.)



As a new article of manufacture, a lock comprising a body adapted to be inserted between a lever and a release lever fulcrumed thereto, a strap secured to one face of the block and extending beyond opposite ends thereof, hasps pivotally engaged with the extended portion of the straps, each of said hasps being angular in longitudinal section so as to overlie the face of the block remote from the strap and to overlap each other, said hasps being adapted to bridge the lever and the release lever for holding the body snugly between the lever and the release lever to prevent inward movement of the release lever, the overlying portions of the hasps being provided with slots, a staple member carried by the body and extending through the slots when the hasps are in overlying relation, and means for holding the hasps against outward movement when in closed position, the face of the body remote from the strap being provided with an open ended recess partially intersecting the plane occupied by the hasps when in overlying relation.

1,242,257. KEY-RETAINER. CIRILL J. STEINER, Cleveland, Ohio. Filed Apr. 25, 1917. Serial No. 164,339. (Cl. 70—65.)



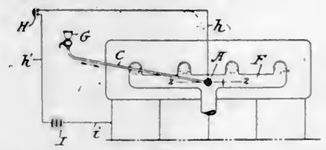
1. A retainer for door keys, comprising a supporting bracket having a vertical and a longitudinal member, a member adapted to engage the shank of the door knob adjustably connected with the vertical bracket member, and a key retaining member adjustably connected with the longitudinal bracket member.

2. In a retainer for door keys, the combination of a supporting bracket provided with a vertical and a longitudinal leg, said legs having channels formed therein; a door knob shank engaging member adjustable in the vertical channel; and a key engaging member adjustable in the longitudinal channel.

3. In a retainer for door keys, the combination of a supporting bracket provided with a vertical and a longitudinal leg, said legs having channels formed therein; a door knob shank engaging member adjustable in the vertical channel; a key engaging member adjustable in the longitudinal channel; and means for holding said members in adjustment.

[Claims 4 to 6 not printed in the Gazette.]

1,242,258. MEANS FOR STARTING INTERNAL-COMBUSTION ENGINES. PERCIVAL STERN, New Orleans, La. Filed Oct. 26, 1914. Serial No. 868,577. (Cl. 123—180.)



1. The combination with an internal combustion engine, of starting means therefor embodying a chambered member attached to the intake manifold of said engine, said chambered member being closed against the admission of atmospheric air thereto, an electrical resistance positioned within said chamber and exposed therein to the direct contact of a liquid combustible, means controllable at will for supplying electric current to said electrical resistance for heating the same independently of the heat developed by the operation of the engine, and means controllable at will and independent of the main fuel supply to the engine for feeding interiorly of said chambered member a liquid combustible which is free to flow into direct contact with said electrical resistance, said chambered member being in communication with said engine manifold for the resulting vapor to flow into said manifold and to be mixed with air within the latter prior to admission to the engine cylinders.

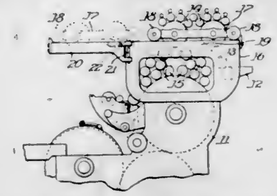
4. The combination with the manifold of an internal combustion engine, of a chambered plug attached to said intake manifold, an electrical resistance positioned within said chambered member and exposed therein for the direct contact of a liquid combustible therewith, means for feeding an electrical current at will to said electrical resistance, and a feed pipe provided with a priming cock, said feed pipe being attached to the chambered plug for feeding to the interior thereof a liquid combustible which is vaporized by contact with said electrical resistance and said feed pipe and priming cock being also operable at will for feeding air through said chambered plug to said manifold.

[Claims 2 and 3 not printed in the Gazette.]

1,242,259. INKING ARRANGEMENT FOR PRINTING-PRESSES. BURT D. STEVENS, Evanston, Ill., assignor to Miehle Printing Press & Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 9, 1916. Serial No. 83,014. (Cl. 101—351.)

1. In an inking arrangement for printing presses, the combination of superposed coöperating sets of ink rolls, a carriage-mounting for the overlying set of rolls, a permanent track for the carriage in the normal position of the rolls, and a clearance track connected with the permanent track for the carriage whereby the upper set can be moved clear of the lower set to afford ready access thereto, the clearance track extending to one side of the roll-supporting frame and comprising rail members each forming a continuation of the corresponding rail member of the permanent track and hinged thereto for folding to an inoperative position alongside the permanent rails.

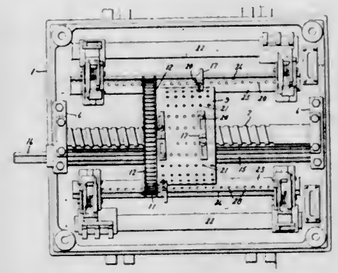
3. In an inking arrangement for printing presses, the combination of superposed coöperating sets of ink rolls, a carriage-mounting for the overlying sets of rolls, a permanent track for the carriage in the normal position of the rolls, and a clearance track connected with the permanent track for the carriage whereby the upper set can be moved clear of the lower set to afford ready access thereto, the clearance track extending to one side of the roll-supporting frame and comprising rail members each



forming a continuation of the corresponding rail member of the permanent track and hinged thereto for folding in a horizontal plane to an inoperative position alongside the permanent rails, and a latch device for releasably holding the rails of the temporary track in parallel operative position.

[Claim 2 not printed in the Gazette.]

1,242,260. LIMIT-SWITCH FOR HOISTING-MACHINES. FRED L. STONE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed July 24, 1915. Serial No. 41,693. (Cl. 200—21.)



1. A limit switch for motor driven hoists comprising a plurality of switches, a rotatable and longitudinally movable drum geared to the hoist, and a plurality of trips mounted on said drum and adjustable thereon in various positions so as to engage the switches and operate the same in each position.

2. A limit switch for motor driven hoists comprising a screw, a rotatable drum movable longitudinally with reference thereof and geared to the hoist, and a plurality of trips for operating the switches, mounted on said drum and adjustable in various positions along a helical line of the same pitch as the screw so as to engage the switches and operate the same in each position.

3. A limit switch for motor driven hoists comprising a drum movable longitudinally and rotatably in geared relation with the movement of the hoist, trips on said drum, means for adjusting the trips simultaneously angularly and longitudinally on the drum, and a plurality of switches operated by said trips.

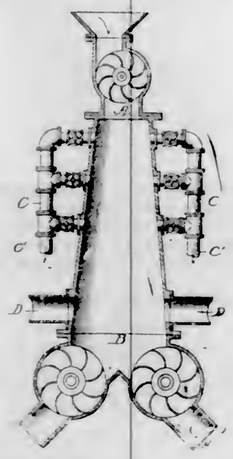
4. A limit switch for motor driven hoists comprising a drum movable longitudinally and rotatably in geared relation with the movement of the hoist, trips on said drum, means for adjusting the trips thereon along a helical line and a plurality of switches operated by said trips.

5. A limit switch for motor driven hoists comprising a stationary screw, a drum movable longitudinally thereof, an elongated pinion driven by the hoist and geared to the

drum, trips on said drum, means for adjusting the trips along a helical line of the same pitch as the screw, and a plurality of switches actuated by said trips.

[Claims 6 to 13 not printed in the Gazette.]

1,242,261. DISTILLATION OF COAL AND OTHER CARBONACEOUS MATERIALS. HORACE G. STONE, Chicago, Ill. Filed Apr. 29, 1915. Serial No. 24,623. (Cl. 202—9.)



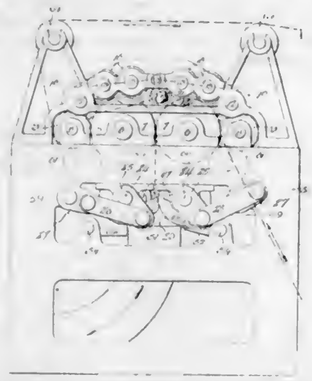
Apparatus for distilling coal or other carbonaceous material including a distillation chamber whose containing space increases in size from top to bottom, said chamber having an opening located at the upper portion thereof for the passage into the chamber of material to be distilled; means at said opening for preventing admission of an excess of air or free oxygen into the chamber while material is being passed thereinto through said opening, said chamber also having an opening at its base through which coke is discharged; means at said latter opening for preventing admission of an excess of air or free oxygen into the chamber while coke is being passed from said chamber through the latter opening; and means for admitting high temperatured gas into the chamber near the base thereof, said chamber also having an opening in the upper part thereof through which products of distillation are discharged.

1,242,262. MACHINE FOR CUTTING AND INTERFOLDING SHEETS OF PAPER AND THE LIKE. LOUIS A. STRAUBEL, Green Bay, Wis. Filed Aug. 19, 1916. Serial No. 115,773. (Cl. 270—39.)

1. In a machine of the class described the combination of a pair of folding members mounted for oscillatory movement downward and outward from juxtaposed initial positions and means for alternately clamping spaced portions of a web of work material against the outer faces of said members.

7. In a machine of the class described, the combination of a pair of folding members mounted for oscillatory movement downward and outward from juxtaposed initial positions, means for oscillating said members simultaneously in opposite directions, clamping lips carried by said members and engageable against the faces thereof, said clamping lips and the opposed members being provided with alined transverse grooves and presser fingers engageable in the grooves upon movement of the members to releasing position.

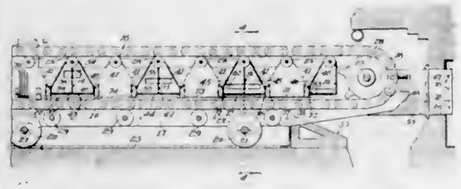
8. In a machine of the class described, a pair of bed rolls, feeding slitting and transverse cutting means grouped about the bed rolls, folding means under the bed rolls and including a chute extending to one side of the machine, means at the other side of the machine for supporting the supply rolls of paper, means for guiding a web of work material entirely over the bed rolls, feeding slitting and transverse cutting means of the machine from the



said other side thereof, and means for automatically threading work material between the bed rolls and said means grouped thereabout.

[Claims 2 to 6 and 9 to 13 not printed in the Gazette.]

1,242,263. FURNACE. ARTHUR P. STRONG, Chicago, Ill., assignor to Green Engineering Company, East Chicago, Ind., a Corporation of Illinois. Filed Mar. 6, 1917. Serial No. 152,635. (Cl. 110—40.)



1. In a furnace, the combination of a grate provided with a free air space therebelow, a plurality of forced draft ducts in said free air space, dampers normally closing said forced draft ducts and located in opposed relation to each other, said dampers being movable toward each other in said free air space and adapted to form a partition wall shutting off the space between said forced draft ducts from communication with a source of free air.

3. In a furnace, the combination of a grate, a plurality of forced draft ducts arranged in parallel and spaced relation beneath the grate, there being provided free air spaces intermediate said ducts, the latter being provided with oppositely disposed openings, and dampers normally closing said openings from communication with said free air spaces and movable in a direction toward each other and into said free air spaces to shut off the supply of free air thereto.

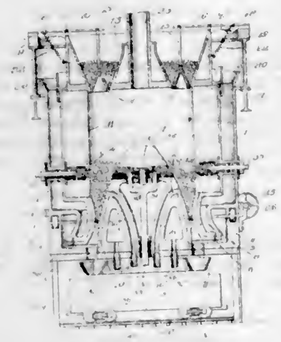
5. In a furnace, the combination of a grate, a plurality of parallel girders extending beneath said grate and in the free air space therebelow, a pair of cross ducts associated with each of said girders and comprising vertically arranged dampers hinged on opposite sides of each girder, said dampers being movable to open said cross ducts to communication with said free air space and into a position to shut off the supply of free air to said air space, and means for supplying forced draft to said ducts.

8. In a furnace, the combination of a grate, a plurality of parallel girders extending beneath said grate and in a free air space therebelow and provided with laterally extending webs, vertically arranged dampers hinged upon the outer margins of said webs, said dampers being adapted to be swung into one position to form a duct adjacent each of said girders and into another position to shut off the supply of free air to said air space, and means for supplying forced draft to said ducts.

13. A furnace stoker, comprising a traveling chain grate, a grate supporting frame movably mounted within the furnace, air ducts extending transversely of said frame and between the upper and lower leads of said grate, an air box extending longitudinally of said frame and provided with a plurality of air passages, each communicating with separate cross ducts, a main air supply duct fixed in the furnace and provided with an outlet opening communicating with said air box, and means for detachably connecting said air box and main supply duct.

[Claims 2, 4, 6, 7, 9 to 12, and 14 not printed in the Gazette.]

1,242,264. PROCESS FOR FORMING NITROGEN COMPOUNDS. LELAND L. SUMMERS, Chicago, Ill. Filed Apr. 22, 1914. Serial No. 833,769. (Cl. 204—31.)



1. The process of forming nitrogenous compounds and the like, comprising heating manganese-containing material with carbonaceous material in the presence of nitrogenous material.

2. The process of producing nitrogenous materials and the like, which consists in heating manganiferous material in the presence of carbonaceous material and a gas containing nitrogen.

3. The process of producing nitrogenous material which consists in heating a mixture of manganiferous and carbonaceous material and passing nitrogenous gases therethrough.

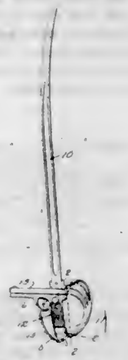
4. The process of forming nitrogenous volatile compounds, which consists in heating a mixture of manganiferous and carbonaceous material and forcing nitrogen-containing gas therethrough.

5. The process of forming volatile nitrogenous compounds consisting in heating a mixture of manganiferous and carbonaceous material, passing nitrogen-containing gases therethrough, drawing off the volatile product and condensing the latter.

[Claims 6 to 9 not printed in the Gazette.]

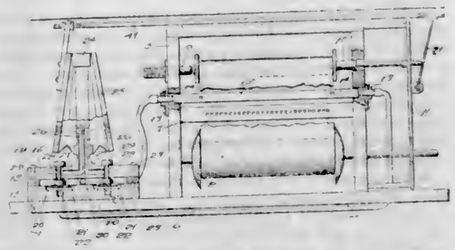
1,242,265. COMBINATION-WEAPON. ALEXSANDER SVALINA, Cleveland, Ohio. Filed May 23, 1917. Serial No. 170,499. (Cl. 42—53.)

The combination with a sword having a blade and a grip provided with a recess, of a pistol having a handle seated in the recess complementary to the remainder of the sword grip, said pistol grip having a magazine pocket or chamber opening downwardly along the sword grip, a swinging member carried by the butt end of the sword grip and arranged to close on said sword grip beneath said magazine pocket whereby to prevent withdrawal of



the magazine, and a latch to hold the swinging member in position to close the pocket.

1,242,266. TRACKER MECHANISM FOR PNEUMATIC OR PLAYER PIANOS. SELVIYOR A. SWANSON, North Tonawanda, N. Y. Filed Sept. 21, 1916. Serial No. 121,524. (Cl. 84—161.)

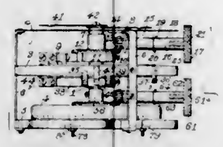


In a means for automatically tracking a music sheet in combination, a music roll holding box, a tracker bar therein, a music roll mounted in the music roll holding box above the tracker bar upon a spring actuated shaft and a longitudinally shiftable shaft, said longitudinal shaft being relatively long and extending through an opening in the music roll box and through an opening in a supporting member formed by an upstanding member disposed in a parallel position and at a distance from the music roll holding box and connected thereto by members secured to and disposed at substantially right angles to said supporting member; a projection on the supporting member below the opening for the shiftable shaft, an upstanding member loosely secured thereto and in contact with one end of the longitudinally shiftable shaft at a point intermediate the ends, said upstanding member being loosely connected at its upper end to a bar positioned above and parallel to the music roll holding box, said bar being capable of lateral movement; pneumatics connected to said bar and a hollow ended bar positioned directly above the tracker bar, said hollow ends extending through the music roll box and connected to the pneumatics, the ends communicating with ducts extending to the periphery of the bar, said ducts being normally covered by the music sheet near the edges thereof.

1,242,267. SAFETY DEVICE FOR STARTING MECHANISMS. BRICE P. SWYERS, Pittsburgh, Pa., assignor, by direct and mesne assignments, to Motors Lock Company of America, Pittsburgh, Pa., a Corporation of Delaware. Filed June 14, 1913. Serial No. 773,793. (Cl. 175—282.)

1. In a combination electric switch, an insulating plate, a set of contacts mounted on one side of said plate, a sec-

ond set of contacts mounted on the other side of said plate, a dial, a shaft carrying a hand adjacent said dial, a contact mounted on said shaft and coöperating with the set of contacts on one side of said insulating plate, a rotatable member coaxial with said shaft, a hand carried by said member adjacent said dial, and a contact carried by said member and coöperating with the set of contacts on the other side of said plate.



2. In a combination electric switch, a dial, an insulating plate, standards for connecting said plate with said dial parallel thereto and in spaced relation therewith, a set of contacts mounted on one side of said plate, a second set of contacts mounted on the other side of said plate, a shaft passing through said dial and said plate and having a hand mounted thereon, a contact carried by said shaft and coöperating with the said contacts on the lower side of said plate, a sleeve rotatably mounted on said shaft and carrying a hand, and a contact carried by said sleeve and coöperating with the set of contacts on the upper side of said plate.

3. In a combination switch, an insulating plate, a set of ring contacts mounted on one side of said plate, a second set of contacts mounted on the other side of said plate, a shaft mounted through the center of said plate, a contact brush mounted on said shaft and coöperating with the set of ring contacts on one side of said plate, a rotatable member co-axial with said shaft, and a brush contact carried by said member and coöperating with the set of ring contacts on the other side of said plate.

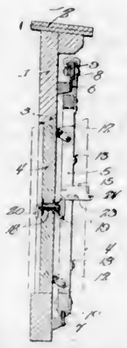
4. In a combination switch, a dial, an insulating base plate, a disk, an insulating plate above said disk, a shaft passing through all of said members, uprights for spacing and holding said plates and said dial in position, a set of ring contacts mounted on the upper side of said second named plate, a second set of ring contacts mounted on the lower side of said second named plate, a brush contact carried by said shaft and coöperating with the contacts on the lower side of said plate, a sleeve rotatably mounted on said shaft and carrying a brush contact cooperating with the ring contacts on the upper side of said plate, and means for independently operating each of said brushes.

5. In a combination switch, a dial, an insulating plate, a disk, an insulating plate above said disk, a shaft passing through all of said members, uprights for spacing and holding said plates and said dial in position, a set of ring contacts mounted on the upper side of said second named plate, a second set of ring contacts mounted on the lower side of said second named plate, a brush contact carried by said shaft and coöperating with the contacts on the lower side of said plate, a sleeve rotatably mounted on said shaft and carrying a brush contact coöperating with the ring contacts on the upper side of said plate, a casing inclosing the whole of said switch, and operating members extending through said casing and in geared connection with said brushes for independently operating them.

1,242,268. DOOR STRUCTURE FOR GRAIN-CARS AND THE LIKE. AUGUST TAUTGES, Aniwa, Wis., assignor of two-fifths to Joe Lindner, Jr., Birnamwood, Wis. Filed Mar. 17, 1917. Serial No. 155,481. (Cl. 20—24.)

1. The combination with a wall having a door opening, of a door carrying frame slidably mounted adjacent the door opening, a door pivoted in said frame to swing to either side thereof or to be disposed in its longitudinal plane, and a locking means to hold the door in either of said three positions.

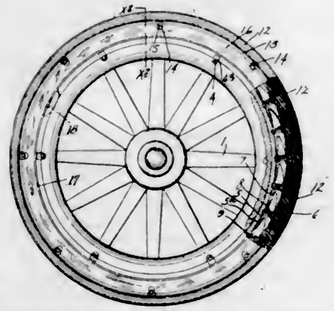
6. The combination with a wall having a door opening, of a carrying frame slidably mounted adjacent the door opening, a door to be disposed in said opening, links pivoted to opposite sides of said door and the sides of the frame adjacent thereof, said door being movable laterally and outwardly of said door opening to be disposed beyond the outer side of the frame or in the longitudinal



plane thereof, stops for holding the door in the longitudinal plane of the frame, additional stops for holding the door beyond the outer side of said frame, and coöperating locking means on the door and frame for securing the former in either of its last mentioned positions, said means being brought into operative relation when the door is moved laterally and outwardly on its links.

[Claims 2 to 5 not printed in the Gazette.]

1,242,269. RESILIENT WHEEL. EDGAR B. TEEPLE, Minneapolis, Minn. Filed Sept. 13, 1915. Serial No. 50,298. (Cl. 152—8.)

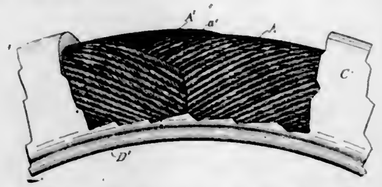


1. The combination with a wheel rim, of a spring steel tire band spaced from and surrounding said rim, flat leaf springs interposed between said rim and tire band and secured to both thereof, so as to thereby hold the same against lateral movements, one in respect to the other, the said springs exerting strain tending to draw said tire band inward toward said wheel rim, and coiled springs also interposed between said wheel rim and tire band, the said coiled springs being under tension and anchored to said rim and band.

2. The combination with a wheel rim and a spring steel tire band surrounding and spaced therefrom, of approximately U-shaped flat springs interposed between said rim and tire band, the prongs of said springs normally having an outward flare with a spread of less than the normal distance between said rim and band, and means drawing the prongs of said springs tightly against said rim and band and securing the same thereto, under

spring tension that bends the same into parallel arrangement, at the points of engagement with said rim and band, whereby the prongs of said springs are not only spread, but in themselves are given abnormal bend.

1,242,270. PROCESS OF MAKING TIRE-CASINGS. JAMES D. TEW, Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a Corporation of New York. Filed Aug. 13, 1914. Serial No. 856,621. (Cl. 154—14.)



1. The method of manufacturing tire casings by the use of cord, comprising the steps of laying cord length side by side about a transversely curved former to make an annular ply of substantially tire shape, and flattening a portion of each card length following the laying thereof.

8. The process of making tire casings comprising winding spirally about an annular former a cord to make a ply, winding over this a second ply with the cords extending at substantially right angles to those of the first ply, slitting the two plies on the inner periphery of the former, applying the beads and thread portions and vulcanizing the casing, and during the process described flattening the cord by external pressure opposed by the former.

9. The process of making tire casings consisting of winding onto an annular former a hollow cord to make a layer of cord-lengths side by side and thereafter by pressure flattening such cords in place.

14. The process of making tire casings consisting of winding spirally about an annular former covered with a rubber envelop a hollow twisted rubber-impregnated cord of sufficient stiffness to hold its shape while being laid, and after the same is laid submitting it to pressure sufficient to flatten the cord lengths and force some of the rubber of such envelop between adjacent lengths.

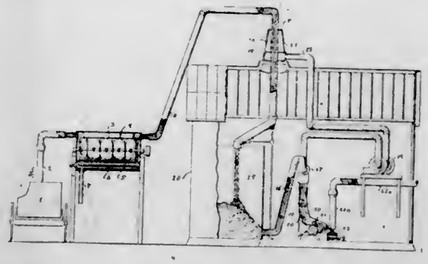
18. The process of making tire casings consisting of winding a hollow cord about an annular former covered by a rubber envelop to make a layer of cords, flattening the cords when in place, surmounting such layer by a sheet of rubber, winding onto it a second layer of hollow cords extending in another direction, flattening the latter cords when in place, severing the annular tube produced along the inner periphery thereof, and turning out the edges adjacent to the severing line to form beads.

[Claims 2 to 7, 10 to 13, 15 to 17, and 19 to 29 not printed in the Gazette.]

1,242,271. METHOD AND APPARATUS FOR HANDLING SEED-COTTON. GEORGE F. THOMPSON, McKinney, Tex., assignor of one-tenth to Joe Ellenberg, one-tenth to George H. Provine, two-tenths to Joe F. Dulaney, and two-tenths to Jim Thompson, McKinney, Tex. Filed Feb. 23, 1915. Serial No. 9,883. (Cl. 13—5.)

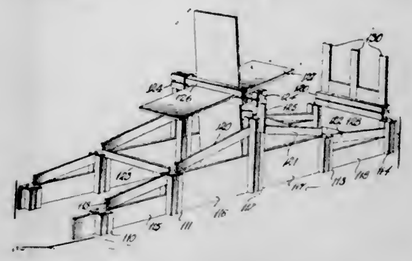
1. The method of treating bolly cotton comprising the subjecting of the initial crude product to a cleaning action to substantially free the same from shale, motes, dirt and the like, withdrawing the relatively clean product to an elevated point of discharge and liberating the same to fall from said point into an enlarged area enabling the cotton to spread and become aerated while depositing to place within the influence of a withdrawing medium, withdrawing the material by said medium away from near the bottom of the deposit in said area and subjecting it to a boll-breaking separating and additional cleaning action, and ginning the resultant fiber.

2. The method of treating bolly cotton comprising the subjecting of the initial crude product to a cleaning action to substantially free the same from shale, motes, dirt and the like, withdrawing the relatively clean product to an elevated point of discharge and liberating the same to fall from said point into an enlarged area enabling the cotton to spread and become aerated while depositing to a place within the influence of a withdrawing medium, withdrawing the material by said medium away from near the bottom of the deposit in said area and subjecting it to a boll-breaking separating and additional cleaning action, withdrawing the product from the discharge region of said last mentioned action, and subjecting the same to an additional cleaning action and ginning the same.



3. The method of treating bolly cotton comprising the subjecting of the initial crude product to a cleaning action to substantially free the same from shale, motes, dirt and the like, withdrawing the relatively clean product to an elevated point of dicharge and permitting the same to drop from said point and be aerated while approaching a place within the influence of a withdrawing medium, removing the material near the bottom of the deposit by said withdrawing medium and subjecting it to a boll-breaking, separating and additional cleaning action, and ginning the resultant fiber.

1,242,272. STRUCTURAL TOY. WILLIAM B. THURMAN, Madera, Cal. Filed Nov. 22, 1915. Serial No. 62,933. (Cl. 46—35.)

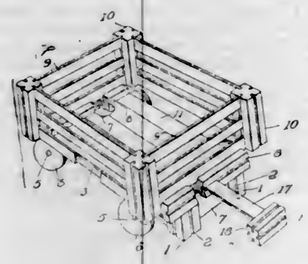


The combination with a pair of joining blocks having grooved faces and end recesses extending part way therethrough, of a dowel loosely seated in said recesses.

1,242,273. STRUCTURAL TOY. WILLIAM BLUDWORTH THURMAN, Madera, Cal. Filed Feb. 15, 1917. Serial No. 148,782. (Cl. 46—35.)

1. A toy truck comprising rectangular blocks having longitudinal grooves therein placed at the four corners of the truck and having their grooves substantially vertical, a pair of transverse strips facing said blocks at the end of the truck, relatively long vertical transverse strips facing said blocks lengthwise of the truck and having apertures therein for receiving axle dowels, said strips being held in said blocks by frictional attachment with the sides

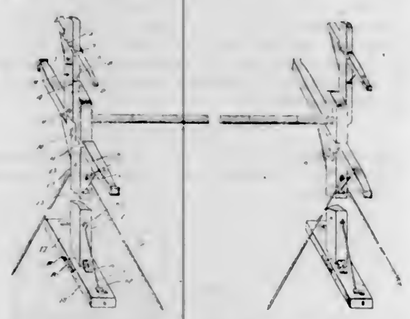
of said grooves, and wheels frictionally held at the ends of said dowels.



2. The combination with a truck having longitudinal members provided with transverse alined holes for receiving axle dowels, means for holding said longitudinal members in spaced relation, wheels frictionally held on the ends of said dowels, and a track for supporting said wheels, said track comprising rectangular blocks having longitudinal slots therein, track members frictionally held in said slots in a vertical position, and means for spacing said blocks to bring said track members the right distance apart to receive said wheels.

[Claims 3 and 4 not printed in the Gazette.]

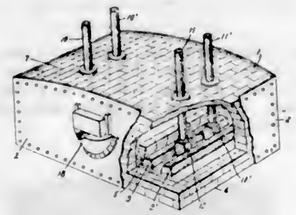
1,242,274. FOLDABLE SUPPORT. STEVINE TOMCSAMYI, Willock, Pa. Filed July 31, 1914. Serial No. 854,417. (Cl. 211—14.)



A support comprising a pair of foldable sections connected together and each consisting of a base, an upright mounted thereon, an extension secured to each upright in position to project thereabove, a pair of lateral arms pivotally supported on each extension projecting in opposite directions, the braces therefor detachably engaged with the side edges of the extension, additional lateral arms pivotally carried on the upright and projecting in opposite directions, braces for said additional arms detachably engaged with the side edges of said uprights, an arm pivotally engaged with one side edge of the upright, a keeper on the base to receive the free end of said last mentioned brace in engagement therewith, whereby to support the upright in vertical position on the base.

1,242,275. ELECTRIC FURNACE. IRVING R. VALENTINE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed May 12, 1917. Serial No. 168,254. (Cl. 204—64.)

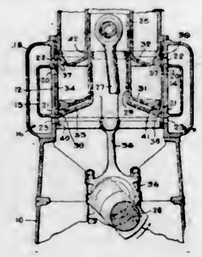
1. An electric furnace comprising a coptainer providing a support for materials to be heated, a stationary electrode resting on the base of said container, one or more movable arc-supporting electrodes coöperating therewith, shielding means between materials to be heated and an arc between said electrodes.



5. An electric furnace, comprising the combination of a container, a refractory wall extending upward from the base of said container part way to the upper wall of said container a conductor located on the base of said container adjacent one side of said wall, one or more electrodes projecting through the upper wall of said container and coöperating with said base conductor to produce an arc or arcs shielded by said wall from directly radiating heat to a space on the opposite side of said wall adapted to receive material to be heated.

[Claims 2 to 4 not printed in the Gazette.]

1,242,276. COMPRESSOR. WILLIAM EVERETT VER PLANCK, Erie, Pa., assignor to General Electric Company, a Corporation of New York. Filed Sept. 1, 1915. Serial No. 48,445. (Cl. 230—34.)

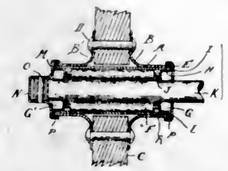


1. In a compressor, the combination of two concentric walls forming between them an annular cylinder, an annular piston therein, a crank shaft, a rod connecting the piston thereto, admission and exhaust ports in one of said annular walls, a sleeve valve controlling said ports, an eccentric on the cam shaft, and means connecting it to the sleeve valve.

2. In a compressor, the combination of two concentric walls forming between them an annular cylinder, a trunk piston within which the inner concentric wall fits, said trunk piston having an annular flange which forms the piston of the compressor, a crank shaft, a rod connecting the trunk piston to a crank on such shaft, admission and exhaust ports in one of said concentric walls, a sleeve valve for controlling them, an eccentric on the cam shaft, and means connecting it to the sleeve valve.

3. In a compressor, the combination of two concentric walls forming between them an annular cylinder, a trunk piston within which the inner concentric wall fits, said trunk piston having an annular flange which forms the piston of the compressor, a crank shaft, a rod connecting the trunk piston to a crank on such shaft, admission and discharge ports in the outer concentric wall, a sleeve valve formed integral with said inner concentric wall and located between the piston of the compressor and the outer concentric wall for controlling said ports, an eccentric on the cam shaft, and means connecting it to the inner concentric wall and the sleeve valve.

1,242,277. WHEEL-HUB. JOSHUA F. VOGEL, Toledo, Ohio, assignor to Gendron Wheel Company, Toledo, Ohio, a Corporation of Ohio. Filed Feb. 7, 1916. Serial No. 76,706. (Cl. 64—39.)

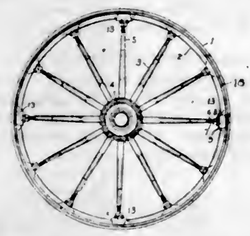


1. A wheel hub, comprising a barrel, a series of rolls therein having their end portions reduced in diameter, retainers for said rolls at opposite ends of said barrel, each having a portion fitting within the barrel, a flange overlapping the end of the barrel and an inwardly-extending flange underlapping the reduced ends of the rolls.

2. A wheel hub, comprising a barrel, a series of rolls therein having their opposite end portions reduced in diameter forming substantially square shoulders between the same and the remaining portion of the rolls, retainers for said rolls at opposite ends of the barrel each having a portion fitting within the barrel and an inwardly-extending flange underlapping the reduced ends of the rolls, the edge of said flange coöperating with the shoulders on the rolls to limit endwise movement thereof.

[Claims 3 to 5 not printed in the Gazette.]

1,242,278. VEHICLE-WHEEL. FRANK CLAMPETT VOGLER, San Antonio, Tex. Filed Sept. 28, 1916. Serial No. 122,678. (Cl. 21—169.)



1. A wheel including a rim, segmental felly sections divided longitudinally to form complemental felly elements, wedge blocks between the felly sections, and means for forcing the wedge blocks and felly sections outwardly and holding the felly elements together.

2. A wheel including a rim, segmental felly sections divided longitudinally to form complemental felly elements, wedge blocks interposed between the ends of the felly sections and having an interlocking connection with the felly elements to prevent spreading of the latter, and means for forcing the wedge blocks outwardly.

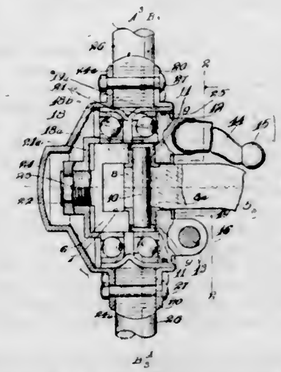
3. A wheel including a rim, segmental felly sections divided longitudinally to form complemental felly elements, wedge blocks fitted between the ends of the segmental felly sections and also divided longitudinally, the wedge block sections having an interlocking connection with corresponding felly elements, and means for forcing the wedge blocks outwardly and holding the sections thereof together.

4. A wheel including a rim, segmental felly sections divided longitudinally to form complemental felly elements, seats being provided on the inner faces of the felly sections, wedge blocks fitted between the ends of the felly sections, spokes, spindles projecting from the spokes, followers slidable on the spindles and arranged for engagement with the wedge blocks and seats of the felly sections, means upon the followers for engaging the complemental elements of each felly section to hold them together, and means for forcing the followers outwardly on the spindles.

5. A wheel including a rim, segmental felly sections divided longitudinally to form complemental felly elements, seats being provided upon the inner faces of the segmental felly sections, wedge blocks fitted between the ends of the segmental felly sections and also divided longitudinally, the wedge block sections having interlocking connections with the ends of corresponding felly elements, spokes, spindles projecting from the spokes, followers slidable upon the spindles for engagement with the wedge blocks and seats of the felly sections, means upon the followers for holding the wedge block sections and felly elements together, and means for forcing the followers outwardly upon the spindles.

[Claims 6 to 10 not printed in the Gazette.]

1,242,279. STEERING-WHEEL. FRANKWILL VON ELBERTZ, Chicago, Ill., assignor of one-half to Henry H. Buckwalter, Chicago, Ill., and one-half to Henry S. Pruyn, Jr., Cook county, Ill. Filed Nov. 4, 1915. Serial No. 59,586. (Cl. 21—142.)



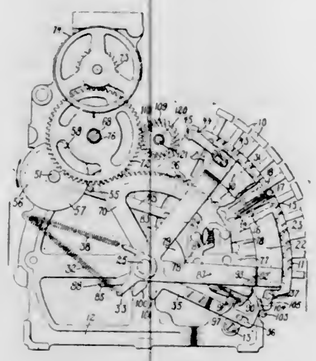
The combination of a main axle having a knuckle at its end, a stub axle having a recess in its inner face in which the aforesaid knuckle seats, said knuckle having reduced top and bottom portions, axially alined sleeves mounted on said reduced portions, a pivot pin passing through the knuckle and the sleeves, the stub axle having alined off-center bearing-apertures in the top and bottom walls of the recess, in which apertures the sleeves seat, an anti-friction bearing surrounding the stub axle, the aforesaid bearing-apertures in the stub axle opening to said bearing, a wheel hub mounted on the bearing, and a cap nut carried by the outer end of the stub axle and engageable with the bearing.

1,242,280. KEYBOARD MECHANISM FOR CASH-REGISTERS. EDWARD J. VON PEIN, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed Mar. 11, 1915. Serial No. 13,621. (Cl. 235—9.)

1. In a machine of the class described, the combination with a main operating mechanism, of a bank of depressible and arrestable keys, the bank representing a plurality of denominations, a plurality of accounting elements one for each denomination represented by the bank of keys, and differential means for actuating one or more of the accounting elements upon operation of the machine and under the control of the bank of keys.

2. In a machine of the class described, the combination with a main operating mechanism, of a bank of depressible keys, arrestable in different positions, and representing a plurality of denominations, a plurality of accounting elements, one for each denomination represented by the bank of keys, and differential means for actuating one or more

of the accounting elements upon operation of the machine and under the control of the keys in the different positions of the latter.



3. In a machine of the class described, the combination with a main operating mechanism, of a bank of manually depressible keys representing a plurality of denominations, each key being capable of being depressed but once preliminarily to the operation of the machine, accounting means representing the denominations corresponding to those represented by the bank of keys, and differential means for actuating the accounting means upon operation of the machine and under the control of said keys.

4. In a machine of the class described, the combination with a main operating mechanism, of a bank of depressible and arrestable keys representing a plurality of denominations, a plurality of accounting elements, one for each denomination represented by the bank of keys, and a plurality of differential mechanisms, one for each accounting element for actuating the latter under the control of said keys.

5. In a machine of the class described, the combination with a main operating mechanism, of a bank of keys representing a plurality of denominations and movable to different positions, means for retaining said keys in such positions, a plurality of accounting elements one for each denomination represented by the bank of keys, and a plurality of differential mechanisms one for each accounting element and controlled by said keys in the different positions of the latter.

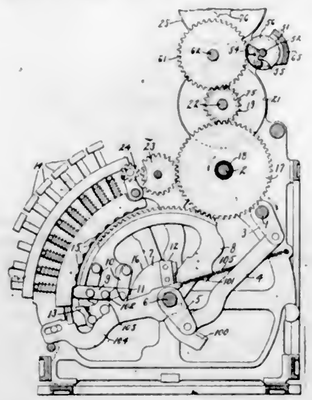
[Claims 6 to 52 not printed in the Gazette.]

1,242,281. INDICATING MECHANISM FOR CASH-REGISTERS. EDWARD J. VON PEIN, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed Mar. 27, 1915. Serial No. 17,337. (Cl. 235—23.)

1. In a machine of the class described, the combination with an accounting device, of mechanism for entering items in said accounting device, digit carriers, and means actuated by the item entering mechanism for setting the digit carriers to represent at the end of an operation a plurality of separate items entered by previous operations of said mechanism.

2. In a machine of the class described, the combination with an accounting device, of mechanism for entering items in said accounting device, digit carriers, and means operated by the item entering mechanism for setting the digit carriers to represent a plurality of separate successive items entered in the accounting device.

3. In a machine of the class described, the combination with an accounting device, of mechanism for entering items in said accounting device, digit carriers, and means operated by the item entering mechanism for setting the digit carriers to show at each operation a plurality of successive items entered in the accounting device and the order in which they were entered.

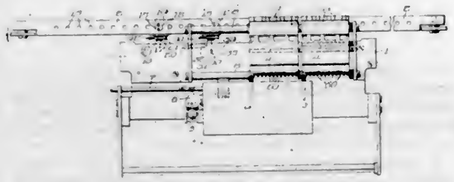


4. In a machine of the class described, the combination with a totalizer, of mechanism for entering items in said totalizer, digit carriers, and means operated by the item entering mechanism for setting up on the digit carriers at each operation a plurality of successive items which have been entered in the totalizer.

5. In a machine of the class described, the combination with a totalizer, of mechanism for entering items in said totalizer, digit carriers, and means operated by the item entering mechanism for setting the digit carriers to show at each operation a plurality of items entered in the totalizer and the order in which they were entered.

[Claims 6 to 45 not printed in the Gazette.]

1,242,282. CALCULATING-MACHINE. JOHN C. WAHL, Chicago, Ill., assignor, by mesne assignments, to Wahl Adding Machine Company, Wilmington, Del., a Corporation of Delaware. Filed Sept. 11, 1911. Serial No. 648,696. (Cl. 235—59.)



1. In a machine adapted for calculating and horizontal printing, the combination of: a sub total decimal carriage for the accumulation of numbers printed in a horizontal line; a grand total decimal carriage for the total of sub totals, the sub total decimal carriage reciprocating once for each number of the sub total, the grand total decimal carriage remaining temporarily stationary, and both decimal carriages traveling together for the accumulation of the grand totals; a set of keys; and mechanism operated by said keys to transfer a total from the sub total decimal carriage into the grand total decimal carriage while said carriages are traveling together.

2. In a machine adapted for calculating and horizontal printing, the combination of: a sub total totalizer for the accumulation of numbers printed in a horizontal line; a grand total totalizer for the total of sub totals, the sub total totalizer reciprocating once for each item of the sub total, the grand total totalizer remaining temporarily stationary and both totalizers traveling together for the accumulation of the grand totals; a set of numeral keys and mechanism coöperating with the two totalizers for the transferring of a total from one totalizer to the other upon the operation of said numeral keys.

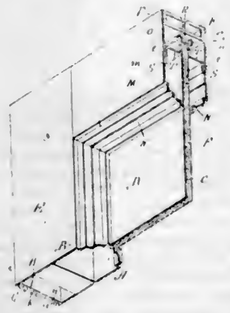
3. In a machine adapted for calculating and horizontal printing, the combination of: a sub total decimal carriage for the total of numbers printed in a horizontal line; a grand total decimal carriage for the total of the sub totals; a printing carriage for determining the printing location; mechanism mounted upon the printing carriage for reciprocating the sub total decimal carriage; other mechanism mounted on said printing carriage for reciprocating the grand total decimal carriage; a set of keys; and mechanism for transferring a total from said sub total decimal carriage into said grand total decimal carriage upon the operation of said keys.

4. In a machine adapted for calculating and horizontal printing, the combination of: a sub total totalizer for the total numbers printed in a horizontal line; a grand total totalizer for the total of the sub totals; a printing carriage for determining the printing location; mechanism mounted upon the printing carriage for reciprocating the sub total totalizer; other mechanism mounted on said printing carriage for reciprocating the grand total totalizer; a set of keys; and mechanism for transferring a number from said sub total totalizer into said grand total totalizer upon the operation of said keys.

5. In a machine adapted for calculating and horizontal printing, the combination of: a sub totalizer; a grand totalizer; a master wheel for the sub totalizer; another master wheel for the grand totalizer; a set of numeral keys; gear connections between said master wheels determining that said wheels shall revolve equal amounts in opposite directions upon the actuation of said keys; a printing carriage for determining the printing location; and engaging mechanism mounted upon the printing carriage, said engaging mechanism causing the sub totalizer to reciprocate past its master wheel for the accumulation of sub totals, the grand totalizer remaining stationary and said engaging mechanism causing both totalizers to travel past their respective master wheels for the accumulation of the grand totals.

[Claims 6 to 43 not printed in the Gazette.]

1,242,283. METALLIC DOOR. ALBERT BERNHARD WALTHER, Jamestown, N. Y., assignor to Dahlstrom Metallic Door Company, Jamestown, N. Y., a Corporation of New York. Filed Mar. 6, 1912. Serial No. 681,963. (Cl. 189—46.)

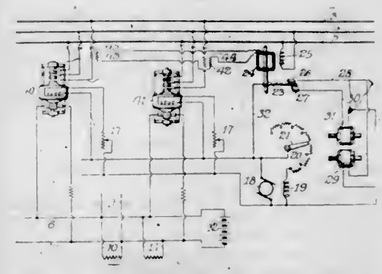


1. A sheet metal door having hollow stiles and an interposed panel formed of two sheets of metal connected together at the edges of the door, each sheet being bent or rolled longitudinally to form one-half of each stile and an interposed panel portion, said panel portions having free upper and lower ends recurved upon themselves, and rails formed of sheet metal fitted on the panel portions between the stiles, a channel-iron fitting into the outer portions of said rails and the ends of said stiles, and a facing plate bearing against the edges of each channel-iron and secured thereto.

2. A sheet metal door having a hollow stile and an interposed panel, each stile having the marginal portions of the metal forming the same bent at right angles to the sides of the stile and thence rebent to form U-shaped portions, and an interlocking strip within each stile having its marginal portions rebent to interlock with the U-shaped portions of the metal forming the stile, each interlocking strip extending from side wall to side wall of the stile and with said U-shaped portion forming an edge wall having four thicknesses of metal co-extensive with the thickness of the door.

3. A sheet metal door having the longitudinal marginal portions of its sheet or sheets bent into substantially U-form and at right angles to the face of the door, and an interlocking strip connecting said U-formed portions and extending from upper to lower end of the door with its longitudinal edges in contact with the side walls of the stile, thereby providing a solid edge consisting of a plurality of layers of metal composed only of said interlocking strip and said metal sheet or sheets.

1,242,284. LOAD-REGULATING SYSTEM. WILLIAM L. WATERS, Milwaukee, Wis. Filed July 22, 1914. Serial No. 852,512. (Cl. 171—312.)



1. In a system of load regulation, supply mains, a plurality of transforming units, leads connecting said transforming units to said supply mains, consumption circuits supplied by said transforming units, current transformers in said leads and a watt-meter relay having a coil connected in series with the secondaries of said current transformers, circuits controlled by said relay for simultaneously varying the field excitation of said plurality of said transforming units to vary the voltage impressed upon said consumption circuits.

2. In a system of load regulation, supply mains, a plurality of transforming units, leads connecting said transforming units to said supply mains, consumption circuits supplied by said transforming units, current transformers in said leads and a watt-meter relay having a moving element controlled by the combined action of said current transformers, circuits controlled by said relay for simultaneously varying the field excitation of said transforming units to vary the voltage impressed upon said consumption circuits.

3. In a system of load regulation, alternating current supply mains, supply branches connected thereto, current translators connected to said supply branches, direct current work circuits connected to said translators and receiving current therefrom, means to excite the translators, a watt meter relay to control said means, said relay having its voltage coils shunted across the mains, and its current coils interposed in the supply branches to each translator, whereby the aggregate current consumed by the work circuits through the translators may act upon the current coils of said relay, such action being obtained by the integration of loads on said work circuits.

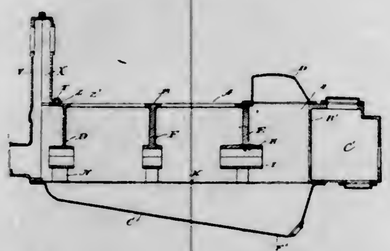
5. In a system of distribution, a generator feeding consumption circuits, electrically operated means to drive the

generator, means to regulate the generator, and means responsive to the power input to the driving means to control the regulating means to maintain the wattage of the consumption circuits constant regardless of change in load imposed thereupon.

6. In a system of distribution, mains, a generator, means connected to the mains to drive the generator, consumption circuits connected to the generator, regulating means for the generator, means sensitive to changes both in voltage and amperage of the mains to control the regulator, said means being connected to said regulator to continuously control the same regardless of the degree of change of load or the direction in which such change takes place on the consumption circuits so as to maintain the wattage thereof constant.

[Claims 4 and 7 to 9 not printed in the Gazette.]

1,242,285. ENGINE-CASING. FRANK E. WATTS, Detroit, Mich., assignor to Hupp Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Mar. 11, 1914. Serial No. 823,985. (Cl. 121—105.)



1. The combination of a crank case, provided with a transverse partition adjacent one end, of a cap for closing said end of the crank case having a portion extending above the top of the crank case, and a second cap secured to the first mentioned cap and coöperating therewith and with said partition to form a housing for the purpose described.

3. A crank casing, comprising a body portion including sides and transverse partitions adjacent the opposite ends of the sides, said partitions having segmental crank shaft bearings, said sides having their lower edges extending a considerable distance below the axis of said segmental bearings, and end members secured to the respective casing extremities spaced from the respective end partitions.

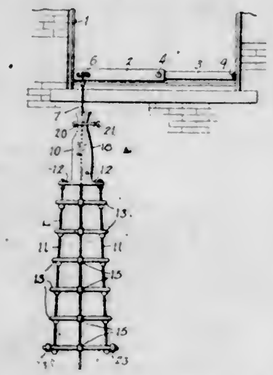
4. The combination with a crank case, having partitions adjacent its ends, and having extensions of its walls beyond said partitions, of a transmission case coacting with the extensions at one end to form a fly wheel chamber, and a cap coacting with the extensions at the other end of the casing to form a housing.

6. The combination with a crank case having a partition adjacent one end thereof and having extensions from said end at each side of said partition terminally flanged, of a transmission case detachably secured to the flanges of said extensions and coacting with the crank case to form a fly wheel chamber, and a cap for covering said chamber dished to receive the top portion of the fly wheel.

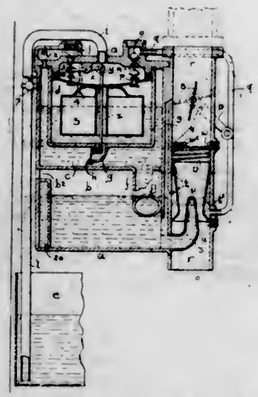
[Claims 2 and 5 not printed in the Gazette.]

1,242,286. FIRE-ESCAPE. JOSEPH J. WEINANDT, Ayr, N. D. Filed May 5, 1916. Serial No. 95,541. (Cl. 227—11.)

A collapsible fire escape including a cable, a tubular slide mounted upon the cable and provided at its lower end with laterally extending arms, brake means upon the tubular slide for engagement with the cable, flexible side ropes pendent from the lateral arms of the tubular slide on opposite sides of the cable, rungs connecting the side ropes and coöperating therewith to provide a collapsible ladder construction, and independent guide members projecting from intermediate portions of the several rungs for engagement with the main cable.



1,242,287. FUEL-FEEDING APPARATUS. FREDERICK WEINBERG, Detroit, Mich. Filed Dec. 11, 1914. Serial No. 876,604. (Cl. 158—36.)



1. In an apparatus of the kind described, the combination of a supply tank, a vacuum producing passage, an inclosed chamber having a liquid space and an air space, said vacuum producing passage communicating with said chamber, a conduit extending from a point beneath the liquid in said supply tank to said inclosed chamber, an inclosed intermediate reservoir having an air space and a liquid space, a liquid conducting passage leading from the liquid space of said chamber to said intermediate reservoir, means for permitting the flow of liquid from said chamber to the intermediate reservoir and preventing the flow in the reverse direction, and means closed to the outer air for connecting and disconnecting the air spaces in said chamber and intermediate reservoir.

5. In a combination consisting of an intake passage, a liquid reservoir open to the atmosphere, a supply nozzle extending from said reservoir to said intake passage, an inclosed chamber located at a higher level than said reservoir, a passage extending from said chamber downward into said reservoir and open at its lower end and so located that the liquid in said reservoir shall form an air seal so that normally a substantially constant level shall be thereby maintained in said reservoir, and means for opening the air space of said chamber to the outer air to the extent and for the time required.

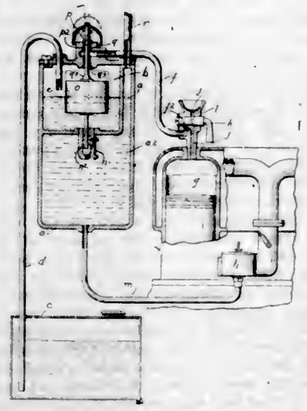
7. In an apparatus of the kind described, the combination of an intake passage, a liquid reservoir open to the atmosphere, a supply nozzle extending from said reservoir to said intake passage, an inclosed chamber located at a higher level than said reservoir, a passage extending from said chamber downward into said reservoir and open at its lower end and so located that the liquid in said reservoir shall form an air-seal so that a substantially constant level shall be thereby maintained in said reservoir, and a manipulatable valve whereby air may be admitted to said chamber in required volume to prime an engine.

9. In a vacuum feed system, the combination of a liquid supply tank, a vacuum-producing passage, an auxiliary vessel having an upper and a lower chamber, a conduit connecting said tank and auxiliary vessel, a passage communicating with said auxiliary vessel and said vacuum-producing passage, a check valve between the chambers opening toward the lower chamber, and a float in the upper chamber adapted to operate said valve mechanically.

11. In a vacuum feed system, the combination of a supply tank, a vacuum chamber, a conduit leading from said supply tank to said vacuum chamber, means for making and breaking a vacuum in said chamber, an intermediate chamber, a conduit leading from said vacuum chamber to said intermediate chamber, a constant level chamber, a conduit leading from said intermediate chamber to said constant level chamber, the last named conduit being continuously open and uninterrupted.

[Claims 2 to 4, 6, 8, and 10 not printed in the Gazette.]

1,242,288. VACUUM-FEED SYSTEM. FREDERICK WEINBERG, Detroit, Mich. Filed Aug. 4, 1915. Serial No. 43,507. (Cl. 158—36.)



1. In a vacuum feed system, the combination of vacuum chamber, means for supplying liquid fuel to said chamber because of the vacuum therein, said chamber having an air space and a liquid space, a single air passage leading from the air space of said chamber to the outer air, a vacuum producing passage communicating with said air passage intermediate of the ends of thel atter and a valve adapted to close and open the inner end of said air passage.

2. In a vacuum feed system, the combination of a vacuum chamber, means for supplying liquid fuel to said chamber because of the vacuum therein, said chamber having an air space and a liquid space, a single air passage leading from the air space of said chamber, a vacuum producing passage communicating with said air passage intermediate of the ends of the latter, a valve adapted to close the inner end of said air passage, and a valve adapted to close the outer end of said air passage.

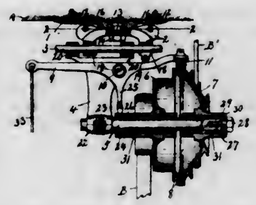
3. In a vacuum feed system, the combination of a vacuum chamber, means for supplying liquid fuel to said chamber because of the vacuum therein, said chamber having an air space and a liquid space, a single air passage leading from the air space of said chamber to the outer air, a vacuum producing passage communicating with said air passage intermediate of the ends of the latter and a valve adapted to close and open the inner end of said air passage, a float in said chamber, said float being adapted to actuate said valve.

7. In a vacuum feed system, the combination of a vacuum chamber, means for supplying liquid fuel to said chamber because of the vacuum therein, a separate vacuum producing passage communicating directly with said chamber, an internal combustion engine cylinder having a combustion chamber, said vacuum producing passage communicating directly with said combustion chamber, and a non-return valve located in said vacuum producing passage closing toward said vacuum chamber and opening toward the combustion chamber.

10. In a vacuum feed system, the combination of a vacuum chamber, a main fuel supply tank, a conduit connecting said tank and chamber, said tank being normally located below the level of said chamber but liable to be raised above said chamber, a passage leading from said chamber, a float in said chamber forming an operative part of said system when the level of the liquid in said chamber is within certain limits and adapted to close said passage when said liquid level raises above said limits, said conduit opening into said chamber at a level within said operating limits for the purpose described.

[Claims 4 to 6, 8, 9, and 11 to 14 not printed in the Gazette.]

1,242,289. POWER-TRANSMITTING DEVICE. CHARLES H. WEST, Syracuse, N. Y. Filed Apr. 16, 1917. Serial No. 162,491. (Cl. 74—46.)



1. In a power-transmitting device of the character described, the combination with a supporting table, a plate secured to the under side of said table, a pivotal bolt on said plate, a yoke pivotally mounted on the under side of the plate to swing horizontally about the axis of the bolt, a nut on the bolt for holding the yoke in operative position, adjusting screws on the plate engaging portions of the yoke for adjusting the same about its axis, guide rods mounted on the yoke, a hanger supported on the guide rods and adjusted in the direction of length of the guide rods, a shaft secured at one end to the hanger, coaxial pulleys mounted end to end upon the shaft and provided with coöperative clutch faces, a collar movable lengthwise of and upon the shaft for shifting one of the pulleys into engagement with the other pulley, a lever pivotally mounted on the hanger and provided with a pendent arm engaging said collar for shifting the same endwise, and a brake-shoe mounted on the lever and movable into and out of engagement with the periphery of one of said pulleys as the lever is rocked in reverse directions.

2. In a power-transmitting device of the character described, the combination of a main supporting plate and a yoke pivotally mounted thereon, means for adjusting the yoke about the axis of said pivot, a hanger mounted upon the yoke and adjustable endwise at right angles to said

axis, a shaft secured at one end to the hanger, a pair of cone pulleys mounted on the shaft, one of which is movable axially into and out of frictional engagement with the other pulley, and means on the hanger for shifting the axially movable pulley endwise.

4. In a power-transmitting device of the character described, the combination of a base plate, a yoke pivotally mounted thereon to swing about a vertical axis, means for adjusting the yoke about said axis, a hanger adjustable lengthwise of and upon the yoke at right angles to said axis, a shaft mounted on the hanger and extending horizontally therefrom, and a pulley mounted on the shaft.

[Claims 3, 5, and 6 not printed in the Gazette.]

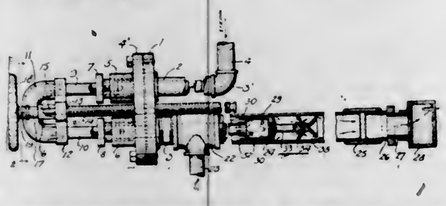
1,242,290. WINDOW ATTACHMENT. LOUIS J. WESTNESS, Milwaukee, Wis. Filed July 22, 1916. Serial No. 110,622. (Cl. 20—46.)



1. In combination with a window, an attachment thereto, comprising a metal strip having slotted openings, headed projections on the side of the window casing adapted to fit in said openings to removably secure the strip in place, a clamping lever fulcrumed on the metal strip and having cams for moving the metal strip from a position in which the headed projections lie within the larger portions of the openings to a position in which they lie within the slotted portions of the openings and for moving it back again, hooks projecting from the metal strip, and eye members projecting from the window sash and adapted to engage the hooks and form the hinge connection for the window sash.

[Claim 2 not printed in the Gazette.]

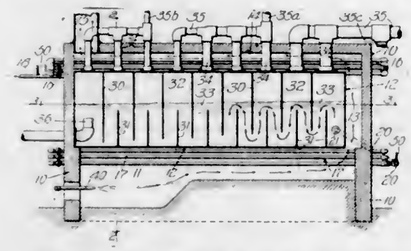
1,242,291. OIL-BURNER. THEODORE WETZEL, San Francisco, Cal. Filed Aug. 16, 1916. Serial No. 115,169. (Cl. 158—75.)



1. An oil burner comprising a burner pipe forming a mixing chamber, a steam pipe slidable into said mixing chamber, means to adjust the position of said steam pipe, a steam nozzle on the end of the steam pipe within the mixing chamber, and a double conical tip forming means for mixing the steam and oil in front of the steam nozzle and secured thereto.

2. An oil burner comprising a burner pipe forming a mixing chamber, oil and steam supply pipes therefor, a pair of packing boxes, a U shaped steam pipe extending into both of said packing boxes for supplying steam to the mixing chamber, a steam nozzle having spiral passageways on the steam pipe within the mixing chamber, and means to move the steam pipe longitudinally of the pipe forming the mixing chamber to increase the size of the mixing chamber several times over its minimum size, and a tip on the end of the burner pipe.

1,242,292. OIL-TREATING DEVICE. FLOYD G. WHITE, Los Angeles, and WALTER J. BARNHART, Maricopa, Cal. Filed Oct. 19, 1915. Serial No. 56,772. (Cl. 196—13.)



1. In an oil treating device, a furnace, a coil of pipes arranged therein, means to force oil under pressure through the pipes to be heated therein, a heating pan in said furnace into which the end of the pipe coil discharges at one end, said pan embodying a closed receptacle having vertically longitudinally spaced baffles therein extending alternately from the top and bottom of the pan so that the oil flowing from end to end of the pan must follow a vertically undulating route, a pressure valve at the end of the pipe coil before discharge to the pan to maintain a certain predetermined pressure on the oil in the pipe coil, and means to conduct away the vapors arising from the oil in the pan.

2. In an oil treating device, a heating pan embodying an elongate closed receptacle with inlet and outlet at opposite ends, said receptacle being interiorly subdivided into a plurality of chambers by longitudinally spaced vertical baffles extending alternately from the top and bottom of the receptacle, and vapor outlets one for each of said chambers at the top of the pan.

3. In an oil treating device, a heating pan embodying an elongate closed receptacle with an inlet at the lower part of one end and an outlet at the lower part of the opposite end, said receptacle being interiorly subdivided into a plurality of chambers by longitudinally spaced vertical baffles extending alternately from the top and bottom of the receptacle, the baffles which extend from the top extending closer to the bottom at the outlet end than at the inlet end, and the baffles which extend from the bottom extending about midway to the top, and vapor outlets one for each of said chambers at the top of the pan.

4. In an oil treating device, a furnace, a heating chamber therein, means to force oil under pressure through the chamber to be heated therein, discharge valve means to hold a pressure on the oil in the chamber, a pan in the furnace into one end of which the oil discharges from the discharge valve, said pan embodying a horizontal closed receptacle divided into a plurality of compartments by vertical baffles spaced longitudinally of the receptacle, said baffles extending alternately from the top and bottom of the receptacle; and means to conduct vapors away from each of the compartments of the pan.

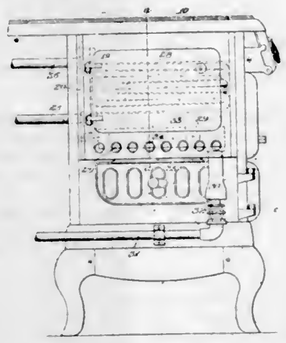
5. In an oil treating device, the combination of means to heat the oil under pressure, a heating pan into which the heated oil is discharged and in which the pressure on the heated oil is relieved, said pan embodying a horizontal receptacle with inlet and outlet at opposite ends, said receptacle being interiorly divided into a plurality of spaced baffles extending alternately from the top and bottom of the receptacle, and vapor outlets one for each of said compartments at the top of the pan.

1,242,293. TOILET ARTICLE. STASH WIGIERT, Bremond, Tex. Filed May 23, 1917. Serial No. 170,391. (Cl. 132—35.)



The combination with a brush back having bristles projecting from one face thereof and a recess in the opposite face; of a pair of spring arms fixed at one end of said back and projecting therefrom in spaced relation, inwardly facing clutch elements on said arms, a bristle cover, a similar pair of spring arms fixed at one end of the cover and projecting therefrom in spaced relation, inwardly and outwardly facing clutch elements on the ends of said last arms arranged between and coöperating with the clutch elements on the first arms, a comb adapted to lie in said recess and having an arm extending from one end, and outwardly facing clutch elements at the end of the last-mentioned arm and lying between and cooperating with the clutch elements on the cover arms.

1,242,294. WATER-HEATER. FREDERICK WILL, Rochester, N. Y., assignor to Sill Stove Works, Rochester, N. Y., a Corporation of New York. Filed Aug. 28, 1916. Serial No. 117,281. (Cl. 126—34.)

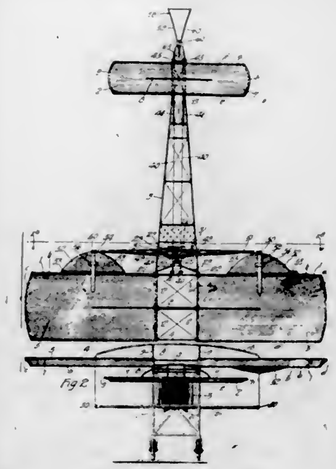


1. In a water heater, the combination with a fire-box, of a water head, a water circulating medium connected with the head and arranged to be heated by the combustion of fuel in said fire-box, a second water circulating medium connected with the head and a liquid fuel burner arranged to supply heat to the second mentioned medium independently of the first.

2. In a water heater, the combination with a fire-box, of a water head, tubes connected with the head adapted to form a wall of the fire-box, additional tubes connected with the head independent of the first mentioned tubes, and a liquid fuel burner arranged to heat said additional tubes.

3. In a water heater, the combination with a fire-box, of a water head having inlet and outlet chambers formed therein, a water circulating tube having one of its ends connected with the inlet chamber and its other end with the outlet chamber, said tube forming a wall of the fire-box, a plurality of tubes each having one of its ends connected with said inlet chamber and its other end with said outlet chamber, and means independent of the fire-box for heating the last mentioned tubes.

1,242,295. FLYING-MACHINE. DANIEL M. WILLARD, Bakersfield, Cal., assignor of one-half to Albert J. Mills, Bakersfield, Cal. Filed Jan. 5, 1916. Serial No. 70,394. (Cl. 244—29.)



1. A flying machine comprising a frame, a wing extending on both sides of the frame, means to raise and lower the air-receiving edge of said wing from tip to tip thereof relative to the frame to change the angle of said wing, ailerons hinged to the rear edge of the wing, springs to hold the ailerons in normal position, means to depress said ailerons, and a second wing connected to said frame.

2. A flying machine comprising a frame, a wing extending on both sides of the frame, means to raise and lower the air-discharging edge of said wing from tip to tip thereof relative to the frame to change the angle of said wing, ailerons hinged to the rear edge of the wing, springs to hold the ailerons in normal position, means to depress said ailerons, and a second wing connected to said frame.

3. A flying machine comprising a frame, a leading wing extending on both sides of the frame at the head end thereof, means to change the angle of the leading wing from tip to tip thereof to cause a change of altitude of the machine, ailerons hinged to the leading wing, means yieldingly holding said ailerons against tilting up and down, means to depress the ailerons, and a following wing at the tail end of said frame.

4. A flying machine comprising a frame, wings extending on both sides of the frame, a freely swinging tail for the frame, and means to change the angles of said wings from tip to tip thereof independently of one another to cause a change of altitude of the machine.

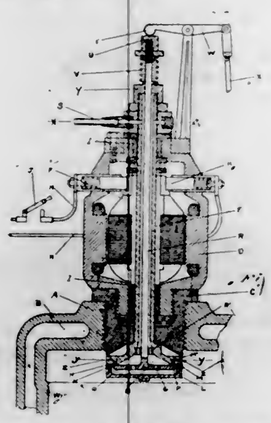
5. A flying machine comprising a frame, a freely swinging tail for the frame, and front and rear supporting surfaces of independently adjustable angularity relative to the frame to change the altitude of the machine and at the same time to maintain the frame on an even keel.

[Claims 6 to 25 not printed in the Gazette.]

1,242,296. FUEL-INJECTION VALVE. ALFRED OWEN WILLIAMS, Detroit, Mich. Filed Aug. 22, 1916. Serial No. 116,369. (Cl. 123—32.)

1. A fuel injection valve, comprising an oil inlet, a rotatable hollow spindle adapted to conduct the oil to the interior of an engine cylinder, a longitudinally movable valve and stem, means for actuating said valve and stem, and means for imparting rotative movement to said rotatable hollow spindle.

2. In a fuel injection valve, the combination of a rotatable hollow spindle, a longitudinally movable valve stem adapted to coöperate therewith in regulating the admission of oil into an engine cylinder, and means for causing the rotation of said hollow spindle to effect the centrifugal feeding of the oil.



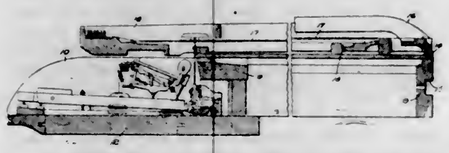
3. In a fuel injection valve, in combination with a rotatable hollow spindle, a valve mounted on one end thereof, an apertured seat for said valve, a spring adapted to yieldingly hold said valve on its seat, and means for actuating said valve lengthwise of its axis to effect its displacement from its seat.

4. A fuel injection valve, having in combination a radially apertured circular valve seat, a valve member adapted to seat thereon, means for feeding a supply of oil toward said valve and its seat, means for actuating said valve from its seat, and means for contemporaneously rotating said valve to effect the centrifugal projection of the oil flowing past the valve when actuated, through the apertures in the valve seat.

5. In a fuel injection valve, in combination with a rotatable hollow spindle, a peripherally apertured cover carried on one end thereof, a valve member within said cover, adapted to control the flow to the peripheral apertures therein, a longitudinally movable stem engaging within said hollow spindle and carrying said valve member on one end, means for actuating said stem lengthwise of its axis, and means for rotatably actuating said hollow spindle and its apertured cover.

[Claim 6 not printed in the Gazette.]

1,242,297. METHOD OF FINISHING AND ASSEMBLING GRAND PIANOS. JAMES H. WILLIAMS, Brookline, and FREDERICK A. FOSS, Newton, Mass., assignors to American Piano Company, New York, N. Y., a Corporation of New Jersey. Filed Jan. 10, 1916. Serial No. 71,149. (Cl. 144—309.)



1. The method of making and assembling grand pianos which consists in making the skeleton frame, applying the musical elements thereto, and subsequently applying the case-rim directly to the edge of the skeleton frame.

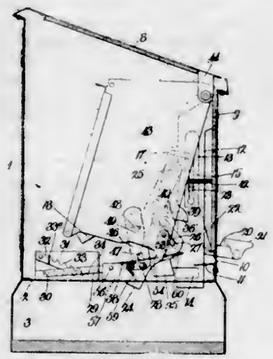
7. The method of making and assembling grand pianos which consists in making the skeleton frame, applying the sounding board to the skeleton frame, and subsequently applying the case rim to and in contact with the perimeter of the skeleton frame and sounding board.

14. The method of making and assembling grand pianos which consists in making the skeleton frame, applying the musical elements thereto and subsequently gluing the case rim to the edge of the skeleton frame.

19. The method of making and assembling grand pianos which consists in making the skeleton frame and sounding board, sizing perimeter of the sounding board, assembling the sounding board and skeleton frame, and subsequently applying the case rim to and in contact with the perimeter of the skeleton frame and previously sized sounding board.

[Claims 2 to 6, 8 to 13, and 15 to 18 not printed in the Gazette.]

1,242,298. COIN-CONTROLLED VENDING-MACHINE. WILLIAM O. WOLFORD, Fort Worth, Tex., assignor of two-thirds to Rolla McConnel, Kingsville, Mo. Filed June 1, 1915, Serial No. 31,600. Renewed June 8, 1917. Serial No. 173,860. (Cl. 211—8.)



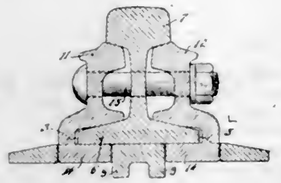
1. In a vending machine, a casing, a magazine therein provided with a bottom opening, a plate underlying the magazine for engagement at its front edge with an envelop within the magazine and exposed by the said bottom opening thereof, means for effecting relative movement between the magazine and said plate whereby the latter acts as a sliding wedge to enter between the body of the envelop and its flap, means for depressing the front end of said plate after its engagement with the envelop flap to cause the plate to clear the lower end of the front wall of the magazine and open the flap downwardly, and means for reëlevating the said end of said plate to swing the flap forwardly under and project it beyond the said magazine wall in a fully opened position without imparting endwise movement to the body of the envelop.

3. In a vending machine, a casing, a magazine therein provided with a bottom opening, a plate underlying the magazine for engagement at its front edge with an envelop within the magazine and exposed by the said bottom opening thereof, means for effecting relative movement between the magazine and said plate whereby the latter acts as a sliding wedge to enter between the body of the envelop and its flap, means carried by the magazine for effecting relative separating movement in a vertical plane between the magazine and the said plate to cause the latter to clear the lower end of the front wall of the magazine and turn the flap downward without imparting endwise movement to the body of the envelop, and means for reversing the said separating movement to cause the said plate to swing the flap forwardly under and project it beyond the said magazine wall without imparting endwise movement to the body of the envelop.

5. In a vending machine, a casing having a delivery opening, a magazine pivotally suspended within the casing and provided with a bottom opening, a plate underlying the magazine for engagement at its front edge with the envelop within the magazine and exposed by the said opening, means for swinging the magazine rearward to cause said plate to act as a sliding wedge and enter between the body of the envelop and its flap, a catch pivotally suspended from the magazine and provided with a cam edge to engage and depress the front end of said plate after the same has been interposed between the body of the envelop and its flap to depress said plate and unfold the said flap downwardly and then release the plate, means for reëlevating the plate when released to continue the unfolding of the flap to swing the same forwardly under and project it beyond the front wall of the magazine, and means for reversing the swinging movement of the magazine to return the same to normal position and project the said unfolded flap of the undermost envelop through the delivery opening of the casing.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,242,299. TIE-PLATE. CHARLES D. YOUNG, Altoona, Pa. Filed July 6, 1915. Serial No. 38,273. (Cl. 238—6.)



1. The combination with a railway rail having a tapered stop member, of a tie-plate adapted to support the rail and provided with a tapered socket to receive the stop member, and means for drawing the rail and the tie-plate together whereby the tapered portions of the stop member will engage the tapered walls of the socket for securing the rail and the tie-plate against lateral movement.

4. The combination with a pair of abutting rails and a plurality of ties therebeneath, of a tie-plate beneath the rails at the joint and secured to the ties and having a portion struck down to provide a fish-plate receiving socket, and a fish-plate secured to the rails at the joint and having its lower portion fitting into said socket.

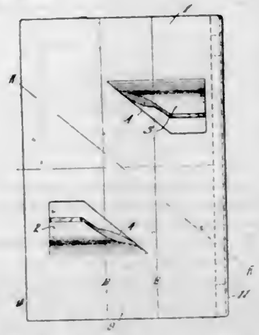
6. A tie plate for railway rails comprising a narrow plate adapted to connect a plurality of ties and provided with a seat for the rails throughout its entire length, and having portions of the seat on each side of the longitudinal center thereof depressed to receive the lower edges of the fish plates to prevent relative lateral movement thereof with respect to the tie plate, the said depressed portion lying beneath the base of the rail.

[Claims 2, 3, 5, 7, and 8 not printed in the Gazette.]

1,242,300. TIE-PLATE FOR RAILWAYS. CHARLES D. YOUNG, Altoona, Pa. Filed July 6, 1915. Serial No. 38,274. (Cl. 238—2.)

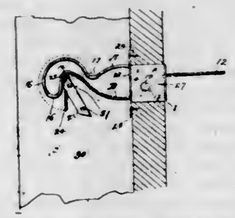
1. A tie plate for rails comprising in combination a base plate adapted to rest upon the upper surface of a tie and provided with a depending flange, means on the plate for securing the plate to the rail, a bolt for securing the tie plate to the tie extending through a hole in the tie from one side to the other and adapted to pass through the depending flange of the tie plate, means for securing the bolt against removal, and means for insulating the bolt and securing means from contact with external objects.

2. A tie plate for rails comprising in combination a base plate adapted to rest upon the upper surface of a tie and provided with a depending flange, means on the plate for securing the plate to the rail, a bolt for screwing the tie plate to the tie extending through a hole in the tie from one side to the other and adapted to pass through the depending flange of the tie plate, means for securing the bolt against removal, and means attached to the tie for insulating the bolt and securing means from contact with external objects.



3. A tie plate for supporting railway rails, comprising a metal plate provided with a pair of diagonally spaced lugs adapted to overlap the base flange of the rail when in operative position with respect to the rail and to clear the base flange of the rail when the plate is diagonally positioned with respect to the rail, an integral depending flange extending entirely across the end of the plate adapted to engage the side of the tie when the plate is in operative position with respect to the rail, and means engaging the flange adjacent the ends thereof for binding the flange to the tie.

1,242,301. DOOR-LATCH. HENRY ANDREW YOUNG, Winnipeg, Manitoba, Canada, assignor of one-half to Philip H. Brotman, Winnipeg, Manitoba, Canada. Filed May 24, 1917. Serial No. 170,661. (Cl. 70—45.)



1. In a device of the kind described, a single piece of wire shaped to form a latch having a handle at one end, a hook at the other end and a coil intermediate the ends, the said wire being looped around the front and over the top of the hook to form a finger grip and then extended rearwardly to form a spring.

2. In a device of the kind described, a single piece of wire bent to form a latch having a horizontal circular handle at one end, a hook at the other end, a coil intermediate the ends, a loop around the hook, a depression at the end of the loop behind the head of the hook and a rearwardly extending spring.

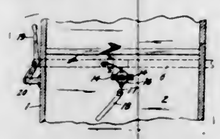
3. A door latch formed from a single piece of wire turned at the end to form a horizontal circular handle, then turned down and coiled to form an opening for a pivot, then curved up and sharply down to form a hook, then looped forwardly out around and over the top of the hook to form a finger grip ending in a depression merging into a rearwardly extending over curving spring.

[Claims 4 to 7 not printed in the Gazette.]

1,242,302. ANIMAL-RELEASING DEVICE. GUSTAV ZOHNER, Forres, Saskatchewan, Canada. Filed May 24, 1916. Serial No. 99,693. (Cl. 119—115.)

1. The combination with a slotted pull rod and an operating lever therefor, of links pivotally hung in the slotted portions of said pull rod, angular guide brackets for said

pull rod normally in supporting engagement with said links to retain them at an oblique angle with said pull rod, resilient Y-shaped brackets arranged below the slotted portions of said pull rod, hitching rings releasably



carried by said brackets and pins pivotally carried by said links for releasable engagement with the smaller or closed ends of said Y-shaped brackets.

[Claims 2 and 3 not printed in the Gazette.]

1,242,303. MATTRESS-MAKING MACHINE. CHARLES M. ADAMS, Buckhead, Ga., assignor, by direct and mesne assignments, of one-half to Jacob H. Hirsch, Atlanta, Ga., and one-half to Mozes Van Gelder, Chicago, Ill. Filed June 12, 1916. Serial No. 103,172. (Cl. 100—57.)



1. A mattress making machine, comprising a support, upper and lower sets of comparatively rigid laterally disposed binding members for receiving mattress material between said sets, two or more sets of clamping bars adapted to be transversely arranged at intervals along said binding members so as to embrace the same, and means for drawing said clamping bars toward each other for causing said binding members to compress the mattress material whereby a covering may be placed thereover.

2. A mattress making machine, comprising a support, a plurality of comparatively rigid laterally disposed binding members for receiving mattress material therebetween, two or more sets of clamping bars adapted to be transversely arranged at intervals along said binding members so as to embrace the same, and means comprising links and cams carried by one clamping bar of each of said sets, and engaging the other bar of each of said sets for drawing said bars toward each other for causing said binding members to compress the mattress material whereby a covering may be placed thereover.

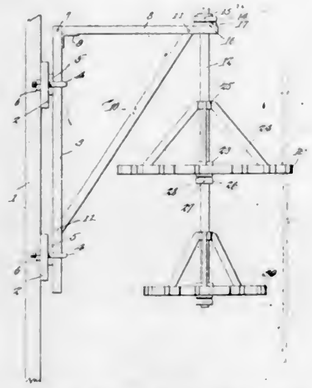
3. A mattress-making machine, comprising a support, binding members for receiving mattress material therebetween, clamping bars for embracing said binding members, means for drawing said clamping bars toward each other for compressing the mattress material, and means for raising the binding members and clamping bars for permitting a casing to be slipped over the mattress material while in its compressed state.

4. A mattress-making machine, comprising a support, binding members for receiving mattress material therebetween, clamping bars for embracing said binding members, means for drawing said clamping bars toward each other for compressing the mattress material, and means for raising the binding members and clamping bars and comprising a foot treadle having operative engagement with said members and bars.

5. A mattress-making machine, comprising a support, binding members for receiving mattress material therebetween, clamping bars for embracing said binding members, means for drawing said clamping bars toward each other for compressing the mattress material, means for raising the binding members and clamping bars and comprising a foot treadle having operative engagement with said members and bars, and means for locking said members and bars in their raised position.

1,242,304. [WITHDRAWN.]

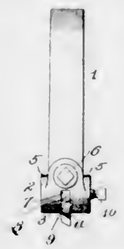
1,242,305. SUCKER-ROD HANGER. SAMUEL E. AREY, Fellows, Cal. Filed Jan. 22, 1916. Serial No. 73,746. (Cl. 211—17.)



1. In a device for holding sucker rods, a frame; a support assembled with the frame, the support being provided with openings in its outer side; sets of cams pivoted to the support on opposite sides of the openings; and a bowed spring secured to the support intermediate the cams of adjoining sets, the spring coacting with the cams of adjoining sets to cause the cams to coöperate with the sucker rods when placed in the openings.

2. In a device of the class described, an overhead frame; a depending vertical shaft having its upper end extended through the frame and journaled for rotation in the frame, the shaft being vertically adjustable in the frame; a head adjustable longitudinally on the upper end of the shaft and engaging the upper edge of the frame to limit the downward movement of the shaft; means for holding the head on the shaft in adjusted positions longitudinally of the shaft to permit a raising and a lowering of the shaft; a pair of hubs adjustable longitudinally on the shaft and disposed below the frame; means for securing the hubs to the shaft in adjusted positions longitudinally of the shaft; and upper and lower holders supported for rotation on the respective hubs, the upper holder being of larger diameter than the lower holder.

1,242,306. TOOL-HOLDER. PAUL ARMSTRONG, Chicago, Ill., assignor to Armstrong Brothers Tool Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 29, 1915. Serial No. 24,654. (Cl. 29—98.)



A tool holder comprising a shank and a transversely arranged split sleeve forming a head, the axis of the bore of said sleeve lying in a plane transversely of said shank, said sleeve having a radial slot which intersects the bore of the sleeve, a cylindrical plug adapted to lie within said sleeve, said plug having a radial aperture to receive a tool extending through the slot in the sleeve, the walls of said slot being rigid and shaped to engage and support said tool close to the cutting point thereof, a set screw extending through one end of the plug for supporting and securing said tool in said aperture, and a single clamp screw arranged to compress the sleeve and thereby clamp the plug in said cylindrical opening.

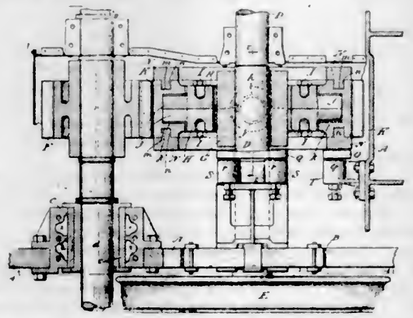
1,242,307. TYPE-WRITER KEY-STRIKER OR HAND EXTENSION. ROGER W. BABSON, Wellesley Hills, Mass. Filed Dec. 18, 1915. Serial No. 67,570. (Cl. 197—1.)



2. A typewriter key striker comprising a rod of rigid material forming a hand grip and provided at one end with a laterally disposed finger having a striking peen shaped to engage a single typewriter key, said rod and said finger being of sufficient body to depress said typewriter key without flexing, and a cover of frictional material upon the hand grip portion of said rod.

[Claim 1 not printed in the Gazette.]

1,242,308. TRUCK FOR ARTICULATED GEARED LOCOMOTIVES. ELMER F. BACKER, Davenport, Iowa, assignor to Davenport Locomotive Works, Davenport, Iowa, a Corporation of Iowa. Filed Oct. 28, 1916. Serial No. 128,211. (Cl. 105—220.)



1. The combination with a truck-frame for geared locomotives, a crank-shaft, bearings therefor in the side members of said truck-frame, a driving-axle and cushioned bearings for said driving axle, of a flexible gear comprising a hub that is adapted to be securely mounted on said axle and has trunnions projecting therefrom diametrically opposite each other, an annular member having bearings in the inner circumference thereof in which said trunnions are journaled and provided with trunnions projecting from the outer circumference thereof the axes of which are at right angles to the axes of said bearings, a circular rim consisting of a plurality of sections and having teeth projecting from its outer circumference and concentric circular grooves in its side edges and provided with bearings in its inner circumference in which the trunnions of said annular member are journaled, and rings having circular tongues adapted to enter said grooves and suitably secured to the sides of said rim.

2. The combination with a truck-frame for geared locomotives, a crank-shaft, bearings therefor in the side members of said truck-frame, a driving-axle and cushioned bearings for said driving axle, of a flexible gear comprising a hub that is adapted to be securely mounted on said axle and has trunnions projecting therefrom diametrically opposite each other, an annular member split lengthwise into the annular sections and having bearings in the inner circumference thereof intersected by the joint between said sections in which said trunnions are journaled and having trunnions projecting from the outer circumference thereof whose axes are at right angles to the axes of said bearings, and a circular rim having teeth projecting from its outer circumference and provided with bearings in its inner circumference in which the trunnions of said annular member are journaled.

3. The combination with a truck-frame for geared locomotives, a crank-shaft, bearings therefor in the side members of said truck-frame, a driving-axle and cushioned bearings for said driving-axle, of a flexible gear comprising a hub that is adapted to be securely mounted on said axle and has trunnions projecting therefrom diametrically opposite each other, an annular member split lengthwise into two annular sections and having bearings in the inner circumference thereof intersected by the joint between said sections in which said trunnions are journaled and having trunnions projecting from the outer circumference thereof whose axes are at right angles to the axes of said bearings, a circular rim consisting of a plurality of sections and having teeth projecting from its outer circumference and concentric circular grooves in its side edges and provided with bearings in its inner circumference in which the trunnions of said annular member are journaled, and rings having circular tongues adapted to enter said grooves and suitably secured to the sides of said rim.

[Claims 4 to 7 not printed in the Gazette.]

1,242,309. PICTURE-HANGER. MARTIN B. BACKERUD, San Francisco, Cal. Filed Oct. 14, 1916. Serial No. 125,693. (Cl. 40—145.6.)



1. In a device of the character described, the combination of an upper section provided with an integral hook at its upper end and having a central longitudinally extending series of apertures, a lower section provided at its lower end with an integral hook and having a central longitudinally extending series of apertures spaced correspondingly to the spacing of the apertures of the upper section whereby the apertures in the overlapping portions of the said sections are alined to permit insertion of a supplemental hook into the same so as to suspend a picture intermediate the ends of the hanger in any desired vertical position thereon, both of said sections being slidably connected, and means carried by the lower section at the upper end thereof and adapted to engage into the apertures of the upper section for adjustably securing said sections.

2. In picture hangers, the combination of an upper section provided with a hook at its upper end and having a central longitudinally extending series of apertures, a lower section slidably mounted on the upper section, and

a securing hook rockably mounted on said lower section adjacent the upper end thereof said hook being provided with a reduced member adapted to engage through the apertures of the upper section, the end portion of said reduced member being turned downward at substantially a right angle whereby the hook engages about the material of the upper section adjacent the lower edge of one of the said apertures, so as to prevent accidental disengagement of the hook from said upper section.

[Claim 3 not printed in the Gazette.]

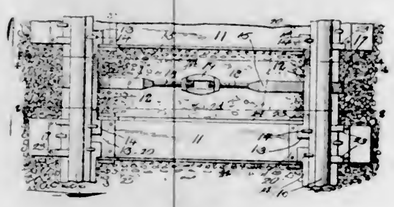
1,242,310. DEMOUNTABLE RIM. OSCAR E. BAHRENBURG, Marigold, Cal. Filed May 8, 1917. Serial No. 167,601. (Cl. 152—21.)



1. A demountable rim comprising a pair of circumferentially divided sections to engage a tire casing; a pair of semi-circular channels to engage the circumferential sections to secure the same together; a block secured to each end of each channel; and locking means secured to the circumferentially divided sections to engage adjacent blocks on adjacent ends of the channels and expand said channels onto the circumferential sections.

[Claims 2 to 6 not printed in the Gazette.]

1,242,311. TIE-PLATE AND ANTISPREADING DEVICE. NICHOLAS G. BALLARD, Chicago, Ky. Filed Aug. 22, 1916. Serial No. 116,307. (Cl. 238—4.)



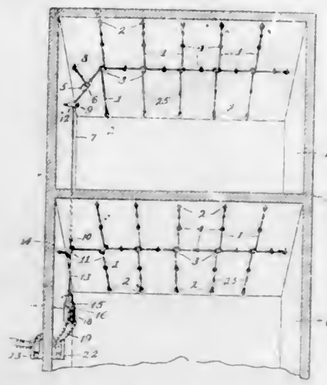
1. A structure of the character described comprising rails positioned in spaced relation, supporting ties for said rails, tie plates positioned upon said ties beneath the rails and in engagement with the rails, yokes connecting said tie plates and extending along the sides of the ties, bracing plates extending between said ties and having their end portions resting upon said tie plates, fasteners passing through the bracing plates and tie plates, draw bars passing through the bracing plates and engaging the outer side faces of said rails, and a turn buckle adjustably connecting the inner ends of said draw bars.

4. A structure of the character described including rails positioned in spaced relation, supporting ties for said rails, tie plates resting upon said ties beneath said rails, yokes connecting said tie plates and extending along the sides of said ties, bracing plates extending between said ties, draw bars slidably carried by said bracing plates, and engaging said rails, and means adjustably connecting the inner ends of said draw bars.

6. A structure of the character described comprising rails, supporting ties for said rails, tie plates resting upon said ties beneath said rails, means connecting the tie plates to hold the same against movement toward the ends of the ties, bracing plates extending between said ties and having their end portions connected with the tie plates, the bracing plates engaging the inner side edges of the bases of said rails, draw bars slidably carried by said bracing plates and engaging the outer faces of the rails, and means adjustably connecting the inner end portions of the draw bars.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,242,312. AUTOMATIC FIRE-ALARM SYSTEM. WILLIAM N. BALLARD, Kansas City, Kans., assignor of one-fourth to James S. Cummins, Kansas City, Kans. Filed July 12, 1916. Serial No. 108,852. (Cl. 200—33.)



1. In an automatic alarm, a series of cables arranged at angles of ninety degrees intermediate their ends, means for securing all but one of said ends to the ceiling of a building, means connecting the adjacent angles of said cables, a block to which the free end of the initial cable is attached, a cable attached at its upper end to the ceiling and bent at an angle of ninety degrees over said block, a second block arranged below the first block and over which the last-mentioned cable is bent at an angle of ninety degrees, means operably connected to the last cable to hold it and the first-mentioned cables under tension, and a circuit closer which is closed by said means should any of the cables become slack.

2. In an automatic alarm, a series of cables arranged at angles of ninety degrees intermediate their ends, means for securing said ends to the ceiling of a building, rings connecting the adjacent angles of said cables, a main cable fixed at its upper end and bent adjacent said end at an angle of ninety degrees, means operably connecting said main cable at its angle to the series of cables, a weight connected to the lower end of said main cable, and a circuit closer controlled by said weight.

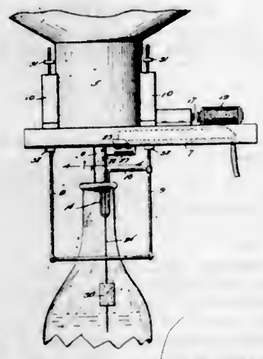
3. In an automatic alarm, a system of cables arranged at angles in the stories of a building adjacent the ceilings thereof, a long cable in each upper story connected to the system therein and leading to the system in the story below to normally retain said systems under tension, a main cable operably-connected to the lowest of said long cables to retain the long cables under tension, means for retaining said main cable under tension, and a circuit closer controlled by said means.

4. In an automatic alarm, a system of cables arranged in the stories of a building adjacent the ceilings thereof, a long cable in each upper story connected to the system therein and leading to the system in the story below to normally retain said systems under tension, a main cable fixed at its upper end and bent near said end at an angle, means operably-connecting said main cable at its angle to the lowermost long cable, means for retaining said main cable under tension, and a circuit closer controlled by said means, said circuit closer closing an alarm circuit.

5. In an automatic alarm, a system of cables in the different stories of a building adjacent the ceilings thereof, a long cable in each upper story bent at angles and connected to the system therein and leading to the system in the story below to normally retain said systems under tension, means to which the ends of each long cable are fixed, a main cable operably-connected to the lowest of said long cables to retain the long cables under tension, a weight for retaining said main cable under tension, and a circuit closer controlled by said weight, said circuit closer closing an alarm circuit.

[Claims 6 and 7 not printed in the Gazette.]

1,242,313. BOTTLE-FILLING MACHINE. WILLIAM J. BEALS, Beloit, Wis. Filed Aug. 2, 1916. Serial No. 112,778. (Cl. 226—13.)



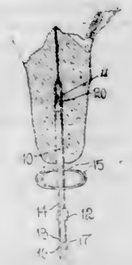
1. In a bottle filling machine, the combination with the filling nozzle, of a valve in said nozzle, a sliding frame adjacent said nozzle, a connection between said frame and valve, the said frame being adapted when moved in one direction to open said valve and to close the same when moved in the opposite direction, means for normally forcing said frame to valve closing position, a catch for holding said frame in valve opening position, a float, an electromagnet adapted to when energized, to retract said catch, and means governed by movement of said float for closing an electric circuit through said electromagnet, substantially as described.

2. In a bottle filling machine, the combination with the filling nozzle, of a valve in said nozzle, a sliding frame, a connection between said sliding frame and said valve, means tending normally to hold said frame in valve closing position, a catch for locking said frame with said valve open, an electromagnet associated with said catch and adapted when energized to move the same to frame releasing position, a float, and a bridge member controlled by the movements of said float for closing a circuit through said electromagnet, substantially as described.

3. In a bottle filling machine, the combination with the filling nozzle, frame legs arranged upon opposing sides of said nozzle and capable of sliding longitudinally of the same, a valve in said nozzle, a rod extending through said nozzle and connecting said valve and one of said legs, a loop connecting the lower ends of said legs and adapted to engage over a bottle neck, housings inclosing the upper portions of said legs, stops on said legs within said housings, springs interposed between said stops and said housings to normally force said legs downwardly, adjustable stops on said legs for limiting the upward and downward movement, a latch adapted to coöperate with one of said stops to maintain said frame in upward position, an electromagnet adapted when energized to withdraw said latch, a rod associated with said nozzle and capable of moving inwardly and outwardly thereof, a float at the lower end of said rod, a bridge plate carried by said rod, and contacts adapted to be engaged by said bridge plate when said rod is moved upwardly the terminals of an electric circuit including said magnet being secured to said contacts, substantially as described.

4. In a bottle filling machine, the combination with a filling nozzle, of a valve in said nozzle, a sliding frame, a loop portion carried by said frame and being disposed below and concentric with said nozzle, the said portion being adapted to be engaged by a bottle, a connection between said frame and valve whereby the latter will be controlled by movements of the former, means for holding said frame with said valve open, a float, and means governed by the movements of said float for releasing said frame, substantially as described.

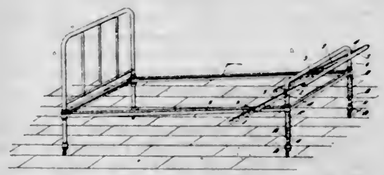
1,242,314. MILK-CATHETER AND SURGICAL INSTRUMENT. LOUIS A. BEAN, Denver, Colo. Filed Feb. 3, 1917. Serial No. 146,421. (Cl. 128—27.)



1. A milk catheter comprising a tubular member having a passage extending entirely through it from end to end, one end of the tubular member having an opening at one side, means for retaining the tubular member upon the teat of a cow, and a stiletto having a diameter equal to the interior diameter of the tubular member, pointed at one end, longer than the tubular member and shiftable through the tubular member to project its pointed end beyond the end of the tubular member.

2. A milk catheter comprising a tubular member open at its opposite ends to provide a passage extending from end to end, of the tubular member and also having an opening in its side adjacent one end, oppositely disposed transversely concaved teat embracing clips, and resilient arms extending rearward and outward from said clips, then extending inward, then coiled and then extending inward and attached to the tubular member adjacent its outer end.

1,242,315. SURGICAL BEDSTEAD. TOM WEBB BEVAN, Nantyglo, Wales. Filed July 3, 1916. Serial No. 107,424. (Cl. 5—12.)

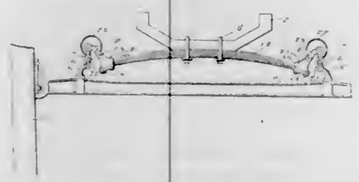


1. A surgical bedstead having in combination, means for elevating one end of said bed and a member comprising two parallel arms, one end of one arm and the corresponding end of the other arm being connected by a transversely extending bolt, a freely revoluble roller mounted on said bolt, a loop fixed externally on the outer side of each of the vertical members of the foot frame of the bedstead through which loops said arms are passed, said arms having a series of holes, and the longitudinal side frames of said bedstead also having a series of holes, pins to pass through the holes in said arms and through the said holes in the said side frames of said bedstead to se-

cure said arms in an angular position with said roller projecting beyond the foot end of said bedstead.

2. In surgical bedsteads; the combination of two non-extensible legs at the head end of said bedstead, two extensible legs at the foot end of said bedstead, and a member comprising two parallel arms, one end of one arm and the corresponding end of the other arm being connected by a transversely extending bolt, a freely revoluble roller mounted on said bolt, a loop fixed externally on the outer side of each of the vertical member of the foot frame of the bedstead through which loops said arms are passed, longitudinal side frames of a section presenting two parallel vertical sides and a horizontal top portion, said arms having a series of holes, and the longitudinal side frames of said bedstead also having a series of holes, pins to pass through the holes in said arms and through the said holes in the said side frames of said bedstead to secure said arms in an angular position with said roller projecting beyond the foot end of said bedstead.

1,242,316. SHOCK-ABSORBER. GEORGE G. F. BOSWELL, Indianapolis, Ind. Filed Dec. 8, 1916. Serial No. 135,782. (Cl. 267—17.)



1. The combination with the axle and a semi-elliptical spring of a vehicle, of a shock absorber including a substantially vertical pivot bar carried by the axle and pivoted at its lower end, a spring supporting shackle povotally connected at its lower end with the end of the vehicle spring and at its upper end with the upper end of the pivot bar so as to have a swinging movement on said pivot bar as the spring lengthens under the influence of a load, and a spring connected with said pivot bar and shackle which tends to force the shackle away from the pivot bar.

2. The combination with the axle of a vehicle, a post extending upwardly therefrom, and a semi-elliptical spring for supporting the body of the vehicle, of a shock absorber including a substantially vertical pivot bar pivoted at its lower end to said post, a spring supporting shackle pivotally connected at its upper end with the end of the pivot bar so as to have a swinging movement on said pivot bar as the spring lengthens under the influence of a load, and a spring connected with said pivot bar and spring supporting shackle which tends to resist the swinging movement of said member under the influence of the load.

3. The combination with the axle and a semi-elliptical spring of a vehicle, of a shock absorber including a substantially vertical pivot bar carried by the axle and pivoted at its lower end, a spring supporting shackle pivotally connected at its lower end with the end of the vehicle spring and at its upper end with the upper end of the pivot bar so as to have a swinging movement on said pivot bar as the spring lengthens under the influence of a load, and a looped spring with one end of the loop pivoted to said bar and the other end to said shackle which tends to resist the swinging movement of said member under the influence of the load.

4. The combination with the axle and a semi-elliptical spring of a vehicle, of a shock absorber including a substantially vertical pivot bar carried by the axle and pivoted at its lower end, a substantially L-shaped spring supporting shackle with the upper end thereof pivoted to the upper end of the vehicle spring and at the heel thereof bearing on the upper side of the vehicle spring, and a spring connected with said pivot bar and spring supporting shackle which tends to resist the swinging movement of said member under the influence of the load.

5. The combination with the axle and a semi-elliptical spring of a vehicle, of a shock absorber including a substantially vertical pivot bar carried by the axle and pivoted at its lower end, a shackle pivotally connected at its lower end to the end of the vehicle spring and normally extending upward perpendicularly from said spring and with its upper end pivoted to the upper end of the pivot bar, and a spring connected with said pivot bar and spring supporting shackle which tends to resist the swinging movement of said member under the influence of the load.

[Claim 6 not printed in the Gazette.]

1,242,317. ARCH-SUPPORTER FOR BOOTS AND SHOES. SARKIS H. BOYAJIAN, Melrose, Mass. Filed July 25, 1917. Serial No. 182,657. (Cl. 36—76.)

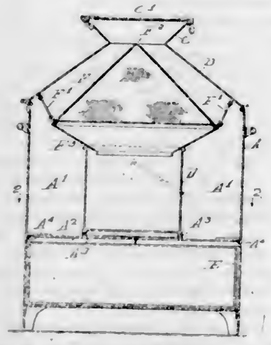


1. In combination with a boot or shoe, having a plurality of layers of material at the shank, a tension member lying between said layers of material and secured at its ends to the shoe, and means for shortening said tension member to increase the curvature of the adjacent portion of the boot or shoe.

3. The combination with a boot or shoe having an insole and an outsole, a tension device comprising a front member secured to the shoe forwardly of the shank, a rear member having a depending lug, said rear member being secured to the shoe to the rear of the shank, said forward member having a screw threaded stem received within said lug, and a nut on said stem, there being an opening through the insole to permit access to the said nut.

[Claims 2 to 4 not printed in the Gazette.]

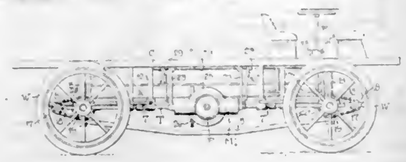
1,242,318. ASH SIFTER AND RECEPTACLE. SAM BREST, Chicago, Ill. Filed Dec. 20, 1913. Serial No. 807,816. (Cl. 83—60.)



1. In an ash sifter comprising a housing provided with a receiving mouth and an upwardly-open receptacle within the housing under said mouth; a screen interposed between the mouth and the receptacle and provided with an impervious peripheral flange extending downwardly into the receptacle.

2. In an ash sifter comprising a housing having an upwardly-opening cover provided with a receiving mouth and an upwardly-opening receptacle removably mounted within the housing under said mouth; a screen interposed between the mouth and said receptacle extending laterally beyond the periphery of said receptacle and provided with an impervious peripheral flange tapering downwardly into the receptacle, said screen being linked to the cover of the housing and its said flange resting upon the periphery of the receptacle when said cover is closed.

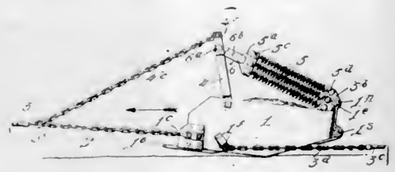
1,242,319. MOTOR-DRIVEN VEHICLE. WILLIAM E. BRUCE, Summerfield, Ohio. Filed Jan. 8, 1917. Serial No. 141,249. (Cl. 180—49.)



1. A device of the character described comprising a wheel-supported frame, a transmission shaft operatively engaged with the wheels, a friction disk keyed to said transmission shaft and capable of movement longitudinally thereof, motors suspended from the frame for rocking movement transversely of the frame and positioned at opposite sides of the transmission shaft, each of said motors including a friction disk engageable with the disk of the transmission shaft, and means for moving the motors in a direction toward or from the transmission shaft.

2. A device of the character described comprising a frame, supporting axles coacting with the opposite end portions of the frame, a transmission shaft operatively engaged with the supporting axles, means engageable with the transmission shaft substantially midway the length thereof for driving the shaft, said transmission shaft being formed of a plurality of sections, and clutch members co-acting with adjacent end portions of the sections at opposite sides of the driving means of the shaft whereby said supporting axles may be positively driven in unison, or one of said axles driven independently of the other.

1,242,320. EXCAVATING-SCRAPER. IRA E. BURKETT, Macon, Ga., assignor to Schofield-Burkett Construction Company, Macon, Ga., a Corporation of Georgia. Filed Dec. 9, 1915. Serial No. 65,913. (Cl. 37—19.)



1. In combination with a scraper, a draft device attached with the front thereof, a spring member connected with the rear thereof, and a connection between said spring member and the draft device, whereby the scraper will automatically adjust itself to loading position when empty, substantially as described.

2. In combination with a scraper, a draft device attached with the front thereof, a spring member connected with the rear thereof, and a connection between said spring member and the draft device, whereby the scraper will automatically adjust itself to hauling position when loaded, substantially as described.

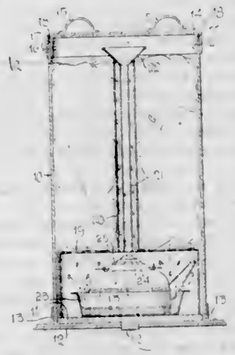
3. In combination with a scraper, a draft device attached with the front thereof, a member connected with the rear thereof, and a connection between said member and the draft device, whereby the scraper will automatically adjust itself to loading position when empty, and to hauling position when loaded, substantially as described.

4. In combination with a scraper, a draft appliance connected to the forward end thereof, a yoke pivoted on said scraper, a spring member connected to the yoke and to the rear end of the scraper, and a connection between said yoke and the draft appliance, whereby the scraper will automatically adjust itself to loading position when empty, substantially as described.

5. In combination with a scraper, a draft appliance connected to the forward end thereof, a yoke pivoted on said scraper near its forward end, a spring member connected to the yoke and to the rear end of the scraper, and a connection between said yoke and the draft appliance, whereby the scraper will automatically adjust itself to hauling position when loaded, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

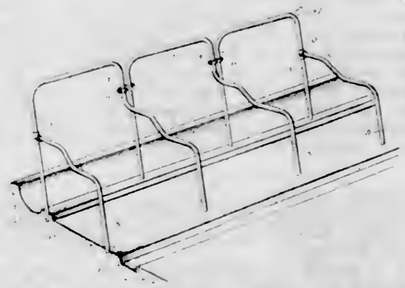
1,242,321. DISINFECTOR AND DEODORIZER. ERNEST J. ČAPEK, Schuyler, Nebr. Filed Feb. 16, 1917. Serial No. 149,052. (Cl. 167—3.)



1. A disinfector including a container having a side wall and a bottom wall and open at its top, a cover adapted to have hermetically sealed engagement with the top of the container, a drum open at its bottom and having a top, and disposed within the container, the diameter of the drum being nearly that of the container, the drum having an upwardly extending perforated chimney and being itself perforated, a funnel removably disposed within the chimney and closing the upper end thereof, and a funnel tube extending from the funnel downward through the chimney and discharging into the upper portion of the drum.

[Claims 2 and 3 not printed in the Gazette.]

1,242,322. STALL. JOSEPH B. CLAY, Cedar Falls, Iowa. Filed June 23, 1916. Serial No. 105,380. (Cl. 119—27.)

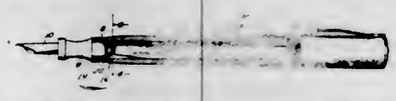


1. A stall unit part comprising a bar bent down at one end to constitute a depending supporting leg, and bent down at the opposite end to constitute a relatively short

leg thence bent laterally and thence downwardly at the free end, and means for supporting said relatively short leg.

[Claims 2 to 9 not printed in the Gazette.]

1,242,323. FOUNTAIN-PEN. HARVEY G. CRAIG, St. Louis, Mo., assignor to Kraker Pen Co., Kansas City, Mo., a Corporation of Missouri. Filed Apr. 9, 1914. Serial No. 830,637. (Cl. 120—46.)



1. A fountain pen including a barrel equipped on one side with a slot, a pen-carrier carried thereby, a compressible ink-sack housed by the barrel and connected to the pen-carrier; and sack-compressing means including a resilient bar interposed between the barrel and the ink-sack and extending longitudinally of the latter opposite the slot therein, the latter adapted to receive bar-actuating means, said bar equipped with a portion extending transversely of the barrel and abutting against a portion of the pen-carrier, an auxiliary member carried by the pen-carrier and clamping the said transverse portion of the resilient bar thereon, there being coöperating formations upon the barrel and the said transverse portion of the resilient bar for preventing relative rotation thereof about the axis of the barrel and thereby maintaining said bar opposite said slot.

2. A fountain pen including a barrel, a pen-carrier carrier thereby; a compressible ink-sack housed by the barrel and connected to the pen-carrier; a pressure-bar interposed between the said sack and barrel; a spring member secured to the said pressure bar and extending longitudinally of the barrel and equipped at its forward end with a portion extending transversely of the barrel, and abutting against a portion of the said pen-carrier; and an auxiliary member carried by the pen-carrier and engaging the said transverse portion of the spring member to clamp the latter between the said auxiliary member and the said abutting portion of the pen-carrier.

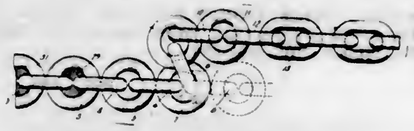
3. A fountain pen including a barrel, a compressible ink-sack housed thereby, a pressure-bar interposed between the said sack and barrel, a spring member secured to the said pressure-bar and equipped at one end with an annular portion extending transversely of the barrel, a pen-carrier mounted in the barrel and having a portion extending through the said annular portion of the spring member, and an auxiliary member mounted upon the pen-carrier and engaging the said transverse portion of the spring member to clamp the latter between the said auxiliary member and the pen-carrier.

4. A fountain pen including a barrel, a pen-carrier carried thereby, a compressible ink-sack housed by the barrel and connnected to the said pen-carrier, a pressure-bar interposed between the ink-sack and the barrel; a spring secured to the said pressure-bar, the said spring having an end portion equipped with a perforation, the said pen-carrier having a threaded portion projecting through the said perforation in the spring; and a locking member threaded upon the said threaded portion of the pen-carrier and engaging the said perforated portion of the spring to clamp the latter between said locking member and a portion of the pen-carrier.

1,242,324. METHOD OF MAKING CHAINS. JAMES F. CRAVEN, Crafton, Pa. Filed Apr. 5, 1915. Serial No. 19,224. Renewed Aug. 22, 1917. Serial No. 187,701. (Cl. 59—12.)

1. A method of separating integrally connected links formed from a solid bar, consisting in shifting two successive links relatively to each other around an axis transverse to the bar to expose the connecting fin, and then severing said links.

2. A method of separating integrally connected links formed from a solid bar, consisting in bending one link to an angular position relatively to the adjacent link without changing the position of the connecting fin to thereby expose said fin, and then severing the links.

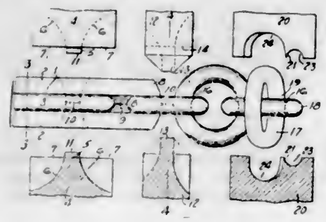


3. The method of separating integrally connected links formed from a solid bar, consisting in bending one link to an angular position relatively to the adjacent link to expose the connecting fin and simultaneously twisting the metal of one link to reinforce the same, and severing said links.

4. The method of separating integrally connected links formed from a solid bar, consisting in rotating one link about a transverse axis lying in the plane of the link and passing through its end portion and thereby exposing the connecting fin, and then severing said links.

5. The method of separating integrally connected links formed from a solid bar, consisting in rotating one link about a transverse axis through its end portion and thereby exposing the connecting fin and simultaneously twisting the rotated link, and then severing said links.

1,242,325. METHOD OF MAKING CHAINS. JAMES F. CRAVEN, Pittsburgh, Pa. Filed July 14, 1916. Serial No. 109,264. (Cl. 59—12.)



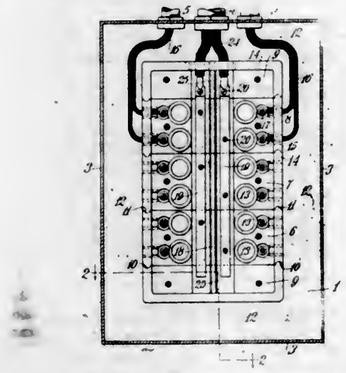
1. The method of making solid or weldless chain, which consists in taking a suitable bar, indenting the same on opposite sides by pressure without removing any of the metal to form portions of approximately the shape of chain links, and then puncturing the metal inclosed by the links and opening the same out by pressing the metal sidewise, said indenting and puncturing being effected by lateral pressure in the same plane.

3. The method of making solid or weldless chain, which consists in taking a suitable bar, indenting the same on opposite sides by pressure without removing any of the metal to form portions of approximately the shape of chain links, then puncturing the metal inclosed by the links and opening the same out by pressing the metal sidewise, then shifting two successive links relative to each other around an axis transverse to the bar to expose the connecting fin, and finally severing said fin to separate said links.

9. The method of making solid or weldless chain, which consists in taking a bar cruciform in cross section, indenting opposite webs by edgewise pressure without removing the metal to form portions of approximately the shape of chain links, then puncturing and opening out the links by pressing aside the metal inclosed thereby, then shifting two successive links relative to each other around an axis transverse to the bar to expose the connecting fin, and finally severing said fin to separate said links, said indenting, said puncturing and opening out and said severing of the fin being performed simultaneously upon successive link portions by lateral pressure in the same plane.

[Claims 2 and 4 to 8 not printed in the Gazette.]

1,242,326. FUSE-BLOCK. HENRY H. CURTIS, Springfield, Mass., assignor of one-half to James C. Phelps, Springfield, Mass. Filed Sept. 23, 1914. Serial No. 863,103. (Cl. 247—13.)



2. In a panel-box, the combination, of a plurality of fuse blocks, each block being formed with integral interengaging devices for alining the same, end blocks engaging the top and bottom fuse blocks, said fuse blocks and end blocks each having an elevated barrier portion at their ends, the fuse blocks having transverse openings through said barriers to receive branch wires, the openings in each of said blocks being completely surrounded with the insulating material of the barrier portion and located below the upper edge of the barrier portion, bus-bars, and electrical connections between the bus-bars and the branch wires.

3. A branch circuit fuse-block for attachment to a panel board or box for use in making electrical connections consisting of two or more sections secured together by one or more bus bar strips of electrical conducting material to which the feed-wires are adapted to be connected, said block having elevated barrier end-portions and openings therethrough below the upper edge of the end-portions for the passage of the branch-wires, receptacles between the elevated barriers and the bus bar strips for receiving fuse-plugs, and electrically connected to the bus-bar strips, end-blocks having end barrier portions of the same height as the end portions of the fuse-blocks for completing the building up of the fuse-block structure as desired, said blocks being secured to the bottom of the box the sides of which are equal in height to the height of the barrier portions, and of a length which is less than the width of the panel-box whereby a gutter is formed for the branch wires between the sides of the panel box and the end barrier portions, as described.

4. A fuse block formed with elevated end barrier portions and having recesses extending from the inner surface of the barrier portions and from the lower edges of the outer ends of the said portions and intersecting each other in a common vertical plane, whereby lateral openings are formed through the elevated end barrier portions and below the upper edge of said portions for receiving branch wires, said lateral openings being completely surrounded by insulating material.

5. A fuse block formed with elevated end barrier portions, said block having recesses located on the upper and lower sides of the block and intersecting each other on a common plane to form lateral openings through the elevated end barrier portion and below the upper edge of the elevated end barrier portions, the upper recess forming a depression for receiving a connecting terminal for a branch circuit, said lateral openings being completely surrounded by the material composing the block.

6. A fuse-block section having integrally molded elevated end barriers extending a considerable distance above the body portion of the block and having openings therethrough to receive branch wires and a reinforced curved inner surface extending from the top of the barriers to and merging into the plane of the upper surface of the section.

[Claims 1 and 7 to 9 not printed in the Gazette.]

1,242,327. WATERPROOFING OF FABRICS. ETHEL I. CUTHBERTSON, Vancouver, British Columbia, Canada. Filed Nov. 22, 1916. Serial No. 132,860. (Cl. 91—68.)

1. A fabric water-proofing treatment, comprising the deposit on the fibers of the fabric of a fine film of a salt of a suitable metal having water-repellent properties, and the permeation of the material of this film with an emulsion of wax.

2. A fabric water-proofing treatment, comprising the deposit on the individual fibers of the fabric of a fine film of a salt of a suitable metal having water-repellent properties and the permeation of the material of the film with an emulsion of wax that will combine with the salt of a suitable metal and form a mineralized wax.

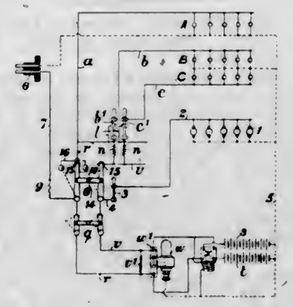
3. A fabric water-proofing treatment, comprising the deposit on the individual fibers of the fabric of successive films of acetate of aluminum and an emulsion of wax.

4. A fabric water-proofing treatment, comprising the deposit on the individual fibers of the fabric of a fine film of acetate of aluminum and the conversion of that acetate of aluminum into mineralised wax by impregnation of it with an emulsion of vegetable and mineral waxes.

5. A fabric water-proofing treatment, comprising the deposit on the individual fibers of the fabric of a fine film of a salt of a suitable metal having water-repellent properties and the permeation of the material of the film with an emulsion of wax, oil and resin that will combine with the acetate of aluminum and form a mineralized wax.

[Claims 6 to 12 not printed in the Gazette.]

1,242,328. ELECTRIC TRAIN LIGHTING, VENTILATING AND HEATING SYSTEM AND THE LIKE. ALFRED HENRY DARKER, Blackheath, England, assignor to J. Stone & Company Limited, Deptford, England. Filed Mar. 4, 1914. Serial No. 822,456. (Cl. 171—313.)



1. An electric train lighting, ventilating, and heating system comprising a battery, a dynamo adapted to charge said battery, a plurality of groups of lamps, connections between said dynamo and battery and said lamps, a plurality of resistances corresponding to the groups of lamps, and a two-part main switch, one part of which is adapted to switch in one group of lamps and its respective resistance and the other part of which is adapted to

switch in another group of lamps with its resistance in parallel with the other resitsance.

2. An electric train lighting, ventilating, and heating system, comprising a battery, a dynamo adapted to charge said battery, a plurality of groups of lamps, connections between said battery and dynamo and said groups of lamps, a plurality of resistances, and a plurality of switch parts, one of which when closed connects lamps directly with the battery and with the dynamo through a resistance while another part when closed connects lamps with the dynamo through a resistance in parallel with the first resistance.

3. An electric train lighting, ventilating, and heating system, comprising a battery, a dynamo adapted to charge said battery, a plurality of groups of lamps, connections between said battery and dynamo and said groups of lamps, a plurality of resistances, a plurality of switch parts, one part when closed being adapted to connect lamps directly with the battery and with the dynamo through a resistance and another part when closed being adapted to connect lamps with the dynamo through a resistance in parallel with the first resistance, and a stop adapted to be contacted by said main switch parts when in the open position, said stop electrically connecting the parts of the main switch and short circuiting the first resistance.

4. An electric train lighting, ventilating, and heating system comprising a battery, a dynamo adapted to charge said battery, a plurality of groups of lamps, connections between said battery and dynamo and said lamps, a plurality of resistances, a double pole switch, one arm of which is adapted when closed to connect lamps directly with the battery and with the dynamo through a resistance and while the other arm when closed connects lamps with the dynamo through a resistance in parallel with the first resistance, and a contact piece adapted to engage the two arms when the switch is open and to make short circuit connection for the first resistance.

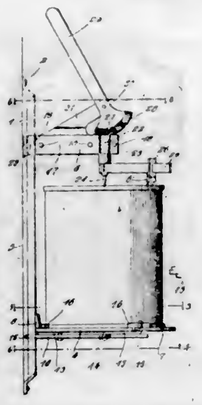
5. An electric train lighting, ventilating, and heating system comprising a battery, a dynamo adapted to charge said battery, two groups of lamps, connections between said dynamo and battery and said lamps, a main resistance, an auxiliary resistance and a switch having two arms, each arm coöperating with a respective terminal contact belonging to a respective group of lights, said arms having connection with said main resistance, a contact stop adapted to arrest said arms in the open position of the latter and to electrically connect said arms so as to short circuit the main resistance, said switch adapted when closed to connect auxiliary resistance in parallel with the main resistance.

[Claim 6 not printed in the Gazette.]

1,242,329. CAN-OPENER. CHARLES AARON DARRAH, Ottumwa, Iowa. Filed June 4, 1917. Serial No. 172,737. (Cl. 30—3.)

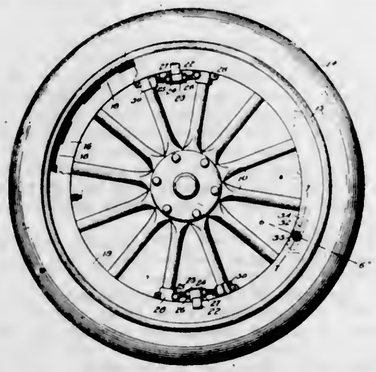
1. A can opener comprising a vertical standard, a clamp carried by the lower end thereof for gripping the lower end of a can, a bracket slidable vertically on said standard and consisting of a pair of horizontally elongated metal plates standing on edge and secured together, one end of said plates being bent laterally outward for contact with the front side of the standard, then rearwardly for engagement with the edges thereof, and then inwardly for contact with the rear side of said standard, the other ends of said plates being bulged outwardly to form a vertical bearing, an upright shaft rotatably mounted in said bearing and having a prong on its lower end to penetrate the center of the can top, a laterally extending arm on said shaft above said prong, a can opening blade slidable along said arm, a pinion secured on the upper end of said shaft, an operating gear meshing with said segment, and an arm rising from and formed integrally with the upper edge of one of said plates and serving as a support for said gear.

2. A can opener comprising a vertical standard, can opening means including a slide mounted on the upper portion of said standard, and a can clamp consisting of a horizontal plate rigidly secured to and projecting forwardly from the lower end of said standard, said plate having a plurality of slots disposed substantially on tangential lines, can gripping jaws resting on said plate and extending across said slots, a horizontally swinging jaw-operating lever below said plate and fulcrumed to the center thereof, and links connecting said lever and jaws and having vertical portions passing slidably through said slots.



3. A can opener comprising a vertical standard, can opening means having a slide mounted on the upper portion of said standard, a can clamp consisting of a horizontal metal plate extending forwardly from the lower end of said standard and rigidly secured thereto, said plate having a plurality of slots disposed substantially on tangential lines, a lever fulcrumed to the center of said plate and located below the latter, horizontal wire links below said plate and having one end bent upwardly through the slots thereof, the other ends of said links being bent downwardly through openings in said lever, and can gripping jaws resting on said plate and mounted on said upwardly bent ends of the links.

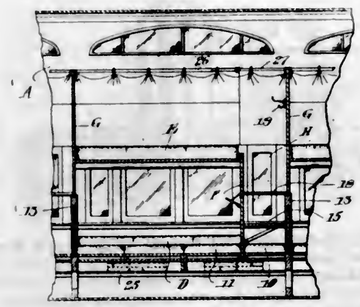
1,242,330. DEMOUNTABLE-RIM DEVICE. ELAM H. DAVIS, Memphis, Tenn. Filed Aug. 23, 1916. Serial No. 116,408. (Cl. 152—21.)



2. The combination with a wheel having a rigidly attached peripheral channel member, of a second channel member adapted for engaging the first by relative rotation, a threaded rod pivoted to the wheel at one end to swing in the wheel's plane toward and away from the inner side of the channel, devices sliding on the rod and adapted to engage and disengage the second member as the rod moves toward and away from the same, nuts for forcing said devices along the rod, and means for locking the rod against swinging when said devices are engaged.

[Claims 1 and 3 to 5 not printed in the Gazette.]

1,242,331. SLEEPING-CAR. ALEXANDER PIERREPONT DEROCHE, Ottawa, Ontario, Canada. Filed June 26, 1917. Serial No. 177,113. (Cl. 105—23.)

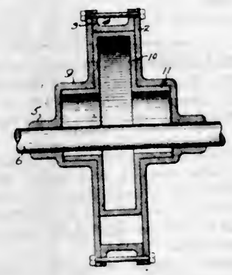


1. A sleeping car having seats arranged in pairs, each seat being formed with a lower horizontal portion and an upper vertical portion, partitions separating the seats in adjacent pairs, the said upper and lower portions of the seats being adapted to be moved to form a support for the mattress of the lower berth, an upper berth pivotally mounted above the lower berth, and of less length than the same, a second partitioning means extending from the partition between the seats upwardly and a third partitioning means extending between the upper and lower berths and forming a compartment at the end of the lower berth for the use of the occupant of the upper berth, said partition being adapted to fit between the two sections of one of the seats.

3. A sleeping car having sections each comprising an upper and a lower berth, the length of the upper berth being shorter than that of the lower berth, partitioning means extending between the end of the upper berth and the lower berth and forming a dressing compartment for the occupant of the upper berth and platforms in said compartment.

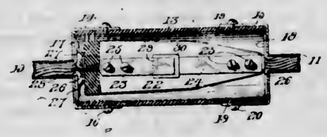
[Claim 2 not printed in the Gazette.]

1,242,332. ROTARY ENGINE. IVAN L. EASTMAN, Lima, Ohio. Filed June 18, 1915. Serial No. 34,779. (Cl. 121—78.)



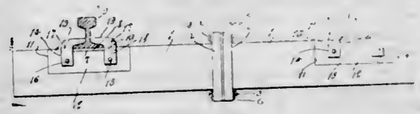
In a device of the character described the combination of a stator comprising a pair of circular outer plates, a ring member interposed between said plates and secured thereto adjacent their outer periphery, a shaft bearing formed in the axial center of the plates, a shaft mounted in said bearings, an inlet and outlet pipe mounted on said ring, a drum bearing mounted on the plates eccentrically disposed relative to the axial center thereof, a rotor mounted within the stator having an opening in the peripheral wall thereof, arms formed on the rotor coextensive with the drum bearing, the ends of the arms being open, said rotor revolving concentric with its own axis and eccentric with respect to the axis of the shaft, the peripheral wall of the rotor being adapted to maintain a position in close proximity to the inner circumference of said stator at a point intermediate said inlet and outlet, a cylindrical bearing block having a longitudinal groove coextensive with the outer walls thereof and a radial groove extending from the longitudinal groove to the peripheral wall of the opposite side of said block, a piston rod mounted in said shaft and extending through said radial groove, a transverse head formed on the end of the piston extending through said groove, the walls of the longitudinally extending groove providing strengthening means for the piston rod also preventing escape of the motive fluid.

1,242,333. AUTOMATIC LINE-CLOSER FOR SERIES ELECTRICAL CIRCUITS. BERT S. EDDY, Elmira, N. Y. Filed Mar. 26, 1917. Serial No. 157,401. (Cl. 175—276.)



A series line closer comprising a casing having a dielectric body portion and metallic end caps one of which caps is removable, conducting cables attached to the said caps extending therethrough with the strands thereof radially arranged upon the inner faces of the said caps, a switch block freely removably arranged within the casing, terminal leaf springs carried by the block having overlying ends adapted for the reception of inflammable members therebetween, and resilient electrical connections between the said springs and cable strands.

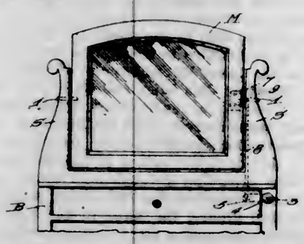
1,242,334. RAIL TIE AND FASTENER. EARL E. EDDY, Stony Creek, N. Y., assignor of one-half to Arthur L. Eddy, Stony Creek, N. Y. Filed Jan. 23, 1917. Serial No. 143,915. (Cl. 238—5.)



1. A rail tie comprising a body portion having cutout portions in the upper wall thereof to provide rail seats, cushion elements located within the seats, a filler positioned within each cutout portion and interposed between one of the walls of the cutout portion and the adjacent cushion element, rail-fastening elements associated with the tie and arranged, respectively, on opposite sides of the tie, and laterally extending shoulders carried by certain of the rail-fastening elements and overlying the fillers, for the purpose specified.

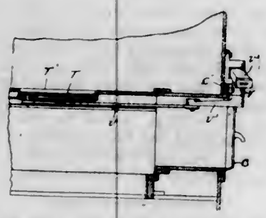
2. A rail tie comprising a body portion having rail seats formed on the upper wall adjacent the opposite ends thereof, plates located on opposite sides of the body and disposed below the rail seats and having recesses therein, rail fastening elements associated with the plates and each including a vertical portion received by one of the recesses in the adjacent plate, a rail base flange-engaging portion carried by the upper end of the vertical portion, and a lateral extension carried by the rail flange-engaging portion and overlying the upper wall of the tie body.

1,242,335. MIRROR-ATTACHING DEVICE. LOANDO B. ESTES, North Adams, Mass. Filed Nov. 23, 1916. Serial No. 133,021. (Cl. 45—18.)



The combination with an article of furniture having an opening adjacent one side edge and extending therethrough from front to rear, of a mirror mounted on said article to swing between horizontal pivots, a shaft disposed in said opening and projecting beyond the ends thereof, a crank on the rear end of said shaft, one end of the crank having an aperture, an ear projecting from the rear of the mirror adjacent one of its pivots, and a link loosely attached at one end of said ear, its other end being bent laterally and disposed in the aperture in said crank.

1,242,336. AUTOMATIC-STOKER FURNACE. EDWIN FITTS, Detroit, Mich., assignor to Detroit Stoker Company, Detroit, Mich., a Corporation of Michigan. Filed Oct. 15, 1915. Serial No. 55,950. (Cl. 110—101.)



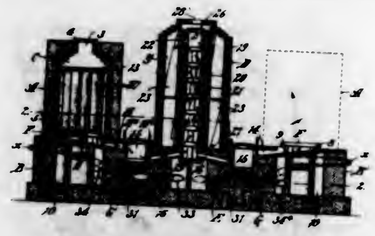
1. In an automatic stoking furnace, the combination with a furnace front, a magazine in rear thereof and a door controlling an opening through said front into said magazine, of a gate controlling the feed to said magazine, a rock-arm mounted on said furnace front, and an operating connection between said rock-arm and said gate entering through said door opening into said magazine and arranged to clear said door in the closed position thereof.

2. In an automatic stoking furnace, the combination of a furnace front, a magazine in rear thereof communicating with an opening in said front, a door frame for said opening, a rockable member mounted on said door frame having an actuated arm in a plane below the upper edge of said opening, a gate controlling the feed to said magazine, a pitman rod connecting said arm to said gate, and a door for closing said opening adapted to fit over said actuated arm.

3. In an automatic stoker furnace, the combination with a magazine and a door opening in the furnace communicating with said magazine, of a gate controlling the feed to said magazine, and lever mechanism for operating said gate mounted outside of said magazine and extending through said door thereinto and arranged to clear said door in the closed position thereof.

1,242,337. ELECTRICAL DISTILLING APPARATUS. CHARLES H. FULTON, St. Louis, Mo., assignor, by mesne assignments, to Metallurgical Laboratories, Incorporated, Chicago, Ill., a Corporation of Illinois. Filed Dec. 7, 1916. Serial No. 135,681. (Cl. 204—64.)

1. An apparatus for distilling ores and metal bearing materials, comprising a retort or chamber constructed to receive a charge consisting of fine ore or metal-bearing material and a suitable reducing agent formed into a compact mass that will retain its substantially original form and volume when subjected to a distillation temperature, means for causing an electric current to pass directly through said mass so as to heat same to a distillation temperature, and means for thereafter condensing the products of the distillation.



2. An electric distilling furnace, comprising a distilling chamber, and an electrically-operated heating means in said chamber consisting of a molded structure of substantially cellular formation whose cells contain metal that is to be distilled.

3. An apparatus for distilling ores and metal-bearing materials, comprising an electric furnace composed of a retort and electric conductors between which electrodes containing the substance to be distilled are adapted to be arranged so as to form a continuous resistor, means for causing an electric current to pass through said electrodes so as to heat same to a distillation temperature, and means for condensing the products of the distillation.

4. An apparatus for distilling ores and metal-bearing materials, comprising an electric furnace composed of a retort and electric conductors between which electrodes containing the substance to be distilled are adapted to be arranged so as to form a continuous resistor, said furnace being so constructed that said electrodes can be positioned on the conductors that supply current to same and thereafter arranged in operative position in the retort, a condenser, and means whereby the products of the distillation can pass from said retort into said condenser.

5. An apparatus for distilling ores and metal-bearing materials, comprising an electric distilling furnace, a condenser combined with said furnace in such a manner that the products of the distillation can be admitted from the furnace to said condenser, and means whereby a heating medium can be supplied to the condenser to control the temperature of same and also to said furnace to preliminarily heat the furnace prior to the distilling operation or to diminish the electrical energy required in the distilling operation.

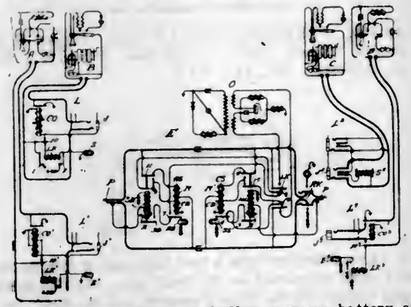
[Claims 6 to 34 not printed in the Gazette.]

1,242,338. TELEPHONE SYSTEM. HARRY N. FARIS, Kansas City, Kans., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 21, 1914. Serial No. 820,113. (Cl. 179—58.)

1. A telephone system comprising common battery and magneto telephone lines, a link circuit adapted for connecting to either one of said lines, and a supervisory signal for said link circuit differently affected for disconnection according to whether associated with a common battery or magneto line.

8. A telephone system including magneto telephone lines, a link circuit for interconnecting said lines, supervisory signals for said link circuit, means controlled over connected lines whereby the operation of the substation generator will cause a fluttering operation of said signals to denote recalls, a listening key for connecting the operator's telephone to the link circuit, and means controlled by said key when answering recalls for rendering said signal inactive.

11. A telephone system comprising common battery and magneto telephone lines, a link circuit for interconnecting said lines, supervisory lamp signals for said link circuit, and means controlled over said lines for causing a steady or a flickering operation of said signals according to the character of the connected lines.

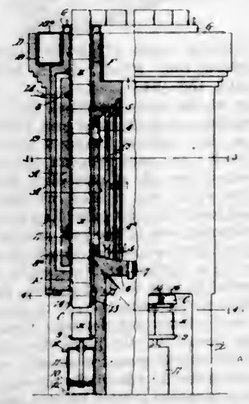


13. A telephone system including common battery and local battery telephone lines, a link circuit for connection therewith, a supervisory electromagnet connected to said link circuit, a supervisory signal for said link circuit having an energizing circuit inductively related to the winding of said electromagnet, means controlled over a connected local battery line for varying the current flow through said supervisory electromagnet whereby said supervisory signal is inductively operated responsive to such variation, and means controlled over a connected common battery line for operatively energizing and deënergizing said electromagnet whereby said electromagnet operates to open and close a second circuit for said supervisory signal.

24. A telephone system comprising local battery and common battery lines, a cord circuit adapted to be connected to said lines as calling lines, a supervisory signal for said cord circuit, means controlled from the substations of said lines for causing said supervisory signal to flicker to denote recalls, the said means being controlled by an intermittent operation on the part of a common battery subscriber and by a continuous operation on the part of a local battery subscriber.

[Claims 2 to 7, 9, 10, 12, 14 to 23, and 25 to 30 not printed in the Gazette.]

1,242,339. PROCESS FOR DISTILLING METALLIC ORES. CHARLES H. FULTON and THOMAS M. BAINS, Jr., St. Louis, Mo., assignors, by mesne assignments, to Metallurgical Laboratories, Incorporated, Chicago, Ill., a Corporation of Illinois. Filed Jan. 24, 1917. Serial No. 144,139. (Cl. 204—64.)



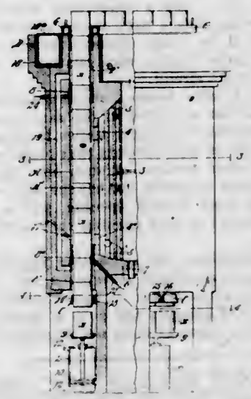
2. A distilling process, characterized by forming metallic ore or metal-bearing material into briquets that will retain their substantially original form and volume when subjected to a distilling temperature, causing said briquets to travel through a distilling chamber, and subjecting said briquets to heat while they are in said chamber.

10. A distilling process, characterized by forming the material to be distilled into briquets that will act as electrical conductors, and feeding said briquets through the distilling chamber of an electric furnace in such a manner that they will form a resistor between the electrodes of the furnace while traveling through said chamber.

15. A process for distilling metallic ores and metal-bearing materials, which consists in forming ore or material of the character referred to into briquets that will retain their substantially original form and volume when subjected to a distilling temperature, and supplying said briquets to the distilling chamber of an electric furnace in such a manner that the distilling operation is not interrupted by the introduction of fresh briquets into the distilling chamber or the removal from said chamber of briquets that have been subjected to a distilling operation.

[Claims 1, 3 to 9, 11 to 14, and 16 not printed in the Gazette.]

1,242,340. APPARATUS FOR DISTILLING METALLIC ORES AND METAL-BEARING MATERIALS. CHARLES H. FULTON and THOMAS M. BAINS, Jr., St. Louis, Mo., assignors, by mesne assignments, to Metallurgical Laboratories, Incorporated, Chicago, Ill., a Corporation of Illinois. Original application filed Jan. 24, 1917, Serial No. 144,139. Divided and this application filed Mar. 16, 1917. Serial No. 155,223. (Cl. 204—64.)



1. A distilling apparatus, comprising a distilling chamber, means for causing molded objects containing metal that is to be distilled to enter, travel through and emerge from said chamber, means for heating said objects while they are in said distilling chamber, and means for treating the products of the distillation.

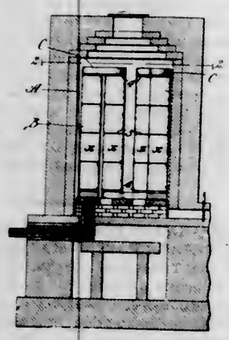
13. An electric furnace provided with a distilling chamber for receiving a column composed of briquets that contain the substance to be distilled, an electrode provided with an opening through which said column passes, and means separate and distinct from said column and electrode for establishing electrical connection between said column and said electrode.

22. An electric distilling furnace, comprising an annular portion divided into a plurality of distilling chambers, each of which is adapted to receive columns of briquets that contain the substance to be distilled, means for passing a current of electricity through the various columns of briquets arranged in said chambers, and an independently-controlled feeding device for each of said distilling

chambers by which fresh briquets can be introduced into said chambers and the columns of briquets can be fed through the chambers.

[Claims 2 to 12 and 14 to 21 not printed in the Gazette.]

1,242,341. ELECTRIC FURNACE. CHARLES H. FULTON, St. Louis, Mo., assignor, by mesne assignments, to Metallurgical Laboratories, Incorporated, Chicago, Ill., a Corporation of Illinois. Filed Feb. 23, 1917. Serial No. 150,464. (Cl. 204—64.)



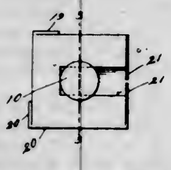
1. The combination of two angularly-disposed stiff conducting elements formed of non-metallic conducting material and arranged in an electric circuit in engagement with each other, and a connecting means between said elements, comprising a part on one element that projects into a hole in the other element, thereby permitting one element to move slightly with relation to the other without breaking the circuit.

10. In an electric furnace, the combination of two conducting elements arranged in the same circuit and positioned at substantially right angles to each other, an extension on one of said elements that projects into an opening in the other element of such size that the angular position of said elements can change without causing the extension to bind in said opening, and a granular conducting material in said opening that contacts with said extension.

19. A composition for connecting together briquets of the character described, composed of finely divided graphite and pitch mixed in approximately the proportions of 60% of graphite and 40% of pitch.

[Claims 2 to 9 and 11 to 18 not printed in the Gazette.]

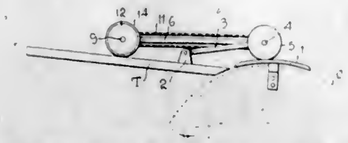
1,242,342. NUT AND BOLT LOCK. HENRY N. GESSFORD, Cliquot, Mo. Filed Feb. 20, 1917. Serial No. 149,946. (Cl. 151—29.)



1. A nut and bolt lock including a bolt having the threaded portion oppositely grooved, and a locking member including a slotted body for engagement in the grooves of the bolt, wings on opposite sides of the body for engagement with opposite side faces of the nut of the bolt, and a tab on each of said wings for engagement with the adjacent end of a wing.

2. A nut and bolt lock formed from a single metal blank and including a body having a centrally formed open-ended slot, wings on two of the opposite sides of the body, tabs formed on opposite ends of one of said wings, and a wing on one of the remaining sides of the body and formed with a tab at one end thereof, one of the first-named wings having a tab at one end, the last-named tab and one of the tabs of the first-named wings being extended beyond the adjacent side of the body.

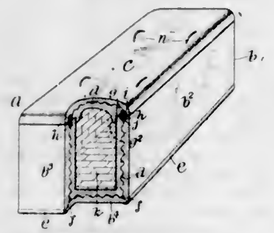
1,242,343. PAPER-FEEDING DEVICE. HENRY C. GILLESPIE, Rupert, Idaho. Filed Mar. 17, 1917. Serial No. 155,527. (Cl. 271—51.)



1. In combination with a feed table and a driving member, a shaft supported by the feed table, coacting friction means carried by the driving member and the shaft for intermittently rotating the shaft, arms loosely engaged with the shaft, feed rollers supported by the arms, and an operative connection between the shaft and the feed rollers whereby said rollers are caused to rotate simultaneously with the rotation of the shaft.

[Claim 2 not printed in the Gazette.]

1,242,344. BURIAL-VAULT. WALTER J. GORMAN, Jersey City, N. J. Filed Apr. 19, 1916. Serial No. 92,189. (Cl. 72—7.)

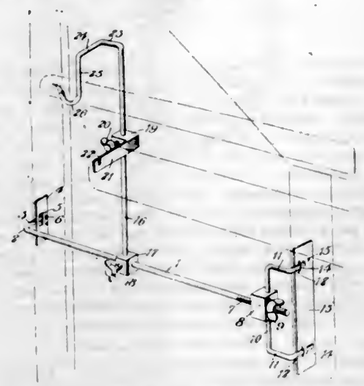


A burial vault or casket provided in one side wall thereof with a trap one leg of which opens inwardly thereinto and the other outwardly therefrom, the leg which opens outwardly being provided with an attachment with which is detachably connected a vertical tubular member which extends above the ground level.

1,242,345. SHADE AND CURTAIN HANGER. JESSE GRIMM, Gifford, Ind. Filed July 13, 1916. Serial No. 109,041. (Cl. 156—24.)

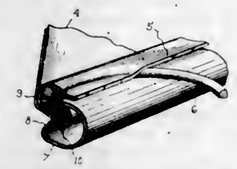
1. A device of the class described, the combination of a main supporting rod, a flattened arm formed on one end of said rod, a plate member having a struck out portion thereon to receive the said arm, an inwardly bent projection formed on one side of said plate to engage a window frame, the other end of said rod being threaded, a block having a longitudinally extending groove therein to receive the threaded end of the rod, a wing nut mounted on said threaded portion adapted to adjust the said block, the block having a vertical groove therein, a vertical rod slidably mounted in said vertical groove, the free end of said rod being bent laterally thereof to form arms, a second plate having struck out portions thereon to receive said arms, an inwardly bent projection formed on said plate, vertical standards mounted on said rod, said standards being longitudinally adjustable on said rod, and curtain supporting members carried by said standards.

2. A device of the class described, the combination of a main supporting rod, a flattened arm formed on one end of said rod, a plate member having a struck out portion thereon to receive the said arm, the other end of said rod being threaded, a block having a longitudinally extending groove therein to receive the threaded end of the rod, a wing nut mounted on said threaded portion adapted to adjust the said block, the block having a vertical groove therein, a vertical rod slidably mounted in said vertical groove, the free end of said rod being bent laterally thereof to form arms, a second plate having struck out portions



thereon to receive said arms, inwardly bent projections formed on said plates, a vertical standard mounted on said rod, said standards being longitudinally adjustable thereon, a block member slidably mounted on said standards, an arm extending outwardly from said block, means mounted on said block for retaining the same in adjusted position on the standard, and means mounted on said arm to receive curtain rollers, and the upper portion of said standard being bent to provide curtain pole supports for a purpose specified.

1,242,346. SPRING CONSTRUCTION. FREDERICK W. HAWES, Detroit, Mich., assignor to Premier Cushion Spring Co., Detroit, Mich., a Corporation of Michigan. Filed July 30, 1917. Serial No. 183,492. (Cl. 155—25.)



1. In an upholstery spring construction, a base, a marginal strip having an upper inturned flange and a lower tubular portion with a longitudinal slot formed along the intermediate portion of the strip, and an apron having a welted edge inserted through the slot, the strip being provided with flanges along the slot that interlock with and retain the welt of the apron when the latter is drawn outwardly at an angle to the direction of insertion.

2. In a spring seat upholstery construction, body springs, upholstery thereon having a depending apron with thickened or welted lower margin, and a retaining member therefor consisting of a strip of suitable sheet material bent between the lateral margins thereof into a tubular body, with a depending upper flange in spaced, substantially parallel relation to an inwardly inclined, upwardly extending lower flange, that underlies the upper flange, the flanges forming a throat through which the welted apron margin is insertible and retaining the welted edge when the apron is drawn upwardly in the direction of pull of the springs.

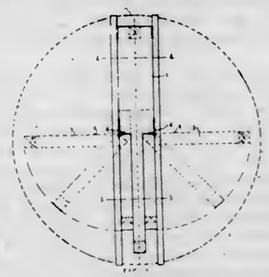
3. In a spring seat upholstery construction, a base, body springs thereon, upholstery carried by the springs, an apron depending from the upholstery and having a thickened or welted lower margin, and an apron retaining strip of suitable sheet material bent between the lateral edges thereof into a tubular body having a slot receiving the welted apron edge, the marginal portion of the strip above the slot being bent downwardly, and the marginal portion below the slot extending obliquely upward below and in spaced relation to the upper flange, the vertical distance between the edges of the flanges being greater than the thickness of the apron and less than the thickness of the welted margin.

5. Means for holding the welt of a seat apron comprising a strip having a throat to receive the welt of the apron, said strip throat being formed by substantially parallel flanges permitting of the apron welt being inserted in the longitudinal direction of the throat and to bind against said flanges when pulled outwardly other than the direction of insertion.

6. Means for holding the welt of a seat apron comprising a strip having a throat to receive the welt of the apron, said strip throat being formed of flanges, one compressed toward the other when pressure is brought to bear on the seat so as to restrict said throat to a width less than that of said apron welt.

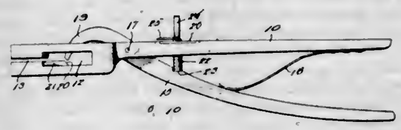
[Claim 4 not printed in the Gazette.]

1,242,347. FOLDING TABLE. GEORGE H. HENDERSON, Dayton, Tex. Filed July 25, 1916. Serial No. 111,148. (Cl. 45—116.)



A table of the character described including an oblong bridge, offset at its center on each side forming shoulders, arms hinged to the outer angles of the respective shoulders, supporting legs fixed to the respective ends of the bridge and to the free ends of said arms, two leaves whose adjacent edges meet along the central line of the bridge, said leaves being hinged to the corresponding edges of the bridge and being supported by the arms when said arms are swung into angular position relative to the bridge.

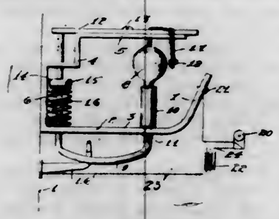
1,242,348. SAW-SET. WALTER G. HERMAN, Raymond, Wash., assignor of one-half to August R. Worley, Menlo, Wash. Filed Nov. 16, 1916. Serial No. 131,714. (Cl. 76—64.)



A saw set comprising a handle, a head at one end of said handle provided with a well leading through the lower face and with a pocket leading from the upper face and also provided with an inlet leading through the end face of the head, the pocket communicating with the well,

an anvil in the pocket provided with an inclined end face leading to the well, and a lever pivotally connected with said handle and terminating in a jaw extending into the pocket in operative relation to the inclined face of said anvil.

1,242,349. AUTOMATIC ALARM. HERBERT ELLSWORTH HOUSH, Los Angeles, Cal., assignor to John H. Safford, New York, N. Y. Filed Nov. 30, 1914. Serial No. 874,867. (Cl. 200—28.)



1. In a circuit closer, a fixed contact, a relatively movable contact, an unstable easily displaceable weight member mounted to engage with said movable contact and maintain said contact out of engagement with said fixed contact, a spring mounted to normally urge said movable contact into engagement with the fixed contact, said weight operating to offset the action of said spring, an enlargement formed upon said movable contact to limit its movement when supporting the weight, and a means operable to lock said movable contact against the action of said spring without regard to the action thereof by said weight.

2. In a circuit closer, a fixed contact, a relatively movable contact, a spring mounted to engage with and urge said movable contact into engagement with said fixed contact, an unstable weight member mounted to engage with said movable contact to offset the action of said spring, means on said movable contact conjunctively utilizable as a support for the weight and as a means to limit movement of said contact when supporting said weight, and a means to limit movement of the weight when dislodged.

3. In a circuit closer, a fixed contact, a spring pressed movable contact, an unstable weight member mounted to engage with said movable contact to offset the action of said spring, and a means movable into and out of engagement with the movable contact to lock said contact in a position out of engagement with said fixed contact, as and for the purpose set forth.

4. In a circuit closer, a supporting bracket, a fixed contact, a substantially U-shaped movable contact engaging with said bracket, a means urging said movable contact into engagement with said fixed contact, an unstable weight member mounted to engage with said movable contact to offset the action of the spring, said weight member being capable of dislodgment by movement of the bracket, and a means to limit movement of the weight relatively to said bracket when dislodged.

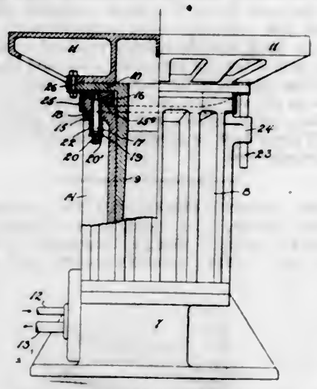
5. In a circuit closer, a supporting bracket, a substantially U-shaped contact member movable relatively to said bracket, a collar adjustable upon said contact, a spring normally exerting pressure on said collar to maintain said contact in its uppermost position, a stationary contact disposed in the path of movement of said movable contact, an enlargement formed upon said movable contact, the enlargement being engageable with said bracket to limit movement of said contact against tension of said spring, an unstable weight member normally engageable with said enlargement to maintain said movable contact in its lowermost position and against tension of said spring, and means on said weight member and engageable with said bracket to limit movement of the weight member when dislodged, said weight member when dislodged permitting movement of said movable contact into engagement with the stationary contact through action of said spring.

1,242,350. SELF-ADJUSTING HEADLIGHT FOR AUTOMOBILES. HARVEY H. HOY, St. Louis, Mo. Filed Apr. 9, 1917. Serial No. 160,667. (Cl. 240—62.)



An improved mechanism for causing the headlights of an automobile to be positively turned whenever the steering-gear thereof is turned to alter the direction of the automobile; consisting of lamps each having a vertical journal; brackets having bearings in which said journals are mounted, said brackets being fixed to some part of the automobile; crank-arms at the lower ends of said journals; a horizontal rod to which said crank-arms are pivotally-connected; a socket fixed upon said horizontal rod; an L-shaped lamp-turning bar having its horizontal arm fixed in said socket; the steering-rod of an automobile; and a bearing fixed upon said steering-rod so that the vertical arm of said lamp-turning bar may slide within said bearing last mentioned as the chassis of the automobile moves up and down upon its springs.

1,242,351. JOLT RAMMING-MACHINE. EDWARD MELVILLE HUGGINS, New York, N. Y. Filed Dec. 24, 1914. Serial No. 878,981. (Cl. 22—45.)



1. In a jolt ramming machine, a vertically movable plunger, and an anvil portion surrounding the plunger adapted to receive the impact of the plunger and having a uniformly curved impact surface, and a member interposed between the plunger and the anvil carried on said curved impact surface.

6. In a jolt ramming machine, a cylinder having an annular concave anvil, a convex impact ring loosely carried on the anvil on the concave surface thereof, and a plunger in the cylinder adapted to impact on the ring.

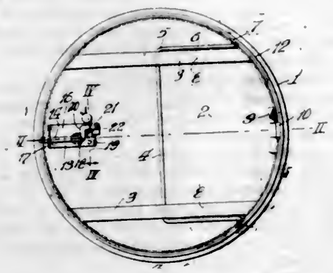
8. In a jolt ramming machine, the combination of a reciprocating member having an impact surface, and an impact receiving member automatically alining with the said impact surface.

9. In a jolt ramming machine, a plunger, a table carried on the plunger, a two-part impact anvil adjacent the table the parts whereof have relative movement and on which the plunger impacts, and a curtain protecting the joint between the parts of the anvil.

11. In a jolt ramming machine, the combination of impacting members, the impact surfaces of which are inversely sloped to co-act to automatically distribute the force of the impact evenly.

[Claims 2 to 5, 7, and 10 not printed in the Gazette.]

1,242,352. CLOSURE FOR BARRELS. JOHN JANUCHOWSKY, St. Louis, Mo. Filed Nov. 6, 1914. Serial No. 870,575. (Cl. 217—76.)



1. The combination of a barrel, a closure, and a swingingly mounted member, said member having angular bent portions formed thereon, guideways located in the top of said closure, said member being mounted at one end in said guideways, and swingingly mounted at its opposite end to said barrel, said angular bent portions of said member adapted to bear against the top of said closure.

2. The combination of a barrel, a closure, and a swingingly mounted member, guideways located in the top of said closure, said member being mounted at one end in said guideways and mounted at its opposite end to said barrel above said closure, said member adapted to brace said closure against outward pressure when said closure is mounted in one end of said barrel.

3. The combination of a barrel, a closure, and a swingingly mounted member, guideways located on the top of said closure, a bifurcated bracket secured to the inside wall of said barrel, a locking member secured to said closure, said swingingly mounted member being mounted at one end in said guideways and mounted at its opposite end to said barrel above said closure, said swingingly mounted member adapted to brace said closure against outward pressure when said closure is mounted in said bracket, and secured to said barrel by said locking member.

4. The combination of a barrel, a closure, and a swingingly mounted member, guideways located on the top of said closure, a bifurcated bracket secured to the inside wall of said barrel, a locking member secured to said closure, said swingingly mounted member being mounted at one end in said guideways and mounted at its opposite end to said barrel above said closure, said swingingly mounted member adapted to brace said closure against outward pressure when said closure is mounted in said bracket and secured to said barrel by said locking member, said guideways providing means for allowing said closure to become disengaged from said bracket.

5. The combination of a barrel, a closure, and a swingingly mounted member, a pair of guideways formed in the top of said closure, said member comprising a straight-way portion and a pair of right-angled bent portions, said straight-way portion of said member being secured in said guideways, the ends of said right angled portions being pivotally mounted to the wall of said barrel above said closure, a bifurcated bracket secured to the inside wall of said barrel, said closure adapted to engage said bracket, said guideways forming means for allowing said closure to engage and disengage said bracket.

[Claim 6 not printed in the Gazette.]

1,242,353. DEVICE FOR WIRE-TYING BAGS. AUGUST S. KUHN and REGINALD R. MILLER, Chicago, Ill., assignors to Bates Valve Bag Company, Chicago, Ill., a Corporation of West Virginia. Filed May 22, 1915. Serial No. 29,773. (Cl. 140—119.)

1. A wire-tie twisting tool comprising a tie holder having parts adapted to hold the ends of the tie, faced in the same rotational direction, means for rotating the holder in one direction to twist the tie, and means for automatically rotating it sufficiently in the opposite direction at the end of the twisting action to release the tie, said means operative to rotate the parts in the opposite direction only at the end of the twisting movement.

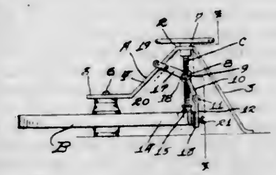


3. A wire-tie twisting tool comprising a tie holder having projecting slotted parts, the slots being deep and narrow and open on opposed sides of the slotted part in the same rotational direction, said slots being parallel with the axis of rotation of the twisting tool.

4. In a wire-tie twisting tool comprising a shank and means for rotating it, a pair of curved fingers forming an S-shaped hook with narrow deep slots curved about the center of rotation of the shank and opening in the same rotational direction.

[Claims 2 and 5 not printed in the Gazette.]

1,242,354. TIRE-REMOVER. ROBERT H. KUTSCHENREUTER, La Moure, N. D. Filed Aug. 21, 1916. Serial No. 115,979. (Cl. 157—11.)



1. A tire remover, comprising, in combination, a stand having a pair of downwardly spreading arms one of said arms being adapted to be coupled to a wheel and the other adapted to rest upon a support independent of said wheel, a hand operable screw swiveled in substantially upright position on said stand having its lower end adapted to be impressed against the rim of said wheel, a follower threaded on said screw and a jaw member linked to said follower and adapted to engage a tire on said wheel, said follower being movably linked to said wheel coupled arm to assist in supporting said screw in substantially upright position.

2. A tire remover, comprising, in combination, a stand having one end extending inwardly and adapted to engage the hub of a horizontally supported wheel and its other end extending outwardly and adapted to rest upon the ground outside of the periphery of said wheel, an upright screw revolubly supported on said stand having its lower end adapted to press against the rim of said wheel, a jaw adapted to engage the tire on said wheel, a follower threaded on said screw, a link movably connecting said follower with said jaw and a stay movably disposed between said follower and said inwardly extending arm of said frame to assist in supporting the screw in upright position while the jaw is being raised to remove said tire from the wheel.

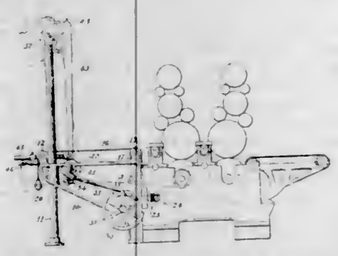
1,242,355. PROCESS OF FILTERING. MARK R. LAMB, Santiago, Chile, assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis., a Corporation of Delaware. Filed June 22, 1914. Serial No. 847,133. (Cl. 23—13.)

1. The process of removing a desirable substance from a filter cake containing said desirable and an undesirable substance, by washing the cake with a solution of the undesirable substance whereby the undesirable substance will remain in said cake and prevent collapse of same.

3. The process of removing niter from a filter cake containing niter and sodium chlorid, by washing the cake with a solution of sodium chlorid whereby the sodium chlorid will remain in said cake and prevent collapse of same.

[Claim 2 not printed in the Gazette.]

1,242,356. SHEET-FEEDING MECHANISM. SAMUEL M. LANGSTON, Wenonah, N. J., assignor to Samuel M. Langston Company, Camden, N. J., a Corporation of New Jersey. Filed July 25, 1914. Serial No. 853,012. (Cl. 271—43.)

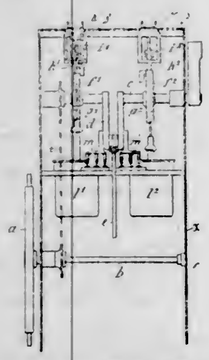


2. Sheet feeding mechanism including a support for a column of sheets, a substantially vertical arm above said column, a second arm secured to the lower end of said first mentioned arm and normally disposed substantially parallel to and directly above said column of sheets, a collar adjustable along the length of said second mentioned arm, a hook pivoted to said collar and adapted to engage with the edge of the top sheet of said column, and means for swinging said first arm to cause said hook to engage with and laterally displace said top sheet.

4. Sheet feeding mechanism, including a support for a column of sheets, a substantially vertical arm above said column, means for swinging said arm, a rod secured to the lower end of said arm and normally disposed substantially parallel to and above said column of sheets, a collar secured to said rod, and a hook pivoted to said collar and adapted to engage with the top sheet of the column to laterally displace said top sheet upon the swinging movement of said arm in one direction.

[Claims 1 and 3 not printed in the Gazette.]

1,242,357. CONTROLLING ELECTRICALLY-PROPELLED VESSELS. BIRGER LJUNGSTRÖM, Stockholm, Sweden, assignor to Aktiebolaget Ljungströms Angturbin, Stockholm, Sweden. Filed Apr. 16, 1915. Serial No. 21,906. (Cl. 172—179.)



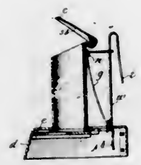
1. A rock-shaft for controlling both speed and direction, in combination with resistance-governing means actuated by said shaft to progressively reduce resistance and increase speed as said shaft is rocked in either direction from a middle position, a pair of eccentrics carried by said shaft and arranged to operate reversely with respect to each other, a pair of switches for an electro-motor circuit arranged to reverse the direction of motor operation as said shaft turns past said middle point and intervening devices whereby said eccentrics actuate said switches alternately as set forth.

2. In combination with a shaft having a crank and means for operating the same, a resistance-governing bar dependent from said crank and lifted thereby as it turns upward from its lowest position in either direction, a pair of eccentrics turning with said shaft, a pair of electric switches, a pair of levers from which the movable parts of said switches are suspended, a pair of bars to which said levers are attached and which are provided with studs engaging said eccentrics, and the necessary conductors of an electro-motor circuit connected to and governed by said switches.

3. In combination with a rock-shaft and connections for gradually reducing electrical resistance as said shaft is rocked in either direction from a middle position, a pair of eccentrics carried by said shaft, a pair of bars raised and lowered by said eccentrics, a pair of levers attached to and moving with said bars, slotted guiding brackets for said bars and levers, a pair of switches for reversing an alternating current of several phases and means connecting said levers to parts of said switches for actuating the latter as said bars move up and down, the construction and arrangement of said eccentrics providing for such actuation of the switches as said middle point is approximately passed.

4. In combination with means for reducing resistance, means for operating the reversing switches of an alternating current of divers phases, supplemental switches adapted to said phases for cutting out all resistance, and a crank-shaft carrying said means of both kinds and actuating said supplemental switches, the said devices being arranged to decrease resistance and thereby increase speed as the shaft is turned in either direction away from its middle position, to insure the cutting out of all resistance when the extreme position of said shaft in either direction is reached and to reverse the current through the several phases when the crank shaft approaches its middle position.

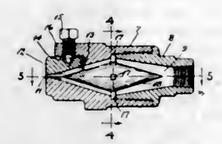
1,242,358. COIN-HOLDER. WALTER L. MCCLENAHAN, Council Bluffs, Iowa. Filed May 13, 1916. Serial No. 97,435. (Cl. 133—5.)



1. In a coin holder, a plurality of coin tubes adapted to receive coins flatwise in stack, a frame holding said tubes, a channeled plate covering the bottom of said tubes and having circular openings therein corresponding in size to the respective diameters of said tubes and disposed on lines parallel with the channels of said plate and to the front of the coin holder, keys adapted to be operated by the fingers and traveling in said channeled plate with circular openings in said keys adapted to travel from their respective tubes to the said openings in said plate, bar springs, perforations in said frame, said keys engaging said bar springs, pins in said tubes and perforation in said springs adapted to receive said pins and an apron in front of said tubes and extending around said plate and keys and adapted to extend down to the hand when the fingers are applied to said keys.

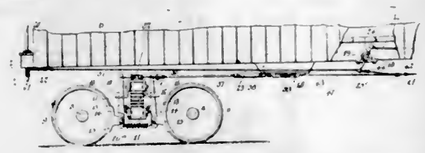
[Claims 2 and 3 not printed in the Gazette.]

1,242,359. OIL-BURNER. FELIX J. MCKENNA, Seattle, Wash. Filed Feb. 19, 1917. Serial No. 149,701. (Cl. 137—80.)



An oil burner of the class described, which embodies an inlet and an outlet passageway; a mixing chamber forming a passageway between said outlet and said inlet passageway; a tapered deflector concentrically disposed within said mixing chamber; a removable block disposed adjacent said outlet end to afford a means for cleaning said outlet passageway, said block having a conical recess therein, and a radially disposed screw having a conical end engaging into said recess to press and hold the block in position.

1,242,360. BRAKE MECHANISM FOR RAILWAY-CARS. WILLIAM MARKY, Buffalo, N. Y. Original application filed June 3, 1915, Serial No. 31,900. Divided and this application filed Jan. 3, 1916. Serial No. 69,966. (Cl. 188—43.)



1. In a brake mechanism for cars, the combination with a truck having a bolster and a spring-plank member, brake shoes adapted to bear against the wheels of said truck, a supporting link for each brake shoe pivotally secured to said spring-plank member, brackets secured to the bolster of said truck and having slots therein, brake levers passed through the slots of said brackets and fulcrumed therein, said levers acting against said brake shoes, and means for actuating said brake levers.

2. In a brake mechanism, the combination with a truck having a bolster, springs carrying said bolster and a spring-plank member supporting said springs, brake shoes connected to said spring-plank member, slotted brackets connected to said bolster, and brake levers connected to said brake shoes and extending upwardly through said slotted brackets, said levers being fulcrumed against one of the walls of the slots of said brackets and being adapted to have their fulcrum points change automatically as said bolster moves toward or from said spring-plank member.

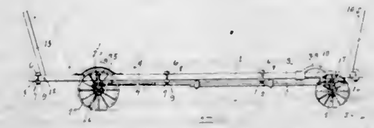
3. In a brake mechanism, the combination with a truck having two members relatively movable in a vertical plane, brake shoes carried by one of said members, brake levers for actuating said brake shoes each having a changeable fulcrum point on the other member, and means for actuating said brake levers.

4. In a brake mechanism, the combination with a truck having two members relatively movable in a vertical plane, brake shoes carried by one of said members, slotted brackets secured to the other member, brake levers extending through said slotted brackets and adapted for actuating said brake shoes, and means for actuating said brake levers.

5. In a brake mechanism, the combination with a truck having two members arranged one above the other and relatively movable in a vertical plane, brake shoes connected to one of said members, slotted brackets connected to the other member, and brake levers connected to said brake shoes and extending vertically therefrom through said slotted brackets, said levers being fulcrumed against one of the walls of the slots of said brackets and being adapted to have their fulcrum points change automatically as said members are moved relatively, as described.

[Claims 6 and 7 not printed in the Gazette.]

1,242,361. FODDER-RACK. ALBERT E. MILLER, Geneseo, Ill. Filed Mar. 24, 1917. Serial No. 157,199. (Cl. 21—74.)

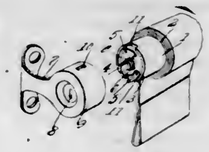


1. In fodder racks, a plurality of beams mounted in spaced parallel relation, transverse clamps mounted about said beams and extending above and beneath the same, and boards interposed between the beams and supported by said clamps, the clamps and boards coöperating to hold the beams in parallel spaced relation.

3. In fodder racks, a plurality of beams mounted in parallel spaced relation, pairs of transversely extended strips positioned above and beneath the beams, and constituting clamping members for securing the said beams, means for forcing the strips of each pair toward each other and for preventing outward lateral movement of the outer-most of said beams, and boards supported by the lower strips of said pairs of strips interposed between the beams so as to maintain the same in spaced relation.

[Claim 2 not printed in the Gazette.]

1,242,362. SHADE-ROLLER LOCK. WALTER C. MOORS, Owensboro, Ky., assignor of one-half to Ward P. Pedley, Owensboro, Ky. Filed Feb. 24, 1917. Serial No. 150,759. (Cl. 156—35.)



A shade roller construction embodying a bracket having a spindle receiving aperture, and a collar surrounding said aperture and provided with an aperture in its upper portion, a roller having one terminal disposed rotatably within said collar and provided with a non-rotatable spindle engageable in the first mentioned aperture, and a pawl carried by said terminal of the roller within the collar and movable between said collar and spindle to engage the spindle when the roller is rotated in one direction below a certain velocity and prevent further movement of the roller in said direction, and to move along the interior of said collar and engage in the second mentioned aperture when the roller is rotated in said direction above a certain velocity to stop further movement in said direction.

1,242,363. HEEL-SUPPORT. ERNST MUELLER and OTTO FISCHL, St. Louis, Mo. Filed Apr. 3, 1916. Serial No. 88,430. (Cl. 36—37.)

1. A heel support comprising an upper layer adapted to be placed within the shoe and having a rounded and attenuated forward end, a lower layer of less width than the upper layer having its outer edge matching the outer edge of the upper layer and having an attenuated inner edge parallel with and at a relatively considerable distance from the inner edge of the upper layer, a row of

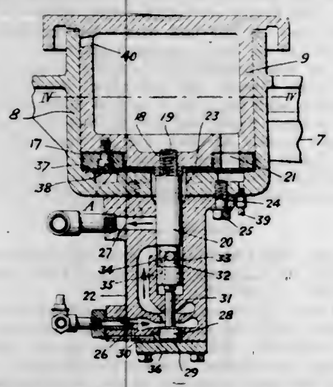
stitching parallel with the inner edge of the lower layer binding the inner edge of the lower layer to the upper layer, an inwardly and forwardly tapering filler piece between the upper and lower layers having its outer edge in alinement with the outer edges of the upper and lower layers and bonding material uniting said layers and filler piece together.



2. A heel support comprising a smooth flat upper layer of leather conforming in shape to the heel and arch section of a shoe and being adapted to fit within the rearward portion of a shoe, a lower layer having its outer edge formed to match the outer edge of the upper layer and extending inwardly approximately half the width of the upper layer and terminating in an attenuated edge spaced from and approximately parallel with the inner edge of the upper layer, a filler piece interposed between the upper and lower layers having its outer edge conforming substantially to the outer edges of said layers and having its forward end tapering and terminating rearwardly from the forward edge of the lower layer, and having an inward and forward surface slope, and a quantity of bonding material for retaining said layers in bonded union.

3. A heel support comprising a smooth flat upper layer of leather conforming in shape to the heel and arch section of a shoe and being adapted to fit within the rearward portion of a shoe, a lower layer having its outer edge formed to match the outer edge of the upper layer and extending inwardly approximately half the width of the upper layer and terminating in an attenuated edge inwardly from the inner edge of the upper layer, a filler piece interposed between the upper and lower layers and having its outer edge conforming to the shape of the outer edges of said layers and having its forward end tapering and terminating rearwardly from the forward edge of the lower layer and also tapering inwardly and having its inner edge spaced from the inner edge of the lower layer, a quantity of bonding material retaining said layers in bonded union, and a row of stitching passing through said upper and lower layers and extending parallel to the inner edge of the lower layer.

1,242,364. COMBINED SQUEEZE AND JOLT RAMMING MACHINE. THOMAS J. MUMFORD, 2d, Plainfield, N. J. Filed Feb. 25, 1916. Serial No. 80,368. (Cl. 22—45.)



1. A change-over jolt attachment for a squeezer molding machine comprising a member adapted to coöperate with the squeezer cylinder, a plunger working in said member coöperating with the squeezer plunger, and means for supplying air for operating said change-over plunger for a jolt ramming operation.

2. A change-over jolt atachment for a squeezer molding machine comprising a member adapted to be secured to the squeezer cylinder, a plunger coöperating with the squeezer plunger, and means for supplying air for operating said change-over plunger for a jolt ramming operation.

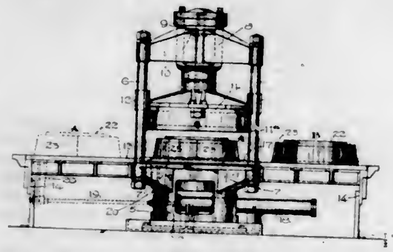
3. A change-over jolt atachment for a squeezer molding machine comprising a member adapted to be secured to the squeezer cylinder, a plunger coöperating with the squeezer plunger, and a valve controlling the air supply for said change-over plunger to secure a jolting operation.

4. A change-over jolt attachment for a squeezer molding machine comprising a member adapted to coöperate with the squeezer cylinder and provided with a plunger coöperating with the squeezer plunger and means for supplying air for a jolting operation.

5. A change-over jolt attachment for a squeezer molding machine comprising a member adapted to coöperate with the squeezer cylinder and provided with a plunger coöperating with the squeezer plunger and means for breaking vacuum in the squeezer cylinder when the machine is operating as a jolt ramming machine.

[Claims 6 to 10 not printed in the Gazette.]

1,242,365. VULCANIZING-PRESS. EDWARD NALL, Akron, Ohio, assignor to The Goodyear Tire and Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed July 10, 1916. Serial No. 108,404. (Cl. 18—17.)



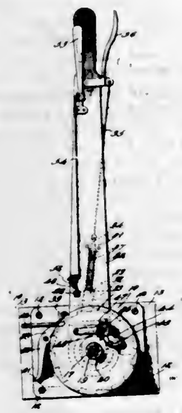
1. In a press of the character described, a table; a press member vertically reciprocable above said table; platforms slidably mounted upon the table for horizontal reciprocation below said press member; molds carried by respective platforms; and adjustable means linking the platforms for simultaneous movement and for positioning the molds successively in the path of travel of said press member.

6. In a press of the character described, a table; a press member vertically reciprocable about said table; said press member being formed with an interior conical recess surrounded by a steam chamber; platforms reciprocable upon said table below the press member; a matrix drum fixed relatively to each platform; a loose inclosing annulus for each matrix drum defined by fractionally mating members, and independent means for moving said press member and the platforms, whereby the matrix molds with their inclosing annuli may be successively positioned in axial alinement with the recessed press member in order that the latter may group the fractional components of said annuli into a firm inclosure upon their respective drums.

[Claims 2 to 5 not printed in the Gazette.]

1,242,366. BRAKE-ACTUATING LEVER. JAMES NOVOTNY, Union Center, Wis. Filed Aug. 25, 1916. Serial No. 116,926. (Cl. 74—54.)

1. A brake operating device comprising a base board, a stub shaft extending from said base board, a sleeve rotatably mounted upon said stub shaft, a ratchet wheel mounted upon said sleeve and held against rotation thereon, a drum mounted upon said sleeve and held against rotation thereon, a lever rotatably mounted upon said sleeve between said drum and ratchet wheel, a latch pivotally connected with said base board and yieldably held in engagement with said ratchet wheel, said latch being provided with an arm, a pawl movably connected with said lever and yieldably held in engagement with the teeth of said ratchet wheel, means for moving said pawl out of engagement with said ratchet wheel, a finger movably carried by said lever and yieldingly held to extend in a position for engagement with the upper face of said base board and limit the swinging movement of the lever, and means for drawing said finger out of its normal position to permit said lever to be swung beyond the normal amount and bring the finger into engagement with the arm of the first mentioned latch to swing said latch out of engagement with the ratchet wheel and permit the ratchet wheel, sleeve and drum to rotate for unwinding a line wound upon the drum.



2. A brake operating device comprising a carrier, a stub shaft extending from said carrier, a sleeve rotatably mounted upon said stub shaft, a ratchet wheel mounted upon said sleeve and held against rotation thereon, a drum mounted upon said sleeve and held against rotation thereon, a latch lever rotatably mounted upon said sleeve between the drum and ratchet wheel and provided with a pawl engaging said ratchet wheel, a latch pivotally connected with said carrier and yieldably held in engagement with said ratchet wheel and provided with an abutment, a pin movably carried by said lever and yieldably held to extend in a position for engagement with said carrier to limit the swinging movement of the lever in one direction, and means for drawing said pin out of its normal position to permit the lever to be swung beyond its normal amount and bring the pin into engagement with the abutment of said latch to swing the latch out of engagement with the ratchet wheel and permit the ratchet wheel, sleeve and drum to rotate for unwinding a line wound upon the drum.

3. A brake operating device comprising a carrier, a drum rotatably connected with said carrier and having a ratchet wheel, a latch lever for engaging the ratchet wheel to rotate the drum, a latch carried by the carrier and yieldably held in engagement with said ratchet wheel and provided with an abutment, a finger carried by said lever and yieldably held to extend in a position for engagement with the carrier to limit the swinging movement of the lever, and means for moving the finger out of position for engagement with the carrier to permit the lever to swing beyond its normal amount and bring the finger into engagement with the abutment of the latch to move the latch out of engagement with the ratchet wheel.

4. A brake operating device comprising a support, a stub shaft extending from said support, a sleeve rotatably mounted upon the stub shaft, a ratchet wheel mounted upon the sleeve and held against rotation thereon, a winding drum mounted upon said sleeve and held against rotation thereon, a lever rotatably mounted upon said sleeve in operative relation to the ratchet wheel, a pawl carried by said lever and yieldably held in engagement with the teeth of said ratchet wheel, means for moving the pawl out of engagement with the ratchet wheel, a latch carried by said support and yieldably held in engagement with the teeth of the ratchet wheel and having a handle extension, a pin and actuating means carried by said lever and yieldably held in a position for the pin to limit the movement of the lever in one direction by engagement with said support, said pin when moved out of its normal position and said lever swung in one direction beyond its normal extent engaging the handle extension of the latch carried by the support to swing the latch out of engagement with the ratchet wheel.

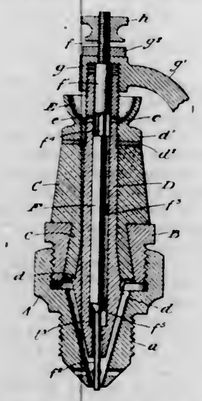
5. A brake operating device comprising a support, a stub shaft extending from said support, a sleeve rotatably mounted upon said stub shaft and having its inner end portion provided with flattened faces terminating in abutment shoulders and having its outer end portion provided with flattened faces terminating in abutment shoulders, a ratchet wheel mounted upon the inner end portion of said sleeve and held against rotation thereon by the flattened faces of the inner end portion of the sleeve and engaging the abutment shoulders at the ends of the flattened faces, a lever rotatably mounted upon said sleeve and engaging the outer face of said ratchet wheel, a winding drum fitting upon the outer end portion of said sleeve and held against rotation by the flattened faces of the outer end portion of the sleeve and engaging the abutment shoulders at the ends of the flattened faces of the outer end portion of the sleeve and engaging the outer face of said lever, means carried by said stub shaft for engaging the winding drum to releasably hold the winding drum and sleeve upon the stub shaft, a pawl carried by said lever and yieldably held in engagement with the teeth of said ratchet wheel, means for moving the pawl out of engagement with the ratchet wheel, a latch carried by said support and yieldably held in engagement with the teeth of said ratchet wheel and having an arm terminating in an abutment finger, a pin and actuating means carried by said lever and yieldably held in a position to limit the movement of the lever in one direction by engagement with said support, said pin when moved out of its normal position and said lever swung in one direction beyond its normal position engaging the arm of the latch carried by said base plate to swing the latch out of engagement with the ratchet wheel, said pin engaging the abutment finger of the latch to limit the swinging movement of the lever.

1,242,367. COMBINED SPARK-PLUG AND PRIMING DEVICE. AUGUSTE PACHE, New York, N. Y. Filed May 3, 1916. Serial No. 95,264. (Cl. 123—169.)

1. In a device of the class described, a spark plug provided with a centrally disposed, longitudinally extending tubular metallic member, the upper end of which protrudes above the upper end of the plug, a liquid containing vessel surrounding the upper portion of said tubular member, ducts leading from the interior of the vessel to the interior passage of the tubular member, a thimble provided with a handle threaded upon the upper portion of the stem, and a fire pin extending through the passage of a tubular member and secured to the thimble, whereby the location of the thimble raises or lowers the pin, said pin being provided with a plunger portion adapted to closely fit the interior of the tubular portion to seal the ducts when said plunger is in depressed position and unseal the ducts when in an elevated position, thereby allowing liquid deposited in the vessel to pass through the ducts into and through the passage of the tubular member.

5. In a device of the class described, a spark plug embodying at its lower end a metallic attaching shell and having at its upper end a metallic cup-shaped vessel, an

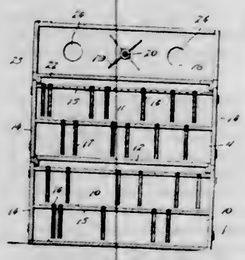
elongated asbestos portion intermediate the shell and vessel, and a tubular metallic member extending longitudinally of the plug for securing the shell to the vessel, said tubular portion having ducts communicating with the interior of the tubular member and the interior of the vessel, in combination with a firing electrode positioned for longitudinal movement within the passage of the tubular member and provided near its upper end with a thimble having threaded connection with the upper end of the tubular member, a handle on said thimble for raising or



lowering the same on the threads of the tubular member, and a plunger portion coöperating with said electrode and conforming in shape to the interior of the tubular member, whereby the raising of the electrode unseals the ducts from the vessel and the lowering of said electrode seals said ducts, said tubular member extending below the asbestos portion to substantially the lower end of the plug to surround and guide the lower portion of the electrode and thereby preclude short-circuiting of said electrode with the shell when the electrode is in a heated condition.

[Claims 2 to 4 and 6 to 8 not printed in the Gazette.]

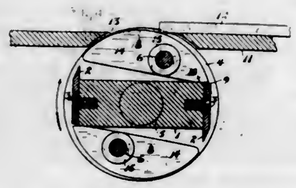
1,242,368. DRYING APPARATUS. BERTRANDO PANARA, Rome, N. Y. Filed Apr. 23, 1917. Serial No. 163,906. (Cl. 34—19.)



1. In apparatus of the class described, the combination of a plurality of tiers of separate drying rooms, doors on one or more sides of said rooms, a ventilating chamber above said tiers, a fan for blowing air from said chamber into the rooms of the uppermost of said tiers, means for shutting off any of the rooms of said uppermost tier from said chamber, and means for separately closing off the rooms of one tier from the rooms of another tier.

2. In apparatus of the class described, the combination of a plurality of tiers of separate drying rooms, doors on one or more sides of said rooms, a ventilating chamber above said tiers, a shaft extending longitudinally of said chamber, fans on said shaft adapted to circulate the air from said chamber to the rooms therebelow, means for shutting off from any of the rooms of said uppermost tier from said chamber, and means for separately closing off the rooms of one tier from the rooms of another tier.

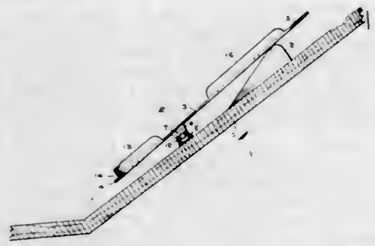
1,242,369. ROTARY CUTTER. THOMAS H. PARKER, San Francisco, Cal. Filed Oct. 7, 1916. Serial No. 124,258. (Cl. 144—251.)



1. A rotary cutter comprising a centrally mounted revoluble support; a knife on each end of said support, one of said knives pointing in a direction opposite to that of the other of said knives, and an eccentrically mounted and outwardly curved guard on each side of said support, the curvature of said guard being approximately the curve of the path of travel of one of said knives, and the point of mounting of said guard having its eccentricity from its center within the area from said center to the end of said guard in proximity to the rear of the opposite knife.

2. A rotary cutter comprising a centrally mounted revoluble support, a knife on each end of said support, one of said knives pointing in a direction opposite to that of the other of said knives, and an eccentrically mounted and outwardly curved guard on each side of said support having a shoulder engageable with said support, the curvature of said guard being approximately the curve of the path of travel of one of said knives, and the point of mounting of said guard having its eccentricity from its center within the area from said center to the end of said guard in proximity to the rear end of the opposite knife.

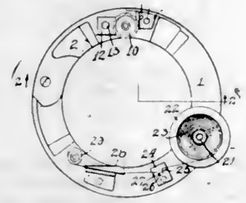
1,242,370. PEDAL-PLATE. JOHN F. PETHTEL, Boise, Idaho. Filed Nov. 21, 1916. Serial No. 132,599. (Cl. 74—81.)



1. In a motor vehicle, the combination with the accelerator pedal thereof, of a pedal plate embodying a heel portion and a ball portion, means for hingedly supporting said pedal plate upon the vehicle floor boards so that the ball portion of the pedal plate rests upon said accelerator pedal, and upwardly extending heel flanges carried by the heel portion of said pedal plate, said heel flanges being spaced apart at their rear ends to provide a dirt exit.

2. In a motor vehicle, the combination with an accelerator pedal thereof, of a pedal plate embodying a heel portion and a ball portion, means for hingedly supporting said pedal plate upon the vehicle floor boards so that the ball portion thereof rests upon said accelerator pedal, a sole engaging flange extending upwardly from one side edge of the ball portion to said plate, spaced heel flange extending upwardly from the heel portion of said pedal plate, and teats extending inwardly from the opposed edges of said heel flanges and adapted to engage and hold the operator's heel in position upon the pedal plate against accidental displacement.

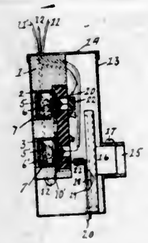
1,242,371. SHUTTLE-LOCK. FRANK M. PIERCE, Chicago, Ill., assignor to Pierce Wrapping Machine Company, Chicago, Ill., a Corporation of Illinois. Original application filed Oct. 3, 1914, Serial No. 864,735. Divided and this application filed Jan. 2, 1915. Serial No. 102. (Cl. 242—6.)



2. In a locking device of the class described, hinged sections adapted to interfit and having alined apertures, a slotted sleeve rigidly secured to one section, a locking bolt in the sleeve having one end adapted to engage in the alined apertures, a collar on the bolt in the sleeve limiting the locking movement thereof, a spring on said bolt in said sleeve bearing against the collar to normally hold the bolt thrust inwardly, a pin on the bolt extending through the slot in the sleeve, and a notch in the sleeve adapted to receive the pin therein to lock the bolt when retracted.

[Claims 1, 3, and 4 not printed in the Gazette.]

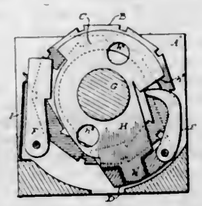
1,242,372. PHONIC APPARATUS. STEPHEN C. PORTER, Brooklyn, N. Y. Filed Nov. 13, 1914. Serial No. 871,914. (Cl. 179—100.1.)



Phonic apparatus comprising a base block, insulation cups therein, a common cover arm for the cups pivotally secured to the base block, conducting material within the cups, conducting top and bottom linings in each cup, the top ones being secured to the ends of the arm, electrical conductors from the top and bottom linings, a stylus bar having a stylus adapted to engage a sound record operatively connected to one end of the arm and a balance spring secured to the base block and bearing on the opposite end of the arm whereby equilibrium is maintained.

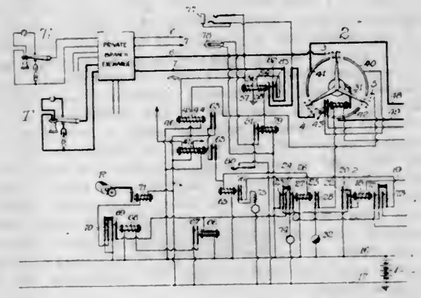
1,242,373. AUTOMATIC CLEANING DEVICE FOR NUMBERING-MACHINES. JAMES H. REINHARDT, East Orange, N. J. Filed Jan. 16, 1915. Serial No. 2,661. (Cl. 101—425.)

In a numbering machine, the combination with a numbering head comprising a shaft and numbering wheels mounted thereon, of disks mounted on said shaft and between said numbering wheels, said disks having scraping



edges, and means for oscillating said disks on said shaft, in the manner and for the purpose set forth.

1,242,374. AUTOMATIC TRUNKING SYSTEM. EUGENE A. REINKE, Rochester, N. Y., assignor to Stromberg-Carlson Telephone Manufacturing Company, Rochester, N. Y., a Corporation of New York. Filed Nov. 18, 1914. Serial No. 872,689. (Cl. 179—27.)



1. In combination, a central exchange switchboard, a plurality of telephone lines terminating in multiple jacks on said switchboard, said jacks being arranged in regular predetermined numerical order, cord circuits for interconnecting said lines, a private branch exchange, said exchange being designated by a regular directory number, a plurality of lines between the central and said private exchange switchboard, multiple jacks corresponding in numerical position on said switchboard to the directory number of said private branch exchange, automatic line selecting switches connected to said jacks, each switch being set into action to select one of the idle lines between the exchanges when a plug is inserted in the corresponding jack, and means controlled by the busy condition of all of said trunks for preventing movement of said switch.

2. In combination a central exchange switchboard, a plurality of telephone lines terminating in multiple jacks on said switchboard, said jacks being arranged in regular predetermined numerical order, cord circuits for interconnecting said lines, a subscriber's station being designated by a regular directory number, a plurality of lines between the central switchboard and said subscriber's station, multiple jacks corresponding in numerical position on said switchboard to the directory number of said subscriber's station, automatic line selecting switches connected to said jacks, each switch being set into action to select one of the idle lines between the exchange and the subscriber's station when a plug is inserted in the corresponding jack, a controlling circuit closed upon the insertion of a plug in said jack for causing said switch to select an idle line, and means controlled by the busy condition of all of said lines, for opening said controlling circuit.

3. In combination a central exchange switchboard, a plurality of telephone lines terminating in multiple jacks

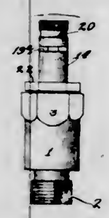
on said switchboard, said jacks being arranged in regular predetermined numerical order, cord circuits for interconnecting said lines, a private branch exchange, said exchange being designated by a regular directory number, a plurality of lines between the central and said private exchange, multiple jacks corresponding in numerical position on said switchboard to the directory number of said private branch exchange, automatic line selecting switches connected to said jacks, means controlled by the insertion of a plug in each jack for moving the corresponding switch to select an idle line, a private relay for each line, said relay being energized by the connection of a jack with the corresponding line, an interrupter circuit for advancing said automatic switch, a series circuit having contacts controlled by said private relay, a relay in said circuit for opening said interrupter circuit when all of said private relays are energized.

4. In combination, a plurality of telephone lines, a private relay for each of said lines, a central exchange switchboard, a plurality of jacks mounted on said switchboard, operators' cord circuits therefor, automatic switches connected to said jacks, said switches having contacts connected to said telephone lines, a circuit controlled by said private relay, a busy relay in said circuit, a signal, and means controlled by said last relay upon the insertion of a plug in one of said jacks when all of said telephone lines are busy to display said signal.

5. In combination, a plurality of telephone lines, automatic switches having banks of contacts at which said lines are connected, a central exchange switchboard, jacks mounted on said switchboard, operators' cord circuits therefor, a circuit controlled by the insertion of a plug in one of said jacks, a selecting relay in said circuit, a stepping magnet for said switch, an interrupter in circuit with said stepping magnet, contacts in said interrupter circuit controlled by said selecting relay, a busy relay having contacts in said interrupter circuit, private relays connected to each of said lines, said relays being energized when the corresponding line is busy, a series circuit closed by energization of all of said relays for energizing said busy relay to open the contacts in the interrupter circuit.

[Claims 6 to 21 not printed in the Gazette.]

1,242,375. SPARK-PLUG. FRANK ROBINSON, Chicago, Ill. Filed Jan. 15, 1917. Serial No. 142,365. (Cl. 123—169.)



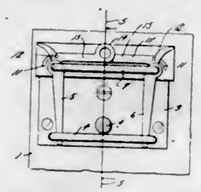
1. In a spark plug of the class described, a sleeve member adapted to be threaded into the wall of an engine cylinder, chambered insulating and metallic core members removably mounted therein to register with one another to form a combustion chamber, and spark terminals projecting into said combustion chamber to within a short distance of one another to form a spark gap.

3. In a spark plug of the class described, a sleeve, a chambered metallic core member seated therein, a chambered insulating core member within said sleeve resting upon said metallic core member, said core member arranged with their chambers registering with one another to afford a combustion chamber chamber, terminals projecting into said combustion chamber to afford a suitable spark gap therebetween, means mounted on one of said terminals to keep said terminals clean, and a gland threaded into said sleeve for removably holding said core members in position.

7. A spark plug comprising a shell, and a core having a combustion chamber therein removably mounted within said shell and comprising a lower metallic core member and an upper insulating core member, registering with one another to form said combustion chamber.

[Claims 2, 4 to 6, and 8 not printed in the Gazette.]

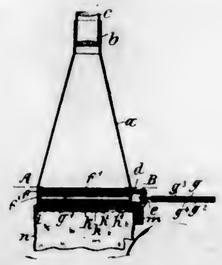
1,242,376. GATE-LATCH. ARVID SAARI, Crosby, Minn. Filed Jan. 22, 1916. Serial No. 73,554. (Cl. 70—28.)



1. A gate latch comprising a base plate terminating in a slotted casing and secured to a gate post, a yoke carried by said base plate, a keeper carried by said base plate, oppositely disposed levers pivotally arranged upon said yoke and having their free ends normally in engagement with said keeper; said levers being formed with projections, one of which is offset, normally disposed in the same plane and terminating in alined eyes, a spring disposed in said casing, and pins connecting said spring and the said levers and passing through the slotted portions of said casing.

2. A gate latch comprising a base plate terminating in a slotted casing and secured to a gate post, a yoke carried by said base plate, a keeper carried by said base plate, levers pivotally arranged upon said yoke and having their free ends normally in engagement with said keeper; said levers being formed with projections normally disposed in the same plane and terminating in alined eyes, a spring disposed in the said casing and connection between said spring and the said levers and passing through the slotted portions of said casing.

1,242,377. APPARATUS FOR EXAMINING RADIO-ACTIVE SUBSTANCES. CURT SCHMIDT, Freienwalde-on-the-Oder, Germany. Filed Apr. 11, 1914. Serial No. 831,310. (Cl. 88—14.)



1. In a device for viewing radio-active substances, the combination with a body having an observation opening therein, a fluorescing film arranged to be above the body to be viewed and means to prevent the rays from passing to the observation opening.

2. In a device for viewing radio-active substances, the combination with a body having an observation opening, a fluorescing film in said body, and means arranged between the opening and base of the body and acting to absorb beta and gamma rays, but permitting the passage of alpha rays.

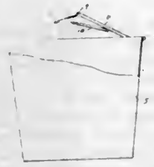
3. In a device for viewing radio active substances, the combination with a substantially light-tight body having an observation opening; of a fluorescing film, means for absorbing the beta rays and gamma rays, and means for deviating alpha rays into the line of observation both of said means permitting the passage of alpha rays.

4. In a device for viewing radio-active substances, the combination with a body, of a fluorescing film, means therein for reflecting light rays due to radio-activity, means for deviating some of the said rays, and means for absorbing some of said rays.

5. In a device for viewing radio-active substances, the combination with an observation body, of a plurality of supports therein movable into and out of the line of observation, said supports having test coatings and a transparent observation coating.

[Claims 6 to 12 not printed in the Gazette.]

1,242,378. DETACHABLE PAIL-COVER. CHARLES S. SHEPARD, Cattaraugus, N. Y. Filed Nov. 13, 1915. Serial No. 61,428. (Cl. 31—14.)



1. A resiliently-detachable pail cover so formed as to envelop a part of the top of a pail and leave a pouring opening therefor, means for engaging the rim of the said pail, and resilient means integral with said cover for contracting the rim of the cover.

2. A resiliently-detachable pail cover so formed as to envelop a part of the top of a pail and leave a pouring opening therefor, clips carried by the cover for engaging the beaded rim of the pail, and resilient means integral with said cover for contracting the rim of the cover.

3. A resiliently-detachable, crescent-shaped pail cover so formed to envelop a part of the top of a pail and leave a pouring opening therefor, means for engaging the rim of the pail, and a spring normally under tension and having its ends secured to the cover near the point of the crescent for drawing the points toward each other.

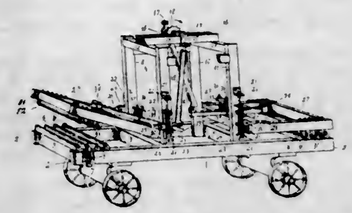
4. The combination with a pail, of a resiliently-detachable cover, said cover being so formed as to envelop the greater part of the top of said pail, the edge of said cover which bounds the opening being beaded and provided with a resilient wire, resilient means integral with said cover for contracting the rim of the cover, and means carried by said cover for engaging the rim of said pail.

5. The combination with a pail, of a resiliently-detachable, crescent-shaped cover, said cover being so formed as to envelop a part of the top of said pail, the edge of said cover, which bounds the opening, being beaded and provided with a resilient wire, a spring normally under tension and having its ends secured to the cover near the points of the crescent for drawing the points toward each other, and means carried by said cover for engaging the rim of said pail.

1,242,379. HEMP-BRAKE. CORNELIUS SKINNER, Louisville, Ky. Filed Mar. 23, 1916. Serial No. 86,051. (Cl. 13—6.)

9. In a hemp brake, a pivotally mounted frame, an arm hinged to the upper side of said frame intermediate the length thereof and extending rearwardly therefrom, means connected with the frame in proximity to the rear end thereof and adapted to yieldingly oppose movement of the arm relative to the frame.

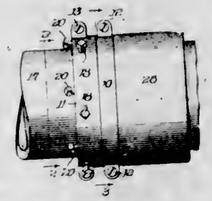
12. In a hemp brake, a pivotally mounted frame, an arm hinged thereto and extended therealong from said hinge point past the rear edge of said frame, resilient means connected respectively with said frame and with said arm adapted to yieldingly resist movement of the arm from its normal position relative to the frame, and actuating means connected with the free end of the arm.



13. In a hemp brake, a main frame, a flail frame yieldingly hinged thereto, in combination with an operating arm for said flail frame hinged to the latter at an intermediate point, extending beyond one edge of said flail frame, and having a yielding connection with said flail frame at a point remote from the hinge of said operating arm.

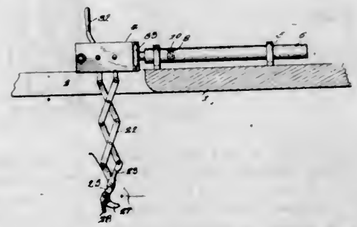
[Claims 1 to 8, 10, and 11 not printed in the Gazette.]

1,242,380. PIPE-JOINT-PACKING DEVICE. MORTIMER B. SKINNER, Wilmette, Ill. Filed May 28, 1917. Serial No. 171,359. (Cl. 137—99.)



In a device of the character described, the combination of a sectional anchoring ring and a sectional confining ring closely adjacent to each other and adapted coaxially to surround a pipe, a sectional compression ring closely surrounded coaxially by said other two rings and housed thereby, said other two rings jointly providing an annular recess in which said compression ring substantially fits and may move in the direction of the axis of the rings, packing material in ring form adjacent to the compression ring and surrounded by the confining ring at the end thereof normally adjacent to the joint to be sealed, means for holding said anchoring ring rigidly upon a pipe, and means for forcing said compression ring in the direction of said packing material whereby the packing material is forced against the joint to be sealed when the device is normally in use.

1,242,381. MAIL-BAG-RECEIVING APPARATUS. WILLIAM T. SMITH, Rogersville, Mo. Filed Aug. 4, 1914. Serial No. 855,025. (Cl. 258—22.)



1. A mail bag receiving apparatus including a suitable support, receiving means movable relatively to said sup-

port either into or out of operative position, the said receiving means consisting of a casing, lazy-tong mechanism movable relatively to the casing, and retaining means mounted on and operable through movement of said lazy-tong mechanism, as and for the purpose set forth.

2. A mail bag receiving apparatus including a suitable casing, lazy-tong mechanism movable relatively to the casing, means actuatable to operate said lazy-tong mechanism, and retaining means mounted on said mechanism, said retaining means being operable automatically through movement of said mechanism, as and for the purpose set forth.

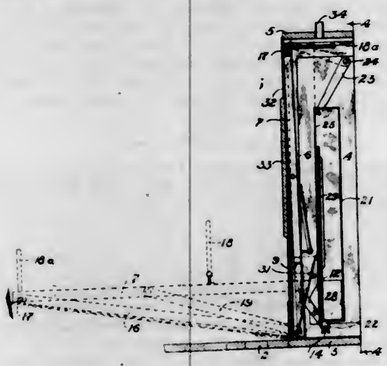
3. A mail receiving apparatus including suitable support means, a casing mounted on said support, segments operating within the casing, lazy-tong mechanism actuatable through movement of said segments, and retaining means mounted on said lazy-tong mechanism, said retaining means operating automatically through movement of said mechanism, as and for the purpose set forth.

4. A mail receiving apparatus including suitable support means, a casing mounted on said support, said casing being movable into and out of operative position, lazy-tong mechanism movable relatively to the said casing, means actuatable to move the said mechanism, the outermost link of the said lazy-tong mechanism when in its projected position being directly engageable with the mail matter to be transferred, and retaining means mounted on said mechanism, said retaining means operating automatically through movement of said mechanism to grasp and hold the said mail matter against said link, as and for the purpose set forth.

5. A mail receiving apparatus including lazy-tong mechanism, the outermost link of the said mechanism being directly engageable with the mail matter to be transferred, means actuatable to operate said mechanism, and means mounted on said mechanism engaging said outermost link, said means operating automatically through movement of said mechanism to grasp and retain the mail matter in engagement with said link in a transferring operation, as and for the purpose set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,242,382. COMBINATION WALL-BED, WARDROBE, AND DRESSER. PETER S. SORENSEN, North Milwaukee, Wis., assignor of one-third to Frank R. Lueck and one-third to William F. Fichfeld, Milwaukee, Wis. Filed Feb. 24, 1914. Serial No. 820,519. (Cl. 5—54).



1. In a device of the class described a wall having a compartment therein, links pivotally mounted therein, a bed frame pivoted on said links and adapted when not in use to be swung within said compartment, and when in use to be swung outwardly therefrom into the room, brace bars pivotally connected on the bed frame and at their inner ends pivoted within said compartment, a wardrobe supported upon said links and adapted to counter-balance the weight of the bed frame, and stops secured in said compartment to limit the movement of said links after the same have passed a dead center when the bed is lowered into position for use, permitting the weight of the wardrobe to prevent accidental folding up of the bed frame.

2. In a device of the class described a bed adapted to swing into a compartment in the wall of a room, brace bars mounted on pivots within the compartment and pivotally connected at their ends upon said bed to brace the same when in position for use, links within said compartment, the inner end of said bed pivotally supported thereon, a cabinet member within the compartment also supported upon said links, and stops to limit the movement of said links.

3. In a device of the class described a bed frame adapted to swing into a compartment in the wall of a room, brace bars mounted on a common pivot within the compartment and pivotally connected at their ends at different points upon said bed frame to brace the same when in position for use, links pivotally mounted within said compartment, the inner ends of said bed frame pivotally supported thereon, a cabinet member within the compartment supported upon said links, cranks pivotally connected to the upper end of said cabinet and to the walls of the compartment, and stops secured within said compartment to limit the movement of said links.

4. The combination with a recessed wall, of a swinging bed adapted to swing into the recessed wall, oblique supporting bars pivotally connected to said wall for supporting said bed when same is in open position for use, said bars acting as the sole supporting means for said bed, and counterweight means for holding said bed in closed position.

5. In a device of the class described built into a wall having a ventilated recess, comprising a wall frame rigidly fitted into said recess, a folding bed, supporting means pivotally secured to said bed and said frame, a combination wardrobe and dresser ballast means, and link supporting mechanisms pivotally connected to said ballast means and said frame.

1,242,383. LOOM-SHUTTLE. NAPOLEON SPENARD, Biddeford, Me., assignor of one-half to Ernest L. Morrill, Biddeford, Me. Filed Feb. 24, 1917. Serial No. 150,782. (Cl. 139—46.)



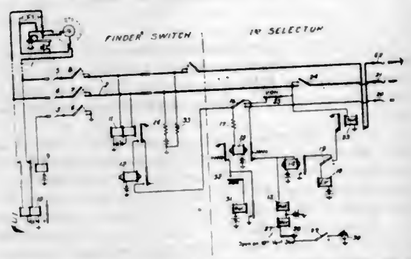
1. A throat guide for loom shuttles consisting of a flat metal plate having an opening therein and an entrance throat communicating with said opening, said plate having an extension formed integrally therewith at one side of the entrance throat, said extension being of circular form in cross-section and bent to provide a single thread receiving coil therein terminating on an imaginary line extending through the opening in spaced relation to the edge thereof.

[Claims 2 to 4 not printed in the Gazette.]

1,242,384. AUTOMATIC TELEPHONE SYSTEM. ARTHUR BRUCE SPERRY, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Jan. 14, 1916. Serial No. 72,139. (Cl. 179—18.)

1. In a telephone system, an electrically operated switch, a circuit extending to said switch, said circuit including a talking conductor and a non-talking conductor, means controllable over said non-talking conductor for actuating said switch in establishing a connection, and test means connected to said talking conductor.

2. In a telephone system, an electrically operated switch, a connecting circuit extending to said switch, said connecting circuit comprising a pair of talking conductors and a third or non-talking conductor, means controllable over said third conductor for actuating said switch in establishing a connection, and test means connected to one of said talking conductors.



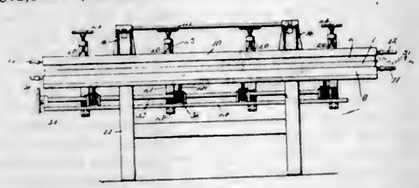
3. In a telephone system, an incoming line, means including an electrically operated switch for extending said line, a connecting circuit extending to said switch, said connecting circuit comprising a talking conductor and a non-talking conductor, means controllable over said non-talking conductor for actuating said switch in establishing and in disestablishing a connection, and test means connected to one of said talking conductors.

4. In a telephone system, an incoming line, means including a selector switch for extending said line, a connecting circuit extending to said switch, said circuit comprising a pair of talking conductors and a third or non-talking conductor, means controllable over said third conductor for causing the movement of said switch in establishing a connection, means for determining the busy or idle condition of a circuit connected to one of said talking conductors, and means for releasing said switch controllable over said third conductor.

5. In a telephone system, a subscriber's line, means including a selector switch for extending said line, a connecting circuit extending to said switch, said circuit comprising a talking conductor and a non-talking conductor, a stepping magnet for said switch, means for joining said magnet to said non-talking conductor, means for transmitting impulses over said third conductor to said magnet to cause the movement of said switch in establishing a connection and means for determining the busy or idle condition of a circuit arranged to be connected with said talking conductor.

[Claims 6 to 12 not printed in the Gazette.]

1,242,385. MOLDING-MACHINE. WILLIAM L. SPRINGER, Park Ridge, Ill. Filed Sept. 19, 1914. Serial No. 862,522. (Cl. 18—17.)



1. In a device of the kind described and in combination, a mold comprising mating sections, each formed with a heating chamber therein and provided with means for conducting a heating medium thereto, and means for supporting and locking said mold sections together, comprising a fixed support for one mold section and a movable support for the other mold section, and adjustable means for locking said supports in operative position, comprising a plurality of clamping members disposed along the mold, means for simultaneously controlling the clamping members, and means for varying the pressure at any clamping member independently of the other clamping members.

2. In a device of the kind described and in combination, a suitable frame, a mold comprising two sections, one section supported by said frame, means mounted on said frame for carrying the other mold section, said means comprising a mold carrier, a pivoted supporting lever for said mold carrier, counterbalancing means for said mold carrier, and means for locking said mold sections in operative relation to each other, comprising clamping members adjustably secured to the under side of the frame top and extended to engage the top of the carrier of said mold sections for applying preasure to said carrying section at substantially the center thereof, and means for varying the adjustment of said clamping members.

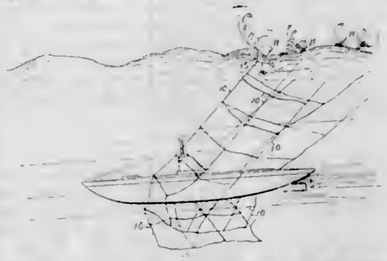
3. In a device of the kind described and in combination, a suitable frame, a mold comprising two sections, one section supported by said frame, means mounted on said frame for carrying the other mold section, said means comprising a mold carrier, means for detachably securing the mold thereto, a pivoted supporting lever for said mold carrier, and means for locking said mold sections in operative relation to each other, a plurality of clamping members, an adjustable member arranged below the frame top, said clamping members pivotally secured thereto, means for supporting said adjustable member below the frame top, comprising a plurality of threaded studs secured to the frame, nuts arranged on said studs, means for operatively connecting said nuts with said member, and means for rotating said nuts in unison, comprising a rotatable shaft provided with worms thereon, said worm gears arranged to engage said nuts.

4. A mold for making rubber articles, comprising mold sections formed with coöperating surfaces, said sections each provided with a heating chamber therein, and with means for conducting a heating medium thereto, in combination with means for adjustably supporting the lower mold section, means for raising and lowering the upper section, and a series of clamps pivotally supported on the frame constructed to swing over the upper section when in place on the lower section and apply pressure to said section at a point well within its borders, and means carried by the clamps for holding the upper section in place thereon, substantially as described.

5. A device of the kind described, comprising mold sections formed with coöperating surfaces, each provided with a heating chamber therein, and means for conducting a heating medium thereto, in combination with means for supporting the lower section, a plurality of counterweighted levers adapted to lift the upper section, a plurality of clamps pivotally connected to the frame at their lower ends and adapted to swing over the lower section when it is in place, and screw-threaded clamping means carried by the upper end of the clamps and arranged to force the upper section firmly against the lower section and additional threaded adjusting means for adjusting the lower ends of said clamps.

[Claims 6 to 13 not printed in the Gazette.]

1,242,386. SUBMARINE-DETECTOR. WILLIAM A. STEWART, East Orange, N. J. Filed Mar. 12, 1917. Serial No. 154,364. (Cl. 114—241.)

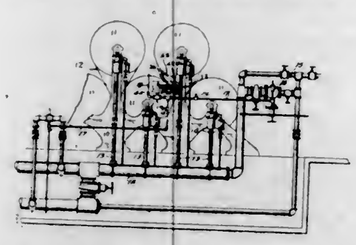


2. A submarine detector comprising a submerged device of considerable area, means for mooring the device to

prevent drifting, and a series of indicators operative when the submerged device is engaged by a moving body.

[Claims 1 and 3 to 8 not printed in the Gazette.]

1,242,387. HEAT CONTROL FOR PAPER-MAKING MACHINES. COLE STICKLE, Indianapolis, Ind. Filed June 19, 1916. Serial No. 104,600. (Cl. 34—48.)



1. The combination of cylinders for drying a sheet of paper or the like, means for heating said cylinders, a valve for controlling said heating means, an auxiliary valve for controlling said heat controlling valve, and mechanical means controlled by the tension of a sheet of paper or the like as it passes over said cylinders for mechanically actuating said auxiliary valve.

2. The combination of cylinders for drying a sheet of paper or the like, means for heating said cylinders, a valve for controlling said heating means, an auxiliary valve for controlling said heat controlling valve, mechanical means controlled by the tension of a sheet of paper or the like as it passes over said cylinders and operatively connected with said auxiliary valve for mechanically actuating the same, and stops for limiting the movement of said valve actuating means.

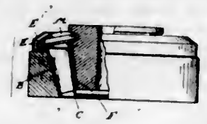
3. The combination of cylinders for drying a sheet of paper or the like, means for heating said cylinders, a valve for controlling said heating means, an auxiliary valve for controlling said heat controlling valve, a stationary member in which said auxiliary valve is mounted and guided in its movement, and mechanical means controlled by the tension of a sheet of paper or the like as it passes over said cylinders and operatively connected with said auxiliary valve for mechanically actuating the same.

4. The combination of cylinders for drying a sheet of paper or the like, means for heating said cylinders, a valve for controlling said heating means, an auxiliary valve for controlling said heat controlling valve and having a slotted valve stem, a fixed member in which said auxiliary valve and valve stem are mounted and guided so as to move vertically, and an arm actuated and controlled by the tension of a sheet of paper or the like as it passes over said cylinders and projecting through the slot in said valve stem for operating said auxiliary valve.

5. The combination of a frame, cylinders mounted on said frame for drying a sheet of paper or the like, means for heating said cylinders, a valve for controlling said heating means, an auxiliary valve for controlling said heat controlling valve, means rigidly connected with said frame for holding and guiding said auxiliary valve in its movements, an arm oscillatably mounted for operating said auxiliary valve, and means controlled and moved by the tension of a sheet of paper or the like as it passes over said cylinders with which said arm is rigidly connected and whereby it is actuated.

1,242,388. CAGE FOR ROLLER-BEARINGS. ARTHUR J. STRONG, Toledo, Ohio, assignor, by mesne assignments, to The Bock Bearing Company, Toledo, Ohio, a Corporation of Ohio, (incorporated in March, 1916.) Filed Aug. 31, 1914. Serial No. 859,385. (Cl. 64—62.)

1. A cage for roller bearings, comprising a pair of concentric spaced annular members having laterally-extending overlapping flanges extending in the same direction, said members being cut away to form pockets for receiving rolls.



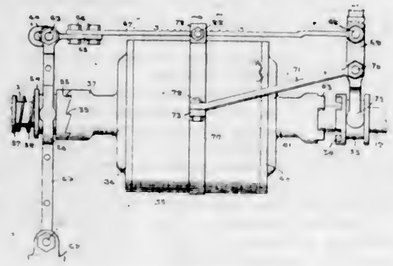
3. A cage for roller bearings, comprising a pair of concentric conical annular members, provided with laterally-extending flanges extending between the same, said members being cut away to form pockets for receiving conical rolls.

5. A cage for roller bearings, comprising a pair of sheet metal stampings provided with concentric spaced conical portions cut away to form pockets for reciving the rolls therebetween, and with laterally-extending flanges at opposite ends of said conical portions overlapping each other, one of said stampings having an outwardly-extending flange at the large end of the cage turned over the end of the roll to form a retainer therefor.

9. A bearing cage comprising a pair of spaced annular members in nested relation and having cut-away portions engageable with rolls, and a bendable flange upon one of said members for retaining both in substantially fixed relation.

[Claims 2, 4, and 6 to 8 not printed in the Gazette.]

1,242,389. CLUTCH. ALLEN H. SWEET, St. Louis, Mo., assignor to Sweet Power Transmission Company, St. Louis, Mo., a Corporation of Missouri. Filed Aug. 24, 1915. Serial No. 47,093. (Cl. 138—22.)



1. In a power transmitting device, the combination of a casing having two cylindrical coaxial chambers therein, a shaft, a rotor eccentrically mounted within one chamber and carried on an end of the shaft, pivoted substantially balanced blades carried by the rotor dividing the interspace into compartments, a second shaft, a rotatable member having a central compartment eccentrically positioned within the other chamber and carried by the second shaft, said member having a plurality of radial ports opening from said compartment to the eccentric interspace provided between the member and casing, pivoted substantially balanced blades carried by the member dividing the interspace into compartments into which respectively the ports open, a cylindrical valve having radial ports mounted within said compartment for rotation with and with respect to said member, ports connecting substantially diametrically opposite parts of one chamber with similar positioned parts of the other chamber, means for rotating said valve with respect to the member, a substantially non-compressible fluid filling the spaces within the casing, means for clutching the first mentioned shaft to the casing, and means operable on unclutching the shaft and casing for holding the casing from rotation.

2. In a power transmitting device, the combination of a casing having two cylindrical coaxial chambers therein, a shaft, a rotor eccentrically mounted within one chamber and carried on an end of the shaft, pivoted substantially balanced blades carried by the rotor dividing the interspace into compartments, a second shaft, a rotatable member having a central compartment eccentrically positioned within the other chamber and carried by the second shaft, said member having a plurality of radial ports opening from said compartment to the eccentric interspace provided between the member and casing, pivoted substantially balanced blades carried by the member dividing the interspace into compartments into which respectively the ports open, a cylindrical valve having radial ports mounted within said compartment for rotation with and with respect to said member, ports connecting substantially diametrically opposite parts of one chamber with similar positioned parts of the other chamber, means for rotating said valve with respect to the member, a substantially non-compressible fluid filling the spaces within the casing, means for clutching the first mentioned shaft to the casing, means for stopping rotation of the casing, means for clutching the second mentioned shaft to the casing, and means operable on the unclutching of the first mentioned shaft and casing for actuating the casing stopping means.

4. In a power transmitting device, the combination of a casing having two cylindrical coaxial chambers therein, a shaft, a rotor eccentrically mounted within one chamber and carried on an end of the shaft, pivoted substantially balanced blades carried by the rotor dividing the interspace into compartments, a second shaft, a rotatable member having a central compartment eccentrically positioned within the other chamber and carried by the second shaft, said member having a plurality of radial ports opening from said compartment to the eccentric interspace provided between the member and casing, pivoted substantially balanced blades carried by the member dividing the interspace into compartments into which respectively the ports open, a cylindrical valve having radial ports mounted within said compartments for rotation with and with respect to said member, ports connecting substantially diametrically opposite parts of one chamber with similar positioned parts of the other chamber, means for rotating said valve with respect to the member, a substantially non-compressible fluid filling the spaces within the casing, means for clutching the first mentioned shaft to the casing, means for stopping rotation of the casing, means for clutching the second mentioned shaft to the casing, and means operable on the rotation of the valve to close the same for subsequently actuating the second shaft and casing clutching means.

5. In a power transmitting device, the combination of a casing having two cylindrical coaxial chambers therein, a shaft, a rotor eccentrically mounted within one chamber and carried on an end of the shaft, pivoted substantially balanced blades carried by the rotor dividing the interspace into compartments, a second shaft, a rotatable member having a central compartment eccentrically positioned within the other chamber and carried by the second shaft, said member having a plurality of radial ports opening from said compartment to the eccentric interspace provided between the member and casing, pivoted substantially balanced blades carried by the member dividing the interspace into compartments into which respectively the ports open, a cylindrical valve having radial ports mounted within said compartment for rotation with and with respect to said member, ports connecting substantially diametrically opposite parts of one chamber with similar positioned parts of the other chamber, means for rotating said valve with respect to the member, a substantially non-compressible fluid filling the spaces within the casing, means for clutching the first mentioned shaft to the casing, means for stopping rotation of the casing, means for clutching the second mentioned shaft to the casing, and means operable on the unclutching of the first mentioned shaft and casing for holding the casing from rotation.

3. In a power transmitting device, the combination of a casing having two cylindrical coaxial chambers therein, a shaft, a rotor eccentrically mounted within one chamber and carried on an end of the shaft, pivoted substantially balanced blades carried by the rotor dividing the interspace into compartments, a second shaft, a rotatable member having a central compartment eccentrically positioned within the other chamber and carried by the second shaft, said member having a plurality of radial ports opening from said compartment to the eccentric interspace provided between the member and casing, pivoted substantially balanced blades carried by the member dividing the interspace into compartments into which respectively the ports open, a cylindrical valve having radial ports mounted within said compartments for rotation with and with respect to said member, ports connecting substantially diametrically opposite parts of one chamber with similar positioned parts of the other chamber, means for rotating said valve with respect to the member, a substantially non-compressible fluid filling the spaces within the casing, means for clutching the first mentioned shaft to the casing, means for stopping rotation of the casing, means for clutching the second mentioned shaft to the casing, and means operable on the unclutching of the first mentioned shaft and casing for actuating the casing stopping means.

4. In a power transmitting device, the combination of a casing having two cylindrical coaxial chambers therein, a shaft, a rotor eccentrically mounted within one chamber and carried on an end of the shaft, pivoted substantially balanced blades carried by the rotor dividing the interspace into compartments, a second shaft, a rotatable member having a central compartment eccentrically positioned within the other chamber and carried by the second shaft, said member having a plurality of radial ports opening from said compartment to the eccentric interspace provided between the member and casing, pivoted substantially balanced blades carried by the member dividing the interspace into compartments into which respectively the ports open, a cylindrical valve having radial ports mounted within said compartment for rotation with and with respect to said member, ports connecting substantially diametrically opposite parts of one chamber with similar positioned parts of the other chamber, means for rotating said valve with respect to the member, a substantially non-compressible fluid filling the spaces within the casing, means for clutching the first mentioned shaft to the casing, means for stopping rotation of the casing, means for clutching the second mentioned shaft to the casing, and means operable on the rotation of the valve to close the same for subsequently actuating the second shaft and casing clutching means.

5. In a power transmitting device, the combination of a casing having two cylindrical coaxial chambers therein, a shaft, a rotor eccentrically mounted within one chamber and carried on an end of the shaft, pivoted substantially balanced blades carried by the rotor dividing the interspace into compartments, a second shaft, a rotatable member having a central compartment eccentrically positioned within the other chamber and carried by the second shaft, said member having a plurality of radial ports opening from said compartment to the eccentric interspace provided between the member and casing, pivoted substantially balanced blades carried by the member dividing the interspace into compartments into which respectively the ports open, a cylindrical valve having radial ports mounted within said compartment for rotation with and with respect to said member, ports connecting substantially diametrically opposite parts of one chamber with similar positioned parts of the other chamber, means for rotating said valve with respect to the member, a substantially non-compressible fluid filling the spaces within the casing, means for clutching the first mentioned shaft to the casing, means for stopping rotation of the casing, means for clutching the second mentioned shaft to the casing, and means operable on the rotation of the valve to close the same for subsequently actuating the second shaft and casing clutching means, and a stop for limiting the movement of said valve actuating means.

1,242,390. TRUCK. WILLIAM C. TURNBOW, Houston, Tex. Filed Dec. 11, 1916. Serial No. 136,131. (Cl. 21—137.)



1. A vehicle including the combination with a truck of a trailer, said trailer embodying a frame and carrier wheels whereon the frame is mounted, a coupling pole carried by the trailer and capable of adjustment relative thereto, the front end of said coupling pole being connected to the truck by means of a hinged coupling, a bolster, and a member slidably mounted on the frame of the trailer to which the bolster is pivoted.

3. A device of the character described including front and rear wheels, a frame supported by each, a rigid coupling member fixed to each frame, said members being of equal length and being connected together by a flexible joint to cause said wheels to track in turning, a member having a slidable connection with one of said frames and a bolster pivoted to said member.

5. A device of the character described including front and rear wheels, a frame supported by each, a rigid coupling member fixed to each frame, said members being of equal length and being connected by a flexible joint to cause said wheels to track in turning, a pair of I-beams secured to one of said frames, a member provided with cleneher flanges which engage over the flanges of said I-beams and permit said member to move lengthwise relative to said beams, and a bolster pivoted to said member.

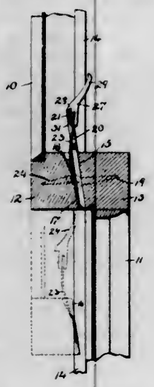
[Claims 2 and 4 not printed in the Gazette.]

1,242,391. WINDOW-CATCH. CHARLES ULRICH, Roselle, N. J. Filed Jan. 26, 1917. Serial No. 144,622. (Cl. 16—146.)

1. A window catch comprising a spring, a latch on the end of the spring, a finger-piece on the latch, and a keeper having an opening large enough to permit the passage of the latch and forming a bar at one end of the keeper, the tension of the spring causing the finger-piece and the spring to engage the keeper on its opposite faces at the opposite ends of the opening in the keeper, the keeper and the latch having means for securing them to the meeting rails of sashes.

2. A window catch comprising a spring, a latch on the end of the spring, a forwardly projecting finger-piece on the latch, the spring normally holding the latch in rear of its locking position, a keeper inclined relative to the fin-

ger-piece and having an opening therein and having a bar on the end, the parts being disposed so that the finger-piece guides the latch along the keeper from the end opposite the bar and through the opening to spring the latch over the bar, the spring and the keeper being approximately parallel to each other and to the direction of sliding movement of the sashes, the latch and bar engaging each other to draw the latch and keeper toward each other.



3. A window catch comprising a spring and a keeper which when separated are in substantially parallel planes and approximately parallel to the direction of sliding movement of the sashes, the keeper having an opening therein, a bar on the end of the keeper, and a latch on the end of the spring, the latch having a guide therein to direct the latch through the keeper so as to engage the keeper on the opposite side when the keeper and latch are brought together.

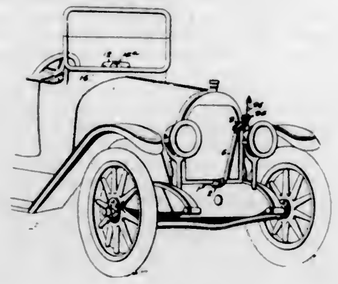
4. A window catch comprising a keeper with an opening near its upper end and a bar at the top, the keeper being substantially parallel with the sliding movement of a sash, a spring substantially parallel to the keeper and having a latch on its end to form a guide whereby the latch is guided through the opening and engages the keeper bar on the opposite side when the keeper and spring are moved toward each other approximately parallel.

1,242,392. TOOL. KENNETH UNDERWOOD, Montgomery, Ala. Filed May 20, 1916. Serial No. 98,864. (Cl. 81—3.)



In a device of the class described, a pair of crossed and pivotally connected members of unequal lengths, the shorter of said members having an opening extending transversely thereof adjacent its forward end, a spreader at the forward end of the longer member movable either toward or away from the forward end of the shorter member, a spreader head having spaced arms between which the said end of the shorter member is passed provided with openings registering with the opening adjacent the forward end of the shorter member, a bolt having its shank passed through the openings in the arms and the opening in the shorter of the members, a nut to bear on one of the arms on the spreader head adjustably mounted on the shank of the bolt, and an extension at one end of the spreader head forming shoulders thereon, said extension being tapered to provide a spreader point.

1,242,393. DIRECTION-INDICATING ATTACHMENT FOR AUTOMOBILES. FERDINAND P. VAN DER VEER, Indianapolis, Ind. Filed May 2, 1916. Serial No. 94,951. (Cl. 116—31.)



1. An attachment for motor vehicles, comprising a bracket securable to the vehicle frame to extend from the end thereof, an arm projected from the bracket, the said arm being vertically adjustable relatively to the end of the vehicle, said arm including an outer portion that is vertically adjustable independently of the main portion of the arm, a direction indicator mounted on the said outer portion of the arm, and operable from the vehicle body for imparting rotation to the said indicator.

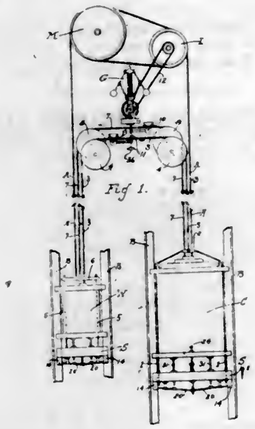
2. An attachment for motor vehicles comprising a bracket securable to the vehicle to extend from the end thereof, an arm projected from the bracket, the said arm being vertically adjustable relatively to the front end of the vehicle, a direction indicating member attached to and having vertical adjustment on the arm, the said member being rotatively mounted relatively to the arm and arranged to be moved in opposite indicating directions and operable from the vehicle body for imparting reverse rotations to the said member.

3. An attachment for motor vehicles comprising a bracket adapted for being secured to and projected lengthwise from the vehicle body, an arm attached to the said bracket to project vertically over the end of the vehicle, said arm including an adjustably mounted upper portion, an indicating lamp mounted on the upper end of the said upper portion of the arm and horizontally rotatable with respect to the said upper arm portion, a direction indicator mounted on the said upper portion of the said arm and vertically rotatable with respect to the arm, gears that join the direction indicator and the lamp for actuating the said lamp and indicator in unison, whereby to turn the lamp in the horizontal plane as the indicator turns in the vertical plane, and means operable from the vehicle body for imparting simultaneous reverse rotary motion to the gears and the lamp and the indicator connected therewith.

4. An attachment for motor vehicles comprising a bracket adapted for being secured to and projected lengthwise from the vehicle body, an arm attached to the said bracket to project vertically over the end of the vehicle, said arm including an adjustably mounted upper portion, an indicating lamp mounted on the upper end of the said upper portion of the arm and horizontally rotatable with respect to the said upper arm portion, a direction indicator mounted on the said upper portion of the said arm and vertically rotatable with respect to the arm, gears that join the direction indicator and the lamp for actuating the said lamp and indicator in unison, whereby to turn the lamp in the horizontal plane as the indicator turns in the vertical plane, and means operable from the vehicle body for imparting simultaneous reverse rotary motion to the gears and the lamp and the indicator connected therewith, the said means comprising a rockable lever, a hub on one of the gears, a flexible pull cable whose opposite ends are attached to the opposite ends of the rocking lever and the two strands of which are guided

on the bracket and the main and upper arm members and whose loop portion passes over and is made fast to the aforesaid gear hub.

1,242,394. ELEVATOR SAFETY DEVICE. ISAAC H. VENN, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Feb. 14, 1914. Serial No. 818,795. (Cl. 187—88.)



1. The combination with a car and counterweight and their respective guide rails, of a cable connecting the car and counterweight, a safety device under the car and counterweight, separate cables connected to the car and to the counterweight, respectively, for suspending each safety device independent of the first named cable connecting the car and counterweight and of each other, and means for effecting the operation of said safety devices upon an abnormal relative bodily movement between the car and counterweight.

3. The combination with a car and counterweight and their respective guide rails, of a hoisting cable connecting the car and counterweight, a safety device under the car and counterweight respectively, means for suspending said safety devices independently of said hoisting cable and of each other, and automatic means operative upon excessive car speed for effecting a movement toward each other of the car and its safety device and the counterweight and its safety device to effect the actuation of said safety devices.

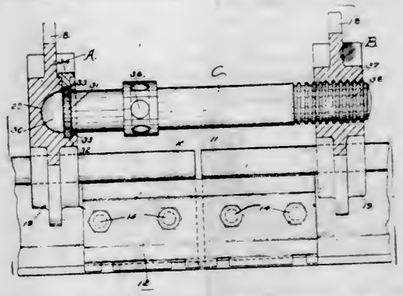
6. The combination with a car and counterweight, of a cable connecting the car and counterweight, safety devices for the car and counterweight, a cable connecting the counterweight safety and car direct, another cable connecting the car safety and counterweight direct, and speed controlled means for operating one or the other of said safeties in both directions of travel of the car.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,242,395. RAIL-EXPANDER. EUGENE W. VOGEL, Oak Park, Ill., assignor to Chicago Railway Signal and Supply Company, Carpentersville, Ill., a Corporation of Illinois. Filed Feb. 19, 1915. Serial No. 9,346. (Cl. 254—43.)

1. In a rail expander, the combination of a pair of rail clamping elements, a spindle in threaded engagement with one of said elements and connected to the other element for rotation and angular movement with respect thereto, and means engaging the spindle and said other element for holding them together, comprising a key protruding from said other element and engaging an annular groove formed in the spindle.

4. In a rail expander, the combination of a pair of rail clamping elements, a spindle in threaded engagement with one of said elements and connected to the other element for rotation and angular movement with respect thereto, and means engaging the spindle and said other element for holding them together, comprising a plurality of arcuate keys forming an annulus and engaging registering annular grooves provided in the spindle and said other element respectively.



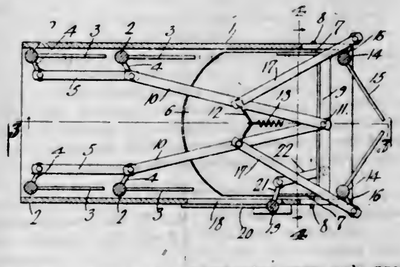
11. In a device for moving railroad rails in the direction of their length, the combination of a pair of rail clamping elements each consisting of two members having angular jaws adapted to engage diagonally opposite edges of the head of a rail, one of said members being formed with a slideway in which the other member is loosely supported, and a spindle having a threaded connection with one of said members and a ball-and-socket engagement with the other; and a spindle arranged between said rail clamping elements above and substantially parallel to the rails engaged having a threaded connection with one of said elements and a ball-and-socket engagement with the other element.

[Claims 2, 3, 5 to 10, 12, and 13 not printed in the Gazette.]

1,242,396. BREAD MANUFACTURE. ARNOLD S. WAHL, Chicago, Ill., assignor to The Wahl Efficiency Institute, Chicago, Ill., a Corporation of Illinois. Filed Jan. 11, 1916. Serial No. 71,483. (Cl. 99—10.)

In the process of making bread the step of dissolving in the baking water before adding the same to the dough, the wholly and readily soluble paste-like precipitated calcium sulfate prepared according to the patent of Robert Wahl, No. 1,156,448, of October 12, 1915.

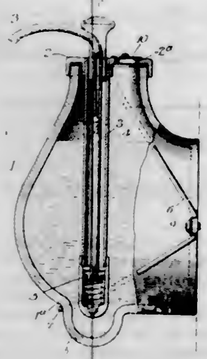
1,242,397. TRAP. ROBERT GILLESPIE WARD, Forney, Tex., assignor of one-half to John Taylor Clayton, Forney, Tex. Filed Apr. 28, 1917. Serial No. 165,166. (Cl. 43—24.)



A trap embodying a casing having open ends providing an entrance and exit, a platform within the casing having one end pivoted therein near the exit and projecting toward the entrance, said platform having an arch at its pivoted end, double entrance and exit doors mounted within the casing at the sides thereof, links connecting said arch and entrance doors for closing the latter when

the platform is depressed, links connecting said links and exit doors to open the latter when the platform is depressed, and spring means for normally raising the platform.

1,242,398. LIQUID-SOAP FIXTURE. EARL G. WATROUS, Chicago, Ill. Filed Sept. 19, 1914. Serial No. 862,614. (Cl. 248—20.)



1. In combination with a soap receptacle formed with a vertical flat rear face adapted to seat against a wall, a bracket consisting of a continuous wire arranged to be attached at opposite sides of said vertical face of the receptacle to the wall and formed with a downward loop engaging the lower front side of the receptacle and having its free ends connected with the receptacle near its top.

2. In combination with a soap receptacle, a bracket consisting of a continuous wire bent to form angular side portions engaging opposite sides of the receptacle and an intermediate downwardly and forwardly extending loop portion engaging the lower front side of such receptacle, and means arranged at the angles of said side portions of the wire for attaching the bracket to a support.

3. In combination with a soap receptacle, a bracket consisting of a continuous wire bent to form V-shaped side portions engaging opposite sides of the receptacle and a connecting portion engaging the lower front side of such receptacle, and means engaging said side portions at the bottom of the V for attaching the bracket to a support.

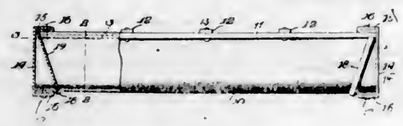
4. In combination with a soap receptacle, a bracket consisting of a continuous wire bent to form V-shaped side portions engaging opposite sides of the receptacle and a connecting portion engaging the lower front side of such receptacle, and plates engaging the bottoms of said V's of the bracket for attaching the bracket to a support.

5. In combination with a soap receptacle, a bracket consisting of a continuous wire engaging the opposite sides thereof and a closure cap for the receptacle, the free ends of the wire being connected with the cap.

[Claims 6 to 8 not printed in the Gazette.]

1,242,399. FEED-TROUGH. RAY S. WEAVER, Monmouth, Ill. Filed Aug. 10, 1916. Serial No. 114,254. (Cl. 220—125.)

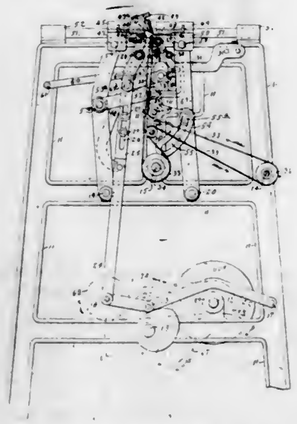
5. A feed trough comprising a body having laterally directed side flanges, outer end members with flanges overhanging the body and engaging the side flanges of the same, inner end members bearing against the interior of the body and directed obliquely to the longitudinal plane of the same, the upper edge of the inner end member engaging between the outer end member and the stop of the same, fastening devices operating through the flanges of



the ends and of the body, and means for fastening the obliquely directed inner end members to the body.

[Claims 1 to 4 not printed in the Gazette.]

1,242,400. MACHINE FOR UNHAIRING FUR-SKINS. FERDINAND M. WEGNER, Brooklyn, N. Y. Filed Feb. 14, 1917. Serial No. 148,657. (Cl. 38—12.)



1. In a machine for unhairing fur skins the combination of a conveyer for the skins, a bridge, a horizontally moving front knife, a horizontally moving rear knife and a means for actuating said knives, said means being adapted to move said knives in opposite directions and said means including a member adapted to act intermittently, thereby allowing said front knife to have a period of rest during the operation of clipping the hair of the skins.

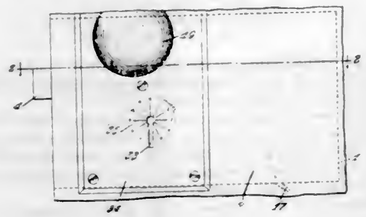
2. In a machine for unhairing fur skins the combination of a conveyer for the skins, a stationary vertical bridge for said conveyer to pass over, a revolving front brush, a revolving and rocking rear brush, a horizontally moving front knife, a horizontally moving rear knife and means for actuating said knives, said means being adapted to move said knives in opposite directions, said means including a member adapted to act intermittently, thereby allowing said front knife a period of rest during the operation of clipping the hair from the skins and said means being adapted to give to said rear knife an amplitude of motion sufficient to permit said rear brush to rise to the crest of said bridge during each stroke thereof.

4. In a machine for unhairing fur skins the combination of a conveyer for the skins, a bridge for said conveyer to pass over, a front knife, a rear knife and a means for actuating said knives, said means being adapted to move said knives in opposite directions, said front knife being secured to a suitable carrier, and said rear knife being pivotally connected to another carrier and in a position at an angle to said front knife, thereby facilitating the securing of said rear knife in the proper position relatively to said front knife.

6. In a machine for unhairing fur skins the combination of a conveyer for said skins, a bridge for said conveyer to pass over, a pair of oppositely moving knives for clipping the coarse hair of said skins, a shield plate for protecting the fur on the edges of the skin and a means for adjustably holding said plate in position, said means comprising two parallel bars horizontally placed, side by side to each other, leaving a space for said plate therebetween, and a means for keeping said plate in position.

[Claims 3 and 5 not printed in the Gazette.]

1,242,401. LOCK. GUST WEGNER, Baudette, Minn. Filed Jan. 15, 1917. Serial No. 142,503. (Cl. 70—14.)



1. A lock including in combination with a key, a bolt, bolt locking means acting to secure the bolt against withdrawal arranged to be swung to an inoperative relation by use of a key, and pivotally mounted tumblers arranged to oppose insertion of the key and swing therewith to bring the key to the proper releasing position upon predetermined manipulation of the key.

2. A lock including a bolt, a bolt locking lever mounted to be normally swung by gravity to a position to secure the bolt, and means by which said bolt-locking lever is moved against the gravity weight thereof to an inoperative position and may be secured and held against the return movement to the operative relation.

10. A lock including a casing a bolt mounted in the casing, means by which the bolt is normally held extended from the casing, bolt locking means in the form of a swinging lever, mounted within the casing to be held by gravity in a position to restrain the bolt against withdrawal, means by which the bolt will be withdrawn upon release of the bolt locking means, tumbler disks mounted adjacent the locking means and provided with openings to receive the bit of a key in such a manner that as the openings are alined and the key is fitted therein the key may be brought to a position back of the bolt locking means and the same may be released, weights provided on said tumbler disks to normally hold the same in such relation that the openings are disalined, and a dial provided with indicating markings to permit the determination of proper movement of a key to bring the same to the position of fitting through the openings of the disk, and means by which the bolt locking means is rendered inoperative.

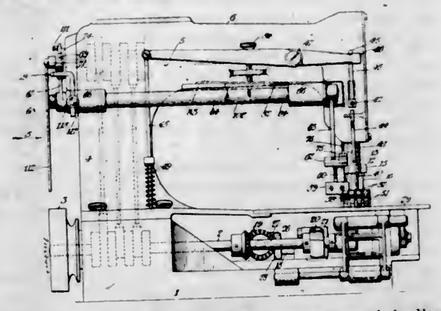
[Claims 3 to 9 not printed in the Gazette.]

1,242,402. COMBINED TOP FEED AND RUFFLING MECHANISM FOR SEWING-MACHINES. JOHN P. WEIS, Nyack, N. Y., assignor to Lucius N. Littauer, Gloversville, N. Y. Filed Feb. 21, 1916. Serial No. 79,511. (Cl. 112—8.)

1. In a sewing machine, the combination of a pair of instrumentalities for engaging the top of the work, one operative to pull and the other to push the work relatively to the needle, and means for imparting a four-motion movement to each of said instrumentalities and including independent means one for each of said instrumentalities for imparting a part of said four-motion movement.

23. In a sewing machine, the combination of a driving shaft, a feed dog, means connecting said feed dog with said driving shaft and including a crank-connected casing, a rock-shaft, and means connecting said rock shaft with said driving shaft and with said feed dog.

39. In a sewing machine, the combination of a pair of instrumentalities for engaging the top of the work, one comprising a feeding device, a driving shaft, means connected therewith and with said instrumentalities for imparting a rising and falling movement thereto, and means for imparting a to-and-fro movement thereto, said first means including a spring-pressed piston crank connected with said driving shaft.

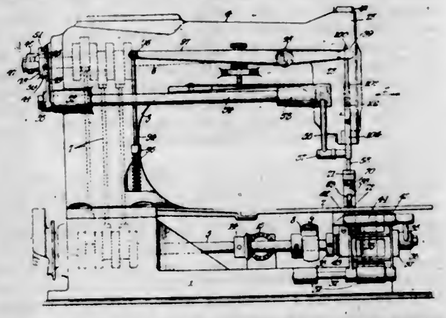


65. In a sewing machine, the combination of feeding mechanism comprising a feed dog, a three-armed lever connected therewith, a rock shaft connected with one arm of said lever, a top driving shaft, means connecting said rock shaft with said top driving shaft, and means connecting said top shaft with another arm of said lever.

81. In a sewing machine, the combination of a top driving shaft, a pair of work-engaging instrumentalities, the same means connecting both of said instrumentalities with said top driving shaft and comprising a crank-connected member and a member having a sliding engagement relatively thereto.

[Claims 2 to 22, 24 to 38, 40 to 64, 66 to 80, and 82 to 84 not printed in the Gazette.]

1,242,403. FEED MECHANISM FOR SEWING-MACHINES. JOHN P. WEIS, Nyack, N. Y., assignor to Lucius N. Littauer, Gloversville, N. Y. Filed Feb. 28, 1916. Serial No. 79,836. (Cl. 112—8.)



1. In a sewing machine, the combination of a rotary top driving shaft, feeding mechanism comprising a bottom and a top feed and means for operating them, a presser finger of relatively small dimensions, said top feed and presser finger having pivotal connection with the top driving shaft through the same crank pin, the means for operating the feeding mechanism and the presser finger being so organized that the presser finger may remain in engagement with the work when the top and bottom feeds are out of engagement therewith whereby the free turning of the work when the presser finger is in engagement therewith may be effected.

18. In a sewing machine, the combination of a lower and an upper driving shaft, feeding mechanism including a top feed, and means for operating it and including a spring-pressed piston and a crank-connected casing connected with one of said shafts.

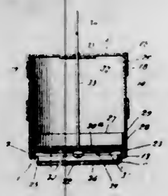
34. In a sewing machine, the combination of a work-engaging instrumentality, a rotary top driving shaft, a spring-pressed piston connected with said top driving shaft, and means supporting said instrumentality and pivotally connected to said piston.

42. In a sewing machine, the combination of a bottom feed, a top feed and a presser foot, and a top driving shaft, said top feed and presser foot having the same pivotal connection with said top driving shaft.

58. In a sewing machine, the combination of a feed mechanism, a needle, a presser finger, a top driving shaft, and means connecting one or more of said elements with said top driving shaft and including a piston-actuated member.

[Claims 2 to 17, 19 to 33, 35 to 41, 43 to 57, and 59 to 82 not printed in the Gazette.]

1,242,401. PAN-GREASING DEVICE. EDWIN A. WERNER, New York, N. Y. Filed Mar. 30, 1916. Serial No. 87,724. (Cl. 35—12.)



1. In a pan greasing device, a casing with an open bottom and an open top, an absorbent pad for receiving and distributing grease from the casing, the said pad being formed of a sheet of cloth and a yielding band over which the pad is stretched, said band being removably mounted in the casing so that the pad extends some distance through the open bottom of the casing, feeding means in the casing for supplying grease in suitable quantities to the pad, and manually operative means for adjustably regulating the feeding means.

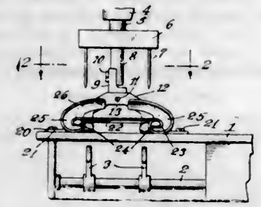
2. In a pan greasing device, a casing with an open bottom and an open top, a pad of absorbent material projecting through the open bottom of the casing for receiving said distributing grease from the casing, and a feeder in the casing, adjustable for admitting the grease to be fed to the pad as well as for cutting-off the supply of grease, the said feeder comprising a stationary orificed disk with a second orificed disk thereon, and the second disk being rotatable to register its orifices with the first disk as well as to permit the orifices of both disks to be moved out of register.

3. In a pan greasing device, a casing with an open bottom and an open top normally closed with a removable cover, a pad of absorbent material projecting through the open bottom of the casing for receiving and distributing grease from the casing, a feeder removably disposed in the casing, adjustable for admitting the grease to be fed to the pad as well as for cutting-off the supply of grease, the said feeder comprising a stationary orificed disk with a second orificed disk thereon, and the second disk being rotatable to register its orifices with the first disk as well as to permit the orifices of both disks to be moved out of register, and means on the second disk to permit it to be manually rotated.

1,242,405. SEWING-MACHINE FOR SEWING OVER-ALL-STRAPS. FRED ERNEST WIGGINS, Malden, Mass., assignor to Lucius N. Littauer, Gloversville, N. Y. Filed Mar. 22, 1917. Serial No. 156,571. (Cl. 270—33.)

1. In a sewing machine for forming tapered suspender straps, the combination of an arch formed presser foot supporting member, a pair of presser feet secured thereto, a folder having the delivery end thereof adjacent to the presser feet and comprising a body having a pair of spaced apart edges at its top and a pair of spaced apart scrolls below said top and connected by a plate.

4. The combination described in claim 1, in which the scrolls are tapered toward the delivery end of the folder and the plate is located at the top of said scrolls.

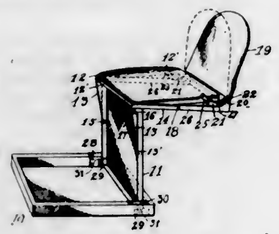


5. The combination described in claims 1 and 4, in which the plate is located substantially midway between the top and bottom of the folder.

9. In a sewing machine, the combination of means for buckling a strip passing to the stitching mechanism, means for turning both edges of the strip around the edges of a reinforcing strip, and means for stitching such turned edges to said reinforcing strip.

[Claims 2, 3, 6 to 8, and 10 to 26 not printed in the Gazette.]

1,242,406. FOLDING CHAIR. JOHN F. WILMOT, Jamestown, N. Y. Filed Feb. 26, 1916. Serial No. 80,728. (Cl. 155—13.)



1. A folding chair comprising two pans, links pivotally connecting said pans to one another to fold one within the other in the folded position and lock one across the upper end of the other in the set up position to thereby form a seat, means for supporting the upright pan in the set up position, and a back hinged to said seat pan.

3. A folding chair comprising a seat portion, a support portion for said seat having pivotal attachment to a support at one end and sidewise extending lugs on the opposite end, a pair of links pivotally attached at one end about midway of the length of the sides of said support portion and to an end of said seat at the other, and a second pair of links with L-shaped ends pivotally attached to said lugs on said support portion and the other end pivotally attached about midway of the length of said seat portion to lockingly draw over the upper end of said support portion in the set up position.

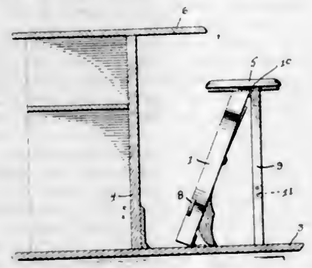
5. In a folding chair, the combination of a support, a seat member, and a forwardly swinging guide member connecting the forward end of the seat member with the support, said seat member being arranged to fold over the upper end of the support into operative position.

6. A folding chair comprising a seat pan, supporting side bars for said seat pan, a support pan for said supporting side bars and seat pan, a pair of links pivotally attached about midway of the sides of said support pan at one end and to the front end of said seat pan and side bars at the other end, lugs on the upper end of said support pan one to each side, a second pair of links having angular ends pivotally attached to said lugs one to each lug and the other ends pivotally attached about midway of the length of said seat support bars to cause said links and seat pan to lockingly bind across the upper end of said support pan in the set up position, and a back hinged to said seat support bars and seat.

8. A folding chair comprising a supporting member, a seat member, links pivotally connecting said members and adapted to guide said seat member into operative position upon the upper end of said supporting member from a folded position within said supporting member.

[Claims 2, 4, 7, and 9 to 16 not printed in the Gazette.]

1,242,407. STOOL. DAVID S. WOOD, Medford, Oreg. Filed Aug. 31, 1915. Serial No. 48,268. (Cl. 155—22.)



1. A stool comprising a main supporting leg hinged to the floor, a seat secured upon said main supporting leg, additional supporting legs connected and hinged to the seat, and means slidable longitudinally upon the main leg and maintained at one end in contact with the floor for forcing, by reason of such contact, said means against the additional legs for swinging them away from the main supporting leg to assist in sustaining the seat when the stool is swung into position for use.

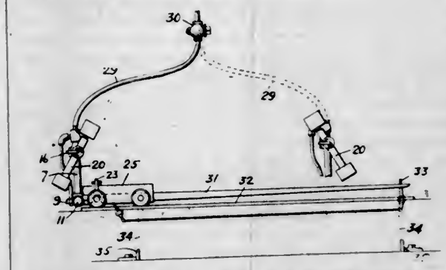
2. A stool comprising a main supporting leg hinged to the floor, a seat rigid on said hinged supporting leg, supplemental supporting legs hinged to said seat, and a member slidable longitudinally on said main supporting leg with one end maintained in contact with the floor and movable on said leg by reason of such contact when the leg is swung into position for use, said sliding means engaging the supplemental legs and swinging them into position to assist in supporting the seat.

3. A stool comprising a hinged main supporting leg having an inclined upper end and a foot rest adjacent its lower end, a seat secured upon said inclined upper end, additional supporting legs hinged to the under face of said seat adjacent the main supporting leg, said additional supporting legs being connected, said main supporting leg having a channel formed therein, a trigger slidably engaged in said channel and having one end engaged with the support to which the main supporting leg is hinged, the opposite end of said trigger being adapted to force the additional supporting legs away from the main supporting leg, and means for guiding said trigger within said channel and resiliently retaining said trigger in normal position.

4. A stool comprising a main supporting leg adapted to be hinged to a permanent support, a seat secured at an incline to the upper end of said main supporting leg, additional supporting legs hinged to said seat and adapted for limited outward swinging movement during tilting of the main supporting leg, a trigger within said main supporting leg for forcing said additional legs away from said main supporting leg, means for connecting said trigger with said main leg, means for resiliently retaining said trigger in one position, and a foot rest carried by said main supporting leg.

1,242,408. AUTOMATIC SHUT-OFF FOR GAS-BURNERS. WILLIAM MUSGRAVE WOOD, Philadelphia, Pa., assignor to The United Gas Improvement Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 8, 1916. Serial No. 102,545. (Cl. 158—99.)

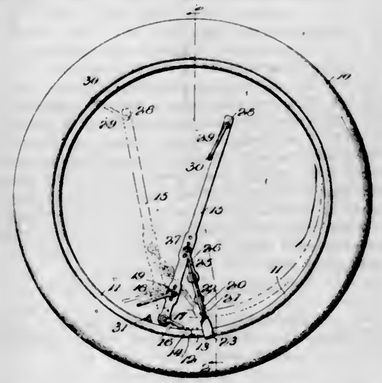
1. An automatic shut-off for dispelling gas-burners comprising the combination of a gas valve, a pendulum, and a cam mechanism interposed between the valve and pendulum and adapted to open and keep open the valve during a part of the swing of the pendulum and to close the valve in all other positions of the pendulum.



2. An automatic shut-off for gas burners comprising the combination of a reciprocating carriage, a gas valve, and a pendulum traveling with the carriage and operatively connected with the valve to close the same upon stoppage of the carriage.

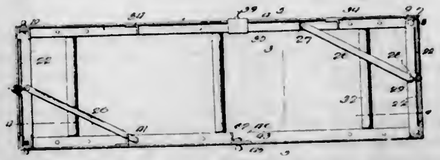
[Claims 3 to 5 not printed in the Gazette.]

1,242,409. RIM-BREAKER. JOHN R. WRIGHT, Legrand, Iowa. Filed Feb. 15, 1917. Serial No. 148,824. (Cl. 157—1.)



A rim breaker comprising a lever having a hand grip at one end and foot piece pivoted to the other end, a rim gripping device pivoted intermediate the ends, a fulcrum device pivoted between the gripping device and the foot piece, and means adapted to couple the hand grip end of the lever to the rim.

1,242,410. CASKET SUPPORTING AND TRANSFERRING DEVICE. CARL A. ALBRECHT, Galion, Ohio. Filed June 27, 1916. Serial No. 106,189. (Cl. 27—2.)



1. In a device of the class described, a frame comprising side and end members pivotally connected at the corners of the frame whereby the frame may be collapsed, the side members comprising angle bars the upper wings of which overlap the ends of the end members of the

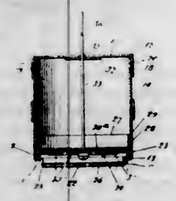
34. In a sewing machine, the combination of a work-engaging instrumentality, a rotary top driving shaft, a spring-pressed piston connected with said top driving shaft, and means supporting said instrumentality and pivotally connected to said piston.

42. In a sewing machine, the combination of a bottom feed, a top feed and a presser foot, and a top driving shaft, said top feed and presser foot having the same pivotal connection with said top driving shaft.

58. In a sewing machine, the combination of a feed mechanism, a needle, a presser finger, a top driving shaft, and means connecting one or more of said elements with said top driving shaft and including a piston-actuated member.

[Claims 2 to 17, 19 to 33, 35 to 41, 43 to 57, and 59 to 82 not printed in the Gazette.]

1,242,404. PAN-GREASING DEVICE. EDWIN A. WERNER, New York, N. Y. Filed Mar. 30, 1916. Serial No. 87,724. (Cl. 65—12.)



1. In a pan greasing device, a casing with an open bottom and an open top, an absorbent pad for receiving and distributing grease from the casing, the said pad being formed of a sheet of cloth and a yielding band over which the pad is stretched, said band being removably mounted in the casing so that the pad extends some distance through the open bottom of the casing, feeding means in the casing for supplying grease in suitable quantities to the pad, and manually operative means for adjustably regulating the feeding means.

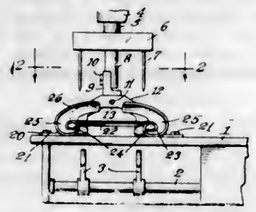
2. In a pan greasing device, a casing with an open bottom and an open top, a pad of absorbent material projecting through the open bottom of the casing for receiving said distributing grease from the casing, and a feeder in the casing, adjustable for admitting the grease to be fed to the pad as well as for cutting-off the supply of grease, the said feeder comprising a stationary orificed disk with a second orificed disk thereon, and the second disk being rotatable to register its orifices with the first disk as well as to permit the orifices of both disks to be moved out of register.

3. In a pan greasing device, a casing with an open bottom and an open top normally closed with a removable cover, a pad of absorbent material projecting through the open bottom of the casing for receiving and distributing grease from the casing, a feeder removably disposed in the casing, adjustable for admitting the grease to be fed to the pad as well as for cutting-off the supply of grease, the said feeder comprising a stationary orificed disk with a second orificed disk thereon, and the second disk being rotatable to register its orifices with the first disk as well as to permit the orifices of both disks to be moved out of register, and means on the second disk to permit it to be manually rotated.

1,242,405. SEWING-MACHINE FOR SEWING OVER-ALL-STRAPS. FRED ERNEST WIGGINS, Malden, Mass., assignor to Lucius N. Littauer, Gloversville, N. Y. Filed Mar. 22, 1917. Serial No. 156,571. (Cl. 270—33.)

1. In a sewing machine for forming tapered suspender straps, the combination of an arch formed presser foot supporting member, a pair of presser feet secured thereto, a folder having the delivery end thereof adjacent to the presser feet and comprising a body having a pair of spaced apart edges at its top and a pair of spaced apart scrolls below said top and connected by a plate.

4. The combination described in claim 1, in which the scrolls are tapered toward the delivery end of the folder and the plate is located at the top of said scrolls.

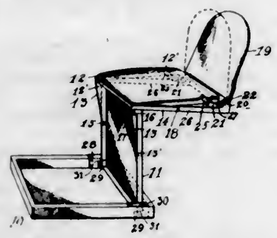


5. The combination described in claims 1 and 4, in which the plate is located substantially midway between the top and bottom of the folder.

9. In a sewing machine, the combination of means for buckling a strip passing to the stitching mechanism, means for turning both edges of the strip around the edges of a reinforcing strip, and means for stitching such turned edges to said reinforcing strip.

[Claims 2, 3, 6 to 8, and 10 to 26 not printed in the Gazette.]

1,242,406. FOLDING CHAIR. JOHN F. WILMOT, Jamestown, N. Y. Filed Feb. 26, 1916. Serial No. 80,728. (Cl. 155—13.)



1. A folding chair comprising two pans, links pivotally connecting said pans to one another to fold one within the other in the folded position and lock one across the upper end of the other in the set up position to thereby form a seat, means for supporting the upright pan in the set up position, and a back hinged to said seat pan.

3. A folding chair comprising a seat portion, a support portion for said seat having pivotal attachment to a support at one end and sidewise extending lugs on the opposite end, a pair of links pivotally attached at one end about midway of the length of the sides of said support portion and to an end of said seat at the other, and a second pair of links with L-shaped ends pivotally attached to said lugs on said support portion and the other end pivotally attached about midway of the length of said seat portion to lockingly draw over the upper end of said support portion in the set up position.

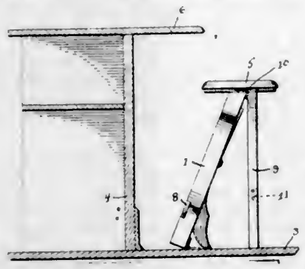
5. In a folding chair, the combination of a support, a seat member, and a forwardly swinging guide member connecting the forward end of the seat member with the support, said seat member being arranged to fold over the upper end of the support into operative position.

6. A folding chair comprising a seat pan, supporting side bars for said seat pan, a support pan for said supporting side bars and seat pan, a pair of links pivotally attached about midway of the sides of said support pan at one end and to the front end of said seat pan and side bars at the other end, lugs on the upper end of said support pan one to each side, a second pair of links having angular ends pivotally attached to said lugs one to each lug and the other ends pivotally attached about midway of the length of said seat support bars to cause said links and seat pan to lockingly bind across the upper end of said support pan in the set up position, and a back hinged to said seat support bars and seat.

8. A folding chair comprising a supporting member, a seat member, links pivotally connecting said members and adapted to guide said seat member into operative position upon the upper end of said supporting member from a folded position within said supporting member.

[Claims 2, 4, 7, and 9 to 16 not printed in the Gazette.]

1,242,407. STOOL. DAVID S. WOOD, Medford, Oreg. Filed Aug. 31, 1915. Serial No. 48,268. (Cl. 155—22.)



1. A stool comprising a main supporting leg hinged to the floor, a seat secured upon said main supporting leg, additional supporting legs connected and hinged to the seat, and means slidable longitudinally upon the main leg and maintained at one end in contact with the floor for forcing, by reason of such contact, said means against the additional legs for swinging them away from the main supporting leg to assist in sustaining the seat when the stool is swung into position for use.

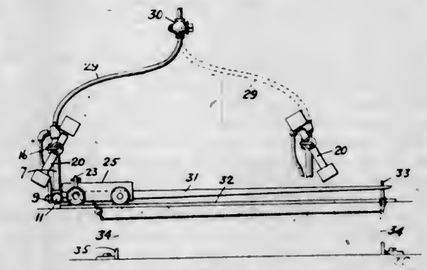
2. A stool comprising a main supporting leg hinged to the floor, a seat rigid on said hinged supporting leg, supplemental supporting legs hinged to said seat, and a member slidable longitudinally on said main supporting leg with one end maintained in contact with the floor and movable on said leg by reason of such contact when the leg is swung into position for use, said sliding means engaging the supplemental legs and swinging them into position to assist in supporting the seat.

3. A stool comprising a hinged main supporting leg having an inclined upper end and a foot rest adjacent its lower end, a seat secured upon said inclined upper end, additional supporting legs hinged to the under face of said seat adjacent the main supporting leg, said additional supporting legs being connected, said main supporting leg having a channel formed therein, a trigger slidably engaged in said channel and having one end engaged with the support to which the main supporting leg is hinged, the opposite end of said trigger being adapted to force the additional supporting legs away from the main supporting leg, and means for guiding said trigger within said channel and resiliently retaining said trigger in normal position.

4. A stool comprising a main supporting leg adapted to be hinged to a permanent support, a seat secured at an incline to the upper end of said main supporting leg, additional supporting legs hinged to said seat and adapted for limited outward swinging movement during tilting of the main supporting leg, a trigger within said main supporting leg for forcing said additional legs away from said main supporting leg, means for connecting said trigger with said main leg, means for resiliently retaining said trigger in one position, and a foot rest carried by said main supporting leg.

1,242,408. AUTOMATIC SHUT-OFF FOR GAS-BURNERS. WILLIAM MUSGRAVE WOOD, Philadelphia, Pa., assignor to The United Gas Improvement Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 8, 1916. Serial No. 102,545. (Cl. 158—99.)

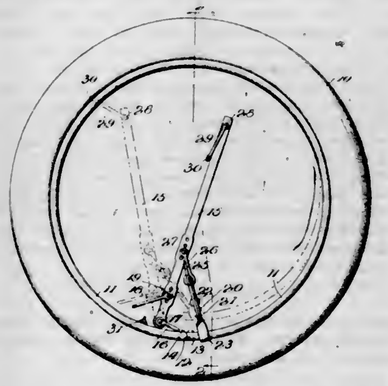
1. An automatic shut-off for dispelling gas-burners comprising the combination of a gas valve, a pendulum, and a cam mechanism interposed between the valve and pendulum and adapted to open and keep open the valve during a part of the swing of the pendulum and to close the valve in all other positions of the pendulum.



2. An automatic shut-off for gas burners comprising the combination of a reciprocating carriage, a gas valve, and a pendulum traveling with the carriage and operatively connected with the valve to close the same upon stoppage of the carriage.

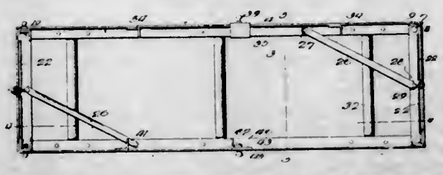
[Claims 3 to 5 not printed in the Gazette.]

1,242,409. RIM-BREAKER. JOHN R. WRIGHT, Legrand, Iowa. Filed Feb. 15, 1917. Serial No. 148,824. (Cl. 157—1.)



A rim breaker comprising a lever having a hand grip at one end and foot piece pivoted to the other end, a rim gripping device pivoted intermediate the ends, a fulcrum device pivoted between the gripping device and the foot piece, and means adapted to couple the hand grip end of the lever to the rim.

1,242,410. CASKET SUPPORTING AND TRANSFERRING DEVICE. CARL A. ALBRECHT, Galion, Ohio. Filed June 27, 1916. Serial No. 106,189. (Cl. 27—2.)



1. In a device of the class described, a frame comprising side and end members pivotally connected at the corners of the frame whereby the frame may be collapsed, the side members comprising angle bars the upper wings of which overlap the ends of the end members of the

frame, and the said end members of the frame each having their diagonally opposite corners rounded to permit of pivotal movement of the said frame members toward collapsing position, the other diagonally opposite corners of the said members constituting shoulders designed to abut against the other wings of the side members of the frame to limit the pivotal movement of the frame members in a direction to extend the frame, and casket supporting rollers mounted in the frame.

3. In a device of the class described, a frame having frame members of angle iron construction, a casket supporting roller removably mounted in the frame and having end trunnions, a fixed support for one of the said trunnions in the angle of one of the frame members, and a support for engagement with the other trunnion of the roller movable into and out of supporting position.

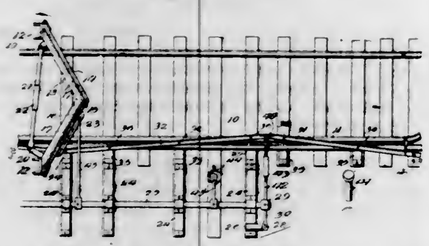
4. In a device of the class described, a frame having frame members of angle iron construction, a casket supporting roller removably mounted in the frame and having end trunnions, a fixed support for one of the said trunnions in the angle of one of the frame members, a support for engagement with the other trunnion of the roller movable into and out of supporting position, and means for holding the last-mentioned support in position for such engagement.

5. In a device of the class described, a frame having frame members of angle iron construction, rollers removably mounted within the frame and having end trunnions, spaced relatively fixed brackets within the angle of one of the frame members to receive the remote trunnions of rollers disposed within the said angle of the frame members in axial alinement with each other, and a bracket member adjustably mounted upon the frame member between the first-mentioned brackets and adjustable to engage the adjacent trunnions of the said rollers.

6. In a device of the class described, a frame, legs supporting the frame at the corners thereof and each comprising a fixed and an adjustable section, each section having relatively angularly disposed wings, one wing of the adjustable section being disposed against one wing of the relatively fixed section, and means adjustably connecting the said wings, the other wing of the relatively fixed section being pivoted to the frame and the other wing of the adjustable section being spaced from and located opposite the last-mentioned wing of the relatively fixed section.

[Claim 2 not printed in the Gazette.]

1,242,411. AUTOMATIC MINE-DOOR. JAMES C. ALLAN, Riddlesburg, Pa. Filed Aug. 15, 1916. Serial No. 115,052. (Cl. 269—7.)



1. A device of the character described including a door, and an operating mechanism therefor, said mechanism including a pair of coacting operating levers operable by a car approaching the door, supporting brackets for said levers, anti-friction bearings carried by the levers for engagement with said brackets, a crank arm operatively engaging the door, and an operative connection between the said crank arm and the said levers for shifting the said arm to open the door upon the actuation of the levers.

2. A device of the character described including a door, and an operating mechanism therefor, said mechanism including a pair of coacting operating levers operable by a car approaching the door, a rock shaft, a crank arm carried by said shaft and operatively engaging the door, a counterpoise carried by the shaft and normally acting thereon to hold the door closed, a dash-pot associated with said counterpoise, and an operative connection between the said shaft and the said levers for swinging the crank arm to open the door upon the actuation of the said levers with the said dash-pot adapted to cushion the closing movement of the door.

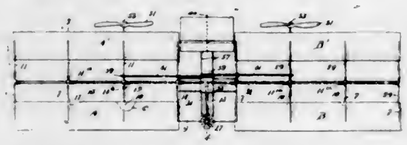
3. A device of the character described including a door, and an operating mechanism therefor, the said mechanism including a pair of coacting operating levers, a hinge connection between the meeting ends of said levers, said connection including an element carried by one of the levers and provided with hinge lugs, an element carried by the other of said levers and provided with an arm received between said lugs, and a pivot pin extending through the lugs and through said arm for pivotally connecting the levers, and an operative connection between said arm and the door for opening the door upon the actuation of the said levers.

4. A device of the character described including a door, and an operating mechanism therefor, the said mechanism including a pair of coacting operating levers operable by a car approaching the door, a rock shaft, hangers for said shaft, a stub shaft carried by one of said hangers, a rock lever mounted upon said stub shaft, a crank arm carried by the rock shaft, a link connecting said crank arm with said rock lever, a second link adjustably connecting the said first mentioned levers with the said rock lever, and an operative connection between the said rock shaft and the door for opening the door upon the actuation of the said operating levers.

5. A device of the character described including a door frame, a door mounted upon the frame and normally projecting angularly therefrom, a link mounted upon the door and inclined upwardly thereon in a direction from the free edge of the door toward its inner edge, a pair of coacting operating levers, a rock shaft, a horizontally arranged crank arm extending substantially parallel to the door frame and normally at an acute angle to the plane of the door with the said arm engaging in the lower extremity of said link, and an operative connection between the said levers and the said shaft for swinging the said crank arm within the said link to open the door upon the actuation of the said levers.

[Claims 6 to 8 not printed in the Gazette.]

1,242,412. FLYING APPARATUS. ROBERT D. ANDREWS, Brookline, Mass. Filed July 7, 1914. Serial No. 849,544. (Cl. 244—14.)



1. In a flying apparatus, the combination of flight promoting, righting, main supporting surfaces having portions fore and aft of a substantial space between them and converging downward toward said space in a fore and aft direction with a maximum convergence toward the horizontal less than a perpendicular to that horizontal, and means for maintaining said portions in and against departure from relations of such downward convergence, said main supporting aft surface being opposite said main suporting fore surface in a fore and aft direction to receive in flight the elastic reaction of the air produced by said fore surface.

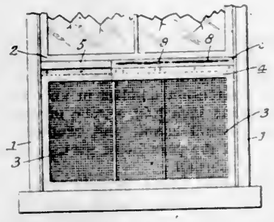
2. A flying apparatus comprising, in combination, flight promoting, righting, main supporting surfaces with portions fore and aft of a substantial space between them and converging downward toward said space in a fore and aft direction; and means for constantly maintaining said portions in and against departure from relations of such downward convergence and having provision for varying such convergence to control the flight of the apparatus.

3. A flying apparatus comprising, in combination, flight promoting, righting, main supporting surfaces with portions for and aft of a substantial space between them and converging downward toward said space in a fore and aft direction; and means for constantly maintaining said portions in and against departure from relations of such downward convergence and having provision for varying the fore and aft convergence on laterally opposite sides of the apparatus independently from one another.

4. A flying apparatus comprising, in combination, flight promoting, righting, main supporting surfaces with portions fore and aft of a substantial space between them and converging downward toward said space in a fore and aft direction; means for maintaining said portions in and against departure from relations of such downward convergence and having provision for varying such convergence to control the flight of the apparatus; and rudder means for contributing to the control of the apparatus.

5. A flying apparatus comprising, in combination, flight promoting, righting, main supporting surfaces with portions fore and aft of a substantial space between them and converging downward toward said space in a fore and aft direction; and means for maintaining said portions in and against departure from relations of such downward convergence and having provision for converging the surfaces from one side of the apparatus differently from the converging of the surfaces at the opposite side of the apparatus.

1,242,413. ATTACHMENT FOR WINDOW-SCREENS. JOSEPHINE D. ARCHARD, Yonkers, N. Y. Filed Apr. 19, 1917. Serial No. 163,128. (Cl. 156—38.)



1. An attachment for window screens, comprising means adapted to be secured to the frame of the screen, having a part thereon adapted to be supported between the frame of the screen and window sash and another part against a side of the window sash to effect desired closure between the same when in adjusted relation.

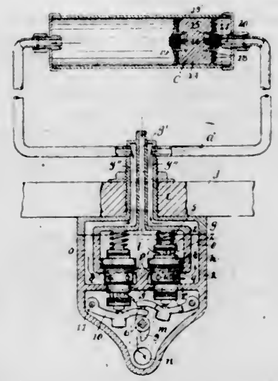
2. An attachment for window screens, comprising a member adapted to be attached to the frame of the screen having a crimp in the said member adapted to be supported between the top of the screen and bottom of the window sash and to cushion the force of contact when the window is pulled down against the screen and to effect desired closure between the same when in adjusted position.

4. An attachment for adjustable window screens, comprising members secured to the parts of the screen, crimps in the said members adapted to be supported between the screen and window sash to effect desired closure between the same when in adjusted relation and to telescopically engage to permit of desired adjustment and extensions secured to said crimps adapted to fit against a side of the window sash.

6. An attachment for window screens, comprising members adapted to be attached to the parts forming an adjustable window screen, crimps formed in said members adapted to seat between the top of the screen and the window sash to effect a tight closure between the same when in adjusted relation and extensions on said crimps adapted to fit against a side of the window sash, one of the said members having a slot therein and the other provided with a rivet adapted to slidably engage in the said slot, the said members being adapted to telescopically engage to effect proper closure and adjustment of the screen.

[Claims 3 and 5 not printed in the Gazette.]

1,242,414. MEANS FOR DISPENSING LIQUIDS IN DEFINITE QUANTITIES. SYLVESTER J. ASBELL, Paterson, N. J. Filed Apr. 11, 1916. Serial No. 90,495. (Cl. 221—102.)



1. A faucet comprising a body structure having a receiving chamber and a delivery chamber, said structure having separate passages each communicating with both chambers and being one of the terminals of a circuit-conductor to which the faucet is to be attached, and valve devices, each appertaining to a passage and controlling the communications between the same and said chambers and being movable in one direction to open one and close the other of said communications and in the opposite direction to close the first-named and open the other of said communications.

4. A reversible-circuit fluid conducting apparatus including a supply means, a delivery means, a circuit conductor having at each end a pair of opposite ports, one port in each pair communicating with the supply means and the other with the delivery means, and a pair of valve devices respectively controlling the pairs of ports, each valve device being movable in one direction to open the one and close the other of the corresponding ports and in the other direction to close the first-named port and open the other.

[Claims 2, 3, and 5 to 7 not printed in the Gazette.]

1,242,415. PROTECTIVE COVER FOR THE BLADES OF SPATULAS, &c. CHARLES W. BENSON, Duluth, Minn. Filed Nov. 27, 1915. Serial No. 63,855. (Cl. 128—22.)



1. The combination with the blade of a spatula or the like, the said blade being provided with a shoulder, of a sheath for the said blade removably fitted thereto and flexible with the blade, and provided with means for cooperation with the shoulder for holding the sheath in place upon the blade.

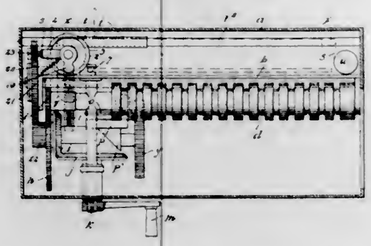
2. The combination with the blade of a spatula or the like, the said blade being provided with a protuberance

and the edges of the blade adjacent the protuberance being inwardly offset, of a sheath for the blade removably fitted thereto and flexible therewith and provided with an opening to receive the said protuberance, the sheath adjacent the said opening therein being interiorly of a width greater than the width of the blade adjacent the said protuberance.

3. In a device of the class described, a spatula or the like having a blade provided upon its opposite faces with protuberances each having an abrupt shoulder, and a sheath removably fitted to the blade and provided at its open end with a reinforcement and provided in its walls adjacent the reinforcement with openings to receive the said protuberances upon the blade.

4. In a device of the class described, a spatula or the like having a blade provided upon its opposite faces with protuberances each having an abrupt shoulder, and a sheath removably fitted to the blade and provided at its open end with a reinforcement and provided in its walls adjacent the reinforcement with openings to receive the said protuberances upon the blade, the edges of the said blade being inwardly offset adjacent the said protuberances and the said sheath adjacent its said open end being of greater width interiorly than the said blade.

1,242,416. PLATE AND PLATE-HOLDER FOR MOVING-PICTURE APPARATUS. GIANNI BETTINI, Paris, France. Continuation in part of application Serial No. 642,250, filed Aug. 4, 1911. This application filed Oct. 5, 1916. Serial No. 123,825. (Cl. 88—19.1.)



1. In a plate cinematograph, a plurality of frames or slides for receiving the plates, each provided at one end with a notch and at the other end with a tooth or other abutment fixed thereto, the tooth or abutment of one frame being adapted to register with and engage the notch of another frame whereby a succession of frames may be linked together.

2. In a moving picture machine, a strip having teeth upon one edge to coöperate with the machine mechanism and a groove in another edge to receive the plate edge, both plate and groove being provided with interlocking elements to prevent longitudinal shifting with reference to the strip, and a pressure spring between the plate edge and an inner wall of the groove.

3. In a moving picture machine, means for holding a plate adapted to receive or carry a plurality of pictures arranged in rows said plate and holding means having cooperative locking elements respectively attached thereto.

4. In a moving picture machine, a strip having teeth upon one edge to coöperate with the machine mechanism and a groove in another edge to receive the plate edge, both plate and groove being provided with interlocking members to prevent mutual shifting.

5. In a moving picture machine, a strip having teeth upon one edge to coöperate with the machine mechanism and a groove in another edge, a plate, a plate positioning member cemented to the edge of the plate and adapted to enter the groove both groove and plate positioning member having interlocking elements to prevent longitudinal shifting with reference to the strip, and a pressure spring between said member and an inner wall of the groove.

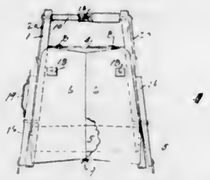
1,242,417. MANUFACTURE OF COMMUTATOR-BARS. JAMES BIGGERSTAFF, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Nov. 7, 1914. Serial No. 870,932. (Cl. 113—112.)



1. In the art of manufacturing commutator bars, the process which consists in first assembling the commutator bars, then cutting the terminal slots therein and coating the latter with a soldering flux in solution, while they are still bright.

[Claims 2 to 6 not printed in the Gazette.]

1,242,418. WHEELBARROW. RONALD E. BOOTH, Seattle, Wash. Filed May 24, 1916. Serial No. 99,646. (Cl. 21—68.)



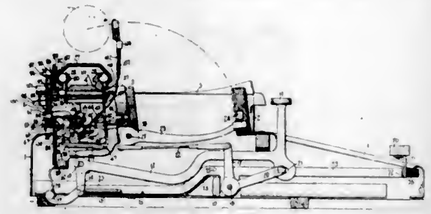
1. In a collapsible wheel barrow including a flat body frame and a wheel removably secured into a wheel shaft, the combination of extensible hinged handles and means for locking said extension handles in an open or closing position, said means including a yoke pivoted to the extension portion of said handle and adapted to engage a notch in the top of the permanent portion of said handle when in an open position.

2. In a collapsible wheel barrow which includes a rigid body frame, a combination of a centrally threaded wheel shaft removably mounted on said frame, a threaded wheel removably secured on to said shaft, legs centrally pivoted to said frame and normally extending above and below said frame, whereby the upper portion forms a support for the sideboards, auxiliary legs which are foldable beneath said body, extensible handles hinged to said body and foldable beneath said body, and means for locking said handles in an open or closed position, said means including yokes pivoted to the said handles and adapted to engage notches in the said frame when the said handles are in an extended position, and which are adapted to engage the top of the frame when the handles are in a folded position.

1,242,419. TYPE-WRITING MACHINE. ARTHUR J. BRIGGS, Syracuse, N. Y., assignor to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed Aug. 28, 1916. Serial No. 117,257. (Cl. 197—82.)

1. In a typewriting machine, the combination with front strike type bars; of a universal bar in position to be operated by said type bars, a frame on which said universal bar is supported, oscillatory frames pivoted to said supporting frame and guiding it for parallel and equal motion in all its parts, feed dogs carried by said supporting frame, and a rack.

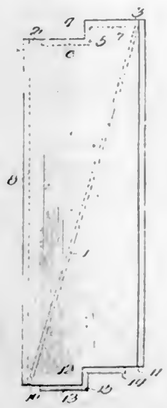
4. In a typewriting machine, the combination of a bracket detachably mounted on the main framework; a reciprocatory frame mounted in said bracket for bodily motion front and back; a segmental universal bar carried by said reciprocatory frame; and a feed dog also carried by said reciprocatory frame; the construction being such that said frame, universal bar, dog and bracket can be removed from the machine as an entirety.



14. In a typewriting machine, the combination of a carriage, a feed rack on said carriage, a feed pinion, an escapement wheel, a ribbon vibrator, a detachably mounted guide for said vibrator, and means whereby said guide maintains said feed pinion and escapement wheel in place in the machine.

[Claims 2, 3, and 5 to 13 not printed in the Gazette.]

1,242,420. SILO. WARREN A. CALDWELL, Oskaloosa, Iowa. Filed July 20, 1915. Serial No. 41,006. (Cl. 72—6.)



1. A structure embodying staves, each having end portions formed with terminal faces in different transverse planes separated by an intermediate longitudinal shoulder, the end faces and shoulder at one end of each stave being formed with a tongue terminating at its ends short of the longitudinal edges of the staves, the end faces and shoulder at the opposite end of each stave, being formed with a groove adapted to receive the corresponding tongue of an adjacent stave, said staves being arranged in vertical courses and arranged to break joint, and a binder encircling the structure and bearing against the staves.

3. A stave having longitudinal edges, one longitudinal edge being formed throughout its length with a tongue and the other longitudinal edge being formed throughout its length with a groove adapted to receive the tongue of a corresponding stave, each end of the stave being formed with faces in spaced transverse planes separated by an intermediate longitudinal shoulder, the shoulder and end faces, at one end of the stave, being formed with a groove terminating short of the longitudinal edges of the stave and the shoulder and end faces at the opposite end of the stave being formed with a tongue terminating short of the longitudinal edges of the stave and adapted to seat in the groove of a corresponding stave, whereby when two staves are engaged end to end the longitudinal shoulders will interlock and the tongue and groove formed at the abutting ends of the staves will interlock and hold the staves against independent lateral movement in all directions.

4. A stave for silo construction made up of a plurality of duplicate sections arranged in endwise relation, each section being of approximately uniform width and thickness and having the ends thereof presenting projections oppositely disposed with respect to the longitudinal median line of the section to present abrupt shoulders longitudinally of the section, the respective sections being arranged in opposing relation with respect to their projections to provide an interfit locking edge section against independent lateral movement with respect to the endwise adjacent sections, each section being formed substantially throughout its edge outline for interlocking fit with endwise adjacent sections and with lateral adjacent sections of the immediately adjacent staves.

5. A stave having opposite end portions, each formed with terminal faces in different transverse planes separated by an intermediate longitudinal shoulder, the end faces and shoulder at one end of the stave being formed with a tongue and the end faces and shoulder at the opposite end of the stave being formed with a groove adapted to receive the corresponding tongue of another stave.

7. A structure embodying molded staves arranged in courses, the staves of one course breaking joint with the staves of an adjacent course and the abutting ends of adjacent staves being formed with terminal faces in different transverse planes separated by a longitudinal shoulder, the terminal faces and shoulder at one end of each stave being formed with a tongue and the terminal faces and shoulder at the opposite end of each stave being formed with a groove adapted to receive the corresponding tongue of an adjacent stave, binders engaging the abutting ends of adjacent staves, and diagonally extending stays embedded in the staves with their ends projecting into the portions of the staves engaged by the binders.

[Claims 2 and 6 not printed in the Gazette.]

1,242,421. COMPOSITE PLASTIC ARTICLE AND PROCESS OF PRODUCING THE SAME. HARRY WILLIAMS CHARLTON, Jones Point, N. Y. Filed May 22, 1917. Serial No. 170,330. (Cl. 106—24.)

1. The process of making composite plastic articles which consists in mixing in suitable proportions silicious material and a binding material containing calcium and iron in a silicate combination; suitably molding the mass thus produced; and subjecting the molded article to the action of steam under pressure, substantially as described.

8. The herein new composition of matter useful as a cementing material, consisting of an insoluble residue obtained from green sand mixed with an insoluble residue obtained from feldspar, said first mentioned residue being calcined to give it an ocher color, and both of said residues being formed as the result of digestion processes, substantially as described.

[Claims 2 to 7 not printed in the Gazette.]

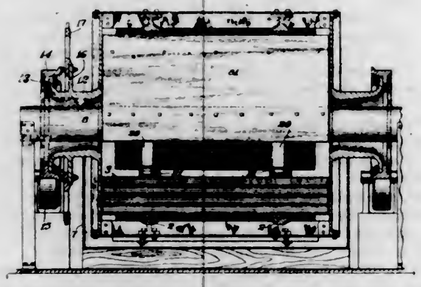
1,242,422. PLASTIC ARTICLE AND PROCESS OF PRODUCING THE SAME. HARRY WILLIAMS CHARLTON, Jones Point, N. Y. Filed May 22, 1917. Serial No. 170,331. (Cl. 106—24.)

1. The process of producing a binding material for use in making plastic articles which consists in heating and digesting with lime silicon bearing material at a pressure and for a time sufficient to convert a substantial portion of said material into a calcium compound containing silicon; and separating out said compound, substantially as described.

7. The herein described brick consisting of a suitable proportion of sand mixed with a self hardening material formed as the result of a digestion process and containing calcium, aluminum and silicon in a state of chemical combination, substantially as described.

[Claims 2 to 6 not printed in the Gazette.]

1,242,423. GRINDING-MILL. JOHN W. COVER, Tacoma, Wash. Filed Oct. 28, 1916. Serial No. 128,337. (Cl. 83—9.)



1. In a grinding mill, in combination, a revolubly mounted drum having screens placed in the peripheral portions thereof, a plurality of coaxial, axially-spaced rings within said shell and spaced inward therefrom, and grinding bodies loosely supported within said rings.

2. In a grinding mill, in combination, a revolubly mounted drum having screens placed in the peripheral portions thereof, a plurality of coaxial, axially-spaced rings within said shell and spaced inward therefrom at all points, material elevating flanges projecting inward from the outer shell, and grinding bodies loosely supported within said rings.

3. In a grinding mill in combination, a revolubly mounted drum, materini elevating flanges projecting inwardly from the peripheral shell of the drum, a plurality of bar-supporting runways coaxial with and spaced inward from the peripheral shell and grinding bars loosely retained within said runways.

4. In a grinding mill in combination, a revolubly mounted drum, material elevating flanges projecting inwardly from the peripheral shell of the drum, a plurality of bar-supporting runways coaxial with and spaced inward from the peripheral shell, grinding bars loosely retained within said runways, and screens on the periphery of the drum for removing the material as pulverized.

5. In a grinding mill, in combination, a revolubly mounted drum, a series of grinding bars extending lengthwise the drum and widely separated rings, said rings having their inner surfaces concentric with and spaced inwardly from the shell of the drum and serving as supporting runways for the grinding bars.

[Claims 6 to 8 not printed in the Gazette.]

1,242,424. BELT-DRESSING. PAUL H. CRAWFORD, Divisadero, Salvador. Filed Sept. 4, 1915. Serial No. 48,461. (Cl. 134—8.)

1. A metallic belt dressing consisting of linseed oil, rosin and aluminum ground to a high state of fineness combined in about the proportions described.

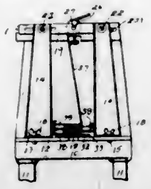
2. The herein described composition of matter to be used as a belt dressing consisting of nine pounds of linseed oil, one pound of rosin and ten pounds of aluminum ground to a high state of fineness.

3. A metallic belt dressing consisting of a metal ground to a high state of fineness, oil and rosin combined and used substantially in the proportions described.

4. A belt dressing consisting of oil, rosin and a finely ground metallic substance used and combined approximately in the proportions described.

1,242,425. PLAITING-MACHINE. JOEL BENJ. DALBEY, Nevada, Iowa, assignor of one-half to Jay A. King, Nevada, Iowa. Filed Aug. 3, 1915. Serial No. 43,486. (Cl. 223—39.)

1. In a plaiting machine, a supporting platform, a pair of parallel uprights at each end of said platform, part of said uprights being laterally adjustable, a bracket device mounted at the upper ends of each pair of uprights for permitting the adjustment of said uprights, and a cloth receiving and supporting roller supported by said brackets and adapted to rotate with relation thereto.

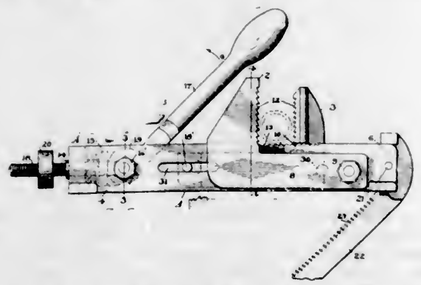


2. In a plaiting machine, a supporting platform, a pair of parallel uprights at each end of said platform, part of said uprights being laterally adjustable, a bracket device mounted at the upper ends of each pair of uprights for permitting the adjustment of said uprights, a cloth receiving and supporting roller supported by said brackets and adapted to rotate with relation thereto, and means for imposing tension upon said roller.

3. In a device of the class described, a platform, a pair of parallel uprights at each end thereof, means for supporting cloth above said platform, and a plurality of plates adapted to be placed one above the other with their ends received between the uprights at each end of the machine.

4. In a device of the class described, a platform, a pair of parallel uprights at each end thereof, means for supporting cloth above said platform, and a plurality of plates adapted to be placed one above the other with their ends received between the uprights at each end of the machine, part of said upright members being laterally adjustable upon the platform.

1,242,426. PIPE-VISE. CHAUNCEY R. DANA, San Francisco, Cal. Filed July 31, 1916. Serial No. 112,285. (Cl. 81—26.)



1. In a pipe vise, a frame, a pair of pivotally mounted, normally stationary gripping jaws on the frame, a movable pivotally mounted gripping jaw, a screw mechanism for adjusting the position of the movable jaw, and a cam lever operable independently of the screw mechanism for moving the jaw.

2. In a pipe vise, a frame, a pair of pivotally mounted, normally stationary gripping jaws on the frame, a movable pivotally mounted gripping jaw, a screw mechanism for adjusting the position of the movable jaw, a cam lever operable independently of the screw mechanism for moving the jaw, and means for moving the stationary jaws longitudinally of the frame to assume fixed positions.

[Claims 3 to 7 not printed in the Gazette.]

1,242,427. SASH-JOINT. JAMES J. DEVENNY and CHARLES F. DEVENNY, Philadelphia, Pa. Filed Aug. 9, 1917. Serial No. 185,286. (Cl. 189—36.)

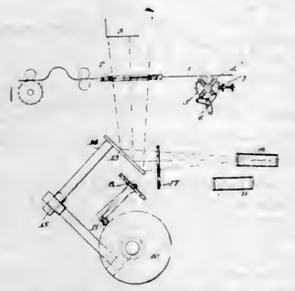
1. A sash joint including two muntins, one muntin having a slot extending transversely within its width and being split, said split extending from said slot to one edge to form a lug between one end of said slot and said edge, the other of said muntins having a portion designed to fit within said slot and being provided with a notch into which said lug extends, substantially as described.



2. A sash joint including two muntins, one muntin having a slot extending transversely within its width and being split, said split extending from said slot to one edge to form a lug between one end of said slot and said edge, the other of said muntins having a portion designed to fit within said slot and being provided with a notch into which said lug extends, said latter mentioned muntin having a second notch, said first-mentioned muntin having its portion which is oppositely disposed from said lug adapted to enter said second-mentioned notch, substantially as described.

[Claims 3 and 4 not printed in the Gazette.]

1,242,428. MOTION-PICTURE-PROJECTING MACHINE. FRANK L. DYER, Montclair, N. J. Filed June 11, 1914. Serial No. 844,431. (Cl. 88—16.8.)



1. In a projecting machine the combination with a motion picture film and means for feeding the same intermittently, the periods of movement being longer than the periods of rest, of a tilting reflector arranged to reflect the image during the movement of the film, substantially as set forth.

2. In a projecting machine, the combination with a motion picture film and means for feeding the same intermittently, the periods of movement being longer than the periods of rest, of a tilting reflector arranged to reflect the image during the movement of the film, and means for projecting the image during the periods of rest, substantially as set forth.

3. In a projecting machine, the combination with a motion picture film and means for feeding the same intermittently, of a tilting reflector arranged to reflect the image during the movement of the film, and a second reflector arranged to reflect the image while the film is stationary, substantially as set forth.

4. In a projecting machine the combination with a motion picture film and means for feeding the same intermittently, of a tilting reflector arranged to reflect the image during the movement of the film, and a second reflector arranged to reflect the image while the film is stationary, the two reflectors being so coördinated that the images of succeeding pictures will merge one into the other, substantially as set forth.

5. In a projecting machine, the combination with a motion picture film, and means for feeding the same intermittently, of a tilting reflector arranged to reflect the image during the movement of the film, and a second reflector arranged to reflect the image of the succeeding picture while the film is stationary, substantially as set forth.

[Claims 6 to 19 not printed in the Gazette.]

1,242,429. DISPLAY-STAND. TATSUKICHI ENOCHTY, New York, N. Y. Filed Oct. 25, 1916. Serial No. 127,588. (Cl. 40—125.)



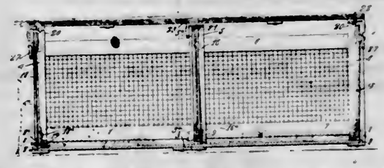
1. An advertising sign, consisting of a sheet of metal, having openings therein throughout its extent, a coat of paint upon at least one face of said sheet, and advertising matter superimposed on said coat of paint.

2. An advertising sign comprising a sheet of metal having tongues cut therefrom and bent out of the plane of said sheet to form openings throughout the entire extent of the latter, a coat of paint upon at least one face of said sheet, and advertising matter superimposed on said coat of paint.

3. An advertising sign comprising a sheet of metal having triangular tongues stamped out therefrom throughout its extent and bent out of the plane of the sheet, a coat of paint upon at least one face of said sheet, and advertising matter painted on said coat of paint.

4. An advertising sign consisting of a sheet of galvanized metal having openings formed therein and painted on both sides.

1,242,430. CRATE. LAURA M. FLEMING, Tonopah, Nev. Filed Dec. 12, 1916. Serial No. 136,489. (Cl. 220—132.

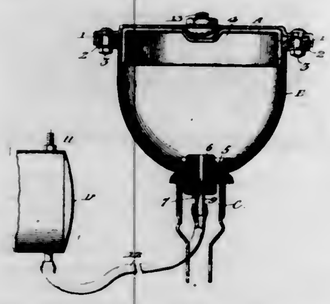


In crates, the combination of a bottom plate, a rectangular reinforcing strip secured to the bottom plate at each end thereof, a central transversely extending strip secured to the bottom plate and provided, at each end, with a vertically extending tab, a side frame composed of rectangular uprights pivotally secured at their lower ends to a vertical arm of the rectangular reinforcing end strips and the said tabs, end strips riveted to the said uprights, a top frame composed of rectangular end bars and an intermediate rectangular bar pivotally secured at their ends to the upper ends of the transversely extending bars of the uprights of the side frames and reinforcing strips riveted thereto, end frames hingedly secured at their lower edges to the bottom plate adjacent each end thereof, an intermediate frame hingedly secured at its lower edge to the bottom plate at the longitudinal center thereof, and spring catches carried by the end and intermediate bars of the top frame adapted to engage the said end and intermediate frames so as to releasably secure the same in operative position.

1,242,431. PNEUMATIC SPRING. ERNEST D. FOSTER, Los Angeles, Cal., assignor, by mesne assignments, to United Air Spring Company of Arizona, a Corporation. Filed Aug. 18, 1914. Serial No. 857,375. (Cl. 267—50.)

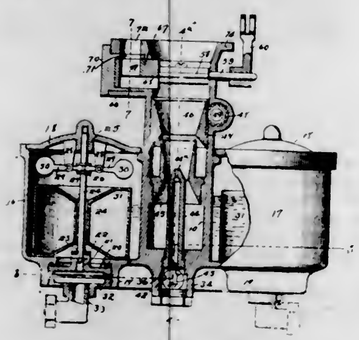
1. A pneumatic spring comprising a flexible casing having an annular flange at the upper edge thereof, a top

plate having a flanged edge adapted to receive the flanged edge of the flexible casing, a collar having an upturned flange adapted to fit within the flange of the top plate and embrace the underside of the annular flange of the flexible casing, and an internal disk having a downwardly projecting flange which forms an internal lateral support for the flexible casing, and means for drawing the collar and the top plate toward each other in an air-tight embrace of the opposite faces of the interposed flange of the flexible casing.



2. A pneumatic spring comprising a flexible casing having an annular flange at the upper edge thereof, a top plate having a flanged edge adapted to receive the flanged edge of the flexible casing, a collar having an upturned flange adapted to fit within the flange and embrace the under-side of the annular flange of the flexible casing, means for drawing the collar and top plate toward each other in an air-tight embrace upon the opposite faces of the interposed flange of the flexible casing, a stem, a hollow bolt extending through the flexible casing into the stem, nuts on the bolt for securing the flexible casing to the stem, an air-tank and hose extending from the air-tank to the hollow bolt, whereby connection is established between the flexible casing and the air-tank.

1,242,432. CARBURETER. ALBERT A. FREVERT, Charles City, Iowa. Filed Apr. 14, 1915. Serial No. 21,469. (Cl. 261—18.)

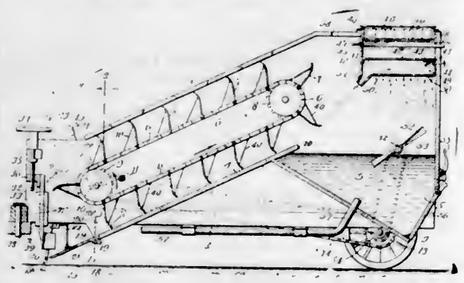


1. In a carbureter, the combination of a shell forming a mixing chamber, a discharge nozzle therein, float chambers adjacent to said shell, means whereby either float chamber may be placed in communication with said nozzle, a throttle valve for controlling the discharge from the mixing chamber, priming wells adapted to communicate with the respective float chambers, air passages communicating with the upper ends of the respective priming wells, passages leading from the priming wells to the mixing chamber above the throttle valve, and means for simultaneously controlling the flow of fuel and air to the respective printing wells and air passages adjacent thereto, and for placing the respective float chambers in communication with said nozzle.

3. In a carbureter, the combination of a shell forming a mixing chamber, a discharge nozzle therein, float chambers adjacent to said shell, means whereby either float chamber may be placed in communication with said nozzle, a throttle valve for controlling the discharge from the mixing chamber, priming wells adapted to communicate with the respective float chambers, air passages communicating with the upper ends of the respective priming wells, passages leading from the priming wells to the mixing chamber above the throttle valve, and means for regulating the amount of air passing from said air passages to said priming wells.

[Claim 2 not printed in the Gazette.]

1,242,433. SNOW-REMOVING APPARATUS. SAMUEL FRIEDMAN, New York, N. Y. Continuation in part of application Serial No. 86,780, filed Mar. 25, 1916. This application filed June 14, 1916. Serial No. 103,642. (Cl. 37—35.)



1. In a snow removing apparatus the combination of an inclined chute, an adjustable plow mounted at the end of the chute, means for securing said plow in different adjusted positions with respect to said chute and a guard plow mounted in advance of the main plow.

2. In a snow removing apparatus the combination of an inclined chute, an adjustable plow mounted at the end of the chute, and an adjustable yielding guard plow mounted in advance of the main adjustable plow, and means for securing said plows in different positions of adjustment.

3. In snow removing apparatus, the combination with snow gathering means, of an adjustable depth gage presenting a snow engaging face inclined to deflect from the field of operation of the snow gathering means snow in excess of a selected depth.

4. In a snow removing apparatus the combination of an inclined chute, and an adjustable plow mounted at the end of the inclined chute and an adjustable gage to limit the amount of snow and ice to be fed to the inclined chute, means for securing said adjustable parts in different positions of adjustment and a guard plow in front of said adjustable plow.

5. Snow removing apparatus comprising, in combination, a plow for gathering up the snow from the street, means for conveying away the snow gathered up by said plow, a guard plow adjustable into and out of operative relation to said plow, and means for securing said guard plow in either of said relations to said main plow.

[Claims 6 to 24 not printed in the Gazette.]

1,242,434. METHOD OF SEPARATING CALCIUM FROM MAGNESIUM CONTAINED IN SALINE SOLUTIONS. CHARLES GLASER, Baltimore, Md. Filed Oct. 8, 1914. Serial No. 865,742. (Cl. 23—13.)

1. A method of separating calcium from saline solutions, containing calcium and magnesium, consisting in adding to the said solution, a quantity of sodium carbonate solution sufficient to change the calcium salts and the magnesium salts into carbonates, and maintaining the liquid at a temperature not exceeding 60° C., thus causing only the calcium carbonate to precipitate.

2. A method for separating calcium and magnesium from a saline solution, containing calcium and magnesium consisting in adding to said solution, a quantity of sodium carbonate sufficient to change both the calcium salts and the magnesium salts into carbonates, agitating the liquid for a sufficient time to secure homogeneity and allowing it to rest, until the calcium carbonate is precipitated as an amorphous powder; and thereafter heating the separated supernatant solution to a temperature ranging from 70° to 103° C. and causing the magnesium to precipitate as a carbonate.

3. A method of separating calcium and magnesium from a saline solution containing calcium and magnesium, consisting in adding to said solution, a quantity of sodium carbonate solution sufficient to change both the calcium salts and the magnesium salts into carbonates, maintaining the liquid at a temperature not exceeding 60° C., until the calcium carbonate precipitates, then separating such precipitate from the remaining liquid; and thereafter heating the remaining liquid to a temperature ranging from 70° to 103° C., and causing the magnesium to precipitate as a carbonate.

4. A method of separating calcium and magnesium from saline solutions, containing calcium and magnesium, which consists in adding to such solution a quantity of sodium carbonate solution sufficient to change the calcium salts and the magnesium salts into carbonates, then bringing the liquid to a temperature not over 60° C., and so maintaining it until the calcium precipitates as carbonate; then adding caustic soda to the remaining liquid and raising the temperature thereof to from 70° to 103° C., and so maintaining it until the magnesium is precipitated as a slightly basic carbonate.

5. A method of separating calcium and magnesium from saline solutions, containing calcium and magnesium, consisting in adding to such a solution, while at a moderate temperature not exceeding 60° C., a quantity of sodium carbonate solution sufficient to change the calcium salts and the magnesium salts both into carbonates, maintaining the liquid at such temperature until the calcium carbonate has precipitated; then adding a small quantity of caustic soda to the remaining liquid and heating it to a temperature at which the magnesium carbonate coagulates and thereby causing the magnesium to precipitate as a slightly basic carbonate.

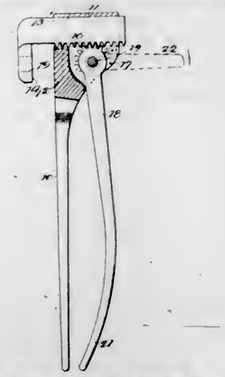
[Claim 6 not printed in the Gazette.]

1,242,435. PROCESS FOR RECOVERING SOAP. HARRY MILTON GRAY, Los Angeles, Cal., assignor, by direct and mesne assignments, of one-half to Malcolm Allen Neal and one-half to Eugene Weston Jones, San Francisco, Cal. Filed June 1, 1915. Serial No. 31,481. (Cl. 87—6.)

The process of recovering useful soap solutions which consists in treating dirty soap suds in a tank with suitable quantities of kerosene and alkali whereby impurities are separated by stratification from the dirty soap suds and then withdrawing from the tank for further use soap solutions freed from such impurities.

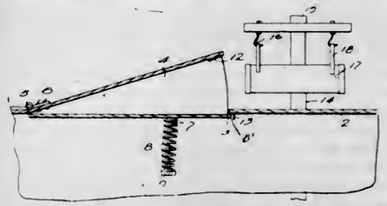
1,242,436. NUTCRACKER. THOMAS P. GREENHAW, Hobart, Okla. Filed Aug. 15, 1916. Serial No. 115,037. (Cl. 146—3.)

A nut cracker comprising a stock provided near one end with lateral enlargements forming an abutment and having a transverse guideway at its end adjacent and beyond the abutment, the said abutment constituting a stationary jaw and the stock being formed with a recess in rear of the jaw, a slide mounted in said guideway and having an end turned to one side parallel with the face of the abutment to form an overhanging opposing movable jaw arranged to coöperate with the abutment, said movable jaw having a nut-receiving opening, and an operating lever mounted in the recess in the stock in rear of the abutment



and adjacent the guideway and arranged to engage and actuate the slide.

1,242,437. MAIL-BAG RECEIVER FOR RAILWAY-COACHES. HENRY A. HARRISON, Norheim, Mont. Filed Feb. 26, 1917. Serial No. 150,988. (Cl. 258—20.)



1. Bag receiving means of the character described, including in combination with a vehicle movable over a predetermined course, a receptacle movably secured to the top of said vehicle, means for normally maintaining the receptacle in its uppermost position but to allow movement of the same to its lowermost position upon depositing of a bag thereon.

3. Bag receiving means of the character described, including, in combination with a vehicle movable over a predetermined course, a receptacle pivotally secured to the top of said vehicle, spring means engaged with the receptacle for normally maintaining the same in its uppermost positions but to allow movement of the same to its lowermost position upon the depositing of a bag therein.

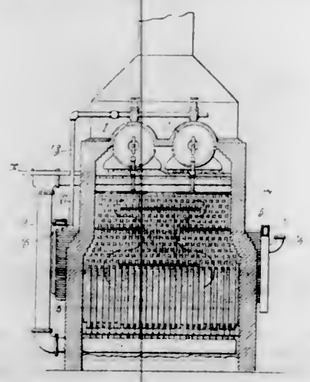
4. Bag receiving means of the character described, including, in combination with a vehicle movable over a predetermined course and having an opening formed in the roof thereof, a receptacle arranged within said opening and pivotally secured to a portion of the vehicle roof, expansible spring means carried upon a portion of the vehicle and engaged with the receptacle for normally maintaining the same in its uppermost position but to allow movement of the same to its lowermost position upon the depositing of a bag therein, and means carried by the bottom portions of the receptacle engageable with the vehicle roof for preventing excessive upward movement thereof.

[Claims 2, 5, and 6 not printed in the Gazette.]

1,242,438. STEAM-GENERATOR. HERMAN C. HEATON, Chicago, Ill., assignor to The Babcock & Wilcox Company, Bayonne, N. J., a Corporation of New Jersey. Original application filed Oct. 7, 1910, Serial No. 585,750. Divided and this application filed Mar. 24, 1915. Serial No. 16,538. (Cl. 122—478.)

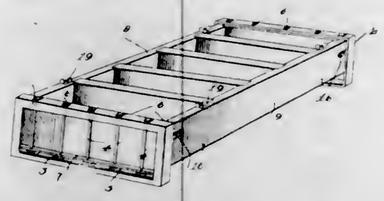
1. A water tube boiler having a bank of horizontally extending water tubes, superheater tubes extending trans-

versely between rows of water tubes, a superheater box at one side of the setting protected from the flame and gases, a superheater box at the opposite side of the setting also protected from the flame and gases, the transverse superheater tubes being spaced apart to allow passage of the gases between the same, and connected into said boxes, the superheater tubes being formed with bends to compensate for expansion and contraction.



2. A water tube boiler having a bank of horizontally extending water tubes, superheater tubes extending transversely between rows of water tubes, a superheater box at one side of the setting protected from the flame and gases, a superheater box at the opposite side of the setting also protected from the flame and gases, the transverse superheater tubes being spaced apart to allow passage of the gases between the same, and connected into said boxes, the superheater tubes being formed with bends to compensate for expansion and contraction, the superheater boxes being arranged to provide for flooding and draining thereof.

1,242,439. CONCRETE-BLOCK MOLD. GUY C. HENKLE, Chicago, Ill. Filed June 3, 1916. Serial No. 101,538. (Cl. 25—121.)



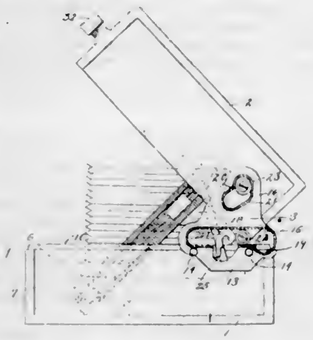
1. A mold comprising end frames, a plurality of longitudinal parallel members engaging the end frames, a flexible bottom secured to the longitudinal members, means for flexing the same, partitions extending transversely across said bottom, angularly movable sides mounted at the edges of the bottom, and means for retaining the sides in various angular positions.

2. A mold of the class described, including a body formed with end frames, a base plate, supporting elements carried by said end frames to engage said plate, side members movably mounted on certain of said supporting elements, and means for clampingly associating the side members with the supporting elements on which they are mounted.

3. A mold comprising end frames, a plurality of longitudinal parallel members engaging the same, a flexible bottom arranged on the longitudinal members, means for flexing the same, angularly movable sides mounted at the edges of the bottom, a plurality of longitudinally curved partitions extending transversely across the bottom, and means for retaining the sides in such angular position.

4. A mold comprising end frames, a plurality of longitudinal parallel members engaging the same, a flexible bottom mounted on the parallel members, adjusting bolts extending through the end frames for flexing the bottom, sides arranged at the opposite edges of the bottom and capable of being moved to angular positions, a plurality of longitudinally curved partitions extending transversely across the bottom, and means for retaining the sides in such angular positions.

1,242,440. FILING-APPLIANCE CASE. HARRY J. HICK, Alliance, Ohio, assignor to The McCaskey Register Company, (incorporated in 1914,) Alliance, Ohio, a Corporation of Ohio. Filed July 27, 1914. Serial No. 853,254. (Cl. 45—2.)



1. A filing case including a stationary member and a movable member, connections between said members permitting the movable member to swing relative to said stationary member, and operating to move it longitudinally of said stationary member, and to move it directly upward or downward during an intermediate portion of said swinging movement.

2. A filing case including a stationary member and a movable member, cam connections between said members permitting the movable member to swing relative to said stationary member and operating during the swinging movement of the movable member to move said movable member longitudinally of said stationary member, with a directly upward or downward movement during an intermediate portion of said swinging movement.

3. A filing case including a bottom member, an upper member mounted on and movable relative to said bottom member, and coöperating cammed connections between said members permitting the upper section to swing relative to said bottom section and operating to move said upper section longitudinally of said bottom section as it swings from one position to another, with a directly upward or downward movement during an intermediate portion of said swinging movement.

4. A filing case including two sections, and connections between said sections permitting one of them to be swung relative to the other and operating to cause longitudinal movement between the sections during the swinging movement of the movable section, with a directly upward or downward movement during an intermediate portion of said swinging movement.

5. A filing case including two sections, one of which is movable relative to the other from an upright to a horizontal position and vice versa, and means joining said sections together, whereby movement of the movable section from one position to the other actuates said movable section in a longitudinal direction, and also directly upward or downward during an intermediate portion of said swinging movement.

[Claims 6 to 9 not printed in the Gazette.]

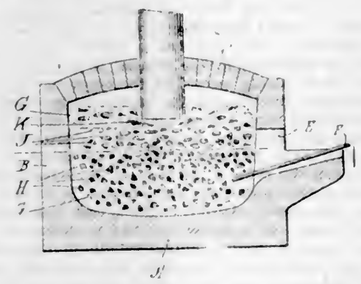
1,242,441. CURTAIN-FIXTURE. SIDNEY C. HILLS, Torrington, Conn., assignor to The Turner & Seymour Manufacturing Co., Torrington, Conn., a Corporation of Connecticut. Filed Mar. 21, 1916. Serial No. 85,607. (Cl. 156—22.)



1. A bracket of the kind described comprising a plate provided with a plurality of recesses and having an aperture communicating with and common to all of said recesses, the perimeters of said recesses and aperture being continuous.

2. A bracket of the kind described comprising a plate having an aperture, two recesses communicating with said aperture and extending downwardly therefrom in opposite diagonal directions and a third recess communicating with said aperture and extending downwardly therefrom between said diagonal recesses.

1,242,442. MAKING PIG-IRON. ERNEST HUMBERT, Welland, Ontario, Canada. Filed May 17, 1917. Serial No. 169,174. (Cl. 204—64.)



1. In the making of pig iron the method which comprises charging into an electric furnace a charge including ferrous scrap and carbonaceous material, applying heat by means of the electric current and simultaneously introducing air into the solid portion of the charge to combine with the carbon.

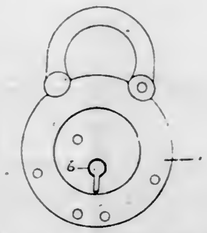
4. In the making of pig iron the method which comprises charging into an electric furnace a charge including ferrous scrap containing less carbon and not substantially more phosporus than are required in the pig iron to be made and carbonaceous material, applying heat by means of the electric current and simultaneously introducing air into the solid portion of the charge to combine with the carbon.

7. In the making of pig iron the method which comprises charging into an electric furnace a charge including ferrous scrap and carbonaceous material, applying heat by means of the electric current and simultaneously introducing air into the solid portion of the charge to combine with the carbon, continuing these operations until the charge is melted and then stopping the introduction of air, and introducing manganese, silicon and the like according to the desired composition of the pig iron.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

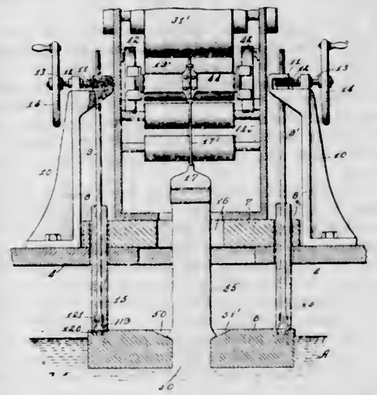
1,242,443. KEY-CENTER FOR PADLOCKS. JACOB HOOVER and GEORGE M. MILLER, Lancaster, Pa., assignors to Slaymaker Lock Manufacturing Corporation, Lancaster, Pa., a Corporation of Pennsylvania. Filed May 23, 1916. Serial No. 99,293. (Cl. 70—16.)

A device of the kind described, consisting of a metallic sheet rolled into tubular form and cylindrical in cross-section, said tube being provided between its ends with integral lips projecting outwardly from the tube and arranged in confronting relation and providing shoul-



ders beyond the ends of said lips, said lips being curved inwardly near their centers and being resilient, said tube being open at its opposite ends and longitudinally between said lips and its side walls.

1,242,444. GLASS MANUFACTURE. ALBERT A. ICENHOUR, Arnold, Pa., assignor, by direct and mesne assignments, of one-twentieth to Pittsburgh Plate Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania, four one-hundred-and-sixtieths to C. R. Sammons, Pittsburgh, Pa., fourteen one-hundred-and-sixtieths to Leonard K. Guiler, nine one-hundred-and-sixtieths to Benjamin H. Thompson, nine one-hundred-and sixtieths to Samuel A. Gilmore, and one-fortieth to Arthur E. Sixsmith. Filed Feb. 19, 1914. Serial No. 819,632. (Cl. 49—83.1.)

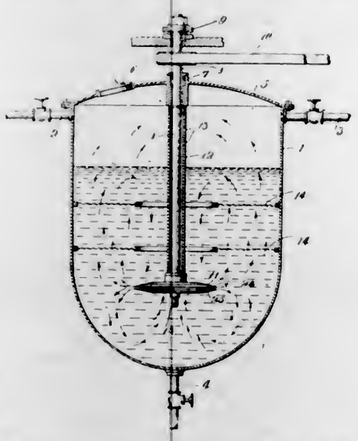


1. The method of making sheet glass, which consists in creating within a mass of molten glass, an area of relatively reduced temperature by surrounding a portion of the molten mass within a hollow refractory body, regulating the temperature of each edge producing portion of such mass by the immersion of either end of the refractory medium, and drawing a sheet of glass from the area within said refractory body.

2. The method of drawing sheet glass, which consists in reducing the temperature in a bath of molten glass by isolating a portion thereof within an area surrounded by a hollow refractory body, partially separating from the molten mass, the portion from which the sheet edge is drawn by interposition between such edge producing portion and the mass of glass in said tank, a refractory body, regulating the temperature of the various portions of the bath by adjusting the depth of immersion of the refractory body, and drawing a sheet of glass from within said refractory body.

[Claims 3 and 4 not printed in the Gazette.]

1,242,445. APPARATUS FOR TREATING LIQUIDS WITH GASES. MARTIN H. ITTNER, Jersey City, N. J. Filed Jan. 6, 1916. Serial No. 70,603. (Cl. 261—93.)



1. An apparatus for treating liquids with gases, comprising a liquid receptacle, a centrifugal distributer for the gases arranged below the normal liquid level in said receptacle and having outwardly arranged discharge passages for discharging the gases outward therefrom by centrifugal action into the body of liquid, and means for conveying the gases to said distributer; substantially as described.

2. An apparatus for treating liquids with gases, comprising a liquid receptacle, a centrifugal distributer arranged below the normal level of the liquid in the receptacle, said distributer being provided with means for intermixture of the gases and liquid under conditions of pressure alternately diminished and increased abruptly and rapidly with respect to the average pressure maintained within the liquid receptacle; substantially as described.

3. An apparatus for treating liquids with gases, comprising a liquid receptacle, a centrifugal distributer for the gases arranged below the normal liquid level in said receptacle and having outwardly arranged discharge passages for discharging the gases centrifugally outward therefrom into the body of liquid, a shaft for driving said distributer having a bearing in the top of said receptacle, said receptacle being closed at its upper portion to confine the treating gases therein, and a sleeve surrounding said shaft and spaced away therefrom and communicating with the distributer and with the space above the normal liquid level for conveying the treating gases to the distributer; substantially as described.

4. An apparatus for treating liquids with gases comprising a liquid receptacle, a centrifugal distributer for the gases arranged below the normal liquid level in said receptacle and having separate outwardly arranged discharge passages for discharging the gases and liquid centrifugally outward therefrom into the body of liquid, and being further provided with a central inlet for the liquid, and means for conveying the treating gases to said distributer, whereby circulation of the liquid is effected, and an intimate intermixture of the liquid and gases is effected, substantially as described.

5. An apparatus for treating liquids with gases comprising a liquid receptacle, a centrifugal distributer for the gases arranged below the normal liquid level in said receptacle and having outwardly arranged discharge passages for discharging the gases centrifugally outward therefrom, means for conveying the gases to said distributer, and said distributer being further provided with a liquid inlet near its central portion and with means for discharging the liquid centrifugally outward therethrough and for intimately mixing the liquid and gases during their passage outwardly through the distributer, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

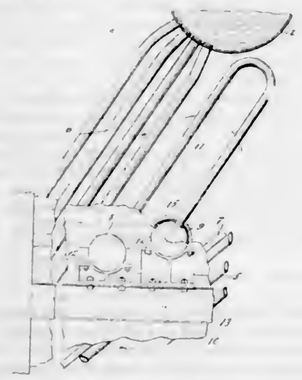
1,242,446. VEHICLE. ALDOR JOHNSON, Duluth, Minn., assignor of one-half to Gunnar Johnson, Duluth, Minn. Filed Dec. 11, 1916. Serial No. 136,381. (Cl. 21—12.)



1. In a baby carriage the combination of a detachable body, longitudinally grooved bars rigidly secured on each side of the under side of said body, perforations in the flanges of said bars, rods rigidly secured to the truck of said baby carriage to longitudinally engage the grooves of said bars, a lever pivotally connected to the underside of said body and positioned longitudinally between said bars, and lock-rods pivotally connected to said lever on opposite sides of its pivotal connection with said body and operative in said perforations transversely of said bars and underneath and at right angles with said longitudinally extending rods, to lock and unlock said longitudinally extending rods in said grooves, and means for holding said body against longitudinal movement, substantially as described.

2. An interlocking device for vehicles comprising longitudinally grooved bars adapted to be rigidly secured to the underside of the body of a vehicle longitudinally thereof, perforations in the flanges of said bars, rods adapted to be rigidly secured to the truck of the vehicle longitudinally thereof, and to longitudinally engage the grooves of said bars, a lever adapted to be pivotally connected to the underside of said body longitudinally between said bars, lock-rods pivotally connected to said lever on opposite sides of the point of its intended pivotal connection with said body, and adapted to extend horizontally in opposite directions from, and approximately at right angles with, said lever, and to operate in said perforations and grooves approximately at right angles with said longitudinally extending rods and bars, means for holding the free end portion of said lever in position, and means for guiding said body into position on said truck, and for holding it against longitudinal movement, substantially as described.

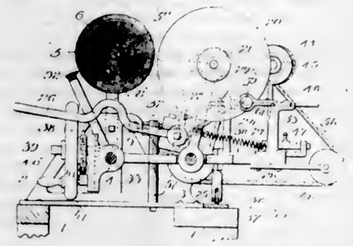
1,242,447. SUPERHEATER-BOILER. WILLIAM A. JONES, West New Brighton, N. Y., assignor to The Babcock & Wilcox Company, Bayonne, N. J., a Corporation of New Jersey. Filed Mar. 4, 1914. Serial No. 822,253. (Cl. 122—478.)



1. A superheater boiler having transverse superheater headers between the upper and lower boiler drums and provided with upwardly projecting tubes, beams in the side walls extending underneath said headers, each beam having a plurality of saddles having seats at different levels to receive the superheater headers, and means for securing the headers to the saddles, the beams and saddles being protected from the flame and gases.

2. A superheater boiler having transverse superheater headers between the upper and lower boiler drums and provided with upwardly projecting tubes, beams in the side walls extending underneath said headers, each beam having a plurality of saddles having seats at different levels to receive the superheater headers, and straps for securing the headers to the saddles, the saddles and straps being protected from the flame and gases.

1,242,448. CLOTH-CUTTING MACHINE. OSCAR I. JUDELSHON, Brooklyn, N. Y. Filed Aug. 5, 1916. Serial No. 113,242. (Cl. 164—69.)



1. A cutting machine comprising a frame, a rod having a longitudinal groove in one side, means to non-rotatively support the rod in the frame, means to rotate an article upon said rod, means to support a cutter at one side of the rod opposing the groove of the rod, said cutter arranged to enter the groove, and means to move the cutter relatively to the rod.

2. A cutting machine comprising a frame, a rod having a longitudinal groove in one side, means to non-rotatively support the rod in the frame, means to rotate an article upon said rod, means to support a cutter at one said of the rod opposing the groove of the rod, said cutter arranged to enter the groove, means to move the cutter toward and from the rod, and means to move the cutter along the rod.

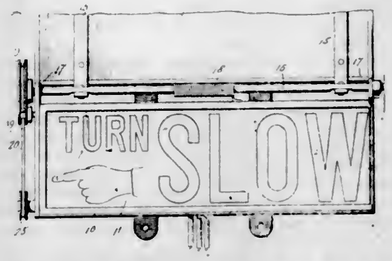
3. A cuting machine comprising a frame, a rod having a longitudinal groove in one side, means to non-rotatively support the rod in the frame, means to rotate an article upon said rod, a table, means to movably support the table upon the frame, a cutter opposed to the groove in the rod, said cutter arranged to enter the groove, means to support and rotate the cutter upon the table, and means to permit the cutter to be moved toward and from the rod.

4. A cutting machine comprising a frame, a rod having a longitudinal groove in one side, means to non-rotatively support the rod in the frame, means to rotate an article upon said rod, a table, means to movably support the table upon the frame, a cutter opposed to the groove in the shaft, said cutter arranged to enter the groove, means to movably support the cutter upon the table for movement toward and from the rod, a shaft, means to rotate the cutter by the shaft, and means to move the table along said rod and shaft.

5. A cutting machine comprising a frame, a stationary rod having a longitudinal groove, means to support the rod in the frame, a head rotatively mounted on the rod and having means to connect with an article to be rotated by the head on the rod, a table, means to movably support the table upon the frame, a cutter, adapted to enter the groove in the rod, means to movably support the cutter upon the table for movement toward and from the rod, a shaft, means to rotate the cutter by the shaft, means to move the table along said rod and shaft, and means connecting the shaft with said head for rotating the latter with the former.

[Claims 6 to 13 not printed in the Gazette.]

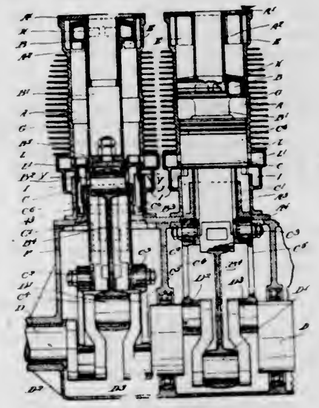
1,242,449. AUTO-SIGNAL. JOSEPH P. KASPER, Hammond, Ind. Filed Apr. 7, 1917. Serial No. 160,455. (Cl. 40—61.)



1. A signal device for vehicles, comprising a casing bearing a signal inscription, a shutter movable to cover and uncover the inscription, means for operating the shutter, an electric lamp for illuminating the inscription, a switch controlling the lamp, a slidable member for actuating the switch, and means actuated by the shutter for operating the slidable member.

[Claims 2 and 3 not printed in the Gazette.]

1,242,450. TWO-STROKE-CYCLE INTERNAL-COMBUSTION ENGINE. JAMES REGINALD KEMP, Newbury, England. Filed Jan. 26, 1914. Serial No. 814,552. (Cl. 123—51.)



3. In an internal combustion engine, the combination of a cylinder, opposed annular pistons working in the cylinder, each of the pistons being provided with an opening extending longitudinally through the same, and with a trunk extension slidably fitting within the trunk extension of the other piston, fixed sleeves at opposite ends of the cylinder slidably fitting the respective trunk extensions, the respective sleeves and trunk extensions forming with the cylinder pump chambers at one side of the pistons, air inlet ports affording communication with one of said pump chambers and to the working space between the pistons, and mixture inlet ports affording communication with the other of said pump chambers and the working space between the pistons, the air inlet and mixture inlet ports being controlled by the pistons, and means for igniting the charge in the working space between the pistons.

8. In an internal combustion engine, the combination of a cylinder, opposing pistons working in the cylinder, compression and combustion taking place between the pistons, means at one end of the cylinder for delivering mixture between the pistons, said means including the outer

face of one piston and a stationary sleeve extending within the cylinder from the head at one end thereof, and means for delivering compressed air between the pistons, said last mentioned means including the outer face of the other piston, and a stationary sleeve extending into the cylinder from the head at the other end of the cylinder, substantially as described.

9. In an internal combustion engine, the combination of a cylinder, two opposing pistons working in the cylinder, compression and combustion taking place between the pistons, said pistons having trunk extensions sliding one within the other, sleeves extending into the cylinder from the heads at opposite ends thereof slidably engaged by the trunk extensions, said sleeves forming an annular chamber at each end of the cylinder and constituting with the trunk extensions of the pistons a passage extending longitudinally and concentrically through the engine and open to the atmosphere.

[Claims 1, 2, and 4 to 7 not printed in the Gazette.]

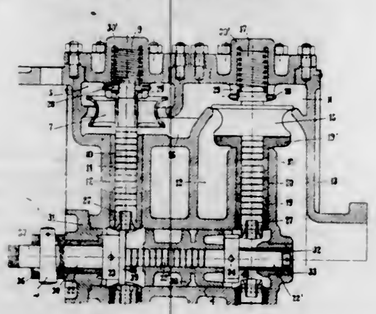
1,242,451. COLLAR-HOLDER. ARCHIE A. KINION, Sand Springs, Okla. Original application filed Sept. 18, 1916, Serial No. 120,745. Divided and this application filed Jan. 25, 1917. Serial No. 144,475. (Cl. 24—62.)



2. A collar holder formed from a single piece of resilient material and including a body bent at its extremities to produce confronting hooks and forming a tie receiving loop, the inlet to the loop being between the bills of the hooks, said body having a tongue struck longitudinally therefrom and bent upon itself to provide a hook disposed for engagement with a collar for connecting the holder thereto, the free extremity of said hook terminating in an upstanding wing disposed for engagement with a shirt band and provided adjacent its upper extremity with a depression for clamping the band between the wing and the body to prevent displacement of the collar.

[Claim 1 not printed in the Gazette.]

1,242,452. VALVE-GEARING FOR LOCOMOTIVES. HUGO LENTZ, Berlin-Halensee, Germany. Filed Jan. 6, 1915. Serial No. 718. (Cl. 121—14.)



1. In a valve gearing for double-acting steam engines, the combination of an inlet valve for each end of the cylinder, a cam shaft adapted to be shifted longitudinally of its axis and having a valve-operating cam, spindles for the valves extending toward each other and transversely of the cam shaft and normally operatively engaged by the cam, and means longitudinally shiftable with the shaft to be brought into position to hold the valves open simultaneously when the shaft is shifted for running light, whereby pressure at each end of the cylinder is equalized when running light.

2. In a valve gearing for double-acting steam engines, the combination of an inlet puppet valve for each end of the cylinder, a cam shaft adapted to be shifted longitudinally of its axis and having a valve-operating cam, spindles for the valves extending toward each other and transversely of the cam shaft and normally operatively engaged by the cam, means longitudinally shiftable with the shaft to be brought into position to hold the valves open simultaneously when the shaft is shifted for running light, whereby pressure at each end of the cylinder is equalized when running light, and springs normally holding said puppet valves closed.

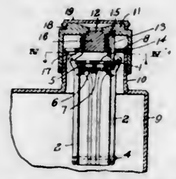
3. In a valve gearing, the combination of a cam shaft adapted to be shifted longitudinally of its axis, a casing inclosing a part of said shaft, means for admitting fluid pressure to the casing, one or more inlet valves having spindles disposed transversely of the shaft and projecting into the casing so as to be operated by the fluid pressure therein to move the valves to one position, a cam on the shaft for normally operating the valves, and means adapted to be moved into operative engagement with the valve spindles when the shaft is shifted for holding the valves open, whereby fluid pressure may be admitted at the same time on each side of a piston governed by said valve.

4. In a valve gearing, the combination of a cam shaft adapted to be shifted longitudinally of its axis, a casing inclosing a part of said shaft, means for admitting fluid pressure to the casing, one or more inlet valves having spindles disposed transversely of the shaft and projecting into the casing so as to be opearted by the fluid pressure therein to open the valves, a cam on the shaft for normally operating the valves, and means carried by the shaft and shiftable therewith and extending out radially from the shaft beyond the adjacent end of the spindles for holding the valves open when the shaft is shifted to bring said holding means in operative engagement with the spindles.

5. In a valve gearing, the combination of a cam shaft adapted to be shifted longitudinally of its axis, a casing inclosing a part of said shaft, means for admitting fluid pressure to the casing, said shaft having unbalanced cross-sectional areas upon which the fluid pressure in the casing acts to cause the shaft to be shifted by said pressure, one or more inlet valves having spindles disposed transversely of the shaft and projecting into the casing so as to be operated by the fluid pressure therein to move the valves to one position, a cam on the shaft for normally operating the valves, and means moved into operative engagement with the valve spindles when the shaft is shifted for holding the valves open, whereby fluid pressure may be admitted at the same time on each side of a piston governed by said valves.

[Claims 6 to 19 not printed in the Gazette.]

1,242,453. COLLAPSIBLE FUNNEL. CHARLES LESTER, Ambridge, Pa., assignor of one-fourth to Frank L. McCready, Sewickley, Pa., and one-fourth to Philip L. Sohn and one-fourth to Irvin Sohn, Ambridge, Pa. Filed July 28, 1916. Serial No. 111,839. (Cl. 226—33.)



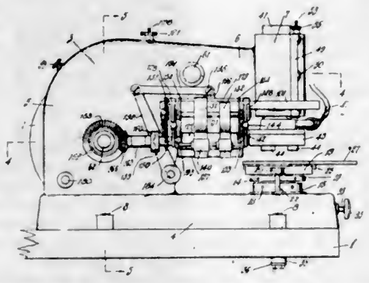
1. In a funnel structure the combination of a perforate plate, a collapsible funnel secured to said plate, a perforation-covering plug movable to and fro with respect to said plate, and means coördinating the expanding and collapsing of the funnel with the movement of the plug.

2. In a funnel structure the combination of two plates spaced at an interval apart, a plurality of levers pivoted peripherally to the rim of one of said plates and extending on one side obliquely between said plates and extending on the other side as funnel ribs, and a third plate floating in the space between the two plates first named and bearing yieldingly upon the ends of said levers.

3. In a funnel structure the combination of two plates spaced at an interval apart and a third plate floating between them, one of the two plates first named being provided with a plurality of levers pivoted to its periphery, and a spring, said floating plate being engaged between the inturned ends of said levers and said spring.

4. In a funnel structure the combination of a perforate plate, a second plate spaced at an interval from the first, said second plate being provided with a plurality of levers pivoted to its periphery, said levers extending on one side to constitute funnel ribs and on the other side being turned in between said plates, and a third plate floating between the two plates previously named and movable to cover and uncover the perforation in the perforate plate, said floating plate being held yieldingly against the inturned ends of said levers.

1,242,454. MACHINE FOR APPLYING METALLIC LEAF. GEORGE E. LITTLEFIELD, Providence, R. I., assignor to American Roll Gold Leaf Company, a Corporation of Rhode Island. Filed May 9, 1917. Serial No. 167,459. (Cl. 41—7.)



1. In a metallic leaf applying machine, the combination with the frame, of a plunger in the frame, means for actuating the plunger, guides on the frame, a reciprocating carriage slidably mounted on the guides and movable toward the plunger, a roll holder on the carriage, a feed roll on the carriage, means for actuating the feed roll, segments coöperating with the feed roll, and means for reciprocating the carriage.

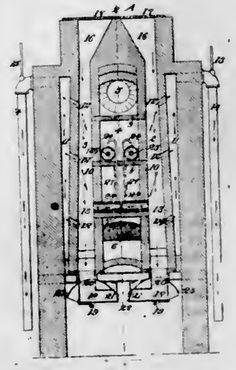
11. In a metallic leaf applying machine, the combination of a frame, a main shaft in the frame, a reciprocating plunger in the frame, operative connections between the shaft and plunger, a mutilated gear on the shaft, a carriage slidably mounted on the frame, a shaft in the carriage, a feed roll on the second shaft, a clutch on the roll shaft, and a gear on the roll shaft engaging the mutilated gear.

14. In a metallic leaf applying machine, the combination with the frame of a plunger mounted in the frame, means for operating the plunger, guides upon the frame beside the plunger, a reciprocating carriage mounted on the guides, means for reciprocating the carriage, means upon the carriage for supporting a plurality of spaced backing strips, and means coöperating with supporting means for simultaneously feeding each strip a distance different from the length of feed of the other strips.

[Claims 2 to 10, 12, and 13 not printed in the Gazette.]

1,242,455. ROASTING-FURNACE. ANDREW W. LIVINGSTON, Oakland, Cal. Filed May 22, 1915. Serial No. 29,813. (Cl. 266—20.)

1. A furnace for roasting ores containing vaporizable minerals, comprising in combination a vertically disposed roasting chamber which is relatively thin transversely so as to contain a relatively thin layer or sheet of ore, a source of heat at one side of the roasting chamber and separated therefrom by imperforate walls through which the heat is transferred into the relatively thin sheet of ore, a suction chamber on the other side of the roasting chamber opposite the source of heat, said suction chamber connected by flues through the walls of the roasting chamber, and means for creating a suction therethrough.



2. An apparatus for continuously roasting ores containing vaporizable minerals, comprising in combination a vertically disposed roasting chamber which is relatively thin transversely so as to contain a relatively thin layer or sheet of ore, a source of heat at one side of the roasting chamber and separated therefrom by imperforate walls through which the heat is transferred into the relatively thin sheet of ore, a suction chamber on the other side of the roasting chamber opposite the source of heat, said suction chamber connected by flues through the walls of the roasting chamber, means for creating a suction therethrough, and means permitting the practically continuous introduction and withdrawal of ore from the roasting chamber.

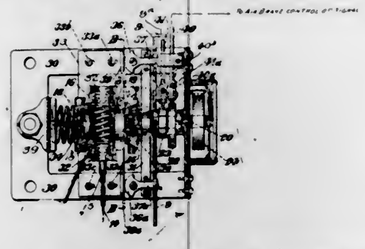
3. A furnace for roasting ores containing vaporizable minerals, comprising in combination a vertically disposed roasting chamber which is relatively thin transversely so as to contain a relatively thin layer or sheet of ore, a source of heat at one side of the roasting chamber and separated therefrom by imperforate walls through which the heat is transferred into the relatively thin sheet of ore, a suction chamber on the other side of the roasting chamber opposite the source of heat, said suction chamber connected by flues through the walls of the roasting chamber, said chamber being narrower at the top than at the bottom.

4. A roasting furnace having a flue chamber formed therein adjacent a roasting chamber and separated therefrom by an imperforate wall, a heating furnace connected with the flue chamber, a fume collecting chamber formed in the furnace exteriorly of the roasting chamber, a plurality of superposed openings formed in the furnace forming communication between the roasting chamber and fume collecting chamber, and means for producing a partial vacuum in the fume collecting chamber to constantly withdraw the fumes or volatile products liberated from the ore in the roasting chamber.

5. A roasting furnace having a flue chamber formed therein and a roasting chamber on each side thereof and separated therefrom by imperforate walls, a heating furnace connected with the flue chamber, a fume collecting chamber formed in the furnace exteriorly of each roasting chamber, a plurality of superposed openings formed in the furnace forming communication between each roasting chamber and fume collecting chamber, means for producing a partial vacuum in each fume collecting chamber to constantly withdraw the fumes or volatile products liberated from the ore in the roasting chamber, and means permitting the practically continuous feeding and removing of the ore from the roasting chambers.

[Claims 6 to 22 not printed in the Gazette.]

1,242,456. RAILWAY-TRAFFIC-CONTROLLING SYSTEM AND APPARATUS. MATTHEW H. LOUGHRIDGE, Bogota, N. J. Filed Nov. 15, 1912. Serial No. 731,621. (Cl. 246—59.)



1. In a railway traffic controlling system, the combination on a locomotive, of a moving indicator driven by reduction gearing from the running wheels, a cam revolving with said indicator, a member for controlling said locomotive, said member operated by said cam, said cam being adjustable to operate said member at any position relative to the position of said indicator.

7. In a railway traffic controlling system, the combination, a track, a locomotive having a controlling mechanism, said mechanism embodying a plurality of shafts and connecting means, one of said shafts driven by the movement of said locomotive on said track, another shaft driven by said connecting means from said first mentioned shaft and having a cam fixed thereon, means for releasing said connecting means by the movement of said cam.

10. A vehicle having an automatic brake-actuating mechanism operable at fixed intervals; a track-bed having a plurality of blocks of various lengths; and a plurality of operating stations on said track-bed, for suspending the operation of said brake-actuating mechanism, each of said stations being controlled by one of said blocks and disposed in advance of the terminal thereof a distance corresponding with said intervals.

13. A vehicle having a brake-actuating mechanism automatically operable at fixed intervals; a driving mechanism for said brake-actuating mechanism, embodying carrying wheels of said vehicle; means for retracting said brake-actuating mechanism when released from said driving mechanism to the starting point of said brake-actuating mechanism; a releasing mechanism for said brake-actuating mechanism, embodying a movable member operable from the track-bed; a track-bed having a series of blocks; a plurality of adjustable interference members normally disposed in the path of said movable member, each of said interference members being disposed in advance of the terminal of one of said blocks; and operating means for said interference members, disposed in each of said blocks, for normally holding said interference members in the path of the movable member of said releasing mechanism.

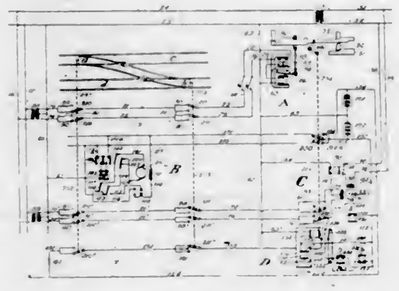
21. In combination, a railway track, a vehicle adapted to travel thereon, a controlling mechanism on said vehicle arranged to operate at fixed intervals of travel, devices on the trackway to reset said mechanism, said mechanism also embodying means for resetting itself when said track means fail to reset it.

[Claims 2 to 6, 8, 9, 11, 12, 14 to 20, and 22 to 28 not printed in the Gazette.]

1,242,457. ELECTRIC CIRCUIT. MATTHEW H. LOUGHRIDGE, Bogota, N. J. Filed July 17, 1916. Serial No. 109,652. (Cl. 246—21.)

1. In combination, a main circuit including a source of energy, a plurality of resistances and an electric translating device, an auxiliary circuit incorporating said main circuit and another conductor and including an electric translating device, part of said resistances disposed in said main circuit close to said source of energy and part disposed close to said translating device, said resistances bearing a definite relation to each other in said circuit.

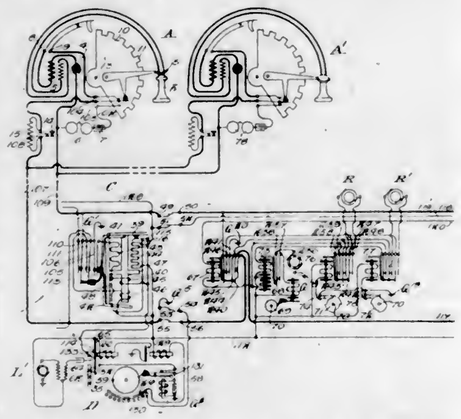
7. In combination, a power transmission system, a transformer connected to said system and feeding a main circuit which includes an electric translating device with an auxiliary circuit incorporating said main circuit and including an electric translating device, an intermediate point of the secondary winding of said transformer and said latter translating device connecting to one conductor of said transmission system.



16. In combination, an apparatus, a railway track, track switches thereon, a controlling lever for said switches, a main circuit including a source of energy, major and minor resistances, controlling switches and an electric translating device having an armature, an auxiliary circuit incorporating said main circuit and another conductor and including an electric translating device having an armature, said track switches and said controlling lever each operating a controlling switch, said controlling switches when operated, changing the resistances in said main circuit and said resistances being so disposed in said circuit that when said track switches and lever are in a predetermined position the sum of the resistances in each conductor of said main circuit is equal, said armatures controlling said apparatus.

[Claims 2 to 6 and 8 to 15 not printed in the Gazette.]

1,242,458. AUTOMATIC PARTY-LINE TELEPHONE SYSTEM. FRITZ LUBBERGER, Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed June 16, 1910. Serial No. 567,299. (Cl. 179—17.)



1. In a telephone system, a party line, a push button for each substation on said line, a telephone instrument at each substation, means for extending connection to and from said line, means responsive to said push buttons for signaling the subscribers on said line, dependent only on a preliminary non-numerical switching operation for the line, and a progressively movable non-numerical switch for performing said operation.

2. In a telephone system, a party line, means for extending connection to and from said line, a calling mechanism at each substation, and means for projecting a plurality of ringing currents of different frequencies onto the line, one at a time, whenever one subscriber calls another on the same line, a push button at each substation, whereby the subscribers on said line may control said ringing means to call each other without operating said mechanism, said ringing means being common to all of the substations on said line.

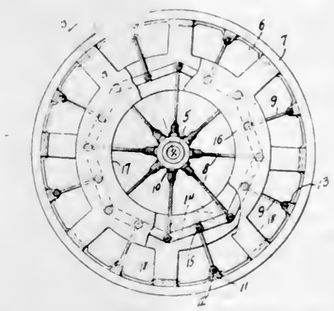
3. In a telephone system, a party line, a calling mechanism at each substation, automatic switches responsive to said mechanism to extend connection from said line, and means including a ringing arrangement at the central station by which the one subscriber calls another on the same line without operating said mechanism.

4. In a telephone system, a party line, a calling mechanism at each substation on said line, means responsive to said mechanism to extend connection from said line, and means including a ringing arrangement at the central station by which any subscriber calls another on the same line without operating said mechanism.

5. In a telephone system, a party line, a calling mechanism at each station of the party line, automatic switches responsive to said mechanism to extend connection from said line, and means for enabling the party-line subscribers to call each other without using said mechanism, the means for extending connection from said line including a combined selector and repeater, as set forth.

[Claims 6 to 48 not printed in the Gazette.]

1,242,459. SPRING-WHEEL. WILLIAM W. MCCLAY and CLARENCE GILBERT MCCLAY, Chicago, Ill. Filed July 16, 1917. Serial No. 180,864. (Cl. 152—28.)

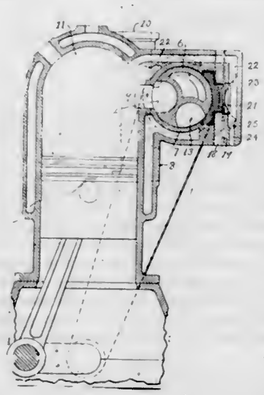


2. A spring wheel comprising a hub, a felly, spokes connecting the hub and the felly, said spokes comprising separate sets, the spokes of one set being resilient and connected at their inner ends to the hub, and the spokes of the other set being rigid and connected at their outer ends to the felly, and an endless series of pivotally connected links to which the spokes are connected, each rigid spoke being connected to a pair of links at their pivotally connected ends, and a pair of adjacent resilient spokes being connected to the opposite ends of said links.

[Claim 1 not printed in the Gazette.]

1,242,460. VALVE FOR INTERNAL-COMBUSTION ENGINES. FRANK MCCLINTOCK, Grand Junction, Colo. Filed Nov. 12, 1913, Serial No. 800,474. Renewed Mar. 2, 1917. Serial No. 152,151. (Cl. 123—190.)

1. The combination in an internal combustion engine of a valve casing provided with port openings in its seat, a valve adapted to open and close the port openings in proper sequence, a pressure chamber having a somewhat greater area than the cylinder port in open communication with the combustion chamber, a flexible gas tight diaphragm, and a bearing block having an outer part corresponding in section with and extending into the pressure chamber to a contact with the entire exposed area of the diaphragm and an inner surface many times greater in area than the pressure chamber and closely fitted to substantially the entire outer effective bearing surface of the valve.



2. The combination in an internal combustion engine of a cylindrical valve casing provided with port openings in its seat, a cylindrical valve adapted to open and close the port openings in proper sequence, a pressure chamber having a somewhat greater area than the cylinder port in open communication with the combustion chamber, a flexible gas tight diaphragm, and a bearing block having an outer part corresponding in section with and extending into the pressure chamber to contact with the entire exposed area of the diaphragm and an inner surface many times greater in area than the pressure chamber and closely fitted to substantially the entire effective outer bearing surface of the valve.

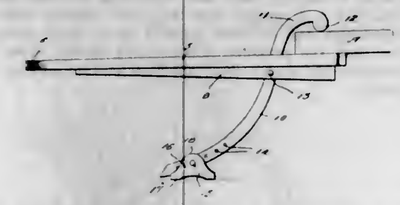
3. The combination in an internal combustion engine of a valve casing provided with port openings in its seat, a valve adapted to open and close the port openings in proper sequence, a bearing block closely fitted to substantially the entire effective outer bearing surface of the valve, a spring engaging the outer face of said bearing block and means for applying a variable pressure to said spring which will be sufficient to hold the valve gas tight in its seat at all times.

4. The combinqation in an internal combustion engine of a valve casing provided with port openings in its seat, a valve adapted to open and close the port openings in proper sequence, a bearing block closely fitted to substantially the entire effective outer bearing surface of the valve, a spring engaging the outer face of said bearing block, a sliding arm engaging the free end of said spring, and a cam secured to the valve driving shaft and of such shape as will compress the spring and thereby apply a variable pressure to the bearing block sufficient to hold the valve gas tight in its seat.

5. The combination in an internal combustion engine, of a valve casing provided with port openings in its seat, a valve fitted within said casing and provided with connecting ports adapted to open and close the port openings in proper sequence and finished to a gas tight fit in its seat of sufficient width to seal the ports from leakage while in operative communication with the cylinder, a bearing block having its inner face closely fitted to substantially the entire effective outer surface of the valve, and means for applying a variable pressure to the bearing block just sufficient to hold the valve gas tight in its seat.

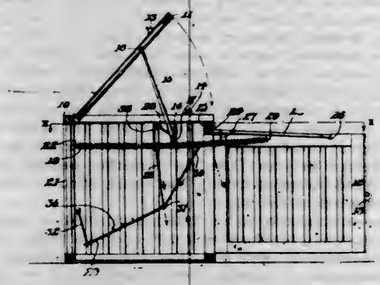
[Claims 6 to 13 not printed in the Gazette.]

1,242,461. IRONING-BOARD. WILLIAM ORRN MCDIVITT, Bovina, N. Y. Filed Sept. 9, 1916. Serial No. 119,276. (Cl. 68—10.)



In a device of the kind described, in combination, a main board section having a longitudinally disposed slot, a pivot pin spanning the walls of said slot, a supporting leg fulcrumed upon said pivot and having a relatively long portion adjacent one side of said pivot formed substantially segmental and a shorter portion adjacent the opposite side of said pivot curving in an opposite direction to said longer portion and terminating in a forwardly projecting rounded jaw, said segmental portion of said leg having a plurality of openings at its lower end, a floor cleat consisting of a tread base and side cheeks, and a pivot pin secured centrally in said cheek and passing through one opening of said segmental portion of said leg.

1,242,462. ANIMAL-TRAP. MICHAEL MESTER, Chicago, Ill. Filed Apr. 30, 1917. Serial No. 165,414. (Cl. 43—19.)

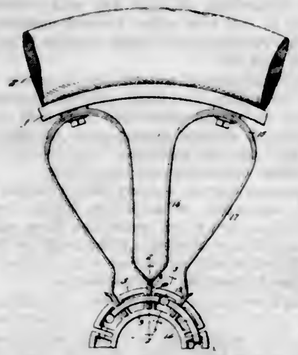


A trap comprising a cage having a hinged top door and a hinged side door, retaining catches for the said doors when closed, a transverse brace within the cage having a notch in its upper side, a strut seated within the said notch engaging the top door when the trap is set, a further strut positioned between the front side of the cage and the said side door when the trap is set, a tensioning closure spring for the said side door connecting the latter with the rear portion of the cage, flexible connections between the said spring and the adjacent portions of said struts, a bait carrying platform suspendingly attached to the rear portion of the cage and to the said spring.

1,242,463. SPRING-WHEEL HUB. AUGUSTA V. MITCHELL, Washington, D. C. Filed Dec. 9, 1913. Serial No. 805,599. (Cl. 152—50.)

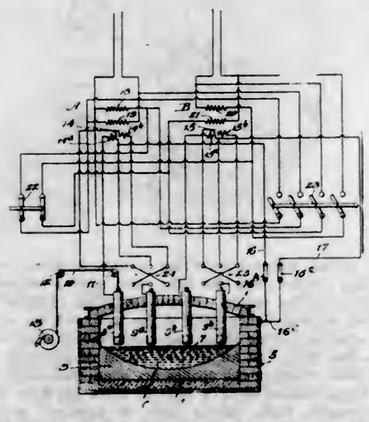
1. In a device of the class described, the combination with a hub, of clamping flanges mounted thereon, a spoke receiving member fitting said hub between said flanges having radial slots in its outer margin, spring spokes fitting in said slots, a locking ring made in sections fitting in a groove in the side face of said member and in notches in the edges of said spokes, and bolts passing through said flanges and between the ends of adjacent sections of said locking ring to hold the parts in position.

2. In a device of the class described, the combination with a hub member having slots extending therein to receive the ends of spring spokes, of a wheel rim, spokes made up of bent spring metal, each spoke having a symmetrically bent portion adjacent the rim and two legs extending into the hub, the ends of the said legs entering adjacent slots, the said legs being bent inwardly toward each other adjacent the hub, means for clamping the sides of said ends in said slots for a considerable distance to prevent side turning, means for locking said ends in said



slots, reinforcing leaf springs fitting on the inside and on the outside of the bent portion of said spoke next to the rim, the inner leaf spring having normally a less curvature and the outer leaf spring having a greater curvature than the portion of the spoke to which they are applied, and means for securing said spoke to the rim and said leaf springs to the spoke, the said leaf springs being bent to fit closely against and to correspond in curvature to said spoke.

1,242,464. ELECTRIC METALLURGICAL FURNACE AND METHOD OF OPERATING THE SAME. WILLIAM E. MOORE, Pittsburgh, Pa. Filed Nov. 27, 1916. Serial No. 133,648. (Cl. 204—64.)



1. In the manufacture of steel and other metals in an electric furnace, the method which consists in passing electric current through a plurality of electrodes in series with each other through the metal in one operation of the furnace, and passing said current through said electrodes in multiple with each other through a slag and the metal, when molten, in another operation of the furnace.

7. In the manufacture of steel and other metals in an arc type electric furnace, the method which consists in supplying current to a metal bath from a plurality of arcing electrodes, and varying the amount of current through the metal bath by varying the lengths of one or more of said arcs with respect to others.

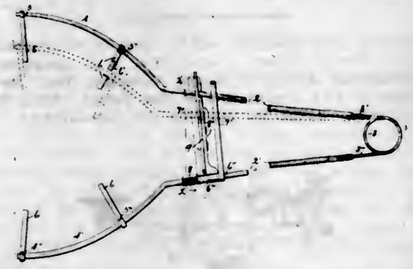
12. The method of operating electric furnaces for the manufacture of steel and other metals in which the electrical energy is supplied from one or more transformers, which consists in connecting sections of the transformer windings in multiple to produce a relatively high voltage for melting or heating the metal to refining temperature, and connecting said sections in series to produce a lower voltage for refining.

14. In the manufacture of steel and other metals in an electric furnace in which the electrical energy is supplied from one or more transformers, the method which consists in operating with the transformer primaries connected delta and the secondaries connected star for melting or heating the metal to refining temperature, and with the primaries connected star and the secondaries connected delta for refining the metal, and connecting subsections of the transformer primaries or secondaries, or both, in series or multiple to further vary the voltage as between the heating or melting and refining operations.

20. In an electric furnace having a bottom susceptible of conducting electricity, and three arcing electrodes supplied with current from a three phase transformer system, in combination with means to change the transformer windings from delta to star formation or vice versa, and means to conduct current from the molten charge through the furnace bottom and around the electrodes to a neutral point in the transformer system.

[Claims 2 to 6, 8 to 11, 13, 15 to 19, and 21 to 23 not printed in the Gazette.]

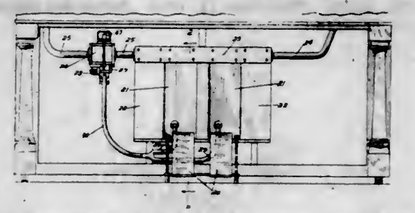
1,242,465. DISH-LIFTER. ANGELO PANASCI, Waterbury, Conn. Filed Nov. 6, 1914. Serial No. 870,640. (Cl. 65—32.)



A dish-lifter comprising a pair of connected, complementary arms held normally apart under spring-tension, formed from wire, and affording, each a non-returned, advance end-portion bowed away from the longitudinal center-line of the device and fitted with a plurality of dish-grasping elements; a flat keeper having its heel turned around one of the complementary arms aforenamed, for a rocking action upwardly thereon, and extending to and normally underlying the opposite complementary arm, one longitudinal margin of said keeper being turned upwardly therefrom and provided at its top edge with a plurality of notches; a stop-bar supported by said keeper and in conjunction therewith freely embracing the opposite complementary arm aforenamed and thereby limiting the rocking action on the part of such keeper; and an elastic element, the latter disposed to yieldingly urge said keeper, at all times and at some one of the notches aforenamed, upwardly into engagement with the complementary arm which it normally underlies.

1,242,466. EXPRESSION CONTROL FOR MUSICAL INSTRUMENTS. GEORGE H. PARSONS, Stamford, Conn., assignor to Kroeger Piano Company, Stamford, Conn., a Corporation of New York. Filed May 28, 1916. Serial No. 99,299. (Cl. 84—168.)

1. In a mechanical musical instrument of the character described, the combination, with intermittently operating means for creating a partial vacuum, a duct for the passage of air to said vacuum-creating means, and means associated with said duct for equalising the intermittently generated air impulses, of means interposed in said duct directly controlled by said vacuum-creating means independent of said equalizing means for substantially instantly varying the transmitting capacity of said duct.

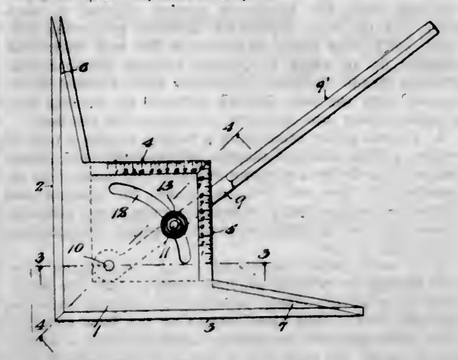


2. In a mechanical musical instrument of the character described, the combination, with intermittently operating means for creating a partial vacuum, a duct for the passage of air to said vacuum-creating means, and means associated with said duct for equalizing the intermittently generated air impulses, of a valve in said duct adapted to retard the flow of air therethrough, and means directly controlled by said vacuum-creating means independent of said equalizing means for opening and closing said valve.

3. In a mechanical musical instrument of the character described, the combination, with intermittently operating means for creating a partial vacuum, a duct for the passage of air to said vacuum-creating means, and means associated with said duct for equalising the intermittently generated air impulses, of two valves in said passage each operating independently to vary the transmitting capacity of said duct, means controlled by the varying air pressures within and without said duct for actuating one of said valves, and means directly controlled from said vacuum-creating means independent of said equalising means for actuating the other valve.

[Claims 4 to 28 not printed in the Gazette.]

1,242,467. GEOMETRICAL INSTRUMENT. JOHN R. PEIRCE, Mont Clare, Pa. Filed Aug. 26, 1916. Serial No. 117,057. (Cl. 33—98.)

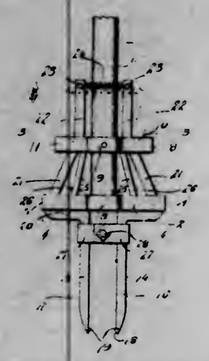


1. A geometrical instrument of the square type comprising an integral body having a pair of edges at right angles to each other, and a second pair of shorter edges arranged perpendicularly to these first mentioned edges, so that the edges of the first pair extend beyond the adjacent edges of the second, said second mentioned edges having scales thereon, and a blade pivoted to the body and coacting with said scales.

2. A geometrical instrument of the square type having a pair of edges at right angles to each other, and a second pair of edges perpendicular to these first mentioned edges provided with scales, the body of the instrument being recessed at its underside, a blade pivoted in the body of the

instrument and adapted to swing in the recessed portion, said body having an arcuate slot, a threaded pin in the blade adapted to move in the slot, and a thumb nut on the pin adapted to hold the blade in adjusted position.

1,242,468. WEED-PULLER. MANCIL E. PELTZ, Malad City, Idaho. Filed Nov. 11, 1916. Serial No. 130,839. (Cl. 55—148.)



1. A weed puller comprising a pair of gripping jaws, retaining yokes, the said jaws having extensions received in the said yokes, a tensioning element connected to the terminals of the said extensions for normally maintaining the said jaws in open position, and manually operated means engageable with the said extensions to move the said extensions against the tension of the said tensioning element.

2. A weed puller comprising a pair of gripping jaws, a pair of retaining yokes, supporting arms disposed at an angle and carried by the said retaining yokes, means for longitudinally moving the said retaining yokes, and means coöperating with the said supporting arms for opening and closing the jaws when the retaining yokes are actuated.

4. A weed puller comprising a handle, retaining yokes arranged upon the handle in spaced relation to each other and including bifurcated laterally projecting portions, connecting arms connected to the said yokes and disposed at an angle to provide bearing surfaces, and gripping means including connecting arms adapted to cooperate with the said bearing surfaces for moving said gripping means into operative or inoperative position.

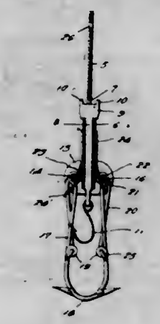
5. A weed puller comprising a handle having a pair of retaining yokes fastened thereto, gripping elements, means connected to the said gripping elements and adapted to cooperate with the said retaining yokes for opening and closing the said gripping elements and means for pivotally connecting the gripping elements together independent of the said handle.

6. A weed puller comprising a pair of gripping jaws each having its terminal provided with a cleat, the proximate edges of the cleats providing a gripping plate on each jaw, connecting arms carried by the jaws and provided with upwardly projecting retaining arms, a tension spring having its terminals fastened to the ends of said retaining arms for normally holding the jaws in open position, the said jaws being pivotally connected together, and means associated with the said connecting arms for closing the said jaws against the action of the said tension spring.

[Claim 3 not printed in the Gazette.]

1,242,469. FISH-HOOK. HAY PENROD, Cypress, Ill. Filed Oct. 4, 1916. Serial No. 123,729. (Cl. 43—31.)

In a device of the kind described, in combination, a carrying plate having a lateral sleeve, a pair of right angularly disposed lugs on said plate, a pivot rod mounted in said lugs, a U-shaped member having eyes formed upon its opposite arms, said eyes embracing said pivot rod, the cross rod of said U-shaped member inclining in opposite directions from the center toward the opposite arms thereof, a pair of arms formed with terminal eyes embracing said pivot rod and with intermediate eyes embracing said oppositely inclined sides of said member, hooks formed



upon the free ends of said arms, a spring clamp consisting of two coils surrounding said pivot rod, an intermediate loop bearing against said sleeve and fingers pressing against said last-named arms to urge them forwardly, a rod slidably mounted in said sleeve and having a top recess, a bait hook secured to the lower end of said rod, the cross rod of said member adapted to normally have its medial portion disposed in said recess.

1,242,470. TELEGRAPH-KEY. JOHANN G. PETERSON and OTTO H. HUBBEL, Jersey City, N. J., assignors to Manhattan Electrical Supply Company, Inc., Jersey City, N. J., a Corporation of New Jersey. Filed Mar. 17, 1917. Serial No. 155,446. (Cl. 178—101.)



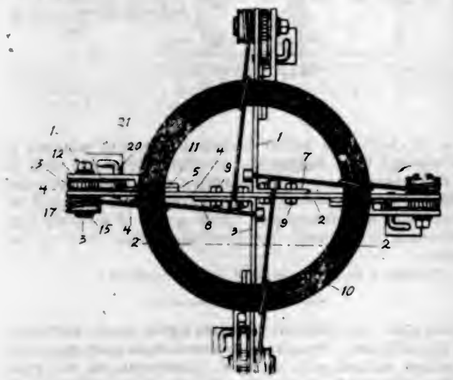
1. A telegraphic key comprising a lever, a carrier having a base furnished with an upstanding portion provided with an arm which overhangs the lever, the base being fitted against the lower side of the lever, a screw threaded through the arm and pointed at its lower end, the lever having an opening to receive the pointed end of the screw, and a contact removably carried by the base.

2. A telegraphic key comprising a lever, a carrier having a base furnished with an upstanding portion provided with an arm which overhangs the lever, the base being fitted against the lower side of the lever, a screw threaded through the arm and pointed at its lower end, the lever having an opening to receive the pointed end of the screw, and a contact threaded into the base, the base having projecting means which overlie the lever opposite said upstanding portion.

1,242,471. BUNDLING APPARATUS. JAMES S. PHIPPS, Allentown, Pa., assignor to The American Steel and Wire Company of New Jersey, Hoboken, N. J., a Corporation of New Jersey. Filed May 14, 1917. Serial No. 168,466. (Cl. 100—31.)

1. A bundling machine comprising a work table, a plurality of flexible bundle-embracing members anchored at the middle portion of the table and extending outwardly in different directions therefrom, and means for placing tension upon the flexible members.

2. A bundle machine comprising a table including a plurality of substantially radial arms, a flexible bundle-embracing member for each arm, each of said members having its inner end secured to one of the arms and extending outwardly therefrom, and means associated with the outer end portion of each flexible member to place tension thereon.



3. A bundle machine comprising a work table including a plurality of radial arms, each arm having a notch therein adjacent the middle of the table, a flexible bundle-embracing member for each arm, the inner end portion of each flexible member being received in one of the notches and extending outwardly therefrom, a button on the inner end of said flexible member to prevent the member from being drawn through the notch, and means associated with the outer end of the flexible member for placing strain thereon.

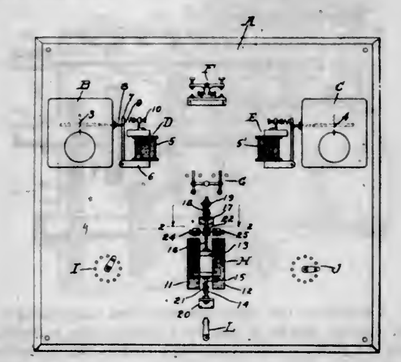
4. A bundling machine comprising a work table including a plurality of substantially radial arms, a winding drum mounted upon the outer end of each arm, a ratchet wheel and dog for the drum, a ratchet lever associated with the ratchet wheel for rotating the drum, a bundle-embracing flexible member having its outer portion connected to the drum, said flexible member extending to the middle of the table and being of a length to permit the formation of a loop therein, and means at the middle of the table for detachably anchoring the flexible member thereto.

5. A bundling machine comprising a table having a plurality of substantially radial arms, each arm being provided adjacent its inner end with a notch in the top thereof, leg standards for the arms, a winding drum mounted at the outer end of each arm, means for rotating the drum, a ratchet device to prevent unwinding of the drum, and a flexible bundle-embracing member having an end portion connected to the drum and extending inwardly therefrom alongside the adjacent arm and having its inner end portion removably received in the notch of one of the other arms, the inner end of the flexible member being provided with a button lying at the opposite side of said other arm and of a size to prevent the flexible member from being drawn through the notch.

1,242,472. DEVICE FOR MEASURING ELECTRICAL ENERGY. JOHN S. PIPER, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed June 12, 1914. Serial No. 844,642. (Cl. 171—34.)

1. The combination with an electric circuit in which the direction of current flow is reversed, of a meter for measuring the flow of energy in one direction, another meter for measuring the flow of energy in a reverse direction, both meters being permanently connected in the circuit, and a stop device co-acting with a moving element of each meter for preventing the operation of the same except the flow of energy therethrough be in the proper direction.

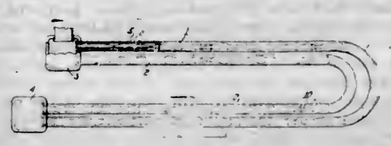
2. In combination two meters of the electro-motor type adapted to be connected in an electric circuit and arranged simultaneously to run in a forward and backward direction, respectively, a stop member associated with each meter and adapted normally to interfere with the operation of both meters, and electromagnetic means responsive to the direction of current flow in said circuit for controlling said members.



6. In combination a meter adapted to be connected in a main line circuit and to measure the current flow in one direction only, another meter adapted to be connected in said circuit and to measure the current flow in a reverse direction only, independent stop devices comprising a separate electromagnet associated with each meter and adapted to prevent the meters from registering, an electro-responsive device in said circuit adapted to operate in accordance with the direction of current flow in the circuit, a switch controlled by said electro-responsive device, and a source of electric current independent of the main line circuit adapted to be connected with said switch, electromagents, and a magnet winding of said electro-responsive device.

[Claims 3 to 5 not printed in the Gazette.]

1,242,473. STEAM-SUPERHEATER. JOHN PRENTICE, Bayonne, N. J., assignor to The Babcock & Wilcox Company, Bayonne, N. J., a Corporation of New Jersey. Filed July 21, 1915. Serial No. 41,028. (Cl. 137—112.)



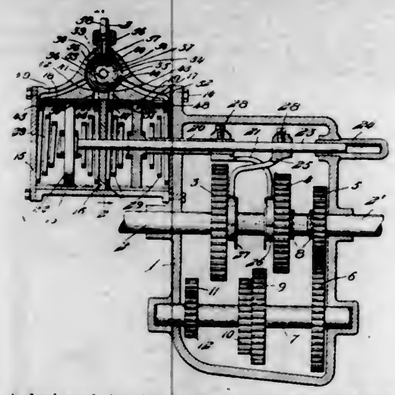
1. A core for superheaters comprising a tube having spaced portions compressed to project laterally in substantially opposite directions and adapted to hold the core in position by frictional engagement with the inner wall of the superheater tube.

2. A core for superheaters comprising a tube having spaced portions compressed to project laterally in angular relation to each other.

3. A core for superheaters comprising a tube having substantially regular spaced portions compressed to project alternately in planes at angles to each other and adapted to bear alternately against only one side of the tube.

4. A hollow core for superheater tubes having flattened parts unsymmetrical with reference to the center line of the core, extending alternately in planes at angles to each other and adapted to bear alternately against only one side of the tube

1,242,474. PNEUMATIC TRANSMISSION-OPERATING DEVICE. GEORGE M. RILEY, Aurora, Ill. Filed Sept. 29, 1916. Serial No. 122,883. (Cl. 138—2.)



1. A device of the character described comprising a cylinder having heads, a partition within the cylinder between its ends, a piston working within the cylinder between said partition and one head and having a tubular stem passing slidably through said head, a piston working in the cylinder between the partition and other head and having a stem projecting slidably through said partition and tubular stem, and means for controlling the flow of pressure fluid into and out of the cylinder at opposite sides of said partition.

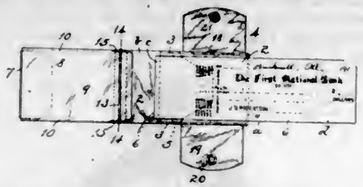
4. A device of the character described embodying a cylinder having heads, a partition fitted in the cylinder between its ends, bushings fitted in the cylinder between the partition and heads, a piston slidable in one bushing and having a tubular stem slidable through the respective head, a piston slidable in the other bushing and having its stem sliding through the partition and tubular stem, expansion springs between each piston and the partition and respective head to hold the piston in intermediate position, the bushings having ports at their opposite ends, and means for controlling the flow of pressure fluid through said ports.

5. A device of the character described embodying a cylinder, a piston working therein, means tending to move the piston to intermediate position, the cylinder having ports at opposite sides of the piston, and a valve structure having ports communicating with the aforesaid ports, a pressure fluid inlet port and an exhaust port, the valve structure having means when in one position for bringing both of the second mentioned ports into communication with one of the last two mentioned ports, and when in another position, to bring one of the second mentioned ports into communication with the other of the two last mentioned ports, the valve structure also having relatively movable parts, one to operate said valve structure and the other to stop the flow when the aforesaid part is moved in one direction.

7. A device of the character described embodying a cylinder, a piston therein, means tending to move the piston to intermediate position, a valve casing having a pair of ports communicating with the cylinder at opposite sides of the piston, an inlet port and an exhaust port, a valve having a port registerable with either of said pair of ports, and means communicating with one of the two last mentioned ports and adapted to register with either or both of said pair of ports, and a second valve having limited movement relative to the first mentioned valve, the second valve when moved in one direction closing the port of the first mentioned valve and having a port to register with the port of the first mentioned valve when the second valve is moved in the other direction to bring the port of the first mentioned valve into communication with the other of the said two last mentioned ports of the valve casing.

[Claims 2, 3, 6, 8, and 9 not printed in the Gazette.]

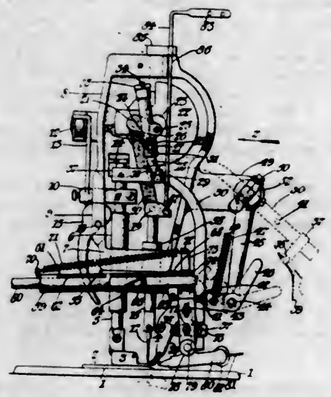
1,242,475. CHECK-BOOK HOLDER. JAMES B. ROBERTSON, Bushnell, Ill. Filed Jan. 8, 191[illegible]. Serial No. 141,178. (Cl. 11—18.)



4. A check-book holder including a sheath adapted to be engaged by a tongue-like projection from the back of a check-book, a cutter for severing the checks, arranged remote from the sheath, a hinged stub-keeper arranged intermediate said sheath and cutter, a pair of securing-flaps extending transversely of the longitudinal line of the holder.

[Claims 1 to 3 not printed in the Gazette.]

1,242,476. RUFFLING MECHANISM FOR SEWING-MACHINES. WILLIS C. ROBBINS, Wakefield, Mass., assignor to Lucius N. Littauer, Gloversville, N. Y. Filed Jan. 22, 1916. Serial No. 73,505. (Cl. 112—6.)



1. In a sewing machine the combination of a rotary top driving shaft, a four-motion ruffling attachment connected to the top driving shaft for swinging movement relatively thereto, and means effective to permit the ruffling attachment to be swung away from its operative position.

4. In a sewing machine, the combination of a rotary top driving shaft, a presser-foot bar, means for lifting the same, a ruffling attachement connected to and liftable with said presser-foot bar and also swingingly connected to said top driving shaft for movement into and out of its operative position.

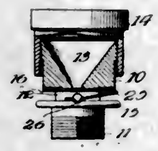
6. In a sewing machine, the combination of a presser foot bar, means for lifting the same, a ruffling attachment connected therewith and liftable thereby, a folder attachment, means effective to permit each of said attachments to be swung away from its operative position, means for imparting a rising and falling movement to the ruffling attachment, and means for imparting an in-and-out movement thereto, said first means including a piston.

15. In a sewing machine having a driving shaft and a rock shaft, the combination of a ruffling attachment having a piston connection with said driving shaft whereby a rising and falling movement is imparted to the ruffling attachment and having connection with said rock shaft whereby an in-and-out movement is imparted to said ruffling attachment.

50. In a sewing machine having a driving shaft and a rock shaft, the combination of an attachment pivotally connected with said driving shaft whereby a rising and falling movement is imparted to said attachment and having detachable connection with said rock shaft whereby an in and out movement is imparted to said attachment, and means effective to permit the disconnection of said attachment from said rock shaft whereby the attachment may be swung away from its operative position.

[Claims 2, 3, 5, 7 to 14, 16 to 49, 51, and 52 not printed in the Gazette.]

1,242,477. LUBRICATING GREASE-CUP. PERLEY F. ROGERS, Bartlett, N. H. Filed Aug. 8, 1916. Serial No. 113,773. (Cl. 184—48.)



1. A lubricator cup including a body provided with a shank, spaced shoulders carried by the shank, a cap adjustable upon the body, and a locking member having a body embracing the shank to bear between said shoulders with the said locking member engaging the cap for holding the cap at adjustment.

3. A lubricator cup including a body provided with a shank and having spaced shoulders formed thereon, a cap adjustable upon the body, and a locking member having a body rotatable about the shank and bowed longitudinally to provide a spring bearing between the said shoulders upon one side of the shank, and a tongue carried by the body to yieldably bear between said shoulders upon the opposite side of the shank against the tension of said spring with the locking member engaging the cap for holding the cap at adjustment.

6. A lubricator cup including a body provided with a shank and having spaced shoulders formed thereon, a cap rotatably adjustable upon the body, there being a recess formed in the shank, and a locking member including a body having confronting ends and formed to rotatably embrace the shank and bear between the said shoulders with the locking member operatively engaging the cap for holding the cap at adjustment, the distance between the ends of the body of the locking member being less than the major thickness of the said shank and the body of the locking member being movable to position one end thereof in said recess for disconnecting the locking member from the said shank.

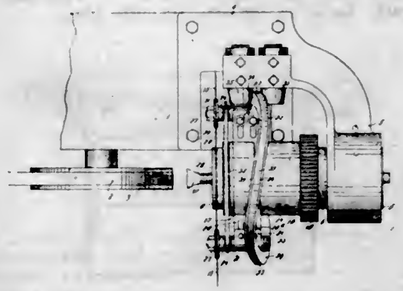
[Claims 2, 4, 5, and 7 to 9 not printed in the Gazette.]

1,242,478. CUTTER-HEAD FOR CIGARETTE-MACHINES. RICHARD E. ROSEWARNE, Covington, Ky., assignor to Homer J. Young and Richard E. Rosewarne, trustees. Filed Aug. 9, 1915. Serial No. 44,366. (Cl. 131—37.)

1. In a severing device, a non-movable axle member, a planet cutter journaled and axially movable upon said axle, a guiding spout extending through said axle having a portion at point of cutter intersection moving axially with said cutter, and means for axially moving said parts in motions of reciprocation.

2. In a severing device, a stationary axle member, a cam wheel journaled and axially movable upon said axle member, a cutter journaled upon said cam wheel axially coplanar with the axis of said axle member, a non-rotatable guide spout axially slidable upon said axle adapted to be intersected by the cutting edge of said cutter and coupled to said cam wheel to move axially therewith, and means for rotating said cam wheel.

3. In a severing device, a stationary axle member, a cam wheel journaled and axially movable upon said axle member, a cutter journaled upon said cam wheel axially coplanar with the axis of said axle member, a non-rotatable guide spout axially slidable upon said axle adapted to be intersected by the cutting edge of said cutter and coupled to said cam wheel to move axially therewith, means for rotating said cam wheel, and transmission devices connecting with said knife and axle for rotating said cutter about its own axis, and means for rotating said planet cutter about the axis of said axle member.

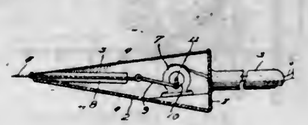


4. In a severing device, a stationary axle having a conduit longitudinally therethrough, a pitch member concentrically and slidably journaled upon said axle adapted to coöperate with stationary means whereby said pitch member through its rotation is moved laterally upon said axle in motion of reciprocation, a rotative cutter eccentrically journaled upon said pitch member, and a spout member supported upon said axle having a conduit joining with said axle conduit and adapted to be intersected by said cutter, said spout member connecting with said pitch member to be reciprocated thereby.

5. In a severing device, a support, a planet cutter revolubly journaled upon said support and adapted to sever the work at an intersecting location between the axis of the cutter and the axis about which it revolves, and non-rotatable means for guiding the cutter's edge continuously in its orbital path.

[Claim 6 not printed in the Gazette.]

1,242,479. PAPER-REMOVING MACHINE. ALVIN B. RUSSELL, Brooklyn, N. Y. Filed Dec. 26, 1916. Serial No. 138,920. (Cl. 72—137.)



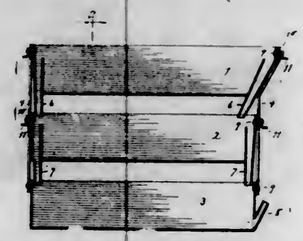
1. A paper removing machine comprising in combination, a base plate, a cutting blade mounted upon the base plate and guided to be projected forwardly and rearwardly over the forward edge thereof, a motor mounted upon the base plate, means interposed between the motor and the blade for reciprocating the latter on the base plate, and a cover plate providing with said base plate, a guide-way for the blade and acting as a deflector for the material removed by the blade.

2. A paper removing machine, comprising in combination, a base plate adapted to be slid over a wall surface, triangular side pieces carried by the base plate, a cover plate carried by the side pieces and inclining toward the front of the base plate, said cover plate forming with the latter, a guide-way across the front of the base plate, guide-ways carried by the base plate, a blade carried in the guide-ways and adapted to reciprocate longitudinally between the cover plate and the base plate and below the cover plate, a motor on the base plate and means interposed between the blade and the motor for actuating the blade.

1,242,480. PIGMENT OR FILLER. LOUIS N. SAHM, New York, N. Y. Filed Feb. 26, 1916. Serial No. 80,720. (Cl. 134—58.)

A pigment or filler containing tannin bearing extract, earthy matter, an alkaline substance, a metallic salt to induce precipitation, and an oxidizing agent.

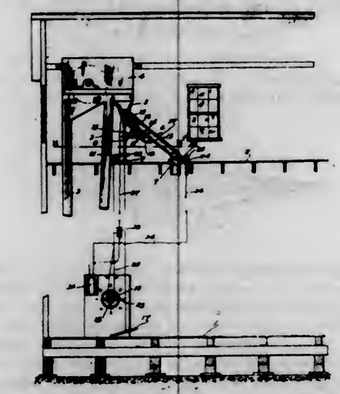
1,242,481. EVAPORATING APPARATUS. HERMANN SCHWANENBERG, Tompkinsville, N. Y. Filed Mar. 14, 1917. Serial No. 154,803. (Cl. 137—154.)



1. An evaporating apparatus comprising a pair of supports provided with a series of upright slots, a series of spaced superposed troughs, pivots on said troughs that engage said slots, finger pieces on the pivots, and overflow pipes extending from near the top of any one trough into the trough next below.

2. An evaporating apparatus comprising a pair of supports, a series of spaced superposed troughs pivoted thereto, the uppermost trough having a flared end that projects a distance beyond the lower troughs, and overflow pipes extending from near the top of any one trough toward the trough next below.

1,242,482. GRAIN-ELEVATOR. JOHN J. SHOTWELL, Winnipeg, Manitoba, Canada. Filed Nov. 7, 1916. Serial No. 130,046. (Cl. 193—39.)



1. The combination with a plurality of concentrically arranged and spaced floor funnels, a pivoted distributing spout for delivering to the funnels and means for operating the spout to bring it into discharging position over one or other of the funnels, of an annunciator embodying indicators corresponding to the respective funnels, a contact member associated with each funnel, a contact member associated with the distributing spout and an electrical circuit containing a source of electromotive force, the annunciator and the contact members and arranged such that it will be closed by the contacting of the contact members in the discharging position of the distributing spout over a funnel.

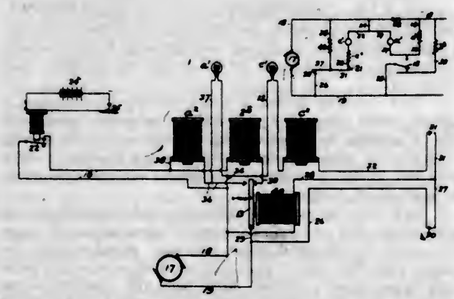
2. The combination with a plurality of concentrically arranged and spaced floor funnels, a pivoted distributing spout for delivering to the funnels and means for operating the spout to bring it into discharging position over one or other of the funnels, of an annunciator having a selective indicator corresponding to each funnel, a contact member adjacent each funnel, a contact member carried by the distributing spout and adapted to engage with the funnel contact members when the distributing spout is brought to discharging position over the respective funnels and an electrical circuit embodying a source of electro-motive force, the annunciator and the contact members and arranged such that when the distributing spout is positioned to discharge into a definite funnel the indicator corresponding to that funnel will be actuated.

3. The combination with a plurality of concentrically arranged and spaced floor funnels, a pivoted distributing spout for delivering to the funnels and means for operating the spout to bring it into discharging position over one or other of the funnels, of an annunciator having a selective indicator for each of the funnels, a suitably insulated contact piece adjoining each funnel, a suitably insulated contact arm extending radially from the distributing spout and adapted in the discharging position of the spout over a funnel to make contact with the contact member of that funnel and an electrical circuit containing the contact members, the contact arm, the annunciator and a source of electro-motive force, said circuit being arranged such that a particular indicator of the annunciator will be actuated when the distributing spout is in discharging position over a particular funnel.

4. The combination with a plurality of concentrically arranged spaced funnels, a pivoted distributing spout for discharging into the several funnels and means for raising, swinging and dropping the distributing spout to bring it into the several discharging positions, of vertically adjustable means for positively guiding the distributing spout into discharging position over the funnel when dropped.

5. The combination with a plurality of concentrically arranged spaced funnels, a pivoted distributing spout for discharging into the several funnels and means for raising, swinging and dropping the distributing spout to bring it into the several discharging positions, of an outstanding guide arm permanently secured to the discharge end of the spout and vertically adjustable flaring guide bars adjacent the respective funnels and adapted to receive the extending end of the arm in the dropping of the spout and direct the spout into a positive discharging position centered over the funnel.

1,242,483. WORK AND TIME INDICATOR. WILLIAM H. SHUSTER, Jr., and ALLEN L. GRAMMER, Philadelphia, Pa. Filed Nov. 18, 1916. Serial No. 132,025. (Cl. 234—1.5.)

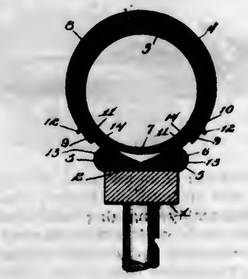


1. A work and time indicator comprising the combination of a continuous source of current and a time interrupted source of current having means for interrupting its circuit at regular time intervals, a production circuit interrupter automatically responsive to work and a starting switch in series relation, an electro-magnetic circuit changer and its circuit connections to the continuous source and responsive to the starting switch, a delay-time electric adder having driving circuit connections connected with the time interrupted source in the position of the circuit changer corresponding to open position of the starting switch, a running time electric adder having driving circuit connections connected with the time interrupted source in the position of the circuit changer corresponding with closed position of the starting switch, and an electric production adder and driving circuit connections responsive to the production circuit interrupter and connected with the continuous source through the starting switch.

4. A work and time indicator comprising the combination of a set of electric adders, a time circuit provided with means for breaking it at regular time intervals, means for automatically cutting in one and cutting out the other of two of said adders in respect to the time circuit and in response to starting and stopping to register delay and running time, and a production circuit-interrupter automatically responsive to work and a starting switch in series relation and their continuous circuit connections for actuating the third adder in response to both said interrupter and switch to register production.

[Claims 2, 3, and 5 to 9 not printed in the Gazette.]

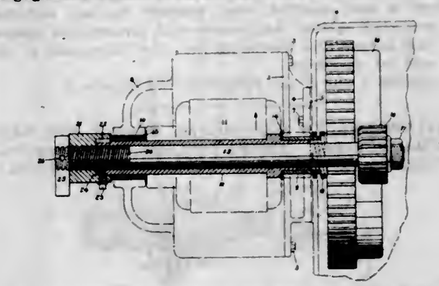
1,242,484. PROTECTOR FOR PNEUMATIC TIRES. JUNIUS W. SMITH, Nooksack, Wash. Filed Dec. 18, 1915. Serial No. 67,656. (Cl. 152—17.)



In a protector for pneumatic tires, the combination with a wheel rim having clencher flanges, and a tire having clencher ribs for engagement with said flanges, of a protector enveloping the tread and sides of the tire and having longitudinally alined slots therein arranged in pairs at intervals around the free edges thereof, and connectors between said protector and said clencher flanges, said connectors comprising bowed triangular plates arranged to bear against the sides of the tire and having their widened ends provided with centrally positioned substantially semi-circular cut away portions defining a pair of legs, each leg end being bent at an acute angle to the body portion of the connector to provide a pair of hooks for reception in a coöperating pair of slots in the protector, and the narrow ends of the connectors being provided with retaining flanges bent at an angle thereto and extending from side to side and clamped between the clencher surfaces of the tire and rim.

1,242,485. ENGINE-STARTING DEVICE. LEE HERMAN SMITH, Detroit, Mich. Filed Jan. 26, 1917. Serial No. 144,642. (Cl. 74—7.)

1. A starting device having in combination with an engine driven member, an electric motor having a hollow armature shaft, a second shaft mounted within said hollow shaft and longitudinally movable with respect thereto, a driving pinion fastened upon one end of said second shaft and a spiral thread cut upon the other end thereof, a member secured to one end of said hollow shaft having an internal thread adapted to engage the thread on said second shaft, and a counterbalancing member fastened to the threaded end of said second shaft serving to restrain the same from rotation, whereby when said hollow shaft is operated the screw threaded engagement between said internally threaded member and the second shaft acts to automatically carry said driving pinion into engagement with the engine driven member.



4. In a starting device for engines, in combination, an engine operated member, a motor having a hollow armature shaft, an inner shaft within said hollow shaft projecting at both ends therefrom, a pinion fastened upon one end and a counterbalance fastened to the other end of said inner shaft, a nut fastened to said hollow shaft and coöperating with said inner shaft to automatically move the same in an axial direction for the purpose of engaging said pinion with the engine member, said counterbalance serving to assure said axial movement of the inner shaft, and means coacting with said pinion to absorb the shock of said engagement.

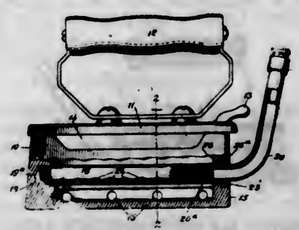
10. A starting device having in combination, an engine member, a motor having two shafts one within the other, driving means on the inner shaft adapted to be operatively connected with the engine member, an internally threaded extension on the outer shaft coöperating with the inner shaft to automatically move the driving means on the latter into driving engagement with the engine member, and means on the inner shaft for assuring said engagement.

15. A starting device having in combination an engine member, a motor shaft having an internally threaded extension fastened thereto, and a second shaft within the outer shaft threaded to coact with the same and having driving means adapted to be operatively connected with the engine member, and having inertia means coacting therewith to permit the shaft thread to automatically establish a driving relation between the driving means on the inner shaft and the engine member.

[Claims 2, 3, 5 to 9, and 11 to 14 not printed in the Gazette.]

1,242,486. [WITHDRAWN.]

1,242,487. GAS-BURNER. OTTO SPAHR, Philadelphia, Pa., assignor to Strause Gas Iron Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 31, 1913. Serial No. 809,597. (Cl. 158—23.1.)

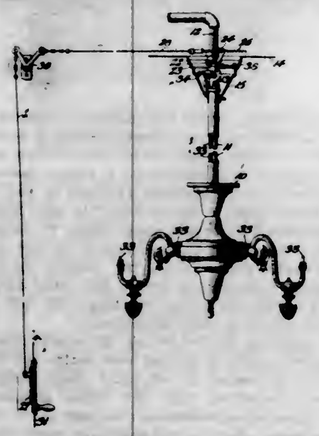


3. A self-heating gas iron comprising a hollow body having an opening in its rear wall and an enlarged recess

surrounding same, a burner tube extending through said opening and having a double series of radially extending jet apertures, a mixing tube arranged to screw into one end of said burner tube and forming an annular shoulder therein, a lock-nut adapted to engage the end of said burner tube whereby said burner and mixing tubes are locked together, said lock-nut being adapted to be received in said enlarged recess whereby the said lock-nut is protected against interference and foraminated means in said burner tube extending over the inner ends of all of said jet apertures.

[Claims 1 and 2 not printed in the Gazette.]

1,242,488. VALVE AND SIGNAL DEVICE FOR GAS-CHANDELIERS. ADOLPH SPIELMAN, Philadelphia, Pa. Filed July 6, 1917. Serial No. 178,955. (Cl. 67—16.)

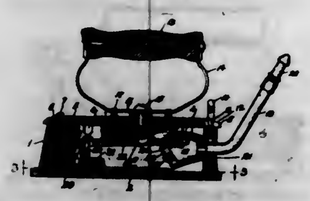


1. Apparatus of the character stated embracing a chandelier including its gas supply pipe, a rotary valve operable for controlling the gas supply, a chandelier canopy for concealing said valve, a trip-member provided with a medium for striking said canopy to produce an audible signal and means operable with the valve for tripping said member at predetermined intervals.

2. Apparatus of the character stated consisting of a chandelier including its gas supply pipe, a rotary valve operable for controlling the gas supply, a chandelier canopy for concealing the valve, a trip-member provided with a medium for striking said canopy to produce an audible signal, means for adjusting said medium with respect to the trip member and means operable with the valve for tripping said member at predetermined intervals.

[Claims 3 to 5 not printed in the Gazette.]

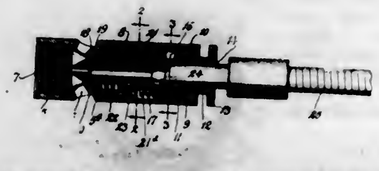
1,242,489. SELF-HEATING SAD-IRON. CHARLES STICHLER, Philadelphia, Pa., assignor to Stranse Gas Iron Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 20, 1915. Serial No. 3,227. (Cl. 158—23.1.)



1. A self-heating sad iron comprising a hollow body, a burner therein having an apertured face extending transversely to the longitudinal axis of said body, a pair of connected members extending from said burner for supporting the same and forming a substantially horizontal opening in front of said apertured face, a movable cover for said body and a closure carried by said cover and arranged to fit in said opening whereby the heat from the burner is confined adjacent to the bottom of said body.

2. A self-heating sad iron comprising a hollow body, lugs in said body near the apex thereof, a projection extending upwardly from said body and converging toward the rear thereof, a cover for said body, a burner in said body having an apertured face extending transversely to the longitudinal axis thereof, members extending from said burner parallel with the side walls of said body and arranged to rest upon said lugs whereby said burner is supported in position, a plate connecting the free ends of said members and provided with a slot, a screw extending through said slot into engagement with said projection whereby said burner is secured against removal from said body, said members and plate forming a substantially horizontal opening in front of said apertured plate, and a closure depending from said cover and adapted to fit into said opening whereby the heat from said body is confined adjacent to the bottom of said body.

1,242,490. GAS-BURNER ATTACHMENT. CHARLES STICHLER, Philadelphia, Pa., assignor to Strause Gas Iron Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Apr. 10, 1915. Serial No. 20,404. (Cl. 158—118.)



1. The combination of an air hood, an independent nozzle carried by said air hood and slidably mounted therein, a fuel tube detachably engaging said nozzle and communicating therewith, and means whereby said nozzle and tube are detachably maintained in engagement with each other at the opposed ends.

5. The combination of an air hood, a nozzle slidably mounted therein and having a tapering inlet end, a fuel tube adapted to fit over said tapering end whereby said tube and nozzle are connected together, a spring for maintaining said tapering end in said fuel tube, and means for maintaining said fuel tube in its operative position.

7. The combination of an air hood, a nozzle carried by said air hood and independently slidable therein, a fuel tube arranged to engage said nozzle and communicate therewith, means for maintaining said fuel tube and nozzle in connection with each other and means whereby the sliding movement of said nozzle in one direction is limited.

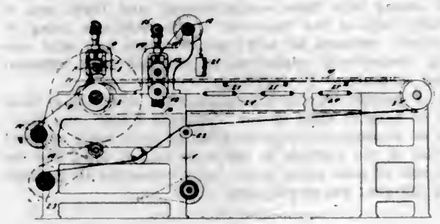
9. The combination of an air hood, a nozzle movably carried thereby, a fuel tube detachably and frictionally connected with said nozzle and coöperating surfaces at the opposed ends of said nozzle and tube respectively whereby said nozzle and tube are centered with respect to each other.

[Claims 2 to 4, 6, 8, and 10 not printed in the Gazette.]

1,242,491. WATERPROOF FABRIC. WILLIAM O. STODDARD, Jr., Madison, N. J., assignor of one-half to Frederic E. Kip, Montclair, N. J. Filed Sept. 1, 1916. Serial No. 118,012. (Cl. 154—50.)

1. An article of manufacture comprising two textile fabrics united by a non-drying water-proof adhesive containing a blown vegetable oil.

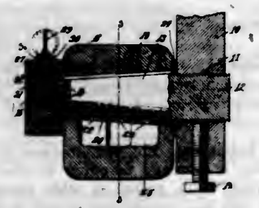
2. An article of manufacture comprising two textile fabrics united by an adhesive containing nitro cellulose and a blown non-drying oil.



3. An article of manufacture comprising two textile fabrics united by an adhesive containing nitro cellulose and a blown vegetable oil.

4. An article of manufacture comprising two textile fabrics united by an adhesive containing nitro cellulose and blown castor oil.

1,242,492. PITMAN. JOSEPH W. STORM, Coshocton, Ohio. Filed Oct. 11, 1916. Serial No. 125,066. (Cl. 74—17.)



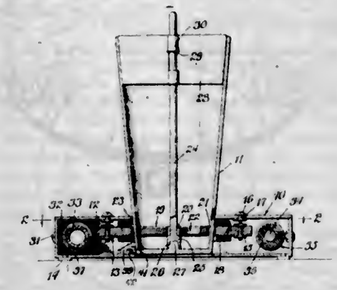
A device of the character described comprising a driving element, a stub shaft extending from said driving element, a pitman provided with a transversely extending passage through which said stub shaft extends to rotatably mount the pitman and with side pockets leading from the passage, a bushing in the passage of the pitman having side lugs fitting into the pockets to prevent rotation of the bushing, the bottom portion and one side portion of the bushing being provided with lubricant passages, the pitman being provided with a lubricant pocket extending longitudinally of the perforated portion of said bushing, a disk upon the shaft holding the pitman in spaced relation to the driving element and engaging the bushing to hold the bushing in the pitman, and means for holding the pitman upon the stub shaft.

1,242,493. ELECTRICAL DRINK-MIXER. RICHARD H. STRINGHAM, Bountiful, Utah. Filed Jan. 12, 1917. Serial No. 142,018. (Cl. 259—108.)

1. In a drink mixer, a stator, a di-electric receptacle adapted to be positioned within the stator, a rotor insertible in the receptacle, and means for rotatably supporting the rotor within the receptacle and in the plane of the stator.

2. In a drink mixer, a stator, a di-electric receptacle adapted to be positioned within the stator, a rotor insertible in the receptacle, and means for rotatably supporting the rotor within the receptacle and in the plane of the stator, said means including a shaft disposed axially of the receptacle and locked thereto against turning movement, the rotor being revolubly mounted upon the shaft.

3. In a drink mixer, a stator, a di-electric receptacle adapted to be positioned within the stator, a rotor insertible in the receptacle, means for rotatably supporting the rotor within the receptacle and in the plane of the stator, said means including a shaft disposed axially of the receptacle and locked thereto against turning movement, the rotor being revolubly mounted upon the shaft, and a vane detachably mounted upon the shaft to extend diametrically of and engage in the upper portion of the receptacle to centralize the shaft.

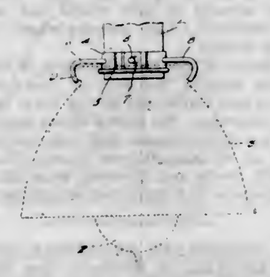


4. In a drink mixer, a stator, a di-electric receptacle insertible within the stator, a rotor insertible in the receptacle, means detachably engaging with the rotor for revolubly supporting it within the receptacle and in the plane of the stator, current supply conductors for the stator, and a switch in one of the conductors arranged to be closed by positioning of the receptcle within the stator.

5. In a drink mixer, a stator, a di-electric receptacle insertible within the stator, a rotor insertible in the receptacle, means detachably engaging with the rotor for revolubly supporting it within the receptacle and in the plane of the stator, current supply conductors for the stator, a switch in one of the conductors arranged to be closed by positioning of the receptacle within the stator, and means for automatically opening the switch upon removal of the receptacle.

[Claims 6 to 9 not printed in the Gazette.]

1,242,494. LAMP-SHADE BRACKET. HERBERT L. STUBBS, Colorado Springs, Colo. Filed Feb. 2, 1917. Serial No. 146,183. (Cl. 240—114.)



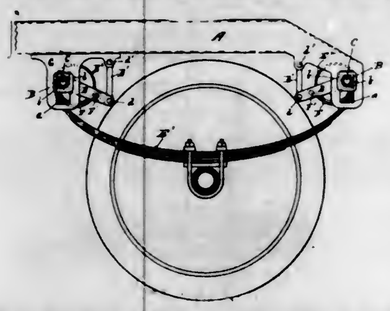
1. In a lamp shade bracket, the combination of a split resilient collar having the opposite ends overlapped, said collar having a key hole slot adjacent one end thereof, a headed lug formed on the other end adapted to engage in said slot, and finger engaging means rigidly secured to the collar adjacent the ends.

[Claim 2 not printed in the Gazette.]

1,242,495. SPRING SUSPENSION MECHANISM. EDMUND THOMAS, Erie, Pa. Filed Apr. 23, 1917. Serial No. 163,937. (Cl. 267—17.)

1. In an apparatus of the class described, a chassis side-bar, a vehicle spring, a spiral coil on the end of said spring, means to secure the end of said spiral coil to said side-bar, and lever mechanism adapted to be actuated by said side-bar to cause said spiral coil to partially unwind when said side-bar rebounds beyond the normal retraction of said vehicle spring, substantially as set forth.

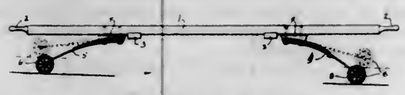
5. In an apparatus of the class described, a chassis side-bar, vertical slots therein, slidable plates in said slots, inwardly projecting sleeves on said plates, a bolt passing through said sleeves to hold said plates in said slots, levers fulcrumed on said sleeves, a vehicle spring, a spiral coil on the end of said spring and secured upon said



sleeves between said levers, a strap hooked over the end of said coil and passing under said coil and having its free end secured to said levers, and a link pivoted to the free ends of said levers and to said side-bar, substantially as set forth.

[Claims 2 to 4 not printed in the Gazette.]

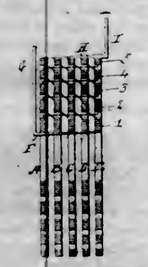
1,242,496. AMBULANCE-COT. WILLIAM H. THOMAS, Sterling, Ill. Filed Jan. 29, 1916. Serial No. 75,091. (Cl. 21—80.)



1. A device of the class described, comprising a frame provided with suitable handles; two pairs of blocks secured to the lower face of said frame and having curvilinear lower faces diverging outwardly from said frame, leaf-springs secured to said blocks and conforming in curvature therewith; and carrying-wheels on the outer ends of said springs.

2. In a device of the class described, a frame provided with suitable handles, two pairs of blocks secured to the lower face of said frame, and having lower faces diverging outwardly therefrom; the blocks at one end of said frame possessing greater thickness with relation to said frame than those at the opposite end thereof; leaf-springs secured to said blocks and diverging from said frame; and carrying-wheels on the outer ends of said springs.

1,242,497. POLYPHASE REACTANCE-COIL. PHILIP TORCHIO and HARRY R. WOODROW, New York, N. Y., assignors to Thomas E. Murray, New York, N. Y. Filed Mar. 15, 1917. Serial No. 155,065. (Cl. 175—360.)

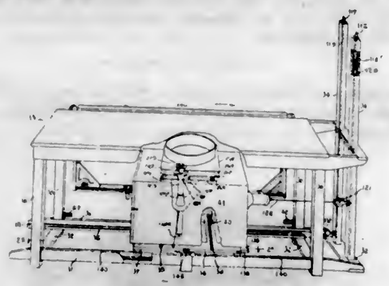


1. A polyphase reactance apparatus, comprising a plurality of sets of parallel coils of the "pancake" type, said sets of coils being respectively connected in multiple with different phase currents.

2. A polyphase reactance apparatus, comprising a casing, transverse partitions of insulating material dividing said casing into three compartments, and three sets of parallel coils of the "pancake" type, said sets being respectively inclosed in said compartments and said sets being respectively connected in multiple with different phase currents.

3. A polyphase reactance apparatus, comprising three sets of parallel coils of the "pancake" type, the direction of winding of the middle set of coils being opposite to that of the winding of the outer sets of coils, and the said sets of coils being respectively connected in multiple with different phase currents.

1,242,498. X-RAY APPARATUS. JULIUS B. WANTZ, Chicago, Ill., assignor, by mesne assignments, to Victor Electric Corporation, Chicago, Ill., a Corporation of New York. Filed Nov. 5, 1914. Serial No. 870,462. (Cl. 250—34.)



1. In X-ray apparatus, the combination of a guide-equipped member, a carriage mounted to move on said guide and provided with guides, a slide adapted to be telescoped with said last named guides and be disengaged therefrom, and tube-supporting means on said slide, whereby said slide and the tube carried thereby may be bodily removed as a unitary structure from said carriage.

13. In X-ray apparatus, the combination of a table, X-ray-tube-holding means movably supported on said table, shutter mechanism in position to coöperate with a tube on said tube-holding means and movable with the latter and formed of independently operable elements, and shutter-controlling means for independently operating said shutter elements, connected with said tube-holding means and constructed and arranged to serve as a means by which the operator may shift said holding means.

19. In X-ray apparatus, the combination of a table, X-ray-tube-holding means movably supported on said table, shutter mechanism in position to coöperate with a tube on said tube-holding means and movable with the latter, a shiftable electrical contact, and shutter-controlling means and means for shifting said contact grouped together at a central station and connected with said tube-holding means and serving as a means by which the operator may shift said holding means.

32. The combination of a main table-section, supporting members adjustable up and down on said main section and formed of pivotally-connected rods, and an X-ray plate-supporting member pivotally connected with the upper ones of said rods, for the purpose set forth.

38. In an X-ray table, the combination of a suitably-supported table-top, a support for an X-ray tube supported on the table to be movable thereon in a horizontal plane, a suitably supported bar, a sleeve mounted on said bar to be shiftable along the latter and provided with stops adapted to coöperate with said X-ray tube-support for limiting the movement of the latter in streoscopic work, and means for releasably securing said sleeve in its different positions on said bar, for the purpose set forth.

[Claims 2 to 12, 14 to 18, 20 to 31, 33 to 37, and 39 to 44 not printed in the Gazette.]

1,242,499. THERMO-ELECTRIC GENERATOR. HARTWELL W. WEBB, Cresskill, N. J. Filed Mar. 17, 1913. Serial No. 754,912. (Cl. 171—73.)



1. A thermo-electric couple, comprising a metallic positive element and a metallic negative element, the corresponding ends of said elements being reduced in size, said reduced ends constituting throughout their lengths the joint to be heated, the other ends of said elements having breaks.

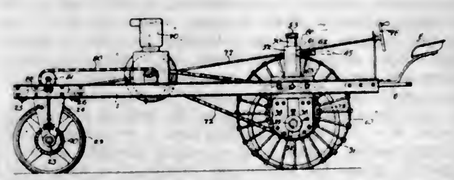
2. A thermo-electric couple, comprising a metallic positive element and a metallic negative element, the corresponding ends of said elements being reduced in size, said reduced ends constituting throughout their lengths the joint to be heated, a portion of the surface of each element immediately beyond its reduced end being uneven and having the same resistance as the even portion thereof, and the free ends of said elements having breaks.

3. In a thermo-electric generator, the combination with a refractory wall, of thermo-electric couples passing through said wall, one end of each element of each couple being reduced in size, said reduced ends projecting throughout their lengths beyond one surface of said wall and constituting the joints to be heated, and those portions of the elements which are embedded in said wall being uneven and having the same resistance as the even portion thereof.

4. In a thermo-electric generator, the combination with a refractory wall, of thermo-electric couples passing through said wall, one end of each element of each couple being reduced in size, said reduced ends projecting throughout their lengths beyond one surface of said wall and constituting the joints to be heated, and the ends of the elements projecting beyond the other surface of said wall having breaks.

5. In a thermo-electric generator, the combination with a refractory wall, of thermo-electric couples passing through said wall, one end of each element of each couple being reduced in size, said reduced ends projecting throughout their lengths beyond one surface of said wall and constituting the joints to be heated, those portions of the elements which are embedded in said wall being uneven and having the same resistance as the even portion thereof, and the ends of the elements projecting beyond the other surface of said wall having breaks.

1,242,500. TRACTOR. NEWTON K. WILCOX, Providence, R. I. Filed May 25, 1916. Serial No. 99,734. (Cl. 21—114.)



1. In a tractor, the combination of a frame, alined wheels adapted to run in the same path and acting to support the frame, a stabilizing wheel positioned at one side of the tractor, an adjustable extensible member on which said wheel is journaled substantially in axial alinement with one of the first mentioned wheels.

2. In a tractor, the combination of a frame, a pair of supporting wheels adapted to run substantially in the same path, a removable laterally extending member, a stabilizing wheel journaled on said member, and means for securing said member to the frame with the wheel at either side of the tractor, said means permitting its vertical movement with relation to the frame.

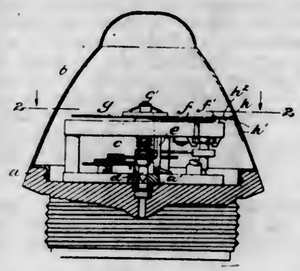
3. In a tractor, the combination of a frame, supporting wheels adapted to run in substantially the same path, a stabilizing wheel laterally separated from the frame, an axle for the stabilizing wheel, a member connecting the axle with the frame, means pivotally coöperating with said member permitting the angle of such axle to change with relation to the frame and also permitting the vertical movement of said member with relation to the frame at its pivotal connection.

4. In a tractor, the combination of a frame, driving and steering wheels supporting said frame and arranged to run in the same path, a laterally extending axle member substantially in axial alinement with one of said wheels, a stabilizing wheel journaled on said member at a point separated from the path of the first mentioned wheels, means for holding said axle member at either side of the frame, and means acting as the holding means for vertically adjusting the position of the last mentioned wheel with relation to the path of the others.

5. In a tractor, the combination of a frame, wheels supporting said frame and arranged to run in the same path, one of said wheels having a hollow bearing member secured to the frame, a laterally positioned stabilizing wheel, an axle therefor extending inside of said bearing and movably connected with the frame.

[Claims 6 to 26 not printed in the Gazette.]

1,242,501. TIME-FUSE FOR EXPLOSIVE PROJECTILES. WALTER M. WILHELM, Swarthmore, and KENNETH RUSHTON, Wynnewood, Pa. Filed Aug. 16, 1916. Serial No. 115,159. (Cl. 102—36.)



1. In a time-fuse for an explosive projectile, the combination of a base, a cap mounted rotatably thereon, a time mechanism supported on the base and comprising a controlling disk, and a coupling member comprising a piece of relatively soft metal fixedly secured at one end to the cap and having its other end bent substantially into the plane of the controlling disk to engage the same normally and to be moved by flexing out of such plane to release the time mechanism through its inertia when the projectile is fired from the gun.

2. In a time fuse for an explosive projectile, the combination of a base, a cap mounted rotatably thereon, a time mechanism supported on the base and comprising a notched controlling disk, and a coupling member comprising a wide piece of relatively soft metal secured at one end to the cap and having its other end bent substantially into the plane of the controlling disk, and provided with a tongue to engage the same normally and adapted to be moved out of such plane to release the time mechanism through its inertia when the projectile is fired from the gun.

1,242,502. BALL-RETAINER FOR RADIAL BALL-BEARINGS. SVEN GUSTAF WINQUIST, Gottenborg, Sweden, assignor to Aktiebolaget Svenska Kullagerfabriken, Gottenborg, Sweden, a Corporation of Sweden. Filed Sept. 21, 1916. Serial No. 121,398. (Cl. 64—59.)



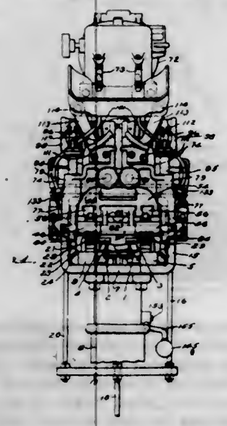
1. A ball retainer for double row ball bearings, comprising two sheet-metal rings, one for each series of balls, each ring being folded so as to form pockets for the balls, said rings being placed in such position relatively to each other that the walls of the pockets of each ring project into the spaces between the rear sides of adjacent pockets of the other ring.

6. A ball retainer for double row ball bearings, comprising two sheet-metal rings, one for each series of balls, each ring being folded so as to form pockets for the balls, said rings being fastened together in such position relatively to each other that the walls of the pockets of each ring project into the spaces between the rear sides of adjacent pockets of the other ring.

8. A ball retainer for double row ball bearings, comprising two sheet-metal rings connected by welding, each ring being folded so as to form pockets for the balls, said rings being placed in such position relatively to each other that the walls of the pockets of each ring project into the spaces between the rear sides of adjacent pockets of the other ring.

[Claims 2 to 5 and 7 not printed in the Gazette.]

1,242,503. MACHINE FOR OPERATING ON SHOE-BOTTOMS. ERASTUS EDWIN WINKLEY, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Nov. 29, 1912. Serial No. 734,095. (Cl. 1—18.)



1. A machine for operating on shoe bottoms, having, in combination, a pair of tacker mechanisms mounted to swing, one on each side of the machine, about independent axes, a pair of rock shafts, one on each side of the machine, operative connections between each rock shaft and tacker mechanism located on the same side of the machine, and a cam for rocking the shafts, substantially as described.

2. A machine for operating on shoe bottoms, having, in combination, a pair of tacker mechanisms mounted to swing, one on each side of the machine, about independent axes, a pair of rock shafts, one on each side of the machine, operative connections between each rock shaft and tacker mechanism located on the same side of the machine, a cam for rocking the shafts, and adjustable connections between the cam and rock shafts, substantially as described.

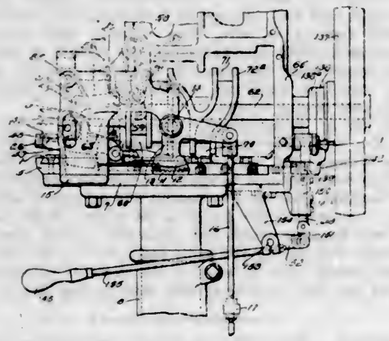
3. A machine for operating on shoe bottoms, having, in combination, a pair of tacker mechanisms mounted to swing, one on each side of the machine, about independent axes, a pair of rock shafts, one on each side of the machine, operative connections between each rock shaft and tacker mechanism located on the same side of the machine, a cam for rocking the shafts, adjustable connections between the cam and rock shafts, and means controlled by the width of the shoe being operated upon for adjusting the adjustable connections, substantially as described.

4. A machine for operating on shoe bottoms, having, in combination, two tacker mechanisms, one at each side of the shoe, movable across the shoe bottom about fixed axes, an actuator operating to swing said tackers, a definite angular distance about their axes, and adjustable connections between said actuator and tackers to modify the angular extent of the movement normally imparted to the tackers by said actuator, substantially as described.

5. A machine for operating on shoe bottoms, having, in combination, two tacker mechanisms, one at each side of the shoe, mounted on fixed axes, an actuator operating to move said tackers inward across the shoe bottom a definite distance about their axes and then outward, means operable preliminarily to modify the extent of the inward movement normally imparted by said actuator, and means to operate said tackers before they are moved outward, substantially as described.

[Claims 6 to 25 not printed in the Gazette.]

1,242,504. MACHINE FOR OPERATING ON SHOE-WELTS. ERASTUS E. WINKLEY, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Nov. 29, 1912, Serial No. 734,095. Divided and this application filed Jan. 22, 1916. Serial No. 73,669. (Cl. 12—67.)



1. A machine for operating on the welt of a welted unsoled shoe, having, in combination, a welt rest, a welt butting cutter, a slide, a cutter carrier pivotally connected thereto, means for actuating the slide to operate the cutter, and separate means for moving the carrier from and toward the welt rest about its pivotal connection with the slide, substantially as described.

2. A machine for operating on the welt of a welted unsoled shoe, having, in combination, a welt rest, a welt butting cutter, a slide, a cutter carrier pivotally connected thereto, means for moving the carrier from and toward the welt rest about its pivotal connection with the slide including a toggle, and a cam for breaking and making the toggle, substantially as described.

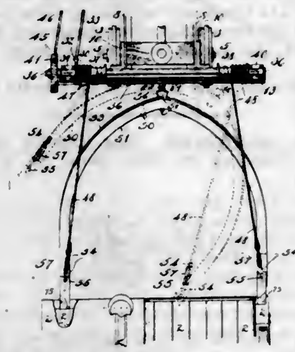
3. A machine for operating on the welt of a welted unsoled shoe, having, in combination, a welt rest, a welt butting cutter, a horizontal slide, a cutter carrier pivoted thereto, means for raising and lowering the carrier from and toward the welt rest about its pivotal connection with the slide, and means for reciprocating the slide to operate the cutter, substantially as described.

4. A machine for operating on the welt of a welted unsoled shoe, having, in combination, a welt rest, a pivoted cutter carrier supporting a cutter opposite the welt rest, a pivotal link connection for supporting the forward end of the cutter carrier, constructed and arranged for raising and lowering the cutter toward and from the welt rest to position the cutter for butting, and means for reciprocating the cutter carrier to butt the welt, substantially as described.

5. A machine for operating on the welt of a welted unsoled shoe, having, in combination, a welt rest, a welt butting cutter slide, a cutter carrier supporting a cutter operated by the slide, means for reciprocating the slide to butt the welt, and separate means for raising and lowering the carrier toward and from the welt rest to position the cutter for butting the welt, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

1,242,505. HITCH FOR TRACTOR-IMPELLED IMPLEMENTS. JOHN WILLIAM WISE, Knoxville, Ill. Filed Mar. 14, 1916. Serial No. 84,160. (Cl. 56—33.)



2. The combination with a tractor and an implement, of a connector, means for pivotally connecting it to the tractor, means for attaching the implement to the connector, and means carried by the tractor for shifting the rear end of said connector substantially at a right angle to its line of travel.

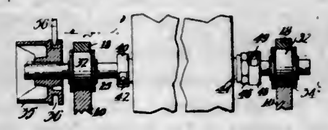
3. The combination with a tractor and an implement, of a yoke-shaped connector, means for securing the connector to the implement, sprocket-wheels carried by the tractor, a chain embracing them, a shifting carriage carried by the tractor and movable transversely thereof by said chain, and a jointed connection between the carriage and the connector.

4. The combination with a tractor, and an implement of a yoke pivotally connected to the tractor, means for moving said yoke laterally, means for securing the implement to the yoke, a shaft carried by the tractor, drums fixed thereon, cables wound in contrary directions, one on each of said drums, and means for driving said shaft and thereby said drums in the same direction for swinging said yoke in a horizontal arc.

5. In a device of the nature described, and in combination with a tractor, a channeled way arranged transversely thereof, a carriage reciprocable in said way, a pivot-member carried by said carriage, means for reciprocating the carriage, a connector, and a pivot-member carried by the connector and engaged with the pivot-member above recited.

[Claims 1, 6, and 7 not printed in the Gazette.]

1,242,506. PAPER-ROLL-SUPPORTING MECHANISM. HENRY A. WISE WOOD, New York, and JOHN A. ISBELL, Middletown, N. Y., assignors, by mesne assignments, to Wood Newspaper Machinery Corporation, New York, N. Y., a Corporation of Virginia. Filed June 5, 1913. Serial No. 771,856. (Cl. 242—68.)



1. In a roll supply mechanism, the combination of a pair of roll supporting surfaces having depressions therein, with a roll carrying spindle having a relatively rotatable housing thereon adapted to seat in said depression, bearings between the housing and spindle, and means for holding said housing in said depression.

2. The combination with a bracket having a substantially horizontal surface provided with a depression at the inner end thereof, of a paper roll-carrying spindle having a ball-bearing mounted thereon for engagement with said horizontal surface and adapted to enter said depression, and a clamp on said bracket adapted to engage the outside of said bearing when in said depression and hold it in position therein.

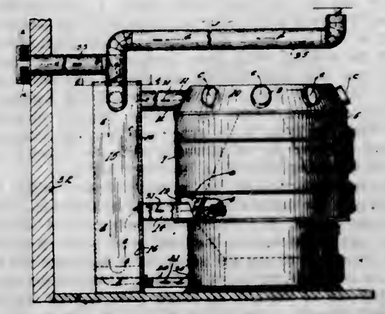
3. The combination with a bracket having a substantially horizontal surface, of a paper roll carrying spindle having a ball bearing mounted thereon for engagement with said horizontal surface, whereby the spindle can be supported from said horizontal surface by the bearing, and a clamp adapted to engage the outside of said bearing to hold it in stationary position on said surface.

4. In a roll carrying mechanism, the combination of a roll supporting surface, with a roll carrying spindle having a relatively rotatable housing thereon adapted to roll along said surface, bearings between the housing and the spindle, and means for holding the housing on said surface.

5. The combination with a supporting bracket having a roll supporting surface, of a paper roll carrying spindle having a roll thereon adapted to roll along said surface, a brake pulley on said spindle provided with a circumferential groove, and means for engaging in said groove to move the spindle longitudinally in said roll, whereby the spindle will be supported by the roll on said surface in all its adjusted positions.

[Claims 6 to 12 not printed in the Gazette.]

1,242,507. VENTILATING AND HEATING APPARATUS. ERASTUS W. WOODS, Chicago, Ill. Filed Feb. 8, 1915. Serial No. 6,950. (Cl. 237—48.)

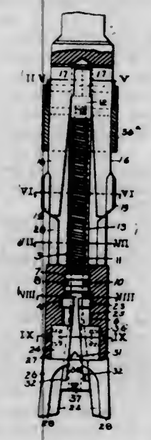


1. In a heating apparatus, the combination with an atmospheric air-receiver vertically positioned and having a plurality of parallel air-passages therein and air trap therebetween and a return air passage, the air receiver having sufficient capacity to contain a compara-

tively large volume of relatively cold air, of a source of heat within an inclosure, means to supply atmospheric air from the air receiver to within the inclosure at a point above the source of heat, air ducts from the source of heat to the space to be heated and suitable return-air ducts from the space to be heated to the return-air passage of the air-receiver, and means to deliver return-air from said return-air passage to within said inclosure at a point below the source of heat.

[Claim 2 not printed in the Gazette.]

1,242,508. UNDERREAMER. CLYDE S. WRIGHT, Toledo, Ohio, assignor to The National Supply Company, Toledo, Ohio, a Corporation of Ohio. Filed Oct. 24, 1916. Serial No. 127,342. (Cl. 255—78.)



1. In an underreamer, an elongated body having a central bore communicating at its lower end with a bit-receiving chamber, having lateral recesses at its upper end and a relatively large portion at its lower end, bits having at their upper ends lateral flanges in the recesses and at their lower ends cutting edges, the bits being suspended on the said flanges, and adapted to swing in the larger portion of the chamber, a reciprocable rod situated in the bore and between the bits, a bit-separating head on the lower end of the rod, and means for holding the rod in one position to separate the bits and in another position to allow the bits to collapse.

2. In an underreamer, a centrally bored body, bits connected to the lower portion thereof so as to have free oscillating motion, a reciprocable rod arranged between the bits and in the bore in the body, a bit separating head on the lower end of the rod arranged to separate the bits when the rod is in its upper position, a slotted device on the rod, an elbow lever having one arm extending through the body and into the slot in the said device and having the other arm extending toward the bottom of the body, yielding means for moving the rod upwardly and holding the same in its upper position, and means on the lever, adapted for engagement with the interior of a pipe, for retaining the rod in its lower position.

3. In an underreamer, a centrally bored body, bits connected to the lower portion thereof so as to have free oscillating motion, a reciprocable rod arranged between the bits and in the bore in the body, a bit separating head on the lower end of the rod arranged to separate the bits when the rod is in its upper position, a slotted device on the upper end of the rod, an elbow lever having one arm extending through a longitudinal slot in the body and into the slot in the said device and having the other arm lying in the said longitudinal slot and extending toward the bottom of the body, yielding means for moving the rod upwardly and holding the same in its upper position, and means on the lever, adapted for engagement with the interior of a pipe, for retaining the rod in its lower position.

4. In an underreamer, a centrally bored body having a relatively large chamber at its lower end, the upper portion of the chamber having lateral recesses, bits in the chamber having portions at their upper ends projecting into the recesses and supporting the bits so that they may have free oscillating motion, a rod reciprocable between the bits and in the bore in the body, and a bit-separating head on the rod adapted to expand the bits in the chamber when the rod is moved upwardly and to allow them to collapse when at its lowest position, the relative cross-section of the rod and bits being such as to allow the bits to swing toward each other at their lower ends when the rod is lowered and to prevent the upper ends of the bits moving toward each other so as to permit the bits to escape from the recesses.

5. In an underreamer, a centrally bored body, bits connected to the lower portion thereof so as to have free oscillating motion, a reciprocable rod arranged between the bits and in the bore in the body, a bit separating head on the lower end of the rod arranged to separate bits when the rod is in its upper position, a slotted device on the rod, an elbow lever having one arm extending through a longitudinal slot in the body and into the slot in the said device and having the other arm lying in the said longitudinal slot, yielding means for moving the rod upwardly and holding the same in its upper position, and means on the lever, adapted for engagement with the interior of a pipe, for retaining the rod in its lower position.

[Claims 6 and 7 not printed in the Gazette.]

1,242,509. BED-FRAME. JACK ZATZKIN, Jersey City, N. J. Filed Dec. 20, 1915. Serial No. 67,944. (Cl. 5—58.)



1. In a device of the class described, the combination with a pair of vertical rails having perforations through their walls at the outer side near the top thereof, a frame slidably engaging said rails, a tubular element in said frame, a rod rotatably held in said tubular element, said rod having bent ends extending outwardly through said element, operating handles on said rod, arms carried by said handles, said arms having means for engagement with the mentioned perforations and means for exerting a torsional effect upon said rod, handle and arms whereby the latter are normally pressed against said rails.

2. In a device of the class described, a pair of spaced vertical rails, a frame slidable thereon, said frame having an upper hollow element, of a plug rigid in said element, a rod revoluble in said plug, means combined with the ends of said rod adapted to engage in perforations in said rails, an operating means therefor and a torsion spring adapted to normally cause engagement between said engaging means and said rails.

1,242,510. SEALING-CAP FOR BOTTLES. FREDERICK E. ANDERSEN, Red Wing, Minn. Filed Aug. 7, 1916. Serial No. 113,526. (Cl. 215—10.)

1. A metallic sealing cap having a flange adapted to be bent into locking contact with a bottle head, and an opener integral with the cap and normally resting in close contact with the periphery thereof, said opener consisting of a body adapted to be bent outward from the flange, and reinforcing wings on the body designed to be bent substantially at right-angles thereto and to bear against the cap.

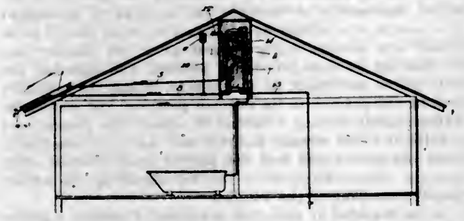
5. A metallic sealing cap having a flange adapted to be bent into locking contact with a bottle head and an opener integral therewith consisting of a sheet metal body having wings with curved tips thereon, said opener being adapted when in normal position to lie close against the periphery of the flange with said curved tips resting between the outer folds of said flange, said body being



adapted to be bent slightly outward by the ordinary bottle sealing device and also adapted to be further bent by the fingers to a position substantially at right-angles to said annular flange, while the wings are turned up with their rear edges against said flange to form a reinforcement for said body.

[Claims 2 to 4 not printed in the Gazette.]

1,242,511. SOLAR HEATER. WILLIAM J. BAILEY, Monrovia, Cal. Filed June 18, 1913. Serial No. 774,374. (Cl. 126—271.)



1. Means for exposing a non-freezing liquid to heat from the sun to heat the said liquid, water containing means, and means for transferring heat from the liquid to the water.

2. Means for exposing non-freezing liquid to heat from the sun to heat said liquid, water containing means, and means for conducting said liquid into close proximity with the water containing means to cause heat to be transferred from said liquid to the water.

3. Means located in exposed position for containing non-freezing liquid to cause to liquid to be heated by the sun, means for containing water in a protected position, and means for circulating liquid from the first means in proximity to the water in the protected position to transfer heat from said liquid to the water.

4. In a solar heater, a sun heater circulating system, a non-freezing liquid in said system, a sun heater connected in said system, a tank containing water to be heated, a portion of said sun heater circulating system extending into said tank, and means for conducting water to and from said tank.

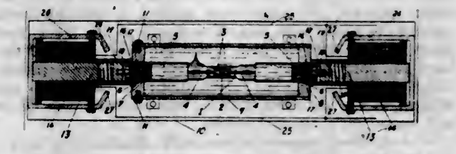
5. In a solar heater, a sun heater circulating system, a sun heater connected in said system, a non-freezing liquid in said system, a standpipe in said system, a water tank into which a portion of said system extends, and means for conducting water to and from said tank.

[Claims 6 to 8 not printed in the Gazette.]

1,242,512. COHERER-PROTECTOR. HARRY D. BETZ, Kansas City, Mo. Filed Jan. 28, 1914. Serial No. 814,933. (Cl. 250—30.)

1. The combination with a coherer having end terminals, of a metallic case inclosing the coherer, contact members adapted for coöperation with the coherer terminals, and means for simultaneously withdrawing the contact members from said case.

2. The combination with a coherer having end terminals, of a case inclosing the coherer, non-conductive conduits extending through the case, movable contact members located in said conduits and adapted for coöperation with the coherer terminals, and means for actuating the contact members.



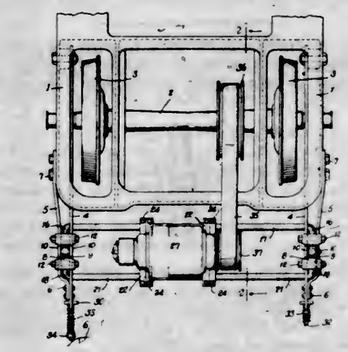
3. The combination with a coherer having end terminals, of a case inclosing the coherer, conduits located in the case, contact members slidable in the conduits and adapted for coöperation with the coherer terminals, means for yieldingly tensioning the contact members toward the coherer terminals, and means for withdrawing the contact members from the coherer terminals against the yielding means.

4. The combination with a coherer having terminals, of a case inclosing the coherer, non-conductive conduits projecting through the case, contact members in said conduits, yielding means for forcing the contact members toward the coherer terminals, and means for withdrawing the contacts from engagement with the said terminals against said yielding means.

5. The combination with a metallic case having closed ends, of non-conductive conduits extending through the closed ends into the interior of the case, a coherer supported by said conduits, out of contact with the case, and having terminals projecting into the conduits, contact members slidably mounted in the conduits, and means for actuating the contact members.

[Claims 6 to 18 not printed in the Gazette.]

1,242,513. DYNAMO SUSPENSION. WILLIAM F. BOUCHÉ, Depew, N. Y., assignor to Gould Coupler Company, a Corporation of New York. Filed May 22, 1915. Serial No. 29,710. (Cl. 105—238.)



1. A dynamo suspension having in combination with a car truck, supporting members extending from the truck, a pair of blocks carried upon said supporting members, one at each side of the suspension, a supporting frame pivotally suspended from said blocks, said frame having two parts extending downwardly from said blocks respectively, two parts extending laterally from each of said downwardly extending parts, one of said lateral parts being integral with said downwardly extending parts, and two spaced apart cross members parallel with the car axle, connecting the laterally extending members on one side with the laterally extending members on the

other side of the suspension, and means whereby the dynamo is adjustably carried by said cross members.

2. A dynamo suspension having in combination with a car truck, two pairs of bars extending from the truck, one pair on each side of the truck, the bars of each pair being spaced apart from and running parallel to one another adjacent the outer ends thereof, a pair of blocks carried upon said bars, one on each side of the truck, each block being bolted to each member of each pair of said bars, the bolts passing through slots in the bars, whereby adjustment of the blocks longitudinally of the bars is permitted, and a swinging dynamo supporting frame pivotally supported from said blocks.

3. A dynamo suspension having in combination with a car truck two pairs of bars extending from the truck, one pair on each side of the truck, a pair of blocks carried upon said bars, one on each side of the truck, each block being bolted to each member of each pair of said bars and a swinging dynamo supporting frame pivotally supported from said blocks.

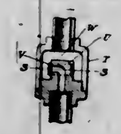
[Claims 4 to 7 not printed in the Gazette.]

1,242,514. STEERING DEVICE FOR SLEDS. LEO R. BOURDON and ALLEN P. BOURDON, Woodstock, Vt., assignors to Woodstock Manufacturing Company, Incorporated. Filed Dec. 6, 1915. Serial No. 65,290. (Cl. 21—94.)



A coasting device, comprising a frame and runners, each in the form of a skee pivotally connected to the frame on a longitudinal axis immediately adjacent each skee upon which the same may be rocked for steering, a T-shape lever consisting of a bar extending crosswise of the coasting device and protruding beyond the seat thereof at each end, and a longitudinally extending bar, a post rising from each skee, and a connection between the upper end of the posts and said lever consisting of separate links extending from the post respectively to said lever.

1,242,515. CHECK-VALVE FOR REFRIGERATING APPARATUS. A LEO BRETT, South Braintree, Mass. Filed Sept. 1, 1916. Serial No. 117,968. (Cl. 62—118.)



1. A check valve composed of a rigid tube having an orifice in its side covered with a soft rubber tube, in combination with a pipe or conduit in an apparatus containing ammonia, so that the valve will be constantly exposed to the action thereon of that substance.

[Claim 2 not printed in the Gazette.]

1,242,516. DIRECTION-INDICATOR. OSA LEO BRITTON, El Paso, Tex. Filed Mar. 28, 1916. Serial No. 87,216. (Cl. 177—337.)

1. In a direction indicator for vehicles, a source of electrical supply, a pointer, a plurality of normally open circuits, means for closing any one circuit at a time for rotating said pointer to a selected signal position to indicate the anticipated movement of the vehicle, means for automatically locking said pointer in its selected signal position, and means for automatically releasing the locked pointer after having signaled the anticipated movement of the vehicle and returning it to its normal position which indicates the forward movement of the vehicle.



2. In a direction indicator for vehicles, a source of electrical supply, a pointer and means for illuminating said pointer, a plurality of circuits for controlling the forward, right, left and stop movements of the pointer, means for closing any one circuit at a time to cause the pointer to indicate the anticipated movement of the vehicle in the shortest path of travel of the indicator, and said travel not to exceed one-half revolution in any one movement thereof, means for automatically opening the closed circuit after the anticipated movement of the vehicle has been signaled by the pointer, and means for automatically closing the circuit controlling the forward position of the pointer, and when the pointer has returned to said forward position, open the circuit, and automatically lock the pointer in its forward signaling position.

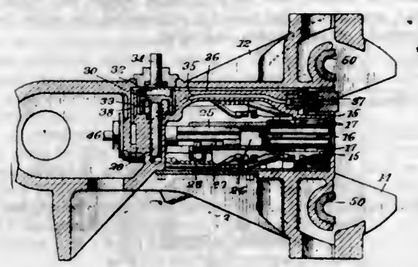
3. In a device having a direction pointer of the class described, an apparatus for subjecting the pointer to selected movements to indicate the anticipated movement of a vehicle electrically by causing a selected circuit to be closed and automatically opened after the pointer has reached its anticipated signal position and signaled the anticipated movement of the vehicle, means for normally locking the pointer in its selected position, and means for automatically closing a circuit to unlock the pointer and revolve it to its normal position and again automatically open the circuit and lock the pointer from rotation until another circuit has ben closed for signaling the anticipated movement of the vehicle.

4. In a device of the class described, a casing, a source of electrical supply, a direction pointer, a plurality of compound-wound differentially connected stationary armature poles, revolving fields, a revolving field shaft, a collector ring having a peripheral contact face fixed to said shaft and in circuit with said fields, a neutral plate fixed to the periphery of said collector ring, a stationary commutator, a plurality of normally open circuits leading from said stationary commutator to said revolving fields, lever actuated circuit closing means for closing any one circuit at a time to revolve said fields, not to exceed one-half revolution in any one direction for finding the selected signal position, a locking ring fixed to the casing near the upper edge thereof having a plurality of locking armature receiving recesses, an electrically actuated armature pivotally supported by one of the revolving fields, and means for opening one of the circuits for returning the direction pointer to its forward pointing position after the fields have been revolved to move the direction pointer to a selected signal position.

5. In a direction indicator comprising an electric apparatus consisting of a casing, a direction pointer, compound-wound and differentially connected stationary armature poles arranged in opposed pairs and providing for normally open circuits, namely, forward, stop, left and right; series wound fields adapted to rotate not to exceed one-half revolution in any one direction between said armature poles, a collector ring having a peripheral contact face in circuit with said fields and adapted to rotate with the fields, a neutral plate fixed to the periphery of said collector-ring, a source of electrical supply, a locking ring fixed to the casing near the upper edge thereof having a plurality of locking armature receiving recesses, a locking armature pivotally supported by one of the revolving fields, and adapted to seat its free end in one of said recesses for locking the direction pointer against movement when the circuits are open, and means for closing the forward circuit and returning the direction pointer to its forward pointing position after a turning or stop signal has been indicated by the pointer.

[Claims 6 to 9 not printed in the Gazette.]

1,242,517. ELECTRIC COUPLING FOR TRAIN-LINE CIRCUITS. THOMAS R. BROWN, Sparkill, N. Y., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed July 14, 1914. Serial No. 850,990. (Cl. 173—332.)



1. In an electric train line coupling, the combination with a casing containing a plurality of fixed contacts connected to train line circuits, and a movable contact carrier having corresponding contacts, of a plurality of cylinders for projecting said carrier to electrically connect fixed contacts of counterpart couplings, said cylinders being rigidly connected to said carrier, and means for controlling the admission of fluid to said cylinders.

2. In an electric train line coupling, the combination with a casing containing a plurality of fixed contacts connected to train line circuits, and a movable contact carrier having corresponding contacts, of a plurality of cylinders for projecting said carrier to electrically connect fixed contacts of counterpart couplings, said cylinders being horizontally arranged and of a diameter substantially the same as the thickness of said carrier.

3. In an electric train line coupling, the combination with a casing containing a plurality of fixed contacts connected to train line circuits, and a movable contact carrier having corresponding contacts, of a plurality of cylinders for projecting said carrier to electrically connect fixed contacts of counterpart couplings, said cylinders being formed in telescoping sections supported on said carrier, and means for admitting fluid thereto.

4. In an electric train line coupling, the combination with a casing containing a plurality of fixed contacts connected to train line circuits, and a movable contact carrier having corresponding contacts, of a fluid pressure cylinder formed in telescoping sections for projecting said carrier and supported thereon, and a spring within said cylinder for opposing the inward movement of said carrier.

5. In an electric train line coupling, the combination with a casing containing a plurality of fixed contacts connected to train line circuits, and a movable contact carrier having corresponding contacts, of a plurality of cylinders for projecting said carrier to electrically connect fixed contacts of counterpart couplings, said cylinders being formed in telescoping sections supported on said carrier, springs for opposing the inward movement of said carrier, and means for admitting fluid to said cylinders.

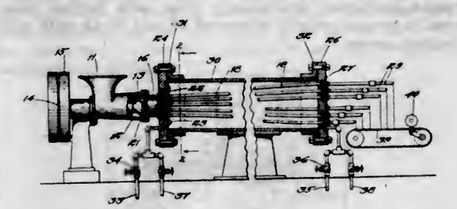
[Claims 6 to 15 not printed in the Gazette.]

1,242,518. DRYING-MACHINE. WILLIAM M. BROWNELL, Brooklyn, N. Y., assignor of three-fourths to Arthur N. Hood, Newton, Mass., and John T. Nightingale, Boston, Mass. Filed May 1, 1916. Serial No. 94,586. (Cl. 257—101.)

1. The combination of a drying tube having a constriction near the discharge end, means for heating the drying tube, and means for forcing the material under pressure through said drying tube.

2. The combination of a drying tube having constrictions one near the intake end and one near the discharge end, means for heating the drying tube and means for forcing the material under pressure through said drying tube.

3. The combination of a drying tube, means for heating the drying tube, means for forcing the material under pressure through said drying tube, and a knife to slice through the material before it enters the drying tube.

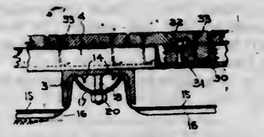


4. The combination of a plurality of drying tubes, a heating jacket surrounding said drying tubes, and means for forcing the material to be dried through the said tubes, said pipes diverging toward the discharge end.

5. The combination of a plurality of drying tubes, a heating jacket surrounding said drying tubes, and means for forcing the material to be dried through said tubes, the discharge orifices of the said tubes being arranged so that the orifices of the top tubes project beyond those of the tubes just below.

[Claim 6 not printed in the Gazette.]

1,242,519. CAR-ROOF. RICHARD WEBB BURNETT, Montreal, Quebec, Canada. Filed Nov. 22, 1911. Serial No. 661,836. (Cl. 108—5.3.)



1. In a car roof the combination with a roof-frame having a series of downwardly turned channel-iron carlines, of roof-sheets with upwardly turned side edges entering the carlines and having turned-back extreme edges, and means fastening the turned back edge-portions to the carlines.

2. In a car roof the combination with a roof-frame having a series of downwardly turned channel-iron carlines, of flat roof-sheets with stiffening beads secured to the underside thereof, and means fastening the sheets to the carlines.

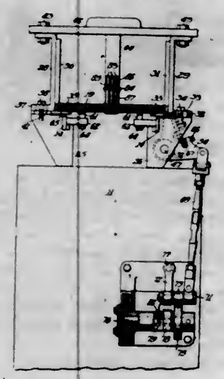
3. In a car roof, the combination with a downwardly-turned channel-iron carline, of a roofing sheet having an upwardly-turned side edge entering the carline and having a turned-back extreme edge, a clip for fastening the turned-back edge portions to the interior of the carline, and a hanger for said clip integral with the lower face of the web portion of said carline.

1,242,520. BLANK-FEEDING MECHANISM. WILLIAM CAMERON, Chicago, Ill. Filed Mar. 6, 1917. Serial No. 152,535. (Cl. 271—23.)

3. In a blank feeding mechanism, the combination of a magazine adapted to support a stack of blanks, a movable member provided with a blank-engaging projection mounted at one end of the magazine, a stationary abutment at the opposite end of the magazine, means for moving said projection toward said abutment in the plane of an interposed blank to engage an edge of the blank and thereby buckle said blank intermediate its ends, means for adjusting the length of said projection to accommodate the mechanism to blanks of various thicknesses and means for engaging the buckled portion of the blank to remove the same from the magazine.

7. In a blank-feeding mechanism, the combination of a magazine provided with bottom members extending in-

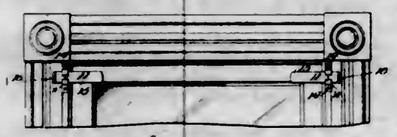
wardly a limited distance from the sides of said magazine, means for bending a blank in said magazine downwardly between said bottom members, means for feeding said downwardly bent blank away from the magazine, and means projecting downwardly from said bottom members to prevent return movement of said blank with said feeding means.



13. In a blank-feeding mechanism, the combination of a magazine adapted to contain a stack of blanks, one wall of said magazine being undercut adjacent its lower ends, a pair of members adjustably mounted so as to project through said wall into the magazine, each of said members being provided with a blank supporting portion and a blank separating slot, and means for moving a blank longitudinally into said slots and subsequently bending said blank intermediate its ends.

[Claims 1, 2, 4 to 6, 8 to 12, 14, and 15 not printed in the Gazette.]

1,242,521. WINDOW-SHADE-ROLLER BRACKET. WILLIAM B. CASWELL, Newport, R. I., assignor of one-fifth to Ann E. Caswell, Newport, R. I. Filed Feb. 15, 1916. Serial No. 78,445. (Cl. 156—24.)

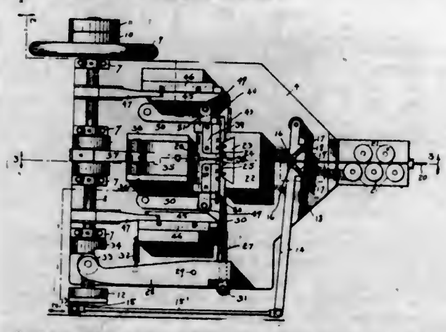


A shade roller bracket comprising a flat elongated body portion having an intermediate upstruck longitudinal rib and its opposite ends folded over on the rib side of the body to form attaching flanges having their inner ends offset and extended inwardly in spaced relation to the rib to form spaced clamping lips, the free ends of which are spaced apart, and fastening devices piercing the attaching flanges for securing the body portion to a support and forcing the clamping lips into frictional engagement with a shade roller support.

1,242,522. WIRE-NAIL MACHINE. WILLIAM F. CHRISTISON and HADLEY O. CHRISTISON, Kokomo, Ind. Filed Dec. 16, 1916. Serial No. 137,438. (Cl. 10—51.)

1. In a wire nail machine, means for pointing and cutting off the nail, comprising a pair of pivoted levers swinging in a vertical plane at right angles to the wire, chisels carried by the levers, reciprocating wedge means to swing the levers toward the wire, a pair of bars one for each of said swinging levers, each bar having a head, said head being assembled between the lever and an adjacent wedge, said bar being pivoted, and a friction roller in the head contacting the wedge.

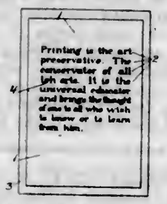
2. In a wire nail machine, means for pointing and cutting off the nail comprising a pair of pivoted levers swinging in a vertical plane at right angles to the wire, chisels carried by the levers, horizontally reciprocating wedge means to swing the levers toward the wire, a roller to reduce the antifriction between each wedge and adjacent lever, and means for movably supporting the roller independently of said wedge and lever.



3. In a wire nail machine, a rotating shaft, an anvil, wire feeding means, wire clamping means, and nail-head forming means, all of said means operated from said shaft, in combination with a pair of pivoted levers swinging in a vertical plane at right angles to the wire, elastic means to normally separate the upper ends of the levers, chisels carried by the levers, horizontal guides, wedges directed by said guides to move the upper ends of the levers toward each other, means comprising eccentrics on said shaft for reciprocating the wedges and anti-friction wheels between the wedges and levers said wheels having oscillatory movement.

4. In a wire nail machine, a rotating shaft, an anvil, wire feeding means, wire clamping means, and nail-head forming means, all of said means operated from said shaft, in combination with a pair of pivoted levers swinging in planes at right angles to that of the wire, chisels carried by the levers, elastic means to normally separate the upper ends of the levers, guides, wedges directed by said guides to move the upper ends of the levers toward each other, means comprising eccentrics on said shaft for reciprocating the wedges, a head between each wedge and lever, said head having oscillatory movement, an anti-friction wheel in the head contacting the wedge and pin bearings between the head and lever.

1,242,528. DEVICE FOR USE IN MAKING PRINTING-PLATES. GEORGE R. CORNWALL, Rye, N. Y. Filed Nov. 30, 1914. Serial No. 874,927. (Cl. 41—46.)



1. A typographic letter press composing device comprising a strip having thereon a line of characters, and carrying an adhesive material which is non-absorbent of moisture, the strip and the line of characters having opposite properties with respect to the transmission of light therethrough.

2. A typographic letter press composing device comprising a strip having thereon a line of characters, and carrying an adhesive material which is substantially non-evaporative, the strip and the line of characters having opposite properties with respect to the transmission of light therethrough.

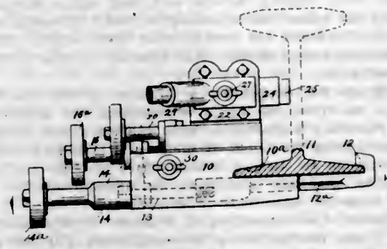
3. A typographic letter press composing device comprising a strip having thereon a line of characters, the strip being impregnated with an adhesive material which is substantially non-evaporative, the strip and the line of characters having opposite properties with respect to the transmission of light therethrough.

4. A typographic letter press composing device comprising a strip having thereon a line of characters, and carrying an adhesive material which is a continuant moisture retainer, the strip and the line of characters having opposite properties with respect to the transmission of light therethrough.

5. A typographic letter press composing device comprising a strip having thereon a line of characters, and carrying an adhesive material which is a continuant moisture retainer and which is non-absorbent of moisture, the strip and the line of characters having opposite properties with respect to the transmission of light therethrough.

[Claims 6 to 12 not printed in the Gazette.]

1,242,524. RAIL-BONDING APPARATUS. LAWRENCE P. CRECELIUS and PAUL H. EBERLEIN, Cleveland, Ohio, assignors, by direct and mesne assignments, to The Electric Railway Improvement Company, Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 5, 1913. Serial No. 759,074. (Cl. 219—4.)



1. In a rail bonding apparatus, an electrode supporting member, means for suporting said member from a rail alongside the latter, comprising a rail clamping device connected to said member and having means for forming clamping engagement with the rail below the top line thereof so as to leave the gage line of the rail unobstructed, one or more electrodes carried by said member and means by which said electrode or electrodes may be caused to clamp a bond to the rail with sufficient pressure for bonding purposes.

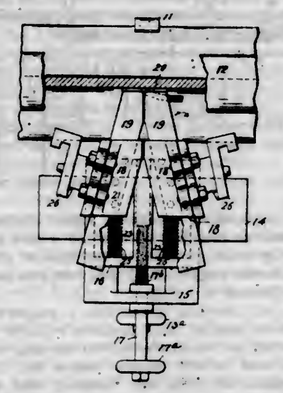
13. In a rail bonding apparatus, a support having means whereby it may be secured in fixed position with respect to the rail so that the gage line is clear and unobstructed, a box-like structure carried by the support at the side of the rail and adapted to receive an electrode, and means for moving said box-like structure toward and from the rail.

18. In a rail bonding apparatus, a support having means for forming a clamping engagement with a rail, whereby electrodes carried by the support may be held at the side of the rail without obstructing the gage line; a pair of electrodes carried by the support; and screw adjusting devices operatively connected with the electrodes so that they may be independently adjusted in an endwise direction toward and from the rail, and whereby the bond may be clamped with sufficient pressure against the rail for rail bonding purposes.

[Claims 2 to 12, 14 to 17, 19, and 20 not printed in the Gazette.]

1,242,525. RAIL-BONDING APPARATUS. LAWRENCE P. CRECELIUS, Cleveland, Ohio, assignor to The Electric Railway Improvement Company, Cleveland, Ohio, a Corporation of Ohio. Filed Oct. 5, 1914, Serial No. 865,065. Renewed June 24, 1916. Serial No. 105,723. (Cl. 219—12.)

1. In an apparatus for uniting metal bodies, a support, a pair of adjacent high resistance heating electrodes carried by said support and insulated from each other so that they may be connected in a series circuit, means for simultaneously moving said electrodes toward and from the bodies to be united, said electrodes being movably mounted in such a manner that when they are pressed against one of said bodies to be united the relative pressures of the two electrodes on said body are automatically adjusted.



3. In an apparatus for uniting metal bodies, a support, a pair of high resistance electrodes carried thereby and insulated from each other so that they may be connected in a series circuit, said electrodes having their inner ends adjacent each other, means for moving said electrodes toward or from said bodies and for causing the ends of said electrodes to bear forcibly against one of said bodies, and means whereby said electrodes are automatically caused to bear with predetermined relative pressures against said body.

7. In a rail bonding apparatus, a support, means by which said support may be clamped to the rail at one side of the latter, an electrode carrier supported by said support for movement toward and from the rail, an adjusting device for simultaneously moving the electrodes toward and from the rail and for simultaneously causing both electrodes to bear forcibly against a terminal of the bond to be united to the rail, said electrodes having a loose mounting on said carrier so that they will bear against the terminal with predetermined pressures when pressure is applied through said adjusting mechanism.

12. In a rail bonding apparatus, a rail clamp having a part projecting laterally to one side of the rail when the clamp is secured to the rail, a member carried by said laterally projecting part of the clamp, and extending transversely of said clamp or lengthwise of the rail, a support for one or more heating electrodes, having a slot extending lengthwise of the rail, said slot loosely receiving said member, a slide on the upper side of the support and movable toward and from the rail in a direction at right angles to said slot, means for adjusting said slide, and one or more heating electrodes carried by said slide.

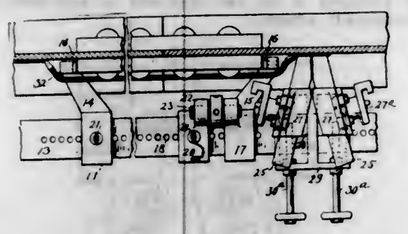
[Claims 2, 4 to 6, 8 to 11, and 13 to 21 not printed in the Gazette.]

1,242,526. RAIL-BONDING APPARATUS. LAWRENCE P. CRECELIUS, Cleveland, Ohio, assignor to The Electric Railway Improvement Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 7, 1914. Serial No. 875,900. (Cl. 219—4.)

1. In a rail bonding apparatus, a support for one or more heating electrodes, comprising means for engaging opposite ends of a fish plate and a bar supported by said means at spaced points, and an electrode carrying member movable lengthwise of said bar.

2. In a rail bonding apparatus, a pair of spaced track clamps, a substantially horizontal bar supported by the

same, an electrode carrier supported by said bar, said carrier having one or more electrodes and means for moving the same toward and from the rail and for pressing the same against a rail bond with sufficient pressure for rail bonding purposes.



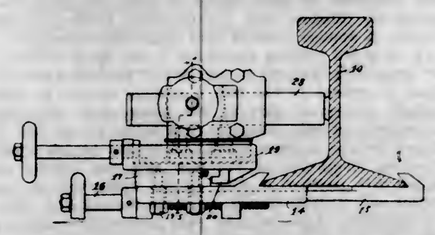
3. In a rail bonding apparatus, a pair of clamping members adapted to engage the ends of a fish plate, a bar supported by said members at one side of the track, an electrode carrier supported by said bar and movable from one point thereof to another.

4. In a rail bonding apparatus, a supporting member adapted to be held in fixed position relative to the rails to be bonded, an electrode carrier having one or more electrodes, said carrier having means for forming supporting connection with said member, and a removable device adapted to be placed between said member and carrier and having means for forming supporting connection with the said member and with said carrier.

5. In a rail bonding apparatus, a pair of spaced track engaging members, a substantially horisontal bar supported by said members and extending beyond the same, and an electrode carrier adapted to form engagement with said bar between said track engaging members or with the end portions of the bar extending beyond said members.

[Claims 6 to 8 not printed in the Gazette.]

1,242,527. METHOD AND APPARATUS FOR BONDING RAILS. LAWRENCE P. CRECELIUS, Cleveland, Ohio, assignor to The Electric Railway Improvement Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 27, 1916. Serial No. 86,889. (Cl. 219—4.)



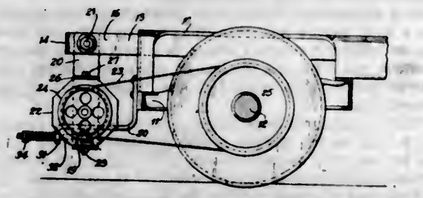
1. In a rail bonding apparatus, supporting means, and a high resistance heating electrode and a low resistance contactor both carried by the supporting means and arranged side by side so as to engage a bond.

4. In a rail bonding apparatus, supporting means adapted to be secured to the rail so as not to obstruct traffic, a heating electrode and a contactor of relatively low resistance supported thereby so as to be located on the same side of the rail and adapted to engage a bond to be secured to the rail, and means for moving the electrode and contactor separately toward and from the rail.

12. The method of brazing a bond to a rail which consists in pressing against the bond a high resistance heating electrode and a relatively low resistance contactor, and passing current through the electrode bond and contactor.

[Claims 2, 3, and 5 to 11 not printed in the Gazette.]

1,242,528. DYNAMO-MOUNTING. GORHAM CROSBY, Glen Ridge, N. J., assignor to Gould Coupler Company, a Corporation of New York. Filed May 18, 1915. Serial No. 28,824. (Cl. 105—238.)



1. Means for supporting a dynamo electric machine from a car truck, having in combination two supporting bars extending horizontally from said truck, said bars being bent back at their outer ends, whereby each bar forms two supporting parts, one part being inclined with respect to the other, to form a lateral brace, a dynamo electric machine, means for supporting said dynamo electric machine, said means having a portion at one end extending between the supporting parts of one bar and pivoted with respect thereto, and said means having a part at the other end extending between the supporting parts of the other bar and pivoted with respect thereto and driving means between the dynamo electric machine and car axle.

2. Means for supporting a dynamo electric machine from a car truck, having in combination two supporting bars extending horizontally from the car truck, each of said bars being bent back at their outer ends and secured to the truck to form a lateral brace for the bar, and means for pivotally supporting the dynamo electric machine from the outer ends of said bars.

3. Means for supporting a dynamo electric machine from a car truck, having in combination parallel supporting bars extending from the car truck, said bars being bent back at their outer ends, whereby each bar forms two supporting parts, the bent back part being secured to the truck, a member having one end extending between the supporting parts of one bar and pivoted with respect thereto, and its other end extending between the supporting parts of the other bar and pivoted with respect thereto and a dynamo electric machine rigidly carried on said member.

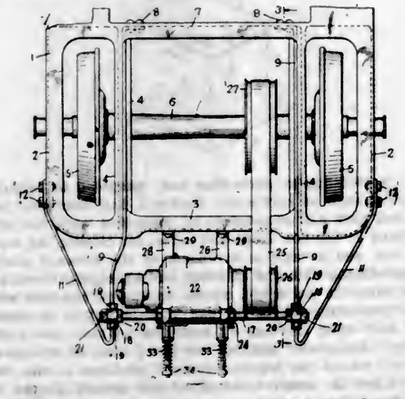
4. Means for supporting a dynamo electric machine from a car truck, having in combination supporting bars extending outside of the car truck each having two supporting parts, means for pivotally supporting the dynamo electric machine with respect to said bars, driving means connecting the dynamo electric machine to the car axle, means secured to the car truck independently of said supporting bars and extending forward of the truck, and spring tensioning means coöperating with said last mentioned means, tending to move the dynamo electric machine away from the car axle and truck.

5. Means for supporting a dynamo electric machine from a car truck, having in combination supporting bars extending horisontally from said truck adjacent the top of the truck, each having two supporting parts, a swinging member for pivotally supporting the dynamo electric machine from said bars outside of the truck, members bolted to said truck and extending forward of the dynamo electric machine, and spring tensioning means carried by said members, and tending to move the dynamo electric machine away from the truck.

[Claims 6 to 17 not printed in the Gazette.]

1,242,529. DYNAMO SUSPENSION. GORHAM CROSBY, Glen Ridge, N. J., assignor to Gould Coupler Company, a Corporation of New York. Filed May 20, 1915. Serial No. 29,275. (Cl. 105—238.)

1. The combination with a car truck of two supporting bars extending from the truck, said bars being bent backwardly, upwardly and outwardly, and secured to the truck to form braces for the supporting bars, a horizontal bar extending between the supporting bars and a dynamo pivotally suspended from said horizontal bar and driven from the car axle.

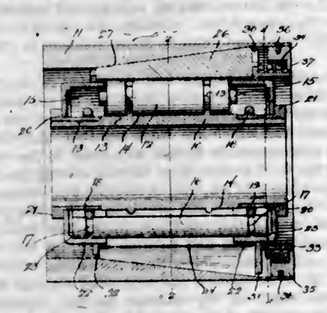


2. The combination with a car truck having a depressed center sill and safety sills between the car wheels, of two supporting bars each extending adjacent one of the safety sills and over the depressed center sill and outwardly from the truck, a dynamo pivotally supported by said supporting bars and driven from the car axle, means whereby the supporting pivotal axis of the dynamo may be adjusted toward and from the truck and tension means tending to swing the dynamo away from the car axle.

3. The combination with a car truck having a depressed end sill and safety sills between the car wheels, of two supporting bars each extending adjacent one of the safety sills and over the depressed end sill and outwardly from the truck, a dynamo pivotally supported by said supporting bars and driven by the car axle, a member secured to said depressed end sill and extending outwardly and forwardly of the dynamo and tension means coöperating with said member tending to swing the dynamo away from the car axle.

[Claim 4 not printed in the Gazette.]

1,242,530. ROLLER-BEARING. DELEVANTE W. CROSLAND, San Francisco, Cal. Filed Oct. 2, 1915. Serial No. 53,738. (Cl. 64—61.)



1. In a roller bearing, a journal having annular ribs centrally formed thereon, collars threaded on the extremities of the journals, cup rings maintained in position on the journal by said collars, load bearing rollers formed with grooves adapted to said journal ribs for maintaining them against endwise movement, said rollers contacting with the journal between the cup rings, spacing rollers alternating with said load bearing rollers and formed adjacent their extremities with annular grooves, said spacing rollers being longer than the load bearing rollers and having their ends rotatable in said cup rings as a traction-way, and rings freely rotatable upon the journal and adapted to the grooves in said spacing rollers.

2. In a roller bearing, a journal formed with reduced extremities and having ribs centrally formed thereon, collars threaded on the journal extremities, freely rotatable cup rings maintained by said collars, parallel load bearing rollers formed with annular grooves adapted to said journal ribs, parallel spacing rollers smaller in diameter and longer than the load bearing rollers with which they alternate, the extended ends of said spacing rollers mounted within said cup rings, said spacing rollers being formed with annular grooves adjacent their extremities, and floating rings adapted to said annular grooves.

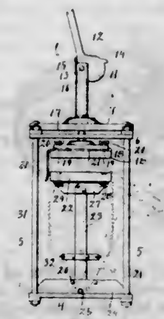
3. In a roller bearing, a journal formed with threaded extremities and having ribs formed centrally thereon, collars secured upon said threaded extremities of the journal, rotatable cup rings maintained by said collars, load bearing rollers formed with grooves adapted to said journal ribs, spacing rollers alternating with said load bearing rollers and formed adjacent their extremities with annular grooves, said spacing rollers being rotatable within said cup rings as a track-way, and rings freely rotatable around said journal adapted to the grooves of said spacing rollers.

4. In a roller bearing, a journal with annular ribs between its ends, collars receivable on the journal extremities, freely rotatable cup rings maintained by said collars, load bearing rollers formed with reduced extremities extended within said cup rings, annular grooves formed in load bearing rollers adapted to said journal ribs, said rollers contacting with the journals between said cup rings, spacing rollers alternating with said load bearing rollers and formed adjacent their extremities with annular grooves, said spacing rollers projecting at their ends within said cup rings, and floating rings adapted to the annular grooves in said spacing rollers.

5. In a roller bearing, a journal formed with a pair of parallel annular ribs, a collar on each end of said journal having an outwardly extending flange, a cup ring freely rotatable on said collar and maintained on the ends of the journal by the flange of the collar, a plurality of load bearing rollers each formed with annular grooves adapted to engage the ribs on the journal, rollers of greater length and smaller diameter equally spacing the load bearing rollers and projecting at their ends into said cup rings for guidance thereby, grooves on the ends of the spacing rollers, and floating rings encircling the journal adapted to the grooves in the spacing rollers.

[Claims 6 to 14 not printed in the Gazette.]

1,242,531. PRESS. ALBERT C. DOWNING, Milwaukee, Wis., assignor to Hummel & Downing Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed June 10, 1915. Serial No. 33,360. (Cl. 100—57.)



1. In a press, the combination of a bed piece, a platen or follower, and means for adjusting the thickness of said follower.

2. In a press, the combination of a bed piece, a platen or follower consisting of two members, adapted to receive one or more layers of filling pieces therebetween, and means for clampingly holding the two members together.

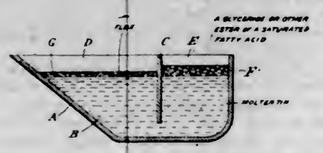
3. In a press, the combination of a frame, a platen or follower, means for moving said platen or follower, a bed piece, and means permitting the movement of said bed piece inwardly and outwardly, said bed piece when moved outwardly being in position to receive thereover the article to be operated upon, and when moved inwardly being in the line of movement of the follower.

4. In a press, the combination of a frame, a platen or follower, means for moving said platen or follower, a bed piece, means permitting movement of said bed piece inwardly and outwardly, the said bed piece when moved outwardly being in position to receive thereover the article to be operated upon, and when moved inwardly being in the line of movement of the follower, and a stop for limiting the extent of the inward movement of the bed piece.

5. In a press, the combination of a frame, a platen or follower, means for moving said platen or follower, and a pivoted post carrying at its upper end a bed piece, said bed piece when the pivoted post is swung outwardly being in position to receive thereover the article to be operated upon, and when moved inwardly being in the line of movement of the follower.

[Claims 6 and 7 not printed in the Gazette.]

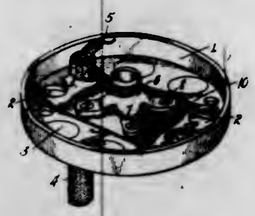
1,242,532. PROCESS OF TINNING METAL PLATES AND OTHER ARTICLES. CARL DREYMANN, Baltimore, Md. Filed May 15, 1916. Serial No. 97,507. (Cl. 91—59.1.)



1. In a process of tinning metal plates and other articles, the step comprising passing the plate through a bath of molten tin and out through a layer consisting essentially of an ester of a saturated fatty acid, floating on the molten tin.

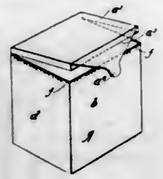
2. In a process of tinning plates and other articles, the steps comprising dipping the plate into a bath of molten tin, and taking the plate out of the bath through a layer or body consisting essentially of hydrogenated oil.

1,242,533. LOOM-FASTENER. JOHN J. DUCK, Toledo, Ohio. Filed Mar. 23, 1917. Serial No. 156,933. (Cl. 247—1.)



The combination with an outlet box of the class described having loom receiving openings therein and a fixture stud secured to said box, of a plate of spring metal retained to the box by said stud and having a part projecting transversely therefrom into loom gripping relation to at least one of said openings and serving to prevent withdrawal of a loom from the opening.

1,242,534. PACKAGING-RECEPTACLE. BENJAMIN M. EATON, Winthrop, Mass. Filed Dec. 21, 1915. Serial No. 68,076. (Cl. 229—45.)



1. A rectangular packaging box, composed of semirigid material such as cardboard, having a flap connected with the box back and adapted to be connected with the upper portions of the box front and sides, for closing the top of the box, and a wing in extension of the forward portion of the closing flap, and said box having adjacent, and parallel with, its top edges, at the front and opposite sides, lines indicating where the box is to be cut to be opened, and said wing serving, by insertion within, and with a spring engagement against the front wall of the opened box, to retain the top and severed portions of the front and sides in closed relation to the mouth of the box proper.

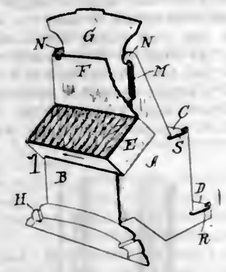
2. A rectangular packaging box, composed of semirigid material such as card board, a plurality of the sides of which at its top have horizontally inturned flaps one overlying the other, and which are stuck together, and the box back having a horizontally turned flap stuck to the uppermost one of the first named flaps, having a wing in extension of its forward portion, and overlying, and detachably adherent to, the box front, and said box having adjacent, and parallel with, its top edges, at the front and opposite sides, lines indicating where the box is to be cut to be opened, and said wing serving, by insertion within, and by its natural spring engagement against the front wall of the opened box, to retain the top and severed portions of the front and sides in closed relation to the box proper.

3. A rectangular packaging box, composed of semirigid material such as card board, the opposite sides and front of which at its top have horizontally inturned flaps one overlying another and all stuck together, and the box back having a horizontally turned flap stuck to the uppermost one of the first named flaps, a wing in extension of its forward portion, and overlying, and detachably adherent to, the box front, being susceptible of having its front and opposite sides cut on lines parallel with and adjacent its upper corners, and said wing being operable by insertion within, and by its natural spring engagement against the front wall of the opened box, to retain the top and severed portions of the front and sides in closed relation to the box proper.

4. A rectangular packaging box, composed of semirigid material such as card board, a plurality of the sides of which at its top have horizontally inturned flaps one overlying the other, and which are stuck together, and the box back having a horizontally turned flap stuck to the uppermost one of the first named flaps, having a wing in extension of its forward portion, and overlying, and detachably adherent to, the box front, and provided with a marginally extending tab, unattached relatively to the box front, and said box having adjacent, and parallel with, its top edges, at the front and opposite sides, lines indicating where the box is to be cut to be opened, and said wing serving, by insertion within, and by its natural spring engagement against the front wall of the opened box, to retain the top and severed portions of the front and sides in closed relation to the box proper.

1,242,535. DISPLAY-STAND. MORRIS M. EINSON, New York, N. Y. Filed Feb. 5, 1915. Serial No. 6,228. (Cl. 211—24.)

1. A stand for displaying a box having a hinged cover, said stand having a pair of vertical, transversely-extending sides, the upper portion of said sides having means which engage the free edge of the cover of the box and which hold said cover in an upright position.



2. A display stand having a pair of vertical, transversely extending rigid sides, a front integrally connecting the front edges of said sides, said sides being bent back from said front and having supporting edges extending backward therefrom, and bracers integrally connected to one of the sides, one of said bracers engaging the rear middle portion of the remaining side and another of said bracers engaging the rear lower portion of the remaining side.

3. A display stand having a pair of vertical, transversely extending rigid sides, a front integrally connecting the front edges of said sides, said sides being bent back from said front and having supporting edges extending backward therefrom, and a removable back fastened to the upper edges of said sides and extending upward above and at the rear of said supporting edges to prevent a lateral strain upon the said upper edges of said sides.

4. A display stand having a front, a pair of vertical, transversely extending sides integrally connected to the edges of said front and bent backward therefrom, the lower edges of said front and sides constituting the base of the stand, and bracers integrally connected to one of the sides, one of said bracers engaging the rear middle portion of the remaining side and the other bracer engaging the rear lower portion of the same remaining side, said pair of sides having supporting edges for supporting an article and holding it against transverse movement.

1,242,536. CHROMIUM COMPOUND OF AZO DYESTUFFS AND A PROCESS OF MAKING SAME. GADIENT ENGI and CARL JAGERSPACHER, Basel, Switzerland, assignors to Society of Chemical Industry in Basle, Basel, Switzerland. Original application filed Nov. 29, 1915, Serial No. 64,023. Divided and this application filed Aug. 3, 1916. Serial No. 112,950. (Cl. 8—1.)

1. The described process for the manufacture of chromium compounds of orthooxyazodyestuffs consisting in treating an orthoaminophenol compound with a chromium compound in a hot aqueous medium, diazotizing the thus obtained chromium compound of orthoaminophenol compound, combining the resulting chromium compound of orthooxydiazobody with an azodyestuff component containing at least one group able to be chromated, and treating finally the thus obtained half chromated orthooxyazodyestuff in a hot aqueous medium with a chromium compound.

3. The described process for the manufacture of chromium compounds of orthooxyazodyestuffs consisting in treating an orthoaminophenol compound with a chromium compound in a hot aqueous medium, diazotizing the thus obtained chromium compound of orthoaminophenol compound, combining the resulting chromium compound of orthooxydiazobody with an aminonaphtholsulfonic compound and treating finally the thus obtained half chromated orthooxyazodyestuff in a hot aqueous medium with a chromium compound.

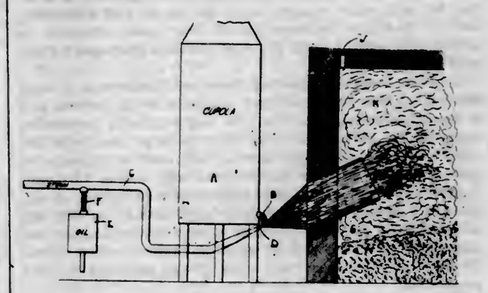
4. As new products, the described chromium compounds of orthooxyazodyestuffs, in which all groups able to combine with chromium are saturated with chromium, dyeing animal fibers in acid baths fast dyeings which are not changed when subsequently chromated, and constituting intense colored powders dissolving in water to intense colored solutions which do not undergo any essential change by adding sodium carbonate or soda lye.

5. As new products the described chromium compounds of orthooxyazodyestuffs derived from an orthodiazophenol compound and a naphtholic compound and in which all groups able to combine with chromium are saturated with chromium, dyeing animal fibers in acid bath fast dyeings which are not changed, when subsequently chromated and constituting intense colored powders dissolving in water to intense colored solutions which do not undergo any essential change by adding sodium carbonate or soda lye.

6. As new products the described chromium compounds of orthooxyazodyestuffs derived from an orthodiazophenol compound and an aminonaphtholsulfonic compound and in which all groups able to combine with chromium are saturated with chromium, dyeing animal fibers in acid baths fast dyeings which are not changed when subsequently chromated and constituting intense colored powders dissolving in water to intense colored solutions which do not undergo any essential change by adding sodium carbonate or soda lye.

[Claim 2 not printed in the Gazette.]

1,242,537. ART OF MAKING MINERAL WOOL. WILLIAM FAY, St. Louis, Mo. Filed Feb. 23, 1917. Serial No. 150,451. (Cl. 49—77.5.)



1. The process of making mineral wool which comprises heating a dust-settling fluid and then forcing the hot dust-settling fluid into a stream of molten scoriaceous material.

3. The process of making mineral wool which comprises commingling oil with steam, and then forcing the hot oily mixture at a high velocity into a stream of molten scoriaceous material, thereby projecting the molten material to form mineral wool.

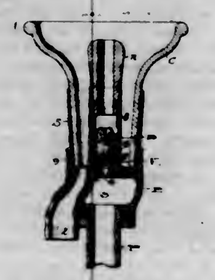
5. The method of making mineral wool which comprises projecting the wool fibers or filaments into a wool-receiving chamber, commingling the fibers or filaments with a dust-settling vapor confined in said chamber and maintaining the contents of said chamber under pressure.

6. The method of making mineral wool which comprises projecting the wool fibers or filaments into a wool-receiving chamber, introducing a dust-settling fluid into the chamber, permitting fluid to escape through oppositely disposed restricted vents at the upper portion of said chamber, and maintaining the contents of said chamber under pressure, thereby permitting the free fibers or filaments to float slowly in the dust-settling fluid confined by said chamber.

8. The method of making mineral wool which comprises commingling steam with a dust-settling fluid, projecting the mixture into a stream of molten scoriaceous material, conducting the projected steam, dust-settling fluid and mineral wool fibers into a wool receiving chamber, preventing the free escape of fluid from said chamber, thus maintaining the contents of the chamber under pressure and causing the wool fibers to float or circulate freely and slowly in the dust-settling fluid.

[Claims 2, 4, and 7 not printed in the Gazette.]

1,242,538. SANITARY DRINKING-FOUNTAIN. ARTHUR I. FISCHER, Cleveland Heights, Ohio, assignor to Glauber Brass Manufacturing Company, Cleveland, Ohio, a Firm. Filed June 1, 1915. Serial No. 31,886. (Cl. 137—110.)



1. A sanitary fountain as described having a body provided with a tubular extension on its top and an inlet opening in the bottom of said extension having a valve seat and external screw threads at its base and discharge orifices at its side above said external threads and valve seat, a plug valve seated in said extension and adapted to engage said seat and close said inlet opening, a lock-nut for said valve engaged with the top of said extension, and a discharge column seated over said extension in screw engagement with its base threads and apart from said orifices.

2. A sanitary fountain as described comprising a body having a screw-threaded inlet centrally at its bottom and a discharge passage at one side and a tubular projection open at its bottom to said inlet passage and provided with a valve seat in its bottom and orifices through its side above said seat, in combination with a plug valve adjustably engaged within said projection and having an annularly reduced portion opposite said orifices, a lock nut sleeved upon the upper end of said valve in seating engagement with the top of said projection, and a water column screwed upon said body about the base of said projection.

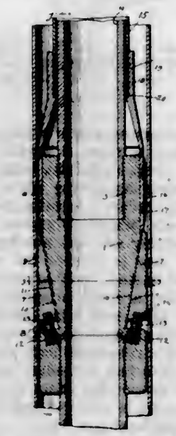
3. A sanitary fountain as described having a water delivery column and a body with a fluid passage through the same opening into said column, a tapering overflow cap of vitreous material surrounding said column, a metal socket member screw-engaged with said body having a relatively long extension supporting the tapering portion of the cap, a screw valve adjustably seated within said column and adapted to close said opening and a nut on said valve adapted to lock the same in adjusted position, and said body having a screw-threaded inlet centrally at its bottom and a relatively short discharge spout adjacent said inlet.

1,242,539. SAFETY DEVICE FOR OIL-PUMPS. KENNETH D. FULLER, Whittier, Cal. Filed Aug. 26, 1916. Serial No. 117,048. (Cl. 103—65.)

1. In a pump of the class described, the combination with a well casing, and an inner reciprocatory tube, of a safety device comprising a coupling member carried by the inner tube, dogs or catches mounted on the coupling member and arranged to engage the well casing, springs for urging the dogs or catches in such engagement, and a weight located above the coupling member and provided with arms engaging the said catches.

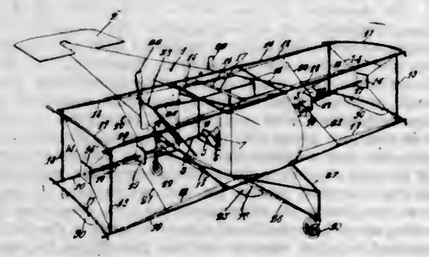
2. In a pump of the class described, the combination with a well casing, and an inner tube, of a safety device including opposite dogs or catches carried by the inner tube, a weight located above the dogs or catches for urging the same downwardly and yieldable means normally compressed by the dogs or catches, and the said weight and adapted when the dogs or catches are relieved of the weight to move the said dogs or catches outwardly into engagement with the well casing.

3. In a pump of the class described, the combination with a well casing, and an inner tube, of a safety device comprising a body having opposite inclined faces, dogs or catches movable upwardly and downwardly on the body, at the said inclined faces, a weight for urging the dogs or catches downwardly to hold the same out of engagement with the well casing and a spring normally compressed by the dogs or catches and the weight and adapted when the dogs or catches are relieved of the weight to move the dogs or catches upwardly with respect to the said inclined faces and cause the dogs or catches to be thrown into engagement with the well casing.



4. In a pump of the class described, the combination with a well casing, and an inner tube, of a safety device comprising a coupling member having a shoulder and provided above the same with grooves, said coupling member being provided between the shoulders and the grooves with inclined faces, dogs or catches slidable on the coupling member at the said inclined faces, springs mounted on the coupling member at the said shoulder and arranged to be normally compressed by the dogs or catches and a weight located above the dogs or catches and having arms arranged in said grooves and fitting against the dogs or catches to enable the same to compress the said springs.

1,242,540. AEROPLANE. WALTER R. FULLER, Atlanta, Ga. Filed Nov. 8, 1915. Serial No. 60,367. (Cl. 244—29.)



1. In an aeroplane, upper and lower sustaining planes, a car extending between the middle portions of the planes, crossed flexible connections between the sides of the top portion of the car and the ends of the upper sustaining plane, like connections between the sides of the bottom of the car and the ends of the lower sustaining plane, and a roller supported by each set of crossed flexible connections, said connections being wrapped there around.

2. In an aeroplane, upper and lower sustaining planes, a car extending between the middle portions of the planes,

a set of crossed flexible connections between the sides of the top portion of the car and the ends of the upper sustaining plane, a set of similar connections between the sides of the bottom of the car and the ends of the lower sustaining plane, a roller supported by each set of connections, said connections being wrapped therearound, said roller being flexible.

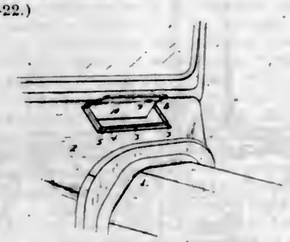
3. In an aeroplane, a sustaining plane, a car thereunder, a set of crossed flexible connections between the sides of the car and the ends of the sustaining plane, a roller supported by said crossed connections, the connections being wrapped about the roller, and means controlled from within the car for wrapping the sustaining plane throughout the length thereof.

4. In an aeroplane, a car, a sustaining plane thereabove and adapted to slide transversely across the car, means for tilting the sustaining plane relative to the car and irrespective of said sliding motion, and means for warping the plane throughout the length thereof.

5. In an aeroplane, an upper and a lower sustaining plane, a car extending between the middle portions of the planes, movable connections between the car and planes, and means for simultaneously and correspondingly warping both planes throughout their lengths, said planes being independently shiftable relative to and transversely of the car independently of the warping action.

[Claims 6 and 7 not printed in the Gazette.]

1,242,541. AUTOMOBILE AIR-DEFLECTOR. WILLIAM F. GAGE, Chico, Cal. Filed June 21, 1915, Serial No. 35,478. Renewed Aug. 21, 1917. Serial No. 187,484. (Cl. 98—22.)

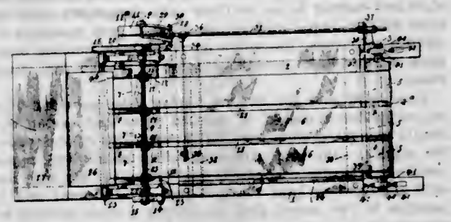


1. In combination with a dash-board of an automobile having a hole therethrough, a pivoted deflector extending upwardly at the rear of said hole and against which the air is adapted to impinge in the motion of the car, and arranged to deflect said air through said hole, a vane pivoted to said deflector and extending downwardly therefrom, and means for varying the angles of inclination to the vertical of said deflector and vane.

2. In combination with a cowl-dash board of an automobile having a hole therethrough, a frame secured to said dash-board around said hole, having an opening therethrough of approximately the same size and shape as the hole, and having a depending wing slotted in its lower edge, a deflector pivoted to the rear side of said frame and of size suitable to close the opening in the frame, a vane pivoted to said deflector above or in front of its rear edge, a rod attached to the lower edge of the vane and extending through said slot, and means for clamping said rod at any desired position in said slot.

1,242,542. MACHINE FOR CUTTING DRIED PASTES. KARL GAMMEL, Cleveland, Ohio, assignor to The Cleveland Macaroni Company, Cleveland, Ohio, a Corporation of Ohio. Filed Sept. 1, 1911. Serial No. 647,181. (Cl. 107—22.)

1. In a machine for cutting dried edible paste sticks, a horizontal table, a plurality of belts extending longitudinally of said table and having their carrying sides supported by said table, a pair of horizontal shafts disposed transversely of said table and in a plane perpendicular to the upper run of said belts the upper shaft being above said belts and the lower shaft being under the upper runs of said belts, rotating collars disposed between said belts to maintain them in spaced relation, a plurality of coöperating cutters carried by said shafts and disposed opposite the spaces between said belts, means for driving said belts to advance the sticks thereupon to said cutters and an incline adjacent one end of the upper run of belts positioned to remove the cut sticks from the belts.



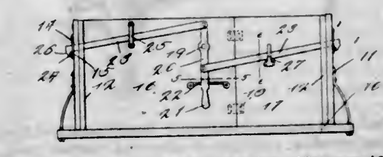
2. In a machine for cutting dried edible paste sticks, the combination with a roller having a plurality of necks to form pulleys having a greater diameter adjacent their centers than adjacent their opposite ends, a plurality of belts looped about said pulleys, cutters between said belts revoluble in planes transversely of the normal plane of the belts and having their cutting edges disposed adjacent the edges of the belt as they are depressed out of their normal plane by passing about the reduced ends of the pulleys.

3. A machine for cutting dried edible paste in the form of double sticks connected by integral loops, comprising a horizontal table, a pair of rollers having a plurality of pulleys, a plurality of belts passing over said pulleys and extending longitudinally on said table, said belts being disposed apart, means for maintaining said belts in set position, a transverse shaft passing over said belts, a second transverse shaft passing under the upper runs of said belts and opposite the said first shaft, said shafts being provided with coöperating cutters, said cutters being disposed opposite the spaces between said belts and beyond the outer edge of said belts, and means for driving said belts, a guiding means disposed relatively close to one of the edge cutters and adapted to guide the loop ends of the sticks into position to be severed at the loop.

4. In a machine for cutting dried edible pastes, a cutting device consisting of a cutter in the form of a single flat disk and pair of cutters in the form of single disks similar to the first named disk and having their edges coöperating with the edges of said first cutter during the severing of the goods to form a rigid support and permit a clean break, said first cutter being in a plane between the planes of said last named cutters.

5. In a machine for cutting dried edible pastes, a cutting device consisting of three similarly shaped cutters in the form of flat disks, two of said cutters being spaced apart and arranged on one side of the normal path of travel of the goods and the other cutter being disposed on the other side of said path and entirely between the planes of the first mentioned cutters.

1,242,543. END-GATE FASTENER. CLARENCE W. GEYER, Donovan, Ill. Filed Dec. 12, 1916. Serial No. 136,483. (Cl. 21—21.)

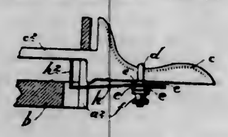


1. An end gate for wagons having sides provided with spaced guides arranged in opposed pairs and having vertically elongated slots opening through the sides between the guides, said end gate comprising major and minor

members hingedly connected, and a fastener for said end gate arranged to hold the members in alinement and in position in the wagon and comprising a lever pivoted intermediate its ends to said major member and having a handle end, a ratchet bar fixed to the major member in the path of the handle end of the lever, rods having respective ends pivotally connected to the lever on opposite sides of its pivot, said rods being projectable through the slots and having hooks on their ends engageable with the sides of the wagon and guides on said gate members receiving said rods, the guide on the minor member being open at the top to permit swinging of its rod free therefrom.

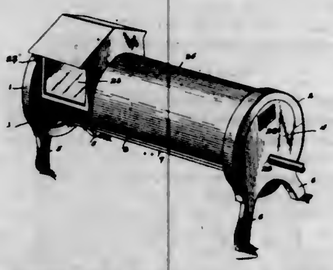
2. An end gate for wagons having sides provided with spaced guides arranged in opposed pairs and having vertically elongated slots opening through the sides between the guides, said end gate comprising major and minor members hingedly connected, and a fastener for said end gate arranged to hold the members in alinement and in position in the wagon and comprising a lever pivoted intermediate its ends to said major member and having a handle end, a ratchet bar fixed to the major member in the path of the handle end of the lever, rods having respective ends pivotally connected to the lever on opposite sides of its pivot, said rods being projectable through the slots and having hooks on their ends engageable with the sides of the wagon, guides on said gate members receiving said rods, the guide on the hinged member being open at the top to permit swinging of its rod free therefrom, said hooks having inwardly directed points, and plates on the wagon sides having ribs over which said points engage.

1,242,544. MOUSE-GUARD FOR MUSICAL INSTRUMENTS. JOHN H. GINDLING, Tampa, Fla. Filed Aug. 12, 1914. Serial No. 856,355. (Cl. 84—24.)



A mouse-guard for a pedal of a musical instrument comprising a yoke shaped member mounted on the projecting portion of the pedal, a pair of cross plates mounted on the side arms of the yoke shaped member, and below the pedal, a guard member having a shank portion placed transversely of and between the two cross plates, and nuts threaded on the arms of the yoke shaped member to clamp together the plates, shank and pedal.

1,242,545. BED. JAMES E. HANGER, Sr., Washington, D. C. Filed Apr. 13, 1916. Serial No. 90,894. (Cl. 5—12.)



1. A bed comprising a platform, a housing carried thereon having window openings in one end thereof, and a transverse partition intermediate of the ends of the housing dividing same into a windowed compartment for the head of the occupant and a closed compartment for the body of the occupant.

2. A bed comprising a platform, a housing carried thereon having window openings in one end thereof, and a transverse flexible partition intermediate of the ends of the housing dividing same into a windowed compartment for the head of the occupant and a closed compartment for the body of the occupant.

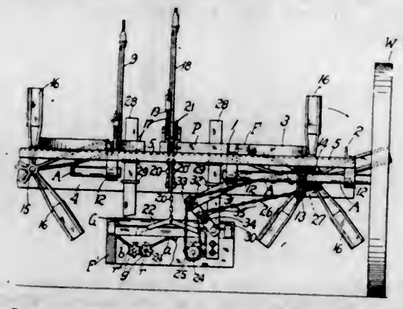
3. In a bed, the combination with a head and foot structure forming impervious walls, of a platform carried thereon and a housing movably carried on said head and foot structures having windows in one end, and means for opening and closing said windows.

4. In a bed, the combination with head and foot structures formed of impervious material having annular tracks in their opposite faces, of a platform mounted thereon, a semi-cylindrical housing carried in said tracks for inclosing the platform, dormer windows in one end of said housing, sash carried therein, and means for holding said sash in open and closed positions.

5. In a bed, the combination with head and foot structures, of a platform mounted thereon, annular tracks in the inner faces of said structures, a semi-cylindrical housing carried in said track, dormer windows in one end of said housing, means for holding said windows in open or closed position, and a flexible partition for dividing said housing into two compartments.

[Claims 6 to 8 not printed in the Gazette.]

1,242,546. BUGGING-MACHINE. MARTIN HARMON, St. Louis, Mo. Filed June 20, 1917. Serial No. 175,851. (Cl. 43—1.)



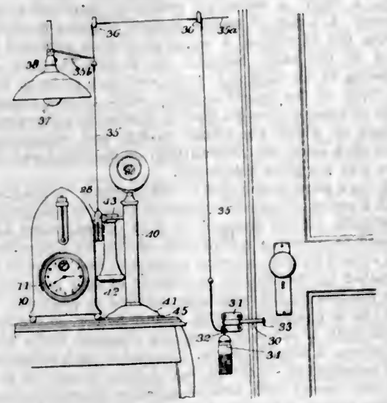
1. In a potato bugging machine, a main frame, a pair of independent axles secured thereto, drive gears on said axles, longitudinally extending shafts rotatable in the frame, beaters on the shafts, pinions on said shafts meshing with the drive gears, a vertically adjustable roller-frame suspended from the main frame, a pair of crushing rollers in the roller-frame, one roller of each pair being provided with a sprocket wheel, said sprocket being engaged by a chain which also engages a drive sprocket on the longitudinal shaft aforesaid, and a toggle provided with a pair of rollers each of which is traversed by one lap of the chain aforesaid, said toggle being adapted to take up the slack of the chain upon adjusting the roller-frame.

2. In a machine of the character described, a movable frame, toggle-levers having one member hinged to a fixed support, the opposite member being pivotally secured to the frame, crushing rollers in the frame, drive-chains for actuating said rollers, and means interposed between the toggle-levers and the drive-chain for causing the chain to conform to the movements of the frame.

1,242,547. BURGLAR-ALARM. SAMUEL H. HARRINGTON, New York, N. Y. Filed Dec. 5, 1914. Serial No. 875,585. (Cl. 116—41.)

1. In a burglar alarm, the combination with an alarm clock having an alarm setting stem, of a closure, and mechanism operated by an opening movement of said closure for shifting the said stem to set off the alarm of the clock.

2. In a burglar alarm, the combination with an alarm clock having an alarm setting stem normally adjustable in one direction, of a closure, and mechanism operated by an opening movement of said closure for turning said stem in a reverse direction to thereby set off the alarm.



3. In a burglar alarm, the combination with an alarm clock having an alarm setting stem and a winding stem, of a trip device for turning said setting stem, releasing means therefor connected with the winding stem, a closure, and mechanism operated by the opening movement of said closure for actuating the releasing means.

4. In a burglar alarm, the combination with an alarm clock having alarm winding and setting stems, of a trip device for turning said setting stem, a releasing arm connected with said winding stem whereby the alarm is wound up on setting the trip device, a closure, and mechanism operated by the opening movement of said closure for actuating the releasing arm.

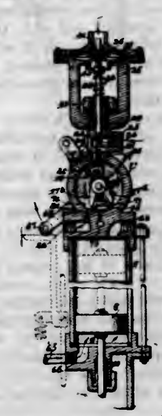
5. In a burglar alarm, the combination with an alarm clock having an alarm setting stem, of a trip device comprising a trip lever and a spring, a pulley fixed on said stem and a connection from said trip lever to the pulley, said connection winding around said pulley, a closure, and mechanism controlled by the movement of the closure for releasing said trip device.

[Claims 6 to 12 not printed in the Gazette.]

1,242,548. AUTOMATIC PUMP. WILLIAM ANDREW HARRIS, Greenville, S. C., assignor to Automatic Pump Corporation, Norfolk, Va., a Corporation of Virginia. Filed May 20, 1916. Serial No. 98,748. (Cl. 103—87.)

1. In an automatic pumping device, a cylinder provided with an inlet for motive fluid at one end of the cylinder, a main valve for controlling the passage of the motive fluid through said inlet, a valve casing for said valve, a pressure tank, a valve for controlling the entrance of motive fluid into said valve casing, a diaphragm connected to said last named valve and being exposed to the pressure from said pressure tank, and means carried by the valve for holding the latter on its seat during slight movements of the diaphragm and arranged to open at a more extensive movement.

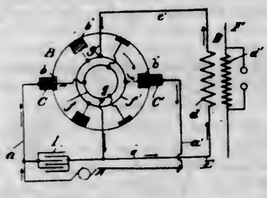
2. In an automatic pump, a cylinder, a valve casing carried by the cylinder, a fluid pressure control valve for controlling the entrance of motive fluid into said valve casing, connections between said valve casing and one end of said cylinder, a rotatable shaft extending through said valve casing, a valve within the valve casing adapted to be shifted by the rotation of said shaft for controlling the connections between the valve casing and the cylinder, an arm loosely mounted on the valve shaft, a stop member arranged to be engaged by the arm, a piston within the cylinder, a piston rod, an auxiliary rod secured to said piston rod and arranged for movement outside of the cylinder, a pair of arms carried by said auxiliary rod and arranged to engage the arm on said valve shaft for moving the latter, and a spring rigidly secured at one end and at the other end to said auxiliary rod and adapted to be placed under tension during upward stroke of the piston, and means carried by said fluid pressure control valve for holding the latter on its seat during slight variations of pressure, said valve being arranged to be operated on greater variations.



3. A fluid pressure control valve comprising a casing, a diaphragm carried by the casing, means for admitting fluid pressure on one side of said diaphragm, a valve stem secured to said diaphragm, a spring for returning the diaphragm to its original position, a spring pressed head carried by the valve stem, said head having a slight play, and a valve seat for said head.

4. A fluid pressure control valve comprising a casing, a diaphragm carried by the casing, means for admitting fluid pressure on one side of said diaphragm, a valve stem secured to said diaphragm, a spring for returning the diaphragm to its original position, a movable head carried by said valve stem, a spring for normally extending said head, and a pin carried by said head and arranged to play in a slot in said stem.

1,242,549. APPARATUS FOR CHANGING DIRECT ELECTRIC CURRENTS INTO INTERRUPTED ALTERNATING CURRENTS. ANATOLE C. HEINY, New York, N. Y. Filed Jan. 8, 1910, Serial No. 536,999. Renewed Mar. 2, 1917. Serial No. 152,154. (Cl. 175—364.)



1. In apparatus for converting a direct electric current into an alternating current of different potential, the combination of a direct current generator, an interrupter for breaking the current of the generator with great frequency, having means arranged to cause the interruptions to approximate in duration the periods of current flow and at the same time cause the reversal of the direction of the current with each interruption and a transformer, the primary of which is connected with and takes current from the said interrupter.

2. In apparatus for converting a direct electric current into an alternating current, the combination of a direct

current generator, a closed circuit of relatively high resistance connected with the opposite poles of the generator, a shunt circuit of less resistance than the said closed circuit, including the coil of a transformer, and an interrupter in the said shunt circuit.

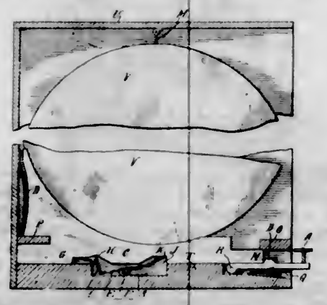
3. In apparatus for converting a direct electric current into an alternating current, the combination of a direct current generator, a closed circuit of relatively high resistance connected with the opposite poles of the said generator, a shunt circuit of less resistance than the closed circuit, including the primary coil of a transformer, and an interrupter in the said shunt circuit arranged to break the electric current with great frequency and to reverse the direction of the current flow through the shunt circuit with each break thereof.

4. An apparatus for converting a direct electric current to an alternating one of different potential comprising a circuit to which the direct current is supplied, a branch circuit in which is included artificial resistance, for closing the said direct current circuit, a shunt circuit including a coil of a transformer connected with the said branch circuit at a point dividing the resistance therein so that a part of the resistance is on each side of the connection, the resistance of the parts of the branch circuit on each side of the connection with the shunt circuit being greater than the resistance of the said coil of the transformer, and an interrupter between the two mains of the direct current circuit and to which one branch of the shunt circuit is connected arranged to divert the current from the main circuit to the shunt circuit in an interrupted manner and to reverse the direction of the current in said circuit with each interruption.

5. An apparatus for converting a direct electric current to an alternating one of different potential, comprising a main circuit to which the direct current is supplied, a branch circuit in which are included artificial resistances, uniting the conductors of the main circuit, a shunt circuit including the primary coil of a transformer connected with the branch circuit between the said resistances, the resistance of the said coil of the transformer to the flow of current being much less than that of either resistance in the said branch circuit, and an interrupter having separated insulated contacts with which brushes connected respectively with the conductors of the main circuit successively engage, the said contacts of the interrupter being electrically connected with the said shunt circuit, the interrupter being arranged to direct the current from the main line through the shunt line in successively opposite directions, and also to interrupt the flow of the current between each change in its direction.

[Claim 6 not printed in the Gazette.]

1,242,550. GRAPHOPHONE AND OTHER DISK RECORD HOLDER. JOHN HEITMAN, Nome, Alaska, assignor of one-half to Ralph Lomen, Nome, Alaska. Filed July 3, 1915. Serial No. 37,911. (Cl. 211—16.)



1. In a graphophone or disk record holder, in combination, a box-like body, a series of vertically disposed partitions therein, a series of partially curved and grooved record carriers slidably mounted between the partitions, a series of flat springs disposed at the back of the body between the partitions, each spring pressing upon the back of a record carrier, a series of triggers in front of the record carriers, each trigger adapted to hold or release a record carrier, substantially as described.

2. In a graphophone or disk record holder, in combination, a body, a series of vertically disposed partitions therein, a series of record carriers slidably mounted between the partitions, a series of springs attached to the back of the body, between the partitions, each spring pressing on the back of a record carrier, a series of triggers in front of the record carriers, each trigger adapted to hold or release a record carrier, a palleted escapement and means by which the record carrier and escapement engage each other, all substantially as described and for the uses and purposes mentioned.

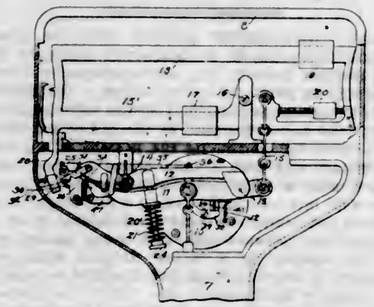
3. In a phonograph disk record holder, a casing provided with a series of vertically disposed stalls or compartments, a slidable carrier disposed in each compartment and arranged to receive a record disk, means for projecting any one of said slidable carriers forwardly, and common means actuated by the forward movement of said projected carrier for locking the remaining carriers in position.

4. In a phonograph disk record holder, a casing provided with a series of vertically disposed stalls or compartments, a slidable carrier disposed in each compartment and arranged to receive a record disk, means for projecting any one of said slidable carriers forwardly, common means actuated by the forward movement of said projected carrier for locking the remaining carriers in position, and means for releasing said carriers operated by the return movement of the projected carrier.

5. In a phonograph disk record holder, a casing provided with a series of vertically disposed stalls or compartments, a slidable carrier disposed in each of said stalls, and arranged to receive a record disk, a spring for each carrier arranged to place the carrier under tension, a trigger for each carrier having an abutment to prevent the movement of the carrier, and a key for each trigger, the downward movement of the key causing the release of the carrier and its forward projection by said spring.

[Claims 6 to 8 not printed in the Gazette.]

1,242,551. WEIGHING-SCALE. REUBEN H. HALSEL, New York, N. Y., assignor to Columbia Weighing Machine Company, New York, N. Y., a Corporation of New York. Filed Mar. 30, 1917. Serial No. 158,517. (Cl. 194—54.)



1. In a weighing scale the combination with weighing mechanism including a scale-beam and a load-receiver connected thereto, of a casing to carry the weighing mechanism and inclosing a portion thereof having a coin slot; means operable by a load placed upon the load-receiver to prevent the actuation of the scale-beam; and means operable by a coin deposited in and during its passage through the coin slot with a load upon the load-receiver to release said means preventing the actuation of the scale and permit the weighing of a load on the load-receiver.

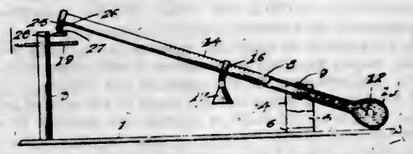
4. In a weighing scale the combination with weighing mechanism including a load-receiver, scale-beam and weighing lever to connect the load-receiver and scale-beam, of a casing to carry the weighing mechanism and inclosing a portion thereof having a coin slot; means operable to permit the actuation of the weighing mechanism and the weighing of a load on the load-receiver within a predetermined weight and to prevent the actuation of the weighing mechanism and the weighing of a load on the receiver greater than such predetermined weight; and mechanical means operable by a coin deposited in and during its passage through the coin slot to release said means preventing the actuation of the weighing mechanism and the weighing of the load greater than such predetermined weight on the load receiver.

7. A weighing scale comprising a load-receiver; a scale-beam having a cam portion; a weighing lever to connect the load-receiver and scale-beam; a casing to carry the load-receiver, scale-beam and weighing lever and inclosing a portion thereof, said casing having a coin slot; a dog carried by the weighing lever to engage with the cam portion of the scale-beam to prevent the actuation of the latter by a load on the receiver; and a spring influenced latch normally extending across the coin slot to coöperate with means through a coin deposited in the coin slot to release the dog from the cam portion of the scale-beam upon the depositing of the coin, substantially as and for the purpose specified.

12. In a weighing scale, the combination of weighing mechanism including a scale beam having a cam portion, a load-receiver, and a weighing lever to connect the load-receiver and scale-beam; a casing to carry and inclose a portion of the weighing mechanism having a coin slot; a dog carried by the weighing lever operable to engage with the cam portion of the scale-beam by a load on the receiver and prevent the actuation of the scale-beam; a lever connected to the dog; a latch having a part to lock the lever against movement in the normal position thereof; and a second pivoted spring influenced latch normally extending across a portion of the coin slot, said latch being operable to actuate the first latch to release the lever and actuate the lever to release the dog from the cam portion of the scale-beam by a coin deposited in and during its passage through the coin slot, substantially as and for the purpose specified.

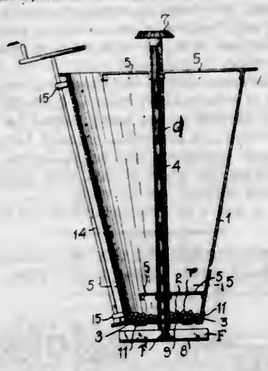
[Claims 2, 3, 5, 6, 8 to 11, 13, and 14 not printed in the Gazette.]

1,242,552. AUTOMATIC FIRE-ALARM. MILTON F. HUMPHRIES, Morrin, Alberta, Canada. Filed June 30, 1915. Serial No. 37,400. (Cl. 200—35.)



A circuit closer for an automatic fire alarm comprising a base, spaced upright elements mounted on the base, contact fingers carried by the upper ends of the uprights and included in a normally open alarm circuit, a mercury tube having one end pivotally connected to the base and having its opposite end overlying the space between the upright elements and disposed above the contact fingers, said tube being adapted at a predetermined temperature to be rocked in the direction of the contact fingers, a collar carried by the last-mentioned end of the tube and having a depending lug, a horizontally disposed bridge piece underlying the last-mentioned end of the tube and having a lug thereon pivotally connected to the lug on the collar to admit of the bridge piece having vertical tilting movement on the tube, said bridge piece being adapted when the tube is moved in the direction of the contact fingers to engage the same so as to close the alarm circuit.

1,242,553. MEANS FOR DROPPING PROJECTILES FROM AERIAL CRAFTS. BENTON H. JACKSON, Dayton, Wash. Filed Dec. 20, 1915, Serial No. 67,835. Renewed Mar. 3, 1917. Serial No. 152,435. (Cl. 244—1.)



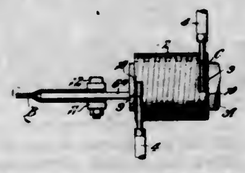
1. Means for dropping projectiles from aerial crafts comprising a container provided with a discharge opening, a rotatable disk carried by the container and provided with an opening adapted to register with the discharge opening, a peripheral portion of the disk being provided with teeth, and a shaft rotatably supported by the container and operatively engaged to the teeth of the disk and provided with an operating means.

2. Means for dropping projectiles from aerial crafts comprising a container provided with a discharge opening, a rotatable disk carried by the container and provided with an opening adapted to register with the discharge opening, a peripheral portion of the disk being provided with teeth, and a shaft rotatably supported by the container and operatively engaged to the teeth of the disk and provided with an operating means, said shaft being arranged exteriorly of the container.

3. Means for dropping projectiles from aerial crafts including a container having a discharge opening, guides carried by the container, a disk rotatably supported by the container and having its marginal portions coacting with the guides, said disk being provided with an extension coacting with certain of the guides for limiting the rotation of the disk, said disk being provided with an opening adapted to register with the discharge opening of the container, and means for imparting rotary movement to the disk.

4. Means for dropping projectiles from an aerial craft consisting of a container provided with an annular series of openings in its bottom, a sleeve disposed axially through the container and extending below the bottom thereof, a disk rotatably engaged with the lower portion of the sleeve and provided with openings adapted to register with the openings in the bottom of the container, means for imparting rotary movement to the disk, and a deflecting member operatively mounted within the sleeve.

1,242,554. ELECTRODE-HOLDER. RAYMOND O. JACKSON, St. Louis, Mo., assignor, by mesne assignments, to Metallurgical Laboratories, Incorporated, Chicago, Ill., a Corporation of Illinois. Filed Feb. 23, 1917. Serial No. 150,555. (Cl. 204—64.)



1. An electrode holder, comprising a body portion constructed to receive an electrode, a cooling element in said

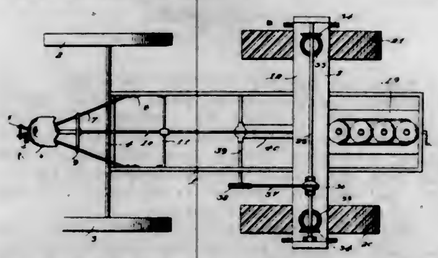
body portion that completely surrounds the electrode, and means for enabling said body portion to be clamped in snug engagement with the electrode.

4. An electrode holder, comprising a split body portion that is adapted to receive an electrode, and a cooling coil arranged on said body portion in such a manner that it does not interfere with the expansion or contraction of said body portion.

10. An electrode holder, comprising a double walled body portion of substantially tubular form that is split or longitudinally divided at one point, means for contracting said body portion, an extension on said body portion to which a supply conductor can be connected, and a coil arranged between the walls of said body portion through which a cooling medium can circulate.

[Claims 2, 3, and 5 to 9 not printed in the Gazette.]

1,242,555. TRACTOR FOR FARM MACHINERY. LLOYD JANES, Carland, Mich. Filed July 3, 1916. Serial No. 107,340. (Cl. 21—114.)



1. A tractor of the class described, including a chassis, a yoke carried by the forward end thereof, swiveled frames carried by the free ends of said yoke, a power plant carried by the free front end of said chassis and mounted slightly in advance of the center line of said yoke, steering and driving wheels carried by said frames, steering means for said frames associated with the swivel connections, ball bearing means therefor, and means for driving said driving and steering wheels from said power plant associated with said yoke and said frames.

2. A tractor of the class described including a chassis, a yoke mounted transversely across the chassis adjacent its forward end, the sides of said yoke positioned horizontally with respect to the chassis, longitudinally extending driving and steering shafts carried by said frame above and between the sides thereof respectively, a power plant connected with said driving shaft and carried by the chassis, frames disposed beneath said yoke, driving and steering wheels carried by said frames, trunnions mounted vertically through the horizontal sides of the yoke and connected with the frames, means extending vertically through said trunnions for connection with the driving shaft and wheels, and means carried by said steering shaft and operatively connected with the walls of the trunnions for swinging the frames upon operation of the steering shaft.

3. The combination with a tractor of the class described including a yoke mounted transversely across the chassis with its sides positioned horizontally with respect to the same, longitudinally extending driving and steering shafts carried by said yoke, frames disposed beneath the yoke, driving and steering wheels carried by said frames, trunnions mounted through said yoke and connected with the frames, means extending vertically through said trunnions for connecting the drive shaft with said wheels, ball bearings for said trunnions, and worm gears on the steering shaft operatively connected with the walls of the trunnions whereby upon rotation of said shaft the frames will swing to steer the tractor.

1,242,556. MINNOW. JAMES WILLIAM JAY, Philadelphia, Pa. Filed Dec. 6, 1916. Serial No. 135,453. (Cl. 43—30.)

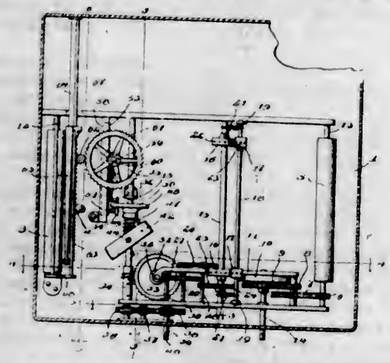
1. An artificial bait, comprising a body, a freely oscillatable draft member connected thereto in the rear of the forward extremity of the body, and means whereby the position of the axis of oscillation of said draft member may be varied relative to the body.



7. An artificial minnow comprising a body, collars on opposite sides of said body, screws extending through the centers of said collars into the body and adapted to hold the collars in different positions, revolubly considered, on the body, and a draft member in the form of a bail pivotally connected at its ends to the respective collars at points spaced from the centers thereof.

[Claims 2 to 6 not printed in the Gazette.]

1,242,557. SPEED-RECORDER FOR VEHICLES. CHARLES A. JESKE and CLARENCE P. JESKE, Chicago, Ill. Filed Nov. 17, 1915. Serial No. 61,080. (Cl. 234—31.)

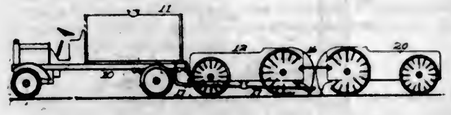


1. In a speed recorder for vehicles, a traveling record sheet, means for imparting motion to said sheet at a velocity proportionate to the speed of the vehicle, a rack bar movable in a path at a right angle to the path of movement of said record sheet, a marker arm parallel to said rack bar and carried thereby, a gear meshing with and actuating said rack bar, a second rack bar having a driving connection with said gear, and speed-controlled governor mechanism for shifting said second rack bar according to the speed of the governor shaft.

2. In a speed recorder for vehicles, a traveling record sheet, means for imparting motion to said sheet at a velocity proportionate to the speed of the vehicle, a rack bar movable in a path at a right angle to the path of movement of said record sheet, a marker arm parallel to said rack bar and carried thereby, a gear meshing with and actuating said rack bar, a second rack bar having a driving connection with said gear, speed-controlled governor mechanism for shifting said second rack bar according to the speed of the governor shaft, a cross bar connecting said marker arm and first named rack bar at one end only, and having a guide opening therein, and a stationary guide extending through said opening and located between said marker arm and rack bar.

1,242,558. METHOD OF AND APPARATUS FOR ROAD-MAKING. JOHN A. JOHNSTON, Springfield, Mass. Filed June 14, 1915. Serial No. 33,896. (Cl. 94—6.)

1. A method of road building which consists in discharging a thin sheet of particles of aggregate material on the road and during its progress toward the road-bed and while falling freely in the air discharging liquid or semi-liquid matrix material in thin sheets on both sides of the sheet of aggregate material, whereby the individual particles of aggregate material will be covered with the matrix material during their travel toward the road-bed and before the particles of aggregate material are compacted together and the aggregate material will be deposited on the road-bed in a freshly covered condition, the matrix material being directed in sprays against the falling aggregate material in such direction as to assist gravity in forcing the mixture into the road surface.



2. An apparatus for making a road-way, the combination of a tank for receiving and holding matrix material in a liquid or semi-liquid condition, a receptacle for receiving aggregate material, means connected with said receptacle for discharging the aggregate material and dropping it on the road-way in a thin sheet, and means connected with said tank for spraying the matrix material therefrom on the two opposite surfaces of said sheet of aggregate as it drops toward the road bed.

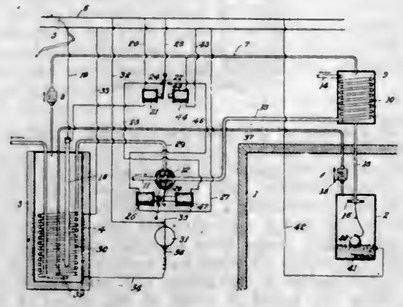
3. The combination of a vehicle having a receptacle thereon for containing a body of matrix material adapted to harden upon continued exposure, a second vehicle with the same adapted to support a body of aggregate material, mechanical means on the second vehicle for positively discharging the aggregate material, separating it in the air and dropping it in a continuous stream on the roadway, and means extending from the matrix receptacle for delivering a spray of the matrix material on the body of the aggregate material while in the air.

4. The combination of a vehicle having a tank thereon, a trailer behind the same, means on the trailer for discharging a thin sheet of aggregate material downwardly, a pipe extending from the tank and supported by the trailer, and two transverse spray pipes connected with said pipe and located on opposite sides of said sheet.

5. In an apparatus for road building and the like, the combination of a vehicle, and means supported thereby for producing two sprays of liquid material under pressure, with mechanical means whereby particles of solid material are carried in a constant and uniform manner and delivered in a thin sheet so as to fall between the lines of sprays produced by the first-named means to insure a liquid coating on both sides of the sheet of solid particles, the pressure of the sprays being so directed as to assist gravity in forcing the mixture into the road surface.

[Claims 6 and 7 not printed in the Gazette.]

1,242,559. REFRIGERATING APPARATUS. FREDERICK G. KEYES, Hoboken, N. J., assignor to National Automatic Refrigerator Company, a Corporation of New Jersey. Filed Aug. 19, 1916. Serial No. 115,745. (Cl. 62—5.)

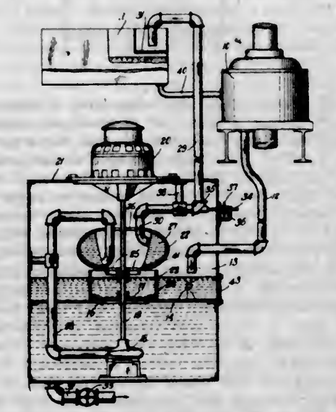


1. In a refrigerating apparatus of the kind described, the combination of a distilling, a condensing and a refrigerating chamber, and a contracted orifice between the condensing and the refrigerating chambers, by which the refrigerant is liquefied and brought to a lower temperature by its passage through the same.

5. In a refrigerating apparatus of the kind described, the combination with the condenser and the refrigerating chamber of a pipe leading from one to the other provided at its end in the refrigerating chamber with a disk with radial passages of small diameter extending from the bore of the pipe.

[Claims 2 to 4 not printed in the Gazette.]

1,242,560. OIL PURIFIER AND PUMP. ALBERT KINGSBURY, Pittsburgh, Pa. Filed Jan. 21, 1915. Serial No. 3,457. (Cl. 233—21.)



1. A liquid purifier and pump comprising a stationary tank, a whirling receptacle therein above the liquid level in the tank, means for conducting liquid from the tank into the whirling receptacle, a receiving nozzle extending into the whirling receptacle from the top and adapted to conduct away the light liquid after the impurities are centrifugally separated therefrom, and a perforated splash guard receptacle in the tank below the whirling receptacle.

2. A liquid purifier and pump comprising a stationary liquid containing tank, a whirling receptacle within the tank above the liquid level therein, a motor for driving the receptacle, a pump operatively connected to the motor for transferring the liquid from the tank to the whirling receptacle near the bottom, an outlet pipe for conducting away clean liquid, and means dependent upon the whirling receptacle and the liquid therein for forcing the liquid therefrom into the outlet pipe.

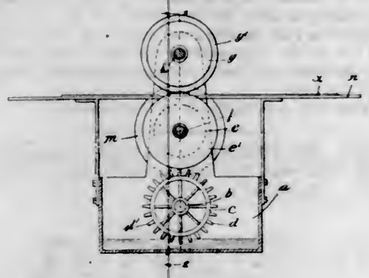
3. A separator and pump comprising a rotatable receptacle formed to provide an annular pocket, a central opening at the base of the receptacle, an opening in the top of the receptacle of larger diameter than the base opening, and a radial flange adjacent to the top opening and having propelling means for elevating relatively light liquid from the receptacle.

4. A separator and pump comprising a rotatable receptacle, means for supplying liquid to the receptacle near the bottom, a contracted neck at the top of the receptacle having a radial flange, propeller vanes on said flange, and a stationary annular discharge chamber adapted to receive liquid which is forced outwardly from the top of the receptacle by said propeller vanes.

5. A liquid purifier and pump comprising a whirling receptacle, means for supplying liquid thereto near the bottom, a receiving nozzle extending into the receptacle and adapted to conduct away the light liquid theerfrom near the top, and a splash guard receptacle directly below the whirling receptacle, the latter having an opening at the bottom near the axis from which dirt is discharged into the splash guard receptacle.

[Claims 6 to 8 not printed in the Gazette.]

1,242,561. CEMENTING-MACHINE. IRVING L. KEITH, Haverhill, Mass. Filed Dec. 4, 1915. Serial No. 65,150. (Cl. 91—50.)



1. A cementing machine comprising a rotatably mounted roll having a series of circularly-arranged rows of radially-extending teeth thereon, said teeth having transverse faces at their ends arranged at uniform distances from the axis of the roll, and each row of teeth being spaced apart from the others, means to apply cement to said faces as the roll is rotated, and a second roll arranged to be held in pressing engagement with said first named roll and to be rotated in unison therewith.

2. A cementing machine, comprising a rotatably mounted roll having a series of circularly-arranged rows of radially-extending teeth thereon, said teeth having transverse faces at their ends arranged at uniform distances from the axis of the roll, and each row of teeth being spaced apart from the others, a receptacle disposed beneath said roll into which the end portions of said teeth dip, and a second roll arranged to be held in pressing engagement with said first named roll and to be rotated in unison therewith.

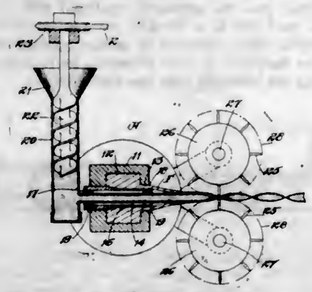
3. A cementing machine having a rotatably mounted, cement-applying roll, having a series of circularly-arranged rows of radially-extending teeth thereon, said teeth having transverse end faces at uniform distances from the axis of the roll, and each row of teeth being spaced apart from the others, means to hold liquid cement so that the ends of said teeth may dip therein when the roll is rotated, a cement-receiving roll arranged in rolling contact with said faces and means to hold the material to be cemented against said receiving roll.

4. A cementing machine having a cement-applying roll comprising a series of circularly-arranged rows of radially-extending teeth, said teeth having end faces at uniform distances from the axis of the roll, and each row of teeth being spaced apart from the others, means to apply liquid cement to the ends of said teeth as the roll is rotated, a cement-receiving roll having a series of circular ribs respectively arranged with the peripheral faces thereof in rolling contact with the faces of said teeth, and a press roll having a series of circular ribs arranged opposite the spaces between the ribs of said receiving-roll to draw the material to be cemented against the said peripheral faces thereof.

5. A cementing machine having a cement-applying roll composed of a series of circularly-arranged rows of radially-extending teeth, said teeth having end faces at uniform distances from the axis of the roll, and each row of teeth being spaced apart from the others, means to hold liquid cement so that the ends of said teeth dip therein, when the roll is rotated, and a roll having circular, cement-receiving faces arranged and driven in rolling contact with the faces of said fingers, the circumferential length of said receiving faces and the length of the path in which the faces of said teeth travel corresponding, so that the faces of said teeth engage the same points on said receiving faces successively.

[Claim 6 not printed in the Gazette.]

1,242,562. CANDY-MAKING MACHINE. WILLIAM B. LASKEY, Marblehead, Mass. Filed Dec. 28, 1914. Serial No. 879,250. (Cl. 107—1.)



1. A machine for making candy which consists in means for forming the candy while in plastic condition into tubular form, and means for pulling the tube thus formed down to a tube of less diameter.

2. A machine for making candy which consists in means for forcing candy through an opening while in plastic condition to form a tubular structure and means for pulling the tube thus formed down to a tube of less diameter.

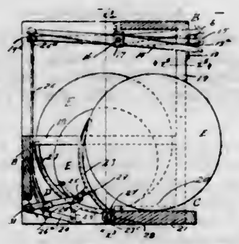
3. The candy making machine which consists in means for forming the candy while in plastic condition into tubular form, means for pulling the tube thus formed down to a tube of less diameter, and means for introducing a filling material into the tube of candy when drawn down.

4. A machine for making candy which consists in means for forcing candy through an opening of a shape to form a tubular structure of a diameter greater than the finished tubular piece, means for pulling the candy down to size, and means for introducing a filling material through the open end of the candy.

5. A machine for making candy which consists of a die having a hole in one portion, a member in said die which projects through said hole and is spaced from the sides thereof to form an annular opening, means for forcing candy through said annular opening to form a tubular structure and means for pulling down said tubular structure to a tube of less diameter.

[Claims 6 and 7 not printed in the Gazette.]

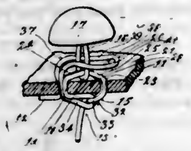
1,242,563. PHONOGRAPH-RECORD CABINET. HERBERT G. LA SOR, Los Angeles, Cal. Filed May 2, 1916. Serial No. 94,911. (Cl. 211—16.)



1. In a device of the character disclosed, a casing, an arcuate holding and ejecting member pivotally mounted in said casing, and means for tilting said arcuate holding and ejecting member; said tilting means comprising a pair of links constituting a toggle, a pivoted lever having a key portion, and a connecting rod between said lever and said toggle; means being provided with which said member is pivotally connected and rearward of which the record is supported in engagement with said member and over which the record is rolled on the tilting of said member.

2. In a device of the character disclosed, a casing, a plurality of separate ejecting members pivotally mounted in said casing, spacing means spanning the casing in a plane spaced from the region of the pivotal supports of said members and comprising spaced strips, and means for operating said ejecting members to discharge the records from the spaces between said strips; said ejecting members being reduced in width at their outer end portions for reception between said strips whereby a minimum width of space is provided between said strips to accommodate the records and the total record-holding capacity of the casing is relatively increased.

1,242,564. STITCHING FOR SECURING SHANK-EYE BUTTONS AND METHOD OF FORMING THE STITCHING. WILLIAM F. LAUTENSCHLAGER, Cincinnati, Ohio, assignor to Lorenz Muther, Boston, Mass. Filed Dec. 29, 1913. Serial No. 809,283. (Cl. 112—34.)



1. The method of attaching a shank-eye button to material which consists in passing a loop of thread comprising an initial stretch and a supply stretch through the material, through the shank eye of the button and in reverse direction through the material, at a point spaced from the point at which said loop is first passed through the material, passing the supply stretch of the thread through said loop from that side of said loop presented toward the point at which said loop is first passed through the material and forming a supplemental loop, bending said supplemental loop in reverse direction about the bight of said first-named loop, and locating said bight of said first-named loop proximate to the point of passage of said first-named loop in reverse direction through the material, and passing said supplemental loop through the material at the beginning portion of said first-named loop and about the shank-eye of the button.

2. The method of attaching a shank-eye button to material which consists in passing a loop of thread, comprising an initial stretch and a supply stretch, through the material, through the shank-eye of the button and reversely through the material, at a point spaced from the point at which said loop is first passed through the material, passing the supply stretch of the thread through said loop from that side of said loop presented toward the point at which said loop is first passed through the material, drawing said loop taut for forming a knot proximate to said spaced point, forming a supplemental loop in said supply stretch of said thread, bending said supplemental loop in reverse direction about the bight of said first-named loop, passing said supplemental loop through the material at the beginning portion of the stitch and about the shank-eye of the button, and drawing said supplemental loop taut and forming a knot at said spaced point between the supply-end of said supplemental loop and the preceding portion of the stitching.

3. The method of stitching a shank-eye button to material which consists in passing a loop of thread comprising an initial stretch and a supply stretch through the material, through the shank-eye of the button, and reversely through the material at a point spaced from the point at which said loop is first passed through the material, passing the supply stretch of the thread through said loop from that side of said loop presented toward the point at which said loop is first passed through the material for forming a supplemental loop comprising an initial stretch and a supply stretch, pulling upon said last-named initial stretch for drawing said first-named loop taut for forming a knot proximate to said spaced point between said first-named loop and the thread of said supplemental loop, bending said supplemental loop in reverse direction about the bight of said first-named loop, passing said supplemental loop through the material at the beginning portion of the stitching and about the shank-eye of the button, and drawing the supply stretch of the thread taut for forming a second knot at said spaced point between said loops.

4. The method of stitching a shank-eye button to material which consists in passing a loop of thread comprising an initial stretch and a supply stretch through the material and through the shank-eye of the button, passing the supply stretch of the thread from the beginning portion of the stitch through the bight portion of said loop from that side of said loop presented toward the point at which said loop is first passed through the material and forming a supplemental loop comprising an initial stretch and a supply stretch extending in a direction similar to the direction in which that portion of said first-named loop passing through said shank-eye extends, bending said supplemental loop in reverse direction about said bight portion of said first-named loop, said supplemental loop concatenated with said first-named loop at the end of said stitch spaced from said beginning portion, said loops arranged in concatenated relation downwardly through the material, pulling upon the thread of said supplemental loop for forming a knot at said end of said stitch between it and said first-named loop, passing said supplemental loop through the material at the beginning portion of the stitch and about the shank-eye of the button, and pulling upon the supply stretch of the thread for drawing said supplemental loop taut about said shank-eye and forming a knot at said end of said stitch between said supply stretch of said supplemental loop and a preceding portion of the stitch.

5. The method of stitching a shank-eye button to material which consists in passing a loop of thread comprising a pair of stretches through the material and through the shank-eye of the button, passing the supply stretch of the thread from the beginning portion of the stitch through the bight portion of said loop from that side of said bight portion presented toward said beginning portion and forming a supplemental loop comprising a pair of stretches, bending said supplemental loop in reverse direction about said bight portion of said first-named loop, concatenating said supplemental loop at the end of said stitch spaced from said beginning portion with said first-named loop, said loops arranged in concatenated relation downwardly through the material, passing said supplemental loop through the material at the beginning portion of the stitch and about the shank-eye of the button, and pulling upon the supply stretch of the thread for drawing said supplemental loop taut about said shank-eye, and forming a knot at said end of said stitch between said supply stretch of said supplemental loop and a preceding portion of the stitch.

[Claim 6 not printed in the Gazette.]

1,242,565. STITCHING FOR SECURING SHANK-EYE BUTTONS AND METHOD OF FORMING THE STITCHING. WILLIAM F. LAUTENSCHLAGER, Cincinnati, Ohio, assignor to Lorenz Muther, Boston, Mass. Filed Dec. 29, 1913. Serial No. 809,284. (Cl. 112—34.)



1. The method of attaching a shank-eye button to material which consists in passing a loop of thread comprising an initial stretch and a supply stretch through the material, through the shank-eye of the button, and reversely through the material, passing the supply limb of the thread through said loop for forming a supplemental

loop, forming a locking loop concatenated with said supplemental loop, and passing said locking loop through the material and about the shank-eye of the button.

2. The method of attaching a shank-eye button to material which consists in passing a primary loop of thread through the material, through the shank-eye of the button and reversely through the material, passing the supply-limb of the thread through said primary loop for forming a secondary loop, drawing said primary loop taut for forming a knot between said loops, passing the supply-limb of said thread through said secondary loop for forming a tertiary loop, and passing said tertiary loop through the material and about the shank-eye of the button and drawing said tertiary loop taut.

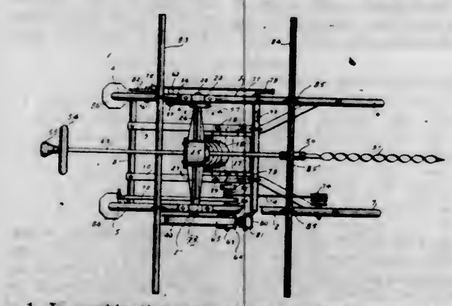
3. The method of attaching a shank-eye button to material which consists in passing a primary loop of thread through the material, through the shank-eye of the button and reversely through the material, passing the supply-limb of said thread through said primary loop and drawing said primary loop taut for forming a knot between said loops, passing the supply-limb of said thread through said secondary loop as a tertiary loop, drawing said secondary loop taut for forming a compound knot between said primary and tertiary loops, passing said tertiary loop through the material and about the shank-eye of the button, and drawing said tertiary loop taut for forming a knot between said secondary and tertiary loops.

4. The method of attaching a shank-eye button to material which consists in passing a loop of thread comprising an initial stretch and a supply stretch through the material at the beginning portion of the stitching and through the shank-eye of the button, and reversely at the end portion of the stitching, passing the supply stretch of said thread from the beginning portion of the stitching through the bight portion of said loop and drawing said loop taut, forming a compound knot at said bight portion with a supplemental loop extending therefrom, passing said supplemental loop through the material to the face side thereof at the beginning portion of the stitching and about the shank-eye of the button, and drawing said supplemental loop taut.

5. The method of stitching a shank-eye button to material which consists in passing a loop of thread comprising a pair of stretches through the material and through the shank-eye of the button and reversely through the material, passing one of the stretches of said thread through the bight portion of said loop and drawing said loop taut, forming a compound knot at said bight portion with a supplemental loop comprising a pair of stretches extending therefrom, passing said supplemental loop through the material to the face side thereof and about the shank-eye of the button, and drawing said supplemental loop taut with its stretches arranged crossingly over the stretches of said first-named loop.

[Claims 6 and 7 not printed in the Gazette.]

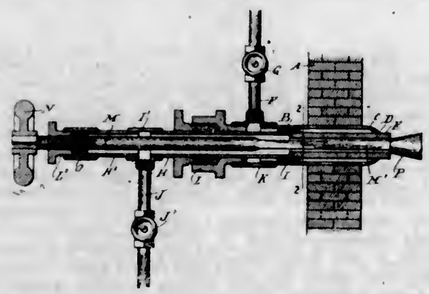
1,242,566. PORTABLE POWER STUMP-BORING MACHINE. WILLIAM W. LEACH, Pineland, Tex. Filed Sept. 18, 1914. Serial No. 862,278. (Cl. 144—106.)



1. In combination with a frame including side bars, a head having trunnions journaled on the side bars of the frame, an augur borne by the head and movable therewith to be angularly adjusted in a vertical plane, a removable sector angularly adjustably clamped on one of the trunnions and positioned to lie next the inner side of the adjacent side bar, said sector being formed with a slot, the specified side bar being provided with an aperture of angular section, a headed bolt passing through the sector slot and slidably engaged in the aperture of the side bar, the opposite end of the bolt being threaded and projecting from the outer side of the bar, and a clamping lever engaged with the threaded end of the bolt to slide the latter for holding the sector rigid.

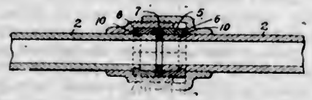
2. In a stump boring machine, in combination with a frame, a hollow cylindrical head having a removable disk closing one end, radial, oppositely extending, relatively long, tubular projections having terminal trunnions journaled on the frame, an auger, a gear housed by the head, and journaled in its disk ends, a stem slidable through the gear and carrying the auger on one end, and a drive for the gear including a shaft extending through one of the trunnions, and into the head and journaled at both ends.

1,242,567. OIL-BURNER. JOHN E. LIMBACHER, St. Marys, Ohio. Filed Jan. 13, 1917. Serial No. 142,124. (Cl. 158—75.)



A burner of the type specified comprising a sectional oil inlet pipe, a steam inlet pipe inclosing the outlet section or discharge end of said oil inlet pipe, the discharge end of said steam pipe being contracted around the oil pipe adjacent to the discharge end thereof and the said contracted end being provided with a series of jet openings, a steam supply pipe, a coupling member uniting said steam inlet pipe and said steam supply pipe and forming a passage to the steam inlet pipe, a packing gland sealing said passage beyond the coupling member, and an oil feed rod within the sectional oil inlet pipe, said feed rod having a conical shaped head which coöperates with the discharge end of said oil feed pipe in presenting the oil in an expanded film-like body immediately in advance of the steam escaping from the jet openings in the steam inlet pipe, substantially as described.

1,242,568. PIPE-COUPLING. CLYDE H. LOUGHRIDGE and HOWARD R. LOUGHRIDGE, Pittsburgh, Pa. Filed May 24, 1916. Serial No. 99,481. (Cl. 137—28.)



1. A coupling for electrical conduit pipes comprising pipe ends in abutting relation each having an annular shouldered groove and a divided embracing collar having internal abutments co-acting with the shouldered grooves, sleeve couplings overlapping the pipe joint and embracing said collars having interior shoulders positively engaging the ends of the collars and in threaded engagement with

each other, and a ring washer intervening between the inner ends of the pipes and collars respectively.

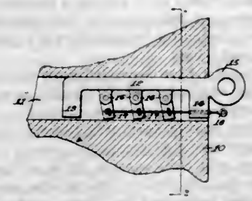
2. In a device of the class described, the combination with adjoining sections of a conduit pipe having annular channels near their ends, of sectional collar members adapted to encircle the pipe ends and having interior flanges engaging the channels, of a male sleeve member slidably mounted on one pipe end having an interior bore adapted to embrace the pipe, and a larger bore adapted to pass over the collar members, the junction of the bores forming a shoulder adapted to engage the collar member, and a female sleeve on the other pipe end having a smaller interior bore adapted to embrace the pipe end, a larger bore adapted to embrace the male sleeve member, a shoulder at the junction of the bores adapted to engage the collar member, and threads on the sleeve members whereby they are engaged.

3. In a coupling of the class described, the combination with adjacent pipe sections having annular channels near their ends, of sectional collars adapted to embrace said pipes between their meeting ends and said channels and having interior flanges adapted to engage the channels in the pipes, a male sleeve member slidably mounted on one pipe end having an interior bore adapted to embrace the pipe, and a larger bore adapted to embrace the collar members on both pipe ends, and a female sleeve member mounted on the other pipe end and adapted to engage said male member.

4. In a coupling of the class described, the combination with adjacent pipe sections having annular channels near their ends, of sectional collars adapted to embrace said pipes between their meeting ends and said channels and having interior flanges adapted to engage the channels in the pipes, and sleeves slidably mounted on the pipes having interior shoulders adapted to engage the collars, one sleeve being adapted to pass over both of said collars and screw into the other, and both sleeves overlapping the pipe joint when in engaged position.

5. In a device of the class described, the combination with adjoining sections of a conduit pipe having annular channels near their ends, of sectional collar members adapted to encircle the pipe ends and having interior flanges engaging the channels, of a male sleeve member slidably mounted on one pipe end having an interior bore adapted to embrace the pipe, and a larger bore adapted to pass over the collar members, the junction of the bores forming a shoulder adapted to engage the collar member, the length of the portion having the larger bore being sufficient to cover one pair of said collar members and a portion of the other pair, and a female sleeve on the other pipe end having a smaller interior bore adapted to embrace the pipe end, a larger bore adapted to embrace the male sleeve member, a shoulder at the junction of the bores adapted to engage the collar member, the length of the portion having the larger bore being sufficient to overlap one pair of said collars and a portion of the other pair and the major portion of the male sleeve member, and threads on the sleeve members whereby they are engaged in the portion overlapping the pipe joints.

1,242,569. ANCHOR-BOLT. ALEXANDER J. MCDONALD, Pittsburgh, Pa. Filed Oct. 17, 1916. Serial No. 126,111. (Cl. 85—3.)



1. The combination with a wall having therein an opening of substantially rectangular cross section, of an anchor bolt coöperating with said wall at the opening thereof, said anchor bolt comprising a body member, a pair of downwardly extending legs, one at each end of said body member, said legs being of a size to substantially fit in said opening, and a plurality of dogs, pivoted to said body member between said legs, and disposed so as to separately engage a wall of said opening and be tilted when said anchor bolt is inserted in said opening, whereby said dogs, by their engagement with the wall of said opening, prevent withdrawal of said anchor bolt from said opening.

2. The combination with a wall having therein an opening of an anchor bolt coöperating with said wall at said opening, said anchor bolt comprising a body member having a pair of downwardly extending legs, one at each end thereof, a plurality of dogs pivoted to said body member between said legs, said dogs being disposed separately to engage the wall of said opening, and be tilted when said anchor is inserted in said opening, and a pin passing through one of said legs and attached to each of said dogs, whereby, by moving said pin, said dogs may be released from their engagement with the wall of said opening.

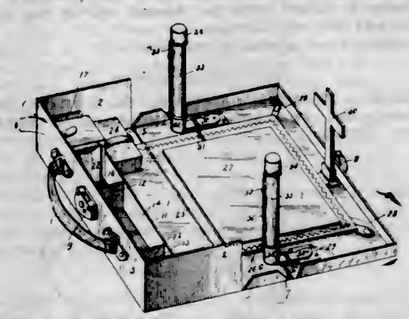
3. An anchor bolt comprising a body member having a downwardly extending spacing portion, a pivoted dog extending beyond said leg, and means secured to said dog and passing through said spacing portion for manually swinging said dog about its pivot, for the purposes set forth.

4. An anchor bolt comprising a body member, a plurality of engaging dogs pivoted to said body member, a spacing portion and means, attached to all of said dogs, and passing through said spacing portion for manually swinging said dogs about their pivots, for the purposes set forth.

5. An anchor bolt comprising a body member, downwardly extending spacing portions, a dog pivoted to the bottom side of said body portion and extending beyond said spacing portions.

[Claims 6 to 9 not printed in the Gazette.]

1,242,570. ECCLESIASTICAL RITUAL CASE. ALEXANDER EUSTACE MAGUIRE, Sillery, Quebec, Canada. Filed Oct. 2, 1916. Serial No. 123,260. (Cl. 206—19.)

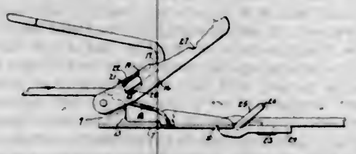


1. In a cabinet of the character described comprising a rectangular body portion, a rear wall hingedly connected to the body portion, a cover hingedly connected to said rear wall, a mat secured at one end within said body portion, means for detachably connecting said mat to said cover, foldable candle supports arranged within said cover at each side of said mat, and a foldable crucifix support arranged within said cover at the end of said mat substantially as and for the purpose set forth.

2. In a cabinet of the character described comprising a body portion, a cover hingedly connected thereto, said body portion having a plurality of compartments arranged therein, ritual members supported upon said cover, a crucifix included in said ritual members, a support hingedly mounted within said cover for receiving the base of said crucifix and means for retaining said support in a vertical position when the cover is opened substantially as and for the purpose specified.

3. In a cabinet of the character described comprising a body portion, compartments arranged within said body portion, a cover hingedly connected to said body portion, ritual members arranged within said cover, plates secured within said cover, a sectional arm pivotally mounted upon each of said plates and a candle holder carried by each of said arms substantially as and for the purpose specified.

1,242,571. BUCKLE. JULIUS MALTBY, Waterbury, Conn., assignor to Waterbury Buckle Co., Waterbury, Conn., a Corporation. Filed July 20, 1917. Serial No. 181,701. (Cl. 24—166.)

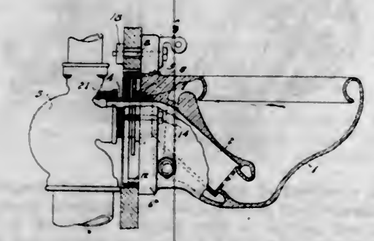


1. In a buckle, the combination with a back-plate formed with sides and at its forward end with a strap-attaching bar, of a front-plate having sides the rear ends of which are pivotally connected with the rear ends of the sides of the back-plate, said front-plate formed with a clearance opening and with a tuck-bar at its forward end, a lever pivotally connected between the sides of the front-plate and co-acting with the front-plate to lock a strap between them, a strap looped over the strap-attaching bar of the bottom-plate, and a link held by the loop in the strap and extending over the forward end of the front-plate.

3. A buckle comprising a back-plate formed with sides, a front-plate having sides the rear ends of which are pivotally connected with the rear ends of the sides of the back-plate, a lever pivotally mounted between the sides of the front-plate and provided with a gripping-edge co-acting with the front-plate, said front-plate formed near its forward end with a clearance opening, the upper edges of the sides of the opening in the front-plate formed with notches, and a link connected with the back-plate and adapted to extend over the forward end of the front-plate and into said notches.

[Claim 2 not printed in the Gazette.]

1,242,572. PLUMBING-FIXTURE. IRA A. MANN, Pittsburgh, Pa. Filed Dec. 11, 1914. Serial No. 876,633. (Cl. 137—94.)



1. In combination in a plumbing fixture for use upon a wall, an upright outlet pipe in the wall, a wall bowl having a bearing face opposing the wall, a horizontal coupling extending from the upright pipe into the bowl, a thrust member screw threaded on the coupling and adapted to engage the said bearing face of the bowl and take the thrust thereof, packing surrounding the coupling where it enters the bowl, a collar adjustable longitudinally of the coupling for tightening the packing, and means whereby the collar may be adjusted from the front side of the bowl.

2. In combination in a plumbing fixture for use upon a wall, an upright outlet pipe in the wall, a wall bowl having a bearing face opposing the wall, a horizontal coupling extending from the upright pipe into the bowl, a thrust member screw threaded on the coupling and adapted to engage the said bearing face of the bowl and take the thrust thereof, and tension supporting means for the bowl above the said thrust member and independent thereof.

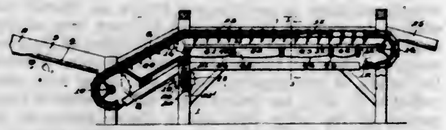
3. In combination in a plumbing fixture for use upon a wall, an upright outlet pipe in the wall, a wall bowl having a supporting shelf extending above the body of the bowl having a bearing face opposing the wall, a horizontal coupling extending from the upright pipe into the bowl, a thrust member screw threaded on the coupling and adapted to engage the said bearing face of the bowl and take the thrust thereof, and tension supporting means extending through the said shelf and adapted to resist any movement of the shelf away from the wall, the said tension means lying above and independent of said thrust member.

4. In combination in a plumbing fixture for use upon a wall, an upright outlet pipe in the wall, a wall bowl having a supporting shelf extending above the body of the bowl, a horizontal coupling extending from the upright pipe into the bowl, a thrust member screw threaded on the coupling and adapted to engage the inner face of the bowl below the outlet pipe and take the thrust thereof, and tension supporting means engaging the said shelf and secured at their inner ends in the partition, the said tension means lying above and independent of said thrust member.

5. In combination in a plumbing fixture, a bowl provided with an outlet opening surrounded by a recess, a discharge pipe leading therefrom, packing lying in said recess surrounding the pipe where it enters the bowl, a collar screw threaded on the pipe for tightening the packing, and means whereby the said collar may be rotated from the outer side of the bowl.

[Claims 6 to 14 not printed in the Gazette.]

1,242,573. GRADING-MACHINE. ISAAC V. MATSON, Waterport, N. Y. Filed Apr. 14, 1915. Serial No. 21,242. (Cl. 130—32.)



1. A grading machine comprising an endless separator having a plurality of apertured wings, and transverse slats alternating with said wings, said wings being arranged in sets and the apertures of each set being of gradually decreasing size from one end of the set to the other.

2. A grading machine comprising an endless separator having belts, and apertured wings pivotally mounted on said belts to swing vertically, and means for intermittently raising and lowering said wings.

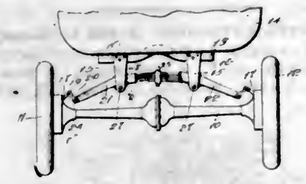
3. A grading machine comprising an endless separating device composed of endless chains, equally spaced slats arranged transversely of said chains, a plurality of vertically swinging wings each having a plurality of different sized apertures and fulcrumed to the underside of one of said slats, and means for intermittently raising and lowering each of said wings.

4. A grading machine comprising an endless separating device having endless chains, equally spaced slats arranged transversely thereof, a plurality of vertically-swinging wings having apertures therein which normally have their axes arranged vertically, means for supporting said wings on said slats, and a track arranged adjacent to said wings and adapted to control the same, said track having cut away portions for allowing said wings to swing downwardly from said slats.

5. A grading machine comprising an endless separating device having endless chains, equally spaced slats arranged transversely thereof, a plurality of vertically-swinging wings each having different sized apertures therein and fulcrumed to said transverse slats, runners on said wings, and tracks adapted to support said runners, said tracks having cutaway portions for allowing said wings to swing downwardly from said slats.

[Claims 6 to 13 not printed in the Gazette.]

1,242,574. SHOCK-ABSORBER. EDWARD M. MAY, Ann Arbor, Mich. Filed Apr. 12, 1916, Serial No. 90,608. Renewed Sept. 1, 1917. Serial No. 189,421. (Cl. 267—33.)



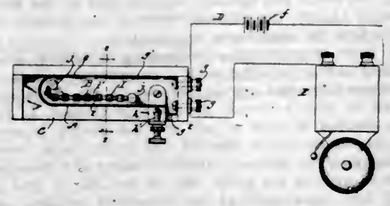
1. The combination with a supported axle, of longitudinally bowed channel-shaped members pivotally connected with the axle at their lower ends, a vehicle chassis having connection with the channel-shaped members at their upper ends, and a plurality of superposed springs extending from the channel-shaped members and arranged in overlapping relation.

2. The combination with a supported axle and a vehicle chassis, of channel-shaped members having their lower ends pivotally connected with the outer ends of the axle and their upper ends extended toward each other, said upper ends being operatively connected with the chassis, and a plurality of springs extending from the channel-shaped members and arranged in overlapping relation, said springs being capable of longitudinal movement.

4. The combination with a supported axle and a vehicle chassis, of channel-shaped members having their lower ends pivotally connected with the axle and their upper ends extended toward each other, said upper ends being operatively connected with the vehicle chassis, and a plurality of overlapping springs extending from the channel-shaped members.

[Claims 3 and 5 not printed in the Gazette.]

1,242,575. SIGNAL MECHANISM. SILVESTRO MILANO, New York, N. Y. Filed Feb. 11, 1915. Serial No. 7,509. (Cl. 200—31.)



1. In a thermostatic and gas detecting signal device, the combination with a circuit terminal, of a composite thermostatic member positioned for electrical contact with said circuit terminal, said composite thermostatic member being responsive to temperature changes in the surrounding air and operating through the circuit terminal to control a signal, and a heat-generating element separate from said thermostatic member, said heat-generating element being positioned in such proximity to the thermostatic member as to operate directly thereon and to influence the same for controlling the signal, said heat-generating element being composed of material responsive to the action of gas containing hydrocarbon, whereby the contact of such gas with said element generates heat the effect of which upon the thermostatic member is to control the signal independently of any change in the temperature of the air to which said thermostatic member is normally responsive.

2. In a thermostatic and gas detecting signal device, the combination with a circuit terminal, of a composite thermostatic spring positioned for electrical contact with the circuit terminal, said thermostatic spring being responsive to a change in temperature of the surrounding air and said spring operating through said circuit terminal to control a signal, a heat-generating element separate from the thermostatic spring, and means for fixedly supporting the heat-generating element in close proximity to said thermostatic spring, said heat-generating element being composed of a material sensitive to the action of gas containing hydrocarbon and adapted, when such gas flows into contact therewith, to generate heat which directly influences the thermostatic spring so as to change the position of said spring and to control said signal independently of a change in temperature of the surrounding air to which temperature change the thermostatic spring is normally responsive.

3. In a thermostatic and gas detecting signal device, the combination of a composite thermostatic spring for controlling a signal by a change above a predetermined limit in the temperature of the air surrounding said thermostatic spring, said spring being bowed at one end portion and said bowed portion being fixedly attached, a circuit terminal positioned for electrical contact with the thermostatic spring, a heat-generating element composed of a substance responsive to the flow into contact therewith of a gas containing hydrocarbon, and means for fixedly supporting said heat-generating element into close proximity to the bowed portion and the longitudinal portion of said thermostatic spring, said heat-generating element operating upon the flow of gas into contact therewith to generate heat for directly changing the position of said thermostatic spring independently of a temperature change in the surrounding air to which temperature change said spring is normally responsive.

4. In a thermostatic and gas detecting signal device, the combination of a composite thermostatic spring bowed at an end portion thereof, means for fixedly supporting the spring at the bowed end portion thereof, an electrical contact in the path of the unsupported end of the spring, a supporting rod in fixed longitudinal relation to the bowed and unsupported portions of said spring, and spongy platinum carried by the supporting rod in close proximity to the bowed and unsupported portions of the thermostatic spring, said spongy platinum being influenced by the flow of gas into contact therewith and operating to generate heat which is available in directly influencing the postion of said thermostatic spring so as to control a signal independently of a temperature change in the surrounding air to which the thermostatic spring is normally responsive.

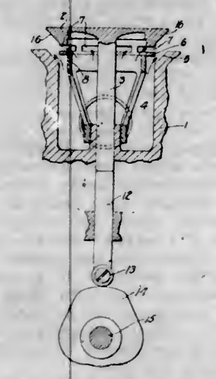
1,242,576. PUPPET-VALVE. ROBERT MILLER, New York, N. Y. Filed June 17, 1915. Serial No. 34,572. (Cl. 137—32.)

1. A puppet valve for internal combustion engines having a port-provided skirt, in combination with a seat for said valve, and a stationary sleeve inside the valve between which sleeve and the seat the said skirt has a range of motion.

2. A puppet valve for internal combustion engines comprising a valve proper, having a stem and a peripheral face, a seat for said face, a skirt on the valve consisting of a cylindrical flange provided with ports, and an inner stationary ring adjacent to the seat, between which ring and the seat the skirt moves.

3. A puppet valve, provided with an apertured skirt, in combination with a valve casing and a seat thereon for the valve, and a stationary ring or sleeve within said casing opposite to the seat, said ring being so located that when the apertured skirt lifts above it an opening will be established between the valve casing and the outside

thereof simultaneously with the opening of the passage between the valve and its seat.

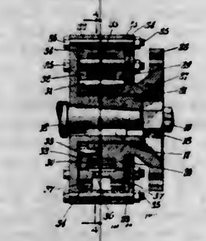


4. A puppet valve for internal combustion engines having a face and a port-provided skirt adjacent to said face, in combination with a seat for said valve, and an inner stationary sleeve between which and the seat the said skirt has a range of motion.

5. In a puppet valve for internal combustion engines, the combination of a head and area-increasing means, said head acting to protect said area-increasing means at critical periods in a cycle, and opening when such periods have passed, so that said area-increasing means can function.

[Claim 6 not printed in the Gazette.]

1,242,577. DRIVING CONNECTION. GEORGE G. MILNE, Rye, and WILLARD F. RICHARDS, Buffalo, N. Y., assignors to Gould Coupler Company, a Corporation of New York. Filed June 23, 1915. Serial No. 35,765. (Cl. 64—13.)



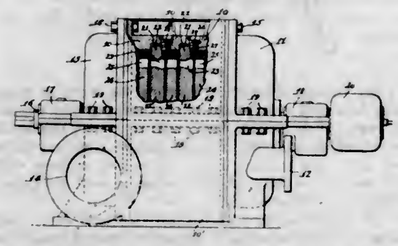
1. A driving connection comprising a rotary driving member and a rotary driven member in axial alinement, a spring coiled about the axis of said members having one end secured to one member and the other end normally operatively connected to the other member, through a member adapted to be broken and permit the driving member to rotate independently of the driven member to prevent breakage of other parts in case the driven member is stopped for any reason while the driving member is rotating.

4. A driving connection comprising a driving member and a driven member, one of said members comprising two parts, a pin connecting said parts and adapted to be sheared thereby to prevent breakage of other parts in case the driven member is stopped for any reason while the driving member is rotating, and a spring connected to one of said members and to that part of the other member which is actuated through said pin, whereby the driving member actuates the driven member through said spring and said pin.

12. A driving connection comprising a recessed disk-shaped casing having a central stud adapted to be secured to a shaft, a member rotatable upon said stud, a circular member situated between said last mentioned member and the outside of said casing, said stud and said members being coaxially arranged, a spring coiled about the axis of said members having one end secured to said circular member and the other end secured to said other member, and a pin connecting said circular member with said casing and adapted to be sheared to prevent breakage of other parts in case the driven member is stopped for any reason, one of said members having a plurality of apertures for said pin whereby the pin may connect the two members in various relative positions of adjustment.

[Claims 2, 3, and 5 to 11 not printed in the Gazette.]

1,242,578. STEAM-TURBINE. JAMES L. MOORE, Wellsville, N. Y., assignor to Moore Steam Turbine Corporation, Wellsville, N. Y., a Corporation of New York. Filed Sept. 5, 1916. Serial No. 118,530. (Cl. 253—69.)



1. A multi-stage steam turbine comprising a hollow cylindrical casing provided with a plurality of separated and independent annular recesses in the inner surface and in planes normal to the axis thereof, a diaphragm located in each of said recesses, screw plugs engaging the hollow cylindrical casing and arranged to impinge against the outer edge of one side or face of each of the diaphragms and adapted to force the edge of the other and opposite side or face of the same diaphragm against the adjacent wall of the annular recess in which the diaphragm is located.

2. A multi-stage steam turbine comprising a hollow semi-cylindrical casing provided with a plurality of separated and independent semi-annular recesses in the inner surface and in planes normal to the axis thereof, a semi-cylindrical diaphragm located in each of said recesses, screw plugs engaging the hollow cylindrical casing and arranged to impinge against the outer edge of one side or face of each of the diaphragms and adapted to force the edge of the other and opposite side or face of the same diaphragm against the adjacent wall of the annular recess in which the diaphragm is located.

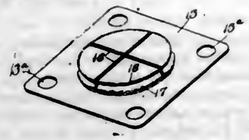
3. A multi-stage turbine comprising a hollow semi-cylindrical casing provided with a plurality of separated and independent semi-annular recesses in the inner surface and in planes normal to the axis thereof, a diaphragm located in each of said recesses having a series of notches in the outer edge of one of its faces, screw plugs engaging the hollow cylindrical casing and arranged to impinge against the outer edge of one side or face of each of the diaphragms at the separated notches and adapted to force the edge of the other and opposite side or face of the same diaphragm against the adjacent wall of the annular recess in which the diaphragm is located.

4. A multi-stage steam turbine comprising a hollow cylindrical casing provided with a plurality of separated and independent annular recesses in the inner surface and in planes normal to the axis thereof, a diaphragm located in each of said recesses, radial plugs disposed in the hollow cylindrical casing in planes normal to the axis of the cylinder and arranged to impinge against the outer edge of one side or face of each of the diaphragms and adapted to force the edge of the other and opposite side or face of the same diaphragm against the adjacent wall of the annular recess in which the diaphragm is located.

5. A multi-stage steam turbine comprising a hollow cylindrical casing provided with a plurality of separated and independent annular recesses in the inner surface and in planes normal to the axis thereof, a diaphragm located in each of said recesses, plugs engaging the hollow cylindrical casing and disposed normally to the surface of the casing and arranged to impinge against the outer edge of one side or face of each of the diaphragms and adapted to force the edge of the other and opposite side or face of the same diaphragm against the adjacent wall of the annular recess in which the diaphragm is located.

[Claims 6 to 10 not printed in the Gazette.]

1,242,579. SNAP-FASTENER. ISIDOR MOSS, Brookline, Mass. Filed May 8, 1917. Serial No. 167,160. (Cl. 24—208.)



1. A snap fastener composed of two duplicate members, each including a base adapted to engage securing surface, and internal and external engaging surface integral with the base, the external engaging surface of each member being complemental to and adapted to snap into engagement with the internal engaging surface of the other member.

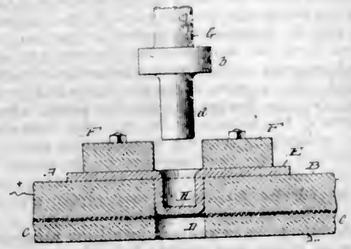
3. A snap fastener composed of two duplicate members, each including a flat inexpansible marginal base adapted to engage securing means, the wall of said base having a depression which constitutes an internal shoulder, and a slotted boss surrounded by and offset from said base, the wall of said boss forming independent resilient flanges and being provided with external shoulders adapted to snap into engagement with the internal shoulder of the other member.

5. A snap fastener comprising duplicate components securable together by forcing one component upon the other in a line transverse to the plane of the components.

6. A snap fastener comprising associable components each including a receiving portion and an entering portion, one of said portions being complemental to the other portion, said components being securable together by pressing either component upon the other in a line transverse to the plane of the components.

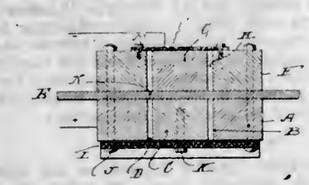
[Claims 2, 4, and 7 to 9 not printed in the Gazette.]

1,242,580. APPARATUS FOR ELECTRICALLY MAKING CUP-SHAPED PROJECTIONS IN METAL PLATES. THOMAS E. MURRAY, Jr., Brooklyn, N. Y. Filed May 5, 1917. Serial No. 166,562. (Cl. 219—3.)



An apparatus for electrically making an integral cup-shaped projection on a metal plate, comprising two separated electrodes having in their opposing faces registering transverse recesses, a longitudinally moving former adapted to enter the opening formed by said recesses for a predetermined distance to mold said projection in said opening, and means for short-circuiting the heating current, automatically operating upon the entrance of said former into said opening for a certain predetermined distance.

1,242,581. METHOD OF AND APPARATUS FOR ELECTRICALLY MAKING OPENINGS IN METAL PLATES. THOMAS E. MURRAY, Jr., Brooklyn, N. Y. Filed July 13, 1917. Serial No. 180,286. (Cl. 219—1.)

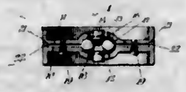


2. The method of separating from a metal plate a portion thereof of selected configuration, which consists in electrically fusing a narrow annular strip of said plate surrounding the portion to be separated, and thereby separating said portion from the remainder of said plate.

4. An apparatus for electrically making an opening through a metal plate, comprising an electrode formed in two parts receiving the plate between them and having registering openings, and a second electrode formed in two parts receiving the plate between them, the said parts being respectively disposed in the openings of said first-named parts, the parts of the second electrode being of less area than the parts of the first electrode so that annular gaps are formed between said electrodes and respectively on opposite sides of said plate.

[Claims 1 and 3 not printed in the Gazette.]

1,242,582. BALL-BEARING. WILLIAM H. NEEDHAM and DOUGLAS P. COOK, Worcester, Mass., and EMIL KLAHN, Weehawken Heights, N. J. Filed Jan. 14, 1911. Serial No. 602,721. (Cl. 64—36.)



1. A two-piece ball bearing comprising: two apertured plates slightly yieldable relatively to each other, provided with means whereby the said plates are maintained a slight distance apart and affording an annular raceway, a single set of balls held between said plates in said raceway and substantially in contact with each other, and means between the circumference of said plates and the said set of balls to draw the former together to provide the desired pressure upon the latter.

2. A two-piece ball bearing comprising: two apertured plates, slightly yieldable relatively to each other, provided with means whereby the said plates are maintained a slight distance apart and affording an annular raceway, a single set of balls held between said plates in said raceway, and substantially in contact with each other, and adjustable means between the circumference of said plates and the said set of balls to draw the former together to provide the desired pressure upon the latter.

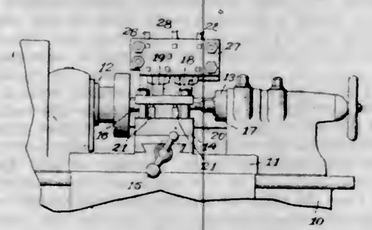
3. A two-piece ball bearing comprising: two apertured plates, slightly yieldable relatively to each other, provided with means whereby the said plates are maintained a slight distance apart and affording an annular raceway, a single set of balls held between said plates in said raceway and substantially in contact with each other, means between the circumference of said plates and the said set of balls to draw the former together to provide the desired pressure upon the latter, and means to positively center said plates.

4. A self-contained ball bearing comprising two apertured plates affording an annular raceway and two registering apertures, a single set of balls held between said plates in the said raceway and the bearing balls substantially in contact with each other, the distance between any two diametrically opposed balls thereof being less than the diameter of a single ball, whereby the said balls are self retained, and means to secure said plates to each other.

5. A self-contained ball bearing comprising two apertured plates affording an annular raceway and two registering apertures, a single set of balls held between said plates in said raceway and the bearing balls substantially in contact with each other, the plates extending beyond the center of the balls, and the distance between any two diametrically opposed balls thereof being less than the diameter of a single ball, whereby the said balls are self-retained, and means to secure said plates to each other.

[Claims 6 to 10 not printed in the Gazette.]

1,242,583. LATHE. ALBERT E. NEWTON and FRED K. HENDRICKSON, Worcester, Mass. Filed Feb. 27, 1915. Serial No. 10,946. (Cl. 29—27.)



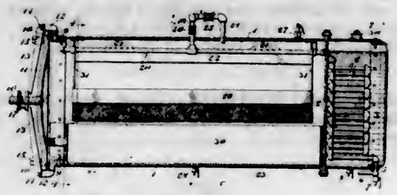
1. In a machine of the character described, the combination of the bed, means for centering and rotating a blank, a carriage for supporting a turning tool to act along the longitudinal surface of the blank, a pivotally mounted tool carrier for supporting a tool to act transversely of the blank, a pivotally mounted guide connected to and movable with the carriage, and connections between the tool carrier and guide to cause the said carrier to turn and move the carrier tool toward the axis of the blank as the carriage is moved longitudinally.

3. In a machine of the character described, the combination of the bed, means for supporting and rotating a blank, a carriage for supporting a turning tool, a carrier for supporting a facing tool, said carriage and carrier being provided the one with an elongated guide and the other with a part engaging said guide, means for adjusting the guide to different inclined positions, and means for moving the carriage longitudinally of the bed to cause relative movement of the guide and said part and the facing tool to be moved toward the axis of the blank.

[Claims 2 and 4 not printed in the Gazette.]

1,242,584. ACETYLENE-GAS GENERATOR. FRANK NORMAN, Des Moines, Iowa, assignor of eight thirty-seconds to Douglas J. Landers, seven thirty-seconds to William A. McAtee, four thirty-seconds to Alphonso B. Lovan, two thirty-seconds to George W. Young, and one thirty-second to William T. Shores, Springfield, Ohio, and two thirty-seconds to Clarence H. Nichols, New York, N. Y. Filed June 24, 1916. Serial No. 105,607. (Cl. 48—4.)

1. An acetylene gas generator, comprising a generator tank adapted to contain carbid, a water supply pipe opening into the tank, a check valve in the water supply pipe arranged to open under pressure of the water against the influent side thereof to admit water into the tank, and to be closed by the back pressure of the gas against the effluent side thereof to stop the flow of the water through said pipe when the gas pressure in the tank exceeds the pressure of the water against the influent side of said valve, an additional pipe enabling the gas to enter the water supply pipe between said check valve and the tank to cause back pressure against the effluent side of said valve, and a valve in said additional pipe which is closed when the water is flowing through the supply pipe and which opens by the pressure of the gas when that exceeds the water pressure to enable the gas to pass said valve and cause back pressure in the supply pipe against the effluent side of said check valve.



2. An acetylene gas generator, comprising a generating tank, a carbid holder supported in the tank, a water supply pipe extending into the tank, a spray pipe in the tank longitudinally above the carbid holder receiving water from the supply pipe, and having spray passages at intervals throughout its length, a valve in the water supply pipe arranged to open under the pressure of the water against the influent side thereof to admit water into the spray pipe and to be closed by the back pressure of the gas against the effluent side thereof to stop the flow of water when the pressure of the gas in the tank exceeds the pressure of the water against the influent side of the valve, an additional pipe enabling the gas to enter the water supply pipe between said spray pipe and said valve to cause back pressure against the effluent side of said valve, and means in the additional pipe preventing passage of water therethrough into the tank.

3. An acetylene gas generator, comprising a generating tank, a carbid holder in the tank, a water supply pipe extending into the tank, a water spray pipe in the tank receiving water from the supply pipe, a check valve in the supply pipe arranged to open under the pressure of the water against the influent side thereof to admit water into the spray pipe and to be closed by back pressure of the gas against the effluent side thereof when the gas pressure in the tank exceeds the pressure required to open said valve, a gas pipe from the tank enabling the gas pressure to cause back pressure in the supply pipe against the effluent side of said valve, a valve in the gas pipe which is closed when the water is flowing through the supply pipe and which opens by the pressure of the gas when that exceeds the water pressure as required to enable the gas to pass said valve and cause back pressure in the supply pipe against the effluent side of said check valve.

4. An acetylene gas generator, comprising a generating tank, a carbid holder in the tank, a water supply pipe extending into the tank, a water spray pipe in the tank receiving water from the supply pipe, a check valve in the supply pipe arranged to open under the pressure of the water against the influent side thereof to admit water into the spray pipe and to be closed by back pressure of the gas against the effluent side thereof when the gas pressure in the tank exceeds the pressure required to open said valve, a gas pipe from the tank enabling the gas pressure to cause back pressure in the supply pipe against the effluent side of said valve, a valve in the gas pipe which is closed when the water is flowing through the supply pipe and which opens by the pressure of the gas when that exceeds the water pressure as required to enable the gas to pass said valve and cause back pressure in the supply pipe against the effluent side of said check valve, and a manipulative device for closing said supply pipe independently of the gas pressure.

5. An acetylene gas generator, comprising a generating tank, a water supply pipe opening into the tank, a check valve in the supply pipe arranged to open under the pressure of the water against the influent side thereof to admit water into the tank, and to be closed by back pressure of the gas against the effluent side thereof when the gas pressure in the tank exceeds the pressure required to open said valve, a gas pipe from the tank enabling the gas to enter the water supply pipe against the effluent side of said valve, a gas pipe from the gas when the water is flowing through the supply pipe and which is opened by the pressure of the gas when that exceeds the water pressure as required to enable the gas to pass said valve and cause back pressure against the effluent side of said check valve, a device in the supply pipe between said check valve and the tank adjustable to vary the quantity of water entering the tank, and an outlet passage for the gas from said tank.

[Claims 6 to 11 not printed in the Gazette.]

1,242,585. WATERPROOFING COMPOSITION AND METHOD OF MAKING THE SAME. HANS M. OLSON, Los Angeles, Cal. Filed June 1, 1916. Serial No. 101,060. (Cl. 106—25.)

1. A composition for waterproofing cement or plaster, comprising lime, mineral oil and alum.

2. A composition for waterproofing cement or plaster consisting of hydrated lime, a liquid hydrocarbon, and alum, in substantially the proportions seated.

3. A composition for waterproofing cement or plaster, consisting of a powder made from lime, a liquid hydrocarbon and alum.

4. A composition for waterproofing cement or plaster consisting of a powder made from hydrated lime, a liquid hydrocarbon, and alum, in substantially the proportions stated.

5. The method of making a waterproofing composition for cement and plaster which consists in mixing lime with a liquid hydrocarbon and alum, and subjecting such mixture to the action of heat.

[Claims 6 and 7 not printed in the Gazette.]

1,242,586. PROCESS FOR VULCANIZING RUBBER AND PRODUCT OBTAINED THEREBY. IWAN OSTROMISLENSKY, Petrograd, Russia, assignor, by mesne assignments, to New York Belting and Packing Company, a Corporation of New York. Original application filed July 29, 1916, Serial No. 112,187. Divided and this application filed Nov. 24, 1916. Serial No. 133,135. (Cl. 18—53.)

1. A process for treating rubber or similar material which comprises adding thereto a rubber compound adapted to produce vulcanization and inducing vulcanization to take place under the action thereof.

2. A process for treating rubber or similar material which comprises forming a rubber compound adapted to produce vulcanization, adding said compound to unvulcanized rubber and inducing vulcanization to take place under the action thereof.

3. A process for treating rubber or similar material which comprises forming a halid compound of rubber adapted to produce vulcanization, adding said compound to unvulcanized rubber and inducing vulcanization to take place thereby.

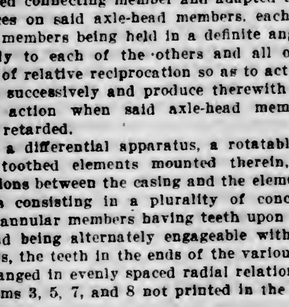
4. A process for treating rubber or similar material which comprises adding thereto a compound of rubber containing chlorin and inducing vulcanization to take place under the action thereof.

5. A process for treating rubber or similar material which comprises adding thereto a chlorin compound of rubber and inducing vulcanization to take place under the action thereof.

[Claims 6 to 8 not printed in the Gazette.]

1,242,587. DIFFERENTIAL POWER-TRANSMISSION DEVICE. HARRY M. PATCH, Seattle, Wash. Filed Jan. 15, 1917. Serial No. 142,364. (Cl. 74—7.)

1. In apparatus for transmitting motion, two axially alined angularly toothed driven elements arranged in spaced relation, angularly toothed driving members capable of independent axial movements and interposed between said elements, and means to rotate said driving members to cause the teeth thereof to coöperate with the teeth of said elements, said members when rotated in either direction reciprocating one after the other to afford differential rotary movements to said elements when said elements are unequally retarded.



2. In an apparatus for transmitting motion, a rotatable casing, two axially alined elements mounted for relative rotary movements therein, and a plurality of annular members within said casing rotating therewith and capable of independent axial movements, said members and said elements having coöperating sliding faces for producing differential rotary movements of said elements when said casing is rotated in either direction and said elements are unequally retarded.

4. In apparatus for transmitting motion, two axially alined driven elements arranged in spaced relation and provided with teeth having slide surfaces, a plurality of driving members independently movable axially and interposed between said elements and provided with teeth having surfaces adapted to engage and slide upon said first mentioned surfaces, the teeth of one driving member being out of radial alinement with corresponding teeth of any other driving member by a fraction of the angular distance between the teeth of said driven elements, and means to rotate said driving members to enable the teeth thereof to coöperate with the teeth of said elements and reciprocate so as to permit differential rotary movements of said elements when said members are driven in either rotary direction.

6. In a differential apparatus, two opposing axle-head members and a reciprocating connecting member, said connecting member having a number of angularly disposed slide cam faces on its opposite ends and said axle-head members having a like number of angularly disposed slide cam faces co-acting therewith, and other connecting members having cam faces similar to the cam faces of the first mentioned connecting member and adapted to engage said cam faces on said axle-head members, each of said connecting members being held in a definite angular position relatively to each of the others and all of them being capable of relative reciprocation so as to act on each head member successively and produce therewith a differential driving action when said axle-head members are unequally retarded.

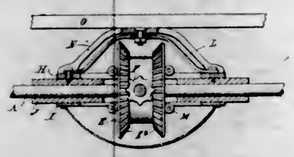
9. In a differential apparatus, a rotatable casing, two driven toothed elements mounted therein, and driving connections between the casing and the elements, said connections consisting in a plurality of concentrically arranged annular members having teeth upon their opposite ends and being alternately engageable with said toothed elements, the teeth in the ends of the various members being arranged in evenly spaced radial relation.

[Claims 3, 5, 7, and 8 not printed in the Gazette.]

1,242,588. AUTOMOBILE AND TRUCK. WILLIAM D. PAXTON, Laporte, Ind. Filed Mar. 1, 1916. Serial No. 81,356. (Cl. 21—90.)

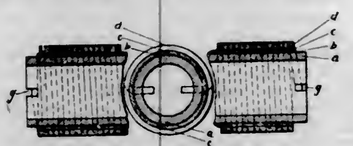
1. A driving gear for motor vehicles, comprising a cross axle, an enlarged spherical portion thereon intermediate of its ends, a transversely disposed gear wheel carried thereon having peripheral flanges provided with inwardly

extending beveled teeth, cup-shaped sockets rigidly attached to the inner perimeter of the rim of said gear wheel and movably connected with the spherical portion of the axle to permit a pivotal movement of the axle, and a shiftable pinion for engaging the opposite faces of the toothed flanges on the drive wheel to drive the axle in opposite directions.



2. A driving gear for motor vehicles comprising an axle, an enlarged spherical portion thereon intermediate of its ends, a transversely disposed gear wheel carried thereon having annular peripheral flanges provided with inwardly extending beveled teeth, cup-shaped sockets rigidly attached to the rim of said gear wheel and movably attached to the spherical portion of the axle, a pair of horizontally disposed annular plates having sliding bearings for said axle, means for holding said gear wheel in proper alinement, and a beveled pinion for alternately engaging the gear teeth on said gear wheel to drive the axle forward or backward.

1,242,589. PROCESS FOR APPLYING FIRMLY-ADHESIVE METAL CASINGS TO IRON CORES. PAUL ERNST PRESCHLIN, Oberuzwil, Switzerland. Filed Aug. 30, 1916. Serial No. 117,759. (Cl. 78—94.)



1. The process of securing metal casings on metal cores, which consists in assembling the core within the casing, heating the same to a relatively high temperature, and subjecting the casing to pressure to prevent its expansion during the heating operation.

3. The process of securing metal casings on metal cores, which consists in cleaning the contacting surfaces of the core and casing for freeing the same from all impurities and oxids, assembling the core within the casing, heating the same to a welding temperature, and subjecting the casing to the action of a resistance for preventing its expansion during the heating operation.

5. The process of securing metal casings on metal cores, which consists in cleaning the contacting surfaces of the core and casing for freeing the same from all impurities and oxids, assembling the core within the casing, interposing a film of soldering material between the opposed walls of the core and the casing, heating the same to a welding temperature, subjecting the casing to the action of a resistance for preventing its expansion during the heating operation, and then removing the resistance after the heat has been completely dissipated.

[Claims 2 and 4 not printed in the Gazette.]

1,242,590. METALLIC WHEEL. ALDEN L. PUTNAM, Detroit, Mich., assignor to Detroit Pressed Steel Company, Detroit, Mich., a Corporation of Michigan. Filed Aug. 28, 1915. Serial No. 46,920. (Cl. 21—69.)

1. In a metallic wheel, an annular portion and spaced spoke portions formed of pressed sheet-metal, the gage of the metal in said annular portion being materially greater than that of said spoke portions.

2. In a metallic wheel, an annular portion and integral spaced spoke portions formed from a pressed sheet-metal blank, the gage of the metal of said annular portion being materially greater than that of said spoke portions, and an intermediate portion of tapering gage at the ends of the spokes.



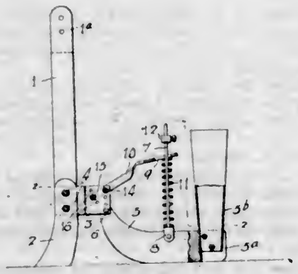
3. In a metallic wheel, a hub portion and integral spaced spoke portions formed from a pressed sheet-metal blank, the gage of the metal in the hub portion being materially greater than that in the spoke portions.

4. In a metallic wheel, a hub portion, rim portion and intermediate spaced spoke portions, all formed from an integral pressed sheet-metal blank, the gage of the metal of the hub and rim portions being greater than the gage of the metal of the spoke portions.

5. In a metallic wheel, a hub portion, a rim portion and spaced spoke portions, all formed of an integral pressed sheet-metal blank, the gage of the metal of the hub portion being greater than the gage of the metal of the rim portion and the latter being greater than the gage of the spoke portions.

[Claims 6 to 13 not printed in the Gazette.]

1,242,591. ATTACHMENT FOR PLANTERS. WILLIE H. RAULZ, Hye, Tex. Filed June 7, 1917. Serial No. 173,304. (Cl. 97—89.)



A device of the character described including a standard having a bifurcated lower end, a furrow opener applied to the bottom of the standard and straddling the same, a vertically disposed plate having the forward edge thereof secured within the bifurcated lower end of the standard, the rearwardly projecting edge of the plate being bifurcated, a runner pivotally mounted within the bifurcated rear edge of the plate and arranged to trail the furrow opener, a plunger rod pivotally connected to the runner and extending upwardly therefrom, a guide bracket slidably engaging the plunger rod and having the forward end thereof adjustably received within the bifurcated rear edge of the plate, said guide bracket being constructed to be secured to the plate in different angular relations thereto, and a coil spring surrounding the plunger rod and interposed between the runner and the guide bracket for holding the runner in a yielding engagement with the bottom of the furrow, the tension of the spring being regulated by adjusting the angular position of the guide bracket.

1,242,592. PROCESS OF PRODUCING PHENOLIC CONDENSATION COMPOUNDS. LAWRENCE V. REDMAN, Evanston, and ARCHIE J. WEITH and FRANK P. BROCK, Chicago, Ill., assignors to Redmanol Chemical Products Company, Chicago, Ill., a Corporation of West Virginia. Filed June 19, 1916. Serial No. 104,494. (Cl. 106—22.)

1. In the process of producing a phenolic condensation product, the step which consists in mixing a phenolic body and an active methylene body in proportions furnishing considerably more than one phenolic group to each active methylene group of the methylene body, applying heat to eliminate ammonia, and afterward eliminating from the mass a portion of the free phenolic body contained therein.

18. The process of producing a fusible potentially reactive molding compound, which consists in mixing a phenolic body and a methylene-amin body in proportions to furnish a large excess of free phenolic body, applying heat to eliminate ammonia, blowing out of the mass a considerable percentage of the free phenolic body therein, incorporating in the mass a relatively small proportion of creosote oil and a sufficient quantity of a methylene-amin substance to effect conversion of the compound to the final infusible state, and fusing and blending the materials in the compound without effecting conversion of the compound to the final infusible state.

[Claims 2 to 17 not printed in the Gazette.]

1,242,593. CONDENSATION PRODUCT AND METHOD OF PREPARING SAME. LAWRENCE V. REDMAN, Evanston, and ARCHIE J. WEITH and FRANK P. BROCK, Chicago, Ill., assignors to Redmanol Chemical Products Company, Chicago, Ill., a Corporation of West Virginia. Filed June 19, 1916. Serial No. 104,495. (Cl. 106—22.)

1. In the process of producing a phenolic condensation product, the step which consists in mixing a phenolic body and an active methylene body in the proportions of considerably more than one phenolic group to each active methylene group of the methylene body, applying heat to produce a fusible resin, and incorporating in the fusible mass a cyclic compound having no readily re-active group.

33. A molded product comprising a phenolic condensation product having incorporated therein a filler and a relatively small proportion of creosote oil.

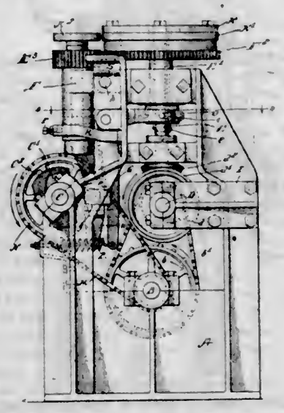
[Claims 2 to 32 not printed in the Gazette.]

1,242,594. FEED MECHANISM FOR WIRE-FENCE MACHINES. WALTER V. REID, Richmond, Ind., assignor to Pettis A. Reid, Richmond, Ind. Filed Jan. 31, 1916. Serial No. 75,364. (Cl. 140—131.)

1. Mechanism for feeding alternately a long and a short stay length, comprising a revoluble shaft carrying a feed roll composed of unequal segments, a single revoluble roll and means whereby it is thrown alternately into and out of operative relation to one of said segments, and mechanism for throwing said segments alternately into position for coöperation with said single roll in feeding a stay length.

2. In a wire fabric weaving machine, means for automatically feeding alternately a long and a short length of wire endwise across a series of strand wires into position for the action of a series of loop forming and twisting devices and associated mechanisms, said means comprising a complex revoluble feed roll composed of unequal segments arranged one above another, a single revoluble feed roll beside said complex roll, means for throwing said single roll alternately into and out of position for coöperative action with one of said segments, and means for shifting the position of said complex roll so as to throw said segments alternately into position for coöperative action with said single roll.

3. A feeding device of the character referred to comprising a revoluble feed roll composed of unequal segments arranged one above another, a revoluble roll carried by a rocking lever whereby it is thrown alternately into and out of operative relation to one of said segments, and means for throwing said segments alternately into position for coöperative action with the roll carried by said rocking lever.



4. A feeding device of the character referred to comprising a plurality of superposed feed rolls slidably mounted on a shaft for imparting rotary movement thereto, a portion of the periphery of each roll being cut away so as to form unequal segments, a rocking lever carrying a feed roll in coöperative relation to said first mentioned rolls, means for actuating said rocking lever so as to throw the roll carried thereby alternately into and out of operative relation to said first mentioned rolls, and means for shifting the position of the latter rolls so as to bring them alternately into operative relation to the roll carried by said rocking lever.

5. Wire feeding mechanism comprising a plurality of shifting feed rolls composed of unequal segments mounted one upon another on a shaft for imparting rotary movement thereto, a rocking lever carrying a feed roll adjacent and geared to said shifting rolls, means for rocking said lever so as to bring the roll carried thereby alternately into peripheral alinement with one of the segments composing said shifting rolls, and means for changing the position of said shifting rolls so as to bring the larger and smaller segments alternately into operative relation to the roll carried by the rocking lever.

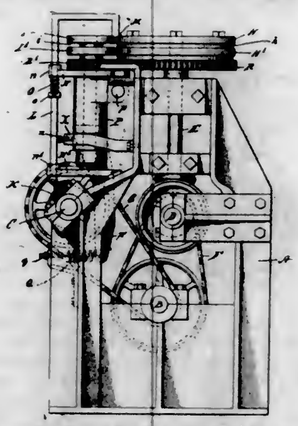
[Claims 6 to 17 not printed in the Gazette.]

1,242,595. FEEDING MECHANISM FOR WIRE-FENCE MACHINES. WALTER V. REID, Richmond, Ind., assignor to Pettis A. Reid, Richmond, Ind. Filed Mar. 24, 1917. Serial No. 157,094. (Cl. 140—131.)

1. In a feed mechanism of the character described, means for feeding flexible material longitudinally alternately in long and short lengths, comprising a revoluble shaft carrying a pair of feed rolls spaced apart, adjacent rolling means arranged to co-act with said pair of rolls to feed alternately a long and a short length, guiding means and means for changing the position of said guiding means relatively to said rolls whereby the material is brought alternately between the peripheries of one of said pair of rolls and said rolling means.

7. In a wire fabric weaving machine, means for automatically feeding alternately a long and a short length of wire longitudinally or endwise, comprising a revoluble shaft carrying a pair of unequal segments arranged in slightly separated relation to provide an intervening neutral space, rolling means beside said segments adapted to co-act alternately therewith so as to feed material alternately in different lengths, a driving shaft and means associated therewith for revolving said segments and roll-

ing means, including a cam and a reciprocatory device actuated by said cam for bringing the wire alternately into position for the action of one of the segments and an adjacent feed roll and then into position for the action of another segment and an adjacent feed roll.

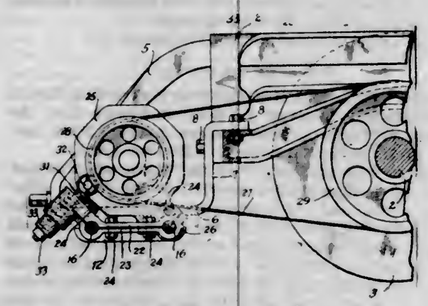


12. In combination, a pair of feed rolls and co-acting rolling means for feeding endwise a feed wire or other material; said pair of rolls being slightly separated to provide a neutral space, wire guiding means, and means for shifting the feed wire sidewise back and forth into said neutral space and between said rolling means and the periphery of one of said pair of rolls.

13. In a feeding device of the character described, a feed roll and co-acting rolling means whereby wire or other material placed therebetween may be fed lengthwise by the rotation of said feed roll and rolling means, a feed-wire guide and means for shifting the position of said guide relatively to said feed roll alternately into and out of operative relation to said feed roll and co-acting rolling means.

[Claims 2 to 6 and 8 to 11 not printed in the Gazette.]

1,242,596. DYNAMO-MOUNTING. WILLARD F. RICHARDS, Buffalo, N. Y., assignor to Gould Coupler Company, a Corporation of New York. Filed May 15, 1915. Serial No. 28,306. (Cl. 105—238.)



1. A mounting for dynamo electric machines on car trucks, having in combination supporting bars extending downwardly and laterally from and in front of the car truck and thence horizontally rearwardly to the truck, both ends of the bars being secured to the truck, a dynamo electric machine driven from an axle of the car truck and means for supporting said dynamo electric machine on the horizontal portion of said bars.

2. The combination with a car truck of a pair of supporting bars extending downwardly and inwardly away from said truck and then horizontally rearwardly to the truck, a dynamo driven by the car axle, and means for supporting said dynamo on the horizontal portion of said bars.

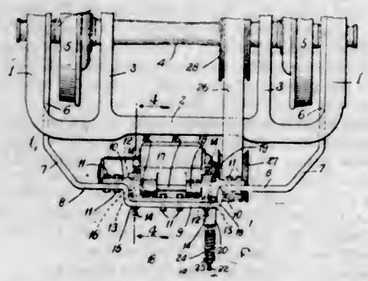
3. The combination with a car truck of a pair of supporting bars extending downwardly and inwardly away from said truck and then horizontally rearwardly to the truck, a dynamo driven by the car axle, and means for supporting said dynamo on the horizontal portion of said bars, said means comprising slides, one movable along each of said horizontal portions, and a supporting frame carrying the dynamo, one end of the frame being pivoted to one slide and the other end being pivoted to the other slide.

4. The combination with a car truck of a pair of supporting bars secured to and extending outwardly from the truck, a dynamo driven from an axle of the car, a dynamo supporting frame slidably mounted on said bars toward and away from the truck, and pivotally mounted with respect to each of said bars, means for pivotally supporting the dynamo on said frame and means for holding said frame in adjusted position.

28. The combination with a car truck of a pair of supporting bars extending from said truck, each of said bars having a horizontal portion and a portion extending upwardly, rearwardly and laterally from the outer end thereof, both ends of each bar being secured to the truck, a dynamo carried by the horizontal portions of said bars and means for driving the dynamo from the car axle.

[Claims 5 to 27 not printed in the Gazette.]

1,242,597. DYNAMO SUSPENSION. WILLARD F. RICHARDS, Buffalo, N. Y., assignor to Gould Coupler Company, a Corporation of New York. Filed June 28, 1915. Serial No. 36,668. (Cl. 105—238.)



1. A dynamo suspension having in combination with a car truck, a frame extending outside said truck having a cross bar with an offset portion, a pivot rod carried by the cross bar adjacent said offset portion, and a dyhamo pivotally suspended from said pivot rod.

2. A dynamo suspension having in combination with a car truck, a frame extending outside said truck having a cross bar with an offset portion, a pivot rod carried by said cross bar and a dynamo pivotally supported by said pivot rod.

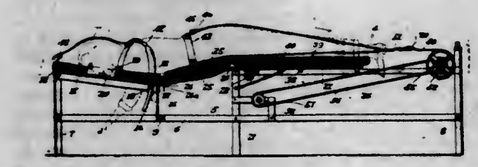
3. A dynamo suspension having in combination with a car truck, a frame extending outside said truck having a cross bar with an offset portion extending parallel with the truck axles, a pivot rod carried by said cross bar, and a dynamo pivotally suspended from said pivot rod.

4. A dynamo suspension having in combination with a car truck, a frame extending outside said truck having a cross bar with an offset portion, a pivot rod carried by said cross bar in said offset portion, and a dynamo pivotally supported by said cross bar.

5. A dynamo suspension having in combination with a car truck, a frame extending outside said truck having a cross bar with an offset portion extending parallel with the truck axles, a pivot rod carried by said cross bar in said offset portion, said rod also extending parallel with the truck axles, and a dynamo pivotally suspended from said cross bar.

[Claims 6 to 25 not printed in the Gazette.]

1,242,598. TRACTION-COUCH. JAMES W. RIDDLE, Valley Forge, Pa.; Anna Pearl Riddle executrix of said James W. Riddle, deceased. Filed Sept. 27, 1916. Serial No. 122,452. (Cl. 128—16.)



1. A traction couch comprising a frame, head and foot sections carried by said frame, a flexible section interposed between said head and foot sections, means for securing the head and shoulders of a patient to said head section, straps connected with the waist line of a patient, and means carried by said frame and having connection with said straps for tensely straining the body of said patient, said means being capable of being gradually applied and maintained in a strained condition.

2. A traction couch comprising a base frame, head and foot sections carried by said frame, an intermediate section interposed between said head and foot sections, fastening means for securing the upper body portion of a patient to said head section, tension straps adapted to be buckled to the lower body portion of said patient, rotatable means connected with said tension straps and means for revolving said rotatable means so that the body of said patient will be tensely strained.

3. A traction couch comprising a base frame, head and foot sections carried by said frame for receiving a patient, said head section being hinged to said base frame, means for retaining said head section in various elevated positions, a cushioned surface formed on said head section and provided with a centrally located opening, a flexible section interposed between said head and foot sections, means for securing the head and shoulders of a patient to said head section and tension means carried by said frame and connected with the waist of said patient to tensely strain the body of the latter.

4. A traction couch comprising a supporting frame, a patient supporting table carried by said frame, said table comprising coöperating head, intermediate and foot sections all of which being suitably cushioned, said foot section being provided with depending longitudinally extending flanges, said flanges resting upon anti-friction bearings carried by said frame, also provided with spiral springs adapted to produce return action, means for rigidly securing the head and shoulders of said patient to said head section, a waist encircling belt adapted to surround the waist of said patient, straps secured to said belt, means for extending or decreasing the length of said straps, a pulley journaled upon said supporting frame and adapted to have the free extremity of said straps secured to the periphery thereof and means for rotating said pulley whereby said straps will be placed under tension to impart tensile movement to a patient secured to said head section.

5. A traction couch comprising a supporting frame, a patient receiving table carried by said frame, said table comprising coöperating head, intermediate and foot sections, means for securing the shoulders and head of a patient to the forward portion of said couch, a belt adapted to be secured to the waist of said patient, straps connected with said belt and extending to a rotatable member, a shaft for supporting said rotatable member, means for transmitting power from said shaft and rotatable member to a drive shaft, journaled on said frame, an operating lever for rotating said drive shaft, means for locking said drive shaft against undue movement when the same is under tension, and clutch mechanism associated with said operating lever to permit the same to be oscillated when revolving the drive shaft.

[Claims 6 and 7 not printed in the Gazette.]

1,242,599. EYEGLASS AND SPECTACLE MOUNTING. JUNIUS F. SALLEE, Litchfield, Ill. Filed Apr. 14, 1916. Serial No. 91,178. (Cl. 88—47.)



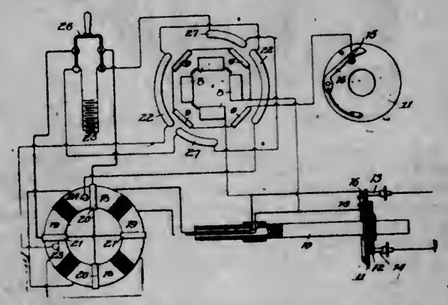
1. An eyeglass mounting comprising members adapted to secure the lenses, a bow connecting said members, arms extending inwardly from said members above and below said bow adapted to engage the bridge and lower portion of the nose, and spring-coils formed in said bow disposed at a right angle to the rear face of each lens, the ends of said bow projecting beyond the plane of the lenses and affording means for spreading said arms.

2. An eyeglass mounting comprising members adapted to secure the lenses, a bow connecting said members, arms extending inwardly from said members above and below said bow adapted to engage the bridge and lower portion of the nose, and spring-coils formed in said bow disposed at a right angle to the rear face of each lens, the ends of said bow projecting beyond the plane of the lenses and affording means for spreading said arms, and a shoulder formed in each of the upper arms substantially as described.

3. An eye glass mounting comprising, in combination with a pair of lenses, members adapted to engage the sides of the nose, a bow connecting said members, a notch formed in the periphery of each lens, a groove adjacent to and encircling said notch, and devices upon said mounting adapted to engage said notch and groove to lock the lenses in position.

4. An eyeglass mounting comprising, in combination with a pair of lenses, members adapted to engage the sides of the nose, a bow connecting said members, a notch formed in the periphery of each lens, a groove adjacent to and encircling said notch, and devices formed integral with said members adapted to engage said notch and groove to lock the lenses in position.

1,242,600. RECTIFIER. HENRY K. SANDELL, Chicago, Ill., assignor to Herbert S. Mills, Chicago, Ill. Filed June 6, 1914. Serial No. 843,361. (Cl. 175—364.)



1. In combination, a commutator, means for conducting alternating current to the commutator segments, brushes bearing on the segments, storage battery charging terminals connected to said brushes, supplemental brushes in advance of said brushes, an alternating current motor for driving the commutator in step, said motor consisting of two members, coils in one member energized by the alternating current, synchronizing coils in the other member energized by direct current having connection with the supplemental brushes, other coils in said motor member having electrical connection with the charging terminals and positioned as their strength increases to vary the relative position of the motor members at corresponding times in the alternating wave, whereby automatically to vary the point of commutator cut-off in

accordance with the counter-electromotive force of the battery being charged.

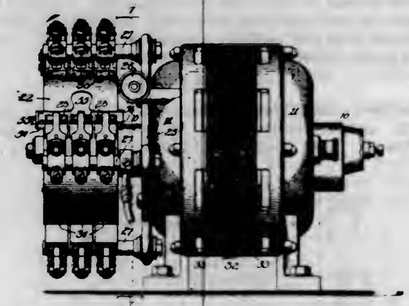
2. In combination, a commutator, means for conducting alternating current to one member thereof, storage battery charging terminals, means connecting the same to the other member of the commutator, an alternating current motor for driving the commutator in step, and two field coils in said motor in unsymmetrical magnetic relation to each other, means for conducting rectified current to one of said coils and battery current to the other of said coils, for the purpose set forth.

4. In a rectifier, a motor having a rotor, coils in the rotor energized by the alternating current, an inductive stator, a commutator carried by the rotor, alternating current leads to the commutator segments, brushes bearing on the commutator segments, storage battery charging terminals connected to said brushes, supplemental brushes bearing on the commutator segments in advance of said first-named brushes, synchronizing coils in the inductive stator receiving rectified current from said supplemental brushes, and regulating coils in unsymmetrical position with reference to the regulating coils and receiving current from the battery being charged and operating, as their magnetic strength increases, to shift to effective poles of the stator in accordance with the electromotive force of the battery being charged to vary the point of commutator cut-off.

6. In combination, a rectifying commutator, battery charging leads supplied thereby, a synchronous motor and poles in the synchronous motor in shunt with the battery.

[Claims 3, 5, and 7 not printed in the Gazette.]

1,242,601. RECTIFIER AND THE MOTOR THEREOF. HENRY K. SANDELL, Chicago, Ill., assignor to Herbert S. Mills, Chicago, Ill. Filed May 24, 1915. Serial No. 30,175. (Cl. 175—364.)



1. In a rectifier, an alternating current motor having two field windings in inductive relation to each other, one of said windings being short-circuited upon itself, a rectifying commutator driven by the motor, and means for conducting pulsating direct current from the commutator to the other of said field windings.

3. A rotary rectifier having, in combination, a primary motor member fed by alternating current, a secondary motor-member having two windings, one of which is short circuited, a rectifying commutator, and means to lead the pulsating direct current delivered by the commutator to the other winding of the secondary motor member.

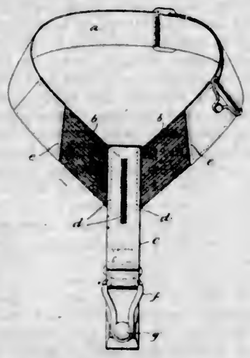
4. A rotary rectifier having, in combination, a commutator for transforming alternating current into pulsating direct current, a motor for driving the commutator, comprising a primary member receiving alternating current, a seconday member having a short circuited induction winding, and another winding in inductive relation thereto and supplied with rectified current from the commutator.

6. A rotary rectifier including a commutator and a motor for driving the same, said motor consisting of a primary member and a secondary inductive member, the two together forming an induction motor of the full power required to drive the commutator substantially to synchronism, operating as an induction motor, the secondary member of the motor having in addition separately energized coils to establish localized poles to hold the motor in synchronism.

10. A rectifying system comprising a transformer and a plurality of circuits supplied thereby, the transformer being designed to produce similar phase displacements in its several circuits, a rectifying commutator and a motor driving the same, the motor being in one of the transformer circuits and the commutator in another, whereby phase displacements in the rectified circuit which would tend to produce variations in potential at the moment of commutator cut-off are compensated for by corresponding changes in the motor circuit which vary the time of commutator cut-off.

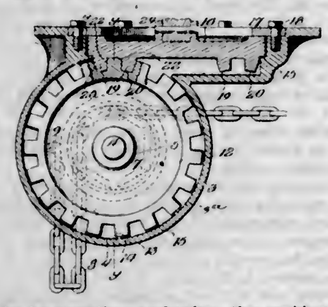
[Claims 2, 5, and 7 to 9 not printed in the Gazette.]

1,242,602. MAN'S GARTER. MEYER W. SCHLOSS, New York, N. Y., assignor to Treo Company, Inc., a Corporation of New York. Filed Jan. 5, 1917. Serial No. 140,659. (Cl. 241—6.)



A garter comprising a band having elastic sections arranged at an angle to each other in combination with a tape-like tab, the extremities of each elastic section being secured to the tab and to the band, respectively, along parallel diagonal lines, substantially as described.

1,242,603. CAR-BRAKE-OPERATING MECHANISM. HENRY J. SCHMICK, Lock Haven, Pa. Filed Dec. 8, 1916. Serial No. 135,824. (Cl. 188—58.)



1. In brake operating mechanism, the combination of a casing having an annular bearing surface, a gear wheel mounted in the casing, the teeth of gear wheel being radially disposed, a cam element having a cam on one face thereof to engage the radial gear teeth, said cam element being supported on the annular surface in the housing, the axis of the cam element being in substantial alinement with one face of the gear wheel, a plate secured to the casing to hold the cam in mesh with the gear teeth,

means for rotating the cam element, and means connected with the gear wheel for engaging a chain to operate a brake.

2. In brake operating mechanism, the combination of a gear wheel, the teeth of which on opposite faces are of the same width and are similar in shape, one edge wall of each tooth being concave and the opposite edge wall being convex, the corners of opposite faces of each tooth being parallel to a line through the axis of the gear wheel, a cam meshing with the gear wheel, said cam having one side near one end inclined in one direction and merging into a straight line, and its opposite side near the opposite other end being inclined in the opposite direction and merging into a straight line, the axis of the cam being substantially in a plane with one face of the gear wheel, means for rotating the cam, and a chain operated by the gear wheel.

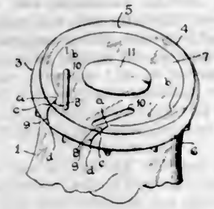
3. In brake operating mechanism, the combination of a casing, a gear wheel mounted in the casing, a cam disk having its axis at right angles to the axis of the gear wheel, one face of the gear wheel being in substantial alinement with the axis of the cam disk, a cam projecting from one face of the cam disk and meshing with the teeth of the gear wheel, a chain engaging wheel rotating with the gear wheel, a chain engaging the chain wheel, and an operating hand piece for rotating the cam disk.

4. In brake operating mechanism, the combination of a casing, a gear wheel mounted in the casing, a rotary cam engaging the gear teeth and disposed at right angles to the axis of the gear wheel, a chain wheel rotatable by and with the gear wheel, a chain engaged by the chain wheel, and means for securing one end of the chain beyond the chain wheel to provide at all times slack in said chain, and means for rotating the cam.

5. In brake operating mechanism, the combination of a casing, a gear wheel mounted in a casing, a rotary cam engaging the gear teeth and disposed at right angles to the axis of the gear wheel, a chain wheel having alternate deep and shallow seats to accommodate the links of a chain, a chain engaging the chain wheel and confined by the casing, and a shoe to prevent the chain trailing the chain wheel.

[Claims 6 to 11 not printed in the Gazette.]

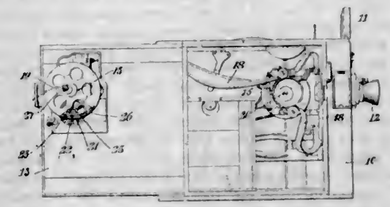
1,242,604. JAR-CAP. EDWARD D. SCHMITT, Baltimore, Md., assignor, by mesne assignments, to The American Pure Food Process Company, Baltimore, Md., a Corporation of Delaware. Filed Feb. 4, 1915. Serial No. 6,008. (Cl. 215—10.)



1. A closure for jars comprising a securing rim, formed with an upper flat portion and a depending flange by which it may be secured to the locking shoulder of a jar, and a central portion filling the space within the rim and serving as an opening lever, and having narrow portions *b* integral with the rim at opposite sides, and also narrow portions *c* integral with the rim, at the base of said lever, the narrow side portions serving as points upon which a part of the central portion may be rocked, in the opening operation, the rim of the closure being provided with spaced cuts on its upper flattened surface and extending partially thereacross, and also cuts on the flange whose upper ends terminate adjacent to the outer ends of the first mentioned cuts and means for stiffening the lever so that when said lever is lifted, it will be twisted apart at the sides and adjacent to the base of the lever, to remove the seal.

2. A bottle cap comprising a securing rim having a flat upper surface and a depending flange by which latter it may be secured to a locking surface on the exterior of a jar, and an opening lever filling the space within the rim and having narrow portions integral with the rim at opposite sides, and also having narrow portions integral with the rim, adjacent to the base of said lever, a raised central portion for stiffening the lever and also adapted to be manually depressed to throw one edge of the lever above the inner edge of the rim, for the purpose set forth, the rim being provided at its top adjacent to the base of the lever, with cuts extending partially across the flat portion thereof, there being also cuts in the flange whose upper ends terminate short of the first mentioned cuts, stiffening ribs adjacent to the base of the lever, whereby the rim and the adjacent portions of the lever are stiffened, so that when the lever is lifted, the points at the side of said lever and also the points between the cuts, will be twisted apart to unlock the seal.

1,242,605. MOTION-PICTURE APPARATUS. EBERHARD SCHNEIDER, New York, N. Y. Filed Aug. 7, 1916. Serial No. 113,477. (Cl. 88—17.)



1. In a motion picture machine: a film, and film moving mechanism; means to support and guide said film through the machine; and means to induce a circulation of fluid in the vicinity of said guiding and supporting means for the purpose of removing from said film any static electricity with which it may have become charged through frictional engagement therewith.

5. In a motion picture camera: a film, and film moving mechanism; a box containing said mechanism and film and having a hinged door, a portion of the film moving mechanism being secured to the inside of the said door; a crank outside the box to rotate said film moving mechanism; and a fan carried by said door and connected to said film moving mechanism to be driven thereby when the said crank is rotated.

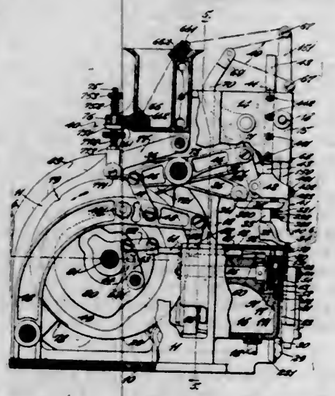
[Claims 2 to 4 not printed in the Gazette.]

1,242,606. WAX-THREAD SEWING-MACHINE. HENRY P. SCHOENKY, St. Louis, Mo., assignor to American Shoe Machinery & Tool Company, St. Louis, Mo., a Corporation of Missouri. Filed Jan. 10, 1916. Serial No. 71,179. (Cl. 112—20.)

1. A sewing machine comprising a needle and shuttle operating on opposite sides of the work, a stationary bobbin carried by the shuttle, a looper, a thread lock, a take-up device between the thread lock and looper, and means to operate the needle, shuttle, looper thread lock and take-up device to throw a twisted loop of needle thread around the bobbin thread and pulling it tight to complete the stitch, whereby a twisted bight of bobbin thread is pulled into the stitch to lock the needle thread.

3. A sewing machine comprising a work table, a needle bar operating from one side of said work table, a shuttle operating on the opposite side of said work table, a shaft for operating said shuttle and arranged for oscillation therewith, means for operating said needle bar and shuttle in synchronism comprising a cam, a swinging lever cooperating with said cam to follow its movements, a rocker arm arranged to reciprocate said needle bar, a link connection from said lever to said rocker arm, and a rack

and pinion connection from said swinging lever to said oscillating shaft for oscillating said shuttle.



10. A sewing machine comprising a work table, a needle for forming a loop of the top thread beneath the work, a looper for picking up said thread on the opposite side of the work to that on which the top thread lies, and a take-up device having an initial movement for pulling the loop taut against the looper while in the needle loop, said take-up device having a further movement for pulling thread from the thread supply, and a thread lock between said take-up device and thread supply, said thread lock being at a distance from the looper and having an adjustable tension device for maintaining a greater or less tension on said top thread during the movement of said take-up device for pulling thread from the supply.

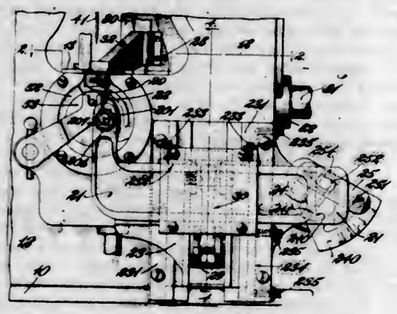
11. A sewing machine having a needle for the top thread and a bobbin for the bottom thread, means for passing the bobbin through a loop of the needle thread, a take-up device for the top thread for pulling the stitch tight, and a thread lock for holding the top thread between the supply and take-up, the take-up device operating to measure thread after the needle has carried a loop of thread through the work, said take-up device having a fixed length of movement for measuring thread while the loop of thread is being held by the needle in the work at a fixed distance from the end of the stitch regardless of the length of stitch or thickness of the work.

12. A sewing machine having a needle for the top thread and a bobbin for the bottom thread, means for passing the bobbin through a loop of the needle thread, a take-up device for pulling the stitch tight, and a thread lock for holding the top thread between the supply and take-up device, the take-up device operating to measure thread after the needle has carried a loop of thread through the work, said take-up device having a fixed length of movement for measuring thread while the loop of thread is being held by the needle at a fixed distance from the end of the stitch regardless of the length of stitch or thickness of the work, and a tension adjustment for said thread lock whereby the amount of thread measured by said take-up device may be regulated.

[Claims 2, 4 to 9, and 13 to 16 not printed in the Gazette.]

1,242,607. PUNCHING, FEEDING, AND CHANNELING MECHANISM FOR SEWING-MACHINES. HENRY P. SCHOENKY, St. Louis, Mo., assignor to American Shoe Machinery & Tool Company, St. Louis, Mo., a Corporation of Missouri. Filed Oct. 23, 1916. Serial No. 127,045. (Cl. 112—20.)

1. A sewing machine having a work table, an awl for feeding the work operating in proximity to said table, a sidewise and vertically movable holder for the awl, means for moving said awl holder vertically to cause the awl to penetrate the work, and means for moving said awl holder sidewise in one direction while the awl is in the work and in the opposite direction while the awl is out of the work, said means for sidewise movement comprising a stud adjustably mounted in a radial solt in an oscillating arm and having its end engaging a cross slot in said awl holder, and means for withdrawing said stud from said cross slot to permit said awl holder to be withdrawn sidewise from near said table.



2. A sewing machine having a work table, an awl for feeding the work operating in proximity to said table, a sidewise and vertically movable holder for the awl, means for moving said awl holder vertically to cause the awl to penetrate the work, and means for moving said awl holder sidewise in one direction while the awl is in the work and in the opposite direction while the awl is out of the work, said means for sidewise movement comprising a stud adjustably mounted in a radial slot in an oscillating arm and having its end engaging a cross slot in said awl holder, means for adjusting said stud and securing it in adjusted position in said radial slot to adjust the length of the sidewise movement of said awl holder, and means for moving said oscillating arm away from said awl holder to withdraw said stud from said cross slot to permit said awl holder to be withdrawn sidewise from near said table.

3. A sewing machine having an awl, a vertically and laterally movable holder for said awl, means for adjusting said awl laterally in said holder comprising an eccentric arranged in said holder, a clamping bolt for said awl carried in said eccentric, and means for securing said clamping bolt and awl from angular displacement in said holder.

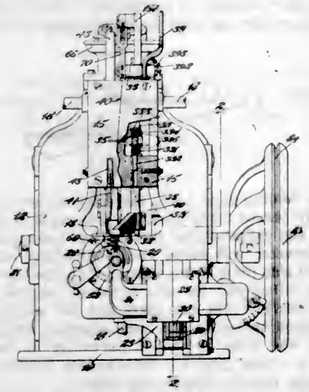
4. A sewing machine having an awl, a vertically and laterally movable holder for said awl, means for adjusting said awl laterally in said holder comprising an eccentric arranged in a vertical slot in said holder, a clamping bolt for said awl carried in said eccentric, said clamping bolt having a square shoulder engaging in a horizontal groove in said holder for preventing relative angular movement, and means for securing said clamping bolt and awl in said holder.

5. A sewing machine having an awl and a vertically and sidewise movable awl holder, a channel cutter carried by said awl holder and movable with said awl for cutting a channel in the work, and means for adjusting said awl and channel cutter sidewise in said holder.

[Claims 6 and 7 not printed in the Gazette.]

1,242,608. PRESSER-FOOT FOR SEWING-MACHINES. HENRY P. SCHOENKY, St. Louis, Mo., assignor to American Shoe Machinery & Tool Company, St. Louis, Mo., a Corporation of Missouri. Filed Nov. 27, 1916. Serial No. 133,594. (Cl. 112—20.)

1. A sewing machine having a work table, a presser foot movable toward and from said work table, means for pressing the presser foot toward said table, a clamping bar slidably mounted on said presser foot and adapted to grip it and hold it against movement away from said work table, a spring supporting said clamping bar in position to slide loosely on said presser foot, positive means for moving one end of said clamping bar to cause it to grip and hold the presser foot against movement away from said table, and means operating periodically in the stitch forming operation to release said gripping means.

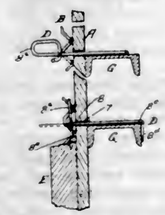


2. A sewing machine having a work table, a presser foot movable toward and from said work table, means for pressing the presser foot toward said table, a clamping bar slidably mounted on said presser foot and adapted to grip it and hold it against movement away from said work table, hand operated means for withdrawing said presser foot from said table, a spring supporting said clamping bar in position to slide loosely on said presser foot, positive means for moving one end of said clamping bar to cause it to grip and hold the presser foot against movement away from said table, and means operating at the end of the stitch forming operation to release said gripping means.

8. In combination in a sewing machine, a presser foot, a bar carrying said presser foot and mounted for reciprocatory movement, a clamp lever having a transverse opening the walls of which loosely embrace said bar, means for tilting said clamp lever to clamp said bar, and means for supporting said clamp lever normal to said bar to permit it to slide through said opening, said supporting means comprising a pair of springs arranged to bear on both sides of said clamp lever.

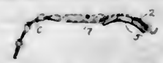
[Claims 3 to 7 and 9 to 11 not printed in the Gazette.]

1,242,609. BUILDING CONSTRUCTION. JOHN SCHUMACHER and JOSEPH E. SCHUMACHER, Los Angeles, Cal. Filed June 20, 1916. Serial No. 104,682. (Cl. 72—118.)



In fastening means for securing lath and plaster board, a clip having initially widely angled parts, one of which is adapted to be passed through plaster board and metal lath and into engagement with one thereof, and the other of which parts is adapted to be brought to bear upon the other of said plaster board and metal lath after such introduction; said clip being provided with a body portion from which such parts range and which likewise is adapted to bear upon one of said elements; said clip being formed of a single length of pliable wire formed into a single loop to constitute said body part, and providing at its ends said other parts.

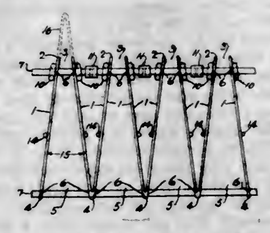
1,242,610. SOLDERING DEVICE FOR CABLES. PETER F. SINDELAR, Cleveland, Ohio. Filed Sept. 16, 1915. Serial No. 50,975. (Cl. 113—99.)



1. A soldering device for electric cables and the like comprising a plate of rectangular shape in plan and concavo-convex in cross-section from end to end, and having an oblong opening lengthwise through the same flaring inward, a flexible lining under said plate having an opening for solder corresponding in flare to the opening in said plate and chains engaged oppositely on the ends of said plate to bind the same on a cable.

[Claims 2 and 3 not printed in the Gazette.]

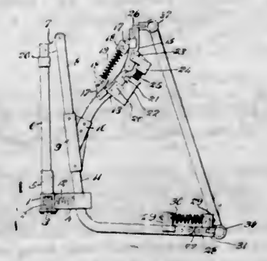
1,242,611. TORPEDO-NET. RICHARD JAMES SMITH, Dublin, Ireland. Filed Apr. 6, 1917. Serial No. 160,079. (Cl. 114—241.)



1. A torpedo guard comprising pairs of upper and lower cable supports, and a series of wedge shaped nets with their V ends secured to the upper and lower outer cables and their inner ends secured to the upper and lower inner cables thereby forming tapering open ended pockets having resilient sides to reduce the momentum of a torpedo and so render it inoperative.

[Claim 2 not printed in the Gazette.]

1,242,612. FENDER. SAMUEL SMITH and RODERICK J. GALVIN, Cincinnati, Ohio. Filed May 10, 1917. Serial No. 167,789. (Cl. 105—33.)



1. A device of the character described, comprising members arranged to be secured to the front of a vehicle, upwardly extending arms on said members, frames pivotally secured to the upper ends of said arms, means for placing the lower portions of said frames under tension, and a fender supported by said frames in front of said vehicle substantially as and for the purpose described.

3. A device of the character described comprising members arranged to be secured to the front of a vehicle, upwardly extending arms on said members, frames pivotally secured to the upper ends of said arms, said frames com-

prising each an upwardly and a downwardly extending arm, short arms pivotally secured to the free ends of the arms of said frames, springs interposed between said arms and said short arms, means for placing the lower portions of said frames under tension, and a fender supported by the short arms of said frames in front of said vehicle, substantially as and for the purpose described.

[Claim 2 not printed in the Gazette.]

1,242,613. VENTING DEVICE. WILLIAM H. SMITH, Cleveland, Ohio. Filed Dec. 4, 1916. Serial No. 134,799. (Cl. 137—4.)



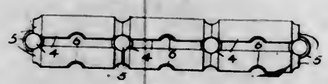
1. In a device of the character described, the combination with a venting tube having a threaded bore and a valve seat therein, of a threaded plug received in said bore and having a seating portion adapted to engage said seat, said plug having a circumferential groove therein, and a flexible extension carried by said tube and having an inwardly bent portion engaging said groove and preventing the withdrawal of said plug.

5. In a device of the character described, a body member having a bore, an extension carried by said body and having a pair of spaced arms one on each side of the bore, said arms being also spaced slightly from the end of said body, and a rotatable plug in said bore and having a circumferential groove upon the portion opposite said arms, said arms being bent inwardly so as to fall within said groove said plug being arranged and adapted when moved within the limits fixed by said arms and groove to open end close the passage through said bore.

6. In a combined stop and waste valve, a body, a bonnet for said body, a hollow internally-threaded branch projecting from said bonnet, and a threaded plug in said branch, said plug having a circumferential groove and said branch having an extension formed with integral arms embracing said plug and bent into said groove, said plug also having valve provisions whereby said branch may be opened and closed by a movement of said plug within the limit set by said arms and groove.

[Claims 2 to 4, 7, and 8 not printed in the Gazette.]

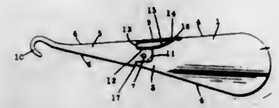
1,242,614. CHECKER-WORK FOR REGENERATIVE FURNACES, HOT-BLAST STOVES, AND THE LIKE. HORACE E. SMYTHE, Pittsburgh, Pa., assignor to The S. R. Smythe Company, Pittsburgh, Pa., a Corporation of West Virginia. Filed Mar. 23, 1916. Serial No. 86,158. (Cl. 72—15.5.)



A checkerwork for regenerative furnaces, hot-blast stoves and the like, comprising horizontal courses of bricks, each brick having end depressed portions and a central transverse depressed portion, the bricks in each course being arranged in parallel lines and each line being composed of bricks arranged end to end and each course being arranged at right angles to the next course below it with the abutting ends of the bricks in one course seated in and resting upon the depressed portions of the bricks in the next course.

1,242,615. FOLDING SHOE-HORN. JOHN L. SOMMER, Newark, N. J., assignor to J. L. Sommer Manufacturing Co., a Corporation of New Jersey. Filed Feb. 10, 1915. Serial No. 7,241. (Cl. 12—30.)

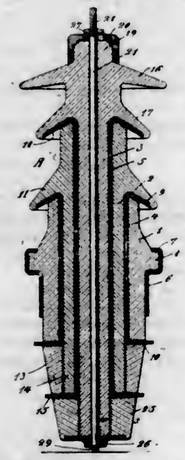
1. In a folding shoe horn, the combination with a blade having a side plate at one end of one of its lateral edges substantially parallel to the body of the blade, said side plate being shorter than the blade and exposing its other end for use, a handle member hingedly mounted between said side plate and the body portion of the blade and adapted to be swung into open or closed position, and a leaf spring supported between the body of the blade and the side plate adapted to engage said handle member and resiliently retain the same in either open or closed position.



2. In a folding shoe horn, the combination with a longitudinally curved blade having a side plate at one end of itself on the concave side thereof and connected thereto by a transverse web along one longitudinal edge of the blade, said side plate being shorter than the blade and exposing its other end for use, a handle member hingedly mounted between said side plate and the body portion of the blade and curved in the same direction and upon substantially the same radius of curvature as said blade, whereby in closed position said handle member may be folded to lie closely adjacent the blade.

[Claim 3 not printed in the Gazette.]

1,242,616. SECTIONAL HIGH-POTENTIAL INSULATOR. SOL S. SONNEBORN, Brooklyn, N. Y. Filed Dec. 9, 1916. Serial No. 135,923. (Cl. 173—311.)



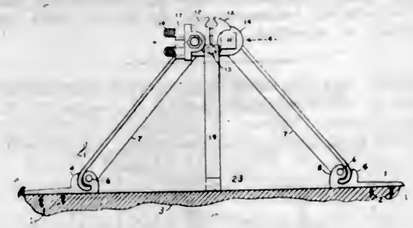
2. A high-potential insulated lead-in bushing for such devices as transformers comprising a plurality of separable coaxial nested sections of insulating material; a metallic sheath located between two of said nested sections to give a condenser effect; and a conductor extending axially through said sections and having at each end a radially extensive conducting member substantially in the form of a solid of revolution, both of which serve as electrostatic stress distributers and at least one of which maintains the assemblage of said separable sections.

3. A high-potential insulator comprising a plurality of separable coaxial nested sections; and a metallic sheath located between each pair of adjacent sections, both ends of said sheath having an outwardly flaring skirt.

8. A high-potential insulating bushing comprising one section having one or more outwardly flaring petticoats and one or more tubular portions; one or more tubular sections of insulating material, each nested about the tubular portion of another section; and a metallic condenser sheath located between one or more pairs of adjacent sections of insulating material and having an outwardly flaring skirt conforming in configuration to one face of one of said petticoats; and means for holding the parts in assembled relation comprising an axial conductor.

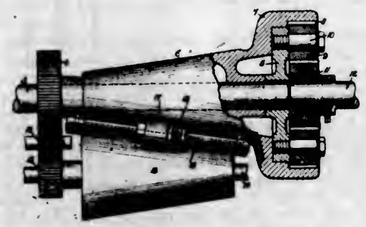
[Claims 1 and 4 to 7 not printed in the Gazette.]

1,242,617. SHIPPING-JACK. JOSEPH W. SOUTHER, San Francisco, Cal. Filed Feb. 1, 1917. Serial No. 145,983. (Cl. 248—41.)



In a shipping jack, the combination of jaws sufficiently large to receive between them an axle of an automobile without removing its wheels, struts supporting said jaws and adapted to be secured to the floor of the car, a bolt for drawing said jaws together, a device secured at one end to said bolt and at the other end to the floor of the car, and means for lengthening or shortening said device.

1,242,618. TRANSMISSION. BYRON STEVENS, Oakland, Cal. Filed Mar. 28, 1917. Serial No. 157,938. (Cl. 74—34.)

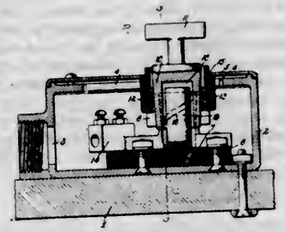


1. A transmission comprising a driving member, a gear constrained to rotate therewith, a disk also constrained to revolve with the driving member and spaced from the gear, a friction cone revolubly mounted on the driving member and housing said disk, a second friction cone, a train of gears from the gear on the driving member to the second friction cone, a friction roller engaging the friction cone and mounted to slide longitudinally thereof, pinions revoluble on the disk in mesh with the first mentioned friction cone; and a driven member having a gear in mesh with the pinions.

2. A transmission comprising a driving member, a gear constrained to revolve with the driving member, a disk also constrained to revolve with the driving member and spaced from the gear, a friction cone revoluble on the driving member between the disk and gear and housing said disk, said friction cone presenting an interiorly-dented surface in front of the disk, pinions revolubly mounted on the disk engaging the dented surface of the friction cone, a driven member, a gear constrained to rotate with the driven member in mesh with the pinions, a second friction cone directed oppositely to the first, gears coupling said second friction cone and the gear on the driving shaft, and a friction roller mounted to engage the two friction cones and slide longitudinally thereof, substantially as and for the purpose set forth.

3. A transmission comprising a driving and a driven member, a disk constrained to revolve with the driving member, pinions revoluble on the disk, a gear constrained to revolve with the driven member in mesh with the pinions, a friction cone, an interior gear in mesh with the pinions constrained to revolve with the cone, a second friction cone directed oppositely to the first, a train of gears for transmitting motion from the driving member to the second cone, and a friction roller interposed between the two friction cones.

1,242,619. RUNNING-SWITCH FOR ELECTRIC VEHICLES. CHARLES A. WARD, New Rochelle, N. Y., assignor to Ward Motor Vehicle Co., Mount Vernon, N. Y., a Corporation of New York. Filed Mar. 30, 1917. Serial No. 158,606. (Cl. 173—338.)



1. A switch comprising a pair of socket members insulated from each other, a plug insertible between the members, and means separate from the plug and adjustably connected with the members for holding the same together and for compensating for wear of the plug and members.

6. A switch including a plurality of socket members, a plug insertible between the members, means between the plug and members for producing a rotary motion of the plug during insertion or removal, and means acting simultaneously on the socket members for holding the same in proper relation to each other.

[Claims 2 to 5 not printed in the Gazette.]

1,242,620. PAPER-CLIP. JOHN L. WASHBURNE, Waterbury, Conn. Filed Nov. 6, 1915. Serial No. 59,908. (Cl. 24—153.)



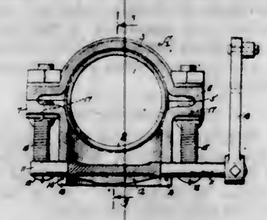
A device of the class described, comprising a pair of plates integrally united and bendable at the point of union thereof, one of said plates being provided with a point projecting inwardly therefrom, and the other plate having an opening adapted to receive the same; and a U-shaped rib partially encircling said opening on the outer face of said last-named plates, the ends of said rib extending nearly to a central point of said device and sloping gradually toward said plate.

1,242,621. MUFFLER CUT-OUT. OALA HUNT WATKINS, Marshalltown, Iowa. Filed July 11, 1917. Serial No. 179,786. (Cl. 137—4.)

1. A muffler cut-out comprising a body having an opening, the edge of the opening being provided with recesses forming bearings, a butterfly valve in the opening and having journals disposed in the said recesses, and spring means connected with the journals and with the said body for holding the butterfly valve in closed position.

2. A muffler cut-out comprising a body having an opening, the edge of the opening being provided with recesses forming bearings, a butterfly valve in the opening and

having journals disposed in the said recesses, spring means connected with the journals and with the said body for holding the butterfly valve in closed position, and keepers extending across the recesses to retain the journals therein.



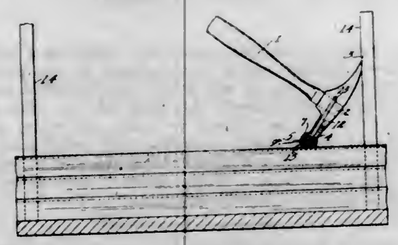
3. A muffler cut-out comprising a chambered body having a hollow extension forming an outlet, the edges of the extension being provided at opposite points with recesses, a butterfly valve disposed in the extension and having journals bearing in the recesses, keepers fastened to the extension and disposed under the journals, lugs on the journals, extension springs connected with the lugs and with the body for holding the butterfly valve yieldingly in closed position, and means connected with one of the journals for operating the butterfly valve against the tension of the said springs.

1,242,622. MULTISTRETCHABLE LEATHER SUBSTITUTE. EMIL WEINHEIM, New York, N. Y. Filed Feb. 8, 1917. Serial No. 147,347. (Cl. 91—68.)

1. An artificial substitute for leather of the type suitable for such articles as shoe-uppers, vamps and working gloves comprising a body-fabric of knitted yarn carrying a surface coating and filling of leatherizing dope of the oxidizable oil type whereby the finished artificial substitute is stretchable a substantial amount in all directions.

2. An artificial substitute for leather of the type suitable for such articles as shoe-uppers, vamps and working gloves comprising a body-fabric of knitted yarn carrying a surface coating and body-filling of leatherizing dope of the oxidizable oil type completely permeating the entire thickness of said body-fabric whereby the finished artificial substitute is stretchable a substantial amount in all directions.

1,242,623. FLOORING-CLAMP. WILLIAM WEST, Hoquiam, Wash. Filed Feb. 8, 1915. Serial No. 6,780. Renewed Mar. 3, 1917. Serial No. 152,438. (Cl. 254—17.)



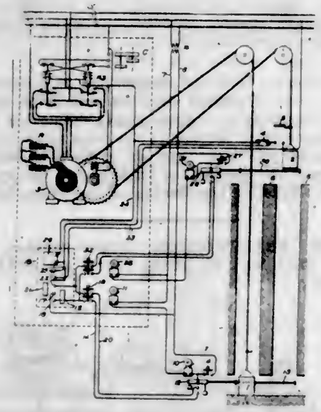
A floor clamp comprising a handle, a head carried by said handle and disposed at right angles thereto and having one end curved and tapered to a point and its opposite end bifurcated, a transverse pin connecting the prongs of said bifurcated end, a roller arranged upon said pin as a center and formed with a plurality of perforations arranged in a circle about said pin, a leaf spring carried by said head and a locking pin carried by said leaf spring and passing through one prong of said head for releasable engagement with any one of the perforated portions of said roller.

1,242,624. REMOVING NICKEL FROM HYDROGENIZED FAT OR OIL. MILTON C. WHITAKER, New York, N. Y., assignor to The Southern Cotton Oil Company, New York, N. Y., a Corporation of New Jersey. Filed June 12, 1913. Serial No. 773,198. (Cl. 87—12.)

1. The method of removing nickel from hydrogenized fat or oil in which it is held in suspension or solution, which comprises treating a liquid body of the hydrogenized fat or oil with fullers' earth; substantially as described.

2. The method of removing nickel from hydrogenized fat or oil in which it is held in suspension or solution, which comprises treating a liquid body of the hydrogenized fat or oil with fullers' earth at a temperature below the dehydration temperature of the fullers' earth; substantially as described.

1,242,625. SYSTEM OF SIGNALING FOR MINE-HOISTS. MAX A. WHITING, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed July 21, 1916. Serial No. 110,609. (Cl. 172—152.)



1. A signaling system for mine hoists, comprising a limit switch or switches for the hoist motor, a signaling circuit between the hoist platform and a distant station on the shaft, and a switch at the hoist platform which must be thrown in order to permit a reply signal to be sent, and when so thrown renders operative the appropriate limit switch.

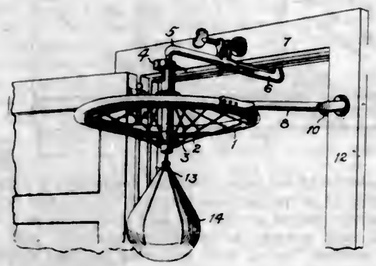
2. A signaling system for mine hoists, comprising a limit switch or switches for the hoist motor, a double throw switch at the hoist platform controlling said limit switches, two signaling circuits controlled by said switch, and a double throw switch at a distant station on the shaft also controlling said signaling circuits.

3. A signaling system for mine hoists, comprising a limit switch or switches for the hoist motor, a double throw switch at the hoist platform controlling said limit switches, two signaling circuits controlled by said switch, a double throw switch at a distant station on the shaft also controlling said signaling circuits, and a push button at the hoist platform controlling both of said signaling circuits.

4. A signaling system for mine hoists, comprising a limit switch or switches for the hoist motor, a double throw switch at the hoist platform controlling said limit switches, a signaling circuit from a distant station on the shaft to the hoist platform, a reply signaling circuit having two branches, each controlled by its respective contact on the double throw switch, a double throw switch at the distant station also controlling said two branches, and a hand switch at the hoist platform for closing said branches.

5. A signaling system for mine hoists, comprising a limit switch or switches for the hoist motor, a double throw switch at the hoist platform controlling said limit switches, a signaling circuit from a distant station on the shaft to the hoist platform, a reply signaling circuit having two branches, each controlled by its respective contact on said double throw switch, a double throw switch at the distant station also controlling said two branches, a device interlocking with the cage at said station to prevent said last named switch from being thrown in the wrong direction, and a hand switch at the hoist platform for closing said branches.

1,242,626. PUNCHING-BAG PLATFORM. HERBERT H. WILSON, Los Angeles, Cal. Filed Dec. 18, 1916. Serial No. 137,581. (Cl. 46—69.)



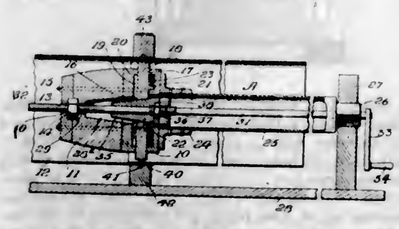
1. A punching bag platform, comprising an annular ring to receive the impact of the punching bag, a hub therefor, wire spoke elements supporting the hub concentric with the ring, a clamp on the upper end of the hub, a brace extending within the hub, said brace being held in adjusted position by said clamp, angularly extending braces affixed to the periphery of the annular ring, and clamps mounted on the ends of said braces, said clamps being adapted to engage with the side and top members of a door casing.

2. A punching bag platform, comprising an annular ring, a hub therefor, a brace extending from the hub, braces angularly extending from the ring, and clamping means affixed to the braces for detachably securing the platform in its operative position.

3. A punching bag platform, comprising an impact ring, a hub therefor, braces extending from the hub and ring, and clamping means carried by the braces for detachably securing the impact ring in its operative position.

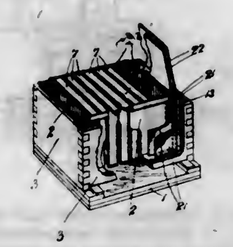
4. A punching bag platform, comprising an impact ring, a hollow hub therefor, spoke members centrally supporting the hub, a brace clamped to said hub and extending upward, a C-clamp affixed to said brace, angularly extending braces affixed to the periphery of said ring, and C-clamps affixed to said angularly extending braces, said last-named C-clamps having one jaw made thin for insertion between the end of the open door and the door casing.

1,242,627. PIPE-COUPLING MACHINE. JAMES M. WINNINGHAM, Henderson, Tenn. Filed Jan. 25, 1916. Serial No. 74,115. (Cl. 113—36.)



In a pipe coupling machine, a base, a two-part female die member having its lower part fixed to said base and the upper part removable from the lower part, means for locking the parts together, a standard fixed to said base and spaced from said female die member, an elongated tubular member fixed in said standard and projecting toward the female die member, an expansion mandrel fixed to the end of said tubular member and comprising a body having a longitudinal recess opening into said tubular member, a radial opening in said body extending from said recess to the periphery of the body, a series of male die members arranged in said radial opening in line with said female die member and having coacting inclined edges, means for normally projecting the inner ends of said male die members into said recess, a shaft mounted in said standard and extending through the tubular member and into the recess in the body of said mandrel and rotatably supported in the outer end of said mandrel, means on said shaft for engaging the projecting ends of the male die members upon the rotation of the shaft to cause them to move outwardly toward the female die member, whereby two sections of pipe may be placed in the machine and their ends overlapped between the male and female die members and a continuous bead formed therein to connect said pipe sections.

1,242,628. BEEHIVE. ALBERT G. WOODMAN, Grand Rapids, Mich. Filed Jan. 26, 1916. Serial No. 74,391. (Cl. 6—1.)



1. In combination, a base, a hive body resting thereon comprised of inner and outer members having sides spaced apart, bars located between and secured to said sides at their lower edges, a box having an open end having its sides located in the space between the sides of the inner and outer members, and closing flaps to said box adapted to lie over the inner member, substantially as described.

2. In combination, a base, an inner hive member resting on the base, an outer hive member surrounding the inner member and spaced therefrom, there being a continuous air space entirely around the inner member and between said inner and outer members, a box including sides and ends and open to receive the inner member inserted into the space between said inner and outer members, and means to cover said members and box, substantially as described.

3. In combination, a base, an inner hive member resting on the base, an outer hive member surrounding the inner member and spaced therefrom at all sides, means for maintaining said inner and outer members in spaced relation, a box having dimensions intermediate that of the inner and outer hive members and open to receive the inner member inserted between said hive members, and means extending from said box over and covering the upper end of said inner hive member.

1,242,629. NECKTIE-HOLDER. DAIGORO YAMANISHI, Seattle, Wash. Filed Mar. 26, 1917. Serial No. 157,339. (Cl. 24—54.)

1. A necktie holder formed of a single piece of spring wire and formed to provide a central button-engaging loop with two arms depending therefrom and each con-

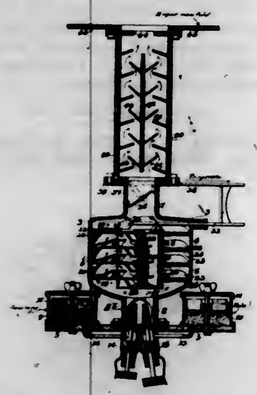
prising a downwardly directed element, an element extending forwardly therefrom, and another element extending



upwardly from the second named element and terminating in relatively large extremities.

[Claim 2 not printed in the Gazette.]

1,242,630. CARBURETER. FRED G. ADAMS, Roscoe, Mont. Filed May 10, 1916. Serial No. 96,721. (Cl. 48—180.)



3. A carbureter comprising upper and lower mixing chambers having a connection therebetween, a throttle valve for controlling the passage of mixture from one chamber to another through said connection, a casing mounted in said lower mixing chamber, partitions mounted in said chamber exteriorly of said casing and having openings therein, baffle plates arranged between said partitions, flap valves for controlling the openings in said partitions, and means including a vertically adjustable frame connected to said flap valves for simultaneously operating the same and said throttle valve.

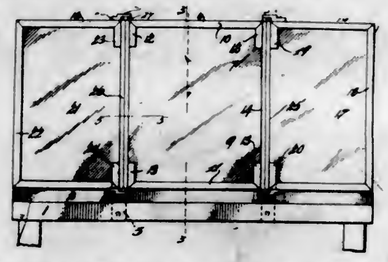
4. A carbureter comprising upper and lower mixing chambers having a connection therebetween, a throttle valve for controlling the passage of mixture from one chamber to another through said connection, a casing mounted in said lower mixing chamber, partitions mounted in said chamber exteriorly of said casing and having openings therein, baffle plates arranged between said partitions, flap valves for controlling the openings in said partitions, means for simultaneously operating said throttle and flap valves, a series of stationary baffle plates mounted in said upper mixing chamber, and valves pivoted in said chamber for automatically controlling the passage of mixture past said stationary baffle plates.

7. A carbureter including a mixing chamber, an inner casing mounted therein, baffle devices also mounted in said chamber exteriorly of said inner casing, valves arranged concentrically about said inner casing for controlling the passage of a mixture past said baffle devices, and means adjustable longitudinally of the said inner casing for operating said valves.

[Claims 1, 2, 5, 6, and 8 to 10 not printed in the Gazette.]

1,242,631. MIRROR FOR DRESSING-TABLES AND THE LIKE. JOSEPH R. ALDEN, Grand Rapids, Mich. Filed July 11, 1916. Serial No. 108,593. (Cl. 45—99.)

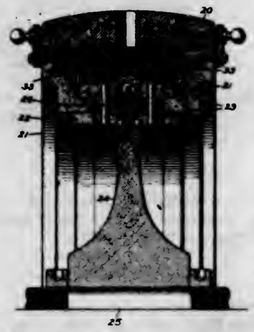
1. A device of the class described, comprising a support, a plurality of mirror sections mounted thereon and having frame portions, said mirror sections having their reflecting portions arranged edge to edge and having the frame portions omitted for at least a substantial portion of the length of the meeting edges whereby the mirror sections will present a substantially continuous reflecting surface, at least one of said mirror sections being hinged to swing on an axis corresponding substantially with the adjacent edges of said sections, whereby said mirror sections may be placed at different relative angles and form a substantially continuous reflecting surface.



2. A device of the class described comprising a support, a plurality of mirror sections mounted thereon and including a middle mirror section and side sections at each side thereof, said sections having frame portions, said side mirror sections having their reflecting portions arranged edge to edge with said middle mirror section, the several sections having the frame portions omitted for at least a substantial portion of the length of their respective meeting edges whereby the mirror sections will present a substantially continuous reflecting surface, said side mirror sections being hinged at top and bottom to swing on axes corresponding substantially with the respective meeting edges of said middle and side sections, whereby said mirror sections may be placed at different relative angles to each other and form a substantially continuous reflecting surface.

[Claim 3 not printed in the Gazette.]

1,242,632. SYSTEM OF ELECTRICAL DISTRIBUTION. ERNST F. W. ALEXANDERSON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed June 22, 1915. Serial No. 35,712. (Cl. 172—237.)



1. A system of distribution comprising in combination a load circuit, a high frequency alternator having a rotatable inductor with a plurality of magnetic poles, a stationary core of laminated magnetic material having slots therein, armature conductors carried in said slots, the spacing of said slots being such that alternating voltages differing in time phase are generated in the conductors therein, the conductors in the stator slots being arranged in a plurality of groups with those conductors whose induced voltages are most nearly of the same time phase included in the same group, and reactive means for so modifying the phase relations of the alternator currents that all of the groups of the armature winding supply to said load circuit alternating currents of substantially the same time phase.

2. A system of distribution comprising in combination a load circuit possessing a preponderance of capacity, a polyphase high frequency alternator adapted for self-excitation through armature reaction by a leading current, means electrically connecting said alternator to said load circuit, and reactive means included in said load circuit for modifying the phase relations of the alternator currents for supplying to said load circuit alternating currents of substantially the same time phase, the capacity of said load circuit including that of said reactive means being such that a leading current is caused to flow in the armature winding of said alternator whereby the armature reaction assists in furnishing the excitation for the alternator.

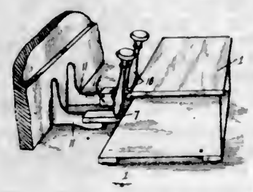
3. A system of distribution comprising in combination a load circuit possessing a preponderance of capacity, a condenser included in said load circuit, a high frequency inductor alternator adapted for self-excitation through armature reaction by a leading current, means electrically connecting said alternator to said load circuit, the capacity of the load circuit including that of said condenser being such that a leading current is caused to flow in the armature winding of said alternator whereby the armature reaction assists in furnishing the excitation for the alternator.

4. A system of distribution comprising in combination a load circuit possessing a preponderance of capacity, a high frequency inductor alternator adapted for self-excitation through armature reaction by a leading current, and means electrically connecting said alternator to said load circuit, the capacity of said load circuit being such that a leading current is caused to flow in the armature winding of the alternator whereby the armature reaction assists in furnishing the excitation for the alternator.

5. A system of distribution comprising in combination a load circuit, a polyphase high frequency alternator, transformers connecting the phase circuits of said alternator to said load circuit, means for so modifying the phase relation of the alternator currents that all of the phase circuits of the alternator supply to said load circuit alternating currents of substantially the same time phase, the ratios of transformation of said transformers with respect to any alternator phase circuit being determined by the ratio which the current of the proper time phase supplied by such phase circuit bears to the total current supplied to the load circuit.

[Claims 6 and 7 not printed in the Gazette.]

1,242,633. PEDAL ATTACHMENT FOR PIANOS. FRED ALLEN, Coldwater, Mich. Filed May 21, 1917. Serial No. 170,061. (Cl. 84—97.)

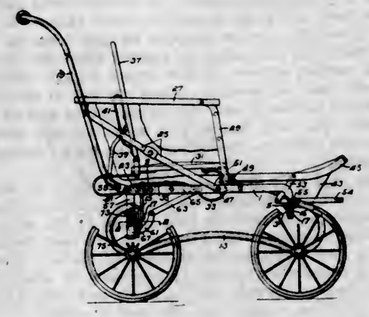


1. In a device of the class described, a box, a pedal operating arm pivotally carried by said box for vertical swinging adjustment and transverse horizontal adjustment relative thereto, means yieldingly holding the arm in elevated position, means adjustably coacting with the arm to limit the raising movement thereof and being adjustable with said arm, and means for securing the arm in horizontally adjusted position.

5. In a device of the class described, a box, a shaft horizontally mounted in said box, a pair of standards mounted on said shaft for relative adjustment longitudinally thereof, means slidingly engaging one end of each of said standards to retain them in upright position, a normally elevated pedal operating arm pivotally projecting forward from each of said standards and adjustable therewith, means adjustably connecting each standard and arm for limiting the raising movement of the arm, means for securing each standard in adjusted position, and pedal engaging guides at the free ends of said arms for coacting with the engaged pedals to prevent forward and transverse shifting movements of the arms with respect to the pedals.

[Claims 2 to 4 not printed in the Gazette.]

1,242,634. COLLAPSIBLE VEHICLE. GEORGE B. AMBLER, Leominster, Mass., assignor to F. A. Whitney Carriage Company, Leominster, Mass., a Corporation of Massachusetts. Filed Jan. 25, 1916. Serial No. 74,264. (Cl. 21—83.)



1. A vehicle comprising in combination, a frame, wheel carriers pivotally connected thereto foldable transversely of the vehicle to collapsed and erect positions, handle bars pivotally connected to said frame having extensions rigid therewith projecting beneath said frame, and lugs on the wheel carriers having notches to receive the extensions adjacent thereto.

2. A vehicle comprising in combination, a frame, wheel carriers pivotally connected thereto foldable transversely of the vehicle to collapsed and erect positions, handle bars pivotally connected to said frame having extensions rigid therewith projecting beneath said frame, and spaced lugs on each wheel carrier having notches to receive the extension adjacent thereto and engage the same at separate points.

3. A vehicle comprising in combination, a frame, wheel carriers foldable transversely thereof to collapsed and erect positions, lugs on each wheel carrier having notches therein, and handle bars pivotally connected to said frame having extensions rigid therewith for entrance into said notches to lock the carriers in erected position, some of said lugs having cam projections coöperating with said extensions to assist the erection of said carriers.

4. A vehicle comprising in combination, a frame, wheel carriers foldable transversely thereof to collapsed and erect positions, tappet fingers projecting from said wheel carriers, handle bars pivotally connected to said frame having extensions rigid therewith, and members pivotally connected to said extensions for engagement with said tappet fingers to fold said carriers to collapsed position in the course of the folding of said handle bars.

5. A vehicle comprising in combination, a frame, wheel carriers foldable transversely thereof to erect and collapsed positions, handle bars pivotally connected to said frame having extensions rigid therewith, and members pivotally connected to said extensions for rocking said carriers to erect position on the folding of said handle bars to erect position.

[Claims 6 to 11 not printed in the Gazette.]

1,242,635. **PROPELLING APPARATUS.** VINCENT G. ANDERSON, Thief River Falls, Minn., assignor to Frederick C. Austin, Chicago, Ill. Filed Aug. 19, 1916. Serial No. 115,766. (Cl. 21—124.)



1. In a propelling apparatus for intermittently shifting a heavy body along the ground, a frame adapted to rest on the ground, a carrier movable up and down on said frame, rollers on said carrier to support said body, sheaves on said carrier, sheaves on said frame, a cable engaging all of said sheaves, means to secure one end of said cable to the front portion of said carrier, so that a pull on said cable will raise said carrier, and means on said body to operate said cable and thereby pull the body forward on said carrier.

2. The said structure, as specified by claim 1, having rollers to support the carrier on said body, in which means are provided for permitting said carrier to tilt with the body without causing the cable to bind on said frame.

3. The said structure, as specified in claim 1, having rollers to support the carrier on said body, in which said frame is inclined forward, and in which said cable has the upright portions thereof also inclined forward.

5. In a propelling apparatus for intermittently shifting a heavy body along the ground, a frame adapted to rest on the ground, a carrier movable up and down on said frame, rollers on said carrier to support said body, sheaves on said carrier, sheaves on said frame, a cable engaging all of said sheaves, so that a pull on said cable will raise said carrier, means on said body to operate said cable and thereby pull the body forward on said carrier, and means for permitting said carrier to tilt with the body without causing the cable to bind on said frame.

7. In a propelling apparatus for intermittently shifting a heavy body along the ground, a frame adapted to rest on the ground, a carrier movable up and down on said frame, rollers on said carrier to support said body, sheaves on said carrier, sheaves on said frame, a cable engaging all of said sheaves, so that a pull on said cable will raise said carrier, and means on said body to operate said cable and thereby pull the body forward on said carrier, the front end of said carrier having a pivoted element to engage said frame.

[Claims 4 and 6 not printed in the Gazette.]

1,242,636. **PULLEY AND ROPE GUIDE.** JOHN N. ANKROM, Sistersville, W. Va. Filed May 5, 1916. Serial No. 95,539. (Cl. 254—197.)

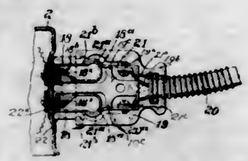
1. The herein described pulley and rope guide, including a pulley frame formed with spaced side plates having pivot openings therein, a sheave journaled between the side plates, and a pair of U-shaped rope guides embracing the pulley frame, the lower ends of the rope guides being provided with laterally projecting guide eyes adapted to receive the rope, the arms of the U-shaped rope guides being arranged along and spaced from the outsides of the side plates and terminating at their upper ends in inwardly extending pivot fingers which engage the pivot openings in the side plates, so that both of the U-shaped rope guides may swing upon both sides of the sheave shaft to accommodate the various positions of the rope relative to the sheave.

2. The herein described pulley and rope guide, including a pulley frame formed with spaced side plates, having correspondingly arranged key-hole slots in the upper portions thereof, a sheave journaled between the side plates at a point below the key-hole slots, and a pair of U-shaped guides embracing the pulley frame and each formed from a single length of spring wire, the arms of the side U-shaped rope guides being arranged along and spaced from the outsides of the said side plates, and the lower ends of the rope guides being provided with laterally projecting



guide eyes adapted to receive the rope, while the upper ends of the arms of the U-shaped guide members terminate in inwardly extending pivot fingers which have lateral wings at the extremities thereof, said pivot fingers being insertible through the key-hole slots when the lateral wings are in registry with the narrow ends of the slots, and the wings and slots having such a relation to each other that the rope guides must be swung into extreme positions, not ordinarily assumed in the usual operation of the pulley, for attaching to or detaching from the pulley frame.

1,242,637. **ELECTRICAL CONNECTOR.** CHARLES C. ARMSTRONG, Marysville, Ohio. Original application filed June 27, 1916, Serial No. 106,244. Divided and this application filed July 24, 1916. Serial No. 111,018. (Cl. 173—332.)

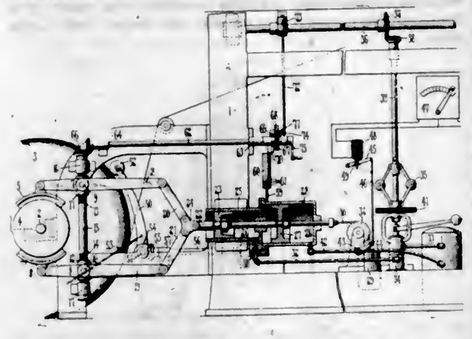


1. In an electric coupling a male member comprising a pair of tongues with reversely faced shoulders and inclined ends, and a female member comprising a pair of socket members, and a pair of spring fingers to engage said shoulders, said spring fingers having angular bent ends resting between shoulders formed by walls of said socket members and retained therein by the assembling of said members.

2. In an electric coupling a male member comprising a pair of loop-shaped spring fingers having free inclined end portions and inclined rigid abutments against which said ends bear, in combination with a female member having a pair of spring arms to engage said loop-shaped members.

1,242,638. **AUTOMATIC TENSION DEVICE AND BRAKE FOR WEB-ROLLS.** HOWARD M. BARBER, Stonington, Conn., assignor, by mesne assignments, to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of Delaware. Filed Nov. 8, 1913. Serial No. 799,999. (Cl. 242—75.)

1. A web roll, its fluid pressure operated brake, means controlled by the decreasing diameter of the roll for reducing the frictional resistance of the brake to the unwinding of the roll and supplemental means for applying the brake to stop the roll.



2. A web roll adapted for use in connection with roll unwinding mechanism, a fluid pressure operated brake, means for reducing the frictional resistance of the brake to the unwinding of the roll and supplemental means for applying the brake to stop the roll when the unwinding mechanism is stopped.

3. A web roll adapted for use in connection with roll unwinding mechanism, a controller, a brake, means controlled by the decreasing diameter of the roll for reducing the frictional resistance of the brake to the unwinding of the roll, and supplemental means operated by the controller for applying the brake to stop the roll when the unwinding mechanism is stopped.

4. A web roll adapted for use in connection with roll unwinding mechanism, a controller, a fluid pressure operated brake, means controlled by the decreasing diameter of the roll for reducing the frictional resistance of the brake to the unwinding of the roll, and supplemental means operated by the controller for applying the brake to stop the roll when the unwinding mechanism is stopped.

5. A web roll adapted for use in connection with roll unwinding mechanism, a fluid pressure operated brake, means for reducing the frictional resistance of the brake to the unwinding of the roll, and supplemental means for applying the brake to stop the roll when the unwinding mechanism is stopped and for releasing the brake when the unwinding mechanism is started.

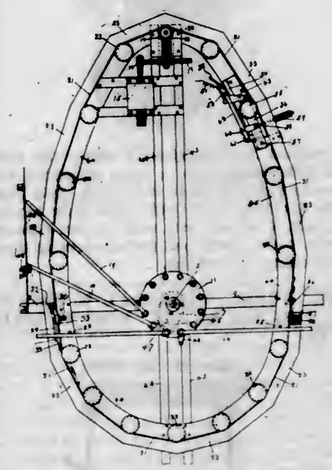
[Claims 6 to 15 not printed in the Gazette.]

1,242,639. **DISPLAY ADVERTISING-MACHINE.** JOHN B. BARNETT, Fort Worth, Tex., assignor, by direct and mesne assignments, of two-thirds to H. C. Hermsmeyer, Fort Worth, Tex., and one-third to R. D. Erwin, McKinney, Tex. Filed Sept. 28, 1915. Serial No. 52,988. (Cl. 40—73.)

1. A display advertising machine comprising a main frame, an upright shaft journaled therein and carrying a disk at the upper part and a disk on the lower part, a plurality of display frames pivotally mounted in said disks and each frame having a portion of the pivot post projecting through the lower disk, an operating arm attached to the underside of each frame and a cam lever attached to the lower projecting portion of each pivot post, means for driving or turning each frame periodically, and a cam engaged by said cam lever for simultaneously moving said disks.

2. A display advertising machine comprising a main frame, an upright shaft journaled in said frame and carrying upper and lower disks, a plurality of display frames journaled in said disks and the pivot post of each frame projecting through the lower disk, a cam lever rigid with each pivot post and an operating arm rigid with the lower part of each frame, an upwardly projecting cam in the path of said cam levers, means for periodically moving said display frames and said disks being simultaneously moved by said cam and said levers, and means for locking a pair of frames in displaying positions after each moving of a frame.

3. A display advertising machine comprising a main frame, an upright shaft journaled in said frame, an upper and a lower disk mounted on said shaft, a plurality of pivot posts journaled in said disks and projecting through the lower disk and display frames carried by said pivot posts, operating arms rigid with the lower sides of said frames, cam levers rigid with the projecting ends of said pivot posts, a cam in the path of said cam levers, means for turning said operating arms periodically, said cam levers and cam serving simultaneously to move said disks, and means for locking each display frame for a short interval of time prior to its moving and means for locking each display frame for a short interval again after its moving.



4. A display advertising machine comprising a main frame, an upright shaft journaled in said frame, an upper disk and a lower disk mounted on said shaft, a plurality of vertically disposed display frames journaled in said disks, a driving mechanism for turning each frame one half turn periodically, means operatively connected with said display frames and with the base of said machine frame for moving said disks one step simultaneously with the turning of each display frame, means for locking each display frame stationary after each turning thereof, means for releasing said display frame at the next moving of said disks, a locking mechanism for locking each display frame stationary prior to its turning, and means carried by said driving mechanism for automatically releasing said display frame from said locking mechanism and for engaging the frame for turning the same.

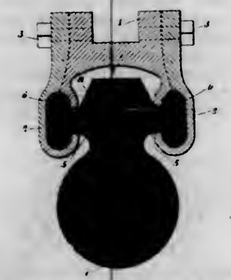
5. A display advertising machine comprising a main frame, an upright shaft journaled in said frame, an upper disk and a lower disk mounted on said shaft, a plurality of vertically disposed display frames journaled in said disks, a driving mechanism for turning each display frame one half turn including a sprocket chain, an oval track, a part thereof being a semi-circle, a sprocket wheel for driving said chain and idlers about said track for supporting said chain, a locking mechanism for locking each display frame stationary prior to its turning and means for locking each display frame stationary at the end of its half turning, said track having an inclined drop at the latter position, and a dog carried by said chain and trailing on said track for automatically releasing each display frame from said locking mechanism and for engaging the frame to turn it, and said dog automatically releasing said frame by dropping down said inclined drop.

[Claims 6 and 7 not printed in the Gazette.]

1,242,640. **RESILIENT TIRE.** FLETCHER W. BATTERSHALL, Albany, N. Y. Filed Dec. 13, 1912. Serial No. 736,458. (Cl. 152—8.)

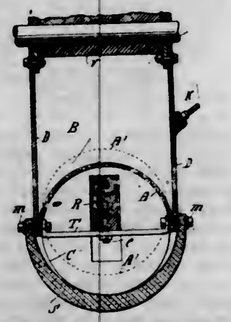
1. A resilient tire consisting of the combination of a rubber tire and a metal rim, said tire having a tread sup-

ported by cross-arms, said cross-arms resting on shoulders on the rim on opposite sides of the tire, and having a base normally out of contact with the rim but capable of contacting therewith under shock, flat springs passing through said base and resting on said shoulders and supporting said tire.



2. A resilient tire comprising a rubber tire and a metal rim, said tire consisting of a tread supported upon cross-arms having beads at their outer ends, said rims having means for inclosing said beads, said body having a base normally out of contact with said rim but capable of resting thereon under shock, and springs passing through said base and resting on said rim.

1,242,641. WHEEL. ALEXANDER L. W. BEGG, New York, N. Y. Filed Sept. 26, 1916. Serial No. 122,183. (Cl. 152—29.)



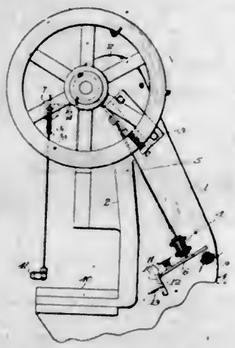
4. A wheel comprising a hub, a pair of side plates, an air-tight fabric connecting the margins of the plates and extending inwardly whereby to constitute an annular closed chamber, a tread portion formed of a series of independently movable loop members of a cylindrical form that engage said fabric portion and project beyond the side plates, a series of bars connecting the edges of the plates, and a circumferentially extending ring member located between the bars and the inner part of the tread portion and projecting through the loop members.

7. A wheel comprising a hub, a pair of side plates, a road-engaging member of fabric secured to the margins of said plates, a series of apertured disks engaging the inner face of said fabric, resilient means between the disks and the hub permitting inward deflection of the disks independently, and a circumferentially extending ring member projecting through all of said disks to permit said movement of the disks.

[Claims 1 to 3, 5, and 6 not printed in the Gazette.]

1,242,642. SAFETY DEVICE FOR PRESSES. REUBEN B. BENJAMIN, Chicago, Ill., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 25, 1913. Serial No. 763,576. (Cl. 74—46.)

1. In a device of the character described, the combination with a movable member for tripping the clutch of a press, of power means for operating the movable member, a pair of interlocked controlling devices connected to and movable with the hands of the operator for controlling said power means and arranged to cause said operating means to move said movable member only when both hands of the operator are outside the danger zone of the press.



2. In a device of the character described, the combination with a movable member for tripping the clutch of a press, of a motor, means for rendering said motor inoperative when it has moved the movable member to trip the press, a pair of controlling devices for said motor, a pair of arms for said controlling devices movable with the hands of the operator, said controlling devices being adapted to individually render said motor operative when the hands are moved toward the mechanism of the press, and arranged to cause said motor to operate when collectively operated and only when the hands of the operator are outside the danger zone of the press.

3. In a device of the character described, the combination with a movable member for tripping the clutch of a press, of an electromagnetic motor, a switch in the circuit of said motor arranged to be opened by the motor when it moves the movable member to trip the clutch, a pair of arms movable with the hands of the operator controlling the circuit through said motor and controlling the resetting of said switch, said arms being arranged to cause the resetting of said switch when either is moved with the hand of the operator toward the operating mechanism of the press, and arranged to cause said motor to operate only when both hands of the operator are outside the danger zone of the press.

4. In a device of the character described, the combination with a movable member for tripping the clutch of a press, of means for operating said movable member, means for rendering said means inoperative as soon as the movable member has been moved to trip the clutch, controlling means movable with the hands of the operator arranged to render said operating means operable when either hand is moved toward the mechanism of the press, and arranged to cause said operating mechanism to operate only when both hands of the operator are outside the danger zone of the press.

5. In a device of the character described, the combination with a movable member for tripping the clutch of a press, of an electromagnet for operating said movable member, a switch in the circuit of said electromagnet arranged to be opened when said electromagnet operates said movable member, means for resetting said switch, a pair of switches arranged in series for controlling the circuit through said electromagnet, and a pair of arms connected with said switches and movable with the hands of the operator, said arms being arranged to individually cause the resetting of said switch when either of the hands of the operator is moved toward the mechanism of the press, said arms being arranged to cause said switches to close the circuit through said electromagnet only when both hands of the operator are outside the danger zone of the press.

[Claims 6 to 22 not printed in the Gazette.]

UNITED STATES PATENT

1,242,643. SEPARABLE ATTACHMENT-PLUG. REUBEN B. BENJAMIN, Chicago, Ill., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Original application filed Nov. 21, 1908, Serial No. 463,764. Divided and this application filed Aug. 13, 1915. Serial No. 45,296. (Cl. 173—348.)



1. A separable attachment plug comprising an insertible portion having a contact for engagement with the contact of a receptacle, and a portion having a quick detachable connection with said first portion, a binding terminal supported by said second portion, and conductor gripping means also supported by said second portion.

2. A separable attachment plug comprising an insertible portion having a shell contact for engagement with the shell contact of a receptacle, and a portion having a quick detachable connection with said first portion, a binding terminal supported by said second portion, and conductor gripping means also supported by said second portion.

3. A separable attachment plug comprising an insertible portion having a contact for engagement with the contact of a receptacle, and a portion having a quick detachable connection with said first portion, a binding terminal supported by said second portion, and conductor gripping means also supported by said second portion, said conductor gripping means comprising a tubular thumb piece through which said conductor extends.

4. A separable attachment plug comprising an insertible portion having a contact for engagement with the contact of a receptacle, and a portion having a quick detachable connection with said first portion, said second portion including two members having a threaded connection with each other and having coöperative conductor gripping means, and a binding terminal supported by one of said members.

5. A separable attachment plug comprising an insertible portion having a contact for engagement with the contact of a receptacle, and a portion having a quick detachable connection with said first portion, said second portion including two members having a threaded connection with each other and having coöperative conductor gripping means, and a binding terminal supported by one of said members, the other member being constructed to form a thumb piece.

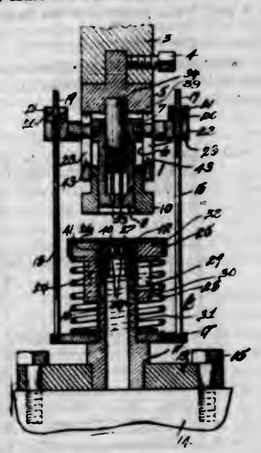
[Claims 6 to 8 not printed in the Gazette.]

1,242,644. DIE FOR BLANKING OUT AND PIERCING BUTTONS. JACOB S. BIRNZWEIG, New York, N. Y. Filed June 26, 1916. Serial No. 105,842. (Cl. 79—1.)

1. A stamping device, comprising a female portion consisting of a support, a female die slidably retained thereby, a male portion consisting of a male die, a movable abutment surrounding said die, and a trimmer located in the space between said abutment and male die adapted to coöperate with said support to trim the edge of the blank which is therein operated upon.

2. A stamping device consisting of a movable female die, a coöperating male die, a stripper adjacent the male die, and means connecting said stripper and female die arranged to operate said stripper at a predetermined point in the movement of said female die.

3. A stamping device, comprising a female portion consisting of a support, a female die movably retained thereby, punches arranged to pass through said female die, a shiftable plate to cause said support and die to move in unison and arranged to permit said support to move independently of the female die, whereby the punches will be operated, and a male die alining with the female die.

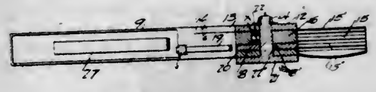


4. A stamping device, comprising a female portion consisting of a support, a female die movably retained thereby, punches arranged to pass through said female die, shiftable means to cause said support and die to move in unison and arranged to permit said support to move independently of the female die whereby the punches will be operated, a male portion consisting of a male die and a movable abutment surrounding same, combined with a device adapted to strip the completed article and also to coöperate with said support to trim the edges thereof.

5. A stamping device, consisting of a support, a female die movably retained thereby, fixed punches arranged to pass through said female die, means to connect said support and female die to cause same to move in unison, at which time said punches will be retained within said female die, said connecting means being arranged to permit said support to move downwardly to cause said punches to pass through said female die, and a male die provided with openings alining with the female die.

[Claims 6 to 12 not printed in the Gazette.]

1,242,645. FRUIT-CLIPPER. LOUIS A. BOCKSTAHLER, Cleveland, Ohio. Filed Jan. 29, 1916. Serial No. 75,103. (Cl. 30—24.)



1. A fruit clipper comprising a pair of pivoted handles, a pair of blades and a pair of jaws, carried by said handles, and a second pair of blades, one blade of which is carried by one of said handles, and a releasable operating connection between the other blade and the other handle.

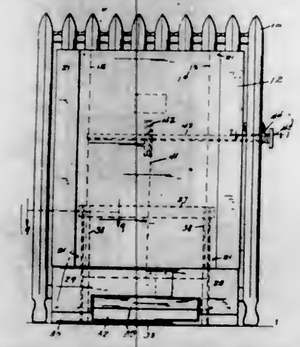
2. A fruit clipper comprising a pair of pivoted handles, two pairs of pivoted blades, a pair of jaws between said pairs of blades, means actuated by one operation of the handles to simultaneously close one pair of blades and the jaws, and means actuated by a succeeding operation of the handles to afterward close the other pair of blades.

3. A fruit clipper comprising a pair of handles one of which carries a pair of disks and a blade and the other of which carries a disk, two blades and a jaw between said blades, a pivot for said handles, extending through said disks, a disk mounted on said pivot and having a jaw and a spring connection to one of said handles, an-

other disk mounted on said pivot and having a blade cooperating with one of said two blades, pawl connections between the disks carried by the handles and the two last mentioned disks, adapted to operate the latter.

[Claims 4 and 5 not printed in the Gazette.]

1,242,646. ADJUSTABLE RADIATOR-CASING. DENNIE B. BOLINGER, Sullivan, Ind. Filed Oct. 19, 1916. Serial No. 126,588. (Cl. 257—136.)

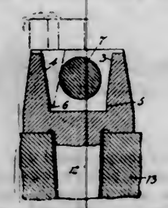


1. The combination with a radiator, of a casing comprising a ventilating base and a diffuser provided with slip joints for adjusting the size thereof, the end walls of the base having registering recesses therein for the reception of parts of the radiator whereby said ends may be introduced between sections of the radiator, and means for securing said joints in any given position whereby said ventilating base and diffuser may be adjusted to fit different sized radiators.

8. The combination with a radiator and a casing comprising a ventilating base and a diffuser, said base having inlet openings, of vertically movable closures for said openings, a winding shaft and means controlled by the operation of said winding shaft for simultaneously elevating one of said closures while the other is being lowered.

[Claims 2 and 4 not printed in the Gazette.]

1,242,647. CLAMP FOR HOLDING A CALK WHILE BEING WELDED TO A SHOE. WILLIAM J. BOLL and LEONIDAS L. KEMPTHORNE, Platteville, Wis., assignors of one-third to Fred H. Sandman, Platteville, Wis. Filed Dec. 8, 1916. Serial No. 135,756. (Cl. 78—7.)



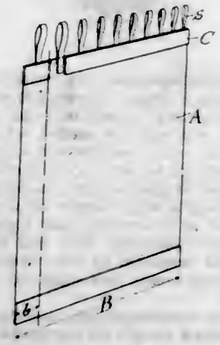
1. A calk holder comprising a body having a socket or chamber formed therein with a beveled wall on each side, and a roller arranged in said socket spaced from said beveled walls and arranged parallel thereto.

2. A calk holder comprising a body having a socket or chamber formed therein, having facing side walls and a roller extending from one end of the socket to the other, said roller being arranged longitudinally of said side walls and spaced therefrom.

3. A calk holder comprising a body having a socket therein having facing side walls extending longitudinally thereof, and a roller journaled in the ends of said body and extending through the socket longitudinally of said walls, said roller being arranged nearer one of said side walls than the other whereby calks of different sizes may be operated upon.

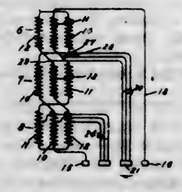
4. A calk holder comprising a body provided with a projection for fitting the aperture in an anvil and a socket extending longitudinally of the body whereby substantially facing walls are produced and end members are provided, said walls being beveled, and a roller fitted into said end members and extending through the socket, said roller being nearer one of said beveled walls than the other.

1,242,648. FLY-CATCHER. OTTO BRAEDT, Vienna, Austria. Filed Nov. 13, 1913. Serial No. 800,771. (Cl. 43—22.)



The herein described article comprising a rolled-up sheet of thin soft material coated with an adhesive substance, stiffening strips of scissible material secured to opposite ends of the sheet, a plurality of suspension loops secured to one end of the sheet, and a wrapper of scissible material inclosing the body of the sheet with the suspension loops projecting therefrom and serving to indicate the lines upon which the article can be severed into a plurality of individual fly catchers, each including a portion of the sheet, one of the suspension loops, and a section of the wrapper.

1,242,649. TRANSFORMER-WINDING. FREDERICK F. BRAND, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed Sept. 28, 1916. Serial No. 122,741. (Cl. 175—356.)



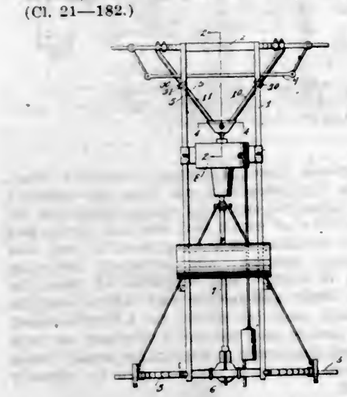
1. In electrical apparatus, a winding comprising a plurality of conductors connected in parallel, and a tap for said winding comprising a conducting section electrically connected to each conductor, said conducting sections being insulated from each other for some distance from such connection points.

2. In electrical apparatus, a winding comprising a plurality of conductors connected in parallel, and particularly arranged to divide the total current in certain proportions, and a tap for said winding comprising a conducting section electrically connected to each conductor, and a common terminal electrically connecting said conducting sections at some distance from such connection points, said sections being otherwise insulated from each other.

3. In electrical apparatus, a winding comprising a plurality of conductors connected in parallel, and a tap for said winding connected to the conductors thereof and offering material resistance to the passage of current between said conductors.

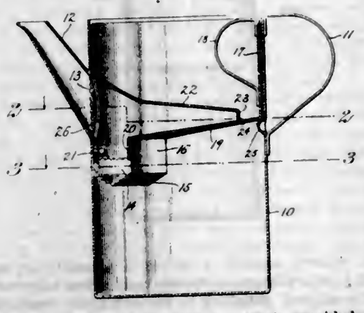
4. In a transformer, a high voltage winding and a low voltage winding, said low voltage winding comprising a plurality of conductors connected in parallel and transposed at intervals to equalize their resistances and reactances, a tap for said low voltage winding comprising a conducting section electrically connected to each conductor, and an accessible terminal for said tap, said conducting sections being connected together adjacent said tap terminal but otherwise insulated from each other.

1,242,650. MOTOR-VEHICLE. PATRICK TOMAS BURK, Milford, Iowa. Filed May 25, 1914. Serial No. 840,827. (Cl. 21—182.)



In a motor vehicle the combination with its frame including the V-shaped radius rods and front axle, of a V-shaped integral brace formed of angle steel, said brace having inclined portions attached to the front axle, and horizontal portions upon which the radius rods are seated, a base plate, a cap plate, and a bolt clamping the rods and brace together, and a U-shaped bolt at the junction of the horizontal and inclined portions clamping the angle steel and rod together.

1,242,651. PERCOLATOR. BENJAMIN H. CALKIN and FRANCES L. CALKIN, Detroit, Mich.; said Benjamin H. Calkin assignor to said Frances L. Calkin. Filed Aug. 6, 1915. Serial No. 43,918. (Cl. 53—3.)



1. A percolator embodying a vessel provided with a pouring spout, a container positioned within the vessel below said spout, a liquid receptacle fitted removably within said vessel for feeding liquid to said container, and means for retarding the flow of liquid from said receptacle to said container, said container being positioned intermediate the pouring spout and the chamber of said vessel and operating to secure, during the decanting operation, a reflow of the beverage into contact with the material within said container prior to the outflow of said beverage through said pouring spout.

2. A percolator embodying a vessel provided with a pouring spout, a container attached to said vessel and positioned below said pouring spout, and a removable liquid receptacle, said receptacle being provided with means operating to direct the flow of liquid in an irregular path to the container and to retard the flow of said liquid to the end that the liquid will flow slowly to the container and will remain in contact for an appreciable length of time with a charge of material adapted to be placed within the container, said container being positioned intermediate the pouring spout and the chamber of said vessel and operating to secure, during the decanting operation, a reflow of the beverage into contact with the material within said container prior to the outflow of said beverage through said pouring spout.

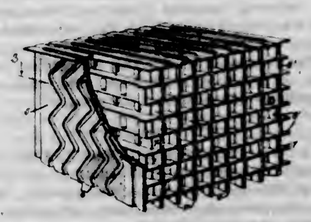
3. A percolator embodying a vessel provided with a pouring spout, a container attached to said vessel and positioned below said pouring spout, a liquid receptacle positioned removably within the vessel, said receptacle being provided with a nipple adapted to enter the container, and means carried by said receptacle for retarding the flow of liquid from said receptacle to the container, said container being positioned intermediate the pouring spout and the chamber of said vessel and operating to secure during the decanting operation, a reflow of the beverage into contact with the material within said container prior to the outflow of said beverage through said pouring spout.

4. A percolator embodying a vessel provided with a pouring spout, a container attached to said vessel and positioned below said pouring spout, said container being provided with a formaminous bottom, a liquid receptacle the bottom of which is provided with a depending nipple adapted to enter the container, said nipple having a foraminous bottom positioned in coöperative relation to the similar bottom of the container and means for directing the flow of liquid in an irregular path from the receptacle to the container, said container being positioned intermediate the pouring spout and the chamber of said vessel and operating to secure, during the decanting operation, a reflow of the beverage into contact with the material within said container prior to the outflow of said beverage through said pouring spout.

5. A percolator embodying a vessel provided with a pouring spout, a container attached to the receptacle and positioned below said spout, and a receptacle the bottom of which is inclined toward the container, said receptacle having an interior partition inclined oppositely to the bottom and provided with flow openings through which liquid is free to flow in streams slowly to the container, said container being positioned intermediate the pouring spout and the chamber of said vessel and operating to secure, during the decanting operation, a reflow of the beverage into contact with the material within said container prior to the outflow of said beverage through said pouring spout.

[Claim 6 not printed in the Gazette.]

1,242,652. AUTOMOBILE-RADIATOR. FRANK MILTON CAPELL, Lockport, N. Y. Filed May 23, 1916. Serial No. 99,262. (Cl. 257—131.)



A radiator of the class described, comprising tubes for a cooling medium, each having longitudinal sinuous ridges

directed inwardly to divide the tube into a plurality of sinuous passages, spaces between the adjacent cooling tubes, said spacers being folded transversely to present U-shaped channels disposed transversely of the sinuous passages in the tubes, the adjacent U channels in the spacers having their bottoms on opposite sides, and baffles in said channels stamped out from the bottom thereof whereby openings are formed in the bottom of the channels, substantially as and for the purpose set forth.

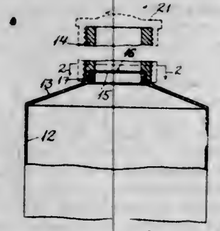
1,242,653. WINDOW-SHADE BRACKET. LOUIS N. CHADIS, New York, N. Y. Filed Oct. 18, 1916. Serial No. 126,382. (Cl. 156—24.)



2. A curtain shade bracket comprising an angle plate having a socket on one side for a curtain roller pintle and adapted to bear against the inner side of the retaining strip of a window sash, a spring member formed of a ribbon of resilient metal folded back and forth upon itself and secured at one end to said plate, said spring adapted to be seated within the run-way of a window sash and bearing against the parting bead to hold said plate in position, said angle plate and spring member each having a projecting finger to bear respectively against the inner surface of said runway at the top of the window frame.

[Claims 1, 3, and 4 not printed in the Gazette.]

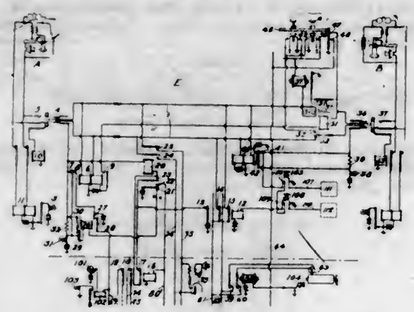
1,242,654. COLLAPSIBLE TUBE. FRANK F. B. CHAPMAN, Winchester, Mass. Filed Feb. 24, 1917. Serial No. 150,684. (Cl. 221—60.)



A collapsible tube having a rigid head including a tubular neck constituting the outlet of the tube, a continuous annular seat surrounding said outlet, a flexible diaphragm having an area exceeding the cross-sectional area of said outlet, and confining means positively securing the marginal portion of the diaphragm to said seat to form a liquid-tight joint surrounding the outlet, and maintaining the diaphragm normally flat, said diaphragm having a vent which is formed by penetrating the diaphragm without removing material therefrom, whereby the vent is closed when the diaphragm is flat, said diaphragm constituting a closure adapted normally to seal the tube against the escape of liquid, and permitting a regulated discharge of liquid only through said vent when collapsing pressure is exerted on the tube.

1,242,655. TELEPHONE-EXCHANGE SYSTEM. HENRY P. CLAUSEN, Mount Vernon, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Feb. 29, 1916. Serial No. 81,201. (Cl. 179—6.)

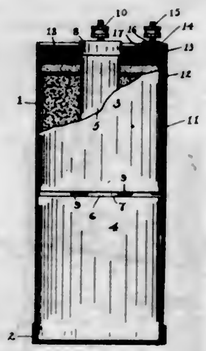
1. In a telephone system, subscribers' lines, link circuits adapted for connection with said subscribers' lines, an operator's telephone set, means for associating said set with said link circuits, a speech reproducing device adapted to request information from the calling subscriber, and means independent of such telephone set associating means and selectively controlled by the operator for associating said speech reproducing device with said link circuits.



6. In a telephone exchange system, subscribers' lines, link circuits for interconnecting said lines, an operator's telephone set, automatic switching means adapted to include said operator's set with a first used link circuit and to exclude said telephone set from a secondly used link circuit, a talking machine; and automatic switching means adapted to exclude said telephone set from the first used link circuit and include said talking machine with said secondly used link circuit, for a predetermined period, and to include said operator's telephone set with the secondly used link circuit to overlap the period during which the talking machine is included with the secondly used link circuit.

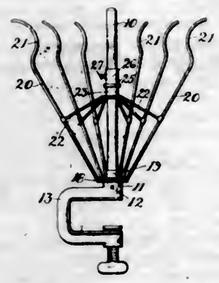
[Claims 2 to 5 and 7 to 9 not printed in the Gazette.]

1,242,656. ELECTRIC BATTERY. WILLIAM R. CLYMER, Lakewood, Ohio, assignor, by mesne assignments, to National Carbon Company, Inc., a Corporation of New York. Filed Apr. 17, 1916. Serial No. 91,538. (Cl. 204—52.)



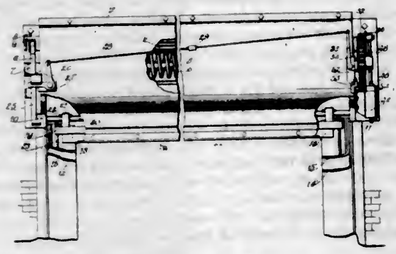
In an electric battery, a jacket, a plurality of superposed dry cells therein, a flexible connection between the cells, a conductor attached to the container electrode of the bottom cell and extending up the side of the container electrode of the top cell, an insulating member between the conductor and the container electrode of the top cell, and a binding post and projecting member attached to said conductor, said projecting member being embedded in the seal of the top cell.

1,242,657. YARN-HOLDING REEL. LIZZIE S. COBURN, Everett, Mass. Filed Feb. 16, 1917. Serial No. 149,053. (Cl. 242—111.)



In a yarn supporting reel, in combination, a plurality of radially adjustable ribs having inwardly and upwardly curved free end portions, means for rotatably supporting said ribs, including a runner formed in sections, the meeting ends of the runner-sections being arranged to allow one section to turn independently of the other section, the other section being provided with retaining means as against a turning movement and means for adjusting said curved end portions to support the skeins of yarn.

1,242,658. FIRE-SHUTTER. THOMAS E. COLLINS, Chicago, Ill. Filed June 28, 1916. Serial No. 106,310. (Cl. 189—58.)



1. In combination a flexible curtain, a drum for said curtain, means for lowering said curtain, a gear connected to said drum, a pivoted arm, a pinion having a bearing on said arm, said pinion being adapted to mesh with said gear but being normally out of mesh therewith, a fluid dash-pot connected to said pinion to oppose rotation thereof, and automatic thermally controlled means for moving said arm to cause the pinion to mesh with said gear, and latching means for holding said arm in position to maintain said gear and said pinion in mesh.

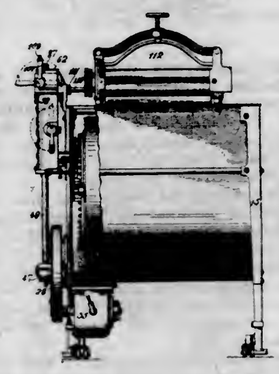
2. In combination, a casing having a roller therein and a shutter wound on said roller, a weight to move the shutter, a restraining arm for the weight, a gear operable with said roller, a lever pivoted adjacent said gear and carrying a pinion, a fluid brake connected with the pinion, fusible means to restrain said arm and lever, destruction of said fusible means permitting the weight to actuate the shutter and allowing said lever to move said pinion into mesh with the gear to connect the brake and retard movement of the shutter.

3. In combination, a drum having a flexible shutter wound thereupon, a weight to cause descent of said curtain, a gear on said drum, a reciprocating fluid brake having a crank and connecting rod, a pinion associated therewith, a lever carrying said pinion, a restraining arm for said lever to maintain said pinion out of engagement with said gear, means to suspend said weight, and fusible means extending between said weight suspending means and said lever, whereby upon destruction of the fusible means said lever and said weight suspending means will be simultaneously actuated.

4. In combination, a casing, a roller mounted therein and a flexible shutter wound on said roller, and a weight to lower the shutter, a restraining arm for the weight, a gear operable with said roller, a lever pivoted on said casing and carrying a pinion, retarding means connected to the pinion, means to support said lever, and a fusible means extending between the weight arm and last said means.

5. In combination, a casing having a roller therein, and a curtain wound on said roller, a weight to lower the curtain, means to restrain the weight composed of an arm, a gear connected to the drum, a retarding device on the casing, an arm pivoted on the casing and having a pinion thereon operatively connected with the retarding device, fusible means extending between the weight restraining means and said pivoted arm whereby when said fusible means is destroyed the curtain is permitted to lower and the pivoted arm dropped bringing said pinion into engagement with the gear to retard the downward movement of the curtain.

1,242,659. REVERSIBLE DRIVING MECHANISM FOR CLOTHES-WRINGERS. HENRY WARD DARROW, Winamac, Ind., assignor, by mesne assignments, to Frits Muser, New York, N. Y. Original application filed Dec. 7, 1908, Serial No. 466,337. Divided and this application filed Sept. 8, 1916. Serial No. 119,029. (Cl. 74—59.)



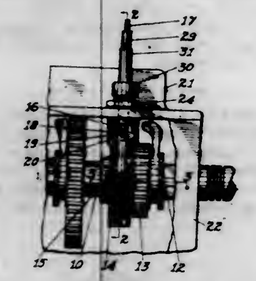
1. The combination comprising a frame, a pair of rollers, rotatably mounted in the frame, intermeshing gears mounted on their axes to convergently rotate the rollers, a driving shaft, gears mounted thereon, an intermediate shaft, operatively connected with the gears mounted on the axes of the rollers, a gear on the intermediate shaft meshing with the gears on the driving shaft, and manually operatable means, controlling the operative connection of the gear on the driving shaft with the gear on the intermediate shaft; substantially as herein shown and described.

3. The combination comprising a frame, a pair of rollers, rotatably mounted in the frame, intermeshing gears, fixed on their axes, for convergently rotating the rollers, a motor, a driving shaft operatively connected therewith; two bevel gears loosely mounted on the driving shaft; a collar slidable on the driving shaft between the bevel gears and rotating with the shaft coupling means on each end of the collar, and on the gears; manually operatable means for shifting the collar in engagement with one of the gears; an intermediate shaft, a gear fixed thereto meshing with the gears on the driving shaft, and means operatively connecting the intermediate shaft with the gears fixed on the axes of the rollers; substantially as herein shown and described.

6. The combination comprising a frame, a pair of rollers, rotatably mounted in the frame, gears, fixed to the axes of the rollers; a motor, and a driving shaft operatively connected therewith; gears mounted on the driving shaft; an intermediate shaft, operatively connected with the gears fixed on the axes of the rollers; a gear on the intermediate shaft, meshing with the gears on the driving shaft, and manually operatable means controlling the operative connection of the gears on the driving shaft with the gear on the intermediate shaft; substantially as herein shown and described.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,242,660. SPEEDOMETER DRIVING MECHANISM. HORACE E. DODGE, Grosse Pointe, Mich., assignor to Dodge Brothers, Detroit, Mich., a Corporation of Michigan. Filed June 20, 1916. Serial No. 104,705. (Cl. 74—36.)



1. In a motor vehicle, the combination with the transmission mechanism of said vehicle, comprising driving and driven members, and a lubricant containing casing inclosing said mechanism, of a speedometer shaft rising from the upper side of said casing, and means depending within said casing from said side for connecting said shaft to said transmission mechanism.

2. In a motor vehicle, the combination with the transmission mechanism of said vehicle, comprising driving and driven members and a lubricant containing casing inclosing said mechanism, of a speedometer driving shaft, and means, comprising a pinion engaging a side of one of said members, for connecting said shaft to said mechanism, a pinion shaft and bearings therefor, said pinion, pinion shaft and bearings being wholly carried by one side of said casing.

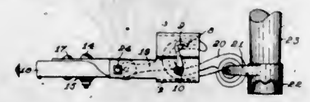
5. In a motor vehicle, in combination with the transmission mechanism of said vehicle comprising driven and driving clutch members, a speedometer driving-shaft, and means for operatively connecting said shaft to the driven clutch member.

9. In a transmission mechanism, alined driving and driven shafts, an internally toothed gear acting as a clutch member and mounted on said driven shaft and provided with helical teeth on its periphery, a coöperating clutch member connected to said driving shaft, a second gear provided with helical teeth and engaged with the helical teeth of said first mentioned gear, and a shaft on which said second gear is mounted, said shaft being adapted to drive a speed indicating device.

13. In a transmission mechanism, a case, alined driving and driven shafts in said case, an internally toothed gear mounted on said driven shaft and forming one member of a clutch for connecting said driving and driven shafts, said internal gear having external helical teeth formed on the periphery thereof, a pinion provided with helical teeth meshed with the external teeth of said gear, a shaft carrying said pinion, said pinion shaft being provided at one end with means for connecting it to the shaft of a speed indicating device, a bearing supporting said pinion shaft, a removable cover on said case, said cover having an opening through which said pinion shaft passes, and means for retaining said bearing in a fixed position relative to said cover, said pinion, pinion shaft and bearing being so arranged as to be removable from said transmission case as a unit with said cover.

[Claims 2, 4, 6 to 8, 10 to 12, 14, and 15 not printed in the Gazette.]

1,242,661. LOCKING MEANS FOR TUG CONNECTIONS. CLARK E. DOWNING, Waterloo, Iowa. Filed Jan. 25, 1917. Serial No. 144,425. (Cl. 54—53.)



1. Locking-means for a tug-connection, comprising the combination with a tug, a cockeye and a swingletree hook, of a boxing swingingly connected to the tug in line therewith, enclosing said cockeye and hook all around to prevent their separation from each other when interlinked.

2. Locking-means for a tug-connection, comprising the combination with a tug, a cockeye and a swingletree hook, of a boxing having sections separably mounted about said cockeye and hook when interlinked, the sections having arms pivoted to opposite edges of the tug end.

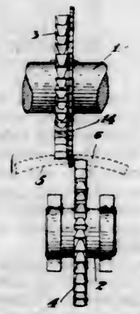
3. Locking-means for a tug-connection, comprising the combination with a tug cockeye and a swingletree hook, of a boxing having sections hinged together and mounted about said cockeye and hook when interlinked to limit swinging of the hook in one direction relative to the cockeye, and means for disconnectibly securing the parts of said boxing together.

4. Locking-means for a tug-connection, comprising the combination with a tug cockeye and a swingletree hook, of a boxing having opposite open ends and consisting of sections hinged together and mounted to enclose said cockeye and hook when interlinked, the inner walls of said boxing acting to limit movements of the hook relative to the cockeye to prevent its disengagement therefrom.

5. Locking-means for a tug-connection, comprising the combination with a tug, a cockeye swiveled thereon, and a swingletree having a hook adapted to be detachably interlinked with said cockeye, of a sectional open-ended boxing composed of parts hinged together and adapted to enclose said cockeye and hook when interlinked, and means for fastening the parts of said boxing together separably, said boxing being pivotally connected to said tug.

[Claim 6 not printed in the Gazette.]

1,242,662. APPARATUS FOR PRODUCING LAPPED JOINTS FOR PISTON-RINGS. MILLARD L. DUNHAM, New York, N. Y. Filed Oct. 26, 1916. Serial No. 127,778. (Cl. 90—11.)

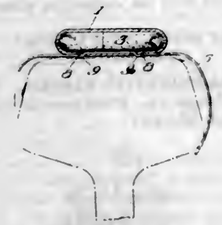


1. An apparatus for producing lap joints in piston rings, the same comprising a pair of cutters mounted to form recesses at opposite sides of a ring, and an intermediate cutter arranged to sever the ring by removal of excess material between the portions thereof in which recesses are formed.

2. An apparatus for producing lap joints in piston rings, the same comprising a pair of cutters, respectively, having concave and convex teeth, to form recesses with curved engaging surfaces at opposite sides of a ring.

3. An apparatus for producing lap joints in piston rings, the same comprising a pair of cutters, respectively having concave and convex teeth, to form recesses with curved surfaces at opposite sides of a ring, and an intermediate cutter arranged to sever the ring by removal of excess material between the portions thereof in which recesses are formed.

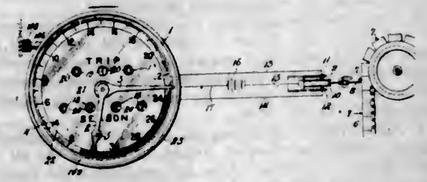
1,242,663. FIBER RAILWAY SIGNAL-TORPEDO. FRANK DUTCHER, Versailles, Pa., assignor to Central Railway Signal Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Apr. 4, 1916. Serial No. 88,766. (Cl. 246—20.)



1. The method of making a fiber torpedo consisting in providing a collapsible fiber tube having perforations, arranging the said perforations whereby they will register when the tube is collapsed, collapsing the tube, passing a rail engaging member through the registering perforations, restoring the collapsed case to tube form, and inserting an explosive containing case within the tube.

2. The method of making a fiber torpedo consisting in providing a collapsible fiber tube having perforations spaced apart, arranging the said perforations whereby they will register when the tube is collapsed, collapsing the tube, passing a rail engaging member through the registering perforations, restoring the collapsed case to tube form, and inserting an explosive containing case within the tube thereby situating an intermediate portion of the rail engaging member between the explosive containing case and the tube.

1,242,664. REGISTER AND INDICATOR FOR AUTOMOBILE GASOLENE-TANKS. CLEBURNE EBERHART, Jr., Atlanta, Ga. Filed June 14, 1913. Serial No. 773,722. (Cl. 235—91.)



1. An indicator and register provided with a dial, a hand or pointer movable in opposite directions over the dial, means for moving the hand over the dial in a direction to indicate increasing amounts, other means for moving the hand over the dail in the opposite direction to that caused by the first-named means, and registering mechanism responsive solely to the second-named hand-moving means.

2. An indicator and register provided with a dial having indicia thereon in increasing progressive order, a hand or pointer associated with the dial and movable in opposite directions thereover, means for advancing the hand step by step over the dial in a direction to indicate increasing amounts, other means for moving the hand step by step over the dial in the opposite direction to the first-named movement, and registering mechanism responsive solely to said second-named hand-moving means.

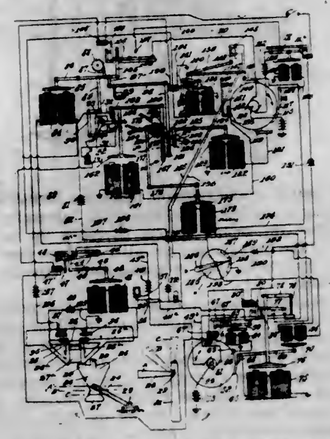
3. An indicator and register provided with a dial, a hand or pointer associated with the dial and movable in opposite directions thereover, means for positively advancing the hand over the dial to indicate increasing amounts, means of like construction to the first-named means for moving the hand in the reverse direction to that first-named, and registering mechanism connected solely to the second-named means for actuation thereby.

4. An indicator and register provided with two registering means, indicating means and actuating means for moving the indicating means in respectively opposite directions, and separate connections between the actuating means for the indicator means and the respective registering means for actuating one or the other of said registering means in accordance with the direction of movement of the indicating means.

5. In a structure for indicating and registering increases and decreases in a condition, means responsive to such increases and decreases of the condition, an indicator movable in opposite directions, means controlled by the first-named means on an increase in the condition to be indicated for moving the indicator in one direction, means controlled by the first-named means on a decrease in the condition to be indicated for moving the indicator in the opposite direction, and a register connected to and actuated by the last-named means.

[Claims 6 to 19 not printed in the Gazette.]

1,242,665. AUTOMATIC TRAIN-CONTROL MECHANISM. WALTER TAYLOR ECROYD, Muncy, Pa. Filed June 15, 1914. Serial No. 845,188. (Cl. 246—59.)



1. An automatic train control mechanism, comprising an adjustable track member, a movable member carried by a locomotive and actuated by the coöperation therewith of said track member, an electric circuit closed by said second member, a throttle valve, means controlled by said circuit operating on said valve to decrease the steam pressure, a second electric circuit and a brake valve, said second circuit being included in said means and operating to actuate said second valve to apply the brakes.

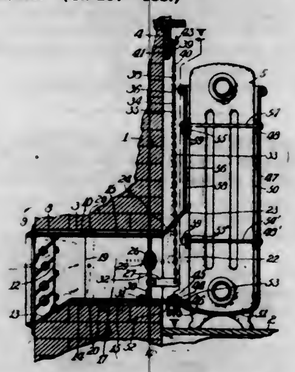
2. An automatic train control mechanism, comprising an adjustable track member, a movable member carried by the locomotive and actuated by the coöperation therewith of said track member, an electric circuit closed by said second member, a throttle valve, means controlled by said circuit operating on said valve to decrease the steam

pressure, a second electric circuit, and a brake valve, said second circuit being included in said means and operating to actuate said second valve to partly apply the brakes, and said circuits being operative when the adjustable track member is in a different position to shut off all of the operating steam pressure and to fully apply the brakes.

3. The combination with electric brake operating means mounted on a locomotive, said means including a circuit with a pair of spaced contacts, of a plunger carrying a circuit closer adapted to engage said contacts but normally out of contact therewith, guards at opposite sides of the plunger, a rocker track member operated by said guards to actuate the plunger, and means to adjust the position of said rocker member.

4. An automatic train control mechanism, comprising an air brake valve having a series of definitely arranged positions including intermediate positions between its extreme positions, and electric means to shift the valve successively forward and backward from one to others of said positions through the entire series, as when said valve is manually operated.

1,242,666. VENTILATOR AND RADIATOR APPLIANCE. RALPH H. EDWARDS, Indianapolis, Ind., assignor to Modern Specialty Company, Indianapolis, Ind., a Corporation of Indiana. Filed Nov. 20, 1916. Serial No. 132,463. (Cl. 257—135.)



1. A ventilator and radiator appliance including a radiator casing front and a casing bottom integrally connected together, the casing bottom having a lip on its end, the end of the lip having a plurality of slots therein to receive securing-bolts, and retaining-bolts connected to the casing front.

2. A ventilator and radiator appliance including an air-duct having an open outlet end, a radiator casing back adapted to rest upon the top of the air-duct at its outlet end, securing-bolts connected to the bottom portion of the air-duct adjacent to its outlet end, and a radiator casing front and a casing bottom integrally connected together, the casing bottom having a lip on its end adapted to be detachably connected with the securing-bolts to the bottom portion of the outlet end of the air-duct.

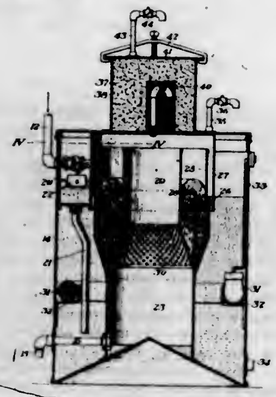
3. A ventilator and radiator appliance including an air-duct having an open outlet end, a radiator casing front, a casing bottom connected with the casing front and extending to the under side of the bottom portion of the air-duct adjacent to its outlet end, the end of the casing bottom having a plurality of slots therein, a clamp bar arranged upon the bottom portion of the air-duct adjacent to its outlet end and having a plurality of securing-bolts thereon that extend through the bottom portion of the air-duct and through said slots, and wing-nuts on said securing-bolts respectively.

5. A ventilator and radiator appliance including a wall-box having a bottom provided with a plurality of securing-bolts adjacent to the inner end thereof, the top of the wall-box having an aperture therein, a damper movably mounted in the wall-box, a controlling device connected with the damper and extending through said aperture, and a radiator casing comprising a front plate provided with retaining-bolts, and a casing bottom integrally connected to the lower portion of the front plate, the casing bottom being adapted to be connected to the under side of the wall-box bottom and secured thereto by the securing-bolts thereof.

6. A ventilator and radiator appliance comprising an air-duct, a damper pivotally supported in the air-duct, a controlling-arm fixed to the damper, a radiator casing bottom secured to the bottom of the air-duct, a radiator casing front connected to the casing bottom, retaining-bolts connected to the casing front, a chain connected to the controlling-arm and extending through the top of the air-duct, an indicator plate connected to the chain and having an indicating sign thereon, a short chain connected to the indicator plate, a second indicator plate connected to the short chain and having a supporting eye thereon, and a supported hook for supporting either the eye or the short chain.

[Claim 4 not printed in the Gazette.]

1,242,667. OIL-PURIFYING SYSTEM. WILLIAM S. ELLIOTT, Pittsburgh, Pa. Filed June 20, 1914. Serial No. 846,332. (Cl. 87—12.)



1. Apparatus for purifying oil, comprising a receptacle having a purifying chamber, means in said chamber for separating water from the oil, and means communicating with said chamber for absorbing water vapors, substantially as described.

2. Apparatus for purifying oil, comprising a receptacle for the impure oil, means for heating the impure oil to drive off the contained water, and capillary filtering means for the heated oil, substantially as described.

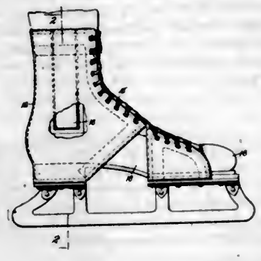
3. Apparatus for purifying oil, comprising a receptacle for the impure oil, means for heating the impure oil to drive off the contained water, and capillary filtering means for the heated oil, together with means communicating with said receptacle for absorbing water vapors, substantially as described.

4. Apparatus for purifying oil, comprising a receptacle having a purifying chamber, means for heating the oil in said chamber, a capillary filter for conducting the heated oil out of said chamber, and means communicating with said chamber for absorbing water vapors, substantially as described.

5. Apparatus for purifying oil, comprising a receptacle having a purifying chamber, means for heating the oil in said chamber, a capillary filter for conducting the heated oil out of said chamber, and means communicating with said chamber for absorbing water vapors, said chamber having an air inlet extending through said water-absorbing means, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

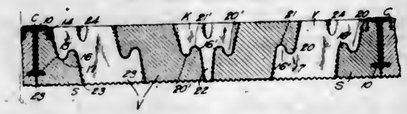
1,242,668. SKATE-FASTENING OVERSHOE. BARNETT EPSTEIN, New York, N. Y. Filed Mar. 14, 1917. Serial No. 154,706. (Cl. 46—53.)



1. An overshoe as characterized comprising a plurality of rigid, correlated separate pads; flexible shoe structures permanently and rigidly connected one with each of said pads, said structures having each a full front opening; and means for drawing the edges of said openings into service relation, said means embodying a single member operatively engaging the edges of all of said structures to form a unit fastening therefor.

2. An overshoe as characterized comprising a plurality of rigid correlated separate pads; a skate runner rigidly connecting said pads; flexible shoe structures permanently connected with each of said pads, said structures having each a full front opening; a plurality of relatively stiff brace members mounted in said shoe structures for holding the ankle of the wearer of the shoe; and means for lacing said shoe structures to close the front openings, said means embodying a single member operatively engaging the edges of all of said shoe structures to form a unit fastening therefor.

1,242,669. SELF-SUSTAINING FLOOR-ARCH. CHARLES R. ERKENS, New York, N. Y. Filed Sept. 23, 1915. Serial No. 52,175. (Cl. 72—65.)

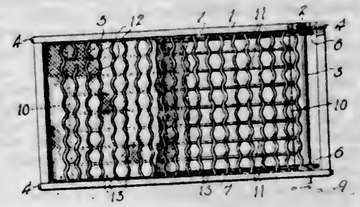


1. The herein described block for self-supporting arches, the same comprising a body having on one side a face having a plurality of flat surfaces meeting at an angle extending inwardly toward the center of the block, said face having a horizontally extended tongue formed of a vertical projection with a corresponding recess or seat parallel thereto.

2. The herein described block for a self-supporting arch, said block comprising a body having opposite lateral faces, each face being inclined to the top face of the block and comprising a plurality of flat surfaces forming a reentrant obtuse angle and said each face also having a horizontally extended tongue formed of a vertical projection with a corresponding recess or seat parallel thereto and adapted to interlock with corresponding features of the next adjacent block in the arch.

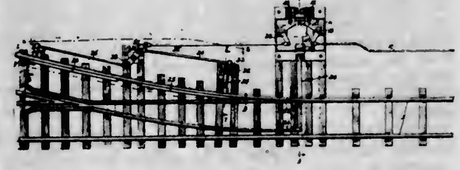
3. The herein described block for a self-supporting arch or the like, said block comprising a body having vertical flat ends and inclined lateral faces, each face comprising two pairs of angularly disposed surfaces forming parallel angles at the upper and lower portions of the block, there being provided a horizontal longitudinal tongue and an adjacent parallel seat arranged between said pairs of faces and serving to interlock with corresponding features of adjacent blocks in the arch.

1,242,670. ROTARY EGG-SUPPORT FOR INCUBATORS. OSCAR ERNST, Schuyler, Nebr. Filed Feb. 28, 1916. Serial No. 79,896. (Cl. 119—44.)



The herein described rotary egg support for incubators, including a frame, corresponding transverse rollers journaled upon the frame at opposite ends thereof, corresponding sprocket wheels applied to the ends of the rollers, endless chains passing around the sprocket wheels, a fabric apron having the edges thereof secured to the chains and passing around the rollers so as to be stretched between the same, transverse rods extending between the sides of the main frame at points adjacent the upper reach of the apron, a series of spaced longitudinal wires connecting the transverse rods and providing a support for the upper reach of the endless apron, a crank handle applied to one of the rollers for moving the apron, a removable frame fitted within the main frame above the endless apron, and a series of transverse wires carried by the removable frame and extending across the apron for engagement with rows of eggs thereon to prevent the eggs from traveling with the apron when the latter is moved.

1,242,671. RAILWAY-SWITCH. BERNARD FAYMONVILLE, Jr., Bridgeport, Conn., assignor of twenty-four one-hundredths to Francis Gerald Lee and twenty-five one-hundredths to Theodore Bertrand Fordham, Bridgeport, Conn. Filed Mar. 28, 1917. Serial No. 157,947. (Cl. 104—77.)



1. In a device of the character described, the combination with a switch, of a rod connected to the switch for shifting the same, a sliding block connected with said rod, a spring acting on said sliding block for holding the same and said rod in such a position as to maintain the switch closed, a pivotally mounted locking member engaging said block and locking the same against movement in one direction whereby said switch is locked closed, cams arranged on said locking member, and means for moving said block formed so as to engage said cams and operate the same for disengaging said lock immediately previous to the movement of the block.

3. In a device of the character described, the combination with a switch, of an operating rod connected to said switch for opening and closing the same, a spring acting to operate said rod for closing the switch, a sliding block connected with said rod formed with a slot, said block having a projection, a pivotally mounted locking member engaging said projection and normally preventing a sliding movement of the sliding block, said lock being provided with a pair of curved cam members, a bell-crank lever on each side of said block having one end extending into the slot in the block, and means automatically actuated by trains passing over the switch for moving said

bell-crank levers whereby the first movement will cause the bell-crank levers to pass to the bottom of said slot and simultaneously engage said cams for disengaging said lock from said projection and finally move the block so that the switch will be shifted to an open position.

6. In a device of the character described, the combination of a switch, of a rod for shifting said switch, a block connected with said rod, a spring acting on said block and rod to normally hold the switch in a closed position, a pivotally mounted member having cams engaging said block for normally holding the same closed, and levers actuated by a locomotive engaging said cams for unlocking the block and substantially simultaneously shifting the block and switch connected therewith.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,242,672. TELEPHONE EQUIPMENT. CHARLES A. FINLEY, Brooklyn, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed May 20, 1916. Serial No. 98,781. (Cl. 179—156.)



1. In a helmet having a recess therein, a transmitter unit, and supporting means for said unit having resilient feet adapted to engage the walls of said recess to removably secure said unit within said helmet.

2. In a telephone equipment, a helmet, a transmitter having movable parts arranged at one side thereof, means to mount said transmitter within said helmet, the movable parts thereof positioned toward and spaced from the internal surface of said helmet whereby said surface reflects sound waves against such movable parts.

3. In a telephone equipment, a helmet, a transmitter unit having movable parts arranged at one side thereof, and means engaging said helmet to support said unit adjacent the mouth of a wearer of the helmet and with the movable parts of said unit on the opposite side thereof from the mouth of the wearer; said supporting means and unit coöperating to prevent sound waves due to the respiration of the wearer affecting the movable parts of said unit.

5. In a helmet, a vent chamber therefor, a support of resilient material adapted to be sprung into said vent chamber to engage the walls thereof, and a transmitter unit removably secured to said helmet by said supporting means.

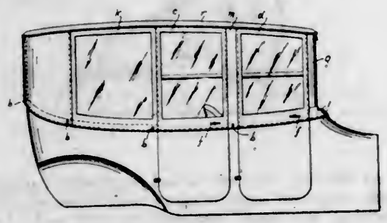
6. In a helmet having a recess therein, a transmitter unit having movable parts arranged at one side thereof, and supporting means having feet directed toward said recess and supporting the movable parts of said unit toward said recess whereby space is provided between the legs of said supporting means to admit sound waves to said recess, said recess serving to reflect such waves against the movable parts of said unit to actuate the latter.

[Claims 4 and 7 to 9 not printed in the Gazette.]

1,242,673. CONVERTIBLE VEHICLE-BODY CONSTRUCTION. FRED J. FISHER, Detroit, Mich., assignor to Fisher Body Corporation, a Corporation of New York. Filed July 21, 1915. Serial No. 41,036. (Cl. 21—62.)

1. In a convertible vehicle body, the combination of an open body portion, a top portion made up of a plurality of sections which form the front, sides and back, a roof section, and fastening devices for locking the first-mentioned sections to the roof section, each comprising angle plates and screws obliquely driven through the angle plates to draw said sections and the roof section together.

3. In a convertible vehicle body, the combination of an open body portion provided with a trim rail having its upper portion reduced in thickness and provided with horizontal screw sockets, a top portion having the lower rail of reduced thickness at its bottom to fit over the reduced top of the trim rail thereby to bring the vertical walls of the top and bottom portion in substantially the same plane, and screws for driving through the reduced portion of the bottom rail of the top into the screw sockets of the said trim rail.

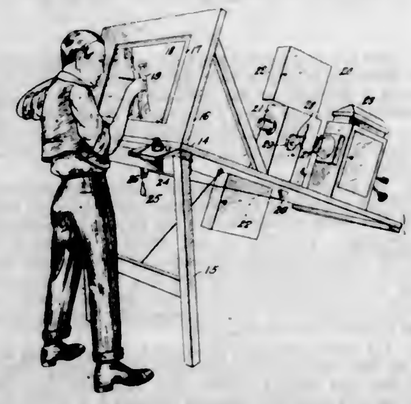


4. In a convertible vehicle body, the combination of an open body portion, a top portion having a front section securable to the cowl of the open body portion and located somewhat to the rear of the rear of the cowl, said front section being provided with a skirt adapted to extend over the space between the front section and the cowl and over the outside of the cowl to act as a water-shed and a joint concealer.

6. In a convertible vehicle body, the combination of an open body portion, a top portion having a front section, special bolts having strip-like heads adapted to be screwed to the front of said front section and provided with shank-like depending portions projecting angularly forward and having screw-like lower ends, said shank-like portions adapted to extend through openings in the frame of the open body portion and secured thereto by nuts, and whereby the front section may be located to the rear of the frame of the open body portion, and a skirt adapted to extend over said special bolts and a portion of the cowl to act as a water-shed and conceal the bolts.

[Claims 2 and 5 not printed in the Gazette.]

1,242,674. METHOD OF PRODUCING MOVING-PICTURE CARTOONS. MAX FLEISCHER, Brooklyn, N. Y. Filed Dec. 6, 1915. Serial No. 65,292. (Cl. 88—16.)



1. A method of making cinematographic cartoons, consisting of photographing successive poses of a movable object having a stationary background, projecting the photographs successively upon one side of each of a plurality of successively arranged translucent sheets to position the

successive poses of the movable object with respect to the fixed background, and arbitrarily drawing cartoons on the other sides of said sheets in the successive positions of the several poses of the movable object so projected.

2. In a method of producing moving picture cartoons, photographically producing a series of pictures of a moving object in different poses, projecting the said pictures in succession on successive sheets to successively locate the object on the sheets in the successive positions represented in the photographs, and drawing a series of cartoons successively on said sheets by arbitrarily selecting and tracing dominating lines presented by the projected pictures.

3. In a method of producing moving picture cartoons, photographically producing a series of pictures of a moving object in different poses, projecting the said pictures in succession on successive sheets to successively locate the object on the sheets in the successive positions represented in the photographs, drawing a series of cartoons successively on said sheets by arbitrarily selecting and tracing dominating lines presented by the projected pictures, photographically reproducing the said cartoons on a medium adapted for projecting the cartoons, and then projecting the reproduced cartoons in the same succession as the corresponding pictures in the first-mentioned series.

4. In a method of producing moving picture cartoons, photographically producing a series of pictures of a scene involving a moving object to be depicted in the cartoons, projecting said photographically produced pictures in succession upon each of a plurality of sheets to position the movable object on the sheets successively to correspond with the positions of the object in the said series of pictures, then manually producing a series of cartoons corresponding with the successively projected pictures by arbitrarily selecting and drawing on the said paper, particular lines of the positioned object as represented and positioned by the projected pictures on said sheets.

5. In a method of producing moving picture cartoons, photographically producing in succession a series of pictures of a scene involving a moving object, and a relatively fixed background, projecting said photographically produced pictures in succession upon each of a plurality of sheets to position on the respective sheets the different relative positions of the movable object, and the positions of the object relatively to the said background, and then manually producing a series of cartoons by arbitrarily selecting and drawing on the said sheets particular dominant lines presented on the respective sheets by the projected photographs.

[Claim 6 not printed in the Gazette.]

1,242,675. ROOFING-NAIL. SILAS M. FORD, St. Paul, Minn. Filed May 24, 1916. Serial No. 99,683. (Cl. 108—7.)

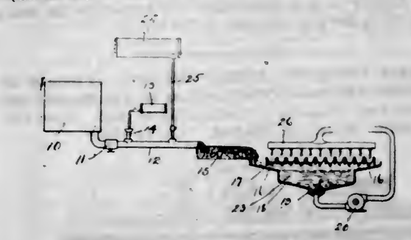


2. As an article of manufacture, a link nail having a forcing ring at one end thereof, a comparatively large open ended ring extending from said forcing ring, an upstanding arch spaced from said open ended ring, and a return bend terminating the other end of said link in a driving stem at right angles to the plane of said rings, said stem being adapted to fit said crowding ring of a similar nail, for the purposes specified.

3. As an article of manufacture, a link nail having a driving stem, the lower portion of which is of a substantially crescent section and unsymmetrical with respect to the center line of said driving stem, a link projecting from said driving stem of a similar nail, and to maintain the torsion set up in the driving stem when it is driven in a roof.

[Claim 1 not printed in the Gazette.]

1,242,676. COMMERCIAL PROCESS FOR RECLAIMING THE DYE CONTENT OF WASTE LIQUORS. THOMAS FORSYTH, New Haven, Conn., assignor to The Forsyth Dyeing Co., New Haven, Conn., a Corporation of Connecticut. Filed Dec. 1, 1916. Serial No. 134,272. (Cl. 8—5.)



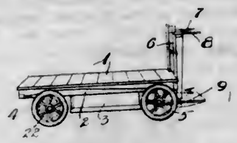
1. An improved process of reclaiming the dye contents of waste dye liquors comprising drawing off the waste liquors from the dyeing receptacle, incorporating a neutralizing agent into the liquor as it flows from said receptacle, then agitating the liquor while flowing to thoroughly incorporate said neutralizing agent, and finally filtering said liquor.

2. An improved process of reclaiming the dye contents of waste dye liquors comprising drawing off the waste liquors from the dyeing receptacle, incorporating a neutralizing agent into the liquor as it flows from said receptacle, impeding the flow of the liquor at a plurality of irregularly disposed points to agitate the liquor while flowing, whereby thorough incorporation of said neutralizing agent is effected, and finally filtering said liquor.

3. An improved process of reclaiming the dye contents of waste dye liquors consisting in incorporating a neutralizing agent into the liquor, effecting a preliminary separation of the precipitated sludge from the liquor, and finally filtering the sludge by gravity and subjecting the same to evaporation by atmospheric action while being filtered.

4. An improved process of reclaiming the dye contents of waste dye liquors comprising drawing off the waste liquors from the dyeing receptacle, incorporating a neutralizing agent into said liquor, then agitating the liquor to thoroughly incorporate said neutralizing agent, and finally separating the precipitated sludge from the liquor.

1,242,677. BAGGAGE-TRUCK. ALBERT H. GFRÖRER, West New Brighton, N. Y., assignor to C. W. Hunt Company, Inc., West New Brighton, N. Y., a Corporation of New York. Filed Sept. 29, 1914. Serial No. 864,107. (Cl. 21—90.)

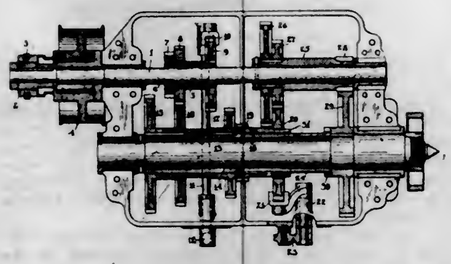


1. In a motor truck, the combination with the main truck frame of a rigid bracket secured thereto, said bracket comprising an axle support rigid therewith and a driving shaft support rigid therewith, whereby the wheel mounted on said axle will remain in constant position relative to said driving axle and to the truck frame.

2. In a motor truck, the combination with a main truck frame, a running gear bracket rigidly secured thereto, said bracket having an axle support rigid therewith and a journal for the driving shaft rigid therewith, a running wheel, an internally toothed gear wheel mounted on said wheel, a pinion on the end of said shaft meshed therewith, said rigid bracket forming a rigid support to maintain a constant relation or distance between said gear wheel and pinion and truck frame.

3. In a motor truck, the combination with the main truck frame, of a pair of rigid bearing brackets mounted upon opposite sides thereof, each bracket comprising an axle support rigid therewith and a driving shaft support rigid therewith, an adjusting rod connecting said brackets, whereby said brackets may be simultaneously adjusted with respect to each other and with respect to the truck frame to cause true running of the truck.

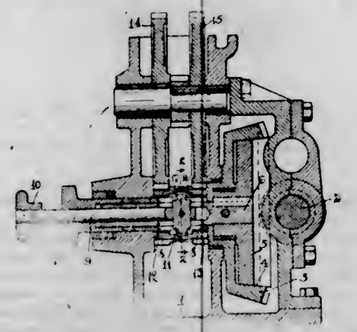
1,242,678. CHANGE-SPEED GEARING. CHARLES D. GIBSON, Cleveland, Ohio, assignor to The Simplex Machine Tool Company, a Corporation of Ohio. Filed Dec. 1, 1916. Serial No. 134,343. (Cl. 74—58.)



1. In a headstock for lathes, a back shaft, a pulley loose on the back shaft, a clutch for engaging the pulley and back shaft, a sleeve keyed to the back shaft but having longitudinal movement thereon, three gears of different diameters on the sleeve, a spindle, a sleeve loose on the spindle, three gears of different diameters on the sleeve on the spindle, a fork engaging one of the gears on the sleeve on the back shaft to reciprocate said sleeve and cause one or another of the gears on said sleeve to engage one or another of the gears on the sleeve on the spindle, a sleeve keyed to but reciprocating on the sleeve on the spindle, two gears and a clutch on the last named sleeve, a fork engaging one of the gears to reciprocate the sleeve, a sleeve loose on the back shaft, two gears on the last named sleeve to engage one or the other of the gears on the sleeve keyed to the sleeve on the spindle, a third gear on the sleeve loose on the back shaft, a gear on the spindle engaging the said third gear, a clutch on the spindle engaging the clutch on the sleeve keyed to the sleeve on the spindle when it is thrown in one direction by its fork.

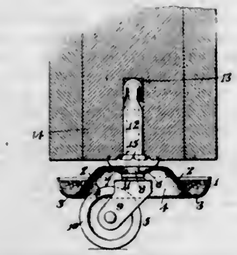
[Claims 2 and 3 not printed in the Gazette.]

1,242,679. LATHE-APRON. CHARLES D. GIBSON, Cleveland, Ohio, assignor to The Simplex Machine Tool Company, a Corporation of Ohio. Filed Dec. 1, 1916. Serial No. 134,344. (Cl. 82—22.)



In a lathe apron, a crown gear for engaging the lead shaft, a friction clutch seat on the tooth side of the gear, a clutch member in the seat, a hollow stem for the clutch member extending through the gear and toward the front of the apron, threads at the end of the stem, a bushing surrounding the stem and resting against the gear, a hollow thumb nut engaging the threads and resting against the bushing, two gears loose on the bushing, a clutch seat on each gear, a rod reciprocable within the stem, a pin carried by the rod and engaging one or the other or neither of the clutch seats as the rod is reciprocated, a gear for causing longitudinal movement of the apron and engaging one of the loose gears, and a gear for causing transverse movement of the tool carriage and engaging the other of the loose gears.

1,242,680. INSECT-TRAP FOR CASTERS. FREDERICK W. GOEDEKE, Evansville, Ind. Filed Nov. 4, 1914. Serial No. 870,283. (Cl. 45—15.)



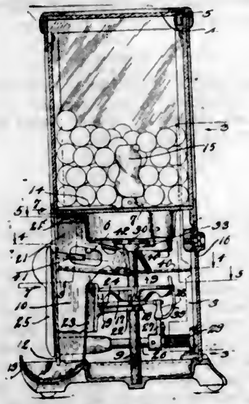
In combination with a socket provided with a spur bead at its lower terminal adapted to engage a furniture leg, a caster consisting of a roller, bracket and stem, the latter being fitted in the socket and having a shoulder formed thereon at the base of the stem above the bracket, and an insect trap formed of a single piece of metal adapted to be mounted entirely below the end of said leg out of the way and consisting of a central downwardly diverging dome-shaped portion arranged to extend over and partially house the bracket and roller of the caster but spaced therefrom, and an outwardly bent liquid-receiving trough surrounding the central dome-shaped portion at the lower part thereof and having its outer wall terminating below the horizontal plane of the top of said dome-shaped portion, said dome-shaped portion being depressed at the center thereof and having an opening through said depressed portion for the passage of the stem of the caster, the said shoulder on the stem engaging the under surface of said depressed portion and closing the said opening, and said spur bead engaging the upper surface of the dome-shaped portion beyond and around said depressed portion for maintaining the trap rigidly in a horizontal plane in spaced relation to the furniture leg, the trap being removable as a unit with the caster and socket and carried by said parts.

1,242,681. VENDING-MACHINE. JOHN K. GOODRICH, Atlanta, Ga., assignor to Robert A. Grant, Atlanta, Ga. Filed May 8, 1916. Serial No. 96,221. (Cl. 194—85.)

1. In a vending machine, the combination of a member to be operated, coin operated means for actuating said member, an openable coin chute for delivering a coin to the coin operated means, and holding means coöperating with the member to be operated including an arm and tension means so connected to the arm as to tend to maintain the holding means in the coöperative position aforesaid whereby the member to be operated is held against accidental displacement and connected also to the chute whereby to hold the latter normally closed.

2. In a vending machine, the combination with coin operated mechanism including an operating member therefor, of a coin chute for controlling the delivery of coins to said mechanism and comprising a movable section operable by the operating member aforesaid, and an engaging

element carried by the movable section for holding an improper coin or token when introduced into the chute from passage therethrough and for displacing said token from the stationary portion of the chute upon actuation of the operating member.



3. In a vending machine, the combination with coin operated mechanism including an operating member therefor, of a coin chute for controlling the delivery of coins to said mechanism and comprising openable sections, one of said sections being operable by the operating member aforesaid, and a frictional gripping element mounted on the last mentioned section for engaging an improper coin or token introduced into the chute and temporarily holding the same until the sections are opened, said gripping element being freely yieldable at one end and movable across the slot when the operable section of the chute is actuated to strip the coin from the slot.

4. In a vending machine, the combination with coin operated mechanism including an operating member therefor, of a coin chute for controlling the delivery of coins to said mechanism, means at one side of the chute for holding a false coin or token and thereby preventing passage of said coin through the chute, and ejecting means extending longitudinally of the chute in juxtaposed relation to the last mentioned means and slightly into the path of the coin introduced thereinto and operable by the operating member to positively displace said coin from the chute.

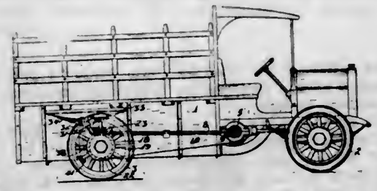
5. In a vending machine, the combination with coin operated mechanism including an operating member, of a sectional coin chute for controlling delivery of coins to the said mechanism including a movable section, friction means on one of said sections to engage and hold a coin, magnetic means adjacent to the chute for holding a false coin therein from passage through said chute, and means connected to the movable section arranged to be impinged by the operating member aforesaid whereby to release said false coin upon operation of the operating member and opening of the chute sections.

[Claims 6 to 10 not printed in the Gazette.]

1,242,682. MOTOR-TRUCK. JOSEPH H. GOODRICH, Turlock, Cal. Filed Jan. 4, 1916. Serial No. 70,130. (Cl. 21—90.)

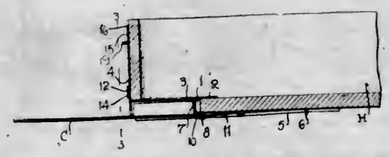
1. In a motor truck, the combination of rear wheels, a differential shaft, a frame at each side of the truck mounted to swing about the axis of the differential shaft, a shaft carried by said frame, an operative connection between the front end of said latter shaft and the differential shaft, an operative connection between the rear end of said latter shaft and the adjacent rear wheel, and rings surrounding the hubs of the rear wheels and forming with the frames oil chambers in which said last-named operative connections are contained.

2. In a motor truck, the combination of rear wheels, a differential shaft, a frame at each side of the truck mounted to swing about the axis of the differential shaft, a shaft carried by said frame, an operative connection between the front end of said latter shaft and the differential shaft, an operative connection between the rear end of said latter shaft and the adjacent rear wheel, rings surrounding the hubs of the rear wheels and forming with the frames oil chambers in which said last-named operative connections are contained, uprights formed integral with the frames, carriage springs supported by said uprights, a truck body supported by said carriage springs, guides extending from the uprights, and guideways secured to the truck body and in which said guides move.



3. In a motor truck, the combination of rear wheels, a differential shaft, a frame at each side of the truck, extending rearwardly from, and mounted to swing about the axis of, the differential shaft, a shaft carried by said frame, an operative connection between the front of said latter shaft and the differential shaft, an operative connection between the rear end of said latter shaft and the adjacent rear wheel, a truck body, a spring for supporting each side of the truck body, and, rigidly related to each frame, a housing for inclosing the last-named operative connection and for supporting said spring.

1,242,683. SEPARATING DEVICE. WILLIAM P. GROSS, Sebewaing, Mich. Filed Mar. 17, 1917. Serial No. 155,529. (Cl. 130—18.)



1. In combination with a hopper provided with a discharge opening, an elongated table having one end portion underlying the discharge opening of the hopper, a flange carried by the table and extending within the discharge opening of the hopper, said flange partially conforming to the contour of said opening, and resilient means carried by the hopper for supporting the table in applied position.

2. In combination with a hopper provided with a discharge opening, a resilient rod anchored at one end to the hopper, and an elongated table having one end portion underlying the discharge opening of the hopper, the underlying end portion of said table being engaged with the free end portion of the rod.

3. In combination with a hopper provided with a discharge opening, a resilient rod carried by the hopper, an elongated table having one end portion underlying the discharge opening of the hopper, said table being detachably engaged with the rod, and means carried by the hopper and engageable with the inner end of the table for holding the table against movement longitudinally of the rod.

4. In combination with a hopper provided with a discharge opening, a resilient rod carried by the hopper, an elongated table having one end portion underlying the discharge opening of the hopper, said table being detachably engaged with the rod, and a latch carried by the hopper and detachably engaged with the inner end of the table for holding the table against movement in one direction longitudinally of the rod.

[Claim 5 not printed in the Gazette.]

1,242,684. BATHING-CAP. VICTOR GUINZBURG, New York, N. Y., assignor to L. B. Kleinert Rubber Company, New York, N. Y., a Corporation of New York. Filed July 17, 1917. Serial No. 180,966. (Cl. 2—106.)



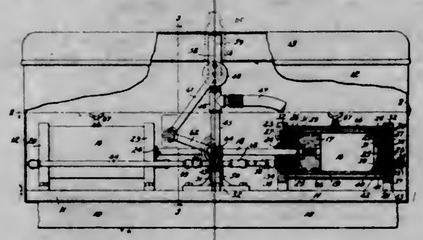
1. An article of the class described, having a body portion and a pair of downwardly depending expansible ear flaps secured thereto.

2. An article of the class described, having a body portion, a pair of downwardly depending expansible ear flaps secured thereto and expansible loops extending downwardly from the body portion and secured to the flaps.

4. An article of the class described having a body portion, a pair of downwardly depending ear flaps secured thereto and expansible loops secured to the body portion within the periphery of its edge, extending downwardly and embracing the ear flaps and secured to the same.

[Claim 3 not printed in the Gazette.]

1,242,685. PUMP. CLARENCE H. GUPTAIL, Elgin, Ill. Filed Feb. 19, 1917. Serial No. 149,576. (Cl. 230—27.)



1. The combination in a pump of two cylinders arranged in axial line, a working piston in each cylinder, and a piston rod connected at its ends to said pistons, a transverse diaphragm crossing each end of each cylinder, inlet and outlet valves mounted in said diaphragms, an outlet pipe from each end of the cylinder connected to a common discharge pipe, and manually operated lever mechanism connected to the piston rod for operating the pump.

2. The combination in a pump of two cylinders arranged in axial line and connected to a common base plate, a working piston in each cylinder, and a piston rod connected at its ends to said pistons for reciprocating the same in said cylinders, a transverse diaphragm crossing each end of each cylinder a short distance within the ends thereof, a piston head screwed on the end of each cylinder and provided with inlet and outlet ports, an inlet and an outlet valve mounted in each of said diaphragms, an outlet pipe leading from the opposite ends of each cylinder and connected to a common delivery pipe, a standard between the cylinders, a rocking lever pivotally mounted on said standard, and a link between one arm of said rocking lever and said piston rod for operating the pistons.

3. The combination in a pump of two cylinders arranged in axial line, each cylinder comprising a straight tubular member having external and internal screw threads on each end, a diaphragm screwed into each end of a cylinder and extending across the same near the respective ends, a cylinder head screwed on the outer end of each cylinder and closing the ends of the same, a piston in each cylinder movable longitudinally between said diaphragms, a piston rod connected at its ends to said pistons, inlet and outlet valves mounted on each of said diaphragms, an outlet pipe upon each end of each cylinder joined by a coupling, and the latter connected to a common delivery pipe, one of said couplings containing a valve to disconnect the cylinder of the same side from said delivery pipe, and rocking means connected to the piston rod for operating the pistons.

1,242,686. RANGE-FINDING ARRANGEMENT. CLARENCE J. HARTER, Hartford, Conn., assignor of one-half to William Webb, Bridgeport, Conn. Filed Feb. 10, 1916. Serial No. 77,420. (Cl. 33—53.)



1. The combination with an ordnance, of a range finder comprising a sight, a peep sight disposed at a predetermined distance from said first named sight, means for varying the extent of opening of said peep sight, eye locating means disposed in a fixed plane relation to the plane of said peep sight, and means coacting with said varying means for controlling the elevation of the ordnance.

2. The combination with an ordnance, of a range finder comprising a sight disposed forwardly of the ordnance, a peep sight disposed at a predetermined distance rearwardly of said first named sight, means for varying the extent of opening of said peep sight, eye locating means disposed in a fixed plane relation to the plane of said peep sight, and means coacting with said varying means for controlling the elevation of the ordnance.

3. The combination with an ordnance, of a range finder comprising a sight, a peep sight disposed a fixed distance from said first named sight, sighting means having an eye locating device in a fixed plane relation to the plane of said peep sight, means for varying the extent of opening of said peep sight, means coacting with said varying means for controlling the elevation of the ordnance, and means supporting said sighting device to effect visual alinement with said first named sight and said peep sight throughout the range of elevation of the ordnance.

4. The combination with an ordnance, of a range finder, comprising a front sight, a rear peep sight, both said sights being in fixed relation to the ordnance, means for varying the extent of vertical opening of said rear sight, eye locating means in fixed vertical relation to the planes of said front sight and said rear peep sight, and means coacting with said varying means for controlling the elevation of the ordnance.

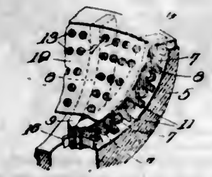
5. The combination with an ordnance, of a range finder, comprising a front sight, a rear peep sight, means for varying the extent of vertical opening of said rear sight, eye locating means in fixed relation to the planes of said front sight and said rear peep sight, and means coacting with said varying means for controlling the elevation of the ordnance.

[Claims 6 to 32 not printed in the Gazette.]

1,242,687. ELECTRIC HEATER. AUGUST HARTH, Chatham, N. J., assignor to National Electric Utilities Corporation, Danbury, Conn., a Corporation of Connecticut. Filed Aug 29, 1916. Serial No. 117,494. (Cl. 219—19.)

1. An electric heater comprising a cup having a heat radiating and electric insulating inner surface, a heat-generating electric resistor of general cup-like formation located in said cup and arranged and exposed over said surface, and a reticulated cup-like wall in said cup and arranged over said resistor so that the heat from the exposed resistor can radiate directly through the openings in said wall to the surface of a percolator or other bowl to be heated depending into said cup-like wall.

11. An electric heater comprising an exterior supporting bowl, an insulating material surface for the concavity of said bowl, an electric resistor of general cup-like form within the concavity of said bowl, and an insulating-material open-frame holding said resistor within said concavity and maintaining the conformation thereof.

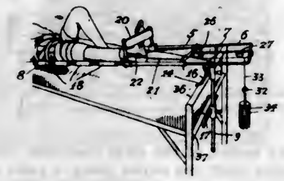


13. An electric heater comprising an insulating body having a concavity to receive the utensil bowl to be heated, heat generating electric resistor plies approximately lining said concavity and exposed over the surface thereof, and a wall conforming to said concavity and spaced from the surface thereof and from said resistor plies and having openings opposite said plies for the direct radiation of heat from said exposed plies to said bowl to be heated.

28. An electric heater comprising a bowl-like body having the surface of its concavity formed of heat radiating and insulating material, an electric heat generating resistor generally conforming to and arranged over the surface of said concavity, and a cup-like wall arranged over and spaced from said resistor and formed with a multiplicity of openings for the direct radiation of heat from the resistor and from said surface into the space within the concavity of said wall or against the surface of a bowl depending in said wall, the heat radiating surfaces of said resistor being exposed between said surface and said wall and behind said openings.

[Claims 2 to 10, 12, and 14 to 27 not printed in the Gazette.]

1,242,688. EXTENSION-SPLINT. GEORGE W. HAWLEY, Bridgeport, Conn., assignor to Kny-Scheerer Corporation, New York, N. Y., a Corporation of New York. Filed June 30, 1916. Serial No. 106,876. (Cl. 128—52.)



1. An extension splint consisting of an extension frame adapted to be rigidly secured to the bed on which a patient lies, a longitudinally movable frame attached to said extension frame, a downwardly turned end rest on the free end of the movable frame, a foot support adjustably mounted on the movable frame, means for securing the foot of a patient in an upright rigid position against said foot support, in combination with an adjustable weight traction suspended from the extension frame by a cord running back on itself twice over pulleys on the extension frame, thence secured to the movable frame so as to cause traction thereto.

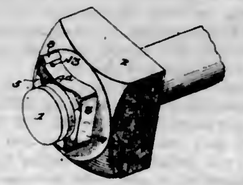
3. An extension splint comprising an extension frame, a movable frame carried by the extension frame, and gravity operable means carried by said frame for moving the movable frame toward the extension frame.

6. An extension splint comprising an extension frame, a movable frame adjustably carried by the extension frame, gravity operable means secured to said frames for moving said movable frame toward the extension frame and means secured to said extension frame for raising or lowering the extension frame.

10. An extension splint comprising an extension frame, a movable frame carried by the extension frame, means secured to said frames for moving the movable frame, a downturned member on the extension frame, a rod loosely secured to the downturned member and means secured to a bed carried by said rod for adjustably supporting the extension frame.

[Claims 2, 4, 5, and 7 to 9 not printed in the Gazette.]

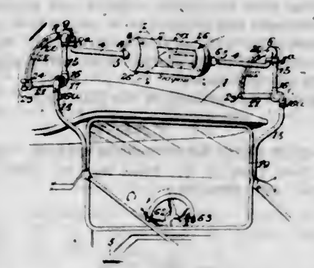
1,242,689. LOCKING-NUT. GEORGE W. HAZEL, Camden, N. J., assignor, by mesne assignments, to Hazel Safety Nut Company, Philadelphia, Pa., a Corporation of Delaware. Filed May 13, 1913. Serial No. 767,351. (Cl. 151—30.)



1. A lock nut comprising a section of sheet metal bent into a hollow shell of substantially polygonal form, said structure having its sides formed with inwardly projecting portions having bolt-engaging surfaces, said surfaces being at substantially equal distances from the geometrical center of the lock nut and a plurality of said portions including the one on a side adjacent one of the ends of the section, formed to have threaded engagement with the bolt, and means for connecting the ends of the section to contract all of the sides of the same and the inwardly projecting portions thereof.

[Claims 2 to 15 not printed in the Gazette.]

1,242,690. SIGNALING DEVICE. WILLIAM EDWARD HEADLEY, Jr., Missoula, Mont. Filed June 1, 1915. Serial No. 31,408. (Cl. 40—52.)



1. In a signal for motor vehicles, and in combination with the signaling means, supporting members hingedly connected, signal operating means passing through the supporting members and the hinge connections thereof, an arc-shaped bar projecting from an element of a hinge joint, an arm extending from an element of another hinge joint, and means for securing the bar and arm to hold the signaling means in the required adjusted position.

2. In a signal for motor vehicles, and in combination with signaling means, a horizontal member carrying the signaling means and having an angular end, a vertical member hinged at one end to the angular end of the horizontal member, a bracket member hinged to the opposite end of the vertical member, signaling operating means passing through the several members and their hinge connections, an arc-shaped bar projecting from the hinge at one end of the vertical member, an arm extending from the hinge at the opposite end of the vertical member, and means adjustably connecting the bar and arm to hold the signaling means in required adjusted position.

3. In combination with an automobile having upwardly extending tubular supporting brackets at the ends of the wind shield and extending above the top, a tubular upright hinged to each bracket, a tubular rod hinged to the upper end of each upright and extending inwardly, a signal casing supported by the rods between the uprights, said uprights being mounted to swing with respect to the brackets to bring the signal casing above the wind shield or behind the same, signal mechanism within the casing, controlling means for the said mechanism passing through the tubular rods, uprights, brackets and hinges, and means in connection with the uprights and the brackets for holding the signal casing in adjusted position, said means comprising arc-shaped slotted bars, each bar having a bearing at its upper end in which the hinge between the adjacent rod and upright is journaled, an arm having a bearing in which the hinge between the upright and the bracket is journaled, said arm having an opening registering with the slot of the bar, and a bolt engaging the opening and the slot, and a nut engaging the bolt.

4. In combination with an automobile having upwardly extending tubular supporting brackets at the ends of the wind shield and extending above the top, a tubular support hinged to each bracket, a tubular rod hinged to the upper end of each upright and extending inwardly, a signal casing supported by the rods between the uprights, said uprights being mounted to swing with respect to the brackets to bring the signal casing above the wind shield or behind the same, signal mechanism within the casing, controlling means for the said mechanism passing through the tubular rods, uprights, brackets and hinges, and means in connection with the uprights and brackets for holding the signal casing in adjusted position.

5. A signaling device for automobiles for indicating the direction of turning and comprising a substantially cylindrical casing having an opening in its front, a signal support mounted to rotate in the casing and having transparent panels adapted to register with the opening, opaque signals in connection with sundry of the panels for indicating the direction of turning, and electrically controlled means for rotating the signals and for illuminating the same, the illuminating means being within the support, and the rotating means comprising a pair of arc-shaped solenoids held within the casing, an arc-shaped core having connection with the signal support and arranged between the solenoids and adapted to be moved into the solenoids alternatively, and an electrical circuit having a source of energy and in which the illuminating means and the solenoids are interposed.

[Claims 6 to 8 not printed in the Gazette.]

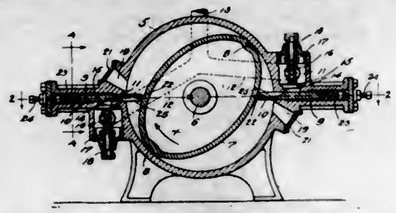
1,242,691. NON-SKID DEVICE FOR TIRES. GUSTAVE L. HERZ, New York, N. Y. Filed Dec. 21, 1915. Serial No. 68,079. (Cl. 152—16.)



1. A non-skid device for tires comprising a strip of fabric having eyelets arranged throughout its length to increase its strength and non-skidding effect and to permit its being cut any length to suit any sized tire and to be fastened in position around the tread of the tire by a suitable fastening means.

2. A non-skid device for tires comprising a strip of fabric having eyelets arranged throughout its length to increase its strength and non-skidding effect and to permit its being cut any length to suit any sized tire and to be fastened in position around the tread of the tire by a lacing cord passing through the eyelets which happen to be adjacent to the meeting ends of the strip.

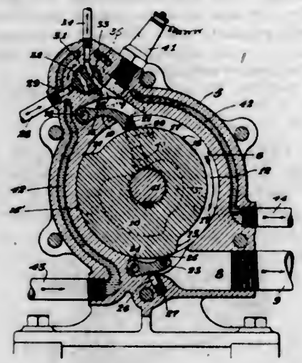
1,242,692. ROTARY AIR-COMPRESSOR. PHILIP D. HIBNER, Seattle, Wash. Filed July 1, 1916. Serial No. 107,058. (Cl. 230—30.)



1. In apparatus of the class described, a cylinder provided with inlet and outlet openings, spring pressed non-return valves provided for said outlet openings, a power-driven shaft extending concentrically through the cylinder bore, an elliptic rotor mounted on said shaft, packing strips provided for the rotor, and radially disposed slides arranged for reciprocatory movement in the cylinder, springs tending to maintain said slides in contact with the periphery of the rotor, said slides being provided with recesses whereby they serve as valves to regulate the delivery of fluid compressed in the cylinder.

[Claims 2 to 4 not printed in the Gazette.]

1,242,693. ROTARY EXPLOSIVE-ENGINE. PHILIP D. HIBNER, Seattle, Wash. Filed July 24, 1916. Serial No. 110,824. (Cl. 123—15.)



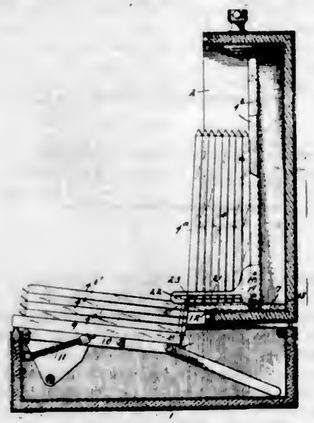
1. A rotary engine of the class described, comprising a cylinder having inlet and outlet ports, a rotor having peripheral surfaces of different radii mounted concentrically within said cylinder, a valve, means to actuate said valve for successively controlling the supply of an explosive mixture and air under pressure to the cylinder, and gas ignition devices having a sparking plug disposed between said valve and the cylinder.

2. A rotary engine of the class described having a casing provided with a cylindrical bore and a communicating explosion chamber, a rotor having peripheral portions of different radii concentric to the rotor axis, an abutment movable radially of and coöperating with the rotor to direct the force due to the combustion of gases in said chamber in one circular direction only with respect to the rotor, means to ignite the explosive charges admitted to said chamber, and a valve for controlling the supply of the explosive mixture to the chamber, said valve also serving to admit air through the chamber into the cylinder bore for expelling the burnt gases therefrom.

3. A rotary engine of the class described, comprising a cylinder having spaced inlet and outlet ports, a rotor rotatably mounted in said cylinder, abutments disposed in proximity to the respective ports and movable toward and away from the rotor by the rotation of the latter; a valve located between said inlet port and the adjacent of said abutments and provided with a duct extending therethrough for the admission of fuel supplied to the engine cylinder, and means for actuating said valve independently of both of the abutments whereby said duct is brought for a predetermined time into register with said inlet port.

4. A rotary engine of the class described having a cylinder with a communicating explosion chamber having individual inlet connections for the explosive mixture and the air, a rotor rotatably mounted therein, said rotor being provided in its circumference with two spaced shoulders to afford intermediate thereof peripheral portions respectively disposed at different radial distances from the axis of the rotor, a rotatable valve provided with two passages extending therethrough, means to periodically actuate said valve to successively establish communication through the respective passages between the cylinder and the aforesaid inlet connection, an abutment operable in said explosion chamber and movable toward and from said axis, a stationary stop to limit the inward movement of said abutment, and means to ignite charges of an explosive mixture admitted into said chamber at one side of the abutment after the latter is seated on the stop.

1,242,694. FILING APPLIANCE. HARRY J. HICK, Alliance, Ohio, assignor to The McCaskey Register Company, (incorporated in 1914,) Alliance, Ohio, a Corporation of Ohio. Filed Aug. 4, 1914. Serial No. 854,975. (Cl. 45—2.)



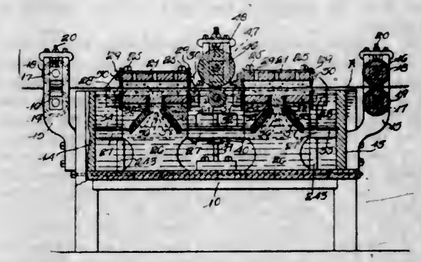
1. A filing appliance including a plurality of normally upright holders having their lower ends hinged together, a pivotal support for the hinged end of one end holder, and a controlling carriage in operative engagement with the pivoted end holder and in guiding engagement with the other end holder.

2. A filing appliance including a plurality of normally upright holders having their lower ends hinged together, a pivotal support for the hinged end of one end holder, and a controlling carriage for the other end holder movable to and from the pivotal support and having upright ways in which said last named holder is movable upward and downward and horizontal ways in sliding engagement with a relatively fixed pivot pin adjacent the hinged end of the pivoted holder.

3. A filing appliance including a plurality of normally upright holders having their lower ends hinged together, a pivotal support for the hinged end of one end holder, and a controlling carriage in operative engagement with the pivoted end holder and having upright guide-ways for the other end holder.

4. A filing appliance including a plurality of normally upright holders having their lower ends hinged together, a pivotal support for the hinged end of the foremost holder, and a controlling carriage having sliding engagement with the foremost holder and guiding engagement with the rearmost holder.

1,242,695. METHOD OF AND APPARATUS FOR ELECTROPLATING WIRE-CLOTH. RALPH O. HOOD, Danvers, Mass., assignor to Clinton Wire Cloth Company, Boston, Mass., a Corporation of Massachusetts. Filed Mar. 1, 1916. Serial No. 81,385. (Cl. 204—11.)



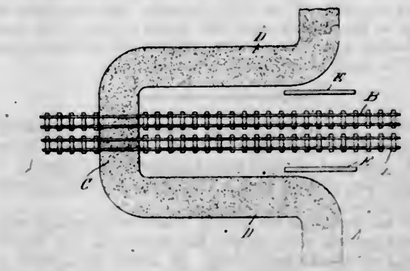
1. The herein described method of electroplating wire cloth which consists in passing the same in a horizontal direction through spaced horizontally arranged electrodes having flat confronting faces located above the normal level of a body of electrolyte, circulating said body of electrolyte in a constant stream through the space between said anodes, passing an electric current from said anodes to said wire fabric through that portion of the stream of electrolyte which is located between said anodes, and conducting away the current from said wire cloth.

12. The combination of a pair of confronting anodes spaced apart to form a chamber, means for guiding an elongated article to be plated between said anodes, means for closing the ends of said chamber, and means for circulating electrolyte through said chamber.

15. In combination, a tank adapted to contain a body of electrolyte, a horizontal partition arranged in said tank and having an opening, an anode chamber comprising horizontally arranged spaced confronting anodes, communicating with that portion of the tank below the partition, and a pump at said opening for circulating said electrolyte beneath the partition, thence through the said anode chamber, and thence through said opening in said partition.

[Claims 2 to 11, 13, 14, and 16 to 20 not printed in the Gazette.]

1,242,696. RAILROAD-CROSSING. CARL A. HUBER, Rochester, N. Y. Filed Aug. 9, 1916. Serial No. 113,898. (Cl. 104—178.)



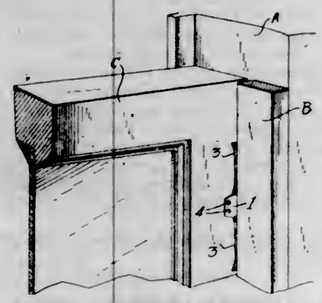
1. In railroad crossings, the combination with a railroad track, of a highway road approaching the track from one side and continuing at its opposite side and having an intermediate offset portion crossing the railroad track at a place distant from the main line of the

highway, said track crossing highway portion being connected to the main line of the highway by lateral stretches thereof extending one at each side of the railroad track and in the same general direction and giving full view of the track from a vehicle traveling on said lateral stretches in either direction, said lateral highway stretches being connected to the main line of the highway and to the railroad crossing portion thereof by sharp curves or bends compelling an ordinary vehicle rapidly moving on the highway to slacken its speed as it approaches and crosses the railroad track from either direction, said lateral highway stretches also having a length equal to or greater than the length of the track crossing portion of the highway.

4. In railroad crossings, the combination with a railroad track normally obstructing the crossing of ordinary vehicles, of a highway road approaching the railroad track from one side and continuing at its opposite side and having an intermediate communicating offset portion crossing the railroad track and built up about level therewith to insure safe passage of ordinary vehicles across the track at a place distant from the main line of the highway, said offset highway portion including lateral stretches thereof ranging one at each side of the railway track and in the same general direction and giving full view of the track from a vehicle traveling on said lateral stretches in either direction, said lateral highway stretches being connected to the main line of the highway and to the railroad track crossing portion thereof by sharp curves or bends compelling an ordinary vehicle rapidly traveling on the highway to slacken its speed as it approaches and crosses the railroad track from either direction.

[Claims 2 and 3 not printed in the Gazette.]

1,242,697. SASH-HOLDER. ROBERT F. HUNTER, Bellefonte, Pa. Filed Dec. 21, 1915. Serial No. 68,053. (Cl. 16—19.)

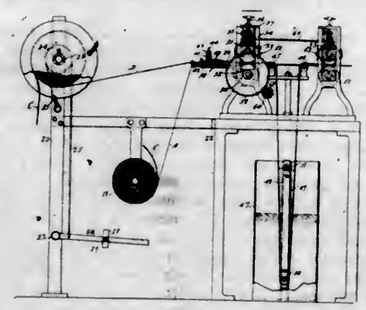


A sash holder comprising a single strip struck from a sheet of spring metal and having an offset portion intermediate the ends of the strip, whereby the strip may be secured to its support, and two alined end portions, said strip having a cut-out portion opposite the offset portion and of the same shape as the offset portion.

1,242,698. APPARATUS FOR MAKING AN ELASTIC BODY-BELTING WEB. JOSEPH JACOBS, New York, N. Y., assignor to The Live Leather Belt Company, a Corporation of New York. Filed June 30, 1915. Serial No. 37,161. (Cl. 154—1.)

2. In an apparatus for making elastic body belting web, the combination, with means for stretching the elastic web to a predetermined extent, of means for folding a casing of flexible material supplied with adhesive about the elastic web while the latter is stretched, means for pressing the casing web whereby it is caused to adhere to the elastic web, and means for crimping the casing with its inclosed elastic web.

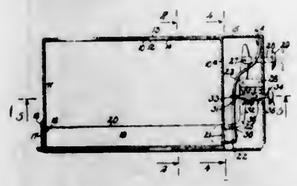
3. In an apparatus for making elastic body belting web, the combination with means for folding a leather casing web about an elastic web, of means for pressing the folded casing web and its inclosed elastic web, means for



moistening the casing web, and means for crimping the casing web and its inclosed elastic web in a direction transverse to the length of the webs.

[Claims 1 and 4 to 6 not printed in the Gazette.]

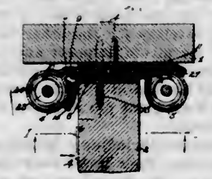
1,242,699. CIGARETTE-CASE. THOMAS JOHN JURICK, Great Falls, Mont. Filed May 17, 1917. Serial No. 169,229. (Cl. 206—41.)



1. A cigarette case including a container, a resilient ejector in the case adjacent to the bottom of the container and outside of the same, and adapted to displace a cigarette in a direction toward the front of the container, a lever operable from the exterior of the case and engageable with the ejector to place the same under tension, means to hold the tensioned ejector restrained, and means operable from the exterior of the case to release the tensioned ejector from the holding means.

[Claim 2 not printed in the Gazette.]

1,242,700. JAMB SPRING-HINGE. OSCAR KATZENBERGER, Chicago, Ill. Filed Dec. 26, 1916. Serial No. 138,798. (Cl. 16—25.)



1. A jamb hinge comprising a pair of barrels and a body formed of one piece bent so as to produce the two barrels on the edges of the body and on one face thereof and to

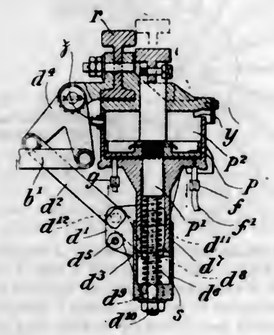
produce a body having a solid section and a divided section, said divided section being arranged with a division line diagonally across the body whereby vertical strain will be distributed to all parts of the body, means for rigidly connecting said sections together, a pair of leaves, means for resiliently connecting one of said leaves with one of said barrels, and means for resiliently connecting the other of said leaves with the other barrel.

2. In a double swinging or three-leaf hinge, a central leaf section formed from a single sheet of metal bent for producing a pair of barrels at each edge, a central solid body portion and a pair of body end members arranged with their meeting edges at a diagonal whereby the vertical strain will be taken up by all of the body portions, and means for clamping all of said body portions rigidly together.

3. In a hinge of the character described, a central leaf section formed with a pair of barrels, a body portion formed from a plurality of plate portions merging into said barrels, one of the plate portions having diagonal meeting edges, a reinforcing plate having edges for bracing said barrels and overlapping ends for clamping the upper and lower edges of the body portion, said overlapping ends covering part of said diagonal meeting edges and a plurality of rivets for clamping said plate and said plate portions together.

4. In a hinge of the character described, a leaf provided with a bottom formed with screw receiving openings and end flanges whereby a socket structure is produced designed to fit into the mortise in a door, a central leaf section having a barrel on each edge thereof, said barrels being on the same face of their connecting section and spaced outwardly from the jamb when in use, one of said barrels being pivotally mounted on said first mentioned leaf and the second mentioned leaf being pivotally mounted on the other barrel, said last mentioned leaf and the connecting section between said barrels fitting within the turned-up ends of the first mentioned leaf.

1,242,701. RAILWAY SIGNALING. ANDREW KERR, Belfast, Ireland. Filed Sept. 6, 1916. Serial No. 118,765. (Cl. 246—45.)



1. In audible railway signaling apparatus of the class described the combination with an audible signaling device operable by air under pressure, of means for compressing the air, a lever for operating said means, the means and the lever being arranged in conjunction with a track rail so as to move therewith and means whereby the air compressing means and the lever can be retained out of action when desired.

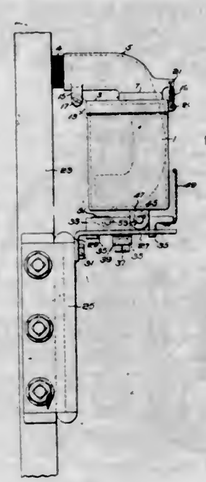
5. In audible railway signaling apparatus of the class described the combination with an audible signaling device operable by air under pressure, of a cylinder connected to a track rail, a piston for forcing air from the cylinder to the device, means permitting air to pass from the cylinder to the device, a lever fulcrumed on the said rail and adapted to operate said piston each time it is depressed by a train wheel, spring means for forcing the lever upward after each depression and means for placing the spring out of action when desired.

7. In audible railway signaling apparatus of the class described the combination with an audible signaling device operable by air under pressure, of a cylinder connected to a track rail, a piston for forcing air from the cylinder to the device, means permitting air to pass from the cylinder to the device, a lever fulcrumed on the said rail and adapted to operate said piston each time it is depressed by a train wheel, spring means for forcing the lever upward after each depression, a semaphore signal, means for operating the semaphore signal and means whereby when the semaphore signal is moved by the signalman to "danger" the said lever will be moved to the operative position and when the semaphore signal is moved by the signalman to "clear" the said lever will be moved out of the operative position and means, operable by the signalman, at the same time as he pulls the semaphore signal to the "clear" position, to place the said spring means out of action.

11. In audible railway signaling apparatus of the class described, the combination with an audible signaling device operable by air under pressure, of a cylinder connected to a track rail, a piston for forcing air from the cylinder to the device, means permitting air to pass from the cylinder to the device, a lever fulcrumed on the said rail and adapted to operate said piston in one direction, a spring for moving the piston in the opposite direction, and means, operable by the signalman, for moving the spring into active position or into inactive position comprising a sleeve slidable upon an extension of the cylinder and in which the spring is partly located and means for moving the sleeve relatively with the extension.

[Claims 2 to 4, 6, and 8 to 10 not printed in the Gazette.]

1,242,702. LUBRICATOR. DWIGHT F. KILGOUR, Lexington, Mass. Filed Aug. 21, 1916. Serial No. 115,925. (Cl. 184—22.)



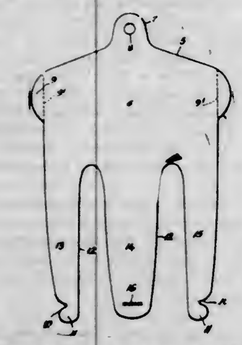
1. A lubricator comprising a reservoir, a top therefor carrying a holder thereon adapted to receive a wick, and means pivotally connecting said top and said holder with said reservoir.

2. A lubricator comprising a reservoir 1, a holder thereon for receiving a wick, and means 13, 15, 17 pivotally and detachably connecting said holder with said reservoir.

13. A lubricator comprising, in combination, a reservoir, a pivotal support therefor, and a top for said reservoir carrying a laterally projecting wick-holder and wick, said top, wick-holder and wick being removable as a unit.

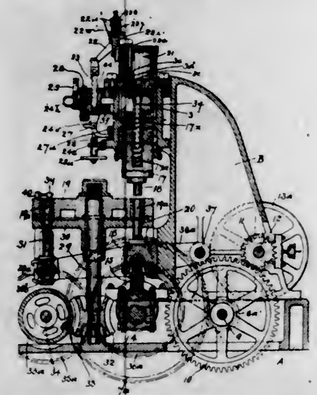
[Claims 3 to 12 and 14 not printed in the Gazette.]

1,242,703. GARMENT-SUPPORTING FORM. EDWARD KOLBERT, New York, N. Y. Filed Mar. 6, 1915. Serial No. 12,509. (Cl. 211—13.)



A blank for a garment supporting form consisting of a sheet of flexible resilient material having the upper edge shaped to conform to the shoulders of a garment, recesses extending upward from the opposite end of the sheet to substantially midway of the sheet with the sides of the recesses substantially parallel and spaced apart, said recesses providing the lower portion of the sheet with a central tongue and lateral tongues spaced therefrom, the central tongue having a transverse slot adjacent its extremity, and the lateral tongues having notches on their outer edges to form tabs integral therewith at their extremities, said lateral tongues adapted to be folded over the central tongue and the notched ends both inserted into the central tongue slot to act as the securing means to hold the lateral tongues in folded position, substantially as and for the purpose specified.

1,242,704. BRIQUETING-MACHINE. CHRISTIAN KORTE, Leeds, England, assignor of two-thirds to Cambells and Hunter Limited, Leeds, England. Filed Feb. 1, 1916. Serial No. 75,511. (Cl. 25—67.)



1. In a briqueting machine a rotary crank, means for rotating said crank, a cylinder reciprocated by said crank, a piston within said cylinder, a pressing tool fixed to said piston, a valve within said cylinder, means for operating said valve by a ram actuated by the pressure liquid in the cylinder, means for controlling the actions of said ram, a receptacle for receiving the liquid escaping from the pressure cylinder and means for controlling the return of said liquid to the pressure cylinder.

2. In a briqueting machine a rotary crank, means for rotating said crank, a cylinder reciprocated by said crank, a piston within said cylinder, a pressing tool fixed to said piston, a valve within said cylinder, means for operating said valve by a ram actuated by the pressure liquid in the cylinder, means for controlling the actions of said ram, a second pressing tool arranged to be operated by supplementary crank on the main crank shaft, a die plate for receiving the substances to be pressed and means for rotating said die plate between the pressing tools.

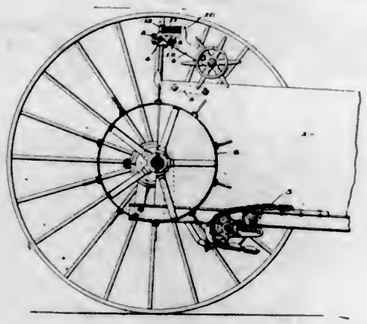
3. In a briqueting machine a rotary crank, means for rotating said crank, a cylinder reciprocated by said crank, a piston within said cylinder, a pressing tool fixed to said piston, a valve within said cylinder, means for operating said valve by a ram actuated by the pressure liquid in the cylinder, a valve for controlling the actions of said ram, a device carried by the cylinder for controlling the movements of said valve and a rotary plate or mold for receiving the substances to be briqueted.

4. In a briqueting machine a rotary crank, a cylinder reciprocated by said crank, a piston within said cylinder, a spring for normally keeping said piston with its shoulder against an internal flange in said cylinder, a valve mounted in the end of the cylinder so that the internal pressure of said cylinder shall normally keep said valve closed, a lever for acting upon said valve, said lever having its central fulcrum mounted upon a spring actuated bearing and means for actuating said lever.

5. In a briqueting machine a rotary crank, a cylinder actuated by said rotary crank, a pressing tool actuated by the piston of said cylinder, releasing valves operated by the pressure of the liquid in said cylinder, means whereby said liquid under pressure is conducted so as to actuate driving mechanism to reduce the speed of said mechanism in accordance with the increasing pressure of the liquid within the cylinder and means for reversing the actions of said actuating mechanism.

[Claim 6 not printed in the Gazette.]

1,242,705. MANURE-SPREADER. WILLIAM H. LEA, Syracuse, N. Y., assignor to Syracuse Chilled Plow Company, Syracuse, N. Y., a Corporation of New York. Filed Jan. 23, 1915. Serial No. 4,043. (Cl. 275—3.)



1. In a manure spreader, a body, a beater, means for feeding the load to the beater, and a rake arranged above and in front of the vertical plane of the axis of the beater, the rake including a toothed member movable about an axis, and means for yieldingly locking said member from movement about its axis and positioning the same in predetermined relation to the beater, said locking means permitting movement of the toothed member when subjected to sufficient force to overcome the locking action, substantially as and for the purpose described.

2. In a manure spreader, a body, a beater, means for feeding the load to the beater, and a rake arranged crosswise of the body and including a series of toothed wheels arranged above the beater and in front of the vertical plane of the axis of the beater, the wheels being rotatable independently of each other, and means for yieldingly locking the wheels from rotation and stopping the same with points thereof extending substantially toward the beater in a line extending radially with the axis of said beater, the locking means permitting movement of the toothed member when subjected to sufficient force to overcome the locking action, substantially as and for the purpose specified.

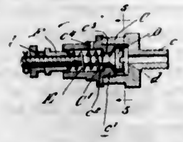
3. In a manure spreader, a body, a beater, means for feeding the load to the beater, and a rake including a bar extending crosswise of the body above the beater, rock arms pivotally supported at their rear ends on the bar and extending forwardly and downwardly from their pivots, toothed wheels carried by the rock arms, and means for yieldingly locking the wheels from rotation and stopping the rotation thereof with points thereof extending in lines substantially radial with the axis of the beater, said locking means permitting movement of the toothed member when subjected to sufficient force to overcome the locking action, substantially as and for the purpose set forth.

4. In a manure spreader, a body, a beater, means for feeding the load to the beater, and a rake including a bar extending crosswise of the body above the beater, rock arms pivotally supported at their rear ends on the bar and extending forwardly and downwardly from the pivots, toothed wheels carried by the rock arms, and means for yieldingly locking the wheels from rotation and stopping the rotation thereof with points thereof extending in lines substantially radial with the axis of the beater, said locking means permitting movement of the toothed members when subjected to sufficient force to overcome the locking action, the rock arms being movable upwardly on their pivots, and springs for resisting the yielding movement substantially as and for the purpose described.

5. In a manure spreader, a body, a beater, means for feeding the load to the beater, and a rake arranged near the beater crosswise of the body and including toothed members arranged in a series extending across the body said members being movable step by step in one direction independently of each other, and means for preventing retrograde movement of the toothed members, substantially as and for the purpose specified.

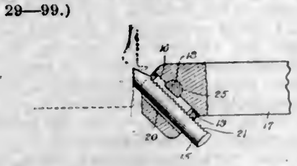
[Claims 6 to 15 not printed in the Gazette.]

1,242,706. AUTOMATIC CARBURATION-VALVE. CHRISTIAN E. LOETZER, Sayre, Pa. Filed Nov. 14, 1916. Serial No. 131,305. (Cl. 137—26.)



An automatic carburation valve comprising a valve casing composed of connected sections with an intervening valve chamber, one section being provided with a valve seat on its innermost end and provided with a valve stem housing at its outermost end, said housing communicating with the air, a valve normally seated on said seat and having its stem projecting through said valve housing and beyond the same, a spring in said housing and adapted to normally seat said valve, and adjusting means on said stem adapted to freely extend into said housing; the other section being adapted for attachment to the intake of an internal combustion engine and forming an abutment for the valve in its extreme open position, and means permitting the passage of air through the valve when the same strikes its abutment at extreme open position.

1,242,707. METAL-WORKING TOOL. FRED P. LOVEJOY, Springfield, Vt. Filed May 3, 1917. Serial No. 166,146. (Cl. 29—99.)

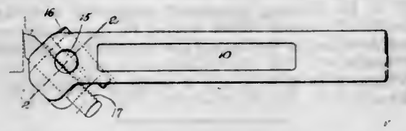


1. A metal-working tool comprising a cutter having an elongated shank portion, a holder therefor having a socket for the reception of said shank portion, a locking shoe adapted to go into said socket in contiguous relation to said shank portion, said shoe and said shank portion having interlocking teeth extending transversely of the length of said shank portion, said holder having another socket extending transversely of and intersecting the first said socket, and a cotter movable endwise in said other socket, said shoe having a notch arranged to receive a portion said cotter to lock the shoe against movement lengthwise of said cutter socket, said cotter having a shoe-engaging face arranged to force the shoe against said shank portion in consequence of moving the cotter endwise in one direction.

3. A metal-working tool comprising a cutter having an elongated shank portion, said shank portion having a cylindric surface and a flat toothed surface, a holder for said cutter having a socket for said shank portion, a shoe having teeth complemental to the teeth on said flat surface, and a cotter arranged transversely to bear laterally against said shoe to force said cylindrical surface against the wall of said socket, said wall being formed to provide two separate lines of bearing for said cylindric surface and said shoe having a shoulder to engage said cutter.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,242,708. METAL-WORKING TOOL. FRED P. LOVEJOY, Springfield, Vt. Filed May 24, 1917. Serial No. 170,652. (Cl. 29—99.)



3. A metal-working tool comprising a cutter, a transversely arranged locking shoe, a cotter, and a holder having sockets for said cutter, said shoe and said cotter, said shoe and said cutter having interlocking teeth arranged to lock the cutter against endwise movement, said shoe having a notch to receive said cotter, said cotter being longitudinal of the cutter and arranged to lock said shoe in the holder, and being arranged in the notch to exercise a wedging action on the shoe to interlock the shoe with the cutter.

7. A metal-working tool comprising a cutter having a series of teeth arranged to sustain end-thrust of the cutter, a holder having a socket for said cutter, a locking shoe, said holder having a socket for said shoe, said shoe being movable transversely of said cutter and having teeth arranged to slide between said teeth of the cutter to lock the cutter against endwise movement, and a cylindric cotter having a flat face arranged to slide on said shoe, said holder having a cylindric socket for said cotter, the axis of said cotter-socket being inclined relatively to the axis of said cutter-socket to cause a wedging action of said cotter upon the shoe in consequence of endwise movement of the cotter.

[Claims 1, 2, and 4 to 6 not printed in the Gazette.]

1,242,709. CLOTH-FOLD PROTECTOR. JAMES MCKENDRICK, Brooklyn, N. Y. Filed Jan. 3, 1917. Serial No. 140,359. (Cl. 206—50.)

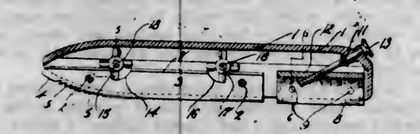


1. The combination with a bolt of folded cloth, of a protector for the cloth fold, said protector comprising a

strip of thin material applied around and to both sides of the cloth fold and held in place in the roll by contact with the cloth.

[Claim 2 not printed in the Gazette.]

1,242,710. FILE-CLEANING IMPLEMENT. ERWIN D. MCMILLEN, Omaha, Nebr. Filed Dec. 28, 1915. Serial No. 69,113. (Cl. 76—12.)



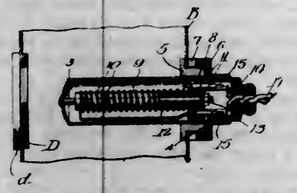
5. A file cleaning implement comprising a case, blades mounted in said case and having projecting elges, teeth formed on said projecting edges, means for separating said blades, means acting against the last-mentioned means to resiliently force said blades toward one another, and means for resiliently retaining the spacing means in normal position.

8. A file cleaning implement comprising a case, a plurality of blades positioned longitudinally in said case, transverse mounting means for said blades, said blades having projecting lower edges, rearwardly graduated teeth formed upon said edges, the forward end of said edges being beveled upwardly, and means for adjuating said blades transversely of said case.

21. A file cleaning implement comprising a casing, a plurality of toothed blades secured in the casing, and a brush mounted in the casing and disposed at one end of said blades.

[Claims 1 to 4, 6, 7, and 9 to 20 not printed in the Gazette.]

1,242,711. INTERNAL-COMBUSTION-ENGINE WATER-HEATER. CHAUNCEY L. C. MAGEE, Chicago, Ill., assignor of one-third to Howard F. Smith and one-third to George Robert Quin, Chicago, Ill. Filed Feb. 1, 1917. Serial No. 145,986. (Cl. 219—38.)

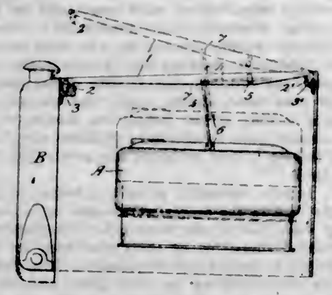


1. In an automobile-radiator-electric-heating-device, a sheet-metal tube closed at its inner end and inserted through the wall of the radiator, so that the tube is immersed in the liquid at the bottom of the radiator, a heat-generating resistance inside of said tube, an element to close the outer end of said tube, a draw-bolt secured to the inner end of said tube and extending axially thereof and passing through said element, a nut on the outer end of said bolt, whereby tightening of said nut draws said element into place to seal the outer end of said tube, means on said element to establish electrical connection with said resistance, and means to engage the inner and outer surfaces of the radiator wall to clamp the tube upon said wall and permit ready withdrawal of said tube outward from the radiator.

[Claims 2 and 3 not printed in the Gazette.]

1,242,712. LIFTING-DEVICE FOR AUTOMOBILE-ENGINES. HEINRICH MAYER, Arbon, and GUSTAV SCHLATTER, Steinach, Switzerland, assignors to Firma Adolph Saurer, Arbon, Switzerland. Filed Mar. 9, 1917. Serial No. 153,788. (Cl. 21—90.)

1. In an automobile, in combination, a bonnet-supporting cross-bar, and a lift-rod pivotally depending from said cross-bar and adapted to coöperate with the cylinder block for the purpose of displacing it.

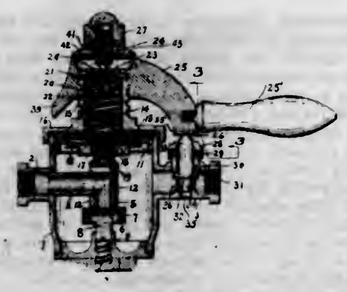


2. In an automobile, in combination, a cross-bar supporting the engine bonnet, and a hook-ended lift-rod pivoted on said cross-bar, the said two parts forming a lever system for axially displacing the cylinder block.

3. In an automobile, in combination, the cylinder block, a bonnet-supporting cross-bar, a lift-rod pivoted to said cross-bar, means in connection with said cross-bar for retaining said lift-rod in its inoperative position, a hook forming the free end of said lift-rod, and means in connection with said cylinder block for coöperating with the said lift-rod hook.

4. In an automobile having a cylinder block, a dashboard and a radiator, in combination, a lever system for axially displacing said cylinder block, comprising a cross-bar adapted normally to interconnect said radiator and dashboard and support the bonnet, journal-pins pivotally secured to the extremities of said cross-bar, socketed brackets respectively on said dashboard and said radiator adapted to receive said journal-pins, a lift-rod pivotally depending from said cross-bar, and means for temporarily connecting said lift-rod operatively to said cylinder block.

1,242,713. COMBINED PRESSURE REDUCING AND RELIEF VALVE. THOMAS D. MILLEA, Springfield, Mass., assignor to Try Me Manufacturing Company, Springfield, Mass., a Corporation of Massachusetts. Filed Feb. 19, 1917. Serial No. 149,443. (Cl. 137—4.)



1. In a valve of the kind described, the combination with an inclosing casing having entrance and discharge portions, a relief valve in the discharge portion of the casing, an inlet valve, a piston connected to the inlet valve, an operating handle for automatically opening the relief valve as said handle assumes its normal or zero position, means to close the relief valve as the operating handle is moved away from its zero or initial position, a cover plate for said casing having a threaded portion, the handle having engagement with the threaded portion of the cover, a compression spring, operative connecting means between the spring, piston, and inlet valve, said spring being designed to be compressed as the handle is moved from its initial or zero position for the purpose of automatically varying the pressure of the fluid as it flows through the casing.

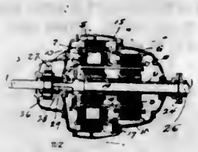
2. In a device of the kind described, the combination with an inclosing casing having inlet and discharge portions, an inlet valve for controlling the flow of the liquid through the casing, a handle for operating the valve, means engaged by the handle when in its normal or zero position for automatically releasing the confined air on the low pressure side of the inlet valve, a piston connected to the inlet valve, a cover plate for the casing formed with a threaded portion, said handle having connection with the threaded portion of the cover plate, and operative connecting means between the handle and the inlet controlling valve for automatically varying the difference in pressure between the inlet and discharge portions.

7. A device of the kind described comprising an inclosing casing having inlet and discharge ports, an inlet valve, a piston connected thereto, an operating handle, means to control the inlet valve and piston from the handle, a relief valve in the discharge port, said handle having a part to move the relief valve to open position when the handle is in a normal position and the inlet valve is in a closed position.

8. In a pressure reducing device, the combination with an inclosing valve casing, a piston and an inlet valve therein, said piston being connected to the valve, a spring mounted on the piston, the opposite end of the spring having a recessed follower plate thereon, an anti-friction device in the recessed portion of the follower, a plate engaging the anti-friction device, means engaging the plate for placing the spring under initial compression, and means including said spring compressing means for placing the spring under additional compression for operating the piston and valve, said last named means having a pointer for indicating the pressure of the fluid as it escapes from the discharge side of the casing.

[Claims 3 to 6, 9, and 10 not printed in the Gazette.]

1,242,714. ELECTROMAGNETIC POWER TRANSMITTING AND CONVERTING APPARATUS. ALFONS H. NEULAND, San Francisco, Cal. Filed Nov. 7, 1914. Serial No. 870,785. (Cl 172—237.)



1. A dynamo-electric machine comprising a stator member having two stator elements, electrically connected windings therefor, a driven rotor member having two mechanically connected rotor elements, electrically connected windings therefor arranged in inductive relation to the windings of the second stator element, a rotative field member inductively related to the windings of the first rotor and stator elements, a commutator rotative with the field member and electrically connected to the coils thereof, and brushes wiping the commutator and connected to the stator windings of the first stator element.

2. A dynamo-electric machine comprising a stator member having two stator elements, electrically connected windings therefor, a driven rotor member having two mechanically connected rotor elements, electrically connected windings therefor arranged in inductive relation to the windings of the second stator element, a rotative field member inductively related to the windings of the first rotor and stator elements, a commutator rotative with the field member and electrically connected to the coils thereof, brushes wiping the commutator and connected to the stator windings of the first stator element, slip rings rotative with and electrically connected to the commutator, a storage battery, and brushes wiping the slip rings and arranged to be connected to the storage battery.

3. A dynamo-electric machine comprising a stator member having two stator elements, electrically connected windings therefor, a driven rotor member having two mechanically connected rotor elements, electrically connected windings therefor arranged in inductive relation to the windings of the second stator element, a rotative field member inductively related to the windings of the first rotor and stator elements, and means for reversing the connections between the windings of the elements of one member.

6. A dynamo-electric machine comprising a stator member having two stator elements, electrically connected windings for the two stator elements, a driven rotor member having two mechanically connected rotor elements arranged concentrically of the stator elements, a squirrel-cage winding connecting the two rotor elements, the second rotor and stator elements being arranged with their windings in close relation, a rotative driver arranged between the first rotor and stator elements and including means for producing a magnetic field acting on both windings, and means for reversing the connections between the windings of the two stator elements.

10. A dynamo-electric machine comprising a stator member having two stator elements, electrically connected windings therefor, a source of alternating current for the stator winding, a rotor member having two mechanically connected rotor elements, electrically connected windings therefor arranged in inductive relation to the windings of the second stator element, a rotative field member inductively related to the windings of the first rotor and stator element, and means for reversing the connections between the windings of the elements of one member.

[Claims 4, 5, and 7 to 9 not printed in the Gazette.]

1,242,715. DIPPER-TOOTH. WESLEY G. NICHOLS, Chicago Heights, Ill., assignor to American Manganese Steel Company, Augusta, Me., a Corporation of Maine. Filed Feb. 17, 1915. Serial No. 8,746. (Cl. 37—16.)



1. A base for a dipper tooth comprising an enlarged front portion with inclined faces forming a nose, the upper inclined face of said nose provided with an undercut slot extending the entire length thereof, the lower inclined face of said nose provided with a longitudinally extending recess of limited extent and terminating short of the front extremity of the lower face.

2. A tooth of the class described, consisting of a base with a nose at the front extremity thereof having inclined faces, the upper inclined face of the nose provided with a slot of substantially uniform depth throughout and substantially dove-tail or undercut in cross-section, and a removable point including rearwardly diverging jaws adapted to seat against the inclined faces of the nose, a lug extending along the under face of the upper jaw of the point, substantially dove-tail or undercut in cross-section and of substantially uniform thickness throughout, and insertible in said slot by endwise movement with relation thereto, the lower jaw of said point provided with a rearward extension adapted to be secured to the base.

3. A tooth of the class described, consisting of a base with a nose at the front extremity thereof having inclined faces, the upper inclined face of the nose provided with a slot of substantially uniform depth throughout and substantially dove-tail or undercut in cross-section, and a removable point including rearwardly diverging jaws adapted to seat against the inclined faces of the nose, a lug extending along the under face of the upper jaw of the point, substantially dove-tail or undercut in cross-section and of substantially uniform thickness throughout, and insertible in said slot by endwise movement with relation thereto, the lower inclined face of the nose provided with a slot therein, and the inner face of the lower jaw of the

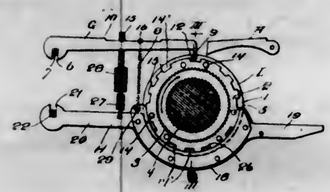
point provided with a lug directly insertible within said slot in the lower inclined face of the nose.

4. A tooth of the class described, consisting of a base with a nose at the front extremity thereof having inclined faces, the upper inclined face of the nose provided with a slot of substantially uniform depth throughout and substantially dove-tail or undercut in cross-section, and a removable point including rearwardly diverging jaws adapted to seat against the inclined faces of the nose, a lug extending along the under face of the upper jaw of the point, substantially dove-tail or undercut in cross-section and of substantially uniform thickness throughout, and insertible in said slot by endwise movement with relation thereto, the lower jaw of said point provided with a rearward extension adapted to be secured to the base, the lower inclined face of the nose provided with a slot therein, and the inner face of the lower jaw of the point provided with a lug directly insertible within said slot in the lower inclined face of the nose.

5. A base for a dipper tooth consisting of an enlarged front portion having inclined faces and forming a nose, the upper inclined face of said nose provided with an undercut or dove-tail slot extending lengthwise thereof, with the bottom wall of the slot extending substantially parallel to the said inclined face of the nose, the lower inclined face of the nose provided with a slot extending lengthwise thereof.

[Claim 6 not printed in the Gazette.]

1,242,716. CONTACT REEL AND BRUSH. JOHN NUTRY, Brooklyn, N. Y. Filed Aug. 7, 1916. Serial No. 113,515. (Cl. 175—347.)



1. A contact reel and brush, the contact reel comprising a ring of insulating material and a series of contact elements carried thereby defining a complete circle and spaced inwardly from the periphery thereof, and the brush comprising a slotted part for straddling the projecting portion of the ring and for engaging said contact elements.

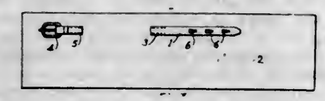
5. A contact reel made up of an annular member of insulating material and an annular member of conducting material each defining a complete circle, the annular member of insulating material being of greater diameter than the annular member of conducting material so as to provide an annular portion of insulating material projecting beyond the outer circumferential surfaces of the annular member of conducting material for coöperating with the annular member of conducting material having contact portions disposed adjacent the projecting portion of the annular member of insulating material, and the projecting portion of the annular member of insulating material comprising a guide means to maintain the reel in a suitable carrier.

9. A contact reel and carrier therefor, the contact reel comprising a series of contact elements in circular alinement and having unobstructed spaces therebetween, and the carrier comprising means forming a circular pathway along which said contact elements rub.

15. A contact reel and brush, the contact reel comprising an annular guide ring defining a complete unbroken circle and a contact element, the brush comprising a part at all times engaging the annular unbroken portion of the guide ring so as to be positively guided thereby retaining another part of the brush in position to cooperate with said contact element.

[Claims 2 to 4, 6 to 8, and 10 to 14 not printed in the Gazette.]

1,242,717. COMBINED RUG AND FASTENING. DANIEL JOHN O'LEARY, Bruff, Ireland. Filed Dec. 14, 1916. Serial No. 136,926. (Cl. 2—80.)

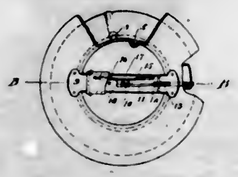


1. A combined rug and fastening comprising a rug adapted to lap approximately twice around the wearer, a strap secured to the outside of the rug approximately at the waistline and having spaced elongated holes therein, and a buckle adapted to engage in any one of the elongated holes in the strap the buckle and that portion of the strap engaged thereby being spaced from the ends of the rug so as to be available for securing the same on the body of a wearer.

2. A combined rug and fastening comprising a rug adapted to lap approximately twice around the wearer, a strap fixed to the outside approximately at the waistline of the rug when the latter is in a lapped position and having a series of spaced elongated holes therein, and a buckle secured to the rug and adapted to engage in any one of the holes in the strap, the said strap and buckle being spaced from the ends of the rug so as to be available for securing the same on the body of a wearer.

3. A combined rug and fastening comprising a rug adapted to lap approximately twice around the wearer, a strap fixed to the outside approximately at the waistline of the rug when the latter is in a lapped position and having a series of spaced elongated holes therein, a buckle secured to the rug and adapted to engage in any one of the holes in the strap, and reinforcing strips fixed to the inside of the rug and opposite the point of attachment thereto of the said strap and buckle, the said strap and buckle being spaced from the ends of the rug so as to be available for securing the same on the body of the wearer.

1,242,718. MILK-RECEPTACLE AND LOCK. FREDERICK N. OLESEN, St. Paul, Minn. Filed Nov. 8, 1916. Serial No. 130,168. (Cl. 31—79.)



1. In a milk receptacle having a cover, the combination of a handle mounted in said cover, a lock bolt mounted in said handle, a channel running circumferentially around said receptacle and having an aperture at one end thereof to allow said lock bolt to pass therethrough.

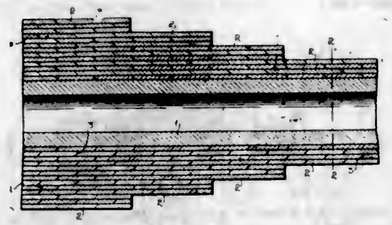
4. In a milk receptacle having a cover, the combination of a lock bolt, an air vent extending upwardly between said cover and said receptacle and registering with an aperture through said lock bolt when said lock bolt is in its locked position.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,242,719. GUN. GEORGE N. OSTRANDER, Highland Springs, Va. Filed June 27, 1917. Serial No. 177,307. (Cl. 89—16.)

1. A gun comprising in combination, an inner tube, a plurality of reinforcing laminations concentric of the tube and shrunk thereupon and upon each other, each of said laminations comprising a plurality of annuli, each

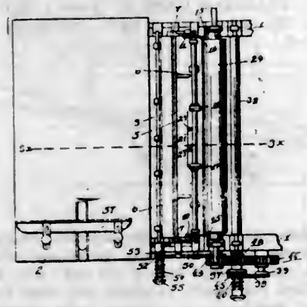
of said annuli being of a width equal to eight times its thickness.



3. A gun comprising in combination, an inner tube, a plurality of reinforcing laminations concentric of the tube and shrunk thereupon and upon each other, each of said annuli being of a width equal to eight times its thickness, the opposed margins of the annuli being correspondingly beveled and on an angle of 45° whereby said adjacent marginal portions are in overlying relation, the sections of the laminations being in staggered relation, the marginal portion of the annuli of one section being substantially midway of the annuli of the lamination adjacent thereto.

[Claim 2 not printed in the Gazette.]

1,242,720. LINING-MACHINE. SAMUEL R. PARRY, Rochester, N. Y. Original application filed June 29, 1912, Serial No. 706,706. Divided and this application filed Dec. 29, 1916. Serial No. 139,674. (Cl. 164—61.)



1. In a lining machine the combination of a series of pressing rollers arranged in pairs, feeding mechanism adapted to feed sheets of cardboard successively between said pressing rollers, said feeding mechanism operating to prevent the feed of the second sheet until the first sheet has passed a predetermined point, said feeding mechanism operating to separate the beginning of the second sheet from the end of the first sheet as said sheets are fed successively through the machine.

2. In a machine for lining paper the combination of a pair of pressing rollers, a pair of cutting rollers arranged on one side of said pair of pressing rollers, a pair of feed regulating rollers arranged on the other side of said pair of pressing rollers, said cutting rollers and one of said feeding rollers being normally idle, said cutting rollers being set in operation by the end of each sheet of cardboard that passes the feeding rollers.

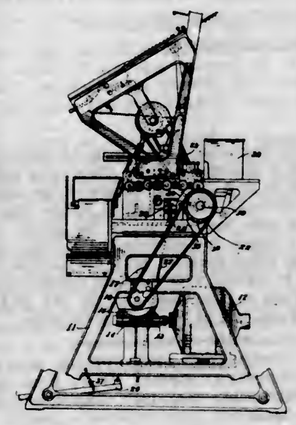
3. In a lining machine the combination of a pair of pressing rolls, a pair of cutting rolls on one side of said pressing rolls, a pair of feed regulating rolls on the other side of said pressing rolls, said feed regulating rolls controlling the operation of said cutting rolls, both said cutting and one of said feed regulating rolls normally remaining idle during the passage of a sheet of cardboard by said feed regulating rolls, means on one of said feed regulating rolls to prevent the operation of the feed regulating rolls and the operation of the cutting rolls while a sheet of cardboard is passing the means on said feed regulating roll.

4. In a lining machine the combination of a pair of pressing rolls, a pair of feed regulating rolls mounted at the side thereof, a knife blade mounted on one of said feed regulating rolls parallel to the axis thereof, said feed regulating rolls being adapted to permit a sheet of cardboard to pass therebetween, the knife on said feed roll being adapted to bear against said passing sheet of cardboard and prevent the rotation of the roll by which it is carried.

5. In a lining machine the combination of a pair of feed regulating rolls, each of said rolls being made up of a shaft with rollers or disks thereon, a knife supported between two disks on one of said rolls, said knife projecting beyond the periphery of said disks and being adapted to bear against the material passed between said rolls, said roll being driven by a light, frictional engagement with the stock passing thereunder, said knife holding the roll against rotation until the end of the passing stock has passed the edge of the knife.

[Claims 6 to 32 not printed in the Gazette.]

1,242,721. REPEAT PERFORATING MECHANISM. JAMES POWERS, New York, N. Y., assignor to Powers Accounting Machine Company, New York, N. Y., a Corporation of Delaware. Filed Jan. 28, 1916. Serial No. 74,796. (Cl. 164—112.)



1. In a perforating machine, perforating pins, means for setting said pins for perforation, means for perforating a card by said set pins, means for restoring said setting means, a plurality of means for actuating the said restoring means, one actuating means being timed to actuate said restoring means with every perforation and the other actuating means being timed to actuate said restoring means after a plurality of perforations have been made by the same setting, and means for clutching said actuating means in operation one to the exclusion of the other.

2. In a perforating machine, perforating pins, means for setting said pins for perforation, means for perforating a card by said set pins, means for restoring said setting means, two actuating means for actuating said restoring means, one of said actuating means being timed to actuate said restoring means with every perforation, and the other actuating means being timed to actuate said restoring means after a plurality of perforations have been made by the same setting.

3. In a perforating machine, perforating pins, means for setting such pins for perforations, means for perforating a card by said set pins, means for restoring said setting pins, two actuating means for actuating said restoring means, one of said actuating means being timed to

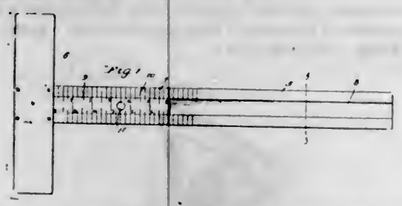
actuate said restoring means with every perforation, and the other actuating means being timed to actuate said restoring means after two perforations have been made by the same setting, and means for clutching said actuating means into operation one to the exclusion of the other.

4. In a perforating machine, perforating pins, means for setting said pins for perforation, means for restoring said setting means, means for perforating a card by said set pins, actuating means for actuating said restoring means after a plurality of perforations have been made by the same setting, means for discharging a card from said machine after having been perforated, a plurality of receptacles into which the cards are discharged, and deflecting means for guiding the several cards perforated by a like setting into different receptacles.

5. In a perforating machine, perforating pins, means for setting such pins for perforation, means for restoring said setting means, means for perforating a card by said set pins, and actuating means for actuating said restoring means after a plurality of perforations have been made by the same setting.

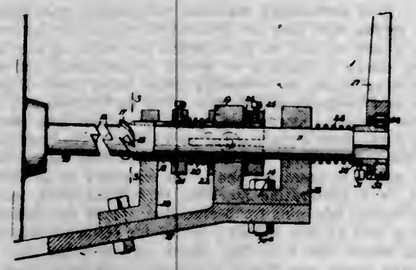
[Claims 6 to 22 not printed in the Gazette.]

1,242,722. T-SQUARE. FRANK W. REILLY, Sandwich, Mass. Filed May 24, 1913. Serial No. 769,686. (Cl. 33—95.)



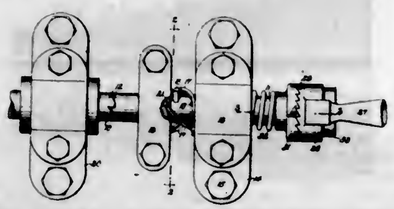
A T-square comprising a blade with a longitudinal dovetailed groove in the upper surface, there being graduations on the blade at each side of the groove, the graduations registering mutually and extending to the edges of the blade, and a scale bar disposed in the groove, the scale bar having a finger hole whereby the bar may be moved, the scale bar being provided with graduations arranged thereacross, to register with the blade graduations so that the graduations on the blade and the bar may be continuous from one edge of the blade to the other.

1,242,723. AUTOMATIC UNCOUPLING MEANS FOR SHAFT-CLUTCHES. GEORGE HENRY RICE, Honolulu, Hawaii. Filed Feb. 16, 1917. Serial No. 148,993. (Cl. 123—185.)



The combination with a driven shaft and a drive shaft slidable relatively to the driven shaft, said shafts having mating clutch elements, a lateral stop projection on the drive shaft, a sleeve in which the drive shaft turns, said sleeve having spirally disposed stop members thereon adjacent to the stop projection on the drive shaft, and spring means acting on the sleeve and tending to maintain the same in position for the stop members thereon to engage the stop projection on the shaft.

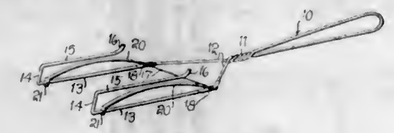
1,242,724. AUTOMATIC UNCOUPLING MEANS FOR SHAFT-CLUTCHES. GEORGE HENRY RICE, Honolulu, Hawaii. Filed Mar. 28, 1917. Serial No. 157,907. (Cl. 123—185.)



1. The combination with a driven shaft and a drive shaft slidable relatively to the driven shaft, said shafts having mating clutch elements, of a lateral stop member on the drive shaft, and co-acting stop members in the form of flexible fingers secured to a relatively fixed part and spirally disposed about the drive shaft in the path of the lateral stop on said drive shaft.

2. The combination with a driven shaft and a drive shaft slidable relatively to the driven shaft, said shafts having mating clutch elements, of a lateral stop member on the drive shaft, and co-acting stop members in the form of flexible fingers secured to a relatively fixed part and spirally disposed about the drive shaft in the path of the lateral stop on said drive shaft; together with a relatively fixed member having notches receiving the free ends of the flexible fingers.

1,242,725. TOASTING DEVICE. FRED LINCOLN RIGGS, Macomb, Ill. Filed Feb. 8, 1917. Serial No. 147,451. (Cl. 53—5.)



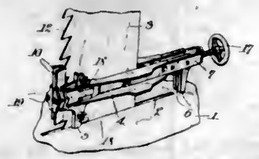
2. A toaster of the character described comprising a handle and two parallel laterally spaced legs attached to the handle, each of said legs at its end being angularly bent and then rearwardly extended, the main portion of the leg and said angular extension being approximately parallel to each other, and a spring on one of said portions of each leg extending toward and yieldingly urged toward the other parallel portion of the leg.

3. A toaster of the character described formed of a length of wire doubled upon itself and twisted to form a handle and then divergently bent and then extended in parallel relation to form parallel legs, the legs being then bent at right angles and then rearwardly extended, a cross brace connecting the rear ends of the parallel portions, and upwardly bowed springs attached at their rear ends to said parallel portions and at their forward ends angularly bent and perforated to slidingly engage the outer ends of the parallel portions.

[Claim 1 not printed in the Gazette.]

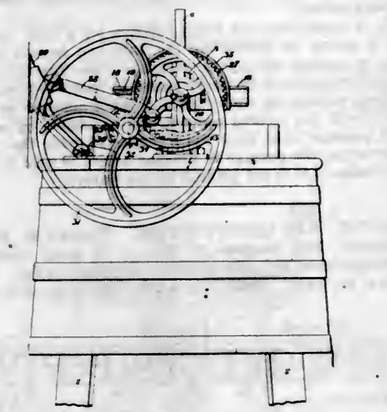
1,242,726. SIDE-FILING MACHINE AND EQUALIZER FOR BAND AND OTHER SAWS OF LIKE CONSTRUCTION. JOHN H. ROBBINS, Indianapolis, Ind., assignor to Albert D. Romans, Indianapolis, Ind. Filed Oct. 4, 1915. Serial No. 53,969. (Cl. 76—47.)

1. A saw sharpening and side dressing implement comprising a pair of spaced U-shaped arms each arm being formed at its forward extremity with an integral leg, a U-shaped spring connecting the other end of said arms together, a pair of legs secured to said spring, an antifriction saw engaging member slidably mounted between said arms, means for adjusting the position of said member longitudinally of said arms and means for securing a pair of files to the free ends of said arms.



2. A saw sharpening and side dressing implement comprising a pair of spaced arms, a resilient member connecting said arms at one end and normally forcing them toward each other, means for securing a pair of files to the other end of said arms, a bifurcated block slidably mounted between said arms, a grooved wheel mounted in said bifurcated block, and manual means mounted in said resilient member for moving said block and wheel.

1,242,727. OPERATING MECHANISM FOR WASHING-MACHINES. WILLIAM H. SARGENT, St. Louis, Mo., assignor to Wayne Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed Sept. 25, 1915. Serial No. 52,614. (Cl. 74—50.)



1. In an operating mechanism for washing machines, the combination with a support, of a vertical shaft mounted in said support for axial and rocking movements, a power shaft journaled at right angles to the vertical shaft, driving mechanism for the power shaft, a crank attached to the power shaft, and an intermeshing gear and rack wholly supported by the vertical shaft engaged and operated by the crank for moving the vertical shaft axially and rocking the vertical shaft near each end of its axial movement.

2. In an operating mechanism for washing machines, the combination with a hinged support, of a shaft mounted in the support for axial and rocking movements, a power shaft journaled at right angles to the vertical shaft on said hinged support, driving mechanism for said power shaft carried by the hinged support, a crank attached to the power shaft, and intermeshing gear and rack elements wholly supported by the vertical shaft connecting said crank and the vertical shaft for imparting axial and rocking movements to said vertical shaft by rotation of said power shaft in one direction.

3. In an operating mechanism for washing machines, the combination with a support, of a vertical shaft mounted in said support for axial and rocking movements, a power shaft carried by said support, manually operable driving mechanism for said power shaft, a crank attached to said power shaft, a housing attached to the vertical shaft, a rack mounted in said housing and engaged by said crank, and a gear attached to the vertical shaft meshing with the rack.

4. In an operating mechanism for washing machines, the combination of a hinged support, a bracket carried by said support, a vertical shaft extending through said support and journaled in said bracket for axial and rocking movements, a power shaft carried by said support, manual mechanism for rotating said power shaft, a balance wheel entrained with said power shaft, a crank attached to said power shaft, a rack engaged by said crank, a gear on the vertical shaft in mesh with said rack, and a support for said rack attached to said vertical shaft.

5. In an operating mechanism for washing machines, a stationary support, a support hinged to said stationary support, a vertical shaft carried by said hinged support for axial and rocking movements, a power shaft carried by said hinged support, a lever pivoted to said hinged support, a gear wheel attached to said power shaft, an additional gear wheel in mesh with the one on the power shaft, a rod connecting the additional gear wheel with said lever, a small pinion in mesh with said additional gear wheel, a balance wheel in connection with said pinion, a crank arm attached to the power shaft, a rack connected to said crank arm, a support on said vertical shaft in which said rack is carried for movement with said vertical shaft, and a gear attached to the vertical shaft in mesh with said rack.

[Claims 6 to 12 not printed in the Gazette.]

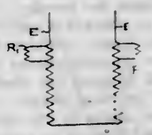
1,242,728. ART OF CONSERVING FRESH VEGETABLES. JOSEPH SCHNEBLE, Chicago, Ill. Continuation of application Serial No. 180,858, filed July 16, 1917. This application filed Aug. 8, 1917. Serial No. 185,195. (Cl. 99—1.)

1. The process of treating fresh or green vegetables which consists in immersing them in an alkali solution maintained at a temperature which will pasteurize said vegetables without causing their cellular structures to give up the juices contained therein.

5. The process of treating fresh or green vegetables which consists in immersing them in a sodium bicarbonate solution of less than one per cent. strength maintained at a temperature of approximately 65° C., whereby said vegetables will be pasteurized without causing their cellular structures to give up the juices contained therein.

[Claims 2 to 4 not printed in the Gazette.]

1,242,729. EXCESS-VOLTAGE ABSORBER. FERDINAND SIEBER, Charlottenburg, Germany, assignor to General Electric Company, a Corporation of New York. Filed Aug. 11, 1916. Serial No. 114,482. (Cl. 175—30.)



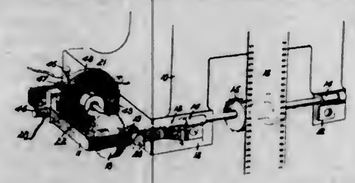
1. A translating device having an iron member and a conducting winding in inductive relation to said member, an oil tank in which said winding is mounted below the normal level of the oil, and a resistance mounted to be normally submerged in the oil and connected in parallel with part of the end turns of said winding and proportioned to dissipate the energy generated in said end turns by surges and similar abnormal conditions.

2. An electromagnetic translating device having an iron magnetic circuit and two windings with all the turns of the first winding in active inductive relation to the second winding and to said magnetic circuit, an oil tank in which said windings are mounted below the normal oil

level, a resistance mounted in the tank beneath the oil level and connected in parallel with part of the end turns of said first winding.

[Claim 3 not printed in the Gazette.]

1,242,730. ATTACHMENT FOR MOVING-PICTURE MACHINES. HARRY SIEGEL, Elizabethport, N. J., assignor of one-half to Lewis Chasman, Newark, N. J. Filed June 1, 1916. Serial No. 101,030. (Cl. 88—17.)



1. In an attachment for moving picture machines, a shaft having means by which it is adapted to be rotated by a film, a rotatable member having a contact mounted thereon and movable outwardly, means by which the shaft is adapted to rotate the member, a second contact out of electrical communication with the first contact when the latter is moved outwardly with the rotation of the member, the second contact being in position for engagement by the first contact when the latter moves inwardly, means for holding the first contact yieldingly inwardly, a circuit including a source of electrical supply connected with the contacts and an electrical alarm in the circuit.

5. In an attachment for moving picture machines, a bracket adapted to be attached to a moving picture machine, a shaft journaled in bearings in the bracket and having electrical connection therewith, a member secured to the shaft and insulated therefrom, a contact mounted on the member and movable to and from the shaft, means for holding the contact yieldingly in engagement with the shaft, a bearing member, a second shaft normally journaled in the bearing member, means on the second shaft for engagement by a film, means by which the second shaft is adapted to rotate the first shaft and means for connecting wires electrically with the bracket and the member.

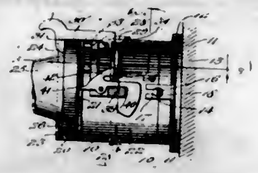
12. In combination with a moving picture machine having a shaft at one side with means by which it is adapted to be operated by a film, a bracket secured to an adjacent side of the machine, a shaft disposed at an angle to the first mentioned shaft and journaled in bearings in the bracket, the second shaft having electrical connection with the bracket, a member secured to the second shaft and insulated therefrom, a contact mounted on the member and movable to and from the shaft, means for holding the contact yieldingly in engagement with the shaft, means by which the first shaft is adapted to rotate the second shaft, and means for connecting wires electrically with the bracket and the member.

13. In an attachment for moving picture machines, a shaft having means by which it is adapted to be rotated by a film, two contacts, means operable when the speed of the shaft falls below a predetermined point to open electrical communication between the contacts, a circuit including a source of electrical supply connected with the contacts, an electrical alarm in the circuit, a moving picture operating means including an electrical circuit, a circuit breaker in the second circuit, a shunt connected with the first circuit, electrical means in the shunt for operating the circuit breaker, and a switch in the shunt.

[Claims 2 to 4 and 6 to 11 not printed in the Gazette.]

1,242,731. SUPPORTING AND LOCKING DEVICE. FREDERICK SMITH, Darby, Pa. Filed May 16, 1916. Serial No. 97,970. (Cl. 194—64.)

1. A device for telephone receivers comprising a casing for the reception of the receiver, a frame in the casing, a locking element pivoted on the frame, and having engagement with the receiver to secure the same in the casing, a latch for holding the locking element against movement, a support, and means for locking the casing to said support.



2. A supporting and locking device for telephone receivers embodying a back, a casing removably connected with the back, and having a chamber therein for the reception of the receiver, means for locking the casing to the back, a locking element for holding the receiver in said chamber, and means coöperating with the locking element to secure the locking element against movement.

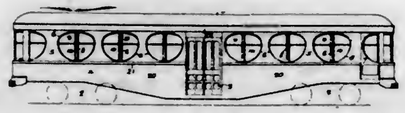
3. A supporting and locking device for telephone receivers embodying a casing adapted to have the receiver connected therewith, means for locking the receiver to the casing, a back, and means for locking the casing to said back.

4. A supporting and locking device for a body comprising a casing, an apertured partition therein, a locking element, a pivoted member arranged adjacent the aperture in the partition to be manually operated when the body is not connected with the casing and adapted to cooperate with said locking element for locking the body to said casing.

5. A supporting and locking device for a body comprising a casing for supporting the body and formed to provide a passage for gaining access to the interior of the casing when the body is disconnected from said casing, a locking element in said casing, a latch adapted to coöperate with the locking element and accessible by way of said passage, said body when connected with the casing obstructing the passage to prevent access to said latch.

[Claims 6 to 9 not printed in the Gazette.]

1,242,732. CAR CONSTRUCTION. WARREN M. SMITH, Moores, Pa., assignor to The J. G. Brill Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 26, 1915. Serial No. 4,530. (Cl. 105—201.)



1. The combination of a car having sides with window openings therein, the window openings of each pair being separated by vertical posts, the upper portion of each opening being a section of an ellipse and the lower portion being a section of a circle.

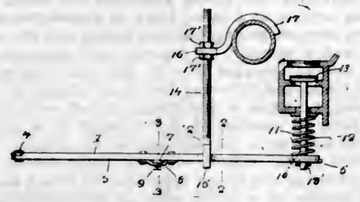
2. The combination in a car, of a lower longitudinal side plate; an intermediate side plate having window openings therein, the upper half of said window openings being semi-elliptical and the lower half semi-circular.

3. The combination of a car having sides with window openings therein, the window openings being arranged in pairs, the upper portion of each opening being semi-elliptical in shape and the lower portion being semi-circular in shape; and a vertical post separating the openings.

4. The combination in a car, of a side plate having window openings therein, the upper half of said opening being semi-elliptical in shape and the lower half being semi-circular in shape; and a pivot for a sash located at the intersection of the two portions of the window opening.

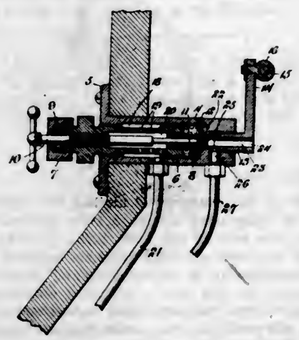
5. The combination in a car, of side plates having window openings therein, the window openings of each pair being separated by vertical posts, the upper portion of each opening being a section of an ellipse and the lower portion being a section of a circle; and a pivot for the lower sash of each window opening mounted on the post and at the junction of the upper and lower portions of each window opening.

1,242,733. VALVE-LIFTING DEVICE. EARL J. SOUDER, Pottsville, Pa. Filed Dec. 2, 1916. Serial No. 134,613. (Cl. 29—87.1.)



In a valve lifter, two arms pivotally connected at one of their ends and having their inner faces adjacent to their other ends grooved longitudinally to provide jaws, said jaws at the inner edges thereof being extended inwardly to provide heel portions, a finger upon one of the members, a yoke upon the other member receiving the finger, an adjustable element upon the yoke contacting with the finger, a suspending element including a threaded member having one of its ends formed with a U-shaped head to receive the lifter member, a hook member having an eye which is loosely arranged upon the rod, and nuts threaded upon the rod and contacting with the opposite sides of the eye.

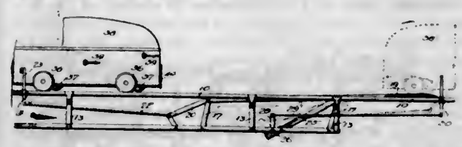
1,242,734. VALVE. JAMES B. STEWARDSON and SAMUEL S. STEWARDSON, North Randall township, Thomas county, Kans. Filed Oct. 25, 1916. Serial No. 127,609. (Cl. 137—26.)



In combination with an internal combustion engine, a regulating valve comprising a casing, inside-gland, needle-stem passing through a chamber in the interior of said gland and in threaded adjustment connection with said gland, a stuffing-box at the inner end of said inside-gland, a cap-gland to said inside-gland, a needle extension of said stem in relation to a seat provided with a port therethrough, a groove between the walls of the inside-gland and the casing, port connection between said chamber and said groove and port connection from said groove through the wall of said casing, a needle-seat cutoff in threaded adjustment connection with said casing, a chamber in the interior of said cutoff, a port through the needle-seat opening into said chamber, and an outlet port from said chamber through the wall of said casing.

1,242,735. SWITCHING MEANS FOR AERIAL RAILWAYS. ARTHUR H. STRAMPE, Paullina, Iowa. Filed Mar. 20, 1917. Serial No. 156,123. (Cl. 104—23.)

1. In a switching mechanism, the combination with main and switch rails, of hangers depending from the main rails, supporting beams connected to the lower ends of said hangers and arranged parallel to the main rails, upwardly extending supporting arms pivotally connected at their lower ends to the said supporting beams, lifting rails pivotally connected to the upper ends of said supporting arms and having portions parallel to the main and switch rails, means to limit lowering movement of the said lifting rails, means to hold the lifting rails in their upper operative position, car actuated means for elevating the lifting rails to their upper operative position, and car actuated means adjacent the switch rails for releasing the said holding means.



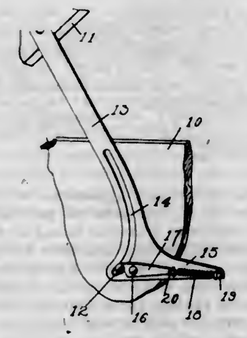
4. In a switching mechanism of the character described, the combination of rigidly connected and extending main and switch rails, a pair of spaced lifting rails having portions paralleling the main and switch rails and normally between and below the same, means for elevating the said lifting rails above the level of the main and switch rails, means for locking the lifting rails in their upper position, and means for releasing the said locking means to permit the lifting rails to drop.

6. In a switching mechanism of the character described, the combination of main and switch rails, vertically shiftable lifting rails having portions paralleling the main and switch rails, and car carried means coöperating with the said lifting rails in their upper operative position.

12. In a switching mechanism of the character described, the combination with main and switch rails and a car having wheels movable thereon, of means disposed adjacent the intersection of the said main and switch rails and coöperating with the car to lift the wheels of the latter from the main rails to the switch rails, and car actuated means located adjacent the main and switch rails to respectively shift the first-named means into and out of operative position.

[Claims 2, 3, 5, and 7 to 11 not printed in the Gazette.]

1,242,736. COVER-SUPPORTING DEVICE. HENRY S. STURTEVANT and EDWARD K. BIDDY, Hartford, Conn. Filed Feb. 8, 1917. Serial No. 147,286. (Cl. 217—60.)



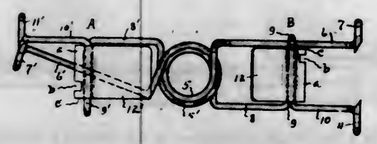
1. The combination of an article and a closure or the like therefor, of a bar connected with one of them, a connection between the other of them and the bar, consisting of a pin and cam slot and a spring latch adapted to project over the slot to engage the pin and hold the article and closure apart.

7. The combination with a pivoted cover or the like, of a stationary pin, a bar pivoted to said cover, a curved cam which said pin engages, a catch adapted to engage

said pin, and yielding means for holding the catch in position to engage the pin and assist the wall of the cam in preventing the cover from falling, whereby when the cover is forced downwardly the catch will yield and allow it to be entirely closed by a single downward movement.

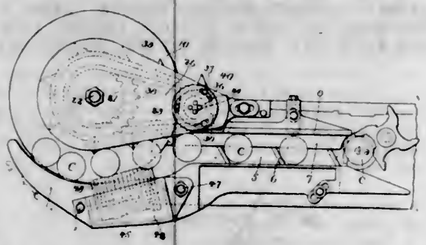
[Claims 2 to 6 and 8 not printed in the Gazette.]

1,242,737. ANIMAL-TRAP. CHANCEY A. STUTZMAN, Harlan, Iowa, assignor of one-half to Clarence F. Vanatta, Harlan, Iowa. Filed Apr. 9, 1917. Serial No. 160,596. (Cl. 43—23.)



In devices for the purpose described, a pair of resilient, metallic strands bent midway between their ends to form a pair of connected springs, each strand having a rectilinear part projecting outwardly from its spring and bent to provide a curved jaw disposed at substantially right angles to said rectilinear part, each strand being also bent to provide a second rectilinear part projecting outwardly from its spring adjacent to the first named rectilinear part and having a portion bent to a loop-form to partly circumscribe the first named rectilinear part and provided with a rectilinear extension having a curved jaw disposed substantially at right angles to said extension, a pair of triggers, each being arranged to swing on a part of a loop, each trigger being provided with a lip for engaging a first named rectilinear part when said part is extended.

1,242,738. CONVEYING AND TIMING APPARATUS FOR TIMING AND DELIVERING ARTICLES. JOHN C. TALIAFERRO, DANIEL P. ROBINSON, and JOHN COYLE, Baltimore, Md., assignors to Continental Can Company, Incorporated, Syracuse, N. Y., a Corporation of New York. Filed June 29, 1916, Serial No. 106,705. Renewed Mar. 9, 1917. Serial No. 153,740. (Cl. 193—1.)



1. A conveying and timing apparatus for timing and delivering articles at a given point at predetermined intervals of time comprising traveling timing and delivering devices, and means coöperating therewith for placing the articles in proper relation to said timing devices, said means being constructed so as to operate by gravity with a yielding pressure against an article simultaneously at a plurality of points for placing said article in proper position relative to the timing devices.

2. A conveying and timing apparatus for timing and delivering articles at a given point at predetermined intervals of time comprising traveling timing and delivering devices, and a plurality of gravity operated members independently mounted and arranged side by side and coöperating with the traveling devices for placing the articles in proper relation to said timing devices.

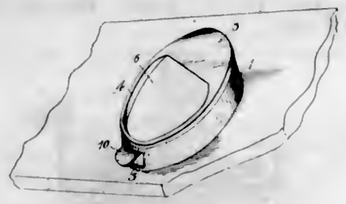
3. A conveying and timing apparatus for timing and delivering articles at a given point at predetermined intervals of time comprising traveling timing and delivering devices, and a plurality of gravity operated pivoted members independently mounted and arranged side by side and coöperating with the traveling devices for placing the article in proper relation to said timing devices, said gravity members being so constructed as to engage an article simultaneously at a plurality of points.

4. A conveying and timing apparatus for timing and delivering articles at a given point at predetermined intervals of time comprising traveling timing and delivering devices, and a plurality of separate and independently pivoted devices arranged side by side and coöperating with the timing and delivering devices for placing the articles in proper relation to said timing devices, said pivoted devices being so constructed and arranged as to operate by gravity to exert a pressure against the articles being shifted into proper relation with the timing devices.

5. A conveying and timing apparatus for timing and delivering articles at a given point at predetermined intervals of time comprising traveling timing and delivering devices, and a plurality of separate and independently pivoted devices arranged side by side and coöperating with the timing and delivering devices for placing the articles in proper relation to said timing devices, said pivoted devices being so constructed and arranged as to operate by gravity to exert a pressure against the articles being shifted into proper relation with the timing devices, said gravity members being so constructed as to engage an article simultaneously at a plurality of points.

[Claims 6 to 9 not printed in the Gazette.]

1,242,739. CHANGE-RECEPTACLE. ROBERT TAPPAN, New York, N. Y. Filed Mar. 8, 1916. Serial No. 82,830. (Cl. 133—14.)



A device of the character described the combination of a receptacle comprising a base, a body portion formed on said base, one end of the body being provided with an opening, a top wall provided with an opening, a rod extending transversely of the opening and mounted in said body adjacent the top wall, a platform, extensions formed on one end of the platform, said extensions being rolled about the rod providing means for hingedly connecting the platform to the rod, a coiled spring mounted on the rod between the extensions adapted to normally retain the platform in raised position, and an extension formed on said platform projecting through the opening in the body for a purpose specified.

1,242,740. COMBINED LEVELING AND PLUMBING IMPLEMENT. SILAS LEE OWEN TAYLOR, Huntington, W. Va., assignor of one-third to Motie Luther Russell, one-third to Charles C. Taylor, and one-third to J. W. Hensley, Huntington, W. Va. Filed June 30, 1916. Serial No. 106,811. (Cl. 33—215.)

2. In a device of the class described, a body having a longitudinally directed recess, a stationary blade attached to the body and forming one side of said recess, a movable blade swinging relative to said stationary blade and adapted to be seated in said recess when in one position, said movable blade having an off-set and a stop shoulder coacting with the stationary blade to hold the movable blade positively in extended position relative to the stationary blade, and a locking device spring supported, and

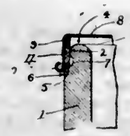
operating to hold said movable blade positively in open position and yieldably in withdrawn position.



3. In a device of the class described, a supporting body having a longitudinally directed recess, a blade stationary with said body and forming one side of said recess, a blade pivoted to swing relative to said stationary blade and having stop ribs extending in spaced relation, a locking member having sockets at right-angles to each other, one set of said sockets adapted to receive the stop ribs when the movable blade is in withdrawn position and the other set of said sockets to receive the stop ribs when the movable blade is in extended position, and means for holding said locking member in engagement with said stop ribs.

[Claims 1 and 4 not printed in the Gazette.]

1,242,741. SEALING-CAP. HARRY E. TOWNSEND, Brooklyn, N. Y., assignor to Anchor Cap & Closure Corporation, Brooklyn, N. Y., a Corporation of New York. Filed Oct. 10, 1916. Serial No. 124,861. (Cl. 215—81.)



1. In combination, a container having a rounded bead adjacent the mouth thereof, a groove beneath said bead and forming a shoulder with the exterior wall, a sealing cap having a skirt the interior diameter of which is substantially coincident with the diameter of the exterior wall of the container and greater than the diameter of the bead and with the edge of said skirt in close engagement with said wall, and a gasket under compression and filling the space between said skirt and said groove.

2. In combination a container having a sealing surface substantially representing an ogee curve in cross-section and extending to the outer main side wall, a cap provided with a substantially cylindrical skirt with an interior diameter substantially the same as the exterior diameter of the main side wall where said side wall joins the sealing surface whereby the skirt of the cap is enabled to closely engage the main side wall of the container, and a gasket substantially filling the space between the sealing surface and the said skirt.

3. In combination a substantially cylindrical container provided on its upper end with a bead and a recess, said bead being of less diameter than the exterior diameter of the main side wall of said container, a cap provided with a skirt having an interior diameter substantially the same as the exterior of the main side wall where said wall joins said bead, and a gasket under compression adapted to fill the space between said skirt and said sealing surface.

4. In combination a container provided with a sealing surface upon the upper side wall thereof, said sealing surface including a projecting member and a depression beneath and adjacent said projecting member, a cap provided with a substantially cylindrical skirt adapted to extend over said projection and depression and to closely engage the side wall of said container, and a gasket filling the space between the sealing surface and the said skirt.

5. As an article of manufacture, a package comprising a container provided with a sealing surface which is upwardly and inwardly inclined and of substantially S-shaped cross-section, a substantially flat sealing cap provided with a cylindrical skirt adapted to extend over said sealing surface, and a gasket filling the space between said sealing surface and said skirt, the construction and arrangement of parts being such that where a vacuum is maintained within the sealed package the cap is drawn inwardly and downwardly to more securely compress the gasket against the sealing surface.

[Claims 6 and 7 not printed in the Gazette.]

1,242,742. SEALING-CLOSURE WITH REMOVABLE GASKET. HARRY E. TOWNSEND, Brooklyn, N. Y., assignor to The Anchor Cap & Closure Corporation, Brooklyn, N. Y., a Corporation of New York. Filed Jan. 10, 1917. Serial No. 141,551. (Cl. 215—17.)



1. A closure provided with an annular beading, a gasket having a portion thereof displaced laterally under compression against the side wall of the container, the beading having an annular ring comprising a portion of the metal folded upon itself with the sides thereof substantially parallel, and a skirt depending from said annular ring and supporting the major portion of the said gasket.

2. A closure provided with an annular beading and a gasket displaced laterally under compression forces and against the side wall of the container, said beading having its upper wall in the form of a concave groove with the lower wall substantially parallel thereto, and a skirt depending from said lower wall and supporting the major portion of the gasket.

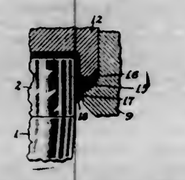
3. A closure comprising a top portion, a depending side wall, an annular ring formed in said side wall and comprising a portion of metal folded upon itself, a depending skirt below said annular ring, a gasket held under compression between the side wall of the container and the said skirt.

4. A closure comprising a cover portion, a side wall including a skirt, a gasket adapted to be held under compression between the container and said skirt, and an annular ring formed from the excess metal displaced during the sealing operation, said annular ring being substantially devoid of portions of the gasket.

5. A closure comprising a cover portion adapted to fit over the mouth of a container, a gasket, a skirt adapted to support said gasket under compression against the side wall of the container, an angular ring adjacent said skirt portion and formed of the excess metal from the sealing operation, said ring being substantially devoid of gasket material.

[Claims 6 to 8 not printed in the Gazette.]

1,242,743. SIDE SEAL FOR GLASS CONTAINERS AND THE LIKE. HARRY E. TOWNSEND, Brooklyn, N. Y., assignor to The Anchor Cap & Closure Corporation, Brooklyn, N. Y., a Corporation of New York. Filed Jan. 10, 1917. Serial No. 141,552. (Cl. 215—17.)



1. A closure for sealing on a substantially cylindrical side wall and provided with an annular beading and a gasket held under compression between opposing walls of the beading with a portion of said gasket displaced laterally under said compression against the substantially cylindrical wall of the container, the said beading having a horn-shaped cross-section increasing in area inwardly, and a depending annular skirt extending downwardly from said horn-shaped portion and retaining the lower portion of said gasket under compression.

2. A closure provided with an annular beading and a gasket under compression between opposing walls of the beading with a portion of said gasket displaced laterally under said compression against the wall of the container, the beading having its upper wall in the form of a concave surface and the opposing wall in the form of a convex surface, the two walls being so related that the cross-sectional area of the beading increases inwardly and downwardly, and an annular skirt depending from said convex surface, said annular skirt being constructed to support the lower edge of said gasket.

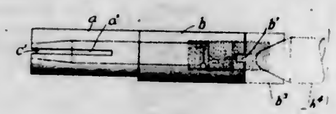
3. A closure comprising, in combination, a container, a cap provided with a top portion and a depending side portion; said side portion including an annular bead having a groove in the upper side thereof to form a concave portion, a fold adjacent said concave portion, a convex ring extending below the said fold, an annular skirt beneath said convex ring; and a suitable gasket maintained under pressure between said depending side portion and the side wall of said container with the upper and lower portions of the gasket under greater compression than the middle portion.

4. A closure comprising, in combination, a container, a cap having a top adapted to fit over said container, a side wall extending downwardly over the side wall of said container, said side wall being provided with a bead including an annular fold of metal, a skirt depending from said bead, and a suitable gasket retained under pressure between said bead said skirt and the side wall of said container with the upper and lower portions of the gasket under greater compression than the middle portion.

5. In a closure, in combination, a container, a cap having a top portion and side portions extending downwardly over the mouth of said container, the side portion of the cap comprising an annular bead, a skirt depending from said annular bead, and a suitable gasket constructed to be maintained under pressure between the side wall of the container, the annular head and the said skirt with the upper and lower portions under greater compression than the middle portion.

1,242,744. ADJUSTABLE MACHINE-BEARING. WALTER G. TRAUTMAN, Cleveland, Ohio, assignor to The Cleveland Folding Machine Company, Cleveland, Ohio, a Corporation of Ohio. Filed May 1, 1916. Serial No. 94,683. (Cl. 74—8.)

1. In a bearing of the class described, the combination with a split-body portion having a rearwardly positioned taper-bore, of an eccentrically positioned bearing support, a tapered pin adapted to be forced within the taper-bore for expanding the same, and separate or independent means for retaining said pin in its expanding position, substantially as set forth.

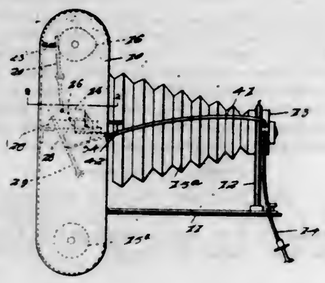


2. In a bearing of the class described, the combination with a split body-portion having a rearwardly positioned taper-bore, of a split sleeve surrounding said body-portion, a tapered pin adapted to be forced within the taper-bore for expanding the same, and means for retaining said pin in its expanding position, substantially as set forth.

4. In a device of the class described, the combination with a cylindrical shank rearwardly split and taper-bored, of a pin positioned to be forced within the taper-bore, a split eccentrically bored sleeve fitting upon said shank, and means for retaining the pin in its expanding position within the taper bore, whereby the shank and sleeve may simultaneously be expanded, substantially as set forth.

[Claims 3 and 5 to 8 not printed in the Gazette.]

1,242,745. CAMERA. EDWIN W. TUCKER, North Prairie, Wis. Filed Aug. 16, 1916. Serial No. 115,225. (Cl. 95—31.)



1. A camera including a casing, a film receiving spool supported in said casing, a shutter, means for automatically locking said shutter against operation subsequent to an operation thereof, a cam on said film receiving spool, and means operable by said cam during the rotation of said spool to release said locking means to permit operation of the said shutter.

2. A camera including a casing, a film receiving spool supported in said casing, a shutter, an arm pivotally supported in said casing, means independent of said spool to lock said arm in one position, flexible means connecting said arm with said shutter for locking the latter against operation, and means controlled by said receiving spool for releasing said locking means.

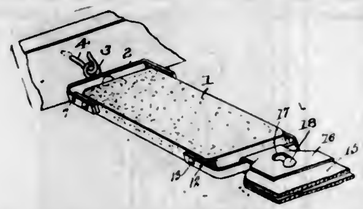
3. A camera including a casing, a film-receiving spool supported therein, a cam flange carried by said spool, a shutter, means to lock said shutter against operation, and means controlled by the cam flange for releasing the locking means.

4. A camera including a casing, a film-receiving spool supported therein, a shutter, means to lock said shutter against operation, a lever pivotally mounted in said casing, means carried by the spool for actuating said lever, and means operable by the lever to release the locking means.

5. A camera including a casing, a shutter, an arm pivotally mounted in said casing, means connecting said arm with said shutter, a spring lever adapted to engage and lock said arm in inoperative position, and means to lock said lever in engagement with said arm.

[Claims 6 to 9 not printed in the Gazette.]

1,242,746. COMBINED RAZOR HONE AND STROP. THOMAS C. VINSON, Guthrie, Okla., assignor of one-fourth to Amos A. Ewing and one-fourth to Walter T. Warren, Guthrie, Okla. Filed Oct. 7, 1916. Serial No. 124,813. (Cl. 51—16.)

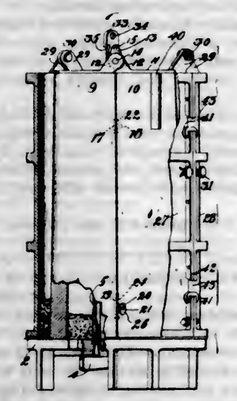


1. A razor hone comprising a hone, a yoke removably connected to each end of said hone, bars pivoted to said yoke on the inner sides thereof, pins extending through the bars and adapted to engage in the opposite side edges of the hone, one of said yokes adapted to have removably secured thereto a strop.

2. A razor hone of the character described comprising a hone, a yoke pivotally connected to each end of the hone, one of said yokes provided with a swivel, bars connected to the arms of the yokes, pins extending through the bars and into the hone, said yokes provided with recesses adapted to engage the heads of said pins to hold the hone within the yokes, and parallel therewith, and the yoke remote from the yoke carrying the swivel adapted to have a razor strop connected thereto.

3. A razor hone of the character set forth comprising a hone having holes on its opposite longitudinal sides near the opposite ends thereof, a pair of substantially U-shaped yokes, bars pivotally connected to the inner sides of the yokes, pins extending through the free ends of the bars and embedded in the holes in the sides of the hone to hold the same parallel with relation to the yokes, the arms of the yoke provided on their inner sides adjacent their ends with recesses adapted to receive the heads of the pins for holding the hone against accidental removal from the yokes, and a swivel connected to the web of one of said yokes, and the other of the said yokes adapted to removably support a razor strop.

1,242,747. EXPANSIBLE PATTERN FOR TUBULAR CASTINGS. JOHN B. WALKER, Birmingham, Ala. Filed Mar. 12, 1917. Serial No. 154,402. (Cl. 22—161.)



1. An expansible tubular pattern for hollow articles divided longitudinally into sections hinged at their upper ends, means to hold the sections, when contracted, against relative lateral displacement, and lifting members disposed to leave the pattern sections free to expand when suspended, substantially as described.

2. An expansible tubular pattern for hollow articles divided longitudinally into sections hinged at their upper ends, means to hold the sections, when contracted, against relative lateral displacement, lifting members disposed to leave the pattern sections free to expand when suspended thereby, and means to limit the expanding movements of the lower ends of the patterns, substantially as described.

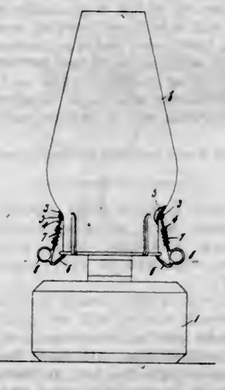
5. A sectional pattern for ingot molds and the like divided on a vertical plane into sections, means to connect the sections free to move toward or from each other, means to suspend the pattern, and concealed mechanisms mounted in the joint between sections for holding the pattern sections against relative displacement, one mechanism comprising dowel pins and sockets for preventing the sections moving relatively laterally on each other, and the other mechanism comprising hook lugs and sockets for limiting the parting movement of the sections in expanding, substantially as described.

11. A pattern adapted for use on a jarring table for simultaneously forming the cheek and core for an ingot mold, said pattern being divided vertically into half sections, hingedly connected lugs at the top of the sections, a hanger plate hinged to each pair of lugs, the abutting edges of the pattern sections being provided near their upper ends with dowel pins, and sockets therefor, and near their lower ends with limit lugs and sockets therefor, there being sand escape ports from the limit lug sockets, substantially as described.

16. In a molding apparatus, a pattern for ingot molds and the like having its inside and outside surfaces forming pattern faces, said pattern being divided into vertical sections, means connecting the sections so that they are free to expand or contract, and a sand band surrounding the pattern to hold it in contracted position in the mold.

[Claims 3, 4, 6 to 10, 12 to 15, 17, and 18 not printed in the Gazette.]

1,242,748. CHIMNEY-HOLDER. HEDLEY WATTY, Groton, Conn. Filed June 24, 1916. Serial No. 105,743. (Cl. 240—99.)



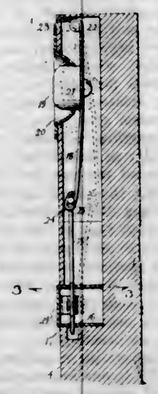
1. A device of the character described, including, in combination with a lamp chimney having a plurality of eyelets arranged thereon, of arms connected with said eyelets and having springs formed integral therewith intermediate the end portions thereof, and hooks formed upon the lower extremities of said arms engageable with the burner of a lamp and adapted to yieldably secure the chimney to these arms.

[Claim 2 not printed in the Gazette.]

1,242,749. DOOR-LATCH. GEORGE W. WELLS, Amesbury, Mass., assignor of one-half to Walker-Wells Company, Amesbury, Mass., a Corporation of Massachusetts. Filed Jan. 29, 1917. Serial No. 145,174. (Cl. 70—43.)

1. In a door latch, a movable door member and a stationary jamb member, a bolt, means including a movable element for normally holding said bolt rigidly in pro-

jected position, hand-operated means for moving said element to released position, and a spring for holding said bolt yieldably in projected position when said element is released, for returning said element to normal position and for returning said hand-operated means to normal position, carried by one of said members, and means carried by the other of said members engaging and operating to retract said bolt when the door is opened.



2. In a door latch, a bolt, means including a movable element for normally holding said bolt rigidly in projected position, hand-operated means for moving said element to released position, and a spring coöperating with and directly engaging said element for holding the bolt yieldably in projected position when said element is released, for returning said element to normal position, and for returning said hand-operated means to normal position.

3. In a door latch, a bolt, means for holding said bolt rigidly in projected position, including normally alined toggle levers one of which is pivotally engaged at its outer end with said bolt, hand-operated means for bowing said levers upon their outer pivots as centers, and a spring coöperating with said toggle levers for holding the bolt yieldably in projected position when said toggle levers are bowed, for returning said toggle levers to normal position and for returning said hand-operated means to normal position.

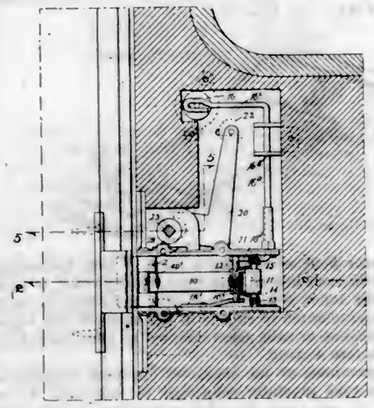
[Claims 4 and 5 not printed in the Gazette.]

1,242,750. DOOR LATCH AND LOCK. GEORGE W. WELLS, Amesbury, Mass., assignor of one-half to Walker-Wells Company, Amesbury, Mass., a Corporation of Massachusetts. Filed Jan. 29, 1917. Serial No. 145,175. (Cl. 70—29.)

1. In a door lock, a bolt, means including a movable element for normally holding said bolt rigidly in projected position, means for moving said element to released position, a spring coöperating with and directly engaging said element for holding the bolt yieldably in projected position when said element is released and for returning said element to normal position, a member movable into the path of said bolt to prevent the retraction thereof, and key-operated means for actuating said member.

2. In a door lock, a bolt, means for holding said bolt rigidly in projected position, including normally alined toggle levers, hand-operated means for bowing said toggle levers, a spring coöperating with said toggle levers for holding said bolt yieldably in projected position when said toggle levers are bowed and for returning the toggle levers to alined position, a member movable into the path of said bolt to prevent the retraction thereof, and key-operated means for actuating said member.

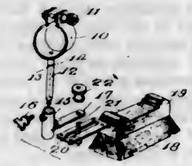
3. In a door lock, a bolt, means for holding said bolt rigidly in projected position, including normally alined toggle levers, hand-operated means for bowing said toggle levers, a spring coöperating with said toggle levers for holding said bolt yieldably in projected position when said toggle levers are bowed and for returning the toggle levers to alined position, a reciprocatory member movable into



the path of said bolt to prevent its retraction, and rotary key-operated means for actuating said member.

[Claim 4 not printed in the Gazette.]

1,242,751. RECORD-CLEANING ATTACHMENT FOR PHONOGRAPHS. JAMES WORTHINGTON and WILLIAM WORTHINGTON, Pleasant City, Ohio. Filed June 1, 1917. Serial No. 172,287. (Cl. 274—1.)



1. A device of the character described including an attaching member, a rotatably adjustable cleaning element supporting member slidably adjustable vertically upon said first mentioned member, and a cleaning element carried by the said last mentioned member.

2. A device of the character described including an attaching member, a cleaning element supporting member carried thereby, and a cleaning element carried by the said last mentioned member and slidably adjustable laterally thereon.

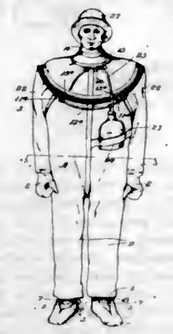
3. A device of the character described including an attaching member provided with a shank, a cleaning element supporting member adjustable longitudinally upon the shank, a cleaning element, and means slidably and rotatably connecting the said element with the said last mentioned member.

[Claims 4 to 6 not printed in the Gazette.]

1,242,752. LIFE-PRESERVER. OSCAR A. YOUNGREN, Sheridan, Wyo., assignor to National Life Preserver Company, Sheridan, Wyo., a Corporation of Wyoming. Filed Nov. 15, 1915. Serial No. 61,614. (Cl. 9—20.)

1. A life preserver comprising a one-piece suit of waterproof material adapted to inclose the body of the wearer from neck to feet and having an entrance opening therein, a closure for said entrance comprising a curved double bar attached to the suit along one opening edge, a curved single bar attached to the suit along the other opening edge and adapted to engage with said double bar and form a water tight joint therewith and means for holding a buoyant substance in the suit, substantially as set forth.

2. A life preserver comprising a one-piece suit of waterproof material having leg portions and adapted to inclose the body of the wearer from neck to feet and having an entrance opening therein, means located within the garment for shortening or lengthening said garment above its waist line to suit persons of different sizes, and means for holding a buoyant substance in the suit, substantially as set forth.



3. A life preserver comprising a one-piece suit of waterproof material having leg portions and adapted to inclose the body of the wearer from neck to feet and having an entrance opening therein, a pair of straps located within and connected to the garment near the waist line thereof adapted for shortening or lengthening the garment above its waist line to suit persons of different sizes, and means for holding a buoyant substance in the suit, substantially as set forth.

4. A life preserver comprising a one-piece suit of waterproof material adapted to inclose the body of the wearer from neck to feet and having an entrance opening therein, a closure for said opening comprising a frame of horizontally hinged bars, and a buoyant lining for the suit comprising sections secured thereto and divided along the line of the hinged bars, substantially as set forth.

5. A life preserver comprising a one-piece suit of waterproof material adapted to inclose the body of the wearer from neck to feet and having an entrance opening therein, the neck engaging portion provided with non-elastic strips preventing stretching in the lengthwise direction but permitting stretching and contracting in the crosswise direction, a closure for the entrance opening, and a buoyant lining suitably secured within the suit, substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

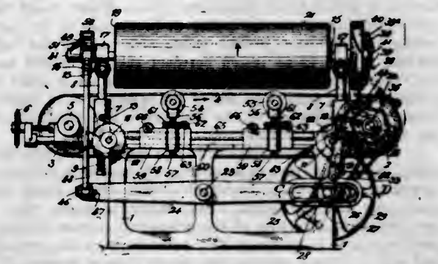
1,242,753. MACHINE FOR SHAPING PIECES OF DOUGH. FRIEDRICH AESCHBACH, Aarau, Switzerland. Filed July 3, 1916. Serial No. 107,438. (Cl. 107—9.)

1. In a machine for shaping dough, two endless bands arranged crosswise and means for alternately imparting a feed movement to the bands.

3. In a machine for shaping dough, two endless bands arranged crosswise, means for transposing one band parallel to the other one by an angular displacement in a horizontal plane and means imparting a continual movement to the bands.

8. In a machine for shaping dough, a frame, two endless bands arranged crosswise, a pair of rollers for each band, rods carrying the rollers, supports for the rods carrying one pair of rollers and provided with bayonet-joint slots for detachably connecting the rods to the supports, means for simultaneously moving said supports in pairs in a vertical direction and means adapted to impart alternately to a roller of each pair of rollers a step-by-step movement.

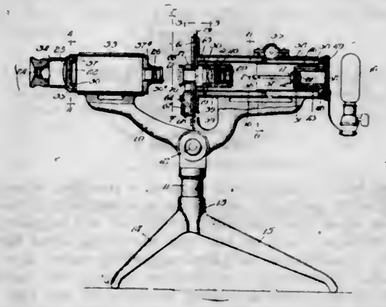
9. In a machine for shaping dough, a frame, two endless bands, a pair of rollers for each of said bands, rods carrying these rollers, supports for the rods carrying one pair of rollers, the last mentioned rollers being detachably connected to said supports, means for vertically adjusting said supports, a driving pulley supported in the frame, means for transmitting the motion of said pulley to one of said rollers and means for transmitting the motion from this roller to a roller working together with another band than the first mentioned roller.



10. In a machine for shaping dough, a frame, two endless bands, each band running over two rollers carried by said frame, a driving pulley supported by the frame, means for transmitting the motion of said pulley to the rollers, guide pulleys acting upon one side of one of said endless bands and means adapted to effect a vertical and horizontal displacement of said guide pulleys.

[Claims 2, 4 to 7, 11, and 12 not printed in the Gazette.]

1,242,754. LENS-TESTING APPARATUS. CLILE C. ALLEN, Chicago, Ill., assignor to George S. Johnston Co., Chicago, Ill., a Corporation of Illinois. Continuation of application Serial No. 68,815, filed Dec. 27, 1915. This application filed June 7, 1916. Serial No. 102,295. (Cl. 88—56.)



1. In a lens testing apparatus, the combination of a test object having thereon a mark designating the optic axis of the system, an image screen, said image screen being provided with a plurality of equally spaced concentric circles designated according to equal variations of prism diopters, and being further provided with a plurality of radial degree markings, said circles and said radial markings being centered with respect to the optic axis, means for supporting a lens to be tested between the test object and the image screen, and means for eliminating at a position between the test object and the lens to be tested, all of the rays of light coming from the test object with the exception of rays intercepting or traveling along the optic axis of the system at the position of said eliminating means.

2. In a lens testing apparatus, the combination of a test object having thereon appropriate marks designating the optic axis, an image screen having thereon a plurality of circles designating prism diopters, and being further provided with means for indicating the direction of the

prism axis, means for supporting a lens to be tested between the test object and the image screen, and means for eliminating all the rays of light traveling between the test object and the lens to be tested, with the exception of a cone of rays having its apex at the position of said eliminating means.

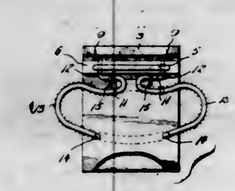
3. In a lens testing apparatus, the combination of a test object having thereon a suitable designation indicating the position of the optic axis, an image screen having thereon a plurality of concentric circles drawn about the optic axis and indicating prism diopters, means for indicating the direction of the prism axis, means for supporting a lens to be tested between the test object and the image screen, and means for selecting, at a point in advance of the lens to be tested the pencil of rays coming from said designation on the test object and traveling on the optic axis.

4. In a lens testing apparatus, the combination of a test object suitably formed to designate the optic axis, an image screen having thereon concentric circles drawn about the optic axis and indicating prism diopters, means for ascertaining the direction of the prism axis, means for supporting a lens to be tested at a point between the test object and the image screen, and means located between the test object and the lens to be tested for designating the pencil of rays emanating from the point of intersection of the optic axis with said test object.

5. In a lens testing apparatus, the combination of a test object suitably formed to designate the optic axis, an image screen, means for supporting a lens to be tested at a point between the test object and the image screen, and means for designating, at a position between the test object and the lens under test, the axial rays, means for ascertaining on the image screen the position of the image of the test object formed by said axial rays.

[Claims 6 to 22 not printed in the Gazette.]

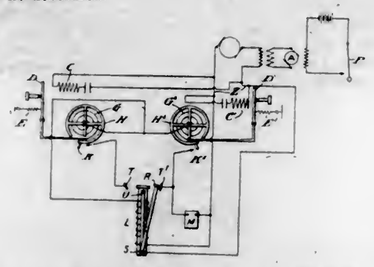
1,242,755. BAG-HOLDER. RALPH ALLEN, Free Union, Va. Filed Aug. 15, 1916. Serial No. 115,051. (Cl. 83—26.)



A bag holder comprising a support, a standard mounted thereupon, a vertically adjustable arm supporting frame mounted upon said standard, a pair of bag supporting arms, the inner ends of said bag supporting arms being pivotally connected to said arm supporting frame, each of said arms comprising a continuous member, the medial portion of each arm extending inwardly at one side of its pivoted connection, the outer ends of said arms being curved and extending outwardly at the opposite sides of their pivoted connections, a pair of eyelets carried by said arm supporting frame, and the inwardly projecting portions of said arms extending through said eyelets.

1,242,756. DISTANCE-OPERATED MECHANISM AND SIGNAL CONNECTED TO ELECTRIC-SUPPLY SYSTEMS. HERBERT EDWARD ANGOLD, Eltham, and WILLIAM DUDDELL, ALFRED HERBERT DYKES, and HENRY WILLIAM HANDCOCK, Westminster, London, and CHARLES OLIVER, Chislehurst, England. Filed May 25, 1917. Serial No. 171,030. (Cl. 177—341.)

1. In an apparatus of the character described, the combination of control and controlled stations, a generator at the control station, a device at said control station for regulating the periodic transmission of impulses from said generator, electromagnetic means at the controlled station energized by said generator, an armature actuated by said electromagnetic means, an oscillator at the controlled station independent and distinct from said armature, and means for connecting said oscillator and armature to vibrate the former from the latter, substantially as described.



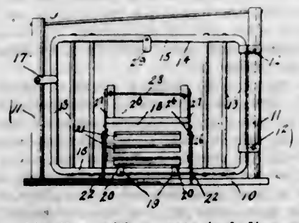
3. In an apparatus of the character described, the combination of control and controlled stations, a generator at the control station, means for periodically transmitting impulses from said generator to the controlled station, electromagnetic means at the controlled station tuned to respond to the frequency of said generator, an armature under the influence of said electromagnetic means, an oscillator at said controlled station distinct from said armature, a resilient connection between said oscillator and armature, and a local circuit adapted to be closed by the said oscillator, substantially as described.

5. In an apparatus of the character described, the combination of control and controlled stations, a generator at the control station, a device for regulating the periodic transmission of impulses from said generator, electromagnetic means at the controlled station for receiving such impulses, an armature adapted to vibrate under the influence of said electromagnetic means, an oscillator at the controlled station, means connecting said oscillator and armature, a local circuit at the controlled station, a contact carried by said oscillator for closing said local circuit, and means for interrupting said local circuit independently of said oscillator, substantially as described.

8. In an apparatus of the character described, the combination of control and controlled stations, a generator at the control station, a device for controlling the periodic transmission of impulses from said generator, electromagnet means at the controlled station, armatures adapted to vibrate under the influence of said electromagnetic means, oscillators at the controlled station having the same vibration period with said device, means for connecting said oscillators and armatures, local circuits at the controlled station, contacts carried by said oscillators for closing said local circuits, and means for interrupting said local circuits after same have been closed by said oscillators including an electromagnet, an arm pivoted at its upper end, an armature pivoted to the lower free end of said arm, and opposed contacts in said local circuits adapted to be engaged by said last-named armature, substantially as described.

[Claims 2, 4, 6, and 7 not printed in the Gazette.]

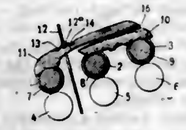
1,242,757. RUNWAY ATTACHMENT FOR GATES. LEW L. ANWAY, Geneva, Iowa. Filed Mar. 22, 1917. Serial No. 156,698. (Cl. 119—82.)



1. The combination with a gate including upper and lower horizontal bars, spaced transverse bars connecting said horizontal bars, of a runway associated with said gate and consisting of a platform pivotally connected to the lower horizontal bar thereof and adapted to be swung to either side of said gate through the space between certain of said transverse bars.

[Claims 2 to 5 not printed in the Gazette.]

1,242,758. SADDLE FOR SPINNING-FRAMES. LEIGH S. BACHE, Boundbrook, N. J., assignor to Bound Brook Oil-Less Bearing Company, Boundbrook, N. J., a Corporation of New Jersey. Filed June 16, 1914. Serial No. 845,366. (Cl. 19—33.)



1. A saddle for spinning frames comprising a top saddle member and a bottom saddle member, said top member having on its under side a substantially long, longitudinally extending, dependent fin, bearing surfaces of rectangular cross section, bearing surfaces on the underside of said top member at both sides of said fin, a bottom saddle member provided with a plurality of bearing surfaces for the rolls, and having on its upper side a groove from end to end thereof, said groove conforming to the dependent fin and a bearing surface on either side of said groove cooperating with the bearing surfaces of the top saddle member.

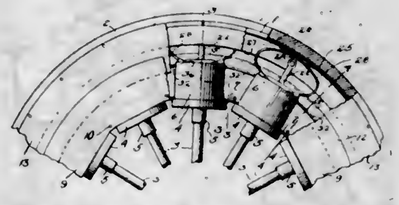
2. A saddle for spinning frames comprising a top saddle member and a bottom saddle member, said top member having on its under side a substantially long, longitudinally extending, dependent fin of rectangular cross section, bearing surfaces on opposite sides thereof and upon the under side of the top member, a bottom saddle member provided with a plurality of bearing surfaces for the rolls, and having on its upper side a groove from end to end thereof, said groove conforming to the dependent fin and with a bearing surface on either side of said groove cooperating with the bearing surfaces of the top saddle member, both of said saddle parts being formed of a homogeneous self-lubricating material, whereby all bearing surfaces between the parts and between the saddle parts and the rolls are self-lubricating.

3. A saddle for spinning frames comprising a top saddle member and a bottom saddle member, said top member having on its under side a substantially long, longitudinally extending, dependent fin of rectangular cross section, bearing surfaces on the underside of said top member at both sides of said fin, a bottom saddle member provided with a plurality of bearing surfaces for the rolls, and having on its upper side a groove from end to end thereof, said groove conforming to the dependent fin, a bearing surface on either side of said groove coöperating with the bearing surfaces of the top saddle member, and means for adjusting a saddle strap upon the top saddle member.

4. A saddle for spinning frames consisting of a lower saddle member provided with a plurality of bearing surfaces upon its under side, and having a groove of rectangular form extending from end to end along its upper side, an upper saddle member coöperating therewith and having bearing surfaces on its under side, and a rectangular centrally disposed rib on its under side filling the groove of the lower saddle member and of substantial length, said upper saddle member bearing upon the lower saddle member at both sides of the groove and said groove and rib interengaged to permit relative longitudinal adjustment of the parts and prevent lateral distortion thereof.

1,242,759. RESILIENT WHEEL. ADOLPH A. BENDER, Pinebluff, Wyo., assignor to Bender Resilient Wheel Mfg. Company, Pinebluff, Wyo., a Corporation of Wyoming. Filed Nov. 27, 1916. Serial No. 133,659. (Cl. 152—37.)

1. A resilient wheel comprising in combination, a rim, a plurality of spoke carried cylinders, pistons operative in said cylinders, slide shoes contained within and guided by said annular chamber, piston rods connecting said shoes and the respective pistons, bowed springs having their ends supported by the pistons and having longitudinal slots through which the piston rod connections project, said springs bearing against the shoes, and plates pivotally connecting said springs into a continuous annular series.

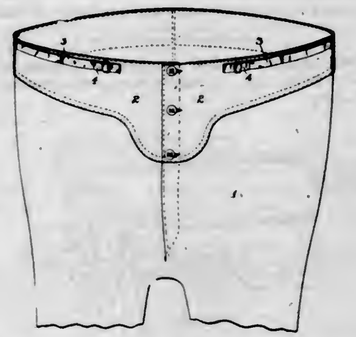


2. A resilient wheel comprising in combination, a rim, a plurality of spoke carried cylinders, pistons operative in said cylinders, slide shoes operative inside of said rim, piston rods pivoted to said pistons and to said slide shoes, springs interposed between said cylinders and said shoes, and plates having fulcrumed bearings on adjacent cylinders and pivotally connecting said springs into an annular series.

3. In a resilient wheel construction, a cushioning structure comprising a cylinder, a head for said cylinder, a piston operative in the cylinder, an oil pad seated against the head of the cylinder, and wholly covering the inner face of the latter, an oil chamber in the head behind said pad and means for feeding oil to the chamber.

4. A resilient wheel comprising in combination, a rim, an annular chamber mounted upon the inner face of the rim, a plurality of spoke carried cylinders, pistons operative in said cylinders, slide shoes contained within and guided by said annular chamber, piston rods connecting said shoes and the respective pistons, bowed springs having their ends supported by the pistons and having longitudinal slots through which the piston rod connections project, said springs bearing against the shoes, and plates pivotally connecting said springs into a continuous annular series.

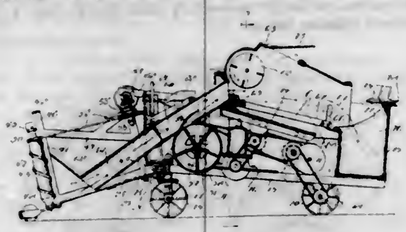
1,242,760. DRAWERS. CYRUS BENSON, Summit, N. J., assignor to Adjusta Company, a Corporation of New York. Filed June 27, 1913. Serial No. 776,006. (Cl. 2—143.)



1. As a new article of manufacture, the combination with drawers having a waistband continuous from front end to front end of means for both supporting the garment and adjusting the size of the waist, the said means consisting of suspender loops of flat tape, one on each side of the garment, each of which is permanently attached at its two ends to the waist-band and is rendered adjustable in length by being passed intermediate its ends through the slots of a plate in which it is adjustably held.

[Claim 2 not printed in the Gazette.]

1,242,761. COTTON-HARVESTER. GEORGE BLOHM, El Centro, Cal. Filed Apr. 20, 1917. Serial No. 163,492. (Cl. 56—117.)



1. In a cotton harvester, a pair of coacting rolls each having a spiral rib and means for driving said rolls at unequal peripheral speed for detaching the cotton from the stalk.

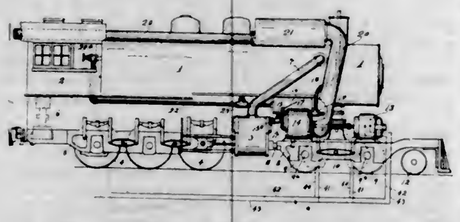
9. In a cotton harvester, the combination with a carrying frame of two sets of stripping apparatus each comprising two bars one of which is spring pressed in the direction of its mate, gathering arms at the forward ends of said bars, upright coacting gathering rolls at the forward ends of the bar, means for driving said rolls at unequal speed, and means for supporting the bars of each stripping device at their rearward ends for swinging movement in a substantially vertical plane and for rocking movement in a substantially horizontal plane whereby the forward ends of the two stripping devices may be variously spaced apart.

10. In a cotton havester, a stripping device comprising a pair of spaced pivotally supported bars, gathering arms at the front ends of said bars and upright coacting and driven stripping rolls also supported at the front ends of the bars, in combination with a duct supported on the bars to the rearward of the rollers, and means for inducing the passage of a current of air in a rearward direction through said duct.

14. In a cotton harvester, a cleaner casing containing a driven fan and having an outlet, a wind trunk connecting the outlet of the fan casing with the cleaner casing for the forcible discharge of an air current in the direction of said cleaner casing, and a duct connected at its rearward end with the wind trunk, extending forwardly and having an intake mouth to the rearward of a pair of cotton stripping rolls, and an upwardly and laterally extending shield at the intake mouth.

[Claims 2 to 8 and 11 to 13 not printed in the Gazette.]

1,242,762. LOCOMOTIVE. WILLIAM J. BOHAN, St. Paul, Minn. Filed Apr. 3, 1916. Serial No. 88,518. (Cl. 105—17.)



1. In a locomotive having a plurality of traction wheels, the combination with a steam cylinder and driving connections between said cylinder and some of said wheels, of means for supplying live steam from the boiler to said cylinder, a steam-operated motor, driving means between said motor and others of said wheels, a steam receiver, an inlet thereto for the exhaust steam form said cylinder, an inlet thereto for the exhaust steam from said cylinder, an steam to operate said motor, and means for preventing the pressure from said live steam supplied to the receiver overcoming the pressure of the exhaust steam from said cylinder.

2. In a locomotive having a plurality of traction wheels, the combination with a steam cylinder and driving connections between said cylinder and some of said wheels, said cylinder being supplied by live steam from the locomotive boiler, of electric motor drives for others of said wheels, a turbo-generator set for supplying current to said motors, a steam receiver, connections between said receiver and said cylinder for transferring the exhaust from the cylinder to said receiver, a live steam supply for said receiver, a connection from said receiver to the turbo-generator set for operating the latter, and means for preventing the pressure from the live steam supplied to the receiver overcoming the pressure of the exhaust steam from the cylinder.

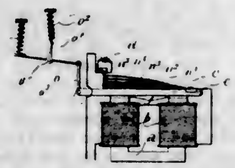
3. In a lomotiv having a plurality of traction wheels, the combination with steam cylinders and connections from said cylinders to some of said wheels for driving the latter, electric motor drives for others of said wheels, a turbo-generator set for supplying current to said motors, a steam receiver interposed between said cylinders and the turbine and adapted to receive the exhaust steam from the cylinders and transfer the same to the turbine, a check valve in the connections between the cylinders and said receiver, a pipe for supplying live steam to said receiver and having a deducing valve therein, and a by-pass pipe leading from said receiver and having an over-pressure valve therein, substantially as and for the purposes specified.

4. In a locomotive, the combination with the boiler steam cylinders, drive wheels, and connections between the same, of a truck associated with said locomotive, an electric motor for driving the wheels of said truck, an electric generator supplying current to said motor, a steam motor for driving said generator, and steam connections including a reduction valve supplying steam from said boiler to said steam motor.

5. In a locomotive, the combination with the steam cylinders, driving wheels and connections between the same, of a truck connected to said locomotive, an electric motor for driving the wheels of said truck, an electric generator supplying current to said motor, a steam motor for driving said generator, a receiver connected to said steam turbine and to the exhaust from the cylinders of said locomotive, and steam connections, including a pressure reducting valve, supplying steam from the locomotive boiler to said receiver.

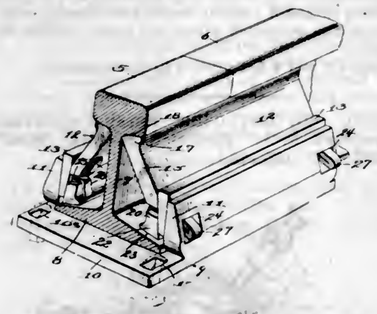
[Claims 6 to 12 not printed in the Gazette.]

1,242,763. ELECTROMAGNET. PIERRE BOSAU, Paris, France, assignor to Société Anonyme Des Etablissements L. Bleriot, Paris, France. Original application filed Dec. 14, 1912, Serial No. 736,838. Divided and this application filed Dec. 19, 1913. Serial No. 807,772. (Cl. 175—335.)



The combination with an electro-magnet and a relatively movable armature, of resistance divided into a series of coils having individual contacts, and a switch movable by the armature and embodying a series of spring blades of different curvatures arranged to coöperate with respective contacts of the resistance coils whereby the resistance is progressively increased when the armature moves toward contact position and is diminished as the armature moves toward released position to compensate for the effects of variation of reluctance of the magnetic field for all positions of the armature.

1,242,764. RAIL-JOINT LOCK. SAMUEL N. BURNS, Hargrove, Ala. Filed Mar. 2, 1917. Serial No. 152,077. (Cl. 239—6.)



1. In a rail joint lock, the combination with abutting rail ends, of a chair in which the abutting extremities and base flanges of the rails are disposed, the chair having side flanges with inner perpendicular surfaces, angularly formed splice bars engaging the opposite side portions of the rail heads and the base flanges of the rails, wedge bars inserted between the outer sides of the lower portions of the splice bars and the side flanges of the chair and extending full length of said flanges, and fastening devices removably inserted through the side flanges of the chair, the wedge bars and the opposite ends of the splice bars.

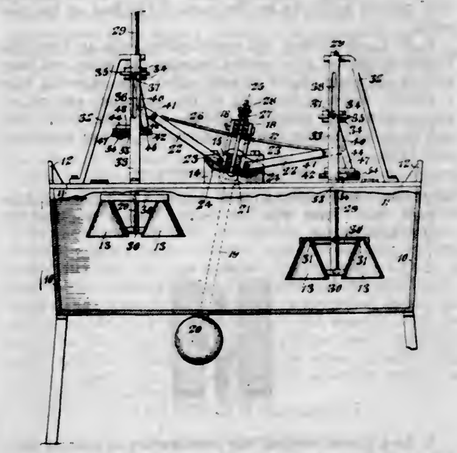
2. In a rail joint lock, the combination with rails having abutting ends and base flanges, of a chair in which the base flanges of the rails are inserted, the chair being formed with opposite side flanges, splice bars inserted between the opposite sides of the rails over the joint and the side flanges of the chair, the splice bars being each of angular form and having an upper head to bear closely against the under side of the rail heads and a lower foot flange to bear on the base flanges of the rails adjacent to the side edges of the latter, continuous wedge strips or bars inserted between the side flanges of the chair and the foot flanges of the splice bars and operating to force the latter bars inwardly in tight engagement with the rails, the side flanges of the chair, the wedge bars and the splice bars having slots in their opposite extremities which are adapted to register, and split keys removably inserted in the slots of the chair flanges, the wedge bars and the splice bars.

[Claim 3 not printed in the Gazette.]

1,242,765. WASHING-MACHINE. GIPP M. BREWER, Sylvia, Kans. Filed May 25, 1916. Serial No. 99,878. (Cl. 74—14.)

1. In a mechanism of the character described, a reciprocating rod, a ratchet wheel fixed to said rod for rotating the same and adapted to reciprocate therewith, a lever pivoted on said rod adjacent to said ratchet wheel, a pawl block pivoted to said lever and provided with a double pawl adapted to engage said wheel to rotate the same in opposite directions, means upon said wheel for actuating said block to reverse the direction of rotation of the ratchet wheel, and means connected to said rod and lever for actuating the same.

2. In a mechanism of the character described, a reciprocating rod, a ratchet wheel fixed to said rod and movable therewith, a pawl also mounted upon said rod and adapted to engage said ratchet for rotating the rod, devices for actuating said pawl, a link pivoted to said rod and in engagement with the devices for actuating the pawl, and means for imparting to said link a reciprocatory and swinging movement whereby the rod is reciprocated as well as rotated.



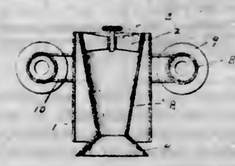
3. In a mechanism of the character described, a reciprocating rod, coöperating devices mounted upon said rod for rotating the same, a link connected to the rod at one end and coöperating with said devices at the other end for actuating the same and a swinging arm connected to said link for causing the same to reciprocate the rod as well as rotate the same.

4. In a mechanism of the character described, a rocking member including an outstanding arm adapted to swing at its outer end in a curved path, a movable rod, a link hinged at one end upon the rod and adjacent its opposite end to the outer end of said arm to swing the link upon the movement of the rod and the arm, turning means carried by the rod and having connection with the free end of said link to actuate the turning means upon the swinging of the link, and automatic reversing means carried by the turning means to rotate the rod first in one direction and then in an opposite direction.

5. In a mechanism of the character described, a rocking member, a vertically movable rod, a link connecting the rod to one end of said member to raise and lower the rod and to swing the link in a horizontal path, a ratchet wheel fixed to the rod, a lever hinged to the rod adjacent the ratchet wheel and having connection with the free end of said link to swing the lever upon the vertical movement of the rod, and a pawl connected to said lever for engagement with the ratchet wheel to advance the same upon the movement of the lever in one direction and to ride freely over the teeth of the ratchet wheel upon the movement of the lever in an opposite direction to obtain a new grip upon the ratchet wheel.

[Claims 6 to 16 not printed in the Gazette.]

1,242,766. AIRSHIP. JAMES M. BUTCHER, Chicago, Ill. Filed Oct. 25, 1915. Serial No. 57,686. (Cl. 244—25.)



1. In an airship, the combination with a casing comprising a long and straight-sided tapering tube and a relatively short tapering tube adjoined to the smaller end thereof, of a propeller disposed within the larger end of the first named tube, and movable flaps carried respectively by the propeller blades and normally closing the gaps between successive blades to afford a closure sub-

stantially flush with the larger end of the first named tube, said flaps so disposed as to be moved out of their said closure positions by the normal rotation of the propeller.

2. In a conveyance, the combination with an actuating helical propeller, of a casing housing the same and comprising an acute-angled straight-sided tube tapering from a portion disposed laterally of the propeller, and an obtuse-angled and relatively shorter-straight-sided tube united at its smaller end to the smaller end of the aforesaid tube.

1,242,767. BALL-BEARING. ALICK L. CARTER, Coudersport, Pa. Filed Feb. 10, 1917. Serial No. 147,765. (Cl. 64—49.)



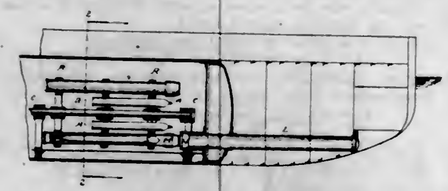
1. In a thrust bearing, the combination of bearing members, bearing balls, a ball retainer for said balls comprising opposed annular dished plates having their peripheries cupped and seamed together and their inner edges spaced apart, the opposed plates being perforated and flanged to form retaining pockets for said balls and for circulation of lubricant.

2. In a thrust bearing, the combination of bearing members, bearing balls, a ball retainer for said balls comprising opposed annular dished plates having their peripheries in contact and their inner edges spaced apart, the opposed plates being perforated and flanged to form retaining pockets for said balls and for circulation of lubricant.

3. In a thrust bearing, the combination of bearing members, bearing balls, a ball retainer for said balls comprising opposed annular dished plates having their peripheries in contact and their inner edges spaced apart, the opposed plates being conformed to retain said balls and for circulation of lubricant.

4. In a thrust bearing, the combination of bearing members, bearing balls, a ball retainer for said balls comprising opposed annular dished plates having their peripheries in contact and their inner edges spaced apart, the opposed plates being conformed to retain said balls.

1,242,768. MEANS FOR STORING, LOADING, AND DISCHARGING TORPEDOES. EDWIN CERIO, Rome, Italy. Filed Apr. 18, 1916. Serial No. 92,018. (Cl. 114—17.)



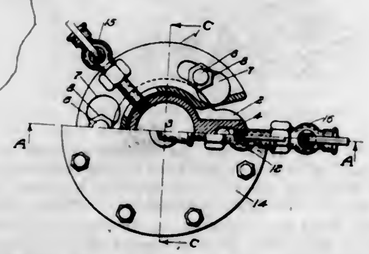
1. In combination, a rotatable and slidably mounted torpedo magazine having a plurality of cradles, torpedo discharging means mounted in the magazine, and a launching tube with which any one of the cradles is adapted to register with and engage.

3. An apparatus for storing and launching torpedoes in vessels comprising a shaft, a revolving magazine on the shaft and including a plurality of cradles and compressed air tanks arranged radially about the shaft and supported in the space inclosed by the cradles, whereby the compressed air tanks and the cradles are rotated simultaneously with the magazine, a launching tube, and means for registering and sealing the joint between the respective cradles and launching tube.

5. An apparatus for storing and launching torpedoes in vessels, comprising a launching tube, a slidable revolving magazine including a plurality of cradles, nozzles on the forward end of each cradle, a mouth piece on the rear end of the launching tube for sealing the joint between the adjacent cradle and the launching tube when the magazine is in discharging position, and compressed air tanks arranged radially about and rotating with the magazine and supported within the space inclosed by the cradles.

[Claims 2 and 4 not printed in the Gazette.]

1,242,769. ORIFICE-CLOSER. EMERY E. CHAMBERLAIN, Watertown, N. Y. Filed Mar. 21, 1916. Serial No. 85,737. (Cl. 137—76.)



1. The combination with a reservoir, studs mounted on said reservoir, of an orifice closer including, a body, said body having slots therein, said slots being large at one end to receive said studs, a cover plate, the inner surface of said cover plate having a chamber formed therein, a diaphragm interposed between said cover plate and body, a cup-shaped cover for the orifice, a disk member, a screw having the head thereof loosely mounted in said disk, the opposite end of the screw being rigidly secured to the cup-shaped member, gaskets mounted on said cup-shaped member, ribs formed on the member to retain the gasket, means for conducting liquid to said chamber under pressure, a valve mounted on said means for controlling the ingress and egress of the hydraulic fluid for controlling the pressure exerted on the diaphragm.

2. The combination with a receptacle having an orifice therein, and studs mounted on the receptacle, of a closure means for the said orifice including a body portion having openings therein providing means for detachable engagement of the body with the studs of the receptacle, a cover mounted on said body, a diaphragm interposed between said cover and body, a disk mounted on the under side of said diaphragm, said disk having an opening concentrically thereof, a cup shaped member, a screw member rigidly secured to said cup shaped member, the head of said screw being in engagement with said recess formed in the disk, means for conducting liquid to said chamber under pressure, and a valve mounted on said means for controlling the ingress and egress of the hydraulic fluid for controlling the pressure extended on the diaphragm.

3. The combination with a reservoir having an orifice therein, studs mounted on said reservoir, a body member having slots therein to receive said studs, a cover plate secured to said body, a diaphragm interposed between said cover plate and body, means for controlling liquid under the pressure to said diaphragm, a valve mounted on said means, and a cup shaped member connected to said diaphragm adapted to close said orifice upon ingress of the liquid under pressure.

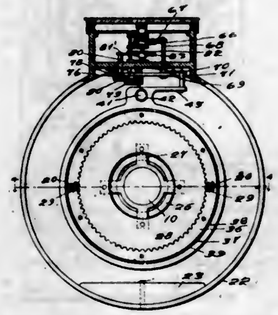
4. The combination with a reservoir having an orifice therein, studs mounted on said reservoir, a body member having slots therein to receive said studs, a cover plate secured to said body member, a diaphragm interposed between said cover plate and body, a disk secured to said diaphragm, a cup shaped member having a universal connection with said disk, means for conducting liquid under pressure to said cover plate, a valve mounted on said means for controlling the ingress and egress of the hydraulic fluid for controlling the pressure exerted on the diaphragm.

1,242,770. REMEDY FOR THE BEE DISEASE CALLED THE EUROPEAN FOUL BROOD. IRA M. CHURCH, Auld, Cal. Filed Nov. 21, 1916. Serial No. 132,567. (Cl. 167—3.)

3. A spraying composition of the kind described, consisting of three quarts of water, one-third ounce of common salt, one-fourth fluid ounce of carbolic acid, three-eighths fluid ounce of hydrogen peroxid, and one-fourth fluid ounce sulfuric acid.

[Claims 1 and 2 not printed in the Gazette.]

1,242,771. MECHANICALLY-OPERATED HORSE-POWER-COMPUTING MACHINE. BERT E. CLOUGH, Battle Creek, Mich. Filed Mar. 4, 1916. Serial No. 82,264. (Cl. 265—26.)



1. In apparatus of the character described, a plurality of rotatable members adapted to turn with relation to each other and to be connected between a prime mover and the load, yielding means to oppose the turning movement of one member with relation to the other member, indicating mechanism operated by the relative turning movement of the member, and centrifugal means operated by one member and connected with the indicating mechanism to influence its action.

2. In apparatus of the character described, a plurality of rotatable members adapted to turn with relation to each other and to be connected between a prime mover and the load, yielding means to oppose the turning movement of one member with relation to the other member, indicating mechanism operated by the relative turning movement of the member, centrifugal means carried by the other member and operated thereby, and means connecting the centrifugal means and the indicating mechanism to influence the action of the indicating mechanism.

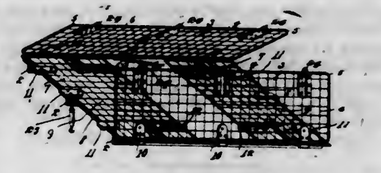
3. In apparatus of the character described, a pair of attaching members to be connected between the prime mover and the load and adapted to turn with relation to each other, yielding means to oppose the turning movement of one attaching member with relation to the other, a movable member, driving connecting means between one of the first named attaching members and the movable member, a second movable member connected with the first named movable member and adapted to be shifted thereby, centrifugally operated means connected with the other attaching member, driving connecting means between the centrifugally operated means and the second named movable member, and indicating mechanism actuated by the second named movable member.

4. In apparatus of the character described, a pair of members to be connected between the prime mover and the load and adapted to be turned with relation to each other, yielding means to oppose the relative turning movement of the members, a pivoted lever, driving connecting means between the pivoted lever and one member, a second pivoted lever connected with the first named pivoted lever and adapted to be shifted thereby, a centrifugally operated member carried by the other of said members, driving connecting means between the centrifugally operated member and the second named lever, and indicating mechanism actuated by the second named lever.

5. In apparatus of the character described, a support provided with a slot, a slotted slide mounted to move upon the support, a lever pivoted to the support and having pivotal connection with the slide to move it longitudinally and thereby shift its pivot point, a pivot element operating in engagement with the slotted slide and within the slot of the support, indicating mechanism moved by the pivot element, a pair of members to be arranged between a prime mover and the load and adapted to turn with relation to each other, yielding means to oppose the turning movement of one member with relation to the other, means operated by the turning movement of one member with relation to the other to swing the pivoted lever, centrifugally operated means carried by the other member, and means operated by the centrifugally operated means to move the slotted slide.

[Claims 6 to 8 not printed in the Gazette.]

1,242,772. FOLDING CRATE. HENRY E. COLLEYS, Hammond, Ind. Filed Aug. 22, 1914. Serial No. 858,024. (Cl. 220—132.)



A device of the character set forth embodying a foldable crate comprising a bottom, sides and ends hinged thereto, a series of spring hooks secured exteriorly to the respective side and end members of the crate, the hooks of the end members being arranged along the opposite edges thereof, the hooks of the side members being disposed along the upper longitudinal edges thereof, a reinforcing strip secured along the longitudinal center of the bottom and provided with openings, a second series of spring hooks, and rings passing through the openings of the reinforcing strip for flexibly connecting the latter mentioned hooks to the said reinforcing strip, the said last mentioned hooks serving to retain the crate in collapsed position.

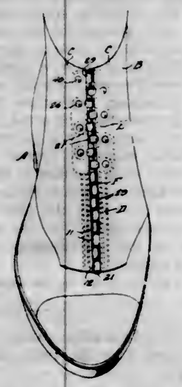
1,242,773. [WITHDRAWN.]

1,242,774. CLOSURE FOR SHOES. ALEXANDER D. CURRY, Hawkinsville, Ga. Filed Nov. 26, 1915. Serial No. 63,497. (Cl. 24—140.)

3. In a closure, the combination of opposed rows of staggered eyelets adapted to be secured to the opposite marginal edges of a garment or the like and adapted to interfit in axial alinement, a strand permanently threaded through said eyelets and adapted to be drawn taut into a substantially straight line to hold the eyelets in axial alinement and to be slackened to admit spreading of the said marginal edges, and opposed rows of staggered hooks adapted to be secured to said marginal edges in line with said eyelets and adapted to receive the free end of said strand thereover when the latter is drawn taut, the free end of the strand being adapted to extend in a straight line through said hooks to hold the latter in axial alinement with the eyelets.

4. In a closure, the combination of opposed rows of staggered eyelets adapted to be secured to the opposite marginal edges of a garment opening adjacent one end

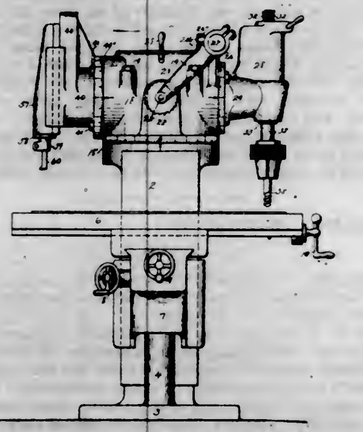
thereof and adapted to interfit in axial alinement, opposed rows of staggered hooks adapted to be secured to said edges at the other end of said opening in line with said eyelets and to be interfitted in axial alinement therewith, a single strand threaded through said eyelets and being of a length equal to that of said garment opening and adapted to be alternately engaged over the opposed rows of hooks and to be drawn up into substantially a straight



line to axially aline all of said eyelets and hooks, and a fastener carried by the garment at said other end of the opening for engagement with the extremity of the strand when drawn taut, the portion of the strand engaging the hooks being of sufficient length when released therefrom to admit the spreading of the eyelets without removing the strand therefrom.

[Claims 1 and 2 not printed in the Gazette.]

1,242,775. MILLING-MACHINE. OLIVER W. CURTIS, Watertown, N. Y. Filed Mar. 9, 1917. Serial No. 153,571. (Cl. 29—26.)

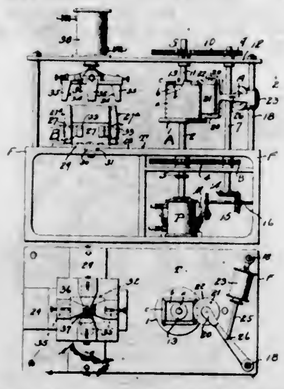


2. A milling machine including an upright body, a turret rotatable horizontally on said body, a spindle for operating a milling tool journaled in said turret, said spindle supporting a spur-gear, a slotting mechanism carried by said turret, a shaft for operating said slotting mechanism, a back-gear connecting said spur-gear with said shaft, a casing supporting a portion of said slotting mechanism, said casing pivoted to said turret and rotatable in a vertical plane, and a driving mechanism supported in said body adapted to drive said spindle and through said back-gear to drive said slotting mechanism.

6. In a milling machine, the combination with the upright column and a variable speed driving mechanism including a bevel-gear, of a hollow turret rotatable on said column, a spindle in said turret supporting a gear in constant mesh with said bevel-gear, a shaft journaled in said turret in line with said spindle, a crank operatively connected to said shaft, a slotting tool, a casing for said tool reciprocated by said crank, a casing for said crank, said casing pivoted to said turret and rotatable in a vertical plane, and a back-gear operatively connecting said spindle with said shaft for driving said slotting tool.

[Claims 1, 3 to 5, and 7 to 10 not printed in the Gazette.]

1,242,776. APPARATUS FOR FORMING HARD-RUBBER BATTERY-JARS. SNYDER CURTIS, Trenton, N. J., assignor to Evelyn E. Curtis, Trenton, N. J. Filed Nov. 3, 1916. Serial No. 129,379. (Cl. 18—19.)



1. An apparatus for making hard rubber battery jars comprising a frame, a primary forming unit comprising a vertically movable core, a relatively fixed abutment element, a presser roller at one side of the core, and gearing for rotating said core and relatively fixed abutment element, and a finishing unit arranged in the frame in juxtaposition to said primary forming unit.

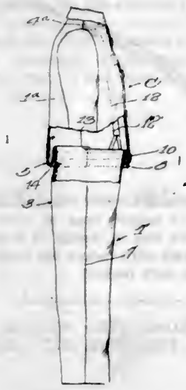
2. An apparatus for making hard rubber battery jars comprising a frame, a primary forming unit comprising a vertically movable core, a relatively fixed abutment arranged in the path of movement of said core, a presser roller mounted to swing in a horizontal plane and having means for directing the same against the sides of the core, said roller having an upwardly flared flange at its upper edge for working over the upper edge of the core, gearing for rotating the relatively fixed abutment and core at the same speed, and a finishing unit arranged in juxtaposition to said primary forming unit.

[Claims 3 and 4 not printed in the Gazette.]

1,242,777. OVERALLS. ANDREW C. DANIELSON, Rhinelander, Wis. Filed Jan. 3, 1916. Serial No. 69,922. (Cl. 2—144.)

1. A combination overall garment comprising a body garment and trousers, the back of the body garment being composed of two longitudinally disposed back sections each of which is cut in a single piece with one of the backs of said trousers, an extension fold or plait arranged transversely across the back of the garment at the waist line thereof, belt receiving loops formed on the fronts of the trousers near their upper edges, and patch pockets on the backs of the trousers each having its upper edge folded over and stitched to form a transversely extending loop arranged in alinement with the loops on the fronts of the trousers and adapted to receive a belt whereby the trousers are supported and the pockets held in closed position.

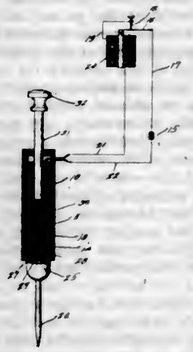
2. An overall garment comprising a body garment and a pair of trousers, the back of the body garment being extended downwardly below the lower front edge of the front of the body garment and formed integrally with the upper back of said trousers, said back extension serving to provide an overhanging fullness between the body garment and the trousers when the overall garment is positioned upon the wearer, said overhanging fullness being such as to also permit the lower front



edge of the body garment to overhang the upper front edge of the trousers, means encircling the waist line of the trousers to hold them in position upon the wearer, said means being positioned under the overhanging fullness of the back and under the overhanging front of the body garment out of sight, and means for attaching the front of the body garment to the front waist line of the trousers.

[Claim 3 not printed in the Gazette.]

1,242,778. TOOTH-NERVE TESTER. ARTHUR R DARLING, Indianapolis, Ind., assignor to Edwards Instrument Company, Indianapolis, Ind., a Corporation of Indiana. Filed Mar. 21, 1917. Serial No. 156,513. (Cl. 174—177.)



2. A tooth nerve testing instrument, comprising a probe for engaging the tooth, and an induction coil mounted on said probe so as to be held by the hand of the dentist and having one terminal of its secondary winding connected to said probe, said induction coil including a member which is movable to vary the secondary voltage of such induction coil, and means tending to move said movable member to reduce such secondary voltage.

4. A tooth nerve testing instrument, comprising a probe for engaging the tooth, and an induction coil mounted on said probe so as to be held by the hand of the dentist and having one terminal of its secondary winding connected to said probe, said induction coil including a member which is movable to vary the reluctance of the magnetic circuit interconnecting the primary and secondary windings of such induction coil, and means tending to move said movable member to increase such reluctance.

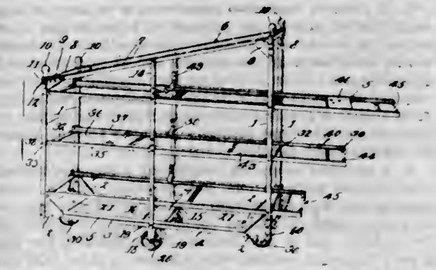
5. A tooth nerve testing instrument, comprising a probe for engaging the tooth, and an induction coil mounted on said probe so as to be held by the hand of the dentist and having one terminal of its secondary winding connected to said probe, said induction coil including a member which is movable to vary the reluctance of the magnetic circuit interconnecting the primary and secondary windings of such induction coil.

7. A tooth nerve testing instrument, comprising a probe for engaging the tooth, and an induction coil mounted on said probe so as to be held by the hand of the dentist and having one terminal of its secondary winding connected to said probe, said induction coil including a member which is movable to vary the reluctance of the magnetic circuit interconnecting the primary and secondary windings of such induction coil, and said movable member being connected to the other terminal of the secondary winding of said induction coil, so that the secondary circuit is completed through said member, the hand of the dentist, the tooth of the patient, and said probe.

13. A tooth nerve testing instrument, comprising a probe for engaging the tooth, a handle adapted to be held by the hand of the dentist and on which said probe is mounted, means whereby said probe may be subjected to an electric potential, and a member mounted on said handle and movable longitudinally thereof by the dentist's thumb to vary said electric potential.

[Claims 1, 3, 6, and 8 to 12 not printed in the Gazette.]

1,242,779. PORTABLE RACK. FRANK DAVIS, Pawtucket, R. I. Filed Sept. 12, 1916. Serial No. 119,695. (Cl. 211—14.)



1. In a device of the class described, a rack including end posts and an intermediate post; tracks connecting the end posts; a rigid shelf mounted to slide longitudinally on the tracks and including side members and end members; a rigid keeper on the intermediate post, the keeper overhanging one side member to prevent the shelf from tipping upwardly at its inner end when the shelf is advanced as an entity at different times in opposite directions to project beyond either end of the rack, the keeper coacting with both end members, at different times, to limit the outward movement of the shelf in either of said directions.

2. In a device of the class described, a frame comprising upright posts; transverse supports having upstanding ends coacting with the posts; tracks in the form of angle members, each comprising a horizontal flange and a vertical flange, the horizontal flanges resting on the body portion of the support, and the vertical flanges abutting against the upstanding ends of the supports; securing devices connecting the ends of the supports and the vertical flanges of the tracks with the post; and a shelf comprising side bars in the form of T-members including a vertical flange slidable on the horizontal flange of the track, and an inwardly projecting horizontal flange.

1,242,780. GARMENT-SUPPORTER. ELLEN DE LONG, Chicago, Ill. Filed Nov. 4, 1913. Serial No. 799,088. (Cl. 24—248.)



1. A garment supporter comprising a member having a semi-circular part at one end and with the margin of said curved part bent over to form a semi-cylindrical channel, means attached near the opposite end of said member for supporting the same, a resilient part adapted to enter said channel and coöperate with the semi-circular walls thereof to engage a garment, and means pivotally connecting said member and part adapted to control their relative position.

2. A garment supporter comprising a member having a semi-circular part at one end and with the margin of said curved part bent over to form a semi-cylindrical channel, means attached near the opposite end of said member for supporting the same, a part formed of resilient wire adapted to enter said channel and coöperate with the semi-circular walls thereof to engage a garment, and means pivotally connecting said member and part adapted to control their relative position.

3. A garment supporter comprising a member having a semi-circular part at one end and with the margin of said curved part bent over to form a semi-cylindrical, semi-circular channel, means attached near the opposite end of said member for supporting the same, a resilient part adapted to enter said channel and coöperate with the semi-circular walls thereof to engage a garment, and rigid means connecting said member and part adapted to control their relative position.

4. A garment supporter comprising a member having a semi-circular part at one end and with the margin of said curved part bent over to form a semi-cylindrical channel, means attached near the opposite end of said member for supporting the same, a resilient part adapted to enter said channel and coöperate with the semi-circular walls thereof to engage a garment and means rigidly connecting said member and part and pivotally attached to each adapted to control their relative position.

5. A garment supporter comprising a member having a semi-circular part at one end provided with a central opening and with the margin of said curved part bent over to form a semi-cylindrical channel, means attached near the opposite end of said member for supporting the same, a part formed of resilient wire adapted to enter said channel and coöperate with the walls thereof to engage a garment and a rigid lever pivotally connecting said member and part adapted to control their relative position, the free end of said lever extending over said central opening in the member when said supporter is in an engaging position whereby said lever may be manually operated to release said supporter through said opening.

1,242,781. PROTECTOR FOR DETONATOR-CAPS. GEORGE L. DILLARD, Mogollon, N. Mex., assignor to The Capseal Company, El Paso, Tex., a Corporation of Texas. Filed Nov. 15, 1916. Serial No. 131,432. (Cl. 102—9.)

1. A protector for detonator caps, consisting of a deformable cylindrical holder, open at both ends thereof, and having an inner film or lining of a plastic water-excluding material normally carried by and forming a part thereof, for the purpose described.

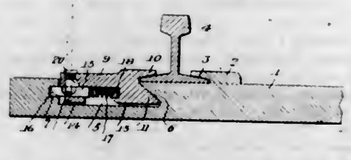
2. A protector for detonator caps, consisting of a deformable cylindrical holder open at both ends thereof, and having an inner film or lining of a plastic water-excluding material, and also having crimped ends to normally retain the inner film or lining in place and act as a gage to the depth thereof, for the purpose described.

3. The combination with a detonator fuse and cap, of a protector including a cylindrical holder crimped along a longitudinal line around the inner end of the cap and a portion of the fuse adjacent thereto, to snugly embrace the same, said holder having an inner film or lining of plastic water excluding material whereby to seal the inner end of the cap around the fuse.



4. A protector for detonator caps, consisting of a deformable cylindrical holder, open at both ends and provided with an inner film or lining of a plastic water-excluding material, and with means for holding said film or lining therein as a part thereof.

1,242,782. RAILROAD-TIE. WILLIAM R. DOUGHTY, Wayland, N. Y. Filed July 9, 1917. Serial No. 179,485. (Cl. 238—4.)



1. A metallic tie having a rail engaging lug integrally formed therewith and having a pocket disposed adjacent to the lug, one of the end walls provided by the pockets being beveled, the opposite wall being slotted, a removable rail engaging element, designed to be received in the pocket, and having an inclined end to engage with the beveled end wall of the pocket, a spring pressed latch bolt upon the said element designed to be received in the slot in the opposite end of the pocket, and means, operative exteriorly of the element for actuating the bolt to bring the same to an unlocking position to permit of the separation of the element from the tie.

2. A metallic tie having a rail engaging lug integrally formed therewith and having a pocket disposed adjacent to the lug, one of the end walls provided by the pocket being beveled, the opposite end wall being slotted, a removable rail engaging element designed to be received in the pocket, and having an inclined end to engage with the beveled end wall of the pocket, and a spring pressed latch bolt upon the said element designed to be received in the slot in the opposite end of the pocket.

3. A metal tie having a rail engaging lug integrally formed therewith and having a rectangular pocket disposed adjacent said lug, the wall of the pocket adjacent the lug being beveled inwardly, the opposite wall of the pocket having a slot, the side walls provided by the pocket being stepped to form a shoulder at the upper edges thereof, a removable rail engaging element including a body portion designed to rest upon the shoulders and having a rail engaging lip, said body having a central reduced portion designed to be engaged in the pocket proper, and having one of its ends beveled to co-engage with the beveled end wall of the pocket, a spring pressed bolt carried by the rail engaging member and designed to be received in the referred to slot in the outer end wall of the pocket.

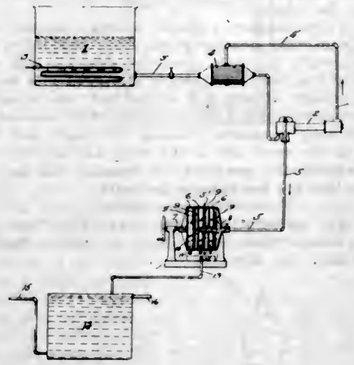
1,242,783. CELLULOID SUBSTITUTE AND PROCESS OF MAKING SAME. HENRY DREYFUS, Basel, Switzerland. Original application filed Oct. 2, 1911, Serial No. 652,444. Divided and this application filed Nov. 12, 1914. Serial No. 871,833. (Cl. 106—37.)

1. A viscous, concentrated solution of a cellulose acetate in a solvent comprising alcohol and trichlorethylene.

3. A clear transparent composition of matter comprising as an essential constituent thereof, a cellulose acetate soluble in a mixture of alcohol and trichlorethylene.

[Claim 2 not printed in the Gazette.]

1,242,784. METHOD FOR SEPARATING MIXTURES OF LIQUIDS. ERNEST I. DYER, Oakland, and ARTHUR R. HEISE, Avila, Cal. Filed June 15, 1914. Serial No. 845,060. (Cl. 196—25.)



1. The method of separating water from emulsified mineral oils, which consists in breaking down the shell of the water enveloping globules to liberate the confined water by forcibly ejecting the body of oil through a capillary medium.

2. The method of separating particles of water from emulsified mineral oils which consists in simultaneously passing both components through a capillary medium under pressure to break down the inclosing film of the globules of one liquid to free the other liquid therefrom.

3. The method of separating water from emulsified mineral oils which consists in liberating the water by breaking down or puncturing under pressure the inclosing shell of the globules within which the water is confined.

4. The method of freeing and separating water from emulsified mineral oils, which consists in breaking or puncturing the covering film of the water confining globules by forcibly passing a body of flowing emulsified mineral oil through a capillary medium, and thence overflowing the oil from the water.

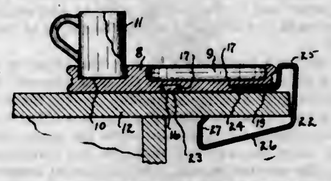
5. The method of freeing and separating water from emulsified mineral oils, which consists in first raising the temperature of the body of oil to be treated, and thence breaking down the film of the water confining globules by forcibly ejecting the said oil through a capillary medium.

[Claims 6 to 11 not printed in the Gazette.]

1,242,785. CHILD'S FEEDING DEVICE. WILLIAM H. ELDRIDGE, Omaha, Nebr. Filed Apr. 9, 1917. Serial No. 160,615. (Cl. 65—53.)

1. A child's feeding device consisting of a flat casting having a main circular recess and a lesser circular recess each opening on its top to provide respectively a receptacle for containing food and a holder for a cup, and having a groove and channels with undercut walls opening on its bottom to provide bearings for a wire clamp for securing it to a support.

2. A child's feeding device consisting of a flat casting provided with a recess of greater area and adjacent thereto with a recess of lesser area, each recess being circular in plan and the recess of greater area having an undercut wall, said casting being provided to open on its bottom and sides with channels to provide bearings for a clamping member for use in securing the device to a support.

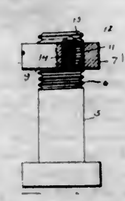


3. A child's feeding device comprising a casting having a flat bottom with a circular groove opening thereon with an undercut inner wall and provided with radially disposed channels having undercut walls opening on the groove and projecting radially therefrom to open on the bottom and sides of the casting to provide bearings, in combination with said groove, for the arms and loop of a clamping device, the top of said casting being provided to open thereon with a circular recess having an undercut wall for use as a food receptacle, and having a second circular recess opening thereon to provide a holder for a cup or similar article.

4. A child's feeding device consisting of a casting having a pair of shallow circular recesses adjacent to each other and of different areas opening on its top, said casting being provided with a circular groove opening on its bottom and having channels opening on said groove and its side walls, the walls of said channels and the inner wall of said groove being undercut for engagement, respectively, with the arms and the loop of a clamping device for securing said feeding device on a table or other support.

5. A child's feeding device comprising a casting having a flat bottom with a circular groove opening thereon with an undercut inner wall and provided with radially disposed channels having undercut walls opening on the groove and projecting radially therefrom to open on the bottom and sides of the casting to provide bearings, in combination with said groove, for the arms and loop of a clamping device, the top of said casting being provided to open thereon with a circular recess having an undercut wall for use as a food receptacle, and having a second circular recess opening thereon adjacent to the first named recess to provide a holder for a cup or similar article, said radially disposed channels being disposed substantially 90 degrees apart.

1,242,786. NUT-LOCK. ROBERT BROOKS FINCH, Denver, Colo. Filed June 20, 1916. Serial No. 104,701. (Cl. 151—25.)



1. A nut lock including a bolt, a nut fitted upon said bolt having a groove in the wall of the bore thereof, a locking element fitted in said groove, the outer wall of said groove being inclined so as to move the locking element into wedging engagement with the screw threads of the bolt when the nut is rotated in one direction, and means carried by said locking element, arranged exteriorly of said nut and adapted to engage the screw threads of said bolt to prevent removal of the locking element from the groove.

2. A nut lock including a bolt, a nut fitted upon said bolt having a groove in the wall of the bore thereof, a locking element movably positioned in said groove, the

outer wall of said groove being inclined so as to move the locking element into wedging engagement with the screw threads of the bolt when the nut is rotated in one direction, one end of said locking element being extended laterally of the adjacent face of the nut, and means carried by the extended end of the locking element and engaging the screw threads of the bolt to prevent removal of the locking element.

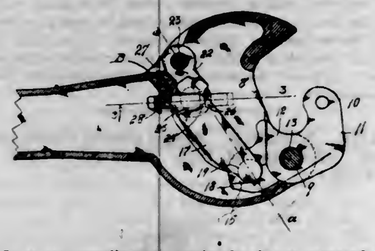
3. A nut lock including a bolt, a nut fitted on said bolt having a groove in the wall of the bore thereof, a locking element movably positioned in said groove, the outer wall of said groove being inclined so as to move the locking element into wedging engagement with the screw threads of the bolt when the nut is rotated in one direction, and a cutting edge carried by said locking element adapted to engage the screw threads of the bolt to secure the locking element against removal from the groove.

4. A nut lock including a bolt, a nut fitted on said bolt having a groove in the wall of the bore thereof, a locking element movably positioned in said groove, the outer wall of said groove being inclined so as to move the locking element into wedging engagement with the screw threads of the bolt when the nut is rotated in one direction, and a cutting edge carried by the locking element engaging the screw threads of the bolt to secure the locking element against removal from the groove and arranged exteriorly of the nut.

5. A nut lock including a bolt, a nut fitted upon said bolt having a groove in the wall of the bore thereof, a locking element movably positioned in said groove, the outer wall of said groove being inclined so as to move the locking element into wedging engagement with the screw threads of the bolt when the nut is rotated in one direction, and a cutting edge formed at one end of the locking element engaging in the groove defined by the external screw threads of the bolt to prevent removal of the locking element from the groove and arranged exteriorly of the nut.

[Claims 6 and 7 not printed in the Gazette.]

1,242,787. CAR-COUPLING. ROBERT FOULDS, Denver, Colo. Filed Nov. 24, 1916. Serial No. 133,231. (Cl. 213—10.)



1. In a car coupling, a coupler having a recessed head, a knuckle pivotally mounted within said recess at the forward extremity of the latter, a link having one extremity pivotally connected with the heel of said knuckle, a second link pivotally connected with the opposite extremity of said first named link, the said pivotal connection between the two links when the knuckle is in the locked position being in the rear of the line of force applied to open the knuckle and adapted to lie adjacent the rear wall of the recess, and a releasing pin supported in said coupler head in the rear of the joint between the said links for throwing the said joint forwardly of said line of force.

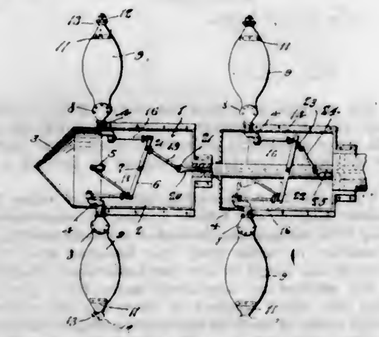
2. In a car coupler, a coupler having a recessed head, a knuckle pivotally mounted within said recess, a link having one extremity pivotally connected with the heel of said knuckle, a second link pivotally connected with the opposite extremity of said first named link, one extremity of the second named link being pivotally mounted in the coupler head, and a pivoted releasing member for breaking the joint between the first and second named link for releasing the coupler.

3. In a car coupler, a coupler having a recessed head, a knuckle pivotally mounted within said recess, a link having one extremity pivotally connected with the heel of said knuckle, a second link pivotally connected with the opposite extremity of said first named link, one extremity of the second named link being pivotally mounted in the coupler head, and means supported in the rear of the joint between the first and second named links for breaking said joint to release the coupler.

4. In a car coupler, a coupler having a recessed head, a knuckle pivotally mounted within said recess, a link having one extremity pivotally connected with the heel of said knuckle, a second link pivotally connected with the opposite extremity of said first named link, one extremity of the second named link being pivotally mounted in the coupler head, and means adapted to bear directly upon the joint between the two links for breaking the said joint to release the coupler.

5. In a car coupler, a coupler having a recessed head, a knuckle pivotally mounted within said recess, a link having one extremity pivotally connected with the heel of said knuckle, a second link pivotally connected with the opposite extremity of said first named link, one extremity of the said second named link being pivotally mounted in the coupler head, means for releasing the coupler and lugs secured to the lower side of the latter and adapted to project beneath the pivots of the knuckle and the second named link for the purpose set forth.

1,242,788. AIR-PROPELLER. TONY FRANCISCO, South Cle Elum, Wash. Filed Mar. 21, 1917. Serial No. 156,335. (Cl. 170—163.)

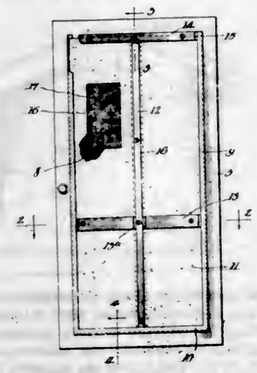


1. A device of the class described including a central support, diametrically disposed blades arranged in pairs and having reversely disposed crank elements, said blades being mounted for rotary movement on their longitudinal axis, and a lever frame mounted on the central support and pivoted at a point intermediate of its ends and connected at opposite sides of the pivotal point with the reversely arranged crank element for simultaneously adjusting the propeller blades.

7. A device of the class described including front and rear propellers having pivotally mounted propeller blades provided with crank elements, front and rear lever frames mounted for rotary movement with the front and rear propellers and connected with the blades thereof, a central shaft connected with the rear propeller and having a longitudinal bore or opening, a central shifting rod mounted for reciprocation in the bore or opening of the longitudinal shaft and connected with the rear lever frame, an outer tubular shaft mounted on the inner longitudinal shaft and connected with the front lever frame, sleeves rotating with the said inner and outer shafts and connected with the said rods and movable longitudinally, guides, bearings receiving the said shafts and composed of bearing boxes and inner rotary sleeves interlocked with the bearing boxes for holding the rotary sleeves against longitudinal movement, said rotary sleeves being fixed to the inner and outer shafts, and means for adjusting the said rods.

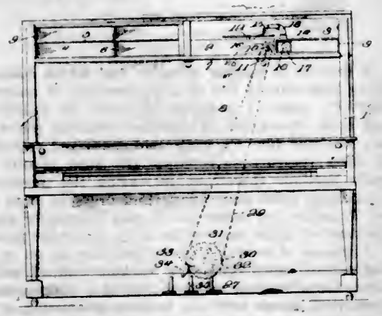
[Claims 2 to 6, 8, and 9 not printed in the Gazette.]

1,242,789. COMBINATION SCREEN AND STORM DOOR. CHARLES F. FRANZ, Richville, Minn. Filed Nov. 5, 1914. Serial No. 870,533. (Cl. 20—16.)



A combined screen and storm door comprising a frame having vertical and horizontal mullions, a screen mounted upon the frame, guides located at opposite sides of the frame and extending downwardly from the top thereof and provided with a connecting portion extending across the bottom of the frame and closing the lower ends of the guides, a panel or cover extending from the top to the bottom of the frame and slidably arranged within the said guides and introduced into the same at the upper ends thereof and clamping bars extending across the top of the frame and along the said mullions and detachably securing the said cover or panel in the guides.

1,242,790. COMBINED PIANO AND GRAPHOPHONE. JACOB J. FROESS, Erie, Pa. Filed Oct. 13, 1916. Serial No. 125,373. (Cl. 84—27.)



1. The combination with a piano, of a graphophone having a horn provided with a damper, and means for operating said damper from one of the piano pedals.

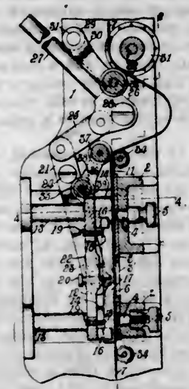
7. The combination with a manually operable piano, of a graphophone mounted in the piano case and provided with a spring motor, and mechanism connecting said motor with one of the piano pedals, whereby the operation of said pedal will wind said motor.

[Claims 2 to 6 and 8 not printed in the Gazette.]

1,242,791. [WITHDRAWN.]

1,242,792. MOVING-PICTURE MACHINE. ADOLPH F. GALL and NATHAN A. CURTISS, West Orange, N. J., assignors to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed Feb. 24, 1914. Serial No. 820,495. (Cl. 88—17.)

2. In a moving picture machine, a film gate, and unitary means operable by a single manipulation to either open or close said gate and to positively lock the same in closed position, substantially as described.

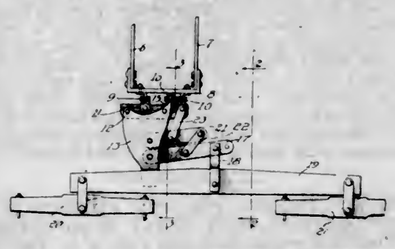


5. In a moving picture machine, a plate having a projection aperture, wearing strips removably secured to said plate on each side of said aperture, and guide strips removably secured to said plate over the wearing strips and exposing portions of said wearing strips between them, whereby a channel is formed through which a film can be moved with its longitudinal edge portions in contact with the wearing strips, substantially as described.

7. In a moving picture machine having an aperture plate, a film gate having means to engage the longitudinal edge portions of the film and press the same against said plate, rods on which said gate is slidably mounted, whereby the latter can be moved toward and from the film, and manually operable means including a toggle joint for operating the gate and for locking the gate in film-pressing position, substantially as described.

[Claims 1, 3, 4, 6, 8, and 9 not printed in the Gazette.]

1,242,793. DRAFT CONNECTION FOR PLOWS. JOSEPH W. GAMBLE, Omaha, Nebr., assignor to Illinois Iron & Bolt Company, Carpentersville, Ill. Filed Mar. 21, 1914. Serial No. 826,174. (Cl. 97—4.)



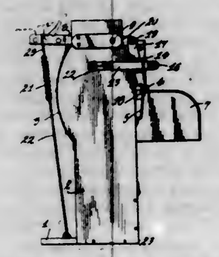
1. In a device of the class described, a furrow beam and a landside beam, a cross member connecting said beams, an evener bar offset toward the right hand side of said beams, a draft connection connected at mid-point of said evener bar, said draft connection comprising a main member pivotally connected to said cross member at a point substantially in line with said furrow beam, and transverse arms pivotally connected to said main member, one of said arms being connected to said evener bar, and the other of said arms being connected to the landside of said transverse member and means for producing a side pull toward the land.

2. In a device of the class described, a furrow beam and a landside beam, a cross member connecting said beams, an evener bar offset toward the right hand side of said beams, a clevis connected to the midpoint of said

evener, an arm pivotally connected to said clevis and extending toward the furrow side, and main member connected to the furrow end of said arm, the rear end of said member being pivotally connected to the landside end of said cross member, and a second arm extending substantially parallel to said first arm and pivotally connected to said main member, and a rearwardly and landwardly extending link pivotally connected at its opposite ends to said arms and means in said connection for transmitting the pull on said evener to a point at or near the land side beam.

3. In a device of the class described, a furrow beam and a landside beam, a cross member connecting said beams, an evener bar offset toward the right hand side of said beams, a clevis connected to the midpoint of said evener, an arm pivotally connected to said clevis and extending toward the furrow side, a main member connected to the furrow end of said arm, the rear end of said member being pivotally connected to the landside end of said cross member, a second arm extending substantially parallel to said first arm and pivotally connected to said main member, a rearwardly and landwardly extending link pivotally connected at its opposite ends to said arms, and a second link connection from a midpoint of said second arm to the landside end of said cross member.

1,242,794. AUTOMATIC WEIGHING APPARATUS. CLARK GIBSON, Adamstown, Md. Filed Mar. 30, 1915. Serial No. 18,122. (Cl. 253—16.)

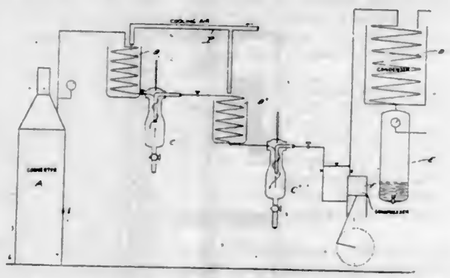


In an automatic weighing apparatus, the combination of a frame having spaced sides, a chute in said frame forming the rear wall thereof, a shaft rotatably mounted and slidable vertically on the front of said frame, a hopper secured to said shaft and arranged to extend between the sides of said frame, a latch member pivotally mounted between the sides of said frame and having a portion normally engaging the upper end of said chute, said latch member having stops thereon arranged to engage one side of said hopper to prevent rotation of said shaft, connections between said latch member and said shaft, and a spring operatively connected to said latch member to normally maintain said shaft in its uppermost position and said stops in the path of movement of said hopper.

1,242,795. PROCESS FOR THE PRODUCTION OF MOTOR-SPIRIT FROM HEAVY HYDROCARBONS. WILLIAM AUGUSTUS HALL, New York, N. Y. Filed Mar. 12, 1914. Serial No. 824,194. (Cl. 196—25.)

1. A process of making a motor fuel which comprises producing a mixture of vapors and gases, said vapors containing a considerable percentage of compounds of the ethylene series, by cracking hydrocarbon oil under a pressure materially above atmospheric and at a temperature not lower than about 500° C., separating out those portions of the vapors having boiling points of about 200° C. and above, leaving a mixture of gases and vapors at a temperature of over 100° C., and thereafter cooling said mixture including the gases and remaining vapors while under a pressure materially above atmospheric, to condense out a motor fuel.

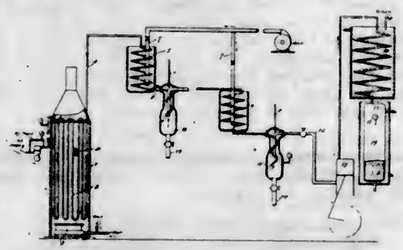
9. In the manufacture of motor fuel, the herein described improvement which comprises chemically affixing hydrocarbon gases to a vaporizing "liquid base," composed of hydrocarbons liquid at ordinary temperature, the larger part of which are volatile at a temperature of about 200° C., by subjecting a mixture of said materials



to a pressure materially above atmospheric, while at a temperature not materially below 100° C., and thereafter cooling the resulting mixture under a pressure materially above atmospheric to condense the motor fuel.

[Claims 2 to 8 not printed in the Gazette.]

1,242,796. PRODUCING MOTOR-FUEL. WILLIAM AUGUSTUS HALL, New York, N. Y. Filed Apr. 4, 1914. Serial No. 829,634. (Cl. 196—25.)



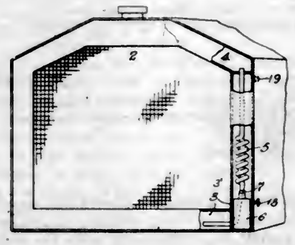
1. A process of making a motor fuel which comprises cracking hydrocarbon oils at a temperature of about 600 to 650° C., under a pressure of about 70 pounds per square inch, thereafter cooling the resulting gases and vapors to about 200° C., while said gases and vapors are at a lower pressure to separate the most readily condensable portions therefrom, increasing the pressure of the remaining gases and vapors, to a pressure of at least about 70 pound per square inch, and thereafter cooling the mixture of gases and vapors to condense the product.

2. A process of making a motor fuel from an oil of high boiling points, which comprises cracking said oil under a pressure exceeding four atmospheres, at a temperature of not less than about 600° C., thereby producting a mixture comprising gases and vapors of both high and low boiling points, thereafter lowering both the temperature and pressure sufficiently to remove the fractions of higher boiling points, thereafter increasing the pressure to over four atmospheres and then further lowering the temperature sufficiently to condense the product.

20. A process of producing a motor fuel, which comprises cracking a hydrocarbon oil under a pressure materially above atmospheric to produce gas and vapor, cooling the gas and vapor while at a pressure materially below that used in the cracking operation, sufficiently to separate the materials of high boiling points; thereafter subjecting the resulting gases and vapors while at a temperature above atmospheric, to a pressure materially greater than that used in said first cooling operation, and thereafter further cooling the gases and vapors, under a pressure of several atmospheres.

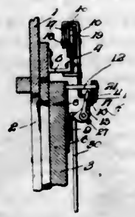
[Claims 3 to 19 and 21 to 24 not printed in the Gazette.]

1,242,797. AUTO RADIATOR-HEATER AND SIGNAL-LIGHT. WELLESLEY R. HAMPDEN, Milwaukee, Wis., assignor of one-half to Hildegarde A. Broecker, Milwaukee, Wis. Filed Feb. 17, 1916. Serial No. 78,801. (Cl. 123—174.)



A combined radiator heater and signal light for automobiles comprising in combination with a radiator having communicating top and side chambers and a bottom chamber, a separating partition between the said bottom and side chambers, a casing within said side chamber forming a heater chamber, with the bottom, front and side walls of the radiator arranged with openings therethrough communicating with the said heater chamber, a burner arranged within the heater chamber upon the bottom of the radiator adjacent an opening provided in the said bottom, a heating coil arranged over said burner having one end tapped through the top of said casing and its other inner end angularly projecting from the inner side of the casing into the side chamber and tapped through the said partition in communication with the lower chamber and a transparent wall portion provided for the radiator adjacent the said burner.

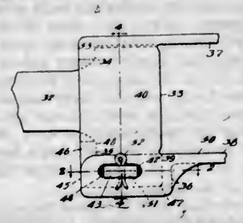
1,242,798. DOOR-HANGER. GEHART J. HANSON, Buxton, N. D. Filed Feb. 20, 1917. Serial No. 149,909. (Cl. 20—23.)



1. In a door hanger, a track supported member having a body portion provided with an outward extension terminating in an upstanding portion, the said upstanding portion and the portion of the member opposite thereto being formed with spaced alined openings, a door attached member having spaced portions, spaced rods extending between the said portions of the door attached member and slidably fitting through the openings in the track supported member, a finger mounted for oscillatory movement upon the second-mentioned member and at its ends engaging a socket in the said extension of the first-mentioned member, and means for rocking the said finger.

2. In a door hanger, a track supported member having spaced portions formed with spaced alined openings, a door attaching member having spaced portions, spaced rods extending between the spaced portions of the door attaching member and slidably fitting through the said openings in the spaced portions of the track supported member, a member mounted for oscillatory movement upon the door attaching member and coacting with a portion of the track supported member, and means for oscillating the said member.

1,242,799. DRAFT-GEAR YOKE. STACY B. HASELTINE, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Original application filed Sept. 13, 1912, Serial No. 720,153. Divided and this application filed Sept. 8, 1914, Serial No. 860,533. Renewed Aug. 27, 1917. Serial No. 188,483. (Cl. 213—42.)



1. In a device of the class described, a draw-bar provided with oppositely disposed shoulders, a yoke forwardly provided with a laterally slotted, hollow box-like head to receive the draw-bar, a transverse shoulder within said yoke adapted to engage one shoulder of the draw-bar, a removable block provided with a shoulder adapted to engage the other shoulder of said draw-bar and a key adapted to secure said removable block within the said head.

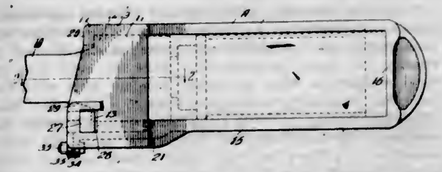
2. The combination, with a yoke having top and bottom members, the top member having a coupler engaging gib, and apertured side plates uniting the forward ends of the top and bottom members, of an apertured locking block adapted to fit between the side plates and having a coupler engaging gib, and a key for passing through the apertures of the side plates and the locking block.

3. A coupler yoke comprised of two forwardly extending arms adapted to receive between them a coupler liner block, a filler block located between the coupler liner block and the lower yoke arm, said filler block having a recess in its lower side adapted for reception of a key for securing the filler block to the yoke.

6. As an article of manufacture, a yoke for draft riggings, said yoke having a hollow box-like head at the forward end thereof within which is adapted to be received a draw bar butt, the upper wall of said head being provided with a shoulder adapted for engagement with the upper shoulder of a draw bar butt under draft, the distance between the lower wall of said head and said shoulder on the upper wall thereof being sufficient to permit the insertion of the draw bar butt by longitudinal movement relatively to the yoke, a shouldered locking block arranged to extend under the lower surface of the draw bar butt and to engage the front face of the lower shoulder thereof, said block, when in position, supporting the draw bar butt with the upper shoulder thereof in alinement with the shoulder of said head, and a removable key extending through slots provided in the yoke head and in said block for retaining the latter in operative position.

[Claims 4 and 5 not printed in the Gazette.]

1,242,800. DRAFT-GEAR YOKE. STACY B. HASELTINE, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Apr. 13, 1916, Serial No. 90,837. Renewed Aug. 27, 1917. Serial No. 188,496. (Cl. 213—42.)



1. A yoke provided with a hooded forward end within which is adapted to be received a shouldered draw-bar butt, the side walls of the hooded end being provided with shoulders, said yoke being provided with means arranged

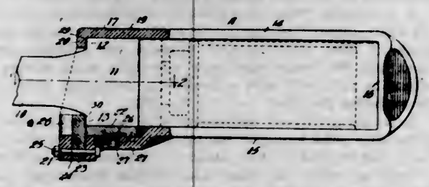
to engage the upper shoulder of a draw-bar butt, and devices, coöperable with the lower shoulder of a draw-bar butt, for detachably locking the yoke to a draw-bar, said devices including shouldered blocks insertible and removable from the front end of the yoke while the draw-bar is in place, said blocks being movable laterally after the same have been inserted within the hood to thereby engage with said shoulders on the side walls of the hooded end, and means for retaining said blocks in operative position.

2. A yoke provided with a hooded forward end within which is adapted to be received a shouldered draw-bar butt, said yoke being provided with means arranged to engage the upper shoulder of a draw-bar butt, and devices coöperable with the lower shoulder of a draw-bar butt, for detachably locking the yoke to a draw-bar, said devices including two blocks and a spreader, all insertible from the front end of the yoke.

3. A yoke provided with a hooded forward end within which is adapted to be received a shouldered draw-bar butt, the side walls of the hooded end having recesses, said yoke being provided with means arranged to engage the upper shoulder of a draw-bar butt, and devices, coöperable with the lower shoulder of a draw-bar butt, for detachably locking the yoke to a draw-bar, said devices including a plurality of shouldered blocks insertible from the front end of the yoke, some of said blocks being shiftable laterally to engage in said recesses.

[Claims 4 and 5 not printed in the Gazette.]

1,242,801. YOKE. STACY B. HASELTINE, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Apr. 13, 1916. Serial No. 90,840. Renewed Aug. 27, 1917. Serial No. 188,497. (Cl. 213—42.)



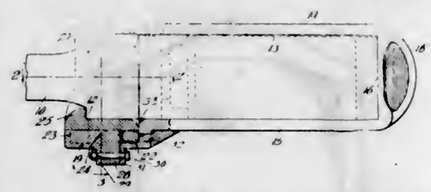
1. A yoke provided with a hooded forward end within which is adapted to be received a shouldered draw-bar butt, said yoke being provided with means arranged to engage the upper shoulder of a draw-bar butt, and devices, coöperable with the lower shoulder of a draw-bar butt, for detachably locking the yoke to a draw-bar, said devices including a block removable vertically from the underside of the yoke and engageable with the lower shoulder of a draw-bar and a filler block adapted to be seated beneath the butt of a draw-bar and removable from the front end of the yoke.

2. A yoke provided with a hooded forward end within which is adapted to be received a shouldered draw-bar butt, said yoke being provided with means arranged to engage the upper shoulder of a draw-bar butt, and devices, coöperable with the lower shoulder of a draw-bar butt, for detachably locking the yoke to a draw-bar, said devices including two blocks one of which is removable through the under side of the yoke and the other from the front end of the yoke.

3. A yoke provided with a hooded forward end within which is adapted to be received a shouldered draw-bar butt, said yoke being provided with means arranged to engage the upper shoulder of a draw-bar butt, and devices, coöperable with the lower shoulder of a draw-bar butt, for detachably locking the yoke to a draw-bar, said devices including a block removable vertically from the underside of the yoke and engageable with the lower shoulder of a draw-bar and a filler block adapted to be seated beneath the butt of a draw-bar and removable from the front end of the yoke, the lower wall of said hooded end being recessed to permit access to the filler block when removing the latter.

[Claims 4 and 5 not printed in the Gazette.]

1,242,802. DRAFT-RIGGING YOKE. STACY B. HASELTINE, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Apr. 14, 1916. Serial No. 91,237. Renewed Aug. 27, 1917. Serial No. 188,495. (Cl. 213—42.)



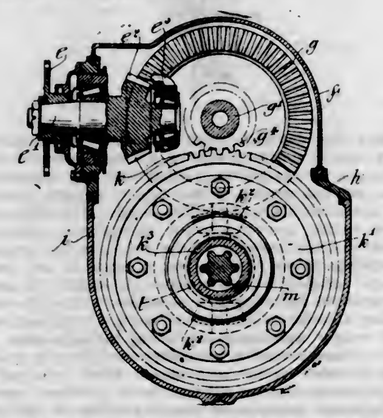
1. A yoke having a hooded forward end provided with means for engaging the upper shoulder of a draw-bar, and removable devices for coöperating with the lower shoulder of the draw-bar, said devices including a shouldered locking block removable from the front end of the hood, and a retaining plate insertible through a slot in the bottom of the hood, said block having shoulders on its underside at the rear of said plate to engage the latter when the parts are operatively assembled.

2. A yoke having a hollow, rectangular head, the bottom wall thereof having a longitudinally extending slot on the inner face thereof, a locking block having an upwardly extending shoulder adapted to engage the lower shoulder of a draw-bar, said block having also a depending lug slidable within said slot, and a retaining plate insertible through a slot in said bottom wall adapted to engage said block and hold it in position.

3. A yoke having a hood at its forward end within which a draw-bar butt is adapted to be received, the bottom wall of said hood having a pair of longitudinally extending slots on the inner face thereof, a locking block removable through the open front end of said hood, said block having depending lugs movable within said slots, and a retaining plate for holding said block in operative position.

[Claims 4 and 5 not printed in the Gazette.]

1,242,803. TRANSMISSION FOR AUTOMOBILES. ALEXANDER GRISWOLD HERRESHOFF, New York, N. Y., assignor to International Motor Company, New York, N. Y., a Corporation of Delaware. Filed July 6, 1917. Serial No. 178,908. (Cl. 74—7.)



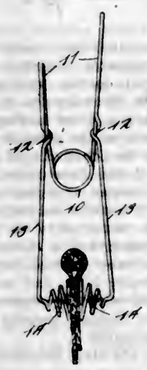
1. In an automobile transmission, in combination with the propeller shaft and differential, a housing for the differential, a beveled pinion on the end of the propeller shaft, a beveled gear journaled in the housing, a spur pinion carried with the beveled gear, and a spur gear on the differential enmeshed with the spur pinion.

3. In an automobile transmission, in combination with the propeller shaft and differential, a housing for the differential split along a horizontal plane, a cap detachably secured to the housing, a beveled pinion on the end of the propeller shaft journaled in the housing, a beveled gear journaled in the cap, a spur pinion carried with the beveled gear, and a spur gear on the differential enmeshed with the spur pinion.

5. In an automobile transmission, in combination with the propeller shaft, axle sections and differential, a housing split along a horizontal plane in which the differential is journaled, a detachable cap carried on the housing, a beveled pinion on the end of the propeller shaft journaled in the cap, a beveled gear meshed with the beveled pinion, a stub shaft on which the beveled gear is carried journaled in the cap, a spur pinion formed on the stub shaft, and a spur gear on the differential enmeshed with the spur pinion.

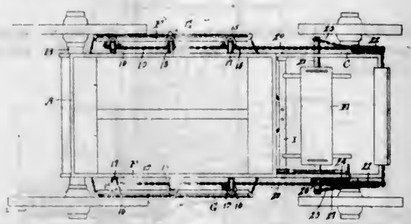
[Claims 2 and 4 not printed in the Gazette.]

1,242,804. CLOTHES-PIN. VINCENT DUNCAN HILLMAN, Florida, Cuba. Filed Oct. 30, 1916. Serial No. 128,580. (Cl. 24—139.)



A clothes pin consisting of a spring wire including spaced arms and a connecting portion from which the arms extend in the same general direction, the arms terminating in coaxial conical spring spirals extending from the arms toward each other with their maximum convolutions adjacent.

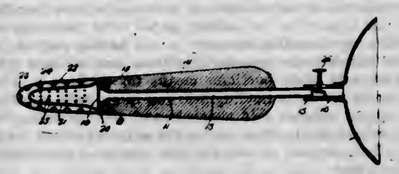
1,242,805. DUMP-WAGON. GILBERT C. HODGES and WILLIAM M. LOHNES, Saratoga Springs, N. Y. Filed Feb. 8, 1916. Serial No. 76,979. (Cl. 21—20.)



1. A wagon body, vertical guide rods secured on the outer faces of the side members thereof, guide pulleys positioned intermediate the rods and the wagon body, door members having straps provided with terminal loops engaging the guide rods, and chains connected with the loops guided over the pulleys and joined together to form at each side of the wagon body a single pulling chain, in combination with springs with which said pulling chains are connected to bodily lift the door members adjacent to the outer faces of the sides of the wagon body.

2. A wagon body, vertical guide rods secured on the outer faces of the side members thereof, guide pulleys positioned intermediate the rods and the wagon body, door members having straps provided with terminal loops engaging the guide rods, and chains connected with the loops guided over the pulleys and joined together to form at each side of the wagon body a single pulling chain, in combination with springs with which said pulling chains are connected to bodily lift the door members adjacent to the outer faces of the sides of the wagon body, and a winding drum, means for rotating the same, and chains connecting said drum with the springs for the purpose of tensioning the same.

1,242,806. SYRINGE. GEORGE C. HOHEIN, Staunton, Va. Filed Mar. 10, 1916. Serial No. 83,408. (Cl. 128—25.)

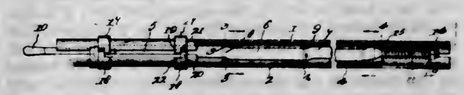


1. A syringe comprising a handle having a central longitudinal bore therein, a tubular stem within the bore in the handle, a compressible bulb detachably connected with one end of the stem, a hand-operated valve controlling communication between the bulb and the stem, a perforated nozzle on the stem and seated within the handle, an inner nozzle detachably connected with the handle and having perforations, an outer nozzle detachably connected with the handle and having a plurality of teats struck inwardly to form suction pockets opening through the outer surface thereof.

2. A syringe of the class described comprising a handle tapered from one end to the other thereof and having a central bore, a tubular stem fitted within the bore, a flared perforated nozzle on said stem and seated within the handle, a compressible bulb detachably connected with the threaded end of the stem and having a filling opening, a removable cap closing said filling opening, a hand-operated valve controlling communication between the bulb and the stem, inner and outer nozzles detachably mounted on the handle, the said inner nozzle being formed with a plurality of perforations, and a plurality of hollow teats formed on the outer nozzle and projected inwardly thereof to provide suction cups opening through the outer surface of the said outer nozzle.

3. In a syringe a handle having a longitudinal bore extending therethrough, a tubular stem inserted within said bore, a compressible bulb connected with one end of said stem, a resilient nozzle connected with one end of the handle and having a plurality of inwardly extending teats opening outwardly through the nozzle, said teats flattening when a pressure is set up within the nozzle and relaxing when the pressure is released, thereby acting as suction pockets.

1,242,807. SPLIT SHAFT FOR USE ON PAPER-MACHINES. JOSEPH HUNDHAUSEN, Schofield, Wis. Filed Sept. 27, 1916. Serial No. 122,564. (Cl. 242—72.)



1. An apparatus for holding paper rolls including relatively-movable core-gripping members, a rod passing between said members and having portions successively offset in different directions with inclined joints connecting the offset portions, means for moving said rod, and means

coupled between said members and the offset portions of said rod and engageable by said inclined joints to expand and collapse said members, substantially as described.

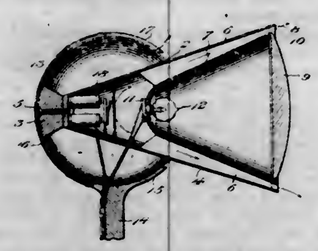
2. An apparatus for holding paper rolls including relatively-movable core-gripping members, an axially shiftable rod passing between said members and having portions offset in successively different directions, inclined joints connecting said offset portions, means for shifting said rod axially, and means coupled between said members and the offset portions of said rod and engageable by said inclined joints to expand and collapse said members, substantially as described.

3. An apparatus for holding paper rolls including collapsible core-engaging members, a rod having offset portions and inclined joints connecting said offset portions, means for moving said rod, and lugs on said members having openings therein for receiving said rod whereby to contract the members when the rod is moved in one direction and expand said members when the rod is moved in the opposite direction, substantially as described.

4. An apparatus for holding paper rolls including contractile core-engaging members, a rod having portions offset in successively opposite directions and inclined joints between said offset portions, means for shifting said rod, means for yieldably holding said rod in an initial position, and means between said members and rod for riding over the inclined joints from one to the adjacent offset portion whereby to expand or collapse said members, substantially as described.

5. An apparatus for holding paper cores including collapsible core-engaging members, means for expanding and contracting said members, and guide collars for said members having a lap joint, substantially as described.

1,242,808. LAMP STRUCTURE. ERNEST S. HUTTON, Calgary, Alberta, Canada. Filed Aug. 2, 1916. Serial No. 112,789. (Cl. 240—41.)



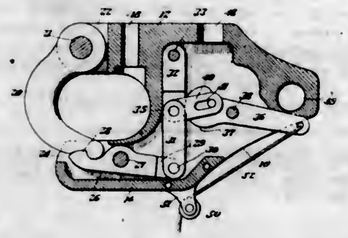
1. In a lamp structure, the combination with a spherical shell having an opening therein, of a frusto-conical shell projecting into said opening and secured to said spherical shell, and a bracket having oppositely disposed concave surfaces engaging the surface of said spherical shell.

2. In a lamp structure, the combination with a spherical shell having an opening therein, of a frusto-conical shell projecting into said opening and having its side surface engaging the edges of said opening, means securing the inner end of said frusto-conical shell to said spherical shell and holding the side surface of said frusto-conical shell in a tight engagement with the edges of said opening, and a bracket having oppositely disposed concave surfaces engaging the surface of said spherical shell.

3. In a lamp structure, the combination with a spherical shell having an opening therein, of a frusto-conical shell projecting into said opening and having its side surface engaging the edges of the opening, a surface formed on the inside of the said spherical shell adapted to abut the inner end of said frusto-conical shell when the side surface thereof is in tight engagement with the edges of said opening, a headed screw engaging a hole in said spherical shell and screw threaded into the end of said frusto-conical shell, and a bracket having oppositely disposed concave surfaces engaging the surface of said spherical shell.

4. In a lamp structure, the combination with a spherical shell having an opening therein, of a frusto-conical shell projecting into said opening and secured to said spherical shell, a bracket having oppositely disposed concave surfaces engaging the surface of said spherical shell and having a resilient connection between said concave surfaces of said bracket.

1,242,809. LOCKING AND RELEASING DEVICE. JAMES R. IRWIN, San Francisco, Cal. Filed Feb. 20, 1917. Serial No. 149,822. (Cl. 57—128.)



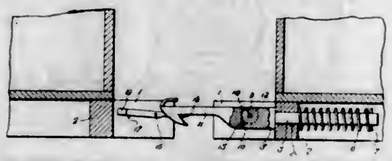
2. In a device of the class described, a pivoted hook, a pivoted locking member engaging the free end of the hook, a plurality of devices having pivotal connection with each other for throwing the locking member to engaging position, and a lever having a cam-shaped end portion engaging one of the pivoted devices at the point of connection with the other of said devices.

5. In a device of the class described, a pivoted hook, a pivoted locking member engaging one end of the hook, a plurality of pivoted links constituting a toggle joint, one of said links being connected to the locking member and the other being connected to a stationary member, a pivoted lever, a cam member carried thereby, said cam member engaging the toggle joint, and means mounted on the lever and connected with the toggle joint for throwing the latter and the locking member when the lever is thrown to release position.

7. In a device of the class described, a casing including a major portion, a minor portion constituting part of one side of said major portion, a hook pivoted between oppositely located parts of the major portion, said major portion being provided with apertures in the walls extending at right angles with the longitudinal axis of the casing, a pivoted locking member engaging the hook, means for locking and releasing the locking member, and operating means pivotally connected with the means last mentioned and having sliding engagement with a portion of said means, said operating means being mounted between the major and minor portions of the casing.

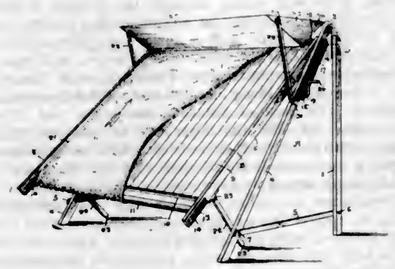
[Claims 1, 3, 4, and 6 not printed in the Gazette.]

1,242,810. CAR-COUPLING. PETER W. JOHN, Middleport, Pa. Filed Mar. 22, 1916. Serial No. 85,910. (Cl. 213—45.)



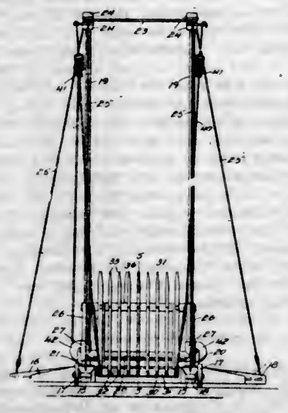
A coupler for mine cars, comprising a yoke extending across the space between the side sills of a mine car and having its arms pivoted upon the confronting faces of said sills at points remote from the ends of the arms, the closed portion of said yoke being arcuate, a bar extending between said sills and disposed below the free ends of said arms, said closed portion being swingable downwardly, and a coupling bar connected with the end sill of the other car to be coupled and provided at its free end with a downwardly extending hook engageable with and slidable laterally upon the arcuate portion of said yoke, said coupling bar being swingable upwardly.

1,242,811. COLLAPSIBLE GRAIN-CLEANING DEVICE. JOHN A. JOHNSON, Manfred, N. D. Filed Jan. 31, 1917. Serial No. 145,677. (Cl. 130—18.)



A knock down grain cleaning device comprising a pair of main supporting frames, each frame consisting of inclined supporting legs connected together at their upper ends, a hopper pivotally mounted at its ends and at one side to the upper ends of said inclined legs, a supporting leg pivotally connected at its upper end to each end of the hopper and to the side opposite the pivotal connections of said hopper and adapted to be supported at its lower end on the adjacent inclined supporting leg, a separator member pivoted at its upper end to said inclined supporting legs at points between the pivotal connections of the hopper and the lower ends of the hopper supporting legs with said inclined legs, and means for adjustably supporting the lower end of said separator member.

1,242,812. HAY-STACKER. FRED A. KAEDING, Kramer, N. D. Filed Mar. 2, 1917. Serial No. 152,047. (Cl. 57—53.)



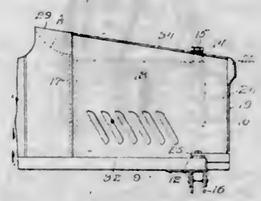
1. In a machine of the class described, the combination with a pair of vertical track bars, of a load carrier mounted thereon for vertical movement, said load carrier comprising sleeves engaging the track bars, coupling members at the lower ends of said sleeves having laterally extending sockets, a shaft secured in said sockets, a tiltable element comprising a receiving platform and a discharging platform secured together in angular relation, said discharging platform having bearing members engaging the shaft and a cross bar that engages the sleeves to limit swinging movement of said platform in a forward direction, and a spring whereby the discharging platform is normally swung in a forward direction thereby positioning the receiving platform in a receiving position.

2. In a machine of the class described, a pair of vertically disposed track bars arranged in spaced parallel relation, a load carrier mounted for vertical movement on said track bars, said load carrier including track bar engaging sleeves, coupling members at the lower ends of the sleeves, a transverse shaft secured in the coupling members, and a tilting element comprising a receiving platform and a discharging platform secured together in spaced angular relation, said element being pivotally mounted on the transverse shaft, means for swinging the tiltable element in a forward direction, means for limiting such swinging movement, a tilting frame secured on the tiltable element and having a plurality of spaced loops arranged in a vertical plane, and a flexible tilting element having one end secured to a fixed point of attachment and equipped with a plurality of stop members to engage the spaced loops of the tilting frame.

4. In a machine of the class described, a base frame, vertical track bars mounted thereon in spaced parallel relation, a load carrier mounted for vertical movement on the track bars, said load carrier including a tiltable element, means for elevating the load carrier, and tilting means, the same including a tilting frame connected with a tiltable element on the load carrier and having a plurality of spaced loops arranged in vertical series, and a flexible tilting element one end of which is attached to the base frame, said flexible element having a plurality of stop members adapted to be adjustably connected with the loops of the tilting frame.

[Claim 3 not printed in the Gazette.]

1,242,813. AUTOMOBILE-HOOD. HARVEY E. KAILER, Aurora, Ill., assignor to Charles H. Stolp, Aurora, Ill. Filed May 7, 1917. Serial No. 166,928. (Cl. 74—56.)



1. The combination with the chassis, engine, and radiator of a motor vehicle, of a vertical partition located entirely in front of the radiator, means for securing the lower end thereof to the front portion of the chassis, said partition being suitably formed for the passage of cooling air to the radiator, a supporting bar having its forward end connected to the partition and its rear end connected to the body of the vehicle, said bar serving to support the upper end of the partition and secure the same rigid with respect to the body of the vehicle, and a pair of engine hood sections having their upper portions hinged to said bar and of suitable formation to close in and protect the engine and the radiator when they are in lowered position, said bar being provided with an opening of suitable size and location for the passage of the filling neck of the radiator, substantially as described.

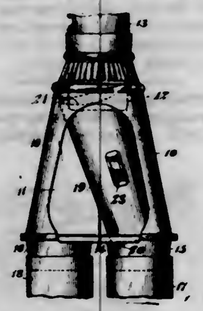
2. The combination with the chassis, engine, and radiator of a motor vehicle, of a partition located wholly in front of the radiator and suitably formed for the passage of cooling air to the radiator, means for connecting the lower portion of said partition to the front portion of the chassis, a rearwardly extending member having its forward end secured to the partition and supporting the same in rigid manner independently of the radiator, said member being suitably formed for the accommodation of the filling neck of the radiator, and a hood section hinged on each side of said member and adapted, when in low-

ered position, to cover over and protect the engine and radiator, substantially as described.

3. The combination with the chassis, engine, and radiator of a motor vehicle, of a partition located wholly in front of the radiator, means for connecting the lower portion of said partition to the front portion of the chassis, means connecting the upper portion of said partition with the body of the vehicle and serving to support the upper portion of the partition in rigid manner independently of the radiator, and a hood section hinged on each side of said means, and serving, when in lowered position, to cover over and protect the engine and radiator independently of the aforesaid partition, substantially as described.

4. The combination with the chassis, engine, and radiator of a motor vehicle, of a false partition located wholly in front of the radiator, means for connecting the lower portion thereof rigidly to the chassis, means for connecting the upper portion thereof rigidly to the body of the vehicle independently of the radiator, and a suitable hood section on each side of said connecting means and serving to cover over and protect the engine and radiator independently of the aforesaid partition, substantially as described.

1,242,814. RAIN-WATER STRAINER AND CUT-OFF. ISIDORE R. KELLER, Upper Sandusky, Ohio. Filed May 16, 1916. Serial No. 97,939. (Cl. 137—9.)



1. In a device of the character described, a casing, an inlet nipple projecting downwardly into said casing, outlet nipples communicating with the bottom of the casing and arranged symmetrically at each side of the axis of said inlet nipple, a removable connecting tube loosely encircling at one end the lower end of said inlet nipple and movable longitudinally thereof, the lower end of said tube being adapted to be swung from a position over one outlet nipple to a position over the other around the lower end of said inlet nipple as an axis, the front of said casing being provided with an opening through which the lower end of said tube may be swung around a horizontal axis passing through the lower end of the inlet nipple to permit the removal of the tube from the casing, the connection between the upper end of said tube and the lower end of said inlet nipple being sufficiently loose to allow such movement of the tube through the opening, and a strainer mounted within said tube.

2. In a device of the character described, a casing, an inlet nipple at the upper end of said casing, outlet nipples communicating with the bottom of said casing and arranged symmetrically upon the opposite sides of the axis of said inlet nipple, a removable connecting tube having one end loosely encircling the lower end of the inlet tube and its opposite end projecting into and supported by either of said outlet nipples, said tube being movable longitudinally of said inlet nipple, and also swingable around horizontal axes arranged at right angles to each other and passing through the lower end of said inlet nipple whereby the tube may be moved longitudinally to disengage the lower end thereof from the outlet nipple and swung laterally to be engaged with the other outlet nipple or swung around an axis at right angles and disengaged from said inlet nipple by a slight longitudinal movement downwardly to permit its removal from the casing, and a strainer mounted within said tube.

3. In a device of the character described, a casing, an inlet nipple having an end projecting into the casing through the top thereof, a pair of outlet nipples communicating with said casing through the bottom, a removable connecting tube having an upper end loosely encircling the inlet nipple and a lower end projecting into and engaging either of said outlet nipples, said tube being movable longitudinally to disengage said lower end from either of the lower nipples and swingable around a horizontal axis located adjacent the lower end of said inlet nipple, whereby the lower end of the tube may be engaged with either nipple, said tube also being swingable around a horizontal axis located adjacent the lower end of said upper nipple and arranged at right angles to said first-mentioned horizontal axis whereby the tube may be swung in a direction at right angles thereto, said casing being provided with an opening through which the lower end of said tube may be swung around the last-mentioned axis, said tube being then disengageable from the upper nipple by a longitudinal movement, and a strainer within said tube.

4. In a device of the character described, a casing, an inlet nipple projecting inwardly through the top of said casing, a pair of outlet nipples communicating with said casing through the bottom thereof, a removable connecting tube within said casing having an upper end loosely encircling the end of said inlet nipple and swingable around said end on an axis extending at right angles to the axis of the inlet nipple and movable longitudinally thereof, the lower end of said tube being adapted to engage and rest upon either of said outlet nipples, said casing being provided with an opening through the side thereof of a length sufficient to allow the lower end of the tube to be swung therethrough, disengaged from the inlet nipple and removed, and a strainer within said tube.

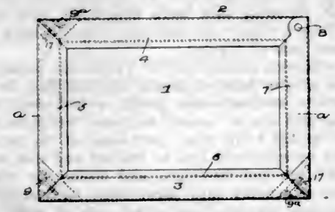
5. In a device of the character described, a downwardly diverging casing, an inlet nipple projecting inwardly into the casing at the upper end thereof, a pair of outlet nipples communicating with said casing through the bottom at opposite sides thereof, a removable connecting tube encircling at its upper end the lower end of the inlet nipple, the opposite end of said tube projecting into either of said outlet nipples, supported thereby and engaging at one side with the wall of said nipple and at the opposite side with the wall of said casing, said tube being movable longitudinally to be disengaged from either outlet nipple or from said inlet nipple, the lower end of said tube being movable around horizontal axes passing through the lower end of said inlet nipple, said casing being provided with an opening through the side thereof of a length sufficient to allow the passage of the lower end of said tube therethrough whereby a slight longitudinal movement will be sufficient to disengage said tube from the inlet nipple to permit its removal from the casing, and a strainer mounted within said tube.

[Claim 6 not printed in the Gazette.]

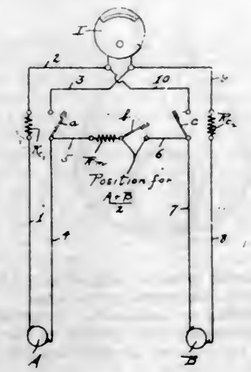
1,242,815. WINDOW-SASH. GEORGE B. KOHLER, Philadelphia, Pa., assignor to The J. G. Brill Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 20, 1914. Serial No. 813,219. (Cl. 189—76.)

1. The combination in a metallic sash, of horizontal and vertical rails pressed to form grooves for the reception of a sheet of glass; two triangular sections secured to the rails and fitting against each other; and a bolt securing the two sections together.

2. The combination in a metallic sash, of horizontal and vertical rails pressed to form grooves for the reception of a sheet of glass; two triangular sections secured to the rails and fitting against each other; one section having a plain opening and the other section having a threaded opening; and a screw adapted to the openings and arranged to secure the two parts together.



1,242,816. SIGNALING APPARATUS. PETRUS VAN SANTEN KOLFF, Philadelphia, Pa., assignor to The Electric Tachometer Corporation, Philadelphia, Pa., a Corporation of Delaware. Filed Nov. 16, 1916. Serial No. 131,698. (Cl. 175—183.)



1. Indicating apparatus comprising a plurality of generators, an electrical indicator, circuit means for separately and independently indicating a function of each generator upon the indicator, and circuit means for indicating the average of a function of said generators upon the indicator.

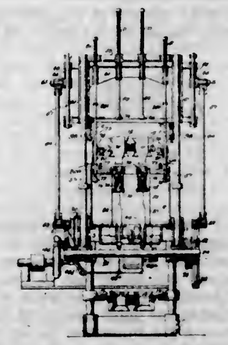
2. Indicating apparatus comprising a plurality of generators, an electrical indicator, circuit means for separately and independently indicating a function of each generator upon the indicator, circuit means for indicating the average of a function of certain pairs of generators, and circuit means for indicating the average of a function of all the generators.

3. Indicating apparatus comprising a plurality of generators, an electrical indicator having a predetermined resistance, circuit means for separately and independently indicating a function of each generator upon said indicator, and circuit means for connecting the generators and the indicator in series with a resistance equivalent in amount to that of the indicator multiplied by a number one less than the number of generators in circuit, to indicate the average of their functions.

4. Indicating apparatus comprising a plurality of generators, an electrical indicator having a predetermined resistance, circuit means for separately and independently indicating a function of each generator upon said indicator, circuit means for connecting certain pairs of generators and the indicator in series with a resistance equivalent to that of the indicator, and circuit means for connecting the generators and the indicator in series with a resistance equivalent in amount to that of the indicator multiplied by a number one less than the number of generators in circuit, to indicate the average of their functions.

5. Indicating apparatus comprising a plurality of generators, an electrical indicator having a predetermined resistance, circuit means for connecting predetermined combinations of said generators and the indicator in series with a resistance equivalent in amount to that of the indicator multiplied by a number one less than the number of generators of the particular combination in circuit, to indicate the average of their functions.

1,242,817. BOTTLE-WASHING MACHINE. JOHN T. LALLY, Wilmington, Del., assignor, by direct and mesne assignments, to National Bottle Washing Machine Company, Wilmington, Del., a Corporation of Delaware. Filed Sept. 28, 1916. Serial No. 121,752. (Cl. 141—7.)



1. The combination in a bottle washing machine, of an endless carrier; means for intermittently moving the carrier; spring chucks mounted on the carrier for holding the bottles; a washing tank; rotating brushes in the washing tank; and means for carrying the bottles out of the chucks and into the washing tank so as to come under the action of the brushes and for returning the bottles to the chucks.

2. The combination in a bottle washing machine, of an endless carrier; a series of spring chucks mounted on the carrier for holding the bottles; a washing tank; a series of spindles in the tank; means for rotating the spindles; brushes on the spindles; a plate carrying rings in line with the mouths of the bottles; plungers; means for operating the plungers and the plate so that a bottle is held between the two; means for operating the said parts so as to force the bottles out of the spring chucks into the tank and in contact with the rotating brushes; and means for returning the mechanism so that the bottles will reenter the chucks prior to the forward movement of the carrier.

3. The combination in a bottle washing machine, of an endless carrier; means for driving the carrier; a series of spring chucks for holding the bottles mounted on the carrier; a fixed washing tank; spindles projecting up through the bottom of the tank; brushes on the spindles arranged to engage and grip the bottles; means for driving the spindles; means for engaging the bottles and for forcing them out of the chucks and into the washing tank and returning them from the washing tank into the chucks; a rinsing tank; and means for forcing the bottles out of the chucks into the rinsing tank and back into the chucks.

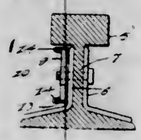
4. The combination in a bottle washing machine, of an endless carrier consisting of two chains and cross plates spaced a given distance apart; openings in the cross plates; spring chucks each consisting of two jaws yieldingly held in the closed position so that a bottle can be inserted in the chucks and held therein by friction; a washing tank; means in the washing tank for cleansing the bottles; means for carrying the bottles out of the chucks and into the washing tank so as to come in contact with the cleansing means; and means for returning the bottles to their chucks.

5. The combination of an endless carrier; chucks mounted on the carrier for yieldingly holding the bottles; a

washing chamber; vertical spindles in the washing chamber; brushes mounted on the spindles and spaced apart so that some of the brushes will enter the bottles while others will bear upon the outside thereof; means for forcing the bottles out of the chucks and for carrying them into the washing tank and for returning the bottles to the chucks; a rinsing tank; a series of perforated tubes in the said tank; means for forcing the bottles out of the chucks and into the tank so that they will be sprayed on the inside and on the outside; and jets located in advance of the washing tank and at the rear of the rinsing tank for spraying the bottles before and after they are cleansed.

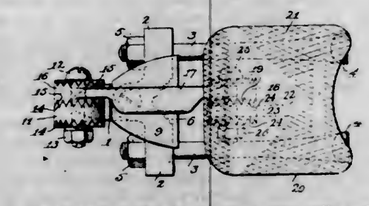
[Claims 6 to 12 not printed in the Gazette.]

1,242,818. NUT-LOCK. PHILIP M. LARONY, Chicago, Ill. Filed Feb. 9, 1916. Serial No. 77,263. (Cl. 151—60.)



In combination, a group of bolts, nuts fitted upon the bolts, a locking plate having a plurality of apertures therein receiving said nuts, base plates engaged under the end nuts of the group and under the locking plate, resilient parallel extensions projecting laterally of each base plate resiliently gripping the upper and lower longitudinal edges of said locking plate to secure the latter against loose movement with relation to the nuts and having the ends directed inwardly toward the base plate to provide inwardly converging straight spring locking members engaged with and securing said locking plate against removal, the edge-engaging and inwardly directed portions of the extensions being adapted to be flexed outwardly or separated to release and permit removal of the locking plate.

1,242,819. EXTENSION ATTACHMENT FOR AUTOMOBILE-PEDALS. RUTHERFURD LAWRENCE, New York, N. Y., assignor to Slocum, Avram & Slocum, Inc., New York, N. Y., a Corporation of New York. Filed Dec. 28, 1916. Serial No. 139,281. (Cl. 74—81.)



1. An extension attachment for automobile pedals, comprising a foot-piece, and means for clamping the same detachably to an automobile foot pedal, said foot-piece being bodily adjustable laterally with respect to said foot pedal.

2. An extension attachment for automobile pedals, comprising a foot-piece, and means for clamping the same detachably to an automobile foot pedal, said foot-piece being adjustable toward and from said foot pedal and also bodily adjustable laterally with respect to said foot pedal.

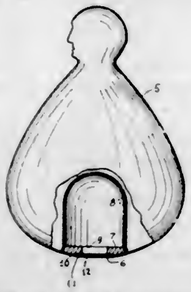
3. An extension attachment for automobile pedals, comprising a foot-piece, and means for clamping the same detachably to an automobile foot pedal, said foot-piece being adjustable toward and from said foot pedal and also bodily adjustable laterally with respect to said foot pedal through a common means.

4. An extension attachment for automobile pedals, comprising an arm or bracket, means for clamping the same detachably to an automobile pedal, a foot-piece, a link connecting said arm or bracket and said foot-piece, radial series of ratchet teeth upon both sides of the points of connection between said arm or bracket and link, and means for clamping said teeth detachably into engagement with each other with said link disposed upon either side of said arm or bracket.

5. An extension attachment for automobile pedals, comprising an arm or bracket, means for clamping the same detachably to an automobile pedal, a foot-piece, a link connecting said arm or bracket and said foot-piece, radial series of ratchet teeth upon both sides of the points of connection between said arm or bracket and link and between said link and foot-piece, and means for clamping said teeth detachably into engagement with each other with said link disposed upon either side of said arm or bracket and with said foot-piece upon either side of said link.

[Claim 6 not printed in the Gazette.]

1,242,820. TOY. EUGENE LEVAY and ELMER SAS, New York, N. Y. Filed May 24, 1917. Serial No. 170,618. (Cl. 46—36.)



1. The combination with an unupsettable doll with a toy bank serving as counterweight therefor.

2. A toy comprising, in combination, a doll with round sides and bottom, having a flat portion in the center of the latter, and a toy bank set inside of said doll, near the bottom thereof.

1,242,821. DENTAL BRUSH. BERNARD A. LEWIS, Long Beach, Cal. Filed Oct. 12, 1916. Serial No. 125,304. (Cl. 132—32.)



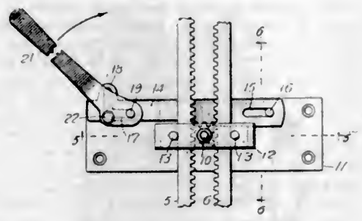
1. In a dental appliance, the combination with a combined handle and receptacle, of a head adapted to inclose the open end of said receptacle, a brush holder, a brush, means whereby said holder may be detachably secured on said head, and means whereby said brush may be removably secured within said holder.

2. In a dental appliance, the combination with a combined handle and receptacle, of a reversible head adapted to be detachably mounted within the opened end of said receptacle, and a dental accessory adapted to be removably mounted on said head, said head and receptacle being of oblong cross-section whereby the head is held against rotation in relation to the receptacle when inserted therein.

3. In a dental appliance, the combination of a tubular handle closed at one end, a reversible tubular head provided with a circular outer shoulder intermediate its ends and adapted to telescope into and close the open end of said tubular handle, and a dental accessory adapted to be removably mounted on said head.

4. In a dental appliance, the combination with a tubular handle closed at one end, of a reversible telescopic head adapted to be detachably mounted within the end of said handle, a brush holder on said head, and a brush removably mounted on said brush holder, said head and said tubular handle being provided with registering flat sides whereby the head is held against rotation in relation to said handle.

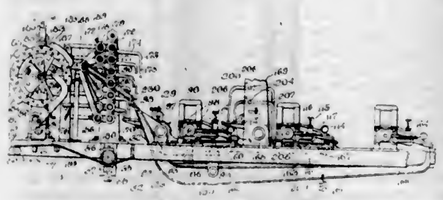
1,242,822. EXTENSION-TABLE. SAMUEL R. LIBBEY, Cottonwood, Idaho. Filed Oct. 21, 1916. Serial No. 127,014. (Cl. 45—9.)



1. The combination with an extensible table, comprising a suitable support, and table top sections mounted to move toward and from each other on the support, oppositely arranged rack bars secured to the sections, the support having a guide through which the rack bars are movable, and a pinion journaled between the rack bars in the guide and engaging the same, means for locking the pinion against rotation, said means comprising a plate movable transversely of the rack bars, and having teeth for engaging the pinion to prevent rotation thereof, the plate having slots, and the support having pins for engaging the slots, one of the slots having an angular portion, a lever pivoted to the adjacent pin and having means for slidably engaging the slot, said slot having at the junction of the portions thereof a recess or depression for receiving the slidable engaging means of the lever, to lock the plate from longitudinal movement with the teeth thereof in engagement with the pinion.

2. The combination with an extensible table, of oppositely arranged rack bars connected with the sections of the table, a pinion engaging the bars for constraining the sections to move together in opposite directions, and means for locking the pinion from movement, said means comprising a plate moving transversely of the rack bars and having teeth for engaging the pinion, the plate having slots, and the table having pins for engaging the slots, a lever pivoted to one of the pins and having means for slidably engaging the adjacent slot, said slot having at the junction of the portions thereof a recess for receiving the slidable engaging means of the lever to lock the plate.

1,242,823. RULING-MACHINE. HARMON E. LINDBLADH, Brookline, Mass. Filed Aug. 24, 1914. Serial No. 858,316. (Cl. 33—39.)



19. A ruling machine comprising ruling devices, and controlling means for said devices including levers fulcrumed on different axes and having arms formed in two sections, one section of each arm extending from its fulcrum directly to a common axis and the other sections of the arms all extending in substantially the same direction, and driving devices with which the last-named arm-sections coöperate.

42. The combination with ruling devices, of a table situated below the ruling devices, a delivery-belt and cords traveling over the table, means for controlling the delivery of work to the ruling devices, a roll resting upon the cords and belt between the controlling means and table, a bearing for each end of the roll, and means for adjusting the position of each bearing to vary the pressure of either extremity of the roll upon the cords and belt.

47. The combination with two pen-beams and pens mounted thereon, of lifting levers coöperating with the pens on each beam, two series of levers for actuating the lifting levers of both pen-beams in groups, a series of cams adjacent to one of the series of actuating levers, and more widely separated from the other series and levers interposed between the cams and the more distant series of actuating levers.

48. The combination with two pen-beams and pens mounted thereon, of lifting levers coöperating with the pens on each beam, series of levers for actuating the lifting levers of both pen-beams in groups, a series of cams, one series of the actuating levers contacting directly with the cams, and transmitting levers interposed between the cams and the other series of actuating levers.

52. In a ruling machine, the combination with a pen-beam and its spindle, of a spring surrounding the spindle and being fixed at one extremity independently of the spindle, and members at the other extremity of the spring having coöperating projections, one of said members being provided with means for securing it to the spindle and the other member turning about the spindle and coöperating with the spring.

[Claims 1 to 18, 20 to 41, 43 to 46, 49 to 51, and 53 to 88 not printed in the Gazette.]

1,242,824. AGITATOR. WILLIAM LINDSAY, Chicago, Ill. Filed Dec. 26, 1916. Serial No. 138,946. (Cl. 259—106.)



1. An agitator, comprising, in combination, a movably supported gyratory structure, a motor having a driving shaft, a weight mounted upon a support separate from the shaft, said weight being arranged to be moved in an orbit concentric with the axis of said shaft, means connected with said shaft for moving said weight in its orbit while relieving said shaft from lateral stress, and means for limiting the extent of said orbit.

2. An agitator, comprising, in combination, a suspended structure, a motor having a driving-shaft, a weight arranged to be moved in an orbit concentric with the axis of said shaft, means in connection with said shaft for actuating said weight to impart a centrifugal motion thereto, at high speed to agitate the entire structure and means independent of said shaft for controlling the orbit of said weight.

3. An agitator, comprising in combination, a movably supported gyratory structure, a motor having a driving shaft, a weight, means for freely supporting said weight in position to be moved in an orbit concentric with the axis of said shaft, means attached to and extending laterally from said shaft for imparting motion to said weight in its orbit of movement without restricting the centrifugal path of said weight and means for limiting the diameter of said orbit.

4. An agitator, comprising, in combination, a suspended structure, a motor having a driving-shaft, a weight supported for movement in an orbit concentric with the axis of said shaft, circular means concentric with the axis of said shaft for limiting the eccentric path of said weight by permitting the latter to have a rolling contact therewith and means in connection with said shaft for actuating said weight in its orbit while relieving said shaft from lateral stress.

5. An agitator, comprising in combination, a movably supported gyratory structure, a motor having a shaft, a weight suspended independently of said shaft but in axial alinement therewith, means in operative connection with said shaft for imparting centrifugal motion to said weight without restricting its eccentric path and means for controlling said path.

[Claims 6 to 11 not printed in the Gazette.]

1,242,825. BOTTLE CARRIER AND CONVEYER. BENJAMIN E. LINFOOT, Philadelphia, Pa. Filed Jan. 11, 1917. Serial No. 141,800. (Cl. 193—4.)



1. In a bottle carrier and conveyer of the character stated, a frame composed of a top and bottom, and means for connecting the same, said top having therein openings for the inlet of the mouth of a bottle, a resilient tubular support for the bottle below said openings, and a tubular collar rising from said bottom, said support being telescopically fitted to said collar on the interior thereof.

3. In a bottle carrier and conveyer of the character stated, a frame composed of a top and bottom, and means for connecting the same, and a column-like member interposed between said bottom and top and secured thereto, said top having on its side a resilient member continuous thereof adapted to bear against the side of said column-like member.

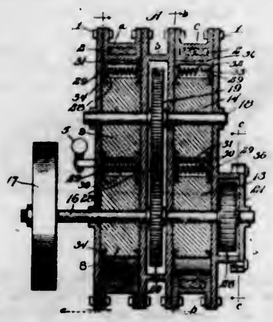
4. In a bottle carrier and conveyer of the character stated, a frame composed of a top and bottom, said top having an opening therein, a collar rising from said bottom, and a resiliently-supported sleeve telescopically fitted in said collar, a column-like member interposed between said top and bottom adapted to sustain said top, and means in said member secured to said bottom and top for clamping together said top, bottom, and column-like member.

5. In a bottle carrier and conveyer of the character stated, a frame composed of a top and a bottom, means interposed between said bottom and top for sustaining the latter and clamping the same with the interposed means, a series of openings in said top, a series of collars rising from said bottom, and a series of resiliently-supported sleeves telescopically fitted in said collars and extending downwardly from the walls of said openings, said bottom being continuous from collar to collar, and said collars being integral with said bottom.

[Claim 2 not printed in the Gazette.]

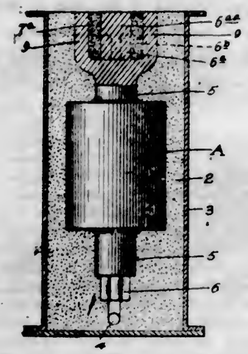
1,242,826. ENGINE. DAVID FRANKLIN LLEWELLYN, Girardville, Pa. Filed July 11, 1916. Serial No. 108,658. (Cl. 123—12.)

1. In an engine of the class described, a rotor casing having an inlet port and an outlet port both in the outer side wall thereof, rotors working in said casing and adapted to draw in a charge of explosive mixture, compress the same and expel it through said outlet port, a second rotor casing at the inner side of the first named casing having an intake port and an exhaust port both in the outer side wall thereof, rotors mounted in the last named casing and adapted to be driven by the charge of compressed mixture in the last named casing and also adapted to force the burned gases outwardly through the exhaust port thereof, means for supplying explosive mixture to the first named casing, a conduit connecting the outlet port of the first named casing with the inlet port of the second casing, a valve controlling the intake port to the second casing and actuated by the engine shaft, shafts on which said rotors are mounted, and intermeshing twin gears on said shafts between the rotor casings whereby the rotors are simultaneously driven in opposite directions at the same speed.



2. In an engine of the class described, a rotor casing having an inlet port and an outlet port in its outer side wall, rotors workings in said casing and adapted to draw in a charge of explosive mixture, compress the same and expel it through the outlet port, a second rotor casing having an intake port and an exhaust port in its outer side wall, rotors mounted in the last named casing and adapted to be driven by the charge of compressed mixture in the last named casing and also adapted to force the burned gases outwardly through the exhaust port thereof, means for supplying explosive mixture to the first named casing, a valve controlling the intake port of the second casing, said valve being actuated by the engine shaft, a transfer pipe connecting the outlet port of the first casing with the inlet port of the second casing and extending around both casings, and a shaft driven valve arranged on the outer side of the second casing and adapted to receive the compressed mixture from said transfer connection carry said charge and release the same into the intake port of the second casing.

1,242,827. PROCESS OF CASTING ROLLS AND THE LIKE. HAROLD A. LOMAN, Aspinwall, Pa. Filed Aug. 21, 1916. Serial No. 115,998. (Cl. 22—200.)



1. In the manufacture of rolls of the class described, the formation of a main roll body, neck portions and one wabbler portion by flowing molten metal upwardly within a suitable surrounding mold, and adding molten metal of a higher temperature from above within a supplemental wabbler mold, and maintaining surplus upper sinkhead portions.

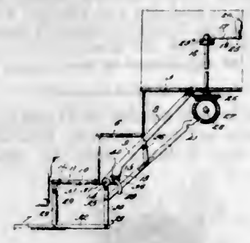
2. The process of manufacturing rolls of the class described, comprising flowing a molten metal upwardly within a suitable mold forming a main body portion, neck portions and the lower wabbler portion, and flowing molten metal of a higher temperature downwardly through the supplemental mold forming an upper wabbler portion and sinkheads spaced from said upper wabbler portion and connecting with the upper neck portion, substantially as and for the purposes described.

3. In casting metal bodies, the process of flowing molten metal upwardly within a suitable mold to form a main body, and the addition of supplemental metal from above within a mold while the main body is still molten forming upper terminal and supply members, the supplemental supply members connecting with the main body a substantial distance below the upper terminal, substantially as described.

4. In the manufacture of rolls of the class described, the formation of a main body, neck portions and the lower wabbler portion by flowing molten metal upwardly within a suitable main surrounding mold, and adding molten metal, of a higher temperature, from above within a supplemental mold to form the upper wabbler portion and sinkhead portions spaced from said upper wabbler portion and connecting with said neck portion at the base of the wabbler portion, substantially for the purpose described.

5. In the manufacture of rolls of the class described, the formation of a main body, neck portions and one wabbler portion by flowing molten metal upwardly within a suitable surrounding mold, and adding molten metal, of a higher temperature, from above within a supplemental mold to form the other wabbler at the upper end and sinkhead portions at the sides of said upper wabbler.

1,242,828. EXTENSIBLE CAR-STEP. THOMAS H. LYLE, Duluth, Minn. Filed Mar. 13, 1917. Serial No. 154,544. (Cl. 105—86.)



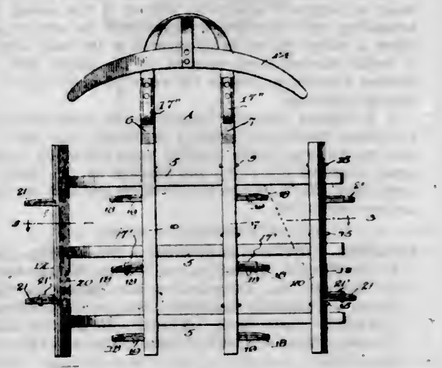
1. In combination with the fixed steps of a railway car, a hanger including a connecting portion secured to said steps, an extension step supported by said hanger, and means for operating said extension, said means comprising a pair of shafts journaled in the connecting portion of said hanger, a pinion on each of said shafts and meshing with one another, manually controlled means for imparting movement to said shafts, and a locking dog having a curved free extremity mounted upon one of said shafts and operable simultaneously with the folding operation of said extension step, the curved extremity of said dog engaging with the bottom surface of the extension step for retaining the latter in folded position.

2. In combination with the fixed steps of a railway car, a hanger including a broadened connecting portion, and a base plate, an extension step having channeled arms, links pivotally connected with the base plate and the channeled arms, a pair of shafts journaled in the connecting portion of said hanger arm, a second pair of links carried by one of said shafts and having pivotal connection with said channeled arm, a pinion on each of said shafts adapted to mesh with one another, manually controlled means for imparting movement to said shafts including a vertically disposed rod, a beveled gear on the lower end of said rod, a second beveled gear adapted to mesh with the latter mentioned gear, a pitman eccentrically connected with the latter mentioned beveled gear and having pivotal connection with the latter mentioned links, and means carried by the other of said shafts for locking the extension steps in an elevated position.

3. In combination with the fixed steps of a railway car, a hanger including a connecting portion secured to said steps, an extension step supported by said hanger, means for operating said extension step including a pitman, means for supporting the pitman on said hanger, and means supported by the connecting portion of the hanger and operable simultaneously upon the operation of the pitman in step closing position for locking the extension step in closed position.

4. In combination with the fixed steps of a railway car, an extension step, means for operating said extension step, said means comprising a vertically disposed rod, a controlling handle connected with the upper end of said rod, means for locking the controlling handle in adjusted position, a beveled gear on the lower end of said rod adapted to mesh with a second beveled gear, a step riser including a pair of rear links, and a pitman eccentrically connected with the last mentioned beveled gear and pivotally connected with said links.

1,242,829. GARMENT-HANGER. RAMEY MCALISTER, Washburn, Tex. Filed Jan. 23, 1917. Serial No. 143,997. (Cl. 211—13.)



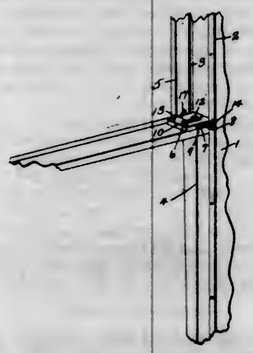
1. A garment hanger comprising resilient cross strips curved for a portion of their length adjacent their ends, spaced pairs of vertically extending bars, springs having crossed arms connected with the respective bars in each pair of bars, a bar in some of said pair of bars rigidly connected with said strip, tongues on a bar in the other pairs of bars firmly bearing against said strips, and prop legs pivotally connected with one of the arms of some of said springs and engageable with the other arm thereof.

2. A garment hanger comprising spaced pairs of clamps, cross strips rigidly connected with a clamp in each pair of clamps, tongues on the other clamp in each pair of clamps engageable with said strips and slidably connecting the last mentioned clamps therewith, means engageable with said tongues to lock the last mentioned clamps against sliding movement on the strips, an attaching member connecting a pair of said clamps, and a supporting bar carried by the attaching member.

3. A garment hanger comprising spaced pairs of bars, supporting strips rigidly connected with a bar in each pair of bars and having grooves therein, tongues on a bar in each pair of bars slidably connecting the same with said strips, locking ribs on said tongues engageable with said grooves, loops on the last mentioned bars engageable with the tongues to hold said ribs in said grooves, auxiliary

bars, springs having connection with the auxiliary bars and the pairs of bars for holding the auxiliary bars in engagement therewith, an attaching member connecting a pair of said bars, and a supporting bar carried by the attaching member.

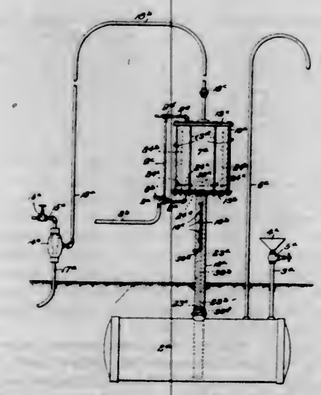
1,242,830. AUTOMATIC WINDOW-FASTENER. ELMER ELSWORTH MACK, Fort Scott, Kans. Filed July 30, 1917. Serial No. 183,512. (Cl. 16—52.)



1. A window fastener, comprising in combination with a window frame and sashes, a casing secured to the lower sash, a resiliently held plate sliding in the casing, arms extending from the plate, a thumb piece for actuating the plate, a wedge shaped catch secured to the sash stop, and a wedge shaped catch secured to the upper sash, said catches adapted to overlie the arms when the plate is in normal position.

2. A window fastener comprising, in combination with a window frame and sashes, a resiliently held plate slidable on the lower sash, latching arms extending from opposed edges of the plate, and catches on the frame and upper sash adapted to overlie the arms and lock the sashes against movement.

1,242,831. LIQUID-MEASURING APPARATUS. JAMES A. MACKENZIE, Rochester, and GEORGE W. MACKENZIE, Jr., Beaver, Pa., assignors to The Guarantee Liquid Measure Company, Rochester, Pa., a Corporation of Delaware. Filed June 14, 1915, Serial No. 33,897. Renewed Mar. 7, 1917. Serial No. 153,167. (Cl. 221—100.)



1. In combination, a main reservoir, a superimposed measuring tank, a pipe leading from the reservoir to the measuring tank, a vertically movable conduit extending from the measuring tank into the reservoir pipe and having at its upper end a splash coping, means for locating said conduit at any predetermined position, means for exhausting the air from the measuring tank, and means for drawing off its contents.

2. In combination, a main reservoir, a superimposed measuring tank, a pipe leading from the reservoir to the measuring tank, a vertically movable conduit extending from the measuring tank into the reservoir pipe and having means for locating it at any predetermined position, a float, a valve controlling circulation through said conduit having a stem, means providing for rotation of the conduit and said stem together and for connection and disconnection with the float, means for exhausting the air from the measuring tank, means for drawing off its contents, and means for admitting air to the upper portion of the measuring tank.

3. In combination, a main reservoir, a superimposed measuring tank, a pipe leading from the reservoir to the measuring tank, a vertically movable conduit extending from the measuring tank into the reservoir pipe and having means for locating it at any predetermined position, means for exhausting the air from the measuring tank, means for drawing off its contents provided with a controlling valve, and an air supply pipe opening into the top of the tank having a valve connected with said controlling valve.

4. In combination, a main reservoir, a superimposed measuring tank, a pipe leading from the reservoir to the measuring tank, a float within the measuring tank, a vertically movable conduit extending from the measuring tank into the reservoir pipe provided with a lower terminal valve seat, a valve therefor having a stem extending upwardly through the movable conduit and having a limiting abutment adapted to be engaged by the float and to be adjusted to non-engaging position, means for exhausting the air from the measuring tank, and means for draining off the contents.

5. In a measuring tank of the class described, the combination therewith of a main supply pipe having interlocking openings through its side, a vertically adjustable circulation conduit therein having packed engagement with the interior of said pipe and provided with a laterally projecting locking handle extending through the main pipe and coöperable with the openings therein.

[Claims 6 to 10 not printed in the Gazette.]

1,242,832. GOLF AND OTHER PLAYING-BALL. PATRICK A. MARTIN and JOHN STANLEY, Birmingham, England. Filed Apr. 6, 1917. Serial No. 160,228. (Cl. 46—4.)

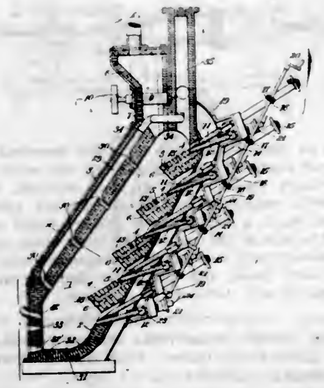


A playing ball comprising a core having uniformly spaced recesses in its surface, weights located in said recesses, a tensioned elastic winding upon the core, and an outer cover.

1,242,833. SMELTING PROCESS AND APPARATUS. EZRA A. MATHERS, New York, N. Y. Filed Dec. 20, 1911. Serial No. 666,980. (Cl. 204—64.)

1. The process of smelting ores which consists in feeding a substantially continuous stream of ore against a series of separated heating bodies and projecting the heat of said bodies downwardly in a line approximating parallelism with the flow of ore, substantially as set forth.

2. The process of smelting ores which consists in feeding a substantially continuous stream of pulverized ore against a series of separated heating bodies and projecting the heat of said bodies downwardly in a line approximating parallelism with the flow of ore, substantially as set forth.



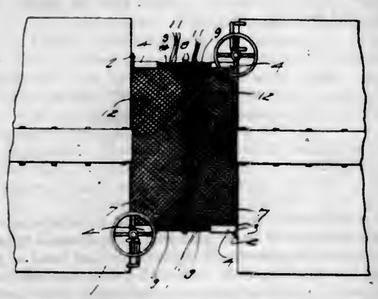
3. The process of smelting ores which consists in feeding the same by gravity against an interrupting and distributing surface and projecting bodies of heating medium into said stream of ore at the points of interruption of the flow, substantially as set forth.

4. The process of smelting ores which consists in pulverizing the ore and feeding the same by gravity against an interrupting and distributing surface and projecting bodies of heating medium into said stream of ore at the points of interruption of the flow, substantially as set forth.

5. The process of smelting ores which consists in introducing the ore into a closed electric furnace, forcing air under pressure into said furnace and maintaining a constant circulation throughout said closed furnace and the parts communicating therewith of the air and gaseous products of combustion, substantially as set forth.

[Claims 6 to 28 not printed in the Gazette.]

1,242,834. SAFETY CAR-NET. HARRISON C. MATTHEWS, Abbott, Tex. Filed May 31, 1917. Serial No. 171,985. (Cl. 105—21.)

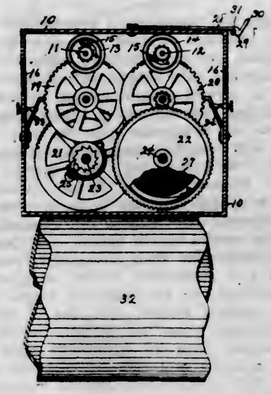


1. In a safety attachment for cars, the combination with a car, plates secured to the car, cylindrical members carried by the plates, springs located in the cylindrical members, a guard rail, plunger rods carried by the guard rail and movable in the cylindrical members, springs located in the cylindrical members and surrounding the plunger rods of the guard rail, and a netting material secured to the cylindrical members and plunger rods, as and for the purpose specified.

4. In a safety attachment for cars, the combination with a box car, of a pair of rectangular attaching plates secured to the ends of the box car at a spaced distance apart, cylindrical members secured to and extending at right angles from one face of the attaching plates, coiled springs arranged in the cylindrical members, a foraminous body secured by its ends to the opposing faces of the cylindrical members, a guard rail rectangular in cross section, plunger rods secured to one face of the guard rail and extending at right angles therefrom, said plunger rods slidably arranged in the cylindrical members and bearing against the springs, means carried by the guard rail and engaging the springs for normally urging the guard rail extended, and a plurality of rings slidably arranged on the plunger rods, and a foraminous body secured to the rings, as and for the purpose specified.

[Claims 2 and 3 not printed in the Gazette.]

1,242,835. AERIAL MAIL-CARRIER. VALENTINE W. MILLER, Fonda, Iowa. Filed June 11, 1917. Serial No. 173,948. (Cl. 104—146.)



1. An aerial carrier, comprising a housing formed with a laterally opening slot adapted to admit a track along which said carrier travels, alining supporting wheels adapted to engage said track, means for pivotally mounting said wheels in said housing, oppositely driven spring actuated, independent trains of gearing acting on said pivoting means, independent manually released detent devices engaging said trains of gearing, and a container suspended from said housing.

3. An aerial carrier, comprising a housing formed with a laterally opening slot adapted to admit a track along which said carrier travels, alining supporting wheels adapted to engage said track, means for pivotally mounting said wheels in said housing, said pivoting means including oppositely arranged ratchet devices whereby one of said wheels remains idle in movement of said housing in either direction, oppositely driven spring actuated independent trains of gearing acting on said pivoting means, independent manually released detent devices engaging said trains of gearing, and a container carried by said housing.

[Claims 2 and 4 not printed in the Gazette.]

1,242,836. RAIL-TIE. WALTER L. MITCHELL, Picayune, Miss. Filed June 20, 1916. Serial No. 104,737. (Cl. 238—5.)

1. A rail tie, comprising a base portion, a plurality of vertically disposed inclined flanges arranged upon said base portion, rail receiving and supporting chairs positioned adjacent said flanges, rail clamping members receivable by certain of said flanges and engageable with their respective rails, and means for securing said clamping members to said flanges.

2. A rail tie, comprising a base portion, a plurality of vertically disposed inclined flanges arranged upon said base portion, rail receiving and supporting chairs positioned adjacent said flanges, rail clamping members receivable by certain of said flanges and engageable with their respective rails, means for securing said clamping members to said flanges, and means engageable with the rail receiving and supporting chairs for preventing longitudinal movement of the rails.



3. A rail tie, comprising a base portion, a plurality of vertically disposed inclined flanges arranged upon said base portion, rail receiving and supporting chairs positioned adjacent said flanges, rail clamping members receivable by certain of said flanges having complemental rail receiving and supporting chairs formed upon their outer ends and engageable with the rails, and means for securing said clamping members to said flanges.

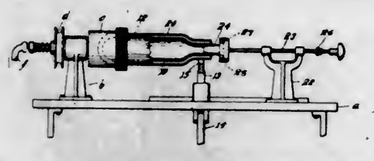
4. A rail tie, comprising a base portion, a plurality of vertically disposed inclined flanges arranged upon said base portion, rail receiving and supporting chairs positioned adjacent said flanges, rail clamping members receivable by certain of said flanges, said clamping members having formed upon their outer ends, complemental rail receiving and supporting chairs, engageable with said first mentioned rail receiving and supporting chairs, an inclined shoulder formed upon one of the said flanges, means arranged upon the opposite extremity of one of said clamping members engageable with said inclined shoulder whereby said clamping member may be forced laterally into engagement with its respective rail, and means for securing said clamping members to said flanges.

5. A rail tie, comprising a base portion, a plurality of vertically disposed inclined flanges arranged upon said base portion, rail receiving and supporting chairs positioned adjacent said flanges, rail clamping members receivable about certain of said flanges, said clamping members having formed upon their outer extremities, complemental rail receiving and supporting chairs engageable with said first mentioned rail receiving and supporting chairs, an inclined shoulder formed upon one of said flanges and engageable with the opposite extremity of the adjacent clamp member for forcing the same laterally into engagement with the respective rails for securing said clamping members to said flanges, and means engageable with said rail engaging chairs for preventing longitudinal movement of the rails.

[Claims 6 to 8 not printed in the Gazette.]

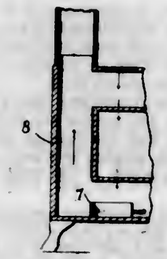
1,242,837. APPARATUS FOR THE MANUFACTURE OF GLASSWARE. OSCAR MORERG, New Britain, Conn., assignor to Landers, Frary & Clark, New Britain, Conn., a Corporation of Connecticut. Filed Nov. 12, 1915. Serial No. 61,048. (Cl. 49—7.)

1. In an apparatus of the character described, a chuck and means for rotating it, said chuck adapted to receive and hold the bottom of an outer blank, within which is positioned an inner blank supported and spaced from the outer blank, and means for bringing the neck ends of the blanks into proper position relative to one another, said means comprising a vertically movable gage for positioning the outer blank with means for limiting the extent of said vertical movement, and a second gage movable independently of the first and axially of the chuck for cooperation with the inner blank to correctly position it relative to the outer blank.



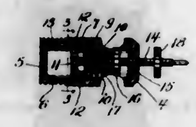
2. In an apparatus of the character described, a rotatable chuck adapted to receive and grip the outer of a pair of associated blanks closed at their bottoms, the inner blank being supported within and properly spaced from the outer blank, a gage movable axially of said chuck and adapted to engage the neck of the inner blank, and a second gage vertically movable for engagement with the neck of the outer blank, and means for limiting the upward movement of said vertically moving gage.

1,242,838. SOOT-REMOVER. STEPHEN RICHARD MORDEN, Idaho Falls, Idaho. Filed Apr. 4, 1917. Serial No. 159,642. (Cl. 102—5.)



A device of the character specified, comprising a length of fuse, a tubular jacket encircling the fuse and forming an annular chamber between the fuse and the jacket, said space being divided into separate chambers, and the said chambers containing an explosive, the fuse having cuts at the chambers extending into the bore of the same.

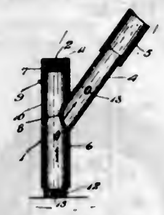
1,242,839. AUXILIARY AIR-VALVE. JOHN J. B. MULDERIG, Wilkes-Barre, Pa. Filed Feb. 18, 1916. Serial No. 79,199. (Cl. 48—180.)



1. A valve for the purpose specified embodying a casing having an internal valve seat and a foraminous inner end wall in spaced relation to said valve seat, and a spring seated valve coöperating with said valve seat between the latter and the foraminous end wall, said valve having a notched periphery, notches in the periphery of the valve being of greater capacity than the perforations in the foraminous end wall of the casing and being covered by the valve seat when the valve is in its closed position.

2. A valve for the purpose specified, embodying a casing having an internal valve seat and closed at its outer end and also formed with air inlet and finger admission orifices in the side walls thereof diametrically opposite each other, a valve coöperating with said seat and having a threaded stem extending through an opening in the end wall of the casing, a nut threaded on said stem within the casing and manually operable through said finger admission orifices, and a valve seat spring interposed between said nut and said valve seat.

1,242,840. VACUUM BEAN-PICKER. COLTON D. NARAMOR, Caro, Mich. Filed July 19, 1916. Serial No. 110,122. (Cl. 130—18.)



1. A bean sorting device including a hollow handle, an outer tube having a closed upper end into which the handle leads and an inner tube having a closed upper end slidably mounted within the outer tube, said inner tube having an opening in one side adapted to come in alinement with the passage through the handle in one position thereof.

2. In a bean sorting device, inner and outer telescoping hollow members each having a closed upper end and an open lower end, a spring interposed between said closed ends, means to limit the movement of the inner member in both directions with respect to the outer member, and a hollow handle secured to and having the passage therethrough communicating with the interior of the outer member, said inner member having an opening in its side adapted to come in alinement with said passage in one position of the inner member with respect to the outer member.

3. In a bean sorting device, inner and outer telescoping hollow members each having a closed upper end and an open lower end, a spring interposed between said closed ends, a pin on the inner member extending through a slot in the outer member to limit the movements of said members with respect to each other, and a hollow handle secured to and having its passage communicating with the interior of the outer member, said inner member also having an opening in one side adapted to come in alinement with said passage when said pin is at one end of the slot, substantially as described.

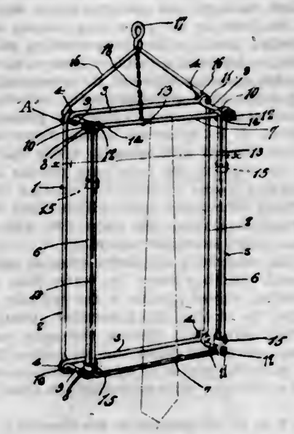
4. A pneumatic bean sorting device comprising inner and outer telescoping members each having an opening in its side, a hollow handle adapted to communicate with a suction device connected to said outer member and communicating with the opening therein, whereby upon operation of said device the openings in the inner and outer members will register to establish communication between the telescoping members and the hollow handle.

5. A pneumatic bean sorting device comprising inner and outer telescoping members each having an opening in its side, a hollow handle adapted to communicate with a suction device, connected to said outer member and communicating with the opening therein, means for normally holding said telescoping members in their extended position to prohibit registration of the openings in the telescoping members, said telescoping members being adapted to slide relative to each other upon application of the device, whereby the said openings are brought into registration and communication established between said telescoping members and said hollow handle.

[Claims 6 and 7 not printed in the Gazette.]

1,242,841. COMBINED NECKTIE STRETCHER AND HANGER. ANNA J. NELSON, Nome, Alaska. Filed Aug. 12, 1916. Serial No. 114,593. (Cl. 223—19.)

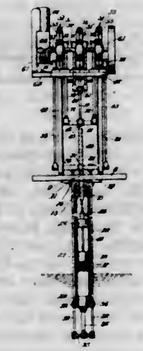
1. A device of the class described comprising a main frame including side and end bars pivotally secured together, spacing bars secured to the ends of the main supporting frame, a tie frame secured to the free ends of the spacing bars, and a clamping member hingedly connected



to the tie supporting frame, as and for the purpose specified.

[Claim 2 not printed in the Gazette.]

1,242,842. PUMP. JAMES A. NORTON, Odebolt, Iowa, assignor, by direct and mesne assignments, to Golden West Pump Company, Sioux Falls, S. D., a Corporation of South Dakota. Filed May 11, 1916. Serial No. 96,799. (Cl. 103—82.)



1. A pump comprising a cylinder provided with an opening arranged above the water line, a plurality of reciprocating valved pistons in the cylinder, means for reciprocating the pistons, the lowermost piston on its up-stroke lifting the water and forcing the same out through said opening above the water line to reduce the load and thereby facilitate starting the pump.

2. A pump comprising a cylinder open at each end and provided with openings adjacent its lower end above the water line, plurality of reciprocating valved pistons in the cylinder, means for reciprocating the pistons, the lowermost piston on its up-stroke lifting water and forcing the same out through said openings above the water line to reduce the load on the remaining pistons and on the pump operating means to facilitate starting the pump, and means for closing said openings adjacent the lower end of the cylinder.

3. A pump comprising a cylinder open at each end and provided with openings adjacent its lower end above the

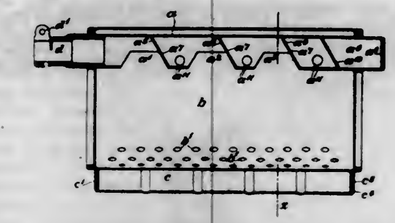
water line, a plurality of reciprocating valved pistons in the cylinder, means for reciprocating the pistons, the lowermost piston on its up-stroke lifting water and forcing the same out through said openings above the water line to reduce the load on the remaining pistons and on the pump operating means to facilitate starting the pump.

4. A pump comprising a cylinder open at each end and provided with openings adjacent its lower end above the water line, a plurality of reciprocating valved pistons in the cylinder, means for reciprocating the pistons, the lowermost piston on its up-stroke lifting water and forcing the same out through said openings above the water line to reduce the load on the remaining pistons and on the pump operating means to facilitate starting the pump, a sleeve slidably embracing said cylinder and adapted to close said openings above the water line, and means for holding said sleeve over said openings.

5. A pump comprising a cylinder open at each end and provided with openings above the water line, a plurality of reciprocating valved pistons in the cylinder, means for reciprocating the pistons, the lowermost piston on its up-stroke lifting water and forcing the same out through the openings above the water line to reduce the load on the pump operating means so as to facilitate starting the pump, and a sleeve to close said openings above the water line.

[Claims 6 to 15 not printed in the Gazette.]

1,242,843. FLASH-ABSORBER ATTACHMENT FOR MACHINE-GUNS. HARRY ROBERT NORTHOVER, Winnipeg, Manitoba, Canada. Filed Sept. 7, 1916. Serial No. 118,807. (Cl. 89—31.)

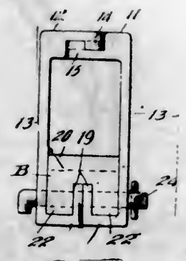


1. A combined flash-absorber and silencer for guns, comprising a tubular gas-deflecting chamber adapted to fit at its rear end upon a gun barrel in axial alinement therewith and having the under side of its middle portion formed with a longitudinal series of gaps; a series of deflector plates, one for each gap, fixed within said chamber and extending forwardly and downwardly from the upper side of the chamber directly to the forward edges of the gaps, said plates being provided with central openings alining axially with one another and with the bore of the gun barrel to permit the bullet to travel therethrough; and a cylindrical expansion chamber, into the body of which the gases are deflected directly downward through said gaps by said plates, eccentrically encircling the deflecting chamber and so arranged with respect thereto that substantially its entire body portion is located below the axis of said deflecting chamber, said expansion chamber being closed at opposite ends.

3. A combined flash-absorber and silencer for guns, comprising a tubular gas-deflecting chamber adapted to fit at its rear end upon a gun barrel in axial alinement therewith and having the underside of its middle portion formed with a longitudinal series of gaps; a series of forwardly-inclined deflector plates fixed within said chamber, one at the front edge of each gap, said plates being provided with central openings alining axially with one another and with the bore of the gun barrel to permit the bullet to travel therethrough; a cylindrical expansion chamber encircling the deflecting chamber and into which the gases are reflected through said gaps by said plates, said expansion chamber being closed at opposite ends and having its bottom wall formed with perforations through which said gases pass; and a chamber inclosing the perforated portion of the bottom wall of said expansion chamber and having its front wall provided with air inlets and its rear wall with gas outlets.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,242,844. DRAW-BAR AND TWO-PART-YOKE CONNECTION. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed July 13, 1916, Serial No. 109,008. Renewed Aug. 27, 1917. Serial No. 188,498. (Cl. 213—42.)



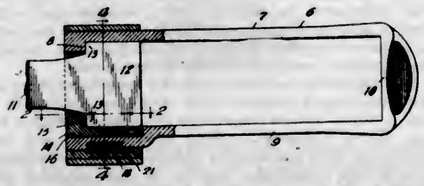
1. The combination with a two-part yoke, of a removable locking block adapted to engage a shoulder of a draw bar butt, said block and yoke parts having coöperating means preventing lateral separation of the yoke parts when the latter and the block are in operative position.

2. A yoke for draft riggings having a hood at its forward end within which is adapted to be received the butt of a draw bar, a locking block removable longitudinally from said hood and having a shoulder adapated to cooperate with a shoulder of the draw bar, a key extending transversely through the side walls of the hood and through said block, the hood of said yoke being provided with means through which the key extends arranged to place the latter in quadruple shear.

4. A yoke comprising two parts which, when assembled, form a hood at their worward ends to receive a draw bar butt, said hood having an upper, transversely extending shoulder to engage the upper shoulder of a draw bar and a removable locking block insertible within said hood to engage the lower shoulder of the draw bar, said block and yoke parts having integral coöperating means to prevent lateral separation of the yoke parts.

[Claims 3, 5, and 6 not printed in the Gazette.]

1,242,845. DRAFT-YOKE FOR RAILWAY-CARS. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed July 22, 1916, Serial No. 110,729. Renewed Aug. 27, 1917. Serial No. 188,499. (Cl. 213—42.)



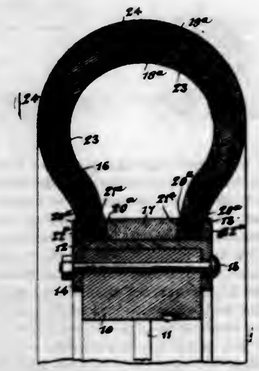
1. In a draft rigging, in combination: a draw bar, a yoke strap, a removable sleeve fitting over one free end of the yoke strap, a removable band for the yoke strap and sleeve, and means for holding the band, strap and sleeve together.

2. In a draft rigging, in combination, a shouldered draw bar, a yoke strap having a shoulder on one limb thereof to engage the draw bar, a removable shouldered block on the other limb to engage the draw bar, a removable band surrounding the yoke strap and block, and means for locking the block, band and yoke together.

4. In a draft rigging, the combination with a shouldered draw bar, of a yoke having a gib on one of its arms arranged to coöperate with one of the shoulders of the draw bar, a sleeve slidably mounted on the other arm of the yoke, said sleeve having a gib coöperating with the other shoulder of the draw bar, a band encircling the draw bar, yoke and sleeve, and a key extending transversely through said band and sleeve and engaging a portion of the yoke, for holding the parts in assembled relation.

[Claims 3 and 5 to 7 not printed in the Gazette.]

1,242,846. RESILIENT TIRE. JAMES ALLISON OLINGER, Butler, Pa. Filed Oct. 10, 1916. Serial No. 124,820. (Cl. 152—8.)



1. In combination with a tire body, a supporting frame embedded therein comprising a plurality of spaced apart transversely extending substantially U-shaped loops arranged in two separate series, one series being of greater diameter than the other, the smaller loops being arranged between the larger loops, and means for connecting the individual loops of each series to keep them spaced apart, said means being arranged longitudinally of the loops around the tire.

2. In combination with a tire body, a supporting frame embedded therein comprising a plurality of spaced apart transversely extending substantially U-shaped loops, arranged in two separate series, one series being of greater diameter than the other, the smaller loops being arranged alternately in the spaces between the larger loops, means for connecting the loops of each series at their ends where they connect with the rim of the wheel, said means extending around the tire, and separate means also extending around the tire for connecting the loops of each series at different points between the ends of the loops.

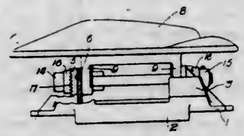
3. In combination with a tire body, a supporting frame embedded therein and comprising a plurality of spaced-apart, transversely extending loops, arranged in two separate series, one series being of greater diameter than the other, means for independently connecting the loops of each series at their ends where the tire body is connected with the rim of the wheel, said means extending around the tire, and separate means also extending around the tire for independently connecting the loops of each series at different points between the ends of the loops.

4. A supporting frame for tire bodies formed of a plurality of spaced apart, transversely extending, substantially U-shaped loops, and a plurality of circumferential bracing rings, said rings being arranged at right angles to the loops and crossing the same and spaced apart transversely of the tire and along the loops from one end of the loops to the other end, each ring being initially crimped at intervals in opposite directions so as to provide alternately arranged seats which engage alternately over and under each loop so that each loop has a plurality of rings engaging alternately both under and over the same from one side of the tire to the other.

5. A supporting frame for tire bodies comprising a series of large loops arranged transversely in the tire body and being spaced apart throughout the length of the same, a series of small loops arranged transversely in the body and being spaced apart and arranged between the other loops throughout the length of the body, both the large and small loops being substantially U-shaped, and a plurality of circumferential bracing rings crimped at intervals in opposite directions so as to provide alternately arranged seats which engage alternately over and under each loop throughout the series, whereby each loop has a plurality of rings engaging both under and over the same from one side to the other.

[Claims 6 and 7 not printed in the Gazette.]

1,242,847. ADJUSTABLE DERAILING DEVICE. EBEN R. PACKER, Wilmette, Ill., assignor to Q & C Company, New York, N. Y., a Corporation of Maine. Filed Mar. 8, 1916. Serial No. 82,783. (Cl. 104—127.)



1. In combination, a derailing block, a stationary support, said block and said support having members lying side by side, said members having registering openings one of which is in the form of an elongated slot, a bolt passing through said slot and through an opening in the other member, the slotted member having teeth extending transversely of the slot in its exposed face, a washer on said bolt having teeth adapted to mesh with the aforesaid teeth, and means for interlocking the washer and the cooperating toothed member independently of the teeth so as to hold the washer positively against rotation.

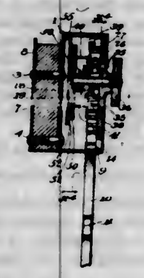
2. In combination, a derailing block, a stationary support, said block and said support having members lying side by side, said members having registering openings one of which is in the form of an elongated slot, a bolt passing through said slot and through an opening in the other member, the slotted member having teeth extending transversely of the slot in its exposed face, a washer on said bolt having teeth adapted to mesh with the aforesaid teeth, and interlocking shoulders between the washer and the coöperating toothed member extending transversely of the teeth to prevent rotation of the washer.

3. In combination, a derailing block, a support, said support having therein a slot elongated in the vertical direction, said block having a member engaging with one side of the support, a bolt passing through said member and through the slot in said support, the face of said support on the side opposite to that on which said member lies having teeth extending transversely of the slot, and a washer on the bolt having teeth meshing with the aforesaid teeth.

4. In combination, a derailing block, a support, said support having therein a slot elongated in the vertical direction, said block having a member engaging with one side of the support, a bolt passing through said member and through the slot in said support, the face of said support on the side opposite to that on which said member lies having teeth extending transversely of the slot, a washer on the bolt having teeth meshing with the aforesaid teeth, and interlocking shoulders between said support and said washer for holding the washer against rotation independently of the teeth.

5. In combination, a support comprising a flat frame-like base plate having standards projecting upwardly from opposite ends thereof, a derailing block having arms lying between and in proximity to said standards, a bolt device passing through said standards and said arms to form a hinge connection for the block, and actuating means for the block extending from the latter down through the opening in the base plate.

1,242,848. PERMUTATION-LOCK. PAUL PALÉ, Los Angeles, Cal. Filed Apr. 6, 1914. Serial No. 829,865. (Cl. 70—53.)



1. In a lock, a pair of locking arms, a toothed segment on each of said arms the teeth of which mesh with each other, a dog engaging the teeth of each of said segments to lock said arms, a foot engaging said dogs, means for engaging said foot to disengage said dogs from said teeth to release said arms, and means for actuating said foot engaging means.

2. In a lock, a locking element, locking means for locking said locking element, an unlocking member adapted to unlock the locking means, a lug coöperating with the unlocking member, a disk provided with a slot through which said lug is adapted to project, the end of said slot being adapted to arrest the movement of said lug and said unlocking member when said unlocking member has unlocked said locking means from said locking element.

4. In a combination lock, a locking element, locking means for said locking element, and an unlocking member for unlocking said locking means, a clutch connecting element on said unlocking member, a second clutch connecting element comprising a pair of disks, one of said disks being provided with a slot, a pin on the other disk projecting into said slot, means for turning one of the disks so that the pin will engage the end of the slot in the other disk, and for bringing said disks into connection with the connecting element and for actuating said disks, clutch elements and unlocking members to unlock said locking means.

9. In a lock, a supporting means correspondingly movable locking arms pivoted independently of one another upon the supporting means at certain ends and being free from connection with one another at their other ends, and means to lock said arms in a plurality of positions between their extent of movement in either direction.

[Claims 3 and 5 to 8 not printed in the Gazette.]

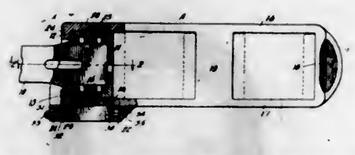
1,242,849. CURTAIN-SUPPORT. JOHN T. PARRIS, Chicago, Ill. Filed Mar. 1, 1917. Serial No. 151,747. (Cl. 156—22.)



1. A curtain support comprising a pole composed of separate sections mounted in longitudinal alinement, a latch bolt carried by the inner end of one section and engageable with the other section when said sections are in alinement, a vertical pivot pin extending from the inner end of each section, and a bracket having a recess in which the pivot pin seats, the wall of the recess having a slot and the pivot pin having a side lug seating in the slot to limit the extent of swing of the section.

2. A curtain support comprising a pole composed of separate sections mounted in longitudinal alinement, a pivotal support for each section for permitting a swing in a horizontal plane, a sliding latch bolt carried by the inner end of one section and engageable with the other section when said sections are in alinement, and a pull line connected to the latch bolt and extending from the section which carries said bolt, said line passing through the pivotal axis of said section.

1,242,850. YOKE. CALVIN B. PATCH, Glenellyn, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Apr. 13, 1916, Serial No. 90,845. Renewed Aug. 27, 1917. Serial No. 188,494. (Cl. 213—42.)

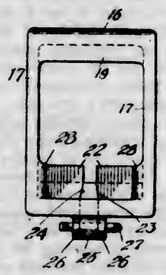


1. A yoke for draft riggings having a hood at its forward end within which the butt of a draw-bar is adapted to be received, means for engaging the upper portion of a draw-bar butt, and devices for engaging the lower part of a draw-bar butt, said devices including a shouldered block insertible and removable through an opening in the bottom of the hood, and two supporting plates, one at the front and one at the rear of said block, said plates being also insertible and removable through said opening and adapted to be secured to integral portions of the hood.

2. A yoke for draft riggings having a hollow hood at its forward end, the upper wall of said hood having means for engaging the upper portion of a draw bar butt, a removable block at the bottom of the hood, said block having means for engaging the lower portion of a draw bar butt, the inner faces of the side walls of the hood being provided with vertically extending grooves and said block having lateral extensions arranged to fit within said grooves to thereby prevent forward movement of the block under draft.

[Claim 3 not printed in the Gazette.]

1,242,851. KEYLESS YOKE. CALVIN B. PATCH, Glenellyn, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Apr. 13, 1916, Serial No. 90,846. Renewed Aug. 27, 1917. Serial No. 188,493. (Cl. 213—42.)

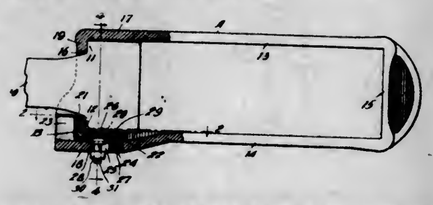


1. A cast yoke for railway draft riggings, said yoke having a hood at its forward end provided with means for engaging the top shoulder of a draw-bar, and detachable devices adapted to lock the yoke with the lower shoulder of a draw-bar, said devices including three members, two of which are shouldered and insertible and removable from the front end of the hood and the third insertible and removable from below through a slot in the bottom of the hood.

2. A cast yoke for railway draft riggings, said yoke having a hood at its forward end provided with means for engaging the top shoulder of a draw-bar, and detachable devices adapted to lock the yoke with the lower shoulder of a draw-bar, said devices including three members, two of which are shouldered and insertible and removable from the front end of the hood and the third insertible from below through a slot in the bottom of the hood, said third member being in the form of a spreader and adapted to be positioned between said two shouldered members to thereby maintain the latter in proper position.

[Claims 3 and 4 not printed in the Gazette.]

1,242,852. YOKE. CALVIN B. PATCH, Glenellyn, Ill., assignor to William H. Miner, Chazy, N. Y. Filed July 19, 1916, Serial No. 110,009. Renewed Aug. 27, 1917. Serial No. 188,492. (Cl. 213—42.)

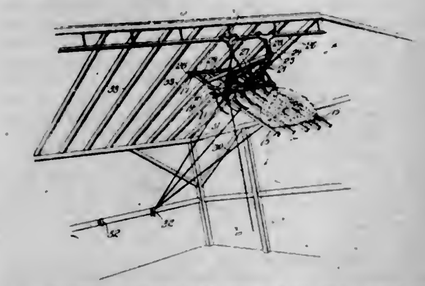


1. A yoke for draft riggings having a hooded forward end within which is adapted to be received a shouldered draw bar butt, a removable shouldered locking block associated with said hood and adapted to engage a shoulder of the draw bar butt, the bottom wall of the hood having an opening therein, and a short bolt having its head insertible through said opening and adapted to engage said locking block to prevent the latter from being displaced.

2. A yoke for draft riggings formed at its forward end to receive a draw bar butt therewithin, a removable locking block adapted to engage a shoulder on the draw bar, one wall of said end of the yoke having a slot therein, one portion of the slot being enlarged to permit the insertion of a bolt head therethrough, the locking block being provided with a slot arranged to aline with said bolt slot, and a bolt insertible through the slot therefor and having a portion of its head located within the slot in the block, when the bolt is in operative position.

[Claims 3 and 4 not printed in the Gazette.]

1,242,853. DEVICE FOR MOWING HAY. GARDNER H. PERKINS, Cazenovia, N. Y. Filed Jan. 3, 1917. Serial No. 140,414. (Cl. 214—2.)



1. A mower comprising a plurality of longitudinal bars having tenons at their rearward ends, a rear cross bar having recesses receiving the tenons, intermediate transverse top and bottom bars, clamp bolts positioned adjacent to the side faces of the longitudinal bars and assembling the same with the top and bottom bars, and suspending means including upwardly and forwardly converging arms connected pivotally with the longitudinal bars to the rearward of the transverse top and bottom bars, and means for limiting the swinging movement of the longitudinal bars relative to said arms.

2. A mower comprising a plurality of longitudinal bars having tenons at their rearward ends, a rear cross bar having recesses receiving the tenons, intermediate transverse top and bottom bars, clamp bolts positioned adjacent to the side faces of the longitudinal bars and assembling the same with the top and bottom bars, and loops connected with the longitudinal bars and surrounding the oblique arms to limit the swinging movement of the longitudinal bars relative to said arms.

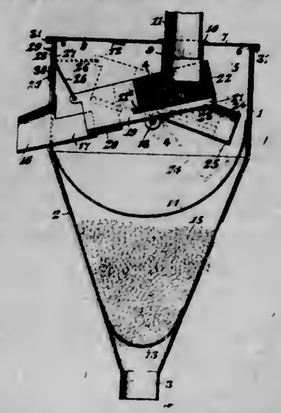
3. A mower composed of a plurality of longitudinal bars, a rear cross bar, intermediate top and bottom bars and clamp bolts whereby the parts are assembled, upwardly and forwardly convergent arms pivotally connected with some of the longitudinal bars to the rearward of the transverse top and bottom bars, means for limiting the swinging movement of the longitudinal bars with respect to said arms, means connected with the arms for suspending the mower, a movably supported car from which the mower is suspended, and hand ropes connected with the longitudinal bars of the mower to the forward and to the rearward of the transverse top and bottom bars.

4. In a device of the class described, a movably supported car, a mower comprising suitably connected and assembled longitudinal bars, forwardly and upwardly convergent arms pivotally connected therewith, means for limiting the swinging movement of the longitudinal bars relatively to the arms, and hand ropes connected with the longitudinal bars to control the tilting movement thereof in any direction, and means including a swivel device for suspending the mower from the car.

5. In a device of the class described, a movably supported car, a mower comprising suitably connected and assembled longitudinal bars, forwardly and upwardly convergent arms pivotally connected therewith, means for limiting the swinging movement of the longitudinal bars relatively to the arms, and hand ropes connected with the longitudinal bars to control the tilting movement thereof in any direction, and means including a swivel device for suspending the mower from the car, said mower being provided with rearwardly extending spikes.

[Claim 6 not printed in the Gazette.]

1,242,854. RAIN-WATER FILTER AND AUTOMATIC CUT-OFF. JOHN A. PETER, Fostoria, Ohio. Filed Oct. 17, 1916. Serial No. 126,166. (Cl. 137—9.)



1. In an automatic rain water deflector or cut-off, a casing with an inlet through the top, an outlet through the bottom for connection to a cistern, and a discharge or waste spout in the upper portion of the casing projecting through one side wall thereof, and a rockable trough in the casing having a normal bias to tip into operative relation to the discharge or waste spout through the side of the casing with the other end of the trough elevated and located beneath the inlet to receive water therefrom, said trough having means on the initially higher end for accumulating water in opposition to the normal bias of the trough and thereby rock the trough to elevate the normally biased end and lower the initially higher end and direct water therefrom to the outlet at the lower end of

the casing, said trough having the end portion beneath the inlet to the casing provided with screen means at the sides and end.

2. In an automatic rain water cut-off, a casing having an inlet and an outlet for water, and a rockable member in the path of water through the casing to divert the water in one direction, said rockable member being overbalanced at one end to impart a normal bias to hold the rockable member in an inclined position and at the other end having side and end screen walls and having a bottom extension with perforations therethrough and a pocket situated below the perforated portion and communicating therewith through the perforations, said pocket having a leak passage of smaller area than the effective area of the perforations.

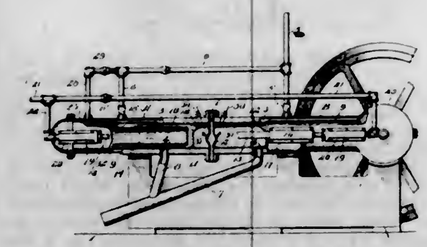
3. In an automatic rain water cut-off, a casing having an inlet and an outlet for water, and a rockable member in the path of water through the casing to divert the water in one direction, said rockable member being overbalanced at one end to impart a normal bias to hold the rockable member in an inclined position and at the other end having side and end screen walls and having a bottom extension with perforations therethrough and a pocket situated below the perforated portion and communicating therewith through the perforations, said pocket having a leak passage of smaller area than the effective area of the perforations, said pocket being in angular or inclined relation to the length of the rockable member.

4. In an automatic rain water cut-off, a rockable deflector having an intermediate axis of rocking and movable about said axis to elevate either end above a horizontal plane or carry it below said plane, said rockable deflector having one end portion provided with side and end screens and with the other end normally biased to move below the said plane, means in operative relation to the normally biased end to convey water therefrom, and means at the screened end of the deflector for accumulating water directed into the deflector to overbalance the normally biased end of the latter.

5. In an automatic rain water deflector or cut-off, a casing having a tapering lower portion terminating in an outlet for connection to a cistern, said casing being provided with a waste spout through one side wall near the top and an inlet through the top near the other side of the casing from the waste spout, screening means at the top and bottom portion of the taper part of the casing for containing filtering material, and a pivoted trough in the upper part of the casing over the screening means above the filtering part of the casing, said trough being biased at one end to normally rest upon the waste spout and at the other end projecting beneath the inlet to the casing and there having side and end screens, and a pocket communicating with the trough for receiving water therefrom and of a size to accumulate water to an amount to overbalance the biasing means at the other end of the trough.

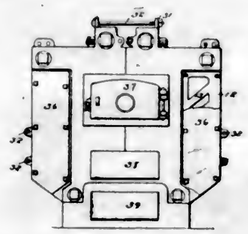
[Claims 6 to 11 not printed in the Gazette.]

1,242,855. ENGINE. WILLIAM PETZ, Firth, Nebr. Filed Sept. 5, 1914. Serial No. 860,377. (Cl. 123—57.)



In an internal combustion engine, a pair of opposed cylinders arranged end to end, a single head common to the adjoining ends of both cylinders cored out to form an inclosed hot ignition chamber, and gas deflecting fins on opposite sides of said common head.

1,242,856. SECTIONAL BOILER-FURNACE. CHARLES PHELPS, Oskaloosa, Iowa. Filed Mar. 16, 1915. Serial No. 14,664. (Cl. 122—225.)



2. In a furnace, the combination of a series of furnace sections formed hollow for water circulation, each furnace section being provided on its front and rear faces around its outside edge, with a rib to coact with the ribs of corresponding sections to seal the exterior of the furnace, said furnace sections being also provided with inner upright water columns to form the sides of the fire box, and being also provided with a hollow top section, hollow outer upright columns, and a series of connecting hollow members inclined upwardly and outwardly from the inner upright columns to the outer ones, there being near the bottom of each section a draft passageway, the water chambers of the sections being spaced apart to permit the circulation of the products of combustion from the fuel chamber outwardly to said outer rim, and the inner upright columns being provided on their front and rear faces above the grate line with draft ribs arranged to deflect the gases and products of combustion from the fire box upwardly between the sides of the inner upright columns to a point near the top of the fuel chamber, said draft ribs being provided with small openings whereby jets of flame from the fire may discharge outwardly.

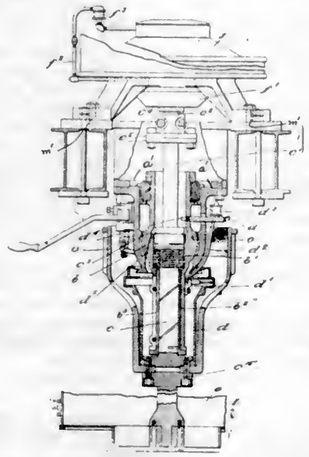
[Claim 1 not printed in the Gazette.]

1,242,857. MEANS FOR MOUNTING AND DRIVING CENTRIFUGAL MACHINES. ELI W. PHILLIPS, Boston, Mass., assignor to American Tool & Machine Company, Boston, Mass., a Corporation of Massachusetts. Filed July 17, 1912. Serial No. 710,087. (Cl. 64—48.)

1. The combination of a fixed socketed hanger or support, an oscillatory bearing sleeve having a spherical bearing ball intermediate of its upper and lower ends seated in said hanger, thrust bearing carried in said sleeve, a rotary basket-carrying shaft suspended therefrom so as to oscillate with said sleeve, an overhead non-oscillatory motor shaft and coupling members flexibly connecting the upper end of said basket shaft with the downward extension of said motor shaft at substantially the plane of the center of oscillation of said sleeve, and a centralizing buffer surrounding the upper end of said sleeve and opposing a yielding resistance to its oscillation, substantially as described.

2. The combination of a socketed hanger, a ball sleeve seated to oscillate therein, a thrust bearing in said sleeve, a basket-carrying shaft suspended therefrom, an overhead non-oscillatory motor shaft coaxial with said basket shaft, a flexible coupling whose members form an interlocking engagement at substantially the level of the center of oscillation, the upper member being rigidly and detachably secured to the lower end of the motor shaft while the lower coupling member is detachably secured to the upper end of the basket shaft, substantially as described.

3. An oscillatory bearing sleeve for the basket shaft of a centrifugal machine embracing a sleeve member provided with a spherical bearing intermediate of its ends and having an internal ledge, a thrust-bearing supported by said ledge for the suspension of the basket shaft, the lower portion of said sleeve being split and contractible, a bushing inserted in the split portion of said sleeve and forming a lateral bearing around said basket shaft and means for contracting said sleeve upon said bushing, substantially as described.

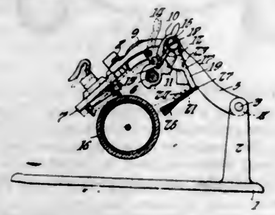


4. The combination with the oscillatory ball and sleeve, a thrust bearing mounted therein, a basket-carrying shaft having rigidly secured to its upper end a removable coupling member whose periphery projects beyond the shaft to form a bearing cap, an overhead non-oscillatory motor shaft, a connecting member rigidly and detachably secured to the lower end of said motor shaft and extending downward inside said sleeve to the center of oscillation and provided with interlocking members to form a flexible engagement with the corresponding coupling member of the basket shaft at substantially the plane of the center of oscillation, substantially as described.

5. In a centrifugal machine the combination of the oscillating sleeve having a spherical bearing intermediate of its upper and lower ends, a thrust bearing formed inside the sleeve intermediate of its ends, a rotary basket-carrying shaft mounted on said thrust bearing, and an overhead motor shaft coaxial with said basket shaft, and a demountable shaft section detachably secured to the lower end of the motor shaft and extending downwardly into said sleeve and having a flexible coupling connection for driving said basket shaft, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,242,858. PHONOGRAPH. IRWIN D. PIKE, West Orange, N. J., assignor, by mesne assignments, to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed May 10, 1913. Serial No. 766,697. (Cl. 274—1.)



1. As a new article of manufacture, a cleaning device for phonographs comprising an arm provided with a bearing at one end for connecting the same to a part of the phonograph, a brush at its other end, and a spring intermediate its ends, substantially as described.

2. As a new article of manufacture, a cleaning device for phonographs comprising an arm provided with a bearing at one end for connecting the same to a part of the phonograph, a brush at its other end, and a cam intermediate said ends, substantially as described.

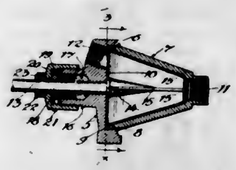
3. As a new article of manufacture, a cleaning device for phonographs comprising an arm provided with a bearing at one end for connecting the same to a part of the phonograph, a brush at its other end, and a cam and a spring intermediate its ends, substantially as described.

4. As a new article of manufacture, a cleaning device for phonographs comprising an arm adapted to be pivotally connected at one end to a part of the phonograph, a brush secured to the other end of said arm and means constantly tending to move said arm about its pivot and the brush toward operative position when said arm is so connected to the phonograph, substantially as described.

5. A brush for phonographs, comprising cleaning material and attaching means for connecting the brush to a brush carrying element adapted to be mounted on the phonograph, consisting of a member to one end portion of which the cleaning material is secured, the other end portion thereof being adapted to be applied to the brush carrying element, and means secured to said member and adapted to coact with said element when the member is applied thereto to automatically lock the brush to said member in a predetermined position with respect thereto and in frictional engagement therewith, substantially as described.

[Claims 6 to 16 not printed in the Gazette.]

1,242,859. ROTARY PUMP. ALOIZY PŁONSKI, Chicago, Ill. Filed Jan. 27, 1917. Serial No. 144,989. (Cl. 103—43.)



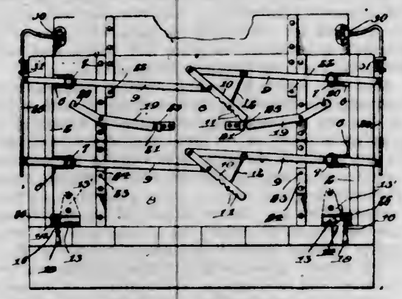
1. In a rotary pump, the combination with a frame provided with a screw-threaded flange, of a cone casing having its large end screw-threaded to connect with the flange whereby a cone-shaped chamber is provided between the frame and casing walls, the length whereof is determined by the distance that the casing is screwed upon the flange, there being an outlet opening through the frame wall adjacent the casing and an inlet opening through the casing at its apex, a shaft journaled in the frame and extended axially into the chamber, and a plurality of blades mounted on the shaft interiorly of the chamber, the edges of the blades being in close proximity to the chamber walls, and having the distance of separation therebetween affected by the longitudinal position of the cone casing relative to the frame, substantially as described.

[Claim 2 not printed in the Gazette.]

1,242,860. END-GATE FOR WAGONS. CARL POLSON, Vermillion, Kans. Filed Sept. 1, 1916. Serial No. 118,108. (Cl. 21—21.)

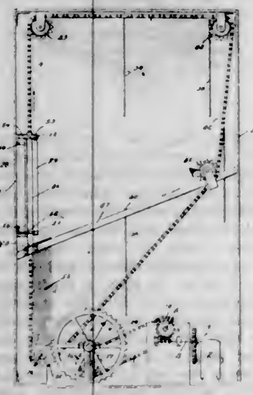
1. In end gate construction, the combination with a vehicle body, of an end gate mounted on the bottom of the body between the sides thereof and hinge connections between said end gate and sides of the body, each connection comprising a horizontal rod rotatably secured to the end gate adjacent its lower edge, a second rod secured to and extending at right angles with said first mentioned rod, said second mentioned rod being formed on its in-

ner end with means for engagement with the side of the body, the second mentioned rod being rotatable to disengage said last mentioned means from the body.



2. In end gate construction, the combination with a vehicle body having vertical channels formed on the side walls thereof, of an end gate having its lower corners cut away to form recesses and hinge connections between said end gate and body, each connection comprising a sleeve positioned in one of said recesses and having a horizontal axis, a rod rotatably mounted in said sleeve extending beyond one end thereof and lying entirely within said recess, the rod being formed in its projected end with a transverse opening, a shaft extending through said transverse opening having a crank handle on one end thereof, and means on the other end of said rod for removable engagement in one of the channels formed on the side walls of the body.

1,242,861. SIGN-FLASHER. CONRAD D. PAUITT, Berkeley, Cal., assignor of one-half to William E. Joost, Alameda, Cal. Filed Oct. 6, 1914. Serial No. 865,276. (Cl. 177—350.)



1. A sign flasher comprising terminal boards, a plurality of coacting contact members mounted in each of said boards, an operating mechanism, and means normally disengaged from said operating mechanism but engaged and positioned thereby between said terminal boards for selectively permitting certain of said contacting members to enter into engagement.

2. A sign flasher comprising terminal boards, a plurality of coacting contact members mounted in said boards, insulating sheets adapted to be positioned between said terminal boards, and having openings to selectively permit said contact members to enter into engagement, and an operating mechanism normally disengaged from said sheets for moving said sheets between said terminal boards.

3. A sign flasher comprising terminal boards, a plurality of coacting contact members mounted in said boards, insulating sheets adapted to be positioned between said terminal boards, and having openings to selectively permit said contact members to enter into engagement, an operating mechanism adapted to move said sheets between said terminal boards, said sheets being disengaged from said operating mechanism prior to being moved thereby.

4. A sign flasher comprising insulating terminal boards held in spaced relation, conducting contact studs carried by one of said boards, each of said studs being conductively connected to an element of the sign, conducting spring members carried by the other of said terminal boards and adapted to coact with said studs to complete an electrical circuit therebetween, perforated sheets adapted to be interposed between said terminal boards to selectively permit certain of the spring members to engage their respective contact studs, mechanisms for intermittently moving said sheets into position, said sheets being normally disengaged from said mechanisms, and means for interrupting the current during such movement.

5. A sign flasher comprising terminal boards held in spaced relation, contact studs carried by one of said boards, springs carried by the other of said boards adapted to contact with said studs, a plurality of perforated sheets adapted to selectively permit certain of said springs to contact with their respective coacting studs, and operating mechanism for successively engaging said sheets, and moving the same between said terminal boards.

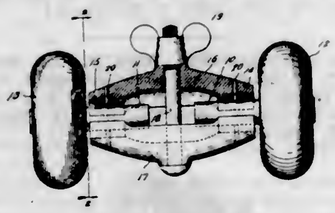
[Claims 6 to 11 not printed in the Gazette.]

1,242,862. WATER-MOTOR. HERBERT H. RAMTHUN, Milwaukee, Wis. Filed Aug. 2, 1915. Serial No. 43,228. (Cl. 253—136.)



In a water motor, the combination with a disk having cut through it at its periphery a series of substantially radial notches, of a series of blades each dished slightly throughout its length and having at its transverse center an upstruck rib whose arch is inserted in one of said notches, all portions of the blade on opposite sides of its rib being substantially flat transversely, for the purpose set forth.

1,242,863. SLIP-COMPARING DEMONSTRATOR. MILTON O. REEVES, Columbus, Ind., assignor to Reeves Pulley Company, Columbus, Ind., a Corporation of Indiana. Filed June 29, 1916. Serial No. 106,612. (Cl. 265—10.)



1. A slip-comparing demonstrating instrument, comprising two relatively rotatable members of the same size, and a clamp in opposite ends of which said rotatable members are held, the respective rotatable members and the clamp frictionally interengaging on surfaces of different materials of which the relative tendencies to slip are to be compared.

2. A slip-comparing demonstrating instrument, comprising two relatively rotatable members, and a clamp in opposite ends of which said rotatable members are held,

the respective rotatable members and the clamp frictionally interengaging on surfaces of different materials of which the relative tendencies to slip are to be compared.

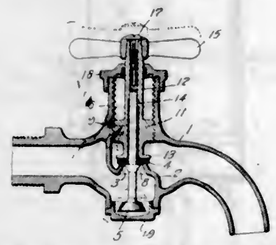
3. A slip-comparing demonstrating instrument, comprising two relatively rotatable members of the same size, and a clamp in which said rotatable members are held, the respective rotatable members and the clamp frictionally interengaging on surfaces of different materials of which the relative tendencies to slip are to be compared.

4. A slip-comparing demonstrating instrument, comprising two relatively rotatable members, and a clamp in which said rotatable members are held, the respective rotatable members and the clamp frictionally interengaging on surfaces of different materials of which the relative tendencies to slip are to be compared.

5. A slip-comparing demonstrating instrument, comprising two relatively rotatable members, a clamp in which said rotatable members are held, the respective rotatable members and the clamp frictionally interengaging on surfaces of different materials of which the relative tendencies to slip are to be compared, and means for adjusting the pressure of said clamp on said rotatable members.

[Claims 6 to 9 not printed in the Gazette.]

1,242,864. FAUCET. GEORGE A. RICKS, La Fayette, Ind. Filed Feb. 7, 1917. Serial No. 147,059. (Cl. 137—4.)



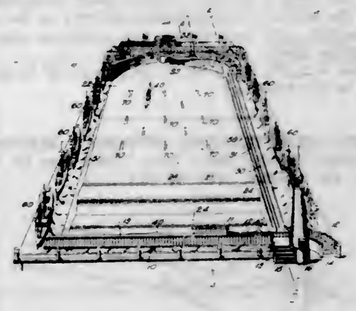
1. A valve casing having a partition provided with a port and with valve seats at each end of the port, a valve stem extending through the port and having valves rigid therewith and spaced apart to alternately engage the seats, the outermost valve being a disk having an opening for receiving the stem, said stem having a stop to limit the movement of the disk toward the inner valve, a bushing on the stem and having a marginal flange at its inner end, and engaging the inner face of said outermost valve to permit the removal of said valve with the bushing, a sleeve encircling the bushing and the stem and engaging at its inner end the outermost valve, and having threaded engagement with the casing, and a handle detachably connected with the stem and sleeve.

2. In combination with a valve casing and the valve, of a stem upon which the valve is movably mounted, said stem having a stop for limiting the movement of the valve thereon in one direction, a bushing encircling the stem and having a marginal flange between the valve and the stop, said casing having a tubular extension through which the bushing will extend when the valve is raised from its seat, a sleeve encircling the bushing and the stem and bearing at its inner end against the valve, and a handle detachably connected with the sleeve and the stem.

[Claim 3 not printed in the Gazette.]

1,242,865. AMUSEMENT APPARATUS. HENRY ELMER RIEHL, Brooklyn, N. Y. Filed July 22, 1916, Serial No. 110,652. Renewed Aug. 25, 1917. Serial No. 188,189. (Cl. 104—111.)

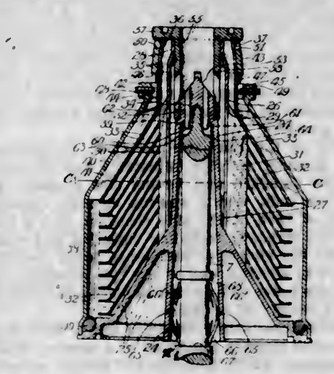
1. An amusement apparatus comprising an inclined surface having electrical contacts fixed thereon, a movable object arranged adjacent to said surface, electrical connections between said contacts and object, a vehicle adapted to travel down said surface by its own weight, said vehicle being also adapted for engagement with said contacts, a motor in the circuit of said object and contacts and adapted to actuate the object when the circuit is closed, as shown and described.



4. An amusement apparatus, comprising a vehicle having connected rear wheels and a front steering wheel, an inclined surface for the said vehicle to travel down by its own gravity and adapted to be steered by an occupant of the vehicle during its downward journey on the inclined surface, a series of movable objects arranged adjacent the said inclined surface, motors for actuating the said objects, and electric circuits for the said motors and each having a pair of contact plates embedded in the said inclined surface, the said contact plates of a pair being spaced apart to correspond to the rear wheels of the vehicle whereby the said vehicle becomes a circuit closer on the rear wheels simultaneously engaging a pair of contact plates.

[Claims 2 and 3 not printed in the Gazette.]

1,242,866. CENTRIFUGAL SELF-BALANCING SEPARATOR OR CLARIFIER. HORACE A. RIGGS, Indianapolis, Ind. Filed Jan. 7, 1916. Serial No. 70,762. (Cl. 64—48.)



26. In a centrifugal separator or clarifier, the combination of an upright shaft, a separator bowl having a hollow center that is greater in diameter than the shaft, the center being pivotally supported directly upon the top of the shaft and extending about the shaft, and a plurality of bow-shaped springs connected together and collectively extending about the shaft in direct contact therewith and also in direct contact with the inside of the lower portion of the bowl center.

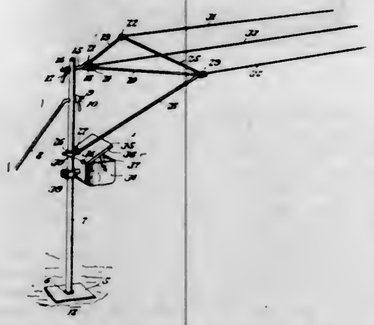
32. In a centrifugal self-balancing separator or clarifier, the combination of an approximately vertical rotatable shaft, rigid bearings guiding the shaft, a separating device pivotally mounted directly on the shaft to be rotated thereby, and a freely-yieldable spring-cushion interposed

between the shaft and the separating device adjacent to the rigid bearings.

38. In a centrifugal self-balancing separator or clarifier, the combination of a separating or clarifying device of the conical disk type, a unitary rotatable shaft balancing and driving the device, a spring mounted directly on the shaft in connection with said device, and a driving gear for rotating the shaft.

[Claims 1 to 25, 27 to 31, 33 to 37, and 39 to 47 not printed in the Gazette.]

1,242,867. CLOTHES-LINE SUPPORT. EVERETT E. ROBINSON, Grundy Center, Iowa. Filed May 16, 1917. Serial No. 169,006. (Cl. 68—3.)



1. In a device of the character described, the combination with a standard and socket therefor and a brace for said standard, a removable and foldable spreader member for the clothes line, means adjustable longitudinally for connecting the spreader to the standard, and adjustable retaining means interposed between the standard and the spreader member.

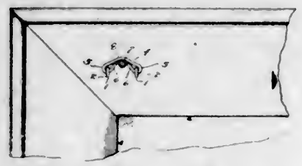
2. In a device of the character described, the combination with a standard and socket therefor, of a foldable and removable spreader member having its elements loosely connected together, means adjustable longitudinally for connecting the spreader to the standard, and a brace slidably secured to the standard and the spreader member so that the said spreader may be partially rotated by the movements of the latter brace and retained in a plurality of positions.

3. A device of the character described comprising a standard, a spreader member adjustably and removably secured to the standard and having side elements provided with eye ends, and a spacing element connected with one eye of each of the side elements, and a brace slidable on the standard including engaging and retaining means for the standard, said brace being connected with the spacing element, one of the side elements coöperating with the brace and serving to place and retain the spreader in a variety of positions.

4. The combination with a standard and a brace therefor, of a spreader member consisting of a spacing element and side elements, which elements are loosely connected with each other, an adjustable connection between the standard and the spreader, and means slidably secured to the standard and connected with the spreader serving to retain the spreader in a variety of positions.

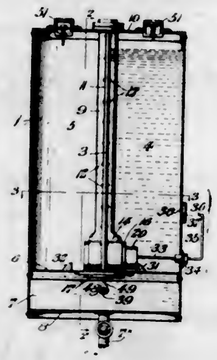
1,242,868. PICTURE-FRAME ATTACHMENT. ADA L. ROGERS, Memphis, Tenn. Filed Feb. 26, 1917. Serial No. 150,981. (Cl. 40—145.1.)

A picture hanger comprising an elongated member having its ends curved and turned upon the member to produce elongated terminal loops, the extremities of said member lying against the member and in relatively close spaced relation, said member being curved longitudinally between the loops to bring the portions of the member adjacent to its extremities into divergent relation, the extremities of the member being arranged for the reception



of a supporting device therebetween, and attaching devices engaged with the loops.

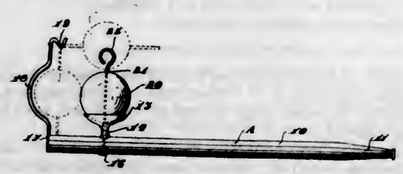
1,242,869. VOLUMETRIC METER. KARL W. ROHLIN, Philadelphia, Pa. Filed Mar. 26, 1917. Serial No. 157,369. (Cl. 73—28.)



2. A volumetric meter which comprises in combination:—a float chamber,—a tank divided into two fluid chambers superposed upon and common to said float chamber,—a fluid inlet common to both fluid chambers for introducing fluid to be measured into either one of said chambers,—a piston valve chamber superposed upon the float chamber in which the fluid inlet terminates,—an open-ended centrally-divided piston valve within said valve chamber, which is in communication with both of the fluid chambers and with the float chamber,—ports formed in the valve chamber which are common to both the fluid inlet and the float chamber,—ports in the piston valve which are disposed upon opposite sides of its diaphragm and are adapted to open one fluid chamber to either side of said piston valve while closing the other fluid chamber to the other side of said piston valve,—and an outlet from the float chamber.

[Claims 1 and 3 to 7 not printed in the Gazette.]

1,242,870. PNEUMATIC TOY. WILLIAM WALTER RUTTER, Edmonton, Alberta, Canada. Filed Sept. 27, 1916. Serial No. 122,509. (Cl. 46—59.)



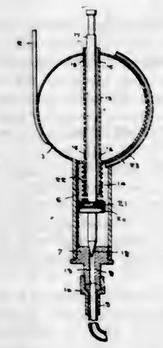
1. A toy of the class described comprising a tubular member terminating in a closed end, a cup mounted on

the tubular member and provided with a conduit communicating with the tubular member, a ball co-acting with the cup, a wire extending diametrically through and beyond the ball terminating at the upper end in an eyelet which upper projection more than balances the lower projection and a suspending member mounted on the tubular member wholly disposed laterally of the ball and designed to coact with the said eyelet.

2. A toy of the class described comprising a tubular member terminating in a closed end, and having a depression in the bottom, a cup located above the said depression, a ball coacting with the cup, a member extending diametrically through and beyond the ball and engaging on the lower end with the depression and terminating at the upper end in an eyelet which upper projection more than balances the lower projection and a suspending member mounted on the tubular member designed to coact with the eyelet.

3. A toy of the class described comprising a tubular member terminating in a closed end, a suspending member operatively connected to the closed end and provided with an intermediate curvilinear portion and terminating at the upper end in an overhanging hook, a cup on the tubular member, a ball coacting with the cup, said hook being laterally disposed to the ball and a member extending diametrically through and beyond the ball provided with an eyelet on the upper end designed to coact with the said hook which upper projection more than balances the lower projection.

1,242,871. GAS-ENGINE PRIMER. ANTON I. SANDBO, Rock Island, Ill. Filed Feb. 9, 1917. Serial No. 147,669. (Cl. 123—180.)

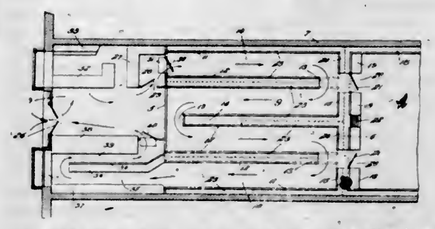


1. A gas engine primer comprising a fuel reservoir, a holding sleeve depending from the reservoir and provided with a vent opening, a conveyer pipe attached to the lower end of said sleeve, a discharge tube disposed through the fuel reservoir and projecting into said holding sleeve, said discharge tube being provided adjacent the top and bottom inner surfaces of the reservoir with a pair of apertures, and a valve rod disposed through the holding sleeve and the discharge tube and adapted to alternately close and open the bottom of the discharge tube and the holding sleeve.

2. A gas engine primer comprising a fuel reservoir, a holding sleeve depending from the reservoir and provided with a vent opening, a conveyer pipe attached to the lower end of the holding sleeve, a discharge tube disposed through the reservoir and projecting into the holding sleeve, said discharge tube being provided adjacent the top and bottom inner surfaces of the reservoir with pairs of apertures, a needle valve rod disposed through said discharge tube and adapted to normally close the conveyer pipe, a disk valve arranged on the valve rod and adapted to close the lower end of the discharge tube when the valve rod is lifted to open the conveyer pipe, and an expansible spring arranged between the valve disk and the bottom of the reservoir.

[Claim 3 not printed in the Gazette.]

1,242,872. SELF-SERVING STORE. CLARENCE SAUNDERS, Memphis, Tenn. Filed Oct. 21, 1916. Serial No. 126,988. (Cl. 211—8.)



1. An apparatus for the vending of merchandise having a series of merchandise holders or display cabinets arranged parallel with each other and with spaces between them to form aisles and with the ends of alternate cabinets spaced from the wall or partition in the store, whereby a circuitous path is provided through which the customer must pass from the entrance to the exit, substantially as set forth.

2. An apparatus for the vending of merchandise having a section closed to customers except for an entrance and an exit and a series of merchandise display cabinets arranged within said section in rows in line with each other forming aisles for the passage of customers, the adjacent aisles of which communicate at alternate opposite ends of each section and form a continuous passage-way from said entrance to said exit, substantially as set forth.

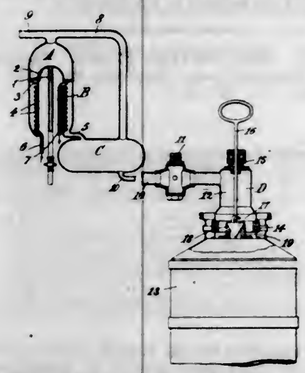
3. A store for the vending of merchandise having a partition dividing the room into an ante-room or lobby on one side thereof and a salesroom on the other, said partition having independently situated entrance and exit ways leading into and out of said salesroom, a series of merchandise holders with aisles therebetween arranged in the salesroom with their respective alternate ends spaced to provide passage-ways, said aisles and passage-ways forming a circuitous path which the customer must traverse from the entrance to the exit, and a structure located adjacent the exit arranged to provide a checking and settlement station, substantially as set forth.

4. A store for the vending of merchandise having a partition dividing the room into an ante-room or lobby and a salesroom, said partition being constructed to provide an entrance and an exit, a closure for the entrance, a closure for the exit, a series of merchandise display cabinets or holders arranged in rows in the salesroom and at distances apart to form aisles and having passage-ways at alternate ends whereby a continuous circuitous path is formed from said entrance to said exit, and a structure adjacent the terminal of the path at its exit end providing a checking up and settlement station, substantially as set forth.

1,242,873. PROCESS AND APPARATUS FOR FILLING VESSELS WITH MILK. WILHELM GOTTHILF SCHRÖDER, Lübeck, Germany. Filed May 24, 1915, Serial No. 30,180. Renewed Aug. 22, 1917. Serial No. 187,702. (Cl. 99—8.)

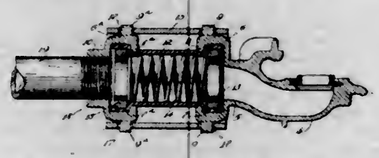
1. A process of making durable milk characterised by the fact that the milk, after being pasteurized or homogenised is then passed through a surface cooler within a chamber under a vacuum until the vapor developing in the milk is sucked off, whereupon the milk still being under action of the vacuum is guided into a chamber also under a vacuum, and from said chamber is allowed to flow into the vessel of conveyance or milk can, in which it is closed tight.

2. An apparatus for carrying out the herein described process, comprising a surface cooler situated within a closed chamber, a collecting chamber connected to said



closed chamber, and means for maintaining a vacuum within both chambers and for simultaneously carrying off the vapor arising from the milk.

1,242,874. TRAIN-PIPE HOSE. JAMES S. SHEAFE, New Brighton, N. Y., and VICTOR TOBOLLA, Chicago, Ill.; said Tobolla assignor to said Sheafe. Filed Jan. 7, 1915. Serial No. 1,028. (Cl. 137—89.)



1. In a device of the character described, the combination with a coupler head of the type adapted to be secured to a mating head by relative rocking of said heads about a transverse axis, of a section of flexible material clamped to said head, a connection clamped to the other end of said section and a cylindrical metal shell pivotally attached to said coupler head and to said connection and surrounding said flexible connection and adapted to take undue mechanical strains from said flexible section.

2. In a device of the character described, the combination with a coupler head of the type adapted to be secured to a mating head by relative rocking of said heads about a transverse axis said head having a hollow shank, of a connection having a shank, a section of flexible material clamped to both said shanks, and a cylindrical metal shell attached to each of said shanks by a lost motion connection and surrounding said flexible connection.

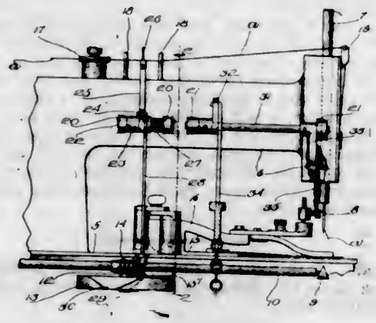
3. In a device of the character described the combination of a coupler head of the type adapted to be secured to a mating head by relative rocking of said heads about a transverse axis, said head having a hollow shank, of a connection having a hollow shank, each of said shanks being formed with radial trunnions, a section of flexible material clamped securely to both of said shanks, and a cylindrical metal shell surrounding said flexible section and having apertures loosely receiving said trunnions.

4. In a device of the character described, the combination of a coupler head of the type adapted to be secured to a mating head by relative rocking of said heads about a transverse axis, said head having a hollow shank, of a connection having a hollow shank, each of said shanks being formed with radial trunnions, a section of flexible material securely clamped to both of said shanks, and a longitudinally split cylindrical metal shell surrounding said flexible section and having apertures loosely receiving said trunnions.

5. In a train pipe hose, the combination, with rigid connecting members having hollow shanks, of radial trunnions projecting from the exterior of said shanks, sections of flexible material securely clamped to adjacent shanks, and cylindrical metal shells surrounding said flexible sections and having apertures loosely receiving said trunnions.

[Claims 6 to 13 not printed in the Gazette.]

1,242,875. SEWING-MACHINE. CHARLES J. SIEBALD, Troy, N. Y., assignor, by mesne assignments, to Frederick Osann Company, New York, N. Y., a Corporation of New York. Filed Jan. 2, 1912, Serial No. 669,049. Renewed Sept. 25, 1916. Serial No. 122,023. (Cl. 112—33.)



1. A sewing machine comprising a head, stitch forming means, operating means therefor, a rotary member having a cam, a pair of thread engaging members mounted on the head, a spring actuated member operating relatively to said thread engaging members, means connected with said spring actuated member and in operative relation to said cam to effect the operation of this member against its spring, a button clamp, and means to operate the button clamp to strain the thread.

2. A sewing machine comprising a head, stitch forming means, operating means therefor, a thread tension, and a pair of complemental thread breaking devices one of which acts to draw and hold a supply of thread prior to the thread breaking operation, and means to operate said devices.

3. A sewing machine comprising a head, stitch forming means, operating means therefor, a thread tension, and a pair of complemental thread breaking devices both located above the work, means to operate one of said devices to draw off a supply of thread and to hold said supply of thread during the operation of the other said device and to give up said supply of thread at or about the re-starting of the machine.

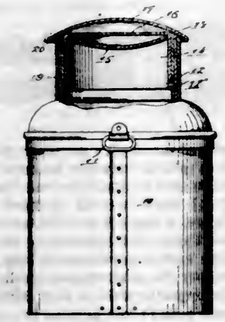
4. A sewing machine comprising a head, stitch forming means, operating means therefor, a thread tension, and a pair of complemental thread breaking devices, means for operating one of said devices during the operation of the machine to draw thread out of its normal feeding path and adapted to permit said latter device to react to permit the thread to move back into said path.

5. A sewing machine comprising a head, stitch forming means, operating means therefor, a thread tension, and a pair of complemental thread breaking devices one of which is a work holder, a work holder actuating cam, and means to operate the other of said devices from said cam.

[Claims 6 and 7 not printed in the Gazette.]

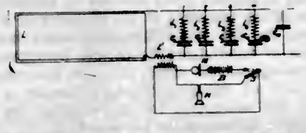
1,242,876. MILK-CAN. JOHN B. WATSON, Becket, Mass. Filed June 4, 1914. Serial No. 843,013. (Cl. 21—77.)

A can having a neck, a stopper for insertion in said neck comprising a collar adapted for engagement with the inner face of said neck, a concave top on said collar, a handle on said collar spanning the top and disposed in the same plane as the upper edge of said collar so as to



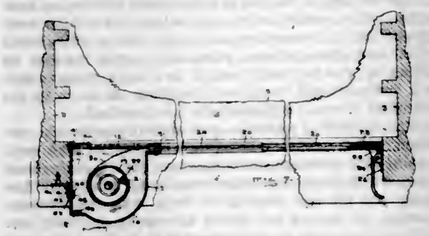
allow for the placement of a cover of the minimum height on the neck of the can, said cover having a portion thereof in engagement with the body of the can to facilitate the exclusion of foreign matter from the can.

1,242,877. INDUCTIVE WIRELESS-TELEPHONE SYSTEM FOR RAILROADS AND THE LIKE. VICTOR GABRIEL WERNER and KARL HJALMAR WARFVINGE, Stockholm, Sweden. Filed Aug. 14, 1916. Serial No. 114,684. (Cl. 179—82.)



In an inductive wireless telephone system for railroads, the combination of a stationary circuit consisting of an aerial conductor along the railroad track and connected to a fixed telephone station, and a circuit on the train comprising a microphone, a receiver, and a source of electrical energy, said circuits being in inductive relation to each other and one of said circuits comprising combined resonance circuits with a plurality of natural oscillations of their own tuned in such manner that they are uniformly distributed over the most important range of frequency of the speech oscillations, for the purpose of increasing the sensitivity of the circuit to oscillations within this range, substantially as described.

1,242,878. INVISIBLE ROLLER-SCREEN. WILLARD M. BLISS, Brooklyn, N. Y. Filed Dec. 23, 1916. Serial No. 138,611. (Cl. 156—39.)



1. A window screen comprising a roller screen casing, means for attaching said casing to a window casing, means for adjusting said casing into or out of the plane of the inside shutters of the window casing, a spring actuated screen roll disposed within the casing, extensible guide arms attached to the opposite ends of the screen roller casing, means to attach the terminal ends of said guide arms to the opposite side of the window casing and means to retain the screen fabric in extended position.

2. In a window screen, the combination with the screen roller casing having a longitudinal slot adjacent one side edge, of telescopic guide arms pivotally attached to each end of the casing at each end of said slot, each of said guide arms formed in their opposed edges with longitudinally extending channels adapted to receive the opposite side edges of the window screen fabric when extended.

3. In a window screen, the combination with the screen roller casing having a longitudinal slot adjacent one side edge, of telescopic guide arms pivotally attached to each end of the casing at each end of said slot, each guide arm consisting of outer and inner sections, each outer section being substantially U-shaped in cross section and provided with inwardly rebent edges, and each inner section being U-shaped and slidably mounted within the outer section, the edges of each inner section being disposed between the outer section and the rebent edges thereof, said guide arms adapted to slidably receive the opposite side edges of the window screen fabric when extended.

4. The combination with a window casing, of a substantially square roller screen casing having threaded apertures in two of its side faces, hinges, means for attaching one leaf of each hinge to the window casing, and means for detachably connecting the other leaf of each hinge to either apertured side face of said roller screen casing whereby the roller screen casing may be adjusted into or out of the plane of the inside shutters of the window casing.

1,242,879. MIXTURE FOR IMPACT ILLUMINATING-BULLETS. WILLIAM H. BUELL, New Haven, Conn., assignor to Winchester Repeating Arms Company, New Haven, Conn., a Corporation of Connecticut. Filed June 18, 1914. Serial No. 845,874. (Cl. 52—6.)

1. As an article of manufacture an impact illuminating bullet comprising a bullet body in combination with a mixture of aluminum and an oxidizing compound, substantially as and for the purpose described.

2. As an article of manufacture an impact illuminating bullet comprising a bullet body in combination with a mixture of aluminum and potassium chlorate, substantially as and for the purpose described.

10. As an article of manufacture an impact illuminating bullet comprising a bullet body in combination with a mixture of aluminum, potassium chlorate, trinitrotoluene and strontium nitrate, substantially as and for the purpose described.

11. A bullet for indicating hits on a cinematograph target screen, charged with a composition containing powdered aluminum and a small proportion of an oxidizing agent.

13. A hollow nosed bullet for indicating hits on a cinematograph target screen, charged in said hollow nose with a composition containing powdered aluminum and a small proportion of an oxidizing agent.

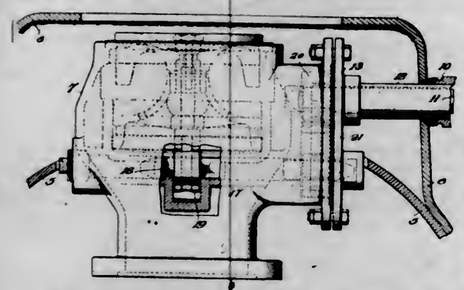
[Claims 3 to 9, 12, and 14 not printed in the Gazette.]

1,242,880. THROTTLE-VALVE. FRANK H. CLARK and JOSEPH M. COFFEY, New York, N. Y., assignors to Chambers Valve Company, New York, N. Y. Filed May 23, 1917. Serial No. 170,519. (Cl. 137—4.)

1. In combination with a steam dome having a throttle box therein, actuating mechanism therefor comprising a pair of shafts one of which extends through the steam dome for connection with the actuating mechanism within the cab and the other extends into the throttle box for connection with the throttle valve, and means connecting said shafts whereby they have equal angular rotation.

5. In combination with a steam dome having a throttle box therein containing a throttle valve of the lift type, a chamber in the side of said throttle box, a shaft extending from said chamber outwardly through the side of the steam dome, a sleeve extending from said chamber out-

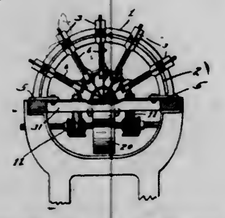
wardly through the dome and inclosing said shaft, a stuffing box associated with the sleeve at the point where it passes through said steam dome, a second shaft parallel with the first shaft extending into the throttle box and connected with said first mentioned shaft for transmitting motion from a point without the steam dome to the throttle valve, said parts being so positioned and arranged as to permit a removal of the first mentioned shaft from within its sleeve when the throttle valve is closed.



10. In combination with a steam dome containing a throttle box with a throttle valve therein, the wall of said throttle box containing a chamber having a removable cover, a sleeve extending between the cover and the outer side of said steam dome having a stuffing box connection at its outer end, an actuating shaft removably mounted in said sleeve and extending from outside of the dome into said chamber, a second shaft parallel with the first shaft extending from the chamber into the throttle box, link connections between said shafts for producing proportional angular rotation thereof, said means including a pair of cranks on each shaft, one above the other within said chamber, and a link connecting the free ends of said cranks.

[Claims 2 to 4, 6 to 9, and 11 not printed in the Gazette.]

1,242,881. SLICING-MACHINE. GEORGE W. DREW, Oakland, Cal. Filed Apr. 11, 1914. Serial No. 831,187. (Cl. 146—11.)



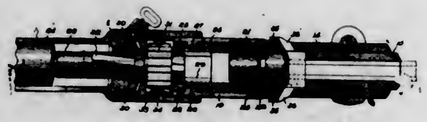
1. In a slicing machine the combination of a plurality of rotatable circular slicing knives assembled in semi-circular order and on radial lines, a plurality of rotatable tubular journal cutter mountings in fixed positions, a plurality of universal joints disposed in semi-circular order, the terminal ones connecting the terminal cutter mountings with the power transmission, the intervening ones connecting the terminal and intervening cutter mountings, effecting a composite unit action.

4. In a slicing machine a traveling cutting surface cushioning pulley pivotally supported, and means of operation.

[Claims 2 and 3 not printed in the Gazette.]

1,242,882. HAMMER-DRILL. GEORGE H. GILMAN, Claremont, N. H., assignor to Sullivan Machinery Company, Boston, Mass., a Corporation of Massachusetts. Filed Mar. 2, 1915. Serial No. 11,561. (Cl. 121—20.)

1. In a fluid operated percussive drill, a cylinder having a flange on its front end, a front head seated within said flange, and a two-part rotatable drill chuck seated in said head and interlocked therewith having a portion overlapping the front end thereof.



7. In a fluid operated percussive drill, a cylinder, a cylinder head therein, a piston movable through said head, rotative mechanism in said cylinder beyond the front end of said head, a front head in said cylinder having an internal annular flange, a flanged chuck member engaging the rear wall of said flange and coöperating with said cylinder head to confine said rotative mechanism, and a cooperating chuck member threaded thereto having a portion engageable with the opposite wall of said flange.

[Claims 2 to 6 and 8 to 11 not printed in the Gazette.]

1,242,883. SHORTENING COMPOSITION AND METHOD OF PRODUCING THE SAME. HENRY A. KOHMAN, TRUMAN M. GODFREY, and LAUREN H. ASHE, Pittsburgh, Pa., assignors to Ward Baking Company, New York, N. Y., a Corporation of New York. Filed Mar. 9, 1916. Serial No. 83,197. (Cl. 99—10.)

1. The method of making a pulverulent shortening composition having improved shortening qualities, which comprises bringing a hard fat of high melting point into homogeneous admixture with a pulverulent carrier, said homogeneous admixture being induced by bringing the fat into a pulverulent condition in the presence of a pulverulent carrier, the fat being thereby brought into a sufficient state of subdivision to permit homogeneous distribution throughout the dough batch in the manufacture of bread and of other products, whereby a marked economy in the amount of the fat required for shortening is effected; substantially as described.

11. A pulverulent shortening composition comprising a fat of melting point about 57° C. associated with a pulverulent carrier in the form of a homogeneous admixture, said composition being in a sufficient state of sub-division to permit homogeneous distribution throughout the dough batch in the manufacture of bread and other products, whereby a marked economy in the amount of the fat required for shortening is effected; substantially as described.

[Claims 2 to 10 not printed in the Gazette.]

1,242,884. METHOD OF PRODUCING A SHORTENING COMPOSITION. HENRY A. KOHMAN, TRUMAN M. GODFREY, and LAUREN H. ASHE, Pittsburgh, Pa., assignors to Ward Baking Company, New York, N. Y., a Corporation of New York. Filed Mar. 9, 1916. Serial No. 83,198. (Cl. 99—10.)

1. The method of making a pulverulent shortening composition, which comprises bringing a hard fat of high melting point into homogeneous admixture with a pulverulent carrier, said homogeneous admixture being induced by breaking up the fat while heated to a high temperature, into a finely divided form, and absorbing the same by the pulverulent carrier; substantially as described.

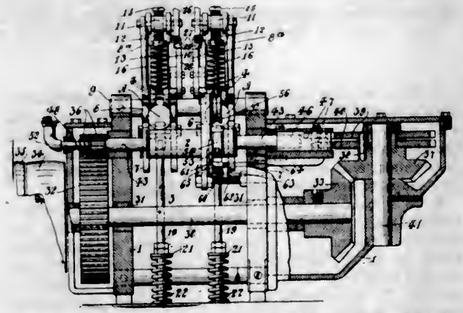
2. The method of making a pulverulent shortening composition, which comprises bringing a hard fat of high melting point into homogeneous admixture with a pulverulent carrier, said homogeneous admixture being induced by first melting the fat and heating it to a high temperature, atomizing the heated fat into a fine spray or cloud, and absorbing the same in a disseminated body of the pulverulent carrier; substantially as described.

3. The method of making a pulverulent shortening composition, which comprises bringing a hard fat of a melting point of about 57° C. into homogeneous admixture with a pulverulent carrier, said homogeneous admixture being induced by melting and heating the fat to a temperature of about 200° C. or higher, ejecting the fat with a suitable gaseous jet into an inclosed chamber and absorbing the resulting finely divided fat in a disseminated falling body of the pulverulent carrier; substantially as described.

4. The method of making a pulverulent shortening composition, which comprises bringing a hard fat of high melting point into homogeneous admixture with a pulverulent carrier, said homogeneous admixture being induced by first melting the fat and heating it to a high temperature, atomizing the heated fat into a fine spray or cloud, absorbing the same in a disseminated body of the pulverulent carrier, and repeating the absorbing operation a number of times with the same body of pulverulent carrier; substantially as described.

5. The method of making a pulverulent shortening composition, which comprises bringing a hard fat of high melting point into homogeneous admixture with a pulverulent carrier, said homogeneous admixture being induced by first melting the fat and heating it to a high temperature, atomizing the heated fat into a fine spray or cloud, absorbing the same in a disseminated body of the pulverulent carrier, and repeating the absorbing operation with the same body of pulverulent carrier until the carrier has absorbed from about one fifth to one tenth its weight of the fat, substantially as described.

1,242,885. BALL-WINDING MACHINE. EVARTS G. LOOMIS, Newark, N. J., assignor to St. Mungo Manufacturing Company of America, Newark, N. J., a Corporation of New Jersey. Filed Oct. 14, 1915. Serial No. 55,757. (Cl. 242—3.)



1. A ball-winding machine comprising in combination parallel rollers which move longitudinally relative to each other, means for rotating said rollers, means for pressing a ball or core against said rollers as the latter is being supported by and driven by said parallel rollers, and means coöperating with said pressing means for lifting the ball or core from said parallel rollers when the ball or core has reached the desired size.

5. A ball-winding machine of the class described comprising in combination supporting rollers, a holding roller located above said supporting rollers for normally pressing a core or ball against said supporting rollers, which holding roller is located so as to engage the core, being wound, slightly forward of the vertical line passing through said core, a member for engaging the core, when wound, on the side which is rear of said vertical line, and an ejector for engaging the underside of the core in a manner to remove the core from the supporting rollers and to hold the core in removed position while the latter is in engagement with the holding roller and the member which engages the core at the rear.

8. A machine of the class described comprising in combination a frame, supporting rollers carried thereby, means for rotating said rollers, means for imparting reciprocating movement in a longitudinal direction to said rollers and for imparting a relative longitudinal movement between said rollers, a pivotally mounted arm having at the forward end thereof a split roller for holding the core being wound in engagement with the supporting rollers, said split roller being located above the supporting rollers, an adjustable spring means normally forcing the split roller toward the supporting rollers, an upwardly extending arm integral with the forwardly extending arm above referred to, a pivoted catch, an adjusting screw at the upper end of the upwardly extending arm, which screw serves to move the catch when the split roller has been raised to a certain point, a spring-actuated ejector having a portion thereof arranged so that it extends between the supporting rollers in a manner so that it can lift the core or ball from the supporting rollers when the ejector is allowed to operate, said ejector having a member which coöperates with the catch so as to hold the ejector from operating until released.

10. A machine for winding a rubber thread or tape upon a core, which machine comprises in combination a pair of supporting and driving rollers, each having upon its driving face a casting of aluminum, means for rotating said rollers, means for imparting relative longitudinal movement between said rollers, a holding roller located above sai driving rollers, and means for guiding a rubber thread or tape to the core as the latter is being wound in the machine.

13. In a ball-winding machine the combination of a frame, bearings carried by the frame, a driving roller having a spindle passing through said bearings, a cam carried on a shaft which is mounted in bearings on said frame, a socket member which surrounds one end of said spindle and which socket-member has a roller that engages said cam, a stem carried by said frame and entering a socket in said spindle, coöperating thrust bearing members located in said socket, and a spring located between said frames and one of said thrust bearing members and extending into said socket there being a driving gear secured to said spindle and also a thrust bearing between the spindle and the socket-member which carries the roller that engages the cam.

[Claims 2 to 4, 6, 7, 9, 11, and 12 not printed in the Gazette.]

1,242,886. RUBBER COMPOUND AND THE METHOD OF MAKING SAME. ERWIN E. A. G. MEYER, Detroit, Mich., assignor to Morgan & Wright, a Corporation of Michigan. Filed Mar. 7, 1914. Serial No. 823,181. (Cl. 106—23.)

1. A method of making rubber compounds consisting in mixing high grade stiff aniiin rubber and an unctuous softening agent in such proportions as to impart to the compound, after vulcanization, softness, a high degree of elasticity and smoothness of texture and subjecting the mixture to the action of heat at a temperature to permit thorough penetration of the softening agent to produce a homogeneous material.

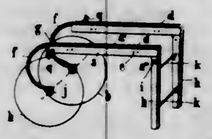
4. A method of making rubber compounds, consisting in mixing in the presence of open steam Ceylon rubber, a relatively small amount of aniiin oil, and petrolatum in such properties as to impart to the compound, after vulcanization, softness, a high degree of elasticity and smoothness of texture, and thereafter subjecting the mixture to the action of steam at a temperature to permit thorough penetration of the petrolatum to produce a homogeneous material.

[Claims 2 and 3 not printed in the Gazette.]

1,242,887. BARROW FOR CARRYING STRETCHERS FOR WOUNDED. RAYMOND JOSEPH MOLINIÉ, Lyon, France. Filed July 7, 1917. Serial No. 179,236. (Cl. 21—80.)

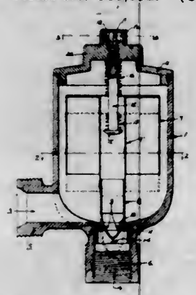
1. A barrow for carrying stretchers for wounded, chiefly characterized by two supports, two legs pivoted to the supports, two spring blades secured to the said supports, two detachable wheels mounted on an also detachable axle connecting together the ends of the two springs, means of attachment for securing a stretcher to the supports when the barrow is fitted up.

2. A barrow for carrying stretchers for wounded, chiefly characterized by two supports made of two wooden plates with connecting blocks, two legs pivoted to the said supports with hinged connection rods or ties, two semi-circular springs with superposed blades, secured to the supports and terminating in bearings intended to receive a detachable axle; detachable wheels capable of being mounted on the axle, means of attachments for securing a stretcher to the supports when the barrow is fitted up.



3. A barrow for carrying stretchers for wounded, chiefly characterized by two supports which, when the barrow is taken to pieces, can be placed side by side, two legs folded to the supports, an axle placed parallel to and along the supports, means tying the whole together, pivoted cramps on the supports intended to receive the wheels.

1,242,888. AUTOMATIC RELIEF-VALVE. ERNST A. PLOEGER and JOHN PENROSE, Chicago, Ill. Filed Sept. 25, 1914. Serial No. 863,591. (Cl. 137—113.)



1. In a device of the kind described and in combination, a suitable casing provided with an inlet and outlet, a float member arranged within said casing and having an opening therethrough at the top thereof, a valve member for said outlet, said valve member carried by said float, and means loosely extending through the opening in the top of the member for limiting the up and down travel of the float.

2. In a device of the kind described and in combination, a suitable casing provided with an inlet and outlet, a float member arranged within said casing and having an opening therethrough at the top thereof, a tubular valve member for said outlet, said valve member carried by said float, and adjustable means loosely extending through the top opening of the float for limiting the raising and lowering of the float.

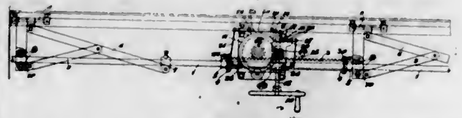
3. In a device of the kind described and in combination, a suitable casing provided with an inlet at one side, and with a centrally arranged discharge outlet at the bottom, said casing provided with a valve seat at said outlet, a vertically movable tubular valve member arranged to cooperate about its periphery with said valve seat, controlling means for said valve member comprising a float member arranged within the casing and operatively connected with said valve member, said float member having an opening through the top communicating with the interior of the valve member, and means loosely extending through the opening in the top of the float member for limiting the upward and downward movement of said float.

4. In a device of the kind described and in combination, a suitable casing provided with a detachable top and with an inlet at one side and a discharge outlet at the bottom, a controlling tubular valve for said outlet provided with means for controlling the same comprising a float secured thereto having an opening through the top thereof communicating with the interior of said tubular valve and open at its lower side, said casing provided with a separable seat for said valve member, arranged to cooperate with the outer side of the tubular valve member wall, and adjustable means for limiting the movement of the valve, comprising a rod carried by the top and loosely projecting into the float through the opening in the top thereof and resilient means carried by said rod and engaging the float.

5. In a device of the kind described and in combination, a suitable casing provided with an inlet and an outlet, an inverted cup-shaped float member arranged in said casing and provided with a downwardly extending centrally disposed tubular part, a tubular valve member arranged at the lower end of said tubular part and arranged to coöperate with a suitable valve seat at said outlet, said float member having an opening at the top communicating with the interior of said tubular part and valve member, and means loosely projecting through said opening into the valve member for limiting the upward and downward movement of the float.

[Claims 6 to 11 not printed in the Gazette.]

1,242,889. WINDOW-SASH OPERATOR. OLIVER H. QUERNHEIM and HECTOR NEUHOFF, Jr., St. Louis, Mo., assignors to Metallic Sash-Operator Company Corporation, St. Louis, Mo., a Corporation of Missouri. Filed Feb. 23, 1917. Serial No. 150,546. (Cl. 16—28.)



1. In a window sash operating device, the combination with a longitudinally movable shaft, a rack in connection with said shaft, mechanism for actuating said rack and thereby said shaft longitudinally, stops for said actuating mechanism, and devices actuated by said rack for setting said stops to stop the actuating mechanism.

6. In a window sash operator, the combination with a longitudinally movable shaft, gearing for actuating said shaft longitudinally in opposite directions, a manipulative shaft for operating said gearing, and projections in connection with said shaft, of stop rods movable to and from position to be engaged by said projections, spring arms normally holding said rods out of position to be engaged by said projections, and means in connection with the shaft for actuating said spring arms to move said rods to position to be engaged by said projections.

13. In a window sash operating device, the combination with sash operating connections, gearing for actuating said connections to move the sash, and a revoluble worm shaft for operating said gearing, of a projection in connection with said shaft, a stop member movable into and out of the path of movement of said projection to stop and to release said shaft, a spring for actuating and yieldingly holding said member out of the path of movement of said projection, and a device controlled by said connections for moving said member into the path of movement of said projection when said connections are moved to a desired point of stoppage.

[Claims 2 to 5, 7 to 12, and 14 to 21 not printed in the Gazette.]

1,242,890. BARREL-COOLING DEVICE. CREEDY C. SHEPPARD, Bridgeport, Conn., assignor to United States Ordnance Company, Washington, D. C., a Corporation of Virginia. Filed Dec. 30, 1915, Serial No. 69,370. Renewed Feb. 27, 1917. Serial No. 151,372. (Cl. 89—1.)

1. In a barrel cooling device, the combination of a barrel, a jacket surrounding the barrel, and a device between the jacket and barrel operated by the gases of discharge to induce a circulation of air between the jacket and barrel.



2. In a barrel cooling device, the combination of a barrel, a jacket surrounding the barrel, and a fan rotatable between the jacket and barrel and operated by the gases of discharge to induce a circulation of air between the jacket and barrel.

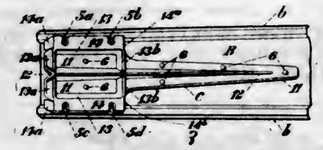
3. In a barrel cooling device, the combination of a barrel having a gas port, a jacket surrounding the barrel, and a device between the jacket and barrel operated by the gases discharged through said port to induce a circulation of air between the jacket and barrel.

4. In a barrel cooling device, the combination of a barrel, a jacket surrounding the barrel, and a helical fan rotatable between the jacket and barrel and operated by the gases of discharge to induce a circulation of air between the jacket and barrel.

5. In a barrel cooling device, the combination of a barrel having a gas port, a jacket surrounding the barrel, and means operated by the discharge of gases from said port to induce a circulation of air between the barrel and jacket.

[Claim 6 not printed in the Gazette.]

1,242,891. SEMAPHORE SIGNAL DEVICE. RALPH P. TUTTLE, New York, N.Y., and MATTHEW H. LOUGHRIDGE, Woodcliffe-on-Hudson, N. J. Filed Sept. 30, 1913. Serial No. 792,624. (Cl. 246—15.)



1. In a railway signal device, the combination of a semaphore casting, a comparatively light gage sheet metal blade, a comparatively heavy gage member secured to, but of less area than said blade and having an offset portion, means for attaching said offset portion to said semaphore casting whereby the attaching means are concealed from view on one side of the blade.

2. In a semaphore signal device the combination of an intermediate reinforcing member secured to an enameled semaphore member, said reinforcing member being secured to, and wholly supporting, said semaphore member, and said reinforcing member being concealed from the front of the blade.

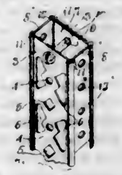
3. In combination, a semaphore casting, a sheet metal blade, a one piece tapering reinforcing member secured to the back of said blade and attached to said semaphore casting, said reinforcing member being expanded laterally at the point of attachment to said semaphore casting.

4. In a railway signal device, a spectacle, a blade, a reinforcing member comprising an arm extending along the longitudinal axis of the blade and secured thereto and offset members at one end of the arm, which offset members serve as an exclusive means for the attachment of the blade to said spectacle.

5. In a railway signal device, a spectacle, a blade, a reinforcing member comprising an arm extending along the longitudinal axis of the blade and secured thereto and offset members at one end of the arm which are slotted at their edges, which slotted offset members serve as a means for the attachment of the blade to said spectacle.

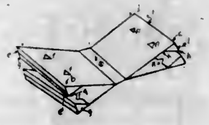
[Claims 6 and 7 not printed in the Gazette.]

1,242,892. STRUCTURAL TOY. FRANCIS A. WAGNER, Dayton, Ohio. Filed May 17, 1915. Serial No. 28,502. (Cl. 189—34.)



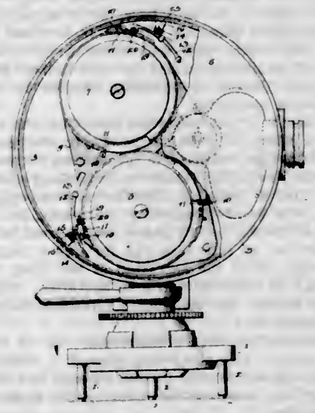
In a toy structure, a beam composed of a pair of oppositely disposed strips, each strip having channels at its edges formed by bending the material, parts interposed between said strips comprised of a spacing device having beads which fit in the channels of one strip and free edges which fit in the channels of the other strip, and bolts passing through the strips and acting to clamp the strips against the interposing parts.

1,242,893. DEVICE FOR CLEANING OR DRYING SAFETY-RAZOR BLADES. ERICK G. WALLINDER, Duluth, Minn., assignor to Northern Novelty Manufacturing Company, Duluth, Minn., a Corporation of South Dakota. Filed Nov. 28, 1916. Serial No. 133,896. (Cl. 15—71.)



A razor blade cleaning and drying device comprising in combination a sheet metal holder having the free end of each pad carrying portion thereof bent at substantially right angles to the body portion, a lug or lugs spaced inwardly from each bent portion and fixed to the body portion of the holder, and a blade engaging pad intermediate of the lug or lugs and the adjacent bent end portion of the holder.

1,242,894. FILM-BOX FOR MOTION-PICTURE CAMERAS. CARL E. AKELEY, New York, N. Y., assignor to Akeley Camera, Inc., New York, N. Y., a Corporation of New York. Original application filed May 8, 1916, Serial No. 96,197. Divided and this application filed Nov. 11, 1916. Serial No. 130,789. (Cl. 242—71.)



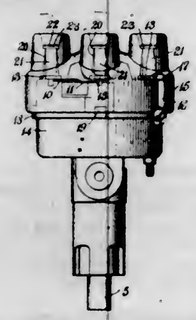
1. In a motion picture camera, a camera casing, a film box mounted in said casing and formed of telescoping sec-

tions adapted to rotate one upon another to open or close the film slots therein, and means permanently mounted in said casing and adapted automatically to engage the periphery of one of said sections when the film box is inserted, whereby said section may be shifted with respect to its complemental section to open or close said film slots.

2. In a motion picture camera, a camera casing, a film box mounted in said casing and formed of telescoping sections adapted to rotate one upon another to open or close the film slots therein, a projection on the periphery of the outer one of said sections, and means extending to the interior of the casing and adapted to be engaged automatically by said projection as the film box is positioned within said casing, said means when actuated rotating said section to open or close the film slots.

3. In a motion picture camera, a camera casing, feeding and receiving film boxes mounted in said casing, said film boxes being formed of telescoping sections adapted to rotate upon one another to open or close the film slots therein, toothed segments adapted to engage projections on one of the telescoping members of said film boxes, and gears operated from the exterior of the camera casing for moving said segments and thus shifting the sections of the film boxes to open or close their film slots.

1,242,895. DISTRIBUTER. JOHN F. CAVANAGH, Meriden, Conn. Filed Oct. 4, 1916. Serial No. 123,784. (Cl. 123—168.)



1. In ignition apparatus, a distributer unit, comprising a movable distributer element, an integral hollow cup-shaped transparent cap covering said distributer element and terminals carried by said transparent cap and spaced and supported thereby in operative relation to the movable distributer element.

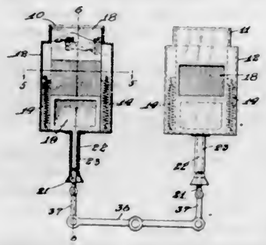
2. In ignition apparatus, a distributer base, a movable distributer element on said base, an integral one-piece hollow cup-shaped glass cap secured in inverted position over said distributer base and covering the distributer element and terminals carried by said hollow glass cap and supported thereby in operative relation to the movable distributer element.

3. In a device of the character described, the combination with a timer, including a relatively stationary contact and a movable breaker arm coöperating therewith and a distributer including relatively stationary distributer terminals and a movable distributer arm coöperating therewith, of a housing inclosing said parts, including a base and an integral hollow cap of transparent insulating material secured to said base and forming a transparent cover through which the operation of the timer and distributer may be observed while in operation, said transparent cap having the distributer terminals mounted in and carried thereby.

4. In combination with a distributer cap of glass-like material provided with a tapering passage, a substantially cylindrical terminal located in said passage and means at the ends of said terminal for securing the same in said tapering passage.

5. In ignition apparatus, the combination with a movable distributer element, of a glass terminal support having terminal passages therein for supporting and spacing terminal elements in proper relation to the movable distributer element, and terminal elements seated in said passages in operative relation to the movable distributer element.

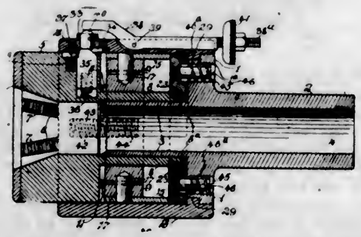
1,242,896. SIGNALING DEVICE FOR AUTOMOBILES. THOMAS J. DOWNING and EUGENE J. DOWNING, New York, N. Y.; Delia Downing administratrix of said Thomas J. Downing, deceased. Filed Apr. 12, 1915. Serial No. 20,765. (Cl. 40—65.)



1. A signal device for automobiles comprising a casing, having an aperture, a movable signal plate mounted in the casing, a transparent signal plate mounted in registry with the aperture, the latter plate being uncovered when the movable signal plate is operated, a projection on the movable signal plate at the lower edge thereof, a rod mounted in line with said projection adapted to make abutting contact therewith, a horizontal arm pivotally mounted and adapted to carry said abutting rod, and means for operating said arm.

[Claims 2 to 5 not printed in the Gazette.]

1,242,897. HAND-OPERATED DIE-HEAD. WILLIAM H. GATES, New Haven, Conn. Filed Aug. 19, 1916. Serial No. 115,757. (Cl. 10—95.)



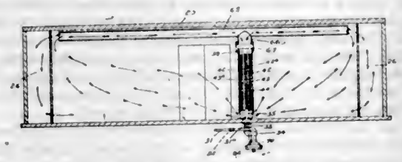
1. A hand operating threading tool comprising a head carrying threading dies having cam slots in their faces, a cam stud member slidably mounted on a reduced portion of the head, cam studs mounted therein having cam projections to register with the cam slots of the dies, pins projecting from the periphery of the cam stud member, a shell freely embracing said member having cam slots registering with said pins, an outer shell embracing the head and cam shell and secured to said cam shell, and having a rotating movement on the head, and a handle secured to the outer shell for rotating the same to close the threading dies.

4. A hand operating threading tool comprising a holder having a flange and forward and rearward extensions projecting therefrom, a head having a reduced rear extension slidably mounted on the forward extension of the holder, a collar secured to the end of the head extension and normally held against the flange of the holder under spring tension, a cam stud member operatively mounted on the head extension, an overlying cam ring operatively connected with the cam stud member, radially operating dies

mounted in the head and operatively connected with the cam stud member, a spring actuated locking bolt mounted in the head, an outer shell, means for connecting said bolt therewith, a trip lever pivotally supported to the shell and operatively connected with the locking bolt, and a trip member adjustably mounted on the trip lever adapted to engage the holder and actuate the trip lever to disengage the locking bolt from the shell and cause the dies to open and permit the head to retreat.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,242,898. HEATING SYSTEM FOR REFRIGERATOR-CARS AND THE LIKE. EGBERT H. GOLD, Chicago, Ill. Filed Nov. 5, 1913. Serial No. 799,364. (Cl. 237—45.)



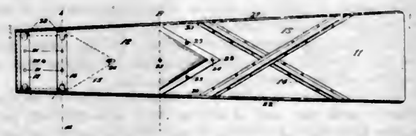
1. The combination with a railway car, of a steam supply system permanently installed on the outside of the car comprising a fitting formed with a socket below the floor level and accessible from the interior of the car, a radiator having a member adapted to have an interlocking engagement with said fitting whereby the radiator is supplied with steam from said supply system when set up in the car and which permits the radiator to be removed from the car at will, and a plug to close said socket and to lie below the floor level when the radiator is removed.

9. The combination with a railway car, of an air trunk for distributing hot air throughout the car and provided with an intake pipe comprising a telescoping section, a steam supply pipe permanently installed in said car, a heating element having a steam space therein and an air passageway extending through the same, said heating element being removably mounted in said car so that the steam space therein communicates with the supply pipe, and a supporting device for supporting the upper end of said heating element, said telescoping section of the air trunk intake pipe being formed so that it fits over the upper end of said radiating element and its supporting device.

20. In a temporary heating system for a railway box car having a side door, the combination with a steam supply conduit permanently installed on the car, of a fitting connected with said conduit and located in the car near one of the sides doors thereof, an air distributing pipe extending lengthwise of the car with its ends open, and a radiator adapted to be detachably connected with said fitting and with said air distributing pipe to receive steam from the former and deliver heated air to the latter.

[Claims 2 to 8 and 10 to 19 not printed in the Gazette.]

1,242,899. SEMAPHORE-SIGNAL BLADE. MATTHEW H. LOUGHRIDGE, Teaneck, and RALPH P. TUTTLE, Mountainview, N. J. Filed Nov. 19, 1915. Serial No. 62,421. (Cl. 246—15.)



1. A tapering enameled semaphore signal blade supported at its narrow end, made from two sheets substantially of uniform gage metal with their edges joined, the supported end of said blade being of elongated tubular cross-section whereby the one sheet reinforces the other.

2. A tapering sheet metal semaphore blade supported at its narrow end, said blade being of elongated tubular cross section for approximately half its length and having diagonal cross braces for the remainder of its length.

4. The combination of an enameled sheet metal blade of elongated tubular cross section at one end, a semaphore casting, means for attaching said blade to said semaphore casting through the back side of said elongated construction only.

5. The combination of an enameled semaphore blade, a reinforcing member, said member secured to the longitudinal axis of said blade and supporting its edges.

[Claims 3, 6, and 7 not printed in the Gazette.]

1,242,900. PROCESS FOR PRODUCING AN EXPLOSIVE COMPOUND. RALPH H. TWINING and RALPH W. G. WYCKOFF, Geneva, N. Y. Filed Apr. 10, 1916. Serial No. 90,187. (Cl. 52—3.)

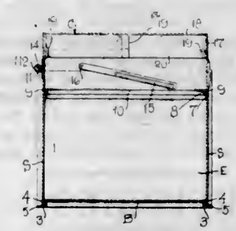
1. The process of producing an explosive compound comprising heating to its fusing temperature a salt of an alkali metal with a common inorganic acid of nitrogen, and fusing therewith an aromatic substance non-volatile and undecomposable at the temperature of the fusion.

3. The process of producing an explosive compound comprising heating to its fusing temperature a salt of an alkali metal with a common inorganic acid of nitrogen, and fusing therewith an aromatic substance containing a negative group.

5. The process of producing an explosive compound comprising heating sodium nitrate to fusing temperature and fusing it with sodium benzene-sulfonate.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,242,901. TRUNK. JOHN H. BREWER, Louisville, Ky. Filed Nov. 6, 1916. Serial No. 129,800. (Cl. 220—17.)



1. A trunk comprising side panels and end panels, said side and end panels being provided with interlocking flanges and grooves, opposed walls of the tongues and grooves being provided with longitudinally disposed channels adapted to register, rods insertible within the registering channels, and means for exerting outward pressure upon said panels for maintaining the same in interlocked relation.

2. A trunk comprising side panels and end panels, said side and end panels being provided with interlocking flanges and grooves, opposed walls of the flanges and grooves being provided with transversely disposed interlocking tongues and grooves disposed transversely thereof, and means for exerting outward pressure upon said panels for maintaining the same in interlocked relation.

1,242,902. COMBINED TOBACCO-RECEPTACLE AND PIPE-CLEANER. RANDAL KENT, Elizabethtown, Pa., assignor of one-fourth to Priscilla E. Kent, Washington, D. C. Filed Dec. 5, 1916. Serial No. 135,110. (Cl. 206—38.)

1. The combination with a receptacle for smoking tobacco and provided with a flange at one of its ends, of a pipe cleaner adapted for insertion through one of the walls of said receptacle, and to lie between a wall of the receptacle and the contents thereof, said cleaner being

shaped to provide means adapted to engage said flange, whereby the cleaner is detachably held within the receptacle.



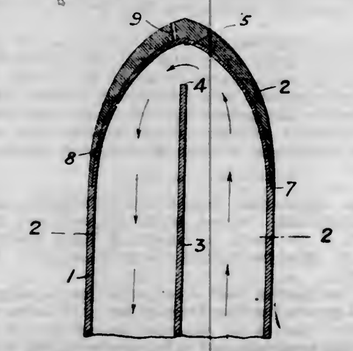
2. The combination with an apertured receptacle for capsuled smoking tobacco and provided with a marginal flange at one of its ends, of a relatively resilient pipe cleaner adapted for insertion through said end wall, and to lie within the receptacle between a side wall and the capsuled tobacco, said cleaner being provided on its outer end with a resilient angled portion adapted to engage said marginal flange and detachably hold the cleaner in its inserted position.

3. The combination with a receptacle containing a tobacco capsule and having side and end walls, one of the latter being provided with a peripheral flange, of a pipe cleaner adapted for insertion through said end wall, adjacent said flange, and to extend within the receptacle between said capsule and a side wall, said cleaner being provided with an extension angularly disposed with respect to the body portion thereof, said extension resting upon the outside of the end wall and lying wholly within a plane between the end of the receptacle and the edge of the flange, said extension engaging said flange, whereby the cleaner is detachably secured in position within the receptacle.

4. The combination with a smoking tobacco receptacle provided with a marginal flange having an offset portion, of a pipe cleaner adapted for insertion within said receptacle and having at its outer end an extension engaging said flange and resting between the end of the receptacle and said offset portion, whereby the cleaner is detachably held within the receptacle, substantially as described.

REISSUES.

14,374. GARMENT-FORMER. JULIUS OTTO VON STETTEN, Philadelphia, Pa., assignor to Philadelphia Metal Drying Form Company, Wilmington, Del. Filed July 14, 1917. Serial No. 180,675. Original No. 1,221,394, dated Apr. 3, 1917, Serial No. 104,136, filed June 16, 1916. (Cl. 223—17.)



1. The combination with a hollow detachable hosiery former, formed with a longitudinal partition therein so as to establish fluid communication between the hollow chambers formed by said partition, of a hollow detachable toe portion securable to said hollow hosiery former, and means for precluding fluid communication between said hollow hosiery former and said detachable toe portion.

2. The combination, with a hollow hosiery former having its toe portion countersunk and provided with a longitudinal partition therein arranged to establish fluid communication between the chambers formed by said partition, of a hollow detachable toe portion securable to the countersunk part of the former; the toe portion of the former being made imperforate to prevent the escape of the heating fluid from the former during the process of removing and replacing the detachable toe portion.

3. A hosiery former comprising a hollow chamber provided with a partition arranged to allow the circulation of a heating fluid along one side of the partition to the toe portion and thence back along the other side of the partition, the toe portion of the former provided with a double wall, the outer wall being detachable and the inner wall confining the heating fluid within the former during the removal and replacement of the outer wall.

4. In combination with a hollow hosiery former, formed with a longitudinal partition therein so as to establish fluid communication between the chambers formed by said partition, a hollow detachable toe portion, said toe portion secured to said hollow hosiery former by frictional contact, and means for precluding fluid communication between said hollow hosiery former and said detachable toe portion.

5. In combination with a hollow hosiery former, with its toe portion countersunk, formed with a longitudinal partition therein so as to establish fluid communication between the chambers formed by said partition, a hollow detachable toe portion of varying thickness, said toe portion secured to said hollow hosiery former proper by frictional contact, and means for precluding fluid communication between the said hosiery former and said detachable toe portion.

14,375. WINDOW-SHADE ROLLER. FRANKLIN A. DAWSON, Coats, N. C., assignor to Cunningham Springless Shade Company, a Corporation of North Carolina. Filed May 7, 1917. Serial No. 167,137. Original No. 1,181,852, dated May 2, 1916, Serial No. 77,031, filed Feb. 8, 1916. (Cl. 156—29.)



1. The combination with a curtain shade roller having pintles at each end, one of which has at least a portion non-cylindric, and a single cord wound from one end around the curtain-shade roller, of brackets having orifices therein to receive the pintles, one of said orifices formed with a pintle locking end and also a lateral pocket, and the cord so directed in its passage from the roller, that a certain degree of tension applied thereto will pull the non-cylindric pintle into the pocket of the orifice, where it is capable of turning, and a slight slackening of the cord will permit the roller to turn in a reverse direction, and additional slackening or release of the cord will allow the non-cylindric pintle to enter the lower end of the orifice which thereby locks the pintle.

2. The combination with a window-shade roller having pintles at each end, one of which has a non-cylindric portion, brackets having orifices to receive and serve as bearings for said pintles, one of said orifices having a pocket formation in which the non-cylindric bearing will turn, and another portion for locking said bearing against turning when resting therein, of a curtain-shade wound around the roller in one direction, and a flexible device wound around the roller in the opposite direction, and a guide adjacent to the roller through which the flexible device extends from the roller, said flexible connection adapted to be pulled or released accordingly as the roller is to be turned or locked, the release of the flexible device permitting the non-cylindric portion of the pintle to drop into the portion of the orifice which locks the pintle against turning, and the flexible device also acting to lift the pintle from the locking portion of the orifice to the pocket wherein it turns when tension is applied thereto.

3. A curtain shade roller having a curtain shade thereon, and adapted to be turned in one direction by the weight of the curtain shade, and having a cord wound therearound in an opposite direction, which operates to turn the roller in an opposite direction from that due to the weight of the curtain shade, when tension is applied thereto, in connection with a non-cylindric pintle, and a bracket having an orifice therein, one part of which forms a pocket which permits the pintle to turn, and the other part of which acts as a locking means, and means through which the cord extends on its way from the roller, adapted to cause the non-cylindric portion of the pintle to be lifted and held, when tension is applied to the cord, in the pocket portion of the orifice in which it may turn, when the curtain shade is either raised or lowered.

4. A curtain shade roller having a non-cylindric pintle in one end, a bracket having an angular orifice to receive and lock the pintle, said orifice having a lateral pocket which provides a supporting shoulder on which said pintle may revolve, and a cord wound around the roller and extending through a support thereabove adapted when tension is applied thereto to lift said pintle into said socket to allow it to revolve on the supporting shoulder, the revolution of the pintle in the pocket in one direction tending to roll the pintle over into the lower end of the orifice to lock it against rotation.

5. A bracket for shade fixtures formed of a metallic plate having openings to receive its securing means and formed with a forwardly extended portion with vertical opening with straight sides and a straight-sided lateral opening leading therefrom, a horizontal extension from the top of the body of said bracket extending forward and adapted to guide a single cord, said cord being adapted to be connected with and to wind upon a shade roller, whereby, when the cord is pulled upon, the flattened pintle of the shade roller, which normally rests in the vertical portion of said opening, is raised and moved forward out of alinement with said vertical opening and into the lateral opening and revoluble therein, and automatically returnable to the vertical opening when pressure on said cord is released.

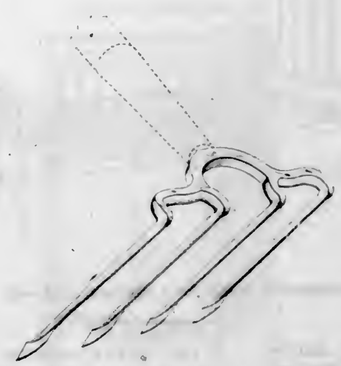
DESIGNS.

51,326. LIGHTING-FIXTURE. HARRY C. ADAM, St. Louis, Mo. Filed July 19, 1917. Serial No. 181,657. Term of patent 14 years.



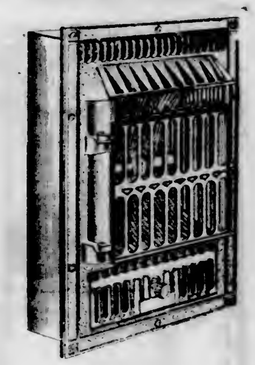
The ornamental design for a lighting fixture, as shown.

51,327. WEEDER-HEAD. JAMES V. BRADLE, Cedar Rapids, Iowa. Filed June 21, 1917. Serial No. 175,989. Term of patent 7 years.



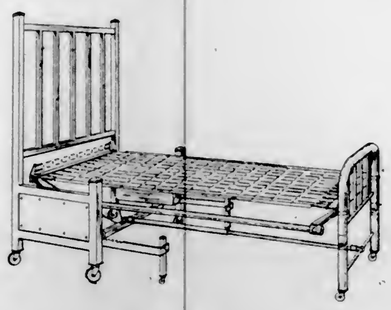
The ornamental design for a weeder head, as shown.

51,328. ELECTRIC-HEATER CASING. EDMUND N. BROWN, San Francisco, Cal., assignor to Majestic Electric Development Company, a Corporation of California. Filed Aug. 22, 1917. Serial No. 187,677. Term of patent 7 years.



The ornamental design for an electric heater casing substantially as shown.

51,329. BEDSTEAD. LANVILLE A. BROWN, Kansas City, Mo. Filed Aug. 22, 1917. Serial No. 187,679. Term of patent 14 years.



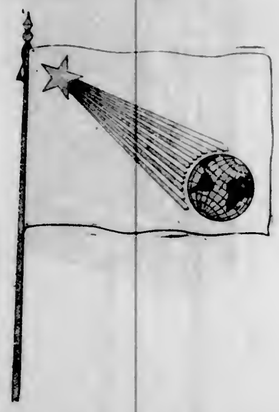
The ornamental design for a bedstead, as shown.

51,330. BROOCH, PIN, OR SIMILAR ARTICLE. HARRIET BLACKSTONE C. BUTLER, Boston, Mass. Filed Aug. 31, 1916. Serial No. 117,943. Term of patent 14 years.



The ornamental design for a brooch, pin, or similar article, as shown.

51,331. FLAG. ADOLPH GRAMLICH, New York, N. Y. Filed June 21, 1917. Serial No. 176,243. Term of patent 14 years.



The ornamental design for a flag as shown.

51,332. SMOKING-PIPE. CLARENCE E. HADLEY, Elmira, N. Y. Filed July 31, 1917. Serial No. 183,781. Term of patent 3½ years.



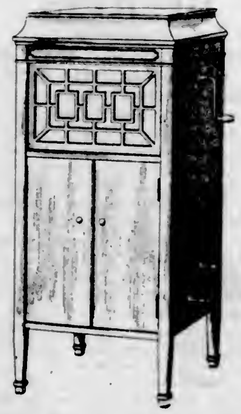
The ornamental design for a smoking pipe, as shown.

51,333. PORCELAIN DOOR-KNOB. CHARLES L. HEIZMANN, Wyomissing, Pa. Filed Apr. 20, 1917. Serial No. 163,531. Term of patent 14 years.



The ornamental design for a porcelain door-knob, as shown.

51,334. TALKING-MACHINE CABINET. CICERO HINE, Chicago, Ill., assignor to The Brunswick-Balke-Collender Company, Chicago, Ill., a Corporation of Delaware. Filed Aug. 24, 1917. Serial No. 188,069. Term of patent 7 years.



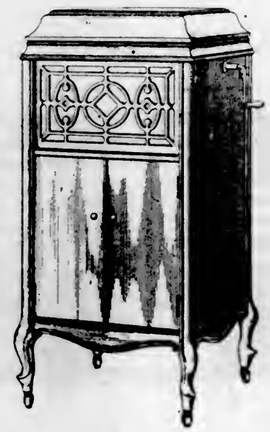
The ornamental design for a talking machine cabinet as shown.

51,335. TALKING-MACHINE CABINET. CICERO HINE, Chicago, Ill., assignor to The Brunswick-Balke-Collender Company, Chicago, Ill., a Corporation of Delaware. Filed Aug. 24, 1917. Serial No. 188,070. Term of patent 7 years.



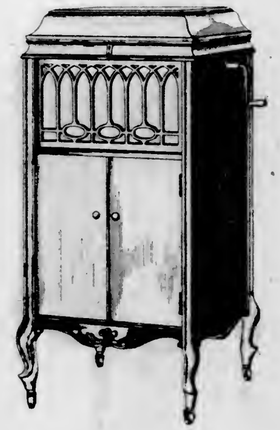
The ornamental design for a talking machine cabinet as shown.

51,336. TALKING-MACHINE CABINET. CICERO HINE, Chicago, Ill., assignor to The Brunswick-Balke-Collender Company, Chicago, Ill., a Corporation of Delaware. Filed Aug. 24, 1917. Serial No. 188,071. Term of patent 7 years.



The ornamental design for a talking machine cabinet as shown.

51,337. TALKING-MACHINE CABINET. CICERO HINE, Chicago, Ill., assignor to The Brunswick-Balke-Collender Company, Chicago, Ill., a Corporation of Delaware. Filed Aug. 24, 1917. Serial No. 188,072. Term of patent 7 years.



The ornamental design for a talking machine cabinet as shown.

51,338. TALKING-MACHINE CABINET. CICERO HINE, Chicago, Ill., assignor to The Brunswick-Balke-Collender Company, Chicago, Ill., a Corporation of Delaware. Filed Aug. 24, 1917. Serial No. 188,073. Term of patent 7 years.



The ornamental design for a talking machine cabinet as shown.

51,339. TALKING-MACHINE CABINET. CICERO HINE, Chicago, Ill., assignor to The Brunswick-Balke-Collender Company, Chicago, Ill., a Corporation of Delaware. Filed Aug. 24, 1917. Serial No. 188,074. Term of patent 7 years.



The ornamental design for a talking machine cabinet as shown.

51,340. TALKING-MACHINE CABINET. CICERO HINE, Chicago, Ill., assignor to The Brunswick-Balke-Collender Company, Chicago, Ill., a Corporation of Delaware. Filed Aug. 24, 1917. Serial No. 188,075. Term of patent 7 years.



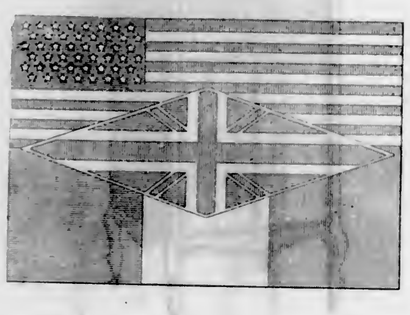
The ornamental design for a talking machine cabinet as shown.

51,341. TALKING-MACHINE CABINET. CICERO HINE, Chicago, Ill., assignor to The Brunswick-Balke-Collender Company, Chicago, Ill., a Corporation of Delaware. Filed Aug. 24, 1917. Serial No. 188,076. Term of patent 7 years.



The ornamental design for a talking machine cabinet as shown.

51,342. FLAG. ADOLF HIRSCH, New York, N. Y. Filed Aug. 10, 1917. Serial No. 185,614. Term of patent 3½ years.



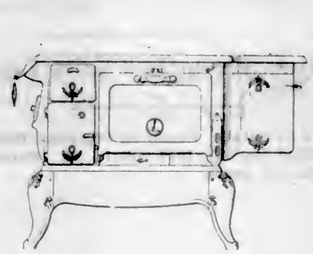
The ornamental design for a flag, as shown.

51,343. EMBLEM OR BADGE OR EMBLEMATICAL DEVICE. IRIS WINIFRED LEAVER, Brighton, England. Filed July 27, 1917. Serial No. 183,191. Term of patent 3½ years.



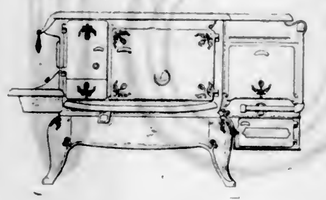
The ornamental design for an emblem or badge or emblematical device, as shown.

51,344. STOVE. MAX R. LEHMAN, Quincy, Ill. Filed Aug. 23, 1917. Serial No. 187,890. Term of patent 7 years.



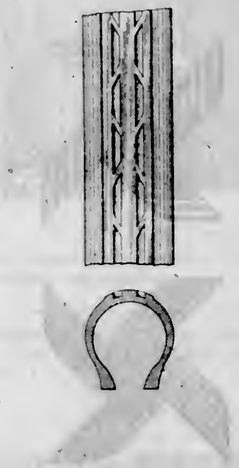
The ornamental design for a stove substantially as shown.

51,345. STOVE. MAX R. LEHMAN, Quincy, Ill. Filed Aug. 23, 1917. Serial No. 187,891. Term of patent 7 years.



The ornamental design for a stove substantially as shown.

51,346. TIRE-TREAD. GEORGE H. LEWIS, Chicopee Falls, Mass. Filed July 24, 1917. Serial No. 182,554. Term of patent 14 years.



The new, original, and ornamental design for a tire tread, as shown.

51,347. TRAFFIC-SIGNAL. HOWARD MASTERSON, Bozeman, Mont. Filed July 13, 1917. Serial No. 180,453. Term of patent 14 years.



The ornamental design for a traffic signal, as shown.

51,348. PIN-WHEEL. BERNARD J. MCGOVERON, Rochester, N. Y., assignor to Bastian Brothers Co., Rochester, N. Y., a Corporation. Filed Apr. 14, 1917. Serial No. 162,193. Term of patent 3½ years.



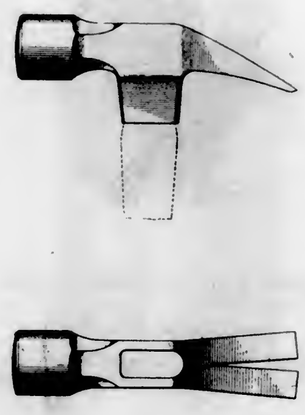
The ornamental design for a pin wheel as shown.

51,349. DOLL. ALICE MONTGOMERY, Menlo Park, and FLORENCE K. REYNOLDS, San Francisco, Cal. Filed May 14, 1917. Serial No. 168,615. Term of patent 3½ years.



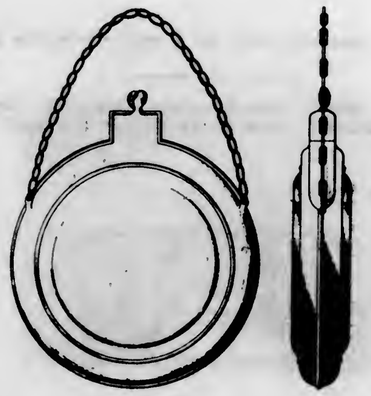
The ornamental design for a doll, as shown.

51,350. HAMMER-HEAD. HOYT RAYMOND, Chicago, Ill., assignor to Vaughan & Bushnell Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed May 4, 1917. Serial No. 166,484. Term of patent 14 years.



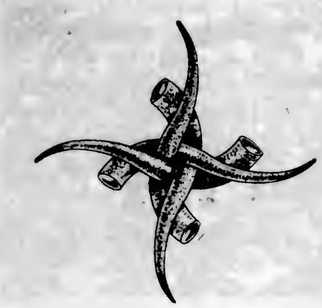
The ornamental design for a hammer head substantially as shown.

51,351. HAND-BAG. EULAH M. SUMMERS, Birmingham, Ala. Filed Mar. 31, 1917. Serial No. 159,039. Term of patent 3½ years.



The ornamental design for a hand bag as shown.

51,352. EMBLEM. LOUIS GEORGE VANDERLEE, Cleburne, Tex. Filed Apr. 27, 1917. Serial No. 165,037. Term of patent 3½ years.



The ornamental design for an emblem, as shown.

51,353. WATCHCASE-PENDANT. ARTHUR W. WADSWORTH, Fort Thomas, Ky., assignor to The Wadsworth Watch Case Company, Dayton, Ky., a Corporation of Kentucky. Filed June 4, 1917. Serial No. 172,807. Term of patent 14 years.



The ornamental design for a watchcase pendant, substantially as shown.

51,354. PRINTED FABRIC. HARRY WEARNE, New York, N. Y. Filed Aug. 2, 1917. Serial No. 184,161. Term of patent 7 years.



The ornamental design for an article of manufacture, substantially as shown and described.

51,355. PRINTED FABRIC. HARRY WEARNE, New York, N. Y. Filed Aug. 2, 1917. Serial No. 184,162. Term of patent 7 years.



The ornamental design for an article of manufacture, substantially as shown and described.

51,356. PRINTED FABRIC. HARRY WEARNE, New York, N. Y. Filed Aug. 2, 1917. Serial No. 184,163. Term of patent 7 years.



The ornamental design for an article of manufacture, substantially as shown and described.

51,357. PRINTED FABRIC. HARRY WEARNE, New York, N. Y. Filed Aug. 2, 1917. Serial No. 184,164. Term of patent 7 years.



The ornamental design for an article of manufacture, substantially as shown and described.

51,358. PRINTED FABRIC. HARRY WEARNE, New York, N. Y. Filed August 2, 1917. Serial No. 184,165. Term of patent 7 years.



The ornamental design for an article of manufacture, substantially as shown and described.

51,359. PRINTED FABRIC. HARRY WEARNE, New York, N. Y. Filed Aug. 2, 1917. Serial No. 184,166. Term of patent 7 years.



The ornamental design for an article of manufacture, substantially as shown and described.

51,360. INDICATOR FOR AUTOMOBILES. WILLIAM WESTENFIELD, Corona, S. D. Filed June 6, 1917. Serial No. 173,245. Term of patent 14 years.



The ornamental design for an indicator for automobiles, as shown.

TRADE-MARKS

PUBLISHED OCTOBER 9, 1917.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 80,404. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) RAFFAELE MARTORELLI, New York, N. Y. Filed Aug. 8, 1914.



Particular description of goods.—Macaroni and Olive-Oil.
Claims use since Jan. 1, 1913.

Ser. No. 95,771. (CLASS 37. PAPER AND STATIONERY.) AMERICAN PAPETERIE COMPANY, Albany and New York, N. Y.; Chicago, Ill., and San Francisco, Cal. Filed June 10, 1916.

Purity

Particular description of goods.—Writing-Paper.
Claims use since Apr. 21, 1911.

Ser. No. 96,699. (CLASS 39. CLOTHING.) JACOB P. SCHNELLBACHER, Peoria, Ill. Filed July 20, 1916.

WALL STREET

Particular description of goods.—Leather, Rubber, and Canvas Shoes.
Claims use since on or about Jan. 1, 1900.

Ser. No. 97,901. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NICHOLA GRAZIANO, Endicott, N. Y. Filed Sept. 11, 1916.

GRAZANO

Particular description of goods.—An Ointment.
Claims use since Apr. 28, 1916.

Ser. No. 98,304. (CLASS 12. CONSTRUCTION MATERIALS. THE UNITED STATES ASPHALT REFINING CO., New York, N. Y. Filed Sept. 28, 1916.



Particular description of goods.—Asphalt and Asphalt Paving Materials.
Claims use since Sept. 1, 1916.

Ser. No. 98,553. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) APPLETON COMPANY, Lowell, Mass. Filed Oct. 11, 1916.



Particular description of goods.—Fancy Goods in the Piece—viz., Ginghams, Shirtings, and Cotton Flannels.
Claims use since Sept. 29, 1916.

Ser. No. 100,199. (CLASS 37. PAPER AND STATIONERY.) CROWN WILLAMETTE PAPER COMPANY, San Francisco, Cal. Filed Dec. 27, 1916.



Particular description of goods.—Wrapping-Paper.
Claims use since Oct. 31, 1908.

Ser. No. 101,200. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HENRY THAYER & COMPANY, INC., Cambridge, Mass. Filed Feb. 6, 1917.

REM-A-NOL

Particular description of goods.—Ointments or Salves Intended for External Application as a Healing and Deodorant Agent for the Ano-Rectal Region.
Claims use since Dec. 1, 1915.

Ser. No. 101,291. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FLOTATION OIL AND CHEMICAL COMPANY, INCORPORATED, New York, N. Y. Filed Feb. 10, 1917.

FLOTCO

Particular description of goods.—Flotation Agents Used in the Flotation Process of Mineral Concentration, Comprising Coal-Tar Creosotes, Coal-Tar, Hardwood-Oils, Hardwood-Tar, Pine-Oils, (Obtained by Steam or Destructive Distillation or Solvent Extraction of Pine Wood and Having a Higher Distilling Range Than Turpentine,) Pine-Tar Oils, (Obtained by Destructive Distillation of Pine Wood,) Pine-Tar, Turpentines (So-Called "Gum" Turpentine and Turpentine Produced by Steam or Destructive Distillation and Solvent Extraction of Pine Wood) in Admixture with other of the Materials Hereinbefore Mentioned, Petroleum-Oils in Admixture with other of the Materials Hereinbefore Mentioned and Mixtures of the Above, and Also Flotation-Acids and Flotation-Acid Sludges, (Acids Which Have Been Used in the Refining Treatment of Oils and Usually Containing Oily or Tarry Matter.)
Claims use since Nov. 25, 1916.

Ser. No. 101,841. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) YOUNG & HOWARD, San Francisco, Cal. Filed Mar. 2, 1917.

ARACOMA

Particular description of goods.—Medicinal Preparation for Stomach and Nervous Troubles, La Grippe, Malaria, Chronic Constipation, and General Debility.
Claims use since Feb. 5, 1917.

Ser. No. 102,264. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) STEELEVILLE MILLING COMPANY, Steeleville, Ill. Filed Mar. 19, 1917.

SNOW BOY

Particular description of goods.—Wheat-Flour.
Claims use since about October, 1908.

Ser. No. 102,492. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MCCOMB BROTHERS, New York, N. Y. Filed Mar. 27, 1917.

Aladdin

Particular description of goods.—Rejuvenator or Detergent Containing No Soap and Designed for Cleaning and Restoring the Original Appearance to Soiled Oriental and Domestic Rugs, Carpets, and Clothing.
Claims use since Mar. 1, 1909.

Ser. No. 102,523. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KELLOGG TOASTED CORN FLAKE CO., Battle Creek, Mich. Filed Mar. 28, 1917.

Kellogg's

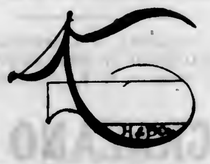
This trade-mark is a facsimile of the surname signature of W. K. Kellogg, president of applicant corporation.
Particular description of goods.—Peanut-Butter.
Claims use since about Feb. 17, 1917.

Ser. No. 102,524. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KELLOGG TOASTED CORN FLAKE CO., Battle Creek, Mich. Filed Mar. 28, 1917.

Kellogg's

This trade-mark is a facsimile of the surname signature of W. K. Kellogg, president of applicant corporation.
Particular description of goods.—Tea and Coffee.
Claims use since about Feb. 17, 1917.

Ser. No. 102,620. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) HARRIS & BERNTZ CO., Philadelphia, Pa. Filed Mar. 31, 1917.



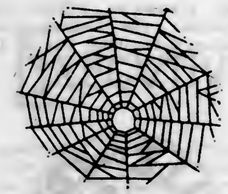
Particular description of goods.—Manicure Files and Burnishers.
Claims use since July 1, 1914.

Ser. No. 103,076. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) ALEXANDER BROTHERS, Philadelphia, Pa. Filed Apr. 18, 1917.



In the drawing no attempt has been made to indicate or depict color.
Particular description of goods.—Leather, Including Curried Leather and Sole-Leather and Leather Strapping.
Claims use since Nov. 14, 1914.

Ser. No. 103,302. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) EDWARD L. MITTELSTAEDT, New York, N. Y. Filed Apr. 25, 1917.



Particular description of goods.—Hair-Nets.
Claims use since Feb. 10, 1914.

Ser. No. 103,534. (CLASS 38. PRINTS AND PUBLICATIONS.) HELS & NORTON DESIGNING & PUBLISHING CO., St. Joseph, Mo. Filed May 4, 1917.

"Marie Antoinette"

Particular description of goods.—A Catalogue Published from Time to Time.
Claims use since Dec. 8, 1914.

Ser. No. 103,579. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) IDA ALEXANDER, St. Louis, Mo. Filed May 7, 1917.

A-F-H-S

Particular description of goods.—A Preparation Used in Dressing and Growing Hair.
Claims use since the year 1914.

Ser. No. 103,605. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE MID-WEST CREAMERY COMPANY, Denver, Colo. Filed May 7, 1917.



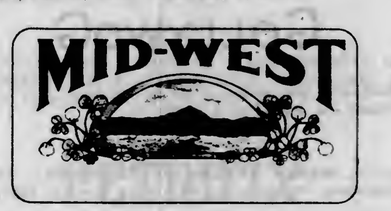
Particular description of goods.—Butter.
Claims use since Apr. 1, 1916.

Ser. No. 103,606. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE MID-WEST CREAMERY COMPANY, Denver, Colo. Filed May 7, 1917.



The portrait is a fanciful representation and not a picture of any living individual.
Particular description of goods.—Butter.
Claims use since Apr. 1, 1914.

Ser. No. 103,607. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE MID-WEST CREAMERY COMPANY, Denver, Colo. Filed May 7, 1917.



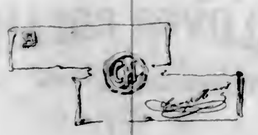
Particular description of goods.—Butter.
Claims use since Apr. 1, 1917.

Ser. No. 103,608. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE MID-WEST CREAMERY COMPANY, Denver, Colo. Filed May 7, 1917.



Particular description of goods.—Butter.
Claims use since Apr. 1, 1916.

Ser. No. 103,633. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) B. CAMP Y CA., S. EN C., Santiago de Cuba, Cuba. Filed May 8, 1917.



The signature shown being in the handwriting of Enrique Camp, a member of the firm Camp Hnos, our predecessors.

Particular description of goods.—Rum.

Claims use since January, 1904.

Ser. No. 103,740. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) CORP. OF CHAS. F. MEYER, New York, N. Y. Filed May 12, 1917.



Particular description of goods.—Japanese Lily Bulbs.

Claims use since Sept. 22, 1905.

Ser. No. 103,834. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) ETTA MANSFIELD, New York, N. Y. Filed May 15, 1917.

GOLLYWOG

Particular description of goods.—Dolls.

Claims use since Feb. 1, 1917.

Ser. No. 103,865. (CLASS 39. CLOTHING.) HARRY ITSYNSON, Philadelphia, Pa. Filed May 16, 1917.



Particular description of goods.—Ladies' and Children's Muslin and Silk Textile Underwear, Including Nightgowns, Corset-Covers, Petticoats, Drawers, Envelop-Chemises, Princess Slips, and Combination Corset-Covers and Drawers, and Infants' and Children's Dresses.

Claims use since Apr. 18, 1917.

Ser. No. 103,918. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) A. BOURJOIS & CO., INC., New York, N. Y. Filed May 18, 1917.



Particular description of goods.—Face-Powder, Toilet Waters, Rouge, Lip-Sticks, Perfumes, Eyebrow-Pencils, and Pomades.

Claims use since Nov. 27, 1903.

Ser. No. 104,065. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE COLORADO MILLING & ELEVATOR CO., Denver, Colo. Filed May 25, 1917.



Particular description of goods.—Wheat-Flour.

Claims use since Mar. 19, 1917.

Ser. No. 104,254. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ELE-KEM COMPANY, Chicago, Ill. Filed June 4, 1917.

CASEITE

Particular description of goods.—A Case-Hardening Compound Used as a Substitute for Potassium or Sodium Cyanid.

Claims use since Apr. 2, 1917.

Serial No. 104,255. (CLASS 12. CONSTRUCTION MATERIALS.) ROBERT B. HOWELL, Omaha, Nebr. Filed June 4, 1917.

METALIUM

Particular description of goods.—Sealing Material for Forming Joints Between Pipes, Having Sulfur as a Base.

Claims use since Dec. 1, 1916.

Ser. No. 104,273. (CLASS 37. PAPER AND STATIONERY.) THE WYNNE PAPER CO., INC., New York, N. Y. Filed June 4, 1917.

EXECVTIVE

Particular description of goods.—Writing-Tablets, Papeteries for Correspondence, Pound-Papers for Correspondence, Ream-Papers for Correspondence, and Envelops.

Claims use since July 1, 1915.

Ser. No. 104,306. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAU PREPARATIONS.) A. A. MAILLETT CO., INC., New York, N. Y. Filed June 6, 1917.

PEPTOSODE

Particular description of goods.—Preparation for the Treatment of the Stomach.

Claims use since May 1, 1917.

Ser. No. 104,480. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BEMMELS MILLING COMPANY, Lisbon, N. D. Filed June 18, 1917.

CHEER-UP

Particular description of goods.—Wheat-Flour.

Claims use since Jan. 1, 1911.

Ser. No. 104,484. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) W. S. FORBES & COMPANY, Richmond, Va. Filed June 18, 1917.

POLLY-ANNA

Particular description of goods.—A Shortening Composed of Cotton-Seed Oil and Cotton-Seed Stearin.

Claims use since June 12, 1917.

Ser. No. 104,495. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) W. V. BENNETT, New York, N. Y. Filed June 18, 1917.



No claim is made to the word "Kleaner" apart from the mark shown.

Particular description of goods.—A Metal-Polish Applicator.

Claims use since Mar. 10, 1916.

Ser. No. 104,561. (CLASS 12. CONSTRUCTION MATERIALS.) A. T. MALMED & CO., Philadelphia, Pa. Filed June 20, 1917.

PETRIFIX

Particular description of goods.—A Liquid Floor-Hardener.

Claims use since May 3, 1917.

Ser. No. 104,562. (CLASS 12. CONSTRUCTION MATERIALS.) A. T. MALMED & CO., Philadelphia, Pa. Filed June 20, 1917.

IRNSTONE

Particular description of goods.—A Metallic Floor-Hardener in Pulverized Form.

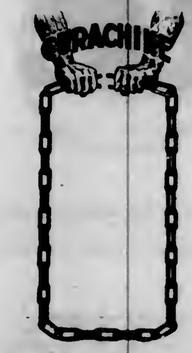
Claims use since May 3, 1917.

Ser. No. 104,600. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ALBERT C. SMITH, Columbus, Ohio. Filed June 21, 1917.



Particular description of goods.—Wheat-Flour.
Claims use since about Mar. 1, 1917.

Ser. No. 104,603. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WONG YICK, New York, N. Y. Filed June 21, 1917.



Particular description of goods.—A Treatment for Rheumatism and Sore Muscles.
Claims use since June 7, 1917.

Ser. No. 104,709. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) VIVIANO BROS. MACARONI CO. INC., Chicago, Ill. Filed June 26, 1917.

VIBRDS

Particular description of goods.—Macaroni and Spaghetti.
Claims use since May 15, 1917.

Ser. No. 104,719. (CLASS 39. CLOTHING.) ROSS-SPILLER GLOVE CO., Sheboygan, Wis. Filed June 27, 1917.

AEROPLANE

Particular description of goods.—Gauntlets.
Claims use since Oct. 1, 1916.

Ser. No. 104,756. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MCKESSON & ROBBINS, INCORPORATED, New York, N. Y. Filed June 29, 1917.

CYTAMIN

Particular description of goods.—Medicinal Preparations for Internal Use, Said Preparations Consisting of a Metabolic Stimulant and Cell-Activating Agent Particularly Useful in the Treatment of Diseases Due to Deficiency in Diet.
Claims use since May 30, 1917.

Ser. No. 104,814. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PARAMOUNT PRODUCTS CO., New York, N. Y. Filed July 3, 1917.

WHISPERS

Particular description of goods.—Candy.
Claims use since November, 1915.

Ser. No. 104,842. (CLASS 39. CLOTHING.) JACOB I. GUEDALIA, New York, N. Y. Filed July 5, 1917.



Particular description of goods.—Ladies', Misses', and Children's Hats.
Claims use since May 1, 1917.

Ser. No. 104,847. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE GUTTA PERCHA & RUBBER MANUFACTURING COMPANY, New York, N. Y. Filed July 5, 1917.

Manitou

Particular description of goods.—Belting of Rubber and Fabric.
Claims use since 1905.

Ser. No. 104,853. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE GUTTA PERCHA & RUBBER MANUFACTURING COMPANY, New York, N. Y. Filed July 5, 1917.



Particular description of goods.—Belting and Hose of Rubber and Fabric.
Claims use since 1906.

Ser. No. 104,858. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) JOSEPH H. JOSEPH, New York, N. Y. Filed July 5, 1917.



Particular description of goods.—Ornamental Teething-Rings for Babies, Hot-Water Bags, and Covers for Hot-Water Bags.
Claims use since 1912.

Ser. No. 104,860. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LAWRENCEBURG ROLLER MILLS CO., Lawrenceburg, Ind. Filed July 5, 1917.



HOOSIER

The picture being that of James Whitcomb Riley, deceased.
Particular description of goods.—Wheat-Flour.
Claims use since Apr. 24, 1917.

Ser. No. 104,909. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) NEW YORK MILLS CORPORATION, New York Mills, N. Y. Filed July 7, 1917.

Leathotex

Particular description of goods.—Waterproof Fabrics in the Piece.
Claims use since April, 1917.

Ser. No. 104,910. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) NEW YORK MILLS CORPORATION, New York Mills, N. Y. Filed July 7, 1917.

Leathoswade

Particular description of goods.—Waterproof Fabrics in the Piece.
Claims use since April, 1917.

Ser. No. 104,968. (CLASS 4. ABRASIVE, DETERGENT AND POLISHING MATERIALS.) G. EDWIN SAWYER, Niagara Falls, N. Y., assignor to The Epock Co., Niagara Falls, N. Y., a Corporation of Delaware. Filed July 10, 1917.

EPOK

Particular description of goods.—Toilet Soaps.
Claims use since Mar. 29, 1917.

Ser. No. 104,978. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) CABLE-NELSON PIANO CO., Chicago, Ill. Filed July 11, 1917.



Particular description of goods.—Pianos, Player-Pianos, and Talking-Machines.
Claims use since June 13, 1917.

Ser. No. 105,139. (CLASS 48. MALT EXTRACTS AND LIQUORS.) A. SCHREIBER BREWING CO., Buffalo, N. Y. Filed July 19, 1917.

SAMO

Particular description of goods.—A Non-Intoxicating Cereal Beverage Containing a Small Percentage of Malt and Less Than One-Half of One Per Cent. of Alcohol.
Claims use since about June 16, 1917.

Ser. No. 105,155. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) SWIFT AND COMPANY, Chicago, Ill. Filed July 20, 1917.



Particular description of goods.—Soap.
Claims use since May 15, 1915.

Ser. No. 105,167. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DUNDAS BROTHERS CO., Philadelphia, Pa. Filed July 21, 1917.



Consisting of the arbitrary name "San Angelo" and scroll.
Particular description of goods.—Wheat-Flour.
Claims use since about January, 1917.

Ser. No. 105,186. (CLASS 37. PAPER AND STATIONERY.) THE ALBEMARLE PAPER MFG. CO., Richmond, Va. Filed July 23, 1917.



Particular description of goods.—Blotting-Paper.
Claims use since 1906.

Ser. No. 105,289. (CLASS 37. PAPER AND STATIONERY.) EAGLE PENCIL COMPANY, New York, N. Y. Filed July 26, 1917.



Particular description of goods.—Pen and Pencil Clips.
Claims use since 1911.

Ser. No. 105,290. (CLASS 37. PAPER AND STATIONERY.) EAGLE PENCIL COMPANY, New York, N. Y. Filed July 26, 1917.

EAGLE

Particular description of goods.—Pen and Pencil Clips.
Claims use since 1911.

Ser. No. 105,298. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) JOHNSON, COWDIN & CO., New York, N. Y. Filed July 26, 1917.

RIPPLEREP

Particular description of goods.—Ribbons.
Claims use since about July 12, 1917.

Ser. No. 105,299. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) JOHNSON, COWDIN & CO., New York, N. Y. Filed July 26, 1917.

DEMOCRACY

Particular description of goods.—Ribbons.
Claims use since about Apr. 15, 1917.

Ser. No. 105,302. (CLASS 12. CONSTRUCTION MATERIALS.) THE PARAFFINE PAINT COMPANY, San Francisco, Cal. Filed July 26, 1917.

Pabcoat

Particular description of goods.—Liquid Stone Veneer
Claims use since Apr. 1, 1917.

Ser. No. 105,328. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ROBERT C. WHITE, Philadelphia, Pa. Filed July 27, 1917.

Coleps

Particular description of goods.—Laxative Pills.
Claims use since June 14, 1917.

Ser. No. 105,340. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) WEBER & HEILBRONER, New York, N. Y. Filed July 28, 1917.



Particular description of goods.—Trunks, Suitcases, and Traveling-Bags.
Claims use since June 1, 1917.

Ser. No. 105,362. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PAUL C. SPRAUL, Piqua, Ohio. Filed July 30, 1917.



Particular description of goods.—Ice-Cream and Candies.
Claims use since July 1, 1913.

Ser. No. 105,364. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MABEL L. TODD, Cincinnati, Ohio. Filed July 30, 1917.

CUP-MERIT

Particular description of goods.—Tea, Coffee, and Cocoa.
Claims use since July 1, 1917.

Ser. No. 105,413. (CLASS 27. HOROLOGICAL INSTRUMENTS.) WALTHAM WATCH COMPANY, Waltham, Mass. Filed Aug. 1, 1917.

TONNEAU

Particular description of goods.—Watches.
Claims use since Feb. 7, 1917.

Ser. No. 105,414. (CLASS 27. HOROLOGICAL INSTRUMENTS.) WALTHAM WATCH COMPANY, Waltham, Mass. Filed Aug. 1, 1917.

Trooper

Particular description of goods.—Watches.
Claims use since Feb. 7, 1917.

Ser. No. 105,415. (CLASS 27. HOROLOGICAL INSTRUMENTS.) WALTHAM WATCH COMPANY, Waltham, Mass. Filed Aug. 1, 1917.

CADET

Particular description of goods.—Watches.
Claims use since Feb. 7, 1917.

Ser. No. 105,421. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) EASTERN MFG. CO., Philadelphia, Pa. Filed Aug. 2, 1917. Under ten-year proviso.

GRANGER

Particular description of goods.—Fruit and Vegetable Evaporators.
Claims use since about Feb. 8, 1884.

Ser. No. 105,423. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HEAT PRODUCER COMPANY, Minneapolis, Minn. Filed Aug. 2, 1917.

B-T-USE

Particular description of goods.—Combustion-Improving Compound.
Claims use since Apr. 24, 1917.

Ser. No. 105,442. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) TAYLOR, CLAPP & BEALL, New York, N. Y. Filed Aug. 2, 1917.

TRANQUILLITY

Comprising the word "Tranquillity."
Particular description of goods.—Cotton Piece Goods.
Claims use since July 11, 1917.

Ser. No. 105,443. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) TAYLOR, CLAPP & BEALL, New York, N. Y. Filed Aug. 2, 1917.

PASTIME

Comprising the word "Pastime."
Particular description of goods.—Cotton Piece Goods.
Claims use since July 11, 1917.

Ser. No. 105,444. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) TAYLOR, CLAPP & BEALL, New York, N. Y. Filed Aug. 2, 1917.

METROPOLITAN

Comprising the word "Metropolitan."
Particular description of goods.—Cotton Piece Goods.
Claims use since July 11, 1917.

Ser. No. 105,445. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) TAYLOR, CLAPP & BEALL, New York, N. Y. Filed Aug. 2, 1917.

TOWN AND COUNTRY

Comprising the words "Town and Country."
Particular description of goods.—Cotton Piece Goods.
Claims use since July 11, 1917.

Ser. No. 105,455. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) I. B. KLEINERT RUBBER COMPANY, New York, N. Y. Filed Aug. 3, 1917.

AERO

Particular description of goods.—Dress-Shields.
Claims use since July 19, 1917.

Ser. No. 105,461. (CLASS 12. CONSTRUCTION MATERIALS.) THE ATLANTIC REFINING COMPANY, Philadelphia, Pa. Filed Aug. 4, 1917.



The crossed arrows and the outer irregular border are in red.
Particular description of goods.—Road and Roofing Oils and Petroleum Asphalts and Pitches.
Claims use since May 25, 1917.

Ser. No. 105,478. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) STANDARD OIL COMPANY, Bayonne, N. J. Filed Aug. 4, 1917.



Particular description of goods.—Petroleum Harness-Oil and Petroleum Belt-Dressing.
Claims use since Oct. 25, 1915.

Ser. No. 105,486. (CLASS 38. PRINTS AND PUBLICATIONS.) BRUCE V. CRANDALL, Chicago, Ill. Filed Aug. 6, 1917.

Car Utility

Particular description of goods.—Monthly Magazine.
Claims use since Jan. 1, 1916.

Ser. No. 105,490. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE FOOSE CHEMICAL COMPANY, Dayton, Ohio. Filed Aug. 6, 1917.



Particular description of goods.—An Antiseptic, Disinfectant, Deodorizer, and Bleach.
Claims use since Aug. 2, 1917.

Ser. No. 105,496. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HARTMANN BROTHERS, INC., New York, N. Y. Filed Aug. 6, 1917.

Will-o-Wisp

Particular description of goods.—Hair-Nets.
Claims use since June 7, 1917.

Ser. No. 105,518. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HOHLFELD MANUFACTURING CO., Philadelphia, Pa. Filed Aug. 7, 1917.



Particular description of goods.—Towels of All Sorts, Washrags, Face-Cloths, Bath-Mats, and Textile Bath-Room Rugs.
Claims use since Aug. 3, 1917.

Ser. No. 105,519. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HOHLFELD MANUFACTURING CO., Philadelphia, Pa. Filed Aug. 7, 1917.

WHITE CLOVER

Particular description of goods.—Towels of All Sorts, Washrags, Face-Cloths, Bath-Mats, and Textile Bath-Room Rugs.
Claims use since Aug. 3, 1917.

Ser. No. 105,526. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WILLIAM W. REED, Buffalo, N. Y. Filed Aug. 7, 1917.

NRG

Particular description of goods.—Chocolate Wheat Bars.
Claims use since July 12, 1917.

Ser. No. 105,527. (CLASS 17. TOBACCO PRODUCTS.) CLARENCE R. SMITH, Philadelphia, Pa. Filed Aug. 7, 1917.

SAMMEES

Particular description of goods.—Tobacco Cigarettes.
Claims use since July 28, 1917.

Ser. No. 105,556. (CLASS 17. TOBACCO PRODUCTS.) CHILEAN COMMERCIAL BUREAU, INCORPORATED, New York, N. Y. Filed Aug. 9, 1917.

SAMMIES

Particular description of goods.—Cigarettes, Cigars, and Smoking-Tobacco.
Claims use since about Aug. 17, 1917.

Ser. No. 105,563. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) G. EDWIN SAWYER, Niagara Falls, N. Y. Filed Aug. 9, 1917.



Particular description of goods.—An Ointment for the Treatment of Herpes, Erythema, Nettle-Rash, Ringworm, Itch, Eruption of Poison Ivy or Oak, Pimples, Bites and Stings of Insects, Sunburn, Chafing, Burns, Scalds, Itching and Inflamed Piles, Eczema, Dandruff, Psoriasis, and Similar Ailments.
Claims use since Mar. 29, 1917.

Ser. No. 105,586. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HENRY E. ZUTZ, St. Paul, Minn. Filed Aug. 10, 1917.

LUANA

Particular description of goods.—Face-Powder, Talc Powder, Sachets, Tooth Powder and Paste, Tooth-Wash, Depilatory Powder; Nail Polishes, Creams, and Tints; Rouges in Liquid, Powder, and Paste Form; Toilet Creams of Various Kinds, Toilet Lotions, Perfumes, Toilet Waters; Shampoos, Liquid and Powder; Eyebrow-Pencils, Lip-Rouge, Hair-Tonic, Smelling-Salts, Pomades, Bath-Salts, Vegetols or Colognes.
Claims use since Apr. 20, 1917.

Ser. No. 105,587. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ALLENEGG MANUFACTURING COMPANY, Binghamton, N. Y. Filed Aug. 11, 1917.

ALLENEGG

Particular description of goods.—An Egg-Powder for Baking and Cooking.
Claims use since May 1, 1917.

Ser. No. 105,618. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) J. D. JIDAS BROS., & Co., Chicago, Ill. Filed Aug. 13, 1917.

Try Me

Particular description of goods.—Scouring, Cleaning, and Polishing Preparation for Silver, Glassware, and Metals.
Claims use since June, 1917.

Ser. No. 105,627. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) STANDARD OIL COMPANY OF NEW YORK, New York, N. Y. Filed Aug. 13, 1917.

美孚行

The trade-mark consists of the Chinese characters "Mei Foo Hong" shown in the drawing: "Mei," admirable, lovely; "Foo," to repose confidence in; "Hong," business, firm, or company.

Particular description of goods.—Disinfectants.
Claims use since July 10, 1917.

Ser. No. 105,649. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) CONVERSE & COMPANY, New York, N. Y. Filed Aug. 15, 1917. Under ten-year proviso.



Particular description of goods.—Cotton Piece Goods.
Claims use since prior to the year 1895.

Ser. No. 105,650. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) CONVERSE & COMPANY, New York, N. Y. Filed Aug. 15, 1917. Under ten-year proviso.



Particular description of goods.—Cotton Piece Goods.
Claims use since prior to the year 1895.

Ser. No. 105,651. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) CONVERSE & COMPANY, New York, N. Y. Filed Aug. 15, 1917. Under ten-year proviso.

CORAL REEF

Particular description of goods.—Cotton Piece Goods.
Claims use since prior to the year 1895.

Ser. No. 105,653. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) CONVERSE & COMPANY, New York, N. Y. Filed Aug. 15, 1917. Under ten-year proviso.

BRONCHO

Particular description of goods.—Cotton Piece Goods.
Claims use since prior to the year 1895.

Ser. No. 105,697. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) ANDERS G. ANDERSON, Cranford, N. J. Filed Aug. 17, 1917.

The Ryto

Particular description of goods.—A Hand-Soap.
Claims use since May 1, 1917.

Ser. No. 105,805. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) LIBERTY STOVE POLISH CO., Chicago, Ill., and New York, N. Y. Filed Aug. 22, 1917.



Particular description of goods.—Stove-Polish.
Claims use since Aug. 1, 1917.

Ser. No. 105,815. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM PAGELER, Gladbrook, Iowa. Filed Aug. 22, 1917.



Particular description of goods.—A Hog-Conditioner and Worm-Destroyer.
Claims use since June 1, 1917.

Ser. No. 105,838. (CLASS 37. PAPER AND STATIONERY.) GUARDIAN SAFETY PAPER CO., Boston, Mass. Filed Aug. 23, 1917.

GUARDIAN

The word "Guardian."
Particular description of goods.—Writing-Paper.
Claims use since July 1, 1917.

Ser. No. 105,847. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) AMERICAN BLEACHED GOODS COMPANY, New York, N. Y. Filed Aug. 24, 1917.

ALPHA

Particular description of goods.—Cotton Piece Goods.
Claims use since July 1, 1916.

Ser. No. 105,955. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) BERNHARD ULMANN CO., INC., New York, N. Y. Filed Aug. 30, 1917.

BUCILLA

Particular description of goods.—Ribbons, Netting, Toweling, Tapestry, Cretonne, and other Piece Goods of Cotton, Linen, Silk, Artificial Silk, Wool, or of Combinations Thereof.
Claims use since about April, 1913.

Ser. No. 106,058. (CLASS 45. BEVERAGES, NON-ALCOHOLIC. BLUE BIRD BEVERAGE COMPANY, New Orleans, La. Filed Sept. 5, 1917.

BLUE BIRD

Particular description of goods.—Celery, Ginger-Ale, and Root-Beer.
Claims use since July 25, 1917.

Ser. No. 106,064. (CLASS 48. MALT EXTRACTS AND LIQUORS.) THE CLEVELAND & SANDUSKY BREWING COMPANY, Cleveland, Ohio. Filed Sept. 5, 1917.

"Bola"

Particular description of goods.—Beverages Similar to Beer, but with Very Slight Alcoholic Content.
Claims use since about July 15, 1917.

Ser. No. 106,066. (CLASS 48. MALT EXTRACTS AND LIQUORS.) THE CLEVELAND & SANDUSKY BREWING COMPANY, Cleveland, Ohio. Filed Sept. 5, 1917.

Crystal Rock

Particular description of goods.—Beer.
Claims use since 1898.

Ser. No. 106,133. (CLASS 47. WINES.) GARRETT AND COMPANY, INCORPORATED, New York, N. Y. Filed Sept. 8, 1917.

VIRGINIA DARE

Particular description of goods.—Wines.
Claims use since 1891.

Ser. No. 106,238. (CLASS 27. HOROLOGICAL INSTRUMENTS.) WALTHAM WATCH COMPANY, Waltham, Mass. Filed Sept. 13, 1917.

SUBMARINE

Particular description of goods.—Watches.
Claims use since Aug. 27, 1917.

Ser. No. 106,239. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) THE ALTAMONT SPRINGS HOTEL CO., Fort Thomas, Ky. Filed Sept. 14, 1917.

ALTO



Particular description of goods.—Mineral Water.
Claims use since Aug. 15, 1917.

Ser. No. 106,242. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) HARRY D. COMERFORD, Grafton, W. Va. Filed Sept. 14, 1917.

Apollo



Particular description of goods.—Spring-Water.
Claims use since May 1, 1916.

Ser. No. 106,264. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) RUSSIA CEMENT COMPANY, Gloucester, Mass. Filed Sept. 15, 1917.

SIGNET

Particular description of goods.—Stove-Polish.
Claims use since July 1, 1917.

TRADE-MARK REGISTRATIONS GRANTED

OCTOBER 9, 1917.

118,842. MEN'S, BOYS', AND YOUTHS' TROUSERS. F. E. ABELES & COMPANY, Milwaukee, Wis.
Filed May 26, 1915. Serial No. 86,896. PUBLISHED DECEMBER 14, 1915.

118,843. AGRICULTURAL LIME. THE AGRICULTURAL AND COMMERCIAL LIME COMPANY, Canton, Ohio.
Filed May 1, 1917. Serial No. 103,440. PUBLISHED JULY 17, 1917.

118,844. NURSES' COSTUMES, DOCTORS' COATS, TROUSERS, AND OVERALLS, HOSPITAL-EMPLOYEES' UNIFORMS AND SUITS. ALTRO MANUFACTURING COMPANY, New York, N. Y.
Filed May 5, 1917. Serial No. 103,553. PUBLISHED JULY 17, 1917.

118,845. COMBINED ORDER-SHEET AND ENVELOP. AMERICAN LOOSE LEAF MFG. CO., Chicago, Ill.
Filed June 18, 1917. Serial No. 104,475. PUBLISHED AUGUST 7, 1917.

118,846. CERTAIN NAMED PAPER AND STATIONERY. AMERICAN PAD & PAPER COMPANY, Holyoke, Mass.
Filed May 7, 1917. Serial No. 103,586. PUBLISHED AUGUST 7, 1917.

118,847. CERTAIN NAMED CONSTRUCTION MATERIALS. THE ARCO COMPANY, Cleveland, Ohio.
Filed November 8, 1916. Serial No. 99,158. PUBLISHED JULY 17, 1917.

118,848. CANDY. D. AUERBACH & SONS, New York, N. Y.
Filed June 16, 1917. Serial No. 104,461. PUBLISHED JULY 17, 1917.

118,849. LIQUID-FREEZERS. AUTO VACUUM FREEZER COMPANY, INC., New York, N. Y.
Filed October 27, 1916. Serial No. 98,916. PUBLISHED JANUARY 23, 1917.

118,850. LEATHER, CANVAS, AND COMPOSITION SHOES AND RUBBER OVERSHOES. BATTERMAN RUBBER COMPANY, Boston, Mass.
Filed May 22, 1917. Serial No. 104,004. PUBLISHED JULY 24, 1917.

118,851. RUBBER BOOTS AND SHOES. THE BEACON FALLS RUBBER SHOE COMPANY, Beacon Falls, Conn.
Filed June 20, 1917. Serial No. 104,543. PUBLISHED JULY 17, 1917.

118,852. HOSIERY. THE BEEBE-HOWES COMPANY, INC., New York, N. Y.
Filed June 18, 1917. Serial No. 104,478. PUBLISHED JULY 31, 1917.

118,853. HORSE-COLLARS. THE BONICAMP MANUFACTURING CO., Fort Madison, Iowa.
Filed June 16, 1917. Serial No. 104,462. PUBLISHED AUGUST 7, 1917.

118,854. CERTAIN NAMED HOLLOW METAL WARE OF BRASS, COPPER, BRONZE, PEWTER, ALUMINUM, OR OTHER NON-PRECIOUS METALS. GEORGE BORGFELDT & CO., New York, N. Y.
Filed December 11, 1916. Serial No. 99,834. PUBLISHED JULY 31, 1917.

118,855. GINGHAMS. THE BOSTON MANUFACTURING COMPANY, Waltham, Mass.
Filed April 27, 1917. Serial No. 103,344. PUBLISHED AUGUST 7, 1917.

118,856. GAMES. MILTON BRADLEY CO., Springfield, Mass.
Filed October 16, 1916. Serial No. 98,714. PUBLISHED NOVEMBER 21, 1916.

118,857. MEN'S SHOES MADE OF LEATHER. BROWN SHOE COMPANY, INC., St. Louis, Mo.
Filed July 5, 1917. Serial No. 104,828. PUBLISHED AUGUST 7, 1917.

118,858. MEN'S, BOYS', AND WOMEN'S COLLARS. THE CELLULOID COMPANY, New York, N. Y.
Filed July 10, 1917. Serial No. 104,955. PUBLISHED AUGUST 7, 1917.

118,859. PHONOGRAPH-CABINETS. THE CLASSIQUE PHONOGRAPH CORPORATION, Chicago, Ill.
Filed March 29, 1917. Serial No. 102,554. PUBLISHED JULY 24, 1917.

118,860. HANDKERCHIEFS. CLUETT PEABODY & CO. INC., Troy, N. Y.
Filed June 26, 1917. Serial No. 104,691. PUBLISHED JULY 24, 1917.

118,861. SAFETY-FUSE. COAST MANUFACTURING AND SUPPLY COMPANY, Livermore, Cal.
Filed March 3, 1917. Serial No. 101,853. PUBLISHED JULY 17, 1917.

118,862. PUNCTURE-PUTTY. COLUMBIA CHEMICAL CO., Washington, D. C.
Filed January 23, 1917. Serial No. 100,847. PUBLISHED JULY 17, 1917.

118,863. IRON AND BRASS BEDS, CRIBS, BED-SPRINGS, AND COTS. CRESCENT BED CO., LIMITED, New Orleans, La.
Filed May 24, 1917. Serial No. 104,038. PUBLISHED JULY 31, 1917.

118,864. AUTOMOBILES. DARLING MOTOR COMPANY, Dayton, Ohio.
Filed May 2, 1917. Serial No. 103,468. PUBLISHED JULY 31, 1917.

118,865. CANNED FRUITS AND VEGETABLES. DAVIS-DOUGHERTY CANNING CO., Russellville, Tenn.
Filed January 24, 1917. Serial No. 100,875. PUBLISHED JULY 31, 1917.

118,866. CERTAIN NAMED KNITTED, NETTED, AND TEXTILE FABRICS. DERRYVALE LINEN COMPANY, New York, N. Y.
Filed March 20, 1917. Serial No. 102,289. PUBLISHED JULY 17, 1917.

118,867. NON-ALCOHOLIC BEVERAGE SOLD AS A SOFT DRINK. DRINK AND BE SOBER CO., INC., New York, N. Y.
Filed March 7, 1917. Serial No. 101,955. PUBLISHED AUGUST 7, 1917.

118,868. SMOKERS' PIPES. WILLIAM P. DUNHAM, New York, N. Y.
Filed June 14, 1917. Serial No. 104,438. PUBLISHED AUGUST 7, 1917.

118,869. CONTAINERS FOR TOILET ARTICLES. EISEMAN, KAISER & CO., Chicago, Ill.
Filed March 29, 1917. Serial No. 102,557. PUBLISHED JULY 31, 1917.

118,870. CHILDREN'S DRESSES. ELITE GARMENT COMPANY, INC., Syracuse, N. Y.
Filed May 9, 1917. Serial No. 103,669. PUBLISHED JULY 24, 1917.

118,871. EMBROIDERED PILLOW-CASES. SAMUEL FIX, New York, N. Y.
Filed June 1, 1917. Serial No. 104,181. PUBLISHED AUGUST 7, 1917.

118,872. CERTAIN NAMED UNDERWEAR OF KNITTED AND TEXTILE MATERIAL. THE FRIEDMAN COMPANY, New York, N. Y.
Filed March 23, 1917. Serial No. 102,375. PUBLISHED JULY 31, 1917.

118,873. SHOE-CLOTH. HENRY GITTERMAN & CO., New York, N. Y.
Filed May 17, 1917. Serial No. 103,888. PUBLISHED JULY 17, 1917.

118,874. CERTAIN NAMED LAUNDRY APPLIANCES AND MACHINES. GOLDMAN COSTUME COMPANY, New York, N. Y.
Filed January 24, 1917. Serial No. 100,881. PUBLISHED JULY 17, 1917.

118,875. CERTAIN NAMED FOODS. GOLDMAN COSTUME COMPANY, New York, N. Y.
Filed March 6, 1917. Serial No. 101,912. PUBLISHED JULY 17, 1917.

118,876. SHOES AND SANDALS MADE FROM LEATHER AND FABRIC. HAGERSTOWN SHOE & LEGGING CO., Hagerstown, Md.
Filed May 17, 1917. Serial No. 103,889. PUBLISHED JULY 31, 1917.

118,877. GLOVES. HARRIS-POLK HAT CO., St. Louis, Mo.
Filed July 9, 1917. Serial No. 104,929. PUBLISHED AUGUST 7, 1917.

118,878. GLOVES. HARRIS-POLK HAT CO., St. Louis, Mo.
Filed July 9, 1917. Serial No. 104,928. PUBLISHED AUGUST 7, 1917.

118,879. SILK FABRICS. M. HEMINWAY & SONS SILK CO., Watertown, Conn., and New York, N. Y.
Filed March 14, 1917. Serial No. 102,142. PUBLISHED JUNE 12, 1917.

118,880. SWEAT-BANDS FOR HATS. BRIGHAM HOPKINS CO., Baltimore, Md.
Filed June 2, 1917. Serial No. 104,212. PUBLISHED JULY 31, 1917.

118,881. ASBESTOS ROOFING. H. W. JOHNS-MANVILLE CO., New York, N. Y.
Filed May 10, 1917. Serial No. 103,694. PUBLISHED JULY 24, 1917.

118,882. ASBESTILE LIQUID CEMENT AND ASBESTILE FIBROUS MINERAL, COMBINED TO FORM ASBESTILE FLASHING AND ROOF CEMENT. H. W. JOHNS-MANVILLE CO., New York, N. Y.
Filed June 7, 1917. Serial No. 104,322. PUBLISHED JULY 24, 1917.

118,883. PIPES, CIGAR AND CIGARETTE HOLDERS, TOBACCO-POUCHES, CIGARETTE-PAPER, AND PIPE-CASES. KAUFMANN BROS. & BONDY, New York, N. Y.
Filed May 5, 1917. Serial No. 103,563. PUBLISHED AUGUST 7, 1917.

118,884. TABLE SAUCE TO BE USED WITH MEATS, CUTLETS, SHELL-FISH, SOUPS, SAUCES, SALADS. YASUTARO KAWAKAMI, Seattle, Wash.
Filed March 6, 1917. Serial No. 101,932. PUBLISHED MAY 22, 1917.

118,885. AGRICULTURAL GROUND LIMESTONE. KENTUCKY LITHOGRAPH STONE CO., Louisville, Ky.
Filed January 15, 1917. Serial No. 100,600. PUBLISHED JULY 31, 1917.

118,886. GROUND CLAMPS AND BUSHINGS. DAVID KILLOCH CO., New York, N. Y.
Filed May 8, 1917. Serial No. 103,622. PUBLISHED JUNE 19, 1917.

118,887. RAIN-COATS. KLING BROS. & CO., Chicago, Ill.
Filed May 11, 1917. Serial No. 103,720. PUBLISHED JULY 24, 1917.

118,888. SPICE-CABINETS. A. KREAMER INC., Brooklyn, N. Y.
Filed May 10, 1917. Serial No. 103,695. PUBLISHED JULY 17, 1917.

118,889. APRONS. THE E. B. KURSHEEDT APRON CO., Brooklyn, N. Y.
Filed June 2, 1917. Serial No. 104,222. PUBLISHED JULY 17, 1917.

118,890. COATS, TROUSERS, AND VESTS. LEOPOLD, SOLOMON & EISENDRATH, Chicago, Ill.
Filed May 4, 1917. Serial No. 103,521. PUBLISHED AUGUST 7, 1917.

118,891. DENTAL IMPRESSION-TRAYS. ROBERT H. LIEBERTHAL, New York, N. Y.
Filed April 9, 1917. Serial No. 102,832. PUBLISHED JULY 31, 1917.

118,892. CHILDREN'S, MEN'S, AND YOUNG MEN'S OUTER SUITS AND OVERCOATS AND LADIES' DRESSES, COATS, AND CLOAKS. H. M. LINDENTHAL & SONS, Chicago, Ill.
Filed April 16, 1917. Serial No. 103,027. PUBLISHED JULY 17, 1917.

118,893. CERTAIN NAMED ADHESIVES. WALLACE J. LUMLEY, Chicago, Ill.
Filed March 31, 1917. Serial No. 102,623. PUBLISHED JULY 24, 1917.

118,894. BOOTS AND SHOES MADE OF CERTAIN NAMED MATERIALS. W. H. MCELWAIN COMPANY, Boston, Mass.
Filed November 20, 1916. Serial No. 99,420. PUBLISHED JULY 31, 1917.

118,895. CERTAIN NAMED CLOTHING FOR MEN'S, BOYS', AND WOMEN'S WEAR. MACULLAR PARKER COMPANY, Boston, Mass.
Filed February 28, 1917. Serial No. 101,791. PUBLISHED AUGUST 7, 1917.

118,896. SILK PIECE GOODS. H. R. MALLINSON & CO., New York, N. Y.
Filed June 26, 1917. Serial No. 104,703. PUBLISHED AUGUST 7, 1917.

118,897. CERTAIN NAMED KNITTED, NETTED, AND TEXTILE FABRICS. ABRAHAM M. MALOUF, Salt Lake City, Utah.
Filed March 16, 1917. Serial No. 102,198. PUBLISHED JUNE 26, 1917.

118,898. CERTAIN NAMED CLOTHING FOR MEN, BOYS, WOMEN, AND CHILDREN. ABRAHAM M. MALOUF, Salt Lake City, Utah.
Filed March 16, 1917. Serial No. 102,199. PUBLISHED JUNE 19, 1917.

118,899. RUBBER AND COMPOSITION SOLES AND HEELS. THE MARATHON TIRE & RUBBER CO., Cuyahoga Falls, Ohio.
Filed June 20, 1917. Serial No. 104,560. PUBLISHED JULY 24, 1917.

118,900. RUBBER AND COMPOSITION SOLES AND HEELS. THE MARATHON TIRE & RUBBER CO., Cuyahoga Falls, Ohio.
Filed June 20, 1917. Serial No. 104,558. PUBLISHED JULY 24, 1917.

118,901. CERTAIN NAMED ARTICLES OF WEARING-APPAREL. MARGOT, Chicago, Ill.
Filed March 29, 1917. Serial No. 102,568. PUBLISHED JULY 17, 1917.

118,902. LADIES' COATS, OUTER SUITS, DRESSES, AND OUTER SKIRTS. LOUIS A. MENDELSON, New York, N. Y.
Filed May 22, 1917. Serial No. 104,011. PUBLISHED JULY 17, 1917.

118,903. CORDUROYS, PILE FABRICS, FUSTIANS, KHAKIS, VELVETEENS, AND COTTON PIECE GOODS. MERRIMACK MANUFACTURING COMPANY, Lowell, Mass.
Filed May 8, 1917. Serial No. 103,650. PUBLISHED AUGUST 7, 1917.

118,904. WOMEN'S LEATHER AND CANVAS SHOES. JAMES MILLAR, Chelsea, Mass.
Filed May 9, 1917. Serial No. 103,674. PUBLISHED AUGUST 7, 1917.

118,905. COTTON FABRICS KNOWN AS NAINSOOKS AND BATISTES. MILLS & GIBB CORPORATION, New York, N. Y.
Filed May 19, 1917. Serial No. 103,965. PUBLISHED JULY 17, 1917.

118,906. HAIR-NETS. MILLS & GIBB CORPORATION, New York, N. Y.
Filed May 25, 1917. Serial No. 104,079. PUBLISHED JULY 31, 1917.

118,907. CERTAIN NAMED CLOTHING FOR CHILDREN AND WORKMEN'S SHIRTS, OVERALLS, AND PANTS. VICTOR MONTWID & SON, Milwaukee, Wis.
Filed January 18, 1915. Serial No. 83,936. PUBLISHED JANUARY 30, 1917.

118,908. PURE COTTON BLANKETS. NASHUA MANUF'G COMPANY, Nashua, N. H.
Filed March 22, 1917. Serial No. 102,341. PUBLISHED AUGUST 7, 1917.

118,909. COMPOUND FOR CLOSING HOLES OR PUNCTURES IN PNEUMATIC TIRES. NATIONAL CHEMICAL CO., Clinton, Iowa.
Filed April 14, 1917. Serial No. 102,993. PUBLISHED JULY 24, 1917.

118,910. SHEETS AND PILLOW-CASES. NAUMKEAG STEAM COTTON CO., Salem, Mass.
Filed May 18, 1917. Serial No. 103,932. PUBLISHED JULY 24, 1917.

118,911. CERTAIN NAMED FEMALE WEARING-APPAREL. EDWD. NEWGASS, New York, N. Y.
Filed May 15, 1917. Serial No. 103,838. PUBLISHED JULY 17, 1917.

118,912. PIECE GOODS MADE OF SILK. NONOTUCK SILK COMPANY, Northampton, Mass.
Filed May 12, 1917. Serial No. 103,741. PUBLISHED JULY 17, 1917.

118,913. LEATHER BOOTS AND SHOES. CHARLES O. NORMANDY, Malden, Mass.
Filed June 13, 1917. Serial No. 104,427. PUBLISHED AUGUST 7, 1917.

118,914. NARROW FABRICS—VIZ., RIBBONS AND SILK PIECE GOODS. CLAUDIUS M. OFFRAY, New York, N. Y.
Filed April 12, 1917. Serial No. 102,909. PUBLISHED JULY 24, 1917.

118,915. DEVICES FOR PREVENTING SHOES FROM SLIPPING UP AND DOWN ON THE HEEL WHEN IN WEAR. PHILLIPS' PATENTS, LIMITED, London, England.
Filed February 12, 1917. Serial No. 101,338. PUBLISHED JULY 17, 1917.

118,916. GLUE. PROGRESSIVE GLUE CO., New York, N. Y.
Filed June 4, 1917. Serial No. 104,265. PUBLISHED AUGUST 7, 1917.

118,917. PORK SAUSAGE. JOHN H. RANSON, New York, N. Y.
Filed December 29, 1916. Serial No. 100,231. PUBLISHED MAY 22, 1917.

118,918. SILK PIECE GOODS AND COTTON AND SILK PIECE GOODS. REILING & SCHOEN INC., New York, N. Y.
Filed May 11, 1917. Serial No. 103,724. PUBLISHED AUGUST 7, 1917.

118,919. LINEN AND HALF-LINEN PIECE GOODS. REMY, SCHMIDT & PLEISSNER, New York, N. Y.
Filed June 16, 1917. Serial No. 104,468. PUBLISHED AUGUST 7, 1917.

118,920. WOMEN'S DRESSES. SASSY JANE MANUFACTURING COMPANY, Los Angeles, Cal.
Filed April 16, 1917. Serial No. 103,045. PUBLISHED JUNE 26, 1917.

118,921. CERTAIN NAMED MEN'S CLOTHING. FRANKLIN SIMON & CO. INC., New York, N. Y.
Filed May 11, 1917. Serial No. 103,715. PUBLISHED JULY 17, 1917.

118,922. CONFECTIONS. HUGH C. SMALL, Chicago, Ill.
Filed October 5, 1916. Serial No. 98,447. PUBLISHED NOVEMBER 21, 1916.

118,923. WOMEN'S GARMENTS FOR OUTER WEAR. M. E. SMITH & CO., INC., Omaha, Nebr.
Filed May 25, 1917. Serial No. 104,090. PUBLISHED AUGUST 7, 1917.

118,924. NON-ALCOHOLIC MALTLESS BEVERAGE SOLD AS A SOFT DRINK AND SYRUP FOR MANUFACTURE OF SAME. THE SYRUP PRODUCTS COMPANY, Baltimore, Md.
Filed April 23, 1917. Serial No. 103,231. PUBLISHED AUGUST 7, 1917.

118,925. OVERALLS AND WORK-CLOTHES—VIZ., WORK PANTS, SHIRTS, AND JUMPERS. NIMROD B. TICHENOR, New York, N. Y.
Filed March 23, 1917. Serial No. 102,391. PUBLISHED JULY 31, 1917.

118,926. OVERALLS AND WORK-CLOTHES—VIZ., WORK PANTS, SHIRTS, AND JUMPERS. NIMROD B. TICHENOR, New York, N. Y.
Filed March 26, 1917. Serial No. 102,469. PUBLISHED JULY 31, 1917.

118,927. CERTAIN NAMED MEN'S CLOTHING. UNITED DOLLAR SHIRT SHOPS, INCORPORATED, Pittsburgh, Pa.
Filed May 4, 1917. Serial No. 103,548. PUBLISHED JULY 31, 1917.

118,928. PNEUMATIC PILLOWS. UNITED STATES RUBBER COMPANY, New Brunswick, N. J., and New York, N. Y.
Filed July 6, 1916. Serial No. 96,376. PUBLISHED JULY 31, 1917.

118,929. CERTAIN NAMED DENTAL, MEDICAL, AND SURGICAL APPLIANCES. UNITED STATES RUBBER COMPANY, New Brunswick, N. J., and New York, N. Y.
Filed July 6, 1916. Serial No. 96,373. PUBLISHED JULY 31, 1917.

118,930. RUBBER CEMENT. UNITED STATES RUBBER COMPANY, New Brunswick, N. J., and New York, N. Y.
Filed July 6, 1916. Serial No. 96,374. PUBLISHED JULY 31, 1917.

118,931. RUBBER HORSESHOES AND HORSESHOE-PADS. UNITED STATES RUBBER COMPANY, New Brunswick, N. J., and New York, N. Y.
Filed July 6, 1916. Serial No. 96,375. PUBLISHED JULY 31, 1917.

118,932. RUBBER PAILS AND HAT-BAGS. UNITED STATES RUBBER COMPANY, New Brunswick, N. J., and New York, N. Y.
Filed July 6, 1916. Serial No. 96,377. PUBLISHED JULY 31, 1917.

118,933. CERTAIN NAMED CLOTHING. UNITED STATES RUBBER COMPANY, New Brunswick, N. J., and New York, N. Y.
Filed July 7, 1916. Serial No. 96,418. PUBLISHED AUGUST 7, 1917.

118,934. NETTINGS, VEILS, AND VEILINGS IN THE PIECE. E. & Z. VAN RAALTE, New York, N. Y. Filed August 9, 1916. Serial No. 97,228. PUBLISHED JULY 24, 1917.

118,935. CERTAIN NAMED WOMEN'S AND CHILDREN'S EMBROIDERED COTTON OR SILK GARMENTS. ROBERT VIEGELMANN, New York, N. Y. Filed May 15, 1917. Serial No. 103,852. PUBLISHED JULY 24, 1917.

118,936. MEN'S AND BOYS' LEATHER BOOTS AND SHOES. WROCK & SCHUELER, Detroit, Mich. Filed May 24, 1916. Serial No. 95,409. PUBLISHED NOVEMBER 14, 1916.

118,937. SUSPENDERS. JOSEPH ZIFF, Detroit, Mich. Filed June 7, 1917. Serial No. 104,331. PUBLISHED AUGUST 7, 1917.

LABELS

REGISTERED OCTOBER 9, 1917.

20,312.—*Title:* "'TRANSPAROSA' COMPLEXION GLYCERINE SOAP." (For Toilet Soap.) ARMOUR AND COMPANY, Chicago, Ill. Filed September 24, 1917.

20,313.—*Title:* "CARNATION." (For Milk Products and More Particularly Butter.) CARNATION MILK PRODUCTS COMPANY, Seattle, Wash. Filed July 13, 1917.

20,314.—*Title:* "HAVE SOME JUNKET!" (For Hansen's Junket Tablets.) CHR. HANSEN'S LABORATORY, INC., Hansen Islands, Little Falls, N. Y. Filed September 4, 1917.

20,315.—*Title:* "RITTWAGEN ALLASH KUMMEL." (For Allash Kummel.) A. E. RITTWAGEN, New York, N. Y. Filed June 14, 1917.

20,316.—*Title:* "THORNTON MINERAL WATER." (For Mineral Water.) THORNTON MINERAL SPRINGS COMPANY, Chicago, Ill. Filed August 24, 1917.

20,317.—*Title:* "THORNTON MINERAL WATER." (For Mineral Water.) THORNTON MINERAL SPRINGS COMPANY, Chicago, Ill. Filed September 21, 1917.

20,318.—*Title:* "THE O. V. HAND PAINTED PAPER DOLLS." (For Dolls.) CHARLES O. TUCKER, Boston, Mass. Filed July 16, 1917.

20,319.—*Title:* "DRY-CURE." (For Non-Intoxicating Cereal Beverages.) WALTER BROS. BREWING CO., Menasha, Wis. Filed August 20, 1917.

PRINTS

REGISTERED OCTOBER 9, 1917.

4,804.—*Title:* "IT IS CHEAPER TO BUY GOOD SOAP THAN NEW CLOTHES." (For Soap.) JAMES S. KIRK & COMPANY, Chicago, Ill. Filed August 4, 1917.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

EX PARTE JEPSON.

Decided September 26, 1917.

1. CLAIMS—INTRODUCTORY PHRASES—EFFECT OF.

Cases reviewed in which the introductory phrases of claims operated to limit the invention claimed.

2. SAME—RELATION OF THE OLD AND THE NEW ELEMENTS.

Old elements should not be catalogued with equal emphasis with the new. The claim should be so written as to make at once apparent a clear line of demarcation between the old structure and those elements which really constitute the invention.

3. SAME—SAME—DOUBLE FUNCTION.

The preamble of a claim may perform the double function of completing the setting of the real invention claimed and of also disclaiming the old parts of the apparatus, which constitute nothing but setting.

4. SAME—SAME—WHEN AND WHEN NOT LIMITATION.

The preamble may be an actual limitation if the real invention cannot exist apart from it, whereas if the real invention does not at all depend upon it then the preamble is a mere explanatory name and title.

5. SAME—REAL INVENTION SEPARATED FROM THE PREAMBLE.

When an applicant presents a claim, as in this case, which particularly points out his exact invention, there is nothing in the law to interdict his doing it by including the old parts of the structure in a preamble and set apart from the structure which constitutes the real invention.

REQUEST for instructions.

ELECTRICAL SYSTEM OF DISTRIBUTION.

Messrs. Kenyon & Kenyon for the applicant.

CLAY, *Assistant Commissioner:*

The file of this application is submitted by the Primary Examiner for instructions as to the proper form of the claim of the patent. The claims in question are drawn to an invention which consists in adding a certain solenoid-coil in certain relation to old and well-known apparatus for operating the lights of a car from a storage battery and charging the battery from a variable-speed generator driven from the axle of the car. They are worded as follows:

16. In an electrical system of distribution of the class wherein a variable speed generator charges a storage battery and when the battery becomes sufficiently charged a voltage coil becomes effective to regulate the generator for constant potential, the combination with said voltage coil of a coil traversed by current flowing to the battery which is acted upon by decreasing battery current to reduce the potential maintained constant by the voltage coil.

17. An electrical system of distribution wherein a generator charges a storage battery until the battery reaches some desired state of charge whereupon a voltage coil becomes effective to regulate the generator for constant potential, characterized by the fact that there is combined with said voltage coil a coil traversed by current flowing to the battery which is acted upon by decreasing battery current to reduce the potential maintained constant by the voltage coil.

The Examiner has objected especially to claim 16, because he considers—

that, under the decisions, the introductory phrase did not with certainty constitute a limitation of the claim,

whereas it is the rule that all elements necessary to the combination should be positively included. The Examiner agrees with the applicant that—

• • • the advantage of claims of the two forms indicated resides in the fact that where the invention consists in an improvement over existing combinations, such claims particularly point out the part or improvement, in its relation to the other parts, in such manner as to clearly indicate wherein the improvement over prior combinations resides. This greatly facilitates the consideration of claims.

Then he goes on to say that he recognizes the advantages of these types of claims and that his objection lies in the uncertainty as to the construction which the courts may hereafter put upon the claims. He quotes *ex parte Casler*, (90 O. G., 446; C. D., 1900, p. 5,) saying:

Under the court decisions the introductory phrase is not an element of the combination and does not limit the claim.

I think the advantages of the form of claims here submitted are so obvious that the only real question raised is whether they are permissible under the statute and the decisions, and behind that lies the question whether it is not more the duty of this Office to see to it that patents point out the nature of the invention than it is to undertake to have the claim worded so as to limit the elasticity with which courts may hereafter construe the claim.

All of the law on the subject is contained in Revised Statute section 4888, with the exception that section 4920 provides for defeating the patent if it is shown that the description and specification thereof—

contain less than the whole truth relative to his invention or discovery, or more than is necessary to produce the desired effect.

Section 4888 provides that the written description of the invention and the manner of using it shall be—

in such full, clear, concise, and exact terms as to enable any person skilled in the art • • •

to use it, and in the case of apparatus the inventor—

shall explain the principle thereof, and the best mode in which he has contemplated applying that principle, so as to distinguish it from other inventions; and he shall particularly point out and distinctly claim the part, improvement, or combination which he claims as his • • •.

The origin of these provisions throws light upon and emphasizes the importance of their meaning. Although our first law was enacted in 1790, the underlying ideas of it are derived from the English law. The famous "statute of monopolies" passed under James I in the seventeenth century for the purpose of eliminating monopolies by the king's

favor specifically excepted monopolies granted for "new manufactures, to the true and first inventor." In the eighteenth century the inventor was required—

to describe and ascertain the nature of the said invention and what manner the same is to be performed;

and from then on it was recognized that it was the patentee's duty to define his invention. There was no requirement for a specific claim for a long time afterward, and even yet no laws or court decisions have undertaken to specify any particular form of claim.

The early English law was largely judge-made law. As late as 1816 some of the courts held that whatever the patentee showed in his drawing was claimed as his invention. (*Boville* v. *Moore*, C. P. N. P., Mar. 1, 1816.) It followed that patents were often held void on the ground of fraud because they claimed things as new which in fact were old. Thereupon patentees began to disclaim what was old, and this custom extended so far that large parts of the specification were composed of disclaimer. It was to correct this clumsy form probably that the specific claim was invented. An early example is in the British Patent No. 3,873 of 1815, adjudicated in *Rex* v. *Cutler*, (K. B. N. P., Trinity term, 1816.) The patentee had not only stated what part of the described stove-grate was old, but went on to specify wherein "the amount of my invention doth consist."

The first two acts of Congress in 1790 and 1793 made no provision about a claim, although the act of 1790 provided in section 2 that the—

specification shall be so particular * * * as not only to distinguish the invention or discovery from other things before known and used, etc.

In section 6 there was also a provision like that now found in section 4920.

The act of 1793 added to substantially the same provision as that last above quoted the provision (sec. 3) that the inventor "shall fully explain the principle" and how he applies the—

principle or character, by which it may be distinguished from other inventions * * *.

This statute, which antedates the requirement for what we now call the claim, provides for interferences, (sec. 9,) and this of course emphasizes the necessity for an exact definition of the invention. The habit of inserting a specific claim in patents and the doctrine that the patentee was bound by the "claim" long preceded the requirement of a claim by law. (See *Moody* v. *Fiske*, 1320; 2 Mas., 112; F. C., 9745.)

The act of 1836, establishing the Patent Office and providing for novelty searches, provides in section 6 that the written description of the invention and how to use it shall be—

in such full, clear, and exact terms, *avoiding unnecessary prolixity*, as to enable any person skilled in the art * * *

to make and use it, and in the case of apparatus to "fully explain the principle" and—

application of that principle or character by which it may be distinguished from other inventions; and shall particularly specify and point out the part—

which is his.

The consolidated act of 1870, as revised in 1874 and substantially as it now stands, carries at various points language clearly intended to require as one of the essentials of a valid patent a definition of the invention written in such a way as to put beyond question the distinction between what was old and what was new. As to how the line between the old and the new was to be drawn it was apparently the underlying idea that the claim should itself constitute a discrimination between the old and new by stating only what were the necessary parts of the new combination. Whether it is always possible in the present state of invention to do this I think is an open question. The court decisions, however, are full of criticisms of the now prevalent habit of writing claims in the form of a mere catalogue of elements some of which are old and some of which are new, without any grouping or distinction between the old and the new. A preamble which simply refers to another claim to explain the connection in which the claimed structure is used, as a means of more distinctly pointing out the invention, was approved in *ex parte Brown*, (235 O. G., 1355;) but apparently no decision has discussed the broad question of the legal effect of the preamble in general, and since very few court decisions have dealt with the form of the claim at all it may be profitable to discuss the matter more fully here.

I think it cannot be said flatly that the preamble of a claim never limits the invention claimed. The fact is that courts always undertake to construe any claim in such a way as to confine the inventor, on the one hand, to what he really invented and, on the other hand, to hold the defendant if he has really infringed. (See *Winans* v. *Denmead*, 15 How., 330, at p. 343.) The courts do sometimes read elements into the claim and sometimes read elements out of the claim for this purpose. In most of the cases where the court has said, in effect, that the preamble does not import a limitation it will be found that this is because the preamble does not state any limitation or any structure.

In *Diamond Drill Co.* v. *Kelly*, (120 Fed. Rep., 289,) when the court said, at page 293, that the words—

In a wire-coil machine, substantially as described * * * carry nothing into (the claim) which is not specifically enumerated there,

it probably meant merely that those words themselves describe nothing. It had, in fact, just stated that the claim was "saved by the use" of the defined structure, which amounts to saying that the claim sets forth an invention because of this very introductory clause specifying that the described structure was used in a wire-coil machine.

In *Ide* v. *Ball Co.* (149 U. S., 550) the Supreme Court obviously considered the preamble of the claim—

In a flywheel governor, the combination with relatively moving parts, of a dash pot, etc.—

to be a limitation of the invention. It substantially said so. (middle of page 555.). Also in *Busch* v. *Jones* (184 U. S., 598) it sustained a patent which distinguished from the prior art by reason of the preamble:

The first four claims of the patent * * * describe the elements, "In a printer's and bookbinder's dry press and sheet tie * * *."

In *Motion Picture Patents Co.* v. *Independent Moving Pictures Co.* (200 Fed. Rep., 411) the court held a claim to be limited to a moving-picture projector and not to cover a camera, notwithstanding its language was not so limited, and this apparently because the specification showed that the real invention was a projector. Though there is a strong dissenting opinion by Judge Coxe, it will be noted that both the opposed opinions assumed that it was the preamble in the original claim—"In a projecting kinetoscope"—which would impose the limitation.

In *Marconi* v. *De Forest* (236 Fed., Rep., 942) claims were held limited not only by their preambles (claim 37) but limited by a separate disclaimer not found in the claim itself at all, (claim 1.)

The Supreme Court in *McCarty* v. *Railroad Co.* (160 U. S., 110, at p. 116) clearly states that limitations may be read into a claim for some purposes and not for others.

While this may be done with a view of showing the connection in which a device is used, and proving that it is an operative device, we know of no principle of law which would authorize us to read into a claim an element which is not present, for the purpose of making out a case of novelty or infringement.

In *Stearns* v. *Russell*, (85 Fed. Rep., 218,) citing the last case above, Judge Taft specifically shows that a preamble—"In pill-dipping mechanism"—defines the useful purpose of the structure specified, although it does not import any particular structure of the pill-dipping mechanism. In this case if these words had imported such structure it would have made the claim an aggregation, for the court said the patent was "for a pill-holding device, and nothing else," (p. 224.) The court in fact did import limitation by the preamble, since the very point discussed and decided was whether it was invention to conceive of the use of a prior paper-carrying device in a pill-dipping device and apply it to that art, (p. 226,) while the preamble was the only place in the claim which mentioned pill-dipping.

From a review of the cases it seems to me it is not the function of the Patent Office, as it is of the courts, to undertake to control the elasticity of the language of the claim. It is the duty of the Examiner to see that the invention is particularly pointed out, so that there can be no misunderstanding as to what part is old structure and what part is new. He should see that the claim is so written as to define the real invention with distinctness, leaving it to the court to decide how much of the supporting structure of the invention is essential to complete the organism. The real question here is whether it conduces to a clear and distinct pointing out of the invention if the supporting structure be specified in the form of a preamble sharply separated and distinguished from what is the description of the real invention.

When the Commissioner said in *ex parte Casler* (90 O. G., 446) that the introductory phrase does not limit the claim, he said so as a reason for classifying a patent according to the essential invention and not according to an incidental use of it set up by the preamble. When the court in *Sly* v. *Russell Co.* (189 Fed. Rep., 61) cited this case to the point that the introductory phrase is not an element of the claim, it added "and does not *necessarily* limit the claim," thereby apparently saying that the claim might be limited even by something not an element of the claim.

If an invention could be defined in complete and operable form by simply stating its new elements or combinations alone, mentioning nothing of the old art, the problem would be easy and the rule could be absolute that no preamble imported any limitation into the claim. Indeed, no preamble would be needed. But the fact is that in many complicated inventions, and especially inventions which are mere improvements added to old structures, no complete statement of structure can be made without reference to something that is old. In the instant case the fundamental structure was all old and the invention resided in the use of a particular coil in a particular relation. In order that the use of this coil be made clear, it is necessary to state with what it coacts and how its function affects the function of other apparatus which was old. The whole apparatus upon which the applicant's invention is engrafted is not a part of his invention, and yet it must be considered and is as essential as the pedestal of a statue is essential to the statue, although it is no part of it.

I agree with the applicant's contention that the old elements should not be catalogued with equal emphasis with the new and that the claim should be so written as to make at once apparent a clear line of demarcation between the old structure and those elements which really constitute the invention. The case of *ex parte Casler*, above cited, well illustrates by its whole tenor the necessity of so doing. What the Commissioner said, in effect, was that a claim for a telephone structure does not in fact include coin-controlled apparatus merely because it opens with a phrase which says that the invention is used in connection with coin-controlled apparatus. In the decision elsewhere it is said that any claim for a structure of the telephone "which would be useful only in a coin-controlled device" should be classified with the coin-controlled apparatus, (p. 8.) In that case the words "coin-controlled apparatus" should not be in the introductory clause, because they are an essential part of the new combination being claimed. This case emphasizes the fact that the essential invention is to be determined irrespective of the introductory clause. In *Sly* v. *Russell*, *supra*, which quoted this case of *ex parte Casler*, the court was speaking of a claim which it had been at great pains to show was not intended to be limited to a crusher merely because it began with the words "In a rotary crusher." The claim was "construed as covering

both the crushing and separating elements," (p. 66,) and further said that it would have been—

entirely proper to have styled the device either a crusher or a separator.

The introductory phrase was, in fact, merely a name, and it did not describe any apparatus. I think it was in this sense that the court said it was not an element of the combination.

In the *Corn-Planter Case* (23 Wall., 181,) wherein the Supreme Court said that in a claim—

no particular form of words is necessary if the meaning is clear,

claims were upheld which themselves contained contradistinctions from the old art and purely functional statements and made limitations of the claimed structure which were, in fact, not stated at all. This early case announced the familiar doctrine that when the inventor claimed certain elements of structure he impliedly disclaimed all other parts of the thing described. I can see no reason why the preamble of the claim should not perform the double function of completing the setting of the real invention claimed and also disclaiming the old parts of the apparatus, which constitute nothing but setting. This is, in effect, what this applicant attempts to do. I have no doubt it would meet with the approval of the courts, because it seems to me nothing can be so important as to remove all uncertainty as to the exact location of the forbidden field covered by a patent. The Supreme Court very early emphasized this duty in *Evans* v. *Eaton*, (7 Wheat., 336.)

In *Forsyth* v. *Garlock* (142 Fed. Rep., 461) Judge Putnam suggests and illustrates the value of a preamble to a claim as a limitation thereof. The patented invention was a pliable mat structure, used for steam-packing, and consisted of alternate sheets of metal and rubber. In considering the bearing of a certain reference, which showed a foot-mat having a weighted border of like construction, the court remarked that if the patentee had made no reference to matting in his specification, and in the claim, instead of simply specifying—

a sheet material made up * * * in a particular way, had commenced with the words "In gaskets or steam packing," or something of that nature, the view on which we have considered the case would easily be sustained, and the (reference) patent could not become material.

The reference structure did not suggest steam-packing, and it might well be that the adaptation of the material used as a border in the reference mat to use as steam-packing was a part of the inventive act. This case, although it was a case unlike the case at bar in that the preamble stated a use and not a supporting structure, yet shows how the preamble of a claim is very properly a part of it for the purpose of stating the use which is part of the invention, even though it does not import any structure into the claim. The preamble may be an actual limitation if the real invention cannot exist apart from it, whereas if the real invention does not at all depend upon it then the preamble is a mere explanatory name and title.

The common German and English practice is to state briefly the old general structure in the claim, followed by such an expression as "characterized by" the certain particular structure which constitutes the patentee's invention. This language is much like that in our own statutes of 1790 and 1836—"that principle or character by which it may be distinguished." In the particular case before me I think this form of claim makes it unnecessary to analyze the claim in order to find out what is the life and essence of the invention. The claim is at once self-analyzing and self-classifying and, above all, it does what to my mind is the primary requirement of the statute and the essential condition of the contract between the inventor and the public—namely, it points out what parts of the described apparatus are and what parts are not the subject-matter of the patent monopoly. I see no real basis for the Examiner's expressed fear that such a form of claim for apparatus might leave it open to the patentee to contend that the structure in the preamble is or is not a limitation of the patented invention, as he may find convenient. On the contrary, the placing in the preamble of those parts of the structure which are admittedly old makes it doubly certain that they are not of the essence of the invention, whether or not they must necessarily be present in order to make the function or structure of the invented apparatus complete. This latter question the courts must be left to decide.

To my mind many of the present difficulties of our patent system, including the difficulty of classification and of avoiding errors in declaring interferences, would virtually disappear if inventors could be induced to confine their descriptions to the essential invention and its necessary setting and their claims to a particular and distinct pointing out of the invention itself as distinguished from the setting. When an applicant presents a claim, as in this case, which does particularly point out his exact invention, there is certainly nothing in the law to interdict his doing it by including the old parts of the structure in a preamble and set apart from the structure which constitutes the real invention.

The Examiner is instructed that the proposed forms of claims are proper and should be admitted.

ADJUDICATED PATENTS.

(U. S. C. C. A.) The Melber patent, No. 660,518, for concrete and steel construction, *Held* not infringed. *Melber* v. *School Dist. of Pittsburgh*, 243 Fed. Rep., 196.

(U. S. C. C. A.) The Melber patent, No. 672,175, for concrete and steel construction, claims 8, 9, 10, and 11 *Held* void as too broad. *Melber* v. *School Dist. of Pittsburgh*, 243 Fed. Rep., 196.

(U. S. C. C. A.) The Carichoff patent, No. 763,658, for a controller for electric motors, claim 7 *Held* not anticipated, valid, and infringed. *General Electric Co.* v. *Electric Controller & Mfg. Co.*, 243 Fed. *Rep.*, 188.

(U. S. C. C. A.) The Singer patent, No. 880,410, for a combined carton and display device, claim 1 *Held* void for lack of invention. *Singer* v. *American Druggist Syndicate*, 243 Fed. Rep., 201.

(U. S. C. C. A.) The Carper patents, Nos. 1,012,984 and 1,120,596, for bottling-machines, *Held* valid and infringed. *Carper* v. *Crown Cork & Seal Co. of Baltimore City*, 243 Fed. Rep., 200.

THE
OFFICIAL GAZETTE
OF THE
United States Patent Office.

Vol. 243—No. 3. TUESDAY, OCTOBER 16, 1917. Price—$5 per year.

The OFFICIAL GAZETTE is mailed under the direction of the Superintendent of Documents, Government Printing Office, to whom all subscriptions should be made payable and all communications respecting the Gazette should be addressed. Issued weekly. Subscriptions, $5.00 per annum; single numbers, 10 cents each.

Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

CONTENTS.

	Page.
ISSUE OF OCTOBER 16, 1917	529
INTERFERENCE NOTICES	529
ADJUDICATED PATENTS	529
APPLICATIONS UNDER EXAMINATION	530
PATENTS GRANTED	531
REISSUES	767
DESIGNS	768
TRADE-MARKS—REGISTRATION APPLIED FOR	777
TRADE-MARK REGISTRATIONS GRANTED	789
LABELS AND PRINTS	792
DECISIONS OF THE U. S. COURTS—	
Simplex Electric Heating Company v. The Ramey Company	793
E. I. du Pont de Nemours Powder Company *et al. v.* Masland *et al*	795

Issue of October 16, 1917.

Patents	776	No. 1,242,903 to No.	1,243,678,	inclusive.
Designs	44	No. 51,361 to No.	51,404,	inclusive.
Trade-Marks	76	No. 118,938 to No.	119,013,	inclusive.
Labels	14	No. 20,320 to No.	20,333,	inclusive.
Prints	9	No. 4,805 to No.	4,813,	inclusive.
Reissues	2	No. 14,376 to No.	14,377,	inclusive.
Total	921			

"Shall we be more tender with our dollars than with the lives of our sons?"—W. G. McAdoo, Secretary of the Treasury.

SAVE YOUR MONEY

to

BUY A U. S. GOVERNMENT BOND

of the

SECOND LIBERTY LOAN

of 1917

To Help Your Country and Yourself.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 5, 1917.

James M. Borland, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of William Henry King, of 44 Clinton street, Newark, N. J., for registration of a trade-mark and trade-mark registered August 25, 1908, No. 70,331, to James M. Borland, of 211 Fifth avenue, McKeesport, Pa., and a notice of such declaration sent by registered mail to said James M. Borland at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said James M. Borland, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD,
First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., September 29, 1917.

Robert C. Hupp, 2nd, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The C. L. Cotton Perfume & Extract Co., 205 East Main street, Kariville, N. Y., for registration of a trade-mark and trade-mark registered March 4, 1902, No. 87,891, to Robert C. Hupp, 2nd, of Detroit, Mich., and a notice of such declaration sent by registered mail to said Robert C. Hupp, 2nd, at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Robert C. Hupp, 2nd, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

F. W. H. CLAY,
Assistant Commissioner.

ADJUDICATED PATENTS.

(U. S. C. C. A.) The Volz patent, No. 736,037, for a bottle-soaking machine, *Held* void for anticipation. *Twentieth Century Machinery Co.* v. *Loew Mfg. Co.*, 243 Fed. Rep., 373.

(U. S. C. C. A.) The Schade patent, No. 819,461, for a loose-leaf binder, in view of the prior art is void for lack of invention. *Lemley* v. *Dobson-Evans Co.*, 243 Fed. Rep., 391.

(U. S. D. C.) The Nayer and Perkins patent, No. 986,590, for a rind-removing knife for meat-slicing machines, *Held* valid, but not infringed by the device of the Stiles patent, No. 1,028,796. *Wolf, Sayer & Heller* v. *U. S. Slicing Mach. Co.*, 243 Fed. Rep., 410.

(U. S. C. C. A.) The Adler and Sullivan patent, No. 991,187, for spring construction, *Held* not infringed. *Jackson Cushion Spring Co.* v. *Adler*, 243 Fed. Rep., 386.

(U. S. D. C.) The Stiles patent, No. 1,028,794, for a rind-removing knife for meat-slicing machines, *Held* valid and infringed. *Wolf, Sayer & Heller* v. *U. S. Slicing Mach. Co.*, 243 Fed. Rep., 410.

(U. S. D. C.) The Stukart patent, No. 1,060,210, for a grinding apparatus for meat-slicing knives. *Held* not infringed. *U. S. Slicing Mach. Co.* v. *Wolf, Sayer & Heller*, 243 Fed. Rep., 412.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business October 12, 1917.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended.	No. of applications awaiting action.
314	1. Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Railway Gates; Planting; Scattering Unloaders; Trees, Plants, and Flowers.	July 23	Aug. 14	376
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	May 31	July 30	348
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Founding; Metallurgical Apparatus; Metallurgy; Plastic Metal Working.	Sept. 21	Sept. 6	152
284	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Pushing and Pulling Implements; Railway Mail Delivery; Store-Service; Traversing Hoists.	Aug. 18	Sept. 18	146
167	5. Bookbinding; Harvesters; Jewelry; Music	July 11	July 13	292
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Substance Preparation.	Apr. 19	June 18	481
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes	May 23	July 2	694
133	8. Beds; Chairs; Flexible-Sheet Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	June 4	Aug. 27	668
221	9. Air and Gas Pumps; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Marine Propulsion.	Apr. 9	Sept. 22	530
235	10. Carriages and Wagons; Motor Vehicles	May 7	Aug. 7	840
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Spring Devices; Whips and Whip Apparatus.	July 2	Sept. 10	224
322	12. Journal-Boxes, Pulleys, and Shafting; Machine Elements	June 6	July 11	656
329	13. Ammunition and Explosive Charge, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	June 19	Aug. 20	509
323	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	July 5	July 20	270
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Aug. 22	Sept. 12	285
112	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony	May 7	Aug. 24	465
307	17. Ornamentation; Paper Manufactures; Printing; Type Casting; Sheet Material Associating or Folding; Sheet Feeding or Delivering; Type Setting.	July 13	Aug. 17	122
229	18. Fluid-Pressure Regulators; Injectors and Ejectors; Liquid Heaters and Vaporizers; Lubrication; Miscellaneous Heat-Engine Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	July 7	Sept. 1	267
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels	May 16	July 30	472
179	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Sept. 12	Sept. 1	240
212	21. Brakes and Gins; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Apr. 12	June 25	340
249	22. Aeronautics; Firearms; Ordnance	May 21	Aug. 27	311
219	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	June 8	Jan. 2	343
144	24. Apparel; Apparel Apparatus; Sewing-Machines; Garment Supporters	Aug. 8	Aug. 16	280
315	25. Agitating; Butchering; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separation.	Aug. 8	Aug. 14	144
105	26. Electricity, Generation; Motive Power	Mar. 7	Mar. 31	608
214	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus	July 14	Sept. 4	325
225	28. Internal-Combustion Engines	July 12	July 26	564
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking Tools.	June 5	July 23	334
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines	July 2	Sept. 22	362
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Sugar and Salt.	Aug. 3	Aug. 29	192
278	32. Dispensing Beverages; Dispensing; Gas and Liquid Contact Apparatus; Heat Exchange; Packaging Liquids; Refrigeration.	Mar. 14	Aug. 22	968
70	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	Aug. 3	Aug. 31	226
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling Stock; Railway Ties and Fasteners.	June 29	Sept. 11	210
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Signals; Toilet	May 9	Aug. 1	596
204	36. Driers; Geometrical Instruments; Measuring Instruments; Photography; Force Measuring	July 3	Sept. 4	637
107	37. Electric Lamps; Electricity, Circuit Makers and Breakers; Electricity, Conduits; Electricity, General Applications.	May 22	July 12	634
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells	Sept. 19	Sept. 7	159
220	39. Water Distribution; Multiple Valves	May 2	July 20	453
275	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	July 5	Sept. 21	410
125	41. Railway Draft Appliances; Resilient Tires and Wheels	June 23	Aug. 15	376
114	42. Electricity, Conductors; Railway Signaling; Electricity-Transmission to Vehicles; Electric Signaling.	Apr. 21	July 25	651
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Aug. 6	Aug. 29	154
253	44. Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Ships	June 6	Sept. 15	427

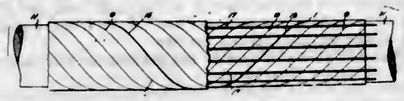
Oldest new case, Mar. 7; oldest amended, Jan. 2.
Total number of applications awaiting action 17,831

163	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Aug. 10	Aug. 28	984
	Designs	Sept. 18	Oct. 1	179
	Labels and Prints	Oct. 4	Oct. 4	57

PATENTS

GRANTED OCTOBER 16, 1917.

1,242,903. TUBE. EDWARD H. ANGIER, Framingham, Mass. Filed Nov. 13, 1914. Serial No. 872,010. (Cl. 93—94.)



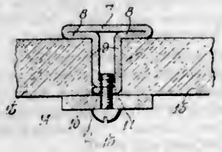
1. A tube comprising a plurality of layers, each comprising spirally-wound, ribbon-like strips, 3, 5, an adhesive layer between said strips, and spirally-wound tension threads 9 in said adhesive layer; an adhesive layer 19 between said layers, and a waterproof coating for the entire tube.

2. A tube comprising oppositely wound spiral layers, each comprising ribbon-like strips, 3, 5, a waterproof adhesive layer 7 between said strips, and tension threads 9 embedded in said adhesive layer; and an adhesive layer 19 between said layers.

3. A tube comprising a plurality of layers, each comprising spirally wound strips 3, 5, with a waterproof layer 7 between them, and an adhesive layer 19 between said first-named layers.

4. A tube comprising a plurality of layers, each comprising spirally wound strips 3, 5, with a waterproof layer 7 between them, and an adhesive layer 19 between said first-named layers having tension threads 17 therein.

1,242,904. GLAZING-BAR. FRED W. ASHBY, Chicago, Ill., assignor to Winslow Brothers Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 9, 1915. Serial No. 65,914. (Cl. 189—78.)



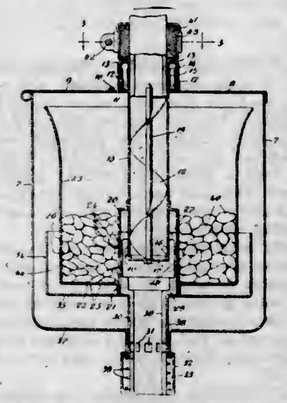
1. In a glazing bar, a sheet of material having a base portion, said sheet being folded longitudinally on the base portion and away from the same, the folded portions extending parallel to each other and in spaced relation, the free margins thereof being bent to overlap and provided with alining openings, a retainer plate, and a plurality of cap-screws for engagement to said plate with said openings.

[Claim 2 not printed in the Gazette.]

1,242,905. SOAP-HOLDING DEVICE. JAMES K. ATKINSON, Brooklyn, N. Y. Filed Apr. 25, 1917. Serial No. 164,470. (Cl. 45—28.)

1. In a device of the character specified, in combination, a casing, a foraminous soap-holder revoluble within the casing, means for passing water through the soap-holder and the casing, means whereby the flow of the water will revolve the soap-holder, and means for attaching the device to a source of water supply.

2. In a device of the character specified, in combination, a casing, a foraminous soap-holder revoluble within the casing, means for passing water through the casing, means for diverting the flow of water into and through the soap-holder, means whereby the flow of water will revolve the soap-holder, and means for attaching the device to a source of water supply.



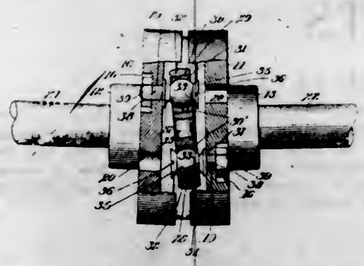
3. In a device of the character specified, in combination, a casing, means for attaching the casing to a source of water supply, a tube having a series of ports, the tube being within the casing and connected to the water supply, means whereby the flow of water through the tube will revolve it, a soap-holder having a series of ports surrounding the tube and integral therewith, a second tube having a series of ports slidably movable between a portion of the soap-holder and the first tube, and means whereby the movement of the slidable tube will cause water to pass or not to pass through the soap-holder as desired.

4. In a device of the character specified, in combination, a casing, a foraminous soap-holder revoluble within the casing, means for passing water through the casing, means for diverting the flow of water into and through the soap-holder, means whereby the soap holder will be continuously immersed in water within the container, means whereby the flow of water will revolve the soap-holder, and means for attaching the device to a source of water supply.

6. In a device of the character specified, in combination, a casing, means for attaching the casing to a source of water supply, a tube within the casing having a series of ports and connected to the water supply, a soap-holder integral with and surrounding the tube, said holder having foraminous walls and a series of ports in the wall adjacent to the tube, a slidable tube between the soap-holder and the first tube and having a series of ports, the ports in the various members being so situated that one position of the slidable tube will allow water to pass from the first tube through the holder and the casing, and another position of the slidable member will prevent water from entering the holder and allow it to pass through the casing, a receptacle around the holder to maintain water therein, spiral means within the first tube whereby the flow of the water will revolve the holder and means whereby the slidable member may be retained in predetermined positions.

[Claim 5 not printed in the Gazette.]

1,242,906. SHAFT-COUPLING. BENJAMIN F. AUGUSTINE, Buffalo, N. Y. Filed July 24, 1916. Serial No. 111,053. (Cl. 64—13.)



1. A shaft coupling comprising coupling members, each cup-shaped in form and each provided with equi-distant recesses in its outer face with screw-threaded apertures leading inwardly from the recesses and each also having apertures arranged between the aforesaid recesses, links disposed between the coupling members, each having a perforated head, a bored ball rotatably mounted in each head of each link, and bolts passed through the bores of the balls and connecting the ends of each link to opposite coupling members.

2. A shaft coupling comprising cup shaped coupling members, links arranged between said coupling members, a ball rotatably mounted in each end of each link, and adjustable bolts mounted in each coupling member and extending therethrough on which the rotatably mounted balls are journaled, said coupling members having a plurality of apertures through which said bolts are adapted to be adjusted.

3. A shaft coupling comprising cup-shaped coupling members, links arranged between said members, a ball rotatably mounted in each end of each link, a wear ring interposed between each ball and link, and bolts mounted in said coupling members on which said rotatably mounted balls are journaled.

4. A shaft coupling comprising cup-shaped coupling members, links arranged between said members, a ball rotatably mounted in each end of each link, bolts mounted in each coupling member and extending therethrough and each having a conical head on its inner end, and a cone bearing mounted on each bolt, said rotatably mounted balls being journaled on the inner ends of said bolts, said conical head and cone bearing forming bearings for said balls.

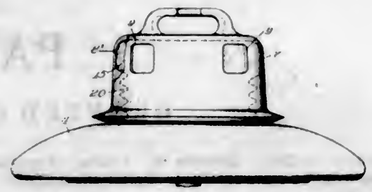
5. A shaft coupling comprising coupling members, links arranged between said members, adjustable bolts mounted in said coupling members, a universal connection between said bolts and each end of each link, and a jam nut mounted on one end of each bolt, each bolt having a conical head provided with a notch therein, said coupling members having apertures extending therethrough in alinement with said bolts, whereby said bolts may be adjusted with reference to the universal connection by means of tools inserted through said apertures.

[Claim 6 not printed in the Gazette.]

1,242,907. INSULATOR. ARTHUR O. AUSTIN, Barberton, Ohio, assignor to The Ohio Brass Company, Mansfield, Ohio, a Corporation of New Jersey. Filed May 12, 1916. Serial No. 96,991. (Cl. 173—318.)

1. In an insulator of the class described, a metal suspension cap having a predetermined weakened portion which will give under pressure before other portions of the cap.

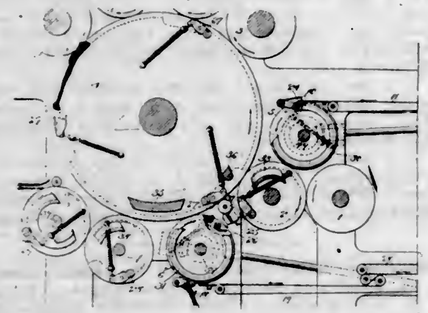
5. In an insulator of the class described, a metal suspension cap having a cup-shaped attachment portion, formed with a thin portion at a distance from the edge of the said attachment portion and with perforations at spaced distances apart from the edge of the said portion, and an insulating member secured within the said attachment portion.



11. A metallic suspension cap for an insulator having a plurality of perforations at a distance from the edge thereof to relieve the pressure due to the relative expansion of any material within the cap.

[Claims 2 to 4 and 6 to 10 not printed in the Gazette.]

1,242,908. ROTARY PERFECTING SHEET-PRINTING MECHANISM. HOWARD M. BARBER, Stonington, Conn., assignor, by mesne assignments, to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of Delaware. Filed Jan. 22, 1913. Serial No. 743,553. (Cl. 101—174.)

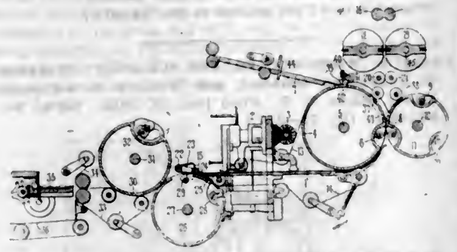


1. In a rotary perfecting sheet printing machine, printing mechanisms for printing on both sides of a sheet including first impression and plate cylinders and second impression and plate cylinders, a printing sheet feeding cylinder arranged to feed a sheet to the first impression cylinder and a slip sheet feeding cylinder arranged to feed a slip sheet directly to the second impression cylinder, the first impression cylinder being arranged to transfer the first side printed sheet to the second impression cylinder on top of the said slip sheet.

2. In a rotary perfecting sheet printing machine, printing mechanisms for printing on both sides of a sheet including first and second impression cylinders, a printing sheet feeding cylinder arranged to feed a sheet to the first impression cylinder and a slip sheet feeding cylinder arranged to feed a sheet to the second impression cylinder, the first impression cylinder being arranged to transfer the first side printed sheet to the second impression cylinder on top of the said slip sheet, the second impression cylinder being arranged to carry the two sheets through the second printing operation and deliver them together.

1,242,909. SHEET CUTTING, STITCHING, AND FOLDING MACHINE. HOWARD M. BARBER, Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of Delaware. Filed Feb. 11, 1915. Serial No. 7,613. (Cl. 270—38.)

1. A stitcher mechanism, means for collecting a plurality of sheets, means for feeding said collection to the stitcher mechanism at a certain speed, means for arresting the movement of the collection during the stitching operation and means for removing the stitched collection from the stitcher mechanism at a speed less than its feeding in speed.



2. A stitcher mechanism, means for collecting a plurality of sheets, means for feeding said collection to the stitcher mechanism at a certain speed, means for arresting the movement of the collection during the stitching operation, means for removing the stitched collection from the stitcher mechanism at a speed less than its feeding in speed, and means for folding and delivering the said stitched collection.

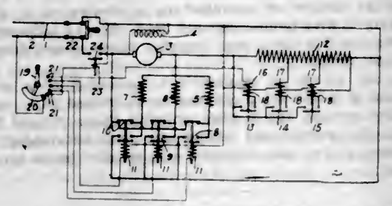
3. A stitcher mechanism, means for collecting a plurality of sheets, means for feeding said collection to the stitcher mechanism at a certain speed, means for arresting the movement of the collection during the stitching operation and rotary means including grippers for positively removing the stitched collection from the stitcher mechanism at a speed less than its feeding in speed.

4. A stitcher mechanism, means for collecting a plurality of sheets, means for feeding said collection to the stitcher mechanism at a certain speed, means for arresting the movement of the collection during the stitching operation, rotary means including grippers for positively removing the stitched collection from the stitcher mechanism at a speed less than its feeding-in speed, and means for folding and delivering said stitched collection.

5. A stitcher mechanism, means for collecting a plurality of sheets from different sources, means for feeding said collection to the stitcher mechanism at a certain speed, means for arresting the movement of the collection during the stitching operation and means for removing the stitched collection from the stitcher mechanism at a speed less than its feeding in speed.

[Claims 6 to 12 not printed in the Gazette.]

1,242,910. MOTOR-CONTROL SYSTEM. HOWARD L. BEACH, Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Aug. 6, 1915. Serial No. 43,994. (Cl. 172—179.)



1. In a motor-control system, the combination with an electric motor, and a plurality of resistors in parallel relation to the armature of said motor, of means for successively connecting said resistors in series relation to the motor armature and in parallel relation to each other.

2. In a motor-control system, the combination with an electric motor, and a plurality of resistors in parallel relation to the armature of said motor and in parallel relation to each other, of means for successively connecting said resistors in series relation to said armature and in parallel relation to each other.

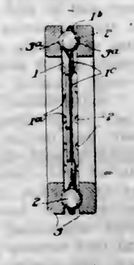
3. In a motor-control system, the combination with a shunt-wound electric motor, a resistor in series relation to the motor armature, and a second resistor in parallel relation to said armature and in series relation to the other resistor, of means for successively connecting the second resistor in series with the motor armature and in parallel relation to the other resistor and shunting said other resistor.

4. In a motor-control system, the combination with a shunt-wound electric motor and a resistor, of means operable, according to its position, to connect said resistor either in parallel or in series relation to the armature of said motor, and means for controlling said connecting means.

5. In a motor-control system, the combination with an electric motor, and two circuits that are respectively in series and in parallel relation to the armature of said motor and in series relation to each other, of a resistor, and means for transferring said resistor from one circuit to the other.

[Claims 6 to 9 not printed in the Gazette.]

1,242,911. ANTIFRICTION-BEARING. FRANK BEEMER, Philadelphia, Pa., assignor to Nice Ball Bearing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 6, 1915. Serial No. 6,427. (Cl. 64—59.)



1. A ball bearing comprising a hollow annular retainer that is diamond-shape in cross-section, the inclined sides of the retainer having elliptical apertures with their major axes substantially coincident with diametral lines through the center of the retainer, the apertures in one side being paired with the apertures in the other side to form pockets, and balls disposed in said pockets and projecting through said apertures.

3. A ball bearing comprising a hollow annular retainer that is diamond-shaped in cross section, the inclined sides of the retainer having oblong apertures with their greatest lengths transverse to the retainer, the apertures in one side being paired with the apertures in the other side to form pockets, and balls disposed in said pockets and projecting through said apertures.

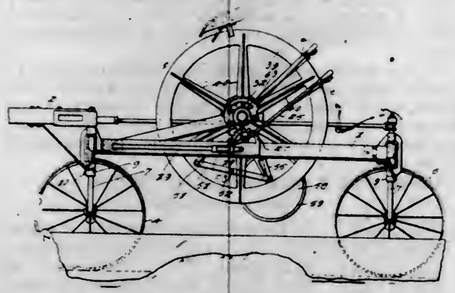
[Claim 2 not printed in the Gazette.]

1,242,912. SULKY OR WHEELED COLTER. LOUIS K. BENEDICT, Hastings, Fla. Filed Dec. 8, 1916. Serial No. 135,850. (Cl. 97—25.)

1. In a wheeled colter, a supporting frame, an axle extending across the front end of said supporting frame, and along one side of the supporting frame to a point substantially equi-distant of its ends, a supporting wheel mounted upon the rearmost end of said axle, an auxiliary supporting frame pivotally mounted upon the forward portion of said axle, a shaft carried by said auxiliary supporting frame, a pair of crushing rollers rotatably mounted upon said shaft and having their facing sides spaced, a colter supported by said shaft and positioned between the facing sides of said crushing rollers.

2. In a wheeled colter, a supporting frame, an axle extending across the front end of said supporting frame, and along one side of the supporting frame to a point substantially equi-distant of its ends, a supporting wheel

mounted upon the rearmost end of said axle, an auxiliary supporting frame pivotally mounted upon the forward portion of said axle, a shaft carried by said auxiliary supporting frame, a pair of crushing rollers rotatably mounted upon said shaft and having their facing sides spaced, a colter supported by said shaft and positioned between the facing sides of said crushing rollers, and means for raising or lowering the portion of said axle which extends rearwardly, for raising or lowering the supporting wheel carried thereby.



3. In a wheeled colter, a supporting frame, an axle extending across the front end of said supporting frame, and along one side of the supporting frame to a point substantially equi-distant of its ends, a supporting wheel mounted upon the rearmost end of said axle, an auxiliary supporting frame pivotally mounted upon the forward portion of said axle, a shaft carried by said auxiliary supporting frame, a pair of crushing rollers rotatably mounted upon said shaft and having their facing sides spaced, a colter supported by said shaft and positioned between the facing sides of said crushing rollers, means for raising or lowering the portion of said axle which extends rearwardly, for raising or lowering the supporting wheel carried thereby, supporting wheels adjustably carried at the front and rear corners of said supporting frame oppositely to said first named supporting wheel, a tongue pivotally connected to said supporting frame, means connecting said tongue to the front of said last named supporting wheels for steering the wheel in unison with movement of the tongue, and adjustable means connecting said tongue to the rear of said second mentioned supporting wheels for steering said second mentioned supporting wheels in unison.

4. In a wheeled colter, a supporting frame, an auxiliary supporting frame pivotally carried by said supporting frame, a shaft rotatably carried by the rear end of said pivoted frame, a pair of crushing drums rotatably mounted upon said shaft, a collar shrunk upon said shaft intermediate its ends, a pair of rings connected to said collar for rotation therewith, arms connected to said rings, a second ring mounted upon said collar and positioned between said first named rings, a colter carrying arm formed upon said last named ring, and a colter rotatably supported by said last named arm between the facing sides of said drums.

5. In a wheeled colter, a supporting frame, an auxiliary supporting frame pivotally carried by said supporting frame, a shaft rotatably carried by the rear end of said pivoted frame, a pair of crushing drums rotatably mounted upon said shaft, a collar shrunk upon said shaft intermediate its ends, a pair of rings connected to said collar for rotation therewith, arms connected to said rings, a second ring mounted upon said collar and positioned between said first named rings, a colter carrying arm formed upon said last named ring, a colter rotatably supported by said last named arms between the facing sides of said drums, a jointed arm connecting the first named arm to said colter carrying arm, a brace, a break pin connecting said brace to said jointed arm at the point of junction of its sections whereby the breaking of said pin will allow the sections of the jointed arm to be separated for permitting the colter carrying arm to swing upwardly independent of movement of said first mentioned ring, and the arms carried thereby.

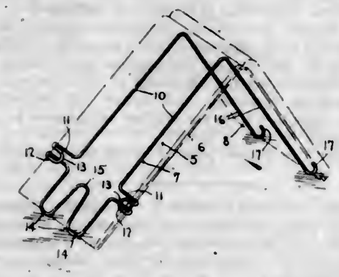
[Claims 6 to 11 not printed in the Gazette.]

1,242,913. WINDOW-CLEANING SCRAPER. CLARENCE E. BLAKESLEE, Cranford, and WILLIAM A. AHLGRAN, Scotch Plains, N. J. Filed Dec. 18, 1913. Serial No. 807,424. (Cl. 72—137.)



In a device of the character described, the combination of a blade holder comprising a sheet of metal doubled to form jaws of a single thickness of sheet metal tensioned toward each other and adapted to receive between themselves a blade so that the same projects at its front edge from between the front edges of the jaws and seats at its back edge against the line of doubling of the sheet of metal, one of said jaws being bowed away from the other so as to be spaced between its front and rear edges from the blade, and a handle comprising a piece of wire doubled to form a hand grip and having its adjacent ends laid flatwise upon the outer side of said bowed jaw of the holder and secured thereto near the ends thereof so as to project away from the holder with the rear edge and opposite jaw of the holder left free and the tension of the jaws unimpaired to grip the blade.

1,242,914. STENOGRAPHER'S NOTE-BOOK STAND AND BOOK-MARK. WILLIAM M. BLATT, Boston, Mass. Filed Aug. 5, 1916. Serial No. 113,270. (Cl. 120—28.)

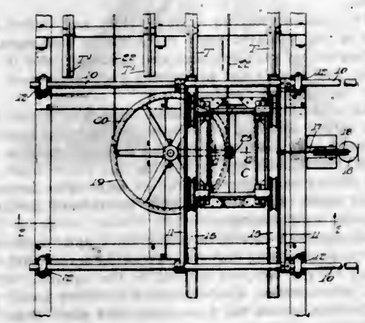


1. An article of manufacture consisting of a single strand of wire having opposed hooks formed adjacent its medial portion and a page gripping finger formed from its medial portion.

2. An article of manufacture consisting of a single strand of wire having opposed hooks formed adjacent its medial portion and a page gripping finger formed from its medial portion and occupying a plane substantially at right angles to that in which said opposed hooks are disposed.

1,242,915. CABLE CONNECTION FOR TRAMWAY-CARS. HUGH B. BROCKENBROUGH, Fort Dodge, Iowa. Filed June 12, 1916. Serial No. 103,196. (Cl. 104—18.)

1. In a tramway, the combination of two parallel track ends, a frame adapted to reciprocate transversely of said ends, a track section on said frame normally in register with one of said track ends, a sheave below said frame having a vertical pivot in a plane midway between said track ends, the radius of said sheave being a distance less than the distance from the center of the sheave to the main track centers and to the center of the frame track, a cable passing around said sheave, a car adapted to enter said frame track section from one of said track ends, a connector pivoted to said car center for vertical rotation and connected at its lower end with said cable, said connector being adapted to swing horizontally to bridge the distance between the car center and the sheave periphery and to follow the cable around the sheave.



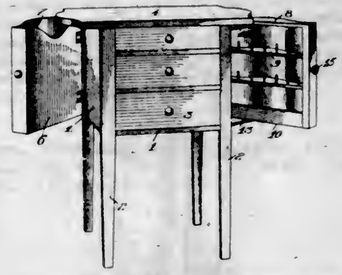
2. In a tramway system, the combination of two main track ends, a frame reciprocable transversely at said ends, a track section on said frame normally in registration with one of said main track ends, a horizontal sheave below said frame, the axis of said sheave being in a plane midway between the main track ends, a cable engaging said sheave, a car, a connector depending from said car and secured to the cable, said car being propelled by the cable onto the frame track section from one of said track ends, said car having a combined longitudinal movement on said frame track section and lateral movement with said frame to be brought into position to enter the other main track end.

3. A cable connector for tram-cars comprising a plate having a vertical stud extending therefrom for securing the plate to a car bottom for rotation about a vertical axis, legs depending from said plate, a horizontal pivot bolt secured in said legs, a block having ears receiving said bolt, a U-shaped frame of sheet metal receiving said block between its ends and secured thereto, said block having a lower wedge surface, a block at the bottom of said frame having an upper wedge surface, a wedge block extending through said frame between the wedge surfaces of the upper and lower blocks, a threaded stud extending from said wedge block, and a nut engaging said stud and the edge of said frame for forcing said wedge block between the wedge surfaces.

4. In a cable tramway, the combination of a track, a sheave, a cable for engaging with the sheave, the radius of said sheave being less than the distance from the sheave axis to the track center, a car for the track, a connector having an upper part pivoted to the car to swing about a vertical axis passing through the center line of the car, the lower part of said connector being pivoted to the upper part to swing laterally, said lower part being secured at its lower end to the cable and being of a length to bridge the distance between the track center and the sheave periphery when the car travels around the sheave.

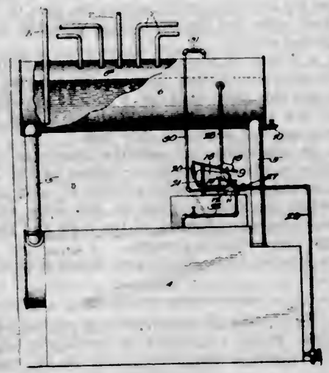
1,242,916. SEWING-CABINET. EDWARD BROOKS, Rochester, N. Y. Filed Mar. 26, 1915. Serial No. 17,114. (Cl. 45—95.)

A sewing cabinet consisting of a central body portion, an integral top secured to the body portion and extending beyond the same, a wire holder including a vertical portion rotatively attached at one end of the body portion, arms extending laterally from the top and bottom of said vertical portion and terminating in free upturned ends, and a swinging case having its top and bottom journaled on said free upturned ends of the holder and movable with the holder to a position underneath said top and against



the end of the body portion of the cabinet or outwardly with the inner portion of the case in alinement with the front of the body portion.

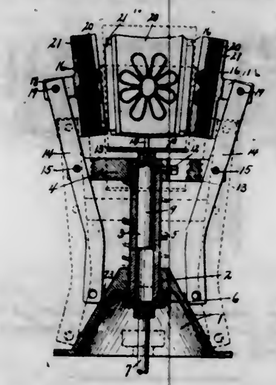
1,242,917. FEED-WATER APPARATUS. EDMUND BURKE, Chicago, Ill., assignor to Crane Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 19, 1916. Serial No. 120,932. (Cl. 137—101.)



1. In a boiler feed apparatus, the combination with a boiler; of a self-contained feed water supply container having an inclosed upper pressure retaining chamber; a valved steam trap adapted to receive a supply of water from said container and having a steam space connected with the steam space of the boiler, whereby to effect a discharge of the water from the trap to the water space of the boiler; and a pressure controlling means for said container comprising a steam conducting vent pipe leading from the steam space of the trap to the pressure chamber of the container, and a check valve in said pipe adapted to automatically close when the pressure in the steam space of the trap is below that in the pressure chamber of the container.

2. In a boiler feed apparatus, the combination of a boiler; a self-contained feed water receptacle having an upper inclosed portion adapted to constitute a pressure retaining and water heating chamber for the feed water therein; a steam trap embodying a tilting tank provided with steam and water conducting connections with said boiler and said receptacle; one of said steam conducting connections leading from the tank interior to the pressure chamber of the said receptacle; and valvular means for said connections, part of said means actuatable by the tilting of the tank and the other part pressure actuated; substantially as and for the purposes set forth.

1,242,918. MARKING DEVICE. JOSEPH E. BURNS, Canastota, N. Y. Filed May 20, 1916. Serial No. 98,997. (Cl. 101—35.)



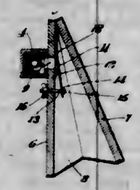
1. In a device for marking glassware and the like, a table, a plurality of bars pivotally carried by the table, a sectional die comprising a plaque carried by each bar, a platform adjustably carried by the table for supporting an article to be marked between design-carrying elements, and means for simultaneously moving the bars to contract the die and bring the design-carrying elements into contact with said article.

11. In a device of the class described, a plurality of vertically movable pivoted bars, a die-carrying plaque pivotally mounted upon each bar, a cone base along which said bars are slidable, and resilient means for holding said bars in contact with said cone base.

17. In an apparatus for marking glassware and the like, a table, a plurality of arms carried by the table, a resilient die-embodying element carried by each arm and an adjustable platform carried by the table and movable between the upper surface of the table and the lower edge of the die-embodying element.

[Claims 2 to 10, 12 to 16, 18, and 19 not printed in the Gazette.]

1,242,919. ACCENTING DEVICE FOR PIANO-PLAYER ACTIONS. FRANK CARNAHAN, South Boston, Mass., assignor to Emerson Piano Company, Boston, Mass., a Corporation of Illinois. Filed Dec. 21, 1916. Serial No. 138,143. (Cl. 84—168.)



1. In a pneumatic piano player, the combination with pedal operated feeders connected with the player action, and an equalizer, having a single inlet and outlet passage in communication with the main feeders, of a normally open, yieldingly supported valve for said passage, said valve being adapted to be moved momentarily to closed position by the percussive action of the air within the equalizer when either of the feeders is actuated suddenly and forcibly, to momentarily throttle said passage, and accent notes or chords, and means for preventing said valve from completely closing said passage.

2. In a pneumatic piano player, the combination with pedal operated feeders connected with the player action, and an equalizer, having a single inlet and oulet passage in communication with the main feeders, of a normally open, yieldingly supported valve for said passage, said valve being adapted to be moved momentarily to closed position by the percussive action of the air within the equalizer when either of the feeders is actuated suddenly and forcibly to momentarily throttle said passage and accent notes or chords, means for preventing said valve from completely closing said passage and means for adjusting said valve when in open position toward or from its seat.

3. An equalizer having a single inlet and outlet aperture, a spring actuated plate valve within said equalizer, extending across said aperture and normally held in open position, and means for preventing the valve from completely closing said aperture.

4. An equalizer having a single inlet and outlet aperture, a spring actuated plate valve within said equalizer, extending across said aperture and normally held in open position, and means for preventing the valve from completely closing said aperture, and an adjustable device for engaging said valve and limiting its inward movement away from said aperture.

5. An equalizer having a single inlet and outlet aperture, a plate of spring material extending across said aperture and having one end secured to the equalizer at one side of said aperture and extending normally away from said aperture, means for preventing said plate from completely closing said aperture, a rod loosely engaging the movable end of said plate, and provided with a part for limiting the inward movement of said plate, and means for adjusting said rod longitudinally.

[Claim 6 not printed in the Gazette.]

1,242,920. TABLET-SUPPORT FOR TALKING-MACHINES. PLINY CATUCCI, Newark, N. J., assignor, by mesne assignments, to Otto Heineman Phonograph Supply Co., Inc., New York, N. Y., a Corporation of New York. Filed Mar. 13, 1917. Serial No. 154,527. (Cl. 274—39.)



1. In a tablet support for talking machines, the combination of a flat, circular disk having a downwardly and outwardly extended margin, with a dished or cone shaped disk having its outer margin extending upwardly over the margin of said flat disk to form an annular recess in the margin of the tablet support.

6. In a tablet support for talking machines, the combination of a flat circular disk having a downwardly and outwardly extended margin, with a dished or cone shaped disk having its outer margin extending upwardly over the margin of said flat disk to form an annular recess in the margin of the tablet support, and a pile fabric disk upon the upper face of said flat disk with the margin thereof inserted into said annular recess.

13. In a table support for talking machines the combination of a flat tablet supporting disk having an enlarged cup shaped thimble secured to the under surface thereof with a center bearing loosely fitted to said thimble and provided with an annular supporting flange upon which the edge or margin of said thimble may rest.

14. In a tablet support for talking machines the combination of a flat tablet supporting disk having an enlarged cup shaped thimble secured to the under surface thereof with a center bearing loosely fitted to said thimble and provided with an annular supporting flange upon which the edge or margin of said thimble may rest, and a slot and pin connection between said thimble and said flange to insure their rotation in unison.

[Claims 2 to 5, 7 to 12, and 15 to 17 not printed in the Gazette.]

1,242,921. ADDING-MACHINE. JOHN ALBERT CHEAPS, Charlottesville, Va. Filed Mar. 20, 1915. Serial No. 15,820. (Cl. 235—67.)



1. The combination of right and left spiral rotatable members held against endwise movement, each having numbers arranged circumferentially thereon, a spiral for each number, and means for transferring in either direction.

2. The combination of rotatable spiral members held against endwise movement, each having numbers arranged circumferentially thereon and a spiral for each number, the spirals of adjacent members extending in opposite directions, and means for transferring in either direction.

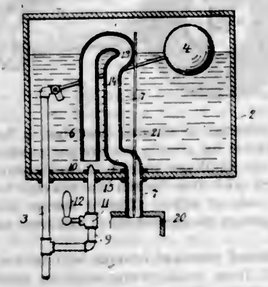
3. An adding machine comprising a reversible rotatably supported member, the stem of which terminates in a finger which extends laterally of the axis of rotation, and a clearing mechanism comprising two arms which travel astride the finger, and which are constructed and adapted on their inner edges to insure the return of the finger to normal when both arms shall have passed the plane in which the finger is located.

4. A plurality of rotatable members, each carrying numerals, carrying mechanism for imparting motion from one of said members to the other, the axis of each of said rotatable members terminating in a laterally-extended finger, a rotatable member, the axis of which is at an angle to the axis of the rotatable members carrying the numerals, and carrying-arms in position to sweep the fingers back into their normal position with two complete rotations.

5. A re-setting device comprising a rotary shaft carrying arms extending radially from the axis of the rotating devices, in combination with rotatable members carrying numerals and having each a finger which projects out of the axis of rotation in position to be engaged and restored to normal by the sweep of the arms.

[Claims 6 to 10 not printed in the Gazette.]

1,242,922. FLUSHING DEVICE. CHARLES E. COCHRANE, Medford, Mass., assignor to C-D-G. Manufacturing Company, Portland, Me., a Corporation of Maine. Filed Mar. 25, 1916. Serial No. 86,542. (Cl. 4—5.)



1. In a device of the character described, a water closet bowl, a law flush tank, a closet flushing siphon located in the tank and provided with flow retarding means, an air tube communicating with said closet and terminating above the water line of the tank and means for starting siphon action.

3. In a device of the character described, the combination with a water closet having a retarding chamber, a low flush tank and a closet flushing siphon within the tank, of an air pipe communicating with said retarding chamber and terminating above the water line of the tank.

[Claim 2 not printed in the Gazette.]

1,242,923. SHOE MUD-GUARD. WILLIAM A. COLLINGS, Kansas City, Mo. Filed May 24, 1915. Serial No. 30,001. (Cl. 36—70.)



1. A mud guard for footwear embracing an arcuate strip, means embedded therein and slotted means for receiving the same for attaching the strip to the rear of the heel of a shoe.

2. A mud guard for footwear embracing an arcuate strip provided with an upwardly directed trouser supporting flange and a downwardly directed mud deflecting flange, a member embedded therein and projecting therefrom, and means adapted to be engaged by said member to secure said strip to an article of footwear with said flanges spaced a distance therefrom.

3. A combined mud guard and trouser support comprising an arcuate strip provided with an upwardly and outwardly directed trouser supporting flange integral with the upper edge thereof, and a downwardly and outwardly directed mud deflecting flange integral with the lower edge thereof, a slotted member, and means adapted to releasably engage the same to mount said mud guard and trouser support on the heel of an article of wearing apparel.

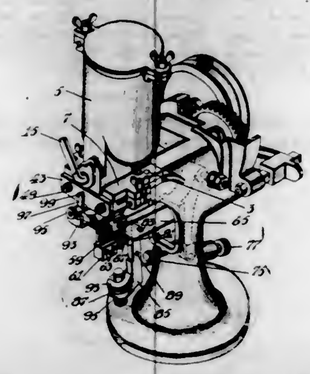
4. In a device of the class described, an arcuate strip, upwardly and downwardly directed flanges integral therewith, a bearing plate partially embedded in said strip and reduced at its free edge to afford a resilient tongue, and an attaching pin having a slot therein adapted to receive said tongue and lock the same thereto.

1,242,924. DOUBLE-HEADED NAIL. WILLIAM ARTHUR COLLINGS, Kansas City, Mo. Filed July 1, 1916. Serial No. 107,022. (Cl. 85—28.)



In a nail of the class described, a shank tapered at one end to afford a point, an upper main head integrally formed on the upper end of said shank, and a lower secondary head integrally formed on said shank a short distance below said upper head and comprising a flattened neck and oppositely disposed integral ears thereon projecting beyond the sides of said shank.

1,242,925. CEMENTING-MACHINE. JOHN W. COSGROVE, Medford, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 29, 1915. Serial No. 69,272. (Cl. 91—49.)



1. A machine of the class described having, in combination, a rotary cement applying roll arranged to apply cement unevenly, means for supplying cement to said roll, means for holding the stock against said roll, and a member arranged to drag over the cemented portion of the stock and thereby to smooth the layer of cement and render it approximately uniform in thickness.

2. A machine of the class described having, in combination, a rotary cement applying roll, means for supplying cement to said roll, means for holding the stock against said roll, and means for smoothing the layer of cement.

3. A machine of the class described having, in combination, a rotary cement applying roll, means for supplying cement to said roll, means for holding the stock against said roll, and a yielding member pivoted to the frame of the machine and arranged to drag over the cemented surface.

4. A machine of the class described having, in combination, a rotary cement applying roll, means for supplying cement to said roll, means for holding the stock against the roll, said roll being provided with depressions on its periphery whereby the cement is applied to the stock unevenly, and means for smoothing the unevenly applied cement.

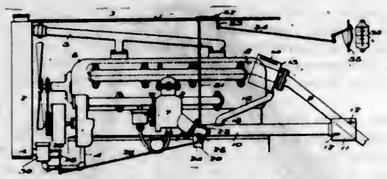
5. A machine of the class described having, in combination, a reservoir for cement, an applying roll arranged to receive cement therefrom, a yielding supporting member adjacent to said roll, and a plurality of independently adjustable spring fingers carried by said supporting member constructed and arranged to hold against said roll the material to be cemented.

[Claims 6 to 27 not printed in the Gazette.]

1,242,926. CARBURETER FOR INTERNAL-COMBUSTION MOTORS. GEORGE W. DONNING, Stamford, Conn., assignor to Donning Carbureter Corporation, Esopus, N. Y., a Corporation of New York. Filed June 13, 1916. Serial No. 103,530. (Cl. 123—122.)

1. The combination with an internal combustion motor, of a carbureter connected therewith, a fluid heating device operatively connected to the carbureter and normally active to heat a fluid pasaing thereinto, a second heating device also operatively connected to the carbureter for heating the fluid passing thereinto, and means juxtaposed to the motor and influenced by the condition thereof for controlling the operation of at least one of the said heating devices.

2. The combination with an internal combustion motor, of a carbureter connected thereto, and a plurality of heating devices connected to the carbureter for heating a fluid passing thereinto and independently operated by the varying suction action developed by the motor through the carbureter.



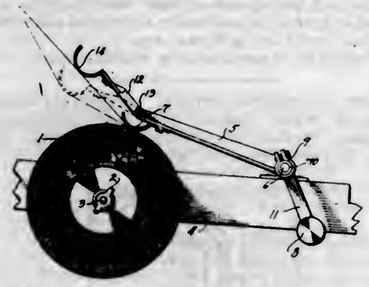
3. The combination with an internal combustion motor, of a carbureter connected thereto, and a plurality of heating devices, operatively connected to the carbureter, the operation of one of the heating devices being controlled by the normal suction developed by the motor through the carbureter, the operation of another of said heating devices being controlled by a change in the degree of the suction through the carbureter.

4. The combination with an internal combustion motor, of a carbureter connected thereto, a plurality of heating devices connected to the carbureter for heating a fluid passing thereinto and independently operated by the varying suction action developed by the motor through the carbureter, and, means juxtaposed to the motor and influenced by the condition thereof for controlling the operation of at least one of said heating devices.

5. The combination with an internal combustion motor, of a carbureter connected thereto, a plurality of heating devices connected to the carbureter for heating a fluid passing thereinto and independently operated by the varying suction action developed by the motor through the carbureter, and thermostatic means juxtaposed to the motor and influenced by the condition thereof for controlling the operation of at least one of said heating devices.

[Claims 6 to 29 not printed in the Gazette.]

1,242,927. PAPER-REEL BRAKE. ALBERT DU BRUL, deceased, Fort Thomas, Ky., by Frances Goselin Du Brul, executrix, Fort Thomas, Ky., assignor to The Miller, Du Brul & Peters Mfg. Co., Cincinnati, Ohio, a Corporation of Ohio. Original application filed Dec. 17, 1913, Serial No. 807,256. Divided and this application filed Aug. 22, 1916. Serial No. 116,354. (Cl. 242—156.)

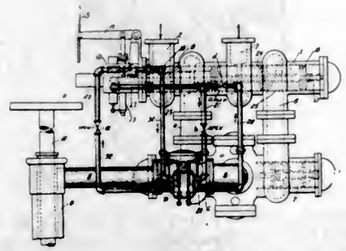


1. In a material unwinding machine, a braking lever fulcrumed to act by gravity on the periphery of a reel of paper, and an auxiliary tension means mounted on said braking lever and free to act by gravity to materially deflect the web of paper after it leaves said reel, but yielding to permit straightening of the web, under tension on the web.

5. A combined constant braking and take-up device for material fed from reels, comprising an auxiliary brake lever yieldingly bearing against the material and adapted to take up slack therein at a point beyond the reel, and a braking lever, upon which said auxiliary lever is mounted adapted to bear constantly upon the reel of material, independently of the take-up action of the auxiliary lever; said auxiliary lever being pivoted to the braking lever, at a point adjacent to the braking contact with the reel.

[Claims 2 to 4 not printed in the Gazette.]

1,242,928. HYDRAULIC-MOTOR-CONTROLLING MECHANISM. EDWARD LEE DUNN, Worcester, Mass., assignor to Standard Plunger Elevator Company, Worcester, Mass., a Corporation of Massachusetts. Filed Oct. 12, 1915. Serial No. 55,387. (Cl. 138—14.)



1. The combination with a main valve, of flow controlled means for governing the travel of said valve.

2. The combination with a main valve, a pilot valve, and a movable element controlled by the main valve, of means dependent upon the speed of said movable element limiting the movement of the main valve independently of the pilot valve.

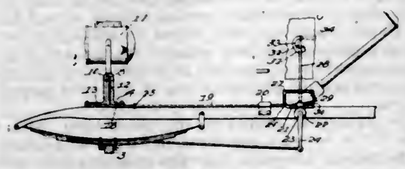
3. The combination with a main valve controlling a fluid, a movable element controlled thereby, and means affected by said fluid for controlling the movement of said valve.

4. The combination with a main valve and a pilot valve connected to be closed by movement of the main valve, of independent means for stopping the main valve at an intermediate point in its stroke.

5. The combination with a main valve and a pilot valve connected to be closed by movement of the main valve, of flow controlled means for stopping the main valve at an intermediate point in its stroke.

[Claims 6 to 25 not printed in the Gazette.]

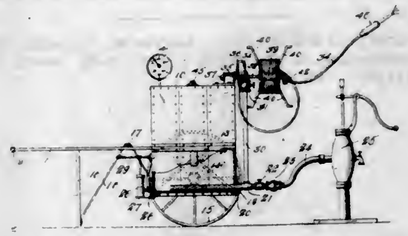
1,242,929. HEADLIGHT FOR MOTOR-VEHICLES. FRED R. FALKENSTEIN, Baltimore, Md. Filed Oct. 31, 1916. Serial No. 128,766. (Cl. 240—62.)



1. A vehicle frame, laterally swinging lamps on said frame, a steering mechanism, a pinion on said steering mechanism, a T-shaped rack bar for engagement with the pinion, connections between the rack bar and the lamps for actuating the same on movement of the rack bar by said pinion, a block slidably engaging the T portion of the rack bar, a lifting rod pivoted to the block, a manually operated arcuate shaped eccentric movably supported adjacent to the rod, and a guide on said rod slidably engaging the eccentric for the raising and lowering of the rod on movement of said eccentric.

2. A vehicle frame, laterally swinging lamps on said frame, a steering mechanism, a pinion on said steering mechanism, a T-shaped rack bar for engagement with the pinion, connections between the rack bar and the lamps for actuating the same on movement of the rack bar by said pinion, a block slidably engaging the T portion of the rack bar, a lifting rod pivoted to the block, a manually operated arcuate shaped eccentric movably supported adjacent to the rod, a guide on said rod slidably engaging the eccentric for the raising and lowering of the rod on movement of said eccentric, and a housing on the frame for said rack bar.

1,242,930. PORTABLE SPRAYING APPARATUS. ANDERSON FIELDS, Cashion, Okla. Filed Nov. 28, 1916. Serial No. 133,921. (Cl. 137—63.)



1. In a spraying apparatus, the combination of a tank, an arm secured at one end to the tank and projecting beyond the same, a reel mounted to turn on the outer end of said arm, a hose adapted to be wound on said reel, an outlet pipe leading from the tank, said arm provided intermediate its ends with a hollow nipple adapted for securement at one end to said outlet pipe, and means for detachably engaging one end of said hose to the opposite end of said nipple whereby said arm is adapted to support said pipe and provide a connection therebetween and the hose, and to support said reel.

2. In an apparatus as specified, the combination of a tank adapted to contain water, an arm secured at one end to the tank and projecting beyond the same, said arm being provided intermediate its ends with a connecting nipple, a pipe leading from said tank adapted for securement at one end to said nipple, a reel mounted for rotation on the outer end of said arm, a hose adapted to be wound on said reel, and means for detachably connecting one end of said hose to the opposite end of said nipple.

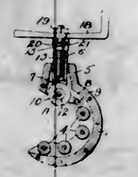
3. In a portable spraying apparatus, the combination of a tank, wheels supporting the tank, side bars projecting rearwardly from the tank, legs carried by the side bars, braces mounted on the legs and the bars to interbrace the same, an inlet pipe connected to the lower end of the tank, a stand pipe rising from the inlet pipe at one side of the tank, valves arranged in said pipes to control the flow of water therethrough, an air pump connected to the tank adapted to place the water in the tank under pressure, a bracket arm mounted on the upper end of the tank and having connection with said stand pipe to support the same, a reel mounted on the outer end of said arm, and a hose adapted to be wound on said arm and having connection with the bracket arm to receive water therethrough from the stand pipe.

4. In a portable spraying apparatus, a tank, wheels mounted on the tank, a handle connected to the tank for moving the same, a strainer tube projecting into the lower end of the tank, a hose connection extending from the strainer tube and adapted for connection with a suitable source of water supply, a valve on the outer end of the strainer tube adapted to be closed when the tank is filled with water, a stand pipe rising from the strainer tube, a bracket arm carried upon the upper end of the tank and having an opening therethrough, a valve connecting the stand pipe to the arm in registry with the opening through the latter, a reel rotatably mounted on the outer end of said arm, a hose adapted to be wound on said reel, and

means for connecting one end of the hose to said arm opposite said opening to receive water therethrough from the stand pipe.

5. In a spraying apparatus, the combination of a tank, a pipe leading from the tank, a bracket plate mounted on the upper end of the tank, an arm secured at one end in the bracket plate and projecting at its opposite end beyond the tank, said arm being provided intermediately with a hollow-attaching member adapted for securement at one end to the outer end of said pipe, a hose adapted to be secured at one end to the opposite end of said member, a reel mounted to turn upon the outer end of said arm and adapted to receive said hose thereon, and a handle detachably mounted on the outer end of said reel by means of which the reel is adapted to be turned.

1,242,931. PIPE-CUTTER. NEWTON H. FORINGER, New Cumberland, W. Va. Filed Aug. 10, 1916. Serial No. 114,232. (Cl. 81—192.)



1. In a pipe cutter of the character described, the combination of a main cutter frame, a U-frame pivotally mounted therein, a rotary cutter carried by the U-frame, a sleeve pivotally connected to the U-frame and to the cutter frame, and means for adjusting the sleeve longitudinally.

2. In a pipe cutter of the character described, the combination of a main cutter frame, a U-frame pivotally mounted therein, a rotary cutter carried by the U-frame, a stirrup loosely mounted on the cutter frame, an internally threaded sleeve pivotally connected at its inner end to the U-frame, and an adjusting screw threaded into said sleeve and having its outer end loosely secured through the stirrup.

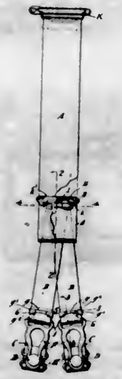
3. In a pipe cutter of the character described, the combination of a main cutter frame of approximately semicircular shape open at one side, a U-frame pivotally mounted at its outer end in the cutter frame, a cutter rotatably mounted in the inner end of the U-frame, an internally threaded sleeve pivotally connected at its inner end to the inner end of the U-frame, a stirrup rockably mounted on the cutter frame, an adjusting screw threaded into said sleeve and having its outer end loosely secured through the stirrup, and means mounted on the cutter frame for operating the same.

4. In pipe cutters, a main cutter frame, a U-frame pivotally mounted therein at its outer end, a cutter carried by the U-frame at the inner end thereof, an outwardly extending sleeve pivotally connected at its inner end to the said U-frame, a stirrup pivotally mounted on the cutter frame, said stirrup straddling the outer end of said sleeve and being in alinement therewith whereby all strain will be imparted to said sleeve and stirrup longitudinally of the same during the cutting operation, and means carried by the stirrup and engaging with the sleeve for adjusting said sleeve longitudinally.

5. In pipe cutters, a main cutter frame, a U-frame pivotally mounted therein at its outer end, a rotary cutter carried by the U-frame at the inner end thereof, an internally threaded sleeve pivotally connected at its inner end to the inner end of the U-frame, the axis of the pivotal connection of the sleeve being coincident with the axis of said rotary cutter, a stirrup having the inner ends of its arms pivotally secured to the cutter frame, and an adjusting screw mounted through the top bar of said stirrup for rotation in either direction and secured against longitudinal movement, said screw being threaded into the sleeve so as to adjust the same longitudinally when the screw is rotated.

[Claim 6 not printed in the Gazette.]

1,242,932. GARMENT-SUPPORTER. ARTHUR FRANKENSTEIN, New York, N. Y. Filed June 22, 1917. Serial No. 176,297. (Cl. 241—1.)



1. In a garment supporter, the combination, with a button loop having an opening to receive a web, of a button tab and an elastic web, said tab and web having their ends inserted through the web opening in the button loop and folded back against the standing portion of the web, and a clamp clamping said ends and the standing part of the web together above the button loop, the button tab being folded back over the said two ends to cover the back of the clamp.

2. In a garment supporter, the combination, with a button loop having a means for holding a supporting strap, said means comprising a loop engaging bar, of a supporting strap of elastic webbing and a button tab, said strap and tab having their ends laid together and folded back to form a loop through which the loop-engaging bar passes, and a metallic clip having its front extending across the front of the elastic web above said loop engaging bar, and its ends bent around the folded end portions of the button tab and elastic web to hold said ends, the button tab being folded down over the bent end portions of the said clip.

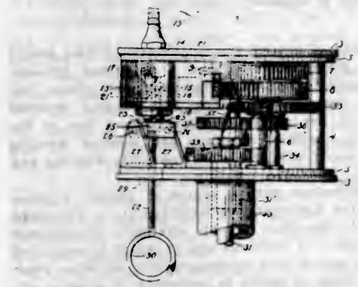
4. In a garment supporter, the combination, with a buckle device having a web-engaging bar, of an auxiliary web having an intermediate portion passing around said bar, a main supporting strap having its end laid in contact with the auxiliary web adjacent the bar, and a clip clamping together the portions of auxiliary web at each side of said bar and holding the end of said main supporting strap.

5. In a garment supporter, the combination, with a buckle device having a web-engaging bar, of an auxiliary web having an intermediate portion passing around said bar, a main supporting strap having its end laid in contact with the auxiliary web adjacent the bar, and a U-shaped clip clamping together the portions of auxiliary web at each side of said bar and holding the end of said main supporting strap.

[Claims 3 and 6 not printed in the Gazette.]

1,242,933. TOOL-DRIVER. WARREN F. FRASER, Dorchester, Mass. Filed Dec. 8, 1914. Serial No. 876,126. (Cl. 253—2.)

1. A device of the class described comprising a casing, a tool spindle rotatably mounted therein, a rotor element operatively connected to said spindle having a pair of opposite bucket series, a pair of oppositely directing jets disposed for delivery in the path of said bucket series, an air intake, a pair of valves for positively controlling the delivery of air from the intake to said delivering jets, and a reversible control associated with said valves and operative upon one valve in one direction of its movement and upon the other valve in the other direction of its movement.



2. In a driver of the class described, a reversely rotatable tool spindle, a rotor therefor having a pair of oppositely effective bucket series, a pair of jets disposed for delivery in the path of one bucket series, a pair of oppositely directing jets disposed for delivery in the path of the other bucket series, a casing having an air intake and a pair of air passages independently connecting each with a pair of jets, a pair of valves controlling said passages, and a single reversible control disposed in operating contact relation to the stems of said valve and operable upon one valve in one direction of its movement and upon the other valve in the opposite direction of its movement.

3. In a driver of the class described, a reversibly rotatable tool spindle, a rotor therefor having a pair of oppositely effective bucket series, a speed reducing gearing operatively connecting said rotor and spindle, a pair of jets disposed for delivery in the path of one bucket series, a pair of oppositely directing jets disposed for delivery in the path of the other bucket series, a casing having an air intake and a pair of air passages independently connecting each with a pair of jets, a pair of valves controlling said passages, and a single reversible control disposed in operating contact relation to the stems of said valve and operable upon one valve in one direction of its movement and upon the other valve in the opposite direction of its movement.

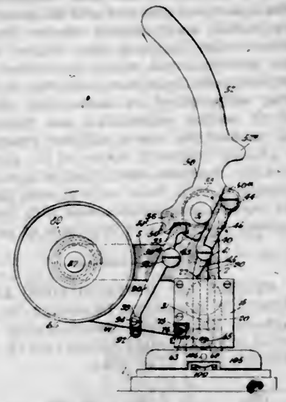
4. In a driver of the class described, a reversibly rotatable tool spindle, a rotor therefor having a pair of oppositely effective bucket series, a series of oppositely directing jets disposed for delivery in the path of a bucket series, an air intake connecting with said jet series, a pair of valves controlling the delivery of air to said jets and having their stems exposed, a reversible control having a pivoted valve stem contacting part and a manually operated part connected with said stem contacting part and said control effective to depress one valve stem in one direction of its movement and to depress the other stem in the opposite direction of its movement.

5. In a driver of the class described, a rotatable tool spindle, a reversible rotor therefor, an air intake, an air delivery for rotating the rotor in one direction and an independent air delivery for reversing the rotor a pair of valves normally closing said deliveries, and a reversible control for selectively opening either valve.

[Claims 6 and 7 not printed in the Gazette.]

1,242,934. STAPLING-MACHINE. JAK H. FULLER, Brooklyn, N. Y. Filed Dec. 19, 1916. Serial No. 137,880. (Cl. 1—2.)

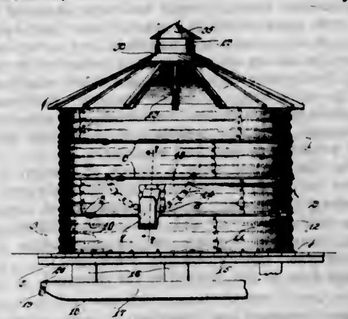
1. In a stapling machine, the combination of a stapling head, suitable wire feeding means, relatively movable staple forming and driving plungers mounted in said stapling head, an oscillating operating head, a pitman pivoted at one end to one of said plungers and at its opposite end to said operating head, and a dog normally locking said plungers against relative movement and formed with a part which projects into the path of parts of said operating head and said pitman.



2. In a stapling machine, the combination of a stapling head, suitable wire feeding means, relatively movable staple forming and driving plungers mounted one upon the other in said stapling head, an oscillating operating head, a pitman having a pivot at one end to connect with said driving plunger and another pivot at its opposite end to connect with said operating head, and a dog mounted upon the pitman-plunger pivot and adapted to engage said forming plunger.

3. In a stapling machine, the combination of a stapling head, a reciprocating staple forming plunger mounted in said head and formed with recesses in its opposite ends, a staple driving plunger mounted upon said forming plunger, a dog pivoted upon said driving plunger in position to engage a shoulder on said forming plunger and movable out of said engagement into the recess in the upper end of said forming plunger, means for feeding wire to the stapling head, a staple clenching anvil cooperating with the forming and driving plungers, operating means for said plungers, and means for automatically engaging with and dis-engaging said dog from the forming plunger.

1,242,935. GRAIN-TANK. HOWARD G. HARRISON, Spokane, Wash. Filed Apr. 11, 1916. Serial No. 90,335. (Cl. 189—3.)

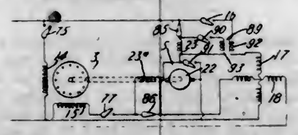


1. A cone shaped, circular roof structure composed of radial, longitudinally tapered or segmental sections formed with upturned side flanges, means for uniting said sections, said means consisting of rafter members disposed radially between adjacent sections, each member being composed of an up-standing, channel-like, longitudinal rib

having outstand side flanges, and a longitudinal, channel-like sleeve member embracing said rib and the adjacent upturned flanges of the adjacent sections.

2. A cone shaped, circular roof structure consisting of a centrally disposed tubular ring member supporting a depending, conical or flared flange, said ring member being provided with a series of slots and said flange with a series of apertures; radial, longitudinally tapered or segmental sections formed with upturned side flanges, means for uniting said sections, said means consisting of rafter members disposed radially between adjacent sections, each member being composed of an upstanding, channel-like, longitudinal rib having outstanding side flanges, and a longitudinal, channel-like sleeve member embracing said rib and the adjacent upturned flanges of the adjacent sections, said rafter members being further provided with extended tongues at their inner ends passing through the slots of said tubular ring member and with downwardly directed members engaging said apertures of said conical flange.

1,242,936. SYSTEM OF DISTRIBUTION AND CONTROL. RUDOLF E. HELLMUND, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 19, 1914. Serial No. 819,739. (Cl. 172—238.)



1. The combination with a source of energy, a phase converter and a dynamo-electric machine adapted to receive energy from said converter, of auxiliary dynamo-electric means partially dependent upon load conditions of said first dynamo-electric machine for alone varying the amount and phase position of the delivered converter voltage.

2. The combination with a source of energy, a phase converter and a dynamo-electric machine adapted to receive energy from said converter, of an auxiliary dynamo-electric machine having its component windings connected to different circuits of said first dynamo-electric machine for alone regulating its operation.

3. The combination with a source of energy, a polyphase converter and a dynamo-electric machine adapted to receive energy from said converter, of a single-phase dynamo-electric machine having an armature and field magnet winding respectively connected with different circuits of said first dynamo-electric machine.

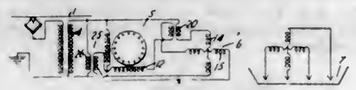
4. The combination with a source of energy, a polyphase converter having certain windings connected to said source and other windings separate therefrom and operatively related to said first windings, and a dynamo-electric machine having certain windings connected in multiple to said first converter windings and other windings connected in series with the second converter windings, of a single-phase dynamo-electric machine having armature and field magnet windings respectively connected with the several windings of said first machine.

5. The combination with a source of energy, a phase converter and a dynamo-electric machine adapted to receive energy from said phase converter, of means for starting said converter, and means for employing said starting means to regulate the characteristics of said phase converter under operating conditions.

[Claims 6 to 20 not printed in the Gazette.]

1,242,937. SYSTEM OF CONTROL. RUDOLPH E. HELLMUND, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed May 25, 1914. Serial No. 840,715. (Cl. 172—238.)

1. In a system of control, the combination with a source of energy, a phase converter and a polyphase dynamo-electric machine adapted to receive energy from said phase converter, of a series transformer having windings connected in circuit with the different phase windings of said dynamo-electric machine.



2. In a system of control, the combination with a source of energy, a phase converter and a polyphase dynamo-machine adapted to receive energy from said phase converter, of a transformer having one winding inserted between one of the converter windings and one of the dynamo-electric machine windings and another winding connected in series with the other converter winding and dynamo-electric machine winding.

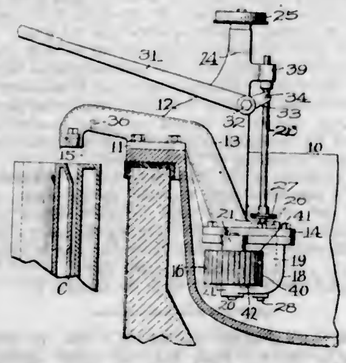
3. The combination with a source of energy, a phase converter having a plurality of windings and a polyphase dynamo-electric machine, of an auxiliary transformer having a plurality of windings one of which is connected in series with one of said dynamo-electric machine windings and the other of which is connected in a series circuit with one of said converter windings and another dynamo-electric machine winding.

4. The combination with a source of energy, a polyphase motor, and a phase converter having one winding connected to said source and another winding connected in series circuit with a winding of said motor, of a series transformer having one winding connected in series with another motor winding across said source and its other winding connected in series with the first converter winding and first motor winding, whereby the converter phase distortion and voltage reduction is automatically compensated under load conditions of said motor.

5. The combination with a phase converter and an electric motor each having a plurality of phase windings, and a source of energy connected across one of the motor windings and one of the converter windings, of a plurality of auxiliary trasformers having primary windings respectively connected across said source and in series between said motor winding and said converter winding, and secondary windings connected in series circuit with another of said motor windings and said converter windings.

[Claims 6 to 12 not printed in the Gazette.]

1,242,938. PUMP-AGITATOR. CHARLES E. HOPKINS, New York, N. Y. Filed Feb. 17, 1914, Serial No. 819,209. Renewed Mar. 8, 1917. Serial No. 153,462. (Cl. 22—70.)



1. A pump for pumping metal, comprising a casing adapted to be immersed in the molten metal and having openings through two sides thereof, two intermeshing toothed wheels extending into the casing through said openings so as to be located partly within and partly without it, means for rotating said wheels, and a discharge spout leading out of the casing.

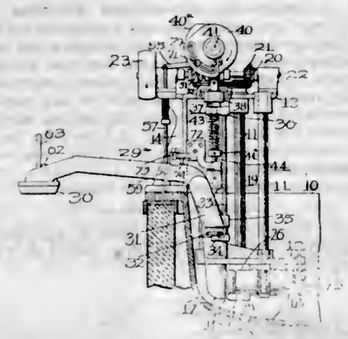
2. A pump comprising a casing adapted to be immersed in the material to be pumped, two gear wheels extending therein but journaled outside the casing, a spout leading out of the casing, a discharge outlet from said casing, means for rotating the gear wheels, and means for opening and closing the discharge outlet.

3. In a pump, the combination of a melting pot, a chamber therein, a pair of meshing toothed wheels closing one side of the chamber, and located partly within and partly without the chamber, and means for rotating said wheels toward the interior of said chamber from the sides to force liquid material into the chamber.

4. In a pump, the combination of a melting pot, a chamber therein, a pair of meshing toothed wheels closing one side of the chamber, means for rotating said wheels toward the interior of said chamber from the sides to force liquid material into the chamber, said chamber having a discharge outlet opening into the pot, and means for opening and closing said outlet whereby when the outlet is opened the operation of said wheels will agitate and mix the material therein.

5. In a pump, the combination of a closed spout, a nozzle at the end of the spout, a bridge above the nozzle in the spout, and a means for operating the pump to force substance through the spout, for the purpose set forth.

1,242,939. AUTOMATIC PUMP AND AGITATOR. CHARLES E. HOPKINS, New York, N. Y. Filed Feb. 17, 1914. Serial No. 819,210. (Cl. 22—70.)



1. The combination with a melting pot of means for agitating molten material in said pot, and means for confining such agitation beneath the surface of said material for the purpose set forth.

3. The combination with a melting pot, of means for agitating the molten material therein, a pump casing covering the agitating device to confine the agitation of the molten material beneath the surface thereof.

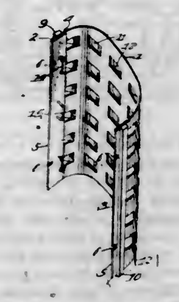
9. In a pump, the combination of a receiving chamber and means for forcing metal into the receiving chamber, with a nozzle connected with the receiving chamber for receiving metal therefrom, said nozzle having an overflow pipe which is normally open, by which metal can be discharged so as to prevent it from flowing through the nozzle, a valve for closing said overflow pipe, and a spring for forcing the valve closed, whereby the spring will yield and the valve open when there is an excess of pressure within said overflow pipe.

12. In a pump, the combination of a receiving chamber and means for forcing metal into the receiving chamber, of a nozzle connected with the top of the receiving chamber for receiving the metal therefrom, said nozzle having an overflow pipe normally open at the bottom by which the metal can be discharged instead of flowing out through the nozzle, a valve for closing said overflow pipe, and means for operating said valve comprising a rod extending upwardly from the valve, a spring for forcing the rod up and closing the valve, and a cam for forcing the rod down in opposition to the spring said cam having a concentric portion in position to permit the spring to force the valve up and close it.

17. In a metal pump, the combination with a metal pot, of a pump therein having a seat constituting an outlet for metal and also constituting a pivot rest, and a nozzle having its inlet resting in said seat and adapted to be turned thereon, a spout pin concentric with said seat and constituting a pivot in alinement therewith for the nozzle, whereby said nozzle is adapted to be turned on said seat and spout pin, a stationary bracket, and a lock bolt carried thereby for holding the nozzle in its operative position.

[Claims 2, 4 to 8, 10, 11, and 13 to 16 not printed in the Gazette.]

1,242,940. WINDOW-BLIND. WILLIAM J. HOPPER, Brunswick, Ga. Filed Dec. 9, 1916. Serial No. 136,082. (Cl. 189—63.)



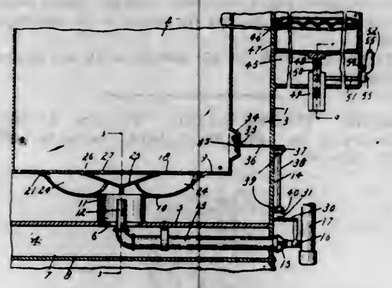
1. A window blind including a body formed from a single piece of resilient sheet metal, an intermediate portion of which is bowed, tongues struck out from the intermediate portion and providing air spaces therein, window frame engaging edge portions continuing from the sides of the intermediate portion and having their outer ends folded upon themselves forming reinforcing strips, window frame engaging cleats carried by the outer faces of the edge portions, and means for adjustably fastening the blind to the frame of the window.

2. The combination of a window frame and eyes mounted on the inner surface of the sides thereof, of a blind embodying a bowed portion, tongues struck out from the bowed portion and providing air spaces therein, resilient window frame engaging edge portions continuing from the sides of the bowed portion, reinforcing strips formed on the outer ends of the edge portions, window frame engaging cleats secured to the outer surfaces of the edge portions for abutting the sides of the window frame, the edge portions and the reinforcing strips having notches therein adapted for engagement about the eyes when the cleats abut the sides of the frame, handles on the strips for facilitating application of the blinds, and fastening means on the strips for engagement with the eyes for detachably fastening the blind in position.

1,242,941. COMBINATION COAL AND GAS RANGE OR COOKING-STOVE. GEORGE W. HOWES, Dowagiac, Mich., assignor to The Beckwith Co., Dowagiac, Mich. Filed Feb. 20, 1917. Serial No. 149,723. (Cl. 126—36.)

1. In an oven, the combination of a bottom having a depressed central concavo-convex portion terminating in a depending tubular chamber, said bottom having deflector plate supporting lug seats at the periphery of its said depressed portion, a burner disposed centrally of said burner chamber, a deflector plate having an inverted conical depressed portion disposed centrally above said burner chamber and integral passage members disposed radially with their inner ends projecting above said burner cham-

ber, there being a pair of said passage members disposed parallel and with their inner ends extending inward farther than the inner ends of the other passage members providing a pilot conduit, said deflector plate having a pilot opening at the outer end of said conduit, said deflector plate being provided with lugs alined with said passage members arranged in said seats in said bottom to provide discharge openings at the periphery of said deflector plate, said deflector plate having an annular center plate seat at the periphery of its depressed portion, and a center plate arranged in said seat.



4. In an oven, the combination of a bottom constituting the top of a flue and having a depressed central portion provided with a central depending tubular burner chamber, said bottom having deflector plate supporting lug seats at the periphery of its said depressed portion, a burner disposed centrally of said burner chamber, a deflector plate flush with said bottom provided with lugs arranged in said seats in said bottom to provide discharge openings at the periphery of said deflector plate.

9. In an oven, the combination of a bottom constituting the top of a flue and having a depressed central portion constituting a distributing chamber, a deflector plate constituting a top for said distributing chamber and provided with radially disposed passage members, there being a pair of said passage members disposed parallel providing a pilot conduit, said deflector plate having a pilot opening at the outer end of said conduit, and a burner disposed centrally relative to said chamber.

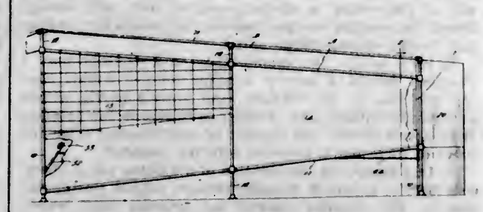
12. A combination stove comprising an oven, a heating flue the walls of which include a bottom wall with an opening therein centrally below said oven and an oven bottom having a depressed central portion terminating in a depending burner chamber embracing said opening in said flue bottom, a burner disposed centrally of said burner chamber, a deflector plate mounted on said bottom and having an inverted conical depressed portion disposed centrally above said burner chamber, passage members disposed radially with their inner ends projecting above said burner chamber, and a filler plate disposed above said depressed portion of said deflector plate.

18. A combination stove comprising an oven, a heating flue extending below said oven, said oven being provided with a bottom having a pan-like portion constituting the top of the flue and forming a distributing chamber and provided with an air inlet through said heating flue, a burner disposed centrally relative to said chamber, and a deflector plate constituting the top of said distributing chamber and a portion of the oven bottom.

[Claims 2, 3, 5 to 8, 10, 11, and 13 to 17 not printed in the Gazette.]

1,242,942. GAME APPARATUS. NORMAN HUNSBERGER, Santa Barbara, Cal. Filed Nov. 16, 1916. Serial No. 131,713. (Cl. 46—59.)

1. A game apparatus comprising a frame forming a way therethrough, a target at one end of the frame and having a movable bull's-eye, a ball receiver above the target, batting mechanism for automatically delivering a ball from the receiver through the way, mechanism for setting the batting mechanism, means for releasing the set batting mechanism when the bull's-eye has been displaced, a ball return trough in the frame, and a chute communicating with the trough for delivering balls to the receiver.



2. A game apparatus comprising a frame forming a way therethrough, a target at one end of the frame and having a movable bull's-eye, a ball receiver above the target, batting mechanism for automatically delivering a ball from the receiver through the way, mechanism for setting the batting mechanism, means for releasing the set batting mechanism when the bull's-eye has been displaced, a ball return trough in the frame, a chute communicating with the trough for delivering balls to the receiver, and a gate automatically controlled by the batting mechanism for effecting the discharge singly of balls from the chute to the receiver.

3. A game apparatus comprising a frame forming a way therethrough, a target at one end of the frame and having a movable bull's-eye, a ball receiver above the target, batting mechanism for automatically delivering a ball from the receiver through the way, mechanism for setting the batting mechanism, means for releasing the set batting mechanism when the bull's-eye has been displaced, a ball return trough in the frame, a chute communicating with the trough for delivering balls to the receiver, a gate automatically controlled by the batting mechanism for effecting the discharge singly of balls from the chute to the receiver, and an adjustable batting wing coöperative with the batting mechanism.

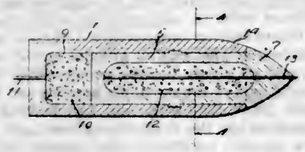
[Claims 4 to 9 not printed in the Gazette.]

1,242,943. WINDOW-LOCK. UNITED S. JACKSON, Copperfield, Oreg. Filed Aug. 22, 1916. Serial No. 116,316. (Cl. 16—53.)



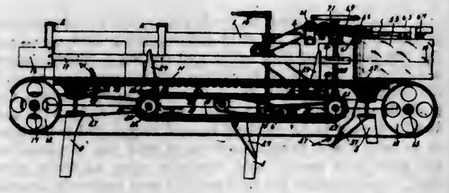
A window lock comprising a casing mounted in a window sash, the latter being provided with a relatively deep recess for the reception of the casing, a retaining plate countersunk in the face of the sash and extending over the said casing, a finishing plate overlapping the said retaining plate and rigidly fixed thereto, the retaining plate having an opening formed therein, a window lift pivotally mounted, the finishing plate having an opening for snugly receiving the window lift, one end of the window lift being adapted to extend through the opening in the retaining plate whereby the opposite end may extend outwardly from the finishing plate, latch means mounted within the casing for pivotal movement, locking means co-acting with the said latch means when the latter is operated, the said lifting plate contacting with the latch means when pivotally moved.

1,242,944. PROJECTILE. CARL A. JOHANNESEN, Brooklyn, N. Y. Filed Feb. 12, 1916. Serial No. 77,988. (Cl. 102—29.)



In a projectile of the class described, a casing open at one end and closed at the other and provided with a plurality of oppositely disposed spiral grooves on its inner peripheral face, said grooves extending from said open end inwardly, a time fuse extending into said casing through the closed end thereof, a shell mounted in said casing and including a body portion having a solid cone-shaped head with a laterally extending shoulder at its base projecting beyond said body portion, said shell also having a plurality of oppositely disposed spiral ribs extending from said shoulder toward its opposite end and positioned to engage the grooves of said casing, said shell having its body portion snugly fitting within the casing with the shoulder at the base of its head abutting the open end of the casing, said shell body being of less length than said casing to provide an explosive chamber at the rear of the shell when the parts are assembled, an explosive charge in said chamber, an explosive charge in the shell, a detonating cap in said shell, and a firing rod extending through the apex of said shell head and adapted to coöperate with said cap to ignite the charge within the shell.

1,242,945. PACKING CASE OR CARTON SEALING MACHINE. HARRY L. JOHNSON, Battle Creek, Mich., assignor to Johnson Automatic Sealer Co., Ltd., Battle Creek, Mich. Original application filed Feb. 28, 1916, Serial No. 80,921. Divided and this application filed Sept. 22, 1916. Serial No. 121,579. (Cl. 193—2.)



1. In a structure of the class described, the combination of a conveyer belt, a propelling chain and sprockets therefor disposed within said belt, flights pivotally mounted on said chain in pairs and adapted when erected to travel at the sides of said belt, rollers mounted on said flights for supporting them in erected position, upper and lower ways for the upper and lower reaches of said chain provided with tracks for said rollers, the front ends of the upper tracks being provided with roller guides and positioned so that the flights are swung quickly to erected position as they pass over the front sprocket, the rear ends of said upper tracks being spaced from the rear sprocket so that the rollers pass therefrom and the flights drop rearwardly from erected position as they pass over the rear sprocket, buffers mounted to receive said flights as they drop from erected position, and guides mounted to coact with said flights as they pass over the rear sprocket and guide said rollers onto the lower tracks, the front end of said lower tracks being curved upwardly to swing the flights into position to engage said guides at the front ends of the upper tracks.

6. In the structure of the class described, the combination of a conveyer belt, a propelling chain and sprockets therefor disposed within said belt, flights pivotally mounted on said chain to travel when erected at the sides of said belt, and a way for the upper reach of said chain adapted to support said flights in erected position, the front end of the way being positioned so that the flights are swung to erected position as they pass over the front sprocket, the rear end of said way being spaced from the rear sprocket so that the flights drop rearwardly from erected position as they pass over the rear sprocket.

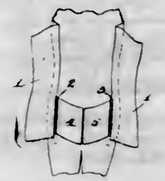
7. In a structure of the class described, the combination of a conveyer belt, a propelling chain and sprockets therefor disposed within said belt, flights pivotally mounted on said chain to travel when erected at the sides of said belt, and means for erecting and collapsing said flights.

13. In a structure of the class described, the combination of a conveyer belt, side bars disposed above and at the sides of said belt, a series of supporting rollers for the upper reach of said belt, a propelling chain and sprockets therefor disposed within said belt, flights mounted on said chain to travel when erected at the sides of said belt, driving connections for said belt and chain whereby the chain is driven at a speed slightly greater than that of the belt, and means for controlling the feeding of articles on said belt timed so that the articles are engaged by said flights.

20. In a structure of the class described, the combination of a conveyer belt, a propelling conveyer provided with flights adapted to engage the articles on said belt, driving connections whereby said propelling conveyer is driven at a speed exceeding that of the belt, and means for removing the articles from in front of said flights at the delivery end of said conveyer belt.

[Claims 2 to 5, 8 to 12, and 14 to 19 not printed in the Gazette.]

1,242,946. COMBINATION CORSET AND DETACHABLE ABDOMINAL SUPPORT. JANE M. JOHNSON, Chicago, Ill. Filed Dec. 22, 1916. Serial No. 138,325. (Cl. 2—73.)



1. The combination with a corset and eyelet tabs connected thereto, of a pad laced to said tabs adapted to receive different fillings therein.

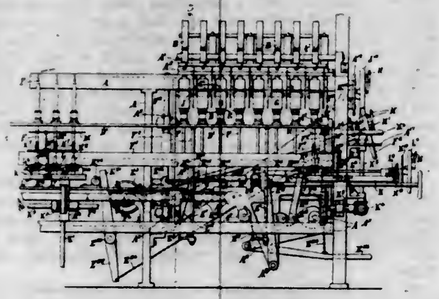
3. The combination with a corset of tabs secured thereto, a plurality of pads laced along their outer ends to the tabs each of substantially wedge shape having the thick ends abutting and means detachably connecting the abutting ends of the pads together.

[Claims 2 and 4 not printed in the Gazette.]

1,242,947. DOFFING MECHANISM FOR SPINNING-MACHINES. MICHAEL KERWIN, Philadelphia, Pa., assignor of one-half to himself and one-half to Frank Baldwin, Bristol, Pa. Filed Jan. 11, 1917. Serial No. 141,768. (Cl. 118—18.)

1. In a spinning machine, the combination with a lifter rail, a longitudinally reciprocating chain rod, flexible connections between said rod and lifter rail, and an actuating cam, of a force transmitting connection between said cam

and rod including provisions for rendering said connection inoperative and means for reciprocating said chain bar when said connection is in its inoperative position.



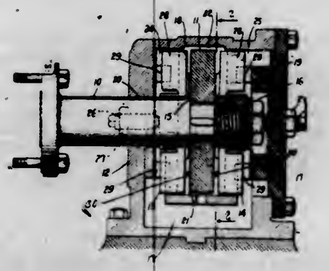
4. In a cap spinning machine the combination with caps provided each with an external circumferential rib of cap holders, each bifurcated and adapted to straddle the portion of a cap beneath its external rib and formed in its upper face with a recess adapted to receive the rib of a cap straddled by said holder on an upward movement of the latter relative to the cap and shaped to encircle said rib for more than a half circle and thereby prevent lateral displacement relative to the holder of a cap having its rib received in said recess.

6. In a spinning machine the combination with a vertically adjustable doffing rail at each side of the machine of adjustable bobbin supports mounted on said rails and a common means for simultaneously adjusting said supports relative to said rails.

19. In a spinning machine, the combination with the vertically movable spindles and caps normally supported thereby, of transversely movable cap holders, retaining devices for holding bobbins in said caps when supported by said cap holders, a doffing rail movable into one position relative to the caps to receive filled bobbins therefrom and to another position relative to the cap holders to insert empty bobbins in the caps supported by the latter and means carried by said doffing rail for adjusting said retaining devices to release the filled bobbins when the parts are in said one position and to engage the empty bobbins when inserted in the cap holders.

[Claims 2, 3, 5, 7 to 18, and 20 not printed in the Gazette.]

1,242,948. HORIZONTAL-THRUST BEARING. ALBERT KINGSBURY, Pittsburgh, Pa. Filed Jan. 9, 1915. Serial No. 1,319. (Cl. 64—25.)



1. A thrust bearing comprising a horizontal shaft having a thrust collar with annular thrust bearing surfaces, a stationary housing, a pair of axially adjustable pivots mounted in the housing in the horizontal plane of the axis of the shaft, and a pair of bearing shoes tiltingly mounted on said pivots and having bearing surfaces cooperating with the annular surface of the thrust collar on opposite sides of the shaft.

2. A thrust bearing comprising a horizontal shaft having a thrust collar with annular thrust bearing surfaces, a stationary housing, a pair of axially adjustable pivots mounted in the housing in the horizontal plane of the axis of the shaft, a pair of semi-annular bearing shoes having sector-shaped bearing surfaces raised above the body of the shoe and coöperating with the annular bearing surface of the thrust collar on opposite sides of the shaft.

3. A thrust bearing comprising a rotatable member having a horizontal axis and an annular thrust bearing surface, a pair of pivots located on diametrically opposite sides of the axis of the rotatable member and in the same horizontal plane therewith, and two bearing shoes tiltingly mounted on the respective pivots and coöperating with two opposite portions of the annular thrust bearing surfaces.

4. A thrust bearing comprising a rotatable member having a horizontal axis and an annular thrust bearing surface, a pair of pivots located on diametrically opposite sides of the axis of the rotatable member and in the same horizontal plane therewith, two bearing shoes tiltingly mounted on the respective pivots and coöperating with two opposite portions of the annular thrust bearing surfaces and means for preventing a rotative movement of the shoes about the shaft.

5. A thrust bearing comprising a rotatable shaft, a thrust collar thereon having an annular bearing surface, a relatively stationary housing, a pair of supports adjustably mounted in the housing at diametrically opposite points relative to the shaft and extending in an axial direction, a bearing shoe tiltingly mounted on each support and comprising a semi-annular member having a bearing sector coöperating with the annular bearing surface of the thrust collar, and means for preventing rotation of the shoe about the shaft.

[Claims 6 to 11 not printed in the Gazette.]

1,242,949. SHADE-ROLLER. CHARLES W. KIRSCH, Sturgis, Mich. Filed Feb. 11, 1914. Serial No. 818,059. (Cl. 156—36.)

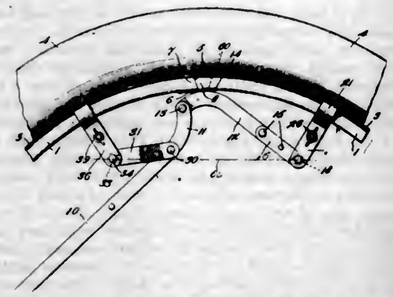


1. In a spring-actuated shade roller, a plate for one end of the roller, a cap for said end receiving said plate and the end portion of said roller and having a central recess provided in its end wall with a central opening, a shaft for said roller passing through said central opening and a similar opening in said plate, a ratchet rigid with said shaft adapted to be received in said recess and held therein by said plate, radial channels in said cap communicating with said recess, said channels open at their other ends, cover-tongues for said ends of said channels integral with a wall thereof and adapted to be bent over to close the same, and plungers in said channels adapted to engage said ratchet to hold said shaft against rotation relatively to said roller in one direction.

2. In a spring-actuated shade roller, a plate for one end of the roller, a cap for said end receiving said plate and the end portion of said roller and having a central recess provided in its end wall with a central opening, a shaft for said roller passing through said central opening and a similar opening in said plate, pronged projections on said cap adapted to be driven into the circumferential face of said roller for securing said cap, a ratchet rigid with said shaft adapted to be received in said recess and held therein by said plate, radial channels in said cap communicating with said recess, a ratchet rigid with said shaft adapted to be received in said recess and held therein by said plate, radial channels in said cap communicating with said recess, said channels open at their other ends, cover-tongues for said ends of said channels integral with a wall thereof and adapted to be bent over to close the same, and plungers in said channels adapted to engage said ratchet to hold said shaft against rotation relatively to said roller in one direction.

3. A shade roller comprising a roller having a central longitudinal square bore, a U-shaped member having arms of slightly greater width than the diameter of said bore and spaced apart to accord with said diameter adapted to be driven into said bore, and a stud mounted upon the middle portion of said member.

1,242,950. RIM-CONTRACTOR. EDWARD KNAUSS, New York, N. Y., assignor, by direct and mesne assignments, to The K. P. Manufacturing Company, Inc., New York, N. Y., a Corporation of New York. Filed Dec. 4, 1915. Serial No. 65,069. (Cl. 157—1.)



1. In a rim contractor the combination of a pair of gripping members adapted to be secured to each end of a demountable rim; a link member pivoted at one end to each gripping member; and a lever pivoted at one end to the other end of one of said link members, and at a predetermined distance from its end also pivoted to the other end of said other link member, one of said link members also provided with a curved portion constituting a fulcrum adapted to contact with the interior surface of said rim to aid in forcing the ends of said rim in opposite directions, whereby a toggle is formed adapted to expand or contract and to displace the ends of said rim and to become automatically locked when such contraction has been accomplished, substantially as described.

2. In a rim contractor the combination of a pair of gripping members adapted to be secured to the ends of a split rim; and a toggle mechanism comprising links swiveled as well as pivoted to said gripping members adapted to contract said ends, to become automatically locked to hold said contracted ends against the natural resiliency of said rim, and one of said links further provided with a curved portion adapted to facilitate the locking of the toggle, substantially as described.

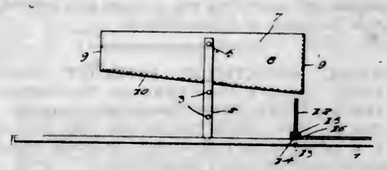
3. In a rim contractor, the combination of a pair of gripping members adapted to be secured to the ends of a split rim; and a toggle mechanism swiveled as well as pivoted to said gripping members, adapted to contract said ends, to become automatically locked and to hold said contracted ends against the natural resiliency of said rim, substantially as described.

4. In a rim contractor the combination of a pair of gripping members adapted to be secured to the ends of a split rim; and a toggle mechanism comprising a curved member adapted to fulcrum against the interior surface of said rim, said toggle mechanism swiveled as well as being pivoted to said gripping members, and adapted to contract and expand said ends, to become automatically locked, and to hold said contracted ends against the natural resiliency of said rim, substantially as described.

5. In a rim contractor the combination of a pair of gripping members adapted to be secured to the ends of a split rim; and a toggle mechanism provided with a curved member adapted on one side to contact with the interior surface of said rim and on its other side to facilitate the locking action of said toggle; said mechanism being pivoted and swiveled to said gripping members, and adapted to move in opposite directions to contract said ends, to become automatically locked, and to hold said contracted ends against the natural resiliency of said rim, substantially as described.

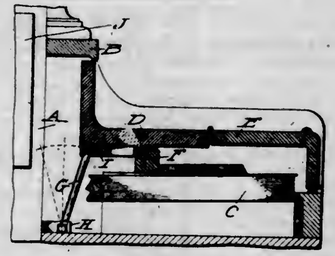
[Claims 6 and 7 not printed in the Gazette.]

1,242,951. RAIN-INDICATOR. BENJAMIN KOLE, Goshen, Ind. Filed July 26, 1916. Serial No. 111,441. (Cl. 200—35.)



In a circuit closer a base, standards arranged on the upper face of the base at spaced distances apart, brace rods connected to the standards for reinforcing and bracing the same, a balancing bar in the upper ends of the standards, a casing having side walls, front and rear walls, and an inclined bottom wall, said side walls provided with apertures through which extends the balancing bar for normally holding the casing in a horizontal position, contact posts arranged at spaced distances apart and removably mounted on the base and located in the path of one end of the casing, whereby when the casing rocks the same will engage the contact posts to close the circuit.

1,242,952. KEY-COVER FOR PIANOS AND OTHER MUSICAL INSTRUMENTS. HERBERT J. LA JOIE, Orange, N. J., assignor to Autopiano Company, a Corporation of New York. Filed May 22, 1916. Serial No. 99,101. (Cl. 84—119.)



1. In a piano or other musical instrument, the combination of a casing, a movable key cover, and arms rigidly connected together and fixedly pivoted to the casing at their lower ends and to the rear end of the moving key cover at their upper ends arranged so that they will move through their vertical position as the key cover is moved from forward to rearward position or vice versa, and so that they will support the rear end of the key cover during said movements.

[Claims 2 to 7 not printed in the Gazette.]

1,242,953. PROCESS OF PRODUCING NITROSE GASES. WALTER S. LANDIS, Niagara Falls, N. Y., assignor to Frank S. Washburn, Nashville, Tenn. Filed Feb. 20, 1915. Serial No. 9,742. (Cl. 23—1.)

1. The process of oxidizing ammonia to nitrose gases which consists in providing a mixture of oxygen, ammonia and air, containing above 80 per cent. oxygen; passing said mixture through a catalyzer; and raising said catalyzer to a temperature sufficient to start the reaction, substantially as described.

2. The process of oxidizing ammonia which consists in providing a mixture of ammonia and air, the latter containing above 30% of oxygen; subjecting said mixture to a cooling action; subjecting the cooled mixture to the action of a catalyzer; and raising said catalyzer to a temperature sufficient to start the reaction, substantially as described.

3. The process of producing nitrose gases which consists in providing a mixture of oxygen, air and ammonia containing sufficient oxygen to sustain the reaction, but insufficient to cause a substantial decomposition of the ammonia, and subjecting said mixture at a constant pressure to the action of a hot catalyzer.

1,242,954. INSECTICIDE, SHEEP-DIP, AND THE LIKE. GUSTAVE JOHN LEMMENS, Wateringbury, and PERCIVAL JOHN FRYER, Tunbridge, England. Filed Jan. 16, 1917. Serial No. 142,738. (Cl. 167—6.)

1. A parasiticidal preparation comprising comminuted parts of *Tephrosia* and a soap vehicle.

2. A parasiticidal preparation comprising comminuted parts of *Tephrosia* and a sulfur soap vehicle.

1,242,955. INSECTICIDE, SHEEP-DIP, ANIMAL-WASH, AND THE LIKE. GUSTAVE JOHN LEMMENS, Wateringbury, and PERCIVAL JOHN FRYER, Tunbridge, England. Filed Jan. 16, 1917. Serial No. 142,739. (Cl. 167—6.)

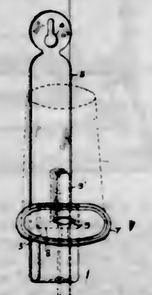
1. A new antiparasitic compound comprising a benzin extractive from desiccated parts of the plants known as *Tephrosia* mixed with an emulsifying agent.

4. A new antiparasitic compound comprising a liquid soap vehicle containing sulfur to which has been added a benzin extractive of *Tephrosia*.

5. A new antiparasitic compound comprising substantially one half to one part (weight) of *Tephrosia* extractive by benzin, four parts of soap and fifteen parts of diluted alcohol.

[Claims 2 and 3 not printed in the Gazette.]

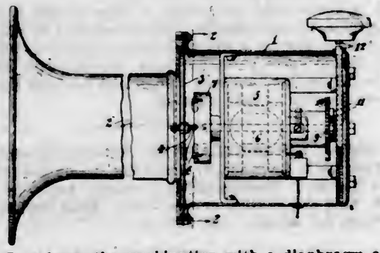
1,242,956. BRUSH AND GLASS HOLDER. ARTHUR LEWYT, Brooklyn, N. Y. Filed Oct. 10, 1916. Serial No. 124,852. (Cl. 211—17.)



1. An article of the class described comprising a flat ribbon-like strip of material looped at the bottom and provided with means for hanging the same at the top, and a support in combination with said looped bottom adapted to hold a tooth brush and upon which a glass may be seated, and an annular groove in said support adapted to receive the rim of said glass.

2. An article of the class described comprising a flat ribbon-like strip of material looped at the bottom and provided with means for hanging the same at the top, and a support in combination with said looped bottom adapted to hold a tooth brush and upon which a glass may be seated, and an annular groove in said support adapted to receive the rim of said glass, said support being detachable and adapted for engagement with said loop in an inverted position.

1,242,957. ALARM SIGNALING DEVICE. GEORGE F. LONG, Elmhurst, N. Y. Filed Aug. 23, 1913. Serial No. 786,241. (Cl. 116—1.)



1. In a horn, the combination with a diaphragm and a diaphragm actuating mechanism, of a motor having an armature shaft operatively connected with said mechanism, and a manually actuated mechanism operatively connected to said shaft to actuate the same over a period prolonged for any desired length of time and operable independently of any force applied thereto by the motor.

2. In a horn, the combination with a diaphragm and a diaphragm actuating mechanism, of driving mechanism for sustaining a continuous actuation of said diaphragm actuating mechanism by either, or both, of a pair of driving means, one of said means comprising a motor having an armature shaft operatively connected with said mechanism, and the other means including a manually actuated reciprocable member and a connection between said member and shaft for actuating said shaft on the movement of said reciprocable member.

3. In a horn, the combination with a diaphragm having a rounded end wear-piece, of a rotary member having a wear-piece engaging member with a rounded surface adapted to engage the rounded end of the wear-piece, means governed by the speed of rotation of said rotary member for controlling the operative engagement of the rounded surface of the wear-piece engaging member with the rounded end wear-piece and means for resisting the movement of the wear-piece engaging member, which means gradually increases in resistive effect, as the member approaches the wear-piece.

4. In a horn, the combination with a diaphragm and a wear-piece adjustably mounted thereon, of a rotating shaft extending substantially normal to the plane of said diaphragm, a wear-piece engaging member slidably mounted on said shaft, adjustable means tending to maintain said member in inoperative position and a governor actuated from said shaft for moving said member into wear-piece engaging position, the extent of said movement toward the diaphragm depending upon the adjusted position of said wear-piece and upon the adjustment of said means.

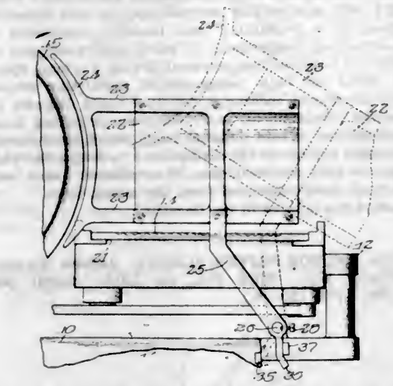
5. In a horn, the combination with a diaphragm and a diaphragm actuating mechanism including a rotating shaft, of means tending to maintain said mechanism in inoperative position relative to the diaphragm and means for moving said mechanism into operative position including an annular governor encircling said shaft and pivoted thereto, and a connection between said governor and said mechanism.

[Claims 6 to 9 not printed in the Gazette.]

1,242,958. MEAT-ADJUSTING PLATE FOR SLICING-MACHINES. JOHN I. MCCORMICK, Chicago, Ill., assignor to U. S. Slicing Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 6, 1913. Serial No. 740,298. (Cl. 17—24.)

1. The combination of a relatively movable article holder and cutter, an abutment coöperating with the holder and against which abutment the article is moved only while being initially positioned with respect to the holder, and means whereby the said abutment may be moved into an inoperative position away and free from the article and maintained in such position and against operation after the article is once positioned thereby.

6. A cutter and an adjustable guard for that portion of the edge of the cutter where the actual cutting is effected, said guard being shaped to follow the contour of the cutter edge and having connected with it a meat adjusting plate, said guard being freely adjustable at will into and out of operative position and being maintained in an operative position during the cutting operation.



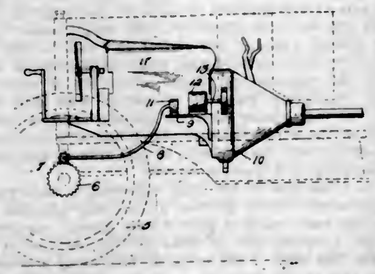
11. A guard for that portion of the edge of the cutter of a slicing machine where the actual cutting is effected, said guard mounted for free adjustment at will with respect to the cutter edge into and out of the cutting plane of the said edge, and means for retaining the guard in each of its adjusted positions, said guard shaped to follow the contour of the cutter edge.

12. In a slicing machine the combination of a relatively movable meat support and cutter, and a combined meat adjusting plate and cutter guard mounted for simultaneous adjustment in and out of their respective operative positions, said guard and plate being also adapted to be swung out of the way with respect to the cutter and maintained in such position during the cutting operation.

17. In a slicing machine, the combination of a cutter, a support for the article, an abutment coöperating with the support and with which abutment one face of the article has engagement only while the article is being initially positioned upon the support to be cut by the cutter, said abutment being adapted to be moved into and maintained in a position that it will not be engaged by the article or interfere with the slices being collected as they are cut from the article, after the article is initially positioned upon the support by the said abutment.

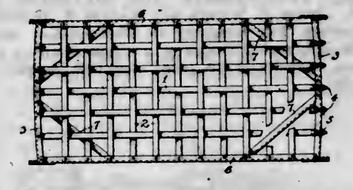
[Claims 2 to 5, 7 to 10, and 13 to 16 not printed in the Gazette.]

1,242,959. ELECTRIC STARTING MECHANISM. LEE B. MCCUTCHEN, Memphis, Tenn. Filed Aug. 4, 1916. Serial No. 113,161. (Cl. 74—7.)



The combination with the fly wheel of an explosive engine, of a casing for the fly wheel and having a slot in the wall thereof opposite of the periphery of the fly wheel, a bracket extending from the casing, a motor on the bracket, a shaft operably connected to the motor, a gear loose upon the free end of the shaft and arranged in the slot in the casing, a pawl and ratchet clutch mechanism for operably connecting the gear to the shaft so that the gear will be rotated in one direction by the shaft, an auxiliary casing carried by the main casing for inclosing the gear and the clutch mechanism, and a gear strip connected to the periphery of the fly wheel and engageable by the gear.

1,242,960. BED-BOTTOM OR THE LIKE. BURTNETT MCINTOSH, Brooklyn, N. Y., assignor to Frank A. Hall, Montclair, N. J. Filed Jan. 18, 1916. Serial No. 72,662. (Cl. 5—69.)



1. A mattress support comprising supporting means to extend under the mattress, side bars attached to said supporting means, a bowed bar, a connection between the bowed bars and the side bars, and means connecting said bowed bar and said supporting means at a plurality of points for flexing said bar toward a substantially straight form and thereby developing tension in said supporting means.

4. A mattress support comprising supporting means to extend under the mattress, a resilient bowed bar, means connecting said bar and said supporting means at a plurality of points on said bar, for flexing said bar toward a substantially straight form and thereby developing tension in said supporting means in one direction, and means for imparting force from said bar to said supporting means transversely to exert tension in said supporting means in another direction.

6. A mattress support consisting of supporting means to extend under the mattress, side bars attached to said supporting means, a pair of oppositely disposed bowed bars, a connection between the bowed bars and the side bars, and means connecting said bowed bars and supporting means at a plurality of points for flexing said bars toward a substantially straight form and thereby exerting tension in said supporting means.

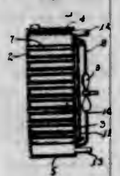
10. A mattress support consisting of a plurality of longitudinal and transverse members, a pair of oppositely disposed resilient bowed bars, tension devices connecting said longitudinal bars respectively with said bowed bars at a plurality of points on said bowed bars, for flexing said bowed bars toward a substantially straight form and exerting tension in said longitudinal members, side bars attached to said transverse members, and diagonal bars connecting intermediate points on said side bars and said bowed bars to impart force from said bowed bars to said side bars and thereby exert tension in said transverse members.

[Claims 2, 3, 5, and 7 to 9 not printed in the Gazette.]

1,242,961. RADIATOR. ENOCH E. MANSELL and WILLIAM H. WARNER, Castlerock, Wash. Filed Sept. 22, 1915. Serial No. 52,061. (Cl. 257—126.)

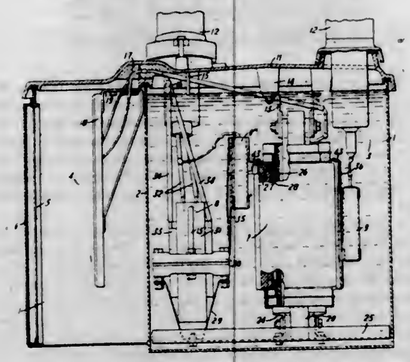
A radiator for internal combustion engines, including a fluid container having inlet and outlet openings, tubes extending through the container and in communication with the atmosphere, a deflector plate covering one of the ends of the tubes in spaced relation thereto, a fan casing inclosing the plate in spaced relation thereto, and in spaced relation to the edges of the plate, said casing having a central opening and a fan revolubly mounted in the open-

ing, whereby air may be drawn through the tubes against the plate so as to flow along the plate to the edges thereof



and into the fan casing for withdrawal through the opening therein.

1,242,962. TRANSFORMER FOR METERING SYSTEMS. JESSE E. MATEER and WALTER R. WOODWARD, Wilkinsburg, Pa., assignors to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Sept. 10, 1915. Serial No. 50,088. (Cl. 175—361.)



1. A metering transformer comprising a core member having three legs, coils disposed on the two of said legs only, said coils being adapted for connection to different phases of the polyphase system, spaced insulating barriers interposed between said coils and the third core leg, an insulating frame secured to said barriers, and a choke coil supported upon said insulating frame for protecting the transformer winding.

2. A measuring transformer comprising a rectangular core member having three legs, coils disposed on the two of said legs only, said coils being adapted for connection to different phases of a polyphase system, insulating barriers interposed between said coils and the third core leg, insulating frames secured to the outer edges of said barriers, and choke coils supported on said insulating frames and connected in series with the transformer windings.

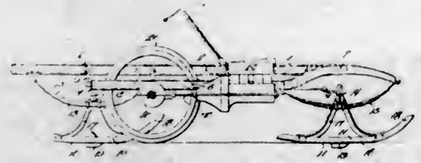
3. In a metering system, the combination with a voltage transformer comprising a rectangular core member having three legs, coils disposed on the two of said legs only, said coils being adapted for open delta connection to a three-phase system, of a current transformer, a frame for said transformers, insulating barriers interposed between said voltage transformer coils and the third leg of said rectangular core member, other insulating barriers supported on corresponding outer edges of the first said insulating barriers and interposed between the voltage transformer and the current transformer, and choke coils supported on said second insulating barriers.

4. The combination with a measuring transformer comprising a core member and current-carrying coils disposed thereupon, of a containing case therefor comprising a liquid-containing compartment in which the transformer is disposed and a second compartment having a lateral opening, a common cover for both compartments from which said transformer is suspended, outlet bushings for the high-tension coils of the transformer, connectors extending from the transformer to said second compartment, and a terminal board disposed therein to receive the connectors, said common cover being recessed to permit said connectors to bridge the dividing wall interposed between said compartments of the casing.

5. The combination with a measuring transformer comprising a core member and current-carrying coils disposed thereupon, of a containing case therefor comprising a liquid-containing compartment in which the transformer is disposed and a second compartment having a lateral opening, a cover for both compartments permitting access through the lateral opening, a terminal board disposed in said second compartment, and connectors extending from said transformer to said terminal board which are received in a recessed portion of the casing-cover to bridge the wall common to said compartments, the terminal board and transformer being suspended from the casing cover.

[Claim 6 not printed in the Gazette.]

1,242,963. MOTOR-DRIVEN SLEIGH. JOSEPH MILLER, Hartford, Wis. Filed Feb. 12, 1917. Serial No. 147,996. (Cl. 180—6.)



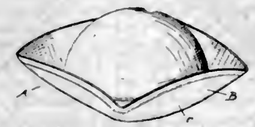
1. In a machine of the class described, a main frame, a supplemental frame pivoted at one end adjacent one end of the main frame, a pair of links pivoted together at one end, the opposite ends being pivoted respectively to the main frame and the supplemental frame at a point remote from the pivoted end thereof, supporting members connected with one of said frames for engagement with the ground, and supporting and traction means carried by the other frame for propelling the machine.

2. In a machine of the class described, a main frame comprising a pair of side bars, a cross bar connecting the same adjacent one end, a supplemental frame comprising a pair of side bars and cross bars connecting the ends of said side bars, the side bars of the supplemental frame being pivoted adjacent one end at the ends of the side bars of the main frame, toggle links connecting one cross bar of the supplemental frame and the cross bar of the main frame, supporting members connected with one of said frames for engagement with the ground, and supporting and traction means carried by the other frame for propelling the machine.

3. In a machine of the class described a main frame comprising a pair of side bars, and a cross bar connecting the same adjacent one end, a supplemental frame comprising a pair of side bars and cross bars connecting the ends of said side bars, the side bars of the supplemental frame being pivoted adjacent one end at the ends of the side bars of the main frame, toggle links connecting one cross bar of the supplemental frame with that of the main frame, supporting members connected with the main frame for engagement with the ground, traction wheels carried by the other frame for engagment with the ground disposed between the side bars of said frames, and means for operating said traction wheels.

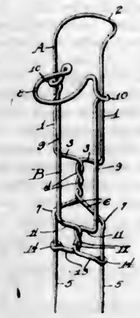
4. In a machine of the class described, a main frame, a supplemental frame pivoted at one end adjacent one end of the main frame, a pair of links pivoted together at one end, a second pair of links pivoted together at one end, the free ends of the pairs of links being pivoted together and to the main frame and supplemental frame, respectfully at a point remote from the pivoted end of the latter, supporting members connected with one of said frames for engagement with the ground, and supporting and traction means carried by the other frame for propelling the machine.

1,242,964. HAT. ARTHUR D. MITCHELL, Detroit, Mich. Filed Sept. 1, 1915. Serial No. 48,411. (Cl. 2—108.)



In a hat, the combination with the rim portion formed of sheet material, of a fashionable reinforcing wire placed about said rim adjacent the edge and a facing cemented to said rim covering and securing said reinforcing wire, whereby the shape of the rim portion of the hat may be varied.

1,242,965. IMPALING ARTICLE. PETER A. MURAF, Dayton, Ohio. Filed Nov. 18, 1914. Serial No. 872,792. (Cl. 30—5.)



1. In combination with an impaling article member, a dislodging member, one of said members having a frame with side arms, the other member having side arms, two of said side arms being coiled intermediate their ends to provide eyelets into which the remaining side arms are insertible through movement of one member relatively to the other member initiated when the members are at an angle to each other.

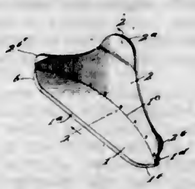
2. In combination with an impaling article member, a dislodging member, one of said members having side arms, the other of said members having side arms, the side arms of one member being coiled intermediate their ends to provide eyelets and the side arms of the other of said members extending laterally and inwardly at a portion thereof to facilitate insertion into the eyelets through movement of one member relatively to the other member initiated when the members are at an angle to each other.

3. In combination with an impaling article member, a dislodging member mounted thereon and slidable relatively thereto, and means to positively secure the members against accidental relative sliding movement when the dislodging member is at the limit of its retracting movement and yet permit said members to be moved forcibly, said means including elements one of which is located on each member, one of said elements being movable relatively to the other element and operable by the movement of the members relatively to each other.

[Claims 4 to 6 not printed in the Gazette.]

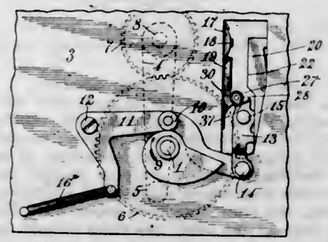
1,242,966. ROLL-PAPER SHOE. WILLIAM A. NORMAN, Chicago, Ill. Filed Oct. 4, 1915. Serial No. 54,107. (Cl. 214—1.)

A shoe whereby rolls of print paper may be supported on edge without damage, said shoe having a flat sheet metal sole for contacting the end of the roll, the outer periphery of the sole being circular and having an upstanding integral flange, and a sheet metal back rising



from said sole and being fastened to the inside of said flange whereby the device is reinforced at the corner, said back being cylindrical except at the top where it is curved outwardly to prevent digging into the sides of the roll.

1,242,967. PRINTING DEVICE FOR TICKET PRINTING, ISSUING, AND AUDITING MACHINES. JOHN F. OHMER, Dayton, Ohio. Original application filed Nov. 5, 1914, Serial No. 870,468. Divided and this application filed June 30, 1916. Serial No. 106,778. (Cl. 101—66.)



1. Printing devices, a roller platen movable over said printing devices, an inking roller movable over said printing devices in advance of the roller platen, a reciprocable frame upon which said roller platen and inking roller are mounted, means for actuating said frame, arms adapted to apply pressure to the ends of said roller platen during its passage over the printing devices, means for actuating said arms at such time, and members flexibly connected to said arms and engaged by said actuating means.

2. Printing devices, a roller platen movable over said printing devices, an inking roller movable over said printing devices in advance of the roller platen, a reciprocable frame upon which said roller platen and inking roller are mounted, arms adapted to apply pressure to the ends of said roller platen during its passage over the printing devices, means carried by said arms for rotating said roller platen during its passage over said printing devices, means for actuating said arms, and members flexibly connected to said arms and engaged by said actuating means.

3. Printing devices, a roller platen movable over said printing devices, a reciprocable frame upon which said roller platen is mounted, an inking roller movable over said printing devices, in advance of the roller platen, means for imparting a reciprocable movement to said roller platen and inking roller, pivotal arms adapted to apply pressure to said roller platen as it passes over said printing devices, means carried by said arms adapted to rotate the roller platen when passing over said printing devices, flexible members connected to said arms, and actuating means adapted to engage said flexible members and said reciprocable frame.

4. Printing devices, a roller platen movable over said printing devices, an inking roller movable over said printing devices in advance of the roller platen, a reciprocable frame upon which said roller platen and inking roller are mounted, gears adapted to rotate said roller platen, said

gears being flexibly mounted on said reciprocable frame, arms adapted to apply pressure to said roller platen while passing over said printing devices, racks carried by said arms and adapted to engage said gears to rotate the roller platen, tension levers pivoted to said arms, and cams engaging said tension levers to actuate said arms and whereby the roller platen and inking roller frame are actuated.

5. Printing devices, a roller platen movable over said printing devices, an inking roller movable over said printing devices in advance of the roller platen, a reciprocable frame upon which said roller platen and inking roller are mounted, arms adapted to apply pressure to said roller platen in its passage over said printing devices, levers pivoted to said arms and through which they are actuated, springs connecting said levers with said arms, an actuating shaft, cams on said actuating shaft engaging said levers, and means actuated from said shaft whereby said reciprocable frame is actuated.

[Claim 6 not printed in the Gazette.]

1,242,968. CORRESPONDENCE DEVICE. NATHAN OTTINGER, New York, N. Y. Filed Oct. 5, 1915. Serial No. 54,115. (Cl. 229—92.5.)



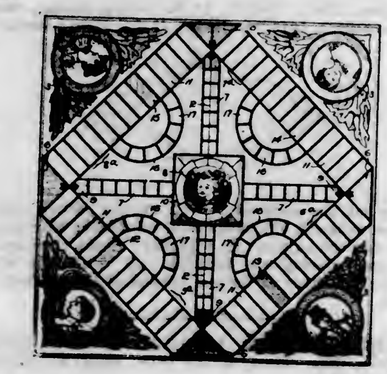
8. In a device of the character described, a sheet of material foldable to form two or more folds, one of said folds having permanent and stationary retaining members superimposed thereon, said retaining members being attached, along their principal dimensions, in proximity to a considerable portion of each of two contiguous edges of said fold, one of which edges is adjacent a line of folding, the other edge being opposed to said line of folding, each of the other two edges of said fold being open for a considerable distance, said retaining members being considerably less in area than said fold and leaving the remainder of said sheet exposed, another fold being of a size to extend beyond the bounds of the exposed portion of the first mentioned fold and above the retaining members, a portion of such extension being insertible beneath the retaining members, by rotary movement of said fold above the end portion of said line of folding in proximity to said retaining member, the insertible portion extending along a considerable portion of each of two edges of said last mentioned fold, one of which edges is adjacent said line of folding, the other edge being opposed to said line of folding, said retaining members exerting a holding force on said fold longitudinally and transversely and holding means on said sheet adapted to be utilized after folding to hold the same folded.

12. In a device of the character described, a sheet of material foldable to form two or more folds, one of said folds having a permanent and stationary retaining member superimposed thereon, one of the principal dimensions of said retaining member being of the same length as, and extending in proximity to, an entire edge of said fold, which edge is adjacent a line of folding, and leaving the remainder of said sheet exposed, another fold being of a size to extend beyond the bounds of the exposed portion of the first mentioned fold and above the retaining member, a portion of such extension being insertible beneath the retaining member, a holding flap on said sheet adapted to be utilized after folding, to hold the same closed.

[Claims 1 to 7, 9 to 11, and 13 not printed in the Gazette.]

1,242,969. GAME-BOARD. GEORGE S. PARKER, Salem, Mass. Filed Jan. 23, 1917. Serial No. 144,028. (Cl. 46—63.)

2. A game board having a track about which pieces are adapted to be moved, said track being divided into spaces and also having one or more turnouts or sidetracks each divided into spaces greater in number than the spaces on the main track between the ends of such turnout or sidetrack.

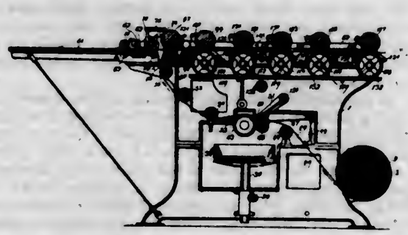


7. A game board having a track extending entirely around the same, said track being composed of four straight sections arranged in rectangular form, each section being divided into spaces and each section of said track having a turnout or side track divided into spaces of greater number than the spaces inclosed between the spaced ends of each turnout or sidetrack.

12. A game board having a track extending about said board, said track having a plurality of starting places, and a corresponding plurality of turnouts or sidetracks, each having two ends communicating with said track at spaced points, said game also including a series of playing pieces contrastingly designated, each starting place of the track having a contrasting designation corresponding to that of the playing pieces to be started thereat.

[Claims 1, 3 to 6, 8 to 11, 13, and 14 not printed in the Gazette.]

1,242,970. LINING-MACHINE. SAMUEL R. PARRY, Rochester, N. Y. Filed June 29, 1912. Serial No. 706,706. (Cl. 154—36.)



2. In a lining machine the combination of a series of pressing rollers arranged in pairs, feeding mechanism adapted to feed sheets of cardboard suitably spaced apart between said pressing rollers and separate over-lapping sheets, mechanism for applying a pasted web of paper to said sheets of cardboard, and means operating to cut said web of paper at the end of each sheet of cardboard, said mechanism being set in operation by each succeeding sheet of cardboard.

3. In a lining machine the combination of a pair of feed regulating rolls for regulating the passage of sheets of cardboard, one of said rolls being intermittent in its operation and turning a single revolution for each sheet of cardboard passing said roll, means on said roll for arresting the rotation thereof during the passage of the intermediate portion of the sheet of cardboard, and a pair of pressing rolls between which the sheets of cardboard pass from said feed regulating rolls, one of said pressing rolls being adapted to guide a web of paper passing thereover into contact with said cardboard.

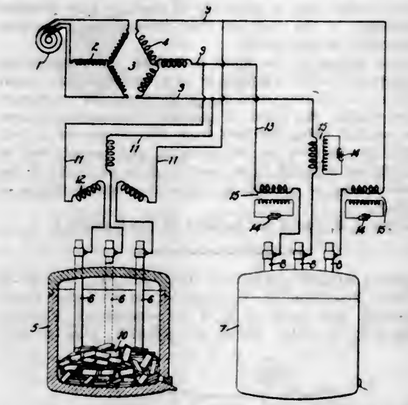
5. In a lining machine the combination of a frame, a series of pressing rolls mounted to rotate therein and arranged in pairs, the upper rolls being driven by frictional contact from the lower rolls, means for simultaneously lifting the upper rolls out of driving contact with said lower rolls, said upper rolls remaining idle while in said elevated position, a paste roll in said machine, said paste and pressing rolls being adapted to receive a web of paper to pass over said paste roll and between said pairs of rolls, and means for lifting said web of paper out of contact with said paste roll, said means being operated upon the separation of said pairs of rolls.

8. In a lining machine the combination of a frame, means for feeding a pasted web of paper through said machine, means for applying sheets of cardboard suitably spaced apart to said web, and separate overlapping sheets and means operated by each sheet of cardboard for cutting the web at the end of each sheet of cardboard.

9. In a lining machine the combination of a frame, a series of pressing rollers mounted in said frame in pairs, scrapers bearing against certain ones of said pressing rolls, a paste box and roll mounted below said pressing rolls, and a plate placed below said pressing rolls and above said paste roll to arrest thereon any matter dropping from said pressing rolls.

[Claims 1, 4, 6, and 7 not printed in the Gazette.]

1,242,971. STABILIZING AND POWER-FACTOR CORRECTING MEANS FOR ELECTRICAL CIRCUITS. JOHN F. PETERS, Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Mar. 4, 1916. Serial No. 82,079. (Cl. 204—64.)



1. The combination with an alternating-current power-supply system and a plurality of electric arc utilizing devices connected thereto, of means severally possessing diverse electrical characteristics and severally associated with said devices for both stabilizing the attendant electric arcs produced and improving the power-factor obtaining in the supply system.

2. The combination with an alternating-current power-supply system and a plurality of electric arc-utilizing devices connected thereto, of stabilizers severally possessing diverse electrical characteristics and associated with the arc-producing elements, said stabilizers being so selected that, in combination, the value of the power-factor obtaining in the supply system may be controlled.

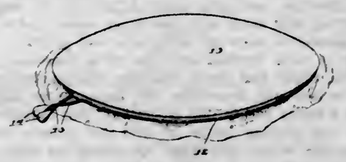
3. The combination with an alternating-current power-supply system and a plurality of electric arc-utilizing devices connected thereto, of inductive reactors only inserted in circuit with some of the electric arcing elements, and condensive reactors only inserted in circuit with others of the electric arcing elements, said condensive and inductive reactors stabilizing their attendant electric arcs and, in combination, regulating the power-factor of the supply system.

4. The combination with an alternating-current power-supply system and a plurality of electric arc furnaces having their electrodes connected thereto, of stabilizers possessing inductive characteristics only connected in series circuit with some of the electrodes, and stabilizers possessing condensive characteristics only connected in series circuit with others of the electrodes in order to stabilize the attendant electric arcs, said stabilizers, in combination, being so selected that the power-factor obtaining in the power-supply system may be improved over that normally obtaining therein.

5. An alternating-current distributing system comprising power-supply mains, a plurality of electric arc-utilizing devices connected thereto which inherently establish a low power factor in the system, and means severally possessing diverse electrical characteristics and severally associated with the electric arcing elements which both stabilize the attendant electric arcs and increase the value of the power-factor normally obtaining in the system.

[Claim 6 not printed in the Gazette.]

1,242,972. EMBROIDERY-HOLDER. JOHN H. PETTIT, Great Falls, Mont. Filed Apr. 20, 1915. Serial No. 22,659. (Cl. 45—24.)



1. In an embroidery holder, the combination with a ring providing a continuous groove, of a band member encircling the ring, shanks formed with the band member, and knobs on the free ends of the shanks, said shanks being adapted to be drawn together and held in interlocked relation by said knobs to reduce the diameter of the band member and cause the same to lie in the groove of the ring, one of said shanks being bent upwardly and the other said shank being bent downwardly to facilitate the engagement of said shanks and the holding of said shanks in cross relation and contacting with one another by the engagement of said knobs.

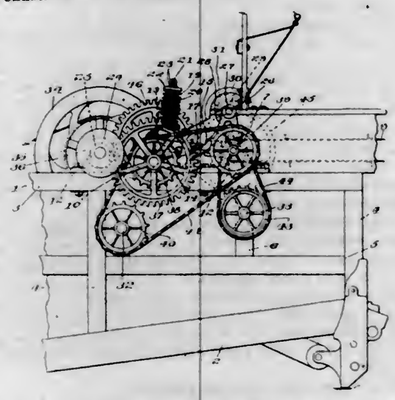
2. An embroidery holder embodying a channel like ring providing an annular groove, a member encircling the ring, diametrically extending shanks formed by the ends of the band member, said shanks being bent slightly in opposite directions and adapted to be drawn toward each other so that one shank will overlie the other, and knobs on said shanks to hold said shanks in overlying engagement.

1,242,973. CORN HUSKER AND SHREDDER. GEORGE L. PHELPS, Chicago, Ill., assignor to International Harvester Company of New Jersey, a Corporation of New Jersey. Filed Sept. 26, 1913. Serial No. 791,920. (Cl. 130—5.)

1. In a corn handling machine, the combination of coacting upper and lower snapping rollers, the upper roller being permitted a rising and falling movement, a feed shaft, means for driving said shaft and rollers, and swinging extensible supporting means directly connecting said feed shaft with the upper roller.

2. In a corn husking and shredding machine, in combination, coacting upper and lower snapping rollers rotatable in opposite directions, the upper roller being spring-pressed and permitted a rising and falling movement, a feed shaft, means for driving said feed shaft and the

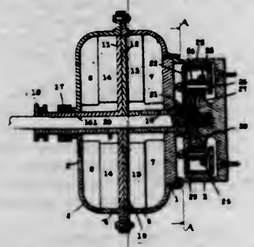
lower roller in the same direction, extensible swinging yokes iderctly connecting said feed shaft with the upper roller, and a driving gear connection between said roller and shaft.



3. In a corn husking and shredding machine, in combination, coacting upper and lower snapping rollers rotatable in opposite directions, the upper roller being permitted a rising and falling movement, a feed shaft, means for driving said feed shaft and the lower roller in the same direction, swinging yokes adjustable in length and connecting said shaft with the upper roller, and a driving gear connection between said roller and shaft.

4. In a corn husking and shredding machine, in combination, upper and lower coacting snapping rollers rotatable in opposite directions, the upper roller being permitted a rising and falling movement, link connections between the bearing boxes of the two rollers, and two springs, one within the other, encircling the body of each link and operative to resist a rising movement of said upper roller, one of said springs being inoperative during the initial rising movement of said roller.

1,242,974. POWER-TRANSMISSION MECHANISM. THOMAS D. W. PINCKNEY, New York, N. Y. Filed Feb. 6, 1914. Serial No. 816,918. (Cl. 74—34.)



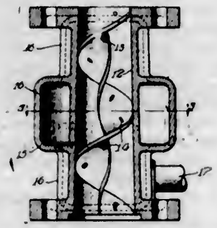
1. In a power transmission mechanism, the combination of a casing forming a fluid container and a gear case side by side with an interior partition between, a shaft extending through the fluid container and said partition and having an interior bearing in the gear case, driving and driven gears in said gear case on said shaft and the gear case respectively, pinions in said gear case meshing with said driving and driven gears and rotatably fast with respect to each other, a support for said pinions in the gear case and coaxial with the said gears and adapted to turn independent thereof, and fluid transmission members in said fluid container one of which is connected to said support.

9. The combination with a casing forming a central fluid container and opposite gear chambers, and driving and driven members, of sets of differential gearing in said gear chambers each connecting said driving and driven members, and fluid controlling mechanism in the middle chamber for automatically varying said gearing to vary the transmission of power.

12. In a power transmission mechanism, the combination of driving and driven members, differential gearing connecting said members, controlling mechanism for said gearing providing a fluid chamber, vanes and blades adjacent each other in said chamber and connected to the gearing, and means for varying the resistance to relative rotation of said vanes and blades.

[Claims 2 to 8, 10, and 11 not printed in the Gazette.]

1,242,975. HYDROCARBON-VAPORIZER. ETIENNE PLANCHE, Flint, Mich. Filed Dec. 11, 1916. Serial No. 136,328. (Cl. 257—241.)



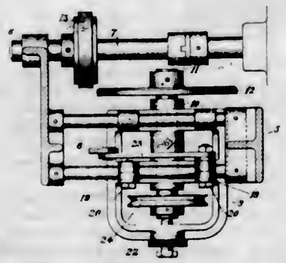
1. In a vaporizing device, the combination of a tapered conduit, the point of smallest cross-sectional area being farthest from the carbureter to which it is attached, and means within the conduit for whirling the gases in order to assist in mixing the same, substantially as described.

4. In a device of the class described, the combination of a conduit for a combustible mixture, a deflector located in said conduit, and a plurality of angular pins disposed transversely of the flow of fluid through said conduit, substantially as described.

6. In a device of the class described, the combination of a tapered conduit adapted to be attached to the intake manifold of a hydrocarbon motor between the carbureter and the engine, the point of smallest cross-sectional area of the conduit being farthest from the carbureter, a helical deflector located in the conduit, and projections on said deflector adapted to be contacted by particles of liquid which may be carried in suspension, substantially as described.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,242,976. MOTOR DRIVING MECHANISM. NICHOLAS POWER, Brooklyn, N. Y., assignor to Nicholas Power Company, New York, N. Y., a Corporation of Delaware. Filed July 14, 1914. Serial No. 850,872. (Cl. 74—26.)



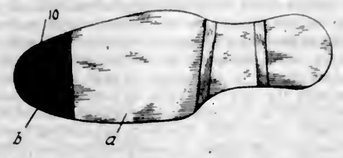
1. In a motor driving mechanism, the combination of a driving shaft, a friction wheel mounted thereon, a driven shaft at right angles to the driving shaft, a friction disk thereon and means for shifting the driven shaft bodily in a direction parallel with the driving shaft to bring the wheel and disk into and out of engagement.

2. In a motor driving mechanism, the combination of a driving shaft, a friction wheel mounted thereon, a driven shaft at right angles to the driving shaft, a friction disk thereon, means for shifting the driven shaft bodily in a direction parallel with the driving shaft to bring the wheel and disk into and out of engagement, and means for adjusting the driven shaft longitudinally of its length for varying the driving pressure between the wheel and disk.

3. In a motor driving mechanism, the combination of a suspension hanger, a driving motor depending therefrom, a pair of guide tracks carried by said hanger parallel with the shaft of said driving motor, a carriage slidingly mounted on said tracks and having a journal bearing at right angles to said motor shaft, a driven shaft in said journal bearing, and a friction wheel and friction disk mounted on said motor shaft and said driven shaft respectively, the range of movement of the driving shaft being sufficient to permit adjustment of the wheel beyond the periphery of the disk to disconnect the members.

4. In a motor driving mechanism, the combination of a suspension hanger, a driving motor depending therefrom, a pair of guide tracks carried by said hanger parallel with the shaft of said driving motor, a carriage slidingly mounted on said tracks and having a journal bearing at right angles to said motor shaft, a driven shaft in said journal bearing, a friction wheel and friction disk mounted on said motor shaft and said driven shaft respectively, means for adjusting said carriage along said tracks, and means for opposing a variable frictional resistance to the adjustment of said carriage.

1,242,977. SOLE FOR BOOTS AND SHOES. RAYMOND B. PRICE, New York, N. Y., assignor to New York Belting and Packing Company, a Corporation of New York. Filed July 17, 1915. Serial No. 40,418. (Cl. 36—32.)



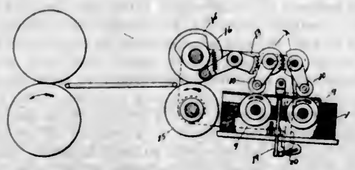
1. A vulcanized rubber sole having layers of fabric countersunk in the bottom face of the edge portion and extending parallel with the tread of the sole.

3. A vulcanized rubber sole having layers of rubber treated fabric extending parallel with the tread of the sole and localized in an edge portion, and means for preventing fraying of said fabric.

4. A vulcanized rubber sole having layers of rubber treated fabric extending parallel with the tread of the sole and countersunk in the bottom of the sole, each layer being of different length than its neighbor so that an oblique joint with the body of the sole results.

[Claim 2 not printed in the Gazette.]

1,242,978. FEEDER. CARL G. PRITCHARD, Warren, Ohio, assignor to The Harris Automatic Press Company, Niles, Ohio, a Corporation of Ohio. Filed Feb. 12, 1915. Serial No. 7,737. (Cl. 271—51.)



1. In a feeder, means for moving the topmost piece of stock from a pile thereof to cause a portion to project beyond the edge of such pile, and means for gripping the projecting portion of such topmost piece and moving the latter from the pile at right angles to its initial movement.

2. In a feeder, means for engaging the topmost article of a pile thereof and moving it longitudinally on the pile, and means for positively engaging the projected end of the article and then moving it from the pile at right angles to its initial movement.

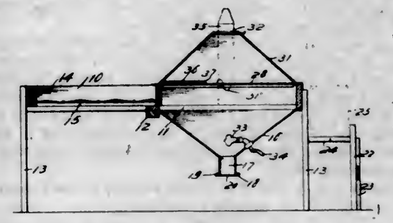
3. In a bag-tube feeder, means for engaging the topmost bag-tube of a pile thereof and moving it longitudinally on the pile, and means for then positively engaging the projected end of the bag tube and moving it from the pile at right-angles to its initial movement.

4. In a bag-tube feeder, means for engaging the topmost bag-tube of a pile thereof and moving it longitudinally to cause its opposite end to project beyond the edge of such pile, and means for gripping the projecting end of such topmost bag-tube and moving the latter from the pile at right angles to its initial movement.

5. In combination with a printing press, a bag-tube feeder located at one end thereof, means for engaging the topmost bag-tube of a pile thereof and moving it longitudinally on the pile, and means for positively engaging the projected end of said bag-tube and then moving it from the pile to the press at right angles to its initial movement.

[Claim 6 to 12 not printed in the Gazette.]

1,242,979. EGG TESTER AND HANDLER. PETER S. RAKOWSKI, Dickinson, N. D. Filed Nov. 24, 1916. Serial No. 133,233. (Cl. 99—6.)



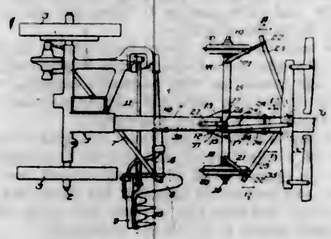
1. In a combined egg tester and handler, a frame, a hopper arranged beneath one end of the frame, a tray slidably mounted in the frame and adapted for adjustment over the hopper and provided with an open mesh bottom, said tray being adapted to receive packed eggs therein and to separate the packing from the eggs, a source of light arranged in the hopper, a testing plate adapted for engagement over the frame upon the shifting of said tray into the opposite end thereof, said plate having openings therein to receive eggs from the tray, and a hood adapted to fit over said plate and having a sight opening in the upper end thereof through which the eggs may be observed.

2. A combined egg tester and handler comprising a frame, a tray mounted to slide in the frame, a hopper arranged beneath one end of the frame, a gate closing the lower end of the hopper, said tray being adapted to receive eggs therein and provided with an open mesh bottom through which the packing is adapted to pass into the hopper, a testing plate carried by the frame for engagement over said hopper upon the shifting of the tray into the opposite end thereof, said plate provided with openings therein to reecive eggs from the tray, and a hopper carried by the frame for engagement over the plate and provided with a sight opening therein through which the eggs may be observed.

1,242,980. TONGUE-TRUCK. CHARLES ALFRED ANDERSON RAND, Neuss, Germany, assignor to International Harvester Company of New Jersey, a Corporation of New Jersey. Filed Nov. 4, 1914. Serial No. 870,216. (Cl. 21—189.)

1. In combination, a device to be drawn, a tongue truck therefor, a tongue carried by said truck, an evener on the

tongue of said truck and movable transversely and longitudinally with respect thereto, and means between said evener and said device for maintaining the draft in a plane substantially parallel to the ground.



3. In a draft connection for tongue trucks, a truck frame, a vertically disposed shaft journaled therein having cranks on its opposite ends, and draft connections operatively connected to said cranks.

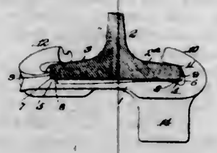
4. In a draft connection for tongue trucks, a tongue truck, a vertically disposed shaft journaled therein having cranks on its opposite ends, an evener on said truck and oppositely disposed draft connections connected to said cranks, one of the same being connected to said evener.

7. In a draft connection for tongue trucks, a tongue truck, a tongue operatively connected thereto, a vertically extending shaft protruding through said truck and tongue, cranks formed on the upper and lower ends of said shaft, and longitudinally extending oppositely disposed draft links pivotally connected to said cranks.

8. In a draft connection for tongue trucks, a tongue truck, an evener operatively connected to the tongue of said truck, a vertically disposed pivot member journaled in said tongue and truck, cranks on the opposite ends of said member, a forwardly extending draft connection connecting one of said cranks to said evener, and a rearwardly disposed draft connection pivotally connected to the remaining crank.

[Claims 2, 5, 6, and 9 to 19 not printed in the Gazette.]

1,242,981. RAIL-ANCHOR. CHARLES J. REDIFER, New York, N. Y. Filed Dec. 28, 1916. Serial No. 139,277. (Cl. 238—4.)



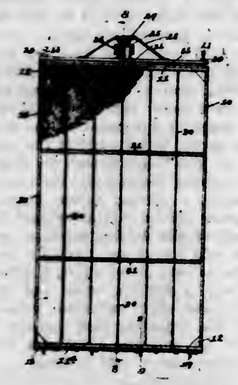
1. A device of the character described, having a body, said body having an integral arm at each end thereof, said arms overhanging the upper sides of a rail base, said arms having biting portions, and means for moving the body to engage the biting portions with the rail base to prevent further relative movement of the body and rail.

2. A device of the character described, having a body, said body having an integral arm at each end thereof, said arms overhanging the upper sides of a rail base, said arms having biting portions, and means for moving the body horizontally to engage the biting portions with the rail to prevent further relative movement of the body and rail.

3. A device of the character described, having a body, said body having biting portions, said body having integral arms overhanging the sides of a rail base, opposite the body, and means for moving the body to clamp the rail between the body and arms and engaging the biting portions with the rail.

4. A device of the character described, having an S-shaped body, with integral arms, said arms being on a different plane from the body, a tie, a rail with its base flange between the body and arms, and means whereby the body may be rocked by engagement with the tie to engage the body and arms with the bottom and top of the flange respectively.

1,242,982. SCREENING DEVICE. MORLEY PUNSHON REYNOLDS, Cleveland, Ohio, assignor to The W. S. Tyler Company, Cleveland, Ohio, a Corporation of Ohio. Filed Oct. 16, 1916. Serial No. 125,783. (Cl. 83—56.)



1. A vibrating screen comprising a screen frame, a screen cloth attached at one end with respect to said frame, means for attaching the other end of said screen cloth with respect to said frame, said second-named attaching means being longitudinally adjustable, to permit variation of the tension of the screen cloth, a magnetic device for imparting high-speed vibrations to said frame, said device being arranged so as to impart such vibrations substantially in the plane of said screen cloth and in a line with the line of tension of said screen cloth, and said device and frame being immovably mounted with respect to each other, and auxiliary supporting means extending across said frame, beneath said screen cloth.

2. A vibrating screen comprising a screen frame, a screen cloth, means for attaching one end of said screen cloth with respect to said screen frame, means for attaching the other end of said screen cloth with respect to said screen frame, said second-named attaching means being constructed so as to permit adjustment of the tension of said screen cloth, a device for imparting high-speed vibrations to said screen frame, said device being arranged so as to impart such vibrations substantially in the plane of said screen cloth and in a line with the line of tension thereof, and said device and frame being immovably mounted with respect to each other, and auxiliary reticulate rigidifying means carried by said screen frame.

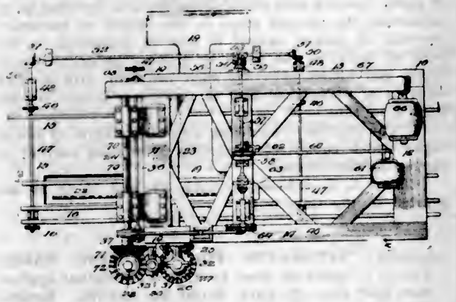
3. A vibrating screen comprising a rigidly constructed screen frame formed of resilient material, a screen cloth stretched upon said screen frame, and means carried by said screen frame for imparting relatively rapid vibrations thereto substantially in the plane of the screen cloth.

4. In a screening device, a screen cloth, a rigidly constructed support for said screen cloth, said support being formed of resilient material, and means for imparting vibrations to said support substantially in the plane of said screen cloth, said last-named means and said support being immovably mounted with respect to each other.

5. A vibrating screen comprising a screen cloth, a support for said screen cloth, means for attaching one end of said screen cloth to said support, means for attaching the other end of said screen cloth to said support, said second-named means being adjustable to allow variation of the tension of said screen cloth, and a device for imparting relatively rapid vibrations to said support, said device being arranged so as to impart said vibrations substantially in the plane of said screen cloth, and in a line with the line of tension of said screen cloth, and said device and said support being immovable with respect to each other.

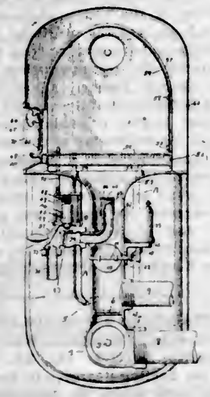
[Claims 6 to 14 not printed in the Gazette.]

1,242,983. STONE-SAWING MACHINE. AUGUSTUS M. ROSSI, Barre, Vt. Filed Mar. 21, 1917. Serial No. 156,348. (Cl. 125—18.)



In a stone sawing apparatus, in combination, an inverted U-shaped framework, a saw adapted to revolve in a vertical plane between the legs, a pair of cars adapted to travel upon two tracks on the opposite sides of the saw, a shaft at the top of said framework, two sources of power associated with the framework and adapted to be connected with said shaft means connecting said shaft and saw whereby they rotate together, means connecting said shaft with the cars for moving the cars with respect to the saw and clutch mechanism for operatively connecting one source of power with said shaft for rotating the saw and feeding the car proportionally or to connect with the other source of power to rapidly position the car with respect to the saw without rotating the saw.

1,242,984. RADIATOR. CLARENCE E. SAFFORD, Detroit, Mich., assignor to American Pressweld Radiator Corporation, Detroit, Mich., a Corporation of Delaware. Filed May 5, 1913, Serial No. 765,640. Renewed May 1, 1917. Serial No. 151,682. (Cl. 126—91.)



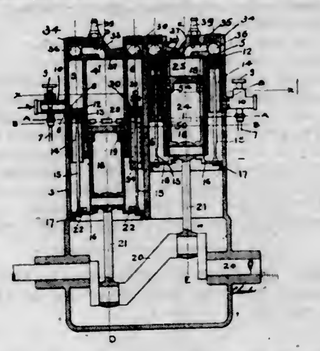
1. In a radiator, the combination of a group of sections, each section having inlet and outlet openings at their upper and lower ends respectively, a burner section connected to said group of sections and having an outlet and an inlet opening at its upper and lower ends respectively communicating with openings in the adjacent section, an air inlet opening and a burnt-gas outlet opening in said burner section, a plate in the burner section separating the said section below the air-inlet and above the burnt-gas outlet, a burner within the burner section, a gas supply therefor, and valves to admit air and gas to said burner.

2. In a radiator, the combination of a burner section comprising a burner chamber, a mixing chamber, an air passage and a burnt-gas chamber, an air inlet pipe connecting to the air passage, a controlling valve in said air passage, a gas inlet pipe connecting to the mixing chamber, a valve in said pipe, a partition separating the burnt-gas chamber from the air passage, and a plurality of heating sections connected to said burner section, said sections having openings at their upper ends through which the burnt gases may pass from the burner section to the heating sections, and at their lower ends through which the burnt gases may pass from the heating sections to the burnt-gas chamber, and means to control said valves.

3. In a radiator, the combination of a burner section comprising a burner chamber, a mixing chamber and an air passage in connection with each other, an air inlet pipe connecting with the air passage and with a source of air under pressure, a gas pipe connecting with the mixing chamber and with a source of gas under pressure, valves controlling the passage of air and gas to the mixing chamber, means for opening said air and gas valves, and heater sections adapted to receive the burnt gases from the upper end of the burner section.

4. In a radiator, the combination of a burner section comprising a burner chamber having an arched top and lateral discharge openings, a protecting shield above the burner chamber and separated therefrom by an air space, a mixing chamber below said burner chamber and an air passage connecting with said mixing chamber and with a source of air under pressure, a valve in said passage, a gas nozzle extending into said mixing chamber and connecting with a source of gas under pressure, a valve to permit the flow of the gas, a plurality of groups of heater sections having openings at their upper ends to receive the burnt gases passing out of the lateral discharge openings in the burner chamber, said sections having discharge openings at their lower ends, and a pipe for conveying away the burnt gases from said radiator.

1,242,985. GAS-ENGINE. CHARLES A. SAWTELLE, Dayton, Ohio, assignor to Vincent G. Apple, Dayton, Ohio. Filed Jan. 5, 1914. Serial No. 810,297. (Cl. 123—35.)



1. In a gas engine the combination with the main cylinder and piston, of independent cylinders and pistons both feeding to the main cylinder, a carbureter device for each of the independent cylinders whereby they receive gas charges on their suction strokes and feed high and low grade gas to the main cylinder and igniting devices for igniting a portion of the high grade gas before it reaches the cylinder and mixes with the low grade gas.

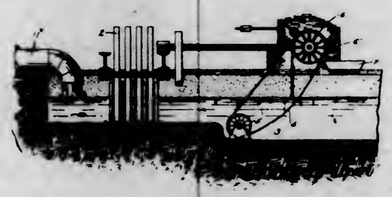
2. In a gas engine the combination with a main cylinder and piston, of auxiliary cylinders and pistons, the latter directly connected for movement with the main piston, and connections for causing said auxiliary cylinders and pistons to feed high and low grade fuels respectively to the main cylinder.

3. In a gas engine the combination with a main cylinder and piston, of a low grade fuel feeding device connected to the cylinder by a passage of restricted area and a high grade fuel feeding means connected to the cylinder by a passage of relatively larger area and sparking devices in the large area passage.

4. In a gas engine the combination with a main cylinder and piston, of an auxiliary low grade fuel cylinder and piston connected to the main cylinder by a passage way, a high grade fuel feeding cylinder and piston connected to the main cylinder by a passage relatively larger than the passage first mentioned and ignition devices in the larger passage for firing the high grade fuel before it mixes with the low grade fuel.

5. In a gas engine the combination with a main cylinder and piston, of auxiliary cylinders and pistons for high and low grade fuels respectively connected to and moving with the main piston and connections between the auxiliary cylinders and main cylinder of such restricted area as to cause the contents of the auxiliary cylinders to feed into and be compressed in the greater compression area in the main cylinder.

1,242,986. METHOD OF TREATING SEWAGE. WALTER H. SAWYER, Auburn, Me. Filed Feb. 1, 1917. Serial No. 145,846. (Cl. 210—18.)



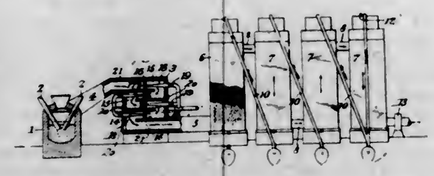
1. The method of treating sewage consisting in reducing the non-fibrous organic matter therein to a finely comminuted state, in suspension therein, in removing the fibrous element from the suspended matter and water of suspension and in eliminating the water of suspension from the comminuted non-fibrous organic matter and drying the fibrous material.

4. The step in the treatment of sewage consisting in suspending the non-fibrous organic matter in a finely divided state therein and in removing the fibrous content from said suspended matter and its water of suspension, while said finely divided matter is so suspended.

5. The preliminary step in the treatment of sewage preparatory to a removal of solids in suspension consisting in reducing the fibrous matter and distributing it throughout the water in a state of disassociation and in removing said fibrous matter in a disassociated state.

[Claims 2, 3, and 6 not printed in the Gazette.]

1,242,987. PROCESS OF OXIDIZING GASES. FRANK C. SCHMITZ, New York, N. Y. Filed Jan. 22, 1914. Serial No. 813,701. (Cl. 23—1.)



3. The process herein described of oxidizing gases, which consists in passing the gases through a chamber in a tortuous path and subjecting the gases to the action of opposed currents of oxygen opposing the movement of the gases.

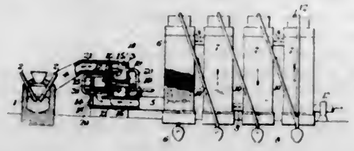
7. As a step in the art of making phosphoric acid, the process herein described of subjecting phosphorus gases to the action of an opposing current of oxygen.

12. The herein described process of producing phosphoric acid, which consists in rendering a mixture of phosphate rock, silica and carbon, fluid by subjecting the mixture to high heat to drive off phosphorus in the form of gases, causing said gases to travel in a tortuous path, subjecting the moving gases to the action of successive currents of oxygen caused to flow in opposition to the path of travel of the gases to produce phosphorus pentoxid, and finally spraying such pentoxid with a weak solution of phosphoric acid to produce a higher concentration of said acid.

14. The process of oxidizing a flowing stream of gas or vapor which comprises producing a swirling current of oxygen in said stream.

[Claims 1, 2, 4 to 6, 8 to 11, 13, and 15 to 25 not printed in the Gazette.]

1,242,988. APPARATUS FOR OXIDIZING GASES. FRANK C. SCHMITZ, New York, N. Y. Original application filed Jan. 22, 1914, Serial No. 813,701. Divided and this application filed Oct. 21, 1914. Serial No. 867,765. (Cl. 204—64.)



1. An apparatus for oxidizing gases comprising a chamber having an inlet and an outlet for the gases to be oxidized, and means associated with the chamber and so positioned as to direct a current of oxygen in opposition to the flow of the gases through the chamber.

6. An apparatus for manufacturing phosphoric acid, comprising an electric furnace, an oxidizing chamber having a flue connection with said furnace, a concentrating tower, a flue connection between the said chamber and the lower portion of the tower, and means for directing a current of oxygen into the oxidizing chamber to break up and oxidize the vapors coming from the furnace.

8. An apparatus for manufacturing phosphoric acid, comprising an electric furnace, an oxidizing chamber, a flue connection between the furnace and said chamber, an absorption tower having communication with the said chamber, means for delivering a current of oxygen into the oxidizing chamber and in a direction opposed to the direction of flow of the gases entering the chamber from the furnace to break up and oxidize said gases, and baffle walls in said chamber for causing the gases to flow in a tortuous path and to more thoroughly break up and oxidize such gases before they enter the absorption tower.

[Claims 2 to 5 and 7 not printed in the Gazette.]

1,242,989. ATTACHMENT FOR HOLDING DENTURES. HERMAN SCHREIER, Sheboygan, Wis. Filed July 13, 1917. Serial No. 180,856. (Cl. 32—4.)

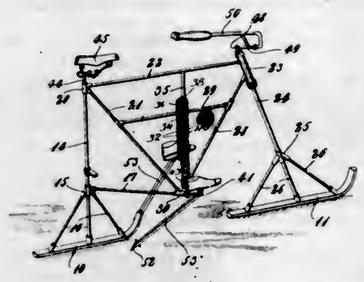
1. A device for holding dentures in position comprising a pair of jaws, each having an enlargement at one end, the adjacent face of each enlargement having a cavity, a pivot pin extending though the enlargements to hold the jaws together, and a spring in said cavities to normally force the jaws apart.

2. A device to be worn in a person's mouth and adapted for holding dentures in position comprising a pair of jaws pivoted together, and means for normally forcing said jaws apart, said jaws being movable vertically away from each other, one of said jaws being hinged to permit one portion to move laterally in a horizontal plane.



3. A device to be worn in a person's mouth and adapted for holding dentures in position comprising a pair of jaws pivoted together, means for moving the outer ends of said jaws vertically away from each other, the lower jaw being formed of two parts, and means for pivotally connecting the two parts of the lower jaw to permit the outer end of the same to move laterally in a horizontal plane.

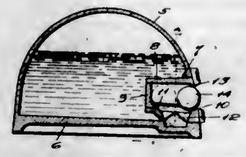
1,242,990. BICYCLE-SLED. GUSTAV SCHWITTAI and HYMAN DAVIDOVITZ, New York, N. Y. Filed June 28, 1917. Serial No. 177,436. (Cl. 208—159.)



3. In a sled, the combination with a rigid frame having a seat mounted thereon, one or more rear runners attached to said frame, and a single dirigible runner at the front of said frame, of a pair of parallel vertical bars carried by said frame, brackets slidably engaged upon each of said vertical bars, said brackets being adapted to be operated by the foot, a pulley carried at the top of said bars, a chain engaged with each of said brackets running over said pulley, and a pair of sharp spurred levers hingedly engaged with said brackets, adapted to be alternately advanced and retracted as said brackets are operated.

[Claims 1 and 2 not printed in the Gazette.]

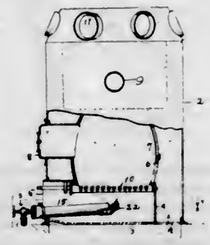
1,242,991. INK-WELL. PETER H. SEREFF, Lima, Ohio. Filed Mar. 8, 1917. Serial No. 153,343. (Cl. 120—59.)



1. An ink well of the character described, comprising a main reservoir, a housing connected with the main reservoir and provided in its lower portion with a recess having communication with the interior of the main reservoir, said housing being provided with an inclined guide-way and a valve seat at the lower end of the guide-way, and a rolling valve arranged to travel upon the guide-way and to contact with the valve seat.

2. An ink well of the character described, comprising a main reservoir provided near its bottom with an opening, a housing secured within the opening and projecting into the main reservoir, said housing having its outer end open, its inner end closed, and its bottom provided with an opening leading to the interior of the main reservoir, said housing being further provided with inclined tracks extending downwardly toward the open end of the housing, said housing being provided at the lower ends of the tracks with a spherically curved valve seat, and a ball valve mounted within the housing to travel upon the tracks and to contact with the valve seat.

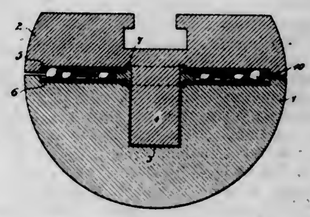
1,242,992. AIR-HEATING FURNACE. BERT S. SHERIDAN, Cleveland, Ohio. Filed Dec. 20, 1916. Serial No. 138,116. (Cl. 126—116.)



1. A hot air furnace having a fire-pot for solid fuel and a walled ash-pit below the same, in combination with a separate gas burner tube adapted to be projected into said ash pit and having a transversely corrugated and flaring dash plate in inclined position across the end of said tube and adapted to direct the flame laterally against the wall of said ash pit.

2. A hot air furnace adapted to use solid fuel and having a walled ash-pit in its bottom, in combination with a set of gas burner tubes projected into said ash-pit and having each a ruffled and flaring dash plate for the gas at its end, said plate starting immediately at the end of the tube and extending at an upward and outward inclination across said end to a plane above the same, and means to rotate said tubes axially to direct the flame against the wall of the ash pit.

1,242,993. ENGRAVING-BLOCK. PERCY D. SHIRLEY, St. Paul, Minn. Filed May 1, 1917. Serial No. 165,661. (Cl. 81—4.)



A device of the class described comprising an engraving block having an upper half and a lower half, a recess in one of said halves, a spindle on the other half extending into said recess, the halves of the block each having a depression, a ball bearing fitting said depressions and interposed between the halves of the block, said ball bearing having a central bushing through which the spindle extends, shoulders on said bushing, a pair of plates surrounding the bushing, said plates holding the balls between them and resting on said shoulders and openings in the plates through which the balls project to bear against the halves of the block.

1,242,994. APPLIANCE FOR MILK-BOTTLES. CHARLES W. SKIFF, Westfield, Mass., assignor to C. W. Skiff Company, Westfield, Mass., a Corporation of Massachusetts. Filed May 6, 1916. Serial No. 95,947. (Cl. 215—1.)



1. A cap having means for its detachable connection on the mouth portion of a bottle and having an upwardly extending tubular spout of less diameter than the cap proper, a cover pivotally connected to one side of the spout, having a rearwardly extending arm, and a bail hinged to the cap and adapted to engage the top of the cover and also said arm, a band circumferentially adjustable and having means for its detachable confinement about the body of the bottle and having an upwardly extending outwardly bowed handle member, and a single means for the detachable connection of said handle member and said cap and to effect a seating of said cap.

2. A cap, having depending ears to engage about different portions of a bottle top, having a binding screw threading through one of the ears to effect a firm seating of the cap on the bottle, and provided with an upstanding upwardly open tubular spout, a cover pivotally connected to the upper portion of said spout, having an arm extending rearwardly beyond the pivotal connection and having a rounding top, a bail pivotally connected to the cap at opposite sides of the spout and adapted when swung in one direction to confine the cover in its spout closing position, and when swung in the opposite direction to engage said arm to swing the cover to, and hold it in, its open position, and an appliance comprising a band to encircle the body of the bottle, and an upwardly extending outwardly bowed handle member connected to the band, the upper end portion of which is apertured and adapted to be confined by said binding screw in relation to the mouth portion of the bottle.

3. A cap, having depending ears to engage about different portions of a bottle top, having a binding screw threading through one of the ears, and provided with an upstanding upwardly open tubular spout, a cover pivotally connected to the upper portion of said spout, having an arm extending rearwardly beyond the pivotal connection and having a rounding top, a bail pivotally connected to the cap at opposite sides of the spout and adapted when swung in one direction to confine the cover in its spout closing position, and when swung in the opposite direction to engage said arm to swing the cover to, and hold it in, its open position, and an appliance comprising a band of thin metal, to encircle the body of the bottle, having its end portions overlapped and one end of the band slidable around relatively to the other, one end portion of the band having apertures, and the other a tongue for engagement in either of the apertures, and one end portion of the band having a loop for holding the other end portion in close relation thereto, and an upwardly extending outwardly bowed handle member constituting the sole means of connection between the band and the cap.

4. A cap provided with a depending flange adapted to engage about the mouth portion of a bottle and provided with an upwardly extending and upwardly open spout, said flange having opposite recesses therein, a cover hinge connected to and for closing the spout provided with a rounded top and a rearwardly extended arm, a bail hinged to opposite sides of the cap and for engaging either the rounded top of the cover or said arm, and a plate to be set within the flange bordered base of the cap provided with opposite outwardly extending ears to be engaged in said flange recesses and having an aperture located forwardly in relation to its center, said so-formed and so engaged plate constituting a cream separator.

5. A cap having means for its detachable connection with the mouth portion of a bottle and provided with an upstanding upwardly open tubular spout, a cover pivotally connected to the upper portion and at one side of said spout, having an arm extending rearwardly beyond the pivotal connection, and having a dome-shaped top, formed with an upstanding rib extending in a line from rear to front of such top and having spaced upwardly open notches therein, a bail made of spring wire pivotally connected to the cap at opposite sides of the spout and adapted when swung in one direction to engage in said rib notches, and when swung in the opposite direction to engage said arm to swing the cover to, and hold it in its open position.

[Claim 6 not printed in the Gazette.]

1,242,995. VALVE-STEM CAP. OSCAR A. SMITH, Cleveland, Ohio, assignor of one-half to Edwin C. Henn, Cleveland, Ohio. Filed Mar. 4, 1916. Serial No. 82,019. (Cl. 152—12.)



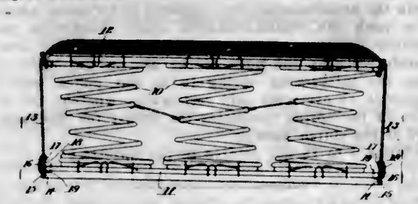
2. The combination with a felly and a threaded valve stem carried thereby, of an interiorly and exteriorly threaded valve cap adapted to fit said stem, and a nut adapted to engage the exterior threads of said cap thereby to rotate said cap on said stem and to coöperate with said felly to force said cap outwardly in the direction of its length thereby to lock said cap on said stem, the threads of said stem, cap and nut all running in the same direction.

5. The combination with a felly and a valve stem carried thereby, said stem having a plurality of interrupted or mutilated thread portions, of a valve cap also having a plurality of mutilated thread portions, the coöperating thread portions of said parts being formed to prevent the cap from being turned beyond a certain point on the stem, and means at the exterior of said cap and coöperating with said felly to force said cap outwardly in the direction of its length thereby to lock said cap on said stem, the cap and said means being rotated in the same direction to lock said cap on said stem.

[Claims 1, 3, 4, and 6 to 9 not printed in the Gazette.]

1,242,996. SPRING STRUCTURE. WATSON R. SMITH, Jackson, Mich. Filed Nov. 20, 1915. Serial No. 62,563. (Cl. 155—25.)

1. An upholstered cover for spring structures comprising covering material, a frame to which the lower edges of the side facings of the covering material are disposed and which has spaced openings therein, and means fitting around the frame and having prongs passed through the lower edges of the facings and through said openings and upset on the inner side of the frame to fasten the covering to the latter.

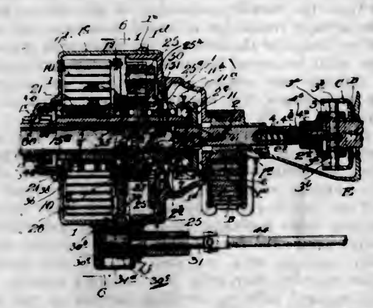


2. An upholstered cover for spring structures comprising covering material, a frame to which the lower edges of the side facings of the covering material are disposed and which has spaced openings therein, and means fitting around the frame and having prongs passed through the lower edges of the facings and through said openings and upset on the inner side of the frame to fasten the facing to the latter, said frame carrying means to effect a detachable locking connection between the upholstered cover and the spring structure.

3. An upholstered cover for spring structures comprising covering material, a frame to which the lower edges of the side facings of the covering material are secured and which has spaced openings therein, and means fitting around the frame and having prongs passed through the lower edges of the facings and through said openings and upset on the inner side of the frame to fasten the covering to the latter, said frame carrying means to effect a detachable locking connection between the upholstered cover and the spring structure and to support the latter on said frame.

4. An upholstered cover for spring structures comprising covering material, a frame to which the lower edges of the side facings of the covering material are secured and which has spaced openings therein, means fitting around the frame and having prongs passed through the lower edges of the facings and through said openings and upset on the inner side of the frame to fasten the covering to the latter, and a plurality of inwardly projecting upwardly turned hooks on said frame for detachably engaging and supporting the spring frame.

1,242,997. STARTER FOR INTERNAL-COMBUSTION ENGINES. JOHN K. STEWART, New York, N. Y.; Julia B. Stewart executrix of said John K. Stewart, deceased. Filed Nov. 10, 1915, Serial No. 60,728. Renewed Feb. 26, 1917. Serial No. 151,147. (Cl. 185—41.)



1. An engine strater comprising two axially alined rotating members interlapped and having bearings upon each other and provided with one-way driving clutch connections; a casing; a planetary gear train having the member which communicates the planet-wise movement journaled in the casing, and affording journal bearing for the outer of said inter-lapped rotating members; the central gear member of said planetary train being rigid with said outer of said members.

2. In an engine starter in combination with a casing, an engine-connected shaft member; an axially hollow member outside of and coaxial with said engine-connected shaft member; one-way driving clutch connections between said coaxial members; a planetary gear train having its central gear member rigid with said outside of said coaxial members, a main power spring secured at one end to the casing and at the other end to a member of the planetary gear train; and a second one-way driving clutch connection between the engine-connected shaft member and a member of the planetary gear train.

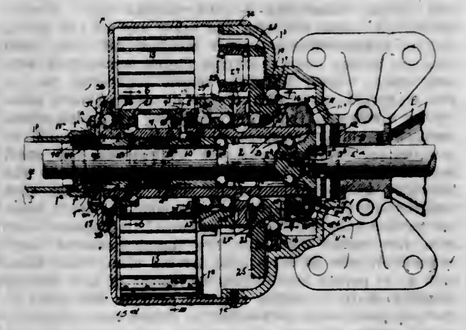
3. In an engine starter in combination, a casing, a main shaft, a planetary gear train and a power spring, the power spring being secured at one end to the casing and at the other end to a member of the planetary gear train, and the main shaft having two clutch connections, one with the initial and the other with the final gear member of the planetary train.

4. In an engine starter in combination, a casing, a main shaft, a power spring, and a planetary gear train; the power spring being connected at one end to the casing and at the other end to a member of the planetary gear train, the planetary gear train comprising a master gear and means for releasably securing the master gear to the casing against rotation with the train, the power shaft having two clutch connections, one with the initial gear and the other with the final driven gear, exclusive of the master gear, of the planetary gear train.

5. An engine starter comprising the following three elements successively interior each to the preceding, and journaled each upon the next exterior, viz: a casing; an exterior member of a planetary gear train, and an axially hollow member which carries the interior member of such train; and comprising also the master gear of the planetary gear train, and an engine-connected starting shaft member journaled on said axially hollow member.

[Claims 6 to 42 not printed in the Gazette.]

1,242,998. STARTER FOR INTERNAL-COMBUSTION ENGINES. JOHN K. STEWART, New York, N. Y.; Julia B. Stewart executrix of said John K. Stewart, deceased. Filed Dec. 30, 1915, Serial No. 69,303. Renewed Feb. 26, 1917. Serial No. 151,146. (Cl. 123—187.)



1. In an engine starter a casing adapted to be rigidly mounted on a vehicle frame; a starting shaft supported in said casing comprising a hollow prime-moving member and an engine connected member having one-way-driving clutch connections with each other; a main power spring operatively connected with the prime-moving shaft member; a planetary gear train for winding up the spring having its propelling member journaled in the casing; the prime-moving shaft member journaled in said propelling member, the engine-connected shaft member being extended and journaled within the prime-moving shaft member, and a floating coupling shaft member engaged

for rotation at one end with the engine shaft and at the other end with said engine-connected shaft of the starter.

2. In combination with a motor vehicle and its engine an engine starter comprising a casing adapted to be rigidly mounted on the vehicle frame; a starting shaft supported in said casing comprising a hollow prime-moving shaft member and an engine connected member having one-way-driving clutch connections with each other; a main power spring operatively connected with the prime-moving shaft member; a gear train whose final gear is also operatively connected with the prime-moving shaft member and whose initial operating member has disengageable clutch connection with the engine-connected shaft; said engine-connected shaft being extended within and slidably journaled in the prime-moving shaft member; and means by which the rotation of the prime-moving shaft member in opposite directions for winding and in unwinding of the spring slides the engine-connected shaft member for engagement and disengagement of the last mentioned clutch connection, and a floating coupling shaft member loosely engaged for rotation at one end with the engine shaft and at the other end with the engine-connected shaft member of the starter and a spring operating on said coupling shaft member for thrusting it and the engine-connected shaft in the direction for engagement of said clutch connection.

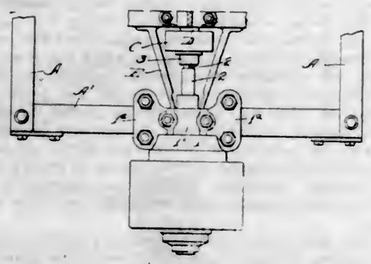
3. In combination with a motor vehicle and its engine an engine starter comprising a casing rigidly mounted on the vehicle frame; a starting shaft supported in said casing comprising a prime-moving shaft member and an engine-connected member having one-way driving clutch connections with each other; a power spring in the casing operatively connected with the prime-moving shaft member; a train for winding up the spring from the engine-connected shaft comprising a disengageable clutch connection; a floating coupling shaft member loosely connected at one end with the engine shaft and at the other end with the engine-connected shaft of the starter; a spring operating on said floating coupling shaft for thrusting it and the engine-connected shaft in the direction for engaging the last mentioned clutch connection and means operated by the rotation in opposite directions of the prime-moving shaft member for engaging and disengaging said clutch connection.

4. In combination with a motor vehicle and its engine an engine starter comprising a casing mounted rigidly on the vehicle frame, a power spring in said casing connected at one end thereto; a starting shaft supported in said casing, comprising a prime-moving shaft member operatively connected with the other end of the spring and an engine-connected shaft member, said two shaft members having one-way-driving clutch connections with each other; a gear train operatively connecting the engine-connected shaft with the prime-moving shaft member for winding up the spring, said gear train connections comprising clutch members which are disengageable by longitudinal movement of the engine-connected shaft member; said shaft member being extended within and journaled in the prime-moving shaft member for such longitudinal movement; a floating coupling shaft member having loose driving connection at its opposite ends with the engine shaft and the engine-connected shaft respectively, one of said loose driving connections being such as to permit longitudinal movement of said floating coupling shaft; a spring reacting between the parts at the last mentioned connection to thrust the engine-connected shaft member forward for engagement of said clutch members, and means operated by the rotation of the prime-moving shaft member in the winding up action for thrusting said engine-connected shaft member in the

5. In an engine starter in combination with a casing a main power spring; a prime-moving shaft member operatively connected with said power spring for winding the latter and for being rotated by it in its unwinding, an engine-connected shaft member having one-way-driving clutch connection with the prime-moving shaft member; a train for winding up the spring from the engine-connected shaft member; a disengageable clutch connection between the engine-connected shaft member and the propelling member of said train; a nut held slidably and nonrotatably by the casing and screwed to the prime-moving shaft member at the forward end thereof; a sleeve within said prime-moving shaft member positioned for pushing rearwardly on the engine-connected shaft member; a spring reacting between the nut and the sleeve slidably mounted within the prime-moving shaft member and thereby adapted to push the engine-connected shaft member in the direction for disengaging the clutch; means for overcomably resisting the push of the nut on the sleeve to cause the intervening spring to be put under tension adequately to overcome said resistance; whereby the reaction of the spring completes the thrust for disengagement of the clutch member.

[Claims 6 to 18 not printed in the Gazette.]

1,242,999. AUTOMOBILE-ENGINE STARTER. JOHN K. STEWART, New York, N. Y.; Julia B. Stewart executrix of said John K. Stewart, deceased. Original application filed Nov. 10, 1915, Serial No. 60,728. Divided and this application filed Mar. 13, 1916. Serial No. 83,807. Renewed July 19, 1917. Serial No. 181,647. (Cl. 180—64.)

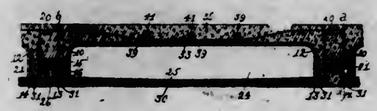


1. In combination with the engine shaft and vehicle frame, a starter comprising a rigid casing having a flange projecting longitudinally from its rear end seating on and bolted rigidly to the forward cross bar of the vehicle frame and serving as the sole support of the casing on the vehicle; a sleeve seated on said flange for pivotally supporting the forward shaft bearing of the engine; a starting shaft journaled in the casing and extending through said sleeve with space therein about the shaft for the forward shaft bearing; and means for coupling the starting shaft to the engine shaft behind said shaft bearing.

2. In combination with the engine shaft and frame and vehicle frame, a starter comprising a casing having a flange by which it is mounted rigidly on and overhung forward from the forward cross bar of the vehicle frame; means on said frame for pivotally mounting the engine frame by means of the forward shaft bearings thereof; a starter shaft journaled solely in the casing and extending back through said engine shaft bearing, and means by which it engages the engine shaft rearward of said bearing.

3. In combination with the vehicle frame and engine mounted thereon having a shaft thereof terminating forwardly; a coupling member on the forward end of said shaft; a starter casing mounted rigidly on the front cross bar of the vehicle frame forward of said shaft terminal; a starting shaft journaled in said casing and extending rearward across the front frame bar; a coupling member slidably engaged with the rear end of said shaft for rotation together therewith, said coupling member being loosely engaged with the coupling member on the engine shaft for rotation therewith; the shaft having an axial bore in the rear end, and a spring-pressed center pin longitudinally reciprocable in said bore having the rear end cone-pointed, the engine shaft having its forward end centrally provided with a seat for the cone point for co-centering the starting shaft with the engine shaft.

1,243,000. COMPOSITE BEAM. PEREZ M. STEWART, New York, N. Y., assignor to Gertrude F. Stewart, New York, N. Y. Filed Mar. 4, 1916. Serial No. 82,228. (Cl. 72—66.)



1. A portable composite beam comprising metal side members arranged in substantially close proximity to each other, bolts extended through said side members between their ends to tie said members together, sleeves mounted on said bolts between said side members to space them apart, an intermediate member of plastic material bonded to said side members and movable therewith as a one-piece bar capable of being handled as such, and a metal reinforcement for said plastic member extended in the direction of the length of said side members under said bolts and in contact with said sleeves to be restrained thereby.

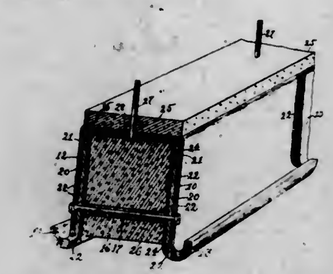
3. A portable composite beam comprising metal side members arranged in substantially close proximity to each other, devices for tying said side members together to be handled as one piece, end plates coöperating with said side members, a reinforcing rod extended under said tying devices and contacting therewith to be restrained thereby and secured at its ends to said end plates, and an intermediate member of plastic material bonded to said side members and enveloping said tying devices and reinforcing rod.

5. A portable composite beam comprising side members arranged in substantially close proximity to each other, devices for tying said side members together to be handled as one piece, an intermediate member of plastic material bonded to said side members and movable therewith as a one-piece bar capable of being handled as such, and a metal reinforcement for said plastic member extended under said tying devices in contact therewith to be restrained thereby against upward movement and in the direction of the length of said side members.

8. A portable composite beam comprising side members, a sleeve interposed between said side members and located below their upper surfaces, means extended through said side members for supporting said sleeve and tying said side members together, an intermediate member of plastic material between said side members and enveloping said sleeve, and a metal reinforcement for said plastic material extended in the direction of said side members and coöperating with said sleeve to be restrained thereby against upward movement.

[Claims 2, 4, 6, and 7 not printed in the Gazette.]

1,243,001. PROTECTED METAL STRUCTURE. PEREZ M. STEWART, New York, N. Y., assignor to Gertrude F. Stewart, New York, N. Y. Filed Apr. 6, 1916. Serial No. 89,283. (Cl. 108—16.)

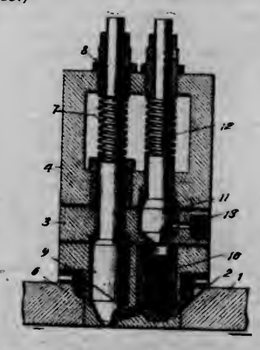


1. A composite bar comprising a metal member having a top wall and side walls extended from said top wall and outwardly bent at their lower ends to form gutters, reinforcing plates for said side walls, a layer of hydrocarbonaceous material covering said metal member, a protective layer covering the exposed surfaces of said metal member, means for tying said side walls together, a body of plastic material between said side walls, and a cushioning member interposed between the said top wall and said protective layer.

8. A composite bar provided with a top wall and with substantially thin side walls, reinforcing plates materially thicker than said side walls and firmly secured thereto, a filling of plastic material between said side walls, a cushion supported by said top wall, and devices supported by said plastic material and extended through said top wall and cushion.

[Claims 2 to 7 not printed in the Gazette.]

1,243,002. APPARATUS FOR IGNITION IN EXPLOSIVE-ENGINES. JOHN H. STRINGHAM, Jersey City, N. J. Filed June 26, 1914. Serial No. 847,895. (Cl. 123—143.)



1. An ignition device for explosive engines comprising a cylinder, a chamber communicating with the cylinder and atmosphere, respectively, by passages, a valve controlling the passage to the cylinder adapted to be opened by the force of the compression, and a valve controlling the passage to the atmosphere adapted to be opened by the force of the explosion.

2. An ignition device for explosive engines comprising a trap for the products of combustion opened to the explosion chamber by means of a valve actuated by the compression pressure therein.

3. An ignition device for explosive engines comprising a chamber having a connection with the cylinder of the engine controlled by a valve actuated by the pressure therein, and another connection with the atmosphere controlled by a valve actuated by a higher pressure.

4. An ignition device for explosive engines comprising a chamber adapted to hold products of combustion communicating with the cylinder, a valve between said chamber and the cylinder of the engine, actuated by the compression pressure in the cylinder, and adjustable means for holding said valve closed until a certain degree of pressure in the cylinder is reached.

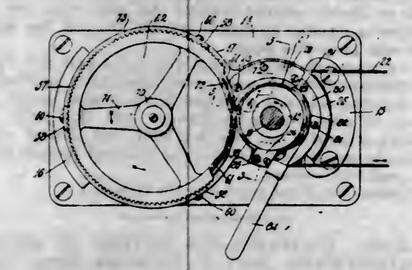
5. An ignition device for explosive engines comprising a chamber, an automatic valve between said chamber and the cylinder of the engine held normally closed by a spring, and another automatic valve between said chamber and the atmosphere held normally closed by a spring of higher tension.

[Claims 6 to 10 not printed in the Gazette.]

1,243,003. HEADING-MACHINE. CARL W. SWENSON, Providence, R. I., assignor to Arnold C. Messler, Pawtucket, R. I. Filed Jan. 12, 1917. Serial No. 142,106. (Cl. 113—41.)

1. In a machine of the character described, the combination of a concave die, a circular die adjacent thereto

having its periphery arranged relatively to the first die to form a curved guideway between the dies, a rotary feed disk in contact with the periphery of the circular die, and means for rotating the feed disk.



3. In a machine of the character described, the combination of a fixed arcuate die, a circular rotary die adjacent the first die coöperating therewith comprising a disk and a superposed plate of less diameter than the disk spaced from the disk, a rotary feed disk engaging the first disk, means for rotating said disk, a stationary wall in slidable contact with the upper marginal face of the feed disk provided with a marginal slot adjacent the rotary die, and an inclined projection on the wall at one side of said slot.

4. In a machine of the character described, the combination of a fixed die, a rotary circular die adjacent thereto provided with an annular recess, a rotary feed disk engaging the periphery of the rotary die with the top face of the disk flush with the recess, a stationary wall in contact with the margin of the top face of the disk provided with an elongated marginal slot above the disk adjacent the die and with an enlargement of said slot near one end thereof, and a projection on the wall at one side of the enlarged portion of the slot.

7. In a machine of the character described, the combination with the frame, of a rotary shaft in the frame, a tubular wall fast to the frame provided with a marginal slot, a feed disk fast to the shaft engaging and closing the bottom of the wall and bounding the slot, a rotary drum loose upon the shaft within the wall slidably engaging the disk and provided with marginal slots bounded by the disk, and means for rotating the disk and drum at different relative speeds.

10. In a machine of the character described, the combination of a stationary tubular retaining wall provided with a marginal delivery slot, a rotary disk closing the bottom of the wall and bounding the slot, a shaft to which the disk is fast, a rotary selecting drum loose on the shaft within the wall and concentric therewith, said drum being provided adjacent the disk with spaced slots, projections upon the drum at one side of the slots, and means actuating the drum for rotating the shaft.

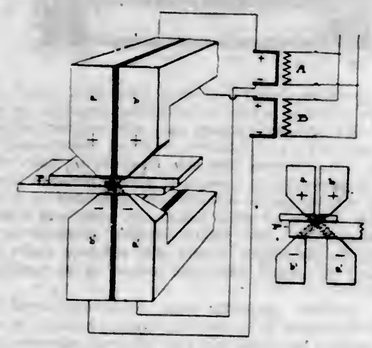
[Claims 2, 5, 6, 8, and 9 not printed in the Gazette.]

1,243,004. METHOD OF ELECTRIC WELDING AND ARTICLES PRODUCED THEREBY. ALBERTIS C. TAYLOR, Warren, Ohio. Filed Mar. 12, 1917. Serial No. 154,075. (Cl. 219—10.)

1. The method herein described of pressing pieces of metal together into good contact, passing separate electric heating currents on intersecting lines through the pieces while under such pressure, and applying additional pressure when the metal has reached a welding temperature.

4. The herein described method of uniting two pieces of metal at a spot or spots only in their opposed meeting surfaces, consisting in simultaneously pressing the pieces together between the electrodes and passing two welding currents therethrough in bias directions through each other's paths and continuing said flow of current until a spot or spots of union are effected which are entirely surrounded by areas of non-welded union.

6. The herein described method of uniting pieces or sheets of metal together at a place or places in their meeting surfaces consisting in pressing the pieces or sheets together and while under pressure passing two or more electric welding currents in a bias direction through each other's paths and concentrating the heating effect at one desired place or places and applying additional pressure with dies or the like over the heated portion to complete the weld.



10. An article of manufacture embodying overlapping pieces of metal having short linear welds uniting their contiguous surfaces together at intervals, the opposite ends of each weld being rounded and the plane surfaces opposite each weld having shallow concavities in juxtaposition with a narrow protuberance therebetween.

[Claims 2, 3, 5, 7 to 9, 11, and 12 not printed in the Gazette.]

1,243,005. PROCESS OF MAKING FLANGES. JAMES HALL TAYLOR, Chicago, Ill. Filed Apr. 9, 1915. Serial No. 20,120. (Cl. 29—148.)



1. The process of making a forged flange which consists in centrally slitting an elongated flat blank, partially spreading the two sides thus formed, stamping the inner peripheral portion of the article obliquely downward while holding the remaining outer peripheral portion in flat condition, and then forcing said inner peripheral portion into a right-angled position relative to the remaining portion.

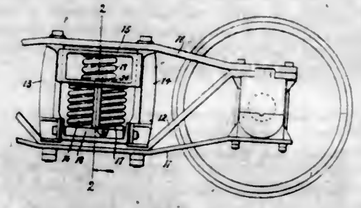
2. The process of making a forged flange which consists in centrally slitting an elongated flat blank, partially spreading the two sides thus formed, stamping the inner peripheral portion of the article obliquely downward while holding the remaining outer peripheral portion in flat condition, then forcing said inner peripheral portion into a right-angled position relative to the remaining portion, and then re-forming the elongated loop-shaped article thus formed into circular form.

[Claims 3 to 9 not printed in the Gazette.]

1,243,006. RAILWAY-TRUCK. RALPH G. TAYLOR, Chicago, Ill., assignor to Universal Draft Gear Attachment Co., Chicago, Ill., a Corporation of Illinois. Filed Mar. 6, 1917. Serial No. 152,730. (Cl. 105—243.)

1. In a car truck, in combination, a suitable frame, a bolster, a spring support for the bolster carried by the frame, and a cushioning element carried by the bolster and responsive to the weight of the load for supplementing the spring support.

2. In a car truck, in combination, a suitable frame, a bolster, a spring support for the bolster carried by the frame, a cushioning element carried by the bolster for supplementing the spring support and being effective upon a partial compression of such support.



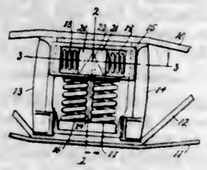
3. In a car truck, in combination, a suitable frame, a chambered bolster, a spring within the bolster, and a thrust member interposed between the spring and the frame.

4. In a car truck, in combination, a suitable frame, a chambered bolster, spring supports for the bolster carried by the frame, a spring housed within the bolster and reacting against the top thereof, a thrust pin interposed between the housed spring and the frame and normally out of engagement with one of such elements.

5. In a car truck, in combination, a suitable frame, a chambered bolster, springs supporting the bolster on the frame, a spring within the bolster and reacting between a fixed upper abutment and a movable lower abutment, and a thrust member interposed between the movable abutment and the frame.

[Claims 6 to 10 not printed in the Gazette.]

1,243,007. RAILWAY-TRUCK. RALPH G. TAYLOR, Chicago, Ill., assignor to Universal Draft Gear Attachment Co., Chicago, Ill., a Corporation of Illinois. Filed Mar. 6, 1917. Serial No. 152,731. (Cl. 105—243.)



1. In a car truck, in combination, a suitable frame, a bolster having side walls, a spring support for the bolster carried by the frame, cushioning mechanism reacting between the side walls of the bolster, and means actuated by downward movement of the bolster for compressing the cushioning mechanism.

2. In a car truck, in combination, a suitable frame, a bolster having side walls, a spring support for the bolster carried by the frame, cushioning mechanism reacting between the side walls of the bolster comprising wedging elements and springs, and means actuated by downward movement of the bolster for compressing the cushioning mechanism.

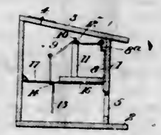
3. In a car truck, in combination, a suitable frame, a bolster having side walls, a spring support for the bolster carried by the frame, cushioning mechanism reacting between the side walls of the bolster comprising wedging elements and springs, and a thrust pin interposed between one of the wedge elements and the frame.

4. In a car truck, in combination, a suitable frame, a bolster having side walls, a spring support for the bolster carried by the frame, cushioning mechanism reacting between the side walls of the bolster comprising a pair of wedge-blocks having downwardly flaring inner faces, a triangular central wedge-block, and springs interposed between the first-named wedge-blocks and the side walls of the bolster, and a thrust pin interposed between the central wedge-block and the frame.

5. In a car truck, in combination, a suitable frame, a bolster having side walls, a spring support for the bolster carried by the frame, cushioning mechanism reacting between the side walls of the bolster comprising a pair of wedge-blocks having downwardly flaring inner faces, a triangular central wedge-block and springs interposed between the first-named wedge-blocks and the side walls of the bolster, and a thrust pin interposed between the central wedge-block and the frame and having lost motion therebetween.

[Claim 6 not printed in the Gazette.]

1,243,008. ANIMAL-TRAP. SAM TAYLOR, Morganton, N. C. Filed Apr. 14, 1916. Serial No. 91,048. (Cl. 43—19.)



1. A trap comprising a box having a horizontal partition extending across the same and dividing it into upper and lower chambers, the lower chamber comprising a plurality of compartments, and each compartment having an opening cut through the front wall of the box, a vertically sliding gravity door for closing each opening a beam and trigger for each door, and a post carried by said partition for supporting the beam, the rear end of said beam carrying the trigger, said partition having an opening through which said trigger extends, a forwardly inclined hinged cover constituting a roof, extending over all of said compartments, the beam and trigger mechanisms being wholly inclosed within said box beneath said cover, the rear end of said beam being bent downwardly at an angle and located under the highest portion of the roof, thus insuring an ample clearance between said beam and roof.

2. A trap comprising a box having a horizontal partition dividing it into upper and lower chambers, said lower chamber having a plurality of compartments and a door for each compartment, part of said partition being formed of wire mesh, and trigger mechanism for said doors, said mechanism including hooked triggers extending through and engaging said wire mesh.

3. A trap comprising a box, a gravity door, a beam and a trigger for said door, a post for supporting the beam, said beam having an arc-shaped portion engaging said post to prevent longitudinal sliding thereof when the trigger is set, and a cover inclosing the door, beam and trigger mechanism, the rear end of the beam being bent downwardly at an angle, to prevent interference with said beam by said cover.

1,243,009. ELECTRODE AND PROCESS OF MAKING THE SAME. JÖRGEN ERNST THOMSEN, Jersey City, N. J., assignor to The Joseph Dixon Crucible Company, Jersey City, N. J., a Corporation of New Jersey. Filed Feb. 2, 1917. Serial No. 146,204. (Cl. 204—65.)

1. An electrode consisting of a hard noninflammable body produced from a mixture of carbon, tar, and a compound containing the formaldehyde radical.

2. An electrode consisting of a hard noninflammable body produced from a mixture of finely divided carbon including particles of different sizes, tar, and a compound containing the formaldehyde radical.

3. An electrode consisting of a hard noninflammable body produced from a mixture of the following components in about substantially the following proportions: carbon 64%, tar 33%, and formaldehyde derivative 3%.

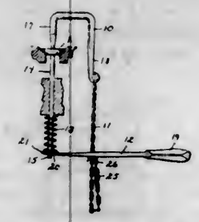
4. An electrode consisting of a hard noninflammable body produced from a mixture of finely divided carbon containing particles of different sizes, phenols and creosols, and a compound containing the formaldehyde radical.

5. A process of making electrodes, comprising mixing together carbon, tar, and a compound containing the for-

maldehyde radical, pressing the mixture into blocks, and calcining the blocks at a temperature above the decomposition point of the condensation products present.

[Claims 6 to 9 not printed in the Gazette.]

1,243,010. VALVE-SPRING LIFTER. WILLIAM S. THOMSON, Plantsville, Conn., assignor to The H. D. Smith & Company, Plantsville, Conn., a Corporation. Filed Feb. 4, 1915. Serial No. 6,070. (Cl. 29—87.1.)



In combination in a valve spring lifter, a bar that serves as an operating lever, a valve engaging member provided with a chain, the body portion of the said bar having a hole for receiving the said chain, and a hook connected to the free end of the said chain, suitable for being hooked into the links of the said chain and bridging the walls of the said hole for operatively connecting the said valve engaging member with the said bar.

1,243,011. COLLAR. WILLIAM ARTHUR TOOKE, Montreal, Quebec, Canada. Filed Jan. 2, 1917. Serial No. 140,266. (Cl. 2—69.)



1. The combination with a soft-collar of the type comprising a band and a fold-over top, the latter consisting of a plurality of plies free from each other except at their edges, of a flexible textile strap divided into two parts, one of the parts being permanently connected to the under ply of one end of the fold-over top and the other part being permanently connected to the under ply of the other end of the fold-over top and means permanently carried by said parts for detachably connecting together the free ends of the said parts.

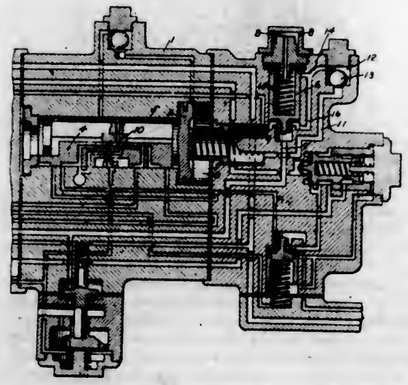
[Claim 2 not printed in the Gazette.]

1,243,012. FLUID-PRESSURE BRAKE. WALTER V. TURNER, Wilkinsburg, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Jan. 28, 1916. Serial No. 74,726. (Cl. 188—14.)

1. In a fluid pressure brake, the combination with a brake pipe and an emergency valve mechanism operated upon a reduction in brake pipe pressure for effecting an emergency application of the brakes, of a protection valve device for venting fluid from said valve mechanism through a large opening and controlling a restricted communication for supplying fluid from the brake pipe to said emergency valve mechanism.

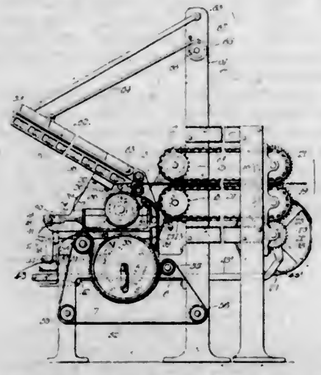
2. In a fluid pressure brake, the combination with a brake pipe and an emergency valve mechanism operated upon a reduction in brake pipe pressure for effecting an emergency application of the brakes, of a protection valve device operated upon a predetermined reduction in brake pipe pressure for venting fluid at a rapid rate from said emergency valve mechanism to operate same and adapted to control a restricted communication for supplying fluid from the brake pipe to said valve mechanism.

3. In a fluid pressure brake, the combination with a brake pipe and an emergency valve mechanism operated upon a reduction in brake pipe pressure for effecting an emergency application of the brakes, of a protection valve device operated upon a predetermined increase in brake pipe pressure for supplying fluid from the brake pipe to said emergency valve mechanism through a restricted passage and upon a predetermined reduction in brake pipe pressure for venting fluid from said emergency valve mechanism through a large passage.



4. In a fluid pressure brake, the combination with a brake pipe and an emergency valve mechanism operated upon a reduction in brake pipe pressure for effecting an emergency application of the brakes, of a protection valve device operated upon a predetermined increase in brake pipe pressure for supplying fluid from the brake pipe to said emergency valve mechanism through a restricted passage and upon a predetermined reduction in brake pipe pressure for venting fluid from said emergency valve mechanism through a large passage containing a check valve for preventing flow in the opposite direction.

1,243,013. MANUFACTURE OF PAPER-BOARD. MELVAN L. TWOMLEY, Anderson, Ind., assignor, by mesne assignments, to Sefton Manufacturing Company, Millbrook, N. Y., a Corporation of New York. Filed Mar. 9, 1912. Serial No. 682,737. (Cl. 154—32.)



1. In a machine for the manufacture of paper board, a pair of smooth surfaced compression rolls, means for feeding a sheet of corrugated paper lined upon one side thereto, means for feeding a lining sheet thereto, means extending close to the bite of the compression rolls for heating the lining sheet and corrugated sheet respectively directly upon their contiguous surfaces and adhesive applying means arranged between the compression rolls and one of the heating means.

2. In a machine for the manufacture of paper board, smooth surfaced means for compressing the board, means for feeding a corrugated strip of paper lined upon one side and a lining strip thereto, means for applying adhesive to one of said strips just prior to its entry into the bite of the rolls and means for heating both strips directly upon the faces thereof which are to be brought in contact with each other prior to the application of the paste.

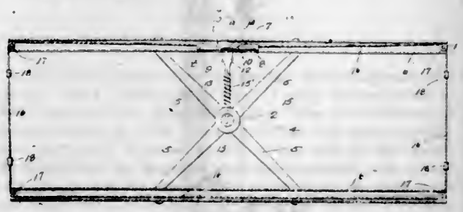
3. In a device of the class described, a pair of smooth surfaced compression rolls, a heating drum over which a corrugated strip of paper lined upon one side may be passed, with its corrugations directly in contact therewith arranged in advance of said compression rolls, an adhesive applying roll adjacent one of the compression rolls and adapted to apply adhesive to the strip of paper passing around said roll, means for heating a lining strip arranged adjacent the bite of the rolls and means for receiving and carrying away the completed fabric.

4. In a machine of the class described, a pair of compression rolls 10—11, a heating plate 57 arranged adjacent the bite of the rolls and adapted to heat a lining sheet fed to the rolls, a heated drum 7 and a breast adapted to heat a sheet of corrugated paper and to guide it to the compression rolls, a tank 28 and roller 30 for applying paste to the corrugated sheet of paper and endless belts for conveying away the completed fabric.

5. In a machine of the class described, means for bringing the sheets of material into close contact with each other, means for feeding the material through the machine, a paste roll movable into and out of contact with one of the sheets of material being treated, means for driving the paste roll when in contact with the paper, and supplemental means for driving the paste roll when withdrawn from such contact.

[Claims 6 to 12 not printed in the Gazette.]

1,243,014. ROTARY DISPLAY-RACK. ANTHONY VANDERVELD, Grand Rapids, Mich., assignor to Grand Rapids Show Case Company, Grand Rapids, Mich., a Corporation of Michigan. Filed Oct. 18, 1913, Serial No. 795,927. Renewed June 10, 1916. Serial No. 103,016. (Cl. 211—16.)



1. In combination, a stationary post, a rack rotatably mounted thereon, said rack including spaced apart parallel rods, locking means operatively associated with the rack and post automatically locking said rack in stationary relation to the post, and means for manually operating the locking means from adjacent and between the parallel rods to unlock the rack for rotation.

2. In combination, a stationary support, a rack rotatably mounted thereon including parallel and spaced apart goods supporting rods, locking mechanism associated with the support and rack for automatically locking the rack in fixed position relative to the support, and means for manually operating the locking mechanism from a point between the ends of the goods supporting rods.

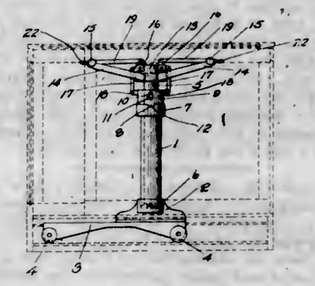
5. In combination, a stationary support, a rack rotatably mounted thereon said rack including hollow goods supporting rods positioned in spaced apart relation, recesses formed in the support, a locking rod carried by the rack having one end thereof adapted to seat in the recesses thereby locking the rack against rotation, and having the other end received within one of the goods supporting rods, a flexible member threaded through the said goods supporting rods and means connected thereto and movable back and forth in one of the goods supporting rods with the movement of the flexible member, said means having operative engagement with the locking rod to move it longitudinally when moved in either direction thereby freeing the recesses of the locking rod and freeing the rack for rotation.

6. In combination, a stationary support, a rack rotatably mounted thereon said rack including hollow goods supporting rods positioned in parallel and spaced apart relation, recesses formed in the support, a locking rod carried by the rack and having one end thereof adapted to seat in the recesses thereby locking the rack against rotation, said rod at its other end extending within one of said goods supporting rods and having a head formed thereon, a member mounted within said goods supporting rod having cam surfaces at either side of the head whereby movement of said member in either direction will serve to draw the rod outwardly and disengage it from a recess in which it may be seated, and a flexible member connected to one end of said member, threaded through the goods supporting rods and back to the other end of said member and secured thereto, whereby movement may be imparted to said member from adjacent either end of either goods supporting rod.

7. In combination, a stationary support, a rack mounted thereon, said rack including rods spaced apart, at least one of which is hollow, means whereby said rack may be rotated about its support, recesses formed in the support, a rod seated at one end within the hollow rod and at the other end adapted to seat in one of said recesses in the support, and means within the hollow rod for operating the rod to unseat it from the recess and free the rack for rotation.

[Claims 3 and 4 not printed in the Gazette.]

1,243,015. LOCKING DEVICE FOR DISPLAY-RACKS. ANTHONY VANDERVELD, Grand Rapids, Mich., assignor to Grand Rapids Show Case Company, Grand Rapids, Mich., a Corporation of Michigan. Filed Oct. 18, 1913, Serial No. 795,928. Renewed June 10, 1916. Serial No. 103,017. (Cl. 211—16.)



1. In combination, a support, a rack member mounted thereon for rotation, said rack member including parallel rods, means for locking the rack member in fixed relation to the support, a plurality of separate means mounted on the rack member and independently associated with the locking means for manual operation thereof to free the rack for rotation, each of said manually operated means including a device mounted within said rods and mounted to move lengthwise thereof and engaging elements of the locking means and operating the same to unlock the rack and free it for rotation on such lengthwise movement.

2. In combination, a support, a rack member mounted thereon for rotation, said member including parallel rods, means for locking the rack member in fixed relation to the

support, means for manually operating said locking means to unlock and free the rack for rotation, said locking means having elements connected thereto and extending to the rods, and said manually operated means including elements mounted on and movable longitudinally of the rods and engaging with the said connected elements, said elements of the operating means being formed to move the said connected elements on longitudinal movement of the operating elements in one direction and thereby operate the locking means to free the rack for rotation.

3. In combination, a support, a rack member mounted thereon for rotation, said rack member including parallel rods, and a centrally located head, means to lock the rack member in fixed relation to its support, devices mounted on the head, connections between said devices and the locking means, connections leading from said devices to the rods, means mounted on the rods and movable lengthwise thereof and having operative engagement with the connections leading to the rods whereby when said means is moved longitudinally of the rods, the said devices mounted on the head are operated and thereby operate the locking means to unlock and free the rack for rotation.

4. In combination, a support, a rack member mounted thereon for rotation, said rack member including a centrally located head and a plurality of article supporting elements attached to and movable therewith, means to lock the rack member against rotation, means mounted on the head and movable thereon, connections between said means and the locking means, connections leading from said means to the article supporting elements, and a plurality of cam devices mounted on said article supporting elements and independently manually operable, said cam devices having engagement with the connections leading to the article supporting devices whereby when manually operated the said connections are moved and serve to operate the locking means to free the rack for rotation.

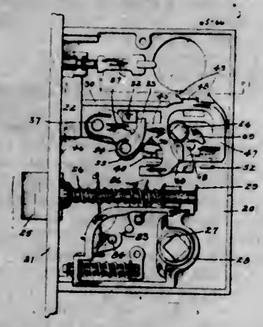
7. In combination, a support, a rack member mounted thereon for rotation, said rack member including a spindle, a head attached thereto, arms extending from the head and rods carried by the arms in parallel relation spaced apart and lying on opposite sides of the head, a fixed locking member on the support, a movable locking member on the spindle, bell-crank levers mounted on the head and each having connection with the movable locking member, links leading from the bell-crank levers in opposite directions to and into the rods, members located within the rods to either sides of said links and mounted to move longitudinally of the rods, cams on said members engaging with the links whereby on movement of any of said members, the links will be operated longitudinally and through the bell-crank levers and connections therefrom to the movable locking member, will operate said locking member to free the rack member for rotation.

[Claims 5 and 6 not printed in the Gazette.]

1,243,016. LOCK. HENRY G. VOIGHT, New Britain, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed May 4, 1916. Serial No. 95,376. (Cl. 70—92.)

1. In a lock, the combination of a dead bolt, a tumbler carried thereby and bodily movable by the movement of said bolt, a fence, a thumb turn member to protract said bolt and move said tumbler into interlocking engagement with said fence, a key for moving said tumbler into or out of interlocking engagement with said fence and protracting or retracting the bolt, and another key adapted to protract the bolt but inoperative to retract it when it has been protracted by said thumb turn member or by said first key; substantially as described.

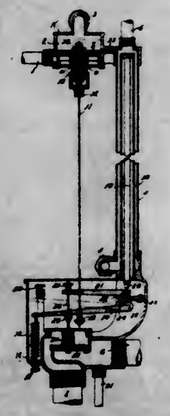
2. In a lock, the combination of a dead bolt, a fence, a tumbler carried by and bodily movable with said dead bolt, an abutment carried by said tumbler to coöperate with said fence, a thumb turn member for protracting said bolt and interlocking said abutment member with said fence so as to deadlock the bolt in protracted position, a cylinder lock mechanism, a key for said cylinder lock mechanism adapted to move said abutment out of interlocking engagement with said fence and retract the bolt, and another key for said cylinder lock mechanism operative to protract the bolt but inoperative to retract the same when it has been protracted by said thumb turn member or said first key; substantially as described.



3. In a lock, a dead bolt, a fence, a tumbler pivoted on said bolt, a movable spring pressed abutment member carried by the tumbler to coöperate with said fence, a thumb turn member to protract the bolt and move said abutment member into interlocking engagement with said fence so as to deadlock the bolt in protracted position, a cylinder lock, a key for said cylinder lock adapted to protract said bolt but inoperative to interlock said tumbler with said fence or to release it therefrom, and a second key for said cylinder lock adapted to protract and retract said bolt and to swing said abutment member into and out of interlocking engagement with said fence; substantially as described.

[Claims 4 to 22 not printed in the Gazette.]

1,243,017. WATER-HEATER CONSTRUCTION. FRANK L. O. WADSWORTH, Pittsburgh, Pa. Filed Feb. 19, 1916. Serial No. 79,307. (Cl. 126—351.)

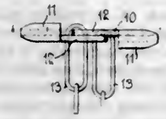


1. In combination in a water heater, a water container having an inlet and outlet, a gas burner, a conduit for supplying gas to the burner, a yieldingly closed gas valve in the conduit, a pressure operated member governed in its movements by changes of pressure induced by opening and closing the outlet from the container, a thermostatic element moved by changes in the temperature of the water, and lever means for opening the gas valve connected to the pressure operated member, the said lever means being out of contact with the thermostatic element when the outlet from the container is closed, but brought into contact therewith by the movement of the pressure operated member when the outlet from the container is opened, and the said thermostatic element being operative to control the position of the gas valve while in contact with the lever means.

2. In combination in a water heater, a water container having an inlet and outlet, a gas burner, a conduit for supplying gas to the burner, a yieldingly closed gas valve in the conduit, a pressure operated member governed in its movements by changes of pressure induced by opening and closing the outlet from the container, a thermostatic element moved by changes in the temperature of the water, and lever means for opening the gas valve connected to the pressure operated member, the said lever means being out of operative engagement with the thermostatic element when the outlet from the container is closed, but brought into pivotal contact therewith by the movement of the pressure operated member when the outlet from the container is opened, and the said thermostatic element being operative to control the position of the gas valve.

3. In combination in a water heater, a water container having an inlet and outlet, a gas burner, a conduct for supplying gas to the burner, a yieldingly closed gas valve in the conduit, a pressure operated member governed in its movements by changes of pressure induced by opening and closing the outlet from the container, a thermostatic element moved by changes in the temperature of the water, a lever having a movable fulcrum intermediate its ends and a connection for opening the valve on one side of such fulcrum, a pivot between the thermostatic element and the lever on the other side of such fulcrum but with the parts out of contact when the outlet from the container is closed, and means operative from the pressure operated member when the outlet from the container is opened for moving the fulcrum of the lever so as to bring the thermostatic element and lever into pivotal engagement, so that the gas valve is under the control of the thermostatic element while the said outlet is open.

1,243,018. CONNECTING MEMBER. MILTON M. WALLACE, Agua Dulce, Tex. Filed Oct. 18, 1916. Serial No. 126,353. (Cl. 24—201.)

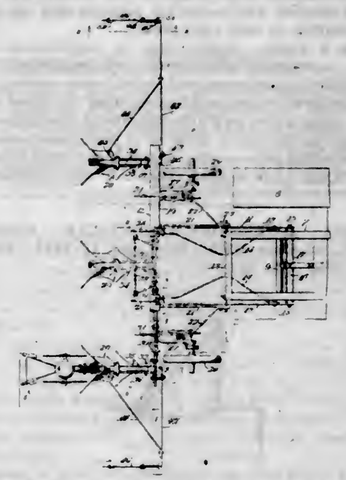


5. A connecting member comprising two complementary sections, each section comprising a body formed with a flat longitudinally extending open loop constituting a tongue, said body at the open end of the loop being formed with oppositely disposed guides on one face of the body, the tongues of the sections being faced against each other, and the tongue of one section inserted in the guides of the other section with the ends of the guides abutting against each other.

[Claims 1 to 4 and 6 not printed in the Gazette.]

1,243,019. TRACTOR-IMPLEMENT-CONTROLLING MECHANISM. LEWIS E. WATERMAN, Rockford, Ill., assignor to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed Aug. 24, 1914. Serial No. 858,338. (Cl. 97—30.)

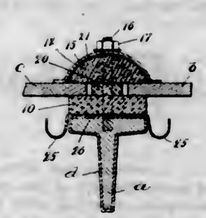
1. The combination of a draft frame adapted to be so pivotally connected at its forward end to a tractor as to be capable of vertical swinging movement about its pivotal connection, an implement frame pivotally connected upon a horizontal pivot to the draft frame and equipped with earth-working implements which with the implement frame constitute a rigid structure vertically movable with respect to the draft frame about said horizontal pivot, means for varying the suction of the implements by adjusting the implement frame relatively to the draft frame about said horizontal pivot, and gage wheels vertically adjustable for controlling the working depth of the implements independently of the adjustment of said adjusting means.



2. In a tractor-propelled implement, the combination of draft means the forward end of which is so connected with a tractor as to permit said means to swing vertically and laterally relatively to the tractor, a transverse beam connected to the rear end of said draft means and including in its connection therewith means for vertically adjusting the beam relatively to the draft means, a plurality of earth-working implements rigidly connected to said transverse beam, gage wheels connected with said beam and vertically adjustable with respect thereto, and means on the tractor for raising the transverse beam and parts connected therewith as a unit, bodily from the ground.

3. In a tractor-propelled implement, the combination of a draft-bar pivotally mounted intermediate its ends on a vertical axis to a tractor-draft-frame, members pivotally connected at their forward ends on horizontal axes to the ends of said draft-bar, an implement-frame pivotally connected to the draft-frame on a horizontal axis, intermediate the ends of said draft-frame, means connecting the rear end of the draft-frame with the implement-frame for adjusting the latter vertically, the implement-frame being provided with portions extending laterally from each side of the draft-frame, a supporting-wheel mounted upon each side portion of the implement-frame, means for adjusting the supporting-wheels vertically, and earth working implements connected to the implement-frame.

1,243,020. GLAZING CONSTRUCTION. WILLIAM P. WAUGH, Sewickley, Pa., assignor to Asbestos Protected Metal Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 9, 1917. Serial No. 167,507. (Cl. 189—77.)



1. In a glazing construction, in combination, a rigid frame, a non-plastic resilient member supported by said frame, glass panes supported by said resilient member, a sealing member of plastic water-repelling material con

tacting with the upper surfaces of the said glass panes and adhering thereto to form a moisture seal on the upper surfaces of said glass panes, a cap plate covering said sealing member, and means for securing said cap plate in fixed relation to said rigid frame.

2. In a glazing construction, in combination, a rigid frame, a resilient member of cork supported by said frame, glass panes supported by said cork member, a sealing member of asphalt contacting with the upper surfaces of the glass panes and adhering thereto to form a moisture seal on the upper surfaces of said glass panes, a cap plate covering said sealing member, and means for securing said cap plate in fixed relation to said rigid frame.

1,243,021. DISPENSING-RECEPTACLE. CHARLES L. WEIL, St. Clair, Mich. Filed Aug. 17, 1914. Serial No. 857,173. (Cl. 221—11.)



1. In a box, a spout adapted to be elevated to dispensing position and lowered to shipping position, said spout comprising a single piece of material folded upon itself in a chute-like form and a valve in said spout arranged to open when the box is inverted, and to close when the box is in upright position.

2. In combination with a box, a removable chute-shaped spout adapted to be elevated to dispensing position and lowered to shipping position, a valve within said spout arranged to open when the box is inverted and close by its own weight when the box is in upright position.

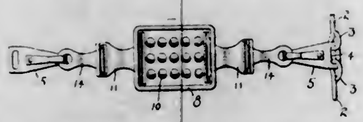
3. In combination with a box, a spout adapted to be elevated to dispensing position and lowered to shipping position, a valve within said spout arranged to open when the box is inverted and close when the box is in upright position.

4. A chute-shaped spout having an opening at the outer end thereof, a valve member comprising a lever portion pivoted at its inner end within said spout and arranged to swing across said opening, and a closure for said opening extending at an angle from the outer end of said lever portion.

5. A chute-shaped spout having an opening at its outer end, a valve member comprising a closure for said opening and a lever portion extending at an angle from said closure and pivoted within said spout and arranged to lie diagonally across the inside of said spout when the valve is closed.

[Claims 6 to 10 not printed in the Gazette.]

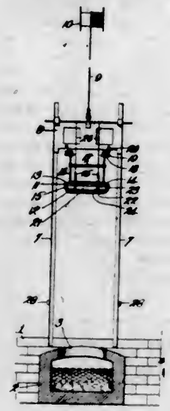
1,243,022. NON-SKID ATTACHMENT FOR TIRES. FREDERICK WENGRAF, Naugatuck, Conn. Filed Apr. 25, 1916. Serial No. 93,529. (Cl. 152—14.)



1. In a non-skid attachment for tires, side portions adapted to extend along the side of the tire on each side thereof, a non-skid plate provided with slots at its respective ends, side members, each provided with a perforation at one end and a laterally extending lug at the other end of greater width than the width of the slots of said plate, and adapted to be inserted in and passed through the respective slots of said plate, perforated end foremost, to place said lug in engagement with said plate, and means to detachably connect the perforated end of said members to said side portions.

2. In a non-skid attachment for tires, side portions adapted to extend along the side of the tire on each side thereof, a non-skid plate provided with slots at its respective ends, side members for securing said plate to said side portions, said members comprising a chain of plates of decreasing size, each provided with a perforation and a laterally extending lug at its respective ends, said lug being of greater width than the width of the perforation of the next larger plate whereby each plate may be inserted, perforated end foremost, through the perforation of the next larger plate substantially as, and for the purpose described.

1,243,023. BAIT FOR GLASS-DRAWING APPARATUS. WILLIAM WESTBURY, Okmulgee, Okla. Filed May 13, 1916. Serial No. 97,453. (Cl. 49—17.1.)



1. The combination of a molten glass receptacle, a track way, a carriage to move upward and downward on the track way over said receptacle, a bar resting on the carriage, and a two-part bait, one part flexibly suspended from said bar, and the other part pivotally suspended from said carriage; said flexibly suspended part being adapted to be disengaged from the suspension means when the part is swung pivotally upward.

2. The combination of a molten glass receptacle, a track way, a carriage to move upward and downward on the track way over said receptacle, a bar resting on the carriage, and a two-part bait, the parts of said bait being arranged in concentric relation and one within the other, arm projecting upwardly from one of said parts, flexible connections suspended from said bar and detachably hooked to said arms, rods secured to the other part of the bar and detachably hooked to said carriage so that when swung upward preliminary to detachment from the carriage, the said arms will become disengaged from the hooks of said flexible connections.

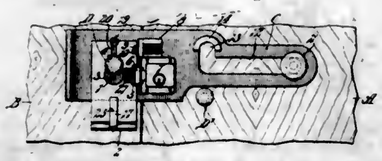
1,243,024. BUTTON. PATRICK J. WHELAN, Douglas, Ontario, Canada. Filed Feb. 14, 1917. Serial No. 148,575. (Cl. 24—105.)



4. A button of the class described comprising a rear member and an orifice therethrough provided with a counter-sunk end, a screw having a shoulder engaging with the inner face of the rear member and having a tapered head engaging with the counter-sunk end, a pair of pins located on diametrically opposite sides of the screw and carried by the rear member and a button face making threaded engagement with the screw and slidably engaged with the said pins.

[Claims 1 to 3 not printed in the Gazette.]

1,243,025. CAR-DOOR FASTENER. CHARLES O. WILLIAMS, Kansas City, Mo. Filed July 10, 1916. Serial No. 108,422. (Cl. 70—6.)



1. In a car door fastener, a fixed member on the door frame, a coöperating member on the door, means for locking said members together, a key-controlled bolt for retaining said members in locked position, a housing that covers said locking means and bolt, and which is provided with a sight opening, and means carried by said bolt and visible through said sight opening for indicating the condition of said key-controlled bolt.

2. In a car door fastener, a hasp pivotally mounted on the door and provided with a circular opening, a headed stud on the door frame, a plate slidingly mounted on said hasp and provided with a key hole slot, the smaller portion of which is adapted to lie under the head of said stud so as to prevent outward movement of said hasp with respect to said stud, a housing that substantially incloses said plate, and a spring-pressed plunger carried by said housing that is adapted to enter the enlarged portion of the key hole slot whenever said hasp is moved outwardly from said stud.

3. In a car door lock, a hasp pivotally mounted on the door, a headed stud on the door frame, a vertically-movable plate mounted on said hasp and provided with a key hole slot that coöperates with said stud, said slot being of such dimensions that when the plate is in its raised position the enlarged portion of said slot will pass freely over the head of said stud, and when said plate is in its lowered position, the reduced portion will lie under the head of said stud and thus prevent outward movement of said plate with respect to said stud, and means for holding said plate in its raised position when it is moved outwardly away from said stud.

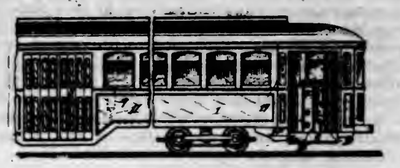
4. In a car door fastener, a movable member on the door, a rigid member on the door frame, a plate slidably mounted on said movable member that coöperates with said rigid member to hold said members in engagement, said plate being provided with a notch, a counter on said movable member provided with an operating shaft, and an arm on said shaft that projects into said notch, so that movement of said plate will be recorded in said counter.

1,243,026. STREET-RAILWAY CAR. PETER WITT, Cleveland, Ohio. Filed Feb. 3, 1917. Serial No. 146,357. (Cl. 105—205.)

1. A street railway car, provided with an end doorway and a side doorway; a fare-box removably supported adjacently to said side doorway; and a fare-box base removably mounted adjacently to said end doorway and adapted removably to support said fare-box.

2. A street railway car provided with a normal front entrance and a normal side exit; a fare-box normally removably supported adjacently to said exit; and a fare-box base removably mounted adjacently to said entrance and adapted removably to support said fare-box.

3. A street railway car provided with an end doorway and a side doorway; fare-box supports positioned adjacently to said doorways, respectively; and a fare-box adapted to be removably mounted upon either of said supports, the support adjacent to said front doorway being removably positioned.

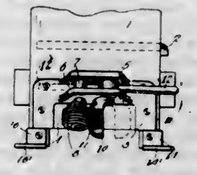


4. A street railway car provided with an end doorway and a side doorway, the latter of which doorways is located a substantial distance from both ends of the car; a fare-box adapted to be removably supported adjacently to either of said doorways; and means for thus supporting said fare-box.

5. A street railway car provided with an end doorway and a side doorway, the latter of which doorways is located a substantial distance from both ends of the car; fare-box bases mounted upon the flooring or body of the car and adjacently to said doorways, respectively; and a fare-box adapted to be removably supported upon either of said bases.

[Claims 6 to 13 not printed in the Gazette.]

1,243,027. CLAMP. HORACE G. WOODHEAD, Chicago, Ill. Filed Mar. 25, 1915. Serial No. 16,869. (Cl. 83—26.)



1. In a clamp; a gripping device consisting of an elastic head and a cam-lever revolubly mounted adjacent to and engageable with said head to positively move the same.

2. In a clamp; a gripping device consisting of a revoluble elastic head and a cam-lever revolubly mounted adjacent to and engageable with said head to positively move the same.

3. In a clamp; a gripping device consisting of a revoluble elastic head of coiled spring wire and a cam-lever revolubly mounted adjacent to and engageable with said coiled wire to clamp material therebetween.

4. A clamp including a frame, a lever having an eccentric head journaled on the frame, and an elastic abutment device adapted yieldingly to receive material placed between the same and said eccentric head and to coöperate therewith to hold the said material when said head is rotated past its dead center, the compressive force between the elastic abutment and the eccentric head being controlled by the continued movement of the eccentric head.

5. A clamp including a frame, a lever having an eccentric head journaled on the frame, and a coiled wire abutment device adapted yieldingly to receive material placed between the same and said eccentric head and to have the convolutions of the abutment engaged by said eccentric head to hold the said material when said head is rotated past its dead center.

[Claims 6 to 8 not printed in the Gazette.]

1,243,028. ANTIFRICTION-BEARING. LUDWIG W. ZAAR, Chicago, Ill. Filed Jan. 12, 1917. Serial No. 141,932. (Cl. 64—61.)

1. The combination with an inner and an outer retaining member located in substantially concentric relation

and both having an annular angular groove and a pair of flanges on their adjacent surfaces, at least one of said members also having within its groove a circumferentially disposed bead or rib, of a plurality of large cylindrical rollers and a plurality of smaller cylindrical rollers having reduced cylindrical portions at their ends, said rollers being movably interposed between said retaining members and arranged alternately with respect to one another, each of the rollers of the larger set having a circumferential groove between its ends to receive said ribs or beads and each of said larger rollers having its bearings in the grooves of the retaining members, the set of smaller rollers having its bearings on said flanges of the retaining members.



2. The combination with an inner and an outer retaining member located in substantially concentric relation and having annular grooves and flanges on their adjacent surfaces, each of said members having within its groove a circumferentially disposed bead or rib, of a plurality of large cylindrical rollers and a plurality of smaller cylindrical rollers having reduced cylindrical portions at their ends, said rollers being movably interposed between said retaining members and arranged alternately with respect to one another, each of the rollers of the larger set having a circumferential groove between its ends to receive said ribs or beads and each of said larger rollers having its bearings in the grooves of the retaining members, the set of smaller rollers having its bearings on said flanges of the retaining members, each of the reduced portions of said smaller members having a peripheral flange at its outer end, and a ring surrounding the group of reduced portions at each of the ends of the smaller rollers and interposed between said peripheral flanges and the ends of the larger rollers.

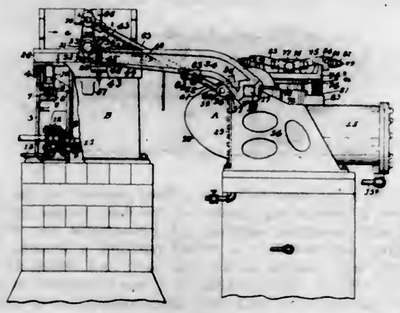
3. The combination with an inner and an outer retaining member located in substantially concentric relation and having annular grooves and flanges on their adjacent surfaces, of a plurality of large rollers and a plurality of smaller rollers having reduced cylindrical portions at their ends, said rollers being movably interposed between said retaining members and arranged alternately with respect to one another, the set of larger rollers having its bearings in the grooves of the retaining members, the set of smaller rollers having its bearings on said flanges, each of the reduced portions of said smaller members having a peripheral flange at its outer end, and a ring surrounding the group of reduced portions at each of the ends of the smaller rollers and interposed between said peripheral flanges and the ends of the larger rollers.

1,243,029. WINGED CAP. OSCAR ZERK, Cleveland, Ohio, assignor, by mesne assignments, to George W. Bowen, Auburn, N. Y. Filed July 31, 1913. Serial No. 782,180. (Cl. 220—74.)



A cap having a body portion formed with a top provided with a perforation or perforations and a wing resting on the top and having a lug or lugs projecting from its lower edge and extending through the perforation or perforations, the wing having flanges on opposite sides of its lower edge, overlying the top face of the cap, substantially as and for the purpose specified.

1,243,030. TURNOVER AND PATTERN-DRAWING DEVICE. WALTER M. AUSTIN, Swissvale, and ROBERT FRANKLIN RINGLE, Zellenople, Pa., assignors to Herman Pneumatic Machine Company, Zellenople, Pa. Filed Mar. 1, 1913. Serial No. 751,425. (Cl. 22—32.)



1. A turnover and pattern drawing device for sand molding machines comprising a plate for carrying a pattern and a flask, said plate being adapted to rest on the table of said molding machine during the jarring operation, means for engaging with said plate to raise the same so as to suspend said pattern and flask, means for turning said plate relatively to said raising means during the raising operation, means for operating said first named means, and means for lowering said flask from around said pattern.

2. A turnover and pattern drawing device for sand molding machines comprising a plate for carrying a pattern and a flask, said plate being adapted to rest on the table of said molding machine during the jarring operation, turnover arms for engaging with said plate to raise the same so as to suspend said pattern and flask, means for turning said plate relatively to said raising means during the raising operation, means for operating said turnover arms, and means for lowering said flask from around said pattern.

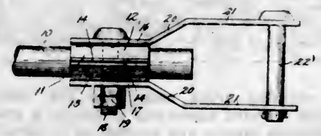
3. A turnover and pattern drawing device for sand molding machines comprising a plate for carrying a pattern and a flask, said plate being adapted to rest on the table of said molding machine during the jarring operation, means for engaging with said plate to raise the same so as to suspend said pattern and flask, means for turning said plate relatively to said raising means during the raising operation, a cylinder containing a piston for operating said first-named means, and means for lowering said flask from around said pattern.

4. A turnover and pattern drawing device for sand molding machines comprising a plate for carrying a pattern and a flask, said plate being adapted to rest on the table of said molding machine during the jarring operation, turnover arms for engaging with said plate to raise the same so as to suspend said pattern and flask, means for turning said plate relatively to said raising means during the raising operation, a cylinder containing a piston for operating said turnover arms, and means for lowering said flask from around said pattern.

5. A turnover and pattern drawing device for sand molding machines comprising a plate for carrying a pattern and a flask, said plate being adapted to rest on the table of said molding machine during the jarring operation, means for engaging with said plate to raise the same so as to suspend said pattern and flask, means for turning said plate relatively to said raising means during the raising operation, means for operating said first named means, and a cylinder containing a plunger for lowering said flask from around said pattern.

[Claims 6 to 40 not printed in the Gazette.]

1,243,031. PUMP-ROD OR PITMAN CONNECTION. FRED H. BARNEY, Tulsa, Okla. Filed Jan. 5, 1917. Serial No. 140,838. (Cl. 74—17.)



1. A pitman connection comprising a pitman, a two-part bushing having flat sides and adapted to surround the pitman, two similar spaced plates each having an inclined portion intermediate its ends to vary the width between opposite ends, the ends of said plates which are closer together being adapted to bear upon the flat sides of said bushing, a bolt passing through said plate ends, the bushing and the pitman, and means at the opposite ends of the plate for engaging a crank or eccentric operating mechanism.

2. In a pitman connection the combination with a bushing on the upper end of the pump rod or pitman, a plate on each of two opposite sides of said bushing rigidly bolted thereto, said plates spreading laterally above said bushing for a limited distance and then continuing to their extremities in parallel relation, and means for connecting the upper ends of said plates to a crank mechanism.

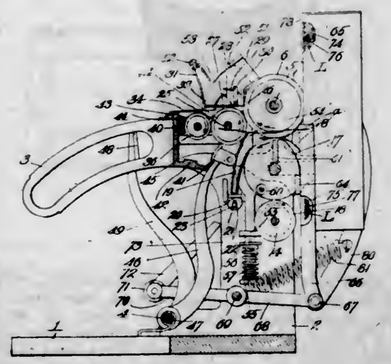
3. In a pitman connection, the combination with a pump rod or pitman, of a bushing formed of two like parts embracing said rod or pitman, a bolt for securing said bushing on said rod, a pair of plates on opposite sides of said bushing and secured thereto by said bolt, each of said plates having an outwardly inclined portion above the bushing terminating in a straight portion parallel to the axis of the rod, and means at the end of said plates for connecting them to a crank mechanism.

4. A pitman connection comprising a pitman, two similar plates each having an intermediate outwardly inclined portion and straight ends in parallel relation offset from each other, a two-part bushing embracing said pitman having straight parallel sides against which the ends of said plates which are closer together are placed, a through bolt securing said ends to the bushing and pitman and a removable pin extending through openings in the wider ends of said plates for connecting the same to an operating mechanism.

1,243,032. LABEL FOLDING AND MARKING MACHINE. JOHN H. BARR, Kansas City, Mo., assignor to Kansas City Folding and Marking Machine Co., Kansas City, Mo., a Corporation of Missouri. Filed Feb. 21, 1916., Serial No. 79,612. (Cl. 270—20.)

1. In a machine of the character described, a box for holding paper slips, rollers for successively withdrawing the slips from the box and feeding and folding them, channel guides having mouths through which to receive said folded slips and constricted throats forward of said mouths, the throats being narrower than the folded slips, means for coöperating with the rollers in disposing the folded slips within said guides, means to feed the slips forwardly in said guides beyond the constricted throats thereof so that the slips shall be bent in passing through the constricted throats and shall return to normal or straightened condition after reaching a position forward of said throats and means to periodically change the relative positions of the box and feed rollers to disengage the latter from the pack of slips and thereby space the successively fed slips predetermined distances apart without interfering with the operation of the rollers.

4. In a machine of the character described, a suitable frame, a pair of superposed paper feeding and printing rollers, a pointer rigid with the frame, a vertically adjustable box rearward of the rollers and pointer and containing a stack of paper slips, a spring-actuated follower constituting the back of the box and pressing the stack of slips forward against said rollers, and means within the box for impaling a plurality of the foremost slips to prevent the said rollers withdrawing more than one slip at a time from the box.



10. In a machine of the character described, a suitable frame, a pair of coöperating feed rollers, a box containing a stack of flexible slips for folding, yielding means for holding the box with the foremost slip pressed flatly against said feed rollers so that the latter when operated shall cause the ends of the slip to approach and its intermediate portion to buckle forward between the rollers until the latter grip the buckled portion and fold and feed the slip forward, and means to press the box rearward and hold it thus repressed until the ends of the said slip pass between the rollers, and then release the box to permit it to be readvanced by said yielding means until the next slip is pressed firmly against the rear sides of said rollers.

12. In a machine of the character described, a suitable frame, a pair of coöperating feed rollers journaled in said frame for successively withdrawing the slips from the box and feeding and folding them, an indicator mounted on said frame, a box for holding paper slips with the foremost one pressed yieldingly against said pair of rollers and in close relation to said indicator, means for periodically moving said box to effect withdrawal of the foremost slip thereof from engagement with said rollers, means for effecting vertical adjustment of the box with respect to the indicator and the feed rollers without interfering with the movement of the box in disposing the foremost slip against or withdrawing it from engagement with said feed rollers, channel guides having mouths through which to receive said folded slips, means for coöperating with the rollers in disposing the folded slips within the said guides, and means to feed the slips forwardly in said guides.

14. In a machine of the character described, a box for containing a package of label slips, provided with rearwardly-facing impaling pins, a spring-actuated follower for pressing the package of slips so that two or more of the foremost ones shall be impaled by said pins, and a pair of rollers frictionally engaging the foremost slip between said pins and adapted when rotated to effect approaching movement of the impaled extremities of the foremost slip to tear it from said pins to buckle the slip forwardly at an intermediate point and thus grip the buckled portion and fold and feed the folded slip forwardly; said follower having recesses for accommodating said pins.

[Claims 2, 3, 5 to 9, 11, and 13 not printed in the Gazette.]

1,243,033. DETACHABLE COVER. HARRY BURROUGHS BEATTY, Savannah, Ga. Filed Dec. 6, 1916. Serial No. 135,447. (Cl. 65—16.)



A paper cover for a drinking glass provided with an upwardly flaring mouth, comprising an imperforate body portion having an opening formed therein for the passage of a straw, and a substantially annular flange formed integral with the body portion, said flange being provided with longitudinally extending plaits, said plaits decreasing in width toward their upper and lower ends, said flange being circumferentially expansible and contractible and circumferentially reduced between its upper and lower ends, the lower open end of the flange having a diameter as great as the body portion of the cover.

1,243,034. CARRIER ATTACHMENT FOR AUTOMOBILES. HERMAN L. BIEGERT, Montevideo, Minn. Filed Sept. 18, 1916. Serial No. 120,639. (Cl. 224—29.)

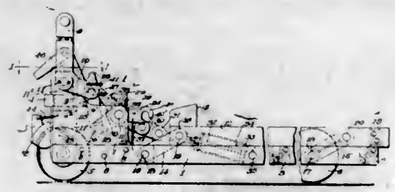


1. The combination with an automobile having a running board, the inner longitudinal edge of which is spaced outward of and below the body of the automobile, and a guard between said body and running board, of a carrier attachment comprising an upright frame supported on the running board, an end member securing the frame to said body and holding the same spaced apart therefrom to afford a baggage receptacle therebetween, and a box on the running board, the cover of which is substantially in the plane of the bottom of said body and affords the bottom of the baggage receptacle.

3. The combination with an automobile having a running board, the inner longitudinal edge of which is spaced outward of and below the body of the automobile, and a guard between said body and running board, of a carrier attachment comprising an upright frame supported on the running board, an end member securing the frame to said body and holding the same spaced apart therefrom to afford a baggage receptacle therebetween, a box on the running board having a sliding cover arranged to move under said end member to and from a closed position, said cover being in substantially the same plane as the bottom of said body and affording the bottom of the baggage receptacle, and a lock securing the box to the carrier attachment and its cover in a closed position.

[Claim 2 not printed in the Gazette.]

1,243,035. ELEVATING-TRUCK. FELIX BLACKBURN, Feeding Hills, Mass. Filed July 3, 1916. Serial No. 107,234. (Cl. 254—10.)



1. An elevating truck comprising the combination with a main wheeled supporting frame, of a frame pivotally connected thereto and adapted to be elevated with relation to the main frame, an operating handle, bell-crank levers, detachable connecting means between the forward arms of said levers and the handle, connecting means between the other arms of the bell-crank levers and the pivotally connected frame, and means including a bell-crank mounted on the same support as said bell crank levers and having a hook on one arm thereof for retaining the latter frame in an elevated position and for permitting its release when the other arm of the retaining means is operated.

2. An elevating truck comprising in combination, a main frame, an elevating frame pivotally connected to said frame, an operating handle, link devices between the operating handle and the elevating frame, a shaft for supporting one of the links of said devices, devices for connecting said handle to one of the links as the handle is moved rearwardly, means for locking the elevating frame in its raised position, said locking means being pivotally mounted on the said shaft and means for unlocking said handle after the elevating frame is locked when said handle is moved rearwardly again.

3. In an elevating truck the combination with a main frame mounted on wheels, of a second frame pivotally connected to the main frame by rigid one piece links located at the front and rear ends of said frames, links connected to the front links, a pair of bell crank levers pivotally connected to the main frame and having one pair of arms connected to said forward links by means of the links that are attached to the said last named links, an operating handle with two arms, a bolt connecting said arms and means for detachably connecting the other pair of arms of said bell crank levers to the bolt of said handle.

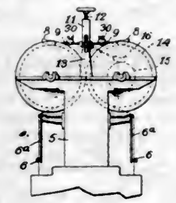
4. In an elevating truck the combination with a main frame mounted on wheels, of a second frame pivotally connected to the main frame by links located at the front and rear ends of said frames, bell crank levers pivotally connected to the main frame, intermediate links connected to a pair of arms of said levers and to said front links, an operating handle, means for detachably connecting the other arms of said levers to said handle, and means for retaining the last named means in position to engage and lock the handle to said means when said handle is moved rearwardly.

5. An elevating truck comprising in combination with a main frame, of an elevating frame pivotally connected thereto, an operating handle, a pair of bell crank levers, a shaft upon which said levers are loosely mounted, links connecting the arms of said levers to the connection between the elevating frame and the main frame, links connected to the other arms of the bell crank levers, said last named links being formed with hook shaped ends for automatic engagement with the operating handle when the elevating frame is to be raised.

[Claims 6 to 12 not printed in the Gazette.]

1,243,036. TENSION DEVICE. GEORGE L. BROWNELL, Worcester, Mass. Filed Feb. 15, 1915. Serial No. 8,147. (Cl. 242—156.)

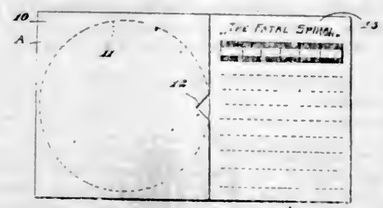
1. In a tension device, the combination with a thread beam, of a weight arranged to rest upon the threads held on said beam and carried upon the free ends of arms pivotally held upon a horizontal rod supported in adjustable bearings, and means for vertically adjusting said bear-



ings, consisting of adjusting screws having swiveled connections with said bearings.

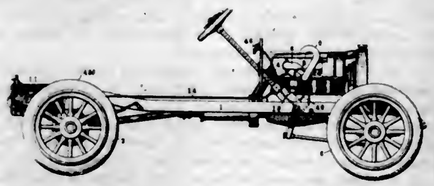
[Claim 2 not printed in the Gazette.]

1,243,037. COMBINATION ENVELOP AND MUSIC-SHEET. ANGUS LEO CAMPBELL, North Sydney, Nova Scotia, Canada. Filed Aug. 7, 1916. Serial No. 113,646. (Cl. 11—3.)



Means provided with records of the same music in different forms, one form comprising ordinary printed music notation permanently carried on said means, and the other, a graphophone music disk record detachably carried by said means, the ordinary printed music notation being so located and arranged on the means that it may be used as sheet music for any of its ordinary uses and coincidently with the use of the disk record.

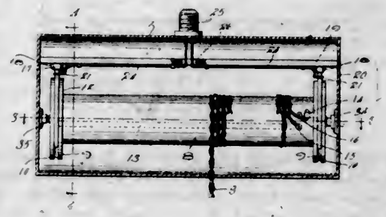
1,243,038. CARBURETER. HAROLD CARLE, Buffalo, N. Y., assignor to Carle Motor Parts Co., Inc., Buffalo, N. Y., a Corporation of New York. Filed Aug. 24, 1916. Serial No. 116,599. (Cl. 158—36.)



2. In an apparatus of the character described, in combination, an internal combustion engine, a passageway adapted to lead fuel thereto, a fuel outlet adapted to deliver fuel to said passageway, a fuel reservoir adapted to supply fuel to said outlet, and means for maintaining a gas pressure on the fuel in said reservoir so that when the external pressure on the outlet is reduced said gas acts expansively to deliver fuel from said reservoir toward said outlet comprising a port adapted to establish communication between the interior of said reservoir and the fuel conduit leading to said outlet from the reservoir, passage through said port being restricted relative to that through said conduit, said port being above the normal entrance for fuel into said conduit from the reservoir.

[Claims 1 and 3 to 15 not printed in the Gazette.]

1,243,039. DROP-CORD-EXTENSION REEL. ARTHUR W. CARROLL and EDWARD J. FULLER, Seattle, Wash. Filed Mar. 28, 1916. Serial No. 87,237. (Cl. 248—10.)



1. A drop cord extension including a casing having an opening, a hollow spring actuated reel mounted for rotary movement within the casing and having enlarged heads located at its ends, annular contact members arranged on the heads, a longitudinally disposed supporting member mounted within the casing in spaced relation with the reel, curved brushes hinged to the supporting member and arranged to engage the annular contact members, springs mounted on the said supporting member and embracing the brushes and holding the same in engagement with the annular contact members, conductors supported by the said member and extending longitudinally thereof and connected with the brushes, and an extension cord wound around the reel and extending from the casing.

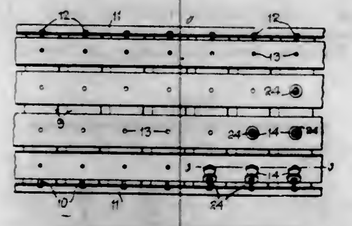
2. A drop cord extension reel including an outer casing provided with an opening, flexible means connected with the casing at spaced points for suspending the same at a predetermined elevation, a plug mounted on the casing between the said flexible means, a spring actuated reel mounted within the casing and provided at its ends with heads having annular contact members, a fixed longitudinally disposed supporting bar carried by the casing and arranged in spaced relation with the reel, brushes mounted on the bar and arranged to engage the contact members of the said heads, conductors extending along the bar from the brushes to the plug, an extension cord arranged on the reel and extending through the opening of the casing, and separate conductors located within the reel and extending from the said cord to the contact members.

3. A drop cord extension reel including a casing having an opening, a hollow spring actuated reel mounted for rotary movement within the casing and having enlarged heads, annular contact members arranged on the said head, a longitudinally disposed supporting member mounted within the casing in spaced relation with the said reel, hinged brushes secured to the supporting member at the terminal portion thereof and engage the annular contact members, approximately L shaped springs provided at their angles with spring coils and secured at one end to the supporting member and provided at their other ends with curved terminal portions embracing the brushes and maintaining the same in engagement with the annular contact members, conductors extending along the supporting member and connected with the brushes, and an extension cord arranged on the reel and connected with the annular contact members.

1,243,040. ARMOR FOR PNEUMATIC TIRES. WILLIAM G. CHILTON and JOHN H. HORGOOD, Houston, Tex. Filed Apr. 11, 1917. Serial No. 161,317. (Cl. 152—16.)

1. The combination with a tire casing having superposed, flexible tread layers, of an armor consisting of

intersecting, resilient metal plates disposed between the tread layers and extending longitudinally and transversely thereof, and annular members arranged between the tread layers to which the terminals of the transverse metal plates are slidably connected.

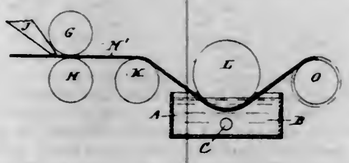


5. The combination with a tire casing having inner and outer tread layers, of metal shells permanently fixed in the outer tread layer, anti-skidding lugs in said shells and projecting beyond the peripheral face of the tire casing and means for preventing axial movement of the lugs in said shells.

6. The combination with a tire casing having inner and outer flexible tread layers, of spaced metal shells permanently fixed in the outer tread layer of the casing and having rectangular portions, a lug disposed in each of said metal shells and having a rectangular portion fitting within the rectangular section of the shell, whereby the lug is held against turning movement, each of said lugs having a reduced terminal portion projecting beyond the peripheral face of the tire casing, and detachable ground engaging caps for the lug terminals.

[Claims 2 to 4, 7, and 8 not printed in the Gazette.]

1,243,041. COVERING MATERIAL FOR AIRCRAFT AND METHOD OF MAKING SAID MATERIAL. WALTER GORDON CLARK, New York, N. Y. Filed July 8, 1916. Serial No. 108,140. (Cl. 204—8.)



1. The method of making air tight sheet material, which consists in applying a temporary plastic filling material insoluble in water, to substantially the entire surface area of a foundation of fine metallic wire mesh to close all the interstices of the mesh substantially flush with the surface of the web, cleaning one surface of the said sheet so formed to expose the metallic wires throughout the surface, spreading a layer of conducting material over the entire cleaned surface of the filling material, applying and incorporating a continuous smooth, even and unbroken metallic film upon the entire surface of said conducting material and upon the wires of said mesh throughout the entire surface of the side so prepared, and then removing the filling material, whereby the foundation of wire mesh is left with a continuous unbroken air tight surface coating of metal adherent thereto.

2. The method of making air tight sheet material, which consists in filling all the interstices of fine metallic wire mesh or web over its entire surface, with temporary filling material insoluble in water and having a conducting surface, depositing a continuous surface layer of metal upon the entire surface of said filling material, in such manner as to cause said metallic layer to adhere closely to the wires of the web throughout its entire area, and then removing the filling material.

3. An air tight covering material, comprising a foundation web of fine metallic woven wire having a thin, smooth, even film of metal adherent to and incorporated with the wires of the web throughout its entire surface area and filling all the interstices of the web, thereby forming an air tight surface of metal supported by the web.

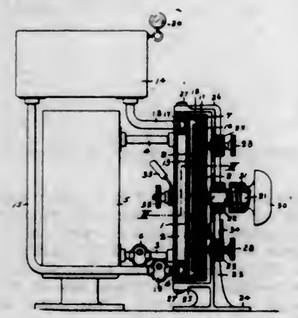
4. An air tight covering material comprising a web of fine metallic woven wire having a continuous metallic surface covering substantially one entire side, locked to the web by means of a continuous deposit of metal adhering to the metallic surface throughout its area and to the wires of the web on the opposite side of the web.

1,243,042. DYE. WILLIAM WESLEY COE, Jr., Bloomsbury, London, England. Filed Aug. 23, 1916. Serial No. 116,492. (Cl. 8—6.)

1. A dye comprising extracted coloring material of plant substance of the banana class.

2. A dye comprising extracted coloring material of plant substance of the banana class, in solution.

1,243,043. METHOD AND APPARATUS FOR PRODUCING OSCILLATING CURRENTS OF HIGH FREQUENCY. ALFRED H. COHEN, Oakland, Cal. Filed Dec. 8, 1914. Serial No. 876,154. (Cl. 250—38.)



1. An oscillatory spark gap apparatus of the character described including opposed electrodes, a wall surrounding said electrodes contiguous to the sparking areas thereof, and hermetically sealed thereto, said walls having inlet and outlet openings communicating with the space within said walls; means for circulating liquid through said space and across the faces of said electrodes and for the escape of any gas or vapor which may be formed or generated between said electrodes.

2. An oscillatory spark gap apparatus of the character described including opposed electrodes, a wall surrounding said electrodes contiguous to the sparking areas thereof and hermetically sealed thereto, and means for circulating a liquid over and across the faces of the said electrodes under a regular constant and confined pressure.

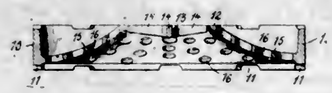
3. A spark gap apparatus of the character described including opposed electrodes; a transparent wall surrounding said electrodes contiguous to the sparking areas thereof and hermetically sealed thereto; and means for circulating a liquid under confined pressure between said electrodes.

4. A spark gap apparatus of the character described, including a pair of opposed electrodes having parallel sparking surfaces; and means for confining a film of liquid under pressure between said sparking surfaces.

5. A spark gap apparatus of the character described, including opposed electrodes having flat parallel sparking planes; a transparent wall surrounding said planes contiguous to the sparking areas thereof; and means for circulating a liquid under confined pressure between said planes within said wall.

[Claims 6 to 25 not printed in the Gazette.]

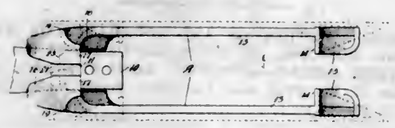
1,243,044. GAS-BURNER ATTACHMENT. ROBERT B. COOL, Lancaster, Ohio. Filed Nov. 8, 1916. Serial No. 130,198. (Cl. 126—215.)



1. A device of the class described comprising a body adapted to be disposed over a burner and including an annular outer portion with vertical sides and an annular central portion, said annular central portion extending above the upper line of the annular outer portion, and a perforated web connected to the annular outer portion near its lower edge and curving constantly inwardly and upwardly and merging without obstruction into the annular central portion, whereby the major portion of the flames from the burner is guided inwardly and upwardly toward and caused to pass through the annular central portion, and the remaining portion of the flames caused to pass through the perforations and over the annular outer portion.

2. A device of the class described comprising a body adapted to be disposed over a burner and including an annular outer portion with vertical sides and an annular central portion, and a perforated web connected to the annular outer portion near its lower edge and curving constantly inwardly and upwardly and merging without obstruction into the annular central portion, whereby the major portion of the flames from the burner is guided inwardly and upwardly toward and caused to pass through the annular central portion, and the remaining portion of the flames caused to pass through the perforations and over the annular outer portion.

1,243,045. DRAFT-RIGGING YOKE. ALFRED COPONY, Chicago, Ill. Filed Nov. 30, 1914. Serial No. 874,678. (Cl. 213—42.)



1. A yoke for railway draft riggings which comprises two members, each having an inwardly extended lug at the front end thereof adapted to engage in a coupler key slot of a draw bar, each of said lugs having a longitudinally extended inner end adapted to engage a wall of said key slot to prevent lateral separation of the yoke members from the draw bar.

2. In a yoke for railway draft riggings, two horizontally arranged arms, each of which is provided at its front end with an inwardly extending lug arranged to enter the coupler key slot of a draw bar, each of said lugs having integral means adapted to overlap the edge of the wall forming said key slot and thus preventing lateral separation of the yoke arms from the draw bar.

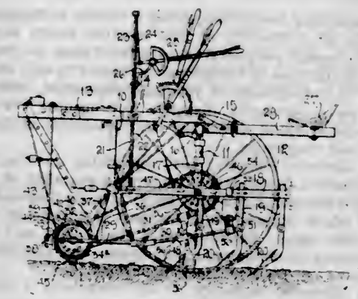
3. A yoke of the character described, comprising two arms each of which is provided at its forward end with upper and lower shoulders arranged to engage the usual shoulders on a draw bar, each of said members being further provided with an inwardly extending lug arranged to enter the coupler key slot of a draw bar, the lug having an overhang to engage the edge of the wall surrounding the key slot.

4. A yoke for railway draft riggings comprising two members, each of which is provided at its forward end with an inwardly extending hook-like lug arranged to enter a coupler key slot and when in operative position preventing lateral separation from the draw bar.

5. A yoke for railway draft riggings comprising two members, each of which is provided at its forward end with an inwardly extending hook-like lug arranged to enter a coupler key slot and when in operative position preventing lateral separation from the draw bar, each of said members having also a shoulder at the rear end adapted to engage a rear follower.

[Claims 6 to 8 not printed in the Gazette.]

1,243,046. COTTON CHOPPER OR BLOCKER. JASPER V. CUNNINGHAM, Walnut Springs, Tex. Filed Feb. 26, 1917. Serial No. 151,054. (Cl. 97—46.)



1. In a combined cultivator and cotton chopper, a wheeled supporting frame, cultivator supporting beams mounted upon the frame and extending rearward therefrom and adjustable toward or from each other, a plurality of flexibly coupled shaft sections disposed below the frame, means for supporting the foremost shaft section from the supporting frame, a transverse supporting bar, links pivotally connecting said transverse bar to the cultivator beams and shiftable in horizontal planes, whereby the cultivator beams may be shifted inward without depressing said transverse bar, a bearing mounted upon the transverse bar and supporting the rear end of the rearmost shaft section, radiating cutting blades mounted on the rearmost shaft section, and means operatively engaging the traction wheels of the frame for driving said shaft sections.

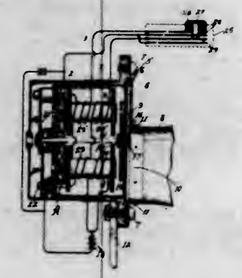
[Claims 2 and 3 not printed in the Gazette.]

1,243,047. ELECTRICAL SIGNALING DEVICE. WILLIAM W. DEAN, Chicago, Ill., assignor to Kellogg Switchboard & Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 18, 1912. Serial No. 684,593. (Cl. 177—7.)

1. A signaling device including a diaphragm, an electromagnet provided with an armature for vibrating the said diaphragm, a plurality of windings for said electromagnet, a source of current, means for including either or all of said windings and said source of current in circuit whereby different degrees of actuation of said diaphragm are effected, and a common vibrating interrupter controlled by said electromagnet having one of its interrupter contacts connected permanently to one pole of said source of current and adapted to be variably included in said operating circuits.

2. A signaling device including a diaphragm, an electromagnet and an armature for vibrating said diaphragm, a plurality of windings for said electromagnet, a common

circuit interrupter controlled by said electromagnet, and circuit connections for including said interrupter in circuit with either of said windings or with all of said windings to secure variable operations of said electromagnet and diaphragm.



4. A signaling device comprising a casing, a diaphragm consisting of a plurality of thin metallic sheets having laterally disposed peripheral edges, a front plate for clamping said diaphragm at the periphery thereof to said casing whereby said diaphragm is yieldingly supported, said cap having an eccentrically disposed bell opening for the escapement of sound waves and electromagnetic means to vibrate said diaphragm.

5. An electrical sounding horn comprising a casing and a front plate, a diaphragm comprising a plurality of thin metallic sheets some of which have laterally disposed peripheral edges adapted to be clamped to yieldingly hold said sheets, means including said front plate and said casing for so clamping said diaphragm, and electromagnetic means for vibrating said diaphragm.

6. An electrical sounding device comprising a casing and a clamping plate, a diaphragm including a plurality of comparatively thin metallic sheets having laterally disposed peripheral edges, means including the said casing and clamping plate for clamping said diaphragm by said edges whereby said diaphragm is yieldingly supported, an electromagnet and armature for vibrating the said diaphragm, and a plurality of circuit connections whereby different degrees of actuation of said diaphragm may be secured.

[Claims 3 and 7 not printed in the Gazette.]

1,243,048. THERMIC TELEPHONE. PIETER DE LANGE and ROBERT ARNOUT BARON VAN LYNDEN, Utrecht, Netherlands, assignors to Naamlooze Vennootschap De Nederlandsche Thermo-Telephoon Maatschappij, Utrecht, Netherlands, a Corporation of the Netherlands. Filed Nov. 4, 1915. Serial No. 59,629. (Cl. 179—101.)



1. A heat conductor for thermic telephones, provided with end portions of uniform cross section and having adjacent to said end portions, portions extending laterally beyond the cross section of said end portions.

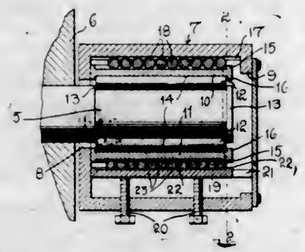
2. A heat conductor for thermic telephones, provided with end portions, laterally-enlarged portions adjacent to said end portions, and a loop connecting the inner ends of said enlarged portions.

3. A heat conductor for thermic telephones, provided with end portions of uniform cross section and having, adjacent to said end portions, portions extending laterally beyond the cross section of said end portions, and a looped portion connecting the inner ends of said laterally-enlarged portions.

4. In a thermic telephone, a holder provided with through openings of uniform relatively small cross section at one end and of enlarged cross section at the other end, and a wire conductor having securing portions extending through said openings and a looped portion connecting those ends of said securing portions which are at the wide ends of said openings.

5. In a thermic telephone, a holder provided with through openings and with a transverse groove at one end of said openings, and a wire conductor extending through said openings and having bent ends seated in said groove, part of the conductor portion within said openings being provided with edges extending laterally beyond the remainder of said portion and in firm engagement with the holder.

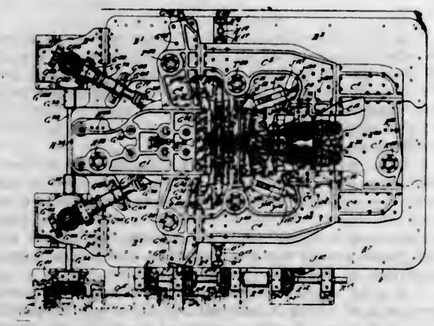
1,243,049. CAR-JOURNAL. CLARENCE D. DEWEY, Hawley, Pa. Filed Feb. 14, 1917. Serial No. 148,614. (Cl. 64—39.)



1. The combination with a car wheel journal, of a journal box, roller retainer sections arranged within the box above and below the car journal, bearing rollers arranged within the retainer sections around the journal and in parallel relation to the latter, said retainer sections having unitary limited longitudinal movement within the journal box, anti-friction bearing means between the upper retainer section and the journal box, a vertically movable supporting plate within the journal box, means for adjusting said plate, and a plurality of bearing rollers for the retainer sections disposed between said plate and the lower retainer section and having their axes disposed at right angles to the axes of the bearing rollers.

[Claims 2 to 4 not printed in the Gazette.]

1,243,050. METHOD OF AND APPARATUS OR MILL FOR ROLLING OR FORMING CAR-WHEELS OR OTHER CIRCULAR BODIES. LOUIS F. DIETER, Buffalo, N. Y. Filed June 15, 1911. Serial No. 633,343. (Cl. 80—16.)



1. In an apparatus or mill of the kind described, a pair of alined work-supporting axles rotatably supported, combined with interchangeable piercers adapted to be detachably secured to adjacent ends of said axles and support a work-piece therebetween.

2. In an apparatus or mill of the kind described, means for rotatably supporting a work-piece at its central portion comprising a pair of alined rotatable axles having work-supporting centers whose opposing faces are flat, and pins extending from said flat surfaces and adapted to pierce the work-piece as and for the purpose described.

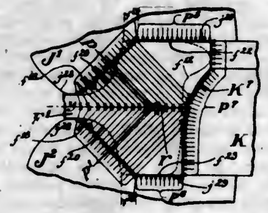
3. In an apparatus or mill of the kind described, means for rotatably supporting a work-piece at its central portion comprising a pair of alined rotatable axles having work-supporting centers whose supporting faces are flat, and piercers extending from one of said flat supporting surfaces and adapted to pierce the work-piece as and for the purpose described.

4. In an apparatus or mill of the kind described, alined work-supporting axles arranged at opposite sides of a work-piece and having piercers secured to adjacent ends thereof adapted to pierce or penetrate and support a work-piece therebetween, each of said adjacent ends of said axles being reduced in diameter to form a shoulder and each of said piercers having a central bore of two different diameters to form a shoulder bearing against the shouldered end of its coöperating axle, and means for securely holding said piercers to said axles.

5. In an apparatus or mill of the kind described, alined work-supporting axles arranged at opposite sides of a work-piece and having piercers at adjacent ends thereof, each of said adjacent ends of said axles being reduced in diameter to form a shoulder and each of said piercers having a central bore of two different diameters to form a shoulder bearing against the shouldered end of its coöperating axle.

[Claims 6 to 331 not printed in the Gazette.]

1,243,051. METHOD OR PROCESS OF ROLLING OR FORMING CAR-WHEELS OR OTHER CIRCULAR BODIES. LOUIS F. DIETER, Buffalo, N. Y. Original application filed June 15, 1911, Serial No. 633,343. Divided and this application filed Oct. 10, 1916. Serial No. 124,921. (Cl. 80—16.)



1. The method of rolling or forming car wheels from heated ingots, blooms, blanks or other work-pieces, which consists in subjecting the work-piece to the action of piercing or penetrating and rolling processes which pierce or penetrate the work-piece at its opposite sides forming thereby a rudimentary bore, or a part or parts thereof, and completely roll and shape the work-piece to the form or shape of the car wheel.

2. The method of rolling or forming car wheels or other circular bodies, in an apparatus or mill, from heated ingots, blooms, blanks or other work-pieces with one heat and before the finished wheel or other finished body is removed from said apparatus or mill, which consists in subjecting the work-piece to the action of piercing or penetrating and rolling processes which pierce or penetrate the work-piece at its opposite sides forming a rudimentary bore, or a part or parts thereof, and completely roll or form the work-piece to the desired form or shape of the car wheel or other body.

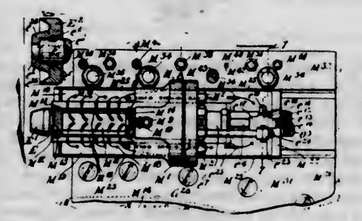
3. The method of rolling or forming car wheels or other circular bodies, in an apparatus or mill, from heated ingots, blooms, blanks or other work-pieces with one heat and before the finished wheel or other finished body is removed from said apparatus or mill, which consists in subjecting the work-piece, to the action of piercing or penetrating and rolling processes which centrally pierce or penetrate the work-piece at its opposite sides to desired depth or depths forming a rudimentary bore, or a part or parts thereof, and roll or shape the work-piece, wheel or other body as and where desired.

4. The method of rolling or forming car wheels or other similar circular bodies, in an apparatus or mill, from heated ingots, blooms, blanks, or other work-pieces, which consists in subjecting the work-piece to the action of piercing or penetrating and rolling and dishing processes which centrally pierce or penetrate the work-piece at its opposite sides to desired depth or depths and completely roll or shape the work-piece and dish the same to the desired form or shape of the dished wheel or other dished body.

5. The method of rolling or forming car wheels or other similar circular bodies, in an apparatus or mill, from heated ingots, blooms, blanks or other work-pieces, which consists in subjecting the work-piece to the action of piercing or penetrating and rolling and dishing processes which centrally pierce or penetrate the work-piece at its opposite sides to desired depth or depths and roll or shape the work-piece as and where desired and dish the same to the desired form or shape of the dished wheel or other dished body.

[Claims 6 to 309 not printed in the Gazette.]

1,243,052. METHOD OF AND MEANS FOR ROLLING OR FORMING CAR-WHEELS OR OTHER CIRCULAR BODIES. LOUIS F. DIETER, Buffalo, N. Y. Original application filed June 15, 1911, Serial No. 633,343. Divided and this application filed Nov. 20, 1916. Serial No. 132,372. (Cl. 80—16.)



1. The herein described method of cooling the work-supporting means in an apparatus or mill for rolling or forming car wheels or other circular bodies, which consists in interiorly and in exteriorly cooling said supporting means.

2. The herein described method of cooling the work-supporting means in an apparatus or mill for rolling or forming car wheels or other circular bodies, which consists in causing a cooling medium to circulate through the interior of the central rotating portion of said work-supporting means.

3. The method of cooling the means for supporting a heated work-piece during the rolling or operating process in an apparatus or mill for rolling or forming car wheels or other circular bodies, which consists in applying a cooling medium to the end portion or portions of the work-supporting means adjacent the work-piece without having said cooling medium come in direct contact with the work-piece.

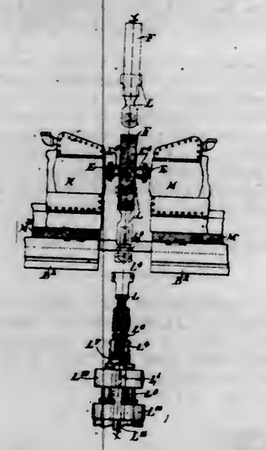
4. The method of cooling the rotating part or parts of the means supporting a heated work-piece during the rolling or operating process, which consists in interiorly cooling the rotating part or parts of the work-supporting means adjacent the work-piece.

5. The method of cooling the hollow axles or supporting means which centrally support a heated work-piece during

the rolling or operating process in an apparatus or mill for rolling or forming car wheels or other circular bodies, which consists in introducing a circulating cooling medium into said hollow axles or supporting means to retain the ends thereof applied to the work-piece in a cooled condition.

[Claims 6 to 81 not printed in the Gazette.]

1,243,053. METHOD OF AND DEVICE OR MEANS FOR RECEIVING AND POSITIONING WORK-PIECES OR FINISHED ARTICLES. LOUIS F. DIETER, Buffalo, N. Y. Original application filed June 15, 1911, Serial No. 633,343. Divided and this application filed Nov. 22, 1916. Serial No. 132,815. (Cl. 80—16.)



1. The method of receiving a heated ingot, bloom, blank or other work-piece in an apparatus or mill for rolling or forming car wheels or other circular bodies and lowering the said work-piece from a position above the piercers or work-supporting means or from a position above the rolls to a position central with said work-supporting means to be centrally pierced, or penetrated, or centered by said work-supporting means and therewith supported during the rolling or operating process, which consists in placing the work-piece onto a receiving or supporting member of a raising and lowering device arranged below and adapted to operate in a plane between said piercers or work-supporting means and assume a position above the latter or above said rolls, in therewith lowering the work-piece from a position above said piercers or work-supporting means or from a position above said rolls to a position in which the center of the outer portion or periphery of the work-piece is in line or approximately in line with the centers or axes of said piercers or work-supporting means.

2. The method of receiving a heated ingot, bloom, blank, or other work-piece in an apparatus or mill for rolling or forming car wheels or other circular bodies and lowering the said work-piece from a position above the piercers or work-supporting centers or work-supporting means to a position central with said piercers or work-supporting centers or work-supporting means to be centrally pierced, or penetrated, or centered by said piercers or work-supporting centers or work-supporting means and therewith supported during the rolling or operating process, which consists in placing the work-piece onto a receiving or supporting member of a raising, lowering and retaining device arranged below and adapted to operate in a plane between said piercers or work-supporting centers or work-supporting means and assume a position above the latter, in therewith lowering the work-piece from a position above said work-supporting means or from a position above the rolls of said apparatus or mill to a position in which the center of the outer portion or periphery of the work-piece is in line or approximately in line with the centers or axes of said piercers or work-supporting means, and in temporarily retaining said receiving or supporting member of said device with the work-piece in said central position to permit said piercers or work-supporting centers or work-supporting means to pierce or penetrate or center said work-piece in the center of its outer portion or periphery and support the same.

3. The method of receiving a work-piece or finished article in an apparatus or mill for rolling or forming car wheels or other circular bodies and raising the said work-piece or finished article from a position it occupies during the rolling or operating process to a position above the work-supporting means or to a position above the rolls, which consists in placing the work-piece or finished article onto a receiving or supporting member of a raising, lowering and retaining device arranged below and adapted to operate in a plane between said work-supporting means, in therewith raising said work-piece or finished article from the position it occupies during the rolling or operating process to a position above said work-supporting means or to a position above said rolls of said apparatus or mill.

4. The method of receiving a work-piece or finished article in an apparatus or mill for rolling or forming car wheels or other circular bodies and raising the said work-piece or finished article from a position between the rolls or from a position between the work-supporting means to a position above the rolls or to a position above said work-supporting means, which consists in placing the work-piece or finished article onto a receiving or supporting member of a raising, lowering and retaining device arranged below and adapted to operate in a plane between said work-supporting means, in therewith raising said work-piece or finished article from the position adjacent the rolls or from the position adjacent said work-supporting means to a position above the rolls or to a position above said work-supporting means.

5. The herein described method of receiving an ingot, bloom, blank, or other work-piece in an apparatus or mill for rolling or forming car wheels or other circular bodies, placing the same centrally between the work-supporting means to be centrally pierced, or penetrated, or centered or otherwise operated upon by said work-supporting means and supported therewith, of receiving the work-piece or finished article and raising the same from the position adjacent said work-supporting means to a position above said work-supporting means or to a position above the rolls, which consists in placing the work-piece onto a receiving or supporting member of a raising, lowering and retaining device arranged below and adapted to operate in a plane adjacent said work-supporting means and assume a position above the latter or above said rolls, in therewith lowering the work-piece from a position above said work-supporting means or from a position above said rolls to a central position in which position the outer portion or periphery of the work-piece is coaxial or approximately so with said work-supporting means, in temporarily retaining said receiving or supporting member with the work-piece temporarily held thereby in said central position to permit said work-supporting means to engage said work-piece, in lowering said receiving or supporting member away from the work-piece into a position below the work-piece to clear the latter during the rolling or operating process, in again raising said receiving or supporting member to a position to receive the work-piece or finished article, and in then raising said receiving or supporting member with the work-piece or finished article from said central position to a position above said work-supporting means or to a position above said rolls.

[Claims 6 to 71 not printed in the Gazette.]

1,243,054. SYRINGE. JAMES H. L. EAGER, New York, N. Y. Filed July 1, 1916. Serial No. 107,041. (Cl. 128—47.)

1. A syringe comprising a water bag provided with a neck, a pressure seat adapted to rest on said bag, and to surround said neck, and means carried by said pressure seat for pinching said neck to control the supply of fluid from said bag through said neck.

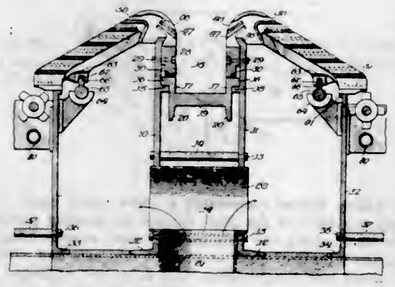


2. A syringe comprising a water bag provided with a neck adapted to receive a nozzle therein, a pressure seat adapted to rest on said bag and to surround said neck, and means carried by said pressure seat for pinching said neck to control the supply of fluid from said bag to said nozzle.

3. A syringe comprising a water bag provided with a neck adapted to receive a nozzle therein, a pressure seat adapted to rest upon said bag and split a substantial distance through its center, to allow the same to surround said neck, and tongs carried by the respective sides of the split pressure seat and pivotally connected to each other, for controlling the supply of fluid from said bag to said nozzle.

4. A syringe comprising a water bag provided with a neck adapted to receive a nozzle therein, a pressure seat adapted to rest upon said bag and split a substantial distance through its center, to allow the same to surround said neck, and tongs carried by the respective sides of the split pressure seat and pivotally connected to each other, and adapted, when pressed together to pinch said neck to prevent communication between said bag and said nozzle, and means carried by said tongs for locking the same in their closed position.

1,243,055. AUTOMATIC STOKER. JOHN R. FORTUNE, Detroit, Mich., assignor to Murphy Iron Works, Detroit, Mich., a Corporation of Michigan. Filed Nov. 11, 1914. Serial No. 871,480. (Cl. 110—47.)

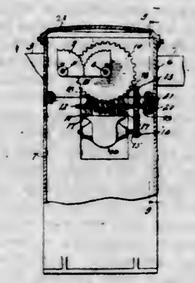


1. In a stoker-construction, the combination of a fuel-retort, means to underfeed fuel thereto, inclined-grate adjacent to said retort adapted to receive the fuel overflowing from said retort, said grate being composed of stationary and sliding grate-bars, the stationary-bars having supporting feet at their lower-ends, the movable grate-bars being each accommodated between a pair of stationary grate-bars and having feet slidable on the stationary bar feet, and means to reciprocate said sliding grate-bars, substantially as described.

2. In a stocker-construction, the combination of a fuel retort, means to underfeed fuel thereto, an inclined grat adjacent to said retort adapted to receive the fuel overflowing from the retort, said grate being composed of stationary and sliding grate-bars, the stationary-bars having side-ribs and at their lower-ends supporting-feet, the movable grate-bars being each accommodated between a pair of stationary grate-bars and having side-ribs slidable one the ribs of the stationary-bars and feet slidable on the stationary-bar feet, and means to reciprocate said sliding grate-bars, substantially as described.

3. In a stoker-construction, the combination of a fuel-retort, means to underfeed fuel thereto, inclined grates on opposite sides of the retort adapted on their upper portions to receive the fuel overflowing from the retort, each of said grates being composed of stationary and sliding grate-bars, the sliding grate-bars being accommodated between and supported on the stationary bars, and means to operate said sliding grate-bars.

1,243,056. SAFETY-GATE. HARRY R. FOWLER, Toledo, Ohio, assignor to The Fowler Electrical Supply Company, Toledo, Ohio, a Corporation of Ohio. Filed Feb. 23, 1915. Serial No. 9,816. (Cl. 39—7.)



1. A traffic guard member, a support therefor comprising a housing having an upper section and a lower section, and driving means mounted in the housing fixed with the upper section to be removable therewith from the lower section.

3. A traffic guard pivoted arm, a supporting housing therefor comprising upper and lower sections, and arm driving and actuating means carried in the housing by the upper section and projecting therefrom into the lower section whereby the upper section and actuating means may be removed as a unit from the lower section.

4. A traffic guard member, driving means therefor having a member holding friction angle, a motor for the driving means and manually operable actuating means for the driving means, said motor and actuating means each being connected to the driving means on the side beyond the holding friction angle away from the guard member.

[Claim 2 not printed in the Gazette.]

1,243,057. WIRE-HANGER. ALEXANDER L. FOX, East St. Louis, Ill., assignor, by mesne assignments, to T. C. White Electrical Supply Company, a Corporation of Missouri. Original application filed Nov. 19, 1913, Serial No. 801,799. Divided and this application filed Dec. 7, 1915. Serial No. 65,470. (Cl. 191—42.)



1. A wire hanger comprising a body having a hole therethrough and having a polygonal recess in its upper side, and a support normally preventing said body from turning, in combination with a wire support at the lower side of said body, a binding device passing through said hole and having threaded engagement with said wire support.

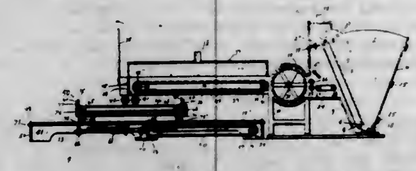
and a polygonal enlargement on said device seated in said recess and extending above the upper side of said body, and constituting an engageable part whereby said binding device and said body may be forcibly turned and disconnected from the wire support while the wire support remains in connection with the wire supported thereby.

2. A wire hanger comprising a body having a hole therethrough and having a polygonal recess in its upper side, and means for supporting and normally holding said body from turning, in combination with a support for the line wire below said body, a binding device passing through said hole and having threaded engagement with said support, and an engageable polygonal portion on said device seated in said polygonal recess and extending above said body whereby said portion may be engaged and said binding device and said body forcibly turned to unscrew said binding device from the line wire support.

3. A wire hanger comprising a body having a hole therethrough and having a polygonal recess in its upper side, and a support normally holding said body from turning, in combination with a wire support below said body, a binding device passing through said hole and being screwed into said wire support, and a polygonal enlargement on said binding device seated in said recess and locking said device and said body together, said enlargement having an engageable portion extending above the upper surface of said body, whereby said binding device and said body may be forcibly aurned to unscrew said binding device from the wire support while the latter remains in connection with the wire supported thereby.

4. A wire hanger comprising a body having a hole therethrough, and means for supporting said body and normally preventing it from turning, in combination with a wire support below said body, a device binding said wire support in connection with said body, and means constituting a lock between said device and said body and also constituting an engageable portion for forcibly turning said body, whereby said device and said body may be disconnected from the wire support while the latter remains in connection with the wire supported thereby.

1,243,058. BAT-FORMING MACHINE. FERDINAND FRANKE, Port Fulton, Ky., assignor to Fred Franke & Co., Louisville, Ky., a Partnership. Filed Mar. 8, 1915. Serial No. 12,801. (Cl. 19—8.)



1. In a bat forming machine, in combination, a reciprocating carriage, a conveyer belt thereon, means for depositing a web on said belt, a base on which said carriage is mounted, a pair of rails pivotally connected by one end to a central point on the inner face of wall of said base and extending therefrom in a horizontal plane to connections respectively with other walls at points spaced from said side wall, means actuated by contact with said rails for moving the belt, and means for varying the angle of said rails relative to said walls to change the ratio of movement of the belt relative to the movement of the carriage.

2. In a bat forming machine, in combination, a reciprocating carriage, a conveyer belt thereon, means for depositing a web on said belt, a base on which said carriage is mounted, said base comprising side and end walls, an end wall having a recess in its upper edge, a rail pivotally connected by one end to a side wall and extended at an angle therefrom and disposed in said recess, a plate having a plurality of perforations secured over said recess and a pin adapted to be passed through a selected perforation to hold the rail in adjusted position, and means for moving said belt actuated by contact with the rail.

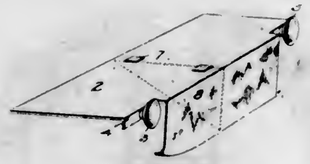
3. In a bat forming machine, in combination, a reciprocating carriage, a conveyer belt thereon, means for depositing a web on said belt, a base on which said carriage is mounted, a rail pivotally connected at one end to a side wall of said base, and extending at an angle therefrom in a horizontal plane to a connection with an end wall thereof, means for varying the angle of inclination of said rail with the side wall and means actuated by contact with the rail to advance the belt.

4. In a bat forming machine, in combination, a reciprocating carriage, a conveyer belt thereon, means for depositing a web on said belt, a base on which said carriage is mounted, a pair of rails pivotally connected by one end to a central point of the inner face of a wall of said base and extending therefrom in a horizontal plane to connections respectively with other walls at points spaced from said side wall and means actuated by contact with said rails for moving the belt.

5. The combination of a base having mounted thereon a reciprocable carriage carrying a conveyer belt, with means operable by movement of the carriage to impart continuous concurrent movement to said belt in determined ratio to the movement of the carriage, said means comprising a pair of rails connected by one end to a central point on an inner face of a wall of said base and extending therefrom in opposite directions to connections respectively with other walls at points spaced from said wall, a pair of levers mounted on and depending from the carriage and contacting respectively with said rails, and operative connections between said levers and the belt.

[Claims 6 to 10 not printed in the Gazette.]

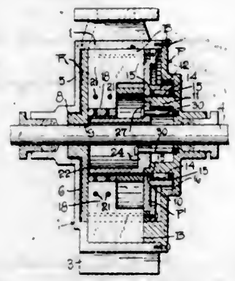
1,243,059. DISPLAY-FIXTURE. HAROLD M. FRIESLEBEN, San Francisco, Cal. Filed Mar. 25, 1916. Serial No. 86,592. (Cl. 248—39.)



A display fixture comprising a sheet metal plate, ears at opposite ends of the plate formed by bending portions of the shelf along one longitudinal edge, suckers adapted to engage a plate of glass secured to said ears and extending beyond said longitudinal edge, a bracket arranged below and secured to the shelf, the forward edge of the bracket being adapted to press against the glass and hold the shelf substantially horizontal, and an advertising card secured to the front edge of the shelf and concealing the bracket.

1,243,060. ROTARY PUMP. JAMES C. GLEED, North Yakima, Wash. Filed Feb. 20, 1917. Serial No. 149,861. (Cl. 103—44.)

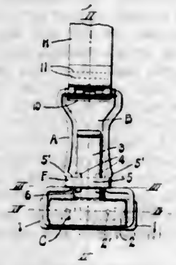
1. A rotary pump comprising a casing having one side open, a removable head for closing said open side of the casing, a hollow rotor arranged within the casing, a shaft disposed through the casing and the rotor, a side of the rotor being keyed to the shaft, an outstanding annular flange carried by the opposite side of the rotor and concentric to the shaft, an inwardly directed annular flange carried by the removable head of the casing, the flanges of the rotor and the head being concentrically arranged and spaced one from the other, anti-friction means interposed between said flanges, an inwardly directed tubular cam member carried by the head and through which the shaft is disposed, a plurality of blades carried by the rotor and movable inwardly and outwardly with respect thereto, and means coacting with the blades and cam member for imparting the requisite movement to the blades.



4. A rotary pump comprising a casing having one side open, a removable head for closing said open side of the casing, a hollow rotor arranged within the casing, a shaft disposed through the casing and the rotor, a side of the rotor being keyed to the shaft, an outstanding annular flange carried by the opposite side of the rotor and concentric to the shaft, an inwardly directed annular flange carried by the removable head of the casing, the flanges of the rotor and the head being concentrically arranged, an inwardly directed tubular cam member carried by the head and through which the shaft is disposed, a plurality of blades carried by the rotor and movable inwardly and outwardly with respect thereto, and means coacting with the blades and cam member for imparting the requisite movement to the blades, said cam member being detachably engaged with the inwardly directed flange of the removable head of the casing.

[Claims 2 and 3 not printed in the Gazette.]

1,243,061. GARMENT-SUPPORTER. GEORGE HAKE, St. Louis, Mo. Filed Mar. 9, 1916. Serial No. 83,091. (Cl. 24—247.)



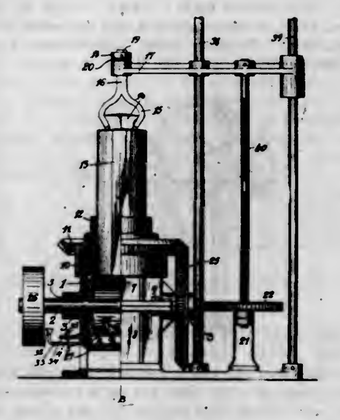
1. A garment supporter comprising a yieldable garment receiving loop, a carrier arm to which said loop is hinged, a keeper slidably fitted to said carrier arm, said carrier arm being movable to locate the keeper in the loop, said keeper being movable in the loop to secure a portion of a garment therein, and a latch device held from movement by said yieldable loop to secure all of said parts in their operative positions.

2. A garment supporter comprising a yieldable garment receiving loop, a carrier arm to which said loop is hinged, a keeper slidably fitted to said carrier arm, said carrier arm being movable about the axis of its hinge to locate the keeper in the loop and said keeper being movable in the loop to secure a portion of a garment, said keeper being provided with a recessed head adapted to receive a portion of the garment, and a latch device slidably fitted to and adapted to engage and be held by said loop to secure all of said parts in their operative positions.

3. A garment supporter having a garment receiving loop, the lower portion of which is enlarged, a stiff carrier arm to the upper portion of which said loop is hinged, said arm being provided with an enlarged lower portion adapted to engage one side of said loop, a keeper having an enlarged lower portion adapted to overlap the opposite side of said loop, said carrier arm being provided with a guideway to which said keeper is slidably fitted, and said loop being provided with yieldable portions, and a latch device fitted to and adapted to be held by said yieldable portions to secure all of said parts in their operative positions.

4. A garment supporter comprising a yieldable garment receiving loop, a keeper adapted to be inserted into said loop to secure a portion of a garment therein, said yieldable loop having side members one of which is provided with a detent, and a latch device fitted to said side members and adapted to coöperate with said detent to secure said keeper in said loop.

1,243,062. PROCESS FOR MAKING AMALGAMS. ARTHUR LUDWICK HALVORSEN, Perth Amboy, N. J., assignor to The Roessler & Hasslacher Chemical Co., New York, N. Y., a Corporation of New York. Filed Dec. 30, 1915. Serial No. 69,341. (Cl. 75—1.)



1. The method of making amalgams consisting in continuously bringing a thin film of mercury into contact with a body of metal.

4. The method of making amalgams consisting in bringing a continuously horizontally rotating, thin film of mercury into contact with a continuously vertically rotating body of metal.

9. The method of making amalgams consisting in bringing small quantities of mercury into contact with a body of solid metal, removing the amalgam, freeing the amalgam from the metal and returning the mercury to again come in contact with the body of metal, in a continuous cycle.

[Claims 2, 3, and 5 to 8 not printed in the Gazette.]

1,243,063. TRUCK. JOSEPH A. HEAD, Fruitdale, Ohio, assignor of one-half to J. W. Blair, Johnstown, Ohio. Filed July 13, 1917. Serial No. 180,275. (Cl. 214—2.)

1. A truck of the character described comprising a bed, a pair of wheels supporting the rear of said bed, a runner

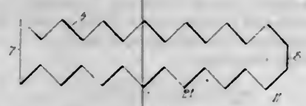
on said bed extending rearwardly from the front thereof, and a draft connection automatically adjustable back and



forth on said runner as the truck is swung from horizontal to vertical position or vice versa.

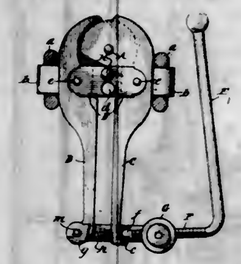
[Claim 2 not printed in the Gazette.]

1,243,064. ROOFING-STRIP. OTTO A. HEPPES, La Grange, Ill. Filed July 26, 1915. Serial No. 41,925. (Cl. 108—7.)



A roofing strip of uniform thickness having serrations along each longitudinal edge thereof, the apices of the serrations on one edge being positioned transversely opposite the apices of the serrations on the other edge.

1,243,065. TEMPER-SCREW CLAMP. PARK S. HOVIS, Wooster, Ohio, assignor of forty-five one-hundredths to Charles Curry, Wooster, Ohio. Filed Mar. 6, 1917. Serial No. 152,913. (Cl. 24—135.)

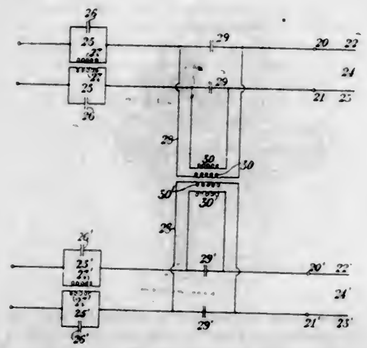


2. In a device of the character described, the combination with a pair of lever arms having a common fulcrum axis, of a pair of link bars on the free end of one of said lever arms, a catch on the free end of the other of said lever arms, a rotary member mounted between said link bars, and a hand lever having a threaded portion bent at an angle therewith, said threaded portion operative transversely through said rotary member, and adapted to adjustably engage said catch by the rotation of said hand lever and said rotary member, substantially as set forth.

3. In a device of the character described, the combination with a pair of lever arms having as fulcrum a common axis, of a pair of gripping slips mounted transversely between said lever arms, perforated fastener ears at the ends of said slips respectively, means for engaging said ears, a pair of bars pivotally attached to opposite sides of the free end of one of said lever arms, a rotary member mounted between the free ends of said bars, a hand-lever having a threaded end portion bent at about right angles therewith, a transverse threaded bore through said rotary member adapted to receive said threaded end portion, a catch on the adjacent end of the other of said pair of lever arms, and said threaded end portion extended beyond said rotary member sufficiently to engage said adjacent lever arm and said catch, substantially as set forth and for the purpose specified.

[Claim 1 not printed in the Gazette.]

1,243,066. NETWORK FOR NEUTRALIZING THE CHARACTERISTIC REACTANCE OF A LOADED LINE. RAY S. HOYT, Brooklyn, N. Y., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed Jan. 24, 1916. Serial No. 73,950. (Cl. 178—45.)



1. A network for neutralizing the characteristic reactance of a periodically loaded signaling line, said network comprising precomputed impedance elements so proportioned in accordance with the constants of said line that the reactance of said network is substantially equal and opposite to the characteristic reactance of said line.

4. A network having a reactance substantially equal and opposite to the characteristic reactance of a periodically loaded signaling line, said network comprising an inductance coil in parallel with a condenser, the values of the inductance of said coil and the capacity of said condenser being precomputed in accordance with the load coil inductance, the distance between consecutive load coils and the distributed capacity and inductance of said loaded line.

7. In a telephone system, the combination of two parallel transmission lines constituting two side circuits and a phantom circuit, said lines being periodically loaded as regards each side circuit and also as regards said phantom circuit, with two similar and equal networks in series with each of said side circuits respectively, each of said networks including precomputed inductance coils and condensers so proportioned in accordance with the constants of said side circuits and said phantom circuit that the impedance of the combination as seen from each of said side circuits and from said phantom circuit is approximately a pure non-inductive resistance.

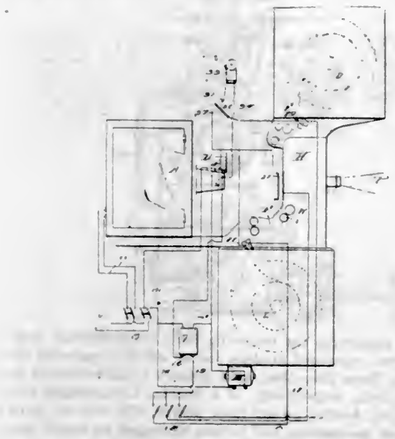
9. The combination of a loaded line comprising lumped series inductance and shunt capacity in series with a network comprising an inductance coil in parallel with a condenser, said network having a reactance substantially equal and opposite to that of said loaded line, and the values of the inductance of said inductance coil and the capacity of said condenser being proportioned in accordance with the inductance and capacity of said loaded line.

11. A telephone circuit comprising a plurality of conductors, and a conductive network associated with each of the conductors, each network including branches containing impedances of different character, impedances of the same character in different networks being arranged in mutually inductive relation.

[Claims 2, 3, 5, 6, 8, 10, 12, and 13 not printed in the Gazette.]

1,243,067. STOP-MOTION FOR MOTION-PICTURE MACHINES. ELIE B. HULSEY and JOHN A. D. HERRINGTON, Tupelo, Miss. Filed June 1, 1916. Serial No. 101,198. (Cl. 88—17.)

1. In a motion picture apparatus, the combination with a dowser interposed between the light and head, a catch for holding the dowser shutter open, a motor and its circuit, and means for breaking said circuit by the close of the dowser; of a circuit closer between the head and feed reel kept normally open by the film and closed by a break thereof or a tear therein, an electromagnet for actuating the catch to release said dowser, an alarm, a circuit from the circuit closer to the magnet and branched to the alarm, and a switch at the point of branching, for the purpose set forth.



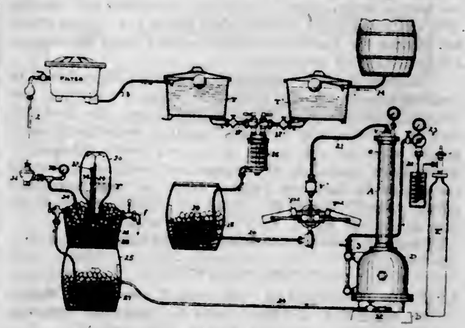
2. The combination with a motion picture apparatus, an automatically closing dowser, and a catch for holding it open; of a circuit breaker closed while the dowser is opened and opened by the close of the dowser, a lamp, a circuit leading thereto, a motor, a branch from the lamp circuit leading through said circuit breaker to the motor, an electromagnet for retracting said catch, a plurality of circuit closers along the line of the film and closed by a break therein or the passage of a tear therethrough, the first of said circuit closers being adjacent the feed reel, circuits from such circuit closers to said electromagnet, a switch in the circuit from said closer adjacent the feed reel and an alarm and circuit selectively closed by the movement of the switch to cut out the magnet and cut in the alarm, for the purpose set forth.

3. The combination with a motion picture apparatus, an automatically closing dowser, and a catch for holding it open; of a circuit breaker closed while the dowser is opened and opened by the close of the dowser, a lamp, a circuit leading thereto, a motor, a branch from the lamp circuit leading through said circuit breaker to the motor, an electromagnet for retracting said catch, a plurality of circuit closers along the line of the film and closed by a break therein or the passage of a tear therethrough, and circuits from said closers to the electromagnet.

4. The combination with a motion picture apparatus, a dowser, mechanism for holding it raised, and an electromagnet for tripping said mechanism; of a circuit for actuating said magnet, and a circuit closer in said circuit comprising a pair of leaves mounted on and insulated from a support, rollers carried by said leaves at opposite sides of the film, and collars near the ends of the rollers traveling on the margins of the film and adapted to make contact when either margin is torn.

5. The combination with a motion picture apparatus, a dowser including a shutter having an arm mounted on a shaft, a bearing in which said shaft is journaled, a catch having a normally projected bolt engaging said arm to hold the shutter raised, and means for retracting said bolt when a defect in the film approaches the head of the apparatus; of a motor for driving the film, a motor circuit, and a circuit breaker therein comprising an insulated roller mounted on said shaft and having a plate along one side, and fingers connected to the circuit and so disposed as to make contact with said plate when the dowser shutter stands raised.

1,243,068. PROCESS FOR PRODUCING CARBONATED BEVERAGES. DAVID HUMPHREY, Cleveland, Ohio. Filed Apr. 14, 1915. Serial No. 21,210. (Cl. 99—11.)



1. A process of producing effervescent beverages, consisting in mixing different fluids in any desired proportions; then carbonating this mixture as produced; and finally liquefying the carbonated product in the presence of and under more or less pressure of carbonating gas.

2. A process of producing effervescent beverages for withdrawal at a tap or faucet, consisting in mixing different liquids and carbonating the mixture produced, and subsequently liquefying the mixture in the presence of carbonating gas concurrently with the withdrawal thereof from the tap or faucet.

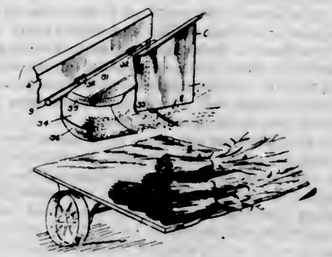
3. A process of producing effervescent beverages, consisting in subjecting mixed liquids to a carbonating gas and subsequently liquefying the product thereof under confinement in the presence of the inherent gases.

4. A process of producing effervescent beverages, consisting in mixing a syrup compound and carbonating the resultant mixture, and then liquefying the carbonated product under close confinement in the presence of a carbonating gas.

5. A process of producing effervescent beverages, consisting in mixing different liquids, carbonating the resultant mixture, and liquefying the said mixture at a relatively low temperature under the pressure and in the presence of a carbonating gas.

[Claims 6 and 7 not printed in the Gazette.]

1,243,069. LOADING DEVICE FOR HARVESTING-MACHINES. JOSEPH A. JEFFERY, Duluth, Minn. Filed June 11, 1917. Serial No. 174,012. (Cl. 214—2.)



1. The combination, with an inclined corn harvester conveyer trough, having an endless belt conveyer therein, of an extension of the trough beyond the discharge end of the conveyer belt having means whereby the stalks, when delivered from the belt, are held in a position parallel longitudinally with the trough until a predetermined point in the cycle of the belt is reached, when the stalks thus held are delivered in a horizontal position to an attending vehicle, and means for causing the stalks to assume such horizontal position prior to being delivered to the vehicle.

2. In combination, an inclined corn harvester conveyer trough, having an endless conveyer belt therein, an extension upon said trough beyond the discharging end of the belt, a tipping apron within the extension and parallel with the trough and a fixed apron below the tipping apron for alining the stalks horizontally while being discharged, substantially as described.

5. A device of the character described comprising, in combination, a trough having an endless conveyer belt therein, a receiving apron extending beyond the discharge end of the conveyer belt and parallel with the trough, means whereby the apron is automatically dumped, a fixed apron carried by the trough and designed to receive the stalks as they are dumped from the first mentioned apron whereby, when the stalks are discharged from the last mentioned apron, they are fully prostrated.

[Claims 3, 4, and 6 not printed in the Gazette.]

1,243,070. RAIL-JOINT. WALTER T. JOHNSON, Macon, Ga. Filed Oct. 7, 1913, Serial No. 793,816. Renewed Aug. 3, 1915. Serial No. 43,454. (Cl. 239—9.)



1. In a rail joint, the combination with a splice bar, of a bolt extending through said bar, a coiled spring on said bolt and having one end bearing on said bar, an angle bar having one flange forming a freely movable bearing for the other end of said spring and the other flange overlapping said spring to protect the same, the overlapping portion of said flange having a width to reach to the splice bar when the spring is compressed to its limit.

2. In a rail joint construction, the combination with two rails having adjacent ends disposed in juxtaposition to form the rail joint, of a splice bar lapping the adjacent ends, spaced bolts connecting said bar with said rails, a housing plate carried by said bolts, and bodily movable relative to said rails, a spring bearing on said plate and said bar, said plate having an overhanging ledge covering said spring to protect the same.

3. In a rail joint construction, the combination with a rail and a splice bar, of a shouldered bolt connecting said rail and bar, a spring carried by said bolt and acting on said bar and rail to draw the same together, a spring bearing disposed between the spring and a shoulder of said bolt, said bearing having an extension partially inclosing said spring.

4. In combination with a rail, of a splice bar having an upper surface extending beyond and downwardly inclined from the rail head, a spring housing plate having a downwardly inclined upper surface extending beyond and forming substantially a continuation of the inclined upper surface of the splice bar whereby objects falling on said bar or plate tend to slide off the same.

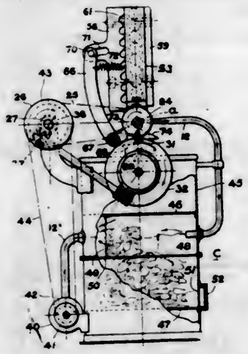
5. In a rail joint construction, the combination of two rails having adjacent ends disposed in juxtaposition to form the rail joint, of a splice bar lapping the adjacent ends, springs for connecting said bar with said rails, and a protecting plate disposed to the outside of and overlapping parts of said springs.

[Claims 6 to 10 not printed in the Gazette.]

1,243,071. APPARATUS FOR REMOVING YARN FROM BOBBINS. WILLIAM G. JOPSON, Abington, Mass. Filed June 20, 1916. Serial No. 104,674. (Cl. 19—15.)

1. An apparatus for removing yarn from bobbins, comprising a pneumatic suction conduit having an air inlet mouth, means arranged to sustain a bobbin outside and crosswise of said conduit, with the yarn in register with said mouth, and means arranged to rotate the bobbin to unwind the yarn.

2. An apparatus for removing yarn from bobbins, comprising two separated coöperative holders arranged to hold the ends, respectively, of a bobbin, a pneumatic suction conduit having an air inlet mouth adjacent the yarn that is on the bobbin, and means arranged to rotate one of said holders to unwind the yarn.



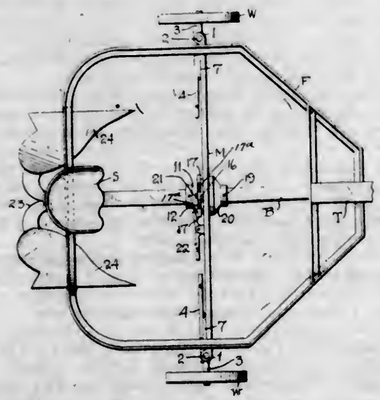
3. An apparatus for removing yarn from bobbins, comprising two separated holders one of which is movable toward and from the other, said holders being arranged to hold the ends, respectively, of a bobbin, a pneumatic suction conduit having an air inlet mouth adjacent the yarn that is on the bobbin, and means arranged to rotate one of said holders to unwind the yarn.

4. An apparatus for removing yarn from bobbins, comprising two separate holders, one of which is rotatable, said holders being arranged to hold the ends, respectively, of a bobbin, a pneumatic suction conduit having an air inlet mouth adjacent the yarn that is on the bobbin, and means arranged to rotate said rotatable holder to unwind the yarn.

5. An apparatus for removing yarn from bobbins, comprising two holders arranged to hold the ends, respectively, of a bobbin, a pneumatic suction conduit having an air inlet mouth adjacent the yarn that is on the bobbin, means arranged to rotate the bobbin to unwind the yarn, and means arranged to retract one of said holders from the other to release the bobbin.

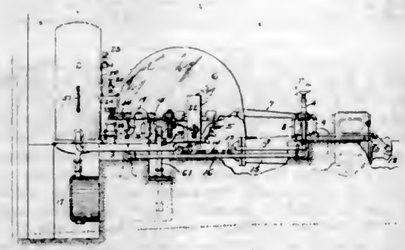
[Claims 6 and 7 not printed in the Gazette.]

1,243,072. PLOW. CHARLES R. JURAN, Herrick, S. D. Filed Apr. 14, 1917. Serial No. 162,135. (Cl. 97—27.)



A device of the character described including a portable frame provided with a cross member, said cross member having an opening, a plow beam disposed through said opening and adapted to rotate, an end portion of the beam being provided with oppositely directed standards, plows secured to the outer ends of said standards, a ratchet wheel fixed to the beam, a lever pivotally supported by the ratchet wheel and provided with dogs coacting with said wheel whereby said beam may be rotated, and means independent of the lever coacting with the ratchet wheel for holding the beam against rotation.

1,243,073. PRESSURE-REGULATING APPARATUS. LEOPOLD M. KARNASCH, San Francisco, Cal., assignor to Pelton Water Wheel Company, San Francisco, Cal., a Corporation of California. Filed Mar. 14, 1914. Serial No. 824,663. (Cl. 103—86.)



1. The combination with a vessel adapted to contain liquid under pressure, of a pump for introducing said liquid into said vessel, means for driving said pump, a float arranged to be moved by variations in the level of the liquid in said vessel; and means operative by the movement of said float for varying the speed of said pump driving means.

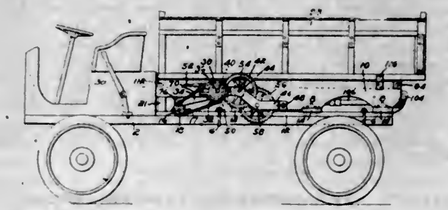
15. The combination with a vessel adapted to contain a liquid under pressure, of a float chamber connected to said vessel, an open top, closed bottom float in said chamber, a conductor depending into said float and terminating exteriorly of the float chamber, and a valve in said conductor.

20. The combination with a vessel adapted to contain liquid under pressure, of mechanism adapted to be operated by the flow of said liquid from said vessel, a pump for introducing liquid into said vessel, a water wheel arranged to drive said pump, a nozzle for said wheel, means for controlling the amount of water discharged from the nozzle against said wheel, a float arranged to be moved by variations of the level of the liquid in said vessel, a piston secured to said float, a cylinder in which said piston is disposed arranged in communication with said liquid under pressure, ports in said cylinder, and conductors connecting said ports with the nozzle controlling means, whereby the speed of the water wheel is varied in accordance with variations of the level of the liquid in said vessel.

[Claims 2 to 14, 16 to 19, and 21 not printed in the Gazette.]

1,243,074. LOAD-HANDLING APPARATUS. GUSTAF KELLGREN, Everett, Mass. Filed Jan. 17, 1916. Serial No. 72,452. (Cl. 21—86.)

1. In a load handling apparatus, in combination, a suitable support; a load supporting body normally resting on said support; a pair of guide rails secured to said body; a pair of angular lifting arms, pivoted at one end for swinging movement; a roller mounted at the free end of each of said lifting arms and adapted to coöperate with said guide rails; a second pair of angular lifting arms, each arm of said pair being pivoted at one end for swinging movement upon said support; a roller mounted at the free end of each of said second pair of lifting arms and adapted to coöperate with said guide rails; a pair of traction members operatively connected to one of said pairs of lifting arms; a shaft upon which said traction members are adapted to be wound; and means to drive said shaft to wind said traction members thereon.



3. In a load handling apparatus, in combination, a suitable support; a load supporting body normally resting on said support; a pair of guide rails secured to said body; a pair of angular lifting arms, pivoted at one end for swinging movement; a roller mounted at the free end of each of said angular lifting arms and adapted to coöperate with said guide rails; a second pair of angular lifting arms, each arm of said pair being pivoted at one end upon said support; a roller mounted at the free end of each of said second pair of lifting arms and adapted to coöperate with said guide rails; a pair of traction members operatively connected to one of said pairs of lifting arms; guide sheaves for said traction members; a shaft upon which said traction members are adapted to be wound; and means to drive said shaft to wind said traction members thereon.

5. In a load handling apparatus, in combination, a suitable support; a tiltable load supporting body normally in lowered position on said support; guide rails secured to said body; a plurality of relatively movable angular lifting arms pivoted at one end for swinging movement; traction members operatively connected to said lifting arms; a second pair of angular arms each arm of said pair being longer than the arms of said first named pair, and pivoted at one end upon said support, and adapted to coöperate with said guide rails; a shaft upon which said traction members are adapted to be wound; and means to drive said shaft to wind said traction members thereon and cause said lifting arms to lift or tilt said body relatively to said support.

7. In a dumping vehicle, in combination, a load carrying dumping body adapted to be tilted to dump its load; a suitable support for said load carrying dumping body; an angular body lifting arm pivoted at one end for swinging movement; pivotal connections connecting one end of said angular body lifting arm to one of said two first-named parts; a second arm longer than the aforesaid arm and pivoted at one end upon said support; anti-friction means through which said angular body lifting arm acts on the other of said two first-named parts to tilt said body; a traction member connected to said angular body lifting arm; and means to operate said traction member to cause said angular body lifting arm to swing about its pivotal connection and to act through said anti-friction means to tilt said dumping body about its rear end relative to said support to dump its load, said traction member being connected with the free end portion of said angular body lifting arm and extending, during a portion of the operation at least of said angular lifting arm, from its point of connection with said angular body lifting arm to the elbow of the latter and thence to said traction member-operating means.

9. In a dumping vehicle, in combination, a load carrying dumping body adapted to be tilted to dump its load; a suitable support for said load carrying dumping body; an angular body lifting member comprising two arms, one pivotally connected to one of said two first-named parts and the other coöperating, when said body lifting member is actuated, with the other of said two first-named parts to raise the forepart of said body; a traction member connected with the unpivoted arm of said body lifting member; means to operate said traction member and actuate said body lifting member to raise the forepart of said

load carrying dumping body to dump its load, said traction member extending, during a portion at least of the operation of said body lifting member, from its connection with said unpivoted arm of said body lifting member substantially longitudinally of said arm to the junction of the two arms of said body lifting member and thence to said traction member operating means; means, operated by said angular lifting member, to raise the rear part of said body; and provision for rendering said rear part lifting mechanism operative or inoperative at will.

[Claims 2, 4, 6, 8, and 10 to 13 not printed in the Gazette.]

1,243,075. COLLAPSIBLE EGG-CARRIER. EDWARD O. KRAEPELIN, Botsford, Conn. Filed Oct. 26, 1916. Serial No. 127,735. (Cl. 229—15.)



1. A package of the character described comprising an elongated, substantially rectangular, collapsible box, open top and bottom, a diagonally disposed partition dividing said box longitudinally into two triangularly-shaped compartments, a row of individual, closable and collapsible containing jackets secured to said partition, the latter having at least one side edge thereof unattached whereby the entire structure may be endwise collapsed to substantially flat form, and a collapsible outer shell or case to snugly contain said box, close the open top and bottom and prevent collapse thereof.

2. A package of the character described comprising an elongated, substantially rectangular, collapsible box, open top and bottom, a diagonally disposed partition dividing said box longitudinally into two triangularly-shaped compartments, a row of individual, closable and collapsible containing jackets secured to each side of said partition, the latter having at least one side edge thereof unattached whereby the entire structure may be endwise collapsed to substantially flat form, and a collapsible outer shell or case to snugly contain said box, close the open top and bottom and prevent collapse thereof.

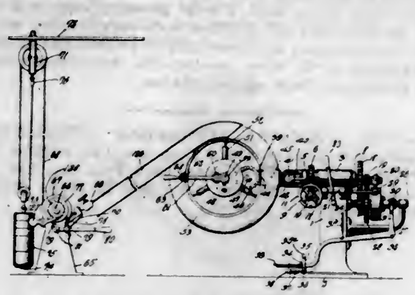
3. A package of the character described comprising an elongated, substantially rectangular box, open top and bottom, a diagonally disposed partition dividing said box longitudinally into two triangularly-shaped compartments, said partition consisting of an open-ended rectangular frame of elastically yielding material provided with removable interior reinforcing means, and a row of individual closable containing jackets secured to said partition.

4. A package of the character described comprising an elongated, substantially rectangular box, open top and bottom, a diagonally disposed partition dividing said box longitudinally into two triangularly-shaped compartments, said partition consisting of an open-ended rectangular frame of elastically yielding material provided with removable interior reinforcing means, a row of individual closable containing jackets secured to said partition, and a collapsible outer shell or case to snugly contain said box, close the open top and bottom and prevent collapse thereof.

5. A package of the character described comprising an elongated, substantially rectangular box, open top and bottom, a diagonally disposed partition dividing said box longitudinally into two triangularly-shaped compartments, said partition consisting of an open-ended rectangular frame of elastically yielding material provided with removable interior reinforcing means, and a row of individual closable containing jackets secured to each of the side faces of said partition.

[Claims 6 to 9 not printed in the Gazette.]

1,243,076. TIRE-MAKING MACHINE. FRANKLIN W. KREMER, Carlstadt, N. J. Filed July 31, 1912. Serial No. 712,550. (Cl. 154—10.)



1. The combination with a rotatable core adapted to receive a strip of fabric the end of which is attached thereto; of a traveling stretching member adapted to be connected to said strip of fabric, the fabric itself constituting the means for connecting the core and stretching member while the fabric is being stretched and shaped.

2. In a machine for forming a tire from a web, the combination of a revoluble coreholder and a web holding grip, one of which is movable toward the other, and a tension device for yieldingly resisting the advance of the movable member to maintain a uniform tension on a web extending from the grip to the core.

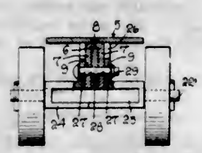
4. In a tire-forming machine, a core-holder mounted for rotation; a lever mounted to swing transversely of the core-holder; and a tire-engaging compression member adjustable longitudinally of the lever.

5. In a tire-forming machine, a core-holder mounted for rotation and for tilting movement at an angle to its plane of rotation; means for rotating the core holder irrespective of the tilt of the core-holder; and tire-engaging compression means having an arm mounted co-axially with the core-holder and jointed for swing movement transversely of the plane of rotation of the holder.

12. In a tire forming machine, a core holder to receive fabric, counter-poise means for uniformly tensioning said fabric as it is supplied to said holder, means for engaging said fabric influenced by said counter-poise means, and frictionally adjustable means for controlling the counter-poise means.

[Claims 3, 6 to 11, 13, and 14 not printed in the Gazette.]

1,243,077. CONVERTIBLE ROLLER AND ICE SKATE. FRANK M. KUCHTIK, Kitchener, Ontario, Canada. Filed May 31, 1917. Serial No. 172,000. (Cl. 46—50.)



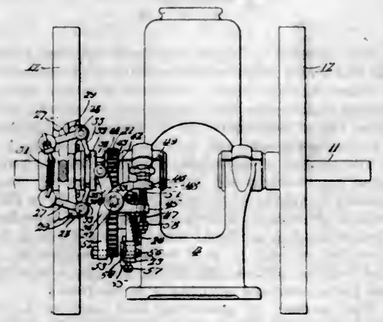
1. In a skate, a foot plate, a coupling bracket fixed to said foot plate and having spaced portions, surface contacting means having a part intimately engaged with the spaced portions of the bracket, and also contacting with the foot plate at opposite sides of said bracket, said spaced portions of the bracket and said part having registering openings, and a coupling bolt engaged through said openings.

3. In a skate, a foot plate, coupling brackets fixed to the toe and heel ends of said foot plate, two sets of rollers, each set having an axle, each of said brackets being provided with a notch to receive the axle of a set of rollers, a connecting plate on said roller axle, said plate being provided with spaced, parallel end portions between which the coupling bracket is adapted to be disposed, and means for detachably connecting the bracket to said end portions of the plate.

5. In a skate, a foot plate, coupling brackets fixed to the toe and heel ends of the foot plate and each having spaced parallel portions provided in their ends with rectangular notches, two sets of rollers, each roller set having an axle provided with a rectangular, intermediate portion, a plate bent upon itself to provide an elongated loop extending between the spaced rollers and said loop having openings in its ends to receive the roller axle, the end portions of the plate being disposed in spaced, parallel relation above the axle and, adapted to receive the spaced portions of a coupling bracket between them, the notches in the coupling bracket receiving the roller axle, and means to detachably connect the bracket to the spaced end portions of said plate.

[Claims 2 and 4 not printed in the Gazette.]

1,243,078. GOVERNOR CONTROL. MARTIN S. LARSON, Rockford, Ill., assignor to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed Oct. 30, 1916. Serial No. 128,614. (Cl. 123—113.)



1. In an engine, the combination with a governor and valve-actuating means, of means operated by the governor and having a make-and-brake connection with the valve mechanism to prevent normal functioning thereof when the engine exceeds a predetermined speed, including adjustable means for varying the operative effect thereof, and adjustable means independent of the first named adjustable means for limiting the range of adjustment thereof so as to limit the high and low speed range of the engine.

2. In an engine, the combination with a governor and a valve-actuating part, of means operated between the governor and said valve-actuating part for governing movement of the latter, including adjustable means for varying the operative effect of said governor operated means so as to cause the engine to be operated at will at higher or lower speeds, and additional adjustable means for determining the high and low speed range or limit of the engine independently of the first adjustment.

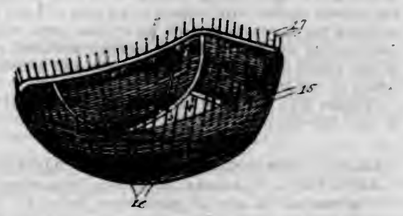
3. In an engine, the combination with a governor and valve-actuating mechanism, of means operated by the governor to prevent normal functioning of the valve mechanism when the engine exceeds a predetermined speed, consisting of a pair of pivotally associated parts, one of which is connected with the governor and the other of which is adapted to coöperate with said valve-actuating mechanism, an adjustable connection between said parts for varying the relative relation thereof to thereby vary the operative effect of the governor upon the valve-actuating mechanism, and means independent of said adjustment for determining the high and low speed limits of the engine as controlled through the governor-actuated parts and being adjustable to vary both the said high and low speed limits.

4. In an engine, the combination with a governor and a valve-actuating part, of means operating between the governor and valve-actuating part for governing movement of the latter, comprising a pair of levers co-axially pivotally mounted intermediate their ends, and adjustable connection between the levers at one end thereof for holding them in fixed relation so that they will oscillate in unison and may be relatively adjusted, adjustable stops for limiting relative adjustment of said levers in both directions, one of the levers being connected at its opposite end with the governor so as to be actuated thereby and the other lever being movable at its opposite end into and out of engagement with said valve-actuating part by the operation of the governor.

5. In an engine, the combination with a governor and valve-actuating mechanism, of means operated by the governor and having a make-and-brake connection with the valve mechanism to prevent normal functioning thereof when the engine exceeds a predetermined speed, comprising a pivotally mounted part connected with the governor so as to be oscillated by movement thereof, a part adjustably connected to and movable with the pivotally mounted part and serving to coöperate in said make-and-brake connection with the valve mechanism for preventing normal functioning thereof, and adjustable means independent of said adjustable connection between said pivoted and adjustable parts for limiting relative adjustment therebetween in one direction, whereby to limit the operating speed of the engine as controlled by said parts and whereby the limit of said speed may be varied through adjustment of said means.

[Claim 6 not printed in the Gazette.]

1,243,079. METHOD OF PRODUCING WOVEN REED ARTICLES. MARSHALL B. LLOYD, Menominee, Mich. Filed July 17, 1916. Serial No. 109,714. (Cl. 147—48.)



1. The method of manufacturing reed articles having a frame and a reed fabric which consists in weaving the reed fabric in a shape different from the frame, reshaping the fabric out of its plane of weave, and attaching it to the frame.

2. The method of manufacturing reed articles having a frame and a tubular reed fabric which consists in weaving the reed fabric in tubular shape different from the frame, reshaping the fabric out of its plane of weave and attaching it to the frame.

3. The method of manufacturing reed articles having a frame and a reed fabric which consists in weaving the reed fabric about a templet in a shape different from the frame, reshaping the fabric out of its plane of weave and attaching it to the frame.

4. The method of manufacturing tubular reed articles having a frame and a reed fabric which consists in weaving the reed fabric in tubular form about a templet in a shape different from the frame, reshaping the fabric out of its plane of weave and attaching it to the frame.

5. The method of manufacturing reed articles having a frame and a reed fabric which consists in weaving the reed fabric in a shape different from the frame, reshaping to conform to the frame in desired manner, folding marginal portions over the frame and attaching thereto.

[Claims 6 to 25 not printed in the Gazette.]

1,243,080. METHOD OF PRODUCING WOVEN REED ARTICLES. MARSHALL B. LLOYD, Menominee, Mich. Original application filed July 17, 1916, Serial No. 109,714. Divided and this application filed Feb. 6, 1917. Serial No. 146,909. (Cl. 147—48.)



1. The method of manufacturing reed articles having a frame and a non-endless reed fabric which consists in weaving the reed fabric in endless form, severing the fabric to destroy its endless form and attaching the fabric to the frame.

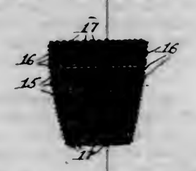
6. The method of manufacturing reed articles having a frame and a non-endless reed fabric which consists in weaving the reed fabric in an endless form, severing the fabric to destroy its endless form, folding desired marginal portions of the fabric out of its plane of weave and attaching the fabric to the frame.

10. The method of manufacturing reed articles having a frame and a none-endless reed fabric which consists in weaving the reed fabric in an endless form with the filler strands upon the stakes in substantially parallel relations, severing the fabric to destroy its endless form, re-shaping the fabric to cause a substantial part of the filler strands to assume non-parallel relations at least in part, and attaching the fabric to the frame.

15. The method of manufacturing reed articles having a frame and a non-endless reed fabric which consists in weaving the fabric about a templet, in endless form with its contour curved with respect to its axis at least in part, severing the fabric to destroy its endless form, re-shaping the body of the fabric, folding desired marginal portions of the fabric out of its plane of weave and attaching the fabric to the frame.

[Claims 2 to 5, 7 to 9, 11 to 14, 16, and 17 not printed in the Gazette.]

1,243,081. METHOD OF PRODUCING WOVEN REED ARTICLES. MARSHALL B. LLOYD, Menominee, Mich. Continuation in part of application Serial No. 109,714, filed July 17, 1916. This application filed Feb. 6, 1917. Serial No. 146,910. (Cl. 147—48.)



1. The method of manufacturing reed articles having an endless fabric which consists in weaving the fabric in an endless shape different from the desired endless fabric and in re-shaping the fabric, out of its plane of weave, to desired shape.

3. The method of manufacturing reed articles having an endless fabric which consists in weaving the fabric in an endless shape different from the desired endless shape and in folding desired marginal portions of the fabric out of its plane of weave.

5. The method of manufacturing reed articles having an endless fabric which consists in weaving the fabric in endless shape different from the desired endless shape and in distorting edgewise desired substantial portions of the fabric.

14. The method of manufacturing reed articles having an endless fabric which consists in weaving the reed fabric in an endless shape different from the desired endless shape, re-shaping the fabric, out of its plane of weave, to desired shape and permanentizing the fabric in re-shaped condition.

23. The method of manufacturing reed articles having an endless fabric with a contour curved, at least in part, which consists in weaving the fabric, about a templet, in an endless shape different from the desired endless shape and with a contour curved at least in part, re-shaping the fabric out of its plan of weave and permanentizing the fabric in re-shaped condition.

[Claims 2, 4, 6 to 13, 15 to 22, and 24 to 29 not printed in the Gazette.]

1,243,082. METHOD OF PRODUCING WOVEN REED ARTICLES. MARSHALL B. LLOYD, Menominee, Mich. Filed Feb. 19, 1917. Serial No. 149,614. (Cl. 147—48.)



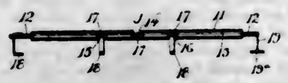
1. The method of producing reed articles having a frame and a reed fabric which consists in providing a skeleton frame having spaced connected members presenting relatively small contacting surfaces to the fabric, weaving the reed fabric independent of the frame and then placing the woven fabric over and securing it to the frame.

6. The method of manufacturing reed articles having a skeleton frame composed of spaced connected members presenting relatively small contacting surfaces to the fabric which consists in weaving the fabric independent of the frame about a sectional templet, in a form to inclose the templet at least in part removing, sectionally, parts of the templet to free the fabric and then placing the woven fabric over and securing it to the frame.

7. The method of producing reed articles having a frame and a reed fabric which consists in providing a skeleton frame having spaced connected members presenting relatively small contacting surfaces to the fabric, weaving the fabric independent of the frame about a templet of proper proportion relative to the frame, and then placing the woven fabric over and securing it to the frame.

[Claims 2 to 5 not printed in the Gazette.]

1,243,083. TYPE-CASE. LOUIS M. LONG, Roxbury, Mass. Filed Dec. 12, 1916. Serial No. 136,524. (Cl. 211—41.)



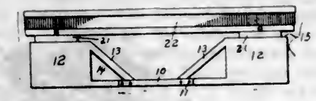
1. A cover for type-cases formed of two opposed perforated sheets, secured together at their edge portions, and stiffening bars interposed between said sheets.

3. A cover for type cases formed of two opposed perforated sheets secured together at their edge portions, each sheet being channeled to register with dividing stiles of the said case, and means for removably clamping said cover to the said case.

[Claim 2 not printed in the Gazette.]

1,243,084. RAILWAY-TIE. JOHN R. MCCREADY, Duncansville, Pa. Filed Feb. 27, 1917. Serial No. 151,326. (Cl. 238—5.)

1. A railway tie comprising a base having an enlargement formed thereon provided with a chamber in the top thereof, an angular shoulder in said chamber, a yieldable element seated in said chamber and having its upper surface extending above said shoulder, and a rail supporting plate mounted upon the top of said yieldable element.

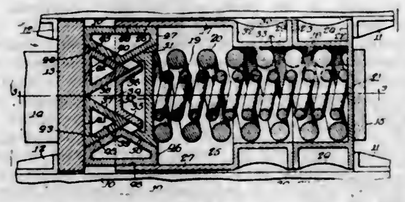


2. A railway tie comprising a base having an enlargement formed thereon provided with a chamber in the top thereof and an opening communicating with said chamber and with one side of said enlargement, a shoulder in said chamber, a yieldable element insertible through said opening into the bottom of said chamber and having its upper end extending above said shoulder, and a rail supporting plate mounted upon the upper end of said yieldable element.

4. A railway tie comprising a base having an enlargement extending from each longitudinal edge thereof, each enlargement having a chamber, a yieldable element mounted in the bottom of said chamber, and a rail supporting plate supported by said yieldable element.

[Claim 3 not printed in the Gazette.]

1,243,085. DRAFT-GEAR. ROBERT L. MCINTOSH, Wilmette, and RALPH GEO. TAYLOR, Chicago, Ill. Filed July 10, 1916. Serial No. 108,310. (Cl. 213—64.)



1. In a cushioning appliance of the character described adapted for railway-car draft-gear and other uses, the combination of a housing, a member rigid with said housing, a pressure block adapted to slide on a wall of said housing, a spring in said housing opposing the travel of said block relatively to said housing, and a wedge interposed between and in sliding contact with said member and pressure-block, substantially as described.

2. In a cushioning appliance of the character described adapted for railway-car draft-gear and other uses, the combination of a housing adapted to coöperate with a stop or stops, a follower to co-act with the opposed stop or stops, a member rigid with said housing, a pressure-block adapted to slide on a wall of said housing, a spring in said housing opposing the travel of said block relatively to said housing, and a wedge interposed between and in sliding contact with said member and pressure-block, and adapted to coöperate with and travel transversely of the appliance on said follower, substantially as described.

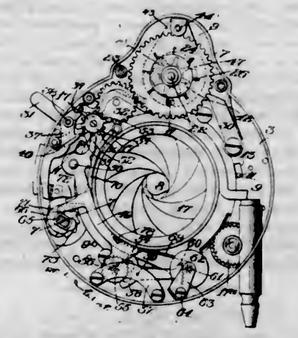
3. In a cushioning appliance of the character described adapted for railway-car draft-gear and other uses, the combination of a housing, a beveled member rigid with said housing, a beveled pressure-block adapted to slide on a wall of said housing, a spring in said housing opposing the travel of said block relatively to said housing, and a wedge interposed between and in sliding contact with the beveled faces of said member and pressure-block, substantially as described.

4. In a cushioning appliance of the character described adapted for railway-car draft-gear and other uses, the combination of a housing, adapted to coöperate with a stop or stops, a follower to co-act with the opposed stop or stops, a beveled member rigid with said housing, a beveled pressure-block adapted to slide on the wall of said housing, a spring in and disposed longitudinally of said housing opposing the travel of said block relatively to said housing, and a wedge interposed between and in sliding contact with the beveled faces of said member and pressure-block, and adapted to coöperate with and travel transversely of the appliance on said follower, substantially as described.

5. In a cushioning appliance of the character described adapted for railroad-car draft-gear and other uses, the combination of a housing, a member rigid with said housing, a pair of pressure-blocks adapted to slide on opposite interior walls of said housing, a spring in said housing opposing the travel of the pressure-blocks relatively to the housing, and a pair of wedges interposed between and in sliding contact with said member and said pressure-blocks, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,243,086. PHOTOGRAPHIC SHUTTER. PAUL J. MARKS, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed Nov. 23, 1915. Serial No. 62,946. (Cl. 95—63.)

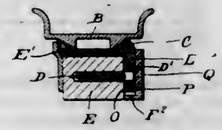


1. In a photographic shutter, the combination with a blade mechanism, of actuating mechanism therefor comprising a gear having stops thereon, a spring for driving the gear, an arbor for winding the spring about which the gear freely turns, and a spring pawl carried by the arbor and coöperating with the stops on the gear.

20. In a photographic shutter, the combination with blade mechanism and actuating mechanism therefor, of a retarding mechanism comprising an escapement wheel, an anchor coöperating therewith, a segment on the anchor, a fly wheel having a gear movable into and out of mesh with said segment, a segment arm geared to the escapement wheel and connected with the actuating mechanism, and means for shifting the fly wheel gear.

[Claims 2 to 19 not printed in the Gazette.]

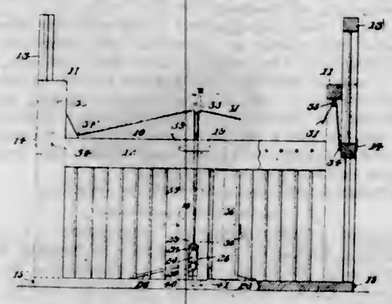
1,243,087. DEMOUNTABLE RIM FOR VEHICLE-WHEELS. ROBERT G. MASON, Brooklyn, N. Y. Filed Oct. 26, 1916. Serial No. 127,833. (Cl. 152—21.)



1. A demountable rim construction for vehicle wheels, comprising in combination with the felly and rim, clamping lugs independent of the rim mounted at the side of the felly, and a continuous locking ring mounted at the side of the felly in front of the lugs, said locking ring having openings corresponding to the lugs, and being shiftable circumferentially to bring either the openings or solid portions of the ring opposite the lugs and thereby release the lugs or lock them in clamping position.

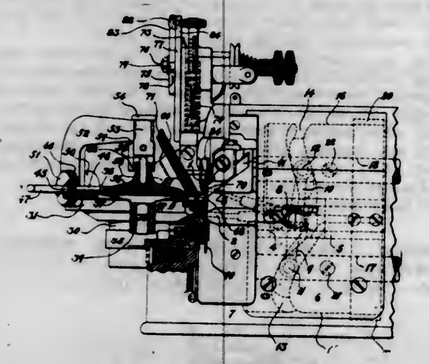
[Claims 2 to 9 not printed in the Gazette.]

1,243,088. ANIMAL-TRAP. ANTONI MAZUREK, Detroit, Mich. Filed Apr. 2, 1917. Serial No. 159,284. (Cl. 43—19.)



An animal trap, including a cage having end closure frames, vertically movable closures positioned within said frames, side-posts for said cage, a stringer pivoted at one end within a recess in one of said posts and having a hook-terminal vertically shiftable in a slot in the other side-post, tripping platforms hinged to opposite sides of said stringer, said hook-terminal projecting outwardly of said cage, a notched headed trip-pin adapted for cooperation with said hook-terminal, said notched head having a shoulder seated over the upper end wall of said slot when the lower end of said trip-pin is engaged with said hook-terminal, flexible connections between said end-frame closures and said trip-pin, and guarding means hinged to one of said posts for said hook-terminal and said trip-pin and a retaining latch for said guarding means.

1,243,089. SEWING-MACHINE. JOSEPH M. MERROW, Hartford, Conn., assignor to The Merrow Machine Company, Hartford, Conn., a Corporation of Connecticut. Filed Oct. 19, 1915. Serial No. 56,700. (Cl. 112—8.)

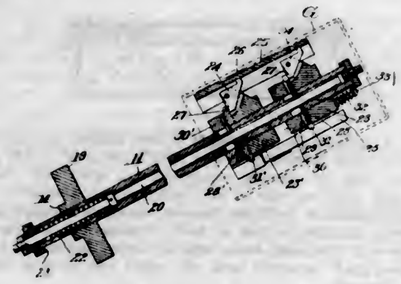


1. In a sewing machine, the combination with stitch forming mechanism, of a needle plate, a work plate mounted for movement in a plane substantially coincident with that of the needle plate, a turntable carried by the work plate, an arm pivoted to the work plate, and a rotatable disk carried by the arm for bodily movement toward and from the turntable.

4. In a sewing machine the combination with stitch forming mechanism of a movable work support, a turntable carried by the work support, a disk coöperative with the turntable to clamp the work, an adjustable arm for carrying the disk, and means for connecting said arm and disk for universal movement therebetween.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,243,090. CHUCK. JOHN A. MILLIKEN, Bayonne, N. J. Filed Aug. 21, 1916. Serial No. 116,171. (Cl. 51—11.)



1. A chuck of the character described comprising a shaft, spaced apart sets of pivoted fingers carried by said shaft, grass-engaging bars supported by said fingers and disconnected therefrom, means normally acting upon said bars to yieldably retain the same in retracted position, and means carried by said shaft to move said bars in opposition to said retracting means.

2. A chuck of the character described comprising a shaft, spaced apart sets of pivoted fingers carried by said shaft, glass-engaging bars supported by said fingers, and a resilient band embracing all of said bars.

3. A chuck of the character described comprising a shaft, spaced apart sets of pivoted fingers carried by said shaft, glass-engaging bars supported by said fingers and disconnected therefrom, collars slidably mounted on said shaft and positioned to engage said fingers to impart radial movement to said bars, and yieldable means for engaging said bars for resisting said radial movement.

4. A chuck of the character described comprising a shaft, spaced apart sets of pivoted fingers carried by said shaft, glass-engaging bars supported by said fingers, collars slidably mounted on said shaft and positioned to engage the respective sets of fingers to impart radial movement to said bars, means for yieldingly resisting said radial movement, and means for sliding said collars one after the other.

5. A chuck of the character described comprising a shaft, spaced apart sets of pivoted fingers carried by said shafts, glass-engaging bars supported by said fingers, means for successively moving said sets of fingers one after the other, whereby said bars are adjustable radially to expanded positions, and means for retracting said bars when expanding pressure has been removed from said fingers.

[Claims 6 to 13 not printed in the Gazette.]

1,243,091. [WITHDRAWN.]

1,243,092. COT. GIOVANNI NORBERTI, Boston, Mass. Filed July 6, 1916. Serial No. 107,869. (Cl. 5—5.)

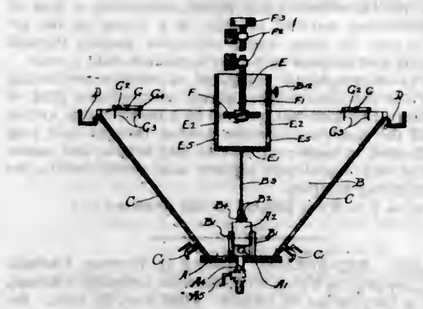


1. A cot comprising two pivotally united frames fitted to fold one with the other, each frame having side bars, the side bar of the frame which folds within the other being terminally tubular, handles slidable in said tubular ends, springs for pressing the handles outward, and fixed handles for the other frame, said handles enabling the cot to be used as a stretcher, and said slidable handles being adapted to engage the other frame and to lock the two frames together when in their closed condition.

2. A cot comprising two pivotally united frames disposed to fold one within the other, each frame having side bars, the side bars of the outer frame being terminally extended to form handles, and the other side bars being terminally tubular, a handle slidable within each tubular end, and a helical spring adapted for yieldingly pressing each slidable handle outward, the outer frame having depressions disposed for receiving the slidable handles when the frames are closed, and thereby locking them in such position.

[Claim 3 not printed in the Gazette.]

1,243,093. FLOTATION APPARATUS. HENRY O. NORVELL, Mascot, Tenn. Filed July 19, 1916. Serial No. 110,214. (Cl. 83—85.)



1. In combination, an elongated tank having froth overflows at opposite ends, an aerating agitator, having a discharging portion depending slightly below the liquid level in the tank and having outlets adapted to discharge strata of aerated pulp in the directions of the froth overflows, the tank being substantially unobstructed below the agitator and having a settling space below the same extending throughout the length of the tank, substantially as described.

2. In combination, an elongated tank having froth overflows at opposite ends, an aerating agitator, having a discharging portion depending slightly below the liquid level in the tank and having outlets adapted to discharge strata of aerated pulp in the directions of the froth overflows, the tank being substantially unobstructed below the agitator and having a settling space below the same extending throughout the length of the tank, and means for driving froth toward said overflows, substantially as described.

1,243,094. SPARK-PLUG. WILLIAM O. OLSON, Chicago, Ill. Filed Mar. 15, 1917. Serial No. 154,917. (Cl. 123—169.)



1. In a spark plug, the combination of a conducting shell, an insulating core, an electrode depending from said core, pivotally mounted to swing freely in a predetermined plane and having an elongated end curved substantially to the radius of the pivot of said electrode and an electrode depending from said shell and curved concentrically with the curvature of said elongated end.

2. In a spark plug, the combination of a conducting shell, an insulating core, a central electrode extending through said core, an anchor pivotally mounted on the end of said electrode to swing in a predetermined plane, the arms of said anchor being curved substantially to the radius of the pivot thereof, and an electrode depending from said shell and curved concentrically with the curvature of said arms.

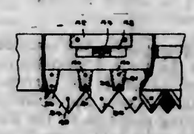
3. In a spark plug, the combination of a conducting shell, an insulating core, a central electrode extending through said core, means on said electrode for resiliently clamping said core, a freely swinging end on said electrode, and electrodes depending from said shell and curved to maintain a uniform spark gap as said end swings in a predetermined plane.

4. In a spark plug, the combination of a conducting shell, an insulating core, a freely swinging electrode depending from said core, and electrodes depending from said shell and curved to maintain a uniform spark gap as said electrode swings in a predetermined plane.

5. In a spark plug, the combination of a conducting shell, an insulating core, a freely swinging electrode depending from said core and having oppositely projecting curved arms, and electrodes depending from said shell in the plane of said arms and curved concentrically therewith to maintain a uniform spark gap as said electrode swings in a predetermined plane.

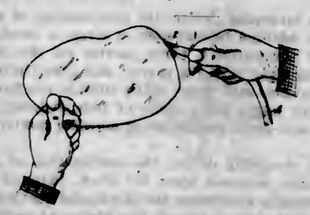
[Claims 6 not printed in the Gazette.]

1,243,095. HARVESTER. GEORGE N. PATTERSON, Durango, Colo. Filed Nov. 18, 1916. Serial No. 132,055. (Cl. 56—44.)



In a mowing machine, the combination of a pair of cutter bars having a plurality of spaced opposed recesses in their coacting faces and at the rear edges thereof, a plurality of wear plates inlaid in said opposed recesses, and means for securing each wear plate in its respective recess.

1,243,096. METHOD AND APPLIANCE FOR SEPARATING LAMINATED AND FIBROUS MINERALS. CLEMENT L. PERKINS, Pittsburgh, Pa., assignor to Lilla F. Watson, Boston, Mass. Filed Feb. 10, 1917. Serial No. 147,886. (Cl. 125—5.)



1. The method of separating and scaling laminated and fibrous minerals and mineral products, which consists in directing a thin flat jet of compressed fluid against the material to be separated, at the point where the separation is to be effected, and separating the material solely by the action of the jet of compressed fluid.

2. The method of separating and scaling laminated and fibrous materials and mineral products, which consists in

directing a thin flat jet of compressed fluid against the edge of the piece to be opened and separated, at the point where the opening and separation is to be effected, and opening and separating the laminæ or fibers solely by an entering jet of compressed fluid.

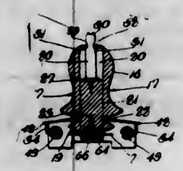
3. The method of separating and scaling laminated and fibrous minerals and mineral products, which consists in directing a thin flat jet of compressed fluid against the edge of the piece at the point where the separation is to be effected, thereby opening up said edge, and directing the jet of compressed fluid between the separated edges to effect the separation of the laminæ throughout their area.

4. Apparatus for separating and scaling laminated and fibrous minerals and mineral products, comprising an implement having a thin pointed edge provided with a narrow slit therein, and having a passage for connection to a source of compressed fluid.

5. Apparatus for separating and scaling laminated and fibrous minerals and mineral products, comprising an implement having a knife-like edge provided with a narrow slit therein, and having a passage connecting said slit with a source of compressed fluid.

[Claim 6 not printed in the Gazette.]

1,243,097. STROPPING DEVICE. DANIEL B. PERKINS, Providence, R. I. Filed Apr. 9, 1917. Serial No. 160,645. (Cl. 51—16.)



1. In a stropping device, the combination of a block, a blade carrier on the block, a yieldable frame to which said block is pivoted adjacent the carrier, said block being rigid with the blade carrier and constituting the operating handle, and bearing members on the frame and by contact of which with the strop said frame is relatively fixed.

2. In a stropping device, the combination of a yieldable supporting frame adapted to rest upon a strop, a block pivotally connected therewith, a blade carrier on the block, said block being rigid with the carrier and constituting the operating handle, said block being tiltable relatively to the frame.

3. In a stropping device, the combination of a supporting frame adapted to rest upon a strop, a block pivotally connected therewith, a blade carrier on the block, said block being rigid with the carrier and constituting the operating handle, said block being tiltable relatively to the frame, said frame being made of independently yieldable sections.

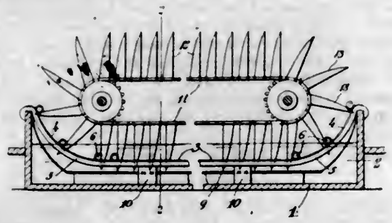
4. In a stropping device, the combination of a supporting frame adapted to rest upon a strop, a block pivotally connected therewith, a blade carrier on the block, said block being rigid with the carrier and constituting the operating handle, said block being tiltable relatively to the frame, said frame being made of independently yieldable sections, said blade carrier being movable relatively to the block.

5. In a stropping device, the combination of a block, a blade carrier mounted upon the block, pairs of diverging plates pivotally embracing the block, and bearing members connecting the free ends of the plates at opposite sides of the carrier.

[Claims 6 to 20 not printed in the Gazette.]

1,243,098. ELECTROPLATING APPARATUS. LOUIS POTTHOFF, Flushing, N. Y. Filed Feb. 11, 1916. Serial No. 77,544. (Cl. 204—11.)

1. In an apparatus for electroplating tubular articles, the combination with a tank for the electrolyte, of cathode rails, plugs of conducting material supporting the tubes on said rails, and means for moving said tubes in succession along said rails.



9. In electroplating apparatus, a current conducting device for the article being plated comprising a plug of non-conducting material inserted in a recess in the article to seal the same, and a conductor passing through said plug and adapted to convey current to said article.

10. In electroplating apparatus, a current conducting device for the article being plated comprising a plug of non-conducting material inserted in a recess in the article to seal the same, a conductor passing through said plug and adapted to convey current to said article, and means whereby said device will support said article within the electroplating solution.

[Claims 2 to 8 not printed in the Gazette.]

1,243,099. BED-SPRING. GEORGE G. POWERS, Chicago, Ill., assignor to Union Wire Mattress Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 29, 1915. Serial No. 63,942. (Cl. 5—40.)



1. In a structure of the character described, the combination of a mattress-frame having longitudinal sidebars, a fabric supported on said frame above the level of said sidebars, cross-bars adapted to rest on the bedframe, flexible straps connecting said cross-bars, and elastic means connecting said mattress-frame at points below the level of said side-bars to said flexible straps, whereby said mattress-frame and fabric are supported by said elastic means, substantially as described.

3. In a structure of the character described, the combination of a mattress-frame having longitudinal side bars, a fabric supported on said frame above the level of said side-bars, cross-bars adapted to rest on the bed-frame, flexible-straps connecting said crossbars, elastic means connecting said mattress-frame at points below the level of said side-bars to said straps, and yielding means interposed between said side-bars and straps, substantially as described.

5. In a structure of the character described, the combination of a mattress-frame having longitudinal side-bars, a yielding fabric supported on said frame above the level of said side-bars, cross-bars adapted to rest on the bed-frame, flexible straps connecting said cross-bars, a support mounted on said flexible straps, supporting elastic means connecting said mattress-frame at points below the level of said side-bars to said straps, yielding means interposed between said fabric and said support, and yielding means interposed between said side-bars and said support, substantially as described.

7. In a structure of the character described, the combination of a mattress-frame having longitudinal side-bars, a yielding fabric supported on said frame above the level of said side-bars, a yielding hanger-construction adapted to rest on the bed-frame, elastic means supporting said mattress-frame from said hanger-construction and connected to said mattress-frame below the level of said side-bars, and yielding means interposed between said fabric and hanger-construction, substantially as described.

9. In a structure of the character described, the combination of a mattress-frame having longitudinal side-bars, a fabric supported on said frame, a yielding hanger-construction adapted to rest on the bed-frame, elastic means supporting said mattress-frame from said hanger-construction, and supporting means interposed between said mattress-frame and hanger-construction, substantially as described.

[Claims 2, 4, 6, and 8 not printed in the Gazette.]

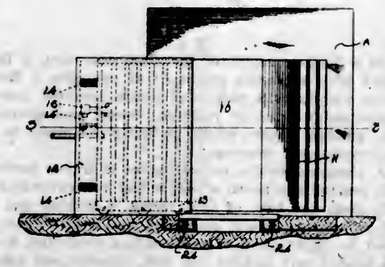
1,243,100. FEED-SHAFT. JOE B. PROSSER, Clinton, Okla. Filed Apr. 8, 1916. Serial No. 89,916. (Cl. 77—55.)



1. A device of the character described comprising a tube having a bearing point at one end, and a pivoted pawl near the opposite end projecting into the tube, a shaft longitudinally movable within the tube, a series of annular shoulders on the periphery of said shaft for engagement successively by said pawl as the shaft and tube are moved relatively in a longitudinal direction, said annular shoulders permitting individual rotation of either shaft or tube, and a socket carried by said shaft.

[Claims 2 and 3 not printed in the Gazette.]

1,243,101. EMERGENCY-DOOR FOR SAFES. MAX O. PUHL, Fredericksburg, Tex. Filed Nov. 22, 1915. Serial No. 62,829. (Cl. 109—1.)



1. The combination with a safe having a door opening and a door constructed and arranged for movement into and out of the opening, a closure movable into and out of position across the door opening when the door is in open position, means for moving the closure into closing position, a latch for holding the closure normally in open position and means operable by the door when in wide open position for releasing the latch.

2. The combination with a safe having a door opening and a door constructed and arranged for movement into and out of said opening, of a closure movable into and out of position across the door opening when the door is in wide open position, a latch for holding the closure in open position, means for moving the closure into closed position when the latch is disengaged and means constructed and arranged for operation by a person adjacent the door opening for releasing the latch.

1,243,102. BOBBIN. JOSEPH W. REID, Paterson, N. J. Filed May 3, 1917. Serial No. 166,077. (Cl. 242—119.)

A bobbin including a pair of heads of fibrous material forming peripheral flanges on the bobbin and a barrel of fibrous material having its ends jointed and secured to the heads, the bobbin having a coating extending continuous over the sveral surfaces of the heads and barrel and which at its inner side impregnates said surfaces and is fiber-



softening and fiber-laying and at its outer side is for its whole extent stiff, hard and smooth.

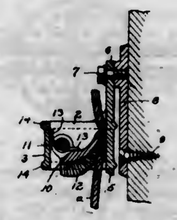
1,243,103. CLAMP. WILLIAM A. RICHARDSON, Edwardsville, Ill., assignor to Richwin Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 2, 1916. Serial No. 134,667. (Cl. 24—134.)



1. A clamp of the character described comprising a base, a back plate, a top on a plane with said base, a pivoting portion at right angles to said top and on a plane with said back, all of said parts being integral, and a gripping dog pivoted between said back and said pivoting portion, having a peripheral bearing portion of gradually increasing radius, and provided with a V-shaped recess increasing in size toward said decreasing radius, said V-shaped recess having clamping ridges on its surface.

2. A clamp of the character described comprising a base, a back plate, a top on a plane with said base, a pivoting portion at right angles to said top and on a plane with said back, all of said parts being integral, and a gripping dog pivoted between said back and said pivoting portion, having a peripheral bearing portion of gradually increasing radius, and provided with a V-shaped recess increasing in size toward said decreasing radius, each side of said recess being provided with V-shaped teeth converging toward the bottom and inclined obliquely with relation to the pivoting center of said dog.

1,243,104. CLAMP. WILLIAM A. RICHARDSON, Edwardsville, Ill., assignor to Richwin Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 2, 1916. Serial No. 134,668. (Cl. 24—134.)



1. A swinging clamp consisting of a rigid base, a swinging housing pivoted thereto having a bearing portion and a pivoting portion extending outwardly therefrom, and a gripping dog pivotally mounted in said pivoting portion and adapted to engage a flexible element and clamp it against the bearing portion of the housing.

2. A swinging clamp consisting of a base, a swinging housing pivoted thereto having a bearing portion and a pivoting portion extending outwardly therefrom, and a

gripping dog pivotally mounted on said pivoting portion having a peripheral edge portion of increasing radius.

3. In combination, a supporting base and means for securing it in position, a swinging housing having a lower flat bearing and an upper attaching portion pivotally connected with the base, an open-sided mounting portion extending outwardly from the bearing portion of the housing at one side thereof, and a gripping dog pivotally mounted therein and having a rounded edge portion adapted to swing toward the bearing portion of the housing.

4. In combination, a supporting base and means for securing it in position, a swinging housing having a lower flat bearing and an upper attaching portion pivotally connected with the base, an open-sided mounting portion extending outwardly from the bearing portion of the housing at one side thereof, and a gripping dog pivotally mounted therein and having a rounded edge portion adapted to swing toward the bearing portion of the housing and having an actuating spring.

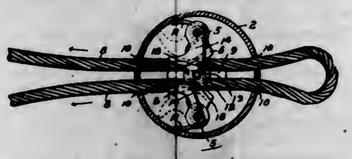
1,243,105. CLAMP. WILLIAM A. RICHARDSON, Edwardsville, Ill., assignor to Richwin Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 2, 1916. Serial No. 134,669. (Cl. 24—134.)



1. A locking device of the character disclosed, comprising a holding base having at its middle portion a bearing abutment and a transverse opening at each side thereof, one of said openings being provided with a knot-retaining socket, and the other having a locking dog pivoted at its outer portion having a serrated curved locking face operable toward said bearing abutment.

2. A locking device of the character disclosed, comprising a holding base having at its middle portion a bearing abutment and a transverse opening at each side thereof, one of said openings being provided with a knot-retaining socket, and the other having a locking dog pivoted at its outer portion having a serrated curved locking face operable toward said bearing abutment and provided with a knurled hub extending beyond its edge of the holding base.

1,243,106. CLAMP. WILLIAM A. RICHARDSON, Edwardsville, Ill., assignor to Richwin Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 2, 1916. Serial No. 134,670. (Cl. 24—134.)



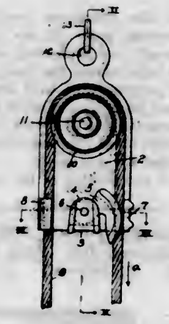
1. In a holding device of the class described, a casing provided with clearance openings through its edges, a middle bearing abutment, a pivotally mounted locking dog at each side of and adapted to bind inwardly toward said abutment, and manually operated means for simultaneously retracting said dogs, said means being mounted within the casing, and adapted to be operated from without.

2. In a holding device of the class described, a casing provided with clearance openings through its edges, a middle bearing abutment, a pivotally mounted locking dog at each side of and adapted to bind inwardly toward said abutment, and manually operated means positively connected to each of said dogs for retracting them.

7. A holding device comprising a casing provided with clearance openings through its edges, a centrally spaced abutment, a stud on said abutment, a pivotally mounted spring pressed locking dog at each side of and adapted to bind inwardly toward said abutment, a disk having spaced abutments thereon, rotatably mounted on said stud, and links pivotally connected with said disk and said dogs, said abutments on said disk being adapted to be engaged by a key to rotate said disk and simultaneously retract said dogs.

[Claims 3 to 6 not printed in the Gazette.]

1,243,107. CLAMP. WILLIAM A. RICHARDSON, Edwardsville, Ill., assignor to Richwin Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 2, 1916. Serial No. 134,671. (Cl. 24—134.)



1. In a holding device of the class described, a frame provided with a bearing abutment at one side, a flanged guide on the opposite side, a pivotally mounted cam-like dog arranged to bind by rotation toward said abutment, and a guiding sheave-wheel pivotally mounted in the frame beyond said members.

2. A clamping device consisting of a frame having a lateral bearing abutment, a supporting arm extending upwardly from the base of said frame, a locking dog pivotally mounted between said arm and said frame and adapted to coöperate with said bearing abutment, a cord guard beyond said locking dog and opposite said bearing abutment, and a pivotally mounted sheave wheel above said locking dog.

3. A clamping device consisting of a frame having a lateral bearing abutment, a locking dog pivoted adjacent thereto having an eccentric gripping face, a cord guard beyond said locking dog, and a pivotally mounted sheave wheel, said frame having a portion adapting it to connection with a holding element.

4. In combination, a frame of plate metal having at one end a bent over portion providing a pivotal mounting, a cam-like locking dog pivoted therein, a bent up abutment portion providing a cord bearing opposite the dog, a bent up guiding lug at the other side of the dog, and a pivotally mounted sheave wheel located beyond the dog for engagement with a cord passing between the dog and said bearing abutment.

1,243,108. CLAMP. WILLIAM A. RICHARDSON, Edwardsville, Ill., assignor to Richwin Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 2, 1916. Serial No. 134,672. (Cl. 24—134.)

1. A clamping device consisting of a U-shaped frame, providing a back and front wall and having a transverse opening through the front wall, outwardly extending bearing lugs at each end portion thereof, and a gripping dog, pivoted at each end to said bearing lugs and extending through said opening, having an elongated transversely grooved or corrugated gripping face adapted to bind inwardly upon rotation toward the opposite inner face of the outer wall, said frame being provided with means for supporting it.

2. A clamping device consisting of a U-shaped frame, providing a back and front wall and having a transverse opening through the front wall, pivotal bearings at each end portion thereof, and a gripping dog, pivotally mounted in said opening, having an elongated, transversely grooved or corrugated gripping face adapted to bind inwardly upon rotation toward the opposite inner face of the outer wall, said frame being provided at its upper middle portion with a carrying handle.

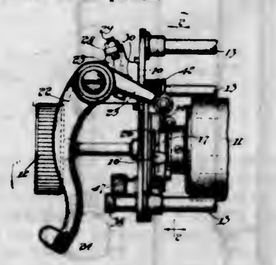
1,243,109. CLAMP. WILLIAM A. RICHARDSON, Edwardsville, Ill., assignor to Richwin Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 2, 1916. Serial No. 134,673. (Cl. 24—134.)

A clamping device consisting of a frame made of plate metal having an outwardly bent bearing base, the forward edge of said base being bent at right angles forming a retaining flange, an extended socket portion adapted to engage the knotted end of a cord, and a gripping dog pivoted to the frame formed of plate metal bent to provide a double sided spaced apart gripping portion having a terminal curved eccentric face connecting the side portions, said side portions having angularly arranged portions in abutting and bracing engagement, one of said portions being extended to provide a pivoting terminal, substantially as set forth.

1,243,110. LINE-SPACE MECHANISM. ALVAH C. ROEBUCK, Woodstock, Ill., assignor to Woodstock Typewriter Company, Woodstock, Ill., a Corporation of Illinois. Filed Dec. 15, 1913. Serial No. 806,701. (Cl. 197—114.)

1. In line space mechanism, the combination with a platen having supporting end heads and a ratchet wheel, means to engage the wheel and rotate the platen, a roller to engage the ratchet wheel, a brake for engaging one platen head consisting of a straight spring bar, and a single pivoted arm on which the roller and the spring bar are both mounted below the platen head and movable to apply the brake when the roller is withdrawn from the wheel and to engage the roller with the wheel when the brake is withdrawn.

2. In line space mechanism, a platen having end heads, a ratchet wheel and an axis on which it is rotated, means to engage the wheel to rotate the platen, a roller to engage the teeth of the ratchet wheel, a brake for one platen head consisting of a straight spring bar, and a single pivoted and spring-pressed arm disposed entirely below the platen head on which both the roller and the spring bar are mounted, the arm being normally held by its spring so that the roller is in engagement with the teeth of the ratchet wheel but movable to disengage the roller from such engagement and to move the brake against the head of the platen.



3. In line space mechanism, the combination with a platen having a ratchet wheel and headed ends, of means to engage the wheel and rotate the platen, a roller to engage the teeth of the ratchet wheel, a brake consisting of a straight spring bar to engage the platen head at one end, a single pivoted arm on which both the roller and the spring bar are mounted and with which they are movable so that either one but not both is in operative engagement, a spring tending to press the arm so that the roller engages the toothed wheel, and rotatable means at the free end of the arm to move the arm so that the roller is out of engagement with the wheel and the brake is in engagement with the platen head.

4. In line space mechanism, the combination with a platen having a ratchet wheel and headed ends, end plates on which the axle is mounted, means operative on the inside of one of the end plates to engage the wheel and rotate the platen, a roller to engage the teeth of the ratchet wheel, a brake to engage one head consisting of a straight spring bar, a single spring-pressed arm pivoted at one end on the inside of one of the end plates upon which both the roller and the brake bar are mounted, and means to control the position of the arm comprising a rotatable member having an eccentric pin inside of the end plate to engage the free end of the said pivoted arm, and a knurled nut on the outside of the end plate by means of which the rotatable member is operated to move the arm so that either the brake or the roller is in operative engagement.

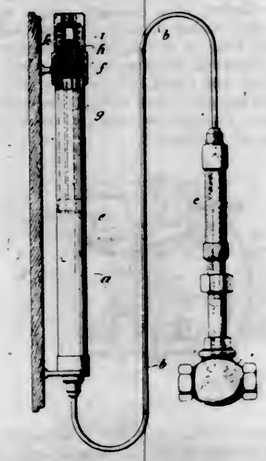
5. In line space mechanism, the combination with a toothed platen wheel having a grooved platen head at one end, spring pressed means for engaging either the toothed wheel to limit the rotation thereof to a step by step movement or to frictionally engage the platen head, an adjustable abutment adjacent the wheel periphery, a manually operable arm pivoted upon the wheel axis, a spring pressed pawl adapted to engage the teeth of the wheel and having a tail piece to engage the said abutment for throwing the pawl out of engagement in one position of the arm, and means tending to press the arm in the position to throw the pawl out of engagement with the wheel.

[Claims 6 to 8 not printed in the Gazette.]

1,243,111. GALVANIC CELL. JOHN F. SANDERS, Roseburg, Oreg., assignor to Oliver P. Coshow, Roseburg, Oreg. Filed July 19, 1915. Serial No. 40,715. (Cl. 204—50.)

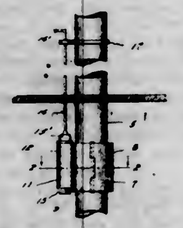
A cathode for galvanic cells made of a combination of palladium and rhodium.

1,243,112. THERMOSTATIC REGULATOR. HERMANN SANDVOSS, Heidelberg, Germany. Filed Aug. 26, 1915. Serial No. 47,553. (Cl. 236—6.)



A thermostatic regulator comprising a vessel containing an expansive fluid, an inclosed piston having a threaded rod, an elastic buffer hose engaging the piston, a nut engaging the threaded rod, an auxiliary spring engaging the nut, and a cap inclosing the auxiliary spring.

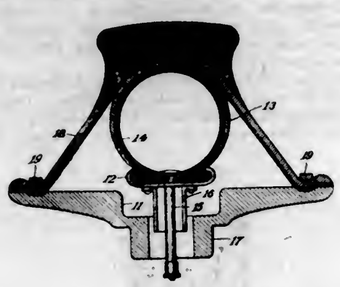
1,243,113. PUMP ATTACHMENT. WILLIAM L. SANFORD, Clayton, Wis. Filed Apr. 26, 1916. Serial No. 93,722. (Cl. 103—60.)



In a device of the kind described, in combination, a stand pipe, a band composed of two half ring sections hinged together and having flat flanges attached together so that said sections may clamp said stand pipe, one of said ring sections being formed with a tubular projection having a port communicating with the opening of said band, said stand pipe also having a port registering with said first port, a cylindrical valve rotatably projecting through said tubular projection, said projection being cut away at its lower end so as to provide a segmental recess, the back edge of which forms opposing shoulders, a pin secured at right angles upon the lower projecting end of said tubular projection, a flange on the upper end of said valve rotatably resting upon said projection, said pin playing between said shoulders, and an upright handle rod secured to said valve to effect its rotation.

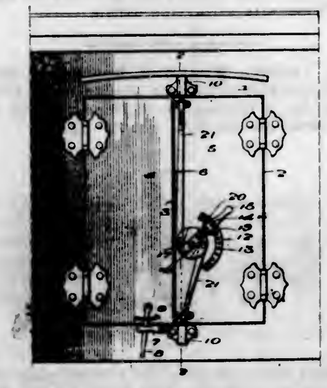
1,243,114. TIRE. EMMETT A. SAUNDERS, Mishawaka, Ind., assignor to Morgan & Wright, a Corporation of Michigan. Filed July 10, 1914. Serial No. 850,150. (Cl. 152—34.)

The combination of a rim, a flanged ring surrounding and spaced from the rim, a tire carcass secured at the edges to the ring, an inner tube in said carcass, an inflating valve for the inner tube, there being a radially disposed well in the rim permitting access to the valve, a



housing for the valve adapted to sink into said well and protect the valve, and a cover for the carcass secured at the edges to the rim.

1,243,115. DOOR-FASTENING MEANS. EDWARD J. SHUR, New Orleans, La. Filed Feb. 27, 1917. Serial No. 151,288. (Cl. 16—63.)

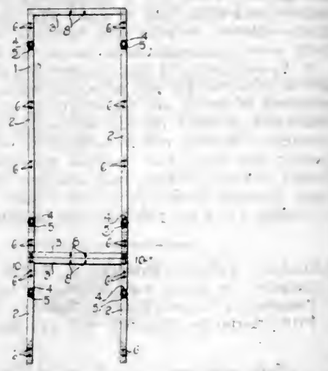


The combination of a structure having a door opening, keepers carried on the structure at opposite sides of said opening, a turning body mounted on a door hinged to the structure and having lugs at opposite points, one of said lugs being apertured, the said door, a bar fixed to the face of the door and describing a part of a circle and having apertures at intervals of its length, fastener bars connected with the turning-body at opposite points and adapted to coöperate with the keepers, and a hand lever pivoted to one of the lugs of the turning body and slotted to receive the apertured lug thereof and having a hook adapted to enter the aperture of the lug and also having a stud adapted to enter the apertures of the bar that describes part of a circle.

1,243,116. FURNITURE-SUPPORT. JOSEPH THEODORE SPEARS, North Augusta, S. C. Filed Jan. 31, 1914. Serial No. 815,796. (Cl. 45—78.)

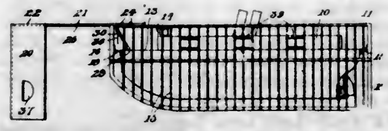
As a new article of manufacture, a portable foundation for furniture comprising a skeleton frame of substantially rectangular configuration, each of the longitudinal side bars of the frame having a socket formed in one end, and spring latches projecting from the opposite end of the side bar and adapted to enter the sockets of a second frame, the sockets having their longitudinal walls flared inwardly and outwardly and each of the spring catches

comprising spaced spring arms having their free extremities flared outwardly, the free extremities of the arms



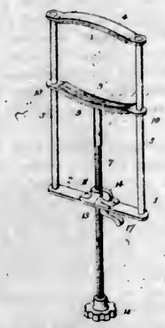
being inturned to facilitate the insertion of the arms with the coacting socket.

1,243,117. LIFE-BOAT PROTECTOR. FRANK SUCHOVSKY, Hoboken, N. J. Filed May 16, 1917. Serial No. 169,002. (Cl. 114—219.)



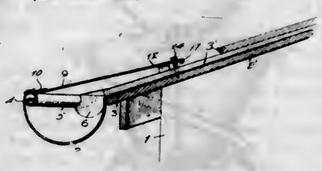
In combination with a boat, a protector therefor comprising an inclosing cage having a central top beam provided with a longitudinal slot, a bullet shield arranged forwardly of the cage adapted for overlying the bow portion thereof when retracted, a rearwardly projecting rack carried by the said shield having the teeth thereof arranged within said slot, a gear in constant mesh with said teeth operable from the deck of the boat and locking means for the said gear.

1,243,118. TWITCH. ANTHONY TRIVIGINO, Brooklyn, N. Y. Filed Apr. 22, 1916, Serial No. 92,940. Renewed Mar. 12, 1917. Serial No. 154,337. (Cl. 119—96.)



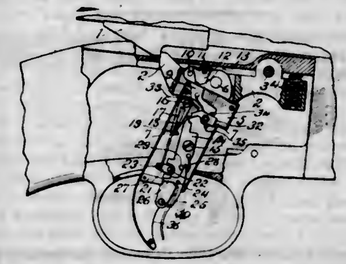
In an article of the class described consisting of a frame having an end plate and guide rods, a fixed arcuate lip engaging member at the ends of said guide rods, a second arcuate lip engaging member movable on said guide rods, a threaded stem turnably connected with said second mentioned lip engaging member, an opening in the end plate, a block arranged about said opening and secured to the end plate, the said block having a groove and a recess; the said stem being received in the groove in said block, a wedge freely movable in the recess at one side of the threaded stem, there being a groove in the wedge, said groove being provided with screw threads for engagement with the threads on the stem, as and for the purpose specified.

1,243,119. SANITARY EAVES-TROUGH. CHARLES W. WICKS, Neponset, Ill. Filed Oct. 11, 1915. Serial No. 55,282. (Cl. 108—28.)



In a device of the class described, the combination of an eave trough, means for securing one edge of said trough to a roof, a cover connected to the remaining edge of said trough and overlapping the roof, V-shaped legs fixedly mounted upon the under surface of said cover, said legs being adapted to bear upon a roof for holding the cover spaced from the roof, securing means passing through said cover for engaging the roof for ordinarily holding said cover and said legs being adapted to bite into the roof when considerable supporting strain is brought to bear upon said cover, whereby said legs will assist in holding said cover and relieve strain from said securing means.

1,243,120. TRIGGER MECHANISM. ELZY R. WILLIAMS, St. Joseph, Mo. Filed June 18, 1917. Serial No. 175,331. (Cl. 42—69.)



1. In a trigger mechanism, a main trigger, hammer engaging means releasable by said trigger, an operating member movable on said trigger, a spring, means for placing the spring under tension when the operating member is moved to a set position, an auxiliary trigger carried by the operating member for releasably holding the latter in the set position, a catch for releasably holding the auxiliary trigger in the set position, an abutment, and a releasing member movable against said abutment by said operating member, when the latter is operated by said spring, for releasing the hammer engaging means.

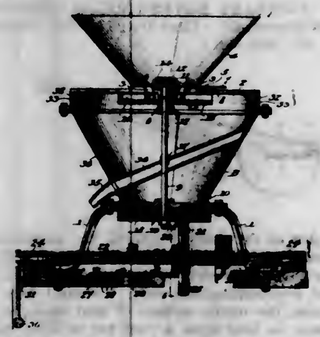
4. In a trigger mechanism, a main trigger, hammer engaging means releasable by said trigger, an operating lever movable on said trigger, a spring, means for placing the spring under tension when the operating lever is swung to a set position, an auxiliary trigger carried by the lever for releasably holding the lever in the set position, a catch for releasably holding the auxiliary trigger in the set position, an abutment, and a releasing lever movable against said abutment, by said operating lever, when the latter is swung by said spring, for releasing the hammer engaging means.

16. In a trigger mechanism, a main trigger having a chamber provided with an opening, and an auxiliary trig-

ger mounted in the chamber and in the set position extending through said opening, and in the released position being located wholly within the chamber.

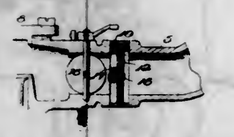
[Claims 2, 3, and 5 to 15 not printed in the Gazette.]

1,243,121. NUTCRACKER. GAIL A. WILLIS, Denver, Colo. Filed May 18, 1915. Serial No. 28,863. (Cl. 146—3.)



A centrifugal nut-cracker comprising a huller, a cover, a removable cracking-ring clamped between the huller and cover, rotary means for discharging the nuts to be cracked with force radially against the cracking-ring, an inclined apron for conducting the meats as they drop from the cracker out of the machine, means for rotating the centrifugal discharge at varying speeds, a hollow shaft for supporting said means, and an axially adjustable eccentric shaft extending through the hollow shaft for bodily varying the position of the hollow shaft, whereby to disconnect the transmission mechanism.

1,243,122. VALVE. DAVID L. WINTERS, Philadelphia, Pa. Filed May 22, 1917. Serial No. 170,235. (Cl. 48—180.)



1. A device of the character described comprising a body member suitable for attachment to the intake manifold, a pair of perforated disks within said body member capable of relative movement toward and from each other, the perforations in said disks being out of alinement, thereby to cause a plurality of circuitous passages for the explosive mixture passing therethrough.

2. A device of the character described comprising a body member, a plurality of disks within said member, each having perforations out of alinement with those in the adjacent disk, and means holding said disks in engagement but permitting separation thereof on the intake stroke of the engine whereby a plurality of circuitous passages are provided for thoroughly and intimately mixing the air and gasolene passing therethrough.

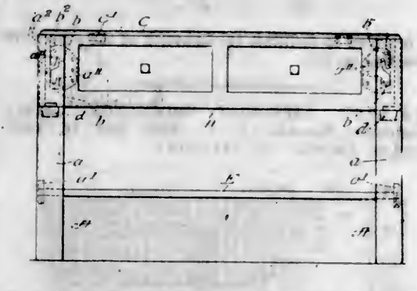
3. A device of the character described comprising a ring, a pair of perforated disks supported by said ring one of which is held against movement, means normally holding said disks in contact and means for preventing relative rotation of the disks with respect to each other, the perforations in said disks being out of alinement with those of the other whereby when separated on the intake stroke of the engine they will produce a plurality of circuitous passages for the air and gasolene passing therethrough.

7. A manually operated device of the character described, comprising a pair of perforated members, the perforations in which are out of alinement, and upon the separation of which the explosive mixture passing therethrough is divided into a multiplicity of films directed against each other, and in which the velocity of the explosive mixture between said members remains substantially constant irrespective of the volume thereof.

8. An automatically operated device of the character described, comprising a pair of perforated members, the perforations in which are out of alinement, and upon the separation of which the explosive mixture passing therethrough is divided into a multiplicity of films directed against each other, and in which the velocity of the explosive mixture between said members remains substantially constant irrespective of the volume thereof.

[Claims 4 to 6 not printed in the Gazette.]

1,243,123. TABLE. STEPHEN M. WIRTS, Detroit, Mich., assignor, by mesne assignments, to United Table-Bed Company, a Corporation of Virginia. Filed Sept. 29, 1913. Serial No. 792,262. (Cl. 45—48.)



1. A knock down table comprising legs connected in pairs, forming end sections for the table, provided with engaging portions, a side section provided with means for removably engaging said portions, another side section, projections on the lower edge thereof to engage two of said legs, and a top section, one side section being shorter than the other side section, together with hinges between said top and side sections.

2. A knock down table comprising legs connected in pairs, forming end sections for the table, provided with engaging portions, a side section provided with means for removably engaging said portions, another side section, and a top section, said last mentioned side section having projections on the lower edge thereof, and two of said legs having sockets for said projections.

3. A knock down table comprising legs connected in pairs, forming end sections for the table, provided with engaging portions, a side section provided with means for removably engaging said portions, another side section, one side section being shorter than the other side section, and a hinged top section, said last mentioned side section having means on the lower edge thereof for engaging two of said legs to hold the end sections against displacement away from each other.

4. A knock down table comprising legs connected in pairs, forming end sections for the table, provided with engaging portions, a side section provided with means for removably engaging said portions and holding said end sections in operative position, another side section, one side section being shorter than the other side section, and a top section, the different sections thus separably combined forming a knock down table with a rectangular upper portion, the top and one side of which are displaceable to afford access to the interior thereof.

5. A knock down table comprising legs connected in pairs, forming end sections for the table, provided with engaging portions, a side section provided with means for removably engaging said portions, another side section, and a top section, said last mentioned side section having projections on the lower edge thereof, and two of said legs having sockets for said projections, said first mentioned side section being removably disposed between the two end sections, and the other side section having its ends extended to overlap the front edges of said end sections.

[Claims 6 and 7 not printed in the Gazette.]

1,243,124. APPLIANCE FOR CORRECTING FOOT AILMENTS. WILLIAM H. WOOD, Cleveland, Ohio, assignor to Stanley W. Cook, trustee, Chicago, Ill. Filed Dec. 16, 1916. Serial No. 137,321. (Cl. 128—28.)



1. The combination of a toe-enveloping-structure, a belt connected therewith at the top of the structure, and a hump member adapted to be positioned beneath the anterior portion of the metatarsals of the foot, connected with said belt.

2. The combination of a toe mitten, a buckled belt secured thereto, and a convexo-concaved hump plate mounted on said belt and receiving the buckle thereof in its concave.

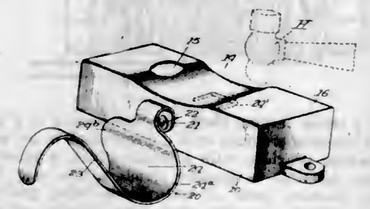
3. The combination of a toe mitten, adapted to extend on its upper side beyond the toes partway up the instep, a belt connected to the said top portion of said mitten and adapted to extend, free from said mitten, beneath the wearer's foot, and a hump element carried by said belt.

4. In a device of the character described the combination of a foot encircling belt, a hump plate carried by said belt, and detachable means for elevating said hump plate.

5. In a device of the character described, the combination of a convexo-concave hump plate, a strap for encircling the foot provided with a buckle, said buckle located within the concave of said hump plate, and means for elevating said hump plate attached to said buckle.

[Claims 6 and 7 not printed in the Gazette.]

1,243,125. METAL-WORKING WORK-HOLDING ANVIL. WILLIAM H. WOOD, Cleveland, Ohio, assignor to Stanley W. Cook, trustee, Chicago, Ill. Filed Dec. 16, 1916. Serial No. 137,323. (Cl. 81—15.)



1. An anvil of the character described providing a body having a concaved recess and bay, a holding strap secured to one side of said body, adapted to overlie the body and the article placed thereon, and a guide for the free extremity of said strap positioned on the other side of the anvil body.

2. In a device of the character described, the combination of an anvil body having a recess and bay, of a strap connected with one side of the body for extension of its free end across the recessed portion of the body and down the other side thereof, the loose end of the strap constituting a finger grip portion, a guide on said other side of the anvil body to receive the loose end of the strap, said strap having a broad intermediate portion to overlie the recess and bay.

3. As an article of manufacture an anvil having in its top a recess and bay, said anvil carrying a fastening device and a guide on opposite sides of said body in line with said recess, a strap having its fast end secured by said fastening means and having its loose end adapted to pass under the guide, said strap having a broadened portion to overlie the recess.

4. As an article of manufacture an anvil comprising a body 10 having in its top a recess 14 and bay 15, a strap 20 pivoted to one side of the body, having a broadened portion 24 to overlie the recess and a tab 24^b to overlie the bay, the strap being narrow, at its loose end, and a guide 24 to receive the loose end of said strap.

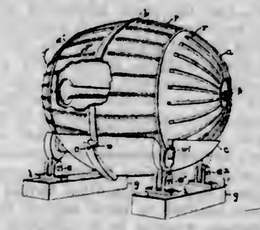
1,243,126. FOUNTAIN. ADOLPH OSWALD ZIENER, New York, N. Y., assignor to Display Fountain Manufacturing Company, Inc., a Corporation of New York. Continuation in part of application Serial No. 8,330, filed Feb. 15, 1915. This application filed Dec. 9, 1916. Serial No. 135,955. (Cl. 137—108.)



1. A self contained fountain comprising a basin, a pump disposed in said basin, a pump housing surrounding said pump and provided with openings communicating with the interior of said basin below the normal water level thereof, a motor disposed over said pump and pump housing and provided with a driving shaft in operative connection with the shaft of said pump, a spraying device connected with the delivery of said pump, and a cover disposed in said basin, open at its bottom, inclosing said motor, pump and pump housing and also serving as a water shed for spray water of said spraying device, said apparatus being adapted to operate upon a quantity of water contained in said basin, the same water being passed repeatedly by means of the pump through said spraying device and regathered in said basin.

2. A self contained fountain comprising a basin, a pump disposed in said basin, a pump housing surrounding said pump and provided with openings communicating with the interior of said basin below the normal water level thereof, a motor disposed over said pump and pump housing and provided with a driving shaft in operative connection with the shaft of said underneath pump, a jet pipe disposed within and extending around said basin, connected with said pump and provided with a series of upwardly and inwardly inclined jet nozzles, and a dome-like cover disposed in said basin, between said pump and jet pipe, open at its bottom, inclosing said motor and serving as a water shed for directing the spray water of said nozzles back into said basin.

1,243,127. HOG-OILER. CLARENCE S. ANDREWS, Council Bluffs, Iowa. Filed June 11, 1917. Serial No. 174,014. (Cl. 119—157.)

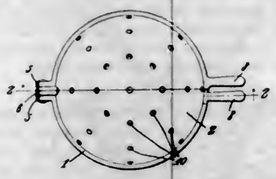


1. A divided oval shaped roller; a containing pan receiving a portion of the surface of said divided roller;

roller bearings supporting said divided roller and a band attached to said containing pan and encincling each part of said divided roller.

[Claims 2 to 4 not printed in the Gazette.]

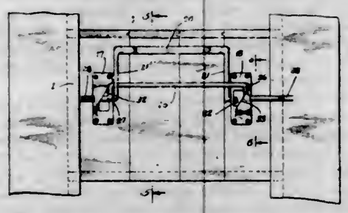
1,243,128. MOLD. MERCY E. BAKER, Westport Point, Mass. Filed Nov. 15, 1916. Serial No. 131,534. (Cl. 18—42.)



1. A mold comprising a hollow body divided into two hemispherical mold sections, each being perforated with a plurality of openings, the marginal edges of each of the sections being adapted to contact for tightly closing the interior of the hollow body for forming a perfectly spherical mold chamber, the marginal edge of one of the sections having an annular flange adapted to embrace the marginal edge of the corresponding section on the exterior thereof, handles carried by each of the sections, the said flanges being adapted to move toward or away from each other, the said flange having a notch provided in the path of movement of one of the handles whereby they may be moved into close proximity for closing the said sections, and hinges connecting the said sections.

[Claim 2 not printed in the Gazette.]

1,243,129. SILO AND DOOR THEREFOR. VICTOR S. BAUDER, Fort Plain, N. Y. Filed Nov. 10, 1915. Serial No. 60,644. (Cl. 20—1.4.)

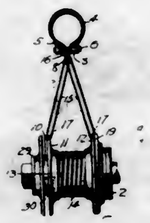


1. In a silo, the combination of door frame members, having a door opening between the same, a series of doors fitting in said opening, and step and door-securing instrumentalities carried by each door, comprising a pair of alined lugs, having two pairs of horizontal openings therein, a U-shaped step member, having upper ends bent outwardly and journaled in one pair of said openings, and a second U-shaped member, the upper ends of which are bent outward to extend through and be journaled in said second pair of openings, the horizontal central portion of said member extending under and over the vertical arms, respectively, of said step member, when the latter is in lower position, and the outer horizontal arms of said second member having offset portions positioned to tightly engage the faces of said frame members, when said step member is in lower position, substantially as set forth.

4. In a silo, the combination of frame members, having a door opening between the same, a door fitting in said opening, lugs carried by the door, having horizontal openings therein and cam surfaces thereon, and a pair of U-shaped members having horizontal ends journaled in said openings, one of said members having its central portion adapted to form a step, and the other having its horizontal end portions adapted to press against the fronts of the frame members, when it is in operative position, to secure said door in position; said members being so positioned that pivotal movement of said step member up or down swings said door-securing member up or down, out of or into operative position, and said cam surfaces being positioned to coact with portions of said securing member, to shift the same to one side, when it is swung upwardly, to cause one horizontal end thereof to clear a frame member, and to return the same, when it is swung downwardly, to carry said end over the frame member, substantially as set forth.

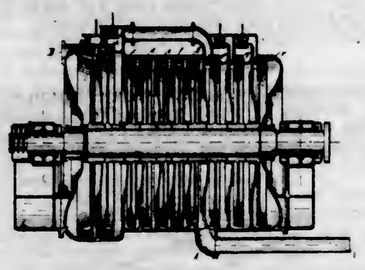
[Claims 2 and 3 not printed in the Gazette.]

1,243,130. VEHICLE-WHEEL. WALTER C. BECKWITH, Fostoria, Ohio. Filed May 1, 1916. Serial No. 94,742. (Cl. 152—28.)



In a vehicle wheel, a hub and felly, said hub including a pair of relatively movable members, a pair of endless pliable hub supporting tapes slidably laced to said felly and to said relatively movable members and means interposed between said relatively movable members normally forcing said relatively movable members apart, whereby strain applied to one flight of an endless tape will be communicated through all of the flights thereof to said movable member.

1,243,131. STEAM TURBINE. GIUSEPPE BELLUZZO, Milan, Italy. Filed Jan. 23, 1913. Serial No. 743,745. (Cl. 253—70.)



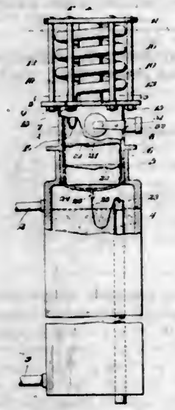
1. In a steam turbine plant, the combination of a high pressure chamber provided with a steam inlet, a low pressure chamber provided with a steam outlet, a plurality of wheels mounted in parallel planes within said high pressure chamber, part of said wheels being provided with a number of circumferential series of blades adapted to impart to said wheels a movement of rotation in the normal direction, and the remaining wheels being provided with a number of circumferential series of blades adapted to impart to said wheels a movement of rotation in the normal direction and with additional series of blades concentric to said circumferential series adapted to impart to said wheels a movement of rotation in the opposite direction, a drum provided with a number of circumferential series of blades adapted to impart to the same a movement of rotation in the normal direction mounted within said low pressure chamber, and a drum provided with a number of circumferential series of blades adapted to impart to the same a movement of rotation in the opposite direction also mounted within said low pressure chamber.

11. In a steam turbine, the combination of a pressure chamber, a plurality of wheels mounted in parallel planes within said chamber, partitions between adjoining wheels, an inlet for admitting steam to the first sectional chamber thus formed, a permanently open distributer through the partition dividing the first from the second chamber, an additional distributer through said partition, an inclosure for said additional distributer, a valve for admitting steam from the first sectional chamber to said inclosure, a distributer through the second partition, dividing the second from the third sectional chamber, an inclosure for said distributer, a connection between said second sectional chamber, and an intermediate sectional chamber, a connection between said second sectional chamber and said second mentioned inclosure, valves controlling said connections, a permanent connection between said second mentioned inclosure and the last sectional chamber, two main valves for admitting steam to said inlet, and means for controlling said valves and the remaining valves, causing the steam to flow from the first to the second sectional chamber through the permanently open distributer, then from the second to the intermediate, then to the last and third sectional chambers, then to the remaining chambers when one of said main valves only is open, and causing said steam to flow from the first to the second sectional chamber through both distributers, then from the second to the third and the remaining adjoining chambers, when both said main valves are open; substantially as set forth.

23. A steam turbine comprising a high pressure section, having a number of action disks for increasing speeds and for rotation in one direction and additional disks for rotation in either direction, the first single direction disk having at least four circumferential rows of blades on a circumference of a larger diameter than that of the remaining disks, and a low pressure section having a number of action disks and a drum with circumferential series of blades.

[Claims 2 to 10 and 12 to 22 not printed in the Gazette.]

1,243,132. COMPOUND SAFETY-SEAL CONDENSING-CAP. DOWLING BENJAMIN, Camden, N. J. Filed Nov. 16, 1915. Serial No. 61,734. (Cl. 257—25.)



1. The combination with a radiator having a water overflow pipe, of means for closing the overflow pipe, a cap in communication with the interior of the radiator and having a condensing member thereon normally closed to the atmosphere but in direct communication with the interior of the radiator, said cap having ports leading therefrom to the atmosphere, and valves automatically operative to normally close said ports, said valves also being operative due to variation of pressure within the radiator to open said ports, substantially as described.

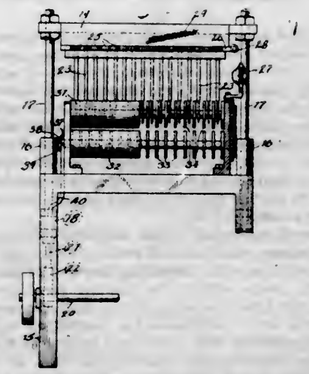
3. A radiator cap of the character described, comprising a hollow body for communicating with the radiator, condensing means communicating with said hollow body, and automatically operative vent valves communicating with the body to regulate the internal pressure of the radiator through the medium of said body, substantially as described.

10. The combination with a radiator having an overflow pipe therein, of means for closing the overflow pipe, a condensing cap on the radiator communicating with the interior thereof, and automatically operative inlet and outlet valves controlling the pressure in the cap, substantially as described.

12. A cap of the character described, having a cylindrical body portion, a condensing coil above the body portion, communicating therewith, a water inlet nozzle on the body portion, a member normally closing the nozzle, and automatically operative valves controlling the pressure within the body portion, substantially as described.

[Claims 2, 4 to 9, and 11 not printed in the Gazette.]

1,243,133. MACHINE FOR INTERWEAVING CURLED HORSEHAIR. ARTHUR R. BILLINGTON, Chicago, Ill., assignor to The Strand Machinery Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 23, 1916. Serial No. 116,475. (Cl. 38—8.)



1. A machine of the character described embodying mechanism for feeding a bat of material, a reciprocatory needle, means for reciprocating the needle to cause the needle to impale the material and to withdraw therefrom to draw a portion of the material partially from the bat, and means for axially rotating the needle after withdrawal.

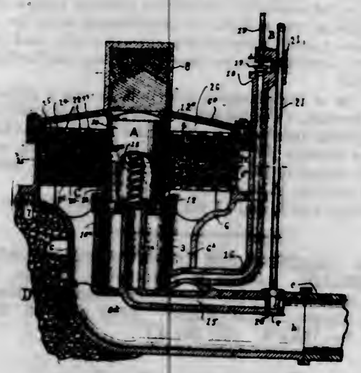
6. A machine of the character described embodying a plurality of parallel reciprocatory needles, means for feeding a bat of material across the path of reciprocation of the needles and embodying coöperating rolls each embodying spaced coöperating pairs of disks, said needles being adapted to be reciprocated between adjacent pairs of disks to impale the material and to be withdrawn therefrom, means for intermittently actuating the disks to feed the material, said needles having an upwardly opening hooked shaped portion to engage and partially withdraw a portion of the material from the bat, and means for imparting an axial rotation to the needles to twist the withdrawn portion of the material.

[Claims 2 to 5, 7, and 8 not printed in the Gazette.]

1,243,134. DISCHARGE-VALVE. GEORGE S. BINCKLEY, Los Angeles, Cal. Filed Nov. 18, 1914. Serial No. 872,763. (Cl. 137—4.)

1. Improved apparatus of the character disclosed, comprising a chamber provided with an inlet orifice and an outlet orifice, valve means controlling the traverse of said

chamber by fluid, means within the chamber for converting a portion of the kinetic energy of the fluid traversing the chamber into heat, and means for controlling said valve means in accordance with variations in rate of fluid flow; said valve means in the operation thereof providing for variable action of said second named means in accordance with variations in rate of fluid flow.

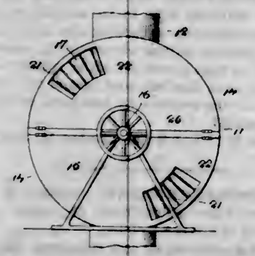


2. Improved apparatus of the character disclosed, comprising a chamber provided with an inlet orifice and an outlet orifice, valve means controlling traverse of said chamber by fluid, means within the chamber for converting a portion of the kinetic energy of the fluid traversing the chamber into heat, and means for controlling said valve means in accordance with variations in rate of flow; said valve means in the operation thereof providing for variable action of said second named means in accordance with variations in rate of fluid flow; said second named means comprising a baffle device.

3. Improved apparatus of the character disclosed, comprising a chamber provided with an inlet orifice and an outlet orifice, valve means controlling traverse of said chamber by fluid, means within the chamber for converting a portion of the kinetic energy of the fluid traversing the chamber into heat, and means for controlling said valve means in accordance with variations in rate of flow; said valve means progressively limiting the zone of effective action of said energy converting means in the actuation of said valve means.

4. Improved apparatus of the character disclosed, comprising a chamber provided with an inlet orifice and an outlet orifice, valve means controlling traverse of said chamber by fluid, means within the chamber for converting a portion of the kinetic energy of the fluid traversing the chamber into heat, and means for controlling said valve means; said converting means comprising surfaces materially extended laterally of the path of flow.

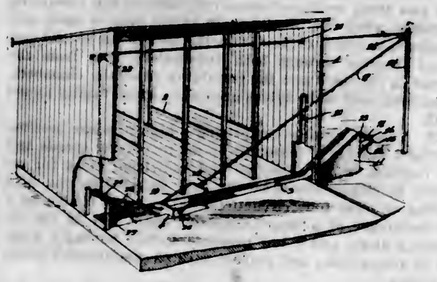
1,243,135. WIND-MOTOR. RUBEN BOBO, Silvis, Ill. Filed June 6, 1916. Serial No. 102,058. (Cl. 253—38.)



1. The combination with a suction flue, of a casing having air inlet openings in the front wall thereof, and air outlet openings in the back wall disposed out of alinement with the air inlet openings, a short pipe extension projecting from said flue, a pair of divergently disposed pipes leading from said outlet openings, and having their associated extremities fitted within said extension, a bladed wheel journaled in the casing to be rotated by air passing therethrough, and a damper pivoted within said extension for controlling the movements of said wheel.

2. The combination with a suction flue, of a casing in communication therewith having an inlet opening and an outlet opening, and a bladed wind wheel journaled in the casing in position to be rotated by the air passing therethrough with its blades traversing the space between said openings, said openings being arranged upon the opposite sides of the wheel remote from and upon the same side of the axis of rotation at approximately equal distances therefrom and out of axial alinement.

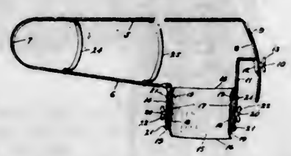
1,243,136. MANURE-SCOOP. HERBERT C. BROBERG, Eagle Bend, Minn. Filed June 29, 1915. Serial No. 37,104. (Cl. 119—15.)



1. In a means for cleaning stables, the combination with a cattle stall and a gutter formed in the stable floor in proximity to said stall, of a scoop designed to fit the gutter and overlap and rest upon the floor of the stable at one side thereof, and means to move the scoop longitudinally of the gutter.

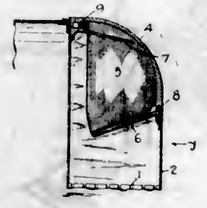
[Claims 2 and 3 not printed in the Gazette.]

1,243,137. SURGICAL SPLINT. HUBBARD T. BUCKNER, Seattle, Wash. Filed June 2, 1917. Serial No. 172,547. (Cl. 128—52.)



A splint of the class described which embodies a frame member formed of a single metal bar that is bent at one portion of its length to form a semi-circular portion from which extend two diverging side members of different lengths, the free end portion of the longer side member being bent to extend through the plane of the shorter side member at a point spaced from the free end of said shorter member; a plurality of flexibly yielding metal straps pivotally attached to said side members each to extend in a semi-circle therebetween; an angular bracket adjustably clamped to the inner side of said free end portion of said longer side member, one portion of said angular bracket being disposed to extend through and beyond the plane of said shorter side member at a point spaced from the end of said shorter side member; an arm having one of its ends pivotally attached to the free end of said shorter side member and adapted to be swung to and from a plane parallel with and spaced from the plane of said one portion of said annular bracket; and a semi-circular sheet metal member releasably clamped to said pivotally attached arm and to said bracket to extend therebetween.

1,243,138. AUTOMOBILE-RADIATOR CAP AND FUNNEL. CHARLES RIVERS CARROLL, New York, N. Y. Filed Sept. 16, 1915. Serial No. 50,957. (Cl. 220—120.)



1. An automobile radiator having a casing mounted thereon and communicating therewith, an aperture in said casing, a receptacle pivoted at the lower edge of said aperture and of a form when closed to complete the contour of the casing, one wall of said receptacle fitted with a screen and one wall open to receive liquid, the other walls closed to receive and guide the flow of the liquid.

2. An automobile radiator having a casing mounted thereon and communicating therewith, an aperture in said casing, a receptacle pivoted at the lower edge of said aperture and of a form when closed to complete the contour of the casing, one wall of said receptacle fitted with a screen and one wall open to receive liquid, the other walls closed to receive and guide the flow of the liquid, an apron protruding from the upper edge of said aperture adapted to engage the upper edge of the screen wall of said receptacle when it is opened.

3. An automobile radiator having a casing mounted thereon and communicating therewith, an aperture in said casing, a receptacle pivoted at the lower edge of said aperture and of a form when closed to complete the contour of the casing, one wall of said receptacle fitted with a screen and one wall open to receive liquid, the other walls closed to receive and guide the flow of the liquid, with means to support said receptacle when open and to lock the same when closed.

4. An automobile radiator having a casing mounted thereon and communicating therewith at the base of said casing and top of the radiator, an aperture in the forward top side of said casing, a receptacle having walls, one wall forming a section of the casing and adapted to fill said aperture, two walls projecting perpendicular to said last mentioned wall, with a screen interposed between them at the outer edges thereof, the remaining wall being open to receive liquid, said receptacle pivotally secured at the point of juncture of all of said walls to the lower edge of said aperture, with means to support the receptacle when open and lock the same when closed.

1,243,139. CURTAIN-ROD FIXTURE. JAMES R. COE, Waterbury, Conn. Filed Feb. 14, 1917. Serial No. 148,588. (Cl. 156—22.)



1. An improved curtain rod fixture comprising a supporting bracket of approximate S-shape formed of sheet metal and provided with a bowed back plate having a hook attached thereto by a bend at the top, the bow of said back plate causing the middle portion to stand away from a window casing, the walls constituting said bend being apertured for the passage of fastenings to secure the bracket.

2. An improved curtain rod fixture comprising a supporting bracket of approximate S-shape formed of sheet metal and provided with a bowed back plate having a hook attached thereto by a bend at the top, the bow of said back plate causing the middle portion to stand away from a window casing, the walls constituting said bend being apertured for the passage of fastenings to secure the bracket, the lower edge of the back plate being provided with spurs.

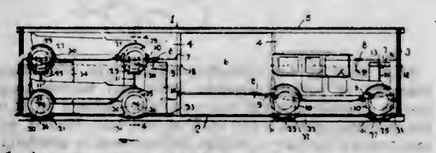
1,243,140. HANGER FOR COLLAPSIBLE CONTAINERS. JAMES E. CONNOLLY, Baltimore, Md. Filed Dec. 2, 1916. Serial No. 134,648. (Cl. 221—60.)



1. As an article of manufacture, a device for dispensing the contents of collapsible tubes comprising a bail, and a tube-engaging means, a resilient clamp adapted to receive the end of the tube pivoted to said bail and about which the collapsible tube is adapted to be wound.

[Claims 2 and 3 not printed in the Gazette.]

1,243,141. MECHANISM FOR TRANSPORTING VEHICLES IN CARS. JOHN M. DALY, Chicago, Ill. Filed Feb. 9, 1916. Serial No. 77,309. (Cl. 105—15.)



1. An apparatus for storing vehicles in a railroad car, including in combination, a plurality of means for raising the vehicles within the car arranged in pairs on opposite sides thereof and having supporting members connected thereto, means on said supporting members for engaging the wheels of the vehicle and means for engaging the axles of the vehicles to clamp the same in position.

4. An apparatus for storing vehicles in a railroad car, including in combination, a plurality of means for raising the vehicles within the car, said raising means being adjustably mounted therein so as to be capable of accomodating vehicles of different lengths, supporting means connected to said raising means and adapted to engage the wheels of the vehicles.

8. An apparatus for storing vehicles in a railroad car, including in combination, a car having a floor, side walls, ends and roof, parts of the floor being cut away transversely and having socket members mounted therein and a cover therefor, a plurality of raising means for raising vehicles within the car, supporting members connected to said raising means and extending transversely of the car and being adapted to be positioned within said recesses and socket members when in their lowermost position, said socket members serving to receive the wheels of a vehicle, so that a plurality of vehicles may be supported one above the other in the car, and means for engaging and

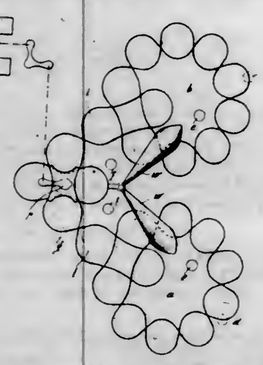
clamping the axles of the vehicles, and means for bracing the vehicles against movement including bracing members engaging the wheels and connected to the sides of the car.

9. An apparatus for storing vehicles in a car, including in combination, a car having a floor, sides, ends, and roof, part of the floor being cut away to provide a recess, means for raising vehicles within the car, said raising means having supporting means connected thereto, said supporting means being positioned in said recess when in its lowermost position.

13. An apparatus for storing vehicles in a car, including in combination, a car having a floor, ends, roof and double side walls spaced apart, raising means mounted within said spaced side walls, said raising means including a supporting frame adjustably secured to the side walls of the car and having a worm mounted to rotate therein, an operating shaft geared to said worm, a follower member mounted to move on said worm, and supporting means connected to said follower member.

[Claims 2, 3, 5 to 7, and 10 to 12 not printed in the Gazette.]

1,243,142. MACHINE FOR THE MANUFACTURE OF TAPES CONTAINING PARALLEL ELECTRIC WIRES. ANTONIO DE CAPITANI, Milan, Italy. Filed May 8, 1915. Serial No. 26,786. (Cl. 28—4.)

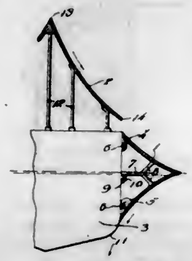


1. A machine for manufacturing a tape containing a plurality of parallel electric wires and having therein eyelets at predetermined intervals, comprising a set of bobbin-carrying spindles for each of the said electric wires for forming tubular coverings therearound, a plurality of continuous paths for each set of spindles, another set of spindles operating in conjunction with the aforesaid sets of spindles, a plurality of paths for said other set of spindles, switching devices for the plurality of paths of said other set of spindles and means for operating said switching devices at predetermined intervals, said plurality of paths for said other spindles being constructed in a manner to form alternately a single tape and a pair of tapes interengaging with said tubular coverings.

4. A machine for manufacturing a tape containing a plurality of parallel electric wires and having therein eyelets at predetermined intervals, comprising a set of bobbin-carrying spindles for each of the said electric wires for forming tubular coverings therearound, a plurality of continuous paths for each set of spindles, another set of spindles operating in conjunction with the aforesaid sets of spindles, a plurality of paths for said other set of spindles, switching devices for the plurality of paths of said other set of spindles, means for operating said switching devices at predetermined intervals, said plurality of paths for said other spindles being constructed in a manner to form alternately a single tape and a pair of tapes interengaging with said tubular coverings, cones along the axis of which the wires to be covered are adapted to pass, and on the outer surface of which, are adapted to be guided the threads for forming the coverings of said wires, and a jacquard arrangement to actuate said switching devices in a manner to divide the said other set of spindles into two separate sets of spindles, each of which comprises half of the total number of spindles making up the said other set of spindles.

[Claims 2 and 3 not printed in the Gazette.]

1,243,143. TORPEDO-GUARD. HENRY DE CORTE, Fairgrove, Mich. Filed Jan. 26, 1917. Serial No. 144,710. (Cl. 114—14.)



1. In a device of the character described, the combination with the deck and sides of a vessel, of covering shields for the sides, the shields having surfaces diverging toward the sides, a covering shield for the deck, said shield having surfaces diverging toward the sides of the vessel, the upper edges of the side shields ending near the lower edges of the deck shields to form a substantial continuation of the deck shield, whereupon a projectile will be caused to deflect from one shield to the other and away from the vessel.

[Claim 2 not printed in the Gazette.]

1,243,144. TORPEDO-GUARD. HENRY DE CORTE, Fairgrove, Mich. Filed Jan. 26, 1917. Serial No. 144,711. (Cl. 114—240.)

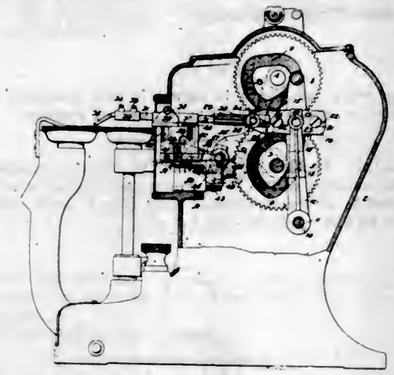


1. In a device of the character described, the combination with the side of a vessel, of bearing plates secured thereto, each plate having a bearing portion and a saddle adjacent thereto, radius arms pivoted in the bearings and adapted to rest in the saddles at an inclination to the vessel, a link bar joining the outer ends of the radius arms, a netting applied to the link bars, and clamp bars for holding the netting in position the inclined position of the radius arms effecting a jamming thereof into the saddles when the netting is struck by a projectile.

[Claim 2 not printed in the Gazette.]

1,243,145. LOOPER MECHANISM FOR SEWING-MACHINES. ALBERT H. DE VOE, Westfield, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Dec. 12, 1914. Serial No. 876,763. (Cl. 112—36.)

1. In a sewing machine, the combination with a vibratory and endwise movable looper-bar, a looper mounted thereon, and a fulcrum for said bar, of a rocking and bodily movable element pivotally connected with said bar on an axis extending transversely of said bar, and differentially timed actuating elements acting through said rocking and bodily movable element to impart vibratory and endwise movements to the looper-bar.



2. In a sewing machine, the combination with a vibratory and endwise movable looper-bar, a looper mounted thereon, and a fulcrum for said bar, of a rocking element pivotally connected with said bar on an axis extending transversely of said bar and spaced from the axis of vibratory movement of said bar, a fulcrum for said element movable crosswise of said axis, and differentially acting actuating elements for communicating to said rocking element its rocking and bodily crosswise movements upon its fulcrum.

3. In a sewing machine, the combination with a vibratory and endwise movable looper-bar, a looper mounted thereon, and a fulcrum for said bar, of a rocking element pivotally connected with said bar on an axis extending transversely of said bar and spaced from the axis of vibratory movement of said bar, a fulcrum for said element, a swinging arm for sustaining the fulcrum for said element, and means acting on said element independently of said swinging arm for communicating to said element its rocking and bodily crosswise movements upon its fulcrum.

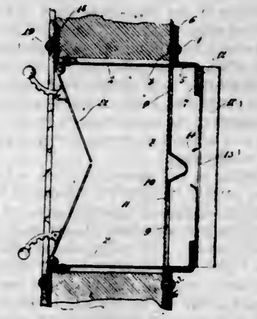
4. In a sewing machine, the combination with a vibratory and endwise movable looper-bar, a looper mounted thereon, and a fulcrum for said bar, of a support for said fulcrum movable crosswise of said bar, a rocking and bodily movable element pivotally connected with said bar, and means for imparting operative movements to said fulcrum-support and to said element.

5. In a sewing machine, the combination with a vibratory and endwise movable looper-bar carrying a looper, and a fulcrum for said bar, of a rocking element, a swinging arm carrying a fulcrum upon which said rocking element is mounted, actuating means for reciprocating parts of said rocking element upon opposite sides of its fulcrum at different speeds and a pivotal connection between said looper-bar and said rocking element at a point of the latter removed from its fulcrum and from said oppositely disposed parts.

[Claims 6 to 10 not printed in the Gazette.]

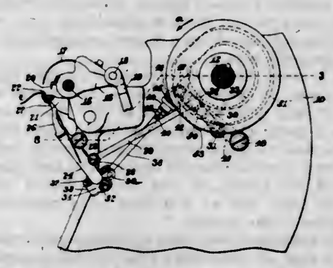
1,243,146. VENTILATOR. GEORGE F. DICKERSON, Detroit, Mich. Filed Apr. 21, 1916. Serial No. 92,590. (Cl. 98—27.)

1. A ventilator comprising a shell, a frame carried by the end thereof, an inner baffle member between said shell and said frame and having longitudinal top and bottom openings with a central projecting and longitudinally disposed baffle rib, an intermediate baffle member on said frame having a longitudinal opening at the baffle rib of said inner baffle member with the marginal edges of the opening bent in toward said baffle rib, and a housing on said frame in communication with said shell and having the upper and lower ends thereof open.



2. A ventilator comprising a shell having an outstanding flange at one end thereof, a frame having inwardly and outwardly projecting flanges, an inner baffle member secured between the flanges of said shell and the outwardly projecting flanges of said frame, said inner baffle member having longitudinal top and bottom openings with a central projecting and longitudinally disposed baffle rib that has its ends abutting said frame and in proximity to the inwardly projecting flange thereof, an intermediate baffle member on the inwardly projecting flange of said frame and having a longitudinal opening at the baffle rib of said inner baffle member, and a housing on said frame in communication with said shell and having the upper and lower ends thereof open.

1,243,147. LOOPER MECHANISM FOR SEWING-MACHINES. EDWARD ERICKSON, Cliftondale, Mass., assignor to Victor Shoe Machinery Company, Lynn, Mass., a Corporation of Massachusetts. Filed July 3, 1916. Serial No. 107,867. (Cl. 112—20.)



1. In a device of the class described, a hooked needle; a looper having a rotatable shank and an eye with its axis slightly offset from and parallel to the axis of said shank; means for imparting two distinct oscillatory movements to said looper, one of said movements being about the axis of said shank and the other movement being about an axis perpendicular to the axis of said shank; and means for preventing end movement of said shank.

2. In a device of the class described, a hooked needle a looper having a rotatable shank and an eye with its axis slightly offset from and parallel to the axis of said shank; means for simultaneously imparting two distinct oscillatory movements to said looper, one of said movements being about the axis of said shank and the other movement being about an axis perpendicular to the axis of said shank; and means for preventing end movement of said shank.

5. In a device of the class described, a hooked needle; a looper having a shank rotatable about its axis and provided with an eye the axis of which is substantially par-

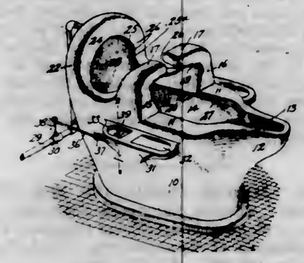
allel to the axis of said shank and offset therefrom; means for oscillating said shank about a horizontal axis; a laterally extending arm secured to said shank; a cam operated lever; and a link between said lever and arm.

9. In a device of the class described, a hooked needle; a tubular looper support; a pivot therefor; a looper having a cylindrical shank extending through said tubular support and provided with an eye offset from the shank thereof; means for oscillating said looper about the axis of said shank; a cam controlled lever; a link connecting said lever and looper support; an arm secured to said shank; cam mechanism; and actuating means for said arm controlled by said cam mechanism.

16. In a device of the class described, a hooked needle; an oscillating carrier therefor; a depending hook thereon; a looper having a thread eye; means for moving said looper eye in a curved path around said hook, then between said hook and needle, and then around said needle to a point at the right thereof, temporarily stopping said eye at said right point, and then moving said eye in a straight path from said point to its normal position.

[Claims 3, 4, 6 to 8, 10 to 15, and 17 to 20 not printed in the Gazette.]

1,243,148. WATER-CLOSET. LUTHER F. ERWIN, Fort Payne, Ala. Filed Aug. 1, 1916. Serial No. 112,578. (Cl. 4—18.)



1. In a water closet, a hopper having the usual seating portion, and a pair of integral upstanding arms with flat tops which together form a higher supplemental seat in rear of the main seat.

5. In a water closet, the combination with the hopper having a seat, of upstanding arms in rear of the seat, and a back integral with the hopper in rear of said arms.

6. In a water closet the combination with the hopper having a seat, of upstanding integral arms in rear of the seat having inwardly turned upper ends, and a back integral with the hopper in rear of and spaced from said arms, the front wall of said back being continuous with the interior of the hopper.

10. In a water closet, the combination with the hopper having a seat, of upstanding arms having inturned upper ends in rear of the seat, and clamping means on the under sides of the inturned ends.

[Claims 2 to 4 and 7 to 9 not printed in the Gazette.]

1,243,149. SOLUTION HAVING A LOW FREEZING-POINT. GEORGE E. FERGUSON, New York, N. Y., assignor to Pyrene Manufacturing Company, a Corporation of Delaware. Filed Oct. 20, 1914. Serial No. 867,585. (Cl. 23—5.)

A solution having a low freezing point comprising carbon tetra chlorid and thymol in solution.

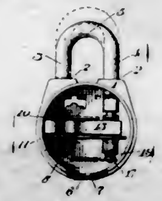
1,243,150. GRAPPLE. JOHN JACOB FOX, Columbus, Ga. Filed Apr. 16, 1917. Serial No. 162,880. (Cl. 57—113.)

The combination with a pull bar having diametrically arranged, resilient, divergent, grapple arms, of a slidable sleeve on the bar, a compressing ring carried by said sleeve and having radial grooves forming inclosures for said arms, whereby the arms are brought toward each



other when the sleeve is moved in one direction, and means for retaining the sleeve in adjusted position.

1,243,151. PADLOCK. SAMUEL R. FRAIM, Lancaster, Pa., assignor to The E. T. Fraim Lock Company, a Corporation of Pennsylvania. Filed May 1, 1916. Serial No. 94,819. (Cl. 70—108.)



1. A padlock comprising a case, a disk arranged in the case, unattached thereto and having transverse plates secured to it, a spring bent back upon itself and arranged between the plates, a shackle having an arm provided with oppositely arranged flattened faces extending between the ends of the spring, a second disk arranged in the case, attached to the first and spaced therefrom, and face plates secured to the body.

2. A padlock comprising a case, two disks arranged in the case, two plates extending between and transversely of the disks and having nibs riveted to the disks, a locking spring bent back upon itself and arranged between the plates, a bar having a stud extended between the disks, a coil spring located on the stud, and a shackle having an arm provided with oppositely located flattened faces adapted to receive the locking spring, and having a socket in its end adapted to receive the coil spring.

4. A padlock comprising a case, two disks located in the case, spaced apart, and unattached to the case, transverse plates extending between the disks and attached thereto, a locking spring bent back upon itself and arranged between the plates, a lip extending between the plates, a bar having a stud and located between the plates, a coil spring arranged on the stud, and a shackle having one arm thereof provided in its end with a socket receiving the coil spring, having flattened portions adapted to receive the ends of the locking spring, and being provided with a second flattened portion and with a circumferential groove adapted to receive the lip.

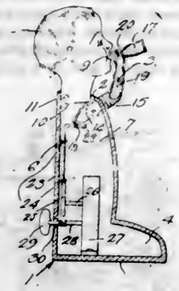
[Claim 3 not printed in the Gazette.]

1,243,152. MECHANICAL DOLL. WARNIE A. FUSCH, Decatur, Ill. Filed Apr. 9, 1917. Serial No. 160,714. (Cl. 46—40.)

1. A device of the class described including as cooperating parts, a body, a swinging head, and an arm mounted to swing independently of the head; a receptacle carried by the arm and movable with the arm toward and away from the head, one of said coöperating parts having a cavity into which the receptacle discharges; means for raising the arm independently of the head to bring the receptacle into operative relation to the head; and means for swinging the head rearwardly, after the receptacle has been raised into operative relation to the head.

3. A device of the class described comprising a body; a head pivoted to the body; an arm; a receptacle carried by the arm, the arm having a cavity into which the receptacle

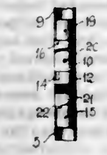
discharges, when the arm is raised toward the head; a shaft mounted to rock in the body, the shaft being connected with the arm, and having a finger which engages



the head to tilt the head rearwardly; a motor carried by the body; and an operative connection between the motor and the shaft.

[Claim 2 not printed in the Gazette.]

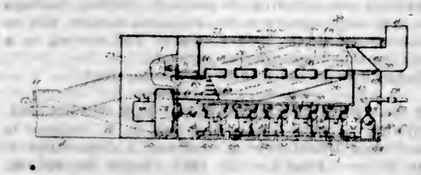
1,243,153. UMBRELLA. DESSIE L. GABLER, Fond du Lac, Wis. Filed May 14, 1917. Serial No. 168,453. (Cl. 135—46.)



1. A joint of the character described including two pivotally connected members, a rotatable locking sleeve mounted upon one of said members and having means which, in one position of the sleeve, permits of the angular movement of the other joint member, said sleeve also having additional means to co-act with the latter joint member when the sleeve is rotated in one direction to securely lock said joint member in its angular position to the first joint member.

2. A joint of the character described including a joint member having a longitudinal slot therein opening upon one end of said member, a second member having a tongue pivotally mounted in said slot, a rotatable locking sleeve mounted upon the first joint member, said sleeve having a recess in one end adapted to coincide with said slot to permit of the angular movement of the second joint member, and means for limiting the rotation of the sleeve to such position, said sleeve being also provided with additional means to co-act with the second joint member when the sleeve is rotated to locking position to rigidly hold said second joint member against movement from its angular position with respect to the first joint member.

1,243,154. HEATING SYSTEM. THOMAS H. GARLAND, Chicago, Ill. Filed Nov. 5, 1915. Serial No. 59,740. (Cl. 237—30.)



1. In a heating system, the combination of a heat producing combustion unit, a drum surrounding said unit but closed against the products of combustion, an air inlet to said drum, a distributing pipe, a circulation producing device having its intake end connected with the drum and its outlet end connected with said distributing pipe whereby air is drawn through said drum to be heated and forced through said distributing pipe, a flue extending through said distributing pipe and connected with said heat producing unit to receive the products of combustion, and a connection between said flue and circulating device outlet whereby air is forced through said flue in a direction away from said heating unit in order to create forced draft through said unit.

[Claims 2 to 5 not printed in the Gazette.]

1,243,155. LONG-RANGE SHOTGUN-CARTRIDGE. LOUIS P. GERHARDT, Lorah, Iowa. Filed Nov. 22, 1916. Serial No. 133,259. (Cl. 102—15.)

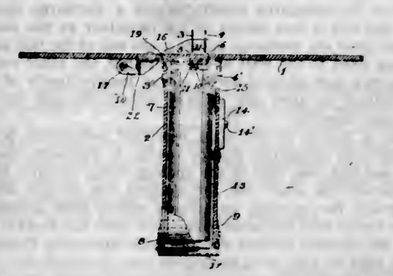


1. A long-range cartridge, comprising a shell open at one end, a shot container mounted therein, said shot container being open at its base and being formed with a cone-shaped head lying within the open end of said shell, and spring tongues cut out from the forward end of said shell and engaging said cone-shaped head.

2. A long-range cartridge, comprising a thin-walled shell, a pasteboard shot container mounted therein, said container being open at its base and formed with a cone-shaped head, a metallic liner within said container, and spring tongues on the forward end of said shell bent inwardly at acute angles and yieldingly engaging said container.

3. A long-range cartridge, comprising a shell, a tubular shot container mounted therein and having a cone-shaped head within the open end of said shell, and diametrically opposed spring tongues cut from the forward portion of said shell and bent inwardly at acute angles and engaging said cone-shaped head.

1,243,156. FLASH-LIGHT DEVICE. NATHAN E. GOLDFADDEN, Chicago, Ill. Filed May 20, 1916. Serial No. 98,966. (Cl. 67—31.)



1. A flash-light device comprising a support for flash powder; a handle for said support depending therefrom; an electric battery mounted in said handle; a pair of comparatively thin, wide spaced parallel terminals interposed in the circuit of said battery and projecting upwardly from the upper end of said handle through said support; a fuse wire adapted to connect said terminals; tapering slots in the upper ends of said terminals for the reception of said fuse wire, there being openings in said terminals

below said slots; and a switch for controlling said circuit, substantially as described.

2. A flash-light device comprising a support for flash powder; an electric battery; a pair of spaced terminals interposed in the circuit of said battery and arising from said support; and a fuse wire adapted to connect said terminals, there being openings in said terminals below said points of engagement therewith of said fuse wire, substantially as described.

1,243,157. BOBBIN. MARY GORRELL, Billings, Mont. Filed Feb. 1, 1916. Serial No. 75,573. (Cl. 242—118.)

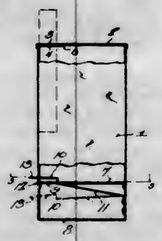


1. A tatting device adapted to be mounted on one of the fingers of the user's hand and comprising a pair of cylinders, one of the cylinders being frictionally engaged with the finger to prevent rotation, the other cylinder being rotatably mounted upon the first mentioned cylinder and provided with thread, and means for fixing one end of the thread.

3. A tatting device adapted for attachment to one of the fingers of the user's hand and including a pair of cylinders extended over the finger, each being of relatively thin material for permitting convenient reception of the cylinders in the space between the adjacent fingers.

[Claims 2 and 4 not printed in the Gazette.]

1,243,158. CIGAR AND CIGARETTE HOLDER. HARRY A. GRAY, Milwaukee, Wis. Filed Mar. 19, 1917. Serial No. 155,719. (Cl. 206—41.)



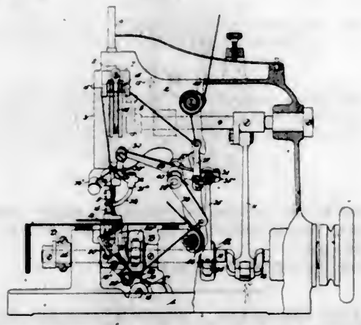
1. A device of the class described comprising a container for elongated objects having a discharge opening in one end, a leaf spring in the container at the end remote from the discharge opening, one end of the leaf spring being fixed to the wall of the container, the other end being free and adapted to be moved longitudinally of said container to eject one of said objects through the discharge opening.

5. A device of the class described comprising a container for elongated objects having a discharge opening in one end, one wall of the opening being arcuate, means adjacent the other end for ejecting one of said objects through the opening, an arcuate rubber strip secured to the top of said container coincident with the arcuate wall of the opening therein and inwardly extending fingers on the edge of said strip projecting into the discharge opening to prevent the removal of an object except when actuated by said ejecting means.

[Claims 2 to 4 not printed in the Gazette.]

1,243,159. OVERSEAMING SEWING-MACHINE. ALFRED GRIEB, Elizabeth, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed July 21, 1913. Serial No. 780,126. (Cl. 112—24.)

1. In an overseaming sewing machine, the combination with a needle, a work support, and means for reciprocating the needle, of a threaded looper mounted to operate below said work-support, a coöperating loop engaging member and a movable fulcrum therefor, a rock arm and a fixed fulcrum therefor above the work-support, a connection between said rock arm and the said loop engaging member, and means whereby actuation of said rock arm will operate said loop engaging member toward and from the work-support and in a path inclined to the line of feed.



2. In an overseaming sewing machine, the combination with a needle, a work-support, and means for reciprocating the needle, of a threaded looper mounted to operate below said work-support, a coöperating loop-engaging member mounted above the work-support, a movable fulcrum therefor, a rock-arm actuated upon a fixed fulcrum, a connection between said rock-arm and the said loop-engaging member, actuating means for said rock-arm adapted to cause said loop-engaging member to dwell while the needle enters well into the loop presented thereby, and means whereby actuation of said rock-arm will operate said loop-engaging member toward and from the work-support in a forwardly inclined plane.

3. In an overseaming sewing machine, the combination with a horizontal work-support, a needle and means for reciprocating the same, of two coöperating loop-engaging members moving in intersecting paths and supported respectively upon opposite sides of said work-support, and means adapted to operate the upper of said loop-engaging members in a plane inclined relatively to the vertical plane through the line of feed, said means including a rock-arm operating above the work-support and having an interval of rest during the descent of the needle.

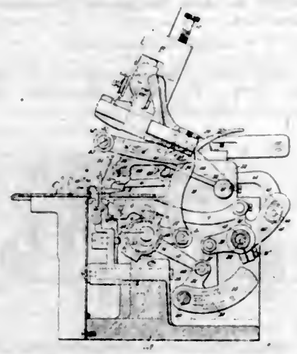
4. In an overseaming sewing machine, the combination with a frame comprising a work-support, a standard, and an overhanging arm supported by said standard, of a needle, and an actuating shaft therefor within said overhanging arm, a threaded looper mounted to operate below said work-support, a coöperating loop-engaging member supported above the work-support, a rock-arm adapted to transmit movement to said loop-engaging member in a plane inclined forwardly of the needle, an eccentric upon the driving-shaft, and an eccentric rod within the standard and operatively connected to said rock-arm.

5. An overseaming sewing machine, having in combination, a needle, a work-support, a threaded looper mounted to operate below said work-support, a rock-arm mounted in a bearing disposed above said work-support and inclined relatively to the line of feed, actuating means therefor, a second rock-arm mounted in similarly inclined bearings above said work-support, a loop engaging member, and an elbow-lever connecting said rock-arms and serving as a carrier for said loop-engaging member.

[Claims 6 to 13 not printed in the Gazette.]

1,243,160. FEEDING MECHANISM FOR SEWING-MACHINES. ALFRED GRIEB, Elizabeth, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Dec. 12, 1913. Serial No. 806,442. (Cl. 112—8.)

1. In a sewing machine, the combination with a frame, a work-support, a driving shaft and stitch-forming mechanism operatively connected to said driving shaft, of an arcuately-movable presser-lever, a second lever fulcrumed upon said presser-lever, a feeding member movably supported by said second lever, and means operatively connected with the driving shaft for moving said second lever about its fulcrum and for imparting feed and return movements to said feeding member.



2. In a sewing machine the combination with a frame, a work-plate and a driving shaft journaled in the frame below said work-plate, of stitch-forming mechanism operatively connected to said driving shaft, an arcuately-movable presser-lever, a bell-crank fulcrumed upon said lever and having one arm operatively connected to an actuating member on the driving shaft, a feeding member pivotally connected to said bell-crank, a rock-lever operatively connected to the driving shaft, and a link-bar connected at one end to said rock-lever and at its opposite end to the feeding member.

3. In a sewing machine, the combination with a frame, a work-support, a driving shaft journaled in the frame, of stitch-forming mechanism, upper and lower feeding members, a rocker actuated by the driving shaft and adapted to impart simultaneous feeding movements to the feeding members, a presser-lever fulcrumed upon the frame, a presser-foot carried thereby, an element fulcrumed upon the presser-lever and connected to the upper feeding member, and an operative connection between said element and the driving shaft.

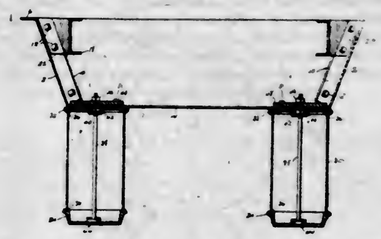
4. In a sewing machine, the combination with a frame, a work-plate, a driving shaft journaled in the frame below said work-plate, an actuating member carried by said shaft of stitch-forming mechanism, upper and lower feeding members, a rocker actuated by the driving shaft and adapted to impart simultaneous feeding movement to said feeding members, a presser-lever fulcrumed upon the frame, and a bell-crank fulcrumed upon the presser-lever and pivotally connected to the upper feeding member and having an arm extending below the work-plate and in operative relation with the actuating member on the driving shaft.

5. In a sewing machine, the combination with a frame, a work-plate, a driving shaft journaled in the frame below said work-plate, an eccentric carried by said driving shaft, and feeding mechanism comprising upper and lower feed-dogs, of a rocker journaled below the work-plate and operatively connected to each feed-dog whereby reciprocatory movements are imparted thereto, an arcuately-movable presser-lever, a bell-crank fulcrumed upon said lever, an eccentric rod embracing the eccentric on the driving shaft and connected to one arm of said bell-crank, and a swinging carrier pivotally connected to the other arm of said bell-crank an dto the upper feed-dog.

[Claims 6 to 9 not printed in the Gazette.]

1,243,161. BILLIARD-TABLE CONSTRUCTION. FRANK P. GRODE, Kansas City, Mo. Filed June 23, 1916. Serial No. 105,374. (Cl. 45—48.)

1. A billiard table construction comprising, in combination, duplicate side and end body members, two of the diagonally opposite corners of said body members being connected by a continuous diagonal bridge member, and duplicate diagonal bridge sections connecting the remaining body corners with an intermediate point of said bridge member.



6. A billiard table construction comprising, in combination, a body frame, interchangeable leg members at the corners of said frame, said leg members each comprising an upright hollow section, a cap section and base section, the outer edges of said cap section projecting and forming exposed ornamental margins for the tops of said leg members, said cap and base sections being provided with marginal channels for seating the upper and lower edges, respectively, of said upright sections, and means for clamping said leg sections together with said cap sections detachably engaged with the margin of said frame at the corners thereof.

9. A billiard table construction comprising, in combination, a body frame having horizontal flange projections at the corners thereof, duplicate interchangeable leg members adapted to be clamped to the corners of said frame, each of said leg members comprising an upright hollow section, a cap section and a base section, a plate member resting on said flange projections at each of said corners and provided with a dowel for detachable engagement with the cap section of the adjoining leg member, and means for clamping together the leg sections of each leg member with its cap section and corresponding plate member in clamping engagement with said flange projections.

[Claims 2 to 5, 7, and 8 not printed in the Gazette.]

1,243,162. TENSION DEVICE FOR YARN. HORACE F. GRUMAN, Jackson, Mich., assignor of one-third to D. R. Cohen and one-third to S. R. Cohen, Detroit, Mich. Filed May 12, 1917. Serial No. 168,272. (Cl. 66—17.)



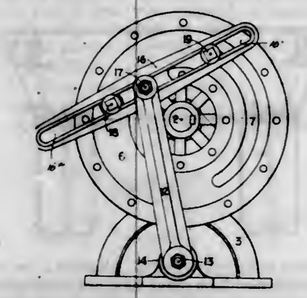
1. A tension device including a ring, a part fixed thereto and having a portion spaced from the outer surface of the ring, a spring interposed between said portion and the ring, said portion having a threaded hole therein and a turned edge, said turned edge having a threaded hole, and a screw fitting said holes and designed to engage said spring, substantially as described.

[Claims 2 to 5 not printed in the Gazette.]

1,243,163. MECHANICAL MOTOR. JOSEPH ANDREW GYGAR, Brisbane, Queensland, Australia. Filed Sept. 14, 1915. Serial No. 50,562. (Cl. 121—48.)

1. A rotary engine including in combination, a shaft, a cylinder keyed to the shaft and having a circular pathway formed therein concentric with said shaft, an abutment fixed in said pathway, a piston and cross-head connected together adapted to travel in said pathway, a vibrating lever mounted adjacent the cylinder, a slotted vibrating lever pivotally connected to the upper end of the aforesaid lever, a connection between the piston and

said slotted vibrating lever which is slidable in said lever, a connection between the cylinder and said slotted vibrating lever and which is slidable in the slot of said slotted lever, and means between the shaft of the cylinder and the



first mentioned vibrating lever to vibrate the latter and consequently shift said slotted vibrating lever during rotation of the drum.

[Claims 2 to 5 not printed in the Gazette.]

1,243,164. SIGN AND PROCESS OF MAKING THE SAME. RUDD HARDESTY, Denver, Colo. Filed Mar. 17, 1916. Serial No. 84,761. (Cl. 41—34.)

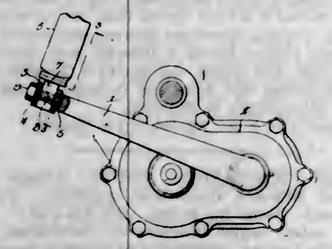


1. The herein described process of sign making, consisting in assembling metallic letters in proper relation on a metallic plate, electrically spot welding the letters and plate firmly together, dipping the lettered plate in an enameling bath, baking the enamel, and applying a contrasting metallic paint to the faces of the letters.

4. As a new article of manufacture, a sign comprising a metal base plate and relatively thin flat metal characters spot-welded thereto, the exposed surface of said characters being unmarred by the weld, in combination with a continuous adherent layer of enamel covering the exposed surface of said plate and characters.

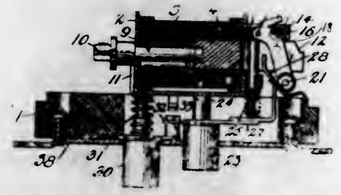
[Claims 2 and 3 not printed in the Gazette.]

1,243,165. PEDAL. WILLIAM S. HARLEY, Milwaukee, Wis., assignor to The Harley-Davidson Motor Co., Milwaukee, Wis. Filed Aug. 24, 1915. Serial No. 47,038. (Cl. 74—81.)



In combination with a pedal crank having its outer free end bifurcated at right angles to the longitudinal length of the crank, of a pedal spindle, one end of which is shaped complemental to and adapted to have a tight but movable fit within the bifurcated end of the crank and having a central pivot receiving aperture therein, said bifurcated end having openings therein adapted to aline with the aperture in the spindle, one of said openings extending into the crank and being provided with screw threads, a pivot pin for the spindle of said openings and having its inner end threaded for engagement with said threaded opening, and said spindle having its extreme inner end provided with a rounded corner and a squared corner whereby to limit its pivotal movement substantially as described.

1,243,166. ELECTRIC SWITCH. GERALD W. HART, West Hartford, Conn. Filed July 12, 1916. Serial No. 108,775. (Cl. 175—281.)



1. In a switch, the combination of a base, a solenoid mounted thereon, a solenoid core within said solenoid, a main switch arm carried by said core, main switch terminals carried by said base, a spring tending to move said core and said switch arm to circuit-closing position, a detent movable relatively to said base and adapted to hold said solenoid core in switch-opening position when moved to that position by the action of said solenoid, manual means for releasing said detent, and circuit-closing means for manually closing the circuit through said solenoid, auxiliary contacts carried by said base, an auxiliary switch arm coacting therewith and controlled by said detent, said auxiliary switch arm being movable relatively to said detent, said auxiliary contacts being in series with said circuit-closing means.

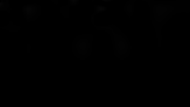
2. In a switch, the combination of a base, a solenoid mounted thereon, a solenoid core within said solenoid, a main switch arm carried by said core, main switch terminals carried by said base, a spring tending to move said core and said switch arm to circuit-closing position, a detent movable relatively to said base and adapted to hold said solenoid core in switch-opening position when moved to that position by the action of said solenoid, manual means for releasing said detent, circuit- closing means for manually closing the circuit through said solenoid, auxiliary contacts carried by said base, an auxiliary switch arm coacting therewith and controlled by said detent, said auxiliary switch arm being movable relatively to said detent, said auxiliary contacts being in series with said circuit-closing means, and means actuated by said manual means for holding said auxiliary switch arm from said auxiliary contacts when said manual means is in detent-releasing position.

3. In a switch, the combination of a base, a solenoid carried thereby, contacts in series with said solenoid and carried by said base, a solenoid core adapted to be moved by said solenoid in one direction, a spring tending to move said solenoid core in the other direction, a detent for holding said solenoid core when moved by said solenoid, two push buttons carried by said base, means actuated by one of said push buttons to connect said contacts, means carried by the other of said push buttons for releasing said detent, and means for restoring both of said push buttons to normal position, an auxiliary switch arm connected to said detent, auxiliary contacts carried by said base and coöperating with said auxiliary switch arm so as to be closed when said detent is released, and means tending to move said detent to core-engaging position and said auxiliary switch arm toward said auxiliary contacts.

4. In a switch, the combination of a base, a solenoid carried thereby, contacts in series with said solenoid and carried by said base, a solenoid core adapted to be moved by said solenoid in one direction, a spring tending to move said solenoid core in the other direction, a detent for holding said soledoid core when moved by said solenoid, two push buttons carried by said base, means actuated by one of said push buttons to connect said contacts, means carried by the other of said push buttons for releasing said detent, means for restoring both of said push buttons to normal position, an auxiliary switch arm connected to said detent, auxiliary contacts carried by said base and cooperating with said auxiliary switch arm, means tending to move said detent to core-engaging position and said auxiliary switch arm toward said auxiliary contacts, and means carried by said last mentioned push button for preventing said auxiliary switch arm from engaging said auxiliary contacts when said last mentioned push button is in actuated position.

5. In a switch, the combination of a base, a solenoid carried thereby, contacts in series with said solenoid and carried by said base, a solenoid core adapted to be moved by said solenoid in one direction, a spring tending to move said solenoid core in the other direction, a detent for holding said solenoid core when moved by said solenoid, two push buttons carried by said base, means actuated by one of said push buttons to connect said contacts, means carried by the other of said push buttons for releasing said detent, and means for restoring said push buttons to normal position, said solenoid core having a longitudinally extending opening and said releasing means extending into said opening when in detent releasing position.

1,243,167. MANUFACTURE OF DRAW-PLATES OR DIES. JOHN C. HENDERSON, Washington, D. C. Filed June 5, 1917. Serial No. 172,963. (Cl. 205—29.)



1. As a new article of manufacture, a cast draw plate blank of compressed iron chilled throughout its entire mass under pressure.

6. As a new article of manufacture, a molded draw plate or die blank of compressed iron having the chemical constituency of cast iron and the physical properties of hardened steel.

[Claims 2 to 5 not printed in the Gazette.]

1,243,168. INTERNAL FITTING FOR BOILER-TUBES. TURNER HENDERSON, Abingdon, England. Filed Jan. 16, 1917. Serial No. 142,724. (Cl. 137—112.)



1. A lining for the tube of a boiler said lining being in sections and having spirally arranged openings through the sections with externally projecting and spirally arranged tongues adjacent to some of said openings.

2. A lining for the tube of a boiler said lining being in sections and having spirally arranged openings through the sections with externally projecting and spirally arranged tongues adjacent to some of said openings and spirally set ribs inside the sections.

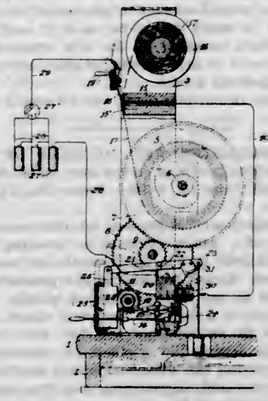
3. A lining for the tube of a boiler said lining comprising sections of fireproof material some of which are separated by rings of fireproof material, said sections having in them spirally arranged openings with spirally arranged projections both inside and outside the sections.

4. A lining for the tube of a boiler said lining comprising sections of fireproof material some of which are separated by rings of fireproof material, said sections having in them spirally arranged openings with spirally arranged projections both inside and outside the sections said rings also having spirally arranged projections.

5. A lining for the tube of a boiler said lining comprising semi-circular sections arranged in pairs, a ring between the ends of adjoining pairs, spirally arranged openings through the sections, spirally set projections outside the sections and spirally set projections outside the rings.

[Claims 6 to 12 not printed in the Gazette.]

1,243,169. AUTOMATIC PLAYER FOR MUSICAL INSTRUMENTS. HENRY F. HERMAN, New York, N. Y., assignor to The Imperial Piano Player Company, New York, N. Y., a Corporation of New York. Filed Oct. 11, 1912. Serial No. 725,229. (Cl. 84—176.)



1. An electro-magnetically controlled player for musical instruments comprising a combination a source of electricity and a plurality of electric branch circuits; a rotatable shaft of magnetizable material; walking beams, electro-magnets including a core substantially of U-shape in cross section and an energizing coil in each branch circuit, each magnet core being suspended from one end of a walking beam with the pole faces contacting with the shaft in a line parallel with the axis of the shaft; means to operatively connect the other ends of the walking beams with the sound-emitting devices of the instrument; and a traveling perforated music sheet to control the making and breaking of the circuits, substantially as and for the purpose specified.

2. An electro-magnetically controlled player for musical instruments having a series of sound-emtitting devices, comprising in combination a shaft of magnetizable material rotatable on a horizontal axis; a plurality of electro-magnets, one for each sound-emitting device of the instrument, each magnet including a core substantially of U-shape in cross-section and an energizing coil; means to support the electro-magnets with the pole faces of the cores in position to contact with the shaft in a line parallel with the axis of the shaft and operatively connect the magnets with the sound-emitting devices of the instrument; an electric circuit for each energizing coil; and a perforated music sheet to control said circuits.

3. An electro-magnetically controlled player for musical instruments comprising in combination a rotatable shaft of magnetizable material; pivotally supported walking beams; an electro-magnet substantially of U-shape in cross section suspended from one arm of each walking beam in position with the pole faces thereof to contact with said shaft in a line parallel with the axis of the shaft; an electric circuit for each magnet; a traveling perforated music sheet; and means actuated by each walk-

ing beam to cause the sounding of the sound-emitting devices of the instrument.

4. An electro-magnetically controlled player for musical instruments comprising in combination a rotatable shaft of magnetizable material; electro-magnets, each magnet including a core and an energizing coil and the core supported with the pole faces contacting with the shaft to have movement imparted thereto through the magnetic cling of the core to the shaft; an electric circuit for each magnet; a perforated music-sheet to control said circuits; and means to short circuit the coil of each magnet substantially as and for the purpose specified.

5. An electro-magnetically controlled player for musical instruments comprising in combination a rotatable shaft of magnetizable material; electro-magnets, each magnet including a core and an energizing coil and the core supported with the pole faces contacting with the shaft to have movement imparted thereto through the magnetic cling of the core to the shaft; an electric circuit for each magnet coil; a perforated music sheet to control the magnet circuits; a second magnet in the circuit of each of the first magnets; a short circuit for each of said first magnets; and means actuated by the first magnets to close said short circuits to said second magnets operating when energized to prolong a note.

[Claims 6 to 10 not printed in the Gazette.]

1,243,170. VAT DYES AND PROCESS OF MAKING SAME. RICHARD HERZ, Frankfort-on-the-Main, Germany. Filed June 16, 1915. Serial No. 34,471. (Cl. 8—1.)

1. The herein described process for the manufacture of fast vat-dyestuffs, which consists in allowing an excess of disulfurdichlorid to act on aromatic aminocompounds and derivatives thereof, subjecting the products thus obtained at first to the action of dilute alkalis, preferably in the presence of a suitable reducing agent, then condensing same in an alkaline solution with monochloracetic acid, diazotising the products of condensation thus obtained, subjecting the diazocompounds produced to the action of cuprocyanid, saponifying and transforming the nitriles thus produced into ringcompounds by subjecting same to the action of alkalis, and finally converting the latter into vat-dyestuffs by subjecting same to the action of dilute acids while heating, and by subsequent oxidation.

2. The herein described process for the manufacture of fast vat-dyestuffs, which consists in allowing an excess of disulfurdichlorid to act on aromatic aminocompounds and derivatives thereof, subjecting the products thus obtained at first to the action of water, then condensing same in an alkaline solution with monochloracetic acid, diazotizing the products of condensation thus obtained, subjecting the diazocompounds produced to the action of cuprocyanid, saponifying and transforming the nitriles thus produced into ringcompounds by subjecting the same to the action of alkalis, and finally converting the latter into fast vat-dyestuffs by subjecting same to the action of dilute acids with heating and by subsequent oxidation.

3. The herein described process for the manufacture of a fast red vat-dyestuff which consists in subjecting the product of reaction of disulfurdichlorid and anilin at first to the action of dilute alkalis preferably in the presence of a suitable reducing agent, then condensing the same in an alkaline solution with monochloracetic acid, diazotizing the product of condensation thus obtained, subjecting the diazo compound produced to the action of cuprocyanid, saponifying and transforming the nitrile thus produced into a ringcompound by subjecting the same to the action of alkalis, and finally converting the latter into a fast red vat-dyestuff by subjecting it to the action of dilute acids while heating and by subsequent oxidation.

4. The herein described process for the manufacture of a fast red vat-dyestuff which consists in subjecting the product of reaction of disulfurdichlorid and anilin at first to the action of water, then condensing the same in an alkaline solution with monochloracetic acid, diazotizing the product of condensation thus obtained, subjecting the disazocompound produced to the action of cuprocyanid, saponifying and transforming the nitrile thus produced into a ringcompound by subjecting the same to the action of alkalis and finally converting the latter into a fast red vat-dyestuff by subjecting it to the action of dilute acids while heating and by subsequent oxidation.

5. The herein described fast vat dyestuffs, derived from the products of reaction of an excess of disulfurdichlorid and aromatic aminocompounds and derivatives thereof containing sulfur in their molecule, being in a dry state reddish to dark colored powders, insoluble in water, dilute alkalis and acids, sparingly soluble in alcohol, hot benzene and the usual organic solvents, difficulty soluble in hot nitrobenzene, with reddish to violet and brown colors, forming with alkaline hydrosulfite yellowish vats and dyeing animal and vegetable fibers shades varying from orange, red to violet, brown and black, which are distinguished by their fastness to severe washing, scouring, bowking and chlorin.

[Claims 6 not printed in the Gazette.]

1,243,171. VAT DYES AND PROCESS OF MAKING SAME. RICHARD HERZ, Frankfort-on-the-Main, Germany. Filed June 16, 1915. Serial No. 34,472. (Cl. 8—1.)

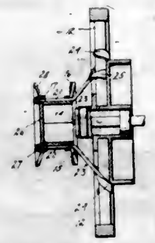
1. The herein described process for the manufacture of fast pink vat-dyestuffs which consists in subjecting the products of reaction from disulfurdichlorid on o-toluidin, m-toluidin and p-xylidin at first to the action of dilute alkalis preferably in the presence of a suitable reducing agent, then condensing the same in an alkaline solution with monochloracetic acid, diazotizing the products of condensation thus obtained, subjecting the diazocompounds produced to the action of cuprocyanid, saponifying and transforming the nitriles thus produced into ring-compounds by subjecting the same to the action of alkalis, and finally converting the latter into fast pink vat-dyestuffs by subjecting same to the action of dilute acids with heating and by subsequent oxidation.

2. The herein described process for the manufacture of fast pink vat-dyestuffs which consists in subjecting the products of reaction from disulfurdichlorid on o-toluidin, m-toluidin and p-xylidin at first to the action of water, then condensing the same in an alkaline solution with monochloracetic acid, diazotizing the products of condensation thus obtained, subjecting the diazocompounds produced to the action of cuprocyanid, saponifying and transforming the nitriles thus produced into ring compounds by subjecting the same to the action of alkalis, and finally converting the latter into fast pink vat-dyestuffs by subjecting same to the action of dilute acids with heating and by subsequent oxidation.

3. The herein described new pink vat dyestuffs derived from the products of reaction of disulfurdichlorid on o-toluidin, m-toluidin and p-xylidin, being in a dry state red powders, insoluble in water, dilute alkalis and acids and the usual organic solvents, difficultly soluble in hot nitrobenzene with a bluish red color and yellow fluorescence, soluble in warm concentrated sulfuric acid with a green color, forming with alkaline hydrosulfite yellowish vats and dyeing cotton and wool yellowish to bluish pink shades which are distinguished by their excellent fastness and their unusual purity.

1,243,172. PULLING-JACK FOR MOTOR-VEHICLES. STEPHEN C. HICKMAN, Chanton, Iowa. Filed May 22, 1916. Serial No. 99,219. (Cl. 242—95.)

1. In a device of the class described, a drum having at its periphery at its opposite ends flanges, the flanges being arranged in opposite pairs, the flanges at one end being provided with angular openings, the flanges at the other end being provided with round openings, a plurality of arms each having a portion adapted to be secured to a wheel spoke, a portion designed to extend away from the spoke and toward the line of the extended axis of the wheel, a portion angular in cross section extended through one of the angular openings in said flanges, and a reduced cylindrical portion on one end extended through one of



said round openings, and locking means on the free end of each of said last described portions.

[Claim 2 not printed in the Gazette.]

1,243,173. RACK FOR WEARING-APPAREL, UMBRELLAS, AND THE LIKE. ALBERT R. HINCKLEY, Cleveland, Ohio. Filed Mar. 9, 1917. Serial No. 153,550. (Cl. 45—13.)

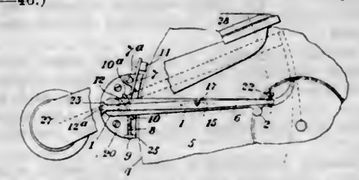


1. As a new article of manufacture a rack for wearing apparel, umbrellas and similar articles, comprising a base member, detachable legs inserted in said base member, a telescopically adjustable upright member attached to said base, means for controlling the adjustment of said upright member, said means forming a receptacle for articles, a revoluble head mounted on roller bearings on said upright member, detachable arms inserted in said head, and hanger members providing means for retaining said arms in the head.

3. In a rack for wearing apparel, umbrellas and similar articles, the combination of a base member; detachable legs inserted in said base member; set screws for retaining said legs in the base member; a telescopically adjustable upright member attached to said base; a collar on said upright member; a set screw in said collar for controlling the adjustment of the upright member; arms extending from said collar which in conjunction with a drip pan attached to the base form receptacles for articles; roller bearings connected with the upright member; a revoluble head member mounted on said roller bearings; detachable arms inserted in said head member; and threaded hook members for retaining said arms in the head member.

[Claim 2 not printed in the Gazette.]

1,243,174. AUTOMATIC STOPPING DEVICE FOR TALKING-MACHINES. JAMES HINES, Glasgow, Scotland. Filed Aug. 1, 1916. Serial No. 112,556. (Cl. 74—46.)



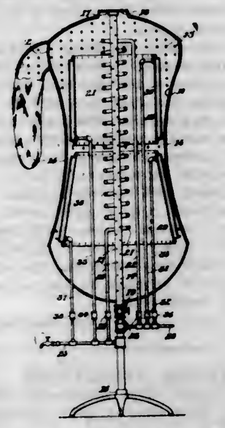
1. An automatic stopping device for talking machines comprising, in combination, an automatic spring actuated brake, means for restraining the action of the brake, a swinging arm pivotally and frictionally mounted by a pin and socket joint, means for retaining the pivot in the socket, a latch member on the arm adapted to remove the restraint from the brake on being struck by the sound box of the tone arm of the machine and a retracting spring for the latch member.

11. An automatic stopping device for talking machines of the disk-record type, comprising, in combination, an automatic spring actuated brake, means for restraining the action of the brake, an arm which can be moved by hand over the record to a stopping position, a socket on the machine case, a pivot on said arm which frictionally engages in said socket, means for retaining the pivot in the socket, means on the arm adapted to remove the restraint from the brake and allow it to act and means for actuating said last mentioned means.

12. An automatic stopping device for talking machines of the disk-record type, comprising, in combination, an automatic spring actuated brake, means for restraining the action of the brake, an arm which is movable by hand, over the record and has a pivot pin at its one end, a socket on the machine case in which said pivot pin works, a spring tending to hold the pivot pin in the socket, a latch member on the arm adapted to remove the restraint from the brake and allow it to act, a spring acting on said latch member to retract the same after movement and means for actuating the said latch member.

[Claims 2 to 10 not printed in the Gazette.]

1,243,175. GARMENT-STEAMING DEVICE. THEODOR HLUBUCEK, Cedar Rapids, Iowa. Filed Mar. 26, 1917. Serial No. 157,462. (Cl. 223—17.)



1. Heating mechanism for a garment steamer comprising a perforated steam feed pipe, a superheating coil surrounding the said pipe and steam radiators surround-

ing said pipe and coil arranged within the steamer adjacent the sides thereof.

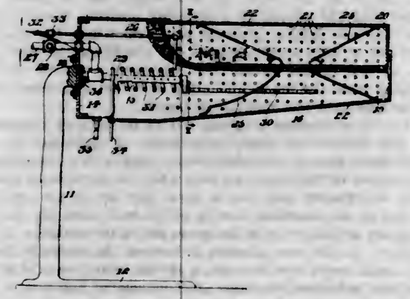
2. A garment steamer comprising a steam ejecting pipe, a superheater for the steam arranged adjacent the said pipe, and a steam radiator surrounding the said pipe and superheater.

3. A steamer comprising a perforated casing, a perforated steam dispensing pipe axially arranged within the casing, a superheating coil surrounding the said perforated pipe, radiators surrounding the coil, and independent steam inlet and outlet connections for the coil and radiator.

4. A steamer comprising a perforated casing, a perforated steam dispensing pipe axially arranged within the casing, superposed tubular radiators arranged within the casing adjacent the sides thereof, and surrounding the dispensing pipe, the lower one of said radiators being tapered substantially conforming to the shape of the adjacent sides of the casing, and separate steam inlet and outlet pipes for the said steam radiators.

[Claim 5 not printed in the Gazette.]

1,243,176. TROUSERS-STEAMER. THEODOR HLUBUCEK, Cedar Rapids, Iowa. Filed Mar. 26, 1917. Serial No. 157,463. (Cl. 223—17.)



1. A garment steamer comprising a casing, expansible perforated members for the casing, spring means for expanding the same, steam supplying means therefor, and steam drying means therefor.

2. A garment steamer comprising a casing of trouser form having expansible leg portions arranged with perforations, spring means for expanding the same, perforated pipes arranged within the device, and a steam drying coil carried by the said pipes.

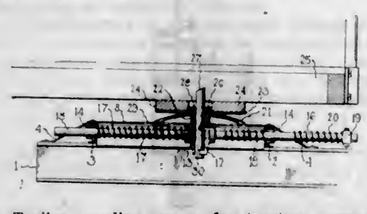
6. A garment steamer comprising a trouser-shaper casing having spring pressed expansible leg portions closed at the free ends thereof and provided with side perforations with inclined trough-shaped bottom, a drain pipe carried by the casing adjacent the lower ends of said bottoms, and steam supplying means within the casing.

7. A garment steamer comprising a trouser-shaped casing having expansible leg portions closed at the free ends thereof and provided with side perforations with inclined trough-shaped bottoms, a drain pipe carried by the casing adjacent the lower ends of said bottoms, steam supplying means within the casing, a steam drying coil within the casing, and flexible means connecting the sections of said leg portions together adapted for the prevention of the escape of steam therebetween.

[Claims 3 to 5 not printed in the Gazette.]

1,243,177. TRAILER ATTACHMENT. ARTHUR L. HOLMES, Jr., Detroit, Mich., assignor to May E. Holmes, Detroit, Mich. Filed June 16, 1917. Serial No. 175,078. (Cl. 21—137.)

1. Trailer coupling means for a tractor comprising a tractor plate, a member slidable on said plate, a trailer wear plate having a universal movement on said member, a king bolt extending through said wear plate, member and tractor plate, and means below said tractor plate adapted to resist longitudinal movement of said member on said tractor plate.

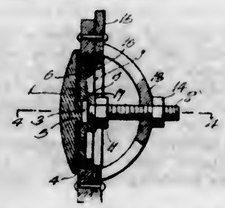


2. Trailer coupling means for tractors, comprising a tractor plate, a member slidable on said plate, a trailer wear plate fulcrumed on said member, a king bolt block below said tractor plate, a king bolt carried by said block and extending through said member and said wear plate, and means adapted to resist movement of said king bolt block relatively to said tractor plate.

3. The combination with a tractor, and a trailer, of means establishing driving yieldable connections between said tractor and trailer, comprising longitudinal frames on said tractor, a plate above said frames, a member slidable on said plate, a trailer wear plate fulcrumed on said member, a king bolt block slidable between said frames, a king bolt carried by said block extending through said member and said trailer wear plate, draw rods carried by said king bolt block, and springs on said draw rods adapted to resist longitudinal movement of said king bolt block relatively to said frames.

4. Trailer coupling means for tractors, comprising tractor transverse members, longitudinal members, connecting said transverse members, a plate on all of said members, a convexo-concave member slidable on said plate, a trailer wear plate fulcrumed on said convexo-concave member, a king bolt block slidable between said longitudinal members, a king bolt carried by said block extending through said convexo-concave member and said trailer wear plate, draw rods carried by said king bolt block, and extending through said tractor transverse member, and springs on said draw rods adapted to be successively brought into action during the pulling of said trailer by said tractor.

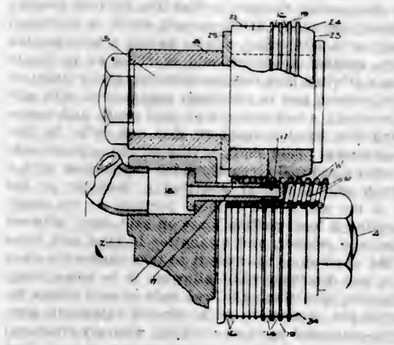
1,243,178. BOILER-MANHEAD. LEONARD HOUTS, Veedersburg, Ind. Filed Mar. 12, 1917. Serial No. 154,287. (Cl. 220—124.)



1. A device of the character described comprising a cover plate, a gasket on said plate, a squared laterally projecting lug on the plate, a bolt stem extending from said lug, a clamping plate for securing said gasket against the cover plate and provided with a socket to receive said lug to prevent rotation of the clamping member, a raised portion on the outer face of said clamping plate, surrounding said stem and having a flat face thereon, and a nut on said bolt to engage said flat face in clamping relation whereby to be disposed in laterally spaced relation over the cover plate.

[Claim 2 not printed in the Gazette.]

1,243,179. MANUFACTURE OF FLEXIBLE METAL TUBING. EDWARD JAMES, Cleveland, Ohio. Filed Oct. 10, 1910. Serial No. 586,157. (Cl. 153—64.)



1. The method of manufacturing a product of the character described, which consists in winding a coil with close convolutions; spreading the convolutions of a wound portion of the coil, while continuing the winding of the coil; and, simultaneously with such spreading, winding a second coil and interposing its convolutions between the spread convolutions of the first coil.

2. The method of manufacturing a product of the character described, which consists in winding a coil with close convolutions; spreading the convolutions of a wound portion of the coil, while continuing the winding of the coil; and, simultaneously with such spreading, winding an inner coil and interposing its convolutions between the spread convolutions of the outer coil.

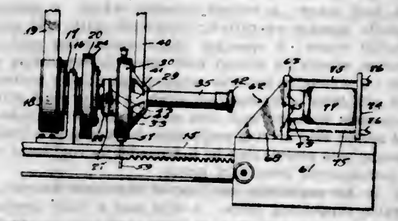
3. The method of manufacturing a product of the character described, which consists in winding a coil; and, while continuing the winding of the first coil, winding a second coil and forcing its convolutions into interposition between the convolutions of the first coil in the winding operation.

4. The method of manufacturing a product of the character described, which consists in preparatorily forming two coils on the ends of wires, with the convolutions of said coils interposed, and then rotating said interposed convolutions relatively to the wires so as to coil said wires and force the convolutions of one coil between those of the other as they are thus formed.

5. The method of manufacturing a product of the character described, which consists in preparatorily forming inner and outer coils on the ends of two wires, with the convolutions of said coils interposed, and then rotating said interposed convolutions relatively to the wires so as to coil said wires and force the convolutions of the inner between those of the outer coil as they are thus formed.

[Claim 6 not printed in the Gazette.]

1,243,180. GRINDER ATTACHMENT FOR LATHES. HANS T. JENSEN, Sheridan, Wyo. Filed Jan. 23, 1917. Serial No. 144,016. (Cl. 51—4.)



1. The combination with a coupling-block adapted to be secured to the rotatable element of a lathe, of a head connected with the coupling-block and having a portion which is substantially circular, means to radially adjust the head with respect to the coupling-block, a relatively nonrotatable housing pivotally receiving the substantially circular portion of the head and carrying a spindle tube, a spindle arranged within the spindle tube, bearing means arranged within the spindle tube and receiving the spindle, means to rotate the spindle upon its axis, and a grinder carried by the end of the spindle.

3. The combination with a coupling-block adapted to be secured to the rotatable element of a lathe, of a substantially circular head connected with the coupling-block, means to radially adjust the head with respect to the coupling-block, a housing provided at one end with a flange having a substantially annular recess to pivotally receive the substantially circular head whereby the housing is pivotally supported by the head, means for preventing the rotation of the housing, a spindle tube secured to the opposite end of the housing, a bearing arranged within the inner end of the spindle tube, a bearing arranged within the outer end of the spindle tube, a bearing formed within the central portion of the head, a spindle extending through the spindle tube and journaled within the bearings, means to rotate the spindle upon its axis, and a grinder secured to the spindle.

4. The combination with a coupling-block adapted to be secured to the rotatable element of the lathe and having a groove formed upon its outer face, of a substantially circular head provided upon one face with a tongue to enter the groove, means for holding the coupling-block and head together, a bracket secured to the coupling-block and provided with an opening, an adjusting screw carried by the bracket and having engagement within a screw-threaded opening formed in the coupling-block, a housing provided at one end with a flange having an annular recess to receive the head, an annular plate secured to the flange and retaining the head within the annular recess, means for preventing the housing from rotating, a spindle tube secured to the opposite end of the housing, a bearing carried by the head, a plurality of bearings arranged within the spindle tube, a spindle journaled within the bearings, means to drive the spindle, and a grinder carried by the spindle.

5. The combination with a lathe carriage, of a pair of brackets secured thereto and provided upon their upstanding portions with elongated slots, a clamping plate having a main central opening and provided upon one face with substantially horizontal grooves formed approximately T-shaped in cross-section, bolts arranged within the elongated slots and having their heads disposed within the substantially horizontal grooves, a coacting clamping plate, and adjustable means connecting the clamping plates.

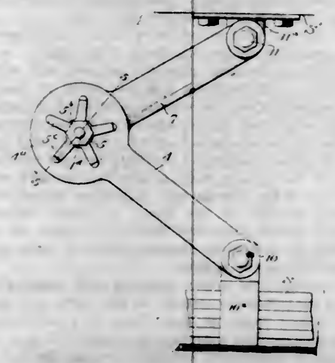
6. The combination with a lathe carriage, of a pair of brackets secured thereto and provided upon their upstanding portions with elongated slots, a clamping plate having a main opening and provided upon one face with substantially horizontal grooves formed approximately T-shaped in cross-section, bolts arranged within the elongated slots and having their heads disposed within the substantially horizontal grooves, substantially vertical rotatable rods connected with the ends of the clamping plate, a vertically movable supporting bar having screw-threaded engagement with the rods and arranged near the clamping plate, a coacting clamping plate, and adjustable means connecting the clamping plates.

[Claims 2 and 7 not printed in the Gazette.]

1,243,181. REACTION SHOCK-ABSORBER. HENRY B. KEIPER, Lancaster, Pa. Filed Jan. 5, 1914. Serial No. 810,393. (Cl. 21—105.)

1. A reaction shock absorber comprising a stub-shaft having an abutment, a lever fixedly connected with said shaft, a friction member rotatably mounted on said shaft adjacent said abutment, a friction disk between said lever and friction member, and means for frictionally binding said lever, disk member and abutment together on said shaft; with a second lever loosely pivoted on said shaft at

the side of the abutment opposite said friction member and out of contact with said abutment; means for holding said loose lever in axial position on the shaft without friction, clutch devices for locking said loose lever to said friction member only when said fixedly connected lever moves in one direction, thereby compelling said friction member to rotate in one direction only on the shaft, said clutch devices not interfering with the free return movement of said loose lever.



2. A reaction shock absorber comprising a pair of levers each pivoted at one end to one member of movable spring-connected parts of a vehicle, their other ends being supported about a common axis, one lever being fixed to rotate with said axis and the other loose thereon; said axis having a fixed annular abutment thereon intermediate its ends, a friction member loose on and adapted to revolve independently of said axis in frictional engagement with said abutment, a friction disk loose on said shaft beside said friction member in frictional contact therewith and frictionally engaging a friction surface on said fixed lever, and a clutch device at the other side of said friction member for locking the other lever thereto to cause them to rotate together in one direction only, whereby movement of the levers in one direction is unretarded while movement thereof in the opposite direction is opposed by frictional resistance between said friction member and said clutch member at one side and between said friction member and disk and the friction surface of the adjacent lever at the other side.

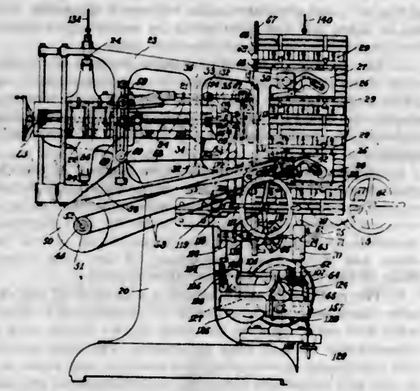
3. A shock absorber comprising a stub shaft having a fixed collar thereon, a pair of levers, one loose and adapted to swing freely on said shaft in one direction only and the other fixed on said shaft so as to revolve therewith; the free ends of said levers being adapted for connection with opposed relatively movable spring-connected parts of a vehicle, a rotatable friction member loose on said shaft in frictional contact with said fixed collar, a friction disk between said friction member and a frictional contact surface on said fixed lever, and means for holding said fixed lever, disk, friction member and abutment in frictional contact, a clutch member at the opposite side of said friction member, and means for locking said clutch member to said friction member so as to prevent movement of the loose lever in one direction only, the latter lever being adapted to move freely in the opposite direction.

4. In a shock absorber, the combination of a stub shaft, a pair of levers mounted thereon, one loose and the other fixed thereto so as to revolve therewith, a collar fixed on said shaft, a friction plate having an annular laterally projecting flange revolubly mounted on said shaft beside said collar, a friction disk between said friction plate and a frictional contact portion of said fixed lever, a clutch device on the opposite side of said friction plate consisting of a revoluble disk loose on said shaft and having a series of peripheral recesses providing cam surfaces underlying said flange on said friction plate, and spring-pressed anti-friction devices in said recesses adapted to engage said flange and lock the lever thereto when the lever is moved in one direction and to release the lever when moving in the opposite direction.

5. A reaction shock absorber comprising a stub-shaft having a fixed collar thereon, a disk-like friction member independently revolubly fitted on said shaft in frictional engagement with said collar, a lever having a head-portion or friction member keyed on said shaft so as to rotate therewith, a friction disk independently revolubly fitted on said shaft between and in frictional engagement with said friction members, a nut screwed on said shaft, and means for holding said friction members, disk and collar in frictional engagement; said shaft having on the opposite side of said collar a reduced screw threaded end-portion with a nut thereon and a washer abutting a shoulder at the junction of the major and reduced portions of the shaft, a lever having a head-portion loose on said shaft between said collar and washer, and means for locking said loose lever to the shaft so as to cause it to turn therewith when moving in one direction while allowing it to move freely in the opposite direction; the free ends of said levers being adapted for connection with opposed relatively movable spring-connected parts of a vehicle, whereby frictional resistance is exerted against the movement of said fixed lever either toward or from said loose lever and against movement of the loose lever in one direction only.

[Claims 6 and 7 not printed in the Gazette.]

1,243,182. ENGRAVING-MACHINE. JOSEPH F. KELLER and WILLIAM A. WARMAN, New York, N. Y., assignors to Keller Mechanical Engraving Company, New York, N. Y., a Corporation of New York. Filed Sept. 7, 1915. Serial No. 49,412. (Cl. 90—13.5.)



1. In an engraving machine of the class described, a suitable supporting frame; a slide and a table supported by said frame and movable transverse to one another; a swinging frame carried by said slide; a tracer and a cutter carried by said frame and adapted to engage a pattern and a die carried by said table; a feed screw for operating said slide; a sprocket wheel operatively connected with said feed screw; a second sprocket wheel; a manually operable member operatively connected with said second sprocket wheel; a sprocket chain connecting said two sprocket wheels; a second feed screw for operating said table; a manually operable member operatively connected with said table operating feed screw; a motor; and driving mechanism whereby said feed screws may be operated by said motor, said driving mechanism including two clutches whereby said screws may be independently connected with or disconnected from said motor.

2. In an engraving machine of the class described, a suitable supporting frame; a slide and a table supported by said frame and movable at right angles to one another; a swinging frame carried by said slide; a tracer and a cutter carried by said frame and adapted to engage a pattern and a die carried by said table; a feed screw operatively connected with said slide; a sprocket wheel carried by said feed screw; means for locking said sprocket wheel and screw together so that the screw may be driven by the wheel; a second sprocket wheel; a hand wheel; means whereby said second sprocket wheel may be operated by said hand wheel; a sprocket chain connecting said sprocket wheels; a second feed screw operatively connected with said table; a second hand wheel; means whereby said second feed screw may be operated by said second hand wheel; a motor operatively connected with said second feed screw through a clutch whereby said motor may be disconnected from said screw; and means operated by said motor for intermittently operating said first mentioned feed screw.

4. In an engraving machine of the class described, a suitable supporting frame; guides carried by said frame; a slide movable along said guides; means for moving said slide; a swinging frame carried by said slide; a tracer and a cutter carried by said frame and adapted to engage a pattern and a die; other guides arranged transversely to said first mentioned guides; a table made up of two parts movable along said last mentioned guides and which parts are adapted to support the pattern and the die aforesaid; and means for moving the two parts of said table simultaneously toward and from one another.

5. In an engraving machine of the class described, a suitable supporting frame; guides carried by said frame; a slide movable along said guides; a feed screw operatively connected with said slide; a swinging frame carried by said slide; a tracer and a cutter carried by said frame and adapted to engage a pattern and a die; other guides arranged at right angles to said first mentioned guides; a table made up of two parts movable along said last mentioned guides and which parts are adapted to support the pattern and the die aforesaid; a motor; means operated by said motor for imparting intermittent angular movement to said feed screw; and means operated by said motor for moving the two parts of said table simultaneously toward and from one another.

[Claims 6 to 30 not printed in the Gazette.]

1,243,183. GRAIN-CONTAINER FOR WAGON-BOXES. GEORGE KENSBOCK, Easton, Kans. Filed Jan. 22, 1917. Serial No. 143,598. (Cl. 21—7.)



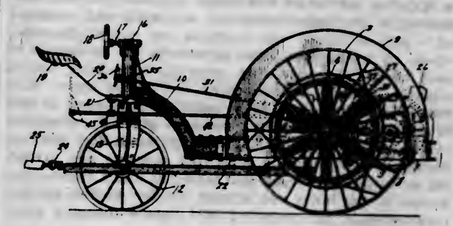
1. In a device of the character described, a flexible container adapted to fit within a wagon box, a spout at one end of said container adapted to fold against said end, spaced eyes on said spout, spaced eyes on the end of the container arranged so as to be received in the spaces between the spout eyes and in alinement therewith, and a pin adapted to be placed in said eyes to hold the spout in folded condition.

2. In a device of the character described, a flexible container adapted to fit within a wagon box, strips secured longitudinally to the upper and lower surfaces of the bottom of said container, and metallic wear strips secured to the first-mentioned uppermost strips.

3. In a device of the character described, a flexible container adapted to fit within a wagon box, and metallic wear and reinforcing strips secured to the bottom of the container and on the upper face of said bottom, said wear strips being arranged longitudinally of the bottom and formed to provide smooth faces on which a shovel may slide in removing grain from the container.

4. In a device of the character described, a flexible container adapted to fit within a wagon box, metallic wear and reinforcing strips secured to the bottom of the container and on the upper face of said bottom, said wear strips being arranged longitudinally of the bottom and formed to provide smooth faces on which a shovel may slide in removing grain from the container, and fabric strips alined with said wear strips and interposed between the latter and the container bottom and formed to prevent the edges of the wear strips from cutting the container bottom.

1,243,184. TRACTOR. ROBERT STANARD KINKEAD and PAUL BOYNTON FORD, Minneapolis, Minn., assignors to William Baer Ewing, Minneapolis, Minn. Filed Oct. 18, 1915. Serial No. 56,366. (Cl. 21—114.)



1. In a tractor, the combination with a frame, laterally spaced front traction wheels and a centrally located rear steering wheel, of a draw bar pivotally connected to said frame in front of said steering wheel and extending to a point at the rear of said steering wheel, and an engine on said frame having connections for driving said traction wheels.

2. In a tractor, the combination with a frame, laterally spaced front traction wheels and a centrally located rear steering wheel, of a draw bar pivotally connected to said frame in front of said steering wheel and extending to the rear of said steering wheel, an engine on said frame, and transmission mechanism including a differential gear connecting said engine to said traction wheels.

3. In a tractor, the combination with a frame, front traction wheels and a rear steering wheel, of a draw bar pivotally connected to said tractor frame forward of said steering wheel and having a rear portion movable directly in the rear of said steering wheel.

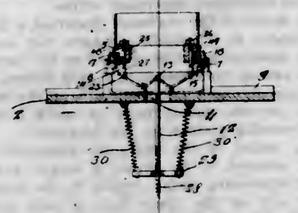
4. In a tractor, the combination with a frame, front traction wheels, and a rear steering wheel, of a yoke-like draw bar pivotally connected to said frame forward of said steering wheel and extending rearward on both sides of said steering wheel and having a transverse portion located at the rear of said steering wheel.

5. In a tractor, the combination with a frame, front traction wheels and a rear steering wheel, the latter being located on a line extending centrally between said traction wheels and having means for oscillating the same, of a yoke-like draw bar completely embracing said

rear steering wheel and pivotally connected to said frame at a point in front of said steering wheel and below the axes of said traction wheels.

[Claim 6 not printed in the Gazette.]

1,243,185. BASKET-HANDLING MACHINE. GEORGE KISTNER, Naples, N. Y. Filed Sept. 3, 1915. Serial No. 48,889. (Cl. 140—75.)



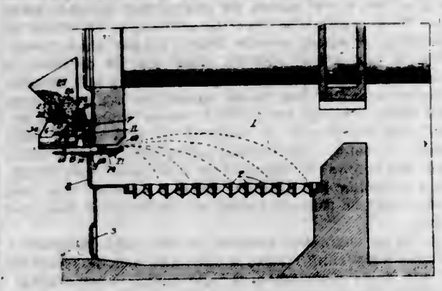
1. In a basket handling machine, a supporting frame, a table top carried by said frame, a basket receiving form carried by the upper surface of said table and composed of a pair of blocks, one overlying one end of the other block, an upstanding plate secured to the lowermost of said blocks and extending upwardly and being spaced slightly from the corresponding end of the upper block for receiving the edge of a basket therebetween, and means pivotally carried by said overlying block for engaging the ends of a basket handle or bail and forcing them through the sides of a basket.

2. In a basket handling machine, a supporting frame, a table top carried by said frame, a basket receiving form carried by the upper surface of said table and composed of a pair of blocks, one overlying one end of the other block, an upstanding plate secured to the lowermost of said blocks and extending upwardly and being spaced slightly from the corresponding end of the upper block for receiving the edge of a basket therebetween, a pair of basket handle engaging members pivotally supported by said overlying block, a vertically extending rod connected to said pivotally supported members and extending downwardly through said table top, and a treadle connected to the lower end of said rod for moving the rod longitudinally for operating said handle engaging members.

3. In a basket handling machine, a supporting frame, a table top carried by said frame, a basket receiving form carried by the upper surface of said table and composed of a pair of blocks, one overlying one end of the other block, an upstanding plate secured to the lowermost of said blocks and extending upwardly and being spaced slightly from the corresponding edge of the upper block for receiving the edge of a basket therebetween, a pair of basket-handle-engaging members pivotally supported by said overlying block, a vertically extending rod connected to said pivotally supported members and extending downwardly through said table top, a treadle connected to the lower end of said rod for moving the rod longitudinally for operating said handle engaging members, said overlying block being provided with cutout portions formed in the sides of the same and positioned in alinement with the handle engaging portions of said pivoted members, and metallic crimping plates positioned within said cutout portions.

1,243,186. AUTOMATIC FURNACE-STOKER. GEORGE A. KOHOUT, Chicago, Ill., assignor to Kersto Corporation, Chicago, Ill. Filed Feb. 25, 1916. Serial No. 80,358. (Cl. 110—114.)

1. An automatic stoker having a fuel reservoir, a charge receptacle, means for feeding fuel from said reservoir to said charge receptacle, means for discharging said fuel from said charge receptacle, a deflector in the path of the discharged fuel, means for supplying steam associated with said deflector, a drive shaft for controlling said two first aforesaid means, and means conjointly with said drive shaft to control said steam supply.



2. An automatic stoker comprising a centrally located casing, said casing having a feed controlling chamber and a discharge chamber, a measuring device in said feed controlling chamber, a piston in said discharge chamber, a sliding framework exteriorly of said casing associated with said piston, a power shaft to actuate said measuring device and said framework, rollers carried by said framework, guides carried by said casing within which said rollers operate to permit of a reciprocatory movement of said framework, a retractile spring for restoring said framework, and a percussion spring to take the recoil as this framework is being restored to its initial position.

3. An automatic stoker comprising a centrally located casing, said casing having a feed controlling chamber and a discharge chamber, a measuring device in said feed controlling chamber, a piston in said discharge chamber, a sliding framework exteriorly of said casing associated with said piston, a power shaft to actuate said measuring device and said framework, a cam interposed between said power shaft and said framework, rollers carried by said framework, guides carried by said casing within which said rollers operate to permit of a reciprocatory movement of said framework, a retractile spring for restoring said framework, and a percussion spring to take the recoil as this framework is being restored to its initial position.

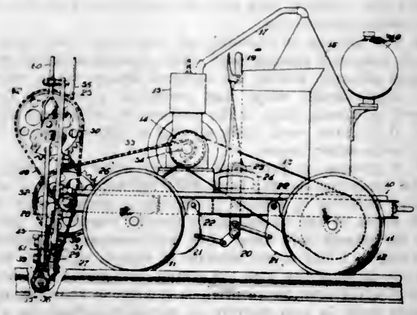
4. An automatic stoker comprising a centrally located casing, said casing having a feed controlling chamber and a discharge chamber, a measuring device in said feed controlling chamber, a piston in said discharge chamber, a sliding framework exteriorly of said casing associated with said piston, a power shaft to actuate said measuring device and said framework, a pair of pins on said framework, retractile springs associated with said pins, and a recoil spring associated with said framework.

5. An automatic stoker comprising a centrally located casing, said casing having a feed controlling chamber and a discharge chamber, a measuring device in said feed controlling chamber, a piston in said discharge chamber, a sliding framework exteriorly of said casing associated with said piston, a power shaft to actuate said measuring device and said framework, a cam interposed between said power shaft and said framework, a pair of pins on said framework, retractile springs associated with said pins, and a recoil spring associated with said framework.

[Claims 6 to 8 not printed in the Gazette.]

1,243,187. RAIL-DRILLING CAR. WALTER THEODORE KRAUSCH, La Grange, and ERNST F. WEBER, Chicago, Ill. Filed May 5, 1917. Serial No. 166,703. (Cl. 77—8.)

1. A car of the class described, provided with power-imparting means and comprising a movable frame, a rack-bar slidably mounted in the lower part of said frame, a drill-spindle rotatably mounted in said rack-bar, a feed-screw rotatably mounted in said frame, means intermediate of said feed-screw and said rack-bar whereby the latter is caused to travel when said feed-screw is rotated, and means intermediate of the power-imparting means, the drill-spindle and said feed-screw whereby rotation of the drill-spindle and feed-screw is induced.

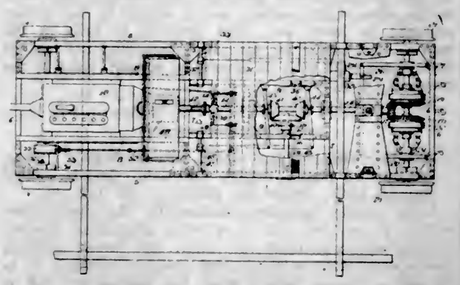


2. A car of the class described, provided with power-imparting means and comprising a horizontally swinging frame adapted to be swung into proximity with the rails, a drill-spindle rotatably and slidably mounted in the lower part of said frame, a rack-bar mounted on said drill-spindle so as to move longitudinally therewith and permit rotation of the drill-spindle, a member fulcrumed on said frame so as to oscillate and be in mesh with said rack-bar, means whereby said member is caused to oscillate and the rack-bar and drill-spindle moved longitudinally thereby, and means intermediate of the power-imparting means, the drill-spindle and the fulcrumed member whereby the drill-spindle and fulcrumed member are actuated at the desired speed.

12. A car of the class described, comprising a frame pivotally mounted at one end of the car so as to swing horizontally, a drill-spindle rotatably mounted in the lower end of said frame, said drill-spindle being provided with a drill-chuck at one end and with screw-threads at a point intermediate of its ends, a rack-bar mounted on the drill-spindle intermediate of the drill-chuck and the threaded portion thereof, means adapted to screw onto said threaded portion so as to maintain the rack-bar in position, anti-friction bearings intermediate of the rack-bar and the drill-chuck adapted to receive the end thrusts, means feathered on the drill-spindle whereby the latter is rotated and permitted to move longitudinally, and means meshing with the rack-bar whereby longitudinal movement of the latter with the drill-spindle may be induced.

[Claims 3 to 11 and 13 not printed in the Gazette.]

1,243,188. TRACK-LAYING CAR. WALTER T. KRAUSCH, La Grange, and ERNST F. WEBER, Chicago, Ill. Original application filed June 12, 1916, Serial No. 103,239. Divided and this application filed May 7, 1917. Serial No. 167,132. (Cl. 105—227.)

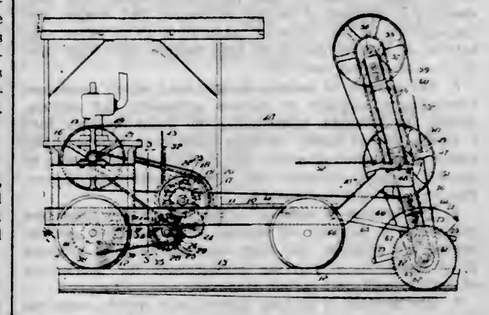


1. A car of the class described, provided with motive power, a power-shaft journaled in the car underframe and extending lengthwise thereof, said shaft being controlled by said motive power, a pair of gears loosely mounted on the car axle, a gear on the power-shaft arranged intermediate of said first mentioned gears and in constant mesh therewith, a pair of clutch mechanisms feathered on the car axle and adapted to have operative relation with the gears loosely mounted on said axle whereby operative relation between the car axle and said gears is effected, means common to both clutch mechanisms whereby one is moved into operative position while the other is moved out of operative position when said means are actuated, a counter-shaft mounted in the car underframe and disposed in a transverse direction, said counter-shaft being provided with a friction pulley or wheel, a pair of friction wheels or pulleys feathered on the power-shaft and adapted to have operative relation with the friction wheel on said counter-shaft, and means whereby the selective friction wheel or pulley, mounted on the power-shaft, is moved into operative relation with the friction wheel or pulley on said counter-shaft.

2. A car of the class described, provided with motive power whereby said car is propelled and the mechanism thereon operated, a power-shaft rotatably journaled in the car underframe and arranged to extend into proximity with the car axle, the axle being provided with a pair of gears loosely mounted thereon while the power-shaft is provided with a gear arranged intermediate of said pair of gears and in constant mesh therewith, clutch mechanisms feathered on said axle and adapted to have operative relation with the gears mounted on the axle whereby the selective gear is operatively connected with the axle and power transmitted thereto from the power-shaft in the desired direction, a counter-shaft for imparting power to the mechanism mounted on the car, power-transmitting means intermediate of the power-shaft and said counter-shaft, and means whereby selective portions of said last mentioned means are affected and power transmitted to the counter-shaft in the desired direction.

[Claim 3 not printed in the Gazette.]

1,243,189. TIE-SAWING CAR. WALTER T. KRAUSCH, La Grange, and ERNST F. WEBER, Chicago, Ill. Filed May 7, 1917. Serial No. 167,133. (Cl. 144—133.)



1. A tie-sawing car provided with a motor whereby the car may be propelled, the side sills of the car underframe being inclined upwardly beyond the end of the car, a power-shaft extending transversely of the car and rotatably mounted on said inclined portions of the side sills, controllable means for transmitting power from the motor to said shaft, a frame disposed transversely of the car and journaled intermediate of its ends on said power-shaft so as to swing vertically and thereby bring its lower end into proximity with the ties, a counter-shaft rotatably mounted in the upper end of said frame and in operative relation with said power-shaft, a second counter-shaft rotatably mounted in the lower end of said frame and adapted to extend across the rails, means intermediate of the last mentioned shafts whereby power is transmitted from the one at the upper end of the frame to the shaft at the lower end of the frame, a plurality of saws

arranged in pairs at the ends of said last mentioned shaft so as to be disposed on both sides of the rails, and adjustable means intermediate of said vertically swinging frame and the car whereby said frame will be held in its adjusted position relative to the ties.

2. A tie-sawing car provided with a motor whereby the car may be propelled, a power-shaft rotatably mounted and extending transversely of the end of the car, means for transmitting power from the motor to said shaft, a frame disposed transversely of the car and journaled intermediate of its ends on said power-shaft, said frame being adapted to swing vertically and depend beneath the car into proximity with the ties, adjustable means intermediate of said frame and the car whereby the frame will be held in its adjusted position relative to the ties, a counter-shaft rotatably mounted transversely in the upper end of said frame, controllable means intermediate of the power-shaft and said counter-shaft, whereby power is transmitted from the former to the latter, hangers adjustably secured to the lower end of said frame, means whereby the adjustment of said hangers lengthwise of the frame is obtained, a second counter-shaft rotatably mounted in said hangers and arranged to extend across the rails, means intermediate of the two counter-shafts whereby power is transmitted from the first mentioned counter-shaft to the second mentioned counter-shaft, and a plurality of saws arranged in pairs at the ends of the second counter-shaft and on opposite sides of the rails.

1,243,190. PROCESS OF MAKING BARIUM OXID. JOHN G. KREMERS, Milwaukee, Wis. Filed Dec. 6, 1915. Serial No. 65,226. (Cl. 23—13.)

1. The process of making barium oxid which comprises highly heating a suitable muffle chamber, introducing carbon into said chamber under such conditions as to create an atmosphere of carbon monoxid therein, then introducing into said chamber a mixture of barium carbonate and carbon, and continuing the heating to effect conversion of barium carbonate into barium oxid with production of carbon monoxid.

2. The process of making barium oxid which comprises first establishing an atmosphere of carbon monoxid in a heated muffle chamber, and then introducing into said chamber a mixture of barium carbonate and corbon, the temperature of the chamber being such as to effect conversion of barium carbonate into barium oxid with production of carbon monoxid.

3. The process of making barium oxid which comprises briqueting a mixture of barium carbonate and carbon, drying the briquets, introducing the dried briquets into a highly heated muffle chamber containing a substantial quantity of carbon monoxid, and continuing the heating to convert barium carbonate into barium oxid with production of more carbon monoxid.

4. The process of making barium oxid which comprises briqueting a mixture of barium carbonate and carbon, drying the briquets, and then heating the dried briquets in a muffle to a reacting temperature for production of barium oxid and carbon monoxid.

5. The process of making barium oxid which comprises drying a mixture of barium carbonate and carbon, and then heating the dried mixture in a muffle to effect conversion of barium carbonate into barium oxid with production of carbon monoxid.

[Claims 6 and 7 not printed in the Gazette.]

1,243,191. PURIFYING BOILER-WATER. HEINRICH KRIEGSHEIM, New York, N. Y., assignor to The Permutit Company, New York, N. Y., a Corporation of Delaware. Filed Aug. 18, 1917. Serial No. 186,894. (Cl. 210—1.)

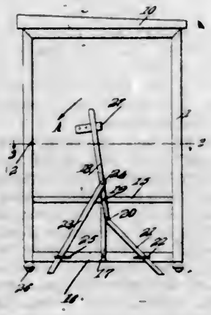
1. The process of providing oil free water for boilers which comprises passing hard water through a bed of exchange silicates, mixing the softened effluent water with oily condensation water and producing gelatinous hydrated oxides in the mixture to collect the oil.

2. The process of providing oil free water for boilers which comprises passing hard water through a bed of exchange silicates, mixing the softened effluent water with oily condensation water and producing gelatinous hydrated oxid in the mixture by addition of a salt of such oxid to the mixture, such oxid serving to collect the oil of the condensation water.

3. The process of providing oil free water for boilers which comprises passing hard water through a bed of exchange silicates, mixing the softened effluent water with oily condensation water and producing gelatinous hydrated aluminum oxids in the mixture by addition of sulfate of alumina, such oxids serving to collect the oil of the condensation water.

4. A process of providing oil free water for boilers, which comprises passing hard water through a bed of exchange silicates to replace the hardness giving bases of such water by the corresponding sodium compounds, mixing the effluent soft water with oily condensation water and adding a salt to the mixture of waters, such salt being one decomposing with the sodium carbonate contained in the softened water to produce gelatinous hydrated insoluble oxids in said mixture of waters to collect the oil of the condensation water so used.

1,243,192. BAKING-CABINET. JOHN LAWSON, Orange, Mass. Filed Feb. 8, 1917. Serial No. 147,480. (Cl. 45—16.)



1. In a device of the class described, a cabinet; a closure for the front of the cabinet; supports mounted within the cabinet; shelves mounted to slide on the supports toward and away from the front of the cabinet; casters carried by the lower end of the cabinet; and means mounted on the cabinet and under the control of an operator for raising the cabinet to cause the casters to clear the floor whereon the cabinet is supported, thereby preventing the cabinet from moving when the closure is manipulated and when the shelves are slid.

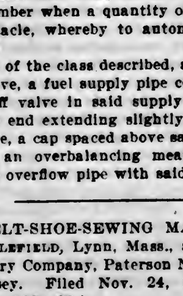
2. In a device of the class described, a cabinet; casters carried thereby; levers fulcrumed intermediate their ends on the sides of the cabinet; guides carried by the cabinet adjacent its lower end; legs mounted to slide in the guides; and means for pivotally connecting the legs at their upper ends with the levers, on opposite sides of the fulcrums of the levers.

[Claim 3 not printed in the Gazette.]

1,243,193. SEWING-MACHINE ATTACHMENT. JOHN LEASK, Cranbrook, British Columbia, Canada. Filed May 16, 1917. Serial No. 169,011. (Cl. 112—33.)

1. In sewing machine attachments, the combination with a presser-foot rod, of a collar adjustable thereon, cutting means adjacent the collar, and thread gripping means adapted to be moved into operative position so as to grip a thread tightly when the presser-foot rod is raised, said gripping means being connected to the collar so as to be adjusted thereby.

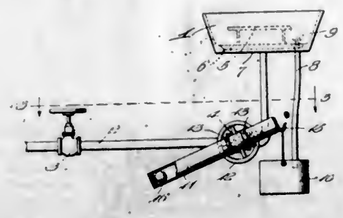
4. In sewing machine attachments, a collar adapted to fit onto a presser-foot rod of a sewing machine, a plate carried thereby and provided with thread cutting means, and a leaf spring secured at its lower end to said plate



and provided at its upper end with a ring adapted to fit about a presser-foot rod.

[Claims 2 and 3 not printed in the Gazette.]

1,243,194. OIL-BURNER. CURTIS C. LILLIBRIDGE, Hutchinson, Kans. Filed Feb. 8, 1917. Serial No. 147,422. (Cl. 158—36.)



1. The combination with a burner, a fuel supply pipe connected therewith, a cut off valve in said supply pipe, an arm fixedly secured to said valve, overbalancing means movable on said arm, and means carried by said arm for collecting any excess fluid delivered to the burner for shifting said overbalancing means from one end of the arm to the other to operate said valve.

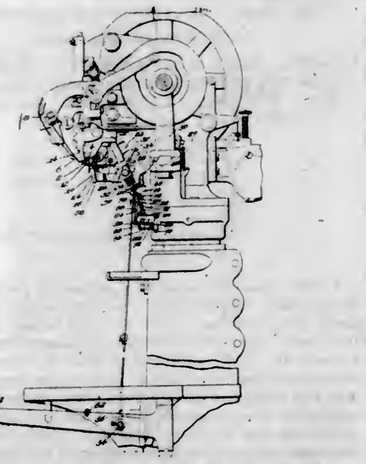
2. The combination with a burner, a fuel supply pipe connected therewith, a cut off valve in said supply pipe, an arm secured to the handle of said valve and comprising a cylindrical tubular member, an overbalancing ball movable to either end of said member, a hook on one end of said member, an overflow receptacle carried by said hook, an overflow pipe extending from said burner and into said receptacle, said ball being movable past the center of said tubular member when a quantity of liquid has flowed into said receptacle, whereby to automatically close the valve.

3. In a device of the class described, a burner having an annular oil groove, a fuel supply pipe connected with said burner, a cut off valve in said supply pipe, an overflow pipe having one end extending slightly above the bottom of said oil groove, a cap spaced above said end of the overflow pipe, and an overbalancing means connecting the other end of the overflow pipe with said cut off valve.

1,243,195. WELT-SHOE-SEWING MACHINE. AUGUSTINE F. LITTLEFIELD, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson N. J., a Corporation of New Jersey. Filed Nov. 24, 1916. Serial No. 133,200. (Cl. 112—20.)

1. A welt shoe sewing machine, having, in combination, stitch forming mechanism, and mechanism for cutting a predetermined number of slashes in the welt during the sewing.

2. A welt shoe sewing machine, having, in combination, stitch forming mechanism, and welt slashing mechanism operating to make only a predetermined number of cuts in the welt when thrown into operation.



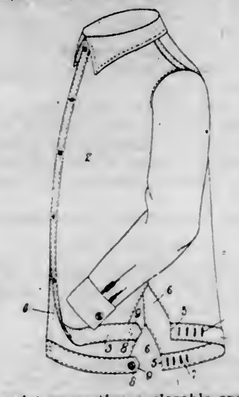
3. A welt shoe sewing machine, having, in combination, stitch forming mechanism, welt slashing mechanism, means under the control of the operator for throwing the welt slashing mechanism into operation, and mechanism for automatically discontinuing the operation of said slashing mechanism.

4. A welt shoe sewing machine, having, in combination, stitch forming mechanism, welt slashing mechanism, means under the control of the operator for throwing the welt slashing mechanism into and retaining it in operation, and timing mechanism rendered active in throwing in the slashing mechanism for automatically discontinuing the operation of the slashing mechanism.

5. A welt shoe sewing machine, having, in combination, stitch forming mechanism, welt slashing mechanism, means under control of the operator for throwing the welt slashing mechanism into operation, latching means for retaining it in operation, and a timing mechanism for automatically disengaging said latching mechanism.

[Claim 6 not printed in the Gazette.]

1,243,196. SHIRT-WAIST. ARCHIBALD JOHN MCBRIDE, Montreal, Quebec, Canada. Filed Sept. 25, 1916. Serial No. 122,146. (Cl. 2—98.)



1. A shirt waist presenting a closable opening and having an additional opening or split therein extending upwardly from the bottom of the waist, a band upon the waist and having ends at opposite edges of the upwardly

extending split and adjustable fastening means upon the band for fastening together the ends of the latter which are at opposite sides of the split.

[Claims 2 and 3 not printed in the Gazette.]

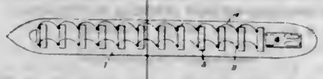
1,243,197. AUXILIARY HYDRAULIC STEERING DEVICE FOR VESSELS. ALEXANDER MCDOUGALL, Duluth, Minn. Filed Sept. 25, 1916. Serial No. 121,977. (Cl. 114—151.)



1. The combination with a navigable vessel having a ballast pump therein, of a pipe communicating with said pump and extending to the forward ballast tank within the vessel, means for opening or closing communication between the pipe and forward tank, a transversely disposed pipe connected to the end of the first mentioned pipe and extending through both sides of the bow, a valve controlling the connection between the two branches above mentioned and said first mentioned pipe, and means for operating the valve in such manner as to direct the water to either side of the bow desired, as and for the purpose desired.

2. The combination with a navigable vessel having a ballast pump therein, of a pipe communicating with said pump and extending to the forward ballast tank within the vessel, means for opening or closing communication between the pipe and forward tank, a transversely disclosed pipe connected to the end of the first mentioned pipe and extending through both sides of the bow, means for controlling the discharge through the transverse pipe in such a manner as to direct the water to either side of the bow desired.

1,243,198. JURY-RIGGED SAIL FOR SHIPS. ALEXANDER MCDOUGALL, Duluth, Minn. Filed Oct. 26, 1916. Serial No. 127,907. (Cl. 114—89.)



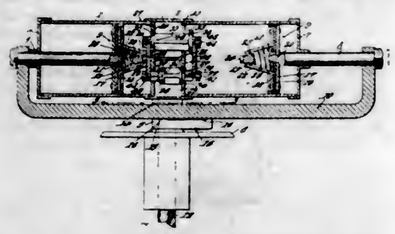
2. The combination with a ship, of a plurality of portable mast sockets, masts having their bases tapered to snugly fit within the sockets, means to prevent the masts revolving in the sockets, and leg of mutton sails securely lashed to the masts in such a manner as to be shortened by winding the sails about the mast, substantially as and for the purpose set forth.

3. The combination with a flush decked vessel having low flat hatches, of mast sockets designed to overlap and be temporarily fitted to opposite corners athwartships of each hatch, portable masts having leg of mutton sails tightly lashed thereto and designed to be wholly supported by the sockets.

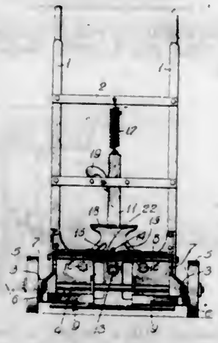
[Claims 1 and 4 not printed in the Gazette.]

1,243,199. WATER-MOTOR. ANDREW F. MILLER, Columbus, Ohio, assignor to Erwin R. Jones, Columbus, Ohio. Filed Feb. 8, 1916. Serial No. 76,976. (Cl. 138—2.)

In a fluid motor, a cylinder, inlet and outlet valves and a rigid connection between them, a piston having a rigid extension with an aperture therein, a spring in the extension and a plunger extending through the aperture and held against the spring whereby in a forward movement of the piston the spring pressed plunger first comes against the valve connection and if the valves fail to respond, a further movement of the piston will force the rigid extension against said connection, thus preventing excessive compression of the spring.



1,243,200. TRUCK. FRANK A. MOORE, Wyandotte, Mich. Filed Oct. 7, 1914. Serial No. 865,416. (Cl. 21—121.)



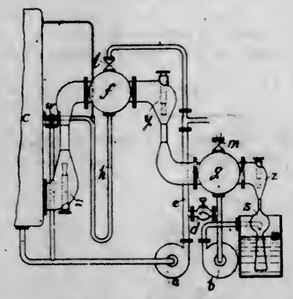
1. A lifting truck comprising a main frame supported at the lower end on bearing wheels, a guide member on the lower portion thereof, a pair of forwardly extending jaws in sliding engagement with the guide member, and means longitudinally movable on the frame adjustably interlocked therewith and adapted to expand and contract the jaws, the jaws being adapted to engage an article at a point outside the center of the mass when the frame is tilted backward.

2. A lifting truck comprising a main frame, bearing wheels supporting the lower end portion thereof, a guide member secured across the lower end portion of the front face of the frame, a pair of forwardly extending jaws in sliding engagement with the guide member, a member longitudinally movable on the frame adapted to expand and to contract the jaws when shifted on the frame and means for locking the longitudinally movable member in adjusted position, the jaws being adapted to first engage the lower end portion of a body against which the truck is run on the opposite side of the center of mass thereof when the frame is tilted backwardly.

3. A lifting truck comprising a main frame, bearing wheels supporting the lower end portion thereof, a guide member secured across the lower end portion of the front face of the frame, a pair of forwardly extending jaws in sliding engagement with the guide member, a member longitudinally movable on the frame adapted to expand and contract the jaws when shifted on the frame, means for locking the longitudinally movable member in projected position, and means for yieldingly retracting the longitudinally movable member when the latter is released.

4. A lifting truck comprising a main frame, a pair of bearing wheels supporting the lower end portion thereof, jaw guiding means secured across the lower end portion of the frame, a pair of oppositely disposed jaws in sliding engagement with the guiding means extending forwardly from the main frame, a member reciprocable longitudinally of the main frame engaging the jaws and contracting them when projected and separating them when retracted, means for locking the member in projected position, and means for yieldingly retracting the member when released from the locking means, the jaws being shaped to conform substantially with a given article and to embrace the lower portion thereof and being adapted to engage such article when the truck is run against it with the frame in substantially upright position on the opposite side of the center of mass of the article from the truck when the frame is tilted backwardly.

1,243,201. STEAM-CONDENSING PLANT. DONALD BARNS MORISON, Hartlepool, England. Filed Dec. 12, 1916. Serial No. 136,536. (Cl. 103—79.)



1. Steam condensing plant comprising a main condenser, an auxiliary condenser, a pump which withdraws water from the main condenser, a pipe leading to said auxiliary condenser from the discharge system of said pump, and a suitable water resisting or head producing device so arranged in the water discharge system as to cause a preferential supply of water to said auxiliary condensers.

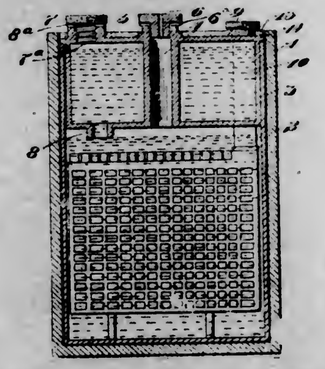
3. Steam condensing plant comprising a main condenser, an auxiliary condenser through which air withdrawn from the main condenser is discharged, a pump which withdraws water from the main condenser, a suitable water resisting or head producing device placed on the discharge side of said pump and a pipe leading to said auxiliary condenser from the connection between said pump and said device.

8. Steam condensing plant comprising a main condenser, a plurality of auxiliary condensers, a pump which withdraws water from the main condenser, a loaded valve placed on the discharge side of said pump, and a pipe leading to said auxiliary condensers from the connection between said pump and said loaded valve.

26. Steam condensing plant comprising a main condenser, a steam operated ejector for withdrawing aerated vapor from the main condenser, an auxiliary condenser into which the air and steam from said ejector are discharged, a second steam operated ejector for withdrawing aerated vapor from said auxiliary condenser, a second auxiliary condenser into which said second ejector discharges, means for discharging aerated vapor from said second auxiliary condenser to the atmosphere, a two-stage pump which withdraws water from the main condenser, a loaded valve placed between the two stages of said pump, a pipe supplying condensing water to said auxiliary condensers from the discharge from the first stage of said pump, a pipe through which water is discharged from the auxiliary condenser under lowest absolute pressure into the main condenser and into the suction of the first stage of said pump, and a pipe through which water is discharged from the other auxiliary condenser under a higher absolute pressure into the suction of the second stage of said pump.

[Claims 2, 4 to 7, and 9 to 25 not printed in the Gazette.]

1,243,202. STORAGE BATTERY. WILLIAM H. MUZZY, Dayton, Ohio. Filed Feb. 26, 1916. Serial No. 80,619. (Cl. 204—53.)



1. In a storage battery the combination with a battery jar and battery elements, of a water tank completely sealing the upper end of the jar and formed with a discharge opening and a filling opening, a stopper for the filling opening, a vent tube for the battery jar and means for closing the tube.

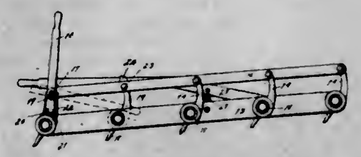
2. In a storage battery the combination with a battery jar and battery elements of less height than the jar, of a sealed stationary water tank located within and completely sealing the upper end of the jar and formed with a discharge opening, a filling opening and a vent tube, a sealing stopper for the filling opening, and means for closing the tube.

3. In a storage battery the combination with a battery proper, of a sealed water tank mounted therein and completely sealing the battery, and having a vent passage, a filling opening, and a discharge opening, and stoppers for the vent passage and filling opening for sealing them.

4. In a storage battery the combination with an outer containing case of a battery jar and battery elements, a water tank completely closing the upper end of the jar, and formed with a discharge and a filling opening, a stopper for the filling opening, sealing material over the top of the water tank but within the outer case, and a vent for the battery with means for opening and closing the vent.

5. In a storage battery the combination with a sealed battery jar having battery elements, of an air vent for the jar arranged to be sealed and unsealed at will, a water tank having sealed connection with the jar and formed with a discharge opening and a filling opening, and a device for sealing the filling opening, the construction being such that only a limited amount of water may pass into the jar during the filling operation.

1,243,203. HARROW. ALFRED A. NELSON and WALTER NELSON, Atlantic, Iowa. Filed June 5, 1916. Serial No. 101,746. (Cl. 55—103.)



1. A harrow comprising end members, spaced transverse members rotatably mounted with relation thereto, teeth mounted on said transverse members, upwardly extending arms on said transverse members, a connecting bar pivoted to the upper ends of said arms, a lever having

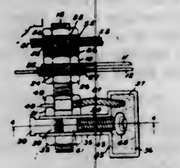
an elongated slot near one end, a pin on one of said arms received in said slot, an extension on the short end of said lever, said last described arm being provided with a slot for receiving said extension in one position of said lever, the parts being so constructed that said lever may be dropped downwardly adjacent to said transverse members, or may be raised and moved longitudinally to position with said extension received in the slot in said last described arm.

2. A harrow comprising end members, spaced transverse members rotatably mounted with relation thereto, teeth mounted on said transverse members, upwardly extending arms on said transverse member, a connecting bar pivoted to the upper ends of said arms, a lever having an elongated slot near one end, a pin on one of said arms received in said slot, an extension on the short end of said lever, said last described arm being provided with a slot for receiving said extension in one position of said lever, the parts being so constructed that said lever may be dropped downwardly adjacent to said transverse members, or may be raised and moved longitudinally to position with said extension received in the slot in said last described arm, and a locking lever for preventing a movement of said arms in one direction.

5. A harrow comprising end members, spaced transverse members rotatably mounted with relation thereto, teeth mounted on said transverse members, a connecting bar pivoted to the upper ends of said arms, a lever having an elongated slot near one end, a pin on one of said arms received in said slot, an extension on the short end of said lever, said last described arm being provided with a slot for receiving said extension in one position of said lever, the parts being so constructed that said lever may be dropped downwardly adjacent to said transverse member, or may be raised and moved longitudinally to position with said extension received in the slot in said last described arm, a locking lever for preventing a movement of said arms in one direction, and permitting movement of said arms in the opposite direction, said lever being pivoted to one of said transverse members, and having a plurality of notches, said device including a means adapted to be selectively received in said notches, and means for yieldingly holding said locking lever in operative position, said locking lever being capable of lateral movement for clearing the means which enters said notches.

[Claims 3 and 4 not printed in the Gazette.]

1,243,204. CURRENT-COLLECTING DEVICE. LOUIS C. NICHOLS, Norwood, Ohio, assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis., a Corporation of Delaware. Filed May 15, 1914. Serial No. 838,885. (Cl. 200—24.)



2. In a dynamo-electric machine, a casing provided with spaced openings, rods passing through said openings and insulated from said casing, means for mechanically connecting said rods in position, brush-holders mounted on said rods, brushes in said brush-holders and electrically connected to said rods, and means for electrically connecting alternate rods, said means comprising a plurality of spaced and insulated conducting elements provided with alined openings through which said rods pass.

3. In combination, a brush-holder, a brush movable relatively to a portion thereof and guided thereby, and means secured in operative relation to said holder for resiliently urging said brush to operative position, said means comprising a helical spring fixed at one end and extending with its axis at an angle to the direction of movement of said brush, the other end of said spring being movable in a direction at right angles to the axis of said spring when in normal and unbiased condition and bearing upon the brush, the spring being flexed from normal position when said spring and brush are in normal operative relation.

8. In combination, a brush-holder comprising a plurality of spaced arms and a brush-receiving portion carried thereby, a member mounted between and adjustably held in position through the frictional engagement thereof by said arms, a helical spring secured at one end to said member, and an insulating member fixed to the other end of said spring and bearing on said brush.

9. In combination, a brush-holder, a brush movably mounted thereon, means for resiliently urging said brush to operative position, said means comprising a helical spring fixed at one end, the other end thereof being movable, and the free end of the wire forming said spring being tapered, and a washer secured to said free end of the spring by means of a screw passing through said washer and in threaded engagement with the tapered end portion of the spring, said washer bearing at its edge on said brush.

[Claims 1, 4 to 7, 10, and 11 not printed in the Gazette.]

1,243,205. SPARK-PLUG. JOSEPH T. NORMAN, Nanticoke, Pa. Filed Feb. 2, 1915. Serial No. 5,717. (Cl. 123—169.)



1. In a spark plug, an outer shell having a wrench receiving upper end, and a threaded section to enter the spark plug opening of an engine, an inner electrode, said inner electrode comprising a threaded rod extending above said shell, a heat resisting insulating filler within said shell, and embedding a portion of said rod to retain said shell and rod in permanent relationship, said shell and said rod projecting beneath said filler, a pin carried by said shell to coöperate with the lower sparking end of said rod to form the spark gap, and a screen inclosing said pin and said inner electrode end at the spark gap to protect the same.

2. A spark plug comprising a shell adapted to be threaded into the spark plug opening of an engine, a pin carried by said shell, an inner electrode comprising a threaded rod entering said shell and projecting upwardly from the same, a filler of heat resisting electrically insulating material within said shell around said inner electrode, a heat insulating extension on said inner electrode in engagement with the upper end of said shell, a threaded cap on said inner electrode to retain said heat insulating extension in place, a milled nut on said inner electrode to coöperate with said cap for securing a circuit wire to the same, a screen cup secured on said shell over the "sparking points" to protect the same from fouling, and a threaded sleeve surrounding said inner electrode and in threaded engagement with the same and embedded in said heat resisting insulating filling.

1,243,206. COMBINED BATH ROBE AND TOWEL. JOSEPH T. NORMAN, Nanticoke, Pa. Filed Feb. 20, 1917. Serial No. 149,807. (Cl. 2—86.)

1. A robe-towel having sleeves, the ends of which are formed with pocket like extensions adapted for receiving the hands of the user and for serving as rubbing portions, said sleeve where it joins with said pocket portion being open to expose the back of the hand whereby that portion adjacent to the palm and wrist will be of unbroken material.



2. A robe-towel having hand holds at the back, whereby the back portions may be readily manipulated as rubbing members for drying off the back of the user.

5. As a new article, a bath robe-towel consisting of a robe of bath towel material, the said robe including sleeves having loop like extensions that form pockets for the hands and which serve as rubbers, a hood member having portions for extending under the cheeks and chin of the user and loops attached to the back of the robe and adapted for being grasped by the user when the hands are extended through the sleeves of the robe and for utilizing the back portion of the robe as a towel.

[Claims 3 and 4 not printed in the Gazette.]

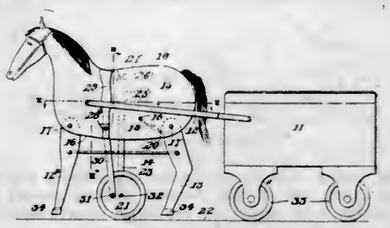
1,243,207. DRUM. MICHAEL J. O'CONNOR, Bismarck, N. D. Filed Apr. 19, 1915. Serial No. 22,433. (Cl. 84—10.)



As an improved article of manufacture, a detachable sounding head for drums constructed from a single metal sheet having its outer edge bent to provide an integral annular flange thereon extending in parallel relation to the axis of the head for engagement by clamping means on a drum body, said metal drum head being further provided inwardly of the flange and immediately contiguous thereto with an annular groove to receive one end of the drum body.

1,243,208. TOY DRAFT-ANIMAL. WALDYSLAW OJCZYK, Cleveland, Ohio. Filed Apr. 12, 1917. Serial No. 161,497. (Cl. 46—45.)

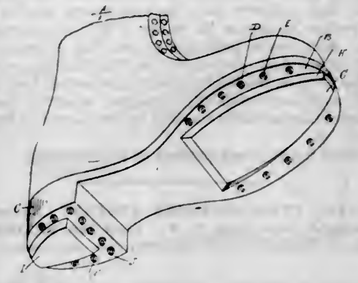
1. A toy comprising a cart, shafts carried thereby, an animal form of body pivoted to said shafts, pairs of legs pivoted to the said body, a link member pivotally connected to a leg of each pair, normally positioning springs for the said legs, a mounting wheel carried by the said body, and means connected with the wheel and body for imparting oscillating movement to the body as the wheel is rotated and causing the lower ends of the legs to engage the ground.



4. A toy comprising a cart, shafts carried thereby, a hollow horse shaped body open at the bottom thereof pivoted to said shafts, a supporting wheel therefor, legs pivoted to said body, a casing pivoted centrally within and to the top of said body a post having its upper end resiliently slidably mounted within the said casing and with its lower end centrally journaled to said supporting wheel, and a link pivoted at its upper end within said body and having its lower end eccentrically pivoted to the wheel to cause the legs to engage the ground.

[Claims 2 and 3 not printed in the Gazette.]

1,243,209. GOLF-SHOE. WILLIAM PARK, New York, N. Y. Filed Dec. 2, 1916. Serial No. 134,551. (Cl. 36—59.)



1. A golf-shoe, comprising a series of studs extending longitudinally of the sole at one side thereof, said studs being independently and separately secured thereto and projecting downwardly therefrom, and a guard-strip of a thickness as great as the projection of the studs extend-substantially parallel thereto, said guard-strip being nearer the center of the sole.

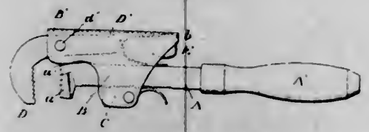
2. A golf-shoe, comprising a series of studs extending longitudinally of the sole at one side thereof, said studs being indepedently and separately secured thereto and depending therefrom, and a guard strip of a thickness equal to the length of the depending portions of the studs, said guard strip extending parallel and adjacent thereto nearer the center of the sole and being provided with a beveled edge.

[Claims 3 to 5 not printed in the Gazette.]

1,243,210. WRENCH. GEORGE A. PARMENTER, Boston, Mass., assignor to Parmenter Manufacturing Company, Boston, Mass., a Corporation of Massachusetts. Filed Sept. 28, 1916. Serial No. 122,703. (Cl. 81—110.)

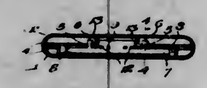
A pipe and nut wrench comprising a main shank and handle, said shank having a terminal gripping face, a casing slidably embracing the shank, said casing and shank having on one side of the shank interengaging locking parts, a jaw member having a shank pivoted within the

forward portion of the casing, said casing having a projecting lip at its rear end, and a spring of substantially loop form within the casing and confined in place between the rear end of the shank of the movable jaw and said lip



on the casing, said spring having overlapping portions spaced apart, one of said portions bearing against the back of the main shank and the other being adapted to act as a stop to limit the first named portion.

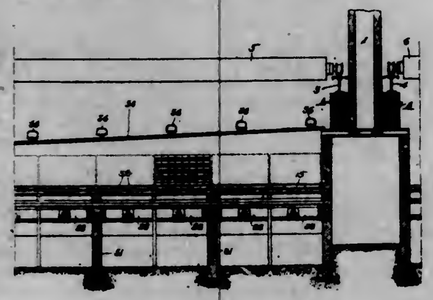
1,243,211. **RECEPTACLE.** JAMES E. P. PENDER, Providence, R. I., assignor to Gorham Manufacturing Company, Providence, R. I., a Corporation of Rhode Island. Filed Mar. 20, 1917. Serial No. 156,184. (Cl. 220—10.)



1. In a receptacle, a body section, a cover section hinged thereto, said sections having border flanges and provided in their meeting edges with opposing pockets, the border flange of the body section extending into the respective pocket from opposite sides, locking means carried by the body section to engage the flange of the cover section as a keeper, said means including a push bar disposed in the pocket of the body section and having its sides grooved to slidably receive the border flange extensions, that portion of the push bar outwardly from the retaining flange extensions being guidably received by the pocket of the cover section.

[Claims 2 and 3 not printed in the Gazette.]

1,243,212. **OPEN-TOP-DRIER SYSTEM.** RAYMOND C. PENFIELD, New York, N. Y. Filed Jan. 29, 1914. Serial No. 815,166. (Cl. 34—19.)

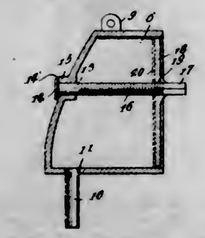


2. An open top drier of the kind described, comprising a housing having a plurality of longitudinal passageways separated by walls, adapted to receive drying air currents, a plurality of transverse brick holding passages over said channels, a source of forced draft supply to the longitudinal channels, a plurality of dampers from the said channels to the transverse stack receiving portions and means to regulate a plurality of said dampers on the outside of the drier, whereby said forced draft supplied to each brick receiving chamber may be variously regulated.

3. An open top drier of the kind described, comprising a housing having a plurality of longitudinal passageways separated by walls, adapted to receive drying air currents, a plurality of transverse brick holding passages over said channels, a source of forced draft supply to the longitudinal channels, a plurality of dampers from the said channels to the transverse stack receiving portions and means to regulate a plurality of said dampers on the outside of the drier, whereby said forced draft supplied to each brick receiving chamber may be variously regulated, and a removable top for said drier, whereby unit stacks of brick may be lowered into the same.

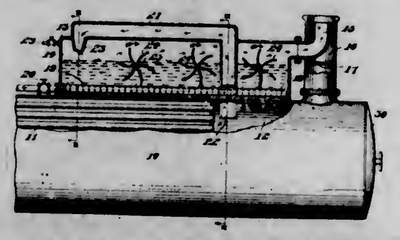
[Claims 1 and 4 not printed in the Gazette.]

1,243,213. **LUBRICATING DEVICE.** FRANK M. PERKINS, Monticello, Minn. Filed Jan. 8, 1916. Serial No. 71,075. (Cl. 64—26.)



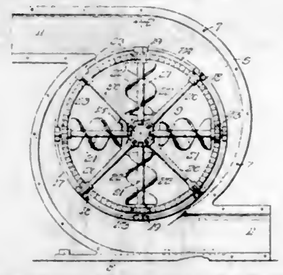
The combination with an axle and a wheel including a hub and spokes; of a lubricant container having one end open, means for fastening the container between adjacent spokes, a conductor leading from the container through the hub to a point of discharge in proximity to the axle, a plate mounted in the open end of the container adapted for movement in the container, and a bolt rotatably carried by the container and having a head disposed exteriorly of the container and a threaded shank extending interiorly of the container and in screw threaded engagement with the plate, said bolt having a tool receiving terminal extending beyond the container whereby the bolt may be rotated to cause the plate to force lubricant through the conductor to the axle skein.

1,243,214. **SMOKE-CONSUMER FOR LOCOMOTIVES.** NYKOLA PETRYK, Philadelphia, Pa. Filed Jan. 6, 1917. Serial No. 140,879. (Cl. 110—119.)



A smoke washer comprising in combination with a locomotive, having a smoke stack cut off from communication therewith, a housing having a washing chamber therein, a flue for the products of combustion extending into the washing chamber adjacent one end thereof, the inlet end of said flue being bifurcated and extending into the locomotive smoke-box, fluid agitating paddles revolubly mounted within the washing chamber, an outlet pipe at the opposite end of the chamber from the entrance end of said flue, the bottom of said housing being inclined downwardly toward the center, a perforated pipe arranged centrally within said chamber and straddled by said bifurcated flue, a normally closed controlling valve in the perforated pipe exteriorly of the housing, a fluid inlet pipe tapped into said housing, and connection between said washer and the outlet of the smoke stack.

1,243,215. **ROTARY PUMP.** SAMUEL N. POND, Chicago, Ill. Filed June 23, 1917. Serial No. 176,470. (Cl. 253—187.)

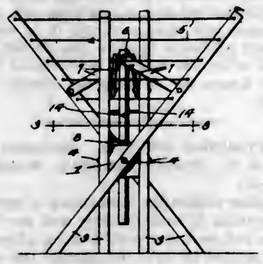


1. In a rotary pump, the combination with a pump casing having an axial intake and a peripheral discharge, of a rotor journaled to rotate in said casing and provided with radial vanes, each of spiral or screw form and capable of rotation on its own axis, and means for imparting individual rotation to said vanes simultaneously with the rotation of said rotor about its own axis.

3. In a rotary pump, the combination with a pump casing of snail-shell form having an axial intake and a tangential peripheral discharge, of a rotor journaled to rotate in said casing, radial spindles journaled at their ends in the hub and rim of said rotor, spiral blades rigid with and encircling said spindles, a stationary ring gear on the inner side of one side wall of said casing, and gears fast on said spindles engaging said ring gear to impart individual rotation to said spindles and their spiral blades simultaneously with the rotation of said rotor about its own axis.

[Claim 2 not printed in the Gazette.]

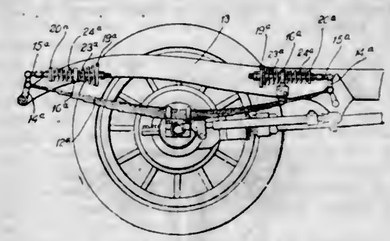
1,243,216. **CLOTHES-RACK.** JAMES W. PRICE, Champaign, Ill. Filed Feb. 1, 1917. Serial No. 145,927. (Cl. 68—34.)



A rack of the class described comprising a polysided block having a vertical bore formed therethrough, a plurality of straight one-piece legs fulcrumed between their ends to the flat vertical sides of said block, clothes lines supported between the upper portions of said legs, a vertical rod slidable through said bore, inclined links pivoted at their upper ends to the upper end of said rod and at their lower ends to the upper portions of said legs, a plate overlying the aforesaid block and having a circular opening through which the rod passes, one end of said plate constituting a finger piece for either canting it or moving it to a horizontal position while the other end of said plate is formed wih a slot, and a fastener pasing loosely through said slot and into said block for pivotally and slidably connecting said plate thereto.

1,243,217. **RUNNING-GEAR FOR AUTOMOBILES AND OTHER VEHICLES.** WINFIELD SCOTT PROSKEY, Reno, Nev. Filed Apr. 24, 1915. Serial No. 23,553. (Cl. 267—19.)

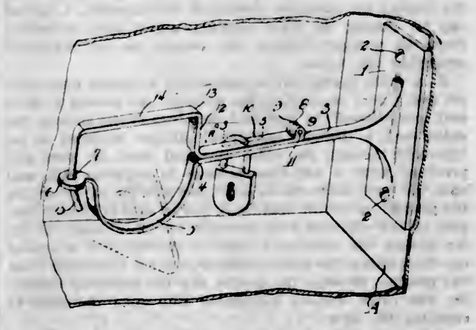
1. The combination with a vehicle body, an axle, and a pair of arms extending forwardly and rearwardly from the axle and adapted to swing vertically, of a pair of oppositely acting horizontal springs connected to the vehicle body and to the outer end of one of said arms, one of said springs being compressed by outward movement of the end of the arm and being of a differential type, whereby its tension increases faster than its compression.



3. The combination with a vehicle body, an axle, and a leaf spring, of a horizontally acting auxiliary spring connected to the body and to one end of the leaf spring to be tensioned as the latter flexes downwardly and having its tension increasing faster than its compression.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,243,218. **LAP-ROBE LOCK.** DANIEL PROWANT, Continental, Ohio. Filed Feb. 8, 1916. Serial No. 77,086. (Cl. 21—81.)

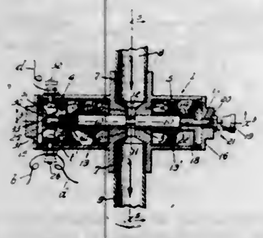


1. A lap robe lock comprising a support having a stationary arm projecting at right angles therefrom, the said arm including a straight portion having a hinge element provided midway between its ends, its outer terminal being bent to form a loop of semi-circular formation, a circular flange formed on the extreme end of the loop and disposed in the same plane as the said supporting arm and provided with a central opening, a swinging arm pivotally connected to the said hinge element on the supporting arm, a yoke carried by the end of the swinging arm and adapted to register with the opening in the said flange, the said yoke comprising an arm disposed at right angles to the swinging arm, the said right angular arm having its end extended across the curved portion of the semi-circular bend in the supporting arm when the two are in operative position, a hook integrally formed with the end of the yoke and extended through the opening in the said flange, means for locking the said arms together including alined apertures formed in the arms and having the locking element extended therethrough whereby the hook and the said flange may be associated and held against accidental displacement.

2. A lap robe lock including a support mounted on the side of the vehicle body, an integrally and laterally extending stationary arm having an aperture at its free end, a swinging arm pivotally mounted upon said stationary arm and adapted to contact with said stationary arm, each of said arms provided with alining apertures, a hook

formed on the end of the swinging arm and adapted to extend through the opening in the end of said stationary arm, and means mounted in the aliuing apertures in said arms for securing the arms together.

1,243,219. ELECTRICAL VALVE. WILLIAM D. RALPHS, Pasadena, Cal. Filed Apr. 8, 1916. Serial No. 90,015. (Cl. 137—4.)



1. A valve casing having oppositely arranged pipe sockets and a port connecting the sockets, and having a valve seat crosswise of the port and chambers at the ends of the valve seat, a straight cylindrical plunger mounted to reciprocate through the valve seat and close the port and provided with a mid-cross-passage to register with and open the port, solenoids in said chambers for reciprocating the plunger, a circuit breaker in one of said chambers outside of the solenoid and operated by the plunger, a cap for closing the chamber outside of the solenoid, a second cap for closing the other chamber, and a stem extending from the plunger through the second cap for manually operating the valve.

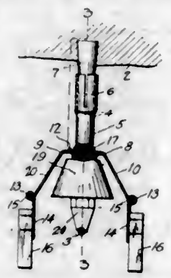
2. A valve casing having oppositely arranged pipe sockets and a port connecting the sockets, and having a valve seat crosswise of the port and chambers at the ends of the valve seat, a straight cylindrical plunger mounted to reciprocate through the valve seat and close the port and provided with a mid-cross-passage to register with and open the port, solenoids in said chambers for reciprocating the plunger, a circuit breaker in one of said chambers outside of the solenoid and operated by the plunger, a cap for closing the chamber outside of the solenoid, a second cap for closing the other chamber, a stem extending from the plunger through the second cap for manually operating the valve, and an adjustable stop upon the stem to regulate the flow.

3. A valve casing having oppositely arranged pipe sockets and a port connecting the sockets, and having a valve seat crosswise of the port and chambers at the ends of the valve seat, a straight cylindrical plunger mounted to reciprocate through the valve seat and close the port and provided with a mid-cross-passage to register with and open the port, solenoids in said chambers for reciprocating the plunger, a circuit breaker in one of said chambers outside of the solenoid and operated by the plunger, a lamp circuit connected to the circuit breaker, a cap for closing the chamber outside of the solenoid, a second cap for closing the other chamber, and a stem extending from the plunger through the second cap for manually operating the valve.

1,243,220. SHIELDING APPLIANCE FOR MINE TROLLEY-WIRES. HARVEY W. REAUME, Brodhead, Colo. Filed Sept. 21, 1916. Serial No. 121,474. (Cl. 191—35.)

1. In a shielding appliance for mine-trolley wires, a hood including downwardly diverging side-members having at their lower ends, means for the attachment of shields, and a cross-member connecting the upper ends of said side-members and having an opening for the attachment of the hood to a hanger by which a trolley-wire is suspended from a mine-roof.

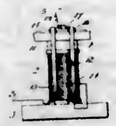
3. In a shielding appliance for mine-trolley wires, a hood including downwardly diverging side-members, and a cross-member connecting the upper ends of said side-members and having an opening for the attachment of the hood to a hanger by which a trolley-wire is suspended



from a mine-roof, and hinge-blades pivotally suspended in pairs from the lower ends of said side-members.

[Claim 2 not printed in the Gazette.]

1,243,221. CIRCUIT-CONTROLLER. WALTER C. REED, Dalton, Mass., assignor to The Telelectric Company, Pittsfield, Mass., a Corporation of Massachusetts. Filed Oct. 25, 1916. Serial No. 127,572. (Cl. 175—320.)



1. A circuit controller comprising an electro-magnet having an exciting coil and a retaining coil, an armature arranged to open and close a circuit to be controlled, and another armature arranged to close the circuit through the retaining coil when the magnet is energized by the exciting coil.

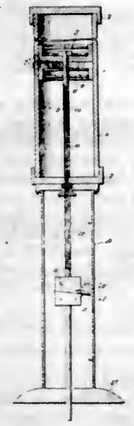
2. A circuit controller comprising an electro-magnet having an exciting coil and a retaining coil, an armature arranged to open and close a circuit to be controlled, another armature arranged to close the circuit through the retaining coil when the magnet is energized by the exciting coil, and means for opening the circuit through the retaining coil.

1,243,222. PUMPING DEVICE. BENJAMIN B. RHYNE, Charlotte, N. C. Filed Oct. 15, 1915. Serial No. 56,085. (Cl. 138—2.)

1. A pumping apparatus comprising a pump cylinder, a piston operating in said cylinder and provided with a hollow piston rod having a port opening adjacent the piston, a valve carried by said rod outside the cylinder and provided with stop means for limiting the throw thereof, and means actuated automatically by the movements of the piston for controlling said valve, said controlling means having a relative, slight, free movement with reference to said valve.

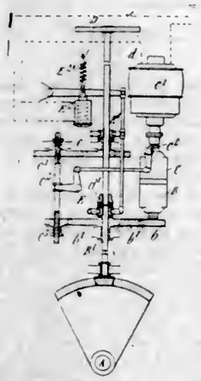
2. An air motor including a piston, a piston rod having independent ports opening on opposite sides of the piston, a slide valve secured to the rod below the pump cylinder, said slide valve comprising connected sections arranged on edge, through one of which the piston rod extends, the sections being formed with ports communicating with the respective ports of the piston rod, a valve plate movable in one of the sections of the slide valve and adapted to control the connections of the ports of one section with the ports of the other section, means for automatically operating the slide valve in each direction, means arranged to trip and set in operation the automatic means in the respective reciprocating movements of the rod, and means for delivering air pressure to the slide valve.

3. The combination with a water pump, of an air motor including a piston, a piston rod having independent ports opening on opposite sides of the piston, a slide valve secured to the rod below the pump cylinder, said slide valve comprising connected sections arranged on edge, through one of which the piston rod extends, the sections being formed with ports communicating with the respective ports of the piston rod, a valve plate movable in one of the sections of the slide valve and adapted to control the connections of the ports of one section with the ports of



the other section, means for automatically operating the slide valve in each direction, means arranged to trip and set in operation the automatic means in the respective reciprocating movements of the rod, a pressure pipe having communication with the slide valve, a valve for controlling said communication, and means governed by the water under pressure delivered from the pump for governing said controlling valve.

1,243,223. POWER-TRANSMISSION GEAR. JOHN ROBSON, Westminster, London, England, assignor to The Variable Speed Gear Limited, Westminster, England. Filed Feb. 11, 1915. Serial No. 7,641. (Cl. 74—7.)



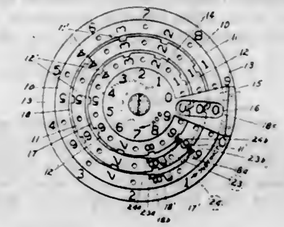
1. In power transmission gear, the combination with the operating motor, the member driven thereby, and a hand operated member, of means, coming into operation automatically when the power transmission gear breaks down, for disconnecting said motor from the member driven thereby and connecting this member to the hand operated member.

3. In power transmission gear, the combination with the operating motor, the member driven thereby, and a hand operated member, of a solenoid arranged in the motor circuit for automatically disconnecting said motor from the member driven thereby and connecting this member to the hand operated member when electric current ceases to pass to the motor.

6. In power transmission gear, the combination with the operating motor, the member normally driven thereby, the control device of said motor and the hand operated control member normally connected to said device through a hunting control gear which is also actuated by said member normally driven by the motor, of a clutch normally connecting the motor to the member driven thereby another clutch normally connecting the hand operated control member to the hunting control gear and means, coming into operation automatically when the power transmission gear breaks down, for moving the first mentioned clutch to disconnect the motor from the member normally driven thereby and connect this member to the hand operated control member and for moving the other clutch to disconnect the hand operated control member from the hunting control gear.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,243,224. ADDING AND SUBTRACTING MACHINE. FRED W. RODOLF, Portland, Oreg., assignor to The Addachine Manufacturing Company, Portland, Oreg., a Corporation of Oregon. Filed Feb. 13, 1914. Serial No. 818,504. (Cl. 235—78.)

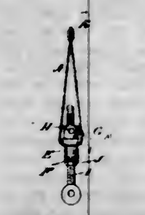


1. In an adding and subtracting machine of the character referred to, two disk counter dials of different diameters mounted concentrically one above the other, a transfer member mounted upon the lower dial outside the periphery of the upper dial and moving therewith and adapted to be positively moved into and out of operating engagement with the peripheral edge of the upper dial for moving it therewith, and a fixed cam disk of intermediate diameter interposed between said dials and normally holding said transfer member out of engagement with said upper dial as it moves with the lower dial, said cam disk being adapted at one place to positively move said transfer member into and out of engagement with said upper dial for moving the latter a step, substantially as described.

2. In an adding machine, two counter dials of different diameters, concentrically mounted, a cam disk mounted therebetween and being of an intermediate diameter, one of said counter dials having its edges adapted to be engaged by a transfer member, a transfer member carried by the other counter dial and normally held out of engagement with said first counter dial by said cam disk, and a cam portion on said cam disk for operating said transfer member.

3. An adding and subtracting machine comprising in combination a bottom index dial and a top index dial having index characters arranged in reversed order circumferentially thereof, counter dials concentrically disposed between said index dials and movable circumferentially in both directions, pivotally mounted transfer levers carried by some of said counter dials and adapted each to engage an adjacent counter dial and move it with the dial upon which said transfer member is mounted, and cam members for rocking said pivoted transfer members into and out of transfer engagement with the adjacent counter dials, substantially as described.

1,243,225. TURNBUCKLE. ALLIOTT VERDON ROE, Manchester, England. Filed Sept. 19, 1916. Serial No. 121,018. (Cl. 85—36.5.)



2. In a turnbuckle, the combination of a strip cut out of sheet material with holes therein and having a base and bent into the form of a fork, with a threaded nut having an enlarged end within the fork and a reduced end passing through a hole in the base of the fork, the said base being formed of a dished or concave form internally, and an eye bolt threaded within the said nut.

5. The combination in a turnbuckle, of the strip of flat material formed as a fork with perforated ends and a perforated base concave internally, an internally threaded nut passing through the concave base, an eye bolt in the said nut, and a cylindrical extension of the said nut within the fork having a space between it and the eye bolt and having holes in its sides adapted to contain a security wire or cord, substantially as shown for the purpose specified.

[Claims 1, 3, and 4 not printed in the Gazette.]

1,243,226. METHOD AND APPARATUS FOR PRODUCING DAIS AND SUNK-DAIS EMBOSSING. JOHN SAUNDERS, Los Angeles, Cal., assignor to Smith & Marsh Incorporated, Los Angeles, Cal., a Corporation of California. Filed May 22, 1916. Serial No. 99,237. (Cl. 101—32.)



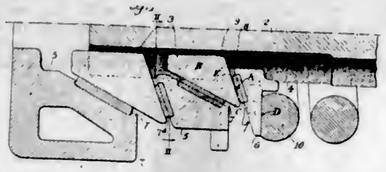
1. An apparatus for producing dais embossing on paper or the like comprising a die, and a facing for said die detachably secured thereto, said facing being cut away to form a dais opening through which said die may come in contact with said paper.

2. An apparatus for producing dais embossing on paper or the like comprising a die, having engraved characters thereon, and a facing for said die detachably secured thereto, said facing being cut away to form a dais opening through which the engraved characters on said die may come in contact with said paper.

[Claims 3 to 12 not printed in the Gazette.]

1,243,227. SHOCK-ABSORBING MECHANISM. ERNEST H. SCHMIDT, Lakewood, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 8, 1917. Serial No. 153,270. (Cl. 213—64.)

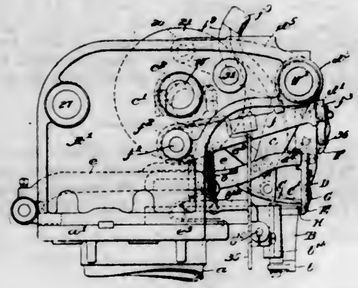
1. In frictional shock absorbing mechanism, a longitudinally-extending friction element, friction shoes arranged about said friction element and in frictional engagement therewith, each friction shoe having two wedging faces, and wedge members encircling the included friction element, each wedge having a wedging face engaging a wedging face of a friction shoe, the wedging face of one wedge being adapted to force the shoes against the friction element during compression of the gear, and the wedging face on another of the wedges being adapted to tilt the shoes away from the compression member after the pressure abates.



2. In frictional shock absorbing mechanism, a longitudinally-extending friction element, friction shoes arranged about said friction element and in frictional engagement therewith, members encircling the included friction element and engaging said shoes, and a compression spring engaging one of said members, each of said shoes having its front and rear faces inclined from its friction face toward the spring, and engaging correspondingly-inclined faces upon the said members, the member next the spring having a tilting action on the shoes during release, whereby the release of the shoes from the friction element is accelerated.

[Claim 3 not printed in the Gazette.]

1,243,228. ROUNDING-MACHINE. AUGUST R. SCHOENKY, Somerville, Mass., assignor to Reece Shoe Machinery Company, Boston, Mass., a Corporation of Maine. Filed June 2, 1916. Serial No. 101,628. (Cl. 12—18.)



2. In a rounding machine of the class described, in combination, a drive shaft; a crank thereon; a work feeding device; a channeling tool movable therewith; carriers for said device; and link and lever connections between said crank and said carriers adapted to cause the said device to feed and return.

8. In a device of the class described, in combination, a drive shaft, a work feeding device, a cutting tool mounted thereon, a guttering tool, and link and lever connections between said drive shaft and said work feeding device.

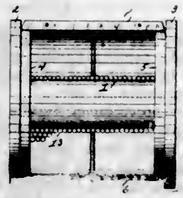
11. In a rounding machine of the class described, in combination, a shaft; a crank thereon; a two-part work clamp feeding device arranged to move in a rectilinear path when clamped; carriers for said device arranged to move in unison, one of which moves in a curved path and the other in a straight path; and link and lever connections between said crank and said carriers adapted to move said carriers in their respective paths.

18. In a device of the class described, an operating shaft; an actuator movable therewith; a rocking member; link and lever connections between said actuator and said rocking member, so constructed and arranged as to move said rocking member faster in one direction than in the other, and to cause the stoppage of said rocking member at the ends of its movements during certain degrees of rotation of the operating shaft; work feeding devices; and means to operate said feeding devices from said rocking member.

22. In a rounding machine of the class described, in combination, a shaft; a crank thereon; a work guide; a work rest; a channeling tool mounted thereon; and link and lever connections between said crank and said work rest adapted to move said work rest in opposite directions.

[Claims 1, 3 to 7, 9, 10, 12 to 17, and 19 to 21 not printed in the Gazette.]

1,243,229. SHIPPING-CASE FOR LEAD PIPE. ISIDORE I. SHONBERG, Brooklyn, N. Y., assignor to Standard Rolling Mills, Inc., Brooklyn, N. Y., a Corporation of New York. Filed June 1, 1914. Serial No. 842,056. (Cl. 206—59.)



A shipping case for lead pipe or similar articles, comprising a reel provided with a central longitudinal core, circular end heads provided with reduced portions secured to said core, a removable circular metallic cover or guard made from a single piece of suitable material, said cover or guard designed to engage with the reduced portions of the circular heads and inclosing said reduced portions, said cover or guard being of smaller diameter than the circular end heads and fitting between the inside surfaces of said end heads, and further provided with corresponding outwardly projecting integral end flanges and locking means carried by said flanges for clamping the guard to the case.

1,243,230. FLEXIBLE SPLINT. ISSACHER R. SMITH, Toronto, Canada. Filed Mar. 24, 1916. Serial No. 86,420. (Cl. 128—52.)



A bandage of the class described comprising a series of longitudinally extending flexible splint rods, spaced apart, a plurality of elastic bands of elastic material, spaced apart, said bands having free ends and intersecting said rods, means for securing said rods to said bands, said rods and bands being adapted to be wound about the limb of the patient to variably space said rods apart and to exert regulable resilient pressure according to the degree of distension of said elastic bands in winding the same upon such limb.

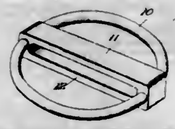
1,243,231. MANUFACTURE OF EXPLOSIVES. ROSS GEORGE SMITH, Derry Village, N. H., assignor to Raymond Pynchon & Company, New York, N. Y. Filed Feb. 3, 1916. Serial No. 75,909. (Cl. 52—1.)

1. An explosive composition consisting of finely divided zinc, a combustible carbon compound which is stable in the presence of zinc, and ammonium perchlorate in sufficient quantity to oxidize the other ingredients, no chlorates, nitrates or nitro compounds being present.

4. An explosive composition consisting of the following ingredients in approximately the following proportions:—ammonium perchlorate, 82 lbs.; finely divided zinc, 10 lbs.; petroleum jelly, 5 lbs.; asphaltum varnish, 3 lbs.

[Claims 2 and 3 not printed in the Gazette.]

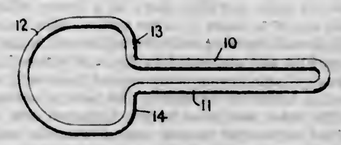
1,243,232. BAG-TIE. WAYNE TAGGART, Hopedale, Ohio. Filed Apr. 24, 1917. Serial No. 164,144. (Cl. 24—30.5.)



1. A bag holder comprising an endless member having a rigid bar extending transversely thereof, the outer faces of the bar projecting from end to end thereof beyond the lines of the endless member, whereby the material of the bag when inserted through the endless member and over the bar is deflected laterally thereby.

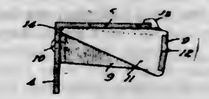
2. A bag holder comprising an endless member having a rigid bar extending transversely thereof with its edges angular, the outer faces of the bar projecting from end to end thereof beyond the lines of the endless member.

1,243,233. GRAIN-BAG FASTENER. WAYNE TAGGART, Hopedale, Ohio. Filed May 17, 1917. Serial No. 169,271. (Cl. 24—30.5.)



A bag fastener comprising an oblong metal loop with its members substantially circular transversely, the major portion of the sides of said loop being contracted and extending in spaced relation and the remaining portion enlarged laterally with the material at the juncture of the enlarged portion and the contracted portion directed substantially at right angles to the longitudinal axis of the loop, whereby the contracted portion is reinforced and the tendency thereof to expand is resisted.

1,243,234. BED-FRAME. CHARLES WILLIAM WALSTROM, Minneapolis, Minn., assignor to Minneapolis Bedding Company, Minneapolis, Minn., a Corporation. Filed Mar. 13, 1916. Serial No. 83,803. (Cl. 5—64.)

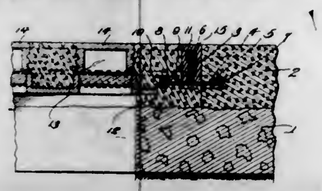


1. In a bed frame, the combination, with an angle bar end rail having a horizontal and a vertical flange, of a truss bar, a bridge seated against the under surface of said horizontal flange and having means for engaging the forward edge thereof, the forward end of said bridge having a seat for said truss bar and the rear end of said bridge bearing on said rail in the angle between said vertical and horizontal flange.

2. In a bed frame, the combination, with an angle bar end rail having a horizontal and a vertical flange, of a truss bar secured at its ends to the vertical flange of said rail, a bridge seated against the under surface of said horizontal flange at a point mid-way substantially between the ends of said rail, and having a hook to en-

gage the edge of said horizontal flange, said bridge having a recess wherein said truss bar is seated, the outer end of said bridge being seated in the angle formed at the junction of said horizontal and vertical flanges, and into which angle the pressure of the truss bar is transmitted by said bridge.

1,243,235. FLASHING FOR SIDEWALK-LIGHTS. RALPH A. WILLISON, Portland, Oreg. Filed Sept. 7, 1916. Serial No. 118,846. (Cl. 72—106.)



1. The combination with a sidewalk having an opening to receive a light-carrying slab; of a frame whose sides and ends are of inverted T-shape in cross section, said frame being disposed in the opening with approximately the outer half of its horizontal base embedded in the walk and with its vertical web spaced inwardly from the wall of said opening and terminating below the surface of the walk, a light-carrying slab within the aforesaid frame and having its inner edge spaced from said vertical web, the inner half of said base being embedded in said edge of the slab, and a water-tight filler covering the aforesaid web and filling the space between the slab and walk.

2. The combination with a sidewalk having an opening to receive a light-carrying slab; of a frame whose sides and ends are of L-shape in cross section, said frame being disposed in said opening with its horizontal flange extending outwardly and embedded in the wall thereof, the vertical flange of said frame being spaced from said wall and terminating below the surface of the walk, a second frame within the other and also having L-shaped side and end bars whose horizontal flanges extend inwardly and whose vertical flanges are directed outwardly and downwardly over the vertical flanges of the first-named frame, a light-carrying slab in said opening and having its edge spaced from said vertical flanges of the second frame, the horizontal flanges of the latter being embedded in the edge of said slab, and a water-tight filler in the space between the slab and walk and covering the aforesaid vertical flanges.

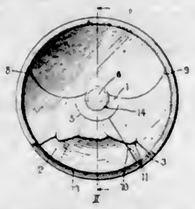
3. A frame of the class described consisting of an outer frame whose side and end bars are L-shaped in cross section with their horizontal flanges extending outwardly, and an inner frame within said outer frame, the side and end bars of said inner frame being also L-shaped in cross section with their horizontal flanges extending inwardly and with their vertical flanges directed outwardly and downwardly around the vertical flanges of said outer frame.

4. A frame of the class described consisting of an outer frame whose side and end bars are L-shaped in cross section with their horizontal flanges extending outwardly, and an inner frame within said outer frame, the side and end bars of said inner frame being also L-shaped in cross section with their horizontal flanges extending inwardly and with their vertical flanges directed outwardly and downwardly around the vertical flanges of said outer frame, the free edges of the horizontal flanges of both frames being bent upwardly and then downwardly to form longitudinally extending vertically disposed anchoring flanges.

5. A reinforcing device for the meeting edges of a pair of molded slabs, said device being in the form of an elongated bar-like structure formed of malleable sheet metal bent into the form of a T in transverse section, the outer edges of the oppositely extending flanges of the T being bent first in one direction and then in the other to provide longitudinal anchoring flanges.

[Claim 6 not printed in the Gazette.]

1,243,236. PROTECTOR FOR LAMPS. JACOB G. WISSINGER, Rutherford, N. J. Filed Nov. 3, 1916. Serial No. 129,348. (Cl. 240—48.2.)



1. A lamp glare protector of flexible sheet material comprising a body portion having wings integral therewith, said wings being adapted to conform to the shape of the lamp reflector when in use.

2. A lamp glare protector of flexible sheet material comprising a body portion having adjustable wings integral therewith, said wings being adapted to overlap to conform to the shape of the lamp reflector, when in use.

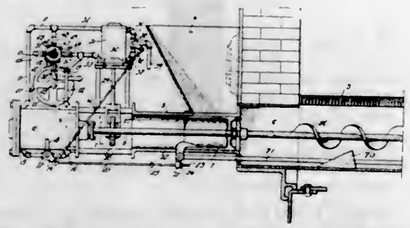
3. A lamp glare protector of flexible sheet material comprising a body portion having adjustable wings integral therewith, said wings being adapted to overlap to conform to the shape of the lamp reflector, and means for retaining the wings in locked engagement when in use.

4. A lamp glare protector of flexible sheet material comprising a body portion having adjustable wings integral therewith, said wings being adapted to overlap to conform to the shape of the lamp reflector, said wings having a tongue and slot engagement for retaining them in locked position when in use.

5. A lamp glare protector of flexible sheet material comprising a body portion having adjustable wings integral therewith, said wings being adapted to overlap to conform to the shape of the lamp reflector when in use, said wings having a tongue and slot-engagement for retaining them in locked position when in use and provided with upwardly extended tips.

[Claims 6 to 11 not printed in the Gazette.]

1,243,237. CONTROLLING-VALVE MECHANISM FOR FURNACE-STOKERS. GEORGE W. WOOD, Camden, N. J. Filed Jan. 8, 1917. Serial No. 141,228. (Cl. 110—109.)



1. The combination with a plurality of stokers, each having independently operative fuel actuating means, of a valve casing having a plurality of distributing passages therein respectively connected to said actuating means, a valve having a port successively movable into register with said passages, means for supplying pressure fluid to said valve and to successively enter said passages through the port when the valve is actuated, and means for actuating said valve, substantially as described.

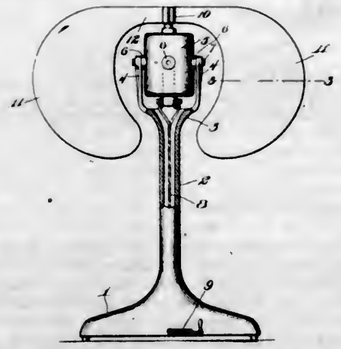
3. The combination with a series of stokers each having independently operative fuel actuating means, of a valve casing having a plurality of distributing passages therein respectively connected to said actuating means, a valve having a port successively movable into register with said passages, means for supplying pressure fluid to said valve and to successively enter said passages through the port when the valve is actuated, a stem on said valve, a wheel on said stem, said wheel having arms thereon, anti-friction rollers on said arms, a cam wheel, cams on said cam wheel operative to engage said anti-friction rollers and thereby intermittently rotate said first wheel to actuate the valve, substantially as described.

4. The combination with a series of stokers, of a valve casing having a frusto-conical opening and a series of distributing passages communicating with said opening, a hollow frusto-conical valve fitting said opening and having a single port designed to successively register with said passages when the valve is rotated, means for supplying pressure fluid to said valve, and means for rotating said valve to cause said port to successively register with the distributing passages, substantially as described.

6. The combination in a stoker, of a pusher, a cylinder, a piston connected to the pusher and operative within the cylinder, fuel agitating means within the furnace, a second cylinder, a piston within the second cylinder and operatively connected to the fuel agitating means, means for alternately effecting the operation of said pistons in opposite directions to move said pusher and fuel agitating means, exhaust valves for said cylinders, arms on said valves, a link connecting said arms, and means for operating one of said arms whereby the movement is imparted through the medium of said link to the other of said arms, substantially as described.

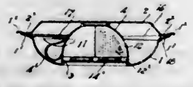
[Claims 2 and 5 not printed in the Gazette.]

1,243,238. ELECTRIC FAN. ANGELO ADAMO, Detroit, Mich. Filed Apr. 6, 1917. Serial No. 160,301. (Cl. 230—1.)



A fan comprising an upright support having at its upper end an annular series of arms, a motor arranged between and supported by said arms, said motor having its shaft projecting upwardly therefrom, and an annular series of dished and curved blades of crescent shape secured at their upper ends to the motor shaft and depending therefrom and grouped about the motor and upper end of the support.

1,243,239. DINING KIT. HANS OLUF ANDREAS ALBRECHTSEN, Prince Albert, Saskatchewan, Canada. Filed Sept. 27, 1916. Serial No. 122,497. (Cl. 206—4.)



1. In a dining kit, a pair of plates releasably locked together and forming a containing casing, one of said plates having recesses in its edges, a cup inserted and jammed between the locked plates and eating utensils grouped around the cup and held within said recesses by said plates.

2. A dining kit comprising a bottom plate and an inverted top plate having the rims thereof releasably locked together and forming an inclosing casing the bottom plate having the base thereof provided with an upstanding circular shoulder, an inverted cup inserted between the locked plates and having the mouth thereof receiving the shoulder, and a knife, fork and spoon grouped around the cup and having their ends extending and resting in pockets provided in the rim of the bottom plate and jammed in said pockets by the rim of the top plate.

1,243,240. HAND-LEVER. SAMUEL L. ALLEN, Moorestown, N. J. Filed Feb. 12, 1916. Serial No. 77,817. (Cl. 74—39.)



1. A hand lever provided with detent mechanism comprising a pivoted hand grip having integral lugs directly pivoted to said lever, a bolt and a spring link connecting said hand grip and bolt integrally formed.

2. A hand lever pivoted to swing about a toothed sector, and having a detent arranged to engage the teeth of said sector, and a pivoted hand grip having a flat spring leaf connected with said detent and having integral lugs by which it is pivoted directly to said lever, the flexing of which by the movement of said hand grip effects the release of said detent.

3. A hand lever pivoted to swing about a toothed sector and having a guide, a detent bolt mounted to reciprocate in said guide, and a hand grip having integral lugs pivotally mounted on said lever and having a flat spring blade serving as a link connected with said bolt.

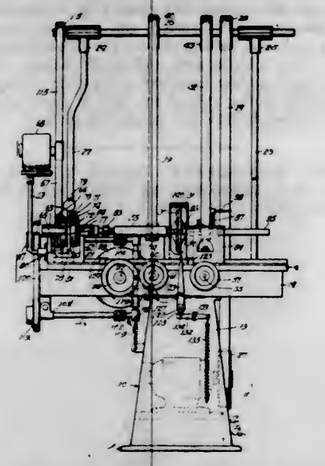
4. In a hand lever, the combination with a toothed sector, of substantially parallel bars spaced apart and pivoted to swing about said sector and having oppositely disposed slots, a bolt mounted to slide in said slots, and a hand grip pivoted between said bars and having a spring blade connected with said bolt and serving as a link which when flexed by said hand grip effects the movements of said bolt in said slots.

1,243,241. PLATEN-GRINDING MACHINE. ARTHUR R. AMES, La Grange, Ill. Filed Dec. 6, 1916. Serial No. 135,297. (Cl. 51—5.)

1. A platen grinding machine comprising means to hold and rotate the platen; means to relatively and axially move the platen and grinding wheels; a plurality of rotatable grinding wheels, of differing grades, and means for independently adjusting said wheels toward and from the platen, whereby to make a roughing and finishing cut with one pass of the platen.

2. A platen grinding machine comprising means to hold and rotate the platen; means to bodily move the platen axially, before the grinding wheel; two rotatable parallel grinding wheels, of differing grades, having their confronting faces dished to provide cavities within which to contain means for attaching said wheels to their respec-

tive shafts; a shaft for each wheel, and independent means for moving said wheels to and from the platen.



3. A platen grinding machine comprising means to hold and rotate the platen; means to bodily move the platen, axially, before the grinding wheels; a relatively coarse grinding wheel having its circumferential edge chamfered to make a more extended roughing cut; a relatively fine, parallel grinding wheel, having its circumferential edge in a plane parallel with its axis; means for independently rotating said grinding wheels and means for independently moving said wheels to and from the platen.

4. A machine of the class described comprising a base; a table bed thereon; a reciprocatable table, longitudinally movable on said bed; a platen arbor rotating mechanism, carried by the table and moving therewith; grinding mechanism mounted on the bed; shaft supports, mounted on the bed, for an overhead driving shaft; an overhead shaft mounted in bearings carried by said supports; a motor, mounted on said base for rotating said shaft; power-transmitting means, operable by said shaft, to reciprocate said table and to rotate said grinding wheels, and independent driving means, carried by the table and movable therewith, to rotate said platen.

5. In a machine of the character described, the combination of a reciprocatable table, carrying a rotatable part to be ground; a bed upon which grinding apparatus is rotatable and mounted; a rack on the bottom of said table; a shaft mounted on said bed; a pinion on said shaft meshing with said rack to drive the table; a worm-wheel on said shaft; two worms for alternate engagement with said worm-wheel to reciprocate the table, and means, operable by the table to disengage one worm and engage the other to move the table in opposite directions.

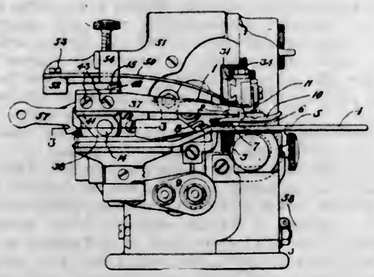
[Claim 6 not printed in the Gazette.]

1,243,242. SEWING-MACHINE. SAMUEL W. AVIS, Hartford, Conn., assignor to The Merrow Machine Company, Hartford, Conn., a Corporation of Connecticut. Filed Feb. 18, 1916. Serial No. 79,146. (Cl. 112—6.)

3. In a sewing machine, the combination of oscillatory elements including a presser foot carrier, a cutter carrier, and a presser foot carrier lifting lever with their pivotal axes coincident, each of said elements being independently operable with respect to the others.

9. In a sewing machine, the combination of a needle plate, a bracket having separated bearings alined in a plane substantially coincident with the work engaging surface of the needle plate, a rock shaft supported by said bearings, a presser foot carrier and a cutter carrier, one of the last mentioned elements being rigid with the shaft and the other free to oscillate upon the shaft.

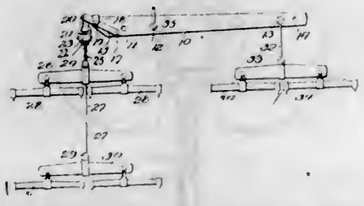
12. In a sewing machine, the combination of a needle plate, a shaft offset from the line of stitching and longitudinally extended in a plane substantially coincident with the work engaging surface of the needle plate, a support for the shaft, a yoke associated with the shaft on opposite sides of the support, a presser foot, and an arm



connecting the presser foot with the yoke, said arm extending in a plane above the plane of the work engaging surface of the needle plate whereby the passage for work fed away from the stitching elements is of ample extent.

[Claims 1, 2, 4 to 8, 10, 11, and 13 to 17 not printed in the Gazette.]

1,243,243. DRAFT-EQUALIZER. ARTHUR M. BEST, Shelby, Iowa. Filed Dec. 10, 1915. Serial No. 66,158. Renewed Aug. 21, 1917. Serial No. 187,483. (Cl. 21—76.)



In a draft equalizer, an evener beam, a clevis device including straps engaging the upper and lower faces of said beam and pivoted at their inner ends thereto, said straps extending beyond one end of the beam and free to swing over the rear face of the same, a clip device bearing around one edge of the beam and connected to said straps and limiting the movement in one direction, and means for connecting draft appliances to said clevis device.

1,243,244. METHOD OF MAKING SO-CALLED ALKALIZED COCOA. WALTER CLEMENT BLADEN, Jersey City, N. J. Filed Nov. 24, 1916. Serial No. 133,178. (Cl. 99—11.)



1. The process of subjecting cocoa in various stages of its manufacture, to the action of anhydrous ammonia.

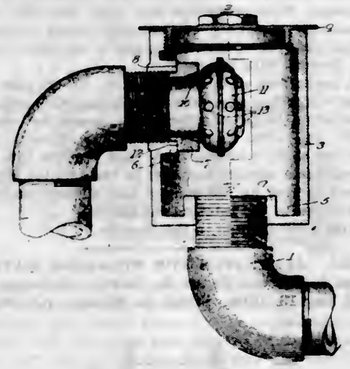
2. The process of subjecting cocoa in various stages of its manufacture to the action of a compressed atmosphere of anhydrous ammonia.

3. The process of making alkalised cocoa which consists in agitating cocoa liquor with anhydrous ammonia in such manner as to produce an intimate contact between the two.

4. The process of subjecting cocoa liquor to the action of anhydrous ammonia held within a suitably closed vessel, intimate contact of ammonia gas and liquor being effected through the agency of rotating peripheral agitators.

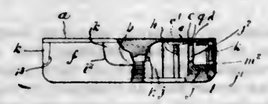
5. The process of subjecting cocoa liquor to the action of a compressed atmosphere of anhydrous ammonia held within a suitably closed vessel, intimate contact of ammonia gas and liquor being effected through the agency of rotating peripheral agitators.

1,243,245. DRUM-TRAP GUARD. MANDEL BLOCK, Chicago, Ill. Filed Nov. 22, 1916. Serial No. 132,764. (Cl. 182—12.)



A drum trap having an inlet at the bottom and an outlet at the side, said outlet being internally threaded to receive the properly threaded end of a discharge pipe, a bushing screwing into said outlet from the inner end thereof and having a shoulder bearing against the inner end of the outlet, said bushing having a cylindrical inner surface flaring at the inner end, a guard having a cylindrical stem fitting into the cylindrical surface of the bushing, and a foraminous head supported by said stem, said head being in the form of an oblate spheroid and its maximum diameter being considerably greater than the diameter of the stem to thereby afford abundant superficial area for the foraminations.

1,243,246. OUTLET-BOX. WILLIAM A. BONNELL, Brooklyn, N. Y. Filed Dec. 24, 1914. Serial No. 878,909. (Cl. 247—7.)

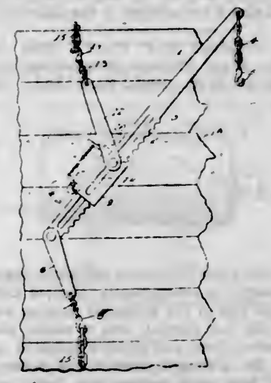


2. An outlet box embodying therein a body comprising a wall plate, and a cup like cap inclosing one face thereof, said cap having in the side wall thereof a plurality of similar conduit openings, a shoulder within and spaced away from the wall of said cap, and extending about each of said openings, said shoulder being rounded on the inner edge thereof, beads or fillets carried by said wall plate and adapted when the box is assembled to be alined with said shoulders respectively and form therewith continuous bushings integral with said body, the wall of each of said openings having a channel extending thereabout, closure plates or knock-outs adapted to normally close each of said conduits and to be engaged by said wall plate, said closure plates or knock-outs each having a flange adapted to seat in said channel and being weakened to make them more frangible and means detachably connecting said cap and said wall plate.

3. An outlet box embodying therein a body comprising a wall plate having a pendant screw threaded nipple adapted to receive an electrical fixture and a cap inclosing one face of said plate, said cap having an opening eccentric with, and of greater dimensions than said nipple and having a plurality of conduit openings through the side thereof, a shoulder within and spaced away from the wall of said cap and extending about each of said openings, said shoulder being rounded on the inner edge thereof, a bead or fillet carried by said wall plate adapted to be alined with said shoulder whereby a continuous bushing integral with said box body is formed, closure plates or knock-outs adapted respectively to normally close said conduit openings, and to engage said wall plate and means detachably connecting said cap with said wall plate.

[Claims 1 and 4 not printed in the Gazette.]

1,243,247. LOAD-BINDER. PETER BORG, Sheldon, Iowa. Filed Jan. 22, 1916. Serial No. 73,588. (Cl. 214—5.)



1. In a load binder, a longitudinally slotted lever, a slotted sleeve slidably and adjustably associated with said lever, a pin extending through the alined openings in said members, a link carried by said pin, a hook carried by said link, another link terminally carried by said lever, a hook carried by said link, a length of chain adapted to encompass the load and engage the said hooks, a length of chain carried at one end of the said slotted lever and a hook carried by said chain for engagement with one of the links of the first mentioned chain.

2. In a load binder, a slotted and serrated lever, a perforated block slidable over said lever and formed with a rack for engagement with the serrated portion of said lever, means carried by said block for releasably locking it in adjusted relation with said lever, said means including a pair of oppositely disposed hooks adapted for insertion between the ends of said blocks and the said lever, a link carried by said block and adjustable with relation thereto, a link terminally carried by said lever, a length of chain adapted for engagement with the said hooks and a hooked length of chain carried by said lever for engagement with the first mentioned length of chain.

3. In a load binder, a slotted serrated lever, a perforated block slidable over said lever and formed with a rack for engagement with the serrated portion of said lever, ears formed upon said block, hooks pivotally carried by said ears whereby said block and lever may be releasably locked in adjusted relation, an expansion spring connecting said hooks for yieldingly retaining them in operative position, a link carried by said block and adjustable with relation thereto, a link terminally carried by said lever, a length of chain adapted for engagement with the said hooks, and a hooked length of chain carried by said lever for engagement with the first mentioned length of chain.

1,243,248. PENHOLDER. STANLEY E. F. BOSANQUET, Comboyne, New South Wales, Australia. Filed July 19, 1915. Serial No. 40,738. (Cl. 120—101.)



1. A pen holder including a handle having an extension formed thereon provided with a longitudinally extending groove for receiving a pen point, means formed in the groove to provide a fulcrum for the pen point, stationary means arranged at the extremity of said extension for clamping the point, and means slidably arranged on said extension for clamping the inner end of said pen point.

3. A pen holder including a handle, an extension formed on said handle provided with a groove of irregular contour, a hump provided by the irregular contour of said groove, a ferrule fixed to the end of said extension and slightly forward of said hump, and a slidable ferrule mounted on said extension as and for the purpose set forth.

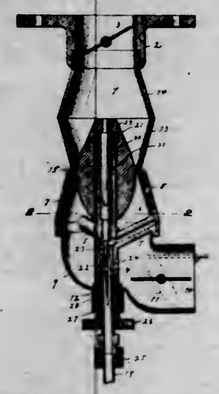
[Claims 2 and 4 not printed in the Gazette.]

1,243,249. NEEDLE CAP PLATE FOR SEWING-MACHINES. JOHN THOMAS BOTTOMLEE, Sparta, Tenn. Filed Mar. 30, 1916. Serial No. 87,792. (Cl. 112—29.)



A needle cap plate for sewing machines comprising a rectangular member of substantially inverted U-shape, a door hinged to one end of the U-shaped member and forming a portion of the top thereof, and a needle plate provided with end perforations, and slidably mounted in a longitudinal slot in the U-shaped member and secured therein by said hinged door, said needle plate being capable of reversal in said slot.

1,243,250. CARBURETER. SEBASTIAN G. BRINKMAN, Fords, N. J. Filed Mar. 23, 1916. Serial No. 86,065. (Cl. 261—44.)



1. A carbureter comprising a Venturi-shaped shell, having a contracted neck, a fuel chamber having an inwardly directed annular nozzle at said neck, said nozzle extending at substantially right angles to the axis of the shell, and a bulged governor movable within the shell across said nozzle and forming a restricted air passage therebetween, said governor controlling the width of said passage.

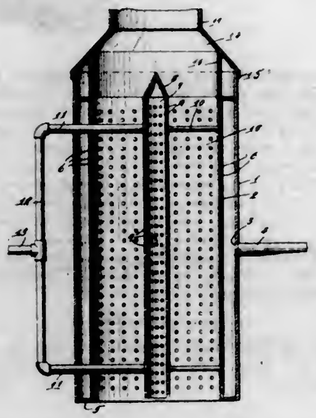
2. A carbureter comprising a Venturi-shaped shell having a contracted neck, a fuel chamber having an inwardly directed nozzle at said neck, said nozzle extending at substantially right angles to the axis of the shell, a bulged governor movable within the shell across said nozzle and forming a restricted air passage therebetween, and a fuel inlet port for the fuel chamber, the clearance of said port being considerably less than the area of the nozzle, whereby the suction produced by the air at the nozzle is intensified at said port.

3. A carbureter comprising a Venturi-shaped shell having a contracted neck, a fuel chamber having an inwardly directed annular nozzle extending at substantially right angles to the axis of the shell, a bulged governor movable within the shell across said nozzle and forming a restricted air passage therebetween, a fuel inlet port for the fuel chamber, the clearance of said port being considerably less than the area of the nozzle, and a fuel tank communicating directly with the shell.

5. A carbureter comprising a shell, an oil pipe, an oil chamber extending along the wall of the shell and having an inwardly deflected annular nozzle, means for connecting the oil pipe with the oil chamber, a tubular support within the shell, a needle valve that projects into the oil pipe and has a spindle mounted in the tubular support, a governor carried by the spindle and slidable on the support, and means for rotating the spindle.

[Claim 4 not printed in the Gazette.]

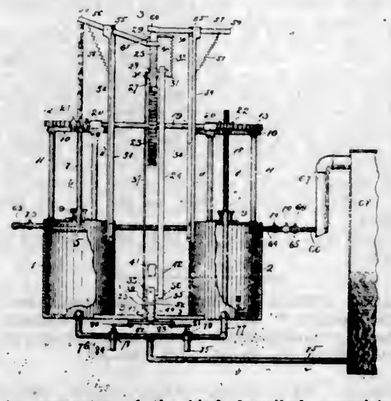
1,243,251. APPARATUS FOR STEAMING MATERIAL. PEDER J. BUE and HERVY M. TIDWELL, Pomeroy, Wash. Filed May 13, 1916. Serial No. 97,403. (Cl. 99—2.)



An apparatus for steaming material comprising an outer cylinder, an inner wall provided with a plurality of closely arranged perforations, an inlet pipe communicating with said outer wall and adapted to supply steam to the space between said inner and outer wall for forcing steam through the apertures formed in said inner wall, a centrally located steam pipe braced and supported centrally of said inner wall, said centrally located steam pipe provided with a plurality of closely arranged perforations, a steam supply pipe communicating with said centrally located steam supply pipe for causing steam to be discharged from said centrally located steam supply pipe simultaneously with the discharge of steam from said inner wall whereby grain dropped through said apparatus will be acted upon by a series of oppositely opposed jets of steam.

1,243,252. BALANCED LUBRICATOR. SAMUEL EDWARD BURCH, Wellwood, Manitoba, Canada. Filed Dec. 20, 1916. Serial No. 138,007. (Cl. 184—47.)

1. An apparatus of the kind described comprising a boiler having a steam pipe, a cylinder having connection with an inlet pipe for lubricant and an outlet pipe for the same connected with the steam pipe, back pressure valves in the inlet and outlet pipes, a piston in the cylinder, suitable means to operate the piston to expel the lubricant, a connection between the boiler below the water line and the cylinder behind the piston and a cock to control the flow of water through the said connection.



4. An apparatus of the kind described comprising a boiler having a steam pipe, a pair of cylinders, inlet pipes for a lubricant and outlet pipes for the same connecting the cylinders and the steam pipe, pistons in the cylinders oppositely operated to receive and expel the lubricant, water pipes connecting the boiler below the water line with the cylinders behind the pistons, and means in the water pipes automatically operated to open boiler connection with the expelling cylinder and to close it with the receiving cylinder, and drain the latter.

[Claims 2 and 3 not printed in the Gazette.]

1,243,253. CARTRIDGE. CHARLES ABBOTT BUSH, Brooklyn, N. Y. Filed July 27, 1916. Serial No. 111,687. (Cl. 102—13.)



1. In a cartridge, a shell, a tube arranged longitudinally therein and having lateral openings near the end, a fulminate in the forward end of said tube for igniting the charge through said openings, a pin in intimate contact with the tube throughout its length, and coacting means on the pin and tube for retaining the pin in the tube.

4. In a cartridge, a shell, a tube arranged longitudinally therein and having lateral openings near the forward end, a fulminate in the said end for igniting the charge through said openings, a plug for securing the fulminate in the tube, a pin slidable in the tube for igniting said fulminate, means for retaining said pin in the tube, said means comprising a slot in the tube and a tongue on the pin.

[Claims 2 and 3 not printed in the Gazette.]

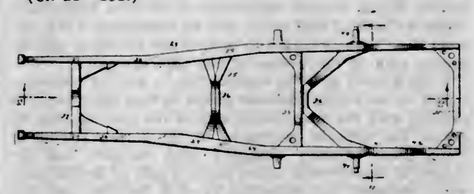
1,243,254. TYING DEVICE. JAMES E. CALEY, Macklnaw, Ill. Filed Apr. 28, 1915. Serial No. 24,503. (Cl. 24—18.)

1. An article of manufacture consisting of an L-shaped member one of whose extremities is recurved upon itself forming a single hook, the base of said extremity at its juncture with the other extremity having a bend, said other extremity having an aperture, the member being otherwise imperforate, the two extremities lying in different planes.



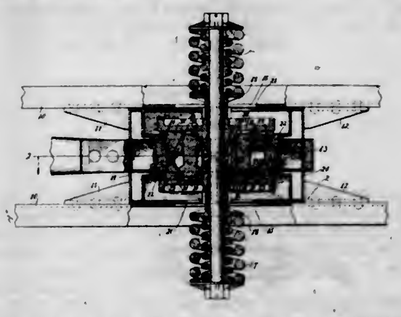
2. An article of manufacture consisting of an L-shaped member one of whose extremities is recurved upon itself forming a single hook, the base of said extremity having a bend, said other extremity having an aperture, the member being otherwise imperforate, the said extremity having the hook arranged, in use, to lie in a different plane from the other and hinged to the said other extremity.

1,243,255. FRAME FOR MOTOR-CARS. ALFRED L. CAMPBELL, Elmhurst, N. Y. Original application filed Aug. 22, 1916, Serial No. 116,303. Divided and this application filed Apr. 26, 1917. Serial No. 164,707. (Cl. 21—182.)



A frame for the driving mechanism of motor cars consisting of side members, a forward cross member and a rear cross member connecting the side members, a medial cross member 38 connecting and arched above the side members, and a medial cross member 39, connecting the side members, and bowed both vertically above the side members and forwardly to its attachment to the arched cross member 38.

1,243,256. FRICTION DRAFT-GEAR. JAMES R. CARDWELL, Chicago, Ill., assignor to Union Draft Gear Company, a Corporation of Illinois. Filed Sept. 25, 1915. Serial No. 52,690. (Cl. 213—64.)



1. In a draft gear, in combination, a pair of followers, a pair of laterally movable side plates, a plurality of inwardly facing wedges engaging each of the side plates, an outwardly facing wedge between each two adjacent inwardly facing wedges at each side, and a wedge element

fixed with reference to each of the followers and engaging one of the first named wedges at both sides.

2. In a draft gear, in combination, a pair of followers, a pair of outwardly movable plates, springs opposing such outward movement, a plurality of pairs of laterally movable inwardly facing triangular wedges located between the followers bearing outwardly on the plates, the wedges of each pair having their axes upon a common transverse line, and outwardly facing wedges between the corresponding inwardly facing wedges of each two adjacent pairs.

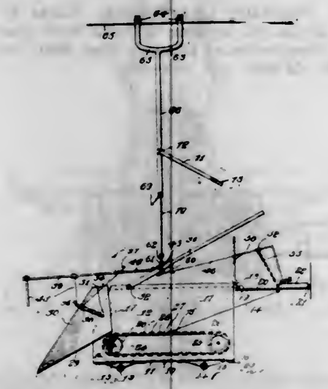
3. In a draft gear, in combination, a pair of followers two pairs of laterally movable inwardly facing wedges located between the followers, the wedges of each pair having their axes upon a common transverse line, a double ended transverse wedge element located between the two pairs of inwardly facing wedges with each of its ends engaging a wedge of both pairs, and an additional wedge element fixed with reference to each of the followers and engaging both of the wedges of the adjacent pair.

4. In a draft gear, in combination, a pair of followers, a pair of laterally movable side plates, springs resisting outward movement of the side plates, three pairs of inwardly facing wedges arranged in a longitudinal series between the followers, the wedges of each pair having their axes upon a common transverse line, the wedges of the two end pairs being each in sliding engagement with the corresponding side plate and each of the wedges of the intermediate pair being fixed with reference to one of the side plates, a double ended transverse wedge element located between each two adjacent pairs of inwardly facing wedges with each of its ends engaging a wedge of both of said pairs, and an additional wedge element fixed with reference to each of the followers and engaging both of the wedges of the adjacent pair.

5. In a draft gear, in combination, a pair of followers, a pair of outwardly movable plates having inner surfaces parallel with the longitudinal axis of the gear, springs opposing the outward movement of the plates, triangular wedge-blocks slidably engaging such surfaces and arranged in transversely alined pairs, a pair of double faced wedge elements one supported by each follower and each engaging faces of a pair of the triangular blocks, and wedge elements engaging the third faces of the triangular blocks.

[Claim 6 not printed in the Gazette.]

1,243,257. BARN-CLEANER. CARL O. CARLSON, Cazenovia, Wis. Filed Feb. 18, 1916. Serial No. 79,144. (Cl. 214—13.)



1. In a cleaning device, the combination of a body portion, means to feed the material into said body portion, means to move said body portion step-by-step in one direction, and a universal member to operate the feeding means and the step-by-step propelling means and to cooperate with a support for effecting the raising of the device.

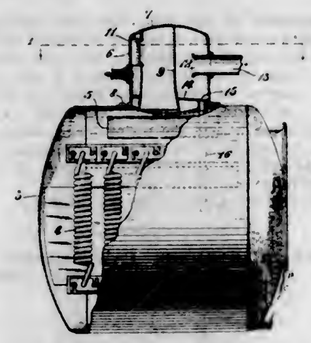
5. In a device of the character described, a rake, means to move said rake longitudinally, and means supported independently of said rake and operable thereby to elevate and drop said rake.

9. The combination of a container, an outlet gate provided for said container, means to open said outlet gate, and means operable by said gate to force the contents of said container through said gate.

10. In a device of the character described, a body structure, means to movably support said body structure, a shovel arranged at one end of said body structure, a trip member pivotally associated with said shovel, means to limit the movement of said trip member, a rake structure to draw the material into said shovel, a shank on said rake structure coöperating with said trip member, an actuating lever to move said rake structure, and said shank provided with a recess to receive a portion of said trip member at certain times, as and for the purpose specified.

[Claims 2 to 4, 6 to 8, and 11 to 18 not printed in the Gazette.]

1,243,258. STEAM-SEPARATOR. RAYMOND CARPENTER, East Orange, N. J., assignor to The Griscom-Russell Company, a Corporation of Delaware. Filed July 10, 1915. Serial No. 39,063. (Cl. 183—93.)



1. A steam separator comprising a drum or analogous vessel having eccentrically supported within it a steam inlet with an opening facing the near wall of the drum, means for directing the steam passing from the steam inlet through the opening against the drum wall in two substantially unobstructed streams of enlarging area and in decreasing velocity around the circumferential face of said wall until they are arrested by meeting one another, and an outlet passage for the dry steam.

2. A steam separator comprising a drum or analogous vessel having eccentrically supported within it a steam inlet with an opening facing the near wall of the drum, means for directing the steam passing from the steam inlet through the opening against the drum wall in two substantially unobstructed streams of enlarging area and decreasing velocity around the circumferential face of said wall until they are arrested by meeting one another, and an outlet passage for the dry steam located at a point opposite the point at which the steam is discharged against the wall.

3. A steam separator comprising a drum or analogous vessel having a substantially continuous circumferential wall, means for directing the fluids to be separated against the face of said wall, a projection on said wall substantially opposite the middle of the inlet opening for separating the fluids to be separated into two streams and directing such streams in opposite directions around the face of said circumferential wall, and an outlet passage for the steam having its opening at a point within and removed from said circumferential wall.

4. A steam separator comprising a drum or analogous vessel having a substantially continuous circumferential wall, means for directing the fluids to be separated against the face of said wall, a projection on said wall substantially opposite the middle of the inlet opening for separating the fluids to be separated into two streams and directing such streams in opposite directions around the face of said circumferential wall, and an outlet pipe for the steam projecting through the wall of the drum opposite the point at which the fluids to be separated are discharged against the wall with the opening into the pipe away from the wall of the drum.

5. A steam separator consisting of a drum of substantially circular cross section, an inlet passage for the fluids to be separated projecting longitudinally into said drum, said inlet passage opening radially adjacent one side wall of said drum, a projection on said side wall opposite said opening for directing the fluids to be separated in two streams in opposite directions around the inner wall of said drum whereby said streams will come together at the opposite side of said drum, and a discharge pipe for the steam projecting through the wall of the drum opposite the said projection, the opening into the pipe being spaced away from the wall of the drum whereby the water in the two streams will adhere to the wall of said drum through its greater centrifugal force while the steam will be drawn away from the wall by the suction of the discharge pipe.

1,243,259. REINFORCED SPRING-TIRE. JOSEPH F. CARROLL, Lakewood, Ohio. Filed Jan. 20, 1917. Serial No. 143,460. (Cl. 152—8.)



1. In a vehicle tire, a clencher-tire casing and means for securing it upon a wheel, and a helically coiled metallic spring formed of a rod having a triangular cross-section fitted closely within said casing, said spring rod having heavier cross-sections on the outer periphery of the spring than those of its inner circular parts more adjacent to the wheel.

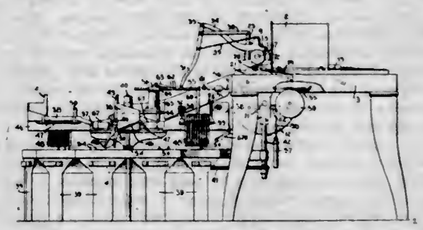
2. In a vehicle tire, a clencher-tire casing and means for securing it upon a wheel, a helical spring within said casing bent to a circle concentric with the wheel and formed of a rod having a triangular cross-section coiled with its base side outward, and a reinforcing spring coiled to fit within the convolutions of the aforesaid spring.

3. In a vehicle tire, a clencher-tire casing and means for securing it upon a wheel, a helical spring within said casing formed of a rod having a triangular cross-section coiled with its base side outward, and a reinforcing spring coiled within the convolutions of the aforesaid spring, said reinforcing spring being formed of a rod having a triangular cross-section coiled with its base side inward.

4. In a vehicle tire, a clencher-tire casing and means for securing it upon a wheel, a helically coiled metallic spring fitted closely within said casing, and a spring-clamp having claws at each end adapted to be inserted between and to engage respectively opposite end convolutions of said spring to form a yielding joint in the latter.

1,243,260. MACHINE FOR GRADING AND SORTING LEATHER. CHARLES E. CLARKE and JOHN S. DELANEY, Winthrop, Mass., assignors of one-third to Charles E. Clarke, Winthrop, Mass., and two-thirds to James Robertson, Woburn, Mass. Filed July 21, 1915. Serial No. 41,171. (Cl. 83—92.)

1. In a leather-grading and sorting machine, the combination with calipering mechanism to caliper every point along the entire length of the edge of a sole blank, of sorting mechanism to sort the calipered blanks in accordance with the measurements of the thinnest spot as determined by the calipering mechanism.



3. In a device of the class described, the combination with calipering mechanism to caliper every point along the entire length of the edge of a sole blank, of sorting mechanism controlled as to its operation by the calipering mechanism and operating to sort the calipered blanks in accordance with the measurements of the thinnest spot as determined by the calipering mechanism.

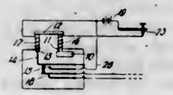
5. In a device of the class described, the combination with calipering mechanism having means to caliper every point along the entire length of each edge of a sole blank, of sorting mechanism to sort the calipered blank, said sorting mechanism comprising a plurality of receptacles, and means to deposit each calipered blank in that one of the various receptacles that corresponds to the measurements of the thinnest spot along either edge of the blank as determined by the calipering mechanism.

8. In a device of the class described, the combination with calipering mechanism to caliper the entire length of each edge of a sole blank, of sorting mechanism comprising a plurality of receptacles, a carrier to receive each calipered blank from the calipering mechanism, and means to cause said carrier to deliver into each receptacle all the blanks which have the same measurement at the thinnest spot found by the calipering mechanism.

10. In a device of the class described, the combination with a calipering mechanism for calipering sole blanks, of a carrier having a pocket into which the calipered blank is delivered from the calipering mechanism, a plurality of receptacles, means controlled by the calipering mechanism to discharge each blank from its pocket into one of the receptacles, depending on the thickness of the blank at the thinnest spot as found by the calipering mechanism.

[Claims 2, 4, 6, 7, 9, and 11 to 18 not printed in the Gazette.]

1,243,261. CIRCUIT-CONTROLLING DEVICE. HENRY P. CLAUSEN, Mount Vernon, N. Y., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed Oct. 8, 1915. Serial No. 54,790. (Cl. 175—324.)



1. A circuit controlling device comprising two expansible members mechanically connected, a heat generating element for each expansible member, one element having greater heat generating capacity than the other, and contact members controlled by the joint action of said expansible members.

3. A circuit controlling device comprising a base, an expansible member mounted on said base, a second expansible member supported by said first expansible member in parallel relation thereto, circuit controlling contacts, a heat generating element for the first of said members to cause the expansion thereof and thereby to open said circuit controlling contacts, and a second heat generating

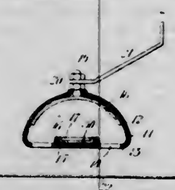
element of lesser capacity for the second of said members to cause the expansion thereof and thereby to close said circuit controlling contacts.

4. A circuit controlling device comprising a base, an expansible member mounted on said base, a second expansible member supported by said first member, circuit controlling contacts, a heat generating element for the first of said members to cause the expansion thereof and thereby to open said contacts, and a second heat generating element for the second of said members to cause the expansion thereof and by coöperative operation thereof with the first of said members to close said contacts.

5. A circuit controlling device comprising a base, an expansible member mounted on said base, a second expansible member supported by said first member, a heat generating element for each member for causing the expansion thereof, and circuit controlling contacts arranged to be closed by the coöperative expansion of both members and to be opened upon the individual expansion of the first member.

[Claims 2, 6, and 7 not printed in the Gazette.]

1,243,262. MOTION-PICTURE CAMERA. CLARENCE J. COBERLY, Glendale, Cal. Filed Apr. 24, 1916. Serial No. 93,329. (Cl. 175—264.)



1. The method of neutralizing electrical charges carried on a motion picture film which consists in moving the film in proximity to a grounded conductor; and placing a body of radioactive material in such a position as to supply ionized material to the space between said grounded conductor and said motion picture film, said motion picture film being shielded from direct radiation from said body of radioactive material.

2. The method of neutralizing electrical charges carried on a motion picture film which consists in moving the film in proximity to a grounded conductor; and placing a piece of uranium in such a position as to supply ionized material to the space between said grounded conductor and said motion picture film, said motion picture film being shielded from the direct radiation from said piece of uranium.

3. A neutralizer for motion picture films comprising a hollow semicylindrical body of insulating material having openings in a wall passing across its diameter; a grounded metallic plate inside said body; and means for ionizing the space inside said body.

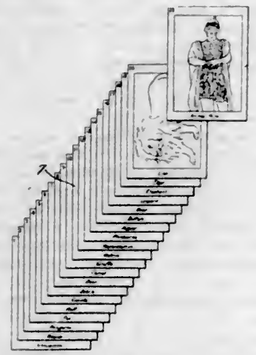
4. A neutralizer for motion picture films comprising a hollow semicylindrical body of insulating material having openings in a wall passing across its diameter; a grounded metallic plate inside said body; and a plate of radioactive material inside said body.

5. A neutralizer for motion picture films comprising a hollow semicylindrical body of insulating material having openings in a wall passing across its diameter; a grounded metallic plate inside said body; and a body of uranium inside said hollow body.

[Claim 6 not printed in the Gazette.]

1,243,263. PLAYING-CARDS. PHILLIP SEYMOUR COHEN, Boston, Mass. Filed Feb. 7, 1916. Serial No. 76,692. (Cl. 46—25.)

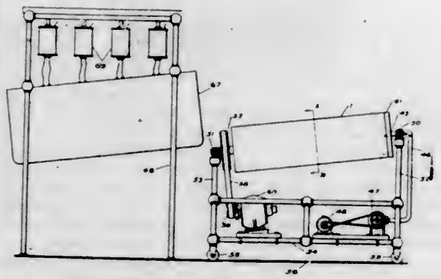
1. A pack of playing cards for playing an allegorical game of creation instructive as to the classes, order and values of creatures, composed of suits each having a "ruler" card and other cards bearing representations and legends of creatures of one class different from the other suits, the cards of each suit bearing value numerals proportional to the power and size of the various creatures represented.



5. A pack of playing cards representing the universe for playing an allegorical game of creation instructive as to the classes, order and values of creatures, composed of suits representing different creations and having "ruler" cards bearing representations of man, woman, boy, girl and Satan, respectively, and other cards having representations and legends of animals, birds, articulata, fish and reptiles, respectively, the cards of each suit bearing value numerals proportional to the power and size of the various creatures represented.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,243,264. DEVICE FOR MAKING PRINTING-PLATES. GEORGE R. CORNWALL, Rye, N. Y. Filed Nov. 30, 1914. Serial No. 874,926. (Cl. 95—77.5.)



1. A machine for making printing plates including in combination a plate support for a sensitized plate, means carried by said support for fastening a sensitive plate thereto, means for holding a design upon the sensitized surface of the plate, a light, and means for moving said support with the plate and its design held thereon, and the light relatively to each other during the exposure.

2. A machine for making printing plates including in combination a plate support for a sensitized plate, means carried by said support for fastening a sensitive plate thereto, means for holding a design upon the sensitized surface of the plate, a fixed light, and means for moving said support with the plate and its design held thereon while exposed to the light.

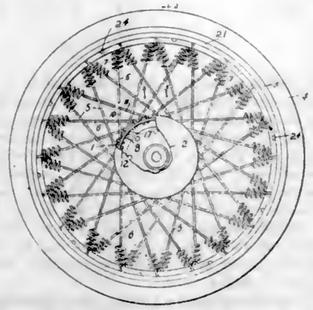
3. A machine for making printing plates including in combination a plate support for a sensitized plate, means carried by said support for fastening a sensitive plate thereto, means for holding a design upon the sensitized surface of the plate, a light, and means for effecting rotational relative movement between the plate support and the light during the exposure.

4. A machine for making printing plates including in combination a plate support for a sensitized plate, means for holding a design upon the sensitized surface of the plate, a fixed light, and means for rotating the support with the plate and its design held thereon while exposed to the light.

5. A machine for making printing plates including in combination a cylinder for supporting a sensitized plate, means carried by said support for fastening a sensitive plate thereto, means for holding a design upon the sensitized surface of the plate, a light, and means for rotating the support with the plate and its design held thereon, and the light relatively to each other.

[Claims 6 to 27 not printed in the Gazette.]

1,243,265. RESILIENT WHEEL. JOSEPH A. CRISMORE, Berwyn, Ill.; William A. Carson administrator of said Joseph A. Crismore, deceased. Filed Apr. 28, 1915. Serial No. 24,386. (Cl. 152—52.)



1. In a wheel, a hub, a rim, spokes connecting the hub and the rim together, the spokes being in two groups which cross each other between the hub and the rim, and a V-shaped brace having its arms lying beside and secured to those portions of each pair of spokes lying between the hub and the point of crossing.

2. In a wheel, a hub, a rim, spokes connecting the hub and rim together, the spokes being in two groups which cross each other between the hub and rim, means for rigidly tying the inner portions of each pair of crossing spokes together between the point of crossing and the hub, the outer portion of each spoke being bent into a helical spring coaxial with the spoke.

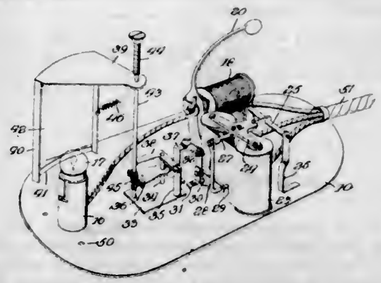
3. In a wheel, a hub, a rim, spokes connecting the hub and the rim together, the spokes being arranged in two oppositely-arranged tangential groups crossing each other as viewed from the side of the wheel and also from a point in the plane of the wheel, each spoke having in the outer portion a section in the form of a spring, and a brace extending from the hub along the inner portions of each pair of crossing spokes and firmly secured to the hub and the adjacent spokes.

4. In a wheel, a hub, a rim, spokes connecting the hub and the rim together, the spokes being arranged in two oppositely-arranged tangential groups crossing each other as viewed from the side of the wheel and also from a point in the plane of the wheel, each spoke having in the outer portion a section in the form of a spring, and V-shaped braces each having its arms lying beside and secured to the inner portions of two crossing spokes and its ends fixed to the hub.

5. In a wheel, a hub, a rim, spokes connecting the hub and the rim together, the spokes being arranged in two oppositely-arranged tangential groups crossing each other as viewed from the side of the wheel and also from a point in the plane of the wheel, V-shaped braces each having its arms lying beside and secured to the inner portions of two crossing spokes, the inner ends of the spokes and of the braces being bent laterally and passing through openings in the hub, and a clip passing over each spoke and the adjacent brace member for securing them to the hub.

[Claims 6 and 7 not printed in the Gazette.]

1,243,266. DIRECTION-SIGNAL AND ALARM. BERT CURTISS, Ypsilanti, and GEORGE F. CURTISS, Plymouth, Mich. Filed Aug. 15, 1916. Serial No. 115,035. (Cl. 177—329.)



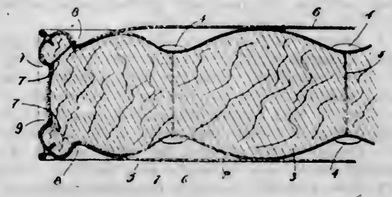
1. A device of the character described including a casing provided with an opening, a rock shaft journaled at one end upon the bottom wall of the casing, a bearing screw adjustable through the top wall of the casing and engaging the opposite end of said shaft, a screen body connected to the shaft with the said shaft supporting the body to swing in front of said opening, and means for rocking said shaft.

4. A device of the character described including a casing provided with an opening, a rock shaft journaled at one end upon the bottom wall of the casing, means carried by the top wall of the casing and engaging the opposite end of said shaft, a screen body connected to the shaft with the shaft supporting said body to swing in front of said opening, a post upstanding from the bottom wall of the casing, and a toothed segment mounted to swing upon the said post and operatively engaging said shaft for rocking the shaft.

7. A device of the character described including a casing provided with an opening, a rock shaft journaled between the top and bottom walls of the casing, a screen body connected to said shaft and supported thereby to swing in front of said opening, a post upstanding from the bottom wall of the casing, a toothed segment mounted to swing upon the said post and operatively engaging said shaft for rocking the shaft, said segment being extended at its rear extremity to provide an arm, an electro-magnet, a pivoted armature for the magnet, a bell crank lever mounted upon the bottom wall of the casing, a link connecting one arm of said lever with the arm of said segment, and a second link connecting the other arm of said lever with said armature with the armature operable for swinging the said segment.

[Claims 2, 3, 5, 6, and 8 not printed in the Gazette.]

1,243,267. MATTRESS. GAETANO DALLAVALLE, Newark, N. J. Filed Mar. 16, 1917. Serial No. 155,174. (Cl. 5—13.)

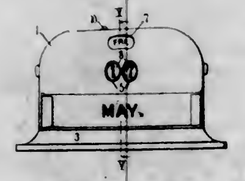


In a mattress, the combination of a body portion comprising a container and a filling, the whole being tufted for

its middle part and capable of edgewise expansion as it flattens, and an outer covering strong enough to prevent such expansion inclosing said body portion and positively secured thereto at the marginal part of the mattress.

1,243,268. [WITHDRAWN.]

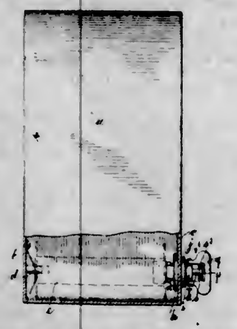
1,243,269. PERPETUAL CALENDAR. ROBERT R. DEBACHER, Hoboken, N. J. Filed June 1, 1916. Serial No. 101,165. (Cl. 40—113.)



1. In a perpetual calendar having means for indicating the month and date, mechanism for indicating the day of the week, said mechanism comprising a casing having suitable reading windows for the date and day, a day indicator card rotatably mounted within the casing surrounding the date window and having a series of ears fitted to protrude from the casing for manually rotating the card to bring successive portions in register with the day window, and means for locking the card in predetermined positions against accidental movement.

[Claim 2 not printed in the Gazette.]

1,243,270. WINDING DEVICE FOR ROLL-FILM CAMERAS. PAUL DIETZ, Philadelphia, Pa., assignor to Defiance Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Nov. 11, 1915. Serial No. 60,835. (Cl. 242—71.)

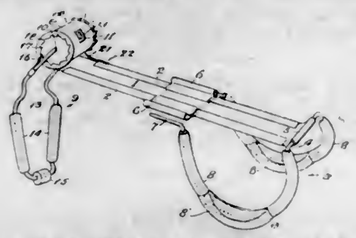


1. A winding device for roll-film cameras comprising a spool engaging shaft and mechanism for holding the shaft out of engagement with the spool, supporting means for said winding device mounted on one side wall of the camera casing, said holding mechanism comprising a button on the outer end of said shaft and a winding key pivotally mounted on said supporting means and having locking teeth on its inner body portions adapted to engage the inner surface of the button.

2. A winding device for roll-film cameras comprising a spool engaging shaft and mechanism for holding the shaft out of engagement with the spool, supporting means for said winding device mounted on one side wall of the camera casing, said holding mechanism comprising a button on the outer end of said shaft, a flat key with end flanges pivotally secured upon the outer portion of said supporting means and having locking teeth on its inner body portion adapted to engage the inner surface of the button when the shaft has been pulled out.

3. A winding device for roll-film cameras comprising a spool engaging shaft, a button at the outer end of the shaft for pulling out the same, and a key pivotally mounted independent from the button, and having lock teeth on its inner body portion, said key being adapted to be laid flat against the side of the camera casing permitting to pull out the button with mechanism thereon and returned into its initial position so that the teeth engage the inner surface of the button, holding the shaft in the drawn out position until released.

1,243,271. LAYING-REGISTER FOR FOWLS. GEORGE H. DILLON, Sawtelle, Cal., assignor of one-half to Richard H. Angell, Soldiers Home, Cal. Filed June 24, 1916. Serial No. 105,751. (Cl. 235—91.)

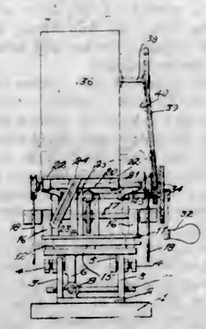


1. In a laying register, a frame adapted to fit the back of a fowl between the wings and extend from in front of the wings to in front of the tail, a transverse bearing at the front end of the frame, a wire having a central portion journaled in the bearing and bent to form wing embracing loops on each side of the bearing, sockets mounted at the center of the frame to receive the free ends of the loops, a housing carried by the rear end of the frame, an indicator cylinder in the housing, a lever pivotally mounted and adapted to be operated by the egg in the laying process, and a pawl and ratchet connection between the lever and the cylinder.

2. In a laying register, a frame adapted to fit the back of a fowl between the wings and extend from in front of the wings to in front of the tail, wire loops extending from the front end of the frame and adapted to attach the frame to the wings, and indicator mechanism carried by the frame and adapted to be operated by the egg in the laying process.

3. In a laying register, a frame adapted to fit the back of a fowl between the wings, and extend from in front of the wings to in front of the tail, means extending from the front end of the frame for attachment to the wings for holding the frame in place, and indicator mechanism carried at the rear end of the frame and adapted to be operated by the egg in the laying process.

1,243,272. MOVABLE CAMERA-SUPPORT. CONSTANT L. DUHEM, Oroville, Cal. Filed Mar. 11, 1916. Serial No. 83,559. (Cl. 88—16.)

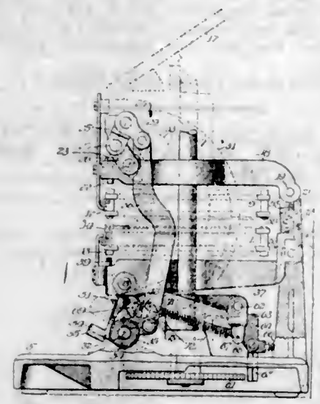


1. In combination with a camera for the taking of motion pictures and provided with a lens and shutter, of means for supporting the same, and mechanism for raising and lowering said camera at an oblique angle simultaneously with the operation of the shutter thereof.

5. In combination with a camera for the taking of motion pictures and provided with a lens and shutter, of a base, a table carried thereby and pivotally connected thereto, a platform above the table and on which the camera is supported, means for moving the platform vertically at an oblique angle and maintaining the same parallel with said table during its cycle of movement, and means for simultaneously operating the camera shutter during the movement of the platform.

[Claims 2 to 4 and 6 to 8 not printed in the Gazette.]

1,243,273. MACHINE FOR MAKING PRINTING-PLATES. JOSEPH S. DUNCAN, Chicago, Ill., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 27, 1914. Serial No. 821,415. (Cl. 197—6.7.)



1. In a machine for making printing plates, the combination of a head, a plurality of pairs of punches and dies mounted thereon, mechanism including a pair of toggles for operating companion punches and dies, and means including a single lever and connections between said lever and toggles for actuating said mechanism to operate the toggles in predetermined sequence, one of said connections permitting lost motion whereby a die is brought into operative position and rests substantially stationary during the movement of the coöperating punch.

2. In a machine for making printing plates, the combination of a rotatable head, a plurality of pairs of punches and dies mounted thereon, toggle mechanism for operating the punches, toggle mechanism for operating the dies, and means including a single lever and connections between said lever and toggles for operating said toggle mechanisms in predetermined sequence, one of said connections permitting lost motion whereby a die is brought to operative position and rests substantially stationary during the movement of the coöperating punch.

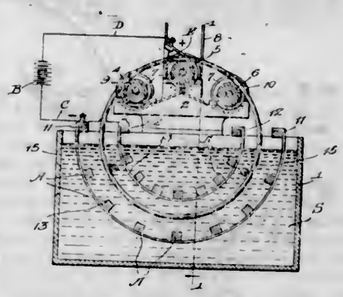
3. In a machine for making printing plates, the combination of a head, punches and dies carried thereby in opposed relation, a toggle mechanism for operating the dies, a toggle mechanism for operating the punches, a hand operated lever, a link connecting said lever and die operating toggle mechanism, and a lost motion connection between said lever and said punch operating toggle mechanism.

4. In a machine for making printing plates, the combination of opposed punches and dies, toggles for forcing a punch and a die into coöperative relation, and means including a single lever and direct and lost motion connections between said lever and the respective toggles for operating said toggles in succession to first place the die in operative position and subsequently move a punch into coöperative relation therewith whereby said die remains substantially stationary during the movement of the cooperating punch.

5. In a machine for making printing plates, the combination of a head, punches and dies carried thereby in opposed relation, toggle mechanisms positioned above and beneath the dies and punches respectively, an operating lever, a link connecting said lever with the die operating toggle mechanism to operate said toggle upon initial movement of said lever, a lug connected with said lever, and a boss carried by said punch operating toggle in the path of said lug whereby said punch operating toggle is operated after said lever has traveled a predetermined distance.

[Claims 6 to 13 not printed in the Gazette.]

1,243,274. METHOD AND APPARATUS FOR ELECTRICALLY MAKING COPPER TUBES. ELISHA EMERSON, Auburn, R. I. Filed Jan. 26, 1917. Serial No. 144,752. (Cl. 204—5.)

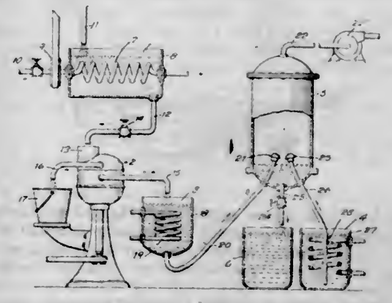


1. The herein described process for making tubes or cylinders by electro-deposition which consists in forming a fusible core in the form of a circle and securing the ends together, rotating the same in a liquid bath to cause a metallic deposit on the core, and finally in cutting the core and subjecting it to heat to cause melting of the core and its consequent removal from the metal so deposited.

2. An apparatus for producing copper tubes, including a vat, an inner and an outer pair of longitudinal bars carried by the top of the vat, semi-circular strips connected at their ends to the bars, anodes extending longitudinally of the vat and connected to said strips, a pair of guide rods in the spaces between the inner and outer anodes, a pair of rolls above the top of the vat, a third roll above the pair of rolls, said rolls being peripherally grooved to receive a lead ring or the like, which ring is engageable on its inner circumference with the rolls and guide rods, means to drive the three rolls in unison, and an electrical circuit including one of the rolls and the anodes.

[Claims 3 and 4 not printed in the Gazette.]

1,243,275. APPARATUS FOR THE PRODUCTION OF SKIMMED-MILK AND VEGETABLE-FAT COMPOUNDS. JOHN F. ENZ, Denmark, Wis. Filed Apr. 9, 1917. Serial No. 160,716. (Cl. 99—2.)

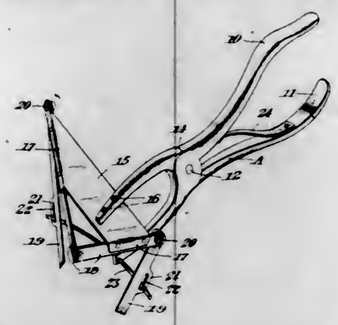


1. An apparatus for the production of a compound of skimmed-milk and vegetable fat consisting of a receptacle

for holding and heating skimmed milk, a receptacle for holding and heating vegetable fat, a mixing receptacle, a pipe connecting the milk receptacle and the mixing receptacle, a pipe connecting the fat receptacle and the mixing receptacle, the ends of the pipe converging, sprayers located upon the ends of the pipes and adapted to commingle the sprayed milk and fat, and a means for producing a vacuum in the mixing receptacle.

[Claim 2 not printed in the Gazette.]

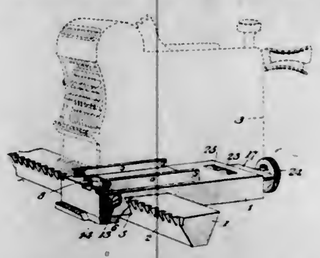
1,243,276. PAPER-CUTTER OR LIKE MACHINE. HENRY GLADSTONE FISHER, Hull, Quebec, Canada. Filed Mar. 6, 1917. Serial No. 152,641. (Cl. 30—13.)



1. A coupon clipper comprising a pair of fixed upper blades, joined rigidly at right angles to each other and adapted to be placed along over the upper sides of the coupon which is to be cut, lower blades pivotally connected to the outer end of the fixed blades relatively to each other, the said means comprising a pair of cross levers pivoted together, one lever being connected to the fixed blades, and a cross bar on the other lever extending through suitable slots formed in the movable blades.

2. A coupon clipper comprising a pair of fixed blades joined rigidly at right angles to each other, a pair of movable blades pivoted to outer ends of the fixed blades and being formed with slots, a positioning plate 15, connected to the fixed blades, a pair of crossed pivoted levers, the end of one lever being connected to the said plate 15, and rods on the other lever extending transversely through the slots on the movable blades.

1,243,277. REGISTER-LOCK. HARRY A. FOOTHORAP, Harrisburg, Pa., assignor to Elliott-Fisher Company, Harrisburg, Pa., a Corporation of Delaware. Filed Feb. 6, 1911. Serial No. 606,930. (Cl. 235—130.)



1. The combination with a base formed to receive a supporting bar, of a locking bar movably mounted in the base and a camming device carried by the locking bar and coacting with the base to urge the locking bar in one direction.

2. The combination with a base of a locking bar slidably mounted therein, a spring tending to urge the locking bar in one direction and a camming device for urging the bar in the opposite direction.

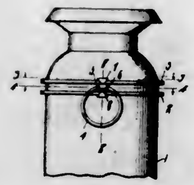
3. The combination with a base of a locking bar slidably mounted in the base, a spring tending to urge the locking bar from its engaging position and a camming device operative to cam the locking bar in the opposite direction, whereby the spring will urge the locking bar from its engaging position, and whereby the camming device will impart slight additional movement in the opposite direction to the locking bar after said bar has been moved to its engaging position in opposition to the spring.

4. The combination with a base and a locking bar slidably engaged, of a head carried by the locking bar and serving as a handle to slide the same to and from its engaging position, and a camming device operated by the head to cam the locking bar slightly after the same has reached its engaging position.

5. The combination with a base and a locking bar slidably engaged, of a rotary camming device serving as a means for sliding the locking bar to and from its engaging position, and operative to cam the locking bar slightly when the same has reached its position of engagement.

[Claims 6 to 18 not printed in the Gazette.]

1,243,278. MILK-CAN HANDLE. PHILIP L. FRAZIER, Rockbury, Conn. Filed Mar. 12, 1917. Serial No. 154,266. (Cl. 220—24.)



1. A container handle fastening device comprising a pair of annular flanges, one of the flanges having a wedge shaped space, a handle, a wedge member arranged in the said wedge shaped space, and a fastening element embracing the said handle and connected to the said wedge member and the other of said flanges.

2. A container handle fastening device comprising a pair of annular spaced apart flanges, the uppermost flange having a recess and the lowermost flange provided with a wedge shaped space, a wedge removably mounted in the space, and means for supporting the handle and engaged with the said wedge for preventing displacement thereof, the said means being rigidly secured in the said recess.

3. A container handle fastening device comprising a pair of spaced apart annular flanges, the uppermost flange having a recess formed therein, the lowermost flange provided with a wedge shaped space directly below the said recess, a handle, a yoke embracing the handle and disposed in the space between the said flanges and having one end fixed in the recess, and means mounted in the wedge shaped space and engageable with the opposite end of the said yoke whereby the said means will be prevented from accidental displacement from the wedge shaped space.

4. A container handle fastening device comprising a pair of spaced apart annular flanges, the uppermost flange having a recess formed therein, the lowermost flange provided with a wedge shaped space directly below the said recess, a handle, a yoke embracing the handle and disposed in the space between the said flanges and having one end fixed in the recess, means mounted in the wedge shaped space and engageable with the opposite end of the said yoke whereby the said means will be prevented from accidental displacement from the wedge shaped space, the said yoke including loops embracing the uppermost flange and the said means.

1,243,279. VEHICLE-SIGNAL. HOMER L. FREEHAFER, Denver, Colo. Filed Jan. 14, 1916. Serial No. 72,102. (Cl. 177—337.)



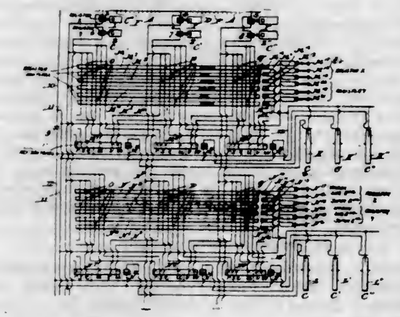
1. In a vehicle-signal, a reversibly mounted pointer-blade, comprising a shank, at one end thereof a point of similar color, and at the opposite end of the same a point of different color.

4. In a vehicle-signal, a reversibly mounted pointer-blade, comprising a shank, at one end thereof a point of similar color, and at the opposite end of the same a point of different color, an electric motor having its armature connected with the blade for its rotation, a reversing switch in the motor-circuit, to effect a current flow through said armature in either direction, and a lamp in the circuit, disposed to illuminate the blade.

6. In a vehicle-signal, a back, a pointer reversibly mounted in front thereof, and comprising a shank colored in contrast with the color of said back, at one of the ends of the shank a point of similar color, and at the opposite end of the same, a point of a color similar to that of the back, and a casing connected with said back and having a glass-covered opening in front of the pointer.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,243,280. ELECTRIC ACTION FOR ORGANS. ELLIS F. FROST, Washington, D. C. Filed Nov. 15, 1915. Serial No. 61,684. (Cl. 84—81.)

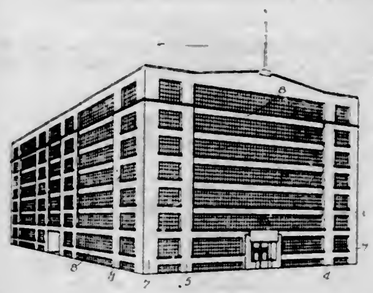


1. An electric organ-action comprising an electro-magnetic pipe-sounding device for each pipe of a register of pipes, unison, suboctave, and superoctave circuits, a keyboard, each key thereof controlling by means of said circuits devices respectively in unison, suboctave, and superoctave pitch relation with said key within the compass of said register, key switches and register switches, a key switch and a register switch being included in each circuit in series, and drawstops controlling the register switches.

17. An electric organ-action comprising an electro-magnetic pipe sounding device for each pipe of registers of pipes, unison, suboctave, and superoctave circuits, keyboards, each key thereof controlling by means of said circuits devices of each register respectively in unison, suboctave, and superoctave pitch relation with said key within the compass of said registers, a branch circuit for each device controlled by keys of each keyboard respectively in unison, suboctave, and superoctave pitch relation with said device within the compass of said keyboards, key switches and register switches, a key switch and a register switch being included in each circuit in series, the key switches controlled by a key being a multiple contact switch, and drawstops controlling the register switches.

[Claims 2 to 16 not printed in the Gazette.]

1,243,281. BUILDING CONSTRUCTION. PAUL GERHARDT, Chicago, Ill. Filed Apr. 17, 1916. Serial No. 91,536. (Cl. 72—1.)



1. In combination a reinforced concrete column having a cap formed integral therewith, a reinforced concrete floor slab integral with the cap, said floor slab having its front edge in front of the cap and the column, reinforced concrete piers formed integral with the edge of the floor upon each side of the column, said piers resting upon the foundation and being substantially flush with the building line, a reinforced concrete spandrel formed integral with the piers and the edge of the floor slab, a second column based upon the floor slab above the first column and being formed integral with the floor slab, a cap formed integral with the top of the second column, a second floor slab based on said second cap and formed integral therewith, said second floor slab being joined to and integral with the piers which piers extend between said floors, a second spandrel integral with said piers and said second floor slab and a run of sash between said spandrels running in an unbroken line from pier to pier lying in front of and being continuous past said second column.

2. In combination, a column having a cap, a floor slab resting upon said cap, a second column based upon said floor slab above said first column, a spandrel extending across the edge of said floor slab and in front of said columns and secured to said second column and a line of sash above and below said spandrel, said columns being situated adjacent the edge of the floor and being wholly behind the sash, said sash lying in front of and being continuous past said columns.

3. In combination, a column having a cap, a floor slab resting upon said cap, a second column based upon said floor slab above said first column, a spandrel extending across the edge of said floor slab and in front of said column, said spandrel comprising a beam for supporting the edge of the floor slab, and a line of sash above and below said spandrel, said columns lying back of said sash adjacent to and supporting the edge of said floor slab, said sash being continuous past said columns.

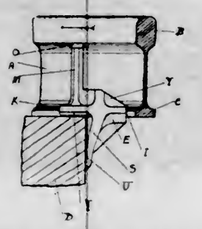
4. In a building, a plurality of piers resting upon the foundation and lying substantially flush with the building line, a plurality of floors extending transverse to said piers, a plurality of spandrels joining said piers, said spandrels extending flush with said piers and being joined to and forming the outer edges of said floors, columns between said floors, said columns being placed adjacent the edges of the floors back of said spandrels, said columns being joined to the corresponding spandrels to support the same laterally, and lines of sash extending between said piers and joining said spandrels, said sash lying in a plane in front of said columns and being continuous past said columns.

5. In a reinforced concrete structure, a floor slab, a column supporting the outer edge of said floor slab, said column having an enlarged cap upon which the floor slab rests, a column above said floor slab, and substantially in vertical line with said first column, a spandrel cast or formed integrally with said second column and said floor slab, said spandrel lying in a plane outside of the columns,

and a line of sash connected to the top and to the bottom of said spandrel, said spandrel having a wide upper edge forming a windowsill, said sill having an under cut edge.

[Claims 6 to 11 not printed in the Gazette.]

1,243,282. ANTICREEPER. HORATIO G. GILLMOR, Washington, D. C. Filed Apr. 17, 1916. Serial No. 91,617. (Cl. 238—4.)



1. An anticreeper, comprising elements gripping the rail base flange at opposite sides thereof, a tie-abutting flange and a vertically disposed element arranged to be driven in between the bottom of the head and the upper surface of the base flange of the rail.

5. A rail anchor, comprising a bar engaging the bottom of the base flange of the rail, tie engaging means at opposite ends of said bar, arms at opposite end of said bar for engaging upper surfaces of the rail base flange at opposite sides of the rail and a rail head engaging projection for locking the anchor in operative position on the rail.

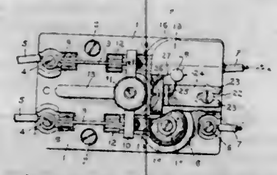
10. A rail anchor constructed with rail base edge engaging portions adapted to grip opposite edges of the rail base flange, arms adapted to engage the upper surfaces of the rail base flange at opposite sides of the rail and tie-abutting portions all connected by a transverse portion provided with rail base bottom engaging surfaces and a vertically disposed portion arranged to be driven in between the head and base flange of the rail at one side.

14. A device for preventing the creeping of rails, comprising opposing elements for engagement with opposite edges of the rail base arranged to be forced into gripping engagement with the rail base by angular movement about a transverse axis, said elements having portions which may be deformed to adapt the device to varying widths of rail base, and means for giving the device a fixed position in the roadbed in opposition to the tendency of the rail to creep.

19. An anticreeper constructed with a rail base edge engaging element at one end and a plurality of rail base edge engaging elements at the other end so arranged that angular movement of the anticreeper about an axis transverse to the rail produces a wedging and gripping action of said elements upon opposite edges of the rail base, and provided with means for engaging a fixed portion of the roadbed.

[Claims 2 to 4, 6 to 9, 11 to 13, 15 to 18, and 20 to 27 not printed in the Gazette.]

1,243,283. ELECTRICAL-SERVICE-CUT-OUT SEAL. WILLIAM W. GIVOT, Omaha, Nebr. Filed Aug. 16, 1915. Serial No. 45,837. (Cl. 175—273.)



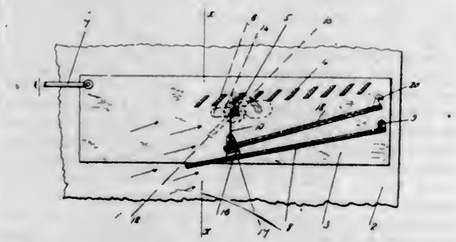
1. The combination with a fuse-block having fuse-plug sockets and adjacent terminals for connection with conductors, of a seal-cap of insulating material adapted to cover the sockets and terminals and having portions adapted to extend into the sockets, a member secured to the fuse-block and extending therefrom through an opening in the seal-cap and having notches in its sides adjacent to the side of the seal-cap opposite the fuse-block, a bar engaging said side of the seal-cap and having portions entering the notches in said member to prevent displacement of the bar and cap longitudinally of said member, and a sealing device connecting said bar and the seal-cap to prevent lateral disengagement of the bar from the notched member.

2. The combination with a fuse-block having fuse-plug sockets and insulating flanges substantially inclosing the same, of a cap of insulating material adapted to cover said sockets and having portions adapted to extend thereinto, and means for sealing said cap onto the fuse-block, said means comprising a screw extending through the cap and block into a support, a seal-bar detachably connected with the screw and engaging the cap to hold the same upon the block, and a sealing device connecting said seal-bar and cap and preventing such movement of the seal-bar as to detach the same from the screw.

3. The combination with a fuse-block having fuse-plug sockets, of a seal-cap having portions adapted to extend into said sockets, a rotatable head extending through the seal-cap and integral with a screw securing the fuse-block to a support, a seal-bar engaging said head and slidable transversely thereto, said seal-bar engaging the cap to retain the same upon the head and fuse-block, a lug on the cap adapted to engage the end of the seal-bar to prevent displacement thereof transversely of the head, and sealing means connecting said bar and lug.

4. The combination with a fuse-block having fuse-plug sockets and adjacent terminals for connection with conductors, of a seal-cap of insulating material having portions adapted to fit into the sockets and other portions adapted to cover the terminals, the cap being coextensive laterally with the fuse-block and having an opening extending perpendicularly to the block, a screw extending through the fuse-block into a support, said screw having an elongated head extending through said opening in the cap, a bar connected with said screw-head in fixed longitudinal and rotational relation and slidable transverse relation thereto, said bar engaging said cap to prevent displacement thereof longitudinally of the screw-head, a lug on the cap, the bar being movable into proximity to said lug by rotation of the screw, and sealing means for securing said bar to said lug to prevent both transverse displacement of the bar from the screw-head and rotation of the screw.

1,243,284. GRAIN-SEPARATOR. AUSTIN S. GOODMAN, Oklahoma, Okla. Filed Jan. 29, 1916, Serial No. 75,015. Renewed Aug. 6, 1917. Serial No. 184,788. (Cl. 130—15.)

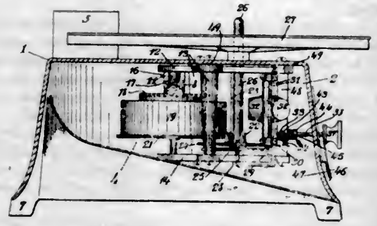


1. The combination, with a casing, of a shaking shoe supported in the casing, a sieve having its rear end portion pivoted to the shoe, a cross-shaft extending through the casing and journaled in and reciprocating with the shoe, flexible connections wound on the cross-shaft and attached to the front end portions of the said sieve, and means for actuating the cross-shaft to vary the position of the sieve without stopping the machine.

2. The combination, with a casing provided with slots in its sides, of a shaking shoe arranged in the casing, a cross-shaft pivotally supporting the said shoe, said cross-shaft being journaled in and reciprocating with the said shoe and sliding in the slots of the casing, a chaffer screen arranged above the said cross-shaft and in the said shoe, a sieve having its rear end portion pivoted to the shoe, flexible connections wound on the cross-shaft and attached to the front end portions of the said sieve, and means for actuating the cross-shaft to vary the position of the sieve without stopping the machine.

3. The combination with a casing, of a shaking shoe supported in the casing, a sieve having its rear end portion pivoted to the shoe, brackets secured to the front end portion of the sieve, a removable sieve having its rear end portion pivoted to the said shoe with its front end portion engaging slidably with the said brackets, a cross-shaft extending through the casing and journaled in and reciprocating with the shoe, flexible connections wound on the cross-shaft and attached to the said brackets, and means for actuating the cross-shaft to vary the position of the two sieves without stopping the machine.

1,243,285. MOTOR MECHANISM AND SPEED-REGULATING MEANS THEREFOR. WILLIAM F. GRUPE, Jersey City, N. J., assignor, by mesne assignments, to Van-O-Phone Company, New York, N. Y., a Corporation of New York. Filed Feb. 20, 1915. Serial No. 9,613. (Cl. 74—45.)



1. The combination with a casing for a phonograph or the like, of a frame for the motor mechanism comprising an upper plate and side bars cast integrally therewith, the connecting portion of said side bars adjacent said plate being enlarged and having tap holes therein, and connecting means passing through said casing into said tap holes.

10. The combination with motor mechanism, of a speed governor comprising a disk, a centrifugal device driven by said motor mechanism and controlling said disk, an arm having a slot extending longitudinally thereof, a positioning device passing through said slot, a friction pad carried by said arm and adapted to engage a face of said disk, an eccentric element passing through an opening in said arm, and means for rotating said eccentric element.

12. A frame for a motor mechanism, comprising in combination an upper plate and side bars cast integrally therewith, speed governing means comprising a regulating element carried by one of said side bars, said upper plate having enlarged portions adjacent certain of said side bars, said enlarged portions being provided with recesses and connecting means positioned in said recesses adapted to suspend said frame from a suitable support.

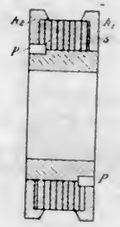
[Claims 2 to 9, 11, and 13 not printed in the Gazette.]

1,243,286. SLIP-RING FOR DYNAMO-ELECTRIC MACHINES. WILHELM GSCHEIDLEN, Berlin-Schmargendorf, Germany, assignor to Siemens-Schuckertwerke, G. M. B. H., Berlin, Germany, a Corporation of Germany. Filed May 28, 1914. Serial No. 841,637. (Cl. 200—12.)

1. A slip-ring for dynamos comprising a metal strip in the form of a helix.

2. A slip-ring for dynamos comprising a metal strip in the form of a helix having its turns on edge with respect to the axis.

3. A slip-ring for dynamos comprising a metal strip disposed on edge in helical turns, and holding means for holding said turns in position during service.

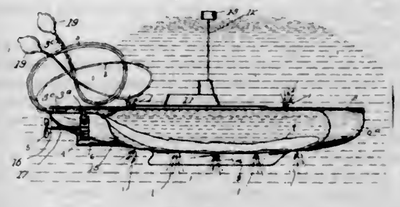


4. A slip-ring for dynamos comprising a metal strip disposed on edge in a number of adjacent helical turns, and a solid conductive ring interiorly of said helical turns and in conductive contact therewith.

5. A slip-ring for dynamos comprising a metal strip which is disposed on edge in the form of a helix, and holding means for said strip for preventing peripheral displacement of the turns thereof.

[Claims 6 to 10 not printed in the Gazette.]

1,243,287. TOY. HARRY J. HAIGH, Stapleton, N. Y. Filed Nov. 29, 1916. Serial No. 134,106. (Cl. 46—37.)

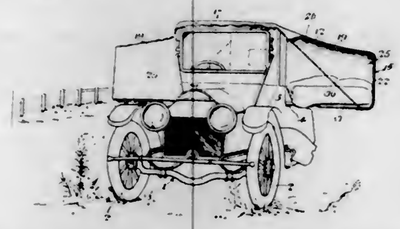


1. In a figure toy, the combination of a body portion adapted to float on a body of water, means for normally admitting water within said body portion to submerge the same, an inflatable air bag in said body portion, an air hose connected with said bag and extending outwardly through a wall of the body portion, a pump connected to the outer end of said hose for inflating the air bag, and manually operable means for controlling the exhaust of air from said bag through said air hose to the atmosphere.

2. In a figure toy, the combination of a body portion adapted to float on a body of water, means for normally admitting water within said body portion, an inflatable air bag in said body portion, an air hose connected with said bag and extending outwardly through a wall of the body portion, a compressible bulb air pump having its discharge end connected with the outer end of said hose, and a gravity check valve in the intake of said pump, said valve being operable by tilting the bulb pump to maintain the bag in an inflated condition and to permit air to exhaust from said bag.

3. In a figure toy, the combination of a hollow body portion adapted to float on a body of water, means for normally admitting water within said body portion to submerge the same, an inflatable air bag within the body portion adapted to displace the water therefrom when inflated, a flexible conduit connected at its inner end with the air bag and extendingj outwardly through the body portion, a manually operable pump for inflating said air bag connected with the outer end of said conduit, a manually operable valve in the intake of said pump for controlling the exhaust of air from said bag to the atmosphere, an upwardly extending staff fixed at its lower end to the upper side of the body portion, and a float held to said staff to limit the maximum depth to which the body portion may be submerged.

1,243,288. AUTOMOBILE-SLEEPER. FRANK D. HALL, Los Angeles, Cal. Filed June 23, 1915. Serial No. 35,853. (Cl. 21—7.)



1. In an automobile, a body, the top of said body being formed in sections, the edges of which are adapted to come together to close the top of the body, the walls of the body being respectively secured to said top sections, and said walls and top sections being adapted to be let down to form a sleeping compartment, and a cover extending over said body when said sections are let down.

2. In an automobile, a body, the top of said body being formed in sections, the walls of the body being respectively secured to the top section, a beam in the upper portion of the body adapted to rest between said top sections when the top sections are in their normal upright positions, means for securing the top sections and said walls in their normal inclosing positions, and said walls and top sections being adapted to be let down to form a sleeping compartment.

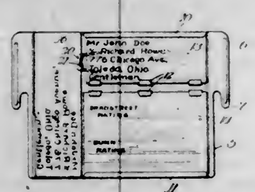
3. In an automobile, a body, the upper portions of the sides of the body being hinged to the lower portion of the body, doors, the upper portions of the doors being hinged to the upper portions of said sides, the lower portions of the doors being hinged to the lower body portion, and the upper portions of the doors being hinged to the lower portions thereof.

4. In an automobile, a body having stationary and movable sections connected together, said movable sections when in open position extending out from the stationary section and said movable sections when in closed position extending over the stationary section and the overlying portions of the movable sections being spaced from the stationary section, and a cover having superposed portions supported by the movable sections when said movable sections are in closed position.

5. In an automobile, a body having stationary and movable sections connected together, the stationary section having a flexible covering fastened thereto and said covering being fastened to the movable section to form a shelter when the movable section is in open position and said covering being foldable over the stationary section to form a roof when the movable section is in closed position.

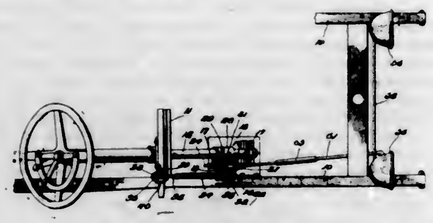
[Claims 6 to 10 not printed in the Gazette.]

1,243,289. PRINTING DEVICE. JOHN B. HALL, Chicago, Ill., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 4, 1913. Serial No. 793,358. (Cl. 101—369.)



A printing device having an elevated bed extending in a direction from top to bottom of the device, and a printing plate having type characters stamped in relief thereon and provided at its edges with flanges to engage the edges of said bed, one of said flanges extending from an end of the plate part-way of the length of the plate to leave a space for type characters to be stamped on the plate closely adjacent to the edge thereof and to lie close to the edge of the bed.

1,243,290. DIRIGIBLE-HEADLIGHT MECHANISM. THOMAS R. HANSON, Tuscaloosa, Ala. Filed Nov. 25, 1916. Serial No. 133,404. (Cl. 240—62.)



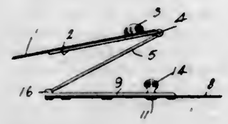
1. A dirigible headlight mechanism for vehicles including a rotatable lamp receiving post, a carrier, an operating member mounted upon the carrier and operatively connected with said post, and means for yieldably swinging the carrier to active position to operatively engage the said member with an element of the vehicle steering gear whereby the said post will be rotated as the vehicle is steered.

4. A dirigible headlight mechanism for vehicles having a steering mechanism including a steering post, said headlight mechanism including a rotatable lamp receiving post, a carrier, a slide mounted to reciprocate upon the carrier and provided with a stud, an operative connection between the said slide and the said lamp receiving post, a worm mounted upon the said steering post, and means for shifting the said carrier to engage the stud of said slide with the said worm at a predetermined position of the steering post whereby the lamp receiving post will be rotated as the vehicle is steered.

6. A dirigible headlight mechanism for vehicles including a rotatably mounted lamp receiving post, an operating member operatively connected with the said post, a driving element fixed to the steering post of the vehicle, and means for shifting the said member to a position to ride over the said element for engagement therewith only at a predetermined position of the lamp receiving post for rotating the said lamp receiving post as the vehicle is steered.

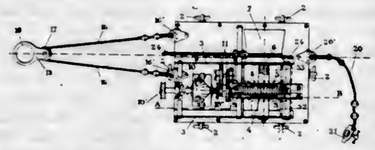
[Claims 2, 3, 5, and 7 to 12 not printed in the Gazette.]

1,243,291. FASTENER. FRED S. HAZELTON, Norton, Kans. Filed Jan. 8, 1917. Serial No. 141,318. (Cl. 24—68.)



An article of wearing apparel comprising side members; a base plate attached to the upper surface of one side member; a tongue hinged at its outer end to the outer end of the base plate and lying beneath the base plate, the tongue being provided at its inner end with a reduced tip and having an opening intermediate its ends; a second base plate lying beneath the tongue and secured to the outer surface of the other side member, the second base plate being provided at its inner end with an undercut abutment in which the tip is removably seated, the abutment being bifurcated to direct the tip into the undercut portion of the abutment; and separable, coacting fastening elements permanently secured to the respective base plates, one fastening element extending through the opening in the tongue, to engage with the other fastening element.

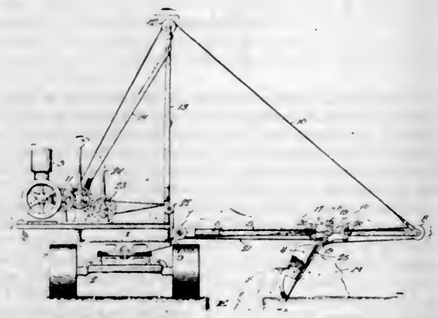
1,243,292. TRANSPORTABLE POWER-WINCH. PAUL LOUIS HOCHON and NICOLAS GJORGJEVITCH, Paris, France; said Gjorgjevitch assignor to said Hochon. Filed Feb. 9, 1916. Serial No. 77,323. (Cl. 254—176.)



2. A transportable power winch comprising a base, a motor mounted on said base, plates fixed to said base, a shaft mounted in said plates and at one side projecting beyond said plates, a worm wheel mounted on the shaft between the plates, a winding drum mounted on the projecting end of the shaft, a worm shaft, a worm thereon gearing with the worm wheel, reduction gear between the motor and the worm shaft, a cable adapted to be wound on the drum, means for gripping the free end of the cable beyond the drum when released, means for transferring the pull of the load on the cable from the drum to the base, and means for securing the base to a post fixed in the ground, said means being such that the winding drum will always be in a straight line with the direction of the pull on the cable.

[Claim 1 not printed in the Gazette.]

1,243,293. BACK-FILLING MACHINE FOR EXCAVATIONS. WALTER J. A. HOENECKE, Milwaukee, Wis., assignor of one-half to Edwin W. Strauss, Milwaukee, Wis. Filed Apr. 13, 1917. Serial No. 161,764. (Cl. 37—39.)

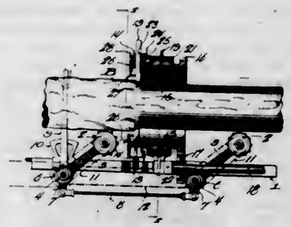


1. A machine of the class described comprising a body member, an arm extending therefrom, a carriage slidable on the arm, said carriage including a pair of plates engageable with opposite sides of the arm, spacing bars connected to the plates for holding the same together, upper and lower spaced stops on said plates, pivots disposed between the stops, a shovel having a pair of spaced arms fulcrumed intermediate their ends to said pivots, the portions of the arms on each side of the pivots being adapted to engage the stops, whereby to prevent movement of the shovel in one direction, and means for moving the said carriage.

3. A machine of the class described comprising a body member, an arm extending therefrom, a carriage slidable on the arm, said carriage including a pair of plates engageable with opposite sides of the arm, upper and lower spacing bars disposed on each side of the arm and secured to the plates, the ends of said bars being extended beyond the plates to provide stops, said stops being disposed in substantially vertical alinement, pivots disposed between said stops, a shovel having a pair of spaced arms fulcrumed intermediate their ends on said pivots, the portions of the arms on each side of the pivots being disposed on opposite sides of the stops to position the arms and shovel at an angle to the horizontal and to limit movement of the shovel in one direction, and means for shifting the carriage.

[Claims 2 and 4 not printed in the Gazette.]

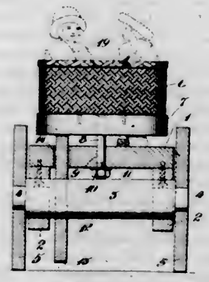
1,243,294. WOOD-BARKING MACHINE. JOSEPH J. HRUSKA, Menominee, Mich. Filed Mar. 12, 1917. Serial No. 154,161. (Cl. 144—208.)



1. A device of the class described comprising an annular member to receive an elongated piece of work material, a socket carried by the member, a blade in said socket, said blade having ratchet teeth in one edge, a pawl carried by the member for engagement with said teeth to hold the blade against movement in any direction, a spring connected by its opposite ends with the blade and socket to hold the former in the latter, and means for rotating the member around the work material.

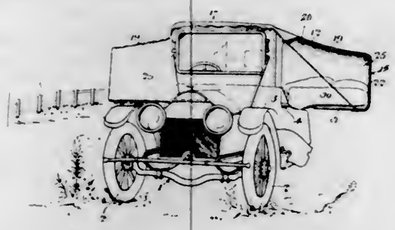
2. In a machine of the class described, a frame including a pair of spaced side bars, a stationary annular support having a pair of spaced feet secured to the side bars, a ring-like member rotatably mounted in said annular support and extended beyond the sides of the same, an annular external series of gear teeth on the member adjacent one end, a cutting blade on the other end of the member, a bearing depending from the annular support between the side bars, an operating shaft journaled in the bearing, and a pinion on the shaft and meshing with said series of gear teeth.

1,243,295. FIGURE WHEELED TOY. JOHN HUGLER, Philadelphia, Pa. Filed Dec. 16, 1916. Serial No. 137,347. (Cl. 46—48.)



1. A toy of the character stated, comprising a platform having an opening and a longitudinal slot therein, a receptacle, a bolt secured to the receptacle and extending through the opening in the platform, an axle below the platform, wheels secured to and supporting the axle, a friction wheel on the axle projecting through the slot in the platform and engaging the underface of the receptacle

1,243,288. AUTOMOBILE-SLEEPER. FRANK D. HALL, Los Angeles, Cal. Filed June 23, 1915. Serial No. 35,853. (Cl. 21—7.)



1. In an automobile, a body, the top of said body being formed in sections, the edges of which are adapted to come together to close the top of the body, the walls of the body being respectively secured to said top sections, and said walls and top sections being adapted to be let down to form a sleeping compartment, and a cover extending over said body when said sections are let down.

2. In an automobile, a body, the top of said body being formed in sections, the walls of the body being respectively secured to the top section, a beam in the upper portion of the body adapted to rest between said top sections when the top sections are in their normal upright positions, means for securing the top sections and said walls in their normal inclosing positions, and said walls and top sections being adapted to be let down to form a sleeping compartment.

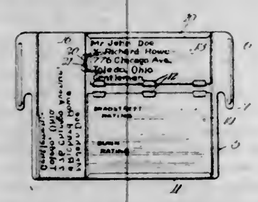
3. In an automobile, a body, the upper portions of the sides of the body being hinged to the lower portion of the body, doors, the upper portions of the doors being hinged to the upper portions of said sides, the lower portions of the doors being hinged to the lower body portion, and the upper portions of the doors being hinged to the lower portions thereof.

4. In an automobile, a body having stationary and movable sections connected together, said movable sections when in open position extending out from the stationary section and said movable sections when in closed position extending over the stationary section and the overlying portions of the movable sections being spaced from the stationary section, and a cover having superposed portions supported by the movable sections when said movable sections are in closed position.

5. In an automobile, a body having stationary and movable sections connected together, the stationary section having a flexible covering fastened thereto and said covering being fastened to the movable section to form a shelter when the movable section is in open position and said covering being foldable over the stationary section to form a roof when the movable section is in closed position.

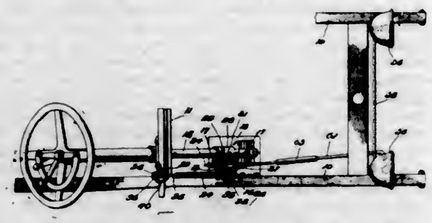
[Claims 6 to 10 not printed in the Gazette.]

1,243,289. PRINTING DEVICE. JOHN B. HALL, Chicago, Ill., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 4, 1913. Serial No. 793,358. (Cl. 101—369.)



A printing device having an elevated bed extending in a direction from top to bottom of the device, and a printing plate having type characters stamped in relief thereon and provided at its edges with flanges to engage the edges of said bed, one of said flanges extending from an end of the plate part-way of the length of the plate to leave a space for type characters to be stamped on the plate closely adjacent to the edge thereof and to lie close to the edge of the bed.

1,243,290. DIRIGIBLE-HEADLIGHT MECHANISM. THOMAS R. HANSON, Tuscaloosa, Ala. Filed Nov. 25, 1916. Serial No. 133,404. (Cl. 240—62.)



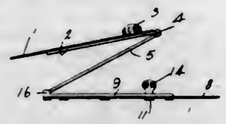
1. A dirigible headlight mechanism for vehicles including a rotatable lamp receiving post, a carrier, an operating member mounted upon the carrier and operatively connected with said post, and means for yieldably swinging the carrier to active position to operatively engage the said member with an element of the vehicle steering gear whereby the said post will be rotated as the vehicle is steered.

4. A dirigible headlight mechanism for vehicles having a steering mechanism including a steering post, said headlight mechanism including a rotatable lamp receiving post, a carrier, a slide mounted to reciprocate upon the carrier and provided with a stud, an operative connection between the said slide and the said lamp receiving post, a worm mounted upon the said steering post, and means for shifting the said carrier to engage the stud of said slide with the said worm at a predetermined position of the steering post whereby the lamp receiving post will be rotated as the vehicle is steered.

6. A dirigible headlight mechanism for vehicles including a rotatably mounted lamp receiving post, an operating member operatively connected with the said post, a driving element fixed to the steering post of the vehicle, and means for shifting the said member to a position to ride over the said element for engagement therewith only at a predetermined position of the lamp receiving post for rotating the said lamp receiving post as the vehicle is steered.

[Claims 2, 3, 5, and 7 to 12 not printed in the Gazette.]

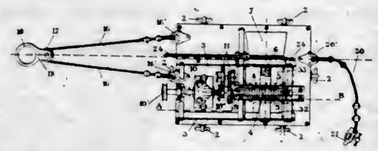
1,243,291. FASTENER. FRED S. HAZELTON, Norton, Kans. Filed Jan. 8, 1917. Serial No. 141,318. (Cl. 24—68.)



An article of wearing apparel comprising side members; a base plate attached to the upper surface of one side member; a tongue hinged at its outer end to the outer end of the base plate and lying beneath the base plate, the tongue being provided at its inner end with a reduced tip and having an opening intermediate its ends; a second base plate lying beneath the tongue and secured to the outer surface of the other side member, the second base plate being provided at its inner end with an undercut abutment in which the tip is removably seated, the abutment being bifurcated to direct the tip into the undercut portion of the abutment; and separable, coacting fastening

elements permanently secured to the respective base plates, one fastening element extending through the opening in the tongue, to engage with the other fastening element.

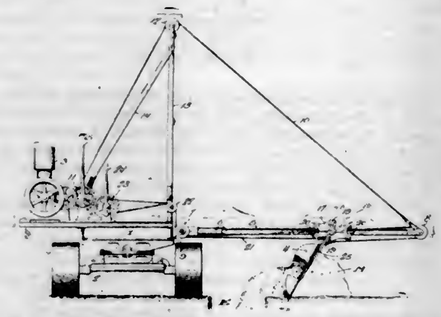
1,243,292. TRANSPORTABLE POWER-WINCH. PAUL LOUIS HOCHON and NICOLAS GJORGJEVITCH, Paris, France; said Gjorgjevitch assignor to said Hochon. Filed Feb. 9, 1916. Serial No. 77,323. (Cl. 254—176.)



2. A transportable power winch comprising a base, a motor mounted on said base, plates fixed to said base, a shaft mounted in said plates and at one side projecting beyond said plates, a worm wheel mounted on the shaft between the plates, a winding drum mounted on the projecting end of the shaft, a worm shaft, a worm thereon gearing with the worm wheel, reduction gear between the motor and the worm shaft, a cable adapted to be wound on the drum, means for gripping the free end of the cable beyond the drum when released, means for transferring the pull of the load on the cable from the drum to the base, and means for securing the base to a post fixed in the ground, said means being such that the winding drum will always be in a straight line with the direction of the pull on the cable.

[Claim 1 not printed in the Gazette.]

1,243,293. BACK-FILLING MACHINE FOR EXCAVATIONS. WALTER J. A. HOENECKE, Milwaukee, Wis., assignor of one-half to Edwin W. Strauss, Milwaukee, Wis. Filed Apr. 13, 1917. Serial No. 161,764. (Cl. 37—39.)

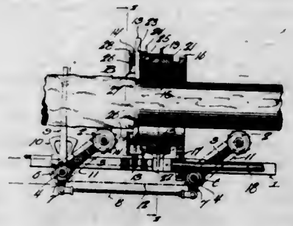


1. A machine of the class described comprising a body member, an arm extending therefrom, a carriage slidable on the arm, said carriage including a pair of plates engageable with opposite sides of the arm, spacing bars connected to the plates for holding the same together, upper and lower spaced stops on said plates, pivots disposed between the stops, a shovel having a pair of spaced arms fulcrumed intermediate their ends to said pivots, the portions of the arms on each side of the pivots being adapted to engage the stops, whereby to prevent movement of the shovel in one direction, and means for moving the said carriage.

3. A machine of the class described comprising a body member, an arm extending therefrom, a carriage slidable on the arm, said carriage including a pair of plates engageable with opposite sides of the arm, upper and lower spacing bars disposed on each side of the arm and secured to the plates, the ends of said bars being extended beyond the plates to provide stops, said stops being disposed in substantially vertical alinement, pivots disposed between said stops, a shovel having a pair of spaced arms fulcrumed intermediate their ends on said pivots, the portions of the arms on each side of the pivots being disposed on opposite sides of the stops to position the arms and shovel at an angle to the horizontal and to limit movement of the shovel in one direction, and means for shifting the carriage.

[Claims 2 and 4 not printed in the Gazette.]

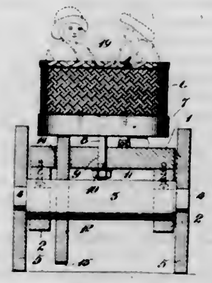
1,243,294. WOOD-BARKING MACHINE. JOSEPH J. HRUSKA, Menominee, Mich. Filed Mar. 12, 1917. Serial No. 154,161. (Cl. 144—208.)



1. A device of the class described comprising an annular member to receive an elongated piece of work material, a socket carried by the member, a blade in said socket, said blade having ratchet teeth in one edge, a pawl carried by the member for engagement with said teeth to hold the blade against movement in any direction, a spring connected by its opposite ends with the blade and socket to hold the former in the latter, and means for rotating the member around the work material.

2. In a machine of the class described, a frame including a pair of spaced side bars, a stationary annular support having a pair of spaced feet secured to the side bars, a ring-like member rotatably mounted in said annular support and extended beyond the sides of the same, an annular external series of gear teeth on the member adjacent one end, a cutting blade on the other end of the member, a bearing depending from the annular support between the side bars, an operating shaft journaled in the bearing, and a pinion on the shaft and meshing with said series of gear teeth.

1,243,295. FIGURE WHEELED TOY. JOHN HUGLER, Philadelphia, Pa. Filed Dec. 16, 1916. Serial No. 137,347. (Cl. 46—48.)

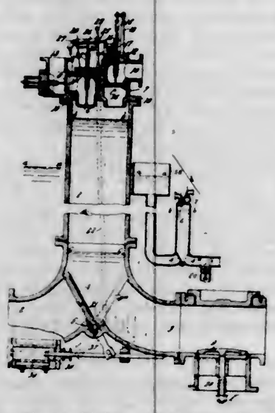


1. A toy of the character stated, comprising a platform having an opening and a longitudinal slot therein, a receptacle, a bolt secured to the receptacle and extending through the opening in the platform, an axle below the platform, wheels secured to and supporting the axle, a friction wheel on the axle projecting through the slot in the platform and engaging the underface of the receptacle

at one side of the bolt, rollers radially arranged relative to the bolt, said rollers projecting above the surface of the platform the same distance as the friction wheel and cooperating with the friction wheel to support the receptacle in a horizontal position, and a nut on said bolt below the platform permitting adjustment of the receptacle against the friction wheel and the said rollers.

2. A toy of the character stated, comprising a platform having an opening and a slot therein, said platform having a plurality of radial recesses in its upper face, brackets secured in the recesses, rollers supported by the brackets, an axle supporting the platform, wheels secured to and supporting the axle, a friction wheel secured to the axle extending through the slot in the platform, said rollers and friction wheel extending the same distance above the upper surface of the platform, a rotary receptacle supported on the rollers and the friction wheel, a bolt secured centrally to the receptacle and projecting through the opening in the platform, and a nut on the lower end of the bolt permitting adjustment of the receptacle vertically relative to the rollers and the friction wheel.

1,243,296. UTILIZING AN EXPANSIVE FORCE. HERBERT ALFRED HUMPHREY, Westminster, London, England, assignor to Humphrey Gas Pump Company, a Corporation of New York. Filed June 13, 1908, Serial No. 438,425. Renewed Feb. 17, 1917. Serial No. 149,379. (Cl. 160—1.)



1. The method which consists in reciprocating a body of liquid of sufficient bulk and path of travel to acquire useful momentum, one movement of said reciprocation caused by the energy of a medium having high initial pressure and expansive force and restraining the expansive force after the liquid has been set in motion.

2. The method which consists in reciprocating a body of liquid of sufficient bulk and path of travel to acquire useful momentum, one movement of said reciprocation caused by the energy of a medium having high initial pressure and expansive force, restraining the expansive force after the liquid has been set in motion, and utilizing the momentum of the liquid after the influence of the expansive force has been restrained to cause a diminution of pressure to entrain fresh liquid.

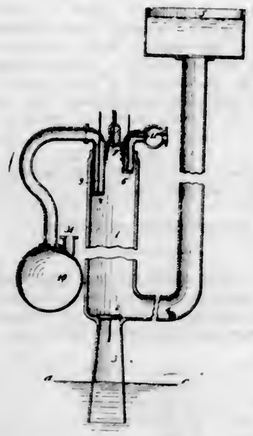
3. The method which consists in reciprocating a body of liquid of sufficient bulk and path of travel to acquire useful momentum, one movement of said reciprocation caused by the energy of a medium having high initial pressure and expansive force and utilizing an elastic cushion as an accumulator for absorbing and imparting energy in connection with said reciprocations of the liquid.

4. The method which consists in reciprocating a body of liquid of sufficient bulk and path of travel to acquire useful momentum, one movement of said reciprocation caused by the energy of a medium having high initial pressure and expansive force and utilizing elastic cushions as both high pressure and low pressure accumulators for absorbing and imparting energy in connection with said reciprocations of the liquid.

5. The method which consists in reciprocating a body of liquid of sufficient bulk and path of travel to acquire useful momentum, one movement of said reciprocation caused by the energy of a medium having high initial pressure and expansive force and utilizing the movements of the liquid for introducing measured charges of the expansible medium to act upon the liquid at required intervals.

[Claims 6 to 10 not printed in the Gazette.]

1,243,297. METHOD OF RAISING AND FORCING LIQUIDS. HERBERT ALFRED HUMPHREY, Westminster, London, England, assignor to Humphrey Gas Pump Company, a Corporation of New York. Filed Mar. 31, 1911, Serial No. 618,242. Renewed Feb. 9, 1917. Serial No. 147,722. (Cl. 160—1.)



1. The method which consists in reciprocting a liquid, the first outstroke being due to an expansive force, entraining an expansible charge in excess of amount required by one movement of the reciprocating liquid, expelling the excess of said charge and compressing the remaining charge by a return movement of said liquid.

2. The method which consists in reciprocating a liquid, the first outstroke being due to an expansive force, entraining a combustible charge in excess of amount required, by one movement of the liquid, expelling the excess of said charge and compressing the remaining charge by a return movement of the liquid, confining the expelled excesses of charge and utilizing the same in connection with subsequent charges.

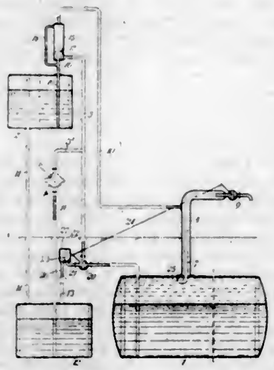
3. The method which consists in reciprocating a liquid, the first outstroke being due to an expansive force, entraining a combustible charge in excess of amount required, by one movement of the liquid, expelling the excess of said charge and compressing the remaining charge by a return movement of the liquid, confining under pressure the expelled excesses of charge and utilizing the same in connection with subsequent charges.

4. The method which consists in reciprocating a liquid, the first ontstroke being due to an expansive force, entraining an expansible charge in excess of amount required, by one movement of the liquid, expelling by a return movement of the liquid, the excess of said charge and thereby causing an increase of pressure in order to discharge like volumes at subsequent cycles.

5. The method which consists in reciprocating a liquid, the first outstroke being due to an expansive force, entraining an expansible charge in excess of amount required, by one movement of the liquid, expelling by a return movement of the liquid, the excess of said charge and thereby causing an increase of pressure, in order to discharge like volumes at subsequent cycles, and controlling, by said increase of pressure, the amount of liquid reciprocated.

[Claims 6 to 15 not printed in the Gazette.]

1,243,298. APPARATUS FOR DISCHARGING LIQUIDS. ERNST HURLBRINK, Friedenau, Berlin, Germany, assignor to Martini & Hüneke Maschinenbau-Aktien-Gesellschaft, Berlin, Germany, a Corporation of Germany. Filed Nov. 22, 1913. Serial No. 802,368. (Cl. 221—67.)



1. The combination of a storage tank for inflammable liquids, an elevated tank adapted to contain an inert liquid and located at a higher level than said storage tank, a pipe connecting said tanks and provided with a siphon bend rising above the second named tank, a third tank adapted to contain an inert liquid, and a pump having a suction connection to the said third tank and a delivery connection to a point of said pipe between the two tanks which it connects.

2. The combination of a storage tank for inflammable liquids, a second tank adapted to contain an inert liquid, a pipe connecting said tanks, and provided with a chamber adjacent to said second tank, a non-return valve controlling a connection from said chamber to the adjacent tank, a by-pass extending from said chamber around the valve, an outlet pipe through which the inflammable liquid may be discharged from the storage tank, a jacket surrounding said outlet pipe, a connection from said jacket to the aforesaid chamber, and means for filling the pipe which connects said tanks.

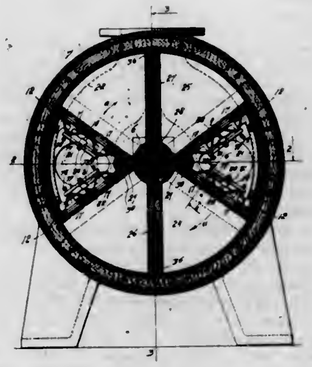
3. The combination of two tanks adapted to contain an inflammable liquid and an inert liquid respectively, a pipe connecting said tanks and provided with a chamber adjacent to the second tank, a non-return valve controlling a connection from said chamber to the adjacent tank, a by-pass extending from said chamber around the valve, an outlet pipe through which the inflammable liquid may be discharged from the tank containing it, a jacket surrounding said outlet pipe, and a connection from said jacket to the aforesaid chamber.

4. The combination of two tanks adapted to contain an inflammable liquid and an inert liquid respectively, a pipe connecting said tanks, a cock located in said pipe and adapted to connect the tank containing the inflammable liquid, either with the other tank or with the surrounding air, an outlet pipe through which the inflammable liquid may be discharged from the tank containing it, a cock controlling the discharge of liquid through said outlet pipe, and an operative connection between the two cocks to connect the tanks with one another when the discharge cock is opened, and to connect the tank containing the inflammable liquid, with the air when the discharge cock is closed.

5. The combination of two tanks adapted to contain an inflammable liquid and an inert liquid respectively, a pipe connecting said tanks, a cock located in said pipe and adapted to connect the tank containing the inflammable liquid, either with the other tank or with the outside air, an outlet pipe through which the inflammable liquid may be discharged from the tank containing it, a cock controlling the discharge of liquid through said outlet pipe, an operative connection between the two cocks to connect the tank containing the inflammable liquid with the outside air when the discharge cock is closed, and with the other tank when the discharge cock is opened, and a non-return valve, opening toward the outside air, interposed between the first-named cock and the outside air.

[Claims 6 to 10 not printed in the Gazette.]

1,243,299. OSCILLATING PRESSURE-BLOWER. HENRY O. JACKSON, Denver, Colo. Filed May 18, 1916. Serial No. 98,297. (Cl. 230—29.)



1. In air forcing apparatus the combination of a circumferentially closed cylindrical casing having a detachable head, two sector shaped hollow members oppositely disposed in said casing and dividing the chamber thereof into two compartments, said hollow members having closed walls fitting the adjacent closed areas of the cylindrical wall of the casing, means for removably securing said hollow members in place, each hollow member having a partition dividing its cavity into two compartments one of the latter having an inlet opening for atmospheric air and the other an outlet opening for compressed air, the said inlet and outlet openings of each member being respectively in communication with openings in the heads of the casing, each compartment of each hollow member having ports respectively communicating on opposite sides with the adjacent casing compartments, outwardly opening check valves respectively controlling the ports on the opposite sides of each inlet compartment of each hollow member, inwardly opening check valves respectively controlling the ports on opposite sides of each outlet compartment of each hollow member, and an oscillatory piston having blade members movable in the respective chamber compartments of the cylindrical casing, and coöperating with the hollow members.

2. In air forcing apparatus, the combination of a circumferentially closed cylindrical casing having a detachable head two substantially sector shaped hollow members oppositely disposed in said casing and dividing the chamber thereof into two substantially equal compartments, said hollow members having closed walls fitting the adjacent closed areas of the cylindrical wall of the casing, means for removably securing said hollow members in place, each hollow member having a partition dividing its cavity into two compartments one of the latter having an

inlet opening for atmospheric air and the other an outlet opening for compressed air, the said inlet and outlet openings of each member being respectively in communication with openings in the heads of the casing, each compartment of each hollow member having ports respectively communicating on opposite sides with the adjacent casing compartments, and means for controlling the ports of the inlet compartment of each hollow member to allow the air to escape into the chamber compartment of the casing on the suction side and simultaneously to close the said ports on the compression side, and means for controlling the ports of the outlet compartment of each hollow member to allow the air to enter said compartments on the compression side and to close said compartmenta on the suction side, an oscillatory piston journaled between the two sector shaped members and having blades projecting into the respective chamber compartments of the casing.

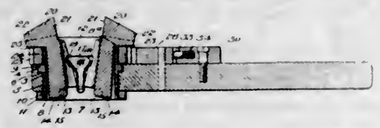
3. In air forcing apparatus the combination of a circumferentially closed cylindrical casing having detachable heads, two substantially sector shaped hollow members oppositely disposed in said casing and dividing the the chamber thereof into two substantially equal compartments, said hollow members having closed walls fitting the adjacent closed areas of the cylindrical wall of the casing, means for removably securing the said hollow members in place each hollow member having a partition extending at right angles to the axis of the piston and dividing the hollow member into inlet and outlet compartments, the inlet compartment of each member having an outwardly opening check valve adjacent each chamber compartment of the casing and the outlet compartment of each member having an inwardly opening check valve adjacent each chamber compartment, and an oscillatory piston journaled between the two members and having plates movable in the respective chamber compartments and coöperating with the hollow members.

4. Air forcing apparatus comprising a circumferentially closed cylindrical chamber having removable heads respectively open for the entrance of atmospheric air and the escape of compressed air, substantially sector shaped hollow members oppositely disposed in said chamber and dividing the latter into two substantially equal and oppositely disposed compartments, each hollow member having a closed outer wall curved to engage the inner surface of the adjacent area of the cylindrical chamber, means for detachably securing the hollow members within the chamber, each hollow member having two distinct compartments one being an inlet compartment in communication with the inlet opening in the adjacent head of the chamber and the other being an outlet compartment in communication with the outlet opening in the adjacent head of the chamber, a piston mounted to oscillate in the chamber and having a blade member in each chamber compartment, each compartment of each hollow member having ports adjacent the respective chamber compartments, and means for controlling the ports of the inlet compartments to allow air to pass therefrom into the adjacent chamber compartments, and means for controlling the ports of the outlet compartments of the hollow members to allow the air to pass from the chamber compartments into the hollow member compartments.

5. In air forcing apparatus the combination of a circumferentially closed cylindrical chamber having detachable heads, two oppositely disposed substantially sector shaped members removably secured therein and dividing the chamber into two compartments of substantially equal volume, a piston plate centrally pivoted in the chamber and having a member movable in each compartment, each hollow member having a partition dividing the cavity into two compartments, one being an inlet compartment and the other an outlet compartment, the two compartments of each hollow member being provided with check valve controlled ports to allow the air to pass from the chamber compartments into the outlet compartments of the hollow members, and from the inlet compartments of the hollow members into the chamber compartments as the piston plate is oscillated.

[Claim 6 not printed in the Gazette.]

1,243,300. WRENCH. WILLIAM JACOBY, Sioux Falls, S. D., assignor to Automatic Tool Supply Co., Sioux Falls, S. D., a Corporation of South Dakota. Filed June 13, 1917. Serial No. 174,532. (Cl. 81—62.)

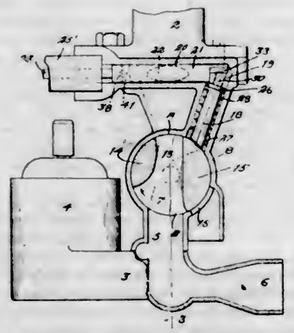


1. A wrench comprising, in combination, a handle formed with a head, a jaw carrier rotatably mounted in the head, jaws mounted on said jaw carrier and movable toward and from each other, elastic means acting to urge said jaws apart, a jaw-shifting ring rotatably mounted on the jaw carrier, and provided with a cam surface engageable with said jaws to move them toward each other on relative rotation of the jaw carrier and ring, and means for locking said jaw-shifting ring against rotation relatively to the head in one direction while permitting such relative rotation in the opposite direction.

4. A wrench comprising, in combination, a handle formed with a head, a jaw carrier rotatably mounted in the head, jaws mounted on the jaw carrier, each jaw being movable toward and away from the other jaw on an axis transverse to the axis of rotation of the jaw carrier, a jaw-shifting ring journaled on the jaw carrier and rotatable in a plane fixed with relation to the head on an axis substantially coincident with the axis of the jaw carrier, the end face of said ring being formed with opposite inclined portions and the jaws being provided with lateral extensions engageable by said opposite inclined portions, whereupon rotation of said ring on its axis is effective to move the jaws toward each other, and means for locking said ring against rotation relatively to the head in one direction, while permitting such relative rotation in the opposite direction.

[Claims 2 and 3 not printed in the Gazette.]

1,243,301. LOCKING DEVICE FOR CARBURETERS. GEORGE C. JENSEN, Oakland, Cal. Filed Feb. 12, 1917. Serial No. 148,090. (Cl. 123—198.)



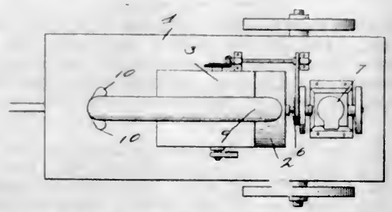
1. In combination with a carbureter for attachment to a motor and provided with a channel for the passage of carbureted air therethrough into the motor, a throttle valve controlling the passage of carbureted air through said channel, lock controlled mechanism for locking said valve from rotation and for locking said carbureter to the motor.

2. In combination with a carbureter for attachment to a motor and provided with a channel for the passage of carbureted air therethrough into the motor, a throttle valve for controlling the passage of carbureted air through said channel and capable of movement to shut off the passage of carbureted air through said channel, and lock controlled mechanism for locking said valve in its closed position and for locking said carbureter to the motor.

3. In combination with a carbureter for attachment to a motor and provided with a channel for the passage of carbureted air therethrough into the motor, a throttle valve for controlling the passage of carbureted air through said channel and capable of movement to shut off the flow of air therethrough, means for engaging and locking said valve in a position to close said channel, and lock controlled devices for actuating said locking means, said lock controlled devices adapted for locking said carbureter from detachment from the motor.

[Claims 4 to 9 not printed in the Gazette.]

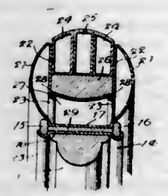
1,243,302. BOLL-WEEVIL MACHINE. HENRY A. JONES and BILLINGTON C. HARRELL, Yancey, Tex. Filed Nov. 27, 1916. Serial No. 133,772. (Cl. 43—1.)



1. In an insect destroying machine, the combination with a suction nozzle, blast nozzles mounted to direct their blasts to the mouth of the suction nozzle, a blast fan for drawing air from the suction nozzle and delivering it to the blast nozzles, and a separator interposed between the last fan and the suction nozzle, said separator consisting of a receiving chamber, a subsidiary chamber, a rotatable perforated cylinder separating said chambers, and means in the bottom of the receiving chamber for crushing the deposits separated from the air blasts by the cylinder.

2. In an insect destroying machine, a separator comprising a receiving chamber, a rotatable perforated cylinder mounted in the receiving chamber, vertical and horizontal walls projecting from the top and side of the receiving chamber and terminating at the periphery of said rotatable cylinder and providing with the latter a subsidiary chamber, and means in the bottom of the receiving chamber for disposing of the deposits separated from the cylinder by air blasts which pass through the latter into the subsidiary chamber.

1,243,303. RESILIENT TIRE. JESSE B. JONES, Arcata Cal. Filed Sept. 27, 1915, Serial No. 52,913. Renewed Aug. 24, 1917. Serial No. 188,066. (Cl. 152—8.)



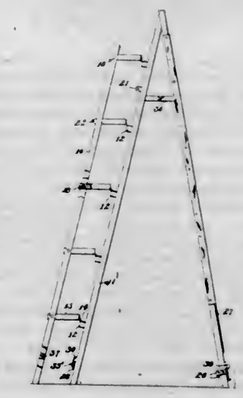
1. A resilient tire comprising a body portion including semi-circular sections and a wedging section for fitting between said semi-circular sections, each of said sections being provided with outwardly bowed side walls merging into inner walls positioned in spaced relation and terminating in flanges, a resilient cushion supporting band fitting between the inner walls of said body portion and provided with side flanges engaging the flanges of the inner walls of the body portion, a cushion fitting between the inner walls of the tire and fitting against said cushion supporting band, and tread rings positioned between the inner walls of said body portion and engaging said cushion.

2. A resilient tire comprising a body portion including semi-circular sections abutting at one end and having their opposite ends cut diagonally and positioned in spaced relation, a wedge shaped section fitting into the space between the inclined ends of said semi-circular sections, each of said sections being provided with outer side walls and inner side walls, a cushion supporting band formed of resilient material positioned between the inner walls of said body portion and in engagement with the inner walls, said cushion supporting band being slit transversely to permit of expansion and contraction, a cushion positioned between the inner walls of said body portion and resting upon said supporting band, and tread rings positioned between the inner walls of the body portion and resting upon said cushion.

3. A resilient tire comprising a body portion having its ends cut diagonally and positioned in spaced relation, a wedge-shaped section fitting into the space between the inclined ends of said body portion, a cushion supporting band formed of resilient material carried by said body portion, a cushion carried by said body portion and resting upon said supporting band, and tread rings carried by said body portion and resting upon said cushion.

4. A resilient tire comprising a resilient body portion including side walls, and having its ends cut diagonally and terminating in spaced relation, a wedging section fitting into the space between the ends of said body portion, a resilient cushion supporting element positioned between the walls of said body portion, a cushion fitting between the walls of the body portion upon said cushion supporting element, and tread rings fitting between the walls of the body portion upon said cushion.

1,243,304. COMBINED STEP-LADDER AND IRONING-BOARD. EDWARD JURKOWSKI, New York, N. Y. Filed June 1, 1916, Serial No. 101,057. Renewed Sept. 10, 1917. Serial No. 190,658. (Cl. 228—32.)



1. A ladder comprising an elongated board, pivotally connected spaced steps hinged for flat engagement with one side of the said board, strut legs hinged to the opposite edges of the said board, and a facing fabric connecting the said legs and engaging the other side of said board when the legs are in their folded position.

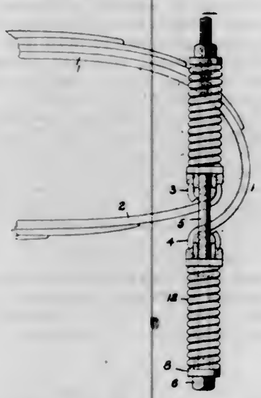
2. A ladder comprising an elongated board, pivotally connected spaced steps hinged for flat engagement with one side of the said board, strut legs hinged to the opposite edges of the said board, a facing fabric connecting the said legs and engaging the other side of said board when the legs are in their folded position, spacing links

hinged between the said board and one of the said legs, a U-shaped brace connecting the said legs and having oppositely opening hooks projecting forwardly of the opposite edges of the said board, and a spring-pressed latch bar in engagement with the said hooks when the said legs are folded.

3. A combined ironing board and step ladder comprising a tapered board, transverse cleats carried by the forward side thereof, spaced steps hinged to the said cleats, rails oppositely positioned and having receiving notches for the said steps, said steps being pivotally attached thereto, strut legs of substantially the same length as the said board and hinged to the opposite edges of the ladder adjacent the narrower end thereof and adapted for folding adjacent the opposite edges of the board, limiting links between the said board and one of said legs, a flexible ironing strip for the said board stretched between the said legs, and means for retaining the legs in closed position.

[Claim 4 not printed in the Gazette.]

1,243,305. SHOCK-ABSORBER. JAMES E. KEY, Pittsburgh, Pa. Filed Feb. 17, 1916. Serial No. 78,816. (Cl. 267—49.)



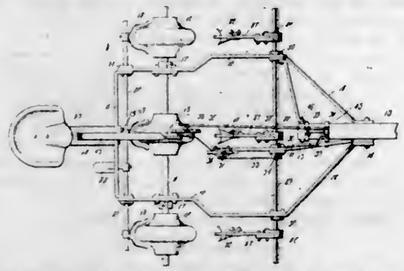
2. The combination with a pair of opposing vehicle members, one of which is a leaf spring having its end curved, of a coil spring for taking the thrust between the members as they approach and a bearing member taking the pressure of the spring and having a curved surface engaging the curved end of the spring, the curved surface on the bearing member having a larger radius of curvature than the bearing surface on the end of the spring.

4. The combination with a pair of opposing vehicle members, a pair of bearing members carried by the members having loose pivot connections with the members and having curved surfaces in rocking engagement with said members, and spring means interposed between the members resisting their approach.

[Claims 1, 3, and 5 to 7 not printed in the Gazette.]

1,243,306. DITCHING-MACHINE. ERNEST P. KNAPE, Twin Falls, Idaho. Filed July 19, 1916. Serial No. 110,161. (Cl. 97—31.)

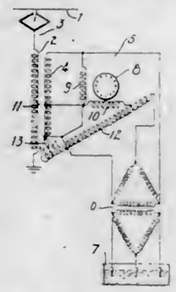
1. A ditching machine including a frame having side bars and a center bar, a tongue having its rear portions pivotally connected with said bar, an axle connected with said side bars, supporting wheels mounted upon said axle, links pivotally connected with the rear end portion of said tongue, a substantially triangular rocker plate having its rear base portion pivotally connected with said links, a yoke extending about the rear end portion of said tongue, a link pivotally connected with the center bar, said yoke and last mentioned link being pivotally connected with the forward base portion of said rocker plate, and a latch lever connected with the center bar and provided with an actuating rod connected with the upper portion of said rocker plate for swinging said rocker plate to verti-



cally adjust the frame and releasably hold the frame in the vertically adjusted position.

[Claim 2 not printed in the Gazette.]

1,243,307. SYSTEM OF DISTRIBUTION AND CONTROL. BENJAMIN G. LAMME, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Mar. 23, 1914. Serial No. 826,631. (Cl. 172—238.)



1. The combination with a single-phase source of energy, and a dynamo-electric machine connected thereto to aid in converting single-phase energy into polyphase energy, of means embodying a single switching device for adjusting the relative amounts and phase positions of the delivered polyphase voltages.

2. The combination with a single-phase source of energy, and a dynamo-electric machine connected thereto to aid in converting single-phase energy into polyphase energy, of means for proportionally varying the relative amounts and phase positions of the delivered polyphase voltages.

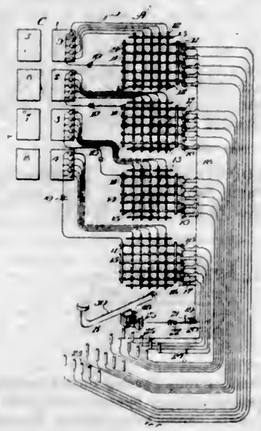
3. The combination with a single-phase source of energy, and a polyphase dynamo-electric machine connected thereto to aid in converting single-phase energy into polyphase energy, of a single means for maintaining balanced resultant voltage relations between the several phases of the dynamo-electric machine, under load conditions.

4. The combination with a source of single-phase energy, a phase converter for aiding in converting single-phase energy into polyphase energy, and electrical means adapted to receive polyphase energy from said source and said converter, of means for increasing certain of the polyphase voltages supplied to said electrical means and maintaining a balanced relation of said voltages.

5. The combination with a source of single-phase energy, a phase converter for aiding in converting single-phase energy into polyphase energy, and electrical means adapted to receive polyphase energy from said source and said converter, of means embodying a single switching device for increasing certain of the voltages supplied to said electrical means and concurrently correcting the inherent phase displacement thereof under load conditions.

[Claims 6 to 15 not printed in the Gazette.]

1,243,308. SIGNAL SYSTEM. MALCOLM E. LAUNBRANCH, Chicago, Ill., assignor to Peerless Electric Sign Company, Chicago, Ill., a Corporation of Illinois. Filed July 28, 1916. Serial No. 111,760. (Cl. 177—349.)



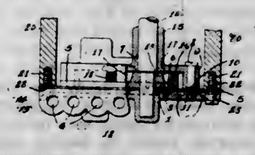
1. In a system of the character described the combination with a plurality of sign units each having a plurality of lamps adapted when selectively actuated to portray unlike characters, a control board for said units having a plurality of sections corresponding in number to the sign units, a plurality of electromagnetic means for each sign unit, each electromagnetic means having mechanism to control the selection on its corresponding sign unit of a given character, circuit terminals forming part of said control board to control the actuations of said electromagnetic means, said circuit terminals being arranged in sections, and an actuating device progressively movable over said control board from section to section having manually controlled keys corresponding to the different characters to select for operation any given electromagnetic means aforesaid through the control by said actuating device of circuit terminals corresponding to the desired electromagnetic device.

2. In a system of the character described the combination with a plurality of sign units each having a plurality of lamps adapted when selectively actuated to portray unlike characters, a control board for said units having a plurality of sections corresponding in number to the sign units, a plurality of electromagnetic means for each sign unit, each electromagnetic means having mechanism to control the selection on its corresponding sign unit of a given character, circuit terminals forming part of said control board to control the actuations of said electromagnetic means, said circuit terminals being arranged in sections, an actuating device progressively movable over said control board from section to section having manually controlled keys corresponding to the different characters to select for operation any given electromagnetic means aforesaid through the control of said actuating device of circuit terminals corresponding to the desired electromagnetic device, said actuating device having plungers to effect the control aforesaid, and means for securing a templet in a coöperating position relative to said actuating device whereby said plungers may perforate said templet in accordance with a legend to be exposed upon the said sign units.

3. In a system of the character described the combination with a plurality of sign units each having a plurality of lamps adapted when selectively actuated to portray unlike characters, a control board for said units having a plurality of sections corresponding in number to the sign units, a plurality of electromagnetic means for each sign unit, each electromagnetic means having mechanism to control the selection on its corresponding sign unit of a given character, circuit terminals forming part of said control board to control the actuations of said electromagnetic means, said circuit terminals being arranged in sections, means whereby said electromagnetic means maintain their actuated position upon actuation, means to control the restoring of all actuated electromagnetic means, and an actuating device progressively movable over said control board from section to section having manually controlled keys corresponding to the different characters to select for operation any given electromagnetic means aforesaid through the control by said actuating device of circuit terminals corresponding to the desired electromagnetic device.

4. In a system of the character described the combination with a plurality of sign units each having a plurality of lamps adapted when selectively actuated to portray unlike characters, a control board for said units having a plurality of sections corresponding in number to the sign units, a plurality of electromagnetic means for each sign unit, each electromagnetic means having mechanism to control the selection on its corresponding sign unit of a given character, circuit terminals forming part of said control board to control the actuations of said electromagnetic means, said circuit terminals being arranged in sections, means whereby said electromagnetic means maintain their actuated position upon actuation, means to control the restoration of all actuated electromagnetic means, and an actuating device progressively movable over said control board from section to section having manually controlled keys corresponding to the different characters to select for operation any given electromagnetic means aforesaid through the control by said actuating device of circuit terminals corresponding to the desired electromagnetic device, said actuating device having plungers controlled by said keys to effect the control aforesaid.

1,243,309. FORCE-FEED LUBRICATOR. HERBERT J. LEIGHTON, Syracuse, N. Y. Filed Dec. 7, 1916. Serial No. 135,635. (Cl. 184—35.)



1. A force feed lubricator comprising a body including a base formed with grooves in one face thereof, a plate mounted on the base and covering the grooves and formed with perforations communicating with portions of the grooves and constituting ports therefor, a pump casing mounted on the plate and movable parts within the casing for forcing the oil into the grooves through the ports, said movable parts engaging the plate, substantially as and for the purpose specified.

4. A force feed lubricator comprising a body including a base formed with grooves in one face thereof and with a series of outlet ports, the grooves communicating with the ports, a plate mounted on the base and covering the grooves and having ports for registering with inner end portions of the grooves, and a pump for forcing oil through the ports at the inner ends of the grooves to the outlet ports, substantially as and for the purpose specified.

[Claims 2, 3, and 5 to 8 not printed in the Gazette.]

1,243,310. TOOL-HANDLE. ZENO LITTMAN, New York, N. Y., assignor to Ze-Litt Manufacturing Company, a Corporation of New York. Filed Dec. 1, 1915. Serial No. 64,437. (Cl. 145—106.)

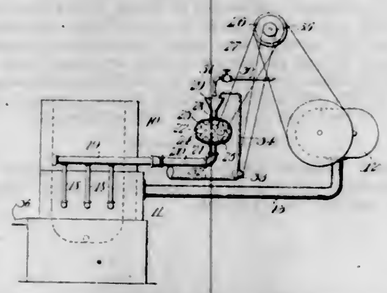
1. A device of the kind described comprising a handle having an axial aperture therein, a tubular member within said aperture, a coiled spring within said tubular member, an abutment within said tubular member against which one end of the spring rests, a follower within the tubular member engaging the opposite end of the spring, said follower having a central aperture, and a screw cutting die

or nut immovably mounted within the tubular member and adapted to hold all of the assembled elements within said member as an entirety.



2. A device of the kind described comprising a handle having an axial aperture therein, a tubular member within said aperture partly closed at one end and provided with an enlargement at its opposite end, a coiled spring within and engaging the partly closed end of the tubular member, a follower within the tubular member resting against the spring, said follower having a central aperture, and a screw cutting die or nut immovably mounted within the enlarged open end of the tubular member thereby maintaining all of the assembled elements as an entirety within the tubular member.

1,243,311. LIQUID-FUEL-COMBUSTION APPARATUS. JOHN S. LODER, Reno, Nev. Filed Jan. 26, 1914. Serial No. 814,431. (Cl. 158—1.)



1. The combination with a device for utilizing liquid fuel, said device having a vertical combustion chamber provided with inlets at its fusion zone for atomized liquid fuel and air and an outlet for molten material at its lower end below said inlets, of an air jacket surrounding the fusion zone of said combustion chamber and having air outlets communicating with the aforesaid inlets, nozzles discharging atomized liquid fuel through said inlets into said combustion chamber at the fusion zone thereof, means for supplying air under pressure to said air jacket, said air in said jacket being heated by heat from said combustion chamber and the heated air entering said combustion chamber through said inlets, and means for atomizing liquid fuel, simultaneously mixing air therewith and supplying said atomized fuel to said nozzles under pressure.

2. In a device of the class described, the combination of a casing having an inlet for air and liquid fuel, and a mixture outlet, a pair of interfitting rotatable members in said casing between said inlet and outlet, said casing closely fitting said members on all sides, said members being designed to break up the liquid fuel, mix air therewith and deliver the mixture under pressure at the outlet, and means for driving said members.

1,243,312. PROCESS OF HARDENING RESINS AND PRODUCTS THEREOF. FRANK S. LOW, Buffalo, N. Y. Filed Jan. 31, 1916. Serial No. 75,425. (Cl. 134—26.)

1. The process of treating soft natural resins which comprises heating the same under pressure with highly reactive vapors in the presence of water vapors.

2. The process of treating soft natural resins which comprises heating the same under pressure with formaldehyde vapors.

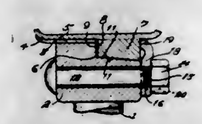
3. The process of treating rosin which comprises heating the same under pressure with highly reactive vapors in the presence of water vapors.

4. The process of treating rosin which comprises heating the same under pressure with formaldehyde vapors.

5. As a new composition of matter a hardened resin possessing the general properties of the corresponding soft natural resin but differing therefrom by being permanent on exposure to air and light and having a higher fusing point, such hardened resin having the reactive groups of the natural resin combined with formaldehyde.

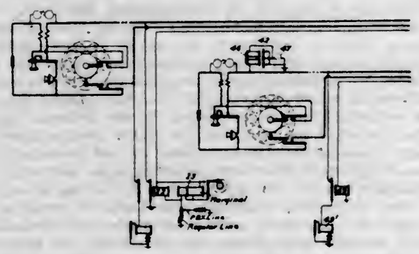
[Claim 6 not printed in the Gazette]

1,243,313. DEMOUNTABLE RIM. CHARLES LUBBE and LEONARD H. FREE, San Francisco, Cal. Filed Jan. 31, 1916. Serial No. 75,239. (Cl. 152—21.)



In a vehicle wheel, a felly formed on its periphery with transversely disposed sockets open at one end and the walls of said sockets converging toward the inner end thereof, a demountable rim for positioning over said felly and provided with a plurality of inwardly extended bosses for reception one in each of said sockets, and the walls of said bosses converging toward the inner end thereof, a securing bolt carried by said felly below each of said sockets, said bolts projecting at one end beyond one face of said felly, a ring provided with a slot for the reception of the projecting ends of each of said bolts, said ring adapted for positioning adjacent the face of said felly formed with the open ends of said sockets and said ring provided on its periphery with a plurality of radially disposed lugs arranged one over corresponding open ends of each of said slots and capable of limited rotary movement relative to said felly within the limits of said slots to position said lugs on said bosses, and a nut coöperating with each of said bolts for retaining said ring in its adjusted position and for forcing said lugs into contact with said bosses.

1,243,314. TELEPHONE METERING SYSTEM. ALBEN E. LUNDELL, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Jan. 14, 1916. Serial No. 72,146. (Cl. 179—9.)



1. In a telephone system, a plurality of subscribers' lines, connecting circuits and switches for establishing a talking connection from one of said lines to another, toll apparatus associated with said lines respectively, controlling means for governing the operation of said toll apparatus, and means for automatically associating said governing means with any one of a group of connecting circuits used in establishing said connection in order to govern the operation of the toll device of the calling subscriber.

2. In an automatic telephone system, subscribers' lines, automatic switches and connecting circuits for establishing a talking connection from one of said lines to another, toll means associated with said lines respectively, a plurality of controlling devices, any one of which may be employed to selectively control the operation of said toll devices, and means for automatically associating an idle one of said controlling devices with a connecting circuit used in establishing said connection.

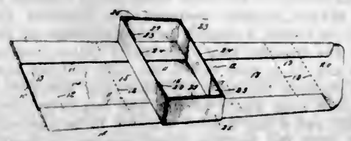
3. In a telephone exchange system, regular subscribers' lines and private branch exchange lines, toll devices associated with each of said lines respectively, automatic switches for extending a talking connection from one of said lines to another, controlling means for selectively governing the operation of the toll device of calling lines irrespective of whether said lines are regular lines or private branch exchange lines, and means for automatically associating said controlling means with any one of a group of cord circuits used in establishing said connection.

4. In a telephone exchange system, subscribers' lines, a message register associated with each of said lines respectively, automatic switches for extending a connection from one of said lines to another, a controlling device for determining the operation or non-operation of the message register of a calling line, and means for associating said controlling device with any one of a group of connecting circuits used in setting up said connection.

5. In a telephone system, a plurality of subscribers' lines, automatic switches for establishing a talking connection from one of said lines to another, toll apparatus associated with said lines respectively, controlling means for governing the operation or non-operation of said toll apparatus, and a connecting circuit finder switch for automatically associating said governing means with any one of a group of connecting circuits used in establishing said connection in order to govern the operation of the toll device of the calling subscriber.

[Claims 6 to 20 not printed in the Gazette]

1,243,315. RECEPTACLE. WILLIAM W. MCCLAY and CLARENCE G. MCCLAY, Chicago, Ill. Filed Dec. 22, 1916. Serial No. 138,406. (Cl. 229—23.)



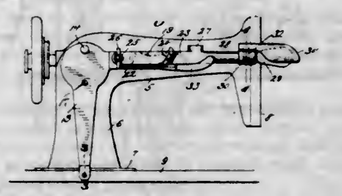
1. A receptacle comprising a tray composed of a blank which is foldable to form a bottom, side and end walls, and a reinforcing strip fitting over the side and end walls, in combination with a wrapper composed of a blank having a portion seating on the tray botom inside the end walls and beneath the side walls, and provided with parts enveloping the side walls of the tray and extending across the top thereof, one end of the wrapper having a tongue adapted to be tucked in between the tray bottom and that portion of the wrapper which seats thereon.

2. A receptacle comprising a tray composed of a blank which is foldable to form a bottom, side and end walls, and a reinforcing strip fitting over the side and end walls, in combination with a wrapper composed of a blank having longitudinal edge reinforcing folds and a portion seating on the tray bottom inside the end walls and beneath the side walls, and provided with parts enveloping the side walls of the tray and extending across the top thereof, one end of the wrapper having a tongue adapted to be tucked in between the tray bottom and that portion of the wrapper which seats thereon.

3. A receptacle comprising a tray composed of a blank which is foldable to form a bottom, side and end walls, the end walls having a double thickness of material and a reinforcing strip fitting over the side and end walls, in combination with a wrapper composed of a blank having a portion seated on the tray bottom inside the end walls and beneath the side walls, and provided with parts enveloping the side walls of the tray and extending across the top thereof, one end of the wrapper having a tongue adapted to be tucked in between the tray bottom and that portion of the wrapper which seats thereon.

4. A receptacle comprising a tray composed of a blank which is foldable to form a bottom, side and end walls, and a reinforcing strip fitting over the side and end walls, in combination with a wrapper composed of a blank having a portion seating on the tray bottom inside the end walls and beneath the side walls, and provided with parts enveloping the side walls of the tray and extending across the top thereof, the two ends of the wrapper overlapping at the top and side walls with a double thickness of material, one end of the wrapper having a tongue adapted to be tucked in between the tray bottom and that portion of the wrapper which seats thereon.

1,243,316. LAMP ATTACHMENT FOR SEWING-MACHINES. WILLIAM W. MCCLAY and CLARENCE GILBERT MCCLAY, Chicago, Ill. Filed Mar. 13, 1917. Serial No. 154,520. (Cl. 240—2.)

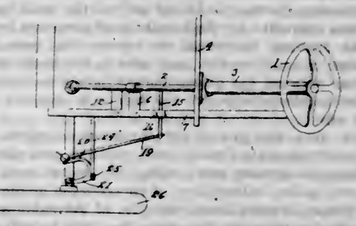


1. The combination with a sewing-machine bracket arm; of a base plate fastened thereon, a bracket arm carried by the base plate and pivoted to swing in a vertical plane, said bracket arm having an outer section which is hinged to swing in a horizontal plane, lamp supporting means on said section, and an arm extending from the base plate, on which arm the outer section seats.

2. The combination with a sewing-machine bracket arm; of a base plate fastened thereon, and a bracket arm carried by the base plate and pivoted to swing in a vertical plane, said bracket arm having an outer section which is hinged to swing in a horizontal plane, the outer end of the section being tubular to hold a lamp and having a socket to receive lamp-cord plug.

3. The combination of a sewing-machine bracket arm; of a base plate fastened thereon, a bracket arm carried by the base plate and pivoted to swing in a vertical plane, said bracket arm having an outer section which is hinged to swing in a horisontal plane, the hinge connection between the bracket arm and its outer section extending obliquely with respect thereto, and lamp-supporting means on said outer section.

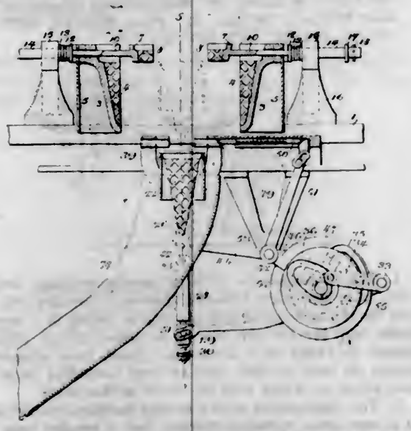
1,243,317. AUTOMOBILE STEERING-GEAR. HUGH B. MCKENZIE, Beecher City, Ill. Filed Nov. 11, 1916. Serial No. 130,870. (Cl. 21—198.)



In an automobile steering gear, the combination of a steering post, a gear secured on said post, a rotatably mounted shaft in vertical alinement with the steering post, a gear secured on said shaft and enmeshed with the

gear secured on the steering post, a worm carried by the said shaft, a rotatably mounted transversely extending steering shaft, a worm gear secured on the steering shaft and enmeshed with said worm, the said steering shaft having its outer portion bent downward at right angles, an operating rod pivotally secured at its inner end to the lower outer end of the steering shaft, a pivotally mounted spindle post, a steering fork having the forward end of its outer arm secured to the said spindle post and the forward end of its inner arm connected by ball-and-socket connections to the outer end of the operating rod, and a steering rod pivotally secured at its end to the said steering fork.

1,243,318. MACHINE FOR MOLDING AND BAKING PASTRY CUPS AND METHOD OF EXTRACTING THE PRODUCT FROM THE MOLDS. ALEXANDER MCLAREN, Chicago, Ill. Filed Jan. 2, 1917. Serial No. 140,134. (Cl. 107—58.)



1. The method of extracting cones from molding devices which molding devices include cores and separable female mold members; said method consisting in elevating the cores to release them from the cones, holding the cones by exterior engagement against movement during the initial part of the opening movement of the female molds, and then opening the female molds fully and disengaging the cones.

6. In a machine of the character described, having a pair of separable female mold parts, a core therefor, and means for opening and closing the several mold members; a cone holder independent of the core for holding the cone stationary by external engagement during the initial part of the mold opening act.

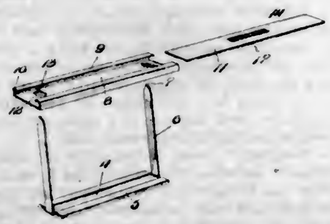
12. In a machine of the character described, having a pair of separable female mold parts, a core therefor, and means for opening and closing the several mold members; a cone holder independent of the core for holding the cone stationary during the initial part of the mold opening act, means operative by the female mold members during their final opening movement to release the cone from the holder, a cone receiver, and means for projecting the receiver between the partly opened female mold members to embrace the cone before the holder is operated to release the cone.

18. In a machine of the character described, having a pair of separable female mold parts, a core therefor, and means for opening and closing the several mold members; a cone holder independent of the core for holding the cone stationary during the initial part of the mold opening act, means for releasing the cone from the holder, a cone receiver, means for projecting the receiver between the partly opened female mold members to embrace the cone before the holder is operated to release the cone, said receiver comprising a trimmer tube and means for pushing the cone through the trimmer tube to trim the cone and discharge it from the tube.

25. The method of extracting cones from molding devices which molding devices include a core and separable female mold members, said method consisting in elevating the core to release it from the cone, holding the cone against movement during the initial part of the opening movement of the female mold members by holding a portion of the cone and then opening the female mold members fully and disengaging the cone by releasing the portion of the cone which has been held.

[Claims 2 to 5, 7 to 11, 13 to 17, 19 to 24, and 26 to 28 not printed in the Gazette.]

1,243,319. LOOSE-LEAF BINDER. JOHN O. MCLAUGHLIN, Cadiz, Ohio. Filed Oct. 3, 1916. Serial No. 123,528. (Cl. 129—25.)



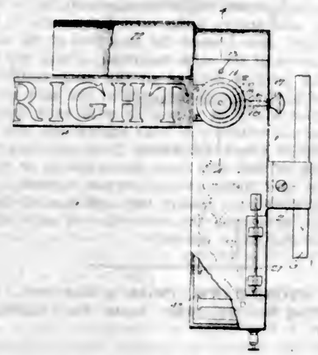
1. In a device of the class described, a member having spaced flexible tongues designed for insertion through leaves to be bound, a member having spaced guide flanges and having openings for the passage of the tongues, the tongues being designed to be bent down upon the last mentioned member between the said flanges and the said member being provided with upstanding lugs at the adjacent sides of the openings therein and over which lugs the said tongues are to be bent, and a cap plate removably slidably fitted beneath the flanges in position to cover the down bent portions of the tongues.

2. In a device of the class described, a member having spaced flexible tongues designed for insertion through leaves to be bound, a member having openings for the passage of the tongues and upon which latter member the tongues are to be bent down, the said member inwardly of each opening having a portion raised above its upper surface and over which portion the respective tongue is to extend, and a cap member adapted to be removably assembled with the last-mentioned member in position to cover the down-bent portions of the tongues.

1,243,320. AUTOMOBILE-SIGNAL. JOHN HUSBAND MACLEAN, Ann Arbor, Mich. Filed Nov. 25, 1916. Serial No. 133,329. (Cl. 40—67.)

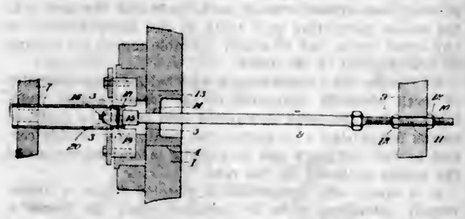
1. A device of the character specified, comprising a casing having one side open, a series of plates pivoted in the casing to swing on a common axis at the top thereof, a knob outside the casing for each plate and connected therewith for swinging the plate into horizontal or operative position, a spring for returning each plate to inoperative position, a common latch for holding the plates in operative position, each plate having means for releasing the latch as it is moved into operative position, said latch being releasable manually, a reflector above the position of the plates when they are in operative position and having lighting means for lighting both faces of the plates, the opposite faces of each plate bearing the same legend, and the knobs having indications indicating the plate to which they are connected, an electrical circuit in which the lighting means is interposed, and means operated by the movement of the plates into operative position for controlling the circuit.

2. A device of the character specified, comprising a casing having one side open, a series of plates pivoted in the casing to swing on a common axis at the top thereof, a knob outside the casing for each plate and connected therewith for swinging the plate into horizontal or operative position, a spring for returning each plate to in-



operative position, and a common latch for holding the plates in operative position, each plate having means for releasing the latch as it is moved into operative position.

1,243,321. METHOD OF AND APPARATUS FOR THREADING PIPES. FRANK P. MCMILLAN, Pittsburgh, Pa., assignor to National Tube Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Apr. 26, 1917. Serial No. 164,753. (Cl. 10—106.)



2. A pipe threading apparatus provided with means to enter the end of a pipe and prevent the oil which enters said end of the pipe during the thread cutting operations from accumulating within the pipe at the inner side of the said means.

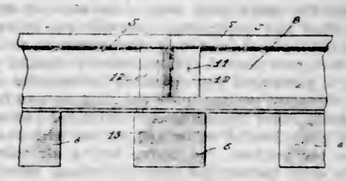
6. A pipe threading apparatus including a threading die having bits or chasers, a pipe closure supported axially with respect to the bits or chasers in position to engage and close the open end of a pipe on which the bits or chasers are operated, said pipe closure including a spindle, an externally threaded sleeve rotatable thereon and provided with an annular flange, a nut on the threaded sleeve, and a washer clamped between the nut and the flange and of greater diameter than said members.

18. The herein described method which consists in cutting threads upon a pipe, flooding the cutting tool with oil, plugging the pipe against the passage of oil at a point inwardly from the end of the pipe which is being threaded, and separating the pipe and the plug in the longitudinal direction of the pipe, thereby to wipe out of the pipe such oil as may have accumulated in front of the plug.

[Claims 1, 3 to 5, and 7 to 17 not printed in the Gazette.]

1,243,322. RAIL-JOINT. WILLIAM MACQUAID, Allentown, Pa. Filed Aug. 3, 1917. Serial No. 184,283. (Cl. 239—13.)

The combination with the meeting ends of two rails having tapering slots therein combining to form an opening having angular sides; of a locking key mounted in said opening and having its sides provided with opposed tapering surfaces adapted to snugly fit the sides of said



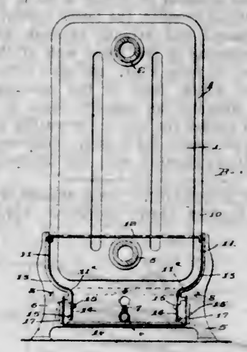
opening, and fastening elements carried by said key and adapted to enter a tie when said key is driven into said opening.

1,243,323. METHOD OF MAKING AN INSECTICIDE. WILLIAM R. MACKLIND, Cleveland, and EDWARD C. HOLTON, Olmsted Falls, Ohio, assignors to The Sherwin-Williams Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 13, 1915. Serial No. 14,163. (Cl. 167—6.)

1. In a method of recovering the insecticidal arsenic content from the precipitated dust from smelter fumes, the step which consists in reacting upon such dust with a hydroxid to convert such content into arsenic containing compounds.

2. In a method of recovering the insecticidal arsenic content from the precipitated dust from smelter fumes, the step which consists in reacting upon such dust with an excess of calcium hydroxid to convert such content into arsenic containing compounds.

1,243,324. GAS-HEATED RADIATOR. JAMES F. MAGEE and CHARLES B. HINDON, Syracuse, N. Y. Filed Feb. 16, 1915. Serial No. 8,687. (Cl. 237—17.)



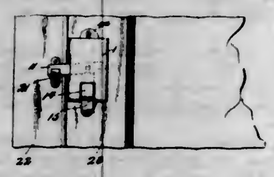
1. The combination with a radiator including sections, a pan arranged below the sections, a casing inclosing the lower ends of the sections, a portion thereof contracting around the lower ends of the sections, and a portion depending into the pan and spaced apart from the side walls, and terminating short of the bottom of said pan, the sides of the pan terminating near and below the contracted portion of the casing, and a perforated top for the casing extending between the sections of the radiator, and luminous flame gas burners located in the pan, the luminous flame gas burners being located in alinement with the spaces between the sections and below the sections so that the flames are out of contact therewith, substantially as and for the purpose set forth.

3. The combination of a water containing radiator including sections which are spaced apart, luminous flame gas burners for producing radiant heat located below and in alinement with the spaces between said sections, and means for spreading the flame from the burners between the sections, substantially as and for the purpose specified.

8. The combination of a water containing radiator including sections, a casing inclosing a combustion chamber around the lower ends of the sections and extending below the same, the casing lying close to the sides of the radiator sections and contracting inwardly and downwardly around the lower ends of the radiator sections to conform to the curvature thereof, said combustion chamber also including a perforated top extending between the sections and a contracted portion below the sections, and luminous flame gas burners located in the contracted portion, said burners being located below and in line with the spaces between the sections, the casing having air inlets near opposite sides thereof and near its bottom, substantially as and for the purpose set forth.

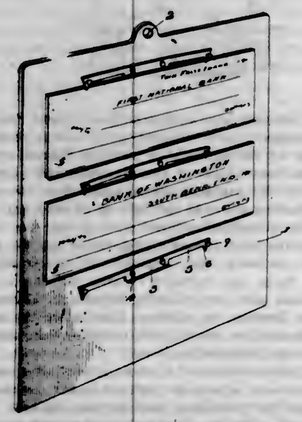
[Claims 2 and 4 to 7 not printed in the Gazette.]

1,243,325. LATCH FOR DOORS OF KITCHEN-CABINETS, &c. CLARENCE MAHONEY, Elwood, Ind., assignor to G. I. Sellers & Sons Company, Elwood, Ind., a Corporation of Indiana. Filed Dec. 26, 1916. Serial No. 138,859. (Cl. 70—44.)



The hereindescribed latch, formed of sheet-metal, and consisting of a rectangular housing having an opening at one side and a rectangular opening in its front wall at the lower end thereof, a latch-bar pivoted at its inner end within the housing and having its free end extending through the opening in the side of the housing and beyond the same and adapted to engage a catch, and an angularly shaped lifting-member, the lower portion of which is forwardly disposed and extends through and beyond the rectangular opening in the front wall of the housing where it is shaped to form a lift, the said lifting-member approximating in width that of the opening through which it passes, whereby the opposite edges of the opening form vertical guides for the reciprocating movements of the member, and means for loosely connecting the upper end of the lifting-member with the latch-bar.

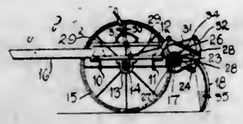
1,243,326. CHECK-HOLDER. BERT MARSH, Twin Falls, Idaho. Filed Oct. 23, 1916. Serial No. 127,280. (Cl. 24—66.)



1. In a device of the class described, a base, a clip having an attaching portion secured to the base, resilient clip arms extending from opposite ends of the said attaching portion substantially in alinement with each other and having a normal tendency to bear against the face of the base, and a tapered finger projecting from one longitudinal edge of each of the clip arms substantially at the end thereof, the said fingers being turned inwardly in the direction of their ends toward the said face of the base.

2. In a device of the class described, a base clip having an attaching portion secured to the base, resilient clip arms extending from opposite ends of the said attaching portion substantially in alinement with each other and having a normal tendency to bear against the face of the base, a tapered finger projecting from one longitudinal edge of each of the clip arms substantially at the end thereof, the said fingers being turned inwardly in the direction of their ends toward the said face of the base, and a finger piece upon the outer face of each clip arm adjacent the clip finger thereof.

1,243,327. STONE-RAKE. FRANK A. MARTINEZ, Conejos, Colo. Filed Nov. 13, 1916. Serial No. 131,095. (Cl. 55—17.)



1. A stone rake comprising a wheeled frame, a plurality of teeth pivotally connected to the frame, means common to all of the teeth urging them downward, resilient supporting connections between each tooth and the said urging means permitting each tooth to rise independently of any other tooth, and manually operable means for raising or lowering all of the teeth.

2. A stone rake comprising a wheeled frame, a plurality of teeth pivotally connected to the frame, means yieldingly urging the teeth downward into operative position, means for raising or lowering the teeth, and shields carried by the end teeth and preventing lateral movement of the stones gathered by the rake.

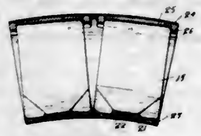
3. A stone rake comprising a wheeled frame, a transversely extending cross bar mounted upon the frame, a plurality of spaced downwardly and rearwardly curved teeth, each independently pivoted upon the cross bar, a cross bar extending below the teeth and pivotally connected to the cross bar upon which the teeth are mounted, yieldable connections between the second named cross bar and each individual tooth, means yieldingly resisting the downward movement of the cross bar, and manually operable means for raising or lowering the cross bar.

4. A stone rake comprising a wheeled frame including parallel transversely extending bars, a cross bar carried rearward of the frame, a plurality of teeth each swingingly mounted upon the cross bar, means spacing the teeth from each other, a cross bar extending beneath the teeth and swingingly connected to the first named cross bar, springs operatively connecting the second named cross bar to each individual tooth and permitting independent movement of each tooth relative to the second named cross bar, and manually operable means for raising or lowering the second named cross bar.

5. In a rake of the character described, a wheeled frame, a cross bar, a plurality of teeth swingingly connected to the cross bar and extending rearward and downward, an elevating bar extending beneath the teeth and pivotally supported, manually operable means for raising or lowering the elevating bar, and a plurality of pairs of coiled springs, one pair for each tooth, the like ends of each pair of springs being attached to the elevating bar, the springs being coiled and their inner ends connected by a cross bar, the cross bar of each pair of springs extending across and bearing upon the corresponding tooth, said tooth being formed with a seat for the cross bar.

[Claim 6 not printed in the Gazette.]

1,243,328. RESILIENT TIRE. THEODORE THOMAS MILLER, West Suffield, Conn. Filed Jan. 8, 1914. Serial No. 810,992. (Cl. 152—8.)



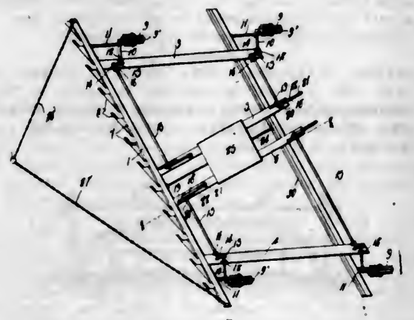
1. A tire casing having means to secure its opposite edges to a rim, a series of circularly formed springs located within said casing throughout the length thereof, each spring being composed of a plurality of strips each resting against and circumferentially slidable one upon another, and means comprising a socket member to receive and loosely secure all the ends of said strips at each end of each of said springs.

7. A tire casing having means for securing its opposite edges to a wheel rim, a series of springs located within the tire casing throughout its length, and a metallic casing surrounding each spring and having one end forming a tongue arranged to pass through an opening in the opposite end and be bent backwardly to secure the ends of the casing in place.

8. A tire casing having means for securing its opposite edges to a wheel rim, springs disposed throughout the length of said tire casing, said springs each comprising a number of loosely superposed strips and a filling piece for each of said springs, said filling pieces conforming to the crosswise and circumferential shapes of the tire and having overturned edges to receive the springs and hold said strips in place.

[Claims 2 to 6 and 9 to 11 not printed in the Gazette.]

1,243,329. COMBINED ROAD SCRAPER AND DRAG. EDWARD F. MITTENDORF, Addieville, Ill. Filed Mar. 26, 1917. Serial No. 157,509. (Cl. 37—5.)

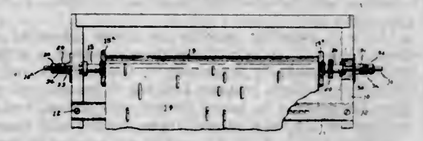


1. In a machine of the class described, a pair of beams, cross bars connecting said beams, wheels having L-shaped axles journaled on said beams and crossbars, bevel gears carried by said axles, longitudinally alined rods having bevel gears mounted to mesh with the gears on said axles, levers fixed to said rods whereby said gears are actuated to change the position of said wheels, and means for locking said levers in adjusted position.

2. In a machine of the class described, a pair of obliquely disposed parallel beams, cross bars connecting said beams, wheels having L-shaped axles journaled on said beams and cross bars, bevel gears carried by said axles, longitudinally alined rods carried by said cross bars and having bevel gears mounted to mesh with the gears on said axles, levers fixed to said rods whereby said gears are actuated to change the position of said wheels, and means for locking said levers in adjusted position.

3. In a machine of the class described, a supporting structure including longitudinally spaced beams, cross bars connecting said beams, scraping blades depending from one of said beams, brackets projecting laterally and rearwardly from said beams, brackets projecting upwardly from said cross bars in alinement with said beam carried brackets, L-shaped axles journaled in the brackets of said cross bars and beams, wheels carried by said axles, bevel gears mounted on said axles, rods mounted to turn on said structure and having bevel gears meshing with the bevel gears of said axles, connected levers for operating said rods, and means for locking said levers in adjusted position.

1,243,330. NOTE-SHEET-CENTERING MECHANISM FOR PLAYER-PIANOS. ERNST D. MOORE and STANLEY L. FISHER, Saybrook, Conn., assignors to The Pratt Read Player Action Company, Deep River, Conn., a Corporation of Connecticut. Original application filed Feb. 5, 1916, Serial No. 76,887. Divided and this application filed June 29, 1916. Serial No. 106,678. (Cl. 84—161.)



9. In a device for automatically positioning relatively to the tracker bar of a musical instrument any of a series of music rolls wherein the distance from the note sheet center to one of the extremes of the roll length is equal to the distance from the note sheet center to the other extreme of the roll length, the combination of a tracker bar, a music roll having the respective heads of substantially equal thickness with shallow sockets therein, one of said sockets having a diametrical groove in the bottom thereof, longitudinally movable spindles engaging said sockets to support the roll, one of said spindles having a lip to engage said groove but clear of the bottom thereof, both of said spindles clear of the bottoms of the respective sockets, roll-positioning portions on said sockets engaging the end faces of the roll adjacent the rims of said sockets at the respective extremes of the roll length to position the roll longitudinally relatively to the tracker bar independently of said sockets, and the socket-engaging portions of the spindles, whereby the note sheet perforations may be caused to register with those of the tracker bar, and means for causing the roll-positioning portions of said spindles to maintain a symmetrical relation to a predetermined intermediate point when rolls of different length are supported by said spindles; substantially as described.

[Claims 1 to 8 not printed in the Gazette.]

1,243,331. [WITHDRAWN.]

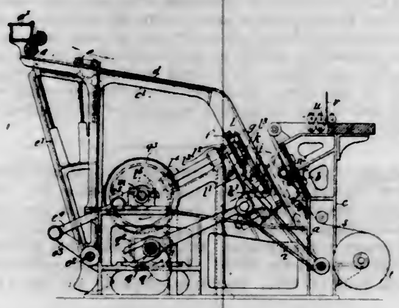
1,243,332. [WITHDRAWN.]

1,243,333. COLOR-PRINTING MACHINE. PERCY MORRIS, London, England. Filed Mar. 15, 1916. Serial No. 84,424. (Cl. 101—197.)

1. In a printing machine, a platen for stationarily supporting the material to be acted upon while a plurality of impressions are made, a plunger coöperating with said platen, a carrier movable relative to the platen, a plurality of printing blocks removably supported by said carrier and adapted to be brought successively into position to make an impression upon the material, and means provided on said plunger for detaching the blocks from said carrier and temporarily supporting said blocks while they are being applied to the material.

8. In a printing machine, a platen member for supporting the material to be acted upon, a plunger movable toward and away from said platen, a frame member car-

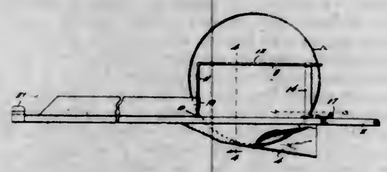
rying a printing block movably supported by said plunger, stops provided upon one of said members, and inclined surfaces provided on the other member, said stops being adapted to engage the inclined surfaces as the plunger moves toward said platen.



11. In a printing machine, a platen provided with stops, a plunger coöperating with said platen, a printing block frame movably supported by said plunger and provided with inclined surfaces adapted to engage said stops when the plunger is moved toward said platen, and electro-magnets for drawing said frame toward said stops.

[Claims 2 to 7, 9, 10, 12, and 13 not printed in the Gazette.]

1,243,334. HOOP-PROPELLING IMPLEMENT. EDWARD M. MURRAY, Mingo Junction, Ohio. Filed Dec. 2, 1916. Serial No. 134,689. (Cl. 46—61.)



1. A hoop propelling implement comprising a shank having a trackway formed thereon, one end of the trackway being disposed below the level of the shank, a hoop mounted in the said lowered portion of the trackway, means for releasably retaining the hoop, and guide members carried by the forward end of the shank.

2. A hoop propelling implement comprising in combination with a hoop, a trackway including flanges mounted in spaced relation, a shank having the edges of the said flanges secured thereto, a depressed trackway disposed below the plane of the said shank, the depressed trackway and the first mentioned trackway merging together, guard members carried by the shank above the said depressed trackway fit either side thereof, and a latch member pivotally mounted on the said shank.

3. A hoop propelling implement comprising, the combination with a hoop, an inclined trackway, one end of the trackway being disposed at an angle to the opposite end and depressed below the plane of the said end, guide members arranged at the forward terminal of the said trackway, a retaining latch, means for holding the retaining latch in releasable engagement with the hoop, and guard members disposed at either side of the said trackway.

1,243,335. ARTIFICIAL TOOTH. SIMON MYERSON, Cambridge, Mass. Filed June 8, 1917. Serial No. 173,519. (Cl. 32—9.)

1. An artificial tooth comprising a body composed of a buccal portion having a backing-engaging lingual face, and an occlusal portion including an extension projecting inwardly from the buccal portion, said occlusal portion having buccal lingual cusps and a backing-engaging extension face angularly arranged relatively to said lingual face, said body having a socket extending longitudinally through the buccal portion into the occlusal portion and opening on said lingual face, and an angular backing formed to fit said lingual and extension faces, and having a tenon complemental to said socket.

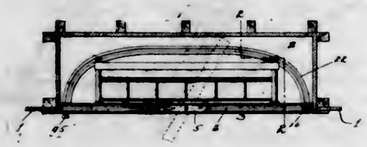


2. An artificial tooth comprising a body composed of a buccal portion having a backing-engaging lingual face, and an occlusal portion, including an extension projecting inwardly from the buccal portion, said occlusal portion having buccal and lingual cusps and a backing-engaging extension face angularly arranged relatively to said lingual face, said body having a socket extending longitudinally through the buccal portion into the occlusal portion and opening on said lingual face, and an angular backing formed to fit said lingual and extension faces, and having a tenon complemental to said socket, the said extension face and the portion of the backing engaged therewith having complemental opposed surfaces one of which is reentrant and the other salient whereby strains tending to swing the body on the backing are resisted.

3. An artificial tooth comprising a body composed of a buccal portion having a backing-engaging lingual face, and an occlusal portion including an extension projecting inwardly from the buccal portion, said occlusal portion having buccal and lingual cusps and a backing-engaging extension face angularly arranged relatively to said lingual face, said body having a socket extending longitudinally through the buccal portion into the occlusal portion and including a mouth opening on said lingual face and on a part of said extension face, and an angular backing formed to fit said lingual and extension faces and having a tenon complemental to said socket and including a neck formed to occupy the entire socket mouth including the part thereof which opens on said extension face.

[Claims 4 and 5 not printed in the Gazette.]

1,243,336. WALL-BED. NELS CHRISTIAN NELSEN, Oakland, Cal., assignor of one-third to Lewis N. Wood, Oakland, and two-thirds to Sterling W. Smith, Berkeley, Cal. Filed May 16, 1914. Serial No. 839,067. (Cl. 5—18.)



1. The combination with a wall recess, of a turnable wall panel for closing the opening therein and carrying an article of furniture on one side, a grooved track along the upper and lower edges of said panel, pivotally mounted guide members on the wall slidably received in said tracks and forming journals about which said panel turns and on which said grooved tracks are adapted to roll, a caster pivotally mounted adjacent to one side of said panel, and a grooved track adapted to receive said caster, whereby when the panel is swung to reverse its position it will be shifted edgewise along the guide members.

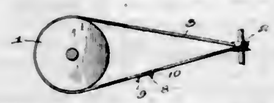
3. The combination with a wall recess, of a turnable wall panel for closing the opening therein and carrying an article of furniture on one side, a grooved, longitudinal track along the upper and lower edges of said panel, a guide member on which said track is adapted to roll, said guide members being pivotally mounted on the wall centrally of the opening and forming the journals about which said panel turns, a grooved, substantially semi-elliptical track mounted in the rear of said panel and having the ends extending under the opposite sides of said panel, a caster pivotally mounted in one side of said panel and having horizontal rollers adapted to contact with the sides of the groove of said alliptical track, and vertical rollers adapted to contact with the bottom of said groove and with the underside of inwardly extending flanges on the upper edges thereof, whereby when the panel is swung to reverse its position it will be shifted edgewise along the guide members.

5. The combination with a shallow closet, of a panel wider than twice the depth of the closet turnably mounted in an opening therein for closing the same and adapted to carry on one side an article of furniture, guide members on the closet slidably engaging the upper and lower edges of the panel and about which the panel turns when swung, and a curved guide with which the panel engages to cause it to be shifted endwise when being swung about the guide members on the closet, whereby the panel may reverse its position within the opening to present the article of furniture thereon either within or without the closet.

7. The combination with a shallow closet, of a panel wider than twice the depth of the closet turnably mounted in an opening therein for closing the same and adapted to carry on one side an article of furniture, flanged tracks on the upper and lower edges of said panel, pivoted guide members on the closet slidably engaging with said tracks and about which the panel turns when swung, and a curved guide with which the panel engages to cause it to be shifted endwise when being swung about the guide members on the closet, whereby the panel may reverse its position within the opening to present the article of furniture thereon either within or without the closet.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,243,337. SPINNING-MACHINE BAND. JAMES P. O'CONNELL, Crompton, R. I. Filed Mar. 24, 1917. Serial No. 157,250. (Cl. 74—66.)



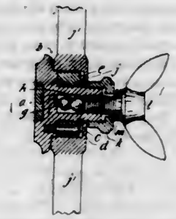
1. A pulley band comprising a tubular braided cord having one end turned back and passed through the braiding to form a loop, the opposite end portion of the cord being passed through the loop thus formed from one side and provided with a stop part for engaging the opposite side of the loop.

2. A pulley band comprising a tubular braided cord adapted to contract when subjected to a strain, and having one end turned back and passed through the cord to provide a loop for receiving the opposite end, the latter having a hardened portion constituting a stop for holding said opposite end against withdrawal from the loop.

3. A pulley band comprising a tubular braided cord possessing a certain degree of elasticity, and contractibility when subjected to a strain, one end of the cord being turned back and passed longitudinally through a portion of the body of the cord to provide a loop adapted to receive the opposite end, and a stop part on the latter of a size in excess to the minimum diameter to which the cord is contractible for abutting the loop and thereby holding said opposite end against unauthorized withdrawal therefrom.

1,243,338. MECHANICAL LOCK OR GRIP. THOMAS PATRICK O'GRADY, deceased, The Esplanade, Grange, South Australia, Australia, by Violet Isabel O'Grady, executrix, The Esplanade, Grange, South Australia, Australia. Filed Jan. 24, 1917. Serial No. 144,122. (Cl. 74—13.)

1. In a device of the character described, the combination with a fixed member having a passage therethrough; of a movable member in position to be clutched to said fixed member, a pair of balls adapted to have limited movement toward and from each other in said passage, a third ball of a size incapable of entirely occupying the space between said pair of balls, and means for exerting pressure against said third ball to wedge said pair of balls apart and clutch said movable member to said fixed member.

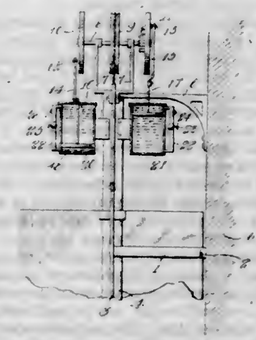


4. In a device of the character described, the combination with a fixed member having a hollow boss projecting therefrom and a transverse passage through said boss, of a fixed member in position to be clutched to said boss, a pair of balls adapted to have limited movement toward and from each other in said passage, a third ball contacting with said pair of balls and of a size incapable of entirely occupying the space between said pair of balls, a movable member, and means movable axially of said hollow boss for exerting pressure against said third ball to wedge said pair of balls apart and clutch said movable member to said boss.

6. In a device of the character described, the combination with a fixed hollow boss having a transverse passage therethrough, of segmental blocks embracing said boss, means to prevent rotation of said blocks about said boss, a movable member embracing said blocks but permitting movement of the latter in relation to each other, a pair of balls having limited movement toward and from each other in said passage, a third ball contacting with said pair of balls, said third ball being larger than the maximum space between the balls of said pair, a screw movable into and out of said boss and having an end adapted to contact with said third ball to wedge the balls of said pair apart, and a lock nut mounted on said boss.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,243,339. FIRE-ESCAPE. JOSEPH T. PAQUIN, Claremont, N. H. Filed Mar. 23, 1916. Serial No. 86,191. (Cl. 187—68.)

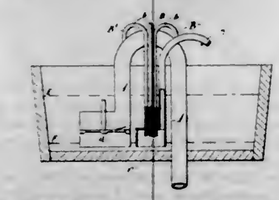


1. In a fire escape, the combination with a movable cage, of a shaft, a pulley fixed to said shaft, a cable passing over said pulley and supporting said cage, a disk fixed on said shaft, a disk loosely mounted on said shaft, a ratchet connection between said loose disk and said shaft whereby movement of said shaft in one direction will cause said loose disk to rotate, a cylinder for each disk, a piston in each cylinder, and a crank connecting the

pistons with their respective disks, substantially as described.

2. In a fire escape, the combination with a movable cage, of a shaft, a bracket supporting said shaft above said cage, a pulley affixed to said shaft intermediate the ends of the latter, a disk fixed to said shaft at one end thereof, a disk loosely mounted on the other end of said shaft, a cylinder beneath each disk, a piston in each cylinder, a crank connecting each disk with its respective piston, a ratchet connection between said loose disk and said shaft, and a cable passing over said pulley and supporting said cage, substantially as described.

1,243,340. FLUSHING-CISTERN. RUDOLPH HENRIK PAUS, Shipley, England. Filed May 24, 1915. Serial No. 30,185. (Cl. 4—5.)



1. In a flushing-cistern, a siphon, a pipe connected at one end to said siphon and having an opening in its other end exposed to the rising and falling action of the body of the flushing-liquid but above the level of the influx of the siphon, and a pipe open at one end to the atmosphere for supplying air to the first pipe through said opening when the latter is uncovered during flushing.

2. In a flushing-cistern, a siphon, a pipe connected thereto, said pipe having an ever-open air-inlet aperture above the normal water-level and having an opening in its other end above the level of the influx of the siphon, and a pipe open at one end to the atmosphere for supplying air to the first pipe through said opening when the latter is uncovered during flushing.

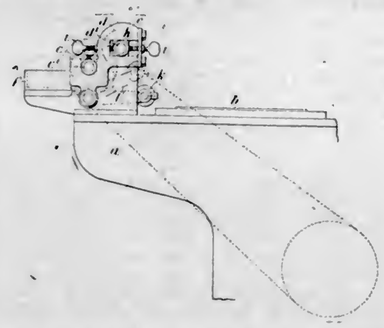
10. In a flushing-cistern, a siphon, a plurality of pipes connected at their upper ends to said siphon and having openings in their lower ends above the level of the influx of said siphon, each of said pipes having a bore of relatively small diameter and having an ever-open air-inlet above the normal water-level, a chamber in communication with the cistern and receiving the lower ends of said pipes, and a pipe open at one end to the atmosphere and connected at its other end to said chamber for supplying air thereto and thereby to said pipes through said openings when the latter are uncovered during flushing.

13. In a flushing-cistern, a siphon, a plurality of pipes connected at their upper ends to said siphon and having openings in their lower ends exposed to the rising and falling action of the body of the flushing-liquid but above the level of the influx of said siphon, each of said pipes having a bore of relatively small diameter and having an ever-open air-inlet above the normal water-level, a chamber in communication with the cistern and receiving the lower ends of said pipes, and a pipe open at one end to the atmosphere and connected at its other end to said chamber above the said openings for supplying air to the chamber and thereby to said pipes through said openings when the latter are uncovered during flushing.

15. In a flushing-cistern, a bell constituting the short leg of a siphon, a chamber in proximity to the inlet-edge of said bell and in communication with the cistern, a pipe connected at one end to the top of said bell and at its other end to said chamber, the chamber-opening of said pipe being exposed to the rising and falling action of the body of the flushing-liquid but above the level of the inlet to said bell, and a pipe open at one end to the atmosphere and connected at its other end to said chamber for supplying air thereto and thereby to the first pipe through said opening when the latter is uncovered during flushing.

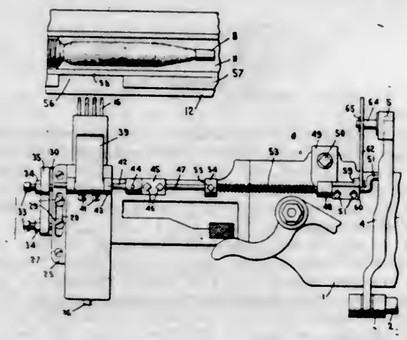
[Claims 3 to 9, 11, 12, 14, and 16 not printed in the Gazette.]

1,243,341. INKING MECHANISM FOR PRINTING-MACHINES. JOHN CHARLES PUGH, London, England, assignor of one-half to Whitehead, Morris & Company, Limited, London, England. Filed Apr. 14, 1917. Serial No. 162,082. (Cl. 101—344.)



Inking mechanism for letterpress printing machines using fluid ink, such as ordinary writing ink, comprising a fountain roller and a regulating supply roller running in accurate contact with one another and which are constantly and uniformly driven, a trough for containing ink into which the fountain roller will dip, an inking bed, a vibrator roller for transferring ink from the regulating roller to the inking bed and a covering of absorbent material upon the said vibrator roller, substantially as described.

1,243,342. FILLING-REPLENISHING FEELER-LOOM AND FILLING-CARRIER THEREFOR. ALONZO E. RHOADES, Hopedale, Mass., assignor to Draper Corporation, Hopedale, Mass., a Corporation of Maine. Filed Jan. 16, 1917. Serial No. 142,736. (Cl. 139—85.)



1. In an automatic filling replenishing loom comprising filling carriers, each having a zone of its barrel provided with an endless circumferential series of equally spaced helical grooves; filling replenishing mechanism; feeler mechanism including a plurality of separated feelers independently and intermittently engaging the filling on the filling carrier in the shuttle, whereby upon the detecting beat up, when the grooved zone of the running filling carrier is uncovered of filling, one or more grooves will be entered by one or more feelers, regardless of the rotary, or exact longitudinal, position of the filling-carrier; and connections between said filling replenishing mechanism and feeler mechanism acting to initiate the operation of the filling replenishing mechanism upon the entrance of a feeler into a groove.

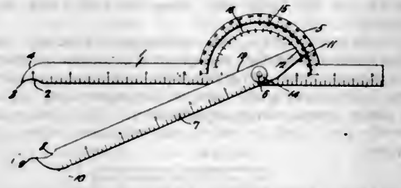
4. An automatic filling replenishing loom comprising means for initiating filling replenishment; feeler mechanism including a plurality of separated independently and yieldingly projected feelers; a controller held in elevated position by or through the feelers when rearwardly projected and depressed when the feelers are moved forwardly by contact with the filling on the filling carrier; and means for restoring the controller to elevated position after each beat up of the lay.

11. In an automatic filling replenishing loom, feeler mechanism including a plurality of separated independently and yieldingly projected feelers having their ends or points similarly inclined whereby any one or more of the said points may enter one or more equally spaced helical grooves in the barrel of an opposed filling carrier.

14. As a new article of manufacture, a filling carrier for looms having a zone of its barrel provided with an endless circumferential series of equally spaced helical grooves laterally separated at the surface of the barrel by ribs narrower than the width of the grooves.

[Claims 2, 3, 5 to 10, 12, and 13 not printed in the Gazette.]

1,243,343. COMBINATION-TOOL. JAMES H. ROBERTS, Charleston, S. C. Filed Oct. 13, 1916. Serial No. 125,437. (Cl. 33—75.)



A tool of the class described, including a blade having a straight edge provided with graduations to indicate units of measure, a segment extending from the other edge of said blade and having an arcuate series of graduations adjacent its periphery and extending through 180°, there being characters between said graduations and the periphery of the segment for designating the degrees of the arc, said characters ranging from 0 to 180, there being an additional series of characters at the other side of the series of graduations and ranging from 0 to 90, the 0 character being used to designate the same graduation designated by the numeral 90 of the first series of characters and the numeral 90 of said second series of characters being used to designate the same graduation as the character 0 of the first series of graduations, and a second blade pivotally mounted on the first mentioned blade at a point concentric with the arcuate series of graduations, said second blade having a pointer at one end adapted to indicate any one of the graduations.

1,243,344. TOOTH-PICK HOLDER. AUGUSTO RODAL, Habana, Cuba. Filed Aug. 16, 1916. Serial No. 115,194. (Cl. 206—21.)

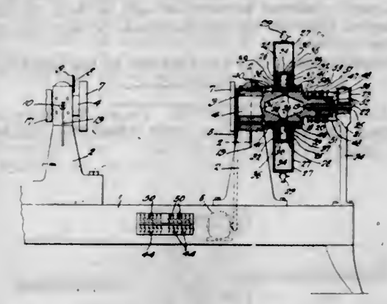


1. In a tooth-pick holder, the combination with a cylindrical receptacle provided with a lower discharging aperture, said receptacle having end walls, flanges on said end walls, a shifting cover below said lower aperture provided with a longitudinal aperture to afford a passage for just one tooth pick, a fixed plate normally obturating said longitudinal aperture of said cover, of a pair of checks supporting the ends of said receptacle and whose upper portions are spaced outwardly from the end walls of said receptacle, flanges on said checks which are adjustable on said receptacle flanges, means for securing said cheek plates to said receptacle flanges, and suspension means for said shifting cover which projects upwardly between each end wall of the receptacle and the corresponding spaced cheek, journals projecting from said end walls, said means being pivotally mounted on said journals, a portion of said means projecting outwardly from one of said suspension arms for rotating said cover in its journals, and a spring for resisting the movement of said cover away from the position of obturation.

3. In a tooth pick holder, the combination with a cylindrical receptacle provided with a lower discharging aperture, said receptacle having end walls, flanges on said end walls, a shifting cover below said lower aperture and provided with a longitudinal aperture to afford a passage for just one tooth pick, a fixed plate normally obturating said longitudinal aperture of said cover, of a pair of cheeks supporting the ends of said receptacle and whose upper portions are spaced outwardly from the end walls of said receptacle, flanges on said cheeks which are adjustable on said receptacle flanges, means for securing said cheek plates on said end flanges in adjusted relation, suspension arms for said shifting cover which project upwardly between each end wall of the receptacle and the corresponding spaced cheek, journals projecting from said end walls, said suspension arms being pivotally mounted on said journals, means projecting outwardly from one of said suspension arms for rotating said cover on its journals, and a spring for resisting the movement of said cover away from the position of obturation.

[Claims 2 and 4 not printed in the Gazette.]

1,243,345. LIQUID DYNAMIC BALANCING-MACHINE. CHARLES B. RODGERS, Bordentown, N. J. Filed May 8, 1917. Serial No. 167,257. (Cl. 73—51.)



1. A balancing machine embodying a rotary device for carrying an object to be tested, and means operable during the rotation of said device for selectively transferring a balancing load from its axis radially in different directions.

5. A balancing machine embodying a rotatable device having a set of pockets around its axis, a mobile substance carried by said device and movable into said pockets, and means selectively controlling the movement of said substance into the respective pockets.

9. A balancing machine embodying a rotatable device shiftable to one side and having an annular set of pockets and a central liquid chamber, plungers controlling the flow of liquid from said chamber to the pockets and for transferring charges of the liquid to said pockets, and means for selectively operating said plungers.

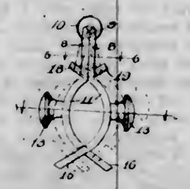
12. A balancing machine embodying a rotatable device shiftable to one side, load producing means carried by

said device and movable radially in various directions in predetermined charges, and electrical means operable during the rotation of said device for transferring the charges selectively in various directions.

14. A balancing machine embodying a rotatable device shiftable to one side and having an annular set of pockets and a central liquid chamber, plungers movable between said chamber and pockets for transferring charges of the liquid to the pockets, solenoids surrounding said plungers for operating them as cores, and means for selectively energizing said solenoids.

[Claims 2 to 4, 6 to 8, 10, 11, and 13 not printed in the Gazette.]

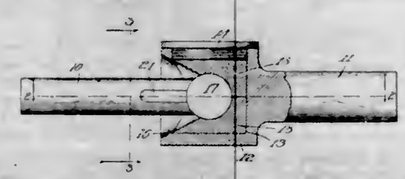
1,243,346. CLAMP FOR STOCKING-IRONERS. RICHARD ROOST, Milwaukee, Wis., assignor to Huebsch Manufacturing Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Jan. 30, 1915. Serial No. 5,199. (Cl. 24—252.)



3. A device of the class described comprising clamping members, each having outwardly curved central portions arching away from one another respectively, one of said members having a tongue formed on the lower end thereof, the other member having a fork formed on the lower end thereof with which said tongue slidably engages, straight slotted portions formed on the upper ends of each of said clamping members, a pivotal connection provided at the upper ends of said straight portions of said clamping members, and integral projecting means on each of said clamping members engaging in the respective slotted portions of each of said clamping members to limit the opening movement of said clamping members.

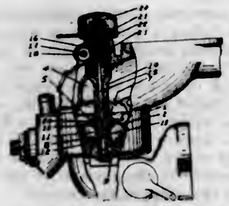
[Claims 1, 2, and 4 to 6 not printed in the Gazette.]

1,243,347. UNIVERSAL JOINT. FRANK W. SCHWINN, Chicago, Ill. Filed Jan. 12, 1917. Serial No. 142,053. (Cl. 74—19.)



A universal joint comprising in combination a driving shaft, a driven shaft, a head carried by one of said members and having a cylindrical bore at right angles to its axis, a pair of cylindrical blocks mounted end to end in the said bore and rotatable therein, means closing the ends of the said bore and forming bearing surfaces for the outer ends of the said blocks, the abutting inner ends of said blocks being provided with transversely extending complementary cylindrical grooves, and longitudinally extending complementary notches intersecting the said grooves, and a T-head of cylindrical cross-section carried by the other of said members and oscillatably mounted between the said grooves, the said last-named member extending outwardly through the said notches and having flattened surfaces engaging the lateral walls thereof.

1,243,348. CARBURETER. WILLIAM SHAKESPEARE, Jr., and WILLIAM SCHMID, Kalamazoo, Mich., assignors to William Shakespeare, Jr. Company, Kalamazoo, Mich. Filed Dec. 12, 1914. Serial No. 876,885. (Cl. 261—44.)



1. In a carbureter, the combination of an air valve, a fuel nozzle, and a fuel valve having a tapered needle point with an inward longitudinal curvature arranged for simultaneous actuation with said air valve and seating in said nozzle, the curve of the taper being the arc of a circle whose center is below a plane through the needle point and the valve seat when the fuel valve is fully opened.

2. In a carbureter, the combination of an air valve, a fuel nozzle, and a fuel valve having a tapered needle point for simultaneous operations with said air valve and seating in said nozzle, the curve of the taper being the arc of a circle whose center is adjacent a plane through the needle point and the valve seat when the valve is fully opened.

1,243,349. ANESTHETIC NERVE-BLOCKING TABLET. ARTHUR E. SMITH, Chicago, Ill. Filed Mar. 20, 1916. Serial No. 85,416. (Cl. 167—7.)

1. A local anesthetic nerve blocking tablet containing the following ingredients combined in substantially the proportions set forth, viz.,

Potassium chlorid	.00020	gram
Calcium chlorid	.00040	"
Sodium chlorid	.00500	"
Suprarenin	.00004	" and
Novocain	.02000	"

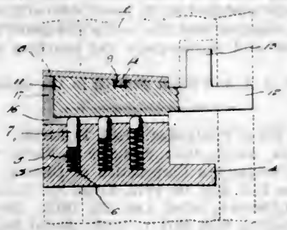
2. A local anesthetic nerve blocking tablet which contains an anesthetic, a vaso-constricting agent and the chlorids to produce a Ringer's solution and in which the amount of the several ingredients is so proportioned that when said tablet is added to that amount of water requisite for one treatment the solution is isotonic to the blood and the vaso-constricting agent is in sufficient quantity to localize the anesthetic but not in sufficient quantity to produce an excessive general blood pressure.

3. A local anesthetic nerve blocking tablet containing an anesthetic, a vaso-constricting agent and the chlorids to produce a Ringer's solution and in which the amount of the vaso-constricting agent is restricted to such proportions with relation to the chlorids that when said tablet is added to one milliliter of distilled water the solution is isotonic to the blood and the vaso-constricting agent is sufficient to localize the anesthetic without the production of an excessive general blood pressure.

1,243,350. SAFETY DEVICE FOR DOOR-LOCKS. HARRY C. SMITH, St. Paul, Minn. Filed Jan. 2, 1917. Serial No. 140,223. (Cl. 70—8.)

1. A key hole guard for locks, including a filler block adapted for insertion within the bite receiving portion of the key hole, a tapered cylindrical casing formed upon the upper portion of said filler block receivable within the pin receiving portion of the key hole, a cylindrical plug rotatably received within said housing, means projecting from rear end of said plug for engaging the lock to prevent withdrawal therefrom, said plug having a longitudinal and transversely extending slot in the wall and front end of

the same respectively for the reception of a turning key, and a plurality of yieldably seated tumblers arranged within the filler block and adapted to engage the longitudinal slot in the plug to releasably secure said plug against rotation.



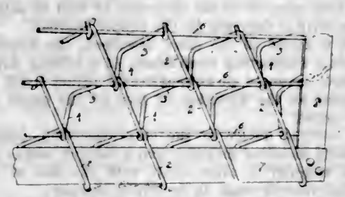
[Claim 2 not printed in the Gazette.]

1,243,351. MANUFACTURE OF EXPLOSIVES. ROSS GEORGE SMITH, Derry Village, N. H., assignor to Raymond, Pynchon & Company, New York, N. Y. Filed Feb. 3, 1916. Serial No. 75,910. (Cl. 52—1.)

2. An explosive composition produced by a mixture of the following ingredients in approximately the following proportions:—potassium perchlorate, 53 lbs.; ammonium perchlorate, 18 lbs.; sulfur, 5 lbs.; finely divided zinc, 8 lbs.; petroleum jelly, 5 lbs.; asphaltum varnish, 3 lbs.; alcohol, 6 lbs.; benzol, 2 lbs.

[Claim 1 not printed in the Gazette.]

1,243,352. FABRIC. JAMES W. SNEDEKER, Adrian, Mich. Filed May 1, 1916. Serial No. 94,540. (Cl. 245—6.)



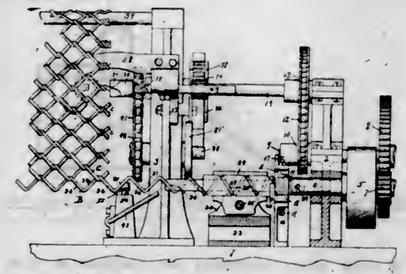
1. In a metal fabric, the combination of alternately arranged straight rods and helically-shaped rods having the axes of the helices substantially parallel with the straight rods, the helical rods being in the form of three-sided helices engaging the helices and straight rods on each side thereof, one side of each of said helices being in the same plane.

[Claim 2 not printed in the Gazette.]

1,243,353. OPEN-MESH-FABRIC-MAKING MACHINE. JAMES W. SNEDEKER, Adrian, Mich. Filed July 27, 1916. Serial No. 111,626. (Cl. 140—8.)

1. The combination of a support for a fabric consisting of a series of parallel flat helices whose loops engage adjacent helices throughout their length, a flat mandrel having wider and narrower portions, each having parallel edges, the edges of the two portions connecting by means of inclines and the width of the narrower portion equaling the greater interior diameter of the helices, means to revolve the mandrel to wind a metal rod onto the wider portion of the mandrel to form a close flat helix, and means to lengthen the helix on the narrower portion of the mandrel while revolving and reduce its diameter.

2. The combination of a support for a fabric consisting of a series of parallel flat helices whose loops engage adjacent helices throughout their length and constitute meshes in the form of parallelograms, with a block movable into the meshes along one edge of the fabric, and means to twist together the ends of the helices which form the mesh occupied by the block.



3. The combination of a support for a square-mesh fabric consisting of a series of generally parallel rods bent to zigzag form which interlock throughout their length, with a tapered block movable into the meshes along one edge of the fabric, and means to twist together the ends of the rods which form the mesh occupied by the block.

4. The combination of a revoluble flat mandrel having wider and narrower portions, two cylindrically bored internally threaded members of different diameters surrounding the mandrel, the pitch of the threads in said members being such that the circumferential length of the threads in both members is the same, and means to revolve the mandrel.

5. The combination of a support for a fabric consisting of a series of parallel flat helices whose loops engage adjacent helices throughout their length, a flat mandrel having wider and narrower portions, each having parallel edges, the edges of the two portions connecting by means of inclines and the width of the narrower portion equaling the greater interior diameter of the helices, means to revolve the mandrel to wind a metal rod onto the wider portion of the mandrel to form a close flat helix, means to lengthen the helix on the narrower portion of the mandrel while revolving and reduce its diameter, means to twist together the adjacent ends of two adjacent helices, and shears to cut these ends to form sharp spikes.

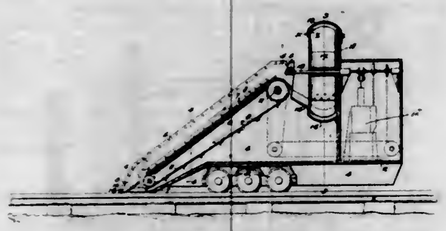
[Claims 6 to 10 not printed in the Gazette.]

1,243,354. ADVERTISING DEVICE. ERNEST L. SONS, Pittsburgh, Pa. Filed Feb. 12, 1917. Serial No. 148,286. (Cl. 88—16.)



An advertising device comprising a rectangular frame, a translucent panel mounted therein and provided with a picture, a transparent panel mounted in the frame and provided with the outlines of a picture, a transparent panel interposed between the said transparent panel and the said translucent panel, an oscillatory member arranged at the rear of the frame and provided with an illuminating device, and a head pivoted to the frame and rocked to and fro during the oscillating of said member.

1,243,355. SNOW-PLOW. CHARLES A. SPLAYFORD, Vancouver, British Columbia, Canada. Filed June 6, 1917. Serial No. 173,169. (Cl. 104—38.)



1. A snow plow, comprising the combination with a suitable vehicle, of a bladed wheel rotatably mounted thereon to rotate in a plane normal to the track, an inclined chute leading upward from a share horizontally disposed across the track to a position in front of the bladed wheel and below its axis of rotation, a plow share at the bottom of the shoe, a conveyer moving up the chute, and means for rotating the wheel and operating the conveyer.

3. A snow plow, comprising the combination with a suitable vehicle, of a bladed wheel rotatably mounted thereon to rotate in a plane normal to the track, a walled chute leading upward from a share horizontally disposed across the track to a position in front of the bladed wheel and below its axis of rotation, an apron delivering from the upper end of the chute to the underside of the bladed wheel, said apron conforming in the plane of the wheel to the general curvature of its circumference but diverging therefrom toward each side, a hood concentric to the circumference of the wheel and movable concentric therewith that it may be thrown to expose a delivery aperture to either side between its lower edge and the outer edge of the apron.

[Claim 2 not printed in the Gazette.]

1,243,356. SAVINGS-BANK. HENRY L. STANTON, Chicago, Ill., assignor to The Automatic Recording Safe Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 8, 1917. Serial No. 147,430. (Cl. 232—6.)



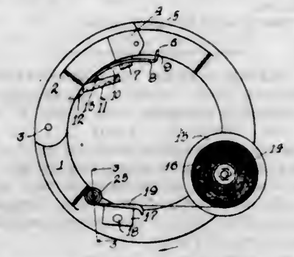
2. A savings-purse, comprising a rim having a vertical wall provided at its upper portion with an inturned flange having a depressed closure-seat, a key-controlled closure mounted in said seat and provided with a coin-slot and equipped with a slot-guard, and a self-collapsing purse-body depending from said rim.

5. A savings-purse comprising an oval-form rim affording a vertical wall and provided at its upper portion with an inwardly projecting depressed flange affording a closure-seat, a collapsible purse-body connected with the lower edge portion of said rim, and a closure mounted in said seat, comprising an inner plate having at one end a flange-engaging projection and equipped at the opposite end with a lock having a key-controlled bolt adapted to engage the flange which forms said seat, a housing having a horizontal wall adjacent said plate and depending inwardly converging lateral flanges, said plate and the top wall of said housing having registering coin-slots and said plate having clenching lugs at the ends of the slot thereof engaging the top wall of said housing, slot-guards mounted in said housing, and a finish-plate surmounting said first-named plate and secured thereto, said finish-plate having a coin-slot registering with said first-named slots.

7. A savings purse comprising a rim, a purse-body depending therefrom and comprising a mesh-bag fabric attached to said rim, a closure-plate affording a top wall supported by said rim, said closure-plate being provided with a coin-slot and equipped at its lower side with a key-controlled lock engaging said rim, and a slot-guard device depending from said closure-plate and guarding said coin-slot.

[Claims 1, 3, 4, and 6 not printed in the Gazette.]

1,243,357. WRAPPING-MACHINE FOLDER. WILLIAM C. STEVENS, Akron, Ohio, assignor to Pierce Wrapping Machine Company, a Corporation of Illinois. Original application filed Aug. 19, 1912, Serial No. 715,745. Patent No. 1,196,044, dated Aug. 29, 1916. Divided and this application filed July 1, 1916. Serial No. 107,080. (Cl. 270—93.)



1. In a device of the class described, paper supporting means, folding mechanism to fold the paper led from said means, and a creasing member to crease the fold in the paper, said folder mechanism so constructed as to automatically aline itself into proper position between said means and member as the direction of feed of said paper changes with a decrease in the supply thereof.

2. In a device of the class described, the combination with paper supporting mechanism, of a folding device for said paper mounted to automatically adjust itself to said mechanism as the direction of feed of the paper to said device varies.

3. A folding device of the class described, comprising a pivotally mounted member, and a folding means secured thereon adapted to aline itself with the line of feed of paper fed therethrough to be folded thereby.

4. In a device of the class described, means for supporting a roll of paper thereon, a roller adapted to have the paper drawn thereover, and a folding device adapted to automatically aline itself to compensate for the varying diameter of the roll of paper as it is unwound.

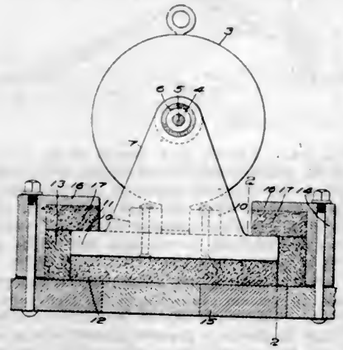
5. In a device of the class described, an angularly inclined means for carrying a roll of paper, a creasing roller having an angular inclination complemental therewith, and an automatically aligning folding device through which the paper passes from the roll to the creasing roller.

[Claim 6 not printed in the Gazette.]

1,243,358. SUPPORTING MEANS FOR ELECTRIC MOTORS. CHARLES F. STODDARD, Boston, Mass. Filed Aug. 21, 1911. Serial No. 645,068. (Cl. 172—36.)

1. The combination of an electric motor having a casing therefor and an armature shaft; bearings proximate the armature shaft projecting from said casing; felt bushings encircling said bearings; standards supporting said bushings; a lug projecting from said casing; felt stop means embracing said lug; an inertia plate secured to said standards and supporting said felt stop means; a thick felt bed supporting the inertia plate; felt stop means embracing the edges of the inertia plate; retaining means overlying the inertia plate; and felt cushioning means interposed between said retaining means and the inertia plate.

2. The combination of an electric motor having a casing therefor and an armature shaft; bearings proximate the armature shaft, projecting from said casing; felt bushings encircling said bearings; standards supporting said bushings; a lug projecting from the motor casing; felt stop means embracing said lug; an inertia plate secured to said standards and supporting said felt stop means; a thick felt bed supporting the inertia plate; and felt stop means embracing the edges of the inertia plate.



3. The combination of an electric motor having a casing therefor and an armature shaft; bearings proximate the armature shaft, projecting from said casings; felt bushings encircling said bearings; standards supporting said bushings; a lug projecting from the motor casing; felt stop means embracing said lug; an inertia plate secured to said standards and supporting said felt stop means; and a thick felt bed supporting the inertia plate.

4. The combination of an electric motor having a casing therefor and an armature shaft; bearings coaxial with the armature shaft; felt bushings encircling said bearings; standards supporting said bushings; a relatively heavy plate secured to said standards; a thick felt bed supporting the inertia plate; and overlying a portion thereof, and means to engage the overlying portion of the felt bed to secure said plate in place.

5. The combination of an electric motor having a casing therefor and an armature shaft; bearings coaxial with the armature shaft; felt bushings encircling said bearings; standards supporting said bushings; a lug projecting from the motor casing; and felt stop means embracing said lug.

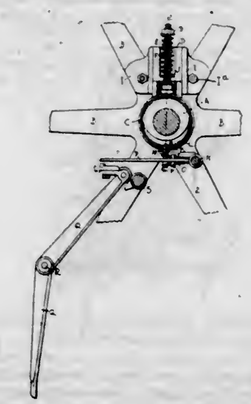
[Claims 6 and 7 not printed in the Gazette.]

1,243,359. EXPLOSIVE-ENGINE GOVERNOR. OLE O. STORLE, Tacoma, Wash. Filed Feb. 15, 1916. Serial No. 78,484. (Cl. 264—17.)

1. In an engine governor, an eccentric and a centrifugal weight for moving the eccentric radially, a tripfinger adapted to be thrown into locking engagement with a valve lever of the engine, an arm operatively connected with the eccentric and with the trip lever, and a spring connection between the arm and trip lever, said arm and trip lever being actuated by radial movement of the eccentric imparted from the centrifugal weight.

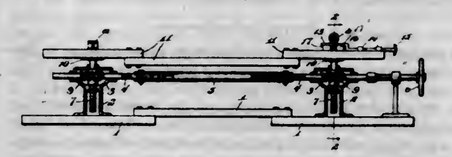
2. In an explosive engine governor, a grooved annular eccentric, having a centrifugal weight attached to its outer rim, said centrifugal weight controlled by a fixed guide and an adjustable spring, a segmental slide in the groove of said annular eccentric, said segmental slide pivotally connected with a short lever arm in combination with a trip finger and a hair-pin spring, substantially as shown and described.

3. In an explosive engine governor, a grooved annular eccentric having a centrifugal weight attached to its outer rim, said centrifugal weight controlled by a fixed guide and an adjustable spring, a segmental slide in the groove of said annular eccentric, said segmental slide connected with a short lever arm pivotally mounted in combination with a trip finger, a cam actuated valve lever arm provided with a trip lever engaging lug, said trip finger being flexibly controlled by a double acting hair-pin spring to govern its engagement with the adjustable lug of the cam actuated valve lever arm of the engine, substantially as described and shown.



4. In an explosive engine governor, a grooved annular eccentric having a centrifugal weight attached to its outer rim, said centrifugal weight controlled by a fixed guide and an adjustable spring, a segmental slide in the groove of said annular eccentric, said segmental slide connected with a short lever arm pivotally mounted in combination with a trip finger, the lever arm and the trip-finger each having lugs, and a hair-pin spring held between the projecting lugs of said lever arm and trip finger so that when one is drawn sidewise in either direction it will compress the spring, and when released the spring will throw the other into place, as described and shown.

1,243,360. VEHICLE-JACK. MICHAEL STOUDT, Dunkirk, Ind., assignor of one-half to Le Roy Crozier, Dunkirk, Ind. Filed Apr. 26, 1916. Serial No. 93,677. (Cl. 254—92.)

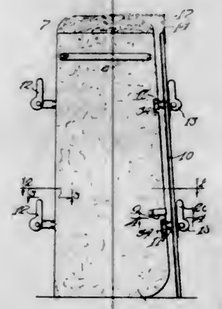


In a jack of the class specified, the combination of a base, a pair of jack screw casings and gear housings extending upwardly from said base adjacent to the opposite ends of the latter, jack screws movable vertically in said casings, an axle supporting rail supported by said jack screws and adapted to be moved upwardly and downwardly thereby, a rotary jack shaft journaled in both of said housings, worms on said jack shaft within said housings, worm wheels actuated by said worms and having a threaded engagement with said jack shafts and contained within said housings, a slidable axle rest on said axle supporting rail having a portion thereof in spaced parallel relation to said rail, and a rest supporting block upon which said parallel portion of the axle rest is supported when the latter is in its using position.

1,243,361. TROUSERS-PRESSER. HUBBARD A. TENENT, Chicago, Ill. Filed Feb. 10, 1917. Serial No. 147,757. (Cl. 100—57.)

1. In a press, two plates, two of the edges of said plates being rotatably but loosely connected, and means for clamping and locking the opposite edges of said plates together, said means comprising a strap fixed to each of said

plates, a third strap pivoted to one of said straps, the other of said straps having a flange projecting outwardly therefrom adjacent the edge of the plate, and a clamp fixed to the free end of said third strap, said clamp adapted to press on said flanged strap adjacent said flange with the flange positioned befween said clamp and said third strap.



2. In a press, two plates, two of the edges of said plates being rotatably but loosely connected, and means for clamping and locking the opposite edges of said plates together, said means comprising a strap fixed to each of said plates, a third strap pivoted to one of said straps, the other of said straps having a flange projecting outwardly therefrom adjacent the edge of the plate, and a clamp fixed to the free end of said third strap, said clamp adapted to press on said flanged strap adjacent said flange with the flange positioned between said clamp and said third strap, and means to prevent longitudinal movement of said clamp.

3. In a press, two plates, two of the edges of said plates being rotatably but loosely connected, means for clamping and locking the opposite edges of said plates together, said means comprising a strap fixed to each of said plates adjacent one edge thereof, a third strap pivoted to one of said two straps, a clamp fixed to the free end of said third strap and adapted to press on the other of said two straps, and means to prevent longitudinal or transverse movement of said clamp on said latter strap.

1,243,362. DECORATING COMPOSITION. ISAAC H. TERRELL and WILLIAM SCHAUM, Cambridge, Ohio. Filed July 8, 1916. Serial No. 108,233. (Cl. 106—36.2.)

1. A decorating composition of the character mentioned comprising powdered aluminum, a flux composed of chemically prepared fusible glass, and a liquid cohesion medium.

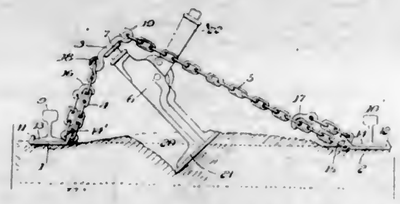
2. A decorating composition of the character mentioned comprising 65 parts powdered aluminum, 35 parts of a fusible glass flux in powder form, and 5 parts of a liquid cohesion medium embodying a vegetable printing oil.

3. A decorating composition of the character mentioned comprising 65 parts powdered aluminum, 35 parts chemically prepared fusible glass flux, and 5 parts printers' ink.

1,243,363. ALINING DEVICE FOR RAILS. MITSU UNO, Oakland, Cal. Filed Nov. 8, 1916. Serial No. 130,153. (Cl. 254—43.)

1. In a track liner, an angular rigid member having a foot to engage beneath one of the rails, a hook on the outer end of said element, spaced lugs extending outwardly from the inner side of said element, a jack having its head received between and engaged with said lugs, and a second rigid element having means at one end to engage the hook and means at its opposite end to engage the head of the other rail.

2. In a track liner, a jack formed so as to be supported at an incline relative to the track bed, inclined means engageable at one end with one rail and seating at its other end on the jack head to connect the jack and said rail, and inclined means engageable at one end with the other rail and at its other end with the first named means to connect the said other rail to the jack.

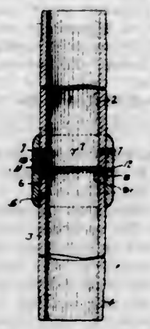


3. In a track liner, a jack formed so as to be supported at an incline relative to the track bed, a rigid element having rail engaging means at one end and an inclined part engaged with the jack head at its opposite end, and a second rigid element connected to the first element at one end and to the other rail at its opposite end.

4. In a track liner, a jack adapted to be supported at an incline, an element connected to the jack, means connecting said element and one of the rails to anchor the jack at said incline and against upward movement, and inclined means connecting the other rail and the element to draw said last named rail toward the jack upon upward movement of the latter.

5. In a track liner, a jack adapted to be supported at an incline, a rigid element having means engaged at one end with one rail and having an upper extension seated on the jack head to support the jack at an incline and against upward movement, a hook on the free end of said extension, and a rigid inclined element having a hook on one end engaged with the first named hook and having its opposite end forked and the fork members each formed with a hook to engage the other rail.

1,243,364. RELEASE-JOINT FOR WELL-CASINGS. HENRY B. WALKER, Lancaster, Ohio. Filed Feb. 10, 1917. Serial No. 147,860. (Cl. 166—4.)

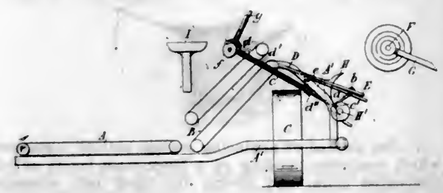


1. A release joint for oil, gas or like wells, comprising tubular sections, a sleeve threaded to one of said sections, a frangible pin securing the other section to said sleeve, and a packing interposed between the ends of said sections.

2. A release joint for oil, gas or like wells, comprising an upper and a lower tubular section, a sleeve threaded to the lower section, a frangible pin connecting the upper section with said sleeve, and packing material interposed between the ends of said sections.

3. A release joint for oil, gas or like wells, comprising an upper and a lower tubular section, a sleeve threaded to one of said sections, a frangible pin connecting the other section to said sleeve, the adjoining ends of said sections being cut away to form inner and outer annular rims, and packing material interposed in the seats formed by said rims.

1,243,365. SHEAF-BINDER HARVESTING-MACHINE. FREDRICK BRUTON WELLS, Stevenage, England. Filed Mar. 20, 1917. Serial No. 155,985. (Cl. 56—126.)



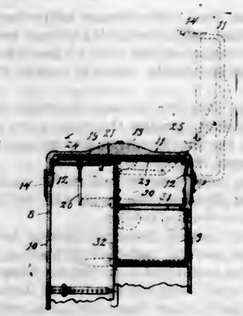
1. In a sheaf binder harvesting machine, the combination with a spring elevated trip board, of a rock shaft having one of its ends movably connected to said trip board, a disk fixed to the opposite end of said rock shaft, an operating lever pivoted on said rock shaft adjacent said disk, and a spring coiled about said rock shaft and having its ends respectively connected to said disk and said operating handle.

2. In a sheaf binder harvesting machine, the combination with a spring elevated trip board, of a rock shaft having one of its ends movably connected to said trip board, a disk fixed to the opposite end of said rock shaft, an operating lever pivoted on said rock shaft adjacent said disk, a spring coiled about said rock shaft and having its ends respectively connected to said disk and said operating handle, and means for retaining said operating lever in adjusted position.

3. In a sheaf binder harvesting machine, the combination with a spring elevated trip board, of a rock shaft having one of its ends movably connected to said trip board, a disk fixed to the opposite end of said rock shaft, an operating lever pivoted on said rock shaft adjacent said disk, a spring coiled about said rock shaft and having its ends respectively connected to said disk and said operating handle, a stop carried by said operating lever, and said disk having a stop notch, adapted to coöperate with said stop whereby said disk and said lever may be positively moved in unison.

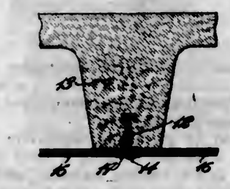
[Claim 4 not printed in the Gazette.]

1,243,366. WARDROBE-TRUNK. GEORGE HENRY WHEARY, Racine, Wis. Filed Jan. 27, 1913. Serial No. 744,376. (Cl. 190—13.)



A wardrobe trunk, comprising a trunk body divided medially vertically to form a wardrobe section and a drawer section which are hinged together at one of their side portions, the lower ends of said sections being closed and the upper ends being open and provided exteriorly with recessed portions, garment hanger tracks mounted in one of the sections and having extensions which project out of the section when the sections are in open position, and a cover hinged to the drawer section and covering and overlapping the open ends of both sections and entering the recessed portions thereof when said sections are in closed position, both sections being constructed to permit the removal of apparel therefrom when the two sections are in closed position and the cover is in open position.

1,243,367. CEILING-SUPPORT. ARTHUR J. WIDMER, Webster Groves, Mo., assignor, by mesne assignments, to Widmer Engineering Company, St. Louis, Mo., a Corporation of Missouri. Filed May 26, 1916. Serial No. 99,958. (Cl. 72—101.)



1. The method of constructing a ceiling for a concrete floor which comprises driving an anchor having a pointed lower end into the formwork, embedding the upper end of said anchor in the floor concrete, removing the centering to expose the pointed end of said anchor, and attaching ceiling supporting means to said exposed end.

2. The method of constructing a plastered ceiling for a ribbed concrete floor which comprises driving an anchor having a pointed lower end into the formwork for a rib, embedding the upper end of said anchor in the floor concrete, removing the centering to expose the pointed end of said anchor, attaching ceiling supporting means to said exposed end, and arranging plaster supports for said ceiling against the under side of the rib on each side of said ceiling supporting means and supporting said plaster supports on said means.

3. The method of constructing a ceiling for a concrete floor which comprises driving an anchor having a pointed lower end and a shoulder adjacent to said pointed end into the formwork as far as said shoulder, embedding the upper end of said anchor in the floor concrete, removing the centering to expose the pointed end of said anchor, and attaching ceiling supporting means to said exposed end.

4. In combination with a concrete floor, a ceiling comprising plaster boards spaced apart at their edges, and means for supporting said plaster board ceiling, said means consisting of spaced anchors partly embedded in said floor, said anchors having integral portions adapted to be driven into the floor forms and projecting below said floor between said plaster boards and having hooks at their lower ends, and metal plates arranged beneath the edges of the plaster boards and held up by said hooks.

5. In combination with a concrete floor and ceiling construction, spaced anchors partly embedded in the under side of said floor, the exposed portion of said anchors having integral portions adapted to be driven into the floor forms and projecting below said floor and having hooks at their lower ends, wires engaging the lower ends of said anchors, and plates sustained by said wires for supporting plaster boards and a plaster ceiling covering said wires and plates.

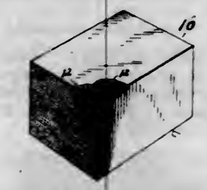
[Claims 6 to 9 not printed in the Gazette.]

1,243,368. SEPARATOR FOR STORAGE BATTERIES AND PROCESS OF PRODUCING THE SAME. THEODORE A. WILLARD, Cleveland, Ohio. Filed June 30, 1914. Serial No. 848,296. (Cl. 204—29.)

1. A storage battery separator composed of a binding material and porous material extending from side to side through the separator and forming a permanent part thereof.

8. A separator for storage batteries formed of non porous binding material and porous material consisting of strands whose ends are exposed and substantially uniformly distributed over the sides of the separator.

9. A storage battery separator composed of porous material extending from side to side through the separator, and a cementing material.

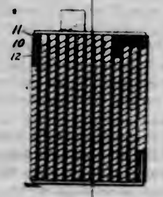


12. The method of producing separators for storage batteries which consists in embedding in a mass of separator material, material for producing pores and cutting said mass into separator sections.

18. The method of producing separators for storage batteries which comprises forming a body of layers of porous material and a binding material, and slicing the body into sections at right angles to the layers.

[Claims 2 to 7, 10, 11, and 13 to 17 not printed in the Gazette.]

1,243,369. TUBULAR DIAPHRAGM FOR STORAGE-BATTERY ELECTRODES AND PROCESS OF PRODUCING THE SAME. THEODORE A. WILLARD, Cleveland, Ohio. Filed Aug. 3, 1914. Serial No. 854,606. (Cl. 204—29.)



1. A porous diaphragm for storage batteries, comprising a tube having pore producing material, the elements of which have a general direction from one surface of the tube to the other.

10. The process of forming a porous diaphragm, which comprises forming a body of cementing material and pore producing material extending through the strip in one main general direction, then slicing or cutting said body to form strips with sections of said pore producing material extending in a general direction from one side of the strip to the other, and then forming said strips into tubular shape and uniting the adjacent edges thereof.

13. The process of forming a tubular porous diaphragm, which comprises forming a block of rubber and layers of porous material, cutting the block at substantially right angles to the layers so as to form strips, spirally wrapping the strips about a mandrel and vulcanizing the tube thus formed so as to produce hard rubber and to unite the adjacent edges of the spiral convolutions.

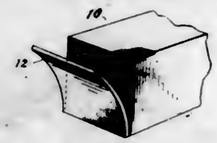
14. A tubular porous diaphragm, having porous material permanently embedded therein and extending from one surface of the tube to the other.

[Claims 2 to 9, 11, and 12 not printed in the Gazette.]

1,243,370. STORAGE-BATTERY SEPARATOR AND PROCESS OF PRODUCING THE SAME. THEODORE A. WILLARD, Cleveland, Ohio. Filed Feb. 1, 1915. Serial No. 5,588. (Cl. 204—29.)

1. The method of producing storage battery separators, which comprises forming a body from fibrous material united with a relatively small amount of a cementitious substance, and cutting the body into separator sections so that the fibrous material extends through the sections.

3. The method of producing storage battery separators, which comprises building up a block from porous material coated with a binding substance and subsequently slicing the block into sections.



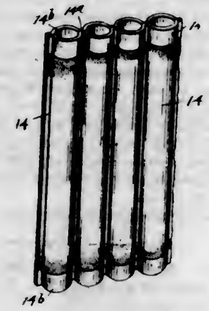
7. The method of producing storage battery separators, which comprises building up a block from layers of rubber-coated cloth, and slicing the block into separator sections.

9. The method of producing storage battery separators, which comprises building up a block of porous material coated with a cementitious substance, subjecting the block to pressure, and slicing the block into separator sections having the porous material extending from side to side through the same.

14. A storage battery separator formed of porosity producing material extending from one side of the separator to the other and bound together by a relatively small amount of vulcanized rubber.

[Claims 2, 4 to 6, 8, and 10 to 13 not printed in the Gazette.]

1,243,371. POROUS TUBE FOR STORAGE BATTERIES. THEODORE A. WILLARD, Cleveland, Ohio. Filed Nov. 8, 1915. Serial No. 60,425. (Cl. 204—29.)



1. A porous tube for storage batteries, composed of two half sections, each containing porous material extending from one surface of the tube to the other and secured together at diametrically opposite points the full length of the tube.

2. A porous tube for storage batteries having porous material extending through the same from one surface to the other and having diametrically opposite longitudinally extending flange portions.

5. A porous tube composed of rubber and porous material extending through the same and having at one or both ends a non-porous portion.

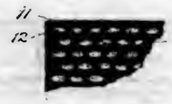
8. A series of porous tubes for storage batteries formed of rubber and porous material extending therethrough, the tubes being connected together by flange-like connecting portions and being provided with longitudinally extending ribs projecting from the tubes midway between and at right angles to the connecting portions.

[Claims 3, 4, 6, 7, and 9 not printed in the Gazette.]

1,243,372. METHOD OF MAKING STORAGE-BATTERY SEPARATORS. THEODORE A. WILLARD, Cleveland, Ohio. Filed Aug. 7, 1916. Serial No. 113,424. (Cl. 204—29.)

1. The method of increasing the porosity of a separator blank containing transverse porous material which comprises expanding the blank.

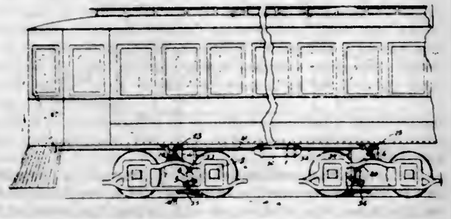
3. The method of producing storage battery separators which comprises cutting into sections a mass of body containing porous material and changing the cross sectional shape of the porous material to increase its porosity.



8. The method of producing storage battery separators which comprises slicing into sections a body formed by firmly compressing a number of layers of pore producing material with a suitable binding material, treating the sections by expanding them so as to increase their size and cause the porosity of the individual threads, strands or fibers to be increased, and after such treatment applying ribs to the sections.

[Claims 2 and 4 to 7 not printed in the Gazette.]

1,243,373. SAFETY-BRAKE. EMORY R. WORSTELL, St. Bernard, Ohio. Filed Apr. 17, 1912. Serial No. 691,422. (Cl. 188—65.)



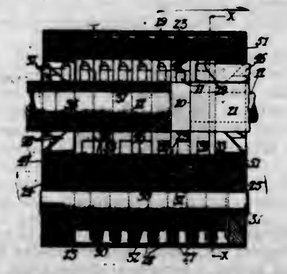
1. In a safety appliance for car brakes, the combination of brake shoes, and car wheels, and means for applying the shoes to the tread of the wheels above the track, of a wedge plate mounted on the lower end of the shoe, a flange on the shoe depending beyond the surface of the wedge plate, and means for depressing the brake shoes to project the flange of the shoe over the rail and the wedge plate between the tread of the wheel and the track for emergency stops.

2. In a safety appliance for car brakes, the combination of brake shoes, and car wheels, and means for applying the shoes to the tread of the wheels above the track, of a wedge plate mounted on the lower end of the shoe, a flange on the shoe depending beyond the surface of the wedge plate, a slot in the shoe to receive the flange of the car wheel, and means for depressing the brake shoes to project the flange of the shoe over the rail and the wedge plate between the tread of the wheel and the track for emergency stops, said slot in the shoe permitting the flange of the wheel to remain in engagement over the track.

3. In a safety appliance for car brakes, the combination of brake shoes, and car wheels, and means for applying the shoes to the tread of the wheels above the track, of a wedge plate, means for mounting the same at either end of the brake shoe, and means for depressing the brake shoes to project the wedge plate between the tread of the wheel and the track.

4. In a safety appliance for car brakes, the combination of brake shoes, and car wheels, and means for applying the shoes to the tread of the wheels above the track, of a wedge plate, means for mounting the same at either end of the brake shoe, a flange on the shoe depending beyond the surface of the wedge plate, and means for depressing the brake shoes to project the wedge plate between the tread of the wheel and the track, and the flange on the shoe over the rail.

1,243,374. COMBINED TYPE-WRITING AND COMPUTING MACHINE. WALTER WRIGHT, New York, N. Y., assignor to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Filed Jan. 30, 1912. Serial No. 674,383. (Cl. 235—139.)



1. An intermittently moving Geneva train comprising a mutilated drive gear having provision for moving at each step one or more aliquot parts of a full revolution, and a pinion whose number of teeth is equal to the number of said aliquot parts and which is driven a double tooth-space at each operation thereon of said drive gear; the pitch diameters of said drive gear and said pinion being disproportionate, the drive gear being oversize and the pinion being undersize; certain of the teeth in said train being narrowed to permit lost motion, whereby a gear tooth may move independently of the pinion to position to lock the latter against turning.

2. An intermittently moving Geneva train comprising a mutilated drive gear having provision for turning at each movement one or more full tenths of a revolution, and a ten-tooth pinion driven a fifth of a revolution at each operation thereon of said drive gear, the pitch diameter of said pinion being substantially less than half the pitch diameter of said mutilated gear, and certain of the teeth in said train being narrowed to permit said driving gear to operate said pinion fully in substantially less than one-tenth of a revolution of said driving gear.

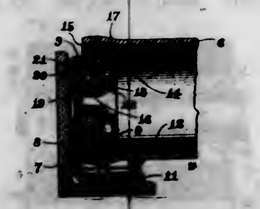
3. A series of connected Geneva trains, each comprising a mutilated drive-gear having provision for turning at each movement one or more full tenths of a revolution, and a tenth-tooth pinion driven a fifth of a revolution at each operation thereon of said drive-gear, the pitch diameter of said pinion being substantially less than half the pitch diameter of said mutilated gear, said trains connected by pinions and gears mounted in couples, the connecting gears fixed to their respective mutilated gears, and the connecting pinions fixed to their respective Geneva pinions; the pitch diameter of each connecting pinion being half that of the gear to which it is coupled.

4. A series of connected Geneva trains, each comprising a mutilated drive gear having provision for turning at each movement one or more full tenths of a revolution, and a tenth-tooth pinion driven a fifth of a revolution at each operation thereon of said drive gear, the pitch diameter of said pinion being substantially less than half the pitch diameter of said mutilated gear, and certain of the teeth in said train being sufficiently narrowed to permit said driving gear to operate said pinion fully in substantially less than one tenth of a revolution of said driving gear; said trains connected by pinions and gears mounted in couples, the connecting gears fixed to their respective mutilated gears, and the connecting pinions fixed to their respective Geneva pinions; the pitch diameter of each connecting pinion being half that of the gear to which it is coupled.

5. The combination with a system of dial wheels, of Geneva carry-over trains, each Geneva train comprising means for accelerating the movement of its pinion, so that less than a full movement of the driver communicates a full movement to the computing wheel of next higher denomination, certain teeth in each Geneva pinion being narrowed to permit a substantially lost motion of the driving gear.

[Claims 6 to 27 not printed in the Gazette.]

1,243,375. BEARING FOR CONVEYERS. GEORGE W. YOUNKMAN, Brooklyn, N. Y. Filed Jan. 10, 1916. Serial No. 71,182. (Cl. 64—36.)



The combination of a roller consisting of a section of tubing, a circular sheet metal member located in each end of the roller having a peripheral flange which lies in engagement with the interior wall of the roller and an integral projection concentric with the roller forming an annular space between the flange and projection, annular ball bearings consisting of inner and outer annular members and balls between them mounted on the ends of the roller with said projections extending within them, an imperforate side frame, a member mounted thereon and a cylindrical receptacle formed on the member receiving the annular ball bearing to support the roller and having its edge entering said annular space so as to be inclosed within the end of the roller; substantially as described.

1,243,376. RAILWAY-SWITCH MECHANISM. ANDREW J. ALLARD, Richmond, Va. Filed July 6, 1917. Serial No. 179,010. (Cl. 104—23.)

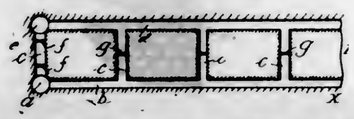


2. In switch operating means, the combination with a switch rod, a longitudinally movable bar, and means operative from a car to move said bar, of a toothed lever cooperating with the switch rod, a trigger pivoted to said bar to coöperate with the toothed lever, a spring tongue on said bar, a beveled flange on said tongue, a projection on the switch rod with which said flange coöperates to lock the switch, and means for moving said tongue to unlock the switch.

3. In switch operating means, the combination with a switch rod, of a longitudinally movable bar comprising divided members and a spring connecting said members, a pivoted lever coöperating with the switch rod, a trigger on the bar to coöperate with said pivoted lever, a shaft having two arms, a link connecting one of said arms with said bar, a pivoted ramp having a part to engage the other arm on said shaft, and means operative from a car to engage the ramp.

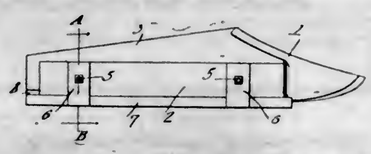
[Claim 1 not printed in the Gazette.]

1,243,377. MEANS FOR MINIMIZING THE EFFECTS OF COLLIERY EXPLOSIONS. JOHN JOSEPH COLLINSON ALLISON, Butterknowle, and JOHN WALLER, Woodlands Colliery, county of Durham, England. Filed Dec. 26, 1914. Serial No. 879,165. (Cl. 37—51.)



A stopping for mine passages comprising a frame mounted in the passage, a door hinged to said frame at the top of the passage for movement in a vertical plane, said door being supported by the frame when in closed position in a plane at an angle to the longitudinal axis of the passage, a hydraulic cylinder pivoted to the door relatively near the free edge of the latter, and a piston slidable in the cylinder and pivoted to a fixed support spaced from the door frame within and at the top of the passage, said piston and cylinder being disposed in a line running at an angle to the door greater than a right angle when said door is closed.

1,243,378. PLOW. WILLIAM H. ALSTON, Troup, Tex. Filed Jan. 22, 1916. Serial No. 73,724. (Cl. 97—17.)



In a plow, the combination with a frog and a landside bar extending rearwardly therefrom, of a landside plate on the outer side of the bar and having its lower edge above the lower edge of the bar and parallel therewith to form a longitudinal groove or rabbet, a shoe fitted under the landside bar and having an upwardly extending longitudinal rib on its outer portion lapping the outer side of the landside bar and engaging the lower edge of the landside plate, the outer faces of the shoe and plate being flush, ears extending upwardly from the shoe and fitting snugly against the inner side of the bar, and means extending through each ear, the bar and the plate for detachably securing the parts together.

1,243,379. DEVICE FOR STEERING VEHICLES. WILLIAM H. APPLEMAN, Olean, N. Y. Filed Oct. 15, 1914. Serial No. 866,863. (Cl. 74—79.)



1. The combination of a housing having a longitudinal and a circular transverse chamber therein, a rotatable steering post entering said longitudinal chamber having a worm thereon, a rocker journaled in said transverse chamber carrying a circular plate which pivotally engages peripherally with the circular walls of said transverse chamber, a pinion on said rocker which engages with said worm; and means for locking said pinion rigidly to said rocker.

2. The combination of a housing having a longitudinal and a circular transverse chamber therein, a rotatable steering post entering said longitudinal chamber having a worm thereon, a rocker journaled in said transverse chamber carrying a circular plate which engages peripherally with the circular walls of said chamber, a longitudinal extension on said rocker carrying a thread and nut, a pinion mounted on said rocker between said circular plate and said nut, said pinion being rigidly locked to said rocker by screwing said nut toward said plate, and teeth on said pinion which engage with said worm.

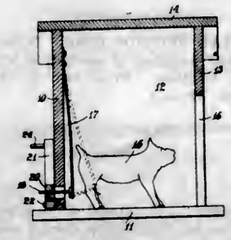
3. The combination of a housing having a longitudinal and a transverse chamber therein, a rotatable steering post entering said longitudinal chamber having a thread thereon, a rocker journaled in said transverse chamber comprising a circular plate, a pinion carried by said rocker which engages with said worm, and means for locking said pinion rigidly to said circular plate.

4. The combination of a housing having a longitudinal chamber therein and also having a transverse chamber having an external opening therein, a rotatable steering post entering said longitudinal chamber having a worm thereon, a rocker journaled in said housing carrying an externally exposed circular plate which closes said external opening in said transverse chamber, and a pinion also carried by said rocker; which engages with said worm, said pinion being of less diameter than the journal bearing of said rocker.

5. The combination of a housing having a longitudinal chamber therein, and also having a transverse chamber having a lateral circular opening therein, a rotatable steering post entering said longitudinal chamber having a worm thereon, a rocker journaled in said transverse chamber comprising a pair of circular plates which pivotally engage with and close said circular openings, and a pinion confined between said plates which engages with said worm.

[Claims 6 to 11 not printed in the Gazette.]

1,243,380. AUTOMATICALLY-OPERATING TOY OR THE LIKE. CHRISTIAN BERGER, New York, N. Y., assignor to Submarine Wireless Company, New York, N. Y., a Corporation of New York. Filed Jan. 4, 1916. Serial No. 70,107. (Cl. 46—40.)



1. In an automatically operating toy or the like the combination of a movable figure or toy, a propeller or spring adapted when released to effect a quick movement of the figure, and means for restraining or delaying for a suitable time the release of the propeller for such quick movement, said restraining means comprising a longitudinally slidable bar connected to the propeller and a rubber-like device arranged to squeeze the bar, for effecting a frictional slowing of the propeller during the first part of its movement before its release therefrom.

2. In an automatically operating toy or the like the combination of a movable figure or toy, a propeller or spring adapted when released to effect a quick movement of the figure, and means for restraining or delaying for a suitable time the release of the propeller for such quick movement, said restraining means comprising a member or pin connected to move with the propeller, a friction block adapted to be contacted by said member, and a device opposed to said block for effecting pressure between pin and block during the first part of the propeller's movement.

3. In an automatically operating toy or the like the combination with the frame, a figure or toy movable relatively to the frame, a propeller or spring adapted when released to effect a quick movement of the figure relatively to the frame, such propeller mounted on the frame, and frictional means for restraining or delaying for a suitable time the release of the propeller.

4. In an automatically operating toy or the like the combination with the frame, a propeller or spring adapted to deliver a quick push upon a movable figure, a movable figure unattached to said propeller but adapted to be struck and propelled thereby relatively to the frame, and a slowly releasable device adapted to delay the action of said propeller when set, whereby after a substantial time interval the figure will be propelled substantially as described.

1,243,381. FOLDING BUCKET. HENRY D. BOKOP and FREDERICK A. BOKOP, Defiance, Ohio. Filed Feb. 5, 1917. Serial No. 146,736. (Cl. 150—48.)



1. A folding bucket embodying a rim member, a fabric body having a hem at its edge inclosing said member, the hem having opposite openings, and a handle having portions at its ends embracing the rim member within said openings, the body having flaps bearing upwardly against said portions within said openings.

2. A folding bucket embodying a rim member, a fabric body having its edge provided with a hem inclosing said member, the body having pairs of slits and cross slits therebetween providing openings in said hem and flaps, and a handle having loops at its ends embracing the rim member within said openings, said flaps being folded under said loops and stitched with the hem to the body.

1,243,382. PRODUCING AMMONIA. CARL BOSCH, Ludwigshafen-on-the-Rhine, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Jan. 12, 1914. Serial No. 811,677. (Cl. 23—21.)

1. In the process of producing ammonia by passing nitrogen and hydrogen over a hot catalytic agent, the step which consists in subjecting the interior of the catalytic agent to a regulated cooling.

2. In the process of producing ammonia by passing nitrogen and hydrogen over a hot catalytic agent, the step which consists in subjecting the interior of the catalytic agent to a regulated cooling by means of gas which is subsequently passed over the said catalytic agent.

1,243,383. FOUNTAIN-PEN. CECIL BRISTOW, London, England. Filed July 29, 1915. Serial No. 42,536. (Cl. 120—46.)

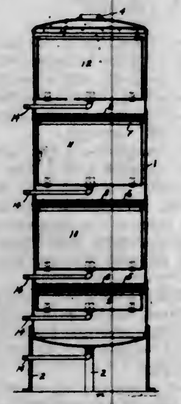


1. In fountain pens a barrel provided with a longitudinal slot and an annular groove, a lever pivotally mounted in said slot, bearings for said lever lying in said annular groove, means for supporting said bearings in said groove, and means actuated by said lever for drawing ink into said barrel.

2. A fountain pen comprising a barrel, a longitudinal slot and an annular internal groove in the barrel, a lever disposed in said slot and a bearing for said lever engaging with said angular groove, a split collar disposed within the barrel so that the slit is in register with the longitudinal slot and supports the bearing in the annular groove, a nib holder, an elastic bag, adapted to contain ink, attached to the nib holder, said bag being disposed within the said barrel, a plate within said barrel adapted to lie between the bag and the barrel, one end of the said lever pressing down the said plate when the lever is raised.

3. A fountain pen comprising a barrel, a longitudinal slot, and an annular internal groove in the barrel, a lever disposed in said slot and a bearing for said lever engaging with said annular groove, a collar, adapted to support said bearing in said groove, a nib holder, an elastic bag, adapted to contain ink, attached to the nib holder, said bag being disposed within the said barrel, a plate within said barrel adapted to lie between the bag and the barrel, a spring within the barrel adapted to lie between the plate and the barrel, one end of said spring being formed with a ring adapted to lie against the inner surface of the barrel so as to hold one end of the spring against the barrel toward that end of the barrel nearest the nib, and other end being fastened to the said plate, one end of said lever pressing down the spring when the said lever is raised.

1,243,384. REFLUX-CONDENSER. DANIEL H. CHRISTMAN, Shreveport, La., assignor to J. B. Atkins, Shreveport, La. Filed June 24, 1916. Serial No. 105,570. (Cl. 196—25.)



1. A device of the character described comprising a vertical cylindrical shell closed at the top and at the bottom, there being a vapor inlet a short distance above the bottom and a vapor outlet at the top of the shell, a series of imperforate collecting pans arranged one above the other in the shell, said pans being of a diameter almost as great as the diameter of the shell and each having sides extending upwardly into the vicinity of the bottom of the overlying pan, the sides of the uppermost pan extending into the vicinity of the top of the shell, a transverse wall or partition extending between each pan and the pan below it and separating the shell into individual compartments, each partition being perforated at the center, and discharge conduits leading from the bottoms of said pans to the exterior of said shell independently of each other.

[Claim 2 not printed in the Gazette.]

1,243,385. MULTIPLE-DISK TALKING-MACHINE. EMIL MILTON CLASEN, Chicago, Ill. Filed Dec. 10, 1913. Serial No. 805,672. (Cl. 274—10.)



1. In a device of the class described, a record magazine, carrying means having pockets therein adapted to carry a record therein, a rotatable playing table adapted to receive said records thereon, reproducing mechanism including needle mechanism, means moving and lowering the reproducing mechanism into position on said record to play the same, mechanism governing said needle mechanism, mechanism causing rotation of said carrying means, and a receiving compartment for the records played.

10. In a device of the class described a playing table, a magazine for records, a receiving compartment and an apertured carrying table adapted when at rest to register with each of said elements.

18. In a record playing machine of the class described rotatable means adapted for simultaneously sweeping records to and from playing position.

[Claims 2 to 9, 11 to 17, and 19 not printed in the Gazette.]

1,243,386. DENTAL SUCTION-DISK. NATHAN COHEN, Swindon, England, assignor of one-half to Frank Bowerman, Swindon, England. Filed Oct. 5, 1915. Serial No. 54,166. (Cl. 32—4.)

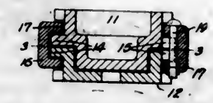


A denture of lower teeth formed of substantially hard material and having an imperforate-curved recessed channel portion; suction-members of relatively softer material than the material forming the denture located on either side within the channel, and suction cups formed integral with the base of such suction-member, the back walls or bases of such suction-members being imperforate.

1,243,387. TRUCK-RETAINING CENTER-BEARING. JAMES M. COLEMAN, Montreal, Quebec, Canada. Filed June 8, 1916, Serial No. 102,565. Renewed Feb. 16, 1917. Serial No. 149,147. (Cl. 105—108.)

1. In a device of the character described, a pair of interengaging center bearing members, and a single annular means engaging both of said members holding them against separation.

2. In a device of the character described, a pair of interengaging center bearing members, flanges on each member, and a single integral means embracing the flanges of said members holding the members against separation.



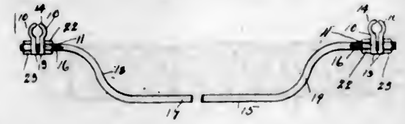
3. In a device of the character described, a pair of interengaging center bearing members relatively revoluble, and means holding said members against separation and limiting relative revolution of the members.

4. In a device of the character described, a pair of interengaging center bearing members relatively revoluble, flanges on said members, a ring engaging said flanges holding the members against separation, and means carried by the ring limiting relative revolution of the members.

5. In a device of the character described, a pair of interengaging center bearing members relatively revoluble, notched flanges on said members, and holding means embracing the flanges and holding the members against separation, and a pin carried by said means engaging in the flange notches and limiting relative revolution of the members.

[Claims 6 to 14 not printed in the Gazette.]

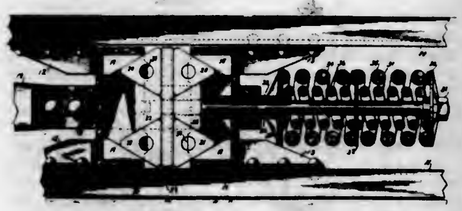
1,243,388. CLAMP FOR LAMP-BRACKETS. JOHN T. CORLEY, Providence, R. I. Filed Dec. 16, 1915. Serial No. 67,149. (Cl. 240—57.)



1. An improvement in clamps for lamp brackets, comprising a tie rod the body of which is offset or bent forward from the axis of the end portions, said end portions being threaded, abutment members on the respective end portions, sectional bracket clamps having openings to receive said end portions, and nuts coöperating with said abutment members to maintain a clamping pressure upon the sections of said bracket clamps.

[Claim 2 not printed in the Gazette.]

1,243,389. DRAFT-GEAR. WALTER H. COTTON, Chicago, Ill., assignor to Union Draft Gear Co., a Corporation of Illinois. Filed Oct. 19, 1915. Serial No. 56,655. (Cl. 213—64.)



1. In a draft gear, in combination, a pair of open faced casing alined on the line of draft, friction elements in each casing, each of such elements comprising inwardly wedging faces, triangular blocks bearing against such wedging faces and central wedge blocks, a yoke inclosing the casings and having an apertured cross member at its rearward end between the triangular blocks; a tension rod attached to and extending backwardly from the forward central wedge block, a spring abutment at the rear end of said rod, a thrust rod engageable with the rear face of the rearward central wedge block, a spring abutment at the rear end of the last named rod, and spring means interposed between the two abutments, both of the named rods extending through the aperture of the cross member of the yoke.

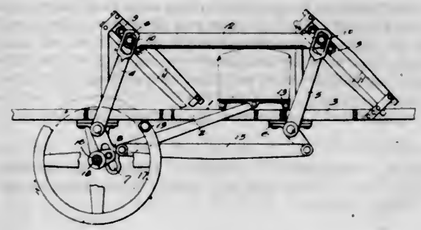
2. In a draft gear, in combination, a yoke having its rear end apertured, friction elements within the yoke, a spring back of the yoke, and connection through the yoke aperture between the friction elements and the opposite ends of the spring.

3. In a draft gear, in combination, a yoke, two sets of friction elements inclosed within the yoke, a transverse plate interposed between and frictionally engaged by the friction elements, a spring exterior of the yoke and in line with the gear, such spring reacting on the two sets of friction elements.

4. In a draft gear, in combination, a pair of opposed followers, two sets of friction elements interposed between the followers, a transverse plate interposed between and frictionally engaged by the friction elements, a spring back of the rearward follower and located on the axis of the gear, abutments between which the spring reacts, and connection between each abutment and one of the sets of friction elements.

5. In a friction draft gear, the combination with front and rear followers having inclined friction faces, opposed central wedge-blocks having inclined friction faces, two pairs of wedge-blocks having friction faces for engaging the friction faces of the followers and the central wedge-blocks, and a transverse plate interposed between the two pairs of wedge-blocks, of a single set of draft springs for opposing movement of the friction members under both draft and buffing stresses.

1,243,390. SLICING-MACHINE. VINCENT DOBBINS, New York, N. Y. Filed Mar. 26, 1917. Serial No. 157,466. (Cl. 146—7.)

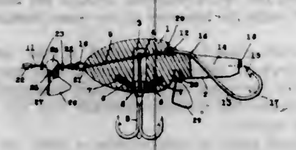


2. In a slicing machine, a bed, inclined guides arranged on the bed, rock arms mounted on said bed and having their upper extremities formed of lengths greater than the lower extremities thereof, carriages slidably engaged with the upper extremities of the rock arms and movable in the inclined guides, a cutter pivotally connected to the upper extremity of the rock arms, a carriage movable on the bed, means for connecting the carriage to the lower end of one of the rock arms, and means for imparting oscillatory motion to said rock arms.

4. In a slicing machine, a bed, inclined guides arranged on the bed, rock arms mounted on said bed and having their upper extremities formed of greater lengths than the lower extremities thereof, cross heads slidably received in the upper extremities of the rock arms, carriages arranged upon the opposite extremities of the cross arms and movably received in the inclined guide ways, a cutter having its extremity pivotally connected to said cross heads, a carriage movable on the bed, means for connecting the carriage to the lower end of one of the rock arms, a connecting rod engaged with the lower extremities of each of the rock arms, a crank shaft engaged with the lower extremity of one of the rock arms, and means arranged on said crank shaft for facilitating rotation thereof.

[Claims 1 and 3 not printed in the Gazette.]

1,243,391. FISHING-BAIT. JAMES L. DONALY, Newark, N. J. Filed Dec. 22, 1913. Serial No. 808,188. (Cl. 43—30.)



1. In a fishing bait, the combination with a body portion having a longitudinal slot forming a transverse guideway, of a hook pivoted to lie by gravity in said slot or guideway with its point protected and its rounded or curved part exposed.

2. In a fishing bait, the combination with a body portion having a longitudinal slot forming a transverse guideway, of a hook pivoted to lie by gravity in said slot or guideway with its rounded or curved part exposed and its point behind the body portion and adjacent thereto.

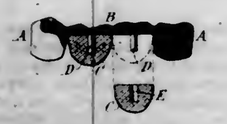
3. In a fishing bait, the combination with a body portion having a longitudinal slot forming a transverse guideway, of a hook pivoted to the outside of said body portion at a distance from the end of said slot or guideway and adapted to lie by gravity in said slot or guideway with its point protected and its rounded or curved part exposed.

4. In a fishing bait, the combination with a body portion having a longitudinal slot forming a transverse guideway, of a hook pivoted to the outside of said body portion at a distance from the end of said slot or guideway and adapted to lie by gravity in said slot or guideway with its shank extending through said slot or guideway, its rounded or curved part exposed at the opposite side of the body portion and its point behind the body portion and adjacent thereto.

5. In a fishing bait, the combination with a body portion having a longitudinal slot forming a transverse guideway and opening through one end of said body portion, of a hook pivoted to lie by gravity in said slot or guideway with its point protected and its rounded or curved part exposed, and stop on the outside of the end of the body portion extending across said slot or guideway to prevent the hook swinging out of the slot.

[Claims 6 to 12 not printed in the Gazette.]

1,243,392. ARTIFICIAL TOOTH. GEORGE EVANS, New York, N. Y. Filed Oct. 18, 1916. Serial No. 126,340. (Cl. 32—12.)



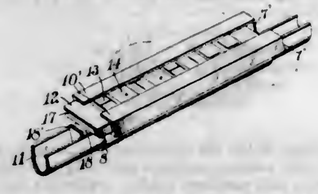
1. An artificial tooth having a hole extending from the occlusal surface toward but not through the cervical portion.

2. An artificial denture comprising a metal bridge forming the occlusal surface and having a projecting pin, and a suspended tooth of porcelain having a hole receiving said pin, extending toward, but not through the cervical portion.

3. An artificial denture comprising a metal bridge forming the occlusal surface, and a suspended tooth of porcelain united to the bridge on its occlusal end.

1,243,393. MEANS FOR ATTACHING NAMES TO UMBRELLAS. FRANK GUNN FARNHAM, Honesdale, Pa. Filed Oct. 28, 1916. Serial No. 128,314. (Cl. 40—140.)

1. The combination with a rib or stretcher of an umbrella, of a holder having a substantially U-shaped channel to receive said rib or stretcher and having longitudinal opposed grooves at the edges thereof, and character bearing elements lying above said rib or stretcher and having their edges held in said grooves.



2. A device for applying names to umbrella ribs and stretchers comprising a channel shaped holder, a sheet metal tongue having character bearing elements provided with openings threaded on said tongue, said tongue and character bearing elements being adapted to be slid into said channel after the holder is applied to the rib or stretcher, and means for locking the same in place on said rib or stretcher.

3. A device for applying names to umbrella ribs and stretchers comprising a channel shaped holder, a tongue or strip having character bearing elements provided with eyes or openings threaded on said tongue, said tongue and character bearing elements being adapted to be slid into said channel after the holder is applied to the rib or stretcher, and a wedge adapted to be inserted between the tongue and rib or stretcher to hold the parts in place.

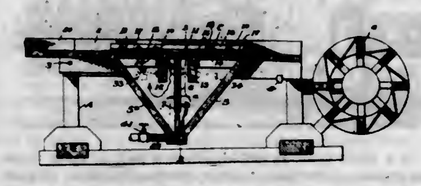
1,243,394. BOOK. DAVID FARQUHAR, Lincoln, Mass. Filed Oct. 18, 1915. Serial No. 56,379. (Cl. 11—16.)



1. As a new article of manufacture, a book having all of its leaves united together and to cover leaves by a single length of thread forming straight stitches within the back edge of the leaves and inclined stitches outside of the back edge of said leaves and stitches extended lengthwise of the uppermost and lowermost leaves of the book, the latter stitches uniting said cover leaves with the leaves of the book.

2. As a new article of manufacture, a book having its leaves united by a plurality of straight stitches extended through the leaves transversely of the book and by inclined stitches located outside of said leaves and extended across the back edges of the same and connecting said straight stitches, and cover leaves hinged to said stitches.

1,243,395. COMBINATION JIG AND SLUICE BOX. HUGH W. FELLOWS, Colfax, Cal. Filed Aug. 9, 1916. Serial No. 113,900. (Cl. 83—79.)



1. The combination with a jigging box, of a screen forming a cover for the jig, a paddle pivoted at its lower end in the jig and a U-shaped baffle member inclosing the upper swinging end of the paddle and spaced from the ends and bottom of the box.

2. In combination with a jigging box, a horizontal member arranged at the center of the top of the box and spaced from the respective box ends, screens disposed in the space between the ends of the member and the ends of the box, and a riffled frame common to said member and each screen and clamped on top of each of the screens to hold the screens in position.

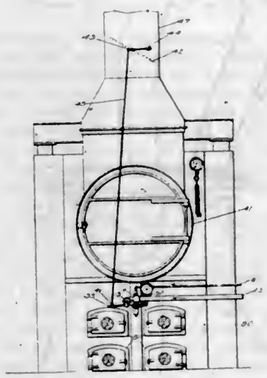
3. In combination with a jigging box, a horizontal member arranged at the top of said box between and spaced from the ends of the latter, spaced downwardly extending baffle plates connected to said member and spaced at their lower ends from the box bottom, a paddle pivoted at its lower end to the box and having its upper end movable in the space between said baffle plates, means to oscillate the paddle, and screens disposed in the space between the ends of the member and the ends of the box.

4. In combination with a jigging box, and a swingable paddle therein, a water supplying box at one side of the jigging box, having ports communicating with opposite sides of the paddle, valves in said water supplying box controlling the ports, said water supplying box having an arcuate slot, and means to operate the paddle including an element arranged in the water supplying box and having a connection with the paddle which connection extends through said arcuate slot.

5. In combination with a jigging box, and a swingable paddle therein, a water supplying box at one side of the jigging box, having ports communicating with opposite sides of the paddle, valves in said water supplying box controlling the ports, and means arranged in the water supplying box to actuate the paddle.

[Claim 6 not printed in the Gazette.]

1,243,396. FLUID-FUEL-REGULATING SYSTEM. THOMAS H. FERGUSON, Portland, Oreg. Filed Feb. 7, 1914. Serial No. 817,248. Cl. 236—6.)



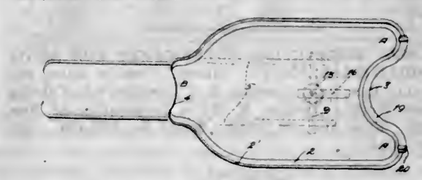
1. The combination with a boiler nad a burner for the same, of a fluid fuel regulating system, comprising a steam pressure operated diaphragm, a spindle on one side of the diaphragm, separate oil and steam inlet chambers, and a beveled seated valve for controlling each of said chambers operated by the spindle, said steam inlet being below its valve and the oil inlet above its valve, whereby the pressure of the oil and steam acts upon opposite faces of the valves to effect a counterbalance.

3. The combination with a boiler and a burner therefor, of a fluid fuel regulator comprising a steam pressure operated diaphragm in communication with the boiler, separate oil and steam inlet chambers, a spindle on one side of said diaphragm passing through said chambers, valves operated by said spindle for controlling the passageways through said chambers, separate steam and oil outlet chambers intermediate the inlet chambers and communicating with the burner, an auxiliary flexible diaphragm operated by steam pressure supplied solely by the steam outlet chamber of said regulator, and a draft device controlled by said auxiliary diaphragm.

6. The combination with a boiler and a fuel burner therefor, means for supplying an admixture of steam and oil to said burner in regulated quantities in accordance with the pressure demands of the boiler, a draft device for said burner, and means controlled by steam pressure from said burner to actuate said draft device.

[Claims 2, 4, 5, and 7 not printed in the Gazette.]

1,243,397. SHAMPOO PAN OR TRAY. PASQUALE FINA, San Francisco, Cal. Filed Jan. 15, 1917. Serial No. 142,374. (Cl. 4—2.)



1. A shampooing apparatus comprising a pan or tray having an upstanding circumferential edge and provided at one end with a curved depression and at its opposite end with an outlet lip, guide rails carried on the underside of said pan or tray and terminating at a point beneath the edge of said lip, a plurality of telescoping troughs carried by said guide rails and capable of extension beyond the end of the same, and a universal joint connection carried by said tray for attachment to a suitable support.

2. A shampooing apparatus comprising a pan or tray having an upstanding circumferential edge and provided at one end with a curved depression and at its opposite end with an outlet lip, a pair of parallel spaced guide rails carried on the underside of said pan or tray and terminating at one end at a point beneath the edge of said lip, a plurality of telescoping nested troughs carried beneath said pan or tray, each of said troughs being provided with a beaded edge and the bead of the outer trough sliding in the bead of the inner trough and the bead of the inner trough sliding in said guides, and a universal joint connection carried by the underside of said tray for attachment to a suitable support.

1,243,398. METHOD OF MAKING AXLE-HOUSINGS. ROBERT E. FRIES, Cleveland, Ohio, assignor to The Columbia Axle Company, Cleveland, Ohio, a Corporation of Ohio. Filed Nov. 22, 1916. Serial No. 132,793. (Cl. 29—153.)



1. In a method of making axle housings, the steps which consist in forming a blank consisting of an enlarged intermediate portion and alined arms extending oppositely therefrom, channeling such blank, and then folding the channeled arms into axle receiving members and such enlarged central portion into a hollow member constituting, with suitable cover plates, a differential-inclosing housing.

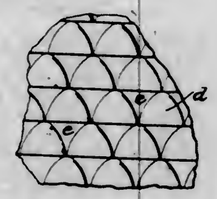
2. In a method of making axle housings, the steps which consist in forming a blank consisting of a circular central portion and alined arms extending oppositely therefrom, channeling such blank, punching through such central portion, and then folding the channeled arms into cylinders and such central portion into a hollow casing member constituting, with suitable cover plates, a differential-inclosing housing.

16. In a method of making axle housings, the steps which consist in forming a blank consisting of a circular central portion and alined arms extending oppositely

therefrom, bending such blank into U-shape, punching centrally through such central portion, doubling inward the edges of the hole thus formed, notching the doubled in edges of such hole, folding the U-shaped arms into approximately cylindrical shape and folding and compressing such circular portion into a hollow casing, trimming the edges of the opening formed by the folded edges of such circular portion, and simultaneously notching such last named edges to correspond with the notching of the first named hole, and then welding the adjacent edges of such cylindrical arms and central hollow casing.

[Claims 3 to 15 and 17 to 24 not printed in the Gazette.]

1,243,399. REFRACTING COVER-GLASS FOR AUTOMOBILE-HEADLIGHTS. HENRY PHELPS GAGE and EMILIO PASCUCCI, Corning, N. Y., assignors to Corning Glass Works, Corning, N. Y., a Corporation of New York. Filed Dec. 12, 1916. Serial No. 136,434. (Cl. 240—48.4.)

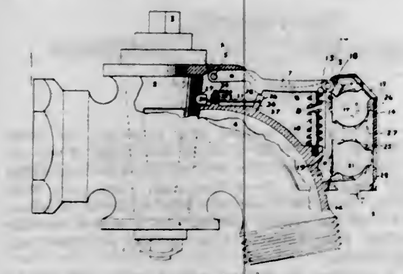


1. A cover-glass for an automobile headlight having on a face thereof a plurality of ribs, the axes of which are inclined to the opposite face of the glass and the faces of which in horizontal cross-section are curved to produce side dispersion, while causing a downward deflection of the rays passing therethrough.

2. A cover-glass having on a face thereof cylindrical ungulas arranged in horizontal rows, the cylindrical axes of the ungulas being inclined to the opposite face of the cover-glass.

3. A flat cover-glass having thereon vertical ribs, whose outer faces in horizontal section are convex and in vertical section are inclined to the plane of the glass to produce downward divergence of the rays passing therethrough when the glass is vertical.

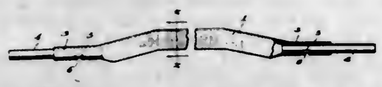
1,243,400. COUNTING ATTACHMENT FOR FAUCETS. ALBERT J. GRANBERG, San Francisco, Cal. Filed Jan. 26, 1917. Serial No. 144,655. (Cl. 235—94.)



1. In combination with a downwardly discharging faucet body having a counting and registering casing above the same, counting and registering mechanism in the forward portion of said casing, a lever pivoted above the faucet body in the rear end of the counting and registering casing, said counting and registering casing having an opening immediately above the discharge opening of the faucet, and said lever extending above the edges of said opening and adapted to be depressed to the level of said edges by the weight of a vessel of which the bail is deposited upon the portion of the lever extending above said edges, a spring for raising said lever when the bail is removed, and means carried by the front end of said lever for actuating the counting and registering mechanism by the vertical reciprocatory movement of the lever.

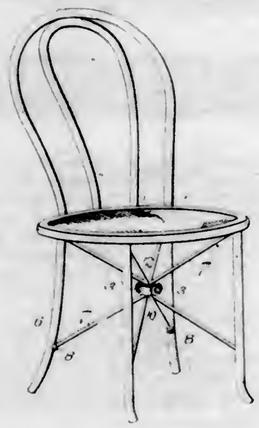
[Claims 2 and 3 not printed in the Gazette.]

1,243,401. VEHICLE-AXLE. MARIUS E. GRISWOLD, Chicago, Ill. Filed Mar. 14, 1917. Serial No. 154,907. (Cl. 21—5.)



A vehicle axle comprising an elongated channel formed body having tubularly formed ends, these tubular ends having each a longitudinal seam or joint; spindles having their rearward ends fitting in and snugly embraced by said ends of said body; and means for locking said spindles in position in said ends of said body, said means comprising transversely extending recesses formed in the inner end portions of said spindles, said recesses registering with the seams in said ends of said body, the adjacent portion of each end of said body at either side of the seam thereof being bent inwardly into engagement with the corresponding recess, substantially as described.

1,243,402. CHAIR. WILLIAM G. HALL, Spray, N. C. Filed Jan. 29, 1917. Serial No. 145,186. (Cl. 155—3.)



1. A bracing device for chairs comprising a plurality of bracing rods having their ends secured to the legs of the chair and their intermediate portions arranged in juxtaposition, and vertically arranged clamping plates having their inner opposed faces provided with grooves to form an opening for receiving said intermediate portions of the rods, certain of said rods extending at right angles to the plane of said plates, the other rods being parallel to the planes thereof.

2. A bracing device for chairs including a plurality of substantially V-shaped rods having their ends secured to the legs of a chair, each rod extending inwardly at right angles to the next adjacent rod and said rods having their intermediate portions arranged in juxtaposition, and vertically arranged clamping plates having their inner opposed faces provided with grooves for forming an opening to receive said intermediate portions of the rods, certain of said rods extending at right angles to the planes of said plates, the other rods being parallel to the planes thereof.

1,243,403. DEVELOPING AND FIXING TANK FOR PHOTOGRAPHIC FILMS. GEORGE HANLON, Shawneetown, Ill. Filed Feb. 7, 1916. Serial No. 76,596. (Cl. 95—90.5.)



1. In a developing tank, the combination with a tank body, of a roll film carrier removably positioned in said body, pivotally connected folding legs on said carrier, rollers on said legs, and means for unwinding the film and drawing the same around the rollers on said legs.

2. In a developing tank, the combination with a tank body of a roll film carrier removably positioned in said body, pivotally connected folding legs on said carrier, rollers on said legs, means for unwinding the film and drawing the same around the rollers on said legs, and a flexible light-proof cover adapted to be secured to the film carrier and to inclose the same when withdrawn from the tank.

3. In a developing tank, the combination with a tank body, of a roll film carrier removably positioned in said body, pivotally connected folding legs on said carrier, rollers on said legs, means for unwinding the film and drawing the same around the rollers on said legs, a flexible light-proof cover adapted to be secured to the film carrier and to inclose the same when withdrawn from the tank and means on said cover and on the flexible carrier for preventing said cover from contacting with the film when the carrier is removed from the tank.

4. In a developing tank, the combination with a tank body of a roll film carrier removably positioned in said tank body, means pivotally mounted on said carrier for supporting the unwound film, and a flexible light proof cover adapted to be secured to the film carrier for inclosing the same when it is removed from the tank.

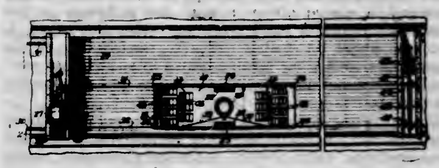
5. In a developing tank, the combination with a tank body, of a roll film carrier removably positioned in said tank body, means pivotally mounted on said carrier for supporting the unwound film, a flexible light proof cover adapted to be secured to the film carrier for inclosing the same when it is removed from the tank, and a plurality of rings secured to the body of said cover for holding the same in extended condition.

[Claims 6 to 10 not printed in the Gazette.]

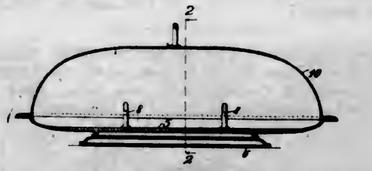
1,243,404. SURFACING APPARATUS. LOUIS HARRIS, Chicago, Ill. Filed Jan. 22, 1917. Serial No. 143,726. (Cl. 144—2.)

1. In a device of the character described the combination of spaced-apart parallel guide tracks, or ways to be placed at opposite ends of a surface to be planed; a structure, one for each way, carrying spaced-apart sheaves and longitudinally adjustable on said ways; a motor, for driving one pair of sheaves, movable with the respective structure; a block, carrying a plurality of planes, movable between said ways and a pair of chains, or cables overlying appropriate sheaves on said structures and having their opposite ends connected to opposite ends of said plane block.

2. In a device of the character described the combination of spaced-apart parallel guide tracks, or ways to be placed at opposite ends of a surface to be planed; a structure, one for each way, carrying spaced-apart sheaves and longitudinally adjustable on said ways; a motor for driving one pair of sheaves movable with the respective structure; a block, carrying a plurality of planes, movable between said ways; a pair of chains, or cables overlying appropriate sheaves on said structures and having their opposite ends connected to opposite ends of said plane block and springs connected to one structure to increase frictional contact between the driving sheaves and the respective chains or cables.



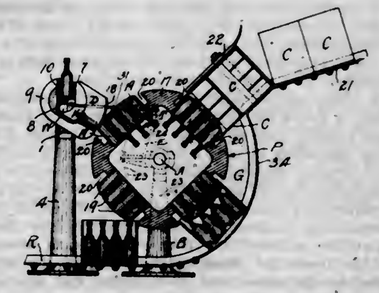
1,243,405. TABLE VESSEL. JOHN BENTLEY HAWLEY, Carthage, N. Y. Filed Aug. 16, 1916. Serial No. 115,235. (Cl. 65—15.)



1. A service vessel comprising a platter having perforations adapted to secure therein interchangeable elements, and racks and plugs adapted to be removably secured in the perforations of the platter, substantially as herein shown and described.

2. A service vessel comprising a platter having screw-threaded perforations, racks each having a correspondingly screw-threaded shank, fitted into the screw-threaded perforations, and correspondingly externally threaded plugs adapted to fill the perforations when the racks are not used, substantially as herein shown and described.

1,243,406. CRATING APPARATUS FOR BOTTLES AND THE LIKE. LOUIS A. HAWTHORNE, Newark, N. J., assignor to Steel Utilities Incorporated, a Corporation of New York. Filed Mar. 6, 1917. Serial No. 152,960. (Cl. 100—59.)



1. A crating apparatus including a combined container and crate assembler having container carrying means, and means for placing single crates over the container holding positions of the assembler.

7. A crating apparatus including an intermittently rotatable bottle and crate carrying device, and means located at one side thereof for feeding crates thereto and over the bottles.

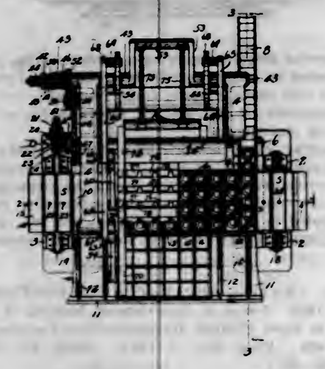
16. A crating apparatus including a bottle and crate carrying drum having a plurality of spaced bottle receiving pockets arranged in horizontal rows, said rows being arranged in spaced groups around the periphery of the drum, and having a crate receiving socket thereabout, a dumping cradle for feding botles to the pockets in the drum, and a device for feeding crates in an inverted position to the socket surrounding the groups of bottle receiving pockets.

27. A crating apparatus including a rotatable bottle and crate-carrying drum having a plurality of bottle and crate receiving units therein, a pivotally mounted cradle for feeding bottles to the drum, bottle feeding means for the cradle, bottle controlled means at one end of said cradle for releasing the same to tilt, and a counterweight at the other end of said crate and normally occupying a position beneath the same, a counterweight adapted to be brought into position to cut off bottles being fed from the bottle feeding means after the cradle is in dumping position.

30. A crating apparatus including a device having a plurality of crate size container receiving units and means for positioning a crate thereabout, and means for feeding crates to said positioning means of the device, to receive the entire contents of said unit.

[Claims 2 to 6, 8 to 15, 17 to 26, 28, and 29 not printed in the Gazette.]

1,243,407. BOTTLE-CRATING MECHANISM. LOUIS A. HAWTHORNE, Newark, N. J., assignor to Steel Utilities Incorporated, a Corporation of New York. Filed Apr. 11, 1917. Serial No. 161,285. (Cl. 100—59.)



1. A crating apparatus including means for assembling a number of containers in a group having a spaced relation corresponding to that of the compartments of a cellular crate, and means for bodily transferring said group of containers as a unit into the cellular crate.

5. A bottle crating apparatus including an assembling platform, a device for collecting bottles in spaced relation, a crate support, and means for lifting the collected bottles and depositing them in a crate on said crate support.

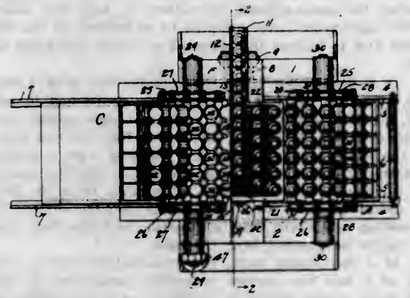
10. A crating apparatus including a feed conveyer, an intermittently moving assembling platform receiving from said conveyer, a bottle collecting frame supported above the assembling platform, a crate support at one side of the platform adjacent the frame, and means arranged above the frame for engaging the necks of the bottles collected in the frame and then lifting and depositing them in a crate on the crate support.

18. A crating apparatus including a feed conveyer, an assembling platform, a drive shaft for the feed conveyer, a counter shaft for moving the assembling platform, a friction clutch between the drive shaft and the counter shaft, a bottle actuated latch device for permitting the movement of the platform by the drive shaft through said clutch at predetermined intervals, a bottle collecting frame, a bottle lifting and depositing mechanism including a crank shaft, and a clutch device controlled by bottles in the frame for connecting the said crank shaft with the drive shaft.

21. A crating apparatus including a feed conveyer, an assembling platform, a drive shaft for the feed conveyer, a counter shaft having means for moving the assembling platform, a friction clutch between the drive shaft and the counter shaft, a bottle actuated latch device for permitting the movement of the platform by the drive shaft through the said clutch at predetermined intervals, a bottle lifting and depositing mechanism including a crank shaft having cams thereon, a clutch device controlled by the bottles collecting in the frame to connect said crank shaft to the drive shaft, a slidable bottle engaging device consisting of parallel channel members having a plurality of depending bottle engaging feet and connected with the crank shaft, and means for lifting the slidable bottle engaging device including a plurality of angular lifting levers having one end engaged in said channel members, and bars connected with the other ends thereof, said bars having means for engaging the cams on the crank shaft.

[Claims 2 to 4, 6 to 9, 11 to 17, 19, 20, 22, and 23 not printed in the Gazette.]

1,243,408. BOTTLE-CRATING MECHANISM. LOUIS A. HAWTHORNE, Newark, N. J., assignor to Steel Utilities Incorporated, a Corporation of New York. Filed May 7, 1917. Serial No. 166,930. (Cl. 100—59.)



3. A crating apparatus including a container collecting table and a device having container propelling and crate engaging means.

5. A crating apparatus including a container collecting table, a crateway arranged beneath said table, and a device having means for simultaneously engaging the crates in said crateway and sweeping said containers from the table into the container.

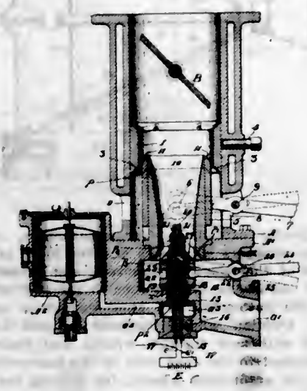
11. A crating apparatus including a stationary container collecting table, a bottle controlled restraining device, and a combined container and crate assembling device released for movement by the operation of said bottle controlled restraining device.

24. A crating apparatus including in combination with a shipping crate, a crateway, a container collecting table consisting of a plurality of spaced container supporting bars, a container spacing frame having means for guiding containers toward the delivery side of said table and also beyond the same, a container assembling device having thereon a plurality of spaced container guide units adapted to pass beneath the container collecting table and engage therebetween the adjacent side walls of juxtaposed crates in said crateway, said container guiding units each including a plurality of container guiding sleeves arranged in transverse rows and having means therein for checking the passage of a bottle therethrough, and transfer projections carried by said guide sleeves and adapted to move between the spaced supporting bars and projecting above the surface thereof to form bottle receiving guideways, and also constituting means for advancing the bottles toward the delivery ends of said supporting bars and transferring same into a crate in said crateway.

26. A crating apparatus including a container collecting support, an assembling device having means for directing a shipping crate to a receiving position and for transferring the containers thereto, and means controlled by said containers for causing the intermittent moving of the assembling device.

[Claims 1, 2, 4, 6 to 10, 12 to 23, 25, and 27 not printed in the Gazette.]

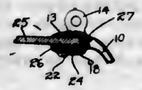
1,243,409. CARBURETER. LOUIS JOSEPH HIAT, Yonkers, N. Y. Filed Sept. 28, 1916. Serial No. 122,595. (Cl. 261—54.)



1. A carbureter comprising a mixing chamber and a throttle valve within said mixing chamber, an adjustable choke ring below said throttle valve and means to hold said choke ring in adjusted position, an upstanding Venturi tube leading to said choke ring, a liquid fuel supply including a chambered atomizer within said Venturi tube, an upper choke sleeve slidable on the exterior of said Venturi tube and provided with an accessible operating means, and an under choke sleeve slidable on the exterior of said atomizer and having an accessible operating means.

2. A carbureter comprising, an upper chamber having an internal annular means for partially choking same, an upstanding Venturi tube leading to said choking means, an air supply being provided around said Venturi tube, a choke sleeve slidable on the exterior of said Venturi tube to vary the air space therearound and provided with an accessible operating means, a fuel supply including a chambered atomizer within said Venturi tube, and an under choke sleeve slidable on the exterior of said atomizer and having an accessible operating means.

1,243,410. EYEGLASSES. CHARLES A. HOFFMAN, Minneapolis, Minn. Filed Mar. 16, 1916. Serial No. 84,536. (Cl. 88—47.)



1. In combination with the lens and lens strap of an eye-glass, a plate on one side of said lens, means securing the plate and lens together, and clamping means coöperating with said lens strap and engaging said plate for holding the lens in place upon said lens strap members.

2. In combination with the lens and lens strap of an eye-glass, a plate between said lens and one of the members of said lens strap, means for clamping said plate against the lens to hold said lens in place between said lens strap members, and means for preventing the plate from slipping on the lens.

6. In combination with the lens and lens strap of an eye-glass, a plate between said lens and one of said lens strap members, said lens having an indentation, a projection on said plate fitting into said indentation for preventing the plate from slipping on the lens, and means for clamping said plate against the lens to hold said lens in place between said lens strap members.

10. In combination with a lens having its sides angularly disposed, a lens strap formed with parallel members for receiving the lens, a plate between said lens and one of said lens strap members having a tapered portion and being so positioned as to substantially fill up the space between the lens and lens strap member, and means to clamp said plate and lens in place.

11. The combination with a lens strap having lens embracing members, of a lens located between said members, the portion between the members being imperforate, a plate interposed between the lens and one of the members, means for preventing relative sliding movement between the plate and lens, and means for clamping the lens against the plate to secure the lens between the members.

[Claims 3 to 5 and 7 to 9 not printed in the Gazette.]

1,243,411. WAR-PUZZLE. GEORGE F. HOWARD, New York, N. Y., assignor of one-half to Albert O. Duncan, New York, N. Y. Filed Dec. 15, 1915. Serial No. 67,078. (Cl. 46—41.)

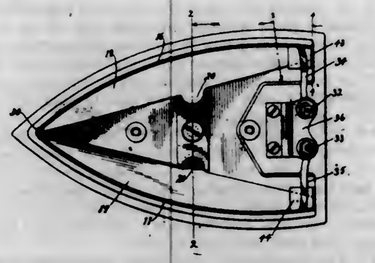


An educational appliance and puzzle embodying a casing, on the upper surface of which is delineated a map, a continuous channel of constant depth but varying width formed in said upper surface of the casing, said channel representing the course of a force invading a country on the map, a ball, representing the invading force, adapted to be manipulated to traverse the channel, said channel being provided with apertures in its base communicating with the interior of the casing and representing resistance by the defending forces, said apertures serving as pitfalls through which the ball may fall into the casing, thereby signifying a defeat of the invaders, the channel partaking of a tortuous, sinuous path whereby, when the casing is tilted, the ball gravitates along the channel passing along from side to side thereof to avoid the apertures, and may be brought to rest in the elbow of any particular turn in accordance with the direction of tilting of the casing, and a run-way leading from the interior of the casing to the base of the channel for returning the ball from the interior of the casing to the starting point in the channel for a subsequent attempt at the solution of the puzzle.

1,243,412. ELECTRIC SAD-IRON. DAVIDD C. HUGHES, Chicago, Ill., assignor to D. C. Hughes & Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 15, 1917. Serial No. 142,440. (Cl. 219—25.)

1. In an electric sad iron, in combination, a chambered base having side walls, heating elements bearing against the side walls, clamping blocks for holding the heating

elements against such walls, and wedge means for advancing the blocks.



2. In an electric sad iron, in combination, a chambered base having side walls, heating elements bearing against the side walls, clamping blocks for holding the heating elements against such walls, and spreading means reacting between the blocks for advancing them.

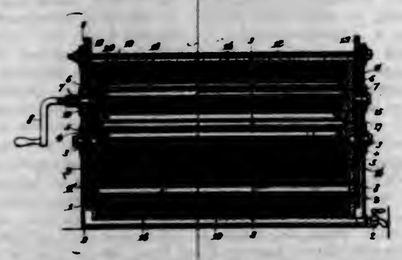
3. In an electric sad iron, in combination, a chambered base having curved side walls, heating elements bearing against such walls, a pair of clamping blocks having faces conforming to the curvature of the side walls for forcing the elements thereagainst, and spreading means reacting between the blocks.

4. In an electric sad iron, in combination, a chambered base having curved side walls, heating elements bearing against such walls, a pair of clamping blocks having faces conforming to the curvature of the side walls for forcing the elements thereagainst, and a wedge entering between the blocks.

5. In an electric sad iron, in combination, a chamber base having curved side walls, heating elements bearing against such walls, a pair of clamping blocks having faces conforming to the curvature of the side walls for forcing the elements thereagainst, a wedge entering betwen the blocks, and a screw engaging the base for advancing the wedge.

[Claims 6 to 8 not printed in the Gazette.]

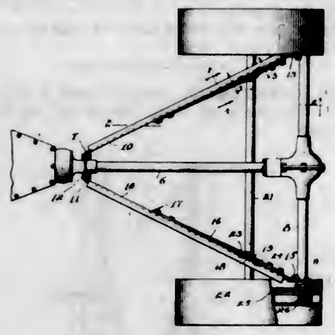
1,243,413. WASHING-MACHINE. RICCARDO ISOBARELLA and FRANCESCO LOMBARDI, New York, N. Y., assignors of one-third to MAX FEIER, New York, N. Y. Filed Feb. 25, 1916. Serial No. 80,510. (Cl. 68—18.)



A clothes washer comprising a tank, a foraminous receptacle journaled for rotation in the tank, means for rotating the receptacle in one direction, a beater located within the receptacle, a detachable bar connected with the beater, and means for rotating the beater and the bar in a direction opposite to that in which the said receptacle rotates.

1,243,414. TRACTOR ATTACHMENT FOR AUTOMOBILES. GEORGE S. JACOBS, Pontiac, Mich., assignor to The Geneva Tractor Company, Geneva, Ohio. Filed Mar. 13, 1917. Serial No. 154,455. (Cl. 180—16.)

1. A tractor attachment for automobiles, comprising strong frame members inserted in the place of the usual torsion rods and extending from the front end of the torsion tube to the ends of the rear axle of the automobile, an axle secured to said members, wheels mounted on said axle, and means comprising reduction gearing, for driving said wheels from the rear axle of the automobile, the rear wheels having been removed and the weight being supported on said last-named wheels.



2. A tractor attachment for automobiles, comprising two frame members which are adapted to be arranged in the place of the usual torsion rods and extending from the front end of the torsion tube to the ends of the rear axle of the automobile, an axle secured to said frame members, traction wheels mounted on said axle, gears connected with said traction wheels, and gears adapted to be attached to the rear axle of the automobile in the place of the automobile wheels, for driving the gears on the traction wheels.

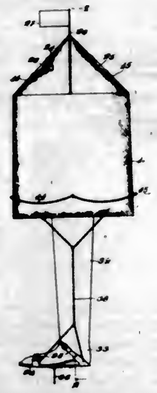
3. In a device of the character set forth, the combination of two channel bars, means for connecting said bars to the front end of the torsion tube, and to the ends of the rear axle housing, reinforcing plates spaced from said channel bars, saddles inserted between the plates and the bars, an axle engaging with said saddles, U-bolts for securing the axle to the channel bars at a point in front of the rear axle of the automobile, traction wheels mounted on said axle, internal gears in said wheels, and pinions engaging with said gears, said pinions being attached to the rear axle of the automobile in the place of the automobile wheels.

4. The combination with an automobile chassis, of heavy bars or frame members connected at their front ends with the front end of the torsion tube and at their rear ends with the ends of the housing of the rear axle of the automobile, a relatively heavy axle secured to said frame members, in advance of the rear axle of the automobile, means for detachably securing said axle to the frame members, traction wheels for said axle, and gearing for driving the traction wheels from the rear axle of the automobile, said gearing including pinions attached in the place of the automobile wheels.

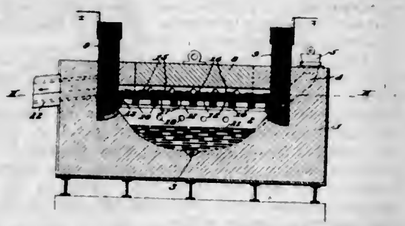
1,243,415. LIFE-PRESERVER. ALFONSO L. JAYNES, Chicago, Ill., assignor to Safety on Sea Company, a Corporation of Delaware. Filed May 3, 1915, Serial No. 25,641. Renewed Apr. 18, 1917. Serial No. 163,040. (Cl. 9—20.)

1. A life preserver comprising head, body and leg incasing portions, the head portion comprising opposite sections of flexible material, said sections meeting when closed and being foldable into open position, and bows secured to the meeting edges of the sections, said bows being pivotally connected to the body portion, one of the bows having a groove in which the other bow seats when the sections are closed.

2. A life preserver comprising body and leg incasing portions, the body portion comprising telescopically connected sections, shoulder straps carried by the top section on the inside thereof, and a flexible waterproof cover for the sections.



1,243,416. PROCESS OF MAKING ALLOY CASTINGS. WOOLSEY MCA. JOHNSON, Hartford, Conn., assignor to The Continuous Zinc Furnace Company, Hartford, Conn., a Corporation of Connecticut. Filed Mar. 3, 1914. Serial No. 822,115. (Cl. 204—64.)



1. The process of making alloy castings, which consists in separately melting the constituent metals of the alloy, one of said constituents being a volatile metal, transferring them in a molten state and in proper relative proportions into a closed electric furnace, further heating the alloy in said electric furnace and mechanically stirring the same during such further heating, and casting the alloy.

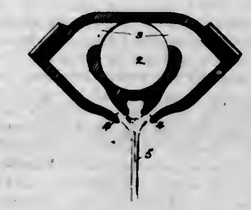
2. The process of making alloy castings, which consists in separately melting and refining the constituent metals of the alloy, one of said constituents being a volatile metal, transferring the refined metals in the molten state and in proper relative proportions into a closed electric furnace, further heating the alloy in said electric furnace and mechanically stirring the same during such further heating, and casting the alloy.

3. The process of making alloy castings, which consists in separately melting the constituent metals of the alloy, one of said constituents being a volatile metal, transferring them in the molten state and in proper relative proportions into a closed electric furnace, further heating the alloy in said electric furnace by radiation and mechanically stirring the same during such further heating until a homogeneous alloy is obtained, and casting the alloy.

4. The process of making alloy castings, which consists in separately melting and refining the constituent metals of the alloy, one of said constituents being a volatile metal, transferring the refined metals in the molten state and in proper relative proportions into a closed electric furnace, further heating the alloy in said electric furnace by radiation and mechanically stirring the same during such further heating until a homogeneous alloy is obtained, and casting the alloy.

5. The process of making brass castings, which consists in melting copper cathodes and subjecting them to a refining operation, melting spelter and refining the same if required, transferring the copper and zinc in the molten state and in proper relative proportions for the production of brass into a closed electric furnace, further heating the molten mass in said electric furnace and mechanically stirring the same during such further heating until a homogeneous product is obtained, and casting the alloy.

1,243,417. ROAD-OIL-SPREADING NOZZLE. DAVID W. JOHNSTON, GEORGE G. GIRLING, and SIDNEY S. GIRLING, Saanich, Vancouver Island, British Columbia, Canada. Filed Sept. 25, 1916. Serial No. 122,075. (Cl. 137—64.)



1. A means for applying a thin flat film of a viscid material such as road oil, to a surface, said means comprising opposed nozzles having free discharge ends the axes of which nozzles angularly converge and the bore of which is adapted to deliver a compact jet to the place of intersection, and means for delivering the material to both nozzles from a common source.

3. A means for applying a thin flat film of a viscid material such as road oil, to a surface, said means comprising the combination with a pipe of ducts delivering from one side of the pipe to opposite sides, said ducts delivering into nozzles, the axes of which are in a plane normal to the axis of the pipe from which they are derived and converge to intersect below said pipe.

5. A means for applying a thin flat film of a viscid material such as road oil, to a surface, said means comprising the combination with a transverse pipe, of a series of opposed nozzles derived from such pipe, the axes of each pair of nozzles being in a plane normal to the axis of the transverse pipe and converging to intersect below it, the point of intersection of each alternate pair of nozzles being in the same plane, and those of the intervening nozzles being a plane parallel thereto.

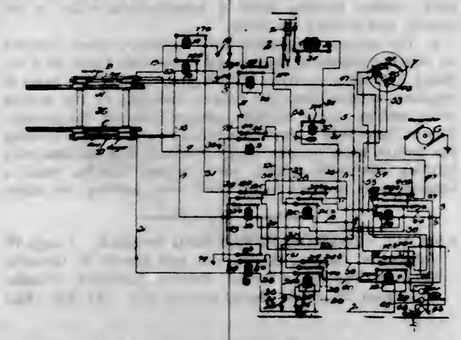
[Claims 2 and 4 not printed in the Gazette.]

1,243,418. BLOCK-SIGNAL SYSTEM. MARSENA R. JULIAN, Birmingham, Ala. Filed July 31, 1914. Serial No. 854,392. (Cl. 246—58.)

1. In a cab signal system, a normally closed brake controlling circuit, a circuit breaker in said circuit, a normally closed circuit adapted to be shorted by a grounded track contact controlling the circuit breaker, a plurality of electrically actuated signals, signal controlling circuits, a normally closed circuit breaker controlled by each of said signal controlling circuits adapted to open upon the grounding of its respective circuit and each operable to open the brake circuit; and independent track controlled contacts for grounding the signal controlling circuits.

2. In a cab signal system, a plurality of electrically actuated signals connected each in a normally open signal circuit with a source of energy, a plurality of main circuits, a pair of stick relay magnets governing the signal circuits, a plurality of stick relay magnets each disposed in one of the main circuits and governing the circuits through the signal governing relays, and track contact

controlled means for controlling the passage of the current through the second-named relay magnets.



3. In a cab signal system, a plurality of electrically actuated signals connected each in a circuit with a source of electrical energy, a plurality of main circuits, a pair of stick relay magnets governing the signal circuits, a plurality of stick relay magnets each in one of the main circuits and governing the circuits through the signal governing relay magnets, track contact controlled means for controlling the passage of current through the second-named relay magnets, an electrically operated brake controlling device, and means controlled by said pair of stick relay magnets for controlling the passage of current through the brake controlling device.

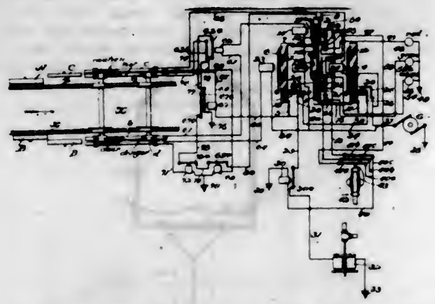
4. In a cab signal system, the combination with a brake controlling valve, and electrically actuated means for controlling said valve, of a generator, a clear signal, a cautionary signal and a danger signal, each disposed in a circuit with the generator, of means for electrically completing a circuit through either the clear, cautionary or danger signals, the completion of the circuit through the clear signal acting to release the brakes, the completion of the circuit through the cautionary or danger signals acting to apply the brakes, said means including a plurality of stick relays cooperating one with each of the signals and controlling the circuit of the brake actuating means, and means for manually releasing the brakes after the automatic application thereof.

5. In a cab signal system of the character described, a brake controlling valve, means for urging said valve to open position, an electromagnet holding said valve closed, a generator in a normally closed circuit with said electromagnet, a circuit breaker arranged in said circuit, a magnet controlling the circuit breaker, a movable speed controlled member, a plurality of contact strips over which the speed controlled member moves and with which it has electrical engagement, said strips having different lengths, each of said strips being connected in an independent circuit with the generator and through the speed controlled member and the last-named magnet to a ground, and means including track contacts for breaking the circuit through any of said strips and completing the circuit through the other of said strips, whereby to render said last-named strip active, whereby when the speed controlled member moves beyond the extremity of such active strip due to the speed of the vehicle, the circuit breaker magnet will be deënergized to thereby cause deënergization of the brake controlling magnet.

[Claims 6 to 30 not printed in the Gazette.]

1,243,419. BLOCK-SIGNAL SYSTEM. MARSENA R. JULIAN, Birmingham, Ala. Filed July 31, 1914. Serial No. 854,393. (Cl. 246—58.)

1. In a vehicle, the combination with a brake applying means, of a maximum, a minimum and an intermediate speed governed means for automatically actuating the brake applying means to apply the brake on an increase of the vehicle speed beyond a maximum, a minimum or an intermediate speed, respectively, and means governed by the position of another vehicle for automatically rendering any one of the speed-governed means active.



2. In a vehicle, the combination with a brake applying means, of a minimum, a maximum and an intermediate speed governed means for automatically actuating the brake applying means to apply the brake, on an increase of vehicle speed beyond a maximum, a minimum or intermediate speed, respectively, one of said means when in operation rendering the others of said means inactive, and means governed by the position of another vehicle for rendering any one of said speed governed means active.

3. In a vehicle, the combination with a brake applying means, of a plurality of speed governed brake applying circuits, each controlling the brake applying means at different vehicle speeds, each when active placing the other speed governed circuits out of operation, each circuit operating to apply the brake when the vehicle speed is greater than a predetermined speed, and means governed by the position of another vehicle for rendering any one of said speed governed circuits active.

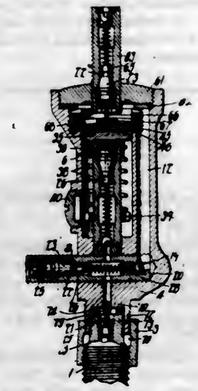
4. In a vehicle, the combination with a brake applying means, of a plurality of speed governed brake applying circuits, each controlling the brake applying means at different vehicle speeds, each when active placing the other speed governed circuits out of operation, each circuit operating to apply the brake when the vehicle speed is greater than a predetermined speed, and means controlled by the position of another vehicle on the same track for automatically rendering any one of the said speed governed circuits active.

5. In a vehicle, the combination with a brake applying device, of a plurality of means for automatically actuating the brake applying device to apply the brake to be operated in different circumstances, maximum, minimum and intermediate speed governed means for automatically actuating the brake applying device to apply the brake, the minimum and intermediate speed governed means being placed in condition for operation upon the actuation of a corresponding first-named means, and each operating to apply the brake if the speed of the vehicle is greater than the minimum or intermediate speeds, respectively, the maximum speed governed means acting to actuate the brake applying device to apply the brake if the speed of the vehicle is greater than the maximum, and manually operable means for actuating the brake applying device to release the brake after such an automatic application if the speed is below intermediate or minimum limit.

[Claims 6 to 45 not printed in the Gazette.]

1,243,420. PRESSURE-REGULATOR FOR TIRES. EDWARD B. KEITH, Pontiac, Mich. Filed Apr. 7, 1916. Serial No. 89,571. (Cl. 152—11.)

1. In combination a tube, a hollow casing detachably mounted on the tube, means for forming a pressure chamber in the casing in line with the axis of the tube, said last mentioned means including a flexible diaphragm in sealing engagement with the casing, said casing having a passage whereby the pressure chamber is brought into communication with the tube, a valve for relieving excess pressure in the tube, a valve stem for the valve, said stem being co-axial with the tube, resilient means for normally holding the valve closed, a movable member conforming to the interior of the casing, said member being adapted to receive the thrust put upon the diaphragm by air in the pressure chamber and being adapted to open the valve, resilient means for forcing the member in the direction opposite from that in which the diaphragm tends to move it, and means for adjusting the tension of the resilient means.



2. In combination a tube, a hollow casing detachably mounted on the tube, means for forming a pressure chamber in the casing in line with the axis of the tube, said last mentioned means including a flexible diaphragm in sealing engagement with the casing, said casing having a passage whereby the pressure chamber is brought into communication with the tube, a valve for relieving excess pressure in the tube, a valve stem for the valve, a valve tube whereby the valve and stem are inclosed, said stem extending into the casing and being spaced from the wall thereof, a movable member conforming to the interior of the casing, said member being arranged to receive the thrust put upon the diaphragm by air in the pressure chamber, and being adapted to move the valve to unseat the latter, and a spring surrounding the valve tube for forcing the member in a direction opposite from that in which the diaphragm tends to move it.

3. In combination, means for receiving air under pressure, a hollow casing detachably mounted on the air receiving means, a valve tube in the casing, the interior of said tube being in communication with the air receiving means, a perforated valve seat in the tube, a valve stem passing loosely through the seat, a valve on the stem, a cap covering the end of the tube and slidable longitudinally in respect thereto to exert pressure on the valve stem, said cap conforming to the interior of the casing, resilient means for moving the cap in one direction, means for forming a pressure chamber, means for connecting said pressure chamber with the pressure receiving means, said chamber forming means comprising a flexible diaphragm in sealed engagement with the casing, said diaphragm being adapted to exert pressure on the cap to open the valve.

4. In combination, means for receiving air under pressure, a hollow casing detachably mounted on the air receiving means, a valve tube in the casing, the interior of said tube being in communication with the air receiving means, a perforated valve seat in the tube, a valve stem passing loosely through the seat, a valve on the stem, a cap covering the end of the tube and slidable longitudinally in respect thereto to exert pressure on the valve stem, said cap conforming to the interior of the casing, resilient means for moving the cap in one direction, means for forming a pressure chamber in line with the tube and beyond the cap, means for connecting said pressure chamber with the pressure receiving means, said chamber forming means comprising a flexible diaphragm in sealed engagement with the casing, said diaphragm being adapted to exert pressure on the cap to open the valve.

5. In combination, means for receiving air under pressure, a hollow casing detachably mounted on the air receiving means, a valve tube in the casing, the interior of said tube being in communication with the air receiving means, a perforated valve seat in the tube, a valve stem passing loosely through the seat, a valve on the stem, a cap covering the end of the tube and slidable longitudinally in respect thereto to exert pressure on the valve stem, said cap conforming to the interior of the casing, resilient means for moving the cap in one direction, a nut threaded on the valve tube for determining the initial tension of the resilient means, means for forming a pressure chamber, means for connecting said pressure chamber with the pressure receiving means, said chamber forming means comprising a flexible diaphragm in sealed engagement with the casing, said diaphragm being adapted to exert pressure on the cap to open the valve.

[Claims 6 to 20 not printed in the Gazette.]

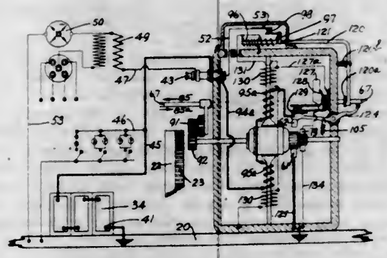
1,243,421. STITCH-DOWN SHOE. WILLIAM J. KELLY, Reading, Pa., assignor of one-third to Harry I. Bernhard, Brooklyn, N. Y. Filed Dec. 2, 1912. Serial No. 734,432. (Cl. 36—16.)



1. A stitch down shoe embodying an insole, an upper the marginal portions of which are extended outwardly with respect to the insole, an upper lining lasted around the edge of said insole for the margins of said upper lining to extend inwardly and into lapping engagement with said insole, a slip sole the width of which exceeds that of the insole, the marginal portions of said slip sole being extended beyond the lapping contact between the upper-lining and the insole, staples positioned in the angle formed between the upper and the out turned margins thereof, said staples attaching the slip sole directly to the upper independently of the contact of the lining with the insole, and the ends of said staples being clenched against the outer face of said slip sole, an outer sole covering the slip sole and the clenched ends of the staples, and means separate from said staples for fastening the outer sole to the marginal portions of the upper and the slip sole.

2. A stitch down shoe embodying an insole, an upper the marginal portions of which are extended outwardly with respect to the insole, an upper-lining lasted around the edge of said insole for the margins of said upper lining to extend inwardly into lapping engagement with said insole, a slip sole the width of which exceeds that of the insole, the marginal portions of said slip sole being extended beyond the lapping engagement between the upper lining and the insole, staples for attaching the slip sole to the upper at the angle formed between said upper and the out-turned marginal portions thereof, said staples operating to directly fasten the upper and slip sole to each other independently of the engagement between the insole and the upper lining, an outer sole separate from the slip sole and covering the staples, a welt in contact with the out-turned marginal portions of the upper, and a seam separate from the staples for attaching the welt and the outer sole to the marginal portions of the upper and the slip sole.

1,243,422. ENGINE-STARTING SYSTEM. CHARLES F. KETTERING and WILLIAM A. CHRYST, Dayton, Ohio, assignors to The Dayton Engineering Laboratories Company, a Corporation of Ohio. Original application filed July 14, 1913, Serial No. 778,934. Divided and this application filed Aug. 13, 1915. Serial No. 45,412. (Cl. 171—315.)



1. In a starting device for engines, the combination with an engine and a starting device therefor, comprising a dynamo-electric-machine, adapted to operate as a motor for starting purposes, and as a generator for charging purposes; a source of current having motor and generator circuit connections with said electric machine, including commutator brushes; and means for operating one of said brushes to select the motor circuit connections and to break the generator circuit connections during the starting operation.

2. In a starting device for engines, the combination with an engine and a starting device therefor, comprising a dynamo-electric-machine adapted to operate as a motor for starting purposes and as a generator for charging purposes; a source of current having independent motor and generator circuit connections with said electric machine, including commutator brushes, one of said commutator brushes being normally positioned to complete the generator circuit and to break the motor circuit.

3. In a starting device for engines, the combination with an engine and a starting device therefor, comprising a dynamo-electric-machine adapted to operate as a motor for starting purposes and as a generator for charging purposes; a source of current having independent motor and generator circuit connections with said electric machine, including commutator brushes, one of said commutator brushes being normally positioned to complete the generator circuit and to break the motor circuit; and means operable relative to said brush to break the generator circuit and to make the motor circuit for starting purposes.

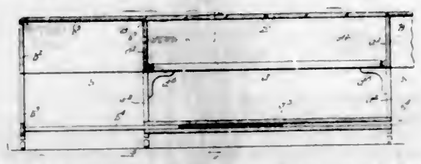
4. In a starting device for engines, the combination with an engine and a starting device therefor, comprising a dynamo-electric-machine, adapted to operate as a motor for starting purposes and as a generator for charging purposes; a source of current having motor and generator circuit connections with said electric machine, including commutator brushes, one of said brushes being normally positioned to break the motor circuit and make the generator circuit; shiftable coupling means for connecting the electric machine as a motor to the engine for starting purposes; and a main operating member operable relative to said coupling means to disconnect the engine and motor and to break the electrical connection between the source of current and the motor and establish the generator connections.

5. In a starting device for engines, the combination with an engine and a starting device therefor, comprising an electric machine; operable as a motor for starting and as a generator for charging purposes, mechanical connections operable to connect said machine and engine together for starting and generating purposes; a source of current; motor and generator circuit connections between said source of current and the electric machine; commutator brushes for said machine, included in said circuit connections; and means operable to normally maintain one of said brushes in position to open the motor circuit connections, and to disengage the mechanical connections used for starting purposes.

[Claims 6 to 20 not printed in the Gazette.]

1,243,423. FOLDING BED. CARL R. KLOK, Chicago, Ill., assignor, by mesne assignments, to United Table-Bed Company, a Corporation of Virginia. Filed June 6, 1913. Serial No. 772,029. (Cl. 5—17.)

1. An extension table, and a folding bed therein, inclosed by the extensible portion thereof, adapted to unfold therefrom when the table is extended, said table having an extension top which remains right side up while the bed is folded and unfolded.



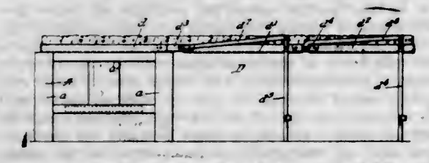
3. An extension table, and a folding bed therein, adapted to unfold therefrom in one direction when the table is extended transversely thereof, said table having a body provided with fixed legs at opposite sides of said bed, and a sliding top which overhangs said body when the table is extended.

5. An extension table, and a folding bed therein, adapted to unfold therefrom when the table is extended, said table having a body provided with fixed legs at opposite sides of said bed, a sliding top which forms no part of said bed and which overhangs said body when the table is extended, and legs for said top, fixed thereto, disposed adjacent two of said other legs when the table is not extended.

7. An extension table, and a folding bed therein, adapted to unfold therefrom when the table is extended, said table having a body provided with fixed legs at opposite sides of said bed, a sliding top which overhangs said body when the table is extended, and legs rigidly attached to said top, the direction of motion of said top being transverse of the bed.

[Claims 2, 4, 6, and 8 to 15 not printed in the Gazette.]

1,243,424. TABLE-BED. CARL R. KLOK, Chicago, Ill., assignor, by mesne assignments, to United Table-Bed Company, a Corporation of Virginia. Filed Dec. 26, 1913. Serial No. 808,770. (Cl. 5—17.)



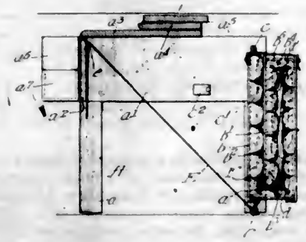
1. A table bed comprising a table body, a folding bed frame therein, a removable table top having sides and ends rigidly united therewith, so that no portion of the table top or body extends above the bed when said frame is unfolded, forming a cover for inclosing the bed, means to hold the cover in position on the body, which cover forms no part of the bed frame and is divided into independent and separable sections, the top of the table being without sides and ends other than those of said cover, and legs which are of the proper height for both the table and the bed.

2. A table bed comprising a table body, a folding bed frame therein, a removable table top having sides and ends rigidly united therewith, so that no portion of the table top or body extends above the bed when said frame is unfolded, forming a cover for inclosing the bed, means to hold the cover in position on the body, which cover forms no part of the frame and is divided into independent and separable sections, and legs which are of the proper height for both the table and the bed, said sections being detachably mounted on the body.

3. A table bed comprising a table body, a folding bed frame therein, a removable table top having sides and ends rigidly united therewith, so that no portion of the table top or body extends above the bed when said frame is unfolded, forming a cover for inclosing the bed, means to hold the cover in position on the body, which cover forms no part of the frame and is divided into independent and separable sections, and legs which are of the proper height for both the table and the bed, the division of the cover being in a direction crosswise of the length of the bed.

[Claim 4 not printed in the Gazette.]

1,243,425. TABLE-BED. CARL R. KLOK, Chicago, Ill., assignor, by mesne assignments, to United Table-Bed Company, a Corporation of Virginia. Filed Jan. 16, 1914. Serial No. 812,533. (Cl. 5—17.)



1. A table bed comprising a table body having a movable side, a carrier frame pivoted in the body, movable directly downward from its position in the upper portion of the body, and a folding bed frame rotatively mounted on said carrier frame.

3. A table bed comprising a table body having a movable side, a carrier frame pivoted in the body, movable directly downward from its position in the upper portion of the body, and a folding bed frame rotatively mounted on said carrier frame, said bed frame including pivotally connected sections, one of which sections is swiveled on the carrier frame, and said swiveled section being upside down when the bed is folded within the table.

5. A table bed comprising a table body having a movable side, a carrier frame pivoted in the body, movable directly downward from its position in the upper portion of the body, and a folding bed frame rotatively mounted on said carrier frame, said body supporting said carrier frame in vertical position, when the bed is in use, and means for supporting the carrier frame in horizontal position, when the bed is folded.

9. A table bed comprising a table body having a movable side, a carrier frame pivoted in the body, movable directly downward from its position in the upper portion of the body, and a folding bed frame rotatively mounted on said carrier frame, a door at the other side of the body, and means for raising the two frames within the table, accessible through said door.

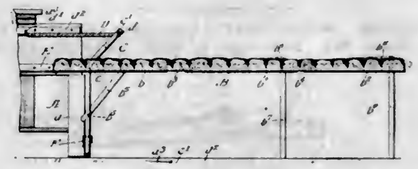
10. A table bed comprising a table body having a movable side, a carrier frame pivoted in the body, movable directly downward from its position in the upper portion of the body, so that the carrier-frame when swung down will occupy a position between the front legs of the table, a transversely folding bed frame having an end-section thereof rotatively mounted on said carrier frame, and catches whereby the bed is locked in horizontal position.

[Claims 2, 4, and 6 to 8 not printed in the Gazette.]

1,243,426. TABLE-BED. CARL R. KLOK, Chicago, Ill., assignor, by mesne assignments, to United Table-Bed Company, a Corporation of Virginia. Filed Jan. 16, 1914. Serial No. 812,534. (Cl. 5—17.)

1. A table bed comprising a table body, a folding bed frame in the upper portion of said table, a movable carrier frame upon which said bed frame is rotatively mounted to turn about a horizontal axis relative thereto, and a sliding connection between said carrier frame and body.

3. A table bed comprising a table body, a folding bed frame in the upper portion of said table, a movable carrier frame upon which said bed frame is rotatively mounted to turn about a horizontal axis relative thereto, and a sliding connection between said carrier frame and body, said connection including a sliding member at each end of the table, disposed in a horizontal plane, and means slidable on said member, fixed on the end of said carrier frame.



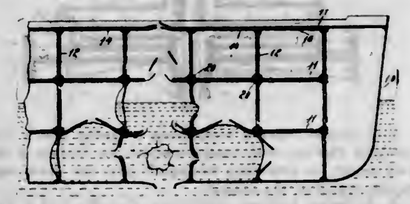
5. A table bed comprising a table body, a folding bed frame in the upper portion of said table, a movable carrier frame upon which said bed frame is rotatively mounted to turn about a horizontal axis relative thereto, and a sliding connection between said carrier frame and body, said connection having means associated therewith for permitting said carrier frame to swing about a horizontal axis so, that the carrier-frame may assume an upright position adjacent the front legs of the table.

7. A table bed comprising a table body, a folding bed frame in the upper portion of said table, a carrier frame upon which said bed frame is rotatively mounted, and a sliding connection between said carrier frame and body, said bed frame including pivotally connected sections, one of which sections is swiveled on the carrier frame, and said swiveled section being right side up when the bed is folded inside the table.

9. A table bed comprising a table body, a folding bed frame in the upper portion of said table, a carrier frame upon which said bed frame is rotatively mounted, and a sliding connection between said carrier frame and body, and means for locking the bed frame against rotation relative to the carrier frame, when the bed is folded.

[Claims, 2, 4, 6, 8, 10, and 11 not printed in the Gazette.]

1,243,427. TORPEDO PROTECTION. SAMUEL L. GRISWOLD KNOX, San Francisco, Cal. Filed Dec. 8, 1916. Serial No. 135,749. (Cl. 114—69.)



1. In a ship having a hull divided into a plurality of compartments, flexible linings or walls for the compartments, and means for supporting said linings upon the walls or edges of said compartments.

2. In a ship having a hull divided into a plurality of compartments, flexible linings or walls for the compartments, said linings being composed of canvas and wire mesh and means for attaching said linings to the surface or edges of said compartments and to each other.

3. In a ship having a hull divided into a plurality of compartments, a flexible lining or wall for each compartment composed of watertight material and a framework to which said material is attached, and means for supporting the linings upon the surfaces of the compartments.

4. In a ship having a hull divided into a plurality of compartments, a flexible lining or wall for each compartment composed of watertight fabric and a metallic network to which said fabric is attached, and means for supporting the linings from the edges or on the surfaces of the compartments.

5. In a ship provided with a plurality of compartments and communicating doorways therebetween, watertight flexible linings for the compartments, means for supporting the linings upon the walls or edges of the compartments, door frames inserted into the linings and surrounding the doorways between adjacent compartments, and doors mounted upon said door frames.

[Claims 6 to 8 not printed in the Gazette.]

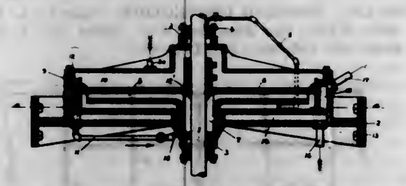
1,243,428. MOUSE-TRAP. WILLIAM A. KÖNEMAN, Baltimore, Md. Filed Sept. 9, 1916. Serial No. 119,165. (Cl. 43—21.)



1. A trap comprising a body, a pivoted striking bail which is actuated by spring force, a pivoted bait carrier over balanced at the heel and provided with an inclined shoulder and a lock notch, a lever pivoted at its rear and at the rear of the trap having a shoulder for engaging the spring actuated bail forward of its pivot point and an arm which extends forward and of such length that it engages the bait carrier lock notch and interlocks therewith by gravity, substantially as and for the purpose set forth.

2. A trap comprising a body with a rounded front end having a bait pit or hole at the front and a slot running from the bait pit toward the rear of the body, a pivoted striking bail which is actuated by spring force, a pivoted bait carrier overbalanced at the heel and provided with an inclined shoulder and a lock notch, a lever pivoted at its rear and at the rear of the trap having an inclined shoulder for engaging the spring actuated bail forward of its pivot point and an arm which extends forward and engages the bait carrier lock notch and interlocks therewith by gravity substantially as and for the purpose set forth.

1,243,429. THRUST-BEARING. FERDINAND W. KROGH, San Francisco, Cal. Filed Aug. 30, 1915. Serial No. 47,979. (Cl. 64—47.)



1. A thrust bearing comprising a casing and a runner rotating therein, said casing adapted to contain a liquid, and means for returning the liquid from the inner surface to the center of the casing.

2. A thrust bearing comprising a casing and a runner rotating therein, said casing being provided with a chamber adapted to contain a liquid, and means to form an air cushion in said chamber.

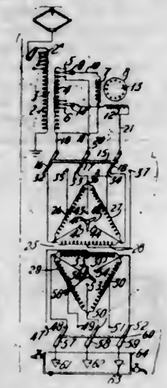
3. A thrust bearing comprising a shaft, a casing about the shaft adapted to contain a liquid, a runner within the casing and means for accommodating the return movement of the liquid.

4. A thrust bearing comprising a shaft, a casing about the same adapted to contain a liquid, a runner within the casing and liquid, adapted to rotate with the shaft and thereby give the liquid a centrifugal tendency, means for resisting said tendency and means for accommodating the return of the liquid to the center of the casing.

5. A thrust bearing comprising a shaft and a casing containing liquid surrounding the same, a runner within said casing adapted to give said liquid a centrifugal tendency, means for accommodating the return of the liquid to the center, and means for cooling said liquid.

[Claims 6 to 11 not printed in the Gazette.]

1,243,430. SYSTEM OF DISTRIBUTION AND CONTROL. BENJAMIN G. LAMME, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 26, 1913. Serial No. 808,714. (Cl. 172—238.)



1. The combination with a source of energy having a plurality of intermediate taps, of a phase converter having a plurality of windings in quadrature relation, one of said windings being connected across said source, and means for connecting the other winding to any of said intermediate taps.

2. The combination with a source of single-phase energy, a transformer connected thereto, a phase converter having a plurality of independent windings, one of which is connected across said transformer, the other of said converter windings being connected to an intermediate point of said transformer to produce three-phase energy, of polyphase translating means adapted to be operated by the three-phase energy, and means for shifting the intermediate transformer connection to effect balanced operation of said translating means.

3. The combination with a single-phase source of energy, a transformer comprising primary and secondary windings, and a phase converter having a plurality of windings in quadrature relation, one of which is connected across said secondary transformer winding, of means associated with said secondary winding and with the circuit of the other converter winding for correcting phase distortion in said converter.

4. The combination with a transformer winding adapted for single-phase energy and polyphase translating means, of a phase converter interposed between said transformer winding and said translating means for converting single phase energy into polyphase energy and adjustable means associated with said transformer winding and with said phase converter for correcting the phase displacement of said phase converter under varying load conditions.

5. The combination with a source of energy, a phase converter having a plurality of independent windings in quadrature relation, one of said windings being excited from said source and the other being connected to substantially the mid-point of said source, and a polyphase load, of means for varying the excitation of said converter and means for correcting the phase displacement thereof under load conditions.

[Claims 6 to 10 not printed in the Gazette.]

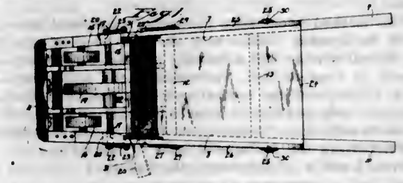
1,243,431. PROCESS OF MAKING PRINTING-PLATES. EMIL LEITNER, Hoboken, N. J., assignor to Powers Photo Engraving Company, New York, N. Y., a Corporation of New York. Filed Feb. 10, 1914. Serial No. 817,913. (Cl. 41—43.)

1. The process of producing a photo-mechanical printing plate having clear high lights which comprises making a half-tone plate, applying an acid resistant material to the half tone surface, removing said acid resistant material from a portion of the plate by means of a fluid under pressure, and etching out the half-tone screen figures from the parts of the plate from which the acid resistant material was removed.

2. The process of producing a photo-mechanical printing plate having clear high lights which comprises making a half-tone plate, rendering an acid resistant material slightly adherent upon said half tone surface, removing said acid resistant material from a portion of said surface by the action of an air current, and deep etching the portions of the half-tone surface so exposed.

3. The process of producing a photo-mechanical printing plate with clear high lights which comprises making a half-tone plate, rendering an acid resistant powder slightly adherent upon the face of said plate, directing a current of air against said plate so as to blow the adherent powder off from the high parts of the plate while leaving it still adherent upon the lower parts of the plate, melting the powder remaining adherent upon the lower portions of said plate, and etching the dots or other screen figures out of said exposed high parts of the plate.

1,243,432. CONVERTIBLE WHEELBARROW AND TRUCK. HERMAN LEMKE, Clinton, Conn. Filed Apr. 5, 1917. Serial No. 159,873. (Cl. 21—68.)



1. A convertible wheelbarrow and truck comprising a frame having rollers and a lifting member at its forward end and handles at its rear end, and adapted for the removable connection with it of a barrow-wheel, and detachable barrow-pieces adapted to be connected with said frame for converting the same into a wheelbarrow.

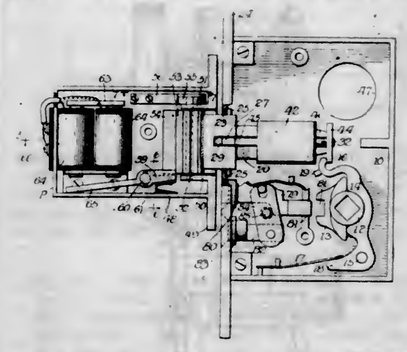
2. A convertible wheelbarrow and truck comprising a frame having rollers and a lifting-member at its forward end and handles at its rear end, and provided on its sides with bearings for mounting a removable barrow-wheel, detachable barrow-pieces adapted to be connected with the said frame for converting the same into a wheel-barrow, and a barrow-wheel for being removably mounted in the said bearings.

3. A convertible wheelbarrow and truck comprising a frame having rollers and a lifting-member at its forward end, and handles at its rear end, and constructed to provide bearings for mounting a removable barrow-wheel, detachable barrow-pieces comprising a bottom, sides and ends and a barrow-wheel for being removably mounted in the said bearings.

4. A convertible wheelbarrow and truck comprising a frame having rollers and a lifting-member at its forward end and handles at its rear end, and provided at its sides with axle-bearings for the reception of the axle of a removable barrow-wheel, means for holding the said axle in the said bearings, detachable barrow-pieces adapted to be applied to the frame for converting the same into a wheelbarrow and a barrow-wheel having an axle for being removably mounted in the said axle-bearings.

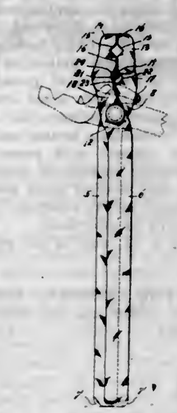
1,243,433. DOOR-LOCK. WILLIAM A. LURIE, Chicago, Ill. Filed Aug. 30, 1915. Serial No. 47,969. (Cl. 70—52.)

In locking mechanism of the class described, the combination of a door lock part having a bolt adapted to be locked in its outer position, a pawl cylinder having pawl arms adapted to extend into the path of said bolt, a shaft to which said pawl cylinder is secured, a polygonal block secured to the shaft end, a flat spring engaging with said block and tending to prevent rotation thereof and of the shaft and cylinder, a detent arm pivoted at an intermediate point and adapted to swing in a direction lengthwise of said cylinder, a spring tending to hold one end of said detent arm back of one pawl arm and above the next pawl arm whereby to lock the cylinder against movement which would release the bolt, the side of the detent arm engaging with said next pawl arm being beveled to permit outward swing of the arm when the cylinder is rotated by the bolt



when the door is closed, the other end of said detent arm forming an armature, and an electro-magnet adjacent said armature end adapted when energized to attract said end to rotate the detent arm to release its other end from the pawl cylinder to permit rotation thereof and opening of the door.

1,243,434. SEPARABLE TOOL. GEORGE L. MCDERMOTT, Denver, Colo. Filed Aug. 12, 1916. Serial No. 114,551. (Cl. 81—47.)



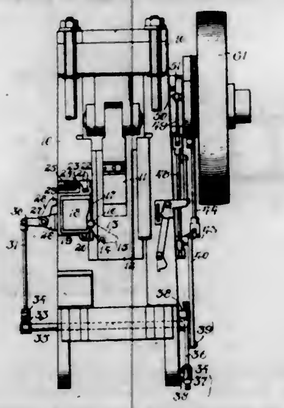
1. A tool of the cross handle plier type comprising handle members, one of which is provided with a pivot pin, the other being provided with a recess to receive said pin and a depending tongue member formed integral therewith and adapted to extend across the face of the first named member and coöperating with said pin to provide a pivotal connection between the two.

2. A tool of the cross handle plier type comprising handle members one of which is provided with a pivot pin, the other being provided with a recess to receive said pin and a depending tongue member formed integral therewith and adapted to extend across the face of the first named member and coöperating with said pin to provide a separable pivotal connection between the two for the purpose set forth.

1,243,435. ATTACHMENT FOR EJECTORS OF DIE-PRESSES OR LIKE MACHINES. CHARLES D. MCDONALD, Chicago, Ill. Filed Feb. 23, 1917. Serial No. 150,446. (Cl. 74—46.)

1. The combination with ejecter mechanism, of a power shaft, means for controlling the application of power to

said shaft, and means actuated by abnormal resistance to the operation of the ejector for operating said means for stopping the application of said power from said power shaft, substantially as described.

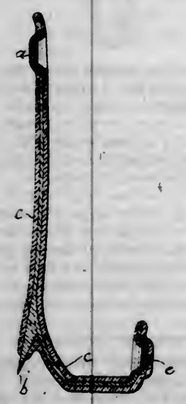


5. The combination with ejector mechanism, of a power shaft, means for controlling the application of power to said shaft, means for operating said power controlling means comprising a movable cam member with which the ejector engages, said cam-member being moved by pressure exerted on the ejector due to abnormal resistance to its operation, and a connection between said cam-member and the means for controlling the application of power to said power shaft, substantially as described.

10. The combination with ejector mechanism, of a power shaft, means for controlling the application of power to said shaft, means for operating said power controlling means comprising a rock-shaft, two crank arms connected to said rock-shaft, a connection between one of said crank arms and said power controlling means, and means for rocking said shaft to actuate said power controlling means, comprising a member operatively connected to the other crank arms, and said member being moved by pressure exerted on the ejector due to abnormal resistance to its operation, substantially as described.

[Claims 2 to 4, 6 to 9, 11, and 12 not printed in the Gazette.]

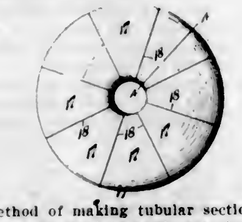
1,243,436. CLIMBER FOR LINEMEN. HARRY E. MARSHALL, Detroit, Mich. Filed Jan. 29, 1917. Serial No. 143,065. (Cl. 36—60.)



2. In a lineman's climber, the combination of a metal upright portion, a foot-rest portion and a spur, and a rubber compound incasing substantially the entire upright portion and foot-rest portion and in chemical combination with the surface of the same.

[Claim 1 not printed in the Gazette.]

1,243,437. METHOD OF MAKING VENTILATOR-TERMINALS. BERNARD H. MORRIS, Newport News, Va. Filed Feb. 26, 1916. Serial No. 80,595. (Cl. 113—33.)



1. The method of making tubular sections, which consists in forming blanks into sections each of which has a central portion and a circular portion, of semi-tubular form in cross-section, surrounding the said central portion, cutting out the central portions of said sections, uniting the said sections to form a tubular annulus, and cutting the annulus into tubular sections of desired lengths.

2. The method of making ventilator terminals, which consists in forming blanks into sections each of which has a central portion and a circular portion, of semi-tubular form in cross-section, surrounding the said central portion, cutting out the central portions of said sections, uniting the said sections to form a tubular annulus, cutting the annulus into tubular sections of desired lengths, and articulating the juxtaposed ends of sections.

[Claims 3 and 4 not printed in the Gazette.]

1,243,438. UNIVERSAL TERMINAL FOR VENTILATION-PIPES. BERNARD H. MORRIS, Newport News, Va. Filed Feb. 26, 1916. Serial No. 80,596. (Cl. 137—34.)



1. The combination of tubular sections having lateral outwardly-directed flanges at their meeting ends; one of said flanges having a surface, convex in cross-section, opposed to the surface of the other flange, whereby the frictional contact between the flanges is reduced to facilitate turning of one section on the other, and an annular joining band surrounding and straddling the said flanges of the sections.

2. The combination of tubular sections having lateral outwardly-directed flanges at their meeting ends; one of said flanges being concavo-convex in cross-section and arranged to oppose a small surface, convex in cross-section, to the surface of the other flange, whereby the frictional contact between the flanges is reduced to facilitate turning of one section on the other, and an annular joining band, of U-form in cross-section, surrounding and straddling the said flanges, the flanges and band being constructed and relatively arranged to oppose small surfaces to each other.

3. The combination of tubular sections having lateral outwardly-directed flanges at their meeting ends; one of said flanges being concavo-convex in cross-section and arranged to oppose a small surface, convex in cross-section, to the surface of the other flange, whereby the frictional contact between the flanges is reduced to facilitate turning of one section on the other, and an annular joining band of U-form in cross-section, surrounding and straddling the said flanges, the flanges and band being constructed and relatively arranged to oppose edges of one to surfaces of the other, whereby frictional contact between the flanges and band is reduced.

1,243,439. VAPORIZER. BERT L. MYERS, Jackson, Mich. Filed Feb. 23, 1917. Serial No. 150,455. (Cl. 126—350.)



1. A humidifier for tobacco cases, comprising a jacket adapted to inclose a source of heat and adapted to support a liquid container, said container tapering inwardly from top to bottom, and provided at the bottom with an extruded cone-shaped heating chamber and a liquid containing pipe passing through said heating chamber and connecting with said liquid container.

[Claim 2 not printed in the Gazette.]

1,243,440. NON-INTOXICATING FERMENTED BEVERAGE AND PROCESS OF MAKING THE SAME. CARL A. NOWAK, St. Louis, Mo. Filed Mar. 22, 1915, Serial No. 16,258. Renewed Mar. 15, 1917. Serial No. 155,111. (Cl. 195—20.)

1. The process of producing a beverage of the character described which comprises fermenting hopped wort of approximately from 25 to 35 per cent. Balling gravity, and containing only a relatively small amount of readily fermentable carbohydrates with yeast which is associated with acid forming bacteria at a relatively high fermentation temperature.

2. The process of producing a beverage of the character described which comprises fermenting hopped wort of approximately from 25 to 35 per cent. Balling gravity, and containing only a relatively small amount of readily fermentable carbohydrates with yeast which is associated with acid forming bacteria at a temperature of from about 23° to 35° C.

3. The process of producing a beverage of the character described which comprises fermenting hopped wort of approximately from 25 to 35 per cent. Balling gravity, and containing only a relatively small amount of readily fermentable carbohydrates with yeast which is associated with acid forming bacteria at a temperature of from approximately 23° to 35° C. for approximately from six to twelve hours.

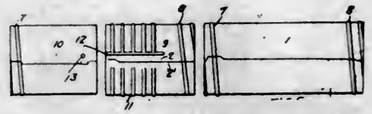
4. The process of producing a beverage of the character described which comprises fermenting hopped wort of approximately from 25 to 35 per cent. Balling gravity, and containing only a small amount of readily fermentable carbohydrates with vinegar ferment at a temperature of from 23° to 35° C. and completing the fermentation to the desired point within approximately from six to twelve hours.

5. The process of producing a beverage of the character described which comprises fermenting hopped wort of approximately from 25 to 35 per cent. Balling gravity and containing only a small amount of readily fermentable carbohydrates with vinegar ferment at a temperature of approximately from 23° to 35° C., completing the fermentation to the desired point within from approximately six to twelve hours, and diluting the resulting beverage with hopped sparging water.

[Claims 6 to 13 not printed in the Gazette.]

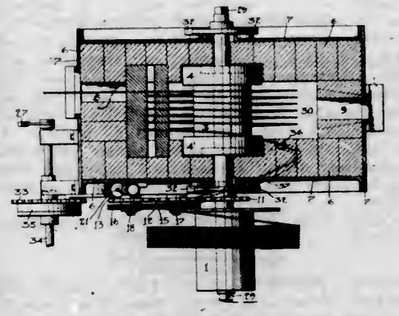
1,243,441. STOVEPIPE. AMABLE OLIVER PATENAUDE, Timmins, Ontario, Canada, assignor of one-half to Joseph Berini, Timmins, Canada. Filed Dec. 18, 1916. Serial No. 137,724. (Cl. 126—308.)

A device of the class described comprising in combination a coupling member, and stove pipe sections joined thereby, the coupling member comprising two sections joined by a bayonet joint and having their outer ends screw threaded and the adjacent ends of the stove pipe sections being correspondingly screw threaded, the screw threads of the coupling member sections and of the stove



pipe sections bearing such relation to one another and to the bayonet joint that the rotation of the sections of the coupling member in coupling or uncoupling said sections are also coupling and uncoupling, respectively, said member and the stove pipe sections.

1,243,442. COIL-HEATING FURNACE. WILLIAM B. PEIRCE, North Tonawanda, N. Y., assignor to Buffalo Bolt Company, North Tonawanda, N. Y., a Corporation of New York. Filed Nov. 10, 1911. Serial No. 659,467. (Cl. 263—3.)



1. A furnace having exterior and interior coil supporting members in axial alinement with means for driving them by power and with a wall between them perforated for passage of the coiled material.

2. A furnace having exterior and interior coil supporting rotatable members with means for rotating them by power and with a wall between them perforated for passage of the coiled material without distortion.

3. A furnace having exterior and interior coil supporting members with means for driving them by power and a wall between them with a curved passage through it to permit the passage of the coiled material from one coil supporting member to the other without distortion.

4. A furnace having exterior and interior coil supporting members and a feeding device so placed as to operate upon the coiled material at a point between said supporting members, and in a direction tangential to the curve of the coiled material.

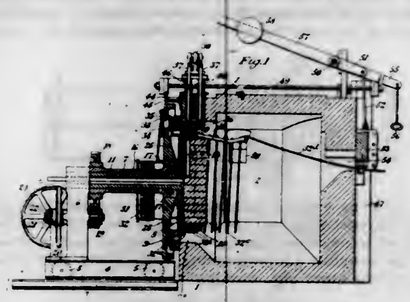
5. A furnace having exterior and interior rotatable coil supports of substantially equal diameter, and a feeding device with means for actuating said supports and feeding device at a uniform circumferential speed.

[Claims 6 to 18 not printed in the Gazette.]

1,243,443. COIL-HEATING FURNACE. WILLIAM B. PEIRCE, North Tonawanda, N. Y., assignor to Buffalo Bolt Company, North Tonawanda, N. Y., a Corporation of New York. Filed June 23, 1914. Serial No. 846,744. (Cl. 263—3.)

12. A furnace having an interior coil supporting member, and the wall of the furnace having a feed aperture therethrough through which the material may be fed to said coil supporting member, and said aperture leading obliquely into the furnace in a position and direction

corresponding approximately to the periphery of the coils to be supported by said interior supporting member.

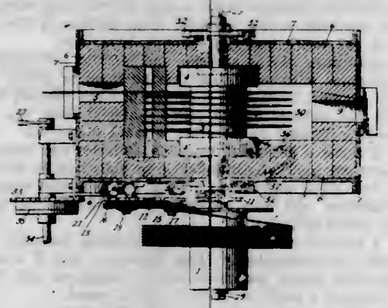


13. A furnace provided with suitable entrance and exit openings for the material to be heated, in combination with a feed mechanism adapted and arranged with respect to the entrance opening so as to feed into the furnace, material initially shaped and set in a suitable curvature so as to cause said material to progressively form an axially advancing coil or helix within the furnace between the entrance and exit openings thereof.

14. A furnace, a horizontal coil supporting member within said furnace, said coil supporting member being of a diameter smaller than the interior diameter of the coil to be supported thereby so that the coil will hang loosely therefrom and expose substantially all portions of the coil uniformly to the heat of the furnace and means for progressively depositing upon said supporting member, material ready shaped or set in the form of an open coil or helix.

[Claims 1 to 11 and 15 to 29 not printed in the Gazette.]

1,243,444. METHOD OF HEATING COILED MATERIALS. WILLIAM B. PEIRCE, North Tonawanda, N. Y., assignor to Buffalo Bolt Company, North Tonawanda, N. Y., a Corporation of New York. Original application filed Nov. 10, 1911, Serial No. 659,467. Divided and this application filed Jan. 26, 1916. Serial No. 74,330. (Cl. 263—3.)



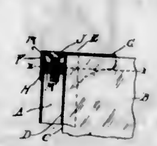
1. The method consisting in extending successive portions of a coil of material to be heated in an axial direction, without unwinding it, and heating such extended portions successively.

6. The method consisting in extending a coil of material to be heated in an axial direction, without unwinding it, and heating the extended portion, while moving it into the heating position by a force applied to its unheated portion.

10. The method consisting in progressively extending a coil of material to be heated in an axial direction, without unwinding it, moving the extended portions progressively into a heating chamber or furnace by a force applied to an unheated portion of the coil and progressively heating such portions.

[Claims 2 to 5, 7 to 9, and 11 to 13 not printed in the Gazette.]

1,243,445. GLASS-CLIP-PLUG ASSEMBLY. WILLIAM C. RANDS, Detroit, Mich., assignor to Rands Manufacturing Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 17, 1916. Serial No. 91,670. (Cl. 21—148.)



1. In a glass clip plug assembly, the combination with a frame member having an apertured side wall, of a glass clip having a portion fitting over the end of the frame member, a securing member for said glass clip and a plug member engaged by said securing member, said plug member being inserted through the aperture in the frame member and means for holding the plug member in position in the frame member.

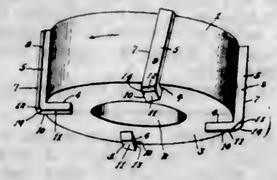
2. In a glass clip plug assembly, the combination with a frame member having an apertured side wall, of a glass clip having a portion fitting over the end of the frame member, a securing member for said glass clip and a plug member engaged by said securing member, said plug member being inserted through the aperture in the frame member, and said clip having a portion extending down over the apertured portion of the frame member.

3. In a glass clip plug assembly, the combination with a frame member and a glass clip, and means for holding said clip in position including a plug member positioned within the frame member, means for securing the clip to the plug member, and a ledge projecting on the inside of the frame member for receiving said plug member.

4. In a glass clip plug assembly, the combination with a frame member having slots formed opposite each other and the metal forced inward to provide a ledge or shelf on the inner side of the frame member, of a plug member inserted through said opening and resting on the ledge or shelf, a glass clip extending over the end of the frame member and a member adjustably securing said clip member to said plug member.

5. In a glass clip plug assembly, the combination with a frame member having oppositely positioned slots or holes, an inwardly extending projection on the inner side of the frame member, a plug member engaging said projection and a glass clip member having a portion extending over the ends of the plug member in the assembled position of the parts and means for securing the clip to the plug member.

1,243,446. CUTTER. FRANÇOIS RICHARD, Cleveland, Ohio, assignor to The Richard Auto Mfg. Company, Cleveland, Ohio. Filed Dec. 15, 1914. Serial No. 877,327. (Cl. 29—105.)



1. A cutter having a pair of angularly disposed cutting edges and a corner cutting edge connecting the others, said knife being fashioned with a groove having one side merging along said corner edge and intersecting said other two edges.

[Claim 2 not printed in the Gazette.]

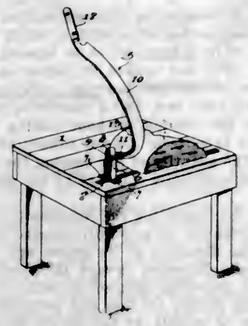
1,243,447. ERASER. WELDON ROBERTS, Montclair, N. J. Filed Aug. 24, 1914. Serial No. 858,280. (Cl. 120—40.)



1. An eraser comprising a middle layer of erasive material and opposite outside layers of erasive material different from that of said middle layer, all said layers being firmly united to sustain one another and the outer layers being so proportioned with respect to the middle layer as that said outer layers will be worn away at their edges and outer marginal portions by use faster than the middle layer to expose the middle layer as required and always retain a tapered or sharpened edge on the eraser.

[Claim 2 not printed in the Gazette.]

1,243,448. MEAT-CUTTER. ISAAC N. ROYAL, Fort Valley, Ga. Filed Jan. 10, 1917. Serial No. 141,541. (Cl. 17—24.)

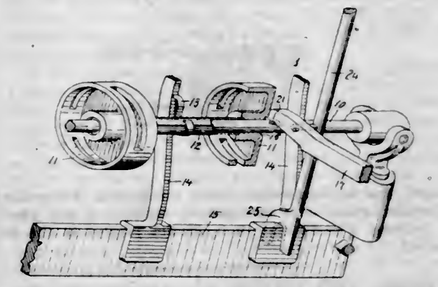


In a cutter of the class described, the combination of a support having a slot therein, a standard counted on said support adjacent said slot and spaced from the rear end of said slot, a knife operating in said slot and comprising a long sweeping blade eccentrically curved throughout its length with a handle at one end and a laterally extending arm at the other, said arm being fulcrumed at its terminal on the upper end of said standard and extending inwardly at an acute angle from the inner or non-cutting edge of said blade, the blade being thereby operable to produce a direct downward thrust and then a rearward shearing cut, the blade and slot being so proportioned that the blade is housed completely within the slot when in its extreme lowered position with its arm disposed above the support at one end of the slot and the handle at the other end.

1,243,449. CUTTING-TOOL. PETER RUIT, Hawthorne, and STEPHEN J. MAHER, Paterson, N. J., assignors to Henry J. Tynan, Paterson, N. J. Filed Sept. 20, 1916. Serial No. 121,103. (Cl. 82—1.)

1. A bar having a hook formed thereon to hook over a shaft and having a slot adjacent to the hook, and a cutter in said slot and projecting substantially parallel to the axis of the hook.

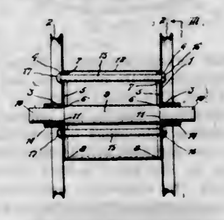
3. A bar having a hook formed thereon and having a slot adjacent to the hook, a cutter in said slot and projecting substantially parallel to the axis of the hook, and a stop pin on said bar to limit the depth of the cut.



5. A bar having a hook formed thereon to hook over a shaft, a cutting knife projecting laterally from said bar, and a lever for pushing said bar along said shaft and said cutting knife against an object to be cut rotating with the shaft.

[Claims 2 and 4 not printed in the Gazette.]

1,243,450. REEL. ALBERT F. SCHROEDER, Cleveland, Ohio. Filed Feb. 4, 1915. Serial No. 6,060. (Cl. 242—77.)



2. A reel comprising a pair of circular heads each having a central opening and a plurality of circumferentially arranged apertures, a pair of disks each having a central opening and circumferentially arranged apertures adapted to register inwardly adjacent to said head openings and apertures respectively, a cylindrical drum interposed between said heads and snugly inclosing said disks so as to be concentrically supported, a series of rods passed through alined pairs of said registering apertures for joining said heads together, a shaft extending through the four central openings and having reduced ends whereby to form shoulders abutting the inside surfaces of said disks, and collars shrunk upon the ends of said shaft and tightly abutting the outside surfaces of said heads whereby to firmly clamp said heads and disks together against said shoulders.

[Claim 1 not printed in the Gazette.]

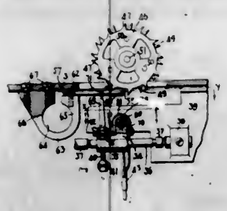
1,243,451. TYPE-WRITING MACHINE. GEORGE A. SEIB, Ilion, N. Y., assignor to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed Oct. 4, 1916. Serial No. 123,656. (Cl. 197—82.)

1. In carriage feeding devices for typewriting machines, the combination of a key controlled reciprocating member, a toothed rack, and a flexible tongue coöperating with said rack, said tongue being supported independently of but being controlled by said reciprocating member.

18. In carriage feeding devices for typewriting machines, the combination of an escapement wheel provided with two sets of teeth, and a pair of key controlled reed dogs, one coöperative with each of said sets of teeth.

33. In carriage feeding devices for typewriting machines, the combination of an escapement wheel having two sets of teeth, a pair of horizontally arranged dogs

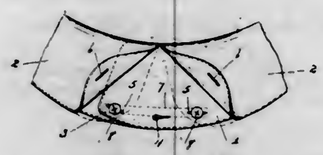
extending under said wheel and having their working portions normally disposed substantially tangentially of said



wheel, and key controlled means for moving the working portions of said dogs substantially radially of said wheel.

[Claims 2 to 17 and 19 to 32 not printed in the Gazette.]

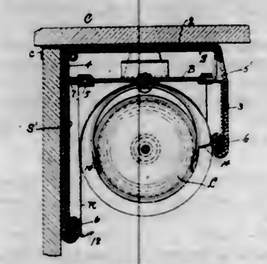
1,243,452. FOLD-COLLAR. HARRY E. SHUMWAY, Waterford, N. Y., assignor to Van Zandt, Jacobs & Co., Troy, N. Y., a Corporation of New York. Filed Dec. 18, 1915. Serial No. 67,678. (Cl. 2—69.)



1. A fold-collar having a band, a folded-over top provided with buttonholes in its respective end-portions, said band being provided with usual means for detachably securing its ends together and to the neckband of a shirt, and with buttonholes coincident with the respective buttonholes in the end-portions of the folded-over top; and a link concealed by the band having buttons insertible outwardly through the respective coincident buttonholes in the band and end-portions of the folded-over top.

[Claim 2 not printed in the Gazette.]

1,243,453. LIGHTING-FIXTURE FOR DISPLAY-CASES. ESMOND M. SMITH, Cleveland, Ohio, assignor to The Multi-Lux Illuminating Company, Cleveland, Ohio, a Corporation. Filed July 17, 1914, Serial No. 851,452. Renewed May 12, 1917. Serial No. 168,311. (Cl. 240—6.)



1. A fixture for display cases as described, having a housing strip constructed of two parts lengthwise and one of said parts constituting the front of said strip and having separable connection with the other part, and a fabric covering over the outside of said strip and overlapping the connection between said parts.

2. A fixture as described having a housing strip and a plate slidably mounted in the sides thereof, and a felt cover stretched over said strip and having its edges connected with the edges of both sides of said strip.

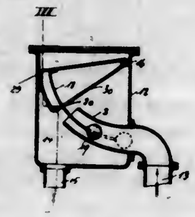
3. A fixture as described having a housing made of two pieces of sheet metal separably connected and a fabric stretched over the same, in combination with a plate slidably supported upon the sides of said housing, a reflector fixed to said plate, a box and an electric lamp socket supported by said plate, and spring fingers carried by said plate to engage one end of said lamp.

4. In a lighting fixture, a lamp housing comprising separate metal strips and a fabric connection therefor adapted to fold and cover the said strips when joined together.

5. In a lighting fixture, a metal housing comprising two strips of sheet metal separably engaged and a fabric covering secured at its edges to said strips and adapted to be stretched thereover under tension when said strips are assembled.

[Claims 6 and 7 not printed in the Gazette.]

1,243,454. GAS-CONSUMPTION REGULATOR. PAUL SPALECK, Dessau, Germany, assignor to Hugo Junkers, Aachen, Germany. Filed May 19, 1914. Serial No. 839,653. (Cl. 50—14.)



1. A device for regulating the consumption of gas, comprising the combination of a conduit which is curved in the direction of its length, which is tapered in cross-section from its inlet end toward its outlet end and which is mounted in an upright position with its outlet end higher than its inlet end, and a throttling member movable freely in the conduit without sliding friction and tending always to move by gravity toward the lower inlet end, whereby the quantity of gas passing through the conduit remains substantially constant as the pressure of the gas varies.

2. A device for regulating the consumption of gas, comprising in combination an upwardly-directed conduit which is curved in the direction of its length and whose cross-section gradually decreases toward the upper, outlet end thereof, and a throtling member movable freely in said conduit without sliding friction and normally located under the action of gravity at the lower, inlet end of the conduit, the arrangement being such that that component of the weight of the throtling member which opposes the flow of gas through the conduit increases corresponding to the pressure of the gas, while the cross-section of the passage left free between the throttling member and the conduit decreases in such a ratio that always the same quantity of gas issues from the conduit.

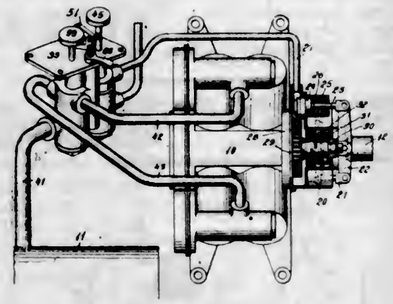
3. A device for regulating the consumption of gas, comprising the combination of a conduit which is curved in the direction of its length, which is tapered in cross-section from its inlet end toward its outlet end, and which is mounted in an upright position with its outlet end higher than its inlet end, and a throttling member movable freely in the conduit without sliding friction in a path curved about the axis of curvature of the conduit, the throttling member being actuated by gravity to move toward the lower inlet end of the conduit.

4. A device for regulating the consumption of gas, comprising the combination of a conduit which is curved in the direction of its length and mounted in an upright position with its outlet end higher than its inlet end, said conduit consisting of a main channel which is of uniform cross-section throughout and an auxiliary channel communicating throughout its length with the main channel and of gradually decreasing cross-section from the inlet end of the conduit toward the outlet end, and a throttling member movable within the conduit without sliding friction and actuated by gravity to move toward the inlet end of the conduit.

5. A device for regulating the consumption of gas, comprising in combination an upwardly-directed conduit whose cross-section gradually decreases toward the upper, outlet end thereof, and a throttling member freely suspended at a point outside the conduit and movable freely in the conduit without sliding friction and normally located under the action of gravity at the lower, inlet end of the conduit, the arrangement being such that that component of the weight of the throttling member which opposes the flow of gas through the conduit increases corresponding to the pressure of the gas, while the cross-section of the passage left free between the throttling member and the conduit decreases in such a ratio that always the same quantity of gas issues from the conduit.

[Claims 6 to 11 not printed in the Gazette.]

1,243,455. STARTING MECHANISM FOR INTERNAL-COMBUSTION ENGINES. GREGORY JOHN SPOHRER, East Orange, N. J., assignor to The Motor-Compressor Company, a Corporation of Delaware. Filed July 29, 1916. Serial No. 112,013. (Cl. 230—37.)



1. The combination of a convertible motor compressor, a shaft adapted to drive and be driven by the same, a tank, a conduit for supplying air from the tank to the motor compressor, controlling mechanism in the conduit, pneumatically actuated means for connecting said shaft to the shaft of the motor compressor for driving the latter as a compressor, a conduit connecting the tank to said connecting means, a valve member controlling the flow of air in the last named conduit, a latch for holding the valve member in the position for supplying air from the tank to said connecting means, and automatic means for actuating the latch to release the valve member in response to predetermined pressure conditions in the tank.

2. The combination of a convertible motor compressor, a shaft adapted to drive and be driven by the same, a tank, a conduit for supplying air from the tank to the motor compressor, controlling mechanism in the conduit, pneumatically actuated means for connecting said shaft to the shaft of the motor compressor for operating the latter as a compressor, a conduit connecting the tank to said connecting means, a valve member controlling the flow of air in the last named conduit, a latch for holding the valve member in position for supplying air from the tank to said connecting means, automatic means for actuating the latch to release the valve member in response to predetermined pressure conditions in the tank, and means for effecting an adjustment of the automatic means for varying the pressure conditions under which the automatic means operates.

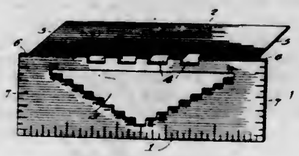
3. The combination of a convertible motor compressor, a shaft adapted to drive and be driven by the same, a tank, a conduit for supplying air from the tank to the motor compressor, controlling mechanism in the conduit, pneumatically actuated means for connecting said shaft to the shaft of the motor compressor for operating the latter as a compressor, a conduit connecting the tank to said connecting means, a valve member controlling the flow of air in the last named conduit, a latch for holding the valve member in position for supplying air from the tank to the said connecting means, a pneumatically actuated plunger for operating the latch, and means whereby the initial movement of the plunger to operate the latch exposes an enlarged area of the plunger to the air which actuates the plunger to release the latch.

4. The combination of a convertible motor compressor, a shaft adapted to drive and be driven by the same, a clutch for connecting said shaft to the shaft of the motor compressor, a tank connected to the motor compressor, a cylinder and piston for operating the clutch, a conduit connecting the tank to said cylinder, a valve member controlling the flow in said conduit, a spring for moving the valve member to a position for permitting the exhaust of air from the said cylinder, a latch for holding the valve member in position for supplying air from the tank to the cylinder, and automatic means for operating the latch in response to predetermined pressure conditions in the tank.

5. The combination of a convertible motor compressor, a shaft adapted to drive and be driven by the same, a tank connected to the motor compressor, pneumatic means for connecting the shaft to the motor compressor for operation of the latter as a compressor, a conduit connecting the tank to said pneumatic means, a valve in the said conduit movable to one position for permitting the flow of air from the tank to said pneumatic means and to a second position for permitting the exhaust of air from said pneumatic means, a latch for holding the valve in the first named position, means for operating said latch automatically in response to predetermined pressure conditions in the tank, and means for effecting an adjustment of the means for operating the latch to vary the pressure conditions under which the latch is operated.

[Claims 6 and 7 not printed in the Gazette.]

1,243,456. BUTT AND CASING GAGE. ROBERT PRICE STANDEFORD, Simla, Colo. Filed Oct. 2, 1916. Serial No. 123,279. (Cl. 33—197.)



1. A butt and casing gage consisting of a single piece of sheet material formed of two rectangular plates, one a body plate the other a guide plate, at right angle to each other, the body plate having a stepped isosceles triangular opening therein, the unequal side of said opening being parallel to the edge formed by the union of the two plates.

5. A butt and casing gage consisting of a single piece of sheet material formed of two rectangular plates, one a body plate the other a guide plate at right angle to each other, the body plate projecting beyond the guide plate at each end.

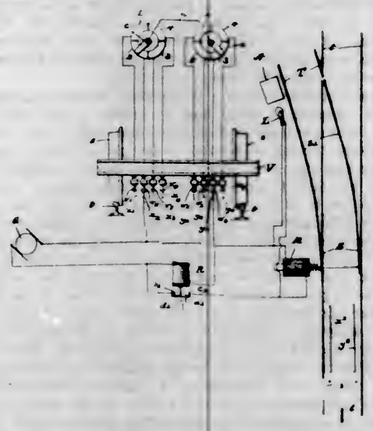
[Claims 2 to 4 not printed in the Gazette.]

1,243,457. RAILWAY SELECTIVE SYSTEM. KENNETH E. STUART, Philadelphia, Pa. Filed Mar. 12, 1917. Serial No. 154,077. (Cl. 104—155.)

7. In a railway selective system, the combination with a plurality of groups of selective contact elements, of means for connecting any desired contact element of one group with any contact element outside that group, said means including a switch contact for each element.

9. A selective railway system comprising a track having a plurality of branches at least one of which is branched, a switch for each branch, a set of selective elements for each switch, and a set of selective elements upon each ve-

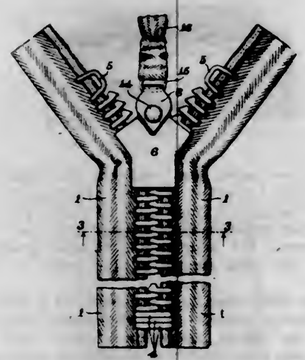
hicle, each vehicle set coöperating with one or more of the switch sets to selectively operate the corresponding switches.



14. In a railway selective system, the combination with a plurality of pairs of groups of selective contact elements, of switching mechanism for each pair for connecting any desired element of one group of the pair with any element of the other group of the pair, and means for completing a circuit through all of the elements thus connected.

[Claims 1 to 6, 8, 10 to 13, and 15 not printed in the Gazette.]

1,243,458. SEPARABLE FASTENER. GIDEON SUNDBACK, Meadville, Pa., assignor to Hookless Fastener Company, a Corporation of Pennsylvania. Filed Apr. 6, 1915. Serial No. 19,474. (Cl. 24—205.)



5. In a fastener, an interlocking member having at one end a transversely elongated rounded recess on one side, and a transversely elongated rounded projection on the opposite side, the recessed side having a guiding surface beyond the recess, and said projection having an inclined end forming an edge with said guiding surface.

12. In a fastener, a stringer for carrying connecting members comprising a tape, and oppositely twisted cords sewed thereto on opposite sides along one edge, the cords when attached being shorter than the other edge of the tape.

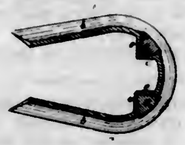
13. In a fastener of the class described, a fabric stringer, a flat body secured to the stringer and having an interlocking portion extending beyond the edge of the stringer, the body having an elongated slotted portion to receive the stringer and flat faced jaws at the end of said slotted portion projecting toward each other.

16. In a fastener having a fabric stringer, a connecting member comprising a body having compressible separated clamping jaws at each end.

17. In a fastener having a fabric stringer, a U-shaped stop member having separated clamping jaws at each end.

[Claims 1 to 4, 6 to 11, 14, and 15 not printed in the Gazette.]

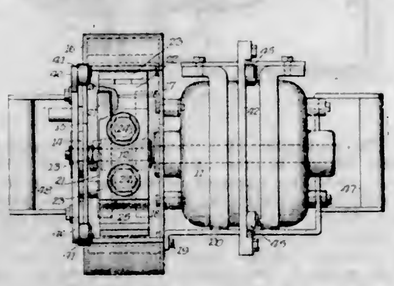
1,243,459. THIMBLE FOR CABLE CONNECTIONS. GEORGE F. SWORTFIGER, East Orange, N. J. Filed Mar. 21, 1916. Serial No. 85,631. (Cl. 24—115.)



1. A thimble for cable anchorage provided with projections upon its inner face adjacent to the part of the thimble to be occupied by the anchorage.

2. The combination with a cable, a thimble and an anchor eye, of projections on the inner face of the thimble to prevent the thimble turning in the anchor eye.

1,243,460. PORTABLE PLANING-MACHINE. OSCAR F. THORN, Chicago, Ill., assignor to Gulbransen-Dickinson Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 9, 1915. Serial No. 65,927. (Cl. 144—117.)



1. In combination, a frame supporting a motor having a horizontal extended shaft, a rotary cutter on the extended portion of the shaft, a hood for the cutter carried by the motor, reinforcing means forming a portion of said frame and assisting in supporting said hood, and coöperating means on the hood and frame to regulate the depth of cut.

2. In combination, a frame, a motor in said frame having an extended horizontal drive shaft, a rotary cutter carried by the extended portion of said shaft, a hood for the cutter carried by the motor, portions of said frame being extended and connected to said hood to reinforce the same, and brackets adjustably carried by the hood and main frame to regulate the depth of cut.

3. In combination, a frame, a motor in said frame having an extended horizontal drive-shaft, a rotary cutter on the extended portion of the shaft, a hood for the cutter carried by the motor, reinforcing means forming a portion of said frame and assisting in supporting said hood, brackets adjustably carried by the hood and main frame to regulate the depth of cut, and casters carried by the brackets to permit movement of the machine from place to place.

4. In combination, a main frame having a prime mover therein provided with an extended shaft, a rotary cutter on the shaft, a hood for the cutter carried by the prime mover, handles on said hood and prime mover to manipulate the cutter, said frame having portions thereof extended to provide reinforcing straps, said straps being connected to said hood, and means for adjusting the depth of cut carried by the hood and frame.

1,243,461. COLLAR. WILLIAM ARTHUR TOOKE, Montreal, Quebec, Canada. Filed Jan. 2, 1917. Serial No. 140,265. (Cl. 2—67.)



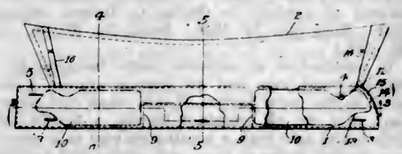
A soft collar comprising a band and a fold-over top the latter consisting of a plurality of plies free from each other except at their edges, of means detachably connecting the adjacent ends of the fold-over top together, said means consisting of a removable strap of elastic material having a button on one end thereof and a hook on the opposite end and button-holes in the underply of the fold-over top for engagement by the button and hook respectively, the said underply substantially conforming to the outerply for the purpose of causing the tension exerted by the strap to be distributed throughout the said underply of the top, said strap being constructed and arranged to be concealed from view when the collar is in position on the neck of the wearer.

1,243,462. SANITARY APPLIANCE. ANTONIO TROIANO, Yonkers, N. Y. Filed June 22, 1917. Serial No. 176,362. (Cl. 2—54.)



A shield cloth, a discardable neckband separate and disconnected therefrom, and an elastic resilient spring clasp disconnected from said cloth and band and fully endwise-movable and adapted to press the neckband against the neck of the wearer and to hold the shield cloth in position.

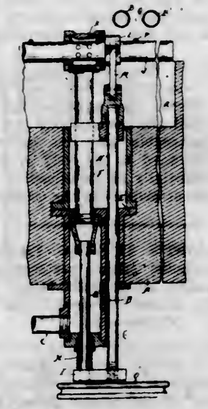
1,243,463. COLLAR. JOHN C. TURRELL, Mount Vernon, N. Y., assignor to Earl & Wilson, Troy, N. Y., a Corporation of New York. Filed Jan. 27, 1917. Serial No. 144,824. (Cl. 2—67.)



1. In a soft turn down collar, a neck band, an outer flap secured thereto, the said neck band having two thicknesses divided at the bottom adjacent the rear button-hole, a plurality of stiff removable members adapted to be inserted through the said divided portion and adjusted at the front and sides in the neck band to maintain the same in desired adjustment and said neck band provided with a button-hole in its inner ply at the divided portion and its outer ply adapted to cover a button that is placed in the said button-hole.

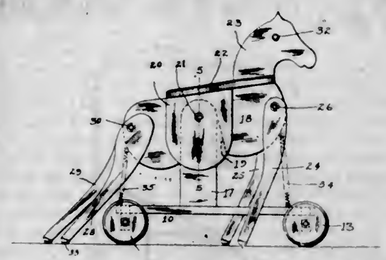
[Claims 2 to 5 not printed in the Gazette.]

1,243,464. BLOWER FOR BOILERS. GLENN W. WATSON, Detroit, Mich., assignor to Diamond Power Specialty Company, Detroit, Mich., a Corporation of Michigan. Filed Dec. 18, 1915. Serial No. 67,518. (Cl. 122—392.)



A blower for water tube boilers, comprising a conduit longitudinally adjustable through a furnace wall, a laterally-extending hollow arm swiveled in the inner end of said conduit and provided with a series of jet apertures, a rod extending through said wall parallel and adjacent to said conduit, a connection between the inner end of said rod and said hollow arm for rotating the latter upon longitudinal displacement of the former, a collar having threaded engagement with the outer end of said rod, a member extending from said adjustable conduit outwardly in proximity to said rod and carrying said collar, a spring acting outwardly upon said collar, and means for normally rotating said rod to longitudinally adjust the same through its engagement with said collar.

1,243,465. TOY-VEHICLE. HARRY A. WEBB, Hamden, Conn. Filed Feb. 19, 1917. Serial No. 149,504. (Cl. 46—22.)



1. In a toy vehicle, the combination of a wheeled base adapted to roll over the ground, a body mounted on the base and movable relatively thereto by a body movement of a child seated on said body, and a propelling member attached to and movable with said body and engageable with the ground to propel the vehicle; substantially as described.

2. In a toy vehicle, the combination of a wheeled base member having a wheeled cross piece for steering, a body

mounted on said base member but movable relatively thereto by a body movement of a child seated on said body, and a propelling leg carried by and movable with the body and engaging the ground; substantially as described.

3. In a toy vehicle, the combination of a wheeled base, a body movably mounted thereon, and a propelling leg pivoted to the body and engaging the ground so as to roll the vehicle forward as said body is moved; substantially as described.

4. In a toy vehicle, the combination of a rolling base, a body mounted to swing up and down thereon by movement of a child seated on said body, means for steering the vehicle by the legs of the child, and propelling legs pivoted to said body and movable therewith, and engaging the ground to roll the vehicle forward; substantially as described.

5. In a toy vehicle, the combination of a wheeled base, a body movably mounted on said base and simulating the body of an animal, and a propelling leg simulating the leg of an animal attached to said body and movable therewith and engageable with the ground or floor to push the vehicle forward as the body is moved relatively to the base; substantially as described.

[Claims 6 to 26 not printed in the Gazette.]

1,243,466. OCULIST'S TESTING-FRAME. CHARLES WETGEL, Minneapolis, Minn., assignor of one-half to John A. L. Walman, Minneapolis, Minn. Filed May 25, 1915. Serial No. 30,260. Renewed Jan. 28, 1916. Serial No. 74,857. (Cl. 88—52.)



1. A testing frame bow having depending prongs adapted to straddle the top of the ear, for the purpose specified.

2. A testing frame bow having prongs to straddle the ear and a yielding arm to bear on the side of the head.

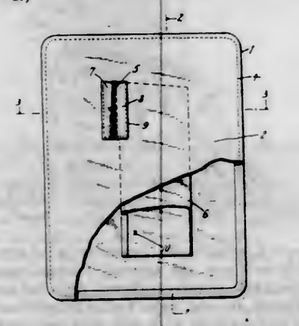
3. A testing frame bow and a slide mounted thereon, said slide having depending prongs to straddle the ear and bear on the side of the head, said slide also having a yielding arm to bear on the head above said prongs.

4. A testing frame bow and a slide mounted thereon, said slide having depending prongs to straddle the ear.

5. A testing frame bow and a slide mounted thereon, said slide having depending prongs to straddle the ear and mounted to have a yielding bearing on the side of the head.

[Claims 6 to 8 not printed in the Gazette.]

1,243,467. COIN-RECEPTACLE. HENRY WEIL, New York, N. Y. Filed Aug. 24, 1916. Serial No. 116,618. (Cl. 232—4.)



1. A coin receptacle of the type described, comprising a closed bag made of flexible material and having a coin slot in one face thereof, and a chute of flexible material leading inwardly from said slot parallel to the said face first sidewise and then downward between the opposite faces of the bag.

2. A coin receptacle of the type described, comprising a closed bag made of flexible material and having a coin slot in one face thereof, a chute of flexible material leading inwardly from said slot parallel to the said face first sidewise and then downward between the opposite faces of the bag, and means attaching said chute to the bag at a point near the lower end of the chute.

1,243,468. [WITHDRAWN.]

1,243,469. CHAIN ATTACHING AND ADJUSTING DEVICE. WINFIELD S. WALTZ, Medina, Ohio, assignor of one-half to Orlan F. Baughman, Cleveland, Ohio. Filed Nov. 24, 1916. Serial No. 133,107. (Cl. 24—68.)



3. In a chain connecting and adjusting device, the combination with a chain member and a curved lever member flexibly attached thereto, a link member connected to one end of said lever member and adapted to extend across the curved side of the latter and provided with a link engaging hook engaged by the free end of said lever member, and latching means carried by said lever member for preventing the disengagement of said link member when the parts are in their connecting position.

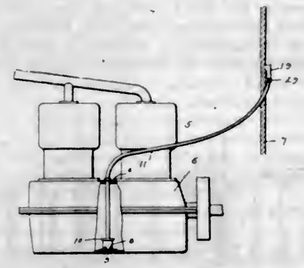
4. A chain connecting and adjusting device, comprising a lever member provided with a flexibly connected chain member and having a hook receiving opening at its opposite end, and a link member pivotally connected to one end of said lever member and provided at its opposite end with a hook extending through a link in said chain member and said opening of said lever when the parts are connected.

5. In a chain connecting and adjusting device, the combination with a chain member, of a curved member attached to one end thereof and provided at its opposite end with a hook receiving opening, and a link member connected to said lever member near the pivoted portion thereof and adapted to extend along the curved side of said lever and having a hook extending through a link in said chain member and said hook receiving opening of said lever member.

[Claims 1 and 2 not printed in the Gazette.]

1,243,470. FLOAT-OPERATED INDICATOR AND ENGINE CONTROL. LEROY L. WHITE, Spokane, Wash., assignor of one-half to George G. Belden, Spokane, Wash. Filed May 12, 1916. Serial No. 97,150. (Cl. 123—165.)

1. In combination, an explosive engine including an oil containing crank case and an ignition system, a float arranged in the lower portion of said crank case adapted to float upon the oil contained therein, a flexible cable connected with said float, a housing adapted to be secured upon a support removed from said engine and receiving the opposite terminal of said flexible cable, an insulator secured in the lower terminal of the last-mentioned housing slidably receiving said flexible cable, a conducting block connected with said cable and movable vertically within the last-mentioned housing, and a pair of contacts anchored in said insulator, arranged in the circuit of said ignition system and adapted to be engaged by said block to short circuit the ignition system of the engine.



3. In combination, an explosive engine including an oil containing crank case, a housing arranged in the bottom of said crank case and having oil ports in the lower portion thereof, a float movable vertically within said housing, a tubular guide connected with and of less diameter than said housing and extending exteriorly of said crank case, a flexible cable connected with said float and extending through said guide, and an indicator operable by said flexible cable.

5. In combination, an explosive engine including an oil-containing crank case, a float arranged in said crank case and adapted to float upon the surface of the main body of oil contained therein, a housing arranged in the bottom of said crank case and inclosing and constituting a guide for said float, and an indicator connected with said float.

[Claims 2 and 4 not printed in the Gazette.]

1,243,471. RADIATOR AND PROCESS FOR MAKING THE SAME. GEORGE M. WILLIS, Chicago, Ill., assignor, by direct and mesne assignments, to Charles A. Brown, Harvey L. Hanson, and Arthur H. Boettcher, Copartners doing business under the firm-name of Brown, Hanson & Boettcher, Chicago, Ill. Filed Oct. 20, 1913. Serial No. 796,141. (Cl. 22—203.)



1. The process of making a radiator which consists in forming a grid of fusible metal, electroplating said grid and casting a framework having top and bottom chambers upon the shell formed on the grid by the electroplating operation.

2. The process of making a radiator which consists in forming a grid of fusible metal, copperplating said grid and casting a framework having top and bottom chambers upon the copper shell formed on the grid by the plating operation.

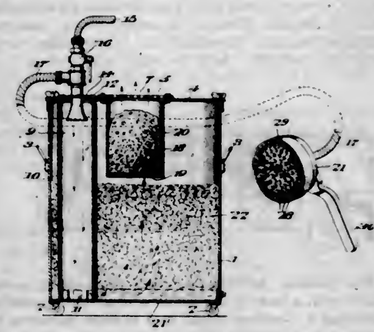
3. The process of making a radiator which consists in die-casting a grid of fusible metal, electroplating said grid and die-casting a framework having top and bottom chambers upon the shell electrolytically deposited on the grid.

4. The process of making a radiator which consists in die-casting a grid of fusible material, electrolytically depositing a copper shell upon said grid and die-casting a framework having top and bottom chambers upon said shell.

5. The process of making a radiator which consists in casting a grid of fusible material, electroplating said grid, casting a framework having top and bottom chambers upon the shell electrolytically deposited upon the grid and melting the fusible material out of the shell.

[Claims 6 to 8 not printed in the Gazette.]

1,243,472. CLEANING APPARATUS. JOHN MACNAULL WILSON, Montclair, N. J., assignor to Franklin Murphy, Newark, N. J. Filed Feb. 14, 1914. Serial No. 818,645. (Cl. 183—12.)



1. In an apparatus of the class described, a receptacle, an open ended cylindrical tube resting on the bottom of the receptacle and comprising an inclosed inlet passage for the air and foreign matter carried thereby and provided with outlets communicating with the interior of the receptacle at the bottom thereof, and a mass of dust collecting material in said receptacle surrounding the tube above the outlets, and means below the material and in close proximity thereto for automatically moistening said material.

2. In an apparatus of the class described, a receptacle comprising a plurality of compartments, one of said compartments being loose within the receptacle and having communicating openings with the interior of the receptacle, an air filtering material in the other compartment, dust collecting material between said compartments, and a water seal for said openings into the receptacle from the first mentioned compartment, the major portion of said material being above the level of said water and with a relatively small portion of said material submerged in said water.

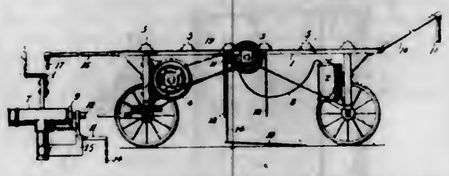
3. In an apparatus of the class described, the combination with a receptacle having a cover provided with an air outlet and having a separate open ended cylindrical compartment therein resting on the bottom of said receptacle, a suction device carried by said cover and connected with said compartment, said suction device and air outlet removable with the receptacle cover, a plurality of air passages from said compartment communicating with the interior of the receptacle adjacent the bottom thereof, a liquid seal for said passages, and dust filtering material in said receptacle between said seal and the air outlet.

4. In an apparatus of the class described, the combination with an open top receptacle, a plurality of compartments in said receptacle, one of said compartments being loose within the receptacle and provided near one end with a passage communicating with the interior of the receptacle and having a suction apparatus extending into its opposite end to retain the same in position, a liquid seal for said passage, filtering material surrounding the first mentioned compartment and filtering material in the second compartment and closing covers for each of said compartments.

5. In a device for removing dust from air which comprises a receptacle provided with a wide open top, an open end cylinder extending substantially from top to bottom of said receptacle adapted to be positioned in said

receptacle, the lower end of said cylinder being provided with an outlet into the receptacle, a cover for said receptacle, an air inlet nozzle fixed to said cover and adapted to extend into said cylinder, said cover having an opening therethrough constituting an air outlet from the receptacle, a compartment secured to the underside of said cover below the opening therethrough, said compartment being perforated to place the same in fluid communication with the receptacle.

1,243,473. PROCESS FOR CLEANING CAR-CUSHIONS. JOHN MACNAULL WILSON, Montclair, N. J., assignor to Franklin Murphy, Newark, N. J. Filed May 2, 1914. Serial No. 835,832. (Cl. 15—8.)



2. The process of cleaning and renovating a fabric, provided with a body portion and a nap, which consists in sub-dividing a cleaning liquid into minute particles by an air-current and causing said current to deposit the finely divided particles on the surface of the nap in the form of a coating or film, and then removing said fabric without permitting the same to penetrate below the lower portions of the nap.

3. The process of cleaning and renovating which consists in producing an air current approximately normal to the surface of the article to be cleaned, forcing a liquid spray into said air current in a direction approximately parallel to the surface of the article and approximately normal to said air current, causing the air current to carry a portion of said liquid against the surface, and then removing said liquid and drying the surface.

5. The process of cleaning and renovating a fabric having a nap which consists in subjecting a cleaning liquid in the form of a spray to the action of air currents to sub-divide the same into minute particles, causing said air currents to carry such particles into contact with the outer portion of the nap, then bringing a portion of such deposited liquid momentarily into contact with the bottom and intermediate portions of the nap, and then removing said liquid.

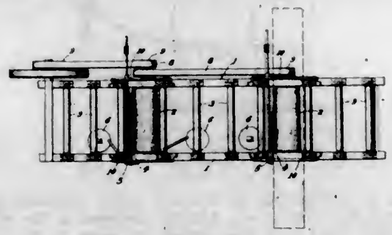
6. The process of cleaning which consists in producing air currents, forcing a liquid in the form of a spray into said air currents and causing the current to deposit the liquid on the outer surface of the article to be cleaned, then subjecting the article to the brushing action which is produced by flexible bristles moving at a high rate of speed.

7. The process of cleaning car cushions which consists in carding the cushion to straighten the nap thereon, directing a current of air against the carded portion of the cushion, forcing a cleaning liquid in the form of a spray into said air current and causing the same to be deposited on the outer surface of the cushion without appreciable penetration below the top of the nap, then subjecting said cushion to a rubbing action to moisten momentarily the intermediate portion of the nap and simultaneously dry said cushion.

[Claims 1 and 4 not printed in the Gazette.]

1,243,474. PROCESS OF RENOVATING CANE SEATS. JOHN MACNAULL WILSON, Newark, N. J., assignor to Franklin Murphy, Newark, N. J. Filed June 24, 1914. Serial No. 846,913. Renewed Mar. 8, 1917. Serial No. 153,457. (Cl. 8—2.)

1. The process of treating cane seats which consists in supplying a renovating liquid thereto in the form of spray to cause a film of the renovating liquid to be deposited on the surface, subjecting said surface to the action of a rapidly revolving brush simultaneously to scrub the surface and remove the liquid therefrom, drying said surface by continuous application of the brush, applying a bleaching liquid to said surface by means of a rapidly rotating brush moistened with the bleaching solution and drying the surface.



2. The process of bleaching and renewing surfaces containing vegetable fiber which consists in supplying a corrosive liquid thereto in the form of a film deposited on the surface, subjecting said surface to the action of a rapidly revolving brush while the liquid is being supplied, continuing treatment by the brush after the supply of liquid has been discontinued to remove excess liquid, and then neutralising the action of the remaining corrosive liquid by applying a non-corrosive liquid to the surface without permitting penetration of such liquid beneath the surface of the seat.

3. The process of bleaching and renewing surfaces containing vegetable fiber which consists in supplying a corrosive liquid thereto in the form of a film deposited on the inverted surface of the article being treated, subjecting said inverted surface to the action of a rapidly revolving brush to remove a portion of the liquid therefrom, partially drying said surface and then applying a non-corrosive liquid to said surface by means of a rapidly rotating brush and then drying said surface.

1,243,475. HEATING-SYSTEM REGULATOR. CHARLES E. ANDERSON, Chicago, Ill., assignor to Henion & Hubbell, Incorporated, Chicago, Ill., a Corporation of Illinois. Filed May 18, 1917. Serial No. 169,578. (Cl. 137—53.)



1. In a device of the class described, a regulating tank having an entrance and a discharge port, a supplemental relief tank attached to said discharge port provided with a suitable baffle plate, and a discharge port of its own, a pipe leading from the entrance port of the regulating tank to a point above the bottom of said tank, another pipe leading from a point slightly above the bottom of said first mentioned pipe, and from in close proximity thereto to a point adjacent to the discharge port of the regulating tank, for the purposes set forth.

2. In a device of the class described, a regulating tank provided with entrance and discharge ports, a pipe leading from said entrance port to a point above the bottom of the tank, and another pipe inside the first pipe leading from a point above its bottom to a point adjacent to said discharge port of the regulating tank.

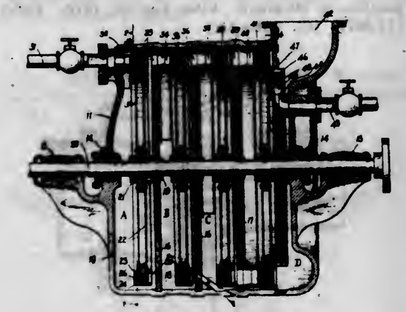
3. In a device of the class described, a regulating tank provided with entrance and discharge ports, a pipe leading from said entrance port to a point above the bottom of the tank, and another pipe inside the first pipe leading from a point slightly above its bottom to a point adjacent to said discharge port of the regulating tank.

4. In a device of the class described, a regulating tank provided with entrance and discharge ports, a pipe leading from said entrance port to a point above the bottom of the tank, and another pipe inside the first pipe leading from a point slightly above its bottom to a point adjacent to said discharge port of the regulating tank, the area of the passage between the first pipe and the tank being at least equal to the area of the passage in the second pipe.

8. A regulating device for a heating system comprising a tank made of a relatively large upper hollow member provided with a discharge port and a smaller pipe like member closed at its bottom extending some distance below the upper member, a fluid conducting member extending down inside the pipe portion of the tank open to discharge into said tank at a point above the bottom of said pipe portion, and a second fluid conducting member having one port opening inside the first fluid conducting member and above the level of the latter's lower port, and its other opening entering the body of the tank at a point above the juncture of the pipe portion of the tank with the upper portion of the tank for the purposes set forth.

[Claims 5 to 7 not printed in the Gazette.]

1,243,476. TURBINE. EMIL ANDERSON, New York, N. Y., assignor to The Universal Turbine Company, Newark, N. J., a Corporation of New Jersey. Filed Jan. 2, 1914. Serial No. 809,840. Renewed Jan. 8, 1916. Serial No. 71,136. (Cl. 253—69.)



1. A turbine engine rotor comprising substantially cylindrical superimposed corrugated bands and a plurality of spacing blocks between said bands.

2. A turbine engine rotor comprising substantially cylindrical superimposed corrugated bands and a plurality of spacing blocks between said bands at intervals, said blocks being arranged in alining groups dividing the spaces between the bands into a plurality of open-ended compartments.

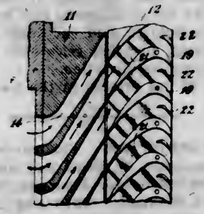
3. A turbine engine rotor comprising substantially cylindrical superimposed bands and a plurality of spacing blocks between the bands at equal intervals, said blocks being arranged in alining groups dividing the spaces between the bands into a plurality of transverse open-ended compartments and said bands being corrugated between the blocks to divide each of said compartments into a plurality of wavy motive fluid passages.

4. A turbine engine rotor comprising substantially cylindrical superimposed bands and a plurality of curved spacing blocks between the bands at equal intervals, said blocks being arranged in alining groups dividing the spaces between the bands into a plurality of transverse open-ended compartments oblique to the axis of the bands and said bands being corrugated between the blades to divide each of said compartments into a plurality of wavy motive fluid passages with the waves thereof substantially normal to the flow of motive fluid through the compartments.

5. A turbine engine rotor comprising superimposed corrugated bands, a plurality of spacing blocks between said bands, and a plurality of deflector vanes.

[Claims 6 to 41 not printed in the Gazette.]

1,243,477. TURBINE. EMIL ANDERSON, Yonkers, N. Y., assignor to The Universal Turbine Company, Newark, N. J., a Corporation of New Jersey. Filed Feb. 9, 1915, Serial No. 7,098. Renewed Mar. 8, 1917. Serial No. 153,461. (Cl. 253—79.)



1. A turbine rotor comprising a pair of spaced annular plates, interposed buckets each having a relatively short radius bend near its discharge end and means for providing transversely wavy passages between the buckets adjacent to the intake end.

2. A turbine rotor comprising a pair of spaced annular plates, interposed bucket spacers, each having a relatively short radius bend near its discharge end and substantially parallel wavy vanes interposed between the bucket spacers near their intake end and cut away adjacent to the short radius bend of the bucket spacers.

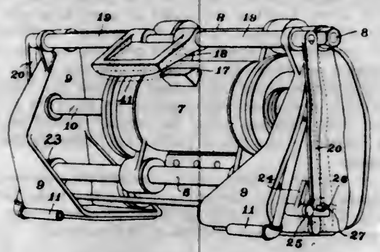
3. A turbine engine comprising a rotor having a plurality of buckets and means for providing a plurality of transverse fluid passages between the buckets adapted to produce a plurality of parallel wavy paths adjacent to the intake end of the buckets and means for passing motive fluid through said buckets.

1,243,478. LOCKING MECHANISM FOR DUMPING-CARS. CARL P. ASTROM, East Orange, N. J., assignor to M. H. Treadwell Company, a Corporation of New York. Filed June 11, 1914. Serial No. 844,439. (Cl. 105—190.2.)

1. The combination with a movable car body, of a motor for moving said car body, locking means, manually operated means for releasing said locking means, and motor released means holding said locking means against manual movement.

2. In combination with a movable car body, a reversible motor moving said car body, controlling means for said motor, and locking means for holding said car body in a predetermined position and preventing said car body from being operated in a desired direction until the motor has been actuated in a reverse direction.

3. In combination with a movable car body, of a motor moving said car body, locking means therefor, means for holding said locking means against release, means releasing said holding means by movement of said motor in one direction, and means operating to dump said car by movement of said motor in the opposite direction.

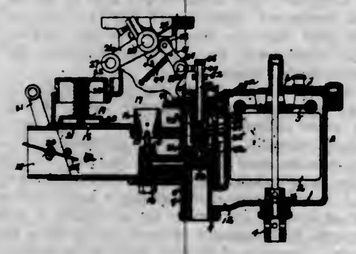


4. In combination with a movable car body, a reversible motor for dumping said car body in opposite directions, controlling means for said motor, and means for holding said car body against dumping movement in either direction releasable by movement of the motor in the reverse direction.

5. In combination with a movable car body, a reversible motor for dumping said car body in opposite directions, controlling means for said motor, and means including a spring buffer for holding said car body against dumping movement in either direction releasable by movement of the motor in the reverse direction.

[Claims 6 to 19 not printed in the Gazette.]

1,243,479. CARBURETER. FREDERICK O. BALL, Detroit, Mich., assignor, by direct and mesne assignments, to Ball & Ball Carburetor Company, Detroit, Mich., a Corporation of Michigan. Filed Aug. 30, 1916. Serial No. 117,606. (Cl. 261—41.)



1. In a carbureter, the combination of a mixing chamber; means for supplying air and the normal fuel to said chamber; a throttle valve; devices for augmenting the normal fuel supply after the throttle is opened comprising a receptacle having a supply passage leading from a fuel supply and a discharge passage leading to the mixing chamber; valves for said passages; and means acting when the throttle is actuated for actuating said valves alternately to close the supply passage and open the discharge passage when the throttle is opened and to close the discharge passage and open the supply passage when the throttle is closed.

2. In a carbureter, the combination of a mixing chamber; means for supplying air and the normal fuel to said chamber; a throttle valve; devices for augmenting the normal fuel supply after the throttle is opened comprising a receptacle having a supply passage leading from a fuel supply, a discharge passage leading to the mixing chamber and a passage leading to the air; valves for said passages; and means acting when the throttle is actuated for actuating said valves alternately to close the supply passage and open the discharge passage when the throttle is opened and to close the discharge passage and open the supply passage when the throttle is closed.

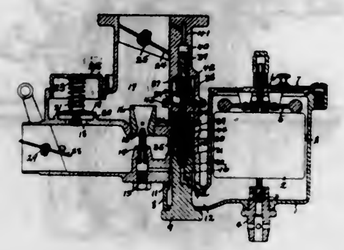
3. In a carbureter, the combination of a mixing chamber; means for supplying air and the normal fuel to said chamber; a throttle valve; devices for augmenting the normal fuel supply after the throttle is opened comprising a receptacle having a supply passage leading from a fuel supply and a discharge passage leading to the mixing chamber; valves for said passages; and means having a mechanical connection with the throttle actuating when the throttle is actuated said valves alternately to close the supply passage and open the discharge passage when the throttle is opened and to close the discharge passage and open the supply passage when the throttle is closed.

4. In a carbureter, the combination of a mixing chamber; means for supplying air and the normal fuel to said chamber; a throttle valve; devices for augmenting the normal fuel supply after the throttle is opened comprising a receptacle having a supply passage leading from a fuel supply and a discharge passage leading to the mixing chamber; valves for said passages, said valves having independent stems; and mechanism mechanically actuated from the throttle valve operating on said stems to actuate said valves alternately to close the supply passage and open the discharge passage when the throttle is opened and to close the discharge passage and open the supply passage when the throttle is closed.

5. In a carbureter, the combination of a mixing chamber; means for supplying air and the normal fuel to said chamber; a throttle valve; devices for augmenting the normal fuel supply after the throttle is opened comprising a receptacle having a supply passage leading from a fuel supply and a discharge passage leading to the mixing chamber; valves for said passages, said valves being arranged concentrically, the valve controlling the supply passage having a stem and the valve controlling the discharge passage having a sleeve-shaped stem arranged around the stem of the valve controlling the supply passage; shoulders on said stems; and a lever operating between said shoulders and actuated with the throttle.

[Claim 6 not printed in the Gazette.]

1,243,480. CARBURETER. FREDERICK O. BALL, Detroit, Mich., assignor, by direct and mesne assignments, to Ball & Ball Carburetor Company, Detroit, Mich., a Corporation of Michigan. Filed Aug. 30, 1916. Serial No. 117,607. (Cl. 261—41.)



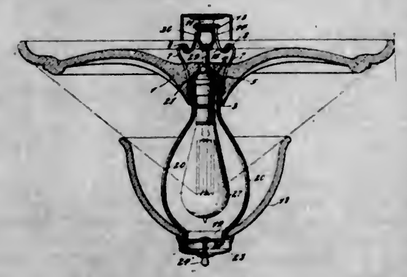
1. In a carbureter, the combination of a mixing chamber; means for supplying air and the normal fuel to said chamber; a throttle valve; devices for augmenting the normal fuel supply after the throttle is opened comprising a receptacle having a supply passage leading from a fuel supply and a discharge passage leading to the mixing chamber; valves for said passages; and means sensitive to variations of pressure at the discharge side of the throttle acting when the throttle is actuated for actuating said valves alternately to close the supply passage and open the discharge passage when the throttle is opened and to close the discharge passage and open the supply passage when the throttle is closed.

2. In a carbureter, the combination of a mixing chamber; means for supplying air and the normal fuel to said chamber; a throttle valve; devices for augmenting the normal fuel supply after the throttle is opened comprising a receptacle having a supply passage leading from a fuel supply and a discharge passage leading to the mixing chamber; valves for said passages; and a motor having one side subjected to pressure at the discharge side of the throttle and acting when the throttle is actuated to actuate said valves alternately to close the supply passage and open the discharge passage when the throttle is opened and to close the discharge passage and open the supply passage when the throttle is closed.

3. In a carbureter, the combination of a mixing chamber; means for supplying air and the normal fuel to said chamber; a throttle valve; devices for augmenting the normal fuel supply after the throttle is opened comprising a receptacle having a supply passage leading from a fuel supply and a discharge passage leading to the mixing chamber; valves for said passages; a motor comprising a cylinder having a connection with the mixing chamber at both sides of the throttle; a piston in the cylinder; and a connection between said motor and said valves whereby when the throttle is actuated the valves are actuated alternately to close the supply passage and open the discharge passage when the throttle is opened and to close the discharge passage and open the supply passage when the throttle is closed.

4. In a carbureter, the combination of a mixing chamber; means for supplying air and the normal fuel to said chamber; a throttle valve; devices for augmenting the normal fuel supply after the throttle is opened comprising a receptacle having a supply passage leading from a fuel supply and a discharge passage leading to the mixing chamber; double valves having opposing sides, one controlling the supply passage and the other the discharge passage; a spring tending to close the valve controlling the discharge passage; a spring tending to close the supply passage and operating against said first spring; a motor comprising a cylinder subjected to pressures at the opposite sides of the throttle; a piston in said cylinder operating against said valves in connection with said springs to open the valve controlling the discharge and close the valve controlling the supply passage when the throttle is open and to open the valve controlling the supply passage and close the valve controlling the discharge when the throttle is closed.

1,243,481. ELECTRIC-LIGHT FIXTURE. RICHARD M. BEARD, New York, N. Y. Filed July 1, 1916. Serial No. 107,043. (Cl. 240—78.)



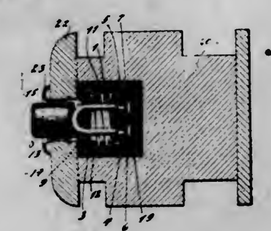
1. In combination, a lamp socket and its support, a reflector comprising a disk of plastic composition having a central opening through which said support passes, a metallic shell lining said opening, a second shell in said opening fitting over said lamp socket and resting against said first named shell, and shade-holding means carried by said second named shell.

8. In an electric lighting fixture, a reflector comprising a disk of plastic composition and having a central opening therein, a shell in said opening, and supporting hooks secured to said shell projecting from the rear face of said reflector, said face having its peripheral edge raised to provide a space for the hooks.

10. In combination, a ceiling outlet box, having a fixture stud mounted therein, hooks carried by said stud, a reflector, and hooks projecting from the rear face of said reflector engaging said first named hooks and holding the reflector against the ceiling, a lamp socket, and a support carried by said stud for said lamp socket, said reflector resting on said lamp socket and also supported thereby.

[Claims 2 to 7 and 9 not printed in the Gazette.]

1,243,482. ELECTRIC PUSH-BUTTON. DAVID E. BLAIR, Montreal, Quebec, Canada, assignor to Edwards & Company, a Corporation of New York. Filed Apr. 10, 1915. Serial No. 20,380. (Cl. 200—27.)



1. In combination, a pair of wires having spring contact terminals permanently secured to the ends of said wires, a push button comprising a body portion having two separate passages therein, said pair of spring contact terminals fitting into said passages and held in position therein only by the pressure exerted by said terminals upon the walls of said passage, a finger-piece for the push button mounted on said body portion and carrying a connector for bridging said contact terminals.

3. A push button comprising a body portion having separate passages therein, a pair of spring contact terminals consisting of folded spring contacts fitted into said passages and held in position therein by their tension, and a finger-piece carrying a U-shaped connector adapted to bridge said spring contacts.

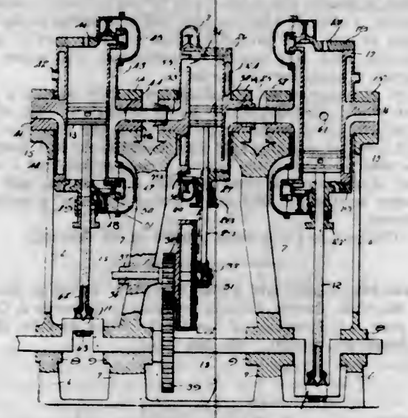
[Claims 2 and 4 not printed in the Gazette.]

1,243,483. EXPLOSIVE-ENGINE. NATHAN BOGGS, Roseburg, Oreg., assignor of one-third to Creed Conn, Roseburg, Oreg., and one-third to Henry P. Conn, Melrose, Oreg. Filed Apr. 11, 1916. Serial No. 90,389. (Cl. 123—42.)

1. In an explosive engine, a cylinder having an internal circumferential chamber, a pair of laterally projecting hollow trunnions carried by said cylinder, one of said trunnions communicating with said chamber, partitions arranged in said chamber providing a mixture conducting passage communicating with the other hollow trunnion, said cylinder having inlet ports in the ends thereof, and pipes connecting said mixture conducting passage with said inlet ports.

3. In an explosive engine, a plurality of uprights, a pump cylinder pivotally supported in said uprights, an engine cylinder pivotally supported in said uprights, means connecting said pump cylinder with said engine cylinder, a piston reciprocably mounted in said engine cylinder, means

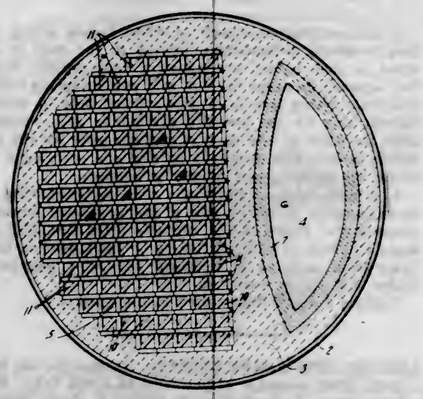
connecting said piston with said crank shaft, a piston reciprocably mounted in the pump cylinder, a wheel operatively connected with the crank shaft, an adjustable crank



pin connected with the wheel, means for securing the crank pin in adjusted position, and means for connecting the crank pin with the pump piston.

[Claim 2 not printed in the Gazette.]

1,243,484. CHECKERWORK FOR HOT-BLAST STOVES. ARTHUR J. BOYNTON, Lorain, Ohio. Filed Feb. 17, 1917. Serial No. 149,289. (Cl. 72—15.5.)



1. In a hot blast stove, an integrated checkerwork having a series of vertical passages therein and separate and independently supported partitions within at least part of said vertical passages, said partitions being loosely mounted in the passages and being maintained in vertical position by contact with the side surfaces of said passages.

3. In a hot blast stove, a checkerwork comprising an integrated structure having a plurality of vertical passages therein and separate partitions within at least part of said passages, said partitions being supported independently of the integrated structure and being maintained in vertical position by contact with the side surfaces of said passages.

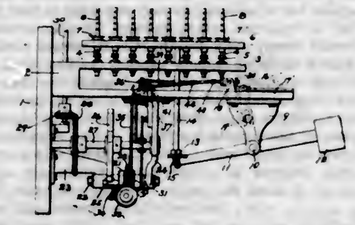
4. In a hot blast stove, checkerwork having vertically extending rectangular passages therein and partitions within said passages, said partitions having ends engaging with the side surfaces of the passages.

5. In a hot blast stove, a checkerwork having vertically extending rectangular passages therein, and diagonal partitions within said passages, said partitions having chamfered ends engaging with the side surfaces of the passages at the corners thereof.

6. In a hot blast stove, an integrated checkerwork having a series of vertical passages therein and separate and independently supported partitions within the passages.

[Claim 2 not printed in the Gazette.]

1,243,485. BUILDER-MOTION FOR SPINNING OR WINDING MACHINES. ALVAH E. BULLOCK and ARTHUR BLAIN, Manchester, N. H. Filed Feb. 26, 1917. Serial No. 150,885. (Cl. 242—43.7.)



1. In a spinning or winding machine, the combination of a builder motion, guiding means for directing the yarn to the bobbins, a pulley or drum, a cam member, means for detachably connecting the cam member and drum together that movement of the cam-member may be controlled by the pulley or drum during the building of the bunch, a flexible connection between the builder motion and drum and between the drum and guiding means, a flexible connection between the cam member and guiding means for building a bunch, and means for automatically disconnecting the cam member from the drum on completion of the bunch.

11. In a machine of the character described, the combination of a builder motion, yarn guiding means, a pulley mounted for rotative movement, a flexible connection between the builder motion and yarn guiding means operating said pulley, a cam member mounted for rotative movement and also for movement toward and from the pulley, a spring acting normally to move the cam member toward the pulley into operative relation therewith during the building of the bunch with a relative short traverse, means for automatically moving the cam member away from the pulley out of operative relation thereto when the bunch has been formed and service traverse is to be resumed, and a flexible connection between the cam member, and yarn guiding means.

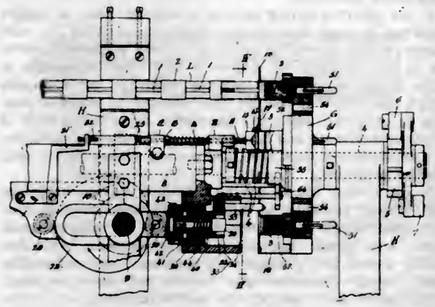
[Claims 2 to 10 not printed in the Gazette.]

1,243,486. MEANS FOR MANUFACTURING RECEPTACLES. LESLIE R. N. CARVALHO, Brooklyn, N. Y., assignor to Paragon Metal Cap Company, Brooklyn, N. Y., a Corporation of New York. Filed Aug. 1, 1914. Serial No. 854,553. (Cl. 113—14.)

1. In a machine of the class described, a supporting member, means for moving an open ended receptacle body member upon said supporting member, means for positioning a receptacle head part adjacent said body member, and means for engaging the opposite ends of said body member simultaneously to interlock one end of said receptacle body member with the said head part and to provide a flange upon the opposite end of said receptacle body member.

4. In a machine for forming receptacles, a rotatable dieplate, a horn carried by said rotatable die-plate, said horn being adapted to receive the body member of a receptacle

thereabout, a die for operating upon the receptacle body member on said horn, means for rotating the die-plate and horn to dispose the receptacle body member in position for being acted upon by said die, a bracing mechanism for a portion of said receptacle body member, and means for rendering said bracing mechanism operative during the time while said receptacle body member stands in position to be acted upon by said die.



6. In a machine for forming receptacles, a rotatable die plate, a horn carried by said die plate, mechanism for feeding receptacle parts to said horn, mechanism for operating upon said receptacle parts while said receptacle parts are upon said horn, means for moving said die plate to move said horn from one of said mechanisms to the other, a movable plunger extending through said horn, and means for moving said plunger to eject the receptacle parts from said horn subsequent to the operation of said second mentioned mechanism.

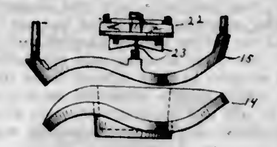
13. In a machine for forming receptacles, a rotatable die plate, a horn carried by said die plate, mechanism for feeding a tubular body member into partly telescoped position upon said horn, mechanism for feeding a head part into the extending portion of the tubular body member while the tubular body member is partly telescoped upon said horn, the horn having a die formation at one end thereof to be engaged by one end of the tubular body member, mechanism for engaging the other end of the tubular body member for moving said tubular body member into forced engagement with said die formation to shape the adjacent end of said tubular body member in accordance with the shape of said die formation, said last mentioned mechanism also comprising a die formation adapted for locking said head part to said tubular body member simultaneously with the movement of the body part toward the die formation of the horn.

14. In a machine of the class described, a horn, mechanism for feeding a tubular body member into partly telescoped position upon said horn, mechanism for feeding a head part into the extending portion of the tubular body member while the tubular body member is partly telescoped upon the horn, the horn having a die formation at one end thereof to be engaged by one end of the tubular body member, mechanism for engaging the other end of the tubular body member for moving the tubular body member into forced engagement with said die formation to shape the adjacent end of said tubular body member in accordance with the shape of said die formation, said last mentioned mechanism also comprising a die formation adapted for locking said head part to said tubular body member simultaneously with the movement of the body member toward the die formation of the horn.

[Claims 2, 3, 5, and 7 to 12 not printed in the Gazette.]

1,243,487. PROCESS FOR MANUFACTURING HATS. HERMAN COHN, New York, N. Y. Filed June 25, 1917. Serial No. 176,806. (Cl. 223—31.)

1. A method of forming hats which consists in stretching an unperforated blank of material, heating and pressing that portion of said blank intended for the brim of the hat, perforating the central unpressed portion of said blank while it is maintained in its stretched condition, and then releasing said blank from the aforesaid stretching, heat and pressure.

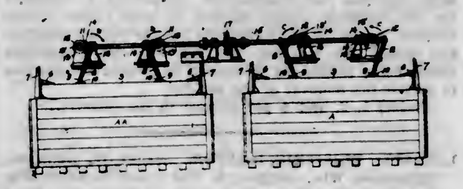


4. In the art of making and pressing hats those steps in the art which consist in stretching a blank of material having the same area as the brim portion of said hat plus that of the central opening in said brim intended for the insertion of the crown of the hat, pressing only that portion of said blank intended for said brim portion into the desired shape while said blank is maintained in a stretched condition, and perforating the unpressed portion of said blank.

5. A method of forming hats which consists in stretching an unperforated blank of material clamping that portion of said blank intended for the brim of the hat, and cutting the unclamped portion of said blank to enable the formation of a flange for receiving the crown of said hat, said unclamped portion of said blank being first perforated adjacent the clamped portion thereof.

[Claims 2 and 3 not printed in the Gazette.]

1,243,488. PLUNGER-ACTUATING MECHANISM FOR PICKLING-TANKS. WILLIAM F. CONKLIN, Tarentum, and EARL B. TODD, Brackenridge, Pa. Filed June 16, 1917. Serial No. 175,180. (Cl. 74—14.)



1. Actuating mechanism for a pair of reciprocating plungers comprising a pair of pitmen therefor pivotally connected with each of the plungers at points equidistant from the center thereof, a pair of cranks for each of said pairs of pitmen operating in opposite directions and so timed as to assume the upper and lower vertical positions simultaneously, a common drive shaft for said mechanism, stub shafts for each of said cranks geared to said drive shaft, said cranks being so arranged and geared as to be adapted to raise one of said pairs of pitmen to their extreme upper vertical position while the other of said pairs of pitmen are moved to their extreme lower vertical position, thereby balancing the consumption of power.

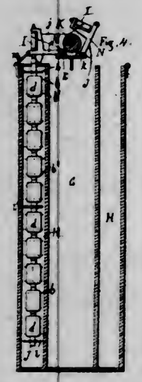
3. An operating mechanism for plungers, comprising a pair of pitmen pivotally connected with each plunger at each side of the vertical center thereof, a pair of positively revolving cranks for each pair of pitmen, an operating mechanism therefor so timed and operated as to raise one of said plungers to its extreme upper vertical position while the other of said plungers is moved to its extreme lower vertical position, thereby effecting a balancing of one plunger by the other, substantially as described.

[Claim 2 not printed in the Gazette.]

1,243,489. APPARATUS FOR TREATING ARTIFICIAL-SILK AND LIKE THREADS. HILAIRE DE CHARDONNET, Paris, France. Filed July 16, 1915. Serial No. 40,272. (Cl. 8—19.)

3. In apparatus for treating artificial silk and the like with reagents, the combination comprising a tank divided

into a middle longitudinal compartment and series of side compartments, the middle compartment adapted to contain water maintained at the required temperature by suitable means, and the side compartments adapted to contain the liquid reagents, said side compartments having partitions extending downward but not reaching the bottom, and the bottom sloping longitudinally of said compartments, means for draining said compartments, series of bobbins adapted to have threads to be treated wound thereon, a rotary spindle suspended vertically and hanging freely in said side compartments upon which said bobbins are disposed, and means for rotating said spindle.

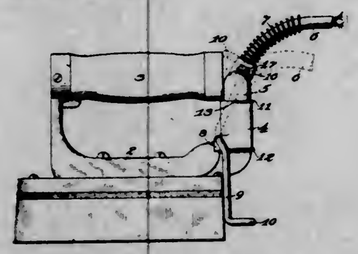


5. In apparatus for treating artificial silk and the like with reagents, the combination comprising a container for the reagents, bobins adapted to have thread wound thereon, means for supporting the bobbins in the container, and means for rotating said bobbins, said supporting means being hinged for movement to inoperative position to permit the removal of the bobbins.

[Claims 1, 2, and 4 not printed in the Gazette.]

1,243,490. ELECTRIC HEATER. HARRY W. DENHARD, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Jan. 30, 1911. Serial No. 605,344. (Cl. 219—25.)

1. An electric heater having a heating base and a handle, means atached to said heater movable to one position to support the base out of contact with the surface upon which the heater is resting, and movable to another position to support the base in inverted position, and means for automatically locking said first named means in its supporting positions.



2. An electric heater having a heating base and a handle, means pivotally attached to said heater movable to one position to support the base out of contact with the surface upon which the heater is resting, and movable to another position to support the base in inverted position, and means for automatically locking the first named means in its supporting positions.

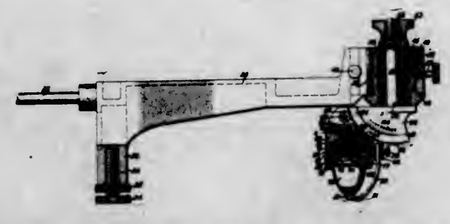
3. An electric heater having a heating base, a handle therefor, a plug and socket connector carried by said heater, means pivoted to said heater movable to one position to coöperate with said connector to support the base out of contact with the surface upon which the heater is resting and movable to another position to coöperate with the handle to support the base in inverted position, and means for automatically locking said first named means in its supporting positions.

4. An electric heater having a heating base, a handle therefor, a plug and socket connector carried by said heater, means pivotally mounted on said connector movable to one position to coöperate with said connector to support the base out of contact with the surface upon which the heater is resting and movable to another position to coöperate with the handle to support the base in inverted position, and means on said connector adapted to automatically lock said first named means in its supporting positions.

5. An electric heater having a handle, means carried by said heater movable to different positions to coöperate with said handle to support the heater in different positions, and means for automatically locking said first named means in its supporting positions, said supporting means being releasable upon forcible movement thereof.

[Claims 6 and 7 not printed in the Gazette.]

1,243,491. APPARATUS FOR GRINDING OR POLISHING PRECIOUS STONES. HARRY DE VRIES, Newark, N. J., and WILLIAM A. DONALDSON, Brooklyn, N. Y. Filed Apr. 25, 1917. Serial No. 164,394. (Cl. 51—11.)



1. In an apparatus for grinding or polishing precious stones, a frame, a vertically disposed spindle held on the said frame and provided at its lower end with a sector, the center of which is located in the axis of the spindle above the sector, a carrier slidably mounted on the peripheral face of the said sector, a rotatably and yieldingly mounted dop holder on the said carrier, and a dop removably held in the said dop holder.

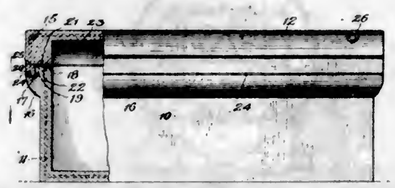
2. In an apparatus for grinding and polishing precious stones, a vertical spindle having a sector at its lower end, a carrier adjustably mounted on the sector, a rotatably and yieldingly mounted dop holder on the carrier, and means for locking the dop holder in position.

4. In an apparatus for grinding or polishing precious stones, a dop provided with a base flange, a dop holder provided with a clamping nut engaging the said flange to fasten the dop in place on the holder, the top of the holder being provided with teeth, a carrier provided at the under side with teeth adapted to be engaged by the teeth of the said dop holder, an inverted cup held centrally on the said dop holder and mounted to turn in said carrier, a pivot held on the said carrier and extending into the said cup, and a spring held on the said pivot and bearing against the said cup.

[Claims 3, 5, and 6 not printed in the Gazette.]

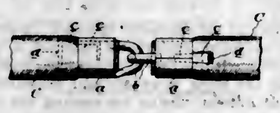
1,243,492. BURIAL-VAULT. LACELL O. DICKINSON, Elmira, N. Y. Filed May 10, 1917. Serial No. 167,691. (Cl. 72—7.)

1. A burial vault comprised of a concrete receptacle having an open top, the upper edge of the receptacle having inner and outer surfaces adapted to receive a sealing material, said inner surface being above said outer surface, the outer surface being sloped downwardly toward the interior and there being a downwardly sloping surface between said inner and outer surfaces, and a cover formed with surfaces matching with said inner and outer surfaces and a surface opposed to said downwardly sloping surface and spaced therefrom when the cover is in position.



2. A burial vault comprised of a concrete receptacle and a cover therefor, the receptacle having an open top and provided on its upper edge with inner and outer surfaces adapted to receive a sealing material, said inner surface being above said outer surface, the latter surface being sloped downwardly toward the interior and there being a surface sloping outwardly from said inner surface to said outer surface, and the cover being formed with surface matching with said inner and outer surfaces and therebetween spaced from said outwardly sloping surface, and the cover and receptacle being formed with tongue and groove in the inner of the pairs of matching surfaces.

1,243,493. COUPLING FOR CABLES, &c. RAIFORD W. DOUGLAS, Miami, Fla. Filed Oct. 12, 1914, Serial No. 866,300. Renewed Apr. 9, 1917. Serial No. 160,885. (Cl. 24—123.)



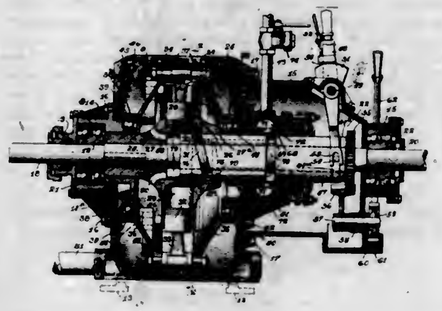
1. A coupling member comprising a body portion adapted to be bent around a cable end to clamp same, and having an integral part on its front end bent to form an eye and also having an integral tang on its rear end, said tang when the coupling is applied transfixing the cable, the projecting end of the tang extending forward and inclosed within the part of the body bent around the cable end, substantially as described.

2. A coupling member comprising a body portion bent around the cable end to clamp the same, said body portion having a part on its front end bent to form an eye the free extremity of said part extending back into the bent body portion to close the eye, said body portion also having a tang projecting from its rear end transfixing the cable in rear of the body portion and bent forward against the cable and having its end confined within the body portion, substantially as described.

1,243,494. STEAM-ENGINE. HARRY C. DUNNING, Chicago, Ill. Filed Mar. 19, 1917. Serial No. 155,871. (Cl. 121—64.)

1. A steam engine, comprising a solid rotating shaft, bearings for the end portions of said shaft, a plurality of cylinders mounted on said shaft between its ends and connected to rotate therewith, pistons operating in said cylinders, eccentric means connected with said pistons and rotating with said cylinders, controlling means adjustable to vary the point of cut-off, means for adjusting said controlling means, and means connected with said controlling means for supplying steam to the engine.

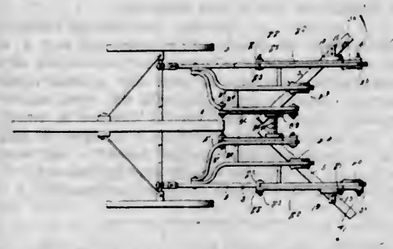
14. A steam engine, comprising a rotating shaft, a plurality of cylinders mounted to rotate with said shaft, pistons operating in said cylinders, eccentric means connected with said pistons and rotating with said cylinders, a sleeve extending over and supported independently of said shaft, said sleeve being movable longitudinally for varying the cut-off, and having a longitudinally-extending steam passage therein and a diagonal slot in the outer surface thereof communicating with said passage, and an exhaust passage in said sleeve.



25. A steam engine, comprising a power-transmitting shaft, a cylinder-block mounted upon and keyed to said shaft, said cylinder-block having a plurality of radially-disposed cylinders, a steam sleeve constituting a steam conduit adjustably mounted over said shaft and coöperating with said cylinders to control the admission of steam thereto, manually operated means for adjusting said sleeve, pistons in said cylinders, eccentrically-mounted disks at opposite sides of said cylinder-block, means connecting said disks with said pistons, and means connecting said disks with said cylinder-block and permitting relative movement thereof to compensate for the eccentricity of their respective axes.

[Claims 2 to 13 and 15 to 24 not printed in the Gazette.]

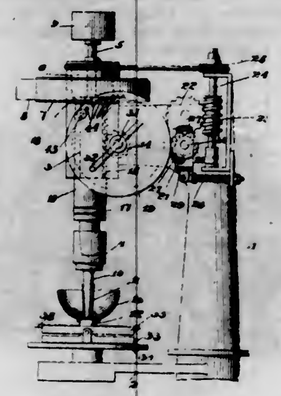
1,243,495. WEED-CUTTER. RAYMOND R. DUPLER, Monroe, Mich. Filed Dec. 22, 1916. Serial No. 138,387. (Cl. 55—60.)



1. The combination with an ordinary cultivator including a plurality of beams, of a weed cutting blade, a pair of standards attached to and extending upwardly from said blade short distances inwardly from its ends, a bar adjustably connected to one of said standards and adapted for connection with one of said beams, an angle bracket attached to the upper end of the other of said standards, members including a shank having a horizontal portion formed upon its lower end and attached to the horizontal portion of said angle bracket, a circular plate formed upon the upper end of said shank, a bar connected to said circular plate, and extending forwardly therefrom, a pair of bars clamped in engagement with one of said cultivator beams, the forward end of said last named bar being adjustably connected to the upper ends of said clamped bars.

[Claim 2 not printed in the Gazette.]

1,243,496. GRINDING-MACHINE FOR CLOSURE DEVICES. WALTER R. EIMER, New York, N. Y. Filed Apr. 20, 1917. Serial No. 163,363. (Cl. 51—3.)



1. In a machine for grinding the seating surfaces of closure devices, the combination of a tool and a work holder in opposed relation, means to revolve one of said elements, constant pressure means to move one of said elements against the other, progressively with the work, and means for periodically retracting said moving element, in equal extents.

3. In a machine for grinding the seating surfaces of closure devices, the combination of a tool and a work holder in opposed relation, a revoluble support for one of said elements, said support being movable axially, constant pressure means to impel said support toward the work, and means for intermittently retracting said support, in equal extents.

6. In a machine for grinding the seating surfaces of closure devices, the combination of a tool and a work holder in opposed relation, pressure means to move one of said elements against the other, progressively with the work, an angularly yieldable and laterally shiftable, centering support for one of said elements.

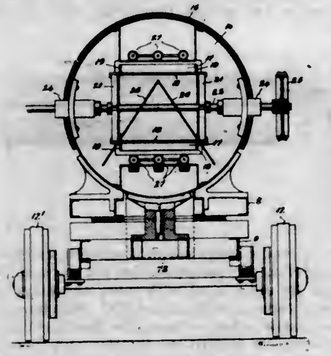
7. In a machine for grinding the seating surfaces of closure devices, the combination of a tool and a work holder in opposed relation, means to revolve one of said elements, pressure means to move one of said elements against the other, progressively with the work, means for periodically retracting said moving element in equal extents, and a fluid supply having an abrasive in suspension to automatically feed quotas thereof to the work in the retracting movements of said moving element.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,243,497. SNOW-MELTER. WILLIAM T. ERICKSON, New York, N. Y. Filed Jan. 26, 1915. Serial No. 4,515. (Cl. 126—343.5.)

1. In a device of the character specified, in combination, a practically inclosed combustion chamber, a linked belt system movable within the combustion chamber, means for moving the linked belt system, said means being independent of the means employed to move the device, means for melting the snow upon the upper portion of the linked belt system, means for impinging a flame upon the lower portion of the linked belt system, and means for removing the melted snow from the container.

2. In a device of the character specified, in combination, a practically inclosed combustion chamber, a linked belt system movable within the chamber, mechanical means for conveying the snow upwardly and depositing it upon the linked-belt system, means for moving the linked belt system, means for impinging a direct flame upon snow upon the upper portion of the linked belt system, means for impinging a direct flame upon the lower portion of the linked belt system, and means for separating the unmelted snow and solid impurities from the melted snow.



3. In a device of the character specified, in combination, a practically inclosed combustion chamber, a linked belt system movable within the chamber, mechanical means for conveying the snow upwardly and depositing it upon the linked-belt system, means for moving the linked belt system, said means being independent of the means employed to move the device, means for impinging a direct flame upon snow upon the upper portion of the linked belt system, means for impinging a direct flame upon the lower portion of the linked belt system, and means for separating the unmelted snow and solid impurities from the melted snow.

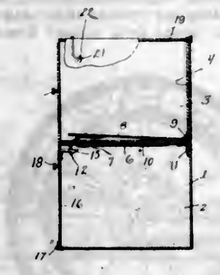
4. In a device of the character specified, in combination, a practically inclosed combustion chamber, a linked belt system movable within the chamber, mechanical means for conveying the snow upwardly and depositing it upon the linked-belt system, means for moving the linked belt system, means for impinging a direct flame upon snow upon the upper portion of the linked belt system, means for preventing the melted snow from coming into contact with the lower portion of the linked belt system, means for impinging a direct flame upon the lower portion of the linked belt system, and means for separating the unmelted snow and solid impurities from the melted snow.

5. In a device of the character specified, in combination, a practically inclosed combustion chamber, a perforated conveyer movable within the combustion chamber and capable of carrying snow deposited upon the upper surface thereof, means for preventing the melted snow passing through the perforations to fall upon the sections of the movable conveyer beneath the snow carrying sections, a combustible material, means for causing the combustion of the combustible material, and means for submitting the snow upon the movable conveyer to the direct heat of combustion within the combustion chamber.

[Claims 6 to 8 not printed in the Gazette.]

1,243,498. SAFETY-RECEPTACLE. GERHARDT M. FALCK, Morrison, Wis. Filed Nov. 8, 1916. Serial No. 130,196. (Cl. 232—41.)

1. A safety receptacle divided into upper and lower compartments, the upper compartment being provided with a removable drawer having an opening in its bottom, a plate hingedly mounted and overlying the bottom of the drawer, the said plate carrying an operating finger extended into the opening in the bottom of the drawer, a closure for the lower compartment and means mounted in the lower compartment and associated with the said closure to be operated by the said finger for releasing the said closure when a weight is applied to the said plate within the drawer.

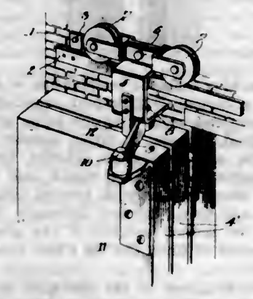


3. A safety receptacle having a central partition arranged therein for providing superposed compartments, the said partition having a slot communicating with the uppermost compartment, a drawer arranged within the uppermost compartment and having a slot in its bottom normally in registration with the slot in the said partition, and automatically operated means mounted in each of the said compartments and adapted for coöperation through the said slots whereby unlocking of the closure of the lowermost compartment may be accomplished by a pressure applied from the uppermost compartment.

5. A safety receptacle having a central partition arranged therein for providing superposed compartments, a drawer arranged within the uppermost compartment, the bottom of the said drawer and the partition each being provided with a slot adapted for registration, a plate hingedly mounted on the bottom of the drawer and projecting over the said slot in the bottom thereof, a spring disposed within the said lowermost compartment and projecting into the said slot in the partition, and means carried by the said plate and adapted to engage the said spring for depressing the same within the lowermost compartment when a pressure is applied to the plate.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,243,499. DOOR-HANGER. WILLIAM D. FERRIS, Sharon, Pa., assignor to Sharon Hardware Manufacturing Company, Sharon, Pa., a Corporation. Filed Feb. 19, 1917. Serial No. 149,495. (Cl. 20—20.)



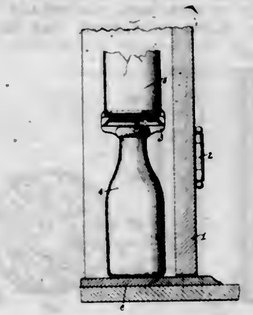
1. In a door structure, the combination of a straight track rigidly mounted parallel to the door opening, a plurality of hingedly connected doors the outer one of which is hinged at one side of said door opening, a hanger mounted to travel on said track, and means connecting said hanger with the inner door allowing it to move laterally of the track in a manner permitting said doors to fold back substantially parallel to each other and to said track.

3. In a door structure, the combination of a straight track rigidly mounted parallel to the door opening, a plurality of hingedly connected doors, the outer door having a fixed hinge, a hanger mounted to travel on said track, a horizontally swinging member extending between said door hanger and the inner door and pivotally connected to both in manner permitting said doors to fold back substantially parallel to each other and away from the door opening, and means for preventing the movement of said hanger into interfering position.

6. In a door structure, the combination of a suitable support, a plurality of hingedly connected doors, the outer one of which is hinged to said support, a track fixed with relation to said support and parallel therewith throughout its entire length, a hanger movable upon said track, said hanger comprising a carrier having a stud projecting downward therefrom, a pin projecting above the inner door, a stop projecting downward from said carrier, and a link pivotally connected with said stud and pin and adapted, as the doors are opened, to abut against said stop.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,243,500. BOTTLE-HOLDER. CORNELIUS A. FOLLY, Boonton, N. J. Filed June 20, 1917. Serial No. 175,770. (Cl. 232—41.)



1. In a bottle holder of the character described, a body provided with a pair of depending flanges, between which the upper end of the bottle is positioned when the holder is in use, and a locking pawl connected with the body and fitted into the upper part of said bottle, said locking pawl being provided with a slot for preventing unauthorized lifting thereof.

4. In a milk bottle holder of the character described, a body formed of side members having openings for receiving securing members, and a raised central section providing space for the milk when frozen, a trough arranged in said section formed with beveled sides for directing the milk as it moves during the freezing thereof, and a locking member carried by said trough for engaging the bottle arranged beneath said section.

6. A milk bottle holder comprising a body, a trough formed with a notch in its upper face, means for securing said trough to said body so that said upper surface will be in contact therewith, and a locking pawl having journal members loosely mounted in said notch.

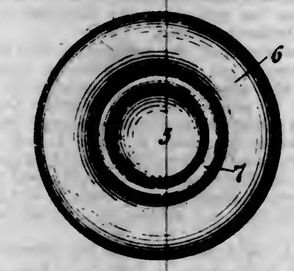
[Claims 2, 3, and 5 not printed in the Gazette.]

1,243,501. TABLET. HORATIO N. FRASER, Brooklyn, N. Y., assignor to The Fraser Tablet Company, Brooklyn, N. Y., a Corporation of New York. Filed May 29, 1917. Serial No. 171,606. (Cl. 167.7.)

1. A tablet of the kind described formed by compression, having portions of different thickness, and an intervening portion, between such thicknesses to effect connection between the two portions and destroy the tendency to flake.

2. A tablet of the kind described comprising a central portion and an outer portion of different thickness, and ribs on opposite surfaces of said tablet between said outer and inner portions thereof.

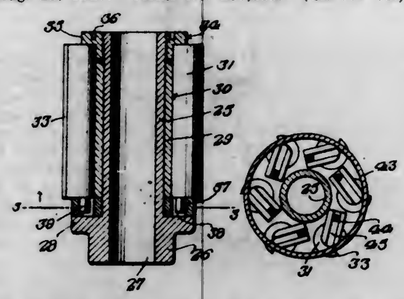
5. A tablet of the kind described comprising a center portion having its opposite surface concaved, an annular outer portion having its opposite surfaces convexed and



annular ribs on the opposite surfaces of said tablets at the points where said concave and convex surfaces merge together.

[Claims 3 and 4 not printed in the Gazette.]

1,243,502. REAMER. WILLIAM H. FRICK, Philadelphia, Pa. Filed July 19, 1916, Serial No. 110,149. Renewed Aug. 23, 1917. Serial No. 187,889. (Cl. 77—75.)



1. In a reamer, the combination of a holder, cutters rotatably mounted upon the holder and provided with grooves forming cutting edges, and cam mechanism independent of said grooves for simultaneously rotating and adjusting the cutting elements.

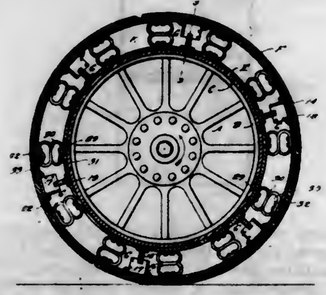
3. In a reamer, the combination of a holder, cutters rotatably mounted upon the holder and provided with grooves forming cutting edges, a rotatable adjusting element, and connecting means between the cutters and rotatable adjusting element, comprising pin and slot connections independent of said grooves, for adjusting said cutters upon the rotation of said elements.

[Claims 2 and 4 to 10 not printed in the Gazette.]

1,243,503. RESILIENT TIRE. WILLIAM A. FRYE, FORREST H. CHINN, and RICHARD F. BURNETT, Coffeyville, Kans., assignors of one-fourth to Neil A. Cook, Coffeyville, Kans. Filed Apr. 13, 1916. Serial No. 90,896. (Cl. 152—38.)

1. In a resilient tire, the combination of inner and outer bands, means for resiliently connecting the bands, a peripheral row of anchoring members secured to one band and having circumferential ways therein opening in one direction only, radially extending lugs carried on the other band adapted to be engaged in said ways upon the turning of one band relatively to the other band, and securing devices detachably connected to said anchoring members across the open ends of the ways to limit the relative turning and lateral displacement of the bands.

2. A resilient tire comprising in combination, an inner and an outer band, pairs of reversely curved springs interposed between and detachably secured to said bands, normally retaining them in concentric relation and resisting circumferential relative turning of the bands in opposite directions, a plurality of lugs carried by one of said bands between adjacent pairs of springs and extending toward but spaced from the other band, a member for each of said lugs carried by the other band between said pairs of springs, each member formed to provide a circumferentially extending way closed at one end and into which its coöperating lug extends and engages the lateral walls to hold the bands from lateral displacement, the



open ends of said ways extending in the same direction, and detachable devices for closing the ends of the said ways of said members to limit the circumferential flexing of the springs.

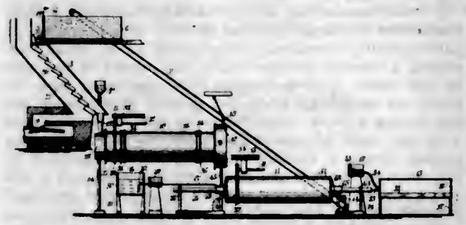
1,243,504. BROACHING-TOOL. FRANK OLWIN FURBER, Saco, Me. Filed Feb. 2, 1917. Serial No. 146,138. (Cl. 145—24.)



1. In a broaching tool, the combination of a cylindrical body having a central longitudinal externally threaded extension at one end, said extension being provided with deep longitudinal grooves, a cutter member of exterior polygonal form and having an interior threaded bore adapted to receive the threaded shank, said cutter member having a sharp cutting edge located adjacent to the body portion and being notched interiorly radially outwardly from the several notches of the grooves of the shank, and means to draw the body and cutter member longitudinally.

2. In a broaching tool of the character set forth, the combination of a cylindrical body member having a reduced end shank forming a shoulder, said shank being externally threaded and provided with longitudinal grooves, the shoulder being notched in alinement with several grooves of the shank, and a cutter having a polygonal form in cross section provided with an interior threaded bore adapted to receive the threaded shank of the body, one end of the cutter member having a sharp cutting edge lying in the plane of said shoulder, the several cutting corners of the cutter being located radially outwardly from the notches and grooves of the body and shank, said cutter member being provided also with interior notches, one notch being located directly inwardly from each corner thereof, and means to draw the tool longitudinally.

1,243,505. APPARATUS FOR TREATING ORES. ALLEN J. GARVER, Clarkston, Wash. Filed Dec. 8, 1914, Serial No. 876,061. Renewed Mar. 13, 1917. Serial No. 154,598. (Cl. 263—32.)



1. In a gravity plant for treating ore, a chute adapted to receive ore to be treated, a furnace the products of combustion of which are adapted to contact with the chute, whereby the ore is progressively heated, a tank associated with the chute whereby a chemical compound may be added to the ore passing through the chute, a rotary roaster adapted to receive the ore mixed with the chemical compound, said roaster comprising a plurality of triangular recesses causing the mixture to move step by step toward the outlet and fall intermittently during its movement toward the outlet, a rotary ore tank adapted to receive the ore from the rotary roaster, an ejector adapted to force the contents of the rotary roaster into the rotary tank, said rotary roaster having similar triangular recesses on its inner lateral surface whereby the contents thereof are caused to move progressively toward the delivery end and fall intermittently during the movement, a condenser associated with said rotary ore tank, and means for forcing the gaseous and vaporous substances from the rotary tank into the condenser.

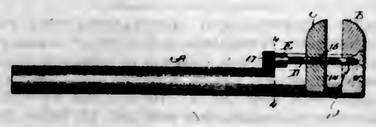
3. In a gravity plant for the treatment of ore, a revoluble closed chamber, and longitudinal members at the inner lateral surface thereof, said longitudinal members having a series of triangular-shaped recesses each having a notch at the apex nearest to the delivery end of the chamber.

4. In a gravity plant for the treatment of ore, a pair of revoluble closed chambers each having longitudinal scooping members at the inner lateral surface, each of said scooping members having a series of triangular-shaped recesses at the attacking side, each of said recesses having a notch through which the material accumulated in the recesses is discharged, the recesses and notches being so related to the delivery end of each chamber that gravity causes the material in said recesses to gradually creep to the delivery end by falling intermittently in said chamber.

5. A revolving ore roaster comprising a rotary shell having a cylindrical form, a lining for said shell, said lining being of bricks provided with grooves, a filling within said grooves, and other bricks connected with said first-mentioned bricks and provided with compartments for raising and spilling ores and the like.

[Claims 2 and 6 not printed in the Gazette.]

1,243,506. WRENCH. JOSIAH B. GATHRIGHT, Louisville, Ky. Filed Feb. 12, 1917. Serial No. 148,073. (Cl. 81—177.)



1. A wrench comprising a hollow body having integral upstanding spaced longitudinal flanges at one end, a stationary jaw secured between the flanges, a bearing block secured between the flanges at the inner ends thereof, a screw mounted to turn in the bearing block, and a movable jaw mounted to travel between the flanges, and to which jaw the screw is connected, and an operating member on said screw.

2. A wrench comprising a body portion formed of tubing which is split laterally and longitudinally adjacent one end and the split portions bent outwardly to form a pair of spaced flanges which extend outwardly beyond the body portion, a fixed jaw secured in position between the flanges at the outer end of the body portion, a bearing block secured between the flanges at the inner ends of said flanges, the fixed jaw and the bearing block serving to maintain the flanges in spaced relation to each other, a movable jaw guided between the outwardly extending flanges, an operating screw journaled in the bearing block and connected to the movable jaw, and an operating head on said screw rearwardly of the bearing block.

3. A wrench comprising a hollow body having integral upstanding, spaced, longitudinal flanges at one end, a stationary jaw fixed between the flanges at one end thereof, a movable jaw guided between the flanges, both the fixed and movable jaws extending outwardly beyond the flanges and inwardly into the body portion and conforming to the shape of the latter, a bearing block between the flanges at the rear ends of the latter, and a screw journaled in the bearing block and engaged with the movable jaw.

1,243,507. METHOD AND APPARATUS FOR PROJECTION OF MATTER EXPLANATORY TO MOVING PICTURES. LOUIS GERMAIN, Brooklyn, N. Y. Filed Aug. 28, 1913. Serial No. 787,160. (Cl. 88—17.)



1. The method of projecting pictures which consists in passing a single concentrated light stream through a pair of independent films one of which has pictorial matter thereon and the other having reading matter, and causing movement of the film having the reading matter thereon to thus accomplish changing of the same.

2. The method of projecting subjects which consists in passing a light stream through a film having printed subject matter thereon and in moving the film in a progressive path through the light stream in a line with the line of printed subject matter and in a direction obverse to the direction followed in the reading of the same to cause changing of the printed subject matter as projected.

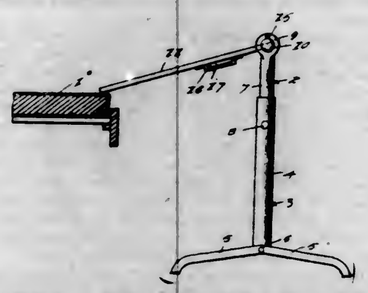
3. The method of motion picture projection which consists in passing a film through a light stream to project a series of pictures collectively depicting an incident or story, and in passing a second film having printed subject matter thereon through the light stream for successively projecting connected fragments of matter relative to the picture.

4. The method of projecting motion pictures which consists in moving a film through a light stream to project a series of pictures, and passing a second film having lines of printed matter thereon through the light stream in a path at an angle to the path of movement of said first film to project the printed subject matter upon the screen and to cause changing of the same as the pictures are changed.

5. In a projecting apparatus, means whereby a light stream is projected, and a film having continuous lines of printed subject matter thereon mounted to be given progressive movement through said light stream in a direction obverse to the direction followed in reading said subject matter.

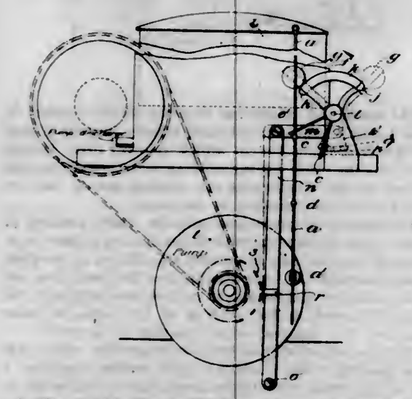
[Claims 6 to 9 not printed in the Gazette]

1,243,508. ADJUSTABLE BEDSIDE SURGICAL TABLE. REBECCA C. GORTON, Waterproof, La. Filed Oct. 24, 1916. Serial No. 127,370. (Cl. 45—50.)



In a surgical table, a supporting structure including a pair of standards, each of said standards including base members and upper members telescopically mounted in said base members, means for holding said upper members in adjusted vertical positions within said base members, said upper members being provided with circular openings formed in their upper ends, a table board, a tube attached to one edge of said table board and having its ends rotatably seated in said openings, said table board being adapted to have its free edge rest upon the edge of a bed, stirrups slidably attached to the under surface of said table board, and means for limiting the slidable movement of said stirrups.

1,243,509. MEANS FOR CONTROLLING THE OPERATION OF AIR-GAS PLANTS. JOHN THOMAS GRAHAM, Halstead, England. Filed Sept. 28, 1916. Serial No. 122,668. (Cl. 103—87.)



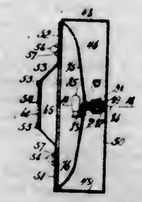
1. The combination, with a receiving vessel, and a pump mechanism for supplying fluid thereto; of mechanism for automatically controlling the operation of the pump, comprising a movable member under the control of the fluid in said vessel, a rocker positively shifted by said member, an oscillating device having a detent thereon engageable with said pump mechanism to lock the same against action, and a connection between said rocker and said locking device for positively oscillating said device laterally when said rocker is actuated, thereby to engage and disengage said detent.

3. The combination, with a receiving vessel, and a pump mechanism for supplying fluid thereto; of mechanism for automatically controlling the operation of the pump comprising a movable member under the control of the fluid in said vessel, a toothed brake wheel associated with the pump, an oscillating device having a tooth for engagement with the teeth of said brake wheel to lock said pump against action, a rocker positively operated by said movable member, and a connection between said rocker and said oscillating device for directly and positively shifting said device laterally when said rocker is actuated, thereby to move said locking tooth into and out of engagement with said brake wheel.

4. The combination, with a receiving vessel, and a pump mechanism for supplying fluid thereto; of mechanism for automatically controlling the operation of the pump comprising a movable member under the control of the fluid in said vessel, a toothed brake wheel associated with the pump, an oscillating brake rod pivoted at its lower end and having a tooth intermediate its ends for engagement with the teeth of said brake wheel to lock said pump against action, a weighted rocker positively operated by said movable member and having an extension, and a link connecting said extension and the upper end of the brake rod for directly and positively shifting said brake rod when said rocker is actuated, thereby to move said locking tooth into and out of engagement with said brake wheel.

[Claim 2 not printed in the Gazette.]

1,243,510. AUTOMOBILE-SIGNAL. CARL FREDERICH GROMANN, New York, N. Y. Filed May 12, 1915. Serial No. 27,488. (Cl. 40—70.)



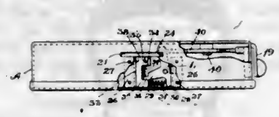
1. In a signal of the character described the combination of a casing, a rotative reflector in said casing, an opaque annular disk having transparent indications carried by said reflector, a source of illumination for said reflector and disk in said casing, a door with an opening for said casing and means to bring different portions of said disk opposite the opening in said door.

2. In a signal of the character described the combination of a casing, a reflector journaled in said casing, an opaque annular disk having transparent indications carried by said reflector, a source of illumination in front of said reflector, a bracket in said casing, a sleeve journaled in said bracket with one end connected to said reflector, a bevel gear fastened to the other end of said sleeve, a second bevel gear having a tubular portion and meshing with the other bevel gear, a spindle journaled in said bracket and having fastened to one end thereof the second bevel gear, a pin extending from said bracket, a spring in said tubular portion with one end fastened to said pin and the other end fastened to said tubular portion, a drum on said spindle, and a cord with a portion thereof wound around said drum.

3. The combination in a vehicle of a signal, comprising a casing, a door with an opening for said casing, a reflector journaled in the casing, a disk with transparent indications carried by said reflector, a source of illumination in front of said reflector, a spring coacting with said reflector to normally maintain it in a predetermined position relatively to the opening in said door, a drum coacting with said reflector and a cord with a portion thereof wound around said drum, and one end fastened thereto.

1,243,511. SLOT-CLOSING MECHANISM FOR COIN-CONTROLLED VENDING-MACHINES. ALBERT D. GROVER, New York, N. Y., assignor to Autosales Gum and Chocolate Company, a Corporation of New York. Original application filed Dec. 17, 1914, Serial No. 877,647. Divided and this application filed Jan. 24, 1916. Serial No. 73,776. (Cl. 194—1.)

1. In a coin-controlled machine, a casing provided with a coin-entrance slot, coin-testing mechanism associated with said slot and adapted to be automatically actuated by an entering washer to lock the same against full entrance into said slot, said mechanism yieldably engaging the edge of a proper coin and allowing the same to pass through said slot, a coin-controlled operating device, and means whereby said washer-catching mechanism is automatically locked against operation to close said coin-entrance slot when said device reaches a positively predetermined position.



2. In a coin-controlled machine, a casing provided with a coin-entrance slot, a spring-pressed member normally projecting across one end of said slot and adapted to be actuated by the edge of an entering disk or coin, mechanism controlled by said member for automatically locking an inserted washer against full entrance into said slot, a coin-controlled operating device, and connections between said member and said device whereby said member is automatically locked against operation, thereby closing said coin-entrance slot, when said device reaches a positively predetermined position.

3. In a coin-controlled vending machine, a casing provided with a coin-entrance slot and a magazine for holding the vendable articles, mechanism arranged at said slot and adapted to be automatically actuated by an entering washer or ring to lock the same against full entrance into said slot, a coin-controlled device for discharging the articles from said magazine, said device including a movable member arranged to occupy a predetermined position when said magazine is empty, and means whereby said washer-catching mechanism is automatically locked against operation to close said coin-entrance slot when the magazine is empty.

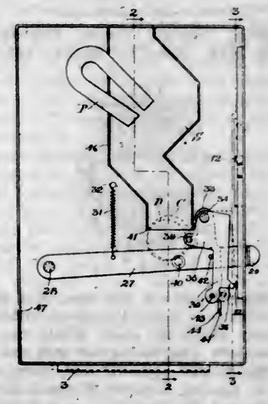
4. In a coin-controlled vending machine, a casing provided with a coin-entrance slot, a spring-pressed member normally projecting across one end of said slot and adapted to be moved aside by an entering coin, a magazine within said casing for holding the vendable goods, a coin-controlled operating device for causing discharge of the goods from said magazine, and means controlled by said device for automatically locking said member in slot-closing position when the supply of goods in said magazine is entirely exhausted.

5. In a coin-controlled vending machine, a casing provided with a coin-entrance slot, a spring-pressed member normally projecting across one end of said slot and adapted to be moved aside by an entering coin, a magazine within said casing for holding the vendable goods, a coin-controlled device for causing discharge of the goods from said magazine, and a normally inoperative locking mechanism adapted to be engaged by said device and thereby actuated to lock said member in slot-closing position when the supply of goods in said magazine is entirely exhausted.

[Claims 6 to 8 not printed in the Gazette.]

1,243,512. COIN-CONTROLLED MACHINE. ALBERT D. GROVER, New York, N. Y., assignor to Autosales Gum and Chocolate Company, a Corporation of New York. Original application filed Dec. 17, 1914, Serial No. 877,647. Divided and this application filed Jan. 24, 1916. Serial No. 73,777. (Cl. 194—73.)

1. In a coin-controlled vending machine, a coin-chute, a downwardly movable pivoted lever provided with a coin-support arranged to coöperate with said coin-chute to sustain the deposited coin in proper position, an operating device normally disconnected from said lever, a coin-engaging element movably mounted on said pivoted lever and adapted to be moved by the deposited coin, and means whereby the movement of said coin-engaging element by the coin automatically connects said lever with said device, said coin-support being so arranged relatively to said coin-chute as to cause automatic discharge of the coin by gravity before said lever reaches the end of its downward stroke.



2. In a coin-controlled vending machine, a downwardly movable pivoted lever provided with a lug or projection, a fixed part coöperating with said lug or projection to sustain the deposited coin in proper position, a vertically slidable member normally disconnected from said lever, a coin-engaging element pivoted on said lever and adapted to be moved by the deposited coin, and means whereby the movement of said coin-engaging element by the coin automatically connects said lever with said device, said lug or projection being so arranged relatively to said fixed part as to cause automatic discharge of the coin by gravity before said lever reaches the end of its downward stroke.

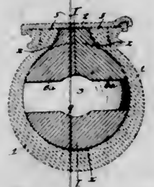
3. In a coin-controlled vending machine, a vertically slidable bar, a pivoted lever movable downwardly by hand from the outside of the machine, a fixed part, means on said lever arranged to coöperate with said fixed part to sustain the deposited coin in proper position, a depending pawl pivoted at its upper end to said lever and at its lower end provided with a tooth, said tooth being normally out of engagement with said bar, and means on said pawl adapted to be engaged by the deposited coin to swing said tooth into engagement with said bar, said fixed part and said coin-engaging means being so arranged relatively to each other that the coin is automatically discharged by gravity before said lever reaches the end of its downward stroke.

4. In a coin-controlled vending machine, a vertically slidable bar, a pivoted lever movable downwardly by hand from the outside of the machine, a fixed part, means on said lever arranged to coöperate with said fixed part to sustain the deposited coin in proper position, a depending pawl pivoted at its upper end to said lever and at its lower end provided with a tooth, said tooth being normally out of engagement with said bar, means on said pawl adapted to be engaged by the deposited coin to swing said tooth into engagement with said bar, said fixed part and said coin-engaging means being so arranged relatively to each other that the coin is automatically discharged by gravity before said lever reaches the end of its downward stroke, a projection at the lower end of said pawl and a fixed guide piece with which said projection coöperates to lock said pawl in its operative and inoperative paths of travel.

5. In a coin-controlled vending machine, an operating device, a pivoted lever adapted to be operated by hand, a swinging gravity pawl pivoted at its upper end upon said lever and normally out of engagement with said device, means on said pawl adapted to be engaged by the deposited coin to swing said pawl into engagement with said device, whereby said lever becomes operatively connected with said device, a projection at the lower end of said pawl, and a fixed guide member arranged to engage said projection on one side and the other to lock said pawl in its operative

path of travel at the downward stroke of said lever, and in its inoperative path on the return movement of said lever, said pawl swinging into its return path by gravity.

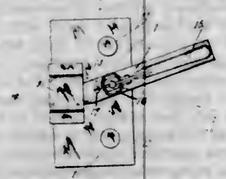
1,243,513. TIRE. REUBEN GRUBB, Philadelphia, Pa. Filed May 23, 1916. Serial No. 99,337. (Cl. 152—22.)



1. The combination with a tire shoe, of a plurality of hollow and substantially inflated members within the same and substantially filling the space within the tire shoe, said hollow members lying in contact with the side walls and tread of the tire shoe and with each other, sets of sectional filling or spacing members disposed between said hollow members and the tire shoe; said filling members having rounded recesses forming seats to receive portions of the abutting hollow members and being outwardly shaped to conform to the internal contour of the shoe and having inwardly extending portions for contact with the rim, and means carried by the flanges of the tire for spacing the inwardly projecting portions of the spacing members.

2. The combination with a tire shoe having flanges of a plurality of hollow rubber balls substantially filling the space within the tire shoe, said balls lying in contact with the side walls and tread of the tire shoe and with each other, a plurality of sets of sectional filling or spacing members independent of the tire and disposed between said balls and the tire shoe, portions of said spacers contacting with the tire shoe and other portions with the flanges, said filling members having rounded seats to receive the balls and being outwardly shaped to conform to the internal contour of the shoe and having portions which lie between the flanges of the shoe and contact with the rim, and lugs carried by the flanges and lying between the portions of the spacing members contacting with the rim.

1,243,514. ATOMIZER. JOHN H. HAMLIN, New York, N. Y., assignor to Hamlin Imp-Ervia Co., Inc., New York, N. Y., a Corporation of New York. Filed Sept. 16, 1914. Serial No. 861,960. (Cl. 91—45.)



3. An atomizing apparatus having, in combination, a tank or holder having a partition therein forming a plurality of chambers; a siphoning tube extending from each chamber to a predetermined point on the outside of the tank; movable means for coöperating with each of said tubes for atomizing the contents of the chambers; a guard mounted upon the holder and inclosing the ends of the siphoning tubes and the executive end of the atomizing means, said guard having means coöperating with the atomizing means for holding the same in a neutral position, and also having means coöperating with said atomizing means for limiting the movement thereof and simultaneously locating the executive end thereof in coöperative relation to one or the other of the siphoning tubes.

[Claims 1 and 2 not printed in the Gazette.]

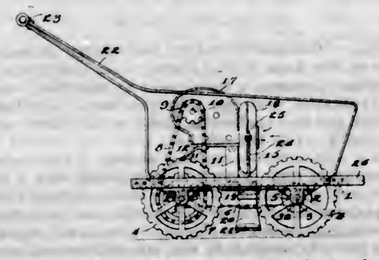
1,243,515. PNEUMATICALLY-TIRED WHEEL. GUY C. HANNA, Plainfield, Ind. Filed Oct. 13, 1916. Serial No. 125,454. (Cl. 152—10.)



1. In a device of the character described, the combination of the wheel rim, spaced side members secured to and extending around the rim, each of which is of integral formation and consists of inner and outer annular rings and radial connecting webs of which the inner ring is secured to said rim, with open spaces between the webs around and between said rings, and a pneumatic tire around the rim between the side members including a portion normally projecting exteriorly beyond the outer rings of the said side members to cushion the wheel, said tire being movable inwardly beyond said outer rings in use when the tire is deflated, the outer rings of the said side members forming the traction surface of the wheel when the tire is deflated and the said exteriorly projecting portion of the tire moves inwardly beyond said rings.

2. In a device of the character described, the combination with a wheel rim, spaced side pieces secured to and extending around the rim, each having inwardly extending annular tire engaging means around the outer edge thereof, a pneumatic tire around the rim between the said side pieces and including a portion normally projecting exteriorly between the said tire engaging means thereof to cushion the wheel, said portion of said tire being movable inwardly beyond the outer edges of the side pieces when the tire is deflated, and spaced side reinforcing members disposed exteriorly of the said side pieces to reinforce the latter, having inner and outer rings, the former of which are secured to the rim and the latter of which extend over the tire engaging portions of the side pieces, and webs connecting the said inner and outer rings of the said side members, said outer rings of said side pieces forming the traction surface of the wheel when the tire is deflated and its said projecting portion moves inwardly of the side pieces.

1,243,516. FLOOR-CLEANING MACHINE. GEORGE S. HARRIS, Lanett, Ala. Filed Apr. 10, 1913. Serial No. 760,249. (Cl. 15—60.)

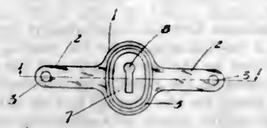


1. A pneumatic sweeper comprising a frame, front and rear traction wheels supporting the same, a blower sustained by the frame between the planes of the front and rear wheels, a discharge tube for the blower pendent therefrom substantially midway of the length of the frame, and a discharge nozzle swiveled to and pendent from the discharge tube beneath the frame.

2. A pneumatic sweeper comprising a frame, traction wheels supporting the frame, a stand carried by the frame, a rotary blower sustained by the stand, upstanding bars fixed to the sides of the frame and engaging portions of the blower for balancing the support thereof, gearing for transmitting motion from the traction wheels to the blower, a discharge tube for the blower pendent therefrom through the frame and between the planes of the traction wheels, and a nozzle swiveled to the lower end of the discharge tube and disposed to discharge substantially horizontally.

1,243,517. [WITHDRAWN.]

1,243,518. LUMINOUS KEYHOLE-PLATE. FRANK W. HARVEY, Bay City, Mich. Filed Apr. 5, 1917. Serial No. 159,963. (Cl. 70—16.)

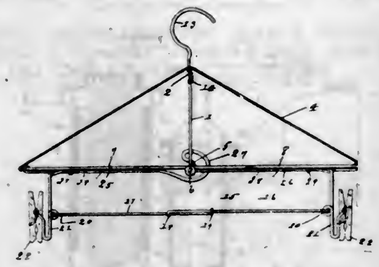


1. In a device of the character described, a plate adapted to be detachably secured over a key hole and having a central aperture surrounding the key hole, a groove in said plate surrounding the aperture, and means in said groove for enabling said key hole to be readily seen in the dark.

2. In a device of the character described, a plate adapted to be detachably secured over a key hole and having a central aperture surrounding the key hole, a groove in the plate surrounding the aperture, and luminous material in said groove for enabling the key hole to be readily seen in the dark.

3. In a device of the character described, a plate adapted to be detachably secured over a key hole and having an aperture surrounding said key hole, a transparent disk secured in said aperture and provided with an aperture adapted to register with the key hole, a groove in said plate surrounding the disk, and luminous material in said groove to enable the key hole to be readily seen in the dark.

1,243,519. GARMENT-HANGER. EARL B. HEALEY, Arcadia, Fla. Filed Jan. 31, 1917. Serial No. 145,648. (Cl. 211—13.)

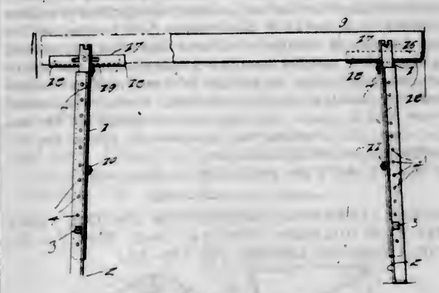


1. A garment hanger, consisting of a suspension member, a pair of arms pivoted to the lower end of said suspension member, a supporting wire carried by each of said arms, one of said wires having a rounding portion at its pivot point to allow the folding of the hanger, a two part laterally adjustable frame having means engaging said wires for suspending said frame therefrom, trouser engaging means carried by the outer ends of said frame, and means for retaining the two part frame in adjusted position.

2. A garment hanger, consisting of a suspension member, a pivot mounted in the lower end of said member, a pair of open loops or arms having their inner ends mounted upon said pivot, a pair of bars supported at one end by said arms and having their inner ends mounted on said pivot, a pair of slides adjustable on said bars, a two part frame suspended from said slides, and catches carried by said two part frame.

3. A garment hanger, consisting of a suspension member, a pivot mounted in the lower end of said member, a pair of open loops forming arms having their inner ends mounted upon said pivot, a pair of bars supported at one end by said arms and having their inner ends mounted on said pivot, one of said bars having a rounding guiding portion adjacent said pivot, a pair of slides adjustable on said bars, a two part frame suspended from said slides, and catches carried by said two part frame.

1,243,520. FOLDABLE TRESTLE. FRANK W. HELWIG, Millersburg, Pa. Filed Oct. 31, 1916. Serial No. 128,714. (Cl. 20—83.)



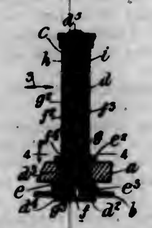
1. A foldable trestle including oppositely inclined legs, an upper transverse connecting bar pivoted to the legs intermediate of the ends thereof to form upper clamping portions, a horizontally disposed timber supporting rest substantially L-shaped in construction secured to one of the legs and extending perpendicularly from the same in opposite directions and provided with timber engaging means, and means for connecting and locking the legs in their clamping position.

2. A foldable trestle of the class described including inclined legs or standards having upper clamping portions, and a rest pivotally mounted on one of the legs or standards, such leg or standard and rest being provided with coacting means for slidably interlocking the rest with the leg or standard to support the rest in a horizontal position.

3. A foldable trestle including opposite inclined legs or standards having upper clamping portions, one of the legs or standards being provided with a pivot and having a horizontal key and a rest provided with a longitudinal slot receiving the said pivot and having a groove or way arranged to coact with the key to interlock the rest with the legs or standards, said slot being extended beyond the said way to permit the rest to be swung on the pivot to fold the said rest between the legs or standards.

4. A foldable trestle including opposite inclined standards having upper clamping portions, one of the legs or standards being provided with a pivot and having a horizontally disposed tapered key located on the said pivot and a rest provided with a longitudinal slot to receive the pivot, said rest being also provided with spaced plates or members forming a groove or way, and coacting with the key to lock the rest rigid in a horizontal position, said slot being extended beyond the plates or members to permit the rest to be turned on the pivot and folded between the standards.

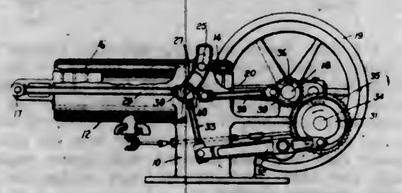
1,243,521. COMBINED EXHAUST AND INFLATING NOZZLE FOR PNEUMATIC TIRES. ROBERT H. HENNEMIER, New York, N. Y., assignor to A. Schrader's Son, Incorporated, Brooklyn, N. Y., a Corporation of New York. Filed July 23, 1914. Serial No. 852,567. (Cl. 152—12.)



1. A combined inflating and exhaust valve for pneumatic tires comprising a one piece standard size stem member adapted to be secured directly to a tire, said stem having an inlet duct, a valve for the inlet duct, an exhaust duct in the stem, a rubber seal positioned in the inner end of the exhaust duct, an outwardly yielding valve for the exhaust duct having an annular edge portion engaging with the seal, a spring in the exhaust duct bearing on the valve therein, an expansible member engaging the spring, said expansible member having a longitudinally stationary head arranged wholly within the duct adjacent the mouth thereof, a holding shoulder therein, a sleeve threaded thereon and a sleeve threaded in the mouth of the exhaust duct and abutting the shoulder to retain the expansible member within the duct.

[Claims 2 and 3 not printed in the Gazette.]

1,243,522. INTERNAL-COMBUSTION ENGINE. JOHN TEN EYCK HILLHOUSE, Newtown, Conn. Filed Feb. 24, 1914. Serial No. 820,601. (Cl. 123—78.)



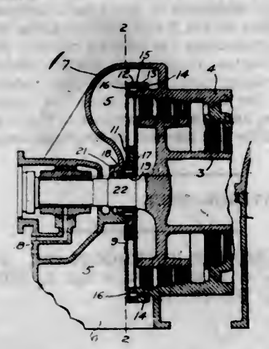
1. In an internal combustion engine, the combination with a cylinder, piston, a crank-shaft and a connection for maintaining a fixed relation between the movements of the shaft and the piston, a second piston in the same cylinder, a link motion connection between the second piston and the shaft, and a cam operatively connected to the shaft for automatically adjusting the link motion connection.

4. An internal combustion engine comprising a cylinder, a crank-shaft, two pistons in the cylinder, an operative connection from one piston to the shaft, a link motion connection between the other piston and the shaft comprising a rocker frame, a slide block supported therein, a link connecting said piston to the slide block, a link for connecting the rocker to the shaft, a cam geared to the crank-shaft, and links interposed between the cam and the block, said cam being so shaped as to produce a predetermined adjustment of the block during each engine cycle whereby a predetermined variable movement is imparted to the piston.

[Claims 2 and 3 not printed in the Gazette.]

1,243,523. TURBINE. FRANCIS HODGKINSON, Edgewood Park, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 4, 1915. Serial No. 6,102. (Cl. 253—69.)

1. In combination with the longitudinally divided stator of a turbine, a bearing-support for the bearing of the turbine rotor formed on the lower portion of the stator, and means for increasing the rigidity of the bearing-support, comprising a brace for the support located within the exhaust passage of the turbine stator.



2. In combination with the longitudinally divided stator of a turbine, a bearing-support for the bearing of the turbine rotor formed on the lower portion of the stator, and means for increasing the rigidity of the bearing-support, comprising a brace for the support located within the exhaust passage of the stator and extending between the cylindrical portion of the stator and the bearing-support supporting portion of the stator.

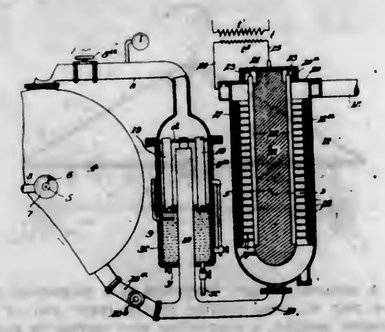
3. In combination with the stator of a turbine, a bearing-support for the turbine rotor, and a plurality of radial braces located within the interior of the stator and extending between the cylindrical portion of the stator and the bearing supporting end thereof.

4. In combination with the stator of a turbine, a bearing-support formed integrally with the exhaust end of the stator, and a sectional disk located within the exhaust chamber of the turbine and secured to the cylindrical portion of the stator and to the bearing-support.

5. In combination with the stator of a turbine, a bearing-support formed integrally with the exhaust end of the stator, means for bracing the bearing-support, comprising a substantially circular disk located within the exhaust chamber of the stator and rigidly locked to the cylindrical portion of the stator and to the bearing-support.

[Claims 6 to 9 not printed in the Gazette.]

1,243,524. METHOD AND APPARATUS FOR TREATING AIR. WILLIAM T. HOOPNAGLE, Glen Ridge, N. J. assignor to Electro-Chemical Products Company, New York, N. Y., a Corporation of New York. Filed May 25, 1915. Serial No. 30,338. (Cl. 204—31.)



1. In an apparatus for treating air, gases, etc., electrically, a reaction chamber, means for passing a current of the fluid to be treated therethrough, and means for adding water vapor to the current in excess of the amount required to saturate said fluid.

2. In an apparatus for treating air, gases, etc., electrically, a reaction chamber, means for passing a current of the fluid to be treated therethrough, at a pressure less than atmospheric pressure, and means for adding water vapor to the current.

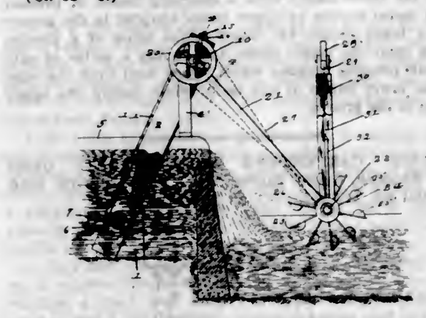
3. In an apparatus for treating air, gases, etc., electrically, a water chamber, a reaction chamber, and means for passing a current of the fluid to be treated through said chambers in succession at a pressure below atmospheric pressure.

4. In an apparatus for treating air, gases, etc., electrically, a reaction chamber, a water chamber, means for passing a current of the fluid to be treated through said chambers in succession, and means for shunting any desired part of the current past the water chamber.

5. In an apparatus for treating air, gases, etc., electrically, a water chamber, a reaction chamber communicating with the water chamber, exhaust mechanism connected to the reaction chamber, and means for restricting the flow of the fluid to be treated into the water chamber.

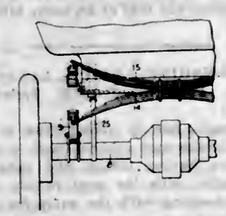
[Claims 6 to 13 not printed in the Gazette.]

1,243,525. FISH-SCREEN. THOMAS A. HOWARD, Murray, Utah. Filed Dec. 2, 1916. Serial No. 134,624. (Cl. 61—5.)



The combination with a main frame rising from the bottom of a waterway, of a continuous revolving screen mounted therein, a supplemental frame supported from the main frame, a paddle wheel mounted in the lower end of said supplemental frame, float means mounted on the outer ends of the paddles of the wheel, driving connections between the wheel and screen, and means for making said paddle wheel inoperative, said means consisting of a rectangular frame having a fulcrum mounted thereon and connected to a bail secured to the lower end of the supplemental frame, said fulcrum being capable of lifting the lower end of the supplemental frame carrying with it the paddle wheel.

1,243,526. SHOCK-ABSORBER. JAMES H. HUGHES and GEORGE J. WIEDERMAN, Lewistown, Mont. Filed Feb. 12, 1915. Serial No. 7,684. (Cl. 267—19.)



1. In a shock absorber, a pair of elliptical rear springs rigidly secured together at their center, a pair of elliptical springs at each side of the rear springs, yielding means connecting one end of each of said side elliptical springs to a corresponding end of the rear elliptical springs, said yielding means comprising a pair of U-shaped members each having the sides thereof passing beyond the bottom of the other U-shaped member and provided with cup-shaped recesses in said bottom faces, means connecting the branches of one of said members to the end of a side spring, similar means connecting the branches of the other U-shaped member to a corresponding end of a rear spring, and resilient means housed in the recesses in the bottoms of said U-shaped members, substantially as and for the purpose set forth.

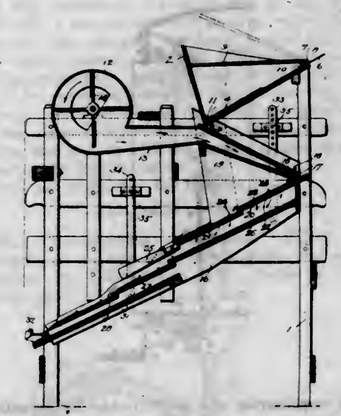
[Claim 2 not printed in the Gazette.]

1,243,527. DUPLEX MOLD-LINER FOR LINOTYPE-SLUG-CASTING MACHINES. DANIEL MORGAN JONES, Chattanooga, Tenn. Filed Feb. 2, 1916. Serial No. 75,633. (Cl. 199—58.)



The combination with a mold disk, of spaced supports carried by said disk, a mold mounted between said supports, screw-threaded bolts pivotally mounted in said supports, nuts provided on said bolts, a head secured to said bolts by said nuts, a plurality of liners having notched ends which engage said bolts and are secured between said mold and head by said nuts, a pin carried by said mold, and a plurality of longitudinally arranged apertures provided in one of said liners and having their centers spaced ¼ ems apart, said pins being adapted to engage either of said apertures.

1,243,528. GRAIN-SEPARATOR. PETER JORGENSON, Watertown, S. D. Filed Oct. 16, 1916. Serial No. 125,810. (Cl. 130—15.)



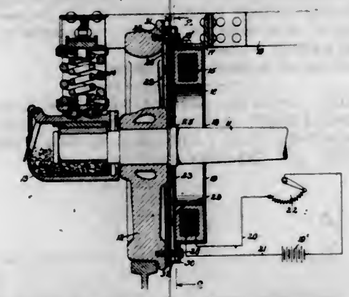
1. In a separator, an inclined screen, means for imparting a lateral vibratory movement to the screen, presser sheets resting upon the screen, and means connecting the presser sheets at their upper edges with the screen to admit of independent lateral movement between the presser sheets and screen.

2. In a separator, a screen, a plurality of transverse rods mounted upon the screen at intervals in its length, and spaced vertically therefrom, presser sheets of a less width than the screen resting thereon, and loops at the upper edges of the presser sheets engaging the said rods loosely to admit of relative independent lateral play between the screen and presser sheets.

1,243,529. MAGNETIC BRAKE. CHARLES KOCH, New York, N. Y. Filed Apr. 4, 1917. Serial No. 159,807. (Cl. 188—37.)

1. In a device of the character set forth, the combination of an electromagnet, a plate fixed thereto and ener-

gizable therefrom, a second plate adapted for relative rotation with respect to the first plate and movable toward and from the first plate, a rotary member, means to connect the latter plate for rotation with the rotary member to permit the movement thereof toward and from the mag-



netic plate, the movable plate having a series of holes formed through its periphery, a plurality of pins projecting through said holes, and a plurality of springs surrounding certain of said pins tending to hold the plates apart.

[Claim 2 not printed in the Gazette.]

1,243,530. AUTOMATIC LIGHTING SYSTEM FOR DOORWAYS. GEORGE B. KOHLER, Philadelphia, Pa., assignor to The J. G. Brill Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Nov. 23, 1914. Serial No. 873,611. (Cl. 246—28.)

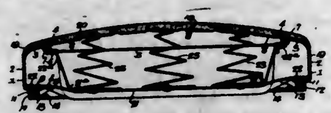


1. The combination of a door; means for actuating the door, said means consisting of a lever and a connecting rod; mechanism between the rod and the door; a lamp at the door; a signal lamp at the motorman's station; mechanism carried by the rod; and an electric circuit between said mechanism and the lamp at the door and the lamp at the motorman's station arranged so that either the lamp at the door or the lamp at the motorman's station can be placed in circuit.

[Claim 2 not printed in the Gazette.]

1,243,531. CAR-SEAT. GEORGE B. KOHLER, Philadelphia, Pa., assignor to The J. G. Brill Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed May 11, 1915. Serial No. 27,390. (Cl. 155—25.)

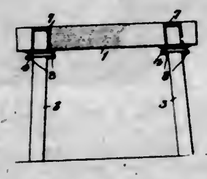
1. The combination in a seat structure, of a main frame made of pressed sheet metal and having an endless groove extending at each side and at each end; means carried by the frame for supporting a seat structure; a two-part clamping frame, each part having a side portion and end portions and having an upper flange arranged to extend into the groove of the main frame and retain the seat covering therein, and having a lower flange extending under the main frame, and having means for retaining it in position on the main frame.



2. The combination in a seat structure, of a main frame having a groove set back from the edge of said frame and having a lower internal flange; with a clamping frame having an upper flange arranged to extend into the groove and retain the seat covering therein, and having a lower flange extending under the internal flange of the main frame, the clamping frame, when in position, being flush with the body of the main frame.

3. The combination in a seat structure, of a main frame made of pressed sheet metal having an upper and a lower internal flange and having a groove in its outer surface near the lower edge; with a clamping frame of pressed sheet metal having an upper flange adapted to the groove and a lower flange, the lower flange being of a greater width than the upper flange and having a series of cuts therein forming tongues which, when bent over the edge of the lower flange of the main frame, retain the upper flange in the groove.

1,243,532. CARPENTER'S WORK-SUPPORT. GEORG F. KRIMMER, Grand Rapids, Wis. Filed Aug. 12, 1916. Serial No. 114,582. (Cl. 20—83.)



1. The combination with a beam, and supporting legs, of means for connecting said beam and legs including a yoke member to encircle the legs, stirrup members carried by the upper free ends of said legs to engage said yoke member to maintain the same in engagement with said leg and said beam.

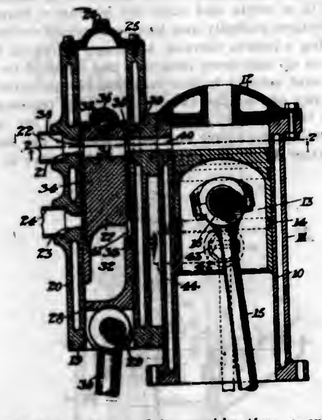
2. In a support, the combination of a beam, supporting legs therefor, a yoke member for engagement with said legs, said yoke member being engageable beneath said beam, stirrup members carried by the upper free ends of the legs for engagement with said yoke member to maintain the same in engagement with said beam, and wedge means insertible between the free ends of said legs and said beam to dispose the legs at an angle laterally relative said beam.

1,243,533. GAS-ENGINE. SAMUEL LAWSON, Croton-on-Hudson, N. Y. Filed Nov. 1, 1916. Serial No. 128,849. (Cl. 123—75.)

1. In a gas engine and in combination, a cylinder having a common intake and exhaust port, a piston in the cylinder, a valve having intake and exhaust passages adapted to register with the port in the cylinder, and unitary means co-acting with the valve for retarding the closing of the intake passage and also the exhaust passage therein.

2. In a gas engine and in combination, a cylinder having a common intake and exhaust port, a piston in the cylinder, a valve having intake and exhaust passages adapted to register with the port in the cylinder, and unitary means co-acting with and actuated by the movement

of the said valve for retarding the closing of the intake passage and also the exhaust passage therein.



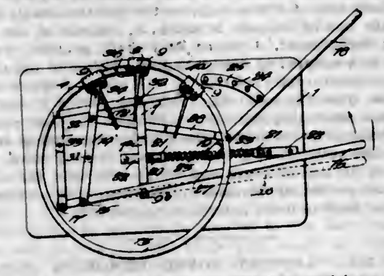
3. In a gas engine and in combination, a cylinder having a common intake and exhaust port, a piston in said cylinder, a valve case, a valve therein having intake and exhaust passages, and a sleeve coacting with the said valve to retard the closing of the intake passage and also the exhaust passage therein.

4. In a gas engine and in combination, a cylinder having a common intake and exhaust port, a piston in said cylinder, a valve case, a valve having a transverse passage and a longitudinal passage therein, a sleeve fitting over a portion of the said valve and having ports therein whereby the closing of the passages in the valve is retarded by the coaction of the sleeve with the valve.

5. In a gas engine and in combination, a cylinder having a common intake and exhaust port, a piston in said cylinder, a valve case, a valve having a transverse intake passage and a longitudinal exhaust passage and one end of the valve being of reduced diameter, and a sleeve fitting the reduced end of the valve and provided with intake and exhaust ports and coacting with the valve to retard the closing of the intake and exhaust passages therein.

[Claims 6 and 7 not printed in the Gazette.]

1,243,534. TIRE-REMOVER. ALBERT LEW, Baker, Oreg. Filed June 3, 1915. Serial No. 31,920. (Cl. 157—1.)



1. A device of the character specified, comprising a base, a pair of clamps, one of which is rigidly connected with the base, an arm connected at its upper end with the other clamp, a lever pivoted to the base and connected to the arm intermediate the ends of the lever for moving the clamp downward, a second lever, a connection between the said lever and the arm for swinging the clamp toward the first-named clamp, said second lever having a pivotal mounting, and the pivotal mounting being mounted to yield with respect to the base.

3. In a machine for contracting and expanding a split rim, means for securing the rim upon one side of the split, a clamp engaging the rim upon the opposite side of the split, means for moving the clamp inward to disalign the ends of the rim, and other means for moving the clamp toward the rim securing means to contract the rim.

[Claims 2 and 4 not printed in the Gazette.]

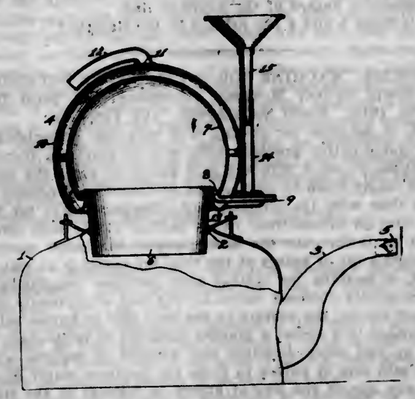
1,243,535. MESSAGE-TRANSMITTING DEVICE FOR RAILWAYS. JAMES R. LITTLE, Moline, Ill., assignor of one-half to George W. Bland, Watertown, Ill. Filed Dec. 28, 1915. Serial No. 69,040. (Cl. 200—1.)



2. In a device of the class described, a base plate having a central aperture therein, a disk having a central aperture therein, an offset hub portion formed centrally of the disk and secured to the base plate, the opening in the hub portion and disk being of greater diameter than the opening in the base plate, a plurality of radiating spring fingers secured to the under side of the disk, a plurality of studs extending upwardly from the outer ends of the spring fingers, the upper ends of said studs being provided with inclined faces, a band of insulating material surrounding the disk, a plurality of radiating contact fingers secured to said band, downturned contact points at the ends of said fingers adapted to normally engage the spring fingers, a shaft rotatably mounted within the aperture in the base plate, a hub formed on the shaft and fitting in the enlarged opening in the disk, the lower end of the hub engaging the inner face of the base plate, a dial secured to the outer face of the disk and provided with a central aperture through which the shaft extends, the hub engaging the inner face of the dial to hold the shaft against accidental longitudinal movement within the openings, a hand secured to the outer end of the shaft for movement over the face of the dial, whereby when the shaft is rotated the hand will progressively engage the studs to move the spring fingers downwardly away from engagement with the contact fingers and means for securing the dial in place.

[Claim 1 not printed in the Gazette.]

1,243,536. CONDENSER. FREDERICK HIRAM LULL, Patchogue, N. Y., and EDWARD CHARLES WANNER, San Francisco, Cal. Filed Jan. 4, 1917. Serial No. 140,529. (Cl. 205—5.)



A condenser attachment for tea kettle or the like, comprising a tubular member forming the bottom part of the

condenser, a casing over the tubular member and connected with the top edge of the latter by a compound fold whereby an annular gutter is formed in the bottom of the casing and around the member, a jacket surrounding the casing, and separate tubes for the inlet and outlet of water going through the jacket, the outlet of the casing passing through one of the tubes.

1,243,537. TRANSMISSION CHAIN OR BELT. JOHN LYNN, Alice, Tex. Filed Aug. 26, 1916. Serial No. 116,973. (Cl. 74—64.)



1. A transmission chain including a plurality of links provided with spring fingers thereon to give a flexible yielding contact with surfaces of driving and driven members, the said fingers being disposed at the inner face of the chain within the side edges thereof to constitute the working face of the chain against the drive and driven members, said fingers being disposed lengthwise with respect to the chain links to flex radially relatively to a pulley.

2. A transmission chain including a plurality of connected links provided with resilient fingers disposed longitudinally at the inner side of the chain to constitute the working face thereof, and transverse pins to which the fingers are secured at one end thereof, the said fingers extending lengthwise of the chain so that the free ends thereof will flex toward and from the inner side of the chain links.

5. A transmission chain comprising a plurality of links provided with spring fingers integral therewith at opposite transverse edges, the fingers being return bent at the inner side of the links, and transverse pins passing through the adjacent bends of adjacent links, the fingers on the same link being in staggered relation so that the fingers at one edge are received between the fingers at the opposite edge.

6. A transmission chain comprising a plurality of links provided with spring fingers integral therewith at opposite transverse edges, the fingers being return bent at the inner side of the links, and transverse pins passing through the adjacent bends of adjacent links, the fingers on the same link being in staggered relation so that the fingers at one edge are received between the fingers at the opposite edge, the corresponding fingers on adjacent links being disposed in parallel inclined planes, and the terminals of the said parallel inclined fingers on one link alining and terminating adjacent to the bases of the corresponding fingers of the adjacent link.

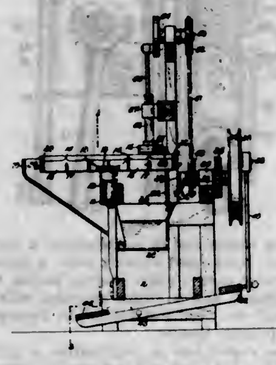
[Claims 3 and 4 not printed in the Gazette.]

1,243,538. MACHINE FOR CUTTING SEED-POTATOES. EDWIN STUART MATTHEWS, Allentown, Pa. Filed Dec. 26, 1916. Serial No. 138,801. (Cl. 146—7.)

1. A machine for cutting seed potatoes, comprising a revoluble cutter provided with sets of knives, a plunger adapted to coact with the said knives to press the potatoes singly down on any one set of knives in alinement at the time with the plunger, and actuating means for imparting an intermittent rotary motion to the said cutter and to reciprocate the said plunger, the latter moving toward a set of knives at the time the cutter is at rest.

2. A machine for cutting seed potatoes, comprising a horizontally disposed cutter having sets of vertically disposed knives, the centers of the said sets of knives being arranged in a circle, a plunger mounted to reciprocate in an up and down direction and adapted to register with the said sets of knives to press the potatoes singly down on any one of the sets of knives in register at the time with the plunger, and actuating means for intermittently rotating the cutter and reciprocating the said plunger, the latter descending at the time the cutter is at rest.

3. A machine for cutting seed potatoes, comprising a horizontally disposed cutter having sets of vertically disposed knives, the centers of the said sets of knives being arranged in a circle and each set having a plurality of knives arranged radially and having a raised central point for impaling a potato thereon, a plunger mounted to reciprocate in an up and down direction and adapted to register with the said sets of knives to press the potatoes singly down on any one of the sets of knives in register at the time with the plunger, and actuating means for intermittently rotating the cutter and reciprocating the said plunger, the latter descending at the time the cutter is at rest.



4. A machine for cutting seed potatoes, comprising a horizontally disposed cutter having sets of vertically disposed knives, the centers of the said sets of knives being arranged in a circle, a plunger mounted to reciprocate in an up and down direction and adapted to register with the said sets of knives to press the potatoes singly down on any one of the sets of knives in register at the time with the plunger, a driven cam shaft provided with a cam arm adapted to engage the said cutter to impart an intermittent rotary motion to the same, a crank shaft driven from the said cam shaft and having a crank, and a pitman connecting the said crank with the said plunger to reciprocate the latter, the plunger descending at the time the cutter is at a standstill.

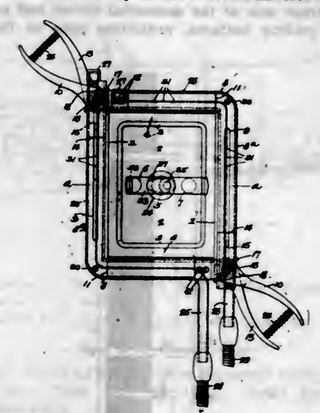
5. A machine for cutting seed potatoes, comprising a horizontally disposed cutter having sets of vertically disposed knives, the centers of the said sets of knives being arranged in a circle, a plunger mounted to reciprocate in an up and down direction and adapted to register with the said sets of knives to press the potatoes singly down on any one of the sets of knives in register at the time with the plunger, a driven cam shaft provided with a cam arm adapted to engage the said cutter to impart an intermittent rotary motion to the same, a crank shaft driven from the said cam shaft and having a crank, a pitman connecting the said crank with the said plunger to reciprocate the latter, the plunger descending at the time the cutter is at a standstill, and locking means controlled by the said cam and adapted to hold the cutter against accidental movement during its period of rest.

[Claims 6 to 9 not printed in the Gazette.]

1,243,539. BATTERY-COVER-REMOVING DEVICE. MARTIN MELIA, Philadelphia, Pa., assignor to Commercial Truck Company of America, Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 1, 1915. Serial No. 37,616. (Cl. 29—84.)

2. The combination of a frame consisting of two members each bent at right angles; means movably connecting said members at their ends to define a substantially rectangular figure; and two sets of coacting handles respectively connected to said frame members adjacent their points of connection.

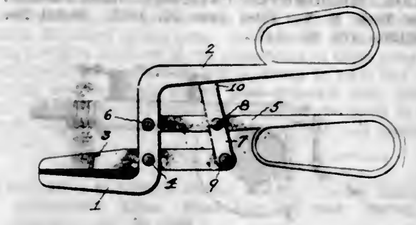
6. The combination of a frame consisting of two members each of substantially right-angular form and each including a longitudinally adjustable end section; with means for pivotally connecting said adjustable portion of each member to the body of the other member.



8. The combination of a tubular stem having an open gripping frame at one end; a rod slidably mounted in said stem and having a cross member forming a hand grip operative within said frame; with coacting jaws respectively projecting from said stem and said rod and extending substantially parallel to each other.

[Claims 1, 3, 4, 6, and 7 not printed in the Gazette.]

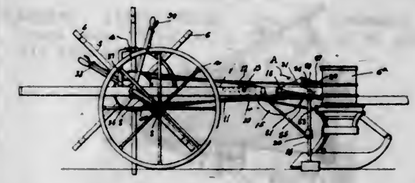
1,243,540. SHEARS. HUGH W. MILLER, Princeton, Ind. Filed Nov. 1, 1916. Serial No. 128,934. (Cl. 30—13.)



Shears comprising a lower blade having a cutting edge, a handle arranged above the blade and extending in an opposite direction therefrom, a portion which connects the blade and handle and is disposed substantially at right angles to them, a straight blade pivoted intermediate its ends to the connecting part aforesaid and disposed above the first-named blade, with its cutting edge arranged to coöperate with the cutting edge of the first-named blade to said straight blade and being arranged substantially parallel to the handle first-named, another handle pivoted to the connecting portion at a point above the pivot of the straight blade and extending substantially parallel to the handle first-named, and a link whose lower end is pivoted to the rearward extension of the straight blade and whose middle portion is pivoted to the last-named handle and having its end projecting above the upper edge of the second handle and serving as a stop for the first-named handle to limit the closing of the shears, the straight blade and the second handle being adapted to engage to limit the opening of the blades, the aforesaid handles being disposed above the cutting edges of the blades, whereby there is provided clearance to permit free working of the handles when cutting the material.

1,243,541. CORN-PLANTER. RAY N. MOORE, Ames, Iowa. Filed Nov. 11, 1916. Serial No. 130,830. (Cl. 111—16.)

1. In a corn planter structure, the combination, of a supporting frame, a seed dispensing mechanism carried by said supporting frame, an arch axle, supporting wheels mounted upon the spindle ends of said arch axle, a drive wheel rotatably mounted upon the arch of said axle, and means operated by the rotation of said drive wheel for operating said seed dispensing mechanism.



2. In a corn planter structure, the combination, of a supporting frame, a seed dispensing mechanism carried by said supporting frame, an arch axle, supporting wheels mounted upon the spindle ends of said arch axle, a drive wheel rotatably mounted upon the arch of said axle, means operative by the rotation of said drive wheel for operating said seed dispensing mechanism, and means for manually rotating said drive wheel and operating said seed dispensing mechanism independent of forward movement of the supporting frame.

3. In a corn planter structure, the combination, of a supporting frame, a seed dispensing mechanism carried by said supporting frame, an arch axle, supporting wheels mounted upon the spindle ends of said arch axle, a sleeve rotatably mounted upon the arch of said axle, a drive wheel rotatably mounted upon said sleeve, clutch means for controlling the rotation of said sleeve by the rotation of said drive wheel, and means operated by the rotation of said sleeve for operating said seed dispensing mechanism.

4. In a corn planter structure, the combination, of a supporting frame, a seed dispensing mechanism carried by said supporting frame, an arch axle rotatably carried by said supporting frame, supporting wheels mounted upon the spindle ends of said arch axle, a drive wheel rotatably mounted upon the arch of said axle, means operatively connecting said drive wheel and said seed dispensing mechanism for operating the seed dispensing mechanism by the rotation of the drive wheel, a lever carried by said supporting structure and connected to the arch axle, whereby the arch axle may be rocked to raise or lower the rear end of the supporting frame.

5. In a corn planter structure, the combination, of a supporting frame, a seed dispensing mechanism carried by said supporting frame, an arch axle rotatably carried by said supporting frame, supporting wheels mounted upon the spindle ends of said arch axle, a drive wheel rotatably mounted upon the arch of said axle, means operatively connecting said drive wheel and said seed dispensing mechanism for operating the seed dispensing mechanism by the rotation of the drive wheel, a lever pivotally carried by said supporting structure and connected to said arch axle for rocking the arch axle for raising or lowering the rear end of the supporting frame with respect to the ground, and means for manually rotating said drive wheel and operating said seed dispensing mechanism independent of forward movement of the supporting frame.

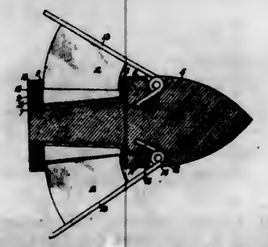
[Claims 6 and 7 not printed in the Gazette.]

1,243,542. PROJECTILE. WILLIAM ROBBERT MOORE, Fayetteville, Ark. Filed Feb. 15, 1917. Serial No. 148,739. (Cl. 102—26.)

1. A projectile having an opening in its side, a spool journaled in bearings in the opening, a wing wound on the spool, an arm to which the wing is secured, and means to move the arm outwardly to spread the wing.

4. A projectile having a plurality of openings in its side and a plurality of openings in its rear one of which extends to each of the first openings, bearings one at the front of each of the first mentioned openings, plugs for

closing the second mentioned openings and each having a bearing in alinement with one of the first mentioned bearings, spools journaled in the bearings, wings wound one on each of the spools, and resiliently held arms to which the wings are secured.



5. A projectile having an opening in its side, an arm pivoted at its forward end to the forward end of the projectile, a wing disposed in the opening in the projectile and secured to the arm to be moved outwardly thereby, and means connected with the projectile in the breech of a gun which serves to hold the rear of the arm close to the projectile, the arm being freed to move outwardly when the projectile is fired, thereby severing the connection between the means and the arm.

[Claims 2, 3, 6, and 7 not printed in the Gazette.]

1,243,543. DIE AND DIE-STOCK. MYLES F. MORAN, Lynn, Mass. Filed June 30, 1915. Serial No. 37,854. (Cl. 10—124.)



1. A compound metal working tool comprising a long, smooth, cylindrical head, internally screw threaded at its ends and having a longitudinal aperture, the wall of said aperture presenting a plurality of inwardly projecting thread cutters and extended guiding ribs adapted to engage the material to be threaded and spaced apart to form holding means for a tool chuck, and means for frictionally engaging the smooth central portion of said head to rotate the same.

5. A compound tool comprising a head formed of a plurality of sections hinged together each having an inwardly extending thread cutter, means for detachably connecting the ends of said sections and an actuator comprising a handle and a plurality of flexibly connected members adapted to embrace said head and to rotate the same when moved in one direction and to release the same when moved in the opposite direction.

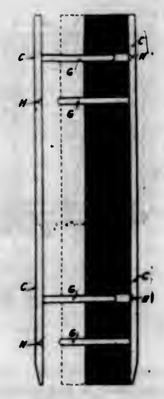
14. A thread cutting head for a compound tool consisting of three longitudinal sections hinged together each of said sections being provided at one end with a screw cutting member and at the opposite end with ribs adapted to form guides for the article to be screw threaded and to form holding means for a tool chuck, said head being externally screw threaded at its ends to receive accessory members substantially as described.

[Claims 2 to 4 and 6 to 13 not printed in the Gazette.]

1,243,544. LOOSE-LEAF BOOK. JOHN MURRAY, Edinburgh, Scotland. Filed Mar. 2, 1917. Serial No. 152,031. (Cl. 129—8.)

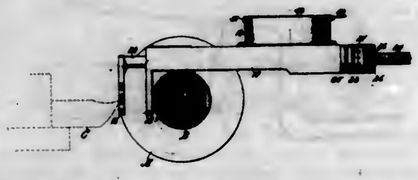
1. A "loose-leaf" book device comprising a cover the back of which is of sufficiently rigid construction to serve as a guide, guiding surfaces on either internal side thereof, rails one on either side of the assembled leaves and coacting with the guiding surfaces, projecting pins on the rails engaging apertures in the loose leaves, and means to limit the travel of the rails in the back and to determine the width between the rails, as set forth.

2. A "loose leaf" book device comprising a cover the back of which is of sufficiently rigid construction to serve as a guide, guiding surfaces on either internal side thereof, rails on either side of the assembled leaves and coacting with the guiding surfaces, projecting pins on the rails



engaging apertures in the loose leaves, filler blocks at the opposite ends of the back, one of said blocks being larger than the other and extending into the guide ways to close the latter at one end of the back, and recesses in each rail into which the outer ends of the pins butt as set forth.

1,243,545. MICROMETRIC CALIPERS. BASIL NEFFDOV, New York, N. Y. Filed June 27, 1916. Serial No. 106,126. (Cl. 33—147.)



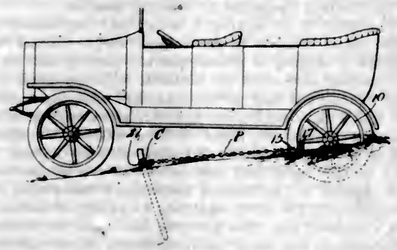
1. An implement as characterized comprising a plurality of co-extensive members slidably connected; a plurality of contact jaws, one of said jaws being mounted rigidly on each of said members at the adjacent ends thereof; manually operated means for spreading said jaws, said means embodying calibrations, the initial index whereof corresponds with the total thickness of said jaws; yielding means normally expanding said jaws a predetermined extent in excess of the indication of said calibrations; and automatic means for detecting the movement of said jaws when compressing said yielding means, said means embodying a movement-multiplying lever, the short end whereof is operatively connected with one of said members, the other end whereof is visible in cooperation with said calibrations.

[Claims 2 and 3 not printed in the Gazette.]

1,243,546. VEHICLE-WHEEL PULLING-JACK. FREDERICK S. PATTISON, Merritton, Ontario, Canada. Filed Nov. 10, 1916. Serial No. 130,613. (Cl. 21—114.)

1. A device as specified, including the combination of a flexible body, means for connecting one end thereof to a wheel, a stake having spaced arms, and a U-shaped hook member carried by the opposite end of said flexible member to engage said stake.

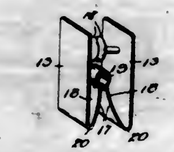
2. In a device as specified, the combination with a flexible body, of a pair of oppositely extending strap members carried by one end of said body to attach the same to a vehicle wheel, a stake having a pair of spaced arms on one end thereof, and a connecting member carried by the free end of said flexible body comprising



spaced parallel arms formed with hooks for engagement with the arms of said stake.

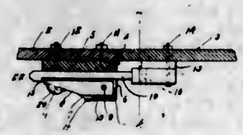
[Claims 3 and 4 not printed in the Gazette.]

1,243,547. CUFF-LINK. GUSTAF SANDFRID PAULI, Greensburg, Pa. Filed Mar. 19, 1915. Serial No. 15,458. (Cl. 24—102.)



A cuff button comprising a body of resilient sheet metal attenuated at its intermediate part, bent at its middle to form divergent spring arms, the material of the body being abruptly recurved at the extremities of these arms and outwardly of said attenuated portions, to form cuff confining members, and headed stud elements upon the inner sides of the cuff confining members, the parts in said body being under tension tending to bear said studs together.

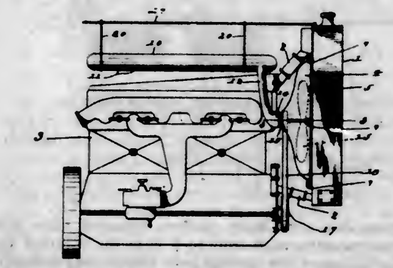
1,243,548. SLIDING-DOOR LOCK. JACOB PEARSON, Minneapolis, Minn. Filed July 29, 1916. Serial No. 112,141. (Cl. 70—102.)



1. A lock comprising a casing, a bolt extending into said casing, a catch pivoted within the casing, a plate secured to the pivoted end of the catch, a spring connected to said plate, a transverse strip secured to the casing and to the spring for causing the spring to urge the free end of the catch into engagement with the bolt.

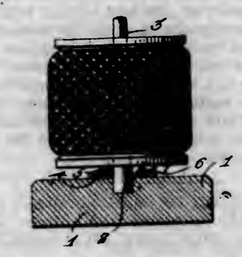
2. A lock comprising a casing consisting of a bottom wall and a pair of side walls, said side walls having their forward ends inclined from a point intermediate their ends in the direction of their forward ends, a locking bolt received between the side walls and overlying the bottom wall and having its forward end projecting beyond the walls, a lug formed on the forward end of said bolt, a catch pivoted between the side walls at a point adjacent the rear end, said catch having its forward end reduced and adapted to engage the lug upon the locking bolt, a strip connected to the edges of the side walls adjacent the rear ends and adapted to overlie the catch for limiting the outward movement of the free end thereof from the side walls, a plate secured to the pivoted end of the catch and projecting beyond the catch and terminating in a plane with the strip, and a coiled spring connected to the plate and to the strip for normally urging the free end of the catch into engagement with the lug upon the locking bolt.

1,243,549. AUTOMOBILE. OTTO W. PETERSON, Bertrand, Nebr. Filed Dec. 2, 1916. Serial No. 134,587. (Cl. 123—171.)



In a system of the character described, the combination with an engine and radiator therefor, of means for concentrating and distributing cool air to said engine, said means consisting of an air collecting chamber having a peripheral flange with openings therein adapted to engage studs carried by said radiator, binding nuts engaging said studs for detachably securing the chamber to the radiator, a fan mounted on a shaft journaled in said chamber, said fan having connection with the engine, a pair of outlets in the rear of said chamber, a distributing cylinder disposed above the engine and having outlets in its under side, and air ducts leading from said cylinder and engaging the outlets in said chamber, said fan drawing the currents of air through the radiator and forcing the same through the air ducts and out the outlets in said distributing cylinder directly upon the engine, substantially as described.

1,243,550. SPOOL-HOLDER. WENZEL POPELKA, Cincinnati, Ohio. Filed Mar. 30, 1917. Serial No. 158,664. (Cl. 242—130.)



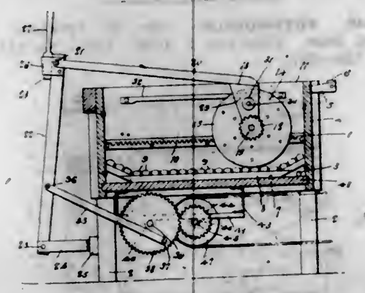
1. A spool holder comprising a relatively heavy base, a spindle secured centrally of the base and extending upwardly therefrom, a ring surrounding the spindle adjacent its lower end and extending upwardly and outwardly therefrom, and a flange on the ring bent downward and outwardly so that its free edge engages the upper side of the base, the point of juncture of the flange with the ring forming a reduced annular bearing member, as and for the purpose specified.

[Claim 2 not printed in the Gazette.]

1,243,551. WASHING-MACHINE. AUGUST C. PRECHEL, Cottonwood, Minn., assignor of one-half to Theodore B. Seifert, Cottonwood, Minn. Filed Feb. 16, 1917. Serial No. 148,994. (Cl. 68—28.)

1. In a washing machine structure, a retaining receptacle, a floating rubbing board positioned within said re-

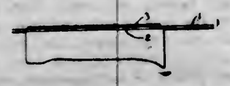
ceptacle, a pair of rack bars attached to the sides of said receptacle and extending longitudinally therealong, a rubber positioned within said receptacle and including a shaft, a pair of end plates mounted upon said shaft, a plurality of radially extending rubbing plates carried by said



end plates and said shaft, pinions mounted upon said shaft and meshing with said rack bars for rotating the rubber, and means for moving said rubber longitudinally over said rubbing board.

[Claim 2 not printed in the Gazette.]

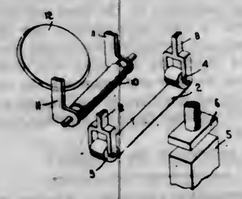
1,243,552. METHOD OF MAKING GOLD OR OTHER METAL LEAF IMPRESSIONS. FRED A. PUTNAM, Melrose, Mass. Filed June 1, 1915. Serial No. 31,503. (Cl. 41—7.)



1. The method of making a gold-leaf impression on unsized material which consists in applying gold leaf directly to the unsized material, applying a coating of sizing to a heated die member and then pressing the die member against the gold leaf whereby the sizing will penetrate the gold leaf and cause the portion of the latter against which the die member acts to adhere to the material.

2. The method of making a gold leaf impression on material to which no sizing has been applied, which consists in providing a sheet of gold leaf secured to a backing of porous paper, placing said sheet on the unsized surface of the material with the gold leaf resting against the face of the material and the paper backing exposed, applying a coating of sizing to a heated die member and then pressing the die member against the paper backing whereby the sizing will penetrate the backing and gold leaf and cause the portion of the gold leaf against which the die member acts to adhere to the unsized material.

1,243,553. METHOD OF MAKING GOLD OR OTHER METAL LEAF IMPRESSIONS. FRED A. PUTNAM, Melrose, Mass. Filed June 1, 1917. Serial No. 172,228. (Cl. 41—7.)

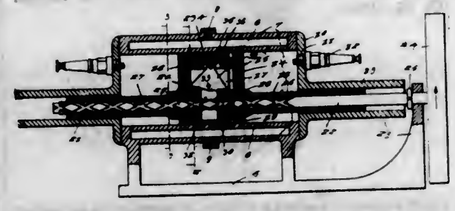


1. The method of making a metal leaf impression on material which consists in applying metal leaf directly to unsized material, applying a coating of sizing to a heated die member, pressing the sized die member against the metal leaf thereby to cause the portion of the latter which is subjected to the pressure of the die member to adhere to the material, withdrawing said die member, applying a second coating of sizing thereto, and then again pressing the sized die member against the metal leaf impression made by the first operation of said die member.

3. The method of making a metal leaf impression on material which consists in providing a strip of metal leaf secured to a backing of porous plaster, placing said strip on the unsized surface of the material with the metal leaf resting against the face of the material, applying a coating of sizing to a heated die member, pressing said sized die member against the paper backing whereby the sizing will penetrate the backing and metal leaf and causing the portion of the metal leaf against which the die member acts to adhere to the unsized material, withdrawing the die member and the strip, applying a coating of sizing to said die member and then pressing the sized die member directly against the metal leaf impression on the material thereby to burnish it.

[Claim 2 not printed in the Gazette.]

1,243,554. ENGINE. AXEL V. RASMUSSEN, Detroit, Mich. Filed Nov. 18, 1916. Serial No. 132,030. (Cl. 121—45.)



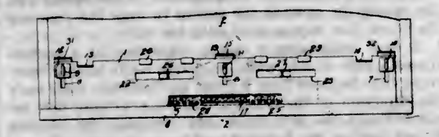
1. In an engine, a cylinder, a piston reciprocably mounted therein, an engine shaft extending through the piston and disposed eccentrically thereto, and means for transmitting movement of the piston to the shaft.

8. In an engine, a cylinder, a piston reciprocably mounted therein, a shaft extending through the piston and cylinder and having oppositely pitched spiral grooves therein, internally screw threaded sleeves fitted in the shaft and movable with the piston, and a single pawl pivotally supported in the piston and capable of alternately locking the sleeves against rotation.

9. An engine including a cylinder, a piston reciprocably mounted therein, a shaft extending through the piston and cylinder and having oppositely pitched spiral grooves therein, internally screw threaded sleeves fitted upon the shaft and movable with the piston, a pawl for alternately locking the sleeves against rotation, and means having sliding contact with the wall of the cylinder for automatically shifting the pawl.

[Claims 2 to 7 and 10 not printed in the Gazette.]

1,243,555. ADJUSTABLE ENTRANCE-GATE FOR BEE-HIVES. MARION E. REISINGER, Albion, Iowa. Filed Aug. 12, 1916. Serial No. 114,572. (Cl. 6—4.)



1. An entrance gate for beehives comprising a main gate having a front opening formed therethrough, slides arranged in conjunction with said main gate to adjust the length of the passage permitted through the opening thereof, an entrance guard constructed to be adjusted with respect to the main gate member to vary the height of the opening made therethrough, and means to mount the main gate member in the proper relation with respect to the entrance to the hive and to hold the remaining parts in their adjusted mounting.

2. An adjustable entrance gate for beehives comprising a main gate member having an entrance opening provided therein, perforated slides mounted in conjunction with said main gate to be capable of sliding movement to throw perforated portions of said slides before the entrance opening of the gate to vary the vertical and longitudinal dimensions of the entrance opening, and means to secure said main gate in proper positioning before the entrance of a beehive and to hold said perforated slides in desired adjustment with respect to the main gate.

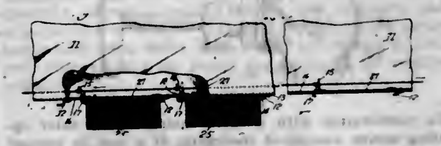
3. An entrance gate for beehives comprising a main gate member, said main gate member provided with an entrance opening formed at one edge thereof, an entrance guard adapted to be adjustably mounted adjacent to said entrance opening of the main gate provided with a relatively smaller entrance opening to give a comparatively low entrance when the guard is adjusted in its extreme closed position, excluder gages arranged in conjunction with the main gate to give a predetermined height of adjustment to permit fitting of this main gate to give an entrance opening substantially identical in height with the entrance opening to the guard, and means to mount said main gate and entrance guard upon a hive in the proper fitted positions and to allow adjustment of the parts.

4. An adjustable entrance gate for beehives comprising a main gate member provided with an entrance opening located centrally in the lower edge thereof, said main gate having vertically extending slotted openings formed therethrough at spaced apart points and provided with longitudinally extending slotted openings arranged on each side of the longitudinal center, an entrance guard arranged to be mounted against said main gate adjacent to the entrance opening therethrough and provided with a slotted opening, perforated slides mounted against the main gate with portions thereof fitted over said gate to hold the slides in the proper relation and with finger catches extended through the longitudinally extending slotted openings to allow adjustment of the perforated slides, and means extended through the vertically disposed slotted openings of the main gate and through the slotted openings of the entrance guard to mount the parts in the proper relation upon a beehive and to permit securement of the parts in adjusted relation.

5. An adjustable entrance gate for beehives comprising a main gate member provided with an entrance opening located centrally in the lower edge thereof, said main gate having vertically extending slotted openings formed therethrough at spaced apart points and provided with longitudinally extending spaced apart slotted openings on each side of the center, an entrance guard arranged to be mounted against the gate adjacent to the entrance opening therethrough and provided with a slotted opening, perforated slides mounted against the main gate with portions thereof fitted over said gate to hold the slides in the proper relation and with finger catches extended through the longitudinally extending slotted openings to allow adjustment of the perforated slides, means extended through the vertically disposed slotted openings of the main gate and through the slotted openings of the entrance guard to mount the parts in the proper relation upon a beehive and to permit securement of the parts in adjusted relation, said entrance guard and slides provided with perforations in those portions which close within the entrance opening of the main gate to thus give free ventilation to the hive, and excluder gages arranged in conjunction with the main gate to allow ready adjustment to be made of the parts to leave a passage for the worker bees and to sufficiently constrict the entrance opening that the drones will be excluded from the hive.

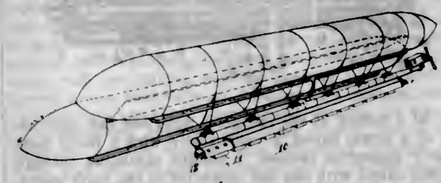
1,243,556. CARGO STRUCTURE FOR AERIAL CRAFT. JOHN J. REYNOLDS and ARTHUR H. JENKINS, Ruleville, Miss. Filed July 21, 1916. Serial No. 110,527. (Cl. 244—1.)

1. In an air craft, a superstructure including a floor, a plurality of cargo carrying chambers having upper sides disposed to engage snugly the superstructure and respective door members set in said floor over the chambers constructed to open for access to the chambers from within said superstructure, releasable means to hold said chambers in rigid relation upon the superstructure, and means to release said last named means.



2. A device of the character described comprising a support, a plurality of rest elements upon the underside thereof projected in a given direction, a corresponding number of lever elements having portions projected in an opposite direction to that first mentioned for coöperation with said rests, containers having portions adapted to rest upon said rests and said projected portions of the levers, said levers having arms extended in a common direction, an operating element engaged slidably through said arms, and strike elements on said operating member to engage said levers under movement in one direction for simultaneous operation of the levers.

1,243,557. AIR-PRESSURE-MAINTENANCE CHAMBER FOR AIRCRAFT. JOHN J. REYNOLDS, Rantoul, Ill. Filed Jan. 31, 1917. Serial No. 145,718. (Cl. 244—3.)

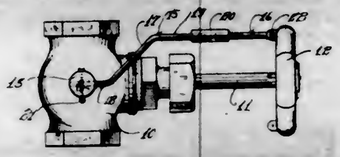


1. In an aero-craft, an air-tight living chamber, means to force air thereinto, an outlet opening being formed in said chamber, a valve positioned and movable to close said opening, a static pressure retaining chamber having a pressure-operated element associated therewith in a relation to be moved under variations of external pressure, and connections between said pressure operated element and said valve.

2. In an aero-craft, a living chamber constructed to retain air under pressure, means to force air thereinto, a vent device therefor comprising a valve device having opposed seats, a valve movable therebetween, openings being formed therethrough to form communications between the interior of said living chamber and the atmosphere, a valve movable between said seats for alternate seating engagement therewith, a pressure retaining chamber within the first named chamber including a movable element operative under variations in the pressure in the living chamber, and connections between said movable element last named and said valve operative to close said valve upon the inner of said seats when pressure in the living chamber is below that in the pressure retaining device, for the purposes described.

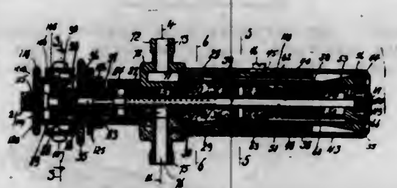
3. In a device of the character described, a living chamber having a vent opening, a valve outwardly thereof adapted to close said opening under inward movement, a pressure retaining device having expansive fluid under pressure therein including a member movable under influence of unbalanced pressures within and without said pressure retaining device, a lever mounted with a portion movable inwardly of said opening in line with the axis of the opening, and being connected to the valve, said lever being also connected with said movable member of the pressure retaining device for movement under expansion of said gas to close said valve.

1,243,558. VALVE-LOCK. THOMAS B. RYAN, New Bedford, Mass. Filed Aug. 4, 1914. Serial No. 854,981. (Cl. 137—4.)



In combination with a valve casing and a valve operating means associated therewith, of a lock to prevent said operating means from movement comprising a pair of rods, one of the same being detachably secured to the valve casing, the other thereof detachably secured to the operating means, and means for connecting said rods, said connecting means being adapted to move one of said rods relatively to the other when either one of the rods is disconnected from its respective casing or operating means.

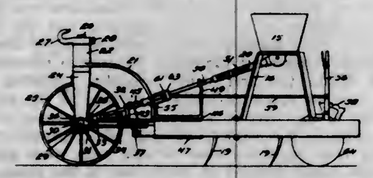
1,243,559. HYDROCARBON-BURNER. RAPPEL SCHAWROWSKY, Bayonne, N. J. Filed May 19, 1916. Serial No. 98,493. (Cl. 158—75.)



1. In a burner of the character described the combination of a steam barrel, a valve sleeve with a flared head slidably supported thereon, a spindle extending through the said barrel with one end connected to the valve sleeve, an adjusting collar connected to the other end of said spindle, an outer oil nozzle concentric with said valve sleeve, a second adjusting collar, connections between the second collar and said nozzle, a separator sleeve between said valve sleeve and said nozzle and means to move said adjusting collars simultaneously.

[Claims 2 to 5 not printed in the Gazette.]

1,243,560. GRAIN-DRILL. ALLEN R. SHAFFER, Holbrook, Nebr. Filed June 6, 1917. Serial No. 173,195. (Cl. 111—52.)



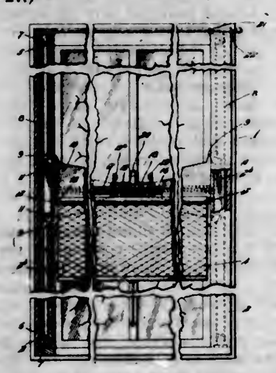
1. In a grain drill, a frame structure, a seed box mounted thereon, an operating shaft, a vertically disposed fork having an upwardly extending spindle, a bearing for said spindle, a ground wheel carried by the fork, an axle for the ground wheel extending through the limbs of the yoke, a yoke mounted on the axle, an arcuate guide for said yoke mounted on the frame of the machine, means for rocking the yoke with respect to the guide, said means including a catch and a spring actuated operating rod for the same, means for transmitting motion from the axle to the operating shaft, said means including a driving shaft and a spring actuated transmission shaft, and means for retracting the spring actuated transmission shaft and a spring actuated catch operating rod, said means including a hand lever, a connecting rod having apertured lugs engaging the transmission shaft and the catch operating rod, and stop members on said shaft and rod, said stop members being so arranged that the transmission shaft will be retracted previous to the retraction of the catch operating rod.

3. In a grain drill, a supporting frame, a seed box mounted thereon, a tubular operating shaft, a transmission shaft telescoping in the operating shaft and rotatable therewith, a spring in the tubular operating shaft whereby the transmission shaft is projected, a ground wheel, and a driving shaft actuated thereby, said driving shaft and transmission shaft having meeting ends provided with ratchet clutches, one of said shafts being provided with a centering pin and the other with a socket engaged thereby, one of said shafts being also provided with a flaring sleeve for the reception of the meeting end of the other shaft.

5. In a grain drill, a supporting frame, a seed box mounted thereon, a tubular operating shaft, a vertically disposed fork having an upwardly extending spindle, an arch mounted on the frame and having a bearing for the spindle, a clevis forming a draft lever fixed on the spindle, a ground wheel carried by the fork, an axle for the ground wheel extending through the limbs of the fork, a yoke the limbs of which have bearings engaging the axle, a bearing member fixed on the yoke, a driving shaft supported thereby, interengaging bevel gears on the driving shaft and the axle, an arcuate guide supported on the frame and having a groove receiving the yoke, the latter being provided with a notch, a catch pivoted on the guide for engagement with the notch, a spring actuated operating rod for the catch, a transmission shaft telescoping in the tubular operating shaft, and a projecting spring for the transmission shaft whereby it is projected in the direction of the driving shaft, the meeting ends of the transmission shaft and the driving shaft being provided with interengaging ratchet clutch members.

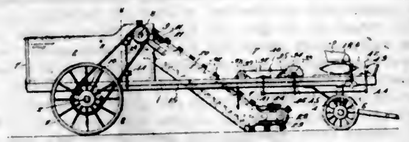
[Claims 2, 4, and 6 not printed in the Gazette.]

1,243,561. SHADE-ROLLER. RICHARD W. SHERRILL, Landis, N. C. Filed June 28, 1916. Serial No. 106,416. (Cl. 156—27.)



The combination of two spaced parallel casings each provided with a longitudinally extending series of teeth, the teeth of one casing being directed upward and the teeth of the other casing being directed downward, a head slidably mounted between said casings, independent oppositely directed rods slidably mounted in the head and extending transversely of the same so as to engage the teeth of said casings when extended, and means for normally holding said rods in extended position, said means being resilient whereby inward movement of the rods is permitted.

1,243,562. STREET-SWEEPER. CLAUDIUS SIMON, Casco, Wis. Filed Apr. 10, 1917. Serial No. 161,024. (Cl. 15—17.)

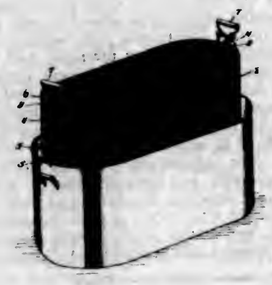


1. A street sweeper comprising a frame, a hopper mounted thereon, a trough pivotally connected with the hopper, brushes mounted for movement along the trough, means for moving the brushes, a drum journaled upon the frame, cables arranged to wind upon the drum and connected with the trough, and manually operable means for distorting the cables to raise the forward portion of the trough.

2. A street sweeper comprising a frame, a hopper mounted thereon, a trough pivotally connected with the hopper, brushes mounted for movement along the trough, means for moving the brushes, a drum journaled upon the frame, a roller journaled on the frame, cables arranged to wind upon the drum and trained over the roller and connected with the trough, shafts journaled upon the frame and having hooks which engage over the said cables and manually operable means connected with the shafts and adapted when manipulated to distort the cables whereby the trough is raised.

3. A street sweeper comprising a frame, a trough mounted thereon, bars pivotally connected to the trough, brushes mounted for movement along the trough and the said bars, lugs carried by the bars, bolts pivotally connected with the trough and passing through the lugs and springs carried by the bolts and bearing against said lugs.

1,243,563. CLOTHES-BOILER. JOHN SKAGEN, Fenton, Iowa. Filed Jan. 30, 1917. Serial No. 145,463. (Cl. 68—30.)

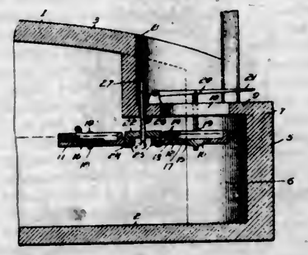


In combination with a wash boiler, a cage adapted to fit therein and composed of open work material, sustaining devices formed from wire having hooks at their lower ends adapted to rest upon the upper edge of the boiler and provided at their upper ends with outwardly turned portions, and handles pivoted on the said portions, and having hooks engageable with the cage.

1,243,564. GLASS-DRAWING APPARATUS. L SHERMAN SKELTON, Okmulgee, Okla. Filed Jan. 4, 1916. Serial No. 70,141. (Cl. 49—56.)

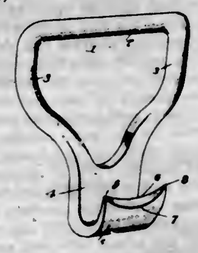
1. In a glass drawing apparatus, a pot adapted to float upon the surface of the glass and having a restricted filling opening in its bottom, a bar extending diametrically beneath the bottom of the pot, a controlling valve carried by said bar and movable within said restricted opening, and means operable for shifting the bar to move the valve from a normal to an abnormal position.

2. In a glass drawing apparatus, a coupling member, a plurality of pots connected with said coupling member for vertical movement with respect thereto, said pots being adapted to float upon the surface of the glass and each having a filling opening in the bottom thereof, means for rotating the coupling head, valves for closing the filling openings in the several pots, valve carrying means having upwardly extending contact means, and vertically movable contact bars adapted for engagement with the contact means pertaining to the valve of any pot carried in alinement therewith by the rotary movement of the coupling member.



3. A glass furnace having a glass drawing chamber including a curved breast wall extending outwardly beyond the line of the furnace wall, a curved upper rear wall extending inwardly beyond the line of the furnace wall, and a crown wall extending horizontally between the first named walls and provided with a drawing opening, a shaft supported for rotation in the crown wall between the rear wall and the drawing opening, a coupling member carried by said shaft, a plurality of pots carried by said coupling member and connected therewith for free vertical movement, each pot having a filling opening in the bottom thereof and a float valve to obstruct such opening, valve carrying bars extending diametrically beneath the several pots and having upwardly extending contact means, and vertically movable contact bars extending through the crown wall and adapted for engagement with the contact means pertaining to the valve of the pot that is temporarily disposed beneath the drawing opening.

1,243,565. BOX OR CAN HOOK. EDWARD SCOTT SMITH, Selma, Cal. Filed Mar. 30, 1917. Serial No. 158,661. (Cl. 57—107.)

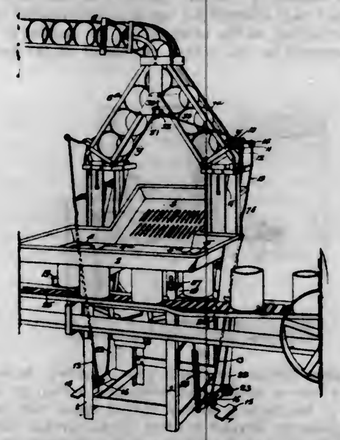


1. A device of the class described constructed of a single element shaped to provide a bail-shaped handle, the side members of which converge toward each other and terminate in a comparatively wide substantially rectangular shank, said shank at the outer edge thereof being rounded upon itself to provide a hook, said hook having its outer edge sharpened and being concaved from the opposite ends to the center thereof whereby to provide the said ends of the hook with entering prongs.

2. An article of the class described constructed in a single piece shaped to provide a handle, a shank connected with the handle and a rounded hook member connected with the shank, said hook gradually increasing in thickness from its beak to its connection with the shank, and

said beak being centrally concaved, whereby to provide the opposite corners of the hook with substantially V shaped prongs.

1,243,566. CAN-FILLING MACHINE. FRANK P. SOUDER, Bridgeton, N. J. Filed Feb. 21, 1914. Serial No. 820,297. (Cl. 226—9.)



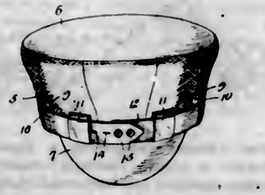
1. A can filling apparatus comprising a pan having a discharge aperture at the end of the same; a horizontal can channel below said pan and alined with said aperture; a vertical channel back of the pan and connecting with the rear end of the horizontal channel, and arranged to deliver cans thereto; a projection in the lower portion of one side of said vertical channel upon which one end of substantially horizontal cans may strike whereby the cans will be turned into upright position and delivered to the horizontal channel, and a pusher operating across the bottom of said vertical channel and over the horizontal channel for shifting the cans beneath the pan.

2. A can filling apparatus comprising a pan having a discharge aperture at the end of the same; a horizontal can channel below said pan and alined with said aperture; a vertical channel back of the pan and connecting with the rear end of the horizontal channel, and arranged to deliver cans thereto; a projection in the lower portion of one side of said vertical channel upon which one end of substantially horizontal cans may strike whereby the cans will be turned into upright position and delivered to the horizontal channel; a pusher operating across the bottom of said vertical channel and over the horizontal channel for shifting the cans beneath the pan, and means for maintaining individual cans in said horizontal channel in registry with the aperture of the pan; means for operating said pusher to advance the cans, and means for automatically retracting said pusher to engage succeeding cans.

3. In a can filling apparatus, the combination with a pan or trough having a discharge aperture at the end of the same, of a substantially horizontal can channel below said receiving trough and alined with said aperture, means for delivering cans in upright position to said horizontal channel, a slidable member for shifting cans in said horizontal channel, frictional positioning means for maintaining individual cans in registry with the aperture of the pan or trough, an elevated filler support for raising said cans to the bottom of the pan or trough, means for operating said slidable member, and means for retracting the latter for engagement with succeeding cans.

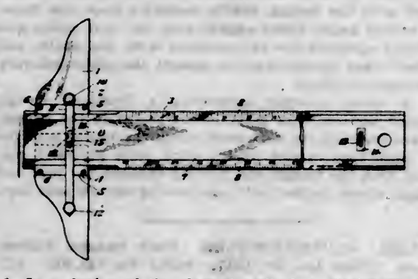
1,243,567. ADJUSTABLE CAP. REGINALD J. SPINDLER, Rosetown, Saskatchewan, Canada. Filed Mar. 4, 1916, Serial No. 82,242. Renewed July 31, 1917. Serial No. 183,759. (Cl. 2—106.)

A cap comprising a body having gaps in opposite sides thereof, gussets closing said gaps and being made from thinner material than the body, a casement formed at the back of the cap from the body thereof and opening at its ends through the gaps exteriorly of the gussets, a strap loosely trained through the casement, with the ends there-



of projected through the open ends of the latter without the body at the front of the same and having an elastic section and also provided with means for the detachable connection of the same, and guide loops at the front of the cap and loosely receiving the strap.

1,243,568. DRAFTING INSTRUMENT. MYRON E. STECKYNSKI, Cambridge Springs, Pa. Filed Feb. 16, 1917. Serial No. 149,079. (Cl. 33—112.)



1. In a device of the class described, a stationary element, having a slot therein and which is provided with a bottom and parallel sides, strips affixed in said slot adjacent the sides thereof and having their opposed sides longitudinally parallel and slanting upwardly and inwardly toward each other, and a slidable element engaging the bottom of said slot and the slanting sides of said strips.

2. In a T-square, a stationary element, having a slot therein and which is provided with a bottom and parallel sides, strips affixed in said slots adjacent the sides thereof and having their opposed sides longitudinally parallel and slanting upwardly and inwardly toward each other, a slidable element engaging the bottom of said slot and the slanted sides of said strips, a scale mounted on the slidable element, and a hand lever pivotally mounted upon the stationary element and engaging the slidable element.

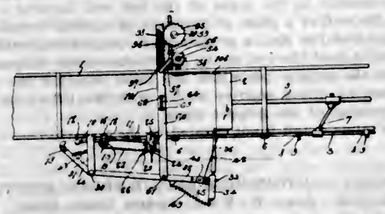
1,243,569. PAPER-ROLL HOLDER. OLIVER B. TAYLOR, Muskegon, Mich. Filed Oct. 28, 1914. Serial No. 868,997. (Cl. 211—81.)



In a paper roll holder, the combination with a case having a slot in its bottom and a hinged cover for its top of a spindle whose free ends are journaled in said case be-

tween the meeting edges of the case and cover, a paper roll carried by said spindle, the end portions of the spindle being exposed beyond the ends of the paper roll, a U-shaped frame whose legs are pivotally connected to the interior faces of the ends of the case and are adapted to play between said ends and the ends of the paper roll, brake blocks carried by said legs of the frame which are adapted to engage the exposed ends of the spindle between the ends of the case and the ends of the paper roll, means for normally retracting the frame so that the brake-blocks will be free of the spindle ends, the legs extending through the slot and having their outward movement limited by the cover and cross-piece of said U-shaped frame being disposed so as to be engaged by the web of the paper when a portion thereof is being severed, whereby the brake blocks are made to engage the spindle when the paper web is pulled upon.

1,243,570. AUTOMATIC BINDER ATTACHMENT FOR HAY-PRESSES. JOHN B. TRIOG, Jonah, Tex., assignor of one-half to William E. Hill, Jonah, Tex. Filed Oct. 7, 1916. Serial No. 124,307. (Cl. 100—20.)



1. The combination with an ordinary hay baler having a baling chamber, a reciprocatory compressing plunger, and a plunger rod, of means for holding one end of the baling wire across the baling chamber whereby the wire will be passed about two sides and one end of the bale upon formation of the same, a lever pivotally supported by said baler, a needle for feeding wire across the remaining end of the bale upon completion of the bale carried by said lever, a rod slidably supported by the baler and operatively connected to said plunger rod, said rod having a pivoted section adapted for engaging said lever for rocking the lever, and means controlled by the formation of a bale in said chamber for moving said pivoted section into a lever engaging position.

2. The combination with an ordinary hay baler having a baling chamber, a reciprocatory compressing plunger and a plunger rod, of means for holding one end of a binding wire across the baling chamber whereby the wire will be passed about two sides and one end of the baler upon formation of the same, a lever pivotally supported by said baler, a needle for feeding the wire across the remaining end of the bale upon completion of the bale carried by said lever, a rod slidably supported by said baler and operatively connected to said plunger rod, said rod having a pivoted section adapted for engaging said lever for rocking the same, a crank shaft carried by said baler, a star wheel positioned so that its points will be engaged by the hay in the baler for rotating the star wheel a part revolution upon the formation of each bale section, means operatively connecting said star wheel and said crank shaft for rotating the crank shaft synchronously with the star wheel for moving the pivoted portion of said rod into a lever rocking position, and means for returning said lever to its normal position after the binding of a bale.

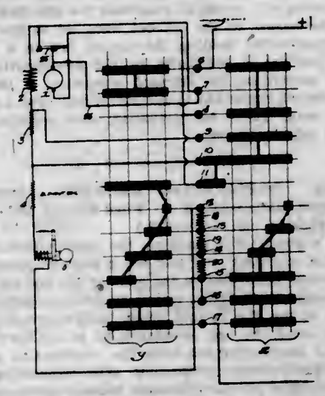
3. The combination with an ordinary hay baler having a baling chamber, a reciprocatory compressing plunger and a plunger rod, of means for holding one end of a binding wire across the baling chamber whereby the wire will be passed about two sides and one end of the baler upon formation of the same, a lever pivotally supported by said baler, a needle for feeding the wire across the remaining end of the bale upon completion of the bale carried by said lever, a rod slidably supported by said baler and operatively connected to said plunger rod, said rod having a pivoted section adapted for engaging said lever for rocking the same, a crank shaft carried by said baler, a star wheel positioned so that its points will be engaged by the hay in the baler for rotating the star wheel a part revolution upon the formation of each bale section, means operatively connecting said star wheel and said crank shaft for rotating the crank shaft synchronously with the star wheel for moving the pivoted portion of said rod into a lever rocking position, said last named means being constructed for permitting said star wheel to rotate independently of said crank shaft upon the application of heavy duty to said crank shaft.

4. The combination with an ordinary hay baler having a baling chamber, a reciprocatory compressing plunger and a plunger rod, of means for holding one end of a binding wire across the baling chamber whereby the wire will be passed about two sides and one end of the baler upon formation of the same, a lever pivotally carried by said baler, a needle for feeding the wire across the remaining end of the bale upon completion of the bale carried by said lever, a rod slidably supported by the baler and operatively connected to said plunger rod, said rod having a pivoted section adapted for engaging said lever for rocking the lever, means controlled by the formation of the bale in said chamber for moving said pivoted section into a lever engaging position, and means for returning said lever to its normal position after the binding of a bale.

5. The combination with an ordinary hay baler having a baling chamber, a reciprocatory compressing plunger and a plunger rod, of means for holding one end of a binding wire across the baling chamber whereby the wire will pass about two sides and one end of the bale upon formation of the same, a lever pivotally supported by said baler, a needle for feeding the wire across the remaining end of the baler upon completion of the bale carried by said lever, a rod slidably supported by the baler and operatively connected to the plunger rod, said rod having a pivoted section adapted for engaging said lever for rocking the same, a crank shaft carried by the said bale, a star wheel positioned so that its points will be engaged by the hay in the baling chamber for rotating the star wheel a part revolution upon the formation of each bale section, means operatively connecting said star wheel and said crank shaft for rotating the crank shaft synchronously with the star wheel for moving the pivoted portion of said rod into a lever rocking position, and means for returning said lever to its normal position after the binding of a bale.

[Claims 6 to 25 not printed in the Gazette.]

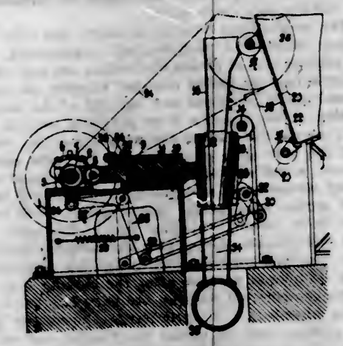
1,243,571. ELECTRIC CONTROLLING SYSTEM. HERBERT S. VALENTINE, Philadelphia, Pa., assignor to Link-Belt Company, Philadelphia, Pa., a Corporation of Illinois. Filed June 30, 1915. Serial No. 37,846. (Cl. 172—179.)



A system including a motor; an over-travel switch therefor; and a controller for the motor including means

for shunting said switch to permit reversal of the motor when said switch is open; said means including two conductors leading from one of the fingers of the controller and connected on opposite sides of said switch.

1,243,572. NUT-OPENING MACHINE. JOSUA CORNELIS HENDRIKUS VAN DÜYL, Rotterdam, Netherlands. Filed June 9, 1914. Serial No. 844,037. (Cl. 146—3.)



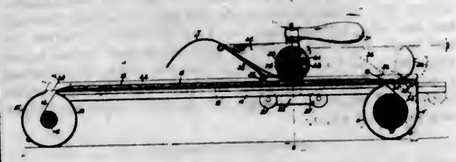
1. A machine for cracking nuts, comprising a frame having a horisontal guide-way, a slide movable in said guideway, a jaw mounted on said slide and formed with a vertical pressing surface, a main shaft rotatably mounted on said frame, a circular eccentric on said shaft, means for yieldingly holding said slide in direct axial engagement with said eccentric, a second jaw pivotally mounted on said frame and having a pressing surface inclined downward toward the first-mentioned jaw, said second jaw being outwardly movable relatively to the first jaw to effect the release of the cracked nuts, a cam for intermittently holding said second jaw in a predetermined position in proximity to the horizontally-movable jaw and for permitting the outward movement of the second jaw and gearing connecting said cam with the main shaft.

2. A machine for cracking nuts, comprising a frame having a horisontal guide-way, a slide movable in said guide-way, a jaw with a vertical pressing surface mounted on said slide, a main shaft rotatably mounted on said frame, a circular eccentric on said shaft, a roller on said slide, springs in the same horisontal plane as the axis of the main shaft for yieldingly holding said roller in contact with said eccentric, a second jaw pivotally mounted on said frame and having a pressing surface inclined downward toward the first-mentioned jaw, said second jaw being outwardly movable relatively to the first jaw to effect the release of the cracked nuts, an oscillatory cam for intermittently holding the second jaw in a predetermined position in proximity to the first-mentioned jaw and for permitting the outward movement of the second jaw, linkwork connected to the oscillatory cam, and a cam on the main shaft for actuating said oscillatory cam through said linkwork.

1,243,573. DUPLICATING-MACHINE. AUGUST F. WROBNER, Ridgewood, N. J. Filed Feb. 17, 1917. Serial No. 149,204. (Cl. 101—132.)

1. In a duplicating machine, the combination of a flat bed, a film operating over said bed, a pair of approximately closed drums connected to the ends of the bed and constituting supports therefor, means to accommodate the end portions of the film in said drums, and impression means movable along the bed, substantially as set forth.

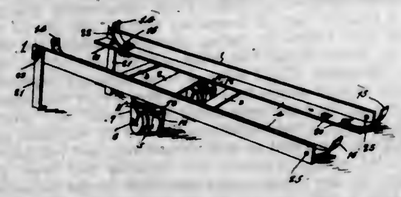
2. In a duplicating machine, the combination of a bed having downwardly projecting side flanges, auxiliary flanges secured to the aforesaid flanges and coöperating therewith to form reinforcing means for the bed and a pair of track ways, and a carriage movable over the bed, said carriage comprising an impression roller, a rigid frame in which the ends of the roller are journaled, said frame having downward T-shaped extensions operating along said track ways, anti-friction rollers carried by said extensions and rolling in said track ways, and means acting between said impression roller and the frame extensions tending to resiliently hold the impression roller in contact with the bed and said extension rollers in their track ways.



3. In a duplicating machine, the combination with a bed, a sensitized film supported thereon and an impression roller movable to and fro over the bed, of a shelf lying approximately in the plane of the bed and forming a stop for the end of a sheet of paper to be applied between the roller and the film, a gripper plate coöperating with said shelf to hold the end of the paper, and means coöperating with the gripper plate and the roller whereby the roller causes by direct positive action both the lifting and the depressing of the gripper plate.

[Claims 4 and 5 not printed in the Gazette.]

1,243,574. AUTOMOBILE REPAIR-TRUCK AND TURN-TABLE. JOHN W. WOOD, Swarts Creek, Mich. Filed Apr. 21, 1917. Serial No. 163,663. (Cl. 254—88.)



3. An automobile repair truck and turn table including spaced angle sides having wheel supporting tread portions, swivel wheels located at opposite sides of the frame intermediate of the ends thereof and permitting the frame to be tilted and turned, curved stops carried by the frame at the ends thereof for engaging the wheels of a machine, said stops being adjustable and the frame being provided at one end with means for effecting a quick attachment and removal of the stops, and legs for supporting a machine in an elevated position, said legs and frame being provided with coacting means for enabling the legs to be attached to the frame at either end thereof.

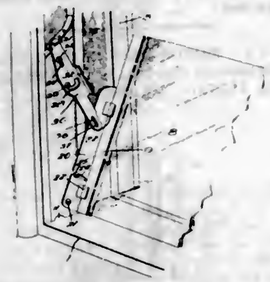
[Claims 1 and 2 not printed in the Gazette.]

1,243,575. HINGE-FIXTURE. JOHN WILSON ALEXANDER, Spartanburg, S. C. Filed Mar. 24, 1916. Serial No. 86,510. (Cl. 98—31.)

2. In a window ventilator, a support adapted to be removably mounted in the guideway of a sash and having its face flush with the plane at the open side of the guideway, and a member pivoted on the face of said block, tiltable across the guideway, and adapted to carry a deflector extending between the guideway of a sash.

5. In a hinge structure for ventilators for windows, a supporting block of sheet metal bent to U-shape in cross section, and of a depth to lie flush with the top of a given sash-guideway, the upper end of the block being closed by an outwardly inclined wall.

6. In a hinge structure for ventilators for windows, a supporting block of sheet metal bent to U-shape in cross section, and of a depth to lie flush with the top of a given sash-guideway, the upper end of the block being closed by an outwardly inclined wall and the lower front panel of the block being provided with an outlet to form a drain for water which may collect in the guideway and behind the block.



7. In a window, the combination with a pair of blocks of U-shaped cross section, each of a size to fit the channel of the outer sash and having its upper end beveled and a drain opening in its lower end, and a spring secured to the upper end and projecting normally beyond the inner edge of the block and adapted to hold the latter removably in said channel.

8. In a hinge fixture for window ventilators, the combination with a block constituting one hinge member, a leaf overlying one face of the block and constituting the other hinge member, and a pivot pin transversely uniting said members near one end of the same; of a latch plate having a handle projecting beyond the opposite end of the block, its body being provided with outer and inner longitudinal slots and with a U-shaped slot between them, a pin through the outer slot into the block, a pin through the inner slot into the leaf, and a pin through the U-shaped slot into the block at a point to engage one leg of this slot when the members are swung to either open or closed position and to travel through the curve of this slot during the swinging movement.

[Claims 1, 3, and 4 not printed in the Gazette.]

1,243,576. CORD TIRE. CHARLES L. ARCHER, Minneapolis, Minn. Filed Nov. 6, 1916. Serial No. 129,828. (Cl. 152—13.)



1. In a tire of the class described, the combination of inner transversely-extending cords, longitudinally-extending cords fitting upon said inner transversely-extending cords, outer transversely-extending cords positioned upon said longitudinally-extending cords, heels formed upon said tire, and a ply of longitudinally-extending reinforcing cords interposed within said outer transversely-extending cords adjacent each heel so as to reinforce the tire at the points where the strain imparted by the rim to the tire takes place.

2. In a tire of the class described, the combination of inner and outer cords, a ply of cords interposed between said inner and outer cords, said inner and outer cords extending across the central axis of said last-mentioned ply of cords, heels carried upon said tire, and an interposed ply of cords carried adjacent each heel between said outer cords and said last-mentioned cords thereby reinforcing the tire at the points where the strain is imparted thereto by a rim.

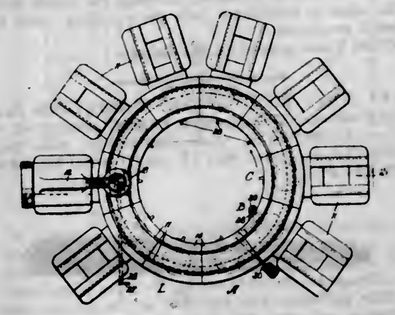
3. In a tire of the class described, the combination of inner and outer plies of cords, a ply of cords interposed between said inner and outer ply of cords, heels formed upon said tire, and a ply of longitudinally-extending cords interposed between said outer ply of cords and said interposed ply of cords adjacent said heels thereby constituting a reinforcement for said tire at the point where a rim imparts its strain to the tire.

4. In a tire of the class described, the combination of a plurality of inner transversely-extending cords, said inner transversely-extending cords having looped-over portions forming heels, said looped-over portions having end-portions fitting upon the body-portions of said transversely-extending cords, means for filling said heels, longitudinally-extending cords fitting upon said transversely-extending cords, a longitudinally-extending cord upon each side of the tire abutting against the extreme ends of said end-portions of said looped-over portions of said transversely-extending cords thereby presenting a comparatively even outer surface at the junction of said longitudinally-extending cords and said end-portions, outer transversely-extending cords fitting upon said longitudinally-extending cords, and said outer transversely-extending cords engaging said heels.

5. In a tire of the class described, the combination of a plurality of inner transversely-extending cords, said inner transversely-extending cords having looped-over portions forming heels, said looped-over portions having end-portions fitting upon the body-portions of said transversely-extending cords, means for filling said heels, longitudinally-extending cords fitting upon said transversely-extending cords, a longitudinally-extending cord upon each side of the tire abutting against the extreme ends of said end-portions of said looped-over portions of said transversely-extending cords thereby presenting a comparatively even outer surface at the junction of said longitudinally-extending cords and said end-portions, outer transversely-extending cords fitting upon said longitudinally-extending cords, said outer transversely-extending cords engaging said heels, and longitudinally-extending cords interposed within said transversely-extending cords adjacent said heels whereby said last-mentioned longitudinally-extending cords will bear upon said end-portions of said first-mentioned longitudinally-extending cords so as to form a reinforcing structure adjacent said heels adapted to resist the strain imparted to a tire by a rim.

[Claims 6 to 8 not printed in the Gazette.]

1,243,577. CIRCULAR MULTIPLE MACHINE-TABLE. ROBERT S. ARRANTS, Kingsport, Tenn. Filed Dec. 9, 1916. Serial No. 135,972. (Cl. 29—1.)



In an apparatus of the character set forth, the combination of an annular series of machine stands, the first and last members of the series being spaced farther from each other than any other adjacent two of the stands, provid-

ing free space for operators, an annular series of table units movable step by step periodically along said stands, one table unit for each stand, and additional table units being opposite the wide space aforesaid for the application of work to or removal of work from such units, there being space provided within the series of table units for workmen opposite the respective machine stands, and power devices to operate the series of table units step by step from one station to another along said machine stands.

1,243,578. AUXILIARY TREAD FOR TIRES. EMILE BARDELLE, New York, N. Y. Filed Mar. 2, 1917. Serial No. 151,988. (Cl. 152—16.)



1. The combination with a pneumatic tire shoe having a circumferential channel extending along its tread portion and the shoe within said tread portion being provided with a series of openings, of an auxiliary tread fitted in said channel, and flexible tongue means carried by said auxiliary tread as integral parts thereof and extending thence radially inwardly through said openings to anchor the auxiliary tread detachably in place in connection with the shoe.

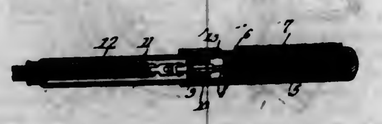
3. The combination with a pneumatic tire shoe having a circumferential series of openings through its tread portion and an inner tube, of an auxiliary tread having attached anchor members extending inwardly through said openings, and flexible members secured to the inner ends of said anchor members and adapted to lie between the inner tube and the inner wall of the shoe to prevent outward movement of the auxiliary tread.

4. The combination, with a pneumatic tire shoe having a circumferential series of transversely arranged slots formed through its tread portion, an inner tube, an auxiliary tread surrounding the shoe, a series of tongues projecting inwardly from the auxiliary tread through said slots, and flexible flaps carried by the inner ends of the tongues and adapted to lie substantially flatly between the inner tube and the inner surface of the shoe, whereby the auxiliary tread is prevented from outward movement.

5. The combination with a pneumatic tire shoe having a circumferential channel formed in its tread portion, said channel having laterally projecting V-shaped notches formed in its side walls, of an auxiliary tread, the body of which is fitted wholly within said channel and provided with V-shaped projections fitted into said notches, whereby creeping movement of the auxiliary tread is prevented, and means extending through the tread portion of the shoe to detachably hold the auxiliary tread from outward movement.

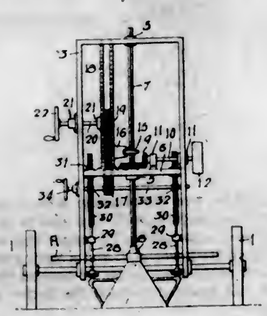
[Claim 2 not printed in the Gazette.]

1,243,579. TOOTH-BRUSH. BURPEE OATES BATES, Campbellton, New Brunswick, Canada, assignor of two-thirds to William P. Gray, Campbellton, New Brunswick, Canada. Filed May 17, 1915. Serial No. 28,623. (Cl. 15—37.)



A tooth brush comprising an outer tube closed at one end and having a long narrow slot, an inner tube telescoped within the outer tube and having a bayonet slot connection therewith, a rotating socket member within that portion of the inner tube confined within the outer tube, a driving means connected to the socket member and projecting through the other end of said tube, and a rotary brush having one end journaled in the closed end of the outer tube and the other end connected to the socket member, the periphery of the brush projecting through the slot.

1,243,580. MOTOR-DRIVEN POST-HOLE DIGGER. HENRY BESANCON, Stephen, Minn. Filed July 20, 1917. Serial No. 181,777. (Cl. 255—22.)



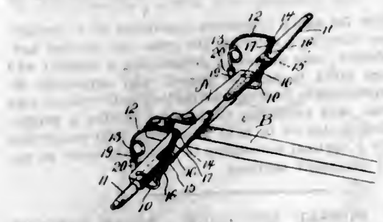
1. A post hole digger including an upright frame, a vertical auger shaft mounted upon the frame to have both a rotary and a sliding movement, an auger at the lower end of the shaft, means for driving the shaft, a collar rigid with the shaft, a rack bar provided with a forked arm straddling the collar, a pinion meshing with the rack bar, means for rotating the pinion to raise and lower the rack bar which carries with it the auger shaft, a dirt deflecting shield surrounding the auger for receiving the loose dirt discharged therefrom and deflecting it away from the opening, and means for raising and lowering the dirt deflecting shield.

2. A post hole digger including an upright frame, a vertical auger shaft mounted upon the frame to have both a rotary and a sliding movement, an auger at the lower end of the shaft, means for driving the shaft, means for raising and lowering the shaft, a tubular guide casing surrounding the auger and formed with a conical dirt deflecting shield for deflecting loose dirt discharged through the upper end of the guide casing away from the opening, side brackets projecting from the dirt deflecting shield, upright supporting bars connected to the bracket and provided with racks, a transverse shaft journaled upon the upright frame and provided with pinions meshing with the racks, and means for rotating the shaft and pinions to raise and lower the earth deflecting shield.

5. A post hole digger including an upright frame, a vertically disposed auger shaft mounted upon the frame to have a rotary and a sliding movement, an auger at the lower end of the shaft, means for driving the shaft, a collar projecting from the shaft, a vertically slidable rack bar arranged at one side of the auger shaft and provided with a forked arm straddling the collar, a pinion meshing with the teeth of the rack bar, means for rotating the pinion to raise and lower the auger shaft, a tubular guide casing surrounding the auger and provided with a conical dirt deflecting shield for deflecting the loose dirt discharged from the upper end of the tubular casing away from the opening, side brackets projecting from the dirt deflecting shield, upright supporting rods connected at their lower ends to the side brackets and provided with racks, a transverse shaft journaled upon the upright frame and provided with pinions meshing with the racks, and means for rotating the shaft to raise and lower the dirt deflecting shield.

[Claims 3 and 4 not printed in the Gazette.]

1,243,581. SWINGLETREE CONNECTION. CLARENCE A. BIRD, West Mansfield, Ohio. Filed Apr. 13, 1917. Serial No. 161,818. (Cl. 21—78.)



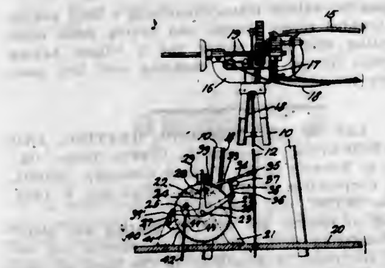
1. A swingletree connection comprising in combination with a support, a socket member secured to the latter and having a transverse slot adjacent one end, a resilient arm having one extremity fitted within the socket, said extremity of the arm being formed with an offset portion to be received within said slot for holding the arm within the socket, and permitting said arm a limited swinging movement, said arm projecting forwardly across said support and spaced therefrom, and the free extremity of said arm suspending the swingletree in a position above said support.

2. Means for supporting a swingletree above the doubletree, said means including a vertically disposed yieldable arm having one terminal connected to the swingletree and its opposite terminal connected with the doubletree, a resilient coil formed in the length of said arm and positioned above the doubletree, and said arm being mounted upon the doubletree for partial rotation in opposite directions.

3. A swingletree connection comprising in combination with a doubletree, a socket, means for attaching the socket to said support whereby the latter will be disposed vertically adjacent one edge thereof, a resilient arm having one extremity fitted in the socket and its opposite extremity connected with the swingletree for holding the latter spaced above said support, and a resilient coil formed in the arm and disposed above said support.

4. A swingletree connection comprising in combination with a doubletree, a socket disposed in a vertical plane at the rear of the doubletree, angularly disposed attaching plates forming part of the socket and adapted to be secured to the bottom and one longitudinal edge of the doubletree, a resilient arm having one extremity fitted within the socket and having its opposite extremity projecting forwardly in advance of said support, the latter mentioned extremity of said arm suspending the swingletree therefrom in a position above the doubletree.

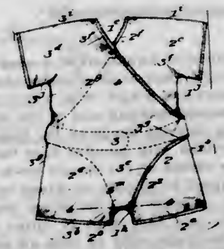
1,243,582. INTERMITTENT-OPERATING MECHANISM. EMIL R. BITTNER, Victoria, Tex. Filed Jan. 27, 1915. Serial No. 4,709. (Cl. 74—54.)



1. An improved ratchet and pawl liquid level control device and means to check its operation, comprising a tank, water supply means therefor, a ratchet wheel, a lever pivoted thereadjacent, a pawl on the lever operative upon the ratchet at times, means tending to move the pawl to engaging position, a spider pivoted adjacent the ratchet including a wiper arm extending into proximity with the pawl, and a lateral flange on the pawl divergent from the path of the wiper in one direction, a ratchet similar to the pawl, and a second wiper arm on the spider engageable with the ratchet flange and means to operate the spider, comprising a float, lost motion connections between the float and spider, and a weight on the spider positioned to lie adjacent the vertical center line thereof, when the float is at one limit of movement, means to check movement of the weight away from said center when in the position named, the connections being constructed to move the weight across said center under movement of the float to the opposite limit of its movement, and control connections for said water supply means, operatively associated with said spider for the purposes described.

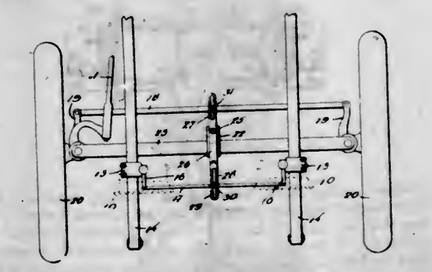
[Claim 2 not printed in the Gazette.]

1,243,583. CHILD'S ONE-BUTTON ROMPER. BERTHA HALLETT BOHANNON, Daytona, Fla. Filed Aug. 7, 1916. Serial No. 113,631. (Cl. 2—144.)



A romper having an integral front body section having sleeve portions and short leg portions, a back portion comprising two sections each attached to the front section at the adjacent side and shoulder thereof and completing the sleeves and legs, said back sections being provided with belt straps adapted to extend around the waist, and the back sections overlapping each other a substantial distance at the back and crotch, and a line of stitching joining the overlapped back sections and the front section at said crotch.

1,243,584. DIRIGIBLE HEADLIGHT. HARRY A. BOSSERT, Cassville, Wis. Filed Dec. 11, 1916. Serial No. 136,277. (Cl. 240—62.)

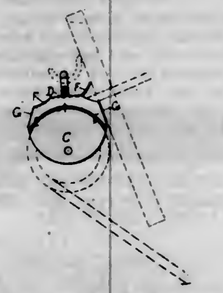


1. A dirigible lamp actuating mechanism including bearing brackets for connection with supporting springs, lamp brackets including standards extending through the bearing brackets, a cross rod, arms pivotally connected with the end portion of the cross rod and connected with the standards of the lamp brackets, a bearing for connection with an axle, a stem for connection with a cross bar forming a portion of a wheel steering gear, and an actuating lever pivotally connected with the bearing plate and hav-

ing its rear end portion provided with a slot to slidably receive said stem and having its forward end portion pivotally mounted for vertical movement and slotted to receive a pin extending from the cross rod connecting the lamp brackets.

[Claims 2 to 4 not printed in the Gazette.]

1,243,585. SHEAVE-BLOCK. BIRNEY BOARDMAN BOSWORTH, New York, N. Y. Filed June 14, 1916. Serial No. 103,678. (Cl. 254—192.)

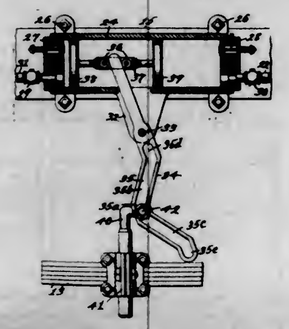


1. As an article of manufacture, a sheave block casing formed of a single piece of sheet metal shaped to provide two side members and a back from which depend the side members in parallel relation one to the other, each side member having integral wings at the sides and the said back being provided with integral flaps forming with the said wings the throat of the sheave block, the said back flaps being adapted to be bent to extend between opposite wings to form a brace for the wings and a restricted throat, and the said back flaps or either of them being adapted to be bent upwardly to form an enlarged throat.

2. As an article of manufacture, a sheave block casing formed of a single piece of sheet metal bent to provide two parallel side members and a back from which depend the said side members, the latter having integral wings at the sides, portions of the edges of the wings being straight to form flat bearings, the said back having integral flaps extending between the said wings of the side members and terminating adjacent the said flat bearings.

[Claims 3 and 4 not printed in the Gazette.]

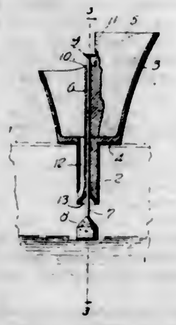
1,243,586. MECHANISM FOR OPERATING AIR-COMPRESSORS, &c. IRA ELLSWORTH BROWN, Fort Stockton, Tex. Filed May 26, 1916. Serial No. 99,993. (Cl. 74—14.)



1. In a device of the character described a lever having a fixed fulcrum and having one end adapted to have a rocking connection with a movable element, the opposite end of said lever carrying a slotted element, the slot thereof consisting of parallel central and end portions disposed in parallel planes, and diverging intermediate portions merging with the central and end portions, said slot adapted to receive a member projecting from the running gear of a vehicle and capable of movement in one direction only, whereby said lever may be rocked in two directions.

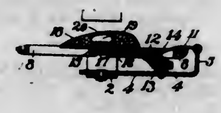
2. A lever for shock absorbers consisting of a straight end portion carrying a fulcrum, the other end portion having a guideway, said guideway comprising a central and end sections lying in parallel planes, and oppositely diverging intermediate sections connecting said central and end sections, said guideway adapted to receive a projection adapted to travel in said guideway, said projection having only a vertical movement to rock said lever on entering said divergent sections.

1,243,587. FUNNEL AND GAGE. JOSEPH BENJAMIN BURKETT, Levita, Tex. Filed Jan. 25, 1917. Serial No. 144,457. (Cl. 226—33.)



A funnel and gage, comprising a body and a neck, the body having a radial partition extending to the center of the body, said partition and neck having an opening axial of the funnel, a float below the neck and having a stem extending through the opening and provided with a head at its upper end, the partition having a scale with which the head coöperates as an indicator, and the said neck having an eccentric bore for the passage of the liquid and opening laterally of the neck.

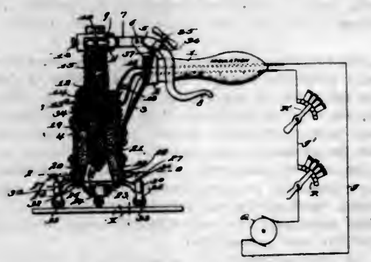
1,243,588. ANIMAL-TRAP. BYRON G. BURNS, Calexico, Cal. Filed Mar. 30, 1917. Serial No. 158,641. (Cl. 43—23.)



A bait pan for animal traps, comprising a body having a screw threaded recess therein and having small holes communicating with said recess, and a trigger having screw threads formed thereon engaging said first mentioned screw threads.

1,243,589. ART OF ARC WELDING, HEATING, AND METAL-WORKING. CHARLES L. COFFIN, Parks, Ga., assignor to Electric Metal Working Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 5, 1916. Serial No. 89,129. (Cl. 219—14.)

1. Method of electric arc welding, heating and metal working, consisting in maintaining an electric arc between two electrodes in proximity to the material, preventing direct contact of the arc with the material by interposing one of said electrodes between the arc and the material, said interposed electrode adapted to form a path for the arc, distributing the heating effect of the arc by moving the arc in relation to the interposed electrode and material, and stabilizing the moving arc by protecting from air currents while subjected to the directive and steadying action of a magnetic field.



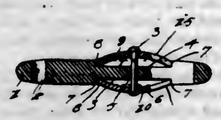
2. In the art of arc welding and heating, distributing the heating action of the arc, and stabilizing the arc, by maintaining an arc between two electrodes in proximity to the material to be heated, interposing one of said electrodes between the arc and material, providing means protecting the arc from air currents, rotating the arc about the interposed electrode, and stabilizing the moving arc, by subjecting to the directive and steadying action of a uniform magnetic field.

5. In an apparatus for electric arc welding and heating, the combination of a support, a magnet carried thereon, two electrodes for the arc, one of said electrodes passing axially through said magnet, supporting means for the second electrode to position it in opposition to the first electrode and interposed between the arc and the material to be heated, means for bringing the electrodes into contact and separating the same, means for varying the distance of the second electrode from the material to be heated, with means for supporting the apparatus while moving it around or resting upon the material to be heated.

6. In an apparatus for electric arc welding and heating, the combination of a support, a tubular magnet carried thereon, two electrodes for the arc, one of said electrodes passing through said tubular magnet, axially, the other electrode supported in opposition to the first electrode in such manner as to be interposed between the arc and the material to be heated, means for bringing the electrodes into contact and separating the same, means for revolving said arc about the interposed electrode in a uniform magnetic field of force, with a refractory material surrounding the arcing end of the first electrode and in juxtaposition to the second electrode adapted to inclose the revolving arc and stabilize the same.

[Claims 3, 4, and 7 to 10 not printed in the Gazette.]

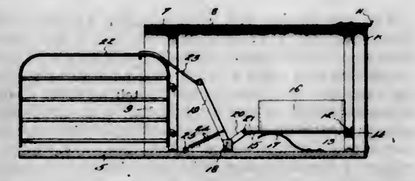
1,243,590. SNAP-HOOK. GEORGE A. COLLETT, Macon, Mo., assignor of one-half to Charles D. Staplin, Macon, Mo. Filed Dec. 6, 1916. Serial No. 135,446. (Cl. 24—232.)



1. A snap hook comprising a body having a longitudinally extending slot therein and adjacent one end arranged centrally of the side edges thereof, said body provided on its opposite side faces with circular recesses which intersect the inner ends of said slot, the recesses in the body defining a partition wall which is provided with a transversely arranged slot which communicates the inner end with the longitudinal slot in the body, and a disk rotatably mounted in each of the recesses and provided with transversely arranged slots which communicate with the slot in the partition wall and body to permit a fastening link to be secured in the longitudinal slot of the body.

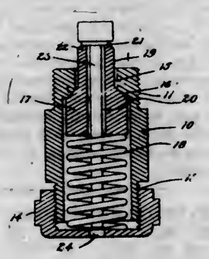
2. A snap hook comprising a body substantially oval in cross section, said body provided intermediate its end on its opposite side faces with circular recesses, forming annular shoulders, said recesses defining a partition wall which is provided centrally with an opening, a pin arranged through the opening and its ends projecting beyond the opposite side faces of the body, a pair of disks concavo-convex in cross sections, each disk rotatably mounted on one end of the pin and having its peripheral edge abutting the annular shoulder formed by the side wall of the recesses, said body and wall provided with slots and said disk provided with slots in alinement with the slots in the body wall to permit a link to be fastened within the slot in the body, as and for the purpose specified.

1,243,591. NEST-BOX. JAMES W. COOPER, Marshalltown, Iowa. Filed Apr. 28, 1917. Serial No. 165,229. (Cl. 119—50.)



In a device of the class described, a base, a cover for connection with said base, spaced and inverted U-shaped supports on said base connecting said cover therewith, a gate hingedly connected with one of said supports, extensions on the other of said supports having bearing openings therein, a frame interposed between said extensions and having trunnions thereon extending within said bearing openings, a nest tray carried by said frame, and means for connecting said frame with the gate.

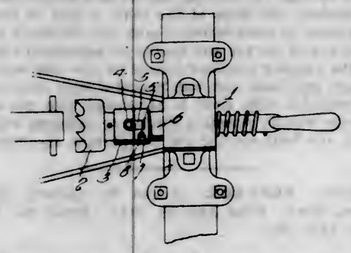
1,243,592. PRESSURE AND VACUUM RELIEF VALVE. DAVID CRAIG, Peabody, Mass. Filed July 13, 1914. Serial No. 850,810. (Cl. 137—53.)



A combined pressure and vacuum relief valve, comprising a barrel housing having a reduced portion formed with an internal tapering seat at one end portion thereof and externally threaded at the other end thereof, a cap fitted to the last named end of said housing with a central hole therethrough, a plug valve having a larger inner end loosely fitting the interior of said housing with a smaller outer end projecting outward a substantial distance beyond the end of said housing, and with an intermediate conical portion constituting a valve to fit said tapering seat in the housing, a spring reacting between said end cap of said housing and the larger end of said plug valve, said plug valve having a central lengthwise passage therethrough, and a valve fitting the projecting end of the smaller portion of said plug valve to close the passage

therethrough, having an elongated stem extending through the passage of said plug valve, the end of said housing to which said plug valve is fitted being externally threaded for fitting to a pipe connection.

1,243,593. CRANK-HOLDING ATTACHMENT. JOSEPH W. CUNNINGHAM, Villisca, Iowa. Filed Mar. 12, 1917. Serial No. 154,292. (Cl. 21—90.)



The combination with an automobile having an engine starting crank, a clutch member on the crank, means to hold said clutch member normally disengaged, a bushing supporting said crank and a projecting reduced portion on the bushing; of a collar on the clutch member, means for detachably and adjustably securing said collar thereon, a second collar on the reduced portion of said bushing, an annular shoulder having a socket therein on one of said collars, a lug projecting from the other to be received in said socket and hold said starting crank when disengaged and means to detachably and adjustably secure said second collar in fixed position.

1,243,594. UMBRELLA-RUNNER. FREDERICK A. DILLINGHAM, Troy, Ohio, assignor to The Troy Carriage Sun Shade Company, Troy, Ohio, a Corporation of Ohio. Filed Nov. 6, 1915. Serial No. 59,901. (Cl. 135—28.)



1. In an umbrella runner, an umbrella rod, a ring and a slidably mounted member on the umbrella rod, said member being slotted to form a series of tabs with the tabs bent upwardly to leave an unslotted base and to form vertical walls and slots, thence outwardly and thence up and over the ring, for the purpose described.

2. In an umbrella runner, an annular slidable member made from a single piece and having an outwardly extending base and an upwardly extending side wall, and slots in the side wall, a ring, said ring being mounted on said member so as to be outside of the periphery of the vertical side wall.

1,243,595. ENVELOP-MOISTENER. PHILIP B. DOWNING, Everett, Mass. Filed Jan. 26, 1917. Serial No. 144,730. (Cl. 91—51.)



1. An envelop moistener, comprising in combination a tank, a rotatable member journaled therein, and a manually-operable, spring-retracted presser-foot supported for reciprocal movement over said rotatable member.

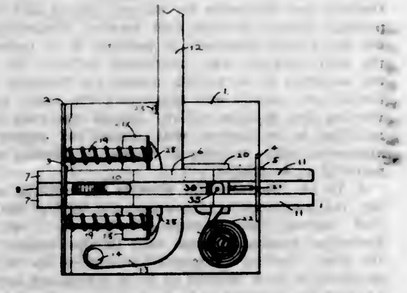
2. An envelop moistener, comprising in combination a tank, a rotatable member journaled therein, a bracket attached to said tank and rotatable laterally with respect thereto, and a presser-foot supported by said bracket for reciprocal movement with respect to said rotatable member.

3. An envelop moistener, comprising in combination a tank, a rotatable member journaled therein, a bracket, means for pivotally connecting said bracket to said tank, means for securing said bracket in operative position with respect to said rotatable member, and a presser-foot supported for reciprocal movement by said bracket.

4. An envelop moistener, comprising in combination a tank, a rotatable member journaled therein, a manually operable, spring-retracted presser-foot supported for reciprocal movement over said rotatable member, and means for guiding said presser-foot.

5. An envelop moistener, comprising in combination a tank, a rotatable member journaled therein, a bracket attached to said tank, a stem mounted for reciprocal movement on said bracket, a presser foot secured to the lower end of said stem and arranged over said rotatable member, and a retractile spring maintaining said presser foot in its upper most position.

1,243,596. DOOR-LATCH. GEORGE HENRY ELWELL, Boston, Mass. Filed Sept. 27, 1915. Serial No. 52,870. (Cl. 70—42.)



1. A door-holding means comprising a striker-plate and a latch mechanism having a bolt provided with a hook normally yieldingly held in an intermediate longitudinal position, from which it can be moved in either direction, and in a laterally projecting position with its nose extending over a rearward face on said striker-plate, and manual means for retracting said hook laterally and said bolt longitudinally from said striker-plate.

2. A door-holding means comprising a striker-plate and a latch mechanism having a bolt provided with a rigid forward end and a laterally movable hook normally yieldingly held in an intermediate longitudinal position, from which it can be moved in either direction, and in a laterally projecting position with its nose extending over a rearward face on said striker-plate, said rigid forward end extending beyond the inner surface of said hook and manual means for retracting said hook laterally and said bolt longitudinally from said striker-plate.

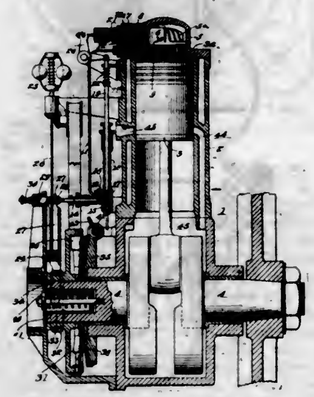
3. A door-holding means comprising a striker-plate and a latch mechanism having a bolt provided with a rigid forward end and a laterally movable hook normally yieldingly held in an intermediate longitudinal position, from which it can be moved in either direction, and in a laterally projecting position with its nose extending over a rearward face on said striker-plate, said rigid forward end and the end of said hook terminating in substantially the same transverse plane, and manual means for retracting said hook laterally and said bolt longitudinally from said striker-plate.

4. A door-holding means comprising a striker-plate and a latch mechanism having a bolt provided with a hook normally yieldingly held in an intermediate longitudinal position, from which it can be moved in either direction, and in a laterally projecting position with its nose extending over a rearward face on said striker-plate and manual means for retracting said hook laterally and said bolt longitudinally from said striker-plate, said bolt being provided with a beveled end surface adapted to engage and be retracted by said striker-plate as a door bearing said lock is swung to closed position.

5. The combination of a supporting plate, a bolt mounted thereon and consisting of a movable member having a guided body portion and a hook member movably connected to said movable member and normally in laterally projected position, spring means permitting said movable member to be moved in either forward or rearward direction from a normal intermediate position and adapted to return it to said intermediate position, and a striker-plate with the inner surface of which said hook is adapted to engage, and manual means for retracting said hook laterally and said bolt longitudinally.

[Claims 6 to 16 not printed in the Gazette.]

1,243,597. HIGH-PRESSURE-FEED OIL-ENGINE. HENRY ENGEL, New Rochelle, N. Y., assignor to Engel Crude Oil Engine Company, Inc., New York, N. Y., a Corporation of New York. Filed Mar. 15, 1913. Serial No. 754,560. (Cl. 123—139.)



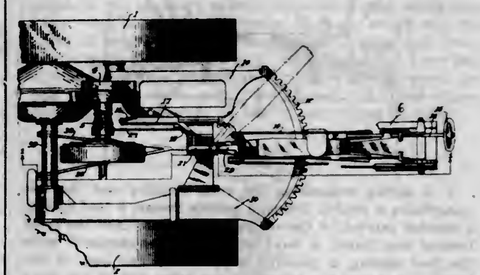
1. A liquid fuel motor having a combustion chamber, in combination with a liquid fuel chamber, a cam-actuated part adapted to move when the motor is driven, means actuated by said cam-actuated part for developing pressure in said fuel chamber, means associated with said cam-actuated part to control the time of operation thereof and change the same with relation to the moving parts of said motor, and a relatively fixed cam for actuating said cam-actuated part, and means for rotatably adjusting the position of said cam on the said axis forward or back with respect to the direction of rotation to regulate the time of actuation of the cam-actuated part by the cam.

3. A liquid fuel motor having a combustion chamber in combination with a fuel chamber, a cam having abutments on different radii, a member having a part coöperating with one of said abutments and having another part coöperating with the other of said abutments, and means controlled by said last member for effecting injection of the fuel from said fuel chamber into said combustion chamber.

[Claims 2 and 4 not printed in the Gazette.]

1,243,598. TRACTOR. TAUMAN B. FUNK, Columbus, Ohio, assignor, by mesne assignments, to Moline Plow Company, Moline, Ill., a Corporation of Illinois. Filed June 23, 1915. Serial No. 35,784. (Cl. 21—114.)

1. In a machine of the character described, a wheeled power mechanism, a member pivotally connected to the rear portion of said power mechanism to permit lateral swinging movement of said mechanism and member relative to each other, and rod-like controlling devices for said power mechanism, part of which are located on said mechanism and part supported by said member, and flexible means for connecting the respective parts of said controlling devices in a manner to permit lateral swinging movement of the same relative to each other.



2. In a machine of the character described, a wheeled power mechanism, a member swivelly connected to the rear portion of said mechanism in a way to permit lateral movement, rod-like controlling devices for said mechanism located partly upon said mechanism and partly upon said member, and a laterally yieldable connection in said controlling devices in line with the swiveled connection between said mechanism and member.

3. In a machine of the character described, a wheeled power mechanism, a member swivelly connected with said power mechanism to permit lateral swinging motion, controlling devices for said power mechanism including a bell-crank lever pivotally connected to said power mechanism and a bell-crank lever pivotally connected to said member, and a laterally yieldable connection between the respective bell-crank levers located in line with the swiveled connection between said mechanism and member.

4. In a machine of the character described, a power mechanism, a member swivelly connected thereto to permit laterally motion of the parts relative to each other, controlling devices for said mechanism consisting in part of two bell-crank levers located respectively upon said mechanism and member, one of said bell-cranks having a yoke and the other a ball extending into said yoke, said yoke and ball being located in vertical alinement with the swiveled connection between the mechanism and member.

5. In a machine of the character described, the combination of a power mechanism, a beam provided at its forward end with a vertically standing yoke having arms standing in vertical alinement with one another, alined vertical pivots for swivelly connecting the arms of the yoke to the power mechanism, a controlling device carried by the beam, a bell crank lever pivoted to the yoke and having one of its arms connected with the controlling device, and means connected with the other arm of the bell crank lever at a point in substantial coincidence with the pivotal axis of the yoke and connected with operative portions of the power mechanism for controlling the same, substantially as described.

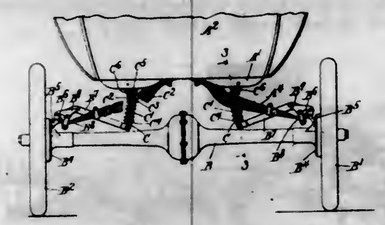
[Claims 6 and 7 not printed in the Gazette.]

1,243,599. SHOCK-ABSORBER. LEWIS P. HALLADAY, Streator, Ill. Filed Aug. 2, 1915. Serial No. 43,097. (Cl. 267—19.)

1. A spring suspension for a road vehicle, comprising a leaf spring, a supporting bracket, a lever interposed between the spring and the bracket, pivoted links interposed respectively between the bracket and lever and between the lever and spring, and a resilient support for the free end of the lever interposed between it and the vehicle body.

6. A spring suspension for road vehicles and the like comprising a leaf spring, a bracket carried by the axle and bent inwardly toward the spring, said bracket having

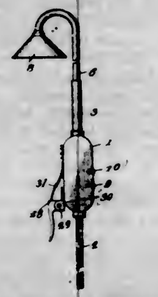
a pivot eye, a lever in rotatable engagement with the leaf spring, a yielding support for one end of the lever, the other end of the lever being fulcrumed to and positioned above the bracket, and means for holding such lever fulcrumed in position at a point outside the pivot eye of the bracket.



7. A spring suspension for road vehicles and the like comprising a vehicle frame, a vehicle frame, a leaf spring, a bracket carried by the vehicle axle and inclined inwardly toward the frame, a lever in rotatable engagement with the leaf spring, a yielding support for one end of the lever, and means for attaching the other end of the lever to said bracket and holding it in position above and outside of the bracket so that the lever may rock about a pivot line above and outside of the end of the bracket.

[Claims 2 to 5 and 8 not printed in the Gazette.]

1,243,600. ILLUMINATED MUSIC-LYRE. GEORGE A. HAMBRIGHT, Mount Vernon, N. Y. Filed Dec. 3, 1914. Serial No. 875,345. (Cl. 240—8.4.)



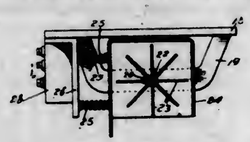
1. A music lyre including a standard, a flat-sided battery case supported on the standard, one of the flat sides forming a music sheet base, a bracket on the battery case, a sheet clamp pivoted on the bracket, a light standard surmounting the battery case, and a light bracket telescoped in the light standard, said light bracket being radially adjustable to throw a light on any portion of the music sheet surface at will.

2. In a music lyre, the combination with the battery case having a slot, a standard supporting the battery case and being insulated therefrom, a ring at one end of the case for supporting and centering a battery in the case, a fixed contact on the case for one battery terminal, a spring contact on the case adapted to engage the other battery terminal, said spring contact having a slot coincident with the battery case slot, and a handle having a shank movable in the coinciding slots with a head engaging the spring contact for disconnecting the contact from the battery terminal upon movement of the handle.

1,243,601. RAILROAD-SIGNAL. JOHN C. HENLEY, Fulton, Ky. Filed Feb. 16, 1917. Serial No. 149,048. (Cl. 246—23.)

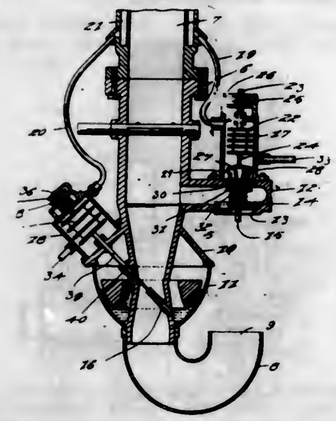
1. A railroad signal embodying a signal device, an air current operated mechanism controlling the signal device and adapted to be operated by the air currents set up by a passing train, and means interrupting the control of the signal device by said mechanism in the absence of a train.

5. A railroad signal embodying a signal device, a controlling circuit for controlling the operation of said device having a source of electrical energy therein, a rotatable switch member movable to open position when released for opening said circuit, a friction disk connected to said switch member, a train operated switch normally movable to open position in the absence of a train, a spring pressed casing movable against the spring tension by the air pressure created by a passing train, rotatable blades in said casing adapted to be rotated by the air currents set up by the passing train, and a friction wheel operated by said blades and adapted to be moved into engagement with the friction disk when said casing is moved by the air pressure.



[Claims 2 to 4 not printed in the Gazette.]

1,243,602. CARBURETER. SOL E. HERRN, Miles City, Mont. Filed Apr. 12, 1916. Serial No. 90,642. (Cl. 261—39.)



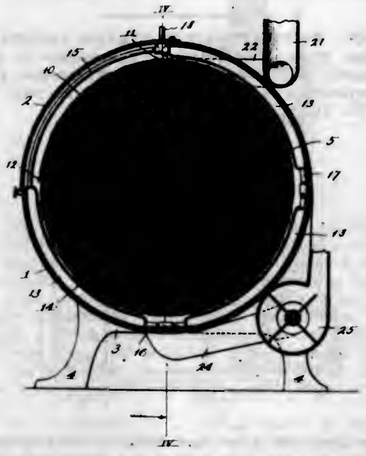
1. A carbureter comprising a body, means for securing said body to the manifold of an engine, an air inlet pipe connected to one end of the body, an outwardly and downwardly depending flange formed on the body, a cup-shaped member carried by said body and engaging the flange to form a fuel receptacle, an upwardly inclined nozzle formed in said body and in communication with the fuel receptacle, a needle valve slidable in the flange and body, and thermostatic means formed upon one end of the needle valve for moving said valve into and out of the nozzle.

2. A carbureter comprising a body, means for securing one end of said body to the manifold of an engine, an air inlet pipe connected to the other end of the body, an outwardly and downwardly depending flange formed on the body, a cup-shaped member carried by said body and engaging the flange to form a fuel receptacle, an upward inclined nozzle formed in said body and in communication with the fuel receptacle, a needle valve slidable in the flange and body, a casing carried by the flange, and thermostatic means formed upon one end of the needle valve and disposed in the casing for moving said valve into and out of the nozzle.

5. A carbureter comprising a body, means for connecting said body to the manifold of an engine, an air inlet pipe connected to said body, a fuel chamber carried by said body, a nozzle carried by said body and in communication with the fuel chamber, and thermostatic means carried by said body for controlling the amount of fuel passing through the nozzle into the body, a hollow extension formed on said body and having an auxiliary air inlet, a spring pressed valve normally closing said air inlet, a casing carried by said extension, a thermostatic element slidable in said casing, and means for connecting the thermostatic element with the valve for decreasing the tension of the spring thereof upon the expansion of the thermostatic element.

[Claims 3, 4, and 6 not printed in the Gazette.]

1,243,603. DRYING-TUMBLER. BROOKING T. HICKMAN, Kansas City, Mo. Filed Jan. 22, 1917. Serial No. 143,588. (Cl. 34—5.)



1. In a machine of the character described, a casing having a door therein, a cylinder of foraminous material journaled in said casing and provided with a door, a steam chest interposed between the walls of said casing and the cylinder, and means for creating an air current through the casing and the cylinder and against said steam chest.

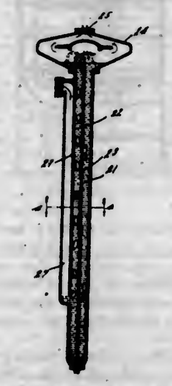
2. In a machine of the character described, a casing having a door therein, a cylinder of foraminous material journaled in said casing and provided with a door, a plurality of steam chests interposed between the walls of said casing and the cylinder, two of said steam chests being spaced apart opposite the door of the casing, steam pipes connecting said steam chests, and means for creating an air current through the casing and the cylinder and against said steam chests.

[Claims 3 and 4 not printed in the Gazette.]

1,243,604. SAFETY RELIEF DEVICE FOR LOW-PRESSURE STEAM-BOILERS. MARK C. HONEYWELL, Wabash, Ind., assignor to Honeywell Heating Specialties Company, Wabash, Ind., a Corporation of Indiana. Filed Apr. 3, 1916. Serial No. 88,574. (Cl. 137—53.)

1. A relief device for fluid pressure systems, comprising three liquid-containing tubes all higher at one end than at the other, two of said tubes being connected at a low point, a separating chamber provided with an outlet and into which said two tubes open upwardly at a high point on such tubes, said chamber being provided with a baffle plate above the point where said two tubes enter said chamber, and said third tube being connected to one of said first tubes at an intermediate point between the levels where such first two tubes are connected together and are connected to said chamber and being connected at a higher point to the pressure system, that one of said first two tubes to which the third tube is connected constituting the connection between the other of said first tubes and said third tube.

2. A relief device for fluid pressure systems, comprising three liquid-containing tubes all higher at one end than at the other, two of said tubes being connected at a low point, a separating chamber provided with an outlet and into which said two tubes open at a high point on such tubes, said chamber being provided with a baffle plate above the point where said two tubes enter said chamber, and said third tube being connected to one of said first tubes at an intermediate point between the levels where such first two tubes are connected together and are connected to said chamber and being connected at a higher point to the pressure system, said third tube being provided with a dividing partition through which the two parts of such tube are connected at higher and lower points, such higher point being higher than the lower part of the connection of said third tube to the pressure system and such lower point being lower than the connection of said third tube to one of said first two tubes.



3. A relief device for fluid pressure systems, comprising three liquid-containing tubes all higher at one end than at the other, two of said tubes being connected at a low point, a separating chamber provided with an outlet and into which said two tubes open at a high point on such tubes, and said third tube being connected to one of said first tubes at an intermediate point between the levels where such first two tubes are connected together and are connected to said chamber and being connected at a higher point to the pressure system, said third tube being provided with a dividing partition through which the two parts of such tube are connected at higher and lower points, such higher point being higher than the lower part of the connection of said third tube to the pressure system and such lower point being lower than the connection of said third tube to one of said first two tubes.

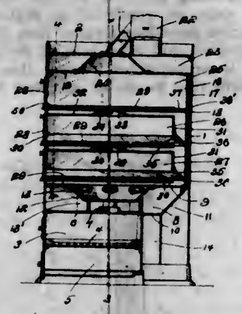
4. A relief device for fluid pressure systems, comprising three liquid-containing tubes all higher at one end than at the other, two of said tubes being connected at a low point, a separating chamber provided with an outlet and into which said two tubes open at a high point on such tubes, said chamber being provided with a baffle plate above the point where said two tubes enter said chamber, and said third tube being connected to one of said first tubes at an intermediate point between the levels where such first two tubes are connected together and are connected to said chamber and being connected at a higher point to the pressure system, said third tube being provided with a dividing partition through which the two parts of such tube are connected at higher and lower points.

5. A relief device for fluid pressure systems, comprising three liquid-containing tubes all higher at one end than at the other, two of said tubes being connected at a low point, a separating chamber provided with an outlet and into which said two tubes open at a high point on such tubes, and said third tube being connected to one of said first tubes at an intermediate point between the levels where such first two tubes are connected together and are connected to said chamber and being connected at a higher point to the pressure system, said third tube be-

ing provided with a dividing partition through which the two parts of such tube are connected at higher and lower points.

[Claims 6 to 12 not printed in the Gazette.]

1,243,605. PORTABLE BAKING-OVEN. PERCY HOWELL, Portland, Oreg. Filed Dec. 29, 1916. Serial No. 139,638. (Cl. 107—55.)



1. In a baking oven, a shell, a fire-box in the shell, a radiating chamber over the fire-box, an oven casing connected with the radiating chamber, baking chambers in the oven casing, deflector plates spacing said chambers from said casing, and said chambers having air inlet openings at the bottom thereof and air outlet openings at the top thereof.

2. In a baking oven, a shell having an outlet pipe, a fire-box in the shell and spaced therefrom, a heat radiating chamber over the fire-box and communicating with the said fire-box, smoke columns between the radiating chamber and the top of the shell, an oven casing connected with the radiating chamber, baking chambers in the oven casing, deflector plates spacing said chambers from the casing, and said chambers having air inlet openings at the bottom thereof and air outlet openings at the top thereof.

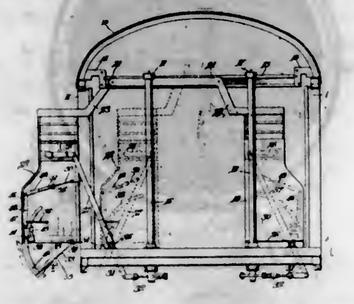
3. In a baking oven, a shell having an outlet pipe, a fire-box in the shell and spaced therefrom to provide an air chamber between the fire-box and the shell, a radiating chamber over the air chamber and fire-box and communicating with the said fire-box, smoke columns between the radiating chamber and the top of the shell, an oven casing in the shell and spaced therefrom, a facing of non-heat conducting material between the casing and shell, baking chambers in the oven casing, deflector plates spacing said chambers from the casing and the baking chambers from one another, and said baking chambers having air inlet openings at the bottom thereof and air outlet openings in the top thereof.

4. In a baking oven, a shell having an outlet pipe at the top thereof, a fire-box in the shell and spaced therefrom to provide an air chamber between the shell and fire-box, a radiating chamber disposed over the air chamber and fire-box and having an opening communicating with the fire-box, smoke columns between the radiating chamber and the top of the shell, an oven casing disposed over the radiating chamber and secured thereto and spaced from the shell, baking chambers in the oven casing, deflector plates between the baking chamber and the oven casing closing the spaces between the baking chambers and the oven casing and separating the baking chambers, said baking chambers having inlet openings at the bottom thereof and outlet openings in the top thereof, and air ducts passing through the radiating chamber between the air chamber and the oven casing.

5. In a baking oven, a shell having an outlet pipe at the top thereof, a fire-box in the shell and spaced therefrom to provide an air chamber between the shell and fire-box, a radiating chamber disposed over the air chamber and fire-box and having an opening communicating with the fire-box, smoke columns between the radiating chamber and the top of the shell, an oven casing disposed over the radiating chamber and secured thereto and spaced from the shell, baking chambers in the oven casing, deflector plates between the baking chambers and the oven casing closing the spaces between the baking chambers and the oven casing and separating the baking chambers, said baking chambers having inlet openings at the bottom thereof and outlet openings in the top thereof, and air ducts passing through the radiating chamber between the air chamber and the oven casing, and valves for the air chamber.

[Claims 6 and 7 not printed in the Gazette.]

1,243,606. RAILWAY MAIL-EXCHANGE APPARATUS. ALBERT HUPP, Washington, D. C., assignor to Hupp Automatic Mail Exchange Company, Washington, D. C., a Corporation of Delaware. Filed Feb. 26, 1915. Serial No. 10,748. (Cl. 258—6.)



2. In apparatus of the class described, the combination of a car, an elevated track extending transversely of the car in line with a door thereof, a delivery chute having rearwardly extending arms through which it is suspended from said track, and means under the floor of the car operatively connected with said chute for moving the same to and fro on said track.

7. In apparatus of the class described, the combination of an elevated track, a delivery chute suspended on said track and provided with a pivoted dumping bottom, means for latching said bottom in closed position, means for moving said chute on said track, and means for automatically releasing said latching means at a predetermined position of said moving means.

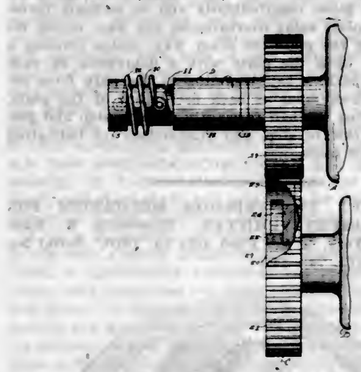
9. In combination with a car having a door, a chute for delivering mail, movable to and fro through the door, a shaft arranged adjacent the door, a plurality of arms on said shaft, means connecting said arms with opposite sides of the chute, means for rocking said shaft, a hinged bottom on said chute, and means whereby said bottom is permitted to swing downwardly independently of the chute when the latter reaches a predetermined point in its outward movement.

10. In combination with a car having a door, a chute, for delivering mail, movable to and fro through said door, means for supporting the chute adapted to prevent the same from tilting when projected from the car, a bottom hinged to the chute, a latch device for normally holding the bottom in closed position, automatically operated means for releasing said latch device, and means for closing the bottom when the chute is moved into the car.

12. In combination with a car having a door, a delivery chute, a shaft arranged adjacent the door, an arm arranged on said shaft and operatively connected with the chute to move the same to and fro when the shaft is rocked, a bottom hinged to the chute, a latch device for normally holding the bottom in closed position, and a telescopic rod connected with said latch device and said arm and adapted to release the latch when the chute reaches a predetermined point in its outward movement.

[Claims 1, 3 to 6, 8, and 11 not printed in the Gazette.]

1,243,607. STARTER MECHANISM. HARRY J. JOERDEN, Los Angeles, Cal., assignor of one-fourth to Lamont S. Wren, Hawthorne, Cal. Filed Nov. 21, 1916. Serial No. 132,533. (Cl. 74—7.)



1. The combination of a driving shaft; an idle gear mounted thereon; and means for automatically clutching said gear to said shaft upon power being applied thereto, comprising a clutch operating member mounted for rotation with respect to said shaft by inertia, guide means to move said member longitudinally upon rotation of said member, a clutch member splined to said shaft, normally disengaged from said gear, and means disposed to move said clutch member on longitudinal movement of said operating member, thereby driving the latter from said shaft.

4. The combination of a driving shaft; an idle gear mounted on said shaft; and means for automatically clutching said gear to said shaft upon power being applied thereto, comprising guide means on said shaft actuated by inertia having a helical thread, a member mounted on said guide means for rotation by inertia and in mesh with said helical thread for movement longitudinally of said shaft upon rotation of said member, a clutch member splined to said shaft and normally disengaged from said gear, means disposed to move said clutch member on longitudinal movement of said operating member in engagement with said gear, thereby driving the latter from said shaft; and resilient means to retract said guide means secured to the latter and said shaft.

6. The combination of a driving shaft; an idle gear mounted thereon; means for automatically clutching said gear to said shaft upon power being applied thereto, said means comprising a clutch operating member mounted for rotation with respect to said shaft by inertia, guide means to move said member longitudinally upon rotation of the latter, a clutch member splined to said shaft and normally disengaged from said gear, means disposed to move said clutch member in engagement with said gear on a longitudinal movement of said operating member, thereby driving the latter from said shaft; a gear in mesh with said idle gear; a shaft upon which said last mentioned gear is loosely mounted; and a one way clutch disposed to engage said last mentioned gear with said last mentioned shaft.

[Claims 2, 3, 5, and 7 to 10 not printed in the Gazette.]

1,248,608. THERMOSTATIC INDICATOR. JOHN M. JOHNSON, Kansas City, Mo. Filed July 19, 1915, Serial No. 40,702. Renewed May 24, 1917. Serial No. 170,779. (Cl. 177—311.)

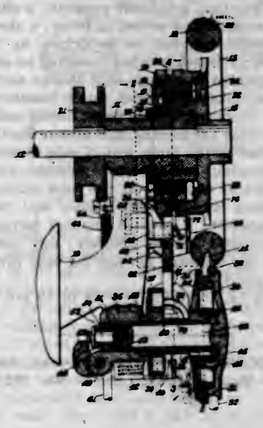
1. In combination with a casing, having a back and sides, a front wall having a concaved part which faces outwardly, a glass cover extending over said front wall, a thermostat in said concaved part, said wall having openings, a pair of electrodes on the thermostat engaging the cover and extending into said openings, a signal, a contact arm extending from the signal through one of said openings and engaged with the electrode of that opening, a battery, a contact arm extending through from the battery and through the other opening and engaged with the electrode of that opening.



3. In combination with a casing having a front wall formed with an outwardly facing concave part and openings, a thermostat having a pair of electrodes which aline with said openings, a battery and a signal in the casing, contact arms connected to the battery and signal and alined with said openings and contacting with said electrodes, and a cover for the front wall to hold the thermostat in said concaved part.

[Claims 2 and 4 not printed in the Gazette.]

1,243,609. STOP-MOTION FOR POWER-DRIVEN MACHINES. LAWRENCE E. JOHNSON, Melrose, and EDWARD ERICKSON, Cliftondale, Mass.; said Erickson assignor to Victor Shoe Machinery Company, Lynn, Mass., a Corporation of Massachusetts. Filed Apr. 14, 1917. Serial No. 162,550. (Cl. 74—46.)



1. In a device of the class described, the combination of a driving shaft; a pulley secured thereto having a hub; a disk on said shaft having an annular flange surrounding said hub; a spring interposed between said flange and said hub and normally engaging the periphery of said hub, one end of said spring projecting through a slot in said disk while the other end is secured to said flange; and means coacting with the projecting end of said spring for releasing the spring from contact with said hub.

14. In a device of the class described, the combination of a driving shaft; a pulley secured thereto; a member loosely mounted to oscillate on said shaft; a device interposed between said member and pulley for normally preventing the rotation of said pulley independently of said member; means for releasing said device from said pulley to permit its rotation; a pivoted lever; a pulley engaging brake shoe carried by said lever; and a cam for controlling the movement of said lever about its pivot.

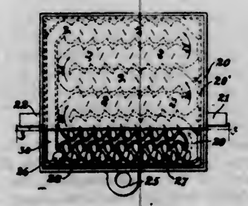
27. In a device of the class described, the combination of a driving shaft; a pulley secured thereto; a member loosely mounted to oscillate on said shaft; a device interposed betwen said member and pulley for normally preventing the rotation of said pulley independently of said member; means for releasing said device from said pulley to permit its rotation; a pivoted lever; a pulley engaging brake shoe carried by said lever; and revoluble means for controlling the movement of said lever about it pivot.

59. In a device of the class described, the combination of a driving shaft; a pulley secured thereto; a member loosely mounted to oscillate on said shaft; a device interposed between said member and pulley for normally preventing the rotation of said pulley independently of said member; means for releasing said device from said pulley to permit its rotation; a tubular support; a shaft therein adapted to be rotated and moved endwise; a sheave on the outer end thereof adapted to be driven by the pulley driving member; a clutch member mounted on said tubular support and adapted to engage said sheave and be driven thereby; a cam rotated by said clutch member; a brake for said pulley actuated by said cam; means under the control of the operator for moving said sheave shaft endwise; a headed member in the inner end of said sheave shaft; a washer surrounding said headed member and bearing against an annular shoulder in the bore of said tubular support; a spring between said washer and the head of said headed member; and means under the control of the operator for forcing said headed member against the tension of said spring to disengage said sheave and clutch member.

60. In a device of the class described, the combination of a driving shaft; a pulley secured thereto; a member loosely mounted to oscillate on said shaft; a device interposed between said member and pulley for normally preventing the rotation of said pulley independently of said member; means for releasing said device from said pulley to permit its rotation; a tubular support; a shaft therein adapted to be rotated and moved endwise; a sheave on the outer end thereof adapted to be driven by the pulley driving member; a clutch member mounted on said tubular support and adapted to engage said sheave and be driven thereby; a cam rotated by said clutch member; a brake for said pulley actuated by said cam; means under the control of the operator for moving said sheave shaft endwise; a headed member in the inner end of said sheave shaft; a washer surrounding said headed member and bearing against an annular shoulder in the bore of said tubular support, a spring between said washer and the head of said headed member; a pivoted member having an arm bearing against said headed member; and means under the control of the operator for moving said pivoted member about its pivot.

[Claims 2 to 13, 15 to 26, and 28 to 58 not printed in the Gazette.]

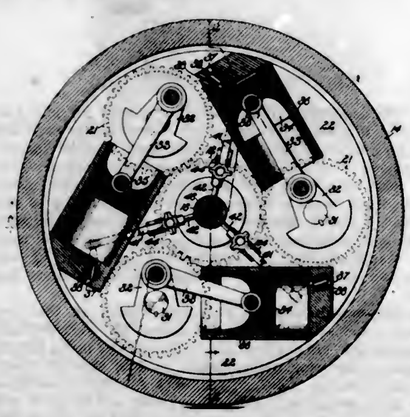
1,243,610. COUNTER. GROVER H. JONES, Los Angeles, Cal. Filed Mar. 6, 1917. Serial No. 152,723. (Cl. 235—68.)



1. A counter comprising a pair of horizontally alined bearings, a plate, trunnions extending from the plate into the bearings and permitting oscillation of the plate, the plate being overbalanced one way, means for overbalancing the plate the other way, means forming a zig-zag path upon the plate, a ball traveling in the path step by step, means directing the ball forwardly at each step and preventing a backward step, a transparent cover for the plate, and graduations upon the cover.

2. A counter comprising a plate pivotally mounted in a horizontal plane longitudinally and to oscillate transversely, the plate being overbalanced one way, means for overbalancing the plate the other way, means forming a zig-zag path upon the plate with a depression at each turn in the path, a ball traveling in the path from depression to depression at each oscillation of the plate, means directing the ball forwardly at each step and preventing a backward step, and graduations for indicating the number of steps.

1,243,611. TRANSMISSION MECHANISM FOR POWER-DRIVEN VEHICLES. FREDERICK W. KEMPER, New York, N. Y. Filed July 14, 1916. Serial No. 109,257. (Cl. 74—34.)



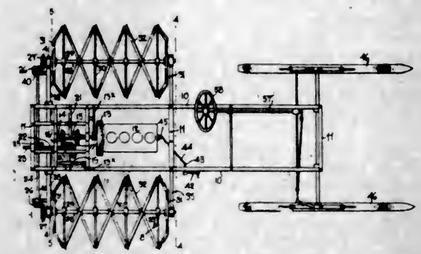
1. A mechanism as characterized comprising a continuously rotating driving shaft; a driven shaft, said driven shaft having a tubular end disposed in service adjacent to and coaxial with said driving shaft; a transmission mechanism interposed between said shafts, said mechanism embodying a rotary member rigidly connected with said driving shaft; rotary transmission members operatively engaged with said rotary member; means for retarding the rotation of said transmission members, said means embodying a reciprocating member disposed in the tubular end of said driven shaft; and means for manually shifting said reciprocating member to retard or accelerate the movement of said transmission members.

2. A mechanism as characterized comprising a continuously rotating driving shaft; a driven shaft, said driven shaft having a tubular end disposed in service adjacent to and coaxial with said driving shaft; a transmission mechanism interposed between said shafts, said mechanism embodying a rotary member rigidly connected with said driving shaft; rotary transmission members operatively engaging with said rotary member; means for retarding the rotation of said transmission members, said means embodying a reciprocating member disposed in the tubular end of said driven shaft; and means for manually shifting said reciprocating member to retard or accelerate the movement of said transmission members, said means embodying a sliding collar mounted on said driven shaft and operatively connected with the reciprocating member in the tubular end thereof, a ring mounted on said collar, friction-reducing devices disposed between said ring and said collar, and a shifting mechanism for said collar pivotally connected with said ring, whereby said collar and rod connected therewith may be readily reciprocated to and from said transmission members.

3. In a mechanism as characterized, the combination of a continuously rotating driving shaft; a cup-like fly wheel rigidly mounted thereon, said fly wheel having a rectangular central opening concentric with said driving shaft; a face plate for covering the open end of said fly wheel; a driven shaft extending through said face plate within said fly wheel; a variable speed transmission mechanism for operatively connecting said shafts, said transmission mechanism embodying a short shaft extending between and concentric with both of said first-mentioned shafts, said short shaft having a rectangular extension for fitting said rectangular opening in said fly wheel; a driving pinion rigidly mounted on said short shaft; a plurality of gear wheels operatively engaging said pinion; a plurality of disks surrounding said pinion and concentric therewith, said disks providing bearings for said gear wheels; and a plurality of friction-reducing bearings for said driven shaft, said short shaft, and said disks for maintaining the alinement of said shafts and said fly wheel.

4. In a mechanism as characterized, a cylinder closed at one end; a piston reciprocatively mounted in said cylinder; a crank-driven connecting rod reciprocating said piston, said connecting rod being pivotally connected with said piston; a wrist pin operatively connecting said connecting rod and said piston; and means for equalizing the medium in said cylinder with the surrounding atmosphere at the extremes of the movement of said piston, said means embodying a plurality of slots in said piston, wrist pin, and connecting rod, said slots being adapted to aline at the extremities of the stroke of said piston.

1,243,612. MOTOR-DRIVEN SLED. DEWEY S. KROHN, Simpson, Montana. Filed Apr. 7, 1917. Serial No. 160,434. (Cl. 180—3.)

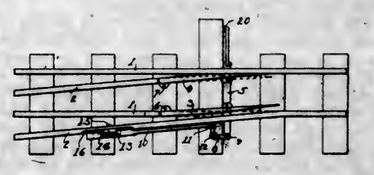


1. A motor driven sled including a body, laterally disposed drivers having helically disposed blades, a motor mounted on the body, a driving shaft, a clutch between the motor and the driving shaft, a sleeve mounted on the driving shaft for longitudinal movement and carrying oppositely faced beveled gear wheels, a shaft extending at right angles to the sleeve and having a beveled gear wheel with which either one of the first named beveled gear wheels are adapted to engage, a transversely extending shaft operatively connected to the drivers to rotate them, and operative connections between the last named shaft and the shaft extending at right angles to the sleeve.

2. A motor driven sled including a body, laterally disposed longitudinally extending drivers having helically disposed blades, each driver being provided with an axially extending shaft, beveled gear wheels carried upon the rear end of each shaft, means operatively supporting the rear end of each shaft from the frame and permitting the shaft and driver to have movement in a vertical plane, a transverse shaft having beveled gear wheels engaging the beveled gear wheels on the driven shafts, means for transmitting power to the transverse shaft, and means yieldingly supporting the forward ends of the drivers from the frame.

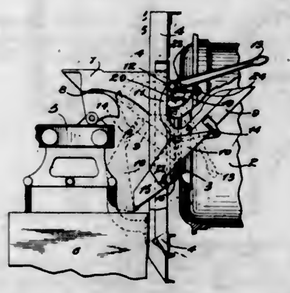
3. A motor driven sled including a body having laterally disposed longitudinally extending driving shafts, a motor mounted on the body, drivers mounted on the shafts and having helical blades, a transversely extending supporting bar in which the forward ends of the shafts are mounted, a spring engaging the body of the sled and yieldingly supporting the bar, oppositely disposed transversely extending shafts in which the rear ends of the driver shafts are supported to permit the driver shafts to have movement in a horizontal plane, and a shaft supported on said last named shafts extending parallel thereto and operatively connected to the shafts of the drivers and to the motor.

1,243,613. SWITCH. JOHN LEE, Springfield, Ill. Filed Aug. 11, 1916. Serial No. 114,456. (Cl. 104—23.)



In a device of the character described, the combination with a track and switch therefrom, of a trigger attached to a track rail and normally held in upright position by spring members, spring members, an actuating bar, a bell crank, and a connecting bar for said switch tongues, substantially as described.

1,243,614. DELIVERY-CHUTE FOR MIXING-MACHINES. CHRISTOPHER W. LEVALLEY, Milwaukee, Wis. Filed Feb. 21, 1914. Serial No. 820,232. (Cl. 193—29.)



1. A delivery chute formed of two sections pivotally connected together near their ends whereby they are adapted to be brought into alinement with each other or to fold relative to each other, and arms rigidly connected with one of the chute sections and pivotally supported, the arms holding such section at a distance from the pivotal center about which the arms oscillate.

2. A delivery chute formed of two sections pivotally united to each other near their ends and adapted to be moved into alinement with each other, or to be folded at an angle to each other, and a pair of pivoted arms connected with one of the sections near that end that is pivotally united with the other section, the said arms holding the chute at a distance from the center about which the arms oscillate, and means by which the said arms may be oscillated.

3. The combination of a chute formed of two sections pivotally united and adapted to be brought into alinement with each other or to be folded relative to each other, pivoted arms connected with one of the said sections and arranged to hold it at a distance from the pivotal center about which the arms swing, means for oscillating the arms so as to carry the chute section from a position at one side of the vertical plane passing through the axis of oscillation to the other side of the said plane, and means for causing the sections of the chute to be brought into alinement when the chute section supported by the arms is swung to one side of the said vertical plane, the free pivoted section being adapted to fold relative to the sup-

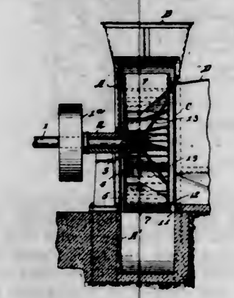
ported section when the latter is turned to the other side of the said vertical plane.

4. A chute pivotally supported so that when swung into one position it inclines in one direction and when swung into another position it inclines in the opposite direction, a chute secton pivoted directly to the first mentioned chute so as to be free to swing about its pivotal connection and arranged to fold relative thereto when the said chute is swung into one of the aforesaid positions, and means for bringing the chute section into alinement with the chute to which it is connected when the latter is swung into the other of the aforesaid positions.

5. The combination of a delivery chute formed of two sections pivotally connected to each other and arranged either to be moved into alinement or to be folded relative to each other, pivoted arms connected to one of the sections and holding it at a distance from the center about which the arms oscillate, the arms being connected with the chute section so that when they are turned to carry such section to one side of the vertical plane passing through the axis of oscillation of the arms the said section inclines in one direction, and when turned to carry the section to the other side of the said plane the chute section inclines in the opposite direction, and a stationary chute adapted to be engaged by the free end of the freely swinging chute section and arranged to be engaged by the latter as the supported chute section is moved to one side of the said vertical plane, whereby the chute sections are caused to be brought into substantial alinement with each other and into position to deliver to the said stationary chute.

[Claims 6 and 7 not printed in the Gazette.]

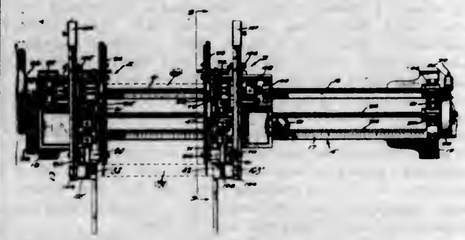
1,243,615. FAN. WILLIAM K. LIGGETT, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, Columbus, Ohio, a Corporation of Ohio. Filed Aug. 7, 1913. Serial No. 783,567. (Cl. 230—11.)



1. In a centrifugal fan, the combination with a casing, of a rotatable imperforate plane sheet metal disk, a narrow rotatable plane sheet metal ring parallel to and spaced from the disk and having the same outer diameter, and closely arranged sheet metal blades concaved in the direction of rotation and extending between and secured to the said disk and ring, the blades being formed from metal sheets having varying lengths at the sides secured to the disk and having equal lengths at the sides secured to the ring substantially the same as the width of the ring.

2. In a centrifugal fan, the combination with a casing, of a rotatable imperforate plane sheet metal disk, a narrow rotatable plane sheet metal ring parallel to and spaced from the disk and having the same outer diameter, closely arranged blades concaved in the direction of rotation and extending between and secured to the said disk and ring, the blades being formed from metal sheets having varying lengths at the sides secured to the disk and having equal lengths at the opposite sides substantially the same as the width of the ring, and braces extending inward from the ring to points near the center of the disk.

1,243,616. AUTOMATIC DRILLING-MACHINE. CLARENCE E. LOYD, Los Angeles, Cal. Filed Aug. 28, 1916. Serial No. 117,290. (Cl. 144—112.)



1. In a machine for drilling dowel holes in sash members, a supporting frame, a pair of housings on said frame, a drill in each of said housings extending toward each other, a second drill in said housings arranged at right angles to the first-named drills, means for advancing and retracting said drills, and reciprocating means for automatically interposing a piece of work in the path of travel of the first-named drills when moving in one direction and for placing another piece of work in front of the second drills when moving in the opposite direction.

5. In a machine for drilling dowel holes in sash members, the combination of a pair of alined drills, sets of parallel drills arranged at right angles to the alined drills, vertical guide racks for the work, a pair of horizontally reciprocal and parallel feed bars having engaging members extending upward and between the bases of said racks, said feed bars extending in the direction of the parallel drills, means for reciprocating said bars simultaneously whereby the work will be alternately discharged from said racks in opposite directions, one piece of work being disposed between the alined drills, and the other at right angles to the parallel drills, in the path of travel of said drills, and means for reciprocating said drills whereby holes will be formed in ends of one of the pieces of work and in the sides of the other pieces of work.

10. In a machine for drilling dowel holes in sash members, a supporting frame, a pair of housings on said frame, sets of drills operatively mounted within said housings, vertical feed racks secured to the housings, a drilling platform adjacent the feed racks, a feed bar for moving a sash member from the bottom of the feed racks to the drilling platform and lowering the stack, a rocker arm for raising and lowering and reciprocating the feed bar, counterweighted arms pivoted at the rear of the housings and having presser plates to engage on top of the sash member and angles to engage the ends and sides and hold the sash member securely upon the drilling platform, extension arms projecting from the counterweighted arms, and rocker cams engaging the extension arms.

14. In a machine for drilling dowel holes in sash members, a set of intermittently moving drills, feed racks disposed adjacent thereto, a feed bar horizontally reciprocated to feed work from the racks to a position in the path of travel of the drills, a rocker arm pivotally connected to the feed bar, means whereby the arm may be reciprocably moved through a vertical plane, and means for causing the rocker arm to raise and lower the outer end of the feed bar as said bar is reciprocated, whereby a piece of work may be fed to the drills and the remaining work lowered to the floor of the feed racks without jar.

17. In a machine for drilling dowel holes in sash members, a set of feed racks adapted to receive superimposed pieces of work, a set of feed racks adjacent thereto adapted to receive other superimposed pieces of work, a feed bar reciprocated between said racks to alternately discharge the lowermost piece of work from each rack, a counterweight arm, means whereby the counterweight arm will be swung into engagement with a piece of work fed from one feed rack, a locking lug adapted to be swung into locking engagement with the piece of work fed from the other feed rack, and means whereby the feed bar may be vertically swung to lower the work within the feed rack to the floor thereof as a piece of work is being fed therefrom.

[Claims 2 to 4, 6 to 9, 11 to 13, 15, and 16 not printed in the Gazette.]

1,243,617. GRAB-HOOK. COLUMBUS MCPHERSON, Dacono, Colo. Filed Oct. 23, 1916. Serial No. 127,262. (Cl. 57—9.)

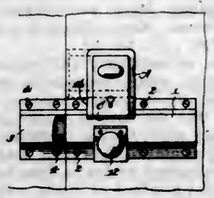


1. The combination with the pump casing of a well, of a grab hook removably carried at the lower end of the casing and depending therefrom for facilitating the removal of an obstruction at the well bottom.

2. The combination with the pump casing of a well, of a hollow section removably carried thereon, having a grab hook depending therefrom and a pivoted gripping member coöperating therewith for facilitating the removal of an obstruction at the well bottom.

3. The combination with the pump casing of a well, of a hollow cylindrical section removably carried thereon, said section having a lower bell shaped end, a depending grab hook rigidly carried by said section and a pivoted gripping member within said section and coöperating with said grab hook to facilitate the withdrawal of an obstacle from the well bottom.

1,243,618. DOOR-SECURING DEVICE. JAMES P. MACKAY, New York, N. Y. Filed May 24, 1916. Serial No. 99,598. (Cl. 70—14.)

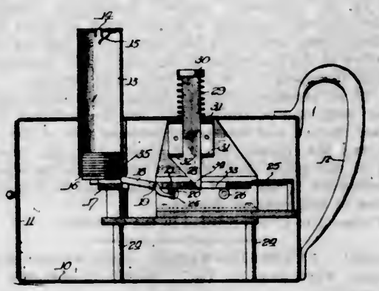


1. A fastening for doors comprising a housing, a bolt slidable therein and means for projecting and retracting the bolt, said housing having a relatively large recess through which the bolt is exposed and a relatively small recess between the end walls of the large recess, and said bolt having a recess adapted to register with the small recess in the housing, in combination with a lock casing having a key actuated bolt, said lock casing being adapted to be mounted with one end seated in the large recess of the housing and the key projected bolt adapted for engagement with the small recess in the housing and also with the recess in the bolt mounted in the housing in one position of said bolt.

2. In a door fastening device, a housing, a bolt slidable therein, means for projecting and retracting the bolt, and a keeper adapted to receive one end of the bolt when projected, said housing having a recess through which the bolt is exposed, in combination with a conventional unitary lock casing mounted with one end thereof seated in the recess of the housing, and a slidable key retracted bolt in said lock casing with one end thereof impinging on the bolt within the housing, said last mentioned bolt having a recess adapted to be engaged by the bolt in the lock casing.

3. As an article of manufacture, a door fastening device comprising a housing, a bolt slidable therein, and means for projecting and retracting the bolt, said housing having a recess through which one face of the bolt is exposed, and said bolt having a recess which may be placed in and out of registry with the recess in the housing; the recess in the housing being adapted to form a seat for one end of a conventional unitary lock casing having a key retracted bolt with which the bolt in the housing is adapted to coöperate.

1,243,619. COIN-REGISTER. MAURICE H. MANDELBAUM, Chicago, Ill. Filed Feb. 3, 1913. Serial No. 745,765. (Cl. 235—32.)

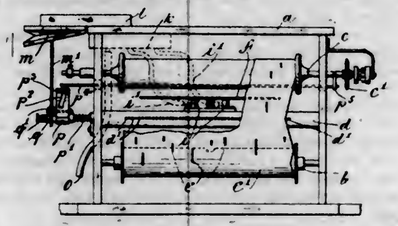


A device of the character described consisting of a portable coin collector and counter including a coin receiving and storing chamber adapted to receive and store a stack of coins of a given denomination, said chamber being formed with a guarded inlet through which the coins may be freely inserted into the chamber at will but out of which said coins are permanently prevented from withdrawal, a predetermined normally closed emergent discharge opening for said storing chamber, a handle whereby the device may be conveniently held in one hand of the user, emergent discharge instrumentalities operatively associated with the coin discharge opening having a thumb actuable means to be operated from the hand carrying the device for ejecting a single coin at a time from the storage chamber at the desire of the user and at a point accessible to the other hand of the user, and a coin counter adapted to be actuated by the releasing of each coin from the chamber to progressively count and indicate the total number of coins taken from the chamber and which added to the coins remaining in the chamber will denote the grand total of coins collected.

1,243,620. TRACKING DEVICE FOR AUTOMATIC MUSICAL INSTRUMENTS. DOMENICO MORANO, New York, N. Y., assignor, by mesne assignments, to Weser Bros., Inc., New York, N. Y., a Corporation of New York. Filed Aug. 1, 1916. Serial No. 112,493. (Cl. 84—161.)

1. In an automatic tracker mechanism, pneumatic tracking devices having a controlling member controlled by the frictional drag of the music sheet thereon exerted in the

direction of movement of the note sheet for initiating operation of said pneumatic devices.



2. In an automatic musical instrument having pneumatic tracker devices, having means engaged with the face of the note sheet and actuated by the frictional drag exerted thereon by the note sheet in the direction of movement of the note sheet to initiate operation of said tracker devices.

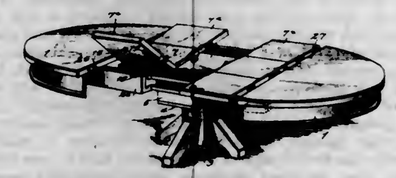
3. In an automatic musical instrument the combination with the tracker bar, of pneumatic tracking devices to maintain registration between perforations in a note sheet and the ducts in the tracker bar, and having means actuated by the frictional drag of the music sheet on said means exerted in the direction of movement of the note sheet upon wandering to initiate operation of said tracker devices.

4. In an automatic tracker mechanism pneumatic tracker devices, including a pivoted lever actuated by the frictional drag exerted by the music sheet thereon in the direction of the movement of the sheet upon wandering to control the operation of said pneumatic devices.

5. In an automatic tracker mechanism tracker devices, music rolls and a tracker bar, means included in the tracker devices and interposed between one of the music rolls and the tracker bar and actuated by the frictional drag of the music sheet thereon exerted in the direction of movement of the sheet upon wandering to initiate operation of said tracker devices.

[Claims 6 to 17 not printed in the Gazette.]

1,243,621. EXTENSION-TABLE. CARL NELSON, Toledo, Oreg. Filed Jan. 12, 1917. Serial No. 141,968. (Cl. 45—112.)



2. An extension table comprising end leaves having legs, a pedestal, oppositely arranged series of slides connecting the leaves and the pedestal, a substantially rectangular frame connected with the pedestal between the series of slides, intermediate leaves connected with the frame between the end leaves, each intermediate leaf consisting of a central and lateral sections, the lateral sections being hinged to the side members of the frame to fold outwardly into the plane of the end leaves or inwardly upon the central section, a swinging connection between the lateral sections and the central section of each intermediate leaf for swinging the said section up in the plane of the end leaves when the lateral sections are swung outwardly into the plane of the said end leaves.

[Claim 1 not printed in the Gazette.]

1,243,622. FISHERMAN'S GLOVE. HARRY NIELSEN, New York, N. Y. Filed Apr. 19, 1916. Serial No. 92,202. (Cl. 2—9.)

1. A fisherman's glove comprising a hand covering having finger portions and a thumb portion, metallic disks located contiguous to the outer ends of said finger portions and said thumb portions, said disks having outturned serrated edges and spaced apart slots, and staples passed through the slots of said disks and the body of the hand covering, said staples having their ends bent over to removably retain the disks in position.



2. A fisherman's glove comprising a hand covering having finger portions and a thumb portion, metallic disks located contiguous to the outer ends of said finger portions and said thumb portion, said disks having outturned serrated edges and spaced apart slots, clamping plates opposite said disks and located within the glove, said plates having openings corresponding to said slots, and staples passed through the slots of said disks and the openings of said clamping plates and having their ends bent over against said clamping plates to removably retain the disks in position.

3. A fisherman's glove comprising a hand covering provided with metallic disks having outturned serrated edges, reinforcing members interposed between the respective disks and the hand covering, staples passed through said disks, said reinforcing portions, and the body of the hand covering, said staples having their ends clenched inside of the hand covering, and lining pieces covering the clenched ends of the staples.

4. A fisherman's glove comprising a hand covering provided with metallic disks having outturned serrated edges, said disks being dished to provide concaved back faces, staples passed through said disks and extending through to the interior of said hand covering, and lining plates shaped to conform to said disks, the ends of said staples being clenched against the inner faces of said plates.

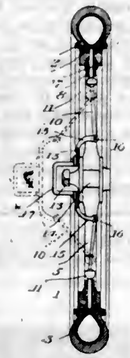
1,243,623. PROCESS OF TREATING VULCANIZED RUBBER. FRANK V. O'NEILL, Boston, Mass., assignor, by direct and mesne assignments, of one-half to Henry Carmichael, Malden, Mass., and one-half to Wanda W. MacKusick, Boston, Mass. Filed Oct. 28, 1913. Serial No. 797,770. (Cl. 18—52.)

1. The process of reclaiming and regenerating rubber from rubber waste, which consists in treating rubber waste in a closed digester under pressure and at a temperature below that detrimental to the rubber product, with refined rosin spirit having a boiling point below a temperature detrimental to the rubber, maintaining digestion until the vulcanized rubber is dissolved, evaporating the solvent in the presence of steam below detrimental temperature, and finally removing from the regenerated rubber moisture and solvent, substantially as described.

[Claims 2 to 9 not printed in the Gazette.]

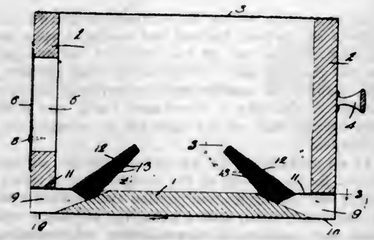
1,243,624. DEMOUNTABLE RIM. CYRIL NORTON OUTERBRIDGE, Charlottesville, Va. Filed Apr. 14, 1917. Serial No. 162,083. (Cl. 152—21.)

1. In a device of the character described, the combination with a wheel and a demountable rim, of means disposed on opposite sides of the wheel for engagement with the rim, and a toggle mechanism connecting said oppositely disposed means, said toggle mechanism being adapted to abut a surface on said wheel when it is moved inwardly beyond its centers.



[Claims 2 to 7 not printed in the Gazette.]

1,243,625. ROACH HIVE OR TRAP. JOHN ANTHONY OWENS, Moultrie, Ga., assignor to Clay L. Dean, Moultrie, Ga. Filed May 22, 1916. Serial No. 99,146. (Cl. 43—22.)

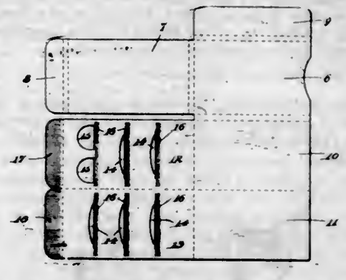


An insect trap comprising a casing having a bottom provided with an entrance recess extending into its margin and providing an inclined runway, and a sheet of reticulated material slit from its side edges between its ends, that portion of said sheet at one side of the slits being secured upon the bottom across said recess, the opposite portion of said sheet being inclined from the aforesaid portion thereof and having wings provided by said slits, said wings being bent back downwardly into overlapping relation to provide a leader, and said overlapped wings seating upon said runway.

1,243,626. FOLDING RECEPTACLE. EDWARD E. PINKERTON, Chicago, Ill. Filed June 5, 1915. Serial No. 32,314. (Cl. 229—87.5.)

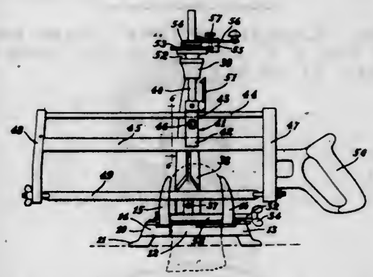
1. A folding receptacle formed from a single blank and comprising a main receptacle side; a cover side at the end of said main side and foldable thereon; a securing flap at the free edge of said cover side; a side flap at one side of said main side and foldable thereon in a direction substantially at right angles to the direction of fold of said cover side; a second side flap on the free edge of said first mentioned side flap and foldable thereon; and a securing flap at the other side of said main side, substantially as described.

2. A folding receptacle formed from a single blank and comprising a main receptacle side; a cover side at the end of said main side and foldable thereon; a securing flap at the free edge of said cover side; a side flap at one side of said main side and foldable thereon in a direction substantially at right angles to the direction of fold of said cover side; a second side flap on the free edge of said first mentioned side flap and foldable thereon; retaining pockets on the inner faces of said side flaps; and a securing flap at the other side of said main side, substantially as described.



3. A folding receptacle formed from a single blank and comprising a main receptacle side; a cover side at the end of said main side and foldable thereon; a securing flap at the end of said cover side; a side flap at one side of said main side and foldable thereon in a direction substantially at right angles to the direction of fold of said cover side; a second side flap on the free edge of said first mentioned side flap and foldable thereon; flaps at the ends of said side flaps corresponding to said cover side and folded onto said side flaps, there being a plurality of openings in said folded flaps and said folded flaps being secured to said side flaps adjacent adjoining sides of said openings to form pockets; and a securing flap at the other side of said main side, substantially as described.

1,243,627. HEEL-CUTTING APPARATUS. FRANCIS J. RIBBLE, San Pedro, Cal. Filed May 7, 1917. Serial No. 167,083. (Cl. 12—42.)



1. A heel cutting apparatus, comprising a pair of clamping jaws adapted to grip a shoe, a saw by which the heel of said shoe is severed, means whereby the clamping jaws may be horizontally adjusted in relation to the blade of the saw, means for guiding the saw as it produces a cut through the heel of the shoe, and a clamping pin adapted to bear against the end of the heel to insure that the leather will be entirely severed by the saw.

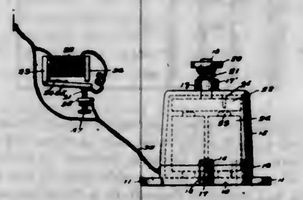
5. In a heel cutting apparatus, a base adapted to be mounted upon a table, a pair of supporting arms extending forwardly from the base and forming guide-ways, a slide plate mounted upon one of the guide ways, a second slide-plate mounted upon the other guide-way, a connecting bar extending from the first slide-plate, a guide block upon the second slide-plate through which said connecting bar extends, an adjusting screw connecting the two slide plates for moving the slide-plates to and from each other, an adjusting screw connecting the slide-plates to the base for moving the slide plates backwardly and forwardly, jaws mounted upon the slide-plates for engaging the hee.

of a shoe, and a clamping screw mounted in position to engage the lower face of a shoe heel when the heel is between the jaws.

6. In a heel cutting apparatus, a heel clamping jaw comprising a rigid standard, a jaw pivotally connected to the standard, said jaw being arcuate in cross-section and arcuate longitudinally so as to conform to the curved side face of a shoe heel, a rubber facing for the jaw, and means for holding the rubber facing in place upon the jaw.

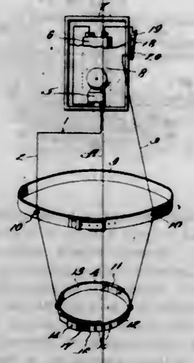
[Claims 2 to 4 not printed in the Gazette.]

1,243,628. VIBRATOR. WALTER VAN B. ROBERTS, Princeton, N. J., assignor to Robert E. Hopkins, Tarrytown, N. Y. Filed June 2, 1916. Serial No. 101,427. (Cl. 175—338.)



In a vibrator of the class described, a base of magnetic material having perforated ears formed thereon, a flange rising from said base, lugs formed on the sides of said base, a housing of non-magnetic material secured to said base, lugs formed on the sides of said housing, fastening means passing through the lugs on said base and said housing, a boss formed on said housing, a stem slidable through said boss, an armature carried by said stem, an adjusting nut carried by said stem, a spring in compression between said boss and said adjusting nut, wings formed in said housing to guide said armature in a vertical movement, and electro-magnets in said housing secured to said base, having the windings thereof in closed circuit with an external source of pulsating current.

1,243,629. SURGICAL APPLIANCE. EDWARD RODDY, New York, N. Y. Filed Jan. 13, 1917. Serial No. 142,241. (Cl. 174—88.)

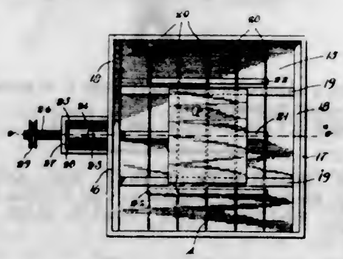


1. In a device of the class described, a belt having eyes thereon, an electrical circuit having conducting wires loosely passing through said eyes and including a battery and an alarm, a resilient convolute band having overlapping ends of conducting material connected with ends on said conducting wires, and means on said band for normally holding said overlapping ends in spaced relation.

2. In a device of the class described, a belt having eyes thereon, an electrical circuit having conducting wires passing through said eyes and including a battery and an alarm, a resilient split band having terminals of conducting material connected with said conducting wires and normally arranged in overlapping relation, a member of non-conducting material adjustably mounted on said band and normally holding said overlapping ends in spaced relation, and means for holding said member in adjusted position upon said band.

3. In a device of the class described, a resilient split band having normally overlapping end portions of conducting material, a block of non-conducting material mounted to slide on one of said end portions and normally holding the same in spaced relation, said last mentioned end portion having a row of spaced openings therein, and a latch on said block having a locking stud thereon to be received in said openings.

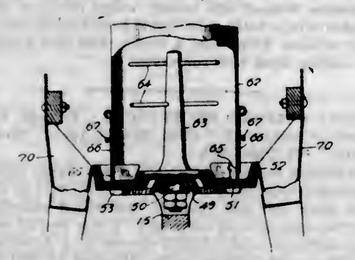
1,243,630. ETCHING DEVICE. VICTOR C. RONNING, Utica, N. Y. Filed Feb. 7, 1916. Serial No. 76,841. (Cl. 41—9.)



1. In an etching device, an etching trough, an agitator slidable in the bottom thereof and having a stem portion projecting through one of the walls of the trough, and means for mechanically reciprocating said agitator, said means including a driven shaft, a cylinder mounted on said shaft and having a cam-shaped track, and a tracker carried by the stem of the agitator in engagement with the track.

2. In an etching device, an etching trough, an agitator supported in the bottom of the trough, said agitator comprising a bar having a stem portion that extends through a wall of the trough, and a plurality of combs mounted on said bar, means for mechanically reciprocating the agitator, guides on the inner faces of opposed walls of the trough, and a plate supporting rack including cross bars adjustably mounted on the guides.

1,243,631. SEED-FEEDING MECHANISM. JOHN WESLEY ROPP, Cross Hill, S. C. Filed Nov. 16, 1916. Serial No. 131,664. (Cl. 221—130.)



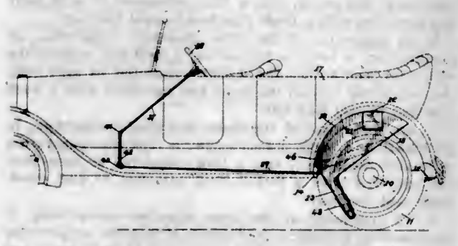
2. In a machine of the class described, a seed feeding mechanism including a stationary hopper, a rotating seed cup below the hopper having a flange surrounding the lower end of the hopper in spaced relation to form a seed channel, a plurality of seed chutes having their upper ends terminating adjacent the flanged edge of the said seed cup at points spaced therearound, stationary seed discharging members secured to the hopper and depending into the said seed channel adjacent the several seed chutes, and adjustable seed feeding doors in the lower portion of the hopper also adjacent the several seed chutes, through which the seed may find its way into the said seed channel.

3. In a machine of the character described, the combination of a plurality of seed chutes, a stationary seed hopper, a rotary seed pan into which the hopper opens at certain points, and a plurality of seed discharging members adjustably fixed adjacent the seed chutes and inclined downwardly into the said seed pan.

5. In a machine of the class described, the combination of a plurality of seed chutes, a stationary seed hopper, a rotary seed pan in which the hopper is disposed, and a plurality of seed discharging members adjustably fixed adjacent the seed chutes and inclined downwardly into the seed pan, said hopper having a plurality of seed openings leading into the seed pan, and adjustable drawers adjacent the said openings of the hopper.

[Claims 1, 4, and 6 not printed in the Gazette.]

1,243,632. SANDER FOR AUTOMOBILES. AUGUST A. ROTH and BARTLETT B. JAMES, Baltimore, Md., assignors, by direct and mesne assignments, to Surface Grip Corporation, Baltimore, Md., a Corporation of Maryland. Filed June 19, 1916, Serial No. 104,504. Renewed Mar. 6, 1917. Serial No. 152,877. (Cl. 105—60.)



1. In a road-sander device for automobile cars the combination of two driving wheels one at each side of the car; two magazines for containing sand or other granular material each of said magazines being mounted on the chassis at an opposite side from the other so that each magazine will have position at the inner side of a different driving wheel; a sand-discharge pipe leading from each magazine and the lower end of said pipe terminating at a point near the road surface and adjacent that part of the inner side of a driving wheel that contacts with the road surface; a valve at each of said two sand-discharge pipes; a sand-control lever at the steering wheel of the automobile, and means connecting between the said control lever and each of said two valves, whereby sand may be applied to the road surface adjacent either one of said driving wheels without applying it to the road adjacent the other wheel.

2. In a road-sander device for automobile cars the combination of two driving wheels one at each side of the car; two magazines for containing sand or other granular material each of said magazines being mounted on the chassis at an opposite side from the other so that each magazine will have position at the inner side of a different driving wheel; a sand-discharge pipe leading from each magazine and the lower end of said pipe terminating at a point near the road surface and adjacent that part of the inner side of a driving wheel that contacts with the road surface; two sets of independent means each set leading from within reach of the driver's seat and each communicating with only one of said magazines to open and close said sand-discharge pipe, and one means manually controlled by the driver to operate either one of said two sets of means.

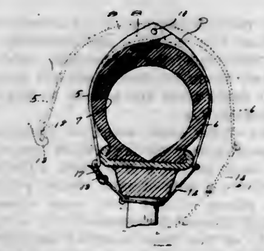
3. In a road-sander device for automobile cars the combination of two driving wheels one at each side of the car; two magazines for containing sand or other granular material each of said magazines being mounted on the chassis at an opposite side from the other so that each magazine will have position at the inner side of a different driving wheel; a sand-discharge pipe leading from each magazine and the lower end of said pipe terminating at a point near the road surface and adjacent that part of the inner side of a driving wheel that contacts with the road surface; a steering wheel for the automobile; a sand-control lever attached to the support of said steering wheel and said lever adapted to be brought in close relation with said steering wheel so that the driver's hand may grasp both the lever and said wheel to guide the automobile and to control the discharge of sand.

4. In a road-sander device for automobile cars the combination of two driving wheels one at each side of the car; two magazines for containing sand or other granular material each of said magazines being mounted on the chassis at an opposite side from the other so that each magazine will have position at the inner side of a different driving wheel; a sand-discharge pipe leading from each magazine and the lower end of said pipe terminating at a point near the road surface and adjacent that part of the inner side of a driving wheel that contacts with the road surface; a steering wheel for guiding the automobile, and means cooperating with said steering wheel and also with both of said sand-discharge pipes whereby the direction to which the steering wheel may be turned in guiding will determine which driving wheel shall receive near its inner side an application of sand to the road surface.

5. In a road-sander device for automobile cars, the combination of a sand-magazine; a sand-discharge pipe for each of two driving wheels at opposite sides of a car and each pipe provided with a valve; a steering wheel for guiding the automobile; a sand-control lever pivoted to the tube of the steering wheel; and reverse means connecting between said pivoted lever and the valves of two sand-discharge pipes at opposite sides of the car.

[Claims 6 and 7 not printed in the Gazette.]

1,243,633. TIRE-ARMOR. EDWARD M. RUSSELL, Battle Mountain, Nev. Filed Nov. 3, 1915. Serial No. 59,380. (Cl. 152—14.)



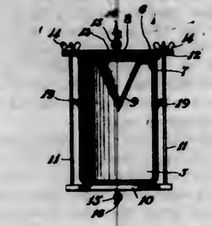
1. An anti-skidding device including a pair of plates having their adjoining ends overlapped, upstanding flanges carried by the longitudinal edges of said plates, the flanges of the corresponding edges of the two plates being overlapped, means pivotally connected to the overlapped portions of said flanges, and means connecting the other ends of said plates.

2. An anti-slipping device including a pair of transversely and longitudinally curved plates having their adjacent ends overlapping, marginal anti-slipping flanges formed on the adjacent ends of the plates and overlapping each other, rivets connecting the edges together for permitting the plates to move with relation to each other, and means connecting the other ends of plates.

1,243,634. CHURN. SAMUEL H. SANDEFUR, Cherryvale, Kans. Filed May 26, 1916. Serial No. 100,182. (Cl. 259—125.)

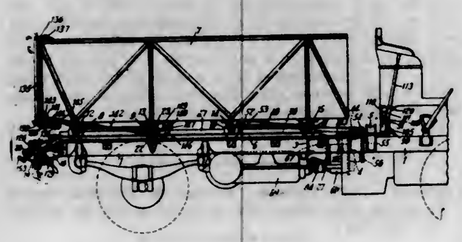
A churn comprising a container having one end closed and the other end open throughout the entire width of the

container, a one-piece removable closure for the open end of the container having an integral cone-shaped separator projecting from its inner face and spaced an appreciable



distance from its periphery, and closure securing means located outside said container.

1,243,635. DUMPING AND REMOVABLE BODY. ALBERT C. SCHULZ, Bridgeport, Conn., assignor to The Locomobile Company of America, New York, N. Y., a Corporation of West Virginia. Filed Nov. 25, 1912. Serial No. 733,273. (Cl. 21—20.)



1. In a vehicle, the combination of a guideway having downwardly inclined rear portions and upwardly rising portions forming wheel-receiving depressions, said downwardly inclined and upwardly rising portions being provided with lateral guide walls and a body having wheels supported on said guideway.

2. An apparatus of the class described comprising, in combination, a track, a body having wheels supported on said track, said track having a depression adjacent one end adapted to receive a pair of said wheels, pivots concentric with the wheels of said pair, stops alined with said depressions and adapted to coöperate with said pivots.

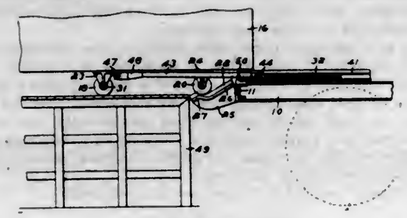
4. An apparatus of the class described comprising, in combination, a guideway, a body mounted to move longitudinally of said guideway, a trunnion carried by said body, and a stop mounted to move into and out of the path of said trunnion, said stop being provided with means coöperating with said trunnion to move said stop into interengagement with said trunnion.

5. An apparatus of the class described having, in combination, a guideway, a body mounted to move longitudinally of said guideway, pivot means carried by said body, a pair of stops mounted to move up and down into and out of the path of said pivot means, and means to cause said stops to be automatically lifted and allowed to drop into interlocking engagement with said pivot means.

8. An apparatus of the class described, having, in combination, a guideway, a body mounted to move longitudinally of said guideway, pivot means carried by said body, a pair of stops mounted to move into and out of the path of said pivot means, and cams on said stops to coöperate with said pivot means to move said stops and cause them to interlock with said pivot means.

[Claims 3, 6, 7, and 9 not printed in the Gazette.]

1,243,636. REMOVABLE BODY FOR VEHICLES. ALBERT C. SCHULZ, Bridgeport, Conn., assignor to The Locomobile Company of America, New York, N. Y., a Corporation of West Virginia. Original application filed Nov. 25, 1912, Serial No. 733,273. Divided and this application filed Dec. 27, 1913. Serial No. 809,114. (Cl. 214—1.)



1. An apparatus of the class described comprising, in combination, a body, a feed-screw, a feed-nut coöperating with said feed-screw, a link connected to said body and said feed-nut, and means consequent upon movement of said body automatically to disconnect said link from said feed-nut.

2. An apparatus of the class described comprising, in combination, a body, a feed-screw, a feed-nut coöperating with said feed-screw, and a link connected to said body and provided with a hook attached to said feed-nut.

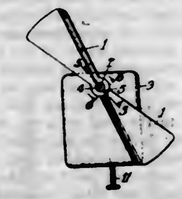
3. An apparatus of the class described comprising, in combination, a body, a feed-screw, a feed-nut coöperating with said feed-screw, and a link connected to said body and extending beyond the same and provided with a hook attached to said feed-nut.

4. An apparatus of the class described comprising, in combination, a body, a feed-screw, a feed-nut coöperating with said feed-screw, and a link connected to said body and provided with a forked hook attached to and straddling said feed-nut.

5. An apparatus of the class described comprising, in combination, a body, a feed-screw, a feed-nut coöperating with said feed-screw, a link connected to said body and provided with a hook connected to said feed-nut, and means to unhook said hook from said feed-nut.

[Claims 6 to 13 not printed in the Gazette.]

1,243,637. FAN. ALBERT Z. SEROR and EDWARD J. HOYER, Chicago, Ill. Filed May 17, 1915. Serial No. 28,636. (Cl. 230—33.)



1. In a fan, the combination of a fan shaft, a pinion thereon, a reciprocating plunger, a rack on said plunger, a spring applied to said plunger for maintaining the same normally extended, gearing in train with the rack on said plunger and the pinion on said fan shaft, a casing which incloses said gearing provided with holes through which said plunger and fan shaft project, a fan secured to rotate with said fan shaft the blades of which are pivotally movable relatively to each other to provide for folding and extending said fan blades, means for maintaining said fan blades yieldingly in folded and extended positions.

2. A runner for a rotary fan the blades of which are pivotally movable relatively to each other to provide for folding and extending said fan blades, and means for locking said fan blades yieldingly in folded and extended positions, substantially as described.

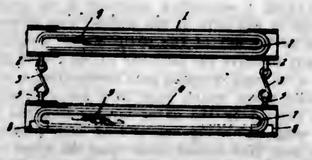
3. A runner for a rotary fan, the blades of which are pivotally movable relatively to each other to provide for folding and extending said blades, and means for locking said blades yieldingly in folded as well as extended positions, said means consisting of a corresponding interfitting bead and groove formed on adjacent faces of the fan blades, and a spring yieldingly pressing the fan blades into contact with each other.

4. A runner for a rotary fan, the blades of which are pivotally movable relatively to each other to provide for folding and extending said blades, and means for locking said blades yieldingly in folded and extended positions, said means consisting of an interfitting bead and groove arranged radially with respect to the axis of rotation of the fan and extending on opposite sides of said axis, and spring means for yieldingly pressing the fan blades together.

5. In a pocket fan, the combination of a casing, a fan shaft mounted therein and extending through the front wall thereof, fan blades mounted on the projecting end of said shaft, a pinion on said shaft within the casing, an operating plunger extending through one end of the casing and reciprocable toward and from the fan shaft, means in the casing for normally maintaining the plunger yieldingly extended, a rack carried by the inner end of said plunger, and gearing in train with the rack and the pinion on the fan shaft for imparting continuous rotary motion to the fan shaft upon recipfocation of the plunger, whereby said fan is adapted to be supported and operated by a thumb and finger of one hand.

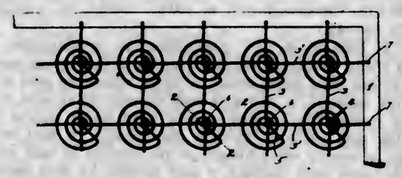
[Claims 6 and 7 not printed in the Gazette.]

1,243,638. PARCEL-CARRIER. THOMAS H. SPURRIER, Washington, D. C. Filed June 29, 1917. Serial No. 177,724. (Cl. 224—52.)



In a package carrier of the character described, the combination of a tubular strap-containing handle member and a tubular strap-containing bar member, straps respectively foldable in said members, strap attaching means at the ends of the bar member, and link connections between the said handle and bar members of suitable length to permit them to lie in a parallel plane, one beside the other, with the straps therein.

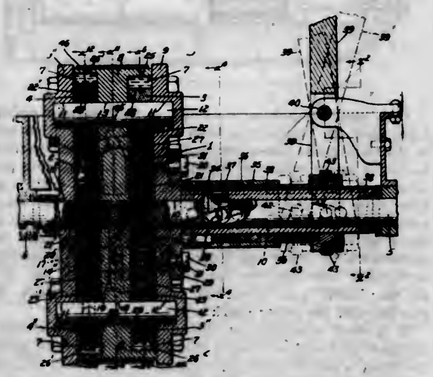
1,243,639. SPRING-TIE. GEORGE STACKHOUSE, Berkeley, Cal., assignor to Pacific Spring Bed Company, Berkeley, Cal., a Corporation. Filed Mar. 27, 1916. Serial No. 87,020. (Cl. 5—29.)



1. A tie for coil springs comprising tie-wires disposed at right angles to each other, oppositely disposed adjoining semicircular curves formed in said tie-wires, the curves of crossing ties being arranged to lie above each other, inwardly bent arms formed on said spring coils, U-shaped bends formed on the inner ends of said arms, the said bends being adapted to embrace the overlying curves in said tie-wires.

2. A tie for spring coils comprising, in combination with spiral springs, tie-wires disposed at right angles to each other, oppositely disposed semicircular bends formed in said tie-wires at equal intervals, the bends of ties at right angles overlying each other, arms formed on the ends of the upper convolution of said springs, said arms extending under the convolution below to the axis of said spiral, U-shaped bends formed on the ends of said arms, said bends embracing the overlying curves, and a frame adapted to hold the ends of said tie-wires.

1,243,640. POWER TRANSMISSION. HUDSON F. STORY, Highland, Cal., assignor of one-half to John D. Boley, Highland, Cal. Filed Aug. 19, 1915. Serial No. 46,874. (Cl. 138—22.)



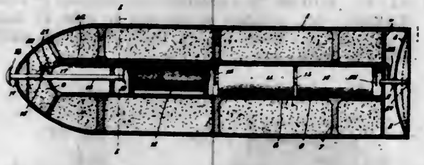
1. In a power transmission, a driving shaft, a driven shaft in longitudinal alinement with the driving shaft, a housing upon the near ends of said shafts, a three gear rotary pump piston upon the end of the driving shaft in the housing, a three gear rotary motor piston upon the end of the driven shaft in the housing; a transmission liquid chambered in the housing, there being ports leading the liquid to the receiving side of the pump piston, ports leading from the two discharge sides of the pump piston to two sides of the motor piston, ports leading from the two sides of the motor piston, and ports forming two by-passes for the pump piston; means for reversing the direction of pressure from the pump upon the motor, and means controlling the by-passes to vary the flow through the motor.

2. In a power transmission, a driving shaft, a driven shaft in longitudinal alinement with the driving shaft, a housing upon the near ends of said shafts, a three gear rotary pump piston upon the end of the driving shaft in the housing, a three gear rotary motor piston upon the end of the driven shaft in the housing; a transmission liquid chambered in the housing, there being ports leading the liquid to the receiving side of the pump piston, ports leading from the discharge side of the pump piston to two sides of the motor piston, ports leading from the two sides of the motor piston, and ports forming two by-passes for the pump piston; means for reversing the direction of pressure from the pump upon the motor, means controlling the by-passes to vary the flow through the motor, and means for stopping the flow through the motor with the by-passes closed, so as to rotate the housing.

3. In a power transmission, a driving shaft, a driven shaft in longitudinal alinement with the driving shaft, a housing upon the near ends of said shafts, a three gear rotary pump piston upon the end of the driving shaft in the housing, a three gear rotary motor piston upon the end of the driven shaft in the housing; a transmission liquid chambered in the housing, there being ports leading the liquid to the receiving side of the pump piston, ports

leading from the discharge side of the pump piston to two sides of the motor piston, ports leading from the two sides of the motor piston, and ports forming two by-passes for the pump piston; means for reversing the direction of pressure from the pump upon the motor, means controlling the by-passes to vary the flow through the motor, means for stopping the flow through the motor with the by-passes closed, so as to rotate the housing, and a brake for the housing.

1,243,641. SHELL. FRED E. SUTTERFIELD, Flat River, Mo. Filed Mar. 13, 1917. Serial No. 154,603. (Cl. 102—29.)

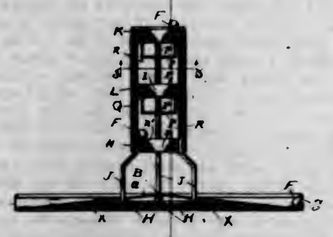


1. A shell comprising a casing, a tube therein defining a chamber, an explosive around the tube, a partition within the casing and across the end of the tube, said partition having a guide opposite the chamber, and a pliable plate closing the rear end of the casing; combined with a battery with the chamber, sparking points whereof one is connected to said battery, a plunger attached to said end plate of the casing and extending thence through said guide with its inner end adjacent the battery whereby it is thrown into electric contact therewith by the firing of the shell, and electrical connections between said plunger and the other spark point.

3. A shell comprising a casing, a tube therein closed at its front end and defining a chamber, an explosive around the tube, a source of electric energy within said chamber, a plunger movably mounted through the front end of the casing and front end of the tube, and whose inner end is connected with said source, spark-producing elements whereof one is connected with said plunger, and a wire leading from the other to the rear end of the casing; combined with a normally open circuit closer between said wire and the rear end of said source, and a pliable plate across the rear end of the shell indented by impact when the shell is fired and adapted to actuate said circuit closer when so indented.

[Claims 2 and 4 not printed in the Gazette.]

1,243,642. GAME MECHANISM. GEORGE A. TANNEY, Chicago, Ill. Filed Oct. 27, 1916, Serial No. 128,052. Renewed Sept. 17, 1917. Serial No. 191,897. (Cl. 46—61.)



1. In a game mechanism, a base the upper face whereof inclines downwardly from a central point, said base being provided with pockets at the lower end of said inclined face and with ripples between said central point and said pockets, in combination with a tower which is provided with an interrupted passage way and is mountable over said central point, and a ball which is adapted to travel through said passage way and over said rippled surface to said pockets.

2. In a game mechanism, a base the upper face whereof inclines downwardly from a central point and is provided with pockets at the termination of said inclined face, means to identify said pockets, said means including marks indicating addition, subtraction, division and multiplication, in combination with a tower over said central point, said tower provided with an interrupted passage way therethrough, and a ball adapted to travel through said passage way and over said inclined face to said pockets.

4. In a game mechanism, a base provided on the upper face thereof with pockets and with an inclined face extending from said pockets upwardly to a central point, means to indicate said pockets, said means comprising marks indicating arithmetical operations, and a ball adapted to travel from said central point into said pockets, in combination with a tower mountable over said central point, said tower provided with a passage way therethrough and said ball adapted to travel through said passage way.

[Claim 3 not printed in the Gazette.]

1,243,643. AUTOMATIC RAILWAY-GATE. SIMEON TURNER, Warren, Ind. Filed Jan. 31, 1917. Serial No. 145,745. (Cl. 269—5.)



1. The combination with the post and gate bar of a gravity opened gate, of a weight having one end pivoted to the gate-post and the other end linked to the gate-bar, a device normally disposed in the path of movement of the weight for holding said other end of the weight elevated to permit the gate-bar to maintain the open position, said device having a mounting whereby it is adapted to be moved out of the path of the weight, and means for moving said device out of the path of the weight to permit the weight to move the gate-bar to the closed position.

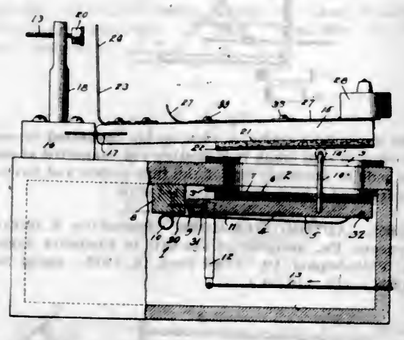
3. In a railroad crossing gate mechanism, a pair of gate-bars, posts upon which said bars are pivotally secured, weights carried by the gates for opening the same, gate closing weights having one end of each pivoted to a respective post, link means connecting the other end of each weight to the respective bar, a lever pivoted to each post with one end engaging against the respective closing weight, a shift rod connected to said levers, a track trip on each side of the crossing, means operated by each of said track trips for moving the shift rod in one direction, a second set of trip rods on opposite sides of the track-way, and means operated by said second set of trip rods for moving the shift rod in the opposite direction.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,243,644. TREMOLO MECHANISM FOR ORGANS. BURT R. VAN VALKENBURG, Oakland, Cal., assignor to American Photo Player Company, Berkeley, Cal., a Corporation of California. Filed Nov. 4, 1913, Serial No. 799,114. Renewed Oct. 6, 1916. Serial No. 124,207. (Cl. 84—42.)

1. A tremolo device, comprising in combination, a wind trunk having an opening therein, a supporting member within said valve trunk, a valve hinged to said supporting member, a pad attached to said valve and normally closing the opening in said wind trunk, means for moving said valve to uncover the opening in said wind trunk, a second valve hinged at the outside of said wind trunk above said opening, a pad carried by said second valve, means carried by said first mentioned valve for normally maintaining the second valve in a raised position, a weight carried by said second valve at its free end and adjustable longitudinally with respect thereto, and means for resiliently arresting the upward movement of said second valve.

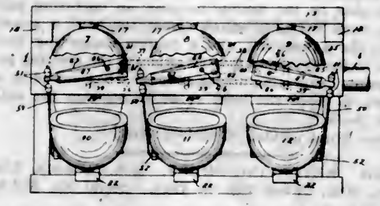
3. A tremolo device, comprising in combination, a wind trunk having an opening therein, a valve within said wind trunk for closing said opening when desired, spring means normally maintaining said valve in the closed position, manually operable means for opening said valve, a second valve on the exterior of said wind trunk for intermittently closing said opening when the said first mentioned valve is in the open position, a weight mounted at one end of said last mentioned valve and adjustable longitudinally



with respect thereto, a spring mounted at the other end of said last-mentioned valve, an adjustable stop for said spring mounted on the said wind trunk, said spring and stop serving to limit and resiliently arrest the upward movement of said last-mentioned valve, and means carried by said first-mentioned valve for maintaining said last-mentioned valve in an open position when the former is in its normal closed position.

[Claims 2 and 4 to 12 not printed in the Gazette.]

1,243,645. SOUND-PRODUCING DEVICE. HAROLD A. VAN VALKENBURG, Oakland, Cal. Filed Feb. 15, 1915. Serial No. 8,170. (Cl. 46—70.)



1. A device for producing the effect of hoof beats, comprising a valve chest having a vacuum chamber throughout its length, a plurality of bellows, the movable side of each of which carries a member adapted to strike a coacting member when said bellows is collapsed, valves adapted to place said bellows in communication with said vacuum chamber, and other valves operated by the movable sides of said bellows and governing the operation of the next succeeding bellows.

2. A device of the character described comprising a valve chest having a vacuum chamber therein, a plurality of bellows mounted on said chest adapted to be successively operated, a substantially semi-spherical hollow member attached to the outer end of the movable side of each of said bellows, and adapted to coact with similar fixed members, valves pivotally mounted on said chests adapted to be operated by the collapsing of said bellows, and other valves within said chest adapted to place the interior of said bellows in communication with either the atmosphere or said vacuum cavity, said first mentioned valve governing passageways leading to said second-mentioned valve of the next succeeding bellows.

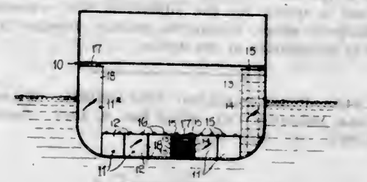
5. In a device of the character described, the combination of a plurality of bellows, and means controlled by each of said bellows for causing the operation of the next succeeding bellows.

6. In a device of the character described, the combination of a plurality of bellows, valves operated by the movable sides of said bellows, and means controlled by said valves governing the operation of the next succeeding bellows.

7. In a device of the character described, the combination of a plurality of bellows adapted to be successively collapsed, and valves operated by the collapsing of said bellows, each of said valves controlling the operation of the next succeeding bellows.

[Claims 3, 4, and 8 to 23 not printed in the Gazette.]

1,243,646. NON-SINKABLE VESSEL. TALBERT GRANT WEAVER, Lincoln, Ark. Filed May 12, 1917. Serial No. 168,190. (Cl. 114—68.)



1. A vessel having a hull formed with a plurality of compartments, bolts extending through the compartments to the open ends thereof, layers of compressed fibrous material disposed within the compartments, metallic plates separating said layers, bolts passing through openings in the plates and in the layers, nuts engaging the bolts and holding the plates in place and the layers of fibrous material under compression, and a cap plate closing the outer end of each compartment and held in place by said bolts.

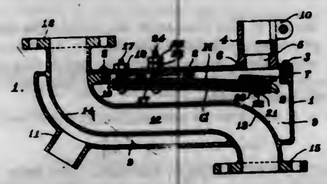
2. A vessel having an outer wall, many-sided compartments formed upon the outer wall of the vessel on the inside face thereof, each compartment having its walls formed of metallic plates extending perpendicularly to the wall of the vessel and bolted thereto, bolts extending through each compartment and engaging the outer wall of the vessel, layers of compressed cotton disposed within each compartment, metallic plates having an area equal to the cross sectional area of each compartment and disposed between said layers, nuts on the bolts holding each of said plates in place, and a cap plate closing the ends of the compartments and with which said bolts engage, the walls with which the cap plate engages being grooved to receive the edges of the cap plate.

3. A vessel having an outer wall formed to provide the bottom and two sides of the hull of the vessel, many-sided compartments formed upon the inside face of the wall of the hull, each compartment having walls formed of metallic plates extending perpendicularly to the wall of the vessel and bolted thereto, said compartments extending across the bottom of the vessel and the sides of the vessel having compartments extending vertically upward, bolts extending vertically through each compartment and engaging the outer wall of the vessel, layers of compressed cotton disposed within each compartment, a plurality of metallic plates in each compartment and disposed between said layers and through which plates the bolts pass, nuts on the bolts holding the plates in place, and cap plates forming the outer walls of the compartments and with which said bolts engage.

1,243,647. VAPORIZER. HENRY NEWTON WHITTELSEY, Greenwich, Conn., assignor to Whittelsey Company, New York, N. Y., a Corporation of New York. Filed Oct. 12, 1914. Serial No. 866,266. (Cl. 236—5.)

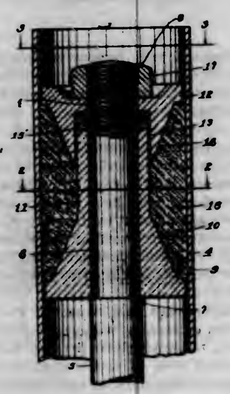
A device for vaporizing liquid fuel globules in suspension in a gaseous mixture, comprising a casing having inlet and outlet ports to permit the flow of exhaust gases through the casing, a vaporizing chamber in the casing

with inlet and outlet means, a plurality of thermostatic strips loosely secured at one end within the casing, supported by an adjustable bolt between the ends, and free to move to and from the inlet port at the other end, a disk valve for the inlet port carried by the movable ends of



said strips, whereby the valve is actuated by the bending of the strips due to variations of temperature in said casing, and a spring for the adjustable bolt whereby the thermostatic strips remain in position irrespective the angle of installation of the device.

1,243,648. PUMP-PACKING EXPANDER. WILSON B. WIGLE, Fullerton, Cal. Filed Feb. 6, 1917. Serial No. 146,993. (Cl. 103—63.)

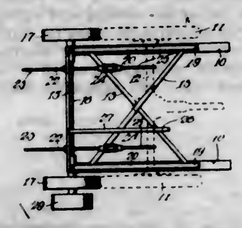


1. In a piston, the combination of a piston rod, a body secured thereto, a piston follower mounted on said rod for adjustment to and from said body, said body and follower provided with opposed inclined surfaces forming walls of a packing recess, packing in said recess, spacing rings interposed between said body and follower to adjust the distance between said inclined surfaces, and means to lock said follower in position.

2. In a piston, the combination of a piston rod, a piston body secured thereto, said body comprising a cylindrical portion and a portion flaring outwardly from the cylindrical portion, thereby providing an inclined surface, a piston follower mounted on said rod for adjustment to and from said body, said follower telescopically mounted with respect to said body and provided with an inclined surface opposed to said first mentioned inclined surface, spacing rings mounted on said rod between the body and follower, and means to lock said follower in position.

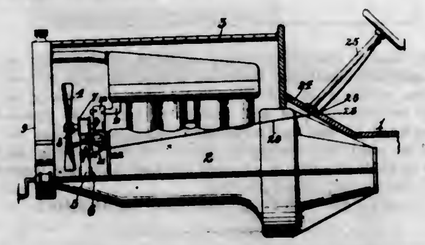
1,243,649. AUTOMOBILE POWER-TRANSMITTING APPARATUS. ROBERT D. BRADEN, Chicago, Ill., and CHARLES D. WRIGHT, Toledo, Ohio. Filed Apr. 3, 1916. Serial No. 88,480. (Cl. 74—26.)

In a power transmitting apparatus, the combination with a main or supporting frame, of a shaft horizontally journaled thereon, a pulley on said shaft, means on said shaft for transmitting power therefrom, means for elevating and supporting an axle in parallelism with said shaft, means to automatically engage the axle of a vehicle and to hold it in a given position with respect to said shaft, a crank rod longitudinally and loosely journaled



on the supporting frame, a turn buckle connected at one of its ends to said crank rod, another rod connected at one of its ends to the other end of the turn buckle and having at its free end a hook to engage said axle.

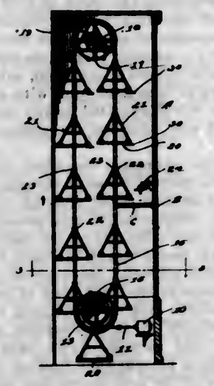
1,243,650. AUTOMOBILE-HORN. FREDERICK E. BRYAN, Wyncote, Pa., assignor of one-half to Frederick Light, Jr., Philadelphia, Pa. Filed Sept. 16, 1915. Serial No. 50,958. (Cl. 116—1.)



1. The combination with an automobile, an engine driving the automobile, a fan, and a belt transmitting motion to the fan and driven by the engine, of a bracket secured to the engine, a flexible member secured to the bracket, a horn carried by the flexible member, an operating pulley on the horn normally spaced from the belt, a steering post on the automobile, and a flexible connecting device secured to the horn and located adjacent the steering post, said flexible connecting device adapted when moved in one direction to move the horn so as to position the pulley against the belt.

[Claim 2 not printed in the Gazette.]

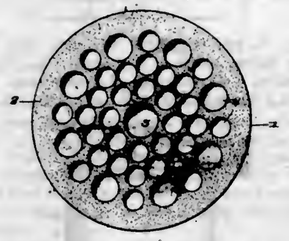
1,243,651. REVOLVING SHELF. ROY CALHOUN, Tylertown, Miss. Filed Feb. 4, 1914. Serial No. 816,401. (Cl. 211—21.)



In a device of the class described, a casing having an opening extending transversely of the front thereof, a stop

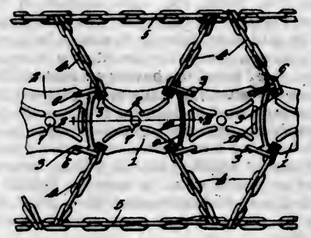
member on said casing adjacent an end of said opening, movable supports within said casing, means for moving said supports, controlling mechanism for said means including a rock shaft within said casing contiguous to said opening and operable by said movable supports, a switch in said casing above said stop member, and a trip arm on said rock shaft to engage said switch normally held in contact with said stop member.

1,243,652. LIGHT-DIMMER. JOHN P. CASEY, Flemington, N. J. Filed Mar. 22, 1917. Serial No. 156,704. (Cl. 240—48.4.)



A headlight diffuser comprising a lens having plane parallel surfaces, the inner one of which is ground, said lens being otherwise clear and said ground inner surface being provided with glare depressions forming plano-concave light diffusing portions, the ground surface of the lens rendering the same translucent at points between and without said glare depressions, one of said glare depressions being centrally arranged and the others being arranged in concentric circles and in staggered relation and being of progressively increased diameter as they approach the periphery of the lamp.

1,243,653. NON-SKID ARMOR. FRANK H. CHILDS, Stroud, Okla. Filed July 5, 1917. Serial No. 178,620. (Cl. 152—16.)

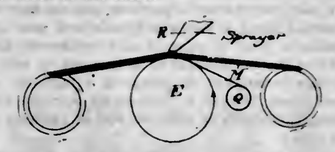


1. A non-skid armor embodying a series of shoes, side retaining chains, diverging chains connected to alternate shoes and at their remote ends with the retaining chains, and links connecting the other shoes with those links of the diverging chains which engage the aforesaid shoes.

2. A non-skid armor embodying shoes, side retaining chains, diverging chains connected to the corners of said shoes and at their remote ends with the retaining chains, shoes between the aforesaid shoes, the ends of the shoes being shaped to fit together, and links connecting the corners of the second mentioned shoes with those links of the diverging chains which engage the first mentioned shoes.

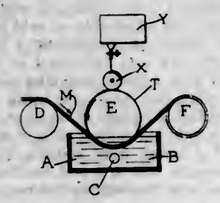
1,243,654. METHOD OF MAKING COVERING MATERIAL FOR AIRCRAFT. WALTER G. CLARK, New York, N. Y. Filed Jan. 20, 1917. Serial No. 143,471. (Cl. 91—70.2.)

1. The method of making sheet material, which consists in mechanically applying a metallic surface directly to a wire mesh or web and locking the same in position by applying and incorporating metal upon the reverse side in contact with and attached to both the metallic surface and the wires of the mesh.



2. The method of making sheet material, which consists in mechanically applying a metallic surface directly to a wire mesh or web and locking the same in position by spraying heated metal upon the reverse side of the web, thereby incorporating the metal with both the metallic surface and the wires of the web.

1,243,655. METHOD OF MAKING COVERING MATERIAL FOR AIRCRAFT. WALTER G. CLARK, New York, N. Y. Filed Aug. 18, 1917. Serial No. 186,988. (Cl. 204—8.)

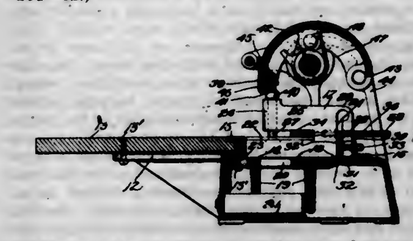


1. The method of making sheet material, which consists in applying and incorporating a metallic surface directly upon a wire mesh or web by depositing metal upon the wires of the mesh.

2. The method of making air-tight sheet material, which comprises applying and incorporating a continuous smooth, even and unbroken metallic film upon the entire surface of a wire mesh, whereby the foundation of wire mesh has a continuous unbroken air-tight surface coating of metal adherent thereto.

3. The method of making air-tight sheet material, which comprises filling all the interstices of fine metallic wire mesh or web over its entire surface, by depositing a continuous layer of metal upon the entire surface of said web, in such manner as to cause said metallic layer to adhere closely to the wires of the web throughout its entire area.

1,243,656. MULTIPLE PUNCHING-MACHINE. ELMER M. CONE, South Portland, Me., assignor to Southworth Machine Company, Portland, Me., a Corporation of Maine. Filed Feb. 5, 1915. Serial No. 6,281. (Cl. 164—91.)



1. Punching apparatus, comprising a bed, a punch operating lever arm fulcrumed thereto, said arm presenting a punch engaging face of substantial width extending along the length of said bed, and a punch head with a punch fitted therein adjustably fitted to said bed to be engaged by said face at adjustable selective points therealong to op-

erate on work at different points along the length of said bed and at variably spaced distances apart.

2. Punching apparatus, comprising a bed, a relatively wide punch operating arm fulcrumed thereto, said arm having at one end thereof a punch engaging face of substantial extent along the length of said bed, and a punch head adjustably fitted to ways of said bed having a punch slidably fitted therein adapted to be engaged by said punch engaging face throughout the range of adjustment of said punch head along the bed to operate on work at different points along the length of said bed and at variably spaced distances apart.

3. Punching apparatus, comprising a bed, a punch operating arm curved in cross section, fulcrumed at one end to said bed and formed with a punch engaging face at its other end, operating mechanism housed within the hollow of said arm and operatively engaged therewith, and a punch mounted to be engaged by said punch engaging face of said arm.

4. Punching apparatus, comprising a bed, a relatively wide punch operating arm curved to approximately a semicircle in cross section, fulcrumed at one end to said bed and formed with a punch engaging face of substantial extent at its other end, operating mechanism housed within the hollow of said arm and operatively engaged therewith, and a punch mounted to be engaged by said punch engaging face of said arm, and adjustable on said bed.

5. Punching apparatus, comprising a bed, a relatively wide punch operating arm fulcrumed at one end to said bed and formed with a punch engaging face of substantial extent at its other end, said arm being curved in cross section with stiffening flanges at its sides, operating mechanism housed within the hollow of said arm and engaged therewith, and a punch head slidably fitted to ways of said bed underneath said arm and bearing a punch to be engaged by said arm throughout the range of adjustment of said head.

[Claims 6 to 12 not printed in the Gazette.]

1,243,657. TIRE-ARMOR. JOHN COAN, Kansas City, Mo. Filed Feb. 12, 1917. Serial No. 148,154. (Cl. 152—16.)



1. A tire armor of the class described comprising a continuous flexible ring substantially semicircular in cross section to be disposed around the tread of a tire, the tread portion of said ring having a continuous channel, a flexible metallic band having a width substantially equal to that of the channel secured to said ring, a plurality of anti-skid calks removably secured to said band, and a second band of resilient material having a width equal to that of the first mentioned band and disposed on the same in the channel, the outer face thereof projecting beyond the edges of said channel and the aforesaid calks projecting through apertures in the last mentioned band forming holding means for securing the last mentioned band of the device.

2. A tire armor of the class described comprising a continuous flexible ring substantially semicircular in cross section to be disposed around the tread of a tire, the tread portion of said ring having a continuous channel formed by a pair of parallel spaced apart outwardly extending ribs, said ribs being constructed by bending said ring upon itself longitudinally intermediate its side edges, a flexible metallic band of a width substantially equal to the distance between said ribs and positioned therebetween, a plurality of anti-skid calks carried by and removably connected to said band, and a second band of resilient material of a width similar to that of the first mentioned band and disposed in the channel formed by said ribs, the outer face thereof projecting beyond the edges of the ribs, said band having a plurality of apertures to receive said calks.

3. The combination with a vehicle wheel having a tire thereon; of a continuous flexible ring substantially semicircular in cross section for engagement with the tread of said tire, the side edges of said ring being slit at predetermined points to permit the same to conform to the curvature of said tire, reinforcing plates secured to the ring and covering said slits, hooked arms pivoted to said reinforcing plates for engagement with the rim of said wheel, and a band of flexible resilient material disposed around the tread portion of said ring.

1,243,658. PAPER-WALLED VESSEL. BEN KING FORD, Detroit, Mich., assignor to Detroit Can Company, Detroit, Mich., a Corporation of New Jersey. Filed Sept. 20, 1912. Serial No. 721,359. (Cl. 229—12.)



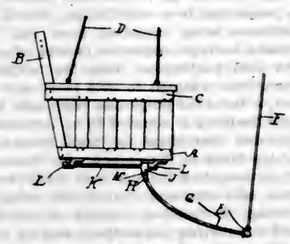
1. A vessel comprising the following elements: a sheet of paper having applied to one surface thereof a cement, and at one end of said sheet a short sheet of hard finished sulfite pulp between which and the paper cement is contained, such composite sheet being wound into convolutions of which the hard finished sulfite pulp sheet is the innermost and forms the inner surface of the vessel, cement on the face of the paper sheet being united with the back of said sheet, thereby forming a hollow body; the said body having crimped to its edges a sheet metal bottom, and a sheet metal top having an opening therein.

2. A vessel comprising walls made of convolutions of a sheet of paper united by both the face and the back of the sheet, and having sheet metal heads crimped to said walls, the top head being formed with an interiorly flanged opening the flange of which is formed with a concave rounded peripheral groove in which is seated a flexible removable closing disk, and a supplemental sheet metal cover J secured on the plane exterior surface of the top head over the said disk.

3. A containing vessel comprising walls made of layers of paper cemented together, and having sheet metal heads crimped to said walls, one of said heads having a shouldered flange abutted against the inner face of said wall and having a head flange extending inwardly from said shoulder flange and formed with an opening, the edge of said opening being formed with a depending flange having an inner peripheral recess, and a removable closing disk seated in said peripheral recess.

4. A containing vessel comprising walls made of layers of paper cemented together, and having sheet metal heads crimped to said walls, one of said heads having a shouldered flange abutted against the inner face of said wall and having a head flange extending inwardly from said shoulder flange and formed with an opening, the edge of said opening being formed with a depending flange having an inner peripheral recess, a removable closing disk seated in said peripheral recess, and a supplemental sheet metal cover soldered to said head flange and adapted to be ripped therefrom.

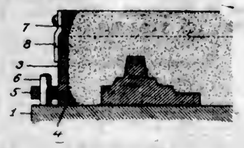
1,243,659. SWING. HUGH FRANCIS, Memphis, Tenn., assignor of one-fourth to Geo. E. Pettey and one-fourth to R. L. Davidson, Memphis, Tenn. Filed July 1, 1915. Serial No. 37,440. (Cl. 155—35.)



2. The herein described swing, consisting of the seat, suspension ropes connected to said seat, guide rods secured to the underneath portion of said seat, sliding cuffs on said rods, a yoke shaped foot rest adjustably mounted in said cuffs, suspension connection leading from the outer ends of said foot rest and having their upper ends rigidly supported, and means for securing said cuffs in any desired position.

[Claim 1 not printed in the Gazette.]

1,243,660. MOLDING APPARATUS. AXEL P. GUSTAFSON, Waukegan, Ill., assignor to Chicago Hardware Foundry Company, North Chicago, Ill., a Corporation of Illinois. Filed May 14, 1917. Serial No. 168,362. (Cl. 22—96.)

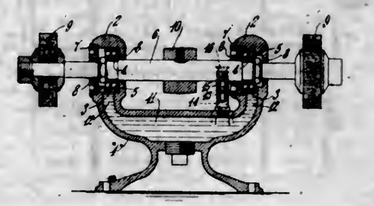


1. A molding apparatus comprising a platen, a mold-flask, open at top and bottom, formed with walls having outer vertical faces, provided with beveled guiding upper ends, a removable hopper frame, open at top and bottom, and positioning prongs, secured to the outer faces of the hopper frame, having offset portions extending below the same for engaging the beveled guiding upper ends of the mold-flask.

2. A molding apparatus comprising a platen, a mold-flask, open at top and bottom, formed with walls having inner vertical faces, inwardly beveled holding ledges at the bottom of the inner faces and outer vertical faces provided with beveled guiding upper ends, a removable hopper frame, open at top and bottom, formed with walls having inwardly beveled inner faces and positioning prongs, secured to the outer faces of the hopper frame, having offset portions extending below the same for engaging the beveled guiding upper ends of the mold-flask.

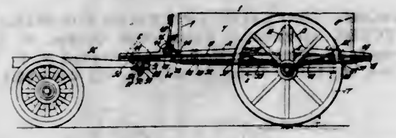
1,243,661. HIGH-SPEED-SPINDLE MOUNTING AND LUBRICATING DEVICE. MATTHEW HARRISON, Springfield, Mass., assignor to Lamb Knitting Machine Company, Chicopee Falls, Mass., a Corporation of Massachusetts. Filed Aug. 14, 1916. Serial No. 114,816. (Cl. 64—24.)

1. A machine of the character described, comprising, a frame having one or more hollow lubricant containing parts and provided with two spaced integral bearing boxes upstanding therefrom, relatively rotatable bearing devices mounted and completely inclosed in said boxes, a tool carrying spindle mounted in the bearing devices, driving means for the spindle intermediate said boxes, the latter formed with spaces at the side of said devices, passages formed in the frame communicating between the spaces and the hollow lubricant containing part or parts of the frame, and a visual gage tube indicating the level in said passages and adapted to permit lubricant to be introduced into the frame, all constructed and arranged so that lubricant may be maintained at such a level that said devices dip therein.



2. A machine of the character described, comprising, a hollow frame having two spaced bearing boxes upstanding therefrom, bearings in the boxes, a shaft mounted in the bearings, a driving pulley fixed on the shaft intermediate the bearing boxes, means tightly inclosing each bearing in its box to prevent the ingress of dust and the like, the frame being made hollow to form a central reservoir for oil and also formed with passages communicating between the reservoir and each of said boxes, and a visual indicator, whereby the level of oil may be observed, all constructed and arranged so that the hollow frame may be filled with a relatively large body of oil, the upper level of which slightly overlaps the lower part of the bearings whereby the latter are lubricated directly by the pure oil at the upper level of the body of oil.

1,243,662. VEHICLE. GEORGE W. MYERS, Philadelphia, Pa. Filed Oct. 12, 1916. Serial No. 125,278. (Cl. 21—182.)



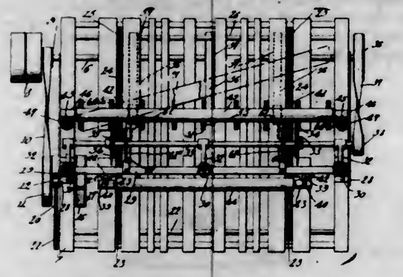
1. A vehicle including a frame having upright holes therein providing slideways, axles having substantially horizontal wheel-supporting portions and upwardly extending portions slidably fitting said slideways, securing plates, springs supported on said horizontal portions of the axles and mounted below said plates, a plurality of U-shape securing members arranged at opposite edges of each of said springs and having their free ends extending through and secured to said plates and their looped portions passing around the bottoms of said axles, and means for holding the springs in supporting engagement with the frame, substantially as described.

3. A vehicle including a metallic frame having oppositely disposed bosses, said bosses having upright holes therein providing angular slideways, axles having substantially horizontal wheel-supporting portions and upwardly extending angular portions designed to slide within said slideways, said frame including side ribs extending longitudinally thereof, springs resting on the axles between the horizontal portions and the side ribs, and means for holding the springs in engagement with the frame, substantially as described.

5. A vehicle including a metallic frame cast in one piece and including oppositely disposed bosses, said bosses having holes therein providing angular slide-ways, axles having upwardly extending angular portions designed to slide within said slide-ways, said frame including side ribs intersecting said bosses, springs secured to said axles, clips secured to said side ribs of the frame and securing the ends of said springs, substantially as described.

[Claims 2 and 4 not printed in the Gazette.]

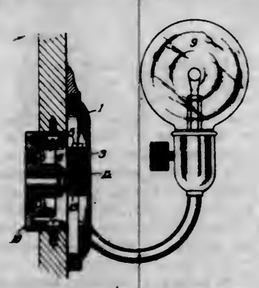
1,243,663. GROOVING AND EQUALIZING MACHINE. JOSEPH V. RICHARDSON, Goshen, Ind. Filed Mar. 15, 1915. Serial No. 14,548. (Cl. 144—138.)



1. In a machine for end-trimming and grooving ladder stiles, a frame; a stile-supporting table vertically adjustable with respect to the frame; a substantially horizontal shaft journaled on the frame; stile-grooving cutters carried by the shaft; a second shaft supported for rotation on the table independently of the frame; end trimming saws carried by the second shaft, the second shaft being disposed above the table to locate the axis of rotation of the end-trimming saws above the table; means for raising the table to render the end-trimming saws alone operative; and means carried by the table for feeding stiles with respect to the saws and the cutters.

2. In a machine for end-trimming and grooving ladder stiles, a supporting frame; a work-supporting table pivotally assembled with the frame for vertical adjustment; work feeding means coöperating with the table; a grooving cutter carried by the frame; an end-trimming saw carried by the table and means coöperating with the table to raise the same, thereby to render the end-trimming saw alone operative.

1,243,664. CONCEALED FASTENING FOR WALL-FIXTURES. ARTHUR J. WEISS, West Orange, N. J., assignor to Edward A. McCoy, East Orange, N. J. Filed Nov. 24, 1915. Serial No. 63,207. (Cl. 240—85.)



1. In concealed fastenings for wall fixtures, a plate having a bridge fitted to the reverse side thereof, electrical connections extending through said bridge and projecting therefrom, said electrical connections being insulated from said bridge, a threaded coupling element of insulating material, having conducting connections therein adapted to coöperate with said projections from the electrical connections, and further electrical connections adapted to lead from said coupling; an outlet box, and a threaded projection from said outlet box, on which said coupling is adapted to be screwed.

2. In concealed fastenings for wall fixtures, a plate having a bridge fitted to the reverse side thereof, electrical connections extending through said bridge and projecting therefrom, said electrical connections being insulated from said bridge, a coupling element of insulating material, having conducting connections therein adapted to coöperate with said projections from the electrical connections, and further electrical connections adapted to lead from said coupling; an outlet box, a projection from said outlet box, and means for connecting said coupling to said projection.

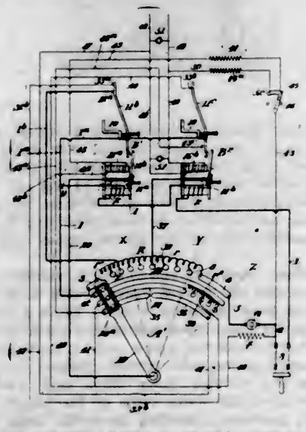
3. In concealed fastenings for wall fixtures, a plate having a bridge fitted to the reverse side thereof, electrical connections projecting from said bridge, one of said electrical connections being insulated from said bridge, a coupling element having receptacles therein adapted to coöperate with said projections from the bridge, and an electrical connection adapted to lead from said coupling; an outlet box, a threaded projection from said outlet box, on which said coupling is adapted to be screwed.

4. In concealed fastenings for wall fixtures, a plate having a bridge fitted to the reverse side thereof, electrical connections extending through said bridge and projecting therefrom, said electrical connections being insulated from said bridge, a coupling element of insulating material, having conducting connections therein adapted to coöperate with said projections from the electrical connections, and electrical connections adapted to lead from said coupling; a support, and means for connecting said coupling to said support.

5. In concealed fastenings for wall fixtures, a plate having a bridge fitted to the reverse side thereof, electrical connections projecting from said bridge, one of said electrical connections being insulated from said bridge, a coupling element having receptacles therein, adapted to coöperate with said projections from the bridge, and electrical connections adapted to lead from said coupling; a support, and means for connecting said coupling to said support.

[Claims 6 to 9 not printed in the Gazette.]

1,243,665. CONTROLLER FOR ELECTRIC MOTORS. GEORGE H. WHITTINGHAM, Bancroft Park, Md., assignor to Monitor Controller Company, Baltimore, Md., a Corporation of Maryland. Filed Nov. 8, 1915. Serial No. 60,263. (Cl. 172—288.)



1. The combination with an electric motor and an armature circuit therefor including a normally closed switch and a resistance, of a speed regulating member adjustable at will on said resistance and normally excluded from the armature circuit, and means for automatically connecting said member into the armature circuit and then opening said switch.

2. The combination with an electric motor and an armature circuit therefor including a normally closed switch and a resistance, of a speed regulating member adjustable at will on said resistance and normally excluded from the armature circuit, and means controlled by the armature current for automatically connecting said member into the armature circuit and then opening said switch.

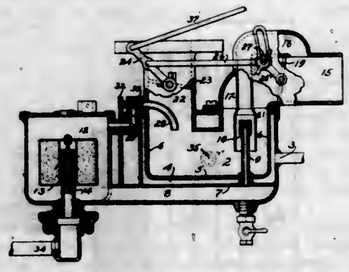
3. The combination with an electric motor, an armature circuit therefor including a starting resistance, and an additional armature resistance, the latter normally short-circuited, of a speed regulating member adjustable at will over both of said resistances and normally excluded from the armature circuit, and means for automatically connecting said member into the armature circuit and for breaking the shunt around the additional resistance.

4. The combination with an electric motor, an armature circuit therefor including a starting resistance, and an additional armature resistance, the latter normally short-circuited, of a speed regulating member adjustable at will over both of said resistances and normally excluded from the armature circuit, and means controlled by the armature current for automatically connecting said member into the armature circuit and for breaking the shunt around the additional resistance.

5. The combination with an electric motor, an armature circuit therefor including a normally closed switch and a starting resistance, and an additional armature resistance, of a speed regulating member adjustable at will over both of said resistances and normally excluded from the armature circuit, and means for automatically connecting said member into the armature circuit and for opening said switch.

[Claims 6 to 18 not printed in the Gazette.]

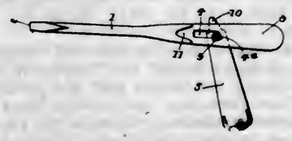
1,243,666. CARBURETER. ELMER E. WICKERSHAM, Marysville, Cal., assignor to Yuba Manufacturing Company, a Corporation of California. Filed Oct. 25, 1915. Serial No. 57,701. (Cl. 261—12.)



1. In a carbureter, a carbureting chamber, a fuel nozzle projecting into said carbureting chamber on one side, a main air inlet pipe projecting into said carbureting chamber from the opposite side and surrounding the said nozzle, an auxiliary valve-controlled air inlet passage in said chamber surrounding said main inlet pipe, a valve-controlled outlet passage in said chamber, and means adjustably connecting the valves in said outlet and inlet passages.

2. In a carbureter, a carbureting chamber, a fuel chamber having a fuel passage underlying said carbureting chamber, means for circulating hot exhaust gases between said carbureting chamber and said fuel passage, a valve controlled outlet in said carbureting chamber, an air inlet in said carbureting chamber comprising an open main passage and a valve controlled auxiliary passage surrounding said main passage, a fuel nozzle connected with said fuel passage projecting into said main inlet passage and means adjustably connecting the valves in said outlet and auxiliary inlet.

1,243,667. SCREW-DRIVER. REID ARD, Sumter, S. C., assignor of one-half to H. R. Van Deventer, Sumter, S. C. Filed Feb. 26, 1917. Serial No. 150,997. (Cl. 145—61.)

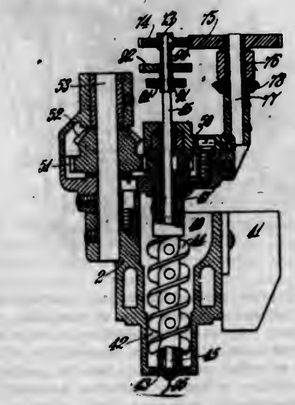


1. A screw-driver comprising a shank having a screw engaging blade, a slotted member integral with said shank, a handle, and a cross pin carried by the handle and engaging said slot, said slot and pin being constructed to permit the handle to be moved lengthwise of the shank and turned to a limited distance at an angle thereto.

2. A screw-driver comprising a shank having a screw engaging blade, a slotted member integral with the shank, a handle, and a cross pin carried by the handle and engaging said slot, said slot and pin being constructed to permit the handle to be moved lengthwise of the shank and turned to a limited distance at an angle thereto, said shank having sockets formed therein to receive the lower ends of the handle, and said member adjacent the shank being tapered to frictionally engage and hold the handle in closed position.

3. A screw-driver comprising a shank having a screw engaging blade, a slotted member integral with said shank, a handle consisting of two side portions connected together at their outer ends, a cross pin connecting these side portions, said side portions being adapted to receive the slotted member, said slotted member being of substantially the same width as the side portions of the handle, said slot and pin being constructed to permit the handle to be moved lengthwise of the shank and turned to a limited distance at an angle thereto and held from further movement, the shank having an enlarged portion formed of sockets to receive the ends respectively of the side portions, said member adjacent the shank being tapered to frictionally engage the ends of the side portions to hold the handle from closed position.

1,243,668. DECORATING-DEPOSITOR. ALONZO LINTON BAUSMAN, Chicopee, Mass., assignor to National Equipment Company, Springfield, Ohio, a Corporation of Massachusetts. Filed Jan. 8, 1916. Serial No. 71,074. (Cl. 107—27.)



1. In a decorating depositor, a receptacle having one or more outlets, mechanism for ejecting material through said outlets in a continuous manner, means for reciprocating the receptacle to lay the material on articles passing under the outlets, a conveyer for said articles, and means in part outside of the receptacle and movable relatively thereto to guide the material in a curved path, whereby the material is laid on the objects in a line resulting from the movements of the objects, the receptacle, and the last mentioned means.

2. In a decorating depositor, a receptacle having restricted outlets, means to force material through the outlets in the form of strings, guiding means passing through the outlets and movable with respect thereto whereby said strings may be guided in accordance with the movement of said means.

3. In a decorating depositor, a receptacle having a series of restricted outlets, spindles mounted one in each outlet to eject the material therefrom, a guiding wire mounted in the end of each spindle and arranged to pass through its outlet, the end of each wire being offset from the axis of the spindle, means to rotate the spindles and wires,

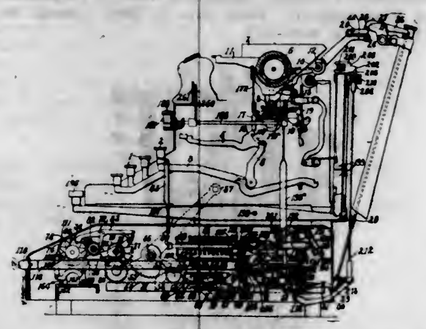
whereby the material ejected from the outlets may follow the wires and be laid in a curved path by the guiding action of the said wires.

4. In a decorating depositor, a receptacle having a series of restricted outlets, spindles mounted one in each outlet to eject the material therefrom, a guiding wire mounted in the end of each spindle and arranged to pass through its outlet, the end of each wire being offset from the axis of the spindle, variable speed driving means to rotate the spindles and wires, whereby the material ejected from the outlets may follow the wires and be laid in a curved path by the guiding action of the said wires.

5. In a decorating depositor, a receptacle having a series of restricted outlets, spindles mounted one in each outlet to eject the material therefrom, a guiding wire mounted in the end of each spindle and arranged to pass through its outlet, the end of each wire being offset from the axis of the spindle, variable speed driving means to rotate the spindles and wires, whereby the material ejected from the outlets may follow the wires and be laid in a curved path by the guiding action of the said wires, and means to move the receptacle to further control the laying of the material ejected from the outlets.

[Claims 6 to 8 not printed in the Gazette.]

1,243,669. COMBINED TYPE-WRITING AND COMPUTING MACHINE. RICHARD M. BECKER, New York, N. Y., assignor, by mesne assignments, to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Filed May 15, 1912. Serial No. 697,393. (Cl. 235—60.)



1. The combination with typewriting mechanism, including a carriage and numeral keys, of computing mechanism, preliminary representation devices settable at the actuation of said numeral keys to temporarily set up a number, means to enable said keys to set said preliminary representation devices either to determine addition or to determine subtraction by said computing mechanism, and carriage-controlled means for determining whether said keys shall control said preliminary representation devices to determine addition or subtraction.

2. The combination with typewriting mechanism, including a carriage and numeral keys, of computing mechanism, pins for controlling the extent of movement of said computing mechanism, means controlled from said keys for setting said pins, and means to enable said carriage to determine whether addition or subtraction shall be performed by the said computing mechanism, said carriage-determining-means acting to control the manner in which said keys shall set said pins.

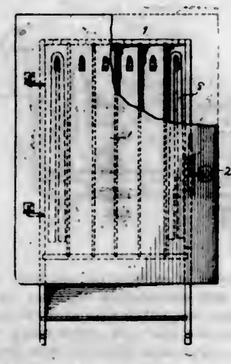
3. The combination with a typewriting mechanism including a carriage, of a computing mechanism, means for controlling the character of computation carried on by said computing mechanism, a tappet carried by said carriage, and connections operated by said tappet on the movement of said carriage for manipulating said means to control the character of computation; said tappet being adjustably mounted on said carriage so as to be capable of being rendered effective or ineffective.

4. The combination with a typewriting mechanism including a carriage, of a computing mechanism, means for controlling the character of computation carried on by said computing mechanism, means normally tending to actuate said first-mentioned means to change the character of computation, a lock for restraining said second-mentioned means, a trip for said lock normally inoperative, and carriage controlled means for rendering said trip operative, said computing mechanism having means to actuate said trip when operative, so as to cause the release of said lock.

5. The combination with a typewriting mechanism including a carriage, of a computing mechanism, means for controlling the character of computation carried on by said computing mechanism, a tappet carried by said carriage, and connections operated by said tappet on the movement of said carriage for manipulating said means to control the character of computation; said connections including a two-part means, one of said parts being yielding when approached from one direction to enable an ineffective return movement of said tappet with said carriage.

[Claims 6 to 55 not printed in the Gazette.]

1,243,670. TOWEL-CABINET. WILLIAM H. BREW, Washington, D. C.; Annie L. Brew administratrix of said William H. Brew, deceased. Filed July 26, 1916. Serial No. 111,477. (Cl. 45—32.)

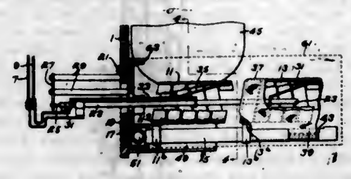


A towel cabinet, including a main compartment itself divided vertically into a plurality of separate compartments, a swinging front, a bottom for said plurality of compartments, a compartment disposed under said bottom and under said plurality of compartments and provided with an unrestricted opening and adapted to receive a reel of towel paper, the said bottom being provided with an opening effecting communication between each compartment of said plurality of compartments and the bottom compartment, a top for said plurality of compartments, the said top being provided with openings communicating with each compartment of the said plurality of compartments, the whole arranged in such manner to provide free ventilation for the entire cabinet, substantially as described and for the purposes set forth.

1,243,671. HYGROMETER AND OTHER INSTRUMENT. EDGAR H. BRISTOL and WALTER HENRY FITTS, Foxboro, Mass., assignors to The Industrial Instrument Company, Foxboro, Mass., a Corporation of Connecticut. Filed Jan. 18, 1913. Serial No. 742,777. (Cl. 73—24.)

1. An instrument of the class described comprising, in combination, indexes; helical tube responsive members arranged in tandem and having fixed and movable ends, shaft means for connecting said movable ends to said indexes respectively; absorbent material for one of said members; means to conduct moisture to said material; and a reservoir separate from said conducting means for supplying moisture thereto.

2. An instrument of the class described comprising, in combination, indicating means, helical tube responsive members for governing said indicating means, absorbent material for one of said members; a slotted container receiving a portion of said material; a reservoir having an outlet for communication with said container and valve means for said outlet having provision for automatically opening the latter on presentation of said reservoir to said container.



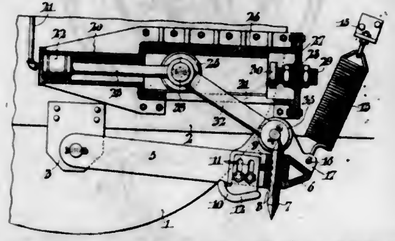
3. An instrument of the class described comprising, in combination, indicating means; helical tube responsive members for governing said indicating means; a slotted container; absorbent material for one of said members having a portion entered through and closing the slot in said container; and a closed reservoir having a single opening and separable from said container, said reservoir having provision for automatically supplying moisture to said container as rapidly as it is consumed by said material.

4. An instrument of the class described comprising, in combination, indicating means; responsive members; means to transmit movement from said responsive members to said indicating means; a container; absorbent material for one of said members and having a portion entered into said container; and a reservoir for separable association with said container and having provision for automatically supplying moisture to said container proportionately to the consumption thereof by said material.

5. An instrument of the class described comprising, in combination, indicating means; responsive members for governing the same; a container; absorbent material for one of said members; a reservoir for supplying moisture to said container and material; and shaft means for transmitting movement from said responsive members to said indicating means and partially supported by said members.

[Claims 6 to 10 not printed in the Gazette.]

1,243,672. SCARIFIER. FRANK A. BROWNE, Buffalo, N. Y., assignor to The Barber Asphalt Paving Company, Philadelphia, Pa., a Corporation of West Virginia. Filed Apr. 3, 1917. Serial No. 159,406. (Cl. 37—50.)

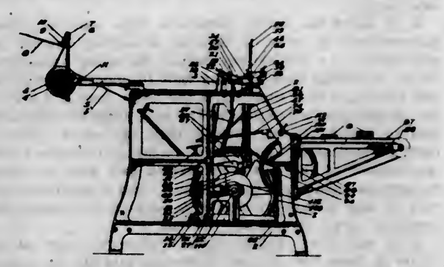


1. The combination with a road engine, of a scarifying attachment therefor, comprising a toothed member suspended beneath the rear of said road engine; a drag bar rigidly connected to said toothed bar and pivotally connected to said road engine; a spring directly connected to said toothed member tending to hold it in raised inoperative position; a cylinder mounted on said road engine; a piston reciprocating therein; a link directly pivoted to said piston and said toothed member, whereby when pressure is applied to said piston, said toothed member is moved to its lower operative position and there held against the action of the spring, the relation between said link and said piston being such that the downward pressure exerted by said toothed member increases as said toothed member descends.

4. The combination with a road engine, of a scarifying attachment therefor, comprising a toothed member suspended beneath the rear of said engine; a drag bar pivotally connected to said road engine and rigidly connected to said toothed member; a spring directly connected to said toothed member normally tending to hold it in a raised position; a cylinder mounted on said road engine; a piston reciprocating therein; a rod attached to said piston and reciprocating therewith; guides rigidly attached to said road engine; a roller pivotally mounted on the end of said rod moving in said guides; a link also pivoted at one end to said rod and at the other end to said drag bar, whereby the toothed member is lowered in accordance with the reciprocation of said piston, means for regulating the extent of reciprocation of said piston, said means comprising a plate mounted on the end of said guides, and a screw adjustably mounted therein, adapted to engage said roller.

[Claims 2 and 3 not printed in the Gazette.]

1,243,673. FABRIC-CUTTING MACHINE. FRANKLIN CHATFIELD, Minneapolis, Minn. Filed Dec. 14, 1915. Serial No. 66,701. (Cl. 164—48.)



1. In combination, with a feed table and a feeder operating thereon having means to engage the raised areas in a fabric to feed the same, a shearing blade, and means for automatically engaging the raised areas in the fabric to bend the same outwardly to clear said shearing blade.

7. In combination with a feed table and a stationary blade whereto the fabric to be severed is delivered from said table, a gap being formed between said table and said blade, means normally closing said gap for directing the fabric thereover and over the edge of said blade, a severing knife coöperating with said stationary blade to sever the fabric, said gap closing means being mounted to move simultaneously with said knife to expose the gap in said table.

10. The combination, with a feed table over which the fabric to be severed is fed, of a stationary blade spaced from said table, a movable blade coöperating with said stationary blade to sever the fabric, a block normally closing the gap between said table, a swinging blade for directing the fabric over said stationary blade, a support for said block having a hinged connection at one end therewith and a yielding support at the opposite end, and means for withdrawing said block from said gap simultaneously with the descent of said movable blade.

16. The combination, with a feed table, and means for feeding a fabric having welts or ribs thereon at intervals, of means for severing the fabric adjacent to the welts, and means having a limited movement in the direction of travel of the fabric for drawing the fabric taut between said feeder and the point of severance of the fabric.

[Claims 2 to 6, 8, 9, and 11 to 15 not printed in the Gazette.]

1,243,674. MATCH-BOX HOLDER. WILLIAM P. GOEBEL, Brooklyn, N. Y. Filed Nov. 1, 1916. Serial No. 128,850. (Cl. 206—31.)



1. A match-box holder formed of wire, said wire bent to form an attaching member for securement to a supporting surface, the upper extremities of the attaching member being bent in opposite directions and forming a base support for the lower edge of a match-box casing, the extremities of the base support being bent upward, substantially vertical, then backward, substantially horizontal, and downwardly, adapted to contact with the interior of the match-box casing and hold the same in position upon said base support, the said horizontal portions adapted to hold the match-box tray in an extended position from said casing.

2. A match-box holder formed of wire, said wire bent intermediate its ends to form an attaching member for securement to a supporting surface, the upper extremities of the attaching member being bent in opposite directions and forming a base support for the lower edge of a match-box casing, the extremities of the base support being bent upward, substantially vertical, then backward, substantially horizontal, and downwardly, adapted to contact with the interior of the match-box casing and hold the same in position upon said base support, and a platform carried by said horizontal members, adapted to support the match-box tray or matches thereon.

3. A match-box holder formed of wire, bent at its center to form two vertical contacting strands for securement to a supporting surface, said strands provided with openings therein for the passage of holding means therethrough, the upper extremities of said strands being bent in opposite directions forming a horizontal support for the lower edge of a match-box casing, the extremities of said horizontal support being bent vertically to form front members, horizontally, to form top members, and then downwardly, to form rear members, said front, top and rear members adapted to fit within the interior of a match-box casing and support the same and hold it in position upon the horizontal support, said top members adapted to support a match-box tray thereon in extended position from said casing.

1,243,675. STANDARD ELECTRIC LAMP. GEORGE THOMAS IRWIN, Toronto, Ontario, Canada. Filed Nov. 6, 1916. Serial No. 129,823. (Cl. 240—81.)

1. In an electric lamp, a main standard, an arm extending diametrically of the main standard and supported to turn in a horizontal plane on a center in a line with the axis of the main standard, a telescopic member carried by the arm, lamp suspension means carried by such telescopic member, and a spring pressed friction member carried by the telescopic member and bearing against the arm.

3. In an electric lamp, a main standard, a lamp supporting arm extending diametrically of the main standard and turnable in a horizontal plane on a center in a line with the axis of the main standard, a telescopic member supported upon the lamp supporting arm and having an interior diameter greater than the exterior diameter of the lamp supporting arm, an orifice formed in the telescopic member, a bearing ball held within such orifice so that its lower peripheral portion depends into the interior of the telescopic member and against the lamp supporting arm, and a spring pressed friction member located diametrically opposite the bearing ball and carried by the telescopic member.



15. In an electric lamp, a suspending support for the lamp provided with the usual lamp socket and shade, a lever arm connected to the top of the socket and extending through the interior of the shade and carrying a suitable counterweight, a member extending upwardly from the lamp socket, a chain connected at one end to such member and at the opposite end to the lever arm protruding through the bottom of the shade, and a ring carried by the suspending member through which the chain passes.

[Claims 2, 4 to 14, and 16 to 18 not printed in the Gazette.]

1,243,676. MULTIPLE INDICATING MECHANISM FOR WEIGHING-SCALES. HUBERT A. MYERS, Toledo, Ohio, assignor to Toledo Scale Company, Toledo, Ohio, a Corporation of New Jersey. Filed Sept. 22, 1915. Serial No. 51,931. (Cl. 177—351.)



1. In a device of the class described, a weighing scale, and means for indicating at a distance from the scale the weight of a load weighed upon the scale, including a graduated dial, a rotatable member, an indicator carried thereby and movable over the dial, and means for rotating said member step by step proportionally with the displacement of the weighing mechanism of the scale.

2. In a device of the class described, a weighing scale, and means for indicating at a distance from the scale the weight of a load weighed upon the scale, including a graduated dial, a rotatable member, an indicator carried thereby and movable over the dial, and electro-magnetic means for rotating said member step by step proportionally with the displacement of the weighing mechanism of the scale.

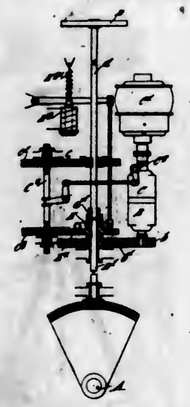
3. In a device of the class described, a weighing scale, and electro-magnetic weight-transmitting means arranged adjacent the weighing mechanism of the scale for indicating at a distance from the scale the weight of a load weighed upon the scale, including a graduated dial, a rotatable member, an indicator carried thereby and movable over the dial, and electro-magnetic means for rotating said member proportionally with the displacement of the weighing mechanism of the scale.

4. In a device of the class described, a weighing scale having an indicator hand, electro-magnetic weight-transmitting means arranged adjacent the indicator hand for indicating at a distance from the scale the weight of a load weighed upon the scale, including a graduated dial, a rotatable member, an indicator carried thereby and movable over the dial, and electro-magnetic means for rotating said member proportionally with the displacement of the indicator hand.

5. In combination with a weighing scale, means for indicating at distances from the scale the weight of a load weighed upon the scale, including a rotatable member mounted adjacent the weighing mechanism of the scale and adapted to be rotated through an arc proportional to the displacement of the weighing mechanism, a graduated dial remote from the scale, a second rotatable member mounted adjacent the dial, an indicator carried thereby and movable over the dial, and means for rotating both rotatable members in unison.

[Claims 6 to 17 not printed in the Gazette.]

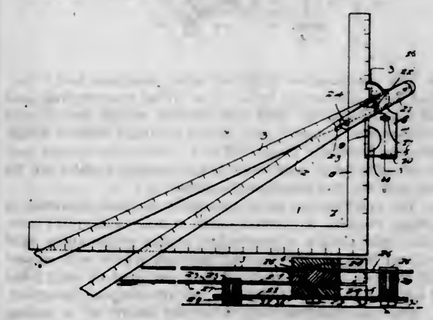
1,243,677. POWER-TRANSMISSION GEAR. JOHN ROBSON, Westminster, London, England, assignor to The Variable Speed Gear Limited, London, England. Original application filed Feb. 11, 1915, Serial No. 7,641. Divided and this application filed Apr. 26, 1916. Serial No. 93,598. (Cl. 74—7.)



1. In power transmission gear, the combination with the operating motor, the member normally driven thereby, the control device of said motor, and the hand operated control member normally connected to said device, of a clutch normally connecting said motor to the member driven thereby, means, coming into operation automatically when the power transmission gear breaks down, for moving said clutch to disconnect the motor from the member normally driven thereby and for connecting this member to the hand operated control member, and means whereby the manual movements of the said control member do not affect the position of the control device.

2. In power transmission gear, the combination with the operating motor, the member normally driven thereby, the control device of said motor, and the hand operated control member normally connected to said device through a hunting control gear which is also operated by the member driven by the motor, of a clutch normally connecting said motor to the member driven thereby and constantly connecting this member to the hunting control gear and means coming into operation automatically when the power transmission gear breaks down for moving said clutch to disconnect the motor from the member normally driven thereby and for connecting this member to the hand operated control member, this automatic movement taking place without disconnecting either the control member or the motor driven member from the hunting control gear.

1,243,678. COMBINED SQUARE AND BEVEL FOR ASCERTAINING THE LENGTH OF RAFTERS, &c. JOHN C. BROWN, Atlanta, Ga. Filed Aug. 9, 1916. Serial No. 113,986. (Cl. 33—91.)



1. An instrument of the class described including a square, a stock adjustable along the arm of the square, a pair of blades extending across the angle of the square at an inclination in the same general direction and pivotally connected at their upper portions with the stock, and a lever pivotally connected with the blades and carried by the stock, said lever being arranged to actuate one of the blades automatically when the other blade is manually adjusted.

6. An instrument of the class described including a square, a combined handle and clamp having a graduated upper edge and a lower handle portion and movable along the arm of the square, a pair of blades extending in the same general direction across the angle of the square at an inclination and mounted at their upper portions for pivotal movement on the combined handle and clamp, one of the blades being arranged to move over the graduated arcuate portion, means for transmitting motion from one of the blades to the other blade to secure a simultaneous operation of the blades and means for clamping the blades in their adjustment.

[Claims 2 to 5 not printed in the Gazette.]

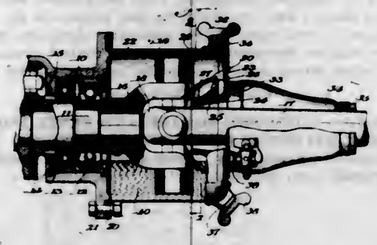
REISSUES.

14,376. TRANSMISSION-SHAFT. ERWIN C. COOPER, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 2, 1917. Serial No. 159,374. Original No. 1,186,751, dated June 13, 1916, Serial No. 702,773, filed June 10, 1912. (Cl. 74—19.)

1. The combination with two shaft members and a universal joint connecting them, of a casing surrounding said joint and having an open end through which one of said shaft members extends, said casing having an annular flange projecting inwardly from said end toward the cen-

tral portion of said joint, and means mounted on the joint and having a flange rotating therewith and overhanging the casing flange and adapted to throw the lubricant away from said flange.

2. The combination with two shaft members and a universal joint connecting them, of a casing surrounding said joint and having an open end through which one of said shaft members extends, said casing having a conical flange projecting inwardly from said end toward the central portion of said joint, and a bell-shaped device on said joint extending outwardly from the center thereof, and surrounding said casing flange.



3. The combination with two shaft members and a universal joint connecting them, of a casing surrounding said joint and having an open end through which one of said shaft members extends, said casing having a conical flange projecting inwardly from said end toward the central portion of said joint, and said flange having a skirt at its inner end, for the purposes described.

4. The combination with a support, a shaft mounted in bearings therein, a second shaft, a universal joint connecting said shafts, a stationary casing surrounding said joint and having an open end through which said second shaft extends, and a throw-off ring mounted on said joint and adapted to rotate therewith, for the purpose described.

5. The combination with a rotary shaft, of a casing through an opening in which one end of the shaft extends, said casing having an annular flange projecting inwardly from said opening toward said shaft and means mounted on the shaft and having a flange rotating therewith and overhanging the casing flange.

6. The combination with a rotating member, of a casing partly surrounding said member and provided with an opening through which one end of said member extends, said casing having an annular flange projecting inwardly from said opening toward said member, and a bell shaped device on said member extending outwardly from the center thereof toward said flange.

7. In a device of the class described, the combination of a housing, a shaft journaled therein and provided within said housing with centrifugally acting oil throw-off means, and catching means fitted inside of said housing for intercepting the oil thrown off and guarding said shaft against dropping of said oil thereon.

8. In a device of the class described, the combination of a housing, a shaft journaled therein and provided within said housing with a centrifugally acting, annular, oil-throw-off ring, and catching means fitted inside of said housing for intercepting the oil thrown off and guarding said shaft against dropping of said oil thereon.

9. In a device of the class described, the combination of a housing, a shaft journaled therein and provided within said housing with centrifugally acting oil throw-off means, and catching means substantially concentric with said means and fitted inside of said housing for intercepting the oil thrown off and guarding said shaft against dropping of said oil thereon.

10. In a device of the class described, the combination of a housing, a shaft journaled therein and provided within said housing with centrifugally acting oil throw-off means, and catching means fitted in and projecting inwardly from said housing toward said throw-off means for intercepting the oil thrown off and guarding said shaft against dropping of said oil thereon.

14,377. ARTIFICIAL BAIT. EDWARD LAFAYETTE COX, Denver, Colo., assignor to The Whitney Sporting Goods Company, a Corporation of Colorado. Filed Dec. 22, 1915. Serial No. 68,273. Original No. 975,833, dated Nov. 15, 1910, Serial No. 486,371, filed Mar. 29, 1909. (Cl. 43—30.)



1. In an artificial bait, a water-tight quill forming the body of the bait, and a relatively light material filling and supporting the walls of the quill.

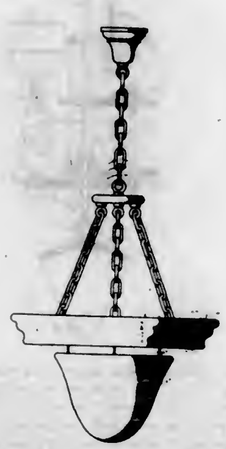
2. In an artificial bait, a quill forming the body of the bait, and means bound about the ends of the quill, gathering it together and closing it at these points.

3. An artificial fly, including a hook, a buoyant hollow body formed of a quill, to support the hook longitudinally in a floatable position upon the surface of a body of water, with its bill submerged beneath said water-surface, said body-forming quill having arranged therein a relatively light filler for supporting the walls thereof, an insect-simulating means applied to said quill, and means bound about, and closing the ends of the quill upon the shank of the hook.

4. An artificial fly, including a hook, a cork-body of oblong outline having the shank of said hook extending therethrough and the point of the hook extending beyond said cork-body the bill of said hook being arranged for submergence, a quill inclosing said cork-body and having its ends secured water-tight around said hook-shank, and an insect-simulating means applied to said quill at its inner end.

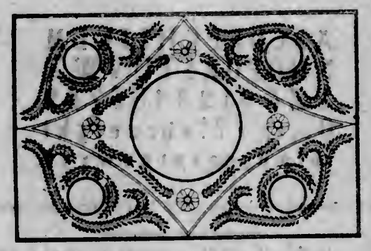
DESIGNS.

51,361. LIGHTING-FIXTURE. HARRY C. ADAM, St. Louis, Mo. Filed Sept. 1, 1917. Serial No. 189,416. Term of patent 3½ years.



The ornamental design for a lighting fixture, as shown.

51,362. COVER FOR BOOKS. THEODORE ARENDS, Detroit, Mich. Filed Apr. 20, 1917. Serial No. 168,533. Term of patent 14 years.



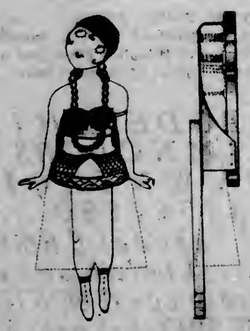
The ornamental design for a cover for books, as shown.

51,363. LIGHTING-FIXTURE. DIXON L. BEAN, Chicago, Ill., assignor of one-half to Milton H. Samson, Chicago, Ill. Filed June 20, 1917. Serial No. 175,816. Term of patent 7 years.



The ornamental design for a lighting fixture, as shown.

51,364. WHISK-BROOM HOLDER. HARRY L. CONDÉ, Syracuse, N. Y. Filed Feb. 1, 1917. Serial No. 146,038. Term of patent 3½ years.



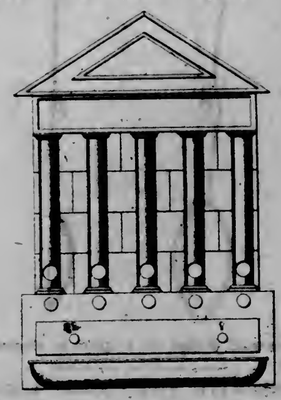
The ornamental design for a whisk-broom holder, as shown.

51,365. CABINET FOR ELECTRICAL APPLIANCES. ERNEST M. CRANE and CHAUNCEY R. PELTON, Detroit, Mich. Filed Mar. 27, 1916. Serial No. 87,134. Term of patent 7 years.



The ornamental design for cabinet for electrical appliances as shown.

51,366. SLOT-MACHINE SAVINGS-BANK. JOHN S. CURTISS, El Paso, Tex. Filed Feb. 7, 1917. Serial No. 147,266. Term of patent 14 years.



The ornamental design for a "slot machine savings bank," as shown.

51,367. VANITY-CASE. FREDERIC W. EICHORN, Chicago, Ill., assignor to Union Defender Co., Chicago, Ill., a Firm composed of Frederic W. Eichorn and Arthur M. Eichorn. Filed Aug. 17, 1917. Serial No. 186,808. Term of patent 3½ years.



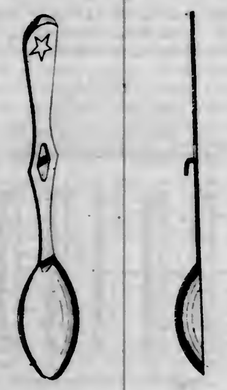
The ornamental design for a vanity case, as shown.

51,368. WASTE-BASKET. JOHN B. ELLIS, High Point, N. C. Filed Apr. 12, 1917. Serial No. 161,657. Term of patent 14 years.



The ornamental design for a waste paper basket substantially as herein described and shown.

51,369. SPOON. SADIE A. GALPIN, Jefferson, Ohio. Filed May 28, 1917. Serial No. 171,587. Term of patent 3½ years.



The ornamental design for a spoon as shown.

51,370. PNEUMATIC TIRE. ALBERT A. GARTHWAITE, Conshohocken, Pa. Filed Aug. 2, 1917. Serial No. 184,168. Term of patent 14 years.



The ornamental design for a pneumatic tire as shown.

51,371. FONT OF TYPE. SIDNEY C. GAUNT, Chicago, Ill., assignor to Barnhart Bros. & Spindler, Chicago, Ill., a Corporation of Illinois. Filed May 4, 1917. Serial No. 166,473. Term of patent 7 years.



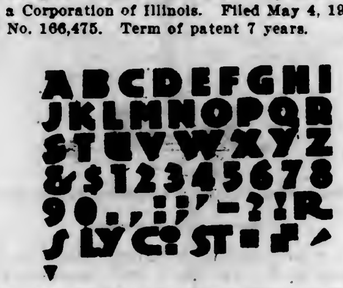
The ornamental design for a font of type, as shown.

51,372. FONT OF TYPE. SIDNEY C. GAUNT, Chicago, Ill., assignor to Barnhart Bros. & Spindler, Chicago, Ill., a Corporation of Illinois. Filed May 4, 1917. Serial No. 166,474. Term of patent 7 years.



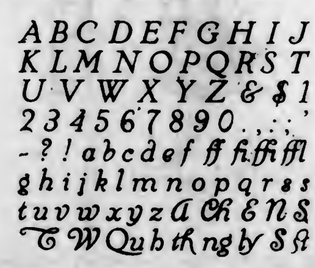
The ornamental design for a font of type, as shown.

51,373. FONT OF TYPE. SIDNEY C. GAUNT, Chicago, Ill., assignor to Barnhart Bros. & Spindler, Chicago, Ill., a Corporation of Illinois. Filed May 4, 1917. Serial No. 166,475. Term of patent 7 years.



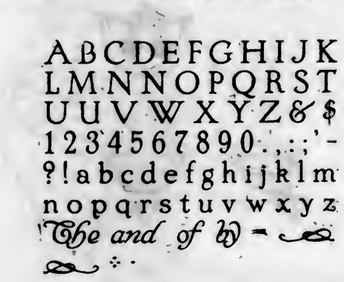
The ornamental design for a font of type, as shown.

51,374. FONT OF TYPE. SIDNEY C. GAUNT, Chicago, Ill., assignor to Barnhart Bros. & Spindler, Chicago, Ill., a Corporation of Illinois. Filed May 4, 1917. Serial No. 166,476. Term of patent 7 years.



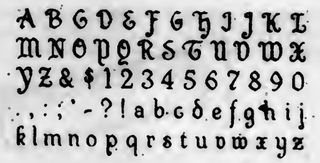
The ornamental design for a font of type, as shown.

51,375. FONT OF TYPE. SIDNEY C. GAUNT, Chicago, Ill., assignor to Barnhart Bros. & Spindler, Chicago, Ill., a Corporation of Illinois. Filed May 4, 1917. Serial No. 166,477. Term of patent 7 years.



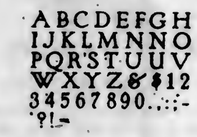
The ornamental design for a font of type, as shown.

51,376. FONT OF TYPE. SIDNEY C. GAUNT, Chicago, Ill., assignor to Barnhart Bros. & Spindler, Chicago, Ill., a Corporation of Illinois. Filed May 4, 1917. Serial No. 166,478. Term of patent 7 years.



The ornamental design for a font of type, as shown.

51,377. FONT OF TYPE. SIDNEY C. GAUNT, Chicago, Ill., assignor to Barnhart Bros. & Spindler, Chicago, Ill., a Corporation of Illinois. Filed May 4, 1917. Serial No. 166,479. Term of patent 7 years.



The ornamental design for a font of type, as shown.

51,378. FONT OF TYPE. SIDNEY C. GAUNT. Chicago, Ill., assignor to Barnhart Bros. & Spindler, Chicago, Ill., a Corporation of Illinois. Filed May 4, 1917. Serial No. 166,480. Term of patent 7 years.



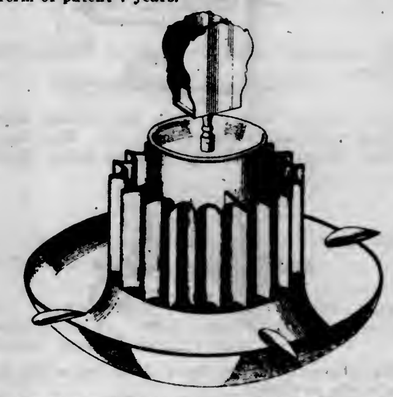
The ornamental design for a font of type, as shown.

51,379. TEAPOT OR SIMILAR ARTICLE. HENRIK HILLSOM, Wallingford, Conn., assignor to R. Wallace & Sons Mfg. Co., Wallingford, Conn., a Corporation. Filed July 20, 1917. Serial No. 181,908. Term of patent 3½ years.



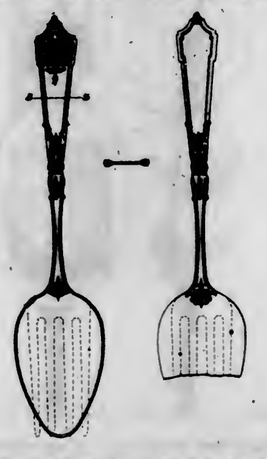
The ornamental design for a tea pot or similar article, as shown.

51,380. SMOKER'S OUTFIT. JOSEPH F. JECKERT, Garfield, N. J. Filed July 13, 1917. Serial No. 180,458. Term of patent 7 years.



The ornamental design for a smoker's outfit, as shown.

51,381. HANDLE FOR SPOONS, FORKS, OR SIMILAR ARTICLES. BARTON P. JENKS, Providence, R. I., assignor to Gorham Manufacturing Company, Providence, R. I., a Corporation of Rhode Island. Filed Sept. 6, 1917. Serial No. 190,091. Term of patent 14 years.



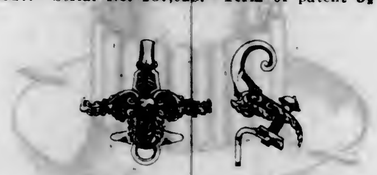
The ornamental design for a handle for spoons, forks or similar articles, as shown.

51,382. HUSK FOR LIGHTING-FIXTURES. CHARLES ERNEST JONES, Chicago, Ill. Filed Mar. 6, 1917. Serial No. 152,936. Term of patent 3½ years.



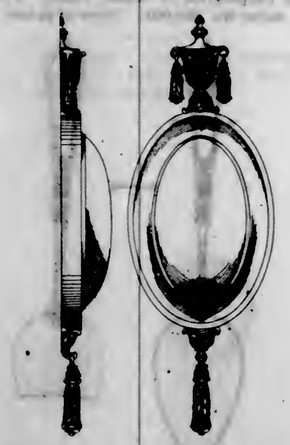
The ornamental design for a husk for lighting fixtures, as shown.

51,383. CLAMP FOR CALCITE MUSHROOM BOWLS. CHARLES ERNEST JONES, Chicago, Ill. Filed Aug. 18, 1917. Serial No. 187,023. Term of patent 3½ years.



The ornamental design for a clamp for calcite mushroom bowls, as shown.

51,384. ORNAMENT FOR BRACKET-BACKS. CHARLES ERNEST JONES, Chicago, Ill. Filed Aug. 18, 1917. Serial No. 187,024. Term of patent 3½ years.



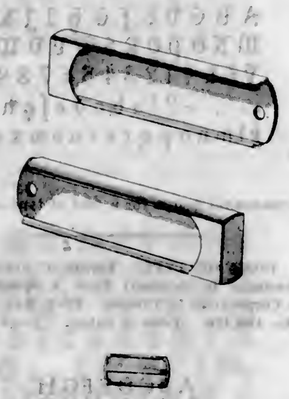
The ornamental design for an ornament for bracket backs, as shown.

51,385. ARM-POCKET FOR OVAL BRACKET-BACKS. CHARLES ERNEST JONES, Chicago, Ill. Filed Aug. 18, 1917. Serial No. 187,025. Term of patent 3½ years.



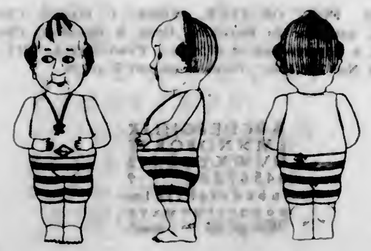
The ornamental design for an arm pocket for oval bracket backs, as shown.

51,386. TAG-HOLDER. JOHN CHARLES KING, Dalby, Queensland, Australia. Filed July 1, 1916. Serial No. 107,200. Term of patent 14 years.



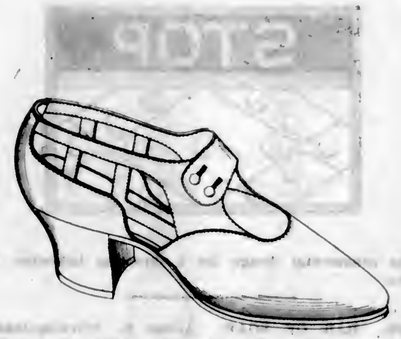
The ornamental design for a tag holder, as shown.

51,387. DOLL. FREDERICK LANGFELDER, New York, N. Y., assignor to Morimura Bros., New York, N. Y., a Firm composed of Ichizaemon Morimura, Estate of Toyo Morimura, Sancyoski Hirose, Senemitsu Hirose, and Yusakata Murai. Filed July 26, 1917. Serial No. 182,987. Term of patent 7 years.



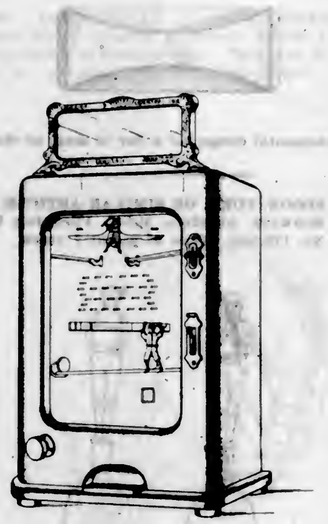
The ornamental design for a doll, as shown.

51,388. SHOE. ANTON OLLARIU, Philadelphia, Pa. Filed June 9, 1917. Serial No. 173,890. Term of patent 3½ years.



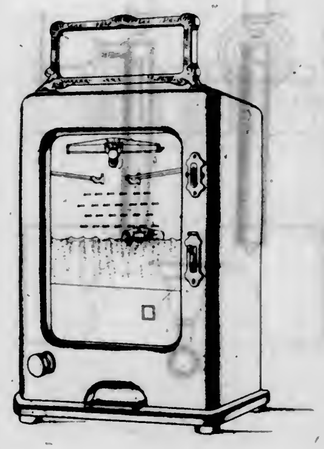
The ornamental design for a shoe as shown.

51,389. VENDING-MACHINE CASING. JOSEPH PAUPA and GUSTAV F. HOCHRIEM, Chicago, Ill. Filed Aug. 27, 1917. Serial No. 188,536. Term of patent 14 years.



The ornamental design for a vending machine casing, as shown.

51,390. VENDING-MACHINE CASING. JOSEPH PAUPA and GUSTAV F. HOCHRIEM, Chicago, Ill. Filed Aug. 27, 1917. Serial No. 188,537. Term of patent 14 years.



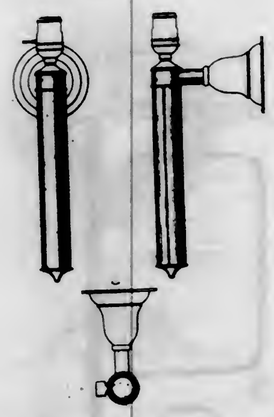
The ornamental design for a vending machine casing, as shown.

51,391. TIRE-TREAD. ABRAHAM LINCOLN PEARCE, Philadelphia, Pa. Filed Aug. 6, 1917. Serial No. 184,762. Term of patent 14 years.



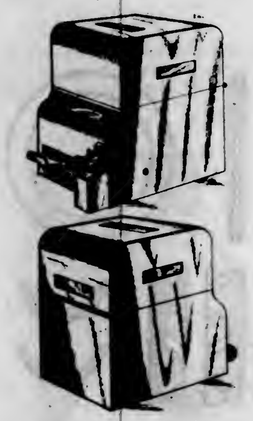
The ornamental design for a tire tread, as shown.

51,392. ELECTRIC-LIGHT WALL-COSTUMER. FRANK D. PELLETIER, Kansas City, Mo. Filed Jan. 23, 1917. Serial No. 144,067. Term of patent 3½ years.



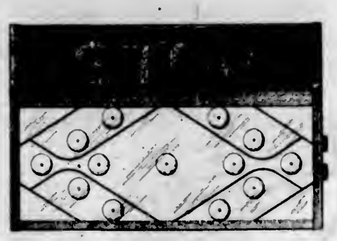
The ornamental design for an electric light wall costumer, as shown.

51,393. CASING FOR VENDING-MACHINES. WILLIAM ISAAC RAVERT, Hazleton, Pa., assignor to Standard Automatic Machine Company, Pittsburgh, Pa., a Corporation of Delaware. Filed Aug. 24, 1917. Serial No. 188,077. Term of patent 14 years.



The ornamental design for a casing for vending machines, substantially as shown.

51,394. DIRECTION-INDICATOR. THEODORE SCOTT SAVAGE, Oakland, Cal. Filed June 22, 1916. Serial No. 105,294. Term of patent 7 years.



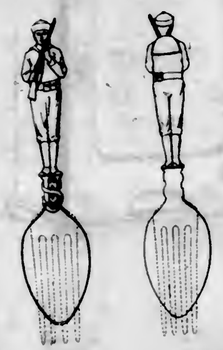
The ornamental design for a direction indicator, as shown.

51,395. BAR OF SOAP. ALTER L. SCHWARTZBERG, Shreveport, La. Filed Aug. 10, 1917. Serial No. 185,613. Term of patent 3½ years.



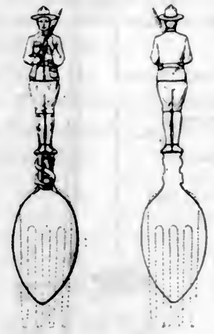
The ornamental design for a bar of soap, as shown.

51,396. SPOON, FORK, OR SIMILAR ARTICLE. FREDERICK SCHWINN, Attleboro, Mass. Filed July 9, 1917. Serial No. 179,563. Term of patent 7 years.



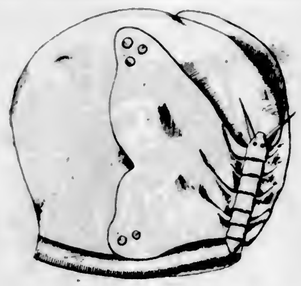
The ornamental design for a spoon, fork, or similar article, as shown.

51,397. SPOON, FORK, OR SIMILAR ARTICLE. FREDERICK SCHWINN, Attleboro, Mass. Filed July 9, 1917. Serial No. 179,564. Term of patent 7 years.



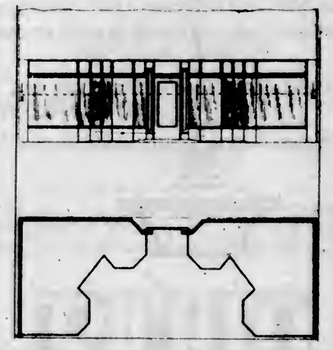
The ornamental design for a spoon, fork, or similar article, as shown.

51,398. BATHING-CAP. ALICE R. SHEEHAN, Providence, R. I., assignor to Revere Rubber Company, a Corporation of Rhode Island. Filed Aug. 3, 1917. Serial No. 184,336. Term of patent 7 years.



The ornamental design for a bathing cap, as shown.

51,399. STORE-FRONT. CHARLES LOAR TAYLOR, Pittsburgh, Pa. Filed Dec. 4, 1916. Serial No. 135,095. Term of patent 14 years.



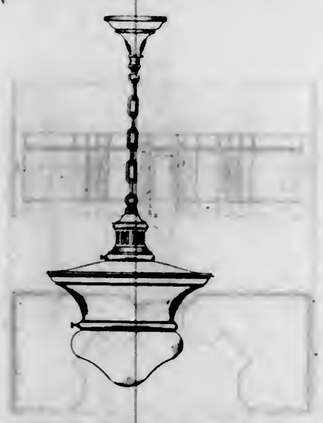
The ornamental design for a store front, as shown.

51,400. WEIGHING-SCALE CASING. OSCAR E. WAGNER and ERNEST H. FUNKE, Chicago, Ill. Filed Aug. 18, 1917. Serial No. 187,031. Term of patent 7 years.



The ornamental design for a weighing scale casing as illustrated and described.

51,401. HANGING LAMP OR SIMILAR ARTICLE. ALBERT WAHLE, Brooklyn, N. Y., assignor to Cassidy & Son Manufacturing Co., a Corporation of New York. Filed May 14, 1917. Serial No. 168,614. Term of patent 7 years.



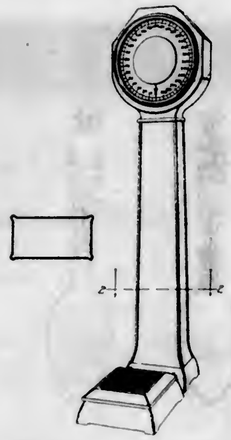
The ornamental design for a hanging lamp or similar articles, as shown.

51,402. AUTOMOBILE-RADIATOR ATTACHMENT. JOHN H. WARNER and HOWARD S. SMITH, Dayton, Ohio. Filed Aug. 6, 1917. Serial No. 184,760. Term of patent 3½ years.



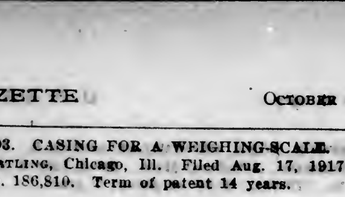
The ornamental design for an automobile radiator attachment, as shown.

51,403. CASING FOR A WEIGHING-SCALE. JOHN B. WATLING, Chicago, Ill. Filed Aug. 17, 1917. Serial No. 186,810. Term of patent 14 years.



The ornamental design for a casing for a weighing scale, substantially as shown.

51,404. PLATE FOR LIGHTING-FIXTURES. LESTER R. WELLMAN, Chicago, Ill., assignor to Friedley-Voshardt Co., Chicago, Ill., a Corporation of Illinois. Filed Aug. 24, 1917. Serial No. 188,079. Term of patent 7 years.



The ornamental design for a plate for lighting fixtures, as shown.

TRADE-MARKS

PUBLISHED OCTOBER 16, 1917.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 86,954. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) FORD MOTOR COMPANY, Highland Park, Mich. Filed May 28, 1915.

Ford

Particular description of goods.—Electrically-Self-Propelled Automobiles, Bodies, Running-Gears, Chassis.
Claims use since about Aug. 1, 1914.

Ser. No. 88,944. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) A. BOURJOIS & Co. INC., New York, N. Y. Filed Sept. 1, 1915.

Mary

Particular description of goods.—Toilet Powder.
Claims use since Nov. 28, 1913.

Ser. No. 93,159. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SONOMA REMEDY CO. (NOT INC.), Chicago, Ill. Filed Feb. 28, 1916.



Particular description of goods.—Salves for Burns, Bruises, Cuts, Old Sores, Scalds, Ulcers, and Wounds; Liniment for Rheumatic Pains, Sprains, Swellings, and Stiff Joints; Herb Tea and Herb Tablets for Kidney and Bladder Troubles; Blood-Purifier, Diseases of the Skin, Acne, Pimples, Scrofula, Syphilitic Affections, Boils, Tumors, and Rheumatic Affections.
Claims use since Feb. 18, 1916.

Ser. No. 94,146. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) GRANITE CITY SOAP COMPANY, INC., Newburgh, N. Y. Filed Apr. 4, 1916.

RICHTO

Particular description of goods.—Automobile and Oil Soap.
Claims use since Oct. 1, 1915.

Ser. No. 94,830. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MILES PELKY, Point, Tex. Filed May 1, 1916.



Particular description of goods.—A Preparation for the Treatment of Piles.
Claims use since Nov. 20, 1916.

Ser. No. 94,894. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE CALCO CHEMICAL COMPANY, Somerville, N. J. Filed May 4, 1916.

CAL-CO

Particular description of goods.—Anilin-Oil, Anilin-Salt, Beta-Naphthol, Indulin, Ponceau 2 G, Scarlet 2 R.
Claims use since on or about Jan. 28, 1916.

Ser. No. 95,688. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) AKTIEBOLAGET SALENIUS' WERKSTADER, Stockholm and Märie-hall, Sweden. Filed June 6, 1916.

REGO

Particular description of goods.—Liquid-Separators, Churns, Milk-Pumps, Cheese-Presses, Butter-Workers, and Turbine-Separators.
Claims use since Oct. 6, 1915.

Ser. No. 95,861. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) C. B. CLEMONS CO., Chicago, Ill. Filed June 14, 1916. Under ten-year proviso.

Clemons & Crane.

Particular description of goods.—Pianos.
Claims use since about November, 1890.

Ser. No. 95,938. (CLASS 39. CLOTHING.) THE GOODYEAR'S METALLIC RUBBER SHOE CO., Naugatuck, Conn. Filed June 17, 1916.

NAUGAHYDE

Particular description of goods.—Boots and Shoes Having Fabric Uppers and Rubber or Composition-Rubber Fiber Soles Attached Thereto by Vulcanization and Unattached Soles of Rubber and Composition Rubber and Fiber.
Claims use since May 4, 1916.

Ser. No. 98,245. (CLASS 15. OILS AND GREASES.) MONTANA OIL CO., Helena, Mont. Filed Sept. 26, 1916.



Particular description of goods.—Gasolene, Kerosene, and Lubricating-Oil.
Claims use since Sept. 1, 1914.

Ser. No. 98,319. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOSEPH THORLEY, LIMITED, London, England. Filed Sept. 29, 1916. Under ten-year proviso.

Joseph Thorley

The mark is the signature of applicant.
Particular description of goods.—A Compound of Substances Used as a Condiment to Food for Horses, Cattle, Sheep, Pigs, Poultry, and Game.
Claims use since February, 1862.

Ser. No. 98,736. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) KELLY AXE MANUFACTURING COMPANY, Charleston, W. Va. Filed Oct. 17, 1916. Under ten-year proviso.

PERFECT

Particular description of goods.—Axes, Hatchets, Scythes, Hammers, and Hickory Handles for Axes, Hatchets, Hammers, and other Tools.
Claims use since the year 1889.

Ser. No. 99,196. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE MITCHELL VANCE COMPANY, New York, N. Y., assignor to Mitchell Vance Co. Inc., New York, N. Y., a Corporation of New York. Filed Nov. 9, 1916.

VANCO

Particular description of goods.—Electric-Lighting Fixtures.
Claims use since Oct. 28, 1916.

Ser. No. 99,197. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE MITCHELL VANCE COMPANY, New York, N. Y., assignor to Mitchell Vance Co. Inc., New York, N. Y., a Corporation of New York. Filed Nov. 9, 1916.



Particular description of goods.—Electric-Lighting Fixtures.
Claims use since Oct. 28, 1916.

Ser. No. 100,242. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) NORMAN R. THOMPSON, Toledo, Ohio. Filed Dec. 29, 1916.

ELEADIN

Particular description of goods.—Electric Lamps.
Claims use since Dec. 22, 1916.

Ser. No. 100,949. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM GEORGE ASQUITH, London, England. Filed Jan. 25, 1917.

GENATOSAN

Particular description of goods.—A Nerve-Tonic Food Primarily for Medicinal Purposes.
Claims use since Oct. 3, 1916.

Ser. No. 101,883. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) SAMUEL F. PERKINS, INC., Boston, Mass. Filed Mar. 2, 1917.



Particular description of goods.—Toy Kites.
Claims use since Feb. 12, 1917.

Ser. No. 102,213. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ADELINE D. H. KELSEY, Westdale, N. Y. Filed Mar. 17, 1917.

Kelnado

Particular description of goods.—Toothache-Drops, Eczema-Ointment, Lotion for Face and Hands, Preventive of Blood-Poisoning, All for External Use.
Claims use since Jan. 1, 1917.

Ser. No. 102,726. (CLASS 48. MALT EXTRACTS AND LIQUORS.) QUINN & NOLAN BEVERWYCK BREWING COMPANY, Albany, N. Y. Filed Apr. 4, 1917.

Sub Rosa

Particular description of goods.—Non-Intoxicating Malt or Cereal Beverages Containing Approximately Less Than One-Half Per Cent. Alcohol.
Claims use since Mar. 1, 1917.

Ser. No. 103,180. (CLASS 39. CLOTHING.) MARSHALL FIELD & COMPANY, Chicago, Ill. Filed Apr. 21, 1917.

REFLEX

Particular description of goods.—Leather Shoes.
Claims use since about Mar. 1, 1915.

Ser. No. 103,189. (CLASS 37. PAPER AND STATIONERY.) D. L. WARD COMPANY, Philadelphia, Pa. Filed Apr. 21, 1917.



Particular description of goods.—Book-Paper, Including Coated, Flint, and Friction Paper; Blotting-Paper, Cardboard, Tag-Paper, Cover-Paper, Envelops, Writing-Paper, Papeteries, Toilet-Paper, Paper Towels, Wax-Paper, Tissue-Paper, Wrapping-Paper, Paper-Board, Corrugated Paper, Parchment-Paper, Glassine-Paper, News-Print, Matrix-Paper, Matrix Tissue-Paper, Onion-Skin Paper, Blank Books, and Writing-Tablets.
Claims use since about 1913.

Ser. No. 103,445. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) FELTON, SIBLEY & CO., INC., Philadelphia, Pa. Filed May 1, 1917.



Particular description of goods.—Putty, Ready-Mixed Paints in Liquid Form, Paint-Pigments in Paste Form, Stains, Enamels, and Varnishes.
Claims use since Jan. 1, 1908.

Ser. No. 103,489. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) AMERICAN MACHINE & FOUNDRY COMPANY, New York, N. Y. Filed May 3, 1917.

HICO

Particular description of goods.—Cigarette, Cigar, and Cheroot Machines and Parts Thereof.
Claims use since July 1, 1916.

Ser. No. 103,760. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE MARION STEAM SHOVEL COMPANY, Marion, Ohio. Filed May 12, 1917.



Particular description of goods.—Steam-Shovels, Gasoline-Shovels, Dipper-Dredges, Hydraulic Dredges, Elevator-Dredges, Railroad-Ditchers, Drag-Line Excavators, Orange-Peel Excavators, Clam-Shell Excavators, Trench-Digging Machines, Ballast-Unloaders, and Log-Loaders.
Claims use since Apr. 6, 1917.

Ser. No. 103,811. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BELLINGHAM CHEMICAL CO., Bellingham, Wash. Filed May 15, 1917.

7070

Particular description of goods.—A Composition of Matter Comprising a Definite Mixture of Dry Medicinal Powders for the Relief of Pains in the Stomach, for Which Purpose It is to be Taken Internally.
Claims use since May 1, 1917.

Ser. No. 103,880. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) AMERICAN STEEL EXPORT COMPANY, New York, N. Y. Filed May 17, 1917.

ASECO

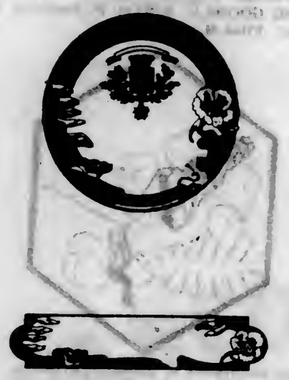
Particular description of goods.—Steel Cars—Namely, Gondola, Hopper-Gondola, Hopper, Flat, and Tank Cars—Motor-Trucks, and Automobiles.
Claims use since Oct. 5, 1916.

Ser. No. 103,919. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) A. BOURJOIS & CO., INC., New York, N. Y. Filed May 18, 1917.



Particular description of goods.—Rouge.
Claims use since Nov. 19, 1902.

Ser. No. 103,923. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) A. BOURJOIS & CO., INC., New York, N. Y. Filed May 18, 1917.



Particular description of goods.—Face-Powder.
Claims use since Jan. 17, 1901.

Ser. No. 103,984. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EDWARD H. HECHLER, Cleveland, Ohio. Filed May 21, 1917.

HECHS

Particular description of goods.—Liver-Pills.
Claims use since Jan. 1, 1907.

Ser. No. 104,036. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CONRAD E. BIEL, Denver, Colo. Filed May 24, 1917.

PEPIRO

Particular description of goods.—Tablets for Toning and Building up the Stomach, Lungs, Heart, and Nervous System.
Claims use since Apr. 15, 1917.

Ser. No. 104,054. (CLASS 37. PAPER AND STATIONERY.) ALL-PACKAGE GROCERY STORES CO., Brooklyn and New York, N. Y. Filed May 25, 1917.



Particular description of goods.—Paper Napkins and Toilet-Tissue.
Claims use since May 13, 1915.

Ser. No. 104,061. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) E. R. BLAIR & CO., INC., New York, N. Y. Filed May 25, 1917.

FLEXITE

Particular description of goods.—Shaft-Couplings.
Claims use since Apr. 2, 1917.

Ser. No. 104,198. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) PAUL M. MARKO & CO. INC., Brooklyn, N. Y. Filed June 1, 1917.



Particular description of goods.—Starting, Lighting, and Ignition Storage Batteries.
Claims use since Mar. 19, 1907.

Ser. No. 104,343. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) MULTIPLEX FUSE CORPORATION, New York, N. Y. Filed June 8, 1917.

Atlas

Particular description of goods.—Electric Fuse.
Claims use since May 26, 1917.

Ser. No. 104,365. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) F. L. SMIDTH & Co., Copenhagen, Denmark. Filed June 9, 1917.

DANIT

Particular description of goods.—Grinding-Machines for Pulverizing Cement, Raw Materials, Cement Clinker, Coal, and Similar Substances and for Linings for Such Machines.
Claims use since about Jan. 1, 1916.

Ser. No. 104,436. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) S. M. COHEN, Spokane, Wash. Filed June 14, 1917.

ANALTHESIA

Particular description of goods.—An Anesthetic.
Claims use since Mar. 1, 1917.

Ser. No. 104,446. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) ARROW-GRIP MANUFACTURING CO., Glens Falls, N. Y. Filed June 15, 1917.

ARROW GRIP

Particular description of goods.—Devices for Attachment to Wheels of Vehicles, Used in Connection with Chains to Prevent Skidding.
Claims use since Feb. 10, 1917.

Ser. No. 104,488. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) IRVINGTON VARNISH & INSULATOR CO., Irvington, N. J. Filed June 18, 1917.

Cellulak

Particular description of goods.—Electrical Insulation, a Product Formed of Layers of Fibrous Material Bound Together by a Natural or Synthetic Rosin and Made Up in the Form of Sheets, Blocks, Rods, Tubes, and Cylinders.
Claims use since November, 1914.

Ser. No. 104,540. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) BASIC PRODUCTS CORPORATION, New York, N. Y. Filed June 20, 1917.

Thoroz

Particular description of goods.—Metal Cooking Utensils.
Claims use since on or about June 18, 1917.

Ser. No. 104,542. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BASIC PRODUCTS CORPORATION, New York, N. Y. Filed June 20, 1917.



Particular description of goods.—Solidified Alcohol.
Claims use since on or about June 18, 1917.

Ser. No. 104,643. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE GRADY MFG. CO., Long Island City, N. Y. Filed June 23, 1917.



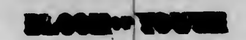
Particular description of goods.—A Polish for Automobile-Bodies, Furniture, Hardwood Floors, or Any other Varnished Surface.
Claims use since June 15, 1917.

Ser. No. 104,666. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) DIAMOND STATE FIBRE COMPANY, Elsmere, Del., and Bridgeport, Pa. Filed June 25, 1917.



Particular description of goods.—Electrical Insulation in the Form of Sheets, Rods, Tubes, Washers, and Special Shape, Made of Indurated Parchmentised Fiber.
Claims use since about May 1, 1917.

Ser. No. 104,830. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EDWARD J. BARRY, New York, N. Y. Filed July 5, 1917.



Particular description of goods.—A Toilet Lotion.
Claims use since 1850.

Ser. No. 104,836. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) GEORGE R. CRAW, Fort Wayne, Ind. Filed July 5, 1917.

KOZY-KITCH

Particular description of goods.—Electric Kitchen Cooking-Cabinet.
Claims use since May 31, 1917.

Ser. No. 104,893. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) MARGARET H. SCOTT, New York, N. Y. Filed July 6, 1917.

IDENTIGRAPH

Particular description of goods.—Finger-Print Apparatus.
Claims use since July 2, 1917.

Ser. No. 104,899. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) DIXIE AUTO SIGNAL COMPANY, Chicago, Ill. Filed July 7, 1917.



Particular description of goods.—Automobile Signal-Lamps.
Claims use since June 1, 1917.

Ser. No. 104,916. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE F. W. WAKEFIELD BRASS COMPANY, Vermilion, Ohio. Filed July 7, 1917.

Red ● Spot

Particular description of goods.—Electric-Lighting Fixtures, Lamps, and Parts Thereof.
Claims use since June 16, 1916.

Ser. No. 104,962. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM KROPFF, New York, N. Y. Filed July 10, 1917.



Particular description of goods.—Perfumes.
Claims use since Apr. 28, 1917.

Ser. No. 104,965. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE REMILLER CO., New York, N. Y. Filed July 10, 1917.

VERNICE

Particular description of goods.—Soaps, Liquid and Cake Form; Shaving-Powder and Shaving-Cream.
Claims use since Nov. 1, 1915.

Ser. No. 104,969. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) STANDARD OIL COMPANY, San Francisco, Cal. Filed July 10, 1917.

ORONITE

Particular description of goods.—Solvent, Priming Solution, Thinner, Stain, and Enamel Paint.
Claims use since May 31, 1917.

Ser. No. 104,970. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) STANDARD OIL COMPANY, San Francisco, Cal. Filed July 10, 1917.



Particular description of goods.—Solvent, Priming Solution, Thinner, Stain, and Enamel Paint.
Claims use since May 31, 1917.

Ser. No. 104,973. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) AUBURN IGNITION MFG. CO., Auburn, N. Y. Filed July 11, 1917.

LONG HENRY

Particular description of goods.—Spark-Plugs and Valve-Lifters.
Claims use since Dec. 1, 1916.

Ser. No. 105,084. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) KILLARK ELECTRIC MFG. CO., St. Louis, Mo. Filed July 17, 1917.



Particular description of goods.—Fuses, Bell-Ringing Transformers, and Conduit-Fittings.
Claims use since November, 1913.

Ser. No. 105,146. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) DIAMOND EXPANSION BOLT CO., New York, N. Y. Filed July 20, 1917.

DI—EN—KEY

Particular description of goods.—Expansion-Bolts.
Claims use since on or about June 30, 1914.

Ser. No. 105,190. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CENTENNIAL DRUG & SUPPLY COMPANY, Denver, Colo. Filed July 23, 1917.

NUTRIOID

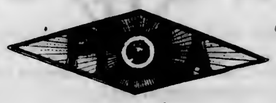
Particular description of goods.—A Medicinal Tonic for the Nervous System, for Purifying the Blood, and as an Aid to Digestion.
Claims use since August, 1910.

Ser. No. 105,193. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) HERBERT FORESTER, Trenton, N. J. Filed July 23, 1917.

VERITAS

Particular description of goods.—Temperature-Measuring Instruments, Heat-Registering Disks, and Heat-Recording Charts, All Useful in Ascertaining and Recording Heat Tests in the Firing of Ceramics.
Claims use since Apr. 19, 1917.

Ser. No. 105,272. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) PE-LA CHEMICAL CO., Memphis, Tenn. Filed July 25, 1917.



Particular description of goods.—A Compound Used for Polishing Automobile-Bodies, Furniture, Hardwood Floors, and other Varnished or Polished Surfaces.
Claims use since June 20, 1917.

Ser. No. 105,273. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) PRATT & WHITNEY COMPANY, New York, N. Y. Filed July 25, 1917.

P&W. Co.

Particular description of goods.—Gages — Namely, Screw-Pitch Gages, Thread-Gages, Screw-Gages, Cylindrical Ping and Templet Gages, Oil-Well-Casing Gages, Snap-Gages, Limit-Gages, Circumference-Gages, Coupler-Gages, Car-Wheel-Flange Gages, Locomotive-Wheel Center and Tire Gages, Wheel Reference and Check Gages, Wheel and Axle Gages, Decimal-Gages, End-Measures, Taper-Gages, Star-Gages, and Special Gages—and for Ball-Points for Micrometers, Dial-Test Indicators, Centering Devices, Measuring-Points and Extension-Rods, and Tapers.
Claims use since about the year 1882.

Ser. No. 105,309. (CLASS 39. CLOTHING.) APSLEY RUBBER CO., Hudson, Mass. Filed July 27, 1917.

APSOLE

Particular description of goods.—Canvas and Cloth Top Shoes, Outing-Shoes, and Rubber and Composition Soles to be Used in the Manufacture of Shoes.
Claims use since July 16, 1917.

Ser. No. 105,310. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) AMERICAN STEAM GAUGE & VALVE MANUFACTURING COMPANY, Boston, Mass. Filed July 27, 1917.

TRAINAGRAPH

Particular description of goods.—Instruments for Indicating and Recording Fluid-Pressures.
Claims use since May 22, 1914.

Ser. No. 105,311. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE BEAVER VARNISH COMPANY, Buffalo, N. Y. Filed July 27, 1917.

BEAVER

Particular description of goods.—Paints and Varnishes.
Claims use since June 1, 1917.

Ser. No. 105,331. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) VERA ANZELEWITZ, New York, N. Y. Filed July 28, 1917.

Vera

Particular description of goods.—Snap-Fasteners.
Claims use since Feb. 10, 1917.

Ser. No. 105,342. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) THE GENERAL AUTOMATIC SCALE COMPANY, St. Louis, Mo. Filed July 28, 1917.

WEIGHTOGRAPH

Particular description of goods.—Scales, Weighing-Machines, and Weight-Indicators.
Claims use since June 2, 1917.

Ser. No. 105,416. (CLASS 15. OILS AND GREASES.) WEST INDIA OIL COMPANY, Bayonne, N. J. Filed Aug. 1, 1917.

MIXTEARINA

Particular description of goods.—A Commodity Composed of Paraffin-Wax and Stearin.
Claims use since May 10, 1917.

Ser. No. 105,459. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) TAKAMINE LABORATORY, INC., New York, N. Y. Filed Aug. 3, 1917.

Particular description of goods.—Sulfur, Red Phosphorus, Yellow Phosphorus, Cod-Liver Oil, Menthol, Camphor, Red Prussiate of Potash, Yellow Prussiate of Potash, Potassium, Potassium Iodid, Caffein, Chlorid of Potash, Muriate of Potash, Nitrate of Potash, Alum, Potato-Starch, Bicarbonate of Potash, Carbonate of Potash, Quinin, Quinin Ethylcarbonate, Santonin.
Claims use since July 30, 1917.

Ser. No. 105,465. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) P. BALLANTINE & SONS, Newark, N. J. Filed Aug. 4, 1917.

Particular description of goods.—Ginger-Ale, Sarsaparilla, Root-Beer, Lemon-Soda, Club-Soda, Birch-Beer, Ginger-Beer, Carbonic Water, Soda-Water, Seltzer, and other Mineral Waters.
Claims use since July 5, 1917.

Ser. No. 105,469. (CLASS 37. PAPER AND STATIONERY.) HERBERT G. CANDEE, Rochester, N. Y. Filed Aug. 4, 1917.

Particular description of goods.—Blank Checks.
Claims use since July 10, 1917.

Ser. No. 105,470. (CLASS 37. PAPER AND STATIONERY.) HERBERT G. CANDEE, Rochester, N. Y. Filed Aug. 4, 1917.

Apex-Chex

Particular description of goods.—Blank Checks.
Claims use since July 10, 1917.

Ser. No. 105,472. (CLASS 39. CLOTHING.) LAURA W. CONKLIN, Brooklyn, N. Y. Filed Aug. 4, 1917.

Jammie

Particular description of goods.—Puttees.
Claims use since July 20, 1917.

Ser. No. 105,473. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) GENERAL FILM COMPANY, New York, N. Y. Filed Aug. 4, 1917.

FALCON

Particular description of goods.—Motion-Picture Films.
Claims use since July 20, 1917.

Ser. No. 105,505. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) SULLIVAN METAL CO., Detroit, Mich. Filed Aug. 6, 1917.

M R P

Particular description of goods.—Reclaimed Metals.
Claims use since July 2, 1917.

Ser. No. 105,507. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE SENTANEL REMEDIES COMPANY, INC., Cincinnati, Ohio. Filed Aug. 6, 1917.

Hypoferrin

Particular description of goods.—Nerve-Tonic in Tablet Form.
Claims use since May 17, 1917.

Ser. No. 105,532. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHRISTOPHER WITTENBACKER, Flushing, N. Y. Filed Aug. 7, 1917.

CW

Particular description of goods.—Medicine for the Treatment of Indigestion, Gastritis, and Stomach Complaints.
Claims use since June, 1913.

Ser. No. 105,591. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) EASTMAN KODAK COMPANY, Rochester, N. Y. Filed Aug. 11, 1917.

N C

Particular description of goods.—Photographic Film.
Claims use since Mar. 5, 1903.

Ser. No. 105,605. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) SYRACUSE SMELTING WORKS, Brooklyn, N. Y. Filed Aug. 11, 1917.

UNION

Particular description of goods.—Babbitt Metal.
Claims use since 1902.

Ser. No. 105,613. (CLASS 39. CLOTHING.) BARTELS & THELEN COMPANY, Chelsea, Mass. Filed Aug. 13, 1917.

BATELCO

Particular description of goods.—Leather and Fabric Boots and Shoes.
Claims use since on or about July 25, 1917.

Ser. No. 105,641. (CLASS 15. OILS AND GREASES.) GALENA-SIGNAL OIL COMPANY, Franklin, Pa. Filed Aug. 14, 1917. Under ten-year proviso.

GALENA

Particular description of goods.—Illuminating, Heating, and Lubricating Oils, Waxes, and Greases.
Claims use since December, 1870.

Ser. No. 105,701. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN F. MURRAY, New York, N. Y. Filed Aug. 17, 1917.

ELDINE

Particular description of goods.—Preparations for Restoring the Color to Gray or Faded Hair.
Claims use since July 5, 1917.

Ser. No. 105,718. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) NEW CHICAGO CRUCIBLE CO., Chicago, Ill. Filed Aug. 18, 1917.

BLACK CROSS

Particular description of goods.—Crucibles.
Claims use since June 1, 1917.

Ser. No. 105,831. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BAMACEA COMPANY, INC., Boston, Mass. Filed Aug. 23, 1917.

BAMACEA

Particular description of goods.—Cough-Tablets; Oil Liniment, Salve, and Suppositories.
Claims use since September, 1898.

Ser. No. 105,844. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) RUTHERFORD BROTHERS COMPANY, Muncie, Ind. Filed Aug. 23, 1917.

Reth-Flex

Particular description of goods.—Electric Lamps.
Claims use since June 15, 1916.

Ser. No. 105,875. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) STANDARD OIL COMPANY, San Francisco, Cal. Filed Aug. 25, 1917.

AROTURPS

Particular description of goods.—Solvent and Thinner.
Claims use since May, 1909.

Ser. No. 105,899. (CLASS 15. OILS AND GREASES.) KANSAS CITY REFINING SALES CO., Kansas City, Kans. Filed Aug. 27, 1917.

SKYLARK

Particular description of goods.—Gasolene and Kerosene.
Claims use since Aug. 20, 1917.

Ser. No. 105,969. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) MALLEABLE IRON FITTINGS CO., Bradford, Conn. Filed Aug. 30, 1917.

M F

Particular description of goods.—Pipe-Fittings.
Claims use since 1905.

Ser. No. 106,112. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) FRANK J. FISHER, Oconto, Wis. Filed Sept. 7, 1917.

Arbutus

Particular description of goods.—Ginger-Ale, Raspberry, Champagne Cider, Mint-Fire, Lemon-Sour, Grape-Drip, Cream-Beer, Cherry-Blossom, Cherry-Drips, Cherry-Cheer, Wild Cherry, Strawberry-Drips, Strawberry-Cream, Alfa-Lusa, Pepsin-Soda, Celery-Cream, Orange Cider, Blood-Orange, Orangeade-Soda, Orange-Soda, Orcherade, Nervbrew, Swiss Cream, Sarsaparilla and Iron, Iron-Beef, Root-Beer, Arbutus-Brew, Highball Ginger-Ale, Cremo, Pear Cider, Dam-Y-Ana, Pineapple, Peach-Cream, Chocolate-Soda, Grape-Soda, Banana, Cream-Soda, Raspberry-Cream, Little Daisy, Vanilla, Blackberry, Limeade, Lemon-Soda, Spruce-Beer, Vanilla Tonka, Highland Cream, and Mineral Water.
Claims use since Aug. 4, 1898.

Ser. No. 106,363. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) GOLDSMITH, STERN & CO., New York, N. Y. Filed Sept. 21, 1917.

SAMMIE

Particular description of goods.—Jackets and Fobs.
Claims use since Sept. 14, 1917.

Ser. No. 106,375. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) WINFIELD C. WOOD, Minneapolis, Minn. Filed Sept. 21, 1917.

EVERLOC

Particular description of goods.—Patches for Repairing Inner Tubes and Tire-Casings and other Rubber Goods.
Claims use since May 1, 1915.

TRADE-MARK REGISTRATIONS GRANTED

OCTOBER 16, 1917.

118,938. CERTAIN NAMED TOILET ARTICLES. ERNEST ADAMS, London, England.
Filed June 12, 1915. Serial No. 87,265. PUBLISHED AUGUST 14, 1917.

118,939. CARTOONS AND DRAWINGS. WALTER R. ALLMAN, Cleveland, Ohio.
Filed June 19, 1917. Serial No. 104,509. PUBLISHED AUGUST 14, 1917.

118,940. RAIN-COATS MADE OF TEXTILES TREATED WITH WATERPROOFING MATERIALS. AMERICAN RUBBER COMPANY, Boston, Mass.
Filed April 17, 1916. Serial No. 94,468. PUBLISHED AUGUST 14, 1917.

118,941. COTTON PIECE GOODS. AMORY, BROWNE & Co., Boston, Mass.
Filed July 12, 1917. Serial No. 104,997. PUBLISHED AUGUST 14, 1917.

118,942. CORK COMPOSITION USED AS A COVERING FOR ROLLS AND OTHER OBJECTS. ARMSTRONG CORK Co., Pittsburgh, Pa.
Filed April 21, 1917. Serial No. 103,160. PUBLISHED AUGUST 14, 1917.

118,943. CERTAIN NAMED CLOTHING FOR MEN, WOMEN, AND CHILDREN. J. BACON & SONS, Louisville, Ky.
Filed March 24, 1917. Serial No. 102,401. PUBLISHED AUGUST 14, 1917.

118,944. OVERALLS. H. A. BAKER COMPANY, Sioux City, Iowa.
Filed June 12, 1917. Serial No. 104,403. PUBLISHED AUGUST 14, 1917.

118,945. CERTAIN FOOD PRODUCT. BEECH-NUT PACKING COMPANY, Canajoharie, N. Y.
Filed April 30, 1917. Serial No. 103,406. PUBLISHED AUGUST 7, 1917.

118,946. SILK PIECE GOODS. BERFELDEN MILLS, Plainfield, N. J.
Filed June 25, 1917. Serial No. 104,664. PUBLISHED AUGUST 14, 1917.

118,947. DRESS AND NEGLIGÉE SHIRTS. ALEX BERNSTEIN, Chicago, Ill.
Filed June 7, 1917. Serial No. 104,311. PUBLISHED AUGUST 14, 1917.

118,948. HANDKERCHIEFS. BRANDON, MAGNUS & LEON INC., New York, N. Y.
Filed July 14, 1917. Serial No. 105,038. PUBLISHED AUGUST 14, 1917.

118,949. FOOD-FLAVORING EXTRACTS AND SPICES. BRUHN MEDICAL COMPANY, Waukesha, Wis.
Filed April 25, 1917. Serial No. 103,284. PUBLISHED AUGUST 7, 1917.

118,950. NON-INTOXICATING BEVERAGE OF A MALT NATURE. JOHN B. BUSCH BREWING CO., Washington, Mo.
Filed June 2, 1917. Serial No. 104,208. PUBLISHED AUGUST 14, 1917.

118,951. DRESSING FOR BELTS, BRAKE-LININGS, CLUTCHES, AND SIMILAR FRICTIONAL SURFACES. GEORGE W. CAMPBELL, Pasadena, Cal., assignor to Mystic Manufacturing Company, Los Angeles, Cal.
Filed May 10, 1917. Serial No. 103,687. PUBLISHED AUGUST 14, 1917.

118,952. CANNED FISH. CASTELLO BRANCO & COMMANDITA, Lisbon and Setubal, Portugal.
Filed March 10, 1917. Serial No. 102,022. PUBLISHED AUGUST 7, 1917.

118,953. EGGS. COLYTIC CORPORATION, Chicago, Ill.
Filed May 10, 1917. Serial No. 103,690. PUBLISHED AUGUST 7, 1917.

118,954. CHEWING-GUM. COMMON SENSE GUM COMPANY, New York, N. Y.
Filed February 9, 1917. Serial No. 101,261. PUBLISHED MAY 1, 1917.

118,955. TOILET SOAPS, LAUNDRY SOAPS, POWDERED AND LIQUID SOAPS. CRYSTAL SOAP COMPANY, Milwaukee, Wis.
Filed May 12, 1917. Serial No. 103,730. PUBLISHED AUGUST 14, 1917.

118,956. WOOL. WILLIAM G. DAVIDSON & COMPANY, Philadelphia, Pa.
Filed February 14, 1917. Serial No. 101,355. PUBLISHED AUGUST 14, 1917.

118,957. LIQUID CLEANING COMPOUND. HENRY I. DE FREITAS, Valparaiso, Ind.
Filed May 12, 1917. Serial No. 103,734. PUBLISHED AUGUST 14, 1917.

118,958. WATCHES. DUBOIS WATCH CASE COMPANY, Brooklyn, N. Y.
Filed May 23, 1917. Serial No. 104,022. PUBLISHED AUGUST 7, 1917.

118,959. WHEAT-FLOUR. DUNDAS BROTHERS CO., Philadelphia, Pa.
Filed February 1, 1917. Serial No. 101,086. PUBLISHED JULY 17, 1917.

118,960. SILK AND SILK-MIXED GOODS IN THE PIECE. DUNDEE TEXTILE CO., Passaic, N. J.
Filed July 5, 1917. Serial No. 104,831. PUBLISHED AUGUST 14, 1917.

118,961. PERIODICAL ISSUED MONTHLY. THE EDISON ELECTRIC ILLUMINATING COMPANY OF BOSTON, Boston, Mass.
Filed May 26, 1917. Serial No. 104,109. PUBLISHED AUGUST 7, 1917.

118,962. SILK PIECE GOODS. EMPIRE SILK CO., New York, N. Y.
Filed July 21, 1917. Serial No. 105,170. PUBLISHED AUGUST 14, 1917.

118,963. SILK PIECE GOODS. EMPIRE SILK CO., New York, N. Y.
Filed July 21, 1917. Serial No. 105,171. PUBLISHED AUGUST 14, 1917.

118,964. PEANUT-BUTTER. FARRELL & CO., Omaha, Nebr.
Filed April 2, 1917. Serial No. 102,648. PUBLISHED MAY 22, 1917.

118,965. CERTAIN NAMED JEWELRY AND PRECIOUS-METAL WARE. J. M. FISHER COMPANY, Attleboro, Mass.
Filed October 10, 1916. Serial No. 98,538. PUBLISHED AUGUST 14, 1917.

118,966. WHEAT-FLOUR. STEPHEN F. GILMAN, Neligh, Nebr.; James W. Bollinger, executor of the will of said Stephen F. Gilman, deceased, assignor to S. F. Gilman Mill Company.
Filed July 17, 1915. Serial No. 87,991. PUBLISHED FEBRUARY 8, 1916.

118,967. EDIBLE CANDY. SAMUEL GOLDBERG, Los Angeles, Cal.
Filed April 9, 1917. Serial No. 102,828. PUBLISHED MAY 22, 1917.

118,968. CERTAIN NAMED ARTICLES MADE OF PRECIOUS OR PLATED METAL. A. A. GREENE & Co., Providence, R. I.
Filed May 5, 1917. Serial No. 103,561. PUBLISHED AUGUST 14, 1917.

118,969. STOCK FOOD. GULFPORT GROCERY COMPANY, Gulfport, [illegible]ss.
Filed May [illegible], 1917. Serial No. 103,780. PUBLISHED AUGUST 7, [illegible]17.

118,970. [illegible]ARMO[illegible] STRINGS. [illegible]AWKES & SON, London, England.
Filed December 22, 1916. [illegible] No. 100,095. PUBLISHED AUGUST 7, 1917.

118,971. THIN-SHELLED PECAN-NUTS. ELAM G. HESS, Manheim, Pa.
Filed June 7, 1917. Serial No. 104,315. PUBLISHED AUGUST 14, 1917.

118,972. CORSETS. IMPROVED STAY COMPANY, INC., New York, N. Y.
Filed May [illegible], 1917. Serial No. 104,098. PUBLISHED AUGUST 14, 1917.

118,973. CANDY. JACOBS CANDY COMPANY LIMITED, New Orleans, La.
Filed June 6, 1917. Serial No. 104,302. PUBLISHED AUGUST 7, 1917.

118,974. SURFACE CLEANER AND POLISH FOR AUTOMOBILE-BODIES AND OTHER ENAMELED SURFACES. FRANKLIN J. KELLEY, San Francisco, Cal.
Filed October 2, 1916. Serial No. 98,357. PUBLISHED AUGUST 14, 1917.

118,975. NEWSPAPER-SECTION. KING FEATURES SYNDICATE, INC., New York, N. Y.
Filed May 19, 1917. Serial No. 103,955. PUBLISHED AUGUST 7, 1917.

118,976. CERTAIN ABRASIVE, DETERGENT, AND POLISHING MATERIAL. LAPIN AND CALEHUFF, Philadelphia, Pa.
Filed March 14, 1917. Serial No. 102,147. PUBLISHED MAY 22, 1917.

118,977. ORANGES, LEMONS, AND GRAPE-FRUIT. EDMUND BURTON LEACH, Chula Vista, Cal.
Filed June 21, 1917. Serial No. 104,587. PUBLISHED AUGUST 7, 1917.

118,978. MATTING, TAPESTRY, CARPETS, RUGS, AND MATS MADE OF COTTON OR WOOL. ABRAHAM M. MALOUF, Salt Lake City, Utah.
Filed May 25, 1917. Serial No. 104,076. PUBLISHED AUGUST 14, 1917.

118,979. SECTIONAL HOUSES. MANCHESTER MANUFACTURING COMPANY, St. Louis, Mo.
Filed June 14, 1917. Serial No. 104,444. PUBLISHED AUGUST 7, 1917.

118,980. RUBBER TIRES, CASINGS, AND TUBES. THE MARATHON TIRE & RUBBER CO., Cuyahoga Falls, Ohio.
Filed June 20, 1917. Serial No. 104,557. PUBLISHED AUGUST 14, 1917.

118,981. RUBBER TIRES, CASINGS, AND TUBES. THE MARATHON TIRE & RUBBER CO., Cuyahoga Falls, Ohio.
Filed June 20, 1917. Serial No. 104,559. PUBLISHED AUGUST 14, 1917.

118,982. CERTAIN NAMED CLOTHING. MARTINS BIRMINGHAM LIMITED, Birmingham, England.
Filed March 8, 1917. Serial No. 101,988. PUBLISHED AUGUST 14, 1917.

118,983. COFFEE AND TEA. MAZO BROTHERS, Washington, D. C.
Filed June 26, 1917. Serial No. 104,705. PUBLISHED AUGUST 7, 1917.

118,984. IMITATION-LEATHER COTTON FABRICS. MERRIMACK MANUFACTURING COMPANY, Lowell, Mass.
Filed July 14, 1917. Serial No. 105,047. PUBLISHED AUGUST 14, 1917.

118,985. CIGARS. L. MICHELSON & BRO., Baltimore, Md.
Filed June 12, 1917. Serial No. 104,413. PUBLISHED AUGUST 7, 1917.

118,986. DETERGENT PREPARATION FOR CLEANING, SCOURING, OR POLISHING. ENOCH MORGAN'S SONS COMPANY, New York, N. Y.
Filed August 16, 1913. Serial No. 72,380. PUBLISHED JANUARY 30, 1917.

118,987. MINT LOZENGES. LOUIS N. MOSS, New York, N. Y.
Filed June 4, 1917. Serial No. 104,257. PUBLISHED AUGUST 7, 1917.

118,988. CORSETS. W. C. MUNN COMPANY, Houston, Texas.
Filed May 26, 1917. Serial No. 104,101. PUBLISHED AUGUST 14, 1917.

118,989. CERTAIN BELTING, HOSE, MACHINERY PACKING AND NON-METALLIC TIRES. THE MUTUAL MOTOR STORES COMPANY, Cleveland, Ohio.
Filed November 27, 1916. Serial No. 99,576. PUBLISHED AUGUST 14, 1917.

118,990. NATURAL AND ARTIFICIAL ABRASIVES IN COMMINUTED FORM FOR USE IN GRINDING. THE NATIONAL ABRASIVE COMPANY, Amesbury, and Boston, Mass.
Filed May 10, 1917. Serial No. 103,722. PUBLISHED AUGUST 14, 1917.

118,991. BURNT PEANUTS. NATIONAL CANDY COMPANY, Jersey City, N. J., and St. Louis, Mo.
Filed June 4, 1917. Serial No. 104,263. PUBLISHED AUGUST 7, 1917.

118,992. CAST-IRON BOILERS AND RADIATORS FOR STEAM AND HOT-WATER HEAT. NATIONAL RADIATOR COMPANY, Johnstown, Pa.
Filed May 15, 1917. Serial No. 103,840. PUBLISHED AUGUST 14, 1917.

118,993. THREAD AND YARN MADE OF SILK, COTTON, OR WOOL. NONOTUCK SILK COMPANY, Northampton, Mass.
Filed May 17, 1917. Serial No. 103,900. PUBLISHED AUGUST 14, 1917.

118,994. JEWELRY FOR PERSONAL WEAR—VIZ., RINGS. NUSYSTEM JEWELRY MFG. CO. INC., New York, N. Y.
Filed May 24, 1917. Serial No. 104,050. PUBLISHED AUGUST 14, 1917.

118,995. PERIODICAL PUBLISHED MONTHLY. PERIODICAL PUBLISHING CO., Grand Rapids, Mich.
Filed June 18, 1917. Serial No. 104,507. PUBLISHED AUGUST 14, 1917.

118,996. CRACKERS, CAKES, AND BISCUITS. THE PURITY BISCUIT COMPANY, Salt Lake City, Utah.
Filed May 15, 1917. Serial No. 103,843. PUBLISHED AUGUST 7, 1917.

118,997. CANVAS BELTING. ROBERT L. REAM, Pittsburgh, Pa.
Filed January 19, 1917. Serial No. 100,751. PUBLISHED AUGUST 7, 1917.

118,998. PUBLICATION PUBLISHED QUARTERLY EACH YEAR. REMINGTON TYPEWRITER COMPANY, Ilion and New York, N. Y.
Filed April 20, 1917. Serial No. 103,154. PUBLISHED AUGUST 7, 1917.

118,999. FOOD MAPLE AND SUGAR SYRUPS, MOLASSES, HONEY, SUGAR CREAM, LOZENGES, AND WAFERS. RIGNEY AND COMPANY, Brooklyn, N. Y.
Filed May 20, 1916. Serial No. 95,310. PUBLISHED AUGUST 7, 1917.

119,000. CERTAIN NAMED CLOTHING FOR WOMEN, MISSES, CHILDREN, AND INFANTS. THE ROBBINS DRESS COMPANY, New York, N. Y.
Filed May 15, 1917. Serial No. 103,845. PUBLISHED AUGUST 14, 1917.

119,001. OVERCOATS AND SUMMER-CLOTHING CONSISTING OF MEN'S SUITS, COATS, VESTS, AND TROUSERS. ROSENWALD & WEIL (INCORPORATED), Chicago, Ill.
Filed June 22, 1917. Serial No. 104,622. PUBLISHED AUGUST 14, 1917.

119,002. LITHOGRAPHED POST-CARDS, FOLDERS, BOOKLETS, ART-CALENDARS, HANGERS, AND COLORED PRINTS REPRESENTING DOLLS. STECHER LITHOGRAPHIC CO., Rochester, N. Y.
Filed January 5, 1917. Serial No. 100,383. PUBLISHED AUGUST 7, 1917.

119,003. PIANOS AND ORGANS. THE CHARLES WILLIAM STORES, INC., Brooklyn, N. Y.
Filed September 19, 1916. Serial No. 98,078. PUBLISHED AUGUST 7, 1917.

119,004. COAL, WOOD, GAS, OIL, AND VAPOR STOVES AND RANGES. SUMMIT FOUNDRY CO., Geneva, N. Y.
Filed April 26, 1917. Serial No. 103,335. PUBLISHED AUGUST 7, 1917.

119,005. SALAD-DRESSING AND MAYONNAISE DRESSING. CHARLES C. SWANN, Moscow, Idaho.
Filed May 10, 1916. Serial No. 95,060. PUBLISHED JULY 10, 1917.

119,006. WASHING-POWDERS. DANIEL TODD, Sebastopol, Cal.
Filed February 27, 1917. Serial No. 101,761. PUBLISHED AUGUST 14, 1917.

119,007. SECTIONAL BUILDINGS. THE TOGAN-STILES COMPANY, Grand Rapids, Mich.
Filed March 22, 1917. Serial No. 102,363. PUBLISHED AUGUST 7, 1917.

119,008. CANNED FRUITS, VEGETABLES, OYSTERS, SHRIMP, LOBSTER, FRESH FRUITS, VEGETABLES, AND FRESH OYSTERS. TORSCH PACKING CO., Baltimore, Md.
Filed August 8, 1916. Serial No. 97,172. PUBLISHED SEPTEMBER 26, 1916.

119,009. POWDERED SOAPSTONE. UNITED STATES RUBBER COMPANY, New Brunswick, N. J., and New York, N. Y.
Filed July 6, 1916. Serial No. 96,380. PUBLISHED AUGUST 14, 1917.

119,010. CERTAIN NAMED ARTICLES MADE OF OR PLATED WITH PRECIOUS METAL, INCLUDING GERMAN SILVER. WACHENHEIMER BROS., Providence, R. I.
Filed June 4, 1917. Serial No. 104,272. PUBLISHED AUGUST 14, 1917.

119,011. ALARM-CLOCKS. WESTERN CLOCK CO., Peru, Ill.
Filed April 21, 1917. Serial No. 103,191. PUBLISHED AUGUST 7, 1917.

119,012. FLOSS, THREAD, MACHINE-TWIST, DARNING-COTTON, EMBROIDERY-SILK, TATTING-SILK, CROCHET-SILK, AND CROCHET-COTTON. WESTERN THREAD COMPANY, Elgin, Ill.
Filed May 27, 1915. Serial No. 86,945. PUBLISHED AUGUST 7, 1917.

119,013. BOOT AND SHOE POLISHES, BOOT AND SHOE CREAMS, SADDLE AND HARNESS PASTE. W. WREN & CO., LIMITED, Northampton, England.
Filed May 4, 1916. Serial No. 94,908. PUBLISHED AUGUST 7, 1917.

LABELS

REGISTERED OCTOBER 16, 1917.

20,320.—*Title:* "VICTORINE." (For Polish.) JOSEPH ROBERT ALFREGE AUFRECHT, New York, N. Y. Filed June 21, 1917.

20,321.—*Title:* "RED RIPE." (For Canned Tomatoes.) CALIFORNIA SANITARY CANNING CO., Los Angeles, Cal. Filed September 25, 1917.

20,322.—*Title:* "FUL-RIPE." (For Canned Peaches.) CALIFORNIA SANITARY CANNING CO., Los Angeles, Cal. Filed September 25, 1917.

20,323.—*Title:* "THE GARDEN OF ALLAH ORIENTAL INCENSE." (For Incense.) HARRY LE ROY, Los Angeles, Cal. Filed July 2, 1917.

20,324.—*Title:* "APOLLO WATER." (For Artificially-Prepared Medicinal Water.) MODERN DRUG & COMMERCIAL CO. INC., New York, N. Y. Filed July 16, 1917.

20,325.—*Title:* "COLONIAL FURNITURE POLISH." (For Furniture-Polish.) DAVID MOORE, Cleveland, Ohio. Filed September 26, 1917.

20,326.—*Title:* "QUICK SUDS." (For Borax Soap Powder.) MOORE-SHENKBERG GROCER CO., Sioux City, Iowa. Filed September 29, 1917.

20,327.—*Title:* "STYLEPLUS CLOTHES $17 AND $21." (For Clothing of Men and Boys.) HENRY SONNEBORN & Co. INC., Baltimore, Md. Filed August 28, 1917.

20,328.—*Title:* "STYLEPLUS CLOTHES $21." (For Clothing for Men and Boys.) HENRY SONNEBORN & Co. INC., Baltimore, Md. Filed August 28, 1917.

20,329.—*Title:* "STYLEPLUS CLOTHES $17 AND $21." (For Clothing of Men and Boys.) HENRY SONNEBORN & Co. INC., Baltimore, Md. Filed August 28, 1917.

20,330.—*Title:* "STYLEPLUS CLOTHES $21 AND $25." (For Clothing of Men and Boys.) HENRY SONNEBORN & Co. INC., Baltimore, Md. Filed August 28, 1917.

20,331.—*Title:* "STYLEPLUS CLOTHES $25." (For Clothing of Men and Boys.) HENRY SONNEBORN & Co. INC., Baltimore, Md. Filed August 28, 1917.

20,332.—*Title:* "ZIP." (For Snap-Fasteners.) ROBERT TREAT MFG. CO., Newark, N. J. Filed July 26, 1917.

20,333.—*Title:* "INOROUT." (For Varnishes.) WADSWORTH, HOWLAND & Co., INCORPORATED, Boston, Mass. Filed October 1, 1917.

PRINTS

REGISTERED OCTOBER 16, 1917.

4,805.—*Title:* "WHO CAN SPELL CREAM OF WHEAT." (For Wheat Breakfast Food.) CREAM OF WHEAT Co., Minneapolis, Minn. Filed September 26, 1917.

4,806.—*Title:* "STYLEPLUS CLOTHES $21 AND $25." (For Clothing for Men and Boys.) HENRY SONNEBORN & Co., INC., Baltimore, Md. Filed August 28, 1917.

4,807.—*Title:* "STYLEPLUS CLOTHES $25." (For Clothing for Men and Boys.) HENRY SONNEBORN & Co., INC., Baltimore, Md. Filed August 28, 1917.

4,808.—*Title:* "STYLEPLUS CLOTHES $21." (For Clothing for Men and Boys.) HENRY SONNEBORN & Co., INC., Baltimore, Md. Filed August 28, 1917.

4,809.—*Title:* "STYLEPLUS CLOTHES $17 AND $21." (For Clothing for Men and Boys.) HENRY SONNEBORN & Co., INC., Baltimore, Md. Filed August 28, 1917.

4,810.—*Title:* "STYLEPLUS CLOTHES $17 AND $21." For Clothing for Men and Boys.) HENRY SONNEBORN & Co., INC., Baltimore, Md. Filed August 28, 1917.

4,811.—*Title:* "IT SAVES MOTHER." (For Individual Electric Power Plants.) SWARTZ ELECTRIC COMPANY, Indianapolis, Ind. Filed June 16, 1917.

4,812.—*Title:* "OLD HICKORY SAUSAGE." (For Sausage.) C. B. WILCOX, Corry, Pa. Filed May 2, 1917.

4,813.—*Title:* "GOOD SOAP CHEAPER THAN NEW CLOTHES." (For Soap.) JAMES S. KIRK & COMPANY, Chicago, Ill. Filed August 9, 1917.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

SIMPLEX ELECTRIC HEATING COMPANY *v.* THE RAMEY COMPANY.

Decided April 23, 1917.

1. TRADE-MARK—REGISTRABILITY—CORPORATE NAMES.
The Trade-Mark Act expressly prohibits the registration of the name of any person or corporation as a trade-mark.

2. SAME—SAME—SIMILARITY OF GOODS.
Electric vacuum-cleaners are of the same descriptive properties as electrically-operated devices for household and other purposes.

Messrs. Heard, Smith & Tennant for the appellant.

Mr. C. C. Shepherd and *Mr. W. E. L. Block* for the appellee.

SHEPARD, *C. J.*:

The Ramey Company, on February 20, 1915, applied for the registration of the word "Simplex" as a trade-mark for electric vacuum-cleaners, which was opposed by the Simplex Electric Heating Company. The Ramey Company alleged the use of the word since August 1, 1913, upon electric vacuum-cleaners. The Simplex Electric Heating Company alleged in its notice of opposition the use of the word "Simplex" long prior thereto; that the proposed registration by the Ramey Company so nearly resembles that of the opposer as to be likely to cause confusion in the mind of the public and to deceive purchasers; that the mark of the Simplex Electric Heating Company is appropriated to merchandise of the same descriptive properties; that the said trade-mark is not registrable to the said Ramey Company because of the fact that the Simplex Company and its predecessors in business have been manufacturing and selling continuously in this country various articles and devices including a line of articles and devices for the equipment of houses, apartments, hotels and other places where housekeeping is carried on, and including the various articles set forth in the recited registrations, and including various kinds of electrically-operated portable devices, and including baking-ovens, barbers' urns, bar-urns, steam and hot-water boilers, bookbinders' heaters, branding-irons, cereal-cookers, chafing-dish spoons, forks, and trays therefor, coffee-urns, cooking utensils of various kinds, dining-room sets, egg-boilers, ranges, frying-pans, branding-irons, domestic irons, drag-irons, fluting-irons, household irons, laundry-irons, puff-irons, kitchen utensils, laundry machines and equipments of various kinds, percolators, stands for irons, tea-ball pots, tureens, water-cups, water-heating devices and many other articles and devices for household and other purposes, and various other merchandise of the same descriptive properties as set forth in the application of the said Ramey Company, all of which have been manufactured and sold by the Simplex Electric Heating Company or its predecessors in business for a period extending long prior to August 1, 1913, and long prior to any date of adoption and use of the said trade-mark by the Ramey Company, and all of which have been marketed by the Simplex Electric Heating Company with the word "Simplex" or a trade-mark including as its leading and characteristic feature the word "Simplex" as the trade-mark of the said Simplex Electric Heating Company or its predecessors in business; and the said marks have been so used by the Simplex Electric Heating Company continuously during the said period in commerce between the several States of the United States; that the Simplex Electric Heating Company now manufactures and sells about seven hundred of such articles and devices and intends as its business warrants and the demands of the trade require to continue to add to and increase the said line of articles and devices bearing the said trade-mark "Simplex" as it has done from time to time in the past; that the Simplex Electric Heating Company by reason of its long-continued business extending back continuously to July, 1902, and extending back of that date and carried on by its predecessors in business Simplex Electrical Company to January, 1898, by reason of the high quality, material and workmanship employed in the articles and devices manufactured and sold by it, by reason of the wide distribution of its articles and devices throughout the United States, by reason of the wide variety of these articles and devices and the large number thereof having to do with housekeeping, and being sold to and used by those engaged in the care of houses, hotels and other places where housekeeping is carried on, by reason of the adoption and continuous use of the said trade-mark "Simplex," by it and its predecessors in business on

LABELS

REGISTERED OCTOBER 16, 1917.

20,320.—*Title:* "VICTORINE." (For Polish.) JOSEPH ROBERT ALFREDE AUFRECHT, New York, N. Y. Filed June 21, 1917.

20,321.—*Title:* "RED RIPE." (For Canned Tomatoes.) CALIFORNIA SANITARY CANNING CO., Los Angeles, Cal. Filed September 25, 1917.

20,322.—*Title:* "FUL-RIPE." (For Canned Peaches.) CALIFORNIA SANITARY CANNING CO., Los Angeles, Cal. Filed September 25, 1917.

20,323.—*Title:* "THE GARDEN OF ALLAH ORIENTAL INCENSE." (For Incense.) HARRY LE ROY, Los Angeles, Cal. Filed July 2, 1917.

20,324.—*Title:* "APOLLO WATER." (For Artificially-Prepared Medicinal Water.) MODERN DRUG & COMMERCIAL CO. INC., New York, N. Y. Filed July 16, 1917.

20,325.—*Title:* "COLONIAL FURNITURE POLISH." (For Furniture-Polish.) DAVID MOORE, Cleveland, Ohio. Filed September 26, 1917.

20,326.—*Title:* "QUICK SUDS." (For Borax Soap Powder.) MOORE-SHENKBERG GROCER CO., Sioux City, Iowa. Filed September 29, 1917.

20,327.—*Title:* "STYLEPLUS CLOTHES $17 AND $21." (For Clothing of Men and Boys.) HENRY SONNEBORN & Co. INC., Baltimore, Md. Filed August 28, 1917.

20,328.—*Title:* "STYLEPLUS CLOTHES $21." (For Clothing for Men and Boys.) HENRY SONNEBORN & Co. INC., Baltimore, Md. Filed August 28, 1917.

20,329.—*Title:* "STYLEPLUS CLOTHES $17 AND $21." (For Clothing of Men and Boys.) HENRY SONNEBORN & Co. INC., Baltimore, Md. Filed August 28, 1917.

20,330.—*Title:* "STYLEPLUS CLOTHES $21 AND $25." (For Clothing of Men and Boys.) HENRY SONNEBORN & Co. INC., Baltimore, Md. Filed August 28, 1917.

20,331.—*Title:* "STYLEPLUS CLOTHES $25." (For Clothing of Men and Boys.) HENRY SONNEBORN & Co. INC., Baltimore, Md. Filed August 28, 1917.

20,332.—*Title:* "ZIP." (For Snap-Fasteners.) ROBERT TREAT MFG. CO., Newark, N. J. Filed July 26, 1917.

20,333.—*Title:* "INOROUT." (For Varnishes.) WADSWORTH, HOWLAND & CO., INCORPORATED, Boston, Mass. Filed October 1, 1917.

PRINTS

REGISTERED OCTOBER 16, 1917.

4,805.—*Title:* "WHO CAN SPELL CREAM OF WHEAT." (For Wheat Breakfast Food.) CREAM OF WHEAT CO., Minneapolis, Minn. Filed September 26, 1917.

4,806.—*Title:* "STYLEPLUS CLOTHES $21 AND $25." (For Clothing for Men and Boys.) HENRY SONNEBORN & Co., INC., Baltimore, Md. Filed August 28, 1917.

4,807.—*Title:* "STYLEPLUS CLOTHES $25." (For Clothing for Men and Boys.) HENRY SONNEBORN & Co., INC., Baltimore, Md. Filed August 28, 1917.

4,808.—*Title:* "STYLEPLUS CLOTHES $21." (For Clothing for Men and Boys.) HENRY SONNEBORN & Co., INC., Baltimore, Md. Filed August 28, 1917.

4,809.—*Title:* "STYLEPLUS CLOTHES $17 AND $21." (For Clothing for Men and Boys.) HENRY SONNEBORN & Co., INC., Baltimore, Md. Filed August 28, 1917.

4,810.—*Title:* "STYLEPLUS CLOTHES $17 AND $21." For Clothing for Men and Boys.) HENRY SONNEBORN & Co., INC., Baltimore, Md. Filed August 28, 1917.

4,811.—*Title:* "IT SAVES MOTHER." (For Individual Electric Power Plants.) SWARTZ ELECTRIC COMPANY, Indianapolis, Ind. Filed June 16, 1917.

4,812.—*Title:* "OLD HICKORY SAUSAGE." (For Sausage.) C. B. WILCOX, Corry, Pa. Filed May 2, 1917.

4,813.—*Title:* "GOOD SOAP CHEAPER THAN NEW CLOTHES." (For Soap.) JAMES S. KIRK & COMPANY, Chicago, Ill. Filed August 9, 1917.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

SIMPLEX ELECTRIC HEATING COMPANY *v.* THE RAMEY COMPANY.

Decided April 23, 1917.

1. TRADE-MARK—REGISTRABILITY—CORPORATE NAMES.
The Trade-Mark Act expressly prohibits the registration of the name of any person or corporation as a trade-mark.

2. SAME—SAME—SIMILARITY OF GOODS.
Electric vacuum-cleaners are of the same descriptive properties as electrically-operated devices for household and other purposes.

Messrs. Heard, Smith & Tennant for the appellant.

Mr. C. C. Shepherd and *Mr. W. E. L. Block* for the appellee.

SHEPARD, *C. J.:*

The Ramey Company, on February 20, 1915, applied for the registration of the word "Simplex" as a trade-mark for electric vacuum-cleaners, which was opposed by the Simplex Electric Heating Company. The Ramey Company alleged the use of the word since August 1, 1913, upon electric vacuum-cleaners. The Simplex Electric Heating Company alleged in its notice of opposition the use of the word "Simplex" long prior thereto; that the proposed registration by the Ramey Company so nearly resembles that of the opposer as to be likely to cause confusion in the mind of the public and to deceive purchasers; that the mark of the Simplex Electric Heating Company is appropriated to merchandise of the same descriptive properties; that the said trade-mark is not registrable to the said Ramey Company because of the fact that the Simplex Company and its predecessors in business have been manufacturing and selling continuously in this country various articles and devices including a line of articles and devices for the equipment of houses, apartments, hotels and other places where housekeeping is carried on, and including the various articles set forth in the recited registrations, and including various kinds of electrically-operated portable devices, and including baking-ovens, barbers' urns, bar-urns, steam and hot-water boilers, bookbinders' heaters, branding-irons, cereal-cookers, chafing-dish spoons, forks, and trays therefor, coffee-urns, cooking utensils of various kinds, dining-room sets, egg-boilers, ranges, frying-pans, branding-irons, domestic irons, drag-irons, fluting-irons, household irons, laundry-irons, puff-irons, kitchen utensils, laundry machines and equipments of various kinds, percolators, stands for irons, tea-ball pots, tureens, water-cups, water-heating devices and many other articles and devices for household and other purposes, and various other merchandise of the same descriptive properties as set forth in the application of the said Ramey Company, all of which have been manufactured and sold by the Simplex Electric Heating Company or its predecessors in business for a period extending long prior to August 1, 1913, and long prior to any date of adoption and use of the said trade-mark by the Ramey Company, and all of which have been marketed by the Simplex Electric Heating Company with the word "Simplex" or a trade-mark including as its leading and characteristic feature the word "Simplex" as the trade-mark of the said Simplex Electric Heating Company or its predecessors in business; and the said marks have been so used by the Simplex Electric Heating Company continuously during the said period in commerce between the several States of the United States; that the Simplex Electric Heating Company now manufactures and sells about seven hundred of such articles and devices and intends as its business warrants and the demands of the trade require to continue to add to and increase the said line of articles and devices bearing the said trade-mark "Simplex" as it has done from time to time in the past; that the Simplex Electric Heating Company by reason of its long-continued business extending back continuously to July, 1902, and extending back of that date and carried on by its predecessors in business Simplex Electrical Company to January, 1898, by reason of the high quality, material and workmanship employed in the articles and devices manufactured and sold by it, by reason of the wide distribution of its articles and devices throughout the United States, by reason of the wide variety of these articles and devices and the large number thereof having to do with housekeeping, and being sold to and used by those engaged in the care of houses, hotels and other places where housekeeping is carried on, by reason of the adoption and continuous use of the said trade-mark "Simplex," by it and its predecessors in business on

the aforesaid articles and devices, has indicated to the trade and to those purchasing and using articles and devices of this general character and kind that articles and devices bearing this trade-mark "Simplex" originated exclusively with the Simplex Electric Heating Company and were the product of its business, and that as other lines, particularly of electrically-operated devices, have been added in accordance with the demands of the trade they have at once been recognized by the purchasing public as the product of the Simplex Electric Heating Company because of the established and well-known custom of said company to increase and develop its line of products; that the registration of the said trade-mark by it and its use by the Ramey Company upon electrical vacuum cleaners and sweepers has caused and will be likely to cause confusion or mistake in the mind of the public or to deceive purchasers because applied to and sought to be applied to merchandise of the same descriptive properties as that upon which the said mark has long been used as a trade-mark by the Simplex Electric Heating Company; that the Simplex Electric Heating Company would be damaged by registration of said mark and that said mark cannot lawfully be claimed as a trade-mark by the said Ramey Company because it consists merely in the name of a corporation, to wit, that of this opponent and of its predecessor in business, not written, printed, impressed or woven in some particular or distinctive manner or in association with a portrait; that the opponent was incorporated and received its corporate name under the laws of the State of Massachusetts in the year 1902, long prior to any date of adoption of the said mark alleged by the said Ramey Company; that the predecessor in business of this opponent, The Simplex Electrical Company, was incorporated and received its corporate name under the laws of the State of Massachusetts long prior to the year 1902 and in that year for valuable consideration sold and set over to this opponent the going business which this opponent has been carrying on and the good-will pertaining thereto.

The Simplex Electric Heating Company was incorporated in 1902. There had been a prior company called The Simplex Electrical Company, and the new company was organized by purchase of the old company to take over that particular business. The treasurer of each company has been the same continuously. The business of the Simplex Electric Heating Company was started when the American Electric Heating Company accumulated some two or three hundred patents relating to electric heating devices and started in to manufacture about 1896. The concern was not successful and the business was taken over in 1898 by the Simplex Electrical Company and carried on under a department called the heating department. Under this administration the business was considerably developed and extended to such an extent that in 1902 the Simplex Electric Heating Company was incorporated and continued the business from that point to the present time. During that thirteen years the company has manufactured and sold many thousand electrically-heated devices, its market being the whole of the United States and also foreign countries. All of the goods sold have borne the trade-mark "Simplex," which was either cast in the iron forming the casing or in the name-plate which was fastened on in a prominent place. Testimony tended to show that the nature of the business is such that it is necessary to develop new articles and extend the line practically continuously, and also that vacuum-cleaners are of the same class of goods; that probably sixty per cent. of the Simplex Company's manufactures are of the so-called lamp-socket devices, articles which may be connected to an ordinary lamp-socket from which to obtain the electric current which makes them operative; and as the so-called Simplex electric vacuum-cleaner is operated from a lamp-socket, this is in a direct line of development by the opponent; that other electrical companies have already proceeded to the manufacture of electric vacuum-cleaners. The goods are sold by jobbers and dealers for use in households. They have been advertised for years at an expense of about two hundred thousand dollars per year in the foreign trade journals and magazines, until the Simplex Electric Heating Company has become known throughout the United States to purchasers of electrical devices.

It was shown that in one instance a purchaser had inquired about the Simplex electric vacuum-cleaner, which he supposed was manufactured by that company. He had seen the article displayed for sale with the name Simplex and supposed it was manufactured by the Simplex Company, and he wanted to arrange for a commission for the sale of some of the cleaners. Another customer of the opposer, of Syracuse, N. Y., sent a money-order for four carbon brushes, regular electric cleaner, and one bag for Special "A" cleaner. The order was sent under the supposition that the Simplex Company manufactured the Simplex electric vacuum-cleaner.

Other testimony tended to show cases of confusion on the part of the purchasers who supposed the Simplex electric cleaner was manufactured by the Simplex Company, asking for prices, catalogues, etc.; and also that one vacuum-cleaner had been forwarded to the opposer for repair believing it was the manufacturer.

There was also proof tending to show that electrical dealers handled electric heating devices and vacuum-cleaners as substantially the same line of goods.

Proof also tended to show that vacuum-cleaners are considered as belonging to the same class of household goods as electric heating devices operated by lamp-sockets.

The Examiner of Interferences sustained the opposition on two grounds, namely, that "Simplex" was the name of the opposer corporation and also because the goods are of the same general descrip-

tive properties. This decision was reversed by the Assistant Commissioner; and appeal has been taken to this court.

Both grounds of the decision have been decided by this court several times.

It is not permissible to register as a trade-mark the name of any person or corporation. This is expressly prohibited by the language of the act. (*Asbestone Co.* v. *The Cary Mfg. Co.*, 200 O. G., 857; 41 App. D. C., 507; *in re United Drug Co.*, 222 O. G., 729; 44 App. D. C., 209; *Burrell* v. *Simplex Electric Heating Co.*, 225 O. G., 737; 44 App. D. C., 452; *Mansfield Tire & Rubber Co.* v. *Ford Motor Co.*, 222 O. G., 1056; 44 App. D. C., 205.)

"Simplex" is the distinctive part of the name of this corporation, which has been in existence for years prior to the manufacture by the Ramey Company. It was recognized by the Simplex El. Co. and succeeded to the particular class of electric devices which it advertised, and had registered the word "Simplex" as its own. The question is fully discussed in the foregoing cases and further discussion is unnecessary.

Second. The goods are of the same general descriptive properties. (*Simplex Electric Heating Company* v. *Gold Car Heating & Lighting Company*, 213 O. G., 1117; 43 App. D. C., 28; *Fishbeck Soap Co.* v. *Kleeno Mfg. Co.*, 216 O. G., 663; 44 App. D. C., 6; *Wolf & Sons* v. *Lord & Taylor*, 202 O. G., 632; 41 App. D. C., 514; *Anglo-American Incandescent Light Co.* v. *General Electric Co.*, 215 O. G., 325; 43 App. D. C., 385.) This last case involved the trade-mark "Mazda" for incandescent gas-mantles. The General Electric Company registered, advertised and used this word as a trade-mark for incandescent lamps prior to its adoption and use by the appellant. The appellant knew of the use of "Mazda" upon electric lamps by the General Electric Company and adopted the same for gas-mantles. The decision of the Patent Office Commissioner, denying the registration, was affirmed by this court. In the opinion it was said by Mr. Justice Robb:

> We think Congress, in using the words "descriptive properties," intended that they should be given their popular signification. Giving them that signification, no trademark may be registered when it is appropriated to goods of the same general qualities or characteristics as those of the goods to which another trademark already has been appropriated.

There is some difficulty attending these questions of classification. A thing may not be the same and yet of the same general description and used for similar purposes. In this case the corporate name which is widely advertised for electrical goods caused persons to suppose that these cleaners were the product of the Simplex Company. With the enormous range afforded for the selection of trade-mark names, it is not unreasonable to suspect that this trade-mark was adopted for the purpose of obtaining the benefit of the wide advertising that had been done by the Simplex Company. In such a case the benefit of any doubt in regard to the classification should be given to the one who has used, developed and advertised the mark and given it trade value.

The decision is reversed, and the clerk will certify this decision to the Commissioner of Patents as required by law.

Reversed.

Supreme Court of the United States.

E. I. DU PONT DE NEMOURS POWDER COMPANY *et al.* *v.* MASLAND *et al.*

Decided May 21, 1917.

244 U. S., 100.

1. INJUNCTION—DISCLOSURE OF TRADE SECRETS—WITNESSES AND COUNSEL.

In a suit to enjoin defendant from using or disclosing secret processes of plaintiffs' business defendant, while in effect conceding that he learned them through his former confidential employment by plaintiffs, denied that they were secret and insisted on his right to use them as processes well known to the trade and to reveal them to expert witnesses in making his defense. *Held* that during the taking of proofs defendant might properly be enjoined from disclosing the processes to experts or other witnesses, the restraint not extending to his own counsel, and that the trial judge in his discretion might reveal them to such persons at such times and under such precautions as he might deem necessary in the progress of the case.

2. SAME—SAME—DEFENSE LIMITED BY TRUST IMPOSED.

In such a case the right of the defendant to make a full defense is limited by his duty to abstain from any fraudulent abuse of the trust which was reposed in him by the plaintiffs.

3. "PROPERTY" AS APPLIED TO TRADE SECRETS DEFINED.

The word "property" as applied to trade-marks and trade secrets is an unanalyzed expression of certain secondary consequences of the primary fact that the law makes some rudimentary requirements of good faith.

224 Fed. Rep., 689, reversed.

CERTIORARI to the Circuit Court of Appeals for the Third Circuit.

The case is stated in the opinion.

Mr. Edwin J. Prindle, with whom *Mr. Warren H. Small*, *Mr. John P. Laffey*, and *Mr. Kenneth S. Neal* were on the brief, for the petitioners.

Mr. George Wharton Pepper, with whom *Mr. John G. Johnson* and *Mr. Frank Smith* were on the brief, for the respondents.

Mr. Justice HOLMES delivered the opinion of the Court.

This is a bill to prevent the defendant Walter E. Masland from using or disclosing secret processes the knowledge of which was acquired by the defendant while in the plaintiffs' employ. The defendant admits that he intends to manufacture artificial leather, to which some of the plaintiffs' alleged secret processes relate, but denies that he intends to use any inventions, trade secrets, or secret processes of the plaintiffs that he may have learned in any confidential relation, prefacing his denial, however, with the averment that many of the things claimed by the plaintiffs are well known to the trade. A preliminary injunction was refused at first. (216 Fed. Rep., 271.) But before the final hearing the defendant proposed to employ one or more experts and to make such disclosures to them as the preparation of the defense might require. Thereupon the district court issued a pro-

liminary injunction against disclosing any of the plaintiffs' alleged processes to experts or witnesses during the taking of proofs, but excepting counsel, with leave to move to dissolve the injunction if occasion to consult experts arose. Later a motion to dissolve was denied and the hearing was continued for a decision by the appellate court. (222 Fed. Rep., 340.) The circuit court of appeals reversed the decree. (224 Fed. Rep., 689.) Before any further order was entered the writ of certiorari was granted by this Court.

The case has been considered as presenting a conflict between a right of property and a right to make a full defense, and it is said that if the disclosure is forbidden to one who denies that there is a trade secret, the merits of his defense are adjudged against him before he has a chance to be heard or to prove his case. We approach the question somewhat differently. The word property as applied to trade-marks and trade secrets is an unanalyzed expression of certain secondary consequences of the primary fact that the law makes some rudimentary requirements of good faith. Whether the plaintiffs have any valuable secret or not the defendant knows the facts, whatever they are, through a special confidence that he accepted. The property may be denied but the confidence cannot be. Therefore the starting-point for the present matter is not property or due process of law, but that the defendant stood in confidential relations with the plaintiffs, or one of them. These have given place to hostility, and the first thing to be made sure of is that the defendant shall not fraudulently abuse the trust reposed in him. It is the usual incident of confidential relations. If there is any disadvantage in the fact that he knew the plaintiffs' secrets he must take the burden with the good.

The injunction asked by the plaintiffs forbade only the disclosure of processes claimed by them, including the disclosure to experts or witnesses produced during the taking of proofs—but excepting the defendant's counsel. Some broader and ambiguous words that crept into the decree, seemingly by mistake, may be taken as stricken out and left on one side. This injunction would not prevent the defendant from directing questions that should bring out whatever public facts were nearest to the alleged secrets. Indeed it is hard to see why it does not leave the plaintiffs' rights somewhat illusory. No very clear ground as yet has been shown for going farther. But the judge who tries the case will know the secrets, and if in his opinion and discretion it should be advisable and necessary to take in others, nothing will prevent his doing so. It will be understood that if, in the opinion of the trial judge, it is or should become necessary to reveal the secrets to others it will rest in the judge's discretion to determine whether, to whom, and under what precautions, the revelation should be made.

Decree reversed and case remanded for further proceedings in conformity with this opinion.

THE
OFFICIAL GAZETTE
OF THE
United States Patent Office.

Vol. 243—No. 4. TUESDAY, OCTOBER 23, 1917. Price—$5 per year.

The OFFICIAL GAZETTE is mailed under the direction of the Superintendent of Documents, Government Printing Office, to whom all subscriptions should be made payable and all communications respecting the Gazette should be addressed. Issued weekly. Subscriptions, $5.00 per annum; single numbers, 10 cents each.

Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

CONTENTS.

	Page.
ISSUE OF OCTOBER 23, 1917	797
INTERFERENCE NOTICES	797
WITHHOLDING GRANTS OF PATENTS IN TIME OF WAR	797
APPLICATIONS UNDER EXAMINATION	798
PATENTS GRANTED	799
REISSUES	1038
DESIGNS	1043
TRADE-MARKS—REGISTRATION APPLIED FOR	1049
TRADE-MARK REGISTRATIONS GRANTED	1059
LABELS AND PRINTS	1064
DECISIONS OF THE U. S. COURTS—	
Barrett Co. *et al. v.* Ewing, Commissioner of Patents	1065
ADVERSE DECISIONS IN INTERFERENCE	1069
DISCLAIMER	1069
CHANGES IN CLASSIFICATION	1069
TRADING WITH THE ENEMY—EXECUTIVE ORDER	1070

Issue of October 23, 1917.

Patents	775—	No. 1,243,679 to No. 1,244,453,	inclusive.
Designs	29—	No. 51,405 to No. 51,433,	inclusive.
Trade-Marks	146—	No. 119,014 to No. 119,159,	inclusive.
Labels	8—	No. 20,334 to No. 20,341,	inclusive.
Prints	4—	No. 4,814 to No. 4,817,	inclusive.
Reissues	6—	No. 14,378 to No. 14,383,	inclusive.
Total	968		

"Shall we be more tender with our dollars than with the lives of our sons?"—W. G. McAdoo, Secretary of the Treasury.

SAVE YOUR MONEY

to

BUY A U. S. GOVERNMENT BOND

of the

SECOND LIBERTY LOAN

of 1917

To Help Your Country and Yourself.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 5, 1917.

James M. Borland, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of William Henry King, of 44 Clinton street, Newark, N. J., for registration of a trade-mark and trade-mark registered August 25, 1908, No. 70,331, to James M. Borland, of 211 Fifth avenue, McKeesport, Pa., and a notice of such declaration sent by registered mail to said James M. Borland at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said James M. Borland, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD,
First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., September 29, 1917.

Robert C. Hupp, 2nd, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The C. L. Cotton Perfume & Extract Co., 305 East Main street, Barlville, N. Y., for registration of a trade-mark and trade-mark registered March 4, 1902, No. 37,891, to Robert C. Hupp, 2nd, of Detroit, Mich., and a notice of such declaration sent by registered mail to said Robert C. Hupp, 2nd, at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Robert C. Hupp, 2nd, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

F. W. H. CLAY,
Assistant Commissioner.

Withholding Grants of Patents in Time of War.

[PUBLIC—NO. 80—65TH CONGRESS.]

[S. 2531.]

An act to prevent the publication of inventions by the grant of patents that might be detrimental to the public safety or convey useful information to the enemy, to stimulate invention, and provide adequate protection to owners of patents, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That whenever during a time when the United States is at war the publication of an invention by the granting of a patent might, in the opinion of the Commissioner of Patents, be detrimental to the public safety or defense or might assist the enemy or endanger the successful prosecution of the war he may order that the invention be kept secret and withhold the grant of a patent until the termination of the war: *Provided*, That the invention disclosed in the application for said patent may be held abandoned upon it being established before or by the Commissioner that in violation of said order said invention has been published or that an application for a patent therefor has been filed in a foreign country by the inventor or his assigns or legal representatives, without the consent or approval of the Commissioner of Patents, or under a license of the Secretary of Commerce as provided by law.

When an applicant whose patent is withheld as herein provided and who faithfully obeys the order of the Commissioner of Patents above referred to shall tender his invention to the Government of the United States for its use, he shall, if and when he ultimately received a patent, have the right to sue for compensation in the Court of Claims, such right to compensation to begin from the date of the use of the invention by the Government.

Approved, October 6, 1917.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business October 19, 1917.

Room No.	Divisions and subjects of invention.	Oldest new application by applicant awaiting office action.	Oldest amended action by applicant awaiting office action.	No. of applications awaiting action.
314	1. Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Railway Gates; Planting; Scattering Unloaders; Trees, Plants, and Flowers.	July 23	Aug. 20	365
126	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	June 5	July 30	347
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Founding; Metallurgical Apparatus; Metallurgy; Plastic Metal Working.	Sept. 21	Sept. 6	174
284	4. Conveyors; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Pushing and Pulling Implements; Railway Mail Delivery; Store-Service; Traversing Hoists.	Sept. 10	Sept. 29	126
167	5. Bookbinding; Harvesters; Jewelry; Music	Aug. 6	Aug. 6	287
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Substance Preparation.	Apr. 25	June 18	480
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes	May 23	July 9	715
133	8. Beds; Chairs; Flexible-Sheet Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	June 12	Sept. 8	647
221	9. Air and Gas Pumps; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Marine Propulsion.	Apr. 9	July 18	534
235	10. Carriages and Wagons; Motor Vehicles	May 7	Aug. 7	802
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Spring Devices; Whips and Whip Apparatus.	July 5	Sept. 17	232
322	12. Journal-Boxes, Pulleys, and Shafting; Machine Elements	June 6	July 11	681
329	13. Ammunition and Explosive Charge, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	June 21	Aug. 22	563
323	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	July 5	Aug. 11	270
208	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Sept. 7	Sept. 17	285
112	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony	May 7	Aug. 29	463
307	17. Ornamentation; Paper Manufacture; Printing; Type Casting; Sheet Material Associating or Folding; Sheet Feeding or Delivering; Type Setting.	July 13	Aug. 17	131
220	18. Fluid-Pressure Regulators; Injectors and Ejectors; Liquid Heaters and Vaporizers; Lubrication; Miscellaneous Heat-Engine Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	May 4	Sept. 11	272
220	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels	May 21	Aug. 1	472
170	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Sept. 26	Sept. 11	235
312	21. Brakes and Gins; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Apr. 12	June 26	344
240	22. Aeronautics; Firearms; Ordnance	June 15	Sept. 7	307
219	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	June 8	Jan. 2	333
144	24. Apparel; Apparel Apparatus; Sewing-Machines; Garment Supporters	Aug. 10	Sept. 6	252
315	25. Agitating; Butchering; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separation.	Aug. 27	Sept. 6	133
105	26. Electricity, Generation; Motive Power	Mar. 12	Mar. 31	509
214	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus	July 9	Aug. 15	329
225	28. Internal-Combustion Engines	July 12	Aug. 11	571
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking Tools.	June 13	Sept. 10	333
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines	July 2	Oct. 2	352
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Sugar and Salt.	Aug. 15	Sept. 5	202
278	32. Dispensing Beverages; Dispensing; Gas and Liquid Contact Apparatus; Heat Exchange; Packaging Liquids; Refrigeration.	Mar. 21	Sept. 11	753
70	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	Aug. 10	Sept. 13	222
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling Stock; Railway Ties and Fasteners.	July 14	Sept. 11	199
87	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Signals; Toilet	May 11	Aug. 17	613
204	36. Driers; Geometrical Instruments; Measuring Instruments; Photography; Force Measuring	July 16	Sept. 4	644
107	37. Electric Lamps; Electricity, Circuit Makers and Breakers; Electricity, Conduits; Electricity, General Applications.	June 1	July 14	621
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells	Sept. 21	Sept. 21	149
220	39. Water Distribution; Multiple Valves	May 2	July 20	453
275	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	July 18	Sept. 26	456
126	41. Railway Draft Appliances; Resilient Tires and Wheels	June 25	Aug. 15	372
114	42. Electricity, Conductors; Railway Signaling; Electricity-Transmission to Vehicles; Electric Signaling.	Apr. 26	July 26	653
288	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Mar. 14	Aug. 9	428
263	44. Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Ships	June 6	Oct. 2	435

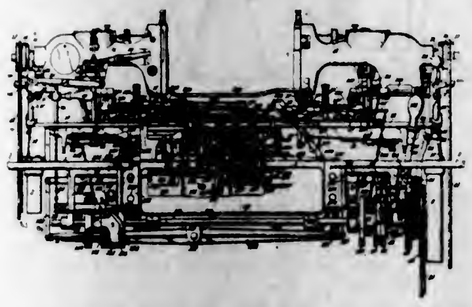
Oldest new case, Mar. 12; oldest amended, Jan. 2.
Total number of applications awaiting action 17,831

153	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Aug. 11	Sept. 11	947
	Designs	Sept. 24	Oct. 5	193
	Labels and Prints	Oct. 9	Oct. 2	56

PATENTS

GRANTED OCTOBER 23, 1917.

1,243,679. SEWING-MACHINE. EDWARD B. ALLEN, Bridgeport, Conn., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Nov. 1, 1913. Serial No. 798,627. (Cl. 112—24.)



1. In combination, stitch-forming mechanism, work-feeding mechanism with means for grasping a fabric to be stitched, a traveling carrier adapted to engage and support said fabric, said carrier being provided with work-positioning means acting to locate the work in predetermined lateral relation with said carrier and being movable into and out of register with and adapted to deliver said fabric to the work-feeding mechanism, and means including an operative connection between said carrier and feeding mechanism for effecting the delivery of the work from the carrier to the feeding mechanism.

2. In combination, stitch-forming mechanism, feeding mechanism comprising a traveling work-clamp adapted to grasp a fabric to be stitched, a carrier provided with work-gripping and work-guiding means, means for shifting the carrier into and out of register with the feeding mechanism, and means whereby the gripping means are caused to be disengaged from the work during the action of the feeding mechanism.

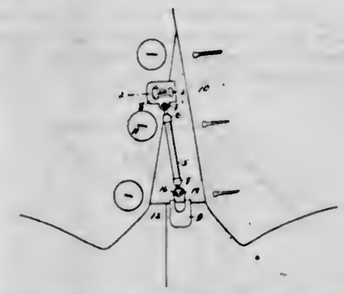
3. In combination, stitch-forming mechanism, work-feeding mechanism including bodily traveling clamping elements adapted to grasp the work between them, a carrier provided with work-positioning means and movable into and out of register with the work-feeding mechanism, actuating means for said carrier, and an operative connection between the feeding mechanism and said carrier-actuating means whereby each is maintained inactive while the other is operated in moving the work.

4. In combination, stitch-forming mechanism, controlling means for timing the period of action of the stitch-forming mechanism, feeding mechanism comprising a traveling work-clamp adapted to grasp a fabric to be stitched, work-clamp operating means, a carrier provided with work-gripping means adapted also to engage said fabric, means for shifting the carrier into and out of register with the feeding mechanism, and a connection between said controlling means and the gripping means whereby the latter is maintained disengaged from the work during the stitching period.

5. In combination, stitch-forming mechanism, feeding mechanism including work-clamping means adapted to grasp a fabric to be stitched, controlling means for interrupting the action of said mechanisms, a traveling work-carrier provided with means for supporting said fabric, means for shifting the carrier to move said fabric into and out of said work-clamping means, and means for timing the action of said carrier for delivery of the fabric to the work-clamping means during a period of inaction of said mechanisms and for reception of said fabric after a succeeding period of action of said mechanisms.

[Claims 6 to 91 not printed in the Gazette.]

1,243,680. TROUSERS-SUPPORTER. WILLIAM BAAKE, West Hoboken, N. J. Filed May 1, 1917. Serial No. 165,788. (Cl. 24—81.)



1. A structure of the character described, comprising a strand, a clasp carried by the upper end thereof adapted to engage an edge lying in substantial parallelism with the strand, a plurality of downwardly directed teeth carried by the upwardly extending clasp, disposed in a line transverse to the line of pull upon the clasp and a clasp connected directly to the lower end of said strand and disposed to engage an edge lying substantially at right angles to the first named edge and a plurality of teeth carried by the last named clasp disposed in a line also substantially transverse to the direction of pull to thereby resist movement of the clasp in a direction opposite to that movement that the clasp has when being applied.

[Claim 2 not printed in the Gazette.]

1,243,681. METHOD OF REDUCING SULFIDS. RAYMOND F. BACON, Pittsburgh, Pa., assignor, by mesne assignments, to Metals Research Company, New York, N. Y., a Corporation of Maine. Filed Jan. 15, 1913. Serial No. 742,219. (Cl. 75—17.)

1. The method of reducing the sulfids of silver, mercury, arsenic, antimony and platinum, which comprises reacting upon the sulfid in a non-molten condition to reduce it to metal by means of a hydrocarbin and in a non-oxidising atmosphere; substantially as described.

2. The method of reducing the sulfids of silver, mercury, arsenic, antimony and platinum, which comprises reacting upon the sulfid in a non-molten condition to reduce it to metal by means of a hydrocarbon in a non-oxidising atmosphere and at a relatively low temperature; substantially as described.

5. The method of reducing the sulfids of silver, mercury, arsenic, antimony and platinum, which comprises reacting upon the sulfid in a non-molten condition by means of a hydrocarbon under conditions adapted to simultaneously reduce the sulfid practically quantitatively to metal and to effect a conversion of its sulfur into hydrogen sulfid; substantially as described.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business October 19, 1917.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended.	No. of applications awaiting action.
314	1. Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Railway Gates; Planting; Scattering Unloaders; Trees, Plants, and Flowers.	July 23	Aug. 20	365
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	June 5	July 30	347
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Founding; Metallurgical Apparatus; Metallurgy; Plastic Metal Working.	Sept. 21	Sept. 6	174
234	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Pushing and Pulling Implements; Railway Mail Delivery; Store-Service; Traversing Hoists.	Sept. 10	Sept. 29	126
167	5. Bookbinding; Harvesters; Jewelry; Music	Aug. 6	Aug. 6	287
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Substance Preparation.	Apr. 25	June 18	480
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes	May 23	July 9	715
133	8. Beds; Chairs; Flexible-Sheet Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	June 12	Sept. 8	647
221	9. Air and Gas Pumps; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Marine Propulsion.	Apr. 9	July 18	534
235	10. Carriages and Wagons; Motor Vehicles	May 7	Aug. 7	602
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Spring Devices; Whips and Whip Apparatus.	July 5	Sept. 17	232
322	12. Journal-Boxes, Pulleys, and Shafting; Machine Elements	June 6	July 11	681
329	13. Ammunition and Explosive Charge, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Railing; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	June 21	Aug. 22	508
323	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	July 5	Aug. 11	270
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Sept. 7	Sept. 17	285
112	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony	May 7	Aug. 29	463
307	17. Ornamentation; Paper Manufactures; Printing; Type Casting; Sheet Material Associating or Folding; Sheet Feeding or Delivering; Type Setting.	July 13	Aug. 17	131
229	18. Fluid-Pressure Regulators; Injectors and Ejectors; Liquid Heaters and Vaporizers; Lubrication; Miscellaneous Heat-Engine Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	May 4	Sept. 11	272
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels	May 21	Aug. 1	472
179	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Sept. 25	Sept. 11	235
212	21. Brakes and Gins; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Apr. 12	June 26	344
249	22. Aeronautics; Firearms; Ordnance	June 15	Sept. 7	307
219	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	June 8	Jan. 2	333
144	24. Apparel; Apparel Apparatus; Sewing-Machines; Garment Supporters	Aug. 10	Sept. 6	252
315	25. Agitating; Butchering; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separation.	Aug. 27	Sept. 6	133
105	26. Electricity, Generation; Motive Power	Mar. 12	Mar. 31	500
214	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus	July 9	Aug. 15	329
225	28. Internal-Combustion Engines	July 12	Aug. 11	571
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking Tools.	June 13	Sept. 10	333
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines	July 2	Oct. 2	352
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Sugar and Salt.	Aug. 15	Sept. 5	202
278	32. Dispensing Beverages; Dispensing; Gas and Liquid Contact Apparatus; Heat Exchange; Packaging Liquids; Refrigeration.	Mar. 21	Sept. 11	753
70	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	Aug. 10	Sept. 13	222
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling Stock; Railway Ties and Fasteners.	July 14	Sept. 11	199
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Signals; Toilet	May 11	Aug. 17	613
204	36. Driers; Geometrical Instruments; Measuring Instruments; Photography; Force Measuring	July 16	Sept. 4	644
107	37. Electric Lamps; Electricity, Circuit Makers and Breakers; Electricity, Conduits; Electricity, General Applications.	June 1	July 14	621
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells	Sept. 21	Sept. 21	140
220	39. Water Distribution; Multiple Valves	May 2	July 20	453
275	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	July 18	Sept. 26	456
125	41. Railway Draft Appliances; Resilient Tires and Wheels	June 25	Aug. 15	372
114	42. Electricity, Conductors; Railway Signaling; Electricity-Transmission to Vehicles; Electric Signaling.	Apr. 26	July 26	653
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Mar. 14	Aug. 9	428
253	44. Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Ships	June 6	Oct. 2	435

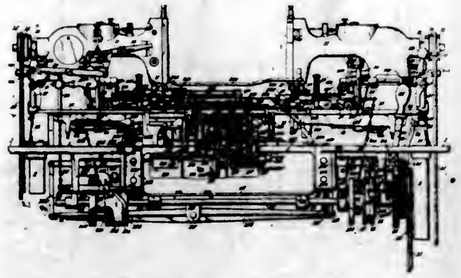
Oldest new case, Mar. 12; oldest amended, Jan. 2.
Total number of applications awaiting action 17,834

163	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:	Aug. 11	Sept. 11	947
	Trade-Marks	Sept. 24	Oct. 5	163
	Designs	Oct. 9	Oct. 2	56
	Labels and Prints			

PATENTS

GRANTED OCTOBER 23, 1917.

1,243,679. SEWING-MACHINE. EDWARD B. ALLEN, Bridgeport, Conn., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Nov. 1, 1913. Serial No. 798,627. (Cl. 112—24.)



1. In combination, stitch-forming mechanism, work-feeding mechanism with means for grasping a fabric to be stitched, a traveling carrier adapted to engage and support said fabric, said carrier being provided with work-positioning means acting to locate the work in predetermined lateral relation with said carrier and being movable into and out of register with and adapted to deliver said fabric to the work-feeding mechanism, and means including an operative connection between said carrier and feeding mechanism for effecting the delivery of the work from the carrier to the feeding mechanism.

2. In combination, stitch-forming mechanism, feeding mechanism comprising a traveling work-clamp adapted to grasp a fabric to be stitched, a carrier provided with work-gripping and work-guiding means, means for shifting the carrier into and out of register with the feeding mechanism, and means whereby the gripping means are caused to be disengaged from the work during the action of the feeding mechanism.

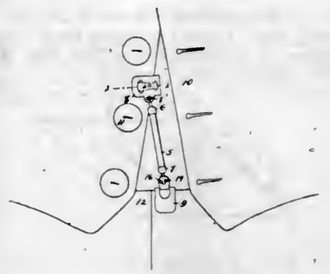
3. In combination, stitch-forming mechanism, work-feeding mechanism including bodily traveling clamping elements adapted to grasp the work between them, a carrier provided with work-positioning means and movable into and out of register with the work-feeding mechanism, actuating means for said carrier, and an operative connection between the feeding mechanism and said carrier-actuating means whereby each is maintained inactive while the other is operated in moving the work.

4. In combination, stitch-forming mechanism, controlling means for timing the period of action of the stitch-forming mechanism, feeding mechanism comprising a traveling work-clamp adapted to grasp a fabric to be stitched, work-clamp operating means, a carrier provided with work-gripping means adapted also to engage said fabric, means for shifting the carrier into and out of register with the feeding mechanism, and a connection between said controlling means and the gripping means whereby the latter is maintained disengaged from the work during the stitching period.

5. In combination, stitch-forming mechanism, feeding mechanism including work-clamping means adapted to grasp a fabric to be stitched, controlling means for interrupting the action of said mechanisms, a traveling work-carrier provided with means for supporting said fabric, means for shifting the carrier to move said fabric into and out of said work-clamping means, and means for timing the action of said carrier for delivery of the fabric to the work-clamping means during a period of inaction of said mechanisms and for reception of said fabric after a succeeding period of action of said mechanisms.

[Claims 6 to 91 not printed in the Gazette.]

1,243,680. TROUSERS-SUPPORTER. WILLIAM BAAKE, West Hoboken, N. J. Filed May 1, 1917. Serial No. 165,788. (Cl. 24—81.)



1. A structure of the character described, comprising a strand, a clasp carried by the upper end thereof adapted to engage an edge lying in substantial parallelism with the strand, a plurality of downwardly directed teeth carried by the upwardly extending clasp, disposed in a line transverse to the line of pull upon the clasp and a clasp connected directly to the lower end of said strand and disposed to engage an edge lying substantially at right angles to the first named edge and a plurality of teeth carried by the last named clasp disposed in a line also substantially transverse to the direction of pull to thereby resist movement of the clasp in a direction opposite to that movement that the clasp has when being applied.

[Claim 2 not printed in the Gazette.]

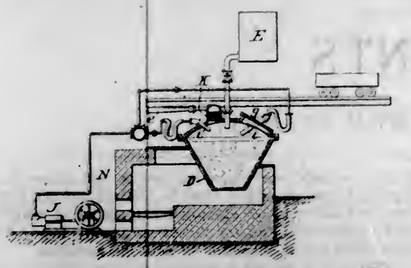
1,243,681. METHOD OF REDUCING SULFIDS. RAYMOND F. BACON, Pittsburgh, Pa., assignor, by mesne assignments, to Metals Research Company, New York, N. Y., a Corporation of Maine. Filed Jan. 15, 1913. Serial No. 742,219. (Cl. 75—17.)

1. The method of reducing the sulfids of silver, mercury, arsenic, antimony and platinum, which comprises reacting upon the sulfid in a non-molten condition to reduce it to metal by means of a hydrocarbin and in a non-oxidizing atmosphere; substantially as described.

2. The method of reducing the sulfids of silver, mercury, arsenic, antimony and platinum, which comprises reacting upon the sulfid in a non-molten condition to reduce it to metal by means of a hydrocarbon in a non-oxidizing atmosphere and at a relatively low temperature; substantially as described.

5. The method of reducing the sulfids of silver, mercury, arsenic, antimony and platinum, which comprises reacting upon the sulfid in a non-molten condition by means of a hydrocarbon under conditions adapted to simultaneously reduce the sulfid practically quantitatively to metal and to effect a conversion of its sulfur into hydrogen sulfid; substantially as described.

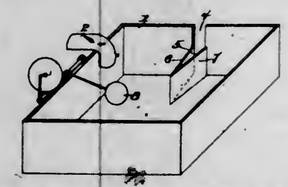
8. The method of reducing the sulfids of silver, mercury, arsenic, antimony and platinum, which comprises dropping a liquid hydrocarbon upon a heated body of the metallic



sulfid in the form of a precipitate, and under conditions adapted to reduce the sulfid to metal; substantially as described.

[Claims 3, 4, 6, and 7 not printed in the Gazette.]

1,243,682. LIQUID-METER. ERVIN G. BAILEY, Newton Highlands, Mass., assignor to Bailey Meter Company, a Corporation of Massachusetts. Filed Aug. 18, 1913. Serial No. 785,245. (Cl. 73—167.)



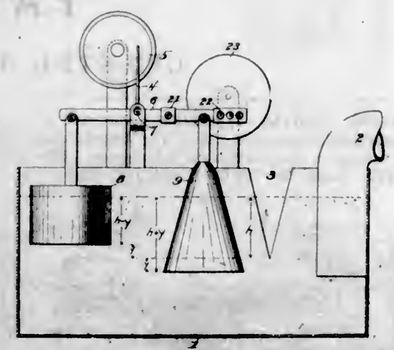
1. In a liquid meter, an obstruction having as means for egress for the liquid a weir notch, the entire boundary of which lies wholly in the same plane, the said plane being approximately transverse to the direction of flow of the liquid; combined with an orifice, the boundary of which lies wholly in the same plane, said plane being approximately parallel to the direction of flow of the liquid; and means for measuring the height of the liquid at the upstream side of the obstruction.

2. A liquid meter comprising a horizontal obstructing surface, provided with a triangular shaped aperture having its altitude approximately two and one quarter times as great as its base; a vertical obstructing surface provided with a rectangular weir notch having a width substantially equal to the base of said triangular aperture and a height approximately twice it width; and means for measuring the height of the liquid at the upstream side of the obstruction.

1,243,683. LIQUID-METER. ERVIN G. BAILEY, Newton Highlands, Mass., assignor to Bailey Meter Company, a Corporation of Massachusetts. Filed Sept. 8, 1914. Serial No. 860,797. (Cl. 73—167.)

1. A liquid meter comprising an obstruction for the liquid to be measured, said obstruction having a weir-notch; two displacing members both of which extend into the obstructed liquid; a pivotally supported beam having an indicator; and rigid connectors for connecting said displacing members with said beam at opposite sides of the axis of said beam respectively, the horizontal cross-sectional areas of said displacing members being such as to give the said indicator a movement directly proportional to the rate of flow of liquid through said weir notch.

2. A liquid meter comprising an obstruction for the liquid to be measured, said obstruction having a weir-notch; two displacing members both of which extend into the obstructed liquid, one of said displacing members having varying horizontal cross-sectional areas; a pivotally supported beam having an indicator, said beam being suspended on a knife edge bearing over the obstructed liquid; rigid connectors connected with said displacing members respectively; and knife edge bearings on the beam at opposite sides of the axis thereof for said connectors respectively.



3. A liquid meter comprising an obstruction for the liquid to be measured provided with means for permitting a restricted flow thereof past said obstruction; two displacing members both extending into the obstructed liquid; a beam pivotally supported over said liquid; and rigid connectors for connecting the said beam at opposite sides of its axis with said displacing members respectively, the cross-sectional areas of the displacing members at the surface of the liquid being variable with relation to each other.

4. A liquid meter comprising an obstruction for the liquid to be measured provided with means for permitting a restricted flow thereof past said obstruction; two displacing members both extending into the obstructed liquid; a beam pivotally supported over said liquid; and rigid connectors connecting the said beam at opposite sides of its axis with said displacing members respectively, the horizontal cross-sectional areas of the displacing members being such that the change in buoyant effect of the said liquid on said displacing members will vary with relation to that of the liquid on the other.

5. A liquid meter comprising an obstruction for the liquid to be measured, provided with means for permitting a restricted flow thereof past said obstruction; two displacing members both extending into the obstructed liquid; a beam pivotally supported over said liquid; and rigid connectors for connecting the said beam at opposite sides of its axis with said displacing members respectively, the horizontal cross-sectional areas of said displacing members being unequal at the surface of the liquid.

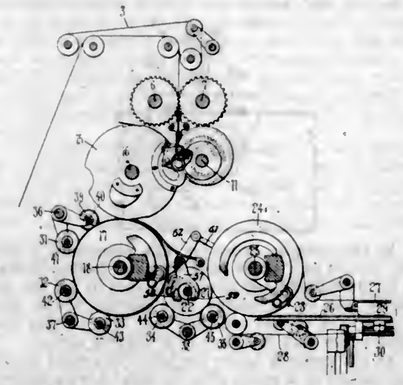
[Claims 6 and 7 not printed in the Gazette.]

1,243,684. CREASING MECHANISM FOR SHEET COLLECTING AND FOLDING MACHINES. HOWARD M. BARBER, Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 19, 1914. Serial No. 878,158. (Cl. 270—50.)

1. In a machine of the character described, means for folding a signature longitudinally of its travel and means for creasing the signature in opposite directions along the same line in close proximity and parallel to the longitudinal fold line.

2. In a machine of the character described, means for folding a signature longitudinally of its travel and means for creasing the signature in opposite directions along the same lines upon both sides of, parallel, and in close proximity to the longitudinal fold line.

3. In a machine of the character described, means for folding a signature transversely and longitudinally of its travel and means for creasing the signature in opposite directions along the same line in close proximity and parallel to its longitudinal fold line.

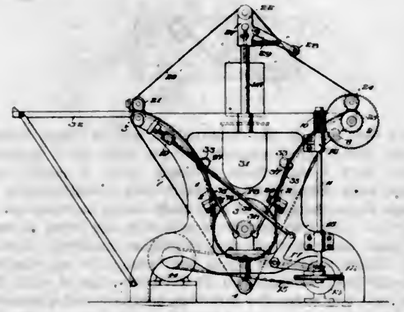


4. In a machine of the character described, means for folding a signature transversely and longitudinally of its travel and means for creasing the signature in opposite directions along the same lines upon both sides of, parallel, and in close proximity to its longitudinal fold line.

5. In a machine of the character described, means for folding a signature transversely and longitudinally of its travel and means for creasing the signature in opposite directions along the same line upon one side of, parallel and in close proximity to its longitudinal fold line before the longitudinal fold is imparted to the signature.

[Claims 6 to 9 not printed in the Gazette.]

1,243,685. PHOTOGRAPHIC-PRINTING MACHINE. FRED W. BARKLEY, Rochester, N. Y., assignor to American Drafting Furniture Co., Rochester, N. Y., a Corporation of New York. Filed June 7, 1917. Serial No. 173,280. (Cl. 95—75.)



1. In a photographic printer, the combination with a support and means for feeding a sensitized sheet over the support during its exposure, of means for restraining and flattening the sheet against the support located on the outer or exposed side thereof, and embodying a narrow member of less area than the sheet and covering only a fraction of its surface arranged to span the latter and disposed angularly with reference to the direction of travel of the sheet so as to shift laterally over the surface of the sheet as the latter is advanced.

4. In a photographic printer, the combination with a support and means for feeding a sensitized sheet over the support during exposure, of means for restraining and flattening the sheet against the support disposed on the outer or exposed side thereof and comprising a plurality of flexible members spanning the sheet and means for oscillating the same to prevent them from casting a sustained shadow on any portion of the sheet.

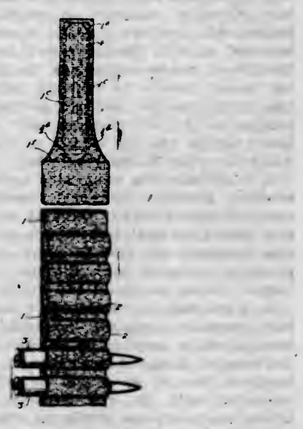
8. A photographic printer comprising a pair of traveling aprons between which the sheet of sensitized material is fed and carried during exposure, one of said aprons being constituted by a plurality of flexible spaced cords.

10. In a photographic printer, the combination with a pair of traveling aprons between which the sheet of sensitized material is fed and carried during exposure, one of said aprons being constituted by a plurality of spaced flexible cords running substantially longitudinally of the apron, of a guide roller extending transversely of the aprons and provided with peripheral grooves to receive the said cords.

13. The combination with a pair of convex printing beds or platens curved inwardly toward each other and jointly forming a substantially V-shaped structure adapted to receive a luminator, of a drum arranged between and at the bases of the beds, a pair of superposed aprons adapted to receive and carry the sensitized sheet between them during exposure, and guides therefor arranged to cause them to traverse the beds, said aprons being passed beneath the drum.

[Claims 2, 3, 5 to 7, 9, 11, and 12 not printed in the Gazette.]

1,243,686. MACHINE-GUN BELT. FRANK R. BATCHELDER, Worcester, Mass., assignor to Universal Patents Company, a Corporation of Rhode Island. Filed Dec. 26, 1916. Serial No. 138,721. (Cl. 89—35.)



1. A machine-gun belt provided with an end-extension comprising a plurality of woven layers, strips, or plies, which are continuous with the body-portion of the belt, with their marginal portions inwardly-tucked or infolded and secured between the outer surfaces, forming a handle or leader of relatively-reduced width.

2. A machine-gun belt having the body thereof of woven material and provided with a stiffened end-extension constituting a handle or leader and presenting no exposed metal.

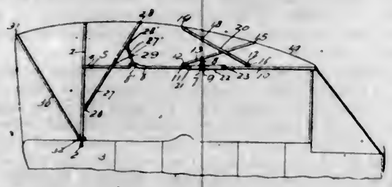
3. A machine-gun belt provided with an end-extension comprising a plurality of woven layers, strips, or plies having their marginal portions inwardly-tucked or infolded and secured between the outer surfaces, and stiffening means also between such surfaces.

4. A machine-gun belt having the body thereof of woven material and provided with a flattened tubular end-extension, with portions of such end-extension inwardly-tucked or infolded and secured between the outer surfaces, forming a handle or leader of relatively-reduced width.

5. A machine-gun belt having the body thereof of woven matrial and provided with a flattened tubular end extension, with portions of such end-extension inward y-

tucked or infolded and secured between the outer surfaces, with a stiffener also contained between such surfaces, forming a handle or leader of relatively-reduced width.

1,243,687. ONE-MAN VEHICLE-TOP. WILLIAM H. BATES, Clinton, Iowa, assignor of one-third to Wallace Townsend and one-third to W. D. Thomas, Little Rock, Ark. Filed May 25, 1916. Serial No. 99,780. (Cl. 21—62.)



1. A one-man top comprising a main bow, an auxiliary bow pivotally connected therewith at its lower end, a jointed horizontal member pivotally connected with the main bow, means overlapping the joint thereof and pivotally connected with the side members thereof, and having means for holding the parts in distended position, said truss-like members straddling said overlapping means and one having an elongated loop in which the other member thereof is freely movable.

2. A one-man top comprising a main bow, an auxiliary bow pivotally connected therewith at its lower end, jointed side members pivotally connected with the main bow and movable through a loop integral with the auxiliary bow, means overlapping the joints thereof, fastening means therefor to hold the parts in distended position, and truss-like members pivotally connected to the sections of the side members upon opposite sides of the joints therein and one having an elongated loop through which the other is freely movable.

3. A one-man top comprising a rear bow, jointed side members pivotally connected therewith, and forwardly extended bows pivotally mounted on the first-named bow and having integral elongated loops through which the side members are free to move and crossed members pivotally connected with the side members and having limited sliding movement one within the other.

4. A one-man top comprising a bow, jointed side members pivotally connected therewith, forwardly extended bows pivotally mounted on the first-named bow and having integral elongated loops through which the side members are free to move and crossed members pivotally connected with the side members and having limited sliding movement one within the other, said side members being jointed intermediate their ends.

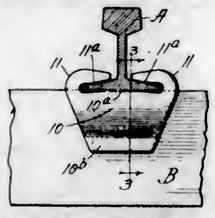
5. A one-man top comprising a bow, jointed side members pivotally connected therewith, a forwardly extended bow pivotally mounted on the first-named bow and having integral elongated loops through which the side members are free to move and crossed members pivotally connected with the side members and having limited sliding movement one within the other, said side members being jointed intermediate their ends, and means bridging the joints of the side members with means to prevent movement of the side members upon their joints.

[Claims 6 and 7 not printed in the Gazette.]

1,243,688. RAIL-ANCHOR. ROBERT E. BELKNAP, Chicago, Ill., assignor to Anchor Company, Chicago, Ill., a Corporation of Illinois. Original application filed June 23, 1913, Serial No. 775,172. Patent No. 1,228,171, dated May 29, 1917. Divided and this application filed Mar. 17, 1917. Serial No. 155,582. (Cl. 238—4.)

1. An anti-creeper for rails, comprising a body having an upward projection to engage the inner portion of the bottom face of a rail base and having a pair of jaws, one extending over each edge of the base to grip the top side thereof.

2. An anti-creeper for rails comprising a body having an upward projection to engage the bottom face of the rail base under the web thereof, and having a pair of jaws, one extending over each edge of the rail base to grip the top side thereof.



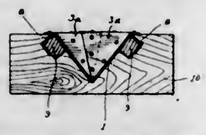
3. An anti-creeping device for rails, comprising a clamp or bar formed of a single piece of metal having inturned ends for fitting over and around the ends of the rail base or flange and an unyielding body portion fitting under said base, each of said ends and said body portion being adapted to bite into said base by a wedging action.

4. An anti-creeping device for rails, comprising a clamp or bar formed of a single piece of metal having inturned ends for fitting over and around the ends of the rail base or flange and an unyielding body portion fitting under said base, each of said ends and said body portion having inclined portions thereon for being adapted to bite into said base by a wedging action.

5. An anti-creeping device for rails, comprising a clamp or bar formed of a single piece of metal having inturned end portions for fitting over and around the ends of the rail base or flange and an unyielding body portion fitting under said base, each of said end portions having inclined lower end edges and said body portion having an inclined upper edge for being adapted to bite into said base by a wedging action.

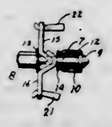
[Claims 6 to 16 not printed in the Gazette.]

1,243,689. FEED-TROUGH. NELSON D. BERRY, Columbus, Ohio. Filed Nov. 15, 1916. Serial No. 131,372. (Cl. 119—61.)



In a feed trough, the combination with a frame formed of end pieces and connecting side rails of a metallic trough body formed from a single sheet of metal, said trough body being bent centrally and longitudinally to trough form, the ends of said body being notched out to form end extension members, said notches being of such size that each pair of end extension members overlap, said trough body also being bent along its longitudinal edges to channel shape to fit over the top of said side rails, said end extension members being also of a size and shape to be bent over the top of and down a portion of the outside of said end pieces.

1,243,690. HEAT-SENSITIVE LINK FOR AUTOMATIC FIRE APPARATUS. ALBERT BLAUVELT, Chicago, Ill. Filed June 10, 1915. Serial No. 33,345. (Cl. 236—16.)



1. A heat sensitive clamp for the purpose described, comprising a tensile member, a pair of abutments thereon, a receptacle movable longitudinally of the tensile member and a body of heat sensitive material loosely interposed between one of said abutments and said receptacle and a pair of elements engaged between the other of said abutments and said receptacle and held thereby from movement relative to each other.

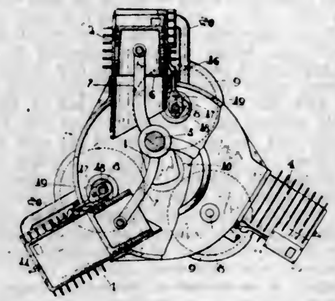
3. In a device of the class described, a bolt, a head on the bolt, a receptacle surrounding said head and bolt, a body of fusible metal loosely interposed between said head and receptacle and engaged by said head, a nut on the bolt and a pair of elements engaged between said nut and receptacle and held from relative movement thereby.

9. In a device of the class described, a bolt having a head formed thereon at one end and screw-threaded at the other, a nut on the screw-threaded end, a receptacle embracing the bolt and containing a mass of granulated metal, said head substantially closing the end of said receptacle.

10. In a device of the class described, a pair of members under stress tending to move them away from each other, but having mutually engaging surfaces transverse to the line of stress, means for preventing lateral movement of the members relative to each other, comprising a bolt arranged transverse to the line of stress and an abutment and a head on the bolt, an element movable longitudinally of the bolt, and a mass of heat sensitive material under compression betwen said element and head whereby lateral movement of said members relative to each other is normally prevented.

[Claims 2, 4 to 8, 11, and 12 not printed in the Gazette.]

1,243,691. INTERNAL-COMBUSTION MOTOR. JAMES D. BLAYNEY, Toronto, Ontario, Canada. Filed Mar. 29, 1916. Serial No. 87,550. (Cl. 123—43.)

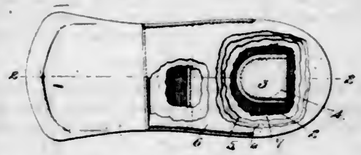


1. In a multi-cylinder internal combustion motor, the combination of a crank casing; a crank shaft journaled therein provided with a crank; a plurality of equally spaced cylinders set with their axes tangential to a circle having the crank shaft as a center; a piston for each cylinder; a connecting rod for each piston connecting the same with the crank; a cam shaft for each cylinder crossing the crank casing adjacent the side of the cylinder closest to a radial plane intersecting the axis of the crank shaft and parallel to the axis of the cylinder, said cam shafts being geared to the crank shaft; an exhaust cam and air inlet cam on each of said cam shafts within the crank case; an inlet and an exhaust valve on the same side of each cylinder as the cam shaft and cams for such cylinder; and valve rods extending through the crank casing for operation by said cams.

3. In a multi-cylinder internal combustion motor, the combination of a cylindrical crank casing having an opening in the curved periphery for each cylinder, said openings being equally spaced and each provided with an internally threaded collar having its axis tangential to a circle having its center in the crank shaft of the motor; and a plurality of cylinders each threaded externally and screwed into one of said collars and projecting within the crank case, the inner end of each cylinder being cut on a bevel so that the cylinder wall is shortest at the side most nearly radial to the axis of the crank shaft.

[Claim 2 not printed in the Gazette.]

1,243,692. FOOT-SUPPORT. ALEXANDER E. BLOCK, St. Louis, Mo. Filed Dec. 9, 1912. Serial No. 735,803. (Cl. 36—71.)



1. In a foot support the combination of an insole; a heel-bone-support; means for removably positioning said heel-bone-support relatively to the insole at a point beneath the heel bone of the wearer; a layer of sheet material secured to a face of the insole to form a pocket open at the rear end of the insole, having its side edges secured for a portion of their length at the outer margin of the insole; and an insert adapted to be mounted within said pocket.

2. In a foot support, an insole; a heel-bone-support; means for removably positioning said heel-bone-support relatively to the insole at a point beneath the heel-bone of the wearer; a plurality of inserts; and a series of layers of sheet material secured to a face of the insole and superimposed upon and overlapping each other to form a series of pockets, and apertured at the rear of the insole to receive said inserts.

3. In a foot support, an insole; a heel-bone-support; means for removably positioning said heel-bone-support relatively to the insole at a point beneath the heel bone of the wearer; a plurality of inserts; and a series of layers of sheet material secured to a face of the insole and superimposed upon and over-lapping each other to form a series of pockets apertured to receive said inserts; said pockets being of various lengths and extending from the rear margin of the insole to various points beneath and beyond the line of the transverse arch of the foot of the wearer.

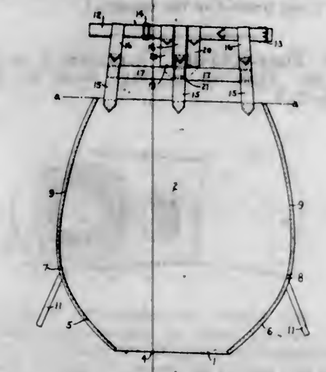
4. In a foot support, an insole; a heel-bone-support; means for securing said heel-bone-support relatively to the insole at a point beneath the heel-bone of the wearer; a plurality of inserts; and a series of layers of sheet material secured to the lower face of the insole and superimposed upon and overlapping each other to form a series of pockets of different lengths located in the heel of the insole and apertured to receive said inserts.

5. In a foot support, an insole; a heel-bone-support; means for securing said heel-bone-support relatively to the insole at a point beneath the heel-bone of the wearer; a plurality of inserts; and a series of layers of sheet material secured to the lower face of the insole by one transverse and two marginal lines of stitching and superimposed upon and overlapping each other to form a series of pockets of different lengths, apertured at the rear of the insole to receive said inserts.

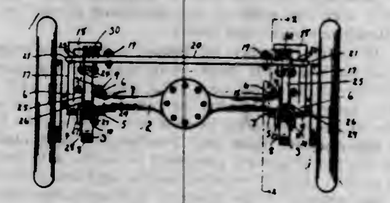
1,243,693. SANITARY APRON. JENNIE L. BORNSTEIN, Dayton, Ohio. Filed Jan. 22, 1914. Serial No. 813,798. (Cl. 128—5.)

A sanitary apron comprising a single elongated piece of moisture proof material bent upon itself about a common straight lower edge, to form two equal sections, the side edges of each section curving outwardly and inwardly, in an even manner, from the common lower edge to an upper straight edge, stitching means for securing the lower side edges of one section to the corresponding lower side edges of the other section, said stitching means passing intermittently through the corresponding side

edges of said sections to two respective terminal points an equal distance below the middle portion of the garment to provide two free flap portions, and means extending upwardly from the outside of said flap portions to secure the latter to the body of the wearer, substantially as described.



1,243,694. VEHICLE SUSPENSION AND SHOCK-ABSORBER. FLETCHER O. BOSWELL, Philadelphia, Pa., assignor to F. O. B. Manufacturing Co., Philadelphia, Pa., a Corporation of Delaware. Filed Oct. 18, 1916. Serial No. 125,506. (Cl. 267—8.)



1. A vehicle suspension and shock absorber comprising oppositely projecting downwardly inclined tracks carried by the vehicle axles, pivoted arms or levers depending from the vehicle frame, rollers carried by said arms and coacting with the tracks, and springs mounted between portions of the tracks and the outer ends of the arms for retarding the outward and downward movement of said arms.

2. A vehicle suspension and shock absorber comprising track members adapted to be mounted upon the vehicle axles, said track members each comprising a pair of coacting sections adapted to be fastened together about the axle, each of said sections having a downwardly inclined outer track, a parallel upper track, and a slightly curved lower track, arms pivoted to the vehicle frame and having fingers formed with their outer ends, a roller journaled in the outer end of each arm for engaging the outer tracks, other rollers journaled between the fingers and located between the upper and lower tracks for engaging either of said tracks, and springs located between the outer ends of said arms and portions of the track member sections for gradually retarding the outward movement of said arms.

3. A vehicle suspension and shock absorber comprising track members adapted to be mounted upon the vehicle axles, said track members each comprising a pair of coacting sections adapted to be fastened together about the axle, each of said sections having a downwardly inclined outer track, a parallel upper track, and a slightly curved lower track, arms pivoted to the vehicle frame and having fingers formed with their outer ends, a roller journaled in the outer end of each arm for engaging the outer tracks, other rollers journaled between the fingers and located between the upper and lower tracks for engaging either of said tracks, springs located between the outer ends of the arms and portions of the track member sections for gradually retarding the outward movement of said arms, uprights carried by the track members, inwardly projecting extensions formed therewith, and springs located between the vehicle frame and said extensions.

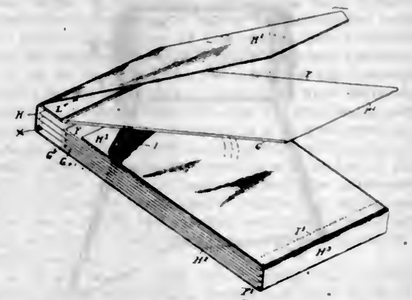
4. In a vehicle suspension the combination of an axle a vehicle frame located above the same, track members located on said axle each consisting of two sections, said sections each comprising a sleeve having an open socket for engaging the axle, a triangular body formed integral therewith, the upper edge forming a downwardly inclined track, said body having an opening located therein to form an upper track parallel with the first named track, and a lower curved track, a terminal projection formed integral with the body at the outer end of the outer track, said sections being placed upon the axle from opposite sides with the open portions of the slots in opposite directions, so that the bodies of coacting sections project in opposite directions, the meeting edges of said bodies being formed Z shaped so as to overlap and detachably secured together, pivoted arms depending from the vehicle body, inwardly and downwardly projecting fingers formed with the outer ends of said arm and situated on each side of the body, rollers journaled in the outer ends of the arm and engaging the outer tracks, other rollers jounaled between the fingers located in the body openings and adapted to engage either the upper or lower track, and springs situated between the outer ends of the arms and the terminal projection for retarding the outward and downward movement of said arms.

5. In a vehicle suspension the combination of an axle a vehicle framel ocated above the same, track members located on said axle consisting of two sections, said sections each comprising a sleeve having an open socket for engaging the axle, a triangular body formed integral therewith, the upper edge forming a downwardly inclined track, said body having an opening located therein to form an upper track parallel with the first named track, and a lower curved track, a terminal projection formed integral with the body at the outer end of the outer track, said sections being placed upon the axle from opposite sides with the open portions of the slots in opposite directions, so that the bodies of coacting sections project in opposite directions, the meeting edges of said bodies being formed Z shaped so as to overlap and detachably secured together, an upright formed with one of the sleeves of each member, an inwardly projecting extension formed with each of the uprights, springs situated between said extensions and the vehicle frame, arms adapted to be pivoted to the vehicle frame, downwardly and inwardly projecting fingers formed with the outer ends of said arms, rollers journaled in the outer ends of said arms and engaging the outer tracks, other rollers journaled between the fingers for engaging either the upper or lower tracks, and springs situated between the outer ends of said arms and the terminal lugs for retarding the outward and downward movement of said arms.

[Claims 6 and 7 not printed in the Gazette.]

1,243,695. MANIFOLDING SALES-BOOK. EDWARD KIRBY BOTTLE, Elmira, N. Y., assignor to American Sales Book Company, Limited, Toronto, Ontario, Canada, a Corporation of Ontario. Filed Nov. 19, 1915. Serial No. 62,271. (Cl. 11—23.)

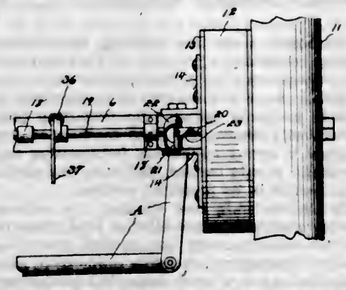
1. A manifolding salesbook comprising, in combination, a pad of sales-sheets, each sheet comprising an original sales-slip and a translucent duplicate sales-slip connected to the original, said sheets bound together at one end to provide a stub, a support of flexible material underlying said pad and portions of flexible material extending from the opposite ends of said underlying supporting portion to provide a cover and an impenetrative freely foldable rest respectively, said cover portion being hinged to said intermediate portion at the stub end of the book on a line below the upper face of said stub, said rest portion being adapted to be interposed between the sales-sheets, and means carried by said rest adapted to transfer to the under face of a duplicate sales-slip impressions made on the original sales-slip connected thereto.



2. A manifolding salesbook comprising, in combination, a pad of sales-sheets, each sheet comprising an original sales-slip and a translucent duplicate sales-slip connected to the original, said sheets bound together at one end to provide a stub, a support of flexible material underlying said pad and portions of flexible material extending from the opposite ends of said underlying supporting portion to provide a cover and an impenetrative freely foldable rest respectively, said cover portion being hinged to said intermediate portion at the stub end of the book on a line below the upper face of said stub, and said rest having a coat of transfer material on the face which is uppermost when the rest is interposed between said sales-sheets.

3. A manifolding salesbook comprising, in combination, a pad of sales-sheets, each sheet comprising an opaque original sales-slip and a translucent duplicate sales-slip connected to the opaque slip, said sheets bound together at one end to provide a stub, an integral sheet of impenetrative paper having an intermediate portion underlying said pad and connected thereto, and cover and rest portions extending from opposite ends of said intermediate portion and foldable relative to said intermediate portion into positions above the pad and between said sales-sheets, respectively, and transfer material carried by said rest on the face thereof which is uppermost when the rest is interposed between said sales-sheets, said cover portion being freely foldable relative to said intermediate portion on a line adjacent the stub end of the pad and below the upper face of said stub.

1,243,696. BRAKE MECHANISM FOR MOTOR-VEHICLES. AUSTIN C. BOYD, Reynoldstown, Md. Filed May 23, 1917. Serial No. 170,406. (Cl. 21—8.)



1. A brake mechanism for the front wheels of motor vehicles comprising in combination with a shiftable front wheel of the stub axle type having a brake drum secured thereto, a brake band operating in connection with the drum, a brake rod formed of two sections, an X-shaped casting interposed between the adjacent ends of the brake rod sections, said casting having a pair of crossed axes, a U-shaped bracket carried by the adjacent end of each rod section having the opposite ends thereof axially supporting the X-shaped casting, the said casting adapted to have one axis thereof vertically positioned when the brake band is operating, and the other axis thereof vertically positioned when the brake band is inoperative.

2. A brake mechanism for motor vehicles comprising a two-part brake rod, an X-shaped casting connecting the adjacent end of the brake rod and having a pair of crossed axes, the casting being so positioned that the axes are selectively positioned vertically when the brake mechanism is operative and inoperative.

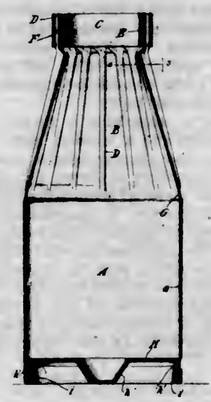
1,243,697. SUPPORT FOR WASHTUBS, TANKS, SINKS, AND THE LIKE. JACOB J. BRAM, Perth Amboy, N. J. Filed Apr. 18, 1917. Serial No. 162,857. (Cl. 68—31.)



2. The herein described leg for tubs or like receptacles made of earthenware, said leg being also made of earthenware and being reinforced by a rod which is passed longitudinally therethrough and is provided at one end with a threaded projection and at the opposite end with an anchor device which is secured to said rod and which is provided with a flange on which the leg rests when in use.

[Claim 1 not printed in the Gazette.]

1,243,698. FIBROUS CONTAINER. LUTHER P. BROWN, Ramsey, N. J., assignor, by mesne assignments, to Empire Paper Bottle Company, a Corporation of New Jersey. Filed Jan. 8, 1912, Serial No. 669,955. Renewed Mar. 14, 1917. Serial No. 154,896. (Cl. 229—3.)



1. A paper bottle comprising a tubular body portion, an annular collar at the mouth portion, and a tapering neck portion intermediate the body portion and the mouth portion, said bottle being composed of a web or sheet of paper coiled upon itself to produce successive enveloping windings and the material of said neck portion being folded to produce longitudinal ribs positioned internally of the bottle and increasing in depth from the tubular body portion to the mouth portion, said folded material composing the ribs being deflected at the mouth portion

into lapping relation to the unfolded material and producing a stiffened reinforced mouth collar the thickness of which exceeds the thickness of the material composing the tubular body.

2. A paper bottle comprising a tubular body portion, an annular collar at the mouth portion, and a tapering neck portion intermediate said body portion and the mouth portion, said bottle being composed of a web or sheet of fibrous material coiled upon itself to produce successive enveloping windings, the material of said tapering neck portion being folded upon itself to form a series of ribs positioned internally of the bottle and extending radially to the longitudinal axis thereof, said ribs increasing in depth from the tubular body portion to the annular mouth portion and the folded material composing said ribs being deflected at said mouth portion into lateral lapping relation to the infolded material at said mouth portion, said folded and lapping material producing with the infolding material a stiffened reinforcing annular mouth collar the aggregate thickness of which exceeds the thickness of the material composing the tubular body.

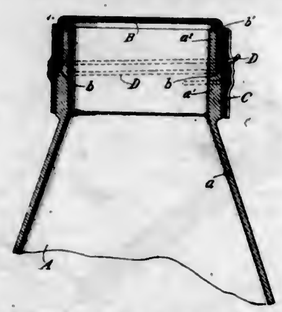
3. A paper bottle comprising a tubular body, an annular mouth and a tapering neck, said bottle being composed of a web or sheet of paper wound successively upon itself and with the material composing the neck folded to produce longitudinal tapering ribs extending from the tubular body to the edge of the annular mouth, said folded material of the ribs being flattened at the annular mouth to produce plaits which overlap the unfolded material and which plaits are positioned substantially in contact with each other and are in substantially flush relation to each other, thereby resulting in a stiffened reinforced mouth collar the thickness of the aggregated folded and plaited material of which exceeds the thickness of the material composing the tubular body.

4. A paper bottle comprising a tubular body, an annular collar at the mouth portion, and a tapering neck extending intermediate said annular collar and the tubular body, said bottle being composed of a web or sheet of fibrous material coiled upon itself to form successive enveloping windings, the material composing the tapering neck being folded upon itself to produce a series of tapering ribs positioned internally of, and radially to the longitudinal axis of the bottle, said material of the ribs forming on the exterior surface of the neck a series of open longitudinal channels which increase in depth from the tubular body to the annular mouth, the end portions of said folded ribs being compressed into lapping relation at the annular mouth and producing a stiffened reinforced collar the thickness of the aggregated folded and plaited material composing which collar exceeds the thickness of the material forming the tubular body.

5. A paper bottle comprising a tubular body, an annular mouth portion and a tapering neck connecting the tubular body and the annular mouth, said bottle being composed of a web or sheet of fibrous material wound upon itself and with the material comprising the tapering neck folded to produce a series of longitudinal tapering ribs, said ribs at the mouth portion being compressed into lapping relation to the unfolded material exteriorly thereof, an inside band contacting with the folded material of the annular mouth, and an external band contacting with said folded and lapping material of the mouth portion, said bands coöperating to confine the folded material and presenting smooth surfaces at the mouth portion of the bottle.

1,243,699. SANITARY CLOSING AND SEALING DEVICE FOR CONTAINERS. LUTHER P. BROWN, Ramsey, N. J., assignor, by mesne assignments, to Empire Paper Bottle Company, a Corporation of New Jersey. Filed Jan. 8, 1912. Serial No. 669,956. (Cl. 229—51.)

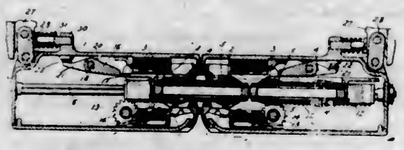
1. A paper bottle provided with a neck portion, a flanged cap fitted to said neck portion, a sealing band successively wound upon and united to said neck portion and the flange of the cap, and a ripping member incased within the windings of said sealing band, said ripping member being positioned diagonally to the medial line of the sealing band and attached thereto so that the ripping member is adapted to be coiled with the sealing band around the bottle in a manner to separate or space the successive windings of the ripping member.



2. A paper bottle provided upon a neck portion thereof with an external shoulder, a cap provided with a flange which is in abutting engagement with said shoulder and in substantially flush relation to the exterior surface of the neck portion, a sealing band successively wound upon said neck portion and the flange of the cap and united thereto, and a ripping member positioned diagonally to the medial line of, and united to the, sealing band so as to be wound therewith around the neck and the cap, the successive windings of the ripping member being separated from each other and positioned above and below the contacting edges of the flange of the cap and the shoulder of the neck.

3. In a device of the class described, a sealing band embodying a continuous strip of frangible material, and a ripping member unitary with said strip and extending lengthwise between the side edges thereof, said ripping member being positioned diagonally to the medial line of the strip, whereby in the operation of winding the strip said ripping member is coiled therewith and the spirals of said ripping member are separated from each other.

1,243,700. MANUALLY-OPERATED ELECTRIC COUPLING. THOMAS R. BROWN, Sparkill, N. Y., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Apr. 10, 1914. Serial No. 831,000. (Cl. 173—332.)



1. In an electric train line coupling, the combination with a casing containing a plurality of fixed contacts connected to corresponding train line circuits, and a movable contact carrier having contacts, of mechanical means adapted to be manually operated for projecting said carrier to electrically connect the fixed contacts of counterpart couplings, a spring mechanism for resisting the outward movement of said carrier, and a locking device for holding the carrier in its projected position.

2. In an electric train line coupling, the combination with a casing containing a plurality of fixed contacts connected to corresponding train line circuits, and a movable contact carrier having corresponding contacts, of mechanical elements mounted in said casing for projecting said carrier to electrically connect the corresponding fixed contacts of counterpart couplings, a manually operated device outside said casing for actuating said mechanism, a spring mechanism for resisting the outward movement of said carrier, and a locking device for holding the carrier in its projected position.

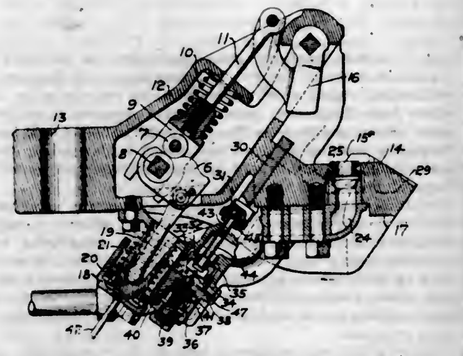
3. In an electric train line coupling, the combination with a casing containing a plurality of fixed contacts connected to corresponding train line circuits, and a movable contact carrier having contacts, of a rack and pinion adapted to be manually operated for projecting said contact carrier to electrically connect the fixed contacts of counterpart couplings, a spring mechanism for resisting the outward movement of said carrier, and a locking device for holding the carrier in its projected position.

4. In an electric train line coupling, the combination with a casing containing a plurality of fixed contacts connected to corresponding train line circuits, and a movable contact carrier having contacts, of a rack mounted on said contact carrier, a pinion meshing with said rack, a manually operated handle for rotating said pinion to project said carrier and electrically connect the corresponding fixed contacts of counterpart couplings, a spring mechanism for resisting the outward movement of said carrier, and a locking device for holding the carrier in its projected position.

5. In an electric train line coupling, the combination with a casing containing a plurality of fixed contacts connected to corresponding train line circuits, and a movable contact carrier having contacts, of a rack mounted on said contact carrier, a pinion meshing with said rack, a handle for rotating said pinion to project the contact carrier, a spring mechanism for resisting the projection of the carrier, and a locking device for holding the carrier in its projected position.

[Claims 6 to 8 not printed in the Gazette.]

1,243,701. COMBINED CAR AND TRAIN-PIPE COUPLING. THOMAS R. BROWN, Sparkill, N. Y., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Dec. 28, 1915. Serial No. 68,990. (Cl. 213—40.)



1. In a car coupling, the combination of a coupler head having a train pipe passage, and an opening adapted to register with a corresponding opening of a counterpart coupler, a valve for controlling said passage, a stem extending through the wall of said passage, and a slidable plunger mounted in the coupler head for actuating said stem and having a gasket surrounding said stem to seat against said wall.

2. In a car coupling, the combination of a coupler head having a projection provided with diagonal plane surfaces adapted to engage corresponding abutting surfaces on a counterpart coupler by a lateral movement in coupling, a train pipe passage having an opening adapted to register with the corresponding opening of a counterpart coupler, a valve for controlling said passage, and a plunger slidably mounted in a direction substantially parallel with said abutting surfaces for operating said valve.

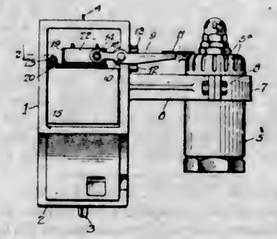
3. In a car coupling, the combination of a coupler head having a train pipe passage, and an opening adapted to register with a corresponding opening of a counterpart coupler, a valve for controlling said passage, a pilot valve controlling the pressure acting on said train pipe valve, and a stem extending through the train pipe valve and operated by the coming together of the counterpart couplers for opening said pilot valve.

4. In a car coupling, the combination of a coupler head having a train pipe passage and an opening adapted to register with a corresponding opening of a counterpart coupler, a valve for controlling said passage, a piston connected to said valve, a stem extending through said main valve and piston, a pilot valve having a stem arranged in line with said main stem and controlling the pressure on one side of said piston.

5. In a car coupling, the combination of a coupler head having a train pipe passage and an opening adapted to register with a corresponding opening of a counterpart coupler, a valve for controlling said passage, a piston connected to said valve, a valve operated by the coming together of the counterpart couplers for venting fluid from the rear of said piston, and a valve operated by fluid pressure for closing said vent and opening a supply port to said piston.

[Claims 6 to 8 not printed in the Gazette.]

1,243,702. WASTE-STEAM DETECTOR AND RECORDER. TURNEY E. BUCK, Chicago, Ill., assignor to William O. Duntley, Chicago, Ill. Filed Jan. 6, 1914. Serial No. 810,565. (Cl. 234—1.)



3. In a device of the class described, the combination, with an escape valve for relieving excess pressure of steam, of recording mechanism including a time movement and a record strip moved thereby, and a lever having at one end a marking device coöperating with the strip and adapted to trace lines thereon, said lever being formed with a vane located outside the steam passage and arranged to be moved by steam escaping from the valve and to thereby move the marking device with respect to the strip.

[Claims 1, 2, and 4 to 7 not printed in the Gazette.]

1,243,703. WINDOW-HEATER. WILLIAM C. BURMEISTER and EDWIN N. SMOCK, Chicago, Ill., assignors of one-half to said Burmeister and one-half to said Smock. Filed July 21, 1916. Serial No. 110,510. (Cl. 219—19.)

1. In an electric heater for windows, an elongated metallic casing, an electric heater within the casing, the casing having one flat face for contact with a window, said flat face having a tongue and groove connection with the casing so that it can be easily removed to give access to the interior of the casing.

2. In an electric heater for windows, an elongated metallic casing, an electric heater within the casing, the casing having one flat face for contact with a window, said flat face being uniformly perforated over its whole extent to permit direct radiation therethrough in addition to the indirect radiation through the metal and said flat face being easily removable to give ready access to the interior of the casing.

3. In an electric heater for windows, an elongated metallic casing, an electric heater within the casing, the casing having one flat face for contact with a window, said flat face being easily removable to give access to the

interior of the casing, and means for holding the casing with its flat face in contact with a window glass.

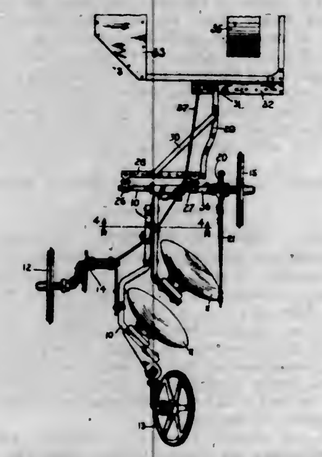


4. A window pane heater comprising a closed metallic casing having one flat easily removable side for contact with a window pane, a heater within the casing, means for mounting the casing for movement from and toward a window pane, means for yieldingly holding the casing with its flat side in contact with a window pane and means for temporarily holding the casing out of contact with the window pane a sufficient distance to permit the frame in which pane is held to pass said flat side.

5. A window heater comprising a closed metallic casing, having a flat side for presentation to a window, an electric heater within the casing, a bent arm joined to the rear of the casing at one end and mounted at its other end for swinging motion whereby the casing may be moved toward the window for heating same and away from the window for storage, and a spring for yieldingly holding the arm at both limits of its movement.

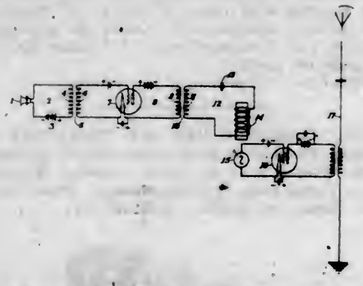
[Claims 6 to 8 not printed in the Gazette.]

1,243,704. PLOW-HITCH MECHANISM. JOHN H. BUTLER, Dallas, Tex., assignor to Parlin & Orendorff Company, Canton, Ill., a Corporation of Illinois. Filed May 3, 1916. Serial No. 95,054. (Cl. 97—73.)



The combination of a plow frame comprising a transversely-extending front bar, furrow opening means carried by said frame, a landside wheel journaled on said frame at one side thereof, a furrow wheel journaled on said frame at its opposite side and adapted to be turned laterally relative to the frame, a caster-wheel journaled on said frame in rear of the furrow opening means, a transversely-extending bar pivotally connected at its ends with the front bar of said frame and adapted to swing vertically relative thereto, a hitching member extending forward from said pivotally-mounted bar for connecting said frame to a suitable traction means, a diagonally-extending bar connecting said hitching member with said pivotally-mounted bar adapted to hold the hitching member against lateral movement relative to said pivotally-mounted bar, an arm connected with said second named wheel and extending laterally relative thereto, and a second hitching member pivotally connected with said arm and adapted to be connected to said traction means at one side of the connection of the first-named hitching member thereto adapted, upon an angular movement of the traction means relative to said frame for deflecting the traction means laterally in either direction, to turn said second-named wheel laterally relative to the frame, said hitching members being adapted to maintain said frame in fixed position transversely thereof relative to the point of connection of the hitching members with the traction means.

1,243,705. METHOD OF AND MEANS FOR TRANSMITTING SIGNALS. JOHN R. CARSON, New York, N. Y., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed Jan. 26, 1916. Serial No. 74,329. (Cl. 250—6.)



1. In a high frequency signaling system the method of transmission which consists in generating a low frequency modulating signal wave, generating, to the exclusion of other high frequency waves, a high frequency carrier wave whose amplitude is directly proportional to said low frequency modulating wave and which is damped by the modulating wave only and in transmitting said carrier wave.

4. In a high frequency signaling system the combination of a source of low frequncy signal waves; a high frequency alternating current generator comprising an exciting means and an armature; connections between said exciting means and said source of low frequency signal waves, means preventing the flow of direct current in said exciting means and an outgoing circuit connected to said armature.

6. In a wireless telephone system, the combination of a high frequency alternating current generator comprising an armature and a field winding; a telephone transmitter; a vacuum tube amplifier connecting said transmitter and said field winding; means preventing the flow of direct current in said field winding; an antenna, and a second vacuum tube amplifier connecting said antenna with said armature.

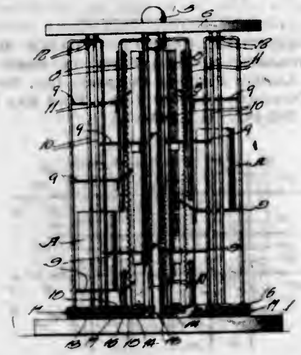
7. In a high frequency signaling system the combination of a source of low frequency modulating signal waves; a high frequency alternating current generator adapted to generate sustained undamped oscillations; and means to control the action of said generator so that the oscillations generated shall have an amplitude directly proportional to said low frequency modulating waves.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,243,706. REVOLVING DISPLAY-CASE. AUGUSTUS A. CARTER, Fayette, Iowa. Filed Mar. 2, 1916. Serial No. 81,715. (Cl. 211—20.)

1. A revolving display case comprising a plurality of shelves adapted to support the articles to be displayed.

movable guards for holding such articles on the shelves, and means for locking the case against rotation when a guard is moved to inoperative position.



2. A revolving display case comprising a plurality of vertical rows of shelves adapted to support the articles to be displayed, movable guards for holding such articles on the shelves, movable operating members for disposing said guards to and holding them respectively in operative and inoperative positions, and means for locking the case against revolution when an operating member is moved to dispose its guard to inoperative position.

3. A revolving display case comprising a plurality of vertical rows of shelves adapted to support the articles to be displayed, movable guards for holding said articles on the shelves, movable operating members for moving said guards to operative and inoperative positions, latches on said operating members for holding them in position to retain their respective guards in operative relation with the shelves, and a fixed locking member with which said latches coöperate to lock the case against revolution when an operating member is so disposed as to release its respective guard.

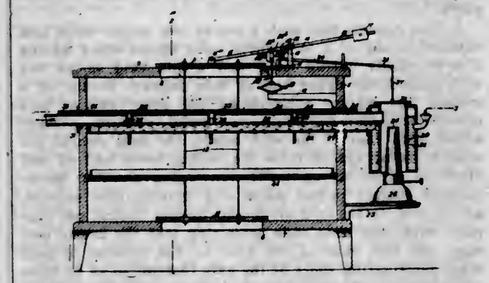
7. A display case comprising a vertical row of shelves adapted to support the articles to be displayed, vertical rods disposed adjacent the opposite sides of said shelves to prevent the articles thereon from falling laterally therefrom, upright guards adjacent the front end of said shelves and coöperating with said rods in retaining the articles thereon, said guards having laterally extending arms at their upper and lower ends pivotally mounted on the aforesaid rods, crank arms extending laterally from the lower ends of said guards, a movable operating member with which said crank arms are connected in a pivotal manner, and a latch for holding said operating member in position to retain the guards in operative relation with the shelves.

[Claims 4 to 6, 8, and 9 not printed in the Gazette.]

1,243,707. REGULATOR FOR INCUBATORS. CURTIS C. CARTER, Bluffs, Ill. Filed Feb. 18, 1916. Serial No. 79,045. (Cl. 237—3.)

1. In an incubator, a casing having two openings one for the ingress and the other for the egress of air, members for closing the two openings, a lever, means for operating the members adapted to be actuated by the lever, a thermostat in the casing, means connecting the thermostat with the lever for operating the latter, a heater for the casing, a damper for the heater, a second lever to which the damper is secured, and a link connecting the first lever with the second lever.

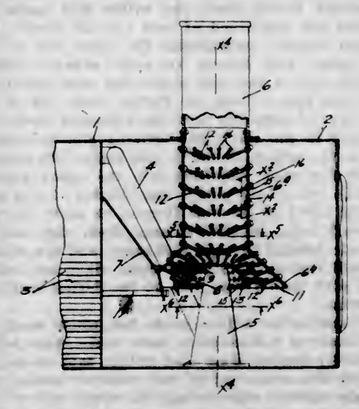
2. In an incubator, a casing having a bottom with an opening and a top with two openings, a member for closing the bottom opening, a second member for closing one of the openings in the top of the casing, operating means connecting the two members, a thermostat in the casing, a lever disposed at the outer side of the casing and articulated to the second member, a threaded rod passing through the other opening through the top of the casing and secured to the thermostat, a nut meshing with the thread on the rod, and a catch supported on the rod by the nut and engaging the lever for operating the latter.



3. In an incubator, a casing having two openings, a member for closing one of the openings, a thermostat in the casing, a lever disposed at the outer side of the casing and articulated to the member, a threaded rod passing through the other opening and secured to the thermostat, a nut meshing with the thread on the rod, and a cap supported on the rod by the nut and engaging the lever for operating the latter.

4. In an incubator, a casing having two openings, one disposed above the other, members for closing the openings, a lever, means by which one arm of the lever is adapted to operate the members, a counterweight on the other arm of the lever, a thermostat in the casing, means connecting the thermostat with the lever for operating the latter, a heater for the casing, a damper for the heater, a second lever to which the damper is secured, and a link connecting the first arm of the first lever with the second lever.

1,243,708. SPARK-ARRESTER FOR LOCOMOTIVES. ELDIA J. CARTER, ALBERT TAYLOR, and JAMES S. GRIFFITH, Mobridge, S. D. Filed Mar. 18, 1915, Serial No. 15,157. Renewed Aug. 18, 1917. Serial No. 186,916. (Cl. 110—121.)



1. The combination with a smoke box, smoke stack and exhaust nozzle of a locomotive, said smoke stack having a downwardly flaring lower end within said smoke box and around the upper end of said exhaust nozzle, of a conical pin support surrounding the upper end of said exhaust nozzle and having an axial exhaust passage alined with that of the said nozzle, the said conical pin support being spaced away from the flaring lower end of said stack to form an upwardly converging annular smoke passage leading to the stack, and striking pins secured, at one end, to the said stack and to said

conical pin support, with their free ends projecting into the smoke passage, and the free ends of the pins on the interior of said stack terminating short of the axis thereof, so as to leave an unobstructed axial exhaust passage from the said exhaust nozzle upward through the said stack.

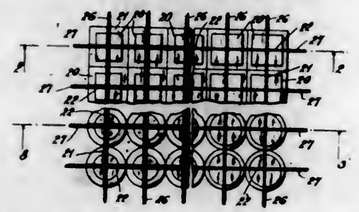
2. The combination with a smoke box, smoke stack and exhaust nozzle of a locomotive, said smoke stack having a downwardly flaring lower end within said smoke box and around the upper end of said exhaust nozzle, of a conical pin support surrounding the upper end of said exhaust nozzle and having an axial exhaust passage alined with that of the said nozzle, the said conical pin support being spaced from the flaring lower end of said stack to form an upwardly converging annular smoke passage leading to the stack, and striking pins secured, at one end, to the said stack and to said conical pin support, with their free ends projecting into the smoke passage, the free ends of the pins on the interior of said stack terminating short of the axis thereof, so as to leave an unobstructed axial exhaust passage from the said exhaust nozzle upward through the said stack, and the pins on the body of the stack having an inward and downward incline so as to deflect the sparks outward from the axis of the stack.

3. The combination with a smoke box, smoke stack and exhaust nozzle of a locomotive, said smoke stack having a downwardly flaring lower end within said smoke box and around the upper end of said exhaust nozzle, of a conical pin support surrounding the upper end of said exhaust nozzle and having an axial exhaust passage alined with that of the said nozzle, the said conical pin support being spaced from the flaring lower end of said stack to form an upwardly converging annular smoke passage leading to the stack, and striking pins secured, at one end, to the said stack and to said conical pin support, with their free ends projecting into the smoke passage, and the free ends of the pins on the interior of said stack terminating short of the axis thereof, so as to leave an unobstructed axial exhaust passage from the said exhaust nozzle upward through the said stack, all of that portion of the said stack which is above said smoke box being entirely free from obstructions.

4. The combination with a smoke box, smoke stack and exhaust nozzle of a locomotive, said smoke stack having a downwardly flaring lower end within said smoke box and around the upper end of said exhaust nozzle, of a conical pin support surrounding the upper end of said exhaust nozzle and having an axial exhaust passage alined with that of the said nozzle, the said conical pin support being spaced from the flaring lower end of said stack to form an upwardly converging annular smoke passage leading to the stack, and striking pins secured, at one end, to the said stack and to said conical pin support, with their free ends projecting into the smoke passage, and the free ends of the pins on the interior of said stack terminating short of the axis thereof, so as to leave an unobstructed axial exhaust passage from the said exhaust nozzle upward through said stack, and the striking pins on said conical pin support being staggered and interlapped with the striking pins on the flaring lower end of said stack.

5. The combination with a smoke box, smoke stack and exhaust nozzle of a locomotive, said smoke stack having a downwardly flaring lower end within said smoke box and around the upper end of said exhaust nozzle, of a conical pin support surrounding the upper end of said exhaust nozzle and having an axial exhaust passage alined with that of the said nozzle, the said conical pin support being spaced from the flaring lower end of said stack to form an upwardly converging annular smoke passage leading to the stack, and striking pins secured, at one end, to the said stack and to said conical pin support, with their free ends projecting into the smoke passage, and the free ends of the pins on the interior of said stack terminating short of the axis thereof, so as to leave an unobstructed axial exhaust passage from the said exhaust nozzle upward through the said stack, and a deflecting plate on the flue sheet side of the smoke box extending forward and downward to a point below the said flaring lower end of the stack and the lower portion of said conical pin support.

1,243,709. LEATHER FABRIC. WILLIAM M. CAVANAUGH, Rosebank, N. Y., assignor, by mesne assignments, to Leather Products Company, Inc., New York, N. Y., a Corporation of New York. Filed May 6, 1912. Serial No. 695,461. (Cl. 245—1.)



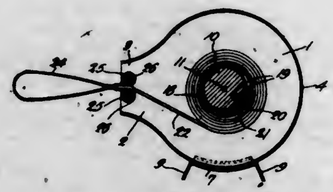
1. A fabric composed of wire netting with longitudinal and transverse strand wires and pieces of leather provided with grooves corresponding to said wires and into which grooves said wires are embedded.

2. The combination of metallic retaining members into which are pressed pieces of leather and wire connecting said members to form a flexible fabric.

3. The combination of circular metallic retaining members into which are pressed pieces of leather and links connecting said members to form a flexible fabric.

4. A flexible fabric composed of leather reinforced with wire embedded in grooves therein, said reinforcing wire extending in different directions in the leather.

1,243,710. RAZOR-STROP HOLDER. HENRY T. CHILDRESS, Hallettsville, Tex. Filed May 9, 1917. Serial No. 167,502. (Cl. 242—109.)



1. A razor strop holder embodying a casing comprising side plates and a curved plate having its edges engaged to the edges of the side plates, a drum between and carried by the side plates, spring means for rotating the drum, and a supporting member having portions slidably engaging said edges of the plates.

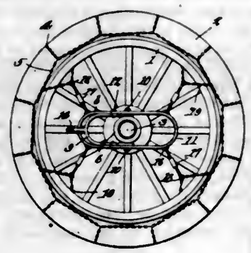
3. A razor strop holder embodying a casing having an opening, a spring pressed drum mounted rotatably within the casing, a razor strop to be wound upon the drum, and a connection between the strop and drum permitting the strop to be reversed when withdrawn from the casing.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,243,711. ADJUSTABLE CHAIN-TIGHTENER. THOMPSON H. CHRISTY and SAMUEL K. HUNGER, Vandergrift, Pa. Filed May 18, 1917. Serial No. 169,566. (Cl. 152—14.)

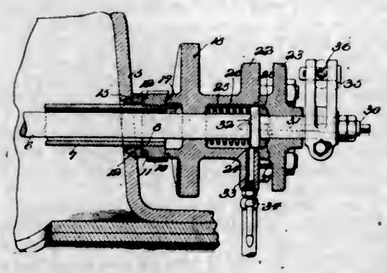
1. In a device of the class described, a hub engaging ring; a U-shaped lever fulcrumed on the ring; a U-shaped link pivoted at one end to the intermediate portion of the lever; means assembled with the other end of the link for engaging a tire carried element, to tighten the same; and means for holding the lever against swinging movement when the lever is in tightening position.

2. In a device of the class described, a hub engaging support; a main link projecting in one direction from the support; a lever fulcrumed on the support; an auxiliary link projecting in an opposite direction and pivoted to the lever intermediate the ends of the lever; a latch mechanism forming a detachable connection between the outer end of the main link and the lever; and means assembled with the links for engaging an anti-skidding device.



3. In a device of the class described, a hub engaging support; a U-shaped main link; a U-shaped lever; means for pivotally connecting the lever and the main link with the support; an auxiliary link pivoted to the lever intermediate the ends of the lever; a handle constituting a part of the lever; a latch carried by the handle and coacting with the crown of the main link; and means carried by the links for connecting the same with an anti-skidding device.

1,243,712. STUFFING-BOX. FRANK H. CLARK and JOSEPH M. COFFEY, New York, N. Y., assignors to Chambers Valve Company, New York, N. Y., a Corporation of New York. Filed May 19, 1916. Serial No. 98,651. (Cl. 137—117.)



1. In a stuffing box, in combination with an irregularly curved surface having an opening to which the box is adapted to be secured, an operating shaft, a sleeve for said shaft, a joint member surrounding said sleeve and adapted to engage said opening adjustably, a nut on said sleeve adapted to hold said joint member tightly in place, and a body member engaging said nut.

2. In a stuffing box, in combination with an irregularly curved surface having an opening to which the box is adapted to be secured, an operating shaft, a sleeve therefor, a ball joint member wider at one side than the other loosely fitting said sleeve and engaging the opening in said surface adjustably, means for holding said joint member in place, a body member engaging the opposite side of said holding means having a stuffing box chamber, and means for draining said chamber.

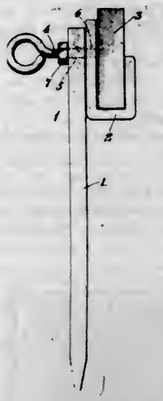
3. In a stuffing box, in combination with the irregularly curved surface of a steam dome having an opening therethrough to which the box is adapted to be secured, an operating shaft projecting through said opening and having a cylindrical flange near its free outer end, a body member provided with a stuffing box chamber surrounding said shaft, means for adjustably connecting said member with said curved surface, an end cover member for said chamber having a semi-spherical surface, and a ring of packing material loosely surrounding said shaft and interposed between the cylindrical flange and said semi-spherical surface.

4. In a stuffing box, in combination with an irregularly curved surface having an opening to which the box is adapted to be adjustably secured, an operating shaft projecting through said opening in the surface having a flange near its free outer end, a body member provided with a stuffing box chamber surrounding said shaft, an end cover member for said chamber having a concave surface, packing material interposed between the flange and concave surface, means for lubricating one of the surfaces of said packing material, fastening means for securing the cover to the body member, and separate fastening means for adjustably securing the body member to the surface.

14. In a stuffing box, in combination, an actuating rod having a flat shoulder portion, a stuffing box member surrounding said rod and shoulder, a cover coacting with said member having a concave surface, a packing ring loosely mounted upon said rod interposed between the shoulder and the cover portion, and means for lubricating one of the surfaces of said packing rings including a passageway bored centrally through said shaft having bypasses extending to said packing ring.

[Claims 5 to 13 and 15 not printed in the Gazette.]

1,243,713. CONCRETE-FORM DEVICE. ANTONIO COLARUSSO, Hudson, N. Y. Filed Jan. 29, 1917. Serial No 145,097. (Cl. 25—118.)



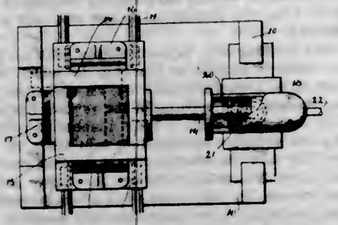
1. A concrete form device comprising a stake, a hook member adapted to support a vertical concrete form with the top of the form above the top of the hook member, a screw threaded member passing laterally through the stake and operating laterally through the hook member and adapted to engage the form to hold it firmly in adjusted position and a nut cooperating with the screw threaded member and stake to bind the stake, hook member and screw threaded member rigidly together.

5. A concrete form device comprising a stake, a hook member adapted to support a vertical concrete form and a screw threaded member passing laterally through the stake and operating laterally through the hook member.

13. A device of the class described comprising a stake, a concrete form member and a member for holding the form member at various adjusted positions vertically of the holding member and means securing said members together with the top of the form member above the top of the stake and holding member.

[Claims 2 to 4, 6 to 12, 14, and 15 not printed in the Gazette.]

1,243,714. PROCESS FOR TREATING METALS AND ALLOYS OF METALS. ALVIN M. CRAIG, New Haven, Conn. Filed Nov. 21, 1916. Serial No. 132,518. (Cl. 22—216.)



1. The step in the process of treating metals which consists in subjecting a charge of fluid metal to external incremental and unyielding lateral pressures, thereby decrementally reducing the cross sectional area thereof.

2. The step in the process of treating metals which consists in applying an external incremental pressure to a confined charge of fluid metal to increase its length and to decrementally reduce its cross sectional area.

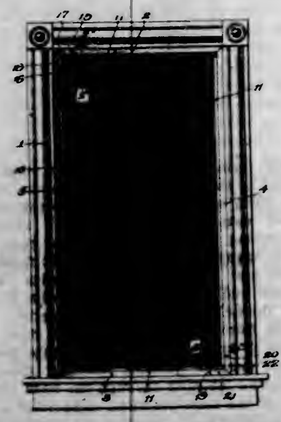
3. The process of treating metals which consists in pouring a charge of fluid metal into a confined space, and applying incremental pressures to the sides of the charge before its outer parts are chilled or set to decrementally reduce the cross sectional area thereof.

4. The process of treating metals which consists in pouring a charge of fluid metal into a confined space, applying pressure to the sides of the charge still in its fluid state thereby decrementally reducing the cross sectional area of the charge, then when the charge is in a plastic state, applying incremental pressure to decrementally reduce its cross sectional area.

5. The process of treating metals which consists in applying an incremental pressure laterally and externally to a confined body of fluid metal, to reduce the cross sectional area of the confined body, and applying pressure vertically to that body.

[Claims 6 to 15 not printed in the Gazette.]

1,243,715. SCREEN-FRAME. WILLIAM N. CROPPER and SALLIE LEE LANCASTER, Lexington, Ky. Filed May 31, 1916. Serial No. 171,968. (Cl. 156—14.)



1. A device of the character described comprising a channel strip having edges bent inward at an angle to the base thereof, and a substantially V-shaped keeper having a bead connecting the sides thereof, and in which one of said sides is substantially tangential to the bead and the other of said sides normal to the bead.

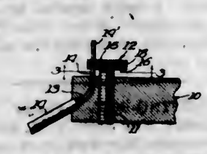
2. A screen frame comprising a channel strip having one edge bent inwardly at an angle of about forty-five degrees to the base thereof, and the other edge bent at an angle of about ninety degrees to the base thereof, and a keeper substantially V-shaped and having a bead at the junction of the sides thereof and adapted to be inserted in said channel, the side of the keeper next to the channel edge bent at an angle of ninety degrees, when the keeper is inserted in the channel strip, forming an angle with the last-mentioned edge of said channel strip.

4. A screen frame comprising a channel strip having edges bent at an angle to the base thereof, a keeper approximately V-shaped to enter the channel to lock a fabric within said channel, said channel strip having one of its edges provided with a severed portion to permit the entrance of a prying implement to extract said keeper.

5. A screen frame comprising a channel strip having edges bent at an angle to the base thereof, a keeper approximately V-shaped to enter the channel to lock a fabric within the channel, and having a vertical cut in one of the edges of the channel strip near the end thereof whereby a part of said edge may be bent outwardly to form an opening for the insertion of an implement to extract said keeper.

[Claim 3 not printed in the Gazette.]

1,243,716. WIRE COILING AND BINDING CLAMP. JOHN CUTHBERT, Chicago, Ill. Filed Feb. 24, 1916. Serial No. 80,114. (Cl. 173—259.)



1. A wire coiling and binding clamp comprising a relatively stationary clamping member and a rotatable screw-threaded clamping member, the latter having a part to engage a wire to bend it into an eye about a shank around the axis of which said members are relatively rotatable and a wire guide for determining the size of the eye.

2. A wire coiling and binding clamp comprising a relatively stationary clamping member and a rotatable screw threaded clamping member, the latter having a part to engage the wire to bend it into an eye, about the shank around the axis of which said members are relatively rotatable and having a groove substantially concentric with said shank, within which to include the eye of the wire when formed.

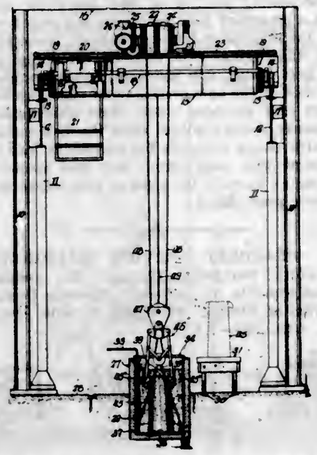
3. A wire coiling and binding clamp comprising a relatively stationary clamping member and a rotatable screw threaded clamping member, the latter having a part to engage the wire to bend it into an eye, about the shank around the axis of which said members are relatively rotatable, and two spaced apart annular shoulders with a groove therebetween on either of said confronting clamping members, within which to contain said eye when said clamping members are in clamping positions.

4. A wire coiling and bending clamp comprising two confronting clamping members relatively rotatable around a common axis, one of said members having a perforation for insertion of a wire within the area overlain by the other clamping member, the latter member having a part to engage the wire to form an eye when said members are relatively rotated and having a groove within the circumferential path described by said wire engaging part, within which to retain said eye between said members.

5. A wire coiling and binding clamp comprising two confronting clamping members relatively rotatable around a common axis, one of said members having a perforation for insertion of a wire within the area overlain by the other clamping member, the latter member having a rearwardly inclined shoulder to engage the wire to bend it forwardly prior to forming an eye therein, when said members are relatively rotated, and having an annular groove, in which said shoulder terminates, within the circumferential path described by said shoulder, within which to retain said eye, between said members.

[Claims 6 to 10 not printed in the Gazette.]

1,243,717. PROCESS FOR COATING MOLDS FOR METAL INGOTS. GEORGE FRANCIS DOWNS, Buffalo, N. Y. Filed Dec. 16, 1916. Serial No. 137,417. (Cl. 22—192.)



2. The process of applying a uniform layer of insulating material upon the inner surface of an ingot mold having a vertically elongated, tubular ingot chamber, which consists in dipping the mold when in a substantially erect position into a fluid mixture of insulating material so as to completely immerse the interior surface of the mold therein, said mixture being maintained at a temperature of 100° F. or more.

3. The process of applying a uniform layer of insulating material upon the inner surface of an ingot mold having a vertically disposed ingot chamber, which consists in dipping the mold when in a substantially erect position into a fluid mixture of the insulating material so as to completely immerse the interior surface of the mold therein, and in then removing the coating of the material collected on the outer surface of the mold during the dipping process, as the mold is withdrawn from said mixture.

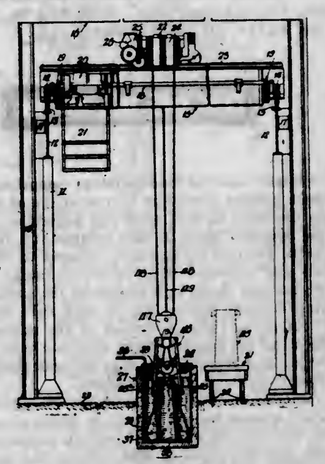
4. The process of applying a uniform layer of insulating material upon the inner surface of an ingot mold having a vertically disposed ingot chamber, which consists in dipping the mold when in a substantially erect position in a fluid mixture of the insulating material, which is maintained at a temperature of from 100° to 200° F., the mold being dipped into the fluid mixture of the insulating material so as to completely immerse its interior surface, and in washing the insulating material collected on the outer surface of the mold from said outer surface, as the mold is withdrawn from the mixture.

6. The process of applying a uniform layer of insulating material upon the inner surface of an ingot mold having a vertically disposed ingot chamber, which consists in dipping the mold when in a substantially erect position into a fluid mixture of the insulating material, in agitating said mixture during the dipping process, in heating said mixture to a temperature between 100° and 200° F. and in discharging a spray of water against the outer surface of said mold to remove the insulating material collected thereon.

7. The process of applying a uniform layer of insulating material upon the inner surface of an ingot mold having a vertically disposed ingot chamber, which consists in immersing the mold when in a substantially erect position in a tank containing a fluid mixture of insulating material so as to completely cover the interior surface of said mold, in agitating the mixture in said tank, in heating said mixture to a temperature between 100° and 200° F., and in washing the outer surface of said mold as it is withdrawn from said tank, with cold water, and allowing said water, together with the insulating material washed from the outer surface of the mold to drop back into said tank.

[Claims 1 and 5 not printed in the Gazette.]

1,243,718. APPARATUS FOR COATING METAL-INGOT MOLDS. GEORGE FRANCIS DOWNS, Buffalo, N. Y. Original application filed Dec. 16, 1916, Serial No. 137,417. Divided and this application filed July 7, 1917. Serial No. 179,123. (Cl. 22—88.)



1. An apparatus for use in applying a uniform layer of insulating material upon the inner surface of a mold for metal ingots, comprising an open vessel adapted to contain a mixture of the insulating material, means associated with said vessel for dipping molds thereinto and for removing the molds therefrom, means for agitating the mixture in said vessel, means for heating said mixture, and means for discharging a wash fluid against the outer surface of the mold as the same is withdrawn from said vessel.

2. An apparatus for use in applying a uniform layer of insulating material upon the inner surface of a mold for metal ingots, comprising an open vessel, a blast pipe depending into said vessel, a steam pipe depending into said vessel, a spray pipe surrounding the top of said vessel, a hand valve for controlling the supply of water to said spray pipe, and means associated with said vessel for dipping into and removing molds from said vessel.

3. An apparatus for use in applying a uniform layer of insulating material upon the inner surface of a mold for metal ingots, including an open vessel, a blast pipe depending into said vessel, a steam pipe depending into said vessel, a spray pipe surrounding the top of said vessel, a hand valve for controlling a supply of water to said spray pipe, and a shallow, open basket having a perforated bottom wall resting on the bottom of said vessel and being provided with means for removing it from said vessel.

4. An apparatus for use in applying a uniform layer of insulating material upon the inner surface of a steel-ingot-mold, comprising an open vessel having upright side and end walls adapted to contain a mixture of the insulating material, means associated with said vessel for dipping a mold thereinto and for removing it vertically therefrom, means for agitating the mixture in said vessel, means for heating said mixture and means for discharging a wash fluid against the outer surface of the mold as it is withdrawn from said vessel.

6. An apparatus for use in applying a uniform layer of insulating material upon the inner surface of a steel ingot mold, comprising an open top vessel adapted to contain an insulating mixture, a tramway and car adapted to convey the mold into a position adjacent the vessel, a traveling crane associated with the tramway and vessel, adapted to handle the mold to take it from the tram car and dip it into the vessel, means for agitating the mixture in said vessel, means for heating said mixture, and a spraying device located adjacent the top of the vessel adapted to discharge a wash fluid against the outer surface of the mold as it is withdrawn from said vessel.

[Claim 5 not printed in the Gazette.]

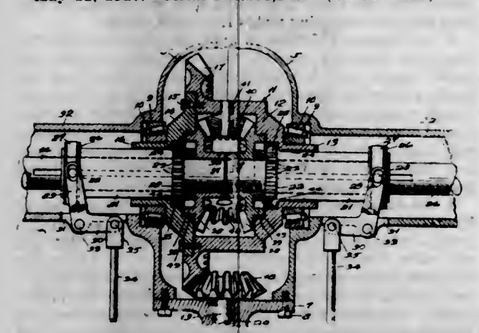
1,243,719. REFILLABLE FUSE-CARTRIDGE. JESSE T. DUGGER, Chattanooga, Tenn. Filed July 30, 1915. Serial No. 42,724. (Cl. 175—273.)



1. A refillable electric fuse cartridge comprising a cylindrical shell, bridges formed of narrow strips of metal resting upon the ends of said shell and providing spaces between the opposite edges of said bridges and the interior of the shell, ferrules permanently secured to the ends of said shell and provided with interior annular shoulders which engage and clamp said bridges to the shell, a fusible conducting element located within said shell and having its ends extending through certain of the spaces between the bridges and the interior of the shell and bent over upon said bridges, and removable means for clamping the ends of the fusible element to said bridges.

2. A refillable electric fuse cartridge comprising a cylindrical shell, bridges formed of narrow strips of metal resting upon the ends of said shell and providing spaces between the opposite edges of said bridges and the interior of the shell, ferrules permanently secured to the ends of said shell and provided with interior annular shoulders which engage and clamp said bridges to the shell, a fusible conducting element located within said shell and having its ends extending through certain of the spaces between the bridges and the interior of the shell and bent over upon said bridges, and a plurality of screw threaded apertures provided in each bridge and arranged on opposite sides of the bent ends of the fusible element, caps provided with knife terminals resting upon the bent ends of said fusible element and screws passing through apertures in said caps and engaging the screw threaded apertures of the bridges.

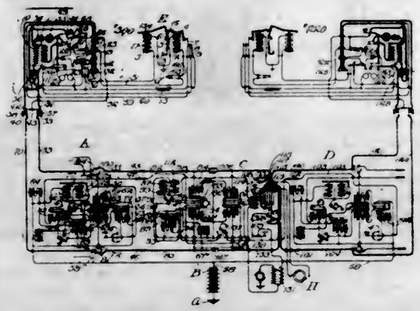
1,243,720. DIFFERENTIAL GEARING. FREDDIE E. EIDSON and EARL J. STEPHENSON, Moscow, Kans. Filed May 12, 1917. Serial No. 168,243. (Cl. 74—190.)



1. A differential gearing of the character described, comprising a planetary gear casing having its opposite ends provided with clutch elements, planetary gears carried by the planetary gear casing, axle sections extending into the planetary gear casing, sun gears rotatably mounted upon the inner ends of the axle sections and provided with clutch elements and arranged to engage with the planetary gears, and locking elements splined upon the axle sections and provided with clutch elements for movement into and out of engagement with said first and second named clutch elements, and means to rotate the planetary gear casing.

2. A differential gearing of the character described, comprising a planetary gear casing having clutch elements carried by the interior of the ends thereof, planetary gears carried by the casing, axle sections extending into the planetary gear casing, sun gears rotatably mounted upon the inner ends of the axle sections and engaging the planetary gears and provided upon their outer sides with clutch elements, sleeves splined upon the axle sections and provided with clutch elements for movement into and out of engagement with said clutch first and second named elements, means to shift the sleeves, and means to rotate the planetary gear casing.

1,243,721. MEASURED-SERVICE TELEPHONE SYSTEM. JOHN ERICKSON, Chicago, Ill., assignor, by mesne assignments, to Automatic Electric Company, a Corporation of Illinois. Filed Dec. 6, 1906. Serial No. 346,531. (Cl. 179—7.)



1. In a telephone exchange system, the combination of switches, a calling mechanism for controlling said switches, a telephone, electromagnetically controlled means for rendering the telephone inoperative for talking, when the calling mechanism is used, by means of a shunt circuit about said telephone, and a call-meter having a push button for restoring the telephone to operative condition.

2. A toll-station apparatus for automatic telephone exchange systems having subscribers' telephones, calling devices and switches controlled by the latter comprising electromagnetically controlled means for rendering a telephone inoperative for talking, when the associated calling device is used, by means of a shunt circuit about said telephone, a push-button, means operated by the push-button for restoring the telephone to operative condition, and registering mechanism operated by the push-button.

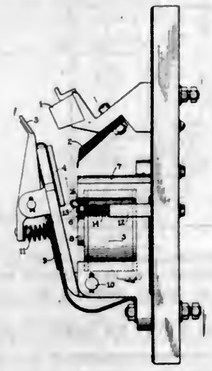
3. In a telephone exchange system, the combination of automatic switches, a calling mechanism for controlling said switches, a call-registering device the operation of which by the calling subscriber is contingent on first using the said mechanism, means for locking said meter when operated, and electromagnetic means for unlocking the same.

4. In a telephone exchange system, the combination of a lock-out magnet, an armature therefor, means for locking said armature, a push-button for restoring said locking means and armature by the back stroke of said button, a call-registering mechanism operated by said button, a calling mechanism for making the call-registering mechanism operative, a telephone, and devices by which use of the telephone is prevented until after the use of the calling mechanism and call-registering device.

5. In a telephone exchange system including subscribers' lines, the combination of switches, a calling mechanism for controlling said switches, a telephone, electromagnetically controlled means for rendering the telephone inoperative for talking by short-circuiting the same when the calling mechanism is used, and a call-meter having a push button for restoring the telephone to operative condition, said system including trunk lines and automatic switches for extending connection from a calling to a called line.

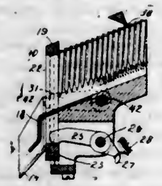
[Claims 6 to 21 not printed in the Gazette.]

1,243,722. ELECTRIC SWITCH. CLARENCE T. EVANS, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Apr. 10, 1914. Serial No. 831,034. (Cl. 175—281.)



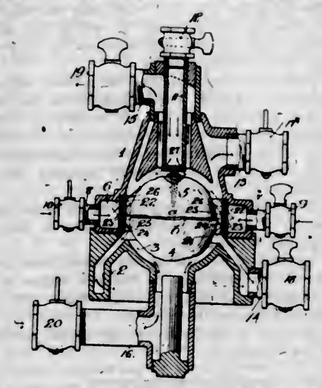
In an electromagnetic switch, in combination, a pivoted contact member biased toward open position, an electromagnetic winding for attracting the same to closed position, said winding having a core arranged substantially perpendicularly to said contact member with the end thereof adjacent said member projecting beyond said winding and a pivoted lockout member located between said contact member and said winding and movable in a plane at right angles to the plane of movement of said contact member, said lockout member being biased toward a position to obstruct movement of said contact member to closed position and being attractable to the projecting end of said core to permit full movement of said contact member to closed position upon energization of said winding.

1,243,723. DELIVERING MECHANISM. GEORGE B. EVANS, Newton, Mass. Filed May 3, 1917. Serial No. 166,154. (Cl. 10—165.)



1. An apparatus for delivering a specified number of articles comprising a guideway on which such articles are arranged in line, a gate for arresting the endmost article of such line, a stop normally at one side of such line but adapted to be advanced so as to arrest one of the articles at a distance from the end of the line, and means for giving movements to said stop in the direction first toward the line of articles and then in a direction away from the front end of such line.

2. A delivering mechanism comprising a raceway, a gate at the end of said raceway mounted so as to be shifted between the position wherein it covers the discharge end of the raceway and a position in which it uncovers such end, a stop mounted over the raceway, an arm carrying said stop, the arm and gate having interengaging portions by which the stop is withdrawn from the raceway when the gate is closed, and a yielding means for shifting the stop toward the raceway when the gate is open.



3. A delivering mechanism comprising a raceway, a gate at the end of said raceway mounted so as to be shifted between the position wherein it covers the discharge end of the raceway and a position in which it uncovers such end, a stop mounted over the raceway, an arm carrying said stop, the arm and gate having interengaging portions by which the stop is withdrawn from the raceway when the gate is closed, a resilient means for shifting the stop toward the raceway when the gate is open, and a spring arranged to exert force on said gate tending to close the same, said spring being of greater power than said resilient means.

4. The combination with a raceway adapted to support the heads of nails and similar headed pieces, a gate arranged adjacent to the end of said raceway movable into positions wherein it respectively closes and opens the outlet from the raceway, a spring arranged to exert force on said gate tending to close the same, an arm pivoted beside the raceway having an extension, a stop carried by said extension and overlying the raceway so that the articles traveling along the raceway pass under the same, said gate and arm having interengaging portions arranged to cause displacement of said stop from the raceway when the gate is closed and a light spring arranged to apply force to said arm tending so to move the same that the stop is brought toward the raceway.

5. The combination of a raceway adapted to receive the shanks of nails and to support the heads thereof, a gate arranged across the end of said raceway and being removable so as to uncover such end, an arm mounted adjacent to the raceway, a stop carried by said arm and extending over the raceway, said arm being movable both pivotally and also bodily toward and away from the raceway end, and the stop being arranged so that the pivotal motion of said arm causes it to approach and recede from the nail-supporting part of the raceway respectively, said gate and arm having interengaging portions arranged to cause movement of the arm toward the raceway end and displacement of the stop from the nail-supporting part of the raceway when the gate is closed, and yielding means for causing opposite pivotal and translatory movements of the arm when the gate is opened.

[Claims 6 and 7 not printed in the Gazette.]

1,243,724. PROCESS FOR REMOVING THE SKINS FROM FRUITS AND VEGETABLES. WILLIAM B. FENN, New York, N. Y. Continuation in part of abandoned applications Serial No. 95,323, filed May 4, 1916, and Serial No. 109,804, filed July 18, 1916. This application filed Mar. 13, 1917. Serial No. 154,484. (Cl. 146—14.)

1. The method of removing the skin from tomatoes or similar fruit or vegetables, which consists in subjecting

the article to heat and pressure and then reducing the pressure, for the purpose described.

6. The method of removing the skin from tomatoes or other fruits or vegetables, which consists in subjecting the article to be treated to the action of a heated medium supply under pressure and then rupturing the skin of such article by reducing the pressure to which the article is subjected, and utilizing the said medium to strip off and carry away the ruptured skin.

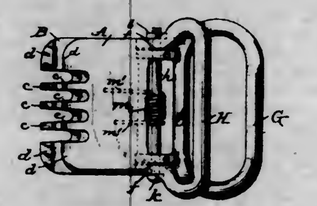
9. The method of removing the skin from tomatoes or other vegetables or fruits, which consists in confining the article within a closed space, then supplying a heating medium under pressure to such space and concentrating the delivery of such medium upon a circumferential medial line of the article, and finally opening the closed space to exhaust.

19. The process of removing the skins from tomatoes which consists in delivering steam in jets in an inclined direction against the tomato.

33. The process of removing the skins from tomatoes which consists in confining the tomato within a closed space and supplying steam under pressure thereto, and then jetting steam upon the tomato.

[Claims 2 to 5, 7, 8, 10 to 18, 20 to 32, and 34 not printed in the Gazette.]

1,243,725. HAND GRIPPING DEVICE. WILLIAM FOREMAN, Jefferson township, Montgomery county, Ohio. Filed June 1, 1914. Serial No. 842,026. (Cl. 65—32.)



The combination in a gripping device of sections having their meeting edges provided with a toothed surface, a hand-hold on each section, a brace-rod for strengthening one of said hand-holds, a hinged connection located between said sections on which is mounted a spring for controlling the meeting edges of said sections.

1,243,726. RECORD-KEEPING DEVICE. OTWELL FRAZER, Cynthiana, Ky. Filed Oct. 13, 1913. Serial No. 794,990. (Cl. 11—19.)

1. A business record consisting of a warehouse card, a manager's receipt and rejection slip, and a scale tablet, said card having certain printed data thereon and an identifying number, said slip being designated with the same scale as said card and having the same printed matter thereon as the latter, said slip having additional designations qualifying the transactions entered on said card said scale tablet being also designated with said scale number, and said printed matter, and adapted to refer to many transactions.

4. A business record consisting of coupons and a verification warehouse slip adapted to record goods sold in lots and at one single sale, said coupons bearing the same sale number but different lot numbers, said coupons consisting of two series, the first series comprising records of goods sold and the other series, records of goods withdrawn from sale but offered by the seller, said verification warehouse slip referring to the seller's entire sale transaction, having the same printed sale number as said coupons, and having direct reference to the contents of all of said coupons, whereby the actual number of goods sold may be recorded.

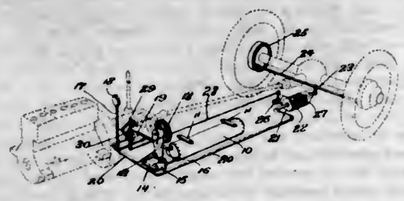
12. A business record consisting of a sales tablet, a warehouse slip, said warehouse slip containing data relating to the receipt of a basket of goods particularized by basket number, basket weight, and lot number, and identified with the name of a specified seller and a specified sale number, a tablet having triplicate coupons and receiving the same particularized data and identifications on said slip and in addition the name of a specified buyer, said triplicate coupons being designatedly intended for seller,



buyer, and warehouse, said slip receiving entries transcribed from a plurality of said coupon tablets, and referring to them by basket numbers and by a single lot number.

[Claims 2, 3, and 5 to 11 not printed in the Gazette.]

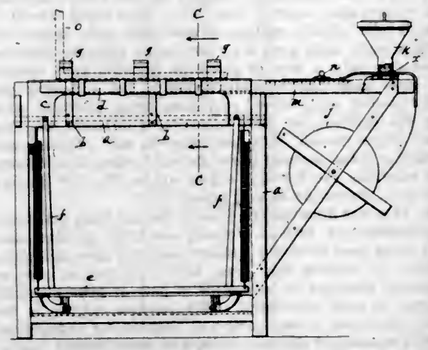
1,243,727. AIR-BRAKE SYSTEM. WILLIAM J. FAIED, Fountain City, Wis. Filed May 28, 1917. Serial No. 171,541. (Cl. 188—3.)



1. An air brake apparatus for an automobile comprising a storage tank, a pump for forcing air into the storage tank having operative connection with the driving element of an automobile, brake means, a cylinder having a valve controlled outlet, a piston slidably mounted in the cylinder and extending through the same and connected with the brake means, means for opening and closing the valve of the cylinder including an actuating lever and a connection between the lever and the valve, and a valve controlled conduit leading from the storage tank to the cylinder for admitting air under pressure to the cylinder to move the piston outwardly and move the brake means to an operative position.

2. An air brake system for an automobile comprising a storage tank, a brake operating shaft, a lever extending from the brake operating shaft, a cylinder, a piston slidable in the cylinder and having a stem extending through one end thereof and connected with the lever, a spring in the cylinder engaging the piston and normally holding the same in a position to release the brake, a conduit leading from the storage tank and communicating with the cylinder for admitting air thereto under pressure to move the piston outwardly and apply the brakes, a control valve positioned intermediate the length of the conduit pipe, a release valve having communication with the cylinder, means for opening and closing the release valve including an actuating element and a rod leading from the actuating element and connected with the release valve, a pump including operating mechanism for actuation from the propelling means of an automobile, and a conduit leading from the pump and having communication with the storage tank.

1,243,728. MACHINE FOR APPLYING FELT TO CHANNELS. ALEXANDER GAGNON, Detroit, Mich., assignor to Fisher Body Corporation, Detroit, Mich., a Corporation of New York. Filed June 25, 1917. Serial No. 176,699. (Cl. 154—41.)



1. In apparatus for the purpose set forth, the combination of a form channel and means for pressing a bar with the felt strip to cover the same in the form channel.

2. In apparatus for the purpose specified, the combination of a form channel, means for applying a film of glue to a felt strip and means for pressing a bar with the felt strip into the form channel.

3. In apparatus for the purpose specified, the combination of a form channel, means for applying a film of glue to a felt strip, devices for centering the felt strip above the form channel, and means for pressing a part of the sash with the felt into the form channel.

4. In apparatus for the purpose specified, the combination of a channel whose upper edges hold the felt strip, a second or form channel contained within the first channel, and means for pressing a bar which becomes part of the sash and the felt strip which is held on the edges of the first-mentioned channel into the second or form channel.

8. In apparatus for the purpose specified, the combination of a form channel, means for supporting a felt strip above the form channel, a plurality of reciprocatable presser hooks, and means for simultaneously operating the same to force the bar of the sash rail and the felt into the form channel.

[Claims 5 to 7 not printed in the Gazette.]

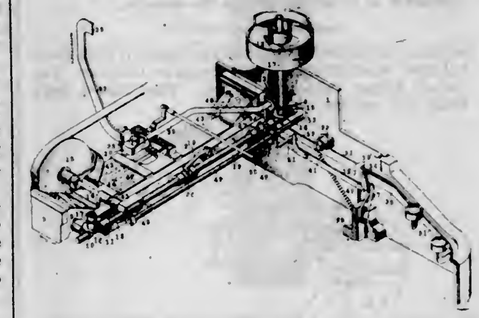
1,243,729. PRODUCT DERIVED FROM OPIUM AND PROCESS OF MAKING SAME. ALFONS GAMS, Basel, Switzerland, assignor to Society of Chemical Industry in Basle, Basel, Switzerland. Filed Mar. 24, 1917. Serial No. 157,215. (Cl. 167—4.)

1. The herein described process for the manufacture of a product derived from opium, soluble in water, suitable for injections and containing all the alkaloids in their natural forms of combination and in their natural proportions, consisting in extracting first the opium with water, extracting afterward the remaining residue with dilute alcohol to which has been added formic acid, which forms stable salts with narcotin, papaverin and thebain, freeing the solution obtained by this second extraction from alcohol and from volatile formic acid in excess and removing therefrom the separated inactive substances, adding this latter solution to the solution which has been obtained by the aqueous extraction, diluting the resulting mixture with water to a multiple of its volume, in order to precipitate the mucilaginous substances, and evaporating, after filtration, the liquid to dryness in a vacuum.

2. The herein described process for the manufacture of a product derived from opium, soluble in water, suitable for injections and containing all the alkaloids in their natural forms of combination and in their natural proportions, consisting in extracting first the opium with water, extracting afterward the remaining residue with dilute alcohol to which has been added formic acid which forms stable salts with narcotin, papaverin and thebain, freeing the solution obtained by this second extraction from alcohol and from volatile formic acid in excess and removing therefrom the separated inactive substances, adding this latter solution to the solution which has been obtained by the aqueous extraction, diluting the resulting mixture with water to a multiple of its volume, in order to precipitate the mucilaginous substances, removing with a lead salt the albuminous substances which may still be dissolved in the liquid, freeing this latter from the lead and evaporating it after filtration, to dryness in a vacuum.

3. As a new product, the herein described product derived from opium, soluble in water, suitable for injections and containing all the alkaloids of the opium in their natural forms of combination and in their natural proportions, constituting a light yellow powder, dissolving in water to light yellow-brown dissolutions, which gives with Mayer's reagent a voluminous precipitate, with phosphotungstic acid a voluminous beige colored precipitate, with picric acid a canary yellow precipitate and with sodium acetate a voluminous precipitate, and with mineral acid after standing for a long time a red coloration which may be obtained more quickly by heating.

1,243,730. TYPE-WRITING MACHINE. GEORGE GOULD GOING, Middletown, Conn., assignor to The Noiseless Typewriter Company, Middletown, Conn., a Corporation of Connecticut. Filed Apr. 6, 1916. Serial No. 89,261. (Cl. 197—169.)



1. In a typewriting machine, in combination, a carriage, margin and tabulating stops carried thereby, a movable stop normally positioned to coöperate with said margin stops, means including a margin release lever for freeing said movable stop from said margin stops, ribbon feeding means, common driving means for said carriage and said feeding means, and tabulating means to free said carriage coöperable with said margin release lever to move said movable stop to coact with said tabulating stops and with said feeding means to render the latter ineffective during tabulating travel of said carriage.

2. In a typewriting machine, in combination, a carriage, spaced ribbon shafts, a driving shaft movable longitudinally for connection with either of said ribbon shafts or disconnection from both, common driving means for said carriage and said driving shaft, means including a rotatable member to effect disconnection of said driving shaft from both of said ribbon shafts, an operating handle at the side of the machine for said member, tabulating means for said carriage including a lever operable from

the key-board of the machine, and a lost-motion connection between said lever and said member for permitting rotation of the latter either by said handle or by said tabulating means.

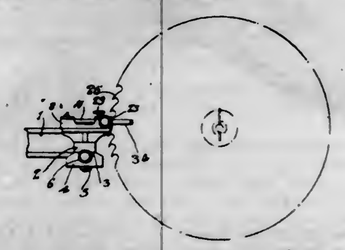
3. In a typewriting machine, in combination, a carriage, spaced ribbon shafts, a driving shaft movable longitudinally for connection with either of said ribbon shafts or disconnection from both, common driving means for said carriage and said driving shaft, automatic means to effect disconnection of said driving shaft from one of said ribbon shafts and connection with the other for reversing the ribbon feed, manually operable means to effect movement of said driving shaft from either extreme position to the other at will, independent manually operable means to effect movement of said driving shaft from either extreme position to a central position, and independent means to effect movement of said driving shaft from either extreme position toward but not to central position.

4. In a typewriting machine, in combination, a carriage, spaced ribbon shafts, a driving shaft movable longitudinally for connection with either of said ribbon shafts or disconnection from both, common driving means for said carriage and said driving shaft, automatic means to effect disconnection of said driving shaft from one of said ribbon shafts and connection with the other for reversing the ribbon feed, manually operable means to effect movement of said driving shaft from either extreme position to the other at will, independent manually operable means to effect movement of said driving shaft from either extreme position to a central position, and resilient means to insure connection of said driving shaft with one of said ribbon shafts after operation of said automatic means, said manually operable means or said independent means.

5. In a typewriting machine, in combination, spaced ribbon shafts, a longitudinally movable driving shaft adapted for selective connection therewith, a V-shaped cam fixed to said driving shaft, and a pivoted member rotatable to ride over an inclined face of said cam for freeing said driving shaft from both of said ribbon shafts when said member is seated in the trough of said cam.

[Claims 6 to 15 not printed in the Gazette.]

1,243,731. SIDE-DRESSING ATTACHMENT FOR SAW-FILING MACHINES. JOHN THOMAS GOSLINE, Vancouver, British Columbia, Canada. Filed July 6, 1916. Serial No. 107,838. (Cl. 76—48.)



1. In a side dressing attachment for saw filing machines, the combination with a slide, of a cross head structure adapted for sliding movement upon said slide, means for holding said cross head structure in adjusted position upon the slide, a pair of pivotally mounted jaws carried by said cross head structure, saw teeth dressing members carried by the inner edges of the outer ends of said jaws, means for normally holding said jaws outward from each other, and means for moving the jaws toward each other and for holding the same in an adjusted position.

2. In a side dressing attachment for saw filing machines, the combination with a slide, of a cross head structure adapted for slidable movement upon said slide, means for holding said cross head structure in adjusted position upon the slide, a pair of pivotally mounted jaws carried by said cross head structure, saw teeth dressing members carried by the inner edges of the outer ends of said saw, a flat spring positioned intermediate said jaws and engaging the jaws for moving them outward from each other, and means for moving the jaws toward each other and for holding the same in adjusted position.

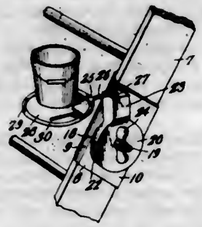
3. In a side dressing attachment for saw filing machines, the combination with a slide, of a cross head structure adapted for slidable movement upon said slide, means for holding said cross head structure in adjusted position upon the slide, a pair of pivotally mounted jaws carried by said cross head structure, means for adjusting the jaws toward each other, and side teeth dressing members detachably carried by the inner edges of said jaws.

4. In a side dressing attachment for saw filing machines, the combination with a slide, of a cross head structure adapted for slidable movement upon said slide, means for holding said cross head structure in an adjusted position upon the slide, a pair of pivotally mounted jaws carried by said cross head structure, means for adjusting the jaws toward each other, said jaws being provided with cut out portions on their inner faces adjacent the forward edges thereof, files positioned in said recesses, and clamping plates secured to the forward edges of said jaws, for receiving the forward corner of the files for holding the same in position on said jaws.

5. In a side dressing attachment for saw filing machines, the combination, with an ordinary saw filing machine slide, of a cross head structure slidably mounted upon said slide, means for holding said cross head structure in various adjusted positions on said slide, a pair of jaws pivotally carried by said cross head structure, files carried by the outer free ends of said jaws and adapted for engagement with the sides of the saw teeth, and hand screws carried by said cross head structure and engaging said jaws for adjusting the position of the jaws and holding them in adjusted position, resilient fingers attached to the outer edges of the free end of said jaws and extending outwardly therefrom, said fingers having their outer ends curved for providing rounded saw engaging surfaces.

[Claim 6 not printed in the Gazette.]

1,243,732. DETACHABLE LADDER-SHELF. HAROLD D. GOSS and CHARLES H. GOSS, Union City, Pa. Filed Oct. 18, 1916. Serial No. 126,373. (Cl. 20—85.)

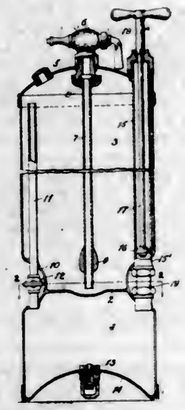


1. In a device of the class described, the combination with a socket member, of a ring, a stem carried by said ring and adapted for engagement in said socket member, and a tray hingedly connected to said ring and adapted to close the opening therein, substantially as described.

2. In a device of the class described, a ring, a tray hinged at one end to said ring, flanges projecting from the edge of said tray for engagement with said ring, a snap clasp upon the edge of said tray for engagement with said ring, and means for supporting said ring upon a fixed member, substantially as described.

1,243,733. FIRE-EXTINGUISHER. BENJAMIN M. GRIFFITH, Pittsburgh, Pa., assignor to Pittsburgh Lamp, Brass & Glass Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Mar. 6, 1914. Serial No. 822,860. (Cl. 169—12.)

1. A portable fire extinguisher consisting of a tank provided with two chambers arranged one above the other with the uppermost chamber adapted to contain a fire extinguishing fluid and the lowermost chamber adapted to contain air under pressure, the tank formed between its ends with an external indentation, a discharge tube for the fluid chamber open to the lower portion of the latter, an air inlet for the air chamber, and a valved tube bridging the indentation and extending from the air chamber to the upper portion of the fluid chamber.

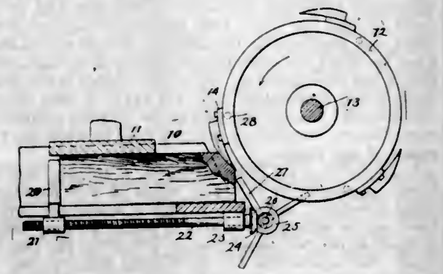


5. A portable fire extinguisher comprising a tank having an air chamber at one end and a chamber at its opposite end for confining a fire extinguishing fluid, an outlet for the fluid chamber, an air pump within the fluid chamber and operative from the exterior thereof, the tank formed with an external depression, a fitting removably bridging the depression and adapted to connect the air pump with the air chamber, a check valve carried by the fitting, an outlet for the fluid chamber, and means for passing air from the air chamber to the fluid chamber.

6. A portable fire extinguisher comprising a tank partitioned between its ends to form an air chamber at its lower end and a chamber at its upper end for confining a fire extinguishing fluid, an outlet for the fluid chamber, means for passing air from the air chamber to the fluid chamber, the tank formed with an external depression, a pump cylinder within the fluid chamber with the lower end of the cylinder open in the tank depression, a plunger for the pump cylinder operative from the exterior of the tank, a fitting removably entered in the tank depression for connecting the lower end of the pump cylinder with the air chamber, and a check valve carried by the fitting.

[Claims 2 to 4 not printed in the Gazette.]

1,243,734. METHOD AND MACHINE FOR PREPARING CHARCOAL. HENRY J. HABER, Cleveland, Ohio, assignor of thirty-five one-hundredths to Worthington Hoyt, Cleveland, Ohio. Filed Feb. 19, 1917. Serial No. 149,447. (Cl. 144—172.)



1. The method of preparing wood for charring, which consists in cutting strips of wood so that the grain extends transversely with respect to the length of the strip.

2. The method of preparing wood for making charcoal, which consists in cutting from a log or larger piece of wood, strips which in cross section resemble a diamond shape, the grain of the wood in the strips extending substantially transversely with respect to the length of the strip.

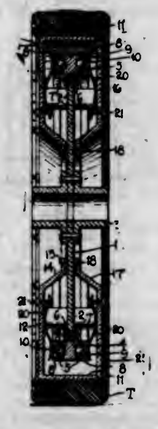
3. In an apparatus for the purpose described, the combination with means for holding a piece of wood to be operated on, of a gouge and means for moving said gouge to cut the wood at an angle with respect to the grain of the piece of wood being operated on.

4. In an apparatus of the character described, the combination with means for supporting a piece of wood to be operated upon, of a gouge carrier, a gouge upon said carrier, said gouge carrier being positioned to move the gouge to cut the wood being treated at an angle with respect to the grain of the wood being treated.

5. In a device of the character described, the combination with means for supporting a piece of wood to be operated upon, a gouge carrier, a plurality of spaced gouges mounted upon the said carrier, and means for moving the said carrier, thereby to bring each of said gouges successively into operation upon the piece of wood being cut, each of the gouges engaging with the wood to cut the same at an angle of approximately 45 degrees with respect to the grain of the wood to be cut.

[Claims 6 and 7 not printed in the Gazette.]

1,243,735. RESILIENT WHEEL. WILLIS W. HARVEY, Malad City, Idaho. Filed Dec. 29, 1916. Serial No. 139,587. (Cl. 152—28.)

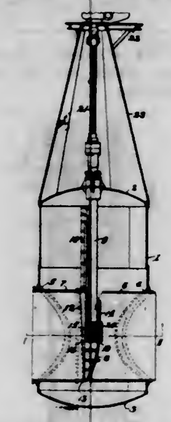


1. A resilient wheel comprising a central portion provided in its margin with circumferentially spaced recesses in its opposite faces, annular members arranged at opposite sides of the central portion and provided with recesses adapted to register with the recesses of said central portion, members seated within said registering recesses adapted for rolling contact with the walls thereof, a rim provided with inwardly disposed flanges, members connecting said flanges and loosely disposed through the annular members, flat spring members interposed between the annular members and the flanges for constantly urging the annular members toward the central portion of the wheel, each of said flat spring members having an intermediate bowed portion outwardly directed and in contact with the inner face of the adjacent flange, one end portion of the spring being in contact with the outer face of the annular member, and means engageable with the opposite end of the spring member for securing the same to the flange, said last named means serving to regulate the tension of the spring member.

2. A resilient wheel comprising a central portion provided in its margin with circumferentially spaced recesses

in its opposite faces, annular members arranged at opposite sides of the central portion and provided with recesses adapted to register with the recesses of said central portion, members seated within said registering recesses adapted for rolling contact with the walls thereof, a rim provided with inwardly disposed flanges, members connecting said flanges and loosely disposed through the annular members, co-acting means carried by the flanges and central portion for limiting the circumferential movement of the central portion relative to the annular members, flat spring members interposed between the annular members and the flanges for constantly urging the annular members toward the central portion of the wheel, each of said flat spring members having an intermediate bowed portion outwardly directed and in contact with the inner face of the adjacent flange, one end portion of the spring being in contact with the outer face of the annular member, and means engageable with the opposite end of the spring member for securing the same to the flange, said last named means serving to regulate the tension of the spring member.

1,243,736. GATE-VALVE. ROBERT L. HIBBARD, Sewickley, Pa., assignor to Riter-Conley Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Oct. 16, 1913. Serial No. 795,472. (Cl. 137—5.)



1. A gate structure adapted for mains of large diameter comprising a casing having opposing inlet and outlet fluid pipes axially alined and a chamber above said pipes, said outlet pipe having a gate seat inclined to the plane of travel of the gate, a gate vertically movable within the casing between said pipes and having a portion adapted to coact with said seat to close the structure, said gate having a central valve stem receiving compartment, a relatively thin wall to oppose the fluid, and ribs leading from the seating side of the gate, said inlet pipe being open to the chamber when the gate is closed.

2. A gate valve structure adapted for mains of large diameter comprising a cylindrical casing formed of sheet or plate material having its ends closed by curved plate members and having diametrically opposed openings, inlet and outlet pipes entered in said openings, said outlet pipe having a gate seat inclined to the plane of travel of the gate, a gate vertically movable within the cylindrical casing between said pipes, said casing providing a cylindrical chamber above and below said pipes, said inlet pipe being open to the chamber above said pipes when the gate is closed.

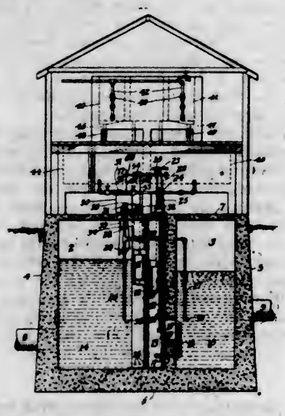
3. A gate structure adapted for mains of large diameter comprising a casing having opposing inlet and outlet fluid pipes axially alined, said outlet pipe having a gate seat inclined to the plane of travel of the gate, a gate vertically movable within the casing between said pipes and free from guiding engagement with said seat, said gate having an annular portion adapted to coact with said seat to close the structure, and a curved reinforced face to oppose the flow of fluid, said inlet pipe being open to the casing when the gate is closed.

4. A gate structure adapted for mains of large diameter comprising a casing having opposing inlet and outlet fluid pipes axially alined, said outlet pipe having a gate seat inclined to the plane of travel of the gate, a gate vertically movable within the casing between said pipes and having a portion adapted to coact with said face to close the structure, said gate being of shell form and reinforced by intersecting ribs on its seating face, said gate having a centrally disposed valve-stem receiving compartment, means for securing a stem within the compartment, said inlet pipe being open to the casing when the gate is closed.

5. A gate structure adapted for mains of large diameter comprising a casing having opposing inlet and outlet fluid pipes axially alined, said outlet pipe having a gate seat inclined to the plane of travel of the gate, a gate vertically movable within the casing between said pipes and having a portion adapted to coact with said seat to close the structure, said gate having its inlet face approximately convex, said inlet pipe being open to the casing when the gate is closed.

[Claims 6 and 7 not printed in the Gazette.]

1,243,737. PROPORTIONATE APPLICATION OF CHEMICALS TO FLUIDS. GEORGE F. HODKINSON, Philadelphia, Pa., assignor of one-half to American Water Softener Company, Philadelphia, Pa., a Corporation of New Jersey. Filed May 9, 1912. Serial No. 696,178. (Cl. 210—19.)



1. In an apparatus for treating liquids, a division wall dividing two bodies of the same liquid in a substantially static condition, said wall having a submerged orifice, two floats, one controlled by the height of the liquid in each of the bodies, connections from the floats, a shaft, differential mechanism connected to the shaft and to the floats turning the shaft with relative movement of the floats and maintaining the shaft in stationary position when the floats are stationary or moving at the same rate and in the same direction, means for feeding the treating medium and connections from the shaft to said means, automatically varying the feed of the treating medium in proportion to variation in effective head between the two bodies of the liquids.

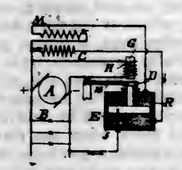
2. In a device for treating liquids, a division wall between two bodies of the same liquid in a substantially static condition, said wall having a submerged orifice, floats, one in each body, varying in height with the height of liquid in the two bodies thereof, a tank for the treating liquid, feed mechanism for the feeding liquid having an aperture and means connected with the floats for varying the head of treating fluid effective upon the aperture, with relative movement between the floats.

3. In a low head liquid-treating apparatus, a division wall dividing bodies of the same liquid having their surfaces in substantially static condition, said wall having a submerged orifice, a cut-off for varying the extent of opening of said orifice, floats in the two bodies of liquid and automatic fluid treating mechanism controlled by the relative heights of the floats due to variation in relative heights of liquid in said two bodies.

4. In a device for treating liquids, a division wall dividing two bodies of the same liquid in a substantially static condition, said wall having a submerged orifice, a float resting in each of said bodies, differential mechanism transmitting relative vertical movement of the two floats into motion and feeding mechanism for a treating liquid proportioning the feed according to the extent of said motion.

5. In a device for treating liquids, a division wall dividing relatively large bodies of liquids being treated and having a submerged aperture, means for varying the size of the aperture in proportion to the normal rate of flow of the liquid into one of the bodies, floats resting in the two bodies respectively, a container for treating liquid, connections from the container to one of the bodies of liquid to permit flow therebetween, said connections having an inlet from the container capable of variation in depth below the surface thereof and differential means between the floats and the inlet to vary the depth of said inlet below the surface in the container in proportion to the difference in extent of vertical movement of the two floats.

1,243,738. ELECTRIC REGULATOR. GOTTLOB HONOLD, Stuttgart, Germany, assignor to the Firm of Robert Bosch, Stuttgart, Germany. Filed Aug. 25, 1913. Serial No. 786,391. (Cl. 171—229.)

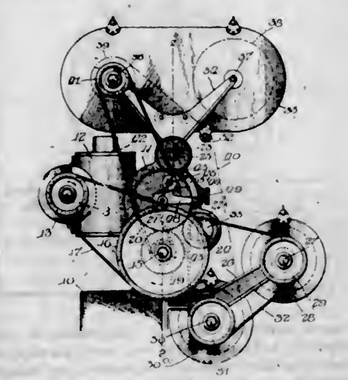


1. In an automatic regulator for dynamo electric machines, the combination with an electromagnet having an exciting winding and a movable armature responsive to the magnetism thereof, of a variable resistance comprising a mass containing conducting particles, said armature having a portion buried in the mass and dividing the mass into two parts so that upon movement of the armature in either direction one part of the mass is subjected to increased pressure while the other part is subjected to decreased pressure, and a single container for both parts of the mass; substantially as described.

2. In an automatic regulator for dynamo electric machines, the combination with an electromagnet having an exciting winding, a movable armature responsive to the magnetism thereof, and a deformable guiding structure for guiding the movable armature in a movement of parallel translation, of a variable resistance comprising a resilient mass containing conducting particles, and a container for the mass, said armature having a portion buried in the mass in such manner that upon movement of the armature in either direction one part of the mass is subjected to increased pressure of substantially uniform amount throughout while the other part is subjected to decreased pressure of substantially uniform amount throughout; substantially as described.

1,243,739. WINDING AND REELING MECHANISM FOR MOTION-PICTURE APPARATUS. ALBERT S. HOWELL, Chicago, Ill., assignor to Bell & Howell Company, Chicago, Ill., a Corporation of Illinois. Original application filed Apr. 22, 1915, Serial No. 23,020. Divided and this application filed Sept. 27, 1915. Serial No. 52,832. (Cl. 242—55.)

1. In motion picture apparatus, an arbor for mounting a spool of film, an arbor for mounting a take-up spool for receiving the film from said first mentioned spool, a main drive shaft, a pulley frictionally mounted upon said shaft, mechanism for stopping the movement of said shaft, devices operatively connecting said pulley and first mentioned arbor, and means for disconnecting said devices.



2. In motion picture apparatus, an arbor for mounting a spool of film, an arbor for mountaing a take-up spool for receiving the film from said first mentioned spool, a main drive shaft, a drive pulley frictionally mounted thereon, mechanism for stopping the movement of said shaft, a belt and pulley connecting said first mentioned arbor and pulley, and means for disengaging said belt from said drive pulley.

3. In motion picture apparatus, a drive shaft having a drive gear connected therewith, an idle gear and pinion actuated by said drive gear, mechanism for stopping the movement of said drive gear, an arbor for a film spool supply, an arbor for a film take-up spool, means operatively connecting said take-up arbor and pinion, pulleys on said drive shaft and supply spool arbor, a belt connecting said last mentioned pulleys, devices for throwing said means out of operation, and film spools frictionally mounted upon said arbors.

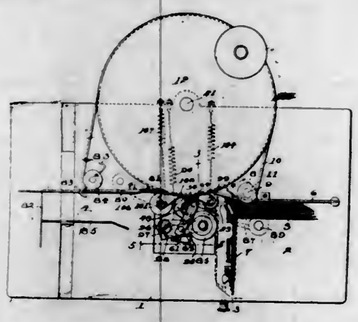
4. In motion picture apparatus, a drive shaft having a drive gear connected therewith, an idle gear and pinion actuated by said drive gear, mechanism for stopping the movement of said drive gear, an arbor for a film supply spool, an arbor for a film take-up spool, means operatively connecting said take-up arbor and pinion, pulleys on said drive shaft and supply spool arbor, a belt connecting said last mentioned pulleys, devices engaging the aforesaid means for throwing said means out of operation, and film spools frictionally mounted on said arbors.

5. In motion picture apparatus, a drive shaft having a drive gear connected therewith, an idle gear and pinion actuated by said drive gear, mechanism for stopping the movement of said drive gear, an arbor for a film supply spool, an arbor for a film take-up spool, a belt operatively connecting said take-up arbor and pinion, pulleys on said drive shaft and supply spool arbor, a belt connecting said last mentioned pulleys, devices engaging said belt for throwing the same out of operative connection with said arbor and pulley, and film spools frictionally mounted on said arbors.

1,243,740. MAIL-MARKING MACHINE. AUGUST ISLFIELD, Silver Creek, N. Y., assignor to Columbia Postal Supply Company, Silver Creek, N. Y., a Corporation of New York. Division in part of application Serial No. 828,499, filed Mar. 31, 1914. This application filed Mar. 19, 1915. Serial No. 15,450. (Cl. 101—236.)

1. A mail marking machine comprising a rotatable printing wheel, a fixed stop, a stop lever pivoted on said wheel and provided with a rotatable stop adapted to engage said fixed stop, a trip arm pivoted on said stop lever

and provided with a finger adapted to be engaged by a letter moving in the letter path for disengaging said rotatable stop from said fixed stop, and means for preventing backward rotation of said wheel and associated parts when said movable stop engages said fixed stop.



2. A mail marking machine comprising a rotatable printing wheel, a fixed stop, a stop lever pivoted on said wheel and provided with a rotatable stop adapted to engage said fixed stop, a trip arm pivoted on said stop lever and provided with a finger adapted to be engaged by a letter moving in the letter path for disengaging said rotatable stop from said fixed stop, and a movable locking dog adapted to engage said stop lever and prevent backward movement of the same and the printing wheel when said movable stop engages said fixed stop.

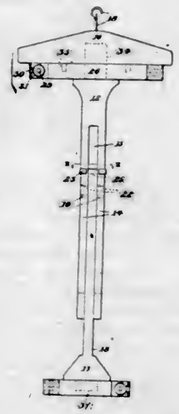
3. A mail marking machine comprising a rotatable printing wheel, a fixed stop, a stop lever pivoted on said wheel and provided with a rotatable stop adapted to engage said fixed stop, a trip arm pivoted on said stop lever and provided with a finger adapted to be engaged by a letter moving in the letter path for disengaging said rotatable stop from said fixed stop, a movable locking dog adapted to engage said stop lever and prevent backward movement of the same and the printing wheel when said movable stop engages said fixed stop, and a fixed supporting arm on which said fixed stop and said movable locking dog are mounted.

4. A mail marking machine comprising a rotatable printing wheel, a stop lever pivoted on the printing wheel and provided on its upper side with a rotatable stop, a trip arm pivoted on the stop lever and provided with a finger adapted to project into the letter path and to be engaged and shifted by a letter moving therein, a supporting arm arranged above the path of said stop lever and provided on its underside with a depending fixed stop which is adapted to be engaged by the front side of said rotatable stop and said arm also provided with a guide groove which opens downwardly, and a locking dog arranged in said groove and pivoted on said supporting arm to swing vertically and adapted to engage its front end with the rear side of said rotatable stop.

5. A mail marking machine comprising a rotatable printing wheel, a stop lever pivoted on the printing wheel and provided on its upper side with a rotatable stop, a trip arm pivoted on the stop lever and provided with a finger adapted to project into the letter path and to be engaged and shifted by a letter moving therein, a supporting arm arranged above the path of said stop lever and provided on its underside with a depending fixed stop which is adapted to be engaged by the front side of said rotatable stop and said arm also provided with a guide groove which opens downwardly, and a locking dog arranged in said groove and pivoted on said supporting arm to swing vertically and adapted to engage its front end with the rear side of said rotatable stop, a spring for yieldingly holding said dog in its operative depressed position, and a stop tail arranged on said dog and adapted to engage said supporting arm to limit the descent of said locking dog.

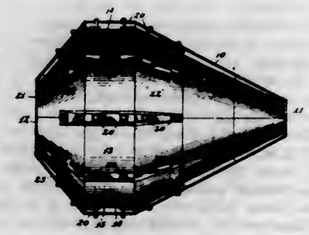
[Claims 6 to 9 not printed in the Gazette.]

1,243,741. COMBINED GARMENT STRETCHER AND HANGER. MIKE JAKAB, Woodland, Me., assignor of one-third to John Stopolovski and one-third to Michael Drotar, Woodland, Me. Filed July 5, 1917. Serial No. 178,681. (Cl. 223—19.)



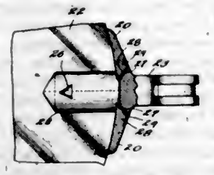
A garment hanger and stretcher comprising a head, a plate carried thereon and projecting therefrom having a bifurcated free end portion forming an opening therein, the bifurcations of said plate being longitudinally slotted in a plane transversely of said opening, ratcheting teeth carried by said bifurcations at opposite sides of the opening, a relatively smaller head, a tongue projecting from said smaller head slidably arranged within the said opening and having a notch in its free end, a transverse pin carried by said tongue slidably arranged through the said slots, a further pin carried by said tongue adapted for engaging the said teeth when the plate and tongue are in their relative adjusting positions, a link slidably arranged through said slots upon said bifurcations adapted for positioning within said notch when the device is operatively positioned and garment positioning clamps carried by the said heads.

1,243,742. LINER FOR TUBE-MILLS. FRANK E. JOHNSON, Salt Lake City, Utah, assignor to American Manganese Steel Company, Augusta, Me., a Corporation of Maine. Filed May 26, 1916. Serial No. 99,943. (Cl. 83—9.)



A liner for a tube mill having a central cylindrical portion and conical ends, consisting of a plurality of lining plates having beveled edges, removable wedge-shape holding bars interposed between the lining plates and locking the same in place, the holding bars in the cylindrical portion of the mill extending beyond the outer working surface of the lining plates, the holding bars located in the conical portion of the mill diminishing in height above the outer surface of the plates, toward their ends remote from the cylindrical portion of the mill, the said remote extremities of the holding bars lying substantially flush with the working faces of the lining plates.

1,243,743. MOUNTING FOR OPHTHALMIC LENSES. PAUL H. JOHNSTON, Davenport, Iowa. Filed Nov. 9, 1916. Serial No. 130,394. (Cl. 88—47.)



1. A mounting for lenses comprising a member adapted to receive the edge and extend upon opposite surfaces of a lens, a shim adapted to be interposed between said member and a lens and interlock with said lens, and a tongue carried by said shim and adapted to extend through the walls of said member and interlock therewith.

2. A mounting for lenses comprising a member adapted to receive the edge and extend upon opposite surfaces of a lens, a shim adapted to be interposed between said member and a lens and interlock with said lens, and tongues carried by said shim and adapted to extend through the walls of said member and interlock therewith.

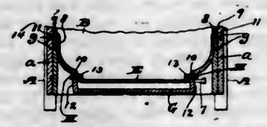
3. A mounting for lenses comprising a member adapted to receive the edge and extend upon opposite surfaces of a lens, a shim adapted to be interposed between said member and a lens, and tongues carried by said shim and adapted to extend through the walls of said member and interlock therewith.

4. A mounting for lenses comprising a member adapted to receive the edge and extend upon opposite surfaces of a lens, and an element of concave section interposed between said lens and said member and provided with an extension adapted to extend through said member and interlock therewith.

5. A mounting for lenses comprising a member adapted to receive the edge and extend upon opposite surfaces of a lens, and a shim having arms of concave section extended upon opposite surfaces of a lens between said lens and said member.

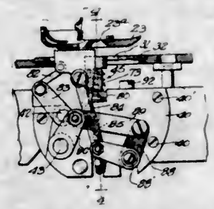
[Claim 6 not printed in the Gazette.]

1,243,744. SEWING-MACHINE CABINET. THEODOR KUNDTZ, Lakewood, Ohio, assignor to The Theodor Kundtz Company, Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 13, 1916. Serial No. 90,968. (Cl. 45—27.)



In a sewing machine cabinet, two suitably supported laterally spaced and laterally facing wooden side sections, and a metal bar extending between and tying together and bracing apart the lower portions of said side sections and having two upwardly projecting end members secured the one to one of said sections and the other to the other of said sections, said bar having its central portion extending substantially horizontally between the lower ends of the end members of the bar, the inner end-portions of said end members of the bar being far enough apart to permit the arrangement of a treadle between them, each of said end members of the bar being provided at its upper end with a laterally and outwardly projecting flange, and the wooden side section adjacent said flange being provided with a seat for said flange.

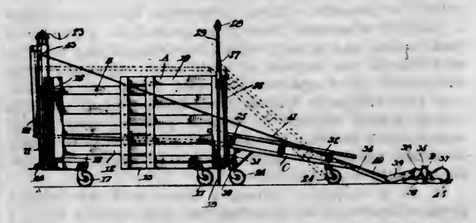
1,243,745. SEWING-MACHINE. JOHN G. LEWIS, St. Louis, Mo. Original application filed Dec. 6, 1913, Serial No. 805,160. Divided and this application filed Oct. 8, 1915. Serial No. 54,777. (Cl. 112—8.)



1. In a sewing machine, the combination of a base, a carrier vertically movable in the base, a spring between the base and carrier acting normally to elevate the carrier, means to depress the carrier, a feed dog, actuating shafts therefor, connections between said shafts and the feed dog to impart a 4-way cyclic movement to said dog from the operation of the shafts, said connections permitting said dog to move relative to the shafts with the carrier, and connections between the dog and carrier for moving the dog with the carrier, permitting the dog to receive its 4-way movements from the shafts in any position of the carrier.

[Claims 2 to 5 not printed in the Gazette.]

1,243,746. HAY-STACKER. WILLIAM WALLACE LOCKWOOD, Saskatoon, Saskatchewan, Canada. Filed Nov. 22, 1916. Serial No. 132,863. (Cl. 57—53.)



1. A hay-stacker of the class described, comprising a container, a platform operatively connected to the container, means for adjusting the platform vertically, a loader coacting with the platform and means for packing the hay delivered to the container.

3. A hay-stacker of the class described, comprising a container, a loading platform operatively attached to the container, loading means coacting with the platform, means for elevating the loading means to the container and resilient means for returning the loading means to a normal position.

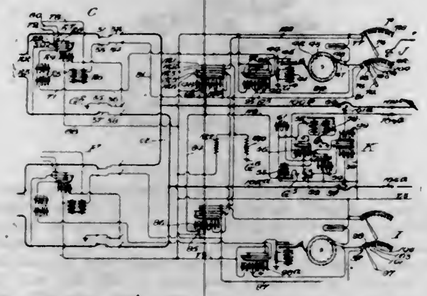
6. A hay-stacker of the class described, comprising an adjustable container, an adjustable platform operatively attached to the container, skids pivotally attached to the platform and coacting with the rear end of the container, a loader coacting with the platform and skids and resilient means for elevating the skids when the loader has been dumped.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,243,747. TELEPHONE TRUNKING SYSTEM. FRITZ L'HBERGER, Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed June 10, 1909, Serial No. 501,256. Renewed Mar. 26, 1917. Serial No. 157,585. (Cl. 179—18.)

1. In a telephone exchange system, a group of subscribers' stations, another group of subscribers' stations, a set of trunks for one group, a set of trunks for the other group, a third set of trunks common to both groups, a master switch and trunking switches controlled thereby

for use by the subscribers of one group, and a master switch and trunking switches controlled thereby for use by the subscribers of the other group, whereby the trunks that are common to the two groups are subject to automatic selection by more than one master switch, each master switch operating independently of the other.



2. In a telephone exchange system, a group of subscribers' stations, another group of subscribers' stations, a set of trunks for one group, a set of trunks for the other group, a third set of trunks common to both groups, a master switch and trunking switches controlled thereby for use by the subscribers of one group, a master switch and trunking switches controlled thereby for use by the subscribers of the other group, whereby the trunks that are common to the two groups are subject to automatic selection by more than one master switch, each master switch operating independently of the other, and a first selector at the end of each trunk.

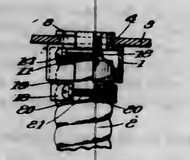
5. In a telephone system, subscribers' lines divided into a plurality of groups, trunk lines common to a number of said groups, and trunk relays controlling a busy test for said trunks, the number of such relays depending upon the number of groups to which said trunks are common.

9. In a telephone system, trunk-lines, a trunk-selecting switch which returns to normal position, and means whereby said switch maintains the selected trunk in a busy condition until it is fully restored to normal position, substantially as described.

11. In a telephone system, a group of trunk lines, a group of switches for selecting one of said trunk lines, a relay for controlling a busy test for a selected trunk, and a locking winding for said relay wheel whereby said busy test may be maintained after the release of the selecting switch.

[Claims 3, 4, 6 to 8, 10, and 12 not printed in the Gazette.]

1,243,748. CONNECTOR FOR ELECTRICAL CONDUITS. ADNAH MCMURTRIE, New York, N. Y. Filed July 3, 1914. Serial No. 848,706. (Cl. 247—1.)



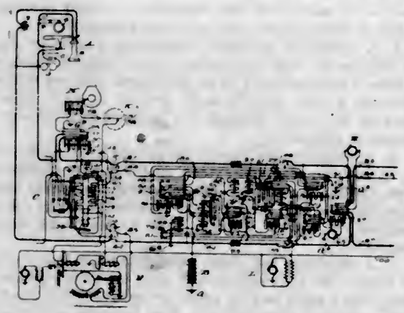
2. As a new article of manufacture a connector of the character described comprising a substantially tubular shell having an expansible attaching portion integral therewith, means for expanding the attaching portion to engage with the part to which the conduit is to be connected, independently acting means adjacent the other end to engage the conduit.

5. A connector for connecting electric conduits and the like to outlet, or junction, boxes and the like, comprising a sheet metal blank of resilient metal formed into substantial cylindrical form with the longitudinal edges adjacent and having one end reduced and circumferentially grooved to be inserted in an aperture of the box and to fit the box wall around said aperture, corresponding expanding ears formed opposite each other adjacent said end, one on each of said longitudinal edges, an expanding screw fitted to a threaded hole in one of said ears and having its tip abutting against the opposite ear, a strap adjacent the opposite end and partially detached by circumferential slots from the body of the connector, the ends of said strap being outwardly bent to form contracting ears on opposite sides of said longitudinal edges and a screw fitted to holes in said contracting ears to draw them together, the outer of said holes being threaded and the inner, adjacent the head, permitting the screw to pass freely.

6. A device of the character described comprising a tubular member having one of its sides open, a pair of opposed ears one extending from each edge of the open side of said member, and a screw that is threaded through one of said ears and having its end bearing upon the other.

[Claims 1, 3, 4, and 7 to 9 not printed in the Gazette.]

1,243,749. MEASURED-SERVICE TELEPHONE SYSTEM. TALBOT G. MARTIN, Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 26, 1913. Serial No. 808,852. (Cl. 179—9.)



1. In a telephone system, a plurality of subscribers' lines, means for establishing connection between two of said lines, a service meter for the calling line, means for reversing the current in a portion of the talking circuit when the called subscriber answers, means having a winding in series with the talking circuit conductors controlled by said reversal of current for operating said meter, and for changing the relation of said last means to the talking circuit, another winding for said means controlled over a circuit individual to the calling line, and a clock mechanism for further controlling the operation of said meter.

2. In a telephone system, a plurality of subscribers' lines, means for establishing connection between two of said lines, a time recording meter associated with the calling line, means for reversing the current in the calling line upon the response of the called subscriber, means having a winding in series with the talking circuit conductors controlled by said reversal of current for initially operating said meter and for changing the relation of said last means to the talking circuit, another winding for said means controlled over a circuit individual to the calling line, and a clock mechanism for intermittently operating said meter at predetermined time intervals after said first operation.

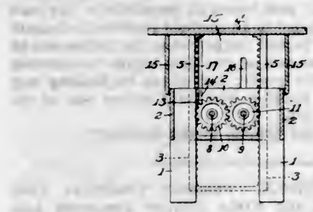
3. In a telephone system, a plurality of subscribers' lines, means for establishing connection between two of said lines, a time recording meter associated with the calling line, a relay for controlling the operation of said meter, said relay having a plurality of energizing windings, means for initially energizing said windings differentially when connection is being extended to the called line, means for reversing the current in one of said windings upon the response of the called subscriber to thereby render said relay operative to operate said meter, a holding winding for said relay controlled over a circuit individual to the calling line, and a clock mechanism for further intermittently controlling the operation of said meter.

4. In a telephone system, a plurality of subscribers' lines, means including automatic selecting and connecting switches for establishing connection between two of said lines, a time recording meter associated with the calling line, means for reversing the current in the calling line upon the response of the called subscriber, means having a winding in series with the talking circuit conductors controlled by said reversal of current for initially operating said meter and for changing the relation of said last means to the talking circuit, a holding winding for said means individual to the calling line, and a clock mechanism for intermittently operating said meter at predetermined time intervals after said first operation.

5. In a telephone system, a plurality of subscribers' lines, means for establishing a talking circuit between two of said lines, a time recording meter associated with the calling line, a relay for controlling the operation of said meter, said relay having a plurality of energizing windings, one of said windings being in series with said talking circuit, and another of said windings being permanently connected to one terminal of battery, means for initially energizing said windings differentially when connection is being extended to the called line, means for reversing the current in one of said windings upon the response of the called subscriber to thereby render said relay operative to operate said meter, a clock mechanism for further controlling the operation of said meter, and means for deënergizing said relay to render said meter inoperative when the connection is released.

[Claims 6 to 8 not printed in the Gazette.]

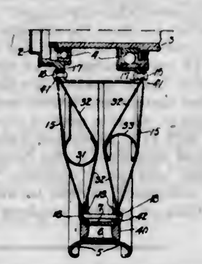
1,243,750. ADJUSTABLE TABLE. DANIEL B. MILLER, Wheeling, W. Va. Filed Mar. 17, 1916. Serial No. 84,925. (Cl. 45—111.)



1. In a table, a lower section having pairs of legs grooved on their confronting sides with the grooves extending through said sides, panels connecting the tops of the legs, one of the panels having a vertical slot, an upper section having pairs of racks depending therefrom and sliding in said respective grooves, a pair of transverse supports connected at their ends to the respective pairs of legs at one side of the grooves of said legs, a pair of shafts journaled in said supports and having intermeshing gears which latter also mesh with the respective racks, means to rotate one of the shafts, an end apron secured to the upper section and having vertical slots one of which latter receives the end of the shaft having said rotating means, the other slot being in register with the panel slot, and means operating in the other slot and in the slot of the panel to lock the gear on the adjacent end of the other shaft.

2. In a table, a lower section having pairs of legs formed with U-shaped grooves on their inner sides, an upper section having rack bars of rectangular cross-section secured thereto and sliding in said grooves, a single pair of shafts journaled in the lower section, a single pair of gears borne by each shaft at the respective ends thereof, the adjacent gears at the adjacent shaft ends being intermeshed and meshing with the respective rack bars, means carried by one shaft to rotate same and thereby the other shaft, and means to lock one of the gears against rotation.

1,243,751. WHEEL. WILLIAM J. P. MOORE, New York, N. Y. Filed Oct. 21, 1915. Serial No. 57,046. (Cl. 152—28.)



1. In a wheel, the combination with the central member thereof and the outer rim, of a pair of annular disks secured to the central member and also to the rim, and a bracing member intermediate the disks, and consisting essentially of a circular transversely-curved member, said member being properly tempered so as to have a spring-like character and thus place a tension upon the disks.

2. In a wheel, the combination with the central member thereof and the outer rim, of a pair of annular disks secured to the central member and also to the rim, and a bracing member intermediate the disks and consisting of a circular curved member having its outer edges pressing firmly with a spring action against the annular disks.

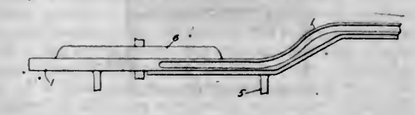
3. In a wheel, the combination with the central member thereof and the outer rim, of a pair of annular disks secured to the central member and also to the rim, a tension device for the wheel consisting of a circular transversely-curved member intermediate of the disks at points substantially midway between the central member and the outer rim, said transversely curved member having its outer edges pressing firmly with a spring action against the annular disks.

4. In a wheel, the combination with the central member and the outer rim, of a pair of annular outer disks, and a pair of annular inner disks, all of said disks being secured to the central member and also to the rim, and tension devices for regulating the tension of the several parts consisting of circular split tubes placed between the inner and outer disks.

5. In a wheel, the combination with the central member and the outer rim, of a pair of annular outer disks and a pair of annular inner disks, all of said disks being secured to the central member and also to the rim, and tension devices for regulating the tension of the several parts consisting of transversely-curved circular members located between the inner and outer disks at points substantially midway of their width.

[Claims 6 and 7 not printed in the Gazette.]

1,243,752. ELASTIC SUSPENSION DEVICE FOR THE FRAMES OF AUTOMOBILES AND OTHER VEHICLES. WILLIAM J. P. MOORE, New York, N. Y. Filed Jan. 3, 1916. Serial No. 69,827. (Cl. 267—50.)



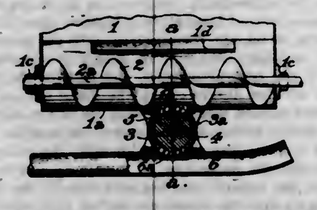
1. In a vehicle frame, the combination of apertured side members having lateral flanges, an axle, sheaths se-

cured to the flanges and to the frame within the openings, bands surrounding the axle at a distance from the sheaths, and inflated cushions between the bands and sheaths consisting of an outer casing and an inner inflatable tube.

2. In a vehicle frame, the combination of side members having openings therein and lateral oval flanges encircling said openings, an axle passing through the openings, oval sheaths secured to the flanges and to the frame within the openings, correspondingly-shaped bands surrounding the axle at a distance from the sheaths, and inflated cushioning devices between the bands and sheaths consisting essentially of an outer casing and an inner inflatable tube.

3. In a vehicle frame, the combination of side members having openings therein and lateral endless flanges encircling said openings, an axle passing through the openings, a bearing for said axle, an endless sheath secured within each opening and supported by the flange, an endless band surrounding the axle at a distance from each of the sheaths, and cushioning devices between the bands and sheaths consisting of endless members which are closely held in place.

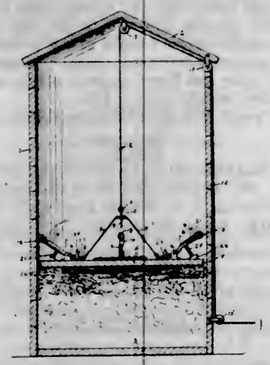
1,243,753. APPARATUS FOR FEEDING PULVERIZED FUEL. JOHN E. MUHLFELD, Scarsdale, N. Y., assignor to Locomotive Pulverized Fuel Company, a Corporation of Delaware. Filed Dec. 31, 1913, Serial No. 809,696. Renewed Mar. 27, 1917. Serial No. 157,847. (Cl. 110—104.)



1. In an apparatus for feeding pulverized fuel, the combination, with a fuel storage receptacle having closed ends and a discharge opening in its bottom, intermediate of its ends, of a fuel delivery conduit extending below the discharge opening, means for conveying fuel through the receptacle across said opening, and means for transferring fuel, in measured quantities, from said opening to the fuel delivery conduit.

[Claims 2 to 4 not printed in the Gazette.]

1,243,754. TAMPING DEVICE FOR SILOS. HIRAM MYERS, Sterling, Ill. Filed May 24, 1917. Serial No. 170,650. (Cl. 100—57.)



1. A device of the class described, comprising a tamper adapted for vertical movement in a cylindrical body and provided with means for coöperating with the wall of said body for imparting to said tamper a spiral rotation in its upward movement, such means being inoperative in the downward movement thereof.

3. In a device of the class described, the combination with a silo of a tamper vertically movable therein; a plurality of rollers supported on said tamper in proximity to the wall of said silo, and having an inclination out of a vertical plane; means for causing said rollers to engage the wall of said silo in the upward movement thereof, to impart to said tamper a rotary movement, and means for holding said rollers away from the wall of said silo in the downward movement of the tamper.

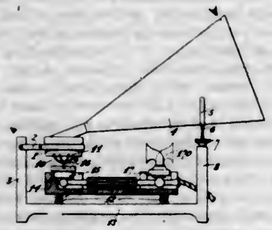
5. In a device of the class described, the combination with a silo, of a tamper vertically movable therein; arms pivotally mounted on said tamper, and provided with inward extensions; a hoisting device operatively connected with said extensions; means for limiting the upward movement of said extensions; casings fixed on said arms; rollers yieldably held in the outer ends of said casings, in position at an inclination from a vertical line, and adapted to engage the wall of said silo when said hoisting device is in operation, to impart a rotary movement to said tamper; and means for holding said rollers normally out of engagement with said silo.

6. In a device of the class described, the combination with a silo, of a tamping device vertically movable therein; a plurality of arms pivoted on said tamping device, having extensions projected inwardly, and each given a corresponding tort out of a straight line; a hoisting device having a swivel connection with said extensions; arches embracing said extensions and provided with adjustable means for limiting the movement of said extensions; rollers yieldingly supported on the ends of said arms in proximity to the wall of said silo, and means for holding said arms normally with said rollers out of engagement with the wall of said silo.

7. In a device of the class described, the combination with a silo, of a tamper vertically movable therein; levers fulcrumed on said tamper; a cable supported centrally of said silo and swivelly connected with the inner ends of said levers; means for suitably operating said cable, to elevate said tamper and permit the same to drop; rollers on the outer ends of said levers in proximity to the wall of said silo and disposed in an inclined position, to impart a rotary movement to said tamper when the rollers are in engagement with the wall of the silo; means for limiting the movement of said levers; and means for holding said levers normally in position with said rollers out of engagement with the silo.

[Claims 2 and 4 not printed in the Gazette.]

1,243,755. TELEPHONE. FREDERIK CHRISTIAN CARL VINCENT NÆSER and NIELS AUGUST JOHANNES LILLIENDAHL-PETERSEN, Copenhagen, Denmark. Filed Feb. 7, 1917. Serial No. 147,104. (Cl. 179—108.)

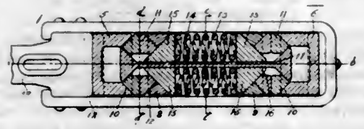


1. The combination of a telephone, a sounding box having a membrane provided with a projecting contact adapted to engage the membrane of said telephone, a resilient support for said telephone, and a movable support for said sound box.

4. The combination of a telephone, a sounding box having a membrane provided with a projecting contact adapted to engage the membrane of said telephone, a resilient support for said telephone, a movable support for said sound box, a trumpet attached to said sound box, a supplemental support for said trumpet, and means for adjusting said supplemental support to regulate said contact with relation to said telephone membrane.

[Claims 2 and 3 not printed in the Gazette.]

1,243,756. FRICTION DRAFT-GEAR. EDWARD W. NEWELL, Pittsburgh, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Apr. 17, 1914. Serial No. 832,427. (Cl. 213—64.)

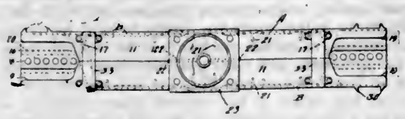


1. In a friction draft gear, the combination with a draw-bar, of draft springs, movable wedge blocks having oppositely inclined friction faces and adapted to engage said springs, an inner friction member having oppositely inclined friction faces, a follower remote from the draft springs and engaging the draw-bar and having oppositely inclined friction faces, and wedge blocks having friction faces adapted to engage friction faces of the inner friction member, the follower, and the movable wedge blocks.

3. In a friction draft gear, the combination with a draw-bar, of side plates secured to the car center sills and provided with outside stops and intermediate stops, of followers engaging the outside stops, inner friction members engaging the intermediate stops, the followers and inner friction members having oppositely inclined friction faces, movable wedge blocks having oppositely inclined friction faces engaging friction faces of the followers and the inner friction members, movable wedge members engaging the movable wedge blocks, and draft springs interposed between the movable wedge members.

[Claims 2 and 4 not printed in the Gazette.]

1,243,757. TRUCK-BOLSTER FOR RAILWAY-CARS. JOHN F. O'CONNOR, Chicago, Ill., assignor to Pratt and Letchworth Company, Buffalo, N. Y., a Corporation of New York. Filed Feb. 26, 1914. Serial No. 821,298. (Cl. 105—104.)



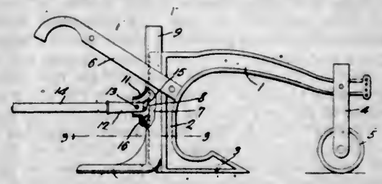
1. A bolster of the character described comprising two members of substantially channel-shape in cross section, each of which is provided with horizontally extending overlapped flanges at their ends riveted together, substantially as specified.

2. A bolster of the character described comprising two steel castings each of which is substantially channel-shaped in cross section and provided with horizontally extending overlapped flanges at its ends, said flanges being riveted together, substantially as specified.

3. A bolster of the character described comprising two members of like construction each of which is substantially channel-shaped in cross section and provided with centrally located horizontally extending flanges at its ends, said flanges being overlapped and riveted together, the upper and lower flanges of such channel-shaped members being cut away above and below said overlapped riveted flanges, substantially as specified.

1,243,758. SUBSOIL AND GRUBBING PLOW. RICHARD HENRY OWEN, Lexington, N. C. Filed Oct. 2, 1916. Serial No. 123,340. (Cl. 97—32.)

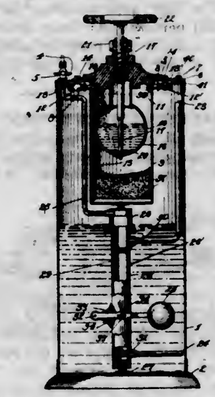
1. A plow having a vertical standard provided with a lower forwardly projecting plow point and a rear vertical portion, a standard slidably engaging said vertical portion for vertical movement and removable upwardly from said portion, the second mentioned standard having a rearwardly projecting foot at its lower end movable below the first mentioned standard and plow point, and



means carried by the second mentioned standard engageable with said portion of the first mentioned standard for moving the first and second mentioned standards downwardly and upwardly, respectively, relatively to one another.

[Claim 2 not printed in the Gazette.]

1,243,759. PORTABLE FIRE-EXTINGUISHER. GEORGE T. PEARSONS, New York, N. Y. Filed Mar. 22, 1915. Serial No. 16,300. (Cl. 169—7.)



1. In a fire extinguisher, the combination with a tank to contain fire extinguishing liquid having a discharge outlet, of a generator in said tank to hold gas generating materials in a separated condition and having an outlet into the tank, and a check valve in said outlet to normally disconnect the generator from the tank, the casing of said valve having a lateral opening adapted to be closed by means from the exterior of the tank passing through an opening in the tank, substantially as and for the purpose specified.

2. In a fire extinguisher, the combination with a tank to contain fire extinguishing liquid having a discharge outlet, of a generator in said tank to hold gas generating materials in a separated condition and having an outlet into the tank; a check valve for said outlet to control the discharge of the gas from the generator to the tank, the casing of said valve having a lateral projecting portion with an opening therein adapted to be placed in line with an opening in the reservoir whereby access may be had to the interior of the valve from the exterior of the reservoir; and a removable closure for the opening in said projecting portion to be applied thereto from the exterior of the tank, substantially as and for the purpose specified.

3. In a fire extinguisher, the combination with a tank to contain fire extinguishing liquid having a discharge outlet, of a generator in said tank suspended from the top thereof to hold gas generating materials in a separated condition; a pair of outlets adjacent the top of the generator to the tank, one of said outlets having an inlet in the generator adjacent the top thereof and the other

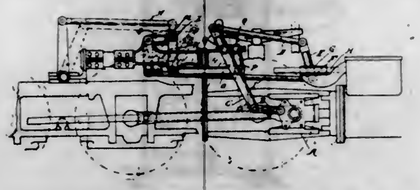
an inlet adjacent the bottom of the generator to permit of the passage of the gas from the generator to the tank when the tank is held in either an upright or inverted position, substantially as and for the purpose specified.

4. In a fire extinguisher, the combination with a tank to contain fire extinguishing liquid having a discharge outlet, of a generator in said tank suspended from the top thereof to hold gas generating materials in a separated condition and having a pair of outlets adjacent the top to the tank, one of said outlets leading from the bottom of the generator to permit of the passage of the gas from the generator to the tank when in an inverted position and the other leading from the top; and outwardly opening check valves to control the passage of the gases from the generator to the tank; substantially as and for the purpose specified.

5. In a fire extinguisher, the combination with a tank to contain fire extinguishing liquid having a discharge outlet, of a generator in said tank suspended from the top thereof to hold gas generating materials in a separated condition and having a pair of outlets adjacent the top of the tank, one of said outlets leading from the bottom of the generator to permit the passage of the gas from the generator to the tank when in an inverted position and the other leading from the top; screens in said generator, adjacent each outlet; check valves for said outlets, the chambers of which valves each having a perforated projecting portion in line with openings in the tank; and caps to close said perforations from outside of the tank, substantially as and for the purpose specified.

[Claims 6 to 11 not printed in the Gazette.]

1,243,760. REVERSING VALVE-GEAR. CHARLES J. PILLIOD, Toledo, Ohio, assignor to The Pilliod Brothers Company, Toledo, Ohio, a Corporation of Ohio. Filed Dec. 28, 1912. Serial No. 739,019. (Cl. 121—99.)



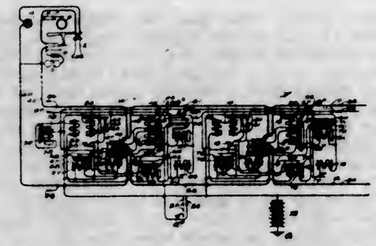
1. The combination with a reciprocating piston engine having a rotary part, of a valve gear including a rock arm and means including a connecting rod and cross-head for imparting angular motion from the rotary part to said rock arm, an engine valve, means connecting said rock arm with the engine valve including a reverse gear of the Marshall type, said rock arm being at such an angle to the neutral axis of the reverse gear when said piston is on dead center that the effect on the valve of angular distortions in the motion of the rock arm is eliminated.

2. In a valve gear for a reciprocating piston engine having a valve, a rock arm, an actuating mechanism therefor introducing angular distortions in the motion thereof, and means connecting said rock arm with the engine valve including a reverse gear of the Marshall type, said rock arm having its longitudinal axis arranged nonparallel to the neutral axis of said reverse gear when said piston is on dead center.

3. In a valve gear, the combination with a reciprocating actuating member having its movement distorted from a simple harmonic movement, of a reciprocatory valve and means intermediate said reciprocating actuating member and reciprocatory valve for transmitting an equal movement to the latter on opposite sides of the center reversible in direction and variable in amplitude, said means including a rock arm receiving motion from said actuating member, a reversing gear of the Marshall-type and a connection between said rock-arm and reversing gear, the longitudinal axis of said rock arm and the longitudinal axis of the reversing gear in neutral position being nonparallel when the engine is on dead center.

4. In a valve gear, the combination with an actuating mechanism for an engine valve, introducing angular distortions and a rock arm, of a pivoted yoke, a bell-crank lever, links pivotally connecting said yoke and bell-crank lever, and a rod connecting said rock arm and links, the longitudinal axis of said rock arm and one of said links diverging when the yoke is in neutral position and the engine is on dead center whereby the angular distortions are corrected and the valve movement is uniform on opposite sides of the center.

1,243,761. AUTOMATIC TELEPHONE SYSTEM. FREDERICK R. QUAYLE, Wilmette, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 5, 1914. Serial No. 810,440. (Cl. 179—18.)



1. In a telephone system, a plurality of trunk lines divided into groups and each terminating in an automatic selector switch, a subscriber's line provided with an individual line switch having access to said trunk lines, means responsive to the removal of the receiver on said line for operating said individual switch to first select a group of trunk lines containing an idle trunk and then select an idle trunk in the selected group, whereby said subscriber's line is extended to an idle selector switch, and means responsive to the replacement of the receiver on said line for restoring the said individual switch to normal position.

2. In a telephone system, a plurality of trunk lines divided into groups and each terminating in an automatic selector switch, a subscriber's line provided with an individual line switch having a access to said trunk lines, means responsive to the removal of the receiver on said line for operating said individual switch to first select a group of trunk lines containing an idle trunk and then select an idle trunk in the selected group, whereby said subscriber's line is extended to an idle selector switch, a holding circuit for preventing the release of said individual switch, and a relay in said selector switch energized over the extended subscriber's line to control the continuity of said holding circuit, whereby the release of said line switch may be controlled over said subscriber's line.

3. In a telephone system, a plurality of subscribers' lines, each provided with an individual switch, a plurality of groups of trunk lines accessible to said switches in common, means in each switch responsive to the initiation of a call on the associated line for selecting a group of trunk lines containing an idle trunk and for then selecting an idle trunk line in the selected group, multiple test contacts in said switches corresponding to groups of trunk lines and wipers coöperating therewith to control the group selection, and means in a plurality of switches coöperating to place a busy potential on one of said test contacts.

4. In a telephone system, a plurality of subscribers' lines each provided with an individual switch, a plurality of groups of trunk lines accessible to said switches in common, means in each switch responsive to the initiation of a call on the associated line for selecting a group of trunk lines containing an idle trunk and for then selecting an idle trunk line in the selected group, multiple test contacts in said switches corresponding to groups of trunk lines and wipers coöperating therewith to control the group selection, a circuit for the multiple test contacts of each group for placing a busy potential thereon, and means in a plurality of switches coöperating to complete one of said circuits.

1,243,762. PROCESS OF PRODUCING LEAD PIGMENTS. ALEXANDER S. RAMAGE, Buffalo, N. Y., assignor to International Color & Chemical Company, Incorporated, Detroit, Mich., a Corporation of New York. Filed Jan. 8, 1916. Serial No. 70,992. (Cl. 134—73.)

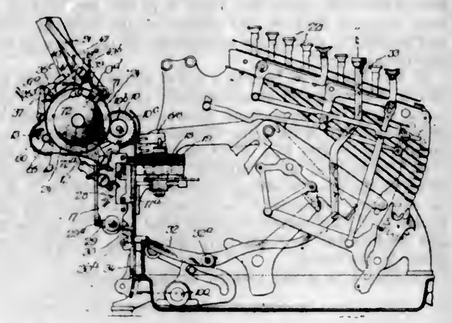
1. The process of producing precipitated lead pigments which consists in reacting upon a material containing lead sulfate with an aqueous solution of a carbonate, thereby forming lead carbonate, dissolving the same in caustic alkali solution and re-precipitating lead carbonate by carbon dioxid.

2. The process of producing precipitated lead pigments which consists in roasting a sulfid ore of lead under conditions to form oxid and sulfate of lead, treating the roasted product with an aqueous solution of a carbonate and thereby converting the sulfate of lead into carbonate, dissolving the mixed oxid and carbonate in caustic alkali solution and re-precipitating lead carbonate by carbon dioxid.

3. The process of producing lead pigments which consists in reacting upon a material containing lead sulfate with an aqueous solution of a carbonate, thereby forming lead carbonate, dissolving the same in caustic alkali solution and re-precipitating by carbon dioxid, and thereafter converting the precipitated carbonate into a basic salt by treatment with caustic alkali.

4. The process of producing lead pigments which consists in roasting a sulfid ore of lead under conditions to form oxid and sulfate of lead, treating the roasted product with an aqueous solution of a carbonate and thereby converting the sulfate of lead into carbonate, dissolving the mixed oxid and carbonate in caustic alkali solution and re-precipitating by carbon dioxid, and thereafter converting the precipitated carbonate into a basic salt by treatment with caustic alkali.

1,243,763. ADDING-MACHINE. FRANK C. RINSCHE, Detroit, Mich., assignor to Burroughs Adding Machine Company, Detroit, Mich., a Corporation of Michigan. Filed Feb. 21, 1914, Serial No. 820,127. Renewed Mar. 28, 1917. Serial No. 158,113. (Cl. 235—60.)



1. The combination of a laterally shiftable paper carriage; a feed roller; a spring tensioned by advance movement of the latter; a detent for restraining said spring; a motor for shifting said carriage; a detent for holding the latter; and means for tripping the spring detent and the carriage detent.

4. The combination of a laterally shiftable paper carriage; a feed roller; a spring tensioned by advance movement of the latter; a detent for restraining said spring; a motor for shifting said carriage; a coacting relatively fixed stop; means for disengaging these stops and thereby displacing the spring detent; said means restraining the carriage in a slightly shifted position whereby upon restoration of said means to normal the carriage is shifted to the next columnar position.

6. The combination of a laterally shiftable paper carriage; a feed roller; a spring tensioned by advance movement of the latter; a detent for restraining said spring; a motor for shifting said carriage; a tabulating stop pivoted on the carriage; a coacting fixed stop; a link connecting the said tabulating stop with the spring detent; and a manipulative shouldered member for displacing the said tabulating stop and detaining it and the carriage slightly shifted until release of said member.

8. The combination of a paper carriage; a feed roller; a spring tensioned by advance movement of the latter; a detent for restraining said spring; means for intermittently advancing the feed roller; and means for automatically tripping said detent as an incident to measured advance of said roller.

16. The combination of a paper carriage; a feed roller; a spring tensioned by advance movement of the latter; a detent for restraining said spring; means for intermittently advancing the feed roller; means for automatically tripping said detent as an incident to measured advance of said roller; and manipulative means for displacing the detent independently of said automatic tripping means.

[Claims 2, 3, 5, 7, 9 to 15, and 17 to 21 not printed in the Gazette.]

1,243,764. PEDAL-PAD. GEORGE H. RIVES, New York, N. Y. Filed Mar. 24, 1917. Serial No. 157,176. (Cl. 74—81.)



1. In a device of the character described, a cushion adapted to be applied on a pedal, a pliable metallic strip protruding from the cushion for being bent so as to engage the pedal to releasably hold the cushion thereon, and a gripping element projecting from one face of the strip into the cushion for securing the strip therein.

4. In a device of the character described, a rubber pad adapted to be applied on a pedal, a plurality of pliable metallic strips embedded in the pad with parts protruding from the pad for being bent so as to engage the pedal to releasably hold the pad thereon, and teeth projecting from each of the strips into the body of the pad for securing the strips therein.

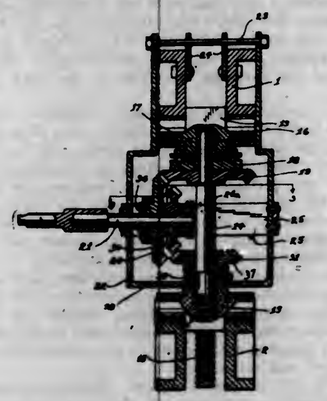
5. In a device of the character described, a rubber pad adapted to be applied on a pedal, a pliable metallic strip embedded in the pad with parts protruding from the pad for being bent so as to engage the pedal to releasably hold the pad thereon, spaced knobs projecting from one face of the strip into the body of the pad for securing the strip therein, and teeth on the strip, embedded in the body of the pad.

[Claims 2, 3, and 6 not printed in the Gazette.]

1,243,765. RIVET-CUTTING MACHINE. JOHN A. SCHEFFEY, Columbus, Ohio. Filed Oct. 7, 1915. Serial No. 54,682. (Cl. 81—198.)

1. A rivet cutting machine comprising a pair of jaw members, bits on the ends of said jaw members, means for pivotally supporting the front ends of said jaw members, said bits projecting to the rear of said pivotal mounting, and being bifurcated at their rear ends, spring arms hinged together and rigidly secured at their rear ends to said jaw members and operatively engaging the bifurcated ends of said bits to maintain said bits in aline-

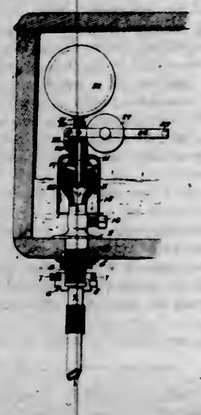
ment, and means engaging the rear ends of said jaws for moving said bits together.



5. A rivet cutting machine comprising a pair of jaw members supported to permit their front ends to travel toward each other, bits in the front ends of said jaws, a drive shaft, a pair of bevel gears on said drive shaft, one rigidly mounted thereon and the other slidably mounted thereon, a clutch mechanism between said gears, a screw shaft between the rear ends of said jaws, a pair of spaced bevel gears on said screw shaft, one being rigidly mounted thereon and the other slidably keyed thereon, and means whereby the movable gear on said screw shaft may be thrown into and out of mesh with the rigidly mounted gear on said drive shaft and whereby the movably mounted gear on said drive shaft may be moved into and out of mesh with the permanently mounted gear on said screw shaft.

[Claims 2 to 4 not printed in the Gazette.]

1,243,766. TANK VALVE MECHANISM. GOTTFRIED SCHMIDT, Hazleton, Pa. Filed Sept. 23, 1916. Serial No. 121,777. (Cl. 137—104.)

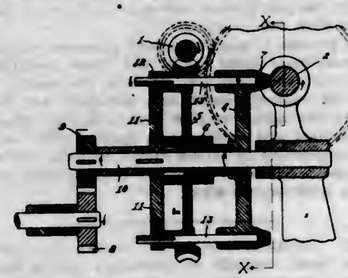


1. A tank valve comprising a tubular standard adapted for connection with a fluid supply pipe, a head portion that includes a top member having lateral outlets, a fluid passage to the said outlets in communication with the tubular standard, a valve for controlling the said passage, a lifting rod for the valve, a head detachably connected to the said lifting rod, a detachably mounted pivoted lever in coöperative connection with the head and a float interchangeably connectible either directly to the said head or to the outer end of said lever, and a weight adjustably mounted on the said lever.

3. In a valve of the character stated, the combination with a tank and a fluid supply pipe therefor; of a tubular standard mounted upon the tank bottom, and connected with the fluid supply pipe, a fluid cut off valve in the said standard, said standard including a cup shaped head portion having an internally threaded rim, an upper head portion having a threaded base for engaging the threaded rim of the cup shaped head portion, said upper head portion having laterally extended fluid outlets, and a fluid passage that joins the outlets with the tubular standard, a valve for controlling the said fluid passage, the said upper head portion having a vertically extended tubular member, an open bottom deflecting head mounted upon the said tubular member and having its lower open edge extended below the head portion of the standard, a bracket rotatably mounted on the said tubular member, a lifting rod attached to the rod that passes up through the said tubular member, a slotted cap removably attached to the upper end of the rod, a weighted lever that passes through the slotted cap and is pivotally connected with the rotatable bracket, and a float interchangeably connectible either directly with the slotted cap or with the lever.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,243,767. METHOD OF CUTTING A WORM. CHARLES H. SCHURR and ERNEST J. LEES, Cleveland, Ohio, assignors to The Lees Bradner Company, Cleveland, Ohio. Filed Nov. 5, 1914. Serial No. 870,393. (Cl. 90—4.)



1. The method of cutting a worm which consists in effecting cuts from the work along an arc of movement corresponding to that described by the working faces of a gear wheel with which the worm is to roll, establishing a fixed distance between the centers of the working units and feeding in a direction at an angle to the plane of the generating circle.

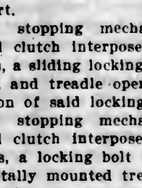
2. The method of cutting a worm which consists in rotating the work and simultaneously rotating and revolving a cutter in engagement with such work, the axes of said cutter and work being disposed at right angles, and feeding said cutter in a direction parallel to its own axis.

3. The method of cutting a worm which consists in rotating the work, rotating a cutter in proper ratio to and in operative engagement with said work, revolving the cutter in a plane parallel to one axial plane of the work, and feeding the cutter axially parallel to another axial plane of the work.

[Claims 4 to 9 not printed in the Gazette.]

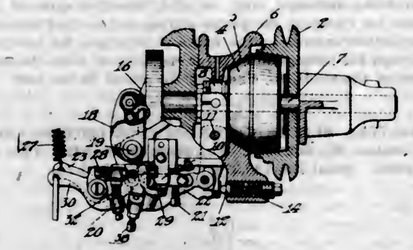
1,243,768. FISHING-FLOAT. JOHN S. SCOTT, Greenville, Tex. Filed Dec. 11, 1916. Serial No. 136,263. (Cl. 43—4.)

The combination with a fishing float of wood or equivalent material having a longitudinal bore extending from end to end, and a line receiving tube extending through said bore, of means to exclude moisture from said bore around said tube, including conical ferrules fitted upon the ends of the float and having their smaller ends embracing the ends of the tube and turned outwardly, the ends of the tube being beaded over the outturned ends of the ferrules, whereby to hold the ferrules tightly against



the float to prevent leakage between the float and ferrules, said beaded ends of the tube engaging under said outturned ends of the ferrules.

1,243,769. STARTING AND STOPPING MECHANISM. WALTER SHAW, Dedham, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Nov. 24, 1913. Serial No. 802,706. (Cl. 74—46.)



1. Starting and stopping mechanism comprising a frame, a clutch member movably mounted in the frame, a clutch-thrower, relatively movable transmission pieces interposed between the clutch-thrower and the clutch member, and locking means arranged to connect one of the transmission pieces temporarily to the frame in which the clutch member is mounted.

2. Starting and stopping mechanism comprising a frame, a clutch member movably mounted in the frame, a clutch-thrower, relatively movable transmission pieces interposed between the clutch-thrower and the clutch member, and coöperating locking devices for holding the transmission pieces in operative condition, one device being located on the frame in which the clutch member is mounted and the other on one of the transmission pieces.

3. Starting and stopping mechanism comprising a clutch-thrower and clutch interposed relatively movable transmission pieces, a stationary support, and a sliding locking member for temporarily locking one transmission piece to the support.

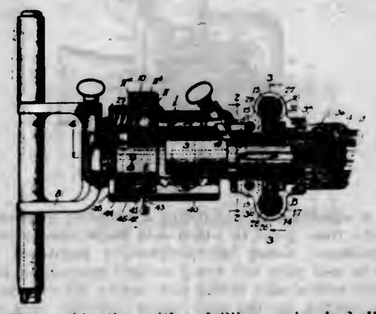
4. Starting and stopping mechanism comprising a clutch-thrower and clutch interposed relatively movable transmission pieces, a sliding locking member mounted on one of said pieces, and treadle operated means for controlling the position of said locking member.

5. Starting and stopping mechanism comprising a clutch-thrower and clutch interposed relatively movable transmission pieces, a locking bolt normally spring projected, and a pivotally mounted treadle controlled lever for retracting the bolt.

[Claims 6 to 12 not printed in the Gazette.]

1,243,770. PNEUMATIC TOOL. MATHER W. SHERWOOD, Franklin, Pa., assignor to Chicago Pneumatic Tool Company, Chicago, Ill., a Corporation of New Jersey. Filed Feb. 24, 1914. Serial No. 820,548. (Cl. 121—20.)

3. The combination of a reciprocating type of drilling engine operated by motive fluid including the cylinder and a rotatable drill chuck at the front end thereof, and means for rotating the chuck comprising a driven ratchet ring detachably connected with the inner end of the chuck and arranged in a plane at right angles to the axis of rotation of the chuck, a driving ratchet ring coöperating with the driven ring, a stationary locking ring coöperating with the driven ring and arranged concentric thereof, a casing 12 arranged at the front end of the cylinder and having annular cavities to receive said rings, springs 31 and 34 in said cavities behind the driving and locking rings for pressing them into engagement with the driven ring, and fluid pressure mechanism independent of the drill-actuating piston for oscillating the driving ring.

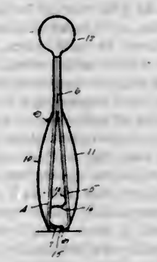


5. The combination with a drilling engine including its cylinder and front head, said cylinder having a reduced front end, of a drill chuck mounted to rotate in the head and having an inner bearing upon such reduced end of the cylinder, a casing fitting upon said reduced end and interposed between the main body of the cylinder and the front head, and fluid pressure operated mechanism contained within the casing for rotating the chuck, said casing being formed in two detachable sections.

6. The combination with a drilling engine including its cylinder and front head, of a drill chuck mounted to rotate in the head, a casing interposed between the head and cylinder, the cylinder having an extension projecting through the casing, a driven ratchet ring detachably connected to the chuck, a driving ratchet ring arranged to coöperate with the driven ring, and a locking ring coöperating with the driven ring, said driven ring and locking ring being mounted within the casing and directly on the cylinder extension, and the driving ring being mouted on the locking ring.

[Claims 1, 2, and 4 not printed in the Gazette.]

1,243,771. TOOL FOR REMOVING HANDS OF WATCHES AND CLOCKS. ABRAHAM SINGER, Cleveland, Ohio. Filed Jan. 11, 1917. Serial No. 141,825. (Cl. 81—14.)



1. A tool comprising a pair of spring jaws, and a pair of spring bows pressing against said jaws and adapted to close the same when compressed, said bows extending beside the ends of said jaws and adapted to be extended beyond the same when compressed.

3. A tool comprising a pair of jaw members, and a folded spring between said members and extensible lengthwise by closing movement of the jaws, said spring being

provided with a finger projecting toward the inner side of the jaws and adapted to clamp an article against the same when the jaws are closed.

[Claims 2 and 4 not printed in the Gazette.]

1,243,772. SIGNALING-HORN. CHARLES H. SMITH, Chicago, Ill., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 8, 1913. Serial No. 799,842. (Cl. 177—7.)



1. A signaling horn including a sounding diaphragm, a circular front plate to which said diaphragm is secured, a cup-shaped casing intraperipherally positioned in respect to said plate and firmly secured thereto, an electromagnet within said casing and having its core in magnetic relation to the said casing whereby said casing serves as a magnetic pole for said magnet, an armature for said magnet, a pair of dependent ears extending from said casing for supporting a bridged retractile spring, connecting means for said diaphragm and armature extending through the center of the magnet core, said connecting means serving to connect said armature to said bridged retractile spring, and a third ear extending from said casing supporting an interrupter contact controlled by said armature.

3. A device of the character described including a circular front plate, a cylindrical cup-shaped casing secured to said plate, an electromagnet located within said casing, a condenser positioned between said magnet and said casing, and a cylindrical collar secured to said casing provided with three dependent ears two of said ears supporting an armature for said magnet and the other of said ears carrying an interrupter contact.

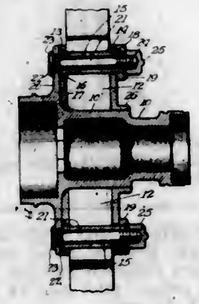
5. A signaling device including a circular front plate, a cylindrical casing having a rearwardly open cup fastened to said front plate, an electromagnet within said casing, a condenser between said electromagnet and the wall of said casing, a ring-shaped member secured to the free end of said casing, a bridge member supported by said ring shaped member, and an armature carried by said bridged member for controlling a diaphragm operating member.

7. A device of the character described including a circular front plate, a cylindrical casing having a rearwardly open cup secured to said plate, an electromagnet centrally located within said casing, a core for said electromagnet having its one end threaded and extended through an aperture in said casing and front plate, a nut for the threaded portion of said core to securely hold said core in position, a cylindrical condenser positioned between said electromagnet and the wall of said casing, an armature suitably positioned in operative relation to the free end of the magnet core and the wall of said casing, armature and contact supporting means carried by the free end of said casing, and a connecting member extending through an orifice in said core connecting said diaphragm to said armature.

[Claims 2, 4, 6, and 8 to 11 not printed in the Gazette.]

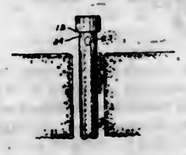
1,243,773. DEMOUNTABLE WHEEL. PARKE T. SNYDER, Chicago, Ill. Filed Sept. 28, 1916. Serial No. 122,618. (Cl. 21—31.)

A demountable wheel for attachment to vehicle hubs comprising a plurality of spokes the inner ends of which meet to form a solid disk, annular plates positioned on each side of the inner ends of the spokes, tubes extending through openings in the plates and spokes, one end being formed for engagement with one plate and the other



end being threaded, nuts on the threaded ends of the tubes for clamping the plates and spokes in rigid relationship, studs carried by the hub and arranged for insertion through the tubes, and nuts for engagement with the outer ends of the studs for clamping the wheel to the hub.

1,243,774. ELECTRIC CONDUCTING GROUND-ROD. GERALD W. SOSNOSKI, Kirkwood, Mo. Filed Oct. 30, 1916. Serial No. 128,376. (Cl. 173—81.)



1. An electrical ground rod comprising a conductor stem having a point at its end, and a chamber in said stem adjacent to said point containing a charge of explosive.

2. An electrical ground rod comprising a hollow conductor stem having a point at its end, a chamber in said stem adjacent to said point containing a charge of explosive, and means for exploding said charge arranged in said hollow stem.

3. An electrical ground rod comprising a tube, a point having a socket and screwed on the end of said tube, and a plurality of conductor strands clamped in said socket with their ends free.

4. An electrical ground rod comprising a tube, a point having a socket and screwed on the end of said tube, a plurality of conductor strands clamped in said socket with their ends free, and means for expanding said strands into the earth after said rod has been driven.

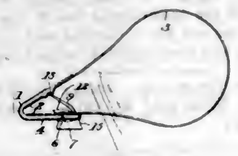
5. An electrical ground connector comprising a tube, a fitting on the end of the tube of larger size than the tube and adapted to be driven into the earth, a chamber near the end of the tube adapted to contain an explosive, and a plurality of flexible conductors grouped alongside of said chamber and connected to said tube.

[Claims 6 to 8 not printed in the Gazette.]

1,243,775. CUFF-CLASP. EVERETT B. STACKPOLE, Seattle, Wash. Filed Dec. 16, 1916. Serial No. 137,328. (Cl. 24—102.)

1. A cuff-clasp, comprising a substantially V-shaped plate adapted to embrace the meeting-edges of the cuff and provided with an aperture in one of its arms, a member pivotally attached to said arm and having a prong movable through said aperture and a button-hole in the cuff,

and means for maintaining the member in its inner position.



2. A cuff-clasp, comprising a substantially V-shaped plate adapted to embrace the meeting-edges of the cuff, a button pivoted to one of the arms of said plate, and a prong attached to said button and movable through a button-hole in the cuff to engage the portion of said cuff beneath the other arm of said V-shaped plate.

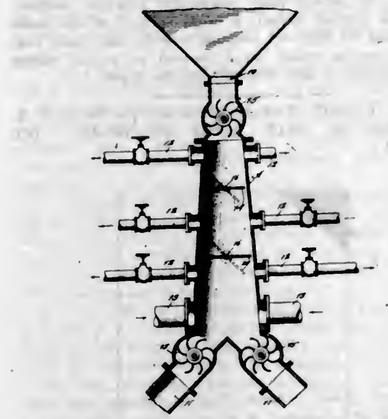
3. A cuff-clasp, comprising a substantially V-shaped plate adapted to embrace the meeting-edges of the cuff, a button pivoted to one of the arms of said plate, a prong attached to said button and movable through a button-hole in the cuff to engage the portion of said cuff beneath the other arm of said V-shaped plate, and means for maintaining the prong in such engagement.

4. A cuff-clasp, comprising a substantially V-shaped plate adapted to embrace the meeting-edges of the cuff, a button pivoted to one of the arms of said plate, a prong attached to said button and movable through a button-hole in the cuff to engage the inside of the portion of said cuff beneath the other arm of said V-shaped plate, and a spring for maintaining the prong in such engagement.

5. A cuff-clasp, comprising a substantially V-shaped plate adapted to embrace the meeting-edges of the cuff and provided with an aperture in one of its arms, a button pivoted to said arm and covering said aperture in the cuff-fastening position, and a prong attached to said button and movable through said aperture and a button-hole in the cuff to engage the inside of the portion of said cuff beneath the other arm of said V-shaped plate.

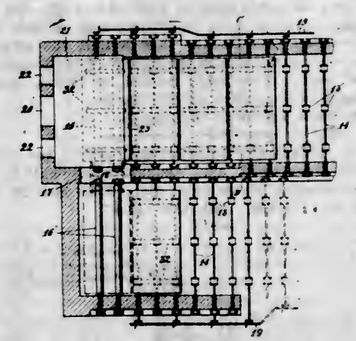
[Claims 6 to 11 not printed in the Gazette.]

1,243,776. COKING-FURNACE. HORACE G. STONE, Chicago, Ill. Filed June 23, 1915. Serial No. 35,747. (Cl. 202—9.)



Apparatus for distilling coal or other carbonaceous material including a distillation chamber having an opening located at the upper portion thereof for the passage into the chamber of material to be distilled; means at said opening for preventing admission of an excess of air or free oxygen into the chamber while material is being passed thereinto through said opening, said chamber also having an opening at its base through which coke is discharged; means at said latter opening for preventing admission of an excess of air or free oxygen into the chamber while coke is being passed from said chamber through the latter opening; means for admitting high temperatured gas into the chamber near the base thereof; a plurality of perforated dampers and means for removing products of combustion from the space above each of said dampers; said chamber also having an opening in the upper part thereof through which products of distillation are discharged.

1,243,777. CHANNEL-OVEN, DRYING-OVEN, OR THE LIKE. HANS ISAK FERDINAND STRANDH, Forserum, Sweden. Filed Dec. 21, 1915. Serial No. 68,105. (Cl. 49—47.)



1. In a channel oven for annealing glass wares the combination of a track, comprising a race within the annealing chamber and inlet and outlet races lying at an angle to the race in the said chamber, boards for transporting the goods on said track through said chamber, rollers provided on said boards so as to rest on said track at every moment of the traveling of the boards on all the races, rollers mounted on the said track in such a manner that only rolling friction between the boards and the races is obtained not only while transporting the boards on the different races, but also at every moment of the transition between two adjacent races.

2. In a channel oven for annealing glass wares the combination of a track, comprising a race within the annealing chamber and inlet and outlet races lying at an angle to the race in the said chamber, boards for transporting the wares through said chamber, rollers mounted on said boards, said rollers having a relatively great extension in a direction parallel with one of the said races and being arranged so as to rest at all times on said track while traveling thereon, said track being formed by rollers in such a manner that only rolling friction between the boards and the races is obtained not only while transporting the boards on the different races, but also at every moment of the transfer between two adjacent races.

3. In a channel oven for annealing glass wares the combination of a track, comprising a race within the annealing chamber and inlet and outlet races lying at an angle to the said race in the said chamber, a race lying outside of the said annealing chamber and connecting the inlet and outlet races, boards for transporting the goods on said track through said chamber, rollers provided on such boards so as to rest on said track at all times of the traveling of the boards on all of the races, rollers mounted on the said track in such a manner that only rolling friction between the boards and the races is obtained not only while transporting the boards on the different races, but also at every moment of the transfer between two adjacent races.

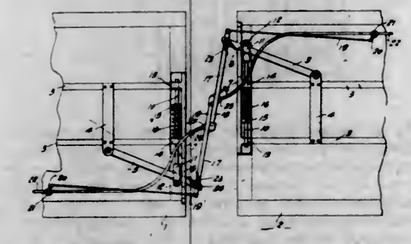
4. In a channel oven for annealing glass wares the combination of a rectangular track, one side of which extends within an annealing chamber, the opposite side of which extends along the outside of said annealing chamber and the other side of the said track forming outlet and

inlet races, boards for transporting the goods on said track through said chamber, rollers provided on such boards so as to rest on said track at all times of the traveling of the boards on all the races, rollers mounted on the said track in such a manner that only rolling friction between the boards and the races is obtained not only while transporting the boards on the different races, but also at every moment of the transfer between two adjacent races.

5. In a channel oven for annealing glass wares the combination of a track, comprising a race within the annealing chamber and inlet and outlet races lying at an angle to the race in the said chamber, boards for transporting the goods through the said chamber, rollers mounted on such boards, said rollers having a relatively great extension in a direction parallel with one of the said races and being arranged so as to always rest on said track, while traveling thereon, the race within the annealing chamber lying parallel with the rollers on the boards, said inlet and outlet races being formed by rollers, lying at right angles to the rollers on the boards.

[Claim 6 not printed in the Gazette.]

1,243,778. TRAIN-PIPE-HOSE COUPLING. IRA STRINGFELLOW, Brookwood, Ala., assignor of one-half to Wesley Stringfellow, Brookwood, Ala. Filed May 28, 1917. Serial No. 171,426. (Cl. 188—13.)



1. An automatic train hose-coupling comprising a coupling head having an air hose connection, an arm carrying the coupling head, a horizontally movable bar to the forward end of which said arm is connected and which bar is pivotally connected to the car at is rear end, guide means for the bar, and spring means to yieldingly resist the outward pressure of the car, due to the meeting of opposing coupling heads, substantially as described.

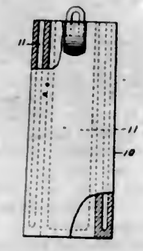
3. In a train pipe coupling, a horizontally swinging bar connected to the car and projecting beyond an end thereof, a vertical guide bracket having a guide slot in which said bar is horizontally movable, said slot having a contracted seat at the end nearest the center of the car, which seat is adapted to receive the bar with a snug fit, spring means to urge the bar into said seat, and a coupling head pivotally connected to the free end of the bar and having an air hose connection, substantially as described.

5. A train pipe hose coupling comprising a horizontally swinging support mounted on the car, spring means to resist the outward movement of said support, an arm pivoted at an intermediate point to the outer end of the support, a spring acting between the support and arm to urge the latter away from the support, a rod connected to the rear end of the arm beyond its pivot point, a train pipe line, a rotary valve therein connected to and adapted to be operated by the rod, and a hose connecting said pipe line to the coupling head, substantially as described.

7. In a train pipe hose coupling of the character described, a bracket mounted transversely under the end of the car and having a vertical member extending laterally and slotted, the slot having a contracted throat near the center line of the car, a bar pivoted to the car and adapted to swing horizontally in said slot, spring means urging said bar toward said throat, an arm pivoted to said bar, spring means to force the arm outwardly from the car, means to limit the outward swing of the arm on the bar, a coupling head carried on the free end of the arm, and a train hose pipe connected to the coupling, said first mentioned spring means comprising a rod, a guide bearing therefor in the bracket, a spring acting on the rod to force it toward the longitudinal center line of the car, and a yoke on the rod which receives said bar.

[Claims 2, 4, and 6 not printed in the Gazette.]

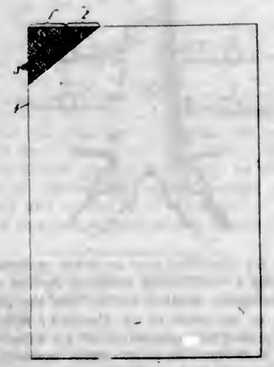
1,243,779. INGOT-MOLD. HARRY SUTHANN, Middletown, Ohio. Filed July 30, 1915. Serial No. 42,716. (Cl. 22—144.)



1. An ingot mold having an open top and bottom and having a plurality of longitudinal cavities extending parallel with the interior surfaces of the mold wall, said cavities extending from the top plane of the mold to a point adjacent the bottom thereof and acting to produce inner and outer wall portions approximating the active length of the mold, with said inner and outer walls connected at predetermined points, said cavities being adapted to receive heat insulating material, whereby said walls will be substantially insulated from each other but connected sufficiently to permit heat conductive relation therebetween to a limited extent.

2. An ingot mold having an open top and bottom and having a plurality of longitudinal cavities extending parallel with the interior surfaces of the mold wall, said cavities extending from the top plane of the mold to a point adjacent the bottom thereof and acting to produce inner and outer wall portions approximating the active length of the mold, with said inner and outer walls connected at predetermined points, said cavities being adapted to receive heat insulating material, whereby said walls will be substantially insulated from each other but connected sufficiently to permit heat conductive relation therebetween to a limited extent, a cross section of the mold walls having its internal contour non-circular, said connections between walls being located at points where heat conduction is least effective on the ingot.

1,243,780. PAPER. EDWARD THOMAS, New York, N. Y. Filed Dec. 24, 1912. Serial No. 738,412. (Cl. 41—38.6.)



1. A porous paper comprising a sizing deposited on its fibers without materially altering its porosity.

2. A porous paper comprising a deposit of shellac on its fibers without materially altering its porosity.

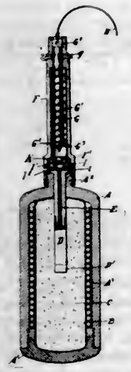
3. A paper comprising a porous base and a sizing on said base, such that the paper where sized is still almost equally porous, and a coating of wax covering the paper and making the whole non-porous except where the wax may be removed.

4. A waxed paper comprising a porous base, a deposit of shellac on said base, and a wax on said shellacked paper.

5. A paper of open mesh strengthened with shellac and having a continuous wax coating above the shellac.

[Claims 6 to 10 not printed in the Gazette.]

1,243,781. GRENADE OR BOMB. JOHN H. TRISMEN, New York, N. Y., assignor to Consolidated Fire Works Co. of America, New York, N. Y., a Corporation of New York. Filed Dec. 10, 1915. Serial No. 66,046. (Cl. 102—29.)



1. In a grenade, a chamber, a fuse-tube extending into the chamber, a reversible anvil seated in the outer end of the fuse-tube, the tube being relieved thereunder, a fuse in the tube, and a fulminating cap upon the anvil, whereby when the grenade is to be transported, the anvil may be reversed so that the cap is disposed in the relieved portion of the fuse tube with its dead side adjacent to the fuse.

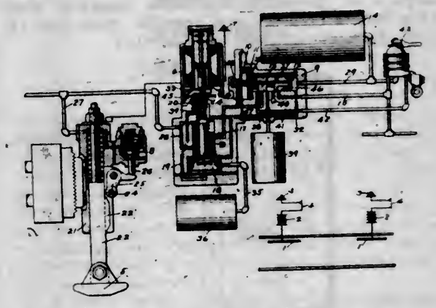
2. As a new article of manufacture, a grenade comprising a chamber for explosive, a tube extending therefrom, a firing pin in the tube, and a spring pressing the pin toward the chamber, with a fuse-tube extending into the chamber, and a reversible anvil carrying a fulminating cap seated in the end of the fuse-tube away from the chamber.

3. As a new article of manufacture, a grenade comprising a chamber for an explosive, a reversible anvil, a fuse-tube, a seat therein for the anvil, a firing-pin, a spring therefor, and removable means for retaining the pin out of contact with the anvil and wholly within the tube until the grenade is to be exploded.

4. As a new article of manufacture, a grenade having a chamber for explosive, a tube extending therefrom, a firing-pin in the tube, and a spring pressing the pin toward the chamber, with a cord attached to the outer end of the pin, whereby when the grenade is swung by the cord, the centrifugal pull thereon stores energy in the spring, and when the cord is released, the pin is forced by the spring toward the chamber to fire the explosive.

1,243,782. AUTOMATIC TRAIN CONTROL. WALTER V. TURNER, Wilkinsburg, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Apr. 1, 1916. Serial No. 88,254. (Cl. 246—58.)

1. In an automatic train control system, the combination with a brake pipe, a reduction in pressure in which is adapted to effect an application of the brakes and valve device for venting fluid from the brake pipe, of a valve adapted to be operated mechanically by means along the track for varying the fluid pressure on said valve device, a valve mechanism for controlling communication from said valve to said valve device, and means responsive to an electrical condition along the track for effecting the operation of said valve mechanism to cut off said communication.



2. In an automatic train control system, the combination with a valve device for effecting an application of the brakes, of a valve adapted to be operated mechanically by means along the track for varying the fluid pressure on said valve device, a valve mechanism normally providing communication from said valve to said valve device, and a magnet controlled valve adapted, upon energization of its magnet through a track circuit, to effect the operation of said valve mechanism to thereby cut off communication between said valve and said valve device.

3. In an automatic train control system, the combination with a valve device operated by a variation in fluid pressure for effecting an application of the brakes, of a mechanically responsive means for varying the fluid pressure on said valve device, a piston device for controlling communication through which the fluid pressure is varied, and electro-responsive means for supplying fluid to one side and for venting fluid from the other side of said piston device to operate the same and cut off said communication.

4. In an automatic train control system, the combination with a valve device operated by a variation in fluid pressure for effecting an application of the brakes, of a mechanically responsive means for varying the fluid pressure on said valve device, a piston device for controlling communication through which the fluid pressure is varied, electro-responsive means for supplying fluid to one side and for venting fluid from the other side of said piston device to operate the same and cut off said communication, and means for maintaining said piston device in its cut off position for a predetermined period of time.

1,243,783. METHOD OF MAKING ABRASIVE ARTICLES. HENRY UATEL, La Salle, N. Y., assignor to The Carborundum Company, Niagara Falls, N. Y., a Corporation of Pennsylvania. Filed Jan. 31, 1914. Serial No. 815,799. (Cl. 51—1.)

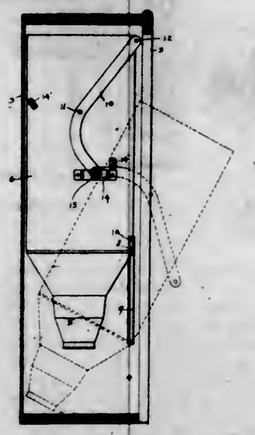
1. The method of making abrasive articles, which consists in shaping the articles from a mixture of fused crystalline alumina and a binder containing liquid silicate of sodium and zinc oxid, and firing to a temperature sufficient to form a double silicate of sodium and the zinc which is insoluble in water.

2. The method of making abrasive articles, which consists in shaping the articles from a mixture of fused crystalline alumina and a binder containing silicate of sodium, zinc oxid and flint, and firing to a temperature sufficient to form a double silicate of sodium and zinc which is insoluble in water.

3. The method of making abrasive articles, which consists in shaping the article from a mixture of an aluminous abrasive material and a binder containing silicate

of sodium, zinc oxid and flint, and firing to a temperature sufficient to form a double silicate of sodium and zinc which is insoluble in water, but not sufficient to dissolve alumina from the abrasive in an amount sufficient to dull the abrasive grain.

1,243,784. TILTING AND REMOVABLE FLOUR-BIN. CLAY WEESNER and DUDLEY DAVIS, Newcastle, Ind., assignors to Hoosier Manufacturing Company, Newcastle, Ind., a Corporation of Indiana. Filed Aug. 18, 1916. Serial No. 115,661. (Cl. 45—16.)



1. The combination, with a cabinet and a bin movably mounted therein, of means limiting the movement of the lower front corner of the bin to a single vertical plane, and means to move the bin downwardly and that portion above said corner simultaneously in an outward direction, and the reverse comprising a pair of levers to which the bin is pivoted and a handle connecting them for their manipulation.

2. The combination, with a cabinet and a bin movably mounted therein, of fixed vertical channels on each side of the bin and trunnions from the bin entering the channels to limit the movement of the lower front corner of the bin to a single vertical plane, and means to move the bin downwardly and that portion thereof above said corner simultaneously in an outward direction, and the reverse comprising a pair of levers to which the bin is pivoted and a handle connecting them for their manipulation.

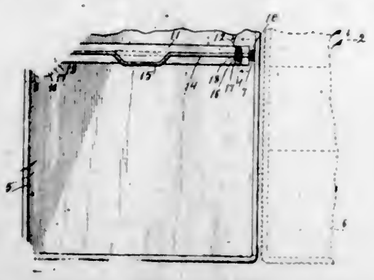
3. The combination, with a cabinet and a bin movably mounted therein, of means limiting the movement of the lower front corner of the bin to a single vertical plane, means to move the bin downwardly and that portion above said corner simultaneously in an outward direction, comprising levers fulcrumed to the cabinet and from which levers the bin is suspended and a handle-member connecting the levers by which they are operated to raise and lower the bin.

5. The combination, with a cabinet and a bin movably mounted therein, of a pair of vertical channels open at their upper ends fixed to the cabinet on each side of the bin, trunnions on the bin entering said channels, a pair of bent levers between which the bin is assembled, a handle connecting the upper ends of the levers, the other ends of the levers being removably fulcrumed to the cabinet, pivots suspending the bin from the levers back of the vertical plane of the fulcrums, and stops on the bin to contact the levers and limit the movement of the bin.

6. The combination, with a cabinet and a bin movably mounted therein, of a pair of vertical channels open at their upper ends secured in a fixed manner to the cabinet on each side of the bin, the front flanges of the channels being shorter than the rear ones at the top, a pair of levers, one on each side of the bin between the bin and adjacent cabinet wall, a rod connecting the outer ends of said levers, pivot-plates secured to the cabinet having notches upon their upper edges, fulcrum pins on the inner ends of the levers removably secured in said respective notches, the inner ends of the levers being bent, a rod through the bin having projecting ends passing through the levers and suspending the bin therefrom, a second rod passing through the lower front corner of the bin and having projecting ends entering the channels, and stops on the bin to contact the levers and limit the movement of the bin.

[Claim 4 not printed in the Gazette.]

1,243,785. CLOTHES-RETAINER. GEORGE HENRY WHEARY, Racine, Wis. Filed July 14, 1915. Serial No. 39,786. (Cl. 190—36.)



1. The combination with a pair of spaced rails having a plurality of spaced slots in their upper edge portions, of a bar therefor, said slots being larger below the upper edges of the rails, and a rod turnably connected to said bar, each end of said turnable rod being narrower in one direction than in the opposite direction, said rod ends entering the slots of the rails when the rod is turned in a certain direction and being locked to the rails when turned in another direction.

2. The combination with a pair of spaced rails having a plurality of spaced slots in their upper edge portions, of a bar therefor, said slots being larger below the upper edges of the rails, outstanding bearings secured to said bar, and a rod turnably mounted in the bearings and having its outer end portions narrower in one direction than in the opposite direction to permit said ends entering the slots when the rod is turned in one position and being locked thereto when turned in another direction.

[Claims 3 to 10 not printed in the Gazette.]

1,243,786. T-SQUARE. GEORGE H. WHITE, Greeley, Colo. Filed May 9, 1917. Serial No. 167,517. (Cl. 33—103.)



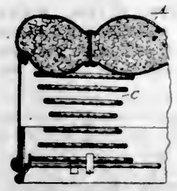
1. A T-square including a head having a channel in one face, a blade adapted to be removably fitted in said channel, a clamping element longitudinally shiftable upon the head, and manually operable means mounted upon the head to co-act with said element and clampingly engage the same with one edge of the blade and hold the same against movement relative to the head.

2. A T-square including a head having a channel in one face, a blade adapted to be removably fitted in said channel, a hollow metal frame shiftable in the head, and a manually operable eccentric disposed within the frame and co-acting therewith to force the frame into clamping engagement with the blade and retain the latter in connection with the head against movement relative thereto.

3. A T-square including a head having a channel in one face, a blade adapted to be fitted in said channel, said head further having a recess communicating with one side of the channel, a hollow metal frame shiftable in said recess, a rod rotatably mounted in the head, an eccentric fixed on said rod and disposed within the hollow frame, and a lever connected to the rod to rotate the eccentric and cause the same to urge the frame into clamping engagement.

4. A T-square including a head having a channel in one face and a recess communicating with one side of the channel, a blade adapted to be fitted in said channel and having a recess in one edge to coincide with the recess in the head, a shiftable clamping member mounted in said recess, manually operable means to co-act with said clamping member and move the same into the recess in the edge of the blade to clamp said blade in the channel against movement relative to the head, and a plate secured to the head and extending over the blade and said shiftable clamping member.

1,243,787. CUSHION-SEAT. JAMES LENFRED WINANS, Toledo, Ohio, assignor to National Spring and Wire Company, Albion, Mich., a Corporation of Michigan. Filed Oct. 11, 1915. Serial No. 55,230. (Cl. 155—25.)



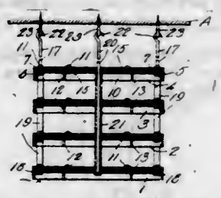
1. The combination with a cushion and a depending skirt therefor, of a spring frame inclosed by said skirt, a strip extending along the lower edge of said skirt having inwardly-extending hooks for detachably engaging said spring frame, and outwardly-extending hooks on said strip for embracing the corded edge of said skirt and adapted to be pressed into clamping engagement therewith.

2. The combination with a cushion and a depending skirt therefor having a corded lower edge, of a spring frame inclosed by said skirt, a metallic strip extending along the inner face of said skirt having an outwardly-deflected bead at its lower edge, and series of outwardly and inwardly extending hooks integral therewith, said outwardly-extending hooks forming clamps for engaging the edge of the skirt and said inwardly-extending hooks being adapted to detachably engage said spring frame and forming a support for the latter.

3. The combination with a cushion and a depending skirt therefor having a corded lower edge, of a spring frame inclosed by said skirt, a metallic strip extending around the inner face of said skirt and forming an annular frame, said strip having an outwardly-deflected bead at its lower edge, and series of outwardly and inwardly extending hooks struck therefrom, said outwardly-extending hooks forming clamps for embracing said corded edge to secure the strip to the skirt, and said inwardly-extending hooks being adapted for successive engagement with said spring frame to secure the skirt and form a support for the spring frame.

4. The combination with a cushion, and a depending skirt therefor, of a spring frame inclosed by said skirt, a strip extending along the lower edge of said skirt having means for engaging said spring frame and a series of upwardly extending hooks struck-out from the strip for forming quick attachment clips for securing said skirt to said strip.

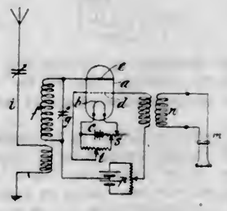
1,243,788. CHEESE-SHELF. LUTHER W. WOODEN, Lima, Wis. Filed Oct. 2, 1916. Serial No. 123,400. (Cl. 211—27.)



1. A device of the character described comprising a plurality of shelf units, each unit comprising side bars and end bars connected to the ends of the side bars, reinforcing bars connected to the end bars and arranged in the space between the side bars, a plate mounted upon the said bars, the ends of each of said bars having openings formed therein, suspension rods extended through the openings and supported at their upper ends, and sleeves carried by the suspension rods for holding the said units in superposed spaced relation.

2. A device of the character described comprising a plurality of shelf units, each unit comprising side bars and end bars connected to the ends of the side bars, reinforcing bars connected to the end bars and arranged in the space between the side bars, a plate mounted upon the said bars, the ends of each of said bars having openings formed therein, suspension rods extended through the openings and supported at their upper ends, and sleeves carried by the suspension rods for holding the said units in superposed spaced relation; truss bars extended transversely across each shelf unit and provided with an opening intermediate its ends, supplemental suspension rods extended through the openings for assisting said first mentioned suspension rods whereby the intermediate portion of each shelf unit will be prevented from buckling.

1,243,789. VALVE-RECEIVER FOR WIRELESS SIGNALS. GEORGE MAURICE WRIGHT, London, England, assignor to Marconi Wireless Telegraph Company of America, New York, N. Y., a Corporation of New Jersey. Filed Mar. 13, 1917. Serial No. 154,580. (Cl. 250—27.)



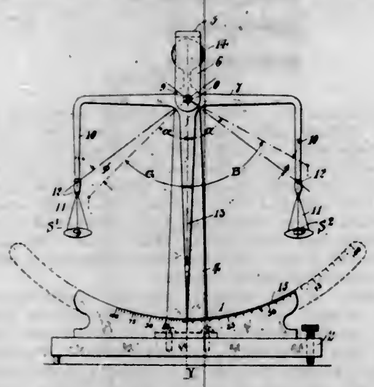
1. In a three-element vacuous detector, comprising anode, grid, filament and heating battery, a resistance connected across the battery, and a conductor connected at one end directly to the grid and at the other end by an adjustable contact to the resistance, said filament and heating battery being otherwise disconnected from said anode and grid.

4. The combination of a vacuous vessel containing a grid, an anode, and a filament, a heating battery connected to the terminals of said filament, a resistance connected across said battery, a conductor connected at one end directly to said grid and at the other end to an adjustable contact on said resistance, and an oscillating system for receiving signals connected to said grid and anode, said system including means for applying an adjustable potential across said grid and anode, said fila-

ment and heating battery being entirely disconnected from said system except for the connection of said conductor directly to said grid.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,243,790. PERCENTAGE-BALANCE. PHILIP E. YOUNG, Fairhaven, Mass. Filed Dec. 16, 1914. Serial No. 877,460. (Cl. 265—54.)



1. A percentage balance for use in determining the relative weights of two bodies, comprising an equal arm beam, a pointer controlled by the movement of said beam, one of said arms having means for supporting a weight therefrom at a point of application, the other of said arms having means for supporting a body to be compared with the weight, said beam being fulcrumed at its center of gravity, a scale for said pointer, said scale having a zero mark thereon opposite the position assumed by the pointer when the arms of the beam are equally weighted, and in normal position, said scale being graduated in progressively increasing numerical values from the zero mark in the direction of movement of the pointer when the arms of the beam are unequally weighted, said values indicating percentages of one of the bodies compared with the other, said pointer in its movement to any value M on the scale passing over an angle equal to the expression

$$\cot^{-1}\left(\frac{1+\frac{200}{M}}{\tan\alpha}\right)$$

and α is the angle between the vertical line through the fulcrum and the line passing through the fulcrum and through the point of application of one of the weights on the beam.

2. A percentage balance for use in determining the relative weights of two bodies, comprising an equal arm beam, fulcrumed at its center of gravity, said beam having means for supporting the two bodies on opposite sides of the fulcrum and equidistant from the vertical line passing through the fulcrum, said beam having an angular movement from its normal position under the action of the overbalancing effect of the heavier of said weights, the angle of movement of the beam being equal to the expression

$$\cot^{-1}\left(\frac{1+\frac{200}{M}}{\tan\alpha}\right)$$

where M is percentage variation from one of the weights and α is the angle between the vertical passing through the fulcrum and the line passing through the fulcrum and through the point of application of the weights on the arms of the beam.

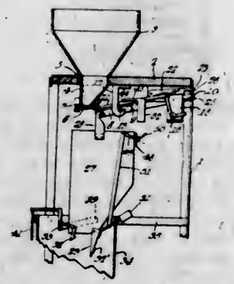
3. A device of the class described, comprising a balancing beam fulcrumed at its center of gravity, means for suspending unequal weights from adjacent opposite ends of said beam below the fulcrum and equally spaced from the vertical passing through the beam fulcrum when the beam is horizontal whereby the overbalancing effect of the heavier of said weights will cause the beam to move over an angle proportionate to the overbalancing effect and means including a pointer depending from the fulcrum of the beam for measuring this angle in percentage terms of one of said weights.

4. A device of the class described comprising a balancing beam, fulcrumed at its center of gravity, means for supporting weights from said beam on opposite sides of its fulcrum below the same and equally spaced therefrom and from the vertical passing through the fulcrum when the beam is horizontal and means for measuring the angular displacement of said beam in terms of a proportion of one of the weights compared with the other when subjected to the action of unequal weights.

5. A device of the class described, comprising a balancing beam, means for supporting a standard mass from one of said arms, means for supporting a compared mass from the other arm with said masses disposed below the fulcrum of the beam, said beam and supporting means fulcrumed at the center of gravity of the same, and said beam having an angular movement under the action of the overbalancing effect of the heavier of said weights into a position of stable equilibrium and means for including a scale graduated in percentage terms for measuring this angular movement in fractional terms of said standard arm.

[Claim 6 not printed in the Gazette.]

1,243,791. AUTOMATIC SCALE. RICHARD J. ZANONE, New Albany, Ind., assignor to The Automatic Package Scale Company, Louisville, Ky., a Corporation of Kentucky. Filed Dec. 20, 1915. Serial No. 67,788. (Cl. 73—177.)



1. In a scale, a frame, a scale beam pivoted thereon, a hopper suspended from said beam, a hinged drop bottom on said hopper, catches pivotally attached to the sides of the hopper and adapted to engage and retain the bottom in a closed position, a funnel in fixed relationship to the frame positioned below the hopper and means within the funnel adapted to be moved into engagement with said catch to release the bottom.

2. In a scale, a frame, a scale beam pivoted thereon, a hopper suspended from said beam, a hinged drop bottom on said hopper, catches pivotally attached to the sides of the hopper and adapted to engage and retain the bottom in a closed position, a funnel in fixed relationship to the frame positioned below the hopper and means within the funnel to be moved into position for said catch to contact therewith as the hopper descends and release the bottom.

[Claims 3 to 9 not printed in the Gazette.]

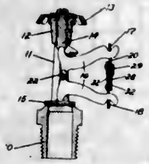
1,243,792. NECKTIE. JOSEPH ZIMMERN, New York, N. Y. Filed Apr. 28, 1917. Serial No. 165,113. (Cl. 2—11.)

A bow necktie, for use with a fold collar having slots adjacent the front vertical edges of the fold over portion of said collar, said necktie having relatively wide bow portions connected by an integral relatively narrow band portion, said band portion being of a length corresponding only to substantially the distance between the slots in the front edges of the collar, whereby the band portion may



extend through and between said slots and the wide bow portions extending from the collar only of sufficient length to form the usual bow.

1,243,793. LINK FOR SPRINKLER-HEADS. CHARLES C. ABBOTT, Pittsfield, Mass., assignor to Robbins, Gamwell & Company, Pittsfield, Mass., a Copartnership. Filed May 4, 1917. Serial No. 166,340. (Cl. 236—16.)



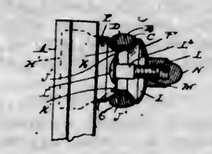
1. A link of the character described, comprising a plate having an elongated opening and a second opening with a cross bar between said openings, a second plate having a slot adapted to register with the lower portion of the elongated opening, and an opening lying beyond the first mentioned plate in the assembled position, the last mentioned opening and the upper portion of the elongated opening in the first mentioned plate being adapted for engagement by the levers of a sprinkler head, and a key comprising a base portion adapted to lie in the second opening in the first mentioned plate, an offset portion adapted to receive the cross bar of said plate and an angle portion adapted to pass through the lower portion of the elongated opening and to engage the slot in the second mentioned plate, said parts being normally secured together by a solder fusible at a predetermined relatively low temperature.

2. A link of the character described, comprising two plates each having an opening for engagement by a sprinkler head lever, one of said plates having an opening closed at the back by the other plate and the last mentioned plate having a slot, and a key comprising a base portion adapted to lie in the opening closed at the back, an offset portion and an angle portion adapted to pass through the lever opening in one plate and to engage the slot in the other plate, said parts being normally secured together by a solder fusible at a predetermined relatively low temperature.

6. A link of the character described, comprising two plates each having an opening for engagement by a sprinkler head lever, one of said plates having a downwardly and outwardly beveled opening closed at the back by the other plate and the last mentioned plate having a slot, and a key comprising a base portion beveled downwardly and outwardly from the top and adapted to lie in the opening closed at the back, an offset portion, and an angle portion adapted to pass through the lever opening in one plate and to engage the slot in the other plate, said parts being normally secured together by a layer of low melting solder which surrounds the base portion in the opening.

[Claims 3 to 5 and 7 not printed in the Gazette.]

1,243,794. HINGE OR PIVOT CONSTRUCTION FOR WIND-SHIELDS. EDWARD L. ACKERMAN, Detroit, Mich., assignor to Joseph N. Smith & Company, Detroit, Mich., a Corporation of Michigan. Filed Aug. 7, 1914. Serial No. 855,640. (Cl. 21—148.)



1. In a hinge or pivot center construction, a pair of cupped sheet metal members providing oppositely-inclined conical bearings, a central clamping bolt for connecting said members, and a lug projecting integrally from one of said members parallel to the pivotal axis and into interlocking engagement with the other member, for preventing relative rotation.

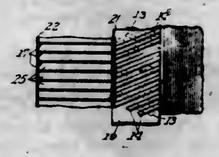
2. In a hinge or pivot center construction, the combination with an apertured member having conical annular bearings on opposite sides thereof, of a pair of cupped sheet metal members having conical faces for engaging the opposite sides of said apertured member, a central bolt having a head engaging the cup of one of said members, and a shank projecting through a central aperture in the other of said members, and a lug projecting from the conical flange of one of said members into engagement with a recess in the other member.

4. In a hinge or pivot center construction, the combination with an apertured member having bearings on opposite sides thereof, of a pair of cupped sheet metal members, one of said members having a flaring flange and the other a tapering flange for forming respectively conical bearings engaging the conical bearing in said apertured member and a lug on the tapering flange extending through the aperture in said apertured member and interlocking with the member having the flaring flange.

7. A hinge or pivot construction, comprising an apertured member having annular bearings on opposite sides thereof, a cupped sheet-metal clamping member forming a conical bearing for engaging one of the bearings in said apertured member, flanges upon said sheet-metal member for embracing the member to be attached thereto, a second clamping member having a conical portion for engaging the other bearing of the apertured member, a bolt having a head engaging the cup of said sheet-metal member, and having its shank passing through the aperture of said apertured member and passing through the second clamping member, and a nut threaded upon said shank and bearing upon said second clamping member.

[Claims 3, 5, and 6 not printed in the Gazette.]

1,243,795. METHOD OF BUILDING COMMUTATORS. VINCENT G. APPLE, Dayton, Ohio. Filed Jan. 22, 1917. Serial No. 143,829. (Cl. 22—203.)



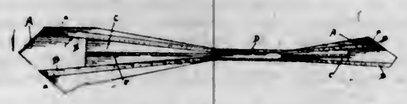
1. Steps in the method of making commutators which consists in separating the terminals of armature conductors and enlarging the terminals of said conductors, between said separators, by application of comminuted metal to said terminals which will unite therewith to form a substantially homogeneous mass.

2. Steps in the method of making commutators which consists in arranging the terminals of armature conductors in pairs in radial planes; separating adjacent

pairs by radially disposed plates of insulating material and spraying metal between said plates to build up said terminals into commutator sections.

3. Steps in the method of making commutators which consists in arranging the terminals of armature conductors in pairs; separating adjacent pairs by plates of insulating material; supporting the terminals by an underlying insulating backing and spraying metal between said plates to build up said terminals into commutator sections.

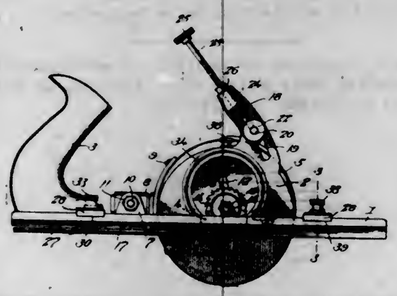
1,243,796. NECKTIE. SAMUEL APPELMAN and SAMUEL BERNSTEIN, McGill, Nev. Filed May 26, 1917. Serial No. 171,288. (Cl. 2—11.)



1. A necktie composed of a piece of appropriately shaped tie fabric, lining strips stitched on its reverse side with longitudinal rows of stitches spaced from the outer folded edges of the finished tie, said fabric and lining strips being folded upon themselves with the outer edges of said tie fabric meeting in a central line, and with said edges of said tie fabric sewed together; longitudinally alined padding pieces and a neck band padding between them sewed to the said lining strips, with portions of said padding pieces sewed to the said tie fabric within the folded form by diagonally disposed cross rows of stitches and the said neck band padding likewise sewed within the form by longitudinally disposed rows of stitches through said neck band padding and both faces of said tie fabric.

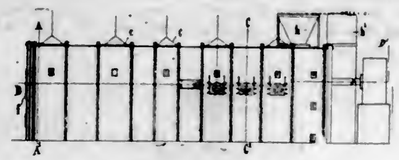
2. A necktie comprising a piece of tie fabric folded in appropriate form with the folded over edges meeting on the back face; lining strips stitched on the reverse side of the tie fabric and given the same fold as the tie fabric with said stitches showing only on the back face of the tie; alined padding pieces on the outer edges of which are sewed a portion of said lining strips, and on whose face is centrally sewed pieces of tape; a neck band padding sewed between and to said padding pieces; and stitches through said paddings and both faces of said tie fabric.

1,243,797. ROTARY-CUTTER MACHINE. LUCIEN J. BARIBAULT, New Haven, Conn. Filed Dec. 7, 1915. Serial No. 65,559. (Cl. 144—136.)



In a cutter of the class described, a base plate having an upstanding main bracket at one side thereof and a handle at one end, said plate having a longitudinally extending slot in advance of said handle and in proximity to said bracket, a bearing extending transversely from the edge of said plate which carries said bracket between the bracket and the handle, a motor having a pivot stud fixed thereto and mounted to rotate in said bearing, whereby the motor swings in a vertical plane, said bracket having an arcuate slot arched around said bearing as a center, a shaft projecting from the end of the motor through said slot, a rotary cutter mounted on the end of said motor shaft with its cutting edge projecting through the slot in said base plate, the extent of said projection being controlled by the swinging movement of the motor, an upstanding bracket carried by said main bracket, and having a slot arched throughout its length at a given radius from the pivotal center of mounting of the motor, a stud carried by said motor and extending through the slot in said auxiliary bracket, and an adjusting element threaded through said auxilliary bracket in a plane at right ngles to the stud in position to engage said stud and control the cutting depth of the tool.

1,243,798. FURNACE FOR SMELTING ORES. CHARLES JAMES BEAVER and ERNEST ALEXANDER CLAREMONT, Cheshire, England. Filed Apr. 17, 1916. Serial No. 91,760. (Cl. 263—41.)



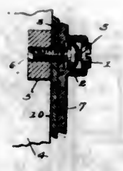
1. In a furnace for the continuous smelting of ores in a single operation, the combination of a relatively long externally heated smelting-chamber, having feed and discharge portions, means for maintaining the discharge portion of said chamber at a substantially higher temperature than the smelting chamber of the feed portion thereof, controllable means for admitting exterior air direct to said feed portion and means for extracting products of combustion from said feed portion and substantially preventing access of air or the said products to said discharge portion.

3. In a furnace for the continuous smelting of ores in a single operation, the combination of a relatively long externally heated smelting-chamber, a hearth in said chamber, means for maintaining one portion of said chamber at a substantially higher temperature than the other portion thereof, controllable means for admitting air to said other portion, means for extracting products of combustion from said last mentioned chamber portion and substantially preventing access of said products to said first mentioned portion, a partition wall partially dividing the chamber into the two portions aforesaid, means for feeding a charge of ore into the chamber at one end, means for automatically rabbling the ore and shifting same along the hearth to the farther end of said chamber, and means at said farther end for separating the molten metal from the slag.

5. In a furnace for the continuous smelting of ores in a single operation, the combination of a relatively long externally heated smelting-chamber, a hearth in said chamber, means for maintaining one portion of said chamber at a substantially higher temperature than the other portion thereof, cantrollable means for admitting air laterally to said other portion, a valved pipe etxending across the chamber and having openings into that part thereof to which air is admitted, means for extracting products of combustion from said last mentioned chamber-portion and substantially preventing access of said products to said first mentioned portion, a partition wall partially dividing the chamber into the two portions aforesaid, means for feeding a charge of ore into the chamber at one end, means for automatically rabbling the ore and shifting same along the hearth to the farther end of said chamber, and means for separating the molten metal from the slag including relatively sloped parts of the hearth up which the slag is conducted by the rabbling devices and down which the molten lead gravitates.

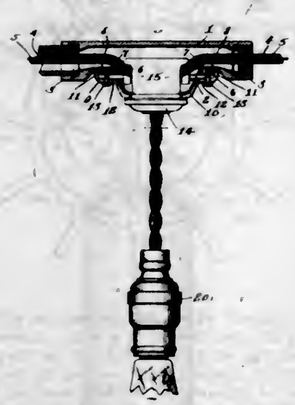
[Claims 2 and 4 not printed in the Gazette]

1,243,799. SCREW. CARL H. BISSELL, Syracuse, N. Y., assignor to Crouse-Hinds Company, Syracuse, N. Y., a Corporation of New York. Filed Aug. 18, 1918. Serial No. 785,244. (Cl. 85—41.)



A screw having two heads, one superposed above the other, and a fragile neck connecting the heads, the upper head being shaped to receive a screw driving tool, in combination with two parts to be attached together by the screw into one of which the screw threads, the other of said parts being provided with a socket of sufficient depth to receive both heads and having a bottom with which the lower head of the screw engages, the socket being of slightly greater diameter than the lower screw head and extending above the lower screw head when the screw is in its final position, substantially as and for the purpose described.

1,243,800. ELECTRICAL FIXTURE. CARL H. BISSELL, Syracuse, N. Y., assignor to Crouse-Hinds Company, Syracuse, N. Y., a Corporation of New York. Original application filed Dec. 27, 1910, Serial No. 599,354. Patent No. 1,216,406. Divided and this application filed Feb. 9, 1917. Serial No. 147,576. (Cl. 247—5.)



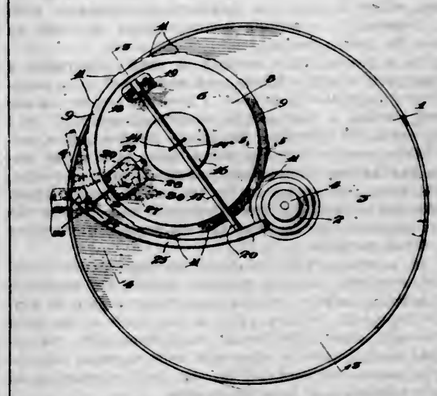
1. An electrical fixture comprising a conduit outlet having an opening in one wall, a cap having a marginal annular flange seated at its edge upon the face of the wall around the opening, the cap having a central offset portion formed with an opening, fastening screws extending through the cap between its marginal flange and the central offset and into said wall of the box, and a two-part electrical appliance extending through the opening of said offset portion and having opposing surfaces clamping upon inner and outer surfaces of the offset portion, substantially as and for the purpose described.

2. An electrical fixture comprising a conduit outlet box formed with an opening in one wall, the wall surrounding the opening having rounding surfaces in its edge portion over which the wires pass, and a depressed seat on the outer face thereof remote from the edge of said wall, a cap having a marginal annular flange having its edge engaged with said seat, fastening means extending through the cap and into said wall of the box between the said seat and the opening in the wall, the cap being formed with a central opening and an electrical appliance including a part extending through said wall and clamped upon the inner and outer surfaces of the cap, substantially as and for the purpose specified.

3. An electrical fixture comprising an conduit outlet box having an opening in one wall, a cap having a circumferential annular flange seated at its edge on the margin of the wall around the opening along a line spaced apart from the edge of said wall, the portion of the cap adjacent the flange being spaced apart from the outer face of said wall, fastening members extending through the portion of the cap adjacent the flange and into said wall, and an electrical appliance supported by the cap, substantially as and for the purpose described.

4. An electrical fixture comprising a conduit outlet box having an opening in one wall, a cap having a marginal annular flange, and a central offset portion, the flange having its edge seated on the margin of the wall around the opening along a line spaced apart from the edge of said wall, and the part of the cap adjacent said flange being spaced apart from the underlying portion of the margin of said wall around the opening, fastening members extending through said part of the cap and the underlying portion of said wall of the box, and an electrical appliance carried by the offset portion of the cap, substantially as and for the purpose specified.

1,243,801. DISPENSING-CAN. JOHN QUINCY BOSSELMANN, Philadelphia, Pa. Filed Aug. 5, 1916. Serial No. 113,249. (Cl. 221—72.)



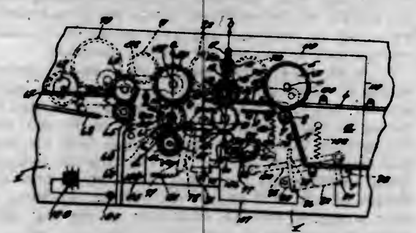
1. The combination with a can having a pump thereon, and a pivoted pump handle, of an outlet pipe communicating with the can and having an outlet opening in its side, a spout having portions extending into and out of said can, said outwardly projecting portion having a cap at one end mounted to turn on the outlet pipe and adapted when in one extreme position to communicate with the outlet opening, and a spring holding the spout in its open and closed positions, the spout when in said closed position extending across the path of movement of the pump handle to prevent operation thereof, substantially as described.

2. The combination with a can having a pump thereon, of an outlet pipe having an opening therein and communicating with the can, a spout pivotally supported on the outlet pipe, a housing pivotally connected to the pump casing, a spring confined in said housing, and a rod connecting said spring with the spout, said spring operating to hold the spout in either of its extreme positions, and said spout when in one of said extreme positions communicating with the opening in the outlet pipe and when in the other of its extreme positions cutting off said opening, substantially as described.

3. The combination with a can having a pump thereon, and a pivoted pump handle, of an outlet pipe having portions projecting into and out of said can, an outwardly tapering frusto-conical sleeve on said outwardly projecting portion of said pipe and having an opening in its side, a

spout having a frusto-conical cap rotatably fitting said sleeve, and resilient means for holding said cap and sleeve together and to take up for wear which might occur between them, substantially as described.

1,243,802. PRINTING OR POSTMARKING MACHINE. ROBERT A. BOSWELL, Washington, D. C. Filed Sept. 16, 1913. Serial No. 790,033. (Cl. 101—236.)



1. In a postmarking machine, a shaft comprising a driving portion and a driven portion, a printing member movable with the driven portion, a feed couple comprising separable rolls, means for retarding the driven portion, and a second means remote from the direct letter path of the machine and having coöperating connections with the rolls, which, when separated actuates the second means, which in turn has coöperating connections with and operates the retarding means causing the same to release the driven portion.

2. In a postmarking machine, a shaft comprising a driving portion and a driven portion adapted to be intermittently magnetically coupled, a printing member on the driven portion, a feed couple comprising separable feed rolls, means for retarding the driven portion, and a second means remote from the direct letter path of the machine and having coöperating connection with said rolls, which, when separated actuates the second means, which in turn has coöperating connections with and operates the retarding means for coupling and uncoupling the driving and driven portions.

3. In a postmarking machine, an intermittently operated revoluble printing member, means for retarding said printing member, means comprising a pair of separable feed rolls forming parts of the walls of the path of the mail, said rolls having connections with the retarding means, whereby when said rolls separate said retarding means are actuated through said connections to release and stop said printing member.

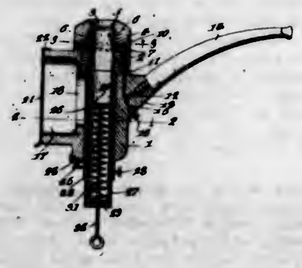
4. In a postmarking machine, a printing couple comprising a printing member and an impression member, the printing member being revoluble, means for operating the printing member, means for retarding the same and including an electric circuit normally open, a second circuit normally closed, a feed couple in the second circuit comprising a pair of separable rolls, which when separated by a passing letter breaks or opens the first circuit, means actuated mechanically when the second circuit is broken designed to close the first circuit, thereby actuating the retarding means to release the printing member.

5. In a postmarking machine, a printing couple including a printing member, an electric circuit, a pair of separable feed rolls constituting a part of said circuit which rolls keep the circuit normally closed, another circuit, a device to retard the printing member, an element in the first circuit, means for mechanically actuating said element when the first circuit is opened, an oscillatory member in the second circuit contacted with by said element for closing the second circuit to actuate said device to release the printing member.

[Claims 6 to 36 not printed in the Gazette.]

1,243,803. TOBACCO-PIPE. JOHN E. BRADLEY, Fort Smith, Ark. Filed Oct. 11, 1916. Serial No. 125,079. (Cl. 131—12.)

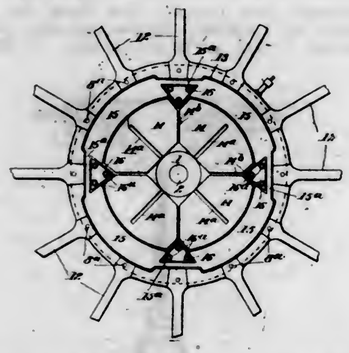
1. In a tobacco pipe, the combination of a bowl, a magazine carried thereby and communicating with the interior of the bowl, a cylinder adjustably secured within the bowl and adapted, when in normal position, to shut off communication between the magazine and the interior



of the bowl, a head slidable within the cylinder, and resilient means for normally forcing the head upward within the cylinder.

[Claims 2 and 3 not printed in the Gazette.]

1,243,804. RESILIENT WHEEL FOR VEHICLES. OLIE BRIZENDINE, Miami, Tex. Filed May 23, 1916. Serial No. 99,385. (Cl. 152—42.)

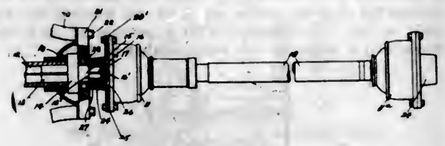


2. In a resilient wheel, the combination with an inner fixed rim and a hub sleeve, of a series of arc-shaped air cushions bearing on the inner part of the rim; means for holding the air cushions from creeping on the inner part of the rim; a plurality of radially movable blocks arc-shaped at their outer edges and bearing on said cushions and having radial key grooves; an outer cover plate held in rigid engagement with the inner plate and having radial keys or tongues engaging with said grooves; and interlocking sliding members connecting the hub-sleeve with the fixed rim, for driving the wheel.

4. In a resilient wheel, the combination with an inner fixed rim and a hub sleeve, of an inner pneumatic tire disposed around the inner periphery of the rim and comprising a series of enlarged sections forming arc-shaped air cushions and an alternate series of reduced sections connecting the enlarged sections together; protecting supports secured to the rim close to the alternate reduced portions of the tire and extending between the enlarged portions thereof to prevent the tire from creeping on the rim; a plurality of radially movable blocks arc-shaped at their outer edges and bearing on said enlarged sections of the pneumatic tire and having radial key-grooves; an outer cover plate held in rigid engagement with the inner plate and having radial keys or tongues engaging with said grooves; and interlocking sliding members connecting the hub-sleeve with the fixed rim, for driving the wheel.

[Claims 1 and 3 not printed in the Gazette.]

1,243,805. PROPELLER-SHAFT CONNECTION. HOWARD R. BRUAH, Chicago, Ill., assignor to Motor Development Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 21, 1917. Serial No. 163,574. (Cl. 64—13.)



1. A connection of the character stated comprising in combination a motor transmission shaft, a propeller shaft provided with a universal joint, a stud-shaft having a member constituting a journal connecting the two shafts for rotation in unison, a fixed bearing plate in which said journal rotates and means for preventing endwise movement of the stud-shaft and universal joint.

3. A connection of the character stated comprising in combination, a motor transmission shaft, a propeller shaft provided with a universal joint having an extension, a stud-shaft having a collar and a member constituting a journal connecting the transmission shaft and universal joint extension for rotation in unison, a fixed bearing plate against which said collar abuts upon one side and against which said extension abuts upon the other side, said journal being rotative in said bearing plate, and means cooperatively engaging the stud-shaft and said extension for preventing endwise movement of said stud-shaft and universal joint.

[Claims 2 and 4 not printed in the Gazette.]

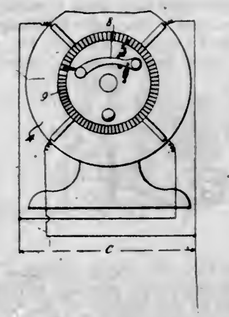
1,243,806. NIPPLE FOR NURSING-BOTTLES. MARGARET CARTER BUCHANAN, Chicago, Ill. Filed Oct. 15, 1915. Serial No. 55,994. (Cl. 128—18.)



1. A flexible nipple for nursing bottles comprising a body portion, an annular external shoulder for engaging the end face of the bottle and preventing movement of the nipple into the bottle, and a portion beneath the shoulder for fitting the outlet of the bottle, said portion being provided with an air passage opening through its periphery and inner face and being normally closed by the inner face of the outlet of the bottle, substantially as and for the purpose specified.

2. A flexible nipple for nursing bottles comprising a body portion, an outwardly flaring base for engaging a correspondingly formed inner face of the outlet of a bottle and preventing outward movement of the nipple from the bottle, an annular external shoulder above the base for engaging the end face of the bottle and preventing movement of the nipple into the bottle, and an air passage opening through the periphery and inner face of the nipple beneath the shoulder and being normally closed by the inner face of the outlet of the bottle, substantially as and for the purpose set forth.

1,243,807. RECTIFIER. HENRY EDWARD BURKET, Leavenworth, Kans., assignor of one-half to Ernest Elgin Lynch, Leavenworth, Kans. Filed June 5, 1916. Serial No. 101,775. (Cl. 175—364.)

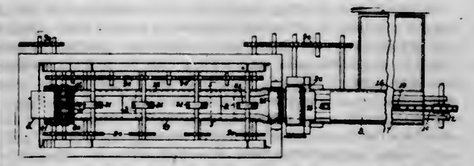


1. In a rectifier, a motor, insulated rotary conductors on the motor shaft, stationary conductors bearing against the rotary conductors and adapted to be arranged in alternating and direct circuits, and a centrifugally closed switch on the motor for partially short circuiting the same.

2. In a rectifier, a motor, insulated rotary conductors on the motor shaft, stationary conductors bearing against the rotary conductors and adapted to be arranged in alternating and direct circuits, and speed controlled means for short circuiting certain of the commutator segments of the motor armature to maintain synchronism between the motor and alternations of the alternating circuit.

3. In combination with an alternating circuit and a direct circuit, stationary conductors communicating with the alternating circuit, stationary conductors communicating with the direct circuit, rotary conductors insulated from each other and coacting with the stationary conductors in changing the alternating current into direct current in its passage to the direct circuit, a synchronous motor driven by the alternating current and arranged to drive the rotary conductors, and a governor on said motor operable by centrifugal action for short circuiting certain of the commutator segments of the latter.

1,243,808. APPARATUS FOR COATING METAL SHEETS. JAMES H. CAFFREY, Beaver Falls, Pa., assignor to Asbestos Protected Metal Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Original application filed Oct. 14, 1914, Serial No. 866,685. Divided and this application filed July 24, 1916. Serial No. 110,856. (Cl. 91—31.)



1. In an apparatus of the character described, in combination, a kettle for containing a bath of adhesive material, means for feeding a metal sheet through said bath to coat the metal sheet with adhesive material, and means for spreading the coating material evenly and laterally over the surfaces of said metal sheet.

3. In an apparatus of the character described, in combination, a kettle for containing a bath of adhesive material, means for feeding a metal sheet through said bath to coat the metal sheet with adhesive material, and spreading rolls between which the coated metal sheet is passed, said spreading rolls having helically arranged channels on their circumferences and one of said spreading rolls having an annular channel between its ends.

[Claim 2 not printed in the Gazette.]

1,243,809. PRESSER-FOOT FOR SEWING-MACHINES. JOHN E. CHALMAN, Chicago, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 21, 1914. Serial No. 813,491. (Cl. 112—13.)



1. A presser foot for sewing machines comprising a body portion having needle openings formed therein, and a yielding guide or keel carried by the presser foot and located centrally between the needle openings in advance thereof and a yielding portion in rear of the openings adapted to bear on the finished seam.

2. A presser foot for sewing machines, comprising a body portion and a central and side portions normally extending below the level of the body portion, said central portion being widened in rear of the needles to bear upon substantially the entire width of the seam.

3. A presser foot for sewing machines comprising a body portion, a central portion yieldingly supported by said body portion and having a guide or keel located in advance of the needle openings in the presser foot, said central portion extending between the needle openings and to the rear theerof and having a widened portion in the rear of the needle openings.

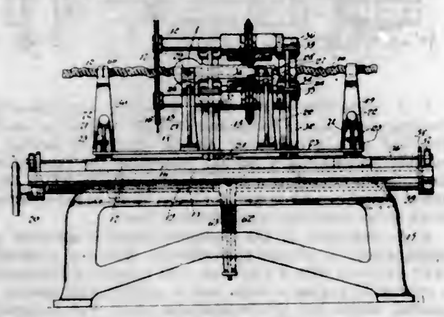
4. A presser foot for sewing machines comprising a body portion having needle openings therein, a central recess extending between the needle openings from front to rear thereof, a central yielding section mounted in said recess and having a widened portion in the rear of the needle openings.

5. A presser foot for sewing machines comprising a body portion having needle openings therein, a central recess extending between the needle openings from front to rear thereof, a central yielding section mounted in said recess and having a widened portion in the rear of the needle openings, and a yielding section at each side of the presser foot.

1,243,810. KEY-CUTTING MACHINE. EMIL A. CHRISTOPH, Chicago, Ill., assignor, by direct and mesne assignments, to The King Lock Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 19, 1914. Serial No. 819,765. (Cl. 90—13.)

1. In a key cutting machine, the combination of a frame, a plurality of cutters rotatable in a common plane and adjustably carried by said frame, key holding means slidably mounted upon said frame, and controlling means for said cutters slidably mounted upon said frame, and comprising a member provided with a series of cam faces, and adjustable means for maintaining the same in the desired operative relation with the cutting mechanism, said controlling means being of such character as to differently affect the movement of the cutters for different portions of the adjustment.

2. In a key cutting machine, the combination of a suitable frame provided with a carriage slidably mounted thereon, means for supporting a key blank on said carriage, cutting mechanism arranged to cut a key blank carried by said supporting means, and means for controlling said cutting mechanism, whereby both edges of the key are cut with a plurality of parallel undulations therein, said controlling means comprising a cam-shaped member provided with a plurality of undulations of such a character as to differently affect the movement of the cutters for each successive key to be cut, whereby one key may be cut to correspond with a portion of said cam faces, and a successive key with another portion.



3. In a key cutting machine, the combination of a frame provided with suitable standards thereon, cutting mechanism including a plurality of rotatable cutters carried by said standards, a slidable key blank carrier mounted on said frame and arranged to carry the key in proximity to said cutting mechanism, and means for moving said cutting mechanism transversely to the direction of travel of the key, whereby a series of undulations are cut on the key, including a member provided with a series of cam faces thereon arranged to coöperate with the cutting mechanism, and means for adjustably supporting the cam member, whereby different portions of the cam will operate to give a different series of movements to the cutters for each adjustable position of the cam.

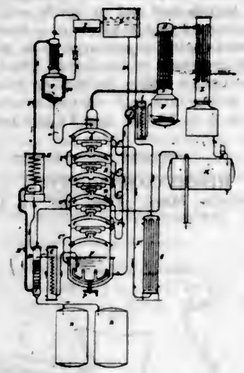
4. In a key cutting machine of the kind described and in combination, a pair of coöperating rotary cutters spaced from each other, a key carrier common to said cutters and movable in a direction to carry the key lengthwise between said coöperating cutters, and adjustable controlling means for moving said cutters in a direction transversely to the direction of travel of the key, said controlling means being of such character as to differently affect the movement of the cutters for different portions of adjustment.

5. In a device of the kind described and in combination, a pair of coöperating rotary cutters spaced from each other, a key carrier common to both cutters and movable in a direction to carry the key into cutting engagement with and between said coöperating cutters, and means for moving said cutters in a direction transversely to the direction of travel of the key, comprising a suitably formed cam member havin ga plurality of cam faces thereon, means for adjustably supporting said cam member, said cam member of such size that only a portion of the faces are acted upon for each movement of the key carrier for each complete cutting operation, whereby different portions of the cam will operate to give different series of movements to the cutters for each adjusted position of the cam.

[Claims 6 to 11 not printed in the Gazette.]

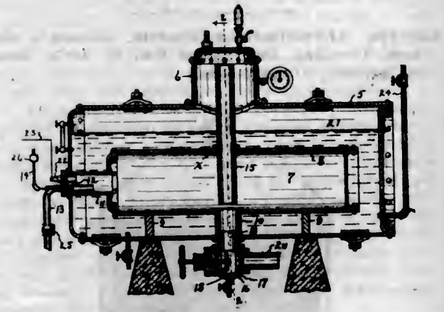
1,243,811. METHOD AND APPARATUS FOR PRODUCING DEALCOHOLIZED FERMENTED BEVERAGES. GINO CIAPETTI, Rome, Italy. Filed May 8, 1912. Serial No. 695,987. (Cl. 195—1.)

1. In the manufacture of low alcohol beverages, the process consisting of flowing the beverage which has been previously deprived of the major portion or its ethers and gases over a succession of heated surfaces in a thin film to drive off a portion of the alcohol with a portion of the water, separating the portion of alcohol from the water driven off therewith, cooling the water and reintroducing the water into the beverage in separate portions, one immediately after the beverage has passed each heated surface, to maintain the volume substantially constant and to assist in maintaining a low temperature.



2. In the manufacture of low alcohol beverages, the process consisting of flowing the beverage which has been previously deprived of the major portion of its ethers and gases over a succession of heated surfaces in a thin film to drive off a portion of the alcohol with a portion of the water, separating the portion of alcohol from the water driven off therewith, cooling the water and reintroducing the water into the beverage in separate portions, one immediately after the beverage has passed each heated surface, to maintain the volume substantially constant and to assist in maintaining a low temperature.

1,243,812. COMBINED HEAT AND STEAM GENERATOR. HOMER V. CLUTTER, Denver, Colo. Filed June 4, 1917. Serial No. 172,611. (Cl. 60—31.)

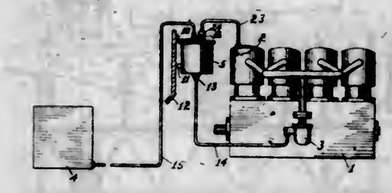


1. In a combined heat and steam generator, a line pipe, a water receptacle, a combustion chamber within the water receptacle provided with an intake for compressed air, an intake for liquid fuel under pressure and having a pipe-section communicating with the line pipe, an upright conducting pipe communicating with and having its intake disposed above the water receptacle and having its discharge port disposed within the combustion chamber adjacent to the pipe section, and devices for igniting the contents of the combustion chamber.

6. In a combined heat and steam generator, a receptacle for containing water and provided with a dome, a second receptacle for containing ignited hydrocarbon and adapted to be disposed in the water circumscribed by the walls of the first named receptacle for causing the water to be converted into steam, pipes traversing a wall of the first named receptacle for conducting fluids to the second receptacle, a line pipe, a pipe section communicating with the second receptacle and the line pipe, an upright pipe for conducting steam from said dome to the second receptacle for a movement of said steam and the products of the ignited hydrocarbon of said second receptacle to the line pipe by moving through the pipe section, said conducting pipe being disposed substantially in alinement with the pipe-section, and a valve for controlling a communication of the pipe-section with the line pipe.

[Claims 2 to 5 not printed in the Gazette.]

1,243,813. FUEL-SUPPLY DEVICE. RICHARD H. COBB, Cleveland, Ohio. Filed Dec. 16, 1916. Serial No. 137,319. (Cl. 158—36.)



1. In a fuel supply device for internal combustion engines, the combination of a reservoir, a receptacle for receiving fuel, a valve for permitting fuel to flow from the receptacle into the reservoir and prevent its return, a conduit establishing communication from a cylinder of the engine to said receptacle, and the conduit including means for admitting pressure from the compression stroke and the explosion stroke of the engine to the receptacle for relieving the vacuum created therein by the intake stroke of the engine, substantially as described.

2. In a fuel supply device for internal combustion engines, the combination of a reservoir, a receptacle for receiving fuel, a valve for permitting fuel to flow from the receptacle into the reservoir and prevent its return, an inlet valve for admitting fuel to said receptacle and adapted to be closed under pressure within the receptacle, means establishing communication from a cylinder of the engine to said receptacle, and said means including a shut-off valve operated from the rise and fall of the fuel in the receptacle, and a check valve adapted to admit pressure from the cylinder of the engine, and then be closed thereby, substantially as described.

3. In a fuel supply device for internal combustion engines, the combination of a reservoir, a receptacle for receiving fuel, a valve for permitting fuel to flow from the receptacle into the reservoir and prevent its return, an inlet valve for admitting fuel to said receptacle and adapted to be closed under pressure within the receptacle, means establishing communication from a cylinder of the engine to said receptacle, and means for preventing the sudden closing of said check valve to allow some of said pressure to enter said receptacle, substantially as described.

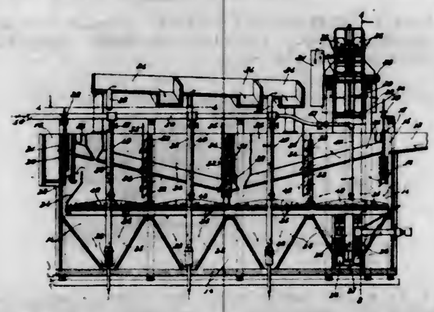
4. In a fuel supply device for internal combustion engines, the combination of a reservoir, a receptacle for receiving fuel, a valve for permitting fuel to flow from the receptacle into the reservoir and prevent its return, an inlet valve for admitting fuel to said receptacle and adapted to be closed under pressure within the receptacle, means establishing communication from a cylinder of the engine to said receptacle, a spring for preventing the sudden closing of said inlet valve, and means for adjusting the tension of the spring, substantially as described.

5. In a fuel supply device for internal combustion engines, the combination of a reservoir, a receptacle for receiving fuel, a valve for permitting fuel to flow from the receptacle into the reservoir and prevent its return, an inlet valve for admitting fuel to said receptacle and adapted to be closed under pressure within the receptacle, a pressure valve fitted into said receptacle, means establishing communication from a cylinder of the engine to the pressure valve, the pressure valve having an outlet, a shut-off valve adapted to close the outlet, a float in the receptacle for forcing the shut-off valve closed, and a

check valve mounted in the pressure valve adapted to allow a small amount of pressure to pass the same and then be closed by the pressure, substantially as described.

[Claim 6 not printed in the Gazette.]

1,243,814. APPARATUS FOR SEPARATING OR CONCENTRATING ORES. DAVID COLE, Morenci, Ariz. Filed Aug. 3, 1915. Serial No. 43,444. (Cl. 83—85.)



1. A hydraulic ore separator comprising a tank having an inlet and an outlet at its opposite ends, respectively, provision for discharging froth at its upper portion, a plurality of sizing compartments at the bottom, and means for admitting a gaseous medium to the lower part of said tank above the level of said compartments, said last named means comprising a filtering surface adapted to discharge streams of said medium in a finely divided state and being so arranged as to cause said streams to reach all portions of the liquid above at least the first of said compartments while permitting the free downward passage of solids into said compartments.

3. A hydraulic ore separator comprising a tank having an inlet and an outlet at its opposite ends, respectively, provision for discharging froth at its upper portion, a plurality of sizing compartments at the bottom, and a series of tubes collectively constituting a tubular grating extending across said tank above the level of said compartments, said tubes having filtering surfaces adapted to discharge streams of a gaseous medium in a finely divided state, and said tubes being so spaced as to cause said streams to reach all portions of the liquid above said grating while permitting the free downward passage of solids between said tubes into said compartments.

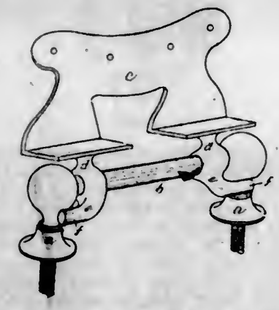
4. A hydraulic ore separator comprising a tank having an inlet and an outlet at its opposite ends, respectively, provision for discharging froth at its upper portion, a plurality of sizing compartments at the bottom, and a series of tubes collectively constituting a tubular grating extending across said tank above the level of said compartments, said tubes having filtering surfaces adapted to discharge streams of a gaseous medium in a finely divided state, and said tubes being so spaced as to cause said streams to reach all portions of the liquid above said grating while permitting the free downward passage of solids between said tubes into said compartments, and fluid pressure lifts extending through said grating for separately discharging material from said compartments, respectively.

14. A hydraulic ore separator comprising a tank, means within said tank for aerating a mass of pulp to separate therefrom the finer particles of mineral by flotation, and means comprising a plurality of sizing compartments at the bottom of said tank, for concurrently subjecting said pulp to gravity treatment to separate the coarser portions thereof into a plurality of classifications, said tank having provision for discharging froth at its upper portion and other provision for discharging the residue of said pulp.

16. A hydraulic ore separator comprising a tank having an inlet and an outlet at its opposite ends, respectively, provision for discharging froth at its upper portion, a plurality of sizing compartments at the bottom, and means for admitting a gaseous medium to the lower part of said tank above the level of said compartments, said last-named means comprising a filtering surface sufficiently porous to permit the passage therethrough of gases and liquids but not of solids and adapted to discharge streams of said medium in a finely divided state, and said means being so arranged as to cause said streams to reach all portions of the liquid above at least one of said compartments while permitting the free downward passage of solids into said compartments.

[Claims 2, 5 to 13, 15, and 17 not printed in the Gazette.]

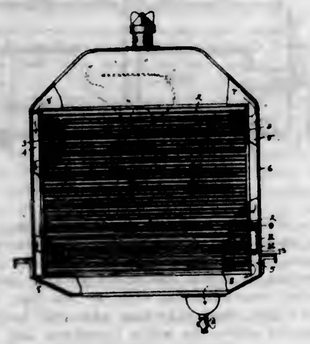
1,243,815. HINGE CONSTRUCTION. GEORGE W. COLLINS, Holyoke, Mass. Filed Apr. 10, 1917. Serial No. 161,000. (Cl. 4—18.)



1. A hinge construction of the class referred to comprising uprights *a*, cross rod *b*, plate *c*, and members *d* integral therewith, provided with openings for the rod *b* and extended rearwardly and laterally and adapted to strike against the uprights *a* when turned to the open position.

[Claims 2 and 3 not printed in the Gazette.]

1,243,816. AUTOMOBILE-RADIATOR. JOSEPH O. CORMIER, Cleveland, Ohio. Filed Feb. 12, 1917. Serial No. 147,985. (Cl. 257—125.)



1. A radiator having a vertical passage at each side and a series of transverse tubes open to said passages, one of said passages being open lengthwise to all said tubes and the other passage being subdivided near the lower end thereof to restrict the outflow of water from all the tubes to a relatively small number of tubes in the series.

2. A radiator having a series of transverse water-circulating tubes and an adjustable deflector opposite the ends of said tubes to restrict the outflow of water through a greater or less number of said tubes.

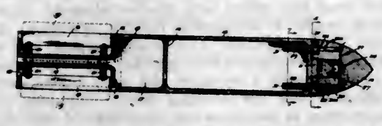
3. A radiator having vertical passages at each side and a series of transverse tubes opening at different elevations into said passages, and a movable deflector in one of said passages adapted to change the relative elevation thereof to said tubes.

4. A radiator having vertical side passages and a series of wedge-shaped tubes inclined downwardly toward the front of said radiator, and a single division wall in the lower end of one of said passages, subdividing said passage into a large common intake and a smaller outlet for all the tubes.

5. A radiator having a series of transverse water-circulating tubes and side passages open thereto and a deflector member in one of said passages having means exposed outside of the radiator adapting adjustment of said member relatively to said tubes.

[Claims 6 to 9 not printed in the Gazette.]

1,243,817. EXPLOSIVE DEVICE. RUFUS C. CRAWFORD, McKeesport, Pa., assignor of one-half to John T. Moyer, Oakmont, Pa. Filed Oct. 13, 1915. Serial No. 55,612. (Cl. 102—2.)



1. An explosive device comprising a body carrying an explosive charge, and having a chamber therein for receiving combustible material, said chamber having a rearwardly directed opening for permitting egress of the gases of combustion, means for effecting the explosion of said charge, and means for rendering said exploding means inoperative, said last-named means being releasable by the ignition of said combustible material.

2. An explosive device comprising a body carrying an explosive charge, and having a chamber therein for receiving combustible material, said chamber having a rearwardly directed opening for permitting egress of the gases of combustion, means for exploding said charge, a movable member for normally maintaining said exploding means in an inoperative condition, and an explosive charge connecting with said chamber for moving said member when said combustible material is ignited.

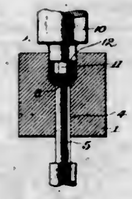
3. An explosive device comprising a body carrying an explosive charge, and having a chamber therein for receiving combustible material, said chamber having a rearwardly directed opening for permitting egress of the gases of combustion, means for effecting the explosion of said charge, a longitudinally movable member normally preventing the operation of said exploding means, said body being provided with a chamber for receiving a portion of said member and connecting with said first-named chamber, and an explosive charge in said second-named chamber, whereby said member is moved when said second-named charge is ignited.

4. An explosive device comprising a body carrying an explosive charge and having a chamber therein for receiving a combustible material, a rearwardly opening tube connecting with said chamber, means for effecting the explosion of said charge, and a movable member normally preventing the operation of said exploding means, said body being formed with a charge-containing chamber surrounding a part of said member, said last-named chamber communicating with said tube.

5. An explosive device comprising a body having a chamber therein for receiving combustible material, said chamber having a rearwardly directed opening for permitting egress of the gases of combustion, an explosive charge contained in said body, a second charge adapted when ignited to effect the explosion of said first named charge, impact-operated means for effecting the ignition of said second named charge, and ignition means between said chamber and said second-named charge disposed so as to effect the ignition of said second-named charge substantially when the burning of said combustible material is completed.

[Claims 6 to 17 not printed in the Gazette.]

1,243,818. METHOD OF PRODUCING HOLLOW SET-SCREWS. NORMAN W. CUMMINS, Bridgeport, Conn., assignor to The Burns & Bassick Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Dec. 14, 1914, Serial No. 877,177. Renewed Mar. 20, 1917. Serial No. 156,226. (Cl. 10—10.)



1. The process of making hollow set-screws, which consists in placing a solid piece of stock of substantially cylindrical form in a die having the same cross-section and likewise having a tapering bottom; sinking a punch into the stock, thereby causing the metal to flow upwardly about said punch and also downwardly to conform to the bottom of the die; and finally threading the blank thus produced.

2. The process of making hollow set-screws, which consists in placing a solid, substantially cylindrical piece of stock in a die having a cross-section of like contour, and likewise having a downwardly-tapering bottom; sinking a punch, polygonal in cross-section, downwardly into the central upper portion of the stock, thereby causing the laterally confined stock to flow upwardly about the punch and also downwardly to conform to the bottom of the die; and finally threading the blank thus produced.

3. The process of making hollow set-screws, which consists in placing a solid cylindrical piece of stock in a die having a cross-section of like contour; thereafter sinking a punch, polygonal in cross-section, into the upper central portion of the stock; then sinking a second punch of like but somewhat smaller dimensions into the opening produced by the first punch, said second punch likewise having a shouldered portion above the polygonal section, whereby the upper marginal portion of the stock, as well as the body thereof, will be condensed as the punch reaches its limit of inward movement; and finally threading the blank thus produced.

4. The process of making hollow set-screws, which consists in placing a solid cylindrical piece of stock in a die having a cross-section of like contour and a tapering bottom; thereafter, while the stock is confined in the die, causing the same to flow downwardly to fill the bottom of the die and likewise upwardly about a punch sunk downwardly into the upper face of the stock; and finally threading the blank thus produced.

5. The process of making hollow set-screws, which consists in placing a solid cylindrical piece of stock in a die having a cross-section of like contour; then subjecting the stock to the action of a punch having a polygonal cross-section; then to a punch of like but smaller cross-section, said punch having an outwardly-projecting shoulder above its punching portion, adapted to contact with the upper edge of the wall of the blank to confine and condense the same; and finally threading the blank thus formed.

[Claims 6 to 10 not printed in the Gazette.]

1,243,819. CALK. HARRY L. DAVIS, Greenville, Me. Filed July 5, 1916. Serial No. 107,669. (Cl. 36—67.)

1. A calk or shoes comprising a bushing adapted to be secured by flanges at each end within the lower lift of

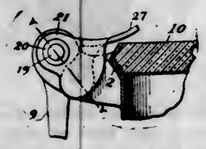
a shoe, a point passing through said bushing, a head for said point seated on one of said flanges, and means on



said head for engagement with the adjoining lift of the shoe.

[Claims 2 and 3 not printed in the Gazette.]

1,243,820. EYE-PROTECTOR. GEORGE H. DAY, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a Voluntary Association of Massachusetts. Filed Sept. 20, 1915. Serial No. 51,636. (Cl. 88—53.)



In an eye protector, the combination with a frame and a pair of coextensive end piece members, of a U-shaped locking clip adapted to embrace said members, one of the uprights of the U being formed with a laterally extending ear, and a pivot uniting the ear to one of the end piece sections, the position of the ear being such that it will lie along one of the end pieces when the clip is in locking position and will project laterally from the end pieces and hold the clip to one side of the end pieces and disengaged therefrom when in unlocked position.

1,243,821. NON-LEAK ANCHOR MEANS FOR SUPPORTING LINER-PUMP WORKING BARRELS. CHARLES DRADER and RAPHAEL R. CANDER, Bakersfield, Cal. Filed June 10, 1915. Serial No. 33,398. (Cl. 103—80.)



1. In an anchor for the working barrel of a liner pump, the combination with a collar secured to the working barrel and having a ring seat on its upper end, of a retainer detachably screwed into the collar and forming an externally cylindrical neck extending upwardly from the ring seat and having an annular shoulder above the neck, tubing for the working barrel, said tubing having an internal cylindrical tapered seat, a cylindrical ring of ductile metal on said neck and fitting between the ring seat and the shoulder and having outer annular beads and annular grooves, said annular beads being larger in diameter than said internal cylindrical tapered seat, so that when the working barrel goes down into position the beads fit themselves to said internal cylindrical tapered seat.

2. In an anchor for the working barrel of a liner pump, the combination with a collar secured to the working barrel and having a ring seat on its upper end, of a retainer detachably screwed into the collar and forming an externally cylindrical neck extending upwardly from the ring seat and having an annular shoulder above the neck, tubing for the working barrel, said tubing having an internal cylindrical seat, a cylindrical ring of ductile metal on said neck and fitting between the ring seat and the shoulder and having outer annular beads and annular grooves, said annular beads being larger in diameter than said internal cylindrical seat, so that when the working barrel goes down into position the beads fit themselves to said internal cylindrical seat.

3. The combination with tubing, of a working barrel, a hollow member of less internal diameter than the tubing, a coupling connecting the tubing and the hollow member, said hollow member having an internal seat of less diameter than the tubing and greater diameter than the working barrel, a detachable tubular extension of the working barrel connected to the upper end of the working barrel, a tubular retainer screwed into the extension and provided with a shoulder and with a neck between the shoulder and the working barrel; the bore of the retainer being of less diameter than that of the working barrel, and a ductile metal collar mounted on the neck and having annular beads that are normally spaced apart and that when installed are swaged into place to conform to the seat in said coupling, thus affording a non-leak releasable anchor to detachably hold the working barrel while in normal use.

4. The combination with a seat member having a taper seat; of a working barrel; a working barrel extension thereon, said extension being of greater diameter than the working barrel and less diameter than the seat and a support for the working barrel formed of ductile metal connected to the extension and engaging the seat and swaged therein and located at a distance above the working barrel, so that more or less flexible adjustment of the working barrel relative to the plunger of the pump in said working barrel will occur during the pumping operation, thus relieving the pump of friction that might otherwise occur.

5. In a pump comprising tubing and a working barrel, a working barrel extension connected to the upper end of the working barrel, a neck connected to the working barrel extension, a ring of ductile metal on said neck, means to retain said ring on the neck and a seat connected to the pump tubing to suport said ring whereby the working barrel is suspended in a manner to allow it to adjust itself slightly to perfect the alinement of the working barrel with the tubing.

[Claim 6 not printed in the Gazette.]

1,243,822. GAS-PRODUCER. HENRY A. DREFFEIN, Chicago, Ill. Filed Jan. 12, 1915. Serial No. 1,788. (Cl. 48—66.)

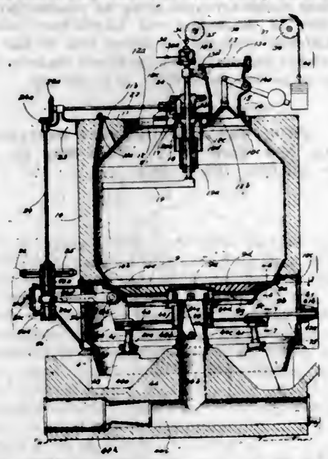
1. A gas producer comprising a fuel containing shell, a bosh adjacent the lower end of said shell, and means to impart a gyratory motion to said bosh.

2. A gas producer comprising a fuel containing shell, a bosh adjacent the lower end of said shell, means to impart a gyratory motion to said bosh, and means to impart an undulatory motion to said bosh.

3. A gas producer comprising a fuel containing shell, a table adjacent the lower end of said shell, and means to impart a gyratory motion to said table.

4. A gas producer comprising a fuel containing shell, a bosh adjacent the lower end thereof, a table member below said bosh and attached thereto, and means to impart a gyratory motion to said table and bosh.

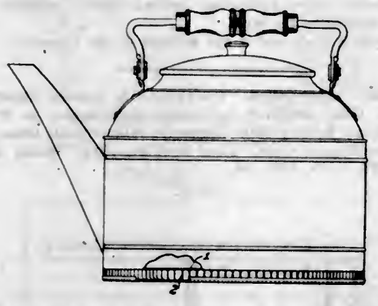
5. A gas producer comprising a fuel containing shell, a bosh adjacent the lower end thereof, a table member below said bosh, said bosh and table being secured the one



to the other, and means to impart an undulatory motion to said table and bosh.

[Claims 6 to 26 not printed in the Gazette.]

1,243,823. CULINARY VESSEL. WESLEY E. DUNKLE, Seattle, Wash. Filed Oct. 19, 1916. Serial No. 126,495. (Cl. 53—9.)

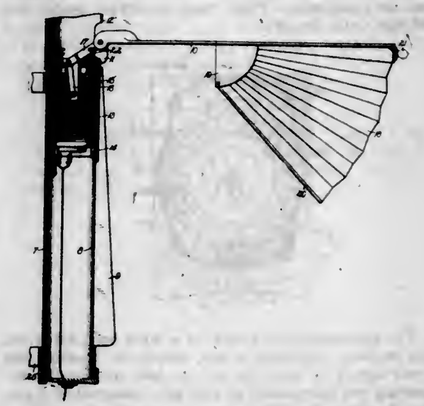


2. A culinary utensil having a system of heat-absorbing ribs projecting from the lower side of its bottom, and extending from the periphery inward and a separate, horizontally placed protective band secured beneath the outer ends of said ribs and having interlocking engagement with certain of the ribs.

[Claims 1 and 3 not printed in the Gazette.]

1,243,824. VEHICLE-SIGNAL. GEORGE WOODBRIDGE EDMOND, El Paso, Tex.; Leo C. Edmond executor of said Geo. W. Edmond, deceased. Filed Dec. 1, 1916. Serial No. 134,455. (Cl. 177—329.)

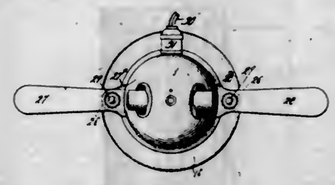
1. A device of the class described, comprising a tubular shell having a longitudinal slot, flanges bordering the sides of the slots and extending to the top of the housing, a head for said housing presenting lugs, an arm pivotally connected with one end to said lugs and adapted to be maintained by gravity between the flanges at the slot, a foldable member connected to the arm and adapted to pass in and out of the housing through the slot, a member associated with the foldable member and pivotally connected to the arm so as to swing under the action of gravity, whereby said foldable member is unfolded when the arm is moved out from between the flanges, and electromagnetic means arranged within the housing and connected to the arm for actuating the same.



2. A device of the class described, comprising a tubular shell having a longitudinal slot, flanges bordering the sides of the slot, a head for said housing presenting lugs, an arm pivotally connected to said lugs and adapted to be maintained by gravity between the flanges at the slot, a fan-shaped foldable member connected to the arm and adapted to pass in and out of the housing through the slot, said foldable member being so connected that gravity will tend to unfold it when said arm is moved away from the housing, and electromagnetic means within the housing in operative connection with the arm for actuating the same.

3. A device of the class described, comprising a tubular shell having a longitudinal slot, flanges bordering the sides of the slot, a head for said housing presenting lugs, an electromagnet within the housing and locked thereto by said head, an arm pivotally connected to the lugs and adapted to be maintained between the flanges under the action of gravity, a movable core in said electromagnet, links connecting them ovable core to the arm so that when the electromagnet is energized the arm is caused to move on its pivot against the action of gravity, a fan-shaped foldable member connected to the arm so as to unfold when the arm is moved from the housing, and a member associated with the foldable fanlike member and pivotally connected to the arm to facilitate the unfolding of the fanlike member under the action of gravity, said member and fan-shaped foldable member being adapted to be accommodated in the housing and pass through the longitudinal slot.

1,243,825. SCRAPING AND CLEANING DEVICE. LOUIS ESCUTCHEN, Philadelphia, Pa. Filed Jan. 13, 1917. Serial No. 142,194. (Cl. 15—37.)



The combination of a rotatable brush, a motor for rotating the brush, handles, bolts connecting the handles and the motor together, said handles having portions extending inwardly from said bolts and operative to abut the motor and thereby prevent pivotal movement of the handles with respect to the bolts, substantially as described.

1,243,826. INDICATING-REGISTER FOR LOCKS. WILLIS S. FARNSWORTH, San Francisco, Cal., assignor to Coin Controlled Lock Co., Petaluma, Cal., a Corporation of California. Filed Sept. 2, 1913. Serial No. 787,703. (Cl. 70—6.)

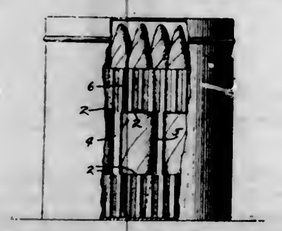


1. The combination in a lock, of a latch bolt, actuating means therefor, including a key, means for transmitting the movements of said key to the bolt, and means for registering the movements of said bolt, comprising a plurality of coöperating dials provided with suitable characters thereon, an actuating pawl for said dials, a supporting member for said pawl, and means for rocking said supporting member at each turning movement of the key.

5. In a device of the kind described and in combination, locking mechanism including a latch bolt, actuating means therefor including key-controlled mechanism operatively connected with said locking mechanism, and means for registering the successive movements of the locking mechanism, comprising a member operatively connected therewith, said member provided with a flange projecting from one face thereof, a collar arranged on said flange and provided with means for preventing the movement thereof on the flange, a plate mounted on said collar and provided with means for operatively connecting the same with said member, a plurality of dials having suitable indicating characters thereon and mounted on said collar, one in front of the other, a pawl carried by said rocking plate and arranged to engage said dials, one of said dials having a portion cut away whereby the other dial will be engaged by the pawl at each complete rotation of the first mentioned dial, and means for yieldingly opposing the movement of said plate and preventing a reverse rotation of the dials, the outer dial having portions cut away whereby the characters on the other dial are partially displayed.

[Claims 2 to 4 and 6 not printed in the Gazette.]

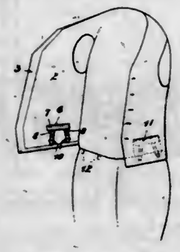
1,243,827. HOLDER FOR CIGARS IN PACKAGES. THOMAS E. FEARON, Philadelphia, Pa., assignor to The Miller, Du Brul and Peters Manufacturing Co., Cincinnati, Ohio, a Corporation of Ohio. Filed Oct. 25, 1916. Serial No. 127,643. (Cl. 131—11.)



1. A packing holder for cigars or the like comprising a sheet of material slit at intervals along an intermediate longitudinal zone and having the straps thus formed, deflected to provide pockets and the longitudinal portions of the sheet lying on either side of said straps, gathered and forming base walls opposing the strap walls in the confinement of articles in the pockets.

2. A packing holder for articles of merchandise comprising arched straps arranged along an intermediate longitudinal zone of the holder and longitudinal zones of gathered material arranged on either side of the strap zone, the arched straps and the gathered material forming pockets to receive the articles to be packed.

1,243,828. TROUSERS-SUPPORTER. BENJAMIN H. FREEDMAN, New York, N. Y. Filed May 21, 1917. Serial No. 169,828. (Cl. 2—96.)

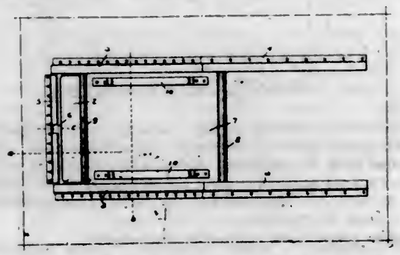


1. A device of the class described comprising a garment, and trouser supporting means secured on the inner side of the garment with its means of attachment to the garment placed within the area defined by a pocket in the garment.

4. A device of the class described comprising a vest or other garment having a lining, outer material and a pocket, a transversely extending strip of material secured to the lining and outer material and behind the pocket and downwardly depending spaced-apart supporting straps secured to the strip.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,243,829. SILO-DOOR. JOHNATHAN R. FREEZE, Middletown, Ohio, assignor, by mesne assignments, to The American Rolling Mill Company, Middletown, Ohio, a Corporation of Ohio. Filed Nov. 21, 1916. Serial No. 132,695. (Cl. 189—46.)

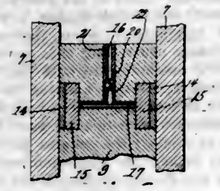


1. In a door, the combination of a shell provided with a rectangular door-opening, horizontal bars secured to the shell in front of the upper and lower margins of the door-opening, and forming walls closer to the shell at one end than at the other whereby the upper and lower margins of the door-opening become provided with tapering grooves facing toward each other, a door adapted to close the opening and having its horizontal edges slidable in said grooves, and tapering members provided at the horizontal margins of the door and adapted to tightly fill said grooves when the door is pushed to closed position, substantially as set forth.

2. A structure as specified in claim 1 when the grooves are formed of tapering Z-shaped bars secured to the shell at the horizontal margins of the door-opening, substantially as set forth.

[Claims 3 to 7 not printed in the Gazette.]

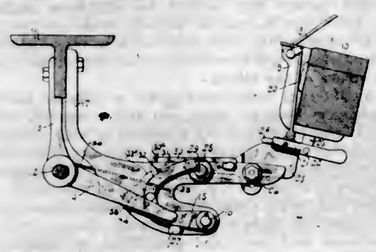
1,243,830. PACKING ROTARY ENGINES. WILLIAM H. FRIEDRICH, Dyer, Ind. Filed June 18, 1917. Serial No. 175,420. (Cl. 121—86.)



1. In a rotary engine, a cylinder, a rotor in the cylinder and having piston wings extending from its periphery, the ends of the rotor having circular grooves, and the side edges and the outer ends of the piston wings being also grooved, packing rings seating in the circular grooves and having offsets seating in the side grooves of the wings, and overlapping packing plates seating in the end grooves of the wings and having portions seating in the side grooves thereof and overlapping the offsets, the rotor having fluid pressure supply ducts terminating behind the packing rings and the packing plates.

[Claim 2 not printed in the Gazette.]

1,243,831. CENTER-FILLING STOP-MOTION FOR LOOMS. JOSEPH A. GAGNON, Fitchburg, Mass., assignor to Crompton & Knowles Loom Works, Worcester, Mass., a Corporation of Massachusetts. Filed Feb. 24, 1916. Serial No. 80,283. (Cl. 139—54.)



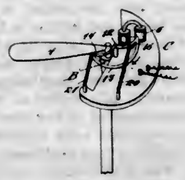
1. A center filling stop motion for looms comprising a shipper rod, an arm on said rod, a fixed stand, a lever pivoted on said stand and engaging said arm to actuate the shipper, a filling fork and dagger mounted on the lay, said dagger being connected to said filling fork and being adapted to normally engage and actuate said lever, a shield movable into position to cover the end of said lever in all positions thereof, means for moving said shield into and out of operative position, and a cam effective to raise the dagger out of engagement with said lever when the dagger reaches a predetermined point in its forward movement.

2. A center filling stop motion for looms comprising a shipper rod, an arm on said rod, a fixed stand, a lever pivoted on said stand, and engaging said arm to actuate the shipper, a filling fork and dagger mounted on the lay, said dagger being connected to said filling fork and being adapted to normally engage and actuate said lever, a shield movable into position to cover the end of said lever in all positions thereof, means for moving said shield into and out of operative position and a cam mounted on said stand and effective to easily and quickly raise said dagger out of engagement with said lever as the dagger reaches a predetermined point in its forward movement.

4. A center filling stop motion for looms comprising a shipper rod, an arm on said rod, a fixed stand, a lever pivoted on said stand and engaging said arm to actuate the shipper, a filling fork and dagger mounted on the lay, said dagger being connected to said filling fork and being adapted to engage and actuate said lever, and a roll rotatable on a fixed pivot on said stand and effective to disengage said dagger and lever with a smooth rolling action at a predetermined point before the dagger reaches its forward limit of travel, such disengagement being caused by the simultaneous forward movement of said dagger and lever past said fixed cam roll.

[Claim 3 not printed in the Gazette.]

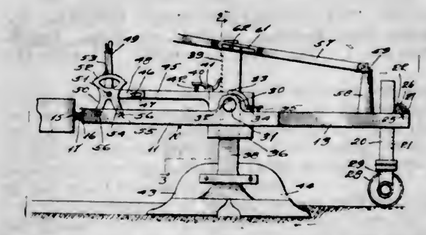
1,243,832. TRAIN-STOP APPARATUS. LOUIS A. GLADDING, New Milford, Conn., and JAMES H. SULLIVAN, Newport, R. I. Filed June 17, 1916. Serial No. 104,185. (Cl. 246—58.)



1. In a train stop apparatus, the combination of a swinging controller handle, an actuator swinging in the same plane with the handle and mounted on an axis adjacent to and parallel with the axis of the handle, a stationary catch into and out of engagement with which the actuator moves in a direction transverse to its plane of swinging movement, said catch having an inclined surface along which the actuator moves to shift the actuator out of its normal plane and to cause it to drop into engaging position with the catch, an electromagnet, and means actuated by the electromagnet for releasing the actuator from the said catch.

2. In a train stop apparatus, the combination of a swinging controller handle, an actuator swinging in the same plane with the handle and mounted on an axis adjacent to and parallel with the axis of the handle, a stationary catch into and out of engagement with which the actuator moves in a direction transverse to its plane of swinging movement, said catch having an inclined surface along which the actuator moves to shift the actuator out of its normal plane and to cause it to drop into engaging position with the catch, and electrical means operative to release the actuator from the said catch.

1,243,833. PLOW. JACOB P. HAFFNER, Howardsville, Va. Filed Oct. 21, 1916. Serial No. 126,949. (Cl. 97—27.)



1. In a plow of the character described, a suitably supported frame, a standard pivotally connected with the frame to be tilted in the line of draft, right and left plow shares carried by the lower portion of the standard and arranged in end to end relation with their cutting ends disposed remote from each other, means connected with the frame and secured to the standard to travel therewith and serving to shift the standard laterally and move the same vertically with respect to the frame, and means connected with the frame and secured to the standard to travel therewith during its lateral movement and adapted to tilt the standard in the line of draft.

4. In a plow of the character described, a suitably supported frame, a standard pivotally connected with the frame to be angularly adjusted in an approximately vertical plane extending longitudinally of the frame, right and left hand plow shares carried by the lower portion of the standard and arranged in end to end relation with their cutting ends disposed remote from each other, means to shift the standard laterally, and means connected with the standard to travel therewith during its lateral movement and adapted to angularly adjust the same.

6. In a plow of the character described, a suitably supported frame, a transverse shaft pivotally connected with the frame to turn upon its longitudinal axes and move longitudinally with relation to the frame, and having a socket, a standard mounted to reciprocate within the socket, a crank connected with the socket, a lever pivotally connected with the frame and having a loose connection with the standard to shift it laterally and move the same vertically with respect to the frame, means to lock the shaft in adjustment at different longitudinal positions, means to lock the standard in adjustment at different vertical positions, plow shares carried by the lower end of the standard, guide means connected with the frame and extending transversely thereof, a carriage mounted to slide upon the guide means, and a bell crank lever pivoted to the carriage and connected with the crank of the socket.

[Claims 2, 3, and 5 not printed in the Gazette.]

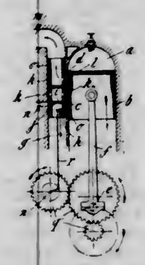
1,243,834. HINGE MEMBER FOR BARRETTES AND THE LIKE. EDWARD E. HAMILTON, Northboro, Mass. Filed Mar. 26, 1917. Serial No. 157,374. (Cl. 132—22.)



4. As an article of manufacture, a blank for a series of hinge members consisting of a strip of celluloid or the like having a plurality of longitudinal slots extending entirely therethrough, and two transverse slots located across each longitudinal slot at equal distances from its ends and extending from one side of the blank nearly to the other side, whereby when said blank is cut up into pieces by cutting through between two slots and also cutting through the center of each longitudinal slot, twice as many blanks will be produced as there are longitudinal slots.

[Claims 1 to 3 and 5 not printed in the Gazette.]

1,243,835. INTERNAL-COMBUSTION ENGINE. CAMILLE JEAN HAUTIER, Bologne-sur-Seine, France. Filed Dec. 1, 1913. Serial No. 803,957. (Cl. 123—75.)



1. In an internal combustion engine, a working cylinder having inlet and exhaust ports therein, a working piston in the cylinder controlling said ports, an exhaust conduit arranged to communicate with the exhaust port, a controlling member for said ports having a fuel chamber adapted to communicate with the inlet port, and means to actuate the controlling member so as to supply to the cylinder burnt gases from the exhaust conduit and fuel from said chamber during the suction stroke of the piston and to return part of said fuel to the chamber during the compression stroke of the piston.

2. In an internal combustion engine, a working cylinder having inlet and exhaust ports therein, a working piston in the cylinder controlling said ports, an exhaust conduit arranged to communicate with the exhaust port, an admission conduit, a slide adapted to control said ports and conduit and having ports arranged to connect the admission conduit with said inlet port, and means to actuate the slide to connect the exhaust port with the exhaust conduit and connect the admission conduit with the inlet port during the suction stroke of the piston and to maintain the connection between the admission port and admission conduit during a portion of the compression stroke of the piston.

3. In an internal combustion engine, the combination of a working cylinder having an exhaust port near its upper end and an admission port below the exhaust port, a piston, a crank shaft, a driving connection between said crank shaft and piston, a cylindrical guide parallel to the axis of said working cylinder, a single distributer slide in said guide, a distributing shaft, means to actuate said slide from said distributing shaft, an admission conduit intermediate the ends of said guide, an exhaust conduit communicating with the upper end of said guide, said distributer having an admission port intermediate its ends coöperating with the admission conduit and admission port of said cylinder and an exhaust port coöperating with the exhaust port of said cylinder and said exhaust conduit, and means to angularly adjust the distributer shaft with respect to the crank shaft during the operation of the piston to connect the exhaust port with the exhaust conduit and connect the admission conduit with the inlet port during the suction stroke of the piston and to maintain the connection between the admission port and admission conduit during a portion of the compression stroke of the piston.

4. In an internal combustion motor, a cylinder having an exhaust port near its upper end and a separate inlet port below the exhaust port, a piston in said cylinder controlling said ports, a crank shaft, a driving connection between said crank shaft and piston, a cylindrical guide parallel with said cylinder, a single piston distributer in said cylindrical guide, a distributing shaft displaced with respect to the axis of said guide and distributer, driving means between said shaft and distributer, an admission conduit intermediate the ends of said guide, an exhaust conduit at the upper end of said guide, a port intermediate the ends of said distributer coöperating with and controlling said inlet conduit and inlet port, a port in the upper portion of said distributer to control communication between said exhaust port and exhaust conduit, and means to angularly displace the distributer shaft with respect to the crank shaft during the operation of the piston to connect the exhaust port with the exhaust conduit and connect the admission conduit with the inlet port during the suction stroke of the piston and to maintain the connection between the admission port and admission conduit during a portion of the compression stroke of the piston.

5. In an internal combustion motor, a cylinder having an exhaust port near its upper end and a separate inlet port below the latter, a piston in said cylinder controlling said ports, a crank shaft, a driving connection between said piston and crank shaft, a cylindrical guide parallel with said cylinder, an inlet pipe intermediate the ends of said guide and an exhaust pipe at the top of said guide, a single hollow piston distributer in said guide for controlling said ports and having a chamber provided with inlet and outlet ports, said ports and chamber controlling communication between the inlet pipe and the inlet port of said cylinder, said distributer also having a port above said chamber controlling communication between the exhaust port of the cylinder and the exhaust pipe, and means to actuate said distributer during the operation of the piston to connect the exhaust port with the exhaust conduit and connect the admission conduit with the inlet port during the suction stroke of the piston and to maintain the connection between the admission port and admission conduit during a portion of the compression stroke of the piston.

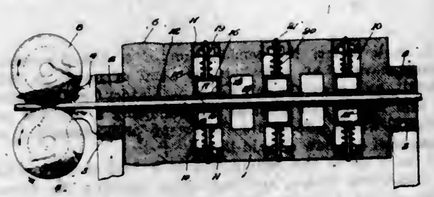
[Claims 6 and 7 not printed in the Gazette.]

1,243,836. CONDIMENT-HOLDER. TOWNSEND DE M. HAWKES, Corning, N. Y., assignor to T. G. Hawkes & Co., Corning, N. Y., a Corporation of New York. Filed June 27, 1916. Serial No. 106,160. (Cl. 65—45.)



A condiment holder having a shaker end provided with a depression in the top thereof, and a plurality of discharge openings provided in the perimeter of the shaker end and surrounding said depression, said openings having outwardly flaring walls tapering from the outside of the receptacle to the inside of the shaker end.

1,243,837. MACHINE FOR POLISHING RODS. WILLIAM J. HEINAUER, Massillon, Ohio, assignor of one-half to Frederick J. Parry, Massillon, Ohio. Filed Nov. 8, 1916. Serial No. 130,234. (Cl. 51—10.)



1. An apparatus for the purpose set forth comprising a polishing body having a longitudinal bore to receive a rod to be polished, polishing blocks fitted within the body and projecting within the bore of the same to engage the rod, and means for supplying polishing material to the said blocks.

2. In an apparatus for the purpose set forth, the combination of a polishing body having a longitudinal bore to receive a rod to be polished and radial recesses communicating with said bore, polishing blocks fitted in the inner ends of said recesses to project into the bore and engage the rod to be polished, means for supplying polishing material to said blocks, springs disposed within the recesses and yieldably holding the blocks to the said rod, and means for varying the tension of said springs.

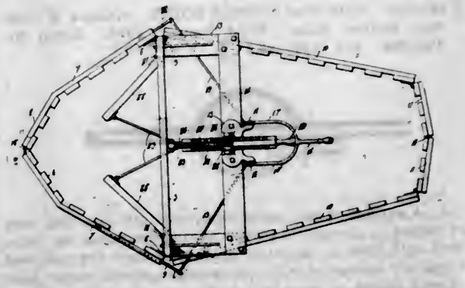
3. In an apparatus for the purpose set forth, the combination of a polishing body having a longitudinal bore to receive a rod to be polished, polishing blocks fitted within the body and extending into the bore to engage the rod to be polished, means for supplying polishing material to said blocks and variable pressure devices bearing upon the said blocks to hold them to the rod to be polished.

4. An apparatus for the purpose set forth comprising a polishing body having a longitudinal bore to receive a rod to be polished, interchangeable bushings adapted to fit in said bore and around the rod, polishing blocks carried by the body and disposed to engage the rod between opposed ends of adjacent bushings, and means for effecting relative rotation between the polishing body and the rod while causing the rod to move through said bushings.

5. In an apparatus for the purpose set forth, the combination of a polishing body having a longitudinal bore and radial recesses communicating with said bore, boxes fitted within the said recesses at the inner ends thereof, means for feeding polishing material to the boxes and means within the outer portions of the recesses for yieldably holding the said boxes toward the bore of the polishing member.

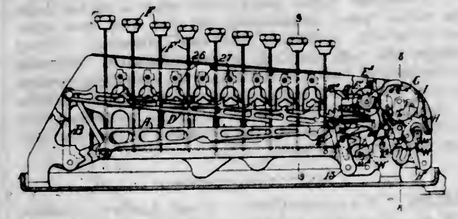
[Claims 6 and 7 not printed in the Gazette.]

1,243,838. HOG-TRAP. CHARLES HIGBEE, Kirkwood, Ill. Filed Oct. 19, 1916. Serial No. 126,578. (Cl. 119—98.)



In an animal trap, a frame, gates arranged in pairs and hinged to said frame and extending forwardly and rearwardly from the same, the ends of said gates being alined with the central portion of said frame when said gates are in closed position, and means on said frame for opening or closing one pair of said gates.

1,243,839. ADDING-MACHINE. ALLEN A. HORTON, Detroit, Mich., assignor to Burroughs Adding Machine Company, Detroit, Mich., a Corporation of Michigan. Filed Aug. 30, 1915. Serial No. 48,006. (Cl. 235—82.)



1. In a machine of the character described, the combination with registering wheels, means for registering varying amounts thereon, and means for zeroizing them; of means controlled by the wheel of highest order for preventing a second operation of the zeroizing means until that wheel reaches zero position.

7. The combination of register wheels; planetary gearing through which to individually advance them for registering varying amounts; carrying mechanism including cams and sun gears on the wheels, intermediate gears unified with the sun-gears of the first mentioned planetary gearing, oscillatory gear-carriers whose gears mesh with said sun-gears on the wheels and with the said intermediate gears, and gear-carrier oscillating members engaging the cams; zeroizing means including locks for the intermediate gears and a reciprocating driver element for operating said members independently of said cams to collectively advance the wheels toward zero through the reverse action of the wheels' gears, the gears of said carriers and the locked intermediate gears; and means for

preventing a second operation of said driver element until completion of carry-transmission as instituted by advance of the wheel of lowest order to zero and the other wheels to positions one step short of zero through said reverse gear action, said means comprising a movable stop-piece to block said driver element, a latch normally restraining said stop-piece and adapted to be tripped by said driver element, a lever for retracting the stop-piece, a gear wheel equipped to operate said lever, a cam and sun gear on the wheel of highest order, an oscillatory gear carrier whose gears mesh with said last mentioned gear wheel and sun gear, and a gear carrier oscillating member engaging said cam on the wheel of highest order and operated upon by the zeroizing driver element.

[Claims 2 to 6, 8, and 9 not printed in the Gazette.]

1,243,840. SYRINGE NOZZLE-POINT. GEORGE W. JESSUP, Boston, Mass. Filed June 7, 1916. Serial No. 102,204. (Cl. 128—25.)

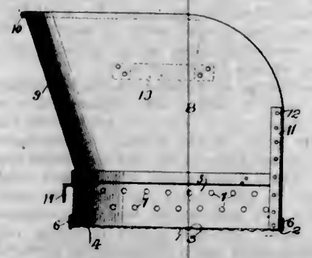


1. A syringe nozzle point comprising an injection tube of rubber, a pneumatic rubber bulb surrounding the tube, with both ends of the latter projecting from the bulb and integrally connected with the latter, a second rubber tube of such length as to extend partly into the bulb and having one end projecting out of the same, the latter tube being integrally connected with the bulb and flexible, and a stopper in the outer end of the second tube for permitting air under pressure to be maintained in the bulb.

2. A syringe nozzle point comprising a solution tube, a pneumatic bulb surrounding the tube, a short tube parallel with the first-mentioned tube and communicating with the bulb for permitting the latter to be inflated with air and a preservative fluid to be supplied, said short tube having a portion exterior to the bulb, whereby it can be pinched to hold the air in the bulb preparatory to the insertion of a stopper in the short tube, and a stopper closing the outer end of the short tube.

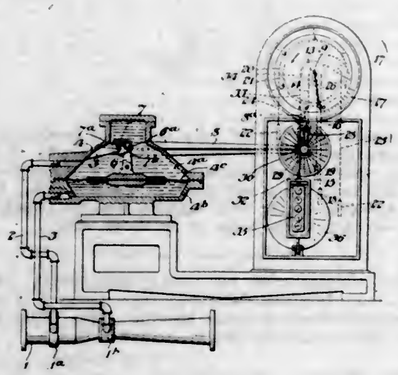
3. A syringe nozzle point comprising a rubber bulb, two rubber tubes substantially parallel with each other and integrally connected, one tube extending entirely through the bulb and out of communication therewith for conducting fluid, and the other tube extending through the wall of the bulb and communicating with the interior of the latter, said tube being integrally connected with the bulb, and a stopper in the outer end of the tube communicating with the bulb.

1,243,841. WASHDRAINER. MARIE LARSEN, Jamaica, N. Y. Filed May 13, 1915. Serial No. 27,814. (Cl. 68—30.)



A wash drainer comprising in combination with a wash boiler, a perforated sheet metal member conforming in shape to the contour of one end of the boiler, a plurality of supporting members secured to the outer face of the perforated sheet metal member and adapted to engage the upper edge of the boiler, a wire mesh bottom for the sheet metal member and secured thereto by crimping the lower edge about a flange carried by the mesh bottom, an outwardly flaring upper section rigidly secured to the upper edge of the perforated sheet metal member, a perforated front wall connecting the ends of the perforated sheet metal member, and having end portions extending above the perforated sheet metal member, and angle bars connected to the perforated sheet metal member, the perforated front wall and the outwardly flaring upper section, said angle bars serving to secure said perforated sheet metal member, said front wall, and said upper section in rigid relation.

1,243,842. FLUID-METER. JOHN W. LEDOUX, Swarthmore, Pa. Filed Feb. 4, 1916. Serial No. 76,095. (Cl. 73—167.)



1. In a meter, the combination of a liquid conduit, means movable by variations of head of liquid in said conduit, and a weight controlled oscillatory cam operated by said means and adapted for producing a variable resistance which effects its movement proportionately to changes of the flow of said liquid.

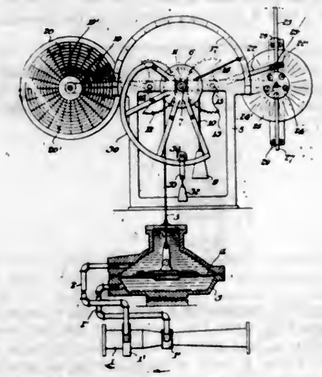
2. In a meter the combination of a fluid conduit, with an indicating device, and means for effecting the movement of said device to distances proportional to the flow of fluid in said conduit, said means comprising a revoluble shaft, a weight controlled cam fixed on said shaft whereby changing resistance is opposed to the revolution thereof as the velocity of flow changes and weighted compensating cam mechanism for regulating said revolution.

3. In mechanism for effecting the indication of variable pressures, means comprising a revoluble element adapted to be turned by varying pressures and means for applying counterbalancing forces to said element at points distant from its axis of revolution and in angular relation to a datum line varying with changes in said pressures, such that the turning movement of said element is an exponential function of said pressures.

1,243,843. INTEGRATING MECHANISM. JOHN W. LEDOUX, Swarthmore, Pa. Filed Sept. 11, 1916. Serial No. 119,418. (Cl. 73—167.)

1. In an integrating mechanism, means movable by varying pressures and controlling means connected therewith, said controlling means comprising a cam having a track and a traveling weight supported by and movable on said track, whereby the angular movement of said cam varies directly with an exponential function of said pressure.

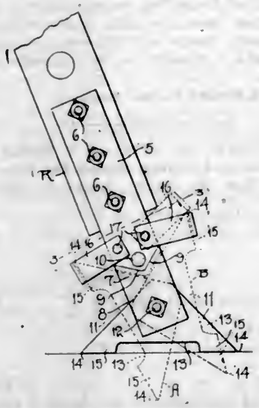
4. In an integrating mechanism, means comprising a fluid conduit and a device movable by variations of pressure of fluid flowing in said conduit, in combination with means comprising a journaled cam and a rolling weight supported by said cam, whereby the angular movement



of said cam is in direct ratio to changes in the flow in said conduit.

[Claims 2, 3, and 5 to 7 not printed in the Gazette.]

1,243,844. SAFETY DEVICE FOR LADDERS. ROBERT W. LOFSTROM, Worcester, Mass. Filed Mar. 28, 1917. Serial No. 158,008. (Cl. 228—5.)



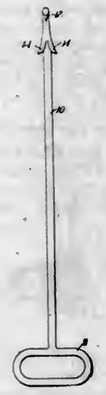
1. A device of the character described comprising a pivotally mounted, triangular floor engaging plate having spaced points for engagement with the floor surface, and means to operatively engage one of the points of said plate and hold the other in vertical alinement with the pivot of the plate for operative engagement with the floor surface.

5. A holding device for ladders including a pair of plates bolted to the ladder rail and being offset to space the plates apart at one of their ends, a holding plate pivotally mounted between the spaced ends of the body plates and adjustable to various positions between said body plates for operative engagement with the floor surface, and latch devices mounted upon the body plates to engage the holding plate in certain of its operative positions and prevent pivotal movement thereof.

7. A device of the character described comprising a substantially triangular-shaped plate, an attaching bolt therefor, and means for holding the plate against pivotal movement with respect to the part to which it is attached, whereby either one of two spaced apices of the plate may be disposed in operative position with respect to said part.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,243,845. CORK-EXTRACTOR. JOHN J. LYONS, Brookline, Mass. Filed Mar. 21, 1916. Serial No. 85,712. (Cl. 65—47.)



1. A tool for extracting a cork from a bottle comprising a shank portion and a single pointed centrally located prong projecting laterally from one end of said shank and a pair of prongs located on opposite sides of said shank, each prong of said pair of prongs having the edge thereof which is farthest removed from said end prong extending substantially at right angles to said shank, said end prong being separated from said pair of prongs by a portion of said shank having an inner edge substantially free from projections.

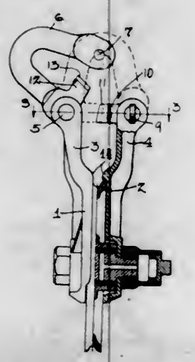
2. A tool for extracting a cork from a bottle comprising a shank portion and a single pointed centrally located prong projecting laterally from one end of said shank and a pair of prongs located on opposite sides of said shank, each prong of said pair of prongs having the edge thereof which is farthest removed from said end prong extending at an angle less than an obtuse angle to said shank, said end prong being separated from said pair of prongs by a portion of said shank having an inner edge substantially free from projections.

1,243,846. CURRYCOMB. CHARLES A. MCDOWELL, Prineville, Oreg. Filed May 14, 1913. Serial No. 767,645. (Cl. 119—88.)



A curry comb comprising a back having a loop extending outwardly therefrom adjacent one end, toothed bars carried by said back, cleaner bars pivoted to said toothed bars and each consisting of a channeled body portion, the web of each cleaning bar being extended beyond one end thereof and bent so as to project past the plane of said back, and a transverse bar connecting the ends of the curved portions of said webs and having a second loop formed integrally therewith and arranged to register with the first named loop.

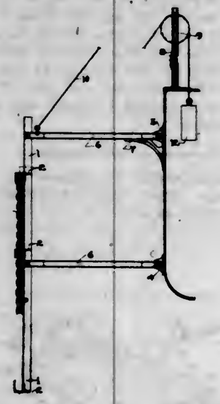
1,243,847. CABLE-BLOCK. JOHN R. MCGIFFERT, Duluth, Minn., assignor to Clyde Iron Works, Duluth, Minn., a Corporation of Maine. Filed July 20, 1917. Serial No. 181,704. (Cl. 254—194.)



3. In a cable block the combination of a frame adapted to receive a pulley therein, a clevis pivotally attached to one side of said frame and adapted to engage the other side thereof, a bar projecting from one side of said frame, and having a concave end portion, and a second bar extending from said clevis and adapted to be snugly received within such concave end of said first bar.

[Claims 1 and 2 not printed in the Gazette.]

1,243,848. TORPEDO OR MINE GUARD. ARCHIBALD L. MCKELVEY, St. Louis, Mo. Filed Nov. 21, 1914, Serial No. 873,388. Renewed June 7, 1917. Serial No. 173,417. (Cl. 114—240.)



2. A mine or torpedo guard for ships, comprising a series of independently adjustable sections, each section being composed of a metal screen, in combination with means for adjustably supporting said sections, comprising for each section a plurality of spaced brackets arranged in a rectangular series, arms pivoted to said brackets and extending outwardly and pivoted to said screens, extensions on the upper ones of said brackets constituting supports for the upper ones of said arms when in one adjustment, and mechanism for raising and lowering said sections, substantially as specified.

6. A mine or torpedo guard for ships, comprising a plurality of brackets supported by the side of the ship, outwardly extending arms pivoted to each of said brackets, a rigid screen having pivot connections with said arms, a series of horizontal rests adjacent to selected ones of said brackets adapted to support certain ones of said arms when the screen is in one adjustment, and mechanism for raising and lowering said screen.

[Claims 1 and 3 to 5 not printed in the Gazette.]

1,243,849. FUSE-PLUG. WILLIAM S. MACLEWEE, Yardley, Pa., assignor to Carrie Howell MacLewee, Yardley, Pa. Filed Nov. 23, 1915. Serial No. 63,041. (Cl. 175—277.)



2. A fuse plug comprising a metal shell, a contact plate formed integrally with the main part of the shell and bent inwardly, a fuse wire attached to the inner end of the contact plate, a body portion having a slot formed therein to embrace the said contact plate, and a contact button located in the metal shell to which the opposite end of the fuse wire is attached.

3. A fuse plug comprising a cylindrical body portion having a longitudinal slot formed in one end thereof, a metal shell secured upon the end of the body portion having the said slot formed therein, a contact plate formed upon the inner edge of the metal shell, said contact plate extending inwardly through the slot formed in the body portion, a disk of insulating material in the metal shell, a contact button upon the disk, a fuse wire connected with the contact button and the contact plate on the metal shell, and a closure for the opposite end of the body portion.

[Claim 1 not printed in the Gazette.]

1,243,850. FUSE-PLUG. WILLIAM S. MACLEWEE, Yardley, Pa., assignor to Carrie Howell MacLewee, Yardley, Pa. Filed Nov. 23, 1915. Serial No. 63,042. (Cl. 175—277.)

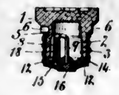


1. A fuse plug comprising a body portion having a central chamber, said body portion having a groove formed in the top surface thereof, a transparent disk covering said chamber, a metal cap to hold the transparent disk, an enlarged flange formed upon the body portion, arms formed upon the metal cap adapted to project through openings in the body portion and to be secured below the projecting flange of the body portion.

2. A fuse plug comprising a body portion having a central chamber, said body portion having an annular groove formed in the top surface thereof, a metal cap having a cylindrical flange adapted to enter said groove formed in the body portion, arms upon the metal cap, openings formed in the body portion extending from the bottom of the said groove to receive the arms of the metal cap, an enlarged flange formed upon the body portion, and said flange having recesses formed in the under side thereof to receive the ends of the arms of the metal cap.

3. A fuse plug comprising a body portion having a central chamber, said body portion having an annular groove formed in the top surface thereof forming a circular wall around the outlet of the said chamber, ribs formed upon the top surface of the said wall, a transparent disk, a metal cap to hold the said disk upon the ribs of the wall, a circular flange upon the metal cap fitting loosely over the said wall, an enlarged flange formed upon the body portion to surround the metal cap, and means for securing the flange of the metal cap to the body portion.

1,243,851. FUSE-PLUG. WILLIAM S. MACLEWEE, Yardley, Pa., assignor to Carrie Howell MacLewee, Yardley, Pa. Filed Sept. 28, 1916. Serial No. 122,603. (Cl. 175—277.)

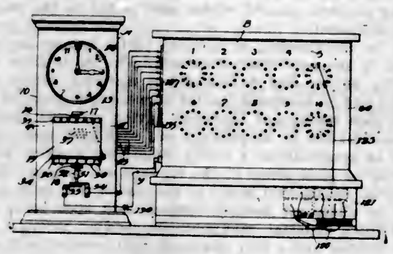


1. In a fuse plug the combination of a metal sleeve, a contact plate formed upon the bottom portion of the metal sleeve and bent inwardly, insulating washers, a central contact button upon said washers, a fusible member connecting the contact plate of the metal sleeve with the central contact button, and a body portion to which said metal sleeve is secured.

2. In a fuse plug the combination of a metal sleeve, a contact plate extending from the bottom portion of the metal sleeve and bent inwardly, said contact plate having a turned edge, a fuse wire soldered to the turned edge of the contact plate, insulating washers, a central contact button upon said washers to which said fusible member is attached and a body portion to which said metal sleeve is secured.

3. In a fuse plug the combination of a body portion, a metal sleeve, a contact plate upon the bottom of the sleeve extending inwardly, an insulating washer between the body portion and the bottom of the metal sleeve, a tongue upon said insulating washer extending inwardly adjacent to the said contact plate, an insulating washer outside of the bottom of the metal sleeve, a central contact button holding said washers and said metal sleeve together and a fusible member connecting the contact button with the contact plate.

1,243,852. MULTITIME SEPARATOR AND DISTRIBUTER. DAVID LUCIFER MARTYN, North Yakima, Wash. Filed Apr. 6, 1916. Serial No. 89,464. (Cl. 161—2.)

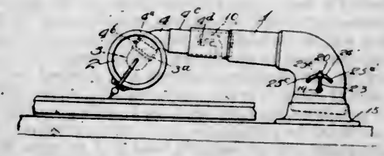


3. In an annunciating system, the combination of a time controlling mechanism, a synchronously operable circuit closer, a plurality of trunk circuits, of signal separating apparatus including a pair of parallel arranged shafts, a plurality of shafts intergeared with first said shafts, each of the latter communicating with one trunk circuit, a plurality of circuit closing arms carried by second said shafts, circuit terminals disposed in the path of movement of said spring arms, said shaft being operated synchronously, a step-by-step operating mechanism for said shaft, and means associated with said time controlling mechanism to operate said step-by-step movement.

5. In an annunciating system, the combination of a time controlling mechanism, a synchronously operable circuit closer and a plurality of trunk circuits, of signal separating means including a plurality of intergeared shafts, certain of the shafts having spring circuit closing arms thereon, said shafts being electrically independent, a ratchet carried by one of the shafts, a bell-crank lever, a pawl on one end of the bell-crank lever to engage said ratchet, shock absorbing means for said bell-crank lever, electro-magnets for actuating said lever, and means controlled by said synchronous circuit closer to intermittently energize said electro-magnet.

[Claims 1, 2, and 4 not printed in the Gazette.]

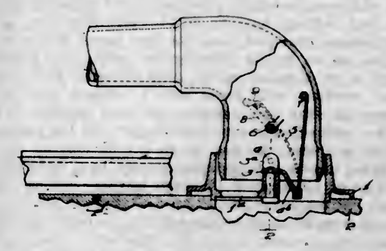
1,243,853. PHONOGRAPH-TONE-ARM CONNECTION. JULIUS MATSON, Glenwood, Ill., assignor to Steger & Sons Piano Manufacturing Company, Steger, Ill., a Corporation of Illinois. Filed Oct. 14, 1916. Serial No. 125,554. (Cl. 274—24.)



1. In a phonograph a tubular tone arm mounted for swinging to carry the sound box over the record, in combination with such sound box and its sound conduit connections with the tone arm, said connections comprising an elbow member joining the sound box at one end and having the other end extending obliquely upward; a second elbow member having one arm telescopically interfitting with the tone arm for longitudinal movement, and the other arm at an obtuse angle to the first and interfitting with the oblique arm of the first mentioned elbow for relative rotary movement of said interfitting oblique arms about their common axis, the telescopically interfitting parts having one a pin and the other a slot engaged by the pin, said slot trending generally longitudinally of the tone arm and having both end portions pointing in the same longitudinal direction for stopping the pin against pull in that direction when it is at either end of the slot.

[Claims 2 to 9 not printed in the Gazette.]

1,243,854. PHONOGRAPH-TONE-ARM CONNECTION. JULIUS MATSON, Glenwood, Ill., assignor to Steger & Sons Piano Manufacturing Company, Steger, Ill., a Corporation of Illinois. Original application filed Oct. 14, 1916, Serial No. 125,554. Divided and this application filed Apr. 23, 1917. Serial No. 163,787. (Cl. 274—23.)



1. In a phonograph, in combination with a tone arm, a supporting member to which the tone arm is pivoted for swinging vertically, a sound conduit member upon which said supporting member is pivotally mounted for turning horizontally; a spring secured to said supporting member and extending transversely thereof within the tone arm, and means mounted in the tone arm for connecting

the remote end of the spring with the tone arm, said means being exteriorly accessible and movable in the tone arm for varying the tension of the spring.

[Claims 2 to 4 not printed in the Gazette.]

1,243,855. SUBSTITUTE FOR MILK, MADE FROM SOYA-BEANS AND ARACHIS (PEA) NUTS. WILLIAM J. MELHUISH, Parkstone, England. Filed Oct. 22, 1915. Serial No. 57,364. (Cl. 99—11.)

1. An artificial milk in which the nitrogenous principles and fat and a portion of the salts are produced from a combination of the arachis (pea) nut and soya beans, in which the obnoxious taste of the soya bean is entirely overcome and the necessity for added oils to make a normal cream content is abolished.

2. The herein described process of making a nut milk from arachis (pea) nuts and soya beans by the process of extracting the soluble nitrogenous principles and oil from the pea nut by cleaning the nuts, grinding coarsely and stirring the meal in an alkaline water containing a portion of the carbohydrate, straining and pressing the residue, adding butyric acid: extracting the soluble nitrogenous principles from the soya bean with a minute portion of its fat by stirring the previously ground-up beans in an alkaline water, and straining and pressing same: sucking both fluids into a vacuum pan in two streams so that they combine and mix together: adding further water, carbo-hydrate and salts, boiling same under a vacuum of from 26 to 29 inches and then straining the finished liquor into a culture pan for treatment with milk bacteria and finally pasteurising and cooling the fluid and adding citric acid ready for use.

3. The herein described process of making a nut milk from arachis (pea) nuts and soya beans by the process of extracting the soluble nitrogenous principles and oil from the pea nut by cleaning the nuts, grinding coarsely and stirring the meal in an alkaline water containing a portion of the carbo-hydrate, straining and pressing the residue and adding butyric acid: extracting the soluble nitrogenous principles from the soya beans with a minute portion of its fat by stirring the previously ground-up beans in an alkaline water, and straining and pressing same: sucking both fluids into a vacuum pan in two streams so that they combine and mix together: adding further water, carbo-hydrate and salts, boiling same under a vacuum of from 26 to 29 inches and then straining the finished liquor into a culture pan for treatment with milk bacteria ripening and adding citric acid: evaporating more or less of the water to make a concentrated milk.

4. The herein described process of making a nut milk from arachis (pea) nuts and soya beans by the process of extracting the soluble nitrogenous principles and oil from the pea nut by cleaning the nuts, grinding coarsely and stirring the meal in an alkaline water containing a portion of the carbo-hydrate, straining and pressing the residue and adding butyric acid: extracting the soluble nitrogenous principles from the soya beans with a minute portion of its fat by stirring the previously ground-up beans in an alkaline water, and straining and pressing same: sucking both fluids into a vacuum pan in two streams so that they combine and mix together: adding further quantities of any suitable fats for the purpose of making a cream, warmed up to say 40 degrees C., such fat being drawn into the vacuum pan in a finely divided state so as to insure a thorough mixing: adding further water, carbo-hydrate and salts, boiling same under a vacuum of from 26 to 29 inches and then passing the finished liquor into a culture pan for treatment with a cream starter, using sufficient of such starter to make a cream suitable for its ultimate use, and adding the needed citric acid.

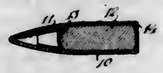
1,243,856. RACK. EARL S. MERRILL, Golconda, Nev. Filed Apr. 12, 1915. Serial No. 20,830. (Cl. 45—121.)

A rack, comprising a post, a sleeve adjustable on the post, spaced arms extending from one side of the sleeve, a clamping screw carried by one of the arms, an angular arm extending from the opposite side of the sleeve, an-



other arm pivotally mounted on the post, and a frame secured to said arm.

1,243,857. JACKETED BULLET. GEORGE A. MUENZENMAIER, Lebanon, Ohio, assignor to The Peters Cartridge Company, Cincinnati, Ohio, a Corporation of Ohio. Filed July 31, 1916. Serial No. 112,217. (Cl. 102—28.)



1. A bullet comprising a jacket having a hollow space therein, said hollow space extending to the inner wall of the jacket, filling material within the bullet, and a sheet metal abutment separating the hollow portion of the bullet from the space occupied by the filling material.

2. A bullet comprising an outer jacket, a cup-shaped abutment positioned within said jacket and having its open end extended toward the front of the bullet, and filling material located within said jacket in the rear of said abutment.

3. In combination, a jacketed bullet having an open space in the point thereof extending to the interior wall of the jacket, and having filling material within said jacket and an abutment located between said material and said open space, said abutment having a hollow interior communicating at its forward end with said open space.

4. In combination, a bullet comprising a metal jacket having an open space at the forward end thereof, filling material within said jacket at the rear of said open space, and an abutment member between said open space and said filling material, said abutment member having a hollow interior and a rear abutment wall integral with said member.

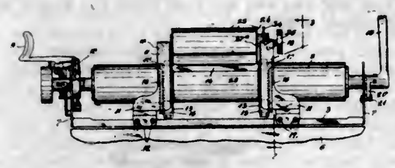
5. In combination, a bullet comprising an outer metal jacket having its forward end pointed, a cup-shaped abutment member arranged within said jacket with the open end thereof directed forwardly and the bottom portion forming a wall to separate the interior of said bullet into two compartments, and filling material arranged in the rear of said abutment member.

[Claims 6 to 8 not printed in the Gazette.]

1,243,858. STENCIL-MAKING DEVICE FOR TYPEWRITING MACHINES. LEWIS C. MYERS, Brooklyn, N. Y., assignor to Royal Typewriter Company, Inc., New York, N. Y., a Corporation of New York. Filed May 3, 1915. Serial No. 25,408. (Cl. 197—135.)

1. In a stencil making device for typewriting machines, a rotatable platen, vertical guide frames rigidly secured

to the bed of the carriage and located in front of the platen, a stencil holding frame fitted to slide between and in contact with the inner sides of the guide frames and an operating connection between the platen and stencil frame.



5. In a stencil making device for typewriting machines, a rotatable platen, vertical guide frames secured to the bed of the carriage and located in front of the platen, a stencil holding frame fitted to slide against the inner sides of the guide frames comprising two side parts, a connecting bar at their upper ends, springs adjacent the front side of the side parts and attached to their lower ends and an operating connection between the platen and stencil frame.

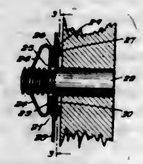
10. A typewriter stencil-making device, comprising a rotary platen, a carriage in which the platen is supported, an adjustable stencil holder located in front of the platen, a stencil carried by the holder, an ink carrier located between the stencil and the platen, and means operable independently of the movement of the platen for moving the ink carrier relatively to the line of print.

15. The combination of a rotary platen, its carriage, a stencil guide frame attached centrally thereto, a stencil-holding frame mounted to slide on said guide frame, means for moving said stencil-holding frame, and means carried by the guide frame for moving the stencil-holding frame rearwardly away from said guide frame at its upper end as the stencil-holding frame rises on the guide frame.

17. A typewriter stencil making device, comprising a shifting rotary platen provided with a removable impact surface, a carriage in which the platen is supported, a stencil-holder located in front of the platen, an ink carrier located between the stencil and the impact surface of the platen, automatically controlled means for moving said ink carrier in one direction, and independently operable means for moving the ink carrier in the other direction.

[Claims 2 to 4, 6 to 9, 11 to 14, and 16 not printed in the Gazette.]

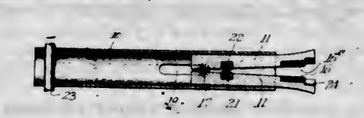
1,243,859. SNAP-FASTENER. FRED A. NEIDER, Augusta, Ky., assignor to The F. A. Neider Company, Augusta, Ky., a Corporation of Kentucky. Filed Apr. 30, 1917. Serial No. 165,353. (Cl. 24—217.)



1. A snap fastener consisting of a stud and a socket adapted to receive the stud, said stud having screw threads formed thereon, said socket consisting of a plate having an aperture therein adapted to receive the stud and a series of springs extending from the edges of the plate toward the aperture and having their ends spaced apart a distance less than the diameter of the stud, and means adapted to mount the plate rotatively upon an article to be fastened, whereby when the socket is pushed over the stud, the springs will yield to permit the passage of the screw threaded end of the stud between their ends and whereby the gripping engagement of the springs with the screw threads will prevent removal of the socket from the stud except by rotation thereof to disengage its springs from the screw threads.

[Claims 2 to 4 not printed in the Gazette.]

1,243,860. WRENCH. CHARLES A. OLSON and CLAUDE H. TOOMBS, Geneva, Ill. Filed Mar. 10, 1915. Serial No. 13,451. (Cl. 81—112.)



1. A socket wrench comprising a tube having a cylindrical bore, a pair of jaw members slidably fitting in said tube, said jaw members being substantially semi-circular in cross section, said jaws having opposing grooves extending completely across the flat faces of said jaw members, and a pin lying in said grooves and forming a bearing pin for said jaw members, said tube having diametrically opposed openings in its sides into which the ends of said pin extend for transmitting torsion from said tube to said jaws, said jaw members having opposed recesses therein forming a socket substantially co-axial with said tube.

2. A socket wrench comprising a tube having a cylindrical bore, a pair of jaw members slidably fitting in said tube, said jaw members being substantially semi-circular in cross section and a pin forming a pivot for said members, said tube having diametrically opposed slots in its sides into which the ends of said pivot pin extend for transmitting torsion from said tube to said jaws, said jaw members having opposed recesses therein forming a socket substantially co-axial with said tube.

1,243,861. WRENCH. CHARLES A. OLSON and CLAUDE H. TOOMBS, Geneva, Ill. Filed June 12, 1916. Serial No. 103,123. (Cl. 81—73.)

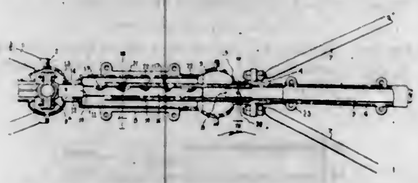


1. In a device of the class described a brace having upper and lower arms and a portion connecting said arms, gripping means, and a holder for said gripping means connected to said brace, said holder having a non-circular opening therein, and a non-circular member fitting said opening and non-rotatable with respect to said lower arm and movable into and out of said opening, the connection being so constructed that the holder can be swung about said lower arm as an axis from a position substantially outside of the arms of the brace to a position substantially between said arms.

4. In a device of the class described a brace having upper and lower arms and a portion connecting said arms, gripping means, and a holder for said gripping means connected to said brace, said holder comprising a tubular member having openings in opposite sides thereof through which said lower arm extends, one of said openings being non-circular, and a member fixedly secured with respect to said lower arm and slidable in said non-circular opening and having a first portion rotatable in said opening and a second portion non-rotatable in said opening, said portions being alternatively movable into said opening, and spring means tending to hold said second portion in said opening, the connection being so constructed that the holder can be swung about said lower arm as an axis from a position substantially outside of the arms of the brace to a position substantially between said arms.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,243,862. ADJUSTABLE AUTOMOBILE EXTENSION. NELS L. OLSON, Detroit, Mich. Filed Nov. 8, 1916. Serial No. 130,261. (Cl. 21—90.)



1. An adjustable extension adapted for power transmission between the transmission and differential mechanisms of an automobile, comprising telescopic members having the ends thereof constructed and adapted for connecting a universal joint and a drive shaft, and telescopic members inclosing said power transmission telescope members and having ends thereof constructed and adapted for connecting a universal joint housing and a drive shaft tube.

2. An adjustable extension for automobiles comprising a jacket having a housing adapted to receive a bushing ball member, a casing in said jacket having a ball member adapted to engage in a universal joint housing, and telescopic members in said casing adapted for connecting a universal joint and drive shaft.

3. An adjustable extension for autmobiles, comprising a jacket adapted to receive a bushing ball member, an adjustable casing in said jacket having a ball member adapted to engage in a universal joint housing, and normally fixed telescopic members in said casing adapted for connecting a universal joint and drive shaft.

4. In an adjustable extension for automobiles, the combination with a joint housing, a universal joint in said housing, a drive shaft tube, and a drive shaft, of outer telescopic members connecting said joint housing and said drive shaft tube, and inner telescopic members connecting said universal joint and said drive shaft.

5. In an adjustable extension for automobiles, the combination with a joint housing, a universal joint in said housing, a drive shaft tube, and a drive shaft in said tube, of outer telescopic members connecting said joint housing and said drive shaft tube, inner telescopic members connecting said universal joint and said drive shaft, and a stiffening member connecting one of said outer members and said drive shaft tube.

[Claims 6 to 11 not printed in the Gazette.]

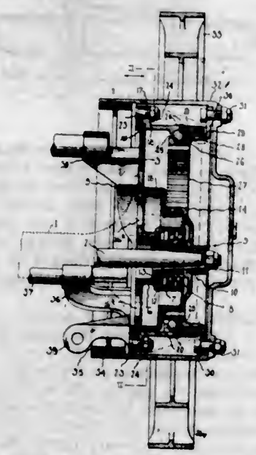
1,243,863. VEHICLE-WHEEL. NELS L. OLSON, Detroit, Mich. Filed Jan. 24, 1917. Serial No. 144,176. (Cl. 21—90.)

1. The combination of an axle housing, an axle, a road wheel a reduction gear between said axle and said road wheel and including an internal gear, and a bearing member for said internal gear supported from said axle housing adapted for adjustment so that its center may be radially shifted relative to the center of said axle to compensate for imperfections of said reduction gear mechanism.

4. In a vehicle wheel having a reduction gear mechanism, a hub casing, a pinion having a hub in said casing, an internal gear carried by said wheel and meshing with said pinion, and adjustable means for supporting said internal gear so that said internal gear may be adjusted for proper mesh with said pinion.

9. The combination with an axle housing and an axle protruding therefrom, of a face plate connected to said housing and eccentrically disposed relative thereto a hub casing carried by said face plate, a pinion having a hub extending into said hub casing, an anti-frictional bearing in said hub casing on the hub of said pinion, an adjustable bearing member carried by said face plate, an internal gear rotatable in said bearing member and meshing with said pinion, a road wheel carried by said gear, and a housing forming part of said wheel and providing a brake drum at the inner side of said face plate.

12. In a vehicle wheel, an axle, a face plate disposed eccentrically thereof, a bearing member having an eccentric adjustment on said face plate so that the center of said bearing member may be adjusted relative to the center of said axle, a road wheel, and a reduction gearing between said axle and said road wheel and housed within said bearing member.



15. The combination of a road wheel having a concentric housing, an internal gear carried thereby, a bearing member independent of said housing supporting said internal gear, means eccentrically disposed relative to said bearing member and supporting said member, and means operable eccentrically of the last mentioned means adapted to impart movement to said internal gear.

[Claims 2, 3, 5 to 8, 10, 11, 13, and 14 not printed in the Gazette.]

1,243,864. EXTENSION FOR VEHICLES. NELS L. OLSON, Detroit, Mich. Filed Mar. 16, 1917. Serial No. 155,163. (Cl. 180—16.)



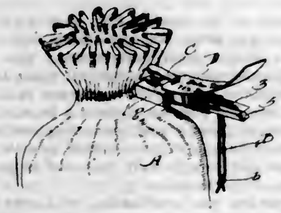
1. A drive extension for motor vehicles comprising a housing extension adapted to connect the rear end of a transmission casing and the forward end of a drive shaft housing, a shaft extension in said housing extension adapted for connection with a drive shaft in the drive shaft housing, and a universal joint of said transmission casing, and truss rods connecting the forward end of said housing extension to the rear end of the drive shaft housing.

2. The combination with a chassis frame, a transmission casing, a universal joint, a drive shaft housing ordinarily coupled to said transmission casing and a drive shaft in said housing, of an extension interposed between said transmission casing and said drive shaft housing and having the forward end thereof coupled to said transmission casing for universal movement and the rear end rigidly connected to said drive shaft housing independent of said chassis frame, means in said extension rigidly connected to said drive shaft establishing a driving connection between said universal joint and said drive shaft, and means exteriorly of said extension independent of said chassis frame coupling the forward end of said extension to the rear end of said drive shaft housing.

3. The combination with a chassis frame, a transmission casing, a universal joint, a drive shaft housing ordinarily coupled to said transmission casing, and a drive shaft in said housing, of an extension interposed between said transmission casing and said drive shaft housing, a ball member at the forward end of said extension connected to said transmission casing, a socket at the rear end of said extension to receive the forward end of said drive shaft housing, means independent of said chassis frame rigidly connecting said socket to said drive shaft housing, a shaft extension in said extension connecting said drive shaft and said universal joint, means establishing a rigid connection between said drive shaft housing and said extension, and means coupling the forward end of said extension to the rear end of said drive shaft housing and engaging said extension at its junction with said drive shaft housing.

4. Means for converting the chassis and drive shaft assembly of a pleasure vehicle for the purposes of a delivery truck consisting of interposing a drive shaft extension in the drive shaft assembly to increase the wheel base of the pleasure vehicle, and attaching an extension to the rear end of said chassis so that the chassis has a length equivalent to the wheel base, said drive shaft extension being free of any chassis connection other than a transmission casing.

1,243,865. BAG-FASTENER. JOSEPH L. ORR, Lynchburg, Va. Filed Feb. 8, 1917. Serial No. 147,400. (Cl. 24—30.5.)



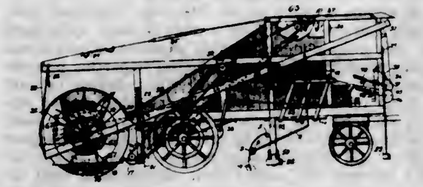
2. A device of the class described comprising a head having a pair of transversely extending parallel apertures, and a bifurcated shank extending laterally from one edge of said head and disposed between said apertures, the furcations of said shank being provided with opposing recesses in their inner sides, in combination with a draw string extending through said apertures and wound around said shank, and then clamped between the opposing recesses of said furcations, the shoulders formed at the outer ends of said recesses preventing said string from moving longitudinally with respect to said furcations.

3. A device of the class described comprising a head having a pair of apertures extending therethrough, and a bifurcated shank extending laterally from one edge of said head and disposed between said apertures, said shank being integrally united with said head and combining with the latter to form a T-shaped structure, in combination with a draw string extending through said apertures and wound around said shank, and then clamped between the furcations thereof, the portions of said draw string which are wound around said shank holding the furcations thereof in their clamped positions.

[Claims 1, 4, and 5 not printed in the Gazette.]

1,243,866. STREET-CLEANING AND DISPOSING MACHINE AND ART OF CLEANING PAVED STREETS AND DISPOSING OF THE CLEANINGS. JOHN WILBUR PARROTT, Bethayres, Pa. Continuation of application Serial No. 2,505, filed Jan. 15, 1915. This application filed Oct. 31, 1916. Serial No. 128,678. (Cl. 37—39.)

1. In a street cleaner, a wheeled frame, a combined rake and scraper carried beneath said frame; a pivoted channel and apron at the rear of the frame, an elevator extending upwardly therefrom; an extended elevator pocket with beveled ends; a pair of main levers pivoted intermediate their length on said frame; interlocking brackets on said frame and levers to hold them in position; a large revolving expandible vacuum brush, on the rear ends of said levers, operating over said channel and apron; gearing mounted on short differential shafts, on said main levers in rear of the pivot, driven from the adjacent traction wheel; driving means from one set of gearing to the elevator and from the other set to the brush; connections from the main levers to the rake and scraper and to the channel and apron; and means for lowering the forward ends of the main levers and lifting them in the rear, whereby all of the working members may be simultaneously thrown out of action.



2. In a street cleaner, a vehicle body, a pair of main levers pivoted intermediate their length to the body by means of a transverse shaft mounted in slotted boxes; a large rotating expandible vacuum brush, carried by the rear ends of said levers; a supporting bar connected at its ends to the rear ends of said levers; a cable connected to the middle of the bar, and having an elastic tension device, and means for operating the cable.

3. In a street cleaner, a transverse bar pivoted thereto, a series of spring teeth connected to said bar; each tooth having a loop therein; a pipe passing through the loops; operating means connected to said pipe; a series of inclined hoes carried by the teeth, in the rear thereof, each hoe being inclined inwardly to direct the material toward the center of the machine.

4. In a street cleaner, a large rotatable expandible vacuum brush, a comb scraper therefor, comprising a pivoted scraper blade, extending approximately to the rim of the brush, a series of teeth attached to the blade and projecting into the brush, and a spring attached to each side of the comb scraper and extending to the fixed member, whereby the comb scraper is yieldingly held in position, and bracket brush at the upper end of the elevator.

5. In a street cleaner, an elevator, an extended elevator pocket with beveled ends; a receptacle to which the elevator delivers; means to distribute and dump the contents of said receptacle; a leveling blade adjacent the dumping means, and a second leveling blade adjacent the elevator pocket, and projecting below the level thereof.

[Claim 6 not printed in the Gazette.]

1,243,867. SLICING-MACHINE. JOHN M. PETERSON, Chicago, Ill., assignor to George J. Sayer, Chicago, Ill. Filed June 12, 1916. Serial No. 103,122. (Cl. 17—24.)



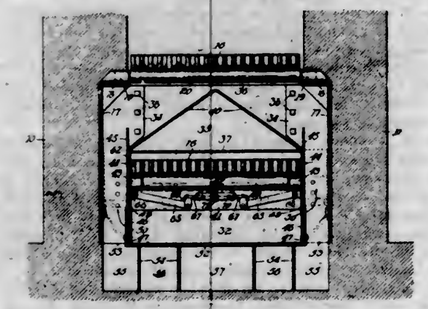
1. A machine of the character described in combination with a meat table, a feed screw carried thereby, a meat plate reciprocatingly mounted upon said meat table, a guide for said meat plate, and means carried by said meat table for detachably engaging said feed screw, said means including a spring pressed tooth piece, a spring tending to press said tooth piece against the side of said

feed screw, thereby pressing said plate against its guide, and a manually actuated cam for actuating said tooth piece against the action of said spring to release it from said feed screws.

2. A machine of the character described in combination with a meat table, a feed screw carried thereby, a meat plate reciprocatingly mounted upon said meat table, a guide for said meat plate, means carried by said meat table for detachably engaging said feed screw, said means including a spring pressed tooth piece, a spring tending to press said tooth piece against the side of said feed screw thereby pressing said plate against its guide, a manually actuated cam for actuating said tooth piece against the action of said spring to release it from said feed screw, and a stationary housing substantially inclosing said cam, spring and tooth piece.

3. A slicing machine of the character described comprising a movable meat plate, a slidable meat table upon which said meat plate is slidably mounted, a feed screw rotatably carried by said meat table for imparting periodic movement to said meat plate, bearings carried by said meat table for said feed screw, an inclosing slotted stationary shell for said screw extending beyond said bearings, means fixedly carried by said meat plate and adapted to engage said feed screw, a portion of said means extending through said slotted shell, an inclosing shell for said last aforesaid means, means carried by said meat table for imparting step by step motion to said feed screw, and an inclosing shell for said last aforesaid means.

1,243,868. FURNACE. HERMAN A. POPPENHUSEN, Hammond, Ind., assignor to Green Engineering Company, East Chicago, Ind., a Corporation of Illinois. Filed Dec. 6, 1916. Serial No. 135,467. (Cl. 110—40.)



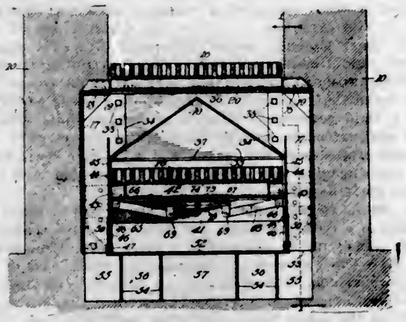
1. In a furnace, the combination of a grate, a deflecting plate mounted beneath said grate and inclined downwardly toward the edge of said grate, a movable plate extending transversely of said deflecting plate above and below the same, and adapted to be moved into and out of contact with the margin of said deflecting plate.

3. In a furnace, the combination of a grate, a deflecting plate below said grate and inclined downwardly toward the side of the furnace, a movable deflecting plate, pivotally mounted below said inclined plate and extending above the lower margin of and in contact with said inclined plate to form a trough, and means swinging said movable plate in a direction away from said inclined plate, to permit the contents of the trough to be discharged by gravity.

5. In a furnace, the combination of a grate, an inclined deflecting plate mounted below said grate, the lower margin thereof terminating below a margin of said grate, an air duct communicating with the air space below said grate through an opening in the floor of the furnace in substantially vertical alinement with the margin of said plate, a vertical deflecting plate pivotally mounted below said margin of the inclined plate and normally in contact with said margin and forming a trough, and means for swinging said vertical plate away from said inclined plate and over said opening of the air duct.

[Claims 2 and 4 not printed in the Gazette.]

1,243,869. FURNACE CONSTRUCTION. HERMAN A. POPPENHUSEN, Hammond, Ind., assignor to Green Engineering Company, East Chicago, Ind., a Corporation of Illinois. Filed Dec. 6, 1916. Serial No. 135,466. (Cl. 110—40.)



1. In a furnace, the combination of a grate, an air space beneath the grate communicating with a source of free air and a source of forced draft, and a damper mounted in said free air space intermediate the sources of forced draft and of free air, and movable into position to shut off the supply of free air to said air space and to form a passage connecting said air space with said forced draft duct.

2. In a furnace, the combination of a grate, an air space beneath said grate communicating with a source of free air, a forced draft duct opening into said air space, and a damper mounted in said air space intermediate the source of free air and the opening of said air duct, and movable into one position to form a passage shut off from the source of free air and connecting said air space and forced draft duct, and into another position to close the opening of said forced draft duct and to permit the supply of free air to the grate.

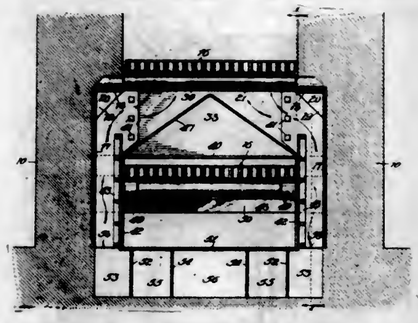
14. In a furnace, the combination of a grate, a compartment beneath said grate and communicating with a free air space below the compartment, an air duct for conducting air under pressure to said free air space and communicating therewith through an opening in the floor of the furnace below the opening to said compartment, and a damper comprising hinged togeter plates, the lower plate being pivotally mounted upon the floor of the furnace adjacent the air duct opening, said damper plates when in vertical position serving to inclose a portion of the free air space to form a passage between said compartment and air duct, and when moved into another position to open communication between the compartment and free air space, the lower plate of the damper acting as a closure for the opening of the air duct.

15. In a furnace, the combination of a grate mounted in the combustion chamber of the furnace, a series of separate compartments below said grate and adapted to have communication with the atmosphere, a series of separate air ducts for supplying air to said compartments, a damper associated with each compartment to control the supply of free air or air under pressure to said compartment, a plurality of operating rods in telescoped arrangement, each operatively connected to one of said dampers, and levers mounted exterior of the furnace and connected to said operating rods, to actuate said dampers independently of each other.

[Claims 3 to 13 and 16 not printed in the Gazette.]

1,243,870. FURNACE. HERMAN A. POPPENHUSEN, Hammond, Ind., assignor to Green Engineering Company, East Chicago, Ind., a Corporation of Illinois. Filed Dec. 6, 1916. Serial No. 135,465. (Cl. 110—40.)

1. In a furnace, the combination of a grate, a partition wall spaced below said grate and inclined downwardly from the central portion thereof, its edge terminating short of the arjacent wall of the furnace, and a wall extending vertically from the edge of said inclined wall and spaced inwardly from said furnace wall and forming therewith a closed passage communicating with the space between the grate and said inclined wall.



6. In a furnace, the combination of a grate, a series of transverse frame members beneath said grate, a partition wall spaced below said grate and extending between each of said transverse frame members and forming a plurality of compartments, and vertical partition walls extending between said frame members and spaced inwardly from the side walls of the furnace to form pairs of vertical passages communicating with each compartment.

8. In a furnace, the combination of a grate, a plurality of transverse frame members extending beneath the grate, a partition wall extending longitudinally below said grate and inclined downwardly and outwardly from the central portion of the grate and terminating below the edges thereof, said transverse frame members and partition wall forming a plurality of compartments beneath the grate, a plurality of vertical walls extending downwardly from the outer edges of said partition wall between said frame members and spaced inwardly from the side walls of the furnace to form therewith vertical passages communicating with said compartments, a plurality of air ducts located below the floor level of the furnace, each communicating with one of said vertical passages, and means for supplying air under pressure to said ducts.

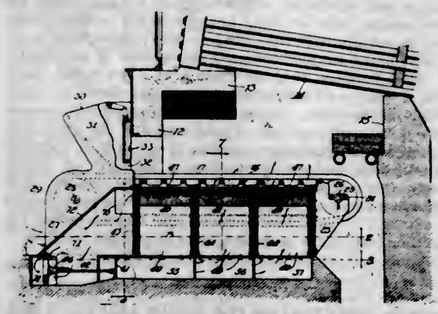
10. In a furnace, the combination of an endless chain grate, a plurality of transverse frame members extending between the leads of said grate, a partition wall extending between said transverse frame members and forming a plurality of compartments beneath the grate, said partition wall comprising inclined portions sloping outwardly and downwardly from the central portion of each compartment, terminating adjacent to the edges of the lower lead of said grate, and vertical partition walls extending downwardly at either side of said lower lead and spaced inwardly from the side walls of the furnace and forming vertical passages communicating with each compartment, and a plurality of air ducts located below the floor level of the furnace, each duct communicating with the lower end of one of said vertical passages.

[Claims 2 to 5, 7, and 9 not printed in the Gazette.]

1,243,871. FURNACE. HERMAN A. POPPENHUSEN, Hammond, Ind., assignor to Green Engineering Company, East Chicago, Ind., a Corporation of Illinois. Filed Dec. 6, 1916. Serial No. 135,468. (Cl. 110—40.)

1. In a furnace, the combination of a chain grate, a compartment beneath the upper lead of said grate and separated from a free air space extending above and below the lower lead of said grate, said free air space being provided with a discharge opening above said lower lead, an air duct extending from said opening downwardly beneath and upwardly at one side of said free air space to said compartment, and air circulating means located in said air duct.

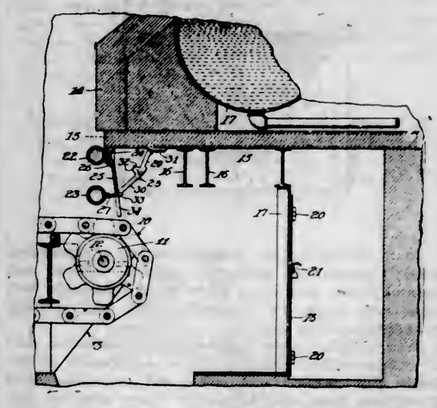
10. In a furnace, the combination of an endless chain grate, a plurality of transverse frame members extending between the side walls of the furnace and between the upper and lower leads of the grate, a plurality of partition walls extending between said transverse members and spaced below the upper lead of the grate and forming a plurality of compartments, the air space below said partition walls extending throughout said compartments and in open communication with the free air space of the furnace through the lower lead of the grate, an air duct



communicating with one end of the free air space above the lower lead of the grate and extending downwardly to the floor level of the furnace, a series of longitudinal air ducts below the floor level, each communicating with one of said compartments, a chamber communicating with the outer ends of said air ducts and with said free air space, and a mechanical air circulating device mounted in said chamber.

[Claims 2 to 9 not printed in the Gazette.]

1,243,872. FURNACE. HERMAN A. POPPENHUSEN, Hammond, Ind., assignor to Green Engineering Company, East Chicago, Ind., a Corporation of Illinois. Filed Jan. 29, 1917. Serial No. 145,209. (Cl. 122—4.)



1. In a furnace, the combination of a grate, a wall extending transversely above said grate, a fixed fuel retarding member spaced from the surface of said grate and forming a transverse opening between said fuel retarding member and said wall, and a gate member mounted adjacent said wall and movable into and out of contact with said fuel retarding member, to open and close said opening.

4. In a furnace, the combination of a grate, a cross-wall spaced above the rear of said grate, a fixed fuel-retarding member mounted in the space between said wall and grate surface and forming therebelow an ash discharge opening, a gate member comprising a vertical plate pivotally mounted above said fixed member and adapted to be swung into and out of contact with said fixed mem-

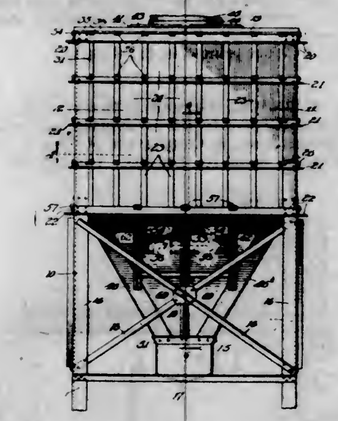
ber to open and close the space above the same, and a removable brace member adapted to hold said plate in closed position.

5. In a furnace, the combination of a traveling chain grate, a fixed fuel-retarding member spaced above the grate and forming an intermediate ash discharge opening, a movable fuel-retarding member, comprising a plate pivotally mounted along its upper margin above said fixed member and extending downwardly in contact along its lower margin with the same, and means for retaining said plate in contact with said fixed member, comprising a removable brace member mounted rearwardly of said plate.

7. In a furnace, the combination of a traveling chain grate, a cross-wall extending transversely above the rear portion of the grate, a fixed fuel-retarding member spaced between the under surface of said wall and the grate and forming an ash discharge opening therebelow, a movable fuel-retarding member comprising a plurality of transversely arranged plates pivotally connected beneath said wall and extending downwardly behind and terminating in contact with said fixed member, and locking means for retaining said plates in contact with said fixed member.

[Claims 2, 3, and 6 not printed in the Gazette.]

1,243,873. RECEPTACLE FOR ASHES AND THE LIKE. HERMAN A. POPPENHUSEN, Hammond, Ind., and ARTHUR P. STRONG, Chicago, Ill., assignors to Green Engineering Company, East Chicago, Ind., a Corporation of Illinois. Filed Nov. 18, 1916. Serial No. 132,021. (Cl. 189—3.)



1. In a receptacle, the combination of a supporting structure, comprising connected together vertical and horizontal frame members, a plurality of detachable wall sections, and means for suspending said wall sections from said supporting structure.

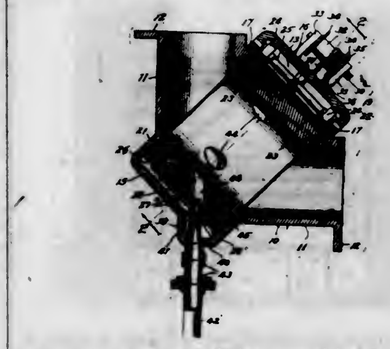
2. In a receptacle, the combination of connected vertical and horizontal frame members, a plurality of detachable wall sections, and means for suspending said wall sections from said horizontal frame members and detachably connecting the same with each other.

3. In a receptacle, the combination of a supporting structure, comprising connected together vertical and horizontal frame members and a side wall comprising a plurality of wall sections and a plurality of supporting members suspended from said horizontal frame members and adapted to have detachable connection with said wall sections along the lateral margins thereof.

4. In a receptacle, the combination of a supporting structure comprising connected vertical and horizontal frame members, a plurality of horizontally spaced bars removably attached in vertical position to said supporting structure, and a series of wall sections extending between said bars and connected thereto along their lateral margins.

[Claims 5 to 13 not printed in the Gazette.]

1,243,874. ELBOW-FITTING. HERMAN A. POPPENHUSEN, Hammond, Ind., and ARTHUR P. STRONG, Chicago, Ill., assignors to Green Engineering Company, East Chicago, Ind., a Corporation of Illinois. Filed Jan. 8, 1917. Serial No. 141,302. (Cl. 137—75.)



1. A pipe connecting fitting, comprising a casing having a longitudinal passage, and an annular wear section rotatively mounted in said passage, and means for rotating said wear section.

3. A pipe connecting fitting, comprising a casing provided with a longitudinal passage, an annular wear section rotatively mounted in said casing and in concentric relation with the passage, and means for rotating said wear section from the exterior of said casing and for removing it bodily therefrom.

6. A pipe connecting fitting, comprising a casing having a passage and an enlarged cavity intermediate the ends of said casing, a removable cover normally closing an opening in said casing communicating with said cavity, a wear section comprising an annular metal ring mounted in said cavity in registering relation with said passage, rollers journaled with said cavity, engaging and rotatively supporting said wear section, and means for rotating said wear section from the exterior of said casing.

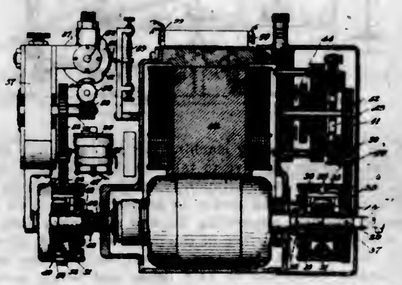
9. A pipe connecting fitting, comprising a casing having a longitudinal passage, a wear section comprising an annular ring rotatively mounted in concentric relation with said passage, a flexible member surrounding said ring and attached at one end thereto, and means for exerting force on the other end of the flexible member to rotate the wear section.

15. A pipe connecting fitting, comprising a casing having a longitudinal passage, an opening in the wall of the casing, a cover normally closing said opening, a wear section having the form of an annular metal ring rotatively supported within said casing and removable therefrom through said opening, and means for rotating said wear section and removing the same from the casing, comprising a cable surrounding said wear section with at least two turns, the end of said cable having detachable connection with said wear section, a winch engaging the free end of said cable and located adjacent one side of said opening, and means located on the opposite side of said opening for detachably connecting the end of the cable to said casing, said winch being operable to rotate said wear section in the unwinding of a turn of the cable therefrom, and to lift said wear section from the casing when the end of the cable is connected to the casing and the remaining portion of the cable passes beneath the wear section.

[Claims 2, 4, 5, 7, 8, and 10 to 14 not printed in the Gazette.]

1,243,875. APPARATUS FOR STARTING INTERNAL-COMBUSTION ENGINES. JOHN R. PRICE, Wilkinsburg, Pa., assignor to Price Electric Devices Corporation, Basic City, Va., a Corporation of Virginia. Filed Sept. 6, 1912. Serial No. 718,872. (Cl. 123—180.)

1. A mechanism for starting internal combustion engines including an engine with its cylinders, fuel supply and intake mechanism, a vaporizer blower, a fuel supply pipe leading to the vaporizer blower, a valve for the said fuel supply pipe, means for simultaneously opening the said valve and actuating the vaporizer blower, means for distributing the combustible material from the vaporizer blower to the engine cylinders, and ignition means.



2. A mechanism for starting internal combustion engines including an engine with its cylinders, fuel supply and intake mechanism, a vaporizer blower, a fuel supply pipe leading to the vaporizer blower, a valve for the fuel supply pipe, valve controlled means for distributing the combustible mixture from the vaporizer blower to the cylinders of the engine in proper sequence, ignition means, and means actuated by the pressure in the intake for automatically stopping the vaporizer blower when the engine is started.

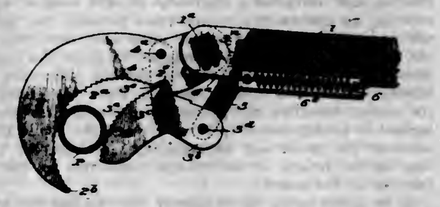
3. A mechanism for starting internal combustion engines including an engine with its cylinders, fuel supply and intake mechanisms, a vaporizer blower, a fuel supply pipe leading to the vaporizer blower, a valve for the fuel supply pipe, means for simultaneously opening the valve and starting the vaporizer blower, valve controlled distributing means for supplying the combustible mixture from the vaporizer blower to the cylinders of the engine in proper sequence, ignition means, and means actuated by the pressure in the intake of the engine for automatically stopping the vaporizer blower after the engine is started.

4. A mechanism for starting internal combustion engines including an engine with its cylinders, fuel supply and intake mechanism, a vaporizer blower, a fuel supply pipe leading to the vaporizer blower, an electrically controlled valve for the fuel supply pipe, electrically operated means for driving the vaporizer blower, means for simultaneously starting the vaporizer blower and opening the valve of the fuel supply pipe, distributing means leading from the vaporizer blower to the engine cylinders, ignition means, and an electric switch controlled by the pressure in the engine intake for automatically stopping the vaporizer blower and closing the valve of the fuel supply pipe after the engine has started.

5. A mechanism for starting internal combustion engines including an engine with its cylinders, fuel supply and intake mechanism, an electric battery, an electric armature with its field, electrical connections between said battery and said armature and field, a vaporizer blower, adapted to be driven by the armature, a fuel supply pipe leading to the vaporizer blower, a valve for said fuel supply pipe, distributing means for leading the combustible mixture from the vaporizer blower to the engine cylinders, an electric switch for starting the armature, means for simultaneously opening the valve, means operated by the battery to produce an electric spark, and an automatic switch for stopping the vaporizer blower and placing the armature in circuit with the battery to recharge the same after the engine has started.

[Claims 6 to 19 not printed in the Gazette.]

1,243,876. WRENCH. WILLIAM RILEY, Henry, S. D. Filed Feb. 14, 1917. Serial No. 148,501. (Cl. 81—91.)



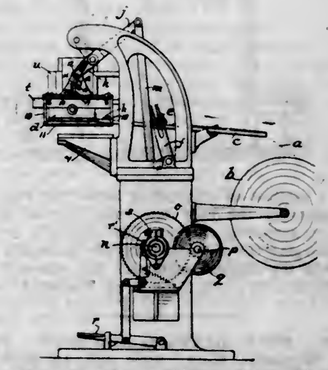
1. In a wrench the combination of a handle; a main jaw pivotally connected with the handle; a minor jaw opposite the main jaw; links pivotally connecting the minor jaw with the main jaw; links pivotally connecting the shank of the minor jaw with the handle; and a spring connected with the handle and main jaw, substantially as described.

2. In a wrench the combination of a handle, a main jaw pivotally connected with the handle and having a shoulder near its pivot, a minor jaw pivotally connected with the main jaw, links pivotally connecting the shank of the minor jaw and the handle; said minor jaw having an abutment adapted to engage the shoulder of the main jaw.

3. In a wrench the combination of a handle, a main jaw pivotally connected with the handle, and a minor jaw having a shoulder near its pivot, a minor jaw pivotally connected with the main jaw, links pivotally connecting the shank of the minor jaw and the handle, said minor jaw having an abutment adapted to engage the shoulder of the main jaw; and a spring connected with the handle and the main jaw, substantially as described.

4. In a wrench the combination of a handle, a main jaw pivotally connected with the handle, a minor jaw opposite the main jaw, links pivotally connected with the minor jaw and with the main jaw, links pivotally connected with the shank of the minor jaw and the handle, said main jaw having a shoulder near its pivot, and said minor jaw having an abutment or projection adapted to engage the shoulder of the main jaw; and a spring connected with the handle and the main jaw, substantially as described.

1,243,877. BOX-STAYING MACHINE. ROLAND H. RITTER, Philadelphia, Pa., assignor to National Metal Edge Box Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed May 15, 1917. Serial No. 168,863. (Cl. 74—46.)



1. In safety stops for machinery, the combination with a member the operation of which it is desired to automatically arrest, of driving mechanism, a releasable driving connection between the driving mechanism and said

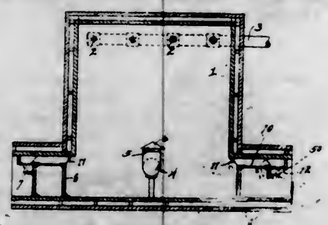
member, a tripping lever, means controlled by the tripping lever to release said driving connection, a guard carried by, and retractable relatively to, said member upon meeting an obstruction, connections between the guard and the tripping lever adapted, upon such retraction of the guard in the forward movement, to allow the operation of the tripping lever and the driving connection releasing means, and means, operable when the guard in its normal operation has passed in its forward movement beyond a predetermined point, to sever the connections between the guard and the tripping lever, thereby preventing the release of the driving connection by the retraction of the guard.

2. In safety stops for machinery, the combination with a member the operation of which it is desired to automatically arrest, of driving mechanism, a releasable driving connection between the driving mechanism and said member, a tripping lever, means controlled by the tripping lever to release said driving connection, a guard carried by, and retractable relatively to, said member, connections between the guard and the tripping lever adapted, upon the retraction of said guard in the forward movement of said member, to allow the operation of the tripping lever and the driving connection releasing means, means operable in the rearward movement of said member to restore to normal position said tripping lever and the said means controlled thereby, and means, operable when the guard in its normal operation has passed in its forward movement beyond a predetermined point, to sever the connections between the guard and the tripping lever, thereby preventing the release of the driving connection by the retraction of the guard.

3. In safety stops for machinery, the combination with a member the operation of which it is desired to automatically arrest, of driving mechanism, a releasable driving connection between the driving mechanism and said member, a spring actuated bolt adapted to release said driving connection, a tripping lever pivotally attached to said bolt, a guard carried by, and retractable relatively to, said member, and connections between the guard and the tripping lever normally holding the latter in position to restrain the bolt from operation but adapted, upon the retraction of the guard, to be operated to release the tripping lever, thereby allowing the bolt to operate.

[Claims 4 to 9 not printed in the Gazette.]

1,243,878. MEANS FOR AND METHOD OF DESICCATING FLUIDS. CHARLES E. ROGERS, Detroit, Mich. Filed Sept. 17, 1914. Serial No. 862,159. (Cl. 127—9.)

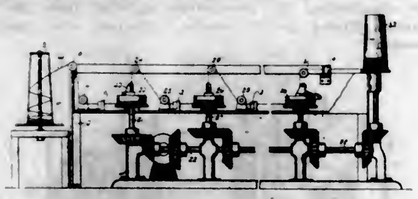


1. In a method of desiccating fluids, the step consisting in spraying the fluid into and allowing it to fall through an ascending current of heated air in a chamber, and discharging the moisture laden air through a screened aperture in the chamber wall near the bottom.

[Claims 2 to 11 not printed in the Gazette.]

1,243,879. WIRE-DRAWING MACHINE. TRACY B. RYON, Worcester, Mass. Filed Apr. 19, 1917. Serial No. 163,271. (Cl. 205—14.)

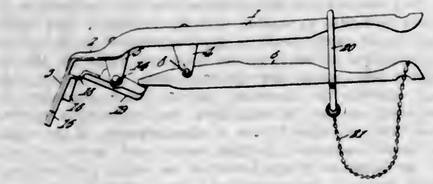
1. In a wire drawing machine having successive drawing dies, a member on which the wire is wound as it comes from a drawing die, means to continuously rotate said member, and means associated with said member effective to guide the wire therefrom, said means including a guiding element mounted for angular movement by the wire relative to said member and having also frictional engagement with said member.



3. In a wire drawing machine having successive drawing dies, a drum effective to take up the wire as it comes from a die, means to continuously rotate said drum at predetermined speed, and means to guide the wire from said drum to the next succeeding die and defining a path for the wire from the surface of the drum to a point substantially in line with the axis thereof, said means being frictionally connected to said drum and being movable thereby to take up an excess of wire between the dies, and being also relatively movable in the rearward direction by the pull of the wire to unwind from the drum a sufficient amount of wire to be delivered to the succeeding die.

[Claims 2 and 4 not printed in the Gazette.]

1,243,880. DETACHABLE HANDLE FOR UTENSILS. ROBERT F. SALISBURY, New Kensington, Pa. Filed June 19, 1915. Serial No. 34,997. (Cl. 65—32.)



1. In a device of the class described, the combination with a handle member and a jaw at one end thereof and fixed relative thereto, of a section pivotally connected to said member and having an aperture adjacent one end, a second section pivotally connected to said member, a T-shaped tongue extending therefrom and working within the opening, and a jaw integral with said second section.

2. In a device of the class described, a handle member, a jaw depending from the handle member, a gripping member pivoted to the handle member and coöperating with the jaw, said gripping member comprising a plate, a jaw depending from one end thereof, a nose struck out from the jaw, and a tongue rising from the other end of the plate, and another handle member pivoted to the first-mentioned handle member, said member having an opening in one end thereof for the reception of the tongue.

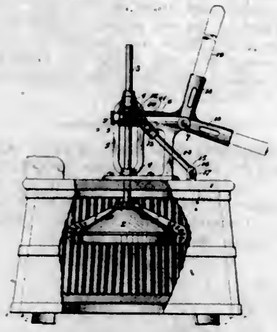
1,243,881. FISHING-FLOAT. THURLOW E. SANFORD and FAY JACKSON, Milan, Mich. Filed June 30, 1915. Serial No. 37,311. (Cl. 43—4.)

A fishing float comprising an elongated body portion having fishing line guiding means at the opposite ends thereof, said body having an annular centrally disposed recess in one side thereof intermediate its ends extending transversely past the longitudinal axis of the body, ballast within said recess offset relative to the longitudinal axis of the body to normally position the float horizontally, a cork plug insertible in said recess to hold the ballast in position, a portion of said plug projecting from the recess, and said projecting portion of the plug being slit coincident with the length of the body to receive



the fishing line and to additionally secure the plug in position.

1,243,882. DRIVING MECHANISM. WILLIAM H. SARGENT, St. Louis, Mo., assignor to Wayne Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed Dec. 23, 1915. Serial No. 68,325. (Cl. 74—14.)



1. Mechanism of the character described, comprising a support, an axially movable rock shaft mounted in said support, a block connected with said rock shaft, means holding said block in connection with said rock shaft whereby said rock shaft will be free to rock with respect to said block, a lever engaging said block for moving said shaft axially, and a rod having one end pivotally connected with said support and its other end pivotally connected with said rock shaft whereby said rock shaft is rocked as an incident to its axial movement.

2. Mechanism of the character described, comprising a support, a frame attached to said support, bearings in connection with said frame, a shaft journaled in said bearings for axial and rocking movements, a block arranged to slide vertically against said frame and being connected with said shaft, whereby the shaft is permitted to rock as an incident to its vertical movements while said block is held from turning by said frame, means holding said block from axial movement relative to said shaft, a lever, a sliding connection between said lever and said block whereby said block and thereby said shaft are moved axially by oscillation of said lever, and a rod having one end pivotally connected with said support and its other end pivotally connected with said shaft, whereby said shaft is rocked as an incident to its axial movements.

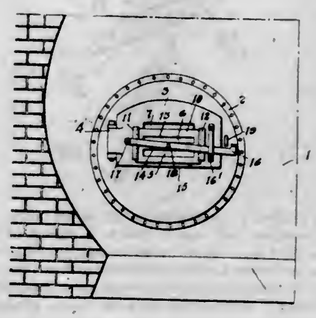
3. Mechanism of the character described, comprising a support, bearings carried by said support, a shaft journaled in said bearings for axial and rocking movements, a frame on said support, a block through which said shaft passes bearing against said frame whereby said block is held from turning when said shaft is rocked, means for preventing axial movement of said shaft relative to said block, a lever engaging said block for moving said shaft axially, a projection in connection with said shaft, a rod pivoted to said connection, and a bracket attached to said support also pivoted to said rod.

4. Mechanism of the character described, comprising a support, mechanism to be operated, an axially movable rock shaft connected to said mechanism for imparting lateral and alternating rotary movements thereto, a frame adjacent to said rock shaft, a block in connection with said rock shaft bearing against said frame and held thereby from rocking movements in accompaniment with the movements of said shaft, a connection between said shaft and said block preventing said shaft from moving axially relative to said block and enabling said shaft to be rocked relative to said block, a lever pivoted upon said support and connected to said block, whereby said shaft may be moved axially, a projection in connection with said shaft, and a rod having one end pivoted to said projection and its opposite end pivotally connected to said support, whereby an alternating rotary movement is imparted to said shaft and thereby to said mechanism as an incident to axial movement of said shaft.

5. Mechanism of the character described, comprising a support, a shaft mounted in said support for axial and rocking movements, a lever pivoted upon said support, a block connected with the shaft and having a horizontal slot therein, a roller on the lever engaging in said slot whereby oscillation of the lever will move said shaft axially, a rod having one end pivoted with said support, and a connection between the opposite end of said rod and said shaft, whereby said shaft will be rocked as an incident to its axial movements by said lever.

[Claims 6 and 7 not printed in the Gazette.]

1,243,883. APPARATUS FOR ADMITTING AIR TO FURNACES. CHRISTIAN SCHNEIDER, Sheffield, England. Filed Mar. 9, 1914. Serial No. 823,494. (Cl. 110—175.)

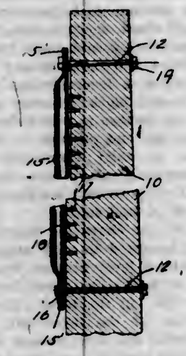


The combination with a suitably pivoted furnace door having a plurality of horizontally disposed parallel air inlet apertures therein, vertically disposed guides carried by the door and at the ends of the apertures and a shutter vertically slidable in the guides, said shutter being provided with a plurality of spaced parallel horizontal air inlet apertures corresponding to the apertures in the door, of a ledge projecting from the lower part of the door and stopping and supporting the shutter in the lowermost position and with the apertures in the door and shutter registering, a latch crossing the shutter and pivotally secured centrally thereto and having one end pivotally fastened to the pivoted end of the door and the other end projecting beyond the free end of the door and provided with an outstanding striking lip, said latch having the free end thereof lower than the pivoted end in the lower position of the shutter, a stationary catch for the latch adjacent the free edge of the door and positioned above the latch in the lower position of the shutter and a guide strap secured to the free end of the door and crossing the latch.

1,243,884. WIRE-CLAMP FOR FENCE-POSTS. JAMES P. SMITH, Boonville, Ind. Filed May 28, 1915. Serial No. 31,010. (Cl. 256—52.)

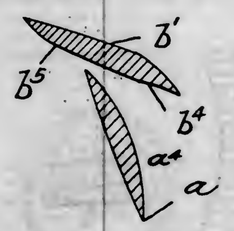
As an article of manufacture, a wire clamping device formed from a single length of pipe with its ends flat-

tened and apertured for the reception of attaching means, and a longitudinal series of spaced lateral projections



fixedly secured at their inner ends in openings formed in the pipe.

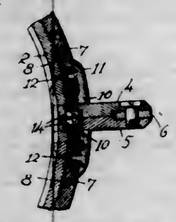
1,243,885. PROPELLER FOR AIRCRAFT. JOHN H. SMYTH, Bridgeburg, Ontario, Canada. Filed July 27, 1916. Serial No. 111,651. (Cl. 170—165.)



4. A propeller comprising a propeller blade, consisting of two components, one of which is placed in advance of the other in the circle of rotation, the two components being at different angles of incidence and one of the components overhanging the front and rear faces of the other, there being a separation between them whereby the air displaced by the components may pass through the separation.

[Claims 1 to 3 and 5 not printed in the Gazette.]

1,243,886. OPHTHALMIC MOUNTING. BYRON A. SOULÉ, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a Voluntary Association of Massachusetts. Filed Jan. 25, 1917. Serial No. 144,343. (Cl. 88—47.)



1. The combination with a lens frame, of a supplemental frame encircling the main frame, end piece members carried by the main frame, caps carried by the ends of the supplemental frame and means uniting the caps on the supplemental frame with the end pieces of the main frame to secure the parts together.

2. The combination with a main lens frame having end piece members, of a supplemental frame encircling the main frame, and caps fitting and securely interlocking with the ends of the supplemental frame and engaging the outer faces of the end pieces, and means for detachably uniting the caps and end pieces to retain the supplemental frame in position.

3. In a device of the character described, the combination with the lens frames split and provided with end pieces, of supplemental frames bearing terminal interiorly threaded plates and fastening devices extending through the end pieces and interlocking with the plates for securing the parts together.

4. In a device of the character described, the combination with main and supplemental frames, of cap members carried by the supplemental frames and provided with interiorly threaded apertures, and fastening devices coöperating with said threaded apertures to secure the plates in desired relation, substantially as and for the purpose described.

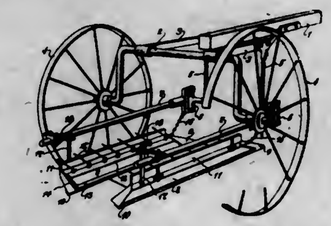
5. In a device of the character described, the combination with a lens frame provided with end pieces, of receptacles carried by the end pieces, a supplemental frame encircling the main frame and having its ends received within the receptacles, and means for locking the ends within the receptacles to secure the supplemental frame in position on the main frame.

1,243,887. ADJUSTABLE BED-SPRING FOR BEDS, DAVENPORTS, COUCHES, AND THE LIKE. JOHN R. STARK, Nashville, Tenn., assignor, by direct and mesne assignments, to The Owens-Stark Manufacturing Company, a Corporation of Tennessee. Filed July 6, 1915. Serial No. 38,125. (Cl. 5—12.)

1. A device of the class described including pivoted head, seat and foot sections, the side portions of the head section being extended beyond the lower end of the said section, bars pivotally connected to the said extended side portions of the head section and to the lower side of the foot section, a foot rest provided at its ends with rearwardly extending arms, and clips carried by the said bars and arms and respectively engaging the arms and bars.

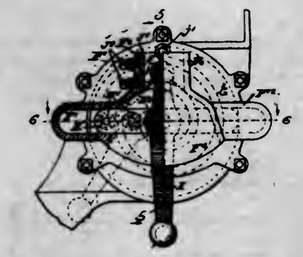
2. In a bed bottom structure, a main supporting frame, a bed bottom section pivotally mounted adjacent one end within the frame, arcuate arms extending from the side portions of the said section and provided each with a series of openings concentric to the pivot for the said section, a rod slidably mounted transversely within the main frame and having one end bent upwardly and thence laterally to provide a pawl engageable in the openings in one of said arms, the opposite end of the rod being extended beyond the corresponding side of the main frame and being provided with a finger piece and beyond the finger piece with a terminal portion extending inwardly above the main portion of the rod to provide a pawl engageable in the openings in the other arm, and a spring upon the said rod normally holding the same shifted to position with its said pawls simultaneously engaging the openings in the said arms.

1,243,888. INSECT-COLLECTING ATTACHMENT. BENJAMIN F. STEBBINS and BLAKE W. FORBHAND, Mullin, Tex. Filed Nov. 14, 1916. Serial No. 131,226. (Cl. 43—1.)



In a device of the character described, a trough-like receptacle arranged to slide on the ground, a side board for said trough and spring fingers secured to said board and projecting upwardly, inwardly and rearwardly of the receptacle, combined with an arm arranged to swing horizontally over the ground, a vertically yielding connection between said arm and one end of the receptacle, and a flexible connection between said arm and the other end of the receptacle.

1,243,889. STEERING-GEAR FOR VEHICLES. BENJAMIN M. STEELE, Detroit, Mich. Filed Jan. 29, 1917. Serial No. 145,052. (Cl. 74—79.)



1. In a steering mechanism for vehicles, a steering wheel shaft, a spiral cam carried on the end of the steering wheel shaft, a slidable bar adapted to be reciprocated by said cam, a swinging arm pivoted between its ends to the slidable bar, means for yieldingly holding one end of the swinging arm, and means articulating with the other end of the swinging arm, adapted to shift the traction wheels of a vehicle.

3. In a device of the character described, a steering wheel shaft, a member having a spiral rib encircling the axis of said shaft and carried by the latter, an inclosing case for said member, a slidable bar adapted to be reciprocated by the cam and guided in ways formed by the walls of said case, a swinging arm pivoted to the slidable bar, a movable block articulating with one end of the swinging arm and slidable in guides formed by the walls of the inclosing case, and means articulating with the other end of the swinging arm adapted to shift the traction wheels of a vehicle.

5. In a steering mechanism for vehicles, a steering wheel shaft, a member having a spiral rib encircling the axis of the shaft, an inclosing case for said member, a slidable bar adapted to be actuated by the spiral rib of said member, a swinging arm pivoted to the slidable bar, a divided block slidable in ways formed by the walls of the inclosing case and articulating with one end of the swinging arm, means located between said block and its ways to take up the wear between the parts, and means articulating with the other end of said swinging arm adapted to coöperate for shifting the direction to be taken by the traction wheels of a vehicle.

[Claims 2 and 4 not printed in the Gazette.]

1,243,890. GAS-BURNING LAMP. ALBERT T. STEWART, Peoria, Ill. Filed Sept. 8, 1916, Serial No. 119,085. Renewed Apr. 4, 1917. Serial No. 159,775. (Cl. 48—4.)



1. In a lamp of the character described utilizing two gas forming elements, one of them being a liquid, said lamp including a compartment for each element, the combination with a diaphragm separating the compartments and provided with an aperture, of a float in the compartment for the liquid, a valve attached to it for closing the aperture, the lifting action of the float being substantially equal to the weight of the valve, the latter being opened by the weight of water thereon in said liquid compartment and adapted to close by the pressure of gas against it.

7. A lamp of the character described including in its construction a float chamber having a discharge aperture in its wall for fluid in said chambr, and a substantially balanced float-valve in control of said aperture.

16. A lamp of the character described including a compartment for each of two gas forming elements, one of them being a liquid, a separating diaphragm for the compartments in the form of a shell with which the walls of both compartments engage, said diaphragm being separable from both said compartments and having an aperture therethrough for the passage of liquid from one compartment into the other, the diaphragm including a tubular part surrounding the aperture and having an open free end, a straining material lying between the said tubular part and the walls of the diaphragm, a burner tube extending through the said wall and terminating within the said material, a valve to control the aperture in the diaphragm at one side of the latter, and a float operatively connected to the valve and lying at the other side of the diaphragm, the lifting power of the float being substantially equal to the weight of the valve, the latter adapted to be opened by the weight of water thereon and adapted to be closed by the pressure of gas in excess of that required to produce a flame of a given size at the opening of the burner tube.

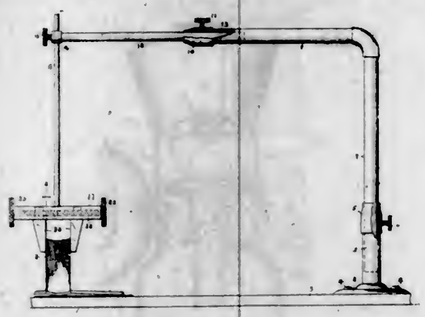
[Claims 2 to 6, 8 to 15, and 17 to 20 not printed in the Gazette.]

1,243,891. BOOK-HOLDING DEVICE. VICTOR L. STOLZE, Wausau, Wis. Filed Mar. 8, 1917. Serial No. 153,315. (Cl. 11—2.)

1. A book holding device comprising a rotatably and vertically adjustable standard, a horizontal extension carried by said standard, a vertical supporting rod adjustably connected to said horizontal extension, and adjustable book holding means rotatably attached to said vertical supporting rod.

4. In a book holding device, the combination with a support, of book-holding means comprising a hollow head member rotatably carried thereby and centrally slotted

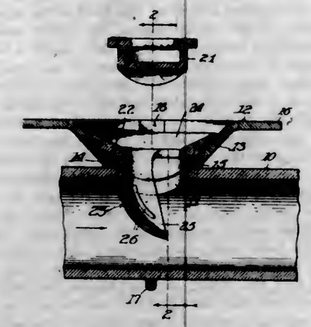
longitudinally throughout its length, a rod having right and left screw threads rotatably mounted in the head and projecting from the ends thereof, disks secured on the projecting ends of the screw-threaded rod and bearing



against the ends of the head, and a pair of jaws threaded on the respective threads of the rod within the head and projecting through the longitudinal slot.

[Claims 2 and 3 not printed in the Gazette.]

1,243,892. INTAKE-FITTING FOR CONVEYING SYSTEMS. ARTHUR P. STRONG, Chicago, Ill., assignor to Green Engineering Company, East Chicago, Ind., a Corporation of Illinois. Filed Jan. 29 1917. Serial No. 145,202. (Cl. 193—10.)



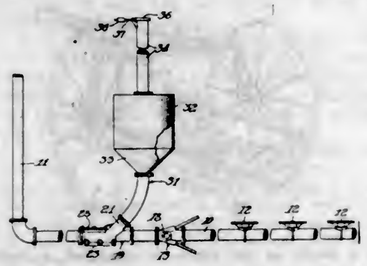
1. In a conveying system, the combination of a conduit, provided with an intake opening and a tapered passage surrounding said opening, a deflecting member comprising a base member provided with a beveled surface, permitting said base member to seat in said passage, and a central opening adapted to register with said intake opening, and a deflecting plate depending from said base member.

2. In a conveying system, the combination with a conduit provided with an intake opening, an intake fitting surrounding said opening and provided with a funnel shaped passage, of a deflecting member comprising an annular base member provided with beveled surfaces conforming to the contour of the passage of said intake fitting, and a central opening adapted to register with said intake opening, and a curvilinear deflecting plate integral with and depending from said base member.

[Claims 3 and 4 not printed in the Gazette.]

1,243,893. ASH-CONVEYING SYSTEM. ARTHUR P. STRONG, Chicago, Ill., assignor to Green Engineering Company, East Chicago, Ind., a Corporation of Illinois. Filed Mar. 6, 1917. Serial No. 152,633. (Cl. 193—10.)

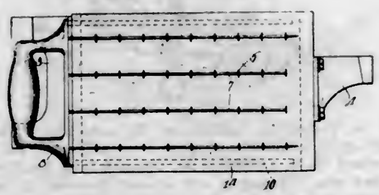
1. An ash conveying system, comprising a conduit, means for introducing steam into said conduit, a relief pipe communicating at one end with said conduit adjacent the point of introduction of the steam and at its other end with the atmosphere, and an enlarged drum located intermediate the ends of said relief pipe.



4. An ash conveying system, comprising a conduit, a nozzle mounted in said conduit and adapted to inject steam longitudinally thereof, a pipe connected with said conduit at a predetermined point beyond said nozzle in the direction of flow of the steam and inclined rearwardly toward said nozzle, said pipe communicating with the atmosphere and provided intermediate its ends with an enlarged drum, and a check-valve mounted at the discharge end of said pipe, and a counter-weight acting to effect the opening and closing of said valve with the changes in the air pressure in the pipe relative to atmospheric pressure.

[Claims 2 and 3 not printed in the Gazette.]

1,243,894. BACKPLATE FOR MEAT-SLICING MACHINES. HENDRIK STUKART, Laporte, Ind., assignor to U. S. Slicing Machine Company, Laporte, Ind., a Corporation of Illinois. Filed July 17, 1916. Serial No. 109,602. (Cl. 17—14.)



1. In a device of the class described, a plurality of alined sharpened members having perforations adjacent the points, and a pin of sufficient length to be inserted through the perforations of a row of sharpened members.

3. In a meat-holding device, the combination of a plurality of rows of pointed members having perforations adjacent the points, a plurality of pins insertible through the perforations of said members, and a common operating member to which the pins are attached for operating them simultaneously.

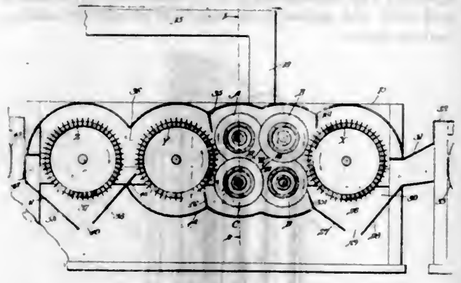
5. In a meat-holding device, a plurality of rows of perforated members which are inserted into the meat to be held, pins corresponding in number to the rows of members insertible through the perforations and through the meat between the said members, and means for pressing the meat against the pins after they are inserted through the perforated members.

6. In a meat-holding device, the combination with a plurality of pointed members insertible into the meat and having perforations adjacent the outer ends, a plurality of pins insertible through the perforations of said members, and a common handled member to which all of the pins are attached.

8. In a meat-holding device, a frame, a plurality of tines projecting from the frame and having perforations therein, a plurality of pins each adapted to be inserted through the perforations in a row of tines, a member to which the pins are attached, and means in connection with the frame for guiding the said member and the pins.

[Claims 2, 4, 7, and 9 to 24 not printed in the Gazette.]

1,243,895. COTTON-SEED LINTER. BENJAMIN F. SUMMEROUR, Gretna, La. Filed Feb. 25, 1916. Serial No. 80,417. (Cl. 12—9.)



1. In a machine of the class described, the combination of a plurality of horizontal saw cylinders carrying spaced vertical saws and supported so as to form a horizontal chamber between them, the saws of the several cylinders extending into the spaces between the saws on adjacent cylinders and being set closely together so as to permit the removal of fiber only through said spaces by said saws, means for moving the material longitudinally through the chamber between the saw cylinders and transversely of the saws, and means for collecting the fiber removed by said saws.

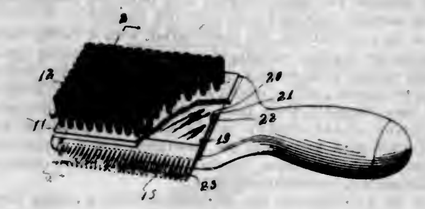
2. In a cotton seed linter, the combination of a plurality of horizontal coöperating saw cylinders carrying vertical spaced saws, said cylinders being supported so as to form a horizontal seed chamber between them, the saws of the several cylinders extending into the spaces between the saws on adjacent cylinders and being set closely together so as to prevent the discharge of seed from said chamber through the spaces between the saws but permitting the removal of lint from said seed through said spaces by said saws, means for causing the seed to move longitudinally of the seed chamber and transversely of the saws, and means for collecting the lint removed from the seed by said saws.

6. In a cotton seed linter, the combination of a casing, a plurality of horizontally disposed rotatable saw cylinders in said casing, the cylinders carrying spaced saws and the saws of the several cylinders extending into the spaces between the saws on adjacent cylinders and being set closely together to form a horizontal seed chamber closed on all sides except the ends, said saws being set so as to permit the saws to remove lint from said chamber through the spaces between the saws but preventing the removal of seed from the seed chamber by the saws, means for feeding seed to said seed chamber, horizontal rotatable brushing cylinders for removing lint from said saw cylinders, and division boards inside said casing for controlling the air currents in the casing.

10. In a machine of the class described, the combination of a casing, a group of saw cylinders therein and mounted so as to form a seed chamber between them, said chamber being closed by said saw cylinders on all sides except the ends, the peripheries of the saws forming the walls of said chamber moving in the same general direction to cause a continuous rotating action to rotate the material in the seed chamber, brush cylinders in said casing on opposite sides of said seed chamber, one brush cylinder contacting with each pair of the saw cylinders, condensers, and separating means between the saw cylinders and the condensers.

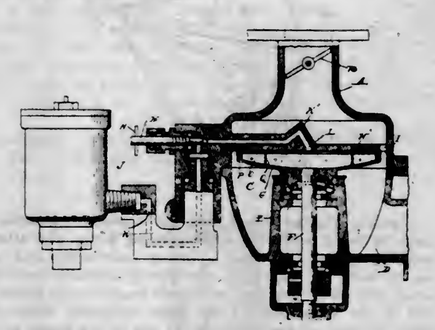
[Claims 3 to 5, 7 to 9, and 11 not printed in the Gazette.]

1,243,896. TOILET ARTICLE. JOSEPH SZUHAY, New York, N. Y. Filed Aug. 8, 1916. Serial No. 113,729. (Cl. 132—32.)



In a brush of the class described, the combination with a backing having a narrow recess extending inward from one side toward the other, a straight-back comb adapted to be positioned in said recess, springs attached at their ends to the opposite ends of said comb and projecting therefrom approximately at right angles to said straight-back, said springs being formed with spaced apart detent loops, and a pin set in said brush engageable with the mentioned detent loops whereby the comb may be limited in its outward and inward movements.

1,243,897. CARBURETER. ALFRED THOMPSON, Detroit, Mich., assignor of fifty-one one-hundredths to Lora E. Beaman, Providence, R. I. Filed May 11, 1916. Serial No. 96,785. (Cl. 261—89.)



1. In a carbureter, the combination with a casing forming an air suction conduit, of a partition or diaphragm extending across said casing with apertures therethrough around the periphery only, a mechanically-driven hollow disk member of less diameter than said apertured periphery adjacent to said partition provided with peripheral jet apertures directed into a surrounding annular air space, and means for introducing liquid fuel through said partition member centrally within said hollow disk.

2. In a carbureter, the combination with a casing forming a suction conduit, of a partition extending across said casing and provided with a liquid fuel inlet passage therein having portions slightly above the normal level of liquid fuel and a central discharge port, a hollow disk member arranged adjacent to and approximately closed by said partition, the hollow space therein communicating with said central discharge port and the periphery of the disk being provided with discharge jet apertures directed into an annular air space between the disk and the walls of the casing, a shaft on which said disk is mounted, and journal bearings for said shaft within said casing.

3. In a carbureter, the combination with a casing forming an air suction conduit, of a partition or diaphragm extending across said casing with segmental apertures therethrough around the periphery, said partition or diaphragm being imperforate intermediate said apertures, a hollow disk member of less diameter than that of the peripheral segmental apertures adjacent to and slightly

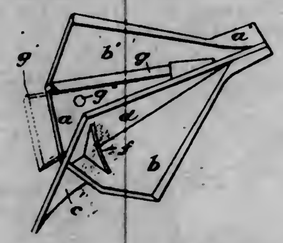
spaced from said partition provided with peripheral apertures directed into a surrounding annular space, and means for drawing liquid fuel through said partition member and air through the space between said partition member and disk member centrally into said disk member.

4. In a carbureter, the combination with a casing forming an air suction conduit, of a partition extending across said casing with narrow apertures therethrough around the periphery only, a mechanically driven hollow member of less diameter than that of the peripheral apertures, adjacent to and slightly spaced from said partition and provided with peripheral jet apertures, and a liquid fuel inlet in said partition, opening into said hollow member substantially centrally thereof.

6. In a carbureter, the combination with a casing forming an air suction conduit, of a partition or diaphragm extending across said casing with apertures therethrough around the periphery, a rotatable hollow disk member adjacent to said partition and having one side approximately closed thereby, said disk member being provided with peripheral jet apertures directed into a surrounding air space, and means for introducing liquid fuel centrally within said hollow disk.

[Claim 5 not printed in the Gazette.]

1,243,898. POTATO-DIGGING ATTACHMENT FOR PLOWS. WILLIAM A. THOMPSON, Walkerton, Ontario, Canada. Filed Nov. 2, 1916. Serial No. 129,221. (Cl. 55—139.)



A potato digging attachment for a plow comprising a share having a point, two corresponding wings, and a land breaking colter, the wings slanting rearwardly and upwardly from the point and downwardly-laterally from the colter, the colter being at an obtuse angle to the wings, a web on the under side of the share vertically below the colter, a guide on the underside of one of the wings to receive the plow point for the attachment of the digger thereto and a set of separating fingers extending rearwardly and upwardly from the share.

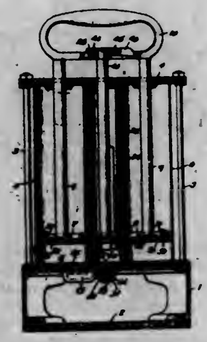
1,243,899. COMPOUND FOR TEMPERING STEEL. CHRISTOPHER C. TRINKLE, Romney, Ind. Filed Feb. 19, 1917. Serial No. 149,418. (Cl. 148—88.)

The herein described compound, comprising bicarbonate of soda, willow charcoal, sal ammoniac, sulfur, copperas, and table salt, substantially as described and for the purpose specified.

1,243,900. APPARATUS FOR PRODUCING ARTIFICIAL RESPIRATION. EDMUND J. TYLER, Chicago, Ill. Filed Sept. 20, 1916. Serial No. 121,135. (Cl. 128—13.)

1. In an apparatus of the character described, the combination of top and bottom plates, rods connecting said plates, five cylinders supported between said plates, four of said cylinders being arranged symmetrically about the fifth, plungers in each of said cylinders, an operating handle, means connecting said handle and plungers, outlets from said inlets to two of said symmetrically arranged cylinders, automatically operable valves in said inlets and outlets, a duct connecting the other two symmetrically arranged cylinders, and an adjustable valve in said duct having a restricted opening communicating with the atmosphere.

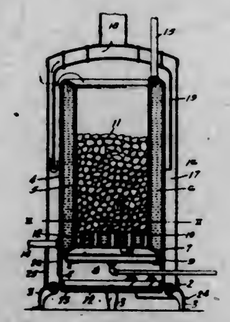
3. In an apparatus of the character described, the combination of a pair of cylinders, an inlet to and an outlet from each of said cylinders, valves in said inlets and outlets, a plunger in each of said cylinders, means for actuating said plungers whereby oxygen-containing gas and waste and other products are alternately supplied to and withdrawn from the lungs of a patient, and means for adjustably limiting the movement of said plungers including an intermediate cylinder, the walls of which are provided with slots of varying depth, a rotatable plunger having a lug thereon adapted to selectively enter one of said slots, and means connecting said plunger to said actuating means.



10. In an apparatus of the character described, the combination of two pairs of symmetrically arranged cylinders, the respective cylinders of each pair being oppositely disposed, plungers in each of said cylinders, rods connected to said plungers and to a common operating handle, outlets from and inlets to the cylinders of one of said pairs, valves in said outlets and inlets, a mixing valve connected to the inlet to one of said cylinders, a duct connecting the other pair of cylinders, a valve in said duct having a restricted opening communicating with the atmosphere, a fifth cylinder, and means in said cylinder connected to said operating handle to selectively limit the stroke of said plungers.

[Claims 2 and 4 to 9 not printed in the Gazette.]

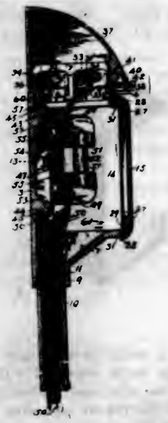
1,243,901. WATER-HEATER. MAHLON A. UNGER, Dormont, Pa. Filed Jan. 20, 1916. Serial No. 73,193. (Cl. 122—155.)



In a water heater, the combination of a cylindrical open center casing comprising an inner and an outer concentric shell, a top connecting wall and a bottom outwardly flaring connecting wall therefor, thereby providing an intervening annular water containing cavity, a water inlet and water outlet pipe connected with said cavity, a fuel burner located beneath said water cavity,

a lower transverse closure below the burner having means for admitting a variable air supply, a compound inner and outer shell providing for a tortuous circulation of the gases of combustion, said outer shell having an outlet flue, said inner shell extending downwardly a substantial distance around and spaced from said cylindrical casing, and said inner shell being spaced from and supported by said outer shell.

1,243,902. ELECTRIC-CONDUIT FITTING. SAMUEL B. VAN RANST, Syracuse, N. Y., assignor to Crouse-Hinds Company, Syracuse, N. Y., a Corporation of New York. Filed Feb. 11, 1910. Serial No. 543,292. (Cl. 247—12.)



1. A fitting including two parts, one a body having projections on the inner face of a wall thereof, and the other a support for an electrical appliance having projections for lapping the projections of the body, and means extending through one of the projections of one of said parts and engaging the contiguous projection of the other of said parts, substantially as and for the purpose specified.

2. A fitting comprising a hollow body having substantially parallel projections on the inner face of a wall thereof, and a support for an electrical appliance carried by the projections, said support having engaging portions shaped to form means for coacting with said projections, one of the projections having its outer face undercut and the engaging portion of the support coacting with said projections being shaped to substantially conform to said undercut side of the projections, and clamping means associated with the other of the engaging portions of the support and coacting with the other projection, substantially as and for the purpose specified.

3. A fitting comprising a hollow body having a plurality of ribs on the inner face of a wall thereof, and a support for an electrical appliance carried by the ribs, said support having portions thereof shaped to form hooks for coacting with said ribs, one of the hooks having means associated therewith for holding the support with the hooks engaged with the ribs, substantially as and for the purpose set forth.

4. A fitting comprising a hollow body having a plurality of substantially horizontal parallel ribs on the vertical face of a wall thereof, and a support for an electrical appliance carried by the ribs, said support having portions thereof shaped to form hooks for coacting with said ribs whereby the support is supported by the ribs, and means for holding the support with the hooks engaged with the ribs, said means extending through one of said hook shaped portions into engagement with the corresponding rib, substantially as and for the purpose described.

5. A fitting comprising a hollow body having a plurality of ribs on the inner face of a wall thereof, and a support for an electrical appliance carried by the ribs, said support having hook shaped means for coacting with said ribs, one of the ribs having its outer face undercut and the hook shaped means of the support coacting therewith being bent to conform to said undercut face, and means extending through the other hook shaped means of the support into coaction with the corresponding rib, substantially as and for the purpose specified.

[Claims 6 to 11 not printed in the Gazette.]

1,243,903. FINISHING-STRIP. ALBERT E. VOGT, Rochester, N. Y., assignor to Vogt Mfg. & Coach Lace Co., Rochester, N. Y., a Corporation of New York. Filed July 3, 1916. Serial No. 107,448. (Cl. 155—43.)



1. A finishing strip formed of flexible material one edge of which is folded upon the body of the strip and the other edge upon said first mentioned edge, and means positioned between the edges for holding them together.

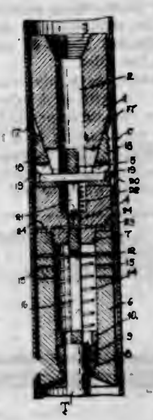
4. A finishing strip having its outer edge folded upon the body portion thereof and its inner edge upon said outer edge, a filler inclosed by the first mentioned folded portion, means connecting said first mentioned folded portion and body and means connecting said edges.

6. A finishing strip having relatively thick and thin edge portions and relatively thick and thin intermediate portions, said thin edge portion being folded upon the intermediate thin portion and said thick edge portion upon the folded thin edge portion.

8. The combination with a body finish, of a flexible finishing strip having one of its edges folded upon itself and its other edge upon the first mentioned edge, and means securing said strip upon the finish, said means being concealed by the second mentioned folded portion.

[Claims 2, 3, 5, 7, 9, and 10 not printed in the Gazette.]

1,243,904. CASING-SPEAR. WARREN WAGNER, Strawn, Tex. Filed July 21, 1917. Serial No. 182,049. (Cl. 57—9.)

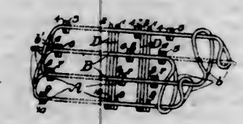


1. A casing spear comprising a tubular carrier, a socket engaged therewith, engaging means carried by the socket, gripping jaws slidably engaged with the carrier, a mandrel positioned within the carrier and extending within the socket, said mandrel being provided with a longitudinally disposed slot, a transverse pin engageable with the jaws and loosely directed through the slot of the mandrel, an expansible member constantly urging the pin in one direction, and breakable means co-acting with the carrier and mandrel for maintaining the latter normally against movement under the influence of the expansible member

and for normally maintaining the expansible member under compression.

2. A casing spear comprising a tubular carrier, a socket engaged therewith, engaging means carried by the socket, gripping jaws slidably engaged with the carrier, a mandrel positioned within the carrier and extending within the socket, said mandrel being provided with a longitudinally disposed slot, a transverse pin engageable with the jaws and loosely directed through the slot of the mandrel, an expansible member constantly urging the pin in one direction, breakable means co-acting with the carrier and mandrel for maintaining the same normally against movement under the influence of the expansible member and for normally maintaining the expansible member under compression, said gripping jaws being provided with slots in which the extremities of the transverse pin are seated.

1,243,905. FABRIC. EDWIN E. WAITE, Framingham, Mass., assignor of one-half to Standard Woven Fabric Company, Framingham, Mass., a Corporation of Massachusetts. Filed July 6, 1915. Serial No. 38,270. (Cl. 139—9.)

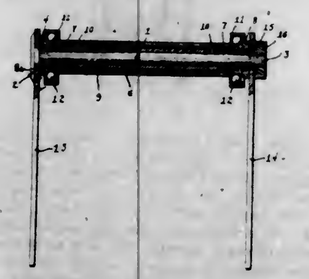


1. A multi-ply fabric, each ply comprising warp and weft threads interwoven with each other, the weft threads being laid in pairs in the different sheds, one pair in each shed, and each pair terminating in a loop at one selvage edge of the fabric, said loops of the weft in each ply being interlocked with adjacent loops of weft in another ply, the weft threads being laid in an intermediate ply in each cycle before they are laid in either of the outer plies in the cycle, and binders uniting the plies.

2. A multi-ply fabric, each ply comprising warp and weft threads interwoven with each other, the weft threads being laid in pairs in the different sheds, one pair in each shed, and each pair terminating in a loop at one selvage edge of the fabric, the weft loops in the outer plies being interlocked with adjacent loops of an intermediate ply, and binders uniting the plies.

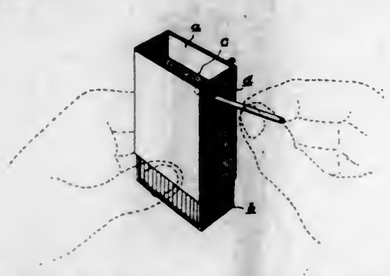
3. A multi-ply fabric, each ply comprising warp and weft threads interwoven with each other, the weft threads being laid in pairs in the different sheds, one pair in each shed, and each pair terminating in a loop at one selvage edge of the fabric, and binding threads uniting the plies, said loops of the weft in each ply being interlocked with adjacent loops of weft of another ply.

1,243,906. KNEE-JOINT FOR ARTIFICIAL LIMBS. WILLIAM H. WAMBSGANS and JACOB WAMBSGANS, Peoria, Ill. Filed May 19, 1915. Serial No. 29,185. (Cl. 16—11.)



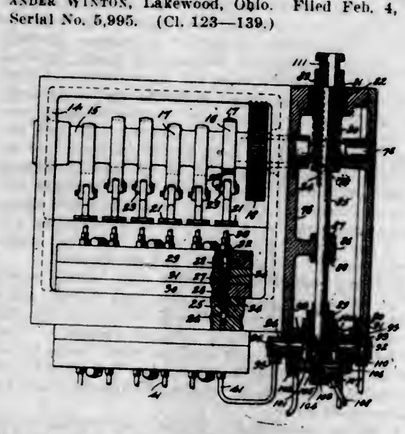
A joint of the character described comprising a sleeve, a second sleeve arranged in the first named sleeve and provided with exterior screw threads, annular ball retaining members mounted between the sleeves, bearing balls arranged therein, a shaft arranged in the second sleeve and having a head thereon, and also provided with an enlargement having one side thereof flat, frusto-conical members threaded on the ends of the second sleeve and bearing against the bearing balls, a connecting strap positioned on the enlargement between the head and one of the frusto-conical members and adapted to rotate with the shaft, a nut threaded on the opposite end of the shaft, a second connecting strap positioned between the nut and the frusto-conical member and held against movement by the same.

1,243,907. MATCH-BOX. GEORGE FRANK WAUGH, U. S. Army. Filed May 29, 1917. Serial No. 171,655. (Cl. 206—35.)



In a match box, a main casing open at its ends and having one of its edge walls provided with a small match-receiving hole near one end, and a slidable tray fitting in the main casing and having an abrasive material applied to the outer face of that one of its end walls which is adjacent to said hole.

1,243,908. INTERNAL-COMBUSTION MOTOR. ALEXANDER WINTON, Lakewood, Ohio. Filed Feb. 4, 1915. Serial No. 5,995. (Cl. 123—139.)



1. In an internal combustion motor, a cylinder, a piston, a pump having a constant receiving stroke, a fuel supply, connecting means normally free to permit the unrestricted flow of fuel to the pump during the receiving stroke, means for interrupting such free flow of fuel during the receiving stroke to the predetermined charge, and a controller for such interrupting means.

2. In an internal combustion motor, a cylinder, a piston, a pump having a constant receiving stroke, a fuel supply, connecting means normally free to permit the unrestricted flow of fuel to the pump during the receiving stroke, said connecting means being closed to the atmosphere, means for interrupting such free flow of fuel dur

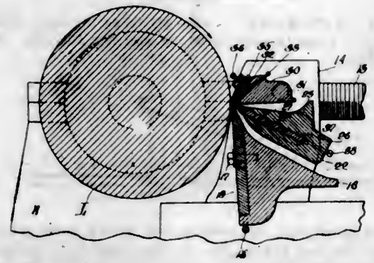
ing the receiving stroke to the predetermined charge, and a controller for such interrupting means.

11. In an internal combustion motor, a cylinder, a pump, a discharge leading from said pump to the cylinder, means for supplying fuel to said pump, cut-off mechanism in the supply of said pump and comprising a cut-off valve, driving gears for the pump and the cut-off valve, the latter being set to cut off the supply during the suction stroke of the pump and said gears having engaging parts of a type such that upon the shifting of one with respect to the other, the time of the cut-off of said valve is varied with respect to the suction stroke of the pump, and means for shifting the shiftable gear.

13. In an internal combustion motor, a plurality of cylinders, a pump for each cylinder, a discharge leading from each pump to its corresponding cylinder, means for supplying fuel under pressure to each pump, cut-off mechanism in the supply to each pump comprising a cut-off valve, spiral gearing between the pumps and said valve, one of said gears being bodily movable with respect to the other, said movement producing a variation in the timing of the cut-off operation with respect to the pump stroke, a governor, and connections between the governor and said movable gear.

[Claims 3 to 10, 12, and 14 not printed in the Gazette.]

1,243,909. VENEER-MAKING MACHINE FOR THE MANUFACTURE OF TOOTHPICKS. GERALD ROGERS WOODRUM, Oakland, Me. Filed Aug. 30, 1915. Serial No. 48,076. (Cl. 144—209.)

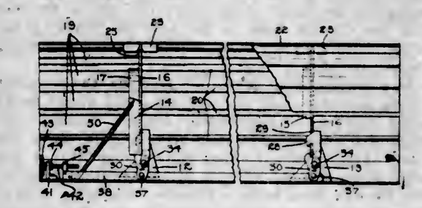


1. A machine for forming veneer for the manufacture of toothpicks, comprising means for rotating the stock, a skiving blade, a series of broad gouges spaced from said blade by the thickness of the veneer to form a series of shallow grooves in the outer face of the veneer, the cutting edges of said blade and gouges being in substantially the same radial plane, and a pressure bar bearing on the stock over said cutting edges, thereby preventing vibration of said blade and said gouges and preventing variation in thickness of the veneer and waste cut by said blade and said gouges respectively.

2. A machine for forming veneer for the manufacture of toothpicks, comprising means for rotating the stock, a skiving blade, a series of broad gouges, a series of severing knives, a support for said severing knives, and a pressure bar carried by said support, the operative edges of said blade, gouge and bar being substantially in the same radial plane, thereby preventing vibration of said blade and said gouges and preventing variation in thickness of the veneer and waste cut by said blade and said gouges respectively.

1,243,910. CONCRETE-CULVERT MOLD. HENRY F. WORLEY, Minneapolis, Minn., assignor to Joseph S. McCabe, Minneapolis, Minn. Filed July 24, 1916. Serial No. 110,822. (Cl. 25—131.5.)

1. A molding device comprising a base member, a form-supporting member having an aperture in one end thereof, a casting secured to said base, a downwardly-projecting hook issuing therefrom and adapted to coöperate with said aperture, means mounted on said casting acting upon said supporting member for holding the same locked in position under said hook, and a form positioned on said form-supporting member.



3. A molding device comprising a base, a clamping device secured to said base, a form-supporting member adapted to be held in place by said clamping device, said device including means for releasing said support and for positively ejecting said support from said clamping device, and a form positioned on said form-supporting member.

[Claims 2 and 4 not printed in the Gazette.]

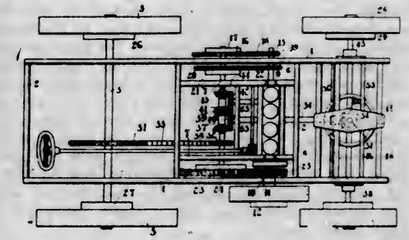
1,243,911. COMBINATION PENHOLDER AND BLOTTER. WASYL WOZNY and PAUL HUSAK, Boundbrook, N. J. Filed July 6, 1917. Serial No. 179,017. (Cl. 120—26.)



2. In a writing implement, the combination with a penholder, of a looped resilient wire pivotally engaged at one end thereof, said looped wire having an extending loop beyond said penholder, and a strip of blotting material wound about said loop forming a pad.

[Claim 1 not printed in the Gazette.]

1,243,912. TRANSMISSION DEVICE FOR TRACTORS. GEORGE MAHLON ABSALOM, Calstorville, Ontario, Canada. Filed Mar. 21, 1914. Serial No. 826,140. (Cl. 21—114.)



1. In a transmission device for tractors, the combination with revoluble front and rear axles and wheels freely mounted thereon, of friction clutches constituting a releasable connection between each wheel and the axle thereof, a cross shaft, means for driving the cross shaft at a variable speed from the engine, a sprocket on the cross shaft, a sprocket on the rear axle, a chain connecting the two sprockets together, a bevel gear on the cross shaft, a suitably supported longitudinal and forwardly extending shaft, a bevel gear on the rear end of the longitudinal shaft meshing with the aforesaid gear, and means connecting the longitudinal shaft with the front axle for driving the same.

3. In a transmission device for tractors, the combination with revoluble front and rear axles and wheels freely mounted thereon, of independent friction clutches con-

stituting a releasable connection between each wheel and the axle thereof, each friction clutch comprising a rim suitably secured to the wheels, a divided friction band engaging the rim upon being contracted, means for connecting the friction band to the axle for revolving the same therewith, and means for contracting and expanding the band.

4. In a transmission device for tractors, the combination with revoluble front and rear axles and wheels freely mounted thereon, of independent friction clutches constituting a releasable connection between each wheel and the axle thereof, each friction clutch comprising a rim suitably secured to the wheel, a divided friction band engaging the rim upon being contracted, a bushing secured to the axle having outwardly extending arms for supporting the divided band, a collar slidably mounted on said bushing, suitable connections between the collar and the divided band, said divided band being contracted upon the collar being moved away from the wheel and expanded upon it being moved toward the wheel.

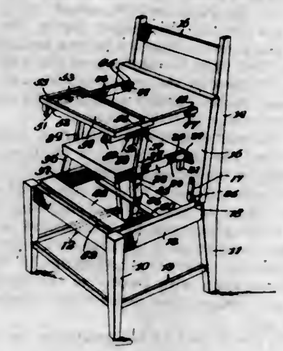
5. In a transmission device for tractors, the combination with a revoluble front and rear axles and wheels freely mounted thereon, of independent friction clutches constituting a releasable connection between each wheel and the axle thereof, each friction clutch comprising a rim suitably secured to the wheel, a divided friction band engaging the rim upon being contracted, a bushing secured to the axle having outwardly extending arms, one end of each divided portion pivotally connected to each arm, a bell crank lever mounted on each arm, the inner end of each bell crank lever pivotally connected to the free end of each divided band, a collar slidably mounted on said bushing, L-shaped levers pivotally connected at their inner ends to the slidable collar and pivotally connected to the outwardly extending arms, the feet of the levers extending through the arms and suitably connected to the free ends of the bell crank levers.

7. In a transmission device for tractors, the combination with a suitably supported revoluble front axle, of a boxing freely mounted thereon, an arched frame having bearing portions, the axle extending through the bearing portions, a vertical shaft, the lower end rigidly mounted in the boxing and the upper end extending freely through the arched frame, a large bevel gear free on the vertical shaft, a small bevel gear formed integrally therewith, a large bevel gear freely mounted on the axle and meshing with the aforesaid bevel gear on the vertical shaft, a ratchet connection between the axle and the freely mounted bevel gear thereon, a double faced bevel gear freely mounted on the vertical shaft, a bevel gear freely mounted on the axle and meshing with the lower face of the double bevel gear, a ratchet connection between the freely mounted bevel gear and the axle, a longitudinal shaft extending rearwardly from the front axle, a bevel gear on the forward end thereof meshing with the small bevel gear on the vertical shaft and with the upper face of the double bevel gear, and a yoke extending over the arched frame, the vertical shaft extending therethrough, said yoke having depending ends, the rear depending end having a bearing portion extending around the longitudinal shaft and the forward depending end pivotally connected to the frame of the tractor.

[Claims 2, 6, and 8 to 13 not printed in the Gazette.]

1,243,913. COMBINED CHAIR AND HIGH CHAIR. GIOVANNI AGATI, San Francisco, Cal. Filed Jan. 6, 1917. Serial No. 141,004. (Cl. 155—26.)

A combined chair and high chair including front and rear legs and stretchers connecting them providing a chair body having a seat box and back, a main seat hinged to the seat box and adapted to rest thereon or to be swung upwardly and rearwardly against the chair back, a supplemental seat hinged to the under face of the first seat and capable of being swung outwardly at substantially right angles thereto when the first seat rests against the back, supporting braces pivoted to the sides of the supplemental seat near its free forward edge and formed at their opposite ends with guide slots having off-set anchoring terminals, pins carried by adjacent stretchers of the seat box engaging in the slots and adapted to seat in the terminal thereof when the supplemental seat is raised to support such seat, inwardly directed brackets carried by the braces, and a foot rest hinged to the forward stretcher of the seat box and adapted to rest upon the brackets whereby as long as pressure is exerted upon the foot rest the braces will be held against such movement as could free the pins from the anchoring terminals of their slots.



1,243,914. PINCH-BAR. JOHN MINTTER BAILEY, Hillsboro, Ill. Filed Dec. 21, 1916. Serial No. 138,253. (Cl. 254—37.)

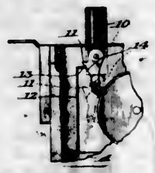
2. In a pinch bar, the combination with a body portion having a beveled pinch jaw at the outer end, integral lateral members each terminating in a pair of pendent apertured ears, the rear part of the said body portion being longitudinally bifurcated, the upper face of the solid portion of the said body having a longitudinal seat and the under face thereof a transverse socket in line with the pendent apertured ears, the rear end of the said body portion having stop lugs; of a supplemental member that includes a body portion, means for pivotally mounting the said body portion in the bifurcated rear end of the main portion, the said body portion of the supplemental member including a forwardly projecting extension adapted for fitting in the longitudinal seat in the main body portion, a handle receiving socket, and lateral lugs for engaging the lugs on the main body portion, a pinch member rockably mounted in the front end of the supplemental member, angle shaped rail gripping claws pivotally mounted in the opposite pair of apertured ears on the main body portion, and a spring seated in the recess on the main body portion tending to normally spread the said rail gripping claws.

[Claim 1 not printed in the Gazette.]

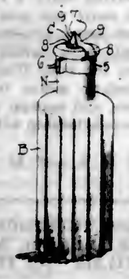
1,243,915. AUDIBLE INDICATING DEVICE. HAROLD B. BARNES, Denver, Colo. Filed Oct. 10, 1914. Serial No. 866,106. (Cl. 116—1.)

1. An audible indicating device, comprising a stem adapted to be moved to different positions, engaging means on said stem, vibratory means rigidly supported and capable of being engaged by said engaging means so arranged that as the stem moves to a different position the engaging means will release said vibratory means so that it will be permitted to vibrate freely upon its support.

2. An audible indicating device for switches comprising a stem rotatable in one direction with a step by step movement adapted to be moved to different positions, engaging means on said stem, vibratory means rigidly supported and capable of being engaged by said engaging means so arranged that as the stem moves to a different position the engaging means will release said vibratory means so that it will be permitted to vibrate freely upon its support and thus to indicate audibly the position of said stem.



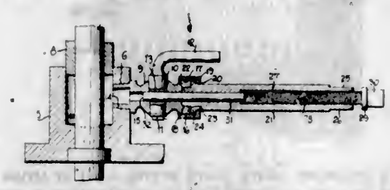
1,243,916. GUARD FOR BOTTLE-CORKS. WORTH R. BARRINGER, Denver, Colo., assignor to The Public Safety Device Company, Denver, Colo., a Corporation of Colorado. Filed Feb. 16, 1917. Serial No. 149,095. (Cl. 215—113.)



1. A bottle cork guard formed from a single piece of sheet metal and including a band adapted to extend around and clampingly engage a bottle neck, said band being provided with a guard finger extending from one edge thereof and of such a length as to overlie the outer end of a cork inserted in the bottle neck and to have its free terminal extend outwardly from the cork.

[Claim 2 not printed in the Gazette.]

1,243,917. MEANS FOR PACKING STUFFING-BOXES. WILLIAM G. BLEY, Cincinnati, Ohio. Filed May 24, 1916. Serial No. 99,637. (Cl. 137—115.)



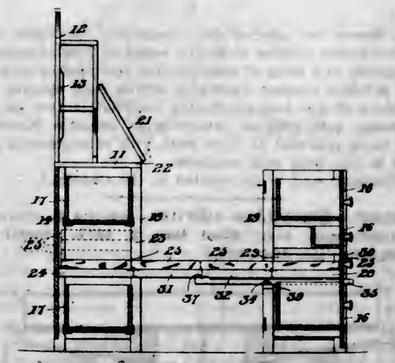
1. The combination with a stuffing box, of a valve body having a bore extending into the stuffing box, a valve controlling passage through said bore, a barrel having fluid-tight engagement with the end of the valve body, and a plunger operating within the barrel and having its forward end formed to fit and pass through the bore of the valve body when the valve is turned to open passage through the body.

2. The combination with a stuffing box, of a valve body having a longitudinally extending bore opening into the stuffing box and having an apertured valve shiftable to establish or cut off communication through said bore, a barrel detachably engaged with the outer end of the valve body, and a plunger mounted in said barrel and having its forward end formed to fit the bore of the valve body and the aperture in the valve.

3. The combination with a stuffing box, of a valve body having a longitudinally extending bore opening into the stuffing box, a rotatable valve mounted in the valve body and having a diametrically extending aperture registering with the bore when the valve is turned in one direction, a barrel, a plunger mounted in the barrel and having its forward end formed to fit said bore and said aperture, and a coupling detachably connecting one end of the barrel to the valve body.

[Claims 4 and 5 not printed in the Gazette.]

1,243,918. COMBINED DRESSER AND FOLDING BED. CHARLES BOGNAR, Hamilton, Ontario, Canada. Filed Feb. 27, 1917. Serial No. 151,217. (Cl. 5—18.)



1. A dresser bed comprising oppositely arranged cabinet sections, bed bottom sections hingedly connected together with their end portions fixedly carried within the said cabinet sections, and initial folding means for the bed bottom carried by one of the said cabinet sections adapted for actuation forwardly of the device.

2. A device of the class described comprising two drawer cabinet sections having receiving spaces substantially centrally arranged therein, stationary bed bottom sections horizontally secured within the spaces of said cabinet sections, and foldable bed bottom sections hingedly connected together and also hinged to the forward ends of the afore-mentioned stationary bed bottom sections.

3. A device of the class described comprising two drawer cabinet sections having receiving spaces substantially centrally arranged therein, stationary bed bottom sections horizontally secured within the spaces of said sections, foldable bed bottom sections hingedly connected together and also hinged to the forward ends of the aforementioned stationary bed bottom sections, the device when closed being arranged with the foldable bed bottom sections in upright position within the said cabinet sections.

4. A device of the class described comprising two drawer cabinet sections having receiving spaced substantially centrally arranged therein, stationary bed bottom sections horizontally secured within the spaces of said sections, foldable bed bottom sections hingedly connected together and also hinged to the adjacent ends of the aforementioned stationary bed bottom sections, angular operating levers pivotally carried by the forwardly positioned cabinet section and having handle portions projecting forwardly of said sections, the rear portions of said levers being positioned within the rear cabinet section when the device is folded and supportingly arranged centrally beneath the foldable bed bottom sections when the device is open in its bed forming arrangement.

5. A device of the class described comprising separate cabinet sections, a sectional top for the said cabinet sections, a bed bottom formed of separate hinged sections and carried by said cabinet sections, angular levers oppositely carried by one of said cabinet sections provided with block portions at their inner ends arranged with transverse grooves within which the adjacent hinges of the adjacently positioned bed bottom sections are adapted to seat when the bed is open, the forward ends of the levers being arranged forwardly of the device whereby a downward movement thereof is adapted for the initial folding operation of the bed bottom structure.

1,243,919. VACUUM-INSULATED VESSEL. FREDERICK E. CARLSON, New Britain, Conn., assignor to Landers, Frary & Clark, New Britain, Conn., a Corporation of Connecticut. Filed May 1, 1917. Serial No. 165,674. (Cl. 215—118.)



2. Means for spacing and supporting the walls of a double-walled vacuum insulated vessel of fragile material, consisting of a strip of metal having openings in each end and integral tongues extending behind each opening and cushions of non-heat-conducting material located in said openings, said tongues extending in opposite directions and being provided at their ends with enlargements situated in line with said cushions.

[Claims 1 and 3 not printed in the Gazette.]

1,243,920. RERAILING DEVICE. ARCHIE D. COALSON, Birmingham, Ala. Filed Mar. 2, 1917. Serial No. 152,022. (Cl. 104—163.)

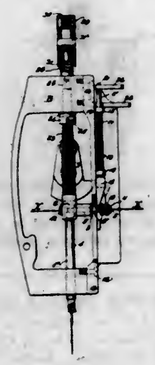
1. A rerailing device embodying an elongated shoe to rest upon a rail and having a depending hanger wall at its inner edge, an inwardly extending platform connected to said wall disposed in a plane below the plane of said shoe, inclines having their upper ends connected to the opposite ends of said platform and having their outer edges connected with said hanger wall, a supporting wall connected with the inner edges of said platform and inclines and having a lower horizontal flange to rest upon the ties, and upstanding longitudinal ribs upon the inclines tapering and increasing in height from their remote to their adjacent ends, and an upstanding guide flange above said supporting wall.

[Claim 2 not printed in the Gazette.]

1,243,921. SEWING-MACHINE. HERBERT CORRALL, Parkview, Helensburgh, Scotland, assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed May 22, 1914. Serial No. 840,170. (Cl. 112—29.)

1. In a multiple needle sewing machine, the combination with a driving shaft and multiple non-rotary needle bars, of a reciprocatory driving connection between the shaft and bars, retractible locking members carried by said connection one for each of the said bars, means for retracting the locking member for either of the said bars during the operation of the machine, and means acting automatically to retain the released bar out of register with its locking member.

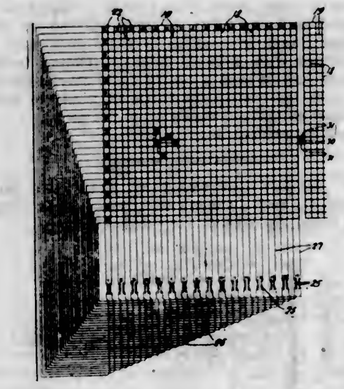
6. In a multiple-needle sewing machine, in combination, a needle-bar actuating mechanism, a plurality of needle-bars capable of being separately operatively connected to and disconnected from said actuating mechanism, and a device stationary during the running of the machine and common to all said needle-bars, said device adapted on actuation to reëstablish operative connection with the actuating mechanism of all the disconnected needle-bars simultaneously.



10. In a sewing machine having a plurality of bars carrying needles, a driving shaft, a reciprocatory driving element between said shaft and said bars, said reciprocatory driving element being detachably connected with said bars, each of said bars having manually operable means for disengaging the same from said reciprocatory driving element, automatic means for moving each bar to an elevated position, and manual means for restoring the bars to engageable relationship with said reciprocatory driving element.

[Claims 2 to 5, 7 to 9, and 11 not printed in the Gazette.]

1,243,922. CORDLESS TELEPHONE-SWITCHBOARD. MARION L. CURRIER, Cottleville, Mo. Filed July 25, 1916. Serial No. 111,273. (Cl. 175—306.)

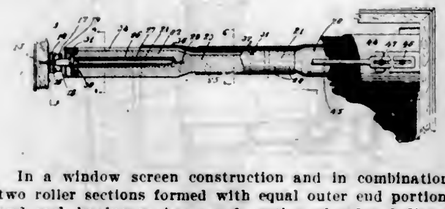


1. A telephone switch board having a set of strips arranged in pairs and extending in one direction, a second set of strips arranged in pairs and extending in another direction at an angle with the aforesaid strips, the strips of the two sets intersecting one another and providing jack sockets at the points of intersection, pairs of main line terminals, pairs of conductors connecting the pairs of main line terminals with the respective pairs of strips of one set, other pairs of conductors also connected to said pairs of main line terminals and connected to the respective pairs of strips of the other set, and a jack plug insertible in said sockets and having diagonally opposite bridging portions for connecting the intersecting pairs of strips, whereby to connect two pairs of main line terminals.

2. A telephone switch board having two sets of intersecting strips embedded therein, the strips of each set being arranged in pairs, the intersections of said pairs of strips providing jack sockets, the strips of each pair converging rearwardly, whereby said sockets at the intersections of the pairs of strips are tapered rearwardly, and a tapered jack plug insertible in said sockets having diagonally opposite bridging portions insulated from one another for bridging strips of two intersecting pairs.

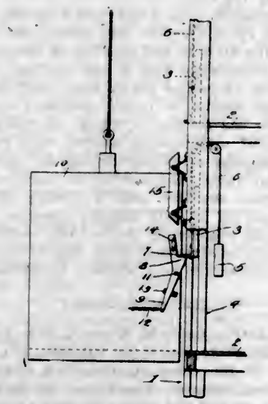
3. A pair of telephone switch boards each having a set of horizontal strips arranged in pairs, a set of vertical strips arranged in pairs and intersecting the aforesaid strips to provide jack sockets at the intersections, said switch boards being disposed side by side with the horizontal pairs of strips in alinement, a multiple plug insertible between said switch boards for connecting the adjacent terminals of corresponding pairs of horizontal strips, and a jack plug insertible in said sockets and having diagonally opposite bridge portions for connecting the intersecting pairs of strips.

1,243,923. WINDOW-SCREEN. JOSEPH DARGO, New York, N. Y. Filed Feb. 7, 1917. Serial No. 147,109. (Cl. 156—39.)



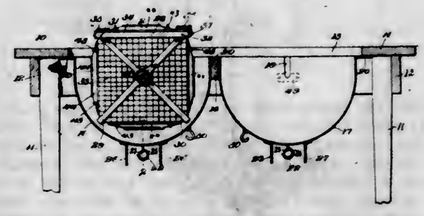
In a window screen construction and in combination, two roller sections formed with equal outer end portions and each having an inner end portion of reduced diameter, the said reduced end of one being shorter than the other, means on the shorter reduced end for telescoping the longer one, two wire netting sections adjustably clamped on the connected rollers and adapted to be wound and unwound thereon accordingly as the said rollers are rotated, the said netting sections having their inner longitudinal ends overlapped and the said overlapping portions following the annular channel formed by the reduced diameter portions during the rotative actions.

1,243,924. ELEVATOR-DOOR-OPERATING MEANS. STEPHEN B. DOUSE, Salina, Kans. Filed May 29, 1917. Serial No. 171,679. (Cl. 187—58.)



In combination, an elevator, shaft, an elevator car mounted in said shaft, an upwardly opening door from said shaft having a projection extending into said shaft, a vertical lever fulcrumed between its ends on one side of the car and having above its fulcrum an upwardly facing shoulder formed on its front edge for engagement with the lower side of said projection when the car ascends, the front edge of said lever inclining upwardly and outwardly to said shoulder for free sliding over said projection when the car descends, a spring connected to the lower end of the lever for moving it to operative position, a laterally extending vertically disposed shoe carried by said lever above its fulcrum and beveled at both its upper and lower ends, and a vertically elongated cam fixed in the elevator shaft for engagement with said shoe to release said shoulder from engagement with said projection.

1,243,925. DISH-WASHING MACHINE. PATRICK T. DUNN, Cedar Rapids, Iowa. Filed May 7, 1917. Serial No. 166,993. (Cl. 141—9.)

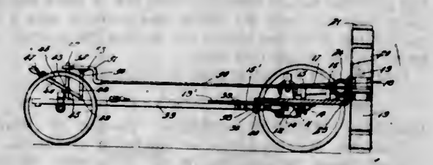


1. In an apparatus of the class described a holder for the dishes to be cleansed including a supporting frame and foraminous walls, a plurality of dish engaging rods in spaced relation connected at their ends to walls of the holder, and means applied to the rods intermediate their ends for drawing the same toward the adjacent wall of the holder.

2. In an apparatus of the class described a holder for the dishes to be cleansed comprising an oblong top frame, U shaped members connected to the top frame and crossed at the ends of the holder, fastening devices extending through the U shaped frame members at their crossing points and each extended into a trunnion whereby the holder may be supported for rotation, bottom, side and end walls of screen material connected to the top and the U shaped frame members, and a closure comprising a frame conforming to the top frame and having screen material connected thereto.

3. An apparatus of the class described comprising a receptacle for a cleansing liquid including end members having upwardly opening bearing slots, a holder for the dishes comprising an oblong top frame, U shaped members connected to the top frame and crossed at the ends of the holder, fastening devices extending through the U shaped frame members at their crossing points and each extended into a trunnion engaging in the slots, and thereby supporting the holder for rotation in the receptacle.

1,243,926. SNOW-PLOW. BENJAMIN F. ERWIN, Fairfax, Mo. Filed May 16, 1916. Serial No. 97,860. (Cl. 37—17.)

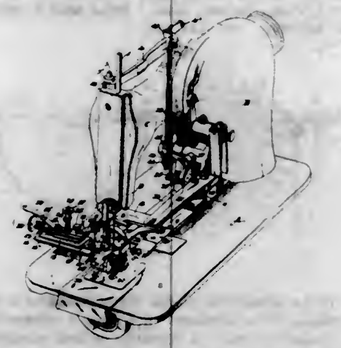


1. In a device of the character described a carriage having a forward truck including a platform and an axle pivotally mounting the platform, and a rear truck having a

tongue pivotally connected with the platform of the forward truck, a rotatable operating element having a supporting shaft rotatably mounted in bearings upon said platform, a standard carried by said rear carriage, a lever shaft in telescoping engagement with the supporting shaft and having a handle element at its rear end slidable upon the standard, and means to releasably hold the handle element in an adjusted position upon the standard.

[Claim 2 not printed in the Gazette.]

1,243,927. BUTTON-SEWING MACHINE. ALBERT F. FIFIELD, Elizabeth, N. J., and WILLIAM L. BARAON, New York, N. Y., assignors to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Sept. 24, 1915. Serial No. 32,339. (Cl. 112—32.)



1. The work-holding means comprising a work-supporting plate, a work-supporting block, a pair of spaced button-holding jaws overlying and spring-pressed toward the said plate, and means for simultaneously lifting the said jaws and retracting the work-supporting block.

2. The work-holding means comprising a work-supporting plate, a pair of spaced button-holding jaws overlying said plate, a carrier for the said jaws, a supporting member for the said carrier and means for adjusting the carrier upon its supporting member.

3. The work-holding means comprising a work-supporting plate, a pair of spaced button-holding jaws overlying the said plate, a work-supporting block mounted upon the said plate and means for moving the said block relatively to the button-holding jaws.

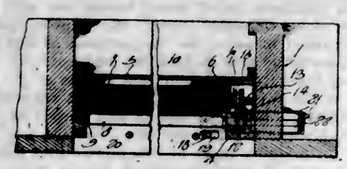
4. The work-holding means comprising a movable work-supporting plate, an arm connected for movement with the said work-supporting plate, a carrier adjustably mounted upon the said arm, two spaced and relatively movable arms mounted on the said carrier and provided with button-holding jaws, a spring acting upon one of the said relatively movable arms, and a lifting lever for moving the said relatively movable arm in opposition to its spring.

5. The work-holding means comprising a work-supporting plate, an arm connected for movement with the work-supporting plate, a carrier slidingly mounted upon the said arm, a second arm rigidly connected to the carrier and provided with a button-holding jaw, a third arm pivotally mounted upon the carrier and provided with a button-holding jaw, and means for moving the carrier relatively to its supporting arm.

[Claims 6 to 13 not printed in the Gazette.]

1,243,928. WINDOW-SCREEN. GEORGE W. FISHER, Freeland, Md., assignor of one-third to Charles W. Montgomery, Washington, D. C. Filed Mar. 12, 1917. Serial No. 154,311. (Cl. 156—39.)

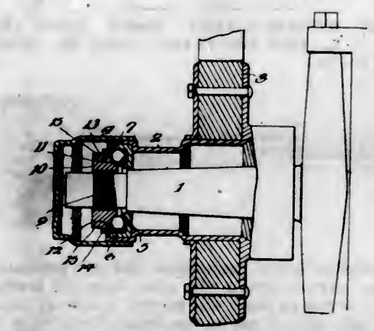
4. In combination, a window-frame, a sliding sash therein, a roller mounted on said sash, a screen wound on said roller, means for detachably securing the free end of said screen to one end of said frame, a pinion rotatable bodily with and slidable longitudinally of said roller, a rack bar carried by the frame for co-action with said



pinion to rotate said roller, and means for sliding said pinion into or out of mesh with said rack bar.

[Claims 1 to 3 not printed in the Gazette.]

1,243,929. BEARING FOR AUTOMOBILE-HUBS. CHARLES N. FRAUHAM, Wallingford, Conn. Filed Aug. 8, 1916. Serial No. 113,765. (Cl. 64—58.)



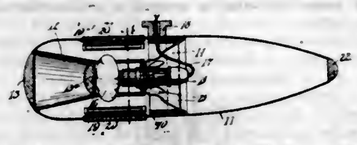
1. The combination with a hub, and a spindle, of a cup mounted within the hub around the spindle, a plurality of balls mounted in the cup, a split retainer sprung into an annular groove in the end of the cup to engage against and retain the balls, the retainer near its ends having tool receiving openings to facilitate its removal, an adjusting cone mounted upon the spindle to rotate therewith and having its inner end constructed to engage said balls, said cone being further constructed to pass through the said retainer, and a holding ring interposed between the cone and the said retainer and carried and held against the retainer by the cone.

2. The combination with a hub, and a spindle, of a cup secured within the end of the hub around the spindle, a plurality of balls fitted in and rotating in the cup, a split retainer ring frictionally held in the cup near the outer end thereof and extending partly over the balls, a cone fitted upon the spindle to rotate therewith and having a tapered inner end portion to engage the balls and constructed adjacent said tapered portion with an annular longitudinal shoulder extending through the split retainer and an annular radial shoulder at the outer end of the said longitudinal shoulder, and a holding ring fitting around and carried by said annular shoulder and held against the split retainer by the annular radial shoulder of the cone, the holding ring being free to turn relative to both the retainer and cone whereby to relieve wear between them.

1,243,930. LAMP. LEON M. GIROUX, New York, N. Y. Filed Feb. 28, 1917. Serial No. 151,386. (Cl. 240—46.)

1. A lamp of the character described comprising an elongated casing tapered toward one end and provided with a lens at one end and with a circular series of translucent prisms peripherally disposed around its body portion, and an electric lamp socket mounted in said casing and adapted to hold a lamp bulb opposite said peripheral

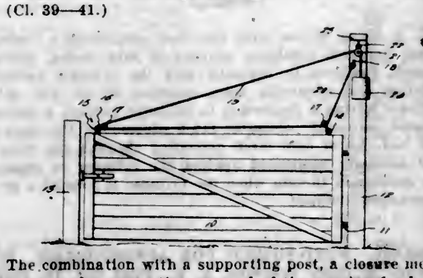
prisms in position to emit light rays forward through said lens and radially through said prisms around said body.



5. A lamp of the character described comprising an elongated casing tapered toward one end and provided at its tapered rear end with a lens and at its front end with an inwardly projecting tapered lens tube having a large convex lens at its front end and a small convex lens at its rear end and around its body with a circular series of translucent prisms, and an electric lamp socket mounted in said casing and adapted to hold a lamp bulb opposite said peripheral prisms in position to emit light rays forward and rearward through said lenses and radially through said prisms around said body.

[Claims 2 to 4 not printed in the Gazette.]

1,243,931. GATE-SUPPORT. THOMAS R. GREENE, Texarkana, Ark. Filed Sept. 28, 1916. Serial No. 122,732. (Cl. 39—41.)

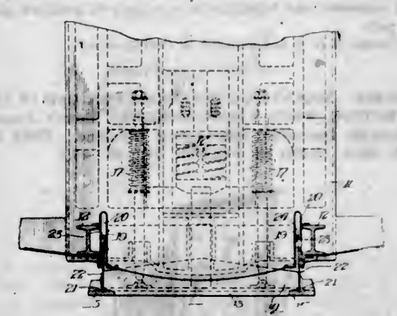


The combination with a supporting post, a closure member, means for connecting one end of the member for horizontal swinging movement to the lower portion of the post, a cross bar connected to the upper edge of the post and arranged at right angles to the plane of the member when the member is in a closed position, two pulleys swivelly connected to the upper edge of the closure member and positioned adjacent the respective ends thereof, another pulley pendently supported from the under surface of the arm adjacent one end thereof, a cable one end of which is rigidly connected to the post adjacent the upper edge thereof, the cable being extended downwardly and operatively trained about the inner and outer pulleys on the closure member and thence extending outwardly and trained about the pendently supported pulley on the cross bar, and a weight carried by the depending portion of the cable continuing from the pendently supported pulley for coöperating with the cable in exerting parallel and lateral force on the closure member to prevent sagging of the closure member to relieve strain on the connecting means of the closure member, and in addition hold the closure member in either an open or closed position and to facilitate opening of the closure member subsequent to the release thereof.

1,243,932. METALLIC CAR-DIAPHRAGM. FRANCIS M. GUNN and LARS J. BERG, Chicago, Ill. Filed Sept. 10, 1914, Serial No. 860,981. Renewed Apr. 11, 1916. Serial No. 90,520. (Cl. 105—61.)

1. In a car vestibule diaphragm construction, the combination with the car end and the vestibule face plate, of pockets formed on one of said members at the sides of the vestibule passageway, and metallic sheets connected to the other of said members at the sides of the passageway and slidable in the pockets, the width of the pockets being greater than the thickness of the sheets to permit angular displacement, the margins of the sheets provided with means bridging the space between the pocket walls.

2. In a car vestibule diaphragm construction, the combination with the car end and the vestibule face plate, of pockets formed on one of said members at the sides of the vestibule passageway, and metallic sheets connected to the other of said members at the sides of the passageway and slidable in the pockets, the width of the pockets being greater than the thickness of the sheets to permit angular displacement, and packing material arranged in the space between the sheets and the pocket walls.



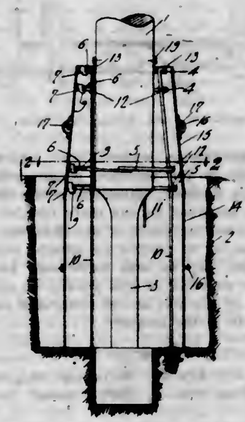
3. In a car vestibule diaphragm construction, the combination with the car end and the vestibule face plate, of pockets formed on the car end at the sides of the vestibule passageway, and metallic sheets connected to the face plate at the sides of the passageway and slidable in the pockets, the width of the pockets being greater than the thickness of the sheets to permit angular displacement, the margins of the sheets provided with means bridging the space between the walls of the pockets.

4. In a car vestibule diaphragm construction, the combination with the car end and the vestibule face plate, pockets fixedly mounted on one of said members at the sides of the vestibule passageway, and metallic sheets hingedly connected to the other of said members at the sides of the passageway and slidable in the pockets, the width of the pockets being greater than the thickness of the sheets to permit of angular displacement.

5. In a car vestibule diaphragm construction, the combination with the car end and the vestibule face plate, of pockets fixedly mounted on the car end at the sides of the vestibule passageway, and metallic sheets hingedly connected to the face plate at the sides of the passageway and slidable in the pockets.

[Claims 6 to 31 not printed in the Gazette.]

1,243,933. APPARATUS FOR REINFORCING POLES. GEORGE HARDING, Spokane, Wash. Filed Apr. 14, 1916. Serial No. 91,159. (Cl. 72—83.)

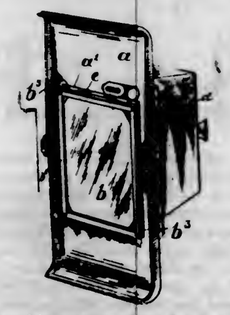


1. The combination with a pole, of an annular reinforcing structure surrounding it, and members entering

the pole and supported thereby, said members extending across portions of said structure and having their outer ends projecting outwardly from said structure for spacing a form therefrom, said members being provided with portions between their ends projecting at an angle therefrom and moved inwardly into engagement with said portions of said structure for supporting said structure from said members and holding the structure in position about the pole.

[Claims 2 to 4 not printed in the Gazette.]

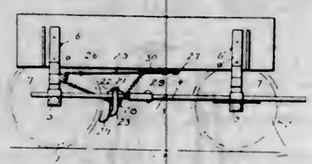
1,243,934. MEANS FOR FOCUSING FOR USE IN CONNECTION WITH FILM-CAMERAS. EDWIN FRANCIS HARPER, Harborne, Birmingham, England. Filed May 28, 1914. Serial No. 841,602. (Cl. 95—47.)



1. A photographic camera adapted to use roll films comprising in combination, a movable focusing screen, a folding focusing hood, means whereby said movable focusing screen is displaced from its normal position to the position normally occupied by the sensitized portion of said film by the opening of said focusing hood.

2. A photographic camera adapted to use roll films comprising in combination, a movable focusing screen disposed at the rear of the camera, a plurality of hinged flaps forming a folding focusing hood, projections on said hinged flaps adapted, when said focusing hood is extended, to engage said movable focusing screen and displace it into the normal plane of the film during the focusing operation.

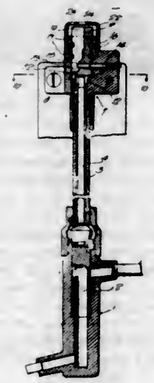
1,243,935. AUTOMATIC WAGON-BRAKE. PHILIP DOCTOR HARVEY, Stratton, Colo. Filed June 3, 1914. Serial No. 842,808. (Cl. 21—9.)



In a brake mechanism wherein the wagon body is movable relatively to the bolsters, wagon bolsters each comprising a main member, standards at the ends of said member, a plate mounted on the main member and having a groove terminating short of the ends, each end portion having a bearing to receive an upright roller, means securing the upper end of said roller and bracing said standard, a roller mounted in said groove, an eye-bolt supporting each end of the last named roller and also serving to secure the plate to the bolster.

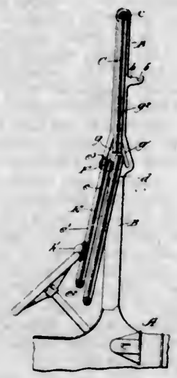
1,243,936. VALVE-LOCK. WILLIAM HENCKLER, St. Louis, Mo. Filed Feb. 1, 1917. Serial No. 145,961. (Cl. 70—46.)

1. A device of the class described comprising a casing, a key actuated rotatable cylinder in said casing, spring pressed tumblers to normally lock the cylinder against rotation and releasable upon insertion of the key, and a manually releasable latch to automatically lock the cylinder when the same is rotated a predetermined distance.



2. A device of the class described comprising a casing, a key actuated rotatable cylinder in said casing, spring pressed tumblers to normally lock the cylinder against rotation and releasable upon insertion of the key, said cylinder having a depression in its outer surface, a spring pressed manually releasable latch pivoted on the casing, and one end of said latch extending through the casing and normally positioned against the cylinder to engage the depression therein when the cylinder is rotated a predetermined distance.

1,243,937. WIND-SHIELD FOR AUTOMOBILES. EDWARD B. HESS, Brooklyn, N. Y. Filed Oct. 18, 1916. Serial No. 126,375. (Cl. 21—148.)



1. A wind shield comprising: supporting means, an upper shield section in the line of vision pivotally supported at its upper end to move into an upwardly inclined rain shed position, a lower shield section normally in a substantially vertical position below the line of vision and supported pivotally to swing into an inwardly inclined ventilating position, an auxiliary shield section normally parallel to the normal shield section below the line of vision, and sliding and turning connections between the upper end of the auxiliary shield section and the supporting means to move said auxiliary shield section inwardly into a ventilating position with the lower shield section or upwardly by sliding engagement and then permitting it to turn into an inverted upright position above and in front of and slightly overlapping the lower shield section when the upper shield section is in its rain shed position.

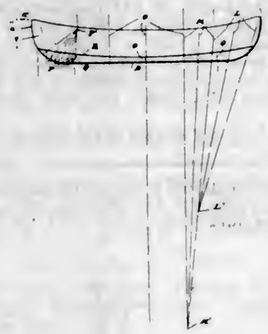
2. A wind shield comprising: supporting means, an upper shield section pivotally connected at its upper end to said support to move it from a normal substantially vertical position into a forwardly inclined rain shed position, a lower shield section pivotally supported at its upper end to the supporting means, an auxiliary shield section normally parallel to the lower shield section, sliding and turning connections between the supporting means and the auxiliary shield section permitting it to move upwardly in sliding engagement and then to be turned into an inverted upright position above the lower section, said sliding and turning connection including angularly related slots on one member and projections on the other member engaging said slots.

3. The combination with a supporting frame having converging guide-ways inclined upwardly and inwardly toward the central vertical plane of the standards and extensions passing upward from the converged ends of said inclined guides and a wind shield section having lateral projections moved in said guides.

4. A wind shield comprising a main lower section, a supporting frame upon which it is mounted and which is provided with converging guides extending upwardly from below the plane of the top of the main lower section and from opposite sides thereof toward the top of the frame and an auxiliary shield section having projections entering said guides, the arrangement being such that the auxiliary section may be raised on the inside of the shield to clear the steering wheel, turned to a vertical position above the main lower section and lowered sufficiently to overlap the upper portion of the main lower section and to thus exclude wind, rain, etc.

[Claims 5 to 7 not printed in the Gazette.]

1,243,938. BOAT. HARRY B. HILLS, Riverton, N. J. Filed May 5, 1917. Serial No. 166,518. (Cl. 9—6.)



1. A boat having its hull formed wholly or in part of plates each comprising sections forming parts of hollow cones, the axes of which are transverse to the longitudinal axis of the boat.

2. A boat having its hull formed of curved metal plates each so curved that through any point in the surface thereof a straight line element passes which is inclined to other straight line surface elements of the plate but does not intersect therewith within the margin of the plate.

1,243,939. PROTECTOR. ALBERT RICHARD HOUSE, Pearson, Ga. Filed Dec. 21, 1916. Serial No. 138,193. (Cl. 128—13.)

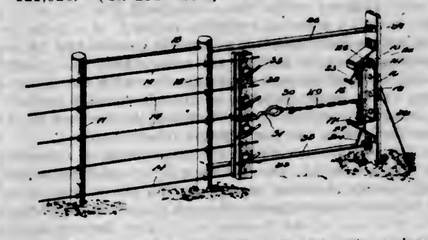
1. A protector comprising a semi-rigid shield shaped to fit over the nose, and having a cushioning facing at its edge for engaging the face, a nose piece connected with the protector at the upper part thereof and adapted to engage the nose to hold the protector in place, said protector having respiration tubes at each side of the lower end and adapted to be supported by the ears, each tube having at its outer end a perforate strainer, and the tube being reinforced by a wire.



2. A protector comprising a semi-rigid shield shaped to fit over the nose, and having a cushioning facing at its edge for engaging the face, a nose piece connected with the protector at the upper part thereof and adapted to engage the nose to hold the protector in place, said protector having respiration tubes at each side of the lower end and adapted to be supported by the ears, each tube having at its outer end a perforate strainer.

3. A protector comprising a semi-rigid shield shaped to fit over the nose, and having a cushioning facing at its edge for engaging the face, a nose piece connected with the protector at the upper part thereof and adapted to engage the nose to hold the protector in place, said protector having respiration tubes at each side of the lower end and adapted to be supported by the ears.

1,243,940. WIRE-STRETCHER. WALTER K. HOUSER, Spottswood, Va. Filed Sept. 22, 1916. Serial No. 121,626. (Cl. 254—162.)



1. A wire stretcher including a support, a bracket mounted thereon and including spaced arms, a winding shaft mounted to extend between the said arms, a worm shaft bracket mounted upon the uppermost of said arms and coöperating therewith to provide a bearing for the winding shaft, a worm shaft mounted upon the said bracket, a worm mounted upon the said worm shaft, a worm wheel mounted upon the winding shaft to coöperate with the said worm with the worm shaft operable for rotating the winding shaft, a flexible element connected to the winding shaft, and means associated with the said flexible element and adapted for engagement with a wire.

[Claims 2 and 3 not printed in the Gazette.]

1,243,941. LOCK FOR STEERING-WHEELS OF AUTOMOBILES. JOHN L. HUGHES, Tulsa, Okla., assignor of one-half to Isaac Shuler, Tulsa, Okla. Filed Feb. 20, 1917. Serial No. 149,900. (Cl. 70—90.)

1. The combination with a steering column, and a steering post disposed within the column and provided with a collar having radiating recesses formed therein, of a spider rigidly secured within and extending across the column and provided with a seating recess for housing the collar, a detent longitudinally movable through the spider and adapted to enter one of the recesses in the col-

lar to lock the post against rotation, and manually operable means carried by the collar and connected with the detent for disengaging the detent from the recesses in the collar.



2. The combination with a steering column, and a steering post disposed within the column and provided with a collar having a series of radiating recesses formed therein, of a spider secured rigidly within and across the column and having a seating recess for housing the collar, said spider being provided with a slot adapted to register with any one of the recesses within the collar, a longitudinally movable detent slidably mounted in the slot in the collar and adapted to engage a recess in the collar to prevent rotation of the post, and means connected with the detent to disengage the same from the collar.

3. The combination with a steering column, and a steering post disposed within the column and provided with a collar having a series of radiating recesses, of a spider secured within and extending across the column and having a bearing recess for housing the collar, there being a slot formed in the spider and communicating with said bearing recess, and a detent slidably mounted in the slot and having a reduced portion to enter one of the recesses in the collar for locking the post against rotation.

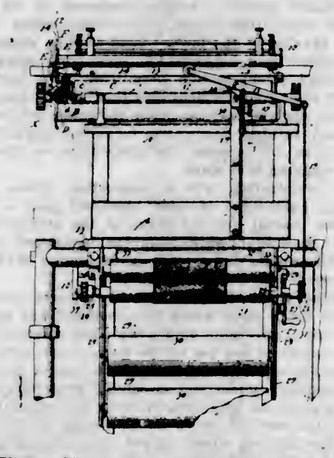
4. The combination with a steering column, of a steering post disposed within the column and provided with radiating recesses, a spider secured within the column, a detent movable longitudinally through the spider and adapted to enter one of the recesses in the post for locking the latter against rotation, said detent being provided with a depending weakened stem, and a manually operable device carried by the column and connected with the stem to disengage said detent from the post to permit rotation thereof.

5. The combination with a steering column, of a steering post disposed within the column and provided with a collar having radiating recesses formed therein, a spider secured to the column and having its opposite sides cutaway and its lower face provided with a seating recess for the reception of the collar, there being a slot extending through the spider and communicating with the seating recess, a vertically movable detent slidably mounted in the slot and adapted to engage one of the recesses in the collar, and a finger piece connected with the detent for elevating the same out of engagement with the recesses in the collar to permit rotation of the post.

[Claims 6 to 11 not printed in the Gazette.]

1,243,942. PAPER-SUPPLY ATTACHMENT FOR TYPEWRITERS. LOUIS JENSEN, Chicago, Ill., assignor to United Autographic Register Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 31, 1916. Serial No. 75,273. (Cl. 197—133.)

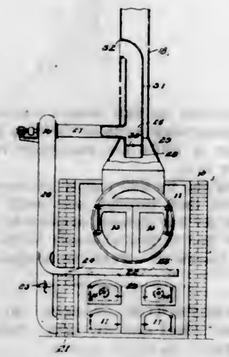
1. The combination in a typewriting machine with the reciprocable carriage, a platen journaled therein, means for rotating said platen, a roller having stationary bearings independent of the carriage upon which a roll of paper is mounted, mechanism movable with said carriage and actuated by said means, and devices for rotating said roller that are supported independently of said carriage and are depressed by said mechanism when said platen is rotated.



16. The combination in a machine of the kind specified with a reciprocable carriage, a platen journaled therein, means for rotating said platen, and a pressure-bar which is depressed when said platen is rotated, of a rocking-beam which is adapted to be engaged by said pressure-bar when said platen is rotated, adjustable means for limiting the rocking movement of said beam, a pair of feed-rollers journaled independently of said carriage, simultaneously movable hangers in which the lower roller has bearings, a ratchet on the journal of said last-mentioned roller, an arm loosely mounted thereon, a pawl pivoted to said arm and engaging said ratchet, a connecting-bar connecting said rocking-beam and pawl, means whereby a web of a roll of paper journaled independently of said carriage may extend between said rollers and from thence to said platen.

[Claims 2 to 15 not printed in the Gazette.]

1,243,943. SMOKELESS FUEL-ECONOMIZER. CHARLES W. JOHNS, Jerseyville, Ill. Filed May 22, 1917. Serial No. 170,195. (Cl. 110—49.)



2. In a furnace provided with a flue and a grate, the combination with said flue and grate, of an air and furnace gas mixer arranged within the flue and in communication with the atmosphere, means for regulating the flow of furnace gases into the mixer, a conduit member communicating with the mixer intermediate the ends of the mixer with its discharge end leading to the furnace, a forced draft device in said conduit member, and means for regulating the flow of mixture from the conduit member into the furnace.

[Claim 1 not printed in the Gazette.]

1,243,944. LIP-SLITTING MECHANISM. ALBERT E. JOHNSON, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 30, 1915. Serial No. 53,398. (Cl. 12—30.)



1. A machine for operating upon soles having, in combination, a work support, a lip-slitting knife, and means for holding the lip down against the portion of the sole from which it is cut during the lip-slitting operation.

2. A machine for operating upon soles having, in combination, a work support, and a lip-slitting tool comprising a lip-slitting knife and means for engaging the lip in advance of the knife and maintaining it substantially parallel to the plane of the sole during the lip-slitting operation with its free marginal portion directed toward the knife.

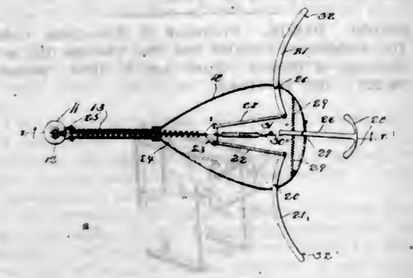
3. A machine for operating upon soles having, in combination, a work support, and a lip-slitting tool comprising a lip-slitting knife and means for engaging the upper surface of the lip coöperating with the knife for forming transverse slits in the lip.

4. A machine for operating upon soles having, in combination, means for feeding the sole, and a vibrating lip-slitting tool comprising a vertically disposed lip-slitting knife and a horizontally disposed lip engaging shoulder coöperating to form transverse slits in the lip.

5. A machine for operating upon soles provided with a lip formed by cutting downwardly and outwardly in the margin of one face having, in combination, work supporting means, a knife arranged to vibrate in a direction substantially parallel to the plane of the sole and transverse to the length of the lip, means for engaging and maintaining the lip substantially parallel to the plane of the sole, and means for actuating said knife to slit said lip while it is held down by the lip engaging means.

[Claims 6 to 10 not printed in the Gazette.]

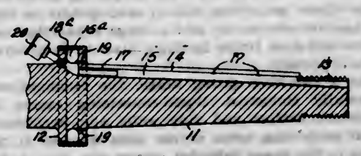
1,243,945. MAIL-CATCHER. CHARLEY C. JONES, Cedar Vale, Kans. Filed July 11, 1916. Serial No. 108,595. (Cl. 258—22.)



1. In a device of the class described, a standard, an arm on said standard, a housing on said arm, grabber arms pivoted at the extremities of said housing and capable of swinging together at their outer ends, a plate within said housing, a contractile spring within said arm connected to said plate, links connecting the inner ends of said grabber arms to said plate, a connecting rod secured to said plate and extending beyond the same, a latch for engagement with said rod to releasably hold the same in outward position, and a trigger pivoted in said housing and projecting outwardly therefrom and adapted to actuate said latch to release said connecting rod, substantially as described.

2. In a device of the class described, a standard, an arm on said standard, a housing on said arm, grabber arms pivoted in spaced relation upon said housing and adapted to swing toward each other at their outer extremities, a contractile spring in said arm, a plate connected to the outer end of said spring, links connecting said plate to the inner ends of said grabber arms, a connecting rod secured at one end to said plate, a guide for said connecting rod, a latch for holding said connecting rod at the limit of its outward movement against the tension of said spring, a trigger pivoted in said housing, and extending beyond the latter arcuate arms at the outer end of said trigger, the inner end of said trigger being adapted to engage said latch to release the same from said connecting rod, and clamp members on the ends of said grabber arms for engagement with the extremities of said arcuate arms when swung inwardly, substantially as described.

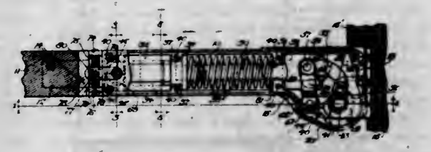
1,243,946. AXLE-LUBRICATING DEVICE. WILLIAM P. KEARNEY, Montreal, Quebec, Canada. Filed Aug. 31, 1915. Serial No. 48,196. (Cl. 64—27.)



1. An axle longitudinally grooved in its bearing surface, a shoulder on said axle having an annular groove concentric with the axle and in communication with the axle groove, and a tube in the bottom of the groove adapted to supply lubricant to both grooves simultaneously.

2. An axle longitudinally grooved in its bearing surface, a shoulder on said axle having an annular groove concentric with the axle, a tube in said groove, said shoulder having a main passage communicating with said tube and a supplemental passage communicating with said groove.

1,243,947. DOOR-CLOSER. WILLIAM J. KEENE, Chicago, Ill., assignor to Chicago Spring Butt Company, Chicago, Ill., a Corporation. Filed Feb. 15, 1915. Serial No. 8,362. (Cl. 16—88.)



1. In a checking hinge, the combination with a hinge-member adapted to be secured to the door frame, of a liquid-containing casing adapted to be secured to the door, a hinge stud interposed between said casing and said hinge-member, a spindle journaled in said casing in axial alinement with said hinge stud, said casing having an imperforate portion interposed between the adjacent ends of said stud and said spindle, means adapted to be secured to the door frame and engaging said spindle to hold the same against movement, and a checking device in said casing operatively connected to said spindle.

2. In a checking spring hinge, the combination with a floor plate, of a liquid-containing casing having imperforate bottom and side walls adapted to be secured in the lower rabbeted corner of a door, a pivot-stud-and-socket connection between said floor plate and the bottom wall of said casing, a spindle journaled in said casing in axial alinement with said pivot-stud, a part adapted to be secured to the door frame and engaging said spindle to hold the same against movement, a spring-actuated checking device in said casing, and operating connections between said checking device and said spindle.

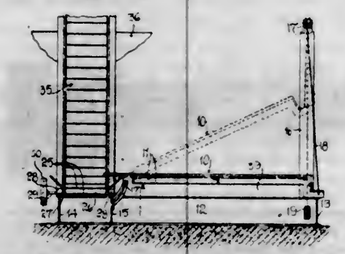
3. In a checking spring hinge, the combination with a socketed floor plate, of a liquid-containing casing adapted to be secured to the rabbeted lower corner of the door and having a hinge-stud fixed to the bottom wall and swiveled in the socket of said floor plate, a spindle journaled in said casing in axial alinement with said stud and having a projecting upper end, a bracket adapted to be secured to the door jamb and engaging the upper projecting end of said spindle to hold the same against movement, and checking cylinder and piston members in said casing, one of said members being spring-actuated and operatively connected to said spindle.

4. In a checking spring hinge, the combination with a door and door frame, of an elongated, liquid-containing casing having imperforate side and bottom walls secured within a rabbeted portion of the door, a vertical spindle journaled in said casing at one end thereof and having a projecting upper end, checking cylinder and piston members in the opposite end of said casing, one of said members being spring actuated and operatively connected to said spindle, a bracket secured to the side of the door frame and having an outwardly projecting portion engaging the upper projecting end of said spindle to hold the same against movement, and a hinge connection between the door and door frame having a pivot in axial alinement with said spindle.

5. In a checking spring hinge, the combination of a horizontally elongated, liquid-containing casing having imperforate bottom and side walls and horizontal and vertical projecting arms at the ends whereby it may be secured to the lower rabbeted corner of a door, a vertical spindle journaled within said casing at its inner end, checking piston and cylinder members within the outer end of said casing, one of said members being spring actuated and operatively connected to said spindle, and a bracket adapted to be secured to the side of the door frame and having an outwardly projecting portion engaging the upper end of said spindle to hold the same against movement.

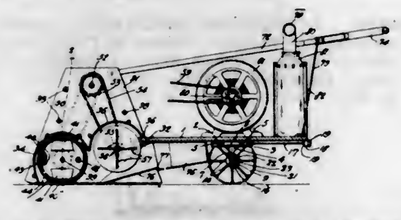
[Claims 6 to 18 not printed in the Gazette.]

1,243,948. UNLOADING-PLATFORM. EDWIN KELLY, Cazenovia, Wis. Filed Mar. 8, 1917. Serial No. 153,503. (Cl. 214—3.



An unloading device including a supporting frame having longitudinally extending parallel beams in spaced relation to each other, and beams extending transversely of the first named beams, an endless carrier moving between the two parallel beams, rollers mounted between the parallel beams and supporting the endless carrier, upwardly inclined sides operatively supported upon the parallel beams on each side of the carrier, brackets extending upward from said beams to a position adjacent the edge of one of said sides, a platform pivotally mounted upon said brackets and having its inner edge extending over the carrier, and power operated means for tilting the carrier from a horizontal to an inclined position.

1,243,949. FLOOR-SANDER. JAMES M. KELLY, Portland, Oreg. Filed Feb. 23, 1917. Serial No. 150,629. (Cl. 51—13.)



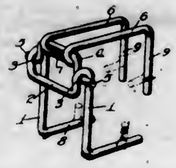
1. In a device for sanding floors, a truck; a movable attrition member carried by the forward end of the truck and having its axis disposed in a substantially horizontal plane transversely of the truck; means for driving the attrition member; a single pair of supporting wheels carried by the truck and located at the sides thereof; and means for moving the wheels about independent vertical axes, to vary the position of the wheels with respect to the line of advance of the truck, and to cause the attrition member to operate on the floor at an acute angle to the line of advance of the truck.

2. In a device for sanding floors, a truck; a carriage mounted to move forwardly and rearwardly on the truck; means for moving the carriage forwardly and rearwardly on the truck; an axle mounted on the carriage to tilt transversely of the truck; and an attrition member carried by the forward end of the truck.

3. In a device for sanding floors, a truck; a carriage mounted to move longitudinally of the truck; means for moving the carriage longitudinally of the truck; an axle mounted on the carriage to tilt transversely of the truck; horizontally movable ends carried by the axle; supporting wheels journaled on the ends of the axle; means for shifting the ends of the axle to vary the angle between the supporting wheels and the line of advance of the truck; an attrition member carried by the forward end of the truck.

4. In a device for sanding floors, a truck; an axle carried by the truck; supporting wheels carried by the axle; a fan journaled at the forward end of the truck; an attrition drum journaled at the forward end of the truck in front of the fan; a countershaft; means for connecting the countershaft with the drum and with the fan; a motor on the truck; a wheel journaled on the countershaft; mechanism for connecting the wheel operatively with the motor; a clutch whereby the wheel may be connected with the countershaft to rotate the countershaft; and mechanism for operating the clutch from a point adjacent the rear end of the truck.

1,243,950. HINGE. NICHOLAS O. KENNIKER, Chicago, Ill., assignor to Durable Box Co., Chicago, Ill., a Corporation of Illinois. Filed Apr. 5, 1916. Serial No. 89,227. (Cl. 16—104.)



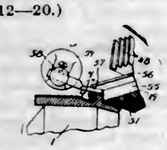
1. A hinge comprising a rod bent upon itself, with the free ends or legs extended in the same general direction, the connecting portion being bent back upon said legs to form a hook, and a transverse connecting member positioned in said hook, in combination with a rod bent upon itself, with the free ends extended in the same general direction, the connecting section thereof being bent to form a hook adapted to engage said transverse connecting member.

2. A hinge comprising a rod bent upon itself with the free ends extended in the same general direction and offset adjacent the ends, the connecting portion being bent back upon said ends to form a partially open hook, and a transverse connecting member adapted to be sprung into position in said hook and be detachably engaged thereby, in combination with a rod bent upon itself, with the free ends extended in the same general direction similarly offset adjacent the ends, the connecting section thereof being bent in the direction of said offset-ends to form a hook adapted to engage the transverse connecting member.

3. A hinge comprising a rod bent upon itself, with the free ends or legs extended in the same general direction, said legs being bent at substantially a right angle, and near the free ends thereof again bent at substantially a right angle, and extending in the same general direction, as set forth, the connecting portion of the legs being bent back upon the legs to form a hook, and a transverse connecting member positioned in said hook, in combination with a rod bent upon itself with the free ends extended in the same general direction, and bent at substantially right angles as in the first mentioned member, the connecting section being bent to form a hook adapted to engage said transverse connecting member, whereby the free ends of the legs may pass through the walls of a box or similar body and lie upon the interior surface thereof with the intermediate body of the hinge lying upon the outer surface of said walls, substantially as described.

[Claims 3 and 4 not printed in the Gazette.]

1,243,951. MACHINE FOR OPERATING ON INSOLES. GEORGE J. KILB, Covington, Ky., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 8, 1913. Serial No. 747,042. (Cl. 12—20.)



1. A rib tightening machine for reinforced insoles, having in combination, an inside fabric tightening tool, an outside fabric tightening tool, and means for relatively adjusting the tools in the line of feed, substantially as described.

2. A rib tightening machine for reinforced insoles, having, in combination, an inside fabric tightening tool, an outside fabric tightening tool, and means for adjusting the inside tool in the line of feed, substantially as described.

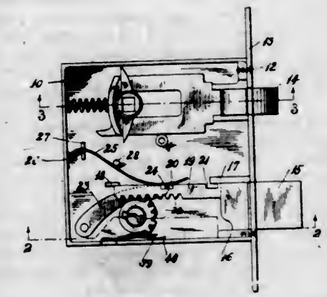
3. A rib tightening machine, having, in combination, an outside fabric tightening tool, and a universally adjustable inside fabric tightening tool, substantially as described.

4. A rib tightening machine for reinforced insoles, having, in combination, an inside fabric tightening tool, an outside fabric tightening tool, and means for varying the relative vertical, lateral and angular positions of said tools, substantially as described.

5. A rib tightening machine for reinforced insoles, having, in combination, an inside fabric tightening tool, an outside fabric tightening tool, means for varying the relative vertical, lateral, and angular positions of said tools, and a single means for maintaining the tools in their desired adjustment, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

1,243,952. SAFETY DOOR-LOCK. JULIUS KISH, Cleveland, Ohio. Filed Apr. 7, 1917. Serial No. 160,435. (Cl. 70—75.)

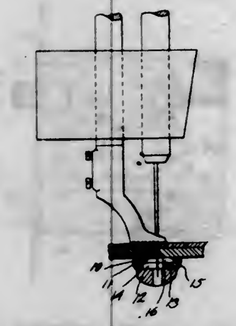


1. In a safety lock, the combination with assembled casing sections including a toothed slidable bolt therein and means adapted to be operated upon to lock said bolt in locked and unlocked position; of a key barrel removably and revolubly arranged in openings in said casing sections in proximity to said slidable bolt, said key barrel being provided with a selective key hole which communicates throughout its length at one side with a selective slot, said barrel being provided further with a fixed cam, to operate upon the bolt locking means, and a second barrel revolubly mounted upon the first barrel, said second barrel being provided with an internal slot adapted to register with the said longitudinal slot in the first barrel and also being provided with a series of teeth on its periphery for engagement with the teeth of the slidable bolt.

2. In a safety door lock, the combination with a pair of assembled casing sections including a toothed slidable bolt therein and mechanism adapted to be operated upon to lock said slidable bolt in either locked or unlocked position; of a key barrel removably and revolubly seated in openings in said casing sections transversely therethrough in proximity to the toothed side of the sliding bolt, said key barrel being provided with a selective key hole which communicates through its length on one side with a selective slot and being provided also with a cam on its outer periphery to actuate the bolt locking mechanism, a second barrel revolubly mounted upon said first barrel, provided with a slot on its inner side to register with the longitudinal slot of the first barrel, said second barrel also being provided with a toothed periphery adapted to mesh with the teeth of the slidable bolt whereby to actuate the same when unlocked, and yielding means bearing against both the first and second revoluble barrels to hold the same against turning except under the urging of the proper key.

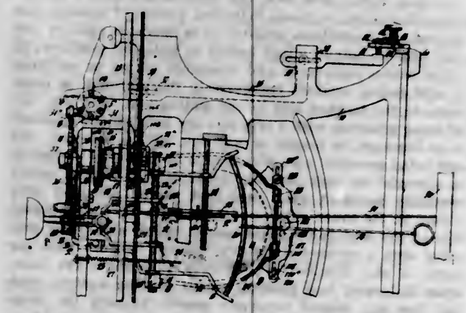
3. In a safety door lock, the combination with a pair of assembled casing sections including a toothed slidable bolt therein and mechanism adapted to be operated upon to lock said slidable bolt in either locked or unlocked position; of a key barrel removably and revolubly arranged in said casing sections transversely therethrough in proximity to the toothed side of the sliding bolt, said key barrel being provided with a selective key hole which communicates through its length on one side with a selective slot and being provided also with a cam on its outer periphery to actuate the bolt locking mechanism, a second barrel revolubly mounted upon said first barrel, provided with a slot on its inner side to register with the longitudinal slot of the first barrel, said second barrel also being provided with a toothed periphery adapted to mesh with the teeth of the slidable bolt whereby to actuate the same when unlocked, and concealing means secured spacedly from the outer end of the first barrel, and comprising a fixed plate with an outer barrel revoluble therein, said outer barrel having a longitudinal key slot therethrough in alinement with the selective key hole in the said first revoluble barrel.

1,243,953. ATTACHMENT FOR SHOE-STITCHING MACHINES. ABRAHM KRISBERG, Muscatine, Iowa. Filed Sept. 6, 1916. Serial No. 118,708. (Cl. 112—20.)



In a sewing machine, the combination with a needle plate having an upstanding knife and a needle slot, of a rigid cap superposed on the plate and having a needle slot, the cap being provided with flanges engaging the plate, and having a recess receiving the knife, the knife coöperating with the cap and the flanges coöperating with the plate, to hold the needle slots alined.

1,243,954. TYPE-WRITER. EDWARD KRUSIUS, New York, N. Y., assignor to Hammond Typewriter Company, a Corporation of New York. Filed July 29, 1916. Serial No. 112,015. (Cl. 197—49.)



1 In a typewriter, a hammer, means for actuating said hammer, changeable means adapted to limit the movement of said hammer, said variable position of said hammer adapted to adjust the operative force of said hammer actuating means to deliver a variable blow.

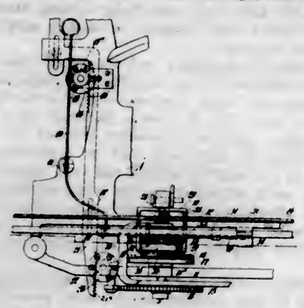
8. In a typewriter of the character described, for variable type, the combination with a hammer having changeable hitting surfaces of varied size, a band having openings of different sizes arranged in horizontal alinement, and means for moving said band horizontally to bring the openings into coöperating register with the hitting surfaces of said hammer.

[Claims 2 to 7, 9, and 10 not printed in the Gazette.]

1,243,955. TYPE-WRITER. EDWARD KRUSIUS, New York, N. Y., assignor to Hammond Typewriter Company, a Corporation of New York. Filed July 29, 1916. Serial No. 112,016. (Cl. 197—91.)

1. In a typewriter, a traveling carriage, a back-spacing mechanism for said carriage, and a set of connected stops of different length, each stop being adapted to be brought into the path of said mechanism to vary the extent of back-spacing.

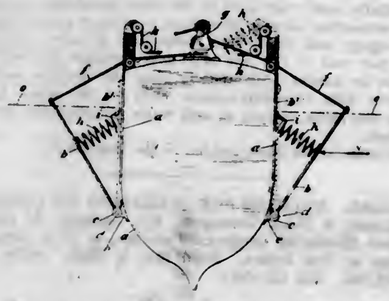
7. In a typewriter, a traveling carriage, means for the variable forward spacing of the carriage, means for the variable backward spacing of the carriage, and adjusting



mechanism to alter the said forward and back-spacing means in unison and in a like manner.

[Claims 2 to 6 not printed in the Gazette.]

1,243,956. MARINE-TORPEDO SHIELD. CATELLO LA MURA, Brooklyn, N. Y. Filed July 11, 1917. Serial No. 179,799. (Cl. 114—240.)



1. Vessel protecting apparatus of the class described, embodying a shield, means for hinging the same at its lower edge to the exterior wall of a ship below the water level, a spring element between the inner face of the shield and the side of the vessel, adapted to press outwardly against the inner face of said shield and non rigid means for connecting the upper edge of said shield and the vessel and holding said shield against the interposed spring element which holding means will not interfere with the resilient action of the shield from outside pressure, substantially as shown and described.

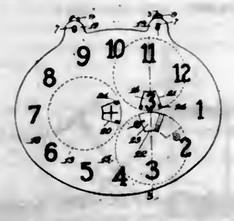
3. In apparatus for protecting ships from exterior torpedoes, a series of protecting shields *b*, hinged at their lower edge to the ship *a*, in combination with outwardly pressing springs *h*, between said shields and the side of the vessel, said springs being secured to adjustable sliding blocks *i*, together with means for adjusting said blocks and non rigid means for holding the shields against the spring, substantially as shown and described.

[Claim 2 not printed in the Gazette.]

1,243,957. EDUCATIONAL APPLIANCE. ANNA TAYLOR MCCLUER, New York, N. Y., assignor of one-half to John Robert Taylor, Brooklyn, N. Y. Filed Oct. 30, 1915. Serial No. 58,761. (Cl. 35—2.)

1. An educational appliance having a back, a plurality of disks mounted on the back and each carrying a character indicating an item of a problem, a removable chart secured to the back, said chart carrying a character denoting an item of the problem, means whereby each character on the back may be viewed through the chart, means carried by the chart whereby a character on a disk may be covered, a disk carrying a character indicating the operation to be performed, and means for changing the operation character.

2. An educational appliance having a back, a plurality of disks mounted on the back and each carrying a character indicating an item of a problem, a removable chart secured to the back, said chart carrying a character denoting an item of the problem, the chart having an opening whereby each character on the back may be viewed through the chart, means carried by the chart for closing one of the openings, a disk carrying a character indicating the operation to be performed, and means for changing the operation character.



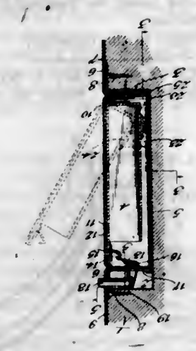
3. An educational appliance having a back, a disk rotatably carried on the back, a series of characters each indicating an item of a problem carried on the disk, a chart removably carried on the back, said chart having a character denoting another item of the problem, said disk having a perforation whereby it may be rotated, there being an opening in the chart for disclosing a single character, and a perforation.

4. An educational appliance having a back, a disk rotatably carried on the back, a series of characters each indicating an item of a problem carried on the disk, a chart removably carried on the back, said chart having a series of characters each denoting another item of the problem, said disk having a perforation whereby it may be rotated, there being an opening in the chart for disclosing a single character on the disk and a perforation.

5. An educational appliance having a back, a disk rotatably carried on the back, a series of characters each indicating an item of a problem carried on the disk, a chart removably carried on the back, said chart having a series of characters each denoting another item of the problem, said disk having an eyeleted perforation whereby it may be rotated, there being an opening in the chart for disclosing a single character and a perforation in the disk.

[Claims 6 to 15 not printed in the Gazette.]

1,243,958. TOILET-CASE FOR AUTOMOBILES. MELVIN F. MCFARLAND, Buffalo, N. Y. Filed Apr. 2, 1917. Serial No. 159,148. (Cl. 21—7.)



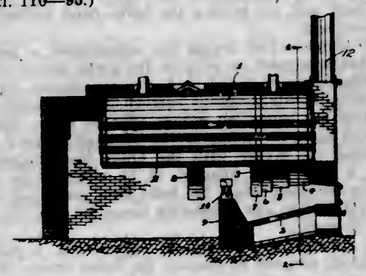
1. The combination of a frame adapted to be secured in a recess of an automobile body, a toilet case fitted in said frame and hinged thereto to swing into and out of the frame, and a retractable stop carried by the toilet case and arranged to engage said frame to limit the opening movement of the case.

2. The combination of a frame adapted to be secured in a recess of an automobile body, a toilet case fitted in said frame and hinged at its lower end to swing into and out of the same, and a horizontally-sliding bolt mounted on the toilet case and arranged to engage said frame in a partially-open position of the case.

3. The combination of a frame adapted to be secured in a recess of an automobile body, a toilet case fitted in said frame and hinged at its lower end to swing into and out of the same, said frame being provided in one of its side walls with a notch, and a sliding bolt mounted on the toilet case and adapted to enter said notch to limit the opening movement of the case.

4. The combination of a frame adapted to be secured in a recess of an automobile body, said frame being provided in one of its side walls with a notch, a toilet case arranged in said frame and hinged at its lower end thereto, the face of the case being normally flush with the face of said frame, a sliding stop-bolt mounted on the case and arranged to enter said notch, a spring tending to throw the case to its open position, and a locking catch arranged to engage the free upper portion of the case.

1,243,959. FURNACE. RICHARD F. MCGOWAN, Columbus, Ohio. Filed Jan. 29, 1917. Serial No. 145,064. (Cl. 110—95.)



1. In a furnace, a grate, a bridge wall to the rear of said grate, an open checkerwork cap on said wall made of refractory material and through the openings of which the products of combustion may pass, a refractory arch above said grate formed of a series of steps, each succeeding rearward step projecting beneath the level of the preceding, and a second refractory arch located to the rear of said bridge wall.

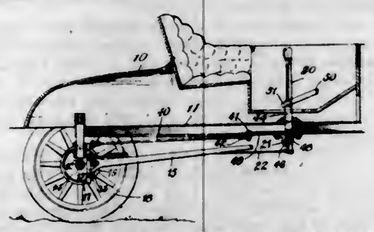
2. In a furnace, a rearwardly and downwardly inclined grate, a bridge wall immediately to the rear of said grate, an open checkerwork cap on said wall made of refractory material and through the openings of which the products of combustion may pass, a refractory arch above said grate formed of a series of steps, each succeeding rearward step projecting beneath the level of the preceding, and a second refractory arch located at the rear of said bridge wall.

1,243,960. AUXILIARY BRAKE FOR AUTOMOBILES. JOSEPH O. MICHAUD, Fort Kent, Me. Filed Feb. 3, 1917. Serial No. 146,481. (Cl. 21—8.)

1. In a supplemental brake for automobiles, a bracket adapted to be secured to a brake drum housing by the bolts fastening the rear radius rod thereto, said bracket at its upper end having a laterally directed loop adapted to project across the brake drum, a resilient brake band adapted to encircle the brake drum, means normally holding the band in expanded position, and means slidably supported by the bracket for supporting the brake band and for drawing the brake band into engagement with the brake drum.

2. In a supplemental brake for automobiles, a bracket adapted for attachment to a brake drum housing and formed with a laterally directed loop adapted to project across the brake drum, a brake band adapted to encircle the brake drum and provided at its ends with substantially radially projecting eyes formed with slots, a draw rod seating in the slots and formed at one end with a draw loop slidable in the loop of the bracket, a nut threaded upon the opposite end of the draw rod, a spring

engaging about the draw rod and between the eyes, and reinforcing means passed through the eyes above the draw rod.

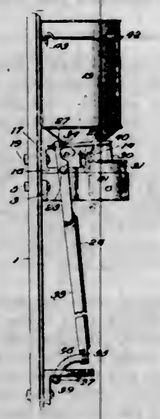


3. In a supplemental brake for automobiles, a bracket adapted for attachment to a brake drum housing, a resilient brake band adapted to surround the brake drum, means slidably supported by the bracket for supporting the brake band and for tightening it to bring it into engagement with the brake drum, means normally holding the band in expanded position, and means projecting from the bracket for supporting the lower portion of the brake band and for holding the brake band against lateral movement.

4. In supplemental brakes for automobiles, a pair of brake bands adapted to encircle the brake drums of the rear wheels, brackets adapted for attachment to the brake drum housings, means carried by the brackets for tightening the bands, an evener adapted to be slidably supported upon the frame of the automobile, draw rods connecting the evener with the brake band tightening means, a foot pedal adapted to be mounted for free swinging movement about the hand lever controlled shaft of the automobile, and connecting means between the foot pedal and evener.

5. In supplemental brakes for automobiles, a pair of brake bands adapted to encircle the brake drums of the drive wheels, brackets adapted for attachment to the brake drum housings, means carried by the brackets for supporting the brake bands and tightening them, an evener adapted to be slidably supported upon the frame of the automobile, connecting means between the evener and the brake band tightening means, a lever arm adapted for rotatable connection at one end with the hand lever controller shaft for the automobile and to project at its opposite end through the same slot in the floor boards as the hand lever, and a foot pedal having an off-set shank terminating in a loop adapted to engage about the upper end of the lever arm.

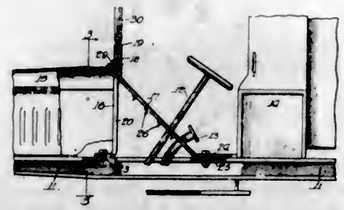
1,243,961. RUBBING-POST. FRANK F. MILLER, Yankton, S. D., assignor to Elmer Hicks, Yankton, S. D. Filed July 13, 1915. Serial No. 39,607. (Cl. 119—157.)



1. In an apparatus for the purpose set forth, the combination of a trough, a well therein, a hollow piston mounted in the well, and having an open bottom and closed sides and top, means for holding the piston normally raised, a rubbing bar mounted to swing adjacent the trough, and means carried by the rubbing bar for depressing said piston.

[Claims 2 to 8 not printed in the Gazette.]

1,243,962. COMBINED DASH AND TOE BOARD FOR AUTOMOBILES. HARRY G. MOORE, Corliss, Wis., assignor to Corliss Motor Truck Company, Corliss, Wis., a Corporation of Wisconsin. Filed Oct. 6, 1916. Serial No. 124,032. (Cl. 180—90.)



1. As a new article of manufacture, a single piece of sheet metal suitably bent to form a dash board and a toe board including means for detachably securing said device to the automobile frame.

2. In an improved dash board and toe board, formed of a suitably bent piece of sheet metal, a dash board having legs adapted to be detachably secured to the frame of an automobile, and a toe board having reinforcing bars, said toe board being a continuation of said dash board.

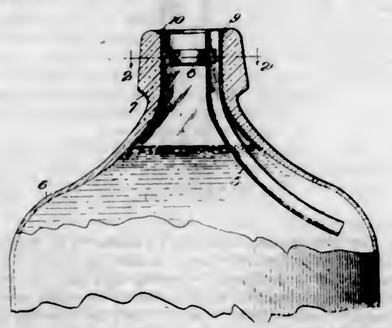
3. In a combined dash and toe board for automobiles, an upright dash portion furnishing means for securing the automobile hood thereto, an inclined toe board portion, said toe board portion being integral with said dash portion, and means for detachably securing said combined dash and toe board to the automobile.

4. As a new article of manufacture, a dash board, means associated therewith for supporting the hood of an automobile, means for detachably securing said dash board to the automobile, and an inclined toe board integral with said dash board to furnish an instrument board, said toe board adapted to be detachably secured to the automobile and serving as a stiffening member for the automobile frame.

6. In a dash and toe board device, a dash, means thereon for securing and supporting the hood of an automobile, said means serving as a strengthening member for said dash, a toe board, and means for detachably securing said device to the automobile.

[Claim 5 not printed in the Gazette.]

1,243,963. BOTTLE-VENT. VERN I. MOSER, Wichita, Kans. Filed Jan. 19, 1917. Serial No. 143,314. (Cl. 215—1.)



1. A vent device comprising a tube open at its ends, and resilient holding members carried by the tube adjacent to one end thereof, said members extending laterally from opposite sides of the tube, and having a normal tendency to expand.

2. A vent device comprising a tube open at its ends, and resilient holding members carried by the tube adjacent to one end thereof, said members extending laterally from opposite sides of the tube, and having a normal tendency to expand, and curved in the direction of their length.

3. A vent device comprising a tube open at its ends, and resilient holding members carried by the tube adjacent to one end thereof, said members extending laterally from opposite sides of the tube, and having a normal tendency to expand, and an outstanding retaining flange at the aforesaid end of the tube.

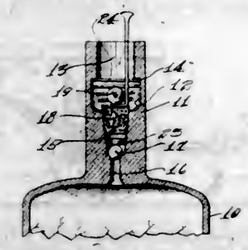
1,243,964. FOOD PRODUCT. JOSÉ MANUEL CACHO NEGRETE, Habana, Cuba. Filed July 17, 1917. Serial No. 181,139. (Cl. 99—11.)

1. A food product consisting of the pulp of the banana fruit and bee honey.

4. A food product consisting of the pulp of banana fruit and bee honey, the latter having added to it a certain amount of sugar.

[Claims 2 and 3 not printed in the Gazette.]

1,243,965. NON-REFILLABLE BOTTLE. JOSEPH N. G. NESBIT, Atlanta, Ga. Filed Oct. 31, 1914. Serial No. 869,660. (Cl. 215—62.)



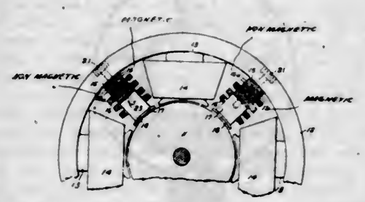
1. In a non-refillable bottle having the neck thereof formed with a cavity, a reduced passage leading exteriorly therefrom, a reduced conical passage leading interiorly therefrom, a ball freely movable in said conical passage and capable of preventing inwardly directed communication therethrough, a cork adapted to be tightly seated in said conical passage above and spaced from said ball, a head connected to said cork to serve as a means for inserting the same into and removing it from said passage, and resilient means engaging said cork and extending laterally therefrom for contact with the walls of said cavity permitting a disengagement of said cork from its seat but preventing its entire removal from said conical passage.

[Claims 2 and 3 not printed in the Gazette.]

1,243,966. DYNAMO-ELECTRIC MACHINE. LOUIS C. NICHOLS, Norwood, Ohio, assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis., a Corporation of Delaware. Filed Jan. 22, 1915. Serial No. 4,069. (Cl. 171—228.)

1. In a dynamo-electric machine, a frame, and a field pole secured in position relatively to said frame, said pole being of substantially uniform cross-section throughout its entire length and one portion of said pole being made up of a plurality of laminæ having different magnetic properties and extending substantially perpendicular to the axis of said pole throughout substantially the full cross-sectional area of the pole.

2. In a dynamo-electric machine, a frame, a field pole secured in position relatively to said frame, said pole being of substantially uniform cross-section throughout its entire length, one portion of said pole being made up of a plurality of laminæ disposed in planes substantially perpendicular to the axis of said pole and extending throughout the full cross-sectional area of the pole, said laminæ being removable from and insertible to position without removing another portion of said pole from said frame, and common means for holding the latter portion and said laminæ in operative position.

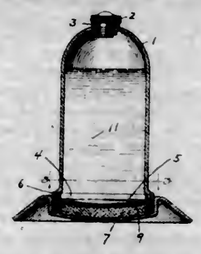


6. In a dynamo-electric machine, a yoke, a pole piece, means for supporting said pole piece from said yoke, said pole piece comprising a body portion of magnetic material spaced from said yoke, and means occupying substantially the entire space between said body portion and said yoke for spacing said body portion from said yoke, said latter means comprising a plurality of laminations of the same cross-sectional area and shape as said body portion and of different magnetic properties.

12. In a dynamo-electric machine, a frame, a field pole of substantially solid construction and comprising a body portion disposed adjacent the armature of the machine, and a portion disposed between said body portion and said frame and comprising a plurality of laminations of substantially the same cross-sectional area as said body portion, and means disposed within the periphery of said pole for securing said body portion in position adjacent the armature and said laminations in position between said body portion and said frame.

[Claims 3 to 5 and 7 to 11 not printed in the Gazette.]

1,243,967. MOISTENING APPLIANCE. JENS P. NIELSEN and KARL K. NIELSEN, Chicago, Ill.; said Karl K. Nielsen assignor to said Jens P. Nielsen. Filed Feb. 23, 1917. Serial No. 150,324. (Cl. 91—67.4.)



1. In a moistening appliance, the combination with a container for a liquid, of a flexible diaphragm forming part of the wall of the container, said diaphragm being normally bowed outwardly and provided with an aperture, and pervious means mounted outwardly of said diaphragm.

4. In a moistening appliance, a tubular container, movable closure means on the container for admitting a liquid to the latter, a flexible and normally outwardly bowed diaphragm forming one end of the container, a wall portion of the container being equipped with a minute aperture; a foraminous member disposed outside the said apertured wall portion, and a moisture-pervious member outside of and adjacent to the foraminous member.

5. In a moistening appliance, a tubular container having a flexible and normally outwardly bowed and minutely perforated resilient end, a collar threaded upon the container, and a moisture-pervious member disposed between the collar and the said resilient end.

[Claims 2, 3, and 6 to 8 not printed in the Gazette.]

1,243,968. ELECTRIC FAN. GUSTAF OLSON, Chicago, Ill., assignor of one-half to Willard M. McEwen, Chicago, Ill. Filed July 29, 1916. Serial No. 112,090. (Cl. 230—1.)



1. In an air circulating device the combination of a support, a member journaled thereon, arms on said member extending outwardly therefrom and having their ends doubled back at the sides of said suport, blower mechanism, lugs on said blower mechanism pivotally connected to said arm ends, and coacting means on said support and blower mechanism adapted to tilt said mechanism in a plane transverse to the axis of said pivotal connections of said lugs and arms.

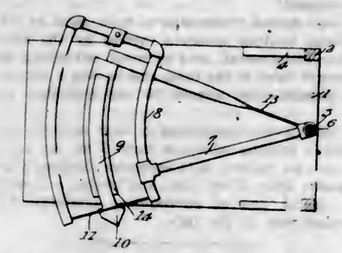
2. In an air circulating device the combination of a support, an outwardly disposed annular flange on said support, a member rotatably mounted on said support concentrically of said flange, arms on said member extending outwardly beyond the periphery of said flange and having the ends thereof doubled back at the sides of said flange, blower mechanism, lugs on said blower mechanism pivotally connected to said arm ends, and means on said blower mechanism coacting with said flange so as to tilt said blower mechanism in a plane transverse to the axis of the pivotal connection of said lugs and arms.

3. In an air circulating device the combination of a support, an outwardly disposed annular flange of wavelike form mounted on said support, a member rotatably mounted on said support concentrically of said flange, arms on said member extending outwardly beyond the periphery of said flange and having the ends thereof doubled back at the sides of said flange, blower mechanism, lugs on said blower mechanism pivotally connected to said arm ends on an axis intermediate the crowns and depressions of said wavelike flange, and means on said blower mechanism coacting with said flange so as to tilt said blower mechanism in a plane transverse to the axis of the pivotal connection of said lugs and arms.

4. In an air circulating device the combination of a support, a member rotatably mounted thereon and having an annular track of wavelike form, a shaft journaled on said support concentrically within said member, arms on said shaft extending outwardly beyond said track and having the ends thereof doubled back at the sides of said track, blower mechanism, lugs on said blower mechanism pivotally connected to said arm ends on an axis intermediate the crowns and depressions of said track, and means on said blower mechanism coacting with said track for causing the rotation of said member so as to tilt said blower mechanism in a plane transverse to the axis of the pivotal connection of said lugs and arms.

1,243,969. CUTTING-MACHINE. JAMES PARK, Hopkins, Minn. Filed May 5, 1917. Serial No. 166,655. (Cl. 25—105.)

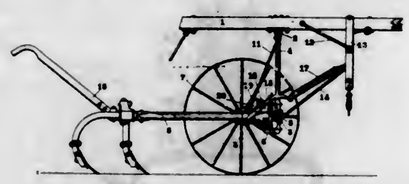
1. A cutting machine, comprising a support, an arm swung in the support, a frame carried by the arm, a curved cutting element secured in the frame, and straight cutting edges supported by the curved cutting element and the frame.



2. A cutting machine, comprising a support, an arm swinging in the support, a horizontally arranged frame carried by the arm, and a cutting element in the frame and arranged to travel in an arc.

3. A cutting machine, comprising a support, an arm swinging in the support, a yoke shaped frame carried by the arm, a curved cutting element in the frame, another arm swinging in the frame, and a work locating member carried by the latter arm.

1,243,970. CULTIVATOR. WESLEY A. PAUL and JOHN P. SEAHOLM, Moline, Ill., assignors to Deere & Company, Moline, Ill., a Corporation of Illinois. Filed Jan. 5, 1914. Serial No. 810,380. (Cl. 97—20.)



1. In a cultivator, the combination of a frame, a plow beam connected thereto and adapted to swing vertically, a lever connected to the beam rearward of the connection of the beam with the frame and extending forwardly at an angle to the beam, a controlling spring connected to the forward end of the lever and forwardly to the frame, and means on the lever contacting with the beam and adjustable to vary the angle of the lever to the frame.

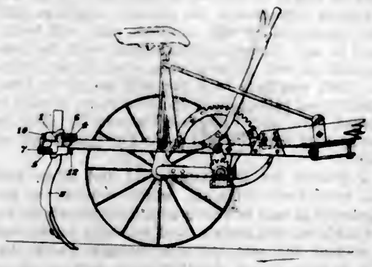
2. In a cultivator, the combination of a frame, a plow beam, a coupling connecting the plow beam and frame, a bifurcated lever embracing said coupling and pivotally connected thereto, said lever extending forwardly beyond said coupling and at an angle to the plow beam, a controlling spring connected to the forward end of the lever and forwardly to the frame, the arms of said lever connected intermediate their length, a threaded perforation in said connection, and a screw projected through said perforation and contacting with said coupling and adapted to be turned to vary the angle of the lever with the beam.

1,243,971. HOLDING DEVICE FOR CULTIVATOR-STANDARDS. WILLIAM L. PAUL, San Francisco, Cal., assignor to Deere & Company, Moline, Ill., a Corporation of Illinois. Filed Dec. 28, 1914. Serial No. 879,386. (Cl. 55—94.)

1. The combination with a cultivator frame, of parallel cross bars supported thereon in different horizontal planes and in stepped relation one with the other, a standard, and means to support said standard on the cross bars.

3. The combination with a cultivator frame, of parallel cross bars supported thereon in different horizontal planes, and in stepped relation one with the other, a standard, and means to support said standard between the cross bars and in contact therewith.

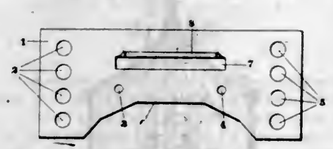
4. The combination with a cultivator frame, of a parallel cross bars supported thereon, a holding device having a vertical opening to receive a standard, openings for the cross bars on opposite sides of the vertical opening, the



opening on one side of the vertical opening being in a higher plane than the opening on the other side, and means to secure the standard in the vertical opening and the openings therefor.

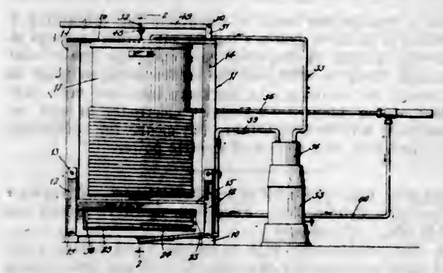
[Claims 2 and 5 to 9 not printed in the Gazette.]

1,243,972. CLEVIS. WESLEY A. PAUL, deceased, Moline, Ill., by Lola V. Paul, administratrix, Moline, Ill., assignor to Deere & Company, Moline, Ill., a Corporation of Illinois. Filed Jan. 6, 1915, Serial No. 860. Renewed Apr. 27, 1917. Serial No. 164,996. (Cl. 97—4.)



A clevis formed from a blank of sheet metal, the blank being bent upon itself at a central vertical line and forming a sleeve at the bend, a slot extending laterally of said sleeve and having a flange on one edge parallel with the slot, and perforations in the blank on each side of the central vertical line, the perforations on one side adapted to register with the perforations on the opposite side when the blank is bent.

1,243,973. PIPE-THAWING APPARATUS. JOSEPH E. PHILIPPON, St. Evariste de Forsyth, Quebec, Canada. Filed Mar. 18, 1916. Serial No. 85,129. (Cl. 137—72.)



1. In a device as aforesaid; a body structure including a rotatably mounted container, feeding means including a boiler, a conduit connecting said boiler and said container, conduit means having one end open to the interior of said container and adapted to be wound thereon, an idler drum carried by said body structure, conduit means to be wound upon said idler structure and other conduit means connecting said boiler and one end of said last mentioned conduit means.

2. In a device as aforesaid; a body structure including independently rotatable hollow winding drums, heating means including a boiler structure, conduits connecting said boiler structure and said drums, and other conduits in communication with said first mentioned conduits to be wound upon said drums.

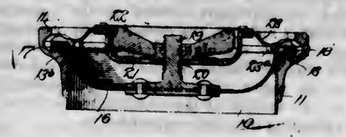
3. In a device as aforesaid; a carrying structure, a container, movably mounted on said carrying structure, pump means operating in said container, heating means including a boiler structure, a conduit connecting said boiler and said container, other conduit means open at one end to the interior of said container to be wound on said container, an idler drum revolubly mounted on said carrying structure, conduit means to be wound on said drums and having one end passed through one of the gudgeons thereof, and other conduit means connecting said boiler and one end of said last mentioned conduit means.

4. In a device as aforesaid; a base, a stand arranged on said base, a fluid receptacle revolubly mounted on said stand and having a cover stationary with respect to said stand; in combination with a tube to be wound on said container and having one end communicating with the interior thereof, and pump means associated with said container to force the contents thereof through said tube.

5. In a device as aforesaid; a base, a stand arranged on said base, a container revolubly mounted in said stand and having a cover fixed with respect to said stand; in combination with a tube to be wound on said container and having one end open to the interior thereof, means to introduce fluid into said container, and means including a handle portion arranged exteriorly of said container to force the contents thereof through said tube.

[Claims 6 and 7 not printed in the Gazette.]

1,243,974. POWDER-TANK CLOSURE. JOHN N. POWERS and ABNER Y. LEECH, Jr., Washington, D. C., assignors to United States Ordnance Company, Washington, D. C., a Corporation of Virginia. Filed Jan. 26, 1917. Serial No. 144,736. (Cl. 220—124.)



1. In a powder tank closure, the combination of a top ring having an interior groove therein forming an annular sealing rib, a cover having an annular groove on its lower side, a gasket in said groove coöperating with the sealing rib, a spring device adapted to progressively act on the cover as the gasket deteriorates to force the gasket into engagement with the rib, and means for energizing said spring device.

2. In a powder tank closure, the combination of a top ring including a sealing surface, a cover coöperating with the sealing surface, a plurality of spring locking arms adapted to force the cover against the sealing surface and having a non-pivotal bearing at their outer ends against the top ring, and means for energizing said arms whereby the spring force stored therein will constantly act against the cover to force the latter into sealing engagement with the sealing surface.

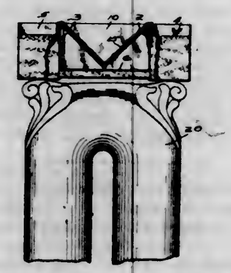
3. In a powder tank closure, the combination of a top ring including a sealing surface, a cover including a gasket coöperating with the sealing surface, a plurality of spring locking arms adapted to act on the cover directly above the gasket to force the latter into sealing engagement with the sealing surface, said arms having a non-pivotal bearing at their outer ends against the top ring, and means for energizing said arms whereby the force stored therein will constantly act against the cover as the gasket deteriorates to force the gasket into sealing engagement with the sealing surface.

4. In a powder tank closure, the combination of a top ring having a sealing surface and a plurality of spaced

inwardly directed ledges, a cover coöperating with the sealing surface, a locking head, a plurality of spring locking arms carried by the head and having a non-pivotal bearing against said ledges respectively, said arms having a store of energy when energized which acts against the cover to force the latter into sealing engagement with the sealing surface, and means for forcing the locking head in the direction of the cover to energize said arms.

5. In a powder tank closure, the combination of a top ring having a sealing surface, a cover coöperating with the sealing surface, a locking head, a plurality of spring locking arms carried by the head and having a non-pivotal bearing at their outer ends against the top ring, said arms normally having their inner ends disposed outwardly of their outer ends and adapted when energized to have a store of energy which acts against the cover to force the latter into sealing engagement with the sealing surface, and means for forcing the locking head in the direction of the cover to energize said arms.

1,243,975. HUMIDIFIER. WILLARD MCC. REID, Port Clinton, Ohio, assignor to Reid-Geisler Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 17, 1916. Serial No. 131,906. (Cl. 137—154.)



In a humidifier, a venticulated V-shaped member, communicating compartments located on the opposite sides of the V-shaped member, the corner of the V-shaped member being adjacent the plane of the bottoms of the compartments and the edges of the V-shaped member connected to the upper edges of the compartments, a wick located on the surface of the venticulated V-shaped member and extending into the compartments.

1,243,976. PROCESS FOR SEPARATION OF GOLD AND SILVER FROM MINERALS. RICARDO REYES, Mexico, Mexico. Filed Nov. 9, 1914. Serial No. 871,186. (Cl. 204—15.)

1. A process for separating gold and silver and like metals from their minerals, consisting in adding the mineral in a finely divided condition to a solution of sodium chlorid, and passing an electric current between electrodes, immersed in the mixture, through the mixture, whereby the said metals are deposited in their metallic condition upon the cathode.

2. A process for separating gold and silver and like metals from their minerals, consisting in adding the mineral in a finely divided condition to a solution of sodium chlorid, and passing an electric current between electrodes, immersed in the mixture, through the mixture, whereby the said metals are deposited in their metallic condition upon the cathode, the said mixture being agitated during the passage of said electric current.

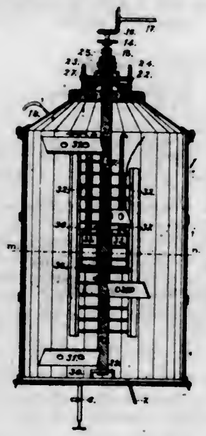
3. A process for separating gold and silver and like metals from their minerals, consisting in adding the mineral in a finely divided condition to a solution of sodium chlorid, and passing an electric current between electrodes, immersed in the mixture, through the mixture, whereby the said metals are deposited in their metallic condition upon the cathode, the said mixture being agitated during the passage of said electric current by discharging gases in an upward direction at the lower layers of the mixture.

5. In the art of separating gold, silver, and like metals from their minerals, that step in the art which consists in transforming said metals into soluble salts, capable of being electrolytically decomposed, by immersing said minerals in a solution of a salt, having no chemical effect on said metals and passing an electric current through said solution by means of electrodes immersed therein, the said metals being deposited in the metallic condition upon the cathode immersed in said solution, said salt being electrolyzed by said current simultaneously with the deposit of said metals on said cathode when electrolyzed yielding an anion which combines with the said metals to form said first mentioned salts soluble in the solvent of said second mentioned salt, and being electrolyzed by said current simultaneously with the said deposit of said metals on said cathode.

6. A process for separating gold and silver and like metals from their minerals, which consists in treating a suspension of said minerals with nascent chlorin to form the chlorids of said metals, said minerals being immersed in a solvent for said chlorids through which the said chlorin is passed, and simultaneously passing an electric current through said solvent by means of electrodes immersed therein, the said metals being deposited by said current upon the cathode simultaneously with the action of the said nascent chlorin upon said minerals.

[Claim 4 not printed in the Gazette.]

1,243,977. APPARATUS FOR THE CHLORINATION OF MINERALS. RICARDO REYES, Mexico, Mexico. Filed Aug. 6, 1915. Serial No. 44,115. (Cl. 204—5.)

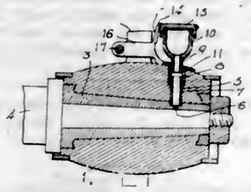


In a chlorination tank, a receptacle for containing a solution to be electrolyzed, a top for said tank, openings in said top, ladders leading from said openings, one of said openings being so wide and the ladder being so large as to permit the entrance of a workman into said tank, said ladders being adapted to support electrodes in said receptacle at any desired height, and means for connecting said electrodes to a source of electric power.

1,243,978. OIL-CUP FOR WAGON-WHEELS. FLAUZELLE ROBERTS, Center, Tex. Filed Jan. 8, 1917. Serial No. 141,236. (Cl. 64—26.)

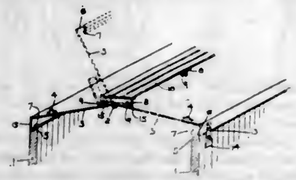
1. The combination with a vehicle wheel having a radial opening extending through the hub and axle boxing thereof, of a plate fitting against the peripheral surface of the hub and provided with a bushing projecting into the opening of the hub, a grease cup fitted in the bushing, a cap threaded upon the grease cup, an extension projecting from one side of the plate and terminating in a spring arm which engages the cap to prevent accidental rotation thereof, and means upon the extension for gripping one of the wheel spokes to lock the plate in position.

2. The combination with a vehicle wheel having a radial opening extending through the hub and axle boxing thereof, of a plate fitted against the peripheral surface of the hub and formed with a bushing which projects into the opening of the hub, a grease cup fitted in the bushing, a cap threaded upon the grease cup, an integral extension projecting from one side of the plate and terminating in a



spring arm which engages the cap to prevent accidental rotation thereof, and a pair of complemental spoke clamping jaws projecting from the extension and adapted to grip one of the wheel spokes to lock the device in position.

1,243,979. COMBINATION HINGED ROOF FOR BOX-CARS. JOSEPH ROBERTS, Youngstown, Ohio. Filed Aug. 14, 1916. Serial No. 114,692. (Cl. 105—78.)



1. In a combination hinged roof for box cars, a central rod, hinged roof portions hinged to said central rod, upper edge of side of car formed with a seat, outer ends of the hinged roof portions formed with inturned members fitting upon above mentioned seat, support legs firmly bolted to the hinged portion of roof, brackets pinned to said support legs, said brackets provided with slots at ends of downturned portions of same, a running board bolted to the top of said brackets, as set forth for the purposes specified.

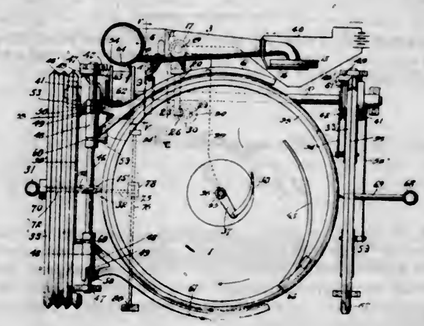
2. In a device of the class described a central rod, roof portions hinged to said central rod, upper edge of side of wall formed with a seat, outer ends of the hinged roof portions formed with inturned members fitting upon above mentioned seat, support legs firmly bolted to the hinged portion of the roof, brackets attached to said support legs, said brackets provided with slots at ends of downturned portions of same, pins passing through upper ends of support legs and the slots, a running board bolted to the top of said brackets, the above mentioned support legs fastened to the roof portions of the car and located an equal distance from the central portion of the car.

1,243,980. PHONOGRAPH. EDWARD ROGERS, Rosedale, N. Y., assignor of one-half to William A. Courtland, Brooklyn, N. Y. Filed May 19, 1915. Serial No. 29,109. (Cl. 274—10.)

1. In a graphophone, a record carrying table, a plurality of record holders supported in vertical position adjacent said table, means for placing a record holder in horizontal position on the table, a sound arm, means for moving said sound arm into playing position over the record holder, means for moving the sound arm to one side of the record holder after the playing period, and means for removing the record holder from horizontal position on the table to vertical position on suitable supports.

2. A holder for graphophone records adapted to be placed on the table or movable support of a graphophone, said holder being provided with adjustable means for automatically locating the needle of a graphophone at the starting point of a record within said holder.

7. A holder for graphophone records comprising a shell or housing provided with a central hollow post adapted to fit the spindle of a graphophone and to center records, a needle guide adjustably mounted on the periphery of said holder, and a contact adjustably mounted on said hollow post.

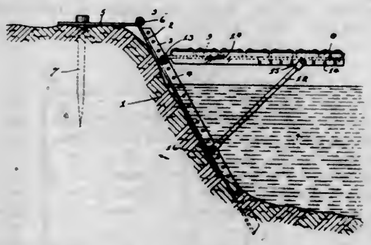


14. In a graphophone, a rotary support or table, record holders each provided with an adjustable sound-arm guide, and an adjustable contact, a sound arm movable into and out of operating relation to records in said holders, means for moving said records in series on to and off of said support or table, a magnet for controlling the said movement of the sound arm, an energizing circuit for said magnet including said sound arm and contact, and means for raising and lowering said sound arm, said raising and lowering means being subject to the control of said magnet.

29. In a graphophone, a record carrying table, a sound arm, a record holder provided with an adjustable sound arm guide, means for moving said sound arm over the record in the record holder, and means for giving said sound arm a two step lowering movement, first into engagement with the sound arm guide and then into the initial groove of the record.

[Claims 3 to 6, 8 to 13, 15 to 28, and 30 not printed in the Gazette.]

1,243,981. BOAT-LANDING. WILLIAM C. ROSS, Columbus, Ohio. Filed Mar. 31, 1917. Serial No. 158,976. (Cl. 61—31.)



1. A boat landing comprising a pair of base members, a rearwardly extending arm pivotally carried by the upper end of each base member, an anchor adapted to be driven in the ground engaging the free end of each arm, and a forwardly extending platform supported from said base members.

2. A boat landing comprising a pair of base members, a rearwardly extending arm apertured at one end and hingedly connected at its opposite end to the upper end of each base member, a pin to be driven through each of said apertures, and a forwardly extending platform supported from said base members.

3. A boat landing comprising a pair of base members, a rearwardly extending arm pivotally carried by the up-

per end of each base member, an anchor adapted to be driven in the ground engaging the free end of each arm, a platform supporting arm adjustably connected at its rear end to each of said base members, and a brace arm adjustably connected at opposite ends to each of said platform arms and said base members.

1,243,982. BEATER OR MIXER. LAURENTE RUPP, New York, N. Y. Filed Dec. 13, 1916. Serial No. 136,677. (Cl. 259—72.)



1. A beater or mixer comprising a container, and an agitator supported transversely within said container, said agitator being formed with radial corrugations and having perforations arranged along the lines of said corrugations, said corrugations forming radial, conically shaped beating surfaces.

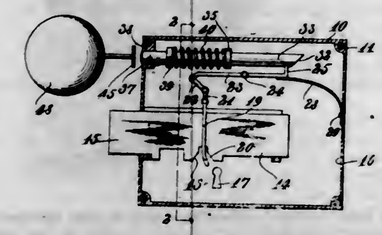
2. A beater or mixer comprising a container, an agitator arranged transversely between the walls of said container having a series of perforations provided with sharp laterally projecting rims, and means for supporting said agitator.

3. A beater or mixer comprising a container, an agitator arranged transversely between the walls of said container having a series of perforations with sharp laterally projecting rims, a part of said rims projecting to the one side, and a part to the other side of said agitator.

4. A beater or mixer comprising a container having a cover and a bottom provided with oppositely arranged conically shaped concavities, a stem held between the walls of said concavities, and an agitator having radial corrugations each of said corrugations being provided with a series of perforations along its length.

5. A beater or mixer comprising a container having a cover and a bottom provided with oppositely arranged conically shaped concavities, a stem held rigidly between the walls of said concavities, and a radially corrugated transverse agitator having perforations formed along the lines of the corrugations, said agitator being secured to said stem between its ends.

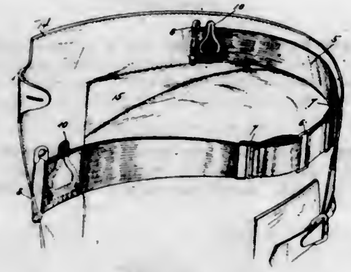
1,243,983. COMBINED LOCK AND ALARM. ANTON SASIADEK, Mosinee, Wis. Filed Mar. 2, 1917. Serial No. 151,963. (Cl. 116—61.)



1. The combination with a key actuated lock-bolt, of a lever extending transversely of said bolt having an end adapted to be moved by the ward of a key, a second lever operated by means of the first named lever, means for maintaining both levers in an operative position, a plunger rod, means for normally extending said plunger rod outwardly, said plunger rod containing a transverse slot engageable with the end of said second lever, and an alarm operable by said plunger when released by an entered key.

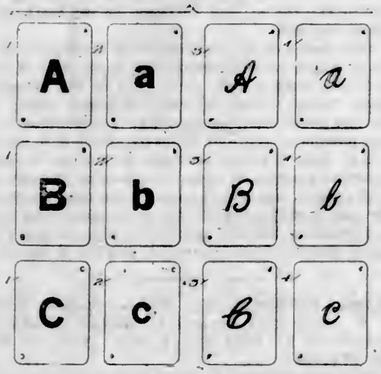
2. The combination with a key actuated sliding bolt, of a lever pivoted transversely adjacent thereto, a secor lever pivoted at right angles to the first named lever, a detent formed therewith, link connections between said levers, a sliding plunger rod, a spring normally maintaining said plunger in an outward position, said sliding plunger rod having a beveled end, and a slot contiguous thereto, means for normally maintaining said detent in engagement with said slot, and means when said plunger rod is released for announcing an audible alarm.

1,243,984. GARMENT-SUPPORTER. RYUJI SATO, Chicago, Ill. Filed Oct. 30, 1913. Serial No. 798,294. (Cl. 241—9.)



A trousers-supporter comprising two belt sections, a loop positioned between the rear ends of the belt sections, length-adjusting members secured to said ends of the sections and threaded through the loop, trouser-attaching pin fasteners carried by the free ends of the belt sections and extending transversely thereof, and shirt-engaging clips secured to the belt sections adjacent to the pin fasteners and pointing upward.

1,243,985. PLAYING-CARDS. GEORGE J. SCHIED, Rochester, N. Y. Filed Feb. 21, 1917. Serial No. 149,992. (Cl. 46—25.)



1. A pack of playing cards comprising a plurality of suits, each suit constituting an alphabet of which the respective letters are arranged one on each card of the suit, the letters of each suit being of a style different from the letters of the other suit or suits.

2. A pack of playing cards comprising a plurality of suits, each suit constituting an alphabet of which the respective letters are arranged one on each card of the suit, the letters of each suit being of a style and of a color different from the letters of the other suit or suits.

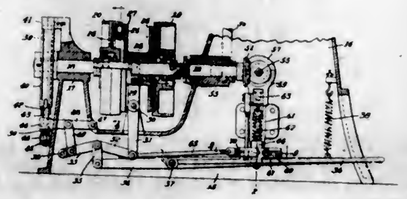
3. A pack of playing cards comprising a plurality of suits, each suit constituting an alphabet of which the respective letters are arranged one on each card of the suit, the letters of one suit being capitals and of another suit small letters.

4. A pack of playing cards comprising a plurality of suits, each suit constituting an alphabet of which the respective letters are arranged one on each card of the suit, the letters of one suit being capitals and those of another suit small letters of a corresponding type.

5. A pack of playing cards comprising a plurality of suits, each suit constituting an alphabet of which the respective letters are arranged one on each card of the suit, the letters of one suit being block type and those of another script type.

[Claims 6 to 8 not printed in the Gazette.]

1,243,986. DRIVING AND STOPPING MECHANISM. AUGUST R. SCHOENKY, Somerville, Mass., assignor to Reece Shoe Machinery Company, Boston, Mass., a Corporation of Maine. Filed Aug. 11, 1916. Serial No. 114,386. (Cl. 74—46.)



1. In a driving and stopping mechanism for power operated machines, the combination, of a high speed member; a low speed member; a driven shaft; a retarding device operable thereupon; a shiftable member adapted to be moved toward and from said high and low speed members; means carried by said shiftable member adapted to positively engage said low speed member; and control means for said shiftable member independent of said shaft, said means effecting the separation of the shiftable member and the high speed member, and applying the retarding device to said shaft prior to the positive engagement of said means carried by the shiftable member, and said low speed member.

6. In a driving and stopping mechanism for power driven machines, the combination, of a high speed friction clutch; a low speed positive clutch normally retained in disengaged position; a driven shaft; a brake thereon; means externally of the shaft to disengage the friction clutch and position the positive clutch for operation prior to the braking of the shaft; and means to cause the operation of the low speed clutch positive at a predetermined speed of the driven shaft.

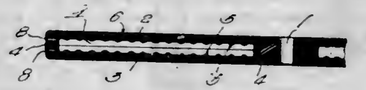
10. In a driving and stopping mechanism for power driven machines the combination, of a high speed drive; a low speed drive; a driven shaft; a brake thereon operably independent of said low speed drive; means common to said high speed drive and said brake adapted to disengage said high speed drive and set said brake; and low speed drive means adapted to operate to drive the shaft in the same direction after the said brake has been set.

15. In a driving and stopping mechanism for power operated machines, the combination, of an operating shaft; high and low speed drive means therefor; a brake operable independently of said drive means upon said shaft; manually operated means to disconnect the high speed drive from said shaft and subsequently apply the brake thereto; means to positively engage the low speed drive means to said shaft at a predetermined speed of said shaft after the brake has been applied; and automatic means to disengage said low speed drive and stop the said shaft at a predetermined angular position.

21. A stop-motion for high speed power driven machines comprising in combination, a retarding means which is normally inoperative but adapted to be rendered operative, when the machine is to be stopped, for quickly reducing the speed of the machine shaft; a slow driving means for power-driving the shaft at a speed materially less than the full speed thereof, said slow driving means constructed to act on the shaft through a connection which is engageable to drive but not to retard the shaft, whereby the slow driving means comes into effect automatically when the shaft speed has been retarded to that of the slow driving means; means for subsequently disengaging the slow driving means at a predetermined point in the shaft's rotation; and means for stopping the shaft in a predetermined final position.

[Claims 2 to 5, 7 to 9, 11 to 14, 16 to 20, and 22 to 26 not printed in the Gazette.]

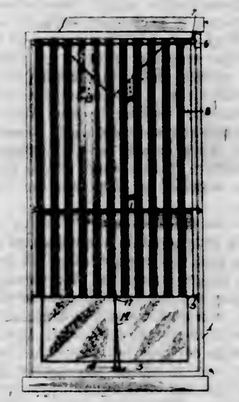
1,243,987. PHONOGRAPH-RECORD. OTTO CARL SCHROEDER, Detroit, Mich. Filed Aug. 23, 1917. Serial No. 187,862. (Cl. 274—42.)



1. A loud tone phonographic record having a space in the interior thereof which acts in the capacity of a sound box.

[Claims 2 to 6 not printed in the Gazette.]

1,243,988. AWNING. HARRY H. SCHROYER, Chicago, Ill., assignor to Dunbar Manufacturing Company, a Corporation of Illinois. Filed Nov. 26, 1915. Serial No. 63,527. (Cl. 156—44.)



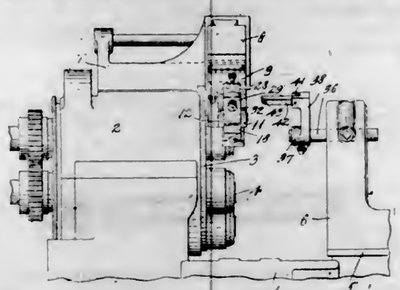
1. The combination with an awning mounted in a window frame, of a cross brace rod attached across the window frame to confine a portion of the awning in the plane of the window frame when the awning is lowered, and means permitting release of said rod to permit the same to swing downwardly alongside the window frame.

2. In a device of the class described the combination with an awning mounted on a window frame, of a notched bracket plate secured on the window frame, a cross rod having one end pivotally mounted on the window frame opposite said bracket plate, the other end of said cross rod adapted to removably seat in said notched bracket plate to hold the upper portion of the awning fabric in the plane of the window frame when the awning is lowered.

3. In a device of the class described the combination with an awning mounted in a window frame, of a notched bracket plate secured on one side of the window frame, a cross rod having one end pivotally secured on the other side of the window frame opposite said notched bracket plate, the free end of said cross rod bent at an angle and adapted to seat in said notched bracket plate to permit said cross rod to bear against the awning fabric to hold

the upper portion thereof in the plane of the window frame, and a pawl pivotally mounted on said notched bracket plate for locking the angled end of said cross rod in said plate.

1,243,989. METAL-WORKING MACHINE. LEON F. SCHULZE and ROBERT SCHULZE, Cleveland, Ohio. Filed Jan. 21, 1914. Serial No. 813,546. (Cl. 29—57.)



3. In a metal working machine in combination, a stock spindle, a shaping tool comprising a cutting tool, a backing tool, said entire device being supported against longitudinal movement during the working operation with respect to the stock and adapted to close against the stock, means for operating said tools and a support for said means, said operating device being mounted in its support so as to actuate the tools and at the same time permit them to automatically adjust themselves whereby the shaping operation is performed without any tendency of moving the stock out of the center line of the spindle.

5. In a metal working machine in combination, a rotating work spindle and a longitudinally stationary cutting device comprising a transversely moving cutting tool and a transversely moving backing tool adapted to be operated concurrently and conjointly toward and from the center of the work spindle and to automatically adjust themselves relative to the center of the work spindle, and an operating member to thus operate the cutting and backing tools.

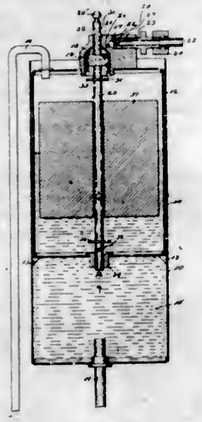
9. An attachment for metal working machines comprising a main body portion, a cutting tool member pivoted therein, a backing tool member also pivoted in said main body portion, means for forcing said members toward each other, a cutting tool block slidably mounted on the cutting tool member, means for holding said cutting tool block in any adjusted position, a backing tool block movably mounted in said backing tool member, means for holding said backing tool block in any adjusted position, and means for moving the tools of said members into operative position and comprising a bar having camming faces for engagement with said members, and means for permitting a slight movement of said operating member to allow for inaccurate position of the parts, and for permitting the tools to automatically adjust themselves to the stock and to the center line of the stock spindle.

[Claims 1, 2, 4, and 6 to 8 not printed in the Gazette.]

1,243,990. FUEL-FEEDING MECHANISM. WILFRED SHURTLEFF, Moline, Ill. Filed Sept. 3, 1915. Serial No. 48,769. (Cl. 158—36.)

1. In a fuel feed mechanism of the class described, the combination of a fuel container having a fuel inlet and a fuel outlet, a permanently open air outlet passageway from the container adapted for connection with a suction source, an air inlet to said container, a valve for controlling said air inlet, and a piston connected with said valve and subject to the suction through said outlet passageway to be retained in position to hold said air inlet valve open.

8. In fuel feed mechanism of the class described, the combination of a fuel container having a fuel inlet and a fuel outlet, a frame at the upper part of said container, a suction outlet from said container, a stem extending through said container and said frame and having an air inlet passageway at its upper end, the inner end of said passageway being always open to the container and the outer end of said passageway being open to the atmosphere when the stem is raised but closed by the frame when the stem is lowered, and a float in said container for controlling the shifting of said stem to open and close said passageway.



[Claims 2 to 7 not printed in the Gazette.]

1,243,991. HYDRAULIC CARTRIDGE. DAVY VANCE SICKMAN, Denver, Colo. Filed Sept. 13, 1915. Serial No. 50,357. (Cl. 138—10.)



1. An hydraulic cartridge including two telescoping piston members spaced by an interposed wall having a passage for conducting motive fluid to the pressure surfaces of the said member.

2. An hydraulic cartridge including two telescoping piston members spaced by an interposed stationary wall having a passage for conducting motive fluid to the pressure surfaces of the said members.

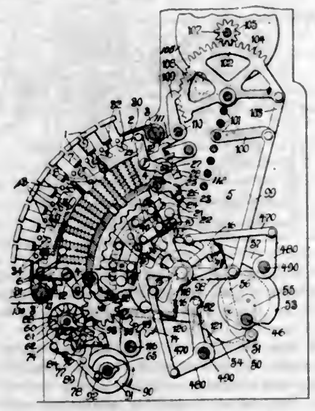
3. An hydraulic cartridge including two telescoping piston members spaced by an interposed stationary wall having passages for the introduction of motive fluid to the pressure surfaces of the said members, one piston member having a gasket engaging the said wall to form a fluid tight joint.

4. An hydraulic cartridge including two telescoping piston members spaced by an interposed stationary wall having a passage for conducting motive fluid to the pressure surfaces of the said members, the said wall and one piston member being respectively equipped with gaskets to form fluid tight joints between the piston members and the adjacent parts.

5. An hydraulic cartridge including a bar provided with a chamber, a telescoping piston located in said chamber and composed of two members, and a stationary wall separating the two piston members, the said wall having a passage for conducting motive fluid to the pressure surfaces of the two piston members.

[Claims 6 to 17 not printed in the Gazette.]

1,243,992. CASH-REGISTER. FRANCESCO SKERL, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed Feb. 17, 1912. Serial No. 678,192. (Cl. 235—9.)



1. The combination with an accumulator comprising a plurality of movable elements, and means for always moving said elements in the shorter direction in the accumulating of items thereon.

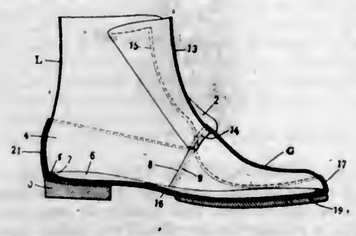
6. The combination with an accumulator of means coöperating therewith in such a manner that an item is partially accumulated thereon by adding the item to or subtracting the complement thereof from the accumulator depending upon the amount to be accumulated, and transfer devices adapted to complete the accumulation rendered operative by either adding the item or substracting the complement.

26. In a machine of the class described, the combination with a totalizer actuator having a normal starting point and capable of differential movement in either direction from said point, of operating means for said actuator, and means for controlling the direction and extent of movement of the actuator.

31. In a machine of the class described, the combination with an accounting element, of an actuator therefor, means for moving said actuator in opposite directions, two normally ineffective latch mechanisms, for connecting said actuator and said moving means so that the actuator may be moved in either direction, and a bank of keys for rendering one or the other of said latch mechanisms effective upon operation of the keys and for disabling the effective latch mechanism during the operation of the moving means.

[Claims 2 to 5, 7 to 25, and 27 to 30 not printed in the Gazette.]

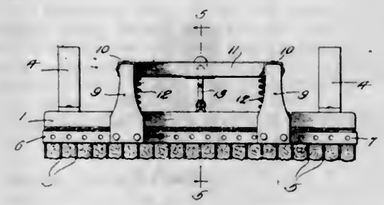
1,243,993. SHOE. NICOLAS SKOULIKIDES, New York, N. Y. Filed Aug. 31, 1915. Serial No. 48,149. (Cl. 36—1.)



1. A device of the class described, comprising an inner shoe and an outer shoe, the inner shoe consisting of an inner sole, a single piece of material shaped to form a toe part extending from the forward end of the inner sole approximately to the instep, the marginal portions of said piece of material being turned downwardly and inwardly and being connected to the adjacent marginal portions of the inner sole to complete the toe part of the inner shoe, a second single sheet of material shaped to form an upper extending from the rear end of the inner sole forwardly having its forward portion connected to the rear portion of the toe part, and having its lower marginal portion turned inwardly and being connected to the adjacent marginal portions of the inner sole to complete the rear part of the inner shoe, and the outer shoe comprising also a single sheet of material underlying the entire extent of the inner sole and having integral marginal parts turned upwardly and extending above the marginal edges of the inner sole and into overlapping relation with the pieces of material forming the toe portion and upper, the marginal part which overlaps the piece of material forming the upper extending upwardly for a greater distance than the marginal part overlapping the toe portion, and the upper marginal edge portion of the piece of material forming the outer shoe being stitched to the pieces of material forming the inner shoe, the relatively great extent of the outer shoe over the upper as compared with the relatively less extent of the outer shoe over the toe part providing an increased reinforcement and support for the heel and instep parts of the shoe.

[Claim 2 not printed in the Gazette.]

1,243,994. TOBACCO-HANDLING DEVICE. ELLSWORTH SLACK, Miamisburg, Ohio. Filed Sept. 18, 1916. Serial No. 120,849. (Cl. 131—11.)



1. A tobacco handling device comprising a member having a plurality of parallel flanges forming compartments therebetween in which the tobacco is to be placed by hand, an ejector including a plurality of parallel slats disposed between said flanges, and means for projecting said ejector to discharge the tobacco when required.

2. A tobacco handling device comprising a member having a plurality of parallel flanges forming therebetween compartments in which tobacco is to be placed by hand, an ejector including a pair of side bars extending along the ends of the flanges and a plurality of parallel slats extending between said side bars and secured thereto, said slots being received between said flanges, a pair of arched frames secured at their ends to said side bars and passing around the aforesaid member, springs secured at one end to said member and at their other ends to said arched frames for projecting the ejector, and releasable means for holding said ejector retracted against the tension of the springs.

[Claim 3 not printed in the Gazette.]

1,243,995. JEWELRY-CLASP. OTIS H. SLEEPER, Exeter, N. H. Filed Oct. 14, 1916. Serial No. 125,735. (Cl. 24—157.)

1. A pin lock consisting of a pair of spaced members between which the pin is adapted to lie, and an annular retainer swiveled to one of said members and adapted for locking engagement with the other member, and adapted when engaged to prevent separation of the members under the spreading apart tendency exerted against said members by the pin in its disengaging movement.

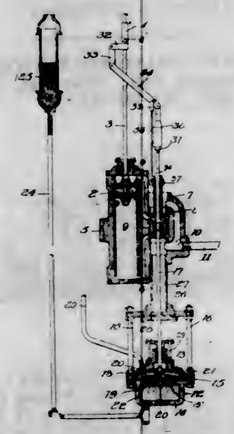
3. A pin lock consisting of a one piece U-shaped member of resilient material provided with a locking shoulder at one terminus and an eye at its other terminus, and a retaining ring turnably mounted in said eye and adapted for locking engagement with said shoulder.



9. A lock consisting of a pair of spaced opposed members between which an element to be locked is adapted to be inserted, one of said members having a locking shoulder, and a retainer carried by the other of said members, and adapted for locking engagement with said shoulder and when engaged overlying the space between said members and resisting the unlocking tendency of the element to be locked.

[Claims 2 and 4 to 8 not printed in the Gazette.]

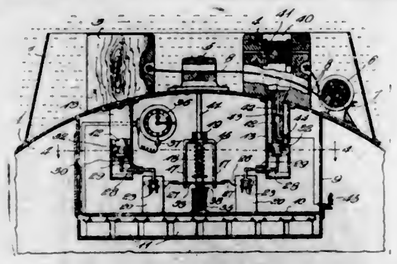
1,243,996. FLUID-PRESSURE REGULATOR. CARL J. SMITH, Indiana Harbor, Ind. Filed Sept. 4, 1914. Serial No. 860,124. (Cl. 236—8.)



1. In a fluid-pressure regulating device a diaphragm casing, a flexible diaphragm mounted therein and forming a horizontal partition in said casing intermediate its length, means for exerting the pressure of a fluid to be regulated on the upper face of said diaphragm, an auxiliary fluid of relatively low specific gravity in the lower end of said casing, and a counterbalancing fluid column of relatively high specific gravity communicating with the lower end of said casing to communicate its pressure to the lower face of said diaphragm through the auxiliary fluid, the volume of said counterbalancing fluid column being less than the volume of said auxiliary fluid, substantially as and for the purpose described.

2. In a fluid-pressure regulating device, a diaphragm casing, a flexible diaphragm mounted therein, a partition in said casing intermediate its length, means for exerting pressure of fluid to be regulated on the upper face of said diaphragm, an auxiliary fluid of low specific gravity in the lower end of said casing, a counterbalancing fluid column of relatively high specific gravity communicating with the lower end of said casing to communicate its pressure to the lower face of said diaphragm through the auxiliary fluid, and a reservoir at the upper end of said counterbalancing fluid column, the volume of said counterbalancing fluid column and reservoir being less than the volume of said auxiliary fluid, substantially as and for the purpose described.

1,243,997. INDICATING AND SALVAGING DEVICE FOR SUBMARINE BOATS. JEREMIAH ANTHONY SMOLICK, Honolulu, Hawaii. Filed Oct. 2, 1916. Serial No. 123,288. (Cl. 114—16.5.)



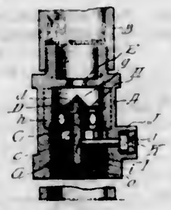
4. An indicating and salvaging device for submarine boats comprising a buoy having a stem projecting through the hull of the boat; a cable connecting said boat and buoy, means for detachably locking said buoy to the boat including a movable member engaging the stem, a self-actuated member connected with the movable member, a lock for said self-actuated member, a trip to release the lock, circuit controlled means for operating said trip at a predetermined time whereby the buoy is released, and a supplemental trip operating means operable when surrounded by water.

7. An indicating and salvaging device for submarine boats comprising a buoy having a stem projecting through the hull of the boat, a cable connecting said boat and buoy, means for detachably locking said buoy to the boat including a casing surrounding said stem, a rock shaft journaled through said casing and having one end connected with the stem, a self-actuated member connected with the opposite end of said shaft, a lock for said member, and an automatically operated trip to release the lock whereby the shaft is disconnected from the stem and the buoy is released.

16. The combination with a submarine, of a buoy, a cable to be carried from said submarine to the surface of the water by said buoy, means for normally connecting said buoy with the submarine, and means for releasing said connecting means including a prime mover, a soluble abutment for normally preventing movement thereof, and a substantially water-tight chamber in which said abutment is located, said chamber being permitted to fill slowly with water in case the vessel is submerged an unusual length of time.

[Claims 1 to 3, 5, 6, and 8 to 15 not printed in the Gazette.]

1,243,998. FLUID SAFETY-VALVE. ARTHUR L. SMYLY, Chicago, Ill. Filed Nov. 12, 1915. Serial No. 61,196. (Cl. 137—92.)



1. A heat-operated fluid safety valve comprising a movable valve member held normally in open position by gravity, a spring to close said member in case of emergency only, a locking pin to restrain the spring from acting to close the valve, but permitting closure of the valve by other means, and means having a fusible body to hold said pin in its operative position.

2. The heat-operated fluid safety valve (substantially as set forth in claim 1), said pin extending laterally of the valve, and said body engaging the outer end of said pin.

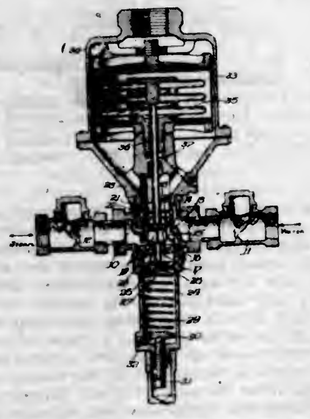
3. The heat-operated fluid safety valve (substantially as set forth in claim 1), said valve having a portion to engage the inner end of said pin, and said body when melted permitting outward endwise shift of said pin by said portion in response to the action of said spring.

4. The heat-operated fluid safety valve (substantially as set forth in claim 1), said means including a readily removable screw-threaded element which contains said body.

5. A fluid safety valve comprising a movable valve member held normally in open position by gravity, a spring to close said member in case of emergency only, and instrumentalities having a fusible body to restrain the spring from acting to close the valve, but permitting closure of the valve by other means, said instrumentalities including a readily removable screw-threaded element which contains said body.

[Claims 6 to 9 not printed in the Gazette.]

1,243,999. THERMOSTATIC STEAM AND HOT-WATER MIXER. MORTON O. SNEDIKER, Chicago, Ill., assignor to Powers Regulator Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 23, 1917. Serial No. 150,460. (Cl. 261—39.)



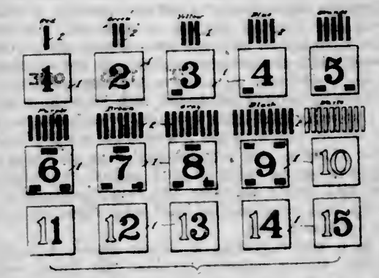
1. In a hot and cold fluid mixer, the combination of a valve casing having an inlet for a hot fluid and an inlet for a cold fluid, a thermostatically actuated valve for controlling the entrance of hot fluid, and means at the point of convergence of the hot and cold fluids for subdividing the cold fluid into a plurality of small streams, substantially as described.

14. In a mixing device, the combination of a valve casing having inlet openings for hot and cold fluids and likewise provided with openings for the reception of a thermostat casing and a spring casing, respectively, a valve mounted in said valve casing, a thermostat for actuating said valve in one direction and a spring in said spring casing for actuating it in an opposite direction, and a diffuser surrounding said valve, said diffuser being adapted to be clamped in place by said thermostat casing, substantially as described.

[Claims 2 to 13 not printed in the Gazette.]

1,244,000. EDUCATIONAL APPLIANCE. HENRIETTE SOLTOFT, Cleveland, Ohio. Filed Apr. 9, 1917. Serial No. 160,626. (Cl. 35—2.)

1. An educational appliance consisting of a series of members each bearing an individual number, objects associated with each member and corresponding in number to the number on the member, each member and its associated objects bearing like marks of identification.

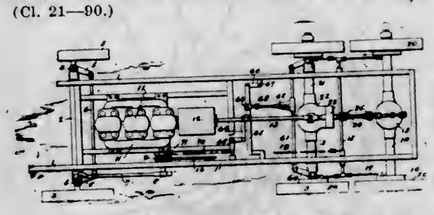


4. An educational appliance consisting of a series of members each bearing an individual number, the numbers progressing from "1" upward of "10," objects associated with each member from "1" to "10" and corresponding in number to the number on the member, the inscription on each member having a distinguishing quality of which the objects associated with that member are possessed, the numbers on the members above "10" comprising a "tens" digit having the same distinguishing quality as the inscription of the "10" member and a "units" digit having the same distinguishing quality as the inscription on the card bearing the number corresponding to that digit.

7. An educational appliance consisting of a series of members each bearing an individual number, objects associated with each member and corresponding in number to the number on the member, each member and its associated objects having distinguishing qualities, and certain of the members carrying each an indication comprising a combination of the distinguishing qualities of the members bearing jointly numbers aggregating the value of the member carrying such indication.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,244,001. MOTOR-VEHICLE. WALTER W. SWAN, Portland, Oreg. Filed Nov. 23, 1916. Serial No. 133,017. (Cl. 21—90.)



1. In combination with the chassis frame, the front axle and the front steering wheels mounted thereon, of supplemental frame bars, means for pivotally supporting said bars beneath said chassis frame, a rear axle structure including a housing, supports carried by said supplemental bars for said axle housing, rear wheels mounted on said rear axle structure, said rear axle structure including a differential, an intermediate axle structure including a housing and a differential and combined driving and steering knuckles, intermediate wheels mounted on said knuckles, a jack shaft structure between said rear and intermediate axle differentials, said jack shaft structure including a third differential, a driving shaft operatively connected with said third differential, and a steering mechanism operatively connected with said front wheels and with the intermediate wheels.

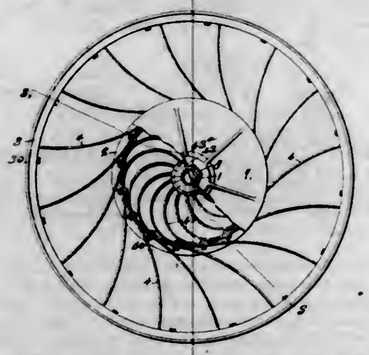
8. In combination with the chassis frame, the front axle and the front steering wheels mounted thereon, of supplemental frame bars, means for pivotally supporting said bars beneath said chassis frame, a rear axle structure including a housing, supports carried by said sup-

plemental bars for said axle housing, rear wheels mounted on said rear axle structure, said rear axle structure including a differential, an intermediate axle structure including a housing and a differential and a combined driving and steering knuckle at each end, intermediate wheels mounted on said knuckles, a jack shaft structure between said rear and intermediate axle differentials, said jack shaft structure including a third differential, a driving shaft operatively connected with said third differential, a steering mechanism operatively connected with said front wheels and with the intermediate wheels, said connection between said supplemental bars and said frame comprising spring members and pivotal connections between said spring members and said supplemental bars whereby said supplemental bars may swing on a transverse horizontal axis.

5. In a motor vehicle, a chassis frame, a front axle structure, spring supports between said frame and said front axle structure, front steering wheels, steering knuckles connecting said wheels with said front axle structure, a connecting rod connecting said knuckles, a rear drive axle, an intermediate drive axle, rear drive wheels relatively fixed on said rear drive axle, intermediate drive wheels, knuckle-drive-joints between said intermediate drive axle and said intermediate drive wheels, a connecting rod between said knuckle-drive-joints, a steering mechanism operatively connected with the front and intermediate connecting rods to operate the same simultaneously, a power plant including a main drive shaft, differentials carried by said rear and intermediate drive shafts, a driving shaft between the respective differentials, a third differential coöperating with said driving shaft and a driving connection between said main drive shaft and said third differential, all being arranged whereby the rear and intermediate wheels may operate as driving wheels and the front and intermediate wheels as steering wheels, and means for connecting said chassis frame with the front and rear axle structures.

[Claims 2, 4, and 6 to 8 not printed in the Gazette.]

1,244,002. VEHICLE-WHEEL. ARCHIE D. TEARE, Victor, S. D. Filed Mar. 27, 1917. Serial No. 157,792. (Cl. 152—51.)



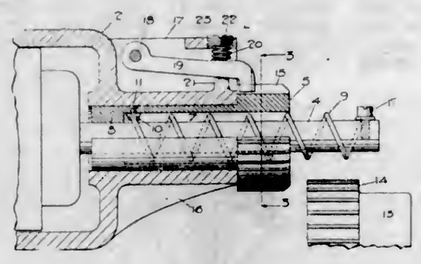
1. A wheel comprising a hub, a rim, and a series of substantially ogee curved spokes, each spoke being joined to an adjacent spoke, the hub ends of all of the spokes having such circular abutment relation whereby each spoke seats on the hub in a direction at approximately right angles to their points of connection with each other, and means for fixedly holding the outer ends of the spokes in fixed relation on the rim.

4. A wheel comprising a hub, a rim, and a series of spring spokes of substantially ogee shape, each spoke being fixedly connected to the adjacent spokes at both sides thereof, the line of connection of all the spokes being concentric with the hub, opposing clamp disks attached to the hub for engaging the hub ends of the spokes, said disks of a diameter to extend over the line of the spoke connections, and means for securing the outer ends of the spokes to the wheel rim.

6. The combination with a hub and a rim; of a series of curved resilient spokes connecting the hub and the rim, the hub engaging ends of the said spokes having tapered abutments that form a substantial solid ring when assembled around the hub, each of said hub engaging ends including lateral extensions having tapered outer edges, a clamp disk fixedly attached to one end of the hub and having an annular socket for receiving the spoke extensions at that side, the socket including a beveled edge for clamping on the beveled edge of the spoke extensions engaged thereby, a wedge ring for engaging the beveled edges of the other spoke extensions, a disk plate mounted on the hub that engages the spokes and the clamp ring and opposes the other clamping disk and means for securing the said disk plate onto the hub.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,244,003. ENGINE-STARTING DEVICE. EDWARD J. TOMLINSON, Newark, N. J., assignor to Splitdorf Electrical Company, Newark, N. J. Filed Nov. 11, 1916. Serial No. 130,796. (Cl. 74—7.)



1. In a starter for gas engines in combination with a member operated by the engine, a motor having an extended armature shaft, a driving member mounted upon said shaft to move longitudinally thereof into driving engagement with the engine member, resilient means interconnecting said shaft and driving member for the purpose of causing such longitudinal movement when the motor armature begins to rotate, a frame for said motor with an extension at one end thereof, a recess in said extension adapted to receive said driving member and serving as a guide for the same while said driving member is being advanced into engagement with the engine member.

4. In a starter for gas engines in combination with a member operated by the engine, a motor, a shaft driven thereby, a driving member mounted upon and adapted to move longitudinally of said shaft into driving engagement with the engine member, resilient means connected to the motor shaft for advancing the driving member into such engagement when said shaft rotates, a frame for the motor having an extension at one end, a circular recess in said motor frame extension adapted to receive the driving member, in which recess the driving member is permitted to slide in its longitudinal movement relative to the motor shaft, said recess serving also as a bearing in which the driving member rotates while cranking the engine.

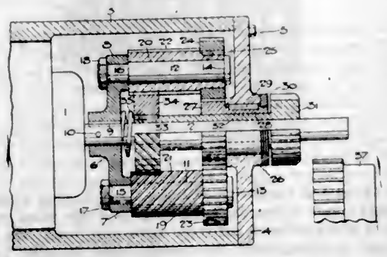
7. In a starter for gas engines in combination with a member connected to the engine, a motor, a driving member driven by said motor to drive said engine member, resilient means to cause said driving member to automatically engage and disengage said engine member, and a member coöperating with said driving member to prevent the latter from rotating while being advanced to engage with the engine member.

11. In a starter for gas engines in combination with a toothed member operated by the engine, a motor driven toothed pinion adapted to engage and drive the engine member, and pivotal means coacting with the teeth of said pinion to hold the same from rotating while moving to engage said engine member.

13. In a starter for gas engines in combination with a member operated by the engine, a motor driven shaft, a driving member for engaging said engine member mounted on said shaft and yielding means connecting the two, said yielding means serving to connect the driving member with the engine member and also as the driving medium between said shaft and driving member.

[Claims 2, 3, 5, 6, 8 to 10, 12, and 14 to 21 not printed in the Gazette.]

1,244,004. ENGINE-STARTING DEVICE. EDWARD J. TOMLINSON, Newark, N. J., assignor to Splitdorf Electrical Company, Newark, N. J. Filed Nov. 11, 1916. Serial No. 130,797. (Cl. 74—34.)



1. In an engine starting device including in combination with a member operated by the engine, an electric motor having an armature shaft projection, a driving member mounted upon and actuated by said shaft projection for the purpose of driving said engine member, a power transmitting member mounted upon said driving member, gear wheels spaced from and adapted to revolve with said motor shaft and coacting with the said power transmitting member to move the driving member into driving engagement with said engine member.

7. In an engine starting device including in combination with a member connected to the engine, a motor driven shaft, a driving member having a gear wheel and being mounted upon said shaft for longitudinal movement relative thereto, a spider fixed to said shaft and having stub shaft members thereon, gear members mounted upon these stub shaft members and coöperating with said gear wheel of the driving member in such a way that when said motor shaft rotates said driving member is automatically advanced into driving engagement with the engine member.

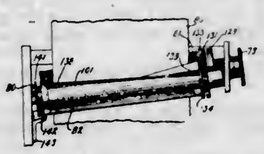
9. In an engine starting device including in combination with an engine operated member, a motor driven member adapted to engage and drive said engine member, means including a stationary gear for causing said motor driven member to engage with the engine member, said stationary gear serving also as a bearing for said motor driven member.

13. In an engine starting device including in combination with a member operated by the engine, a motor, a shaft driven thereby, a supporting member secured to and adapted to rotate with said shaft, a stationary gear supported by the motor frame, a driving member mounted upon said shaft for longitudinal movement relative thereto, means carried by said supporting member and coöperating with said stationary gear and driving member whereby said driving member is moved into and out of driving engagement with the engine member, and a resilient member to receive the impulse of said driving member when thrown from said engagement with the engine member.

15. In an engine starting device including in combination with a member operated by the engine, a motor driven shaft, a supporting member secured to and adapted to rotate with said shaft, power transmitting members rotatably mounted upon said supporting member, a housing for said supporting and power transmitting members, a driving member having a gear within said housing and a gear exterior of said housing, a stationary gear supported by said housing, said power transmitting members coöperating with said stationary gear and also with the gear of said driving member within said housing to move said exterior gear of the driving member into driving engagement with the engine member.

[Claims 2 to 6, 10 to 12, 14, 16, and 17 not printed in the Gazette.]

1,244,005. CASH-REGISTER. EDWARD J. VON PEIN, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Original application filed Nov. 15, 1913, Serial No. 801,293. Patent No. 1,198,492, dated Sept. 19, 1916. Divided and this application filed Mar. 23, 1916. Serial No. 86,097. (Cl. 164—68.)



1. In a machine of the class described, the combination with a rotatable element carrying teeth for perforating a strip of material, said teeth being arranged substantially spiral to the axis of the rotatable element and normally rotating in planes oblique to the length of the strip, of means for shifting the rotatable element to cause said teeth to move in planes parallel to the length of the strip during a part of each rotation of their carrying element.

7. A strip perforating device comprising a rotatable element having its axis parallel to the surface of and oblique to the length of the strip, a series of perforator teeth carried by said element and so disposed with reference to the axis of the element that they are brought into play one after the other by rotations of the element but perforate in a straight line at right angles to the length of the strip, a movable element having depressions cooperating with the perforator teeth, and means for driving said rotatable element.

10. In a machine of the class described, the combination with a rotatable element, of a series of strip perforating teeth carried by said element, the teeth being arranged substantially spiral to the axis of the carrying element and the element so inclined that its axis is oblique to the length of the strip, a second rotatable element having annular grooves coöperating with the perforating teeth and inclined to bring its axis parallel to the axis of the tooth carrying element, and means for driving the two rotatable elements.

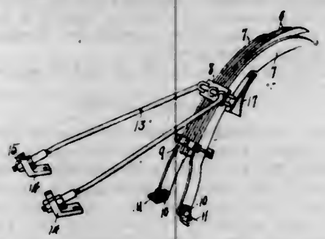
[Claims 2 to 6, 8, 9, 11, and 12 not printed in the Gazette.]

1,244,006. BUCKET-CLEANING MEANS FOR EXCAVATING-WHEELS. ARTHUR V. WADSWORTH, Findlay, Ohio, assignor to The Buckeye Traction Ditcher Company, Findlay, Ohio, a Corporation of Ohio. Filed May 14, 1915. Serial No. 28,016. (Cl. 37—17.)

1. In a machine of the class described, the combination with a cutter wheel having cutter buckets on its periphery, and a frame carrying said wheel, of more than two relatively thin cutting blades lying respectively in parallel planes circumferentially of the wheel and in substantially the same plane transversely thereof, said blades adjustably rising from said frame within the wheel with their outer ends projected up within said buckets.

3. In a machine of the class described, the combination with a frame and a cutter wheel rotatably mounted in said frame, said wheel having transversely spaced rims and peripherally disposed cutter buckets carried by said rims and each provided with a plurality of rearwardly

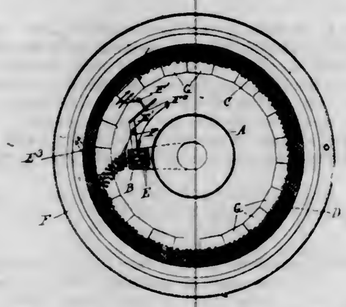
projecting fingers, of a bucket cleaning member carried by said frame within the wheel and having its outer end provided with more than two transversely spaced blades disposed to pass through the wheel buckets when the wheel



is revolved and to alternate with and have a combing action through the bucket fingers, the outer of said blades having scraping contact with the inner sides of the respective wheel rims.

[Claims 2 and 4 not printed in the Gazette.]

1,244,007. DRIER. CARL A. WENDELL, Joliet, Ill. Filed June 12, 1915. Serial No. 33,791. (Cl. 210—35.)



1. The process of drying granular or lumpy material, which consists in feeding the same by a flowing stream to successive sections of an annular mass of the material, rotating such annular mass to expel the water therefrom by centrifugal force, and discharging by centrifugal force successive sections of the dried material in an outwardly flowing stream, the discharged section being just in advance of the section which is being fed.

2. The continuous process of drying granular or lumpy material which consists in feeding the same by a continuously flowing stream to successive sections of an annular mass of the material, rotating such annular mass continuously to expel the water therefrom by centrifugal force, and continuously discharging by centrifugal force successive sections of the dried material in an outwardly flowing stream, the discharged section being just in advance of the section which is being fed.

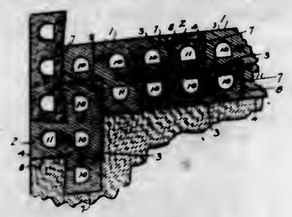
3. The process of drying granular or lumpy material, which consists in feeding the same by a flowing stream to successive sections of an annular mass of the material, rotating such annular mass through a large number of complete revolutions to expel the water therefrom by centrifugal force, and discharging by centrifugal force successive sections of the dried material in an outwardly flowing stream.

4. The continuous process of drying granular or lumpy material, which consists in feeding the same by a continuously flowing stream to successive sections of an annular mass of the material, rotating such annular mass through a large number of complete revolutions continuously to expel the water therefrom by centrifugal force, and continuously discharging by centrifugal force successive sections of the dried material in an outwardly flowing stream.

5. The process of drying granular or lumpy material, which consists in feeding the same by a flowing stream to successive sections of an annular mass of the material, holding in opposition against centrifugal force and rotating such annular mass to expel the water therefrom by centrifugal force, and discharging by centrifugal force successive sections of the dried material in an outwardly flowing stream, the discharged section being constantly replaced by the section which is being fed.

[Claims 6 to 8 not printed in the Gazette.]

1,244,008. PAVING-BLOCK. HAROLD S. WHEELER, Tacoma, Wash. Filed May 31, 1916. Serial No. 100,951. (Cl. 94—1.)



1. A paving block comprising a head, having a bearing surface; and a tongue, extending centrally from end to end of the head and narrower than said head; the faces of said head adjacent the tongue being inclined toward the central line of said bearing surface.

2. A paving block comprising a head, having a bearing surface and sides, said sides being inclined outward from said bearing surface; and a tongue, extending centrally from end to end of said head and having a bearing surface parallel with the bearing surface of the head, and having sides, each such side being substantially parallel with the inclined side of the same side of the head; the faces of said head adjacent the tongue each being inclined from its outer edge toward the central line of the bearing surface of the head.

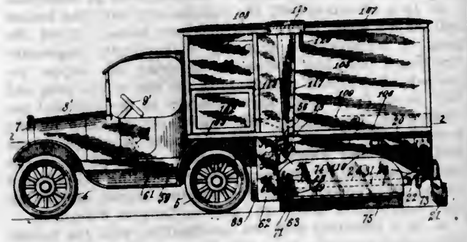
3. A paving block comprising a broad head having a bearing surface and a narrow tongue having an inverted bearing surface, and having a plurality of voids in the head and a single void in the tongue, the single void in the tongue being in corresponding inverted position to the voids in the head, whereby when adjacent blocks are placed in complementary positions the voids in the tongues aline with the voids in the heads to form an upper and a lower row of voids and whereby the continuous horizontal thrust webs thus formed between said two rows of voids extend in arched alinement across the road.

4. A paving block comprising a broad head having a bearing surface and a narrow tongue having an inverted bearing surface, and having a row of three voids in the head and a single void in the tongue, the single void in the tongue being vertically below the central void in the head, and the side voids in the head being positioned centrally between the side of the head and of the tongue whereby, when a series of such blocks are placed in complementary positions side by side, the vertical webs separating the adjacent voids in the two layers are each in vertical alinement and are composed of a single wide integral web in the head portion and of two narrow complementary webs, each of substantially one-half the thickness of said wide web, formed by the adjacent sides of the head and tongue of adjacent blocks.

5. A roadway pavement composed of hollow blocks laid in courses running parallel with the axis of the road, said courses being side by side across the road, each course comprising blocks having two layers of voids and laid with relation to similar blocks in the next course as described, so that the layers of voids in each course are in alinement with the layers of voids in the adjacent courses and the horizontal webs are in arched alinement across the roadway.

[Claim 6 not printed in the Gazette.]

1,244,009. STREET-SWEEPING MACHINE. ALFONS ALTENBERG, Piqua, Ohio, assignor to Municipal Machine Manufacturing Company, Piqua, Ohio. Filed Mar. 1, 1917. Serial No. 151,662. (Cl. 15—17.)



1. In a street sweeping machine, the combination with a truck frame, of an inclosed trailer frame connected to the rear of the truck frame, swiveled wheels supporting the rearward portion of the trailer frame, a sweeper frame below said trailer frame having an adjustable connection with the trailer frame, and sweepers united by an endless connection and mounted on said sweeper frame.

2. In a street sweeping machine, the combination with a truck and the frame thereof, of a trailer frame pivotally connected to the rear of said truck frame and supported at its rear end by swiveled wheels, a sweeper frame mounted below said trailer frame and having an adjustable connection with the rear end of the trailer frame, a sweeper comprising a series of brooms flexibly connected and supported by said sweeper frame, and a connection between the forward end of the sweeper frame and the truck frame whereby the sweepers and the frame may be elevated upon the adjustable connection of said frame with the trailer frame.

3. In a street sweeping machine, a tractor, a trailing frame pivotally connected to the frame of said tractor, a sweeper frame adjustably connected at one end to said trailing frame, a series of flexibly connected brooms supported on the sweeper frame, and a connection between the forward end of the sweeper frame and the truck frame including a lever by means of which the sweeper frame may be elevated on its adjustable connection with the trailer frame.

5. In a street sweeping machine, the combination with a truck and the frame thereof, of a trailing frame pivotally connected to said truck frame, a sweeper frame adjustably connected to the trailing frame at one end, a lifting connection extending from the forward end of said sweeper frame and carried by said truck frame, a series of flexibly connected brooms mounted in said sweeper frame, a dirt-receiving pan supported on said sweeper frame, and supporting wheels swivelly connected to the rear end of the trailing frame.

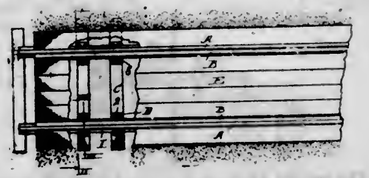
6. A tractor, a trailing frame pivotally connected to said tractor, wheels supporting the rearward end of said trailing frame, a sweeper frame having its rearward end adjustably connected to the trailing frame and its forward end supported by lifting connections extending from the tractor, a series of flexibly connected brooms mounted in said sweeper frame, and a dirt-receiving pan adjustably supported on said sweeper frame.

[Claim 4 not printed in the Gazette.]

1,244,010. RAILWAY MUD-GUARD. ALBERT M. ANDERSON, Milwaukee, Wis., assignor of one-half to John W. Thomas, Chicago, Ill. Filed Mar. 10, 1917. Serial No. 153,880. (Cl. 104—14.)

1. In combination with a track rail and a mud guard rail which latter is disposed upon its side with its ball engaging the web and the ball of the track rail, a member having a seat for the ball of the mud guard rail and a wall overlapping the base flange and abutting the web of the track rail to hold the two rails in their proper positions, substantially as described.

2. A device of the character described, consisting of a supporting member having a raised central portion adapted to fit against the web of a guard rail laid upon its side, and grooves at opposite sides of said raised central portion to constitute seats for the ball and the base flange of said guard rail.

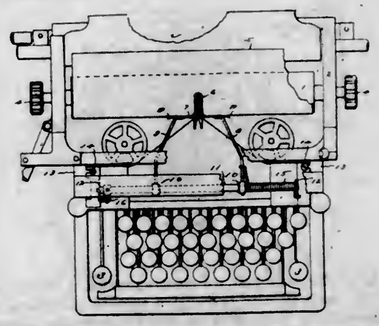


3. A device of the character described, consisting of a supporting member having a raised central portion adapted to fit against the web of a guard rail laid upon its side, grooves at opposite sides of said raised central portion to constitute seats for the ball and the base flange of said guard rail, a lip constituting one wall of one of said grooves, and a flange constituting one wall of the other groove.

4. In combination with a track rail and a mud guard rail which latter is disposed upon its side with its ball engaging the web and the ball of the track rail, a base plate to underlie said rails, and a member on said base plate to engage both rails and hold them in proper relation to each other.

5. A device of the character described, consisting of a base plate, a supporting member having a raised central portion adapted to fit against the web of a guard rail laid upon its side and having grooves at opposite sides of said raised central portion to constitute seats for the ball and the base flange of said guard rail, a lip constituting one wall of said groove, and a flange constituting one wall of the other groove, substantially as described.

1,244,011. PAPER CONTROL FOR TYPE-WRITING MACHINES. NILS H. ANDERSON, Bridgeport, Conn., assignor of one-half to William A. Lorenz, Hartford, Conn. Filed Jan. 31, 1917. Serial No. 145,580. (Cl. 197—127.)



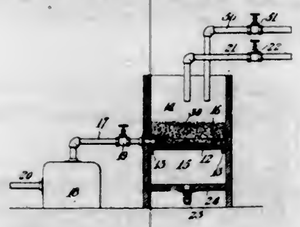
1. The combination with the frame and platen of a type-writing machine, of brackets attached to the frame, a shaft journaled in said brackets, rods extending from said shaft, a yoke attached to said rods, a finger projecting from the yoke, and a spring on said shaft and arranged to cause the finger to bear upon the platen.

[Claims 2 to 7 not printed in the Gazette.]

1,244,012. PROCESS OF TREATING LIQUIDS. FREDERICK R. BACHLER, Oxnard, and WILLIAM B. NEWKIRK, Los Angeles, Cal., assignors of one-third to Algernon T. Gibson, Oxnard, Cal. Filed Dec. 23, 1915. Serial No. 68,451. (Cl. 204—24.)

1. The process of treating a solution which consists in passing the solution through a mass of electrode material

consisting of two materials having different electrical potentials, and injecting sulfur dioxid into the solution carried in the mass of electrode material.



2. The process of treating a solution which consists in passing the solution through a mass of electrode material containing aluminum and a material having a different electrical polarity from aluminum, and injecting sulfur dioxid into the solution carried in the mass of electrode material.

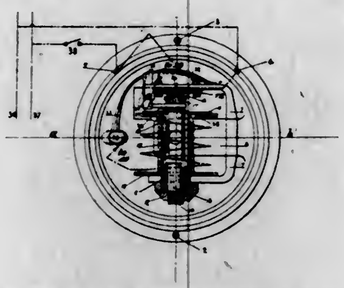
3. The process of treating a solution which consists in passing the solution through a mass of electrode material consisting of two materials having different electrical potentials, said solution containing colloidal silicate of alumina.

4. The process of treating a solution which consists in passing the solution through a mass of electrode material containing aluminum and a material having a different electrical polarity from aluminum, said solution containing colloidal silicate of alumina.

5. The process of treating a solution which consists in passing the solution through a mass of electrode material consisting of two materials having different electrical potentials, and injecting sulfur dioxid into the solution carried in the mass of electrode material, said solution containing colloidal silicate of alumina.

[Claims 6 to 11 not printed in the Gazette.]

1,244,013. VIBRATORY BELL. ANTONIO BAGUTTI, Turin, Italy. Filed Nov. 26, 1913. Serial No. 803,348. (Cl. 177—7.)



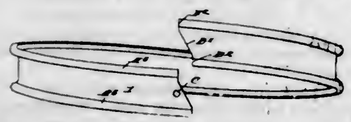
1. In a vibratory bell, an electromagnet, a reciprocative armature magnetically responsive thereto, a rocking member operatively connected to the reciprocative armature so that as the armature reciprocates the rocking member oscillates, a resilient arm secured intermediate its ends to the rocking member whereby lengths of the arm on opposite sides of the rocking member are alternately flexed during operation of the bell, and circuit connections including the winding of the electromagnet and interrupting means carried by the reciprocative armature; substantially as described.

2. In a vibratory bell, an electromagnet, a reciprocative armature magnetically responsive thereto, a rocking member operatively connected to the reciprocative armature so that as the armature reciprocates the rocking member oscillates, a resilient arm carried by the rocking member and carrying the clapper, a pin operatively connecting the rocking member and the reciprocative armature, the armature having a recess and the pin being rigidly fastened to the rocking member and loosely engaging the recess, and circuit connections including the winding of the electromagnet and interrupting means carried by the reciprocative armature; substantially as described.

3. In a vibratory bell, the combination with the hollow bell-shaped gong, of an electromagnet housed within the gong, a reciprocative armature magnetically responsive thereto, a long leaf spring for carrying the clapper arranged substantially parallel with the rim of the gong and bent so as to conform approximately to the adjacent periphery of the gong, a bell crank lever actuated by the armature and having an arm angularly connected to the leaf spring and which is very short as compared to the leaf spring, and circuit connections including the winding of the electromagnet and interrupting means carried by the reciprocative armature; substantially as described.

4. In a vibratory bell, the combination with the hollow bell-shaped gong of a rigid yoke housed under the gong and arranged with its base parallel to the plane of the rim of the gong, an electromagnet with its axis parallel to said plane, the electromagnet having a hollow core and being embraced by the yoke, a vibratory arm pivoted to the yoke, a reciprocative armature within the hollow core of the electromagnet for operating the vibratory arm, and circuit connections including the winding of the electromagnet and interrupting means carried by the reciprocative armature; substantially as described.

1,244,014. SELF-ALINING TRANSPLIT RIM. EBLE KING BAKER, Chicago, Ill., assignor to Universal Rim Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 3, 1916. Serial No. 88,668. (Cl. 152—21.)



1. A transplit, integrally flanged, demountable, tire-holding rim having self-alining and laterally separable rim ends, formed by transplitting the rim upon a major diagonal line and two minor lines which converge with opposite ends thereof.

2. A transplit, integrally flanged, demountable tire-holding rim having self-alining and laterally separable rim ends, formed by transplitting the rim upon a major diagonal line and two minor lines which are perpendicular to respective flanges of the rim and meet opposite ends of said diagonal line.

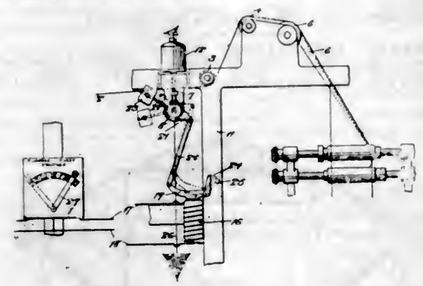
3. A transplit, integrally flanged, demountable, tire-holding rim having self-alining and laterally separable rim ends formed by transplitting the rim upon a major diagonal line and two minor lines which converge therewith adjacent respective flanges of the rim, one of the rim ends containing a valve stem hole closely adjacent the major diagonal line of the split.

4. A transplit, integrally flanged, demountable, tire-holding rim having self-alining and laterally separable rim ends formed by transplitting the rim upon a major diagonal line and two minor lines which are perpendicular to respective flanges of the rim.

5. A transplit, integrally flanged, demountable, tire-holding rim having self-alining and laterally separable rim ends formed by transplitting the rim upon a major diagonal line and two minor lines the latter of which extend through respective flanges of the rim.

1,244,015. STATIC-ELECTRICITY DISSIPATOR FOR PAPER WEBS OR SHEETS. HOWARD M. BARBER, Stonington, Conn., assignor, by mesne assignments, to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of Delaware. Filed Apr. 2, 1913. Serial No. 758,369. (Cl. 91—18.)

1. An electric printing press starter, a static electricity dissipator for the web comprising a moistener, an electromagnet controlled by the starter and means operated by the electromagnet for moving the moistener into and out of contact with the web.



2. An electric printing press starter, a static electricity dissipator for the web comprising a moistener, an electromagnet controlled by the starter and means operated by the electromagnet for automatically moving the moistener into contact with the web when the web is running and for moving the moistener out of contact with the web when the web is not running.

3. A static electricity dissipator for webs comprising a moistener, means for normally holding the moistener out of contact with the web and an electromagnet having its armature connected to said means, for moving the moistener into contact with the web when the magnet is energized and means for energizing and deënergizing the magnet.

4. An electric printing press starter, a static electricity dissipator for the web comprising a moistener, means for normally holding the moistener out of contact with the web and an electromagnet controlled by the printing press starter and having its armature connected to said means whereby the energization of the magnet will move the moistener into contact with the web.

5. A static electricity dissipator for webs comprising a moistener, a weighted lever for normally moving the moistener out of contact with the web and an electromagnet having its armature connected to said lever for moving the moistener into contact with the web when the magnet is energized and means for energizing and deënergizing the magnet.

[Claim 6 not printed in the Gazette.]

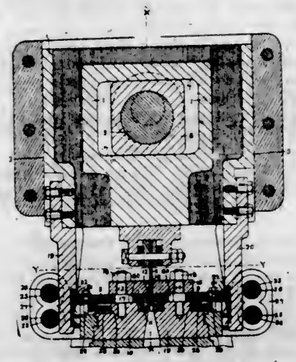
1,244,016. HARROW AND TRUCK. PEARL A. BAUER, Colfax, Iowa. Filed July 24, 1916. Serial No. 111,083. (Cl. 55—103.)



In a device of the class described, a pair of oppositely opening channel shaped members having opposite adjacent flanges, means for securing the flanges of the opposite members together, one of said channel-shaped members having on its outer surface an outwardly projecting engaging device, the other of said channel-shaped members having on its outer surface, an outwardly projecting lug, and a runner or the like thereon.

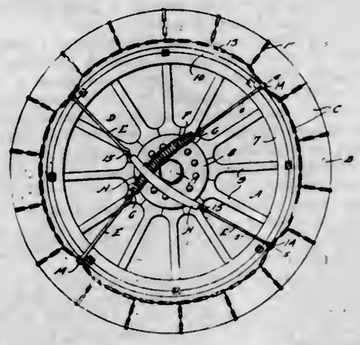
1,244,017. MACHINE FOR BIFURCATING SPIKES AND FOR PUNCHING SLOT-HOLES IN BOLTS AND THE LIKE. WILLIAM LLOYD BAYLEY, Darlaston, and FRANK BAXTER WILSON, Willenhall, England. Filed May 8, 1917. Serial No. 167,226. (Cl. 164—86.)

1. In a machine for punching bolts or the like, the combination of a main slide, a punch carried thereby, a bottom die, a stripping plate, two gripping slides arranged under the stripping plate and immediately over the bottom die and movable to grip and support the sides of the spike or bolt in position under the punch and to release the spike or bolt when punched, means for guiding said gripping slides, two bars operatively connected to the main slide and the gripping slides to operate the gripping slides in timed relation to the main slide, and means for supporting the ends of the spike or bolt during the punching operation, substantially as set forth.



2. In a machine for punching bolts or the like the combination of a main slide, a punch carried thereby, a crankshaft, a sleeve on the shaft, the punch having a slot in which the sleeve works, a cam on the shaft, a forked slide operated by a connection from said cam, means for guiding said forked slide, said forked slide carrying a roller adapted to move down against the end of the spike or bolt and prevent endwise expansion of the same during the punching process and also to rise clear of the spike or bolt after the same has been punched substantially as set forth.

1,244,018. TIRE-CHAIN RETAINER. JOSEPH T. BRANEK, Mount Pleasant, Pa. Filed July 31, 1916. Serial No. 112,326. (Cl. 152—14.)



1. As an article of manufacture, a retainer for tire chains comprising a pair of rods of substantially equal length having flat relatively broad overturned ends forming hooks on one end of each rod, and a lengthwise yieldable spring permanently secured at its ends to the opposite ends of the rods.

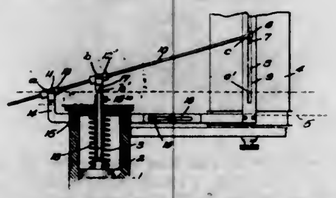
2. As an article of manufacture, a retainer for tire chains comprising a pair of rods of substantially equal length having hooks on one end, and a lengthwise yieldable spring permanently and pivotally connected at opposite ends to the opposite ends of the rods, the opposite ends of the spring being reduced in diameter, and the rods

being foldable about their pivotal connection into engagement against the side of the spring.

3. In combination with a vehicle wheel, a tire thereon, and a tire chain about said tire, of two links, one end of each link connected with said chain, and the points of connection of said links being substantially diametrically opposite one another, and a single spring connecting said links and adapted to be arched about the hub of said wheel to tension the links.

4. An anti-skid chain attachment comprising a unitary structure including the following combination, a contraction spring, and a rod pivoted at one end to each extremity of the spring and having a rigid hook on its free end opening toward the spring and adapted to engage a link of said chain, said spring being adapted to retain the rods from swinging outwardly from the wheel to which the chain is applied and thereby retaining the hooks in engagement with the links.

1,244,019. INDICATOR. CHARLES W. BERRY, West Somerville, Mass. Filed Aug. 11, 1910. Serial No. 576,655. (Cl. 234—25.)



1. In an indicator, the combination with an indicator cylinder having a pressure-responsive piston, of a radial pivoted member swinging in a plane parallel to the axis of the indicator cylinder and connected to the piston thereof to be moved thereby, a record medium responsive to light, and a source of light at the pivotal point of said pivoted member, the latter being adapted to transmit the same along its axis to the recording medium.

2. In an indicator, the combination with a pressure-responsive impelling means, a recording surface responsive to light and arranged parallel with the movement of the impelling means, a radial member oscillating about a fixed pivot, and a source of light at the pivotal point thereof, said radial member being tubular in form to project the light upon said recording surface.

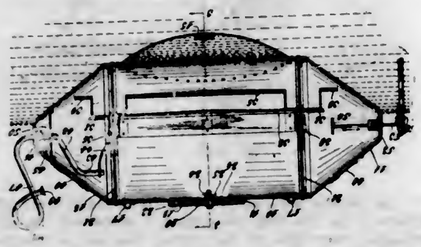
3. In an indicator the combination with a pressure-responsive member, a spring, a marker, a recording surface locationally responsive to volume variations, a variable length radial member impelled by said pressure-responsive means and terminating in said marker, an adjustment in said pressure-responsive member whereby said radial member may be adjusted to occupy the correct pressure position in terms of the scale of said spring with reference to the zero pressure line determined by the pivotal point of said radial member, means for adjusting the distance between said pivot and said recording surface whereby the scale of the diagram may be varied without varying the strength of the spring.

4. In an indicator the combination with a marker of a recording surface, pressure-responsive impelling means, a member impelled thereby and constrained to oscillate about a fixed point and further constrained at the marker end to traverse a straight line parallel to the line of action of the impelling means, said member being of variable length between the marker and the pivot, a device by means of which said oscillating member can be adjusted with reference to a zero pressure line, and means for adjusting the distance between said pivot and said recording surface so as to vary the scale of the diagram.

5. In an indicator the combination with a recording surface of recording means including a pivoted directing member for directing the tracing of the record thereon, means for adjusting it correctly with relation to the zero pressure line, impelling means connected to the directing member, and means for adjusting the relation of the distance from the pivot point to the recording surface to the distance from the pivot point to the impelling means.

[Claims 6 to 9 not printed in the Gazette.]

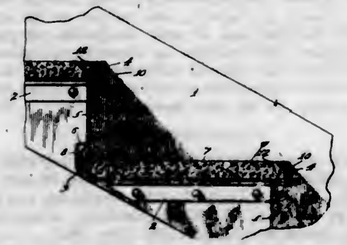
1,244,020. LIFE-SAVING RAFT. STEPHAN BODNAR, Cleveland, Ohio. Filed June 9, 1917. Serial No. 173,687. (Cl. 9—4.)



1. In a life raft, the combination with a cylindrical casing having conical end elements, of a ballast chamber, means for automatically filling said chamber, an elliptical flanged opening opposite said ballast chamber, a cover hingedly engaged therewith, means for securing said cover from within the interior of said cylinder, means for the inlet of light, a rigid air tube secured in one of the conical ends of said casing, the open end of said air tube being above the axial point of said casing, a coil formed in said tube exteriorly of said casing, vertically disposed reinforcing elements in the ends of said cylinder, a pair of oppositely disposed seats pivotally supported by said elements at the axial line of said cylinder, transversely disposed seats arranged in said conical end elements, and internally operated means whereby said raft may be propelled.

2. In a life saving raft, the combination with a cylindrical casing having conical ends rigidly engaged therewith, of a ballast compartment secured to said cylinder, an opening formed in said cylindrical casing opposite said ballast, a cover hinged thereto, means for securing said cover interiorly of said casing, a pair of oppositely disposed vertical plates secured in said casing, seats pivotally supported by said plates, pendent platforms engaged with said seats, transverse seats in the ends of said casings, said transverse seats being pivotally supported, means for the inlet of light, an air inlet at one end of said casing, a spindle slidably engaged at the other end of said casing, handles formed with said spindle interiorly of said casing and contiguous to one of said transverse seats, a bar with said spindle extending at right angles thereto, and a plurality of longitudinally disposed plates hingedly engaged with said bar whereby said cylinder may be propelled.

1,244,021. INTERLOCKING STAIR-FORM. NATHANIEL BOIS, San Francisco, Cal. Filed Aug. 27, 1914. Serial No. 859,266. (Cl. 189—43.)



The combination with a stair form having a tread, a riser connected thereto, and a rearwardly facing channel

formed on the upper edge, said channel comprising a bottom wall, a top wall and a forward side wall, and a depending flange formed on the rear edge of the top wall, of a second stair form having a tread, and a nosing formed on the forward edge thereof, said nosing comprising an upstanding wall and rearwardly extending wall on the upper edge of the last mentioned wall, the forward portion of the tread projecting into said channel in contact with the bottom wall thereof and the nosing fitting within the channel in continuous contact with the side wall and top wall thereof, the depending flange extending below the plane of the top wall of the nosing.

1,244,022. STRAIGHT-SIDE DEMOUNTABLE RIM. WILLIAM N. BOOTH, Detroit, Mich., assignor to Kelsey Wheel Company, Inc., Detroit, Mich., a Corporation of New York. Filed Dec. 15, 1913. Serial No. 806,819. (Cl. 152—21.)



1. As an article of manufacture, a band for vehicle wheels of the demountable rim class, said band being provided with two similar, spaced driving lugs, stamped up from and integral with the material of said band, said lugs being severed from said band along their juxtaposed edges so as to form abrupt shoulders, substantially as described.

2. In a vehicle wheel, the combination with the wheel-felly and the felly-band thereon; of a demountable rim adapted to be fitted around said felly-band and provided with a driving plate on its inner face, said felly band being provided with two spaced driving lugs adapted to interlock with said plate, said lugs being stamped up from and integral with the material of said band, substantially as described.

3. In a vehicle wheel, the combination with the wheel-felly and the felly-band thereon, of a demountable rim adapted to be fitted around said felly-band and provided with a driving plate on its inner face, said felly band being provided with two similar spaced driving lugs, stamped up from and integral with the material of said band, said lugs being severed from said band along their juxtaposed edges so as to form abrupt shoulders, substantially as described.

4. As an article of manufacture, a band for vehicle wheels, of the demountable rim class, said band being provided with a driving lug, stamped up from and integral with the material of said band, said lug having a transverse edge severed from said band so as to form an abrupt shoulder, substantially as described.

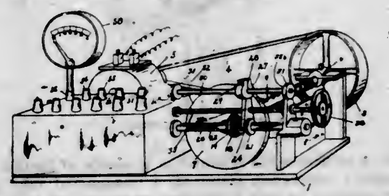
5. In a vehicle wheel, the combination with the wheel-felly and the felly-band thereon; of a demountable rim adapted to be fitted around said felly-band, one of said members being provided with a driving plate on its juxtaposed face and the other member being provided with two spaced driving lugs adapted to interlock with said plate, said lugs being stamped up from and integral with the material of said member, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,244,023. CALIBRATING-MACHINE. FRANK J. BOWEN, Utica, N. Y., assignor of one-third to Fred C. McCoy and one-third to Patrick G. Duggan, Utica, N. Y. Filed July 3, 1916. Serial No. 107,319. (Cl. 73—51.)

1. In a calibrating machine, a common driven shaft, bevel gears mounted upon said shaft, means having bevel gears for actuating speedometers, said last named bevel gears in mesh with said first named bevel gears, an electric motor for revolving said shaft, whereby to determine the degree of inaccuracy of a speedometer, and a screw bolt and traveler for controlling the velocity of said driven shaft.

2. In a calibrating machine, a common driven shaft, gears mounted upon said shaft, means having gears for actuating a speedometer, said last named gears in mesh with said first named gears, a roller mounted upon said shaft, a spring pressed disk engaging said roller, means for adjusting the degree of tension of said spring pressed disk, and a screw bolt for changing the position of said roller with reference to said disk, whereby to control the velocity of revolution of said shaft to determine the degree of inaccuracy of a speedometer.

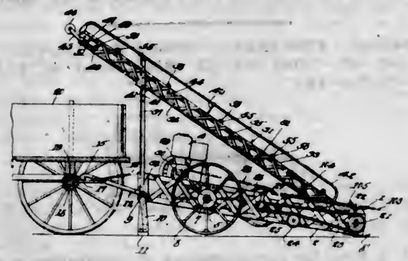


4. In a calibrating machine, a common driven shaft, bevel gears mounted upon said shaft, means having bevel gears attached for actuating speedometers, said last named bevel gears in mesh with said first named bevel gears, a roller mounted upon said shaft, a disk adapted to make contact with said roller, and a screw bolt for moving said roller relative to said disk, whereby said common driven shaft may be revolved at a given velocity.

7. In a calibrating machine having a speedometer, a common driven shaft, detachable means for actuating a second speedometer, gears mounted upon said driven shaft for actuating said speedometers, means connecting said detachable means with said gears, a roller and disk for revolving said driven shaft, a screw bolt for moving said roller with reference to said disk, whereby to vary the velocity of revolution of said driven shaft, and a spring for holding said disk against said roller.

[Claims 3, 5, 6, and 8 not printed in the Gazette.]

1,244,024. LOADER. EUGENE BROWN, Colfax, Wash. Filed Oct. 30, 1915. Serial No. 58,847. (Cl. 198—8.)



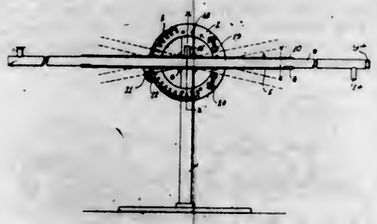
1. In a device of the class described, a body; ground wheels carried by the body intermediate the ends of the body; an incline pivoted for adjustment to the body; means for sustaining the incline at different angles with respect to the horizontal; an engine on the body; a conveyer traversing the incline; means for operatively connecting the engine with the conveyer; vehicle-engaging towing means assembled with the body; and a ground-engaging foot pivoted to the extreme forward end of the body in spaced relation to the wheels, the foot cooperating with the rear end of the body to lift the wheels off the ground when the body is advanced by the vehicle-engaging towing means.

[Claim 2 not printed in the Gazette.]

1,244,025. VISCOMETER. CHARLES BROWNING, Jr., Sacramento, Cal. Filed Aug. 16, 1913. Serial No. 785,060. (Cl. 265—11.)

1. A structure for testing the viscosity of liquids comprising a standard, a transparent tube movable on said

standard and adapted to receive and discharge a liquid, and a sphere of greater specific gravity than the liquid disposed in rolling relation within said tube, and means for holding the tube at definite angles of inclination, as described.



2. A structure for testing the viscosity of liquids comprising a supporting standard, a transparent tube pivotally mounted on said supporting standard and adapted to receive and discharge a liquid, a sphere disposed in rolling relation within said tube and adapted to move through the liquid, said tube being capable of being moved on its pivotal point, and means whereby it may be fixed in any desired position, as described.

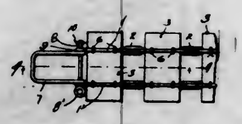
5. A structure for testing the viscosity of liquids comprising a standard, a transparent tube pivotally mounted on said standard so that its angle of inclination to the horizon may be varied, said tube being provided with a jacket, and a sphere disposed in rolling relation within said tube, as described.

8. A structure for testing the viscosity of liquids comprising a tube, means for holding the tube at definite angles of inclination, such tube being arranged to receive and discharge a liquid, and a perfect sphere disposed in rolling relation within the tube, as described.

9. A structure for testing the viscosity of liquids comprising a jacketed tube, means for fixing the tube at definite angles of inclination, such tube being arranged to receive and discharge a liquid, and a perfect sphere arranged in rolling relation within the tube, as described.

[Claims 3, 4, 6, and 7 not printed in the Gazette.]

1,244,026. TIRE-TREAD. ROBERT M. CALLAWAY, Monett, Mo. Filed Oct. 25, 1915. Serial No. 57,835. (Cl. 152—14.)

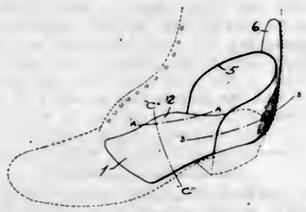


1. A tread for tires comprising in combination, a pair of spaced parallel chains consisting of alternate long and short links, and tread blocks secured in corresponding long links, said tread blocks maintaining said chains in spaced parallel relation.

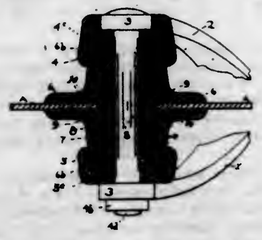
[Claims 2 and 3 not printed in the Gazette.]

1,244,027. COMBINATION ARCH-SUPPORT AND HEEL-CUSHION. JAMES P. CALVEY, Youngstown, Ohio, assignor of one-half to Charles Polaner. Filed Dec. 14, 1916. Serial No. 136,871. (Cl. 36—71.)

In a device of the class described, a sole composed of two layers, an arch built up upon said sole, this arch consisting of several layers of flexible material, inner layers of said arch provided with V-shaped channels running at right angles to the general direction of the sole, a counter, said counter attached to the back portion of the sole, a tab, said tab attached to said counter at the top and at the central portion of said counter, and an elastic perforated cushion member inserted between the two layers of the sole, said elastic perforated cushion member forming a heel cushion when so inserted, all substantially as described for the purpose set forth.



1,244,028. PLOW-COLTER. WILLIAM W. CAMERON, La Crosse, Wis., assignor to La Crosse Plow Company, La Crosse, Wis. Filed Oct. 1, 1915. Serial No. 53,597. (Cl. 97—48.)



1. In a plow colter, the combination of a fork, a bearing mounted between the arms of the fork, with a colter blade mounted to rotate around the bearing, a hub for the blade comprising sections rigidly secured to the sides of the blade respectively and to each other with portions of each hub section passing through the space between the hub and the orifice of the blade.

2. In a plow colter, the combination of a fork, and a bearing mounted between the arms of the fork, with a colter blade mounted to rotate around the bearing and having a center orifice larger than the diameter of the bearing, a hub for the blade to rotate upon the bearing comprising sections secured to the sides of the blade respectively, orifices within the sections fitting the bearing surfaces, each section of the hub having a laterally projecting half-ring boss passing through the space between the bearing and the orifice in the blade and entering a corresponding recessed half-ring in the face of the opposite hub section.

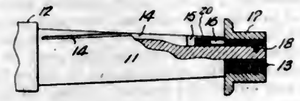
3. In a plow colter, the combination of a fork, and a bearing mounted between the arms of the fork, with a colter blade mounted to rotate around the bearing and having an orifice larger than the diameter of the bearing, a hub for the blade to rotate upon the bearing comprising sections rigidly secured to the sides of the blade respectively and concentric therewith and having orifices fitting the bearing, each section having a laterally projecting element passing through the orifice in the blade and entering a corresponding recess in the face of the opposite hub section.

[Claim 4 not printed in the Gazette.]

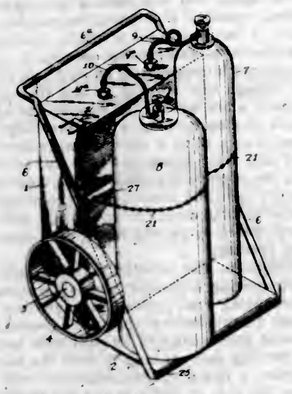
1,244,029. SELF-LUBRICATING AXLE. JAMES J. CARNEY, Bethel, Vt. Filed July 26, 1915. Serial No. 42,043. (Cl. 64—27.)

2. In a device of the character described, an axle having the bearing surface thereof terminating at one end in a shoulder and at the opposite end in a threaded portion, a plurality of channels formed in the bearing portion of said axle converging from the shoulder to a point adjacent the threaded portion, a single channel deeper than the converging channels communicating therewith and extending through the threaded portion of the axle, a nut on the threaded portion, a tube inserted in said last mentioned channel and reduced by cutting away to clear the threads of said nut, and a channel formed in the nut transversely of the threads thereof, positioned to form with the reduced portion of the tube an orifice for the introduction of a grease gun.

[Claim 1 not printed in the Gazette.]



1,244,030. PORTABLE GAS WELDING OR CUTTING EQUIPMENT. HENRY CAVE, Elizabeth, N. J., assignor to Davis-Bournonville Company, New York, N. Y., a Corporation of New York. Filed Apr. 25, 1917. Serial No. 164,324. (Cl. 158—27.4.)



1. A cabinet truck for gas welding and cutting equipment, comprising a cabinet shallow from front to back in comparison with its height and width and having a door at the back, a pair of wheels on the cabinet, whereby it is rollingly supported with its lower end near the ground, a rest projecting forward from the lower end of the cabinet adapted to carry gas tanks, and a handle secured to the cabinet, the cabinet constituting a frame for the truck.

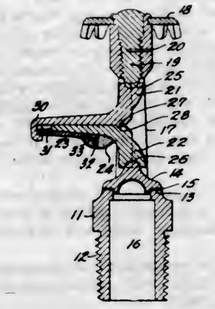
2. A wheeled carrier for gas welding and cutting equipment, comprising a cabinet having a door, and an external support for gas tanks, and means for locking said door, in combination with clamps for the tanks on the external support, and operating means for the clamps inside the cabinet.

6. A portable welding and cutting equipment, comprising a cabinet shallow from front to back as compared with its height and width, an external rest for gas tanks, carrying wheels and a handle, the cabinet being provided with a back door, an arched rest for hose secured to the inside of its front wall, and a perforated shelf for torch tips beneath said hose rest.

7. In a portable gas welding and cutting outfit, the combination with a torch and hose, of a case therefor having gas passages through its wall and connections for the attachment of pipes leading from external sources of supply, and pressure regulators, to which the torch hose are attached, mounted fixedly upon the interior of the wall in communication with said gas passages and external connections.

[Claims 3 to 5 not printed in the Gazette.]

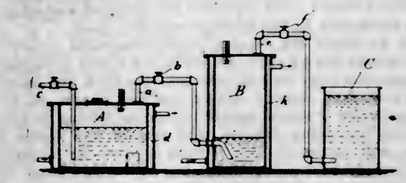
1,244,031. SPRINKLER-HEAD. ELMO M. CHANDLER, South Norfolk, Va. Filed Mar. 9, 1917. Serial No. 153,759. (Cl. 169—5.)



1. In a sprinkler head, a body, a yoke, a valve, a strut held in compression between the yoke and valve comprising a pair of L-shaped members having the bodies thereof in engagement and projecting laterally from the yoke, feet on said bodies oppositely directed and engaging one with the yoke and the other with the valve, said strut members being pivotally connected out of line with the points of support of the strut, a hook on one strut member projecting beyond the end of the other member, a key engaging at one end in said hook and engaging toward its other end with the second strut member, flanges on the first mentioned strut member embracing the second mentioned strut member, and flanges on the second member embracing the key, and a mass of fusible material securing the key to the second strut member.

2. In a sprinkler head, a body, a yoke, a valve, a strut comprising a pair of hingeably connected members held in compression between the yoke and valve, said strut members each having a laterally directed fastening portion, a key on the lower side of the strut engaging the laterally directed strut portions and holding them against separation, a mass of fusible material exposed on the lower side and holding the key to the strut, one of said strut members having a recess extending part way of the strut width, and a rib on the other strut member engaging in said recess, forming a hinge joint between the members and holding the members against separation by force applied in a horizontal plane.

1,244,032. MANUFACTURE OF HYDROFLUORIC ACID FROM SILICON FLUORID. HOWARD FIELD CHAPPELL, New York, N. Y. Filed Apr. 17, 1917. Serial No. 162,719. (Cl. 23—1.)



5. The process of producing hydrofluoric acid from hydrofluosilicic acid, which comprises heating an aqueous solution of hydrofluosilicic acid to convert it into hydrofluoric acid, silicon fluorid and water vapor, and maintaining the resultant compounds at a temperature that will cause the water vapor to act upon the silicon fluorid to produce hydrofluoric acid and silicon hydrate, and removing the hydrofluoric acid from the silicon hydrate.

[Claims 1 to 4 not printed in the Gazette.]

1,244,083. CALCIMINE AND PROCESS OF MAKING SAME. ROBERT W. CORNELISON, Somerville, N. J., assignor to The Cott-A-Lap Company, Somerville, N. J., a Corporation of New Jersey. Filed Mar. 27, 1914. Serial No. 827,601. (Cl. 134—46.)

1. A prepared calcimine comprising a body containing, in addition to a measured quantity of solid ingredients the bulk of which is insoluble in water, effervescent material which will assist the disintegration of the body when in contact with water, together with color-lake-producing material, and color units containing lake-forming coloring matter complementary to said coloring matter, and effervescent material distributed throughout the color units to assist their disintegration when in contact with water.

2. In the art of preparing a colored calcimine, the step which consists in bringing together a color-lake-producing material, a calcimine body, and lake-forming coloring matter.

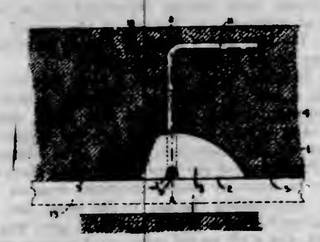
3. A calcimine comprising lake-forming coloring matter, and a calcimine body which contains a color-lake-producing material.

4. In the art of preparing colored calcimine, the improvement which consists in bringing together a lake-forming coloring matter and a calcimine body which contains color-lake-producing material.

5. A calcimine comprising lake-forming coloring matter, and a calcimine body containing dye-precipitating material.

[Claims 6 to 9 not printed in the Gazette.]

1,244,084. FLUSH INSERT FOR CONCRETE WORK. DENNIS L. CUMMINGS, Boston, Mass. Filed Apr. 12, 1917. Serial No. 161,486. (Cl. 72—105.)

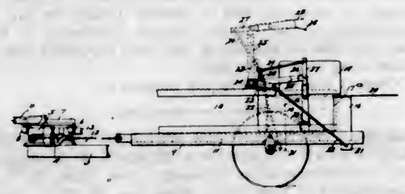


1. An insert for concrete work comprising a box-like element having an open side which is adapted to be placed against the form used for said concrete work, the opposite sides of said element having notches therein on their edges, and a U-shaped anchoring member having its bridge portion extending through said notches and across the open side of the box-like element and its legs extending parallel to said sides and provided with means for anchoring said member in the concrete, said member and boxlike element being separable for shipment and adapted for assembling as the device is put into place.

2. An insert for concrete work comprising a box-like element having an open side which is adapted to be placed against the form used for said concrete work, the opposite sides of said element having notches therein on their edges, and a U-shaped anchoring member having its bridge portion extending through said notches and across the open side of the box-like element and its legs extending parallel to said sides, the ends of said legs being bent laterally to provide means for anchoring said member in the concrete, said member and boxlike element being separable for shipment and adapted for assembling as the device is put into place.

1,244,085. HAY-PRESS. JOSEPH DAIN and HERBERT B. SPERRY, Ottumwa, Iowa, assignors to Dain Manufacturing Company of Iowa, Ottumwa, Iowa, a Corporation of Iowa. Filed July 1, 1910. Serial No. 569,924. (Cl. 100—25.)

1. In a hay-press, the combination of a bale-case having a feeding opening, a plunger, means for actuating said plunger, a swinging arm pivotally mounted on the bale-case adjacent to the feeding opening, a feeder-head pivotally mounted intermediately on said arm and adapted to operate through said opening to feed the hay into the baling chamber, a bracket located between the axis of said arm and said feeding opening, a link pivotally connected to said bracket at a point a short distance above the pivotal axis of said arm on said bale-case and pivotally connected with the upper end portion of the feeder-head, and means positively actuated by the movement of the plunger for operating said swinging arm to move the feeder-head into and out of the feeding opening as the plunger reciprocates.



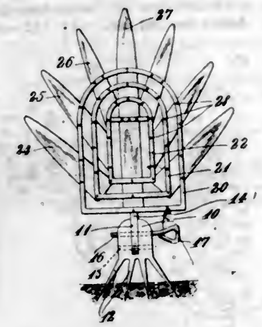
2. In a hay-press, the combination of a bale-case having a feeding opening, a plunger, means for actuating said plunger, a swinging arm pivotally mounted on the bale-case adjacent to the feeding opening, a feeder-head pivotally mounted intermediately on said arm and adapted to operate through said opening to feed the hay into the baling chamber, a bracket located between the axis of said arm and said feeding opening, a link pivotally connected to said bracket at a point a short distance above the pivotal axis of said arm on said bale-case and pivotally connected with the upper end portion of the feeder-head, and means adapted upon the movement of the plunger toward the plunger-actuating means to cause said arm to swing about its axis for carrying said feeder-head upward out of said feeding opening.

3. In a hay-press, the combination of a bale-case having a feeding opening, a plunger, means for actuating said plunger, a swinging arm pivotally mounted on the bale-case adjacent to the feeding opening, a feeder-head pivotally mounted intermediately on said arm and adapted to operate through said opening to feed the hay into the baling chamber, a link pivotally connected with the bale-case between the axis of said arm and the feeding opening and pivotally connected with the upper end portion of the feeder-head, a second arm adapted to swing with said first-named arm, and a second link pivotally connected with said second arm and with the plunger forward of the axis of said two arms.

4. A hay-press, comprising a bale-case having a compression chamber and a feeding opening thereinto adjacent to one end of the bale-case, a plunger operating in said bale-case and movable away from said end of the bale-case on its compression stroke, pull-power mechanism at the opposite end of the bale-case for operating said plunger, means at the lower side of the bale-case for operatively connecting the power mechanism with the plunger, a feeder mounted on the bale-case between said feeding opening and the power end of the press and movable into the feeding opening, whereby the feeding end of the press may be backed up close to the stack with the feeding opening in close proximity thereto, the bale will be delivered away from the stack, and access from the stack to the feeding opening will be unobstructed by the feeder, and means operatively connecting the feeder with the plunger-operating mechanism.

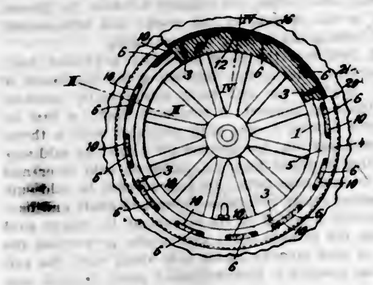
1,244,086. DEFENSIVE IMPLEMENT. JOZEF DARMOFALSKI, Middlefield, Conn. Filed July 6, 1917. Serial No. 179,008. (Cl. 89—36.)

1. In a device of the class described, the combination with a base, means for engaging said base fixedly with a support, a frame hingedly engaged with said base, means for supporting said frame in a vertical or diagonal position, and a plurality of radiating arms rigidly engaged with said frame.



2. In a device of the class described, the combination with a base, and means for attaching said base to a foundation, of a sectional frame pivotally engaged with said base, a plurality of magnetized arms extending outwardly and upwardly from said frame and means for engaging said frame with said base in different angular relation.

1,244,087. VEHICLE-WHEEL RIM. ANTONIO DE ROSA, Brooklyn, N. Y. Filed June 10, 1916. Serial No. 102,849. (Cl. 152—21.)



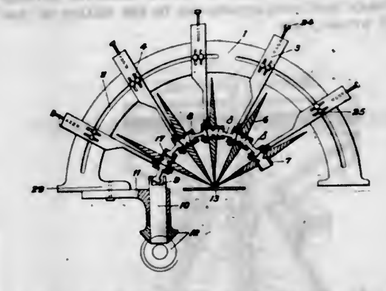
1. A vehicle wheel rim having a removable flange and means for detachably attaching said flange to the rim consisting of a series of rigidly mounted spaced hooks projecting laterally from said rim and adapted to enter a series of correspondingly spaced pockets formed in said flange and to permit a limited rotation of said flange to engage said hooks, and wedging means engaging said rib and said flange adapted to lock said flange in its rotated position.

[Claims 2 to 6 not printed in the Gazette.]

1,244,088. FRUIT-SLICING MACHINE. GEORGE W. DREW, Oakland, Cal. Filed Oct. 4, 1911. Serial No. 652,841. (Cl. 64—30.)

1. In a slicing machine, the combination of a frame, a slotted semicircular supporting beam, the ends resting upon said frame, a series of hangers assembled upon said supporting beam in semi-circular order and on radial lines, a series of rotatable tubular shaft cutter mountings journaled in the convergent lower ends of said hangers, a knuckle joint member adapted to enter the opposite ends of the bore of said tubular shaft cutter mountings, and a power transmission connection to one of the knuckle joint members to rotate all of the knuckle joint members and tubular shaft cutter mountings.

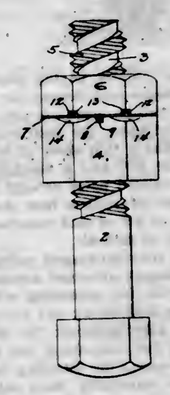
2. In a slicing machine, the tubular shaft cutter mounting 7, having collar parts 14 and 18 for the purposes described and body part longitudinally bored or recessed to receive a knuckle joint member.



7. In a slicing machine the combination of a hanger 3 with its journal end offset to one side, a rotatable shaft cutter mounting journaled in said hanger, having an integral cutter carrier flange 10 turned in.

[Claims 3 to 6 not printed in the Gazette.]

1,244,089. NUT-LOCK. JOSEPH W. DROLL, Oakland, Cal. Filed Nov. 1, 1916. Serial No. 128,890. (Cl. 151—17.)



1. In a nut lock, a bolt having reverse threads thereon, a clamping nut and a locking nut engaging said threads, a flexible washer lying between said nuts and having projections thereon adapted to engage in pockets in said nuts, and depressions in the clamping nut below the projections on the washer engaging the locking nut for permitting the flexure of the washer out of engagement with the lock nut.

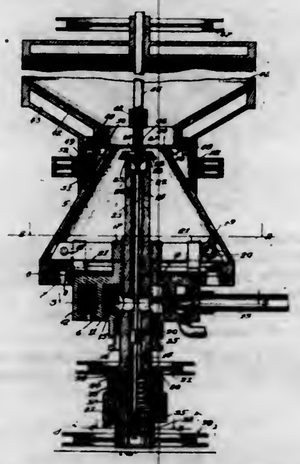
3. In a nut lock, a bolt having reverse threads thereon, a clamping nut engaging one of said threads, a locking nut engaging the other of said threads, a seat in the face of said clamping nut, a resilient washer having a projection disposed in said seat whereby rotation of the washer with respect to the clamping nut is prevented, a seat in the face of said locking nut, a projection on said washer adapted to enter said second seat and a depression in the face of the clamping nut into which the washer is adapted to move when said last named projection is moved from its seat by rotation of the clamping nut.

[Claim 2 not printed in the Gazette.]

1,244,040. CARBURETER. MICAEL A. DUS and DIXON E. WASHINGTON, Paris, France. Filed Sept. 30, 1915. Serial No. 53,219. (Cl. 261—57.)

1. In a carbureter, a casing having a primary air inlet, means for directing a sheet of fuel across the path of

air admitted through said primary inlet, and a secondary air inlet provided with means for directing air therefrom in a thin sheet across the path of air admitted through said primary inlet and subsequent to the mixing of fuel with said primary air.



2. In a carbureter, a chamber having converging walls and openings at the larger end thereof for admitting a concentric ring of air thereto, means located centrally of said ring of air and adjacent the restricted portion of said chamber for directing a thin sheet of fuel outwardly across the path of said air, and a secondary air inlet located at the most restricted point of said chamber and provided with means for directing a thin sheet of air inwardly across the path of air of said chamber subsequent to the admission of fuel to said air.

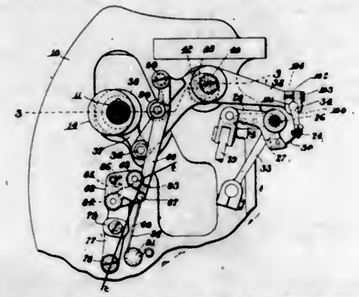
3. In a carbureter, a conoidal-shaped casing having its base provided with openings arranged circularly around the outer portion thereof for admitting air thereto, a conduit arranged within said casing and provided with a discharge opening at a point adjacent the restricted end of said casing, a valve for controlling the discharge of fuel from said conduit, means for directing fuel thus discharged in a thin sheet outwardly from said discharge end across the path of movement of the air within said casing, and means for adjusting the position of said discharge opening relative to said casing.

4. In a carbureter, a conoidal casing having a primary air inlet for admitting a concentric ring of air into the base of said casing, means for discharging fuel outwardly from the central portion of said casing adjacent the restricted end thereof in a thin sheet transversely of the direction of movement of air in said casing, and means for adjusting said air inlet and simultaneously adjusting the position of said fuel discharging means in the direction of the axis of said casing.

5. In a carbureter, a conoidal casing, means for admitting air into said casing at the base thereof, a conduit extending along the axis of said casing, means for supplying liquid fuel to said conduit, said conduit being provided with a discharge opening located adjacent the restricted portion of said casing and provided with a valve having duplicate valve members, one of which is slightly open when the other is closed, and the other of which is provided with an abutment member against which air in passing through said casing impinges to open said valve, means for adjusting the position of said valve along the axis of said casing, means for exerting resilient pressure tending to close said valve, means for adjusting the amount of said pressure, means for regulating the amount said valve is permitted to open, and means for controlling the amount of air admitted into said casing.

[Claims 6 to 9 not printed in the Gazette.]

1,244,041. PRESSER-FOOT MECHANISM FOR SEWING-MACHINES. EDWARD ERICKSON, Cliftondale, Mass., assignor to Victor Shoe Machinery Company, Lynn, Mass., a Corporation of Massachusetts. Filed July 3, 1916. Serial No. 107,868. (Cl. 112—20.)



1. In a device of the class described, a work support; an oscillating curved needle; a presser foot; a lever therefor; a link pivotally connected at one end to the rear end of said lever; a pivot member for the opposite end of said link; a pivot for said lever intermediate its ends; an oscillating member on which said pivot is eccentrically mounted; and means for transmitting movement to said oscillating member.

19. In a device of the class described, a presser foot; a lever therefor; means for controlling the movement of said lever; a pivot for said lever eccentrically mounted upon a cylindrical support; cam-controlled mechanism for automatically oscillating said support to raise the presser foot prior to the feeding of the work; and independent means for raising the presser foot manually.

23. In a device of the class described, a presser foot; a lever therefor; means for controlling the movement of said lever; a pivot for said lever eccentrically mounted upon a cylindrical support; a revoluble shaft; a cam secured thereto having a cam path provided with a throw and a widened portion; mechanism for actuating said support including a radial lever; a roller on said lever and positioned in said cam path; an arm secured to said support; a member freely revoluble about said shaft and having a projection adapted in its movement to engage said arm to raise the presser foot; and means preventing the movement of said member about said shaft until the roll on said lever reaches a predetermined point in said cam path.

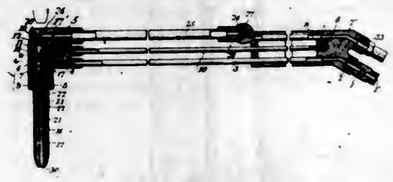
24. In a device of the class described, a pivoted lever; a presser foot carried thereby; a revoluble shaft; an eccentric mounted thereon and revoluble therewith; an arm pivotally mounted on said lever; a roller carried thereby normally held in the path of said eccentric; means for controlling the movement of said presser foot lever; means for actuating said lever at predetermined times; and a thread measuring device actuated by the movements of said arm about its pivot.

33. In a device of the class described, a pivoted lever; a presser foot carried thereby; means for varying the position of said lever for various thicknesses of material; a member provided with a stop projection; a thread sheave on each side of said projection; an arm pivoted to said presser foot lever and provided with a thread engaging finger; means for normally retaining said finger in contact with the thread on the face of said projection; and a revoluble member for actuating said arm during each stitch forming operation.

[Claims 2 to 18, 20 to 22, and 25 to 32 not printed in the Gazette.]

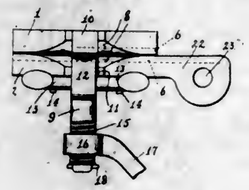
1,244,042. OX-ACETYLENE CUTTING AND WELDING TORCH. THOMAS A. ERRETT, Portland, Oreg., assignor of one-third to T. L. Hanning and one-third to Fred Robbins, Portland, Oreg. Filed Feb. 14, 1917. Serial No. 148,615. (Cl. 158—27.4.)

A cutting and welding torch comprising a torch head with ducts therein, valve-regulated pipes communicating with said ducts and having connection with a handle, said head having a chambered portion with a shoulder in its wall, an oxygen cutting tip fitted in said chambered portion and provided with a central duct communicating with one of the ducts in the head and through which oxygen is admitted, said tip having a collar engaging said shoulder and provided with slits in the marginal edge thereof, a space above the shoulder forming an oxygen chamber and with which a supply duct in the head com-



municates, the space about the collar below said shoulder forming a mixing chamber which communicates through said slots in the oxygen chamber, said tip having a series of annular recesses communicating with fluted channels, an outer preheating tip fitted over said oxygen tip and fitted within said head and having threaded connection therewith, a slight space intervening between the inner end of said outer preheating tip and said collar, forming communicating passageways between the mixing chamber and said annular recesses.

1,244,043. CABLE-PULLING CLAMP. WILLIAM G. B. EULER, San Francisco, Cal., assignor of one-fourth to Francis W. Cain, Las Plumas, Cal., and one-eighth to Claude F. Benham, Alameda, Cal. Filed Mar. 21, 1917. Serial No. 156,446. (Cl. 24—135.)



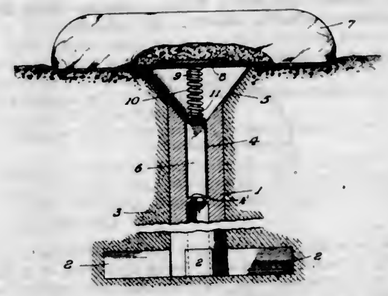
3. A cable-pulling clamp comprising a pair of opposing pivotally connected groove-faced jaws, means for securing the same in clamping relation, and a connection carried by one of said jaws for attachment to a pulling means, said connection being a cable-supporting extension of one of the jaws in line with its grooved face.

4. A cable-pulling clamp comprising a pair of opposing pivotally connected groove-faced jaws having interfitting ears, a spring actuated pin slidably seated in one of said jaws and bearing on an ear of the other jaw for normally holding said jaws together, one of said jaws having a cable-supporting extension in line with its grooved face for attachment to a pulling means, a clamping bolt for securing said jaws in clamping relation, a pivotal connection between said bolt and one of said jaws, whereby said bolt may be swung clear of the other jaw, and a handled nut for clamping said bolt.

5. A cable-pulling clamp comprising a pair of opposing connected jaws, a spring normally holding said jaws together, a clamping bolt for securing said jaws in clamping relation, a pivotal connection between said bolt and one of said jaws, whereby said bolt may be swung clear of the other jaw, a handled nut for clamping said bolt, and a longitudinally grooved cable supporting extension of one of said jaws for attachment to a pulling means.

[Claims 1 and 2 not printed in the Gazette.]

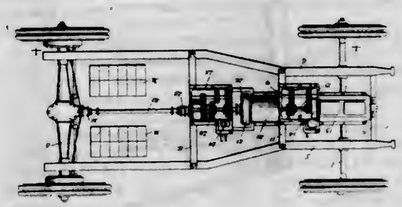
1,244,044. BASE FOR BASE-BALL GROUNDS. SYDNOR M. FALCONER, Sr., Washington, D. C., assignor of one-half to Hope H. Falconer, Washington, D. C. Filed Apr. 9, 1917. Serial No. 160,734. (Cl. 46—4.)



1. A base for base ball games, comprising a vertical socket anchored below the surface of the ground having a flaring mouth at its upper end, a spring anchored in the lower and narrow portion of the socket to hold its lower end in fixed position, said spring extending through the flared or enlarged portion of the tube to permit limited lateral movement, and a base secured to the upper end of the spring.

[Claim 2 not printed in the Gazette.]

1,244,045. AUTOMOBILE. ROLAND S. FEND, Chicago, Ill., assignor to Woods Motor Vehicle Company, Chicago, Ill., a Corporation of Illinois. Filed June 26, 1915. Serial No. 36,594. (Cl. 21—90.)



1. A motor vehicle having a driving axle, an electric dynamo and a gasolene engine for propelling the vehicle, ratio changing gears between the engine and dynamo by means of which the engine and dynamo may be directly connected, or connected to operate at different speeds, a second ratio changing gear mechanism, a friction clutch interposed between the dynamo and said second gear mechanism, and a propeller shaft operatively connecting the second ratio changing gear mechanism with the driving axle.

2. A motor vehicle provided with a storage battery and having a gasolene engine, a ratio changing gear mechanism directly connected therewith, an electric dynamo with its armature directly connected with said ratio changing gear mechanism, a friction clutch, a second ratio changing gear mechanism, a propeller shaft and a driving axle, arranged in the order named from the front to the rear of the vehicle, said engine and dynamo being adapted to either separately, or together, propel the vehicle.

3. In a motor vehicle, the combination with a gasolene engine and an electric dynamo of a sliding gear transmission interposed between the engine and the dynamo and having a neutral position in which the engine and dynamo are disengaged whereby the dynamo may be op-

erated without the engine, and connecting means including the clutch and second sliding gear transmission for operatively driving the rear wheels of the vehicle.

1,244,046. PROJECTILE. ROBERT FRENCH, Stanmore, near Sydney, New South Wales, Australia. Filed July 20, 1917. Serial No. 181,681. (Cl. 102—29.)

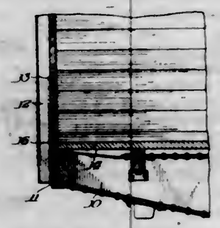


1. A projectile of the shrapnel type, comprising a casing, and a charge within said casing consisting of a plurality of substantially flat plate-like members constructed to retain their plate-like form when projected from said casing by the explosion of the projectile.

2. A projectile of the shrapnel type, comprising a casing, and a charge within said casing consisting of a plurality of members arranged transversely of said casing with their adjacent surfaces in contact, and constructed and arranged on the explosion of the projectile to be projected laterally of the line of flight without change of form.

[Claims 3 to 11 not printed in the Gazette.]

1,244,047. CAR-FLOOR CONSTRUCTION. WILLIAM E. FOWLER, Sr., Chicago, Ill., assignor to The Fowler Car Company, Chicago, Ill., a Corporation of Illinois. Filed May 22, 1915. Serial No. 29,795. (Cl. 105—192.)

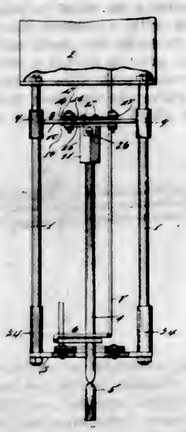


1. In a railway car, the combination of a side wall the lower edge of which is provided with a kerf substantially midway between the edges thereof, a floor board terminating substantially in the plane of said kerf, and a metallic angle located at the junction of said side wall and floor and having one leg projecting into said kerf, substantially as described.

2. In a railway car, the combination of a side wall, the lower board of which is rabbeted and kerfed in the plane of the rabbet, a floor, the outer edge of which projects into said rabbet, and an angle lying on said floor and having a leg projecting into said kerf, substantially as described.

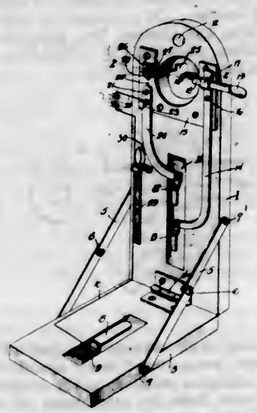
1,244,048. CARBON-HOLDER FOR ARC-LIGHTS. JOSEPH GELB, New York, N. Y. Filed Feb. 19, 1916. Serial No. 79,315. (Cl. 176—119.)

A carbon holder consisting of a support, a plate on each side of said support provided with openings, insulating material interposed between said plates and said support, bolts passing through said plates and said support but insulated from said plates and support, said plates and holder being further provided with aligning openings located between said bolts, a socket contacting with the under plate, and removable bolts passing through the



openings last named and engaging said socket, said last named bolts being out of contact with said plates and holder.

1,244,049. SPARK-COIL-TESTING DEVICE. HENRY P. GOERZ, Marion, S. D. Filed Apr. 7, 1916. Serial No. 89,658. (Cl. 175—183.)



1. In combination with a support, contact plates carried by the support and insulated therefrom, one of said contact plates arranged to contact with the terminals of both the primary and secondary coils of a spark coil and the other of said plates arranged to contact, one with the opposite terminal of the secondary coil and the other with the opposite terminal of the primary coil, means electrically connecting the last mentioned contact plates with each other, said electrical connection provided with a spark gap, and a source of current connecting the contact plate which receives both the secondary and the primary terminals with the contact plate which receives the opposite terminal of the primary coil.

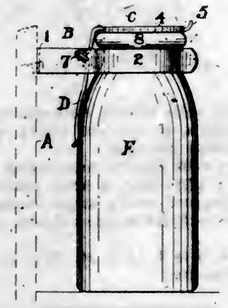
5. In combination with a folding support, contact members mounted upon the said support and insulated therefrom, certain of the said contact plates being resiliently supported from the said support, a source of current, and means mounted upon the said support and associated with the resiliently mounted contact plates and connected to the said source of current for providing a spark gap,

the said means including an adjustable member for adjusting the width of the said gap.

6. In combination with a supporting member, contact plates mounted on the said member and insulated therefrom, resilient arms supporting certain of the said plates, the said arms being insulated from the support, the said support having an opening therein and having the said resilient arms disposed on each side of the opening, means forming a conductor of current from one of the resilient arms to the other, the said means including an adjustable member extending into the said opening and providing a gap adapted to be adjusted in width by the said member.

[Claims 2 to 4 not printed in the Gazette.]

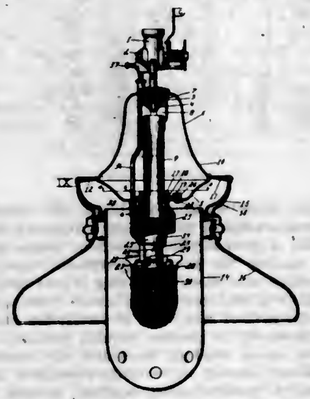
1,244,050. MILK-BOTTLE HOLDER. MARTIN H. GROB, Sharpsburg borough, Pa. Filed Feb. 17, 1917. Serial No. 149,176. (Cl. 248—20.)



1. A combined milk bottle holder and closure, comprising a suspension member adapted to be secured to a support and provided with a pair of integrally curved resilient arms adapted to clasp the neck of a bottle to support the same, a lever pivotally mounted intermediate of its ends between the shanks of said arms, and a lid attached to the upper end of said lever and adapted to be pressed down on the mouth of the bottle by the pressure of the body of the latter against the lower end of said lever, substantially as and for the purpose set forth.

[Claims 2 and 3 not printed in the Gazette.]

1,244,051. GAS-LAMP. FREDERICK J. HUMPHREY and HUBERT R. HUMPHREY, Kalamazoo, Mich. Filed Mar. 21, 1916. Serial No. 85,641. (Cl. 67—94.)

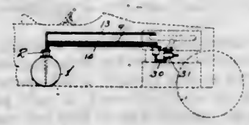


6. In a gas lamp, the combination of a support member, a burner tube disposed through said support member, a burner tip carried by said burner tube and provided with mantle supporting lugs, an adjusting member on said burner tube mounted on said support member for rotative adjustment, a pilot burner, a pilot burner tube mounted on said support member for adjustment so that its burner end may be adjusted between said mantle supporting lugs and the pilot tip is supported at the side of the main burner tip and with its mouth in approximately the plane of the mouth of the main burner tip, a mantle, and a mantle supporting ring engaged with said lugs supporting said mantle so that the pilot is embraced thereby.

7. In a gas lamp, the combination of an inverted burner, a pilot burner disposed at the side of said main burner with its mouth in approximately the plane of the mouth of the main burner tip, the mouth of the pilot tip being beveled toward its outer side, and a mantle supported so that the pilot is embraced thereby.

[Claims 1 to 5 not printed in the Gazette.]

1,244,052. LIQUID-ELEVATING APPARATUS. WEBB JAY, Chicago, Ill. Filed July 15, 1915, Serial No. 39,943. Renewed Sept. 17, 1917. Serial No. 191,901. (Cl. 158—36.)

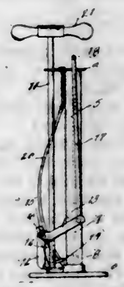


1. In combination with a main reservoir, a valved chamber; a supplemental liquid receptacle; a liquid supply pipe leading from the lower part of the main reservoir to the supplemental receptacle; a suction connection to the valved chamber; a suction and overflow connection between the valved chamber and the supplemental receptacle; the valved chamber having an atmosphere port; a valve controlling said port; a receiver mounted for movement in the valved chamber, and means operatively connecting it with the valve for opening the latter when the receiver is loaded; said receiver being positioned for receiving liquid delivered through the suction and overflow connection for loading said receiver, and means by which the said valve-operating receiver is unloaded of the liquid after operating the valve.

8. In combination with a main reservoir and a relatively elevated supplemental liquid receptacle; a fitting comprising an atmosphere inlet chamber mounted on the main reservoir; means associated with said atmosphere inlet chamber and supplemental receptacle for lifting liquid by suction from the main reservoir to the supplemental receptacle; a float mounted on said fitting and carried thereby within the main reservoir; an index device mounted on the fitting and exposed outside the atmosphere inlet chamber thereof, and operating connections from the float to said index device.

[Claims 2 to 7 and 9 not printed in the Gazette.]

1,244,053. PUMP. LAWRENCE H. JENSEN, St. Charles, Ill. Filed Oct. 12, 1916. Serial No. 125,205. (Cl. 230—27.)



1. A pump comprising a cylinder, a piston operable therein, a member for actuating said piston, a lever carried by said member and operatively connected to said

piston, and means for imparting a movement to said lever independently of its movement with said member.

2. A pump comprising a cylinder, a piston operable therein, a member for actuating said piston, a lever carried by said member and operatively connected to said piston, and a cam member adapted to engage a portion of said lever whereby a movement is imparted to said lever independently of its movement with said member.

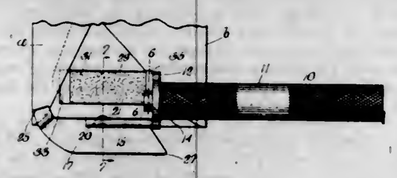
3. A pump comprising a cylinder, a piston operable therein, a member for actuating said piston, a lever carried by and movable with said member and operatively connected to said piston, a lever carried by and movable with said member, a link connecting said lever to said piston, and means for imparting a movement to said lever independently of its movement with said member.

4. A pump comprising a cylinder, a piston operable therein, a reciprocable plunger for actuating said piston, a bell-crank carried by said plunger one arm whereof is operatively connected to said piston, and means engaging the opposite arm of said bell-crank whereby a movement is imparted thereto independently of its movement with said plunger.

5. A pump comprising a cylinder, a piston operable therein, a reciprocable plunger for actuating said piston, a bell-crank carried by said plunger, a link operatively connecting one arm of said bell-crank to said piston, and means engaging the opposite arm of said bell-crank whereby a movement is imparted thereto independently of its movement with said plunger.

[Claims 6 and 7 not printed in the Gazette.]

1,244,054. ENVELOP-SEALING TOOL. HAZEL C. KENDALL, Boston, Mass. Filed Apr. 14, 1916. Serial No. 91,236. (Cl. 120—6.)



1. A sealing tool of the character described comprising a moistening pad holder having a flat under surface and a straight inner edge, a comparatively thin moistening pad on said holder, a presser foot having a flat under surface in a plane with said under surface of said holder and having a straight inner edge portion in proximity and parallel to said straight inner edge of said holder, with a forwardly and inwardly projecting tongue inclined upwardly from the forward inner corner of said presser foot for the purpose described.

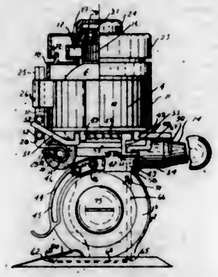
[Claims 2 and 3 not printed in the Gazette.]

1,244,055. ELECTRIC CLOTH-CUTTING MACHINE. ALBERT P. KOMOW, Brooklyn, N. Y., assignor to United States Cloth Cutting Machine Co., Inc., New York, N. Y., a Corporation of New York. Filed Mar. 25, 1916. Serial No. 86,533. (Cl. 164—76.)

1. In a rotary knife cloth-cutting machine, the combination with the rotary knife and framework, of a grinder having a mounting wherein it may slide vertically on the framework of the machine, a knife-guard mounted to swing about a vertical axis toward the rear of the framework, and a common operating member mounted for fore and aft movement on the framework and having means for operating both the guard and the grinder.

5. In a rotary knife cloth-cutting machine, the combination of a grinder having a vertical stem, a guide slidably receiving said stem, a yoke carrying grinder disks on the lower end of the stem, and a fore and aft movable operating slide having an incline for depressing the grinder.

10. In a rotary knife electric cloth-cutting machine, the combination with the knife, of a knife guard hinged at its rear portion to swing about a vertical axis to clear the knife edge.

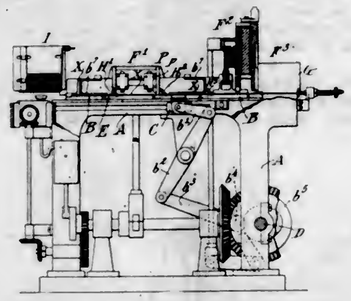


17. In a rotary knife electric cloth-cutting machine, a cloth raiser having a slidable and tilting mounting and linkage for operating the same.

23. In a rotary knife electric cloth-cutting machine, the combination of a knife gear, a knife against the knife gear, a rotary support, and a single central screw for holding the knife to the knife gear and both to said rotary support.

[Claims 2 to 4, 6 to 9, 11 to 16, 18 to 22, and 24 not printed in the Gazette.]

1,244,056. SHEET-METAL-WORKING MACHINE. PETER KRUSE, Brooklyn, N. Y., assignor to E. W. Bliss Company, Brooklyn, N. Y., a Corporation of West Virginia. Original application filed Oct. 8, 1915, Serial No. 54,757. Divided and this application filed Apr. 5, 1916. Serial No. 89,047. (Cl. 113—113.)



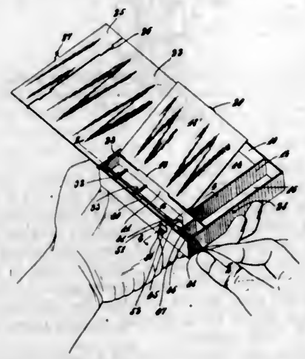
1. In sheet metal working machines, the combination of a feed means adapted to normally advance a sheet of metal beyond a predetermined position, means adapted to operate against the advance peripheral edge of the sheet to position said sheet by moving it rearwardly, and means for moving said positioning means transversely of and out of the path of said sheet to permit the feeding of said sheet forwardly to another working position.

2. In sheet metal working machines, the combination of a feed means adapted to normally advance a sheet of metal beyond a predetermined position, a stop, means adapted to operate against the advance peripheral edge of the sheet to position said sheet by moving it rearwardly against said stop, and means for moving said positioning means transversely of and out of the path of said sheet to permit the feeding of said sheet forwardly to another working position.

3. In sheet metal working machines, the combination of a feed means adapted to normally advance a sheet of metal beyond a predetermined position, a stop for preventing back movement of the sheet, and a reciprocating finger, having an inclined edge, moving crosswise of, and adapted to operate against, the advance edge of the sheet for setting the sheet back against said stop.

[Claim 4 not printed in the Gazette.]

1,244,057. CIGARETTE-BOX. ANTONI KUPISZEWSKI, Auburn, N. Y. Filed July 27, 1917. Serial No. 183,034. (Cl. 206—38.)



1. In a container, the combination with a body having a plurality of compartments, a cover over the main compartment, of a second cover adapted to be disposed over the first named cover, a third cover hinged at the edge of the second named cover, a pair of opposing match clips in one of said compartments, a circular abrading element held relatively at the head of the match, and means for rotating said abrading element, whereby the match may be ignited.

[Claim 2 not printed in the Gazette.]

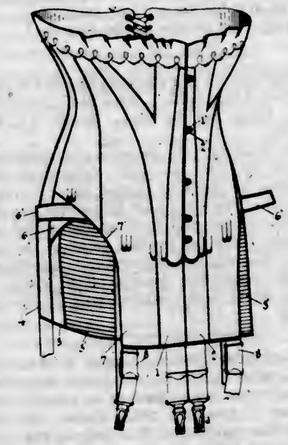
1,244,058. ART OF MAKING PHOSPHORESCENT COLORS. ROBERT F. LANGER, San Francisco, Cal. Filed Mar. 15, 1916. Serial No. 84,258. (Cl. 91—68.)

The art of producing phosphorescent colors which consists of first coating the surface with a basic composition comprising lithium carbonate, sulfur, barium carbonate, water and alcohol and adding a composition consisting of manganese sulfite, strontium carbonate, sodium chlorid, sulfur, anhydrous sodium carbonate and ethyl alcohol thereby altering the influence of light rays according to the nature of the second composition.

1,244,059. CORSET. AUGUSTE J. LECOUTRE, Worcester, Mass., assignor to Royal Worcester Corset Co., Worcester, Mass., a Corporation of Massachusetts. Filed Apr. 13, 1916. Serial No. 90,865. (Cl. 2—73.)

2. In a corset, the combination with an elastic webbing section on each side, at the front and lower part thereof, of a pair of adjusting straps on each side of the corset and overlying said webbing sections, said straps having end portions extending on the outside of the corset and thus conveniently accessible to the wearer for adjustment, a section on each front outside of the corset extending over said adjusting straps and substantially covering the same, and looped hose supporters attached to said covering sections and to the front sections of the corset.

3. In a corset, the combination with a pair of adjusting straps on each side thereof, said straps having end portions extending on the outside of the corset and thus conveniently accessible to the wearer for adjustment, of a section on each front outside of the corset, these outside



sections being independent of and extending over said adjusting straps and substantially covering the same.

[Claim 1 not printed in the Gazette.]

1,244,060. CORSET-STEEL. AUGUSTE J. LECOUTRE, Worcester, Mass., assignor to Royal Worcester Corset Co., Worcester, Mass., a Corporation of Massachusetts. Filed Apr. 12, 1917. Serial No. 161,597. (Cl. 24—222.)



In a corset fastening, the combination with an eye steel provided with slotted eye members, of a steel stud member provided with studs each having a conical head and a straight or cylindrical neck, the latter being of a length, when said steel stud member is covered with cloth, approximately equal to the thickness of the said eye members.

1,244,061. EMPLOYEE'S INDEXING SYSTEM. ALBERT LEGAULT, Montreal, Quebec, Canada. Filed May 17, 1917. Serial No. 169,323. (Cl. 40—63.)



1. In a device of the character described the combination of a cabinet, of a partition arranged within said cabinet, the outer face of said partition having a plurality

of recesses formed therein, blocks adapted to rest within said recesses and projecting beyond said casing, and spring actuated pawls secured to the rear face of said partition, substantially as and for the purpose specified.

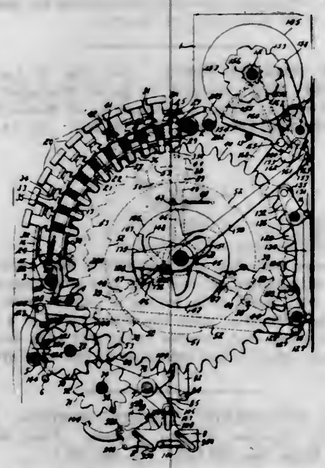
[Claims 2 and 3 not printed in the Gazette.]

1,244,062. COMPOSITION FOR WATERPROOFING AND PRESERVING LEATHER. NORA MCLAUGHLIN, Seattle, Wash. Filed Jan. 2, 1917. Serial No. 140,314. (Cl. 134—15.)

1. A leather cleaning and preserving composition composed of paraffin one part by volume, turpentine six parts by volume, benzin ten parts by volume, oil of cloves ½ part by volume, oil of citronella ½ part by volume, oil of cedar ½ part by volume, thoroughly agitated and mixed together at a temperature above the melting point of the paraffin.

2. A leather cleaning and preserving composition comprising paraffin, turpentine, benzin, oil of cloves, oil of citronella, and oil of cedar substantially in the proportions described.

1,244,063. CASH-REGISTER. HAAKON A. MARTIN, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, (incorporated in 1906.) Original application filed Aug. 23, 1912, Serial No. 716,578. Divided and this application filed July 8, 1915. Serial No. 38,639. (Cl. 235—23.)



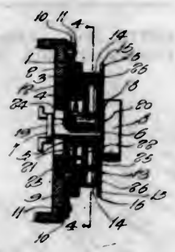
1. In a machine of the class described, the combination of an actuator having movement in but one direction and to a constant extent, of an indicator, connections for adjusting the indicator from the actuator, means for temporarily arresting the actuator at different points in its movement, and means whereby the connections with the indicator are rendered ineffective to further move the latter before the movement of the actuator is resumed.

12. In a machine of the class described, the combination of accounting mechanism, an actuating segment therefor, a movable fulcrum for the segment, manipulative mechanism, and connections controlled thereby for withdrawing the fulcrum for the segment at various points in the latter's movement to control the differential actuation of the accounting mechanism.

[Claims 2 to 11 and 13 to 20 not printed in the Gazette.]

1,244,064. PERMUTATION-LOCK. JOHN HARRISON MATTICE, Clyde, Kans. Filed Mar. 15, 1917. Serial No. 155,127. (Cl. 70—58.)

1. In a lock, the combination of a control member, a lock body, a fastener for securing said body to a support, a lock casing mounted movably on said body, and means operable by movement of said casing for locking and unlocking the control member, said means including a plate movable bodily with the casing until the lock is released and means for then holding said plate against movement, said plate and casing having means operable by turning of said casing independently of said plate, for giving access to said fastener.



2. In a lock, the combination of a control member, a lock body, a fastener for securing said body to a support, a lock casing mounted movably on said support, and means operable by movement of said casing for locking and unlocking the control member, said means including a plate movable bodily with the casing until the lock is released and means for then holding said plate against movement, said casing and plate having openings for alinement when said casing is moved independently of said plate, for giving access to said fastener.

3. In a lock, the combination of a control member, a lock body, a fastener for securing said body to a support, a lock casing mounted movably on said support, and means operable by movement of said casing for locking and unlocking the control member, said means including a plate having a slip connection with said casing for movement bodily therewith until the lock is released, and means for then locking said plate, said plate and casing having means operable by turning of the casing independently of the plate, for giving access to said fastener.

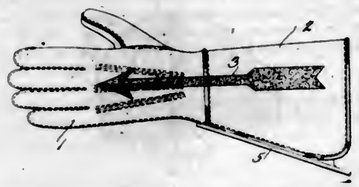
4. In a lock, the combination of a control member, a lock body, a fastener for securing said body to a support, a lock casing mounted movably on said support, and means operable by movement of said casing for locking and unlocking the control member, said means including a plate having a slip connection with said casing for movement bodily therewith until the lock is released, and means for then locking said plate against movement, said plate and casing having openings for giving access to said fastener when alined by turning of said casing after said plate is locked.

5. In a lock, the combination of a body having a fixed horizontal hub provided in its upper side with a slot, a spindle passing through said hub and having a pocket, a tumbler normally received partially in said slot and partly in said pocket to prevent rotation of the spindle, plates rotatably surrounding the hub for retaining said tumbler in said pocket, said plates having notches to permit upward movement of said tumbler and also having pick up means whereby turning of one plate will serve to set the others, a fastener passing through said body for securing it to a support, a cup-shaped casing having a clip connection with said one plate, said casing extending over said fastener, and said plates and casing having openings for alinement to give access to the fastener, said openings being out of alinement until the casing is further turned after setting the plates to release the tumbler.

[Claims 6 and 7 not printed in the Gazette.]

1,244,065. SIGNAL APPARATUS. CLIFFORD GUNTHER MILLER, New York, N. Y. Filed Aug. 8, 1916. Serial No. 113,770. (Cl. 40—28.)

1. In a signal apparatus the combination, with a covering adapted to fit over the hand of a vehicle driver, of indicating means carried on the covering of a character to indicate various future courses of the vehicle, the covering being adapted to be adjusted by the movement of the hand into various positions to display said means for indicating the future courses of the vehicle one at a time, as desired.

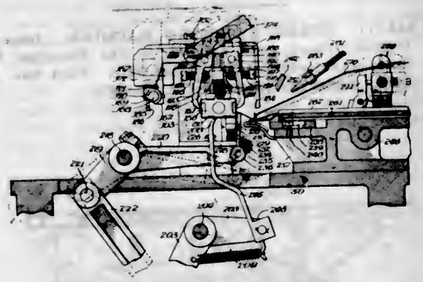


2. In signal apparatus, the combination, with a covering adapted to be sustained by the arm of a vehicle driver, of legends carried by said covering of a character to indicate the proposed future course of the vehicle when displayed, the said legends being arranged relative to each other so as to be adapted to be exposed one at a time only by the movement of the arm.

3. In signal apparatus, the combination, with a covering adapted to fit over the arm of a vehicle driver, of a legend at one side of the covering, a legend at the opposite side of the covering, one of the legends being adapted to indicate a future direction of movement curving to the right, and the other a future direction of movement curving to the left, said covering being adapted for adjustment by the twisting of the arm to display said legends one at a time to the rear of a vehicle.

4. In signal apparatus, the combination, with a glove adapted to be fitted over the hand of a vehicle driver, of a legend at one side of the glove, a legend at the opposite side of the glove, and a legend along the edge of the glove, the legends at the sides of the glove being disposed to indicate future movements of the vehicle, respectively, to the right and to the left of its course at the time of displaying the respective legend, and the legend at the edge of the glove being of a character adapted to indicate that the vehicle is about to stop, said glove being adapted to be moved by the twisting of the hand to display said legends one at a time.

1,244,066. BOX-COVER-SHELL-MAKING MACHINE. MICHAEL J. MILMOE, Chicago, Ill., assignor to W. C. Ritchie & Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 10, 1915. Serial No. 20,501. (Cl. 93—40.)



8. In a machine of the character described, the combination of a form, means to intermittently revolve the form, a blank magazine, means to discharge the blanks individually from the magazine, a carrier adapted to receive the blank from the magazine and convey it into proximity to the form, means to actuate said carrier, means mounted on said carrier and adapted to bend the blank about the form, and means to cover the bent blank with a finishing-material, substantially as described.

21. In a machine of the character described, the combination of a form, means to intermittently revolve the form, a reciprocatory carrier adapted to apply a blank to the form while the latter is stationary, means to reciprocate the carrier, folders mounted on the carrier and adapted to bend the blank over the sides of the form, a spring-pressed pivoted bender adapted to fold a portion of the blank about the form, means to cover the bent blank with a finishing-material during rotation of the form, the bender being free to follow the contour of the blank during such rotation, and means to strip the covered shell from the form, substantially as described.

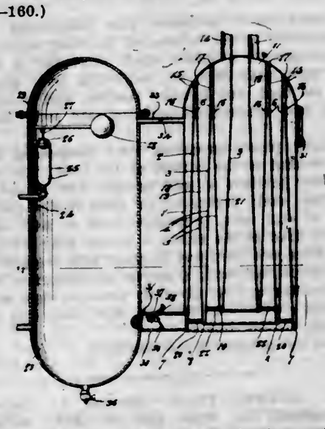
27. In a machine of the character described, the combination of a form, means to bend a blank around the form, means to feed an adhesive-coated covering-strip, a duplex spring-actuated presser adapted to affix the advance end of such strip around the corner of said bent blank, and means to revolve the form during the remainder of the covering operation, substantially as described.

32. In a machine of the character described, the combination of a form, means to bend a blank around said form to provide a shell with opposite open ends, means to cover the folded blank with a finishing material projecting beyond the ends of the shell, means to remove the covered shell from the form, means to fold the edges of the finishing material over the two rear vertical edges of the shell, a plurality of upper and lower stationary benders for the projecting portions of the finishing material, a support for the lower folders, a spring-pressed upper-plate on which the upper folders are supported, a shell pusher adapted to move the shell between said benders, causing the latter to fold the finishing material over the opposite open ends of the shell, plungers adapted to enter the ends of the shell to apply the finishing material to the inner surfaces of the shell wall, and means to actuate said plungers, substantially as described.

34. In a machine of the character described, the combination of a form, means to bend a blank around the form, means to feed an adhesive-coated covering-strip, means to affix the advance end of such strip to the bent blank, means to revolve the form during the covering of the blank by said strip, and means to direct an air blast toward said covering strip to prevent its being detrimentally influenced by the fanning action of the mechanical parts, substantially as described.

[Claims 1 to 7, 9 to 20, 22 to 26, 28 to 31, 33, and 35 to 37 not printed in the Gazette.]

1,244,067. STEAM-BOILER. IRA L. MOORE, Springvale, Me. Filed May 31, 1916. Serial No. 100,944. (Cl. 122—160.)



1. The combination with a boiler having a steam dome and a feeder for the boiler, of a pipe establishing communication between the lower end of the feeder and the boiler, a check valve within the pipe, a screw adjustable

through the pipe and against the check valve, a second pipe establishing communication between the upper end of the feeder and the dome of the boiler, and a check valve positioned within the last-mentioned pipe, for the purpose specified.

2. A boiler of the class described comprising a casing, a pair of annular bodies located within the casing and disposed in concentric relation and having their upper ends spaced from the upper end of the casing to define a steam dome, each of the annular bodies consisting of a substantially frusto-conical shaped outer wall and an inverted substantially frusto-conical shaped inner wall spaced from the outer wall so as to provide a flue restricted toward its upper end, the outer wall of the outermost annular body being spaced from the inner surface of the casing, and the outer wall of the innermost annular body being spaced from the inner wall of the outermost annular body so as to provide water chambers which are restricted toward their lower ends, a web connecting the lower end of the outer wall of the outermost annular body to the lower end of the wall of the casing, a web connecting the lower end of the outer wall of the innermost annular body to the lower end of the inner wall of the outermost annular body, a web connecting the upper ends of the inner and outer walls of each annular body to each other and provided with openings, tubes establishing communication between the water chambers, tubes extending through the steam dome and of arcuate shape in cross section and having communication with the openings in the connecting webs for the upper ends of the walls of the respective inner bodies, a tube extending through the innermost annular body and spaced therefrom and decreasing in diameter from the lower end thereof to the upper end, and a web connecting the lower ends of the wall of the last-mentioned tube to the lower end of the wall of the innermost annular body.

1,244,068. MANUALLY-OPERATED POWER-BOAT. IKUNOSUKE MORI, Los Angeles, Cal. Filed Apr. 2, 1917. Serial No. 159,332. (Cl. 115—23.)



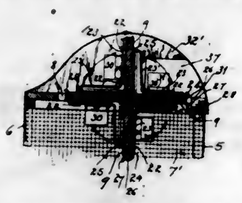
1. A hand power propelled boat comprising a hull, hangers secured to the bottom of the boat, bars secured to said hangers, a propeller shaft journaled in suitable bearings upon said bars, an oscillating lever projecting through the boat, and handles thereon, and pivoted pitman and gear connections between said lever and propeller.

3. A hand power propelled boat comprising a hull, hangers secured to the bottom of the boat, bars secured to the lower portions of said hangers and spaced apart, a propelling shaft journaled in downwardly projecting portions of said bars, propellers fixed to said shaft, a gear wheel fixed to the latter, a master gear wheel journaled between said bars and in mesh with the gear wheel upon the propelling shaft, a pivotal pin supported by said bars, an oscillating lever pivotally mounted upon said pin, and pitman connections between said lever and master gear wheel.

[Claim 2 not printed in the Gazette.]

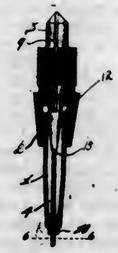
1,244,069. ANIMAL-TRAP. ERNEST L. NEUNEKER, near Bushnell, Ill. Filed Apr. 21, 1917. Serial No. 163,750. (Cl. 43—24.)

In a trap, a receptacle having an opening in its top, a trip-wheel rotatably mounted in said opening and comprising a plurality of radially arranged platforms each of which is adapted to close said opening, rocking-levers fulcrumed one on each platform, tripping-platforms secured one to each lever and adapted to rock it, blade-springs secured one to each lever and adapted to rock it, blade-springs secured one to each radially arranged plat-



form and standing parallel with an adjacent radially arranged platform, the end of each spring secured to the tripping-lever, and a detent secured to the receptacle, an end portion of any one of said levers adapted to strike upon and be detained by the end of the detent.

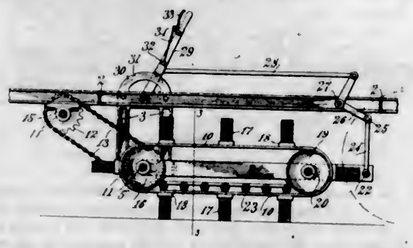
1,244,070. STYLOGRAPHIC FOUNTAIN-PEN. LARS G. NILSON and JULIUS ABEGG, Hoboken, N. J., assignors of one-half to Thomas J. Wilson and one-half to said Abegg, Hoboken, N. J. Filed June 21, 1916. Serial No. 104,835. (Cl. 120—44.)



7. A stylographic writing member comprising, in combination, a feed bar, a plurality of wires fixed at one end in said feed bar and laid contiguously with their other ends terminating evenly to form coacting writing points, and a point section inclosing said contiguous wires and forming a bearing support therefor slightly above the writing points.

[Claims 1 to 6 and 8 not printed in the Gazette.]

1,244,071. STREET-SWEEPING MACHINE. JOHN F. O'BRIEN, Piqua, Ohio, assignor to The Municipal Machine Manufacturing Co., Piqua, Ohio. Filed Nov. 15, 1916. Serial No. 131,861. (Cl. 15—17.)



In a street sweeping machine, a main frame having two downwardly projecting portions on each side thereof the lower ends of which terminate in journal openings, bearing members supported in said openings and having screw extensions by means of which they are adjusted laterally in

their positions, a shaft having its ends journaled in said bearing members, a drum mounted on said shaft and rotated thereby, side frame members pivoted on said shaft and constituting a broom frame, a rear drum having end journals mounted in said side frame members, an endless belt surrounding said drums, a series of brooms attached to said endless belt, said belt and brooms being adapted to be adjusted in the downwardly projected portions of the main frame, and elevating means connected to the rearward end of the broom frame, substantially as specified.

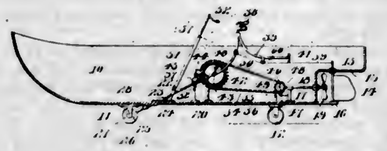
1,244,072. RAILWAY-RAIL LOCK. MICHAEL O'BRIEN, Jersey City, N. J. Filed Aug. 23, 1917. Serial No. 187,882. (Cl. 238—5.)



1. A railway rail lock device comprising a transverse bar member composed of top and bottom parts adjustably connected, the top part being adapted at one end to be passed beneath one rail and being provided with a hook member adapted to overlap the outer base flange of said rail, said top part being also provided adjacent to said end with a longitudinal aperture, and at the opposite end with a hook member adapted to overlap the inner base flange of the other rail, and the bottom part being adapted to be passed beneath the last named rail and being provided with a hook member adapted to overlap the outer base flange thereof and said bottom part being also provided at its opposite end with a hook member adapted to be passed upwardly through the aperture in the corresponding end portion of the top part and to engage the inner base flange of the corresponding rail.

2. A railway rail lock device comprising a transverse bar member composed of top and bottom parts adjustably connected, the top part being adapted at one end to be passed beneath one rail and being provided with a hook member adapted to overlap the outer base flange of said rail, said top part being also provided adjacent to said end with a longitudinal aperture, and at the opposite end with a hook member adapted to overlap the inner base flange of the other rail, and the bottom part being adapted to be passed beneath the last named rail and being provided with a hook member adapted to overlap the outer base flange thereof and said bottom part being also provided at its opposite end with a hook member adapted to be passed upwardly through the aperture in the corresponding end portion of the top part and to engage the inner base flange of the corresponding rail, and means for locking the said parts in any position of adjustment.

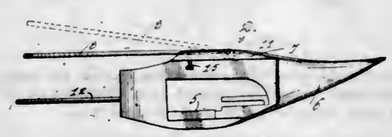
1,244,073. MANUALLY-PROPELLED BOAT. LUIGI PAVESE, Hoboken, N. J. Filed Oct. 25, 1916. Serial No. 127,574. Renewed Sept. 10, 1917. Serial No. 190,660. (Cl. 115—24.)



1. A manually propelled boat including a hull, supporting wheels therefor, a shaft journaled in said hull, a propeller shaft journaled in said hull, a screw propeller upon the outer projecting end of said propeller shaft, manually operable means for said propeller shaft and first named shaft, connecting means between the first named shaft and the forward supporting wheels, a rudder, and means for simultaneously shifting the rudder and the rear supporting wheel.

[Claim 2 not printed in the Gazette.]

1,244,074. SWATH-DIVIDER. JAMES PAYTON, Foxton, Wyo. Filed Mar. 30, 1915. Serial No. 18,143. (Cl. 56—30.)

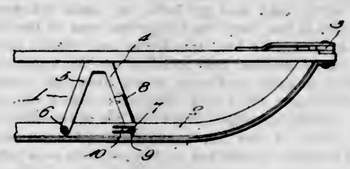


1. In a harvester, the combination with a finger bar and a shoe, of upper and lower divider rods pivotally carried by the shoe and freely movable upwardly with respect to the finger bar under the influence imparted to it by the machine in operation, means for limiting vertical movement of the lower divider rod in both directions, and means for adjustably limiting downward movement of the upper divider rod.

2. In a harvester, the combination with the finger bar and a shoe, of a divider rod loosely pivoted to the shoe for swinging movement in an upward direction therefrom, under the influence imparted by movement of the machine, said rod being normally held by gravity at its limit of downward movement, and a stop adjustably carried by the shoe for limiting downward movement of the rod.

3. In a harvester, the combination with a finger bar and a shoe, of a normally depressed divider rod pivoted at one end to the shoe and freely movable upwardly, with respect to the finger bar, and means adjustably carried by the shoe for limiting downward movement of said divider rod.

1,244,075. SLED. OTTO PEARSON, Mount Jewett, Pa. Filed Feb. 26, 1917. Serial No. 151,049. (Cl. 21—94.)



1. The combination with a sled having laterally flexible runners formed with longitudinal slots at substantially their bending points, and fasteners passing through one end of said slots for securing said runners to the body of the sled; of means for preventing movement of said fasteners in said slots.

2. The combination with a sled having laterally flexible runners formed with longitudinal slots at substantially their bending points, and fasteners passing through one end of said slots for securing said runners to the body of the sled; of means interposed between said fasteners and the other end of said slots for preventing movement of said fasteners in said slots.

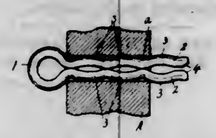
3. A stop device of the class described comprising a metal plate having an opening therethrough to receive a fastener and having on one end a tongue extending laterally.

4. A stop device of the class described comprising a flat metal plate having an opening therethrough to receive a fastener and having a tongue on one of its ends bent laterally and then bent into a plane substantially parallel with that of said plate.

1,244,076. COTTER-KEY. JOHN G. PRIESTER, Syracuse, N. Y. Filed Apr. 6, 1915. Serial No. 19,486. (Cl. 74—8.)

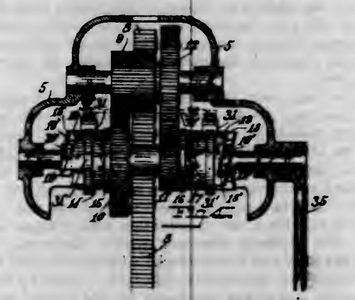
A cotter pin including a pair of arms, the arms being bowed outwardly to provide a plurality of adjacent con-

cave and contacting portions, the extreme diameters of the bowed portions being greater than the bore adapted



to receive the same whereby the free ends of the arms are spread apart a distance greater than the diameter of the bore upon compression of the bowed portions.

1,244,077. DISPENSING-PUMP. AUGUSTINE J. POCOCK, Dayton, Ohio. Filed June 26, 1915. Serial No. 36,443. (Cl. 103—62.)



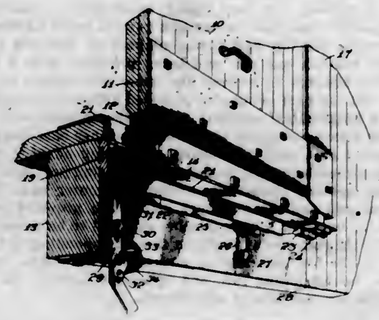
1. In a pump of the type specified, the combination with a pump cylinder, a piston therein, and a rack connected to the rod of said piston, of an oblong gear box into which said rack projects the upper transverse area of which is less than the transverse area of the lower portion of said gear box, transverse gear shafts mounted in said box, a driving gear mounted on the upper shaft and adapted to drive said rack in one direction, another gear on said upper shaft and adapted to drive the rack gear in a reverse direction, gears on the lower shaft meshing with those of the upper shaft, clutches on said lower shaft members connected to the gears on said lower shaft and the other members of which are slidable on said lower shaft, said slidable clutch members having cam slots terminating in end abutments, and actuating cams fixed to said lower shaft and extending into said slots, said cams being adapted to impart longitudinal and rotary movements to the slidable clutch members to alternately engage and disengage the clutch members on said gears, substantially as specified.

2. In a pump of the type specified, the combination with a pump cylinder, a piston therein, and a rack connected to the rod of said piston, of an oblong gear box into which said rack projects the upper transverse area of which is less than the transverse area of the lower portion of said gear box, transverse gear shafts mounted in said box, a driving gear mounted on the upper shaft and adapted to drive said rack in one direction, another gear on said upper shaft and adapted to drive the rack gear in a reverse direction, gears on the lower shaft meshing with those on the upper shaft, clutches on said lower shaft members which are connected to the gears on said lower shaft and the other members of which are slidable on said lower shaft, said loose clutch members having cam slots terminating in end abutments, actuating projections fixed to the lower shaft and extending into said slots, said projections being adapted to impart slidable movement to said clutch members by engaging the sides of said slots and rotary movement by engaging the end abutments of said slots, and friction devices holding said slidable clutch members from rotation until the clutches engage, substantially as specified.

3. In a pump, the combination with a piston and a driving rack connected thereto, of a main driving gear in mesh with said rack and imparting thereto reciprocating movement at different speeds, a driving gear rotatable on the axis common to the main driving gear and adapted to impart one of such movements to said rack through said main driving gear, a driving gear in mesh with said main driving gear and adapted to impart to said rack through said main driving gear a reverse and variable movement to said rack, an intermediate gear in mesh with the gear which rotates on the common axis with the main gear, clutch members fixed to said intermediate gear and to the gear in mesh with said main driving gear, and means for alternately imparting slidable movement to said clutch members and rotary movement through the rotation of the shaft upon which said last named gears are mounted.

4. In a pump, the combination with a piston and a driving rack connected thereto, of a main driving gear 9 imparting to said rack reciprocating movement at variable speeds, a gear 12 imparting to said driving gear one of said speeds, a non-alined gear 10 imparting to said gear 9 the other of said speeds, a gear 11 in mesh with the gear 12, fixed and movable clutch members 14 and 15 for driving the gear 10, fixed and movable clutch members 16 and 17 for driving the gear 11, and cam devices coöperating with the movable clutch members to impart slidable movement thereto to engage and disengage the respective gears 10 and 11 and to rotate one or the other of such gears when engaged.

1,244,078. DOOR FOR FREIGHT-CARS. WILLIAM QUEENAN and CHARLES FARWELL, Aurora, Ill. Original application filed Mar. 6, 1916, Serial No. 82,420. Divided and this application filed Oct. 9, 1916. Serial No. 124,513. (Cl. 20—27.)



1. In combination with a freight-car door slidably mounted on the car side with the lower part of the door in spaced relation with the threshold of the door-opening, means mounted beneath the door-opening on the car side in spaced relation therewith and having lapping engagement with the bottom of the door, and movable means for closing the space between said first mentioned means and the car side.

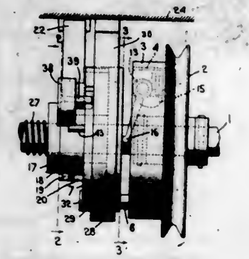
5. A door of the class described mounted so as to provide space intermediate of the threshold of the door-opening and the door, and a section provided with horizontally disposed pivots so as to swing vertically into substantially horizontal position and provide a closure for the space intermediate of the door and the car whereby grain and the like may be discharged while the door is in closed position.

8. In combination with a freight-car door mounted so as to provide space between the door and the threshold of the door-opening, a member secured in spaced relation with the car-side and beneath the door, a releasing member pivotally secured to said first member so as to swing vertically beneath the latter when in open position, said releasing member being adapted to swing into horizontal position and thereby close the space between the door and threshold, and means pivotally secured to the car for maintaining said section in horizontal closed position.

10. In combination with a door slidably mounted on the car-side so as to provide space between the lower end of the door and the threshold of the door-opening, a member mounted in spaced relation with the car-side beneath the door-opening and in lapping engagement with the door, a second member pivotally mounted beneath said first member so as to swing into horizontal position to close the space intermediate of the first member and the car-side and operable independently of the main door, an element oscillatingly mounted on the car-side and adapted to support the free side of said second member in horizontal closed position, and means whereby said element may be locked in place and movement of the second member prevented.

[Claims 2 to 4, 6, 7, 9, and 11 not printed in the Gazette.]

1,244,079. STOP-MOTION. FRANKLIN A. REECE, Hopkinton, Mass., assignor to The Reece Button Hole Machine Company, Boston, Mass., a Corporation of Maine. Filed Feb. 8, 1917. Serial No. 147,276. (Cl. 74—46.)



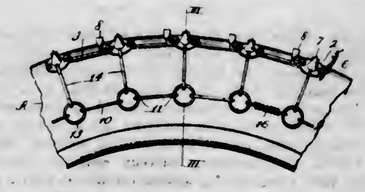
1. In a stop motion, the combination with a driven element, of a clutch for driving said element, means to cause said clutch to be engaged and disengaged, a brake comprising a stationary brake band, an internal expanding brake member rotating with the driven element and coöperating with said brake band, and automatically-operative means to expand said brake member when the clutch is disengaged.

4. In a stop motion, the combination with a driven shaft, of a clutch for driving said shaft, a disk movable longitudinally of the shaft and by which the clutch is controlled, a stationary brake band encircling the disk, an expanding brake carried by the disk and coöperating with said brake band, a toggle lever connection between the ends of said brake, a centrifugal weight connected to said toggle lever, and a projection extending from said weight and adapted to have engagement with the interior of the brake band when the clutch is engaged whereby the centrifugal weight is held inoperative, said projection being released from the brake band when the clutch is disengaged thereby allowing the centrifugal weight to become operative to apply the brake.

11. In a stop motion, the combination with a driven element, of a clutch for driving said element, means to cause said clutch to be engaged and disengaged, a brake comprising a stationary annular brake member, an internal expanding brake member situated within the stationary brake member and rotating with the driven element, a centrifugally-operated device tending to expand said expanding brake member into frictional contact with the stationary brake member when the driven element is rotated, and means to prevent said device from becoming operative except when the clutch is disengaged.

[Claims 2, 3, and 5 to 10 not printed in the Gazette.]

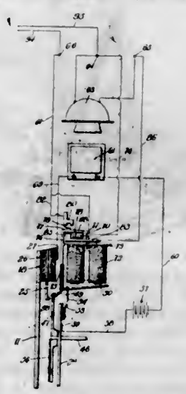
1,244,080. NON-SKID TIRE-PROTECTOR. THEODORE J. REED, Kansas City, Mo. Filed Aug. 23, 1916. Serial No. 116,437. (Cl. 152—14.)



1. In a non-skidding tire atachment, spaced spur-bearing members having slots, bars having loops at each of their ends engaged in the slots to connect said members, one of the ends of one of the loops of the bars being extended outwardly and shaped to form a calk the edge of which latter extends substantially longitudinally of the bar, and means to secure said parts in position on the tire casing.

2. In a non-skidding tire atachment, spaced members having openings, metal strips of substantially uniform thickness throughout connecting said members, each of said strips having each end curled over and inwardly to form loops engaging in the openings of the adjacent members, the inner end of one of the loops being extended outwardly and sharpened at its extreme free edge to form a calk.

1,244,081. TIME-CALLING DEVICE FOR TELEPHONES. EDMUND ROGERS, Chicago, Ill., assignor of one-half to Thomas J. Martin, Chicago, Ill. Filed June 13, 1916. Serial No. 103,482. (Cl. 179—89.)



1. The combination with a telephone instrument and circuit therefor, of a transmitter, an electro-magnet, means for cutting the telephone instrument out of the telephone circuit and the magnet into the telephone circuit, a revoluibly mounted contact carrying disk, means constantly tending to drive the disk, the disk carrying a plurality of series of spaced contacts, a movable contact, means including an indicator for shifting the movable contact to bring it into the path of movement of any one of the series of contacts, a sounding device in an open energized circuit including the movable contact and the contact disk, an armature for the magnet normally holding the disk against turning movement, and means actuated by movement of the armature to release the disk for placing the transmitter in the telephone circuit.

7. The combination with a telephone circuit, of an electromagnet in the circuit, a transmitter, an electrically operated audible signal mechanism, means normally rendering the signal mechanism inactive, and means operable upon energization of the electromagnet for rendering the

signal mechanism active, cutting the transmitter into the telephone circuit and for breaking the circuit to the electromagnet.

[Claims 2 to 6 not printed in the Gazette.]

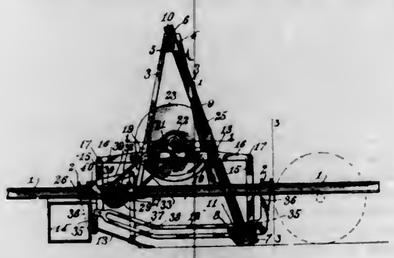
1,244,082. PROCESS FOR EXTRACTING TRIOXID OF TUNGSTEN FROM ITS ORES. LUDWIG ROSENSTEIN, San Francisco, and ERNEST H. SIMONDS, Oakland, Cal. Filed Sept. 27, 1916. Serial No. 122,516. (Cl. 23—13.)

1. The process of recovering trioxid of tungsten from its ores, which consists in reducing the ores to a powder and mixing with water, then adding sodium carbonate and boiling the mixture, whereby sodium tungstate is formed, then treating the sodium tungstate with a soluble barium compound, whereby barium tungstate is formed, and finally recovering the trioxid of tungsten from the said barium tungstate.

5. The process of recovering trioxid of tungsten from its ores which consists in reducing the ores to a powedr and mixing with water, then adding sodium carbonate and sodium hydrate and boiling the mixture, whereby sodium tungstate is formed, then filtering the liquid mass and adding slaked lime to the filtrate to free it of any excess of sodium carbonate, removing the calcium carbonate formed in the process, then adding a soluble barium compound and boiling the mixture, and finally removing the barium tungstate and treating it with hydrochloric acid, whereby trioxid of tungsten is formed.

[Claims 2 to 4 not printed in the Gazette.]

1,244,083. STREET-SWEEPING MACHINE. JACOB A. SCHROEDER, Piqua, Ohio, assignor to Mary Schroeder, Piqua, Ohio. Filed June 10, 1916. Serial No. 102,902. (Cl. 15—17.)



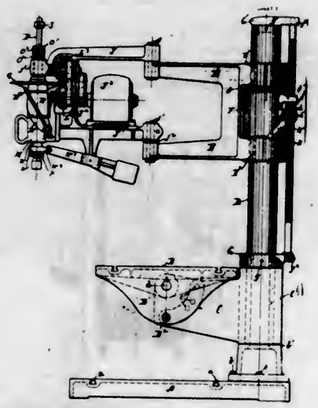
1. In a street sweeping machine, the combination with a running gear, and a frame supported on said running gear, of a broom having handles mounted upon said frame in a manner which permits of the broom being reciprocated in two horizontal planes one above the other, rotating members having means coöperating with the broom handles to reciprocate the broom in the said two planes of movement, and means for guiding the broom in said planes of movement comprising members on each side of the running gear provided with guide-ways with which the broom is connected.

2. In a street sweeping machine, the combination with a running gear, of a broom mounted upon handles pivotally supported relative to the running gear, tracks arranged on each side of the running gear in which said broom moves in lower and upper horizontal planes, disks having means thereon engaging said broom handles and imparting a reciprocating movement thereto, and means for elevating said broom handles and therewith the broom from the lower to the upper track at the terminal of each lower horizontal movement.

3. In a street sweeping machine, the combination with a running gear, of a broom the handles of which are pivotally mounted on said running gear, rotatable disks having rollers thereon engaging said broom handles and imparting a reciprocating movement thereto, depending plates on each side of said running gear having channels one above the other and communicating with each other, rollers mounted upon the broom and traveling in said tracks, and means for elevating the broom from the lower track to the upper track at the terminal of its forward movement in said upper track.

4. In a street sweeping machine, the combination with a frame supported upon wheels, of a broom having handles pivotally supported on said frame, rotatable disks having rollers thereon engaging said handles and imparting reciprocating movement to the broom, upper and lower tracks on each side of said frame adapted to guide the broom in its forward and rearward movements, and cams adapted to engage said broom handles at predetermined times to elevate the broom from the lower to the upper track.

1,244,084. TAPPING-MACHINE. ARTHUR A. SHAFER, Erie, Pa., assignor to Rickert-Shafer Company, Erie, Pa. Filed Oct. 19, 1916. Serial No. 126,569. (Cl. 10—136.)

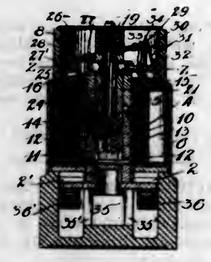


1. The combination in a machine of the class described, of a frame, a vertically movable sleeve mounted in the lower portion of said frame, a series of rack teeth on said sleeve, a sleeve slidably and rotatably mounted in the upper portion of said frame, a tool spindle passing through said sleeves, means to cause said spindle to rotate with said upper sleeve while permitting longitudinal movement of the spindle in the sleeve, collars secured on said spindle above and below said lower sleeve to prevent said sleeve sliding on said spindle, a friction disk around said upper sleeve, a sleeve non-slidably journaled on said upper sleeve, arms on said sleeve, a shaft journaled in said arms, a spur gear on said shaft intermeshing with the rack teeth on said lower sleeve and means to cause said shaft and spur gear to rotate, substantially as set forth.

2. The combination in a machine of the class described, of a frame, a sleeve slidably mounted in the lower portion thereof, another sleeve slidably and rotatably mounted in the upper portion of said frame and telescoping over the upper end of said lower sleeve, a friction disk secured on said upper sleeve, another sleeve rotatably and non-slidably mounted on said upper sleeve below said friction disk, downwardly depending arms on said last named sleeve, a shaft journaled in said arms, a spur-gear secured on said shaft to engage the rack teeth on said lower sleeve, a lever to operate said shaft and spur-gear, a tool spindle extending through said sleeves, collars secured on said spindle above and below said lower sleeve to prevent said spindle sliding therethrough, means to permit said spindle to slide in said upper sleeve and to cause it to rotate therewith, a collar on said upper sleeve, a spring between said collar and said frame, counterweight mechanism connected with said lower sleeve, and motor and gear mechanism to cause said friction disk to rotate, substantially as set forth.

3. The combination in a machine of the class described, of a frame, a tool spindle slidably and rotatably mounted in said frame, a friction disk slidable with relation to said spindle adapted to rotate the same, means adapted to move said spindle downward and said disk upward, and vice-versa, a pair of friction wheels mounted in said frame above and below said friction disk and in spaced relation thereto, and motor and gear mechanism mounted in said frame adapted to drive said friction wheels in the same direction, whereby, when said spindle is forced downward, said disk will be moved upward against the upper friction wheel, and vice-versa, substantially as and for the purpose set forth.

1,244,085. SWITCH. GERALD W. HART, West Hartford, Conn., assignor to The Hart Manufacturing Company, Hartford, Conn., a Corporation of New Jersey. Filed Jan. 2, 1914, Serial No. 809,877. Renewed June 15, 1916. Serial No. 103,909. (Cl. 175—281.)



6. The combination of a member movable in both directions and normally tending to move in one direction, an armature in operative relation to said member and having lost motion relatively thereto, a solenoid for moving said armature, a detent carried by said movable member, a stationary abutment with which said detent engages to lock the member when moved in the other direction, movable means carried by said member and tending to force said detent into locking position, a releaser carried by said armature for retracting said movable means during the period of said lost motion when said member is locked and tending to engage said movable means but held in idle position by said detent when said detent is out of engagement with said stationary abutment, said releaser being free to move into alinement with said movable means when said member is locked, two circuit-controlling terminals and a switch controlled by said detent and in operative relation to said terminals for connecting one of said terminals to said solenoid when said member is locked, and the other terminal to said solenoid when said member is unlocked.

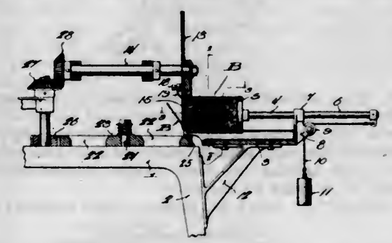
11. The combination of a tubular member movable in both directions and normally tending to move in one direction, a tubular armature surrounding the same and in operative relation thereto, a solenoid surrounding said armature for moving the same, a detent, an abutment with which said detent engages to lock said member when moved in said other direction, movable means tending to force said detent into locking position, a releaser located within said tubular member and connected to said armature for retracting said movable means and tending to move into alinement therewith but held in idle position by said detent when said detent is out of engagement with said abutment, two controlling-circuit terminals and a switch controlled by said detent for connecting one of said terminals to said solenoid when said member is in locked position and the other to said solenoid when said member is unlocked.

15. The combination of a member movable in both directions and normally tending to move in one direction, means for locking said member at the end of its movement in the other direction, releasing means, a solenoid and armature for alternately moving said member in said other direction and then releasing said locking means when successively energized, said armature being in operative relation to said member and said releasing means, two controlling circuits for said solenoid, circuit controllers therein, and automatic means for breaking one of said controlling circuits after said member is either locked or unlocked and making the other after said member is moved toward either locked or unlocked position.

18. The combination of a member movable in both directions and normally tending to move in one direction, means for locking said member at the end of its movement in the other direction, releasing means, a solenoid and armature for alternately moving said member in said other direction and then releasing said locking means when successively energized, said armature being in operative relation to said member and said releasing means, two controlling circuits for said solenoid, manual circuit controlling means therein, and automatic means for opening a gap in one of said controlling circuits after said member has been moved to locked position and closing said gap when said member is unlocked and closing a gap in the second auxiliary circuit when said member is in locked position and opening said gap when said member is unlocked.

[Claims 1 to 5, 7 to 10, 12 to 14, 16, and 17 not printed in the Gazette.]

1,244,086. BLANK-FEEDING MECHANISM. HAROLD C. HARVEY, Milwaukee, Wis., assignor to Milwaukee Lace Paper Co., Milwaukee, Wis. Filed May 3, 1917. Serial No. 166,113. (Cl. 271—39.)



2. In a blank feeding mechanism of the class described, a rotative circular plate, one edge having a notch formed therein, a blade disposed in the notch and secured by one end to one edge thereof, the free end of said blade being extended beyond one face of the plate, and means for adjusting said free end of the blade relative to said face, said blade being adapted to engage a blank upon each revolution thereof.

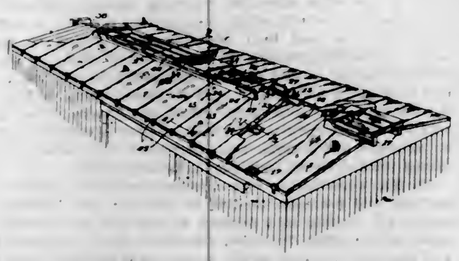
4. A blank feeding mechanism of the class described, including a blank holding tray, means for moving the blanks in one direction in said tray, means for removing the blanks from one end of the tray, a shaft disposed over the tray, and means on the shaft over the last mentioned end of the tray for engaging blanks in the tray to prevent them from being thrown therefrom when engaged by the blank removing means.

[Claims 1, 3, 5, and 6 not printed in the Gazette.]

1,244,087. ROOF FOR RAILWAY-CARS. WILLIAM L. HAVENS and CHARLES N. SWANSON, Topeka, Kans. Filed Jan. 4, 1916. Serial No. 70,147. (Cl. 108—5.)

2. In a railway car roof, running-board roof-sections composed of rectangular sheets of metal having their longitudinal sides bent downwardly so as to lie flush against the sides of the running-board sills, one end of each roof-section being off-set so as to extend into a plane beneath that of the upper surface of the section while the

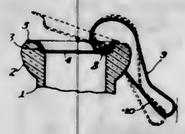
other end of the section is extended so as to overlap the offset end of the adjacent roof-section.



11. In a railway car roof, running-board roof-sections composed of rectangular sheets of metal having their longitudinal sides bent downwardly and offset so as to have the free edges extend in planes intermediate of the vertical planes of the sides of the main portion so as to provide channels adapted to receive the ends of the running-board supports while the free edges are adapted to lie flush against the sides of the running-board sills.

[Claims 1, 3 to 10, 12, and 13 not printed in the Gazette.]

1,244,088. CLOSURE FOR BOTTLES AND JARS. JOHN HEBERLING, Rochester, N. Y. Filed July 17, 1917. Serial No. 181,159. (Cl. 215—34.)



2. A jar or bottle closure comprising a cover member adapted to rest on the top of a bottle and having a recess in one side, the ends of the recess forming bearing points on which the cover member may turn as a fulcrum; and means for holding the cover member to the bottle to permit it to swing on the latter.

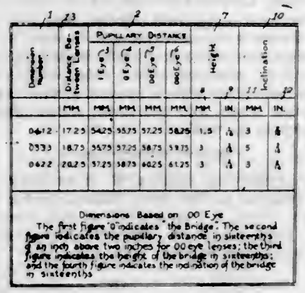
[Claims 1, 3, and 4 not printed in the Gazette.]

1,244,089. ORDER-GUIDE. PITT H. HERBERT, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a Voluntary Association of Massachusetts. Filed May 29, 1914. Serial No. 841,966. (Cl. 11—19.)

1. As an article of manufacture, an order card for ophthalmic mountings, comprising a series of columns having the variable dimensions of different ophthalmic mountings arranged in different rows in the columns each row containing the dimension for a particular mounting, and an additional column containing an order number composed of the variable dimensions of certain of the other columns in the corresponding row expressed as a number.

2. As an article of manufacture, an order card for use in the purchase of ophthalmic mountings, comprising a plurality of consecutive columns bearing rows of dimension numbers extending in alinement across the several columns and an additional column bearing a dimension number formed by arbitrary selection of certain symbols or their equivalent from predetermined columns in the row.

4. As an article of manufacture, an order card for use in the purchase of ophthalmic mountings, comprising a series of main columns, means for designating the particular essential measurement of an ophthalmic mounting to be found in the respective columns, certain of said columns being subdivided to contain the same measurement in different standards of measure, and one of the additional columns being subdivided into a plurality of minor columns suitably designated and bearing means to indicate possible dimensional variations in the complete ophthalmic mounting attainable in connection with a standard center by the selection of the variable member indicated at the top of such minor columns, and an additional major column bearing a dimension number built



Dimension Number	Distance Between Lenses	Pupillary Distance				Height		Inclination	
		1 Eye	2 Eyes	3 Eyes	4 Eyes				
	MM.	MM.	MM.	MM.	MM.	MM.	IN.	MM.	IN.
0612	17.25	5425	5575	5725	5875	1.5	1/16	3	1/8
0533	18.75	5575	5725	5875	5975	3	1/16	5	1/4
0622	20.25	5725	5875	6025	6125	3	1/16	3	1/8

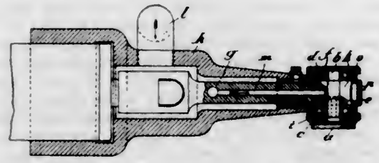
Dimensions Based on 00 Eye

The first figure "0" indicates "the Bridge." The second figure indicates the pupillary distance in sixteenths of an inch above two inches for 00 eye lenses; the third figure indicates the height of the bridge in sixteenths; and the fourth figure indicates the inclination of the bridge in sixteenths.

up from the several main dimensional columns to indicate the particular measurement of ophthalmic mountings necessary to fulfil the required conditions, and an undivided space on the card immediately adjacent the columns containing matter explanatory of the use of the several columns.

[Claim 3 not printed in the Gazette.]

1,244,090. MACHINE-BEARING. CARL ALBERT HIRTH, Stuttgart-Cannstatt, Germany, assignor to Fortuna-Werke, Specialmaschinenfabrik, G. M. B. H., Stuttgart-Cannstatt, Germany. Filed Jan. 14, 1915. Serial No. 2,205. (Cl. 64—24.)

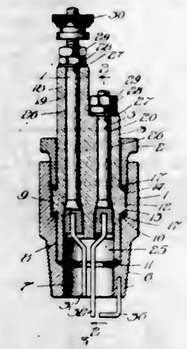


1. The method of protecting from dust, delicate parts of high speed machinery, such as ball bearings operating in the air while avoiding the use of ordinary packings, which comprises maintaining compressed air within the space in which such parts operate, at a pressure in excess of the surrounding outside pressure, whereby any flow of air which may occur will occur outwardly from the space within which such parts operate.

2. The method of lubricating and protecting from dust the operating parts of delicate machinery which comprises adding finely divided lubricating material to compressed air, passing the compressed air containing said lubricating material into a space within which the parts operate, and maintaining in said space a pressure higher than the surrounding atmospheric pressure whereby a flow of air outward from said space is caused to prevent entrance of dust in to the operating space.

1,244,091. SPARK-PLUG. WILLARD G. JACKSON, Rockford, Ill. Filed Mar. 1, 1917. Serial No. 151,624. (Cl. 123—169.)

1. A spark plug having, in combination, a shell having an elongated passage with a reduced portion providing an annular shoulder, a core comprising a body portion having a chamber at one end axially alined with said passage, a collar portion between the ends of said body portion and rigidly secured thereto providing a pair of annular faces, one of said faces coöperating with said shoulder, and an eccentrically positioned projection extending longitudinally from the body portion and opposite the chambered portion having a hole axially alined with said projection and extending through the core, the core having a second hole extending therethrough and parallel to said first mentioned hole, said holes communicating with the chamber, a terminal rod in each of said holes, the rod in said first mentioned hole being the current terminal and longer than the auxiliary ground terminal rod in the other hole, each of said rods having at one end an enlarged portion and a frusto-conical intermediate portion adapted to be seated upon a complementary conical surface in each hole, said contacting conical surfaces lying approximately in the same plane as said collar portion, means upon the other end of said terminal rods for rigidly securing them in said holes, a sparking wire carried by each of said rods having an intermediate converging portion and an elongated parallel portion within said chambered portion and said passage providing a large sparking surface therein, a ground terminal wire carried by said shell extending proximately to said auxiliary ground wire, and a gland nut, the inner end thereof coöperating with the other of said faces to rigidly secure said core in said shell.

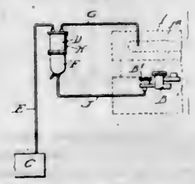


2. A spark plug having, in combination, a shell, a chambered insulating core having an eccentrically positioned projection extending longitudinally therefrom and opposite the chambered portion having a hole axially alined with said projection and extending through the core, the core having a second hole extending therethrough and parallel to said first mentioned hole, a terminal rod in each of said holes, the rod in said first mentioned hole being the live current terminal and longer than the insulated auxiliary ground terminal rod in the other hole, means for securing said rods in their respective holes, a sparking wire carried by each of said rods having an intermediate converging portion and an elongated parallel portion within said chambered portion providing a large sparking surface therein, a ground terminal wire carried by said shell extending proximately to said auxiliary ground wire, and a gland nut for rigidly securing said core within said shell.

3. A spark plug comprising, in combination, a shell having a reduced interior providing an annular shoulder, a chambered insulating core having a collar portion between the ends thereof providing a pair of annular faces, one of said faces coöperating with said shoulder, a terminal rod having an enlarged end portion and a frusto-conical intermediate portion and adapted to be seated in a hole extending longitudinally through the core, said hole having surfaces complementary to said enlarged and conical rod portions and being approximately in the same plane as said collar portion, means for securing said rod in said core, and a gland, the inner end thereof coöperating with the other of said faces to rigidly secure said core in said shell.

4. A spark plug comprising, in combination, a shell, a chambered insulating core, a securing gland, a plurality of sparking terminals carried by said core and insulated from each other within the core, said terminals comprising a rod and a wire having a body portion seated in said rod, an intermediate portion and an offset portion, said intermediate portions being inclosed within the core chamber and converging toward each other and the axis of said shell and said offset portions of said wires extending parallel to each other and the axis of said shell, and a ground terminal sparking wire carried by said shell extending proximately to one of said wires.

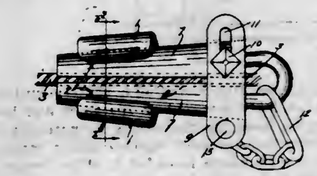
1,244,092. SUCTION-OPERATED LIQUID-FEED DEVICE. WEBB JAY, Chicago, Ill. Filed Feb. 23, 1917. Serial No. 150,350. (Cl. 158—36.)



1. In combination with a main low level liquid supply tank, a liquid supply receptacle located in a plane above said tank and closed except as to the connections hereinafter indicated; a supplemental chamber connected with said receptacle for discharge of liquid by gravity from said receptacle into said supplemental chamber; a supply connection from the main tank to said receptacle, and an exhaust connection to said receptacle for reducing the pressure therein below that of the atmosphere; an atmosphere inlet connection to the upper part of said supplemental chamber; a valve controlling the communication of said receptacle with said supplemental chamber, and means in said receptacle for opening and closing said valve at pre-determined high and low levels of the liquid in said receptacle.

[Claims 2 to 7 not printed in the Gazette.]

1,244,093. CABLE-GRIP. ANDREW JOHNSON, Minneapolis, Minn. Filed Mar. 27, 1916. Serial No. 86,893. (Cl. 24—126.)

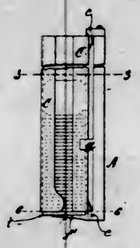


A cable grip comprising a socket member that is open at its ends and top and having converging internal side walls and a perforated lug offset below the socket in said member, a pair of coöperating wedges adapted to have their small ends inserted into the socket member and provided with cable receiving channels in their inner longitudinal edges, and a link rigidly secured to the large end of one of the wedges and connected to the adjacent end of the other of said wedges for pivotal and sliding movements, said wedges being so arranged in the socket member that the link extends transversely with respect thereto and at the top thereof.

1,244,094. COMPOSITOR'S TYPE-SETTER CHANNEL. LOUIS KOSSUTH JOHNSON, Brooklyn, N. Y., assignor to Sarah J. Johnson, Brooklyn, N. Y. Filed Sept. 7, 1912, Serial No. 719,080. Renewed Oct. 5, 1916. Serial No. 123,946. (Cl. 211—42.)

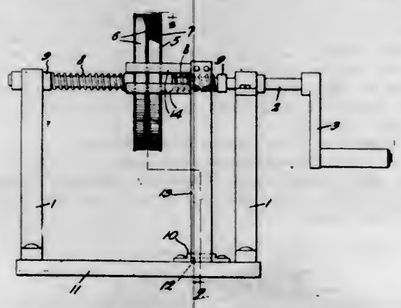
A type setting device of the character designated, comprising an upright type-containing channel pivotally

supported longitudinally at its spine, a stop for holding said channel in its normal position, elastic resilient means which tend constantly to press said channel against said stop, and a stationary type supporting floor underneath said channel formed with a rear surface adapted to close the lower end of the channel and support the column of type thereon when the channel is swung back laterally and with a front delivery step or



off-set adapted to support the types when the channel is in its forward normal position, said off-set between the two said type supporting surfaces constituting a means of detaching the lowest type in the column when the channel is pressed backward laterally against the resistance of said elastic resilient retractile means, for the purpose described.

1,244,095. RAZOR-STROPPER. WALTER SANFORD JONES, Athens, Ga. Filed Jan. 17, 1917. Serial No. 142,891. (Cl. 51—16.)

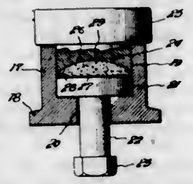


1. A stropping machine including a shaft mounted for rotation, disks slidably mounted on the shaft and having opposed stropping faces, yielding means for normally holding the stropping faces pressed together, and a razor support comprising a standard mounted to slide toward and away from the disks and spaced angle arms projecting from the standard and adapted to embrace the shank of a razor.

2. A stropping machine including a shaft mounted for rotation, disks slidably mounted on the shaft and having opposed stropping faces, yielding means for normally holding the stropping faces in contact, a standard slidably mounted beside the shaft, and spaced arms extending from the standard and adapted to loosely embrace the shank of a razor.

1,244,096. POWDER-PRESS. WILLIAM G. KENDALL, Newark, N. J. Filed May 31, 1916. Serial No. 100,899. (Cl. 100—57.)

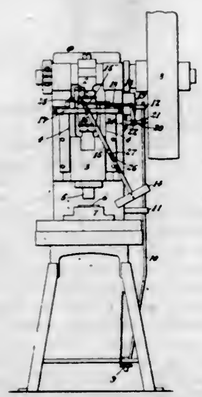
1. In a powder press, a die centering member formed with a chamber, an ejector die positioned in the chamber and adapted to support a powder receiver, and a forming die insertible within the die centering member and having its lower face concaved to shape powder in the receiver and to provide a circumferential edge whereby initial movement of the forming die into the die centering member will compress powder in a receiver located upon the ejector die and subsequent movement of the forming die will force in the edge of the receiver against the compressed powder to securely anchor the cake of powder formed in the receiver.



2. A powder press including a base formed with a sunken seat and with an opening through the seat, a die centering member fitting within the seat and having a chamber open at its upper end and a smaller opening alining with the opening of the base, an ejector die mounted in the die centering member, a shank extending from the ejector die through the opening in the die centering member and the opening in the base, retaining means at the free end of the shank passable through the opening in the base but not through the opening in the die centering member whereby upward movement of the ejector die with respect to the die centering member is limited although both are freely removable from the base, a forming die insertible in the chamber, and means for forcing the forming die toward the ejector die.

[Claim 3 not printed in the Gazette.]

1,244,097. SAFETY DEVICE FOR PRESSES, &c. ALEXANDER MCK. KENDRICK, Brooklyn, N. Y., assignor, by direct and mesne assignments, of one-half to Charles J. Pembroke and one-half to Frank Keiper, Rochester, N. Y. Filed Aug. 19, 1913. Serial No. 785,459. (Cl. 74—105.)



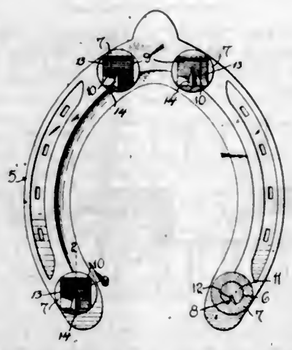
1. The combination with a machine comprising a frame and an operating mechanism having a dangerous part, of a vertically disposed gate pivoted to the front portion of said frame at a point above said dangerous part and arranged to swing in a vertical plane from a position at one side of the operator's hands to its operative position in front of said dangerous part, a treadle for controlling the operation of said machine, means for operating said gate either from said dangerous part or by said treadle in advance of the operation of said dangerous part.

2. The combination with a power operated press having a press head and dies, of a safety device pivotally mounted on the press to move transversely across the front of the press dies, said device being normally positioned at a distance to one side of the vertical center of the front of the press dies and an actuating connection between said device and the press head for positively oscillating the device across said vertical center at the front of the dies at each stroke of the press, a treadle for said press and a connection between said treadle and said safety device whereby said safety device may be positively oscillated across the vertical center of the press dies in advance of the movement of the press head and held in such operated position during repeated movements of the press head.

7. In a safety device for a punch press the combination of a single vertically disposed guard pivoted at its upper end, means for operating said guard from the treadle and means for independently operating said guard from the ram of the press.

[Claims 3 to 6 not printed in the Gazette.]

1,244,098. HORSESHOE-CALK. HENRY J. KLITSCH, East Mauch Chunk, Pa. Filed Mar. 20, 1916. Serial No. 85,501. (Cl. 168—41.)



1. The combination with a horseshoe having a longitudinally tapering opening therein provided with a V-shaped rib on its wall, of a calk having a tapering shank projecting longitudinally from the calk body and provided with a V-shaped groove to receive said rib, said calk body gradually tapering in thickness from said shank to its other end and having its gripping edge disposed at one side of the longitudinal axis of said shank, and a longitudinally extending V-shaped reinforcing rib formed on the side of the calk body in longitudinal alinement with the groove in said shank, said rib being positioned at the upper portion of the calk body and inclined inwardly with the larger end flush with the upper end of the body.

2. The combination with a horseshoe having a series of open-ended sockets; a plurality of calks, each having a shank, said shanks being each provided with a top-opening slot formed in the side thereof, and a plurality of wedge-shaped members rigidly mounted in said sockets for engagement by said slots.

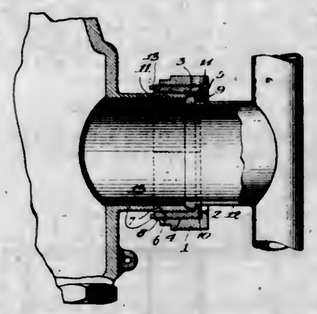
1,244,099. TEST-CONNECTOR FOR ELECTRIC WIRES. ARTHUR KNEISEL, Cleveland, Ohio. Filed Nov. 27, 1911. Serial No. 662,569. (Cl. 173—324.)



1. A test connector for electric wires comprising a strap-like body-portion, a plurality of retaining-members disposed on opposite sides of the body-member, each retaining-member being formed with a shoulder for constantly alining it with the body-member and being formed with a second shoulder for alining inserted wires, and screw mechanism for adjusting each retaining-member to the body-member individually of any other retaining-member.

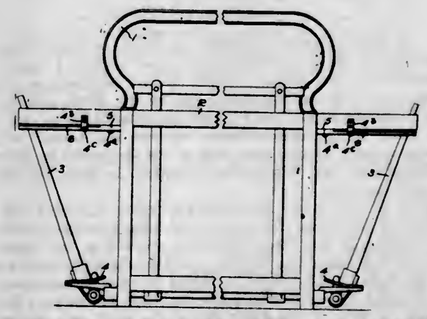
2. In a test-connector for electric wires, the combination with an elongated and flattened metallic body portion, of a plurality of flat retaining-members disposed upon opposite sides thereof, associated alining and retaining shoulders respectively bent therefrom and adapted to hold the retaining-members in alinement with the body portion and the wires normally in position, and individual screw-adjusting means for said retaining-members, proportioned to insure the normal engagement of the alining shoulders, substantially as set forth.

1,244,100. PIPE-COUPLING NUT. BERNARD KORTAS, Chicago, Ill. Filed July 5, 1916. Serial No. 107,674. (Cl. 85—32.)



In a pipe coupling nut an outside casing, and a longitudinally divided reducer, the outside periphery of said reducer being screw threaded and having lugs on its rim, to enable it to be screwed in or out of the casing with ease, the inside periphery of said reducer having means for coupling ends of pipes.

1,244,101. PICKER-CHECK. JAMES K. LANNING, Fall River, Mass. Filed Nov. 26, 1915. Serial No. 63,384. (Cl. 139—22.)



1. In a loom, a lay, a picker stick, and a frictionally acting picker check therefor consisting of slightly resilient members extending in substantial parallelism with the walls of the picker stick slot and rigidly connected together, and conjointly laterally movable to accommodate themselves to the movement of the stick.

2. In a loom, a lay, a picker stick and a frictionally acting picker check therefor, consisting of means pivoted to a face of the lay and having slightly resilient arms extending in substantial parallelism with the walls of the picker stick slot, said arms being rigidly connected together and conjointly movable in the same direction to

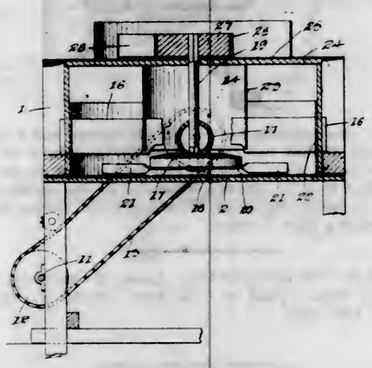
accommodate themselves to the movement in either direction of the picker stick.

3. In a loom, a lay, a picker stick and a frictionally acting picker check therefor consisting of two slightly resilient arms having a common pivot and extending in general parallelism with the walls of the picker stick slot, said arms being rigidly connected together and conjointly movable laterally in the same direction to accommodate themselves to the lateral movement of the picker stick.

4. In a loom, a lay, and a picker stick therefor, consisting of a member having a pivot and two longitudinally extending, slightly resilient arms extending in general parallelism to the slot of the picker stick, together with means to limit the lateral movement of the arms in either direction.

5. In a loom, a lay, a picker stick and a frictionally acting picker check therefor, consisting of two slightly resilient arms extending longitudinally of and inwardly overlapping the slot of the picker stick for the greater part of their length, said arms being laterally movable, and means engageable with said longitudinally extending arms relatively remote from the ends of said slot to limit lateral movement thereof.

1,244,102. SEED-SEPARATOR. JOHN H. LAW, Cartersville, Ga. Filed May 19, 1914. Serial No. 839,562. (Cl. 130—15.)



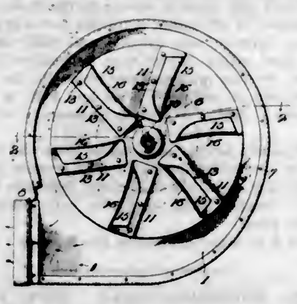
1. A seed separator including a frame, a foraminous partition in the frame adjacent one end thereof, a hopper supported by the frame, a shaft located centrally in the hopper, a rotor on the upper end of the shaft and operating in the hopper, said hopper provided with an opening establishing communication between the hopper and frame, a rotor on the lower end of the shaft and in close proximity to the foraminous partition as and for the purpose specified.

3. A seed separator comprising a frame, a hopper supported by the frame, the base of the hopper provided with an opening, a foraminous partition secured in the frame and located below the hopper, a shaft rotatably mounted in the base of the hopper, a casing positioned concentrically about the shaft and depending from the base of the hopper, a rotor at the upper end of the shaft and located in the hopper, a second rotor secured to the lower end of the shaft and in close proximity to the partition and means extending through the frame engaging the last named rotor for rotating the shaft and rotors in the hopper and frame as and for the purpose specified.

[Claim 2 not printed in the Gazette.]

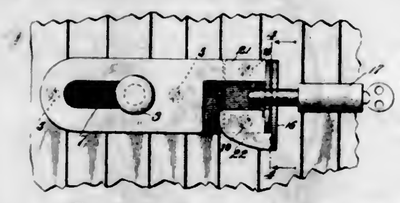
1,244,103. FAN. PHILIP LAWSON, Johnstown, Pa. Filed Mar. 29, 1916. Serial No. 87,527. (Cl. 253—200.)

In a fan of the class described, in combination, a rotary support, and fan blades mounted thereon and having their effective faces extending substantially radially with relation to the axis of rotation of the support, the said blades



being of anticlastic form and being broader at their outer ends than at their inner ends.

1,244,104. HASP. RALPH W. LEDBETTER, Birmingham, Ala., assignor of one-half to John W. Maynor, Birmingham, Ala. Filed June 16, 1917. Serial No. 175,200. (Cl. 70—83.)



1. A base plate carrying a headed pivot pin, a latch pivotally and slidably secured to the plate by said pin and adapted to rotate freely thereon, an out-turned perforated locking flange at the free end of the latch, there being a slot in the latch adjacent to said flange and opening through the side edge of the latch, and a keeper having an out-turned perforated locking flange which is undercut to overhang the latch when the latter is swung to introduce the undercut base of said locking flange into its slot, the perforations in said flanges being adapted to register and receive a lock, substantially as described.

3. A hasp of the character described, comprising a securing plate, a latch member both pivotally and slidably mounted on said plate, an out-turned locking flange at the free end of said latch, and a keeper adapted for attachment to a support and having an out-turned locking flange connected to the keeper by a narrow neck, there being a slot in said latch in which said keeper neck is adapted to be received, said latch and keeper flanges having alining holes for a lock and the latch being adjustable to bring said out-turned members into adjusted position, substantially as described.

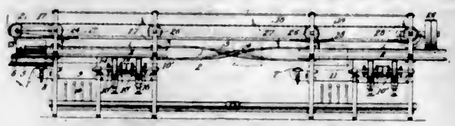
5. A hasp of the character described, consisting of a securing plate provided with a headed pin, a latch plate having a longitudinal slot through which said pin passes and which is adapted both to freely swing and to slide bodily on the pin which constitutes its sole connection to said securing plate, there being a substantially L-shaped slot opening through the side edge near the free end of the latch, and a keeper adapted to enter said slot and interlock with the latch, substantially as described.

6. In a hasp latch, a keeper having an undercut locking flange connected thereto by a neck, and a pivoted latch having a slot leading transversely inwardly from a side edge and then extending lengthwise thereof to a point near the free end of the latch, the transverse portion of the slot being adapted to swing down over said neck which is adapted to slide freely in the lengthwise portion of the slot, and securing means which permits the

latch to slide lengthwise thereon, there being a locking notch in the edge of the lengthwise slot adjacent to the edge of the latch through which said transverse slot opens.

[Claims 2 and 4 not printed in the Gazette.]

1,244,105. CAN-SOLDERING MACHINE. LEO J. LEFFLER, New York, N. Y. Filed Nov. 2, 1916. Serial No. 129,052. (Cl. 113—61.)



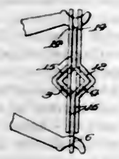
1. In a can-soldering machine, the combination of a guideway along which the can travels, a solder bath located in said guideway and having a length substantially equal to that of the can to be acted upon, and means for imparting a continuous motion to the can along the guideway but allowing it to dwell at the solder bath.

2. In a can-soldering machine, the combination of a guideway along which the can travels, mechanism located in the guideway for applying a flux to the can seam, mechanism also located in the guideway for cleaning the soldered seam, a solder bath located in the guideway between the flux applying mechanism and the cleaning mechanism, said solder bath having a length in the direction of movement of the can substantially equal to the length of the can to be soldered, and means for feeding the can with a continuous motion along said guideway from the flux-applying mechanism to the cleaning mechanism with an intervening dwell at the solder bath, substantially as described.

3. In a can-soldering machine, the combination of a guide along which the can travels, a solder bath arranged in said guide and having a length in the direction of movement of the can, substantially equal to the length of the can, two continuously running belts adapted to successively move the can along the guide, one of the belts arranged to move the can into the solder bath while the other is arranged to move the can out of the solder bath after an appreciable interval of dwell.

4. In a can-soldering machine, the combination of a guide along which the can travels, two continuously moving belts each having fingers adapted to engage and move the can along the guide, the fingers being located upon the respective belts in such relative positions that a finger on one belt will not engage and move the can until the lapse of an appreciable time after a finger on the other belt has ceased to move the can, thereby affording a dwell of the can in its passage through the machine.

1,244,106. FUSIBLE LINK. LEROY M. LEWIS, Merion, Pa. Filed July 21, 1916. Serial No. 110,449. (Cl. 236—16.)



1. A fusible link comprising an intermediate member having a body and a single projection extending outwardly from one side thereof equidistant from the lateral edges of said body and a pair of projections extending outwardly from the other side thereof adjacent the lateral edges of said body, and a pair of exterior members, one of said members having a single indentation adapted to receive said first-mentioned projection and located equidistant from the lateral edges of said member and the other of said members having a pair of indentations adapted to receive said last-mentioned projections and located adjacent the lateral edges of said member, said indentations extending in a single direction from the planes of the bodies of their respective members.

2. A fusible link comprising an intermediate member having a body and alined projections extending outwardly therefrom, one of said projections extending from one side of said body and equidistant from the lateral edges thereof, and the other projections extending from the opposite side of said body adjacent the lateral edges thereof, and a pair of exterior members respectively indented in a single direction, one of said members having an indentation adapted to receive said first-mentioned projection and positioned equidistant from the lateral edges of said member, and the other of said members having a pair of indentations each adapted to receive one of said last-mentioned projections each positioned adjacent the lateral edges of said member, and fusible material between the adjacent surfaces of said members operative to maintain said members in operative relation.

1,244,107. PROCESS FOR PRODUCING FLOWABLE COMPOUNDS OF ACETYL CELLULOSE. WILLIAM G. LINDSAY, Caldwell, N. J., assignor to The Celluloid Company, New York, N. Y., a Corporation of New Jersey. Filed Nov. 6, 1911, Serial No. 658,785. Renewed Mar. 19, 1917. Serial No. 155,952. (Cl. 106—40.)

1. The process which comprises incorporating about 100 parts of an acetone-soluble acetyl cellulose with about 20 to 50 parts of an aryl sulfonamid in the presence of a small proportion of a monohydric alcohol having not more than two carbon atoms, and in the further presence of a liquid adapted to produce a flowable solution in the cold, the proportion of the last named ingredient being from 10 to 40% of the alcohol ingredient.

4. The process which comprises incorporating about 100 parts of an acetone-soluble acetyl cellulose with about 20 to 50 parts of an aryl sulfonamid and about 40 to 100 parts of a monohydric alcohol having not more than two carbon atoms, and further incorporating a liquid adapted to produce a flowable solution in the cold, the proportion of the last named ingredient being from 10 to 40% of the alcohol ingredient.

10. The process which comprises incorporating about 100 parts of an acetone-soluble acetyl cellulose with about 20 to 50 parts of an aryl sulfonamid, about 40 to 100 parts of a monohydric alcohol having not more than two carbon atoms, and further incorporating therewith about 1 to 4 parts of a mixture consisting of about 70 parts by volume of alcohol and about 30 parts by volume of chloroform.

[Claims 2, 3, and 5 to 9 not printed in the Gazette.]

1,244,108. PROCESS FOR PRODUCING FLOWABLE COMPOUNDS OF ACETYL CELLULOSE. WILLIAM G. LINDSAY, Caldwell, N. J. Original application filed Nov. 6, 1911, Serial No. 658,785. Renewed Mar. 19, 1917, Serial No. 155,952. Divided and this application filed Mar. 19, 1917. Serial No. 155,934. (Cl. 134—79.)

1. The process which comprises incorporating an acetone-soluble acetyl cellulose with an alkyl aryl acetamid in the presence of a small proportion of a monohydric alcohol having not more than two carbon atoms, and in the further presence of a liquid adapted to produce a flowable solution in the cold, the proportion of the last named ingredient being from 10 to 40% of the alcohol ingredient.

3. The process which comprises incorporating an acetone-soluble acetyl cellulose with an alkyl aryl acetamid in the presence of a small proportion of a monohydric alcohol having not more than two carbon atoms, and in the further presence of chloroform.

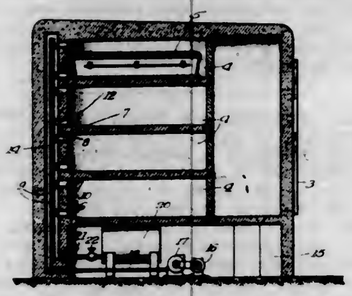
6. The process which comprises incorporating an acetone-soluble acetyl cellulose with a triaryl phosphoric acid ester, and also with an alkyl aryl acetamid in the presence of a small proportion of a monohydric alcoho

having not more than two carbon atoms, and further incorporating therewith a liquid adapted to produce a flowable solution in the cold.

7. The process which comprises incorporating about 100 parts of an acetone-soluble acetyl cellulose with about 20 to 50 parts of an alkyl aryl acetamid, about 40 to 100 parts of a monohydric alcohol having not more than two carbon atoms, and further incorporating therewith about 1 to 4 parts of a mixture consisting of about 70 parts by volume of alcohol and about 30 parts by volume of chloroform.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,244,109. MAUSOLEUM CONSTRUCTION. SIDNEY LOVELL, Chicago, Ill. Filed May 16, 1917. Serial No. 168,941. (Cl. 72—7.)



1. The combination with the vaults or crypts of a mausoleum, of a circulation pipe and tubular members extending between said circulation pipe and the interior of said vaults or crypts, said tubular members being provided with means for stopping the circulation of air in said pipe and directing it into and out of said vaults or crypts.

2. The combination with the vaults or crypts of a mausoleum, of a circulation pipe and tubular members extending between said circulation pipe and said vaults or crypts, said tubular members being provided with projections extending crosswise of said circulation pipe to stop the current of air therein and deflect the same into the vaults or crypts.

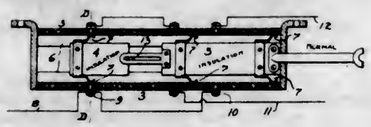
3. The combination with the circulation pipe of tubular members associated therewith, said tubular members being provided with projections extending crosswise of the circulation pipe and also with recessed portions to fit the shape of said pipe, the projections and recessed portions being arranged alternately in the successive members.

4. The combination with a circulation pipe provided with side apertures and laterally extending lugs or projections at the edges of said apertures, of tubular members fitted to said circulation pipe at said apertures, said tubular members having projections extending into and across said circulation pipe and fitting the interior wall of the same, said members also having cut-away portions adapted to fit the shape of said pipe, said tubular members fitting and being secured between the side lugs on said pipe, whereby circulation in said pipe is stopped and deflected outwardly through said tubular members.

1,244,110. SWITCH. WILLIAM R. MCNARY, Detroit, Mich. Filed Oct. 25, 1916. Serial No. 127,575. (Cl. 175—283.)

1. An automatic switch, comprising switching blocks, contacts thereon, a track with respect to which the blocks move provided with electrodes, one of the blocks being an active switching element and the other an idler which serves as an auxiliary switch and connections between the two blocks whereby movement of the blocks in one direction serves to successively completely close two circuits while the return movement by reason of the failure of the idler or auxiliary switch to close at the proper time does not result in completely closing a circuit.

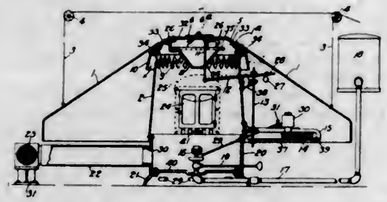
4. In a vehicle signaling apparatus, an automatic switch comprising a housing provided with three pairs of electrodes, first, second and idler electrodes, means for supplying current directly to the first electrodes, means for supplying current to the second electrodes only through the idler electrodes, and a pair of switch blocks for bridging the electrodes and guided in the housing, the active switch block being provided with two pairs of contacts, and the idler switch block being provided with one pair of contacts, and a lost motion connection between the blocks, the active block serving to bring one pair of contacts first into wiping relation with respect to the second electrodes, the contacts of the idler blocks be-



ing already in engagement with the idler electrodes, the movement of the active block serving to disconnect the contacts from the second electrodes and engage the second pair of contacts and the first electrodes and also serving to disengage the contacts of the idler with the idler electrodes, whereupon return movement of the active block serves first to disengage the contacts from the first electrodes, then brings the second contacts in engagement with the second electrodes but disengages them from the same before the idler contacts are brought back to the initial position of engagement with the idler electrodes.

[Claims 2 and 3 not printed in the Gazette.]

1,244,111. BROODER. JOHN FREEMAN MACKAY, Bordentown, N. J. Filed Mar. 20, 1916. Serial No. 85,373. (Cl. 119—32.)



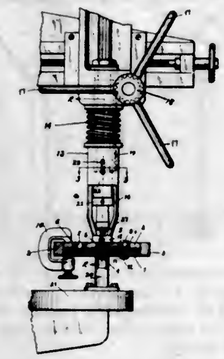
1. In a brooder, the combination of a central main heating drum having lateral openings for the passage of heated air, a base frame on which the drum is mounted, a heater in said base, a pure air supply pipe entering said base, a valve-provided casting supported upon the upper end of said drum, and carrying a ring surrounding the drum opposite the lateral air outlets for deflecting the air downwardly, an apertured hood loosely hung on the top casting and provided with means for raising and lowering it, an inner cone-shaped deflector opposite the said lateral outlets, means on the top casting for supporting said deflector, and a temperature control device within the hood for actuating the valve in the upper casting.

2. In a brooder, the combination of a central main drum having outlet openings near the upper end for the passage of heated air, a base on which the drum is mounted, a burner therein, a pure air supply entering the base, a casting on the upper end of the drum, a valve arranged in an opening in said casting, a hood supported on said casting, a ring carried by the casting and surrounding the drum opposite the air outlets for deflecting the air downwardly, and an inner deflector opposite the said lateral outlets, together with means on the upper casting for loosely carrying said deflector.

3. In a brooder, the combination of a central drum having lateral openings for the passage of heated air, a top

casting carried on said drum, a central valve pivotally arranged in an opening in said casting, an internal deflecting device opposite said lateral openings consisting of an inverted cone for diverting the air outwardly, means for loosely supporting said deflector upon the top casting, a ring surrounding the drum and supported from the top casting at a point opposite the lateral openings for deflecting the air downwardly and preventing drafts, an apertured hood loosely hung on the top casting, means for supplying pure cool air to the device, a burner, and a temperature control device within the hood for actuating the valve in the upper casting.

1,244,112. ATTACHMENT FOR DRILL-PRESSES. WILLIAM J. MACKLE, St. Louis, Mo. Filed Apr. 5, 1917. Serial No. 160,005. (Cl. 77—62.)



1. The combination of a drill and a perforated templet therefor, said drill having a chuck terminating in a shoulder sloping at its forward end, a beveled lip borne adjacent to the entrance of each templet-hole, said lip being adapted slidably to engage said shoulder to guide said drill to central position relative to the hole to be drilled, and means for alining a plurality of resilient sheets or plates and holding them in alinement and in operative relation to the templet.

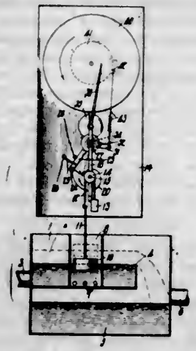
8. The combination with a drill-press having means for advancing and retracting the drill-carrying means thereof, of a spring-actuated work-holding element and means operable when the drill is retracted for moving the work-holding element against the tension of its spring-actuating means.

[Claims 2 to 7 and 9 not printed in the Gazette.]

1,244,113. RECORDER. FRANK L. MARTINDALE, Bay City, Mich. Filed Nov. 1, 1915. Serial No. 58,959. (Cl. 73—167.)

1. In combination with an instrumentality concerning which information is desired, a member movable as a given condition of the instrumentality changes, a cam movable with the member, said cam being shaped in accordance with the value of the condition at the different points in the movement of the member, a second member movable at predetermined intervals from an initial position into engagement with the cam, a movable member of an exhibiting device, and means for imparting to the last mentioned movable member a movement representative of the summation of the several movements of the second member, whereby the summation of the condition may be exhibited.

7. A fluid flow meter comprising a shaft movable in response to the presence of the fluid, a cam movable with the shaft, said cam being shaped in accordance with the amount of fluid passing the meter at the different positions of the fluid responsive shaft, a second shaft, a cam-striking arm loosely mounted thereon, a spring normally holding the arm out of engagement with the cam, a ratchet wheel movable with the shaft, time controlled means for causing the cam-striking arm to move at intervals into engagement with the cam, means for imparting to the ratchet wheel a movement corresponding to the summation of the individual movements of the cam-striking arm, and



means whereby the movement of the ratchet wheel is made expressive of the quantity of fluid that has passed the meter.

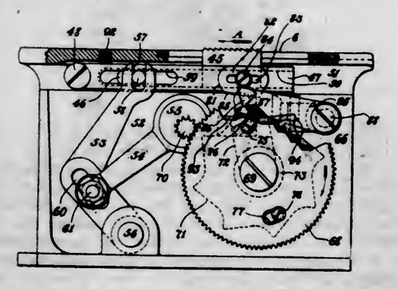
[Claims 2 to 6 not printed in the Gazette.]

1,244,114. COMPOSITION OF MATTER FOR REMOVING INCRUSTATIONS FROM INTERNAL-COMBUSTION ENGINES. EDWARD MENDELSOHN, St. Louis, Mo., assignor, by direct and mesne assignments, to Carbon Cleaning Compound Company, St. Louis, Mo., a Corporation of Missouri. Filed Feb. 24, 1913. Serial No. 750,399. (Cl. 87—5.)

1. A composition of the class described produced by the mixture of substantially 25% alcohol, 57% aqua ammonia, and 18% commercial ether.

2. As a composition of matter for removing carbon deposits from internal combustion engines, a volatile solution consisting of alcohol, aqua ammonia and commercial ether.

1,244,115. SEWING-MACHINE. JOSEPH M. MERROW, Hartford, Conn., assignor to The Merrow Machine Company, Hartford, Conn., a Corporation of Connecticut. Filed Apr. 6, 1916. Serial No. 89,457. (Cl. 112—8.)



1. In a sewing machine, a feed dog, a shiftable support for the feed dog, means including a rotary shaft for reciprocating the feed dog with respect to its support, a pinion on the shaft, a gear meshing with the pinion, a pair of cams of different contour secured to the gear, and a device contiguous to the feed dog support provided with a cam engaging portion shiftable wholly into the path of either of said cams, whereby the feed dog may be moved into work engaging relation through different lengths of its reciprocatory movement.

2. In a sewing machine, a feed dog, means for reciprocating the feed dog, mechanism including cams of

different contour for moving the feed dog into work engaging relation, and a device associated with the feed dog provided with a cam engaging portion shiftable wholly into the respective path of any one of said cams.

4. In a sewing machine, a feed dog, a shiftable support for the feed dog, means for reciprocating the feed dog with respect to its support, a plurality of cams each operable to reciprocate the feed dog support in a different relation to reciprocatory movement of the feed dog, a movable device extending between the feed dog support and the cams and a pin carried by said device, said pin on one side of the device being in constant engagement with the feed dog support and on the other side of the device having a head recessed to form a cam engaging portion which for different positions of the device is adapted to lie wholly within the path of a respective cam.

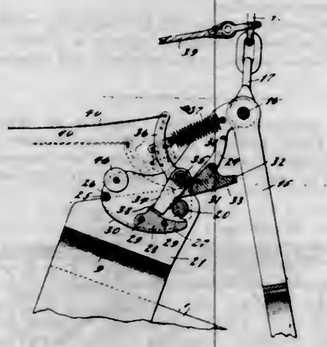
[Claims 3 and 5 not printed in the Gazette.]

1,244,116. PAPER AND METHOD OF MAKING THE SAME. EDWARD F. MILLARD, Watertown, Mass. Filed June 7, 1916. Serial No. 102,322. (Cl. 92—38.)

1. The improvement in the art of paper making which consists in preparing mechanically directly from raw wood a pulp stock composed substantially of short thin raw wood fibers, separately preparing mechanically directly from raw wood another pulp stock composed substantially of relatively longer raw wood fibers, mixing the longer fibrous stock with the short fibrous stock in substantially equal proportions to form a pulp mixture having a sufficient quantity of long fibers to loosen up the short fibers and to facilitate running of the pulp combined with a sufficient quantity of short fibers to impart strength and finish to the paper, and preparing the paper directly from such pulp mixture.

[Claims 2 to 4 not printed in the Gazette.]

1,244,117. EXCAVATING-BUCKET. THOMAS SPENCER MILLER, South Orange, N. J. Filed Dec. 3, 1912. Serial No. 734,673. (Cl. 37—54.)



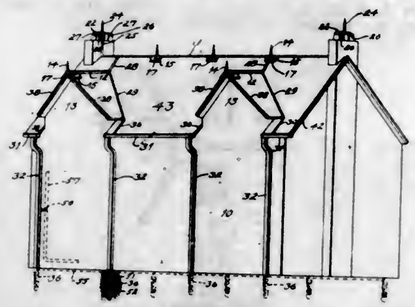
1. An excavating bucket having an open forward end, a forwardly swinging bail pivoted to the bucket, a latch member pivoted to the bail and having a downwardly directed hook, a part on the forward end of the bucket adapted to be engaged by said hook, and means carried by the latch member and coöperating with said part for disengaging the hook therefrom.

3. An excavating bucket having an open forward end, a bail pivoted to the bucket behind the center of gravity thereof, a latch member pivoted to the bail and having a downwardly-directed hook, a part on the bucket adapted to be engaged by said hook, and a pivoted dog carried by the latch and adapted to engage said part adjacent the hook to lift the hook out of engagement with said part, a pull line for moving said dog into engagement with said part to disengage the hook therefrom, and a spring for returning the dog to normal position.

7. An excavating bucket having an open forward end, a bridge piece, a bail pivoted to the bucket and carrying a latch hook, a part on the bucket adapted to be engaged by said hook, said latch hook having a curved surface in rear of the hook opening to coöperate with said part to lift the hook over said part when the bail is moved toward the open end of the bucket, and a cam surface carried by the latch piece to cause said first-named surface to strike the bridge piece a glancing blow.

[Claims 2, 4 to 6, and 8 to 10 not printed in the Gazette.]

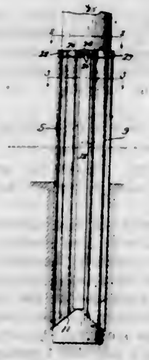
1,244,118. SYSTEM OF LIGHTNING-CONDUCTORS. GEORGE ALLEN MULLEN, Woodbury, N. J. Filed Nov. 6, 1915. Serial No. 59,957. (Cl. 173—31.)



1. The combination of a plurality of uninsulated conductors forming a cage about a structure comprising internal metallic masses with grounds connected to said conductors, and connections between said conductors and said metallic masses.

2. The combination with a plurality of chimney openings of a metallic grid across each opening, a bar connecting said grids and a discharge point mounted on said bar and a ground connected to said bar.

1,244,119. POLE-PROTECTIVE MEANS. SCHRIVER M. MULNIX, Lena, and ROLLIN O. ADAMS, Freeport, Ill. Filed Dec. 1, 1916. Serial No. 134,448. (Cl. 189—32.)

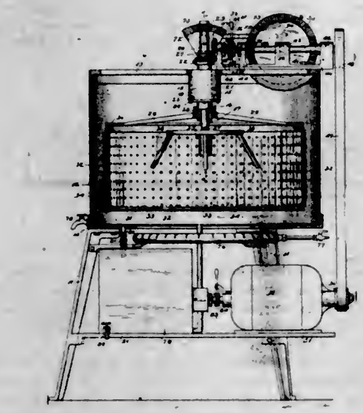


1. A pole protective means comprising a plurality of transversely curved longitudinally corrugated sheet metal sections having their opposed edges formed to provide projecting locking flanges, and relatively narrow elongated locking means structurally independent of said sections shaped to engage with said flanges and securely unite said sections together throughout their length whereby to produce a closed cylindrical protector adapted to surround and snugly embrace a pole.

2. A pole protective means comprising a plurality of transversely curved longitudinally corrugated sheet metal sections having their opposed edges formed to provide projecting locking devices, and elongated relatively narrow tapered locking means shaped to coöperate with said devices to securely unite said sections together throughout their length whereby to produce a tapered cylindrical protector adapted to surround and snugly embrace a pole.

3. A pole protective means comprising a plurality of transversely curved longitudinally corrugated sheet metal sections, means for securely uniting said sections together throughout their length to surround a pole, and a sectional cap adapted to fit over and embrace the upper end of said protector and cover the space betwen a pole and a surrounding protector.

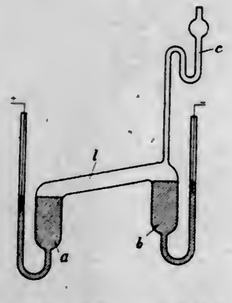
1,244,120. WASHING-MACHINE. JOHN NEGRESCOU, Chicago, Ill. Filed Oct. 18, 1916. Serial No. 126,234. (Cl. 68—15.)



1. In a washing machine, the combination of a tub, a bearing hub suspended from the top of said tub, a hollow vertical shaft supported in said hub, a clothes containing basket supported from the lower end of said shaft to rotate therewith, a second shaft extending through said hollow shaft and supported at the top thereof, a clothes agitator and gripper member supported from the lower end of said second shaft, and means for rotating said shafts.

[Claim 2 not printed in the Gazette.]

1,244,121. METALLIC-VAPOR LAMP. WALTHER NERNST, Berlin, Germany, assignor to Deutsche Gasglühlicht Aktiengesellschaft (Auergesellschaft), Berlin, Germany, a Corporation of Germany. Filed Feb. 2, 1914. Serial No. 815,869. (Cl. 176—42.)



1. A metallic vapor lamp comprising a receptacle having an illuminating space, an auxiliary chamber communicating with said space, and a cathode of vaporizable metal, the space within the receptacle being normally at substantially atmospheric pressure.

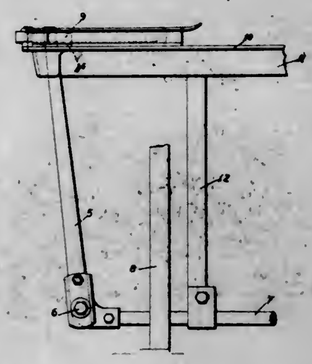
2. A metallic vapor lamp comprising a receptacle having an illuminating space, an auxiliary chamber, a cooler which connects illuminating space and auxiliary chamber and normally has a free passage therethrough, and a cathode of vaporizable metal within the receptacle, the free space within the entire receptacle being normally filled with a rare gas.

3. A metallic vapor lamp comprising a receptacle having an illuminating space, an auxiliary chamber, a cooler between illuminating space and auxiliary chamber and connected with both, and a cathode of vaporizable metal the space within the receptacle being normally at atmospheric pressure.

4. A metallic vapor lamp comprising a receptacle having an illuminating space, an auxiliary chamber, a normally open U-shaped connecting tube between illuminating space and auxiliary chamber, and a cathode of vaporizable metal, said U tube being adapted to collect condenser cathode metal, thereby becoming closed, during the operation of the lamp, the entire free space within the lamp being normally filled with an inert gas.

5. The improvement in the art of operating metallic vapor lamps having a vaporizable metal electrode which comprises starting the arc through a body of inert gas which is in contact with the cathode and in then causing said gas to be pressed substantially completely out of the illuminating space of the lamp by the vaporized cathode metal.

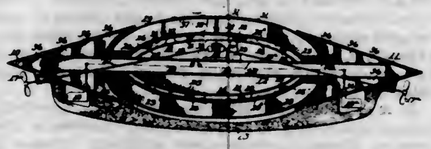
1,244,122. LOOM-PICKER. JONAS NORTHROP, Hopedale, Mass., assignor to Hopedale Manufacturing Company, Milford, Mass., a Corporation of Massachusetts. Filed Jan. 8, 1916. Serial No. 70,937. (Cl. 139—48.)



1. A loom having, in combination, a lay, a shuttle race, a shuttle box, a binder arranged to yieldingly engage the shuttle as it enters the shuttle box, a pivoted picker-staff, a picker loosely engaging the picker-staff, a picker-staff slot in the shuttle race having an enlarged portion of greater width than the picker for the passage therethrough of an ejected bobbin, and a low friction plate of greater width than the enlarged portion of the slot interposed between the picker and the shuttle race.

2. A loom having, in combination, a lay, a shuttle race, a shuttle box, a pivoted picker-staff, a picker loosely engaging the picker-staff, a binder having an inside wall closely adjacent to one side of the path of travel of the picker for yieldingly engaging the shuttle as it enters the shuttle box, a picker-staff slot having an enlarged portion of greater width than the picker, a plate of greater width than the enlarged portion of the slot interposed between the picker and the shuttle race, and a recess formed in the inner wall of the binder for the free passage of the part of the plate extending laterally beyond the picker.

1,244,123. BOAT. SEROP ODABASHIAN, Worcester, Mass. Filed Mar. 26, 1917. Serial No. 157,370. (Cl. 9—4.)



1. A boat comprising end sections, a fixed hollow shaft securing said sections rigidly together, an inner chamber mounted in fixed position on said shaft, and a sectional outer casing rotatably mounted on said shaft.

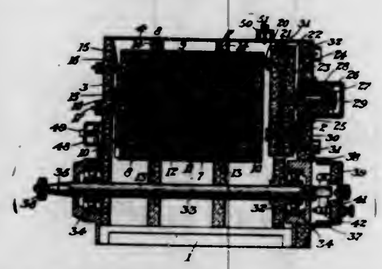
4. A boat comprising end sections, a fixed hollow tube securing said sections rigidly together, an inner chamber mounted in fixed position on said tube, an outer casing rotatably mounted on said tube, and means to rotate said casing.

9. A boat comprising end sections, a fixed hollow tube securing said sections rigidly together, an inner chamber mounted in fixed position on said tube, and a sectional outer casing rotatably mounted on said tube, said inner chamber containing driving mechanism, and a transmission shaft being provided which extends diagonally through said hollow tube to a suitable propeller.

13. A boat comprising a fixed inner compartment, a plurality of separate outer compartments detachably secured together and inclosing said inner compartment, and signal devices whereby injury to any outer compartment will be indicated in said inner compartment.

[Claims 2, 3, 5 to 8, and 10 to 12 not printed in the Gazette.]

1,244,124. SPARK PRODUCING AND DISTRIBUTING APPARATUS FOR EXPLOSIVE-MOTORS. VITAL PAQUIT, Stapleton, N. Y. Filed Oct. 4, 1916. Serial No. 123,643. (Cl. 123—149.)



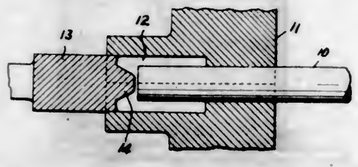
1. A device of the class described, comprising a suitable frame or casing, a coil and condenser, a rotary distributer adjacent the coil, a drive shaft and gearing adapted to rotate the distributer in fixed angular relation with respect to the crank shaft of a multiple cylinder explosive motor, a rotary cam provided with regularly spaced cam projections, in combination with a plurality of circuit breakers symmetrically distributed about said cam and provided with suitable wearpieces in operative relation thereto, the number of projections on the rotary cam being three and the number of circuit breakers and wearpieces being two.

2. A device of the class described, comprising a suitable frame or casing, a coil and condenser, a rotary distributer adjacent the coil, a drive shaft and gearing adapted to rotate the distributer in fixed angular relation with respect to the crank shaft of a multiple cylinder explosive motor, a rotary cam provided with regularly spaced cam projections, in combination with a plurality of circuit breakers symmetrically distributed about said cam and provided with suitable wearpieces in operative relation thereto, the number of projections on the rotary cam being odd and the number of circuit breakers and contacts being even.

3. A device of the class described, comprising a suitable frame or casing, a coil and condenser, a rotary distributer adjacent the coil, a drive shaft and gearing adapted to rotate the distributer in fixed angular relation with respect to the crank shaft of a multiple cylinder explosive motor, a rotary cam provided with regularly spaced cam projections, in combination with a plurality of circuit breakers symmetrically distributed about said cam and provided with suitable wearpieces in operative relation thereto, the number of the rotary cam projections and of the circuit breaker wearpieces being one odd and the other even.

[Claims 4 to 7 not printed in the Gazette.]

1,244,125. METHOD OF MAKING BOLTS. LE GRAND PARISH, Mountainview, N. J. Original application filed Mar. 2, 1912, Serial No. 681,259. Divided and this application filed June 30, 1917. Serial No. 177,932. (Cl. 10—27.)

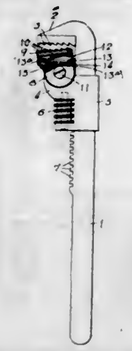


1. The herein-described process of forging bolts from bar stock which consists in upsetting the head and forming a recess having converging walls in the face of the head by the same operation, the depth of the recess being less than the depth of the head.

2. The herein-described process of forging bolts from bar stock which consists in upsetting a head of greater dimension than the shank and in simultaneously forming a recess in the face of the head of substantially the same configuration as the head, the depth of the recess being less than the depth of the head.

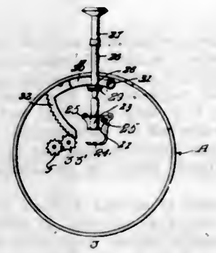
3. The herein-described process of forging bolts from bar stock which consists in upsetting a head of greater dimension than the shank and in forming a recess in the face of the head having converging walls, the depth of the recess being less than the depth of the head, and the width of that portion of the recess nearest the shank being less than the diameter of the shank.

1,244,126. PIPE-WRENCH. ANTON PLACEK, Cleveland, Ohio. Filed Mar. 28, 1917. Serial No. 158,061. (Cl. 81—97.)



A pipe wrench including a handle provided with a laterally projecting fixed jaw, a slide adjustably mounted upon the handle and movable toward and away from the fixed jaw, a movable jaw formed with an arm which is pivotally mounted upon the slide, said slide being provided under the movable jaw with a recessed seat having an undercut notch at one end thereof, a bearing plate fitted loosely within the recessed seat and having one end thereof received within the undercut notch, a V-shaped spring interposed beween the slide and the movable jaw and having one arm thereof in engagement with the bearing plate, while the other arm thereof engages the movable jaw to swing the same outwardly into a position inclined with respect to the fixed jaw, and an adjusting screw threaded in the slide at an angle to the bearing plate and terminating in a conical nose which engages the bearing plate for adjusting the position of the latter to regulate the tension of the spring, the movable jaw being swung inwardly toward the fixed jaw and into a substantially parallel relation thereto when the wrench is in operation.

1,244,127. WATCH. FRED F. J. PRIHODA, New Rochelle, N. Y. Filed Dec. 11, 1915. Serial No. 66,329. (Cl. 58—63.)

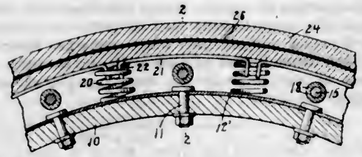


1. In a watch winding mechanism, a spring arbor, a gear on said arbor, a longitudinally movable stem, an arm pivoted at one end adjacent said stem, a sectoral rack on the free end of said arm enmeshed with said gear, a shoulder on said stem to engage said arm, and a clutch mechanism connecting said arbor and winding mechanism.

5. In a watch winding mechanism, a spring arbor, a stem, a shoulder on said stem, an arm pivoted at one end and extending across and in close proximity to said stem, an offset portion on said arm adapted to be engaged by said shoulder when said stem is moved in one direction, and a sectoral rack at the free end of said arm operatively connected with said winding mechanism.

[Claims 2 to 4 not printed in the Gazette.]

1,244,128. WHEEL. SCHUYLER S. RANKIN, Newark, N. J. Filed Sept. 16, 1916. Serial No. 120,482. (Cl. 152—8.)

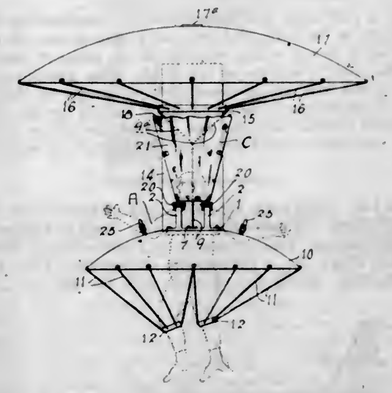


1. In a wheel, a rim of substantially channel form with its side walls projecting laterally at intervals, coil springs between the said walls at the regions of said lateral projection of the side walls, leaf springs having their ends received within the coil springs and forming a substantially continuous spring surface, and a tire on the spring surface so formed.

2. In a wheel, a rim of substantially channel form with its opposite side walls laterally bulged at intervals, coil springs between the side walls at said bulged regions, said springs being of an exterior diameter greater than the distance between the principal side walls of the channel, leaf springs having their ends received within the coil springs and forming a substantially continuous spring surface, and a tire on the spring surface so formed and projecting from and received partly within said rim.

3. In a wheel, a rim of substantially channel form, a tire received partly within and partly without said rim, the sides of the tire and the rim being substantially parallel, the tire being provided with laterally extending flexible aprons, and said aprons extending into and substantially filling the spaces alongside the tire and between it and the rim.

1,244,129. PARACHUTE. ADOLPH RANSON, South Charleston, W. Va., assignor of one-half to Staunton Isaac, South Charleston, W. Va. Filed Apr. 30, 1917. Serial No. 165,532. (Cl. 244—21.)



1. A device of the character described, including a body encircling band, a lower collapsible fabric parachute pendent from the body encircling band, a collapsible air conduit extending upwardly from the lower parachute, and an upper collapsible fabric parachute arranged above the air conduit so as to be acted upon by the air passing upwardly through the same.

6. A device of the character described, including a split body encircling band having outstanding ears at the ends thereof, a pin connecting the ears, a nut threaded upon the pin for coöperation therewith to adjust the effective size of the body encircling band, a reel mounted upon the pin, a collapsible parachute, and a cable operatively connected to the collapsible parachute and adapted to be wound upon the reel.

8. A device of the character described, including shoulder harness, a vane hingedly connected to the shoulder harness and adapted to fold against the body, means for projecting the vane upwardly when released, and a collapsible parachute member operatively connected to the shoulder harness and adapted to be held in a collapsed condition by the vane when the latter is swung into inoperative position.

12. A device of the character described, including shoulder harness, a vane hingedly connected to the shoulder harness and adapted to be folded against the body, said vane being formed with an outwardly curved portion, means for swinging the vane upwardly when released, a lower collapsible parachute pendent from the shoulder harness, a collapsible air conduit extending upwardly from the lower parachute, a ring surrounding the air conduit, and an upper collapsible parachute adapted to be arranged above the air conduit to be acted upon by the air passing upwardly through the same, said upper parachute being connected to the ring and the upper parachute and air conduit being adapted to be collapsed and

received within the outwardly curved portion of the vane when the latter is swung downwardly against the body.

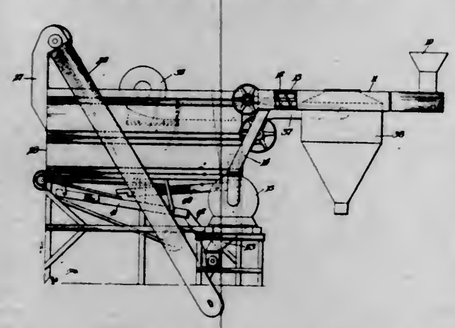
[Claims 2 to 5, 7, and 9 to 11 not printed in the Gazette.]

1,244,130. PILOT-LIGHT FOR GAS-BURNERS. LOUIS RASCH, New York, N. Y., assignor of one-third to George W. Dickerman, New York, N. Y. Filed Jan. 2, 1917. Serial No. 140,172. (Cl. 67—16.)



In a pilot light for gas burners, the combination with a shield in the form of a truncated cone having an open top and a closed bottom disposed in the plane of the base of the cone, the sides of the shield being provided near the bottom with air openings directed toward the bottom, and a gas burner within said shield having its gas outlet between the said open top and air openings and so located that the flame thereof may pass out through the said open top.

1,244,131. METHOD OF AND APPARATUS FOR DELINTING COTTON-SEED HULLS. MERCER REYNOLDS, Chattanooga, Tenn., assignor to Atlanta Utility Works, East Point, Ga., a Corporation of Georgia. Filed June 10, 1916. Serial No. 103,002. (Cl. 13—10.)



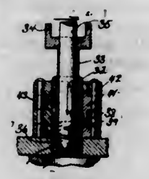
2. A process for delinting cotton seed hulls which comprises rubbing the hulls in a suitable rubbing machine, passing the rubbed material through mechanism for separating the lint, finer particles and coarser particles from each other, rubbing the coarser particles in a second rubbing machine, mixing the rubbed material from the second rubbing machine with the rubbed material from the first rubbing machine and feeding the mixture to said separating mechanism and recovering the lint and delinted or cleaned hull particles.

5. In an apparatus for delinting cotton seed hulls, the combination of a rubbing machine, means for feeding hulls to said machine, a separating device, means for conveying the rubbed material from said machine to said device, said device having means for separating the finer from the coarser particles, lint collecting means, means for removing the lint from said device and delivering the same to said lint collecting means, a second rubbing machine, means for delivering the coarser particles to said second rubbing machine, and means for conveying the rubbed material from the second rubbing machine to the first mentioned conveying means to be mixed with the rubbed material from the first mentioned rubbing machine and delivered to said separating device.

8. An apparatus for delinting cotton seed hulls comprising a rubbing machine, mechanism for separating the lint, finer particles, and coarser particles of hulls coming from said rubbing machine, means for subjecting the coarser particles coming from said separating mechanism to a second rubbing action, and means for conveying the product of said second rubbing action to said separating means.

[Claims 1, 3, 4, 6, and 7 not printed in the Gazette.]

1,244,132. METHOD OF MAKING BRUSHES. DAVID S. RING, Waltham, Mass. Filed Dec. 19, 1912. Serial No. 737,615. (Cl. 15—7.)



1. The method of making a brush which consists in placing the ends of a mass of brush material in an outer binder, inserting a tubular guide in the midst of the brush material, clamping the brush material about said guide, passing a packing implement and an inner binder through the guide and the material while so clamped, and leaving the inner binder within that portion of the mass of brush material which is surrounded by the outer binder.

2. The method of making a brush which consists in placing one end of a collection of bristles in an outer binder, inserting a tubular guide into the center of the mass of bristles from the tips thereof toward the binder, at the same time spreading the bristles so that they lie outside of said guide, passing a tapered packer successively through the guide and the outer binder, so as to spread and pack the butts of the bristles against the outer binder, inserting an inner binder in the space opened by said packer, and withdrawing the guide.

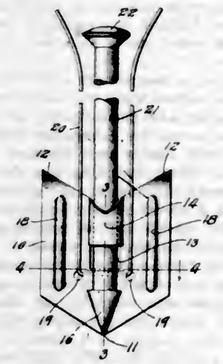
3. The method of forming a brush which consists in placing one end of a mass of brush material in an annular outer binder, inserting a tubular guide in the center of that portion of the brush material which projects from the binder, at the same time spreading the material so that it surrounds the guide and leaves the interior of the guide open, placing a clamp around the brush material and gripping the same against the guide, passing an inner binder through the guide and into the zone surrounded by the outer binder, and finally removing the clamp and guide.

4. The method of making a brush which consists in placing an annular binder or ferrule about the end of a mass of bristles, opening the center of that part of the mass projecting from said binder and inserting a tubular guide in the space thereby formed in the mass, forcing a tapered packer and an inner binder together through the guide and through that portion of the mass which is surrounded by the outer binder, removing the packer, and removing the guide.

1,244,133. GROUND-ANCHOR. DAVID R. SAUNDERS, St. Louis, Mo.; James P. Newell administrator of said David R. Saunders, deceased. Filed Nov. 4, 1915. Serial No. 59,590. (Cl. 189—92.)

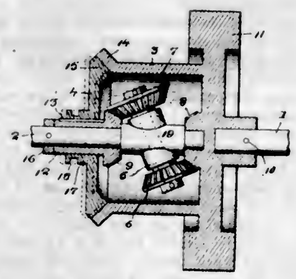
A ground anchor comprising a comparatively thin flat metal plate having straight parallel side edges and provided near its center with an opening adapted to receive a driving bar, the metal immediately above said opening being pressed outwardly to form a substantially semicircular seat for the driving bar associated with said anchor, there being a horizontally disposed slot formed in the plate below said opening, the material in said plate

immediately below said slot being pressed to one side to form a substantially triangular reinforcing member, the upper end of which forms a shoulder which serves as a bearing for the driving bar utilized in driving the anchor



into the ground, there being vertically disposed reinforcing ribs pressed in the plate between the opening and the side edges of the plate, and there being wire receiving apertures formed through said plate between the opening and said reinforcing ribs.

1,244,134. TRANSMISSION-GEARING. HANS SCHNEIDER, New York, N. Y. Filed Feb. 16, 1917. Serial No. 149,080. (Cl. 74—34.)

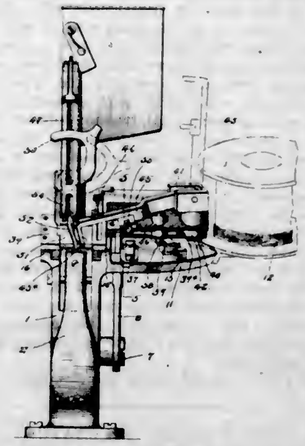


3. In transmission gearing, the combination of a driving shaft, a driven shaft, a clutch member actuated by the driving shaft at the same speed as the latter, a second clutch member rotatably mounted loose on the driven shaft and movable longitudinally of the latter into and out of engagement with the first named clutch member, and bevel gearing interposed between the driving shaft and the second clutch member, said gearing including a countershaft carried by the driven shaft, said gearing and clutch members being so designed that when the clutch members are in working engagement, they both revolve at the same speed and when said clutch members are not in driving engagement said clutch members revolve at different speeds.

[Claims 1, 2, and 4 not printed in the Gazette.]

1,244,135. BUTTON-STAPLING MACHINE. JOSEPH SCHWEISS, St. Louis, Mo., assignor to Landis Machine Company, St. Louis, Mo., a Corporation of Missouri. Filed Apr. 21, 1917. Serial No. 163,602. (Cl. 218—8.)

1. In a stapling machine, the combination of a forming block mounted for reciprocatory movement, a driver mounted in association with the forming block for reciprocatory movement differential to the movement of said block, and an actuating member having a permanent operative connection with the driver and an independent releasable operative connection with the block whereby those members may be actuated for their reciprocatory movement, there being a yielding pressure means forming an operative connection between the block and the driver whereby the block may be actuated by movement of the driver.



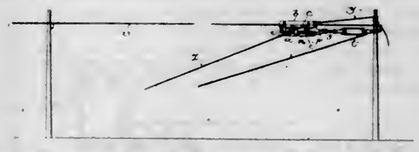
3. In a stapling machine, the combination of a reciprocatory forming block, a differentially reciprocatory driver associated therewith, an oscillatory actuating member, a portion of said actuating member being movable into and out of operative connection with the forming block upon movement of the actuating member, and a portion carried by said actuating member forming a permanent operative connection with the driver.

8. In a button stapling machine, the combination with suitable forming and driving mechanism, of a button container spaced apart from said mechanism, and a button feeding finger pivoted at one side of said container and said mechanism, for oscillatory movement intermediate said container and said mechanism across the line of movement of the driving mechanism.

25. In a button stapling machine, the combination of stapling mechanism, a button container, a button feeding finger for conveying a button from said container to said mechanism, tension means for urging said finger for cooperation with the container, and a universal mounting for the finger whereby it may be moved out of association with the tension means.

[Claims 2, 4 to 7, and 9 to 24 not printed in the Gazette.]

1,244,136. CABLE GRIPPING AND STRETCHING DEVICE. IVER B. SEGERDAHL, Prineville, Oreg., and GUSTAF ALFRED SEGERDAHL, Milwaukee, Wis. Filed Nov. 15, 1916. Serial No. 131,363. (Cl. 24—134.)



5. In a cable gripping and stretching device the combination of a frame plate provided with a fixed longitudinal jaw and adjacent to one end with a draft connection, a jaw guided and movable on said plate toward and from the fixed jaw, eccentrics mounted on one side of said plate in engagement with the movable jaw, levers fulcrumed on the other side of said plate and connected by links with the movable jaw, and a draw bar connected

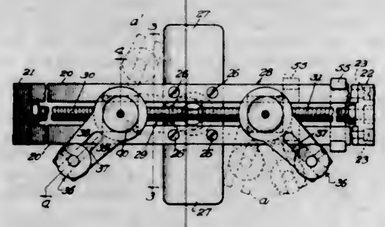
with said eccentrics and levers and provided at opposite ends with draft connections.

6. In a cable gripping and stretching device the combination of a frame plate provided with a fixed longitudinal jaw and adjacent to one end with a draft connection, a jaw guided and movable on said plate toward and from the fixed jaw parallel therewith, eccentrics mounted on one side of said plate in engagement with the movable jaw, levers fulcrumed on the other side of said plate and connected by links with the movable jaw, a spring tending to shift the movable jaw toward the fixed jaw, and a draw bar connected with said eccentrics and levers and provided at opposite ends with draft connections.

7. In a cable gripping and stretching device the combination of a frame plate provided along the upper side with an overhanging fixed longitudinal jaw, a jaw guided and movable on said plate toward and from the fixed jaw parallel therewith, a clear space being left on one side of the device to receive the cable between the jaws when they are separated, keepers fastened to one of the jaws and adjustable into and out of position across the space between them for confining the cable between the gripping faces of the jaws, eccentrics mounted on one side of the plate in engagement with the movable jaw, levers mounted on the opposite side of the plate and connected by links with the movable jaw, and a draw bar connected with the eccentrics and levers.

[Claims 1 to 4 not printed in the Gazette.]

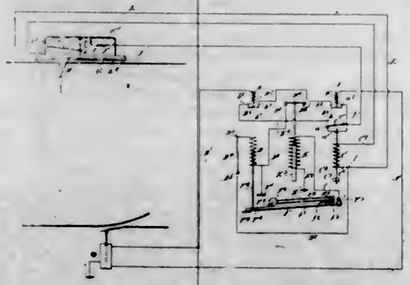
1,244,137. COIL-WINDING APPARATUS. FRANK B. SEGUR, Chicago, Ill. Filed Nov. 1, 1916. Serial No. 128,895. (Cl. 140—92.2.)



1. A coil winding form comprising a frame; adjustable studs longitudinally movable on said frame; an arm or wing, for holding a coil support, pivoted to each said stud and a coil support longitudinally adjustable on each said arm and radially with reference to the respective stud.

[Claim 2 not printed in the Gazette.]

1,244,138. TRACK-SWITCH. CHARLES W. SQUIRES, Beverly, Mass. Filed Aug. 27, 1915. Serial No. 47,579. (Cl. 104—198.)



1. In a device of the kind described, an electromagnet, two coils, means whereby the energizing of either coil will cause the energizing of said electromagnet and comprising two circuit closers, one adapted to be operated by each coil and means whereby either coil may be energized comprising a circuit closer and means for operating it to close the circuit momentarily and a resistance located in circuit with said circuit closer and one of said coils whereby an impulse of current of low amperage will be sent through either one of said coils to operate its circuit closer.

2. As a means for temporarily energizing either of two electromagnets, a feed wire, two coils, one connected to each electromagnet and normally out of connection with said feed wire, means for energizing either coil momentarily, two circuit closers each operated by one of said coils to close a circuit including said feed wire and one of said electromagnets and means for breaking said circuit comprising a circuit breaker and means for operating it whereby said circuit will be broken a predetermined time after said circuit has been closed.

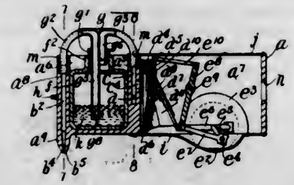
3. As a means for temporarily energizing either of two electromagnets, a feed wire, two coils, one connected to each electromagnet and normally out of connection with said feed wire, means for energizing either coil momentarily, two circuit closers each operated by one of said coils to close a circuit including said feed wire and one of said electromagnets and means for breaking said circuit comprising a circuit breaker and means for operating it whereby said circuit will be broken a predetermined time after said circuit has been closed, said means comprising a pivoted table, means for lifting one end thereof, a traveling circuit closer carried by said table and adapted to travel thereon when said end has been lifted, terminals located in the path of said traveling circuit closer whereby said terminals may be electrically connected upon engagement by said traveling circuit closer, said terminals forming part of a circuit adapted when closed to operate said circuit breaker.

8. In a device of the kind described, means for energizing either one of two electromagnets comprising two coils, one in circuit with each electromagnet, means for temporarily energizing one of said coils, means operated by such coil when temporarily energized to permanently energize its electromagnet, a time limit mechanism, electrical means for operating said time limit mechanism comprising a circuit closer and means operated by said time limit mechanism whereby the main circuit will be broken.

11. A normally-open track switch circuit comprising two track switch magnets, trolley-operated means to close the circuit through either of said magnets at will, a normally-open auxiliary circuit having a ground connection distinct from the track switch circuit and means operable automatically to close said auxiliary circuit a predetermined time after the closing of said track switch circuit, and means whereby the closing of said auxiliary circuit will cause the breaking of said track switch circuit.

[Claims 4 to 7, 9, and 10 not printed in the Gazette.]

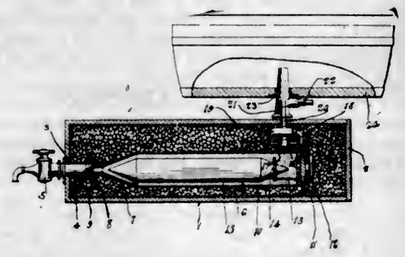
1,244,139. CARPET-CLEANER. ANGEL STATHAKIS, Elizabeth, N. J., assignor of one-half to Thomas F. Burke, Elizabeth, N. J. Filed Mar. 30, 1914. Serial No. 828,163. (Cl. 261—121.)



1. In a dust collector, a frame provided with an air inlet passage and an air outlet passage, a separating receptacle located in said frame and adapted to contain a cleaning liquid, an integral rigid conveying member provided with a freely removable closure for said receptacle and consisting of a long leg which extends into said receptacle to a point beneath the surface of the liquid and a short leg which extends into said receptacle to a point above said liquid, a curved tubular arm forming a continuation of said long leg and the free end of which rests in said air inlet passage, another curved tubular arm forming a continuation of the short leg and having its free end resting in said air outlet passage and a suction device connected to the air outlet passage.

2. In a dust collector, a removable separating receptacle adapted to contain a cleaning liquid and provided with a neck, an integral removable conveying member consisting of two different length legs extending into said receptacle and provided with a freely removable closure for said neck, a baffle provided on the leg of greatest length below the lower end of the leg of least length for preventing dust or the like entering the leg of least length, a curved rigid inlet arm forming a continuation of said long leg through which dust laden air is adapted to be drawn, a curved rigid outlet arm forming a continuation of the short leg through which cleaned air is adapted to be drawn, and a suction device connected to the outlet arm

1,244,140. BEER-COOLER. JOSEPH A. STEINMETZ, Baltimore, Md. Filed July 8, 1916. Serial No. 108,149 (Cl. 62—142.)



A beer cooler comprising a casing a substantially cylindrical receptacle mounted within the casing, said receptacle having a substantially funnel-shaped end, a pipe detachably connected to the funnel-shaped end of the receptacle and extending through the casing, a valve carried by said pipe means for detachably connecting the cooling receptacle with a beer keg for suppiying the receptacle with beer, a substantially cylindrical float mounted within the receptacle and having conical-shaped ends, a wire secured to the receptacle at the end opposite the funnel-shaped end and bent to form a loop to slidably receive the end of the float to properly position the float within the receptacle, and means for automatically supplying air to the beer as it enters the cooling receptacle

1,244,141. SALT BRICK AND METHOD OF MAKING SAME. JOHN L. STERLING, Pittsburgh, Pa., assignor to Sterling Salt Brick Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Jan. 22, 1917. Serial No. 143,809. (Cl. 167—10.)

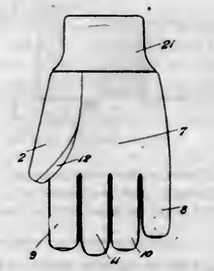
1. The method of making salt brick consisting in mixing salt and other ingredients with slightly boiled linseed oil, and then molding the same under pressure.

2. The method of making salt brick consisting in adding to salt slightly boiled linseed oil, mixing the same while maintaining the same in a warm moist condition, and then molding the same under pressure.

3. The method of making salt brick consisting in adding to salt and medicinal ingredients slightly boiled linseed oil, mixing the same by the admission of steam thereto, molding the same under pressure, and then thoroughly drying the same.

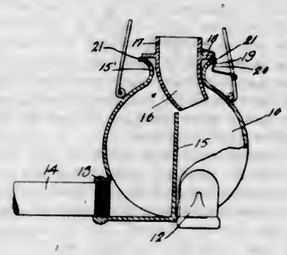
4. A salt brick comprising a dense, solid, smooth body comprising salt, medicinal and conditioning ingredients, and linseed oil as a binder.

1,244,142. GLOVE. JOSIAH TAZELAAR, Grand Rapids, Mich. Filed Jan. 22, 1916. Serial No. 73,600. (Cl. 2—9.)



In a device of the character described, an inner wearing section made of one piece of material and comprising parts to lie within the palm of the hand and inner sides of the fingers and thumb, a main cover section having a larger outline than the wearing section and comprised of parts to cover the back and sides of the hand, the back and sides of the first and last fingers, and the back, sides and part of the underside of the thumb, said cover section being seamed to the wearing section at the outer edges of both sections and an auxiliary cover section to cover the second and third fingers at the back and sides thereof, its side edges being secured with a continuous seam to the corresponding parts of the wearing section, and its remaining edge having connection by a seam to the main cover section, substantially as described.

1,244,143. PUMP ATTACHMENT. JOHN TRAIN, Wessington Springs, S. D. Filed Oct. 9, 1916. Serial No. 124,603. (Cl. 137—9.)

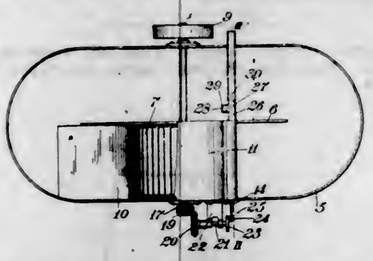


A water distributing or directing device, comprising a receiver adapted to hang from the discharge nozzle of a pump, said receiver provided with discharge ports, a partition in the receiver forming compartments each communicating with a discharge port, a directing spout entering the pump nozzle and the receiver, and means for turning the spout to selectively direct water into either compartment.

1,244,144. TUB-BEATER. CHARLES W. UNKLE and THEODORE D. GRILEY, Baltimore, Ohio. Filed June 15, 1917. Serial No. 174,843. (Cl. 92—23.)

1. In a paper pulping machine, the combination, with a tub and beater therein, of a hood for the beater, a perforated member against which the pulp is thrown by centrifugal action to separate the sufficiently reduced portions from the insufficiently reduced portions thereof,

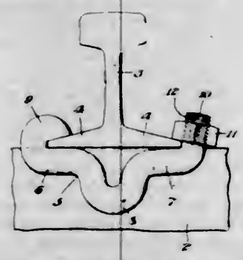
clearing means acting on said perforated member for preventing the clogging thereof by the insufficiently reduced



portions, and means for conducting away the material discharged through said perforations.

[Claims 2 to 4 not printed in the Gazette.]

1,244,145. ANTICREEPER FOR RAILROAD-RAILS. DAVID F. VAUGHAN, Riverton, N. J. Filed Dec. 16, 1913. Serial No. 806,963. (Cl. 238—4.)



1. The combination of a railroad rail having a base, and a stationary part of a road bed, of an anticreeper adapted to engage said stationary part and comprising a spring bar extending beneath the rail and having a part engaging the bottom thereof, one end of said bar having a rail gripping part engaging the top of one side of the rail base, a rail gripping part engaging the top of the other side of the rail base and provided with means operative to raise the other end of said bar, said bar being sprung from a normal condition and exerting upward pressure against the bottom of the rail and pressing said rail gripping parts down upon the base of the rail in tending to resume said normal condition.

2. The combination of a railroad rail having a base, and a stationary part of a road bed, of an anticreeper adapted to engage said stationary part and comprising a spring bar extending beneath the rail and having a part engaging the bottom thereof and having an upwardly-extending end adjacent one side of the rail base, the other end of said bar having a rail gripping part engaging the top of the other side of the rail base, and a rail gripping part adjustable vertically on said end and engaging the top of the adjacent side of the rail base, said bar being sprung from a normal condition and exerting upward pressure against the bottom of the rail and pressing said rail gripping parts down upon the base of the rail in tending to resume said normal condition.

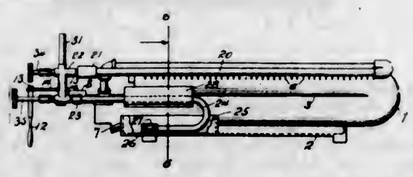
3. The combination of a railroad rail having a base, and a stationary part of a road bed, of an anticreeper adapted to engage said stationary part and comprising a spring bar extending beneath the rail and having a part engaging the bottom thereof and having an upwardly-extending screw-threaded end adjacent one side of the rail base, the other end of said bar having a rail gripping part engaging the top of the other side of the rail base, and a rail gripping part screwed on to said end and engaging the top of the adjacent side of the rail base, said bar being sprung from a normal condition and exerting upward pressure against the bottom of the rail and pressing said rail gripping parts down upon the base of the rail in tending to resume said normal condition.

4. The combination of a railroad rail having a base, and a stationary part of a road bed, of an anticreeper adapted to engage said stationary part and comprising a spring bar extending beneath the rail and having a part engaging the bottom thereof and having an upwardly-extending end engaging one side of the rail base, the other end of said bar having a rail gripping part engaging the top of the other side of the rail base, and a rail gripping part adjustable vertically on said end and engaging the top of the adjacent side of the rail base, the face of said end engaging said base being upwardly and outwardly inclined with respect to said base, said bar being sprung from a normal condition and exerting upward pressure against the bottom of the rail and pressing said rail gripping parts down upon the base of the rail in tending to resume said normal condition.

5. The combination of a railroad rail having a base, and a stationary part of a road bed, of an anticreeper adapted to engage said stationary part and comprising a spring bar extending beneath the rail and having a part engaging the bottom thereof and having an upwardly extending screw-threaded end engaging one side of the rail base, the other end of said bar having a rail gripping part engaging the top of the other side of the rail base, and a rail gripping part screwed on to said end and engaging the top of the adjacent side of the rail base, the face of said end engaging said base being upwardly and outwardly inclined with respect to said base, said bar being sprung from a normal condition and exerting upward pressure against the bottom of the rail and pressing said rail gripping parts down upon the base of the rail in tending to resume said normal condition.

[Claims 6 to 13 not printed in the Gazette.]

1,244,146. HYDROCARBON-BURNER. EMORY A. WALES, Kansas City, Mo. Filed Oct. 23, 1916. Serial No. 127,135. (Cl. 158—71.)



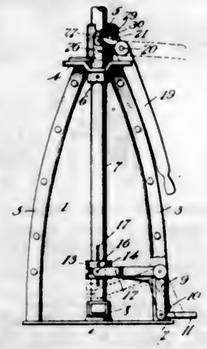
2. In a hydro-carbon burner, a casing having a burner chamber, a generator tube adjacent thereto and discharging into the casing, a drip pan, a fuel pipe discharging into said drip pan, and a collecting deflector pivoted on said pipe and having a discharge slot adapted, when the deflector is swung to the proper position to direct a flame against said generator tube, the deflector being open at the bottom and disposed above said drip pan.

6. In a hydro-carbon burner, a mixing chamber, a fitting having a passage discharging into said mixing chamber, a slide valve in said fitting arranged to close the outlet of said passage and provided with a transverse groove, a stop member mounted in said fitting and extending into said groove and arranged to limit the movement of the valve in both directions, and means for sliding said valve.

8. In a hydro-carbon burner, a casing arranged horizontally and having therein a burner chamber and a mixing chamber, the burner chamber being disposed above the mixing chamber and communicating therewith, a fitting secured to said casing and having a passage discharging into the mixing chamber, a valve in said fitting for closing said passage, a U-shaped generator tube disposed adjacent to said burner chamber and having one arm discharging into said fitting, a fuel pipe, a drip pan into which said fuel pipe discharges disposed below the arms of said generator tube, a fitting connected with said fuel pipe and the other arm of said generator tube, the last named fitting having a passage provided with two branches discharging respectively into the fuel pipe and said other arm of the generator tube, and two independently operable valves mounted in the last named fitting and respectively controlling the flow through said two branches.

[Claims 1, 3 to 5, and 7 not printed in the Gazette.]

1,244,147. COMBINATION LOCKING SWITCH-STAND. JAMES W. WALLS, Pueblo, Colo. Filed Sept. 10, 1913. Serial No. 789,127. (Cl. 104—25.)



1. A combination switch stand, comprising a base having a skeleton portion terminating in a plate provided with notches, of a head mounted upon said plate, a vertically disposed tube extending through said head and plate having a bearing in the base of said stand, said tube being provided with oppositely disposed slots, a plunger working in said tube, a sleeve mounted upon said tube having a connection with said plunger through said slots, a bell crank having a connection with said sleeve, a crank arm fixed on said tube, and a lever for independently operating the crank arm of the tube and the bell crank connected to the plunger.

2. In a switch stand, a vertically movable switch lever having an extension, a rod operated by said extension, a movable bolt arranged to intersect the path of travel of said extension, and a key for moving said bolt out of the path of travel of said extension.

3. A switch stand having a base provided with legs, a plate carried by said legs, a head mounted upon said plate provided with notches, a rod mounted in said head, a pivoted lever, an extension formed on said lever having a sliding connection with said rod, and a spring-actuated bolt arranged to intersect the path of travel of said extension for locking said lever.

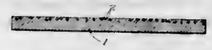
4. A switch stand, comprising a base having legs mounted thereon, a plate carried by said legs provided with a tubular portion, a head mounted upon said plate, a tube extending through said head and tubular portion and revolubly mounted in the latter, a plunger slidably mounted in said tube, a bell crank having a connection with said plunger, a switch locking rod having a connection with said bell crank, and a switch operating device operatively connected to said revoluble tube.

5. A switch stand having a head in the form of a casting, a switch lever mounted upon said casting having an extension, a vertical rod having an opening to receive said extension, a notched spring-actuated bolt arranged within said casting adapted to embrace said extension, a bell crank operated by said rod, and a switch locking device connecting rod connected to said bell crank.

[Claims 6 to 12 not printed in the Gazette.]

1,244,148. CEMENT SHINGLE. HENRY R. WARDELL, New York, N. Y., assignor to H. W. Johns-Manville Company, a Corporation of New York. Filed Apr. 28, 1917. Serial No. 165,294. (Cl. 108—8.)

1. As an article of manufacture a slab for use as a roof shingle or similar purpose composed mainly of hydraulic cement and having a sufficient number of granular particles of a material of some pronounced color and practically insoluble in water embedded in its surface to give thereto the characteristic color of said material, the said particles being below the general plane of the upper surface of the shingle but mostly tangent thereto.

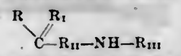


2. As an article of manufacture, a slab for use as a roof shingle or similar purpose composed of hydraulic cement and asbestos and having a sufficient number of granular particles of a mineral of some pronounced color and practically insoluble in water embedded in its surface to give thereto the characteristic color of said mineral, the said particles being below the general plane of the upper surface of the shingle but mostly tangent thereto.

3. As an article of manufacture a slab for use as a roof shingle or similar purpose composed mainly of hydraulic cement and having a sufficient number of granular particles of a material of some pronounced color and practically insoluble in water embedded in its surface to give thereto the characteristic color of said material, the particles of coloring material being separate one from another at portions of the slab surface whereby a weathered effect is produced on said surface.

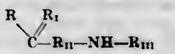
1,244,149. VIOLET COTTON-DYE. MAX WEILER, Elberfeld, Germany, assignor to Synthetic Patents Co., Inc., New York, N. Y., a Corporation of New York. Filed Sept. 22, 1915. Serial No. 52,077. (Cl. 8—1.)

1. The new dyes which can be obtained by sulfonating a triphenylmethane dye of the formula:



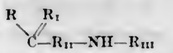
wherein R and R_1 stand for aryl radicals of an aromatic oxycarboxylic acid, R_{II} represents a divalent aryl radical, and R_{III} represents aryl which dyes after being dried and pulverized are dark powders soluble in water generally with a violet coloration and furnishing on cotton violet shades on being printed together with a chrome mordant, substantially as described.

2. The new dyes which are obtainable by sulfonating a triphenylmethane compound and which have most probably the formula:



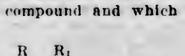
wherein R and R_1 stand for aryl radicals of an aromatic oxycarboxylic acid, R_{II} represents a divalent aryl radical of the benzene series and R_{III} represents a sulfo aryl, which dyes after being dried and pulverized are dark powders generally soluble in water with a violet coloration and furnishing on cotton violet shades on being printed together with a chrome mordant, substantially as described.

3. The new dyes which are obtainable by sulfonating a triphenylmethane compound and which have most probably the formula:



wherein R and R_1 stand for aryl radicals of an aromatic oxycarboxylic acid of the benzene series, R_{II} represents a divalent aryl radical of the benzene series and R_{III} represents a sulfo aryl, which dyes after being dried and pulverized are dark powders generally soluble in water with a violet coloration and furnishing on cotton violet shades on being printed together with a chrome mordant, substantially as described.

4. The new dyes which are obtainable by sulfonating a triphenylmethane compound and which have most probably the formula:



wherein R and R_1 stand for aryl radicals of an oxycarboxytoluene, R_{II} represents a divalent aryl radical of the benzene series and R_{III} represents a sulfo aryl, which dyes after being dried and pulverized are dark powders gener-

ally soluble in water with a violet coloration and furnishing on cotton violet shades on being printed together with a chrome mordant, substantially as described.

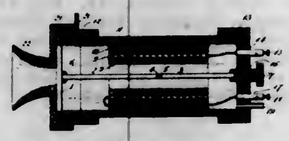
5. The new dyes which are obtainable by sulfonating a triphenylmethane compound and which have most probably the formula:

$$\begin{matrix} R & R_I \\ & \diagdown \diagup \\ & C \\ & | \\ & R_{II}—NH—R_{III} \end{matrix}$$

wherein R and R_I stand for aryl radicals of an oxycarboxytoluene, R_{II} represents a divalent aryl radical of the benzene series and R_{III} represents a sulfoaryl of the benzene series, which dyes after being dried and pulverized are dark powders generally soluble in water with a violet coloration and furnishing on cotton violet shades on being printed together with a chrome mordant, substantially as described.

[Claim 6 not printed in the Gazette.]

1,244,150. METHOD OF CHANGING RESISTANCE IN A CIRCUIT AND APPARATUS THEREFOR. EZECHIEL WEINTRAUB, Boston, Mass., assignor to Submarine Signal Company, Portland, Me., a Corporation of Maine. Filed Apr. 13, 1916. Serial No. 90,861. (Cl. 179—122.)



1. That method of changing resistance in a microphonic circuit which consists in heating one or both of the electrodes of the microphone to a temperature above that of initial incandescence and causing the approach and retraction of said electrodes.

2. That method of changing resistance in a microphonic circuit which consists in heating one or both of the electrodes of the microphone in the presence of an inert gas to a temperature above that of initial incandescence and causing the approach and retraction of said electrodes.

4. A microphone inclosed in an atmosphere of one of the chemically inert gases and means for maintaining the microphonic contacts thereof at a temperature above initial incandescence.

8. That method of changing resistance in a microphonic circuit which consists in heating one or both of the electrodes of the microphone to a temperature at which thermionic emission is effected and causing the approach and retraction of said electrodes.

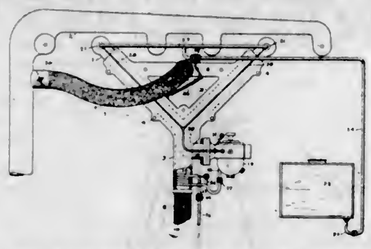
9. A microphone inclosed in an atmosphere of one of the chemically inert gases, and means for maintaining the microphonic contacts at a temperature at which thermionic emission is effective.

[Claims 3 and 5 to 7 not printed in the Gazette.]

1,244,151. DISTILLATE-BURNER FOR INTERNAL-COMBUSTION ENGINES. EDSON COLE WESCOTT and HARRY MARTAIN LOCKE, Sacramento, Cal., assignors of one-third to George C. Robb, Oakland, Cal. Filed Mar. 27, 1917. Serial No. 157,682. (Cl. 123—122.)

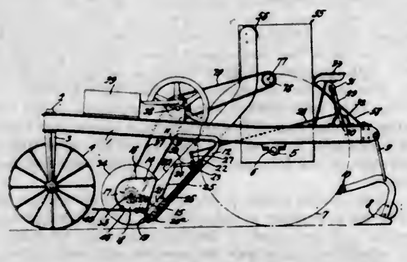
1. A heater for an internal combustion engine comprising, in combination with the intake and exhaust manifolds of the engine and the carbureter, a jacket around the intake manifold and spaced therefrom to form a heating chamber, and having an extension chamber beyond the intake manifold, a conduit leading from the exhaust manifold to said heating chamber, a coil of pipe in said extension chamber, a pipe leading thereto from a source of supply of distillate or other liquid hydro-carbon, and a pipe leading from said coil to the carbureter.

2. A heater for an internal combustion engine comprising, in combination with the intake and exhaust manifolds of the engine and the carbureter, means for conducting the hot waste gases from the exhaust manifold into close proximity to the passages for the fuel in the intake manifold to heat said fuel, and an atomizer for priming the engine comprising a nozzle having a central opening for supplying priming fluid to the engine, and an annular



passage for supplying air to the engine, a conduit leading to said central opening, a valve in said conduit, and a pipe leading to said annular passage at one end, and at the other end communicating with the carbureter behind the throttle valve.

1,244,152. COMBINED HARVESTER AND THRESHING ATTACHMENT. GEORGE W. WHITE, Hutchinson, Kans. Filed Oct. 17, 1916. Serial No. 126,135. (Cl. 56—29.)



1. In a device of the class described, a vehicle; a hood supported by the vehicle and including a downwardly and forwardly inclined rear wall, and a top; a depending baffle carried by the top; forwardly projecting fingers carried by the hood; and a spiral member journaled in the hood and operating above the fingers.

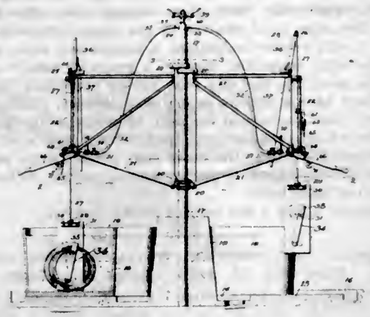
2. In a device of the class described, a vehicle having supports; a hood having guides engaging the supports slidably whereby the hood may be raised and lowered; means under the control of an operator for raising and lowering the hood; spring means for cushioning the downward movement of the hood; forwardly projecting fingers carried by the hood; and a spiral member journaled in the hood and operating above the fingers.

3. In a device of the class described, a vehicle; a support carried by the vehicle; a hood; a guide on the hood and slidably mounted on the support; forwardly presented fingers carried by the hood; a spiral member journaled in the hood and operating above the fingers; a lever fulcrumed intermediate its ends on the support; means for connecting one end of the lever with the hood; a spring; means for connecting one end of the spring with the other end of the lever; means for connecting the other end of the spring with the support; and means under the control of an opeartor and connected with the lever for swinging the lever to effect a raising and a lowering of the hood.

[Claims 4 to 9 not printed in the Gazette.]

1,244,153. WIRE CLEANING AND COATING MACHINE. CHARLES C. WICKWIRE, Cortland, N. Y. Filed Mar. 20, 1917. Serial No. 156,158. (Cl. 266—7.)

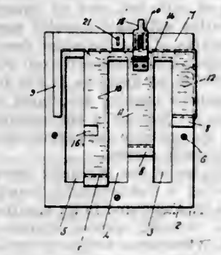
1. A wire cleaning device comprising in combination a vat for holding a treating solution; a carrier provided with laterally offset arms for receiving and loosely supporting a coil of wire; and means for reciprocating said carrier in said vat to agitate and rotate the coil so supported.



11. A wire cleaning device comprising in combination, a series of vats for holding treating solutions; and a plurality of independently movable traversing hoists movable over said vats, and each including a fluid pressure actuated hoist, a carrier movable by said hoist into and out of said vats, laterally offset coil-receiving arms on said carrier, a valve for controlling the admission and exhaust of pressure fluid to and from said hoist, automatic means for actuating said valves to cause a limited reciprocative action of said hoist, and manually operable means for controlling the action of said hoist and for rendering said automatic means inoperative.

[Claims 2 to 10 not printed in the Gazette.]

1,244,154. LOCKING DEVICE. JOHN H. WILLIAMS, Spring City, Pa. Filed July 27, 1917. Serial No. 182,689. (Cl. 70—126.)

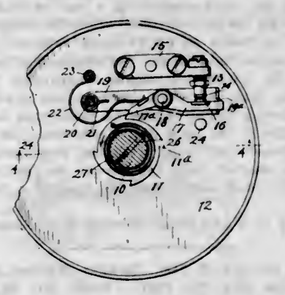


1. A locking device for foot levers, comprising a frame having parallel slots for the levers to work in, and having also guides arranged crosswise of its slots, a grid or locking plate slidable in the said guides crosswise of the slots and having parallel bars of different lengths for partially covering the slots and thereby limiting the movements of the foot levers in them, and means for normally preventing the grid from sliding.

2. A locking device for levers, comprising a frame having a series of parallel slots of equal length for the levers to work in, said frame having also an undercut bar at its top and undercut guides arranged at different distances from the guide bar, a grid having parallel bars of different lengths provided with beveled parts which are slidable in the said guide bar and guides crosswise of the said slots, one of the bars of the grid having also a notch on one side for holding one of the levers rigidly in position, and means for securing the grid from sliding when it is in the locked and unlocked positions.

1,244,155. CIRCUIT-BREAKER FOR IGNITION SYSTEMS. JOSEPH A. WILLIAMS, Cleveland, Ohio. Filed Mar. 3, 1916. Serial No. 81,791. (Cl. 123—165.)

1. In a circuit breaker, a pair of relatively movable contacts including a movable contact and a movable member carrying the same, a movable support for said member, a cam controlling the contact carrying member, and means whereby when said member is released by the cam, said member is moved in one direction relative to said support causing the closing of the circuit and then said member and the support are moved in unison in the opposite direction causing the opening of the circuit.

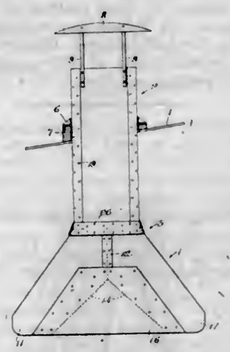


2. In a circuit breaker, a pair of relatively movable contacts including a stationary contact and a movable contact, a movable member carrying the latter, a movable support for said member, a cam controlling the contact carrying member, and means whereby when said member is released by the cam, said member is moved relative to said support causing the closing of the circuit and then said member and the support are moved in unison causing the opening of the circuit, said means comprising a spring acting on said member.

3. In a circuit breaker, a pair of relatively movable contacts including a movable contact and a member carrying the same; a movable support to which said contact carrying member is pivoted; a cam controlling said contact carrying member and means acting upon the release of said member by the cam for rocking in one direction said member on the support to cause the closure of the circuit, and for subsequently shifting both said member and its support in unison in the opposite direction to cause the opening of the circuit.

[Claims 4 to 12 not printed in the Gazette.]

1,244,156. SMOKE-JACK. SAMUEL ARTHUR WILLIAMS, Lockport, N. Y., assignor to The Asbestos Wood Co., Nashua, N. H., a Corporation of Maine. Filed July 21, 1917. Serial No. 182,078. (Cl. 104—208.)



1. A smoke jack comprising a plurality of strips of material joined together so as to form an inclosed passage therethrough, the smoke jack having a rounded corner, and the strips being overlapped throughout the rounded corner.

5. In a smoke jack, the combination of a truncated pyramidal base, a stack surmounting the truncated apex

of the base, the stack comprising side and end walls overlapped to form rounded corners of double thickness, and means for connecting the stack to the base, the connecting means comprising parts secured respectively to the side and end walls of the stack.

7. In a smoke jack, the combination of a truncated pyramidal base, a stack surmounting the truncated apex of the base, the stack comprising a pair of side walls and a pair of end walls, one pair of walls overlapping the other pair of walls so as to form rounded corners of double thickness, and means for connecting the stack to the base, the connecting means comprising four angle irons fitting into the angle between the stack and the base and having radial flanges at their ends for securing them together in the form of a closed ring, the flanges on the angle irons connecting with the overlapping pair of walls being shorter than the flanges on the other angle irons so that each angle iron fits against a wall of the stack.

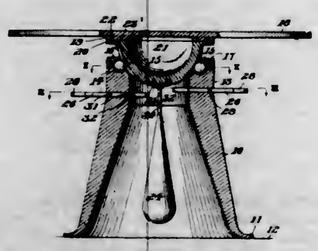
[Claims 2 to 4 and 6 not printed in the Gazette.]

1,244,157. PACKAGE-TIE. ERNEST WAIGHT, Arch Creek, Fla. Filed Mar. 10, 1916. Serial No. 83,386. (Cl. 24—18.)



A device of the character set forth comprising a single blank of sheet metal providing a body portion of substantially rectangular configuration, a resilient tongue struck up from the body portion and disposed longitudinally thereof, a keeper having an obliquely arranged slot opening out to one side of said tongue, said keeper being provided at one end of the body portion and reposing upon said tongue, the body portion at the point of intersection of the keeper therewith being provided with a V-shaped slot opening out at one side thereof, and formed by the curving of one longitudinal edge of the tongue and the flaring of the adjacent edge of said body, the said body portion at a point rearwardly of the formation of the tongue therewith being provided with a pair of oppositely disposed notches opening out through the opposite longitudinal edges of the body portion, one of said notches being of greater depth than the other of said notches to permit of the tying member being inserted and retained therein, the opposite end of the tying member being permanently secured in tying position by the passing of the same around said keeper and through the V-shaped slot formed in the body portion, thence disposed within the obliquely arranged slot of said tongue, substantially as and for the purpose specified.

1,244,158. SHIP'S TABLE. FRANK ZAGMESTER, La Salle, N. Y. Filed June 1, 1917. Serial No. 172,182. (Cl. 114—195.)

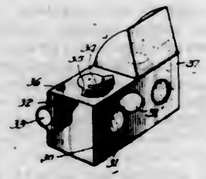


1. A ship's table embodying a hollow supporting base, ball bearings positioned at the upper end thereof, a table top carrying a centrally-disposed depending bowl-shaped member having vertical grooves receiving said balls and supported thereby, a pendant weight centrally carried by the bowl-shaped member and located within said hollow base, and locking bars carried by the base adapted to move transversely thereof to engage said table top to hold the same fixed relative to the supporting base.

4. A ship's table embodying a supporting base, a table top movably supported thereby, a pendant weight carried by the table top, the said base having oppositely disposed openings having sockets in one wall thereof, locking arms having pins positioned in said openings with the pins positioned in said sockets, springs engaging said arms, and forks formed at the inner ends of said arms adapted to engage the shank of the depending weight to hold the table top immovable.

[Claims 2 and 3 not printed in the Gazette.]

1,244,159. PHOTOMETER. FRANK W. ADSIT, Chicago, Ill. Filed May 13, 1916. Serial No. 97,226. (Cl. 88—23.)



1. An apparatus for determining the sensitive-film-affecting light quality of a scene to be photographed, comprising a casing, a light-sensitive resistance cell positioned at the rear of the casing on the inner face thereof, a lens positioned in an aperture in the front wall of the casing for projecting light from the scene to be photographed upon the cell, movable means adapted to indicate resistance variations of said cell, and an exposure indicating scale for coöperation with said movable means.

2. In an apparatus of the character described the combination of a casing, a light-sensitive cell positioned therein, a lens mounted in an aperture at the front thereof, a diaphragm of variable opening associated with said lens, a movable means for indicating the resistance variations of said cell and an exposure indicating scale for coöperation with said movable means.

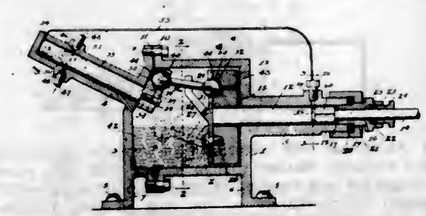
3. Ia an apparatus of the character described the combination of a casing, a light-sensitive resistance cell positioned therein, a lens mounted in an aperture at the front of the casing, a variable opening diaphragm associated with the lens, a Wheatstone bridge, a battery, a variable resistance, a circuit for said Wheatstone bridge, battery, resistance cell and variable resistance, and an indicator carried by the movable part of said variable resistance.

4. An apparatus for determining the sensitive-film-affecting light quality of a scene to be photographed, comprising a casing, a light sensitive resistance cell therein, an aperture in the front of the casing, a variable opening diaphragm associated with the aperture, a Wheatstone bridge, a battery, a variable resistance, a circuit for said Wheatstone bridge, battery, resistance cell and variable resistance, and an indicator carried by the movable part of said resistance.

5. An apparatus for determining the sensitive-film-affecting light quality of a scene to be photographed, comprising a casing, a light sensitive resistance cell therein, an aperture in the front of the casing, a movable means for indicating the variations in resistance of said cell, and a combined diaphragm opening and exposure indicating scale for coöperation with said movable means.

1,244,160. ENGINE OR PUMP CONSTRUCTION. CHARLES A. ANDERSON, Chicago, Ill. Filed Jan. 7, 1916. Serial No. 70,777. (Cl. 103—75.)

1. The combination with a main casing, of a cylinder leading from said casing, angularly disposed thereto, and provided with inlet and outlet ports, a piston seated in said cylinder and projecting into the casing chamber, means for effecting a combined rotary and reciprocatory motion of the piston, the latter having a duct formed in its periphery and controlling the inlet and outlet ports of the cylinder.



2. The combination with a main casing provided at one side with a shaft bearing and at its other side with a ported cylinder, angularly disposed to said casing, a shaft in said bearing and provided at its inner end with a fly wheel inclosed within the casing, a piston seated in said cylinder and provided at its inner end with a crank arm, and a connecting rod secured by ball and socket joint to the piston and fly wheel.

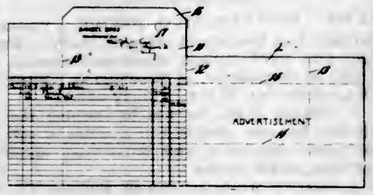
3. The combination with a main casing, provided at one end with a shaft bearing, of a ported cylinder extending from the other side of the casing, a shaft in said bearing, a piston in said cylinder and having a combined rotary and reciprocatory movement, the inner end of said piston extending into the casing and having a crank arm, and a connecting rod secured at one end to said crank arm and at its other end operatively connected to the shaft.

4. The combination with a main casing provided with a shaft bearing at one side and a ported cylinder at the other side, of a shaft rotating in said bearing, a piston movably mounted in said cylinder, operative connections between the piston and shaft whereby they move in timed relation with each other and an equalizing member communicating at one end with the cylinder and at its other end with a chamber formed in the shaft.

5. The combination with a casing provided at one side with a shaft bearing, and at its other side with a ported cylinder, a shaft in said bearing and a piston in said cylinder, operative connections between the shaft and piston and means for equalizing the pressure on opposite sides of the end of the shaft.

[Claims 6 to 8 not printed in the Gazette.]

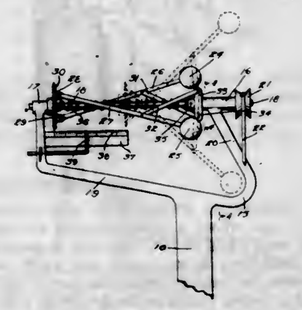
1,244,161. SELF SEALING AND ADDRESSING BILL-HEAD. EDGAR F. ANDRES, Milwaukee, Wis. Filed Sept. 21, 1914. Serial No. 862,658. (Cl. 229—92.3.)



1. A self-sealing and addressing bill head, comprising a bill head proper containing a suitably indicated space for the name and address of the addressee and a suitably indicated space for the written items of the bill with a horizontal fold line between said spaces and a vertical fold line through the space for the written items of the bill, and a protecting flap formed in the same sheet therewith with the vertical fold line therebetween adapted to be folded thereon and sealed thereto, said protecting flap being shorter than the bill head proper so as to expose that portion of the bill head proper which contains the name and address of the addressee, said bill head proper and protecting flap being folded along the fold lines to prevent inspection of the items of the bill.

[Claims 2 and 3 not printed in the Gazette.]

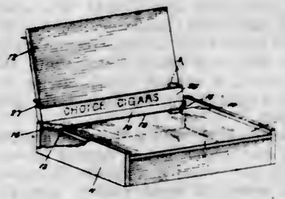
1,244,162. CREAM-SEPARATOR SPEED-INDICATOR. CHARLES F. ASPLUND, Minneapolis, Minn. Filed Aug. 23, 1915. Serial No. 46,787. (Cl. 264—15.)



1. A speed indicator for cream separators comprising a driven shaft, a member fixed on said shaft having arms extending in substantially diametrically opposite directions from the shaft, links pivoted to the sides of said arms so as to extend in parallel planes on each side of said shaft, weighted balls having arms extending substantially in the plane of and pivotally connected with said links at points between the balls and the other ends of the arms, and indicator mechanism to which said arms are connected, said indicator mechanism being rotatable with the shaft and movable along the same by the action of said balls.

[Claims 2 to 4 not printed in the Gazette.]

1,244,163. SUPPLEMENTAL BOX-LID. PHILIP A. BECKER, Brooklyn, N. Y. Filed Oct. 11, 1915. Serial No. 55,222. (Cl. 217—58.)

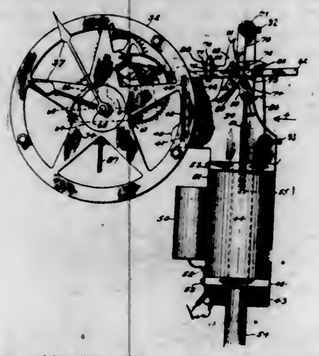


1. In a supplemental lid of the character described, a substantially rectangular glass plate having two of its opposite corners notched to provide two retaining portions whereby a rim may be anchored on one of the edges of the plate to permit the plate to be connected to a box or the like so as to be swung to open and closed positions thereon as well as permitting three of the edges of the plate to be free of a rim.

4. In a supplemental box lid, a plate adapted to be disposed on the open top of the body of the box, the said plate having a notched portion at each of two adjacent corners to provide two oppositely arranged retaining portions, a rim adapted to fit over the edge of said plate adjacent the notched portions thereof, together with means connected to said rim adapted to positively engage the said notched retaining portions, and means on the said rim whereby the plate may be detachably and hingedly connected to the box lid.

[Claims 2 and 3 not printed in the Gazette.]

1,244,164. ELECTRIC CLOCK. GUSTAV BLUMBERG and JOHN A. BUTKUS, Baltimore, Md. Filed Oct. 18, 1915. Serial No. 55,682. (Cl. 58—41.)



1. The combination with a lever, of a solenoid core, a solenoid, a star wheel, a pawl operated by said lever to move said star wheel in one direction, a second pawl operated by said lever to move said star wheel in the opposite direction, a ratchet wheel mounted on said star wheel and a spring acting on said ratchet wheel to move said star wheel slightly after it has been moved by the first of said pawls, and to hold said star wheel in the position into which it is moved by the second of said pawls.

2. The combination with a lever, of a solenoid core, a solenoid, a star wheel, a pawl operated by said lever to move said star wheel in one direction, a second pawl operated by said lever to move said star wheel in the opposite direction, a source of electricity, a circuit including said source of electricity, and said solenoid and having one terminal connected to said star wheel, and a spring connected to the other terminal of said circuit and adapted to make and break contact with the points of said star wheel.

3. The combination with a lever, of a solenoid core, a solenoid, a star wheel, dual means carried by said lever for moving said star wheel in the same direction, and a spring adapted to make and break contact with the points of said star wheel.

4. The combination with a lever, of a solenoid core, a solenoid, a star wheel, means carried by said lever for moving said star wheel in opposite directions, a spring adapted to make and break contact with the points of said star wheel, a ratchet wheel carried by said star wheel, and a spring bearing against the points of said ratchet wheel.

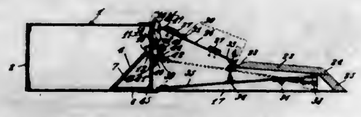
5. The combination with a lever, of a solenoid core, a solenoid, a star wheel, means carried by said lever for moving said star wheel in opposite directions, a spring adapted to make and break contact with the points of said star wheel, a ratchet wheel carried by said star wheel, a spring bearing against the points of said ratchet wheel, and means for adjusting the relative positions of said last named spring and said ratchet wheel.

1,244,165. HARROW. CORNELIUS F. BOCK, Templeton, Iowa. Filed Sept. 27, 1916. Serial No. 122,540. (Cl. 55—150.)



In a harrow, a central bar, an outer section, the said bar and section being formed of channel members, ears projecting inwardly from the ends of the outer section, a pin connecting said ears to the adjacent end of said central bar, the side walls of the central bar being extended, facing strips on the extremities of said extensions and the said facing strips being adapted to be engaged by the adjacent end wall of the outer section to limit the latter against swinging below horizontal.

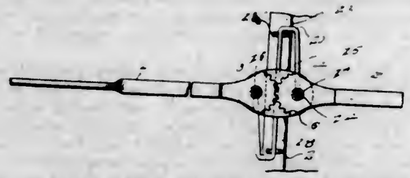
1,244,166. TRAP. JONES M. BRAGG, Electric, N. C. Filed Mar. 12, 1917. Serial No. 154,332. (Cl. 43—26.)



1. An animal trap comprising an impounding chamber and a trapping chamber communicating with each other, a closure for said trapping chamber, a platform pivotally mounted intermediately of its ends in said trapping chamber, a latch for holding said platform against tilting movement, a connection between said platform and said closure whereby the platform is raised on the opening of the closure and the closure closed on the lowering of the platform, a catch for holding said closure in closed position, and means operable by the entrance of an animal into said impounding chamber to release said catch, said platform latch being releasable by manipulation of the animal before entering the impounding chamber.

[Claim 2 not printed in the Gazette.]

1,244,167. ROWING-OAR. CHARLES G. BRAY, Bowie, Ariz. Filed May 22, 1917. Serial No. 170,207. (Cl. 9—25.)



1. The combination with a boat having spaced bearings, of an oar lock consisting of a pintle extending through the bearings, pivots connected with the pintle at the outer sides of the said bearings to retain the pintle therein, and an oar composed of blade and handle sections mounted on the said pivots and provided with teeth arranged in meshing relation.

2. A rowing oar comprising blade and handle sections provided with heads having teeth, connecting means having pivots for the said heads and provided thereat with openings, and an oar lock consisting of a pintle, and substantially-shaded arms connected with the ends of the pintle and having projecting terminal pivots arranged in the said openings, and bearings receiving the said pintle.

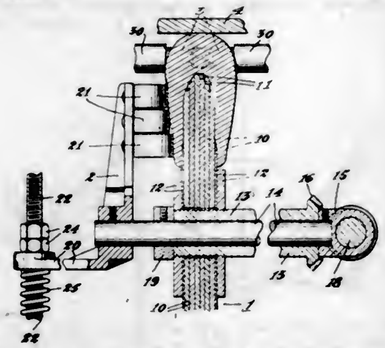
1,244,168. FISH-CLEANING DEVICE. BENJAMIN R. BRIERLY and EDWARD H. WAUGH, Seattle, Wash., assignors to Smith Cannery Machines Company, Seattle, Wash., a Corporation of Washington. Filed Feb. 9, 1916. Serial No. 77,314. (Cl. 17—10.)

1. A rotative brush for use in cleaning the interior cavities of fish and composed of a series of soft, pliable rubber disks, having a wide outer zone unconfined to permit free lateral flexure.

2. A rotative brush for use in cleaning the visceral cavities of fish comprising a series of flexible disks, the diameters of successive disks increasing from the outer disk at each side toward the center disk and all disks having a wide outer zone which is free to bend laterally.

3. A rotative brush for use in cleaning the visceral cavities of fish comprising a series of flexible disks having their outer zones unrestrained laterally and forming a relatively thin brush, the diameters of said disks gradually increasing from the outer disk to the center disk, the outer peripheral zone of said brush having a cross section adapted to fit closely within the base of said cavity.

4. A rotative brush for use in cleaning fish composed of a series of flexible plates secured together in their central parts and free to yield in wide peripheral zone and a yielding presser opposite the outer yielding zone of said disks.



5. A device for cleaning the visceral cavities of fish, comprising a rotative shaft mounted to swing upon a transverse axis, a disk secured to the swinging end of the shaft and having a flexible peripheral section, and a yielding support for the swinging end of the shaft.

[Claims 6 to 9 not printed in the Gazette.]

1,244,169. TOY VEHICLE. LEO A. BRIGEL, Cheviot, Ohio. Filed Sept. 15, 1913. Serial No. 789,881. (Cl. 21—191.)



1. A toy vehicle comprising a vehicle body, a rear wheel truck provided with wheels and an axle rigidly attached near the rear end to said body, a forward yoke shaped wheel truck provided with wheels and an axle and pivotally mounted relatively to said vehicle body, a steering post mounted upon and recessed into said vehicle body above said forward wheel truck, a metal shoe interposed between said vehicle body and said forward wheel truck, and connected through the vehicle body with said steering post, and a steering rod provided with handle bars rotatably mounted in said steering post and rigidly attached to said forward wheel truck in advance of its axle.

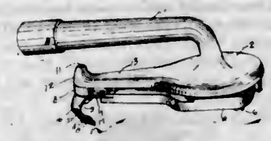
4. In a toy vehicle a stamped yoke shaped wheel truck having a perforation to non-rotatively lock said truck to a steering rod, an ear to act as a nut lock, and projecting ears to engage the inner faces of the depending truck arms to resist later strains thereon.

7. In a toy vehicle, a vehicle body, stamped yoke shaped wheel trucks therefor, wheel axles rigidly locked to the depending arms of said trucks by means of tubular sleeves on said axles intermediate of said truck arms and ball-race members in pairs rigidly carried by opposite ends of said axles outside of said truck arms.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,244,170. GRAPHOPHONE ATTACHMENT. JAMES I. BUFFA, San Francisco, Cal. Filed May 7, 1917. Serial No. 166,844. (Cl. 274—1.)

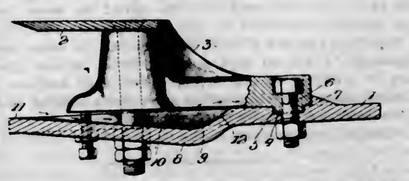
1. In combination with the arm of a reproducer of an Edison phonograph, a pivot secured in an end of said arm, a spring metal strip for carrying the weight, and a block secured to said strip and arm, of a brush holder,



and a brush secured in one end thereof, the other end being secured between said strip and block.

[Claim 2 not printed in the Gazette.]

1,244,171. ROTARY CUTTING-WHEEL. FRED J. BULLOCK, Shortsville, N. Y., assignor to Papec Machine Company, Shortsville, N. Y., a Corporation of New York. Filed May 2, 1916. Serial No. 94,939. (Cl. 146—26.)



1. A rotary cutting wheel for ensilage cutters having a disk-shaped wheel body, a series of cutting knives mounted on one face thereof, said wheel body being provided with a clearing recess under each cutting knife having an inclined face diverging from a point in transverse alinement with the cutting edge of said knife.

2. A rotary cutting wheel for ensilage cutters having a disk-shaped wheel body, a series of cutting knives mounted on one face thereof, and spaced therefrom, said wheel body having a clearing recess with an inclined bottom under each of said cutting knives presenting an inclined face in respect to the face of the knife.

3. A rotary cutting wheel for ensilage cutters having a disk-shaped wheel body, spaced knife supports mounted on one face thereof provided with inclined knife seats, knives mounted in said seats, said wheel body having a recess formed in one face thereof under each pair of supports presenting an inclined face diverging from a point in transverse alinement with the cutting edge of the knife, and terminating at a point to the rear of the knife.

4. A rotary cutting wheel for ensilage cutters, comprising a cutting wheel having a series of recesses formed in one face thereof, a pair of knife supports mounted on the face of said wheel over each of said recesses, and a knife secured upon said supports, each of said recesses having an inclined face at an angle to the face of said knife.

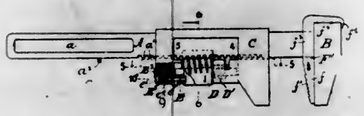
5. A rotary cutting wheel for ensilage cutters, comprising a disk-shaped wheel body having a series of clearing recesses formed in one face thereof provided with inclined bottoms, an adjustable knife support mounted over each of said recesses, and a knife mounted upon said support.

[Claims 6 to 14 not printed in the Gazette.]

1,244,172. WRENCH. HUBERT TAR'BUSH, Lakewood, Ohio, assignor of one-half to George Robert Barker, Lakewood, Ohio. Filed Oct. 26, 1914. Serial No. 868,643. (Cl. 81—158.)

2. In a wrench having a rack-shank with a fixed jaw in combination with a movable jaw having a gap, an adjusting screw pintled within the gap of said jaw, a spring on one of the pintles tending to turn the screw into gear with the rack on the shank, a ratchet sunk in one end of the screw body, a dog slidingly embedded in said jaw oppo-

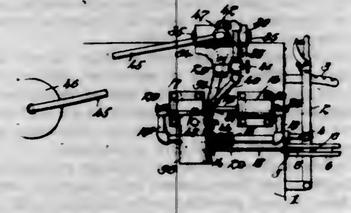
site said ratchet, a spring at the end of said dog pressing the same into engagement, a lug on said dog projecting beyond the surface in which said dog is embedded and said surface being slotted and a check formed in said slot engaging said lug when the dog is retracted, substantially as set forth.



3. In a wrench, the combination of a shank having rack teeth, a fixed jaw on one end of said shank, a removable serrated attachment resiliently mounted on said fixed jaw and adapted to have slight movement along said fixed jaw, a movable jaw having a gap, an adjusting screw pintled within the gap of said jaw, a spring on one of said pintles tending to turn the screw into gear with the rack, a ratchet sunk into one end of the screw body, a dog slidably embedded in said jaw opposite said ratchet, a spring at the end of said dog pressing the same into engagement, a lug on said dog projecting beyond the surface in which said dog is embedded, said surface being slotted and a check formed in such slot engaging said lug when said dog is in its retracted position.

[Claim 1 not printed in the Gazette.]

1,244,173. LUBRICATING SYSTEM. WILLIAM J. BYRON, Eveleth, Minn. Filed Jan. 17, 1917. Serial No. 142,875. (Cl. 184—55.)



2. A lubricating system for locomotives, comprising in combination with a lubricator and the throttle lever, an oil supply tank communicating with said lubricator, a lubricator valve actuating mechanism and air controlled devices actuated by the throttle lever to operate the valve actuating devices simultaneously with the throttle valve.

[Claims 1 and 3 not printed in the Gazette.]

1,244,174. UNDERGARMENT. HORACE A. CARTER, Needham Heights, Mass. Filed Dec. 16, 1916. Serial No. 137,436. (Cl. 2—144.)

1. An undergarment having a front opening extending from the neck opening vertically down the center of the chest, and terminating at a point substantially at the lower end of the chest, a substantially triangular chest flap secured along each edge of said front opening, said flaps each lapping past the other and terminating at their upper ends substantially below the top of the shoulders, and means to secure said flaps at their upper, outer corners to the body of the garment between the neck opening and the arm holes and relatively remote from each.

2. An undergarment having a front opening extending from the neck opening vertically down the center of the chest, a substantially triangular flap secured along each edge of said front opening, said flaps lapping past each other substantially to cover the chest, and terminating at their upper ends substantially below the tops of the shoulders, and adjustable means to secure each of said flaps at its upper outer corner to the body of the garment between the neck-band and the nearest arm hole and relatively remote from each, and laterally beyond the neck opening.



3. An undergarment having a front opening extending from the neck opening vertically down the center of the chest, a substantially right-triangular chest flap secured along each edge of said front opening with the hypotenuse extending downward and inward, said flaps each lapping past each other and having their upper outer corners terminating between the neck-band and the arm holes and relatively remote from both, and means to secure each of said upper outer corners to the body of the garment laterally beyond and relatively remote from the neck of the wearer.

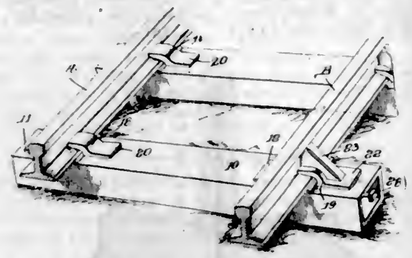
1,244,175. MILKING DEVICE AND ANTIKICKER. LAURA A. CLARK, Longview, Tex. Filed Feb. 21, 1917. Serial No. 150,228. (Cl. 31—13.)



In a device of the character described, a pair of inclined leg members one of which is arranged to be disposed between the hind legs of a cow and in front of the right hind leg, the other leg member being pivotally connected to the upper end of the first leg member, an arm pivotally connected to the second leg member adjacent the lower end thereof, a seat member carried by said arm, and a folding supporting leg carried by the outer end of said arm.

1,244,176. RAILWAY-TIE AND RAIL-FASTENING. CHARLES A. COX, Westfield, Ill. Filed Sept. 20, 1916. Serial No. 121,224. (Cl. 238—5.)

1. In a device of the character described, a tie provided with a rail abutment and having a slot formed therein, an anchoring member depending into the tie, a chair plate formed on the tie adjacent said abutment with the said plate cut away to provide a seat, a clamping member having a body plate slidable upon the tie to be received at its inner extremity within said seat and provided with an arm projecting through said slot, and a clamping element coöperating with the said arm and with the said anchoring member with the said element operable for adjustably shifting the clamping member toward the abutment to active position.

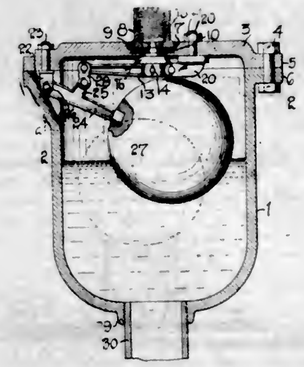


2. In a device of the character described, a tie having a chair plate rising from the upper face thereof with the said plate notched at one extremity, a rail abutment carried by the tie, a clamping member arranged for engagement with a rail seated against said abutment with the body of the said member received by said notch, and means connecting the said clamping member with the tie.

3. In a device of the character described, a tie provided with a chair plate having a notch formed therein, a rail abutment carried by the tie, a clamping member arranged for engagement with a rail seated against said abutment with the body of the said member slidably fitting in said notch, and means for urging the clamping member toward the abutment and connecting the said clamping member with the tie.

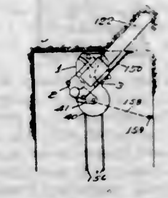
4. In a device of the character described, a tie provided with a slot, a chair plate carried by the tie and provided with a notch at the inner extremity of said slot, a rail abutment upstanding from the tie, a clamping member arranged for engagement with a rail seating against said abutment with the body of the said member fitting in the said notch and overlying the inner extremity of said slot beneath the rail, means carried by the clamping member and fitting through said slot to slidably connect the member with the tie, and means engaged with said last mentioned means for shifting the clamping member to active position.

1,244,177. PRESSURE-VALVE. CLARENCE G. CRISPIN, Salem township, Luzerne county, Pa. Filed May 15, 1915. Serial No. 28,300. (Cl. 137—69.)



In a pressure valve for water systems, a receptacle having an enlarged portion, and an inlet for water under pressure in the bottom thereof, a removable cover, said cover having a central opening provided with a cut-away portion forming a valve seat, a lever pivotally supported by said cover, a valve carried by said lever and adapted to seat in said cut-away portion, a second lever pivotally secured to the cover and occupying said enlarged portion and provided with a float at its outer end, and means for connecting said levers whereby the valve is opened or closed by the movement of the float substantially as described.

1,244,178. MINING-MACHINE. CHARLES E. DAVIS, Chicago, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed May 25, 1914. Serial No. 840,652. (Cl. 125—19.)



18. A mining machine comprising a base frame, a moving frame mounted thereon, a cutting device mounted on said moving frame, a pivot connected with said moving frame, said main frame provided with converging and intersecting slots which meet near the middle of the frame, separated guiding pieces at the point where said slots meet, said pivot adapted to work in said slots, a driving pinion at a distance from said pivot connecting with the moving frame, teeth on the main frame engaged by the teeth of said driving pinion, a connecting piece connecting the base frame and the moving frame, whereby the said pivot moves along one of said slots toward the meeting point and then moves along the other slot away from the meeting point when the driving pinion is operated.

22. A mining machine comprising a base frame, a moving frame mounted thereon, a cutting element carried by said moving frame, a pivot connected with said moving frame, said base frame provided with converging slots along which said pivot is adapted to move, mechanism for moving said moving frame and a cleaning device for cleaning said slots in order that the pivot may freely pass therealong, said cleaning device comprising two projecting arms and means for moving said arms as the cleaner passes from one slot to the other so as to bring them in proper relation to the faces of the slot.

26. A mining machine comprising a frame, supports thereon, a cutting element connected with said supports and adapted to move up and down thereon, a cutter arm projecting from the top of said cutting element, a cutter chain on said cutter arm, means for moving said cutting element and supports to force the cutting chain against the coal during its cutting movement, means for moving said cutting element up and down along said supports to vary the point at which the cutting arm engages the material to be cut, and means for inverting said cutting element so that the cutter arm projects from the bottom thereof, whereby the vertical range of the cutter arm is increased.

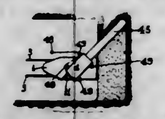
28. A mining machine comprising a moving frame, a cutter mounted thereon, means for moving said cutter into the face of the material to be cut in a direction transverse thereto, a guard pivoted to the moving frame and normally extending along the cutter, means for elastically pressing said guard toward said cutter so as to retain the guard in protective relation with respect to the cutter while the cutter enters into the material to be cut, and a stop device for limiting the movement of the guard toward the cutter so as to prevent it from coming in contact therewith.

33. A mining machine comprising a main frame, a moving frame mounted thereon, separated upstanding supports connected with said moving frame, a cutting element between said supports and adjustably connected

therewith so that it may be moved up and down along said supports, said supports hinged intermediate their ends, whereby when the cutting element is moved down below the hinge, the upper ends of said supports may be moved downwardly to vary their height.

[Claims 1 to 17, 19 to 21, 23 to 25, 27, 29 to 32, and 34 to 38 not printed in the Gazette.]

1,244,179. MINING-MACHINE. CHARLES E. DAVIS, Chicago, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 10, 1915. Serial No. 13,309. (Cl. 125—14.)



1. A mining machine comprising a main frame, a supporting frame mounted thereon, a curved rack connected with each end of the main frame, a pinion engaging each rack, said pinions connected with the supporting frame, means for driving said pinions so as to move the supporting frame with realtion to the main frame, and a cutting element carried by said supporting frame.

2. A mining machine comprising a main frame, a supporting frame mounted thereon, a curved rack connected with each end of the main frame, a pinion engaging each rack, said pinions connected with the supporting frame, means for driving said pinion so as to move the supporting frame with relation to the main frame, means for preventing said pinions from being forced away from said racks when the machine is in operation, and a cutting element carried by said supporting frame.

3. A mining machine comprising a main frame, a movable supporting frame mounted thereon, a rack connected with each end of the main frame one of said racks being curved, a pinion engaging each of said racks, said pinions connected with the supporting frame, a shaft extending longitudinally of the supporting frame, said shaft operatively connected with said pinions so as to rotate them.

4. A mining machine comprising a main frame, a supporting frame, a motor mounted on said supporting frame, a horizontal shaft on the supporting frame, operatively connected with said motor, two separated vertical shafts on the supporting frame, operatively connected with the horizontal shaft, said shafts projecting beyond the bottom of said supporting frame, pinions on said vertical shafts, racks on the main frame, with which said pinions engage, and a cutting element mounted upon said supporting frame.

5. A mining machine comprising a main frame, a supporting frame, a motor mounted on said supporting frame, a horizontal shaft on the supporting frame, operatively connected with said motor, two separated vertical shafts on the supporting frame, operatively connected with the horizontal shaft, said shafts projecting beyond the bottom of said supporting frame, pinions on said vertical shafts, racks on the main frame, with which said pinions engage, guiding devices on the main frame for preventing said pinions from moving away from their associated racks, and a cutting element mounted upon said supporting frame.

[Claims 6 to 9 not printed in the Gazette.]

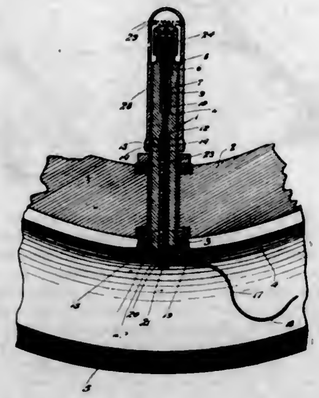
1,244,180. BRANDING-IRON. CLAUDE BERNARD DELBRIDGE, Roosevelt, Ariz. Filed Dec. 26, 1916. Serial No. 138,866. (Cl. 101—31.)



1. A branding iron of the class described comprising a curved branding edge, a straight separate branding edge spaced from the curved edge, rods connecting said edges, and a handle coacting with said rods to detachably engage the iron to operate the same, said straight and curved branding edges lying in substantially parallel planes.

[Claim 2 not printed in the Gazette.]

1,244,181. VALVE AND ALARM FOR TIRES. ALFRED A. DENNIS, Grand Rapids, Mich., assignor of one-half to Henry G. Krekel, Grand Rapids, Mich. Filed Feb. 5, 1916. Serial No. 76,378. (Cl. 161—1.)



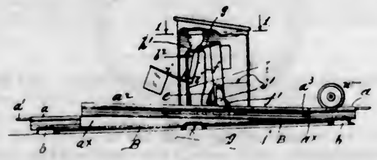
1. In combination, an air tube, a valve construction attached thereto including a valve stem with a valve located therein normally preventing the escape of air from the tube, a rod connected to the valve and extending through the stem into the air tube, and means connected to the rod within the air tube for giving it a movement toward the interior of the tube upon flattening the tube a predetermined amount on the outer side thereof and at a point in proximity to the valve stem.

2. In combination, an air tube, a valve construction attached directly thereto including a valve stem and a movable valve located therein normally preventing the escape of air from the tube, means attached to said movable valve and extending through the stem into the air tube for moving the valve toward the tube to allow the escape of air on flattening of the tube a predetermined amount at a point in proximity to the valve stem, and an alarm operated by the escaping air.

8. In combination, an air tube, a valve stem secured to the air tube, a rod extending loosely therethrough, coacting valve parts on the stem and rod to prevent passage of air in one direction therethrough, a lever mounted at one end of the valve stem and located within said air tube and connected to the adjacent end of said rod, said lever having a curved free portion extending away from the end of the valve stem adapted to be received in a pneumatic tube to which the valve is attached.

[Claims 3 to 7 not printed in the Gazette.]

1,244,182. TOY RAILWAY. GEORGE A. D'OENCH, Brooklyn, N. Y. Filed June 6, 1917. Serial No. 173,086. (Cl. 46—37.)

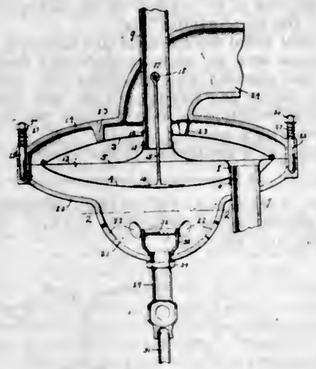


2. A section of toy railway of the character designated, comprising a base, rails positioned thereon, one rail being formed with a trip lever span pivotally attached thereto, a signal actuating lever pivotally connected with said trip lever span, a counterweighted part, a link pivotally connecting said actuating lever with said counterweighted part, and a signal actuated by said counterweighted part, for the purpose described.

3. A section of toy railway of the character designated, comprising a base, rails positioned thereon, one rail being formed with a trip lever span pivotally attached thereto and consisting of a hollow cap rail fitting over a central core, a signal actuating lever pivotally connected with said trip lever span, a counterweighted part, a link pivotally connecting said actuating lever with said counterweighted part, and a signal actuated by said counterweighted part, for the purpose described.

[Claim 1 not printed in the Gazette.]

1,244,183. WATER-HEATER. JOHN B. DUDLEY, Detroit, Mich., assignor of one-fourth to William A. Atkinson and one-fourth to Fred Knapp, Detroit, Mich. Filed Feb. 14, 1917. Serial No. 148,678. (Cl. 122—18.)



1. In a water heater, the combination of a water chamber consisting of upper and lower outwardly convex heads and a substantially flat horizontal diaphragm between them, a pipe connecting into the space above the diaphragm to supply water thereto, said diaphragm having a hole through which said water may pass to the space below it, a burner below the lower head, and a housing extending around the burner and then around the water chamber with its walls substantially parallel to the outer portion of the lower head and to the upper head to cause the burnt gases to flow in engagement with said surfaces of the water chamber.

2. In a water heater, a water chamber consisting of two substantially spherical heads and a substantially flat diaphragm between them, a feed pipe passing through the lower head and connecting into the diaphragm to supply water to the space above the diaphragm, said diaphragm having an opening to permit the water above it to flow to the space below it, and a pipe passing down through the upper head and connecting into the diaphragm to convey away the water in the space below the diaphragm.

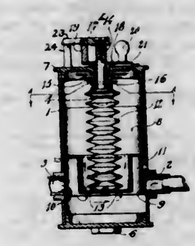
3. In a water heater, a water chamber consisting of two substantially spherical heads and a substantially flat diaphragm between them, a feed pipe passing through the lower head and connecting into the diaphragm to supply water to the space above the diaphragm, said diaphragm having an opening to permit the water above it to flow to the space below it, a pipe passing down through the upper head and connecting into the diaphragm to convey away the water in the space below the diaphragm, a burner below the water chamber, and a housing inclosing the chamber and having its upper portion extending parallel to the upper head of the chamber.

4. In a water heater, the combination of a water chamber consisting of upper and lower heads and a substantially horizontal diaphragm between the heads, a feed pipe extending through the lower head and diaphragm, a discharge pipe extending through the upper head and diaphragm, said diaphragm having an opening to permit water to pass, a housing around the water chamber comprising an upper portion substantially parallel to the upper head and provided with means to carry off the burnt gases and a lower portion substantially parallel throughout most of its area to the lower head and having a central combustion chamber, and a burner in said combustion chamber.

5. In a water heater, the combination of a water chamber consisting of upper and lower heads and a substantially horizontal diaphragm between the heads, a feed pipe extending through the lower head and diaphragm, a discharge pipe extending through the upper head and diaphragm, said diaphragm having an opening to permit water to pass, a housing around the water chamber comprising an upper portion substantially parallel to the upper head and provided with means to carry off the burnt gases and a lower portion substantially parallel throughout most of its area to the lower head and having a central combustion chamber, a burner in said combustion chamber, and resilient means to hold the two portions of the housing together but permitting them to separate.

[Claims 6 to 11 not printed in the Gazette.]

1,244,184. AUTOMATIC TEMPERATURE-REGULATING DEVICE. DAVID DUNWOODIE, Dayton, Ohio. Filed Feb. 4, 1916. Serial No. 76,110. (Cl. 236—6.)

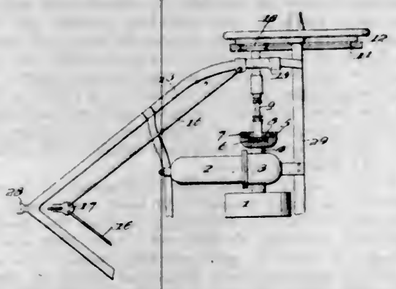


1. In a device of the character described, a casing having near one end thereof separate inlets for hot and cold water and having near the other end thereof an outlet, a hollow cylindrical valve mounted in said casing for movement lengthwise thereof and having parts to alternately close the respective inlets, a partition arranged within said valve between said parts thereof and said outlet and having openings therein, and a thermostat connected at one end with said partition and at the other end with said casing adjacent to said outlet, and adapted to shift said valve to regulate said inlets according to the temperature of the water in said casing on that side of said partition adjacent to said outlet.

3. In a device of the character described, a receptacle having separate inlets for hot and cold water and having an outlet, a valve member mounted in said receptacle for movement longitudinally thereof and having parts arranged to control the flow of water through the respective inlets, a thermostat mounted within said receptacle and connected with said valve member to impart longitudinal movement thereto, a rod connected with said thermostat to support the same and said valve member within said receptacle, said rod extending through the wall of said receptacle, a head secured to the outer end of said rod, a cam mounted on said receptacle and arranged to engage said head, and means for actuating said cam.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,244,185. DRIVING MECHANISM. CHARLES E. DURYEA, Saginaw, Mich. Filed June 26, 1912. Serial No. 705,902. (Cl. 74—58.)



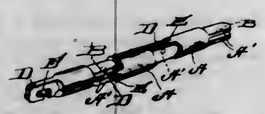
9. In a driving mechanism of the class described, a swiveled slide, an operating lever, a shifting rod, and a link, said lever having an enlarged opening receiving the end of said link, and an elastic tension device in said opening embracing the end of said link.

16. In a driving mechanism of the class described, a transmission drum, a shaft and interposed gears, a movably mounted shaft, intermeshing gears on the last-named shaft and the first-named shaft, friction drive members carried by said shafts, said friction drive members being grooved, the propelling wheel and a ring grooved upon its inner and outer surfaces and carried by said propelling wheel.

20. In a driving mechanism, a motor, a transmission gearing, and a connection between the motor shaft and said gearing embodying a driven shaft and means movable to cause swinging movement of the driven end of said shaft to bring a gear carried by said shaft into operative relation with either of the coöperating gears on the motor shaft.

[Claims 1 to 8, 10 to 15, and 17 to 19 not printed in the Gazette.]

1,244,186. FLEXIBLE SHAFT. SIGURD W. EKROOS, Flushing, N. Y., assignor to The G. Pill Company, Inc., Long Island City, N. Y., a Corporation of New York. Filed Apr. 3, 1914, Serial No. 829,264. Renewed Nov. 22, 1915. Serial No. 62,886. (Cl. 64—30.)



1. A flexible shaft comprising links, each made of a blank of metal having one end centrally slotted forming two wings, an integral lug struck up from the face of each wing, said lugs being adapted, when the wings are turned parallel to each other, to contact with each other and hold the wings spaced apart and forming a pivotal pin, the opposite end of the link having a contracted projection with an angled slot located along one edge thereof and forming a hook, said projecting portion designed to be positioned in the space intermediate the wings upon an adjacent link and the hook designed to engage the integral lugs thereon, the portion of the link intermediate said projection and lug-carrying wings adapted to be turned into cylindrical form, the ends of which serve as stops to limit the interlocked movement of the links.

2. As an article of manufacture, an element adapted to form part of a flexible shaft, said element comprising a one-piece sheet metal member having a hollow tubular center portion, an extension from one end of said tubular center portion designed to form a hook, a pair of wings projecting from the opposite end of said tubular center portion to form a space to contain a hook of a correspondingly shaped coacting member, and a projection extending from one of the wings toward the other and designed to engage the hook of said coacting member.

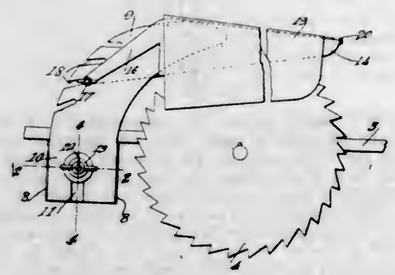
3. As an article of manufacture, a link adapted to form part of a flexible shaft, said link formed of one-piece sheet metal and including a hollow tubular center portion, a flat end member extending from one end of said center portion and provided with means for connecting the link to an adjacent link in the shaft, a pair of flat wings extending integrally from the opposite end of said center portion parallel to each other and designed to receive flatwise therebetween the flat end member of the next adjacent link therebetween, said wing end provided with connecting means to co-act with the connecting means of the next adjacent link.

4. As an article of manufacture, a link adapted to form part of a flexible shaft, said link formed completely of one-piece sheet metal and including a hollow tubular center portion, a flat end member extending from one end of said center portion and provided with means for connecting the link to an adjacent link in the shaft, a flat extension projecting from the opposite end of said tubular portion, said last named extension provided with means designed to be engaged by the flat-end-connecting means of the next adjacent link.

5. A sheet metal flexible shaft link including a tubular body portion with an extension projecting from one end thereof and provided with an angled slot located along one edge thereof and forming a hook, said body portion designed to constitute a stop to limit the interlocking of the link with a coacting element.

[Claims 6 to 8 not printed in the Gazette.]

1,244,187. CIRCULAR-SAW GUARD. WARREN M. FRISBIE, Ypsilanti, Mich. Filed Feb. 17, 1917. Serial No. 149,249. (Cl. 143—159.)



1. A saw guard embodying an upwardly projecting bracket having a curved upper edge and a series of guard engaging portions, and a guard member seatable slidably on said upper edge and having means engageable with said portions to hold the guard member in various angular positions.

3. A saw guard embodying main and secondary guard members each of inverted U-shaped section, means for supporting the main guard member, the secondary guard member straddling the main guard member, the main guard member having a slot near one end, and the secondary guard member having a hook engaging through said slot to pivotally connect it with the main guard member.

[Claim 2 not printed in the Gazette.]

1,244,188. STENCIL-SHEET. LOUIS E. FULLER, New York, N. Y., assignor to A. B. Dick Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 12, 1916. Serial No. 78,043. (Cl. 41—38.6.)

2. A stencil blank comprising a sheet of open porous material impregnated with a coagulated colloidal substance containing a fat acid distributed substantially homogeneously therethrough, substantially as set forth.

4. A stencil blank comprising a sheet of open porous material treated with a substance including a colloid, a fat acid and formaldehyde, substantially as set forth.

5. A stencil blank comprising a sheet of open porous material impregnated with a colloidal substance containing a fat acid and alizarin oil distributed therethrough, substantially as set forth.

8. A stencil blank comprising a sheet of open porous material treated with a mixture including a colloidal substance, formaldehyde, a fat acid and alizarin oil, substantially as set forth.

10. A stencil blank comprising a sheet of open porous material impregnated with a composition comprising coagulated glue and oleic acid, substantially as set forth.

[Claims 1, 3, 6, 7, 9, 11, and 12 not printed in the Gazette.]

1,244,189. STENCIL-SHEET. LOUIS E. FULLER, New York, N. Y., assignor to A. B. Dick Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 12, 1916. Serial No. 78,044. (Cl. 41—38.6.)

1. A stencil blank comprising a sheet of fibrous material of loose open texture, impregnated with a composition including a phenol resin and a hygroscopic substance, substantially as set forth.

7. A stencil blank comprising a sheet of fibrous material of loose open texture, impregnated with a composition including a colloidal substance and polyglycerol, substantially as set forth.

11. A stencil blank consisting of a sheet of fibrous material of loose open texture, impregnated with a composition including resin, oleic acid and a colloidal substance, substantially as set forth.

18. A stencil blank consisting of a sheet of fibrous material treated with a solution including resin, polyglycerol, a colloidal substance, oleic acid, alizarin oil and a hardening agent, substantially as set forth.

20. A stencil blank consisting of a sheet of fibrous material treated with a solution including resin, polyglycerol, a colloidal substance, oleic acid, alizarin oil, formaldehyde and alcohol, substantially as set forth.

[Claims 2 to 6, 8 to 10, 12 to 17, 19, and 21 not printed in the Gazette.]

1,244,190. ROLLER-BEARING. WILLIAM GIBON, Chicopee, Mass. Filed Oct. 27, 1916. Serial No. 128,031. (Cl. 64—62.)



1. A roller bearing comprising a rotary axial member and a fixed tubular member spaced to receive and tapered to afford radial adjustment to rollers between, when the latter are moved longitudinally, a plurality of rollers in the space between said axial member and said tubular member, and means to move said rollers longitudinally.

2. A roller bearing comprising a rotary axial member and a fixed tubular member spaced to receive and tapered to afford radial adjustment to rollers between, when the latter are moved longitudinally, a plurality of rollers in the space between said axial member and said tubular member, means to move said rollers longitudinally, and end-thrust bearings for said axial member.

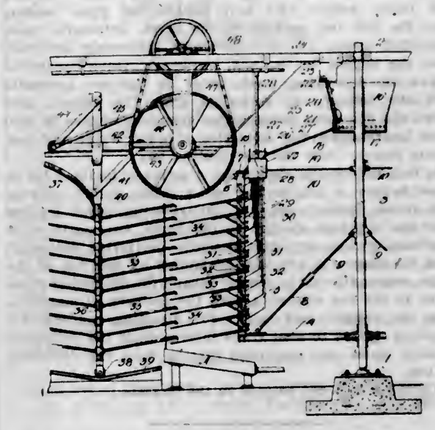
3. A roller bearing comprising a rotary axial member and a fixed tubular member spaced to receive and tapered to afford radial adjustment to rollers between, when the latter are moved longitudinally, a plurality of rollers in the space between said axial member and said tubular member, means to move said rollers longitudinally, end-thrust bearings for said axial member, and means to adjust said end-thrust bearings.

4. A roller bearing comprising a rotary axial member having a tapered bearing surface, a fixed tubular member having a tapered bearing surface and spaced from said axial member, a plurality of rollers in the space between said bearing surfaces, a positioning member slotted to receive said rollers in said space, and means to adjust lengthwise said positioning member with said rollers.

5. A roller bearing comprising a rotary axial member having a tapered bearing surface, a fixed tubular member having a tapered bearing surface and spaced from said axial member, the taper of one of said surfaces being less than that of the other in order that the space between said surfaces shall be narrower at one end than at the other, a plurality of rollers in said space, a positioning member for said rollers in said space, and means to adjust lengthwise said positioning member with said rollers.

[Claims 6 to 16 not printed in the Gazette.]

1,244,191. SEPARATOR. WILLIAM F. GONGAWARE, Oceanpark, Cal. Filed June 1, 1915. Serial No. 31,606. (Cl. 83—87.)



1. A separator comprising a rotatable frame, a plurality of series of circularly arranged superposed trays loosely mounted on said frame, means for adjusting the inclination of said trays, a plurality of distributing boxes on said frame, a plurality of pipes to distribute material to said trays from said boxes, a wash water supply for said boxes, a material receiving hopper, pipes to convey the material to said distributing boxes from said hopper, a reciprocating hydraulic means to remove the concentrates from said trays, valves in said hopper and controllable by the rotation of said frame to cut off the supply of material to, and during the supply of wash water to said distributing boxes, and means on said boxes to cause the wash water to be supplied to said boxes and to cut off the supply of wash water during the operation of the hydraulic removing means.

2. In a separating apparatus, a hopper, a discharge pipe leading from said hopper, a normally open valve for regulating the flow of materials from the hopper, a distributing box into which the discharge pipe opens, a rotary frame carrying said hopper and distributing box, a water supply pipe arranged to discharge into the distributing box, a valve on said supply pipe, means on the distributing box for opening the valve as the box passes thereunder, means for closing the valve on the passing of the box from therebeneath, means coöperating with the rotation of the frame for closing the valves to the discharge pipes during the interval at which the valve on the water pipe is maintained open, discharge pipes leading from the box, inclined trays above which said last-named pipes open, and nozzles arranged to deliver concentrates removing sprays to said trays after the closing of the fresh water valve and while the hopper valve is closed.

3. In a separating apparatus, a hopper, a discharge pipe leading from said hopper, a normally open valve for regulating the flow of materials from the hopper, a distributing box into which the discharge pipe opens, a rotary frame carrying said hopper and distributing box, a water supply pipe arranged to discharge into the distributing box, a valve on said supply pipe, means on the distributing box for opening the valve as the box passes thereunder, means for closing the valve on the passing of the box from therebeneath, means coöperating with the rotation of the frame for closing the valves to the discharge pipes during the interval at which the valve on the water pipe is maintained open, discharge pipes leading from the box, inclined trays above which said last-named pipes open, nozzles arranged to deliver concentrates removing sprays to said trays after the closing of the fresh water valve and while the hopper valve is closed, and means for advancing and retracting nozzles longitudinally of the trays and in radial relation to the rotating frame.

4. In a separating apparatus, a series of inclined trays, a fed hopper, a distributing box, a rotary frame carrying said trays, hopper and box, distributing pipes leading from the box and opening to the trays, automatic valve controlled means for intermittently delivering materials from the hopper to the box, automatic valve controlled means for delivering wash water to the box alternate with the delivery of materials from the hopper, and means for directing concentrates removing sprays to said trays intermediate the deliveries of wash water and materials thereto from the distributing box.

5. In a separating apparatus, a series of inclined trays, a feed hopper, a distributing box, a rotary frame carrying said trays, hopper and box, distributing pipes leading from the box and opening to the trays, automatic valve controlled means for intermittently delivering materials from the hopper to the box, controlled by rotation of the frame, automatic valve control means for delivering wash water to the box alternate with the delivery of materials from the hopper, and means for directing concentrates removing sprays to said trays intermediate the deliveries of wash water and materials thereto from the distributing box.

[Claims 6 to 8 not printed in the Gazette.]

1,244,192. PENCIL ATTACHMENT. ROBERT GOSMAN, Amagansett, N. Y. Filed Feb. 8, 1917. Serial No. 147,322. (Cl. 120—1.)

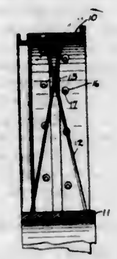


1. The combination of a tubular holder of uniform cross section adapted to receive a pencil point at one end, a resilient follower slidably fitted within the holder against which the end of the pencil is adapted to impinge, said follower being movable along the holder by force applied to the pencil, the opposite end portion of the holder together with the follower constituting a receptacle for paste, and a combined pencil eraser, stopper and paste spreader carried by the opposite end of the holder.

2. In a pencil attachment of the character set forth, the combination with a tubular holder adapted to contain a quantity of paste, of a combined integral pencil eraser, resilient stopper, and paste spreader serving to seal said paste receptacle, and a thimble fitted upon the stopper and slidable upon the outer end of the holder while the stopper is projected into the end of the holder.

3. The herein described article of stationery comprising a rigid tubular holder adapted to hold a pencil at one end and paste at the other end, a member fitted within the holder betwen the paste and the pencil portions thereof and adapted to be moved along the holder by application of the pencil to deliver the paste to the opposite end of the holder, and an integral eraser stopper and brush carried by the open end of the paste end of the holder.

1,244,193. VEHICLE-WHEEL. GEORGE G. GRIFFIN, Indianapolis, Ind. Filed Nov. 13, 1913, Serial No. 800,811. Renewed Apr. 30, 1917. Serial No. 165,618. (Cl. 21—69.)



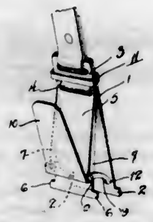
1. The combination with a hub and rim of a vehicle wheel, of a plurality of series of spokes connected with said rim and spaced from each other, and an annular reinforcing means provided on the inner surface of the rim between the series of spokes substantially as and for the purpose set forth.

2. The combination with the rim and hub of a vehicle wheel, of two series of spokes, the spokes of the two series crossing each other, and reinforcing means provided on the inner surface of the rim between the two series of spokes.

3. The combination with the rim and hub of a vehicle wheel, of two series of spokes, each series of spokes extending from the hub on one side of a radial plane through the wheel to the rim at the other side of such plane so that the two series of spokes will cross each other, and a reinforcing bar secured to the inner surface of the rim between the two series of spokes.

4. The combination with the hub and rim of a vehicle wheel, reinforcing means provided on the inner surface of the rim, and two series of spokes connecting the hub and rim, the spokes of the two series crossing each other and being held in the rim adjacent the opposite sides of said reinforcing means.

1,244,194. GARMENT-SUPPORTER. THOMAS E. GRIFFITH, Winston-Salem, N. C. Filed Jan. 29, 1916. Serial No. 75,152. (Cl. 24—250.)



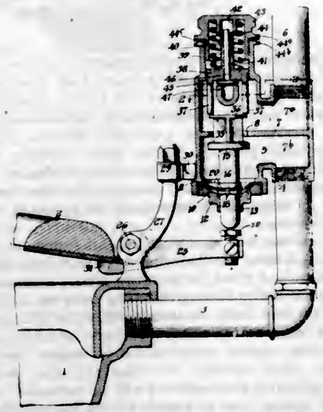
1. A garment supporter comprising a clamp having a fixed and a movable member, a ring circumscribing the said members, a pair of clips pivotally mounted on the movable member, means associated with the said clips and adapted to be mannally moved into engagement with the said movable member for moving the ends of the said clips into engagement with the ends of the fixed member, the said ring being slidable on the said movable and fixed member for engaging the said means.

3. A garment supporter comprising a base plate, a hinge formed at one end of the said base plate, lugs formed at the opposite end and projecting laterally from the edge of the base plate, a swinging clamp plate mounted on the hinge, the said swinging clamp plate also having lugs corresponding to the lugs on the base plate, clips pivotally mounted at opposite edges of the swinging clamp plate above the lugs on the said clamp plate, and means connected to the clips for moving the ends of the latter into engagement with the lugs on the base plate for tight engagement therewith to clamp the said base plate and the swinging clamp plate in close relation.

5. A garment supporter comprising a base plate, a hinge formed at one end of said base plate, lugs formed at the opposite end of said base plate, a swinging clamp plate mounted in said hinge to swing toward or away from said base plate, a finger plate having a pair of integral clips the said clips being pivotally connected to the said base plate, the said clips being adapted to have their ends engage the said lugs, and means for locking said finger plate to said swinging clamp plate.

[Claims 2 and 4 not printed in the Gazette.]

1,244,195. VALVE MECHANISM. WILLIAM U. GRIFFITHS, Philadelphia, Pa. Filed Aug. 17, 1915. Serial No. 45,869. (Cl. 4—28.)



1. In a valve mechanism, the combination of a valve casing having an inlet opening and openings leading from the said casing to a tank and to a closet bowl respectively and also having a transverse plate which divides the said casing into two compartments, said plate having an opening therethrough, and a two part spindle situated in the said casing, one of the said parts supporting a valve which is adapted to close the opening through said plate, and a valve having movable connection with the other of said parts, said valve being adapted to close the inlet opening, pressure means for holding the said other part of said spindle in position to hold the said last mentioned valve in closed position and means for actuating the first named part of the said spindle to thereby cause movement of the second named part to permit movement of the valve for closing the inlet opening into open position.

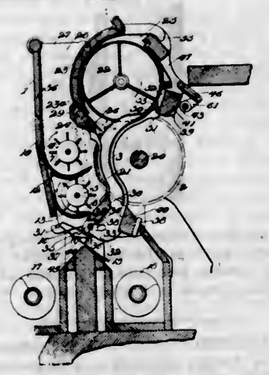
3. In a valve mechanism, the combination of a valve casing said casing having inlet and outlet openings, valves for controlling said openings, a standard for supporting the said valve casing, a support for said standard, a lever pivoted upon said standard and means whereby movement of said lever causes movement of said valves.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,244,196. HULLER-GIN. THADDEUS S. GRIMES, Columbus, Ga., assignor to Lummus Cotton Gin Company, Columbus, Ga., a Corporation of Georgia. Filed Dec. 2, 1916. Serial No. 134,714. (Cl. 13—9.)

2. In a cotton gin, a saw cylinder, an adjacent conveyer, a feed space being provided above and throughout substantially the length of said cylinder and said conveyer, and a second conveyer adapted to receive the material from said former conveyer and having two sets of spirally arranged elements adapted to continuously conduct the material toward its center, and an outlet at the center of said second conveyer.

4. In a cotton gin, a saw cylinder, a plurality of ginning ribs, a frame on which said ribs are mounted, and means for bodily and laterally shifting said frame relatively to said saw cylinder to move said ribs into or out of ginning position.

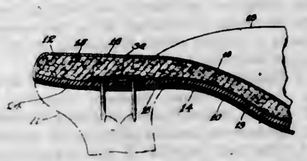


9. In a cotton gin, a movable breast, rollers on which said breast is mounted, brackets for supporting said rollers and having toothed engagement therewith, and means for shifting said breast toward and away from the gin casing.

12. In a cotton gin, a roll box, a front therefor having a pivotal connection to said box and a beveled extremity, and a seed board having an inwardly inclined top surface adapted to lie adjacent the extremity of said front when the latter is closed, the contiguous surfaces formed by said front and board being at substantially right angles to the radius having said pivotal connection for its center.

[Claims 1, 3, 5 to 8, 10, and 11 not printed in the Gazette.]

1,244,197. SLIPPER. MAX GUSTIN, New York, N. Y. Filed May 25, 1917. Serial No. 170,812. (Cl. 36—28.)



1. In a slipper, the combination of a sole, a heel attached thereto, an upper attached to said sole, an inner cushion on said sole, said upper having in-turned portions passing underneath said cushion, said cushion having a border on the rear face thereof, and attaching means passing through said in-turned portions and said border to secure the cushion to the upper, and means passing through the rear portion of the cushion and the heel to positively hold the cushion to the heel.

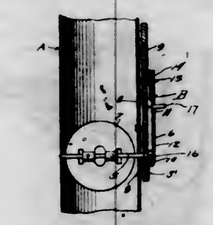
3. In a slipper, a sole comprising a molded layer, a correspondingly shaped layer held thereon, a shank embedded in the last mentioned layer, padding material superimposed on said layers, a covering for said padding material, said covering being drawn thereover and passing underneath the first mentioned layer to provide a border whereto an upper may be attached, and means for holding said covering to the sole.

[Claim 2 not printed in the Gazette.]

1,244,198. DAMPER-LOCK AND INDICATOR. MADISON HAM, Glen Cove, N. Y. Filed Mar. 15, 1917. Serial No. 155,106. (Cl. 126—295.)

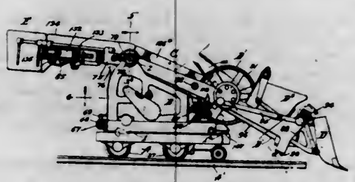
The combination with a stove pipe, of a rod journaled transversely thereof, a crank arm fixed to the rod out-

wardly of the pipe, a damper plate carried by the rod for adjustment within the pipe, a fixed plate, a plate hinged to the fixed plate and provided with a plurality of radially



extending notches arranged to interchangeably receive the crank arm and adapted with the fixed plate to hold said arm in various positions of adjustment, and means for locking said plates in holding position.

1,244,199. LOADER. VIGGO G. HALBY, Marquette, Mich., assignor to Eureka Mucking & Engineering Company, Crystal Falls, Mich., a Corporation of Michigan. Original application filed Apr. 26, 1915, Serial No. 24,120. Divided and this application filed Mar. 28, 1916. Serial No. 87,177. (Cl. 193—4.)

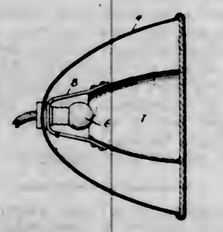


1. In a loader, the combination of a truck, a conveyer-frame mounted thereon, mechanism for causing the front end of the conveyer-frame to swing laterally, and automatically actuated discharge mechanism operating to direct the materials discharged from the conveyer mechanism toward a central point, regardless of the position of the conveyer mechanism.

2. In a loader, the combination of a truck, a laterally-swinging frame mounted thereon, conveyer mechanism mounted on said laterally-swinging frame, mechanism for swinging the laterally-swinging frame, a discharge device carried by the rear portion of the conveyer, and means for automatically varying the position of the discharge device to counteract the effect of the lateral swing of the conveyer mechanism, for the purpose set forth.

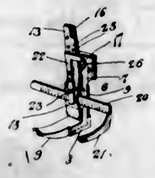
[Claims 3 and 4 not printed in the Gazette.]

1,244,200. HEADLIGHT. ALBERT EDWIN HALE, Tucson, Ariz. Filed Jan. 4, 1917. Serial No. 140,555. (Cl. 240—48.6.)



In a headlight of the class described, a primary parabolic reflector, a source of light in the focus thereof, a secondary parabolic reflector coaxial with the first, said secondary reflector having the dome portion about the focus cut away to admit the source of light, and means for supporting the said secondary parabolic reflector within the first so that the secondary reflector will receive only the rays from the source of light which would otherwise fall outside of the primary reflector.

1,244,201. SEWING-MACHINE ATTACHMENT. WILLIAM T. HALME, Syracuse, N. Y. Filed Jan. 26, 1916. Serial No. 74,403. (Cl. 112—9.)

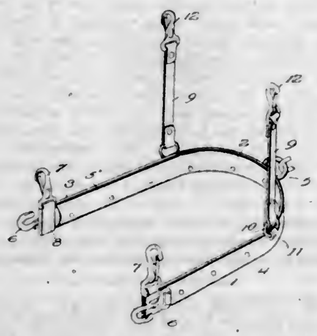


1. In combination, a sewing machine presser foot, a leaf spring secured to said presser foot and normally engaged with the front face of the latter, a horizontally disposed plate movable longitudinally between said spring and said presser foot, an angularly directed gage arm carried by said plate, a holder plate slidably engaged with said leaf spring, and a plurality of fingers carried by said holder plate slidably receiving the first-mentioned plate for securing the holder plate in adjusted position upon said spring.

3. In combination, a sewing machine presser foot, a leaf spring secured to said presser foot and normally engaged with the front face of the latter, a horizontally disposed plate movable longitudinally between said spring and said presser foot, an angularly directed gage arm carried by said plate, a holder plate slidably engaged with said leaf spring, a plurality of fingers carried by said holder plate slidably receiving the first mentioned plate for securing the holder plate in adjusted position upon said spring, and a resilient securing member connected to the holder plate and to the spring for holding said plate in a vertical adjusted position.

[Claim 2 not printed in the Gazette.]

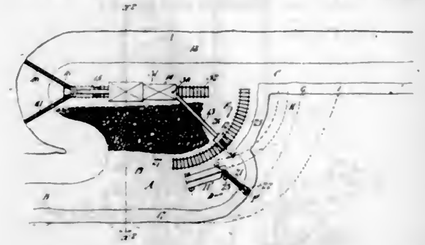
1,244,202. SWINGLETREE. MILTON G. HARD, Sisseton, S. D. Filed May 2, 1917. Serial No. 165,885. (Cl. 54—1.)



1. A swingletree of the class described including a substantially U-shaped strip, hooks adjacent the opposite ends thereof adapted to engage the trace ends, snap fasteners on said ends adapted for engagement with the opposite ends of the hold back strap, short length straps extending upwardly from the opposite sides of said strip, detachable fastening means on the free ends of said straps to engage the back strap, and a draft attaching ring on the bent portion of said strip.

2. A swingletree of the class described including a substantially U-shaped strip, means for attaching the opposite ends thereof to the traces and hold back straps of a harness, short length straps extending upwardly on opposite side of said strip and adapted to be connected with the back strap of the harness, and a draft attaching ring on the bent portion of said strip.

1,244,203. METHOD OF AND APPARATUS FOR PLACER-MINING. FRANK E. HAWKESWORTH, Los Angeles, Cal. Filed Feb. 15, 1916. Serial No. 78,532. (Cl. 83—76.)



1. In an apparatus for placer mining, a precious value extracting means, means for piling the tailings from said precious value extracting means in the rear of said precious value extracting means, a primary conveyer mounted on a pivot at the front of said precious value extracting means, the outer end of said primary conveyer swinging in an arc of a circle about said pivot, a circular arc of track on which the outer end of said primary conveyer is mounted, and a digging means so placed as to excavate material from in front of said precious value extracting means and deliver it to the outer end of said primary conveyer.

2. In an apparatus for placer mining, a precious value extracting means, means for piling the tailings from said precious value extracting means in the rear of said precious value extracting means, a primary conveyer mounted on a pivot at the front of said precious value extracting means, the outer end of said primary conveyer swinging in an arc of a circle about said pivot, a digging means so placed as to excavate material from in front of said precious value extracting means and deliver it to the outer end of said primary conveyer, and large material separating means arranged to remove heavy and large material from the excavated material before it is passed to said primary conveyer.

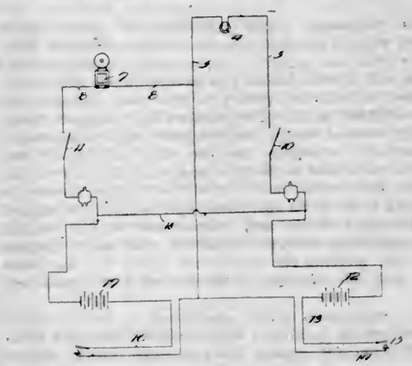
3. In an apparatus for placer mining, a precious value extracting means, means for piling the tailings from said precious value extracting means in the rear of said precious value extracting means, a primary conveyer mounted on a pivot at the front of said precious value extracting means, the outer end of said primary conveyer swinging in an arc of a circle about said pivot, a circular arc of track on which the outer end of said primary conveyer is mounted, a digging means so placed as to excavate material from in front of said precious value extracting means and deliver it to the outer end of said primary conveyer, the large material separating means mounted to move on said circular arc of track and arranged to remove large and heavy material from the excavated material before it is passed to said primary conveyer.

4. In an apparatus for placer mining, a precious value extracting means, means for piling the tailings from said precious value extracting means in the rear of said precious value extracting means, a primary conveyer mounted on a pivot at the front of said precious value extracting means, the outer end of said primary conveyer swinging in an arc of a circle about said pivot, a digging means so placed as to excavate material from in front of said precious value extracting means and deliver it to the outer end of said primary conveyer, large material separating means arranged to remove heavy and large material from the excavated material before it is passed to said primary conveyer, and means by which said heavy and large material is dumped to the rear and inside of said circular arc of track, said primary conveyer being adapted to extend over said dumped heavy material.

5. In an apparatus for placer mining, a precious value extracting means, means for piling the tailings from said precious value extracting means in the rear of said precious value extracting means, a primary conveyer mounted on a pivot at the front of said precious value extracting means, the outer end of said primary conveyer swinging in an arc of a circle about said pivot, a circular arc of track on which the outer end of said primary conveyer is mounted, a digging means so placed as to excavate material from in front of said precious value extracting means and deliver it to the outer end of said primary conveyer, large material separating means mounted to move on said circular arc of track and arranged to remove large and heavy material from the excavated material before it is passed to said primary conveyer, and means by which said heavy material is dumped to the rear and inside of said circular arc of track, said primary conveyer being adapted to extend over said dumped heavy material.

[Claims 6 and 7 not printed in the Gazette.]

1,244,204. RAILWAY-CROSSING SIGNAL. JOHN F. HAWLEY and FRED L. MOSS, Chillicothe, Mo. Filed Apr. 6, 1916. Serial No. 89,414. (Cl. 246—23.)



1. In a railway crossing signal system, a pair of train operated circuit closers adapted to be disposed one at either side of a crossing, a pair of distinctive signals adapted to be disposed near the crossing, electrical means for selectively actuating either or both of the signals upon the closing of either circuit closer, manually controlled means governing the selection of the electrical means, and means for indicating the actuation of either or both of the signals even after the circuit closer causing such actuation has been opened.

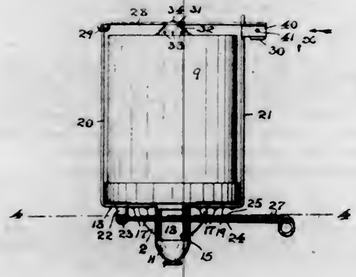
[Claims 2 and 3 not printed in the Gazette.]

1,244,205. DISPENSING DEVICE. LOUIS HECK, Newark, N. J. Filed Apr. 27, 1916. Serial No. 93,844. (Cl. 221—94.)

1. A dispensing device comprising a main support, a valve-element connected with said support, post-like members extending upwardly from said support, one of said post-like members being formed at its upper end-portion with a receiving slot, a clamping arm pivoted at one end to the other post-like member and adapted at its other end to enter said receiving slot to be thereby brought into retaining engagement with said slotted post-like member, and a piercing element connected with said clamping arm for piercing the sealed end of the can simultaneously with the clamping of the can upon said main support.

2. A dispensing device comprising a main support, a valve-element connected with said support, post-like mem-

bers extending upwardly from said support, one of said post-like members being formed at its upper end-portion with a receiving slot, a clamping arm pivoted at one end to the other post-like member and adapted at its other end to enter said receiving slot to be thereby brought into retaining engagement with said slotted post-like member, a piercing element connected with said clamping arm for piercing the sealed end of the can, and a cone-shaped perforated protecting hood also connected with said clamping arm, said hood being secured to said arm so as to inclose said piercing element and to protect the opening formed in the can.



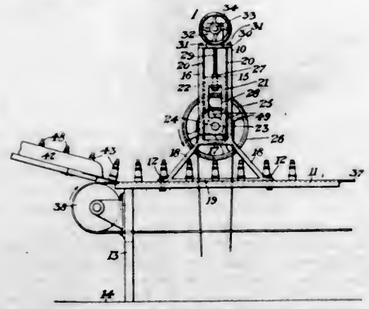
4. A dispensing device comprising a main support formed with an opening, a nozzle-element extending downwardly from said support, a compressible tubular member within said nozzle-element and having its one end-portion arranged within the opening in said main support, said nozzle-element having open portions in its opposite sides, a clamp secured to said main support, said clamp having arm-portions extending into the open portions of said nozzle-element and normally compressing the said tubular member, means also connected with said main support for clamping a can in its operative relation upon said support and directly over the said compressible tubular member, and a piercing element connected with said clamping means for piercing the sealed end of the can simultaneously with the clamping of the can upon said main support.

5. A dispensing device comprising a main support formed with an opening, a nozzle-element extending downwardly from said support, a compressible tubular member within said nozzle-element and having its one end-portion arranged within the opening in said main support, said nozzle-element having open portions in its opposite sides, a clamp secured to said main support, said clamp having arm-portions extending into the open portions of said nozzle-element and normally compressing the said tubular member, post-like members extending upwardly from said main support, one of said post-like members being formed at its upper end-portion with a receiving slot, a clamping arm pivoted at one end to the other post-like member and adapted at its other end to enter said receiving slot to be thereby brought into retaining engagement with said slotted post-like member, and a piercing element connected with said clamping arm for piercing the sealed end of the can simultaneously with the clamping of the can upon said main support.

6. A dispensing device comprising a main support formed with an opening, a nozzle-element extending downwardly from said support, a compressible tubular member within said nozzle-element and having its one end-portion arranged within the opening in said main support, said nozzle-element having open portions in its opposite sides, a clamp secured to said main support, said clamp having arm-portions extending into the open portions of said nozzle-element and normally compressing the said tubular member, post-like members extending upwardly from said main support, one of said post-like members being formed at its upper end-portion with a receiving slot, a clamping arm pivoted at one end to the other post-like member and adapted at its other end to enter said receiving slot to be thereby brought into retaining engagement with said slotted post-like member, a piercing element connected with said clamping arm for piercing the sealed end of the can, and a cone-shaped perforated protecting hood also connected with said clamping arm, said hood being secured to said arm so as to inclose said piercing element and to protect the opening formed in the can.

[Claim 3 not printed in the Gazette.]

1,244,206. APPARATUS FOR ELEVATING AND LOWERING THE BEARINGS OF ROTATING DEVICES. GILBERT F. HELSON, New York, N. Y., assignor to E. R. Durkee & Co., New York, N. Y., a Firm. Filed July 29, 1916. Serial No. 112,021. (Cl. 74—7.)



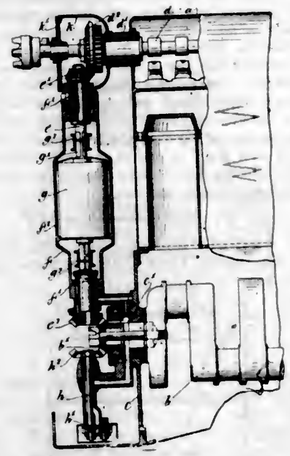
1. An apparatus of the character described, comprising two oppositely placed upright frames, a block provided with a longitudinal slot and circular opening below the same supported in each frame and slidable vertically therein, a single pressure roller, a shaft for the same journaled in said circular openings in the blocks, an interiorly threaded bushing within an opening in the top of each block and communicating with the slot therein, a screw passing through each bushing and provided with a beveled gear fixed to its upper end, a transverse plate secured to the top of each frame provided with holes for the passage of said screws, a horizontal rod supported in bearings above said plate, beveled gears secured to said rod meshing with the gears on said screws, and means attached to said rod for rotating the same whereby the roller is elevated or lowered to the desired extent, and held in true horizontal position with revoluble motion only while the apparatus is operated.

2. An apparatus of the character described, comprising two oppositely placed upright frames, a block provided with a longitudinal slot and circular opening below the same supported in each frame and slidable vertically therein, a single pressure roller provided with an elastic covering, a shaft for said roller journaled in said circular openings in the blocks, an interiorly threaded bushing within an opening in the top of each block and communicating with the slot therein, a screw passing through each bushing and provided with a beveled gear fixed to its upper end, a transverse plate secured to the top of each frame provided with holes for the passage of said screws and having its ends upturned at right angles, a horizontal rod supported in bearings in said upturned ends, beveled gears secured to said rod meshing with the gears on said screws, and a hand wheel secured to the end of said rod for rotating the same, whereby the roller is elevated or lowered to the desired extent, and held in true horizontal position with revoluble motion only while the apparatus is operated.

1,244,207. GENERATOR DRIVE MECHANISM. ALEXANDER GRISWOLD HERRESHOFF, New York, N. Y., assignor to International Motor Company, New York, N. Y., a Corporation of Delaware. Filed June 25, 1917. Serial No. 176,826. (Cl. 74—7.)

1. In an internal combustion engine, a crank shaft, a cam shaft, a separate shaft connecting the first two shafts and a generator coupled directly to said separate shaft.

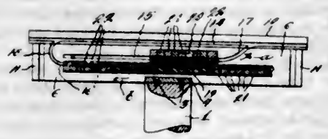
3. In an internal combustion engine, a crank shaft, an overhead cam shaft, a vertically disposed separate sectional shaft geared to said first two shafts and a generator interposed between the sections of said separate shaft and coupled directly thereto.



6. In an internal combustion engine, a crank shaft, an overhead cam shaft, a sectional separate shaft having its ends geared to the ends of the two first named shafts, a generator interposed in said sectional shaft and having the ends of its armature coupled directly in the proximate ends of the sectional shaft, a casing inclosing the generator and sectional shaft and bearings carried in the casing for supporting said generator and separate sectional shaft.

[Claims 2, 4, and 5 not printed in the Gazette.]

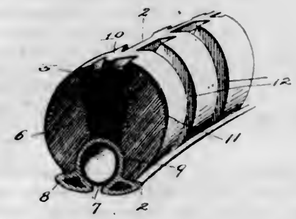
1,244,208. EXTENSION-TABLE. MORRIS HEYMANN, Annapolis, Md. Filed Aug. 31, 1916. Serial No. 117,959. (Cl. 45—114.)



1. In an extension table, a supporting pedestal, a pair of extensible table top sections, means on the pedestal and with which the table top sections have sliding connections, whereby the sections may be moved toward and from each other, an extension leaf consisting of two sections, said means having a compartment for the extension leaf, the adjacent edges of the table top sections having guide grooves, said compartment upon its opposite faces having two sets of guide grooves, and means on the opposite edges of the two sections of the leaf engaging said two sets of grooves, said last mentioned grooves having curved and inclined portions at corresponding opposite ends merging into the grooves of the table top sections, whereby said leaf sections may be moved between said table top sections when extended, said sections of the extension leaf being constructed of a plurality of slats hingedly united, the hinges of the slats of one section having elongated slot connections, thereby affording looseness of play whereby the slats may separate when moving up the inclined portions of one set of said grooves.

[Claim 2 not printed in the Gazette.]

1,244,209. CUSHION-TIRE. FRANCIS HICKMAN, Boundbrook, N. J., assignor of one-half to Bound Brook Oil-Less Bearing Company, Boundbrook, N. J., a Corporation of New Jersey. Filed May 2, 1917. Serial No. 165,969. (Cl. 152—10.)



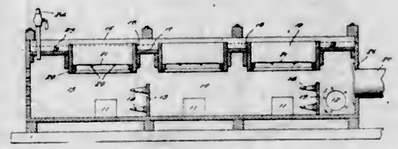
1. A tire comprising joined solid cushion elements and a pneumatic element inclosed by the cushion elements, the one cushion element being between and of less resiliency than the other cushion elements and extending fully from the tread of the tire to the said pneumatic element.

3. A tire comprising joined solid cushion elements and a pneumatic element inclosed by the cushion elements and located adjacent to the rim engaging portion of the tire, the one cushion element being of less resiliency than the other elements and mainly inclosed by the said elements of greater resiliency and serving as the tread of the tire and extending continuously to and engaging the pneumatic element, the cushion elements of greater resiliency being shielded by parts of the said cushion element of lesser resiliency.

5. A tire comprising practically integral solid cushion elements and a pneumatic element inclosed by the former elements, the one cushion element being within and of less resiliency than the other cushion elements and exposed to form the tread of the tire and extending fully from the tire tread to the said pneumatic element, the cushion elements of greater resiliency being formed with recesses at regular intervals throughout the length of the tire and the parts of the tire between the recesses being partially covered by portions of the cushion element of less resiliency.

[Claims 2 and 4 not printed in the Gazette.]

1,244,210. UNIVERSAL JIG. JOHN J. HILL, Tonopah, Nev. Filed Aug. 23, 1916. Serial No. 116,496. (Cl. 83—79.)



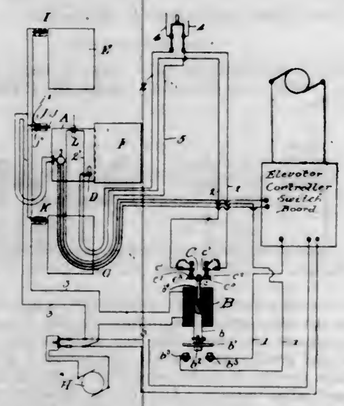
1. In a universal jig, the combination of a tank, a horizontal partition extending throughout the length of the tank adjacent the upper edge and dividing the tank into upper and lower compartments and having a plurality of openings therein, jig boxes supported in the openings having perforated bottoms, a plurality of static boards hinged at one of their ends to one of the sides of the tank in the lower compartment and also arranged in close relation with the bottom, a plurality of gage cocks mounted in the partition establishing communication between the upper and lower compartments, water inlet and outlet means in the tank, means in communication with one end of the lower compartment for agitating the water therein for affecting the ore and jig boxes, and a plurality of doors permitting of access to the lower compartment adjacent the bottom.

2. In a universal jig, the combination of a tank, a horizontal partition extending throughout the length of the

tank adjacent the upper edge thereof and dividing the tank into upper and lower compartments and having a plurality of openings therein, jig boxes supported in the openings and having perforated bottoms, a plurality of transversely arranged static boards in the lower compartment and adjacent the bottom thereof, a plurality of gage cocks mounted in the partition and establishing communication between the upper and lower compartments, a valve controlled inlet pipe mounted in the partition and communicating with the lower compartment, a series of superposed valve controlled outlet pipes adjacent one end of the tank, and means in communication with the opposite end of the lower compartment of the tank for agitating the water therein for affecting the ore in the jig boxes.

3. In a universal jig, the combination of a tank, a horizontal partition therein adjacent the upper edge thereof for dividing the tank into upper and lower compartments and having a plurality of openings therein, jig boxes embodying main frames supported in the openings, auxiliary frames arranged within the main frames, a piece of screen carried by each auxiliary frame and transverse rods carried by the auxiliary frame for bracing the screens, a plurality of static boards having one of their ends hinged to one side of the tank and normally disposed transversely of and in close relation with the bottom of the tank, a plurality of gage cocks mounted in the partition and establishing communication between the compartments, a valve controlled inlet pipe mounted in the partition and communicating with the lower compartment, a series of superposed valve controlled outlet pipes mounted in one end of the tank and establishing communication with the lower compartment, means in communication with the opposite end of the lower compartment of the tank for agitating the water therein for affecting the ore in the jig boxes, a plurality of doors mounted in one side of the tank adjacent the bottom thereof for permitting of access thereto, and a removably closed man hole in the tank.

1,244,211. ELEVATOR SAFETY SYSTEM. HENRY G. HILLMAN, New York, N. Y., assignor to John Tefft Clarke, New York, N. Y. Filed July 13, 1912. Serial No. 709,254. (Cl. 187—31.)

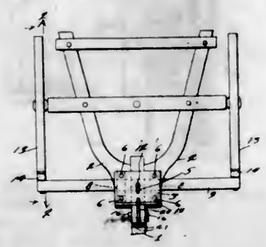


1. An elevator safety system comprising, in combination with an elevator car and a door, a normal operating means for said car, a device distinct from said normal operating means and operated independently thereof for determining the application of power to said car, an electromagnet arranged to control said device, a safety circuit including said electromagnet and a switch operated by said door, an indicating device in the car, and a circuit extending from said indicating device and operated by said electromagnet, whereby the operator is notified at any time said door is in a dangerous position.

2. An elevator safety system comprising, in combination with an elevator car and a door, a normal control circuit and switch for controlling the application of power to said car, contacts in said control circuit independent of said switch, an electro-magnet arranged to operate said contacts, a safety circuit including said electro-magnet and a switch operated by said door, an indicating device in said car, and a circuit including said indicating device and a switch operated by said electro-magnet.

3. An elevator safety system comprising, in combination with an elevator car and a door, a normal control circuit and switch for controlling the application of power to said car, an independent switch in said normal control circuit, an electro-magnet for operating said switch, a safety circuit including said electro-magnet and a switch operated by said door, an indicating device in the car, and a circuit including said indicating device and a switch operated by said electro-magnet.

1,244,212. VEHICLE-BRAKE. JAMES M. HUGHES, Somerville, Ala. Filed June 4, 1917. Serial No. 172,733. (Cl. 21—9.)



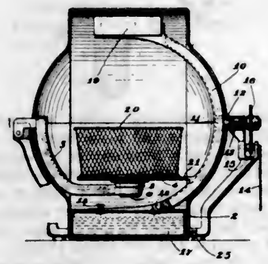
1. In a device as set forth, the combination with the front hounds of a vehicle, of a pair of plates connecting the front ends of the hounds together, one plate being on top of the hounds and the other plate being on the bottom of the hounds, the plates being provided with slots positioned centrally between the hounds, a tongue slidably mounted between the hounds and between the plates, strap members attached on the bottom of the hounds, a transverse brake bar supported by the strap members and having a limited forward and backward movement therein, and a bolt passing through the slots in the plates, through the tongue and through the brake bar, whereby the tongue is permitted a limited longitudinal movement between the hounds to impart a forward or backward movement to the brake bar.

2. In a device as set forth, a vehicle tongue having a limited longitudinal movement between the front hounds, a transverse brake bar attached to the tongue and provided with a brake shoe at each end, a transverse shaft rotatably mounted in the tongue, to the fore of the front hounds, and Z-shaped levers connected to the shaft and adapted to be brought into or out of engagement with the front ends of the hounds, whereby when the tongue is at the forward extreme of its longitudinal movement it may be prevented from backward movement.

3. In a device as set forth, a vehicle tongue having a limited longitudinal movement between the front hounds, a transverse brake bar attached to the tongue and provided with a brake shoe at each end, a plate attached to the front end of the hounds and provided with an upturned flange at its forward end, and a hook member pivotally mounted on the tongue, whereby when the tongue has reached the limit of its backward movement and set the brake the hook member may be made to engage the flange to maintain the brake in the set position.

1,244,213. WASHING-MACHINE. WILLIAM F. HUNT, New York, N. Y. Filed May 25, 1916. Serial No. 99,728. (Cl. 141—9.)

1. An apparatus of the class described comprising in combination a main frame, a casing or tub, an arm extending inwardly from said frame over said tub, a table carried by said arm and revoluble about a vertically extending axis, a revoluble carrier supported on said frame, a bucket upon said carrier positioned so that as the carrier revolves the bucket will dip into the liquid contained in the tub or casing and will move from a position below the table upwardly to a position where water will be discharged upon articles carried by said table, and means whereby said table and said carrier will be revolved.



4. An apparatus of the class described comprising in combination a horizontally extending table which revolves about a vertically extending axis, a main frame having a member supporting said table, a tub positioned below said table, a revoluble bucket carrier having an arm carrying at the free end thereof a bucket which can be moved from its lower position below the table, where the bucket can pick up a liquid from the tub, to its upper position above the table where the bucket can discharge water upon articles supported by the table, means for rotating said bucket carrier in the manner specified, and means between the bucket carrier and said rotating table whereby at least a partial rotation of the table will be effected for each revolution of the bucket carrier.

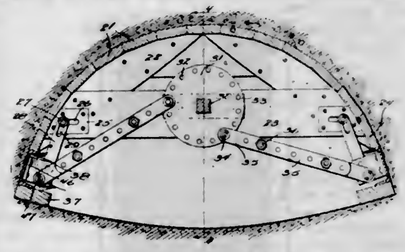
5. An apparatus of the class described comprising in combination a frame, a horizontally extending table supported by said frame and revoluble about a vertically extending axis, a tub providing a reservoir for liquid below the table, a bucket, a carrier for moving said bucket from position where it can pick up liquid from said reservoir and pour the liquid upon the articles supported by said table, which carrier revolves about a horizontally extending axis that intersects the vertically extending axis about which the table revolves, and means between the bucket carrier and said table whereby for each cycle of the bucket carrier there will be at least a partial rotary movement imparted to the table.

9. An apparatus of the class described comprising in combination a frame, a tub, a table above said tub, an arm removably mounted on said frame and supporting said table in such a manner that the table can be revolved about a vertically extending axis, a conveyer having a bucket or buckets thereupon and movable in a path whereby said bucket or buckets can pass below said arm and pick up water from said tub and convey said water to a position where it will be delivered or projected upon articles supported by said table, and means for imparting rotary movement to said table during the movement of the conveyer buckets, the construction being such that the table and the arm can both be removed from the rest of the machine.

11. An apparatus of the class described comprising in combination a frame, a tub associated with the frame, an arm carried by the frame, which arm extends inwardly past a wall portion of the tub over the bottom of the tub, a table supported on said arm, means for conveying liquid from said tub to a position where it will be spilled or projected upon articles on said table and means associated with said last mentioned means for imparting a rotary movement to the table.

[Claims 2, 3, 6 to 8, and 10 not printed in the Gazette.]

1,244,214. MOLD FOR CULVERTS. WALTER W. JOHNSTON, Gadsden, Ala. Filed May 27, 1916. Serial No. 100,277. (Cl. 25—131.5.)



1. In a collapsible mold for culverts, etc., a core-box with a rigid shell structure adapted to be placed in position upon a foundation, a crank shaft mounted lingitudinally within and on the core-box, a pair of shims adjustable beneath the edges of the shell structure, and adjustable connections between said shaft and the shims.

2. In a mold for culverts or the like, a collapsible core comprising a form for the arch, transverse braces for the form, longitudinally extending, inwardly movable supports positioned beneath the lower edges of the form, and a shaft mounted in the braces having means connecting the supports and said shaft to withdraw the supports from engagement with the core by rotation of the shaft.

3. In a mold for culverts and the like, the combination with the core made in sections and including transverse templets near its ends, and a pair of sills; of a shaft journaled through said templets, strips resting on said sills beneath the edges of the core, wheels on said shaft, bars connecting crank pins in said wheels with said strips for drawing the latter inward over the sills, and swinging connections between the strips and templets, for the purpose set forth.

4. In a mold for culverts and the like, the combination with the core made in sections and including transverse templets near its ends, and a pair of sills; of a shaft journaled through said templets, strips resting on said sills beneath the edges of the core, wheels on said shaft, bars connecting crank pins in said wheels with said strips for drawing the latter inward over the sills, a plate carried by each end of the templet and having a horizontal slot, a link pivoted to each strip and having a longitudinal slot and a pin slidable in both slots and loosely connecting the plate and link, for the purpose set forth.

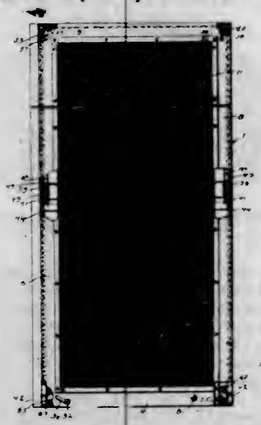
5. In a mold for culverts and the like, the combination with an arch form having templets across its interior, a shaft journaled through the templets, wheels fast on said shaft and each having a pair of crank pins, and telescopic bars each pivoted at its inner end on one of said pins; of sills under the edges of the arch, a strip between each sill and the edge of the arch above it, a swinging support between the strip and templets, and pivotal connections between the outer ends of the bars and strips, for the purpose set forth.

1,244,215. SAFETY-SHUTTER. GEORGE W. LANCASTER, Richmond, Va., assignor to Central Development Company, Richmond, Va., a Corporation of Virginia. Filed Mar. 3, 1916. Serial No. 81,986. (Cl. 189—60.)

1. A safety shutter of the class described comprising a plurality of slats slidable upwardly and downwardly to open and close the shutter, means for supporting the slats at spaced points including seats arranged in pairs and means for adjusting the seats with respect to each other for partially rotating the slats to vary the distance between them.

2. A safety shutter of the class described comprising a plurality of slats slidable upwardly and downwardly to open and close the shutter, vertical bars or members provided with longitudinally shiftable sections, said bars or members and their sections being provided with seats ar-

ranged in pairs and supporting the slats at spaced points and means for moving the said sections for partially rotating the slats to vary the space between the same.



3. A safety shutter of the class described comprising a plurality of slats slidable upwardly and downwardly to open and close the shutter, vertical bars or members provided with longitudinally shiftable sections, said bars or members and their sections being provided with seats arranged in pairs and supporting the slats at spaced points, a rock shaft having arms connected with the said sections and means for partially rotating the shaft for moving the sections to partially rotate the slats.

4. A safety shutter of the class described comprising a plurality of slats slidable upwardly and downwardly to open and close the shutter, vertical bars or members provided with longitudinally shiftable sections, said bars or members and their sections being provided with seats arranged in pairs and supporting the slats at spaced points, a rock shaft extending across the safety shutter and provided with inwardly extending arms and having an outwardly extending arm projecting exteriorly of the shutter, means for connecting the inwardly projecting arms with the sections and a shaft provided with an arm connected with the outwardly extending arm of the said rock shaft.

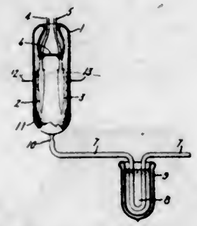
5. A safety shutter of the class described comprising a plurality of slats slidable upwardly and downwardly to open and close the shutter, vertical bars or members provided with longitudinally shiftable sections, said bars or members and their sections being provided with seats arranged in pairs and supporting the slats at spaced points, a rock shaft extending across the bottom of the safety shutter and provided with inwardly extending arms and having an outwardly extending arm, links connecting the inwardly extending arms with the said sections, a shaft arranged at an angle to the rock shaft and having an arm connected with the outer arm of the rock shaft and operating means for partially rotating the last mentioned angularly related shaft.

[Claims 6 to 17 not printed in the Gazette.]

1,244,216. ELECTRON-DISCHARGE APPARATUS AND METHOD OF PREPARATION. IRVING LANGMUIR, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed July 15, 1914. Serial No. 851,095. Renewed June 25, 1917. Serial No. 176,926. (Cl. 250—27.)

1. In an electrical discharge device, an electrode comprising in part at least oxidizable thorium material, said electrode having at a temperature of about 1300 to 1380° absolute an electron emission substantially equal to that of tungsten at about 2000° absolute.

3. A cathode for electron-discharge apparatus consisting largely of a highly refractory metal and a surface layer of material having an electron emissivity at a given temperature materially greater per unit surface than said refractory metal independently of and in the absence of positive ionization.

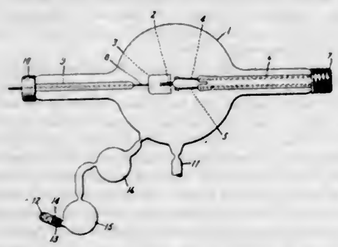


5. In an electrical discharge device, an electrode comprising metallic tungsten and a surface film of thorium material vaporizable at a temperature above about 2300° K. removable from said surface by positive ionization and having an electron emission per unit surface many times greater than pure tungsten at the same temperature.

10. A cathode for electron discharge apparatus consisting largely of tungsten and containing thorium, said cathode having an electron emissivity, independently of and in the absence of positive ionization, at a given temperature materially greater per unit surface than tungsten at the same temperature.

[Claims 2, 4, 6 to 9, and 11 not printed in the Gazette.]

1,244,217. ELECTRON-DISCHARGE APPARATUS AND METHOD OF OPERATING THE SAME. IRVING LANGMUIR, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Oct. 28, 1915. Serial No. 58,377. (Cl. 250—27.)



1. An electrical discharge device comprising electrodes, one of which contains thorium, an inclosing envelop the space within which is evacuated to a pressure so low that positive ionization is substantially absent, and a quantity of a vaporizable reagent capable of preventing the oxidation of thorium in communication with the space within said envelop.

2. In an electrical discharge device, an inclosing envelop, a quantity of alkali metal within said envelop, and electrodes therein, one of which comprises in part at least, oxidizable thorium material, said electrodes having at a temperature of about 1300 to 1380° absolute an electron emission substantially equal to that of tungsten at about 2000° absolute.

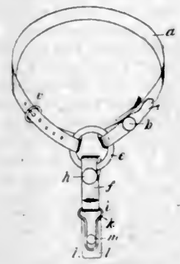
3. In an electrical discharge device, an inclosing envelop, a quantity of potassium within said envelop, and electrodes therein, one of which consists largely of tungsten and containing thorium, said electrode having an electron emissivity at a given temperature materially greater per unit surface than tungsten at the same temperature.

4. An electrical discharge device comprising electrodes, one of which consists of metallic tungsten and a thorium material in an oxidizable state, an inclosing envelop, and a quantity of a vaporizable reagent within said envelop capable of preventing the oxidation of thorium at an elevated temperature.

5. The process of improving the operation of an electron discharge apparatus containing an electrode operating at incandescence comprising a highly refractory metal and a thorium material which consists in bringing into contact with said electrode the vapor of a reagent preventing the oxidation of thorium at an elevated temperature.

[Claims 6 to 8 not printed in the Gazette.]

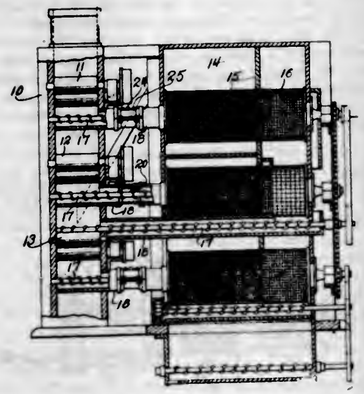
1,244,218. SOCK-SUSPENDER. ARTHUR JAMES LISTER, Bradford, England. Filed Aug. 14, 1917. Serial No. 186,185. (Cl. 241—6.)



1. A suspender for socks or stockings comprising in combination a practically inelastic garter or band *a* adapted to fit around the leg; a gripping device *i* for gripping the sock or stocking, and an elastic or expansible ring *e* detachably secured by the ends of the garter *a* and a band *f* by the lower end of which the aforesaid gripping device *i* is suspended; substantially as described.

2. A suspender for socks or stockings comprising in combination a garter or band *a* having a press button fastener *b* connecting one end to the body, and a buckle fastener *c* for fastening the other end to the body; an elastic ring *e* passed through the looped ends of the band *a*, a looped band *f* surrounding the ring *e* having its ends secured by a fastener *h*, and a gripping device *i* secured in the looped band *f*, and comprising a link *k*, and a plate *l* carrying the button *m*; substantially as herein set forth.

1,244,219. FLOUR-MILL. LUCIUS FREEMAN LITTLE, Owensboro, Ky., assignor to Anglo-American Mill Co., Owensboro, Ky., a Corporation of Kentucky. Filed Dec. 22, 1916. Serial No. 138,423. (Cl. 83—39.)



8. In a mill of the class described, the combination of a roll-section, a reel-section, a conveyer delivering from said roll-section to said reel-section, means for delivering air to said conveyer between said roll- and reel-sections, and means for regulating air delivery.

3. In a mill of the class described, the combination of a roll-section, a reel-section, a conveyer delivering from said roll-section to said reel-section, a housing for said conveyer having an air inlet, and means for regulating admission of air through said inlet.

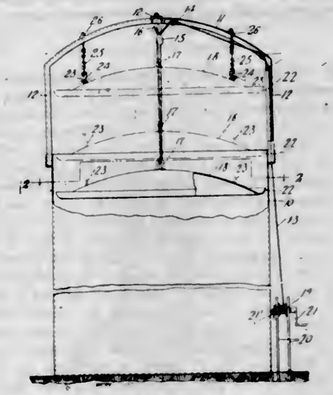
6. In a mill of the class described, a roll-section for reduction of the grain, a reel-section independent of said roll-section for bolting of the stock, a conveyer to receive the stock from said roll-section and deliver it to said reel-section, and a housing for said conveyer connecting said roll- and reel-sections, said housing having an air inlet in its upper part, and a gate for said inlet to regulate admission of air.

8. In a mill of the class described, the combination of a breaking section having a casing, breaking and reducing rolls in said casing, a bolting section having a casing independent of said first casing, bolting instrumentalities in said second casing, a housing connecting said casings and having an air inlet opening for admitting air to said housing and bolting section, and a conveyer in said housing delivering from said first casing to said second casing, said conveyer being of a type capable of pumping air through said air opening into said bolting section.

9. In a mill of the class described, the combination of a breaking section having a closed casing, breaking and reducing rollers in said casing, a bolting section having a closed casing independent of said first casing, bolting instrumentalities in said second casing, a conveyer housing connecting said casings and having an air inlet opening at its top and between said sections, and a screw-conveyer delivering from said first casing to said second casing.

[Claims 1, 2, 4, and 7 not printed in the Gazette.]

1,244,220. SILO. PHILIP C. LORCHER, Huron, Ohio. Filed Apr. 26, 1916. Serial No. 93,744. (Cl. 217—86.)

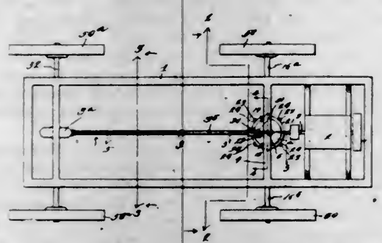


A silo including a body, an open support mounted on and arranged in spaced relation to the upper edge of the body, a cover mounted for vertical movement in the body and provided with moisture receiving means, and means operatively connected to the support and operatively associated with the cover for raising and lowering the cover.

1,244,221. MECHANISM FOR FORWARD AND REAR WHEEL DRIVES. DON W. LYDELL, Paris, Mich. Filed Nov. 2, 1916. Serial No. 129,128. (Cl. 21—90.)

In a front wheel drive mechanism the combination of a casing and a front axle of a motor driven vehicle, of a beveled gear in said casing, said front axle consisting of two sections axially alined and having their adjacent ends engaging bearings of said beveled gear, so that said sections will turn loose in said bearings, said bev-

eled gear having differential gear connections with the two sections of said front axle, and gear connections connecting said beveled gear and the rear driven differential of a motor driven vehicle, said means comprising a shaft journaled vertically in the upper part of the casing and having a disk wheel provided with a double set of beveled gear teeth, one set being larger in diameter than



the other, the smaller set of gear teeth of said disk wheel being in mesh with the beveled gear of said front axle, a shaft connected to and driven by the rear differential of said motor driven vehicle and having its forward end mounted in a bearing of said casing and provided with a beveled pinion meshing with the set of beveled teeth of said disk wheel that are larger in diameter.

1,244,222. HEAD-LOCKING MECHANISM. JASPER A. MCCASKELL, Salt Lake City, Utah, assignor, by mesne assignments, to United Filters Corporation, a Corporation of Delaware. Filed Jan. 19, 1915. Serial No. 3,143. (Cl. 220—124.)



1. In an apparatus of the character described, the combination with a tank or receptacle having an open end and a carrier movable to and from the tank and provided with a head adapted to close the open end of the tank or receptacle, and locking mechanism between the head and the tank or receptacle, of an automatic mechanism connected to and actuating the locking mechanism, said automatic mechanism adapted to move the head and carrier away from or toward the tank or receptacle in a plane parallel to the longitudinal axis of the tank.

2. In an apparatus, of the character described, the combination with a tank, or receptacle, a removable head forming a closure therefor, said head having a shaft projecting outwardly from its center, a collar slidable on said shaft, and locking levers carried by the collar and having outer ends engageable with the tank to lock the head to the tank, of a toggle mechanism for actuating said locking levers, said toggle mechanism including a movable cross-bar and connected links, means for tripping the toggle mechanism, and transmission means connected to the cross bar for moving the head to and from the tank or receptacle.

3. In apparatus of the character described, the combination with a tank or receptacle having an open end and a carrier operable to and from the tank or receptacle having a head at one end adapted to close the open end of the tank or receptacle, a shaft projecting centrally from the head, a sleeve slidably mounted on the shaft, and radially-disposed levers having inner ends pivoted to the sleeve and having outer ends adapted to engage fixed parts of the tank, an intermediate portion of said levers fulcruming against the head, of a second sleeve or collar concentric with said shaft and separated from the first-named sleeve, a double series of toggle-levers between the two sleeves, other toggle-levers carried by the double series of toggle-levers and a movable cross-bar to which they are in turn connected, said cross-bar being slidably supported and in its turn being connected to the movable tank head by means of toggle-joints which, when in a dead-center line, will permit the movement of the cross-bar to move the head without actuating the locking levers, and which when put out of dead-center position will permit the cross-bar to actuate the locking levers without moving the head.

4. In an apparatus of the character described, the combination with a tank or receptacle having an open end and a carrier operable to and from the tank or receptacle and having a head at one end adapted to form a closure for the open end of the tank or receptacle, a shaft projecting centrally from the head, a sleeve slidably mounted on the shaft, and radially-disposed levers having inner ends pivoted to the sleeve and having outer ends adapted to engage a fixed part of the tank or receptacle, an intermediate portion of said levers fulcruming against the head, of a second sleeve or collar concentric with said shaft and separated from the first-named sleeve, a double series of toggle-levers between the two sleeves, other toggle-levers carried by the double series of toggle-levers and a movable cross-bar to which they are in turn connected, said cross-bar being slidably supported and in its turn being connected to the movable tank or receptacle head by means of toggle-joints which when in a dead-center line will permit the movement of the cross-bar to move the head without actuating the locking levers, and which when put out of dead-center position, will permit the cross-bar to actuate the locking levers without moving the head, a transmission means, and means for connecting said cross-bar to the transmission means.

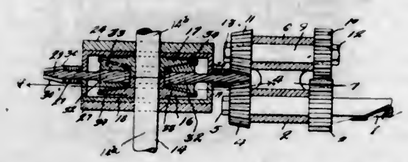
5. In apparatus of the character described, the combination with a tank or receptacle having an open end and a carrier operable to or from the tank or receptacle having a head at one end adapted to close the open end of the tank or receptacle, a shaft projecting centrally from the head, a sleeve slidably mounted on the shaft, and radially-disposed levers having inner ends pivoted to the sleeve and having outer ends adapted to engage a fixed part of the tank, an intermediate portion of said levers fulcruming against the head, of a second sleeve or collar concentric with said shaft and separated from the first-named sleeve, a double series of toggle-levers between the two sleeves, other toggle-levers carried by the double series of toggle-levers and a movable cross-bar to which they are in turn connected, said cross bar being slidably supported and in its turn being connected to the movable tank head by means of toggle-joints which, when in a dead-center line, will permit the movement of the cross-bar to move the head without actuating the locking levers, and which when put out of dead-center position will permit the cross-bar to actuate the locking levers without moving the head.

4. In an apparatus of the character described, the combination with a tank or receptacle having an open end and a carrier operable to and from the tank or receptacle and having a head at one end adapted to form a closure for the open end of the tank or receptacle, a shaft projecting centrally from the head, a sleeve slidably mounted on the shaft, and radially-disposed levers having inner ends pivoted to the sleeve and having outer ends adapted to engage a fixed part of the tank or receptacle, an intermediate portion of said levers fulcruming against the head, of a second sleeve or collar concentric with said shaft and separated from the first-named sleeve, a double series of toggle-levers between the two sleeves, other toggle-levers carried by the double series of toggle-levers and a movable cross-bar to which they are in turn connected, said cross-bar being slidably supported and in its turn being connected to the movable tank or receptacle head by means of toggle-joints which when in a dead-center line will permit the movement of the cross-bar to move the head without actuating the locking levers, and which when put out of dead-center position, will permit the cross-bar to actuate the locking levers without moving the head, a transmission means, and means for connecting said cross-bar to the transmission means.

5. In apparatus of the character described, the combination with a tank or receptacle having an open end and a carrier operable to or from the tank or receptacle having a head at one end adapted to close the open end of the tank or receptacle, a shaft projecting centrally from the head, a sleeve slidably mounted on the shaft, and radially-disposed levers having inner ends pivoted to the sleeve and having outer ends adapted to engage a fixed part of the tank, an intermediate portion of said levers fulcruming against the head, of a second sleeve or collar concentric with said shaft and separated from the first-named sleeve, a double series of toggle-levers between the two sleeves, other toggle-levers carried by the double series of toggle-levers and a movable cross-bar to which they are in turn connected, said cross bar being slidably supported and in its turn being connected to the movable tank head by means of toggle-joints which, when in a dead-center line, will permit the movement of the cross-bar to move the head without actuating the locking levers, and which when put out of dead-center position will permit the cross-bar to actuate the locking levers without moving the head.

[Claims 6 to 11 not printed in the Gazette.]

1,244,223. GEARING. WILLIAM J. MCINISH, Tallassee, Ala. Filed May 3, 1916. Serial No. 95,206. (Cl. 74—34.)



1. In a gearing as set forth, the combination with a driven member and a driving member, of a pair of bevel

gears mounted upon said driven member with their bevel gear faces toward each other and having adjacent bearing extensions, an annular ring having its opposite faces provided with bevel gear teeth and provided with an inwardly extending annular flange, said flange having a plurality of radial stems engaging the extensions of said bevel gears, bevel pinions journaled on said stems and meshing with the teeth of said bevel gears, a casing mounted upon the driven member and consisting of two sections, each fitting over one of said bevel gears and each having an annular flange engaging the flange of said ring, lock washer plates on the driven member, one adjacent an onter face of each section of the casing, bolts extending through the sections of the casing and the flange of the ring and provided with tapering heads and nuts countersunk in said washer plates, thereby holding the parts together and preventing axial movement of said bevel gears and their disengagement from said pinions, and edgewise opposing bevel gears having operative connections with the driving member and engaging the bevel teeth of said ring to impart movement thereto.

2. In a gearing as set forth, the combination with a driven member and a driving member, of an annular ring having opposite bevel gear teeth, gear connections between the driven member, and the teeth of the annular ring, a casing on said driven member consisting of two sections, one engaging each face of said ring, thereby preventing axial movement of the ring and its gear connection with said driven member, lock washer plates, one adjacent an outer face of each section, bolts extending through said sections and through the ring and provided with tapering heads and nuts countersunk in said lock washer plates to hold the parts together, and edgewise opposed bevel gears provided with operative connections with said driving member and engaging the opposite bevel gear teeth of said ring to impart movement thereto.

1,244,224. DIVISION-PIECE OR PARTITION FOR A CONTROLLER ARC-DEFLECTOR, CIRCUIT-BREAKER, AND THE LIKE. WALTER ROBERTSON MCRAE and RICHARD RUSSELL, Toronto, Ontario, Canada. Filed May 7, 1915, Serial No. 26,667. Renewed Sept. 22, 1917. Serial No. 192,832. (Cl. 200—13.)



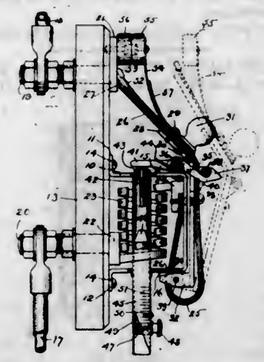
2. An insulation division piece or partition comprising a relatively fixed part having an alcove therein, two jaws partly inclosing the alcove, and a separable part contained in said alcove and removably held therein, one of said parts being formed with a tongue and the other with a groove to receive said tongue, and means for preventing the inadvertent removal of the separable part from the relatively fixed part.

5. An insulation division piece or partition comprising a relatively fixed part having an alcove therein, two jaws partly inclosing the alcove, and a separable part contained in said alcove and removably held therein by said jaws, the inner and outer ends of the alcove being curved, the curvature of these ends being described from the same center but with different radii, so that the separable member during its removal and replacement must turn in a curved path, and one of said jaws forming an abutment to prevent movement of the separable member transversely of the division piece when contained in the alcove, the other jaw preventing the movement of the separable member lengthwise of the division piece, and means for preventing the inadvertent removal of the separable part from the relatively fixed part.

6. An insulation division piece or partition comprising a relatively fixed part having an alcove therein and two jaws partly inclosing the alcove, a separable part contained in said alcove and removably held therein by said jaws, and a stop which can be moved into position to engage the separable member when contained in its alcove.

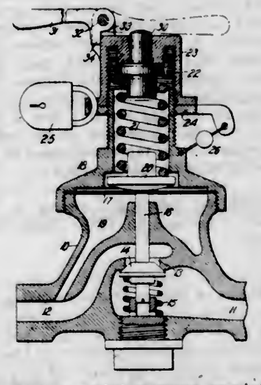
[Claims 1, 3, and 4 not printed in the Gazette.]

1,244,225. CIRCUIT-BREAKER. WALTER S. MAYER, Providence, R. I., assignor to D & W Fuse Company, Providence, R. I., a Corporation of Rhode Island. Filed Sept. 30, 1915. Serial No. 53,364. (Cl. 175—268.)



A circuit breaker of the character described comprising a base provided with separated contacts, a laminated metal bridge member bent into loop form, one arm thereof being immovably held in circuit with one of said contacts, the other arm being movable under the resiliency of the metal of which constructed, and having an offset end positioned to engage the other contact, the last mentioned arm having a slot therein, a catch bar attached to said arm opposite said opening, a detent positioned to extend through said opening to engage said catch bar, and means for automatically disengaging said detent from said catch bar.

1,244,226. PRESSURE-REGULATOR. JULES P. METZGER, Carlstadt, N. J., assignor to The Leslie Company, Lyndhurst, N. J. Filed Jan. 24, 1916. Serial No. 73,900. (Cl. 50—23.)



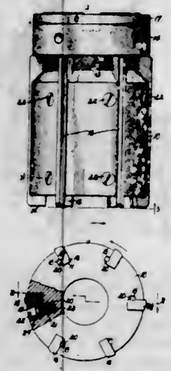
1. In a locked or sealed pressure regulator, a spring-actuated valve having an axial stem projecting upwardly therefrom, a diaphragm engaging and controlling said valve stem, a set spring means contacting said diaphragm opposite the valve stem and in a line coincident with the axis of said valve stem, said spring means including a stem acted upon by the spring of the said means and extending upwardly to the outside of the regulator, the portion of the stem outside of the regulator being adapted to receive percussions and transmit same through the

spring to the diaphragm to cause vibrations of the said valve.

3. In a locked or sealed pressure regulator, a main valve, a diaphragm controlling the main valve, a set spring device contacting at a single point the said diaphragm, a stem acted upon by the said spring device and extending to the outside of the regulator, and a handle fulcrumed at one end on the outside ofthe regulator and adapted to be swung over the regulator into engagement with the outer end of the said stem or to extend laterally from the regulator.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,244,227. REAMER. FRANK P. MILLER, Meadville, Pa. Filed Nov. 22, 1916. Serial No. 132,760. (Cl. 77—75.5.)

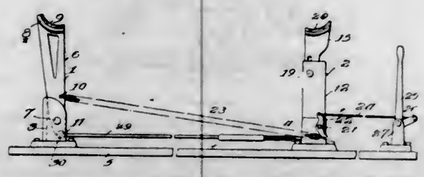


1. A reamer comprising a head having a plurality of outwardly opening slots for holding cutters, said slots having inclined bottoms, a plurality of cutters having inclined base surfaces, wedging members operatively held in said head adjacent said slots and a plurality of longitudinally extending fillets disposed between said cutters and said wedging members and inside of the periphery of the head and engaged by said members to force the cutters against one wall and the bottoms of the slots.

2. A reamer comprising a head having a plurality of outwardly opening slots for holding cutters, said slots having inclined bottoms and longitudinal grooves, a plurality of cutters having inclined base surfaces and longitudinal grooves, a plurality of screws operatively mounted in said head adjacent said slots, said screws having laterally extended heads and tapered sections intermediate the peripheries of said heads and the peripheries of the shanks of said screws; and a plurality of cylindrical key rods in the grooves of the head and cutters for engagement by the tapered sections of the screws.

[Claim 3 not printed in the Gazette.]

1,244,228. LIFTING DEVICE. OSCAR A. MITCHELL, Sikeston, Mo. Filed Apr. 19, 1917. Serial No. 163,158. (Cl. 254—89.)



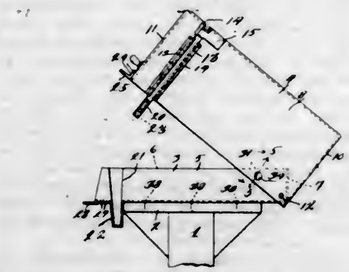
1. A lifting device, including a plurality of pairs of spaced pivotal jacks, means for interconnecting the jacks, adjustable legs on certain of said jacks having their lower portions formed with racks, pinions meshing with the racks, levers connected to said pinions, and means engaged with certain of the jacks and with said levers for rotating the same at times.

2. A lifting device, including a plurality of pairs of spaced pivotal jacks, means for interconnecting the jacks, legs slidably mounted on certain of said jacks, and means engaged with said legs for sliding the same upon pivotal movement of their respective jacks.

5. A lifting device, including a plurality of pairs of spaced pivotal jacks, said jacks including pivotal legs having seats formed upon their upper ends, certain of the legs being slidably mounted on their respective jacks, means engaged with said slidable legs for imparting sliding movement thereto upon pivotal movement of their jacks, means for interconnecting the jacks, other means connected with certain of the jacks and with said motion imparting means for operating the same at times, and manually operable means engaged with said motion imparting means for actuating the same independently of the last mentioned jacks.

[Claims 3 and 4 not printed in the Gazette.]

1,244,229. MAIL-BOX FOR RURAL FREE-DELIVERY ROUTES. HAROLD LEROY MOON, Fairmount, N. D. Filed Mar. 29, 1917. Serial No. 158,268. (Cl. 232—34.)

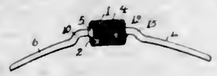


1. In a mail box, the combination of a base section and a closure section having a guide, of means for hingedly uniting the two sections, a flag signal mounted in a guide of the closure section, and provided with means adapted to engage a piece of mail matter to actuate the signal to protrude beyond the box.

7. In a signaling device for mail boxes, a stationary member having a depression, a gravity actuated member mounted thereon having a guide, a staff having a signal and mounted in said guide, means for holding the staff lowered in its guide when the gravity actuated member is raised, said staff having a right angle extending arm to normally enter said depression when the gravity actuated member is lowered, but adapted to contact with a device in the path to raise the staff and throw the signal into vision against the action of said means, when the gravity actuated member is lowered, and means for holding the gravity actuated member in a raised position.

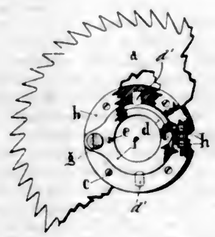
[Claims 2 to 6 not printed in the Gazette.]

1,244,230. EMBROIDERY-HOOP. GEORGE A. MOORE, Medford, Mass. Filed Sept. 12, 1916. Serial No. 119,958. (Cl. 45—24.)



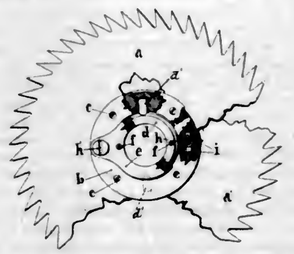
An embroidery hoop comprising a hoop-member, a wire attached to the hoop-member at one end and having its other end enlarged and threaded, a wire having one end formed with a head larger than the diameter of the wire but smaller than the threaded enlargement of the first-named wire, the other end of the second-named wire being attached to an end of the hoop-member opposite to that to which the first-named wire is attached, and a section of tubing having one end internally flanged and the remainder of its interior screw threaded to coöperate with said threaded enlargement.

1,244,231. INCLINED SAW. EMILE AUGUSTE MOUCHE, Lyon, France. Filed Feb. 20, 1917. Serial No. 149,919. (Cl. 144—238.)



A saw fitting within a groove provided in the periphery of a crown within which the saw is carried, within which crown is disposed a pivoting concentric ring carrying at one side or in the upper position a disk through which pass perpendicularly to the axes of the pivots of the ring, two regulating screws whose extremities engage within pivoting sleeves mounted within the body of the crown, these two pivoting sleeves being capable of oscillating upon their axes parallel to the axes of the pivots of the ring.

1,244,232. INCLINED SAW. EMILE AUGUSTE MOUCHE, Lyon, France. Filed Feb. 20, 1917. Serial No. 149,920. (Cl. 144—238.)



1. Two saws fitting within grooves provided in the periphery of two respective crowns within which are respectively disposed two concentric pivoting rings which are rendered integral with a disk through whose ends pass in a direction perpendicular to the pivoting axes of the said rings two regulating screws which engage within pivoting sleeves the one being mounted in the upper crown and the other within the lower crown, these two pivoting sleeves oscillating upon their respective axes simultaneously and parallel with the axes upon which the rings pivot.

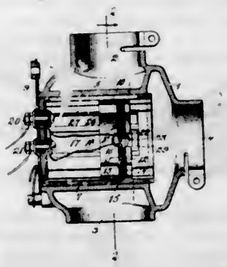
[Claims 2 and 3 not printed in the Gazette.]

1,244,233. LOOSE-LEAF BOOK OR BINDER. JOHN WILLIAM MYATT, Tipton, England, assignor to Ledgers Limited, Tipton, Stafford county, England. Filed Aug. 29, 1916. Serial No. 117,457. (Cl. 129—18).



In loose leaf books or binders provided with leaves having notched rear edges, the combination with a pair of covers, of an elastic band permanently attached to the covers and providing a pair of connecting pieces between the covers for engagement by the notches of the leaves, said band being also adapted to embrace a pair of opposite edges of the covers, substantially as described.

1,244,234. ELECTRIC HEATER FOR CARBURETER AIR-INTAKES. JEAN M. NATER, West Hoboken, N. J. Filed Feb. 6, 1917. Serial No. 146,883. (Cl. 219—38.)



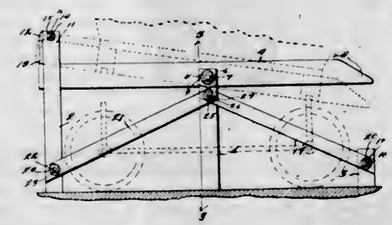
1. The combination of a carbureter and an air intake controlling device connected therewith and comprising a chambered body having a valve therein for regulating the volume of air that can pass to the carbureter, with an electric heater mounted in and movable with the valve.

2. The combination of a carbureter and an air intake controlling device including means for opening or closing the air passage to the carbureter, with an electric heater carried by the said means.

4. An air intake controlling device for a carbureter including a chambered body having a ported wall, a valve associated with the said wall for controlling the port or ports thereof, and an electric heater mounted in and carried by the valve, said heater comprising a band, and a heating element carried by the band and providing between itself and the band, ports for the passage of air.

[Claim 3 not printed in the Gazette.]

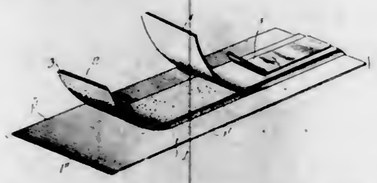
1,244,235. APPARATUS FOR THE REMOVAL OF HAY-RACKS. FLOYD EDWARD NIBLO, Freeport, Ill. Filed Mar. 29, 1917. Serial No. 158,368. (Cl. 254—50.)



In a hay rack lifting device, a pair of side frames spaced apart sufficient to permit a vehicle running gear to pass therebetween, each side frame comprising end posts, a short one and a long one, each side frame having a central post of the height intermediate the heights of the short and long posts, braces connecting the end and central posts, the long end post of each side frame having its upper end bifurcated, a beam pivoted substantially midway its ends to each central post and having one end playing in said bifurcation, whereby said beam may be tilted downwardly at one end to permit one side of a wagon body to slide thereon, a pivot bolt mounted in the upper ends of the forks of the bifurcated end post, a gravity actuated angle plate latch mounted on said bolt and adapted to limit the upward tilting action of one end of said beam, said latch having a depending portion

adapted, when one end of said beam tilts downwardly in contact with the crotch of the bifurcation, to gravitate in the path of said beam, whereby its upward movement is prevented.

1,244,236. PUNCTURE-PROOF TUBE AND PROCESS OF PRODUCING SAME. WALTER S. OBERFELDER, Chicago, Ill. Filed Sept. 5, 1916. Serial No. 118,340. (Cl. 154—15.)

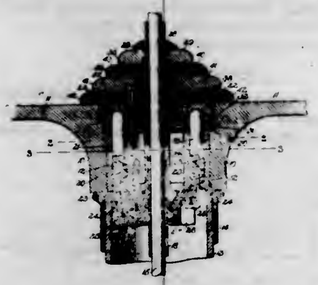


1. A tube comprising a layer of rubber or the like, a heavy layer of soft, compressible material secured thereto, a layer of rubber or the like overlying said soft material and a narrow strip of fabric secured over said second layer of rubber or the like.

7. An inner tube comprising layers, one of said layers being composed of a flat thick, rubber, said inner tube when uninflated being flat and comprising parts normally flat, but when inflated inside an outer tube acquiring an annular and tubular form whereby double compression on the thick layer of rubber is obtained.

[Claims 2 to 6, 8, and 9 not printed in the Gazette.]

1,244,237. LOCKING DEVICE FOR AUTOMOBILES AND SIMILAR VEHICLES. THOMAS JAMES O'BRIEN, Meriden, Conn. Filed Jan. 30, 1917. Serial No. 145,399. (Cl. 70—129.)



1. A locking device for connecting or disconnecting a steering wheel relative to the steering shaft of an automobile, comprising a slidable bolt adapted to lock the steering wheel to the steering shaft, a gas-control stem housed within the steering shaft, a sleeve surrounding said stem, means carried by said sleeve for actuating said bolt, and a series of superimposed manually controlled perforated disk tumblers interposed between the said steering shaft and steering wheel and adapted to be engaged by the said bolt.

2. A locking device for connecting or disconnecting a loose steering wheel relative to the steering shaft of an automobile, comprising a spring actuated bolt mounted to slide on the steering shaft in the direction of the length thereof and adapted to engage the steering wheel, a manually controlled cam connected with the said bolt to move the latter out of locking engagement with the steering wheel, and a series of superimposed disk tumblers interposed between the steering shaft and the steering wheel, the disk tumblers having apertures within their periphery adapted to be engaged by the said bolt, tubular telescoping sleeves connected to said tumblers and manually controlled means connected with the said sleeves to rotate the same and the tumblers.

3. A locking device for connecting and disconnecting a loose steering wheel relative to the steering shaft of an automobile, comprising a spring-pressed bolt mounted to slide on the steering shaft in the direction of the length thereof and adapted to engage the steering wheel to lock the latter to the steering shaft, a rod attached to the bolt and having an angular offset, a manually controlled cam mounted to turn within the steering shaft and engaged by the said angular offset, and a series of tubular telescoping sleeves mounted on the steering wheel and provided at their outer ends with knobs and at their inner ends with disks interposed between the steering shaft and the steering wheel, the disks having apertures adapted to register with each other and with the said bolt.

4. A locking device for connecting and disconnecting a loose steering wheel relative to the steering shaft of an automobile, comprising a spring-pressed bolt mounted to slide on the steering shaft in the direction of the length thereof and adapted to engage the steering wheel to lock the latter to the steering shaft, a rod attached to the bolt and having an angular offset, a cam within the said steering shaft and adapted to be engaged by the said offset to allow of withdrawing the bolt from the steering wheel, a sleeve on the said cam and provided at its outer end with a knob for manipulating the cam, a series of superimposed tumblers disks interposed between the steering wheel and the steering shaft, the disks having apertures adapted to register with each other and with the said bolt, and telescoping sleeves carrying the said disks and provided at their outer ends with knobs for setting or unsetting the disks.

5. A locking device for connecting or disconnecting a loose steering wheel relative to the steering shaft of an automobile, comprising a bolt mounted to slide on the steering shaft in the direction of the length thereof and adapted to engage the steering wheel, a manually controlled cam connected with the said bolt to move the latter out of locking engagement with the steering wheel, and a series of superimposed disk tumblers interposed between the steering shaft and the steering wheel, the disk tumblers having apertures adapted to be engaged by the said bolt, and the said disk tumblers being provided at the under side with recesses for engagement by the said bolt, and manually controlled means connected with the said disk tumblers to rotate the same.

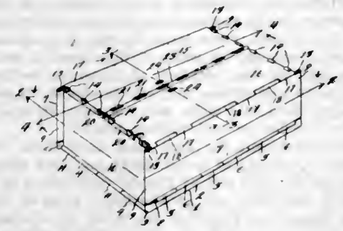
1,244,238. TRUCK. OLOF OLSON and ANDREW OLSON, Kingsburg, Cal. Filed Dec. 29, 1916. Serial No. 139,660. (Cl. 21—144.)



1. In a running gear for trucks, a platform body having an elongated beam extending centrally longitudinally thereof, a reach adjacent the under edge of said beam, a bolster connected to said reach and extending transversely thereof, a second bolster on which the first bolster rests, a second reach below and adjacent the first reach and passing through the second bolster an angle, and a swivel connection between the axle.

2. In combination, front and rear running gears, front and rear axles having fifth wheel connections with the running gear, diagonal cross reaches, one above each other connecting said axles, means connecting said reaches to the axles comprising U-shaped members straddling the axle upwardly, a plate on top of the axle receiving the arms of the U-shaped member, a sleeve on one of said arms passing through an end of one of the reaches and a second plate receiving the arms of said U-shaped member, and means threaded on the arms to hold the second plate in place.

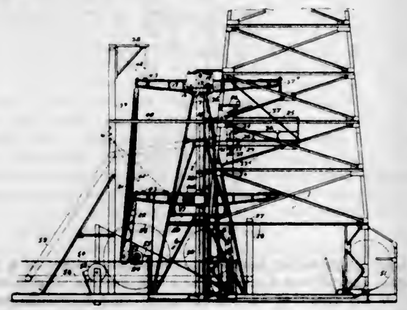
1,244,239. COLLAPSIBLE BOX OR CONTAINER. JOSEPH F. PARKER and MARTIN VAN HEUVEL, Mobile, Ala. Filed Feb. 2, 1917. Serial No. 146,302. (Cl. 220—17.)



2. A collapsible container comprising a bottom with longitudinal up-turned edges whose ends are bent back on themselves, sides pivotally connected to said up-turned edges and having their ends similarly bent back on themselves, ends pivotally connected to the bottom and having L-shaped flanges adapted to engage the bent-back portions of said sides and said up-turned edges, covers pivotally connected to the sides and having depending flanges which adjoin the ends, one cover having a cylindrically formed edge, the other cover having protruding ears on the edge, said ears being adapted alternately to contact with the bottom and top of the cylindrically formed edge, the ends having ears integral therewith, the covers having slots adapted to be engaged by the ears when the container is closed.

[Claim 1 not printed in the Gazette.]

1,244,240. OIL-WELL RIG. ROBERT R. POLLAK, San Francisco, Cal. Filed May 18, 1914. Serial No. 839,268. (Cl. 255—11.)



1. In combination with a derrick frame, a samson post at the side of said frame, upper and lower walking beams removably pivoted on said post, and a platform between the two walking beams and movably supported by said derrick.

2. In combination with a derrick frame, a samson post at the side of said frame, upper and lower walking beams removably pivoted on said post, and a platform between the two walking beams and movably supported by said derrick, an edge of the platform being recessed at its central portion.

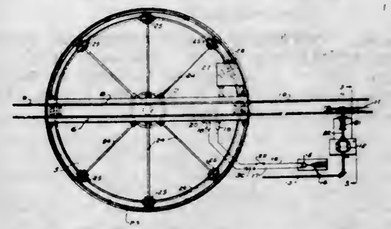
5. In combination with a derrick frame, a samson post at the side of said frame, interchangeable upper and lower walking beams supported on the samson post, a support supported upon the side of the derrick and extending inwardly therefrom, a counter-weighted platform between the walking beams and hinged upon said support, and means for supporting the outer edge of the platform, said outer edge being recessed at its central portion.

7. In combination, a samson post, pairs of reinforcing plates secured to the sides of said post, angle plates secured to said reinforcing plates, journal boxes supported by said angle plates, a walking beam, trunnion bearings rigid with said walking beam, said walking beam being longitudinally slotted and extending through the samson post, trunnions in said bearings and boxes, and strengthening plates secured to said samson post above and below the walking beam.

8. In combination, a samson post, having a lower section, an upper section, a slide frame securing the upper section to the lower section, and bars bracing the upper section, said upper section and bars being removable simultaneously, and upper and lower walking beams pivoted on the said sections respectively.

[Claims 3, 4, and 6 not printed in the Gazette.]

1,244,241. RAILROAD TURN-TABLE SAFETY MECHANISM. CHARLES H. QUINN, Roanoke, Va. Filed Aug. 17, 1916. Serial No. 115,549. (Cl. 104—19.)

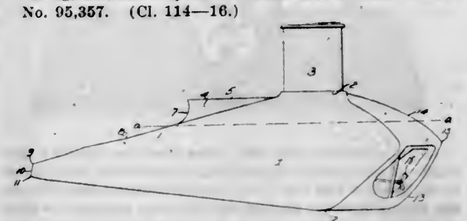


1. In a turntable arrangement, a movable bridge carrying a car track, a track external thereof and leading thereto, means for moving the said bridge into a position to bring the two tracks into registry, a traffic stop in the external track and normally blocking the same against traffic toward the bridge, a source of power and means for moving the said stop, an electric circuit, means carried by the bridge for breaking the said circuit when the said tracks are out of registry and for completing the circuit when the same are in registry, and a magnetic switch in said circuit controlling the application of the power to the said stop-moving means in such manner that the power will be admitted to clear the said lead track when the said electric switch is magnetized and will be shut off to block the lead track when the electric switch is demagnetized.

3. In a turntable arrangement, a circular pit, a bridge pivoted therein and centrally therewith and forming a rotatable, diametrically-disposed, passageway across the said pit, and a guard rail encircling the said pit and carried practically by the said bridge and rotatable therewith, the said guard rail being cut away at the ends of the said bridge, there being additional means within the pit coöperating with the bridge to support the said guard rail, the latter being supplied with supports adapted to engage the additional supporting means.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,244,242. SUBMARINE BOAT. EDWARD B. REILLY, Atlantic City, N. J., assignor of four-fifths to Harry R. Young, Atlantic City, N. J. Filed May 4, 1916. Serial No. 95,357. (Cl. 114—16.)



1. A submarine boat having a flat upper surface extending from its widest point to the bow and having its

upper surface aft of the conning tower curved downwardly and rearwardly.

2. A submarine boat having a flat upper surface extending from its widest point to the bow and downwardly at an angle to the longitudinal axis of the boat.

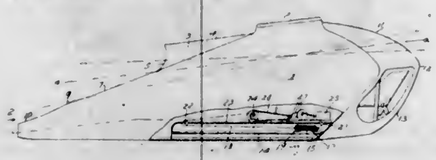
3. A submarine boat having a flat upper surface extending from its widest point to the bow and downwardly at an angle to the longitudinal axis of the boat and having its upper surface aft of the conning tower curved downwardly and rearwardly.

4. A submarine boat having a flat upper surface extending from the conning tower to the bow and downwardly at an angle to the longitudinal axis of the boat.

5. A submarine boat having a flat upper surface extending from the conning tower to the bow and downwardly at an angle to the longitudinal axis of the boat and having its upper surface to the rear of the conning tower curved downwardly and rearwardly.

[Claims 6 to 10 not printed in the Gazette.]

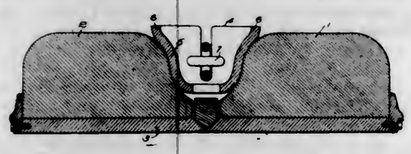
1,244,243. CENTER-OF-GRAVITY-SHIFTING DEVICE FOR SUBMARINE BOATS. EDWARD B. REILLY, Atlantic City, N. J., assignor of four-fifths to Harry R. Young, Atlantic City, N. J. Filed May 6, 1916. Serial No. 95,843. (Cl. 114—16.)



1. A submarine boat having a transversely curved lower surface and a flat upper surface extending from its widest point to the bow and downwardly at an angle to the longitudinal axis of the boat, combined with bodily shiftable means within the hull bodily movable fore and aft for shifting the center of gravity to vary the vertical component of the water resistance on said flat upper surface of the boat and thus control its vertical position.

2. A submarine boat having a transversely curved lower surface and a flat upper surface extending from its widest portion at the conning tower to the bow and downwardly at an angle to the longitudinal axis of the boat, a carriage mounted for movement bodily fore and aft within the hull at an angle to said upper surface to shift the center of gravity, means disposed in alinement with said carriage and operatively connected with the opposite ends thereof near the bottom of the hull, and means for moving the same and holding the carriage in its adjusted positions.

1,244,244. ANTISKIDDING DEVICE. ANDREW L. RIKER, Fairfield, Conn., assignor to The Locomobile Company of America, Bridgeport, Conn., a Corporation of West Virginia. Filed Jan. 17, 1913. Serial No. 742,566. (Cl. 152—2.)

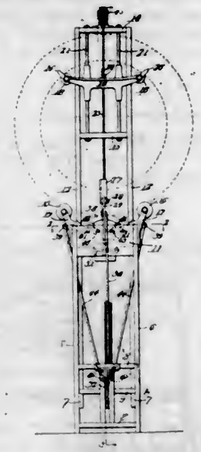


1. An attachment for dual tread tires comprising a plurality of segmental, channel shaped members constructed to fit between the tire treads and presenting the edges of the channels to the ground adjacent the working surfaces of the tire treads, cross webs having open ended slots uniting and bracing the walls of the channels and a circumferential binding member having portions entering said slots and adjacent portions engageable with the webs adjacent the slots.

2. An attachment for dual tread tires comprising a plurality of segmental, channel shaped members constructed to fit between the tire treads and presenting the edges of the channels to the ground adjacent the working surfaces of the tire treads, cross webs having open ended slots uniting and bracing the walls of the channels and a circumferential binding member of irregular section and presenting in alternation portions receivable in and portions wider than said slots, said members being disposed in spaced relation on said binding member.

3. An attachment for dual tires comprising, in combination, a plurality of antiskidding members adapted to fit between the tires and be thereby maintained in spaced relation to the wheel rim, said members being in the form of open topped boxes having side walls presenting biting edges at the tread surface and transverse walls between said side walls also presenting biting edges at the tread surface, said members having openings toward the center of the wheel to permit escape of dirt to the groove between the tires whereby said biting edges are maintained clear and efficient, and means for retaining said members in place.

1,244,245. TIRE-INSPECTING MACHINE. WILLIAM H. ROBERTSON, Rockford, Ill. Filed Feb. 23, 1917. Serial No. 150,630. (Cl. 73—51.)



1. A machine for inspecting the inner surface of a tire casing, comprising a member at an inspecting station upon which the tread of the casing rests, members engageable with the bead portions of the casing at said station and offering no obstruction to a full view of the inner surface of the casing thereat, and means for moving said bead-engaging members outwardly and for causing a relative movement between these members and the first named member whereby the bead portions of the casing at the inspecting station will be spread outwardly and the intermediate tread portion will be bulged inwardly so as to expose to full view any imperfections in the inner surface of this portion of the casing.

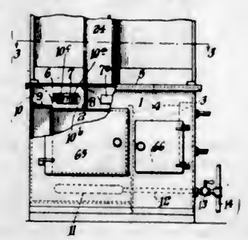
4. A machine for inspecting the inner surface of a tire casing, including means for engaging the opposite bead portions of the casing to spread the same, and means for moving said spreading means and for equalizing the pressure applied to and for moving the same.

10. A tire inspecting machine of the character described, including a pair of pivotally mounted arms each of which is adapted to engage the inner side of a bead portion of a casing and to be moved outwardly to spread the casing, an operating lever, and a connection between said lever and arms to move the latter outwardly, including means for equalizing the pressnre between said arms.

13. A machine for inspecting the inner surface of a tire casing, comprising members engageable with the inner surface of opposite bead portions of a tire casing, a member engageable with the tread portion of the casing intermediate said engaged bead portions, and means for moving said bead-engaging emmbers outwardly and for moving the tread-engaging member inwardly to spread the bead portions outwardly and bulge the tread portion inwardly to thereby expose to full view any imperfections in the inner surface of the distorted portion of the casing.

[Claims 2, 3, 5 to 9, 11, and 12 not printed in the Gazette.]

1,244,246. COMBINED COAL AND GAS RANGE. SOREN C. ROCKMAN, Philadelphia, Pa. Original application filed Sept. 17, 1914, Serial No. 862,137. Divided and this application filed May 6, 1915. Serial No. 26,193. (Cl. 126—36.)



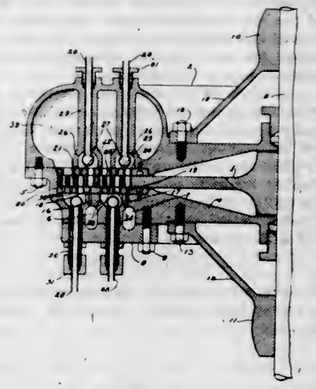
1. In a combined coal and gas range, the combination of a fire-box for burning fuel such as coal in one end of said range, an oven, a chamber at the other end of said range to receive the heated gas from the fire-box, a passage for said gases said passage extending over the oven, a valve supported above said oven for closing the passage to said chamber, gas burners situated in said chamber for use when said valve is in closed position, a protector for said burners slidably mounted thereon for preventing ashes from entering the said burners when coal is used, a top plate for the said range said top plate having pot holes therein over the chamber within which is located the said burner, and said top plate being provided with a projection at one end of the said range which projection extends beyond the front of the range and at right angles thereto and in alinement with the said pot holes and said burners and the said projecting portion of the top plate having a pot hole therein, and a burner below the said pot holes, substantially as described.

4. In a kitchen range, a coal fire chamber, an oven, an end plate having an air inlet opening said plate forming one wall of a heat flue included within the said range, a top cooking plate situated a distance above the said oven and forming one wall of a heat passage-way or flue over the said oven, a valve intermediate the said top plate and said oven for closing said passage or flue, a valve supported adjacent to the said end plate for closing said air inlet opening and the first-named flue, said top cooking plate having pot holes for cooking by coal and pot holes for cooking by gas, burners situated underneath the said last-mentioned holes and the said top cooking plate having a projection extending forwardly from the front plane of the stove at right angles to said plane and in alinement with the said burners, said projection having one or more pot holes therein, and gas burners situated underneath the said pot holes.

[Claims 2 and 3 not printed in the Gazette.]

1,244,247. TURBINE. WILLIAM G. ROSS and OSCAR ONSRUD, Chicago, Ill. Filed Apr. 13, 1914. Serial No. 831,613. (Cl. 253—71.)

1. In a rotary engine, the combination of a disk-shaped rotor having a plurality of rows of annular perforations, a governor, and means controlled by said governor for preventing fluid from passing through one or more of said rows of perforations.

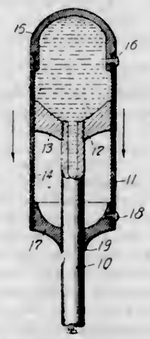


3. In a rotary engine, the combination of a disk-shaped rotor having a plurality of rows of perforations through which fluid passes by the action of driving said rotor, means for directing the fluid from one row of perforations to another, a casing surrounding said rotor and having annular grooves located in position to receive fluid from one row of perforations, and permitting it to pass through another row of perforations, and super-heating coils so located in said annular grooves that the fluid entering said channels will pass around the coils before leaving said channels.

5. In a turbine, a rotor comprising a single disk having an annular row of holes therein, a nozzle located at one side of said disk for directing fluid under pressure into said holes, said holes being formed to provide an enlarged pocket inward of the inlet and outlet ends thereof.

[Claims 2 and 4 not printed in the Gazette.]

1,244,248. LUBRICATOR FOR VEHICLE-WHEELS. LEE L. SCHELLINGER, McGraw, N. Y. Filed Jan. 12, 1917. Serial No. 141,965. (Cl. 184—38.)



1. A lubricator of the character described consisting of a stationary hollow feed stem, a lubricant holder including a cylindrical barrel into which the outer end of the stem projects, a plunger to which the said outer end of the stem is secured within the barrel and through which the said end of the stem opens, said plunger and said barrel having relatively engaging threaded surfaces, a removable cap normally closing one end of the said barrel, and a removable collar normally closing the opposite end of the barrel and through which the said stem passes, said collar having an outer cutting edge in close movable engagement with the outer surface of the stem.

2. In a lubricator of the character described, the combination of a hollow feed stem, a holder movable thereon at one end, said stem having a smooth outer cylindrical surface of one diameter throughout its portion adjacent the holder, and the said holder having a cutting edge projecting beyond its inner end and around the said stem in close movable engagement therewith.

3. In a lubricator of the character described, a holder, a stem projecting at one end within the holder and having an externally smooth cylindrical surface of one diameter throughout its portion adjacent the holder, a plunger threaded within the holder and to which the adjacent end of the stem is secured, said holder having a concaved cone-shaped collar at its inner end surrounding the stem, and provided with an inner cutting edge in close sliding engagement with the stem.

1,244,249. WALKING-STICK. EMILE SCHLICK, Nancy, France. Filed May 5, 1916. Serial No. 95,607. (Cl. 135—45.)



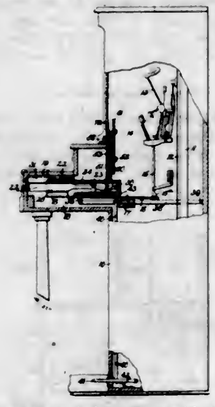
1. A walking stick for a wounded or invalid person, comprising a stick having a handle and provided with two resilient members extending obliquely from the stick in the opposite direction to the handle, and in engagement with one another, one of the said members being provided with an arm rest.

2. A walking stick for a wounded or invalid person, comprising a stick having a handle, a resilient member extending obliquely from the stick and having an arm support at its free end, and a second resilient member extending from the opposite side of the stick and engaging the under face of the first member.

1,244,250. TRANSPOSING-KEYBOARD. THOMAS A. SHARKEY, Brooklyn, N. Y., assignor to Joseph Sharkey, Brooklyn, N. Y. Filed Mar. 6, 1917. Serial No. 152,793. (Cl. 84—41.)

7. In a piano or similar musical instrument, a guideway, a key frame mounted to slide sidewise in the said guideway, playing keys mounted to swing up and down in the said key frame and having rearward spring-pressed extensions to hold the keys normally in raised positions, action keys arranged below the said playing keys and engaging the piano action, the said action keys having buttons at the top engaged by the under side of the said playing keys, slotted brackets depending from the said action keys, a rod engaging the slots in the said brackets, a lever carrying the said rod, a pedal, a link connecting the said pedal with the said lever to swing the latter and the action keys downward to disengage the action keys frow the playing keys to allow of shifting the key frame and playing keys sidewise, the said link having a locking extension adapted to engage the said key frame to normally lock the latter against sidewise shifting, a rack secured lengthwise on the said key frame, a manually controlled gearing in mesh with the said rack to shift the key frame sidewise at the time the latter is unlocked by the said link extension, and a scale indicator having a fixed and a rotatable member, the latter being rotated by the said gearing on shifting the said key frame.

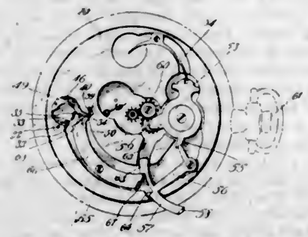
9. In a piano or similar musical instrument, a keyboard frame having pockets at the sides, and having a guideway extending lengthwise, a key frame mounted to slide sidewise in the said guideway, playing keys pivoted on the said key frame and projecting forwardly beyond the key frame and its guideway, the end playing keys passing into the said pockets on sliding the key frame



sidewise, action keys below the said playing keys and adapted to be actuated by said playing keys, a manually controlled gearing mounted with the said key frame to shift the latter sidewise, and a scale indicator having a fixed and a movable member of which the latter is connected with the said gearing.

[Claims 1 to 6 and 8 not printed in the Gazette.]

1,244,251. SECOND-HAND-SETTING MECHANISM FOR WATCHES. CHARLES SINBAD, San Francisco, Cal., assignor of one-sixth to Peter J. M. Bertelsen and one-sixth to Andrew Bertelsen, San Francisco, Cal. Filed Apr. 26, 1916. Serial No. 93,657. (Cl. 58—63.)

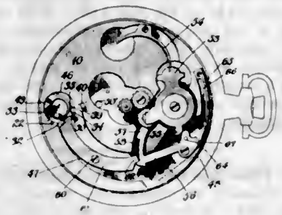


1. In a watch, the combination with back and front plates, a train of gearing between the plates, and a setting lever extensible to bring certain of the gears into position to permit setting of the hour and minute hands, of a second hand pivot mounted for movement toward and away from one of the elements of the gearing and for turning movement but held against other movement, a second hand pinion mounted on the pivot and adapted, in one position of the pivot, to mesh with an element of the gearing, means normally holding the pivot in such position, an arcuate notched extension formed upon the setting lever, and a switch lever pivotally mounted with one end seating in the notch of the setting lever, whereby swinging of the setting lever swings the switch lever and with its other end operatively disposed to swing the second hand pivot to move its pinion out of mesh with the element of the gearing.

2. In a watch, the combination with a train of gearing and a setting lever extensible to bring certain of the gears in position to permit setting of the hour and minute hands, of a second hand pivot mounted for movement toward and away from one of the elements of the gearing and for turning movement, a pinion mounted on the pivot to be moved in and out of mesh with such element of the gearing, and means co-acting between the setting lever and pivot for swinging the pivot.

[Claims 3 and 4 not printed in the Gazette.]

1,244,252. SECOND-HAND-SETTING MECHANISM FOR WATCHES. CHARLES SINBAD, San Francisco, Cal., assignor of one-sixth to Peter J. M. Bertelsen and one-sixth to Andrew Bertelsen, San Francisco, Cal. Filed Nov. 8, 1916. Serial No. 130,191. (Cl. 58—63.)

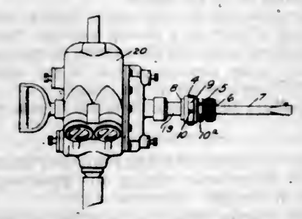


1. In a pendant set watch, the combination with a setting stem, a train of gearing, a second hand pivot, and a pinion mounted on the pivot, the pivot being mounted for swinging movement to bring its pinion into and out of mesh with one element of the gearing, of means operable through reciprocation of the stem for swinging the pivot, said means including a lever operable upon movement to one position to cause swinging of the pivot to bring the pinion out of mesh with its gear element, means normally tending to move the lever to such position, and a stem controlled tripping lever normally holding the first lever in its other position.

4. In a pendant set watch, the combination with a setting stem movable to a position where it may be rotated to set the hour and minute hands of the watch, of a train of gearing, a second hand pivot, a pinion mounted on the pivot, the pivot being supported for swinging movement to bring its pinion into and out of mesh with one element of the gearing, means movable to swing the pivot, coöperating means constantly tending to force the first means to swing the pivot to bring its pinion out of mesh with the element of gearing, a tripping lever normally blocking the movement of the first mentioned means, and operative engagement between the tripping lever and stem, whereby movement of the stem into a position to set the hour and minute hands moves the tripping lever to release the first mentioned means.

[Claims 2 and 3 not printed in the Gazette.]

1,244,253. CHUCK. JAMES A. STANFIELD, Covington, Ky., assignor of one-half to George T. Prout, Covington, Ky. Filed Dec. 21, 1916. Serial No. 138,158. (Cl. 64—13.)

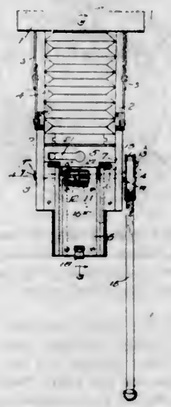


1. A chuck comprising a body portion having a recess at one end and having a passage communicating with the recess, a plug extending from the body portion into the recess and having its outer surface spaced from the walls of the recess, adapted to receive the walls of a hollow spindle, a hollow spindle, a wedge reciprocably mounted in the passage, adapted to engage at its inner end the surface of the spindle, and means engaging the outer end of the wedge, for forcing and maintaining the wedge in clamping engagement with the spindle.

12. A chuck comprising a body portion having an internally screw threaded recess at one end and having a passage communicating with the recess, adapted to receive the screw threads of an externally screw threaded hollow spindle, an externally screw threaded hollow spindle, a wedge reciprocably mounted in the passage and having screw threads formed at its inner end for coöperation with the screw threads of the recess, means for mounting the wedge in position whereby its screw threads will be maintained in alinement with the screw threads of the recess, a collar mounted on the body portion and having an inclined surface adapted to engage the outer end of the wedge, said collar and body portion having coöperating screw threads formed thereon adapted to permit of reciprocation of the collar, whereby the inclined surface of the collar will force and maintain the screw threads of the wedge in clamping engagement with the screw threads of the spindle.

[Claims 2 to 11, 13, and 14 not printed in the Gazette.]

1,244,254. AUTOMATIC FOCUSING DEVICE FOR CAMERAS. FRANK M. STEADMAN, Washington, D. C. Filed Nov. 10, 1914. Serial No. 871,282. (Cl. 95—45.)



1. The combination with a camera, of a casing carried thereby, a flexible coil carried by said casing and adapted to be unwound by pulling on one end of the coil, and means for regulating the focusing of the camera in accordance with the mount of the flexible coil which is unwound.

2. The combination with a camera having a lens adapted to be moved toward and away from the light receiving surface of the camera, of spring means for retracting the lens toward the light receiving surface of the camera, a movable member for regulating the amount of retraction of the lens, and means for actuating said movable member to permit the retraction of the lens for a predetermined distance.

3. The combination with a camera having a lens adapted to be moved toward and away from the light receiving surface of the camera, of spring means for retracting the lens toward the light receiving surface of the camera, a movable member for regulating the amount of retraction of the lens, means for actuating said movable member to permit the retraction of the lens for a predetermined distance, said last named means comprising a threaded spindle, a block having a threaded opening arranged to receive said spindle and to be moved by the rotation of the spindle, and means secured to the end of the spindle for rotating the latter.

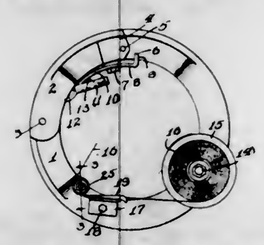
4. The combination with a camera having a lens adapted to be moved toward and away from the light-receiving

surface of the camera, of spring means for retracting the lens toward the light receiving surface of the camera, a movable member for regulating the amount of retraction of the lens, means for actuating said movable member to permit the retraction of the lens for a predetermined distance, said last named means comprising a threaded spindle, a block having a threaded opening arranged to receive said spindle and to be moved by the rotation of the spindle, and a flexible coil wound around one end of said spindle and adapted to rotate the spindle when one end of the coil is pulled out.

5. The combination with a camera, of a flexible coil secured thereto and adapted to be unwound by pulling on the end of the coil, and means for automatically maintaining the focus of the camera upon a plane at right angles to the axis of the lens and passing through the end of the flexible member in any position of the latter.

[Claims 6 to 21 not printed in the Gazette.]

1,244,255. FOLDER DEVICE FOR WRAPPING-MACHINES. WILLIAM C. STEVENS, Akron, Ohio, assignor to Pierce Wrapping Machine Company, Chicago, Ill., a Corporation of Illinois. Original application filed Aug. 19, 1912, Serial No. 715,745. Divided and this application filed May 24, 1915. Serial No. 30,038. (Cl. 242—6.)

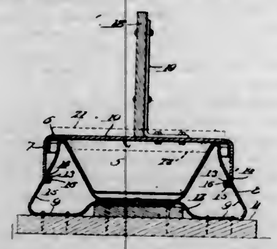


1. The combination with a shuttle and paper carrying means thereon, of a folder device pivotally mounted upon said shuttle, and an adjustable creasing member adjacent thereto to crease the folded paper leaving said folder device.

2. In a device of the class described the combination with a shuttle and paper carrying means thereon, of a movably mounted folder device and an adjustable rotatable creasing member for the paper folded by said device, said folder device adapted to automatically aline itself in position between said creasing member and the paper carrying means as the direction of feed of the paper from said means varies.

[Claims 3 to 6 not printed in the Gazette.]

1,244,256. FEED-TROUGH. MILTON D. STOCKING, Lindenwood, Ill. Filed June 28, 1915. Serial No. 36,754. (Cl. 119—61.)



1. A feed trough support comprising transverse supports extending beyond each side of a trough and provided thereat with openings, and U-shaped clamping members the ends of which are reduced so as to form shoulders at the neck of the reduced portions, the reduced ends being turned inwardly and adapted to locate in said openings when the clamping members have been positioned across the top of a trough to secure the same to the supports, the shoulders at either end of the clamping members being adapted to abut against the outer sides of the supports when the opposite ends of the clamping members have been disengaged from the supports and raised to permit removal of a trough therefrom.

2. A support for feed troughs comprising a pair of sills, a stringer connecting the sills at the middles and across the tops thereof, and a trough-supporting bracket for each sill, said bracket consisting of a metal strap bent at an intermediate portion to form a seat for the reception of a trough, and also bent to form leg standards depending from opposite ends of the seat and resting upon the end portions of a sill, the opposite end portions of the strap extending inwardly from the leg standards and overlapped beneath and secured to the bottom of the seat portion and constituting a tie bar for the leg standards, the intermediate portion of the tie bar being elevated to span the stringer.

1,244,257. PROCESS OF FORMING DENTAL RESTORATION. ROBERT W. SWEETNAM, Toledo, Ohio. Filed Dec. 18, 1913. Serial No. 807,453. (Cl. 22—200.)



1. The process of forming dental castings which consists in forming a mold in a porous material and a bridged air space in the mold surrounding the cavity directing molten metal into the molded cavity and removing the air from the space.

2. The process of forming castings which consists in supporting a pattern and a waxed strip in the vicinity of the pattern and forming a mold about the pattern and the wax strip and heating the mold to withdraw the pattern, and wax strip directing molten metal into the molded cavity and removing the air from the space formed by the wax strip when the molded cavity is filled with molten metal.

3. The process of forming dental castings which consists in forming a mold in a porous material and spaces in the porous material at points in the vicinity of the molded cavity and supplying air to one of the spaces and removing the air from another one of the spaces.

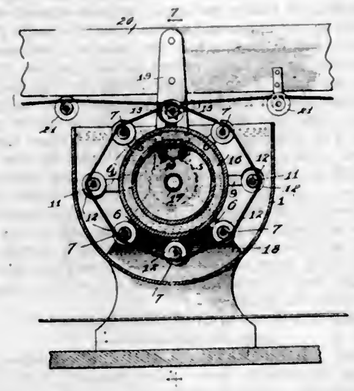
4. The process of forming dental castings which consists in forming a mold in a porous material, forming spaces in said mold at points in the vicinity of the mold and directing air to the spaces.

5. The process of forming dental castings which consists in forming a mold in a porous material, forming spaces in said mold at points in the vicinity of the mold and supplying air under pressure to one of the spaces, and removing it from another of the spaces.

[Claims 6 to 10 not printed in the Gazette.]

1,244,258. FILM-TAPE-TREATING APPARATUS. FREDERICK B. THOMPSON, Chicago, Ill. Filed Sept. 15, 1915. Serial No. 50,865. (Cl. 193—4.)

1. Film treating apparatus including an endless carrier for film-tape and means over which the same is trained, said means including a group of parallel shafts disposed substantially equi-distantly from a common axis and arranged to form a polygonal figure, each of said shafts being equipped with a series of rolls over which the said carrier is trained to cause the latter to travel substantially helically from end to end of the shafts of said group, at least one of said shafts geared to a source of power.



2. Film treating apparatus including an endless carrier for film-tape and means over which the same is trained, said means including a group of parallel shafts disposed substantially equi-distantly from a common axis and arranged to form a polygonal figure, each of said shafts being equipped with a series of rolls over which the said carrier is trained to cause the latter to travel substantially helically from end to end of the shafts of said group, at least one of said shafts geared to a source of power, said first-named means including mechanism for maintaining the carrier under uniform tension.

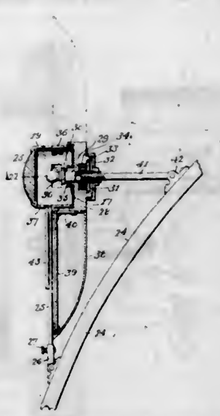
3. Film treating apparatus including an endless carrier for film-tape and means over which the same is trained, said means including a group of parallel shafts disposed substantially equi-distantly from a common axis and arranged to form a polygonal figure, each of said shafts being equipped with a series of rolls over which the said carrier is trained to cause the latter to travel substantially helically from end to end of the shafts of said group, at least one of said shafts geared to a source of power, at least one of the shafts of said group being laterally movable relatively to the remainder thereof, and means associated with said laterally movable shaft for holding the same yieldingly at the outer limit of its movement for maintaining the film tape carrier trained over all shafts of said group under uniform tension.

4. Film treating apparatus including an endless carrier for film-tape and means over which the same is trained, said means including a group of parallel shafts disposed substantially equidistantly from a common axis and arranged to form a polygonal figure, each of said shafts being equipped with a series of rolls over which the said carrier is trained to cause the latter to travel substantially helically from end to end of the shafts of said group, at least one of said shafts geared to a source of power, said means over which the endless carrier is trained including mechanism for maintaining a constant tension on the carrier.

5. Film treating apparatus including an endless carrier for film-tape and means over which the same is trained, said means including a group of parallel shafts disposed substantially equi-distantly from a common axis and arranged to form a polygonal figure, each of said shafts being equipped with a series of rolls over which the said carrier is trained to cause the latter to travel substantially helically from end to end of the shafts of said group, at least one of said shafts geared to a source of power, said means over which the carrier is trained including mechanism for maintaining the carrier under tension, and means positively engaging said carrier to drive the same.

[Claims 6 to 9 not printed in the Gazette.]

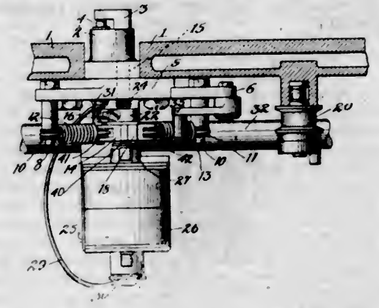
1,244,259. AUTOMOBILE TRAFFIC-SIGNAL. ALFRED B. TROTT, Denver, Colo. Filed Feb. 19, 1917. Serial No. 149,592. (Cl. 116—31.)



1. A traffic signal for automobiles, comprising a tail-light casing, light apertures disposed radially therein, a hollow semaphore mounted to rotate concentrically with said casing and having a light aperture therein adapted to register with said casing light apertures when said semaphore is rotated, and means for rotating said semaphore.

2. A traffic signal for automobiles, comprising a tail-light casing, a block mounted to rotate concentric with said casing, a hollow semaphore carried by said block and mounted to rotate in alinement with the side wall of said casing, said casing having light apertures therein adapted successively to register with a light aperture in said semaphore whereby the interior of the latter will be illuminated, and means for rotating said semaphore.

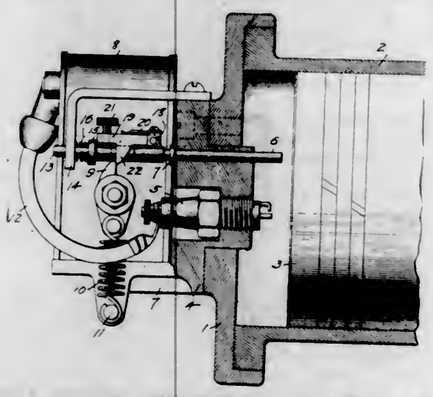
1,244,260. IGNITER MECHANISM FOR INTERNAL-COMBUSTION ENGINES. HARRY RANDOLPH VAN DEVENTER, Sumter, S. C., assignor, by mesne assignments, to Splitdorf Electrical Company, Newark, N. J., a Corporation of New Jersey. Filed Dec. 24, 1914. Serial No. 878,931. (Cl. 123—149.)



1. An igniter mechanism for internal combustion engines comprising a supporting frame, an igniter carried by said frame, a magneto mounted on said frame, an operating shaft for said igniter carried by said frame, an operating shaft for said magneto, said shafts being in alinement, a trip lever carried by the shaft of the magneto, an arm carried by the shaft of the igniter, means carried by the trip lever for engaging the arm carried by the shaft of the igniter, and means for actuating said trip lever.

[Claims 2 and 3 not printed in the Gazette.]

1,244,261. IGNITION DEVICE. HARRY RANDOLPH VAN DEVENTER, Sumter, S. C., assignor to Splitdorf Electrical Company, Newark, N. J., a Corporation of New Jersey. Filed Feb. 21, 1916. Serial No. 79,651. (Cl. 123—149.)



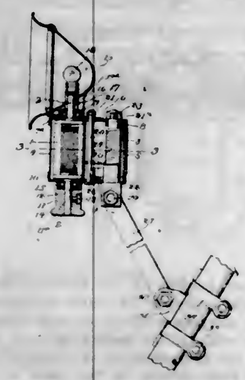
1. In combination, an engine cylinder, an electric generator adjacent thereto, a piston in said cylinder, means engaging said piston for actuating said generator, a spark plug, and a common support for said actuating means and plug.

2. In combination, an engine cylinder, a piston in said cylinder, a support attached to said cylinder, a spark plug carried by said support and having its points communicating with the combustion space in said cylinder, an electric generator carried by said support, and means positioned by said support engaging said piston and actuating said generator.

4. In combination, an engine cylinder, an electric generator adjacent thereto, a piston in said cylinder, and means extending through the wall of said cylinder engaging said piston for actuating said generator.

[Claims 3 and 5 to 10 not printed in the Gazette.]

1,244,262. GENERATOR-LAMP. HARRY RANDOLPH VAN DEVENTER, Sumter, S. C., assignor to Splitdorf Electrical Company, Newark, N. J., a Corporation of New Jersey. Filed Jan. 11, 1917. Serial No. 141,833. (Cl. 240—42.)

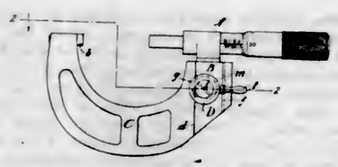


1. A generator lamp comprising a magnet, a vertically disposed armature rotating therein and having a shaft projecting at both ends beyond said magnet, a casing inclosing the magnet and having top and bottom cap plates, each having an annular outwardly extending collar through which the shaft extends, ball bearings located in said collars, a drive wheel on the lower end of the shaft provided at its upper end with a sleeve inclosing the lower collar, a reflector having a neck or sleeve on the lower side fitting the upper of said collars, a lamp mounted on the upper end of the armature shaft to turn therewith and extending into the reflector, and electrical connections for the lamp leading to the armature winding.

7. A generator lamp for bicycles or the like including in combination, an armature, a V-shaped field magnet associated with said armature, a casing including a body portion and end plates inclosing said armature and field magnets, said end plates having bearings for the armature shaft and the armature shaft projecting beyond said bearings, a driving wheel secured to the lower end of said armature shaft and having a projecting sleeve housing the adjacent bearing, a sleeve attached to the upper end of said armature shaft and having a socket for a lamp, a lamp fixed in said socket and rotating with said armature, and a reflector supported by the casing and surrounding the lamp.

[Claims 2 to 6 not printed in the Gazette.]

1,244,263. MICROMETER-CALIPERS. HERMANN W. VOGES, Springfield, Mass. Filed June 21, 1916. Serial No. 105,027. (Cl. 33—167.)



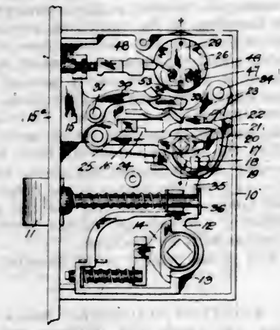
1. The combination with the barrel portion of a micrometer caliper provided with a tang extended from the barrel portion angularly to the axis of the latter, of a separately formed bow shaped yoke or frame having in one end portion thereof a channel opening to the face of the frame, and a member pivotally mounted on the tang and provided with a cam which under the rotative movement of the pivoted member is operable to engage one wall of the channel and bind the tang and the portion of the instrument carried thereby firmly to the frame.

2. The combination with the barrel portion of a caliper provided with a tang extended from the barrel portion angularly to the axis of the latter, of a separately formed bow shaped yoke or frame having in one end portion thereof a channel which opens to the face of the frame and one side wall of which is undercut, and a member rotatively mounted on the tang, and provided with a cam member for a binding engagement against one side wall of the channel,—one edge portion of the tang being of beveled form for engagement with such undercut wall.

3. The combination with the barrel portion of a micrometer caliper provided with a tang extended from the barrel portion angularly to the axis of the latter, one edge portion of which tang is of beveled form, of a frame member or yoke having at one end portion thereof a facewise opening channel, one side wall of which is undercut, and said frame having a sector shaped recess within its face adjacent and opening to the other side wall of the channel, the arc shaped wall of said recess being undercut, and a member pivoted on the tang and having a cam the edge of which is beveled and operable under the rotation of said pivoted member to both bind the tang in the channeled frame and to secure an interlock between the beveled edge portion of the cam and the undercut wall of the sector shaped recess.

1,244,264. LOCK. HENRY G. VOIGHT, New Britain, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed June 12, 1916. Serial No. 103,250. (Cl. 70—93.)

1. The combination with mortise lock mechanism having two movable members, of a cylinder lock having a key plug, a roll back movably mounted on said key plug, a key to displace said roll back on said key plug and operate either of said members, and a second key inoperative to displace said roll back relatively to said key plug, and operable through said roll back on only one of said members; substantially as described.

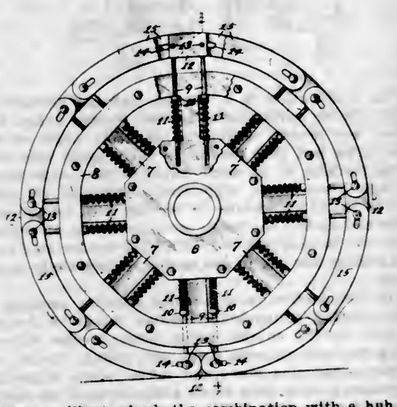


2. The combination with mortise lock mechanism having two movable members located in the same plane, of a cylinder lock having a key plug, a roll back on said key plug, a key to turn said roll back in an arc of a large circle into operating engagement with either of said members, and a second key to turn said rollback in the arc of a small circle into operating engagement with one of said members but inoperative on the other member; substantially as described.

3. The combination with mortise lock mechanism having two movable members located in the same plane, of a cylinder lock, a roll back on said cylinder lock, a long key to turn said roll back into operating engagement with either of said members, and a short key to turn said roll back into operating engagement with one of said members but inoperative on the other member; substantially as described.

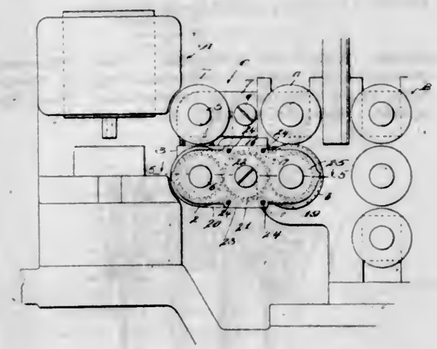
[Claims 4 to 7 not printed in the Gazette.]

1,244,265. SPRING-WHEEL. HENRY CARL WARGENSTED, Carlinville, Ill., assignor of one-half to Gustave H. Mieher, Carlinville, Ill. Filed Jan. 17, 1917. Serial No. 142,804. (Cl. 152—30.)



In a resilient wheel, the combination with a hub, felly and spokes, of radially arranged spring-pressed rods projecting through the felly, arcuate blocks on the outer ends of the rods, pairs of curved link members having their ends lapped upon the sides of the blocks, and pin-and-slot connections between the link members and the blocks, said members and blocks forming the tread rim, as shown and described.

1,244,266. MACHINE FOR TIPPING GARMENT-STAYS. MARTIN D. WATROUS, Ansonia, Conn., assignor to The Union Fabric Company, Derby, Conn., a Corporation of Connecticut. Filed Oct. 28, 1913. Serial No. 797,838. (Cl. 153—1.)



1. Stay feeding mechanism comprising a bracket for attachment to the frame of a stay tipping mechanism, a pair of feed rolls, one of which is directly carried by the bracket, an arm secured to the bracket for adjustable movement and by which the other feed roll is carried, and a table secured to the bracket to receive the stays as they pass from the feed rolls, in combination with a pair of feed rolls which form elements of the stay tipping mechanism and toward and between which said table is directed.

2. Stay feeding mechanism comprising a bracket for attachment to the frame of a stay tipping mechanism, a pair of feed rolls, one of which is directly carried by the bracket, the bracket having an upward extension, an arm parallel to the bracket and pivoted to said extension, the other roll being carried by said arm, and a table secured to the bracket to receive the stays as they pass from the feed rolls, in combination with a pair of feed rolls which form elements of the stay tipping mechanism and toward and between which said table is directed.

3. A feeding mechanism adapted to be placed in and to be removed from the normal space between a stay-covering machine and a stay-tipping machine, the covering machine automatically transferring long stays to the tipping machine, said feeding mechanism, when in operative position, serving to automatically transfer short stays from the covering machine to the tipping machine and having means for its operation by one of said machines.

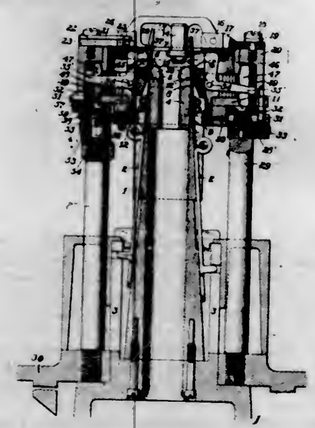
4. A feeding mechanism adapted to be placed in and removed from the normal space between a stay-covering machine and a stay-tipping machine, the stay-covering machine automatically transferring long stays to the stay-tipping machine, said feeding mechanism, when in operative position, serving to automatically transfer short stays from the covering machine to the tipping machine and comprising a bracket for removable attachment to the frame of one of said machines, a pair of feed rolls carried by the bracket, means operated by one of said machines for driving one of said feed rolls, and a table also carried by the bracket and extending between the feed rolls and the machine from which the feed rolls are spaced.

5. A feeding mechanism adapted to be placed in and removed from the normal space between a stay-covering machine and a stay-tipping machine, the stay-covering machine automatically transferring long stays to the stay-tipping machine, said feeding mechanism, when in operative position, serving to automatically transfer short stays from the covering machine to the tipping machine and comprising means for its operation by one of said machines, a bracket for removable attachment to the frame of one of said machines, a pair of feed rolls carried

by said bracket adjacent the stay-covering machine, a table also carried by said bracket and bridging the space between said pair of feed rolls and the stay-tipping machine, and a pair of guide members associated with the upper face of said table and converging toward said tipping machine.

[Claims 6 to 12 not printed in the Gazette.]

1,244,267. KNITTING-MACHINE. FRANK WILCOMB, Norristown, Pa., assignor to Wildman Mfg. Co., Norristown, Pa., a Corporation of Pennsylvania. Filed July 5, 1916. Serial No. 107,617. (Cl. 66—26.)



1. In a spring beard needle knitting machine, spring beard needles, a presser device acting against the backs of the needles to force them outwardly from their normal plane, and presser means on the other side of the needle row against which the beards are pressed, said latter means having a presser surface convergent in relation to the normal plane of retracting movement of the needle, said surface acting to close the beard to pass through the old loop when the needle is forced against it from its normal plane and maintaining the beard pressed or partly pressed during the remainder of the needles retracting movement and after the needle has been released by the presser device first mentioned, substantially as described.

2. In a spring beard needle knitting machine, spring beard needles, a presser device acting against the backs of the needles to force them outwardly from their normal plane, and presser means on the other side of the needle row against which the beards are pressed, said latter means having a presser surface convergent in relation to the normal plane of retracting movement of the needle, said surface acting to close the beard to pass through the old loop when the needle is forced against it from its normal plane and maintaining the beard pressed or partly pressed after the inside presser has released the needle.

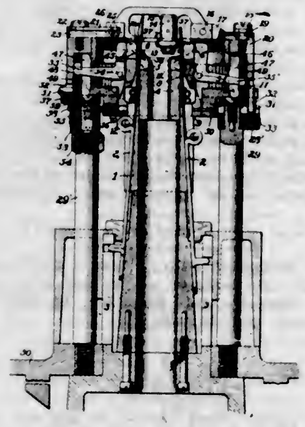
3. In a circular spring beard needle knitting machine, a circular row of spring beard needles, means within the needle row for forcing the needles outwardly from their normal plane for pressing, means encircling the needle row and having a pressing surface for each needle convergent in respect to the normal plane of movement of the needle toward its retracted position, said encircling means by contact with the beard of the deflected needle, closing the beard to pass through the old loop and thereafter holding the beard pressed or partly pressed during further retracting movement of the needle, the convergent relation of the pressing surface and the normal working plane of the needle affording sufficient space to avoid crimping the nose of the needle, substantially as described.

4. In a circular spring needle knitting machine, a circular row of spring beard needles, means within the needle circle for deflecting the needles outwardly from their normal plane for pressing, a ring like member encircling the needles and which closes the beards to pass through the old loops when the needles are deflected, said ring having an extended surface converging or tapering in the direction of the retracting movement of the needle relative to the normal working plane of the needle, said extended surface maintaining control of the needle beard to keep it pressed or partly pressed to prevent bursting the loops, substantially as described.

5. In combination in a circular knitting machine, spring beard needles, a presser device inside the needle row to deflect the needles outwardly from their normal plane, a presser ring encircling the needle row and having a surface to press the beards of the deflected needles, pivoted web holders, and bearings for the pivoted web holders carried by and arranged on the outer side of the said ring, substantially as described.

[Claims 6 to 18 not printed in the Gazette.]

1,244,268. KNITTING-MACHINE. FRANK WILCOMB, Norristown, Pa., assignor to Wildman Mfg. Company, Norristown, Pa., a Corporation of Pennsylvania. Continuation in part of application Serial No. 107,617, filed July 5, 1916. This application filed Dec. 13, 1916. Serial No. 136,737. (Cl. 66—21.)



2. In combination in a circular knitting machine, a needle cylinder, spring beard needles, presser means, and pivoted web holders moving at an acute angle to the needle stems and thus presenting their upper yarn supporting surfaces at an acute angle to the needle stems and their lower fabric supporting surfaces at an acute angle to the fabric, means to lay the yarn on the web holders and against the needle stem and means for operating the web holders back and forth while maintaining their acute angular relation to the needles, substantially as described.

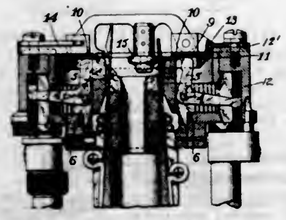
5. In combination in a circular knitting machine, a needle cylinder, spring beard needles, means for feeding the yarn directly to the spring beard needles without sinking the yarn between them, web holders having upper yarn supporting noses and lower fabric supporting tails working along lines at an acute angle to the needle stems and with their fabric supporting tails buried in and guided by the needle cylinder, substantially as described.

13. In combination in a circular knitting machine, needles, pivoted web holders with radial arms, web holder cams, a member extending circumferentially of the needle row and web holders and rotating continuously in one direction, a connection between the said member and the web holder cams which will permit adjustment of a web holder cam vertically on said member, means for adjusting the said cam vertically and means for adjusting the said member circumferentially, substantially as described.

30. In combination in a knitting machine, a needle cylinder, a nipple secured to the lower end of the same and passing through the base plate, a washer connected with the nipple and bearing on the underside of the base plate, a nut on the nipple to clamp the washer and nipple together, a stop on the washer and a stop on the frame preventing rotation of the cylinder in one direction but allowing it in the other direction, substantially as described.

[Claims 1, 3, 4, 6 to 12, and 14 to 29 not printed in the Gazette.]

1,244,269. TRUNNION-MOUNTED ELEMENT FOR KNITTING-MACHINES. FRANK WILCOMB, Norristown, Pa., assignor to Wildman Mfg. Co., Norristown, Pa., a Corporation of Pennsylvania. Filed July 1, 1916. Serial No. 107,107. (Cl. 66—26.)



4. In combination in a circular knitting machine for making fabric of smaller diameter, independently operating needles, a series of independently operating implements to coöperate with the needles and each having rocking movement, a ring-shaped carrier having radial guiding walls for the implements and grooved circumferentially in respect to the ring-shaped carrier, said independently operable implements having trunnions tapered outwardly from the sides of the implements to conform substantially to the steep arc of the circumferential groove, said trunnions being fixed to the implements to constitute one unit therewith and seated removably in the curved grooves, each trunnion having a fillet adjacent the sides of the implements to center the implements between the radial guiding walls of the carrier, substantially as described.

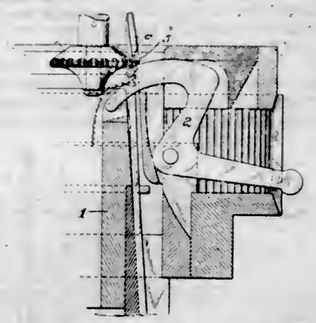
9. In combination in a circular knitting machine, needles, web holders pivotally supported and having a fabric engaging nose, the upper edge of the web holder being concentric with the pivot thereof, said web holders being individually removable upwardly from their pivot bearings and means engaging the upper concentric edges of the web holders for holding them in their pivot bearings, substantially as described.

[Claims 1 to 3, 5 to 8, and 10 to 12 not printed in the Gazette.]

1,244,270. KNITTING-MACHINE. FRANK WILCOMB, Norristown, Pa., assignor to Wildman Mfg. Co., Norristown, Pa., a Corporation of Pennsylvania. Filed July 1, 1916, Serial No. 107,109. Renewed June 16, 1917. Serial No. 175,211.. (Cl. 66—21.)

5. In combination independently operated spring beard needles, a yarn feed, a presser wheel at the back of the needle row and a presser device against which the beards of the needles are pressed, said presser wheel having teeth to straighten bent needles, the bottoms of the spaces between the teeth engaging the needle backs and deflecting said needles forward to press their beards against said presser device, substantially as described.

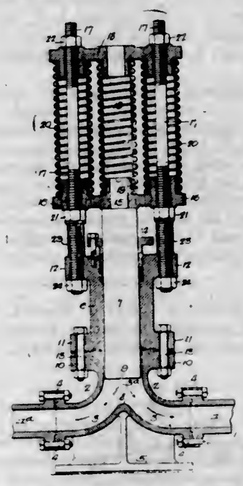
6. In combination independently operated spring beard needles, a yarn feed, and a presser wheel operating upon the backs of the needles to deflect them outwardly from their normal plane of operation, a presser device against which the beards of the deflected needles are pressed, said presser wheel having teeth projecting between the needles



and supporting thereon the new yarn above the old fabric loops, substantially as described.

[Claims 1 to 4 and 7 not printed in the Gazette.]

1,244,271. SHOCK-RELIEF VALVE FOR HYDRAULIC SYSTEMS. CLAUDE A. WITTER, Lewistown, Pa., assignor to The Standard Steel Works Company, Burnham, Pa., a Corporation of Pennsylvania. Filed Feb. 1, 1916. Serial No. 75,607. (Cl. 137—71.)

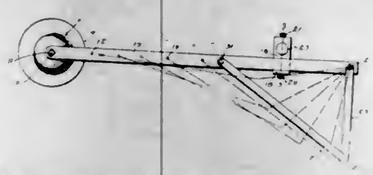


1. The combination of a base having a passage therein forming the continuation of the pipe line of a hydraulic system; a cylindrical valve casing mounted on the base; a plunger valve mounted in the casing; a lower spring plate mounted on the valve; an upper spring plate; springs located between the two plates; rods extending through the plates; means for adjusting the plates on the rods; extensions on the rods passing through openings in the valve casing; and means for retaining the rods in position on the valve casing so that, on detaching said means, the springs and their plates can be removed as a unit.

2. The combination in a shock relief valve for hydraulic systems, of a base having a passage therein forming a continuation of the pipe line of the system; a cylindrical valve casing mounted on the base; a plunger mounted in the casing and having its end projecting into the passage, said plunger having a reduced upper end; a lower spring plate mounted on the reduced upper end of the plunger, an upper spring plate; springs located between the two

plates; rods extending through the two plates; nuts on the rods by which the tension of the spring is regulated, the cylinder having a flange and the rods extending through the flange of the cylinder; nuts on the lower ends of the rods; and spacing sleeves between the flange and the nuts located under the spring plate.

1,244,272. COMBINATION COMPASS AND PROTRACTOR. MILES V. WOLF, Ashland, Ohio. Filed Dec. 7, 1915. Serial No. 65,529. (Cl. 33—27.)

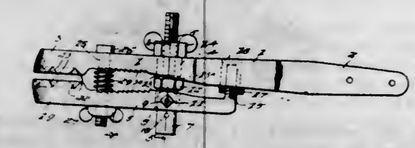


1. A compass comprising a vacuum cup, a reinforcing spring embedded in said cup, a pin centrally of the vacuum cup, said pin extending into the cup and being pointed at its inner end, the pin forming a centering device, a beam pivoted to the upper end of the pin and a pencil carriage slidable on the beam.

2. A device of the class described comprising a vacuum cup, a coil spring embedded in said cup to provide a reinforcing means therefor, a pin embedded centrally of the cup, the upper end of the pin extending beyond the upper side of the cup, the lower end of the pin extending into the interior of the cup and being sharpened to provide a centering device, a beam pivoted to the upper end of the pin, and a stylus carriage adjustably mounted on the beam.

3. In a compass, a beam, a central carriage slidable on said beam, an inverted cup, a thickened base portion for said cup, a centering pin extending through the thickened base portion to assist in the centering of the cup a part of said pin being disposed within the cup, the opposite end of said pin projecting beyond the cup and forming a pivotal connection for the beam, the walls of the cup tapering toward its edge to provide a relatively thin engaging portion and a coiled spring embedded in the wall of the cup and in the base portion to reinforce the cup.

1,244,273. WRENCH. JOHN G. WRIGHT, Tyler, Tex., assignor of one-third to James Kennedy, Tyler, Tex. Filed Mar. 13, 1917. Serial No. 154,487. (Cl. 81—111.)



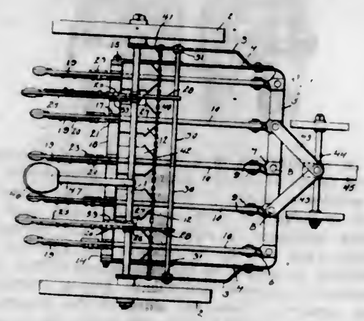
1. In a tool of the class described, a relatively fixed shank having an aperture extending transversely therethrough, a bolt adjustably secured to said shank, a relatively movable shank pivotally secured to said bolt, said shanks being provided with jaw faces, said relatively movable shank having an angled threaded end extending through said aperture, and a nut fitted on said angled end for swinging the movable shank on said bolt.

2. In a tool of the class described, a relatively fixed shank having an aperture extending transversely therethrough, a bolt adjustably secured to said shank, a relatively movable shank pivotally secured to said bolt, said shanks being provided with jaw faces, said relatively movable jaw having an angled threaded end extending through said aperture, a nut fitted on said angled end for swinging the movable shank on said bolt, spring means normally holding the jaws away from each other, and an adjustable means for normally moving said jaws against the tension of said springs.

4. In a device of the class described, a shank provided at its rear end with a handle, a second shank pivoted intermediate its ends to the first named shank, jaws formed on the outer terminals of the shanks, the jaws having inwardly extending recesses opening out through their adjacent sides to provide each jaw with opposing working faces, said recesses having inclined lower walls and curved upper walls to conform to the contour of round bolt heads, said curved walls being serrated, said jaws being provided with a second set of recesses arranged at angles to the first mentioned recesses, so that bolt heads at different angles may be readily grasped, and means for adjusting the second named shank in relation to the first named shank, said jaws being further provided with a V-shaped groove extending from each bolt holding recess to the opposite wall, said grooves bisecting each other, and the jaws having a transverse aperture extending through the same at the point of crossing of the grooves, as and for the purpose specified.

[Claim 3 not printed in the Gazette.]

1,244,274. PLOW. WILLIAM H. YOUNG, Newton, Kans. Filed Feb. 16, 1917. Serial No. 149,016. (Cl. 97—34.)



1. In a plow structure, the combination, of an arch axle, a supporting frame, braces connecting said arch axle and said supporting frame, a pair of laterally extending rods carried by the rear end of said supporting frame, a plurality of plow beams pivotally connected to the front end of said supporting frame, a plurality of pairs of guide bars carried by said rod, said plow beams extending between said guide bars.

2. In a plow structure, the combination, of an arch axle, a supporting frame, braces connecting said arch axle and said supporting frame, a pair of laterally extending rods carried by the rear end of said supporting frame, a plurality of plow beams pivotally connected to the front end of said supporting frame, a plurality of pairs of guide bars carried by said rod, said plow beams extending between said guide bars, a plurality of hand levers mounted upon the uppermost of said laterally extending rods, cam-like extensions formed upon said levers, arms pivotally connected to said extensions and to said plow beams for raising or lowering the plow beams upon pivotal movement of the levers.

[Claims 3 to 5 not printed in the Gazette.]

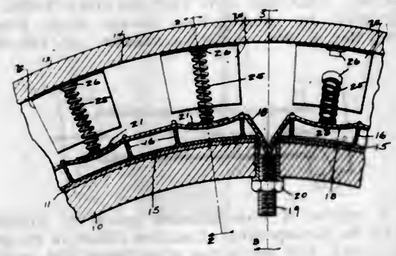
1,244,275. COMPOSITION FOR MAKING FIRE-BRICK AND FURNACE-LININGS. ROBERT R. ZELL, Birmingham, Ala., assignor to Siliconite Refractories Company, Irondale, Ala. Filed Feb. 8, 1917. Serial No. 147,423. (Cl. 106—9.)

2. A refractory composition containing "siliconite."

6. A refractory plastic composition including "siliconite," aluminum hydrate at about 5% of the weight of said body, dehydrated gypsum at about 5% of the weight of said body, and a solution of caustic potash in water at about 10% sufficient to give plasticity to the mass but not in sufficient quantity to cause the same to react alkaline.

[Claims 1 and 3 to 5 not printed in the Gazette.]

1,244,276. SPRING-TIRE. WILLIARD A. ANGLEMYER, Indianapolis, Ind. Filed Feb. 12, 1917. Serial No. 148,121. (Cl. 152—8.)



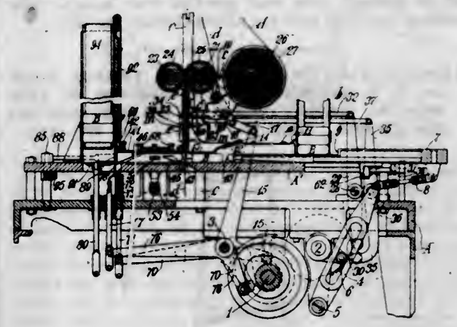
1. A tire structure comprising a casing, a spring metal lining within said casing and conforming to the shape thereof, a plurality of metal reinforcing plates engaging the crown of said lining, each plate having a plurality of studs projecting inwardly therefrom, a plurality of supporting plates near the base of said casing and having their edges engaging the walls of the lining, said supporting plates being formed of spring metal whereby when the plates are moved into the restricting portion of the lining they will bend adjacent their edges and will expand when moved into the wider portion of the lining, each of said supporting plates also having a plurality of studs projecting outwardly therefrom, compression springs extending from said supporting plates to said reinforcing plates and having their ends engaged with said studs.

2. A tire structure comprising the combination with a casing, of an annular band adapted to rest between the edges of the casing, said band having portions thereof crimped and the crimped portions pressed together to form projections, the free ends of said projections having central depressions, a cable extending around the band means to increase or decrease the tension of said cable, supporting plates passing over said cable, said plates being of spring metal whereby when moved in one direction their edges will contract and when moved in the opposite direction said edges will expand and compression springs carried by said plates.

1,244,277. WRAPPING-MACHINE. HARRY Y. ARMSTRONG, Springfield, Mass., assignor to Package Machinery Company, Springfield, Mass., a Corporation of Massachusetts. Filed Apr. 20, 1914. Serial No. 833,157. (Cl. 93—2.)

1. In a wrapping machine, the combination of folding mechanism through which the article and wrapper is arranged to pass, said mechanism being constructed and arranged to form overlapping folds on the article as the latter passes therethrough, together with a gum applying mechanism comprising a roller, the periphery of which is adapted to bear against one of the underlying folds after the same has been folded against the article and means to positively drive the roller at a peripheral speed equal to the speed of the article through the mechanism, means to supply the periphery of the roll with a continuous film of gum and means to move an article through said folding mechanism.

2. In a wrapping machine, the combination of a folding mechanism, means to feed articles to be wrapped to said mechanism, comprising a reciprocating plunger provided with two plunger faces, one in advance of the other and the forward face being at a lower level than the rear face, an open ended magazine under which the plunger is adapted to reciprocate while supporting the articles in the magazine, the rear plunger face being adapted to remove the articles from the magazine one by one and move them a given distance toward the folding mechanism, and to support the article during its return movement, a pawl operative to prevent the return of an article so fed as the plunger is returned for the next operation, a positioning device arranged to move the article so fed into line with the forward plunger face whereby the latter will feed an article to said folding mechanism at each reciprocation of the plunger, and means for reciprocating said plunger.



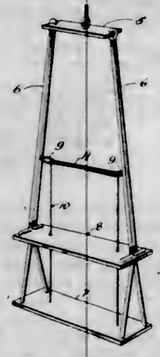
3. In a wrapping machine, the combination of folding mechanism for folding rectangular objects, comprising a folding chute, devices for feeding articles to be wrapped and wrapping material into said chute, the top and bottom walls of said chute being arranged to fold the wrapping material over the top and bottom of the article as it is forced into the chute into a U-shaped form leaving end and top and bottom side extensions of the wrapper on the article, folding blades arranged at the forward end of the chute to fold the forward end extensions against the sides of the article, folding blades in the chute arranged to fold the bottom side wrapper extensions against the sides of the article, means to apply a film of gum to each of said folded bottom side extensions, folding blades in the chute arranged to fold the top side wrapper extensions against said gummed bottom side extensions in overlapping relation, whereby when the article passes through said chute with a wrapper it is completely inclosed with the wrapper folded thereagainst in overlapping folds except at the rear end thereof.

4. In a wrapping machine, the combination of folding mechanism arranged to pass a wrapper completely around an article in overlapping folds except for one end thereof where a tubular end extension of the wrapper is left, means for folding said tubular end extension of the wrapper against the uncovered end of the article comprising a support for the partially wrapped article, wrapping fingers arranged to move toward one another to fold the side end extensions of the wrapper against the end of the article, means for applying gum to one of the remaining extensions of the wrapper, folding mechanism for folding the gummed extension against the end of the article, means for holding the article on the support during said last mentioned folding operation, and means to move said support and said partially wrapped article against a folding blade to fold the last extension of the wrapper into overlapping relation with the gummed extension and said folding blade.

5. In a wrapping machine, the combination of folding mechanism arranged to pass a wrapper completely around an article in overlapping folds except at one end thereof where a tubular end extension of the wrapper is left, means to seal said overlapping folds together, means for folding tubular end extensions of the wrapper against the uncovered end of the article comprising a support for the partially wrapped article, wrapping fingers arranged to move toward each other to fold the side end extensions of the wrapper against the end of the article, means for applying gum to one of the remaining extensions of the

wrapper, folding mechanism for folding the gummed extension against the end of the article, means for holding the article on the support during said last mentioned folding operation, means to move said support and said partially wrapped article against a folding blade to fold the last extension of the wrapper into overlapping relation with the gummed extension and said folding blade, and a device to press and retain said gummed folds against the article until the gum has set, said device comprising a vertical delivery chute through which said articles pass, said chute having the walls, against which each of the gummed folds bear, provided with movable belts adapted to travel with the article through the chute.

1,244,278. FIRE-ESCAPE. HULDA E. ASTARITA, Brooklyn, N. Y. Original application filed May 29, 1916, Serial No. 100,640. Divided and this application filed Jan. 22, 1917. Serial No. 143,721. (Cl. 227—11.)

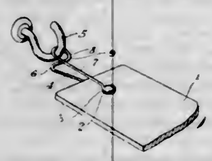


1. In a fire escape, a carrier including a foot piece, a loop adapted to receive the body of a person, and means connecting said loop and foot piece whereby the loop will tighten about the body of the person in proportion to the pressure exerted upon said foot piece.

3. In a fire escape, the combination with a seat and foot piece, of a bar, ropes depending from the bar and attached to the seat and foot piece, eyes secured to the ropes above the seat, and an attaching member passing through the seat and foot piece and slidably through the eyes forming a loop therebetween, the said member being passed downwardly through the seat and foot piece at the opposite side whereby pressure on the foot piece will contract the loop.

[Claim 2 not printed in the Gazette.]

1,244,279. STROP OR SHARPENER FOR RAZORS OR THE LIKE. GUSTAV A. RADER, Rochester, N. Y. Filed Jan. 27, 1917. Serial No. 144,981. (Cl. 24—265.)

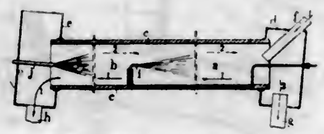


4. A strop having a suspending device having a connection with the strop to hold said device against movement transversely of the plane of the strop, said device comprising a member provided with an opening for the passage of a support, with two support-engaging portions and with a cam portion connecting said support-engaging portions to direct the support from one to the other to present either face of the strop uppermost.

5. A strop having a suspending device formed from a single piece of wire secured at one end to one side of the strop and at the other end to the opposite side of the strop to turn about a pivot extending transversely of the plane of the strop, the wire being formed between its ends with two open and spaced loops, one arm of each loop connecting with the strop and the other arms connecting by a bend forming a cam surface to direct the support from one loop to the other in order to present either face of the strop uppermost.

[Claims 1 to 3 not printed in the Gazette.]

1,244,280. PROCESS FOR THE MANUFACTURE OF CEMENT, &c. LUCIEN PAUL BASSET, Paris, France. Filed Mar. 4, 1914. Serial No. 822,289. (Cl. 106—26.)

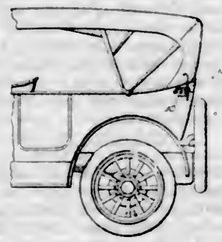


1. A process of manufacturing cement or hydraulic lime by the decomposition of calcium sulfate in the presence of clay, with production of sulfurous acid, consisting in treating the calcium sulfate by an excess of calcium sulfid and in decomposing the latter by oxidation.

4. A process for the manufacture of cement and hydraulic lime with production of sulfurous acid, consisting in adding an excess of carbon to a mixture of sulfate of calcium and clay, subjecting the mixture to heat in a furnace, the excess of carbon being proportional to the quantity of oxygen traveling through the furnace, reducing a portion of the sulfate of calcium by the excess of carbon to obtain an excess of sulfid of calcium, decomposing the remainder of the sulfate of calcium by means of the excess of sulfid of calcium, and subsequently subjecting the mixture to the action of atmospheric air in excess to decompose the sulfid by oxidation.

[Claims 2, 3, and 5 to 13 not printed in the Gazette.]

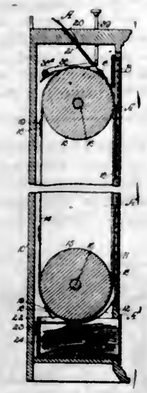
1,244,281. BOW-CLAMP FOR AUTOMOBILE-TOPS. CLIFFORD V. BATES, Chicago, Ill. Filed Sept. 8, 1916. Serial No. 118,983. (Cl. 21—61.)



1. A bow supporting and clamping attachment for automobiles comprising a fitting and adapted to be secured to the automobile body, a shelf on said fitting for receiving the folded bows, a lug extending outwardly from said fitting and having a vertical hole therethrough, a rod shiftable freely through said hole and having a hooked upper end for engaging the upper bow, a clamping plate pivoted at its inner end to the fitting and extending outwardly therefrom and having a hole at its outer end for receiving the rod, said plate hole being of a diameter to permit free shifting of the rod therethrough in either direction when the plate is at right angles with the rod, and a spring tending to swing the plate to be at an angle with the rod and to force the lower edge of the plate hole into biting engagement with the rod to prevent upward shift of the rod, the outer end of said plate providing finger surface whereby it may be swung downwardly against the force of the spring to release the rod.

[Claims 2 and 3 not printed in the Gazette.]

1,244,282. DISPLAY DEVICE. JOSEPH THOMAS BERTHELOTE, Havre, Mont. Filed Dec. 20, 1916. Serial No. 137,972. (Cl. 40—96.)



1. A display device including rollers, a belt traveling over the rollers, clamps carried by said belt to hold thereon the articles to be displayed, the clamps being secured near one edge thereof to the belt and free at the opposite edge forming jaws disposed lengthwise of the belt to coact with the opposed surface of the belt in clamping the article, the jaws being thus free to close onto the belt in the straight run of the latter and opening to receive or release the article as the belt assumes an angle to the jaws in rounding a roller.

2. A display device including rollers, a belt traveling over the rollers, clamps carried by said belt to hold thereon the articles to be displayed, the clamps being secured near one edge thereof to the belt and free at the opposite edge forming jaws disposed lengthwise of the belt to coact with the opposed surface of the belt in clamping the article, the jaws being thus free to close onto the belt in the straight run of the latter, and opening to receive or release the article as the belt assumes an angle to the jaws in rounding a roller; together with a relatively fixed stripper disposed adjacent to one of the rollers at the exterior of the belt.

4. A display device including rollers, a belt traveling over the rollers, and clamps carried by said belt to hold thereon the articles to be displayed, each clamp being secured near one edge thereof to the belt and free at one end forming a jaw, arranged to exert a clamping action against the opposed surface of the belt to grip the article to be displayed, between said surface and the belt and thus clamp the article against said surface.

8. The combination with a cabinet, of a plurality of belts therein, rollers over which said belts run, the rollers being in sections corresponding with the separate belts, a drive shaft on which the said roller sections are loosely mounted, a clutch turning with the shaft at each roller section, springs normally holding the clutches out of engagement with the roller sections, a lever fulcrumed on the cabinet at one end adjacent to each roller section, and normally in engagement with said section to hold the latter against turning, and a plunger connected with the lever and extending to the exterior of the cabinet, the plungers being operable to move the levers out of engagement with the roller sections and against the clutches to engage the clutches with the roller sections.

[Claims 3 and 5 to 7 not printed in the Gazette.]

1,244,283. AUTOMATIC DOOR OPERATING AND CONTROLLING MEANS FOR GARAGES. JOSEPH THOMAS BERTHELOTE, Havre, Mont. Filed May 22, 1917. Serial No. 170,191. (Cl. 268—9.)

1. The combination with a swinging door and a hinge pintle thereon, of a depressible prime mover adapted to be actuated by a vehicle wheel, a latch positioned to hold the door closed, a latch positioned to hold the door open, an operating arm mounted on the hinge pintle to turn the same and thereby swing the door, the said arm being capable of independent turning movement on the pintle through a limited angle and capable of a further movement to turn the pintle, and means to control said latches and operate the said arm on the pintle, in sequence, by the depression of said prime mover.

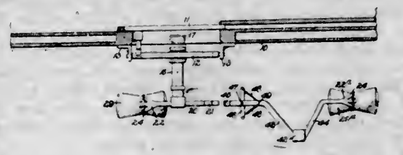


3. The combination with a swinging door and a hinge pintle thereon, of a depressible prime mover adapted to be actuated by a vehicle wheel, a revoluble member arranged to be actuated by the depression of said prime mover, a latch positioned to hold the door closed and controlled by said revoluble member, an arm on said pintle to turn the same and arranged to time the turning of the pintle with the movements of the said latch, a rod connected with said arm and with said revoluble member, and a latch positioned to hold the door open and having a curved portion disposed in the path of movement of the said rod to be actuated by the latter in proper sequence with the turning of the hinge pintle by the said arm.

6. The combination with a door, of door operating means, a rock shaft, means to actuate the door operating means by said shaft, an arm on the shaft to rock the same, a depressible element adapted to be actuated by a vehicle wheel, and means to variably connect the said depressible element and arm, said last-mentioned means including a longitudinal series of pin holes in the depressible element and in the arm, and pins engaging the opposite ends of said connecting rod and adapted to be engaged in any of the holes of either series.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,244,284. MAIL-BAG-DELIVERING APPARATUS. JOHN C. BLANTON and DOUGLAS J. SEXTON, Freeman, W. Va. Original application filed June 3, 1916, Serial No. 101,623. Divided and this application filed Jan. 18, 1917. Serial No. 143,061. (Cl. 258—17.)



In a mail bag-delivering apparatus, a stand adapted to be placed in fixed position along a railway track, and means on said stand to deliver and to receive a mail bag, said means including a lateral arm on the stand, a cross arm on the lateral arm, inward from the end thereof, and pivoted to turn, and spring means yieldingly engaging the said pivoted cross arm and tending to return the same after pivotal movement thereof.

1,244,285. WHIFFLETREE-HOOK. COLUMBUS H. BOLT, Artesia, Cal. Filed May 16, 1917. Serial No. 169,045. (Cl. 21—79.)

1. A whiffletree hook comprising a U-shaped hook member having one leg adapted for atachment to a whiffletree and the other leg provided with a slot in the end thereof, and a lever pivoted in the slot and adapted to

form a closure for the hook member, the lever being provided with gravity operated means for keeping it in the position of closure, irrespective of whether the hook member lies in a horizontal plane or in a vertical plane or any plane therebetween.



2. A whiffletree hook comprising a U-shaped hook member having one leg adapted for attachment to a whiffletree and the other leg provided with a slot in the end thereof, a lever pivoted in the slot and adapted to form a closure for the hook member, a sleeve member loosely mounted on the slotted leg of the hook member, the sleeve member being provided with an integral extending arm, and a gravity operated lever pivotally connected to the arm, the gravity operated lever having a pair of arcuate arms which straddle the closure lever and abut the latter on its front and back legs.

1,244,286. VALVE. JOSEPH C. BREINL, San Francisco, Cal. Filed May 24, 1916. Serial No. 99,648. (Cl. 103—66.)



1. A valve comprising a valve seat, a valve plate thereon, a guide plate of spring material secured to the valve plate, a stop plate, and means connecting said valve seat and stop plate, the outer portion of the guide plate being secured to the valve plate at spaced points only thereof and the central portion of the guide plate being secured to the valve seat, said guide plate having parts connecting its central and marginal portions and openings between said parts, said connecting parts being arranged obliquely to the marginal and central parts to permit a high lift of the valve plate from the valve seat.

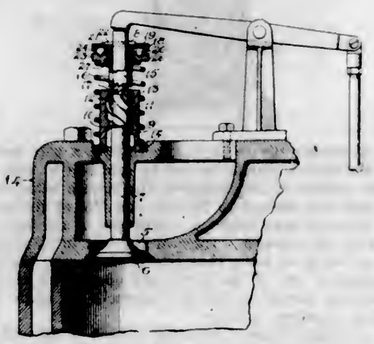
2. A valve comprising a valve seat, a valve plate thereon, a combined guide and cushion plate of spring material secured to the valve plate, a stop plate, means connecting said valve seat and stop plate, the outer portion of the guide plate being secured to the valve plate at spaced points only thereof and the central portion of the guide and cushion plate being secured to the valve seat, said guide plate having parts connecting the central and marginal portions and openings between said parts, and the marginal portions between said spaced points being set out of the plane of the remainder to give said first-named marginal parts an inherent resiliency tending to close the valve plate upon the seat plate.

3. A valve, comprising a valve seat, a valve plate, a stop plate, means connecting said valve seat and stop plate, and a cushioning guide plate of spring material comprising a central portion secured to the valve seat, a peripheral ring attached at spaced points only to the valve plate, and arms extending from the central portion of the guide plate and connected with said ring at points remote from its points of attachment to the valve plate, whereby said arms move from the valve plate with a lifting motion, and said guide plate serves as a cushion and insures a parallel opening movement and lateral rigidity of the valve.

7. A valve, comprising a valve seat, a valve plate, a stop plate, means connecting said valve seat and stop plate, and a cushioning guide plate of spring material comprising a central portion secured to the valve seat, a peripheral ring attached at spaced points only to the valve plate, and arms extending from the central portion of the guide plate and connected with said ring at points remote from its point of attachment to the valve plate, whereby parts of said peripheral ring disposed between the spaced points together with the connecting arms are set out of the plane of the remainder to give said lifting parts a spring tension tending to close the valve, whereby these lifting parts move from the valve plate with a lifting motion, and said guide plate serves as a cushion and insures a parallel opening movement and lateral rigidity of the valve.

[Claims 4 to 6 and 8 not printed in the Gazette.]

1,244,287. VALVE FOR INTERNAL-COMBUSTION ENGINES. WILMER G. BUCK, Fremont, Nebr., assignor, by mesne assignments, to Continental Engineering Corporation, Omaha, Nebr., a Corporation of Nebraska. Filed Mar. 23, 1917. Serial No. 156,845. (Cl. 123—188.)



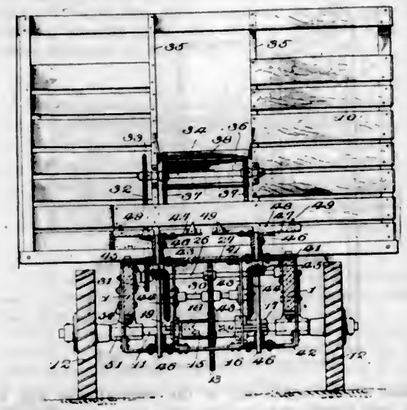
1. In a valve of the class described, the combination of a valve stem, a valve member on the stem, means for giving the valve stem and member a rotative movement about the longitudinal axis of the stem, a ball-bearing seat about which the valve turns, said seat comprising oppositely-disposed members formed with coöperating raceways for the balls, a member movably connected to the valve stem and extending cross wise of the stem to a point beyond the stem, and one of said oppositely-disposed members having a recess to receive said stem member, substantially as described.

4. In a valve of the class described, the combination of a valve stem, a valve member on the stem, a sleeve connected to the stem, an outer ball race member connected to said sleeve, an inner ball race member loose with respect to the sleeve, said race members being disposed one below the other, means for imparting a rotating movement to the sleeve to turn the stem and valve member during the valve movements, a ring having a driving fit on the sleeve, and said ring when forced against the inner race member holding said race members against separating movement, substantially as described.

[Claims 2, 3, and 5 to 7 not printed in the Gazette.]

1,244,288. STRAW-SPREADER. CHARLES L. BUEKER, Brookville, Kans. Filed Feb. 24, 1917. Serial No. 150,728. (Cl. 275—3.)

1. In a straw spreader, the combination of a truck having longitudinal sills, a box resting on said sills and having a discharge opening in its rear end, a platform secured upon and bridging the rear ends of the sills to receive material passing through said discharge opening, a frame secured upon and depending from said sills, standards in said frame between the sills, a shaft journaled upon said standards, means acting on said shaft to rotate the same, beater shafts mounted vertically in the frame between the standards and the respectively adjacent sills and having their upper ends projecting above the platform and disposed at opposite sides of the discharge opening in the box, gearing operatively connecting said beater shafts with the first-mentioned shaft, and radial beaters secured upon the upper ends of the said shafts and having their free ends describing paths extending into the path of material issuing from the discharge opening in the box.



2. In a straw spreader, the combination of a truck having rearwardly-projecting longitudinal sills, a supporting frame secured around and depending from the rear ends of said sills, beater shafts disposed vertically in said frame adjacent the respective sills, a shaft mounted horisontally in the frame between the beater shafts and operatively connected at its ends with said shafts, radial beater arms secured on the upper ends of said beater shafts, and shredder teeth secured upon the beater arms to cut through straw delivered to the same, the free ends of the arms moving forwardly between the beater shafts.

1,244,289. COMBINATION SLIP-SOCKET. STEVE BULLUM, Tulsa, Okla. Filed Nov. 6, 1916. Serial No. 129,770. (Cl. 57—9.)



1. A combination slip socket comprising a hollow body having guide slots formed therein, jaws arranged within said body, means for elevating said jaws, means for automatically lowering said jaws, and means adapted to lie directly upon said jaws being freely movable relative thereto and traveling in said guide slots for releasing said jaws when in elevated position.

2. A combination slip socket comprising a hollow body having guide slots formed therein, a sliding member arranged in said hollow body jaws arranged within said body and secured to said sliding member, means for locking said jaws in elevated position and releasing same, said means comprising a sliding body and being provided with a plurality of sets of extensions adapted to slide within said guide slots and receive said gripping jaws and be freely movable independently of the gripping jaws.

3. A combination slip socket comprising a socket member formed with an opening extending upwardly into the same from the lower end, elongated slots formed in the wall of said socket, a sliding block provided with projecting pins, said pins being adapted to travel within said slots, jaws carried by said pins, means for adjusting said jaws on said pins, a spring adapted to seat on said block and retain the same normally in its lower position, and a guide block for said jaws adapted to bind the same in adjusted position.

4. A device of the character described comprising a body having an aperture formed therein, guide-ways extending longitudinal of said body, a spring arranged in said aperture, a guide-block for one extremity of said spring, jaws secured to said guide-block, and a lock for said jaws comprising a body having a plurality of ears for engagement with said jaws and being adapted to coöperate with the inner walls of said first-mentioned body to release and lock said jaws.

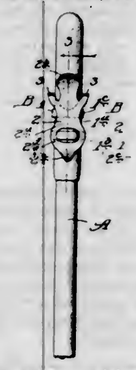
1,244,290. DITCH-FILLING MACHINE. HARLAND W. CARDWELL, Texarkana, Ark. Filed Oct. 30, 1916. Serial No. 128,503. (Cl. 37—89.)



1. A ditch filling machine comprising a portable frame having a pair of transverse sleepers secured to its upper side, vertical plates secured to opposed sides of said sleepers and extending below the same, bearing blocks secured between the lower ends of said plates and having vertical openings, vertical hanger bars slidable in said openings and through similar openings in the sleepers, said hanger bars having vertically spaced openings in their upper ends, pins inserted through said openings and resting on the sleepers to hold said hanger bars in vertically adjusted position, a pair of relatively fixed horizontal tracks extending beneath the frame and supported pivotally at one end, the other end of said tracks being disposed adjacent the lower end of said hanger bars, a pair of relatively movable tracks alined with the last named ends of the fixed tracks, means hingedly connecting the adjacent ends of the two pairs of tracks and at the same time pivotally connecting said tracks with the lower ends of said hanger bars, a carriage having rollers to travel from either pair of tracks onto the other, an earth scraper carried by said carriage, means for moving said carriage in either direction, and means for adjusting the outer end of the movable tracks vertically.

2. A ditch filling machine comprising a portable frame having a pair of transverse sleepers, vertical plates secured to opposite sides of said sleepers and extending below the same, bearing blocks secured between the lower ends of said plates and having vertical openings, vertical hanger bars slidable in said openings and through similar openings in the sleepers, means for holding said hanger bars in vertically adjusted position, a pair of relatively fixed horizontal tracks extending beneath the frame and supported pivotally at one end, the other end of said tracks being disposed adjacent the lower end of said hanger bars, a pair of relatively movable tracks alined with the last named ends of the fixed tracks, means hingedly connecting the adjacent ends of the two pairs of tracks with the lower ends of said hanger bars, a carriage mounted on said tracks and carrying an earth scraper, and means for adjusting the outer ends of the movable tracks vertically.

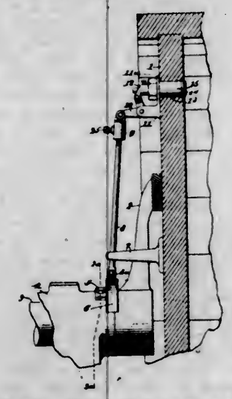
1,244,291. PEN OR PENCIL CLIP. GUSTAF A. CARLSON, Chicago, Ill., assignor to The Boye Needle Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 17, 1917. Serial No. 155,506. (Cl. 24—11.)



1. A pen or pencil clip, comprising in integral formation, a socket, a lever having an actuating finger-piece at its upper end and having, also, an outcurved lower extremity, and a resilient support formed integrally with an intermediate portion of said lever and with the upper portion of said socket, the lower portion of said socket and the corresponding portion of said lever having a coacting elevation and recess whereby they are adapted to bend and grip between them the fabric of a pocket.

[Claims 2 and 3 not printed in the Gazette.]

1,244,292. VENT-VALVE FOR CHURNS. FRANK CHADIMA, Cedar Rapids, Iowa. Filed July 10, 1916. Serial No. 108,504. (Cl. 137—145.)

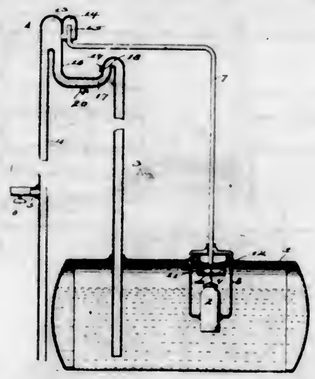


1. In combination with a churn and one of its bearings, a cam mounted thereon, a vent-valve near one side of the churn-barrel, with automatic means for closing the same, an opening lever therefor, and a push-rod connecting with said lever at its outer end, the other end being shiftable into and out of engagement with said cam, and during the revolution of the churn.

2. In combination with a churn and one of its bearings, a cam mounted thereon, a vent-valve near one side of the churn-barrel, an opening lever therefor, a push-rod cooperating with the lever to open the valve in passing over the cam, a guide in which the rod is shiftably mounted, and a yielding stop adapted to hold the rod in and out of operative positions.

1,244,293. STATIONARY FIRE-EXTINGUISHER SYSTEM. ROBERT L. COONEY, Atlanta, Ga. Filed Mar. 20, 1917. Serial No. 156,065. (Cl. 169—24.)

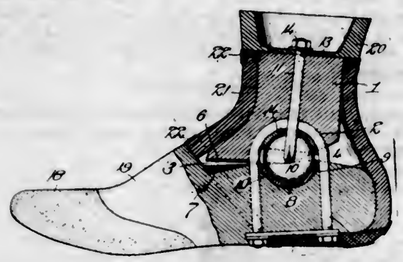
1. In a fire extinguisher system of that type which includes a tank, a riser extending from the tank, means cooperating with the tank for supplying fire extinguishing liquid and a pipe for transmitting a suction impulse to initiate the operation of said means, a vertical liquid-containing pipe to which the leaders are connected, a suction



chamber at the upper end of the vertical pipe and to which said impulse-transmitting pipe is connected, and a water seal maintaining connection between the upper end of said riser and said suction chamber.

[Claims 2 and 3 not printed in the Gazette.]

1,244,294. ARTIFICIAL LEG. JOHN F. CORDELL, Salt Lake City, Utah. Filed Jan. 8, 1917. Serial No. 141,214. (Cl. 3—6.)



1. An artificial limb comprising in combination, a foot block, a shin block, a ball seat in the foot block, a ball operative in said ball seat, fixed arms extending upwardly from opposite sides of the ball and passing through said shin block, a U-bolt passed over said ball and having its arms extended through the foot block, and a cap plate interposed between the ball and the U-bolts.

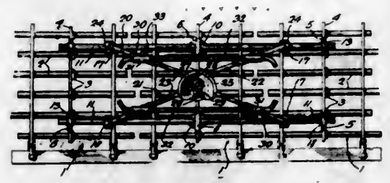
2. In an artificial limb, the combination with a foot block having a ball seat formed therein, a ball mounted to rock in the seat, a shin block having a recess which receives the ball, and having forward and rear inclined faces extending from a transverse axis to permit the rocking movement relative to the foot block, a cap plate carried by the foot block and interposed between the ball and the recessed portion of the shin block, and means securing the ball to the shin block.

1,244,295. SEAT ATTACHMENT FOR RIDING-HARROWS. SAMUEL W. CRANE, Lone Wolf, Okla. Filed Dec. 21, 1916. Serial No. 138,234. (Cl. 55—84.)

1. A device of the character described embodying supporting members, means for mounting them loosely upon the sections of a harrow, and resilient seat supporting means carried loosely by said members jointly.

6. A device of the character described embodying members attachable to a harrow, rods loosely connected with said members, and seat supporting means mounted on said rods.

10. A device of the character described embodying intermediate and end saddles adapted to fit astride certain parts of a harrow, the intermediate saddles having opposite loops, rollers carried by the end saddles, transverse rods having hooks at their adjacent ends pivotally engaging said loops, the free terminals of said rods being mounted slidably upon said rollers, and seat supporting means mounted on said rods.



11. A device of the character described embodying a pair of inverted V-shaped springs, and a seat mounted upon the upper crotch portions thereof.

18. A device of the character described embodying an inverted V-shaped spring, a seat carried by the upper crotch portion thereof, members slidable upon the limbs of said spring, and a rod adjustably engaged with said members.

[Claims 2 to 5, 7 to 9, 12 to 17, and 19 to 22 not printed in the Gazette.]

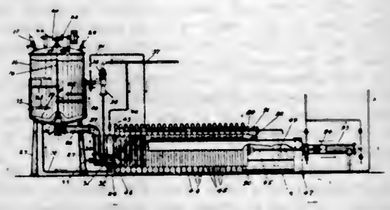
1,244,296. DENTAL CEMENT. WALTER S. CROWELL, Philadelphia, Pa., assignor to The S. S. White Dental Manufacturing Company, a Corporation of Pennsylvania. Filed Jan. 26, 1917. Serial No. 144,617. (Cl. 106—6.)

1. An article of manufacture comprising a filling cement having, in composition, cement powder and a phosphate of mercury.

4. An article of manufacture comprising the mixture of an oxyphosphate of zinc cement powder and an acid phosphate liquid containing dissolved in it a mercury salt.

[Claims 2 and 3 not printed in the Gazette.]

1,244,297. APPARATUS FOR COOLING SOAP AND THE LIKE. HENRY CURLAND, Chicago, Ill., assignor to himself and Charles H. Kellermann, Chicago, Ill., a Copartnership. Filed Aug. 9, 1916. Serial No. 113,950. (Cl. 18—40.)



1. A cooling apparatus of the character described comprising a plurality of cooling chambers, a plurality of units adapted to contain the material to be cooled, arranged adjacent to and in alternation with said chambers, said units being pivotally mounted, whereby a tilting action thereof is facilitated.

2. A cooling apparatus of the character described comprising a plurality of cooling chambers, arranged in alternation to a plurality of units adapted to contain the material to be cooled, each of said units being supported at one side above and at the other side below the center of gravity thereof, whereby a tilting action is facilitated.

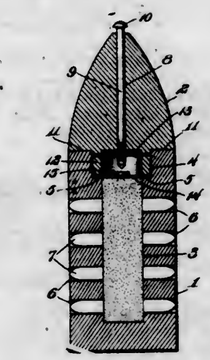
3. A cooling apparatus of the class described comprising a plurality of cooling chambers mounted on rollers at front and rear, and a plurality of pivoted container units arranged in parallelism and alternation with said chambers, said units being also supported by said rollers.

4. A cooling apparatus of the class described comprising a frame the front and rear top surfaces of which constitute tracks, a plurality of cooling chambers carried by said frame, said chambers being provided with rollers at front and rear and engaging said tracks, a plurality of container units arranged adjacent to and in parallelism and alternation with said chambers and lost motion connections between said rollers at front and rear, said units being detachably mounted upon said connections.

5. A cooling apparatus of the class described comprising a frame having a high rear surface and a relatively low front surface constituting tracks, a plurality of cooling chambers carried by said frame, said chambers being provided with rollers at front and rear and engaging said tracks, a plurality of container units arranged adjacent to and in parallelism and alternation with said chambers and lost motion connections between said rollers at front and rear, said units being detachably mounted upon said connections.

[Claims 6 to 8 not printed in the Gazette.]

1,244,298. BULLET. WILLIAM S. CUTTING, Tower, Mich., assignor of one-half to Thomas J. Farero, Tower, Mich. Filed May 28, 1917. Serial No. 170,338. (Cl. 102—29.)

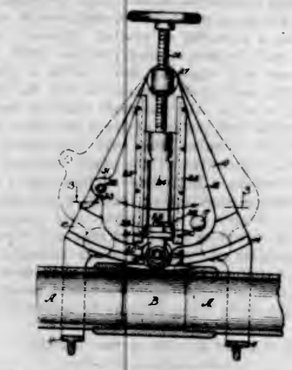


A projectile comprising a main body portion of cylindrical formation, a nose section having a detachable connection therewith, the main body being centrally and longitudinally bored to form a powder chamber and counterbored and formed with an internal annular shoulder, and said nose being formed with a central longitudinal bore, a disk-like plate supported by said shoulder, a firing cap supported centrally by said plate, a tubular boss on the meeting face of the nose section externally threaded and screwed into the counterbored part of the main section, encircling said cap, and clamping said disk-like plate against said shoulder, a plunger movable longitudinally in the bore of the nose section and projecting at its inner end into said tubular boss, said end of the plunger and diametrically opposed sides of the boss being formed with registering openings, and a retaining pin fitted centrally and terminally in said openings, and yieldingly holding said plunger out of contact with the firing cap.

1,244,299. COMBINATION PIPE-CUTTER AND COUPLING-SPLITTER. WILLIAM HENRY DEAN, Sioux City, Iowa. Filed Feb. 23, 1917. Serial No. 150,571. (Cl. 81—187.)

1. A tool of the class described including a frame having means adapted to engage a pipe or the like to permit a bodily turning movement of the frame about the axis of the pipe, a cutter-carrying element so mounted on the frame as either to partake of said bodily movement, or to be given swinging movement over the face of the frame, and a cutter on said carrier and adjustable thereon to either of two positions at right angles to each other to

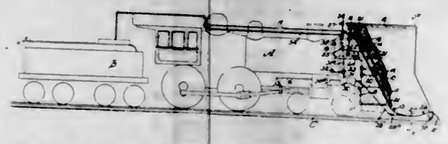
accord with either of the said movements of said carrying element.



2. A frame having a seat for a pipe, a cutter opposite the said seat and placed to accommodate a pipe between the seat and cutter, an element carrying said cutter and pivoted on the frame to have a swinging movement back and forth, and means on said element to feed said cutter to effect a concave cut in the pipe by the swinging of said element.

[Claims 3 and 4 not printed in the Gazette.]

1,244,300. SNOW-MELTER FOR RAILWAYS. WILLIAM HENRY DEAN, Sioux City, Iowa. Filed Apr. 3, 1917. Serial No. 159,463. (Cl. 104—103.)



1. A snow melting apparatus including a back structure adapted to be disposed in front of a locomotive or car, means to direct a melting fluid to the front of said structure at various points over the surface thereof, a catch basin on the said back at the bottom thereof to receive the water resulting from the melted snow, said basin having an outlet for the water, means to discharge the water from the basin, and a front hood on the said back structure.

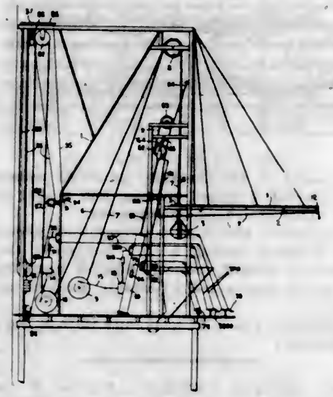
5. A snow melting apparatus adapted to be positioned on the front of a locomotive or the like and including a back structure, means to cause a melting of snow in front of said structure, a catch basin at the bottom of said structure to receive the water resulting from the melted snow, a pump connected with the said basin to draw water therefrom and valve controlled distributing pipes connected with the pump discharge, said pipes including an upwardly extending pipe, a pipe directed rearwardly from the first pipe adapted to deliver water to a tender and oppositively disposed lateral pipes above the second pipe to discharge the water to either side of the track when the tender is filled.

10. A snow melting apparatus adapted to be positioned in front of a locomotive or the like and having an inclined back, means to direct heat to the front of said inclined back and a hood on said back at the top and sides, the said hood at the sides being flared upwardly.

[Claims 2 to 4 and 6 to 9 not printed in the Gazette.]

1,244,301. HOISTING APPARATUS. HARRY B. DOHERTY, Everett, Mass., assignor of one-half to James M. McClellon, Everett, Mass. Filed Sept. 18, 1914. Serial No. 862,410. (Cl. 212—81.)

1. In a hoisting apparatus, the combination with a hoisting element, of a cable connected thereto and by which it is operated, a drum on which said cable is wound, an engine permanently connected to said drum, a throttle valve for admitting the steam to or shutting it off from the engine, a reversing device for controlling the direction of operation of the engine, a lever for operating the throttle valve, and means for operating the reversing device by movement of said lever whereby both the speed and direction of operation of the engine are controlled from a single lever.



2. In a hoisting apparatus, the combination with a hoisting element, of a cable connected thereto and by which it is operated, a drum on which said cable is wound, an engine permanently connected to the drum, a throttle valve for the engine, an actuator connected to the throttle and adapted when in either one of two positions to open the throttle, a reversing device for the engine, and connections between said reversing device and actuator by which in one position of the actuator said reversing device is operative to cause the engine to run in one direction and in the other position of said actuator said device is operative to cause the engine to run in the opposite direction.

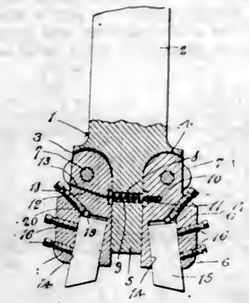
3. In a hoisting apparatus, the combination with a hoisting element, of two cables connected thereto and by which it is operated, a drum on which each cable is wound, a separate engine permanently connected to each drum, a throttle valve for each engine, an actuator for each throttle valve and which operates in either one of two positions to open said valve, a reversing device for each engine, and connections between each reversing device and the corresponding actuator whereby in one position of the actuator the reversing device is operative to cause the corresponding engine to rotate in one direction and in the other position of said actuator the reversing device is operative to cause the engine to rotate in the opposite direction.

4. In a hoisting apparatus, the combination with a hoisting element, of a cable connected thereto by which it is operated, a drum on which said cable is wound, an engine permanently connected to said drum, a throttle valve for said engine which is opened to admit steam thereto in either of two extreme positions and which is closed in an intermediate position, means to operate the throttle, and engine-reversing mechanism associated with and operated in unison with said throttle.

5. In a hoisting apparatus, the combination with a hoisting element, of a cable connected thereto by which it is operated, a drum on which said cable is wound, an engine permanently connected to said drum, a throttle valve for said engine which is opened to admit steam thereto in either of two extreme positions and which is closed in an intermediate position, a lever by which the position of the valve is at all times controlled, and an engine-reversing mechanism connected to said lever.

[Claims 6 to 15 not printed in the Gazette.]

1,244,302. DOUBLE-CUTTING-PLANER-TOOL HOLDER. CHARLES H. DUNSFORD, Cleveland, Ohio. Filed Feb. 10, 1917. Serial No. 147,796. (Cl. 90—53.)

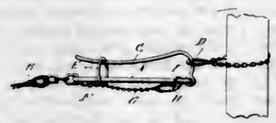


1. A tool holder of the class described including a body provided at opposite sides with recesses and having an intervening web, tool blocks pivotally mounted in the recesses and arranged to swing laterally and provided at their front ends with tool openings and having means for securing tools therein, and a coiled spring extending through the web of the body and connected with the tool blocks.

2. A tool holder of the class described including a body, a tool block pivotally mounted on the body and provided with a longitudinal opening extending inwardly from the front end of the tool block, a screw mounted in the rear portion of the tool block and arranged at an obtuse angle to the tool receiving opening and engaging the inner end face of a tool, and means for locking the tool in the block.

3. A tool holder of the class described including a body, a pivotally mounted tool block at each opposite side thereof having a longitudinally disposed tool receiving opening and provided with a threaded bore extending rearwardly from the tool receiving opening at an angle to the same, an angularly disposed screw mounted in the threaded bore for operating against the rear end of a tool, said screw being provided at its inner end with a ball-shaped head, and an anti-friction ball interposed between the ball-shaped head and the tool.

1,244,303. FINGER-LINK. HUGH F. ELLARD, Missoula, Mont. Filed Mar. 29, 1915. Serial No. 17,909. (Cl. 24—241.)



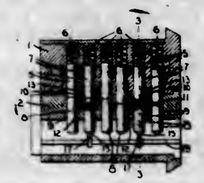
2. In a finger link, a finger adapted to be shifted into operative position to hold a load, a ring adapted to be slipped over the end of said finger to hold it in such operative position, and flexible locking means secured to said ring.

4. In a finger link, the combination with a main frame and a finger fulcrumed thereon, a link secured to said frame, a chain secured at one end to said frame, and a snap connecting the other end of said chain with said link, of a ring on said frame secured to said chain and adapted to engage said finger.

[Claims 1 and 3 not printed in the Gazette.]

1,244,304. CYLINDER-LOCK. ELI EPSTEIN, Leominster, Mass. Filed Mar. 27, 1917. Serial No. 157,786. (Cl. 70—47.)

1. In a cylinder lock, the combination of a casing, a plug rotatably mounted therein, a spring-pressed tumbler element movably carried by the casing and normally having interlocking engagement with the plug, and a spring-pressed tumbler element carried by the plug for movement in a direction parallel to the direction of movement of the first-named tumbler element, and adapted to have interlocking engagement with the casing.

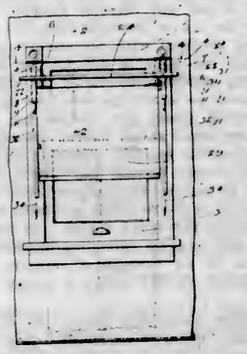


2. In a cylinder lock, the combination of a casing, a plug rotatably mounted therein, a spring-pressed tumbler element movably carried by the casing and normally having interlocking engagement with the plug, a spring-pressed tumbler element carried by the plug for movement in a direction parallel to the direction of movement of the first-named tumbler element and adapted to have interlocking engagement with the casing, and means associated with each tumbler element by which both tumbler elements are lined up by the insertion of a key in the key-way of the plug.

3. In a cylinder lock, the combination of a casing, a plug rotatably mounted therein, and provided with a key-way, a plurality of spring-pressed tumbler pins carried by the casing and adapted to have interlocking engagement with the plug drivers carried by the plug and by which said tumbler pins are lined up upon the insertion of a key in the key-way, and a tubular spring-pressed tumbler element carried by the plug and encircling one of the drivers and adapted to have interlocking engagement with the casing.

[Claims 4 to 6 not printed in the Gazette.]

1,244,305. COMBINATION SHADE AND DRAPERY FIXTURE. CHARLES LEE FITCHET, Cincinnati, Ohio. Filed Nov. 2, 1914, Serial No. 869,810. Renewed Mar. 27, 1917. Serial No. 157,858. (Cl. 156—22.)



1. The combination with a bracket having an opening extending therethrough, of a second bracket formed with a barrel and an aperture ear in spaced relation to one end of the barrel, a spring pressed longitudinally movable hinge pin extending through the barrel and ear, the first mentioned bracket projecting between the barrel and ear of the second mentioned bracket and the hinge pin passing through the opening thereof.

2. A combined shade and drapery support, comprising a pair of brackets adapted to be rigidly secured to a support, a pair of brackets hingedly and detachably secured to the first mentioned brackets, means for individually

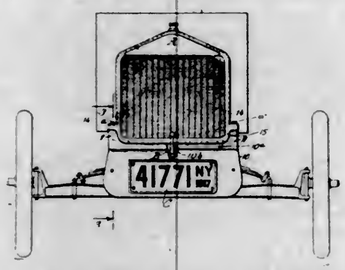
disconnecting the second mentioned brackets from the first mentioned brackets, and rods connecting the second mentioned brackets.

3. A combined shade and drapery holder, comprising a pair of brackets rigidly secured to a supporting member, a pair of brackets removably and hingedly connected to the first mentioned brackets, means formed on the second mentioned brackets to support a shade roller, and rods connecting the second mentioned brackets, said rods being adapted to support drapery.

4. A drapery fixture comprising a support, a horizontal drapery support, means to detachably and hingedly connect each end of the drapery support to the support, and means to detach either end of the drapery support whereby it may be swung from one side to the other.

[Claims 5 to 7 not printed in the Gazette.]

1,244,306. COMBINED SHIELD AND TAG-BRACKET. ROLAND PHILIP FLOWER, Marshalltown, Iowa. Filed Mar. 7, 1917. Serial No. 153,131. (Cl. 40—125.)



1. A combined shield and license tag bracket, including a sheet metal shield adapted to receive the license tag, and offset rearwardly at its upper portion, means on the said offset portion whereby to secure the shield to the radiator brackets of an automobile, and means on the shield at the back below the first means whereby to secure the shield to the front axle of the automobile.

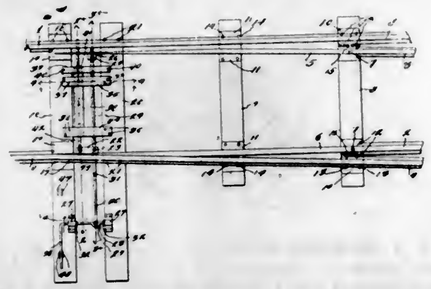
2. A combined shield and license tag bracket, including a sheet metal shield adapted to be positioned in front of the front spring of an automobile, means on the shield to secure a license tag thereto, hangers extending upwardly from the top of the said shield at the ends, said hangers being provided with rearwardly extending members to engage the radiator brackets of the automobile, and rearwardly extending means on the shield below said hangers whereby to secure the shield to the front spring.

3. A combined shield and license tag bracket, comprising a sheet metal shield having thereon at each end upwardly extending hangers spaced to accommodate a radiator, said hangers having rearwardly extending members adapted to seat on the radiator brackets and be secured thereto, so that the shield will hang below the radiator in front of the front spring and axle, additional members on said hangers extending upwardly beyond the first members to lie beneath a radiator shell at the front, and means on the shield to secure a license tag thereto.

4. A combined shield and license tag for automobiles, including a sheet metal shield adapted to receive a license tag and be positioned on an automobile below the radiator and in front of the front spring, means on the shield at the top at each end whereby to secure the shield to the radiator brackets of the automobile, and means on the shield at the back below the first means, whereby to secure the shield on an automobile.

1,244,307. RAILWAY-SWITCH. JOHN F. FOSTER, Garbers, Tenn. Filed Oct. 9, 1916. Serial No. 124,529. (Cl. 104—12.)

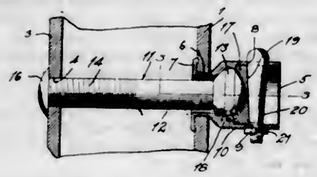
1. In a switch mechanism, the combination of a pair of main rails and siding rails, of a pair of switch points, spring means having connection with one of the switch points for holding the switch points normally closed, and means manually operated for opening the switch points against the action of said spring means, said spring means comprising a tubular cylinder, a pair of straps connecting two adjacent ties and supporting said cylinder below the upper surface of the ties, a third strap secured to said



ties and having a cylinder head integral therewith, for one end of the cylinder, a piston rod guided in said cylinder head and provided with a collar piston and having one end connected to the end portion of one switch point, and a coil spring on the said piston rod between the collar piston and the cylinder head.

[Claim 2 not printed in the Gazette.]

1,244,308. STAY-BOLT. JOHN FOTHERINGILL, Fort Scott, Kans. Filed Mar. 21, 1917. Serial No. 156,334. (Cl. 85—1.5.)



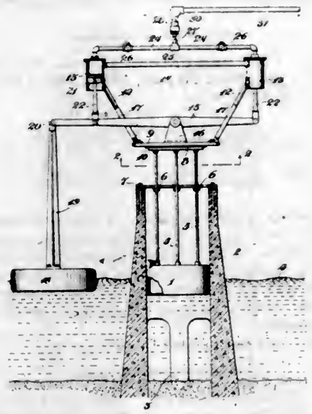
A stay bolt comprising the combination with inner and outer boiler sheets having alined apertures therein, of a socket extending through one of the apertures and being secured to the sheet, a bolt extended through the socket and secured in the opposite boiler sheet, the head of the bolt being seated in the socket, an annular shoulder within the socket, and a cap for engagement against the annular shoulder to form a steamtight joint, said cap being spaced a short distance from the bolt head to allow for play of the bolt head within the socket, the socket being provided with a pair of alined apertures and a wedge fitted in said apertures and bearing against the cap to force the cap against the shoulder, and means securing the wedge in place.

1,244,309. WAVE-MOTOR. WILLIAM CLAY FOX, Penns Grove, N. J. Filed Sept. 14, 1916. Serial No. 120,016. (Cl. 230—32.)

1. A wave motor, comprising a vertically positioned stationary casing located in the water, extending above the surface and communicating with the water at a point below the surface of the water, a plate on the upper end of the casing having a plurality of openings therein, a supporting float located in the casing, a plurality of vertical rods secured to the float and projecting through the openings in the plate, a platform supported by the upper ends of the rods, a lever fulcrumed between its end on the platform, pumps operated by the lever, and a float supported on the water and connected to one end of the lever.

3. A wave motor, comprising a casing, a float in the casing, a platform supported by the float, a turn table on

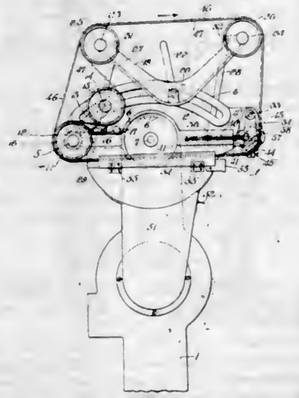
the platform, pump cylinders, slotted standards connecting the pump cylinders with the turn table, a bar connecting the cylinders, a lever fulcrumed on the platform and projecting through the slotted standards, pistons in the



cylinders, rods connecting the pistons with the lever, and a float supported on the water and connected to one end of the lever.

[Claim 2 not printed in the Gazette.]

1,244,310. HEEL-BREAST-SCOURING MACHINE. LOUIS G. FREEMAN, Cincinnati, Ohio, assignor to himself and Charles F. Freeman, trustees, Cincinnati, Ohio. Filed May 7, 1914. Serial No. 836,850. (Cl. 51—17.)



1. A machine of the class described, comprising a support, a head secured to said support, having a guide pulley mounted on said head and a fixture adjustably and yieldingly mounted thereon opposite to said guide pulley, a slideway in the form of an arm carried by said head, an arm carrying guide pulley coöperating with said fixed pulley and said fixture, and means to adjust said arm and pulleys throughout the extent of the arc of said guideway, whereby an abrading belt extending around all of said pulleys and over said fixture will be maintained under substantially equal tension throughout the extent of said adjustment.

2. A machine of the class described, comprising a support, a head pivotally secured to said support, having a guide pulley mounted on said head and a fixture adjustably and yieldingly mounted thereon opposite to said guide pulley, a slideway in the form of an arc substantially intersecting the said fixture and fixed pulley carried by said head, an arm carrying guide pulleys coöperating with said fixed pulley and said fixture, and means to adjust said arm and pulleys throughout the extent of the arc of said guideway, and an abrading belt engaging the pulleys and fixture, whereby adjustment of said arm and movable pulleys maintains the abrading belt under substantially equal tension throughout said adjustment.

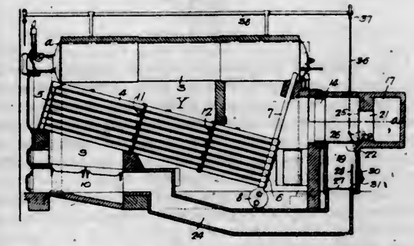
3. A machine of the class described, comprising a support, a head pivotally and adjustably secured to said support, said head carrying a fixed guide pulley, a movable fixture mounted on a pivoted support, yielding means to normally press said fixture outwardly, a belt tightener movably mounted and yielding means of different tension on said belt tightener than on said fixture, a guideway on the head in the form of an arc, which arc substantially intersects the outer surface of the working fixture in normal position, an adjustable arm carrying guide pulleys and means to adjust said arm in said arc, an abrading belt led over all said pulleys and said fixture, the adjustment of the pulleys on said arm in the curved guideway leading the abrasive belt toward and from the fixture in an angular position with sufficient spread for the belt to clear the forepart of a shoe, while its heel is being applied to the belt in alinement with said fixture, whereby the adjustment of the arm and pulleys enables belts of equal length to be used under substantially the same tension with fixtures of varying contours.

4. A machine of the class described, having a working fixture formed with an anti-friction belt supporting portion and a stationary belt supporting portion, an endless belt adapted to be led over said fixture, guides to control the path of movement of said belt relatively with said fixture, means to adjust one of said guides to take up looseness along one edge of the belt to compensate for uneven stretching, and to control the path of travel of said belt over both the supporting portions of the fixture.

5. A machine of the class described, having a working fixture, a guide wheel adjacent said fixture over which an endless belt is adapted to be led, means to adjust the belt engaging surface of said guide to compensate for uneven stretching and control the path of movement of the belt consisting of an eccentric rotatable spindle supporting the guide.

[Claims 6 to 13 not printed in the Gazette.]

1,244,311. STEAM-BOILER FURNACE. CHARLES FREIHOFER, Philadelphia, Pa. Filed Mar. 3, 1915. Serial No. 11,766. (Cl. 110—27.)

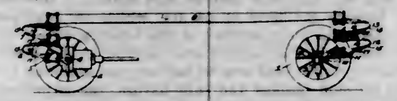


1. The combination of two water tube boilers each having a discharge flue at the back and a receiving flue extending forwardly from its back to its ash pit; a stack flue connected to said discharge flues; a chamber having openings to the under sides of the discharge flues and also to the receiving flues; with dampers placed in the discharge flues respectively in positions for each of them to close either one of the openings to the stack flue or one of those to the chamber; and other dampers for respectively cutting off the receiving flues from the chamber at will; with means for operating said dampers.

2. The combination of two boilers each having a discharge flue and a receiving flue of which the latter is arranged to deliver gases to the furnace of its boiler; a stack flue connected to said discharge flues; a chamber

mounted under the discharge flues and over the rear ends of the receiving flues having openings to said discharge flues and also to the receiving flues; with oscillatory dampers placed in the discharge flues respectively in positions to close either an opening to the stack flue or one to the chamber; other dampers for cutting off the flow from the chamber to the receiving flues at will; with means for operating the dampers.

1,244,312. VEHICLE SUSPENSION. CHARLES F. FREIHOFER, Philadelphia, Pa. Filed Apr. 12, 1916. Serial No. 90,632. (Cl. 267—27.)



2. The combination of a vehicle frame; and means for supporting said frame including brackets rotatably mounted on the axle and each including a horizontally projecting plate; with semi-elliptic springs respectively connected to said projecting plates and carrying the frame.

4. The combination of a vehicle frame; and means for supporting the same including a pair of wheels; an axle for said wheels; brackets rotatably mounted on the axle and projecting therefrom in substantially horizontal lines; with springs rigidly connected to the brackets respectively and also rigidly connected to the frame.

[Claims 1, 3, 5, and 6 not printed in the Gazette.]

1,244,313. BURGLAR-ALARM. ROY FRESH, Townsend, Kans. Filed June 15, 1917. Serial No. 174,956. (Cl. 116—42.)

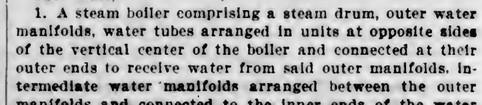


1. A device of the class described comprising a base plate, a tube connected with one edge thereof and adapted to receive a cartridge, said tube being movable on the base plate to adapt the device for rim-fire and center-fire cartridges, a second tube connected with said edge and located above the first tube and spaced therefrom, and a spring plunger in said second tube.

2. In a device of the class described, a flat metal base, a pair of tubes spaced apart on one edge of the base and constituting integrally formed portions of the base, one of the tubes constituting a cartridge holder and the other tube constituting a plunger barrel, said cartridge holder adapted to be bent into and out of alinement with the plunger barrel to adapt the device for rim-fire and center-fire cartridges as desired.

3. In a device of the class described, a flat metal base, a pair of tubes spaced apart on one edge of the base and constituting integrally formed portions of the base, one of the tubes constituting a cartridge holder and adapted to be bent into and out of alinement with the other tube, said other tube constituting a plunger barrel and formed toward the end remote from the cartridge holder with a longitudinal slot, a plunger loosely fitted in the plunger barrel, a coiled tension spring in the plunger barrel surrounding the plunger, said spring having one end attached to the plunger barrel and the other end attached to the plunger, a laterally projecting offset portion on said plunger adapted to bear against the end of said plunger barrel adjacent said slot, said plunger barrel having a projecting portion adjacent one side of said slot whereby rotative movement of the plunger may be prevented when desired.

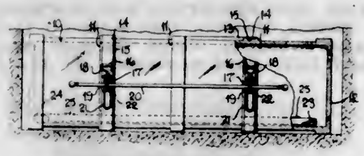
1,244,314. CLOTHES-DRIER. HEBER B. FRUTCHEY, Scranton, Pa. Filed May 12, 1917. Serial No. 168,205. (Cl. 68—34.)



5. A clothes drier comprising a frame structure having at each end a group of swinging bars, a clamp rod extending parallel to and below the upper member of the frame, and means for adjustably connecting the bar to said frame and for drawing the rod and member together to mutually clamp interposed means upon which the drier may be supported.

[Claims 1 to 4 not printed in the Gazette.]

1,244,315. BURIAL-CASKET. JOHN L. FRYSINGER, deceased, Oklahoma, Okla., by Perry P. Frysinger and Ulva O. Frysinger, administrators, Ingersoll and Beaver, Okla., assignors, by direct and mesne assignments, to The Hermetic Glass Casket Company, Oklahoma county, Okla. Filed Mar. 31, 1917. Serial No. 158,887. (Cl. 27—8.)



In a casket of the character described, metallic bands surrounding the casket, a plurality of arms pivoted to said metallic bands at the sides of the casket for movement in a vertical plane and having loops at their ends, a bail pivoted to each arm and depending therefrom, and a T-shaped lug for each bail with which the bail has sliding engagement, said lug limiting the upward movement of the bail, and carrying rods inserted through the loops in the ends of the arms.

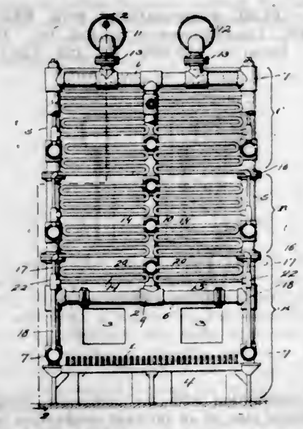
1,244,316. STEAM-BOILER. HORACE FURMAN, Petersburg, Va. Filed May 8, 1917. Serial No. 167,286. (Cl. 122—359.)

1. A steam boiler comprising a steam drum, outer water manifolds, water tubes arranged in units at opposite sides of the vertical center of the boiler and connected at their outer ends to receive water from said outer manifolds, intermediate water manifolds arranged between the outer manifolds and connected to the inner ends of the water tubes to receive water therefrom and to support the inner ends of the water tubes, and risers for the outer and intermediate manifolds connected to one another and to the steam drum.

4. A steam boiler comprising a plurality of superposed sections, each section comprising an outer horizontal water manifold, water tube units connected to receive water from such units, an inner water manifold connected to receive water from such water tube units, and sectional vertical manifolds having their upper ends connected to one another and connecting respectively the outer and inner manifolds.

6. A steam boiler comprising vertical water manifolds divided into sections, means detachably connecting such sections, outer horizontal water manifolds connecting the respective sections of the vertical manifolds, sets of water

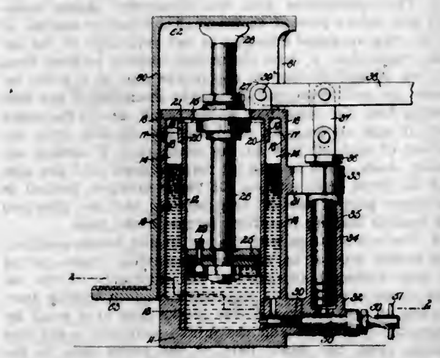
tube units connected to the respective horizontal manifolds to receive water therefrom, inner horizontal water manifolds arranged between the outer horizontal manifolds and connected to the water tube units to receive water therefrom, vertical water manifolds divided into sections, the



sections being connected to the respective inner horizontal manifolds, and means connecting the upper ends of the vertical manifolds for the outer and inner horizontal manifolds.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,244,317. HYDRAULIC JACK. RICHARD W. GAFFNEY, Yonkers, N. Y. Filed Sept. 13, 1916. Serial No. 119,824. (Cl. 138—9.)



1. In a hydraulic jack, a casing provided at the side with spaced lugs, a cylinder within the said casing and provided with a piston, the cylinder and casing being spaced apart to form a reservoir between them, and a pump having a barrel attached to the said lugs and spaced from the side of the casing to form a handle.

2. In a hydraulic jack, a casing provided at the side with spaced lugs, a cylinder within the said casing and provided with a piston, the cylinder and casing being spaced apart to form a reservoir between them, and a pump having a barrel attached to the said lugs and spaced from the side of the casing to form a handle, the said barrel being in communication with the said casing cylinder by way of one of the said lugs.

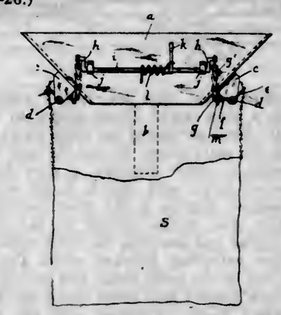
3. In a hydraulic jack, a casing provided at the side with spaced lugs, a cylinder within the said casing and provided with a piston, the cylinder and casing being spaced apart to form a reservoir between them, a pump having a barrel attached to the said lugs and spaced from the side of the casing to form a handle, and a valved connection between the lower end of the said pump barrel and the lower end of the said cylinder and reservoir.

4. In a hydraulic jack, a casing having a base and being open at the top, the said base having a reduced recess, a cylinder having its lower end attached to the wall of the said recess, and a cap screwing on the upper end of the said cylinder and fitting onto the upper end of the said cylinder and fitting onto the upper end of the said casing.

5. In a hydraulic jack, a casing having a base provided with a recess, the upper end of the casing being beveled, a cylinder screwing into the recessed portion of the base and being spaced at the side from the side of the casing to form with the latter an annular reservoir, a cap having the lower edge of its rim beveled and fitting onto the beveled upper end of the said casing, the cap being provided with a threaded flange screwing on the upper end of the said cylinder, and a piston mounted to reciprocate in the said cylinder and having its piston rod extending through the said cap.

[Claims 6 to 8 not printed in the Gazette.]

1,244,318. SACK-HOLDER. FRANK H. GILBERT, Ridgefield, Wash. Filed Nov. 2, 1916. Serial No. 129,210. (Cl. 83—26.)



1. In combination with a support, sack-holding means comprising a rock shaft provided with laterally projecting prongs, such shaft provided with an arm; a crank shaft provided with an arm and an operating lever, a flexible connection between the arm of said pronged shaft and the arm of said crank shaft, a guide for said flexible connection, and said flexible connection including a link bearing in said guide when the sack-holding means are in their holding position, whereby the tendency of the pronged shaft to be rotated by the weight of the sack will cause said link of the flexible connection to bind with said guide.

2. In combination with a support, sack-holding means comprising parallel rock shafts provided with laterally projecting prongs, each of such shafts provided with an arm, a crank shaft, provided with arms and an operating lever, a flexible connection between the arms of said pronged shafts and said crank shaft, a guide for said flexible connection, and said flexible connection including a link bearing in said guide when the sack-holding means are in their holding position, whereby the tendency of the pronged shaft to be rotated by the weight of the sack will cause said link of the flexible connection to bind with said guide.

3. In combination with a support, sack-holding means comprising parallel rock shafts provided with laterally projecting prongs, each of such shafts provided with an arm, a crank shaft, provided with arms and an operating lever, a flexible connection between the arms of said pronged shafts and said crank shaft, a guide for said flexible connection, such guide provided with a D-shaped eye the straight side of which is upwardly inclined, and said flexible connection including a link bearing in said eye of the guide when the sack-holding means are in their holding position, whereby the tendency of the pronged shaft to be rotated by the weight of the sack will cause said link of the flexible connection to bind with said eye of said guide.

4. In combination with a support, sack-holding means comprising parallel rock shafts provided with laterally projecting prongs, each of such shafts provided with an

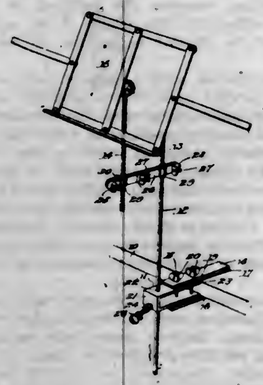
arm, a crank shaft, provided with arms and an operating lever, a flexible connection between the arms of said pronged shafts and said crank shaft, a guide for said flexible connection, said flexible connection including a link bearing in said guide when the sack-holding means are in their holding position, whereby the tendency of the pronged shaft to be rotated by the weight of the sack will cause said link of the flexible connection to bind with said guide, and the arm of said crank shaft being set off center and at an angle with respect to the operating lever of the latter so as to bear against the support in advance of said operating lever.

1,244,319. DITCHING AND GRADING MACHINE. THEODORE GILBERTSON, Pelican Rapids, Minn. Filed Dec. 30, 1916. Serial No. 139,960. (Cl. 37—25.)



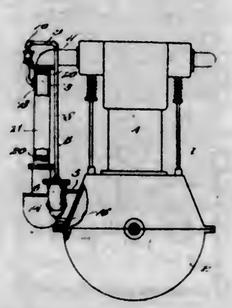
In a machine of the class described, a wheel supported main frame, a plow-carrier frame guided to move transversely in the front portion of the main frame, and means mounted on the main frame for moving said plow-carrier frame sidewise in either direction, a plow frame adjustably suspended below said carrier frame and having a vertical standard slidable in the front part of the plow-carrier frame, and means carried by the plow carrier frame for raising and lowering the plow frame, said plow carrier frame extending forward above and below the front cross bar of the main frame and having there anti-friction rollers against said front frame bar and grooved rollers rotating about horizontal axes and guiding the front and rear sides of the standard, and a slanting brace extending from the upper end of the standard to the near portion of the plow frame.

1,244,320. MUSIC-STAND. THOMAS GONNELLA, Philadelphia, Pa. Filed Mar. 10, 1916. Serial No. 83,380. (Cl. 45—82.)



A stand comprising a supporting clamp, consisting of a pair of spaced parallel plates, a U-shaped element having its parallel limbs interposed between said plates, means for detachably securing said parts together, a standard slidably supported by said U-shaped element, a set screw carried by said element and adapted to engage said standard to hold the latter fixed in a given position, a clamp supported by said standard for sliding adjustment, also capable of rotation, the latter mentioned clamp being disposed above and in parallelism with said supporting clamp, an auxiliary standard slidably associated with the second mentioned clamp, means for holding said auxiliary standard fixed in a given position, and a rack mounted upon the extremity of said auxiliary standard and capable of vertical swinging movement.

1,244,321. FUEL-ECONOMIZER FOR EXPLOSIVE-ENGINES. JAMES GOODWIN, Camden, Del. Filed Nov. 4, 1916. Serial No. 129,568. (Cl. 123—119.)



1. The combination with the carbureter, intake manifold and intake pipe of an internal combustion engine, of an oil trap arranged adjacent to but exteriorly of the engine crank case, a valve controlled conduit leading from the top of said oil trap to the intake pipe at a point between the carbureter and the intake manifold, a gas pipe leading from the upper part of the crank case to the upper part of said oil trap, an oil drain pipe leading from the bottom of said oil trap to the crank case, and a suction operated check valve in said oil trap between said gas pipe and oil drain pipe.

2. The combination with the carbureter, intake manifold and intake pipe of an internal combustion engine, of an oil trap arranged adjacent to but exteriorly of the engine crank case, a valve controlled conduit leading from the top of said oil trap to the intake pipe at a point between the carbureter and the intake manifold, a gas pipe leading from the upper part of the crank case to the upper part of said oil trap, an oil drain pipe leading from the bottom of said oil trap to the crank case, a suction operated check valve in said oil trap between said gas pipe and oil drain pipe, and an oil vapor strainer located in the upper part of said oil trap between said gas pipe and the conduit leading therefrom to the intake pipe.

3. The combination with the carbureter, intake manifold and intake pipe of an internal combustion engine, of an oil trap arranged adjacent to but exteriorly of the engine crank case, a valve controlled conduit leading from the top of said oil trap to the intake pipe at a point between the carbureter and the intake manifold, a gas pipe leading from the upper part of the crank case to the upper part of said oil trap, an oil drain pipe leading from the bottom of said oil-trap to the crank case, a suction operated check valve in said oil trap between said gas pipe and oil drain pipe, and rotary bladed agitators positioned in said intake pipe above and below the point of communication between said conduit and intake pipe.

1,244,322. COPY-HOLDER ATTACHMENT FOR TYPE-WRITERS. WILLIAM ERNEST GRAY, Chicago, Ill., assignor to Gray Automatic Copy Indicator Co., Boise, Idaho, a Corporation of Idaho. Original application filed Apr. 11, 1914, Serial No. 831,327. Divided and this application filed July 27, 1915. Serial No. 42,141. (Cl. 120—28.)

1. In a copy holder attachment, the combination of a copy holder plate having rearwardly upset ears spaced vertically from one another, the upper ear being provided with a central opening and the lower ear having a central recess and apertures upon opposite sides of said recess, a curved bracket having lateral extensions lapping the said plate ears, the upper extension being provided

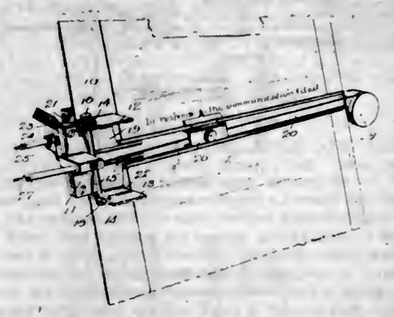
with a central opening and the lower extension having a central recess and side lugs detachably engaged within the side apertures of the lower plate ear, an upright stem extending loosely through the recesses and openings of the said bracket extensions and plate ears when alined, and a clamping screw threaded through the body of the bracket and engageable with the said upright stem to secure the copy plate in adjusted position on the rod, all for the purpose described.



4. In a copy holder, the combination of a copy holder plate having rearwardly upset integral ears extending horizontally and spaced vertically, a bracket coöperating with the said ears, a supporting rod extending through portions of the bracket and ears, said ears and said bracket having relatively engaging means to detachably support the bracket independent of the said rod, and a clamping screw threaded through the bracket and engaging the supporting rod, all for the purpose described.

[Claims 2 and 3 not printed in the Gazette.]

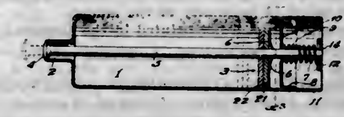
1,244,323. COPY-HOLDING DEVICE. WILLIAM ERNEST GRAY, Boise, Idaho. Original application filed Sept. 13, 1913, Serial No. 789,650. Divided and this application filed Aug. 15, 1916. Serial No. 114,972. (Cl. 120—33.)



In a copy holder attachment of the character described, a copy holder plate and an indicator mechanism including an indicator bar extending across the face of said copy holder plate and having angularly bent leaves at one end thereof outstanding forwardly from said plate and provided with apertures, a face plate at the same side of the copy holder plate, provided with spaced extending leaves projecting in the same direction and overlapping the said leaves of the indicator bar and provided with slots therein, and a clamping pivot bolt extending through the slots of the said face plate leaves and through the said apertures of the indicator bar leaves whereby to secure the said indicator bar in adjustably spaced relation in respect to the copy holder plate.

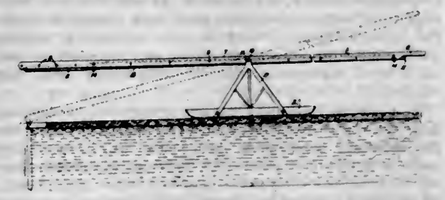
1,244,324. CONTAINER. GEORGE T. HACKLEY, deceased, Los Angeles, Cal., by Sarah C. Hackley, administratrix, Los Angeles, Cal., assignor of one-half to Marcus E. Covington, Memphis, Tenn. Filed Nov. 30, 1914. Serial No. 874,918. (Cl. 221—78.)

1. A container comprising a straight shell: a flat top head at one end of the shell; a straight nozzle extending from the head; all pressed integral; a plunger extending through the shell and through the nozzle; a valve upon one end of the plunger outside of the nozzle and fitting against the end of the nozzle, the points of contact being sharp and at the rim of the valve; a follower in the shell on the plunger; a clutch connection between the plunger and follower to advance the follower toward the nozzle; and a pressed cupped base inserted into the other end of the shell and forming a flat bottom and a cylindrical housing extending downwardly from the flat bottom; a spring upon the plunger below the bottom; and a push button upon the plunger against the spring.



2. A step-by-step paste and powder dispenser comprising a body having heads, a straight-walled container between the heads; one of said heads being integral with the container and having an orifice through which the contents of the container may be discharged; the other head being provided with a guide-way axially alined with said orifice; a movable piston head in the container; said piston head fitting the straight walls of the container friction tight, the end of the piston head toward the integral head substantially conforming to the interior shape of said integral head; a valve rod extending through said orifice, said piston head and said guideway, said valve rod being smooth and of a uniform thickness thoughout its length; a valve on one end of the valve rod and outside of said orifice to close the same, there being an outlet formed by said orifice about the valve rod when the rod is extended to open the valve; clutch means connected with the piston head and adapted to grip the valve rod for the purpose of moving the piston head toward said orifice when the valve rod is moved in that direction and to release the rod to allow it to return without returning the piston head; and resilient means outside of said guideway to return the valve rod to cause the valve to close the orifice, the piston head being adapted to eject virtually all of the contents of the container, and the dispenser being virtually non-fillable through said orifice when the piston head has been moved close to said integral head.

1,244,325. LIFE-SAVING DEVICE. GEORGE J. HANLON, New York, N. Y., assignor of one-half to William F. Kurz, Woodhaven, N. Y. Filed May 22, 1917. Serial No. 170,176. (Cl. 9—14.)



2. A life-saving device comprising,—a running plank, a standard for detcahably supporting the running plank, a runner associated with said standard, a grab hook, and means for detachably securing the grab hook to the plank.

3. A life-saving device comprising,—a running plank, a standard for supporting the plank so that the same may be seesawed on the standard, means associated with the standard for facilitating the transportation of the plank, a drop ladder at one end of the plank, and sliding means operable from the other end of the plank for retaining the drop ladder at the plank and whereby said drop ladder may be released to hang from said plank substantially as and for the purpose set forth.

6. A life-saving device comprising,—a runner, a standard thereon, a running plank seesawed on the standard

and removable therefrom, a ladder pivotally connected to the plank to swing therefrom, a rod, and means at the ends of the rod connecting it to the plank so that the same is free to swing, said rod adapted to engage the ladder with one end when the same is at the plank, the other end of the rod being in proximity to the end of the plank remote from the ladder, the means connecting the end of the rod to the plank near the end remote from the ladder being detachable from the plank so as to allow the removal of the rod from the attached means to one side of the plank after the other end of the rod has been moved out from engagement with the means connecting it to the plank in proximity of the ladder.

[Claims 1, 4, and 5 not printed in the Gazette.]

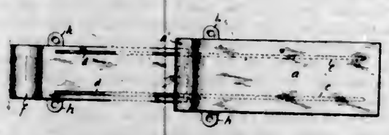
1,244,326. CEMENT COMPOSITION AND PROCESS OF MAKING THE SAME. THOMAS HARDMAN, Santa Monica, and FRANK L. NORTHUP, Oceanpark, Cal. Filed Nov. 8, 1915. Serial No. 60,429. (Cl. 106—24.)

1. The composition of matter comprising sand, fifty-seven parts; whiting, twenty-eight parts; boiled linseed oil, fifteen parts; and fibrous material one-half part.

3. The method of forming a plastic composition, comprising heated sand to drive off moisture and alkalis, heating whiting and adding it to the hot sand, mixing boiled linseed to the hot sand and whiting and adding fibrous material and a diluent to the mixture.

[Claim 2 not printed in the Gazette.]

1,244,327. WEDGE FOR FELLING TREES. WILLIAM HENRY HARGRAVE, Portland, Oreg. Filed Jan. 24, 1914, Serial No. 814,253. Renewed Mar. 22, 1917. Serial No. 156,782. (Cl. 254—104.)



1. A wedge consisting of two companion wedge-shape members and a wedge-shape spreader member, the faces of the members bearing on each other being respectively made with means for guiding the spreader-member between the companion members while the former is being driven in, the heel of each of the companion members, and the head of said spreader-member being made with massive enlargements for the purpose specified.

2. A wedge consisting of two companion members and a spreader member, the faces of the members bearing on each other being respectively made with means for guiding the spreader-member between the companion members while the former is being driven in, and the members being made with registering ears for temporarily tying them together.

3. A wedge consisting of two companion wedge-shape members and a wedge-shape spreader member, the faces of the members bearing on each other being respectively made with ribs and grooves for guiding the spreader-member between the companion members while the former is being driven in, the heel of each of the companion members and the head of said spreader member being made with massive enlargements for the purpose specified, and the members being made with registering ears for temporarily tying them together.

1,244,328. LINTEL. FREDERICK HEATH, Tacoma, Wash. Filed June 9, 1916. Serial No. 102,634. (Cl. 72—68.)

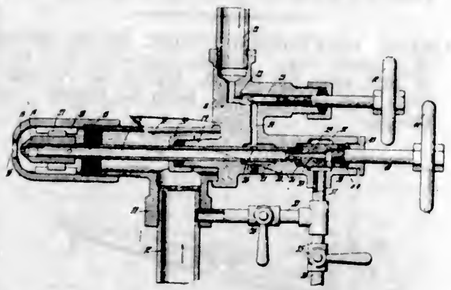
1. In a lintel construction, a plurality of sections of hollow blocks laid end to end, alternate sections being identical in arrangement, and certain blocks of one section overlapping a plurality of blocks of adjacent sections, reinforcing rods running through said blocks and through the overlapping blocks at either end, and plastic material filling said hollow blocks and embedding said rods.

2. In a lintel construction, a plurality of sections of hollow blocks laid end to end, alternate sections being identical in arrangement, certain blocks of one section each overlapping a plurality of blocks of adjacent sections, reinforcing rods passing through all of the overlapping sections longitudinally of the lintel, and plastic material filling said hollow blocks and embedding said rods.



3. In a lintel construction, a plurality of sections laid end to end, each section being composed of a plurality of hollow blocks, said blocks having one or more voids, the one-void blocks of any section registering at each end thereof with blocks in adjacent sections having a plurality of voids, reinforcing rods extending through said registering voids longitudinally of the lintel and concrete filling the voids containing the reinforcing rods and embedding the latter, and binding material between the joints at the ends of the adjacent blocks.

1,244,329. OIL-BURNER. JULIUS C. HINZ, Detroit, Mich. Substitute for renewal application Serial No. 78,777, filed Feb. 16, 1916. This application filed July 25, 1917. Serial No. 182,708. (Cl. 158—74.)

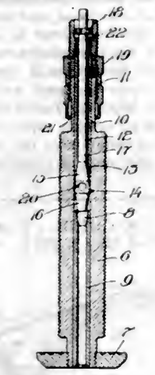


6. An oil burner comprising a casing having near the outer end thereof a supply chamber, a spray head extending longitudinally to both ends of said chamber and journaled in said casing, means for holding said spray head against longitudinal movement in the casing, a fuel tube secured to one end of said spray head and rotatable in the casing, a fuel conduit communicating with the interior of said fuel tube at a point between said spray head and the inner end of said casing, an air conduit connected with the interior of said casing at a point in rear of said fuel conduit, a jet nozzle in screw-threaded engagement with the inner end of said casing, means for co-rotatively connecting said tube and jet nozzle, and means for rotating said spray head and said fuel tube for positioning the jet nozzle on the casing.

[Claims 1 to 5 not printed in the Gazette.]

1,244,330. TIRE-VALVE. EDWARD E. HOLT, Chicago, Ill. Filed Nov. 27, 1916. Serial No. 133,734. (Cl. 152—12.)

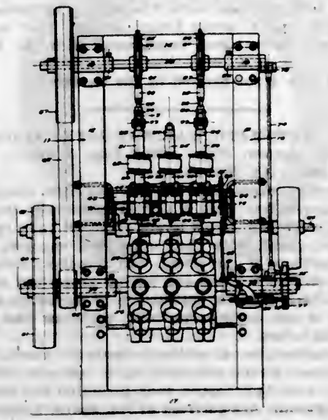
1. In a tire valve, the combination with a valve stem having a central outwardly facing conical recess, of a sleeve threaded onto the upper end of said valve stem, a smaller sleeve downwardly depending from the upper portion of the first mentioned sleeve, said smaller sleeve working within the bore of the valve stem and having on its lower end a downwardly facing conical valve seat, the lower edge of the first mentioned sleeve being inturned and adapted to engage with the fixed portion of the valve stem for the purpose of limiting the upward movement of said sleeve, a double conical valve between the valve seats aforesaid, a stem working freely within the second mentioned sleeve and having its lower end connected to said valve, and a stop on the upper end of said stem adapted to engage the upper end of the second mentioned sleeve after a predetermined amount of lost motion.



3. In a pneumatic valve, the combination with a valve stem having a central longitudinal bore, of an upwardly facing valve seat in the bore, a sleeve longitudinally movable with respect to the valve stem, said sleeve being adapted to engage with a portion of the valve stem to limit the upward movement of the sleeve, a hollow sleeve working within the bore of the valve stem and having its upper end connected to the first mentioned sleeve and its lower end suitably formed to present a contacting surface, a downwardly facing conical valve between the valve seat and the contacting surface, a stem working within the aforementioned sleeve and having its lower end connected to the valve, and means on the upper end of said stem for causing the stem to travel with the sleeve when the sleeve is raised more than a predetermined amount.

[Claim 2 not printed in the Gazette.]

1,244,331. CITRUS-FRUIT PEEL, PULP, AND JUICE MACHINE. JOHN D. HOWE, Upland, Cal. Filed May 28, 1917. Serial No. 170,395. (Cl. 146—11.)



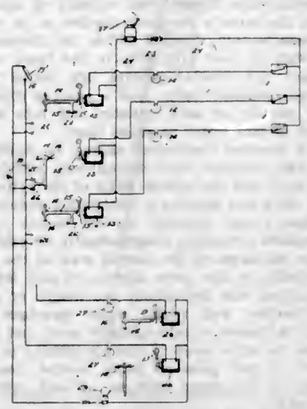
1. A citrus fruit pulp and peel separating machine, comprising means adapted to press against the cut edge of the peel for holding the half of a citrus fruit, and cutting means whereby the pulp will be separated from the peel.

2. A citrus fruit pulp and peel separating machine, comprising cup within which the halves of citrus fruit may be placed, automatically acting means adapted to pass into the mouths of said cups and press against the cut edges of the peels for securing said fruit portions within the cups, and cutter members adapted to separate the pulp from the peels while thus secured.

7. A citrus fruit pulp and peel separating machine, comprising a rotating drum, rows of fruit cups arranged longitudinally upon the outer periphery of said drum and at intervals therearound, means for intermittently rotating the drum a distance equal to the circumferential space between the rows of cups, means for locking the drum against rotation during its interval of rest, clamping members adapted to be reciprocated and brought into register with the mouth of the cups in a manner to secure the halves of citrus fruit against rotation therein, cutter members having a semi-circular cutting edge adapted to coincide with the inner contour of the fruit peel, means whereby said cutters may be intermittently moved into said cups to separate the pulp from the peel of fruit, means for continuously rotating said cutters during its movement into the cups, and means whereby the peel of the fruit may be automatically ejected from the cups after the pulp has been removed.

[Claims 3 to 6 not printed in the Gazette.]

1,244,332. FIRE-ALARM SYSTEM. HARRY R. HUGHS and WADE C. HUGHS, Walhalla, S. C. Filed Aug. 30, 1916. Serial No. 117,751. (Cl. 177—355.)



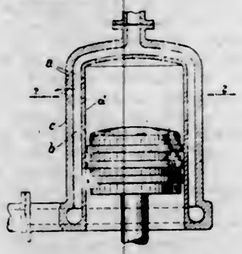
1. In a fire alarm system, an indicator arranged in a protected structure and embodying a casing having the front wall thereof inscribed with the names of the compartments of the protected structure, arrows pivoted for swinging movement to point to said inscriptions respectively, electroresponsive devices for actuating said arrows, lamps adjacent to said electroresponsive devices respectively, circuit closers located in the respective compartments of the protected structure adapted to operate under the action of heat, circuit connections between each circuit closer and the corresponding electroresponsive device and lamp, an indicating apparatus located at a fire station remote from the protected structure, bus bars in the first-mentioned casing, contact lugs on said bus bars arranged adjacent to said electroresponsive devices respectively, and an arm connected to each arrow and movable therewith to bridge the adjacent contact lugs and circuit connections between said bus bars and the indicator at the station whereby the latter will be operated to indicate the location of the protected structure in which the fire is present.

[Claim 2 not printed in the Gazette.]

1,244,333. COMBUSTION-ENGINE. ERNST HUELSBRINK, Berlin-Friedenau, Germany. Filed Mar. 30, 1914. Serial No. 828,154. (Cl. 123—173.)

2. In an internal combustion engine, in combination, a cylinder body containing a cylinder chamber; a cylinder

head; a series of individual water passages extending longitudinally of said cylinder body throughout the length of said cylinder chamber and radially of said cylinder head from the latter's periphery to its center, all of said passages being located within the thickness of the cylinder wall; an annular passage into which the lower ends of said passages open; and a passage directed substantially axially of said cylinder and into which the upper ends of said water passages open.

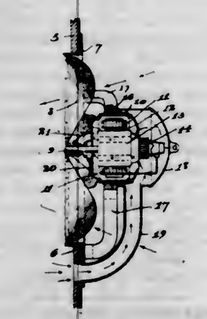


4. In an internal combustion engine, in combination, a cylinder body containing a combustion chamber; a cylinder head; a series of individual water passages extending longitudinally of said cylinder body throughout the length of said combustion chamber and radially of said cylinder head from the latter's marginal portion to its center, all of said passages being located within the thickness of the cylinder wall in close proximity to the inner surface of the cylinder; an annular passage into which the lower ends of said passages open; and a passage directed substantially axially of said cylinder and into which the upper ends of said water passages open.

8. In an internal combustion engine, in combination, a cylinder, and cylinder head closing said cylinder at one end, said head and the lateral walls of the cylinder being relatively thick and forming a combustion chamber within said cylinder; and cylinder cooling means comprising water passages extending longitudinally of said cylinder within the thickness of the lateral wall of the latter, in close proximity to the inner surface of said lateral wall and all around and throughout the length of said combustion chamber, and radial water passages provided within the thickness of said cylinder head and extending throughout its entire area in close proximity to its inner surface, all of said passages being located closer to the inner than to the outer surfaces of said cylinder and cylinder head.

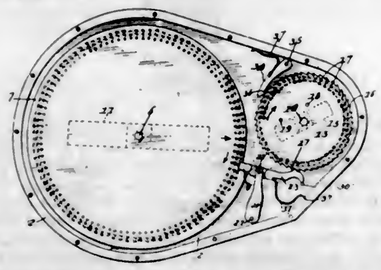
[Claims 1, 3, and 5 to 7 not printed in the Gazette.]

1,244,334. PROTECTIVE DEVICE FOR VENTILATING-FANS. ROBERT A. ILG, Chicago, Ill. Filed Mar. 9, 1914. Serial No. 823,558. (Cl. 172—36.)



In a ventilating apparatus designed to draw off foul air and gases from rooms, the combination with an electric motor located in the room to be ventilated, and a ventilating fan located in an opening in a wall of said room and mounted directly on the armature shaft of said motor with its suction side toward the latter, of a hood covering the end of said motor remote from the fan, a suction pipe leading from a point exterior to the room or chamber containing the motor and communicating directly with the lower side of said hood, and another hood covering the end of said motor adjacent to the suction side of the fan and having a single unobstructed opening located in the upper portion thereof, said opening having substantially the same cross sectional area as that of said suction pipe, whereby, when the fan is idle, a natural draft is induced through said suction pipe, motor and opening serving to protect the motor from the injurious effects of foul air or gases in the room or chamber where the same is located.

1,244,335. ADDING-MACHINE. CAMPBELL E. JAMES, Frankfort, Ky. Filed May 2, 1917. Serial No. 165,946. (Cl. 235—74.)



1. In an adding machine, a rotatably mounted unit and ten disk having a peripheral cam and having openings extending through said disk, a rotative ratchet disk, and motive mechanism disposed entirely between said cam and the ratchet disk leaving the space beneath the unit and ten disk unobstructed for the passage of a stylus through said openings.

5. In an adding machine, a rotatably mounted disk with peripheral cam, a rotatably mounted ratchet disk, a movably mounted lever arranged for actuation by said cam, said lever having at one end a tooth for engagement with the ratchet disk and an opposed cam surface, means cooperating with said cam surface to hold or to release said ratchet disk, and a spring acting on said lever to force the pawl-end thereof into engagement with the ratchet disk.

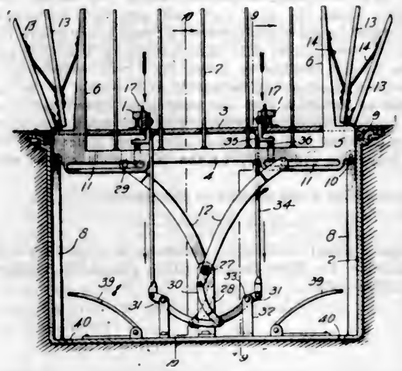
[Claims 2 to 4 not printed in the Gazette.]

1,244,336. AUTOMATIC RAILWAY-GATE. CLAUD NORMAN JAY, Marlow, Okla. Filed June 5, 1917. Serial No. 172,993. (Cl. 269—6.)

1. Protective means for railways, the same comprising a guard mounted to have a vertical movement imparted thereto, oppositely disposed levers arranged upon opposite sides of the guard, with their outer ends engaging opposite end portions of the guard, and actuating means cooperating with such levers and having connection at their inner ends therewith and adapted to be moved by a passing train or car to automatically withdraw the guard between the levers.

4. In combination, a vertically movable guard, vertically disposed levers arranged upon opposite sides of the guard, with their upper ends pivotally and slidingly engaging opposite end portions of the guard, horizontally arranged levers, links connecting the inner ends of the horizontally arranged levers with the lower ends of the vertically disposed levers, train-operated members, and links connecting the train-operated members with the outer ends of the horizontally arranged levers.

8. Protective means for railways comprising a casing, a guard movable vertically within the casing, vertically disposed levers mounted within the casing and having their upper ends pivotally and slidingly engaging opposite end portions of the guard, horizontally arranged levers mounted within the lower portion of the casing, links connecting the inner ends of the horizontally arranged levers with the lower ends of the vertically disposed levers, depressible rails, links connecting the depressible rails with the outer ends of the horizontally arranged levers, rods extending across the path of the guard and yieldably supported at their ends within the casing, and connecting means between such rods and depressible rails.



[Claims 2, 3, and 5 to 7 not printed in the Gazette.]

1,244,337. PNEUMATIC TIRE. CHARLES A. JOHNSON, Waycross, Ga. Filed July 11, 1916. Serial No. 108,640. (Cl. 152—18.)



A pneumatic tire comprising a body of flexible material and having embedded therein a series of fabric sheets arranged in tubi-form, one disposed over the other, each of said sheets, except the outer sheets, having arranged thereon two series of metallic plates so disposed that the plates of one of the series will lap the plates of the adjacent series for approximately one-half the width of the said plates, and whereby the series of plates of the respective sheets will be gradually arranged nearer the center of the tire, from the inner to the outer sheet, the remaining sheets having an endless series of metallic plates at the center portion thereof disposed in bridging relation with each other, and the inner series of the last referred to plates bridging the outermost plates arranged in pairs, and a reinforcing element embedded in the tire and surrounding all of the plates.

1,244,338. RECEPTACLE. FRANK B. JOHNSON, Des Moines, Iowa. Filed May 15, 1917. Serial No. 168,720. (Cl. 206—40.)



1. A device of the class described comprising a casing having an open top and end, flanges extending inwardly from the upper edges of the sides of the casing, an ejector slide supported by and movable longitudinally of said flanges, a tray removably mounted within said casing, and a spring pressed follower on said tray.

[Claims 2 and 3 not printed in the Gazette.]

1,244,339. SNAP CLAMP OR GRIP FOR ELECTRICAL CONDUCTORS. TOMLINSON FORT JOHNSON, Jr., Atlanta, Ga. Filed Jan. 22, 1917. Serial No. 143,723. (Cl. 173—273.)



4. In a clamp, a pair of spring-pressed clamping jaws, one of said jaws having a transverse eye provided on the outside thereof at the upper end, a stop or lock contiguous to said eye adapted to engage a handling stick in applying the clamp, a hinge connection between the two jaws at the upper end, the lower ends of the jaws being provided with a flared mouth or entrance, means on one of the jaws for attaching a cable thereto, and a hinged loop provided on said jaw and depending from the same, said loop being located on one side of the cable.

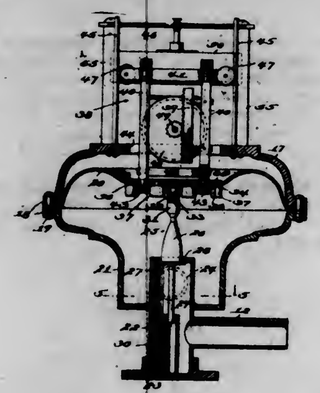
7. In a clamp for electrical conductors, a pair of rigid jaws having a hinged connection at the upper end, a bolt loosely extending through said jaws and provided with a head at one end, a transverse pin extending through said bolt at the opposite end thereof, one of the jaws being formed with a groove in its outer face for receiving the pin, the groove being extended only a distance equal to the length of the pin with the ends of the groove closed, and a spring interposed between said head and the other jaw whereby when the jaws are separated to their maximum position binding between the jaws and bolt will be prevented by the bolt turning on the pin.

[Claims 1 to 3, 5, 6, and 8 not printed in the Gazette.]

1,244,340. INDICATING ADJUNCT FOR GAS-METERS. ERNEST A. KERSTEIN, Union, N. J., assignor to American Meter Co., New York, N. Y., a Corporation of Delaware. Filed Jan. 6, 1917. Serial No. 141,033. (Cl. 73—1.)

1. An indicating adjunct for fluid meters, comprising, in combination, a reservoir chamber provided with an in-

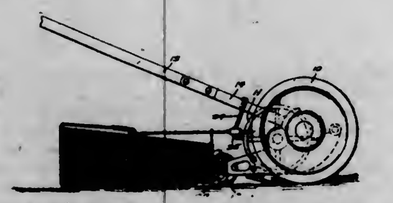
let and an outlet for the fluid, the former supplied from the meter; a diaphragm within said chamber governed as to its movements by the pressure of the fluid therebeneath, said inlet communicating with said chamber below said diaphragm; a depending valve for controlling the flow of liquid through said inlet connected to the under side of said diaphragm to be operated thereby; and an indicating mechanism having its operating part mounted upon the uper side of said diaphragm to be actuated by the same.



2. An indicating adjunct for fluid meters, comprising, in combination, a reservoir chamber supplied from the meter; an indicating mechanism embodying a movable graduated scale, and means for automatically moving said scale accordantly with the rate of flow of the fluid through said chamber and by the action of the fluid itself.

[Claims 3 to 13 not printed in the Gazette.]

1,244,341. BASKET FOR LAWN-MOWERS. SAMUEL KOEHLI, Pasadena, Cal. Filed Dec. 19, 1916. Serial No. 137,893. (Cl. 56—114.)

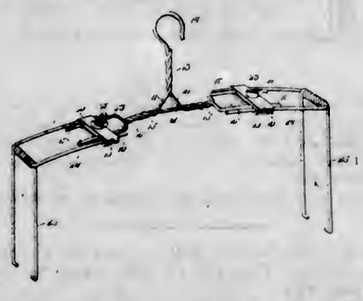


1. A grass catcher for lawn mowers, comprising a basket formed of reticulated material having an opened top and an opened end, a supporting frame binding the marginal edges of the basket walls, a recess formed along the forward edge of the basket floor, an arcuate shield member secured along said recess and adapted to partially encompass the roller of a lawn mower, a pair of engaging eyes secured to said frame along the forward edges of the basket side walls in a manner whereby they may detachably engage studs positioned upon the frame of the lawn mower, a pair of reinforcing stays which extend beneath the floor of the basket and are led up over the basket, said stay members being brought forwardly over the top of the basket to form a handle by which it may be lifted, and adjustable means whereby the basket may be detachably supported by the fork of the lawn mower handle.

5. A grass catcher for lawn mowers comprising a bottom, rear end wall, and side walls all formed integral of reticulated material, a binding secured to the upper edges of the end and side walls, a cross stay rod secured along the forward edges of the bottom and side walls and the forward ends of the binding and extending upwardly from the binding; the front part of the bottom being notched out and the cross stay being off-set to form a place for the roller of a lawn mower; an arcuate sheet metal shield extending upwardly from the off-set portion of the cross stay to partially cover said lawn mower roller, longitudinal stays attached to the cross stay at the bottom of the shield and extending backwardly along the bottom and upwardly along the rear end wall and then forwardly and brought together and secured to each other above the center of the bottom, and then extending laterally and secured to the binding by loops, draw rods connected to said loops and extending forwardly and secured to the upper ends of the cross stay and extending beyond the cross stay, bracket hooks adjustably mounted upon the draw rods in front of the cross stay, and loops extending forward from the cross stay at the front ends of the side walls.

[Claims 2 to 4 not printed in the Gazette.]

1,244,342. COAT-HANGER. CHARLES M. KOENIG, Farmingdale, N. Y. Filed Jan. 17, 1917. Serial No. 142,890. (Cl. 211—13.)



1. A garment hanger comprising a plurality of wire strands intertwisted to provide an inverted substantially T-shaped member, the stem thereof terminating to provide a hook, the lateral extensions of said member terminating to provide oppositely disposed U-shaped portions, similarly shaped elements associated with said portions and unitedly defining therewith shoulder supports for the garment, said elements being slidably adjustable with respect to said U-shaped portions, and means for holding said parts fixed relatively.

2. A garment hanger comprising a plurality of wire strands intertwisted to provide an inverted substantially T-shaped member, the stem thereof terminating to provide a hook, the lateral extensions of said member terminating to provide oppositely disposed U-shaped portions, similarly shaped elements disposed in juxta-position to the U-shaped portions, and unitedly defining therewith shoulder supports for the garment, a pair of clamping members, each member including grooved mating sections, which when associated provide openings through certain of which openings said elements are slidable relatively to said U-shaped portions, and said clamps serving to hold said elements fixed relative to said portions.

3. A garment hanger embodying a hook-like supporting bar, lateral extensions projecting from said bar and terminating to provide U-shaped portions, similarly shaped members slidably associated with said U-shaped portions and unitedly defining therewith shoulder supports for the garment, means for holding said members fixed in adjusted position and substantially U-shaped elements suspended from the outer extremities of the shoulder supports and capable of swinging movement, said elements being adapted to be positioned within the sleeves of the garment to prevent wrinkling thereof.

4. A garment hanger comprising a hook-like stem, laterally disposed extensions at one end of the stem, said extensions terminating to provide oppositely disposed U-shaped portions, similarly shaped members associated with said portions and unitedly defining therewith shoulder supporting elements, and inverted substantially U-shaped elements positioned within the sleeves of the garment to prevent wrinkling, said elements having intermediate coiled portions encircling the outer extremities of the shoulder supports and capable of swinging movement relative thereto.

1,244,343. EJECTING-PENHOLDER. CHARLES W. LAIR, Bethel, Mo. Filed June 15, 1917. Serial No. 174,968. (Cl. 120—101.)



A penholder comprising a stock, a sleeve slidably mounted therein, a retainer attached to the sleeve and adapted to carry a pen, a bar pivoted in the stock and having an end portion passing through the side thereof, said bar having a shoulder which is located in the sleeve and a spring engaging the bar and normally holding the shoulder thereof out of the path of movement of the pen carried by the retainer.

1,244,344. LAWN-WEEDER. ELWOOD C. LEAMAN, Harrisburg, Pa. Filed Jan. 31, 1917. Serial No. 145,727. (Cl. 55—148.)

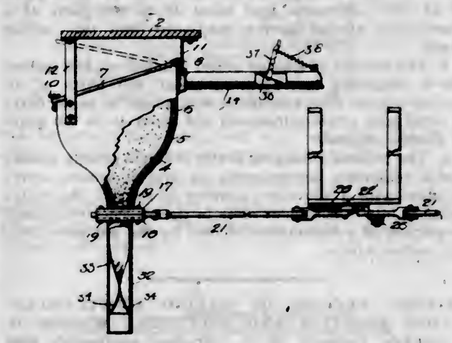


1. In a device of the class described, a staff having a handle at its upper end, and a stationary blade at its lower end, a slidable cross bar guided on the handle, a movable blade having laterally extending arms, a pivot member connecting said arms with the staff at the lower end thereof, and a rod connecting the arms of the blade with the slidable cross bar, said staff having a clip member provided with an arm through which the connecting rod is guided and with oppositely extending flanges forming foot pieces.

2. A structure as specified in claim 1; a spring being coiled about the operating rod between the arms of the clip member and the arms of the movable blade.

1,244,345. SANDING DEVICE FOR MOTOR-VEHICLES. LARS OSCAR LEVIN, Vancouver, Wash. Filed May 24, 1917. Serial No. 170,653. (Cl. 105—60.)

1. A sanding device for automobiles comprising a substantially hopper shaped container for each rear wheel, each container having means for securing the same to the running-board in front of the wheel, each container having a delivery spout at its bottom and a valve between the spout and the container, means for simultaneously opening the valves, a spring for closing the valves, each container having an inner wall spaced apart from the outer wall, the space between the walls communicating with the delivery spout, each container having an inlet at its top for the exhaust, and a layer of corrugated material between the walls.



2. A sanding device for automobiles comprising a substantially hopper shaped container for each rear wheel, each container having means for securing the same to the running-board in front of the wheel, each container having a delivery spout at its bottom and a valve between the spout and the container, means for simultaneously opening the valves, a spring for closing the valves, and means for heating the containers with the exhaust.

3. In a sanding device for automobiles, a container for the sand having a delivery spout at its bottom, and having an inner wall spaced apart from the outer wall and communicating at its bottom with the delivery spout, said container having an inlet for the exhaust near its top, and a lining of corrugated material between the walls.

1,244,346. FUSE. GEORGE A. LEY, Chicago, Ill. Filed Sept. 30, 1916. Serial No. 123,044. (Cl. 102—10.)



A fuse of the character described including a relatively thin flat base of non-conducting material, a wire disposed across one face of the base, an inflammable head carried by the wire, fasteners formed of conducting material engageable through the base for clamping the respective ends of the wire to the base and thus being electrically connected to the wire, and the portions of the fasteners on the opposite face of the base forming electric contacts for an electric circuit so that when charged with electricity the inflammable head will consequently be ignited.

1,244,347. PROCESS FOR MAKING ACETYL-CELLULOSE PLASTICS AND SOLVENTS THEREOF. WILLIAM G. LINDSAY, Caldwell, N. J., assignor to The Celluloid Company, New York, N. Y., a Corporation of New Jersey. Filed Nov. 6, 1911, Serial No. 658,783. Renewed Mar. 19, 1917. Serial No. 155,951. (Cl. 106—40.)

1. The process of making acetyl cellulose plastic masses which comprises incorporating an acetone-soluble acetyl cellulose with an aryl sulfonamid in the presence of a small proportion of a monohydric alcohol having not more than two carbon atoms.

2. The process of making acetyl cellulose plastic masses which comprises incorporating an acetone-soluble acetyl

cellulose with ethyl para toluol-sulfonamid in the presence of a small proportion of methyl alcohol.

3. The process of making acetyl cellulose plastic masses which comprises incorporating about 100 parts of an acetone-soluble acetyl cellulose with about 20 to 50 parts of an aryl sulfonamid and about 40 to 100 parts of a monohydric alcohol having not more than two carbon atoms.

4. The process of making acetyl cellulose plastic masses which comprises incorporating about 100 parts of an acetone-soluble acetyl cellulose with about 20 to 50 parts of ethyl para toluol-sulfonamid and about 40 to 100 parts of methyl alcohol.

5. The process of making acetyl cellulose plastic masses which comprises incorporating an acetone-soluble acetyl cellulose with a substance adapted to convert the acetyl cellulose into a gelatinous mass in the presence of a small proportion of a monohydric alcohol having not more than two carbon atoms.

1,244,348. PROCESS OF MAKING ACETYL-CELLULOSE PLASTICS AND SOLVENTS. WILLIAM G. LINDSAY, Caldwell, N. J. Original application filed Nov. 6, 1911, Serial No. 658,783. Renewed Mar. 19, 1917, Serial No. 155,951. Divided and this application filed Mar. 19, 1917. Serial No. 155,933. (Cl. 106—40.)

1. The process of making acetyl cellulose plastic masses which comprises incorporating an acetone-soluble acetyl cellulose with an alkyl aryl acetamid in the presence of a small proportion of a monohydric alcohol having not more than two carbon atoms.

3. The process of making acetyl cellulose plastic masses which comprises incorporating an acetone-soluble acetyl cellulose with an alkyl acetanilid having not more than two carbon atoms in the alkyl group.

6. The process of making acetyl cellulose plastic masses which comprises incorporating about 100 parts of an acetone-soluble acetyl cellulose with about 20 to 50 parts of an alkyl acetanilid having not more than two carbon atoms in the alkyl group.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,244,349. PROCESS FOR MAKING SOLVENTS FOR ACETYL-CELLULOSE PLASTICS. WILLIAM G. LINDSAY, Caldwell, N. J., assignor to The Celluloid Company, New York, N. Y., a Corporation of New Jersey. Filed Nov. 6, 1911, Serial No. 658,786. Renewed Mar. 20, 1917. Serial No. 156,213. (Cl. 106—40.)

1. The new compound solvents for an acetyl cellulose which is soluble in acetone consisting in a mixture of a monohydric alcohol having not more than two carbon atoms and an aryl-sulfonamid, the proportion being about 40 to 100 parts by weight of the former to about 20 to 50 parts of the latter.

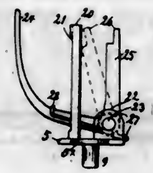
2. The new compound solvents for an acetyl cellulose which is soluble in acetone consisting in a mixture of a monohydric alcohol having not more than two carbon atoms and from 10 to 40% of a liquid adapted to produce a flowable solution in the cold and an aryl-sulfonamid.

3. The new compound solvents for an acetyl cellulose which is soluble in acetone consisting in a mixture of a monohydric alcohol having not more than two carbon atoms and a toluol-sulfonamid, the proportion being about 40 to 100 parts by weight of the former to about 20 to 50 parts of the latter.

4. The new compound solvents for an acetyl cellulose which is soluble in acetone consisting in a mixture of a monohydric alcohol having not more than two carbon atoms, said mixture further comprising from 10 to 40 per cent. of chloroform, and an aryl sulfonamid.

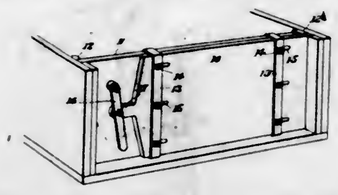
1,244,350. HARNESS-LINE HOLDER. AUGUST LINDSTROM, Centerville, S. D. Filed Feb. 26, 1917. Serial No. 150,897. (Cl. 54—64.)

1. The combination with a plate, of a spring-closed clasp mounted on said plate for holding lines, reins and the like parts of the harness in idle position; said clasp comprising an upstanding bracket with an aperture in it and lugs at its base, a pivot in the lugs, a lever mounted to swing on the pivot and having two arms, one of which is arranged to clamp the lines against the adjacent side of the bracket, the other one extending through the aperture in the bracket and serving as a finger catch for operating the arm, and a spring acting on the lever to close the arm against the bracket; said spring being mounted on the pivot, between the supporting lugs and the said lever.



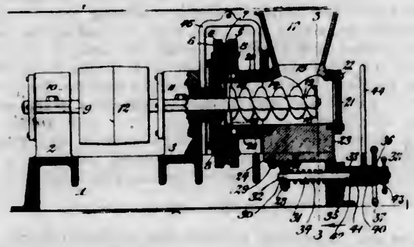
[Claim 2 and 3 not printed in the Gazette.]

1,244,351. END-GATE. GEORGE W. LUCKENBAUGH, Bradford, Ohio. Filed Feb. 27, 1917. Serial No. 151,316. (Cl. 21—21.)



An end gate comprising a pair of overlapping sections, one of said sections having elongated slots, endless bands embracing said sections, bolts for securing the bands to the end gate and passed through said slots of one section for permitting the latter a sliding adjustment with respect to the other section to increase or decrease the length of the gate, and means for adjusting said movable section.

1,244,352. GRINDING-MACHINE. LEO F. MCNALLY, Salamanca, N. Y., assignor to Hollen W. Rich, Buffalo, N. Y. Filed Feb. 23, 1916. Serial No. 80,031. (Cl. 83—8.)



1. A grinding machine comprising a frame, a feed chamber movably mounted on said frame and having an opening at its outer end, a cover detachably secured to the chamber over said opening, two relatively movable grinding elements facing each other and one mounted on said frame and the other on said feed chamber and an adjusting device connecting the lower parts of said frame and the feed chamber.

2. A grinding machine comprising a frame, a rotatable grinding head journaled on said frame, a normally fixed grinding disk facing said rotatable head, a feed chamber carrying said normally fixed head and adjustable on said frame toward and from said rotatable head and having an opening at its outer end, a cover detachably secured to the chamber over said opening, and an adjusting device connecting the lower parts of said frame and the feed chamber.

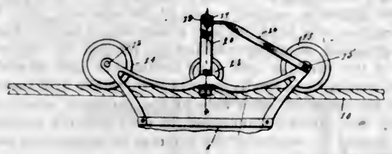
3. A grinding machine comprising a frame, a rotatable grinding head journaled on said frame, a normally fixed grinding disk facing said rotatable head, a feed chamber carrying said normally fixed head and slidable on said frame toward and from said rotatable head and having an opening at its outer end, a cover detachably secured to the chamber over said opening, and an adjusting device arranged between said frame and feed chamber on the lower parts thereof.

4. A grinding machine comprising a frame, a rotatable grinding head journaled on said frame, a normally fixed grinding disk facing said rotatable head, a feed chamber carrying said normally fixed head and slidable on said frame toward and from said rotatable head and having an opening at its outer end, a cover detachably secured to the chamber over said opening, and an adjusting device arranged between said frame and feed chamber and comprising yielding means which operate to move said chamber and normally fixed head toward the rotatable head and positively operating means for withdrawing said chamber and normally fixed head from said rotatable head.

5. A grinding machine comprising a frame, a rotatable grinding head journaled on said frame, a normally fixed grinding disk facing said rotatable head and having an axial feed passage, a feed chamber carrying said normally fixed head and movable therewith on the frame toward and from said rotatable head and having an inlet on its top for the material to be ground and an outlet for the same in its inner end which opens into the axial passage of said normally fixed head and having an opening at its outer end, a cover detachably secured to the chamber over said opening, and an adjusting device connecting the lower parts of said frame and the feed chamber.

[Claims 6 to 10 not printed in the Gazette.]

1,244,353. ELEVATED-CARRIER LOCK. CLARENCE MADSON, Emmons, Minn. Filed July 18, 1917. Serial No. 181,305. (Cl. 188—48.)



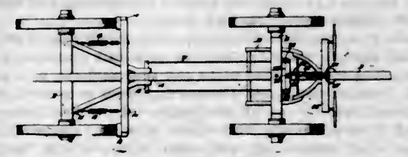
1. The combination with a cable track and a carrier movable thereon, of a locking means for the carrier including a movably mounted member carried by the carrier and arranged to lie in gripping engagement with the cable at times and in rolling contact with the cable at times.

3. A locking device for a cable track and carrier, including a swinging frame mounted on the carrier, said frame having a wedge member for gripping engagement with the cable at times, and a roller for rolling contact with the cable at times.

[Claim 2 not printed in the Gazette.]

1,244,354. AUTOMATIC BRAKE. GILBERT R. MALONEY, Holden, Mo. Filed Mar. 20, 1917. Serial No. 156,154. (Cl. 21—9.)

An automatic braking apparatus for animal drawn vehicles, comprising a spring operated brake, means whereby the pull of the animal will release said brake, a pair of vertically disposed pivoted arms provided with openings, said arms being included in the brake releasing means and



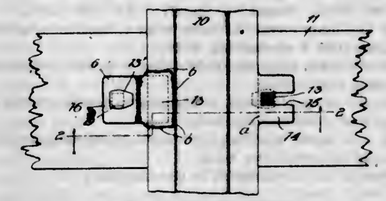
a link adjustably connecting said arms, whereby the pull necessary to release the brakes may be regulated.

1,244,355. DRESSMAKER'S HEM-GAGE. LESSIE MINGUS, Coalinga, Cal. Filed Feb. 29, 1916. Serial No. 81,247. (Cl. 33—9.)



A hem gage comprising a strip of resilient material folded upon itself to provide a pair of arms of equal length one of said arms being straight throughout its length, the other of said arms having a graduated face and an inclined portion adjacent one end thereof bearing at one end upon the first mentioned arm, said inclined portion serving to maintain the second mentioned arm at an angle to the first mentioned arm, a slide through which said arms are passed adapted when engaged with the straight portions of the arms to maintain said arms in parallel relation and when engaged with the inclined portion of the second mentioned arm to control the angle of inclination of the second mentioned arm to the first mentioned arm, and a downturned portion at the other end of the second mentioned arm adapted to engage the other end of the first mentioned arm when the arms are moved toward each other.

1,244,356. RAIL-ANCHOR. WILLIAM M. MITCHELL, Louisville, Ky. Filed Aug. 24, 1917. Serial No. 187,915. (Cl. 238—4.)



1. The combination with a rail, a supporting cross-tie having a rail seat, and a spike for securing the rail to the tie, of a short metal anchor-lug extending outwardly from the rail base over the face of said rail seat and engaging said spike, the inner end portion of said lug being fused or welded at its edge to one side of the rail.

2. The combination with a rail, a supporting cross-tie having a rail seat, and a spike for securing the rail to the tie, of a short metal lug having the inner end portion thereof engaging and fillet-welded at its edge to the base flange of the rail, said lug extending outwardly over the face of said rail seat and engaging said spike to thereby hold the rail against creeping.

3. The combination with a rail, its supporting cross-tie and a spike driven into the tie with the head engaging one of the base flanges of the rail, of an anchor comprising a short metal lug engaging said spike and fused or welded to the base flange at a point adjacent said spike.

10. The combination with a rail, a supporting cross-tie, and a spike driven into said tie adjacent the rail base, of an anchor comprising a short, flat metal lug projecting

outwardly from the rail base and engaging said spike, said lug having a shoulder abutting against the edge of the rail base and an inner end portion overlapping and welded to the upper face of the rail base.

14. The combination with a rail, a supporting cross tie, a rail seating plate on said tie, of a rail retaining spike extending through said plate and into said tie, of a separate anchor comprising a metal lug fused or welded to an exposed face of one of the flanges of the rail base and projecting outwardly therefrom, said lug engaging said plate and coöperating with said spike to hold the rail against creeping.

[Claims 4 to 9 and 11 to 13 not printed in the Gazette.]

1,244,357. COLLAPSIBLE CAMP-GRATE. LESLIE E. MOORE, Long Beach, Cal. Filed Dec. 6, 1916. Serial No. 135,383. (Cl. 126—30.)



In a foldable camp stove, a series of grate bars, a pair of supporting rods, a short portion of one end of each rod being bent at right angles and a longer portion of the other end of each rod being bent at right angles in planes parallel with the first bends, said grate bars being loosely mounted upon said rods, and legs pivotally mounted upon the bent ends of the rods outside of the grate bars, so that the grate bars and legs may be folded into parallel positions.

1,244,358. ARC-LAMP ELECTRODE. WILLIAM R. MOTT, Lakewood, Ohio, assignor, by mesne assignments, to National Carbon Company, Inc., a Corporation of New York. Continuation of application Serial No. 863,463, filed Sept. 25, 1914. This application filed Feb. 28, 1916. Serial No. 80,837. (Cl. 176—136.)

1. An arc lamp electrode containing a fluorin compound of uranium and a conducting body.

2. An arc lamp electrode containing a fluorin compound of uranium and carbon.

3. An arc lamp electrode containing a double fluorid of uranium and a conducting body.

4. An arc lamp electrode containing sodium uranium fluorid and a conducting body.

[Claims 5 to 7 not printed in the Gazette.]

1,244,359. ARC-LAMP ELECTRODE. WILLIAM ROY MOTT, Lakewood, Ohio, assignor, by mesne assignments, to National Carbon Company, Inc., a Corporation of New York. Filed Nov. 6, 1916. Serial No. 129,677. (Cl. 176—136.)

1. The process of making an arc lamp electrode which consists in mixing rare-earth metal fluorids containing sulfates with an insoluble fluorid of an element forming an insoluble sulfate.

2. The process of making an arc lamp electrode which consists in mixing rare-earth metal fluorids containing sulfates with an insoluble fluorid of an element forming an insoluble sulfate and heating to form rare-earth metal fluorid and an insoluble sulfate.

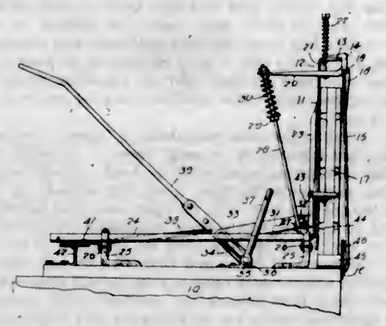
6. The process of making an arc lamp electrode which consists in mixing rare-earth fluorids containing sulfates with barium fluorid.

10. In an arc lamp electrode, rare-earth metal fluorids containing a small amount of sulfate and barium fluorid amounting to from one-half to five times the weight of combined sulfur trioxid (SO_3) contained in the sulfate of the rare-earth material.

12. An arc lamp electrode containing carbon, calcium fluorid, rare-earth metal fluorid and barium sulfate.

[Claims 3 to 5, 7 to 9, 11, and 13 not printed in the Gazette.]

1,244,360. AUTOMATIC BLOCK-DROPPER. GEORGE CALVAN MUMMA, Decatur, Ind. Filed June 7, 1917. Serial No. 173,316. (Cl. 100—24.)



1. In a block dropper, the combination of a horizontally movable carriage having yielding spring controlled arms at its forward portion for engagement with the head block, and open at its opposite sides for introduction of the head block, said carriage including latch bars, means for shifting the carriage forwardly, means controlled by the yielding arms of the carriage and engageable with said latch bars to lock the carriage in its forward operative position, and means for returning the carriage to its rear inoperative position when the latching means are released.

2. A block dropper of the character described, comprising a carriage movable horizontally, and including forward arms yieldingly supported and pivoted adjacent their upper ends, means for shifting the carriage forwardly to operative position, means for latching the carriage in its forward operative position, said means being controlled by and releasable upon rearward movement of the forward arms of the carriage, and means for automatically returning the carriage to its rear inoperative position when said latching means are released.

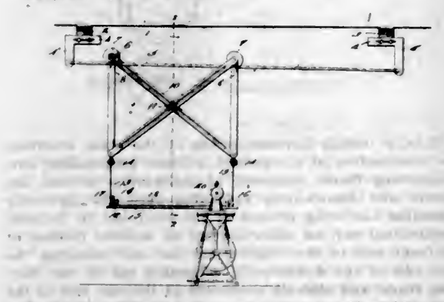
3. In a block dropper of the character described, a horizontally shiftable carriage open at its opposite sides for the reception of a head block at either side, a pair of angularly disposed dogs intermediately pivoted at opposite sides of the carriage and each having one arm provided with a weight to normally maintain the other arm thereof across the adjacent open side of the carriage, means for shifting the carriage forwardly to its operative position, and a spring for returning the carriage to inoperative position after the block has been dropped.

4. In a block dropper, a horizontally shiftable carriage open at its sides for the introduction of a head block from either side thereof, means to position the head block in laterally adjusted relation within the carriage, to prevent accidental displacement thereof, a rest bar positioned below the carriage in the rear inoperative position of the latter, and onto which a head block is slidable upon its inward movement within the carriage, and a pair of stop arms projecting above the rest bar forwardly of and adjacent opposite sides of the carriage, whereby to prevent forward movement of the carriage to operative position when the head block is laterally displaced.

8. In a block dropper, a horizontally sliding carriage including forward and rear arms between which a block may be disposed, and rearwardly extending slide bars secured to the said rear arms and provided with apertures intermediate their ends, levers secured to the upper portions of the front arms and intermediately pivoted to portions of the rear arms of the carriage, bearings in which the slide bars are adjustable, certain of which have guide openings, latch rods having their lower ends extending through the guide openings for extension within the apertures of the slide bars when the carriage is in forward operative position, said latch rods being connected to and controlled by said pivoted levers and attached to the front arms, means for manually shifting the carriage forwardly to operative position, and spring means for returning the carriage to its rear inoperative position when the latch rods are released.

[Claims 5 to 7 not printed in the Gazette.]

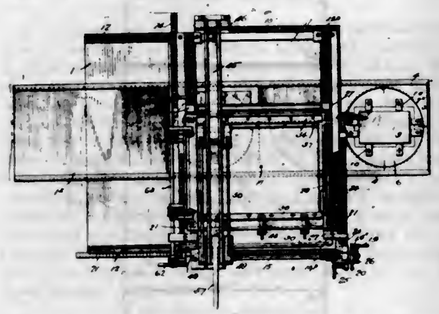
1,244,361. QUILTING DEVICE. REMER T. NOLAN, Carrollton, Ga., assignor of one-half to Hiram N. Spence, Carrollton, Ga. Filed Sept. 22, 1916. Serial No. 121,636. (Cl. 112—14.)



1. In a quilting device, spaced and adjustable track supports, an inclined track carried by said supports, bars having rollers thereon to roll on said track, rings on said bars, a pair of crossed bars having the terminals thereof pivotally connected with the terminals of the first mentioned bars, each of said crossed bars having a slot extending longitudinally thereof for the greater portion of its length, a binding screw passing through said slot and connecting said crossed bars, and a quilt carrying frame detachably connected with said rings.

2. In a quilting device, spaced brackets, a plate slidably mounted on each of said brackets and having an arm extending downwardly therefrom, said arms being of unequal length; a cable extending between and supported by said arms, an adjustable and foldable trolley to travel on said cable, and an adjustable quilt holding frame detachably connected with said trolley.

1,244,362. PRINTING DEVICE. ASHLEY GUY OGDEN, Baltimore, Md., assignor to Multiple Offset Machine Co., Baltimore, Md., a Corporation of Maryland. Filed Aug. 12, 1916. Serial No. 114,601. (Cl. 95—73.)



1. In a printing device, a base provided with an opening, a stationary source of light disposed on one side of the opening, a negative carried by the base in registration with said opening, a frame movable in one direction with respect to said base, a second frame carried by said first named frame and movable thereon in a direction at right angles to the movement of the first named frame, a frame hinged to said second named movable frame and adapted to carry a sensitized plate, and means for exerting pressure on said sensitized plate to force the latter into contact with the negative.

2. In a printing device, a base provided with an opening, a stationary source of light disposed on one side of the opening, a negative carried by the base in registration with said opening, a frame movable in one direction with respect to said base, a second frame carried by said first named frame and movable thereon in a direction at right angles to the movement of the first named frame, a frame hinged to said second named movable frame and adapted to carry a sensitized plate, means for stretching said sensitized plate, and means for exerting pressure on the plate to bring the latter into engagement with the negative.

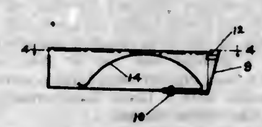
3. In a printing device, a base provided with an opening, a stationary source of light disposed on one side of the opening, a negative carried by the base in registration with said opening, a frame movable in one direction with respect to said base, a second frame carried by said first named frame and movable thereon in a direction at right angles to the movement of the first named frame, a frame hinged to said second named movable frame and adapted to carry a sensitized plate, and means for moving said hinged frame bodily in a direction normal to the plane of the negative while maintaining the plane of the sensitized plate parallel with the plane of the negative.

4. In a printing device, a base provided with an opening, a stationary source of light disposed on one side of the opening, a negative carried by the base in registration with said opening, a frame movable in one direction with respect to said base, a second frame carried by said first named frame and movable thereon in a direction at right angles to the movement of the first named frame, a frame hinged to said second named movable frame and adapted to carry a sensitized plate, and means for moving said hinged frame bodily in a direction normal to the plane of the negative while maintaining the plane of the sensitized plate parallel with the plane of the negative, said last means comprising a pair of shafts provided with cams and rectangular boxes carried by said hinged plate and arranged to be engaged simultaneously by said cams, and means for rotating said shaft simultaneously and to the same extent.

5. In a printing device, a base provided with an opening, a stationary source of light disposed on one side of the opening, a negative carried by the base in registration with said opening, a frame movable in one direction with respect to said base, a second frame carried by said first named frame and movable thereon in a direction at right angles to the movement of the first named frame, a frame hinged to said second named movable frame and adapted to carry a sensitized plate, and means for moving said hinged frame bodily in a direction normal to the plane of the negative while maintaining the plane of the sensitized plate parallel with the plane of the negative, said last means comprising a pair of shafts provided with cams and rectangular boxes carried by said hinged plate and arranged to be engaged simultaneously by said cams, an arm connected with each of said shafts, and a link connecting said arms.

[Claims 6 to 8 not printed in the Gazette.]

1,244,363. GUM-BOX. RAYMOND P. PACKARD, Tacoma, Wash. Filed Feb. 15, 1917. Serial No. 149,136. (Cl. 206—40.)



1. The combination with a box having a slot in one end and adapted to contain a plurality of sticks of gum, of a spring to hold said sticks of gum in contact with one side of said box, and a single spring member constituting one end of said box for moving said sticks of gum out-

wardly through said slot one at a time in response to an external pressure.

[Claims 2 and 3 not printed in the Gazette.]

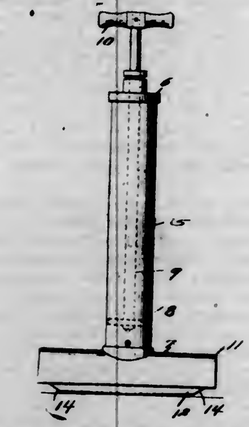
1,244,364. LOCK-LATCH. EUGENE PAQUETTE, Holyoke, Mass. Filed Feb. 13, 1917. Serial No. 148,352. (Cl. 70—45.)



1. A lock latch comprising an attaching plate provided with a slot, a plurality of openings intersecting said slot, a spring controlled latch member pivoted within said slot, a spring keeper arm adapted to be brought into the path of the said latch member, a pivot provided in one of the intersecting openings for the mounting of the latch member and a removable pin adapted to be inserted in the other opening and passed through an opening in the said latch member for locking the same against independent movement.

[Claim 2 not printed in the Gazette.]

1,244,365. TIRE-PUMP. GEORGE H. PATTEN, Chattanooga, Tenn., assignor to Patten Manufacturing Company, Chattanooga, Tenn., a Corporation of Tennessee. Filed May 19, 1917. Serial No. 169,719. (Cl. 230—27.)



1. A tire pump comprising a barrel having a plunger and rod or stem, and a base support embodying a pressure member with an upper curved surface and a lower rib extending longitudinally thereof at the center to form a fulcrum means for permitting the axis of the pump barrel and plunger to follow the natural oscillation of the body of the operator as the plunger is actuated.

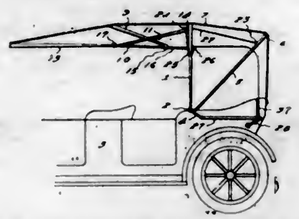
2. A tire pump of the class specified comprising a barrel having a plunger and rod or stem, and a base support having a centrally disposed fulcrum rib to permit an oscillation of the pump during its operation.

4. A tire pump of the class specified comprising a pump barrel having a plunger and rod or stem coöperating therewith, and a base support embodying a stirrup having a pressure member with a lower longitudinally disposed fulcrum rib at the center thereof.

[Claim 3 not printed in the Gazette.]

1,244,366. ONE-MAN FOLDING AUTOMOBILE-TOP. EDWARD P. PORCHER, Charleston, S. C. Filed May 7, 1915. Serial No. 26,585. (Cl. 21—62.)

1. In a folding automobile top of the class described the combination of front and rear standards, the front standard being provided with a longitudinal groove or way and having a recess at one end of the same, a lazy-tong frame provided with a member having a projecting portion operating in the said groove or way and adapted to engage the recess, said lazy-tong frame being also provided with a coacting member pivotally connected with the front standard and means carried by the automobile top for automatically moving the said member along the groove or way when the top is raised.

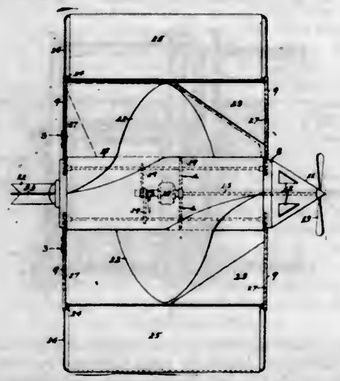


3. In a folding automobile top of the class described the combination of a standard, a front longitudinal bar, a lazy-tong frame composed of rearwardly inclined upwardly and downwardly extending bars, the upwardly extending bar being pivoted at its front end to the said longitudinal bar, an operating bar or member pivoted at its front end to the longitudinal bar and engaging the rear end of the downwardly extending bar of the lazy-tong frame and slidably connected at its rear end to the said standard, and means for automatically actuating the operating bar or member to operate the lazy-tong frame.

4. In a folding automobile top of the class described the combination of a standard provided with a longitudinal groove or way, a lazy tong frame comprising crossed members pivoted together intermediate of their ends and extending longitudinally of the top, one of the members being pivoted to the said standard and the other member being provided at its rear end with a projecting engaging portion and a longitudinally disposed operating bar pivoted at its front end to the lazy tong frame and slidably engaging at a point intermediate of its ends the engaging portion of the said member of the lazy tong frame, said operating bar being also slidably connected at its rear end with the groove or way of the standard, and means for actuating the operating bar.

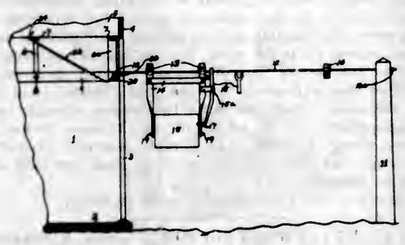
[Claim 2 not printed in the Gazette.]

1,244,367. AIRSHIP. PROKOP JACK PROKOP, New York, N. Y. Filed Jan. 24, 1917. Serial No. 144,158. (Cl. 244—14.)



An airship, comprising a projectile shaped body, a motor therein below its center of gravity, a sleeve revoluble on said body and geared to said motor, spirally arranged wings on said sleeve, guiding rudders, tubular outriggers carried by said body, a frame slidably movable in each pair of outriggers; a supporting plane carried by each frame, and means for rolling said planes upon the inward movement of said frames.

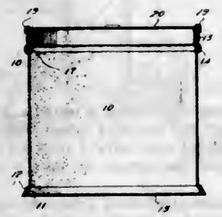
1,244,368. LITTER-CARRIER. RALPH PRONK, Edgerton, Minn. Filed May 5, 1917. Serial No. 166,730. (Cl. 104—180.)



1. In a litter carrier, the combination with two stationary objects, of a track cable stretched between said objects, a frame having grooved pulleys arranged to ride on the cable and the box mounted in the frame and means for supporting the ends of said cable, said means at one end of the cable comprising a vertically flat track bar and brackets holding the same to the stationary object, one of said brackets having a horizontal arm with a horizontal and a vertical projection, the track wire extending from its point of fastening on a slant downward and under the horizontal projection, and thence upward upon the upward projection and thence outward to form the main track, said flat track bar having its upper edge in line with the top of the said main track wire, and means for holding the track wire and the track bar in said position.

[Claim 2 not printed in the Gazette.]

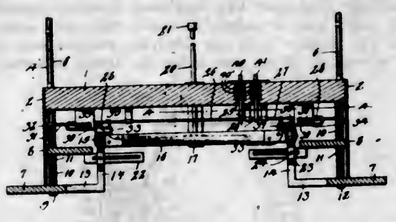
1,244,369. CONTAINER. ADOLPH A. RACKOFF, Detroit, Mich. Filed Feb. 28, 1916. Serial No. 80,963. (Cl. 229—12.)



In a device of the kind described, in combination, a fibrous container, a bead formed upon said container, a metal reinforcing member having its parts doubled upon itself in contacting relation and bent to conform to said container, a series of tongues struck out from said member substantially upon the fold line and projecting in the direction of the folded sides of said member, the free edges of said member being offset to form spaced apart beads between which is received and held the bead of said container, thereby causing the sides of said member to continue the length of said container, and a metal cover embracing said member and formed with a series of slots through which said tongues project and may then be bent back over the outer side of said cover so as to hold the latter against displacement.

1,244,370. CAR STEP AND DOOR. DANIEL B. REDDICK and LEONARD W. REDDICK, Belleville, Kans. Filed May 15, 1917. Serial No. 168,713. (Cl. 105—88.)

1. The combination with a car body, of a pair of superposed steps for each side of the car, a direct connection between the lower steps at the opposite sides of the car for simultaneously projecting one step and retracting the other step, and means actuated by each lower step for projecting and retracting the upper step in unison therewith.

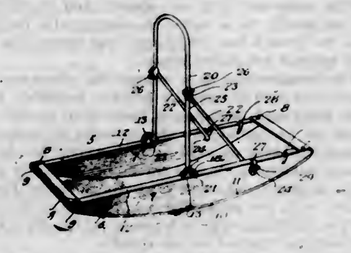


2. The combination with a car body, of a pair of superposed steps at each side of the car, a direct connection between the lower steps for simultaneously projecting one lower step and retracting the other, and a sliding connection between each upper step and the coöperating lower step embodying abutting surfaces for moving each upper step inwardly or outwardly with its companion lower step through a lesser range of movement than the lower step to properly position the respective steps.

3. The combination with a car body, of a pair of superposed steps for each side of the car, a direct connection between the lower steps at the opposite sides of the car for simultaneously projecting one lower step and retracting the other lower step, a sliding connection between each upper step and its companion lower step whereby each lower step in its movements will project and retract the companion upper step, and means for limiting the movements of the upper step with respect to the lower step.

[Claims 4 to 7 not printed in the Gazette.]

1,244,371. ROCKING TOY. CHARLES H. REYNOLDS, Hermosa Beach, Cal. Filed May 19, 1917. Serial No. 169,715. (Cl. 46—22.)



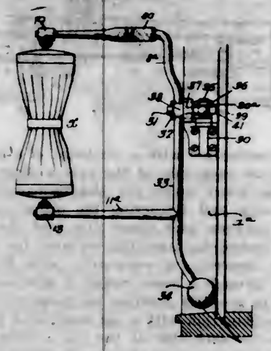
1. An amusement device comprising a rocking base, side members provided with a plurality of notches secured to the opposite edges of said base, a handle swingingly supported on said rockers, and means connected with the handle and adjustable in said notches for holding the handle in a vertical upright position or in a position at an angle to the vertical plane, substantially as and for the purpose specified.

2. An amusement device comprising a rocking base, notched side members carried by said base, bearing plates secured to the upper edges of said side members and provided with apertured flanges, a U-shaped handle swingingly supported in the apertures of said flanges for a horizontal swinging movement, and means carried by said handle and adjustably engaging with the notches of said side members for supporting the handle in either a vertical upright position or at an angle to the vertical plane.

1,244,372. MAIL-BAG-TRANSFER DEVICE. WILLIAM J. RHOADS, Chester, Pa. Filed Apr. 21, 1916. Serial No. 92,696. (Cl. 258—22.)

1. A mail bag receiving device consisting of a supporting structure including a horizontal pivot; a bag catching arm mounted to turn on said pivot; with a weight on the arm normally holding it in a substantially vertical position with its hook in a horizontal plane.

2. A mail bag receiving device consisting of a supporting structure including a horizontal pivot; a substantially U-shaped bag engaging member carried by said arm; and a weight normally retaining said arm with the member in a bag receiving position and opposing movement of the arm under the action of a bag.



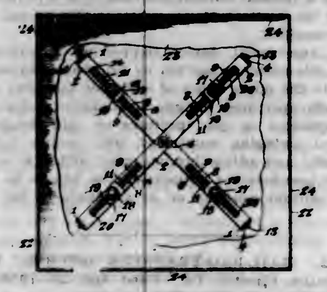
3. The combination of a supporting structure; an arm mounted thereon and free to turn on a substantially horizontal axis; a substantially U-shaped bag receiving member carried by the arm; and a depending weight normally retaining said arm in an elevated position with the bag receiving member in a substantially horizontal plane ready to receive a bag.

5. The combination of a supporting structure; a bearing thereon; a spindle carried by said bearing so as to extend in a horizontal line; an arm extending downwardly from said spindle; a weight on the lower end of said arm; a branch arm projecting from said arm; a second arm extending upwardly from the spindle and thereafter projected outwardly for a distance substantially the same as that of the branch arm; with mail bag supporting devices carried by said two latter arms.

8. The combination of a supporting structure; a vertical pivot carried thereby; a bracket rotatably mounted on said pivot and including a horizontal spindle; a hub mounted on the spindle; a downwardly extending laterally projected arm on said hub; a weight on the lower portion of said arm; an arm extending upwardly from the hub and having a laterally projecting portion formed to coöperate with the projecting portion of the first arm to support a mail bag; with a brake operative on the hub to retard rotation thereof on the spindle.

[Claims 4, 6, and 7 not printed in the Gazette.]

1,244,373. BOOK-SUPPORTING STAND. CHARLTON E. RICE, deceased, Fulton, Ky., by Bettie A. Rice, executrix, Fulton, Ky. Filed Jan. 22, 1917. Serial No. 143,782. (Cl. 45—26.)

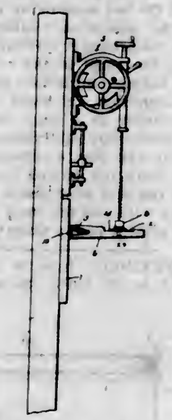


2. A device of the class described comprising a relatively stationary support, a rotatable table located above the support and having a central pivotal connection with the same, anti-friction devices carried by the support and adapted to bear on the under-side of the table to support the weight thereof, and means for positioning the anti-friction devices on the said support at different distances from the axis of rotation of the table, said means permitting the individual adjustment of the anti-friction devices without disturbing the said support or the table.

4. A book stand comprising a relatively stationary member including spaced legs and crossed radial arms, longitudinal channels formed in the arms, screws located longitudinally in the channels, means for retaining the said screws in position and permitting their turning movement, plates mounted upon the said arms, anti-friction devices carried by the plates and having downwardly directed lugs extending into the said channels and having threaded engagement with the screws, whereby upon a manipulation of the latter, the anti-friction devices are moved along the arms, and a table centrally pivoted to the arms and adapted to be revolved upon the said anti-friction devices.

[Claims 1 and 3 not printed in the Gazette.]

1,244,374. WORK-SUPPORT. ADAM RICHARDSON, Elba, and BERT B. JACKSON, Almyra, Ark.; said Richardson assignor to said Jackson. Filed June 16, 1916. Serial No. 104,059. (Cl. 144—15.)



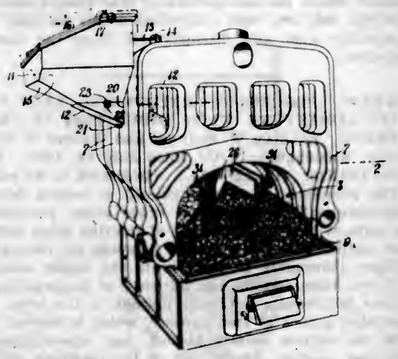
1. A work holder including a spindle arranged to receive and support the hub of a wheel, said spindle being provided between its ends with a felly rest located within the contour of the spindle to permit a hub to pass over it.

2. A work holder including a spindle arranged to receive and support the hub of a wheel, said spindle being provided between its ends with a recess forming a felly rest, and adjustable gages arranged within the said recess and located within the contour of the spindle to permit a hub to pass over them.

1,244,375. MAGAZINE-FEED BOILER. WILLIS E. ROYS, Richmond Hill, N. Y. Filed Feb. 15, 1916. Serial No. 78,428. (Cl. 122—212.)

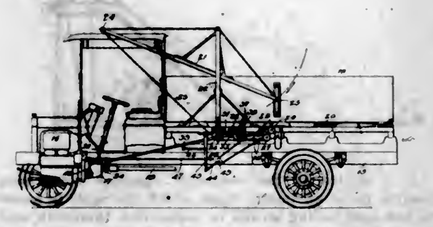
1. In combination with a furnace having hollow walls forming a combustion chamber, a fuel distributer located in said combustion chamber, said fuel distributer having a water jacket in the bottom thereof and piping extending from the water jacket of said distributer to the hollow walls of the furnace and thereby supporting said distributer within the combustion chamber.

2. In combination with a furnace having a combustion chamber and a passage extending in through the side of the furnace on a downward incline into the combustion chamber, a downwardly inclined stationary feed chute located in said passage and supported by the walls of the passage, said feed chute having a lug on its outer upper end portion engaging with the furnace and limiting the extent of downward movement of the feed chute in the movement passage, a feed hopper on the outer upper end of the feed chute and a fuel distributer in the combustion chamber in communication with the lower inner end of the feed chute.



3. In a device of the character set forth a furnace having a combustion chamber and a grate, a fuel distributer in said combustion chamber having distributing troughs inclined downwardly on an angle such that the fuel therein will come to rest when checked by the pile of fuel discharged therefrom and resting on the grate, said distributer being mounted with the mouths of the distributing troughs at substantially the height of the fuel bed desired to be maintained on the grate and means for supplying fuel to said distributer.

1,244,376. CLUTCH-OPERATING MECHANISM. GEORGE J. RUMENS, Baltimore, Md., assignor to George Miller, Baltimore, Md. Filed Aug. 11, 1916. Serial No. 114,480. (Cl. 21—20.)



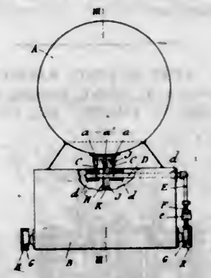
5. The combination with a dumping truck having a motor-driven hoist and transmission mechanism, of a sliding part interposed in the transmission mechanism, means to lock the sliding part into and out of engagement in the transmission mechanism, a rod connected with the sliding part, a lever pivoted upon the truck and having slidable connection with the rod, and means carried by the hoisting mechanism for actuating the lever when the body has moved to the limit of its dumping movement.

6. The combination with a dumping truck embodying a motor-driven hoist and transmission mechanism, of a differential winding drum connected with a rotating part of the hoist, a cable wound about the differential drum, and means connected with the cable for disengaging the transmission mechanism at a predetermined point in the dumping movement of the body.

7. The combination with a dumping truck embodying a motor-driven hoist and transmission mechanism, of a lever pivoted upon the truck, a pulley connected with the lever, a differential winding drum connected with one of the rotating parts of the hoist, a cable wound about the differential drum and passing over the pulley, and means connecting the lever with the transmission mechanism whereby the transmission mechanism is disengaged when the lever is moved to a predetermined position.

[Claims 1 to 4 not printed in the Gazette.]

1,244,377. MEANS FOR CONNECTING TOGETHER THE FLOAT AND THE SINKER OF A SUBMARINE MINE. EUGÈNE SCHNEIDER, Le Creuzot, France. Filed Dec. 9, 1916. Serial No. 136,118. (Cl. 102—3.)



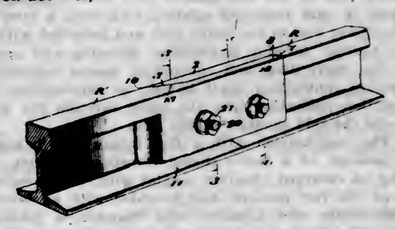
1. In combination, a submarine mine adapted to be launched from a mine-sowing vessel and including a float and a sinker, rails mounted on the vessel to receive said mine, a tilting member carried by one of said mine parts and having a locking engagement with said other mine part, said member being normally held in locking position by engaging one of said rails.

2. In combination, a submarine mine adapted to be launched from a mine-sowing vessel and including a float and a sinker, rails mounted on the vessel to receive said mine, a tilting member carried by one of said mine parts and having a locking engagement with said other mine part, said member being normally held in locking position by engaging one of said rails, a flexible connection between the float and sinker one end of which is fast to one of said mine parts and the opposite end having a releasable connection with the companion mine part, and means acting in opposition to the buoyancy of said float to delay release of said connection.

6. In combination, a submarine mine including a float, a sinker having an extensible connection therewith, guide rails fast to the deck of a vessel in which the sinker is confined to move, a revoluble member mounted on one of said mine parts and having at one end a latch adapted to engage the companion mine part, the opposite end of said member being provided with an arm having a set-screw bearing on one of said rails to restrain said latch from releasing the float and sinker.

[Claims 3 to 5 not printed in the Gazette.]

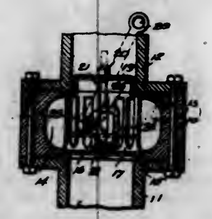
1,244,378. RAIL-JOINT. JOHN P. SCHOELLERMAN, Monte Vista, Colo. Filed Dec. 2, 1913. Serial No. 804,289. (Cl. 238—8.)



In combination, a pair of rail ends each having a base, a web and a head, the web of said rail ends being thickened and each provided with a projecting portion, the thickened portion of one rail end being entirely on one side of its web and that of the other rail end being on both sides of its web, said thickened portions being arranged in overlapping relation and having opposing faces extending from the base to the upper surface of the head, and respectively provided with a longitudinal groove and a tongue to fit

in said groove, the opposing ends of said tongue and groove being beveled, the projection of the first-named rail end being beveled at its outer end and the inner end of the doubly thickened portion of the other rail end being correspondingly beveled, and bolts extending through the over-lapping portions of the rail ends and securing them together.

1,244,379. FUEL-MIXING SAFETY THROTTLE-VALVE. WILLIAM I. SHORT, Neosho, Mo. Filed Feb. 19, 1917. Serial No. 149,560. (Cl. 48—180.)



1. The combination with a fuel intake pipe having a fuel passage, of a valve casing interposed therein having an enlarged chamber coaxial with, and forming a part of the fuel passage, and provided with an internal annular valve seat adjacent said chamber, a perforate guide tube coaxial with the fuel passage, extending through said chamber and, at one end, against said seat, a valve disk movable in said tube and against said seat, and controlling means for moving said valve disk toward and away from said seat.

2. The combination with a fuel intake pipe having a fuel passage, of a valve casing interposed therein having an enlarged chamber coaxial with, and forming a part of, the fuel passage, and provided with an internal annular valve seat adjacent said chamber, a perforate guide tube coaxial with the fuel passage, extending through said chamber, and at one end, against said seat, a valve disk movable in said tube and against said seat, and controlling means for moving said valve disk toward and away from said seat, arranged to permit of automatic movement of the valve to seated position, for the purpose described.

3. The combination with a fuel intake pipe having a fuel passage, of a valve casing interposed therein having an enlarged chamber coaxial with, and forming a part of, the fuel passage, and provided with an internal annular valve seat adjacent said chamber, a perforate guide tube coaxial with the fuel passage, extending through said chamber, and at one end against said seat, a valve disk movable in said tube and against said seat, a stem secured at one end to the valve disk and provided with an offset portion forming a shoulder opposing and spaced from the valve disk, and controlling means including a transverse controlling shaft having an intermediate offset portion projecting into the space between the valve disk and the said shoulder of the stem.

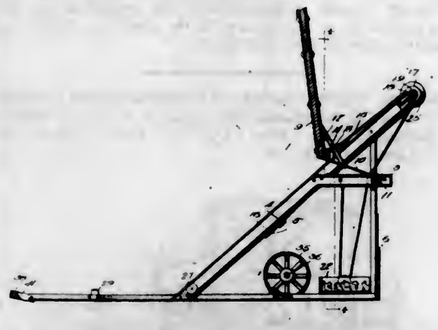
4. The combination with a fuel intake pipe having a fuel passage, of a valve casing interposed therein and having an enlarged chamber coaxial with, and forming a part of, the fuel passage, and provided with an internal annular valve seat adjacent said chamber, a perforate guide tube coaxial with the fuel passage, extending through said chamber and, at one end, against said seat, a valve disk movable in said tube and against said seat, a stem secured to the valve disk and projecting through the said tube, and a cross piece carried by one end of the tube and having a bearing for the free end of the valve stem.

5. The combination with a fuel intake pipe having a fuel passage, of a valve casing interposed therein, having an enlarged chamber coaxial with, and forming a part of, the fuel passage, and provided with an annular valve seat around the fuel passage adjacent said chamber, a perforated tube disposed axially within said casing and open at its opposite ends, a valve disk interfitting and slidable within the said perforated tube toward and away from the said seat and controlling means for said valve engageable with and disengageable from the same in operation.

1,244,380. PROCESS OF RECOVERING SALT FROM ITS ADMIXTURE WITH IMPURITIES IN CRUDE BRINE. WILLIAM W. SKINNER and WALTER F. BAUGHMAN, Washington, D. C. Filed July 14, 1917. Serial No. 180,526. (Cl. 127—14.) (Dedicated to the public.)

The process of recovering chlorid of sodium from its admixture with impurities in crude brine, particularly, the salts of barium, consisting of treating brine with sodium sulfate and calcium oxid, pumping air through the mixture thoroughly to incorporate the added substance with the brine and for the purposes of decomposing the ferrous bicarbonate naturally present in the brine, thus producing a flock of iron hydrate, which is carried down with the barium sulfate formed, and crystallizing the pure salt, sodium chlorid, out of the resultant solution, substantially as described.

1,244,381. LOADING-MACHINE. LEON JONATHAN SLIFER, Sterling, Kans. Filed June 5, 1917. Serial No. 172,968. (Cl. 214—8.)



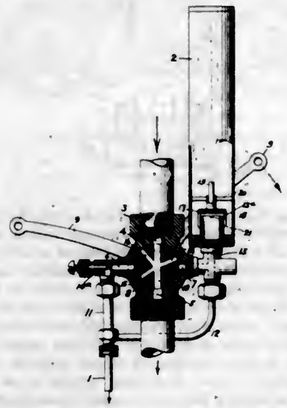
1. A device of the character specified comprising a loading table, an incline upon which the table is mounted to run and having means in connection therewith and in connection with the table for dumping the table when it is hoisted, a catch plate having guided movement toward and from the table and controlling the operation of the hoisting mechanism and adapted for engagement by the unloaded scraper to operate the same, and means for releasing the catch plate when the table has been dumped.

2. A device of the character specified, comprising a loading table, inclined track rails for the table, said table having wheels running on the track rails and said track rails having guide channels, said guide channels diverging horizontally from the rails intermediate the ends of the rails, the table having an extension provided with wheels engaging the channels to cause the table to dump when the extension wheels run into the horizontal portions of the channels, and means for raising the table.

1,244,382. GAS-LIGHTING FIXTURE. VICTOR H. SLINACK, Philadelphia, Pa., assignor to Pennsylvania Globe Gas Light Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 28, 1914. Serial No. 814,947. (Cl. 67—16.)

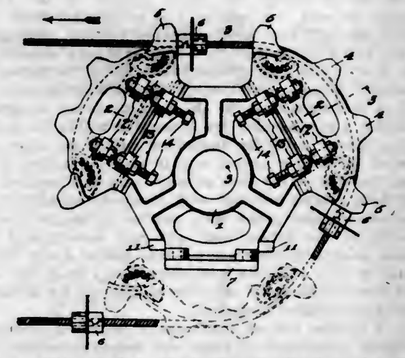
1. In a gas lighting fixture the combination of a pilot burner supply, a gas reservoir in communication therewith, and a quick opening check valve for the reservoir, substantially as described.

2. The combination in a gas lighting fixture of a pilot light, a main burner, a reservoir in communication with the pilot light, and a single gas valve having two positions one for establishing the main burner supply and disestablishing the pilot light supply, and the other for disestablishing the main burner supply and for establishing



the pilot light supply and said valve provided with a cooperating port and gas way for causing gas to momentarily enter the reservoir as the valve is moved from one position to the other to permit the reservoir to temporarily sustain the pilot light.

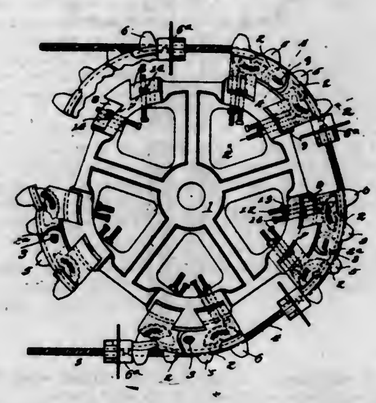
1,244,383. SPROCKET-WHEEL. CHARLES M. SNIDER, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, Columbus, Ohio, a Corporation of Ohio. Filed Sept. 26, 1913. Serial No. 792,002. (Cl. 74—61.)



In a cable sprocket wheel, the combination of a hub section, a plurality of circumferentially elongated tooth-carrying sections having interlocking engagement with the hub section preventing relative circumferential movement and permitting relative movement inward and outward, said tooth-carrying sections being spaced apart circumferentially to form peripheral gaps to accommodate sprocket blocks on the cable and each having a cable engaging periphery on the line of curvature described by a radius shorter than the distance from said periphery to the wheel axis, means for adjusting the tooth-carrying sections outward and inward, and means for rigidly locking said sections in place after adjustment.

1,244,384. SPROCKET-WHEEL. CHARLES M. SNIDER, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, Columbus, Ohio, a Corporation of Ohio. Filed Sept. 26, 1913. Serial No. 792,003. (Cl. 74—61.)

1. A cable sprocket wheel having a center hub section with a rim having guideways formed on lines tangential to circles around the hub, tooth carrying elements having shanks fitting in the said guideways and held thereby against circumferential movement, means for adjusting the tooth-carrying elements in said guideways whereby they are moved both peripherally and also outward and inward relatively to the wheel axis, and means for locking the tooth-carrying elements in position after adjustment.



2. A cable sprocket wheel having a hub section formed with guideways in pairs, one guideway of each pair being on lines tangential to circles around the axis and at one side of the axis, and the other guideway of each pair being on lines tangential at the other side of the axis to circles around it, tooth-carrying sections each formed of two adjustably connected companion elements, each element having a guide shank fitted in one of the said guideways and held thereby against circumferential movement, means for adjusting each part of each tooth element outward and inward and also peripherally, and means for locking it in position after adjustment.

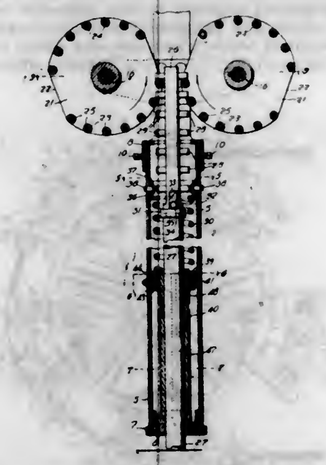
3. A cable sprocket wheel having a hub section provided with guideways in pairs and at points remote from the axis, each guideway of each pair being on lines inclined inward and toward the lines of the other guideway and inclined to the radii of both guideways, tooth-carrying sections each formed of two overlapping companion elements adapted to be clamped together and to have the teeth of one move peripherally of the wheel relatively to the teeth of the other and each section having an adjustable guide part fitted in one of said guideways and held thereby against circumferential movement, and means for clamping said sections rigidly in operative position after adjustment.

4. A cable sprocket wheel having a hub section with peripheral guideways formed on right lines, tooth-carrying elements having shanks fitting in the said guideways and held thereby against circumferential movement, and means for adjusting each tooth-carrying element inward and outward and locking it in adjusted position comprising a screw bolt for positively moving said element outward and a second screw bolt for positively moving said element inward.

1,244,385. DRILLING-MACHINE. DANS SPEHAR, Miami, Ariz. Filed Jan. 25, 1917. Serial No. 144,414. (Cl. 255—43.)

3. In a drilling machine, a reciprocatory spindle, means for actuating the spindle, a ratchet sleeve fixed on the spindle, and having a plurality of spaced parallel grooves extending longitudinally of the sleeve, inclined ways extending in a common direction and interconnecting the grooves near the upper ends of the latter, a trigger relative to which the ratchet sleeve is adapted to reciprocate, said trigger including a shoe slidable in the grooves, spring means for directing the shoe into one of the inclined

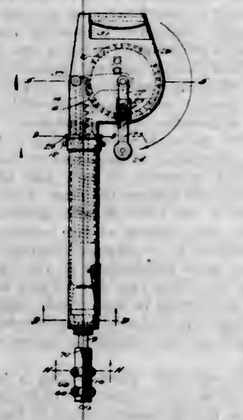
ways when the ratchet sleeve reaches one end of its stroke, a ratchet wheel slidably keyed upon the ratchet



sleeve, and means coacting with the ratchet wheel in preventing reverse rotation of the ratchet sleeve.

[Claims 1, 2, and 4 to 8 not printed in the Gazette.]

1,244,386. HAMMER-DRILL. DANE SPEHAR, Miami, Ariz. Filed May 9, 1917. Serial No. 167,522. (Cl. 255—39.)

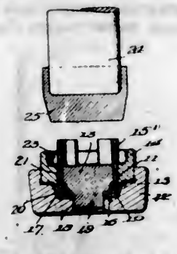


1. In a drill, a spindle, a drive wheel for operating the spindle, said drive wheel including a central web portion, a rim substantially U-shaped in cross section mounted circumferentially on the web portion, teeth carried by the rim, keys adjustable radially of the web portion and mounted thereon and adapted to engage in recesses cut in the rim, and means for securing the keys in adjustable position whereby to detachably retain the rim in position on the web portion.

4. In a drill casing having a longitudinal opening in a side thereof, a ratchet head mounted in the casing, a reciprocating member within the casing, an arm connected to the reciprocating member and engaging the ratchet head to effect rotation thereof, said arm operating in the longitudinal opening of the casing and maintained in normal position thereby, and means for preventing reverse rotation of the ratchet head.

[Claims 2 and 3 not printed in the Gazette.]

1,244,387. LOADING-TOOL FOR TIME-TRAIN RINGS. ROBINSON R. STABLER, Baltimore, Md. Filed Dec. 23, 1916. Serial No. 138,594. (Cl. 86—20.)



1. A loading tool of the character described comprising a holder having an upper inner annular recess, an intermediate ring seat, and a lower constricted opening, a core member extending loosely within said holder having an intermediate annular seat adapted to interfit a fuse ring seated on the said ring seat, and a lower reduced portion interfitting the constricted opening of the holder, and a powder guide loosely disposed within the upper annular recess of the holder, having an upper powder receiving cup and having its inner periphery spaced from the said core member to form a powder channel above the fuse ring groove.

2. A loading tool of the character described comprising a holder, a core member within the holder, and a powder guide seated within the upper portion of the holder around the said core member and spaced from the latter to form a powder channel around the core member, said holder and said core member having spaced annular portions below the powder guide between which to receive a fuse ring, for the purpose described.

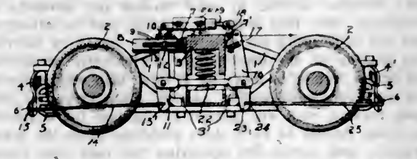
3. A loading tool of the character described comprising a holder, a core member within the holder, and a powder guide seated within the upper portion of the holder around the said core member and spaced therefrom, said holder and said core member having annular portions between which to receive a fuse ring, said core member and said powder guide being loosely disposed in the holder and relatively movable with respect thereto in operation.

4. A loading tool of the character described comprising a holder, a core member for disposition within the holder, and a powder guide for disposition within the upper portion of the holder around and in spaced relation to the upper portion of the core member, said core member and said holder being provided with relatively engaging lower portions sustaining the core member in proper position relative to the holder, and said core member and said holder having intermediate portions spaced apart for the reception of a fuse ring and adapted to engage the inner and outer surfaces of the ring to prevent its distortion during the loading operation.

5. A loading tool of the character described comprising an outer holder and an inner core member provided with spaced portions intermediate their ends to receive a time train ring, and to engage the inner and outer surfaces thereof, a powder guide surrounding the core member and spaced therefrom to form a powder channel, said core member and said powder guide being loosely disposed relatively to the holder, and movable with respect thereto in operation, for the purpose described.

1,244,388. DEVICE FOR AUTOMATICALLY COMPENSATING FOR WEAR OF BRAKE-SHOES. WILLIAM J. STAHR, Nescopeck, Pa. Filed Apr. 25, 1917. Serial No. 164,529. (Cl. 188—50.)

1. In combination with a car truck and the brake shoe supports thereof, vertical levers pivoted to opposite sides of the bolster of the truck, one of said levers having connection with an air brake apparatus, means for connecting the lower ends of the levers and the brake shoe supports, whereby movement of the levers produces a relative movement of the brake shoe supports, and means connecting the upper ends of the levers for automatically shortening the strokes of the levers.

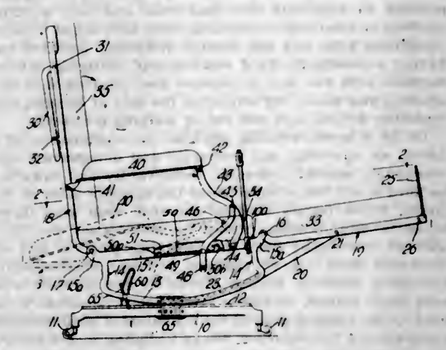


2. In combination with a car truck and the brake shoe supports thereof, vertical levers pivoted to the opposite sides of the bolster of the truck, the lower ends of said levers having connection with the brake shoe supports, a rack bar pivoted adjacent the upper end of one of said vertical levers, means for connecting the upper ends of the vertical levers, means for connecting the levers adjacent the lower end thereof, and means carried by the upper end of one of said levers and coöperating with the rack bar for shortening the stroke of said levers when the brake shoe supports are moved in one direction.

3. In combination with a car truck and the brake shoe supports thereof, vertical levers pivoted to the opposite sides of the bolster of the truck, means for supporting the levers, the lower ends of said levers having communication with the brake shoe supports to communicate movement thereto, a housing pivotally supported to the upper end of one of said vertical levers, a plurality of pivoted stops supported within the housing, a stop rod having pivotal connection with the upper end of the opposite vertical lever and operating within the housing, said stop rod adapted to normally lie under the pivoted stops, said stop bar adapted to move from under one or more stops when the lever to which the same is connected is moved in one direction, and means for holding the rod in such position.

[Claims 4 and 5 not printed in the Gazette.]

1,244,389. COMBINATION-CHAIR. EDGAR E. STOCKWELL, Los Angeles, Cal., assignor to O'Brien Merrill, Incorporated, Los Angeles, Cal., a Corporation of Nevada. Filed Mar. 13, 1916. Serial No. 83,806. (Cl. 155—31.)

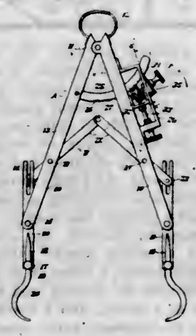


1. In combination, a base, a rocker frame adapted to rock on said base, a back frame pivoted to the back end of said rocker frame, a foot frame pivoted to the forward end of said rocker frame, means for adjustably supporting the back frame and for adjustably supporting the foot frame, said back frame being adapted to be thrown backwardly and downwardly to a horizontal position and to be thrown forwardly and downwardly to a horizontal position over the rocker frame and said foot frame adapted to normally fold back and down over the rocker frame and adapted to be thrown forwardly and outwardly to extend forwardly from the rocker frame, and manually releasable means for normally preventing the back frame from moving forwardly past an approximately vertical position.

2. In a device of the character described, a seat frame and supporting means therefor, a back frame pivoted to the rear end of the seat frame so as to swing forwardly onto said seat frame, means to adjustably support the back frame, and manually releasable means to normally prevent the forward movement of the back frame forwardly of an approximately vertical position.

3. In a device of the character described, a seat frame and supporting means therefor, a back frame pivoted to the rear end of the seat frame, means to adjustably support the back frame, said means including a brace frame composed of two brace arms and a horizontal tie rod and including horizontal ratchet teeth on the seat frame adapted to be engaged by the brace arms, there being an overhanging hook at one end of the ratchet teeth adapted to be engaged by the brace arms when the back frame is in approximately vertical position to normally prevent the back frame being moved forward of said position.

1,244,390. MEASURING INSTRUMENT. ALBERT J. TAYLOR, Lamasco, Tex. Filed Jan. 30, 1917. Serial No. 145,462. (Cl. 33—155.)



1. Calipers having a rack, an adjusting screw, a yoke carrying said adjusting screw and mounted to slide on one of the legs of the calipers, and means for sliding said yoke on the leg to engage said adjusting screw with the rack.

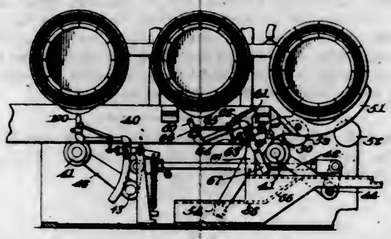
2. Calipers having a graduated and toothed rack, an adjusting screw, a yoke carrying said adjusting screw and mounted to slide on a leg of the calipers, a bracket connecting said yoke with the leg, and a stem on said yoke adjustable in said bracket to slide the yoke on said leg and engage the adjusting screw with the rack.

3. Calipers having a graduated and toothed rack, a yoke mounted to slide on one of the legs of the calipers, a bracket engaging said yoke with the leg and having a key-hole slot therein and a dial, an adjusting screw engaging said rack carried by the yoke and having a shank provided with a reduced portion received in said slot, and a stem adjustably mounted in said bracket and having swivel connection with the yoke.

1,244,391. BARREL-WASHING MACHINE. CHARLES B. VAN HORN, Philadelphia, Pa. Original application filed July 24, 1913, Serial No. 780,975. Divided and this application filed Sept. 23, 1914. Serial No. 863,171. (Cl. 141—6.)

1. In a barrel washing machine, the combination of barrel supporting and rotating means, a water supply nozzle movably mounted for immediate contact with the barrel, resilient means operatively connected with the nozzle to automatically project the same into a registering bung-hole, an automatic carrier operable to shift the barrel from its internal washing position, and means to retract the nozzle from the barrel during such shifting.

2. In a barrel washing machine, rotatable rolls for rotating the barrel, a pivoted, vertically swinging, spring projected finding nozzle adapted to be normally held projected by its projecting spring and to be depressed and held depressed by contact with the barrel to engage the bung-hole in the barrel upon coming into registry therewith and locking the barrel against rotation, a valve controlling the flow of fluid through the nozzle, means operable automatically by contact with the barrel when the nozzle engages the bung hole to open the valve for the flow of fluid through said nozzle, said means including an arm connected with the valve, a carrier automatically operative to shift the barrel from its internal washing position, and means to retract the nozzle from the barrel during such shifting.



3. In a barrel washing machine, the combination of barrel supporting and rotating means, a nozzle movably mounted for an automatic finding action, a valve controlling the flow of liquid through said nozzle, an automatically movable carrier operable to shift the barrel from its internal washing position, means to retract the nozzle from the barrel during such shifting, and valve operating mechanism connected with the nozzle automatically operable from the finding and retracting actions for controlling the flow of liquid through the nozzle.

9. In a barrel washing machine, the combination of a barrel conveyer, a swinging nozzle carried thereby, a valve carried by said nozzle, a valve stem, a fixed stop in the path of said conveyer for moving said swinging nozzle from the bung-hole of a barrel, and a movable lever operable by the barrel to transmit valve opening motion to said valve stem.

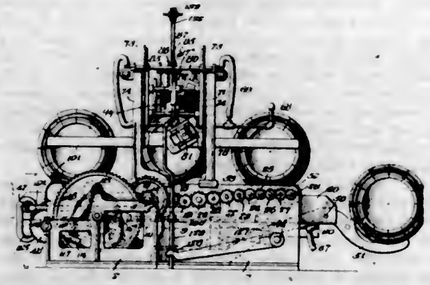
11. In a barrel washing machine, the combination of barrel supporting and rotating means, a plurality of nozzles each movably mounted for an automatic finding action, a valve to control the flow of liquid through each of the nozzles, an automatically movable carrier operating to shift the barrels from their washing positions and operable to cause a retraction of the nozzles from within the barrel, and valve operating mechanism connected with the nozzle automatically operable upon the finding and retraction actions for controlling the flow of liquid through said barrel and nozzle.

[Claims 4 to 8 and 10 not printed in the Gazette.]

1,244,392. BARREL-WASHING MACHINE. CHARLES B. VAN HORN, Philadelphia, Pa. Original application filed July 24, 1913, Serial No. 780,975. Divided and this application filed Oct. 3, 1914. Serial No. 864,830. (Cl. 141—6.)

1. In a barrel washing machine, the combination of a frame, downwardly and inwardly inclined brush frame guides at the opposite sides of the frame, gravity actuated brush frames slidably mounted upon said guides, bilge brushes carried by said frames and movable through the sliding motions of said frames on converging lines into working position and on diverging lines out of working position, vertically reciprocating members for lifting and retracting said brush frames, and rocking elements actuated at timed intervals by the running gear of the machine for raising said vertically reciprocating members and thereafter permitting the descent thereof, said rocking elements having a sliding lost-motion connection with said members.

2. In a barrel washing machine the combination of a frame, downwardly and inwardly inclined brush frame supports at the opposite sides of the frame, gravity actuated brush frames slidably mounted upon said frame supports, brushes carried by said frames and movable on converging lines into working position and on divergent lines out of working position, means actuated by the running gearing of the machine for periodically permitting said brush frames to move by gravity into working position and for subsequently raising and retracting said brush frames, rack and pinion mechanism for adjusting the brush frames to vary their positions upon the frame supports, and means for operating the rack and pinion mechanisms of the sets of brushes in unison.



4. In a barrel washing machine, the combination of a frame, downwardly and inwardly inclined brush frame supports at the opposite sides of the frame, gravity operated brush frames slidably mounted upon said frame supports, bilge brushes carried by said frames and movable on converging lines into working position and on diverging lines out of working position, longitudinally extending centering devices carried by and movable with said brush frames, end brushes carried by and movable with said centering devices, and a vertically and longitudinally movable barrel conveyer, and means including rocker mechanism actuated by the running gear of the machine for raising and lowering the conveyer and effecting movements of the brush carrier frames at timed intervals.

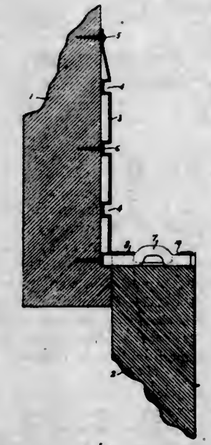
6. In a barrel washing machine, a frame, sets of brushes at each side of the frame movable out of working position on relatively diverging lines and into working position on relatively converging lines, each set of brushes comprising bilge and end brushes yieldingly mounted but having a constantly fixed relationship, centering devices movable with the sets of brushes and carrying said end brushes, and means for adjusting the sets of brushes and centering devices into and out of working positions.

10. In a barrel washing machine, the combination of a frame, an upwardly and forwardly and downwardly and rearwardly movable conveyer, downwardly and inwardly inclined brush frame supports at the opposite sides of the frame, brush frames slidably mounted upon said frame supports, bilge brushes carried by said frames and movable on convergent lines into working position and on divergent lines out of working position, longitudinally extending centering devices carried by and movable with said brush frames, rotatable barrel supports, means actuated by the running gear of the machine for longitudinally reciprocating the conveyer, means including rocker mechanism actuated by the running gear of the machine for raising and lowering the conveyer, and lost-motion connections governed by the second-named means for actuating the brush carrier frames at timed intervals.

[Claims 3, 5, and 7 to 9 not printed in the Gazette.]

1,244,393. VENTILATION WINDOW-LOCK. RUDOLPH G. WINTER, Milwaukee, Wis. Filed Jan. 7, 1915. Serial No. 1,056. (Cl. 16—143.)

1. In a lock for windows, the combination of a transversely recessed strip attached to the upper sash with its length extending in the direction of sliding of the sash, a plate attached to the top of the lower sash, and a bolt secured by said plate to slide at right angles to said strip and registrable with the recesses therein, said bolt having a lateral manually operable extension and said plate having on opposite sides of said bolt a formation closely accommodating said extension whereby said bolt may be oscillated to either side when in projected position to positively lock same in such position, and said plate on either side providing a stop for said extension whereby said extension will lie in easily accessible angular positions.

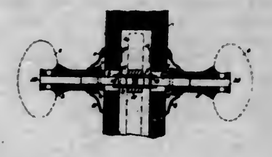


2. In a lock for windows, the combination of a transversely recessed strip attached to the upper sash with its length extending in the direction of sliding of the sash, a plate attached to the top of the lower sash, and a bolt secured by said plate to slide at right angles to said strip and registrable with the recesses therein, said bolt having a lateral manually operable extension and said plate having an opening therethrough and having opposite portions thereof formed with alined arches to secure said bolt, said extension projecting through the opening of said plate and fitting closely between the edge walls of said arches when said bolt is oscillated to either side to positively lock the same and only when in extended position, and said arch remote from the upper sash having at its top portion a notch whereby when said extension is in vertical position there is play between same and said edge walls and said bolt may be retracted, and held in indicating position.

3. As an article of manufacture, a window lock comprised of a recessed strip adapted to be fastened to the upper sash of a window, a plate adapted to be fastened to the lower sash and having an oblong opening therein at whose opposite sides are formed arches at the inner edge of one of which is formed a notch, and a bolt having a lateral extension said bolt being slidably securable within said arches by the fixing of said plate in place and said extension laterally swingable in either direction to closely fit within said oblong opening when said bolt is extended into a strip recess to hold same in extended position and entering said notch when said bolt is retracted.

1,244,394. DOOR-LATCH. RUDOLPH G. WINTER, Milwaukee, Wis. Filed Dec. 11, 1915. Serial No. 66,645. (Cl. 70—11.)

1. In a door latch, the combination of a door, a latch casing located in a mortise in said door, a rose on each side of said door, clamping means extending to the inner surface of the mortise as an abutment for securing said roses to said door, and mutually separate rigid means each journaled and held from end thrust in one of said roses and each insertible in the latch hub of said casing whereby said hub may be rotated to withdraw the latch.

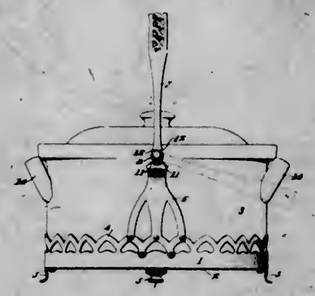


2. In a door latch, the combination of a door, a latch casing located in a mortise in said door, a recessed rose secured to said door, said rose having an inwardly extending bearing portion, and means journaled in said rose and insertible in the latch hub of said casing whereby said latch hub may be rotated to withdraw the latch, said means including a U-shaped washer located within said rose and a shank having a thrust abutment engaging said rose adjacent the outer end of the bearing portion thereof and a journal fitting said bearing portion of said rose and being recessed adjacent the inner end of the bearing portion of said rose for the reception of said washer before and after its ends are bent into clenching engagement with said shank, said washer serving as a complementary thrust bearing.

3. In a door latch, the combination of a door, a latch casing located in a mortise in said door, a rose at each side of said door, clamping means extending to the inner surface of the mortise as an abutment for securing the roses in place, and mutually separate rigid means each journaled in one of said roses and adjustably extensible to accommodate different thicknesses of door and yet have the parts lie within the hub of said casing whereby said hub may be rotated to withdraw the latch.

4. As an article of manufacture, a knob shank cored with an opening defined by substantially parallel bounding line elements at different distances from the axis of said opening and said opening extending into the body of the shank from only the end thereof, and having a spindle of similar shape held in said opening by friction set up by forcing said spindle therein.

1,244,395. CARRIER FOR CASSEROLES AND OTHER HOT-FOOD CONTAINERS. LOUIS WOJIDKOW, Brooklyn, N. Y., assignor to New York Stamping Company, Brooklyn, N. Y., a Corporation of New York. Filed Feb. 10, 1917. Serial No. 147,967. (Cl. 65—26.)



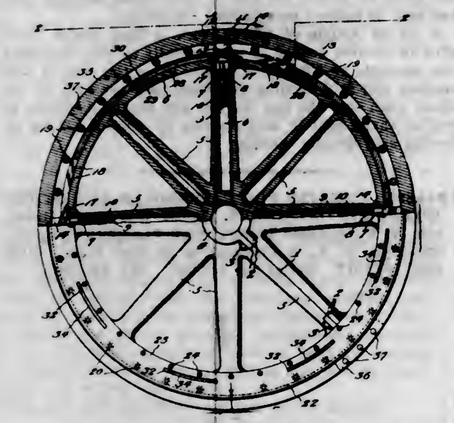
1. A carrier for casseroles and other hot food containers, having a frame provided with a horizontal portion on which the container may rest and a short vertical portion adapted to surround and conform to the shape of the lower portion of the container, standards rising from the vertical portion of the frame at opposite points thereof and rigid therewith and extending upwardly substantially the full height of the container and at their lower portions extending on both sides of the center of gravity of the carrier in its circumferential direction so as to

balance the carrier and adapted to engage the adjacent portions of the container, the horizontal and vertical portions of the frame and the standards serving to restrain transverse movement of the container within the frame, and a bail hinged to the upper ends of said standards.

2. A carrier for casseroles and other hot food containers, comprising a frame having a horizontal member to engage the bottom of a container and a vertical member to engage only the lower portion of the sides of the container, side standards on the frame conforming to the shape and height of the container and so disposed as to balance the carrier, and a bail connected with said standards by hinge joints, said hinge joints having offset ears on the standards and provided with stops, and the bail adapted to engage said stops and thereby stand off from and out of contact with the container.

3. A carrier for casseroles and other hot food containers, having a frame provided with a horizontal portion on which the container rests and a short vertical portion surrounding and conforming to the shape of the lower portion of the container, standards rising from the vertical portion at opposite points and extending substantially the full height of the container and adapted to engage the adjacent portions of the container, the horizontal and vertical portions of the frame and the standards serving to restrain lateral and endwise movement of the container, a bail hinged to the upper ends of said standards, and stop members on the standards with which the bail cooperates to limit the downward movement of the bail and hold it out of contact with the container.

1,244,396. BELT-WHEEL. HERBERT WOOD, Philadelphia, Pa. Filed May 5, 1917. Serial No. 166,649. (Cl. 74—6.)



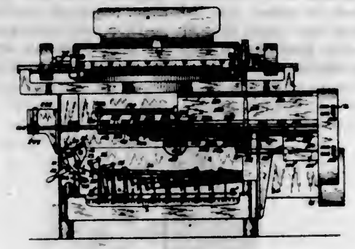
1. In a belt wheel, the combination of a felly having a fixed relation to the body of the wheel, a belt rim concentric with and surrounding said fixed rim, slidable plungers carried by the body of the wheel and adapted to lock and release the belt rim in relation to the wheel felly, and a plunger actuating locking ring between said rim and felly.

3. The combination with a fixed wheel felly, of a normally loose belt rim surrounding said felly, rim-locking plungers carried by the felly, and a plunger actuating ring carried by the felly and operating to retract and release said plungers.

7. The combination with a fixed wheel felly, of a normally loose belt rim surrounding said felly, rim-locking plungers carried by the felly, and a plunger actuating ring carried by the felly and operating to retract and release said plungers, said ring having a lateral projection adapted, upon meeting an obstruction, to hold back the ring and effect a release of the locking plungers.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,244,397. COMPUTING ATTACHMENT FOR TYPEWRITERS. WALTER WRIGHT, San Francisco, Cal., assignor, by mesne assignments, to Underwood Computing Machine Company, a Corporation of New York. Filed Mar. 22, 1909. Serial No. 485,046. (Cl. 235—59.)



1. In a computing attachment for typewriters, the combination of a typewriter carriage, computing mechanism, an actuator therefor, means for intermittently moving one of said latter elements relatively to the other with the movement of the typewriter carriage, means whereby said movable element is automatically advanced relatively to the other element to the extreme end of its relative movement simultaneously with the end of the return movement of the typewriter carriage, means for automatically releasing said element on arriving at said end to permit its return, and means for automatically returning said element when so released, substantially as described.

13. In a computing attachment for typewriters, the combination of a typewriter carriage, a rack movable therewith having a series of pins, one corresponding to each fourth writing space of the typewriter, a lever successively operated by said pins, computing mechanism, numeral keys therefor, and means operated by said lever when so actuated for preventing the depression of the numeral keys, substantially as described.

28. In a combined typewriting and computing machine, the combination with a traveling carriage, of computing wheels, means controlled by said traveling carriage for determining when said wheels shall turn, and separate means on said traveling carriage for preventing the turning of said wheels at certain predetermined points in the travel of said carriage.

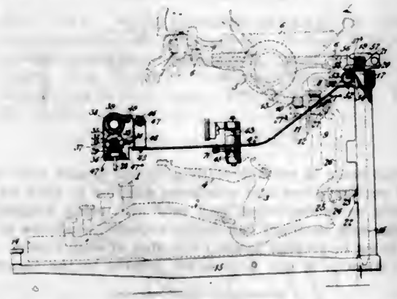
71. In a computing machine, the combination with computing mechanism of a master member, a step-by-step feeding carriage, means controlled from said carriage for moving said computing mechanism and master member relatively to one another from higher to lower orders during the step-by-step feeding movement of said carriage and means for moving said computing mechanism and master member relatively to one another from higher to lower orders on the return movement of said carriage.

[Claims 2 to 12, 14 to 27, and 29 to 70 not printed in the Gazette.]

1,244,398. COMPUTING TYPE-WRITING AND COMPUTING MACHINE. WALTER WRIGHT, New York, N. Y., assignor to Underwood Computing Machine Co., New York, N. Y., a Corporation of New York. Filed Aug. 1, 1910. Serial No. 574,813. (Cl. 235—59.)

1. The combination of a typewriter carriage, a rack upon said carriage, column stops adjustable along said rack, a key-operated stop upon the machine frame to cooperate with said column stops, a latch or hook, means to cause the hook to engage certain of said stops, means dependent on the movement of the carriage for causing said hook to release the stops, a master wheel, a gang of computing wheels, and means connected to said hook to effect relative traveling movement between said master wheel and said computing wheels.

2. The combination with a typewriter carriage, of a rack upon said carriage forming part of a typewriter-tabulating mechanism, lugs adjustably mounted upon said rack, a latch or hook to engage said lugs, a lever pivoted between its ends and connected at one end to said hook, a master-wheel connected to the other end of said lever and forming part of a computing mechanism, and means for causing said hook to engage and release the lugs in succession.

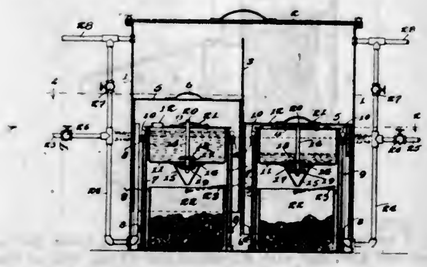


12. The combination with a typewriter carriage and a series of lugs carried thereby, of a fixed tubular housing, a slide fitting in said housing, a hook having a stem extending into said housing and connected at one end to said slide, means tending to engage said hook with said lugs, means dependent upon the movement of the carriage for releasing said hook, a master-wheel, a gang of computing wheels engageable by said master-wheel, a lever pivoted between its ends upon a framework and connected at one end to said slide, and means connected to the other end of said lever for effecting relative movement between said master-wheel and said computing wheels, and a returning spring for said lever.

16. The combination with a movable computing member, of a step-by-step feeding carriage, a projection thereon, a hook having a yielding stem and engageable with said projection, a tubular housing for affording protection for the stem of said hook, said hook having a nose projecting from one end of said housing, said housing having a slot in the bottom thereof, and an operating lever having a connection extending through said slot to said hook, and connected to said movable computing member to operate the same.

[Claims 3 to 11, 13 to 15, and 17 not printed in the Gazette.]

1,244,399. ACETYLENE-GAS GENERATOR. DANIEL ZIMMERMAN, Magley, Ind. Filed Feb. 9, 1916. Serial No. 77,210. (Cl. 48—10.)

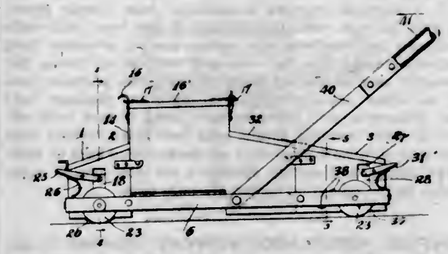


1. An acetylene gas machine comprising a casing having a detachable cover, compartments located in the casing, means for holding the compartments in lowered position within the casing, means for introducing water into the casing, bells movably mounted over the compartments, tanks mounted in the compartments and provided at their bottoms with water outlets, valve stems movably mounted in the tanks and having disks adapted to move against the opposite sides of the bottoms of the tanks, said disks being spaced apart for a distance greater than the thickness of the bottoms of the tanks, the upper ends of the stems adapted to be encountered by the tops of the bells, springs mounted upon the tanks and engageable with the stems, to normally hold them in elevated position and a pipe for conducting the gas from under the bells and connected with the casing, at the upper portion thereof.

2. An acetylene gas generator comprising a casing, a partition located therein, a detachable cover for the casing, said partition having its edges spaced from the cover and the bottom of the casing, means for introducing water into the casing, compartments located in the casing at the opposite sides of the partition, rods detachably connected with the bottom of the casing, and connected with the compartments for holding the same in lowered position in the casing, water tanks positioned upon the compartments and having in their bottoms outlet openings, carbid receptacles located in the lower portions of the compartments, valves located in the tanks and having reduced portions passing through the outlet openings thereof, disks mounted upon the stems of the valves and spaced apart for a distance greater than the vertical thickness of the bottoms of the tanks, the upper ends of the stems of the valves positioned above the tops of the tanks, springs mounted upon the tanks and engaging the upper portions of the valve stems and adapted to normally hold the said stems in elevated position, bells movably mounted over the compartment the upper ends of the valves stems lying in the path of movement of the said bells, and pipes leading from under the bells and connected with the upper portion of the casing.

3. In an acetylene gas generator a casing, for introducing water in the casing, a compartment located in the casing, a bell movably mounted over the compartment, a water tank located in the compartment and provided at its bottom with a water outlet, a valve having a stem passing through the outlet opening, the stem of the said valve projecting above the top of the tank and lying in the path of movement of the bell, a spring mounted upon the tank and connected with the stem for normally holding the same in an elevated position, disks mounted upon the valve stem and located one above and the other below the bottom of the tanks, said casing being spaced apart for a distance greater than the vertical thickness of the bottom of the tanks, and a pipe leading from the casing and having an inlet end located under the bell above the line of the water level of the casing.

1,244,400. SCRUBBING-MACHINE. ROBERT ZIMMERMAN, Dorchester, Mass. Filed Dec. 22, 1916. Serial No. 138,415. (Cl. 15—14.)

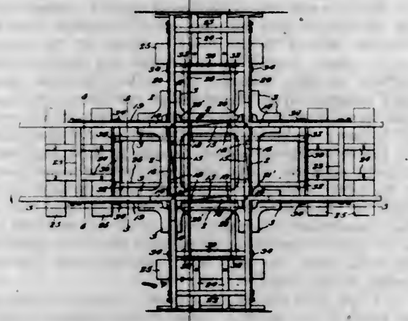


1. In a device of the character described, a frame, supporting wheels mounted thereon, a brush and a mop mounted in said frame, separate means for lifting said brush and said mop independently of each other, a handle pivoted on said frame and adapted to engage one of said lifting means to lift the brush when swung to one extremity of its path of movement and adapted to engage the other of said lifting means to lift the mop when moved to the other extremity of its path of movement.

2. In a device of the character described, a frame, supporting wheels mounted thereon, pairs of sliding blocks mounted in said frame for vertical movement, spring means for holding said blocks in their lowermost positions, a brush rotatably mounted on one pair of blocks, a

mop mounted on the other pair of blocks, separate means for lifting each pair of blocks independently of the other, a handle pivotally mounted in said frame and adapted to engage one of said lifting means to lift said brush when moved to one extremity of its path of movement and adapted to engage the other of said lifting means to lift said mop when moved to the other extremity of its path of movement.

1,244,401. RAILROAD-CROSSING. CHARLES A. ZOBEL, Fort Smith, Ark. Filed May 24, 1916. Serial No. 99,675. (Cl. 104—116.)



1. A railroad crossing including a base, corner pieces secured thereon forming the terminals of the main rails on the base, slide-rails forming the rail continuation between the corner pieces on the base, springs for maintaining the slide rails extended in contact with the corner pieces, operating bars engaging the slide-rails, pressure bars arranged along side the main rails to be depressed by a train, and connections whereby said pressure bars actuate the operating bars.

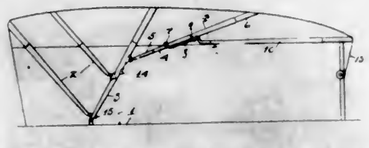
2. A railroad crossing including a base, corner pieces secured thereon, openings formed in the base, slide-rails arranged intermediate the corner pieces, pressure bars extending along side the slide-rails and corner pieces, the pressure bars of one trackway crossing the pressure bars of the other, connections intermediate the pressure bars and slide-rails, said pressure bars being formed with offsets at their crossing points, said base being formed with openings to permit movement of the pressure bars at their offset points.

3. A railroad crossing including a base, corner pieces secured thereon, openings formed in the base, slide-rails arranged intermediate the corner pieces, pressure bars extending along side the slide-rails and corner pieces, the pressure bars of one trackway crossing the pressure bars of the other, connections intermediate the pressure bars and slide-rails, said pressure bars being formed with offsets at their crossing points, said base being formed with openings to permit movement of the pressure bars at their offset points, and springs operating the slide-bars in opposition to the operation of the pressure bars.

1,244,402. VEHICLE-TOP SUPPORT. CHARLES R. ALLEN, Ashtabula, Ohio, assignor to The Ashtabula Bow Socket Company, Ashtabula, Ohio, a Corporation of Ohio. Filed Dec. 2, 1913. Serial No. 804,158. (Cl. 21—62.)

2. In a vehicle top, the combination of a main bow directly pivotally attached to the vehicle body; an auxiliary bow; an outrigger bow; and an arm pivotally attached to the inner end of said outrigger bow, said auxiliary bow and said arm being pivotally connected together and the one thereof being in turn pivotally attached to said main bow near the lower edge of the top covering, said outrigger bow and arm being adapted to form an upwardly extending elbow and said arm being adapted to engage said auxiliary bow in the extended condition of the top so as to prevent upward breaking of such elbow.

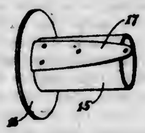
4. In a vehicle body, the combination of a main bow suitably attached to the vehicle body; an articulated auxiliary bow; an outrigger bow; and an arm pivotally attached to the inner end of said out-rigger bow near the lower edge of the top covering, said auxiliary bow and said arm being pivotally connected together and the one



thereof being in turn pivotally attached to said main bow, said outrigger bow and arm being adapted to form an upwardly extending elbow and said arm being adapted to engage said auxiliary bow in the extended condition of the top so as to prevent upward breaking of such elbow.

[Claims 1, 3, and 5 to 9 not printed in the Gazette.]

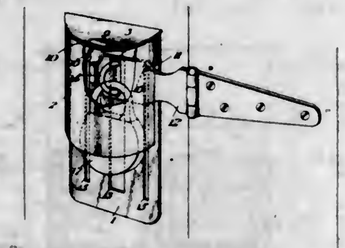
1,244,403. WINDOW-SHADE ROLLER. ELIZABETH AMENT, Los Angeles, Cal. Filed May 21, 1917. Serial No. 170,093. (Cl. 156—25.)



4. A window shade fastener, comprising a sleeve adapted to be positioned around the ends of a window shade roller, a clip formed upon said sleeve and extending longitudinally along its side, said clip being fastened to the sleeve at the outer end thereof and adapted to permit the end of a shade roller to be wrapped around it, fastening means for simultaneously securing the shade and sleeve to the roller, and an annular flange formed around the outer end of the sleeve adjacent the mounting point of the clip.

[Claims 1 to 3 not printed in the Gazette.]

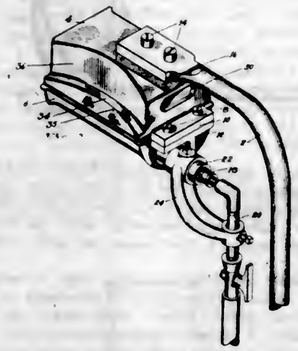
1,244,404. PADLOCK-SHIELD. LOUIS B. ANKOVITZ, Tilden, Ill. Filed May 22, 1917. Serial No. 170,302. (Cl. 70—16.)



1. A padlock shield comprising a back, a front and a cover, and provided with a vertical slot at one side of the front to afford clearance for a hasp, the back of the shield being provided with a vertical slot through which a staple may extend, said slot enabling the shield to be moved vertically or lengthwise to cover or uncover a lock attached to the staple, the back being further provided with a pair of vertical slots to receive screws or other like fastening devices whereby the shield may be secured to a wall or the like and arranged for movement thereon.

2. A padlock shield comprising a metal sheet forming a back, a front and a cover, the front being bent from one side of the back and being provided at one end with a projecting tab having a lip, and the back being provided with a slot to receive the lip, the front being also provided on the upper side with a lip, and the top being bent forwardly from the back and having a slot to receive the last-named lip.

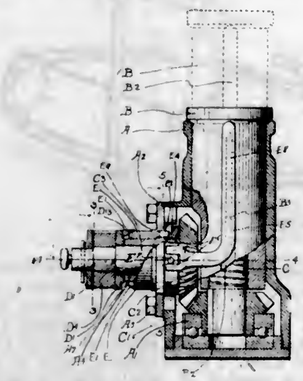
1,244,405. SHOE-IRONING APPARATUS. ORRELL ASHTON, deceased, Swampscott, Mass., by Hannah Ashton, executrix, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 17, 1916. Serial No. 78,931. (Cl. 12—51.)



1. An apparatus of the class described comprising, in combination, means for ironing the materials on the margin of the bottom of a lasted shoe, said means being arranged to permit the shoe to be presented in a substantially upright position for downward pressure against the ironing means, and means below said ironing means constructed and arranged to iron the top portions of the upper on the forepart of the shoe presented likewise in a substantially upright position.

[Claims 2 to 5 not printed in the Gazette.]

1,244,406. LIFTING-JACK. LOCKE ATWELL, Selma, Ala. Filed Apr. 28, 1916. Serial No. 94,188. (Cl. 254—103.)



1. In a lifting jack, the combination of a base, a plunger, a screw parallel to the plunger for relatively lifting the plunger, a gear wheel on said screw, a second gear wheel in constant engagement with the first gear wheel for transmitting motion to the latter, means for rotating the second gear wheel, a member movable in a path parallel to the path of the plunger and in operative relation with the latter to be moved in said path when the plunger moves to its upper limit, and means placing said movable member into operative relation with said rotating means for automatically putting said means out of action during the upward movement of the plunger, substantially as described.

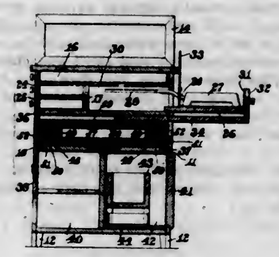
5. In a lifting jack, the combination of a base, a plunger having an upright channel, mechanism for relatively lifting said plunger, said mechanism comprising a rotary shaft perpendicular to said plunger and a pair of gears in continuous engagement with each other, one of said gears being on said shaft, means for turning said shaft, a member movable in said channel and in operative relation with said plunger to be moved in said channel when the plunger moves to its upper limit, a sleeve concentric and slidable parallel to said shaft, means operatively connecting said sleeve and said member which is movable parallel to the movement of said plunger, and means for placing said sleeve in operative relation with said shaft-turning means for automatically putting said turning means out of action during the upward movement of the plunger, substantially as described.

11. In a lifting jack, the combination of a base, a plunger, mechanism for relatively lifting said plunger, said mechanism comprising a rotary shaft perpendicular to said plunger and means for rotating said shaft, a cam ring concentric to said shaft and bearing a stud, a member movable in a path parallel to the path of the plunger and in operative relation with said stud for turning said cam ring when the plunger approaches its upper limit and means operatively relating the cam ring and the shaft-turning means for placing the latter out of action, substantially as described.

13. In a lifting jack, the combination of a base, a plunger, mechanism for relatively lifting said plunger, said mechanism comprising a ratchet wheel and a pawl movable in a path approximately tangential to said wheel, and means in operative relation with said pawl and said plunger for transmitting motion from the plunger to said pawl for the disengagement of the latter from the ratchet wheel when the plunger approaches its upper limit, substantially as described.

[Claims 2 to 4, 6 to 10, and 12 not printed in the Gazette.]

1,244,407. KITCHENETTE. CHARLES S. AVEDISIAN and JOHN J. DWYER, Dorchester, Mass. Filed Mar. 6, 1914, Serial No. 823,255. Renewed May 28, 1917. Serial No. 171,582. (Cl. 126—37.)

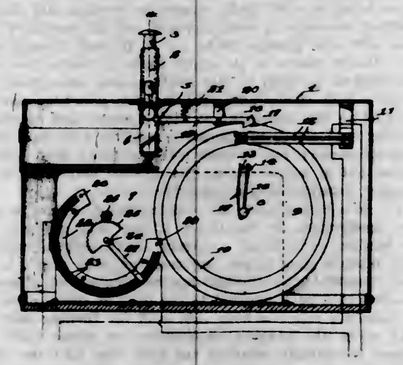


1. A kitchenette cabinet provided with an open ended chamber extending within the cabinet and having a shallow compartment beneath the bottom of said chamber, a slidable member normally positioned in the shallow compartment and provided at its outer end with a vertical member, a stove supporting member secured to the vertical member and movable into and out of the chamber, guide members in said compartment or in opposite sides of the slidable member, and a foldable shield and stove carrier carried by the stove support.

2. A kitchenette provided with an open-ended chamber extending partly through the cabinet and a shallow compartment beneath the bottom and extending beyond the inner wall of said chamber; a slidable member normally positioned in said shallow compartment and provided at its outer end with a vertical member adapted to close the open end of said chamber; a stove supporting member

secured to said vertical member and adapted to rest on the bottom of said chamber; and guide members in said compartment on opposite sides of said slidable member.

1,244,408. COIN-CONTROLLED CIRCUIT-CONTROLLER. VAUGHAN E. BACON, Florence, Nebr. Filed Jan. 26, 1917. Serial No. 144,755. (Cl. 194—55.)

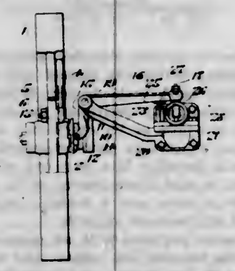


1. In a time controlled circuit controller, a chronometer, circuit closing mechanism operable from said chronometer and embodying a disk, a split conductor ring secured to one face of said disk concentrically thereof and having the ends spaced apart, contact fingers connected in the controlled circuit and having the ends thereof normally engaging said disk at a point between the ends of said ring to hold the controlled circuit open, and means holding said disk normally against turning movement under the action of said chronometer and operable to release said disk.

4. In a time controlled circuit controller, a chronometer, circuit closing mechanism operable from said chronometer and embodying a disk, a split conductor ring secured to one face of said disk concentrically thereof and having the ends spaced apart, contact fingers connected in the controlled circuit and having the ends thereof normally engaging said disk at a point between the ends of said ring to hold the controlled circuit open, means holding said disk normally against turning movement under the action of said chronometer and operable to release said disk, a shaft upon which said disk is loosely mounted, a connection between said shaft and chronometer, and means for initially rotating said disk upon its release and thereafter serving as a driving connection between the disk and the chronometer mechanism.

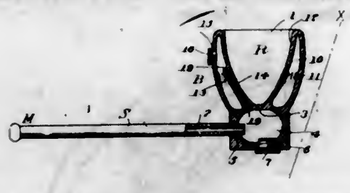
[Claims 2 and 3 not printed in the Gazette.]

1,244,409. ENGINE-SPEED REGULATOR. JOHN BAIRS, Argenta, Ark. Filed Jan. 26, 1916. Serial No. 74,482. (Cl. 264—3.)



Speed regulating and adjusting means for internal combustion engines embodying in combination with a fly wheel, and the intake valve, a speed control lever connected with the stem of said valve and serving to limit the movement of the valve away from its seat, a speed responsive device associated with the fly wheel for actuating said lever, and an adjustable stop arranged in the path of said lever for limiting the maximum movement of the lever under the influence of the speed responsive device.

1,244,410. TOBACCO-PIPE. ARCHIBALD WILLIAM BARNBY, Kansas City, Mo. Filed May 15, 1917. Serial No. 168,754. (Cl. 131—12.)

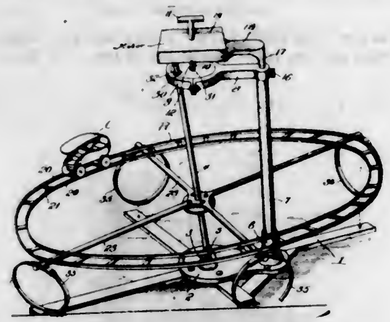


1. The herein described smoking device comprising a tobacco receptacle surrounded by double walls producing between them a water jacket, the base of the device having a smoke outlet communicating with the receptacle and the jacket having a duct connecting with said smoke outlet.

2. The herein described smoking pipe comprising a bowl whose tobacco receptacle is surrounded by double walls producing between them a water jacket, the base of the bowl having a chamber communicating with the receptacle through a smoke outlet at the lower end of such receptacle, the inner wall also having a duct connecting the upper portion of the jacket with the upper portion of the chamber, the latter having a nicotin opening in its bottom, a plug for closing the same, and a stem leading from the nicotin chamber.

[Claims 3 and 4 not printed in the Gazette.]

1,244,411. PLEASURE-RAILWAY. JOHN BEHR, Jr., Middle Village, N. Y. Filed Feb. 17, 1917. Serial No. 149,353. (Cl. 46—27.)

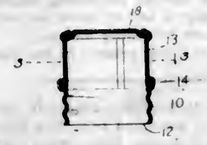


1. In an amusement device of the class described, the step bearing at their point of crossing, a standard rising combination of a base comprising crossed beams and a from the base, a motor carried by the standard, and a horizontal disk revolved by said motor and having an off-center hole; of a car, a substantially circular track on which the car is mounted, an upright shaft mounted at its lower end in said step bearing and at its upper end in said hole, a spider carried by the shaft and supporting said track, and looped springs depending from the arms of the spider and adapted to strike the beams of the base successively as the track is gyrated.

2. In an amusement device of the class described, the combination with a practically horizontal member having an annular track around it, a practically upright shaft fixed through said member, and a step bearing for supporting the lower end of the shaft; of a ring bearing directly above said step bearing, an impeller mounted in said ring bearing and having an off-center connection with the upper end of said shaft and an angular hole at its center, a superimposed motor, and a power shaft longitudinally movable through the motor and made angular for connection with the hole at the center of the impeller.

3. In an amusement device of the class described, the combination with a base, a casting thereon having a step bearing and a sleeve, a standard rising from the sleeve and tubular at its upper end, its upper extremity having a lateral arm with an annular bearing directly above said step bearing, a bracket having a shank adjustably mounted in the tubular upper end of the standard and a lateral arm overlying that of the standard, and a motor carried by the last-named arm; of a gyrating skeleton platform including a spider through which said standard extends and an annular track carried by the spider, a main shaft fast through the center of the spider and stepped at its lower end in said lower bearing, a rotary impeller mounted in said upper bearing and driven by said motor, and an off-center connection between the impeller and the upper end of said shaft.

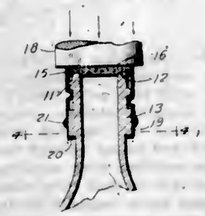
1,244,412. BOTTLE-CAP. ALFRED L. BERNARDIN, Evansville, Ind. Filed Mar. 6, 1917. Serial No. 152,691. (Cl. 215—13.)



2. A bottle cap having a pair of separately formed and longitudinally alined cylindrical shells, and a horizontal seam connecting the adjacent edges of said shells, the one shell of which is drawn from a single piece with its top removed, and has a raw free edge.

[Claims 1 and 3 to 5 not printed in the Gazette.]

1,244,413. BOTTLE-CAP. ALFRED L. BERNARDIN, Evansville, Ind. Filed Mar. 6, 1917. Serial No. 152,692. (Cl. 215—13.)



5. The combination with a bottle neck provided with threads, of a cap having an internal sealing member engageable with the mouth of the bottle, and provided with threads which engage and pass the threads of the bottle neck for movement therebeyond when pressure is applied to the cap to compress the said sealing member, said cap and the bottle neck being provided with relatively engaging means when the cap is so compressed, to hold the latter in sealed position and including a cap carried part which is removable from the cap to free the latter for cooperation with the threads alone in its subsequent use.

[Claims 1 to 4 not printed in the Gazette.]

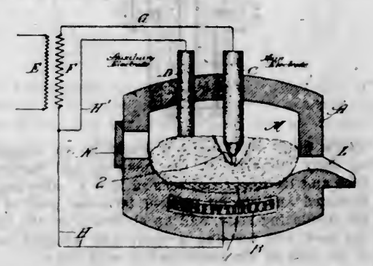
1,244,414. PROCESS OF COATING IRON, STEEL, OR OTHER METALS WITH METAL. ERNST BERNHEIM, Dusseldorf, Germany, assignor of one-half to Charles F. Burgess, Madison, Wis., and one-half to C. J. Kirk, New Castle, Pa. Filed Mar. 20, 1914. Serial No. 825,993. (Cl. 91—70.1.)

1. The method of coating articles of iron or the like to protect them with zinc, which consists in heating the articles in a comminuted material consisting mainly of zinc and aluminium, until the articles take on a protective covering, substantially as described.

2. The method of coating iron articles to protect them with zinc, which consists in heating the articles in a mixture composed mainly of zinc dust and comminuted aluminium, until the articles take on a protective covering, substantially as described.

3. The method of coating articles of iron to protect them with zinc, which consists in heating and agitating the articles in a comminuted material consisting essentially of about 50% zinc dust and 50% granulated aluminium, until the articles take on a protective covering, substantially as described.

1,244,415. ELECTRIC FURNACE AND METHOD OF OPERATION. WILLIAM K. BOOTH, Chicago, Ill., assignor to Booth-Hall Company, Chicago, Ill., a Corporation of Illinois. Filed June 29, 1917. Serial No. 177,679. (Cl. 204—64.)



1. In an electric furnace, the combination of a heating chamber provided with a wall terminal, a co-acting main electrode of opposite polarity, and an auxiliary electrode of the same polarity as said wall terminal and adapted to serve in preliminarily heating the furnace.

4. In an electric furnace, the combination of a heating chamber having a hearth provided with an embedded terminal faced with refractory material which is conductive when hot, said chamber having a top wall provided with openings, a main electrode depending through one of said openings and adapted to operate an arc at the upper portion of the charge, an auxiliary electrode depending through another opening in the top wall and adapted for ready withdrawal, and a transformer having a secondary circuit with one terminal joined to said main electrode and another terminal joined to both said wall terminal and said auxiliary electrode.

7. The method of electric furnace operation which consists in using an auxiliary electrode in conjunction with the main electrode for heating the furnace and making the wall-contact sufficiently conductive and then using said main electrode and said wall-contact to carry on the operation of the furnace.

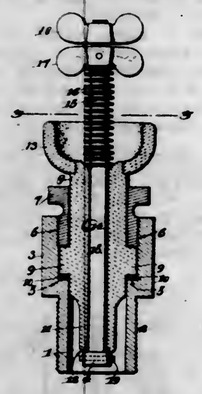
[Claims 2, 3, 5, 6, 8, and 9 not printed in the Gazette.]

1,244,416. SPARK-PLUG. ALBERT P. BROOMELL, York, Pa. Filed Jan. 12, 1916. Serial No. 71,685. (Cl. 123—169.)

2. In a spark plug for internal combustion engines, an insulating core having an opening therethrough, a valve for normally closing the opening, a reservoir carried by the core at the opposite end thereof from the valve, said reservoir being in communication with the opening, and said valve being automatically opened at the intake stroke of the engine piston.

4. A spark plug, comprising a bushing having one end internally threaded and provided with an annular internal shoulder, an elongated insulating body having a central bore and an annular shoulder and mounted in the bushing, said body having a cup at one end and its other end reduced and forming a valve seat, a second bushing externally threaded and screwing into the first bushing, a

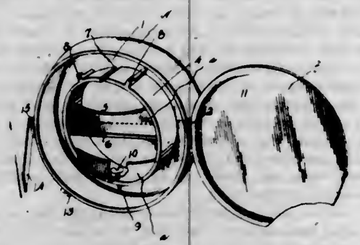
terminal post loosely mounted in the bore of the insulating body with its ends projecting beyond said body, a nut on the upper end of post, a spring on the post between the nut and the end of said body, and an electrode on the lower end of the post and forming a valve adapted to be seated on the lower reduced end of the insulating body.



6. A spark plug, comprising a bushing, an elongated insulating body mounted in the bushing and having a central bore and its lower end formed into a valve seat, a loosely mounted and spring pressed terminal post in the bore of the insulating body, and an electrode on the lower end of the post and forming a valve and adapted to be seated on the seat at the lower end of said body.

[Claims 1, 3, and 5 not printed in the Gazette.]

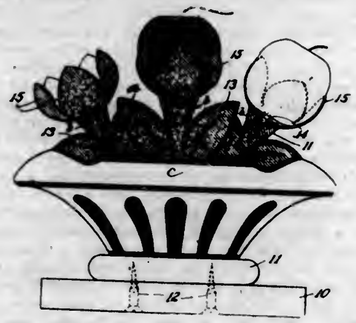
1,244,417. TIRE-CARRIER. FRANK BROSMAN, Des Moines, Iowa. Filed Sept. 28, 1916. Serial No. 122,680. (Cl. 224—29.)



In a device of the kind described, in combination, a drum section, an annulus secured to the back wall of said drum and projecting outwardly of the forward edge of the drum, said annulus being formed centrally at its upper portion with an inwardly extending slot, an adjustable screw passing through the lower portion of said annulus diametrically opposite said inwardly extending slot, a pair of ribs formed transversely upon said annulus at opposite sides of said slot, the outer ends of said ribs being curved upwardly to provide retaining means, and a hingedly connected drum section arranged to close, the first section and to contact with said upwardly curved portions of said ribs.

1,244,418. TWINE-HOLDER. JOHN A. BUANHAM, Wenham, Mass. Filed Jan. 3, 1916. Serial No. 69,737. (Cl. 242—141.)

1. A twine holder having members adapted conjointly to hold a ball of twine, comprising a base and said members projecting from the base and supported only thereon: the members being individually broad, having curvature in three dimensions of space, being bendable to and from their ball-holding positions, and having sufficient stiffness to remain in the positions to which they are thus bent.

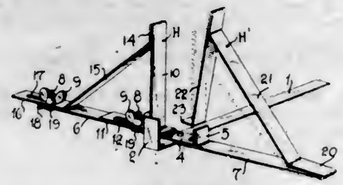


3. A twine holder having projecting twine holding members of broad material individually sufficiently pliant to be bent by human fingers and thus curved in three dimensions; and a support to which the said members are attached.

4. A twine holder having projecting members of sheet lead adapted to engage a ball of twine on various sides; a support therefor; and attaching means.

[Claims 2 and 5 to 7 not printed in the Gazette.]

1,244,419. WORK-HOLDER. JOHN H. BURNS, Yelm, Wash., assignor of one-third to Alfred Morris and one-third to Alfred Lee Morris, Yelm, Wash. Filed Nov. 29, 1915. Serial No. 64,145. Renewed Sept. 4, 1917. Serial No. 189,681. (Cl. 144—296.)

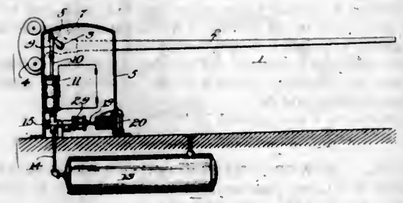


1. A work holder comprising an elongated strip provided with a stop, and work engaging members pivotally engaged with said strip at a point inwardly of the stop, one of said work engaging members comprising a strip resiliently supported by the engaging member normally maintained elevated and on an upward and outward incline relative to the coacting work engaging member, the lower extremity of said vertical strip terminating in an inturned lip adapted to be engaged by the work when inserted between the engaging members, whereby the strip is moved downwardly and toward the coacting engaging member.

[Claims 2 and 3 not printed in the Gazette.]

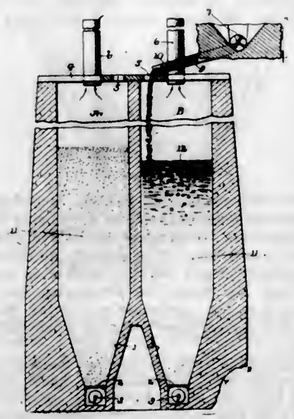
1,244,420. RAILROAD-GATE. HOWARD CARLISLE, Leesburg, N. J., assignor to Charles E. Simpson, Hammonton, N. J. Filed Mar. 10, 1916. Serial No. 83,421. Renewed Sept. 6, 1917. Serial No. 190,058. (Cl. 269—4.)

The combination with a normally open railway gate, and pneumatic means for closing it; of a valve casing having in one side an outlet opening connected with said means, in its other side an inlet opening opposite the outlet and connected with a source of compressed air and a waste opening out of alinement with the other openings, a valve block slidably mounted in the casing and having near one end a straight inlet port adapted to register simultaneously with said alined openings in its body, a deflected outlet port adapted to register simultaneously with the outlet and waste openings when the straight port is out of register with both, a solenoid alined with the casing, its core being extended into a rod connected with said block, a collar on said rod, arms on the collar, ears on the casing, contractile springs connecting the arms and



ears, an insulated section of track, a source of electric energy, and a circuit leading from one rail of said section through such source of energy and solenoid to the other rail.

1,244,421. PROCESS OF SLAKING LIME. WILLIAM E. CARSON, Riverton, Va. Filed Sept. 28, 1915. Serial No. 53,049. (Cl. 222—4.)

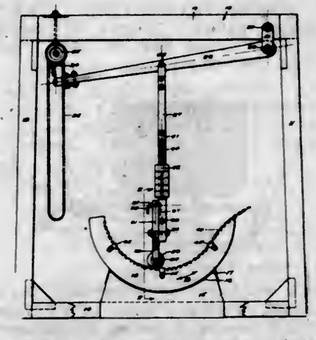


11. In the direct manufacture of dry hydrated lime the process which consists in quickly mixing comminuted lime with sufficient water to form a slurry therewith, the amount of such water being no more than will suffice to hydrate such lime and furnish a limited amount of water vapor under the heat of reaction without being in such excess as to leave a damp or moist final product, and the speed of mixing being such as to allow formation of such slurry prior to the occurrence of any substantial degree of hydration, quickly forming a tall vertical column of such slurry in a strong walled receptacle, the speed of formation of the column being such as to insure a liquid seal by such slurry for its top, and allowing the mixture to undergo reaction in a quiescent state under its own pressure resisted by the walls of such receptacle for a period of at least 8 hours, and finally withdrawing dry hydrated lime as a commercially finished product.

[Claims 1 to 10 and 12 not printed in the Gazette.]

1,244,422. SHEET-METAL-ROLLING MACHINE FOR FENDERS AND THE LIKE. ROBERT W. CARTER, Los Angeles, Cal. Filed May 23, 1917. Serial No. 170,424. (Cl. 153—32.)

1. In a sheet metal working machine, a base arcuate longitudinally, an arcuate templet mounted upon the base and adapted for longitudinal movement, means for detachably securing a sheet metal blank upon said templet, a support above the templet, and a forming roller depending from the support and adapted to engage the sheet metal blank and adapted to swing crosswise and longitudinally.

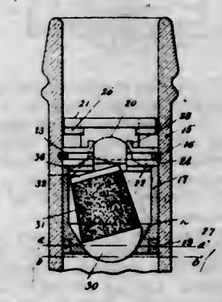


3. A sheet metal working machine, comprising a base, an arcuate seat formed upon said base, a templet adapted to rest within said seat and formed with an arcuate face whereby it may slide along said seat, a super-structure built over said base, a lever arm secured to said super-structure and adapted to be vertically moved, a forming member pivotally supported from said lever arm and adapted to move over the upper surface of the templet, means whereby pressure may be constantly applied to said forming member, and means whereby the roller pressure may be varied.

5. A sheet metal working machine, comprising a base, an arcuate seat formed upon said base, a templet adapted to rest within said seat and formed with an arcuate face whereby it may slide along said seat, a super-structure built over said base, a lever arm secured to said super-structure and adapted to be vertically moved, a forming member pivotally supported from said lever arm and adapted to move over the upper surface of the templet, means whereby pressure may be constantly applied to said forming member, means whereby the roller pressure may be varied, means for raising and lowering the forming member in relation to the templet, and means for detachably securing a sheet metal blank upon the templet in a position to be acted upon by the roller.

[Claims 2 and 4 not printed in the Gazette.]

1,244,423. ANTIREFILLING BOTTLE. FRED H. CHAPMAN, Winchester, Mass. Filed July 21, 1916. Serial No. 110,439. (Cl. 215—69.)

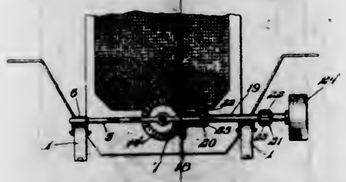


1. A valve for preventing a second filling of a bottle, said valve being of specific gravity less than unity with respect to the liquid dispensed from the bottle and of such form that the line on which it makes contact with the complemental seat when the bottle is upright, is above

the plane bounding and limiting that portion of the valve of which the displacement in said liquid is equal to the weight of the entire valve.

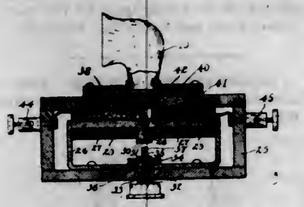
[Claims 2 to 7 not printed in the Gazette.]

1,244,424. POWER-TRANSMITTING ATTACHMENT FOR AUTOMOBILES. FLORIAN V. CHUDOMELKA, Scribner, Nebr. Filed May 13, 1916. Serial No. 97,338. (Cl. 180—53.)



In a power attachment for automobiles, the combination of a chassis, an engine provided with a driving shaft having a clutch member, a bracket bar fastened to the chassis, a U-shaped bracket carried by said bar, a bracket arm carried by the bar arranged substantially in parallel relation to one of the sides of said U-shaped bracket, said bracket arm and side of the U-shaped bracket being provided with bearings having hinged bearing caps and means for fastening the same in position, a driven shaft journaled in said bearings and removable therefrom, said shaft carrying a power transmitting pulley and a gear, a starting shaft journaled upon the bracket bar and having at one end a clutch member permanently engaging the clutch member on the engine shaft and at its free end a second clutch member, a gear upon said cranking shaft meshing with the gear upon the driven shaft, and a starting device rotatably mounted upon the outer end of the U-shaped bracket and having a clutch member for engagement with the clutch member upon the outer end of the cranking shaft.

1,244,425. BATTERY-TESTER. EMERSON L. CLARK, Lakewood, Ohio, assignor, by mesne assignments, to National Carbon Company, Inc., a Corporation of New York. Filed Sept. 8, 1914. Serial No. 860,570. (Cl. 171—95.)



1. In an electric meter an electro-magnet having a core passing therethrough, a movable armature adapted to be attracted to the core when the electro-magnet is energized by a current of a predetermined value, means for producing an audible signal, projecting into the path of said armature whereby an audible signal is given when the electro-magnet is energized to such an extent as to attract said armature.

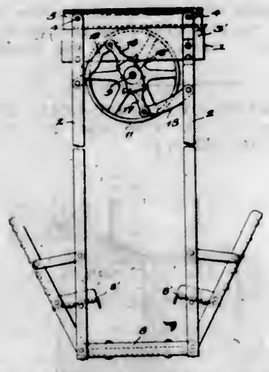
2. In an electric meter, an electromagnet having a core passing therethrough, a movable armature adapted to be attracted toward the core when the electromagnet is energized, an adjustable support for said armature, and means for producing an audible signal projecting between said armature and core whereby said audible signal is given when the electromagnet is energized sufficiently to attract the armature.

3. In an electric meter, an electro-magnet having a core, a sound emitting member adjacent thereto, an armature adapted to be moved toward the core by the flux produced by a predetermined current in said electro-magnet, and a hammer adapted to be moved by the armature into engagement with the sound emitting member.

8. In an electric meter, a U-shaped bar, a core of magnetic material joining the ends of the bar, said core having a pole piece in its middle, a non-magnetic cap on the pole piece, a hammer loosely extending through the cap and pole piece, a non-magnetic member extending through said bar, an armature resting in the member and means for magnetizing said bar.

[Claims 4 to 7 not printed in the Gazette.]

1,244,426. POWER-TRANSMITTING MECHANISM. EMERY E. CLARK, Oskaloosa, Kans. Filed Mar. 8, 1916. Serial No. 82,847. (Cl. 74—54.)



1. A power transmitting mechanism, comprising spaced pivotal operating bars mounted for a swinging movement, a transmitting shaft, independent levers pivotally attached to the shaft, and a pair of separately adjustable pawls carried by each lever and adapted to have an engagement with the shaft, and means for connecting the levers to the swinging bars for continuously rotating the shaft in a forward or reversed direction upon a movement of the said bars.

2. A power transmitting mechanism comprising opposed pivotal operating bars, a transmitting shaft, means connected with the bars and engaging the shaft for rotating the same in a forward or reverse direction upon the swinging of the bars, said means being operable to lock the bars against movement.

16. A ratchet of the character described having suitable pawl engaging teeth, and a plurality of separately removable inserts disposed between successive teeth, substantially as described.

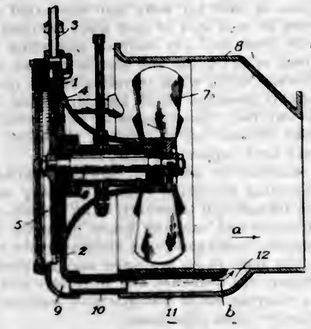
[Claims 3 to 15 and 17 to 20 not printed in the Gazette.]

1,244,427. TURBINE-DRIVEN BLOWER. FRANS H. C. COPPUS, Worcester, Mass., assignor to Coppus Engineering and Equipment Company, Worcester, Mass., a Corporation of Massachusetts. Original application filed Nov. 11, 1912, Serial No. 730,561. Divided and this application filed Apr. 19, 1915. Serial No. 22,479. (Cl. 230—11.)

1. In a device of the class described, the combination with a turbine, of a blower driven thereby, and having an inclosing casing, and means for delivering the exhaust steam from said turbine into the casing of said blower in a direction corresponding to the movement of air through said casing.

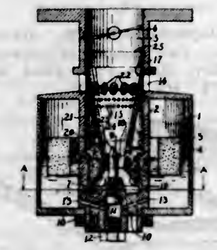
3. In a device of the class described, a casing, a steam turbine inclosed therein, a second casing spaced from said first casing and having open ends, a fan blower inclosed therein, and a steam exhaust passage leading from said first casing and opening into said second casing in front of said fan blower.

5. In a device of the class described, the combination with a steam turbine, of a blower driven thereby, a casing inclosing said blower, and means for delivering the exhaust steam from said turbine into said casing.



[Claims 2 and 4 not printed in the Gazette.]

1,244,428. CARBURETER. HENRY E. CURTIS, San Jose, Cal., assignor of one-third to Frank P. Schemmel, San Jose, Cal. Filed Feb. 7, 1916. Serial No. 76,787. (Cl 261—44.)



1. The combination of a carbureter body and a fluid-pressure-controlled Venturi tube slidably mounted therein, said tube being provided with an air passage on the exterior thereof and a plurality of upwardly and inwardly directed perforations connecting said air passage with the interior of said tube, and means for steadying the movements of said tube.

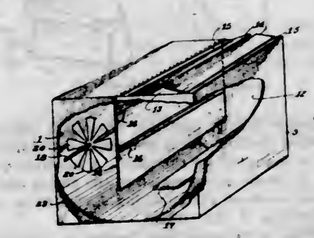
2. The combination of a carbureter body provided with compensating air inlet ports, and a fluid pressure-controlled Venturi tube slidably mounted therein, said tube having a passage formed in the exterior thereof, a plurality of perforations formed therein connecting said passage with the interior of said tube, and a plurality of perforations formed therein connecting the exterior of said tube above said passage with the interior thereof, said passage and said last mentioned perforations being adapted to communicate with said inlet ports when said tube is advanced.

4. The combination of a carbureter body having a shoulder formed in the inner wall thereof and a perforated fluid-pressure-controlled Venturi tube slidably mounted therein and provided with an air passage on the exterior thereof and a flange adapted to coöperate with said shoulder and thereby provide a dash-pot action for said tube, said perforations being angularly positioned with relation to a diametrical plane passing through said tube, a plurality of said perforations connecting said passage with the interior of said tube and a plurality of said perforations connecting the outer surface of said tube above said passage with the interior of said tube, and a plurality of inlet ports in the upper portion of said carbureter body adapted to communicate with said last mentioned perforations and said passage when said tube is advanced.

5. The combination of a carbureter body provided with compensating air inlet ports, and a perforated fluid-pressure-controlled Venturi tube slidably mounted therein, said tube being provided with a plurality of upwardly and inwardly directed perforations and having a range of movement that places said perforations in communication with said inlet ports when said tube is advanced and closes said ports when said tube is retracted.

[Claims 3 and 6 to 10 not printed in the Gazette.]

1,244,429. DRYING-ROOM FOR CEREAL PASTES. NICOLA D'AGOSTINO, Los Angeles, Cal., assignor of one-third to Antonio Bizzarri and one-third to Raphael Raulli, Los Angeles, Cal. Filed Sept. 5, 1916. Serial No. 118,424. (Cl. 34—19.)



1. A drier of the class described, comprising a substantially closed housing divided into compartments communicating through a single opening, one of said compartments adapted to contain the material to be dried, the other of said compartments being entirely closed except for said opening, and a blower in the other compartment.

2. A drier of the class described, comprising a casing divided into compartments communicating through a single opening, one of said compartments adapted to contain the material to be dried and leaving an opening communicating with the outside of said casing, means for regulating said opening, the other of said compartments being entirely closed except for said opening, and a blower in the other compartment.

3. A drier of the class described, comprising a casing, a partition wall spaced from one side of said casing dividing the latter into a plurality of communicating compartments, one of said compartments being entirely closed except for the communicating opening, and a blower in one of said compartments, the other of said compartments adapted to contain material to be dried and provided with an opening communicating with the atmosphere.

4. A drier of the class described, comprising a substantially closed housing divided into communicating compartments, one of said compartments adapted to contain the material to be dried, a blower in another compartment, and a deflector for air to direct the air currents from one compartment to another.

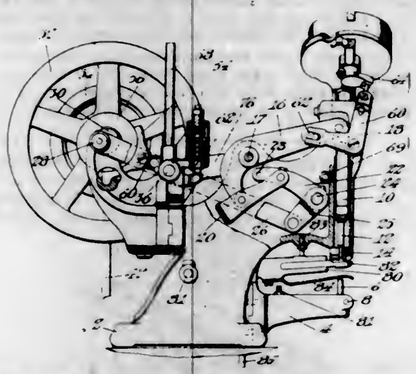
5. A drier of the class described, comprising a casing divided into communicating compartments, one of said compartments adapted to contain the material to be dried, an opening in said compartment communicating with the outside of said casing, means for regulating said opening, a blower in the other compartment, and a deflector for air to direct the air currents from one compartment to another.

[Claims 6 to 9 not printed in the Gazette.]

1,244,430. FASTENER-SETTING MACHINE. JOHN F. DAVEY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 5, 1914. Serial No. 816,832. (Cl. 218—15.)

1. A fastener setting machine, having in combination, setting devices, power operated actuating mechanism therefor, a punching device, and a treadle for actuating the punching device in its initial movement and throw-

ing into operation the power operated actuating mechanism by its further movement.

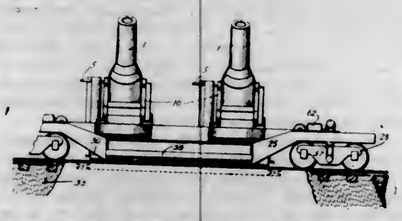


3. A fastener setting machine, having in combination, a power driven shaft, a clutch thereon, a setting device arranged to be actuated by the shaft, a movable punching device, and a treadle so connected to the clutch and punching device as to cause the punching device to be operated prior to throwing in the clutch.

5. A fastener setting machine, having in combination, a power driven shaft having a crank, an oscillating connecting rod actuated thereby, a rock shaft connected to the rod and oscillated thereby, a reciprocatory setting device mounted for movement in a path adjacent to the rock shaft, and a connecting lever mounted for oscillation about an axis located on the side of the rock shaft remote from the path of the setting device and operated from the rock shaft.

[Claims 2, 4, and 6 to 14 not printed in the Gazette.]

1,244,431. SYSTEM OF MOBILE ARMAMENT. CECIL F. DAWSON, New York, N. Y., and LAWRENCE W. LUELLEN, Mountain Lakes, N. J. Filed Nov. 23, 1915. Serial No. 62,950. (Cl. 89—40.)



5. In a system of mobile armament, the combination of a roadway, a foundation, a car including a body and carrying wheels adapted to be moved along said roadway to a position on said foundation, means for locking said car body in predetermined fixed position on said foundation without removing the carrying wheels and a gun adjustably mounted as to angularity and inclination on said car body, and adapted to be fired therefrom in adjusted position when said car body is locked to said foundation.

10. In a system of mobile armament, the combination of a railroad, fixed foundations beneath said railroad at separated points therealong, a gun support provided with suitable running gear capable of travel along said railroad, means for lowering said gun support with relation to said running gear without removing the running gear therefrom, whereby said gun support may be lowered into supported position upon any one of said fixed foundations, and a gun permanently mounted on said gun support and capable of being fired therefrom.

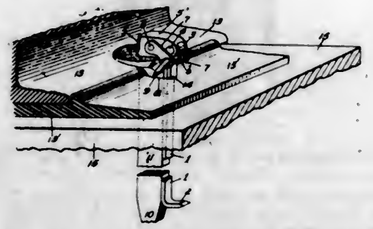
15. The combination of a railroad track, a fixed supporting base over which said track passes, a car including a body of normal width and wheel supporting trucks therefor, said car body being movable on said trucks to a position over said supporting base, means for bringing integral portions of said car body into supported relation with said base at each side of said track without removing the trucks from said car body or displacing the car body therefrom, or extending any portion of said car body beyond its normal width when traveling on the track, and a gun adjustably mounted as to angularity and inclination on said car body and capable of being fired in adjusted position on said car body when the latter is supported on said fixed supporting base.

30. The combination with an ordinary railroad incapable of resisting the firing strains of heavy ordnance adapted to be transported thereover, of an ordnance transporting and supporting car, the heavy ordnance on said car, and separate recoil-absorbing emplacements built at intervals in the zone to be protected and adapted to receive and support the ordnance and to receive and retain the ordnance carrying car in transportable position and to resist recoil under firing conditions.

40. A system of mobile armament, comprising a railway including bed and rails, of a plurality of installed recoil resistance emplacements at different points communicating with the railway, a car, a gun on the car, and means for transferring the weight of the gun to the emplacements while retaining the car in transporting position with relation to the gun and railway.

[Claims 1 to 4, 6 to 9, 11 to 14, 16 to 29, 31 to 39, and 41 to 43 not printed in the Gazette.]

1,244,432. ANCHORING DEVICE. GEORGE HORRALD DILLON, Sawtelle, Cal., assignor of one-half to John H. Dobbings, Soldiers Home, Cal. Filed Mar. 1, 1915. Serial No. 11,374. (Cl. 85—23.)



1. An anchoring device comprising an anchor piece provided with a detent at its lower end and adapted to be inserted into the hole formed by a spike or the like before the spike is driven alongside of the anchor piece; means pivoted at the upper end of the anchor piece and adapted to swing above the anchor piece for locking the anchor piece and the spike together; and means for locking the pivoted means above the spike.

2. An anchoring device comprising a limb adapted to be inserted into a hole formed by a spike or the like before the spike is driven alongside of the limb; a bend forming a detent at the lower end of the limb and adapted to project laterally into the wall of the hole as the spike is driven alongside of the limb; a releasable lock pivotally connected with the limb at the upper end thereof and adapted to swing above the limb for locking the limb to the spike; and means for locking the releasable lock above the spike.

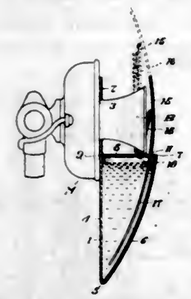
3. An anchoring device comprising a limb adapted to enter a hole formed by a spike or the like, a detent at the lower end of said limb adapted to project laterally into the wall of the hole as the spike is driven alongside of the limb, and an anchor link at the upper end of the limb adapted to extend over onto the spike head and a latch to lock said limb, link and spike together.

4. An anchoring device comprising a limb adapted to enter a hole formed by a spike or the like, a detent at the lower end of said limb adapted to project laterally into the wall of the hole as the spike is driven alongside of said limb, an anchor link at the upper end of the limb adapted to swing over onto the spike-head, and means to lock said link in place over the spike-head to thereby secure said spike against accidental loosening.

5. An anchoring device comprising a limb adapted to enter a hole formed by a spike or the like, a detent at the lower end of said limb adapted to project laterally into the wall of the hole as the spike is driven alongside of said limb, and an anchor link at the upper end of the limb adapted to swing over onto the spike-head, a latch to secure said link in place over the spike-head, and a releasable key for said latch.

[Claims 6 to 9 not printed in the Gazette.]

1,244,433. TELEPHONE-MOUTHPIECE. GEORGIE DONSEY, Seattle, Wash. Filed Jan. 12, 1917. Serial No. 142,101. (Cl. 179—185.)



1. An attachment for telephone mouthpieces comprising a chamber for an antiseptic, means for supporting it adjacent to the mouthpiece, a movable element whereof one end constitutes a screen normally housed within the chamber and the other end constitutes a shutter normally standing over the mouthpiece, and means for permitting movement of said element to draw the screen across said mouthpiece.

3. A mouthpiece for telephones and the like comprising a tank for an antiseptic, means for supporting it from and subjacent to the mouthpiece, a movable element whose lower end is rendered open to the passage of sound and normally submerged in the antiseptic and whose upper end is closed and stands normally over the mouthpiece, and yielding means holding said element in such position, for the purpose set forth.

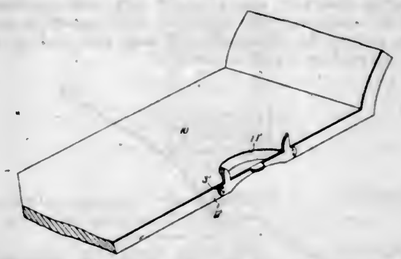
5. In an antiseptic mouthpiece for telephones and the like, the combination with an upright metal strap having an opening through which the mouthpiece passes, and a tank carried by the lower end of the strap, the top of the tank standing beneath the bell of the mouthpiece and having a slot across its front edge forward of said bell, the front wall of said tank being curved; of a movable sheet metal element curved to correspond with the curvature of said wall and passing through the slot in the top of the tank, its lower end being longitudinally slotted to produce a comb and its upper end being solid and standing normally in front of the mouth of the bell, a handle formed on the upper end, and springs connecting the upper portion of the element with the tank and standing at opposite sides of the bell, for the purpose set forth.

[Claims 2 and 4 not printed in the Gazette.]

1,244,434. FOOT-SCRAPER. CLIFFORD DUNHAM, Edmonton, Alberta, Canada. Filed Aug. 21, 1915. Serial No. 46,701. (Cl. 21—55.)

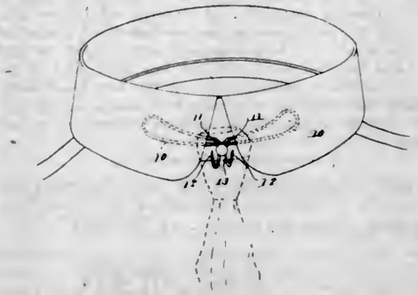
1. In a foot scraper, a scraper bar provided between the ends thereof with a horizontally disposed scraping lip projecting laterally from the scraping edge thereof, said lip having a convex working edge and having its upper face located flush with the scraping edge of the scraper bar.

2. The combination with an automobile running board formed with an opening, of a foot scraper bridging said opening and fixedly secured to the running board at opposite sides of said opening, said foot scraper embodying a scraper bar extending across said opening, attaching



means at the ends of said scraper bar, and a scraping lip having a convex working edge and forming a lateral extension of the working edge of the scraper bar and lying flush with the last named edge.

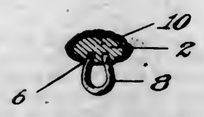
1,244,435. NECKTIE-HOLDER. CHARLES B. EATON, Belfast, Me. Filed Feb. 27, 1917. Serial No. 151,286. (Cl. 2—11.)



1. A necktie holder embodying a frame constructed from a single length of wire, and including a pair of curved oppositely disposed loops, the terminals of said loops being coiled about the main portion of the frame and further extended to provide a pair of upwardly pointing prongs.

[Claim 2 not printed in the Gazette.]

1,244,436. BUTTON. JOHANN CASP. ENGELS, Barmen-Rittershausen, Germany, assignor to United Fast Color Eyelet Company, Portland, Me., a Corporation of Maine. Filed Jan. 7, 1914. Serial No. 810,833. (Cl. 24—90.)



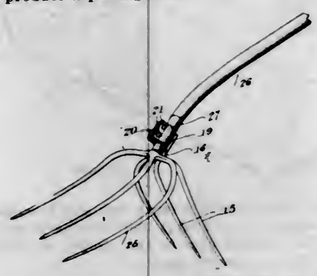
1. A button comprising a solid non-metallic core having a continuous convexly curved upper surface and a circular boss projecting from its lower surface, a plastic covering molded upon the core, forming a continuous unbroken covering over the entire upper surface of the core with an unbroken curved lower edge, and terminating at the periphery of the boss, and a shank entering the core within the periphery of the boss and clear of the covering.

[Claim 2 not printed in the Gazette.]

1,244,437. HAY-FORK ATTACHMENT. GEORGE W. FISHER, Ravenna, Mich. Filed June 5, 1917. Serial No. 172,952. (Cl. 55—27.)

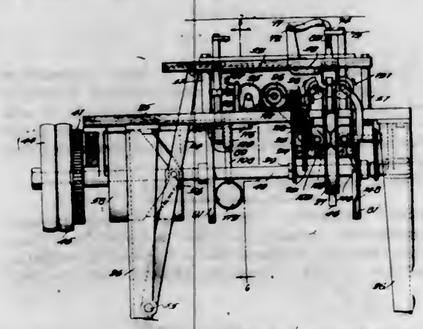
1. The combination with a pitching fork having a fork head provided with a plurality of tines and a handle

with which said fork head is connected, of a clamping sleeve mounted on the handle adjacent to the fork head, a shank extending longitudinally through said sleeve and connected therewith, and a second fork head connected with the shank and bent angularly with respect to said shank and the first-mentioned fork head and clear of the latter to produce a pulling hook.



2. The combination with a pitching fork having a fork head provided with a plurality of tines and a handle with which said fork head is connected, of a clamping sleeve mounted on the handle adjacent to the fork head, a shank extending longitudinally through said sleeve and connected therewith, and a second fork head connected with the shank and bent angularly with respect to said shank and the first-mentioned fork head and clear of the latter to produce a pulling hook; the two fork heads being mutually disconnected to permit fork heads having different numbers of tines to be centered with respect to one another.

1,244,438. STAMPING-MACHINE. MATHIAS FOGDE and LAWRENCE P. SOUTHWICK, Richmond, Va. Filed Nov. 19, 1915. Serial No. 62,323. (Cl. 216—55.)



1. In a stamp applying apparatus of the character described, a feed member on which the boxes to be stamped are disposed, stamp applying members for applying stamps to the boxes on the feed member, rotating brushes between which the boxes carried by the feed member travel, for brushing the applied stamps into uniform contact with the boxes, shafts upon which said brushes are secured, supporting arms fulcrumed adjacent their lower ends and in the upper portions of which said shafts are journaled, driving connections for the feed member including a main shaft, and a cam wheel carried by said shaft, one of said supporting arms having an extension co-acting with the cam whereby to rock the arms in alternately opposite directions and thus move said brush shafts with their brushes toward and away from one another.

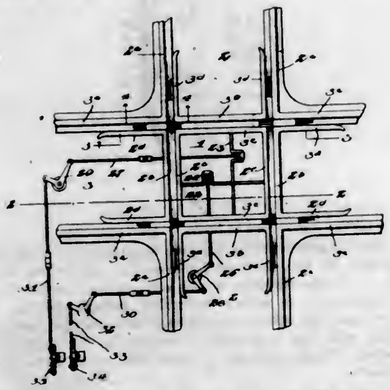
3. In a stamp applying apparatus of the character described, a series of stamp applying members horizontally movable toward and away from the boxes to be stamped, a carrier for said members, and means for moving said members toward and away from one another on said carrier.

7. In a stamp applying apparatus of the character described, a series of stamp applying members, a horizontally movable carrier supporting said member, and means for moving said members laterally toward and away from one another with respect to said carrier, said last named means acting upon the said stamp applying members during their horizontal movement with the said carrier.

8. In a stamp applying apparatus of the character described, a series of stamp applying members, a horizontally movable carrier supporting said members, a guide for moving said members toward and away from one another during their movement with the carrier, and vertically movable members engageable with said applying members at the limits of their horizontal movement, for moving the same in a vertical direction.

[Claims 2, 4 to 6, and 9 to 16 not printed in the Gazette.]

1,244,439. RAILWAY-CROSSING. GEORGE L. FORESTER, Asheville, N. C. Filed Jan. 19, 1917. Serial No. 143,335. (Cl. 104—116.)



1. In a railway crossing, blocks in the gaps between the rails at the corners of the crossing, anti-frictional guide means for said blocks, slidable means disposed to underlie the blocks to elevate the latter to bring the same flush with the heads of the rails, interengaging elements between said means and said blocks, and actuating mechanism for said means.

2. In a railway crossing, angularly disposed main rails and guard rails for the main rails, said main rails having their webs widened at the ends thereof and provided with vertical slots, the guard rails also having slots disposed respectively opposite the mentioned slots, gravity blocks in the gaps at the corners of the crossing, laterally extending trunnions upon the sides of the blocks, antifrictional rollers upon the trunnions and received in the referred to slots, slidable means disposed to underlie the blocks to elevate the latter to bring the same flush with the tread surface of the rails, and operating mechanism for said slidable means.

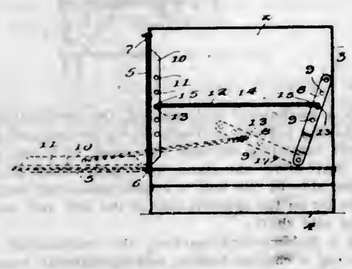
3. In a railway crossing, gravity blocks in the gaps at the corners of the crossing, guide means for said blocks including anti-frictional elements, slidable members coengaging with one of the ends of said blocks, means comprising mechanism for actuating the slidable means for bringing the same beneath the blocks to elevate the blocks, and interengaging means between the slots and said slidable means when the said means is brought beneath the blocks.

4. In a railway crossing, gravity blocks in the gaps at the corners of the crossing, guide means for the blocks to limit the vertical movement of the said block and including anti-frictional elements, each of said blocks having its outer end inclined, slidable blocks having inclined ends designed to engage with the inclined ends of the first mentioned blocks whereby to guide the slidable blocks beneath the first mentioned blocks, and means comprising mechanism for actuating the slidable blocks.

5. In a railway crossing, gravitationsly influenced blocks in the gaps at the corners thereof, guide means including anti-frictional elements and limiting the vertical movement of the blocks to bring the same flush with the treads of the rails or below said treads, said blocks having their inner ends beveled inwardly from their tops to their bottoms and provided with continuous grooves, each of said blocks having its under-face provided with a continuous groove, elevating blocks having inner beveled ends provided with ribs normally received in the grooves in the beveled ends of the first mentioned blocks when the latter are in their lower position, a continuous rib upon the upper face of the elevating blocks designed to be received in the groove in the underface of the first mentioned blocks when the elevating blocks have been moved beneath the first mentioned blocks to elevate the latter, and means comprising mechanism for sliding the elevating blocks.

[Claim 6 not printed in the Gazette.]

1,244,440. OVEN-SHELF. HENRY L. FRANKLIN and CHRISTOPHER C. BRAGG, Huntington, W. Va. Filed



Apr. 21, 1917. Serial No. 163,638. (Cl. 126—340.)

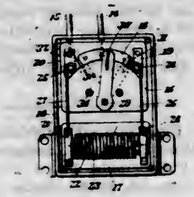
1. In a device of the character described the combination with a receptacle, of a door hinged to said receptacle, a shelf adapted for movement in said receptacle, arms mounted in said receptacle and having holes formed along the lengths thereof, a pair of spaced extensions formed on the inner side of said door and extending longitudinally thereof and having holes formed along the lengths thereof, a shelf adapted for movement in said receptacle, means on said shelf for engagement with corresponding holes of said arms and extensions, and means on said shelf for disengaging said first mentioned means from the engaged hole.

4. In a device of the character described the combination with a receptacle, of a shelf comprising two members having their corresponding sides hingedly connected together and having stops formed thereon adapted to prevent said members from swinging beyond their common plane in one direction, projections formed on the sides of said shelf, and means in said receptacle for engaging said projections and supporting the shelf when said shelf members lie in their common plane, said projections being disengaged from said means when said shelf members are positioned out of their common plane.

[Claims 2 and 3 not printed in the Gazette.]

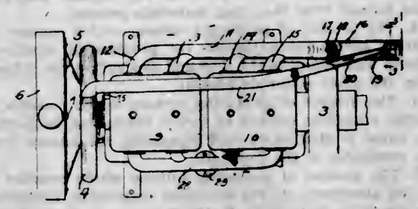
1,244,441. AUTO-LIGHT DIMMER. ARTHUR J. FRASCOLLA, New York, N. Y. Filed Jan. 26, 1917. Serial No. 144,691. (Cl. 219—48.)

An electric light dimmer comprising in combination a housing, a sectional insulating block within said housing, a plurality of spaced contact plates secured to one section of said block, a switch arm also secured to said section for movement over said plates, independent spring engaging points formed on said arm for the purpose of bridging and insuring a positive contact with said spaced contact plates, a resistance coil mounted upon the other section of the insulating block and spring connecting arms



carried by certain of the contact plates and adapted to be removably secured to the resistance coil.

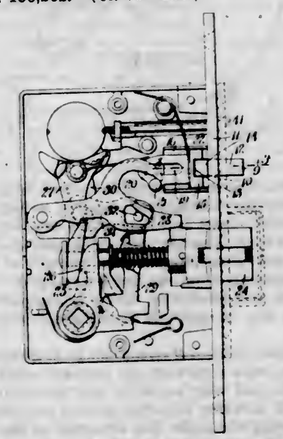
1,244,442. EXHAUST AUXILIARY FOR EXPLOSION-ENGINES. CHARLES R. FRAZER, San Francisco, Cal. Filed May 17, 1916. Serial No. 98,068. (Cl. 123—194.)



1. In an explosion engine, the combination with an engine of an exhaust pipe, a fan, a radiator through which the air delivered by the fan passes, a discharge pipe leading from the fan to the exhaust pipe, and a Venturi bushing in the exhaust pipe adjacent the air discharge pipe whereby a pressure lower than atmospheric is produced in the exhaust pipe.

2. In an explosion engine, the combination with an explosion engine of an exhaust pipe, a fan for cooling the engine, a discharge pipe leading from the fan to the exhaust pipe, and a bushing having a Venturi opening in said exhaust pipe adjacent the end of the air discharge pipe whereby a pressure lower than atmospheric is maintained in the exhaust pipe.

1,244,443. LOCK AND LATCH MECHANISM. NORMAN BOLLES HURD, New Britain, Conn., assignor to The American Hardware Corporation, New Britain, Conn., a Corporation of Connecticut. Filed Mar. 21, 1917. Serial No. 156,262. (Cl. 70—120.)



In a latch mechanism, a casing having oppositely disposed upper and lower guide grooves and oppositely dis-

posed intermediate guide grooves between said upper and lower guide grooves, a face plate having an opening narrower than the space between said intermediate grooves, a latch controller having beveled front edges guided in said opening and lateral rear projections guided in said intermediate grooves, and a slide coöperating with said latch controller and guided in said upper and lower guide grooves.

1,244,444. PROCESS OF PRODUCING TOLUENE. RALPH H. MCKEE, Orono, Me., assignor to New Process Gasoline Co., Philadelphia, Pa., a Corporation of Delaware. Filed Jan. 18, 1916. Serial No. 72,746. (Cl. 23—24.)

1. The herein described process, which consists in heating spruce turpentine and aluminum chlorid to a reacting temperature whereby toluene is produced.

2. The process of producing toluene and propane which consists in heating spruce turpentine in the presence of aluminum chlorid and separating the toluene and propane formed from the other materials present.

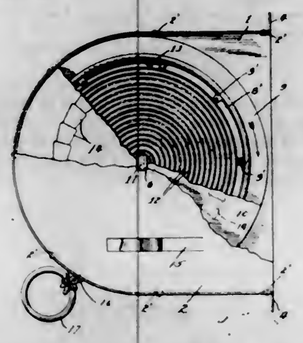
3. The process of producing toluene which consists in heating spruce turpentine in the presence of aluminum chlorid and hydrochlorid acid and separating the toluene from the other materials present.

4. The process of producing toluene which consists in adding aluminum chlorid to spruce turpentine, subjecting the liquid to distillation, and separating the toluene from the remainder of the distillate.

5. The process of producing toluene which consists in adding aluminum chlorid to spruce turpentine, subjecting the liquid to distillation in the presence of hydrochloric acid gas and separating the toluene from the other materials present in the distillate.

[Claims 6 to 12 not printed in the Gazette.]

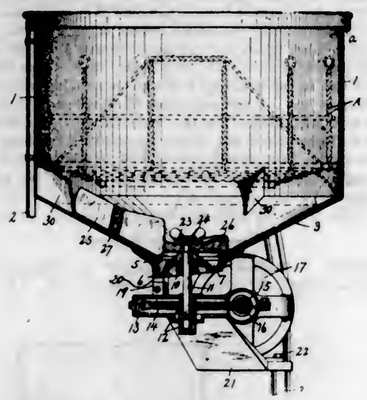
1,244,445. CLOTHES-LINE REEL. WALTER E. PRATT, Berkeley, Cal., assignor to D. L. Thornbury, Oakland, Cal. Filed Apr. 7, 1914. Serial No. 830,276. (Cl. 242—102.)



1. A clothes line reel comprising a sheet metal casing, a non-rotatable shaft supported thereby, a reel rotatably mounted on said shaft and having one side wall provided with ratchet teeth, a spring connecting said shaft and said reel, and a pawl strip integral with one wall of the casing extending inwardly from the latter to coöperate with said ratchet teeth, said pawl strip having a loop portion whereby the same may be manually disengaged from the ratchet teeth.

2. A clothes line reel comprising a metallic casing formed of an edge strip and side plates, a shaft held non-rotatively in said side plates, a reel revolubly mounted in said shaft, a spring attached to said shaft within said reel and having the other end attached to the outer circumference of said reel, said reel comprising two thin metallic circular side plates and a cylindrical ring connecting said circular side plates, ratchet teeth stamped in one of said side plates and a tongue cut from one of the casing side plates and bent to form a spring pawl adapted to engage said ratchet.

1,244,446. MECHANICAL DISH-WASHER. WILLARD R. WALKER, Syracuse, N. Y. Filed Jan. 12, 1914. Serial No. 811,720. (Cl. 141—9.)



1. In a mechanical dish washer, the combination with a vat having a gland centrally in its bottom and a vertical shaft extending through the gland, of a hub secured to the shaft above the gland, an impeller blade projecting from one side of the hub, a counterbalancing weight for the impeller on the opposite side of the hub, and means for rotating said shaft.

2. In a dish-washing machine, the combination with a vat having a conical bottom and an annular channel in the apex of said bottom, a vertical shaft journaled centrally in said apex, and an impeller secured to said shaft and extended across the channel and having a portion thereof at the outer side on the channel deflected in the direction of rotation of the water impelled thereby, and upstanding baffle plates secured to the conical bottom beyond the path of movement of the impeller and having portions of their inner ends deflected in the direction of rotation of the impeller.

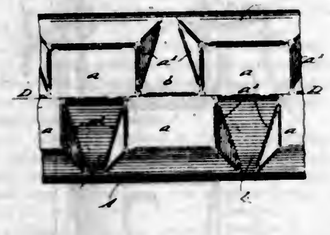
4. In a mechanical dish washer, the combination with a vat having a gland centrally in its bottom and a vertical shaft extending through the gland, of an impeller blade secured to the shaft above the gland and of considerably less radial length than the interior radius of the vat, said blade being inclined transversely from the lower edge upwardly in a direction opposite to that of its rotation, a series of stationary blades projecting from the sides of the vat toward the shaft a distance slightly less than the radial distance between the outer ends of the impeller and sides of the vat, and means for rotating said shaft.

[Claims 3, 5, and 6 not printed in the Gazette.]

1,244,447. PNEUMATIC TIRE. JOHN CHARLES BARKER, London, England. Filed Nov. 13, 1916. Serial No. 131,126. (Cl. 152—14.)

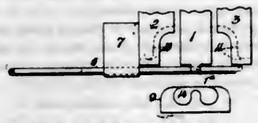
1. An outer cover for a pneumatic wheel-tire provided with a multiplicity of integrally formed four-sided truncated pyramidal projections, arranged in two longitudinal rows around the tread portion of the cover and in staggered relation, the projections in each row being spaced apart and having tread surfaces of rectangular configuration, the inner longitudinal edges of said surfaces each lying in the central plane of the wheel and having a length, measured circumferentially in the direction of the line of travel, greater than the correspondingly measured length between adjacent transverse edges of the tread surfaces of any two neighboring projections of a row.

2. An outer cover for a pneumatic wheel-tire provided with a multiplicity of integrally formed four-sided truncated pyramidal projections, arranged in two longitudinal rows around the tread portion of the cover and in staggered relation, the projections in each row being spaced apart and having tread surfaces of rectangular configuration, the inner longitudinal edges of said surfaces each



lying in the central plane of the wheel and of such a length measured circumferentially in the direction of the line of travel that the inner longitudinal edge of each of the tread surfaces of either row of projections overlap the inner longitudinal edges of the tread surfaces of two adjacent projections of the other row.

1,244,448. WIRE-CHAIN-LINK-FORMING MECHANISM. ANDREW BERG, Bridgeport, Conn., assignor to Coulter & McKenzie Machine Company, Bridgeport, Conn. Filed May 8, 1916. Serial No. 96,060. (Cl. 59—23.)



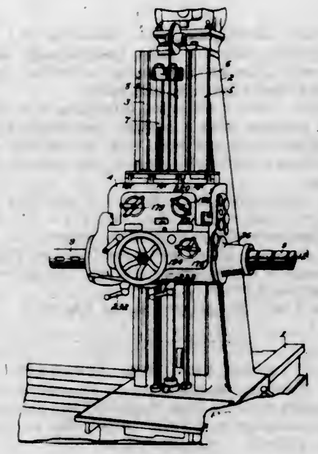
1. The herein described mechanism for forming chain links comprising a vertically movable mandrel of two diameters about which the links are formed, a guide for the wire, a movable gripping tool adapted to force the end of the wire, projecting from the guide, firmly against the larger diameter of the mandrel, movable initial bending tools on each side of the gripping tool adapted to sever a link section and form an initial bend in the end of the link section about a part of the larger diameter of the mandrel, final scrolling tools operating at right angles to the initial bending tools and having semi-circular grooves in their ends adapted to engage the ends of the partially formed link and form a completed link about the smaller diameter of the mandrel, when the larger part of the mandrel and the initial bending tools have been retreated.

2. The herein described mechanism for forming chain links comprising a movable mandrel about which links are formed, a wire gripping tool adapted to hold the wire against the mandrel until a link section is severed and hold such severed section against the mandrel during the link forming period, initial bending tools located on each side of the gripping tool and having grooves in their inner faces conforming to the initial bend, and final scrolling tools having grooves in their ends conforming to the ends of a completed link.

3. The herein described mechanism for forming chain links comprising a movable mandrel having two diameters, bending tools having grooves in their wire contact faces, said tools adapted to give the initial bend to the wire about a portion of the larger diameter of the mandrel, means for retreating the mandrel to bring its smaller diameter into operative position, and side scrolling tools having semi-circular grooves in their wire contact faces adapted to give the final bend to the link about the smaller diameter of the mandrel and cause said link to fully embrace said mandrel after the larger part of said mandrel and initial bending tools have retreated.

4. Mechanism for forming chain links from wire comprising a mandrel, a gripping tool adapted to force and hold the end of the wire against the mandrel before a link section is severed therefrom, bending tools for severing a link section and giving the initial bend thereto about the mandrel, scrolling tools for completing the link and interlocking the same with a previously formed link, and means for holding said previously formed link during such interlocking process.

1,244,449. BORING AND GENERAL-USE MACHINE. WILLIAM R. CARY, Cleveland, Ohio, assignor to Arthur H. Ingle, Rochester, N. Y. Filed May 7, 1917. Serial No. 166,878. (Cl. 29—26.)



1. A machine of the kind described, comprising a tool bar mounted and connected for rotation and endwise movement in variable ratios, a prime drive shaft therefor, change speed mechanism leading from said shaft and including a driven element connected to rotate said tool bar, and a change feed mechanism leading from said driven element and having as a driven member engaging the tool bar a nut engaging spiral threads of the tool bar with a differential device connected with the driving means for rotating the tool bar.

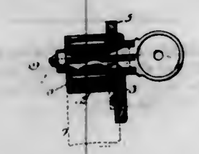
7. A machine of the kind described, comprising a tool bar mounted for rotation and endwise movement in variable ratios and also for bodily lateral movement, a prime drive shaft therefor, change speed mechanism leading from said drive shaft for rotatably driving said bar, change feed mechanism including distribution gearing for transmitting feed to move the bar endwise and also for moving it bodily laterally at will, and a rapid traverse gear train from said prime drive shaft leading into the distribution gearing of said change feed mechanism, said distribution gearing having a shiftable clutch device for selectively engaging said rapid traverse train or said change feed mechanism.

21. In a machine of the kind described, a tool bar mounted for rotation, for endwise movement and for bodily lateral movement either vertically or horizontally at will, power operated means for effecting said endwise movement and said bodily lateral movement including a change feed mechanism from a prime drive shaft, and hand operating means engageable directly either with said

means for moving the bar endwise, or with said means for moving the bar either vertically or horizontally at will without the interposition of said feed change mechanism.

[Claims 2 to 6, 8 to 20, and 22 to 42 not printed in the Gazette.]

1,244,450. LOCK. EMIL A. CHRISTOPH, Chicago, Ill., assignor, by direct and mesne assignments, to The King Lock Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 9, 1914. Serial No. 823,462. (Cl. 70—46.)



1. A plate tumbler for locks, consisting of a sheet of metal provided with a keyway therethrough, said plate provided with parallel corrugations extending lengthwise thereof and spaced from the side edges.

2. A plate tumbler for locks, consisting of a thin sheet of metal provided with a keyway therethrough adjacent end edge, said plate provided with two parallel corrugations extending lengthwise thereof and spaced from the side edges.

3. The combination in a lock of a plurality of plate tumblers arranged face to face, each plate provided with corrugations extending lengthwise thereof, the corrugations on adjacent plates being similar but disposed at different points on the plates whereby the plates will be spaced from each other.

[Claims 4 to 7 not printed in the Gazette.]

1,244,451. TARGET-PRACTICE APPARATUS. RICHARD D. CLEMSON, Middletown, N. Y., assignor to Hollifield Target Practice Rod Company, Middletown, N. Y., a Corporation of New York. Filed May 24, 1917. Serial No. 170,679. (Cl. 124—15.5.)



1. A practice rod rear segment having its rear end provided with an annular flange of a thickness less than the thickness of the base flange of an ordinary metallic cartridge.

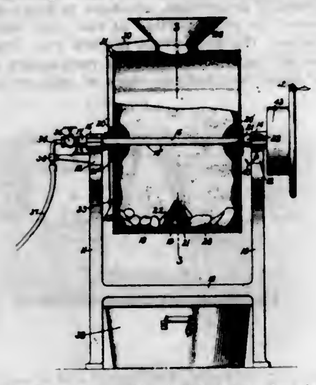
4. The combination with a small arms barrel having in its rear end face an annular recess to receive the base flange of an ordinary metallic cartridge, of a practice rod segment having at its rear end a circumferential flange adapted to lie within said recess at some distance from the bottom thereof, and means yieldingly opposing the movement of the flange toward said bottom.

[Claims 2 and 3 not printed in the Gazette.]

1,244,452. FRUIT AND VEGETABLE PEELING MACHINE. JOHN HENRY HAMLIN, New York, N. Y., assignor to Bramhall Deane Company, New York, N. Y., a Corporation of New York. Filed Apr. 26, 1917. Serial No. 164,759. (Cl. 146—14.)

1. In a potato peeling machine, a drum having an undulating abrasive surface extending longitudinally and transversely of the drum.

4. In a potato peeling machine, a drum having an undulating abrasive surface extending longitudinally and transversely of the drum, and provided with protuberances extending toward the axis of the drum and arranged



midway between the ends of the drum, forming pockets on opposite sides of the protuberances.

[Claims 2 and 3 not printed in the Gazette.]

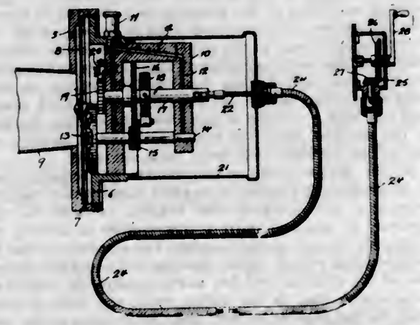
1,244,453. INSECTICIDAL COMPOSITION. WILLIAM R. MACKLIND and EDWARD C. HOLTON, Cleveland, Ohio, assignors to The Sherwin Williams Company, Cleveland, Ohio, a Corporation of Ohio. Original application filed Mar. 13, 1915, Serial No. 14,163. Divided and this application filed Oct. 17, 1916. Serial No. 126,176. (Cl. 167—6.)

1. A composition of matter comprising an arsenic-containing recovered smelter fume dust in intimate intermixture with calcium oxid in amount less than one half the arsenic content of the fume.

2. A composition of matter comprising an arsenic-containing recovered smelter fume dust in intimate intermixture with calcium oxid in amount equal to 30 per cent. of the arsenic content of the fume.

REISSUES.

14,378. ALARM DEVICE. EMANUEL AUFIERO, Brooklyn, N. Y. Filed Aug. 6, 1917. Serial No. 184,755. Original No. 1,082,458, dated Dec. 23, 1913, Serial No. 703,232, filed June 12, 1912. (Cl. 116—1.)



1. A signal-device, comprising a diaphragm and means for vibrating the same, a reciprocatory member actuated by the operator, a flexible-shafting reciprocally rotated by said member, and a power-transmitting spring interposed between said shaft and said vibrating-means.

2. A signal-device, comprising the combination of an acoustic diaphragm, mechanism actuated by the operator, a spring adapted to be put under tension by said mechanism, a cam adapted to be rotated by said spring as soon as the tension of the latter exceeds the resistance of said diaphragm, said diaphragm being actuated as aforesaid by the operator through said spring and cam and acting as the sole escapement for the spring.

3. A signal-device, comprising reciprocating mechanism actuated by the operator, means for translating the movement thereof into intermittent rotary motion in one direction only, a spring adapted to be wound by said rotary motion, a cam driven by said spring, and an acoustic diaphragm vibrated by said cam and acting as the sole escapement therefor.

4. A signal-device comprising the combination of a reciprocatory crank-handle, a flexible shaft reciprocally rotated thereby, an acoustic diaphragm, and means applying the power of said crank and said flexible shaft to mechanically vibrate said diaphragm.

5. In a signaling-apparatus, the combination of an acoustic diaphragm, a shaft, a diaphragm-actuating member loosely mounted thereon, and a coiled spring encircling said shaft and having one end secured thereto and the other end secured to said actuating member.

6. In a signaling-device, the combination of an acoustic diaphragm, a rotor having projections adapted to vibrate said diaphragm, a spring adapted to rotate said rotor, and means for putting said spring under tension, said means including a rotatable member, a manually-actuated reciprocating member, and ratchet-and-pawl connections between said members.

7. A signal-device, comprising the combination of a vibratory acoustic diaphragm, mechanism directly actuated by the operator for vibrating the same, and suitable transmission-means between said mechanism and the diaphragm, said diaphragm's inertia against vibration being less than said transmission's inertia against being actuated.

8. In a signal-device, the combination of an acoustic diaphragm and means actuated by the operator for agitating the same, the inertia at starting said actuating-means being greater than the diaphragm-inertia the latter has to overcome in starting the diaphragm.

9. In a signaling-device, the combination of a manually-actuated member, a gear-wheel reciprocally rotated by said member and carrying a pawl, a ratchet-wheel rotated by said pawl, a spring having one end secured to rotate with said ratchet-wheel, a toothed wheel having the other end of said spring secured thereto, and an acoustic diaphragm vibrated by said toothed wheel.

10. In a signaling-device, the combination of a manually-actuated member, a gear-wheel reciprocally rotated by said member, a member driven by said gear-wheel through a pawl-and-ratchet connection, a spring having one end secured to said member, a toothed wheel having the other end of said spring in driving connection therewith, and an acoustic diaphragm vibrated by said toothed wheel.

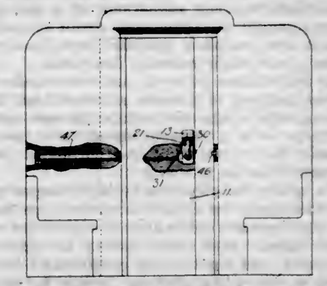
11. In a signaling-apparatus, the combination of an acoustic diaphragm, a driving member, a diaphragm-actuating member loosely mounted thereon, and a coiled spring encircling said driving member and having one end connected thereto and the other end connected to said actuating member.

14,379. LOCK MECHANISM FOR SLIDING DOORS. FRANK M. BRINCKERHOFF, Englewood, N. J., assignor to James L. Howard & Company, Hartford, Conn., a Corporation of Connecticut. Filed Sept. 15, 1917. Serial No. 192,133. Original No. 1,229,709, dated June 12, 1917, Serial No. 674,672, filed Feb. 1, 1912. (Cl. 70—102.)

1. The combination, in latch mechanism for sliding doors provided with adjacently disposed latches for different positions of the door, of keepers for said latches, one of said keepers being mounted on the door casing in the plane of the door and extending within the door through its rearward edge for engagement with its latch.

2. The combination, in latch mechanism for sliding doors, of a latch casing, a plurality of latches mounted in said casing for different positions of the door, and keepers for said latches, one of said keepers being mounted in and concealed by the door casing and extending within the door through its rearward edge for engagement with its latch.

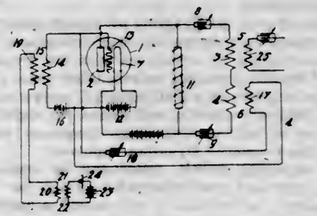
3. The combination, in latch mechanism for sliding doors of hollow shell construction, of a latch and keeper for an open position of the door, the latch being mounted within the door shell adjacent to the front edge of the door and the keeper being mounted within the door casing and extending within the shell of the door through its rearward edge into engaging relation with the latch.



4. The combination, with a sliding door, of a latch for an open position of the door, and a keeper pivotally supported by the door casing and extending into the door through its rearward edge.

5. The combination, with a sliding door, of a latch for an open position of the door, a keeper pivotally supported by the door casing and extending into the door through its rearward edge, and a guide carried by the door for supporting and guiding the latch-engaging end of the keeper.

14,380. SYSTEM FOR THE TRANSMISSION OF INTELLIGENCE. EDWIN H. COLPITTS, East Orange, N. J., assignor, by mesne assignments, to American Telephone & Telegraph Company, a Corporation of New York. Filed Apr. 9, 1917. Serial No. 160,871. Original No. 1,137,384, dated Apr. 27, 1915, Serial No. 839,318, filed May 18, 1914. (Cl. 179—171.)



1. The combination with a vacuum tube having a filament, a plate and a grid, an input circuit connected with the grid and an output circuit connected with the plate; of means for impressing sustained high frequency oscillations on said input circuit; and a source of low frequency potential variations connected to said input circuit, said output circuit comprising means for supplying modulated high frequency oscillations.

2. The combination with a vacuum tube having a filament, a plate and a grid, an input circuit connected with the grid and an output circuit connected with the plate; of means for impressing sustained high frequency oscillations on said input circuit, and signaling means associated with said tube, said output circuit comprising means for supplying high frequency oscillations modulated in accordance with the signal.

3. The combination with a generator of high frequency oscillations, comprising a repeater of the feed-back type and an input and an output circuit connected to each other to produce sustained high-frequency oscillations, of means for modulating said high frequency oscillations in accordance with low frequency signaling impulses.

4. The combination with a generator of high frequency oscillations, comprising a vacuum tube repeater of the audion type and input and an output circuit therefor arranged to react upon each other to produce sustained

high-frequency oscillations, of means for modulating said high frequency oscillations in accordance with low frequency signaling impulses, and a transmission circuit for receiving the modulated high frequency oscillations.

5. The combination with a generator of high frequency oscillations, comprising a repeater having an input and an output circuit connected with each other for producing sustained high-frequency oscillations, of a source of low frequency potential variations, and circuit connections by which said low frequency potential variations vary the amplitude of said high frequency oscillations.

6. The combination of a vacuum tube repeater of the audion type adapted to generate sustained high frequency oscillations, with means for modulating said oscillations in accordance with a telephone signal to be transmitted, and means for transmitting the modulated high frequency oscillations so produced.

7. In a system for signaling by high frequency oscillations, a thermionic device of the audion type for modulating high frequency oscillations in accordance with low frequency signals, said device having an input and an output circuit, said input circuit comprising a heated filament and a controlling electrode, means for generating low frequency signals, and means for impressing said low frequency signals upon the input circuit of said device.

8. In a system for signaling by high frequency oscillations, a thermionic device for modulating said high frequency oscillations in accordance with low frequency signals, said device comprising an evacuated vessel containing a filament, an auxiliary electrode and a plate element, and means for changing the potential of the auxiliary electrode with respect to the filament in accordance with low frequency signals to be transmitted.

9. In a system for signaling by high frequency oscillations, a thermionic device for modulating said high frequency oscillations in accordance with low frequency signals, said device comprising an evacuated vessel containing a filament, an auxiliary electrode and a plate element, means for generating low frequency signals, and means for impressing said signals between the filament and the auxiliary electrode.

10. In a system for signaling by high frequnecy oscillations, a thermionic device for modulating said high frequency oscillations in accordance with low frequency signals, said device comprising an evacuated vessel containing a filament, a grid and a plate element, means for generating low frequency signals, and means for simultaneously impressing on said grid the high frequency oscillations and the low frequency signaling impulses.

11. A signaling system comprising an audion having filament, grid and plate electrodes, means for supplying high frequency oscillations to said audion, signaling means associated with said audion, and a circuit connected to said plate and said filament electrodes for leading off from said audion high frequency oscillations modulated in accordance with said signal.

12. A signaling system comprising an audion having filament, grid and plate electrodes, means for supplying high frequency oscillations, means for supplying signaling oscillations, means comprising said audion for modulating said high frequency oscillations in accordance with said signaling oscillations, and a circuit connected to said filament and plate electrodes for leading off the modulated oscillations from said audion.

13. The combination with a generator of high frequency current, comprising a repeater and an input and an output circuit therefor united with each other, said repeater having an electrode located in said input circuit; of a transmission line united with said output circuit, and a source of low frequency potential variations connected to said electrode.

14. The combination with an audion having a filament, a plate and a grid, an input circuit connected with the grid and an output circuit connected with the plate; of an inductive connection between said output and said input circuits adapted to the production by said audion of sustained high frequency oscillations, and a sending device, adapted for producing signaling impulses of low frequencies, connected with said input circuit.

15. The combination with a generator of high frequency current, comprising a repeater, an input and an output circuit therefor and a connection between said circuits; of a transmission line united with said output circuit, and a sending device, adapted for producing signaling impulses of low frequencies, connected with said input circuit.

16. The combination with a generator of high frequency current, comprising an evacuated vessel, means for producing a state of ionization in said vessel, and an input and an output circuit interconnected to react upon each other; of means connected with said input circuit for producing low frequency potential variations in said input circuit.

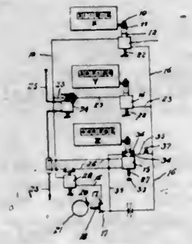
17. The combination with a generator of high frequency current, comprising an evacuated vessel, means for producing a state of ionization in said vessel, and an input and an output circuit inductively connected with each other; of a source of low frequency potential variations connected with said input circuit for controlling the amplitude of the high frequency currents developed by said generator.

18. The combination with a generator of high frequency current, comprising an evacuated vessel, means for producing a state of ionization in said vessel, and an input and an output circuit connected with each other; of means included in said circuits for adjusting the frequency of said current; and a source of low frequency potential variations connected with said input circuit for controlling the amplitude of the high frequency currents developed by said generator.

19. In apparatus of the kind described, the combination of an evacuated vessel and means, including a cathode, for producing a state of ionization in said vessel; of an input anode and an output anode in said vessel; an output circuit connected to said output anode and including an adjustable condenser and a source of continuous current, an input circuit connected to said input anode and inductively connected to said output circuit, and means connected with said input circuit for producing low frequency potential variations in said input circuit.

20. The combination with an audion having an input circuit and an output circuit inductively connected with each other; of means connected with said input circuit for producing low frequency potential variations in said input circuit.

14,381. TRACTION-METER. JOHN G. KJELLGREN, Cleveland, Ohio. Filed June 23, 1916. Serial No. 105,493. Original No. 1,148,325, dated July 27, 1915, Serial No. 681,595, filed Mar. 4, 1912. (Cl. 235—92.)



1. In an indicating device for electrically operated machines, the combination of an indicator-member and actuating means therefor controlled by a continuous moving part of the machine when in motion, and adapted to indicate the travel total; a second indicator-member and actuating means therefor and an electrical circuit independent of the main operating circuit also adapted to control the operation of the actuating means of the first indicator-member, and in conjunction with the main vehicle operating circuit, to control the operation of the actuating means of the second-named indicator.

2. In an indicating device for electrically operated machines, the combination of an indicator-member; an electrical circuit independent of the vehicle-operating circuit; means controlled by said circuit for actuating said indicator-member; means connected with a moving part of the machine for making and breaking said circuit periodically; a second indicator-member; a second circuit independent of the main-operating circuit; means controlled by said second circuit for actuating said second-named indicator-member; and means controlled by the said main circuit for making and breaking said second-mentioned circuit.

3. In an indicating device for electrically operated machines, the combination of an indicator-member; actuating means for such indicator-member; a circuit connected with the main operating circuit and itself controlling the operation of said actuating means; a second and independent circuit; and means controlled by a continuously moving part of the machine when in motion and adapted to interrupt said second circuit and controlling circuit periodically.

4. In an indicating device for electrically operated machines, the combination of an indicator-member; means controlled by a moving part of the machine when in operation, for actuating said indicator-member so as to indicate the total travel; a second indicator-member arranged to be actuated only during the consumption of the main operating current; and an electrical circuit independent of the main circuit adapted to control the operation of the first-named indicator-member and also partially control the operation of the second-named indicator-member.

5. In an indicating device for electrically operated machines, the combination of an indicator, means for partially controlling the operation of said indicator and itself controlled by the main operating circuit; a second indicator partially controlled by said main operating circuit and adapted to operate only during an excessive consumption of motor current; and means for periodically rendering said last-named controlling means operative.

6. An electric meter device for tractors or the like comprising an indicator-member; electrically-actuated means for actuating the same, a circuit independent of the motor circuit for energizing said actuating means; and means in connection with a moving part of the tractor for closing said circuit when the tractor is in motion; in combination with an independent indicator-member in parallel in said circuit and means in connection with the motor circuit for closing the circuit for said indicator-member only when the motor circuit is in use; together with a third indicator-member in the motor circuit and means for actuating the same only during the consumption of excessive current.

7. An electric meter device for tractors or the like, comprising an indicator-member; electrically-operated means for actuating the same; a circuit independent of the motor circuit for energizing said actuating means; and means in connection with a moving part of the tractor for closing said circuit when the tractor is in motion; in combination with an independent indicator-member in parallel in said circuit and means in connection with the motor circuit for closing the circuit for said second indicator-member only when the motor circuit is in use; together with a third indicator-member in the motor circuit and means for intermittently actuating the same only during the consumption of excessive current.

8. An electric meter device for tractors or the like comprising an indicator; electrically-operated means for actuating the same; a circuit independent of the motor circuit for energizing said actuating means; and means in connection with a moving part of the tractor for closing said circuit when the tractor is in motion; in combination with an independent indicator-member in parallel in said circuit; and means in connection with the motor circuit for closing the circuit for said second indicator-member only when the motor circuit is in use; together with a third indicator-member in the motor circuit; a relay in the motor circuit and means in connection with the independent circuit for actuating said relay to close the actuating circuit.

9. In a meter for electric tractors or the like, a ratchet-operated indicator-member; electro-magnetic means for actuating the ratchet, a circuit for operating said electro-magnetic means; and intermittently-actuated means controlled by a continuously-moving element of the tractor when the latter is in motion, for rendering said circuit operative; in combination with a second ratchet-operated indicator-member; and means for controlling the operation thereof from said circuit and the tractor circuit, said means comprising an electro-magnet for actuating the ratchet and an interrupter in the electro-magnet circuit, said interrupter and electro-magnet being arranged one in the auxiliary circuit and one in the tractor circuit.

10. In a meter for electric tractors, a ratchet-operated indicator-member, electro-magnetic means for actuating the ratchet; a circuit for operating said electro-magnetic means, and intermittently-actuated means controlled by a continuously-moving element of the tractor when the latter is in motion, for rendering said circuit operative; in combination with a second ratchet-operated indicator-member; and means for controlling the operation thereof from said circuit and the tractor circuit, said means comprising an electro-magnet for actuating the ratchet and an interrupter in the electro-magnet circuit, said interrupter and electro-magnet being arranged one in the first-named circuit and one in the tractor-circuit; together with a third indicator-member; means similar to those for operating the second indicator-member for operating said third indicator-member; and means controlling the element in the tractor circuit to insure its operation only upon the use of excessive current.

11. In a meter for electric tractors, a ratchet-operated indicator-member; electro-magnetic means for actuating the ratchet; a circuit for operating said electro-magnetic means; and intermittently-actuated means controlled by a continuously-moving element of the tractor when the latter is in motion, for rendering said circuit operative; in combination with a second ratchet-operated indicator-member; and means for controlling the operation thereof from said circuit and the tractor circuit, said means comprising an electro-magnet for actuating the ratchet and an interrupter in the electro-magnet circuit, said interrupter and electro-magnet being arranged one in the said first-named circuit and one in the tractor circuit; together with means for controlling the element in the tractor-circuit to insure its operation only on the use of excessive current.

12. In a meter for electric tractors, the combination of a casing; a plurality of indicator-members arranged therein; an independent circuit-means controlled by the tractor for operating one of said indicator-members to indicate the travel total; and means controlled jointly by said independent circuit and the tractor circuit for operating another of said indicator-members to record the total travel under power.

13. In a meter for electric tractors, a casing, a plurality of indicator-members arranged therein, an independent circuit, means controlled thereby for operating one of said indicator-members to indicate the travel total, and means controlled jointly by said independent circuit and the tractor circuit for operating another of said indicator-members to record the total travel under power; and a third indicator-member for recording the total travel under excessive power.

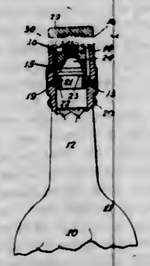
14. In an indicating device for electrically operated machines, in combination, means for indicating total run, means for indicating run with current on, means for indicating run under excess current, a primary circuit, a second circuit and connections whereby the actuation of any of said indicators while effected by one current may be controlled by the other.

15. In an indicating device for recording service on electrically driven machines, in combination, means for indicating total run, means for indicating run under power, and means controlled by current pressure, for indicating run under excessive current, whereby by the process of subtraction, run without current, and run under normal current can be determined.

16. In an indicating device for recording service on electrically driven machines, in combination, a main or driving circuit, a second and independent circuit having its own generator, an electrical indicator for total run,

an electric indicator for run under normal power, and an electrical indicator for excess power use, said indicators being actuated each by one of said circuits the actuation in each instance being controlled through the other circuit.

14,382. BOTTLE. EDGEWORTH GREENE, Upper Montclair, N. J. Filed July 30, 1917. Serial No. 183,622. Original No. 1,211,934, dated Jan. 9, 1917, Serial No. 840,401, filed May 23, 1914. (Cl. 215—69.)



1. A non-refillable bottle comprising a reservoir provided with a separate valve compartment having a discharge orifice, a valve-seat intermediate the orifice and the reservoir, a float constituting a valve, weighted means separate from the float and retained against escape from said valve compartment adapted and arranged to move the float in a direction away from the seat when the bottle containing the liquid is tilted from an upright to a pouring position and to move the float, in response to gravity, in a direction toward the seat when the bottle is returned from a pouring to or beyond a horisontal position, and when refilling with liquid is attempted while the bottle is in an inverted position communication through said seat is closed by the movement of said float, due to its buoyancy, in a direction toward said seat, and means for preventing air-pressure adherence between said weighted means and any adjacent surface of any element of the bottle sufficient to prevent the closing of the valve when refilling with liquid is attempted.

2. A non-refillable bottle comprising a reservoir provided with a separate valve compartment having a discharge orifice, a valve-seat intermediate the orifice and the reservoir, a float constituting a valve, weighted means separate from the float and retained against escape from said valve compartment adapted and arranged to move the float in a direction away from the seat when the bottle containing the liquid is tilted from an upright to a pouring position, and to move the float, in response to gravity, in a direction toward the seat when the bottle is returned from a pouring to or beyond a horizontal position, the relative contour of adjacent surfaces of said weighted means and any element of the bottle being such that any air-pressure adherence therebetween is insufficient to prevent the closing of the valve when refilling of the bottle with liquid is attempted.

3. A non-refillable bottle comprising a reservoir, an adjacent separate valve compartment having a discharge orifice, a valve-seat intermediate the orifice and the reservoir, means, including a float and weighted means retained within said valve compartment, for opening and closing communication through said valve-seat, said weighted means including a weight movable with respect to the float and so dimensioned as to have freedom of longitudinal movement within said compartment under all conditions, that part of said opening and closing means adjacent to the valve-seat and including the float constituting a float-valve, and the arrangement of the members of said opening and closing means being such that when the bottle containing liquid is tilted from an upright to a pouring position communication through said valve-seat is opened by the movement in response to gravity of an element of said opening and closing means which in turn effects movement of the float in a direction away from the seat, and when the bottle is returned from a pouring to and beyond a horisontal position communication through said seat is closed by the movement in response to gravity of an element of said opening and closing means which in turn effects movement of the float in a direction toward said valve-seat, and when refilling with liquid is attempted while the bottle is in an inverted position communication through said seat is closed by the movement of said float in response to buoyancy in a direction toward said seat, and further means for preventing air-pressure adherence between any surface of the weighted means and an element of the bottle adjacent thereto sufficient to interfere with the closing of communication through the valve-seat when refilling with liquid is attempted.

4. A non-refillable bottle comprising a reservoir, an adjacent separate valve compartment having a discharge orifice, a valve-seat intermediate the orifice and the reservoir, means, including a float and weighted means retained within said valve compartment, for opening and closing communication through said valve-seat, said weighted means including a weight movable with respect to the float and so dimensioned as to have freedom of longitudinal movement within said compartment under all conditions, that part of said opening and closing means adjacent to the valve-seat, and including the float constituting a float-valve, and the arrangement of the members of said opening and closing means being such that when the bottle containing liquid is tilted from an upright to a pouring position communication through said valve-seat is opened by the movement in response to gravity of an element of said opening and closing means which in turn effects movement of the float in a direction away from the seat, and when the bottle is returned from a pouring to or beyond a horizontal position communication through said seat is closed by the movement in response to gravity of an element of said opening and closing means which in turn effects movement of the float in a direction toward said valve-seat, the relative contour of adjacent surfaces of said weighted means and any element of said bottle being such that any air-pressure adherence therebetween is insufficient to prevent the closing of communication through the valve-seat when refilling with liquid is attempted.

5. An attachment for rendering a bottle non-refillable which includes a valve compartment having a discharge orifice at one end and a valve-seat at the other, and containing a guard member the interior surface of which is of frusto-conical configuration, and a coöperating slidable weight member having a corresponding frusto-conical configuration at one end and a cylindrical configuration at the other, the maximum diameter of said conical portion being equal to that of said cylindrical portion, and the configuration of the adjacent surfaces of said guard and said weight being such that the air-pressure adherence therebetween when wet will be insufficient to prevent the separation thereof under ordinary forces of gravity.

6. An attachment for rendering a bottle non-refillable which includes a valve compartment having a discharge orifice at one end and a valve-seat at the other, and containing a guard member the interior surface of which is of frusto-conical configuration, and a coöperating slidable weight member having a corresponding frusto-conical configuration at one end and a cylindrical configuration at the other, the maximum diameter of said conical portion being equal to that of said cylindrical portion, said cylindrical portion only of said weight member being adapted to project from said guard member when said weight member is in its innermost position with respect thereto, the configuration of adjacent surfaces of said weight and said guard being such that air-pressure adherence therebetween when wet will be insufficient to prevent the separation thereof under ordinary forces of gravity.

7. An attachment for rendering a bottle non-refillable which includes a valve compartment having a discharge orifice at one end and a valve-seat at the other, and containing a guard member the interior surface of which is of frusto-conical configuration, and a coöperating slidable weight member having a corresponding frusto-conical configuration at one end and a cylindrical configuration at the other, the weight member being so proportioned that when at its innermost position within said guard member its cylindrical portion only will project therefrom and its center of gravity will be in such a relative position as to render said weight member very sensitive to the influence of gravity in its tendency to move away from the guard member when the attachment is in a substantially horizontal position, and the configuration of the adjacent surfaces of said guard and said weight being such that air-pressure adherence therebetween when wet will be insufficient to prevent the separation thereof in response to gravity.

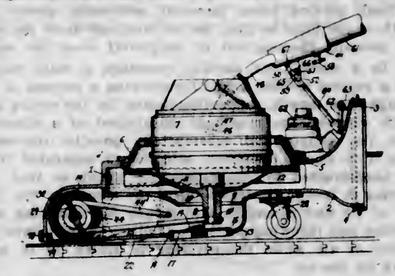
8. A non-refillable bottle comprising a casing adapted to be secured to the neck of a bottle and having a discharge orifice at one end and a valve-seat at the other, closing means comprising two parts, one of which is a cork disk-valve positioned next to said valve-seat and adapted to contact with said seat and the other of which is a weight member having a frusto-conical configuration at its end adjacent said orifice and of cylindrical configuration at its other end, the maximum diameter of said conical portion being no less than that of said cylindrical portion, a guide for said weight member having a frusto-conical recess into which said weight member is adapted to partially project, ribs interposed between said weight member and said guide to prevent air-pressure adherence therebetween, a baffle wall between said guide and said orifice, and a stopper for the casing adapted to hold the movable parts thereof stationary within the casing.

9. A non-refillable bottle comprising means for providing a valve chamber between the dispensing orifice and the body portion of the bottle, said means including an orificed valve-seat, a valve and valve-controlling means loose in said chamber, said valve being closed through forces of buoyancy when the bottle is tilted beyond a horisontal position and said valve chamber is filled with a liquid, and said valve being closed by action of gravity when said bottle is in all other positions and being also opened by action of gravity when the filled or partially filled bottle is inverted and air is permitted to enter through said dispensing orifice, said valve being free to move under action of one or the other of these two forces under all conditions, and means for minimizing air-pressure adherence between the gravity-actuated valve controlling means and the walls of the chamber containing the same.

10. A non-refillable bottle comprising means for providing a chamber between the dispensing orifice and the body portion of the bottle, said means including an orificed valve-seat, closing means which include disconnected parts at least one of which is of higher and at least one of which is of lower specific gravity than the liquid contents of the bottle and one of which constitutes a valve, said parts being so arranged relative to each other that said valve is closed through forces of buoyancy when the bottle is tilted below a horizontal position and said chamber is filled with liquid, closed by gravity when said bottle is in all other positions and opened by gravity when the filled or partially filled bottle is inverted and air is permitted to enter through said dispensing orifice, said valve being free to move under action of one or the other of these two forces under all conditions, and means for minimizing air-pressure adherence between any part of said closing means and contiguous walls of the chamber containing the same.

14,383. CLEANER. FRANCIS M. CASE, Cleveland, Ohio, assignor to The Hoover Suction Sweeper Company, New Berlin, Ohio, a Corporation of Ohio. Filed Apr. 3, 1916. Serial No. 88,746. Original No. 1,147,307, dated July 20, 1915, Serial No. 583,854, filed Sept. 26, 1910. (Cl. 15—60.)

1. In a cleaner for surface coverings, a main casing, supporting means therefor, an overhanging suction hood carried by the casing and in open communication therewith and extending freely beyond the same and the supporting means, said hood having a mouth on its underside adjacent to the front and having a continuous edge about the mouth in a horizontal plane in parallelism with the surface covered and at a distance therefrom, means for creating a suction within the main casing and hood, and a brush mounted in said hood, said brush comprising a body portion and bristles, the body portion being mounted sufficiently above the mouth of the hood so that the suction may draw the surface covering thereagainst to completely close the same.



2. In a cleaner for surface coverings, a main casing, supporting means therefor, an overhanging suction hood carried by the casing and in open communication therewith and extending freely beyond the same and the supporting means, said hood having a mouth on its underside adjacent to the front and substantially in parallelism with the surface covered and at a distance therefrom, means for creating a suction within the main casing and hood, and a brush mounted in said hood, said brush comprising a body portion and bristles, the body portion being mounted sufficiently above the mouth of the hood so that the suction may draw the surface covering thereagainst to completely close the same.

3. In a cleaner for surface coverings, a main casing, supporting means therefor, an overhanging suction hood carried by the casing and in open communication therewith and extending freely beyond the same and the supporting means, said hood having a mouth on its underside adjacent to the front and substantially in parallelism with the surface covered and at a distance therefrom, means for creating a suction within the main casing and hood, and a motor driven brush mounted in said hood, said brush comprising a body portion and bristles, the body portion being mounted sufficiently above the mouth of the hood so that the suction may draw the surface covering thereagainst to completely close the same.

4. In a cleaner for surface coverings, a main casing, supporting means therefor, an overhanging suction hood carried by the casing and in open communication therewith and extending freely beyond the same and the supporting means, said hood having a mouth on its underside adjacent to the front and having a continuous edge about the mouth in a horizontal plane in parallelism with the surface covered and at a distance therefrom, means for creating a suction within the main casing and hood, and a vibratory brush mounted in said hood, said brush comprising a body portion and bristles, the body portion being mounted sufficiently above the mouth of the hood so that the suction may draw the surface covering thereagainst to completely close the same.

5. In a cleaner for surface coverings, a main casing, supporting means therefor, an overhanging suction hood carried by the casing and in open communication therewith and extending freely beyond the same and the supporting means, said hood having a mouth on its underside adjacent to the front and substantially in parallelism with the surface covered and at a distance therefrom, means for creating a suction within the main casing and hood, and a vibratory brush mounted in said hood, said brush comprising a body portion and bristles, the body portion being mounted sufficiently above the mouth of the hood so that the suction may draw the surface covering thereagainst to completely close the same.

6. In a cleaner for surface coverings, a main casing, supporting means therefor, an overhanging suction hood carried by the casing and in open communication therewith and extending freely beyond the same and the supporting means, said hood having a mouth on its underside adjacent to the front and substantially in parallelism with the surface covered and at a distance therefrom, means for creating a suction within the main casing and hood, and a power driven vibratory brush mounted in said hood, said brush comprising a body portion and bristles, the body portion being mounted sufficiently above the mouth of the hood so that the suction may draw the surface covering thereagainst to completely close the same.

7. In a cleaner for surface coverings a main casing with a suction mouth, means for drawing a current of air through such mouth, supporting means for the casing and, mouth whereby the mouth is maintained at a distance above the surface and substantially parallel therewith while it is moved thereover, said mouth separated from and unobstructed by the supporting means so that the covering is free to be drawn up to the mouth by the current of air and means in said mouth for vibrating said covering and throwing particles of dirt upwardly into the current of air while the covering is drawn up to such mouth by the air.

8. In a cleaner for surface coverings a main casing with a suction mouth, means for drawing a current of air through such mouth, supporting means for the casing and mouth whereby the mouth is maintained at a distance above the surface and substantially parallel therewith while it is moved thereover, said mouth separated from and unobstructed by the supporting means so that the covering is free to be drawn up to the mouth by the current of air and a single means in said mouth for both vibrating and brushing said covering while it is drawn up to such mouth by the air.

9. In a cleaner for surface coverings a main casing with a suction mouth, means for drawing a current of air through such mouth, supporting means for the casing and mouth whereby the mouth is maintained at a distance above the surface and substantially parallel therewith while it is moved thereover, said mouth separated from and unobstructed by the supporting means so that the covering is free to be drawn up to the mouth by the current of air, and a brush in said mouth so shaped that it will vibrate and brush said covering while it is drawn up to such mouth by the air.

10. In a cleaner for surface coverings a main casing with a suction mouth, means for drawing a current of air through such mouth, supporting means for the casing and mouth whereby the mouth is maintained at a distance above the surface and substantially parallel therewith while it is moved thereover, said mouth separated from and unobstructed by the supporting means so that the covering is free to be drawn up to the mouth by the current of air, and power driven means in said mouth for vibrating said covering and throwing particles of dirt upwardly into the current of air while the covering is drawn up to such mouth by the air.

11. In a cleaner for surface coverings a main casing with a suction mouth, means for drawing a current of air through such mouth, supporting means for the casing and mouth whereby the mouth is maintained at a distance above the surface and substantially parallel therewith, while it is moved thereover, said mouth separated from and unobstructed by the supporting means so that the covering is free to be drawn up to the mouth by the current of air, and a single power driven means in said mouth for both vibrating and brushing said covering while it is drawn up to such mouth by the air.

12. In a cleaner for surface coverings a main casing with a suction mouth, means for drawing a current of air through such mouth, supporting means for the casing and mouth whereby the mouth is maintained at a distance above the surface and substantially parallel therewith while it is moved thereover, said mouth separated from and unobstructed by the supporting means so that the covering is free to be drawn up to the mouth by the current of air, and a power driven brush in said mouth so shaped that it will vibrate and brush said covering while it is drawn up to such mouth by the air.

13. In a cleaner for surface coverings a main casing with a suction mouth, means for drawing a current of air through such mouth, supporting means for the casing and mouth whereby the mouth is maintained at adistance above the surface and substantially parallel therewith while it is moved thereover, and a single means in said mouth for both vibrating said covering and throwing particles of dirt upwardly into the current of air while the covering is drawn up to such mouth by the air.

14. In a cleaner for surface coverings a main casing with a suction mouth, means for drawing a current of air through such mouth, supporting means for the casing and mouth whereby the mouth is maintained at a distance above the surface and substantially parallel therewith while it is moved thereover, and a single means in said mouth for both vibrating and brushing said covering while it is drawn up to such mouth by the air.

15. In a cleaner for surface coverings a main casing with a suction mouth, means for drawing a current of air through such mouth, supporting means for the casing and mouth whereby the mouth is maintained at a distance above the surface and substantially parallel therewith while it is moved thereover, and a brush in said mouth so shaped that it will vibrate and brush said covering while it is drawn up to such mouth by the air.

16. In a cleaner for surface coverings a main casing with a suction mouth, means for drawing a current of air through such mouth, supporting means for the casing and mouth whereby the mouth is maintained at a distance above the surface and substantially parallel therewith while it is moved thereover, and a single power driven means in said mouth for both vibrating said covering and throwing particles of dirt upwardly into the current of air while the covering is drawn up to such mouth by the air.

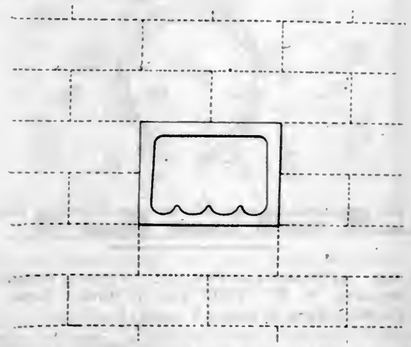
17. In a cleaner for surface coverings a main casing with a suction mouth, means for drawing a current of air through such mouth, supporting means for the casing and mouth whereby the mouth is maintained at a distance above the surface and substantially parallel therewith while it is moved thereover, and a single power driven means in said mouth for both vibrating and brushing said covering while it is drawn up to such mouth by the air.

18. In a cleaner for surface coverings a main casing with a suction mouth, means for drawing a current of air through such mouth, supporting means for the casing and mouth whereby the mouth is maintained at a distance above the surface and substantially parallel therewith while it is moved thereover, and a power driven brush in said mouth so shaped that it will vibrate and brush said covering while it is drawn up to such mouth by the air.

19. A cleaner comprising a casing supported above the floor covering and provided with a suitable discharge and a hood having an unobstructed inlet opening adapted to let the floor covering rise thereto, a brush mounted in the inlet opening shaped so as to vibrate the carpet and driven at high speed, a suction device adapted to draw a current of air through the mouth so as to cause the carpet to rise thereto, and a discharge receptacle connected with the discharge.

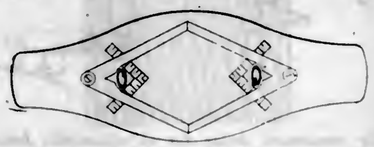
DESIGNS.

51,405. WALL-RECEPTACLE FOR SOAP AND OTHER TOILET ARTICLES. STEPHEN D. BAKER, New York, N. Y. Filed July 17, 1917. Serial No. 181,179. Term of patent 14 years.



The new and ornamental design for a wall receptacle for soap and other toilet articles, substantially as herein shown.

51,406. FINGER-RING OR SIMILAR ARTICLE. JOSEPH C. BARKER, Kansas City, Kans. Filed May 19, 1917, Serial No. 170,293. Term of patent 3½ years.



The ornamental design for a finger ring or similar article, substantially as shown and described.

51,407. SHOE. BARSAM S. BARSAMIAN, Detroit, Mich. Filed Aug. 3, 1917. Serial No. 184,335. Term of patent 14 years.





The ornamental design for a shoe, as shown.

51,408. COMBINED INK-WELL AND PEN-RACK. FLORA L. BORLAND, Reno, Nev. Filed May 15, 1917. Serial No. 168,892. Term of patent 3½ years.



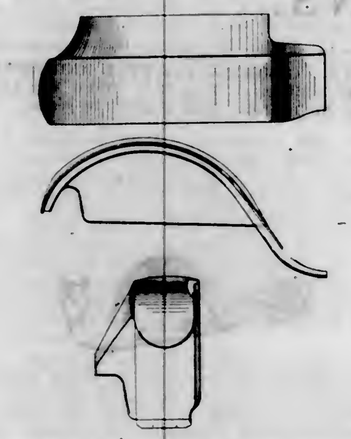
The ornamental design for a combined ink well and pen rack, as shown.

51,409. BOTTLE. GEORGE E. BRETT, Birmingham, Ala. Filed July 20, 1917. Serial No. 181,909. Term of patent 14 years.



The ornamental design for a bottle as shown.

51,410. VEHICLE-WHEEL FENDER. EDWARD G. BUDD, Philadelphia, Pa., assignor to Edward G. Budd Manufacturing Company, a Corporation of Pennsylvania. Filed Mar. 13, 1917. Serial No. 154,622. Term of patent 14 years.



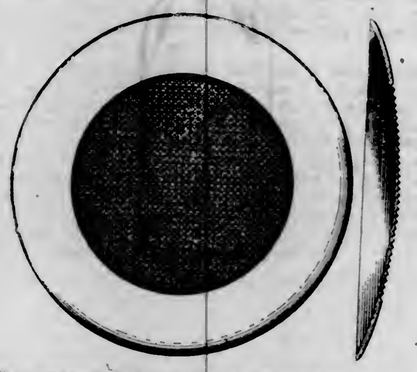
The ornamental design for a vehicle wheel fender, as shown.

51,411. BADGE. GARFIELD FORCE, Brooklyn, N. Y. Filed Sept. 7, 1917. Serial No. 190,278. Term of patent 3½ years.



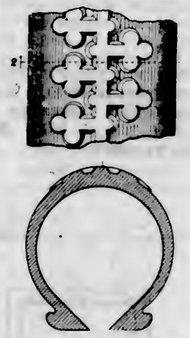
The ornamental design for a badge, as shown.

51,412. ILLUMINATING-LENS. EDGAR A. GILLINDER, Philadelphia, Pa. Filed Jan. 2, 1917. Serial No. 140,328. Term of patent 3½ years.



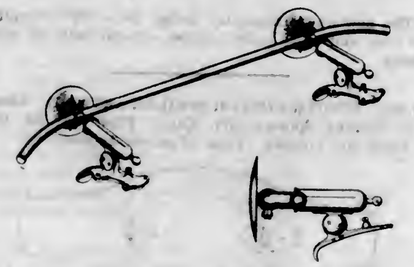
The ornamental design for an illuminating lens, as shown.

51,413. ELASTIC VEHICLE-TIRE. GEORGE W. GREENE, East Liverpool, Ohio. Filed Jan. 25, 1917. Serial No. 144,542. Term of patent 3½ years.



The ornamental design for an elastic vehicle tire, as shown.

51,414. AUTOMOBILE-FENDER. ANTONIO GUERRIERO, Brooklyn, N. Y. Filed Aug. 1, 1916. Serial No. 112,621. Term of patent 7 years.



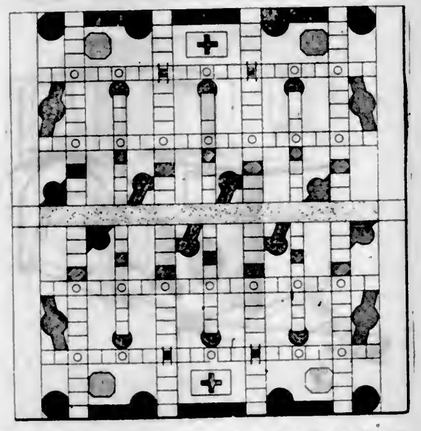
The ornamental design for an automobile fender, as shown.

51,415. STATUETTE OR DOLL. MARY E. HARRIS, San Francisco, Cal. Filed July 23, 1917. Serial No. 182,357. Term of patent 3½ years.



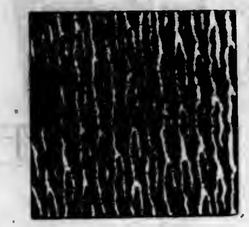
The ornamental design for a statuette or doll, as shown.

51,416. GAME-BOARD. NATHANIEL WOOD HILL, Brooklyn, N. Y. Filed July 14, 1917. Serial No. 180,669. Term of patent 7 years.



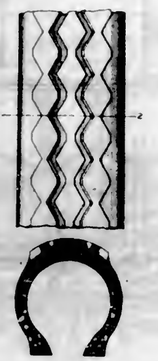
The ornamental design for a game board, as shown.

51,417. WOVEN FABRIC. JAMES E. JAGGER, Holyoke, Mass., assignor to Holyoke Plush Company, Holyoke, Mass., a Corporation of Maine. Filed Jan. 13, 1917. Serial No. 142,328. Term of patent 7 years.



The ornamental design for a woven fabric as shown and described.

51,418. TIRE-TREAD. CHAUNCEY L. LANDON, Akron, Ohio. Filed July 27, 1916. Serial No. 111,721. Term of patent 14 years.



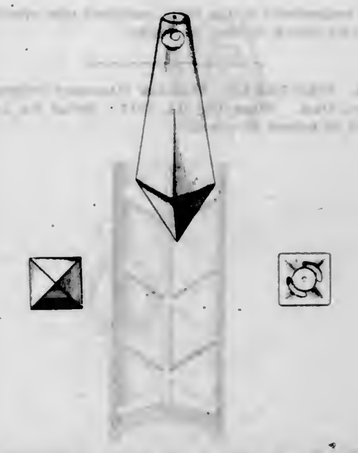
The ornamental design for a tire tread as shown and described.

51,419. TEXTILE FABRIC. HARRY T. LOOMIS, Brooklyn, N. Y. Filed Sept. 6, 1917. Serial No. 190,088. Term of patent 3½ years.



The ornamental design for a textile fabric, as shown.

51,420. PLUMB-BOB. JOHN A. MOFFAT, Hamilton, Ontario, Canada. Filed Mar. 14, 1917. Serial No. 154,888. Term of patent 14 years.



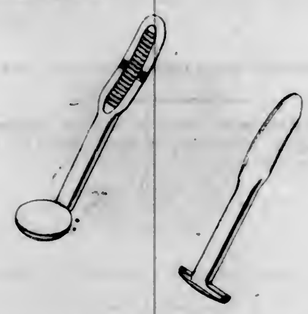
The ornamental design for a plumb bob as shown.

51,421. WALL-PAPER OR SIMILAR ARTICLE OF MANUFACTURE. WILLIAM H. NORTON, New York, N. Y. Filed July 3, 1915. Serial No. 37,975. Term of patent 14 years.



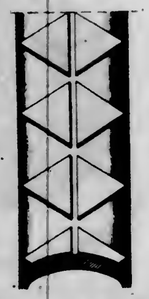
The ornamental design for wall paper or similar article as shown.

51,422. COMBINED PIPE CLEANER AND TAMP AND MATCH-STRIKER. JOHN W. OVERTURF, Billings, Mont. Filed Sept. 6, 1917. Serial No. 190,089. Term of patent 3½ years.



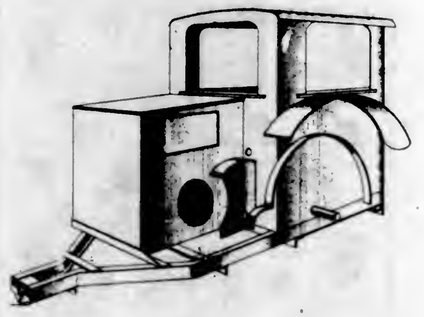
The ornamental design for a combined pipe cleaner and tamp and match striker, as shown.

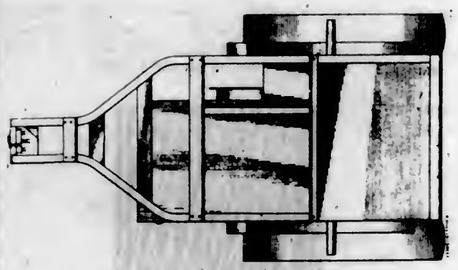
51,423. TIRE-TREAD. WILLIAM HARRISON OWENS, Muskogee, Okla. Filed Aug. 14, 1917. Serial No. 186,240. Term of patent 3½ years.

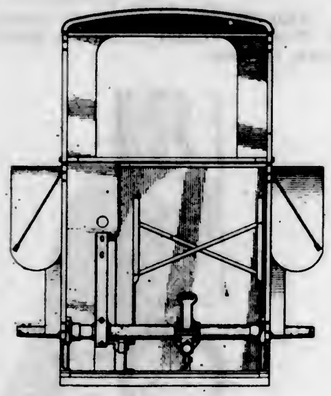


The ornamental design for a tire tread as shown.

51,424. FRAME FOR TRACTORS. DENT PARRETT, Chicago, Ill., assignor to Parrett Tractor Company, a Corporation of Illinois. Filed June 25, 1915. Serial No. 36,392. Term of patent 14 years.

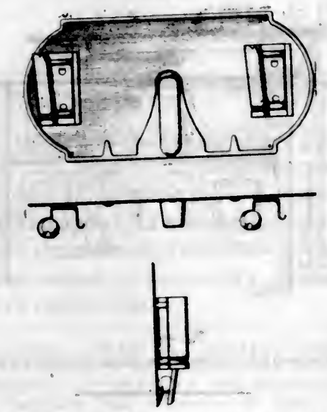






The ornamental design for a frame for tractors, as shown.

51,425. KITCHEN-RACK. GEORGE H. REIMER, Fulton, Ill., assignor to Patent Novelty Company, Fulton, Ill., a Corporation of Illinois. Filed Apr. 23, 1917. Serial No. 164,068. Term of patent 7 years.



The new, original and ornamental design for a kitchen-rack, as shown.

51,426. LABEL. ABRAM M. SWEYD, New York, N. Y., assignor to The Autoyre Co., Oakville, Conn., a Corporation. Filed July 26, 1917. Serial No. 182,984. Term of patent 14 years.



The ornamental design for a label, as shown.

51,427. BADGE OR EMBLEM. MIECISLAS J. SZAMEIT, Chicago, Ill., assignor of one-half to John Stelk, Chicago, Ill. Filed May 15, 1917. Serial No. 168,895. Term of patent 3½ years.



The ornamental design, as shown and described, for an article of manufacture.

51,428. AUTOMOBILE-TIRE. CHARLES L. ARCHER, Minneapolis, Minn. Filed Aug. 22, 1917. Serial No. 187,678. Term of patent 14 years.



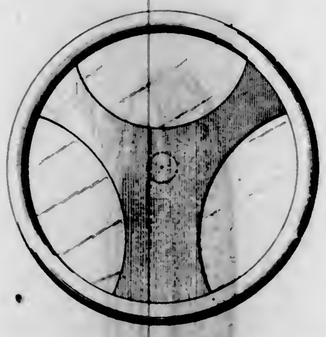
The ornamental design for an automobile tire, as shown.

51,429. NON-SKID TIRE-TREAD. CHARLES L. ARCHER, Minneapolis, Minn. Filed Aug. 31, 1917. Serial No. 189,230. Term of patent 7 years.



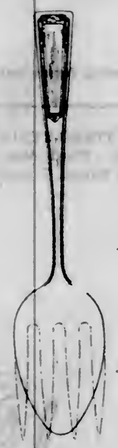
The ornamental design for a non-skid tire tread as shown.

51,430. AUTOMOBILE-HEADLIGHT. JESSE G. HAWLEY and CHARLES R. DOSCH, Bridgeport, Conn. Filed Aug. 8, 1917. Serial No. 185,212. Term of patent 3½ years.



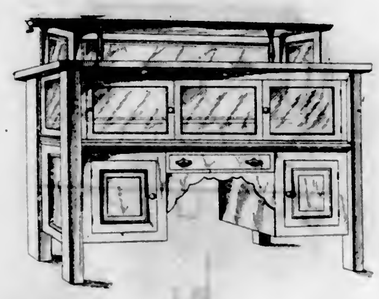
The ornamental design for an automobile head light, as shown.

51,431. SPOON, FORK, OR SIMILAR ARTICLE. HENRIK HILLBOM, Wallingford, Conn., assignor to R. Wallace & Sons Mfg. Co., Wallingford, Conn., a Corporation. Filed Aug. 20, 1917. Serial No. 187,261. Term of patent 7 years.



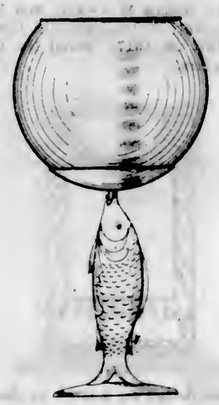
The ornamental design for a spoon, fork or similar article, as shown.

51,432. CHINA-CABINET. ELMO W. LEE, Tamaroa, Ill. Filed July 6, 1917. Serial No. 179,086. Term of patent 7 years.



The ornamental design for a china cabinet, as shown.

51,433. FISH-BOWL AND SUPPORT. HERRMAN SIMONS, Cincinnati, Ohio. Filed July 13, 1917. Serial No. 180,451. Term of patent 7 years.



The ornamental design for a fish bowl and support, as shown.

TRADE-MARKS

PUBLISHED OCTOBER 23, 1917.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 93,497. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) THE HUENEFELD COMPANY, Cincinnati, Ohio. Filed Mar. 13, 1916.

OIL-AIR

Particular description of goods.—Burners and Wicks for Stoves, Furnaces, and Ranges.
Claims use since Feb. 1, 1916.

Ser. No. 96,012. (CLASS 12. CONSTRUCTION MATERIALS.) SPRING RIVER STONE CO., Carthage, Mo. Filed June 20, 1916.



The lining appearing in the drawing indicates shading, not color.
Particular description of goods.—Marble and Building-Stone.
Claims use since November, 1915.

Ser. No. 96,065. (CLASS 39. CLOTHING.) LYNNE STANLEY, Oakland, Cal. Filed June 22, 1916.



Particular description of goods.—Articles of Clothing—Namely, Neckties, Scarfs, Negligée Shirts, Collars, Two-Piece Underwear, Hosiery, Gloves, and Hats.
Claims use since Jan. 1, 1912.

Ser. No. 97,590. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) UNIVERSAL OPTICAL CORPORATION, Providence, R. I. Filed Aug. 23, 1916.

HUMP STRAP

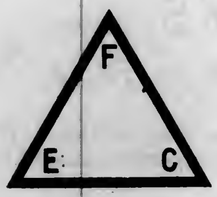
Particular description of goods.—Eyeglass-Mountings.
Claims use since February, 1912.

Ser. No. 97,866. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) UNITED STATES RUBBER COMPANY, New Brunswick, N. J., and New York, N. Y. Filed Sept. 8, 1916.

'Usco'

Particular description of goods.—Fan-Belts, Radiator-Hose, Belts, and Tubing Made of Rubber, Fabric, or Rubber and Fabric.
Claims use since May 16, 1916.

Ser. No. 99,744. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) FEDERAL EXPORT CORPORATION, New York, N. Y. Filed Dec. 6, 1916.



Particular description of goods.—Steel and Iron Billets and Beams, (Undrilled for Building Construction;) Rolled Plates, Metal and Aluminum Compounds in the Form of Ingots and Rolled Plates, Babbitt Metals, Anti-friction Metal, Chemically-Alloyed High-Speed Bearing Metals.

Claims use since Jan. 1, 1916.

Ser. No. 99,830. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) AMERICAN PRESSWELD RADIATOR CORPORATION, Detroit, Mich. Filed Dec. 11, 1916.



The lining appearing on the drawing is used for purposes of shading only. No claim is made to the word "Pressweld" apart from the mark shown in the drawing.

Particular description of goods.—Radiators, Radiator-Sections, Fittings, and Gas-Heaters.

Claims use since Jan. 9, 1915.

Ser. No. 100,003. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) CYGNET REAR CAR COMPANY, Buffalo, N. Y. Filed Dec. 18, 1916.



Particular description of goods.—Wheeled Trailer-Cars for Attachment to Motor-Cycles and the Like.

Claims use since Dec. 10, 1915.

Ser. No. 100,228. (CLASS 10. FERTILIZERS.) VITTORIO VOLPATO, Milan, Italy. Filed Dec. 28, 1916.

TETRA

Particular description of goods.—Fertilizers.

Claims use since June 15, 1916.

Ser. No. 100,537. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE NATIONAL ELECTRIC LIGHTING COMPANY, Wilton Junction, Iowa. Filed Jan. 11, 1917.

National

Particular description of goods.—Organized Units for the Generation and Storage of Electrical Energy.

Claims use since Sept. 10, 1916.

Ser. No. 100,746. (CLASS 38. PRINTS AND PUBLICATIONS.) ARTHUR MILMAN, San Francisco, Cal. Filed Jan. 19, 1917.

STEVE BUNK

Particular description of goods.—Cartoons Which Are Issued Periodically.

Claims use since June 12, 1916.

Ser. No. 100,901. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) W. S. ROCKWELL COMPANY, New York, N. Y. Filed Jan. 24, 1917.



Particular description of goods.—Industrial Furnaces of All Descriptions Heated by Gas, Oil, or Coal; Oil and Gas Burners for Such Furnaces, Blast-Gates and Valves and Blowers for Such Furnaces and for Ventilating Apparatus.

Claims use since the year 1909.

Ser. No. 101,286. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE CASE HARDENING SERVICE COMPANY, Cleveland, Ohio. Filed Feb. 10, 1917.



Particular description of goods.—A Case-Hardening or Carbonizing Compound.

Claims use since the latter part of 1912.

Ser. No. 101,821. (CLASS 32. FURNITURE AND UPHOLSTERY.) PERFECTION BED SPRING COMPANY, Mansfield, Ohio. Filed Mar. 1, 1917.



Particular description of goods.—Metal-Bed Springs, Metal Beds, Folding Beds, Cots, and Swings.

Claims use since Feb. 10, 1917.

Ser. No. 102,243. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) CAPPER & CAPPER, Detroit, Mich. Filed Mar. 19, 1917.



Particular description of goods.—Golf-Balls

Claims use since Jan. 1, 1917.

Ser. No. 102,443. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) STEWART HARTSHORN CO., East Newark, N. J. Filed Mar. 26, 1917.



The mark comprises the pictorial representation of the head of an Indian with feathered head-dress, surmounted by the word "Oswego," the whole being surcharged with the characteristic signature of Stewart Hartshorn. The name "Stewart Hartshorn" shown in the mark is a facsimile of the signature of Stewart Hartshorn.

Particular description of goods.—Shade-Cloth.

Claims use since Mar. 7, 1917.

Ser. No. 102,514. (CLASS 32. FURNITURE AND UPHOLSTERY.) JOHN M. HANSEN, Cleveland, Ohio. Filed Mar. 28, 1917.



Particular description of goods.—Show-Cases, Cedar Chests, and House-Screens.

Claims use since Mar. 1, 1916.

Ser. No. 102,720. (CLASS 12. CONSTRUCTION MATERIALS.) MARITIMO COATING CORPORATION, New York, N. Y. Filed Apr. 4, 1917.



Particular description of goods.—Bituminous Coating Used in Connection with Masonry Work and as a Preservative of Iron, Steel, and other Metal Surfaces and the Like.

Claims use since about Jan. 5, 1917.

Ser. No. 102,942. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) INGERSOLL-RAND COMPANY, Jersey City, N. J., and New York, N. Y. Filed Apr. 13, 1917.

SUPER—LEYNER

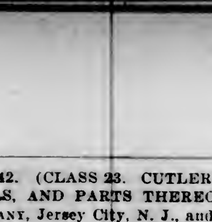
Particular description of goods.—Fluid-Operated Hammer-Drills.
Claims use since Apr. 7, 1917.

Ser. No. 104,008. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) HAYES-DIEFENDERFER CO., INC., New York, N. Y. Filed May 22, 1917.

HAYDEE

Particular description of goods.—Extensions for Automobile-Chassis, also Automobile-Bodies and Automobile Wind-Shields, Dashes, and Springs.
Claims use since May 15, 1917.

Ser. No. 104,056. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALL-PACKAGE GROCERY STORES CO., New York, N. Y. Filed May 25, 1917.



Particular description of goods.—Hand-Cream, Tooth-Cream, Cold-Cream, Talcum Powder, Ammonia, Baking-Soda, Laundry Starch, Cough-Drops, and Witch-Hazel Extract.
Claims use since Nov. 25, 1915.

Ser. No. 104,308. (CLASS 39. CLOTHING.) EDWARD D. SMITH, Washington, D. C. Filed June 6, 1917.

Mary May

The mark "Mary May" as shown in the drawing is a reproduction of the signature of Mrs. Mary May, deceased.
Particular description of goods.—Corsets, Underwear—viz., Camisoles, Envelop-Chemises, and Combination Suits—and Brassières.
Claims use since Oct. 26, 1916.

Ser. No. 104,550. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) MORRIS GERBERG, New York, N. Y. Filed June 20, 1917.



Particular description of goods.—Dolls, Animals, Doll-Beds, Doll-Vehicles, Toy Sleds, Toy Autos, Toy Cars, Toy Wagons, Toy Trains, Mechanical Trains, Toy Talking-Machines, Toy Drums, Toy Pianos, Toy Horns, Toy Banks, Musical Toys, Structural Toys, Shooflys, Pails.
Claims use since Mar. 1, 1917.

Ser. No. 104,614. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) MUTUAL EXPORT & IMPORT CORP., New York, N. Y. Filed June 22, 1917.



Particular description of goods.—Moving-Picture Films.
Claims use since May 1, 1917.

Ser. No. 104,761. (CLASS 2. RECEPTACLES.) JOHN WANAMAKER, NEW YORK, New York, N. Y. Filed June 29, 1917.

M. H. A.

Particular description of goods.—A Notion Kit.
Claims use since May 21, 1917.

Ser. No. 104,900. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) FICKETT MANUFACTURING CO., Atlanta, Ga. Filed July 7, 1917.

KING KOTTON

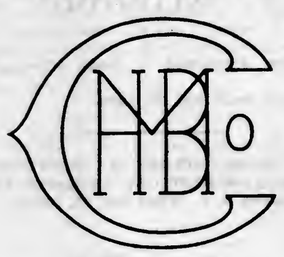
Particular description of goods.—Mops.
Claims use since July, 1912.

Ser. No. 104,938. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MERCK & CO., New York, N. Y. Filed July 9, 1917.

SUPEROXOL

Particular description of goods.—A Solution of Hydrogen Peroxid.
Claims use since July 5, 1917.

Ser. No. 105,060. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE H. M. B. COMPANY, Amherst, Mass. Filed July 16, 1917.



Particular description of goods.—Plasters for Treating Cancers.
Claims use since Jan. 1, 1916.

Ser. No. 105,150. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE GUTTA PERCHA & RUBBER MANUFACTURING COMPANY, New York, N. Y. Filed July 20, 1917.

CIRCLE

Particular description of goods.—Belting of Rubber and Fabric.
Claims use since March, 1913.

Ser. No. 105,214. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) SPARKLING SILVERSPOON CO., Cleveland, Ohio. Filed July 23, 1917.

Silverspoon

Particular description of goods.—Non-Alcoholic Carbonated Beverages.
Claims use since June 30, 1916.

Ser. No. 105,266. (CLASS 39. CLOTHING.) AMBROSE WILSON LIMITED, London, England. Filed July 25, 1917.

AMBRON

Particular description of goods.—Corsets and Girdles in the Nature of and Worn as Substitutes for Corsets.
Claims use since Feb. 24, 1917.

Ser. No. 105,321. (CLASS 38. PRINTS AND PUBLICATIONS.) THE PREST-O-LITE COMPANY, INC., Indianapolis, Ind. Filed July 27, 1917.

Prest-O

Particular description of goods.—A Trade Publication or Advertising-Magazine Published Quarterly or at More Frequent Periods.
Claims use since December, 1912.

Ser. No. 105,333. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) WILLIAM WALL CHACE, Brooklyn, N. Y., assignor to Jennings Lace Works Corp., New York, N. Y., a Corporation of New York. Filed July 28, 1917. Under ten-year proviso.



Particular description of goods.—Laces.
Claims use since the year 1870.

Ser. No. 105,438. (CLASS 12. CONSTRUCTION MATERIALS.) THE PHILIP CAREY MANUFACTURING COMPANY, Lockland, Ohio. Filed Aug. 2, 1917.

PERCOPROOF

Particular description of goods.—Damp-Proofing Material.
Claims use since about July 3, 1911.

Ser. No. 105,512. (CLASS 39. CLOTHING.) ARBETTER & RICHMAN, St. Louis, Mo. Filed Aug. 7, 1917.

Vulcan

Particular description of goods.—Overalls, Work-Pants, and Jumpers.
Claims use since about May 11, 1917.

Ser. No. 105,516. (CLASS 12. CONSTRUCTION MATERIALS.) DONAHEY, MOORE & DONAHEY, Uhrichsville, Ohio. Filed Aug. 7, 1917.

UNITILE

Particular description of goods.—Earthenware Tile for Building Construction.
Claims use since December, 1916.

Ser. No. 105,545. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE MARION STEAM SHOVEL COMPANY, Marion, Ohio. Filed Aug. 8, 1917.



Particular description of goods.—Electric Shovels.
Claims use since Apr. 6, 1917.

Ser. No. 105,564. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) CHAS. A. SCHIEREN COMPANY, New York, N. Y. Filed Aug. 9, 1917.

CasCo

Particular description of goods.—Rawhide Lacing.
Claims use since about Mar. 3, 1917.

Ser. No. 105,574. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) THE F. KELLY COMPANY, Derby, Conn. Filed Aug. 10, 1917.

Daisy

Particular description of goods.—Snap-Fasteners and Safety-Pins.
Claims use since Nov. 1, 1904.

Ser. No. 105,590. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) EASTMAN KODAK COMPANY, Rochester, N. Y. Filed Aug. 11, 1917.

ORTHONON

Particular description of goods.—Photographic Dry-Plates.
Claims use since Sept. 20, 1900.

Ser. No. 105,596. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) INTERSTATE SHADE CLOTH CO., Hoboken, N. J. Filed Aug. 11, 1917.

Sunlite

Particular description of goods.—Shade-Cloths of Sized and Oil-Painted Fabrics.
Claims use since Aug. 15, 1915.

Ser. No. 105,597. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) INTERSTATE SHADE CLOTH CO., Hoboken, N. J. Filed Aug. 11, 1917.

ÆTNA

Particular description of goods.—Shade-Cloths of Sized and Oil-Painted Fabrics.
Claims use since Aug. 15, 1915.

Ser. No. 105,656. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) DU PONT FABRIKOID COMPANY, Wilmington, Del. Filed Aug. 15, 1917.

PONTINE

Particular description of goods.—Silk, Satin, Serge, and other Woven Fabrics Provided with a Coating to Give the Appearance of Leather.
Claims use since Sept. 20, 1916.

Ser. No. 105,678. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) STANDARD WOVEN FABRIC COMPANY, Walpole, Mass. Filed Aug. 15, 1917.

STANWAL

Particular description of goods.—For Use on Antisqueak (a Fabric Impregnated with Waterproofing Compound Manufactured for the Purpose of Being Inserted Between the Bodies and Frames of Motor-Vehicles) and on Radiator-Lacings, (a Fabric Impregnated with Waterproofing Compound Manufactured for the Purpose of Being Inserted Between the Engine Hoods and Frames of Motor-Vehicles.)
Claims use since Mar. 8, 1917.

Ser. No. 105,682. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) AMERICAN RING COMPANY, Waterbury, Conn. Filed Aug. 16, 1917.

METALEATHER

Particular description of goods.—Upholsterers' Nails.
Claims use since June, 1917.

Ser. No. 105,686. (CLASS 39. CLOTHING.) THE J. L. HUDSON CO., Detroit, Mich. Filed Aug. 16, 1917.

Fashona

Particular description of goods.—Corsets.
Claims use since July 1, 1917.

Ser. No. 105,721. (CLASS 39. CLOTHING.) THE PULLASTIC CO. OF AMER. INC., New York, N. Y. Filed Aug. 18, 1917.



Particular description of goods.—Hat-Linings.
Claims use since Aug. 14, 1917.

Ser. No. 105,756. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) RICE-STIX DRY GOODS COMPANY, St. Louis, Mo. Filed Aug. 20, 1917.

Society

Particular description of goods.—Ribbons.
Claims use since June 30, 1917.

Ser. No. 105,813. (CLASS 32. FURNITURE AND UPHOLSTERY.) THE PORCELAIN ENAMEL AND MANUFACTURING COMPANY OF BALTIMORE, Baltimore, Md. Filed Aug. 22, 1917.

PEMCO

Particular description of goods.—Kitchen-Tables, Tops for Kitchen-Tables, Kitchen-Cabinets, Tops for Kitchen-Cabinets, and Stools.
Claims use since Apr. 1, 1917.

Ser. No. 105,818. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) ROGERS & THOMPSON, INC., New York, N. Y. Filed Aug. 22, 1917.

Jerzette

Particular description of goods.—Silk Piece Goods.
Claims use since Apr. 1, 1917.

Ser. No. 105,883. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) AMERICAN FASTENER CO., Waterbury, Conn. Filed Aug. 27, 1917.

"GATUN"

Particular description of goods.—Metal Snap-Fasteners Used to Fasten Wearing-Apparel.
Claims use since June 30, 1916.

Ser. No. 105,954. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FREDERICK H. YOUNG, Toledo, Ohio. Filed Aug. 29, 1917.

BISMOLINE

Particular description of goods.—Medicinal Ointment and Lotion for Use as a Remedy for Eczema, Acne, Eruption and Irritation of the Skin, Also as a Medicinal Dressing.
Claims use since Dec. 3, 1899.

Ser. No. 105,978. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEORGE BORGFELDT & Co., New York, N. Y. Filed Aug. 31, 1917.

EXIANE

Particular description of goods.—Face-Powder, Toilet Powder, Tooth Powder and Pastes, Tooth-Washes, Rice Powder, Smelling-Salts, Talcum Powder, Sachets, Bath Salts, Toilet Waters, Perfumes Used Either Pure or as an Ingredient in Toilet Preparations in Admixtures with Suitable Substances in the Form of Pastes, Salves, Soaps, Powders, Pencils, and Liquids; Nail-Enamels, Eyebrow-Pencils, Rouges, (Liquid, Powder, and Compact,) Pomades, Pomade-Sticks, Hair-Wax, Nail-Polishes, Toilet Creams, Hair-Tonics, Hair Dyes and Bleaches.
Claims use since July 16, 1917.

Ser. No. 105,984. (CLASS 37. PAPER AND STATIONERY.) EAGLE PENCIL COMPANY, New York, N. Y. Filed Aug. 31, 1917.

TORPEDO

Particular description of goods.—Lead-Pencils.
Claims use since 1908.

Ser. No. 106,027. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE INTERNATIONAL HANDKERCHIEF MFG. CO., New York, N. Y. Filed Sept. 4, 1917.

SECURITY

Particular description of goods.—Handkerchiefs.
Claims use since July 31, 1917.

Ser. No. 106,028. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE INTERNATIONAL HANDKERCHIEF MFG. CO., New York, N. Y. Filed Sept. 4, 1917.

Challenger

Particular description of goods.—Handkerchiefs.
Claims use since July 31, 1917.

Ser. No. 106,031. (CLASS 32. FURNITURE AND UPHOLSTERY.) FRANK J. MATCHETTE, Milwaukee, Wis. Filed Sept. 4, 1917.

RECEIVADOR

Particular description of goods.—Wall-Cabinets.
Claims use since July 3, 1917.

Ser. No. 106,100. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) LOUIS ROESSEL & Co., New York, N. Y. Filed Sept. 6, 1917.

Florisette

Particular description of goods.—Silk Piece Goods.
Claims use since Apr. 2, 1917.

Ser. No. 106,170. (CLASS 37. PAPER AND STATIONERY.) WEST VIRGINIA PULP & PAPER COMPANY, New York, N. Y. Filed Sept. 10, 1917.

VIRDEX

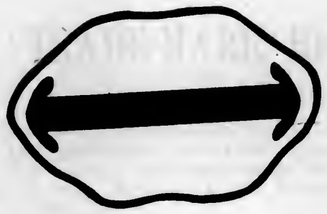
Particular description of goods.—Bristol-Paper.
Claims use since Aug. 22, 1917.

Ser. No. 106,188. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) WEBBING & EDGING CORP., New York, N. Y. Filed Sept. 11, 1917.

EDGEREL

Particular description of goods.—Wash-Braids, Fancy Braids, Wash-Insertions, and Fancy Insertions for Dresses, Aprons, and Undergarments.
Claims use since about July 21, 1917.

Ser. No. 106,336. (CLASS 32. FURNITURE AND UPHOLSTERY.) THE BILLOW WASHABLE PILLOW COMPANY, Columbus, Ohio. Filed Sept. 20, 1917.



Particular description of goods.—Pillows.
Claims use since about Mar. 1, 1917.

Ser. No. 106,349. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GINEVRA MIGLIACCIO, New York, N. Y. Filed Sept. 20, 1917.



Comprising the word "Herbamint" in white upon a blue ground surrounded by a yellow border.
Particular description of goods.—Candy.
Claims use since about Sept. 16, 1916.

Ser. No. 106,422. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) THE GORDON'S DRY GIN COMPANY, LIMITED, New York, N. Y. Filed Sept. 25, 1917. Under ten-year proviso.

TANQUERAY

Particular description of goods.—Dry Gin and Old Tom Gin.
Claims use since December, 1892.

Ser. No. 106,438. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) JAMES B. CROWLEY, San Francisco, Cal. Filed Sept. 26, 1917.

MARVEL

Particular description of goods.—Snap-Fasteners.
Claims use since about Aug. 10, 1917.

Ser. No. 106,458. (CLASS 37. PAPER AND STATIONERY.) ARGUS MANUFACTURING COMPANY, Chicago, Ill. Filed Sept. 27, 1917.

ARGUS

Particular description of goods.—Pencil-Clasps, Pen-Clasps, Paper-Fasteners, and Envelop-Moistcners.
Claims use since Apr. 10, 1915.

Ser. No. 106,517. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) ADAM SCHEIDT BEVERAGE CO., Norristown, Pa. Filed Sept. 29, 1917.

Aco

Particular description of goods.—A Non-Intoxicating Cereal Beverage Sold as a Soft Drink.
Claims use since August, 1917.

TRADE-MARK REGISTRATIONS GRANTED

OCTOBER 23, 1917.

119,014. NON-TOXIC AND NON-CAUSTIC ANTISEPTIC. THE ABBOTT LABORATORIES, Chicago, Ill.
Filed July 8, 1916. Serial No. 96,419. PUBLISHED AUGUST 14, 1917.

119,015. AERO-PROPELLED ICE-SLED. AEROTHRUST ENGINE COMPANY, Laporte, Ind.
Filed July 5, 1917. Serial No. 104,824. PUBLISHED AUGUST 7, 1917.

119,016. BITTER TONIC FOR THE RELIEF OF CERTAIN NAMED CONDITIONS. JOHN HENRY ALBERT, Lancaster, Pa.
Filed May 9, 1917. Serial No. 103,660. PUBLISHED AUGUST 14, 1917.

119,017. CERTAIN NAMED FOODS. ALL-PACKAGE GROCERY STORES CO., New York, N. Y.
Filed May 25, 1917. Serial No. 104,055. PUBLISHED AUGUST 14, 1917.

119,018. AUTOMOBILES. THE ALLEN MOTOR CO., Fostoria, Ohio.
Filed May 2, 1917. Serial No. 103,461. PUBLISHED AUGUST 14, 1917.

119,019. FLUID FOR PREVENTING PAINT FROM PEELING OFF GALVANIZED IRON. AMERICAN CHEMICAL PAINT COMPANY, Philadelphia, Pa.
Filed April 14, 1917. Serial No. 102,980. PUBLISHED JULY 31, 1917.

119,020. CERTAIN NAMED CUTLERY, MACHINERY, AND TOOLS. AMERICAN OPTICAL COMPANY, Southbridge, Mass.
Filed June 26, 1916. Serial No. 96,122. PUBLISHED AUGUST 7, 1917.

119,021. CASES FOR SPECTACLES, EYEGLASSES, MAGNIFIERS, AND OPHTHALMIC GOODS GENERALLY. AMERICAN OPTICAL COMPANY, Southbridge, Mass.
Filed June 26, 1916. Serial No. 96,123. PUBLISHED AUGUST 14, 1917.

119,022. CERTAIN NAMED MEASURING AND SCIENTIFIC APPLIANCES. AMERICAN OPTICAL COMPANY, Southbridge, Mass.
Filed June 26, 1916. Serial No. 96,124. PUBLISHED AUGUST 14, 1917.

119,023. CERTAIN NAMED ABRASIVE, DETERGENT, AND POLISHING MATERIALS. AMERICAN OPTICAL COMPANY, Southbridge, Mass.
Filed June 26, 1916. Serial No. 96,126. PUBLISHED AUGUST 21, 1917.

119,024. PNEUMATICALLY-OPERATED ORCHESTRIONS. THE AMERICAN PHOTO PLAYER SALES COMPANY, San Francisco, Cal.
Filed June 22, 1916. Serial No. 96,042. PUBLISHED AUGUST 21, 1917.

119,025. ELECTRIC COOKING-STOVES, ELECTRIC RANGES, AND ELECTRIC HEATING-STOVES. AMERICAN STOVE COMPANY, St. Louis, Mo.
Filed January 24, 1917. Serial No. 100,871. PUBLISHED AUGUST 7, 1917.

119,026. SOLID BLOCKS OF RUBBER SUBSTITUTE FOR ERASING MARKS FROM PAPER AND OTHER ARTICLES. F. H. APPLETON & SON, INC., Boston, Mass.
Filed May 7, 1917. Serial No. 103,580. PUBLISHED AUGUST 21, 1917.

119,027. SUGAR-CURED BACON. ARMSTRONG PACKING COMPANY, Dallas, Tex.
Filed March 27, 1917. Serial No. 102,473. PUBLISHED AUGUST 14, 1917.

119,028. CERTAIN NAMED TOYS. GEORGE A. BAKER, South Bend, Ind.
Filed January 5, 1916. Serial No. 91,925. PUBLISHED AUGUST 21, 1917.

119,029. CERTAIN NAMED NON-ALCOHOLIC BEVERAGES. P. BALLANTINE & SONS, Newark, N. J.
Filed July 23, 1917. Serial No. 105,188. PUBLISHED AUGUST 14, 1917.

119,030. REFRACTORY BRICKS, TILES, AND FURNACE-LININGS. GEORGE A. BALZ, Rahway, N. J.
Filed June 20, 1917. Serial No. 104,539. PUBLISHED AUGUST 14, 1917.

119,031. ROLLED READY-TO-LAY ROOFING MADE OF A COMPOSITION OF ASPHALT AND WOOD FELT. BANKS SUPPLY COMPANY, Huntington, W. Va.
Filed July 5, 1917. Serial No. 104,825. PUBLISHED AUGUST 21, 1917.

119,032. SELF-RISING WHEAT-FLOUR. BEELAND-NICHOLSON WHOLESALE CO., Greenville, Ala.
Filed June 8, 1917. Serial No. 104,335. PUBLISHED AUGUST 14, 1917.

119,033. CHOCOLATES OF ALL KINDS. PAUL F. BEICH CO., Bloomington, Ill.
Filed May 25, 1917. Serial No. 104,060. PUBLISHED AUGUST 14, 1917.

119,034. MEN'S COATS, WAISTCOATS, TROUSERS, AND OVERCOATS. GEORGE G. BENJAMIN, New York, N. Y.
Filed July 6, 1917. Serial No. 104,883. PUBLISHED AUGUST 21, 1917.

119,035. MEDICAL PREPARATIONS FOR GASTRO-INTESTINAL DISTURBANCES. BERLIN LABORATORY, LTD., INC., New York, N. Y.
Filed August 12, 1914. Serial No. 80,480. PUBLISHED AUGUST 14, 1917.

119,036. PREPARATION FOR RHEUMATISM AND WEAK LUNGS. BLACK AND WALTER, Huntington, W. Va.
Filed July 25, 1916. Serial No. 96,812. PUBLISHED AUGUST 14, 1917.

119,037. LINIMENT, SALVE, AND TONIC FOR PELLAGRA, PILES, AND BLOOD IMPURITIES. ALEX BROWN, Paynes, Miss.
Filed May 14, 1917. Serial No. 103,764. PUBLISHED AUGUST 14, 1917.

119,038. STEEL CASTINGS. THE CANTON STEEL FOUNDRY COMPANY, Canton, Ohio.
Filed April 12, 1917. Serial No. 102,901. PUBLISHED AUGUST 7, 1917.

119,039. CERTAIN NAMED PAINTS AND PAINTERS' MATERIALS. CERTAIN-TEED PRODUCTS CORPORATION, St. Louis, Mo.
Filed April 16, 1917. Serial No. 103,010. PUBLISHED AUGUST 7, 1917.

119,040. CERTAIN VENTILATING APPARATUS. CHAMPION MANUFACTURING & SALES COMPANY, St. Louis, Mo.
Filed April 3, 1916. Serial No. 94,062. PUBLISHED MAY 29, 1917.

119,041. BLANKETS, SHEETS, DUSTERS, AND SIMILAR CLOTHING FOR HORSES, COWS, AND OTHER ANIMALS. L. C. CHASE & COMPANY, Boston, Mass.
Filed May 28, 1917. Serial No. 104,115. PUBLISHED AUGUST 7, 1917.

119,042. WRAPPING-PAPER. CHEBOYGAN PAPER COMPANY, Cheboygan, Mich.
Filed July 25, 1917. Serial No. 105,249. PUBLISHED AUGUST 21, 1917.

119,043. WRAPPING-PAPER. CHEBOYGAN PAPER COMPANY, Cheboygan, Mich.
Filed July 25, 1917. Serial No. 105,250. PUBLISHED AUGUST 21, 1917.

119,044. WHEAT-FLOUR. THE COLORADO MILLING & ELEVATOR CO., Denver and Pueblo, Colo.
Filed May 25, 1917. Serial No. 104,063. PUBLISHED AUGUST 14, 1917.

119,045. WHEAT-FLOUR. THE COLORADO MILLING & ELEVATOR CO., Denver and Pueblo, Colo.
Filed May 25, 1917. Serial No. 104,066. PUBLISHED AUGUST 14, 1917.

119,046. BROOMS. COLUMBIA BROOM WORKS, INC., Brooklyn, N. Y.
Filed February 3, 1917. Serial No. 101,144. PUBLISHED AUGUST 14, 1917.

119,047. CERTAIN NAMED FOODS. CHARLES I. COOK, Menominee, Mich.
Filed May 8, 1917. Serial No. 103,630. PUBLISHED AUGUST 14, 1917.

119,048. WHEAT-FLOUR. W. R. CORNELIUS AND SON, Nashville, Tenn.
Filed May 25, 1917. Serial No. 104,067. PUBLISHED AUGUST 14, 1917.

119,049. VALVES, EXPANSION-JOINTS, FLANGES, LATERALS, REDUCERS, ELLS, TEES, AND CROSSES. CRANE COMPANY, Chicago, Ill.
Filed April 9, 1917. Serial No. 102,827. PUBLISHED JULY 31, 1917.

119,050. ILLUMINATING, LUBRICATING, AND BURNING OILS AND GREASES. CREW LEVICK COMPANY, Philadelphia, Pa.
Filed March 16, 1917. Serial No. 102,180. PUBLISHED APRIL 10, 1917.

119,051. LATHES. DALTON MACHINE CO., INC., New York, N. Y.
Filed April 28, 1917. Serial No. 103,383. PUBLISHED AUGUST 7, 1917.

119,052. ROOT-CANAL PASTE. LOREN M. DARLING, Des Moines, Iowa.
Filed July 18, 1917. Serial No. 105,092. PUBLISHED AUGUST 14, 1917.

119,053. MIRRORS FOR PERSONAL USE. DEFIANCE CHECK WRITER CORPORATION, Rochester, N. Y.
Filed May 25, 1917. Serial No. 104,069. PUBLISHED AUGUST 14, 1917.

119,054. HOLDERS FOR FLAGSTAFFS AND SIMILAR ARTICLES. WM. L. DEMING, Salem, Ohio.
Filed June 28, 1917. Serial No. 104,731. PUBLISHED JULY 31, 1917.

119,055. WEATHER-STRIPPING. W. J. DENNIS & COMPANY, Chicago, Ill.
Filed April 2, 1917. Serial No. 102,643. PUBLISHED JULY 17, 1917.

119,056. SQUEEGEE WINDOW-CLEANERS. W. J. DENNIS & COMPANY, Chicago, Ill.
Filed April 2, 1917. Serial No. 102,644. PUBLISHED AUGUST 14, 1917.

119,057. LUBRICATING-OILS AND LUBRICANT. BERTRAND G. DESMOND, Pittsburgh, Pa.
Filed October 4, 1916. Serial No. 98,400. PUBLISHED AUGUST 14, 1917.

119,058. MEDICINAL TONIC AND SALVE FOR TREATING CERTAIN NAMED DISEASES. MARIA LOUISA COBB VON HAFFNER DE VESSEY, Washington, D. C.
Filed December 30, 1916. Serial No. 100,250. PUBLISHED AUGUST 14, 1917.

119,059. NURSING-BOTTLES. HOD C. DUNFEE, Charleston, W. Va.
Filed October 31, 1916. Serial No. 98,994. PUBLISHED AUGUST 14, 1917.

119,060. CONCENTRATED VEGETABLE SOUP AND PURÉE TABLETS AND PACKAGES, BOUILLON AND CONSOMMÉ BOXES, TABLETS, AND PACKAGES. AUGUSTE FRANÇOIS PAUL DU PONT, New York, N. Y.
Filed July 5, 1917. Serial No. 104,838. PUBLISHED AUGUST 14, 1917.

119,061. WATCHES AND WATCH-MOVEMENTS. ELGIN NATIONAL WATCH COMPANY, Chicago, Ill.
Filed June 25, 1917. Serial No. 104,667. PUBLISHED AUGUST 21, 1917.

119,062. WHEAT-FLOUR. ENID MILLING COMPANY, Enid, Okla.
Filed June 19, 1917. Serial No. 104,519. PUBLISHED AUGUST 14, 1917.

119,063. WHEAT-FLOUR. ENID MILLING COMPANY, Enid, Okla.
Filed June 19, 1917. Serial No. 104,520. PUBLISHED AUGUST 14, 1917.

119,064. ELECTRIC SIGNALING DEVICES FOR MOTOR-VEHICLES. THE FLARAY SIGNAL CO., Chicago, Ill.
Filed May 17, 1917. Serial No. 103,886. PUBLISHED AUGUST 7, 1917.

119,065. STEEL RODS AND BARS, COLD-ROLLED SHEET AND STRIP STEEL, AND STEEL WIRES. PETER A. FRASSE & CO. INC., New York, N. Y.
Filed August 10, 1916. Serial No. 97,246. PUBLISHED JULY 3, 1917.

119,066. SEWING-MACHINES AND PARTS THEREOF. FREE SEWING MACHINE CO., Rockford, Ill.
Filed February 21, 1917. Serial No. 101,565. PUBLISHED AUGUST 7, 1917.

119,067. COMPOUND FOR FROSTING SURFACE OF GLASS ARTICLES. THE FROST-A-LITE CO., Newark, N. J.
Filed March 31, 1916. Serial No. 94,014. PUBLISHED AUGUST 14, 1917.

119,068. CHEWING-GUM. GEORGE BROTHERS COMPANY, Manitowoc, Wis.
Filed September 23, 1916. Serial No. 98,187. PUBLISHED AUGUST 14, 1917.

119,069. CONSTRUCTION TOYS. THE A. C. GILBERT COMPANY, New Haven, Conn.
Filed July 12, 1917. Serial No. 105,001. PUBLISHED AUGUST 14, 1917.

119,070. WATCHES. GOLDSMITH, STERN & CO., New York, N. Y.
Filed July 19, 1917. Serial No. 105,114. PUBLISHED AUGUST 21, 1917.

119,071. POLISH FOR RETAINING AND ENHANCING VARNISHED OR ENAMELED SURFACES. ROBERT B. GOFF, Seattle, Wash.
Filed May 5, 1917. Serial No. 103,562. PUBLISHED AUGUST 7, 1917.

119,072. CERTAIN NAMED ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES. ALFRED GRAHAM & CO., London, England.
Filed June 15, 1916. Serial No. 95,890. PUBLISHED AUGUST 7, 1917.

119,073. AGRICULTURAL IMPLEMENTS—NAMELY, CULTIVATORS AND CULTIVATOR-BLADES. THE HARRIMAN MANUFACTURING COMPANY, Harriman, Tenn.
Filed June 1, 1917. Serial No. 104,189. PUBLISHED AUGUST 7, 1917.

119,074. TOOTH-BRUSHES. HARRIS AND BERNTZ CO., Philadelphia, Pa.
Filed March 31, 1917. Serial No. 102,621. PUBLISHED AUGUST 21, 1917.

119,075. POLISHING AND CLEANSING MATERIALS FOR BOOTS AND SHOES. C. L. HAUTHAWAY & SONS, INC., Boston, Mass.
Filed June 14, 1917. Serial No. 104,441. PUBLISHED AUGUST 21, 1917.

119,076. BASE-BALL BATS. HILLERICH & BRADSBY COMPANY, INC., Louisville, Ky.
Filed June 28, 1917. Serial No. 104,735. PUBLISHED AUGUST 14, 1917.

119,077. HAND-STAMPS. HILL-INDEPENDENT MFG. CO., Philadelphia, Pa.
Filed July 19, 1917. Serial No. 105,119. PUBLISHED AUGUST 21, 1917.

119,078. HAND-STAMPS. HILL-INDEPENDENT MFG. CO., Philadelphia, Pa.
Filed July 19, 1917. Serial No. 105,120. PUBLISHED AUGUST 21, 1917.

119,079. WHISTLE-CALLS. JOSEPH HUDSON, Birmingham, England.
Filed July 7, 1917. Serial No. 104,902. PUBLISHED AUGUST 14, 1917.

119,080. SUGAR. IMPERIAL SUGAR COMPANY, Sugar Land, Tex.
Filed July 15, 1916. Serial No. 96,586. PUBLISHED AUGUST 14, 1917.

119,081. SOAP-DISPENSERS. INTERSTATE CHEMICAL COMPANY, Jersey City, N. J.
Filed April 30, 1917. Serial No. 103,419. PUBLISHED AUGUST 14, 1917.

119,082. CREAM-CHEESE. LOUIS KADANS, New York, N. Y.
Filed June 8, 1917. Serial No. 104,339. PUBLISHED AUGUST 14, 1917.

119,083. MEN'S COATS. C. KENYON COMPANY, Brooklyn, N. Y.
Filed July 20, 1917. Serial No. 105,151. PUBLISHED AUGUST 21, 1917.

119,084. WHEAT-FLOUR. ROWE EDWARD KIDDER, Kansas City, Mo.
Filed May 25, 1917. Serial No. 104,075. PUBLISHED AUGUST 14, 1917.

119,085. HAND FLASH-LIGHTS. HARRY L. KIRK, Lynchburg, Va.
Filed June 22, 1917. Serial No. 104,613. PUBLISHED JULY 31, 1917.

119,086. CORSETS. THE KREEGER STORE, INCORPORATED, New Orleans, La.
Filed July 19, 1917. Serial No. 105,131. PUBLISHED AUGUST 21, 1917.

119,087. BOOTS AND SHOES MADE OF CANVAS. LARSEN & JENSEN, Seattle, Wash.
Filed June 20, 1917. Serial No. 104,553. PUBLISHED AUGUST 21, 1917.

119,088. CASTORIA. JOSEPH H. LARSON, Detroit, Mich.
Filed January 24, 1917. Serial No. 100,895. PUBLISHED JULY 10, 1917.

119,089. STEEL. LATROBE ELECTRIC STEEL COMPANY, Latrobe borough, Pa.
Filed May 21, 1917. Serial No. 103,987. PUBLISHED AUGUST 7, 1917.

119,090. CERTAIN NAMED PHARMACEUTICAL PREPARATIONS. LAZELL PERFUMER, Newburgh, N. Y.
Filed January 16, 1917. Serial No. 100,653. PUBLISHED AUGUST 14, 1917.

119,091. CERTAIN NAMED CANNED GOODS. BANY LEVY, Brooklyn, N. Y.
Filed May 15, 1917. Serial No. 103,831. PUBLISHED AUGUST 14, 1917.

119,092. CERTAIN NAMED FOODS. BANY LEVY, Brooklyn, N. Y.
Filed May 15, 1917. Serial No. 103,832. PUBLISHED AUGUST 14, 1917.

119,093. WHEAT-FLOUR. THE LOUDONVILLE MILL & GRAIN CO., Loudonville, Ohio.
Filed June 11, 1917. Serial No. 104,387. PUBLISHED AUGUST 14, 1917.

119,094. TALKING-MACHINES, PHONOGRAPHS, AND THE LIKE. LYON & HEALY, Chicago, Ill.
Filed July 5, 1917. Serial No. 104,863. PUBLISHED AUGUST 21, 1917.

119,095. PREPARATION FOR RELIEF OF STOMACH TROUBLES, RHEUMATISM, AND KIDNEY AILMENTS. JAMES MADISON MORRISON, Fort Wayne, Ind.
Filed March 17, 1917. Serial No. 102,218. PUBLISHED AUGUST 14, 1917.

119,096. METAL-ENAMEL. WILLIAM E. MARTIN, Chicago, Ill.
Filed June 1, 1917. Serial No. 104,197. PUBLISHED AUGUST 7, 1917.

119,097. NEGLIGÉE SHIRTS AND BLOUSES. MASTER SHIRT AND BLOUSE COMPANY, Camden, N. J., and Philadelphia, Pa.
Filed July 14, 1917. Serial No. 105,044. PUBLISHED AUGUST 21, 1917.

119,098. HAIR-CURLERS. MAYME JEFFERSON PEPPARD, Minneapolis, Minn.
Filed October 29, 1915. Serial No. 90,210. PUBLISHED AUGUST 21, 1917.

119,099. INSECTICIDES, GERMICIDES, DISINFECTANTS, FUMIGATORS, AND DISSOLVENTS FOR REMOVING PIPE OBSTRUCTIONS. MIDLAND CHEMICAL COMPANY, Dubuque, Iowa.
Filed February 20, 1917. Serial No. 101,551. PUBLISHED AUGUST 14, 1917.

119,100. WHEAT-FLOUR. THE MIDLAND MILLING COMPANY, Kansas City, Mo., assignor to Midland Milling Company, a Corporation.
Filed June 19, 1917. Serial No. 104,530. PUBLISHED AUGUST 14, 1917.

119,101. WHEAT-FLOUR. THE MIDLAND MILLING COMPANY, Kansas City, Mo., assignor to Midland Milling Company, a Corporation.
Filed June 19, 1917. Serial No. 104,531. PUBLISHED AUGUST 14, 1917.

119,102. DRESS SNAP-FASTENERS. MILLS & GIBB CORPORATION, New York, N. Y.
Filed May 25, 1917. Serial No. 104,078. PUBLISHED AUGUST 21, 1917.

119,103. SURGICAL DRESSING IN THE FORM OF A WAX. ALBERT A. MUNSCH, Pittsburgh, Pa.
Filed February 12, 1917. Serial No. 101,335. PUBLISHED AUGUST 14, 1917.

119,104. TELEPHONES AND PARTS THEREOF. NAAMLOOZE VENNOOTSCHAP DE NEDERLANDSCHE THERMO-TELEPHOON MAATSCHAPPIJ, Utrecht, Netherlands.
Filed June 23, 1917. Serial No. 96,086. PUBLISHED AUGUST 7, 1917.

119,105. CEREAL BEVERAGES FERMENTED AND FLAVORED WITH HOPS. NATIONAL BREWING COMPANY, New Orleans, La.
Filed January 4, 1917. Serial No. 100,858. PUBLISHED AUGUST 21, 1917.

119,106. BLUE-PRINT PAPER. NEW YORK BLUE PRINT PAPER COMPANY, New York, N. Y.
Filed March 9, 1917. Serial No. 102,012. PUBLISHED AUGUST 7, 1917.

119,107. FRY-PANS. NEW YORK STAMPING COMPANY, Brooklyn, N. Y.
Filed June 11, 1917. Serial No. 104,400. PUBLISHED JULY 31, 1917.

119,108. CANNED CHICKEN À LA KING, CANNED CHICKEN SOUP, CANNED TOMATO SOUP. OVERSEAS PRODUCTS CORPORATION, New York, N. Y.
Filed April 19, 1917. Serial No. 103,126. PUBLISHED AUGUST 14, 1917.

119,109. READY-MIXED PAINTS AND VARNISHES. PATEK BROTHERS, Milwaukee, Wis.
Filed April 15, 1915. Serial No. 85,969. PUBLISHED AUGUST 7, 1917.

119,110. PERIODICAL PUBLISHED MONTHLY. PERIODICAL PUBLISHING CO., Grand Rapids, Mich.
Filed June 18, 1917. Serial No. 104,505. PUBLISHED AUGUST 14, 1917.

119,111. LEATHER-DRESSING OILS. THE PIERCE COMPANY, East Rochester, N. Y.
Filed April 20, 1917. Serial No. 103,153. PUBLISHED AUGUST 21, 1917.

119,112. ANTIMALARIAL PILLS. PILDORAS NACIONALES CORPORATION, New York, N. Y., and Los Angeles, Cal.
Filed October 31, 1916. Serial No. 99,016. PUBLISHED JANUARY 30, 1917.

119,113. CARD-STENCILS. RAPID ADDRESSING MACHINE CO., New York, N. Y.
Filed July 24, 1917. Serial No. 105,238. PUBLISHED AUGUST 21, 1917.

119,114. WHEAT-FLOUR. THE RAYMOND HADLEY CORPORATION, New York, N. Y.
Filed June 19, 1917. Serial No. 104,523. PUBLISHED AUGUST 14, 1917.

119,115. WHEAT-FLOUR. THE RAYMOND HADLEY CORPORATION, New York, N. Y.
Filed June 19, 1917. Serial No. 104,524. PUBLISHED AUGUST 14, 1917.

119,116. WOOLEN DRESS FABRICS. WM. F. READ & SONS COMPANY, Philadelphia, Pa.
Filed June 2, 1917. Serial No. 104,230. PUBLISHED AUGUST 21, 1917.

119,117. PREPARED ROOFING. THE RECKITT CORPORATION, Chicago, Ill.
Filed March 28, 1917. Serial No. 102,532. PUBLISHED AUGUST 21, 1917.

119,118. SEEDED RAISINS AND DRIED FRUITS. ROSENBERG BROS. & Co., San Francisco, Cal.
Filed March 28, 1917. Serial No. 102,534. PUBLISHED AUGUST 14, 1917.

119,119. ADHESIVE METAL-CEMENT. GEORGE E. R. ROTHENBUCHER, Woodhaven, N. Y.
Filed January 26, 1917. Serial No. 100,976. PUBLISHED AUGUST 21, 1917.

119,120. MEDICINAL COMPOUND ADAPTED TO THE TREATMENT OF CERTAIN NAMED DISEASES. ROYAL REMEDIES COMPANY, Waukegan, Ill.
Filed April 20, 1917. Serial No. 103,155. PUBLISHED AUGUST 14, 1917.

119,121. TALCUM POWDER. THE RYDALE REMEDY COMPANY, INC., Hampton, Va.
Filed June 2, 1916. Serial No. 95,601. PUBLISHED AUGUST 14, 1917.

119,122. SEMISOLID, LIQUID, OR PASTY CLEANSING COMPOSITIONS. SAVON CHEMICAL CO., INC., New York, N. Y.
Filed June 26, 1916. Serial No. 96,172. PUBLISHED AUGUST 21, 1917.

119,123. PAPER SHEETING FOR ORNAMENTAL PURPOSES. JOSEPH SCHACK, Chicago, Ill.
Filed May 31, 1917. Serial No. 104,155. PUBLISHED AUGUST 14, 1917.

119,124. MOTION-PICTURE FILMS AND STEREOPTICON-SLIDES. SCREEN ADVERTISING, INC., Washington, D. C.
Filed February 19, 1917. Serial No. 101,528. PUBLISHED AUGUST 7, 1917.

119,125. MOTION-PICTURE FILMS AND STEROPTICON-SLIDES. SCREEN ADVERTISING, INC., Washington, D. C.
Filed February 26, 1917. Serial No. 101,713. PUBLISHED AUGUST 7, 1917.

119,126. MANDOLINS, GUITARS, MUSIC-ROLLS—TO WIT, PERFORATED MUSIC-SHEETS—VIOLINS, AND VIOLIN-STRINGS. SEARS, ROEBUCK AND CO., Chicago, Ill.
Filed September 11, 1916. Serial No. 97,933. PUBLISHED AUGUST 21, 1917.

119,127. LIQUID PAINTS. PAUL A. SEIDEL, Seattle, Wash.
Filed July 20, 1916. Serial No. 96,702. PUBLISHED FEBRUARY 20, 1917.

119,128. WARDROBE-TRUNKS. SEWARD TRUNK AND BAG COMPANY, Petersburg, Va.
Filed April 25, 1917. Serial No. 103,309. PUBLISHED AUGUST 14, 1917.

119,129. BLUING AND AMMONIA. SMITH & HORTON CO. LIMITED, Warren, Pa.
Filed May 18, 1917. Serial No. 103,934. PUBLISHED AUGUST 14, 1917.

119,130. PIANOS. SOHMER & Co., New York, N. Y.
Filed June 2, 1917. Serial No. 104,233. PUBLISHED AUGUST 14, 1917.

119,131. SOLDER-STRIPS. I. STERN & Co., New York, N. Y.
Filed May 23, 1917. Serial No. 104,032. PUBLISHED AUGUST 7, 1917.

119,132. COTTON PIECE GOODS AND SILK PIECE GOODS. MAX STRAUSS, New York, N. Y.
Filed April 25, 1917. Serial No. 103,305. PUBLISHED AUGUST 21, 1917.

119,133. MEDICINE FOR TREATMENT OF CERTAIN NAMED DISEASES. SULFERRO-SOL COMPANY, INC., Birmingham, Ala.
Filed February 12, 1917. Serial No. 101,310. PUBLISHED AUGUST 14, 1917.

119,134. BABBITT METAL. SYRACUSE SMELTING WORKS, Brooklyn, N. Y.
Filed January 26, 1917. Serial No. 100,977. PUBLISHED AUGUST 7, 1917.

119,135. CERTAIN NAMED ARTICLES MADE OF OR PLATED WITH PRECIOUS METAL, INCLUDING GERMAN SILVER. TALBOT MANUFACTURING CO., Providence, R. I.
Filed July 27, 1917. Serial No. 105,327. PUBLISHED AUGUST 21, 1917.

119,136. PAINTS—NAMELY, PRESERVATIVE PAINTS FOR THE BOTTOMS OF VESSELS. TARR & WONSON, LIMITED, Gloucester, Mass.
Filed May 26, 1917. Serial No. 104,106. PUBLISHED AUGUST 7, 1917.

119,137. PAINTS—NAMELY, PRESERVATIVE PAINTS FOR THE BOTTOMS OF VESSELS. TARR & WONSON, LIMITED, Gloucester, Mass.
Filed May 26, 1917. Serial No. 104,107. PUBLISHED AUGUST 7, 1917.

119,138. NAPHTHA, GASOLENE, BENZIN, MOTOR-SPIRITS, PETROL, KEROSENE, AND FUEL-OIL. TIDE WATER OIL Co., New York, N. Y.
Filed May 8, 1917. Serial No. 103,654. PUBLISHED AUGUST 7, 1917.

119,139. SNAP-FASTENERS. ROBERT TREAT MANUFACTURING COMPANY, Newark, N. J.
Filed January 3, 1917. Serial No. 100,346. PUBLISHED MARCH 13, 1917.

119,140. SARDELLEN-BUTTER, SALMON CAVIAR, MUSTARD, MAYONNAISE DRESSING, SALMON-BUTTER, ANCHOVY-BUTTER, AND PEANUT-BUTTER. THE TRIANGLE PURE FOOD CO., New York, N. Y.
Filed April 7, 1917. Serial No. 102,806. PUBLISHED AUGUST 14, 1917.

119,141. WATCHES, WATCHCASES, WATCH-DIALS. UHRENFABRIK VON J. RAUSCHENBACH'S ERBEN VORMALS: INTERNATIONAL WATCH CO., Schaffhausen, Switzerland.
Filed March 6, 1917. Serial No. 101,944. PUBLISHED AUGUST 21, 1917.

119,142. CERTAIN NAMED METALS AND METAL CASTINGS AND FORGINGS. UNITED SMELTING & ALUMINUM COMPANY, INC., New Haven, Conn.
Filed April 4, 1917. Serial No. 102,729. PUBLISHED AUGUST 7, 1917.

119,143. INSULATED WIRE AND FRICTION-TAPE. UNITED STATES RUBBER COMPANY, New Brunswick, N. J., and New York, N. Y.
Filed July 6, 1916. Serial No. 96,379. PUBLISHED AUGUST 7, 1917.

119,144. FURNACE-BULBS, BASIN-PLUGS, FORCE-CUPS, HORN-BULBS, PLANT-SPRINKLES, AND BATH-SPRAYS. UNITED STATES RUBBER COMPANY, New Brunswick, N. J., and New York, N. Y.
Filed July 6, 1916. Serial No. 96,381. PUBLISHED AUGUST 7, 1917.

119,145. SNAP-FASTENERS. VULCANITE MANUFACTURING Co., Lindenhurst, N. Y.
Filed July 5, 1917. Serial No. 104,880. PUBLISHED AUGUST 14, 1917.

119,146. SCARFS, CRAVATS, AND NECKTIES. WALLACH BROS., New York, N. Y.
Filed July 13, 1917. Serial No. 105,032. PUBLISHED AUGUST 21, 1917.

119,147. PAPER BAGS AND PAPER BOXES. WALTHAM BAG & PAPER COMPANY, Waltham, Mass.
Filed January 18, 1917. Serial No. 100,727. PUBLISHED JULY 10, 1917.

119,148. PAPER BAGS AND PAPER BOXES. WALTHAM BAG & PAPER COMPANY, Waltham, Mass.
Filed January 18, 1917. Serial No. 100,728. PUBLISHED JULY 10, 1917.

119,149. PORCELAIN TABLE-TOPS. WASMUTH-ENDICOTT COMPANY, Andrews, Ind.
Filed May 15, 1917. Serial No. 103,854. PUBLISHED AUGUST 14, 1917.

119,150. CORDAGE CONSTRUCTED FROM GLUED RIBBONS MADE OF COTTON. CARL WEINER, Chicago, Ill.
Filed March 10, 1917. Serial No. 102,061. PUBLISHED AUGUST 21, 1917.

119,151. CERTAIN NAMED DENTAL, MEDICAL, AND SURGICAL APPLIANCES. LOUIS J. WEINSTEIN, New York, N. Y.
Filed July 10, 1917. Serial No. 104,972. PUBLISHED AUGUST 14, 1917.

119,152. CAST-STEEL FROGS. THE WEIR FROG COMPANY, Norwood, Ohio.
Filed May 21, 1917. Serial No. 104,000. PUBLISHED AUGUST 7, 1917.

119,153. DISINFECTANT AND INSECTICIDE PREPARATIONS IN POWDER AND LIQUID FORMS. HARRY F. WEX, Milwaukee, Wis.
Filed May 18, 1917. Serial No. 103,940. PUBLISHED AUGUST 21, 1917.

119,154. INSECTICIDE AND DEODORIZER. WHITE CROSS CHEMICAL COMPANY, Lynn, Mass.
Filed July 10, 1916. Serial No. 96,482. PUBLISHED AUGUST 14, 1917.

119,155. CEMENT PLASTER USED FOR PLASTERING WALLS. WINDSOR MATERIAL COMPANY, St. Louis, Mo.
Filed June 19, 1917. Serial No. 104,537. PUBLISHED AUGUST 21, 1917.

119,156. REFRIGERATING-MACHINES AND PARTS THEREOF AND REFRIGERATOR-BOXES. FRED. W. WOLF, Chicago, Ill.
Filed June 18, 1917. Serial No. 104,501. PUBLISHED AUGUST 21, 1917.

119,157. PROPRIETARY MEDICINES AND REMEDIES FOR THE TREATMENT OF CERTAIN NAMED DISEASES AND AILMENTS. WORLD'S DISPENSARY MEDICAL ASSOCIATION, Buffalo, N. Y.
Filed August 8, 1916. Serial No. 97,173. PUBLISHED AUGUST 14, 1917.

119,158. WOMEN'S, MISSES', AND CHILDREN'S COATS, WOMEN'S AND MISSES' SUITS AND DRESSES. WYMAN, PARTRIDGE & Co., Minneapolis, Minn.
Filed May 8, 1917. Serial No. 103,659. PUBLISHED AUGUST 21, 1917.

119,159. LETTUCE. C. W. ZUCK & SONS, Erie, Pa.
Filed November 28, 1916. Serial No. 99,614. PUBLISHED JUNE 12, 1917.

LABELS

REGISTERED OCTOBER 23, 1917.

20,334.—*Title:* "ROB ROY." (For Coffee.) THE DONALD COMPANY, Grand Island, Nebr. Filed October 8, 1917.

20,335.—*Title:* "W. H. DYER'S OWN PACK." (For Pork and Beans.) W. H. DYER COMPANY EVANSVILLE IND., Evansville, Ind. Filed May 21, 1917.

20,336.—*Title:* "MAYFLOWER." (For Ginger-Ale.) GREAT RADIUM SPRING WATER, INC., Brooklyn, N. Y. Filed August 28, 1917.

20,337.—*Title:* "$1.000 PURE STRAIGHT WHISKEY." (For Whisky.) CHARLES S. GOVE COMPANY, Boston, Mass. Filed April 24, 1917.

20,338.—*Title:* "ST. JOSEPH'S." (For Tea.) JOSEPH MAURICE HOLLANDER, Braddock, Pa. Filed October 8, 1917.

20,339.—*Title:* "R-PORTER." (For Beverages and Non-Alcoholic Drinks.) PURITAN MANUFACTURING CO., Portland, Oreg. Filed April 20, 1916.

20,340.—*Title:* "VICTOR." (For Bread.) PAUL SCHULZE, Chicago, Ill. Filed October 6, 1917.

20,341.—*Title:* "CALIFORNIA BEAUTY." (For Oranges.) WORTHLEY & STRONG FRUIT CO., INC., Riverside, Cal. Filed April 24, 1917.

PRINTS

REGISTERED OCTOBER 23, 1917.

4,814.—*Title:* "BRAINS IN THE REAR AXLE POWER TO THE WHEEL THAT CAN USE IT." (For Differentials for Motor-Driven Vehicles.) BAILEY NON-STALL DIFFERENTIAL CORPORATION, Chicago, Ill. Filed September 10, 1917.

4,815.—*Title:* "BUNTE 'MADE.'" (For Cocoa.) BUNTE BROTHERS, Chicago, Ill. Filed September 12, 1917.

4,816.—*Title:* "DEXTER KNITTING COTTON." (For Knitting-Cotton.) DEXTER YARN COMPANY, Pawtucket, R. I. Filed September 19, 1917.

4,817.—*Title:* "HITT'S ALL-HEALING TOBACCO OINTMENT. FOR EXTERNAL USE ONLY." (For Tobacco Ointment.) J. O. HITT, Staunton, Va. Filed September 21, 1917.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

U. S. Court of Appeals—Second Circuit.

BARRETT CO. *et al. v.* EWING, COMMISSIONER OF PATENTS.

Decided April 10, 1917.

242 FED REP., 506.

1. COURTS—FEDERAL COURTS—DISTRICT IN WHICH SUIT SHOULD BE BROUGHT.

As the official residence of the Commissioner of Patents is in the District of Columbia, suits against him in his official capacity should be commenced in that district.

2. SAME—SAME—DISTRICT IN WHICH SUIT MAY BE BROUGHT—CONSENT.

Revised Statute section 4915 (Comp. St., 1916, sec. 9460) provides that when a patent is refused the applicant may have remedy by bill in equity; that the court having cognizance thereof may adjudge that such applicant is entitled to a patent; that any such adjudication, if in favor of the applicant, shall authorize the Commissioner to issue such patent on the applicant filing in the Patent Office a copy of the adjudication, and that where there is no opposing party a copy of the bill shall be served on the Commissioner. *Held* that where there is no opposing party the Commissioner may, with his consent, be sued outside the District of Columbia.

3. PATENTS—ANTICIPATION—IMPROVEMENT IN STREET-PAVEMENTS.

An alleged invention of an improvement in street-pavements, consisting of the application to the surface of a concrete pavement of a thin layer of bituminous compound and the sprinkling or spreading and embedding of sand or small stone fragments into this compound, was anticipated by the Hubbell patent, No. 158,415, covering a process consisting in saturating the concrete forming the wearing-surface of a pavement with a thin body or solution of hot pitch or bitumen, though Portland cement, used in the art to which the alleged invention relates, was not used in commercial pavements until after the date of the Hubbell patent.

APPEAL from the District Court of the United States for the Southern District of New York.

Suit by the Barrett Company and another against Thomas Ewing, as Commissioner of Patents. From a decree dismissing the bill complainants appeal. Affirmed.

STATEMENT OF THE CASE.

The plaintiff is a corporation organized and existing under the laws of the State of West Virginia and having its principal place of business in the borough of Manhattan, in the city of New York.

August E. Schutte is a citizen of the United States and a resident of the city of Boston, in the State of Massachusetts.

Thomas Ewing is United States Commissioner of Patents, having his official residence in the city of Washington, D. C.

On January 26, 1907, an application for Letters Patent Serial No. 354,318 was filed in the United States Patent Office by Schutte, and during the pendency of the application the entire right, title, and interest in the application aforesaid and in the alleged invention therein claimed was by mesne assignments in writing sold, assigned, and transferred to the said Barrett Manufacturing Company, which assignments were recorded in the United States Patent Office.

The application for Letters Patent was rejected by the Primary Examiner and then by the Board of Examiners-in-Chief, and finally by the Commissioner of Patents. An appeal was then taken to the Court of Appeals of the District of Columbia, and that court affirmed the decision of the Commissioner.

Notwithstanding the aforesaid adverse decisions, the Barrett Company, as assignee of the alleged inventor, still claims to be entitled to receive a patent for the invention set forth in the application, and this suit was commenced in the District Court for the Southern District of New York, praying that the court adjudge and decree that the aforesaid Schutte is the original inventor of the improvements set forth in the application, and that the Barrett Company is entitled to receive a patent for the invention as specified in the claims and as assignee of Schutte. It also prays that the Commissioner of Patents be authorized and directed to issue Letters Patent to the Barrett Company, assignee of Schutte.

The Commissioner accepted service and consented expressly to the jurisdiction of the District Court for the Southern District of New York.

Messrs. Merwin & Swenarton (*Mr. T. D. Merwin* and *Mr. W. H. Swenarton* of counsel) for the appellants.

Mr. William R. Ballard for the appellee.

Mr. Wm. A. Redding, Mr. Arthur C. Fraser, and *Mr. Henry M. Turk, amici curiæ.*

Before COXE, WARD, and ROGERS, Circuit Judges.

ROGERS, *Cir. J.,* (after stating the facts as above:)

This is a suit in equity brought under the provisions of section 4915 of the Revised Statutes, being section 9460 of 8 United States Compiled Statutes, 1916, annotated, which reads as follows:

Whenever a patent on application is refused, either by the Commissioner of Patents or by the Supreme Court of the District of Columbia upon appeal from the Commissioner, the applicant may have remedy by bill in equity; and the court having cognizance thereof, on notice to adverse parties and other due proceedings had, may adjudge that such applicant is entitled, according to law, to receive a patent for his invention, as specified in his claim, or for any part thereof, as the facts in the case may appear. And such adjudication, if it be in favor of

the right of the applicant, shall authorize the Commissioner to issue such patent on the applicant filing in the Patent Office a copy of the adjudication, and otherwise complying with the requirements of law. In all cases, where there is no opposing party, a copy of the bill shall be served on the Commissioner; and all the expenses of the proceeding shall be paid by the applicant, whether the final decision is in his favor or not.

But before we consider whether the plaintiffs are entitled under the above provision to have a decree from this court establishing their right to receive a patent for the invention as specified in the claims herein involved, it will be necessary to determine a preliminary question.

As the suit against the Commissioner was commenced in the Southern District and not in the district in which the Commissioner officially resides, counsel for the Commissioner in his argument in this court suggested that there may be a question as to the power of the Commissioner to consent to be sued in the Southern District of New York, and he has called to our attention three possible grounds of objection. This he has done without stating any opinion which he may entertain as to their merits. These objections are as follows:

(1) That the Supreme Court of the United States declared in *Butterworth* v. *Hill* (114 U. S., 128; 5 Sup. Ct., 796; 29 L. Ed., 119) that the Commissioner of Patents is by law located in the Patent Office and has his official residence at Washington, in the District of Columbia.

(2) That the writ of mandamus to the Commissioner of Patents may only issue from the Supreme Court of the District of Columbia.

(3) That the Department of Justice is given certain powers in regard to suits in which the United States or any officer thereof as such officer is a party or may be interested. See Revised Statutes, sections 346, 359, 361, 365, 366, 367, (Comp. St., 1916, secs. 515, 533, 536, 540–542.)

(1) It may be said of the first suggestion that, inasmuch as the Commissioner's official residence is in the District of Columbia, suits which are brought against him in his official capacity should be commenced in that district by virtue of the provision which requires suits to be brought in the district of which the defendant is an inhabitant. This, however, affords no light on the question whether he has the right, which other defendants are conceded to possess, to waive service in the district of his legal residence and to consent to be sued elsewhere.

It may be said of the second suggestion that it has no bearing on the question under consideration. The statute under which this suit is brought does not contemplate the issuance of a mandamus. Mandamus is a law remedy, and is not sought in this proceeding. It is a suit in equity and not an action at law which section 4915 of the Revised Statutes authorizes.

It may be said of the third suggestion that it is quite inconclusive, inasmuch as the supervisory power of the Department of Justice is coextensive with the territory of the United States and is the same in all the districts.

Is it contrary to public policy that the Commissioner should consent to be sued in a district other than that of his official residence?

(2) The general rule is that a person may waive any right to which he is entitled. But the right to do so is subject to the qualification that no waiver can be upheld which is contrary to public policy. It is for this reason that courts have held that all agreements which seek for example to waive the defense of usury, and agreements to waive objection to acts done or contracts entered into in violation of Sunday laws, are void. But that which Congress has by law permitted can not be regarded by the courts as contrary to public policy. And Congress, in one instance at least, has authorized suits to be brought outside the District of Columbia, against the head of a Department whose official residence is in Washington. Thus Congress provided in section 736 of the Revised Statutes (Comp. St., 1916, sec. 1031) that proceedings may be instituted against the Comptroller of the Currency in other districts than that of which he is an inhabitant. That section expressly declares that all proceedings by any national banking association to enjoin the Comptroller under the provisions of any law relating to national banking associations shall be had in the district where such association is located.

It seems unreasonable to suppose that Congress intended by the statute that suits should be brought in the same court which had already passed upon the questions involved, and without regard to the residence of the parties. The act says that after the Commissioner of Patents has refused an application for a patent, or after it has been refused by the Supreme Court of the District of Columbia upon appeal from the Commissioner, "the applicant may have remedy by bill in equity." It does not say that the bill must be filed in the District of Columbia. And after providing that the defeated applicant may have remedy by bill in equity it declares, not that the Supreme Court of the District of Columbia may adjudge, and so forth, but that "the court having cognizance thereof" after notice and other due proceedings may adjudge that the applicant is entitled to receive a patent.

Under the statute, the Commissioner of Patents is not a necessary party to the proceedings. It provides that the parties adversely interested in the application and who are opposing allowance of the patent (as parties to an interference proceeding) may be made parties defendant. And it requires that—

in all cases, where there is no opposing party a copy of the bill shall be served on the Commissioner.

This implies that he need not be served if there be opposing parties who have been made defendants. In this case, no opposing parties have been made defendants, and the Commissioner himself is made defendant and had to be served. If the Commissioner had not been made a defendant and opposing parties had been named as defendants, the case might have been brought in any district of

which the defendants were inhabitants and the Commissioner would have been included by the decree. For the statute provides that, if in such a suit the adjudication is in favor of the applicant, a copy of the adjudication may be filed in the Patent Office, and such adjudication "shall authorize the Commissioner to issue such patent." As the Commissioner may be bound therefore by an adjudication in a suit in another district and to which he is not a party, we can see no reason of public policy which requires this court to say that in a suit under this provision of the statute, in which suit he is a party, the law will not permit him to consent to be sued outside the district in which he has his official residence. The rights of the United States are not prejudiced by such a waiver.

(3) This brings us to a consideration of the case upon the merits. The question is whether the Commissioner of Patents should be directed to issue Letters Patent to the Barrett Manufacturing Company as assignee of August E. Schutte, claiming to be the inventor of certain improvements in street-pavements.

An application for a patent was filed by Schutte on January 26, 1907. The application was duly considered by an Examiner-in-Chief in the Patent Office and denied. It was then passed on by the Commissioner of Patents and again denied. An appeal from the Commissioner was then taken to the Supreme Court of the District of Columbia (now court of appeals), and the application was again denied. Then this suit was commenced in the District Court of the United States for the Southern District of New York asking that the court direct the Commissioner to grant the patent, and that application has been denied. The opinion of the district judge was that the previous decisions were "very obviously right." It was his opinion that—

certainly no evidence has been presented to overcome the extremely strong presumptions raised by the formal and unanimous action of so many competent tribunals.

The Commissioner of Patents rested his adverse decision upon the decision *in re Groves*, (200 O. G., 856,) saying that the art cited being so old the difference of one year in the filing dates of the Schutte and Groves applications was inconsequential. The decision of the Court of Appeals of the District of Columbia was based on the same reasoning. The court said:

This alleged invention, expressed in substantially the same claims, was before us on the appeal of Groves, (*in re Groves*, 41 App. D. C., 316,) and we then affirmed the decision of the Patent Office that nothing patentably novel was shown. The application in the present case was filed about a year prior to that in the Groves case, but this fact in no way affects the situation. We agree with the Patent Office that no reason has been shown why the same conclusion should not be reached in this case as in that of Groves. We therefore affirm the decision.

It seems that Groves was a highway engineer of Ann Arbor, Mich., and in 1909 he laid in Ann Arbor a pavement of the exact character described in the Schutte application. Groves had no knowledge of Schutte or of his invention at the time this pavement was laid, or at the time his application was filed, about a year and a half later. Groves was not himself familiar with the highly technical subject-matter of patentable inventions, and like a great majority of inexperienced applicants, he believed his invention to be a great deal broader than it was, and his original specification did not cast much light on the invention.

The inventions of Schutte and Groves are identical, in that the pavements actually constructed by them are the same, but the disclosures of their respective applications are not identical.

Schutte is also a highway engineer and a man of long experience with patents. Further, he is connected with a manufacturing firm who make a specialty of highway-construction materials, and have for many years devoted their resources to the development of pavements and highways. With these advantages, Schutte in his specification better defined the alleged improvement of his invention.

The pavement built by Groves preceded in point of time construction on a large scale by Schutte, and consequently the pavement which has attracted the attention of the highway engineers of the country is the Groves pavement, a sample of which is in evidence.

Groves' description of his invention showed no patentable difference from the prior art. There was no description of the nature of the concrete. He used the term as an alternative for macadam and thereby not only did not disclose a specific concrete foundation, but treated macadam as the equivalent of concrete. Furthermore, there is no description of the coating as a distinct surface layer, such as is disclosed by Schutte, except the functional statement that the surfacing-coat will not flake off from the base; and there is no statement that the concrete must have a "clean stone surface." In fact, it is obvious that no such surface was regarded as essential, for it would be quite impossible to give a macadam road, composed as it is of unbound particles, a surface corresponding even remotely to a stone surface.

His description of the method of shaping the surface of the road-bed is applicable to concrete construction, but he states it as the method of surfacing macadam as well, while his description of the application of tar must be understood to mean that only so much of it is allowed to remain on the surface as is absorbed; the surplus being swept off to the gutters instead of remaining as an adhering layer, of measurable thickness or depth.

Schutte's alleged invention relates to the art of constructing pavements from Portland cement, stone, and sand, commonly known as concrete. It consists in the application to the surface of such a pavement of a thin layer of bituminous compound and the sprinkling or spreading and embedding of sand or small stone fragments into this thin layer of bituminous compound.

The ordinary granolithic pavements made by mixing stone and sand with hydraulic or similar cement are said to produce roadways which are too hard for horses and too slippery in wet weather, causing horses to injure their feet and hoofs and causing them to fall, and automobiles to skid. And,

where the upper layer is composed of ordinary concrete, the roadway is said to be not quite so slippery; but it wears out very rapidly.

Schutte proposed to remedy that condition. His idea is that if a concrete surface composed of any proportion of stone, sand, and Portland cement, after having set hard, is covered with a thin layer of, say, one-eighth to one-quarter of an inch of relatively pure bitumen or similar cement, and if then sand or small stone chips are thrown upon the surface there will be produced a very suitable and desirable wearing-surface—a surface rough enough to prevent automobiles from skidding, elastic and resilient enough to give a good foothold to horses and soft enough to deaden the noise produced by traveling vehicles.

He admits in his specifications that he is aware of the fact that bituminous compounds have been used to fill the honeycombed portions of bituminous pavements, and also that, in some cases in reservoir construction, a coating of bituminous compound has been used to make the structure water-tight; but he is not aware of roadways constructed of hydraulic or similar concrete treated with a bituminous composition as above stated, in order to produce a non-slippery, elastic surface and to eliminate the wear of the concrete.

He states that—

a roadway produced according to my invention above described will have the strength and rigidity of concrete (making it possible to lay it on the worst possible soil) and will have the good qualities of a good bituminous pavement without its slipperiness and great cost. It can readily be seen how the cost of such a pavement will be much smaller than the cost of any known bituminous pavement, as the amount of bitumen used is very small and no plant is required for the production of the surface mixture, and so forth.

To practise my invention, I lay upon the subsoil four to six inches of concrete (and in some cases even less) produced in any suitable proportion. I spread over this concrete after the same has set hard (or at any time during the period of setting) a layer of one-quarter of an inch of suitable relatively pure bituminous compound or a mixture of this composition with an amount of fine sand or dust. This can be applied by any suitable means. After the application of the aforesaid bituminous coating, I spread over its surface stone chips cold or hot, or sand, and allow these chips to either be ground in by traffic or forced in by rollers, tamps, or any other suitable means. In this manner I produce a pavement according to my invention having the qualities above described.

In the argument in this court the plaintiffs relied upon claims 2 and 3, which read as follows:

2. A pavement composed of a relatively thick layer of hydraulic concrete which forms the body of the pavement, said layer having applied directly to its upper surface a relatively thin adhesive cushioning and sealing layer of bituminous cement with mineral matter embedded therein.

3. A road pavement, comprising a rigid concrete base having a clean stone surface and a distinct surface layer of substantially pure bitumen of approximately one-eighth to one-quarter of an inch in thickness firmly adhering to said clean stone surface, and sufficient inert granular material, to afford a foothold for horses, embedded in the exposed face of said surface layer.

The invention involved in this appeal is a pavement intended for vehicular traffic on city streets and main-traveled roadways generally. The pavement consists essentially of two parts, viz. a base of concrete of such strength and rigidity as to be laid directly on the soil, and a surface layer of substantially pure bitumen of one-eighth to one-quarter of an inch in thickness, uniformly covering the surface of the concrete and firmly adhering to it throughout. To insure a perfect and uniform adhesion between the concrete and the surface layer, the upper face of the concrete must, in the language of the inventor who personally drafted the original specification, be "a clean stone surface."

The bitumen is applied hot in liquid form to the concrete, and, after it has been evenly spread over the surface, coarse sand or stone chips are rolled or otherwise forced into the bitumen while still soft enough for them to be firmly embedded in its upper surface; the purpose of their use being to afford a suitable foothold for horses and sufficient tractive grip for the wheels of motor-vehicles.

In the argument in this court, stress was laid upon the fact that Schutte's alleged invention is a "combination," not merely because its various factors unite in the production of the unitary result of an improved pavement, but also because the specific characteristics of each of the elements of the combination directly affect, and contribute to the successful working of, the other elements of the combination.

And we are informed by counsel that prior to the invention of the applicant a rigid concrete had never been successfully used in pavement construction except as a foundation between the soil and the pavement proper of brick, asphalt, wood, or other structural material. They say in their brief that—

without Schutte's coating the concrete is short lived, and of little value as a roadway. With it, as shown by the evidence, it produces a pavement equal, if not superior to, the expensive asphalt pavements, and for a fraction of their cost.

In the court below, the plaintiffs' application was denied because of the Hubbell patent, No. 158,415. The application for that patent was filed on December 19, 1874, and it was granted on January 5, 1875. In his specification he stated:

My present invention is an improvement upon the street pavement for which Letters Patent No. 115,475, dated May 30, 1871, were granted to me, and the nature of this invention is a process which consists in saturating the concrete which forms the wearing surface of the pavement with a thin body or solution of hot pitch or bitumen, so as to more firmly unite the particles of the concrete and prevent more effectively the formation of dust from the concussion of horses' feet and action of the wheels of vehicles which tend to pulverize and wear it.

He also declared:

The concrete is composed chiefly of Rosendale or hydraulic cement, and to harden it most effectively is saturated with a solution of lime, though the lime, which is of itself one kind of cement, may be omitted, but the hydraulic cement should in all cases be used to form the wearing surface. There are various brands of hydraulic cement, and I do not confine my invention to any one exclusively. The Rosendale or other suitable and economical cement should be used.

And his claim was stated as follows:

The improved process of making the surface of my pavement, consisting of combining or slushing and saturating the concrete surface with hot bitumen or tar by absorption, after the hydraulic concrete is laid or set, substantially as described.

The Hubbell pavement substantially consists of broken stone laid upon gravel or earth for a foundation, and bound together by cement and coal-ashes or sand between the interstices of the stone, binding them together and forming a wearing-surface immediately above the surface of the broken stone.

In the Hubbell patent, we are told the cement used was Rosendale cement which in 1874 counsel say was the only cement obtainable in the United States for road-making, and that that was an entirely different thing from Portland cement. The claims make no mention of Portland cement, although the specification declares that the invention relates to pavements constructed from Portland cement, stone, and sand. The plaintiff called as an expert a graduate from the school of mines at Columbia University, who had had experience as a consulting engineer on cement and concrete work, and who for a number of years had been inspector of asphalt and cement work for the District of Columbia. He testified that the first commercial pavements of Portland cement were laid about 1906, and that the first Portland-cement factory was built in this country at Copley, Pa., in 1875. He also pointed out the difference between Portland cement and Rosendale cement, declaring them to be totally different, although he admitted that both are hydraulic cements. He testified that—

when Portland cement sets in water, it sets to a hard stonelike material, while the natural or Rosendale cement, such as was used in Hubbell's time, are set to chalklike material, and they harden very slowly. They could not have been used for paving surfaces, nor could a bituminous coating adhere to them on account of their chalkiness.

Portland cement was made 50 years before Hubbell, and, while it was expensive, it was not unknown in this country at the time Hubbell made his application.

And, while Hubbell refers to Rosendale cement, he did not confine himself to that, but declared:

There are various brands of hydraulic cement, and I do not confine my invention to any one exclusively. The Rosendale or other suitable and economical cement should be used.

This certainly is broad enough to include Portland cement which is a hydraulic cement. They both operate in exactly the same way. It was well said by the district judge that—

if an earlier patent set forth as an ingredient in his patented compound sugar, and a later patentee suggested granulated sugar, for a similar compound designed for the same purpose, it would be impossible to discover invention in the light of the known art. I think the analogy applicable to this case.

When Hubbell's cement has "well set," he declares:

I slush its surface with thin hot bitumen or pitch, and dust the surface of bitumen over with dry cement, and roll and sweep it on the surface to adhere to the bitumen, and thus more effectively hold the particles of cement together and prevent them as far as practicable from forming dust.

When Schutte's concrete has "set hard," he spreads upon it—

a layer of one-quarter of an inch of suitable relatively pure bituminous composition, or a mixture of this composition with an amount of fine sand or dust. After the application of the aforesaid bituminous coating, I spread over its surface stone chips or sand and allow these chips to either be ground in by traffic or forced in by rollers, tamps, or any other suitable means. In this manner I produce a pavement according to my invention.

This court is of the opinion that Hubbell anticipated Schutte, and that the bill was properly dismissed.

Decree affirmed.

Adverse Decisions in Interference.

PATENT No. 1,167,646.

On September 7, 1917, decisions were rendered that **Frank Robert McBerty was not the first inventor of the subject-matter covered by claims 8 and 9 of his Patent No. 1,167,646, subject, "Machine telephone switching system," and no appeal having been taken within the time allowed such decisions have become final.**

Disclaimer.

1,207,759.—*Russell Huff*, Detroit, Mich. OIL-GUARD. Patent dated December 12, 1916. Disclaimer filed October 15, 1917, by the assignee, *Dodge Brothers*.

"We therefore disclaim as to said Patent No. 1,207,759, all oil guards included in the construction specified in claims 1, 3 and 4, except those in which oil 'catching means fitted inside of said housing' is fitted 'to an upright inner surface of the said housing.'"

Changes in Classification.

(ORDER No. 2,347.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 11, 1917.

The transfer of the following classes is hereby directed, to take effect immediately: classes 221, Dispensing, and 225, Dispensing Beverages, from Division XXXII to Division XLIII.

The Examiner of Division XXXII is directed to remove his photolithographs of patents in these classes from file-boxes and prepare them for transfer to Division XLIII.

J. T. NEWTON,
Commissioner.

Changes in Classification.

(ORDER No. 2,348.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 17, 1917.

The following change in the classification of inventions is hereby directed, to take effect immediately:

In class 74, Machine Elements, (Division XII,) establish subclass—

106. Motor-vehicle power-jacks.

The patents contained in this subclass have been taken for the most part from class 74, Machine Elements, subclasses 21, Gearing, Belt, and 26, Gearing, Frictional. A few have been taken from class 64, Journal-Boxes, Pulleys, and Shafting, subclass 17, Pulleys, and class 74, Machine Elements, subclasses 6, Fly-wheels, 28, Gearing, Sectional, and 31, Gearing, Sprocket.

J. T. NEWTON,
Commissioner.

Changes in Classification.

(ORDER No. 2,349.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 17, 1917.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In class 51, Grinding and Polishing, (Division XXVII,) establish subclass—

Abrading materials and tools—
20. Match-scratchers.

The patents contained in this subclass have been taken from class 206, Special Receptacles and Packages, subclass 36, Receptacles, Match-safes, Scratchers and wind-guards.

In class 131, Tobacco, (Division II,) establish subclasses—

Cigar-cutters, tip—
62. Combined—
63. With ignition means and changeable exhibitor,
64. With ignition means,
65. With changeable exhibitor.
66. With receptacle.

The patents contained in these subclasses have been taken for the most part from class 131, Tobacco, subclass 38, Cigar-cutters, tip.

In class 206, Special Receptacles and Packages, (Division XL,) amend the definition of subclass 20, Receptacles, Match-safes, by eliminating the second sentence; amend the definition of subclass 36, Receptacles, Match-safes, Scratchers and wind-guards, by substituting for the first

word, "Devices," the word *Match-safes*, substituting for the period in line 2 a comma, and inserting in place of the word "Also," immediately following, the words *or with*, and add to the definition the following note:

Note.—For match-scratchers *per se* see class 51, GRINDING AND POLISHING, subclass 20, Abrading materials and tools, Match-scratchers.

J. T. NEWTON,
Commissioner.

Trading with the Enemy—Executive Order.

[PUBLIC—No. 91—65TH CONGRESS.]
[H. R. 4960.]

An act to define, regulate, and punish trading with the enemy, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this act shall be known as the "Trading with the Enemy Act."

* * * * * * *

SEC. 10. That nothing contained in this act shall be held to make unlawful any of the following acts:

(*a*) An enemy, or ally of enemy, may file and prosecute in the United States an application for Letters Patent, or for registration of trade-mark, print, label, or copyright, and may pay any fees therefor in accordance with and as required by the provisions of existing law and fees for attorneys or agents for filing and prosecuting such applications. Any such enemy, or ally of enemy, who is unable during war, or within six months thereafter, on account of conditions arising out of war, to file any such application, or to pay any official fee, or to take any action required by law within the period prescribed by law, may be granted an extension of nine months beyond the expiration of said period, provided the nation of which the said applicant is a citizen, subject, or corporation shall extend substantially similar privileges to citizens and corporations of the United States.

(*b*) Any citizen of the United States, or any corporation organized within the United States, may, when duly authorized by the President, pay to an enemy or ally of enemy any tax, annuity, or fee which may be required by the laws of such enemy or ally of enemy nation in relation to patents and trade-marks, prints, labels, and copyrights; and any such citizen or corporation may file and prosecute an application for Letters Patent or for registration of trade-mark, print, label, or copyright in the country of an enemy, or of an ally of enemy after first submitting such application to the President and receiving license so to file and prosecute, and to pay the fees required by law and customary agents' fees, the maximum amount of which in each case shall be subject to the control of the President.

(*c*) Any citizen of the United States or any corporation organized within the United States desiring to manufacture, or cause to be manufactured, a machine, manufacture, composition of matter, or design, or to carry on, or to use any trade-mark, print, label or cause to be carried on, a process under any patent or copyrighted matter owned or controlled by an enemy or ally of enemy at any time during the existence of a state of war may apply to the President for a license; and the President is hereby authorized to grant such a license, non-exclusive or exclusive as he shall deem best, provided he shall be of the opinion that such grant is for the public welfare, and that the applicant is able and intends in good faith to manufacture, or cause to be manufactured, the machine, manufacture, composition of matter, or design, or to carry on, or cause to be carried on, the process or to use the trade-mark, print, label or copyrighted matter. The President may prescribe the conditions of this license, including the fixing of prices of articles and products necessary to the health of the military and naval forces of the United States or the successful prosecution of the war, and the rules and regulations under which such license may be granted and the fee which shall be charged therefor, not exceeding $100, and not exceeding one per centum of the fund deposited as hereinafter provided. Such license shall be a complete defense to any suit at law or in equity instituted by the enemy or ally of enemy owners of the Letters Patent, trade-mark, print, label or copyright, or otherwise, against the licensee for infringement or for damages, royalty, or other money award on account of anything done by the licensee under such license, except as provided in subsection (*f*) hereof.

(*d*) The licensee shall file with the President a full statement of the extent of the use and enjoyment of the license, and of the prices received in such form and at such stated periods (at least annually) as the President may prescribe; and the licensee shall pay at such times as may be required to the alien property custodian not to exceed five per centum of the gross sums received by the licensee from the sale of said inventions or use of the trade-mark, print, label or copyrighted matter, or, if the President shall so order, five per centum of the value of the use of such inventions, trade-marks, prints, labels or copyrighted matter to the licensee as established by the President; and sums so paid shall be deposited by said alien property custodian forthwith in the Treasury of the United States as a trust fund for the said licensee and for the owner of the said patent, trade-mark, print, label or copyright registration as hereinafter provided, to be paid from the Treasury upon order of the court, as provided in subdivision (*f*) of this section, or upon the direction of the alien property custodian.

(*e*) Unless surrendered or terminated as provided in this act, any license granted hereunder shall continue during the term fixed in the license or in the absence of any such limitation during the term of the patent, trade-mark, print, label, or copyright registration under which it is granted. Upon violation by the licensee of any of the provisions of this act, or of the conditions of the license, the President may, after due notice and hearing, cancel any license granted by him.

(*f*) The owner of any patent, trade-mark, print, label, or copyright under which a license is granted hereunder may, after the end of the war and until the expiration of one year thereafter, file a bill in equity against the licensee in the district court of the United States for the district in which the said licensee resides, or, if a corporation, in which it has its principal place of business (to which suit the Treasurer of the United States shall be made a party), for recovery from the said licensee for all use and enjoyment of the said patented invention, trade-mark, print, label, or copyrighted matter: *Provided, however*, That whenever suit is brought, as above, notice shall be filed with the alien property custodian within thirty days after date of entry of suit: *Provided further*, That the licensee may make any and all defenses which would be available were no license granted. The court on due proceedings had may adjudge and decree to the said owner payment of a reasonable royalty. The amount of said judgment and decree, when final, shall be paid on order of the court to the owner of the patent from the fund deposited by the licensee, so far as such deposit will satisfy said judgment and decree; and the said payment shall be in full or partial satisfaction of said judgment and decree, as the facts may appear; and if, after payment of all such judgments and decrees, there shall remain any balance of said deposit, such balance shall be repaid to the licensee on order of the alien property custodian. If no suit is brought within one year after the end of the war, or no notice is filed as above required, then the licensee shall not be liable to make any further deposits, and all funds deposited by him shall be repaid to him on order of the alien property custodian. Upon entry of suit and notice filed as above required, or upon repayment of funds as above provided, the liability of the licensee to make further reports to the President shall cease.

If suit is brought as above provided, the court may, at any time, terminate the license, and may, in such event, issue an injunction to restrain the licensee from infringement thereafter, or the court, in case the licensee, prior to suit, shall have made investment of capital based on possession of the license, may continue the license for such period and upon such terms and with such royalties as it shall find to be just and reasonable.

(*g*) Any enemy, or ally of enemy, may institute and prosecute suits in equity against any person other than a licensee under this act to enjoin infringement of Letters Patent, trade-mark, print, label, and copyrights in the United States owned or controlled by said enemy or ally of enemy, in the same manner and to the extent that he would be entitled so to do if the United States was not at war: *Provided*, That no final judgment or decree shall be entered in favor of such enemy or ally of enemy by any court except after thirty days' notice to the alien property custodian. Such notice shall be in writing and shall be served in the same manner as civil process of Federal courts.

(*h*) All powers of attorney heretofore or hereafter granted by an enemy or ally of enemy to any person within the United States, in so far as they may be requisite to the performance of acts authorized in subsections (*a*) and (*g*) of this section, shall be valid.

(*i*) Whenever the publication of an invention by the granting of a patent may, in the opinion of the President, be detrimental to the public safety or defense, or may assist the enemy or endanger the successful prosecution of the war, he may order that the invention be kept secret and withhold the grant of a patent until the end of the war: *Provided*, That the invention disclosed in the application for said patent may be held abandoned upon it being established before or by the Commissioner of Patents that, in violation of said order, said invention has been published or that an application for a patent therefor has been filed in any other country, by the inventor or his assigns or legal representatives, without the consent or approval of the Commissioner or under a license of the President.

When an applicant whose patent is withheld as herein provided and who faithfully obeys the order of the President above referred to shall tender his invention to the Government of the United States for its use, he shall, if he ultimately receives a patent, have the right to sue for compensation in the Court of Claims, such right to compensation to begin from the date of the use of the invention by the Government.

SEC. 16. That whoever shall wilfully violate any of the provisions of this act or of any license, rule, or regulation issued thereunder, and whoever shall wilfully violate, neglect, or refuse to comply with any order of the President issued in compliance with the provisions of this

act shall, upon conviction, be fined not more than $10,000, or, if a natural person, imprisoned for not more than 10 years, or both; and the officer, director, or agent of any corporation who knowingly participates in such violation shall be punished by a like fine, imprisonment, or both, and any property, funds, securities, papers, or other articles or documents, or any vessel, together with her tackle, apparel, furniture, and equipment, concerned in such violation shall be forfeited to the United States.

* * * * * * *

Approved, October 6, 1917.

By virtue of the authority vested in me by "An act to define, regulate, and punish trading with the enemy, and for other purposes," approved October 6, 1917, * * * I hereby make the following orders and rules and regulations:

* * * * * * *

FEDERAL TRADE COMMISSION.

XVII. I further hereby vest in the Federal Trade Commission the power and authority to issue licenses under such terms and conditions as are not inconsistent with law or to withhold or refuse the same to any citizen of the United States or any corporation organized within the United States to file and prosecute applications in the country of an enemy or ally of enemy for Letters Patent or for registration of trade-mark, print, label, or copyright, and to pay the fees required by law and the customary agents' fees, the maximum amount of which in each case shall be subject to the control of such commission; or to pay to any enemy or ally of enemy any tax, annuity, or fee which may be required by the laws of such enemy or ally of enemy nation in relation to patents, trade-marks, prints, labels, and copyrights.

XVIII. I hereby vest in the Federal Trade Commission the power and authority to issue, pursuant to the provisions of section 10 (*c*) of the trading-with-the-enemy act, upon such terms and conditions as are not inconsistent with law, or to withhold or refuse, a license to any citizen of the United States, or any corporation organized within the United States, to manufacture or cause to be manufactured a machine, manufacture, composition of matter, or design, or to carry on or cause to be carried on a process under any patent, or to use any trade-mark, print, label, or copyrighted matter owned or controlled by an enemy or ally of enemy, at any time during the present war; and also to fix the prices of articles and products manufactured under such licenses necessary to the health of the military and the naval forces of the United States, or the successful prosecution of the war; and to prescribe the fee which may be charged for such license, not exceeding $100 and not exceeding 1 per cent. of the fund deposited by the licensee with the alien property custodian as provided by law.

XIX. I hereby further vest in the said Federal Trade Commission the executive administration of the provisions of section 10 (*d*) of the trading-with-the-enemy act, the power and authority to prescribe the form of, and time and manner of filing statements of the extent of the use and enjoyment of the license and of the prices received and the times at which the licensee shall make payments to the alien property custodian, and the amounts of said payments, in accordance with the trading-with-the-enemy act.

XX. I further hereby vest in the Federal Trade Commission the power and authority, whenever in its opinion the publication of an invention or the granting of a patent may be detrimental to the public safety or defense, or may assist the enemy, or endanger the successful prosecution of the war, to order that the invention be kept secret and the grant of Letters Patent withheld until the end of the war.

XXI. The said Federal Trade Commission is hereby authorized to take all such measures as may be necessary or expedient to administer the powers hereby conferred.

* * * * * * * *

XXXIV. The alien property custodian to be hereafter appointed shall, "under the supervision and direction of the President, and under such rules and regulations as the President shall prescribe," have administration of all moneys (including checks and drafts payable on demand) and of all property, other than money which shall come into his possession in pursuance of the provisions of the trading-with-the-enemy act, in accordance with * * * section 10 * * * thereof.

(Signed) WOODROW WILSON.

THE WHITE HOUSE,
October 12, 1917.

THE

OFFICIAL GAZETTE

OF THE

United States Patent Office.

Vol. 243—No. 5. TUESDAY, OCTOBER 30, 1917. Price—$5 per year.

The OFFICIAL GAZETTE is mailed under the direction of the Superintendent of Documents, Government Printing Office, to whom all subscriptions should be made payable and all communications respecting the Gazette should be addressed. Issued weekly. Subscriptions, $5.00 per annum; single numbers, 10 cents each.

Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

CONTENTS.

	Page.
Issue of October 30, 1917	1073
Interference Notices	1073
Adverse Decisions in Interference	1073
Applications Under Examination	1074
Patents Granted	1075
Reissues	1285
Designs	1290
Trade-Marks—Registration Applied for	1295
Trade-Mark Registrations Granted	1305
Labels and Prints	1308
Commissioner's Decisions—	
Ex parte Rieder	1309
Decisions of the U. S. Courts—	
In re Bradford Dyeing Association	1309
The Kellogg Food Company *et al. v.* Kellogg Toasted Corn Flake Company, (Two Cases)	1310
In re Packard Motor Car Company	1311

Issue of October 30, 1917.

Patents	695—No.	1,244,454 to No.	1,245,148,	inclusive.
Designs	17—No.	51,434 to No.	51,450,	inclusive.
Trade-Marks	66—No.	119,160 to No.	119,225,	inclusive.
Labels	15—No.	20,342 to No.	20,356,	inclusive.
Prints	4—No.	4,818 to No.	4,821,	inclusive.
Reissues	6—No.	14,384 to No.	14,389,	inclusive.
Total	803			

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 24, 1917.

Oneida Leather Co., its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of the Armstrong Leather Company, of 174 William Street, New York, N. Y., for registration of a trade-mark and trade-mark registered July 2, 1912, No. 87,249, to Oneida Leather Co., of Chadwicks, N. Y., and a notice of such declaration sent by registered mail to said Oneida Leather Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Oneida Leather Co., its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD,
First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 24, 1917.

Emma Rimmer, her assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of the Knowlton Danderine Company, of 88 Nineteenth street, Wheeling, W. Va., for registration of a trade-mark and trade-mark registered March 31, 1891, No. 19,244, to Emma Rimmer, of 2716 Fifth avenue, Chicago, Ill., and the registry return receipt for the notice of such declaration sent to Emma Rimmer having been returned signed "Emma Rimmer by Alice Rimmer," and said Alice Rimmer having failed to file evidence of her right to intervene on behalf of said Emma Rimmer, notice is hereby given that unless said Emma Rimmer, her assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD,
First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 5, 1917.

James M. Borland, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of William Henry King, of 44 Clinton street, Newark, N. J., for registration of a trade-mark and trade-mark registered August 25, 1908, No. 70,331, to James M. Borland, of 211 Fifth avenue, McKeesport, Pa., and a notice of such declaration sent by registered mail to said James M. Borland at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said James M. Borland, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD,
First Assistant Commissioner.

Adverse Decisions in Interference.

PATENT No. 1,097,759.

On September 26, 1917, a decision was rendered that Frederick H. Kindl was not the first inventor of the subject-matter covered by claim 8 of his Patent No. 1,097,759, subject, "Loading apparatus," and no appeal having been taken within the time allowed such decision has become final.

PATENT No. 1,112,720.

On September 20, 1917, a decision was rendered that William C. Powell was not the first inventor of the subject-matter covered by claims 1 and 5 of his Patent No. 1,112,720, subject, "Union-garment," and no appeal having been taken within the time allowed such decision has become final.

PATENT No. 1,203,339.

On September 28, 1917, a decision was rendered that Nathan Holstein was not the first inventor of the subject-matter covered by claim 1 of his Patent No. 1,203,339, subject, "Ice-grips," and no appeal having been taken within the time allowed such decision has become final.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business October 26, 1917.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended.	No. of applications awaiting action.
314	1. Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Railway Gates; Planting; Scattering Unloaders; Trees, Plants, and Flowers.	Aug. 14	Aug. 30	362
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	June 27	Aug. 22	338
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Founding; Metallurgical Apparatus; Metallurgy; Plastic Metal Working.	Sept. 21	Sept. 22	126
234	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Pushing and Pulling Implements; Railway Mail Delivery; Store-Service; Traversing Hoists.	Sept. 17	Oct. 10	120
167	5. Bookbinding; Harvesters; Jewelry; Music	Aug. 11	Aug. 6	284
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Substance Preparation.	Apr. 26	June 17	482
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics: Velocipedes	June 11	July 24	692
134	8. Beds; Chairs; Flexible-Sheet Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	June 19	Sept. 8	668
221	9. Air and Gas Pumps; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Marine Propulsion.	Apr. 9	Sept. 28	542
235	10. Carriages and Wagons; Motor Vehicles	May 14	Sept. 12	777
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Spring Devices; Whips and Whip Apparatus.	July 17	Sept. 26	249
322	12. Journal-Boxes, Pulleys, and Shafting; Machine Elements	June 13	Sept. 18	670
329	13. Ammunition and Explosive Charge, Making; Bolt, Nail, Nut, Rivet, and Screw Making: Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	June 30	Sept. 20	561
323	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	July 16	Aug. 27	263
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Sept. 14	Sept. 22	278
112	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony	May 7	Sept. 11	448
307	17. Ornamentation; Paper Manufactures; Printing; Type Casting; Sheet Material Associating or Folding; Sheet Feeding or Delivering; Type Setting.	July 13	Sept. 4	141
229	18. Fluid-Pressure Regulators; Injectors and Ejectors; Liquid Heaters and Vaporizers; Lubrication; Miscellaneous Heat-Engine Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	July 10	Sept. 18	287
226	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels	May 24	Aug. 7	472
179	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Oct. 2	Sept. 20	232
212	21. Brakes and Gins; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Apr. 14	July 7	342
249	22. Aeronautics; Firearms; Ordnance	June 18	Sept. 15	306
219	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	June 22	Jan. 2	345
144	24. Apparel; Apparel Apparatus; Sewing-Machines; Garment Supporters	Aug. 10	Oct. 1	242
315	25. Agitating; Butchering; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separation.	Sept. 25	Sept. 12	114
105	26. Electricity, Generation; Motive Power	Mar. 17	Apr. 12	597
214	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus	July 24	Sept. 10	347
225	28. Internal-Combustion Engines	July 12	Aug. 17	578
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking Tools.	June 16	Aug. 3	333
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines	July 10	Oct. 9	369
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Sugar and Salt.	Aug. 25	Sept. 10	202
278	32. Dispensing Beverages; Dispensing; Gas and Liquid Contact Apparatus; Heat Exchange; Packaging Liquids; Refrigeration.	Apr. 2	Sept. 11	733
70	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	Aug. 18	Sept. 13	216
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling Stock; Railway Ties and Fasteners.	July 25	Sept. 11	196
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Signals; Toilet	May 21	Aug. 17	608
204	36. Driers; Geometrical Instruments; Measuring Instruments; Photography; Force Measuring	July 16	Sept. 20	631
107	37. Electric Lamps; Electricity, Circuit Makers and Breakers; Electricity, Conduits; Electricity, General Applications.	June 6	July 14	621
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells	Sept. 21	Sept. 7	146
220	39. Water Distribution; Multiple Valves	May 11	Aug. 8	451
275	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Aug. 8	Oct. 1	450
125	41. Railway Draft Appliances; Resilient Tires and Wheels	July 3	Aug. 21	355
114	42. Electricity, Conductors; Railway Signaling; Electricity-Transmission to Vehicles; Electric Signaling.	Apr. 30	July 26	651
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Mar. 14	Aug. 9	450
253	44. Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Ships	June 20	Oct. 11	423

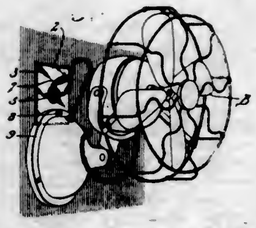
Oldest new case, Mar. 14; oldest amended, Jan. 2.
Total number of applications awaiting action 17,717

163	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Aug. 13	Sept. 19	886
	Designs	Sept. 29	Oct. 10	202
	Labels and Prints	Oct. 11	Oct. 2	63

PATENTS

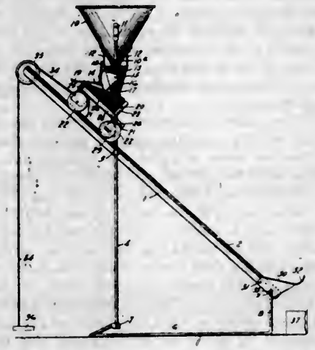
GRANTED OCTOBER 30, 1917.

1,244,454. FAN-HANGER OUTLET. FREDRICK B. ADAM, St. Louis, Mo., assignor to Frank Adam Electric Company, St. Louis, Mo., a Corporation of Missouri. Filed Apr. 27, 1916. Serial No. 94,010. (Cl. 247—4.)



A fan hanger outlet, consisting of a box that is adapted to be set in a side wall so as to form a housing for an electrical receptacle or similar element connected to a supply circuit, a cover for said box, a rugged device projecting forwardly from said cover so as to form a support for an electric fan which is adapted to be removably mounted on said device, and means for securely clamping the base of the fan against said cover, said cover having an opening in same through which the connector of the fan can be inserted.

1,244,455. AUTOMATIC TOY. BENJAMIN F. BAIN, Pittsburgh, Pa. Filed Jan. 24, 1917. Serial No. 144,289. (Cl. 46—37.)



1. An automatic toy, comprising an inclined track, a car thereon, a conical hopper situated over the track and having a small opening at its bottom, a supplementary hopper situated under the opening from the main hopper and having its entire bottom open, a valve controlling the bottom of the secondary hopper and adapted to be operated by movement of the car, and means to discharge material from the car at the lower end of the track, and to return the empty car to position under the supplementary hopper.

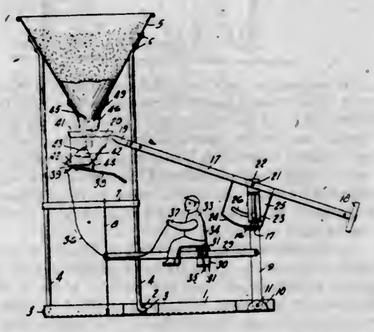
2. An automatic toy, comprising an inclined track, a car thereon adapted to be held normally in position at the upper end of the track by a counterweight, a hopper above the upper end of the track, a supplementary hopper beneath the main hopper, a valve operated by movement of the car controlling the outlet from the supplementary hopper, and means to discharge flowing material from the car at the lower end of the track without tilting the car.

3. An automatic toy, comprising an inclined track, a car thereon, means to deliver a measured load of flowing material to the car upon its arrival at the top of the track, and means at the bottom of the track to open the gate controlling an outlet from the car, whereby its load is discharged without tilting the car.

4. An automatic toy, comprising an inclined track, a car movable thereon, a pulley at the upper end of the track, a cord attached to the car and to a counterweight adapted to draw the car upward on the track, a main hopper having a relatively small outlet at its bottom, a supplementary measuring hopper beneath the outlet of the main hopper and having a relatively large outlet over the car in its raised position, a gate controlling the outlet from the supplementary hopper, a projection from said gate across the path of the car whereby the gate is opened upon arrival of the car at the upper limit of its travel, and means to discharge the load of the car upon its arrival at the lower limit of its travel.

[Claims 5 to 9 not printed in the Gazette.]

1,244,456. MECHANICAL TOY. BENJAMIN F. BAIN, Pittsburgh, Pa. Filed Apr. 9, 1917. Serial No. 160,867. (Cl. 46—37.)



1. In an automatic toy comprising a load-storing hopper having an outlet from the bottom thereof, a movable member adapted to receive an operative load from the hopper and to discharge it at a distance therefrom, the combination of a valve controlling the outlet from the hopper, said outlet being of large area compared to the movable load-carrying member, and means extending across the path of travel of the transporting member adapted to entirely open the valve upon arrival of the transporting member beneath the outlet from the hopper, the outlet being of such size as to immediately discharge an operative load into the transporting member.

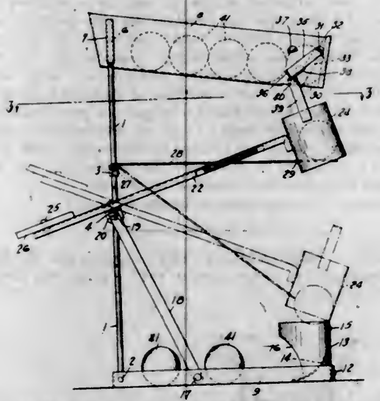
2. In an automatic toy comprising a load-storing hopper and a non-tilting movable member adapted to receive an operative load from the hopper and to transport and discharge said load at a distance, the combination of an outlet from said hopper of large area compared to the size of the load-carrying member, a valve controlling said outlet, means to completely open said valve immediately upon arrival of the transporting member beneath the hopper, so as to deliver at once an operative load to the transporting member, and means to close the valve by removal of the transporting member from beneath the hopper.

3. In an automatic toy comprising a load carrying bucket, a load-storing hopper having an outlet port in

the bottom thereof, and a valve controlling said outlet, said valve being of large area compared to the size of the load-carrying bucket, the combination of a swinging crane, a bucket on one end thereof, a counterweight on the other end, and a depending arm fixed on the bottom of said valve and extending across the path of travel of said bucket, whereby the valve is operated by swinging of the bucket underneath the hopper to discharge an operative load from said hopper to said bucket.

[Claims 4 to 8 not printed in the Gazette.]

1,244,457. MECHANICAL TOY. BENJAMIN F. BAIN, Pittsburgh, Pa. Filed Apr. 9, 1917. Serial No. 160,868. (Cl. 46—37.)



1. An automatic toy, comprising a frame, a car mounted on a lever member pivotally attached to said frame, a counterweight for elevating the car, a load receptacle at the upper end of the frame provided with a bottom discharge opening located in position to discharge loads into the car, a gate controlling said opening and arranged to be operated by said car, and a valve in the bottom of the car adapted to be automatically and gradually opened during the descent of the car.

2. An automatic toy, comprising a frame, a lever arm pivotally mounted between its ends in said frame, a load-receiving receptacle at one end of said lever, a counterweight heavier than said receptacle at the other end of the lever, a load-storage receptacle at the upper end of the frame having a discharge opening in the bottom thereof in the path of travel of the load-carrying receptacle, a gate controlling said opening and arranged to be operated by arrival of the receptacle beneath said opening, and means to gradually withdraw a gate controlling the bottom of the car as the car descends.

3. A mechanical toy comprising a frame, a car carried at one end of the lever arm pivotally mounted in said frame and having a counterweight at the other end of said lever arm to move the car upward when empty, a load-storage receptacle at the upper end of the frame inclined therefrom and having a discharge opening in the lower end in the path of travel of the car, a gate controlling said opening and arranged to be operated by arrival of the car thereunder, and a bar member pivoted in said frame above the car-carrying member and extending through the car whereby the load is retained in said car until it reaches the lower limit of its travel.

[Claims 4 to 8 not printed in the Gazette.]

1,244,458. STOP-MOTION DEVICE FOR SEWING-MACHINES. WILLIAM L. BARRON, New York, N. Y., and FRITZ E. OSOL, Elizabeth, N. J., assignors to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Feb. 13, 1914. Serial No. 818,441. (Cl. 74—46.)

2. Stop-motion mechanism for sewing machines comprising, in combination, a spring-pressed start- and stop-motion lever, a latch for locking said lever in starting position in opposition to its spring, automatic tripping means for said latch, a shifting device and operating means therefor including two relatively movable link-sections connected to said shifting device, a spring reacting against both link-sections, a locking member adapted to normally lock the link-sections in fixed relation to each other, and means for unlocking the link-sections as said lever is moved to starting position, whereby said last mentioned spring may take up part of the shock of the stop-lever in springing to stopping position.



7. In stop-motion mechanism for sewing machines, the combination with a spring-pressed start- and stop-motion lever adapted to engage a rotating cam-disk of a shifting device for said stop-lever, a latch for locking said stop-lever in starting position in opposition to its spring, and means adapted to be operated by said cam-disk to impart a movement to the stop-lever, when the latter is shifted to starting position but insufficiently to permit its latch to lock into place.

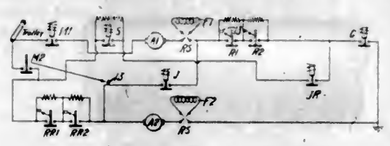
10. In stop-motion mechanism for sewing machines, the combination with a rotating cam, a spring-pressed start- and stop-motion lever adapted for engagement with the same, and a latch for locking said stop-lever retracted from operative relation with the cam, of a shifting lever, a link-member connected with the same at one end and having at the other end a recess, a treadle-rod having an eyed end entering said recess of the link-member, a retractable pivotal pin crossing said recess of the link-member and entering the eye of the treadle-rod and being provided with spaced shoulders, and a spring detent adapted for engagement with either of said shoulders of the pivotal pin for retaining it in operative or retracted position.

[Claims 1, 3 to 6, 8, and 9 not printed in the Gazette.]

1,244,459. CONTROL SYSTEM. HOWARD L. BEACH, Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Sept. 8, 1914. Serial No. 860,605. (Cl. 172—179.)

1. In a system of control, the combination with a plurality of electric motors, of means for automatically effecting series-parallel operation thereof, said means embodying a plurality of fluid-pressure operated motor-controlling switches, a plurality of electromagnetic devices for respectively delivering fluid pressure to certain of said switches under predetermined conditions, and mechanical means operated upon the closure of certain switches for respectively actuating the electromagnetic device associated with the next succeeding switch to close said switch when the motor current assumes a predetermined value.

3. In a system of control, the combination with a main supply circuit and an electric motor supplied therefrom, of a plurality of fluid-pressure operated motor-controlling switches, certain of which are electrically governed and others of which are respectively dependent for operation upon electrical means adapted for mechanical actuation by other switches under predetermined conditions.



5. In a system of control, the combination with a main supply circuit, an electric motor supplied therefrom, and an auxiliary supply circuit, of a controller, a plurality of electro-magnetic devices adapted to be connected in circuit with the motor, and a plurality of fluid-pressure operated, motor-controlling switches, certain of which are governed through said controller from said supply circuit and others of which are dependent for operation upon the mechanical actuation of the corresponding electromagnetic device by the closure of a certain switch and upon the traversal of a predetermined current through said corresponding device.

8. In a system of control, the combination with an electric motor, of a plurality of fluid-pressure operated motor-controlling switches, means for electrically governing one of said switches irrespective of motor operation, and means dependent upon the value of motor current for mechanically successively actuating a plurality of other switches.

11. A switching device comprising a plurality of co-operating stationary and movable contact members, a fluid-pressure operated device for actuating the movable member, a valve for admitting fluid pressure to said device and normally biased to its closed position, adjustable electromagnetic means tending to hold the valve closed, and external mechanical means dependent upon the force exerted by said electromagnetic means for opening said valve to effect engagement of said contact members.

[Claims 2, 4, 6, 7, 9, and 10 not printed in the Gazette.]

1,244,460. SLED-BRAKE. JACOB BLASZCZYK, Chippewa Falls, Wis. Filed Mar. 15, 1917. Serial No. 154,988. (Cl. 21—46.)



1. A brake for a sled comprising a ground-engaging member hinged therebeneath, a slidable actuator arranged adjacent the forward end of the sled, pivotal connections between the said actuator and said ground-engaging member, and automatic return means therefor.

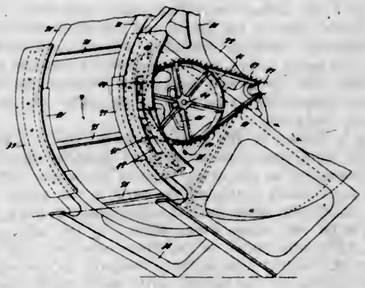
2. In attachment for a sled having side runners and a top, a T-shaped brace-iron forwardly carried thereby attached to the said top and runners, a road-bed engaging member hinged to said top beneath the said runners, and an actuator therefor operatively connected thereto slidably attached to the said brace-iron.

3. An attachment for a sled having side runners and a top, a T-shaped brace-iron forwardly carried thereby attached to the said top and runners, a road-bed engaging member hinged to said top beneath the said runners, a post slidably carried by the said brace-iron and operable in its forward slidable movement, an operating handle for the said post, a rod pivotally connected between the said post and road-bed engaging member, and automatic return means for said member.

4. In combination with a sled having side runners and a top, a T-shaped brace-iron connecting the forward ends of the runners and having parallel strip portions attached to the said top, guides arranged beneath the said strip portions, an upright post between the said guides, anti-friction journaling means for said post between the said strips and guides, an operating handle upon the upper end of said post, a retarding member hinged beneath said top between the said runners, and pivotal connections between the said retarding means and the lower end of said post.

5. In combination with a sled having side runners and a top, a T-shaped brace-iron connecting the forward ends of the runners and having parallel strip portions attached to the said top, guides arranged beneath the said strip portions, an upright post between the said guides, anti-friction journaling means for said post between the said strips and guides, an operating handle upon the upper end of said post, a retarding member hinged beneath said top between the said runners, a rod pivoted between the said post and retarding means, and a return spring for said retarding means encircling the said rod having one end attached to said post at its rear end anchored adjacent the hinging point of said retarding means.

1,244,461. APPARATUS FOR OBTAINING FIBER FROM FIBROUS PLANTS AND FOR TREATING THE SAME. HUBERT JOSEPH BOEKEN, Wellington, New Zealand. Filed May 14, 1915. Serial No. 28,225. (Cl. 13—18.)



1. In apparatus of the kind described, a conveyer consisting of a single endless rope or belt having an approximately horizontal part, a vertically downward part, a vertically upward part and a second horizontal part, the horizontal parts overlapping between the vertical parts and the overlapping parts being spaced apart.

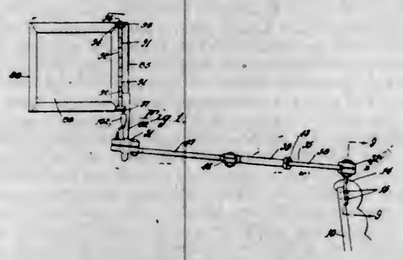
5. In apparatus of the kind described, a drum and a gripper pulley, a concave member having its upper edge interposed between the gripper pulley and the drum, the said edge overlapping the rim of the bottom of the gripper-pulley.

11. In apparatus of the kind described, a drum having ends composed of disks, lugs on the disks having radial slots adapted to receive the ends of the blades of the drum, rim members attached to the blades and having wings entering the said slots on each side of the blades, and bolts fitting holes in the blades and wings and passing through slotted holes in the lugs.

14. In apparatus of the kind described, a drum, a shaft therefor and a concave member, a plate concentric to the concave member, a slot in said plate, slides adapted to adjust the opening of said slot, a pulley projecting into the slot, a heckle band passing around the pulley and said shaft, and pins on said heckle band projecting through the slot, substantially as set forth.

[Claims 2 to 4, 6 to 10, 12, and 13 not printed in the Gazette.]

1,244,462. WIND-SHIELD. FREDERICK R. BOYNTON, Providence, R. I., assignor of one-third to Philip Allen, Providence, R. I. Filed June 24, 1916. Serial No. 105,735. (Cl. 21—148.)



1. In a device of the type set forth, the combination with the sustaining arms and pivotal supports therefor, of socket members upon the free ends of the arms, balls in the socket members, supporting arms fixed to the balls, and means in the socket members engaging the balls for locking the shield in any radial position.

3. In a device of the type set forth, the combination with foldable arms and pivotal supports therefor, of socket members on the ends of the arms, balls in the sockets provided with a vertically arranged series of peripheral cavities, a wind shield supported by the balls, locking members in the sockets, and resilient means in the sockets pressing the locking members against the balls.

4. In a device of the type set forth, the combination of sustaining arms, pivotal supports therefor, socket members upon the arms comprising upper and lower plates, balls seated between the plates and provided with a series of peripheral cavities, clamping screws connecting the upper and lower plates, locking members yieldingly mounted within the plates and engageable successively in the cavities, supporting arms fast to the balls, and a wind shield on the arms.

5. In a device of the type set forth, the combination with the sustaining arms and pivotal supports therefor, of socket members on the arms, balls in the socket members, means for radially clamping the balls in the socket members, supporting arms fixed to the balls, a wind shield mounted on the arms, wings hinged to the ends of the shield, horizontal plates on the wings provided with radial serrations, vertical pins slidably mounted in the supporting arms adapted to engage with their upper ends the serrations, springs in the arms pressing the pins into engagement with the serrations, and lever cams in the supporting arms engaging the ends of the pins.

[Claim 2 not printed in the Gazette.]

1,244,463. ADHESIVE. GEORGE H. BRABROOK, Boston, Mass., assignor of one-half to Albert T. Fletcher, Boston, Mass. Filed Apr. 1, 1916. Serial No. 88,219. (Cl. 87—17.)

1. As a new article of manufacture, a product comprising in its formation a solution of casein and cupra-ammonium.

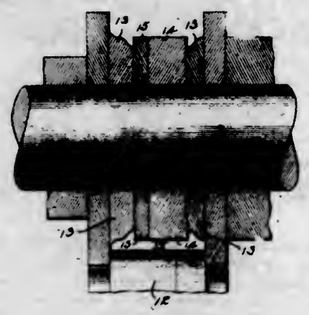
4. An adhesive comprising a solution of casein, cupra-ammonium and lime water.

5. The herein described process of making an adhesive which consists in dissolving casein in cupraammonium.

[Claims 2, 3, and 6 not printed in the Gazette.]

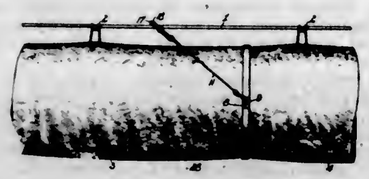
1,244,464. ROLL CONSTRUCTION FOR ROLLING-MILLS. WILLIAM J. BRADLEY, Troy, N. Y., assignor to The Rail Joint Company, New York, N. Y., a Corporation of New York. Original application filed Mar. 20, 1915, Serial No. 15,790. Divided and this application filed July 10, 1915. Serial No. 39,157. (Cl. 80—58.)

A roll for rolling shapes with spaced inside shoulders, the same including a pair of opposite marginal die-rings provided with shoulder-shaping die surfaces, and an intermediate ring interposed between the marginal rings and provided with a flat peripheral die surface and with flat



shoulder-shaping die-edges the latter overhanging the die surfaces of the marginal rings, the said intermediate ring being interchangeable with similar rings of different widths.

1,244,465. HOSE SUSPENSION. NORMAN BLYTHE BRALY, Butte, Mont. Filed Nov. 3, 1916. Serial No. 129,317. (Cl. 248—33.)



1. In a hose suspension device of the character described, a ring formed with an overhanging member adapted to engage the end of a section of said hose, and a suspending device connected with said ring, said suspending device being formed with gripping means for engaging a supporting wire.

3. In a device of the character described, the combination with a supporting wire and an air hose connected thereto, of means for preventing longitudinal movement of the hose, said means comprising a pinching member fitting over said wire, said pinching member being formed with a pair of notched bars, said notches mating so that the wire may pass therethrough, each of the notches having an edge designed to cut into the wire so as to pinch the same, and means for connecting said pinching member with the hose.

7. In a device of the character described, the combination with collapsible hose sections having a detachable interlocking joint, of a clamping ring surrounding the hose at such joint and having an internal shoulder abutted thereagainst, and holding means for the hose engaged with the ring.

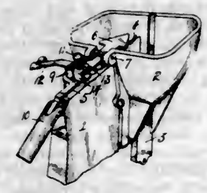
11. In a device of the character described, the combination with a collapsible hose comprising sections having detachable relatively rigid interlocking ends, of a supporting wire, spaced devices engaged with the upper portions of the hose for suspending the same, said devices being mounted on the supporting wire, and means surrounding the hose at the interlocking ends and connected to the wire for preventing longitudinal movement of said hose.

15. In apparatus of the character set forth, the combination with elevated supporting means, of a collapsible hose of fabric located beneath the same, and means suspended from the supporting means and engaged solely and directly with the upper portion of the hose to suspend the

latter from the former and permit its free collapse and inflation without creating undue resistance while so suspended.

[Claims 2, 4 to 6, 8 to 10, and 12 to 14 not printed in the Gazette.]

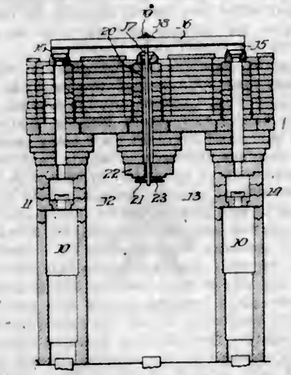
1,244,466. SHOE-BUTTON-FASTENING MACHINE. ALBERT W. BUEHLER, Toledo, Ohio, assignor to The Toledo Button Machine Company, Toledo, Ohio, a Corporation of Ohio. Filed Aug. 5, 1916. Serial No. 113,309. (Cl. 218—12.)



2. In a shoe button fastening machine, a button feed-way, a button feed tube leading from said way, and a member mounted for horizontal swinging movements and operable when in one position to hold said tube and when in another position to interrupt the feed of buttons to said tube.

[Claims 1, 3, and 4 not printed in the Gazette.]

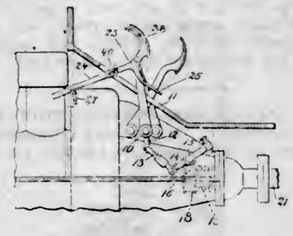
1,244,467. METHOD OF REPAIRING COKE-OVEN WALLS. ALBERT H. CHALMERS, Fairfield, Ala. Filed May 1, 1916. Serial No. 94,647. (Cl. 72—67.)



1. The method of repairing an injured or defective wall of a by-product coke oven having vertical openings through the roof leading to combustion chambers in the walls which consists in supporting a beam above the roof of the furnace and upon the two walls adjacent to the one to be repaired, suspending a supporting member through one of the aforesaid openings in the roof, supporting the roof from the lower end of said supporting member and then repairing the wall as required and removing said supporting member.

2. The method of repairing an injured or defective wall of a by-product coke oven having vertical openings through the roof leading to combustion chambers in the walls which consists in supporting a beam above the roof of the furnace and upon the two walls adjacent to the one to be repaired, suspending a supporting member through one of the aforesaid openings in the roof, to an opening beneath the top of the combustion chamber in the wall to be repaired, supporting said top of the combustion chamber by said supporting member, repairing the desired wall and removing said supporting member.

1,244,468. CLUTCH-CONTROL MECHANISM. ADAM CHAMBERS, New York, N. Y. Filed Mar. 31, 1915. Serial No. 18,244. (Cl. 74—81.)

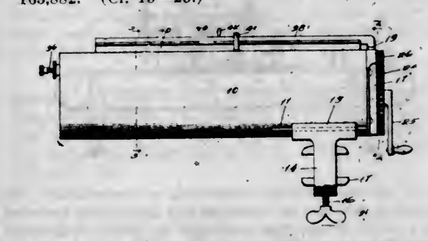


1. In a clutch control mechanism, the combination of a pedal movable in opposite directions from a neutral position to control different clutches, and means permitting free movement of the pedal back and forth between its neutral position and one of its extreme positions, but operative automatically at all times until released by the foot of the operator to hold the pedal against movement between its neutral position and its other extreme position, and to arrest the pedal at neutral position when said pedal is released while in its first said extreme position.

5. In a clutch control mechanism, the combination of a pedal movable forwardly and backwardly from neutral position to control different clutches, and a spring tending constantly to move the pedal to its rearmost position, with a latch pivotally mounted upon said pedal, so as to be movable therewith, and a fixed stop engaged by the latch, the said latch and stop being arranged to permit the free movement of the pedal back and forth between its neutral and forward positions but acting automatically to arrest the pedal in its neutral position when released, at the forward position.

[Claims 2 to 4 and 6 to 10 not printed in the Gazette.]

1,244,469. COMB-CLEANING DEVICE. NOEL B. CHARTIER, Richland, Wash. Filed May 2, 1917. Serial No. 165,882. (Cl. 15—25.)

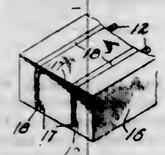


1. In apparatus of the character described, the combination with a receptacle for holding a cleansing liquid, of a subtsantially vertically reciprocatory holding device for receiving a comb and movable into and out of the receptacle, a reciprocatory member secured to the holding device and comprising spaced bars provided upon their inner sides with sets of teeth, guide means secured to the receptacle and receiving the reciprocatory member, a gear pivotally connected with the receptacle and provided upon one side with a set of teeth to alternately engage with the sets of teeth of the spaced bars, a rotatable brush arranged within the receptacle, and a gear connected with the brush and driven by the first named gear.

2. In apparatus of the character described, the combination with a receptacle for holding a cleansing liquid, of a vertically movable device for engagement with a comb to move it into and out of the receptacle, a reciprocatory member secured to the device and arranged at one end of the receptacle and comprising spaced bars carrying sets of teeth with an opening arranged between the sets of teeth, a pivot element secured to said end of the receptacle

and passed through said opening of the reciprocatory member, a main gear carried by the pivot element and provided upon its periphery with gear teeth and upon its inner face with a set of laterally projecting teeth to alternately engage with the teeth of said bars, a pair of rotatable brushes arranged within the receptacle, and a pair of gears connected with the brushes and engaging each other with one gear driven by said main gear.

1,244,470. AEROPLANE CONSTRUCTION AND THE LIKE. ANDERS P. CHRISTENSEN, Hempstead, N. Y. Filed Sept. 12, 1916. Serial No. 119,610. (Cl. 244—31.)

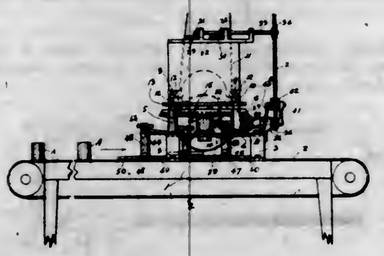


1. A strut comprising a strut member provided with grooves in opposite faces thereof, a cable seated in the groove in one face and looped across the end and seated in the groove in the opposite face of the member and strips covering the cable laid in said grooves.

3. A strut member provided with grooves in opposite faces thereof, lengths of cable seated in said grooves and strips fitting within the grooves and covering the cable within the same.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,244,471. SALTING-MACHINE. PAUL JOSEPH COTÉ, Eburne, British Columbia, Canada. Filed Sept. 28, 1916. Serial No. 122,710. (Cl. 226—9.)



1. A salting machine comprising a horizontally disposed plate mounted for rotation, said plate being provided with a series of openings arranged circularly equidistant from each other and a horizontal gear adjacent its underside, said gear having a series of openings arranged centrally of the plate openings, gates pivotally mounted on the underside of the plate normally closing the plate openings, means for actuating said gear to rotate said plate, means for filling the normally closed openings, and means for opening said gates one after the other at a predetermined intervals whereby the contents of the plate openings are discharged through the gear openings.

2. In a salting machine, the combination with a belt for conveying cans, of a base-plate straddling the said belt provided with a funnel shaped opening located above the center of the belt, a plurality of normally closed circularly arranged salt receptacles rotatably mounted above said plate and adapted to register in turn with the mouth of the said opening, means for rotating said receptacles, means for filling said receptacles, and means for emptying each receptacle into the said funnel shaped opening as it registers therewith, said means being automatically operated by the said cans.

3. In a salting machine, the combination with a belt for conveying cans, of a base-plate straddling said belt provided with a funnel shaped opening located above the center of the belt, a horizontally disposed plate rotatably mounted on said baseplate, said plate being provided with a series of openings arranged circularly equidistant from each other and adapted to register in turn with the mouth of the funnel shaped opening, gates pivotally mounted on the underside of said plate normally closing said openings, means for rotating said plate, means for filling the normally closed openings, fingers rotatably mounted in the path of the cans conveyed by the belt, means for forcing the cans against the fingers to trip same, a cam wheel coacting with said fingers and adapted to be partially rotated by the tripping of each of the said fingers, a pivotally mounted arm provided with an upstanding pin and a lever in connection with said arm having its free end in spring engagement with said cam wheel and adapted to be forced outwardly by the partial rotation thereof so as to swing the said arm inwardly to carry the said pin into the path of said gates to open same as each opening registers with the funnel shaped opening.

4. In a salting machine, the combination with a belt for conveying cans, of a base-plate straddling said belt provided with a funnel shaped opening located above the center of the belt, a horizontally disposed plate rotatably mounted on said baseplate, said plate being provided with a series of openings arranged circularly equidistant from each other and adapted to register in turn with the mouth of the funnel shaped opening, gates pivotally mounted on the underside of said plate normally closing said openings, means for rotating said plate, means for filling the normally closed openings, fingers rotatably mounted in the path of the conveyed cans, an endless belt arranged horizontally at one side of the conveying belt provided with spaced fingers adapted to engage the cans one by one and force them against the rotatably mounted fingers to trip same, and means operated by the tripping of said fingers for opening said gates as each opening registers with the funnel shaped opening.

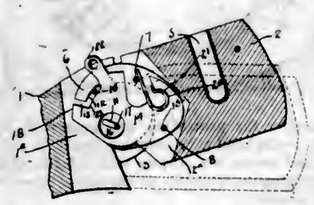
5. In a salting machine, the combination with a belt for conveying cans, of a base-plate straddling said belt provided with a funnel shaped opening located above the center of the belt, a horizontally disposed plate rotatably mounted on said baseplate, said plate being provided with a series of openings arranged circularly equidistant from each other and adapted to register in turn with the mouth of the funnel shaped opening, gates pivotally mounted on the underside of said plate normally closing said openings, means for rotating said plate, means for filling the normally closed openings, fingers rotatably mounted in the path of the conveyed cans, an endless belt arranged horizontally at one side of the conveying belt in gear connection with the plate rotating means and provided with spaced fingers adapted to engage the cans one by one and force them against the rotatably mounted fingers to trip same, means operated by the tripping of said fingers for opening said gates as each opening registers with the funnel-shaped opening, and means for timing the feeding of the cans to the endless belt fingers.

[Claims 6 to 16 not printed in the Gazette.]

1,244,472. SHOE-LAST. PROSPER CÔTÉ, St. Hyacinthe, Quebec, Canada. Filed Jan. 2, 1917. Serial No. 140,078. (Cl. 12—136.)

1. The combination with a last comprising a toe member and a heel member, of a connecting member fixed to and extending from the heel member to the toe member, securing members extending transversely through the toe member and said connecting member, a pivotally mounted locking member adapted to co-act with the securing members and a spring adapted to maintain the parts locked while in one position.

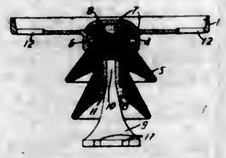
3. A last comprising a heel member, a fixed locking member disposed longitudinally of said heel member and provided with a pair of slots, a movable locking member pivoted to the heel member and provided with an opening and a locking edge, a toe member arranged to receive said locking members, and a pair of pins disposed in said toe member, one of said pins being arranged to extend through said opening in the movable locking member and one of the slots in the fixed locking member and the other of said pins being arranged to extend through the other slot in the fixed locking member and to coöperate with said locking edge on said movable locking member.



5. The combination with a last comprising a separable toe member and a heel member, the adjacent end walls of the toe and heel members having vertical slots, of a plate rigidly secured within the vertical slot of the heel member and having its opposite end extending within the vertical slot within the toe member, laterally extending pins arranged within the toe member and adapted to travel within slots formed in said plate, a second plate pivotally mounted within the vertical slot of the heel member, one end of said second mentioned plate having a locking edge projecting within the vertical slot of the toe member, a leaf spring operatively connected with said second mentioned plate and a handle carried by said second mentioned plate for actuating the same substantially as and for the purposes specified.

[Claims 2 and 4 not printed in the Gazette.]

1,244,473. INSULATING-SUPPORT. CHARLES W. COVELL, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Sept. 25, 1914. Serial No. 863,502. (Cl. 173—28.)



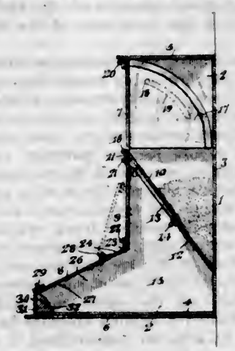
1. A support comprising a top plate having laterally projecting arms and an intermediate recess, said arms being provided with longitudinal slots that are spaced from each other on an arc having a finite radius of curvature, an insulator having its upper end seated in said recess, and a metallic foot secured to said insulator and insulated thereby from said top plate.

4. A support comprising a top plate having laterally extending arms that are provided with slots at their outer ends, the angle included between the center lines through the slots being less than 180°, and an insulating foot secured to the support intermediate said arms.

[Claims 2 and 3 not printed in the Gazette.]

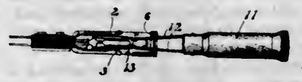
1,244,474. CABINET. HERBERT L. COWLES, St. Johns, Oreg. Filed Aug. 5, 1914. Serial No. 855,198. Renewed Dec. 28, 1916. Serial No. 139,418. (Cl. 211—9.)

The combination with upper and lower shelves, of a removable cabinet open at the top and arranged upon the lower shelf and having its top covered by the upper shelf, said cabinet being provided at the front with a downwardly opening door having a fastening device ar-



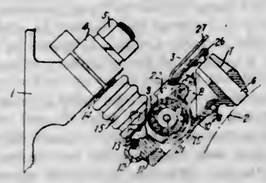
ranged to engage the upper shelf to hold the door closed and to retain the cabinet in position on the lower shelf.

1,244,475. SWITCHBOARD-LAMP. HIRAM D. CURRIER, Chicago, Ill., assignor to Kellogg Switchboard & Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 11, 1913. Serial No. 789,291. (Cl. 176—16.)



A lamp of the character described including a cylindrical elongated bulb, a pair of contact strips mounted diametrically opposite each other partially inclosing said bulb and forming the terminals of the lamp, an annular groove near one extremity of said elongated bulb, said groove being positioned to receive the extended rounded fingers of a removing implement whereby the lamp may be readily inserted into or removed from its switch socket, said groove also preventing the fingers of the removing implement from engaging with and short-circuiting the said contact strips.

1,244,476. CURRENT-COLLECTING DEVICE. JOHN S. DEAN, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed July 3, 1914. Serial No. 848,848. (Cl. 200—24.)



1. In a brush-holder, the combination with a brush, a holding frame having a guiding aperture for said brush at one end and an adjacent compartment provided with a substantially closed side, and a spiral spring operatively disposed in said compartment and having its outer end secured to said frame near said closed side; of a yoke member actuated by said spring and inclosing a portion of the periphery thereof, a pin extending through the sides of said yoke member, a pawl pivotally mounted on said pin, a coöperating ratchet secured to the inner end of the spring, a finger attached to said yoke for biasing the brush in a predetermined direction, and a flexible

member of relatively large current-conducting capacity connected between said finger and said closed side near the brush and disposed intermediate the spring and said pin and wholly on the same side of the spring as the brush.

4. In a brush holder, the combination with a brush, a holding frame therefor, a rod transversely supported in said frame, a sleeve loosely surrounding said rod, and a spiral spring encircling said sleeve and having its inner end secured to said sleeve and its outer end secured to said frame, of a yoke member partially inclosing said spring and actuated thereby, a finger secured to said yoke member for biasing said brush in a predetermined direction, and means for varying the force exerted by said spring, said yoke member being provided with inwardly turned bearing edges on said sleeve, whereby only the innermost coils of the spring come in contact with the internal faces of the arms of said yoke member.

8. In a brush-holder, the combination with a brush, a holding frame having a guiding aperture for said brush at one end and an adjacent compartment, a spiral spring operatively disposed in said compartment and having its outer end secured to said frame, and a yoke member actuated by said spring and bridging a portion of the periphery thereof and adapted to bias said brush in a predetermined direction, of means for varying the rotative force exerted by said spring in relatively small steps comprising a ratchet member operatively secured to the inner end of said spring and having a predetermined number of teeth, and a coöperating pawl having a tooth-engaging tip and one or more edge notches for receiving said teeth under predetermined conditions and spaced at intervals adapted to permit uniform rotative steps of said ratchet member.

9. A current-collecting device comprising a current-collecting member, a holding member therefor, and a spiral spring member operatively disposed in said holding member, of conducting means connected in parallel circuit relation to said spring member and disposed intermediate the spring member and the current-collecting member, means actuated by said spring member for biasing said current- collecting member in a predetermined direction and embodying means associated with the spring member for preventing lateral restraint of the coils thereof, and means for varying the force exerted by said spring member comprising a toothed member operatively secured thereto, and a coöperating pawl member embodying means for permitting more operative positions of said toothed member than the number of teeth thereof.

12. A brush-holder comprising a brush, a holding frame having a guiding aperture for said brush at one end and an adjacent compartment having a substantially closed side, a rod transversely supported in said frame, a sleeve loosely surrounding said rod, a spiral spring operatively disposed in said compartment to have its inner end secured to said sleeve and its outer end secured to said frame near said closed side, a yoke member actuated by said spring and bridging a portion of the periphery thereof and having inwardly turned bearing edges on said sleeve, whereby only the innermost coils of the spring came in contact with the internal faces of the arms of said yoke member, a pin extending through the sides of said yoke member, a finger secured to said yoke member for biasing said brush in a predetermined direction, a flexible member of relatively large current capacity connected between said finger and said closed side near the brush and disposed intermediate the spring and said pin and wholly on the same side of the spring as the brush, and means for varying the rotative force exerted by said spring in relatively small steps comprising a ratchet member secured to said sleeve and having a predetermined number of teeth, and a coöperating pawl pivotally mounted on said pin and having a tooth-engaging tip and one or more edge notches for receiving said teeth under predetermined conditions and spaced at intervals adapted to permit uniform rotative steps of said ratchet member.

[Claims 2, 3, 5 to 7, 10, and 11 not printed in the Gazette.]

1,244,477. TELEGRAPHY. PATRICK B. DELANY, South Orange, N. J., assignor to Secret Telegraph Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 27, 1916. Serial No. 139,103. (Cl. 178—22.)



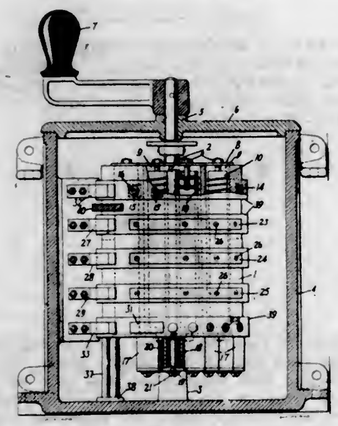
1. A system for protecting the secrecy of telegraphic messages, comprising a receiving sounder, a safeguarding sounder, and means for causing said safeguarding sounder to give telegraphic reversals of the signals received by the receiving sounder.

2. A system for the protection of telegraphic messages, comprising receiving instruments including a relay and a telegraphic sounder controlled thereby, and a safeguarding telegraphic sounder controlled by one of said receiving instruments.

5. The method of protecting the secrecy of a telegraphic message which consists in producing a series of signals similar in nature to but constituting reversals of the signals comprising said message.

[Claims 3, 4, 6, and 7 not printed in the Gazette.]

1,244,478. CONTROLLER. ISIDOR DEUTSCH, Avalon, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Mar. 7, 1913. Serial No. 752,637. (Cl. 200—1.)



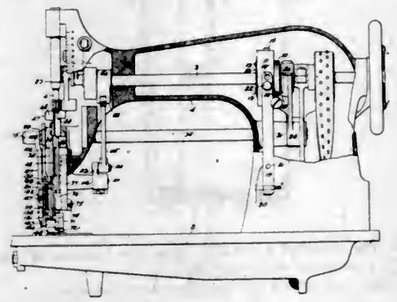
1. A controller drum comprising a body portion of molded material, a resistor inclosed by said molded material but detachable therefrom, contact members mounted on said body portion and connected to said resistor, and means for rotating said drum.

7. A controller comprising a rotatable body portion of insulating material having longitudinally extending recesses, motor armature resistor units mounted in said recesses and detachably connected to said body portion and contact members carried by said body portion and connected to said resistors.

8. A controller comprising a body portion having recesses, resistor units mounted in said recesses and spaced from the sides of the recesses, means for detachably connecting said resistors to said body portion, and contact members electrically connected to said resistor.

[Claims 2 to 6 not printed in the Gazette.]

1,244,479. SEWING-MACHINE FEEDING MECHANISM. ALBERT H. DE VOE, Westfield, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Mar. 30, 1914. Serial No. 828,185. (Cl. 112—8.)

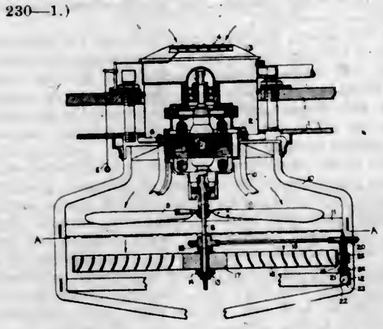


1. In a sewing machine, the combination with a work-feeding foot, a support therefor upon which the foot is confined against bodily movement thereon in the direction of its length, and intermittently operating lifting means for said foot, of a spring for pressing said foot upon the work, and a connection between said spring and support and comprising a thrust-receiving member for said spring, said spring having a range of movement materially shorter than that of said foot.

19. In a sewing machine, the combination with a rotary shaft, upper feeding mechanism including a swinging bar carrying a feeding foot, and means for imparting lateral movements thereto, and a ruffling device comprising a swinging lever carrying a ruffling blade, of an eccentric actuating member fixed upon said shaft, a sleeve embracing the same, and independent connections between said sleeve and the feed-bar and ruffling blade carrying lever, respectively, whereby lifting movements are imparted to the former and lateral operative movements are imparted to the latter.

[Claims 2 to 18, 20, and 21 not printed in the Gazette.]

1,244,480. FAN CONSTRUCTION. LUDWIG M. DIETRICH, Mount Vernon, N. Y., assignor to Safety Car Heating & Lighting Company, a Corporation of New Jersey. Filed Nov. 9, 1915. Serial No. 60,508. (Cl. 230—1.)



1. In construction of the class described, in combination, a fan, a rotary deflector in the path of discharge of said fan, a source of power driving said fan, and a device driven from said source of power engaging the outer portion of said deflector and adapted to rotate the same at a slow speed relative to that of said fan.

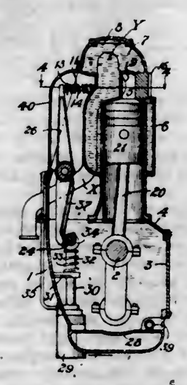
2. In construction of the class described, in combination, a fan, a rotary deflector in the path of discharge of said fan, a source of power driving said fan, a roller driven from said source of power and resting against the outer portion of said deflector, and means resiliently urging said roller against said deflector to rotate the same.

7. In construction of the class described, in combination, a fan, a source of power driving said fan, a movable deflector in the path of discharge of said fan, and means comprising a yielding connection adapted to actuate said deflector from said source of power in a plane parallel to the plane of rotation of said fan.

12. In construction of the class described, in combination, a motor having a downwardly extending shaft, a fan mounted upon said shaft, a rotary deflector mounted below said fan and coaxial with said shaft, said deflector being freely rotatable with respect to said fan, a pulley upon the shaft of said motor, a pulley mounted adjacent the outer portion of said deflector, a roller frictionally engaging the outer surface of said deflector to rotate the same, and means adapted to drive said second pulley from said first pulley and urge said roller yieldingly against said deflector, said deflector being supported by and having a bearing on an extension of the motor shaft.

[Claims 3 to 6 and 8 to 11 not printed in the Gazette.]

1,244,481. VALVE-GEAR. FREDERICK S. DUESENBERG and AUGUST S. DUESENBERG, Des Moines, Iowa. Original application filed Apr. 14, 1913, Serial No. 760,851. Divided and this application filed Aug. 13, 1914. Serial No. 856,543. (Cl. 123-196.)



2. In a device of the class described a multiple cylinder engine, inlet valves arranged in pairs for adjacent cylinders, an exhaust valve adjacent and parallel therewith for each cylinder, said valves acting transversely the axis of the cylinder, rocker arms journaled at the side of each cylinder for characteristically actuating the valves, a crank case open at the top at one side into which said rocker arms extend, end walls formed on the engine, and a cover plate attached thereon inclosing said rocker arms.

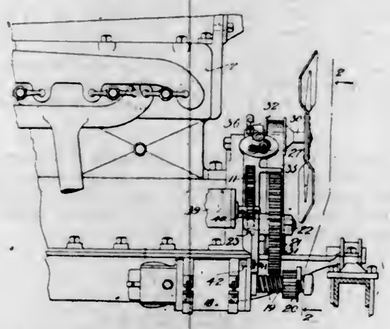
5. The combination with an internal combustion engine and its crank case, of valves communicating laterally in spaces above each of the cylinders of the engine, rocker arms projecting into said crank case for opening said valves, springs for returning said valves to closed position, a cam shaft in the crank case driven from the crank shaft of the engine for actuating said rocker arms, an oil pump, mechanism on said cam shaft for operating the same, communication between said oil pump and the supports for said rocker arms, whereby oil is forced into the interior of said supports and fed outwardly therethrough into the bearings of each of said rocker arms, and a pipe secured on each of the rocker arms and movable therewith adapted to transmit oil from said supports to said mechanism on the cam shaft.

6. In a valve gear for internal combustion engines a stationary tubular shaft, a plurality of rocker arms journaled thereon, ports in said shaft and rocker arms adapted to register with one another, a cam shaft for

actuating said rocker arms, a pipe connected rigidly on each of said rocker arms and movable therewith and communicating with the port in the rocker arm and at its other end adapted to discharge oil received from said tubular shaft through the registering ports to the contacting surfaces of the rocker arm and cam shaft, and valves for the engine adapted to be actuated by said rocker arms.

[Claims 1, 3, and 4 not printed in the Gazette.]

1,244,482. STARTING MECHANISM FOR MOTOR-ENGINES. PERCY J. DURHAM, New York, N. Y. Filed May 23, 1916. Serial No. 99,289. (Cl. 74–7.)



1. In a starting mechanism for engines, and in combination with the engine shaft and the cam shaft, a gear for simultaneously rotating said shafts, means for driving said gear, and an auxiliary bearing for said gear independent of both of said shafts to take the starting strains.

5. The combination with an engine shaft, of a starting mechanism therefor including a power driven gear, having an extended hub portion and a fixed bearing extending into said hub portion to take the starting strains.

9. The combination with an engine shaft, of a starting mechanism therefor including a power driven gear, a casing inclosing said gear and having a laterally extending bearing for said gear, said casing also having an off-set flange, a fan bracket secured to said flange, and means to drive the fan from the engine shaft.

12. A casing plate having a laterally extending annular bearing and a vertically disposed bearing, an engine shaft having a gear thereon, a cam shaft having a cooperating gear thereon, said cooperating gear also journaled on said annular bearing, and a timing shaft journaled in said vertically disposed bearing and geared to said cam shaft.

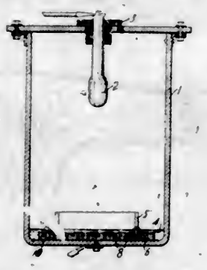
[Claims 2 to 4, 6 to 8, 10, and 11 not printed in the Gazette.]

1,244,483. VAPOR-RECTIFIER. SIDNEY W. FARNSWORTH, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 6, 1914. Serial No. 829,825. (Cl. 175—354.)

1. In vapor electric apparatus, the combination with a liquid electrode, of a member submerged slightly below the surface thereof and having a plurality of depressions in its upper surface, said member being substantially coextensive with the active portion of said electrode.

4. In vapor electric apparatus, the combination with a liquid electrode, of a member submerged therein and having a plurality of intersecting grooves in its upper face and a plurality of openings extending through said member from the bottom of said grooves to the lower face of the member.

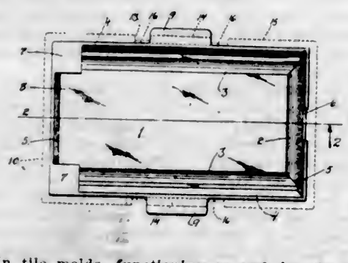
6. In a vapor rectifier comprising a containing receptacle and suitable electrodes therein, the combination with a liquid electrode, of a metallic plate submerged therein and attached to the bottom of the receptacle and provided with a plurality of intersecting grooves in its upper face



and having openings extending from the bottoms of some of said grooves to its lower face.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,244,484. MOLD FOR TILES. JOHN A. FERGUSON, Denver, Colo. Filed May 25, 1917. Serial No. 170,901. (Cl. 25–119.)



1. In tile molds, functioning as and for the purposes set forth, a settling pan having a closed bottom and flaring end and side walls; in combination with a pattern plate closure for the open top of said pan, the inside face of the botom of said pan and the underneath face of said pattern plate closure being respectively provided with appropriate pattern grooves and pattern heads; and means for centering said pattern plate closure, in readily detachable interlocked relation, over the top of said pan, substantially as described.

4. In tile molds, functioning as and for the purposes set forth, a settling pan having a closed bottom and flaring end and side walls, interior longitudinal grooves being formed along the side walls and a transverse groove along one end wall thereof and merging into said longitudinal grooves, the other end of the pan having corner inserts, with a tongue forming space therebetween, abutting adjacent ends of the longitudinal grooves; in combination with a pattern plate closure for the top of said pan, provided with laterally spaced longitudinal pattern beads, on its underneath face, and with a transverse pattern bead, merging into said longitudinal beads toward one end thereof, said closure being seated, is assembling, with said longitudinal beads congruently alined with said longitudinal grooves, and with said transverse bead disposed at the end of said pan distant from said transverse groove in its bottom, substantially as described.

[Claims 2 and 3 not printed in the Gazette.]

1,244,485. SOUNDING APPARATUS. ERNST G. FISCHER, Washington, D. C. Filed Mar. 6, 1917. Serial No. 152,626. (Cl. 73—5.)

1. A sounder comprising a tube closed at one end to inclose an air-spring, a cap detachably threaded to the other end of said tube, said cap having a water inlet passage to the interior of the tube, and a valve device, for closing said passage, wholly supported by said cap, said cap having ports for releasing the air while screwing the cap onto the tube.

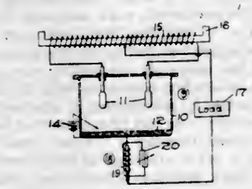


2. A sounder comprising a tube permanently closed at its upper end to inclose an air-spring, a cap detachably threaded on the lower end of said tube, said cap having a water inlet passage to the interior of the tube, a valve device, for closing said passage, wholly supported by said cap, said valve device comprising a valve cage, a valve movable within said cage and a spring for holding said valve seated.

9. In a sounder of the class described, a metal sounding tube adapted to receive water when the sounder is immersed and having provisions for retaining the water under the pressure of immersion until the sounding tube has been drawn up, of a fathom scale rod adapted to be inserted into the tube when opened to displace the water to a given extent and thereby indicate the depth to which the sounder has been immersed.

[Claims 3 to 8 not printed in the Gazette.]

1,244,486. VACUUM-TYPE CONVERTER SYSTEM. CHARLES LE G. FORTESCUE, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Nov. 3, 1916. Serial No. 129,278. (Cl. 175—363.)



1. The combination with a vapor-converter system embodying a maintaining reactance device, of means associated with said device for producing a closed circuit that is resonant to the frequency of the ripples in the rectified current.

3. The combination with a converter system embodying an alternating-current supply circuit, vacuum-type converting apparatus and a load circuit, of a closed circuit connected in series with said load circuit and turned to be resonant to the frequency of the ripples in the load current.

4. The combination with a converter system embodying an alternating-current supply circuit, vacuum-type converting apparatus and a load circuit, of a closed circuit connected in series with said load circuit and tuned to be resonant to a frequency equal to the frequency of the supply multiplied by the number of ae-phased rectifier power-arcs in said converting apparatus.

5. The combination with a vapor-converter system embodying a maintaining inductive reactor, of a capacitative reactor in shunt thereto, the relative magnitude of said two reactive members being such that the closed circuit therethrough is rendered substantially resonant to the frequency of the ripples in the recified current.

6. The combination with a vapor-converter system embodying a maintaining inductive reactor, of a capacitative reactor in shunt thereto, the relative magnitude of said two reactive devices being such that the closed circuit therethrough is rendered substantially resonant to a frequency equal to the supply frequency multiplied by the number of de-phased power arcs.

[Claim 2 not printed in the Gazette.]

1,244,487. MOLDER'S TROWEL. THOMAS ALBERT GATTEN, Brainerd, Minn. Filed Feb. 7, 1917. Serial No. 147,139. (Cl. 240—8.4.)



1. A flashlight attachment for tool handles which includes a battery held on the handle, a lamp socket, said socket having a rotatable endwise feed connection with the handle for effecting the opening and closing of the light circuit, the said endwise feed connection being arranged to be operated by the hand while holding the handle and manipulating the tool.

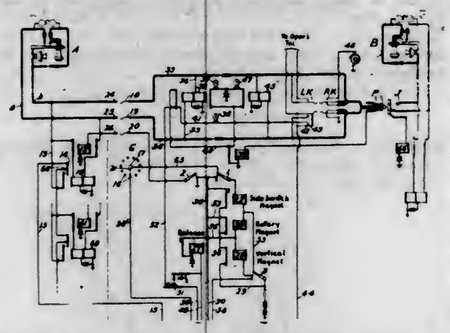
2. A flash light attachment for tool handles comprising in combination with a handle having a longitudinal socket or bore that includes an inner portion of one diameter and an outer portion of larger diameter, a metallic liner for the smaller socket portion, said liner including an extension projected into the enlarged portion of the bore, an insulating liner within the metallic liner, a battery removably held within the insulated liner, a coil spring that forms a circuit closing element, the said spring bearing at one end on one pole of the battery and at the other end against the inner end of the metal liner and operating to exert tension pressure on the battery to hold it out of its active position, a stop device that engages the outer end of the battery and holds it from being projected out of the handle socket, an internally threaded metallic liner in the outer enlarged end of the handle socket, a lamp socket having a threaded portion for engaging the threaded liner and a hub-like extension for slidably engaging the extension of the metallic liner in the inner end of the handle socket, a lamp in the lamp socket, said lamp having a contact for engaging the adjacent contact of the battery.

[Claims 3 and 4 not printed in the Gazette.]

1,244,488. TELEPHONE-EXCHANGE SYSTEM. CHARLES L. GOODRUM, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Jan. 20, 1916. Serial No. 73,217. (Cl. 179—27.)

1. In a telephone exchange system, the combination with telephone lines divided into groups, a group of connecting circuits for each of said line groups, operators' positions among which said connecting circuits are distributed in such a manner that some of the connecting circuits serving each line group appear at each position, means for au-

tomatically associating said connecting circuits with calling lines upon the initiation of calls therein, and means for rendering all said positions except one artificially busy and for concentrating calls on the connecting circuits of such position, of means operating automatically when the connecting circuits of a given group at such position becomes busy for removing the artificially busy condition of the connecting circuits at an adjacent position.



2. In a telephone exchange system, the combination with telephone lines divided into groups, a group of connecting circuits for each of said line groups, operators' positions among which said connecting circuits are distributed in such a manner that some of the connecting circuits serving each line group appear at each position, means for automatically associating said connecting circuits with calling lines upon the initiation of calls therein, and means for rendering said positions artificially busy and for concentrating calls from said line groups on the connecting circuits of a particular position, of means operating automatically when the connecting circuits of a given group at such position become busy for removing the artificial busy condition of the connecting circuits at an adjacent position and means operating automatically when the connecting circuits of such group at such adjacent position becomes busy for removing the artificial busy condition of the other adjacent position.

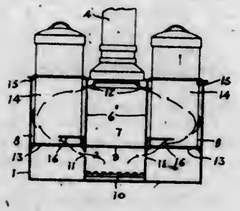
3. In a telephone exchange system, the combination with telephone lines, connecting circuits terminating in automatic finder switches to which said lines are multiplied in groups, operators' positions among which said connecting circuits are distributed in such a manner that some of the connecting circuits serving each group appear at each position, means for causing one of said finders to connect with a calling line upon the initiation of a call therein, means for rendering said positions artificially busy and for concentrating all calls on the connecting circuits of a particular position, and means operating automatically when the connecting circuits of a given line group at such position become busy for removing the artificial busy condition of the finders at an adjacent position.

10. In an automatic telephone exchange system wherein the calling lines are divided into groups, the groups terminating in different sections of a row of terminals multiplied so as to be accessible to a number of brush carriers, the combination with a carrier for each row, driving means for said carriers, multiply connected brushes counted on said carriers one for each section of terminals, means associated with said carriers and so constructed and arranged that upon the simultaneous initiation of calls in several of said groups, brushes, each serving a different section will be simultaneously driven over such sections by said driving means in search of the calling lines, a connecting circuit associated with each carrier, operators' positions among which said connecting circuits are distributed in such a manner that some of the connecting circuits serving each group appear at each position, means for automatically rendering the position to which an actuated carrier belongs artificially busy, and manual means controlled by the operator in answering a call for removing such artificial busy condition.

11. In a telephone exchange system wherein calling lines are divided into groups and terminate in a row multipled across the face of a panel, the combination with a carrier for each row, multiply connected brushes mounted spirally upon each carrier one for each group of terminals, the carriers being so arranged that each group of lines has a brush normally in operative relation to multiples thereof, means for moving said carriers independently upon the initiation of calls in said groups, a connecting circuit associated with each carrier, operators' positions among which said connecting circuits are distributed in such a manner that some of the connecting circuits serving each group appear at each position, means for causing one of said finders to connect with a calling line upon the initiation of a call therein, means for thereupon automatically rendering the position to which said carrier belongs artificially busy, and manual means controlled by the operator in answering a call for removing such artificial busy condition.

[Claims 4 to 9, 12, and 13 not printed in the Gazette.]

1,244,489. FIELD-KITCHEN. JOHN MCCLARY GUNN, London, Ontario, Canada, assignor to The McClary Manufacturing Co., London, Ontario, Canada. Filed Nov. 16, 1916. Serial No. 131,756. (Cl. 126—276.)



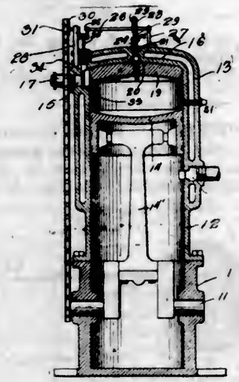
1. In a field kitchen, a rectangular casing supported on wheels and having a division wall arranged intermediate of its length extending from bottom to top, the portion at one side of said partition containing an oven and a firebox arranged at one side of the oven, said oven and firebox having floors opening from one end of the casing, the portion of the casing at the other side of said partition containing a firebox centrally arranged and opening from the end opposite to the oven and compartments arranged each side of said central firebox and having the gases of combustion passing therethrough, said side compartments having openings in the top, food containers removably arranged in said openings in the side compartments, means for directing the gases of combustion around said containers, and a smoke flue connected with both fireboxes.

2. A field kitchen, comprising, a rectangular casing divided transversely, one end thereof having longitudinally arranged partitions forming a central chamber and side compartments, a grate arranged in said central chamber, a horizontal plate dividing said central chamber transversely, flue passages leading outwardly from the fire box below said plate and communicating with said side compartments, bar supports arranged in said side compartments above said flue passages, flue passages leading from the top of said side compartments to the central passage above the fire box, removable food containers supported within said side compartments upon the transversely arranged bars, means for circulating the gases of combustion upwardly around said food containers, and a smoke pipe adapted to carry off the waste gases after heating the food containers.

3. A field kitchen, comprising, a rectangular casing divided transversely, one end thereof having longitudinally arranged partitions forming a central chamber and side compartments, a grate arranged in said central chamber, a horizontal plate dividing said central chamber transversely, flue passages leading outwardly from the firebox below said plate and communicating with said side compartments, bar supports arranged in said compartments

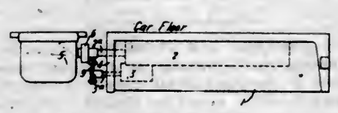
above said flue passages, flue passages leading from the top of said side compartments to a passage above the firebox, removable food containers supported upon said bar supports within said side compartments, baffle plates arranged within said side compartments and extending partially around said food containers from the inner sides of the compartment and arranged between the upper and lower flue passages of said compartments and directing the gases around the outer sides of the food containers, and a smoke pipe leading from the central compartment above the firebox.

1,244,490. GAS-ENGINE. SAMUEL HAGERMAN, Crystal, Mich. Filed Jan. 16, 1915. Serial No. 2,612. (Cl. 123—66.)



In an engine of the character described, a headed cylinder having an inlet port adjacent the head and a by-pass recess in the inner face of the cylinder in communication with the port and extending to the head, a piston in the cylinder constructed to lie within the longitudinal limits of this by-pass recess at times, a working piston in the cylinder, means to reciprocate the first named piston, a valve for said port slidable in said recess and across said port having an inner face spaced from the projected arc of the cylinder inner face, and operative connections between the valve and the working piston for the purposes described.

1,244,491. CONTROL APPARATUS. ARTHUR J. HALL, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Oct. 9, 1914. Serial No. 865,845. (Cl. 172—179.)



1. The combination with a controller having a main drum and a reversing drum, of an independent incasing member disposed adjacent, and in spaced relation, to one end of said controller, a power-actuated controller-operating mechanism located within said incasing member and having rotatable members respectively corresponding to said drums, and dissimilar mechanical means disposed intermediate the adjacent bounding planes of said controller and said incasing member and adapted to operatively connect the respective drums to said corresponding rotatable members.

6. The combination with a controller having a main drum and a reversing drum, of an independent incasing member disposed adjacent, and in spaced relation, to one end of said controller, a controller-operating mechanism located within said incasing member and having rotatable members respectively corresponding to said drums, and sets of mechanical means located within the space between said controller and said incasing member for connecting said rotatable members with the corresponding drums, one of said sets being capable of ready variation to permit of different total angular throws of the corresponding drum.

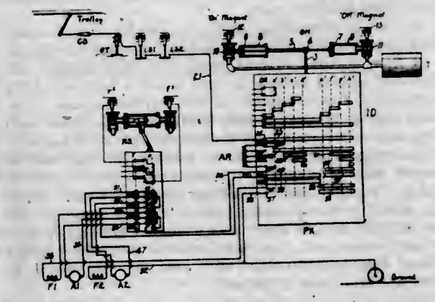
9. An operating mechanism for drum controllers comprising a rotatable member, a fluid-pressure-actuated piston and a coöperating cylinder for actuating said rotatable member, and a removable cup-shaped stop member longitudinally disposed upon one end of said piston, the length of said stop member determining the length of piston stroke together with the total angular throw of said rotatable member.

14. The combination with a controller having a main drum and a reversing drum, of an independent incasing member disposed adjacent, and in spaced relation, to one end of said controller, a controller-operating mechanism located within said incasing member and having rotatable members extending substantially parallel to said drums, a coupling for connecting one of said drums and one of said rotatable members in co-axial alinement, and a linkage mechanism for operatively connecting the other drum and its corresponding rotatable member, said coupling and said linkage mechanism being interposed wholly within the space between said controller and said incasing member.

18. The combination with a controller having a rotatable drum, an independent power-operated mechanism therefor having a rotatable member in substantial alinement with said drum, a cylinder and coöperating movable piston, and a coupling for said alined members, of a stop member associated with said piston for determining its length of stroke and the total angular throw of said drum.

[Claims 2 to 5, 7, 8, 10 to 13, 15 to 17, and 19 to 21 not printed in the Gazette.]

1,244,492. CONTROL SYSTEM. ARTHUR J. HALL, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Oct. 9, 1914. Serial No. 865,846. (Cl. 172—179.)



1. In a system of control, a supply circuit, a plurality of electromagnetic coils and a resistor connected in series with one of said coils to the supply circuit, and means for connecting the remaining coils in shunt circuit around separate portions of said resistor to energize said coils by a minimum amount of energy from the supply circuit.

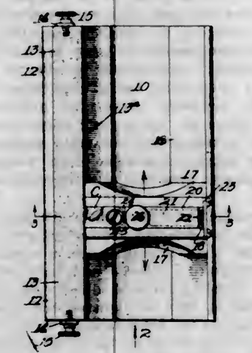
3. In a system of control, the combination with a supply circuit, a motor, a main controller for governing the operation of said motor, a line switch and a plurality of coils for operating said line switch and for governing the operation of said controller, of a resistor connected in series with one of said coils to the supply circuit, and

means for shunting separate portions of said resistor for obtaining energy for operating the remaining coils.

5. In a system of control, the combination with a supply circuit having a predetermined normal voltage, a plurality of accelerating resistors, and an electric motor, of an electrically-governed main-circuit drum controller for short-circuiting said resistors, an auxiliary controller and a pneumatic device for cooperating with said main-circuit controller to effect step-by-step actuation thereof, and a master controller comprising only one break for the supply-circuit voltage, the remainder of the breaks on both controllers being relatively low-voltage breaks.

[Claims 2, 4, and 6 to 10 not printed in the Gazette.]

1,244,493. CUTTER-SHARPENING DEVICE. HUGH R. HAMILTON, Webster, Mass. Filed June 21, 1917. Serial No. 176,225. (Cl. 51—7.)



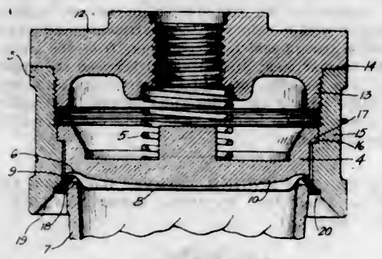
1. A cutter sharpening device having, in combination, an abrasive member having a straight face, a stand to which said member is secured, means to support a cutter on said stand at a fixed angle to the face of said member, said means including devices forcing said cutter toward said member but permitting yielding movement of said cutter away from said member without change of angle, and means to guide said cutter along said straight face at said fixed angle thereto.

2. A cutter sharpening device having, in combination, a stand, an abrasive member, means to secure said member in fixed position in said stand, a carrier slidable longitudinally of said member in said stand, a holder slidable transversely of said member in said carrier, means to secure a cutter to said holder, and means to press said holder and cutter yieldingly toward said abrasive member.

3. A cutter sharpening device having, in combination, a stand with a guide-way therein, an abrasive member having a straight side extending parallel to said guide-way, means to secure said member in said stand, a carriage slidable in said guide way, a holder slidable in said carriage toward and from said abrasive member, a spring to force said holder toward said member, and means to secure a cutter to said holder.

1,244,494. CHUCK FOR JAR-CLOSURES. CHARLES HAMMER, Queens, N. Y., assignor, by direct and mesne assignments, to American Metal Cap Co., Brooklyn, N. Y. Filed May 1, 1916. Serial No. 94,803. (Cl. 113—2.)

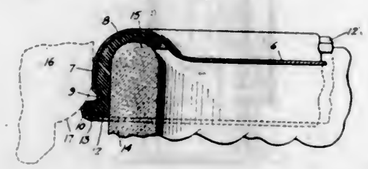
1. A chuck for sealing wide-mouth jar closures, comprising a sealing head formed with an opening having a continuous cylindrical side wall, adapted to receive a cap, and a plunger slidably supported in the head to yield upwardly under downward sealing pressure on the body, the plunger having a small concave groove at the margins of its bottom face and having a very shallow convex face inside of the groove for engagement with the



closure, the said cylindrical wall having the lower edge flared outwardly adjacent the plunger.

[Claims 2 and 3 not printed in the Gazette.]

1,244,495. JAR-CLOSURE. CHARLES HAMMER, Queens, N. Y., assignor, by direct and mesne assignments, to American Metal Cap Co., Brooklyn, N. Y. Filed Nov. 10, 1916. Serial No. 130,513. (Cl. 215—81.)

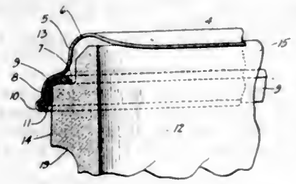


2. The combination with a jar having a substantially straight walled top portion with a rounded edge, of a jar closure of thin reformable sheet metal composed of a top and an annular side flange of slightly divergent conical form that connects with the top by an arched portion adapted to co-act with the rounded top of a jar, the flange being abruptly bent outward and upward and then bent downward and inward into the form of a roll or bead that adjoins said abrupt bend, and a comparatively thin and flat ring washer of compressible sealing material having the lower edge secured in said bead and which extends inward and upward in contact with the inner face of the flange, whereby the insertion into the closure of the jar top with merely downward pressure on the projecting bead portion, will cause the bead to be forced downward and inward, and the abrupt bend connecting the bead and flange will be caused to project inwardly beyond the flange, to compress the washer strongly against the side and the arched top of the jar.

[Claim 1 not printed in the Gazette.]

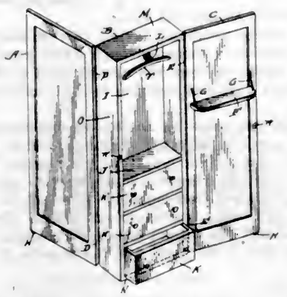
1,244,496. PROCESS JAR CLOSURE. CHARLES HAMMER, Queens, N. Y., assignor, by direct and mesne assignments, to American Metal Cap Co., Brooklyn, N. Y. Filed Mar. 9, 1917. Serial No. 153,583. (Cl. 215—81.)

The combination with a jar provided with a rim at the top, the wall below the rim being extended horizontally outward and then abruptly downward in a slightly diverging conical form to provide a comparatively sharp edged sealing shoulder, of a jar cover comprising a top and an annular flange, the flange below the top having a curved portion that extends horizontally outward and then downwardly in a divergent form, the lower edge of the flange being bent first outwardly and then inwardly to form a channel, and a flat ring gasket of substantially cylindrical form held at its lower edge in said channel and lying against the inner face of said horizontal and vertical curved portion, and adapted for engagement with the top and side of the said sharp edged jar shoulder to thereby lock and seal the cover on the jar, whereby application of cover on the jar under strong pressure will compress the gasket between said shoulder and the said curved por-



tion of the cover to a wedge shape diverging inwardly and downwardly from the edge of the shoulder, with the cover and gasket held entirely free of the jar wall at all other portions.

1,244,497. FOLDING SCREEN. CLAUDE S. HAMMOCK, Buffalo, N. Y., assignor to The Beaver Company, Buffalo, N. Y., a Corporation of Ohio. Filed Nov. 10, 1916. Serial No. 130,533. (Cl. 45—106.)

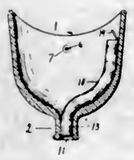


1. As an article of manufacture, the combination of three screen leaves foldable upon each other, the middle leaf being expanded to form a substantially rectangular prismatic container, said container having drawers therein, the end leaves being hinged to said container at diagonally opposite edges thereof and fastening means carried by one of said leaves to securely fasten said leaf to said container so as to act as a closure therefor.

2. As an article of manufacture, the combination of three rectangular leaves of substantially the same size foldable upon each other, a middle leaf being expanded to form a substantially rectangular prismatic container and being adapted to stand firmly on the floor without extraneous support, the other leaves being hinged to said container at diagonally opposite edges thereof.

[Claim 3 not printed in the Gazette.]

1,244,498. EYE-CUP. BRUCE C. HEATH, Louisville, Ky. Filed May 14, 1917. Serial No. 168,360. (Cl. 128—11.)

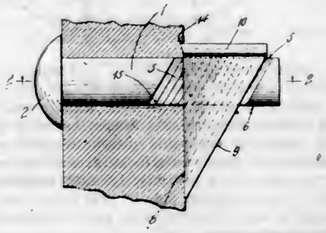


1. A cup adapted to be applied to an eye, comprising a bowl, a nipple extended from the surface thereof and having a passage leading therethrough into the interior of the cup and a tube removably positioned in said passage and extending through the cup to within a spaced distance of the brim thereof.

3. An eye cup, a nipple extended from the surface thereof and having a passage leading therethrough into the interior of the cup, a tube removably seated in said passage, said tube being bent to conform to and extending along the side of the cup to within a spaced distance of the brim, and a wing on the end of said tube adapted to deflect issuing fluid.

[Claim 2 not printed in the Gazette.]

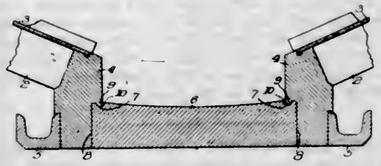
1,244,499. THREADED FASTENING. LUMAN REX HIBBARD, Bath, N. Y. Filed May 25, 1916. Serial No. 99,860. (Cl. 85—1.)



1. The combination of a bolt having straight threads upon one side thereof, said threads being disposed at an angle to the length of the bolt, and a key having straight threads adapted to engage the threads of the bolt.

[Claims 2 to 6 not printed in the Gazette.]

1,244,500. GREENHOUSE-GUTTER. CARL ICKES, Chicago, Ill. Filed Feb. 9, 1917. Serial No. 147,667. (Cl. 108—25.)



1. A green house gutter having a bottom and a side rising from it, the bottom member having a groove in its upper surface arranged parallel with the edge of said bottom member, and the side member projecting over the edge of the bottom member and having a tongue descending into said groove, said groove having an inclined inner side whereby a channel is formed between it and the adjacent upright surface of the side member.

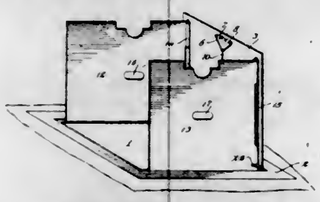
3. A green house gutter having a side member having a rabbet in one side and a depending tongue on the overhanging portion, and a bottom member the edge whereof enters said rabbet from the side, said bottom member having a groove in its top surface, into which said tongue fits, the side member having a vertical surface on the gutter side and the gutter side of the groove being inclined away from said vertical surface for the purpose described.

[Claims 2 and 4 not printed in the Gazette.]

1,244,501. CHUTE. WILLIAM WALTER JACKSON, Brooklyn, N. Y. Filed June 3, 1916. Serial No. 101,439. (Cl. 94—7.)

1. In a chute having an opening, a hinged cover for said opening, foldable side pieces hinged at opposite edges of said cover adapted to bear when open on said chute and thereby support said hinged cover in position, and means for retaining said side pieces in position when folded against the cover.

2. In a chute having an opening, a hinged cover for said opening, foldable side pieces hinged at opposite edges of said cover adapted to bear when open on said chute and thereby support said hinged cover in position, means for retaining said side pieces in position when folded against the cover, and interlocking members attached to said cover and chute respectively.



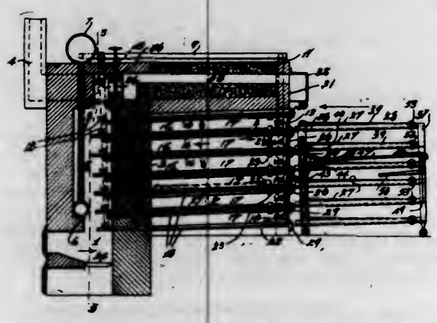
3. In a chute having an opening, a hinged cover for said opening, foldable side pieces hinged at opposite edges of said cover adapted to bear when open on said chute and thereby support said hinged cover in position, means for retaining said side pieces in position when folded against the cover, interlocking members attached to said cover and chute respectively, said members being inaccessible from the upper side of said cover, and means for disengaging said members from any determined point below said cover.

4. In a chute having an opening, a hinged cover for said opening, foldable side pieces hinged at opposite edges of said cover adapted to bear when open on said chute and thereby support said hinged cover in position and a pivoted locking button on the underside of said cover, the said side pieces having openings adapted to be engaged by said button so as to retain said side pieces in position when folded against said cover.

5. In a chute having an opening, a hinged cover for said opening, foldable side pieces hinged at opposite edges of said cover adapted to bear when open on said chute and thereby support said hinged cover in position, means for retaining said side pieces in position when folded against the cover and gravity operated interlocking means inaccessible from the outer side of said cover adapted to automatically lock said cover in a predetermined position.

[Claim 6 not printed in the Gazette.]

1,244,502. BAKING-OVEN. HENRY JANDER, Brooklyn, N. Y. Filed Dec. 22, 1916. Serial No. 138,355. (Cl. 107—63.)

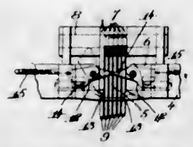


1. A baking oven consisting of a firebox, a baking chamber adjacent thereto but out of communication therewith, and receptacles for water within said chamber and extending into said firebox, the said receptacles including a pair, of which the lower receptacle is the longer and has the greater extent of surface exposed to the direct action of the heat.

5. In a baking oven, a fire-box, a baking chamber adjacent thereto and divided into superposed compartments, receptacles for liquid arranged in pairs in such compartments respectively and extending at one end into said fire-box, the lower receptacle of each pair thus extending farther than the upper receptacle, and stirrups arranged for holding the upper receptacles of the several pairs to prevent them from warping.

[Claims 2 to 4 not printed in the Gazette.]

1,244,503. KNITTING-MACHINE. ROBERT J. JENCKES, Providence, R. I., assignor to Jenckes Knitting Machine Company, Pawtucket, R. I., a Corporation of Rhode Island. Filed Jan. 29, 1915. Serial No. 5,028. (Cl. 66—12.)



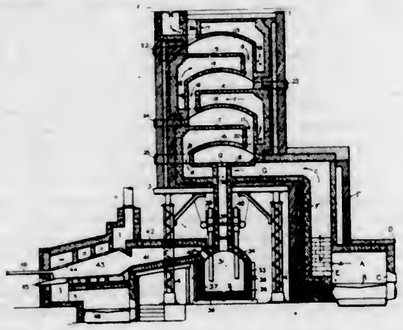
1. A knitting machine, having, in combination, a series of yarn carriers, a throat through which the yarn is delivered to and withdrawn from the needles, and a yielding gate normally closing the throat.

2. A knitting machine, having, in combination, a series of yarn carriers, a throat through which yarn is delivered to and withdrawn from the needles, and a gate normally closing the throat and mounted to yield vertically in either direction.

3. A knitting machine, having, in combination, a series of yarn carriers, a throat through which yarn is delivered to and withdrawn from the needles, a gate normally closing the throat comprising two pivoted fingers projecting inward from opposite sides of the throat and mounted to swing vertically in either direction, and springs holding the fingers in normal position.

[Claims 4 to 7 not printed in the Gazette.]

1,244,504. CONTINUOUS ZINC-SMELTER. WOOLSEY McA. JOHNSON, Hartford, Conn. Filed Feb. 4, 1915. Serial No. 6,053. (Cl. 204—64.)



1. A unitary smelting apparatus combining an electric furnace having heat-insulating walls; a preheating retort having heat-conducting thin walls and connected with said furnace whereby smeltable material may be preheated in said retort and passed directly into said furnace without being exposed to air; and a fuel-burning furnace arranged to heat said retort; and a condenser adapted to receive all the gaseous products from said furnace.

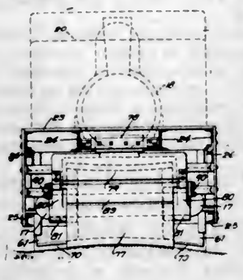
2. A unitary smelting apparatus combining an internally heated electric furnace; a preheating retort adapted to retain a granulated smeltable material; a fuel-burning furnace for externally firing said retort; a drop-chute hermetically connecting said retort and electric furnace, whereby preheated material may gravitate through said chute into said furnace; and a condenser arranged to receive all gases from said electric furnace independently of said fuel-burning furnace.

3. A unitary smelting apparatus combining an internally heated electric furnace; a series of retort-sections arranged zig-zag and hermetically connected with said electric furnace; and a fuel-burning furnace for externally firing said retort-sections.

4. A combined electric and fuel smelting apparatus comprising an electric furnace; a condenser connected therewith to receive all gases therefrom; a preheating retort independent of said condenser adapted to deliver preheated material into said furnace; and an independent furnace for heating said preheater.

5. A smelting apparatus combining an electric furnace; a preheater superimposed thereover; means for rabbeting material in said preheater; an independent furnace for heating said preheater; and a condenser for receiving all gases evolved in said electric furnace.

1,244,505. ROAD-BUILDING MACHINE. JOHN W. KINCAID, Mount Carmel, Ohio. Filed June 26, 1916. Serial No. 105,815. (Cl. 37—7.)



1. In a road building machine, the combination of a frame, plowing and distributing mechanisms mounted upon the front of the frame, a pair of rollers, each roller thereof being of a form of a truncate of a cone, means for mounting one of each of said rollers upon opposite sides of the frame in rear of said mechanism and with their smaller ends inward, a roller of the form of a double truncate of a cone, and means for mounting said roller centrally upon the frame in the rear of said pair of rollers.

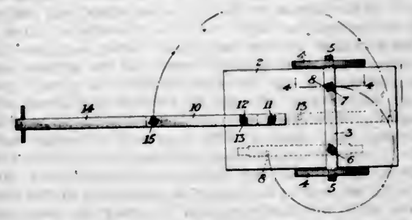
2. In a road building machine, the combination of a frame, plowing, distributing and crowning mechanisms mounted upon the front of the frame, a pair of rollers, each roller thereof being of the form of a truncate of a cone, means for mounting one of each of said rollers upon opposite sides of the frame in the rear of said mechanism and with their smaller ends inward, a roller of the form of a double truncate of a cone, and means for mounting said roller centrally upon the frame in the rear of said pair of rollers.

[Claims 3 and 4 not printed in the Gazette.]

1,244,506. TOY WAGON. LOUIS H. KIRK, New York, N. Y., assignor to Peg Lock Block Company, Inc., New York, N. Y., a Corporation of New York. Filed Jan. 26, 1917. Serial No. 144,589. (Cl. 21—65.)

1. A toy wagon of the knock-down type, comprising a body, a supporting axle therefor having wheels detachably journaled on its opposite ends, said axle being adjustably connected with the body for movement from an operative position with its ends projecting beyond the body to an inoperative position beneath the body, and means for adjustably holding the axle in its operative and inoperative positions.

6. A toy wagon comprising a wheeled body having a handle, said handle being formed in two sections detachably connected together and one of which is adjustably connected with the body for movement from an operative



position projecting forward of the body to an inoperative position beneath the body.

[Claims 2 to 5, 7, and 8 not printed in the Gazette.]

1,244,507. WATER-COOLED FLOOR STRUCTURE. LUTHER L. KNOX, Avalon, Pa., assignor to Blaw-Knox Company, Pittsburgh, Pa., a Corporation of New Jersey. Continuation of application Serial No. 868,544, filed Oct. 24, 1914. This application filed Mar. 4, 1916. Serial No. 82,191. (Cl. 257—256.)



1. A water-cooled floor unit formed of a plurality of members having horizontal portions in different planes extending across one entire dimension thereof, some of said members in one of the planes having vertical portions formed integrally therewith and fused to a member in the other plane to form water-tight ends and sides of the units as well as water-tight divisions between different parts of the unit, substantially as described.

2. A water cooled floor formed of a plurality of units, each unit having a plurality of members having a vertical flange and a horizontal portion, the horizontal portions of adjacent members being connected to each other at the junction of the horizontal portions and the vertical flanges, and a top plate connected to the upper ends of the vertical flanges, said vertical flanges forming walls for water circulating channels, substantially as described.

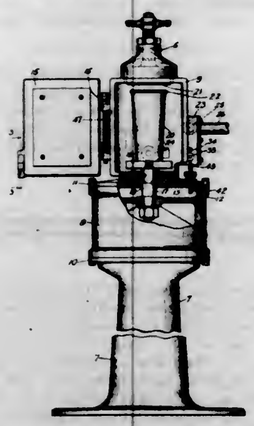
3. A water-cooled floor structure comprising a hollow box-like structure, having water inlet and outlet connections, and an angular guard or baffle placed adjacent to the outlet connection and extending to above the outlet connection, substantially as described.

1,244,508. VACUUM-SEALING MACHINE. ERIC B. KRAMER, Brooklyn, and CHARLES HAMMER, New York, N. Y., assignors, by direct and mesne assignments, to American Metal Cap Co., Brooklyn, N. Y. Filed July 17, 1915. Serial No. 40,390. (Cl. 220—97.)

1. In a vacuum sealing machine, the combination of a closet provided with an exhaust port and an air port, means for controlling said ports to alternately exhaust the closet and to connect it with atmospheric air, a plunger slidable in the closet, a cylinder, a piston slidable in the cylinder and connected with the plunger, and a passage connecting the closet with the cylinder and provided with restricting means whereby when the closet is exhausted the cylinder will be subjected to a retarded exhaust, to cause advance of the piston and plunger after the closet has been exhausted.

8. In a vacuum sealing machine, the combination of a closet provided with a door to close the same, a plunger slidable in the closet, a cylinder, a piston slidable in the cylinder and connected with the plunger, a port in the closet for connection with an exhaust device, a valve in the closet controlling the exhaust port, a slide projecting through an aperture in the closet and connected with said

valve to control the valve, an annular valve on said slide adapted to close the said opening when the slide is advanced to open the exhaust valve, said slide being arranged to be engaged by the door when closed and shifted to close the annular valve and open the exhaust valve, a spring arranged to close the exhaust valve and open the air valve, a restricted passage connecting the cylinder and closet to exhaust the cylinder through the closet upon closing of the door whereby to advance the piston and plunger, a blade carried by the door normally in position to engage said slide, a lever arranged to engage said blade to shift it from normal position, and a rod projecting from the cylinder and connected with said lever, said rod being adapted to be engaged by the piston at the final portion of its advance movement to swing the lever and shift the blade, and thereby release the slide to close the exhaust valve and open the air valve.



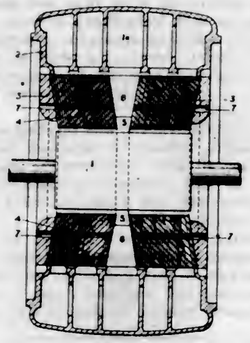
9. In a vacuum sealing closet, a port for connection with an exhaust, a puppet valve arranged to close such port, an air inlet port, a separate puppet valve arranged to close the air port, and a member connecting said valves whereby when the member is moved in one direction it will first open the exhaust valve and upon further movement will close the air valve and upon reverse movement of the member it will first open the exhaust valve and upon further movement will close the air valve and upon reverse movement of the member it will first open the exhaust valve and upon further movement will close the air valve, said exhaust valve when closed being pressed against its seat by atmospheric pressure.

11. In a vacuum sealing closet, a port for connection with an exhaust, a valve arranged to close such port, an air inlet port, a separate valve arranged to close the air port, and a member connecting said valves whereby when the member is moved in one direction it will first open the exhaust valve and upon further movement will close the air valve and upon reverse movement of the member it will first open the exhaust valve and upon further movement will close the air valve, a spring attached to the valve operating member to move it to close the exhaust valve and open the air valve, a door arranged to close the closet, and means arranged to cause the closing of the door to shift the valve member against the force of said spring to first open the exhaust valve and at the final closing movement to close the air valve.

[Claims 2 to 7, 10, and 12 to 20 not printed in the Gazette.]

1,244,509. DYNAMO-ELECTRIC MACHINE. BENJAMIN G. LAMME, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Aug. 22, 1913. Serial No. 786,073. (Cl. 171—252.)

1. A dynamo-electric machine comprising relatively movable members separated by an air gap, one of said members having an annular vent-space of smaller width at the periphery adjacent to said air gap than at other portions thereof.

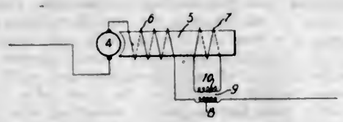


2. A dynamo-electric machine comprising relatively movable magnetizable members separated by an air gap, one of said members having an annular vent-space radially different portions of which are of different widths, the smallest width being at that portion adjacent to the said air gap.

9. In a dynamo-electric machine, a magnetizable member provided with an annular vent-space the sections on the sides of which constitute oppositely-disposed groups of laminations severally having a frusto-conical form, and further comprising a plurality of trapezoidal spacing members interposed between the said groups of laminations, the said vent-space being narrowest at its inner periphery.

[Claims 3 to 8 not printed in the Gazette.]

1,244,510. UNIVERSAL MOTOR. BENJAMIN G. LAMME, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed July 30, 1914. Serial No. 854,040. (Cl. 172—276.)



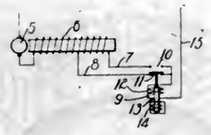
1. The combination with an electric motor of the universal type provided with a main field winding, of an auxiliary field winding mounted on the same core therewith, and a transformer so connected that when the motor is supplied with direct current, said auxiliary winding is not energized and whereby, when the motor is supplied with alternating current, said auxiliary winding is so energized that the flux thereof at all times opposes the flux of the main field winding.

2. The combination with an electric motor provided with a main field winding, of an auxiliary field winding mounted on the same core therewith, and transformer means for energizing said auxiliary winding from the motor supply circuit so that the flux thereof opposes the flux of the main field winding, said means being responsive to alternating current and unresponsive to direct current.

3. The combination with an electric motor of the universal type provided with a main field winding, of an auxiliary field winding mounted on the same core therewith, a series transformer, connections from the primary winding of the transformer to the supply circuit of the motor, and connections from the secondary winding of the transformer to said auxiliary winding, whereby, when the motor is supplied with direct current, said transformer will be inactive and, when the motor is supplied with alternating current, said transformer is energized to excite said auxiliary winding and cause the flux produced thereby to oppose the flux generated by the main field winding.

4. The combination with an electric motor provided with a main field winding and with an auxiliary field winding in line therewith, of a current transformer connected to energize said auxiliary winding in opposition to said main field winding and having its primary winding connected in series relation to said motor.

1,244,511. UNIVERSAL MOTOR. BENJAMIN G. LAMME, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Aug. 7, 1914. Serial No. 855,603. (Cl. 172—276.)

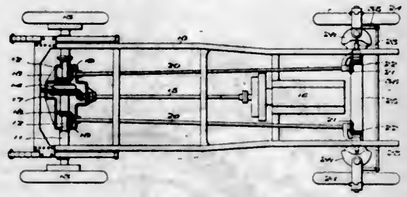


1. The combination with an electric motor of the commutator type provided with a field winding, of an electromagnetic switch provided with an operating winding, a closed winding in inductive relation to said operating winding, connections from said operating winding to the circuit of said motor, said switch being responsive to direct current and non-responsive to alternating current by virtue of transformer action exerted by said operating winding upon said closed winding, and connections whereby said switch, when operated, causes the energization of additional turns in the field winding of said motor.

2. The combination with an electric motor of the commutator type provided with a field winding, of an electromagnetic switch and attendant connections arranged to modify the field excitation of said motor by its operation, said switch being provided with an operating winding and with a short circuited winding in inductive relation thereto and being responsive to direct current and not to alternating current by virtue of the magnetic effect of said short-circuited winding upon said operating winding.

3. The combination with a dynamo-electric machine of the commutator type provided with a field winding, of a solenoid in conductive connection with said winding, a switch embodying and operated by a core which is arranged to be actuated by said solenoid, connections whereby said switch, when operated, energizes additional turns in the field winding of said dynamo-electric machine, and an auxiliary short circuited winding inductively interlinked with said solenoid for neutralizing the flux thereof when said solenoid is energized by alternating current.

1,244,512. DRIVING-GEAR AND WHEEL-MOUNTING FOR MOTOR-VEHICLES. THOMAS F. LEDBETTER, Columbus, Ga. Filed Oct. 27, 1916. Serial No. 128,051. (Cl. 180—43.)



1. A mounting for steering wheels of motor vehicles comprising, in combination, a fixed axle, a driven rotatable shaft mounted in bearings on said axle, a wheel on said driven shaft, and a yoke having a pair of arms straddling said wheel, said yoke being pivoted to said fixed axle adjacent said shaft and having a bearing in its outer arm adapted to receive the outer end of said shaft.

2. A mounting for steering wheels of motor vehicles comprising, in combination, a fixed axle, a driven shaft mounted on said axle, a wheel on said driven shaft, a yoke having a pair of arms straddling said wheel, bearings in each of said arms in which said shaft is rotatably mounted, and means for pivotally connecting said yoke to said axle at points above and below said shaft.

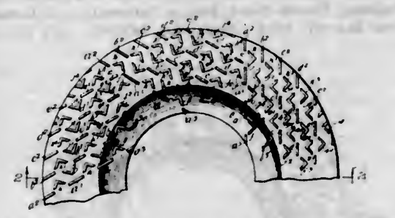
5. In combination, a fixed axle, a bracket on said fixed axle; a shaft projecting through said bracket; a yoke having an ear pivotally connected to said bracket and a pair of ears straddling the end of said fixed axle and pivotally connected thereto, said yoke being in the form of an inverted U, and being adapted to receive the wheel between its arms; and bearings in the arms of said yoke for the reception of the shaft.

6. A mounting for steering wheels of motor vehicles comprising, in combination, a fixed axle, a driven shaft mounted on said axle, a wheel on said driven shaft, a yoke having a pair of arms straddling said wheel, bearings in each of said arms in which said shaft is rotatably mounted, means for pivotally connecting the lower end of the inner arm of said yoke to the fixed axle, and a universal joint between the axle and inner arm of said yoke in vertical alinement with the pivotal points of said yoke.

7. In combination, a fixed axle, an upright on said fixed axle and having a bearing, an arm extending from said upright, a stub shaft mounted in the bearing of said upright, a gear on said stub shaft, a driven shaft having a bearing in said arm, a gear on said driven shaft meshing with said first gear, an arch at one end of said axle and through which said stub shaft projects, a yoke pivotally connected to said arch and said fixed axle, said yoke being in the form of an inverted U and being adapted to receive the wheel between its arms, and bearings in the arms of said yoke for the reception of said stub shaft.

[Claims 3 and 4 not printed in the Gazette.]

1,244,513. GRINDING-BUR. JOHN HOLLAND LETZ, Crown Point, Ind., assignor to The Letz Manufacturing Company, Crown Point, Ind., a Corporation of Indiana. Filed Jan. 17, 1917. Serial No. 142,800. (Cl. 83—3.)



1. A grinding bur consisting of a generally flat disk having a series of grinding ribs projecting therefrom and having their flat top surfaces in the same plane and forming shearing edges, said ribs being arranged in plural series of parallel ribs separated by angular ribs having their angles alternately facing in opposite directions.

2. A grinding bur consisting of a generally flat disk having a series of grinding ribs projecting therefrom and having their flat top surfaces in the same plane and forming shearing edges, said ribs being arranged in plural series of parallel ribs interrupted at intervals and separated by angularly disposed ribs having their angles alternately facing in opposite directions.

1,244,514. GRINDING-BUR. JOHN HOLLAND LETZ, Crown Point, Ind., assignor to The Letz Manufacturing Company, Crown Point, Ind., a Corporation of Indiana. Filed Jan. 17, 1917. Serial No. 142,801. (Cl. 83—3.)

1. A grinding bur consisting of a generally flat disk having a series of grinding ribs projecting therefrom and having their flat top surfaces in the same plane and forming shearing edges, said ribs being arranged in plural

groups consisting of the main parallel ribs extending at generally acute angles to radial lines, and short baffle ribs at substantially right angles to the main portions, both sets of ribs combining to form comparatively wide, tortuous passages to the periphery generally parallel to the line of the main ribs, and very contracted more direct passages for the finely ground grain on substantially radial lines, some of the baffle ribs serving to direct the finely ground grain to the more direct passages.



2. A grinding bur consisting of a generally flat disk having a series of grinding ribs projecting therefrom and having their flat top surfaces in the same plane and forming shearing edges, said ribs being arranged in plural groups consisting of the main parallel ribs extending at generally acute angles to radial lines, and short baffle ribs at substantially right angles to the main portions, said baffle ribs being connected to the main ribs, one at each end and extending therefrom in opposite directions, both sets of ribs combining to form comparatively wide, tortuous passages to the periphery generally parallel to the line of the main ribs, and very contracted more direct passages for the finely ground grain on substantially radial lines.

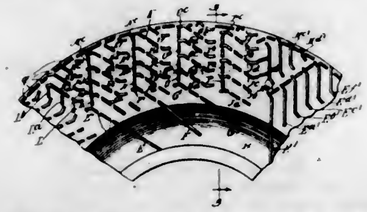
1,244,515. GRINDING-BUR. JOHN HOLLAND LETZ, Crown Point, Ind., assignor to The Letz Manufacturing Company, Crown Point, Ind., a Corporation of Indiana. Filed Jan. 17, 1917. Serial No. 142,802. (Cl. 83—3.)



1. A grinding bur consisting of a generally flat disk having a series of grinding ribs projecting therefrom and having their flat top surfaces in the same plane and forming shearing edges, said ribs consisting of plural series of parallel ribs separated by other similar series of parallel ribs interrupted at intervals and extending at acute angles to the first-mentioned series, sections of one series of ribs being interposed between pairs of the other series of ribs so as to form plural series of acute angles with small openings at their outwardly directed apexes said series of angles extending in the general direction of the adjacent periphery, and each of said series of angles being separated from the adjacent series by a considerable plane space.

2. A grinding bur consisting of a generally flat disk having a series of grinding ribs projecting therefrom and having their flat top surfaces in the same plane and forming shearing edges, said ribs consisting of plural series of parallel ribs interrupted at intervals and separated by other similar series of parallel ribs likewise interrupted at intervals and extending at acute angles to the first-mentioned series, sections of one series of ribs being interposed between pairs of the other series of ribs so as to form plural series of acute angles with small openings at their outwardly directed apexes, said series of angles extending in the general direction of the adjacent periphery, and each of said series of angles being separated from the adjacent series by a considerable plane space.

1,244,516. GRINDING-BUR. JOHN HOLLAND LETZ, Crown Point, Ind., assignor to The Letz Manufacturing Company, Crown Point, Ind., a Corporation of Indiana. Filed May 7, 1917. Serial No. 166,896. (Cl. 83—3.)



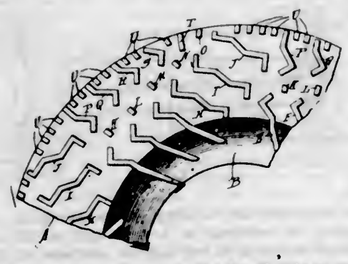
1. A grinding plate having on its surface plural series of long shearing ribs with their ground-off tops in the same horizontal plane and arranged to form generally parallel and non-converging passages and all set at a considerable angle to radial lines, together with plural series of lower baffle ribs arranged in generally radial lines between the shearing ribs.

3. A grinding plate having on its surface plural series of longitudinal shearing ribs having their ends offset at an angle of substantially thirty degrees to the line thereof and with their ground-off tops in the same horizontal plane and arranged to form generally parallel and non-converging passages and all set at a considerable angle to radial lines, together with plural series of lower baffle ribs arranged in generally radial lines between the offset ends of the shearing ribs.

5. A grinding plate having on its surface plural series of longitudinal shearing ribs having their ends offset at an angle of substantially thirty degrees to the line thereof and with their ground-off tops in the same horizontal plane and arranged to form generally parallel and non-converging passages and all set at a considerable angle to radial lines, and plural series of lower baffle ribs arranged in generally radial lines between the offset ends of the shearing ribs, the ends of one series of longitudinal ribs being arranged in staggered relation to the adjacent ends of the adjacent series of longitudinal ribs.

[Claims 2 and 4 not printed in the Gazette.]

1,244,517. GRINDING-BUR. JOHN HOLLAND LETZ, Crown Point, Ind., assignor to The Letz Manufacturing Company, Crown Point, Ind., a Corporation of Indiana. Filed May 7, 1917. Serial No. 166,897. (Cl. 83—3.)

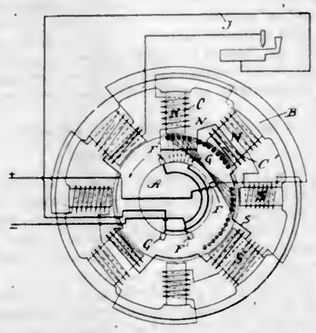


1. A grinding bur comprising the annular base portion, with plural series of ribs projecting therefrom and having the flat tops forming shearing edges, each of said series composed of a set of generally parallel elongated inner ribs set at an acute angle to a central radial line of the section containing the series, an outer set of shorter ribs extending generally parallel to the inner set and having the same number so as to form continuations thereof, and an intermediate set of very short ribs in staggered relation to the adjacent ends of the other two sets of ribs, the ribs of each of said sets being physically separated from the ribs of the other sets, substantially as shown and described.

2. A grinding bur comprising the annular base portion, with plural series of ribs projecting therefrom and having the flat tops forming shearing edges, each of said series composed of a set of generally parallel elongated inner ribs set at an acute angle to a central radial line of the section containing the series, an outer set of shorter ribs extending generally parallel to the inner set and having the same number so as to form continuations thereof, and an intermediate set of very short ribs in staggered relation to the adjacent ends of the other sets of ribs, the outer ends of the inner set and the inner ends of the outer set of ribs having the right-angular extensions set at an angle to the general direction of the ribs, the ribs of each of said sets being physically separated from the ribs of the other sets.

3. A grinding bur comprising the annular base portion, with plural series of ribs projecting therefrom and having the flat tops forming shearing edges, each of said series composed of a set of generally parallel elongated inner ribs set at an acute angle to a central radial line of the section containing the series, an outer set of shorter ribs extending generally parallel to the inner set and having the same number so as to form continuations thereof, and an intermediate set of very short ribs in staggered relation to the adjacent ends of the other two sets of ribs, the ribs of each of said sets being physically separated from the ribs of the other sets, and short ribs on the periphery between the ends of the outer set of ribs, substantially as shown and described.

1,244,518. METHOD OF AND APPARATUS FOR PRODUCING SPARKLESS COMMUTATION. JOHN C. LINCOLN, Cleveland, Ohio, assignor to The Lincoln Electric Company, Cleveland, Ohio, a Corporation of Ohio. Original application filed Feb. 2, 1912, Serial No. 674,892. Divided and this application filed May 5, 1913. Serial No. 765,518. (Cl. 171—228.)



1. The method of securing substantially sparkless commutation in a divided-pole drum wound dynamo-electric machine, which consists in withdrawing current from the armature coils at a point intersected by a plane passing between two pole-portions and through the armature's axis, and causing that direction of armature rotation which will make the polarity of the same sign as that at each of said two pole-portions.

2. The method of preventing sparking in a rotary transformer having a divided pole, a drum-wound armature, main brushes and an intermediate current-collecting brush, which consists in causing such direction of rotation as will produce at the said intermediate brush, a polarity of the armature pole of the same sign as the polarity of the two pole portions.

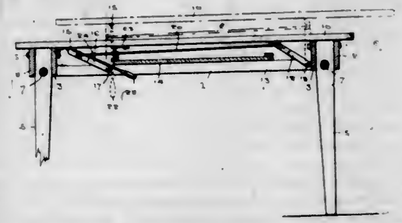
3. The method of preventing sparking in a rotary transformer having a divided pole, a drum-wound armature, main brushes and an intermediate current-collecting brush which consists in causing a direction of rotation and polarity of poles such that the armature reaction will tend to weaken the stationary poles.

4. In a rotary transformer, the combination of a drum-wound armature; a suitable commutator; means for creating a magnetic field and including divided poles; main brushes and an intermediate brush; the windings of said pole portions, armature and connections being arranged so that the direction of rotation will be such that the generated current will produce a pole in the armature of the same sign as the adjacent field pole pieces.

1,244,519. PLASTIC COMPOSITION. MARTIN LINK, Freeport, Ill. Filed Aug. 5, 1916. Serial No. 113,330. (Cl. 106—24.)

The hereindescribed composition of matter consisting of cinders, stucco cement, lime and water, substantially in the proportions specified.

1,244,520. IRONING-BOARD. FERNANDO C. LLOYD, East Lynn, W. Va. Filed Apr. 19, 1917. Serial No. 163,157. (Cl. 68—10.)



An ironing table embodying a top having an opening therein, an ironing board arranged within said opening in the same plane with the top, pivotally mounted supports for the opposite ends of said ironing board, means for hingedly connecting one end of said ironing board to the upper end of one of said supports, the other end of said ironing board resting loosely on the upper end of the other support, means connecting said supports together for simultaneous movement, and means for swinging said supports upwardly to elevate the ironing board into a plane above the table top.

1,244,521. VEGETABLE DRYING-OIL. SEBASTIAN LOMANITZ, Merida, Mexico, assignor of twenty-five one-hundredths to Joseph Joffe, New York, N. Y. Filed Feb. 17, 1916. Serial No. 78,839. (Cl. 134—56.)

1. As a new article of manufacture an oil derived from seeds of a plant of the genus, *Salvia*, family *Labiatiæ*.

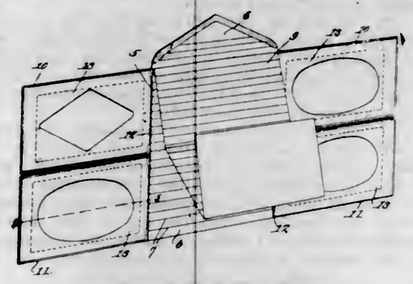
7. As a new article of manufacture a product from the process of obtaining oil from the chia plant consisting of a residue forming a cattle food.

[Claims 2 to 6 not printed in the Gazette.]

1,244,522. MAILING-CARD. WILLIAM W. MCCLAY and CLARENCE G. MCCLAY, Chicago, Ill. Filed Oct. 2, 1916. Serial No. 123,313. (Cl. 229—87.5.)

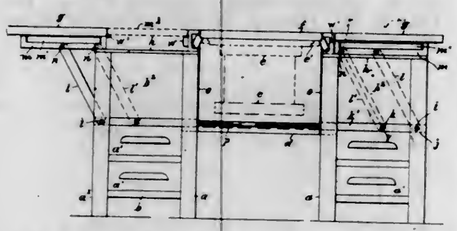
A mailing device comprising a sheet composed of two sections each of which has side flaps which are foldable inward on the inner face of the section, and said sections, with the side flaps folded thereon, being also foldable on each other with the folded side flaps therebetween, a sealing flap on the top of one of the sections and engageable with the back of the other section when the sections are folded, pockets mounted on the side flaps, said pockets

being on the inner faces of the flaps when the latter are folded, and the open ends of the pockets being located at the inner ends of the flaps, and a letter sheet carried by



one of the aforesaid sections, and foldable between said section and the other section, and beneath the folded flaps.

1,244,523. MOVABLE-TOP DESK. PERCY S. MARCELLUS, Orange, N. J. Filed July 13, 1916. Serial No. 108,972. (Cl. 45—6.)



2. A desk formed with side-bodies having each a chamber in its upper part and an intervening space between the same with a center-top fitted movably to such space and a cross-bar upon each side body next the edge of the center-top, a side-top extended over each of the side-bodies to the said cross-bar and movable away from the same, each side-top having a pair of links at each end extended downwardly within the said chamber and operating to move the side-top first upwardly and then downwardly to its original level in uncovering the said chamber.

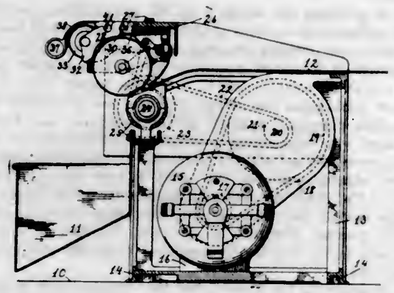
7. A desk formed of side bodies having each a chamber in the upper part and provided with separate movable side tops, a bottom tie-plate connecting the two bodies through an intervening space, a center top fitted movably and normally flush with the side tops over the said space and having journals pivoted upon the side bodies, the said top being reversible upon such journal, a guide-bar in the bottom of such space, a flap hinged upon the front edge of the center top, a front plate hinged to the said flap and guided by the said bar to normally close the front of the said space, the flap being adapted to clear the bottom tie-plate when the center top is reversed.

8. A desk having a body with posts at four corners and a chamber in its upper part with transverse spaces inside the casing-walls at the ends of the chamber, a top fitted movably to the body above the posts, links pivoted to move within the ends of the chamber and jointed to the said top, and the corresponding links at opposite ends of the chamber being connected rigidly to a rock-shaft, whereby the said links at the opposite ends of the chamber move in unison with one another.

[Claims 1 and 3 to 6 not printed in the Gazette.]

1,244,524. CHECK-INDORSING MACHINE. WILLIAM E. MARSHALL, Maspeth, N. Y. Filed May 3, 1916. Serial No. 95,087. (Cl. 101—238.)

1. In apparatus of the character set forth, the combination with a rotatable platen, of a swinging frame movable toward and from the same, a shaft journaled in the frame and removable therefrom, a type carrier frictionally mounted on the shaft to rotate therewith and removable therefrom when the shaft is detached from the frame, rollers carried by the shaft at the ends of the type carrier and engaging the platen to effect the rotation of the shaft, one of said rollers being removable to permit the removal of the type carrier, and interlocking means between said rollers and shaft to hold the two against accidental detachment and prevent their relative rotation.



5. In apparatus of the character set forth, the combination with a support, of a platen mounted thereon, a frame movably mounted on the support, a type carrier in the frame coöperating with the platen, a second frame movable toward and from the first frame, an inking device in the second frame coöperating with the type carrier, a shield movably mounted over the second frame and inking device, and a spring bearing against the support and shield for urging said shield against the second frame, the second frame against the first frame, and the type carrier of the first frame into coaction with the platen.

[Claims 2 to 4, 6, and 7 not printed in the Gazette.]

1,244,525. PROCESS OF MANUFACTURING PAPER-PULP. TSUNEYA MARUSAWA, Fukuoka, Japan. Filed Aug. 2, 1917. Serial No. 184,063. (Cl. 91—11.)

1. A process to manufacture paper pulp characterized by cooking vegetable fibrous materials with a solution of ammonium bisulfite, substantially as and for the purposes hereinbefore set forth.

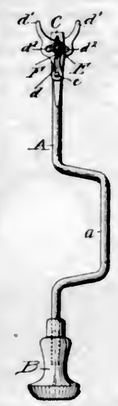
4. A process of manufacturing paper pulp characterized by the use as cooking liquor ammonium bisulfite or its mixture with sulfurous acid or a soluble sulfite, maintaining acidity of from 0.4 to 0.8 normal and effecting the cooking by the two stages of preliminary heating and final heating substantially as and for the purposes hereinbefore set forth.

[Claims 2 and 3 not printed in the Gazette.]

1,244,526. VALVE-GRINDER. LOUIS G. MASSICOTTE, Providence, R. I., and GEORGE C. BOSWELL, Danielson, Conn., assignors to M-B Tool Company, Providence, R. I., a Corporation of Rhode Island. Filed Apr. 26, 1916, Serial No. 93,784. Renewed June 11, 1917. Serial No. 174,163. (Cl. 51—4.)

1. As an article of manufacture, a tool for grinding valves and the like comprising a handle portion, a shank having an offset intermediate portion and a screw-driver form at the end of the shank, a pair of members mounted on opposite sides of the screw-driver form and adjustable toward and from each other, and means for holding said members in adjusted positions, each of said members being provided with a projecting prong.

3. As an article of manufacture, a valve grinder comprising a shank provided with a pair of offset members thereon, each having a longitudinal slot at one end, and a transverse slot, each having a projection extending materially beyond said transverse slot, and means for securing said members to the shank through the transverse slots said shank having means for entering the longitudinal slots.



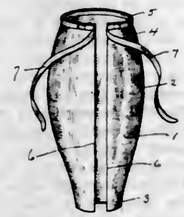
5. As an article of manufacture, a valve grinder comprising a shank having a double pin thereon and a bolt and nut, and a pair of pronged members on opposite sides of said shank each having a longitudinal slot for receiving said stud, and a transverse slot for receiving said bolt, said shank having a longitudinal slot along which the bolt can be adjusted.

7. As an article of manufacture, a tool of the character described comprising a shank having a longitudinal slot therethrough, a fastening device adjustable along said slot, two jaw members adjustable therewith, and means on the shank for guiding said jaw members.

8. As an article of manufacture, a tool of the character described comprising a shank having a longitudinal slot therethrough, a fastening device adjustable along said slot, and two pronged valve grinding members adjustable with said fastening device to project the prongs of said members when they are advanced, and to move them back to a position along the shank when they are retracted.

[Claims 2, 4, and 6 not printed in the Gazette.]

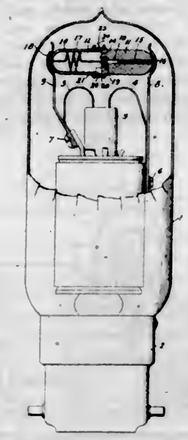
1,244,527. PAD FOR LOWER LIMBS. NICK MATRAGOS, Dallas, Tex. Filed Feb. 19, 1917. Serial No. 149,613. (Cl. 2—126.)



A pad or filler for lower limbs comprising a sheet of stiffened fabric, in the form of a hollow body having an intermediate rounded portion tapering sharply to the lower end and gradually to the upper end of the filler, said sheet having front meeting edges and a top straight flange, in combination with two tapes secured to the flange and overlapping each other and tied together on said flange at the rear of said filler.

1,244,528. VACUUM LIGHTNING-ARRESTER. DAVID T. MAY, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Nov. 9, 1916. Serial No. 130,349. (Cl. 175—30.)

1. In a vacuum lightning arrester, a short-circuiting device comprising contact members tending to engage one another, and means comprising deliquescent material normally retaining said members separated.



3. In a vacuum lightning arrester, a short-circuiting device comprising a fixed contact member, a movable contact member tending to engage said fixed member, and deliquescent material normally preventing said movable contact member from engaging said fixed contact member.

4. In a vacuum lightning arrester, a short-circuiting device comprising a container of non-conducting material, a fixed contact member located in one end of said container and projecting therefrom, a movable contact member located in the other end of said container and projecting therefrom and tending to engage said fixed contact member, and a deliquescent material located between said contact members and normally preventing their engagement.

5. In a vacuum lightning arrester, a short-circuiting device comprising a container, a fixed contact member located in one end of said container and projecting therefrom, a movable contact member located in the other end of said container and projecting therefrom and tending to engage said fixed contact member, a deliquescent material located between said contact members and normally preventing their engagement, terminals to which said projections of said contact members are connected, and spring metallic members bearing against said terminals and firmly holding said short-circuiting device between their ends, the other ends of said spring metallic members being connected to the electrodes of said vacuum lightning arrester.

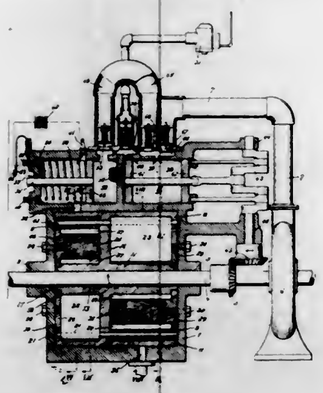
[Claim 2 not printed in the Gazette.]

1,244,529. ROTARY MOTOR. MICHAEL MEHLE, Cleveland, Ohio, assignor of nine-fortieths to J. George Banse and nine-fortieths to Christian Petersen, Cleveland, Ohio. Filed Jan. 14, 1915. Serial No. 2,255. (Cl. 60—4.)

1. A rotary motor comprising a casing provided with an inlet, a shaft projected axially therein, a rotor movable within said casing and having orifices adapted to register with said inlet, vanes opposite each such orifice, a chamber in communication with said inlet, and means including a pair of coacting pistons controlled by the movement of said shaft for supplying fuel to said chamber at predetermined intervals and for converting the same into a motive fluid.

2. A rotary motor comprising a casing, a rotor including an annular compartment having concentric walls and a hub, a vane pivotally mounted to the larger wall of said compartment and adapted for movement both with and within said casing, such larger wall being provided with a duct, an explosion chamber in communication with said duct, and agencies whereby the thermal energy of the working fluid is converted into kinetic energy within said chamber to be synchronously impinged through such duct and against such vane.

3. A rotary motor comprising a cylindrical casing, having an inlet duct, a shaft axially positioned therein, a cylindrical rotor chamber including a hub about said shaft and revoluble between said casing and shaft, a plurality of vanes pivoted interiorly to the outward wall of said rotor chamber, the latter having inlet and outlet ports, free extremities of said vanes being shaped to engage and conform to said hub and means for successively impinging a motive fluid through said inlet and against such vanes as the latter in turn pass the former.



4. A rotary motor comprising a cylindrical casing, having an inlet duct and a discharge outlet, a shaft axially positioned therein, an annular rotor chamber snugly revoluble between said casing and shaft and provided with equispaced inlet orifices and outlet ports in staggered relation therearound respectively, said orifices and ports being adapted to register with said duct and discharge outlet respectively, a vane pivotally mounted to the outer wall of said chamber and adapted to extend across the latter, and means for impinging a motive fluid against such vane.

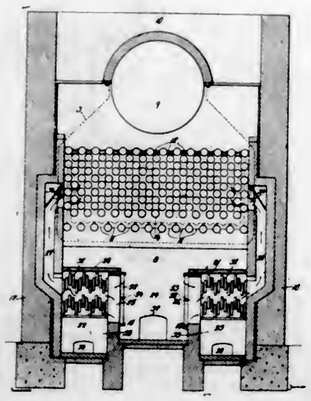
5. A rotary motor comprising a casing having an inlet duct, a shaft therein, a hollow rotor movable with said shaft, a closed partition thereacross, said rotor having inlet ports adapted to register with said duct, a plurality of vanes movable both with and within said rotor on each side of said partition, an explosion chamber in communication with said inlet duct, agents controlled by the movement of said shaft whereby the thermal energy of the working fluid is converted into kinetic energy within said chamber, and then expanded through said duct to impinge against the vanes on one side of said partition, and means for connecting such side with the other side of said partition.

[Claims 6 and 7 not printed in the Gazette.]

1,244,530. SUPERHEATER FOR BOILERS. EDWARD C. MEIER, Phoenixville, Pa. Filed Mar. 3, 1917. Serial No. 152,179. (Cl. 122—469.)

1. The combination with a boiler, of a superheater construction including means providing an elongated horizontally extending chamber arranged below the steam-generating elements of the boiler and substantially on a level with the fire box thereof, said means including a side wall having an inlet opening for laterally admitting products of combustion into said chamber, said means also having an outlet opening for said products of combustion leading from said chamber, and a superheater extending within said chamber, substantially as described.

2. The combination with a boiler, of a superheater construction including means providing an elongated horizontally extending chamber arranged below the steam-generating elements of the boiler and substantially on a level with the fire box thereof, said means including a side wall having an inlet opening for laterally admitting products of combustion into said chamber, said means also having an outlet opening for said products of combustion leading from said chamber, a superheater extending within said chamber, and means providing a chamber alongside of said superheater chamber and with which said inlet opening communicates, said second chamber serving as a conducting passage for the products of combustion prior to their entering the superheater chamber, substantially as described.



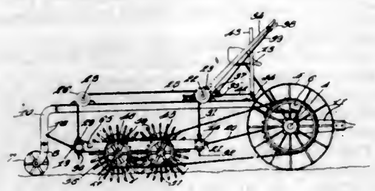
8. The combination in a boiler, of a supporting structure including front, side, and rear walls, a fire box formed in said structure, a combustion chamber adjacent said fire box, a wall extending transversely between the fire box and the combustion chamber, two partitions spaced from the side walls and extending between said transverse wall and the rear wall, covers extending from said partition to said side walls and thereby forming covered chambers, said partitions being spaced apart to form a central chamber which is open at its top and communicating with the combustion chamber, inlet openings in said partitions and communicating respectively with the central chamber and the covered chambers, water tubes mounted above said combustion chamber, baffles spaced apart and arranged adjacent said water tubes, superheaters extending within said covered chambers, and flues communicating with said covered chambers and opening into the space between said water tubes, substantially as described.

9. The combination in a boiler, of a supporting structure including front, side, and rear walls, a fire box formed in said structure, a combustion chamber adjacent said fire box, a wall extending transversely between the fire box and the combustion chamber, two partitions spaced from the side walls and extending between said transverse wall and the rear wall, covers extending from said partition to said side walls and thereby forming covered chambers, said partitions being spaced apart to form a central chamber which is open at its top and communicating with the combustion chamber, inlet openings in said partitions and communicating respectively with the central chamber and the covered chambers, water tubes mounted above said combustion chamber, baffles spaced apart and arranged adjacent said water tubes, superheaters extending within said covered chambers, and flues communicating with said covered chambers and opening into the space between said water tubes and between said baffles, substantially as described.

15. A superheater inclosure for steam boilers including a wall forming a partition adjacent the combustion chamber of the boiler, said partition including an opening for laterally admitting the products of combustion into the chamber provided by the inclosure, and a door for closing said opening, substantially as described.

[Claims 3 to 7, 10 to 14, and 16 to 21 not printed in the Gazette.]

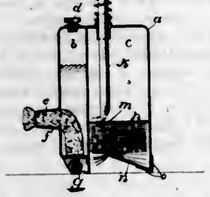
1,244,531. WEEDER AND CULTIVATOR. WILLIAM F. MENZENBACH, Elk River, Idaho. Filed Apr. 12, 1917. Serial No. 161,656. (Cl. 55—85.)



1. In a weeder and cultivator, a main frame having a caster bearing wheel at the rear thereof, an axle fixed to the front of said frame against movement from a right angle position to the longitudinal axis of the machine, bearing wheels for said axle, a tongue fixed to the machine, a weeder frame between the front and rear bearing wheels, weeder cylinders rotatively mounted in said weeder frame and having weeding members projecting radially therefrom, adjustable flexible mechanism for supporting said weeder frame from said main frame, flexible means connecting said weeder frame fore and aft with said main frame, means for causing said cylinders to rotate in unison when driven, and transmission means drivingly connecting one of said cylinders with the front bearing wheels at lateral points along the length of such cylinder whereby said weeder frame will be held against movement from a predetermined position under drag either when the weeder is being advanced in a straight course or when rounding a turn, substantially as described.

[Claim 2 not printed in the Gazette.]

1,244,532. POSTAGE-STAMP RECEPTACLE AND APPLYING DEVICE. JOHN D. MOHR, Oil City, Pa. Filed Oct. 12, 1916. Serial No. 125,259. (Cl. 216—50.)

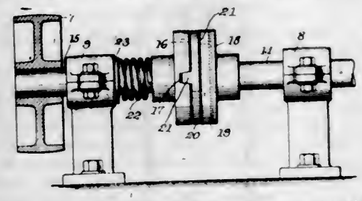


An affixing device including moistening means, a stamp container having a spring bottom and a plunger having a downwardly extending rib in line with the opening in the bottom adapted when the plunger is depressed to bring the bottom stamp in contact with the moistened surface intermediate between the edge of the spring plate and the free edge of the stamp, substantially as described.

1,244,533. SHAFT-COUPLING. FRANK L. MORSE, Ithaca, N. Y., assignor to Morse Chain Company, Ithaca, N. Y., a Corporation of New York. Filed Feb. 2, 1915. Serial No. 5,637. (Cl. 64—13.)

1. The combination of a shaft having a coupling member fixed thereon, another rotatable coupling member, and an intermediate coupling member located between the other coupling members, some of said coupling members being provided with transverse grooves tapered in cross section, correspondingly tapered elements coöperating therewith, and means acting to force said tapered portions together for taking up wear.

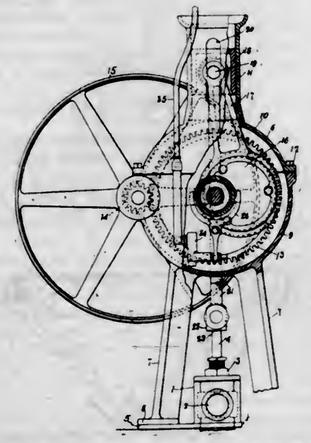
5. The combination of a shaft having a wheel and a coupling head fixed thereon, a bearing in which said shaft is rotatably and slidably mounted, said coupling head having a transverse groove tapered in cross section, another shaft having a coupling head provided with a transverse groove tapered in cross section, an intermediate coupling



disk having tapered projections upon its opposite sides for engaging said grooves, and a spring acting to force said longitudinally movable shaft and head against the intermediate coupling disk.

[Claims 2 to 4 not printed in the Gazette.]

1,244,534. PUMP. PHILIP A. MYERS, Ashland, Ohio, assignor to F. E. Myers and Brother, Ashland, Ohio, a Copartnership consisting of Francis E. Myers and Philip A. Myers. Filed Nov. 4, 1916. Serial No. 129,415. (Cl. 103—62.)

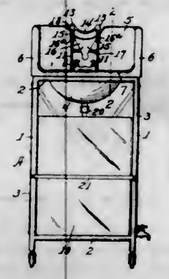


1. In a pump, the combination, with a discharge head and a piston rod passing through said head, and guided thereby, of a base plate supporting said head, a frame comprising legs carried by said plate, said frame having integral therewith a semi-cylindrical casing, transmission devices comprising actuating gearing journaled in said casing, a second semi-cylindrical casing above and fast to the first casing, said second casing having an upwardly extending portion integral therewith, a cross head guided in said extended portion and thereby kept rigidly in line with said piston rod, means outside said casing for connecting said piston rod to said cross head, an oil pump in the lower part of said first casing, and a pipe leading from said pump to a point above said cross head, and thus lubricating said cross head and said transmission gearing by the gravity of the oil.

4. In a pump, the combination, with a casing having an imperforate bottom serving to retain an oil supply, transmission gearing in said casing, a cross head mounted in said casing directly over and having connections to said transmission gearing, and an oil pump mounted in said casing and having connections to elevate oil from said oil supply and to discharge it in the upper part of said casing above said cross head, thus lubricating said cross head and said gearing by the gravity of the oil.

[Claims 2 and 3 not printed in the Gazette.]

1,244,535. SHAMPOOING-STAND. EDWARD F. NUTTER, Newburg, W. Va. Filed July 16, 1917. Serial No. 180,721. (Cl. 4—2.)

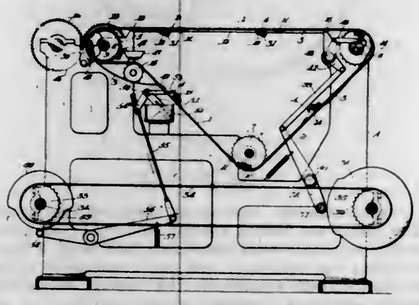


2. A shampooing stand comprising a wheeled frame, a lavatory mounted upon said frame and consisting of a bowl and walls partially inclosing said bowl, supports mounted upon said lavatory and having portions inclined into overhanging relation to said bowl, and a head rest adjustably mounted on said bowl-overhanging portions.

3. A shampooing stand comprising a wheeled frame, a lavatory mounted upon said frame and consisting of a bowl and walls partially inclosing said bowl, stationary supports occupying inclined positions in overhanging relation to said bowl, a headrest having portions mounted in telescoping relation to said supports, and spring-pressed means for holding said telescoping portions in adjusted position.

[Claims 1 and 4 to 6 not printed in the Gazette.]

1,244,536. ENDLESS BLANK-GRIPPING APRON CONVEYER. MELVILLE E. PETERS, GEORGE H. FATH, and ALBERT F. MILLER, Denver, Colo., assignors to The Peters Patent Rights Company, Denver, Colo., a Corporation of Colorado. Filed Feb. 8, 1916. Serial No. 76,989. (Cl. 271—79.)

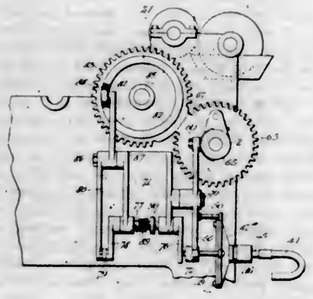


1. In a blank gripping apron conveyer, the combination with an intermittently traveling movement canvas apron conveyer arranged to receive each blank upon each apron during its traveling movement, each apron of said conveyer being provided with a transverse row of cam and spring controlled blank gripping fingers, means including cam and toothed segments for releasing the gripping fingers from the blanks during the stopped period of the conveyer, means including gearing for intermittently moving said conveyer, and means including a cam actuated pawl for releasing said grippers to grip a blank at a predetermined point in said conveyer's intermittent traveling movement.

10. In a blank gripping apron conveyer, the combination, of a conveyer, the cross bars and canvas aprons on said conveyer, a shaft having a partial rotative movement mounted on said cross bars, a canvas apron secured to said cross bars, blank finger pickers mounted on said shaft and spring controlled to resiliently spring against and grip the advancing edge of a blank, a pawl controlled ratchet wheel mounted on said shaft and arranged to lock said fingers in an open position, means including a cam positioned adjacent to said gapped cylinder for tripping the pawl to allow the fingers to spring forward and grip the advancing edge of a blank against its supporting cross bar, and means including gearing and cam controlled mechanism for releasing each blank from its finger pickers at the discharge end of the conveyer.

[Claims 2 to 9, 11, and 12 not printed in the Gazette.]

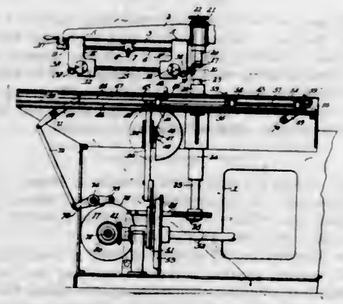
1,244,537. PNEUMATICALLY-CONTROLLED BLANK-TRIPPING MECHANISM FOR BLANK-FEEDING MECHANISMS. MELVILLE E. PETERS, GEORGE H. FATH, and ALBERT F. MILLER, Denver, Colo., assignors to The Peters Patent Rights Company, Denver, Colo., a Corporation of Colorado. Filed Feb. 8, 1916. Serial No. 76,990. (Cl. 91—50.)



2. In a blank tripping mechanism for paper blank gumming machines, a blank feeding roller provided with means including air suction blank gripping apertures through its surface arranged in transverse alinement, means for intermittently rotating said feed roller, and means including a cam actuating combined suction and mechanically operating mechanism for stopping and locking said feed roller in a position for its suction means to properly grip and hold a blank by suction, said suction operating means being arranged to hold said feed roller in a locked position when its suction fails to grip a blank.

[Claims 1 and 3 to 14 not printed in the Gazette.]

1,244,538. THIRD-STAGE TREATMENT FOR BOX-WRAPPING MACHINES. MELVILLE E. PETERS, GEORGE H. FATH, and ALBERT F. MILLER, Denver, Colo., assignors to The Peters Patent Rights Company, Denver, Colo., a Corporation of Colorado. Original application filed Nov. 5, 1915, Serial No. 59,860. Divided and this application filed Sept. 25, 1916. Serial No. 122,056. (Cl. 93—54.)



1. In box end finishing mechanism of the character described, the combination with a vertically movable support, of head blocks slidably mounted on said support, and means for moving said head blocks toward and away from each other in unison, each of said blocks having a clamping member slidably mounted therein, a coöperating clamping member slidably mounted in the first clamping

member, a cam shaft, link connections between the cam shaft and clamping members, means for operating the cam shafts in unison, and means for operating the cam shaft operating means.

2. In box end finishing mechanism of the character described, the combination with a vertically movable support, of head blocks slidably mounted thereon, and means for moving said head blocks toward and away from each other in unison, each head block having a member slidably mounted therein, a clamp removably secured to said member, a coöperating clamp slidably mounted in the said member, a cam shaft, links connecting the same with the sliding member, arms rigidly mounted on the cam shaft, a toggle operated by said arms and connected with the said coöperating clamp, means for operating the cam shafts in unison, and means for operating the cam shaft operating means.

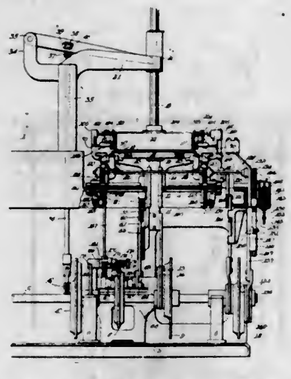
3. In box end finishing mechanism of the character described, the combination with a vertically movable support, head blocks slidably mounted on said support, each having coöperating clamping members, a cam shaft and toggle mechanism connected to said clamps and operated by said cam shaft, of a bevel gear on one end of each of said cam shafts, bearings on said head blocks and bevel gears in mesh with the gears on the cam shafts, having hubs which are mounted in said bearings, said latter gears having square apertures extending through them, a square shaft which extends slidably through said gears, and means for operating said square shaft.

4. In box end finishing mechanism of the character described, the combination with a vertically movable support, head blocks slidably mounted on said support, and means for moving said blocks toward and away from each other, of duplicate mechanisms in said head blocks comprising a slidable clamp holding member, a coöperating clamp slidably mounted in said clamp holding member, an abutment, a cam shaft, a toggle connecting said abutment and said coöperating clamp, and means connected with the cam shaft for operating said toggle, and arms connecting said clamp holder and cam shaft, axially alined bevel gears having hubs provided with square apertures, which are mounted in bearings on said head blocks, bevel gears on the ends of said cam shafts in mesh with said alined gears, a square shaft which extends slidably through said alined gears, and cam operated gearing for operating said square shaft.

1,244,539. APPARATUS FOR WRAPPING EXTENSION-EDGE BOXES. MELVILLE E. PETERS, GEORGE H. FATH, and ALBERT F. MILLER, Denver, Colo., assignors to The Peters Patent Rights Company, Denver, Colo., a Corporation of Colorado. Filed Sept. 25, 1916. Serial No. 122,060. (Cl. 93—54.)

1. An apparatus for wrapping extension edge boxes, said apparatus being embodied in a machine provided with an upper and a lower plunger arranged to receive, grip and move a blank and box between them, blank and box side and extension edge presser blades and independently arranged side wipers surrounding said plungers, said side extension edge presser blades being arranged to wrap the side flaps of the blanks first to the opposite side extension edges of the box and then to complete the wrapping of the side flaps of the box to its sides, and suitable corner wipers coöperating with said side wipers for wrapping the terminal ends of the side flaps of said blanks around and to the opposite ends of said box, and extension end wipers comprising means including the pivotal swinging block and the reciprocal wiper head whereby the extension edges of the ends of the box are wrapped over the terminal ends of said side flaps.

2. An apparatus for wrapping extension edge boxes, said apparatus being embodied in a machine provided with an upper and a lower plunger arranged to receive, grip and move a blank and box between them, blank and box side and extension edge presser blades and independently arranged side wipers surrounding said plungers, said side extension edge presser blades being arranged to wrap the side flaps of the blanks first to the opposite side extension edges of the box and then to complete the wrapping of the side flaps of the box to its sides, suitable corner wipers coöperating with said side wipers for wrapping the terminal ends of the side flaps of said blanks around and to the opposite ends of said box, and means including a combined extension edge and end wrapping mechanism comprising means including the swinging pivotal block, the reciprocating wiper head and the operating rack bar mechanism arranged to first wrap the end flaps of the blank to the opposite ends of said box simultaneously and then to wrap the ends of the blank to the ends of the box above its extension edges.



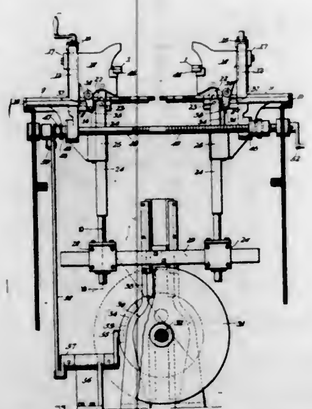
3. In an extension edge box wrapping mechanism, the combination of the table frame and the blank and box supporting plungers, with the side wipers comprising the brackets mounted on said table, the wiper block reciprocally mounted in said bracket, means including cam actuated gearing provided with a resiliently yielding blank wiping stroke for reciprocating said wiper to and from said plungers, and means including a resiliently controlled tilting blade at the lower edge of said side wipers for exerting a combined longitudinal and vertical blank wiping pressure of the lower edges of said side wipers, said blade being reciprocally actuated by said side wipers' reciprocating mechanism, and means whereby said extension edge wipers move first to wrap the blank around side extension edges, and then said side wipers are moved directly against the opposite sides of said blank and box.

4. In an extension edge box wrapping mechanism, the combination with the table frame of the blank and box supporting plungers, with side wipers comprising the wiper block supporting brackets provided with a slideway, a rack bar plate slidably mounted in said slideway, a blank wiping block secured in said plate in operative wiper relation to said blank and box and plungers, a toothed segment ended rock arm meshing with said rack bar, a reciprocating rod secured to the free end of said rack bar by a resiliently yielding pivotal connection, means including a cam for reciprocating said rod, means including the corner wipers and the extension edge presser blade for wrapping the blank around the sides and extension edges of the boxes, and means including the combined extension edge and end blank wrapping blades and their wipers arranged to be swingingly moved together against the opposite ends of said boxes, and means for moving the end wipers upwardly to wrap the ends of the box after the extension edges have been wrapped and while they are being held in a wrapped position.

1,244,540. SIDE-TURN-IN WIPER FOR WRAPPING THE SIDE EDGES OF BOXES WITH GUMMED BLANKS. MELVILLE E. PETERS, GEORGE H. FATH, and ALBERT F. MILLER, Denver, Colo., assignors to The Peters Patent Rights Company, Denver, Colo., a Corporation of Colorado. Original application filed Nov. 5, 1915, Serial No. 59,860. Divided and this application filed Sept. 25, 1916. Serial No. 122,063. (Cl. 93—54.)

3. In a side turn-in mechanism for the open edges of boxes, the combination of the table frame provided with

transverse slideways, with the side turn-in bases slidably mounted in said slideways, the chucks vertically adjustable in said bases, the semi-circular slideway in said chucks, the segment block fitting slidably in said slideway and provided with wiper blade members adapted to engage the opposite sides of said boxes, the link connected to said segment block at one end and provided with an oblong slot at its opposite end, the vertically reciprocating bar pivotally connected to the slotted end of said link, and cam actuated means for imparting an intermittent vertically semi-circular curved reciprocal movement to said segment.



5. In a side turn-in mechanism, the combination of the table frame, provided with a transverse slideway, the opposing chucks adjustably mounted in said slideway and arranged to receive a partially wrapped box between them, provided with the curved slideway, the segment block reciprocally mounted in said slideway, and the sliding wiper blade supporting plate reciprocally mounted in said segment block, with a vertical bar reciprocally mounted in said table frame below each chuck, the lower ends of both of which are connected together by a cross bar, means for laterally adjusting said chucks and rods toward or away from the center of said table frame, means including links for connecting the upper end of each bar with said segment block, and means including a cam fork secured to said cross bar and a cam for reciprocating both of said rods and the segment block of each chuck in its curved slideway in unison.

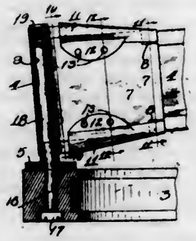
7. In a side turn-in mechanism for the open edges of boxes, the combination of the table frame provided with a transverse slideway and with a power driven shaft, the operative chucks adjustably and slidably mounted in said slideway, and their wiper operating mechanism, and the vertically reciprocating wiper actuating rods and the cross bar at the lower ends of said rods, with a boxing conected to said cross bar provided with a vertical slideway in which said rods are adjustably mounted, an adjustable resilient joint in said boxing arranged to cushion the upward resilient stroke of said bar's reciprocal movement, a cam mounted on said power driven shaft, a cam fork provided with a roller in engagement with said cam, a slideway in said cross head in which said cam fork is reciprocally supported, and means for securing said cam fork to the cross bar of said chuck's reciprocating rods.

8. The combination with a table having oppositely arranged head blocks slidably mounted therein, adapted to grip or release boxes of different predetermined sizes, of alined plugs in threaded engagement with said heads, having square axial apertures and annularly grooved at their outer ends, a square rod mounted at its ends in said table and passing loosely through said plugs, a manually operated right and left hand threaded rod extending parallel with the square rod and mounted at its ends in said table, followers in threaded engagement with said threaded rod and having bifurcated ends which engage the grooved ends of said plugs, cam actuated means for imparting a partial rotation to said square rod to move the head blocks reciprocally a short distance simultaneously in rapid successive order toward or away from each other, and means independent of the short reciprocal box gripping and releasing means, for moving said blocks simultaneously toward or away from each other to positions on which they will receive boxes of different sizes.

9. The combination with a support and opposite head blocks slidably mounted therein, of plugs in threaded engagement with said blocks, having square axial apertures and annularly grooved outer ends, a square rod rotatably mounted at its ends in said support and passing through said plugs, an arm on said square rod, a double-armed rock lever, a rod connected to the arm on said shaft and one arm of said rock lever, a roller on the other member of said rock lever, and a cam for engaging said roller thereby to rock said double armed lever, a manually operated right and left hand threaded rod extending parallel with the square rod and mounted at its ends in said support, and followers threaded to said threaded rod and having bifurcated ends which engage the grooved ends of said plugs.

[Claims 1, 2, 4, and 6 not printed in the Gazette.]

1,244,541. FOLDER DEVICE FOR WRAPPING-MACHINES. FRANK M. PIERCE, Chicago, Ill., assignor to Pierce Wrapping Machine Company, a Corporation of Illinois. Original application filed Nov. 26, 1915, Serial No. 63,502. Divided and this application filed Feb. 21, 1916. Serial No. 79,619. (Cl. 270—93.)



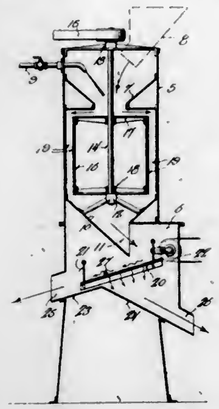
1. A folding device comprising a plate having one end formed into a cylindrical portion and the opposite end having oppositely disposed notches, a tapered plate having both edges flared to provide tapered conical members and flattened portions and means attaching the flattened portions to the first named plate.

2. A folder comprising a flat guide plate, a retaining plate having its edges flared to fold both sides of a strip of paper and then flattened to engage against and space the plates apart and means for rigidly attaching the flattened parts to the guide plate.

3. A folder comprising a guide plate formed to provide a cylindrical portion at one end and notched at its opposite end, a retaining plate spaced therefrom, tapered conical folders at opposite edges of the plates having the outer ends flattened into said notches in the guide plate to provide a space equal to the space between said plates and means securing the plates together.

1,244,542. GRAIN CLEANER AND WASHER. PETER PROVOST, Milwaukee, Wis. Filed Dec. 29, 1916. Serial No. 139,516. (Cl. 83—29.)

1. A grain cleaner and washer comprising a vertical casing, the opposite sides of the bottom of said enlarged portion being oppositely inclined from a point adjacent the middle, a grain outlet spout connected with one of the inclined portions of the bottom, a liquid out-let spout connected with the other portion of the bottom, an apertured partition in the lower part of the casing immediately above said enlarged portion, a spout carried by the partition and communicating with the aperture therein, said spout discharging in a direction toward the liquid out-let spout, an oscillatory screen in the enlarged portion below said spout carried by the partition, said spout discharging thereon, means for oscillating the screen, an agitating means in the upper portion of the casing, and means for supplying grain and cleansing fluid to the upper end of the casing.



2. A grain cleaner and washer comprising a vertical casing, the opposite sides of the bottom of said portion being oppositely inclined from a point adjacent the middle, a grain out-let spout connected with one of the inclined portions of the bottom, a liquid outlet spout connected with the other portion of the bottom, an apertured partition in the lower part of the casing immediately above the enlarged portion, a spout carried by the partition and communicating with the aperture therein, said spout discharging in a direction toward the liquid out-let spout, an oscillatory screen in the enlarged portion below the spout carried by the partition, said spout discharging thereon, said screen being inclined downwardly toward the grain out-let spout, means for oscillating the screen, a transverse dam wall on the screen for the purpose set forth said wall occupying a position approximately vertically above the junction of the inclined portions of the bottom of said enlarged portion of the casing, an agitating means in the upper portion of the casing, and means for supplying grain and cleansing fluid to the upper end of the casing.

1,244,543. WHEEL. ROBERT W. PRINGLE, Gatooma, Southern Rhodesia, South Africa. Filed June 27, 1917. Serial No. 177,342. (Cl. 152—29.)



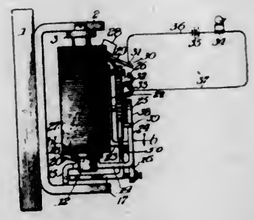
1. A wheel comprising an annular inner rim, an outer tire, an elastic element between the rim and the tire, means for connecting the tire to the hub consisting of segments engaging the tire at each side and spokes by which the segments are connected to the hub, the said spokes being connected to said segments to resist and to transmit tension only, substantially as described.

2. A wheel comprising an annular inner rim, an outer tire, an elastic element between the rim and the tire, means for connecting the tire to the hub consisting of segments of substantially U-shape in cross section extending in succession to inclose the inner rim and to engage the outer tire at its outer edges, and spokes by which the segments are connected to the hub, the said spokes being connected to said segments to resist and to transmit tension only, substantially as described.

5. A wheel comprising an annular inner rim and an outer tire, an elastic element between the said annular inner rim and the outer tire, the said inner rim being provided with vertical flanges on each side, segments of a substantially U-shape in cross section having their sides adapted to lie and to slide upon the vertical flanges of the inner rim, means by which the edges of the tire may be engaged by the segments and spokes by which the segments are connected to the hub, substantially as described.

[Claims 3 and 4 not printed in the Gazette.]

1,244,544. SELECTOR. CHARLES S. RHOADS, Jr., West Lafayette, Ind., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Feb. 18, 1916. Serial No. 79,033. (Cl. 177—343.)



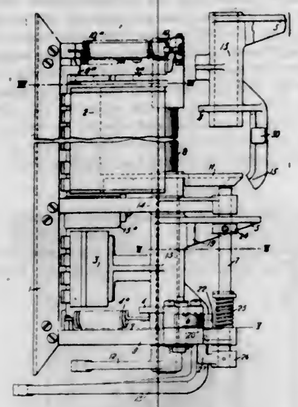
2. A code device of the character described comprising a step-by-step element, actuating pawls therefor, electromagnetic means including two armatures responsive to impulses to actuate the pawls to advance said element, means controlled by said element and electromagnetic means and rendered operatively responsive thereby when said element is advanced into a predetermined position, and means controlled by said element and electromagnetic means to retain said element momentarily in a predetermined intermediate position when said element has been advanced into said intermediate position.

8. A code device of the character described comprising a step-by-step element, electromagnetic means including two armatures responsive to impulses to actuate said element, means controlled by said element and one of said armatures and rendered operatively responsive thereby when said element is actuated into a predetermined position, said means including a finger on said armature and a coöperating element on said step-by-step element, and means including the finger controlled by said element and said armature to retain said element momentarily in a predetermined intermediate position when said element has been actuated into said intermediate position, said cooperating elements when alined with said finger coöperating therewith to hold said step-by-step element in position, said finger being out of the normal path of said coöperating elements when its associated armature is in either of its extreme positions.

10. A substation signal receiving device having a step-by-step element, actuating pawls therefor, electromagnetic means including two armatures responsive to impulses of opposite polarity to actuate the pawls to advance the element, a finger mounted upon one of the armatures, an arm mounted upon the step-by-step element, a signal controlling device rendered operatively responsive when the element has been advanced into a predetermined position with the finger and the arm in engagement, and a second arm mounted upon the step-by-step element and coöperating with the finger when the element has been advanced to a predetermined intermediate position to hold the element in this intermediate position.

[Claims 1, 3 to 7, and 9 not printed in the Gazette.]

1,244,545. SWITCHING DEVICE. LYNN G. RILEY, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 3, 1914. Serial No. 829,178. (Cl. 172—179.)



1. In a switching device, the combination with a plurality of stationary contact members, and a plurality of sets of coöperating movable contact members, said sets being relatively movable, of an operable member and means for automatically moving one of said sets, irrespective of the position of another set, upon predetermined movement of said operable member.

5. In a controller, the combination with a plurality of stationary contact members, a main drum, a reversing drum movable relatively thereto, and a plurality of coöperating movable contact members disposed upon said drums, of a cam secured to said reversing drum, a movable member engaging said cam, a reciprocable member attached to said movable member and adapted to actuate the latter to move said reversing drum to its "off" position, under predetermined conditions, and means for biasing said reversing drum to a predetermined position.

18. In a switching device, the combination with a plurality of stationary contact members, and a plurality of sets of coöperating movable contact members, said sets being relatively movable, of an operable member, means for automatically moving one of said sets, irrespective of the position of another set, upon predetermined movement of said operable member, means for thereupon locking one of said sets in a predetermined position, and means for subsequently preventing movement of said operable member in one direction.

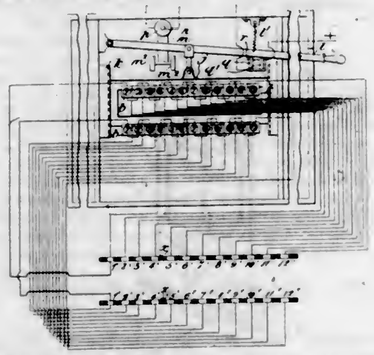
23. In a controller, the combination with a main drum and a reversing drum movable relatively thereto, of means for permitting opening of the controller circuit on either drum when the reversing drum occupies one of its operative positions and for permitting said opening only on the main drum when the reversing drum occupies its other operative position.

[Claims 2 to 4, 6 to 17, 19 to 24, and 26 not printed in the Gazette.]

1,244,546. DEVICE FOR SETTING THE SELECTIVE CONTROLLING APPARATUS ON A MOVING AUTOMATIC GOODS CONVEYER OR TRUCKER FROM A FIXED STATION. LOUIS ROTTENBURG, Ealing, London, England. Filed Mar. 14, 1913. Serial No. 754,242. (Cl. 193—2.)

1. In a device of the class described, a contact controlling device comprising a switch member, a number of fixed contacts with which said switch member contacts to close its circuit, a corresponding number of movable contacts controlling the circuits of said fixed contacts, and a number of keys operatively associated with said movable contacts.

2. In a device of the class described, a contact controlling device comprising a switch member, a number of fixed contacts with which said switch member contacts to close its circuit, a corresponding number of movable contacts controlling the circuits of said fixed contacts, and a number of keys operatively associated with said movable contacts, and means for locking the movable contacts after they have been operated.

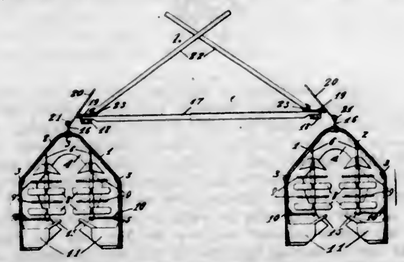


6. In a device of the class described, a contact controlling device comprising a switch, a number of fixed contacts with which are associated circuit closing means comprising resilient members, contacts for bridging said members each carried by a spring pressed body, a numbered key associated with said spring pressed body, a projection upon said body, a spring pressed member engaging such projections when the bodies are depressed, recesses upon the said body, a bar associated with the switch lever engaging said recesses when the switch is closed, a spring pressed arm, a detent upon said arm engaging the lever of the despatch switch, and means for operating said arm to release said lever.

7. In a device of the class described, a contact controlling device comprising a switch, a number of fixed contacts with which are associated circuit closing means comprising resilient members, contacts for bridging said members each carried by a spring pressed body, a numbered key associated with said spring pressed body, a projection upon said body, a spring pressed member engaging such projections when the bodies are depressed, recesses upon the said body, a bar associated with the despatch lever engaging said recesses when the switch is closed, a spring pressed arm, a detent upon said arm engaging the lever of the despatch switch, a solenoid and a spring suspended core in said solenoid, said core being normally clear of the spring arm locking the despatch switch and contacting therewith under the recoil when the solenoid has been energized by the current for despatching and the current cut off.

[Claims 3 to 5 not printed in the Gazette.]

1,244,547. BOLL-WEEVIL TRAP. GEORGE H. RUSSELL, Florence, Ala. Filed May 31, 1917. Serial No. 171,952. (Cl. 43—1.)

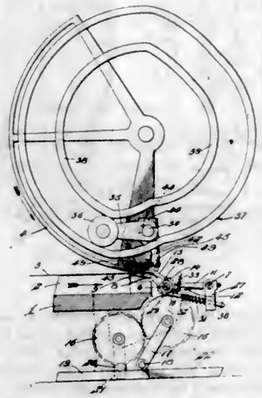


1. A boll weevil trap, comprising a frame adapted to straddle a plant, bracket arms extending inwardly from

the sides of the frame, an inclined supporting element secured to the bracket arms at each side of the frame and extending longitudinally of the frame, a trough hung from each supporting element, plant agitators turning in the frame and resting on the bracket arms, and means for suspending the frame.

[Claims 2 and 3 not printed in the Gazette.]

1,244,548. PRINTING-PRESS GRIPPER. NATHAN SADOVSKY, San Antonio, Tex. Filed Nov. 10, 1916. Serial No. 130,600. (Cl. 101—408.)



1. In a printing press, the combination with a movable member, of a paper gripping device carried by said member embodying gripper jaws, a pair of oppositely swinging arms carried by said member for operating said jaws, and tracks upon which said arms are adapted to alternately ride for opening and closing the jaws.

2. In a printing press, the combination with a movable member, of a paper gripping device carried by said member including gripper jaws, an oscillatory shaft for operating said jaws, a pair of intermeshing gears connected to said shaft for oscillating in different directions, arms carried by said gears to operate in opposite directions, and tracks upon which the arms are adapted to ride alternately for oscillating said gears and shaft.

3. In a printing press, the combination with a movable member, of a gripping device carried by said member including an oscillatory shaft, gripper jaws operated by said shaft, a pinion carried by the shaft, a gear meshing with said pinion, a second gear meshing with the aforesaid gear, depending arms carried by the gears, and tracks over which said arms are adapted to trail for oscillating the gears and shaft in opposite directions.

4. A gripping device for printing presses embodying a gripper jaw arranged to swing through a relatively large arc into and out of gripping position, a second gripper jaw swingable through a small arc and coöperable with the aforesaid jaw, means for oscillating the first mentioned jaw, and means for oscillating the second mentioned gripper jaw through its arc when the first mentioned jaw completes and starts its movements toward and away from the second mentioned jaw, respectively.

5. A gripping device for printing presses embodying an oscillatory shaft, a gripper jaw secured upon said shaft, a second gripper jaw mounted loosely upon said shaft to coöperate with the aforesaid jaw, and means operated by the oscillation of said shaft for operating the second mentioned jaw whereby the two jaws swing toward and away from one another into and out of gripping position.

[Claims 6 to 14 not printed in the Gazette.]

1,244,549. STRING FOR MUSICAL INSTRUMENTS. LOUIS C. SCHERMERHORN, Paterson, N. J. Filed May 12, 1917. Serial No. 168,090. (Cl. 84—40.)

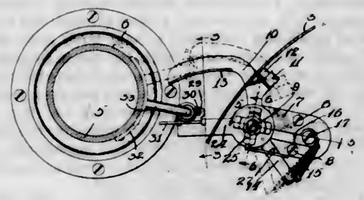
3. A string for musical instruments constructed of a metallic wire, a part thereof being bent back upon itself to form a wire loop and wound in a close spiral around a sufficient length of the wire to form an enlarged substantially cylindrical portion of sufficient length to form a string loop through the tail piece of an instrument and to form a bearing for said wire loop, a soldered connection



at the base of the wire loop between a convolution of the wire and the part of the wire around which said convolution is wound, and a fiber winding around said cylindrical portion forming a cover therefor.

[Claims 1 and 2 not printed in the Gazette.]

1,244,550. AUTOMATIC STOP FOR TALKING-MACHINES. MILO B. SELTER, Coloma, Mich., assignor to Playerphone Talking Machine Company, a Corporation of Illinois. Filed Oct. 9, 1916. Serial No. 124,704. (Cl. 74—46.)



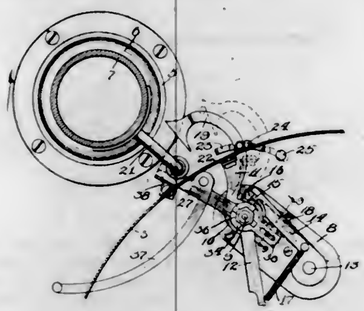
1. In a stop mechanism of the class described the combination with a recording arm and record carrying disk of a talking machine, of a brake arm pivoted adjacent the record carrying disk adapted to be impelled into contact therewith to stop the same from movement, means normally impelling said brake arm toward braking position, a stop lever, a slotted counterweight plate pivoted thereon, means secured to the recording arm to engage in said slotted plate when adjusting the stop mechanism and means operated by the stop lever for releasing the brake arm.

2. In a stop mechanism for talking machines the combination with a record carrying disk and recorder arm, of a brake arm normally impelled into braking position against the record carrying disk, mechanism operating to maintain said brake arm in position out of use, means adjusting said mechanism into different positions for withholding said brake arm in position out of use according to the size of the record played, comprising an arm and adjustable pin carried on the recorder arm and a pivoted slotted plate to receive the pin, and means associated with the recorder arm to actuate said mechanism to release the brake arm and stop the record carrying disk from movement at the completion of the playing of a record.

4. A stop mechanism for talking machines embracing a brake arm having an integral tail provided with a tooth, a latch member provided with a plurality of notches, a spring connecting said tail and latch member normally holding said tooth in one of said notches, a stop lever, a collar frictionally movable therewith having a rounded head integral therewith engaging in one of the notches in said latch adapted when actuated to shift said latch to release the tooth from its notch permitting the spring to operate the brake, a counterweighted slotted plate pivoted to the stop lever, and an adjustable member carried by the recorder arm for engaging in the slot and setting the mechanism to release the brake at any predetermined position.

[Claims 3 and 5 not printed in the Gazette.]

1,244,551. AUTOMATIC STOP MECHANISM FOR PHONOGRAPH-MACHINES. MILO B. SELTER, Coloma, Mich., assignor to Playerphone Talking Machine Company, a Corporation of Illinois. Filed Oct. 9, 1916. Serial No. 124,705. (Cl. 74—46.)



1. A stop mechanism for talking machines comprising a stationary plate, a lever pivoted thereon having a recess formed therein, a latch lever, a tooth thereon adapted for engagement with said recess, a spring connected both to said first mentioned lever and to said latch lever operating to move said latch lever with the tooth thereon into engagement with said recess, a trip lever adapted for contact by the recorder arm of the talking machine, a slotted lever held in frictional engagement with the trip lever, and means secured to the latch lever engaging in said slot adapted to release said latch lever and permit movement of said first mentioned lever under the stress of said spring out of engagement with said latch lever.

5. A stop mechanism for phonographs comprising a brake lever, a latch lever, a stop lever, a spring connecting the latch and brake levers, a lever pivoted to the stop lever, an eccentric secured thereto, and co-acting stops secured to the stop lever and lever pivoted thereon.

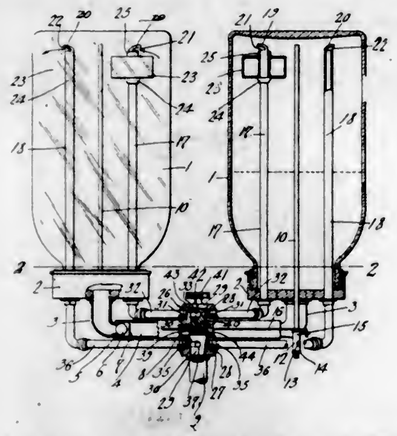
9. A stop mechanism for electrically driven talking machines utilizing the movement of the recorder thereof, comprising a unitary brake and switch arm adapted to be shifted into release position by movement of the recorder arm to initial playing position, a latch lever to hold said brake arm in released position, a stop lever adapted for movement by said recorder arm upon its movement into position at the completion of the playing of the record, and means operated by said stop lever to release said latch lever to release said brake arm to break the electric circuit and brake the driving means of the machine to bring the same to rest.

[Claims 2 to 4 and 6 to 8 not printed in the Gazette.]

1,244,552. OVERFLOW JAR OR TRAP. FREDERICK LYNN SHELOR, Salem, Va., assignor to International Filler Corporation, Richmond, Va., a Corporation. Filed May 5, 1916. Serial No. 95,728. (Cl. 103—52.)

1. A device of the character described embodying a vessel, inflow and outflow tubes projecting within the vessel and having their inner ends terminating above the liquid level and provided with inflow and outflow portions directed away from one another, means for draining the liquid from the vessel and operable by suction in the vessel for preventing the draining of the liquid therefrom unless the suction is relieved, and means for relieving the suction in the vessel and admitting air thereinto.

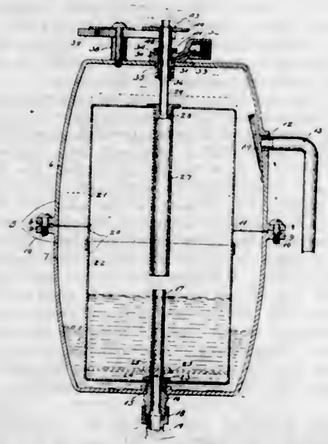
7. A device of the character described comprising a pair of vessels having lower closures, an inflow and an outflow tube projecting upwardly from each closure, a pair of pipes, valves between said pipes and tubes and operable to establish communication alternately between said pipes and the tubes of the two vessels, air vent tubes projecting upwardly from said closures, valves upon the lower portions of said air vent tubes and operatively connected with the aforesaid valves to be alternately opened and closed, drain outlet members connected to said closures and having valve seats, and valves seatable against said seats toward the respective vessels.



10. A device of the character described, comprising a pair of vessels, each having an air and liquid inlet and an air outlet, a pipe to communicate with a filling device and communicating with the inlets of both vessels, draining means for each vessel held closed by suction therein, an air suction pipe to communicate with a pump, means for alternately connecting the air suction pipe with the air outlets of the vessels and for admitting air from the atmosphere to either vessel when its air outlet is out of communication with the air suction pipe, means for preventing the reverse flow from either vessel to the first mentioned pipe when the outlet thereof is out of communication with the air suction pipe, a valve in each vessel for closing the air outlet, and a float in each vessel for closing the respective valve when the liquid level rises a predetermined amount.

[Claims 2 to 6, 8, 9, and 11 not printed in the Gazette.]

1,244,553. FUEL-FEEDING DEVICE. WILFRED SHURTLEFF, Moline, Ill. Filed Nov. 22, 1916. Serial No. 132,791. (Cl. 158—36.)

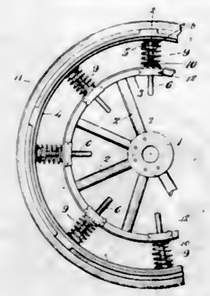


1. In a fuel feed device of the class described, the combination of an outer container having a fuel inlet, a pipe extending upwardly into said container and adapted at its outer end for connection with a carbureter, said pipe having ports, a closed inner container receiving and slidable on said pipe to close and open said ports, said pipe being open to said inner container, a suction outlet and an atmosphere inlet for said outer container, and a valve operated by the shifting of said inner container to control said atmosphere inlet.

7. In a fuel feed device of the class described, the combination of a fuel container having a fuel inlet and a fuel outlet, a float member within the container, valve mechanism operated by the float member to control the connection of said container with said outlet, and magnetic mechanism operable to first resist and then to assist the movements of said float member.

[Claims 2 to 6 and 8 to 14 not printed in the Gazette.]

1,244,554. VEHICLE-WHEEL. COURT SIMONTON and GEORGE WASHINGTON MAPHET, Cincinnati, Ohio. Filed Mar. 29, 1917. Serial No. 158,380. (Cl. 152—8.)

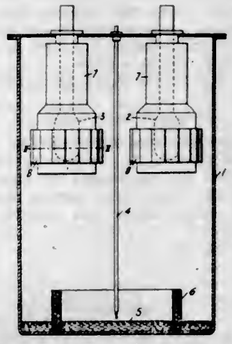


1. In a vehicle wheel, a resilient rim normally substantially circular, but adapted to be flexed into elliptical form, a rigid interior part comprising the hub of the wheel normally concentric with said rim, resilient rods secured to said rim at intervals therearound to normally extend radially inwardly, said interior part having peripheral openings receiving said rods, and springs compressed between said rim and said interior part at intervals therearound, whereby said interior part moves down from its normal relation with said rim partly by compression of some of said springs, partly by yielding of said resilient rods, and partly by flexure of said rim.

2. In a vehicle wheel, a resilient rim normally substantially circular, but adapted to be flexed into elliptical form, a rigid interior part comprising the hub of the wheel normally concentric with said rim, resilient rods, and nuts securing respective ones of said rods to said rim at intervals therearound to normally extend radially inwardly, said interior part having peripheral openings receiving said rods, springs compressed between said rim and said interior part at intervals therearound, whereby said interior part moves down from its normal relation with said rim partly by compression of some of said springs and partly by flexure of said rim, and resilient washers interposed between said nuts and said rim to allow said resilient rods to leave their normal positions partly by bodily movement and partly by flexure.

1,244,555. SHIELDING SYSTEM FOR VAPOR-CONVERTERS. EDMUND F. SIPHER, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 29, 1915. Serial No. 69,176. (Cl. 175—354.)

4. In vapor electric apparatus, the combination with a vaporizable reconstructing cathode, of an elongated main anode mounted with its longitudinal axis substantially normal to the surface of said cathode and provided with an opening in the side thereof, and a plurality of overlapping shutter members of devious cross section disposed across said opening parallel to the longitudinal axis of said anode.

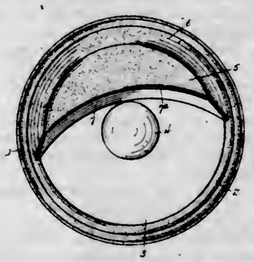


9. A substantially cylindrical shielding member for an electrode of vacuum-type electric apparatus comprising a collar member, a plurality of elemental members extending therefrom and parallel to the longitudinal axis thereof, and a diaphragm supported by said members at the outer end thereof.

10. A substantially cylindrical shielding member for an electrode of vacuum-type electric apparatus comprising a collar member, a plurality of overlapping elemental members of deformed cross section extending therefrom and parallel to the longitudinal axis thereof, and a diaphragm supported by said members at the outer end thereof.

[Claims 1 to 3 and 5 to 8 not printed in the Gazette.]

1,244,556. GLASS FOR HEADLIGHTS. ROBERT L. SLONAKER, Wheeling, W. Va. Filed Aug. 5, 1915. Serial No. 43,733. (Cl. 240—48.4.)



1. A glass face for headlights having its upper portion dished forward to overhang the main body portion thereof and to form an arch-like wall, said body portion being transparent and said dished portion translucent.

8. A glass for headlights having a central light-projecting lens and having the upper portion thereof dished forward to form an arch which overhangs said lens, the lens and the arch being transparent, and that portion of the glass above said arch being translucent.

13. A glass for headlights having a seating rim, a centrally disposed lens, and a portion intermediate said rim and said lens projected forward in advance of the plane of said rim, the lower wall of said projected portion being curved and adapted to transmit light in downward and lateral directions, said projecting portion having a face adapted to transmit light in a forward direction.

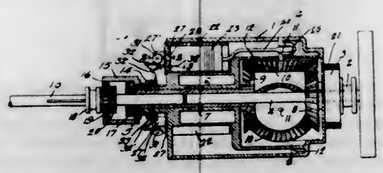
16. A glass for headlights having a seating rim, a centrally disposed lens, and a portion intermediate said rim and said lens projected forward in advance of the plane of said rim, the face of said projecting portion being translucent and adapted to transmit diffused light rays only.

19. A glass for headlights comprising a rim, a transparent central portion in substantially the same plane as said rim, the portion between said rim and said cen-

tral portion being extended forward above said central portion to form a flat surface, a shoulder above said surface and a shoulder below said surface, said surface and first-named shoulder being translucent, and said second-named shoulder being transparent and projecting forwardly beyond said central portion.

Claims 2 to 7, 9 to 12, 14, 15, 17, 18, and 20 not printed in the Gazette.]

1,244,557. TRANSMISSION MECHANISM. CHARLES P. SNYDER, Mount Carmel, Pa., assignor of three hundred and forty-three six-hundredths to Harry A. Bird, Thomas J. Camp, Simon Geist, Morris Bloom, Thomas H. Tiddy, H. Oliver Moser, and Preston A. Vought, Mount Carmel, Pa. Filed Feb. 23, 1917. Serial No. 150,542. (Cl. 74—34.)



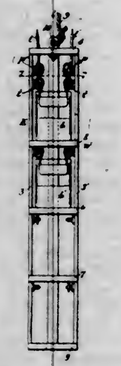
1. A transmission mechanism embodying driving and driven members, a cylinder carried by one of them, a piston connected to the other and working within the cylinder, means for controlling the flow of liquid into and out of the cylinder, and means for admitting air freely into the cylinder when the piston moves in one direction.

3. A transmission mechanism embodying rotatable driving and driven members, a cylinder carried by one of them, a piston connected with the other and working in the cylinder, means for controlling the flow of fluid into and out of the cylinder, and a check valve for admitting air freely into the cylinder when the piston moves in one direction.

5. A transmission mechanism embodying rotatable driving and driven members, a cylinder carried by one of them having a head, a piston connected with the other member and working in the cylinder, said head having an inner shallow recess, a deeper recess at one end of the shallow recess and an opening leading to the deeper recess, a tubular valve seat fitted in said opening and projecting into the deeper recess, a leaf spring secured in the shallow recess and having its free end extending partially across the deeper recess, and a valve carried by the leaf spring seatable against said seat.

[Claims 2, 4, 6, and 7 not printed in the Gazette.]

1,244,558. BATTERY-ELEVATOR. THOMAS GEORGE STILES, Arlington, N. J. Filed Aug. 14, 1914. Serial No. 856,764. (Cl. 204—53.)



1. A battery elevator, embodying a side-piece having at its inner face a longitudinal groove for receiving a conductor, a common conductor for the batteries which conductor is seated in said groove, and a plurality of binding-posts secured to said common conductor at different points in the length thereof and in position for electrical connection with terminals of different batteries carried by said elevator.

2. A battery elevator, embodying a pair of side-pieces each having at its inner face a longitudinal groove for receiving a conductor, a pair of common conductors for the batteries said conductors being seated respectively in said grooves, and a plurality of pairs of binding-posts secured to said common conductors at different points in the lengths thereof and in position for parallel connection in pairs with opposite terminals of different batteries carried by said elevator.

3. A battery elevator, comprising a plurality of shelves, side pieces secured to and extending between the same, common conductors for the batteries embedded in said side pieces and binding posts extending from the conductors above each of the shelves.

[Claim 4 not printed in the Gazette.]

1,244,559. PROTECTIVE HELMET. CLARENCE LA FAYETTE STOCKS, Blue Ridge, Ga. Filed Nov. 28, 1916. Serial No. 133,894. (Cl. 2—117.)

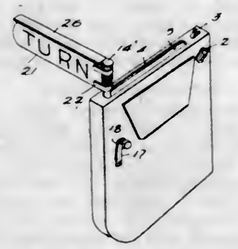


2. A protective helmet comprising inner and outer casings, a rigid head-band spaced from and within and carried by the inner casing, said head-band and said inner casing being formed in sections, and means for adjustably connecting the sections of the inner casing whereby to adjust the said head-band to fit the head of the wearer.

5. A protective helmet comprising inner and outer casings resiliently connected in spaced relation, the inner casing of which is provided with an inner head-band, and the outer casing of which is provided with a lower flaring portion depending below the inner casing and provided with an opening at its forward portion, and laterally sliding closures for closing the said front opening, provided with sight apertures.

[Claims 1, 3, and 4 not printed in the Gazette.]

1,244,560. AUTOMOBILE-SIGNAL. ROSE L. B. STRUBLE, Penn Yan, N. Y. Filed Mar. 12, 1917. Serial No. 154,253. (Cl. 116—31.)



6. A device of the class described comprising a casing having a closed end, said casing having a longitudinally extending notch adjacent its open end, a spring-pressed rod slidably mounted in said casing, a latch to normally hold said rod in the casing, a signal hingedly connected with the upper end of said rod and projecting through the notch in said casing, and spring means to swing the signal when the same is released from the casing by movement of the rod through said open end.

7. A device of the class described comprising a tubular casing having one end closed, said casing having a longitudinally extending notch adjacent its open end, a spring in the closed end of the casing, a rod slidably mounted in said casing, a latch to normally hold the rod therein against the tension of said spring, a signal hingedly connected with the upper end of the rod and extending through the notch in the casing, means to limit the outward movement of said rod when the latch is released, and spring means to swing said signal outwardly at right angles to the notch when the rod is released.

8. A device of the class described comprising a casing having a closed end, said casing having a longitudinally extending notch adjacent its open end, a spring pressed rod slidably mounted in said casing, a latch to normally hold said rod in the casing, a signal hingedly connected with the upper end of said rod and projecting through the notch in said casing, spring means to swing the signal outwardly when released from the casing by movement of the rod through said open end, and means to limit the outward movement of said signal.

[Claims 1 to 5 not printed in the Gazette.]

1,244,561. FLOUR-PRODUCER. GEORGE W. SUMMERTON and CLAYTON C. SUMMERTON, Wabash, Ind. Filed Mar. 26, 1917. Serial No. 157,340. (Cl. 83—50.)



1. A flour producer, comprising a single substantially horizontal cylinder having axially separated inlet and outlet openings, and a rotating element mounted for rotation therein and comprising a plurality of contiguous rotators each of which has an annulus from which a plurality of rearwardly curved wings oblique to the radii and in general parallel to the rotator axis project outward into proximity to the inner surface of said cylinder, the inner surface of said cylinder being provided opposite the wings of the rotator with a plurality of bosses arranged in staggered relation in longitudinal rows.

3. A flour producer, comprising a single substantially horizontal cylinder having axially separated inlet and outlet openings, and a rotating element mounted for rotation therein and comprising a plurality of contiguous rotators each of which has an annulus from which a plurality of rearwardly curved wings oblique to the radii and in general parallel to the rotator axis project outward into proximity to the inner surface of said cylinder, said rotating element having outwardly projecting plates between adjacent rotators for retaining the stock in the pockets formed between the wings of the rotators.

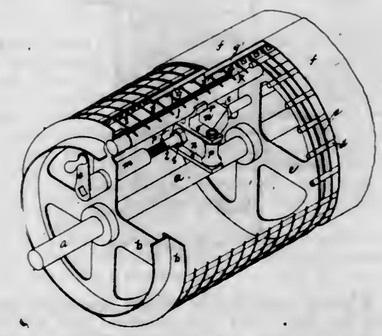
4. A flour producer, comprising a single substantially horizontal cylinder having axially separated inlet and outlet openings, and a rotating element mounted for rotation therein and comprising a plurality of contiguous rotators each of which has an annulus from which a plurality of wings oblique to the radii and in general parallel to the rotator axis project rearwardly outward into proximity to the inner surface of said cylinder, said rotating element having outwardly projecting plates between adjacent rotators for retaining the stock in the pockets formed between the wings of the rotators.

6. A flour producer, comprising a single substantially horizontal cylinder having axially separated inlet and outlet openings, and a rotating element mounted for rotation therein and comprising a plurality of contiguous rotators each of which has an annulus from which a plurality of wings oblique to the radii and in general parallel to the rotator axis project rearwardly outward into proximity to the inner surface of said cylinder, the outer ends of said wings being convex axially of the cylinder, and the cylinder being provided with a plurality of axially concave portions opposite the respective rotators.

7. A flour producer, comprising a substantialy horizontal cylinder, and a rotating element mounted for rotation therein and comprising a shaft and a plurality of rotators mounted on such shaft, each of said rotators having a hub and an annulus spaced from but connected to the hub and a plurality of wings oblique to the radii and in general parallel to the rotator axis and extending outwardly and rearwardly from the annulus into proximity to the inner surface of said cylinder, the hubs of each rotator being in different planes from the annuli and wings thereof so that the hub of one rotator projects within the annulus of another.

[Claims 2, 5, and 8 to 15 not printed in the Gazette.]

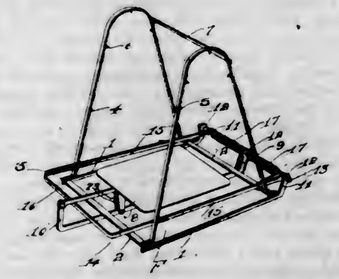
1,244,562. DANDY-ROLL AND OTHER LIKE DEVICES SUCH AS CYLINDER-MOLDS, &c. WALTER KNOWLES TROTMAN, Holyoke, Mass., assignor of one-half to Charles Drury Jacobs, New York, N. Y. Filed June 19, 1915. Serial No. 35,159. (Cl. 92—48.)



1. In a dandy roll or cylinder roll a suitable frame, a cover section reinforced at its edges by having flat metal strips secured thereto, means to engage the edge portions of the cover and drawing the same toward each other by a circumferential movement and means for operating the mechanism for so drawing the edges together whereby the covers are held in place or may be removed at will.

[Claims 2 to 5 not printed in the Gazette.]

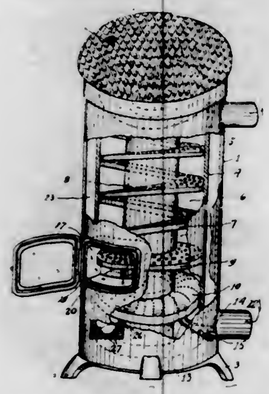
1,244,563. ANIMAL-TRAP. JOHN A. UHLS, Salmons, Ky. Filed May 6, 1916. Serial No. 95,927. (Cl. 43—27.)



In a device of the character described, the combination of a supporting frame including a pair of side and end

bars, U-shaped stationary jaws, the side and end bars and the U-shaped jaws being secured together, a strengthening bar comparatively longer than the side bars, the strengthening bar and the side bars being provided with an upturned end portion, bearings provided in the upturned portions, a shaft mounted in said bearings, the free end of the strengthening bar being upturned, a tripping platform, a pair of spaced arms carried by the platform pivotally mounted on the strengthening bar, a movable U-shaped jaw pivotally connected to the shaft, means associated with the shaft and movable jaw member to normally retain the same in raised position, and means associated with the platform and the free end of the strengthening bar to retain the movable jaw under tension in a lowered position for a purpose specified.

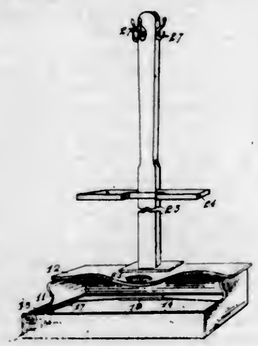
1,244,564. GAS-HEATER. JOHN S. WALKER and SYLVESTER N. WILCOX, Pittsburgh, Pa. Filed Jan. 19, 1916. Serial No. 72,880. (Cl. 126—85.)



1. A heater comprising an upright open-ended shell, a rectangular door casing and cylindrical inlet and outlet flues secured through said shell upon different horizontal planes projecting inwardly of the shell, the said casing being upon substantially the opposite side of the shell from said flues, a hot-air drum axially positioned within said shell and solely supported by the inner terminal ends of said casing and flues, the said drum having a tubular inner wall forming an open longitudinal hot-air passage centrally through the shell, and a heating burner within the drum above said inlet flue and below the level of said door casing and accessible through the latter.

2. A heater comprising an open-ended outer shell, a perforated hot-air outlet member for the upper end of the shell, a lower inlet and an upper outlet flue, a door casing arranged in an intermediate plane with respect to said flues, said casing and flues being secured through said shell and projecting inwardly thereof, a cylindrical hot-air member axially supported within said shell and fixed upon the inner ends of said casing and flues through which cylindrical member the same extend communicating with the interior thereof, a tubular member axially arranged within said cylindrical member and connected therewith at the top and bottom thereof, forming an annular heating chamber, an annular burner within said heating chamber below the level of said casing, an annular perforated radiating plate above said burner in parallelism therewith lying substantially in the same horizontal plane as the said casing adapted for separating the ascending gases, and a perforated heat retarding and retaining member spirally positioned within said casing intermediate said plate and outlet flue whereby a portion of the ascending gases pass vertically therethrough and a portion thereof pass helically toward the said outlet flue.

1,244,565. HALL-STAND. JOHN EMIL WEDBURG, Jamestown, N. Y. Filed Jan. 4, 1917. Serial No. 140,513. (Cl. 45—33.)



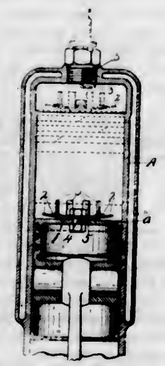
1. A receptacle for rubbers including a box having a front wall which is closed at its lower part and a rear wall which has an opening at its lower part and in a plane below the plane of the top of said closed lower part, an inclined rubber receiving tray extending from the upper portion of the lower part of the front wall downwardly to points above the opening of the rear wall, said tray having a drainage opening at its rear, and a drainage receptacle movable into and out of said opening of the rear wall and from the rear of the latter.

3. In a hall stand, an inclined rubber receiving tray, a drip cup above the tray to receive the umbrellas, means to convey the drippings from the cup to the rear of the tray, and a receptacle associated with the tray to receive the drippings therefrom.

7. In a hall stand, a box, an inclined fray in the box having a drainage opening, a platform above the box having its front edge spaced from the rear of the box front, the front wall of the box having a rearwardly extending ledge projecting out therefrom, and a rubber receiving tray below said ledge and platform so as to enable the tray and platform to conjointly form a rubber receiving receptacle and to allow the under side of the platform to serve as an abutment on removal of the rubbers, said platform and ledge being substantially parallel to enable the rubber toe and heel respectively to be engaged therewith at any point throughout their lengths.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,244,566. INTERNAL-COMBUSTION ENGINE. GEORGE W. WHITE, Syracuse, N. Y. Filed Feb. 27, 1917. Serial No. 151,245. (Cl. 123—30.)



In an internal combustion engine, the combination of a cylinder, a piston movable therein, a plate secured to the head of the piston and provided with a set of radially extending fins and another set of axially extending fins alternating with the radial fins.

1,244,567. ARTIFICIAL LEATHER AND METHOD OF MANUFACTURING THE SAME. ALBERT H. WHITMORE, Brooklyn, N. Y., assignor to Titus Blatter & Company, New York, N. Y., a Corporation of New York. Filed July 7, 1917. Serial No. 179,230. (Cl. 91—68.)

1. A fabric impregnated with a composition containing castor oil, palm oil and nitro-cellulose.

7. The process which consists in impregnating by dipping a cross threaded woven fabric into a composition containing palm oil and castor oil, then coating the fabric with pure nitro-cellulose, then perforating the fabric and finally embossing the fabric to conceal the perforations.

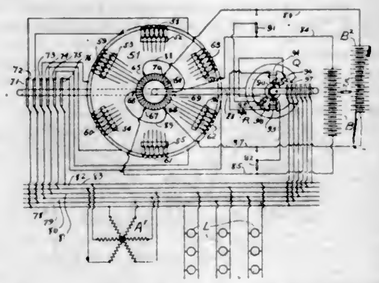
[Claims 2 to 6 not printed in the Gazette.]

1,244,568. FASTENER FOR SPLIT STEEL LUBRICATING AND OTHER RINGS. GEORGE HENRY WOOD, Oldham, England. Filed Feb. 16, 1917. Serial No. 149,106. (Cl. 64—31.)



A lubricating ring consisting of two hinged members provided with fastening means at their free ends, said means comprising a backwardly extending slot in one of the members terminating in an inwardly sloping bevel, and a pin extending across said slot, a tongue on the other hinged member having a beveled forward edge provided with a groove to receive said pin, said tongue being of a length and width corresponding to said slot in the other member, and the abutting edges of the free ends of both of said members being cut radially from the center of the ring.

1,244,569. MEANS FOR INTERCONVERTING ALTERNATING AND DIRECT CURRENTS. JOSEPH LESTER WOODBRIDGE, Philadelphia, Pa. Filed July 16, 1915. Serial No. 40,190. (Cl. 171—123.)



1. In apparatus of the type described for interconverting alternating and direct currents, the combination of a plurality of closed magnetic circuits, a group of conducting coils embracing each of said circuits, said groups connected in series to form a continuous closed circuit winding, a commutator connected to said winding, brushes bearing upon and spaced apart around said commutator at contact points equal in number to the number of coil groups, short circuiting connections interconnecting some of said brushes, alternating current taps to said winding, one for each coil group, and means for producing relative rotation of commutator and brushes.

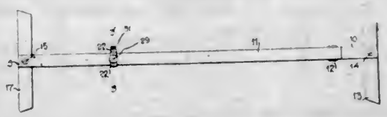
2. In apparatus of the type described for interconverting alternating and direct currents, the combination of winding sections, a closed magnetic circuit and an alternating current tap for each section, a commutator connected to the sections and direct current brushes equal in number to the taps and equally spaced around the commutator.

4. In apparatus for interconverting alternating and direct currents, the combination of a converter devoid of motor function and a motor devoid of converter function for driving the converter, said motor drivable from both the alternating and direct current source simultaneously.

5. In apparatus of the type described the combination of groups of coils, closed magnetic circuits one of which passes through all the coils of each of the respective groups, a commutator connected to the coils, and alternating current taps and direct current brushes equal in number to the number of groups and symmetrically spaced.

[Claims 3 and 6 not printed in the Gazette.]

1,244,570. MEASURING INSTRUMENT. PERRY C. WOODS, Washington, Iowa, assignor of three-fourths to Harry H. Welsh, Washington, Iowa. Filed Oct. 9, 1916. Serial No. 124,600. (Cl. 33—194.)

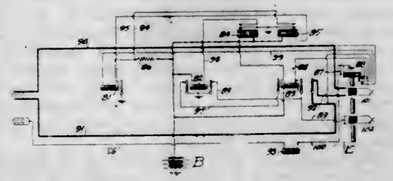


3. An implement of the character described including a pair of sections having longitudinal sliding engagement with each other, a slide mounted on said sections, and comprising end members, upper and lower transverse cross bars and an intermediate cross bar separating said sections from each other, a set screw passing through one of said cross bars and operatively engaging with the adjacent section, and a set screw passing through one of the end members and operatively engaging with the side edge of the other section, said section having a stop with which the slide is adapted to engage.

4. An implement of the character described comprising two longitudinally extended sections constituting measuring bars, one of said sections having a yoke at one extremity through which yoke the other section passes whereby the sections may have sliding engagement with relation to each other, said sections confronting and lying upon each other, angularly adjustable blades mounted upon the outer extremities of the sections, and a slide embracing both of said sections and slidable with relation to both of said sections, said slide having independent means whereby it may be locked in engagement with each of said sections, and one of the sections having a stop at its inner end with which the slide is adapted to engage.

[Claims 1 and 2 not printed in the Gazette.]

1,244,571. TELEPHONE-EXCHANGE SYSTEM. JOSEPH L. WRIGHT, Washington, D. C., assignor, by mesne assignments, to James R. Garfield, trustee, Cleveland, Ohio. Filed Feb. 26, 1912. Serial No. 680,015. (Cl. 179—27.)



1. In a telephone system, the combination with a switching mechanism, of a magnet for operating the mechanism, a relay associated with and for operating said magnet, a resistance connected with the winding of the

relay, means for energizing said relay and means controlled by said magnet for short circuiting the winding of said relay.

2. In a telephone system, the combination with a switching mechanism, of a magnet for operating said mechanism, a relay associated with and for operating said magnet, a resistance connected in series with the winding of the relay, means for energizing the relay to operate said magnet, and means operable by said magnet to short circuit the winding of the relay.

3. In a telephone system, the combination with a switching mechanism, of a magnet for operating said mechanism, a relay associated with said magnet; a resistance connected in series with the winding of the relay, means for intermittently energizing the relay to operate said magnet, and means operable by the magnet to intermittently short circuit the winding of the relay.

52. In a telephone exchange system, a plurality of trunks, automatic switches for extending said trunks to the lines of called subscribers, operator controlled means external to said trunks for connecting them with the lines of calling subscribers, manually actuated means for directively controlling the operation of said switches, and automatic means for connecting said manually actuated means with said trunks.

53. In a telephone exchange system, a plurality of trunks, automatic switches for extending said trunks to the lines of called subscribers, operator controlled means external to said trunks for connecting them with the lines of calling subscribers, manually actuated means for directively controlling the operation of said switches, and a signal controlled by a called subscriber associated with said operator controlled means.

[Claims 4 to 51 and 54 to 60 not printed in the Gazette.]

1,244,572. COMBINED TYPE-WRITING AND COMPUTING MACHINE. WALTER WRIGHT, New York, N. Y., assignor to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Filed Sept. 13, 1911, Serial No. 649,163. Renewed Aug. 4, 1917. Serial No. 184,544. (Cl. 235—59.)



1. The combination with a typewriter carriage, of a long primary totalizer, a supplementary short totalizer, said primary totalizer having an element traveling with said carriage to determine the individual activity of the computing wheels thereof to correspond to the active printing point of said carriage, said supplementary totalizer also having a traveling element to determine the individual activity of the computing wheels thereof, and means controlled directly from said carriage for determining which of the computing wheels of said supplementary totalizer will be concomitantly active with the various wheels of said primary totalizer.

2. The combination with a carriage, of a computing mechanism comprising a totalizer movable with said carriage, a second computing mechanism comprising a totalizer, connections between said carriage and said second computing mechanism for moving certain parts of said second computing mechanism from said carriage, and connections between said computing mechanisms, whereby the totalizer of one of said computing mechanisms may move other parts of the other of said computing mechanisms.

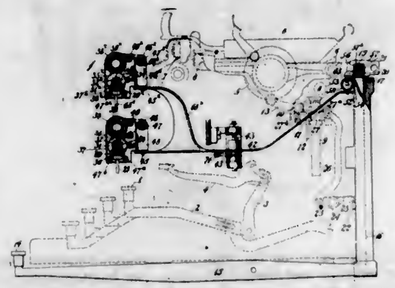
3. The combination with a carriage, of a computing mechanism comprising a totalizer movable with said carriage, a second computing mechanism comprising a totalizer, connections between said carriage and said second computing mechanism for moving certain parts of said second computing mechanism from said carriage, and connections between said computing mechanisms, whereby said carriage may operate certain parts of said second computing mechanism, through the intermediary of the totalizer of said first-mentioned computing mechanism.

4. The combination with a carriage, of a computing mechanism, connections between said carriage and said computing mechanism comprising a lever pivoted between its ends, whereby said carriage may manipulate said computing mechanism during letter-spacing movement of said carriage, and disconnected therefrom during the return movement, and connections independent of said lever between said carriage and said computing mechanism, whereby said carriage may manipulate said computing mechanism during its return movement, the manipulation of said computing mechanism through said second-mentioned connections, acting to cause said lever to recover accurate control of said computing mechanism after the termination of one major letter-feeding movement and at the beginning of a second major letter-feeding movement.

5. The combination with a carriage, of a computing mechanism for cross computing a plurality of numbers in a line, connections including a lever pivoted between its ends between said carriage and said cross computing mechanism for manipulating certain portions of said computing mechanism step-by-step during the letter-feeding movement of said carriage, said connections including means for resetting said computing mechanism for each number, said lever losing control of said cross computing mechanism during the return movement of said carriage, and means operating to recover for said lever accurate control of said computing mechanism for the intial number in each line.

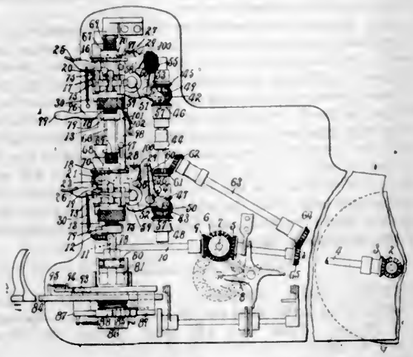
[Claims 6 to 47 not printed in the Gazette.]

1,244,573. COMBINED TYPE-WRITING AND COMPUTING MACHINE. WALTER WRIGHT, New York, N. Y., assignor to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Filed June 3, 1911. Serial No. 631,115. (Cl. 235—59.)



In a combined typewriting and computing machine, the combination with two master members, mounted one above another, computing members controlled by said master members, and a typewriter carriage, of means for moving said master members accurately in unison, comprising a rigid guide-lever pivoted intermediate its ends and connected at one end to said carriage, said master members being connected to the other end of said lever; said other end having rigid forks, one fork extending above the other, the upper master member being connected to the upper fork and the lower master member to the lower fork.

1,244,574. COMPUTING-HEAD-SETTING MECHANISM. WALTER WRIGHT, New York, N. Y., assignor to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Filed Nov. 2, 1911. Serial No. 658,119. (Cl. 235—59.)



1. The combination with a computing head capable of adding and subtracting, of a controlling mechanism for selecting the character of work carried on by said computing head, said controlling mechanism including a tappet having both a positioning movement and an actuating movement to control said computing head, and a device for imparting to said tappet both movements.

2. The combination with a computing head capable of adding and subtracting, of controlling mechanism for selecting the character of work to be carried on by said computing head, said controlling mechanism including a plurality of tappets having both a positioning movement and an actuating movement to control said computing head, said actuating movement being uniform for all of said tappets, and the tappets having different effective magnitudes whereby to differently control said computing head on said uniform actuating movement, and a device for imparting to said tappets both movements.

3. The combination with a computing head capable of adding and subtracting, of a controlling mechanism for selecting the work carried on by said computing head, said controlling means including a plurality of tappets having a positioning movement and also an actuating movement to control said computing head, said tappets being interchangeable with each other, and so formed that their effect is different on said actuating movement in one position of adjustment from what it is in another position.

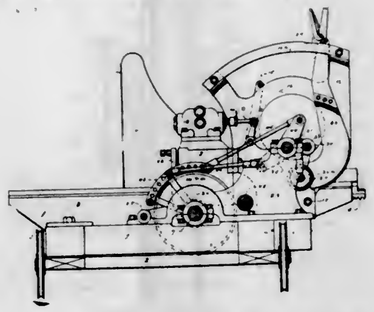
4. The combination with a computing head capable of adding and subtracting, of a controlling mechanism for selecting the work carried on by said computing head, said controlling mechanism including a plurality of tappets, means for giving said tappets movement to successively position one tappet at a time, said means also acting to give all of said tappets an actuating movement whereby said positioned tappet will actuate said controlling mechanism for selecting the work to be carried on by said computing head.

5. The combination with a computing head capable of adding and subtracting, of a controlling mechanism for selecting the work carried on by said computing head, said controlling mechanism including a tappet having a positioning movement and also an actuating movement to control said computing head, said tappet being reversible so that on said actuating movement the effect of said tappet is greater in one position than in the other position.

[Claims 6 to 71 not printed in the Gazette.]

1,244,575. SAWMILL LOG-SETTING DEVICE. WILLIAM H. APPLEMAN, Olean, N. Y. Filed Apr. 30, 1915. Serial No. 25,077. (Cl. 143—118.)

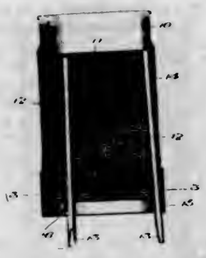
1. A machine element adjusting mechanism comprising an intermittent grip device having a back and forth motion, a constant throw fluid pressure, cylinder and piston motor, having the usual unrestricted inlet passages, and having exhaust passages constantly restricted sufficiently to materially reduce the piston speed below that which the fluid pressure would otherwise impart to it, and which are still further gradually restricted by the advance of the piston toward the end of the stroke, in combination with means for transmitting the constant throw of the piston to the intermittent grip device, which means is adjustable to predeterminedly vary the range of movement imparted thereby to said intermittent grip device.



4. A machine element adjusting mechanism comprising an intermittent grip device having a back and forth motion, a rocker shaft which constitutes the immediate member for actuating said mechanism, a crank having an arm secured to said shaft for actuating it and said mechanism, a constant throw, fluid pressure, cylinder and piston motor, a piston rod extending outward from the piston of said motor, an adjustable setting lever having a pivotal support, the axis of which, is substantially in front of, and in line with said piston rod, a connecting rod leading from said piston rod and presenting its outer bearing in line with the axis of said setting lever, a member forming a direct connection between said crank and the outer end of said connecting rod, and means secured directly to said setting lever which causes the outer bearing of said connecting rod to describe an arc of a circle which, while of fixed and constant dimensions, is subject to such changes in its position as to vary and predetermine the movement of said setting mechanism, irrespective of the constant throw of the piston of said motor.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,244,576. COMBINED PROTECTOR AND IRRIGATOR FOR PLANTS. JOHN P. ARNOLD, Berclair, Tex. Filed June 14, 1917. Serial No. 174,747. (Cl. 47—22.)



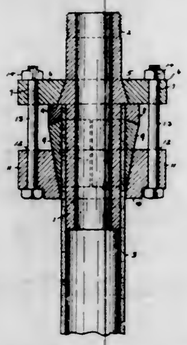
1. A plant protector including a perforate body, to incase a plant, equipped with a superposed receptacle, and means to carry the contents of said receptacle to a point below said body.

3. In a plant protector, the combination of a vertical frame structure adapted to be placed about a plant, a covering for the frame structure to protect the plant, and a receptacle arranged upon the upper end of the frame

structure to form a top therefor, said frame structure having passages therein leading downwardly from the receptacle.

[Claims 2, 4, and 5 not printed in the Gazette.]

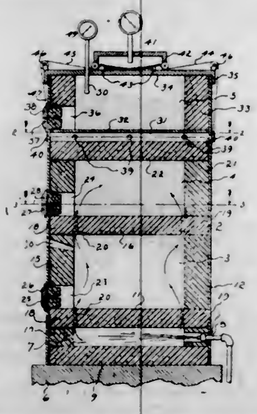
1,244,577. HOSE-CLAMP. CLARENCE D. BENNETT, Goose Creek, Tex. Filed Mar. 1, 1917. Serial No. 151,640. (Cl. 137—28.)



1. In a device of the character described, the combination with a nipple having an annular shoulder, of a hose fitted over one end of the nipple, a ring fitted over the nipple and resting against one side of said shoulder, a ring fitted around the hose end and resting against the opposite side of said shoulder, slips arcuate in cross section, fitted around the hose and supported upon said last mentioned ring, a clamp member fitted around and clamping said slips and means connecting the first mentioned ring and clamp member.

2. In a device of the character described, the combination with a nipple having an annular shoulder, of a hose fitted over one end of the nipple, a ring fitted over the nipple and resting against one side of said shoulder, slips arcuate in cross section fitted around the hose, a seat provided to receive the adjacent ends of said slips, a clamp member fitted around and clamping said slips and means connecting said ring and clamp member.

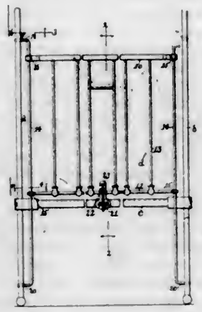
1,244,578. STEEL-HEATING FURNACE. WILLIAM R. BENNETT, Elmwood, Conn. Filed Aug. 16, 1917. Serial No. 186,498. (Cl. 263—36.)



1. A furnace for treating steel pieces, comprising three superposed heating chambers, a combustion compartment positioned immediately below the lowest chamber, passages disposed uniformly in or near the periphery of the floors of the two lowest chambers, to provide communication for the products of combustion through the two lowest chambers, the uppermost chamber being out of communication with the products of combustion and being heated by the heat of the chamber below.

2. A furnace for treating steel pieces, comprising three superposed heating chambers, a combustion compartment positioned immediately below the lowest chamber, passages disposed uniformly in or near the periphery of the floors of the lowermost chambers, to provide communication for the products of combustion through the two lowest chambers, said uppermost chamber being out of communication with the products of combustion being heated by the heat of the chamber below, the furnace having an air space below the floor of the uppermost chamber and said chamber having means for the admission of air at given intervals to reduce or hold at a given degree the temperature of the uppermost chamber.

1,244,579. CRIB. ARTHUR F. BENT, Swampscott, Mass., assignor to G. W. Bent Co., Boston, Mass., a Corporation of Maine. Filed Dec. 17, 1915. Serial No. 67,312. (Cl. 5—58.)



1. In a metallic crib, in combination, head and foot frames and an interposed mattress-supporting frame, guide rods attached to said head and foot frames, a side frame bodily movable on said guide rods to engage and disengage the side frame with and from said head and foot frames, means attached to said mattress-supporting frame for supporting the side frame in its operative position, and means attached to the mattress-supporting frame to cause the side frame to be moved laterally in order to be engaged with said supporting means and to prevent removal of said side frame from said guide rods by direct upward movement of said side frame.

2. In a metallic crib, in combination, head and foot frames and an interposed mattress-supporting frame, guide rods attached to said head and foot frames, a side frame bodily movable on said guide rods to engage and disengage the side frame with and from said head and foot frames, and a bracket attached to said mattress-supporting frame and provided with arms separated to form a slot and the upper of which arms overhangs the lower.

1,244,580. PRODUCING AMMONIA. CARL BOSCH and ALWIN MITTASCH, Ludwigshafen-on-the-Rhine, Germany, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Aug. 16, 1912. Serial No. 715,332. (Cl. 23—21.)

1. The process of producing ammonia by freeing a mixture containing nitrogen and hydrogen from water and compounds capable of giving rise to water, and then passing the gas mixture over a catalytic agent containing a metal of the iron group, at a temperature not exceeding about 600° C.

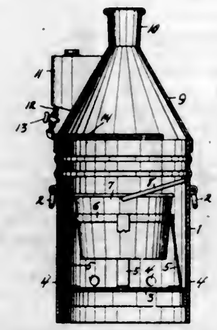
2. The process of producing ammonia by freeing a mixture containing nitrogen and hydrogen from water and compounds capable of giving rise to water, and then passing the gas mixture over a catalytic agent containing iron, at a temperature not exceeding about 600° C.

4. The process of producing ammonia by freeing a mixture containing nitrogen and hydrogen from water and compounds capable of giving rise to water and then passing the gas mixture over iron at a temperature not exceeding about 600° C.

5. The process of producing ammonia by passing a mixture of nitrogen and hydrogen successively over heated palladium-asbestos, quicklime and at a temperature not exceeding about 600° C. a catalytic agent containing iron.

[Claim 3 not printed in the Gazette.]

1,244,581. FUMIGATING APPARATUS. CHARLES F. BRADY and JOHN J. DISSER, Fort Wayne, Ind. Filed Mar. 20, 1916, Serial No. 85,292. Renewed Aug. 18, 1917. Serial No. 186,932. (Cl. 167—3.)



1. In apparatus of the class described, a casing having vent openings in its lower portion, a spider within the casing, a removable fire-pot supported by the spider, a bonnet removably mounted upon the top of the casing, a reservoir, and a perforated pipe having connection with the reservoir and extending into the inclosure formed by the bonnet and the casing directly over the fire-pot, said bonnet having an open stack leading therefrom.

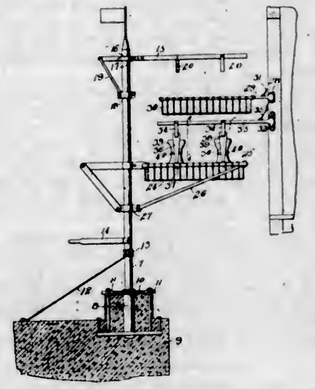
2. In apparatus of the class described, a casing having vent openings in the lower portion thereof, a fire-pot suitably supported within the casing, a reservoir, a perforated pipe having connection extending over the fire-pot and adapted for the discharge of fluid therefrom directly into said fire-pot.

3. In apparatus of the class described, a casing having vent openings in the lower portion thereof, a removable fire-pot adapted to be placed within the casing, a bonnet having an open stack projected therefrom and adapted to fit over the top of the casing, a reservoir attached to the bonnet upon the exterior thereof, and a perforated pipe having connection with the reservoir and extending within the bonnet directly over the fire-pot.

1,244,582. MAIL CATCHING AND DELIVERING DEVICE. VANDIE D. CALDWELL, Natchitoches, La. Filed May 22, 1916. Serial No. 99,190. (Cl. 258—23.)

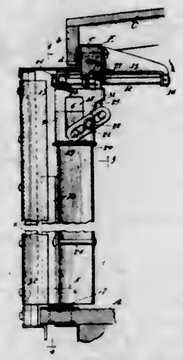
1 In a device of the class described, a support, a grip member on said support, rearwardly extending spaced jaws on said grip member, a pouch carrying member comprising a bar having an opening in one end for engagement between said jaws; and the thicknesses of said bar being substantially equal to the distance between said jaws, substantially as described.

2. In a device of the class described, a post, a pair of spaced collars on said post, a rod connecting said collars, means for adjusting said collars upon said post, a basket projecting outwardly from one of said collars, and braces



connecting the extremity of said basket with the other of said collars, substantially as described.

1,244,583. DOOR-POST FOR CARS. FRED C. CAMERON, Chicago, Ill., and JOHN MCMULLEN, Buffalo, N. Y., assignors to Union Metal Products Company, Chicago, Ill., a Corporation of Delaware. Filed Apr. 3, 1916. Serial No. 88,690. (Cl. 20—22.)



1. A car having an enlarged doorway, and doors therefor, in combination with a vertical post the heel of which is adapted to be secured to the sill of said doorway, a sleeve pivoted at its upper end adjacent the top of said doorway in which the upper end of said post is reciprocable; said post being adapted to be raised vertically out of said recess and swung on the pivot of said sleeve into a horizontal position, and means for retaining it in a horizontal position.

4. A car having an enlarged doorway, and doors therefor, in combination with a vertical post the heel of which is adapted to be secured to the sill of said doorway, a sleeve pivoted at its upper end adjacent the top of said doorway in which the upper end of said post is reciprocable; said post being adapted to be raised vertically out of said recess and swung on the pivot of said sleeve into a horizontal position, an automatically reciprocable bolt slidably mounted on said sleeve and adapted to be shot downward when said post is moved vertically upward and shot upward when said post is reciprocated downward, and means for retaining it in a horizontal position.

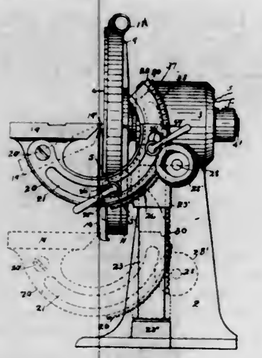
5. A car having an enlarged doorway, and doors therefor, in combination with a vertically reciprocable post the

heel of which is adapted to engage a recess in the sill of said doorway, a pendent sleeve in which the upper end of said post has telescopic movement, a transverse shaft upon which said sleeve is pivotally mounted and movable thereon toward the center of the car, a vertically reciprocable bolt, and means actuated by said post for shooting said bolt downward when it is reciprocated upward, and vice versa.

7. A car having an enlarged door opening, and doors therefor, in combination with a vertically reciprocable door post the heel of which is adapted to engage a recess in the sill of said doorway, a pendent sleeve in which the upper end of said post has telescopic movement, a transverse shaft on which said sleeve is pivotally mounted, a transverse bracket secured above said doorway in downwardly projecting end lugs of which said shaft is secured, a lug projecting downward therefrom mediate said end lugs, a longitudinally reciprocable bolt carried by said sleeve and adapted when said post is moved vertically downward to engage said medially placed lug and when said post is moved vertically downward to withdraw from engagement therewith.

[Claims 2, 3, and 6 not printed in the Gazette.]

1,244,584. DISK GRINDER. RAY L. CARTER, Syracuse, N. Y., assignor of one-half to Louis O. Buchholz, Syracuse, N. Y. Filed Aug. 21, 1916. Serial No. 115,936. (Cl. 51—13.)



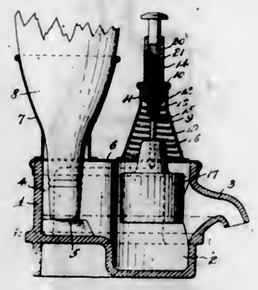
1. The combination with a support, of a grinding wheel carried thereby, a guard covering a portion of the surface of the wheel and having a suction mouth, an adjustable work-table extending across said wheel and having its inner end arranged at approximately the mouth of the guard, and near the surface of the grinding wheel, the inner end of the table and the mouth of the guard being formed to permit a substantial adjustment of the table in a circle independently of the guard, yet maintaining the inner end thereof in close proximity to the mouth of the guard, and suction creating means for collecting the dust entering the guard, and resulting from the grinding, substantially as described.

2. The combination with a support, of a grinding wheel carried thereby, a fan, a casing surrounding the fan, a guard extending across the surface of the grinding wheel, and having an inlet mouth, a work table disposed, across the grinding wheel and having its inner end terminating at approximately the mouth of the guard, the inner end of the table and the mouth of the guard being beveled to permit an angular adjustment of the table relative to the grinding wheel, yet maintaining the end thereof adjacent of the mouth of the guard, and means for rotating the fan for creating an air current to discharge the dust entering the guard and resulting from the grinding of the work supported on the table.

3. The combination with a support, of a grinding element carried thereby having a broad grinding face, a guard extending across said face, and covering the lower portion thereof and having an inlet mouth terminating in close proximity to the surface of the grinding element, a work table disposed parallel with the guard and having its inner edge arranged adjacent the mouth of the guard, means for rotating the grinding element and suction creating means for collecting dust resulting from the grinding operation.

4. The combination with a support, of a grinding wheel having a broad grinding face, a guard extending across said face and covering the lower portion thereof and having an inlet mouth, a work table disposed parallel with the guard having its inner edge terminating in close proximity to the mouth of the guard, the inner edge of the work table and the upper edge of the guard being fashioned to permit a swinging movement of the table relative to the guard, yet maintaining the same in close relation thereto, and means for rotating the grinding wheel.

1,244,585. DISPENSING DEVICE. FRANCIS M. CASE, Cleveland, Ohio, assignor to The Russ Company, Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 16, 1915. Serial No. 45,706. (Cl. 221—103.)



1. In a dispensing apparatus, a casing having an outlet, a cover therefor, a bottle support carried by the cover and adapted to support a bottle in inverted position with its mouth at a level below said outlet, and displacement mechanism mounted in the cover and comprising an adjusting sleeve slidably mounted therein, a displacement member, a shank carried thereby and threaded into the adjusting sleeve, a push rod extending into the adjusting sleeve and threaded onto the threaded shank of the displacement member, and a hand piece carried by said push rod.

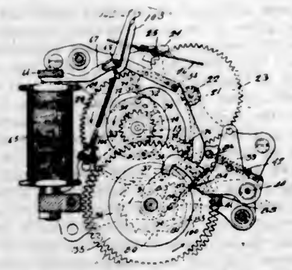
2. Liquid dispensing apparatus, comprising a hollow casing open at its top and provided with a side outlet, a cover for the top of said casing having means for supporting an inverted bottle with its mouth at a level below said outlet, and a vertically movable displacement device supported in said casing by said cover and operable from the outside thereof, said device being adapted when depressed to cause liquid to overflow through said outlet.

3. Liquid dispensing apparatus, comprising a hollow casing open at its top and provided with a side outlet, a cover for the top of said casing having means for supporting an inverted bottle with its mouth at a level below said outlet, a vertically movable displacement device supported in said casing by said cover and operable from the outside thereof, said device being adapted when depressed to cause liquid to overflow through said outlet, and means for adjusting said displacement device vertically relative to said cover and vary the amount of liquid displaced by a given stroke.

1,244,586. BREAKFAST FOOD. GRACE COCKRELL, Niagara Falls, N. Y. Filed Feb. 23, 1917. Serial No. 150,627. (Cl. 99—11.)

A cereal food consisting of about twelve parts bran, three parts corn meal, three parts wheat, and two parts oats.

1,244,587. SUCCESSIVE NON-INTERFERENCE SIGNAL-BOX. FREDERICK W. COLE, Newton Highlands, Mass., assignor to Gamewell Fire Alarm Telegraph Company, New York, N. Y., a Corporation of New York. Filed Nov. 2, 1915. Serial No. 59,320. (Cl. 177—361.)



1. In a signal-box, the combination of a signaling-train, stopping-means adapted to be operated by the train to stop the train at the end of a predetermined number of rounds, means to connect said stopping-means with and disconnect it from the train, and a non-interference magnet having a box-controller associated with it arranged to control said connecting-means.

17. In a signal-box, the combination of a signaling-train, stopping-means therefor, signal delaying-means associated with the train including a non-interference magnet, and a round counting-device adapted to be operated by the train and to be restored by the stopping-means.

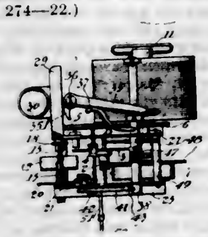
24. In a signal-box, the combination of a signaling-train, signal delaying-means associated with the train including a non-interference magnet, a round counting-device adapted to be operated by the train to move the signal delaying-means into position to be subsequently restored to normal, so that a delayed signal may not be sent.

32. In a signal-box, the combination of a signaling-train, stopping-means therefor, signal delaying-means associated with the train including a non-interference magnet, a round counting-device adapted to be operated by the train and to move the delaying-means to control the operation of the stopping-means, said counting-device being subsequently restored by the stopping-means.

41. In a signal-box, a signaling-train having a main spring and a winding-shaft to which one end of said spring is connected, a toothed gear secured to the winding-shaft having a laterally extended pin, a pinion engaged by said gear, and a stopping-member arranged to rotate with said pinion having a projection which repeatedly enters the orbital path of the pin as the gear rotates and after several revolutions thereof engages the pin.

[Claims 2 to 16, 18 to 23, 25 to 31, 33 to 40, and 42 not printed in the Gazette.]

1,244,588. PHONOGRAPH. LEWIS COLE, Chicago, Ill., assignor to Talk-Sing Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 1, 1916. Serial No. 118,025. (Cl. 274—22.)



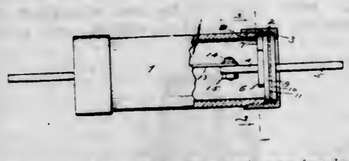
1. A phonograph, comprising a diaphragm, a record support, means for driving said record support, a pivoted stylus carrying arm of spring material and adapted to resiliently bear toward said record support, a lever pivoted on the end of said arm, having a stylus mounted on one end thereof, and a connection between the opposite end of said lever and the center of said diaphragm.

2. A phonograph, comprising a diaphragm, a record support, means for driving said record support, a pivoted stylus carrying arm of spring material and adapted to resiliently bear toward said record support, a lever pivoted on the end of said arm, having a stylus mounted on one end thereof, a connection between the opposite end of said lever and the center of said diaphragm, and means operated by said driving means for disengaging the sylus from a record against the resilient action of the stylus carrying arm and returning the latter to its normal position.

4. A phonograph, comprising a record support, a driving mechanism therefor, a rotating governor for controlling the speed of said driving mechanism, a spring arm adapted to resiliently engage said governor, and a cam member operated by said driving mechanism and shaped to force said spring arm into engagement with said governor for the purpose of stopping the action of said driving mechanism.

[Claim 3 not printed in the Gazette.]

1,244,589. INCLOSED ELECTRIC FUSE. ROBERT C. COLE, Hartford, Conn., assignor to The Johns-Pratt Company, Hartford, Conn., a Corporation of Connecticut. Filed Apr. 3, 1917. Serial No. 159,422. (Cl. 175—273.)



1. An inclosed renewable fuse having an insulating casing, a conducting blade with an interior link terminal and an exterior contact terminal at each end of the casing, a stirrup having an area that is less than the cross sectional area of the interior of the casing permanently fastened to each blade between said terminals, said stirrup having on one side a projecting lug adapted to rest against the end of the casing, a washer with a perforation whereby it is slipped longitudinally on each blade outside of each end of the casing, and a ferrule screwed on each end of the casing for holding said washers and lugs in position.

3. An inclosed renewable fuse having an insulating casing, a conducting blade with an interior link terminal and an exterior contact terminal at each end of the casing, a plate permanently fastened to each blade between said terminals, said plate on one side only extending to the outer diameter of the casing, a washer slipped longitudinally on each blade outside of each end of the casing, and a ferrule screwed on each end of the casing and clamping the projecting parts of the plates between the washers and the ends of the casing.

[Claim 2 not printed in the Gazette.]

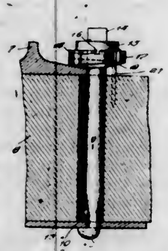
1,244,590. RAIL-FASTENER. CHARLES H. CORNELL, Valentine, Nebr. Filed Mar. 23, 1917. Serial No. 156,805. (Cl. 238—4.)

1. In a rail fastener, the combination of a bolt having a projecting flange, a separately formed cam member, and means for fastening the cam member to the flange.

3. In a rail fastener, the combination of a bolt having an outwardly extending head portion, a separately formed cam member fitting over said bolt, and interlocking means for causing the cam member to turn with the head portion.

4. The combination with a fastening bolt for a rail, having an outwardly projecting flange adjacent to the head, of a removable locking member having its lower

surface made in the form of a helicoidal cam and means for fastening the locking member to the flange whereby it will turn with the bolt.

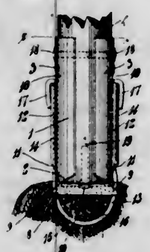


5. The combination of a tie, a plate on the lower surface of the tie, a bolt passing through said tie and having an outwardly extending projection at its upper end, means for locking the lower end of the bolt to the plate, a rail, a cam washer mounted on said bolt, having its cam surface engaging with the rail flange, and interlocking means between the washer and projection whereby the washer will be turned with the bolt.

[Claim 2 not printed in the Gazette.]

1,244,591. [WITHDRAWN.]

1,244,592. MOP. JOHN C. DE ROO, Cincinnati, Ohio. Filed Nov. 20, 1913. Serial No. 802,011. (Cl. 15—56.)

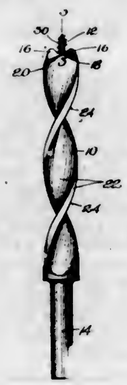


1. In a mop, a handle, a ferrule secured to the handle, flutes on said ferrule opening near the lower end of the ferrule and opening at their upper ends to the exterior of the ferrule, down from the upper end of the ferrule, and leaving the part of the ferrule above the open upper end of the flutes uninterrupted to have a continuous bearing on the handle, mop material, and a clip having parts extending through the flutes and engaged over the upper ends of the flutes, said clip thereby binding said mop material to the handle and ferrule, and fastening means extending through the upper uninterrupted part of the ferrule into the handle and holding said part of the ferrule firmly against the handle, and said part of the ferrule reinforcing the handle where the fastening means extends into the handle.

2. In a mop, a handle, a ferrule secured to the handle, downward projections on the lower end of the ferrule past the end of the handle, flutes on said ferrule opening near the lower end of the ferrule substantially at right angles to the location of the downward projections on the ferrule, and open at their upper ends to the exterior of the ferrule, means securing said ferrule to the handle, a mop material, a U-shaped member extending around the strands of mop material with its side parts extending up through the flutes on the socket and engaging over the upper ends of the flutes, thereby rigidly binding the mop material up against the end of the handle, and said downward projections on the ferrule defining a concavity at the lower ends of the handle and ferrule, in which the mop material is embedded as bound by said clip, and the mop material being disposed and distributed outside the downward projections to form shoulders, and being maintained in its distributions by said projections, for the purposes set forth.

3. In a mop, a ferrule made from a single flat elongated rectangular piece of material, having inwardly converging slits in its respective longer sides substantially midway of its length, bent upward on transverse lines joining the ends of opposed slits, whereby the part of the material between these lines of bending forms a rectangular bottom for the ferrule, and whereby the parts between these lines and the respective adjacent ends of the material form the sides of the ferrule, said sides being formed into concave cross section with their concavities presented toward each other, and each flaring from its concave cross section to where it joins the rectangular bottom, each of said sides having an upper and a lower opening, and being fluted interiorly from the upper to the lower opening, whereby a flute is formed opening upwardly and downwardly on the outside of the ferrule, the parts between the slits on each side of the piece of material being bent downward on a line joining the ends of these slits, these parts thereby having projected ends, and these ends being bent inwardly, whereby these bent-down parts form shoulder pieces for the ferrule and inclose a cavity below the bottom of the ferrule to receive the mop material, said flutes being adapted to receive a clip to bind the mop material to the ferrule and said sides of the ferrule being adapted to receive the handle of the mop in their concavities and be adjustable to the handle.

1,244,593. AUGER-BIT. JOHN E. DOLDT, Portland, Me. Filed Feb. 2, 1916. Serial No. 75,656. (Cl. 145—117.)

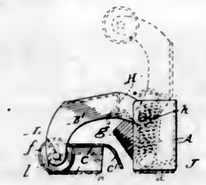


2. A boring bit comprising a spiral body portion formed in two contiguous sections, the lower cutting section having a slight pitch to provide an effective cutting angle at the cutting lips, and the upper chip-clearing section having a comparatively steep pitch to form a chip gutter into and through which the chips may move freely longitudinally of the bit, the pitch of the lower section being abruptly merged into the pitch of the upper section, and the leading corners of the spiral edges being provided with a clearance to form cutting edges for routing.

4. A boring bit comprising a body portion formed in two spiral sections and a shank, the lower section of the body portion consisting of a short cutting head the spiral portion of which has a pitch less than 45° with the axis of the bit, and an upper chip-clearing section, the spiral portion of which has a pitch greater than 45° with the axis of the bit.

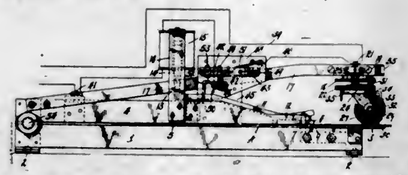
[Claims 1, 3, 5, and 6 not printed in the Gazette.]

1,244,594. DOOR-CONTROLLING DEVICE. ANDREW C. DUNN, Mankato, Minn. Filed Feb. 28, 1914. Serial No. 821,663. (Cl. 16—46.)



A door controlling device, comprising a bracket adapted to be secured to the door frame and having two side flanges, a web connecting the flanges, attaching feet at the inner ends of the flanges and a perforated ear at the inner end of said web, said flanges, web, feet and ear being constructed from a single sheet of metal, a rock arm having two longitudinal flanges pivoted at their inner ends on the flanges of said bracket, a web connecting said flanges and an ear arranged at the inner edge of said flanges and formed integrally with said last-mentioned web, said last mentioned flanges, web and ear being constructed integrally from a single sheet of metal, a spring connecting the ear of said bracket with the ear of said arm, and a trip adapted to be mounted on said door and to shift said arm for engaging said roller with the rear side of the door, the rearward movement of said presser arm into its inoperative position being limited by a stop device consisting of the inner edge of the presser arm web engaging with the outer edge of the bracket web.

1,244,595. PATTERN-PERFORATING MACHINE. THOMAS E. GAHAN, Toledo, Ohio. Filed Jan. 8, 1917. Serial No. 141,206. (Cl. 164—94.)



3. A machine of the class described having a platform over which a sheet to be perforated may be moved, sheet perforating means, an electric circuit, an electro-magnet disposed in said circuit and adapted when energized to operate said means, and means separate from the sheet being perforated and operated by relative movements of the sheet and platform to successively make and break said circuit.

6. In a machine of the class described, sheet perforating means having an electro-magnet control, means in circuit with the electro-magnet and having a commutator part in rolling contact with a sheet being perforated and a brush member in contact with said part, said last means being operable by relative movements of the sheet and machine to successively make and break the electro-magnet circuit.

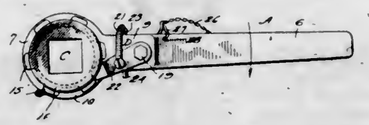
7. In a machine of the class described, a wheel, means carrying said wheel for pivotal trailing movements in rolling contact with a sheet being operated on and in a plane normal thereto, means forming an electric circuit and coacting with said wheel to successively make and break such circuit when the wheel is rotated, and means having a part in said circuit and operable by an opening and closing thereof to perforate a sheet with which said wheel has contact.

13. In a machine of the class described, an electric circuit, a sheet perforating means, an electro-magnet in said circuit, and separate means for making and breaking said circuit, one of said means being operated by said perforating means and the other being operated by relative movements of the machine and the sheet being perforated.

15. In a machine of the class described, an electric circuit, sheet perforating means having an actuating electro-magnet in said circuit, and separate circuit breaker means, one of said means normally standing in one position of its movement and automatically movable from such position by perforating movements of said perforating means whereby a circuit is repeatedly opened and closed, and the other of said circuit breaker means having a part in contact with a sheet being perforated and movable to repeatedly make and break a circuit by relative movements of the machine and sheet.

[Claims 1, 2, 4, 5, 8 to 12, and 14 not printed in the Gazette.]

1,244,596. REVERSIBLE RATCHET CAR-WRENCH. GEORGE M. GEALY, Grove City, Pa. Filed Oct. 16, 1916. Serial No. 125,908. (Cl. 81—63.)



1. A reversible ratchet car wrench comprising in combination, a lever, a drum revolubly carried by said lever provided with peripheral teeth and a transverse head receiving way, a pawl pivotally carried by said lever and adapted to engage the said teeth of said drum to serve as a strut preventing either clock-wise rotation of said drum, or counter clock-wise rotation of said drum, two lugs carried by said handle, one at each side of the plane common to the axes of rotation of said drum and pawl, and a contraction spring pivotally carried by said pawl and adapted to be coupled with either of the said lugs to yieldably hold said pawl in operative relation to said drum.

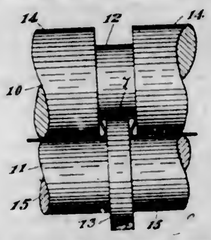
2. A reversible ratchet car wrench comprising in combination, a lever, a drum revolubly carried by said lever provided with peripheral teeth and a transverse head receiving way, a pawl pivotally carried by said lever and adapted to engage the said teeth of said drum to serve as a strut preventing either clock-wise or counter clock-wise rotation of said drum, and a contraction spring pivotally carried by said pawl and adapted for connection to either side of the lever and plane common to the axes of rotation of said drum and pawl, to yieldably hold said pawl in operative relation to said drum.

1,244,597. WHITENING AND CLEANING COMPOSITION. ALICE A. GILSON, San Francisco, Cal. Filed Jan. 11, 1916. Serial No. 71,541. (Cl. 134—7.)

1. A dry cleaning composition composed of salt and carbonate of magnesia in substantially the proportions specified.

2. A dry cleaning composition composed of four parts of coarse table salt and one part of powdered carbonate of magnesia, subatantially as set forth.

1,244,598. METHOD OF FORMING RIBS ON SHEET METAL. MAX S. GOLDSMITH, Cincinnati, Ohio. Filed Jan. 2, 1915. Serial No. 91. (Cl. 153—68.)



A method of forming dove-tailed ribs in sheet metal, which consists in forming a rib with walls at right an-

gles to the sheet and with a portion intermediate its walls bent inward toward the sheet sufficiently to form an angle between the inwardly bent portion and the said right angle wall materially smaller than the same angle in the completed article, and compressing the intermediate portion to a position parallel to the sheet, whereby the walls are turned to positions inclined to the sheet.

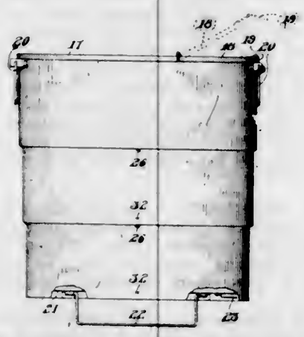
1,244,599. SPRING-RING. CHARLES A. GOOZEY, Providence, R. I., assignor to B. A. Ballou and Company, Inc., Providence, R. I., a Corporation of Rhode Island. Filed July 12, 1916. Serial No. 108,822. (Cl. 24—239.)



1. A spring ring comprising a body portion made of sheet metal in ring form and in two halves of concavo-convex shape in cross section, the edge of one half being thin and overlapping and lying against the corresponding surface of the other half to secure the two parts together.

2. A spring ring comprising a body portion made of sheet metal in ring form and in two halves of concavo-convex shape in cross section, the edge of one half being thin and overlapping and lying against the corresponding surface of the other half to secure the two parts together, one of said halves being provided with inwardly turned fingers against which one end of said spring abuts.

1,244,600. CEMENT-HOLDER. KOLY G. HADGIEFF, Akron, Ohio. Filed Jan. 15, 1917. Serial No. 142,463. (Cl. 220—17.)

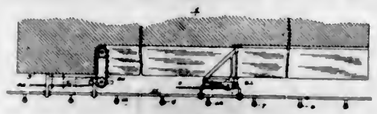


2. A cement container comprising a plurality of telescoping sections, a cover provided upon the largest end section, a countersunk bottom provided for the smallest end section, a swinging bail carried by the said bottom, adapted for flatly engaging the same, spring pressed latches carried by the lower ends of the largest and intermediate sections, adapted for engagement with the upper ends of the intermediate and smallest sections, when the sections are projected, the sections adjacent the lower ends being arranged with keeper recesses positioned in alinement therewith when the sections are contracted.

[Claims 1 and 3 not printed in the Gazette.]

1,244,601. MINING SYSTEM. WILLIAM E. HAMILTON, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, Columbus, Ohio, a Corporation of Ohio. Filed Aug. 30, 1909. Serial No. 515,341. Renewed Sept. 29, 1916. Serial No. 122,929. (Cl. 125—14.)

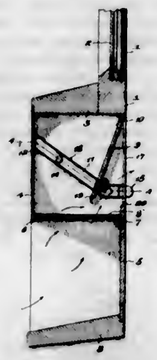
1. The herein described method of mining coal which consists in cutting a horizontal kerf under the body of the coal and extending into the face thereof cutting a vertical slot in the floor formed, said slot extending along approximately parallel to the face of the coal, breaking down the



overlying coal, transporting the broken coal away from the face by a continuously operating means traveling within the said kerf and guided by the said slot.

[Claims 2 and 3 not printed in the Gazette.]

1,244,602. VENTILATOR-SASH FOR CAR-WINDOWS. CHARLES L. HARRISON, Richmond, Va., assignor of one-third to Leon L. Strause, Richmond, Va. Filed June 30, 1916. Serial No. 106,928. (Cl. 98—31.)

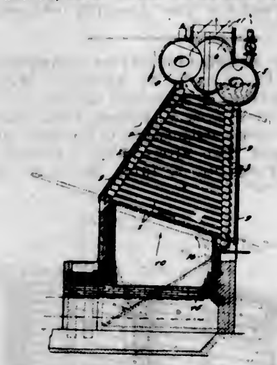


1. A window having a ventilator combined therewith, said ventilator constituting the lower sash member and comprising a ventilator frame having parallel spaced vertical panels extending past the same horizontal plane and having diagonally disposed openings, a removable screen, and ledges on opposite portions of the panels for horizontally supporting the removable screen to prevent the ingress of particles of matter floating in the air, an inwardly swinging adjustable lid, suitably mounted to the frame, and positioned to close the upper opening above the inner panel to regulate the ventilation, and to permit of ready removal of the screen and cleaning of the interior of the ventilator frame from within the car.

2. In combination with a ventilator having a swinging lid, resilient means mounted in the ventilator frame arranged to frictionally engage the side of the lid, said means comprising a flat spring positioned to engage the side of the ventilator lid, the spring having an offset end portion extending through the ventilator to facilitate release of the lid when desired, and one or more coil springs mounted in the ventilator frame and positioned to bear against the flat spring to cause it to constantly press against the edge of the lid, to permit of readily securing same in any desired adjusted position.

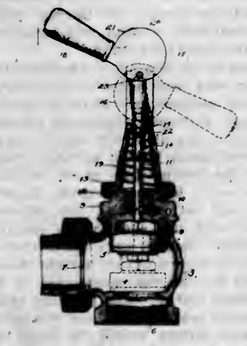
3. A ventilator for car windows having spaced panels and having an opening above the inner panel and also an opening below the outer panel, screen supporting means carried by horizontally alined portions of the panels, a removable horizontally positioned screen adapted to prevent the ingress of particles floating in the air, and to facilitate cleaning of the interior of the ventilator from within the car and an inwardly swinging adjustable lid adapted to regulate the ventilation and close the ventilator opening above the inner panel substantially as and for the purposes set forth.

1,244,603. STEAM-BOILER. ISAAC HARTER, Jr., New York, N. Y., assignor to The Babcock & Wilcox Company, Bayonne, N. J., a Corporation of New Jersey. Filed Oct. 13, 1915. Serial No. 55,624. (Cl. 122—265.)



A boiler comprising a bank of substantially parallel tubes arranged in rows at substantially equal distances apart, the tubes of a given row being staggered with respect to the tubes of adjacent rows, the length of the tubes of a given row being the same and the lengths of the tubes of successive rows from the furnace toward the gas outlet decreasing, headers to which the ends of the tubes are connected, drums connected to said headers, a furnace discharging between the longer tubes, and a setting which, with the above arrangement of tubes, causes the gases to flow through the boiler in one direction through regularly decreasing flow areas.

1,244,604. VALVE. JOSEPH H. HEDMARK, Chicago, Ill. Filed Feb. 19, 1914. Serial No. 819,688. (Cl. 137—4.)



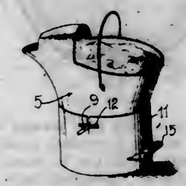
1. In a valve, a casing having an opening therethrough, a valve seat in said opening, a valve plug adapted to co-act with said seat, a stem connected with said plug and extending outwardly through the casing, said stem having a shoulder thereon, a spring interposed between the shoulder and the casing, tending to raise the stem to hold the valve in open position, a bearing for said stem projecting from said casing, ears extending upwardly from said bearing, and a disk eccentrically mounted in said ears and having its edge engaging with the top of the stem, said disk having its edge farthest from its fulcrum flattened to enable said valve to be locked in closed position.

4. The combination of a valve body having a seat therein, a top for said body also having a seat thereon, a disk adapted to engage with said seats when in closed and open positions respectively, a stem engaging with said disk and passing through said top, a packing in said top for said stem, a rotatable bearing member connected with said top and engaging with the stem at its outer end, an enlarged extension on the outer end of said stem, a spring between said extension and the top tending to open the valve, a cam pivoted in said bearing member, and a handle for said cam whereby the cam may be turned to press the stem downwardly to close the valve and lock it in closed position.

5. In a valve, the combination of a casing having inlet and outlet apertures, a valve seat around the outlet aperture, a valve disk adapted to engage with said seat, a valve stem extending out through the casing, a tension device for engagement with said casing and stem, tending to raise the stem to open the valve, a rotatable extension projecting upwardly from the casing, bearings in the casing and in said extension for the stem, a cam pivoted in said extension above the rod and engaging therewith, said cam having a flattened portion to enable the rod to be locked to hold the valve in closed position and a handle for said cam.

[Claims 2 and 3 not printed in the Gazette.]

1,244,605. COMBINED COAL-HOD AND ASH-SIFTER. NANNIE D. HENLEY, Richmond, Va. Filed Apr. 12, 1916. Serial No. 90,751. (Cl. 220—46.)

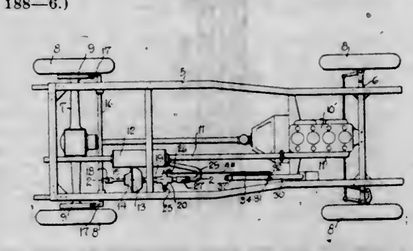


1. The combination with a hod having a movable ash sifting plate constituting the bottom thereof and provided with an operating handle, of an ash receptacle having means for coöperative engagement by said handle whereby the hod and receptacle are detachably connected to each other.

3. The combination with a hod having a movable ash sifting plate constituting the bottom thereof and provided with an operating handle, of an ash receptacle having a horizontal slot in its vertical wall and a vertical slot communicating centrally with the horizontal slot and opening upon the upper edge of said wall, said slots being adapted to receive the handle of the sifter plate, said handle being reciprocable in the horizontal slot and constituting means for detachably connecting the hod and receptacle to each other.

[Claim 2 not printed in the Gazette.]

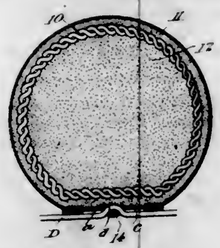
1,244,606. VEHICLE-BRAKE. EARL R. HERREN, Lorain, Ohio. Filed July 17, 1915. Serial No. 40,442. (Cl. 188—6.)



The combination with a motor driven vehicle having an exhaust pipe and a muffler interposed therein, of a cylinder provided with a flexible diaphragm head, means operatively connecting said head to the vehicle brakes, a pipe connecting said cylinder to the inlet end of the muffler contiguous to the exhaust pipe, a check valve arranged in said pipe connection to normally close communication between the muffler and the cylinder, a rotary

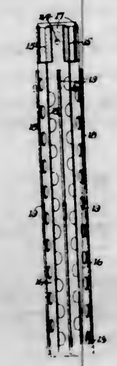
valve interposed in said pipe between the check valve and said cylinder and normally establishing communication between said cylinder and the atmosphere, and means operatively connected to said valve to rotate the same and cut off communication with the atmosphere and establish communication between the muffler and said cylinder whereby a suction is created through the pipe connection by the force of the exhaust admitted to the muffler and a vacuum created in the cylinder to move the diaphragm head and apply the brakes.

1,244,607. FENCE-POST. WILLIAM T. HICKS, Bloomington, Ind. Filed Jan. 18, 1913. Serial No. 742,930. (Cl. 256—48.)



The combination of a fence post formed with a smooth imperforate surface having a vertical groove in one side, extending continuously from top to bottom, an adjustable wire support adapted to encircle said post and rest against one side thereof with a recess to receive the crimp of the wire and a vertical socket to receive a pin, a pin mounted in said socket and adapted to extend in front of the crimp in the wire, and the wire mounted with its crimp registering with the recess in said wire support and the vertical groove in the post, whereby the wire may be supported in or adjusted to any position desired on said post and be out of wearing contact with its surface, substantially as set forth.

1,244,608. MOLD FOR POSTS. WILLIAM T. HICKS, Bloomington, Ind. Filed Mar. 16, 1915. Serial No. 14,776. (Cl. 25—121.)

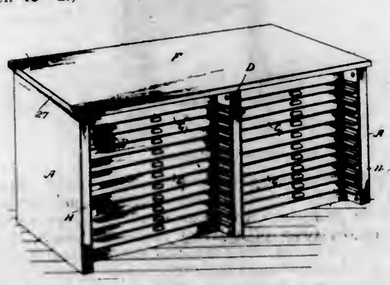


1. A mold for concrete posts comprising an outer imperforate shell and an inner shell having walls with openings therein and composed of longitudinal sections and an upper end section through which the concrete is admitted, substantially as set forth.

4. A mold for forming concrete posts, comprising an outer shell, a grading member within said outer shell formed of perforated sections, a cylindrical upper end section detachably mounted on said perforated sections, and means for spacing said grading member from said outer shell, said grading member being formed to be removed after the concrete has been deposited therein, substantially as set forth.

[Claims 2, 3, and 5 to 7 not printed in the Gazette.]

1,244,609. STEEL FURNITURE CONSTRUCTION. MARVIN E. HOOD, OSCAR B. ANDERSON, WALTER L. FETTERS, and JAMES H. MCGLINCY, Chester, and JOSEPH E. GAGNON and WALTER M. KIDDER, Philadelphia, Pa., assignors, by mesne assignments, to Hamilton Manufacturing Company, Two Rivers, Wis., a Corporation of Wisconsin. Filed Dec. 3, 1914. Serial No. 875,370. (Cl. 45—2.)



1. In a cabinet of the character described, the combination of a bottom wall, end walls having channel bars secured thereto, a rear wall, and a top wall each constructed of sheet metal, and said top wall fitting over said channel bars and having upwardly disposed edge portions, a removable cover for the top wall constructed of sheet metal and having inturned edge portions engaging with the edge portions of said top wall, and reinforcing channel bars for the cover fitting within the space provided by said edge portions of the top wall, said reinforced walls constituting a rigid unit structure when assembled, substantially as set forth.

2. In a cabinet of the character described, the combination of a bottom wall constructed of sheet metal and having inturned edge portions, end walls of sheet metal having inturned edge portions, reinforcing channel bars for the end walls extending along the upper edges thereof, a top wall of sheet metal having upturned edge portions, cut away to fit the channel bars of the end walls, a rear wall of sheet metal having inturned flanges engaging with said top and bottom walls and outwardly turned flanges engaging with said end walls, a partitioning wall comprising upright channel bars, and transversely disposed channel bars secured to said upright channel bars; a removable cover for the top constructed of sheet metal having downwardly turned edge portions engaging with the edge portions of said top wall, and reinforcing channel bars for the cover fitting within the space provided by the edge portions of said top wall, said reinforced walls constituting a rigid unit structure when assembled, substantially as set forth.

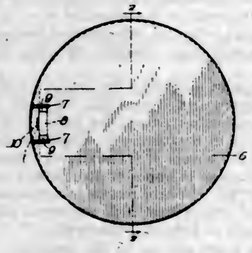
3. The combination with a cabinet having a wall thereof constructed of sheet metal and formed with inturned end portions, of plate supporting drawer guides removably fitted to the inturned end portions of said cabinet wall, members mounted on said wall and on one of said plates, respectively spacing said guide supporting plates from said wall, and means securing said plates to said wall, substantially as set forth.

5. The combination with a cabinet having a side wall thereof constructed of sheet metal and formed with inturned flanges at its vertical edges, and a sheet metal rear wall secured to one of said inturned flanges, of a pair of vertically disposed plates fitting against the other flange of the side wall and the rear wall, members spacing said vertically disposed plates from the side wall, drawer guides mounted on said pair of plates, a locking device carried by one of said pair of plates engaging with one flange of the side wall, and means for securing the other of said pair of plates, substantially as set forth.

6. The combination with a cabinet of a partition therefor comprising a pair of vertically disposed channel bars, horizontally disposed channel bars secured to said vertical channel bars, two pairs of vertically disposed plates respectively fitting against the opposite sides of said vertical channel bars, drawer guides mounted on each pair of said plates, two adjacent plates of said pairs constructed with flanges adapted to engage and provide a spacing element, locking devices mounted on said flanged plates engaging with one of the vertical channel bars, and means securing the others of said plates to the second channel bar, substantially as set forth.

[Claim 4 not printed in the Gazette.]

1,244,610. SELF-OPENING CAN. JOHN M. HOTHERSALL, Brooklyn, N. Y., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 16, 1915. Serial No. 45,650. (Cl. 220—67.)

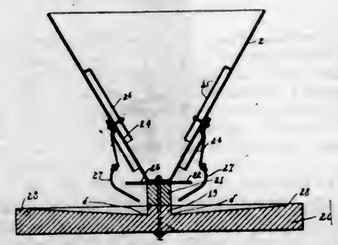


1. A cover for a self-opening can and a cutter carried thereby, said cutter comprising a strip engaged at its ends in said cover and having a cutting tooth extending downwardly from an edge of said strip.

4. A cover for self-opening cans provided with widely spaced slots and a cutter secured at its ends in said slots, said cutter comprising an arcuately shaped strip with a cutting tooth projecting downwardly therefrom.

[Claims 2 and 3 not printed in the Gazette.]

1,244,611. CONCENTRATOR. WILLIAM A. HUELSDONK, Modesto, Cal. Filed Sept. 18, 1916. Serial No. 120,620. (Cl. 83—88.)

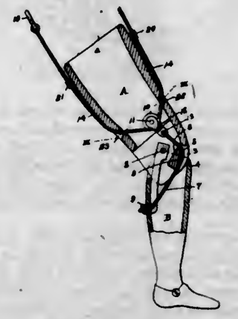


1. The combination with a concentrating table, of a distributing trough arranged along the length of the table and having a plurality of openings, a distributing plate disposed immediately between the distributer and the concentrating table, deflecting plates between the openings and said distributing plate for directing the material from the distributer upon said distributing plate, and curved distributing plates spaced on each side of the first named distributing plate to discharge on said table.

2. A concentrating table having a beading, the side of the table sloping upwardly from the beading to the opposite edge of the table for a portion of the length of the table so as to form a gully along the beading, such gully then deflecting obliquely from the beading to discharge at the end of the table near the outer edge thereof, the sides of the latter portion of the gully sloping upwardly to the beading and opposite edge of the table respectively.

3. A concentrating table having a beading, the side of the table sloping upwardly from the beading to the opposite edge of the table for a portion of the length of the table so as to form a gully along the beading, such gully then deflecting obliquely from the beading to discharge at the end of the table near the outer edge thereof, the sides of the latter portion of the gully sloping upwardly to the beading and opposite edge of the table respectively, the table being provided with an outlet slot opening through the edge of the table into the one side of the obliquely extending portion of the gully.

1,244,612. ARTIFICIAL LIMB. HARRY W. KARN, Pittsburgh, Pa. Filed Dec. 6, 1916. Serial No. 135,316. (Cl. 3—11.)



1. An artificial limb consisting of upper and lower articulated members, a flexible element connected with the lower of said members, and a flexible element passing through the front and back portion of the upper member, having movable connection with said element and having terminal connecting devices, said first named flexible element passing over a rigid bearing portion in the upper of the articulated members adjacent its connection with the lower member.

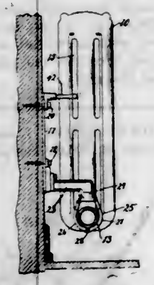
2. An artificial limb consisting of upper and lower articulated members, a cord attached to the lower of said members and bearing against the upper member below its outer surface passing into said member and provided with a terminal sheave wheel, and an actuating cord engaging said sheave wheel and passing through the front and back portion of the upper member and provided with terminal connecting devices.

3. In combination, an upper hollow limb member adapted to embrace the stump of the human thigh and provided with a vertically grooved perforated knee portion, a lower hollow leg member pivoted to the terminal of said upper member, a cord attached to the rear portion of said lower member passing through the grooved perforated part of the upper member and provided with a terminal sheave wheel within said upper member, and an actuating cord engaging said sheave wheel and passing freely through perforations in the front and back portions of the upper member and provided with terminal connecting devices.

1,244,613. RADIATOR-SUPPORT. AUGUST KEHM, Chicago, Ill. Filed Mar. 29, 1916. Serial No. 87,520. (Cl. 248—30.)

1. A concealed hanger for radiators having upright loops with inner and outer columns and horizontal nipples connecting the lower ends of the loops, comprising, in combination, an upright wall plate, a bracket arm projecting outwardly from the lower end of the wall plate for entering

the space between adjacent loops of the radiator, an operable stirrup hanging from the outer end of the bracket arm for receiving the nipple connecting the said radiator loops, and a rotatable T-head bolt projecting outwardly from the upper end of the wall plate to pass between the said adjacent loops of the radiator when the T-head of the bolt is upright and to enter the spaces between the inner and outer columns of the said adjacent loops of the radiator when the T-head of the bolt is turned to a horizontal position.

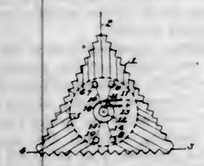


2. In a device of the kind described, in combination, a horizontal bracket having a depending head which flares in the plane of the bracket and is provided with a socket in each of its flaring sides, and an openable U-shaped stirrup having instanding lugs at the upper ends of its two arms for removably entering the said sockets in the head of the bracket.

5. In a device of the kind described, in combination, an upright wall plate, an upwardly facing seat for the bottom of a radiator adjustably connected with the wall plate adjacent its lower end to be supported thereby in vertically adjusted position at a distance outwardly from the wall plate, and a horizontal bolt having a head which is of different widths in relatively transverse directions to pass between the upright loops of a radiator in one position but to engage the columns of two adjacent loops when turned to a different position, rotatably connected with the wall plate above the said seat.

[Claims 3, 4, and 6 not printed in the Gazette.]

1,244,614. PROCESS OF AND APPARATUS FOR INTERCONVERTING AND ADJUSTING THE RELATIVE VOLTAGE OF HIGH-POTENTIAL ALTERNATING AND DIRECT ELTECTRIC CURRENTS. CARL G. KOPPITZ, Youngstown, Ohio. Filed Jan. 21, 1913. Serial No. 743,399. (Cl. 175—364.)



1. The process of interconverting and adjusting the relative voltage of high-potential electric currents, which consists in causing alternating currents to traverse a winding, by simultaneously transmitting currents in parallel, by arcs, between successive portions of said winding and collectors, and adjusting the points of transmission equidistant from the peak of the potential-wave therein to give equal potential difference of conversions with respect to the maximum possible difference of potential conversion.

2. The process of interconverting and adjusting the relative voltage of high-potential electric currents, which consists in causing alternating currents to traverse a plurality of electrically parallel windings, by simultaneously transmitting currents in parallel, by arcs, between successive portions of said windings, and collectors, and adjusting the points of transmission equidistant from the peak of the potential-wave therein to give equal potential difference of conversions with respect to the maximum possible difference of potential conversion.

3. The process of interconverting and adjusting the relative voltage of high-potential polyphase and direct electric currents, which consists in causing polyphase currents to traverse a plurality of closed electrically parallel windings, by simultaneously and synchronously transmitting currents in parallel, by arcs, between successive portions of said windings, and collectors, and adjusting the points of transmission substantially equidistant from the peak of the potential-wave therein to give equal potential difference of conversions with respect to the maximum possible difference of potential conversion.

4. The process of interconverting and adjusting the relative voltage of high potential electric currents, which consists in simultaneously transmitting currents in parallel between collectors and successive portions of a plurality of windings, thereby causing alternating currents to traverse said windings, and adjusting the points of transmission at the collectors substantially equal distances in opposite directions from the peak of the potential wave in said windings to give equal potential difference of conversions with respect to the maximum possible difference of potential conversion.

5. The process of adjusting the relative voltages of interconverted direct and alternating currents, which consists in simultaneously transmitting currents in parallel to successive points in a winding or windings, and varying the position of the points of transmission thereto substantially equal distances in opposite directions from the peak of the potential wave in said windings to give equal potential difference of conversions with respect to the maximum possible difference of potential conversion.

[Claims 6 to 9 not printed in the Gazette.]

1,244,615. FITTING FOR ELECTROLIERS. KENNARD KORNBAU, New Dorp, N. Y. Filed Oct. 3, 1916. Serial No. 123,469. (Cl. 240—52.)

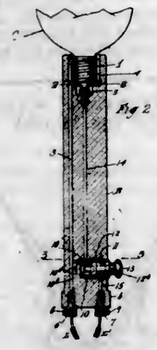


Fig 2

1. A fitting for electroliers comprising a member of refractory insulating material having a socket recess at one end and a cylindrical switch recess open to the exterior of said insulating member, a lamp socket in the socket recess and comprising a central member and an outer member, an inner stationary disk in the switch recess and provided with a yielding contact member, a conducting and holding member, extending from said inner stationary disk to the central member of the lamp socket, an outer stationary disk located in the switch recess, a connector for a lead wire having a conducting and holding member arranged to engage said outer stationary disk, a movable member of insulating material located between said stationary disks and provided with conducting means arranged to engage the yielding contact member of the inner stationary disk, means extending outside the fitting and arranged to operate the movable disk, and a connector for a lead wire in electrical communication with the outer member of the lamp socket.

4. A fitting for electroliers comprising a body of insulating material having a socket recess at one end and a flange at the other end, an electric light socket located inside said socket recess, a pair of connectors for lead-wires extending beyond the fitting at the flanged end thereof, circuit connections within the body of insulating material and arranged to complete a circuit including the lamp socket and the connectors, and a screw-threaded member arranged to engage the flange and the co-acting member of the electrolier.

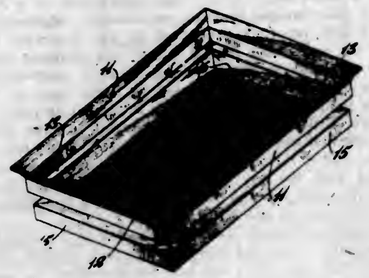
[Claims 2 and 3 not printed in the Gazette.]

1,244,616. RAILROAD-TIE. THEODORE H. KRUSE, Arvada, Colo., assignor to The Spikeless & Boltless Railroad Tie Company, Denver, Colo. Filed Aug. 10, 1917. Serial No. 185,565. (Cl. 238—5.)



A railroad tie provided upon its bottom and upon its edges with spiral ribs which converge, from the opposite sides of the tie, on the bottom of the tie, to define groups of V-shaped elements extended inwardly from the ends of the tie, the apices of the ribs of each group pointing toward the apices of the ribs of the other group.

1,244,617. FRUIT-TRAY. ALFRED M. LANE, St. Louis, Mo., assignor to Monarch Metal Weather Strip Company, St. Louis, Mo., a Corporation of Missouri. Filed May 9, 1917. Serial No. 167,551. (Cl. 34—17.)



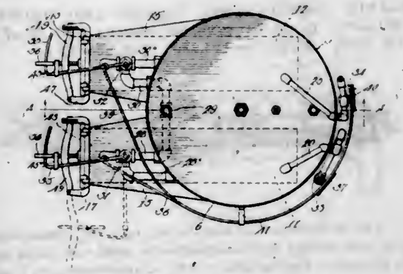
2. A tray having outwardly sloping side walls provided with ledges integral therewith located partway up said sides, and an openwork bottom, the lower edges of the side walls supporting said bottom and forming a base whose dimensions are slightly less than those of the top opening of said tray, whereby when a number of trays are nested, the base of each tray rests on the ledges of the tray beneath.

3. A tray having side walls, and an openwork bottom, a frame for said bottom, said frame having a groove around its outer edge, and means in said groove for securing said openwork bottom to said frame, the lower edges of the side walls being formed in a hollow rib inclosing said frame and clamping said securing means and said bottom and forming a base for the tray.

[Claims 1 and 4 not printed in the Gazette.]

1,244,618. ACETYLENE-GAS GENERATOR. HENRY W. LAUX, Chicago, Ill. Filed July 6, 1915. Serial No. 38,051. (Cl. 48—36.)

1. In a gas generator, the combination of a tank, a carbid container fixed in said tank and having an opening through which a carbid receptacle can be inserted or removed from the container, a water supply pipe leading to said container, a gas conducting pipe leading from the container, valves in said pipes, a closure for the opening in the container hinged to the top edge thereof, locking means for said closure hinged to the container at one side of the opening therein, said locking means being shiftable into and out of locking position at an angle to the opening and closing movement of the closure and a manually operable lever controlling the valves and constructed and arranged to automatically shut the closure and shift the locking means into locking position as the valves are opened.



2. In a gas generator, the combination of a tank, a carbid container fixed in said tank and having an opening through which a carbid receptacle can be inserted or removed from the container, a water supply pipe leading to said container, a gas conducting pipe leading from the container, valves in said pipes, a closure for the opening in the container, locking means for said closure, said locking means being shiftable into and out of locking position, one of the valves being on the opposite side of the tank from the container, a manually operable lever mounted on the same side of the tank as the container, a curved link extending from the lever around the tank and operatively connecting to the oppositely located valve and mechanism extending from the lever to the closure and locking mechanism and constructed and arranged to automatically shut the closure and shift the locking means into locking position as the valves are opened.

3. In a gas generator, the combination of a tank, a carbid container fixed in said tank and having an opening through which a carbid receptacle can be inserted or removed from the container, a water supply pipe leading to said container, a gas conducting pipe leading from the container, valves in said pipes, a closure for the opening in the container hinged to the top edge of the opening, locking means for said closure hinged to one side of said opening, a manually operable lever controlling the valves, means connected to said lever adapted to close the closure as the lever is moved to open the valves, and means operable by a further movement of the lever after the closure is shut to shift the hinged locking means to its locking position.

4. In a gas generator, the combination of a tank, a carbid container in said tank having an opening, gas and water valves for said container, a closure for the opening in the container hinged to the top edge of the opening and adapted to swing in a vertical arc in opening or closing locking means for said closure hinged to a side edge of the opening and adapted to swing into and out of locking position in a horizontal arc and a lever controlling the valves, the closing of the closure and the swinging of the locking means to a locking position.

5. In a gas generator, the combination of a tank, a carbid container in said tank having an opening, gas and water valves for said container, a closure for the opening in the container hinged to one edge of the opening, locking means for said closure hinged to another edge of the

opening, one of said valves being located in front and in proximity to the opening in the container and another being located in the rear of the container, on the opposite side of the tank, a controlling lever connected to the valve in front and a link connected to said lever and curved around the side of the tank with its rear terminal connected to the rear valve, an angular extension of the lever being arranged to close the locking means, and said lever being adapted to contact with and shut the closure before the locking means is moved as said lever is moved to open the valves.

[Claim 6 not printed in the Gazette.]

1,244,619. COMBINATION TABLE AND IRONING-BOARD. EVERT LAUTENBACH, Chicago, Ill. Filed Oct. 10, 1916. Serial No. 124,880. (Cl. 45—17.)

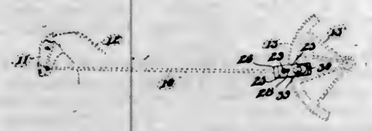


1. The combination of a table having a top compartment and a top closing said compartment, said top being movable to leave a top opening to the compartment, an ironing board seating in the compartment, a support for the ironing board, a foldable connection between the support and the ironing board, and means for elevating the support to the top opening of the compartment, the aforesaid foldable connection between the support and the ironing board being adjustable to hold the ironing board elevated above the support in position for use.

5. The combination of a table having a top compartment and a top closing said compartment, said top being movable to leave a top opening to the compartment, an ironing board seating in the compartment, a support for the ironing board, elevating inclines in the compartment engageable by the forward portion of the support and leading to the aforesaid opening, a slidable pusher in the compartment, and a link connection between the pusher and the rear portion of the support, said connection having side pins, and the compartment wall having grooves in which the pins slidably seat, said grooves having an upward incline, the support resting on the front wall of the compartment when elevated to the opening, and the link connection extending prependicularly between the pusher and the rear portion of the support in the last-mentioned position of the latter.

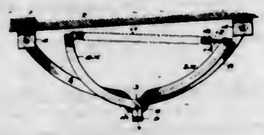
[Claims 2 to 4 not printed in the Gazette.]

1,244,620. HORSE-HITCH FOR VEHICLES. FRANK LESZCZEWICZ, Chicago, Ill. Filed Dec. 11, 1916. Serial No. 136,331. (Cl. 21—136.)



An article of manufacture comprising an angular bracket having a longer and a shorter arm, each of which are provided with a longitudinal slot therethrough, an angular plate slidably mounted upon the said shorter arm of the bracket and having a longer arm opposite the longer arm of the bracket and arranged with a keeper slot in alinement with the said slot of said longer bracket arm, a retaining bolt carried by the shorter arm of said plate adjustably extending through the slot of the shorter bracket arm, a slide shiftably arranged upon the longer arm of said bracket, a tube projecting from said slide, a removable housing carried by said slide adjacent said tube, a cam-shaped head normally resting upon the outer ends of said housing and tube, a wheel retaining rod carried by said head slidably arranged through said tube and the slot of said longer bracket arm with its free end normally arranged within the slot of said longer plate arm, and a return spring in said rod arranged within said housing, having one end thereof operatively attached to said head.

1,244,621. DOOR-CLOSER. ALBERT T. LOFTSGAARDEN, Powell, Wyo. Filed Mar. 21, 1916. Serial No. 85,583. (Cl. 16—96.)



1. In a door-closing device, the combination of a door frame, a door hinged thereto, brackets fixed on the faces of the frame and door, an arcuate, horizontally swinging arm pivoted at one end to the frame bracket and having a free end disposed adjacent to the face of the door and also having an outwardly-extending loop-shaped portion adjacent to its middle, an arcuate, horizontally-swinging arm pivoted to the door bracket and having a free end adjacent to the face of the door and also having an outwardly extending loop straddling and pivotally connected to the outwardly-extending loop shaped portion of the first-named arm, and a retractile spring extending between and connected with the free ends of said arms.

2. In a door-closing device, the combination of a door frame, a door hinged thereto, an arcuate, horizontally swinging arm pivotally connected at one end with the face of the frame and having a free end disposed adjacent to the face of the door, an arcuate, horizontally swinging arm pivotally connected with the face of the door and pivotally connected at an intermediate point of its length with the intermediate portion of the first-named arm and having a free end adjacent to the face of the door, and a retractile spring extending between and connected with the free ends of said arms and inclosed between the arms and the face of the door in approximate parallel relation to the latter.

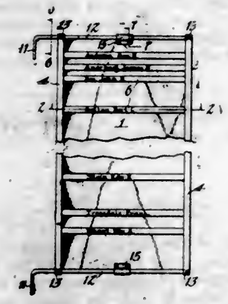
3. A spring-actuated door closing device, comprising arms pivotally connected together adjacent to their middles, means at one end of one arm for attaching the same to a door frame, means at one end of the other arm for attaching same to a door, and a retractile spring extending between and connected with the opposite ends of the arms, whereby when the device is applied, the spring will be inclosed between the arms and the face of the door in approximately parallel relation to the latter.

1,244,622. INDEX-FRAME. HERBERT J. MCCAULEY, Buffalo, N. Y., assignor to The Rand Systems Corporation, Tonawanda, N. Y., a Corporation of New York. Filed Oct. 15, 1915. Serial No. 56,032. (Cl. 40—102.)

1. A double-faced index-panel or the like, comprising a stiff sheet and separate inwardly facing channel strips secured lengthwise to opposite edges of said sheet with their flanges arranged at opposite sides of the sheet and spaced therefrom, forming opposing channels on each side of the sheet.

8. A double-faced index-panel or the like, comprising a stiff sheet, inwardly-facing channel-strips secured lengthwise to the edges of said sheet with their flanges arranged on opposite sides thereof, said flanges extending beyond the end of the sheet, and a hinge-member having a shank

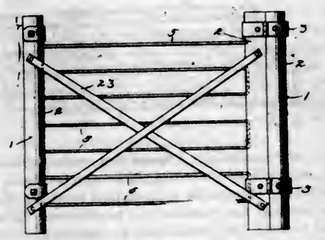
extending across the end of the sheet and confined between the projecting end-portions of said flanges.



10. In a leaf structure of the character described, a two faced panel having a marginal guide channel on each side comprising a single, integral, inwardly bent flange on the edge of the panel, and a separate strip of sheet material, bent U-shaped in cross section, extending around the edge of the panel body, the margin of one flange of said strip being bent into engagement with the flange on the panel thereby securing the strip to the panel.

[Claims 2 to 7 and 9 not printed in the Gazette.]

1,244,623. FENCE. ALBERT J. MCCLEES, Ellisville, Ill. Filed Aug. 3, 1915. Serial No. 43,464. (Cl. 256—31.)



A fence comprising a plurality of posts, each post consisting of a pair of hingedly connected metallic sections semi-circular in cross section and having vertically spaced perforations formed therein, means for clamping the sections together, and line wires looped in the perforations.

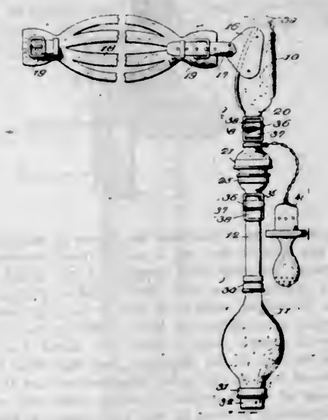
1,244,624. SURGICAL APPARATUS. FRANK M. MCDONALD, Los Angeles, Cal. Filed July 11, 1917. Serial No. 179,800. (Cl. 128—28.)

1. A device of the class described comprising a member adapted to inclose the nose of a patient, a branching tubular conductor associated with the nose inclosing member, means for inducing air currents through one of said branches, and a receptacle connected to the other branch.

3. A device of the class described comprising a member adapted to inclose the nose of a patient, a branching tubular conductor associated with the nose inclosing member, means for inducing air currents through one of said branches, a receptacle connected to the other branch, and a deflector operating to conduct material from the nose inclosing member into the passage leading to the receptacle.

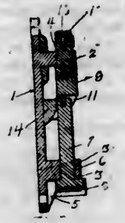
5. A device of the class described comprising a nose receiving member having a tubular discharge, a tubular conductor leading from the discharge of the nose receiving member, a transverse partition in said tubular conductor and deflected laterally at its upper end, means for inducing air currents through one of said branches, and a receptacle connected to the other branch.

13. A device of the class described comprising a nose inclosing member having a tubular discharge, said tubular discharge being divided by a longitudinal partition with a socket at the upper end of the partition adapted to receive the septum of the patient; a branching tubular conductor leading from the tubular discharge, means for independently cutting off the flow through the passages of the tubular discharge, means for independently cutting off the flow through the branching tubular conductor, means for inducing air currents through one of said branches, and a receptacle connected to the other branch.



[Claims 2, 4, 6 to 12, and 14 not printed in the Gazette.]

1,244,625. SEAL-LOCK FOR FREIGHT-CAR DOORS. JAMES ED MCLAUGHLIN and DONAT BORDELEAU, Grand Mere, Quebec, Canada. Filed Sept. 16, 1915. Serial No. 51,115. (Cl. 70—23.)

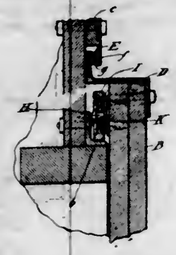


1. In a seal lock, the combination with a bracket including an ear provided with a socket, of a slidably and pivotally mounted locking bolt having a portion adapted to engage in said socket, the said bolt being constructed and arranged to move pivotally upon its withdrawal from the socket and to aline with the socket when moved in a direction toward the same and means for operating said bolt.

2. In a seal lock, the combination with a bracket including an ear provided with a socket, of a locking bolt slidably and pivotally mounted, the said bolt being constructed and arranged to move out of alinement with the socket when withdrawn therefrom and to move into alinement, automatically, when moved toward the same.

3. In a seal lock, the combination with a bracket having a pair of spaced ears, one of said ears having a socket therein and the other of said ears having a rectangular opening, of a bar slidably mounted in said opening, a locking bolt pivotally mounted on the said bar and having means thereon adapted to coöperate with the ear in which the opening is formed so that it will swing out of alinement with the socket when withdrawn therefrom.

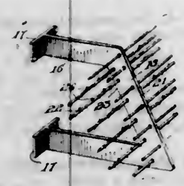
1,244,626. CAR-DOOR. FRED MATHEWS, Chicago, Ill., assignor to Clinton C. Murphy, Chicago, Ill. Filed Sept. 20, 1915. Serial No. 51,538. (Cl. 20—22.)



1. A car having a doorway the frame of which projects beyond the side of the car, a metal track mounted upon and secured to projecting portion of the lintel of said frame, a fascia above said lintel, and a guide-plate secured to the outer surface of and projecting down below said fascia, in combination with a sliding door which is unsupported below said doorway, a Z-bar the web of which is secured to the upper edge of said door and projects inward beyond the inner side thereof and the uppermost flange of which projects upward from said web back of the depending portion of said guide-plate, a wheel suitably journaled to and projecting from the inner side of said door near the upper forward corner of the same which travels in said track, and brackets secured to the side of the car under and to the rear of the rear side of the door and in a horizontal plane below the door which support said door when it is open.

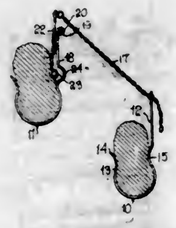
2. A car having a doorway the frame of which projects beyond the side of the car, a fascia, a guide-plate secured to the outer surface of and having its lower edge depending below said fascia, in combination with a sliding door which is unsupported below said doorway, a wheel suitably journaled to the inner side of said door near the upper forward corner of the same, a Z-bar the web of which is secured upon the upper edge of said door and projects inward beyond the inner side of the door and has the uppermost flange thereof projecting up from the inner edge of said Z-bar back of said guide-plate, and brackets secured to the side of the car under and to the rear side of the door and in a horizontal plane below the door which support said door when it is open.

1,244,627. SHIP-PROTECTOR. GEORGE MELNIK and KONSTANTY SCHULTZ, Philadelphia, Pa. Filed July 25, 1917. Serial No. 182,691. (Cl. 114—240.)



A protector for ships comprising in combination with the hull thereof, brackets secured to the hull in spaced relations and with one of said brackets arranged at each of the opposite ends of the hull, all of the said brackets having similarly inclined outwardly positioned oblique sides, plain wires extending between the said brackets adjacent the outer oblique sides and torpedo engaging barbed wires extending between said brackets adjacent the inner edges of the oblique sides thereof, the said barbed wires being individually arranged in slightly lower planes than that of the adjacent outwardly positioned plain wire.

1,244,628. HOBBLE. WILLIAM MEYER, Jr., Swedeburg, Nebr. Filed Mar. 8, 1917. Serial No. 153,467. (Cl. 119—128.)

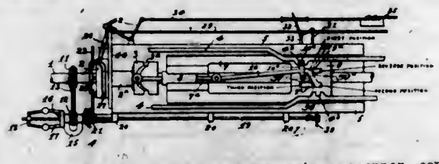


1. A hobble of the character described including leg engaging clamps, a leg pinching member mounted upon one of the clamps, and means connecting said member to the other leg clamp to cause an inward movement of the pinching member when the animal walks.

5. A hobble of the character described including a leg engaging clamp, a leg pinching member mounted upon the clamp, and means adapted to be connected to another leg of an animal and connected to said pinching member to cause an inward movement of the pinching member when the animal walks.

[Claims 2 to 4 not printed in the Gazette.]

1,244,629. AUTOMATIC GEAR-SHIFT FOR AUTOMOBILES. EDWIN L. MILLER, Millersburg, Ohio. Filed Aug. 19, 1916. Serial No. 115,772. (Cl. 74—97.)



1. In an automobile, speed-responsive governor controlled mechanism including gear shifter bars, a shifter bar actuating pitman in coöperative relation thereto, and pitman guiding and controlling mechanism in coöperative relation to said first mentioned mechanism.

19. In an automobile, a prime mover, speed-responsive mechanism including an armed rotatable member speed-changing gearing, shifter bars for the latter, a pitman arranged between and adapted to alternately shift said bars and connected to and reciprocated by said speed-responsive mechanism, and governor and pitman shifter guide and control mechanism in coöperative relation to said speed-responsive mechanism, said governor mechanism including a governor shaft having tripper members adapted to stop and release said armed rotatable member as moved longitudinally.

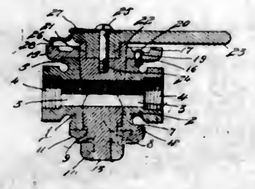
20. In an automatic gear shift for automobiles, the combination with a prime mover, speed-changing gearing connected to the latter, a driving shaft leading from said gearing, a speed-responsive device connected to said driving shaft, including a reciprocatory slide and a pitman connected to said slide, shifter bars operatively connected to said speed-changing gearing, a pitman shifter guide in coöperative relation to said pitman, clutch and clutch release mechanism operated by said speed-responsive device at and during the gear shifting movements of said slide and pitman, and gate mechanism mounted on said pitman shifter guide in coöperative relation to said pitman and operatively connected to said speed-responsive mechanism.

22. In an automobile, a propelling shaft, speed-changing gearing, a motor and clutch attached to the latter, speed-responsive mechanism operatively connected to said shaft and gearing, said connection including a clutch carrying wheel loosely mounted on said propelling shaft and provided with a slide actuating head, a slide connected to said actuating head and provided with a pitman, a pitman

shifter guide member in coöperative relation to said pitman, shifter bars communicating with said speed changing gearing and adapted to be alternately engaged by said pitman, and means on said pitman shifter guide for controlling said pitman and operatively connected to said speed-changing and speed-responsive mechanism.

[Claims 2 to 18, 21, and 23 to 25 not printed in the Gazette.]

1,244,630. VALVE. FRED MITCHELL, Nederland, Colo. Filed Oct. 21, 1912. Serial No. 727,005. (Cl. 137—7.)



1. In a valve of the character described, a casing having therein a plug seat and sockets in opposite sides of said casing having openings communicating with the plug seat, an annular seat on one end of said casing, a flange surrounding said seat and having thereon a scale of graduations, an adjusting ring loosely mounted on said flanged seat and having an indicating mark adapted to coact with the graduations, a plug engaged in the plug seat and having an opening, a pointer carried by said plug and arranged to coöperate with said scale, and means for operating said plug.

2. In a valve of the character described, a casing having therein a plug seat and sockets in the opposite sides of said casing communicating with said plug seat, stops on the lower end of said casing, a plug in said plug seat and having therethrough a passage adapted to be brought into greater or less alinement with the sockets, an adjusting ring mounted to turn on said casing and having therein a notch, means for operating said plug, a finger carried by the plug and adapted to be brought into engagement with said stops, and a spring stop carried by the plug and adapted to spring into engagement with said notch in the adjusting ring whereby the movement of the valve is yieldingly stopped at any desired point.

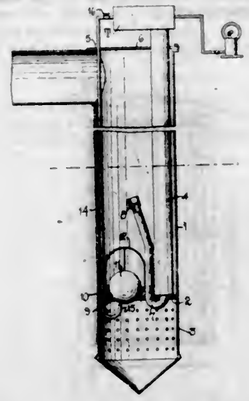
5. A valve of the nature described comprising a valve casing provided with angular openings, a valve plug provided with an angular passage coacting with the openings in said valve casing to form an opening of the same shape with different degrees of opening of the valve, said valve plug being movable into full open and full closed positions, and adjustable means for holding said plug yieldingly against casual movement at any desired intermediate position whereby the valve plug can be moved into either full open or full closed position from said intermediate adjusted position.

8. A valve comprising a valve casing provided with angular openings through its sides, a valve plug symmetrically arranged with respect to said openings and provided with an angular passage coacting with the openings in the valve casing to form an opening through the valve of the same shape with different degrees of opening of the valve, the passage in said valve plug opening through one side of the said plug to permit an unrestricted passageway from said plug to one of said openings in the valve casing, said valve plug being movable into full open and full closed positions, and adjustable means for holding said plug yieldingly against casual movement at any desired intermediate position.

12. A valve comprising a housing, a valve-plug rotatably seated therein, a member adjustably mounted on the housing and having an indicating mark and a notch, means for securing said member in its adjusted positions, and a resilient finger carried on the valve-plug to coöperate with the said notch for holding the plug against casual movement, the housing having a graduated scale along the line of motion of the said indicating mark, to determine the degree of the adjustment of the member.

[Claims 3, 4, 6, 7, 9 to 11, 13, and 14 not printed in the Gazette.]

1,244,631. WATER-LIFT. JAMES AMERICUS MITCHELL, McCrory, Ark. Filed Sept. 28, 1916. Serial No. 122,753. (Cl. 103—84.)



1. A water lift including a tubular member provided with an entrance opening, a partition insertible within said tubular member, a pipe secured to said partition and leading from a source of fluid under pressure, said pipe being provided with a returned extension.

4. A water lift including a tubular member provided with an entrance opening, a partition insertible within said tubular member, a pipe secured to said partition and leading from a source of fluid under pressure, said pipe being provided with a returned extension, said partition being provided with an opening, a valve coacting with said opening, and a pipe leading from a suitable source of fluid under pressure and extending through said partition and terminating in a returned portion discharging beneath the valve.

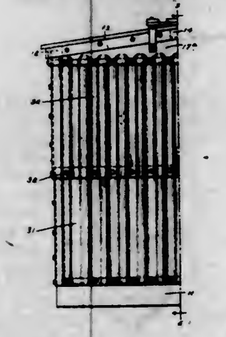
[Claims 2 and 3 not printed in the Gazette.]

1,244,632. CORRUGATED-SHEET-METAL END STRUCTURE FOR RAILWAY-CARS. WALTER P. MURPHY, Chicago, Ill. Original application filed Nov. 25, 1912, Serial No. 733,369. Divided and this application filed Apr. 26, 1916. Serial No. 93,661. (Cl. 105—192.)

1. A metal end wall structure for railway cars comprising a sheet metal panel formed with vertical corrugations extending to the upper and lower edges thereof, and top and bottom members which are rigid so as to stiffen and reinforce said structure transversely of the corrugations which are secured to the framework of the car and to which the upper and lower edges of said panel are secured respectively, the portions of said members to which the edges of the panel are secured being formed to correspond with the corrugated configuration of said panel.

2. A metal end wall structure for railway cars comprising a sheet metal panel formed with vertical corrugations extending to the upper and lower edges thereof, a rigid stiffening and attaching top member secured to the framing of the car, the lower edge of which conforms to the corrugated configuration of the panel which is secured thereto, and an angular bottom attaching and stiffening member having an upstanding flange to which the lower edge of the panel is secured which is also conformed to the corrugated configuration of the panel.

3. A metal end wall structure for railway cars, comprising a sheet metal panel formed with vertical corrugations extending to the upper and lower edges thereof, a rigid stiffening and attaching top member secured to the framing of the car, the lower edge of which conforms to the corrugated configuration of the panel which is secured thereto, and an angular bottom attaching and stiffening member having a flange which is secured to the top of the end sill of the car, and an upstanding flange to which the lower edge of said panel is attached, said upstanding flange having a configuration corresponding to the corrugated configuration of the panel.



16. In a railway box car the combination with the corner posts, end sill and end plate of the car, the latter comprising a metal element extending across the car from side to side and provided at its extremities with angularly disposed flanges overlapping and secured to the sides of the car; of a sheet metal end wall panel provided with flanges at its outer vertical edges overlapping and secured to said corner posts, and means for securing the lower edge of said end wall panel to the end sill of the car; the lower edge of said metal end plate element being offset so as to overlap and fit the upper edge of said end wall panel and its flanges providing a water shedding connection.

21. The combination with the framing of a railway car, of an end structure for the car comprising a sheet-metal end panel having vertical corrugations extending to the edges of the panel, one corrugation merging into the next so that the panel forms a sinuous curve in horizontal cross-section, a transverse rigidifying and attaching member at the upper edge of said panel for securing the same to the framing of the car and a transverse rigidifying and attaching member at the lower edge of the panel for securing said edge to the framing of the car, said members being disposed so as to receive and transmit to the car framing the stresses on said corrugations.

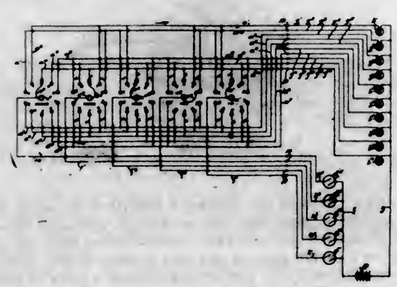
[Claims 4 to 15 and 17 to 20 not printed in the Gazette.]

1,244,633. [WITHDRAWN.]

1,244,634. ELECTRICAL ATTACHMENT FOR READING METERS. ALBERT C. NEFF, Urbana, Ohio, and EDWIN H. FORD, Wabash, Ind. Filed Apr. 16, 1915. Serial No. 21,866. (Cl. 235—92.)

1. In a device of the character described, an integrator meter for measuring values of different denominations, a portable determining device for determining said values, electrically controlled means for causing said determining device to correspond in value to said meter, and a circular connector associated with both the meter and the determining device, said connectors being arranged to be detachably connected together and said meter connector being located at a point distant from said meter.

2. In a device of the character described, an integrator meter for measuring values of different denominations, a series of electrical circuits for a certain denomination, a common connector for said circuits located at a point distant from said meter, means operated by the meter for partially closing one of said circuits to correspond with the measured value of said meter, a portable electrically controlled determining mechanism for determining said values having circuits corresponding to said meter circuits, and a common connector for said determining mechanism circuits, said connectors being capable of being detachably connected together.



3. The combination of an integrator meter for measuring values of different denominations, a portable determining mechanism therefor, a series of electrical circuits associated with said meter and mechanism corresponding to the values of certain denominations including a connector for the respective circuits to said meter and mechanism located at a point distant from said meter and arranged to simultaneously and detachably connect corresponding circuits together, means operated by the meter for successively closing those parts of said circuits associated therewith, and means associated with the determining mechanism for causing the meter closed circuits to determine the value thereof.

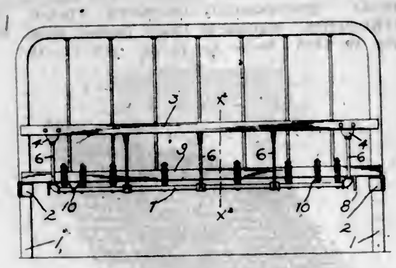
4. In a device of the character described, an integrating meter for measuring values of different denominations having circuits extending to a point distant therefrom, a common connecting member for said circuits located at said distant point, a portable determining mechanism, a series of normally open circuit parts in said determining mechanism, a connecting member common to said circuit parts, said connecting members being arranged to be detachably connected together, means in said meter for completing one of said circuit parts, manually operated means for independently closing the circuit parts of said determining mechanism so as to make a complete electrical circuit through said meter and mechanism, together with means in said circuit and controlled thereby for determining the value thereof.

[Claims 5 to 11 not printed in the Gazette.]

1,244,635. BED-SPRING. WILLIAM W. NOLTING, Minneapolis, Minn. Filed Sept. 13, 1915. Serial No. 50,316. (Cl. 5—64.)

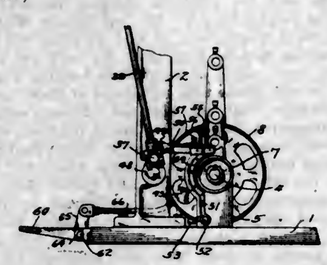
1. A mattress support comprising upper and lower frames, the former having a mattress supporting surface that is in itself resilient, and the latter having parts adapting it to detachably rest on the rails of a bed, said upper frame having depending brackets that extend below the ends of said lower frame, hanger brackets secured to and projecting from the said lower frame, and a multiplicity of coil tension springs anchored at their upper ends to said hanger brackets and attached at their lower ends to the depending brackets of said upper frame.

2. A mattress support comprising upper and lower frames, the former having a mattress supporting surface that is in itself resilient, and the latter having portions adapted to detachably rest on the rails of a bed, end brackets made up of vertical arms and horizontal cross rods, said arms secured to said upper frame and depending therefrom past the ends of said lower frame, and said



cross rods connecting the lower ends of said arms, hanger brackets secured to and projecting from the ends of said lower frame, and a multiplicity of coiled tension springs anchored at their upper ends to said hanger brackets and attached at their lower ends to said cross rods.

1,244,636. STARTING AND STOPPING MOTION. ELMER C. NORTHRUP, San Francisco, Cal., assignor, by mesne assignments, to Savings Union Bank and Trust Company, San Francisco, Cal., a Corporation of California. Filed May 28, 1915. Serial No. 30,983. (Cl. 74—46.)



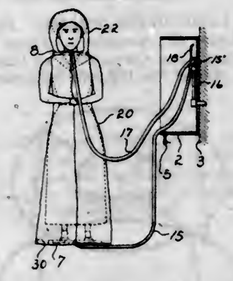
1. A starting and stopping motion comprising a continuously running clutch member, an intermittently driven shaft, a clutch adapted to engage said member, a lever to hold said clutch member disengaged from its rotating member, manual means for moving said lever to permit the engagement of the clutch members, a cam adapted to push said lever forward to disengage the two clutch members at the end of the cycle of operations of the machine, a brake, and means whereby the intermittently driven shaft applies the brake at a predetermined point after each movement.

3. A starting and stopping motion for machines comprising a frame, an intermittently driven shaft carried thereby, a continuously running member on said shaft, a slidable clutch member, a spring to cause said slidable clutch member to engage the running member, a lever for holding the slidable clutch member out of engagement with the running clutch member, a second lever for shifting the first mentioned lever, a cam for shifting the latter lever, a shaft to which said cam is secured, a foot pedal for starting the machine, a brake for stopping the machine when the cam shaft has turned precisely one revolution and means whereby the intermittently driven shaft will apply said brake at a predetermined place after each movement.

5. A starting and stopping motion for machines comprising a frame, a shaft carried thereby, a continuously running members thereon, a slidable clutch member, a spring to cause the slidable clutch member to engage the running member, a lever for shifting the slidable clutch member and having a lateral projection thereon, a second lever carrying two rollers, one to engage the latter projection to disengage the slidable clutch member from the running member, a second shaft, a cam on the latter shaft adapted to engage the second roller to cause the disengagement of the clutch members, a brake wheel, a lever pivoted to the frame, a crank on the cam shaft, and a spring pressed arm with which said crank is adapted to engage to set the brake to stop the machine after the cam shaft has turned one revolution.

[Claims 2 and 4 not printed in the Gazette.]

1,244,637. FIRE-EXTINGUISHING APPARATUS. JAMES O'LOUGHLIN, New Britain, Conn. Filed Apr. 25, 1917. Serial No. 164,381. (Cl. 169—13.)



1. A garment of fire-proof material combined with means associated with the garment for delivering a fire extinguishing fluid within the garment.

9. A fire extinguishing appliance comprising an annular member in which a human being can stand, a second annular member to be worn about the body, the two annular members having outlets for an extinguishing fluid, a garment of fire-proof material connected with one of said annular members and to be worn upon the body of a human being, and means for supplying the fluid to the annular members.

12. The combination of a cabinet having means for closing the same, means for normally holding the cabinet closing means in closed position, a source of fluid supply, a fire-proof garment to be worn by a human being, inclosed by the cabinet and removable therefrom, and means for the supply of the fluid from the fluid supplying means into the garment when the same is taken from the cabinet.

[Claims 2 to 8, 10, 11, 13, and 14 not printed in the Gazette.]

1,244,638. SHOE-STRETCHING DEVICE. CHARLES LEWIS PASSMORE, Prophetstown, Ill. Filed Jan. 20, 1917. Serial No. 143,478. (Cl. 12—130.)



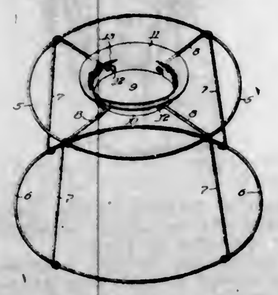
1. An apparatus of the class described, an arm adapted to be placed within the shoe, a coöperating member adapted to coöperate with said arm from outside said shoe to

stretch a portion of the same, a pivoted arm having means operatively associated therewith to operate upon said member to press it against the shoe upon the operation of said pivoted arm, said means being provided with an irregularly curved surface whereby it will positively lock said coöperating member in any one of a plurality of positions against the shoe to adjust and maintain the stretching pressure as desired.

4. An apparatus of the class described, a frame comprising two arms one of which is adapted to be placed within a shoe, a coöperating member adapted to coöperate from outside with the arm inside the shoe to stretch a portion of same, a pivoted arm on the other of said two arms, and means operatively associated with the inner end of said pivoted arm for positively locking said coöperating member in any one of a plurality of positions against the shoe to adjust and maintain the stretching pressure as desired.

[Claims 2 and 3 not printed in the Gazette.]

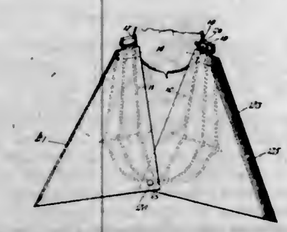
1,244,639. LAMP-SHADE FRAME. VICTOR S. PEARLMAN, Chicago, Ill., assignor to Victor S. Pearlman & Co., Chicago, Ill., a Corporation of Illinois. Filed Dec. 11, 1916. Serial No. 136,205. (Cl. 240—111.)



1. In a lamp shade frame, the combination of a skeleton structure for supporting shade fabric, spokes extending inwardly from the top thereof, and a sheet metal supporting ring having slots adjacent its lower edge for receiving the inner ends of the spokes, the upper section of said supporting ring being flared for coöperating with shade holder supporting screws.

2. In a lamp shade frame, the combination of a skeleton wire supporting structure for shade fabric, wire spokes at the upper end of said structure, a sheet metal supporting ring having slots extending from its lower edge for receiving the inner ends of the wire spokes whereby said ring may be centered relative to the structure preparatory to soldering of the ring to the spokes, the upper part of said ring flaring to coöperate with shade holder screws.

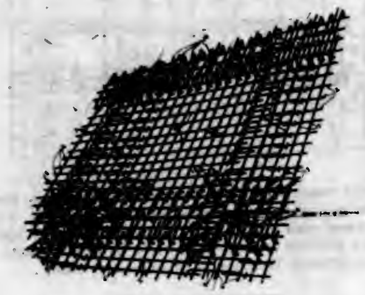
1,244,640. LAMP GUARD AND SHADE. FREDERICK W. PENNOCK, Quebec, Quebec, Canada. Filed Jan. 26, 1917. Serial No. 144,782. (Cl. 240—102.)



1. A combined lamp guard and shade comprising a guard provided with a split collar, a sectional shade secured to said collar and means for locking the split portions of said collar together.

[Claims 2 to 4 not printed in the Gazette.]

1,244,641. REINFORCED-CONCRETE FLOOR CONSTRUCTION. WALTER M. PRATT, Detroit, Mich. Filed Mar. 19, 1915. Serial No. 15,531. (Cl. 72—15.)



1. A reinforced concrete floor supported by rows of columns, and comprising a plurality of slabs each reinforced by two series of long bars extending substantially at right angles to each other, and adjacent the lower surface of the slab, the adjoining marginal portions of the slabs being reinforced near the top surface with short bars extending transversely of said portions, the bottom bars extending parallel with these top bars and overlapping same, said series of short bars forming a grillage over the column heads, and said series of short bars having downwardly bent end portions whereby said short bars are supported during formation of the floor, diagonal bottom bars crossing each other at substantially right angles being provided over the column heads and in substantially the same plane of said long bottom bars.

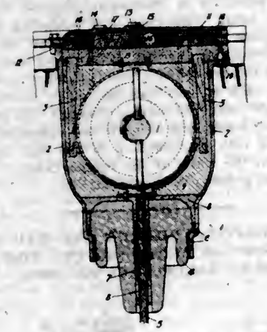
2. A reinforced concrete floor, supported by rows of columns, and comprising a plurality of slabs, each reinforced by two series of long bars extending substantially at right angles to each other and adjacent the lower surface of the slab, the adjoining marginal portions of the slabs being reinforced near the top surface with comparatively short bars extending transversely of said portions, said bottom bars extending substantially parallel with said top bars and overlapping the same, said series of short bars forming a grillage over the column heads, diagonal bottom bars being provided over the column heads, crossing each other at substantially right angles and in substantially the plane of the bottom bars.

4. In a concrete floor supported by columns, a series of short bars crossing a line of centers between columns adjacent the top surface of the floor, and a series of long bars parallel to said short bars and extending adjacent the bottom surface of each of the panels adjoining said line of centers, the ends of said short bars being bent down to have an anchorage engagement with said long bars, the long bars being extended beneath the short bars into proximity to said line of centers.

[Claim 3 not printed in the Gazette.]

1,244,642. ELECTRICAL APPARATUS. ALBERT PRUESSMAN, Berwyn, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Nov. 24, 1916. Serial No. 133,148. (Cl. 175—360.)

1. The combination with a casing and apparatus in said casing, of a medium in said casing surrounding said apparatus, and a sealing medium in said casing covering said first named medium, said sealing medium being incapable of flow at temperatures attained by the sealing medium under high temperature service conditions.



2. The combination with a casing and apparatus inclosed in said casing, of a medium in said casing surrounding said apparatus, a sealing medium of greater density than the medium surrounding said apparatus, and a separating medium intermediate said other media, said other media being capable of flow at a temperature below that at which said separating medium will flow.

3. The combination with a closed casing and apparatus in said casing, of a medium in said casing surrounding said apparatus, a separating medium covering said first named medium, said separating medium being incapable of flow at temperatures attained thereby under high temperature service conditions, and a sealing medium covering said separating medium and completely filling the space in said casing not occupied by said apparatus, the medium surrounding said apparatus and the separating medium.

4. The combination with a casing and electrical apparatus therein, of an insulating medium in said casing surrounding said apparatus, and a sealing medium covering said insulating medium to seal the same against moisture, said sealing medium being incapable of flow at temperatures attained thereby under high temperature service conditions.

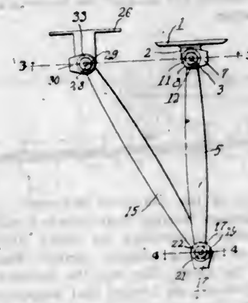
5. The combination with a casing and apparatus inclosed therein, of a medium in said casing surrounding said apparatus, a portion of said apparatus being exposed outside of said medium, and a second medium covering said first named medium and an exposed portion of said apparatus to hold said apparatus in position, said second medium being incapable of flow at temperatures attained thereby under high temperature service conditions.

[Claims 6 to 13 not printed in the Gazette.]

1,244,643. [WITHDRAWN.]

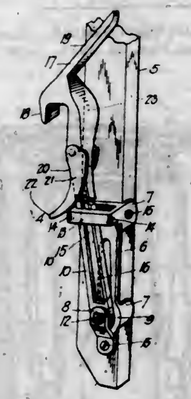
1,244,644. DOOR ATTACHMENT. ELIE RINGUETTE, North Attleboro, Mass. Filed Sept. 6, 1916. Serial No. 118,734. (Cl. 16—22.)

A door attachment including brackets for attachment to a door and door casing respectively, arms of different lengths, pivotal connections between the arms and the respective brackets, a friction element interposed between each arm and its bracket, a yoke straddling each arm and its bracket, friction elements interposed between each yoke and its arm and between each yoke and its bracket, means for tightening said pivotal connections to compress the friction elements adjacent thereto, a pivotal connection between the arms, a friction element between the arms, and means for tightening the last named pivotal



connection to compress the friction element between the arms.

1,244,645. SUSPENSION-HOOK FOR EXTENSION-LADDERS. ALBERT SCHREINER, Denver, Colo., assignor to The Schreiner Ladder Manufacturing Company, a Corporation of Colorado. Filed Mar. 29, 1916. Serial No. 87,494. (Cl. 228—25.)

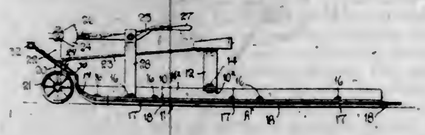


In an extension ladder, a plate lying flat against a side of a side-rail thereof, and having angularly disposed integral lugs which bear against an edge of the same, said plate being rigidly secured to said side-rail and having at its upper end a transverse slot provided by a guide-bar which is integrally connected with the plate by means of stops, and at its lower end, an integral outwardly projecting lug which forms a recess, a suspension-hook loosely extending through said slot and into said recess, a pivot pin occupying alined apertures in the lug, the plate and the hook, and a latch pivoted on the hook and having a cross-piece to engage the bill of the same, when moved upwardly about its pivot.

1,244,646. WEED-CUTTING MACHINE. WILLIAM A. SCHUBERT, Hansford, Tex. Filed Mar. 3, 1917. Serial No. 152,334. (Cl. 55—60.)

1. In a machine of the character described, spaced runners having laterally projecting cutting knives, means connecting the runners and spacing them from each other,

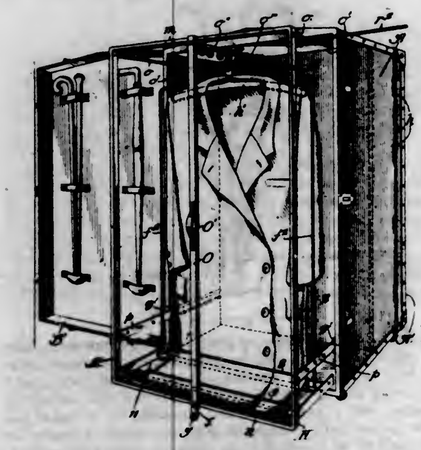
a wheeled truck extending upward from the runners and having an upwardly extending stem, draft devices operatively connected to the runners, a lever operatively mounted on the stem, and brackets attached to the runners and to the lever and means for locking the lever in any raised or depressed position.



3. In a machine of the character described, a pair of parallel spaced runners having their forward ends turned upward, each runner comprising an upper plate and a lower plate, knives having angular shanks disposed between the plates, the outer edge and the forward edge of each knife being beveled, an arched seat supporting member attached to the runners and operatively connected at its ends to the runners for lateral adjustment of the runners, a seat supported on the arch, a forward truck having an arched axle and an upwardly extending stem, draft devices connected to the runners, a lever operatively connected to the stem and extending rearward nearly to the seat, brackets pivoted at their outer ends each to one of the runners and at their inner ends operatively connected to the lever, a sector-shaped rack operatively attached to the stem, and manually operable means connected to the lever for locking it to the rack.

[Claim 2 not printed in the Gazette.]

1,244,647. COMPARTMENT-TRUNK. HARRY A. SHAW, Chicago, Ill. Filed Mar. 23, 1917. Serial No. 156,952. (Cl. 190—13.

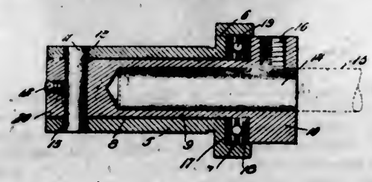


1. The combination, in a compartment trunk, of a slidable frame support fitted to slide into and out from said compartment, with garment hangers supported on said slidable frame and provided with means for adjusting said hangers to position in the frame and holding the hangers and the contained garments taut therein, said means including supporting hooks attached to the central upper rod of the frame and spring connections between said hooks and hangers for attaching the hangers to the frame, and spring-impelled parallel rods spaced apart for fastening the hangers to the sides of the frame by means of inclined rods connecting said parallel rods and hangers, substantially as described.

3. The combination with a trunk having guide plates on the walls of a compartment thereof, of a sliding frame support, said support comprising flat bars having sliding engagement with said guide plates, a plurality of hangers, yieldingly supported from a rod in the said frame, a plurality of bars h^3, placed below the hangers and connected thereto by a plurality of diagonally disposed rods, r; the said bars, h^3, being connected to a releasing device, the latter comprising a tubular sleeve provided with a longitudinal slot arranged centrally in its upper side, a pair of releasing rods carried by said tubular sleeve and arranged in alinement, each of said rods having at its inner end a thumb or finger piece extending through the slot in the sleeve, and the outer end of each rod extending through the sleeve and into perforations in the flat bars of the guide plates on the walls of the compartment.

[Claim 2 not printed in the Gazette.]

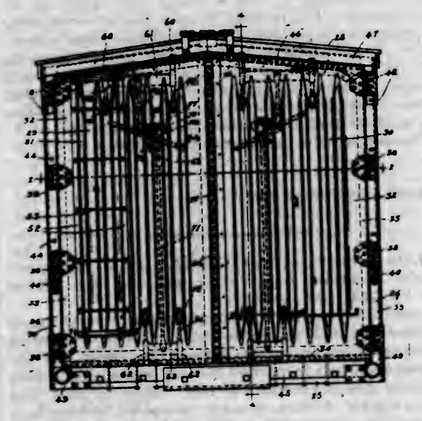
1,244,648. FLOATING REAMER AND TAP HOLDER. JAMES E. SHEUMAN, Waynesboro, Pa. Filed Nov. 18, 1916. Serial No. 132,130. (Cl. 29—109.)



1. A tool holder comprising a bushing having a longitudinal aperture and a recessed head surrounding the outer end of said aperture, a tool carrying member mounted loosely within said bushing and connected to rotate therewith to have a limited independent movement, said tool carrying member being formed with a head adapted to fit within the head of the bushing, and a ball thrust bearing interposed between the adjacent faces of the recess in the bushing and the head of the tool carrying member, substantially as set forth.

[Claims 2 to 6 not printed in the Gazette.]

1,244,649. END CONSTRUCTION FOR RAILWAY BOX CARS. VINTON E. SISSON, Chicago, Ill., assignor to Walter P. Murphy, Chicago, Ill. Filed June 18, 1915. Serial No. 34,870. (Cl. 20—35.)



3. The combination with the end framing of a box car, of two door panels hinged to said end framing at opposite sides thereof, comprising in each case a sheet metal element formed with vertical corrugations, rigidifying members at the top and bottom of the panel extending transversely to said corrugations, horizontally arranged lining boards secured in place against said corrugations; and locking means arranged between said boards and said sheet metal element for engaging said rigidifying members with the end framing of the car.

7. The combination with the end framing of a box car, of an end door panel hinged to one side of said end framing comprising a sheet metal element formed with vertical corrugations terminating within the edges of the sheet to leave flat margins, rigidifying members secured to said margins transversely of the corrugations, horizontal lining boards secured in place to bear against the said corrugations, and lining boards above and below the aforesaid lining boards spaced away from said marginal parts of the sheet metal element; locking devices arranged in the spaces between said margins and lining boards adapted to lock the panel at the top and bottom to the end framing, an operating member accessible only from within the car and connecting rods lying in the spaces between said corrugations connecting said locking devices to the operating member for simultaneous operation.

[Claims 1, 2, 4 to 6, and 8 to 11 not printed in the Gazette.]

1,244,650. BEADING-MACHINE. WILLIAM E. SMITH, Lynn, Mass., assignor to Boston Machine Works Company, Lynn, Mass., a Corporation of Massachusetts. Filed Oct. 28, 1916. Serial No. 128,320. (Cl. 12—53.)



1. In a beading machine, the combination with a frame, of an anvil, a spring yieldingly sustaining said anvil, a vibratory hammer, a member encircling the anvil and limiting its spring-pressed movement, said member being capable of movement relative to the frame, and means carried by said member for heating the anvil.

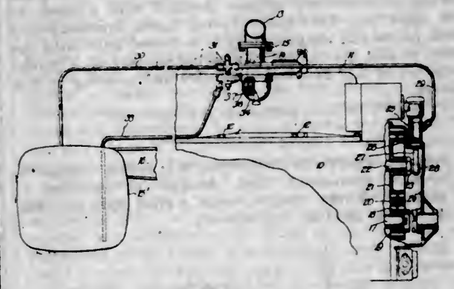
3. In a beading machine, the combination with a frame, of an anvil, a spring yieldingly sustaining said anvil, a vibratory hammer coöperating with the anvil, a member encircling the anvil and limiting its spring-pressed movement, said member being capable of movement in the direction of the yielding movement of the anvil, and electrical means carried by said member for heating the anvil.

7. In a beading machine, the combination with a frame, of a stud adjustably secured therein, a holder secured to said stud and provided with a recess, an anvil element yieldingly sustained in said recess, and a heating unit carried by the holder element and encircling the anvil element, said holder having means to limit the outward movement of the anvil element due to the action of the spring and the anvil element being capable of a yielding movement relative to the holder element.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,244,651. HYDROCARBON-MOTOR. LYLE K. SNELL and CHESTER F. JOHNSON, Detroit, Mich., assignors to Cadillac Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Feb. 2, 1916. Serial No. 75,634. (Cl. 158—36.)

1. In a liquid feeding system, the combination with a carbureter having a valve for regulating the supply of fuel thereto, and a fuel tank therefor, normally arranged at a level below said carbureter, of pressure means acting on said tank for feeding fuel from said tank to said carbureter comprising a regulating device adapted to be actuated by the pressure of the fuel adjacent said carbureter.



2. In a liquid feeding system, the combination with a carbureter having a valve for regulating the supply of fuel thereto, and a fuel tank therefor, normally arranged at a level below said carbureter, of pressure means for said tank, connections for feeding fuel from said tank to said carbureter, said a regulator arranged between said pressure means and said tank and adapted to be actuated by the pressure of the liquid in said connections at a point above said tank.

3. In a liquid feeding system, the combination with a carbureter having a valve for regulating the supply of fuel thereto, of a source of fuel supply therefor, comprising a pressure actuated regulator adapted to automatically provide a variable pressure at said supply source.

5. In a liquid feeding system, the combination with a carbureter, comprising a float chamber, a fuel tank normally arranged at a lower level than said carbureter, and pressure means for said tank, of a regulator arranged between said pressure means and said tank and adapted to be actuated by the pressure of the fuel adjacent said float chamber.

9. The combination with a carbureter having a valve for regulating the supply of fuel thereto, of a connected source of fuel therefor, comprising a pressure regulator adapted to vary the quality of the fuel mixture by altering the pressure of the fuel.

[Claims 4 and 6 to 8 not printed in the Gazette.]

1,244,652. SECTIONAL CEMENT TELEGRAPH-POLE. GEORGE T. SOUTHGATE, Brooklyn, N. Y. Filed June 16, 1915. Serial No. 34,492. (Cl. 72—85.)



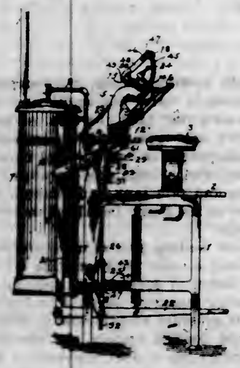
1. The combination with a cement covering of a reinforcing tube extending at one end beyond said cement covering, and provided with L-shaped slots, a recess at the

other end of said tube, and fixed rivets having bodies extending into said recess and grouting in said recess.

2. The combination with a cement covering, of a reinforcing member extending below said cement covering and provided with L-shaped slots, a second cement covering having a reinforcing member provided with a recess at its upper end, fixed rivets having bodies extending into said recess and adapted to form a locked joint with the slots of said first named reinforcing member by a partial rotation of said first named member and grouting in said recess.

[Claims 3 to 5 not printed in the Gazette.]

1,244,653. CLOTHES-PRESSING MACHINE. FRANK S. SPARKS, Springfield, Ohio, assignor of one-third to Frank L. Walker, Dayton, Ohio. Filed Apr. 28, 1913. Serial No. 764,123. (Cl. 68—9.)



1. The combination of a clothes pressing machine, a boiler from which steam is supplied to the pressing machine, a pump supplying water to the boiler, and an actuating connection between the pump and pressing machine by which the pump is operated by the operation of said machine.

2. The combination of a clothes pressing machine, a boiler from which steam is supplied to the clothes pressing machine, a water supply device for supplying water to the boiler, an actuating connection between the pressing machine and the water supply device for automatically regulating the supply of water by the operation of the pressing machine.

3. The combination of a clothes pressing machine, a boiler supplying steam to the pressing machine, a water supply device supplying water to the boiler, and an actuating connection between the water supply device and the pressing machine by which the said device will be automatically operated to supply water to the boiler at each operation of the pressing machine.

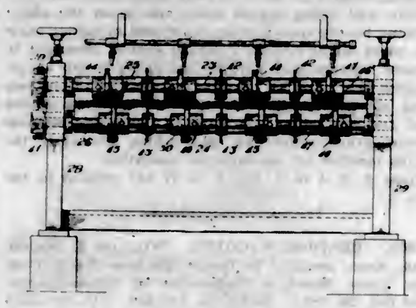
4. The combination with a clothes pressing machine including a movable presser head, a boiler supplying steam to the pressing machine, a water supply device supplying water to the boiler, and means whereby at each operation of the movable presser head of the pressing machine the water supply device is operated to supply water to the boiler.

5. The combination of a clothes pressing machine having a movable head, a boiler supplying steam to the pressing machine, a water supply device supplying water to the boiler, and an actuating connection between the water supply device and the pressing machine head.

[Claims 6 to 11 not printed in the Gazette.]

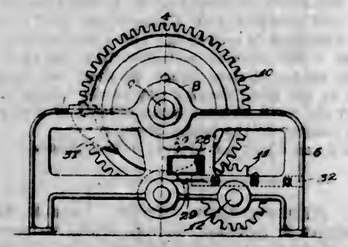
1,244,654. ROOFING-MACHINE. ALEXANDER S. SPIEGEL, Chicago, Ill. Filed Aug. 26, 1916. Serial No. 117,003. (Cl. 164—68.)

1. In a machine for cutting a web of roofing material into roofing elements, the combination of a pair of rotary cutters having a single pair of coacting transverse cutting edges and two pairs of coacting circumferential cutting edges, the two circumferential cutting edges on each cutter extending in opposite directions from the two ends of the transverse cutting edge on the same cutter and being of such length that their ends remote from the said transverse cutting edge overlap whereby the said cutters are arranged to cut the said web with a longitudinal series of transverse slits and pairs of longitudinal slits extending in opposite directions from the two ends of the transverse slits with the ends of adjacent longitudinal slits remote from the transverse slits overlapped and means for severing the web transversely in lines intersecting the said overlapped ends of the longitudinal slits.



2. In a machine for cutting a web of roofing material into roofing elements, the combination of a pair of oppositely rotating parallel shafts having a series of pairs of coacting slitters and a pair of rotary cutters between each two adjacent pairs of slitters and beyond the last pair of slitters at each end of the series, the rotary cutters of each pair having a single pair of coacting transverse cutting edges, and two pairs of coacting circumferential cutting edges, the two circumferential cutting edges on each cutter extending in opposite directions from the two ends of the transverse cutting edge on the same cutter and being of such length that their ends remote from the said transverse cutting edge overlap, whereby the said web is cut upon alternating longitudinal lines with a continuous longitudinal slit and a series of transverse slits with pairs of longitudinal slits extending from the two ends of the transverse slits and the ends of adjacent longitudinal slits remote from the transverse slits overlapped and means for severing the web transversely in lines intersecting the said overlapped ends of the longitudinal slits cut by all of the pairs of the said rotary cutters.

1,244,655. HOOP-SPLITTING MACHINE. SAMUEL G. STAHLHUTH, St. Louis, Mo. Filed Aug. 25, 1916. Serial No. 116,803. (Cl. 144—176.)



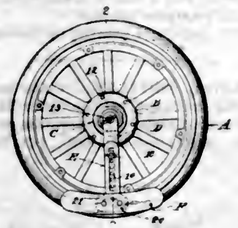
1. In a hoop splitting machine the combination of a suitable frame of a pair of rotating splitting disks mounted therein, and means operating in conjunction with the rotating cutting disks for feeding hoops through the machine to be split in three sections, substantially as specified.

2. A hoop splitting machine comprising a frame, a rotating core, a pair of circular splitting disks connected to said core and suitably spaced apart, a plurality of feeder pins carried by the core and between the cutting disks, and means for rotating the core and splitting disks for splitting a barrel hoop into three sections, substantially as specified.

3. A machine of the class described comprising a suitable frame, a rotating core mounted therein, a pair of circular splitting disks carried by the rotating core, a grooved roller supported in the frame below the rotating core and in proper relation with the splitting disks, means carried by the core for feeding the hoop between the splitting disks and the grooved roller and a guide in connection with the core for directing the split sections of the hoop away from the core when the same has been cut, substantially as specified.

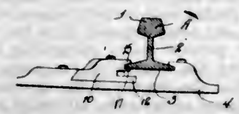
4. A machine of the class described comprising a suitable frame, a pair of splitting disks rotatably mounted therein, feeder pins located between said splitting disks which pins contact with the material to be split for feeding the same, a grooved roller carried in the frame below the splitting disks and having its grooves located in proper relation with the splitting disks over which the material to be cut is placed and a guide mechanism for directing the split section of the hoop away from the splitting disks.

1,244,656. MUD-GUARD FOR MOTOR-VEHICLES. SHIRLEY Q. STANLEY, Chicago, Ill. Filed Feb. 8, 1917. Serial No. 147,309. (Cl. 21—23.)



A device of the nature described, including, a vehicle wheel, said vehicle wheel having centrally a hub, an oil cap in screw-threaded engagement with said hub, a stud bolt centrally secured to said oil cap and projecting therefrom, a flat rod pivotally mounted on said stud bolt and depending therefrom, there being in said rod a series of spaced apart, square holes, a second flat bar in front of said first-named bar, said second bar having at its lower extremity sidewise extending flanges, said second bar having longitudinally a long, slotted aperture, a shield secured to said flanges, and a bolt, said bolt having a squared portion engaging one of said squared apertures, a round portion engaging the slot in the second bar, and a thumb screw at its outer end, whereby the first mentioned bar may swing on said stud bolt, and the second bar swing on the bolt connecting the two bars, and move vertically on said bolt.

1,244,657. RAIL-BRACE. CARL E. STAUSS, Homestead, Pa. Filed Mar. 27, 1917. Serial No. 157,795. (Cl. 238—2.)

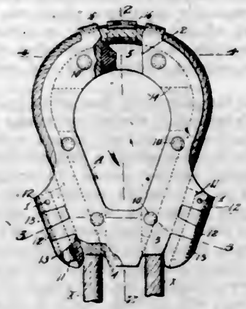


1. The combination of a railway rail mounted in a supporting plate, and a wedge member associated with the supporting plate, of a projection carried by the wedge member and overlapping the flange of the rail, the supporting plate having a depression and a groove formed therein directly beneath the said depression, a tongue received in the said groove, and a supplemental tongue carried by the wedge member and received in the said depression.

2. The combination of a railway rail mounted in a supporting plate, and a wedge member associted with the supporting plate, of a projection carried by the wedge member and overlapping the flange of the rail, the supporting plate having a depression and a groove formed therein, a tongue received in the said groove, a supplemental tongue carried by the wedge member and received in the said depression, the space between the said projection and the said supplemental tongue forming a groove for the reception of the base flange of the rail.

3. The combination of a railway rail mounted in a supporting plate, and a wedge member associated with the supporting plate, of a projection carried by the wedge member and overlapping the flange of the rail, the said supporting plate having a depression formed therein directly beneath the adjacent edge of the said rail flange, a supplemental tongue carried by the wedge member and received in the depression for permitting the projection and the supplemental tongue to embrace the marginal edge of the flange of the rail.

1,244,658. ROPE-THIMBLE. CHARLES C. SUNDERLAND, Trenton, N. J., assignor to John A. Roebling's Sons Company, a Corporation of New Jersey. Filed Nov. 10, 1916. Serial No. 130,567. (Cl. 57—11.)



1. A rope thimble consisting of two parts, the line of division being longitudinally of the thimble, and the parts being open at opposite ends.

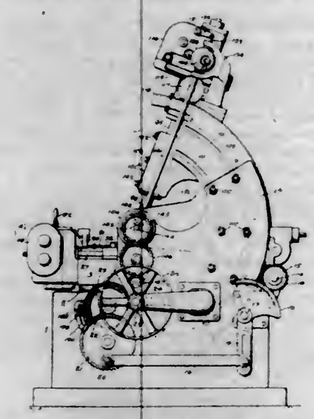
2. A rope thimble consisting of two parts, the line of division being longitudinally of the thimble, each part being open at one end and having a tongue portion at the other end, the tongue on one part being adapted to enter and close the open end of the other part.

3. A rope thimble consisting of two parts, the line of division being longitudinally through the rope groove, each part being open at one end and having a tongue at the opposite end, the open end and the tongue of the one part being at opposite ends to the open end and tongue of the other part, the tongues being adapted to enter and close the open ends, overlapping studs on the two parts acting to hold the two parts against slip on each other, and means for securing the two parts together to form a thimble.

5. A rope thimble consisting of two parts A, A', the line of division being longitudinally through the rope groove, each part having respectively open ends 2 and 3, tongue portions 4 and 5, overlapping studs 12, and 13 at the inner end of the thimble outside the grooves having openings in line, locking pin 11 passing through said openings, and corresponding recesses and studs 14 and 15 on the two parts of the thimble between its ends.

[Claim 4 not printed in the Gazette.]

1,244,659. BEVEL-GEAR GENERATOR. GUSTAF DAVID SUNDSTRAND, Rockford, Ill., assignor to Rockford Tool Company, Rockford, Ill., a Corporation of Illinois. Filed Dec. 1, 1916. Serial No. 134,280. (Cl. 90—5.)



1. A machine for generating gear teeth having, in combination, cutting means comprising a plurality of intermeshing cutters adapted to occupy a tooth-space, devices for supporting said cutters, means for rectilinearly reciprocating said supporting devices, each stroke thereof being continuous, means for oscillating said supporting devices, and means for rotating a single one of said cutters whereby all of said cutters will be rotated, said rotating means including a flexible connection, whereby said cutters may be rotated, reciprocated and oscillated synchronously.

8. A machine for generating gear teeth having, in combination, clutch-reversing means comprising a cam element on the machine, travel-limit means, a member actuated by said travel-limit means, a slidable clutch member adapted to engage driving means, an actuating device on said travel-limit actuated member, and connecting means operatively associated with said clutch member and said travel-limit actuated member, said connecting means including a member having a lost motion connection with said clutch member, and a sliding contact with said cam element whereby the movement of said clutch member to engage said driving means is delayed and is thereafter quickly actuated.

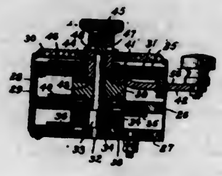
35. A mechanism having, in combination, a frame, a shaft rotatably mounted thereon, driving means rotatable upon said shaft for driving the same, a clutch slidably and nonrotatably mounted upon said shaft for engagement with said driving means, and actuating means for sliding said clutch whereby the movement of said clutch to engage said driving means is delayed and is thereafter quickly actuated, said actuating means comprising a slidable element, a cam member secured to said frame, a connecting member operatively connected with said slidable element and movable thereby, said connecting member further having a slidable connection with said cam member and a lost-motion connection with said clutch.

[Claims 2 to 7, 9 to 34, and 36 to 43 not printed in the Gazette.]

1,244,660. LOCK-SWITCH. BRICE P. SWYERS, Pittsburgh, Pa., assignor to Motors Lock Company of America, Pittsburgh, Pa., a Corporation of Delaware. Filed Sept. 25, 1915. Serial No. 52,557. (Cl. 175—282.)

1. In a lock-switch a rotatable shaft, a contact fixedly associated with said shaft, a second contact having a lost-motion connection with said shaft, a second shaft concentric with said first-named shaft and rotatable therewith, a contact mounted to rotate with respect to said first-named shaft, and a clutch between said second named shaft and said rotatable contact.

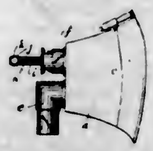
3. In a lock-switch a shaft, a contact fixedly associated with said shaft, a second contact having lost-motion connection with said shaft, a contact rotatable with respect to said shaft, a bushing slidably mounted on said shaft and rotatable therewith, and clutch connection between said bushing and said rotatable contact.



6. In a lock-switch a base member, fixed contacts on said base member, an intermediate member, fixed contacts carried by the lower side of said intermediate member, fixed contacts carried by the upper side of said intermediate member, a shaft mounted to rotate with respect to said members, a contact carried by said base member, a second contact carried by said shaft and coöperating with the fixed contact on the lower side of said intermediate member, one of said contacts being fixedly associated with said shaft and the other of said contacts having a lost-motion connection with said shaft, a contact rotatably mounted on said shaft to coöperate with the fixed contacts on the upper side of said intermediate member, a bushing slidably mounted on said shaft and rotatable therewith, and a clutch connection between said bushing and said rotatable contact.

[Claims 2, 4, 5, and 7 not printed in the Gazette.]

1,244,661. FACIAL INHALER. CHARLES K. TETER, Cleveland, Ohio, assignor to The Teter Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Sept. 9, 1912. Serial No. 719,389. (Cl. 128—13.)



1. The combination with an inhaling device having an inhaler-member, of an associated valve affording a relatively large clearance therefor; a spring normally acting to close said valve, an adjustable part for varying the tension exerted by the spring against the valve, a slotted casing for the spring, and a gage associated therewith; all visibly and accessibly mounted upon the inhaler-member, substantially as set forth.

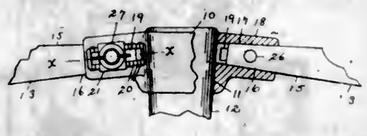
3. In an inhaling device, the combination with a substantially bell-shaped body portion formed of celluloid and free from obstructing members externally and internally thereof, of suitable inlet and outlet members connected therewith, and a soft rubber apron equipped with a peripheral pneumatic cushion; said cushion being normally positioned beneath the lower edges or rim of said body-portion, substantially as set forth.

5. In an inhaling device, the combination with a substantially bell-shaped body-portion, formed of transparent material, of a gas inlet disposed upon the body-portion, and a positive pressure valve, comprising an adjustable spring governing the tension of the valve, a gage and means for setting the tension of the spring at the different points indicated by the gage; all visibly and accessibly mounted upon the body-portion, substantially as set forth.

7. In apparatus of the class described, the combination with a substantially bell-shaped member of transparent celluloid having unobstructed sides, of inlet and outlet valves positioned wholly upon the top of said body portion and a pneumatic cushion disposed upon the lower edges of said body portion, whereby its sides are entirely free and unobstructed, substantially as set forth.

[Claims 2, 4, 6, 8, and 9 not printed in the Gazette.]

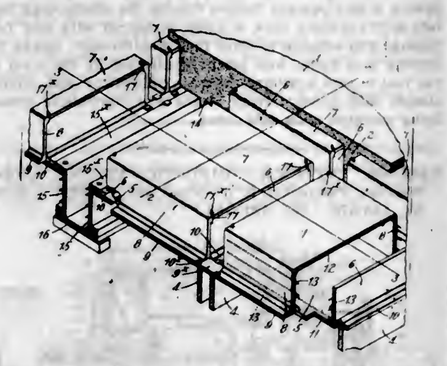
1,244,662. PICKAX. ALBERT REDDLE THOMSON, Plantsville, Conn. Filed July 29, 1916. Serial No. 112,025. (Cl. 125—19.)



1. A pickax comprising a body portion having a tool receiving socket, a bit member having a head fitting the said socket, the said body portion having a slot opening into the said socket, the border wall of the said slot on one face of the said body portion having a set of teeth, the said head having a hole in registration with the said slot, a locking member having teeth for coöperating with the said teeth on the body portion and means for operatively mounting the said locking member on the said head, comprising a bolt passing through the said hole and also through the said slot, and a spring washer and nut mounted on the said bolt.

[Claim 2 not printed in the Gazette.]

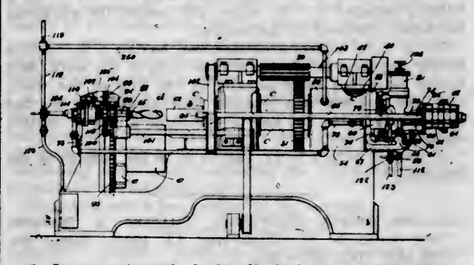
1,244,663. CONCRETE BUILDING CONSTRUCTION. EDWARD A. TUCKER, Winchester, Mass. Filed Dec. 7, 1911. Serial No. 664,341. (Cl. 72—66.)



1. A concrete floor construction for a floor slab including a plurality of integral, reinforced concrete members having each a plurality of substantially flat slab-forming faces with intervening rib-forming depressions adapted to form ribs in one direction, said members being separated to form ribs in the opposite direction, and other concrete form members presenting a depressed, U-shaped formation between said slab forming faces to coöperate with the first mentioned members to provide forms for the said oppositely directed ribs, and a subsequently molded slab constituting a monolith with said core-form members, said first-named concrete members constituting both forms to be supported at their ends to span a substantial space and sustain the weight of the intervening concrete when poured and a core to core out the dead weight from the flat slab.

2. A concrete floor construction for a floor slab including a plurality of integral, reinforced concrete members having each a plurality of substantially flat slab-forming faces with intervening rib-forming depressions adapted to form ribs in one direction, said members being separated to form ribs in the opposite direction, and other concrete form members to coöperate with the first-mentioned members and comprising each upright sides and projecting flanges, the flanges of adjacent members approaching each other to provide with said sides the forms for said oppositely directed ribs and comprising also bottom walls separated from said slab members by said upright sides and adapted to form a flat ceiling, and a subsequently molded slab constituting a monolith with said core-form members, said first-named concrete members constituting both forms to be supported at their ends to span a substantial space and sustain the weight of the intervening concrete when poured and a core to core out the dead weight from the flat slab.

1,244,664. FLUID-OPERATED LATHE. HENRY E. WARREN, Ashland, Mass. Filed Jan. 28 1916. Serial No. 74,905. (Cl. 29—42.)



1. In an automatic hydraulic lathe, in combination, a cylinder and a piston therein, and means for stopping and reversing the movement of said piston, consisting of a primary valve governing the flow of fluid into said cylinder, a stop to actuate said valve and movable with said piston, and a secondary valve hydraulically actuated from the primary valve after a time limit and controlling the flow of liquid out of said cylinder.

8. In a turning and boring machine, in combination, a cylinder, a piston movable therein, and a fluid-control mechanism for said piston consisting of a valve controlling the outlet of fluid from said cylinder, means for normally holding said valve in its closed position, fluid-operated means for opening said valve, and a valve controlling the operation of said fluid-operated means.

11. In a turning and boring machine, a rotatable turret, an axially movable spindle, a valve controlling the rate of flow of fluid, a shaft rotatable and axially movable, a plurality of devices attached to said shaft and coöperating individually with said valve, means for connecting said shaft with said spindle to effect axial movement of the said shaft by axial movement of said spindle, and means for coupling said shaft with said turret to cause the shaft to rotate with the turret.

19. In a boring and turning machine, a rotatable turret, a clutch controlling rotation of said turret, a cylinder, a piston movable in said cylinder, and means movable with said piston for operating said clutch to permit rotation of said turret, and a locking device for said turret operatively connected with said clutch to disconnect the latter when said turret is held by said locking device.

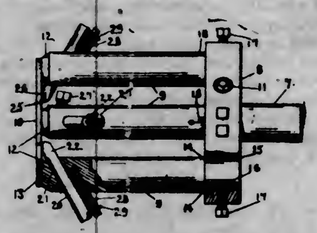
20. In a boring and turning machine, a rotatable turret, means for rotating it, means for controlling rotation of said turret, a cylinder, a piston movable therein, a valve for controlling admission of fluid into said cylinder, a shaft movable axially with said piston, means movable with said shaft for operating said valve, and means movable with said shaft for rendering the turret controlling means effective.

[Claims 2 to 7, 9, 10, 12 to 18, and 21 to 25 not printed in the Gazette.]

1,244,665. TOOL-HOLDER. CLEMENT W. WATSON, Toledo, Ohio. Filed Feb. 7, 1916. Serial No. 76,556. (Cl. 29—105.)

1. A holder embodying a base, an annular series of parallel arms extending from the base, tools carried by the arms, an arm holding ring parallel to the base for stiffen-

ing the arms, and means for independently rocking the arms to vary the tool adjustment.

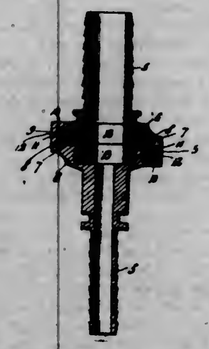


6. A plurality of cutting tools, arms for the tools, a holding member for the arms, and means for adjusting the arms relatively to the member.

14. A work holder, a cutting tool having a flat side, a holder inclining the tool along the axis of the work, said holder extending longitudinally of the axis of the work, and said tool having a grinding face intercepting the flat side to permit the flat side to determine a pair of cutting edges for the tool.

[Claims 2 to 5, 7 to 13, and 15 to 18 not printed in the Gazette.]

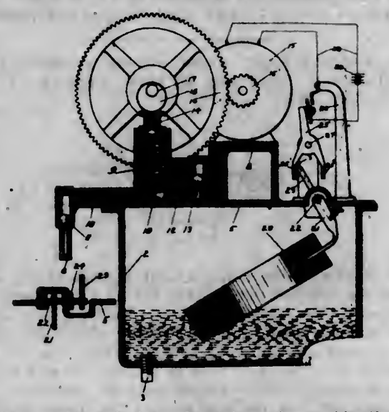
1,244,666. HOSE-COUPLING. CHARLES A. WELKER, New York, N. Y. Filed May 12, 1917. Serial No. 168,157. (Cl. 137—28.)



A hose coupling comprising a pair of counterpart members, each having a shank provided with a coupling head, and diametrically opposite laterally extending flanges on the head flush with the coupling face thereof, one of the flanges having a forwardly extending flange at its extremity provided with a laterally inturned extension terminating in a rearwardly presented hook bill, the under side of said extension and the extremity of the hook bill being serrated, the other flange having a rearwardly extending hook bill at its extremity, and the rear surface of said flange back of the hook bill and the extremity of the hook bill being serrated, the aforesaid serrated portions of the flanges and the hook bills being inclined to the axis of the member, and the serrated surfaces of the respective flanges and hook bills being inclined in opposite directions.

1,244,667. AUXILIARY CONSTANT-FUEL-SUPPLY APPARATUS FOR AUTOMOBILES. JAMES W. WELLINGTON, Jackson, Mich. Filed Nov. 20, 1915. Serial No. 62,679. (Cl. 103—66.)

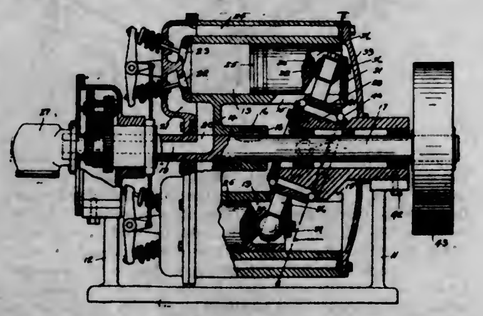
1. In a constant fuel supply system, the combination of an auxiliary tank, a pump for the filling of said tank, an electric motor for operating said pump, a float within said tank, a float arm rock shaft journaled in the tank cover, a float arm connecting the float, a switch having a forked movable arm, a switch actuating arm mounted on the float arm rock shaft, said switch actuating arm playing between the forks of said switch arm, whereby the switch is controlled by said float, as specified.



2. In a constant fuel supply system, the combination of an auxiliary tank with a detachable cover therefor, a pump on said cover for filling the same from the main supply, an electric motor for operating said pump, an electric circuit and source of supply, a float within the said tank, connections from said float to control the said circuit all of which are disposed on said cover as a base, coacting for the purpose specified.

3. In a constant fuel supply system, the combination of an auxiliary fuel tank provided with a detachable cover having a fuel passage formed therein for discharging fuel into said auxiliary tank, a pump connected with said fuel passage and adapted to force fuel therethrough, means for driving said pump, and means controlled by the level of the fuel in said auxiliary tank for controlling said driving means, said pump driving means and controlling means being mounted upon said cover.

1,244,668. INTERNAL-COMBUSTION ENGINE. JAMES WHALEY, Pawtucket, R. I. Filed Mar. 19, 1917. Serial No. 155,670. (Cl. 121—63.)



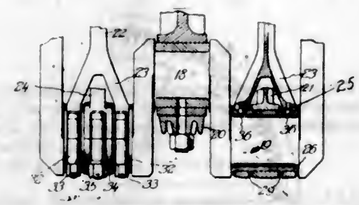
1. In an internal combustion engine, a rotor, a plurality of reciprocating pistons in said rotor, a member rotatable with said rotor having arms connected to all of said pistons, the axis of rotation of said member being set on an angle to that of said rotor.

8. In an internal combustion engine, a rotor, a plurality of reciprocating pistons in said rotor, a rotatable spider having arms each provided with an anti friction roll engaging each of said pistons, a fixed hub on which said spider is rotatably mounted, the axis of said hub about which said spider revolves being set on an angle to the axial rotation of said rotor.

7. In an internal combustion engine, a rotor, a plurality of reciprocating pistons in said rotor, a rotatable member having arms connected into each of said pistons the axis of rotation of said member being set on an angle to that of said rotor, and means for guiding said piston to prevent rotation in its cylinder.

[Claims 2, 4 to 6, and 8 not printed in the Gazette.]

1,244,669. BEARING CONSTRUCTION. D'ORSAY McCALL WHITE, Detroit, Mich., assignor to Cadillac Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Nov. 18, 1915. Serial No. 62,087. (Cl. 74—17.)

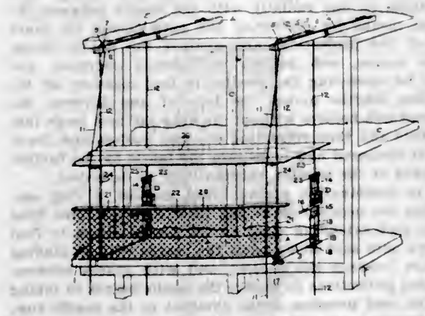


3. In a bearing, the combination of a shaft, a journal member thereon comprising relatively stationary sections and provided with a plurality of circumferential grooves, a plurality of split bearing members set in said grooves, and means for maintaining said parts in position.

10. In a bearing, the combination with a crank pin, and a pair of connecting rods having split portions adapted to be journaled thereon, a journal member comprising relatively stationary sections and arranged on said crank pin, said journal member being provided with circumferential flanged portions, one of said connecting rods being forked at its bearing end and adapted to embrace the bearing end of the other rod, said rods being arranged on opposite sides of said flanged portions and adapted to be held thereby in proper spaced relation.

[Claims 1, 2, and 4 to 9 not printed in the Gazette.]

1,244,670. ADJUSTABLE SUSPENDED SCAFFOLDING. ROBERT WHITNEY, Omaha, Nebr., assignor to The Eclipse Scaffolding Company, Omaha, Nebr. Filed Aug. 31, 1915. Serial No. 48,346. (Cl. 20—81.5.)



1. In apparatus of the class described, supporting outriggers extending horizontally, a cable for each outrigger, each cable having a horizontal portion extending parallel with the outrigger and vertical portions depending from said horizontal portion, means movably connecting the cables and out-riggers, a wide substantially rigid platform-section disposed beneath the outriggers and having one of the depending portions of each cable immovably connected therewith at one side, adjusting means for connecting the other depending portion of each cable in varying relations to the other side of the platform, and releasable means for preventing movement of the cables relatively to the outriggers.

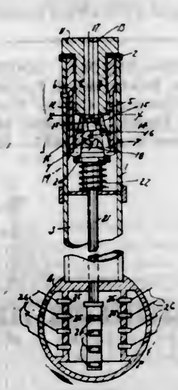
2. In apparatus of the class described, outriggers, cables connected therewith and depending from longitudinally-spaced parts thereof, platfroms carried by said cables, tubular standards disposed around the cables above the platforms, and guard-rails having openings through which the cables pass, the guard-rails resting upon and being supported by said tubular standards.

5. In apparatus of the class described, a series of platform-sections, disposed with the ends thereof adjoining each other, supporting outriggers disposed above the adjacent ends of each pair of platform-sections, a cable for each outrigger, means for detachably connecting one end of each cable with the respective platform-sections at points near one side thereof, hoisting devices detachably connected with said platform-sections near the other side thereof, the cables extending continuously from the detachably connected ends thereof over the outriggers and thence to the respective hoisting devices, the cables being movable over the outriggers, and means for controlling movements of the cables and maintaining the transverse level of the platform-sections.

6. In an apparatus of the class described, a platform, vertically extending cables connected with and supporting said platform, shielding means disposed adjacent to said platform, and means for supporting said shielding means comprising parts loosely engaging the cables but retained in position laterally thereby.

[Claims 3 and 4 not printed in the Gazette.]

1,244,671. LOCK. PEDER L. WIKHEIM, Everett, Wash. Filed Sept. 11, 1916. Serial No. 119,431. (Cl. 175—282.)



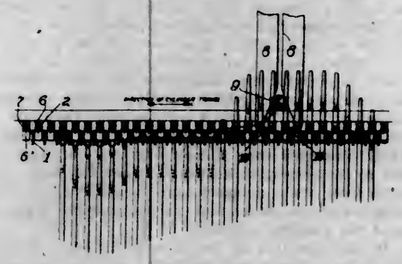
1. In a circuit breaking lock, including a stationary outer casing and a lock cylinder within said casing, the combination of a key operated lock-plug slidably and revolubly mounted in said cylinder, a shouldered rod operable by said plug, circuit breaking switches mounted on said rod and slidable and rotatable with said lock plug, whereby the said circuits are closed when the rod is reciprocated and revolved.

2. In a switch lock, the combination of circuit terminals arranged oppositely, a terminal closing switch revolubly and slidably arranged between said terminals and adapted to connect said terminals, a revoluble key operated plug revolubly and slidably mounted in a stationary lock cylinder, lock bolts operable by said plug and adapted to lock said plug and cylinder together, and a shouldered rod secured to said switch and coöperating with said bolts, whereby the said switch revolves and slides in unison with said bolts and plug.

1,244,672. CIRCULAR-KNITTING MACHINE. FRANK WILCOMB, Norristown, Pa., assignor to Hemphill Manufacturing Company, Central Falls, R. I., a Corporation of Rhode Island. Filed Dec. 1, 1913. Serial No. 804,025. (Cl. 66—21.)

16. In combination in a circular knitting machine, a rotary needle cylinder, spring needles, radially sliding web

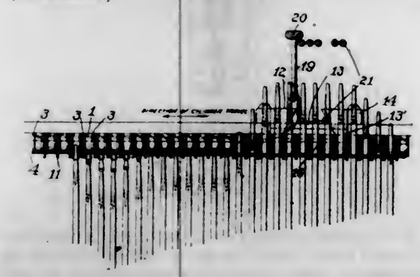
holders, a web holder bed, said web holders and bed being driven from the rotary needle cylinder, radially sliding bits operating individually to press the needle beards, a bed for the presser bits, and fixed cams for the presser bits and web holders, said presser bits having noses depending between the web holders whereby the series of presser bits with their bed are rotated, substantially as described.



20. In combination in a spring needle knitting machine, a rotary needle cylinder, spring beard needles, radially movable web holders, engaging the cylinder and driven thereby, a series of pressers, movable radially and having noses depending between the web holders by which said pressers are rotated as a series, and beds for the web-holders and pressers rotated by said parts, substantially as described.

[Claims 1 to 15 and 17 to 19 not printed in the Gazette.]

1,244,673. SPRING-NEEDLE KNITTING-MACHINE. FRANK WILCOMB, Pawtucket, R. I., assignor to Hemphill Manufacturing Company, Central Falls, R. I., a Corporation of Rhode Island. Filed Apr. 14, 1914, Serial No. 831,797. Renewed Jan. 13, 1917. Serial No. 142,323. (Cl. 66—12.)



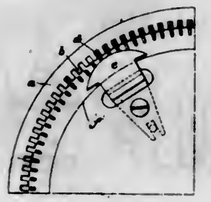
1. In combination in a spring needle knitting machine, independently operated sliding spring needles, web holders, individual needle beard pressers independently operated, and individual yarn guard bits independently operated to retain the yarn close to the needle stems without sinking and thereby providing a space for the needle beard to pass downward between the guard bits and seize the yarn, substantially as described.

10. In combination in a spring needle knitting machine, independently operated spring needles, web holders, yarn guard bits for retaining the yarn close to the needle stems without sinking and a yarn feed mouth having a portion depending close to the needle stems and to the tops of the web holders and between the inner ends of the yarn guard bits and said needle stems, said yarn mouth having inclined guiding edges for the yarn, substantially as described.

14. In combination in a circular knitting machine, needles, a yarn feed mouth and a removable yarn guide entering an opening in the yarn feeding mouth when in operative position, and a movable support for said yarn guide, said guide being removed from said opening when its support is moved to clear the needle for transferring, substantially as described.

[Claims 2 to 9, 11 to 13, and 15 to 17 not printed in the Gazette.]

1,244,674. SPRING-NEEDLE KNITTING-MACHINE. FRANK WILCOMB, Norristown, Pa., assignor to Hemphill Manufacturing Company, Central Falls, R. I., a Corporation of Rhode Island. Filed Jan. 9, 1915, Serial No. 1,386. Renewed Mar. 21, 1917. Serial No. 156,454. (Cl. 66—21.)



1. In combination in a spring needle knitting machine, independently operated spring beard needles, means for feeding the yarn directly to the needle stems comprising yarn delivery means and a support having a row of stationary yarn feed projections outside the needle row to hold the yarn against the needle stems below the beards without sinking the yarn between the needles, said yarn feed projections having spaces between them for the free passage of the needle beards to grasp the yarn, and beard pressing means, substantially as described.

7. In combination in a spring needle stocking knitting machine, a rotary needle cylinder, independently operated spring beard needles, a ring surrounding the same having fixed projections to hold the yarn close to the needle stems and with spaces between them to receive the needle beards, a yarn guiding mouth having downwardly diverging guiding edges with a yarn supporting ledge at the lower ends thereof close to the needle stems and to the tops of the said projections for directing the yarn across the inner faces of said projections and against the needle stem, and pressing means, substantially as described.

9. In combination in a circular knitting machine, independently operated spring beard needles, an outer row of projections in line radially with the spaces between the needles, means for delivering the yarn across the inner faces of the projections and against the needle stems, presser means, web holders individually operated, and means for operating the needles to first measure off the new loop lengths across the tops of and between the advanced web holders without drawing the new loops into the fabric and then retracting the web holders and drawing said measured new loops into the fabric by the further movement of the needles, substantially as described.

10. In combination spring beard needles, a ring surrounding the needle row having inserted projections fixed thereto and extending close to the needle stems to feed the yarn onto said stems below the beards without sinking the yarn between the needles, and with spaces between said fixed projections to receive the needle beards in taking the yarn, and pressing means external to the needle row, substantially as described.

[Claims 2 to 6 and 8 not printed in the Gazette.]

1,244,675. SPRING-NEEDLE KNITTING-MACHINE. FRANK WILCOMB, Norristown, Pa., assignor to Hemphill Manufacturing Co., a Corporation of Rhode Island. Original application filed Jan. 9, 1915, Serial No. 1,386. Divided and this application filed June 10, 1915, Serial No. 33,304. Renewed Mar. 21, 1917. Serial No. 156,455. (Cl. 66—21.)

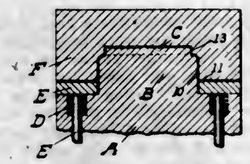
1. In combination in a spring needle knitting machine, independently operated spring beard needles, means for feeding the yarn directly to the stems thereof, comprising yarn delivery means and a ring having a row of yarn feed projections outside the needle row to hold the yarn close to the needle stems and below the beards, and with the spaces between the projections for the free passage of the needle beards to grasp the yarn and beard presser surfaces



in said spaces fixed relatively to the needles, and a member within the needle row for pushing the needles outwardly to make the beards contact with said presser surfaces, substantially as described.

[Claim 2 not printed in the Gazette.]

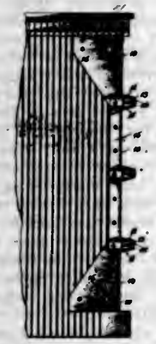
1,244,676. METHOD OF MAKING A CELLULOID ARTICLE. JOSEPH WILCOX, Athol, Mass., assignor to Joseph Wilcox Inc., Athol, Mass., a Corporation of Massachusetts. Filed Oct. 16, 1916. Serial No. 125,821. (Cl. 18—55.)



1. A method of making a box which consists in shaping a blank of celluloid to provide it with continuous sides and ends, a flange at the bottom, and a flat top integral with said sides and ends all around, then cutting through said blank to remove the top and securing a sheet of celluloid to the bottom flange to constitute a bottom for the article.

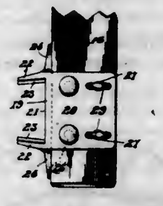
[Claims 2 to 4 not printed in the Gazette.]

1,244,677. CAR END. ANDREW P. WILLIAMS, Chicago, Ill. Filed Dec. 24, 1914. Serial No. 878,882. (Cl. 105—192.)



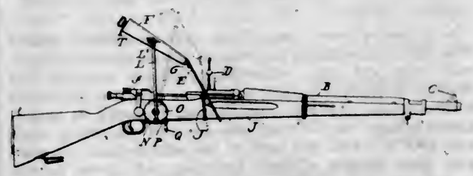
A car-body end constructed of a plurality of superposed metal plates having their meeting edges formed with outwardly projecting horizontal ribs extending lengthwise of the plates and provided with overlapping vertical flanges, the flanges of each pair of adjacent plates being riveted together, and angularly extended integral side flanges on the plates, the side flanges of adjacent plates overlapping, and the side flanges of the top and bottom plates extending rearwardly beyond their joints with adjacent plates to form extended ears providing corner-bands in the car-body.

1,244,678. BRAKE-BLOCK IRON. JULIUS C. WILSON, Drewsey, Oreg. Filed Feb. 9, 1916. Serial No. 77,218. (Cl. 21—82.)



An article of manufacture comprising a cast one-piece bracket for brake beams having integral opposite attaching sides and a connecting plate adapted for flatly inclosing three sides of a beam, outwardly projecting spaced downwardly and inwardly converging block-receiving ears integral with said plate and arranged transversely of the said plate, opposite lips integral with said plate and adapted for flatly engaging a face of a brake beam, the said lips flaring inwardly and merging with the outer faces of the said ears, the ears being of the same width as the said plate and the inner face of the plate being in alinement with the inner faces of the lips.

1,244,679. BULLET-PROOF RIFLE-SHIELD. SAMUEL JAMES WINN, Jr., Plainfield, N. J. Filed Dec. 12, 1914. Serial No. 876,832. (Cl. 89—36.)

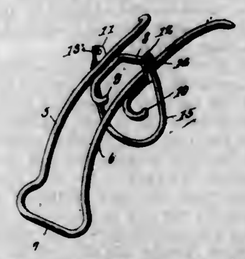


1. A shield for rifles, comprising a plate with a port in its lower portion fitting over the barrel of the rifle so that it may be applied over the muzzle and shifted rearwardly to a point near the lock with the upper edge of said port resting on the lock casing and supporting the shield, and a brace for connecting the upper portion of the shield to the rifle at a point farther in the rear, said brace being adjustable to raise and lower the upper portion of the shield.

2. A shield for rifles comprising two portions hinged to each other and of approximately the same width so that they may be folded compactly upon one another, one of said portions being flanged so that when they are folded they form a box adapted for carrying cartridges and the like.

[Claims 3 and 4 not printed in the Gazette.]

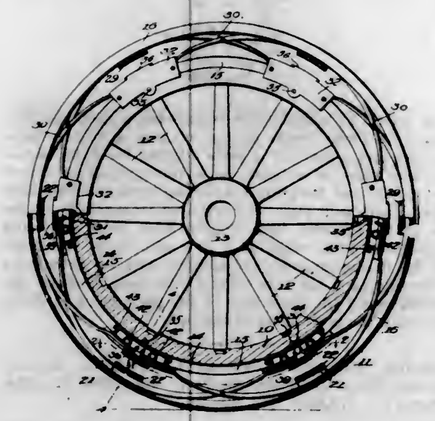
1,244,680. BARREL-MOVING IMPLEMENT. HOMER O. WOLFE, Sullivan, Ind. Filed June 8, 1917. Serial No. 173,564. (Cl. 57—109.)



In a barrel moving implement, a member comprising parallel arms, a handle connecting said arms, diverging

extensions on the forward ends of the arms adapted to engage the outer surface of the barrel, a yoke connected to the arms, ears mounted on the said arms and yoke, and a bung engaging element pivotally mounted on said ears.

1,244,681. SPRING-WHEEL. OTTO G. WORSLEY, Aurora, Ill. Filed Jan. 20, 1917. Serial No. 143,474. (Cl. 152—32.)



1. A spring wheel comprising circumferentially spaced felly and rim portions, a series of curved springs between said felly and rim, connecting members engaging the springs intermediate their ends and disposed at spaced points around the rim, and bearing members at spaced points around the felly opposite the said connecting members and in which the ends of the said springs are movable, said bearing members including side pieces carried by the felly and having outer bridge pieces directly opposing the said connecting members, and buffer pieces carried by the connecting members and interposed between the same and the said bridge pieces of the bearing members.

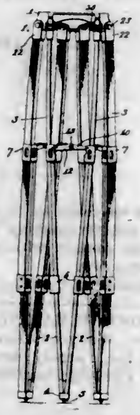
2. A spring wheel comprising circumferentially spaced felly and rim portions, a series of curved springs between said felly and rim, connecting members engaging the springs intermediate their ends and disposed at spaced points around the rim, and bearing members at spaced points around the felly opposite the said connecting members and in which the ends of the said springs are movable, said bearing members including side pieces carried by the felly and having outer bridge pieces directly opposing the said connecting members, and rollers freely movable in the space between the said bridge piece and felly and on which the ends of the spring are movable in the bearing.

5. A spring wheel comprising circumferentially spaced felly and rim portions, a series of bowed springs secured intermediate their ends at spaced points around the rim, bearing members at spaced points around the felly and in which the ends of said springs are movable, rollers movable in said bearing members and engaged by the spring ends, and a wear plate in each bearing member having end portions forming stops for said rollers.

8. A spring wheel comprising circumferentially spaced felly and rim portions, a series of curved springs between said felly and rim portions, connecting members engaging the springs intermediate their ends and disposed at spaced points around the rim, and bearing members at spaced points around the felly opposite the said connecting members, and in which the ends of the said springs are movable, said connecting members including a slotted rim plate secured to the rim and in which the spring extends, and a housing plate extending over the spring and having extensions secured through the slots of the rim plate.

[Claims 3, 4, 6, and 7 not printed in the Gazette.]

1,244,682. TRIPOD. CARL E. AKELEY, New York, N. Y., assignor to Akeley Camera, Inc., New York, N. Y., a Corporation of New York. Filed Apr. 22, 1916. Serial No. 92,974. (Cl. 248—43.)



1. In a tripod, a leg comprising a pair of upper and a pair of lower bars, said bars when in position being held in fixed relation to each other at the top and bottom of said leg, clips engaging said upper and lower bars telescopically with each other, spring tongues on one side of said bars adapted to contact with the other bars telescoping therewith, and means for forcing said spring tongues against said bars with which they contact to lock said sets of bars in fixed relation.

2. In a tripod, a leg comprising a pair of upper and a pair of lower bars, said bars when in position being held in fixed relation to each other at the top and bottom of said leg, clips engaging said upper and lower bars telescopically with each other, spring tongues on one side of one pair of bars, anti-friction pads fixed to the outer sides of said spring tongues and adapted to contact with the other bars, and means contacting with said spring tongues for forcing said pads against said bars with which they contact to lock said sets of bars in fixed relation.

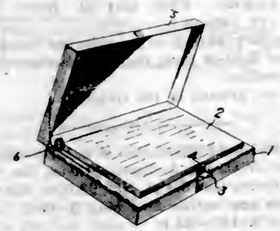
3. In a tripod, a leg comprising a pair of upper and a pair of lower bars, said bars when in position being held in fixed relation to each other at the top and bottom of said leg, clips engaging said upper and lower bars telescopically with each other, spring tongues on one side of one pair of said bars adapted to contact with the other bars telescoping therewith, and a toggle joint for forcing said spring tongues against said bars with which they contact to lock said sets of bars in fixed relation.

4. In a tripod, a leg comprising a pair of upper and a pair of lower flexible bars, said bars when in position being held in fixed relation to each other at the top and bottom of said legs, clips engaging said upper and lower bars telescopically with each other, spring arms at the upper ends of said lower bars adapted to be forced into contact with their coöperating upper bars, and a toggle joint adapted when expanded to force said springs into frictional engagement with said upper bars, and simultaneously to bow said bars, thereby locking said upper and lower bars in fixed relation.

5. In a tripod, a leg comprising a pair of upper and a pair of lower bars, said bars when in position being held in fixed relation to each other at the top and bottom of said leg, clips fixed to the lower ends of said upper bars and to the upper ends of said lower bars and through which the other bars pass telescopically, spring plates at the upper ends of said lower bars within said upper clips and adjacent the faces of said upper bars, and a toggle pivoted in said upper clips and adapted when expanded to force said spring plates against said upper bars to lock said upper and lower bars in fixed relation.

[Claims 6 to 8 not printed in the Gazette.]

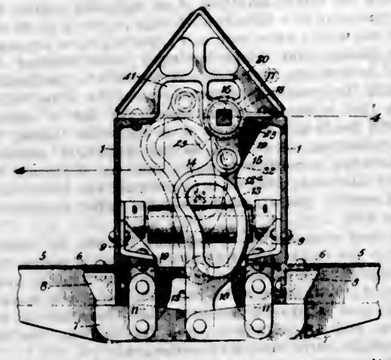
1,244,683. INK-PAD HOLDER. CORNELIUS AMBRUSTER, Philadelphia, Pa. Filed Apr. 24, 1913. Serial No. 763,198. (Cl. 91—54.5.)



1. An ink pad holder capable of operation by one hand to expose and cover its ink pad and comprising in combination a box, a spring-pressed lid arranged to stand when open at substantially right angles with the box and closable by downward pressure, and a self-engaging lid catch operatable by downward pressure, whereby operating movements of the catch and lid are effected without tending to shift the holder, substantially as described.

[Claim 2 not printed in the Gazette.]

1,244,684. DOOR-LOCK FOR DUMP-CARS. AUGUST ANDERSON, Chicago, Ill., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Apr. 5, 1915. Serial No. 19,221. (Cl. 105—14.)



1. In a car door locking mechanism for oppositely disposed doors, a single locking toggle straightened to maintain the same closed, and an operating toggle adapted to cause said locking toggle to support or release said doors.

2. In a single locking mechanism for car doors, a locking toggle comprising door-locking members adapted to be straightened to maintain a plurality of said doors closed, means for permitting the swinging of said locking members away from the doors, and mechanism adapted to rock said members and cause the same to support or release said doors.

3. In a locking mechanism for drop doors, a locking toggle supported by oscillatory means and comprising door-locking dogs adapted to swing away from said doors and being pivoted to and rocked by an operating toggle located between and supported by car center sills, and adapted to cause said locking toggle to support or release said doors, and means for actuating said operating toggle.

4. In a car door locking mechanism for drop doors on opposite sides of car center sills, a plurality of locking toggles, one for each pair of oppositely disposed doors, each toggle being supported from said sills by oscillatory means and comprising door-locking dogs, an operating toggle pivotally connected to each locking toggle and supported from said sills and adapted to cause said locking dogs to support or release said doors, and means for simultaneously actuating all of said operating toggles.

5. In a car door locking mechanism, doors hinged from car sides and adapted to close against car center sills, a door-locking toggle comprising locking dogs, oscillatory links pivotally connected thereto intermediate their lengths, and supports attached to said center sills for pivotally suspending said links from their centers of rotation.

[Claims 6 to 23 not printed in the Gazette.]

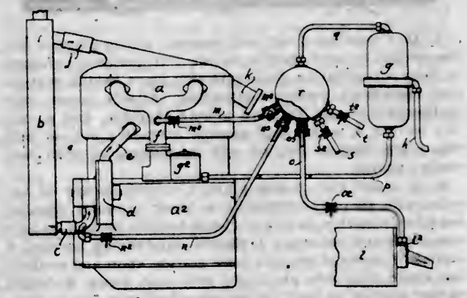
1,244,685. TRANSPLIT DEMOUNTABLE RIM. ERLE KING BAKER, Chicago, Ill., assignor to Universal Rim Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 25, 1916. Serial No. 86,598. (Cl. 152—21.)



1. A transplit, integrally flanged, demountable, tire-holding rim having self-alining rim-ends, formed by transplitting the rim upon major and minor generally diagonal lines which converge adjacent one flange of the rim, and at a point distant from the other flange thereof.

[Claims 2 to 5 not printed in the Gazette.]

1,244,686. VACUUM SYSTEM FOR INTERNAL-COMBUSTION ENGINES. WALTER R. BAMFORD and HARRY W. HAMILTON, Detroit, Mich., assignors to Hamilton Manufacturing Company, Indianapolis, Ind., a Corporation of Indiana. Filed Feb. 21, 1917. Serial No. 150,079. (Cl. 158—36.)



1. The combination with a vacuum actuated apparatus of an internal combustion engine having a water circulating system, a passage communicating with said water circulating system at a point where the pressure in said system is less than atmospheric pressure, said passage communicating with said vacuum actuated apparatus for the purpose described.

2. The combination with a vacuum actuated apparatus, an internal combustion engine having a water circulating system, a circulating pump in said system, a vacuum producing passage communicating with said system on the suction side of said pump, and communicating with said vacuum actuated apparatus.

3. The combination with a vacuum actuated apparatus of an internal combustion engine having an intake passage and a water circulating system, a circulating pump in said water circulating system actuated by said engine, a passage communicating with said circulating system on the suction side of said pump and with said vacuum actuated apparatus, and a passage communicating with said intake passage and said vacuum actuated apparatus.

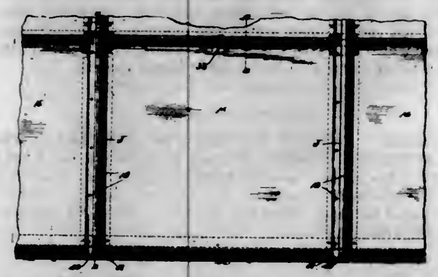
4. The combination with a vacuum actuated apparatus, of an internal combustion engine having an intake passage and a water circulating system, a circulating pump in said water circulating system actuated by said engine, a passage communicating with said circulating system on

the suction side of said pump and with said vacuum actuated apparatus, and a passage communicating with said intake passage and said vacuum actuated apparatus, and automatic means whereby one of said vacuum producing passages is closed when the effect of the other passage predominates.

5. The combination with a vacuum actuated apparatus of an internal combustion engine having an exhaust passage and a water circulating system, a vacuum producing passage communicating with said vacuum actuated apparatus and with said water circulating system at a point in the same where the pressure is less than atmospheric and a vacuum producing passage communicating with said vacuum actuating apparatus and with said exhaust passage at a point where the pressure in the same is less than atmospheric.

[Claim 6 not printed in the Gazette.]

1,244,687. ALL-STEEL ROOF. PAUL M. BEARD, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Feb. 10, 1915. Serial No. 7,446. (Cl. 108—5.4.)



3. In a ventilated car roof support, a side plate, a carline-anchor secured thereto having wall portions arranged to form a ventilating duct, said side plate having vertical and horizontal portions extending entirely across said carline-anchor and forming a seat therefor, and a carline having a ventilating passage extending beyond said side plate vertical portion and inter-engaging with said carline anchor.

4. In a car roof, a side plate, a carline anchor on the outer side thereof comprising a lower laterally opening box-like formation having a closed bottom secured to said side plate and an upper U-shaped outstanding portion, a carline of inverted channel form resting upon and projecting above said side plate and into said upper U-shaped anchor portion to have its end closed thereby and to form with said anchor a dust-excluding ventilating passage to a car interior, and roof sheets lapping said carline and side plate.

5. In a car roof, a side plate, an inverted channel-shaped carline resting thereon, a cap secured to and extending longitudinally of said carline forming therewith longitudinal receiving grooves, roof sheets slidable longitudinally of said carline to their normal positions and having edge portions slidable in said receiving grooves, a carline anchor interlocked with said carline and secured to said plate preventing the withdrawal of said roof sheets.

9. In a flexible car roof, carlines having vertical side walls, flanges extending outwardly from said side walls, crown portions extending between said side walls, a side plate, means to secure the carlines to said side plate, in combination with a plurality of roof sheets having substantially vertical flanges at the side edges thereof provided with outwardly turned edges, and binding strips carried by the carlines and coöperating but not adapted to interfere with said outwardly turned edges to clamp the same against the crowns of said carlines with the vertical flanges of the roof sheets slightly spaced from the side walls of said carlines to form a flexible connection between the several carlines and roof sheets.

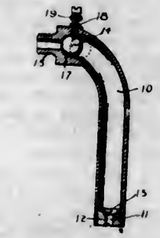
[Claims 1, 2, and 6 to 8 not printed in the Gazette.]

1,244,688. REFRACTORY COMPOSITION. FREDERICK MARK BECKET, Niagara Falls, N. Y., assignor to Electro Metallurgical Company, New York, N. Y., a Corporation of West Virginia. Filed May 31, 1917. Serial No. 172,008. (Cl. 106—9.)

2. A refractory having as an essential component particles of slag derived from the manufacture of high-carbon ferrochromium.

[Claim 1 not printed in the Gazette.]

1,244,689. FUEL-SAVING DEVICE FOR EXPLOSION-ENGINES. WALLACE L. BELL, Athens, Ga. Continuation of application Serial No. 93,000, filed Apr. 22, 1916. This application filed May 5, 1917. Serial No. 166,610. (Cl. 137—32.)



1. A fuel economizing attachment for use in connection with the intake manifold of an explosion engine, the same consisting of a tubular air-intake provided at its discharge end with a valve seat, and a floating valve arranged in the intake, said intake having a valve run-way depressed toward its inlet end and variable in inclination to modify the resistance to the seating action of the valve.

2. A fuel economizing attachment for use in connection with the intake manifold of an explosion engine, the same consisting of a tube having angularly disposed arms forming a continuous valve run-way, depressed toward its inlet end, valve seats at the inlet and outlet ends of said runway and a gravity actuated valve mounted in the run-way.

3. A fuel economizing attachment for use in connection with the intake manifold of an explosion engine, the same consisting of a tube having angularly disposed arms forming a continuous valve run-way, depressed toward its inlet end, a gravity actuated valve mounted in the run-way, and an adjustable stop for limiting the approach of the valve toward an outlet seat.

4. An auxiliary air supply device for direct exposure to the suction of an explosive engine, having a tube downwardly directed on a curved line from its outlet end, and a valve operating in the bore thereof, said tube being provided near its discharge end with an outlet seat for the reception of the valve.

5. An auxiliary air supply device for direct exposure to the suction of an explosive engine, having a tube downwardly directed on a curved line from its outlet toward its inlet end, and a valve operating in the bore thereof, said tube being provided near its outlet or discharge end with a seat from which the bore of the tube extends at a slight downward inclination, gradually increasing in pitch as it recedes from the outlet end of the same, means being provided to break the suction when the valve is seated at the outlet end.

1,244,690. STOVE ATTACHMENT. JOHN A. BERRYMAN, New York, N. Y. Filed Dec. 12, 1916. Serial No. 136,463. (Cl. 126—53.)

1. In an atachment for stoves, the combination with a flue box having an opening in its bottom to fit over a burner of the stove, and two openings in its top, one of said top openings being out of vertical alinement with the bottom opening, of a steam generator and ejector arranged above the bottom opening in the box and adapted to discharge steam in the direction of the top opening which is out of line with the bottom opening.

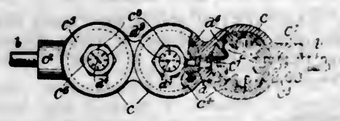


5. In an attachment for stoves, the combination with a flue box having an opening in its bottom to fit over a burner of the stove, of a steam generator and ejector arranged over the said opening for ejecting steam into the flame from the burner.

6. In an attachment for stoves, the combination with a flue box having an opening in its bottom to fit over a burner of the stove, of a coil of pipe arranged directly over said opening, a steam generator and ejector also arranged over said opening, and means for circulating water through the coil and supplying water to the steam generator and ejector.

[Claims 2 to 4 and 7 not printed in the Gazette.]

1,244,691. LOCK-VALVE DEVICE. CHARLES BERTHOLD, Richmond Hill, N. Y. Filed Dec. 18, 1916. Serial No. 137,498. (Cl. 137—7.)



1. A combination valve device of the class described, comprising a valve casing having a plurality of valve chambers all of which communicate through ports or passages in said casing, and valves placed in said chambers and provided each with a plurality of radial ports or passages, all of which are in communication and adapted to be placed in communication with the ports or passages in the valve casing, the ports or passages in each valve with the exception of two, being closed by detachable plugs, and said valves being also provided with stems having dials bearing numerals which correspond with the radial ports or passages in said valves.

2. A valve device comprising a casing, a plurality of valve members mounted therein each of said valve members being provided with a plurality of ports or passages, means for manipulating said valve members to bring a part of the ports or passages in one valve member into communication and alinement with a part of the ports or passages of the other valve members, and means for sealing the other ports or passages in said valve members.

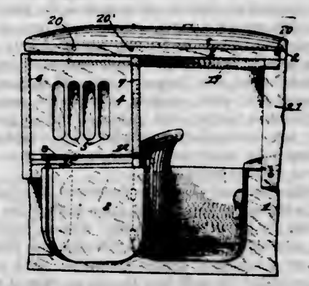
7. In a valve device of the class described, a valve having more than two radial ports or passages all of which are in communication, and interchangeable devices for sealing all of said ports or passages except two when the valve device is in use.

[Claims 3 to 6 not printed in the Gazette.]

1,244,692. AUTOMOBILE-DOOR CURTAIN. GEORGE E. BISHOP, Cleveland, Ohio. Filed Aug. 10, 1916. Serial No. 114,228. (Cl. 21—62.)

1. In an automobile curtain, the combination with suitable curtain fabric; of a collapsible frame supporting the latter, said frame comprising a pair of strengthening members, a stretching member pivoted to said strengthening members, and a third member for attaching said supporting frame to an automobile door, said third member and stretching member being provided with coöperating connecting elements, respectively, whereby the same may be connected or detached and the relative pivotal movement of said stretching member and strengthening members prevented or allowed.

2. In an automobile curtain, the combination with suitable curtain fabric; of a frame supporting the latter comprising strengthening members, a two-part stretching member pivoted to some of said strengthening members and provided with means for preventing relative longitudinal movement of said two parts, one of the two parts of said stretching member being formed with a slot therethrough, and the other part being provided with a head pivotally mounted relatively thereto and adapted to pass through said slot only in certain positions, and means for attaching said supporting frame to an automobile door, said latter means adapted to control the movements of said pivoted head and hence the integrity and collapsing of said two-part stretching member.

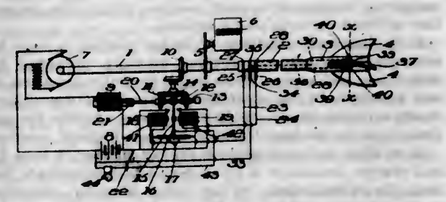


4. In an automobile curtain, the combination with suitable curtain fabric; of a frame supporting the latter comprising vertical strengthening members incorporated with said fabric, a horizontal two-part stretching member pivoted at its ends, respectively, to two of said vertical members, one of the two parts of said stretching member being formed with an elongated slot therethrough and a lug, and the other part being provided with a handle pivoted thereto and formed with an elongated head adapted to pass through said slot only when said pivoted handle is in certain positions, said second-described part of said stretching member being formed also with a series of holes adapted to be alined with, and to receive said lug, said pivoted handle being also the means for attaching said supporting frame to an automobile door.

5. A curtain constructed for use as a vehicle door, consisting of a main member and an auxiliary member, portions of said two members constituting a valance which is detachably secured to the canopy frame, said valance comprising a portion which is an integral part of said curtain auxiliary member, and a portion which is separable, at or about the line of the door break, from the remainer of the curtain main member and forms a bumper for the latter when the curtain is closed, whereby said curtain is removable as a whole and said main member may be opened and closed without disturbing its valance portion.

[Claims 3 and 6 not printed in the Gazette.]

1,244,693. MEASURING APPARATUS. ROBERT S. BLAIR, New Rochelle, N. Y. Filed May 31, 1907, Serial No. 376,635. Renewed Sept. 26, 1917. Serial No. 193,399. (Cl. 73—122.)



1. In apparatus of the class described, in combination, electrically controlled indicating means, means comprising a movable member adapted to be exposed to a fluid moving

relative to said indicating means and adapted to be moved by the relative movement of said fluid, and means controlled from said movable member adapted to affect said indicating means upon a slip of said second means relative to said fluid occurring and thereby indicate when said slip occurs.

6. In apparatus of the class described, in combination, a rotatably mounted member set at an angle with its axis of rotation and adapted to be exposed upon both sides to a fluid current, and means adapted to indicate unbalanced lateral pressure in either direction upon said member.

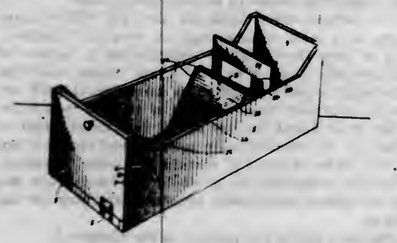
14. In apparatus of the class described, in combination, a rotary ship's log, a cable, an electric motor connected with and adapted to tend to drive said cable, said log being provided with means adapted to move in one or another direction in accordance as its slip has a positive or negative value, a pair of electric circuits adapted respectively to be completed by said means, a pair of magnets respectively disposed in said circuits, a variable resistance in circuit with said motor, and means deriving power from said motor and controlled by said magnets adapted to vary said resistance to cause said motor to accelerate or retard said log and eliminate its slip.

17. In apparatus of the class described, in combination, a member adapted to be exposed upon both sides to a fluid current and to be driven thereby, means controlled by inequality of fluid pressures upon the opposite sides of said member, and a source of power connected with said member and controlled by said last means to impart a varying driving force to said member.

21. In apparatus of the class described, in combination, a rotary device, means controlled in accordance with the pressures upon portions of said device, and a source of power controlled by said last means and connected with the device to drive it at such rate as to turn through one revolution each time it travels its pitch distance with reference to the fluid in which it is positioned.

[Claims 2 to 5, 7 to 13, 15, 16, and 18 to 20 not printed in the Gazette.]

1,244,694. FILING-BOX. WILLIAM A. BLOOD, Cleveland, Ohio. Filed Aug. 18, 1916. Serial No. 115,686. (Cl. 129—16.)



1. A filing box comprising a drawer member, and a base for said drawer formed of sections hingedly connected together normally lying flat within the bottom thereof, and normally upstanding end piece located adjacent one end of said drawer hingedly connected to one of said sections and forming a portion of said base, said sections being arranged to be moved to such position within the drawer that inclined surfaces are presented.

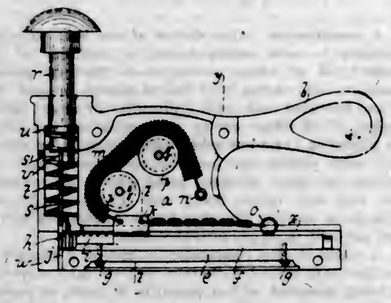
2. A filing box comprising a drawer member, a base for said drawer formed of sections hingedly connected together one end of said base being pivotally anchored to said member and the other slidable thereover whereby inclined surfaces are presented, and means whereby the sections may be temporarily held in such inclined position.

3. A filing box comprising a drawer member, a base for said drawer formed of a front, rear and intermediate section, the intermediate section being hingedly connected at its opposite ends to said front and rear sections respectively, one of the other sections being pivotally anchored at its free end to said drawer member, the other end of the base being slidable within the drawer whereby inclined surfaces are presented, and means whereby the sections may be temporarily held in such inclined position.

4. A filing box comprising a drawer member, a base for said drawer formed of a front, rear and intermediate section, the intermediate and rear sections approximately equaling the length of said drawer and the front section being normally upright against the front of the drawer, the intermediate section being hingedly connected at its opposite ends to the front and rear sections respectively, the rear section being pivotally anchored to the drawer at its rear end, the other end of the base being slidable within the drawer whereby inclined surfaces may be presented, and means whereby the sections may be temporarily held in such position.

5. A filing box comprising a drawer member including a hinged front, a base for said drawer formed of a front, rear and intermediate section, the intermediate and rear sections approximately equaling the length of said drawer and the front section being normally upright against the front of the drawer, the intermediate section being hingedly connected at its opposite ends to the front and rear sections respectively, the rear section being pivotally anchored to the drawer at its rear end, the other end of the base being slidable within the drawer whereby inclined surfaces may be presented, means whereby the sections may be temporarily held in such position, and means for temporarily holding said front in a lowered position.

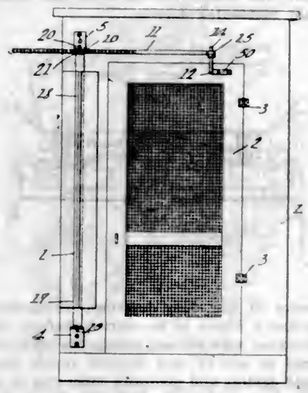
1,244,695. TAG-TACKING MACHINE. LOUIS BLUMENTHAL, Brooklyn, N. Y., assignor, by mesne assignments, to George Hammel, Passaic, N. J. Filed July 18, 1916. Serial No. 109,897. (Cl. 1—3.)



A stapling machine comprising a casing having a rim, a cover provided with a corresponding rim fitted on to the casing, a staple guide bar secured in the lower portion of the casing, a slide coacting with the bar for pushing the staples forward, a coiled spring connected to the slide and the casing, a plurality of idler rollers disposed on a line inclined at an acute angle to the guide bar and mounted above the slide in the casing to guide the spring, and a plunger arranged in the casing for driving the staples.

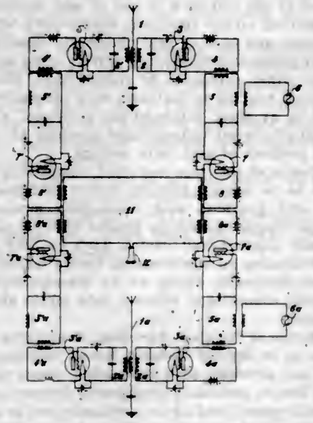
1,244,696. DEVICE FOR PREVENTING FLIES ENTERING HOUSES. JOHN BROOKS, Marietta, Okla., assignor of one-half to George E. Sullivan, Marietta, Okla. Filed May 8, 1915. Serial No. 26,826. (Cl. 230—7.)

In a device of the class described, a door frame; a hingedly mounted door; a lower bracket secured to the frame; an upper bracket secured to the frame and including upper and lower parts, the upper part projecting outwardly beyond the lower part; a fan substantially coextensive in length with the door, the lower end of the fan being journaled in the lower bracket, and the upper end of the fan being journaled in the upper part of the upper bracket, independently of the lower part of the upper bracket; a gear wheel carried by the upper end of the fan; a pinion located between the upper and lower parts of the upper bracket and journaled thereon, the gear wheel meshing into the pinion; a grooved wheel located between the upper and lower parts of the upper bracket and journaled thereon; a rack bar having a smooth rear edge coöperating with the grooved wheel, and provided in its forward edge with a rack meshing into the pinion; and a pivot spindle



fixed to the door and upstanding above the upper edge of the door, the pivot spindle being provided with a shoulder on which the rack bar rests, the rack bar being mounted to swing on the spindle in a plane parallel to the plane in which the gear wheel and the pinion rotate.

1,244,697. WIRELESS RECEIVING SYSTEM. JOHN R. CARSON, New York, N. Y., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed Jan. 7, 1916. Serial No. 70,778. (Cl. 250—20.)



1. In a system for receiving electric waves, a receiving device, two similar and equal paths oppositely applying the received waves thereto, and means local to said receiving system for generating additional waves and impressing them on one of said paths only.

3. In a signaling system wherein signals are transmitted by the agency of a modulated high frequency carrier wave, a receiving system comprising two similar and equal circuit arrangements similarly related to the energy to be received, a receiving device differentially related to said circuit arrangements, and means local to said receiving arrangement for impressing on one of said circuit arrangements a continuous wave of the frequency of said carrier wave.

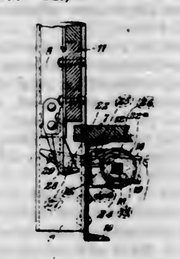
5. A wireless receiving system comprising an antenna; two similar and equal circuit arrangements similarly related to said antenna; a generator of high frequency energy connected to one of said circuit arrangements; and a receiving device connected differentially to said circuit arrangements only.

7. In a signaling system wherein signals are transmitted by the agency of a modulated high frequency carrier wave, a receiving arrangement comprising two similar circuit arrangements similarly related to the energy to be received, each of said circuit arrangements including a detector; a telephone receiver differentially connected to said two circuit arrangements; and a source of energy generating waves whose frequency is that of said carrier wave, said source of energy being connected with one of said circuit arrangements.

12. A wireless receiving system comprising a receiving antenna; two similar and equal circuit arrangements including amplifiers and detectors similarly connected to said antenna; a local source of energy generating a continuous wave of the same frequency as said carrier wave and impressing it on one of said circuit arrangements; an auxiliary antenna tuned to a frequency differing from that to which said receiving antenna is resonantly responsive; two similar and equal circuit arrangements including amplifiers and detectors similarly coupled to said auxiliary antenna; a local source of energy, generating a continuous wave and impressing said wave on one of said circuit arrangements associated with said auxiliary antenna; and a receiving device coupled to all of said circuit arrangements the coupling being differential as regards the two circuit arrangements having locally generated waves impressed thereon and differential as regards the two circuit arrangements associated with said receiving antenna, and also as regards the two circuit arrangements associated with said auxiliary antenna.

[Claims 2, 4, 6, and 8 to 11 not printed in the Gazette.]

1,244,698. CAR-DOOR-LOCKING MECHANISM. GEORGE C. CHERBONNIER, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Feb. 1, 1917. Serial No. 145,878. (Cl. 105—14.)



1. In combination in a car or other structure having door openings, doors adapted to close the openings, a set of suitably mounted door locks and a rockable member adapted to operate said set of locks, said locks being independently operable.

2. In combination in a car or other structure having door openings, doors adapted to close the openings, suitably mounted door locks provided with door-locking latches to and from which said doors are movable, said latches being hooked into the structure of said locks and a door lock-operating shaft adapted to operate said locks to actuate said latches.

3. In combination in a car or other structure having door openings, doors adapted to close the openings, door locks mounted on said structure comprising members and latches, the latter having hook portions interposed between said members, said members coöperating to pivotally support said latches, a door-lock-operating shaft adapted to cause the actuation of said latches, the latches being independently operable.

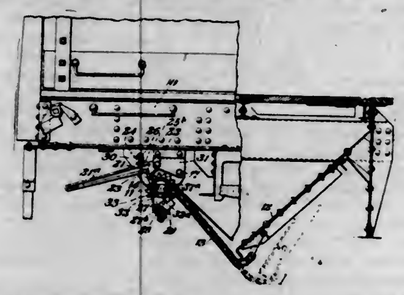
4. In combination in a car or other structure, doors arranged in succession, door locks for said doors comprising associated members inserted one into the other, latches provided with hook portions interposed between associated members pivotally retained by the insertion-effecting por-

tions of said members and a door-lock-operating shaft, said latches being operable thereby and also independently thereof.

5. In combination, in a car, a sill, doors adapted to close in proximity thereto, door locks comprising stationary members mounted on said sill, oscillatory members pivotally combined therewith and latches pivotally mounted on said oscillatory members and maintained by the latter members for coöperative relation with said doors and an operating shaft for said door locks.

[Claims 6 to 20 not printed in the Gazette.]

1,244,699. CAR-DOOR OPERATING AND CONTROLLING MECHANISM. GEORGE C. CHERBONNIER, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Feb. 1, 1917. Serial No. 145,879. (Cl. 105—185.)



1. In combination in a car or other structure, a door and door operating mechanism comprising a winding shaft, means connecting said shaft to said door, a device mounted for actuation with said shaft, means coöperative with said device to drive said shaft adapted to be arranged to permit said shaft to turn independently thereof, and articulated members alternately effective to regulate the movement of said device.

2. In combination in a car or other structure a door and door operating mechanism comprising a winding shaft, means responsively connecting said shaft and door, a toothed device secured to said shaft, means operable to actuate said device to drive said shaft adapted for automatic disassociation with said device and articulated reversely-acting members alternately co-active with said device to regulate its action.

5. In combination in a mechanism of the class described, a winding shaft, a ratchet wheel fixedly secured thereto, a member revolubly mounted on said wheel, a pawl operable by said member to drive said wheel, and a plurality of simultaneously operable separate ratchet wheel-retarding pawls effecting a step-by-step rotation of said wheel.

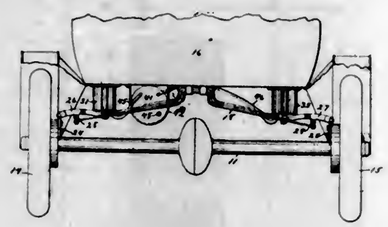
7. In combination in a mechanism of the class described, a suitably supported bracket, a winding shaft having a bearing therein, a ratchet wheel adapted to turn with said shaft, means for driving said wheel in one direction, separately formed pawls, individual bracket-supported fulcrums therefor and means so connecting said pawls that they engage and disengage said wheel one after the other and effect a step-by-step rotative control thereof.

17. In combination in a mechanism of the class described, a shaft, means for rotating the same, a ratchet wheel fixed on said shaft, a pair of pawls one being recessed and the other pawl having a finger entering the recess of the first mentioned pawl to form such a responsive connection between said pawls that said ratchet wheel when turning alternately operates said pawls, the latter regulating the rotation of said ratchet wheel.

[Claims 3, 4, 6, and 8 to 16 not printed in the Gazette.]

1,244,700. PNEUMATIC EQUALIZER FOR VEHICLES. JOHN LOUCIEN CHESNUTT, Kansas City, Mo. Filed June 23, 1916. Serial No. 105,877. (Cl. 267—22.)

1. In combination with a vehicle body, supporting springs therefor and a vehicle supporting frame, pneumatic cushioning devices mounted between said supporting frame and the body and having suspending connections to said supporting springs, said pneumatic devices being adapted normally for either expansion or contraction, an air reservoir, and connections between said reservoir and each of said cushioning devices.



2. A device of the class described, comprising a supporting device, a device to be carried thereby, springs interposed between said devices, pneumatic cushioning members secured to one of said devices, levers fixed to the other of said devices and pivotally connected to said pneumatic cushioning members, an air reservoir, connections between said air reservoir and each of said pneumatic cushioning members, yielding devices tending to maintain said pneumatic cushioning members normally at intermediate positions between complete expansion and compression, and pivotal connections between the springs and intermediate portions of said levers.

3. A device of the class described, comprising a supporting device, a body device to be carried thereby, body springs interposed between said devices, pneumatic cushioning devices secured to one of said devices, levers pivoted at their ends to the other of said devices, and pivotally connected at one end each to one of said pneumatic cushioning devices, an air reservoir, connections between said air reservoir and each of said pneumatic cushioning members, said pneumatic cushioning devices being adapted normally for either expansion or compression, yielding pressure devices tending to maintain said pneumatic cushioning devices at their intermediate positions, and pivotal connections between intermediate portions of said levers and end portions of said body springs.

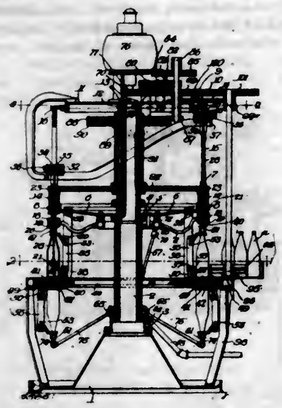
4. A device of the class described, comprising a support, a device to be carried thereby, levers fulcrumed on said support and provided with connecting means for said device, pneumatic cushioning devices suitably mounted between said support and device, each of said pneumatic devices including an equilibrating spring tending to maintain said pneumatic device at an intermediate position, and pivotal connections between said levers and cushioning devices.

5. A device of the class described, comprising a support, a device to be carried thereby, levers fulcrumed on said support and provided with connecting means for supporting said device, pneumatic cushioning devices mounted between said support and device and connected to said levers, said pneumatic devices being adapted normally for either expansion or compression, equilibrating springs being provided for each of said pneumatic devices tending to maintain said pneumatic devices at their normal positions, an air reservoir, and connections between said reservoir and cushioning devices.

[Claims 6 to 18 not printed in the Gazette.]

1,244,701. BOTTLE-HANDLING APPARATUS. HENRY J. CHILTON, Chicago, Ill. Filed Mar. 26, 1914. Serial No. 827,257. (Cl. 141—7.)

1. In a bottle handling apparatus, the combination with a rotary main frame rotating around a substantially vertical axis, of bottle carrying mechanism, mechanism for washing bottles in substantially upright position during their travel with the main frame, and mechanism mounted on said main frame for inverting the bottles and rinsing them while in inverted position, said mechanisms operating automatically in timed relation.



3. In a bottle handling apparatus, the combination with a rotary main frame rotating around a substantially vertical axis, of a plurality of turn over sets mounted thereon, and each provided with a pair of oppositely disposed bottle holders, mechanism carried by said rotary frame for inverting the bottle holders at predetermined points in their travel with the main frame and mechanism for treating bottles while in said holders.

7. In a bottle washing apparatus, the combination with a main frame, of a water supply chamber therefor, means for feeding water to the chamber, means for feeding the water from the chamber to bottles by gravity, said gravity feed comprising a movable tube, and means for alternately raising the delivery end of the tube above and lowering it below the level of the inlet end.

9. In a bottle washing apparatus, the combination with a rotary main frame, rotating around a substantially vertical axis, of a plurality of washing mechanisms traveling on said rotary frame and a plurality of turnover members each provided with a pair of oppositely disposed bottle holders, said turnover members being also carried by said rotary main frame.

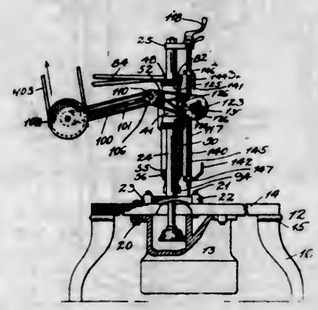
[Claims 2, 4 to 6, 8, and 10 not printed in the Gazette.]

1,244,702. AMUSEMENT DEVICE. EDWARD J. CHRIST, Philadelphia, Pa. Filed Sept. 16, 1912. Serial No. 720,579. (Cl. 46—37.)



In combination an upright runway, a carriage sliding in said runway, an inwardly-inclined trough projecting partly into the upper end of said runway, a shaft carried at the top of said runway, a pulley on said shaft, an upright handle mounted upon said carriage, a cable secured at one end of said handle and passing over said pulley, a weight secured to the free end of said cable preponderating over said carriage to normally lift the latter in said runway, a trip lever mounted upon said trough, a part carried by said lever arranged to prevent the sliding of a ball down said inclined trough, said handle arranged to trip said lever to allow a ball to slide into said carriage whereby, said carriage will be impelled downwardly, and a stop on the bottom of said runway with which said carriage is arranged to contact whereby it will be raised.

1,244,703. CYLINDER-GRINDING MACHINE. EDWARD W. CLARK, Los Angeles, Cal., assignor of one-half to Alvin Wells, Los Angeles, Cal. Filed May 13, 1915. Serial No. 27,757. (Cl. 51—4.)



1. A portable grinding mechanism having a base adapted to be clamped upon an article to be ground, a mechanism stand adapted to be shifted with respect to the said base for centering it upon the article to which the base is clamped, the fitting of the stand upon said base insuring the accurate movement of the grinding tools with respect to the work, and means for holding and operating the grinding tools.

3. A grinding mechanism having a tool rotating and shifting mandrel device, a stand carrying the same and having a base accurately finished in a plane at right angles to the axis of the mandrel device and a work supporting base frame having a stand supporting grid affording a true surface upon which the stand may be clamped for holding it accurately with respect to the work.

7. A cylinder grinding mechanism having a tool rotating mechanism, a base plate carrying the said mechanism and having an aperture centered with respect thereto, a centering device adapted to fit in said aperture and having means projecting into a cylinder for bringing the center of the aperture in the base plate into coincidence with the axis of the cylinder, whereby the tool rotating mechanism will be properly centered for operation within the cylinder, and a supporting grid clamped to the article to be ground and affording an accurate surface to receive said base plate.

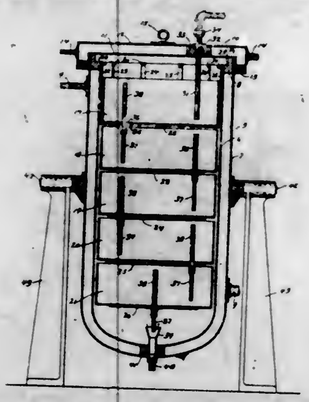
14. A grinding mechanism for cylinders comprising a tool carying mandrel, an outer hollow mandrel carrying the same, quadrants pivoted upon the outer mandrel and carrying the inner mandrel, said quadrants having segmental racks thereon, a shaft having gears adapted to engage the racks of said quadrants simultaneously to adjust the tool carrying mandrel with respect to the outer one, an arm adapted to be clamped to said shaft for further adjusting the quadrants, means for adjusting and holding said arm, and means for operating the said mandrels.

28. A cylinder grinding mechanism having a mechanism carrying stand, a mandrel mechanism for operating a grinding tool and adapted to be moved up and down in said stand, gearing for rotating the mandrel mechanism, a shaft for operating said gearing, a double power trans-

mitting pulley on said shaft, a feed mechanism for moving the mandrel mechanism up and down in the frame, a counter shaft for operating said feed mechanism, independent pulleys mounted on said counter shaft, a straight belt connecting one of said pulleys with the said double pulley, a cross belt for connecting the other independent pulley with said double pulley, and means for connecting one or the other of the independent pulleys with the said counter shaft in accordance with the direction in which it is to be driven, for raising or lowering the mandrel mechanism.

[Claims 2, 4 to 6, 8 to 13, and 15 to 27 not printed in the Gazette.]

1,244,704. PASTEURIZING APPARATUS. HARRY E. COBURN, Buffalo, N. Y. Filed Mar. 19, 1915. Serial No. 15,469. (Cl. 257—209.)



1. A pasteurizing apparatus comprising a casing, a cover for the casing, a plurality of separately removable pans, arranged one above the other within the casing, and detachable means secured to the bottom of each pan for conducting the fluid being treated from the pan after it has been substantially filled and for discharging the fluid into the next pan below at a point near its bottom.

3. A pasteurizing apparatus comprising a casing, a cover for the casing, a plurality of pans arranged one above the other within the casing, racks for holding the pans in their superimposed positions, a support near the top of the casing for carrying the racks, and means secured to the bottom of each pan for conducting the fluid being treated from the pan after it has been substantially filled and for discharging the fluid into the next pan below at a point near its bottom.

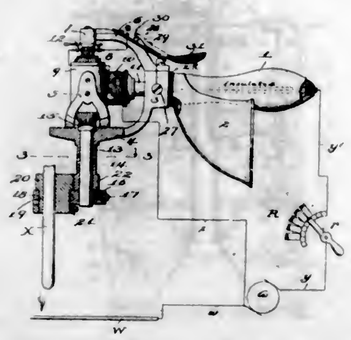
6. A pasteurizing apparatus comprising a casing, a cover for the casing, a plurality of separately removable pans arranged one above the other within the casing, each pan being provided on its bottom surface with a reinforcement having a tapered seat, a tapered bushing fitting into the seat, a stand pipe carried by the bushing and extending upwardly to a point near the top of the pan, and a drain pipe carried by the bushing and extending downwardly to a point near the bottom of the next pan below.

[Claims 2, 4, 5, and 7 not printed in the Gazette.]

1,244,705. METHOD OF ELECTRIC-ARC WELDING, HEATING, AND METAL-WORKING, AND APPARATUS THEREFOR. CHARLES L. COFFIN, Parks, Ga., assignor to Electric Metal Working Co., Detroit, Mich., a Corporation of Michigan. Continuation of application Serial No. 89,128, filed Apr. 5, 1916. This application filed Feb. 7, 1917. Serial No. 147,188. (Cl. 219—15.)

1. The method of arc welding and heating, consisting in subjecting the material to the heating action of an electric arc, and causing the arc to revolve about an axis and to also revolve independently of such axis.

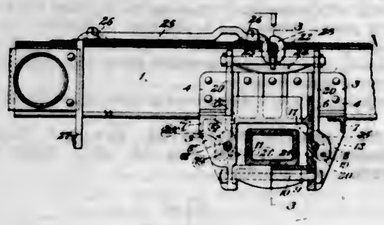
3. In the art of electric arc welding, heating and metal working, providing an arc between the material to be heated and an extraneous electrode, and distributing the heating effect of the arc by coincidently imparting to the extraneous electrode two paths of motion over the material.



6. The method of distributing the heating action of the arc and securing steadier action of the arc flame in arc welding and heating, consisting in providing an arc between the material to be heated and an extraneous electrode, and coincidently revolving the said extraneous electrode about one axis while said electrode revolves about a second axis.

[Claims 2, 4, 5, and 7 to 19 not printed in the Gazette.]

1,244,706. CENTERING UNCOUPLING DEVICE. JAMES J. COOPER, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Jan. 19, 1917. Serial No. 143,312. (Cl. 213—59.)



1. In a device of the class described, the combination with a coupler having a coupler lock, of coupler-centering mechanism, and an uncoupling lever operable to actuate said mechanism and lock during a single actuation of itself.

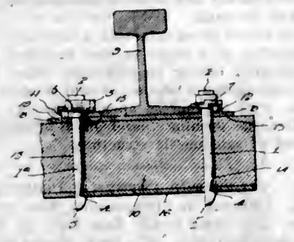
2. In a device of the class described, the combination with a coupler having a coupler lock, of coupler-centering mechanism, and an uncoupling lever adapted to actuate said mechanism and lock by a single type of movement.

3. In a device of the class described, the combination with a coupler having a coupler lock adapted to be set for automatic locking with another coupler, of coupler-centering means including a member connected with said lock, the coupler being adapted to bear against the centering portion of said means to resist movement thereof more than the lock resists said member, and an uncoupling lever operable at such times to actuate said member to set the lock without causing said centering portion to function.

4. In a device of the class described, the combination with a coupler having a coupler lock, of connected lock actuating means and coupler-centering mechanism including an equalizer, and an uncoupling lever connected with said equalizer and adapted during a single movement to actuate said equalizer to cause it to operate said means and mechanism.

[Claims 5 to 19 not printed in the Gazette.]

1,244,707. RAIL-FASTENING DEVICE. CHARLES H. CORNELL, Valentine, Nebr. Filed Feb. 10, 1917. Serial No. 147,879. (Cl. 238—4.)



1. In a device of the class described, the combination with a rail and a tie, of a rail fastening device comprising a plurality of plates, a plurality of bolts to engage said plates, means on said bolts to rotatably engage the rail, and means to permit of the transverse movement of the rail on the tie without changing the position of the plates.

3. In a device of the class described, the combination with a rail and a tie, of a rail fastening device comprising a plurality of plates, a plurality of hooked bolts to engage said plates when moved to a predetermined position, cooperative means carried by the bolt and one of said plates to lock the bolts relative to the plates, a plurality of spirally flanged cams rotatably mounted on the bolts and means carried by the bolts to permit of the transverse movement of the rail on the tie without changing the position of the plates.

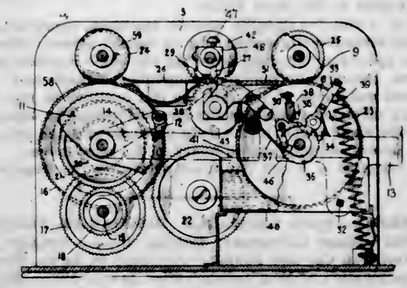
6. In a device of the class described, the combination with a rail and a tie provided with a plurality of apertures spaced apart a predetermined amount, of a plate designed to be interposed between the rail and the tie, said plate provided with a plurality of apertures to coincide with the apertures of the tie, a plurality of bolts to engage the plate and tie and extend therefrom, each bolt terminating in a plurality of hooks, a slotted plate to engage said bolts, a plurality of depressions in said plate adjacent said slots to form locking engagement with the bolts, when the same are moved to a predetermined position, a spirally flanged cam rotatably mounted upon each of said bolts to engage the rail, and a depending collar carried by one of said cams to engage the rail and permit of its transverse movement on the tie without changing the position of the plates.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,244,708. STRIP MOISTENING AND DELIVERING MACHINE. CHARLES H. CROWELL, Brooklyn, N. Y. Filed Dec. 3, 1914. Serial No. 875,230. (Cl. 91—14.5.)

4. In tape moistening and delivering machines, a base, a bracket transversely adjustable on said base and carrying a roll of tape, a feed roll to withdraw lengths of tape from said tape roll, a moistening discharge roll to receive the strips of tape from said feed roll, a swinging cutter blade and a coöperating cutter block coöperating with said guides between said feed roll and said moistener roll, a retainer coöperating with said cutter block to hold the severed end of the tape connected to the tape roll, an operating lever, a feed lever operated thereby, gearing connected to said feed lever by which it causes the forward rotation of said feed roll, drive gearing between said feed roll and said discharge moistener roll comprising a drive ratchet to rotate said discharge roll in unison therewith during the forward movement of said feed roll and to allow the independent free forward movement of said discharge roll, and a discharge member on said operating lever to operate said moistening discharge roll when said cutter device has been operated.

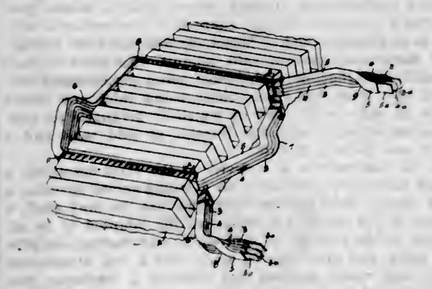
6. In tape moistening and delivering machines, means to hold a roll of tape, a feed roll, a moistening discharge roll to receive the strips of tape from said feed roll, a cutter between said feed roll and said moistener roll, an operating lever, a connected lever relatively movable with respect thereto and operated thereby through spring connections, an adjustable stop to limit the extent of movement of said feed lever, gearing connected to said feed lever by which it causes the forward rotation of said feed roll to intermittently withdraw a length of tape from the tape roll and to then hold stationary the tape in engagement therewith, and a discharge member on said operating lever to effect the further operation of said moistening discharge roll when said cutter has been operated.



14. In a tape moistening and delivering machines, means to hold a roll of tape, a feed device to withdraw lengths of tape from said tape roll, a moistening device to receive the strips of tape from said feed device, a cutter between said feed device and said moistener device, an operating member to intermittently withdraw a length of tape from the tape roll and to then hold stationary the tape in engagement therewith, a discharge device coöperating with said moistener and means to effect the operation of said discharge device when said cutter has been operated.

[Claims 1 to 3, 5, and 7 to 13 not printed in the Gazette.]

1,244,709. WINDING FOR DYNAMO-ELECTRIC MACHINES. JOHN C. DAVENPORT, Norwood, Ohio, assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis., a Corporation of Delaware. Filed Apr. 22, 1914. Serial No. 833,784. (Cl. 171—206.)



1. A coil for dynamo-electric machines, comprising a plurality of multi-strand turns located one upon another, strands of said turns being disposed one upon another and occupying the same relative positions throughout the electromotive force producing portion of the coil, said strands being twisted the same direction at their terminal portions through an angle of 90 degrees.

3. A coil for dynamo-electric machines, comprising a plurality of multi-strand turns located one upon another, the strands of said turns being located one upon another and occupying the same relative positions throughout the electromotive force producing portions of said coil, like

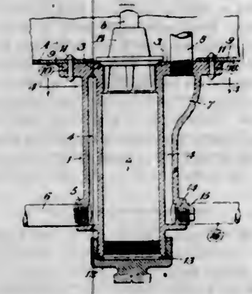
terminal portions of said strands being twisted as a unit through an angle of 90 degrees and both sets of terminal portions being twisted in the same direction.

6. In a dynamo-electric-machine, a core provided with peripheral slots, a coil comprising a plurality of turns of multi-strand conductor, the strands being disposed one upon another and occupying the same relative positions throughout the inductor portions of the coil, and the turns being disposed one upon another in the slots of said machine, one terminal portion of said coil emerging from the outer or high side of one slot and the other terminal portion from the inner or low side of another slot, and said terminal portions being twisted through an angle of 90 degrees in the same direction to dispose the ends of the strands side by side with the ends of the several strands separated to the same extent.

10. A coil for dynamo electric machines, comprising a multi-strand conductor having its several strands located one upon another and occupying the same relative positions throughout the slot-occupying portions and the closed end turns of the coil, the end portions of the coil being distorted to dispose the strands thereof at approximately right angles to the body portions with the ends of the several strands spaced apart to the same extent.

[Claims 2, 4, 5, and 7 to 9 not printed in the Gazette.]

1,244,710. NON-LEAKABLE DISCHARGE-NOZZLE. RAY HILLS DAVENPORT, Roselle, N. J., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Jan. 2, 1917. Serial No. 140,100. (Cl. 137—21.)



1. The combination with a single tank shell provided with a lading-egress opening, of an integral nozzle comprising a discharge conduit adapted to communicate with the tank shell opening, a jacket for fluid adapted to regulate the temperature of said conduit, the space in said conduit and that in said jacket being permanently isolated one from the other, there being inlet and outlet ports in said jacket, one of which is arranged to communicate directly with the interior of said tank and a valve seat in said conduit.

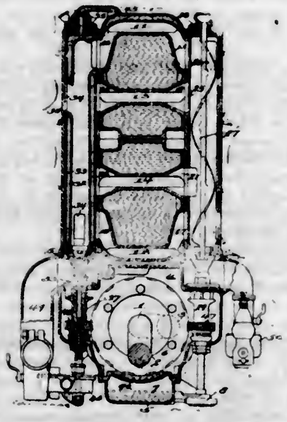
2. In combination in a device of the class described, a single tank shell provided with a lading-egress opening, a heat conduit inlet portion extending into the tank shell, a nozzle in the form of a single casting adapted to be attached to the exterior of said shell, said casting comprising inner and outer spaced walls and a top attachment wall, said walls merging and forming a discharge conduit adapted to communicate with said tank shell opening, a steam jacket beyond which said conduit extends, said jacket being provided with inlet and outlet ports, one of which forms a juncture with said heat conduit portion at a location permitting said conduit portion to enter said tank shell.

3. In combination in a device of the class described, a tank shell having a lading-egress opening, a nozzle in the form of a unitary casting outside of and depending from said tank, said casting comprising a tubular discharge-conduit wall, a top wall forming an attachment flange adapted to be secured to the tank shell exterior, and a shell merged with said conduit and top walls to form a steam jacket, there being inlet and outlet ports in the latter, and steam piping connected with said jacket ports and extending into the tank shell.

4. In combinattion in a device of the class described, a tank shell having a lading egress opening, a unitary nozzle comprising integral walls forming a discharge conduit, a steam jacket surrounding the same and having a plurality of apertures permitting different steam pipe connections to said jacket and direct communication with a conduit within the tank.

5. As an article of manufacture, a discharge nozzle for a tank consisting of a single casting including a centrally disposed conduit having an attaching flange at one end, a jacket surrounding a portion of said conduit and spaced therefrom, with an ingress opening through said jacket and a discharge opening therefrom leading through the flanged end of said nozzle structure.

1,244,711. VALVE FOR INTERNAL-COMBUSTION ENGINES. CHARLES DE LUKACSEVICS, West Nutley, N. J., assignor to Andrew Gross, New York, N. Y. Original application filed Nov. 17, 1913, Serial No. 801,533. Divided and this application filed Apr. 6, 1914. Serial No. 830,049. (Cl. 123—75.)

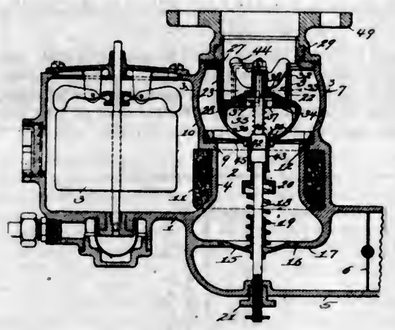


1. In an internal combustion engine, the combination of a water-jacketed cylinder, a valve revolubly mounted thereon, said valve having therein an axially extending fluid passage open at one end and having ports at intervals in its length to coöperate with the cylinder ports, and a water jacket extending longitudinally and exteriorly of said passage, means connecting one end of the water jacket of said valve with the cylinder water jacket, a hollow driving shaft at the opposite end of the valve, and a coupling connecting the open end of the valve and the adjacent end of the driving shaft and having arms provided internally with water passages connecting the interior of the driving shaft with the water jacket of the valve, the arms being spaced to expose the open end of the valve.

2. In an internal combustion engine, a rotary intake valve having an axially extending fuel passage with ports at intervals in its length to coöperate with the cylinder ports, means for supplying fuel to one end of the axial fuel passage of the valve, and a helically formed blade supported in fixed position within said axial fuel passage in the valve and extending past the ports thereof.

1,244,712. CARBURETER. CHARLES DE LUKACSEVICS, New York, N. Y., assignor to Andrew Gross, New York, N. Y. Filed June 24, 1916. Serial No. 105,703. (Cl. 261—44.)

1. In a carbureter for internal combustion engines, in combination, an air passage, a fuel chamber, an annular wall separating said passage and chamber and having an annular horizontal shoulder at its upper end, said shoulder having openings extending between its upper and lower faces, an absorbent distributing element surrounding said annular wall within the fuel chamber and extending to said shoulder, said shoulder overhanging said element, a mixing chamber above said air passage and into which the latter opens, and an annular valve rotatably mounted on said shoulder and having slots through which said openings may be disclosed.



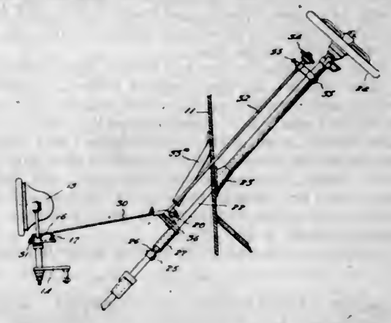
3. In a carbureter for internal combustion engines, in combination, inner and outer concentric mixing chambers, an air passage communicating with the outer chamber, a fuel chamber, an absorbent distributing element submerged in the fuel in the fuel chamber, the wall separating said fuel chamber and outer mixing chamber having openings between said chambers through which gasolene may be given off by the distributing element into said outer mixing chamber, an annular rotatable valve controlling said openings, a valve organization forming a separating wall between the outer and inner mixing chambers and including a rotatably mounted valve body concentric to said annular valve and adjustably operable to regulate the quantum of the mixture which passes from the outer chamber to the inner chamber and a spider forming an operative connection between said valve body and said annular valve to operate the latter from the former.

5. In a carbureter for internal combustion engines, in combination, first and second mixing chambers, a fuel chamber, an absorbent distributing element submerged in the fuel in the fuel chamber, the wall separating the fuel chamber and the first mixing chamber having openings through which gasolene may be given off by the distributing element into said first mixing chamber, an air passage communicating with the first mixing chamber and a valve organization forming a separating wall between the mixing chambers and including a movably mounted valve body adjustably operable to regulate the quantum of the mixture which passes from the first to the second mixing chamber, said valve body having air openings open to said air passage and an automatically acting spring-held valve normally closing said air openings.

6. In a carbureter for internal combustion engines, in combination, an air passage, a fuel chamber, an annular wall separating said passage and said chamber and having an annular horizontal shoulder at its upper end, said shoulder having openings extending between its upper and lower faces, an absorbent distributing element surrounding said annular wall within the fuel chamber and extending to said shoulder, concentric outer and inner mixing chambers above said air passage, the latter opening into the outer mixing chamber, an annular valve rotatably mounted on said shoulder within the outer mixing chamber and controlling said openings, a valve organization forming a separating wall between said mixing chambers and including a rotatable cylindrical valve body having a normally closed base and having slots in its cylindrical portion and a stationary sleeve closely surrounding said valve body and having slots to register with the slots of said valve body, and an operative connection between said cylindrical valve body and said annular valve.

[Claims 2, 4, 7, and 8 not printed in the Gazette.]

1,244,713. DIRIGIBLE HEADLIGHT. JAMES E. DEMPSEY, Manitowoc, Wis. Filed Feb. 8, 1916. Serial No. 76,965. (Cl. 240—61.)

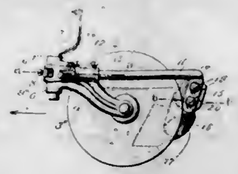


1. A control for vehicle headlights comprising a steering post, a movable lamp, lamp actuating means connected with the lamp, means to transmit the movements of the steering post to the lamp actuating means, and a manually controlled element mounted on the steering post for reciprocating and rotating movements and connected with the lamp actuating means to move the lamp independently of the movements of the steering post.

14. A control for vehicle lamps comprising a manually controlled rod, means to rotate said rod and to shift the same longitudinally, a clutch comprising a fixed member and a movable member, the movable member of said clutch being provided with an arcuate arm, a member of the lamp having means of connection with the arm of the clutch whereby the movement of the clutch arm will be communicated to the lamp, and means to connect the manually controlled rod with the arcuate arm intermediate the clutch and its lamp connecting means to vary the position of the movable clutch member and to control the movement of the clutch arm, whereby the movement of the lamp may be governed solely by the manually controlled rod.

[Claims 2 to 13, 15, and 16 not printed in the Gazette.]

1,244,714. COMBINED COLTER AND JOINTER. HARRY S. DICKINSON, Moline, Ill., assignor to Moline Plow Company, a Corporation of Illinois. Filed Aug. 4, 1916. Serial No. 113,103. (Cl. 97—43.)



1. In a combined colter and jointer, the combination of a colter yoke provided with a fore and aft extending socket, a colter mounted on said yoke, a fore and aft extending jointer supporting arm mounted for endwise movement in said socket, releasable means sustained by the said socket for holding said supporting arm fixedly in the socket, and a jointer carried by the supporting arm.

2. In a combined colter and jointer, the combination of a colter yoke provided with a fore and aft extending socket, a colter mounted on said yoke, a fore and aft extending jointer supporting arm rotatably mounted in said

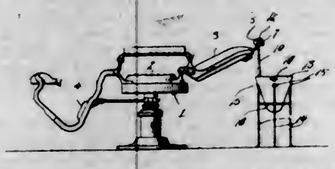
socket, releasable means sustained by the said socket for holding the supporting arm fixedly in the socket, and a jointer carried by the supporting arm.

5. In a combined colter and jointer, the combination of a colter support, a colter mounted thereon, a jointer-supporting arm mounted on the colter support provided on its rear end with a supporting portion having a rounded seat at one side, a jointer frog having a fore and aft extending arm rounded to conform to said seat, releasable means extending through said frog and arm and seat for holding the frog in different positions on the seat, and a jointer applied to the frog.

6. In a combined colter and jointer, the combination of a colter support, a colter mounted thereon, a jointer-supporting arm mounted on the colter support and provided on its rear end with a supporting portion having parallel slots therein, a colter frog seated against said supporting portion of the arm and having parallel slots arranged at right angles to those in the supporting arm, fastening bolts extending through the slots in the frog and arm to secure said parts adjustably in fixed relations, and a jointer applied to said frog.

[Claims 3, 4, 7, and 8 not printed in the Gazette.]

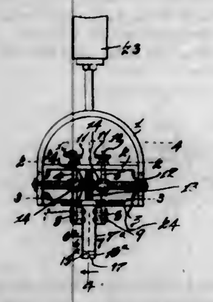
1,244,715. SHAMPOOING ATTACHMENT. ROBERT L. DOZIER and EZRA C. HERRON, Broken Bow, Okla. Filed Aug. 31, 1916. Serial No. 117,934. (Cl. 4—2.)



1. In a shampooing attachment for barbers' chairs having a head rest, the combination with a receptacle, of a substantially U-shaped frame, the lateral extremities of said frame being engaged with the chair head rest and extending into said receptacle, and a draining apron supported upon said frame and arranged about said head rest for collecting such water used during the shampooing operation and conveying the same into the receptacle.

[Claim 2 not printed in the Gazette.]

1,244,716. STONE-GIRDLING TOOL. MAX D. DREYFUS, New York, N. Y. Filed Jan. 25, 1917. Serial No. 144,359. (Cl. 51—11.)



2. A grinding tool comprising a holder, a spindle rotatably supported thereby and provided with right and left hand threads, a slidable post engaging the left-hand threads of the spindle, a second post engaging the right-hand threads of said spindle, means to rotate said spindle, means to lock the posts in adjusted positions, and grinders removably secured to said posts.

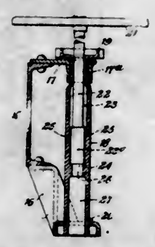
5. A grinding tool, consisting of a holder, cross-bars carried thereby and provided with slots, posts slidably engaging said slots, a threaded spindle engaging said posts, means to rotate said spindle, grinders carried by said posts, and means to lock said spindle against rotation at will.

8. A grinding tool for precious stones, consisting of a curved cage having a grinding edge at the lower end thereof, and shanks extending from said cage adapted to engage a rotatable support.

9. A grinding tool for precious stones, comprising a plurality of curved cages arranged to form a circle, each cage having a grinding edge at the lower end thereof.

[Claims 1, 3, 4, 6, and 7 not printed in the Gazette.]

1,244,717. DROP-BRAKE-SHAFT MECHANISM. GLEN C. ELLIOTT, Maplewood, and JOHN W. STEINMEYER, St. Louis, Mo., assignors to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Dec. 18, 1916. Serial No. 137,573. (Cl. 188—52.)



1. In combination in a drop brake shaft mechanism, a sleeve and a slidable brake shaft adapted to operate the same and to coact directly therewith to be maintained in either operative or inoperative relation with said sleeve.

3. In combination in a drop brake shaft mechanism, a sleeve and a brake shaft relatively movable with respect to each other and interdependent upon each other to assume both coöperative and independent relations.

10. In combination in a drop brake shaft mechanism, a revoluble sleeve and a brake shaft telescopically combined, one being provided with a guideway and the other with a member adapted to relatively slide therein, and means normally preventing relative sliding of said shaft and sleeve, said shaft being capable of actuation to correlate said member and guideway to permit the sliding of said shaft to different positions to, respectively, drive and release said sleeve.

14. In combination in a drop brake shaft mechanism, a revoluble sleeve and a brake shaft slidable therein, each having portions adapted to engage to cause said shaft to drive said sleeve, said sleeve having a portion in which said shaft may turn without driving the sleeve, portions of said sleeve and shaft being adapted to hold said shaft elevated in driving relation with said sleeve, said shaft being adapted to be raised out of said driving relation and lowered to a non-sleeve-driving position, and means for preventing excessive raising of said shaft.

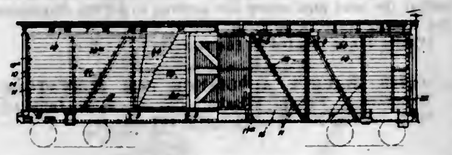
21. In combination in a brake shaft mechanism, a relatively slidable revoluble sleeve and a brake shaft, both provided with curved and uncurved portions and portions for mutual engagement, whereby said brake shaft may be maintained in different relations to said sleeve and interlocked against unintentional change in mutual relation.

[Claims 2, 4 to 9, 11 to 13, and 15 to 20 not printed in the Gazette.]

1,244,718. DOUBLE-BOARD SINGLE-SHEATHED CAR. ROBERT G. ELLIS, University, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Dec. 18, 1916. Serial No. 137,574. (Cl. 105—192.)

4. In combination in a car, wall-framing members and sheathing reinforced thereby comprising a pair of courses of boards one course only of which is directly attached to said members but both of which courses are tied thereto.

7. In combination in a car, a sill, a floor stringer carried thereby, a floor supported by said stringer to lie above said sill, and a sheathing comprising outer and inner courses of horizontally arranged superimposed boards of substantially uniform width, the outer course extending down to bear on top of said sill and the bottom of the inner course bearing on the upper surface of said floor, whereby the joints between the superimposed boards of one course are offset with respect to the board joints in the other course.



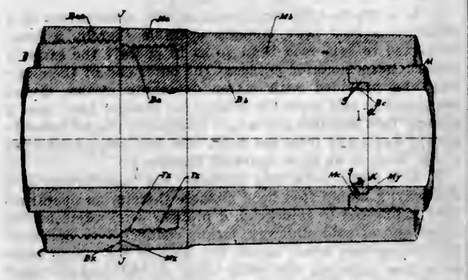
10. In combination in a car, upstanding wall-framing members, a horizontal plate connected with the upper portions thereof, sheathing on the inner side of said members comprising outer and inner courses of boards attached to each other and a single one of said courses being attached to said members, and an extension from said plate fitted into said sheathing to make a tight joint between the same and said plate.

11. In combination in a car, upwardly directed car side framing members, an angular side plate connected with the upper portions thereof, sheathing on the inner side of said members comprising outer and inner courses of boards and water-proofing material interposed therebetween, means connecting said board courses and water-proofing material together independently of said members, means connecting said sheathing to said members, and an extension from said side plate, the inner and outer board courses being arranged to receive said extension, whereby a tight joint is made between said sheathing and side plate.

12. In combination in a car, upwardly extending car side framing members, an angular side plate connected with the upper portions thereof, carlines connected to said side plate, sheathing comprising outer and inner courses of boards fastened together and to said framing members, and an extension from said side plate passing between said carlines and said sheathing, the board courses of the latter being arranged to receive said extension, the latter making a tight joint between said sheathing and side plate.

[Claims 1 to 3, 5, 6, 8, 9, and 13 to 17 not printed in the Gazette.]

1,244,719. BUILT-UP GUN. ALBERT HAMILTON EMERY, Stamford, Conn. Filed Aug. 31, 1916. Serial No. 117,937. (Cl. 89—16.)



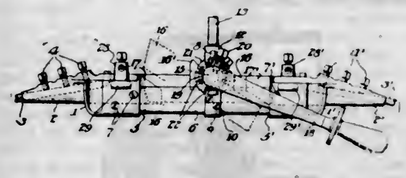
1. A gun formed of two main members, namely a body member, consisting of the body and a portion of the chase of the gun, and a muzzle member, said members being assembled together by overlapping the rear of the muzzle member upon the forward end of the body member through a very considerable portion of the longitudinal dimension of the gun, the inner diameter of the overlapping part of the muzzle member before assembling being less than the outer diameter of the overlapped part of the body member, so that after the rear end of the muzzle part has been shrunk on the front end of the body part, the friction of the pressure between these overlapping parts will hold them firmly together.

2. A gun formed of two main members, namely a body member which constitutes the body and a portion of the chase of the gun, and a muzzle member; said members being assembled together by overlapping the rear end of the muzzle member upon the forward end of the body member through a considerable portion of the longitudinal dimension of the gun; each member being formed in its overlapped portion with a plurality of diameters; the interior diameters of the overlapping parts of the muzzle member before assembling being less than the exterior diameters of corresponding parts of the overlapped body part, and a large tangential strain of tension in the overlapping muzzle part, and a large strain of compression in the overlapped body part being thereby produced.

21. A gun formed of two main members, namely a body member consisting of the main body part of the gun and a portion of the chase of the gun, and a muzzle member consisting of a large portion of the chase of the gun, said members being assembled together by overlapping the rear end of the muzzle member upon the forward part of the body member for a considerable portion of the longitudinal dimension of the gun, each member being formed in its overlapped portion with a plurality of diameters, the interior diameters of the overlapping parts of the muzzle member before assembling being less than the exterior diameters of the corresponding parts of the overlapped body part, these relative diameters of the overlapping parts causing a large tangential strain of tension in the overlapping muzzle part and a large tangential strain of compression in the overlapped body part after these two main parts have been assembled, each of these two main parts having been bored before assembling with the other, the overlapping parts of each of these main parts when being bored having had such tangential strains put upon them, that when these two main parts have been assembled with each other, the diameter of the bore, in, and near the overlapped part will be of one continuous size.

[Claims 3 to 20 not printed in the Gazette.]

1,244,720. ELECTRIC SWITCH. AXEL H. ENGLUND, Philadelphia, Pa., assignor to Electric Service Supplies Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Sept. 29, 1916. Serial No. 122,821. (Cl. 191—39.)



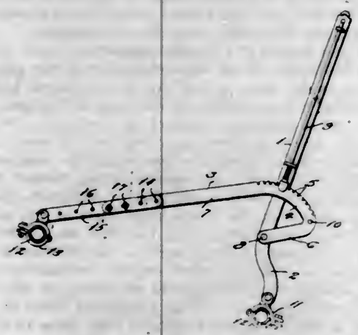
1. In mechanism of the character described, the combination of a pair of terminals, non-conducting means connecting said terminals, a yoke connected with said means, and a fulcrumed conducting blade connected with said yoke so as to coact with said terminals and insulated by said means from said terminals, said blade when open being disengaged from both terminals and when closed engaging both terminals to electrically connect them and provide a track for a trolley.

3. In mechanism of the character described, the combination with ends of trolley wire sections, of terminals having means for fixing them to the respective ends aforesaid, a pair of non-conducting bars connecting said terminals on opposite sides of the connections of said sections therewith, a conducting blade for coaction with said terminals, and means whereby said blade is fulcrumed so as to oscillate in a plane between said bars and adapted to be insulated thereby from said terminals.

9. In mechanism of the character described, a pair of terminals, insulating bars connecting said terminals, a yoke having bifurcations connected with said bars, a shaft journaled in bearings in said bifurcations, a switch blade fixed on said shaft between said bars for connecting said terminals, a handle for turning said shaft, and adjustable spring connecting said handle and a bearing aforesaid for holding said blade open, a bolt carried by said handle for engaging a bifurcation aforesaid to hold said blade open, a spring for normally retracting said bolt and means for locking said bolt in engagement with said bifurcation.

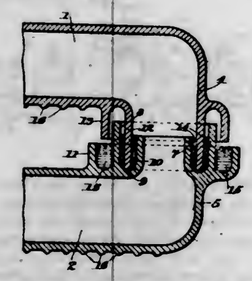
[Claims 2 and 4 to 8 not printed in the Gazette.]

1,244,721. HOBBLE. JOHN R. FERGUSON, Abbott, Tex. Filed Jan. 10, 1917. Serial No. 141,524. (Cl. 97—35.)



The combination in a cultivator hobble of an integral upright hand lever having its lower end off-set laterally and carrying a locking plunger, a beam collar, the lower extremity of the lever being pivoted directly to the collar, an arch bar having an integral end bent into a segment with an under-lying fulcrum arm, said arm having pivoted connection with the lever just above the off-set end thereof and at a point concentric with the outer periphery of the segment of the bar, said segment having notches receiving the plunger of the hand lever, and a second beam collar pivotally connected with the arch bar.

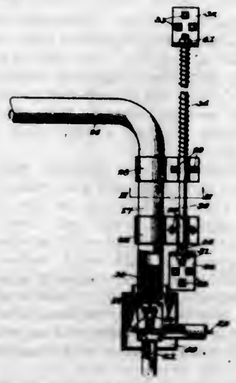
1,244,722. CONDENSER-COIL. WILLIAM L. FINNE, Elizabeth, N. J. Filed Mar. 27, 1917. Serial No. 157,606. (Cl. 137—34.)



2. A condenser coil, of the character described, comprising a plurality of superimposed pipes each having a pair of concentric flanges at its upper and lower ends, the inner flange on the lower end of each pipe resting between the flanges on the upper end of the next pipe below, and one flange on the upper end of each pipe extending between the flanges on the lower end of the next pipe above, whereby a liquid seal is formed around the inner flange on the lower end of each pipe in the space bounded by the flanges between which it rests by the condensation of the gas passing through the coil, the inner flange on the upper end of each pipe terminating below the upper edge of the other flange thereon, which extends between the flanges on the lower end of the next pipe above, for preventing the escape of the condensation to the outside of the coil, and the outer flange on the lower end of each pipe preventing the cooling water on the outside of the coil from entering said coil by overhanging the higher flange on the upper end of the next pipe below, there being a third concentric flange on the upper end of each pipe surrounding and terminating below the outer one of the other two flanges thereon, said third flange extending beyond the outer flange on the lower end of the next pipe above and serving to evenly distribute the cooling water around the coil.

[Claim 1 not printed in the Gazette.]

1,244,723. SAFETY APPLIANCE FOR ELEVATORS. WILLIAM L. FINNE, Elizabeth, N. J. Filed June 12, 1917. Serial No. 174,382. (Cl. 187—41.)



1. The combination with an elevator shaft having a door opening, of an elevator car to move in said shaft, a circuit for controlling said car, a vertically movable bar arranged across the entrance to said car and having vertically turned ends, brackets secured to said ends, vertical rods fastened to the car and on which said brackets are mounted to slide, a circuit breaker comprising two spaced contact plates in said car-controlling circuit, a bridgeing element carried by the end of the bar, and a spring coiled about one of the vertical rods for yieldingly holding said bridging element in contact with said contact plates.

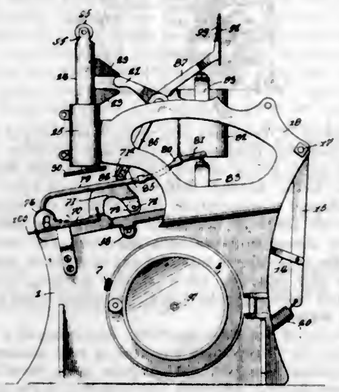
[Claim 2 not printed in the Gazette.]

1,244,724. STAMP-AFFIXING MACHINE. CHARLES JOSEPH FISHER, Allentown, Pa. Filed July 6, 1916. Serial No. 107,825. (Cl. 216—24.)

1. In a stamp attaching machine, the combination of a slideway, a feed head slidably operable therein, a lever connected to said feed head so as to operate the same, a plunger head mounted adjacent the outer end of the slideway and provided with stamp detaching means, means connected to said lever for raising the plunger head, and a plunger foot mounted above said plunger head and movable toward and away from the same, said foot being connected to the lever so as to be operated thereby.

2. In a stamp attaching machine, the combination of a slideway, a stamp feed head slidable therein, an operating lever connected to said head, a plunger head adjacent the upper end of said slideway, means connected to the lever for raising said head, means for holding the stamp strip at a line adjacent the inner edge of the plunger head during the upward movement of said head, and a plunger foot mounted above the said plunger head and movable toward and away from the same, said foot being connected to the said operating lever so as to be operated thereby.

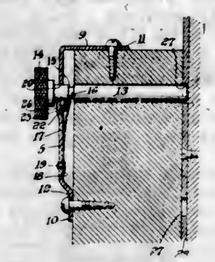
3. In a stamp attaching machine, the combination of a slideway, a feed head slidable therein, a rockably mounted cover for said slideway, means for depressing the outer end of said cover during the rearward movement of said feed head so as to grip a strip of stamps fed outward in the slide way, the outer end of the cover being coincident with the outer end of the slide way, a stamp detaching device mounted adjacent the outer end of said slideway adapted to detach a stamp from the outer end of a stamp strip held by the cover, and means for operating the feed head and for simultaneously operating the said detaching device during the rearward movement of the head.



5. In a stamp attaching machine, the combination of a slideway, a feed head slidable therein, a rockable cover plate mounted over said slideway and feed head, means for raising the inner end of said cover during the rearward travel of the feed head, an operating lever connected to said feed head, a plunger head adjacent the outer end of the slideway, means for raising the plunger head during the rearward movement of the feed head, and a plunger foot mounted above the plunger head and movable toward and away from the same, said foot being connected to the operating lever so as to be actuated thereby.

[Claims 4 and 6 to 8 not printed in the Gazette.]

1,244,725. WINDOW-FASTENER. WILLIAM GADKE, Philadelphia, Pa. Filed Aug. 11, 1916. Serial No 114,409. (Cl. 16—119.)

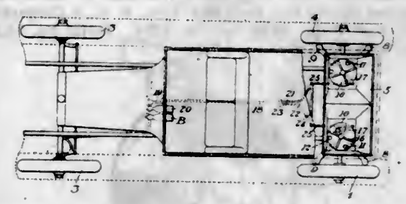


4. A sash lock comprising a body having an aperture and external and internal radial grooves in the walls of the body adjacent the aperture, a cam strip forming a substantially spiral track about the aperture, in combination with a spring secured to the internal wall of the body, and a bolt adapted to fit through the aperture and circumferentially grooved to receive the free end of spring and a radially-extending pin adapted to engage the cam strip and fit into the radial grooves.

[Claims 1 to 3 not printed in the Gazette.]

1,244,726. SANDING DEVICE FOR VEHICLES. HARRY M. GOEHRING and CHARLES A. LINDSTRÖM, Pittsburgh, Pa. Filed Jan. 9, 1917. Serial No. 141,386. (Cl. 105—60.)

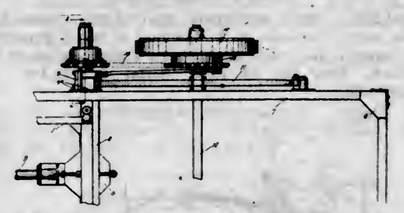
3. In a sanding device for automobiles, the combination with two sand containers located over the rear axle and upon opposite sides of the longitudinal central axis of the vehicle, each container having two sand delivery members, one arranged to deliver sand in front of the rear wheel at that side of the vehicle, and the other at the rear of the same wheel, of valves controlling such delivery, said valves having means for first permitting the delivery of sand through one of said delivery members and by another movement to permit delivery of sand through the other of said members; substantially as described.



4. A sanding device for automobiles, comprising a sand container having two delivery members extending to points adjacent to one of the wheels, a valve for controlling the admission of sand from the container to each of the members separately, and actuating connections extending from such valve to a point within reach of the driver's seat, together with means whereby such connections may be operated either by the hand or foot of the operator, substantially as described.

[Claims 1 and 2 not printed in the Gazette.]

1,244,727. MEANS FOR CONVERTING AUTOMOBILES INTO TRUCKS. ERWIN GREER, Chicago, Ill., assignor to Maxfer Truck and Tractor Company, Chicago, Ill. Filed Jan. 23, 1917. Serial No. 143,914. (Cl. 180—72.)



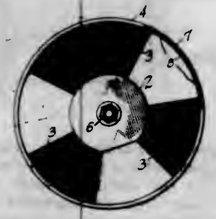
1. In a convertible automobile chassis, the combination of an automobile frame, a differential drive shaft associated therewith and provided with flanged hubs and roller bearings at its outer ends, an extension frame connected to said automobile frame, drive wheels associated with said extension frame and provided with sprocket rims, cup-shaped sprocket drums having at one end radial webs secured to the flanges of the aforesaid hubs and near the other end sprocket rims in alinement with the sprocket rims of the drive wheels aforesaid, and chain connections between said sprocket rims, said sprocket rims of said cup-shaped sprocket drums surrounding said bearings.

2. In a convertible automobile chassis, the combination of a rear axle section of an automobile, a roller bearing adjacent the outer end of said axle section, a flanged hub on the outer end of said axle section, and a cup-shaped sprocket drum having at one end a radial web secured to the flange of said hub and near the other end a sprocket rim adapted for chain connection with a sprocket rim of a drive wheel of an extension frame, the said sprocket rim of said cup-shaped sprocket drum lying in a plane intersecting said roller bearing.

3. The combination with an automobile chassis including the usual operative frame and having its rear wheels removed, of an auxiliary truck frame secured to the automobile frame and extending rearwardly thereof to form a single combined frame, truck wheels with driven sprocket wheels on their inner faces and axle for supporting said auxiliary frame, and means for driving said wheels by the power furnished by the automobile consisting of cup

shaped sprockets disposed in the position of the said removed rear wheels, the driving teeth of each of which is disposed in the plane of the driven sprocket and in a plane intersecting its own bearing, the arrangement being such that the auxiliary frame is adapted for receiving a truck body.

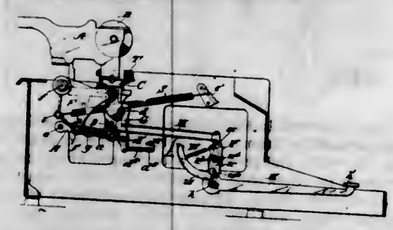
1,244,728. MOTION-PICTURE APPARATUS. FRANK C. HAMILTON, New York, N. Y., assignor to Eureka Projector Device Co., Inc., New York, N. Y., a Corporation of New York. Filed Jan. 21, 1916. Serial No. 73,273. (Cl. 88—19.3.)



1. In a shutter for moving picture machines, a carrier, a plurality of sectors radially mounted on said carrier, a rim U-shaped in cross section around the outer edge of said sectors, and a weight strip held in said rim between said sectors for bracing the same.

2. In a shutter for moving picture machines, a carrier, a plurality of sectors radially mounted on said carrier, a rim U-shaped in cross section around the outer edge of said sectors, and a plurality of weight members held in said rim between adjacent sectors for bracing the same.

1,244,729. TYPE-WRITING MACHINE. GEORGE F. HANDLEY, Glendale, N. Y., assignor to Royal Typewriter Company, Inc., New York, N. Y., a Corporation of New York. Filed Dec. 12, 1916. Serial No. 136,436. (Cl. 197—73.)



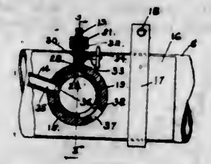
1. In case shifting mechanism for type-writing machines, a shift key lever, a yieldingly mounted lever positively connected therewith and actuated by the shift key lever, and unyielding connections between said yieldingly mounted lever and the part to be shifted, thereby affording an independent additional movement of the shift key lever.

7. In case shifting mechanism for type-writing machines, a shift key lever having an upturned arm, a lever pivotally mounted on said arm and having a curved projecting arm, a spring attached at one end to the arm of the key lever and adapted to be attached at its other end to said curved arm, the curvature of which latter arm is eccentric to the point of connection of said spring to the arm of the key lever, and connections between said pivotally mounted lever and the part to be shifted.

9. In case shifting mechanism for type-writing machines, a shift key lever carrying a yieldingly mounted lever, connections between said second lever and the part to be shifted, a latch for holding the shifted part in either normal or shifted position, and connections between the latch and said second lever.

[Claims 2 to 6 and 8 not printed in the Gazette.]

1,244,730. VAPOR CREATING AND MIXING DEVICE FOR GAS-ENGINES. OSCAR HAYES, Denver, Colo., assignor to The Hayes Manufacturing Company, Denver, Colo., a Corporation of Colorado. Filed Apr. 29, 1916. Serial No. 94,451. (Cl. 123—25.)



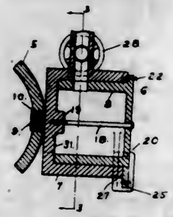
1. A device of the class described, comprising a housing, the housing having induction and eduction ports therein, a valve sleeve movably mounted in said housing, the valve sleeve having induction and eduction ports therein adapted to respectively register with the induction and eduction ports of the housing, means for operating said valve sleeve to move said induction and eduction ports of the valve sleeve into and out of register with the induction and eduction ports of the housing, and the housing and valve sleeve having air induction ports permanently in register.

5. A device of the class described, consisting of a housing, a valve sleeve revolubly mounted in said housing, the housing having induction and eduction ports therein, the valve sleeve having induction and eduction ports therein adapted to respectively register with the induction and eduction ports of the housing, and the housing and valve sleeve having air induction ports adapted to constantly register.

7. A moisture injector for gas engines, comprising a housing, said housing having induction and eduction ports therein, a revoluble valve sleeve controlling said induction and eduction ports of the housing, means for conveying moisture from the engine into said housing through said induction port, means establishing communication between said eduction port of the housing and the cylinders of the engine, and the housing having an air induction port permanently open to the atmosphere.

[Claims 2 to 4, 6, 8, and 9 not printed in the Gazette.]

1,244,731. VAPOR FORMING AND INJECTING DEVICE FOR GAS-ENGINES. OSCAR HAYES, Denver, Colo., assignor to The Hayes Manufacturing Company, Denver, Colo., a Corporation of Colorado. Filed May 19, 1916. Serial No. 98,577. (Cl. 123—25.)



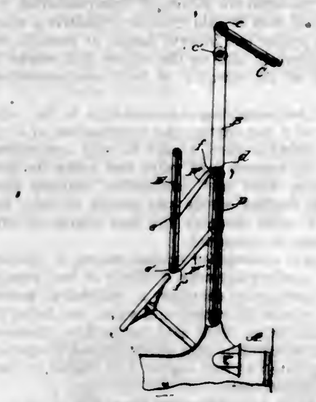
1. A device of the class described, comprising a housing, a valve sleeve telescoping in said housing and rotatable therein, the housing and valve sleeve having induction ports for the induction of water and eduction ports for the eduction of vapor, means for operating said valve sleeve to cause its induction and eduction ports to respectively register with the induction and eduction ports of the housing, and said housing having a separate air induction port.

3. A device for attachment to gas engines, comprising a housing open at one end, a valve sleeve open at one end and received in said housing, its open extremity being protruded in the housing adjacent the closed extremity of the latter, the housing and valve sleeve having induction and eduction ports, means for moving the valve sleeve to cause the ports thereof to register with the ports of the housing, and the closed extremity of the housing having a permanently open air port.

5. A device of the class described for attachment to gas engines for volatilizing water and mixing same with the carbonaceous fuels, comprising a housing attached to the engine in the vicinity of relatively high temperature, a valve sleeve telescoping with said housing and forming a volatilizing chamber on the interior thereof, means for holding said valve sleeve in fixed relation with said housing, the valve sleeve being movable in said housing, the housing and the valve sleeve having induction and eduction ports, means for moving said valve sleeve to cause said induction ports and eduction ports to register, the outer extremity of the valve sleeve having an annular flange thereon engaged by the outer extremity of the housing, said flange having a gap therein, and the housing having a part received in said gap for limiting the movement of the valve sleeve.

[Claims 2 and 4 not printed in the Gazette.]

1,244,732. WIND-SHIELD FOR AUTOMOBILES. EDWARD B. HESS, Brooklyn, N. Y. Filed Oct. 12, 1916. Serial No. 125,182. (Cl. 21—148.)



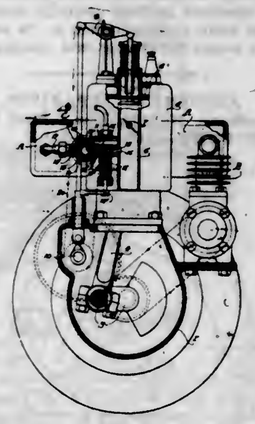
1. A wind shield comprising shield-supporting standards, an upper shield section pivoted at its upper end to the upper ends of the standards, a main lower shield section pivoted to the standards, an auxiliary section, and parallel links pivotally connected with the auxiliary section and pivotally connected with the standards in approximately the same vertical plane as the main-lower section.

3. A wind shield comprising shield-supporting standards, a lower shield section mounted therein, an auxiliary section, upper parallel links having bent ends pivoted to the standards and pivoted to the auxiliary section between its upper and lower ends, and lower parallel links having bent ends pivotally connected with the lower portion of the auxiliary section and pivotally connected with the standards, said links being of such length that when the auxiliary section is raised the bent ends of the links interlock.

[Claim 2 not printed in the Gazette.]

1,244,733. LIQUID-FUEL ATOMIZER FOR INTERNAL-COMBUSTION ENGINES. HENRY BUCKNER HIGGINS, Jr., Denver, Colo., assignor to The Consolidated Inventions Company, Denver, Colo., a Corporation of Colorado. Filed Nov. 6, 1915. Serial No. 60,085. (Cl. 123—131.)

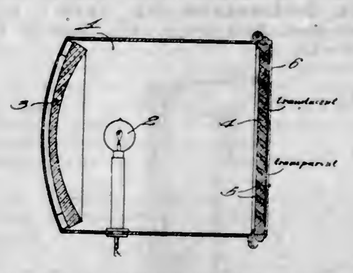
1. An attachment for an internal combustion engine, comprising a fuel nozzle, a reservoir adapted to contain an aeriform promotor of combustion under substantially constant pressure, a duct for conveying said promotor of combustion, and opening adjacent said nozzle, and means whereby unvaried quantities of said promotor of combustion, under said constant pressure, are delivered to said duct, substantially as and for the purpose described.



7. The herein described attachment for an internal combustion engine comprising a liquid fuel nozzle, a duct for the conveyance of a compressed supporter of combustion and opening adjacent said nozzle, and a cylinder connection for said nozzle and duct, in combination with a rotating feeder valve operated by a moving element of the engine, said valve being adapted, at a point in its revolution, to receive and periodically hold a measured quantity of compressed supporter of combustion, and to thereafter discharge said quantity into said duct, substantially as described.

[Claims 2 to 6 and 8 not printed in the Gazette.]

1,244,734. AUTOMOBILE-HEADLIGHT. JOSEPH W. HIGGINS, Bordentown, N. J. Filed Jan. 25, 1917. Serial No. 144,419. (Cl. 240—48.4.)



1. In a lamp, a translucent plate having a plurality of transverse inclined openings extending entirely through the plate from its inner to its outer face.

2. In a lamp of the class described, a translucent plate formed of vitreous material covering the front thereof, said plate having a plurality of forwardly and downwardly inclined openings to permit the rays of light to be projected from the lamp in a downward direction.

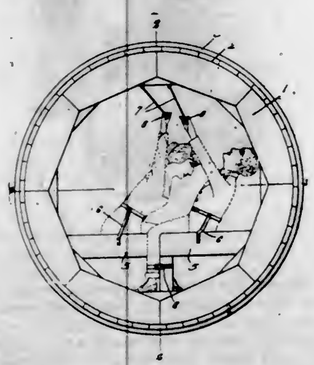
3. In a lamp of the class described, a translucent plate formed of vitreous material covering the front thereof, said plate having a plurality of forwardly and downwardly inclined openings, the upper edge of the outer end of each of said openings being below the horizontal plane of the lower edge of the inner end thereof, whereby to prevent any horizontal rays of light from being projected from said openings.

4. In a lamp of the class described, a translucent plate formed of vitreous material covering the front thereof,

said plate having a plurality of forwardly and downwardly inclined openings, said openings being filled with transparent vitreous material to permit the rays of light to be projected from the lamp in a downward direction.

5. In a lamp, a translucent plate provided with a plurality of transverse inclined openings extending entirely through the plate from its inner to its outer edge, and transparent means for closing said openings.

1,244,735. AMUSEMENT APPARATUS. JOHN WILLIAM HINRICKS, Walcott, Iowa. Filed Feb. 23, 1917. Serial No. 150,557. (Cl. 104—111.)

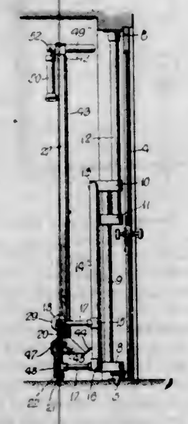


1. Amusement apparatus including a circular car mounted to rotate freely, means for securing a passenger within the car, and a swinging grip fastened within the car.

4. Amusement apparatus including a circular car mounted to roll freely, a seat fixedly secured within the car for supporting a passenger, and a grip connected to the car and above the seat, said grip being mounted for swinging movement.

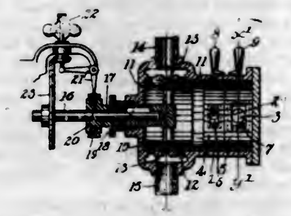
[Claims 2 and 3 not printed in the Gazette.]

1,244,736. DISAPPEARING BED. LEWIS C. HUNTER, Detroit, Mich. Filed June 21, 1915. Serial No. 35,353. (Cl. 5—18.)



The combination with a wall having an opening adapted to be closed by a hinged door having a door knob actuated latch, of a pivotal mounting in the opening of said wall adjacent that wall of the opening to and from which the door knob edge of the door swings and comprising off-set uprights providing clearance for the door knob of the hinged door, a head piece supported by said uprights, and a bed frame, supported from said head piece and capable of being swung from a horizontal position to a vertical position in parallelism with said head piece.

1,244,737. MEANS FOR CONTROLLING EXPLOSIVE-ENGINES. LUCIAN C. JACKSON, Buffalo, N. Y. Filed June 2, 1902. Serial No. 109,867. (Cl. 123—108.)



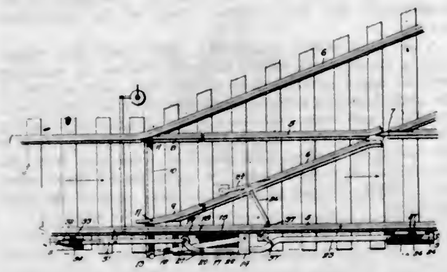
1. In an explosive engine, in combination with a source of fuel supply, a series of explosion cylinders, a manifold distributing chamber body common to said cylinders and between said source of fuel supply and said cylinders, said body provided with separate means of communication between the same and each of said cylinders, positively operated means for opening one of said means of communication and simultaneously closing the others and means to vary the timing of the opening of said communication means.

2. In a device for supplying a fuel charge to the combustion chamber of a gas engine, the combination of a cylindrical valve having a port, a port in said combustion chamber, means to operate said valve and bring its port into communication with said combustion chamber port during its charge feeding stroke and means to vary the operation of said valve whereby the fuel charge to said combustion chamber is regulated.

3. In an internal combustion engine having a combustion chamber in combination with a source of fuel supply, a port in said combustion chamber, a cylindrical ported valve, means to constantly rotate said valve and bring its port into communication with said combustion chamber port during each rotation of said valve, means to operate said valve to regulate the fuel supply and means to vary the proportions of said fuel.

[Claims 4 to 7 not printed in the Gazette.]

1,244,738. SWITCH APPARATUS. HENRY JAMIESON, Gillespie, Ill. Filed Aug. 25, 1916. Serial No. 116,891. (Cl. 104—23.)



1. In apparatus of the character described, the combination with pivoted switch points of a railway switch, of a reciprocatory slide having spaced members carried thereby, a pivoted lever arranged between the spaced members to contact therewith and be moved thereby, means connecting the pivoted lever with the switch points, and a trip member connected with the slide to move it.

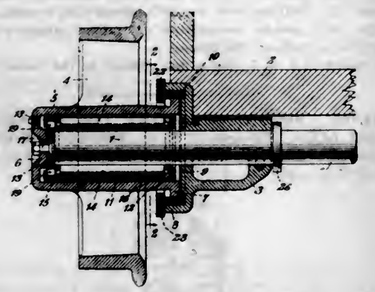
2. In apparatus of the character described, the combination with pivoted switch points of a railway switch, of a reciprocatory slide having spaced members carried thereby, a pivoted lever arranged between the spaced members to contact therewith and be moved thereby, means connecting the pivoted lever with the switch points, a trip member connected with the slide to move it, and means to return the trip member to the normal position.

3. In apparatus of the character described, the combination with pivoted switch points of a railway switch, of a reciprocatory slide, spaced rollers pivotally mounted upon the slide, a pivoted lever arranged between the rollers to contact therewith and be moved thereby, a bar pivotally connected with the switch points and with the pivoted lever, a pivoted trip member, a rod connected with the slide and having a longitudinal slot to receive a portion of the trip member, and means to move the trip member to a normal vertical position.

4. In apparatus of the character described, the combination with a movable switch point, of a swinging lever pivoted at one end and connected with the switch point at the other end, a plurality of elements arranged upon opposite sides of the swinging lever to contact therewith and shift the same laterally, and means to move the plurality of elements.

5. In apparatus of the character described, the combination with a movable switch point, of a swinging angularly arranged member connected therewith to move the same, elements arranged upon opposite sides of the swinging member to contact therewith and move the same laterally, and means to move the elements longitudinally of the swinging member.

1,244,739. INTERLOCKED MINE-CAR WHEEL AND JOURNAL-BOX. WARREN V. JOHNSON, Bloomsburg, Pa., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Jan. 15, 1917. Serial No. 142,465. (Cl. 105—67.)



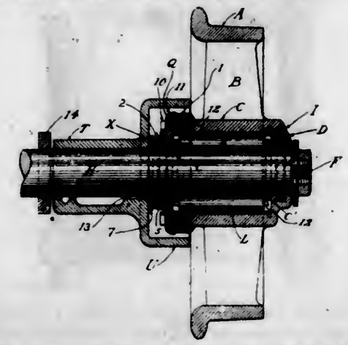
1. In combination, a journal box, an axle passing therethrough, a wheel mounted on said axle having a portion telescoping with said journal box and a coupler comprising a plurality of rotatably anchored members and means locking said members against but operable to permit rotation of said members, said coupler preventing or permitting separation of said journal box and wheel according to the positions of said members.

2. In combination, a journal box, an axle or shaft projecting therefrom, a wheel mounted on said axle or shaft adjacent said journal box and a coupler comprising a plurality of pivoted members and means for locking said members in such relation to said journal box and wheel as to prevent separation thereof, said members being operable to permit separation of said journal box and wheel.

3. In combination, a flanged journal box, an axle or shaft having a bearing therein, a flanged wheel mounted on said axle or shaft adjacent said journal box and a coupler comprising a plurality of pivoted members and means so relating said members to the flanges of said journal box and wheel as to prevent separation of the last two mentioned elements, said members being capable of rotary movement to permit the separation thereof.

[Claims 4 to 13 not printed in the Gazette.]

1,244,740. MINE-CAR ASSEMBLY. WARREN V. JOHNSON, Bloomsburg, Pa., and FREDERICK H. GIBBS, Brooklyn, N. Y., assignors to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Aug. 6, 1917. Serial No. 184,660. (Cl. 105—67.)



1. In combination, a journal box, an axle therein, a wheel secured on said axle said wheel having a hub cast with a closed outer end wall and an open inner end, bearing rollers in said hub, a reinforcing cap secured upon and surrounding the inner end of said hub and extending in thickness radially outwardly therefrom, said cap also having an inwardly extending web lapping the ends of rollers in the wheel and adapted to retain the rollers in position as well as to serve as a bearing between the wheel hub and an adjacent journal box.

2. In combination, a journal box, an axle therein, a wheel secured on the outer end of said axle, said wheel having a hub cast with a closed outer wall and an open inner end, a flanged cap paralleling the said inner end extending radially therebeyond and inwardly toward the center of said hub, bearing rollers in the hub held in position by said inwardly extending portion of the cap and a perforated wall at the opposite end of said hub.

3. In a truck the combination of a journal box, an axle rotatable therein, a wheel secured to and rotatable on said axle, said wheel having a hub portion provided with a chamber adapted to receive a roller bearing therein, an end wall of said chamber being formed intermediate the ends of said axle, bearing rollers independently revoluble in said chamber and a reinforcing cup-shaped washer secured upon and surrounding an inner end portion of said hub, said washer encircling the hub and extending inwardly thereof to provide means for retaining the bearing rollers in position and to retard the flow of lubricant from the roller bearing chamber.

[Claims 4 to 12 not printed in the Gazette.]

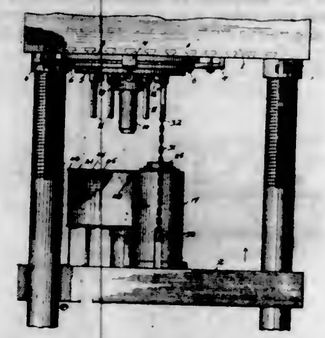
1,244,741. FORGING-MACHINE. WILLIAM S. JOHNSON, Berwick, Pa., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Sept. 21, 1915. Serial No. 51,905. (Cl. 78—9.)

1. In combination in a piercing machine, a die supporting member, a female die therein, a stripper-holder overlapping said female die and locking said die in position in its holder, a fixed platen, a rotatable piercer-holder supported thereby, a plurality of piercers carried by said piercer-holder, and a guide pin entering said die-supporting member.

2. In combination in a device of the character described, a female die and a die-holder, a guide pin adapted to be seated in said die-holder, a piercer-carrying-member rotatable about said guide pin and relatively to said female die and a plurality of piercers carried by said member, each of said piercers being at times adapted to register with said female die.

3. In combination in a forging machine, a die block, a female die therein, a guide pin adapted to be socketed in said die block, a platen supporting said guide pin, a piercer-supporting member rotatable about said guide pin and a plurality of piercers held in said piercer-support-

ing member, each of which is at times adapted to penetrate material in said female die.



4. In combination in a forging machine, a die block, a die therein, a guiding pin adapted to extend into said die block, a platen supporting said guiding pin, a rotatable piercer-carrying member supported by said platen and rotatable about said pin, and a plurality of piercers, each adapted in turn to penetrate metal held in said die, all carried by said piercer-carrying member.

5. In combination in a piercing machine, a die supporting member, a female die therein, a stripper-holder overlapping said female die, a rotatable piercer-holder, supporting means therefor, a plurality of piercers carried thereby, and a guide pin held by said supporting means and adapted to enter said die-supporting member.

[Claims 6 to 23 not printed in the Gazette.]

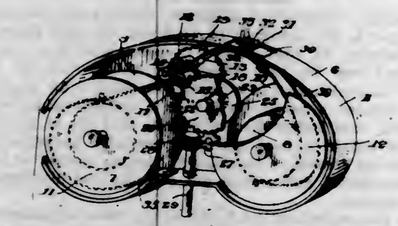
1,244,742. COMPOSITION OF MATTER. CHESKEL L. JONAS, Oakland, N. J., assignor of one-half to Fred J. Malt, Riverdale, N. J. Filed Feb. 8, 1917. Serial No. 147,280. (Cl. 75—1.)

1. The composition metal herein described containing nickel, copper, manganese, iron and vanadium.

2. A metallic compound comprising, nickel, copper, manganese, iron, vanadium and carbon, combined.

3. The composition metal herein described consisting of nickel 67.8%, copper 28.0%, manganese 2.5%, iron 1.5% and vanadium .2%, said ingredients being combined substantially as described.

1,244,743. ROAD RECORDER AND INDICATOR. ORVILLE E. JOSEPH, Moose Jaw, Saskatchewan, Canada. Filed Jan. 6, 1915. Serial No. 867. (Cl. 40—42.)



A recorder and indicator of the class described comprising a casing having an orifice through the top thereof, a guide member below the orifice, interchangeable flanged rollers mounted in the casing, a tape on said rollers engaging with the guide member, a wheel frictionally engaging one of the flanges and adapted to rotate one of the rollers, a pair of spaced rollers between the first said rollers engaging the outer face of the tape, a third adjustable roller located intermediate of the last said rollers engaging the inner face of the tape, a train of gearing designed to drive the last said roller and friction wheel, and ratchet means between the last said roller and train of gearing.

1,244,744. METAL-CUTTING APPARATUS. LEON W. KILE, Struthers, Ohio. Filed Nov. 4, 1912. Serial No. 729,356. (Cl. 29—70.)



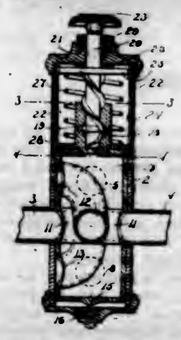
1. In a metal cutting machine, a pair of independently driven parallel shafts, a pair of guide members parallel to said shafts, and a sawing unit adjustable in the direction of length of the shafts and said guide members, said unit including a bracket carrying the cutting saw, and gear connections between one of said drive shafts and the saw.

3. In a metal cutting machine, a pair of independently driven parallel shafts, a pair of guide members parallel to said shafts, and a sawing unit adjustable in the direction of length of the shafts and said guide members, said unit including a bracket carrying the cutting saw, and gear connections between one of said drive shafts and the saw, the other of said shafts carrying work conveying mechanism including members adjustable in the direction of length of its shaft in correspondence with the adjustment of the unit.

6. The combination with a frame, of brackets on said frame, saws carried by said brackets, bearings on the brackets, gears carried by the bearings, a driving shaft passing through the bearings, means for connecting the gears to the shaft, gears meshing with the first mentioned gears and connected to the saws, and manually controlled means for shifting the brackets along the length of the frame, said means comprising a bracket supported gear engaging a rack on the frame.

[Claims 2, 4, 5, 7, and 8 not printed in the Gazette.]

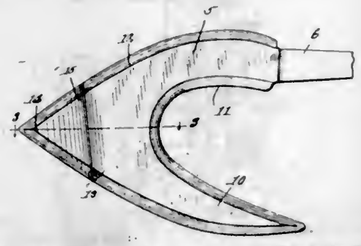
1,244,745. ROTARY AIR-VALVE FOR CORNETS OR THE LIKE. EUGENE E. KING, Vancouver, British Columbia, Canada. Filed Aug. 19, 1916. Serial No. 115,870. (Cl. 84—8.)



6. A valve mechanism for connecting the slide of a cornet or the like wind instrument, said valve mechanism comprising the combination with a hollow cylindrical casing to which the tubes from the mouthpiece and to the bell are connected at diametrically opposite sides and to one of the sides of which casing connection is made to and from the slide it is desired to control, of a valve rotatably fitting the casing, said valve having a duct directly connecting the mouthpiece to the bell, and ducts connecting the same respectively to each of the slide connections when the valve is rotated through an angular distance sufficient to cut off the direct connection from mouthpiece to bell, means for rotating the valve, said means comprising a finger key the stem of which is endwise movable through the end of the valve casing produced, said stem having at its inner end, a quick pitch thread, a nut secured on the end of the valve with which said quick pitch thread engages, means preventing rotation of the stem, means limiting the endwise movement of the same, and means for returning the finger key to its normal position.

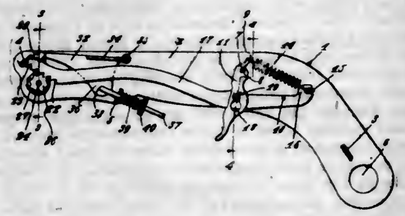
[Claims 1 to 5 and 7 not printed in the Gazette.]

1,244,746. COMBINED CUTTER AND CULTIVATOR. HENRY J. KINZEL, Knoxville, Tenn. Filed July 3, 1917. Serial No. 178,373. (Cl. 55—41.)



In a combined cutter and cultivator, a blade having its outer edges converging to a point, the inner edge of said blade being recessed to form a hook, said blade being curved intermediate its length whereby the point is in a plane differing from that of the blade, said blade and hook portion having a continuous cutting edge, a shank extending from the blade and having an upturned shoulder, and a handle to which the shank is attached.

1,244,747. GAS-LIGHTER. CHARLES F. LARSEN, San Francisco, Cal. Filed May 12, 1917. Serial No. 168,237. (Cl. 67—6.1.)

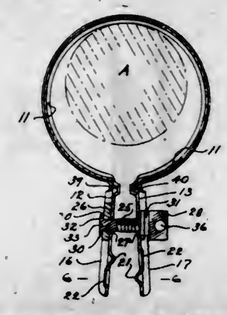


1. A lighter of the class described comprising a body; a striker and a pinion connected for simultaneous rotation and journaled on the body; a pyrophoric element coacting with the striker; a trigger mounted intermediate its ends to swing on the body; an actuating member slidably supported by the trigger and including a rack meshing into the pinion; means for connecting the trigger and the actuating member releasably, whereby the actuating member will be retracted when one end of the trigger is pressed rearwardly; and spring means operatively connected with the actuating member and with the other end of the trigger to advance the actuating member after the actuating member is released from the trigger, the spring means being tensioned when the first-specified end of the trigger is pressed rearwardly.

[Claims 2 and 3 not printed in the Gazette.]

1,244,748. CLENCH CURTAIN-CLAMP. NILS EMIL LARSON, New York, N. Y. Filed Oct. 5, 1914, Serial No. 865,069. Renewed Sept. 12, 1917. Serial No. 191,059. (Cl. 156—21.)

1. The combination with a curtain pole, of a suspending loop having edges folded exteriorly thereof and constituting bearing points upon the pole, jaws depending from the ends of said loop, tightening means for drawing said jaws together, and inwardly facing bosses located near the juncture of said edges with the jaws preventing the outer portions of the latter from spreading when said means are tightened.



4. A curtain clamp comprising a suspending loop with the extremities thereof bent outwardly to form a pair of clasping members, and tightening means for the latter consisting of a nut and screw, said screw being upset at the end over said nut externally of one of the clasping members, and provided with a head capable of pressing against the other clasping member on the outer side of the same.

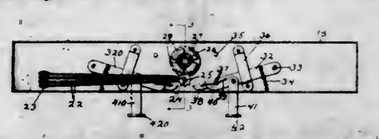
5. A curtain clamp of resilient material comprising a suspending loop with clasping members depending therefrom, a stop at the juncture of said loop with said members, and tightening means intermediate of said stop and the outer ends of the clasping members causing said ends to approach each other.

6. A curtain clamp comprising a suspending element, clasping members depending normally on divergent lines therefrom, opposed stops located near the juncture of said element with said members, and a screw and nut tightener intermediate said stops and the outer ends of the members acting to draw the latter together.

7. A curtain clamp comprising a suspending element, clasping members depending therefrom provided with externally directed flanges, an eccentrically tapped nut arranged to bear upon one of said members between the flanges thereof, and a screw in engagement with said nut having its head positioned to press against the opposite clasping member.

[Claims 2, 3, and 8 not printed in the Gazette.]

1,244,749. MUSIC-LEAF TURNER. EDGAR A. LEWIS and PAUL R. PINKARD, Roswell, N. Mex.; said Pinkard assignor of four-tenths of the whole right to said Lewis. Filed Sept. 11, 1916. Serial No. 119,467. (Cl. 84—17.)



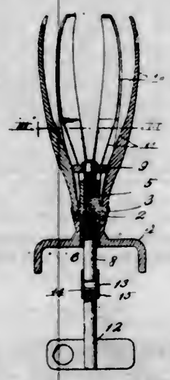
A leaf turner comprising a casing, a series of leaf holding members extending above said casing, a co-axial series of pinions within said casing and connected with said members, respectively, an actuator within said casing mounted to rotate on an axis parallel to the axis of said pinions and having a series of gear segments registering with said pinions, respectively, to engage and rotate said pinions successively as said actuator is rotated, said actuator having a series of lugs corresponding in number and circumferential arrangement to said gear segments, a horizontally swinging lever pivoted within said casing and having at its end a pivoted spring-pressed dog to engage said lugs successively upon successive oscillations of said lever and thereby intermittently rotate said actuator, a horizontally reciprocating rod connected to said lever and extending to the exterior of the said casing, and a retracting spring for said lever.

1,244,750. ROOF-FLASHING. PETER F. MCCAFFREY, Spokane, Wash. Filed Oct. 21, 1916. Serial No. 126,952. (Cl. 108—26.)



The combination with a tubular flashing tapered upwardly, and a vent pipe extending through and fitting snugly within the reduced end of the flashing, of a cylindrical sleeve having a central annular reduced portion the internal diameter of which equals the external diameter of the vent pipe, said reduced portion being curved transversely, thereby to diverge upwardly and downwardly from the vent pipe, one end portion of the sleeve housing and fitting snugly upon the upper portion of the flashing, and a packing within the other end portion of the sleeve and surrounding the vent pipe, the lower portion of the packing being wedged between the vent pipe and the upper portion of the reduced annular portion of the sleeve, thereby to seal the joint between the vent pipe and the sleeve.

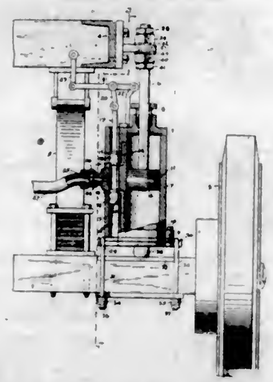
1,244,751. RECTAL PLUG. ARETAS S. MCCLEARY, Kansas City, Mo. Filed Oct. 16, 1916. Serial No. 125,950. (Cl. 128—28.)



1. In a rectal plug, a retaining member having a socket and provided with a handle, a bearing member in the socket, fingers pivoted in the bearing, an internally threaded tube extending through said socket, a plunger threaded in the tube, means on the inner end of the plunger to spread the fingers and being engageable with the inner end of the tube to limit the out movement of the plunger, a socket on the outer end of the plunger, a pin extending across the socket, and a removable key receivable in the socket and having a slotted terminal receiving the pin, said socket being engageable with the handle to limit the in movement of the plunger.

2. In a rectal plug, a handle, an internally threaded tube rigidly connected at one end with the handle, fingers pivoted about the tube, a plunger threaded in the tube, means on the inner end of the plunger to spread the fingers and being engageable with the inner end of the tube to limit the out movement of the plunger, a removable key for the plunger, and means on the plunger to connect the key thereto so as to enable the key to rotate the plunger, said plunger means being engageable with the handle to limit the in movement of the plunger.

1,244,752. MOTOR-VEHICLE LOAD-COMPENSATOR. JOHN T. MCCROSSON, Honolulu, Hawaii. Filed Dec. 20, 1916. Serial No. 138,088. (Cl. 267—22.)



1. A vehicle load compensator comprising the combination with a vehicle frame and supporting axle of an air cylinder, a piston therein, flexible connections between the frame and axle with the piston and cylinder, means to deliver air under pressure above or below the piston to prevent excessive action of the frame when the vehicle is moving, and a valve for admitting air above or below the piston to increase the pressure in the cylinder as the piston moves up or down.

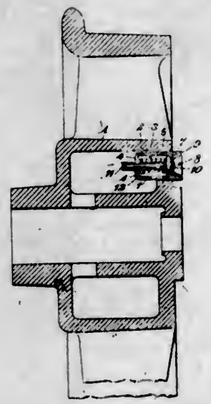
4. A vehicle load compensator comprising the combination with the frame and supporting axle of a vehicle of a supporting spring, an air cylinder, a piston therein, flexible connections between the piston and air cylinder with the axle and frame, a source of compressed air supply, a double valve and connections with the frame and said valve whereby the valve will deliver air under pressure to said cylinder above or below the piston to prevent excessive movement of the vehicle frame in either direction.

5. A vehicle load compensator comprising the combination with the frame and supporting axle of a vehicle of a supporting spring carrying the frame over the axle, an air cylinder, a piston therein, flexible connections between the frame and axle with the piston and cylinder, a source of compressed air supply, a vertically movable double valve adapted to close ports into the air cylinder and a series of links whereby the valve will deliver air under pressure to the air cylinder above or below the piston to prevent excessive movements of the frame, the ports in said cylinder being so arranged as to allow the air therein to be restored to atmospheric pressure in one end of the cylinder when an excessive movement of the piston takes place toward the other end of the cylinder.

[Claims 2 and 3 not printed in the Gazette.]

1,244,753. OILER WITH CAST DUCTILE CASINGS. WILLIAM JOSEPH MCDONALD, Huntington, W. Va., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed July 25, 1916. Serial No. 111,179. (Cl. 64—26.)

1. In a lubricating device, a single member formed as a casting and comprising a barrel portion, the wall of which is thicker intermediate its ends than at said ends thereby forming a valve seat intermediate the ends of said barrel portion, having a non-circular outer end portion adapted to receive a tool and terminating at its opposite end in spaced longitudinal extensions adapted to be bent inwardly to serve as a combined spring seat and valve-stem-guide in combination with a valve and valve seating spring.



4. In combination in an oiler, a barrel portion containing a valve-element chamber and circumferentially spaced longitudinal extensions from an undivided part of said barrel portion, all being parts of a unitary malleable casting, and valve elements including a spring, said extensions being adapted to be bent at their juncture with said undivided barrel part to form a spring seat, a valve guide and lubricant ports in an end of said casing.

5. In combination in an oiler, a barrel portion having a rigid terminal and containing a valve-element chamber fashioned to include an automatic centering valve seat and spaced longitudinal extensions from said rigid terminal of said barrel portion, all being parts of a unitary ductile casing, a valve spring and a valve coöperating with said valve seat to be self-centering, said extensions being adapted to be bent to form an apertured spring seat and a valve guide.

[Claims 2, 3, and 6 to 9 not printed in the Gazette.]

1,244,754. RAZOR-STROP. JAMES H. MACBRIDE, Taft, Cal. Filed Mar. 2, 1917. Serial No. 152,094. (Cl. 51—16.)

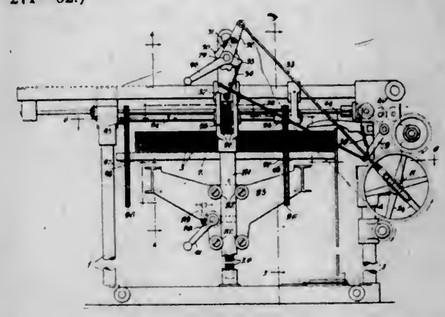


1. A strop of the character described, comprising a base formed of a wooden strip less in length than the total length of the strop, leather pieces attached to the ends of said base piece and extending beyond it, a honing layer and a stropping layer operatively attached to opposite faces of the base, leather clips embracing the leather pieces at the ends of the base piece and attached thereto by sewing, and yokes engaged by said clips.

2. A razor strop of the character described, comprising a longitudinally extending relatively stiff base less in length than the full length of the strop and having its thickness reduced at its ends, leather pieces attached to the reduced ends of the base piece and extending beyond it, leather clips each folded upon itself and embracing the leather piece at the end of the base piece and sewed thereto, and yokes engaged by said clips.

3. In a strop of the character described, a relatively stiff longitudinally extending base, leather strips attached to the base and extending beyond it at each end, strips of binding material extending over the side edges of the base and of said strips, strips of paper pasted upon opposite faces of the base piece between said binding strips, strop cushioning layers superimposed upon each other and pasted to each other and to one face of the base, a stropping layer pasted to the face of the outer cushioning layer, leather clips each folded upon itself and embracing the leather strips at the ends of the strop and sewed thereto, the inside row of stitching being disposed outward of the adjacent end of said stiff base and passing through the leather pieces at the ends of the base, and handle and swiveled yokes engaged by said clips.

1,244,755. SHEET-FEEDING MACHINE. LYMAN MIDDLEDITCH, Scarsdale, N. Y. Original application filed July 6, 1914, Serial No. 849,285. Divided and this application filed Oct. 15, 1915. Serial No. 55,923. (Cl. 271—62.)



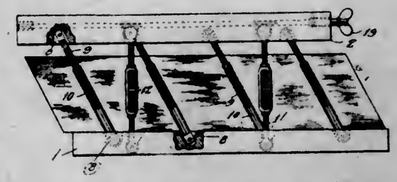
1. Pile elevating mechanism comprising: a sheet support for a pile of superimposed sheets, automatic elevating means for the sheet support, a plurality of pile engaging members, and controlling mechanism positioned by the mean height of the pile engaging members for rendering the elevating means active or inactive as the case may be.

2. Pile elevating mechanism comprising: a sheet support for a pile of superimposed sheets, automatic elevating means for the sheet support, a plurality of pile engaging members, a controlling member for rendering the elevating mechanism active or inactive as the case may be, and equalizing means between the controlling member and the pile engaging members for transmitting the mean position of the pile engaging members to the controlling member.

14. Pile elevating means comprising: feed screws, a carrier for a sheet support, an internally threaded bushing loosely mounted to rotate in said carrier and in engagement with the feed screw, and means for preventing the rotation of said bushing with respect to the carrier.

[Claims 3 to 13, 15, and 16 not printed in the Gazette.]

1,244,756. LOOSE-LEAF BINDER. JASON B. MOODY, Dallas, Tex. Filed Nov. 6, 1916. Serial No. 129,656. (Cl. 129—13.)



1. A loose-leaf binder comprising two binder members carrying leaf supports, and means for separating the members and displacing one longitudinally with relation to the other.

2. In a loose-leaf binder, the combination of a plurality of leaves normally having their top and bottom edges flush, and means for binding the leaves together constructed to be actuated to release the leaves and distort their top and bottom edges into a beveled formation.

3. In a loose-leaf binder, the combination of a plurality of loose leaves normally having their top and bottom edges flush, binding members normally clamping the leaves to-

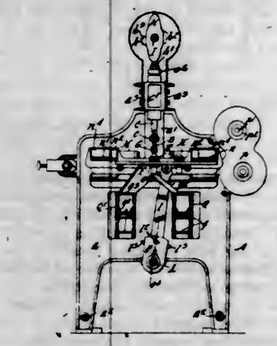
gether and capable of movement whereby the leaves are released, and supports carrying the leaves and connected with the members and displaced laterally by the members when the leaves are released, whereby the leaves are fanned.

4. A loose-leaf binder comprising two binder members carrying leaf supports, and means for swinging one of the members with relation to the other to relatively displace one member from the other.

6. In a loose-leaf binder, a pair of binder members, telescoping posts pivoted to the members, arms pivoted to and extending between the members, and means for swinging the arms.

[Claim 5 not printed in the Gazette.]

1,244,757. FRUIT-PITTING MACHINE. WILLIAM F. MORSE, Rochester, N. Y., assignor to Huntley Manufacturing Company, Silver Creek, N. Y. Filed Feb. 14, 1913. Serial No. 748,357. (Cl. 146—6.)



1. In a fruit pitting machine, the combination of a cooperating pitting punch and a fruit holder, one of which is movable for causing the punch to pierce the fruit in the holder, shove the pit out of the fruit and lift the pitted fruit out of the holder, said holder having a seat in which the fruit rests and a stripping device below the seat through which the pit is shoved by the punch, means for moving said holder from beneath the punch and placing a discharge opening for the pitted fruit in receiving position beneath the punch while the punch is raised, and means for disengaging the pitted fruit from the raised punch whereby the pitted fruit is prevented from falling back into said holder and is caused to fall into the discharge opening.

4. In a fruit pitting machine, the combination of a pitting punch, a pair of holders each having a seat for fruit, means for reciprocating said holders intermittently in opposite directions whereby the holders are alternately placed and held stationary beneath said punch and a holder is exposed alternately at opposite sides of said punch for receiving the fruit, and means for reciprocating said punch toward and from each holder while it is stationary beneath the punch for pitting the fruit in said holder, substantially as set forth.

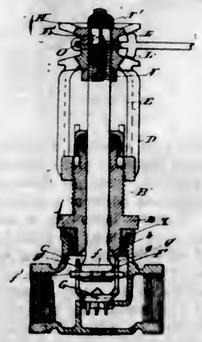
6. In a fruit pitting machine, the combination of pitting punches arranged at intervals lengthwise along the machine, fruit holders provided with seats for the fruit, means for moving the holders transversely of the machine to and from operative relation to the punches, corrals arranged lengthwise along the machine adjacent to the holders, a feed conveyer which travels lengthwise of the machine adjacent to said corrals, and means for delivering the fruit from said conveyer to said corrals, substantially as set forth.

8. In a fruit pitting machine, the combination with a pitting punch, of a fruit holder having an elastic stripping disk with a perforation through which the pit is forced by said punch, and seating means having yielding members for centering fruit of different sizes in the holder relative to the perforation of said stripping disk, substantially as set forth.

12. In a fruit pitting machine, the combination with a pitting punch, of a fruit holder, a perforated elastic stripping disk through which the pit is forced, and a hollow body carrying the said elastic stripping disk and said fruit holder, each of said parts being separately removable and the whole being removable as a unit from the machine, substantially as set forth.

[Claims 2, 3, 5, 7, 9 to 11, and 13 to 16 not printed in the Gazette.]

1,244,758. COMBINED CHECK AND GLOBE VALVE AND TRIMMER. JOSEPH B. MOWRY, Cleveland, Ohio. Filed Dec. 21, 1914. Serial No. 878,430. (Cl. 137—4.)



1. In combination, a casing having a valve seat therein, and provided with an exterior opening for the insertion of a valve, a closure for said opening having a screw threaded outer extremity, a yoke adjustable thereon, a valve stem and valve thereon, movable longitudinally with said yoke and revoluble therein, a lever rotatable about said stem and alternatively engageable therewith and with said yoke whereby said yoke can be rotated to adjust the position of said valve relatively to said seat and, alternatively therewith, said valve can be rotated upon said seat, substantially as described.

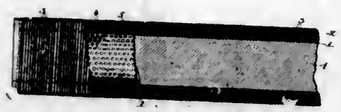
2. In combination, a casing provided with a valve seat and also having an external opening for the introduction of a valve, a closure for said opening, a rotatable yoke longitudinally adjustable upon said closure, clamping means therefor, a valve, a valve stem governing said valve longitudinally movable with said yoke, a disk upon said yoke loosely surrounding said stem, a corresponding disk secured to said valve stem, and a lever alternatively engageable with said disks, for alternatively rotating said yoke and stem, and means for attaching said lever in place, substantially as described.

3. In combination, a valve casing, a seat therein, said casing having an external opening, a closure therefor, a rotatable yoke longitudinally adjustable upon said closure, a valve, a valve stem governing said valve longitudinally movable with and rotatably mounted in said yoke, means for alternatively engaging said yoke and valve stem to separately rotate the same, a second stem interchangeable with the aforesaid stem, and a seat cutting attachment secured to said second stem and operable therewith, substantially as described.

[Claim 4 not printed in the Gazette.]

1,244,759. PLATEN FOR TYPE-WRITING MACHINES. WILLIAM REDFORD MULOCK, Winnipeg, Manitoba, Canada. Filed May 14, 1917. Serial No. 168,433. (Cl. 197—147.)

1. A noise reducing platen for typewriters comprising in combination a tubular layer of an elastic cushioning substance, a hard outside casing surrounding the elastic cushioning layer and composed of small parts adapted to move independently of one another under the impact of the type by reason of the yielding quality of said elastic cushioning layer, a lattice work cylinder supporting said elastic cushioning layer, and a filling of a sound deadening substance in said cylinder.



3. A noise reducing platen for typewriters comprising in combination a layer of elastic cushioning substance, a thin outside casing of hard material, a metal cylinder engaging the inner surface of the elastic cushioning layer and consisting of the minimum amount of metal necessary to rigidly support said elastic cushioning layer and hard outside casing, and a filling of a sound deadening substance in said cylinder.

7. A noise reducing platen for typewriters comprising in combination a layer of elastic cushioning substance, a thin outside casing of hard material, and a solid core of a sound deadening substance to support said elastic cushioning layer.

[Claims 2, 4 to 6, and 8 not printed in the Gazette.]

1,244,760. COLLAPSIBLE CAMP STRUCTURE. FREDERICK G. MUSSO, San Jose, Cal. Filed May 2, 1917. Serial No. 165,888. (Cl. 5—5.)



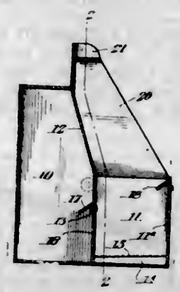
1. A camp structure comprising a collapsible bed supported a distance from the ground when assembled and having a removable flexible covering positioned thereon, and a collapsible dressing room removably attached to one end thereof and extending to the ground, said dressing room being inclosed with a flexible material on the top and two sides, a curtain door for the third side and having open communication with said bed on the fourth side, that portion of said fourth side extending from said bed to the ground being inclosed with a flexible material.

6. In a collapsible camp structure, a bed having foldable side rails, end rails supporting a bed bottom, detachable legs positioned at its four corners, detachable framework supported from its four corners, and a flexible covering for said framework, a member for each corner of said bed to which a side rail, an end rail, a leg and one member of said framework are attached, a second framework removably attached to said first mentioned framework, and supporting inclosing walls and a top of flexible material and forming a dressing room provided with a curtain door and having open communication with said bed.

[Claims 2 to 5 not printed in the Gazette.]

1,244,761. GRAIN-PICKLING MACHINE. CHARLES HENRY NELSON, Vulcan, Alberta, Canada. Filed Feb. 1, 1917. Serial No. 146,030. (Cl. 83—28.)

1. A grain pickling machine comprising a closed chamber, an open chamber communicating with the closed chamber, a screen of substantially angle shape in cross section between the chambers, means for spacing the screen from the bottom of the open chamber and means for oscillating the machine.

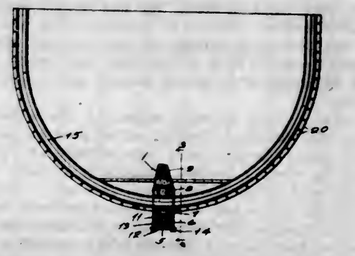


3. A grain pickling machine comprising a liquid chamber, a grain chamber communicating with the liquid chamber, a screen intermediate of the chambers, a baffle wall in the liquid chamber overhanging the top of the screen, and means for oscillating the machine.

5. A grain pickling machine comprising an inclosed liquid chamber, a grain chamber communicating with the liquid chamber, a screen between the said chambers, a vent pipe operatively connecting the chambers and means for oscillating the machine.

[Claims 2 and 4 not printed in the Gazette.]

1,244,762. METHOD OF CONSTRUCTING THE HULLS OF SHIPS. PHER H. NELSON, Duluth, Minn. Filed May 26, 1917. Serial No. 171,121. (Cl. 114—65.)



1. A ship hull comprising a plurality of ribs, planking supported therefrom and a filling of cement between said ribs, some of which cement extends into spaces between the planks of the planking and against which the planking presses when said planking swells under the action of water.

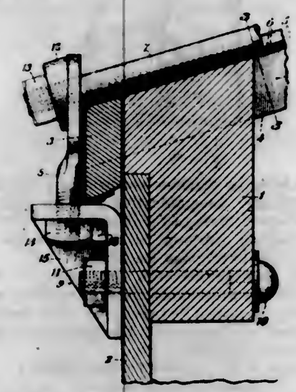
2. A hull construction comprising a keel made up of a body of cement having a plurality of railroad rails embedded therein, a plurality of curved rails extending transversely through said body of cement and lying between some of the first named rails and constituting the ribs of the hull, the flanged portions of said rails being disposed outwardly and the planking spiked to the flanged portions of said rails.

4. A hull construction comprising a keel consisting of a body of cement having longitudinally extending reinforcing members embedded therein, bowed rails extending transversely therethrough and constituting the ribs of the hull, the base portions of said rails being disposed outwardly, planking extending longitudinally of the hull and spiked to the base portions of said rails, reinforcing rods extending longitudinally of the hull and lying between the base portions of the rails and the planking, reinforcing rods extending over the ball portions of said rails and being bowed toward the base portions of the rails between the ball portions thereof, means for tying the bowed portions of said rods to the planking and a filling of cement between the rails, some of which enters spaces formed

between the planks of the planking as and for the purposes set forth.

[Claims 3 and 5 not printed in the Gazette.]

1,244,763. ADJUSTABLY-CLAMPED ROOF. MAXIMILIAN J. NEUMAYER, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed July 28, 1914, Serial No. 853,660. Renewed Sept. 5, 1917. Serial No. 189,886. (Cl. 108—5.4.)



1. In a structure of the class described, a roof frame comprehending a carline comprising spaced members, lapping roof sheets supported upon said roof frame and provided with elastically correlated seats between said carline members and within the lap of said roof sheets, a binding member adapted to coöperate with one of said seats and projecting beyond the roof without substantial deviation from its path of direction, and means for vertically adjusting said binding member and to secure it in position.

3. In a car roof, suitably supported relatively slidable lapping roof sheets, a binding rod adapted to bear thereagainst and to project in a substantially straight path beyond the roof, a bracket comprising a flange adapted to be secured to the body portion of a car, an apertured outstanding flange and a rib connecting both flanges, a bolt comprising an eye adjusted to the disposition of said rod and a shank passing through said outstanding bracket flange, a tightening nut on said rod, an adjusting nut on said bolt shank below said last mentioned flange, and means on said bracket preventing the rotation of the adjusting nut when the parts are assembled.

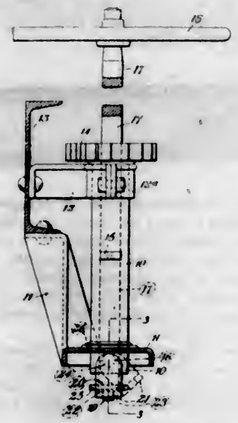
4. In a car, a side plate forming part of a car body, suitably supported relatively slidable lapping roof sheets extending over the outside of said car body, a binding rod stretched over said roof sheets and extending outwardly there beyond in a substantially straight path, fixed holding means secured to said car body, adjustable means connecting said rod and holding means and means adapted to prevent swiveling of said adjusting means.

6. In a railway car, framing members, roof sheets provided with lapping corrugations extending over said framing members, a binding member in alinement with some of the corrugations of said roof sheets and extending therebeyond, an anchor secured to one of said framing members, a vertically adjustable member secured to said anchor and to said binding member and means for adjusting said adjustable member.

[Claims 2, 5, and 7 not printed in the Gazette.]

1,244,764. DROP-BRAKE-SHAFT MECHANISM. MAXIMILIAN J. NEUMAYER, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Dec. 18, 1916. Serial No. 137,614. (Cl. 188—52.)

1. In combination in a drop brake shaft mechanism, a suitably mounted drum-forming sleeve, a brake shaft slidable therein adapted to rotate the same, and a device external to and pivotally hung on said sleeve adapted to hold said shaft elevated and to be oscillated to permit the shaft to be lowered.



7. In combination in a drop brake shaft mechanism, a sleeve and a stirrup having spaced legs between which said sleeve extends, integral trunnions on one of said elements projecting into the sockets in the other element in such manner that said sleeve and stirrup are inseparable, a brake shaft slidable in said sleeve adapted to be held elevated by said stirrup, said stirrup being adapted to be swung to permit said shaft to be lowered.

11. In combination in a drop brake shaft mechanism, an apertured brake shaft step, a revoluble sleeve extending therethrough, a stirrup pivotally connected to a sleeve portion extended through said step and a sleeve-driving brake shaft slidable in said sleeve and supported by said stirrup in an elevated position, said stirrup being adapted to be swung to permit said shaft to be lowered.

14. In combination in a drop brake shaft mechanism, a brake shaft step and an upper bearing bracket mounted on car structure independently of each other, a winding sleeve having bearings in each, a sleeve-carried ratchet wheel above said upper bracket, said sleeve also projecting below a portion of said step, a stirrup pivotally connected with said sleeve below said step portion, a sleeve-driving brake shaft slidable in said sleeve adapted to be held elevated or permitted to be lowered by said stirrup, said ratchet wheel and stirrup preventing material longitudinal movement of said sleeve.

18. In combination in a drop brake shaft mechanism, a slidable brake shaft and a suitably supported device freely oscillatory and operable by gravity to position itself in coöperative relation with said shaft to hold the latter elevated, said shaft when so held locking said device against oscillation.

[Claims 2 to 6, 8 to 10, 12, 13, and 15 to 17 not printed in the Gazette.]

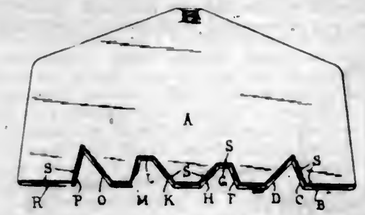
1,244,765. HOE. JOHN T. OAKLEY, Dubuque township, Dubuque county, Iowa. Filed Sept. 16, 1916. Serial No. 120,469. (Cl. 55—44.)

1. A garden implement comprising a hoe formed with a flat blade having a straight primary cutting edge, and a plurality of notches in said edge with sides at varying angles to the cutting edge and to each other and sharpened to form secondary cutting edges.

2. A garden implement comprising a hoe formed with a flat blade having a straight primary cutting edge, and a plurality of angular notches in said edge, the sides of each notch inclining differently with respect to the cutting edge and harpened to form ecndary cutting edges.

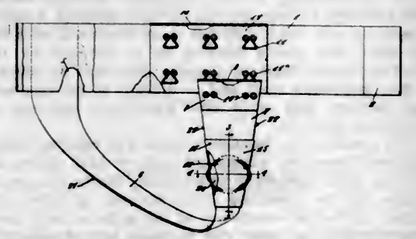
3. A garden implement comprising a hoe formed with a flat blade having a straight primary cutting edge, and

r plurality of angular notches in said edge, the sides of each notch inclining differently with respect to the cutting edge and to each other and sharpened to form sec-



ondary cutting edges, certain of said notches having their side edges connected by straight cutting edges parallel with the primary cutting edge.

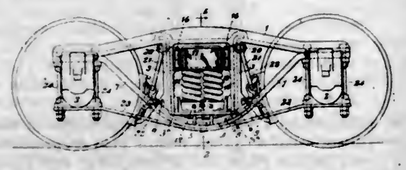
1,244,766. TRUSS. HENRY DANIEL O'BRIEN, Forsyth, Mont. Filed June 28, 1917. Serial No. 177,539. (Cl. 128—26.)



1. A truss comprising a belt; a reinforcing web folded transversely upon the belt and secured thereto; a perineal strap having one of its ends attached to the belt; a reinforcing web folded over the other end of the perineal strap; and separable fasteners carried by the webs, those fasteners which are carried by the web of the belt being duplicated both longitudinally of the belt and transversely thereof, to permit an adjustment of the web-carrying end of the perineal starp both longitudinally of the belt and transversely of the belt.

2. A truss comprising a belt; a perineal strap attached at one end to the belt and terminating at its other end in a widened head having upwardly converging edges; means for detachably assembling the head with the belt; a strip disposed transversely of the head and folded across the diverging edges of the head to define a downwardly tapered pocket, the ends of the strip being overlapped upon and secured to the strap; the strip being provided with slits located adjacent the diverging edges of the head; and a pad in the pocket.

1,244,767. RAILWAY-TRUCK. ALLEN E. OSTRANDER, Ridgewood, N. J. Filed July 21, 1913. Serial No. 780,243. (Cl. 105—248.)



1. In a truck side frame, a top arch bar and spaced columns cast in one piece, in combination with a single bar of ductile metal extending longitudinally of said columns and about which said columns are cast, said bar spanning the space between said columns.

9. In a truck side frame, a top arch bar formed with integral spaced columns and a spring-plank saddle, said spring-plank saddle having a continuously curved lower face longer than the distance between said columns and of a radius greater than the distance between said columns, and a reinforcement integral with and connecting said columns and the outer ends of said spring plank saddle.

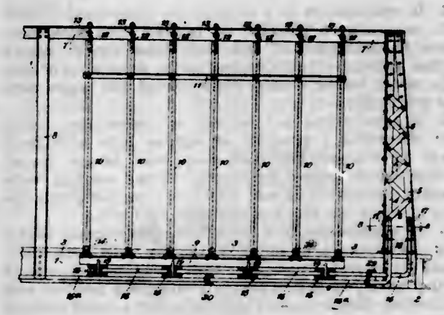
15. In a truck side frame, a top arch bar, spaced columns and a spring-plank saddle cast in one piece, said saddle having a bottom face of arcuate form in a radius greater than the distance between said columns, and extending beyond said columns at each end and a bottom arch bar having an intermediate curved portion conforming to the curvature of the lower face of said saddle.

16. In combination in a truck side frame, a wrought metal spring plank suspension yoke combined with a cast metal top arch bar of a truck by casting.

17. In combination in a truck, a cast metal top arch bar, bolster columns and a spring seat cast as an integer, said columns having enlarged bases each provided with spaced depending flanges directed toward said top arch bar, and a wrought metal bottom arch bar passing between the flanges at each column and interlocking with the sides of said columns.

[Claims 2 to 8, 10 to 14, and 18 to 35 not printed in the Gazette.]

1,244,768. CAR-DOOR OPERATING MECHANISM. ALLEN E. OSTRANDER, Ridgewood, and ERNEST R. SCHROEDER, Paterson, N. J., assignors to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Oct. 5, 1916. Serial No. 123,898. (Cl. 105—14.)



1. In combination in a railway car, a hinged door, a door-lock therefor and a door lock-operating shaft, said lock comprising suitably sustained supporting brackets and coöperative shaft-girdling door latch members operable by said shaft and capable of withdrawal therefrom transversely thereof.

4. In combination in a railway car, a hinged door, a plural-part door-locking latch and a door latch-operating shaft, the members of said latch being individually freely removable from said shaft transversely thereof but being interlocked when assembled to be incapable of withdrawal from said shaft in any direction.

7. In combination in a railway car, a hinged door, a door latch comprising associated members socketed one into the other in a manner preventing relative rotation of said members, a latch-operating shaft to which said latch members are confined by their socketed relation adapted to rotate said members in unison, said members being releasable from said shaft intermediate its ends by movement longitudinally and transversely thereof.

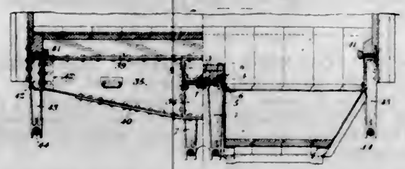
12. In combination in a railway car, a door, a non-circular door lock-operating shaft, and a door lock comprising supporting brackets mounted on the car structure and a latch comprising a latch arm and a coöperative bushing

each provided with a shaft-relecveng slot conformed to the shaft section and projections on said latch arm and bushing extending, respectively, into the slots of said bushing and arm and preventing either from being withdrawn from said shaft, said arm, bushing and brackets being capable of separation longitudinally of said shaft to permit said arm and bushing to be withdrawn transversely thereof.

14. In combination in a railway car, a door, a door lock therefor, a non-circular door lock-operating shaft and a support for said shaft comprising a bracket secured to the car structure and having a perforated portion, a cylindrical bushing extending through the bracket perforation and provided with a flange incapable of passing therethrough, and removable means secured to said shaft preventing the flanged end of said bushing moving in a direction to allow withdrawal of said bushing from said bracket.

[Claims 2, 3, 5, 6, 8 to 11, and 13 not printed in the Gazette.]

1,244,769. CAR-UNDERFRAME. ALLEN E. OSTRANDER, Ridgewood, N. J., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Nov. 21, 1916. Serial No. 132,588. (Cl. 105—76.)



1. In combination in a railway car underframe, center sills comprising a plurality of railway rails with their heads in juxtaposition and their base flanges spaced farther apart, draft sills secured to the outer sides of said rails and a bolster within which extend the center sills and draft sills.

2. In combination in a railway car underframe, center sills comprising a plurality of railway rails with their heads in juxtaposition and their base flanges spaced farther apart, shaped draft sills having vertical webs directly connected with said rails, and a bolster within the zone of which lap the rails and said draft sills.

3. In combination in a railway car underframe, center sills comprising a plurality of railway rails with their heads in juxtaposition and their base flanges spaced farther apart, draft sills having vertical web portions and reinforcing flanges lapping said rails and secured directly thereto.

4. In combination in a railway car underframe, center sills comprising a plurality of railway rails with their heads in juxtaposition and their base flanges spaced farther apart, draft sills lapping and being secured directly to flanges of said rails, and a bolster comprising a center-filler-casting extending above and below said rails.

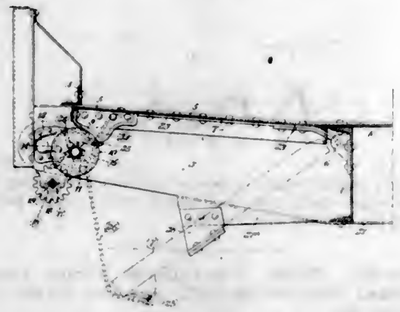
5. In combination in a railway car underframe, center sills comprising a plurality of railway rails with their heads in juxtaposition and their base flanges spaced farther apart, draft sills secured directly to said rails and a bolster center-filler-casting having a part extending below said rails and being directly connected thereto.

[Claims 6 to 18 not printed in the Gazette.]

1,244,770. CAR-DOOR-OPERATING DEVICE. ALLEN E. OSTRANDER, Ridgewood, N. J., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Apr. 17, 1917. Serial No. 162,617. (Cl. 105—14.)

1. In combination, a drop door, spaced parallel shafts and geared wheels coöperatively connecting the same, one of said wheels being responsive to another to be moved clear of said door to permit it to drop and to be moved under said door to hold it closed.

2. In combination, a drop door, spaced shafts, meshing gear wheels coöperatively connecting the same and door-lifting means operable by one of said shafts, one of said wheels being movable out of the path of said door and being adapted to turn the last mentioned shaft to close said door and to thereafter be positioned to hold said door closed.



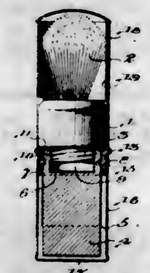
3. In combination, a door, separated bearings having tread surfaces, a shaft bearing on said surfaces, a wheel mounted on said shaft, another shaft extending with the first shaft, and means adapted to be actuated by the second-mentioned shaft in opposite directions to operate the first mentioned shaft and to cause it to traverse said tread surfaces and move said wheel into and out of door-closing position.

4. In combination, successive doors and winding shafts connected therewith, wheels mounted on said shafts, an operating shaft common to said winding shafts, and means operable by the operating shaft adapted to move said winding shafts and wheels out of the paths of said doors to permit them to drop and to move said wheels into position to support said doors when closed.

5. In combination in a car, connected drop doors and winding shafts, spaced transverse underframe members interposed between successive doors and winding shafts, bearings for said shafts on said members, wheels on said shafts, an operating shaft extending to be juxtaposed to the different winding shafts, and means operable by said operating shaft adapted to move said winding shafts and wheels to permit said doors to drop and also to cause said wheels to hold the doors closed.

[Claims 6 to 16 not printed in the Gazette.]

1,244,771. COMBINED BRUSH AND SHAVING-STICK. HERMAN H. OSWALD, Pembroke, Bermuda. Filed Jan. 22, 1916. Serial No. 73,555. (Cl. 132—33.)

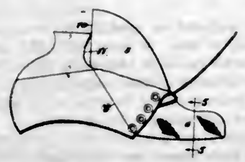


1. In combination, a soap stick, a metal holder or base therefor formed with a central hollow boss or projection with a closed bottom embedded in one end of and rigidly supporting the soap stick, said holder also having a flange projecting beyond the sides of the soap stick, and a cover or shell, detachably fitted to said projecting flange, surrounding and inclosing the soap stick but out of contact therewith, said boss or projection having means to receive and retain the head end of a shaving brush projecting oppositely from the soap stick, whereby when the brush and cover are in place, the latter serves as a handle for the former, and when the cover is detached, the soap stick is completely exposed.

7. The combination of a shaving stick and holder therefor comprising a holder member shaped to form two chambers one within the other and open at opposite ends only, the inner chamber being formed to receive and hold the end of a shaving brush handle, a soap stick having one end shaped to fit within said outer chamber spaced from the outer wall thereof and having an annular groove near said end within said outer chamber, the wall of said outer chamber having an annular groove in its inner surface, and a filler occupying the space within the said grooves and between said soap stick and said outer wall to anchor said soap stick in said holder member, together with a casing arranged to inclose said soap stick and engage the outer wall of said outer chamber.

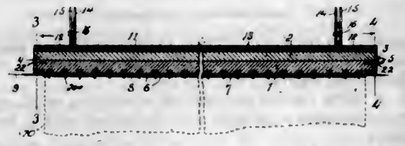
[Claims 2 to 6 not printed in the Gazette.]

1,244,772. METHOD OF REPAIRING TURN-SHOES. WILLIAM A. OWENS, St. Louis, Mo., assignor of one-half to Lungstras Dyeing & Cleaning Company, St. Louis, Mo., a Corporation of Missouri. Filed July 30, 1917. Serial No. 183,462. (Cl. 12—142.)



The method of resoling turn shoes and slippers which consists in first securing an extremity of the new sole to the shank of the shoe or slipper, next reversing the vamp and sole so as to expose the inner surfaces of these parts, then inserting a half-last between the heel of the shoe or slipper and the toe thereof, next securing the sole to the vamp by machine-stitching, and finally reversing the sole and vamp so as to expose the wearing surfaces of these parts.

1,244,773. MATTRESS-MAKING APPARATUS. WALTER R. PHILLIPS, Kansas City, Mo. Filed June 23, 1916. Serial No. 105,384. (Cl. 155—43.)



4. In a mattress making apparatus, a core provided with a longitudinal series of projections spaced apart and having each in its outer end a notch adapted to receive therethrough a needle and a stitching cord, and means for clamping the ticking of a mattress around said core and for overlapping in opposite directions alternately portions of said ticking between said projections.

5. In a mattress making apparatus, a core provided with a longitudinal series of projections each having in its outer end a notch adapted to receive longitudinally therethrough a needle and a stitching cord, and two clamping members pivoted together and having means for clamping the ticking of a mattress around said core and for forcing opposite portions of said ticking alternately in opposite directions between said projections and into positions in which said needle when inserted longitudinally through said notches will pass through the portions of the ticking disposed between said projections.

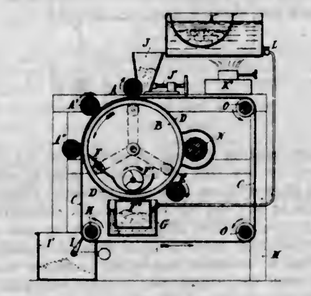
6. In a mattress making apparatus, a core provided with a longitudinal series of projections, each having in its outer end a notch adapted to receive longitudinally therethrough a needle and a stitching cord, and two clamping members pivoted together and adapted to clamp the ticking of a mattress around said core and provided respectively at their outer edges with projections having end notches and adapted to support opposite portions of said ticking in opposite directions alternately between said projections of the core, the notches of the core projections and of the clamping members being in alinement in the clamping position of the clamping members.

7. In a mattress making apparatus, a cylindrical core comprising two longitudinal members releasably interlocked, one having on its periphery a series of projections each having in its outer end a notch, and two clamping members hinged together and adapted to embrace said core and having at their outer edges respectively projections having end notches and adapted to pass between the projections of the core in opposite directions and in an alternate manner, the notches of the core projections and the clamping member projections being in alinement in the clamping position of the clamping members and adapted to receive therethrough longitudinally a needle and a stitching cord, one of the clamping members having means for releasably engaging with the core so as to hold the clamping members, when in the clamping position from circumferential movement on the core.

12. In a mattress making apparatus, a core adapted to have a portion of the ticking of a mattress formed into a tube around the core, and means for folding alternate opposite portions of the tube and disposing them in longitudinal alinement with each other with respect to the core, whereby said folded alternate portions may be stitched together with a straight stitch.

[Claims 1 to 3, 8 to 11, 13 and 14 not printed in the Gazette.]

1,244,774. APPARATUS FOR THE TREATMENT OF CORN, GRAIN, FRUIT, AND THE LIKE. JAMES CHARLES ADRIEN POINTE, Dijon, France. Filed Apr. 22, 1913. Serial No. 762,849. (Cl. 83—12.)



1. In a hydro-pulp-extractor of the kind set forth, the combination of a rotary drum provided with a peripheral sheet of metallic gauze, an endless sheet of metallic gauze coarser than the drum gauze, means for pressing the two sheets against each other, means for feeding the material, means for pressing it onto the endless metallic sheet and means for removing the paste traversing the sheet of the rotary drum.

2. In a hydro-pulp-extractor of the kind set forth, the combination of a single drum provided with a peripheral sheet of metallic gauze, an endless sheet of metallic gauze coarser than the drum gauze, means for pressing the two sheets against each other, a grain-feeder comprising a hopper and a register for controlling the supply of grain, means for pressing the material against the endless sheet, and means for removing the paste collected within the rotatable drum carried along by the metallic sheet.

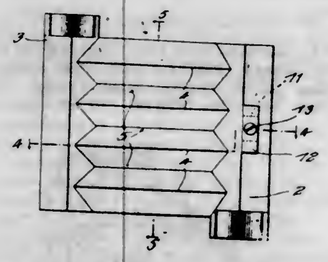
3. In a hydro-pulp-extractor of the kind set forth, the combination of a rotary drum provided on its periphery

with a sheet of metallic gauze, an endless sheet of metallic gauze coarser than the drum gauze, said endless sheet bearing on a portion of the drum's periphery, a grain-feeder, resilient means for pressing the grain onto said endless sheet and at the same time pressing said endless sheet against the drum sheet, means for collecting the paste within the drum and means for removing the paste.

4. In a hydro-pulp-extractor of the kind set forth, the combination of a rotary drum provided on its periphery with a flexible sheet of metallic gauze, a flexible endless sheet of metallic gauze coarser than the drum gauze and bearing on a portion of the drum's periphery, a grain feeder, rubber cylinders adapted to press against the metallic sheets, supporting members for said cylinders adapted to be moved toward and away from the drum, means for collecting the paste within the drum, means for removing the paste and means for collecting the husks.

5. In a hydro-pulp-extractor of the kind set forth, the combination of a rotary drum provided on its periphery with a flexible sheet of metallic gauze, a flexible endless sheet of metallic gauze coarser than the drum gauze and bearing on a portion of the drum's periphery, a grain feeder comprising a hopper, a register adapted to move thereunder and a screw on said hopper for controlling said register, rubber cylinders adapted to press against the metallic sheets, supporting members for said cylinders adapted to be moved toward and away from the drum, and two scrapers one of which bears on the internal surface of the sheet of the drum and the other on the external surface of endless sheet.

1,244,775. WATER-HEATER. JOSEPH POLZIN, Rock Island, Ill. Filed Apr. 30, 1917. Serial No. 165,481. (Cl. 122—23.)

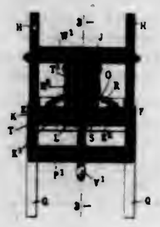


1. A water heating device comprising a top plate, a pair of spaced hollow ribs on the under side of said plate and forming therewith an inlet and an outlet conduit each having means at one end for connecting a circulating pipe thereto, additional hollow ribs on the under side of said plate, said additional ribs forming with said plate a plurality of branch conduits extending between and communicating with said inlet and outlet conduits, and a burner beneath said plate and ribs.

2. A water heater comprising a top plate, a pair of spaced hollow ribs on the under side of said plate and forming therewith an inlet and an outlet conduit each having means at one end for connecting a circulating pipe thereto, additional hollow ribs on the under side of said plate and forming therewith branch conduits extending between and communicating with said inlet and outlet conduits, a vertical arm depending from one of said conduits and having an opening adjacent its lower end, a fuel supply pipe passing through said opening, and a burner supported by said pipe and positioned for heating the several conduits.

3. A water heating device comprising a cast horizontal top plate of substantially rectangular configuration, a pair of hollow ribs cast integrally with the under side of said plate and located along opposite edges thereof, said ribs forming with said plate and inlet and an outlet conduit each having means at one end for the connection of a water circulating pipe, additional hollow ribs at right angles to the others and cast integrally therewith and with the lower side of said top plate, said additional ribs communicating with said first named ribs, a vertical arm cast integrally with one of said first named ribs and depending therefrom, said arm having adjacent its lower end an opening, a fuel supply pipe passing through and secured in said opening, and a burner supported by said pipe and positioned for heating the several ribs.

1,244,776. SHOE-PRESSING MACHINE. FRANCESCO RAMPICHINI, Trieste, Austria, assignor to "Ago" Lederkitt Industrie Gesellschaft mit beschrankter Haftung, Trieste, Austria, a Corporation of Austria. Filed Aug. 20, 1912. Serial No. 716,061. (Cl. 12—33.)



1. A plastic support or cushion for the purpose specified, comprising a box, a mass of solid substances of granular character inclosed therein, a rim attached to the box having an opening of substantially the contour of the objects to be treated, and a flexible cover attached to the rim at its edges and closing the opening.

3. In an apparatus, adapted for use in the manufacture of boots and shoes, the combination of a cushion, having a flexible cover and a semi-plastic filling said cushion being adapted to support an object to be pressed; a clamping cushion also having a filling of semi-plastic material, and means for causing said cushions to clamp an object interposed therebetween.

6. A clamping apparatus comprising a frame, a vertically movable cushion thereon, and means for moving said cushion; a pair of vertically adjustable bars above the box, a toe-clamp cushion attached to one bar, and a stay attached to the other bar, and gravity-actuated clamps pivoted on said adjustable bars and embracing guide bars of the frame for fixing the said adjustable bars to the guiding frame under the pressure applied to the cushion, substantially as described.

[Claims 2, 4, 5, and 7 not printed in the Gazette.]

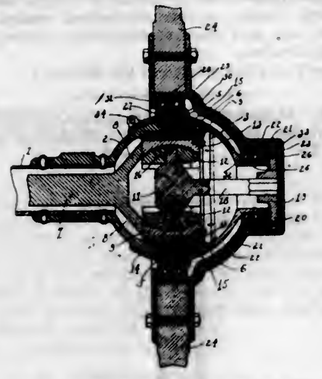
1,244,777. LIQUID COATING COMPOSITION. ERNEST ROGERS, New Lexington, Ohio. Filed May 9, 1916. Serial No. 96,274. (Cl. 134—56.)

1. A liquid coating composition containing as its essential constituents a paraffin base petroleum and a drying mixture.

2. A liquid coating composition containing as its essential constituents, a paraffin base petroleum and a drying mixture including camphor dissolved in alcohol and alum in aqueous solution, all combined in substantially the proportions stated.

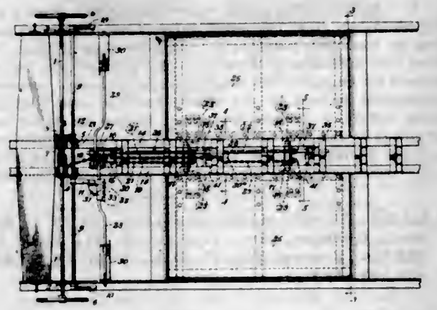
1,244,778. UNIVERSAL DRIVE FOR MOTOR-VEHICLE WHEELS. OVID H. ROGERS, Sacramento, Cal. Filed May 15, 1916. Serial No. 97,474. (Cl. 21—90.)

A universal drive mechanism for motor vehicles comprising a joint housing consisting of two members swiveled one upon the other, the inner member being provided with an annular recess cut in from its end and terminating in a shoulder, a universal joint within the housing, an annular sleeve mounted on the joint and inclosing one side of the recess, rollers mounted within the recess and bearing between the sleeve and the inner housing member, the inner ends of the rollers abutting against the shoulder, a flange on the ring abutting against the other ends of the rollers to maintain them within the recess and a wheel turnable



on the outside of the housing and connected in driving relation with the universal joint.

1,244,779. CAR-DOOR-LOCKING MEANS. JOHN M. ROHLFING, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Original application filed May 27, 1914, Serial No. 841,280, which resulted in Patent No. 1,184,024, dated May 23, 1916. Divided and this application filed Sept. 28, 1915. Serial No. 53,028. (Cl. 105—14.)



1. In combination in a dumping car, a rockable shaft extending longitudinally of said car, door locking means operably connected with and controllable from said shaft, an angularly extending member fixed to said shaft and means operable from the side of said car adapted to actuate said member to rock said shaft.

2. In combination in a dumping car, a rockable shaft extending longitudinally of said car, door locking devices controllable from said shaft, and means adapted to rock said shaft extending transversely of the car.

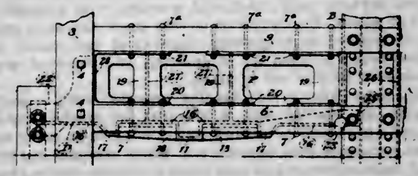
3. In combination in a dumping car, a plurality of doors hinged near the opposite sides of the car, a rockable shaft extending longitudinally of the car between said doors, door locking means operably connected with said shaft and means adapted to rock said shaft from the side of the car to actuate said door locking means.

4. In combination in a dumping car, spaced center sills, side supporting members, doors extending from said side supporting members toward said center sills, rockable door locking means supported near said center sills, a shaft extending longitudinally of said sills and engaging said door locking means and reciprocatory means connected with said shaft adapted to rock the same to actuate said locking means.

5. In combination in a dumping car, center sills, a rockable door lock operable between said sills, center dumping doors adapted to close to positions near said center sills, and means extending longitudinally and transversely of the car adapted to rock said door lock.

[Claims 6 to 27 not printed in the Gazette.]

1,244,780. CAR-UNDERFRAME. JOHN M. ROHLFING, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Jan. 15, 1916. Serial No. 72,238. (Cl. 105—76.)



1. In combination, a bolster, a plurality of spaced sills, a horizontally disposed pan with vertical flanges paralleling and being connected directly to said sills thereby connecting them, said pan being removable without affecting said bolster, and a draft lug rigidly connected with said pan.

2. In combination, a plurality of spaced sills, a horizontally disposed pan with vertical flanges paralleling and being connected directly to said sills thereby connecting them, a draft lug vertically disposed and projected laterally away from said pan and an obliquely disposed brace uniting the pan and draft lug.

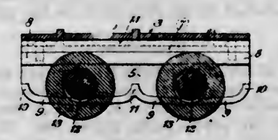
3. In combination, a plurality of spaced sills, a horizontally disposed pan with vertical flanges paralleling and being connected directly to said sills thereby connecting them, said sills not extending between said flanges, with an integrally formed draft lug and transversely disposed brace connected with said pan.

4. In combination in a railway car underframe, end sills, spaced wood sills extending between said end sills, a pan shaped member interposed between said sills and having pan flanges connected to and thereby connecting some of the sills without the so-connected sills being interposed, between the pan flanges, and a draft lug connected with said pan.

5. In combination in a railway car underframe, end sills, spaced wood sills extending between said end sills, a pan shaped member interposed between said sills and having flanges connected to and thereby connecting some of the sills, a draft lug positioned not to underlie the pan and paralleling some of the flanges of said pan, and a brace connecting a lower portion of the draft lug with a remote part of the pan.

[Claims 6 to 12 not printed in the Gazette.]

1,244,781. ANTIFRICTION SIDE BEARING. JOHN M. ROHLFING, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Mar. 29, 1917. Serial No. 158,276. (Cl. 64—64.)



1. In combination in a side bearing, a casing having an open end, said casing being adapted to be fixedly positioned on a bolster and comprising a track, wear members vertically spaced from said track, and an antifriction device insertible through said open end of said casing and having roller ends projected between said track and wear members and transferable to either to roll thereon.

6. In combination in a side bearing, a casing provided with vertically spaced runways, a roller projecting there-

between, a second roller surrounding the first roller and containing an enlarged passage therefor permitting displacement of said second roller transversely of the first roller, said first roller being adapted to roll on either runway, means limiting the rolling of said first roller permitting the continued revolution of the second roller.

8. In combination in a side bearing, a casing provided with vertically spaced lateral projections one forming a track, a separately formed wearing strip secured to the other lateral projection, and a roller having an end projected between said track and wearing strip adapted to roll on either, the terminals of said track and strip being so juxtaposed as to prevent removal of said roller, the roller being adapted to be inserted and removed when when said strip is not in place.

15. In a bolster side bearing provided with a casing having an opening and a plurality of track members spaced apart, and compound rollers adapted to enter said casing through said opening and being arranged between said track members and also being held from escape thereby, said rollers comprising each a track engaging roller element and a roller bearing sleeve carried thereby, said sleeve being adapted to provide a bearing for portions of said track engaging roller.

[Claims 2 to 5, 7, 9 to 14, and 16 not printed in the Gazette.]

1,244,782. SIDE BEARING WITH CONTACT-SHOE. JOHN M. ROHLFING, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Mar. 29, 1917. Serial No. 158,277. (Cl. 64—64.)



1. In combination in a side bearing, a casing adapted for attachment to a bolster, a shoe movable longitudinally thereof and anti-friction rollers passing through the latter without interfering with the movement thereof.

4. In combination in a side bearing, a casing having spaced bearing surfaces, a roller and a reciprocatory shoe, said roller being adapted to bear on one of said surfaces to hold the shoe suspended and also to be held by said shoe in rolling contact with the shoe and another of said surfaces.

12. In combination in a side bearing, a casing having track members provided with terminal stops, separately formed wearing members vertically spaced therefrom, secured to said casing and having terminals adjacent said stops, a slotted shoe and rollers passing therethrough adapted to ride on either said track members or wearing strips and also adapted to be inserted or removed only when there is a relative altering of the relation between the strip terminals and said stops.

[Claims 2, 3, 5 to 11, and 13 to 15 not printed in the Gazette.]

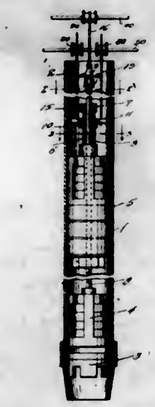
1,244,783. ELEVATING-TRUCK. MICHAEL RUCKES, Chicopee, Mass., assignor, by meane assignments, to Eugene M. Chapman and Charles E. Cowan, Holyoke, Mass. Filed Mar. 21, 1916. Serial No. 85,706. (Cl. 254—10.)



1. An elevating truck comprising side frame members and side bars ranging with, and movable upwardly away from, and downwardly into proximity to, said members, and provided with opposite pairs of depending members which have projections extending inwardly toward but terminating outside of the longitudinal median line of the truck, and said pairs of depending members having arched tie members.

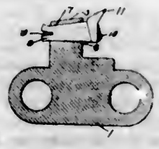
[Claims 2 to 4 not printed in the Gazette.]

1,244,784. RODLESS DOUBLE-ACTING PUMP. JOHN J. SCHILDER, Fort Worth, Tex. Filed Feb. 12, 1917. Serial No. 148,007. (Cl. 103—82.)



In a double acting pump, upper and lower valves, a rod extending up from the upper valve, a second rod extending up from the lower valve and projecting through the first rod, a cross-head secured to the first rod and having rollers for engaging the working barrel of a well, a second cross-head secured to the second rod and also provided with rollers, a flexible connection having its lower end attached to the first cross-head, and a second flexible connection having its lower end attached to the second rod, said connections being reciprocated in opposite directions.

1,244,785. MINING-MACHINE CHAIN. FRANK L. SESSIONS, Columbus, Ohio. Filed Oct. 9, 1911, Serial No. 653,570. Renewed Mar. 27, 1917. Serial No. 157,848. (Cl. 125—14.)



1. In a mining machine chain, the combination of a series of integral cast links, some of which are provided with sockets each open at both ends and having rearward converging outer and inner walls of which one is parallel to the center line of the chain, all of the said parallel walls being equidistant from the said center line, and a series of bits each having a shank with rearward converging faces adapted to engage the said converging walls of one of the sockets, the cutting edges of all of the said bits being equidistant from the planes of the shank faces which engage the said parallel socket walls.

[Claims 2 and 3 not printed in the Gazette.]

1,244,786. PROPELLER FOR FLYING-MACHINES. BENJAMIN F. SEYMOUR, Denver, Colo. Filed Aug. 24, 1911. Serial No. 645,812. (Cl. 170—170.)

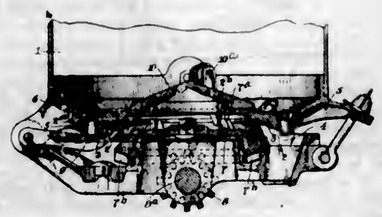
1. A propeller comprising blades of uniform thickness, and a series of wedge-shaped deflectors mounted upon one side of each blade, said deflectors being hollow and open at their larger extremities, and their walls being of uniform thickness, the walls of each deflector being spaced from the walls of adjacent deflectors.



3. A propeller comprising blades of uniform thickness and a series of deflectors mounted transversely upon one side of each blade, each deflector being composed of two relatively thin spaced members of uniform thickness meeting at a line at one extremity and diverging therefrom to the opposite extremity of the deflector, the two members forming each deflector being spaced from the members forming adjacent deflectors.

[Claim 2 not printed in the Gazette.]

1,244,787. SEED-DISCHARGING MECHANISM. ORRIN F. SMITH, Moline, Ill., assignor to Moline Plow Company, a Corporation of Illinois. Filed Dec. 21, 1915. Serial No. 67,959. (Cl. 221—138.)



1. In a seed discharging mechanism, the combination of a base plate provided with a seed disharging opening, said base plate being formed to give support at will to seed plates of respectively different diameters having edge cells therein, a removable filler ring overlying the outer portion of the base plate, a removable rotary seed plate supported by the base plate within the filler ring and having edge cells therein closed at their outer sides by the edge of the filler ring, an annular shoulder in position to close the outer sides of the cells in a plate of larger diameter when the latter is substituted for the filler ring and its associated seed plate, and means for rotating the seed plate to carry the cells in discharging relation to the discharge opening.

2. In a seed discharging mechanism, the combination of a base plate provided with a seed discharging opening and having an open peripheral channel, a removable filler ring overlying the outer portion of the base plate and extending in said channel, a rotary seed plate supported by the base plate within the filler ring and having edge cells closed at their outer sides by the filler ring, and means for rotating said seed plate.

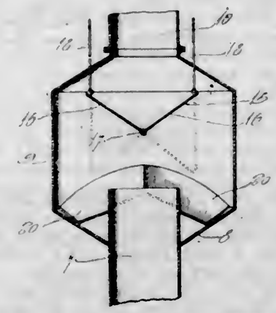
3. In a seed discharging mechanism, the combination of a base plate provided with an open peripheral channel and having a seed discharge opening intersecting the channel, said base plate being adapted to give support to a removable rotary seed plate having edge cells which will register with the channel, and which will pass over the outer portion of the discharge opening, a removable filler ring overlying the outer portion of the base plate and extending in said channel, a rotary seed plate supported by the base plate within the filler ring and provided with edge cells closed at their outer sides by the surrounding filler ring, and closed at their bottoms by the base plate, said cells adapted in the rotation of the plate to pass over the inner portion of the discharge opening, and means for rotating the plate.

5. In a seed discharging mechanism, the combination of a base plate having a seed discharging opening and adapted to give support to a rotary seed plate of large diameter having seed cells which will register with said discharging opening, a removable filler ring overlying the outer portion of the base plate and adapted to coöperate with a series of interchangeable rotary seed plates of smaller diameter having edge cells of different dimensions to accommodate different kinds of seeds, each of said seed plates of smaller diameter adapted to be supported by the base plate within the filler ring, with the outer sides of the cells closed by the inner edge of the ring, and means for rotating the supported seed plate.

9. In a seed discharging mechanism, the combination of a series of interchangeable seed plates of different diameters containing seed cells of different dimensions for different kinds of seeds, and a filler member adapted for use in connection with the plates of the smaller diameter, and movable to permit the use of plates of larger diameter.

[Claims 4 and 6 to 8 not printed in the Gazette.]

1,244,788. SEPARATOR FOR GRINDING-MILLS. EDWARD J. STECKLE, Dixon, Ill. Filed Feb. 26, 1917. Serial No. 151,079. (Cl. 83—54.)



1. A separator comprising a separating chamber, a vertical inlet pipe extending into the lower end of said chamber and adapted to conduct a blast of air laden with ground material thereto, an outlet pipe from the upper end of said chamber in alinement with said inlet pipe, and a baffle between said inlet and outlet pipes variable to and between the shapes of a hood and an inverted hood.

3. A separator comprising a separating chamber, a vertical inlet pipe extending into the lower end of said chamber and adapted to conduct a blast of air laden with ground material thereto, an outlet pipe from the upper end of said chamber in alinement with said inlet pipe, a rod extending horizontally across said chamber between the two pipes, a pair of baffle plates having eyes at their inner edges pivotally mounted on said rod for swinging above and below horizontal positions, and operating rods rising from said plates through the top of the chamber for controlling the positions of said plates.

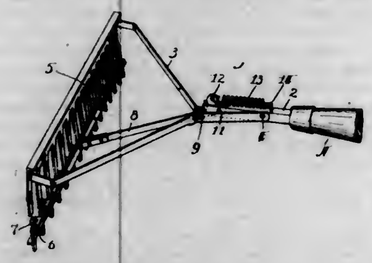
[Claim 2 not printed in the Gazette.]

1,244,789. RAKE. SAMUEL L. STETSON, St. Paul, Minn. Filed Jan. 29, 1916. Serial No. 75,005. (Cl. 55—146.)

1. A rake of the class described, comprising a handle portion, a toothed end pivotally supported from said handle portion to swing transversely thereof, a comb pivotally supported in connection with said toothed end to swing therewith but at a greater speed and spring means for restoring said comb and toothed end in normal position.

2. A rake of the class described, comprising a handle portion, a plurality of teeth pivotally supported upon the end of said handle portion to swing transversely thereof,

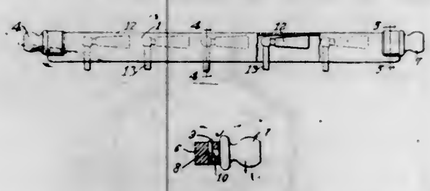
a comb pivotally supported in connection with said teeth and means causing said comb to be moved along said teeth



as said teeth are turned on their pivotal support by a transverse throw imparted to the toothed end of the rake.

[Claims 3 to 6 not printed in the Gazette.]

1,244,790. GANG-VALVE LOCK FOR GAS-RANGES, &c. DAVID N. STEVENSON, Philadelphia, Pa. Filed Oct. 21, 1916. Serial No. 126,975. (Cl. 126—42.)

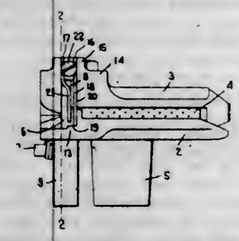


3. A gang valve lock for gas ranges and the like, embodying a tubular member having an open end and a longitudinal slot and adapted to be moved longitudinally onto a series of valve handles, and a retaining plug insertible into the open end of said member.

6. A gang valve lock for gas ranges and the like, embodying a tubular member having an open end and a longitudinal slot and adapted to be slipped over a series of valve handles, a plug insertible in the open end of said member and having a radial lug to move into said slot, said member having an inner socket adjacent to its open end, and a latch carried by the plug engageable in said socket.

[Claims 1, 2, 4, and 5 not printed in the Gazette.]

1,244,791. TEMPLE THREAD-CUTTER FOR LOOMS. EDWARD S. STIMPSON, Hopedale, Mass., assignor to Draper Corporation, Hopedale, Mass., a Corporation of Maine. Filed June 22, 1917. Serial No. 176,432. (Cl. 139—36.)

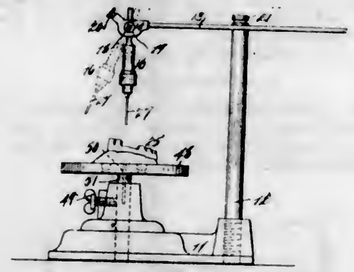


1. A thread cutting temple for looms comprising a pod and a cap, a guideway in said cap and pod, a slidably mounted cutter backwardly and forwardly movable in said guideway, and a stationary cutting blade rigidly secured to said cap at the mouth of said guideway in cooperative relation to said movable cutter.

5. A thread cutting temple for looms comprising a cap and a pod, a guideway in said cap and pod and a cutter backwardly and forwardly movable in said guideway, a boss on said cap above said guideway, vertical slots in said boss at the mouth of said guideway, a vertical stationary cutter fixed at its upper end in one of said slots and seated at its lower end against the wall of said guideway in said pod, a resilient member seated at its upper end in the other slot and having a lower free end engaging the movable blade and adapted to maintain the same in shearing engagement with the stationary blade whereby an effective shearing action between said blades is insured.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,244,792. DENTAL TOOL. VICTOR STOLL, Brooklyn, N. Y. Filed Mar. 7, 1917. Serial No. 153,172. (Cl. 32—10.)



1. A dental-gage, consisting of a base-member, a post carried thereby, an arm adjustably secured to said post, and a ball-and-socket connection at the outer end of said arm adapted to retain a clutch, whereby the latter can be moved in circular path in a horizontal plane.

4. In a dental-gage, a base, a vertical post supported thereby, and a rotatable vertically adjustable table carried by said base.

6. A dental-gage, comprising a base, a supporting post, an arm provided with an elongated slot carried by the post, the supporting post being provided with a counterbore, a spring in said counterbore bearing against said arm, and a set-screw passing through the slot in the arm and securing the arm and post together.

7. A deutal-gage, comprising a vertical supporting post, an arm adjustably secured thereto, a block on said arm having a socket therein, a ball in said socket adapted for universal rotation therein and provided with an opening to receive a chuck, means carried by the block to lock the ball in adjusted positions, and a set-screw passing through the block and into the opening in the ball and bearing against a chuck carried by the block.

9. A paralleling device for dental-jigs, comprising a carrier having a slot curved for a portion of its length, a plurality of arms slidably mounted in said slot, and means for securing the arms in adjusted positions.

[Claims 2, 3, 5, 8, and 10 to 13 not printed in the Gazette.]

1,244,793. BALL-SHOOTER. JOHN STRAKA, Chicago, Ill. Filed Dec. 22, 1916. Serial No. 138,375. (Cl. 46—9.)



1. In a ball shooter comprising a barrel, an extension formed upon said barrel, a ratchet fulcrumed within said extension, means carried by said ratchet for engagement with said extension for limiting the relative movement of said ratchet, a plunger partly disposed within said barrel,

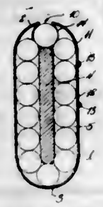
a connection between said plunger and ratchet, a trigger fulcrumed upon said extension, connection between said trigger and the said ratchet, and an expansion spring within said barrel for yieldingly retaining said plunger in a predetermined position.

2. In a ball shooter comprising a barrel, an extension formed upon said barrel, a ratchet fulcrumed within said extension, means carried by said ratchet for engagement with said extension for limiting the relative movement of said ratchet, a plunger adapted for movement through a portion of said barrel, connection between said plunger and said ratchet, a trigger fulcrumed upon said extension for movement toward and away from said extension, connection between said trigger and ratchet whereby movement of the former is transmitted to the latter while said trigger moves toward said extension, and an expansion spring within said barrel and connected to said plunger for yieldingly permitting the same to be drawn into said barrel during the joint movement of said trigger and ratchet, and for forcibly returning said plunger to normal position after the said joint movement is completed.

3. In a ball shooter comprising a barrel, an extension formed upon said barrel, a ratchet fulcrumed within said extension, means carried by said ratchet for engagement with said extension for limiting the relative movement of said ratchet, a plunger carried by said barrel and projected therebeyond, connection between said plunger and ratchet, a trigger fulcrumed upon said extension for movement toward and away from said extension, connection between said trigger and ratchet whereby movement of the former is transmitted to the latter while said trigger moves toward said extension, a trip lug formed upon said extension for engagement with said connection whereby the same is disengaged from said ratchet, a stop ring encircling said plunger within said barrel, a tapered tubular member fast upon said plunger and spaced away from said stop ring and a spring encircling said plunger and abutting said stop ring and tubular member for yieldingly retaining the latter in a predetermined position.

[Claims 4 and 5 not printed in the Gazette.]

1,244,794. MAGAZINE ATTACHMENT FOR FIREARMS. CARL P. STUART, Gorham, N. H. Filed June 13, 1917. Serial No. 174,582. (Cl. 42—50.)



1. In a device of the character described, the combination with a breech mechanism including a sliding breech bolt, of a cartridge magazine having a plurality of cartridges arranged therein and mounted to permit the said breech bolt to slide through the magazine to force one of the cartridges out of the said chamber, means mounted upon the sliding bolt to retain a hold on the cartridge to withdraw the same into the magazine, and a loading lever engageable by the said breech blot and adapted to swing for forcing one of the cartridges into the space evacuated by the said blot.

2. In a device of the character described, the combination with a breech mechanism including a breech bolt and a firing chamber, of a cartridge magazine secured in position to permit the breech bolt to slide therethrough when the said breech bolt is reciprocated, means carried by the breech bolt to engage the empty cartridge for withdrawing the same from the firing chamber into the said magazine, and means adapted to be actuated by the rearward sliding movement of the breech bolt for forcing a fresh cartridge into position in the space evacuated by the breech bolt and causing the said fresh cartridge to force the said empty cartridge from the firing chamber downwardly in the said magazine.

3. In a device of the character described, the combination with a breech mechanism including a breech bolt and a firing chamber, of a cartridge magazine containing a plurality of cartridges and mounted to permit the uppermost cartridge to be placed in alinement with the said bolt whereby the latter may force the cartridge into the said firing chamber and out of the said magazine, means carried by the bolt to withdraw the empty cartridge from the firing chamber and into the said magazine, and a loading lever engaged by the said bolt and adapted to be actuated for forcing a fresh cartridge into the space occupied by the said empty shell after the latter is drawn into the magazine by the said bolt.

[Claims 4 to 7 not printed in the Gazette.]

1,244,795. PROCESS FOR THE PRODUCTION OF A DYESTUFF. ZENSHIRO SUZUKI, Los Angeles, Cal. Filed Oct. 30, 1916. Serial No. 128,643. (Cl. 8—1.)

1. The process of making a sulfur-containing dye consisting essentially in heating rice hulls with water and caustic alkali, adding sulfur and sodium sulfid and continuing the heating until sulfureted hydrogen has been evolved.

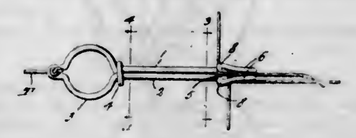
2. The process of making a sulfur containing dye consisting essentially in heating rice hulls with water and caustic alkali, adding sulfur and sodium sulfid and continuing the heating until a dry mass is obtained.

1,244,796. PROCESS FOR THE PRODUCTION OF A DYESTUFF. ZENSHIRO SUZUKI, Los Angeles, Cal. Filed Oct. 30, 1916. Serial No. 128,644. (Cl. 8—1.)

1. The method of making a sulfur-containing dye consisting essentially in heating tobacco stems with water and caustic alkali, adding sulfur and sodium sulfid and continuing the heating until sulfureted hydrogen has been evolved.

2. The method of making a sulfur-containing dye consisting essentially in heating tobacco stems with water and caustic alkali, adding sulfur and sodium sulfid and continuing the heating until a dry mass is obtained.

1,244,797. PACKAGE-TIE. JOEL TERRELL, Seattle, Wash. Filed Jan. 4, 1917. Serial No. 140,575. (Cl. 24—131.)



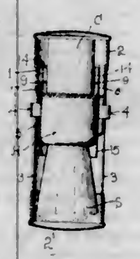
1. A tie fastener formed in a single length of wire bent to provide a loop, an eye extending from the loop and having an extension for sliding engagement by the knotted end of a cord, there being a shank member extending from the eye and through the loop and another shank member formed of one end portion of the wire and having its free terminals seated in the loop, both of said shank members being parallel and merging into a head, said head comprising opposed jaws for gripping a tie inserted therebetween, said jaws diverging toward the eye and overhanging the shank members.

2. A tie fastener including a shank, a head at one end of the shank and having a portion thereof lapping the shank, and an eye at the other end of the shank and having a loop extension constituting means for receiving the knotted end of a length of twine, said shank and head being formed with integral portions of spring wire arranged side by side.

1,244,798. TOILET ARTICLE. WILBER H. THARP and ALBERT T. ELLIAS, Lewiston, Idaho. Filed Jan. 22, 1917. Serial No. 143,699. (Cl. 132—33.)

1. As a new article of manufacture, a toilet article comprising a case open at opposite ends, a member slid-

ably positioned within the case, and oppositely directed sockets carried by the slidable member.

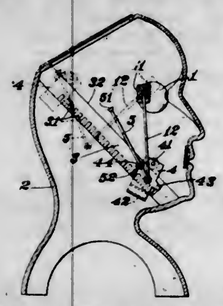


3. As a new article of manufacture, a toilet article comprising a case open at opposite ends, a member slidably positioned within the case, and oppositely directed sockets carried by the slidable member, said sliding member being provided with means extending exterior of the case whereby said member and case may be moved one relatively to the other in a direction longitudinally of the case.

7. As a new article of manufacture, a toilet article comprising a case open at opposite ends, a member slidably positioned within the case, oppositely directed sockets carried by the slidable member, and a clamping jaw arranged within one of the sockets, said socket being provided with a slot through which the free end portion of the clamping jaw extends, a marginal portion of the slot being toothed to afford a locking means for the jaw.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,244,799. DOLL. WILLIAM A. TROST, Seattle, Wash. Filed Oct. 11, 1916. Serial No. 124,963. (Cl. 46—40.)



1. The combination with a doll's head having eyes movable into open and closed position, of an eye opening and closing mechanism comprising a weight actuatively connected to the eye, said weight tending to move by gravity to close the eyes when the doll is in recumbent position, and means permitting said motion only while the weight is being laterally reciprocated.

2. The combination with a doll's head having eyes movable into open and closed position, of an eye opening and closing mechanism comprising a weight actuatively connected to the eye, said weight tending to move by gravity to close the eyes when the doll is in recumbent position, and to open the eyes when the doll is in upright position, and positively-acting means permitting said closing motion only while the weight is swung from side to side.

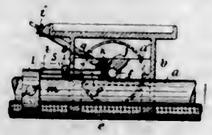
3. The combination with a doll's head having eyes movable into open and closed position, of an eye opening and closing mechanism comprising a weight actuatively connected to the eye, said weight tending to move by gravity to close the eyes when the doll is in recumbent position, positively-acting means permitting said motion only while the weight is being swung from side to side and means for producing lost motion in the closing mechanism.

4. The combination with a doll's head having eyes movable into open and closed position, of a weight actuatively connected to the eyes and movable by gravity to close the eyes, means for regulating the speed of closure of the eyes, comprising a detent for the weight, said weight being movable against said detent only while being swung from side to side, and means for delaying the closing action of the weight upon the eyes.

5. The combination with a doll's head having eyes movable into open and closed position, of an escapement mounted within the head, said escapement comprising a fixed member and a movable member coöperating therewith to operate the eyes, and movable by gravity upon said fixed member only when the doll is rocked from side to side, thereby delaying the closing of the eyes.

[Claims 6 to 9 not printed in the Gazette.]

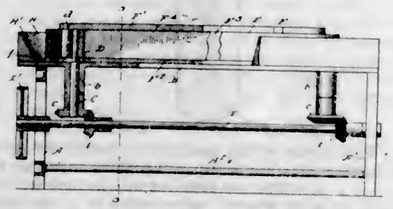
1,244,800. WARPING-MACHINE. ABRAM VAN HASTE, Paterson, N. J. Filed Apr. 18, 1917. Serial No. 162,868. (Cl. 28—14.)



5. In a warping machine, the combination of a guide way member, a carriage member movable along the guideway member, means to traverse the carriage member, an abutment member settable at stages along the guideway member, and a gage carried by one of said members and interposed between the carriage and abutment members and movable to clear one of them transversely of the guideway member, said gage including two parts, one carrying the other and the latter laterally adjustable in the first-named part.

[Claims 1 to 4 not printed in the Gazette.]

1,244,801. MACHINE FOR ROUNDING UP LUMPS OF DOUGH. FRANK H. VAN HOUTEN, Beacon, N. Y., assignor to Dutchess Tool Company, Beacon, N. Y., a Corporation of New York. Filed Feb. 2, 1916. Serial No. 75,698. (Cl. 107—9.)



1. A dough rounding up machine comprising, a stationary dough-molding surface, a continuously movable endless belt coöperable with said stationary dough-molding surface, and means for moving the belt bodily in a substantially elliptical path whereby lumps of dough interposed between the stationary dough-molding surface and the belt may be alternately pressed and released by said belt.

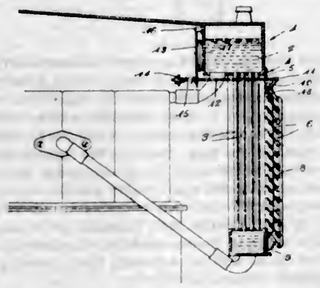
2. A dough rounding up machine comprising, a stationary dough-molding surface, a continuously movable endless belt coöperable with said stationary dough-molding surface and arranged at an angle with respect to the latter, and means for moving the belt bodily in a substantially elliptical path, whereby lumps of dough interposed between the stationary dough-molding surface and the belt may be alternately pressed and released by said belt.

4. In a machine for rounding up lumps of dough, the combination with the table, of an endless dough engaging belt on said table, a stationary dough-molding trough extending around one end of the belt and arranged in opposition to the dough-engaging surface of the belt, and driving mechanism for imparting a continuous forward movement to the belt and for moving the belt bodily in a substantially elliptical path.

6. In a machine for rounding up lumps of dough, the combination with the table, of a stationary dough-molding surface on the table, an endless belt arranged in opposition to said dough molding surface whereby lumps of dough may be positioned between the belt and the dough molding surface, pulleys supporting the opposite ends of the belt, a frame supported at its ends on the central axes of the respective pulleys, each pulley having an eccentric axis of rotation, and gearing connections for imparting continuous rotary movement to said pulleys about their eccentric axes.

[Claims 3 and 5 not printed in the Gazette.]

1,244,802. SHIELD FOR AUTOMOBILE-RADIATORS. WALTER G. VETTER, Alva, Okla. Filed Dec. 28, 1916. Serial No. 139,399. (Cl. 236—6.)

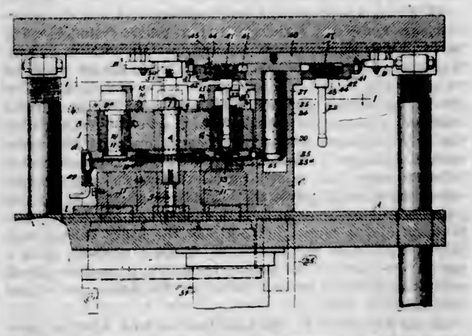


In an automobile, the combination with the radiator thereof, of a frame removably secured to the front of said radiator, a series of shutters pivoted to said frame to obstruct more or less the flow of air through said radiator, a bar connecting said shutters to operate them simultaneously, a bell crank mounted upon said frame and connected to one end of said bar, a coil spring connected at one end to said frame and having its other end connected to said bar to normally hold said shutters closed, a stop carried by said frame to limit the opening movement of said shutters, a water thermostat fixed to the back of the receiving tank of said radiator and resting flat up against the same, a bracket fixed to the back of said tank above said thermostat, a substantially vertically disposed arm pivoted at its upper end to said bracket and having its intermediate portion connected to said thermostat, and being provided at its lower end with an opening, a substantially horizontally disposed link connected at its forward end to said bell crank to rock the same and having its other end projecting through the opening in said arm, a nut threaded upon said other end of said link, a coil spring surrounding said link and disposed between said arm and said nut.

1,244,803. METAL-FORGING MACHINE. CHARLES F. WALP and ARTHUR F. O'LEARY, Berwick, Pa., assignors to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Jan. 15, 1916. Serial No. 72,270. (Cl. 78—9.)

1. In combination in a forging machine, a stationary support, a stationary die block set into a recess therein, a central pivot, a multiple die socket member rotatable on said pivot, a plurality of female dies open at their tops and bottoms set in said die socket member and locking means adapted to secure said female dies successively in position in register with said die block.

4. In combination in a forging machine, a base member, a fixed die block, a rotatable plurality of tubular female dies, a temporary die member adapted for insertion in said female dies and means adapted to permit said temporary die member to pass from said female dies.



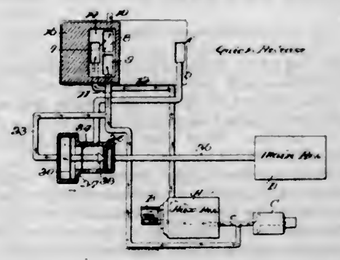
6. In combination in a forging machine, a base provided with a conduit and a fixed die block, a rotatable die socket member mounted on said support and a plurality of dies in said die socket member arranged to successively register with the die block and said conduit.

12. In a forging machine in combination, a platen, another platen movable relatively thereto, a support fixedly attached to each platen, coöperating guide members extending from said supports, a female die carrying member rotatable on one of said supports, means for locking said die carrying member in position, a rotatable male die support carried by the other support, male dies retained thereby and open bottom female dies in said female die carrier.

13. In combination in a forging machine, a platen, another platen relatively movable thereto, a base member on one of said platens, a circular trackway thereon, a rotatable die holding member having a circular trackway secured thereto, friction reducing means intermediate said trackways, a plurality of female dies in said die-holding member, a rotatable male die carrying member connected with the other of said platens and male dies carried thereby.

[Claims 2, 3, 5, and 7 to 11 not printed in the Gazette.]

1,244,804. STRAIGHT-AIR MECHANISM FOR AIR-BRAKES. WILLIS C. WEBSTER, Dubois, Pa., assignor to Buffalo Air-Brake Company, Phoenix, Ariz., a Corporation of Arizona. Filed May 28, 1914. Serial No. 841,656. (Cl. 188—1.)



1. In an air brake, a main reservoir, a brake cylinder, means for establishing communication between the main reservoir and the brake cylinder, and means for limiting the pressure in the brake cylinder as a result of the establishment of such communication to less than and bearing a definite ratio to whatever pressure there may be in the main reservoir at the time.

4. In an air brake, a main reservoir, an auxiliary reservoir, a brake cylinder, and means independent of any triple valve for venting air directly from both the auxiliary reservoir and brake cylinder to thereby secure a quick release or venting air only from the brake cylinder to thereby secure a graduated release.

10. In an air brake, the combination with a main reservoir, an auxiliary reservoir and a brake cylinder, of a valve casing having ports communicating with the auxiliary reservoir and brake cylinder, a manually operable valve therein adapted to close or open communication between the casing and the auxiliary reservoir and brake cylinder, a valve chamber having a port connecting with the main reservoir and a port connecting with the valve casing, a normally open valve controlling communication between said last named ports, differential diaphragms connected to said valve, the smaller diaphragm being disposed between the main reservoir port and the larger diaphragm, and a connection between the space behind said larger diaphragm and the brake cylinder whereby upon a rise of pressure in the brake cylinder to a predetermined point the pressure behind the larger diaphragm will cause said valve to close.

12. In an air brake, the combination with a main reservoir, an auxiliary reservoir and a brake cylinder, of a valve casing, a second valve casing having a port at one end communicating with the main reservoir and a port at the like end communicating with one end of the first valve casing, a valve controlling communication between the said ports, differential diaphragms mounted in the second casing and controlling said valve, a connection from the space behind the large diaphragm to the brake cylinder, a port in the first valve casing communicating with the brake cylinder, a port in alinement with the last named port communicating with the atmosphere, a port disposed parallel to and adjacent the last named ports and communicating with the auxiliary reservoir, and a slide valve mounted in the first valve casing and having an imperforate portion of area sufficient to simultaneously close the ports leading respectively to the brake cylinder, auxiliary reservoir and atmosphere, and having a cavity in its face of sufficient area to overlap all of said last named ports.

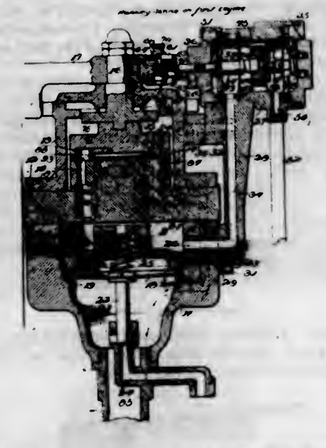
13. In an air brake, a main reservoir, an auxiliary reservoir, a brake cylinder, a triple piston controlled slide valve controlling communication between the auxiliary reservoir and the brake cylinder, means for establishing communication between the main reservoir and the auxiliary reservoir to thereby cause the triple slide valve to operate to connect the brake cylinder with the auxiliary reservoir, said means being movable to a position to vent the brake cylinder or the brake cylinder and auxiliary reservoir to the open air, and means for automatically cutting off flow of air from the main reservoir to the auxiliary reservoir when pressure in the brake cylinder reaches a predetermined degree having a predetermined ratio to the pressure in the main reservoir.

[Claims 2, 3, 5 to 9, 11, and 14 to 31 not printed in the Gazette.]

1,244,805. VALVE FOR TRAPPING EQUALIZING-RESERVOIR AIR INDEPENDENT OF BRAKE-VALVES. WILLIS C. WEBSTER, Dubois, Pa., assignor to Buffalo Air-Brake Company, Buffalo, N. Y., a Corporation of Arizona. Filed May 28, 1915. Serial No. 31,028. (Cl. 188—7.)

1. In fluid pressure brake systems, the combination with a brake valve having a pressure chamber controlling venting of the train line and an equalizing reservoir, communicating with such chamber, of means other than the brake valve for automatically trapping the pressure in the equalizing reservoir in certain positions of the brake valve.

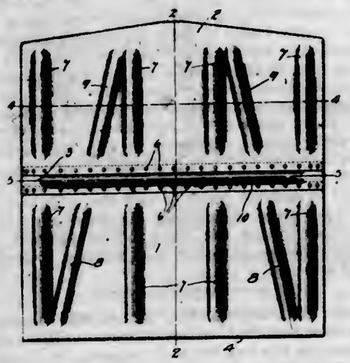
2. In fluid pressure brake systems, the combination with a brake valve having a pressure chamber controlling venting of the train line and an equalizing reservoir communicating with such chamber, of means other than the brake valve for automatically trapping the pressure in the equalizing reservoir in certain positions of the brake valve, said means also preventing passage of fluid from the pressure chamber to the equalizing reservoir in the same positions of the valve.



7. In fluid pressure brake systems, the combination with an equalizing reservoir and a brake valve adapted, in a certain position, to vent fluid from the equalizing reservoir to the atmosphere, of a valve through which communication between the equalizing reservoir and brake valve is established adapted to trap fluid in the equalizing reservoir in a certain position of the brake valve, means operable by movement of the brake valve handle for automatically opening and closing such trapping valve, and a lock mechanism co-acting with such trapping valve and brake valve handle adapted in one position to prevent turning movement of the brake valve handle from running service position toward release position.

[Claims 2 to 6 and 8 to 24 not printed in the Gazette.]

1,244,806. RAILWAY-CAR END CONSTRUCTION. JACOB H. WEISBROD, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Jan. 14, 1913. Serial No. 741,965. (Cl. 105—192.)



1. As a new article of manufacture a car end comprising a comparatively wide upper section, a comparatively wide lower section, and a comparatively narrow intermediate section, the upper edge of which intermediate section lies inside and is fixed to the lower edge of the upper section, the lower edge of which intermediate section lies outside and is fixed to the upper edge of the lower section, and said intermediate section having pressed therein a longitudinally reinforcing and stiffening rib or corrugation, thereby forming a transversely disposed reinforcement at a point substantially midway between the upper and lower edges of the car end.

3. As a new article of manufacture, a car end comprising a comparatively wide corrugated lower section, a comparatively wide corrugated upper section, a comparatively narrow corrugated intermediate section, the lower edge of which upper section overlies the upper edge of the intermediate section, and the lower edge of which intermediate section overlies the upper edge of the lower section.

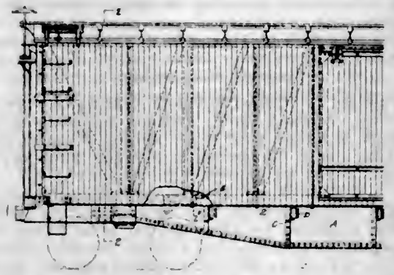
4. A car end comprising a series of corrugated sections of sheet metal, the corrugation of one section lying approximately at right angles to the corrugation of the other sections, the lines of separation between said sections being horizontally disposed and the sections being arranged so that a watershed is provided on the exterior of the car end forming a protection against the entrance of water and dust into the car through the joints between said sections.

5. A car end comprising a series of sections of sheet metal, each of which is provided with a pressed stiffening rib or corrugation, the rib or corrugation of the intermediate section lying substantially at right angles to the ribs or corrugations of the other sections, the joints between which said sections are horizontally disposed, and said sections being arranged so that a watershed is provided on the exterior of the car end forming a protection against the entrance of water and dust into the car through the joints between said sections.

6. A wall structure for cars including an upper panel, a lower panel, and an intermediate panel connecting the two, said upper and lower panels being provided with transversely extending corrugations and with obliquely extending corrugations, the transversely extending corrugations of the upper panel being disposed in alinement with the transversely extending corrugations of the lower panel, and the obliquely extending corrugations of the upper panel being disposed in alinement with the obliquely extending corrugations of the lower panel, and the intermediate panel being provided with a longitudinally extending corrugation terminating adjacent its extremities and adapted to receive moments transmitted by the corrugations of the upper and lower panels.

[Claim 2 not printed in the Gazette.]

1,244,807. BOX-CAR CONSTRUCTION. JACOB H. WEISBROD, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed July 26, 1916. Serial No. 111,407. (Cl. 105—192.)



1. In combination, a metallic side sill having a vertical web and horizontal flanges, wood sheathing lapping said web, a sheathing nailing-strip interposed between the outer side of said web and said sheathing, a framing rod projected through said sheathing nailing-strip and one of said sill flanges, and a floor terminating within and supported by a flange projecting inwardly from said sill web.

2. In combination in a railway car, metallic side sills each having a vertical web with connected horizontal flanges, a floor interposed between the webs of said sills and supported by flanges thereof, side-sheathing nailing-strips disposed on the outer side of said sill web, and sheathing lapping said sheathing nailing-strips.

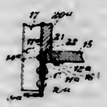
3. In combination in a railway car, metallic side sills each having a vertical web with connected horizontal flanges, a floor interposed between the webs of said sills and supported by flanges thereof, side-sheathing nailing-strips disposed on the outer side of said sill web, sheathing secured to said sheathing nailing-strips, and framing rods projected through said latter nailing-strips and a flange of said sill.

4. In combination in a railway car, a metallic side sill having a vertical web with horizontal laterally extending flanges connected with said web, a wood-sheathing nailing-strip below one of said flanges, a sheathing lapping and being secured to said nailing-strip, a floor supported by another of said flanges, and a framing rod extending vertically through said sheathing nailing-strip and a flange of said sill.

5. In combination in a railway car, a metallic side sill having a vertical web with horizontal laterally extending flanges connected with said web, a wood-sheathing nailing-strip below one of said flanges, a sheathing lapping and being secured to said nailing-strip, a floor nailing-strip supported by another of said flanges, a floor resting on said floor nailing-strip and terminating at the inner side of said sill web, and means securing said sheathing nailing-strip in position.

[Claims 6 to 10 not printed in the Gazette.]

1,244,808. CAR CONSTRUCTION. JACOB H. WEISBROD, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Aug. 2, 1916. Serial No. 112,708. (Cl. 105—192.)



1. In combination a side sill comprising joined separately formed members adapted to support and unite a floor and side sheathing and having a seating surface for both forming a continuous plane, said sill including upper and lower flanges, with a web portion extending to a higher plane than said upper flange.

2. Connected members forming a reinforced side sill construction comprising horizontal flanges and a web portion extending to a plane above said flanges, in combination with a floor and side sheathing resting on one of said flanges and held in interlocked relation with said floor by said web portion, the last mentioned flange being adjustable vertically of said web portion before said members are connected.

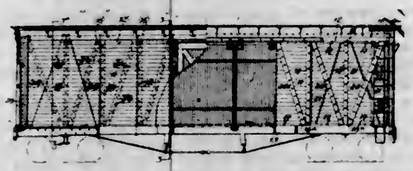
3. In combination, a car sill comprising a plural-part web portion having a bottom flange, one web part having an inwardly disposed flange adapted to be selectively positioned intermediate the top and bottom of said web and secured to an adjacent web part, a floor resting on the latter flange and a side sheathing extending between said floor and said sill web.

4. In combination in a railway car, a sill comprising spaced upper and lower flanges, a web portion joined to said flanges and including a web member separately formed from and extending for some distance above and below said upper flange, a floor resting on said upper flange and a side sheathing held in a space between said floor and the upper part of said web portion.

5. In a railway box car, a grain tight joint comprising an outer frame, a sheathing within and secured in position by said frame, a multipart side sill and a floor lapped by said frame and said sheathing, the sheathing and said floor being supported on a surface of said sill that lies in a single plane.

[Claims 6 and 7 not printed in the Gazette.]

1,244,809. WOODEN SINGLE-SHEATHED BOX-CAR. JACOB H. WEISBROD, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Aug. 15, 1916. Serial No. 115,021. (Cl. 105—92.)



1. In combination in a car wall, a sheathing, a sill and a top plate rabbeted to a depth greater than the width of said sheathing, said sheathing being positioned in the rabbets of said sill and plate to form air spaces between the last two mentioned elements and said sheathing, closures for the air spaces and truss elements combined with said sill and plate.

2. In combination in a car wall, a truss having top and bottom chords which are rabbeted, a sheathing positioned to have its upper and lower edges within the rabbets, means forming air spaces between said chords and sheathing, and members coöperating with said truss and sheathing to close said air spaces.

3. In combination in a car wall, a truss having top and bottom chords and posts, a sheathing comprising mutually stiffening sections, the outer face of said sheathing engaging said posts but not said top and bottom chords, and means so coöperating with said truss and sheathing that flexure of the latter is resisted by its coöperation with said top and bottom chords to minimize its lateral pressure on said posts.

4. In combination in a car wall, framing comprising a sill and a plate, each longitudinally rabbeted and stress members interposed therebetween, a sheathing having marginal portions in the rabbets of said sill and plate, and connectors joining said stress members to said sill and plate and spacing faces of said marginal sheathing portions from the last two mentioned elements.

5. In combination in a car wall, framing comprising a sill, and a plate and stress members interposed therebetween, a sheathing lapping said sill and plate and having a face contacting with said members and spaced from said till and plate, and longitudinal space-closing members, the arrangement of the parts forming internal spaces adjacent said sill and plate.

[Claims 6 to 14 not printed in the Gazette.]

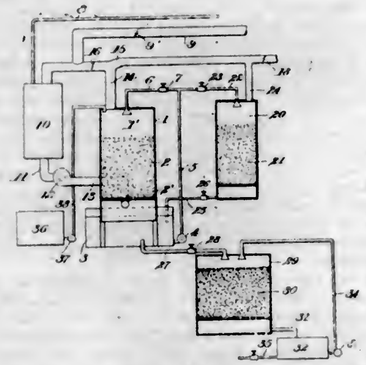
1,244,810. PROCESS FOR THE TREATMENT OF COPPER ORES. GEORGE CUTLER WESTBY, Ludwig, Nev., assignor to Western Process Company, a Corporation of Maine. Filed Aug. 17, 1915. Serial No. 45,917. (Cl. 134—59.)

1. The process for the treatment of oxidized ore which consists in wetting said ore, subjecting the wetted ore to the action of gaseous sulfatizing reagents, leaching out the sulfates formed, removing non-ferrous metal values therefrom, removing the solvent and drying and calcining the residue to form a pigment.

2. The process for the treatment of oxidized ore which consists in wetting said ore, subjecting the wetted ore to the action of gaseous sulfatizing reagents, leaching out the sulfates formed, subjecting the resulting solution to the action of metallic iron, removing metal values precipitated thereby, removing the solvent, drying and calcining the residue to form a pigment and acid gases, and utilizing the gases produced in the further sulfatizing of ore.

1,244,811. PROCESS FOR THE TREATMENT OF ORES. GEORGE CUTLER WESTBY, Ludwig, Nev., assignor to Western Process Company, a Corporation of Maine. Filed Jan. 12, 1917. Serial No. 142,082. (Cl. 75—18.)

1. The process of treating sulfid containing ore mixtures comprising passing an acid nitrate containing solution through the ore mixture and to a gaseous oxygen containing reagent in counter current thereto, thereby continuously oxidizing the nitrous gases formed and regenerating nitric acid.



9. The process of treating sulfid containing ore mixtures comprising subjecting the ore mixture in an inclosed space to the action of a descending current of an acid nitrate containing solution, causing a gaseous oxygen containing mixture to pass in counter-current thereto through the ore mixture, thereby oxidizing the nitrous gases formed and regenerating nitric acid in the descending current of liquid, repeating the passage of the liquid through the ore body in the presence of the gaseous reagent until the ore mixture is exhausted, removing the liquid, passing the liquid through a body of cleaned sulfid thereby driving off nitrous gases therefrom, oxidizing the nitrous gases and returning them to the further treatment of ore, and extracting the metal values from the solution.

12. The process of treating sulfid containing ore mixtures comprising subjecting the ore mixture in an inclosed space to the action of a descending current of an acid nitrate containing solution, causing a gaseous mixture of sulfur dioxid and oxygen to pass in countercurrent thereto, thereby regenerating nitric acid in the solution and forming sulfuric acid, causing the solution to pass repeatedly through the ore body in the presence of the gaseous mixture until the ore body is exhausted, removing the liquid, passing it through a body of cleaned sulfid, thereby driving off nitrous gases threfrom, oxidizing the nitrous gases and returning them to the further treatment of ore, and extracting the metal values from the solution.

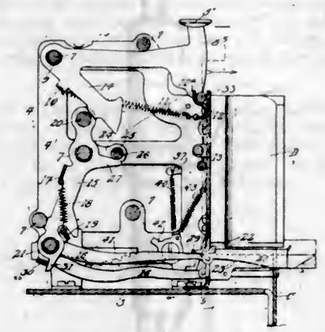
[Claims 2 to 8, 10, 11, and 13 to 16 not printed in the Gazette.]

1,244,812. COIN-DELIVERY MACHINE. NELSON WHITE, Portland, Oreg., assignor, by mesne assignments, to International Money Machine Company, Terre Haute, Ind., a Corporation of Indiana. Filed May 12, 1914. Serial No. 838,065. (Cl. 133—4.)

1. In a coin delivery machine, the combination of coin holders, ejectors therefor, keys for operating the ejectors, a pivot supporting the keys, each key being formed with a downwardly extending arm, a rocker member intermediate each key and an associated ejector, a pivotal support carrying the rocker members and disposed intermediate the ends of the latter, each rocker member consisting of spaced plates and a connecting bridge member between said plates, a pin carried by the upper ends of said plates and engageable by the downwardly projecting arm of the key, and a pivotal connecting member carried by the lower ends of said plates and forming a connection between the rocker member and the associated ejector therefor.

4. In a money handling machine, the combination of money receptacles, money discharging mechanism associated therewith, manipulative keys controlling the operation of said discharging mechanism, a casing member

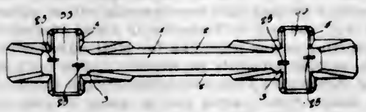
movable to afford access to the money receptacles, and means common to said keys and the casing member for locking the keys inoperative and locking the casing preventing access to the money receptacles.



8. In a money handling machine, the combination of money receptacles, discharging mechanism associated therewith, a discharge chute adapted to receive money from the receptacles in a discharging operation, a closure for said chute, a hanger pivotally supporting said closure, a crank carried by the chute and having a crank pin, the hanger having a slot in which the said pin operates, and a spring connected with the crank pin and acting on the crank to return the closure to a closed position after movement of the same, said crank being movable into a position to maintain the closure open.

[Claims 2, 3, and 5 to 7 not printed in the Gazette.]

1,244,813. REINFORCED-CONCRETE RAIL-TIE. DAVIS S. WILLIAMS, Los Angeles, Cal. Filed Jan. 20, 1917. Serial No. 143,422. (Cl. 238—3.)



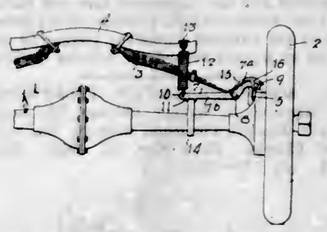
1. A rail tie comprising a concrete body portion, transverse rods embedded in the ends of the body portion, and longitudinal reinforcing bars embedded in the body portion and having their ends bent over the tie rods, bars embedded in the body portion transversely and near the ends thereof, certain of said longitudinal rods being curved at the points in the body portion which are adapted to support the rails and engaging with the transverse bars.

4. A reinforced concrete rail tie comprising a concrete tie body, longitudinal reinforcing rods embedded in the body, transverse tie rods embedded in the body at the ends thereof, said longitudinal bars being hooked over the tie rods, certain of said bars being horizontal throughout their entire length and the other of said bars being curved downwardly adjacent their outer ends at points beneath the surface of the tie body which are adapted to support the rails, and curved reinforcing bars embedded in the body at the ends thereof and having their ends located on opposite sides of points adapted to support the rails.

5. A reinforced concrete rail tie comprising a concrete tie body, longitudinal reinforcing rods embedded in the body, transverse tie rods embedded in the body adjacent to the ends thereof, said longitudinal bars being secured to the tie rods, bars embedded transversely in the body at points near the ends thereof and between the tie rods and certain of said longitudinal bars being curved downwardly adjacent their ends and extended beneath and in engagement with the last named bars.

[Claims 2 and 3 not printed in the Gazette.]

1,244,814. SHOCK-ABSORBER. ROBERT SEARS WILLIAMS, Texarkana, Tex. Filed Apr. 21, 1917. Serial No. 163,714. (Cl. 267—19.)

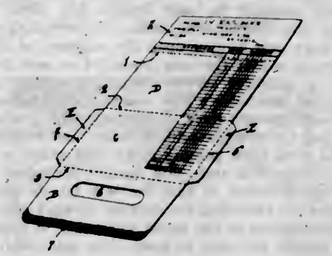


1. A shock absorber for vehicles having transversely disposed springs, including a perch rigid with the axle and projecting upwardly therefrom, a lever formed with two arms which are arranged at an angle to each other, the outer arm being formed with side flanges and having a channel shaped cross section, while the inner arm is bifurcated and the halves thereof form continuations of the flanges of the outer arm, a pivot bolt connecting the end of the spring to the lever at the intersection of its angularly disposed arms, the outer arm being pivotally connected to the perch, while the inner arm extends under the vehicle spring, and tension springs connecting the two halves of the bifurcated inner arm to the vehicle frame.

4. A shock absorber for vehicles having transversely disposed springs, including a perch rigid with the axle and projecting upwardly therefrom, a lever formed with two arms which are arranged at an angle to each other, the outer arm having a channel shaped cross section and the inner arm being bifurcated to straddle the vehicle spring, a pivot bolt connecting the end of the vehicle spring to the lever at the intersection of its angularly disposed arms, a second pivot bolt connecting the outer end of the lever to the perch, tension springs connecting the bifurcated inner end of the lever to the vehicle frame, and a mud guard extending longitudinally over the channel shaped outer arm of the lever, the outer end of the mud guard being formed with ears which engage the pivot bolt of the perch.

[Claims 2 and 3 not printed in the Gazette.]

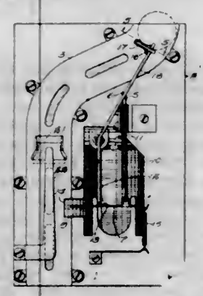
1,244,815. STATEMENT-SHEET. BARNARD WILLIS, St. Louis, Mo., assignor to Geo. D. Barnard & Company, St. Louis, Mo., a Corporation of Missouri. Filed July 5, 1916. Serial No. 107,539. (Cl. 229—92.3.)



A combined statement sheet and inclosing envelop having at its upper end a narrow address section, at its lower end a section provided with a lower gummed margin, an ungummed portion wider than the narrow address section and a window for exposing an address, on the narrow address section when the sheet is folded, and, intermediately, statement sections and a plurality of ungummed flaps carried by the ends of one of the statement sections and adapted to complete a sealed inclosure for loose matter when one of the statement sections is folded over the other statement section, the address section folded backwardly

over the last mentioned statement section, the ungummed flaps folded inwardly over the statement sections and over the address section, the window section folded over the address section and the ungummed flaps and the gummed margin of the window section gummed to the flaps and to the back of the adjacent statement section on the same side as and at a point beyond the address section.

1,244,816. MEASURED-SERVICE TELEPHONE SYSTEM. BERNARD D. WILLIS, Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 22, 1911. Serial No. 661,764. (Cl. 179—6.3.)



1. In a measured service telephone system, a calling and a called subscriber's line, means including automatic trunk-selecting switches for extending a connection between said lines, means operated upon the response of the called subscriber for rendering the transmitter and receiver on the calling line inoperative, and means under the control of the calling subscriber for thereafter rendering said transmitter and receiver operative.

2. In a measured service telephone system, a calling and a called subscriber's line, means including automatic trunk-selecting switches for extending a connection between said lines, means operated upon the response of the called subscriber for rendering the transmitter and receiver on the calling line inoperative, and coin-controlled means under the control of the calling subscriber for thereafter rendering said transmitter and receiver operative.

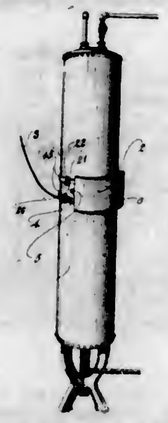
46. In a measured service telephone system, a calling and a called subscriber's line, means for extending a connection between said lines, a coin-collecting device on said calling line, a magnet for controlling the operation of said coin-collecting device, said magnet controlled by current in one direction to hold the coin accessible to the subscriber whereby he may remove the same without actuating said magnet, and means for reversing the current through said magnet upon the response of the called subscriber to collect the coin deposited in said device.

48. In a measured service telephone system, a calling and a called subscriber's line, means for extending a connection between said lines, a coin-collecting device on the calling line including a coin chute, a stop normally preventing a coin from passing down said chute, a magnet for controlling said stop, said magnet controlled by current in one direction to hold the coin for the subscriber, and means for reversing the current through said magnet upon the response of the called subscriber to remove said stop to permit the coin to pass down said chute and be collected.

49. In a measured service telephone system, a calling and a called subscriber's line, means including an automatic switch for extending a connection between said lines, a coin-collecting device on said calling line, a magnet for controlling the operation of said coin-collecting device, said magnet controlled by current in one direction to hold the coin for the subscriber, and means for reversing the current through said magnet upon the response of the called subscriber to collect the coin deposited in said device.

[Claims 3 to 45, 47, 50, and 51 not printed in the Gazette.]

1,244,817. ELECTRIC HEATER FOR HOT-WATER TANKS. RUSSELL A. WILLSON, Spokane, Wash. Filed Feb. 15, 1917. Serial No. 148,816. (Cl. 219—38.)



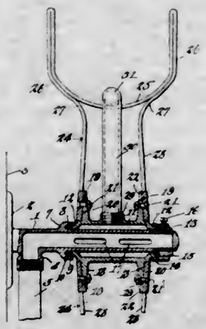
1. An electric heater comprising a hollow casing supporting a heating element therein in spaced relation and adapted for attachment to a hot water tank and vertically adjustable thereon; said casing being open on the side adjacent the tank and having air-tight connection therewith.

3. An electric hot water tank heater comprising a hollow casing of a non-conductive material having one side open, means for supporting the open side of the casing against said tank and providing air-tight connection therewith to exclude air from the hollow portion of the casing, heating elements supported within said hollow and non-conductive bridges supporting said elements.

4. An electric hot water tank heater comprising a hollow casing of a non-conductive material having one side open, means for supporting the casing against a hot water tank in such a manner that the open side will be adjacent the tank wall and will be hermetically sealed thereon and said supporting means providing for local adjustment on the tank, heating elements in spaced relation with each other and supported by non-conductive bridges attached to the side walls of said casing and in spaced relation with respect to the tank wall, the interior walls of said casing forming reflecting surfaces for the heat generated and provided to induce circulation therein.

[Claims 2, 5, and 6 not printed in the Gazette.]

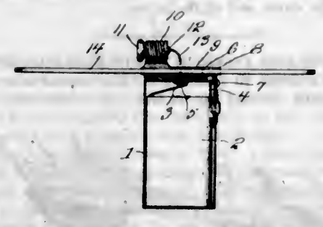
1,244,818. HOSE-REEL. REUBEN D. WIRT, Philadelphia, Pa. Original application filed Aug. 7, 1915, Serial No. 44,204. Divided and this application filed Nov. 7, 1916. Serial No. 130,026. (Cl. 242—86.)



A reel comprising a hub having spaced outstanding flanges, the opposite sides of which are conical, radial

arms having spoke portions and U-shaped receiving members between the outer ends of said portions and contacting therewith to limit the movement of said portions toward one another, the inner ends of said portions seating against said conical sides of the flanges, dished rings fitted on the hub at the opposite sides of said flanges and having radial grooves receiving said spoke portions, said flanges and rings having interengaging lugs and notches, and securing elements extending through said flanges and rings.

1,244,819. LIGHT-PROJECTOR AND TONGUE-DEPRESSOR. ELMER I. YOUNG, Atlanta, Ga., assignor, by direct and mesne assignments, to Throt-A-Lite Company, Atlanta, Ga., a Corporation of Georgia. Filed Oct. 31, 1916. Serial No. 128,758. (Cl. 128—24.)



1. A light projector comprising a lamp casing, a battery inclosed therein, a bracket extending across one of the end walls of the lamp casing, said bracket coöperating with said end wall to form a guide-way to receive a tongue depressing blade, a lamp socket carried by said bracket, and conductors for connecting the terminals of the lamp carried by the socket with the poles of the battery.

2. A combined light projector and tongue depressor comprising a lamp casing, a battery arranged therein, a bracket extending across one of the end walls of the casing, said bracket being spaced from said end wall and forming therewith a guideway, a lamp socket mounted upon said bracket above said guide-way, conductors for connecting a lamp held in the socket with the poles of the battery, and a tongue depressing blade slidably engaging said guide-way.

3. A light projector and tongue depressor comprising a casing, a battery arranged therein, a bracket disposed upon one end of the casing and forming a longitudinally tapered guide-way, a lamp socket mounted upon said bracket, means for connecting the terminals of the lamp through said socket with the poles of the battery, and a longitudinally tapered tongue depressor blade slidably fitted in said guide-way.

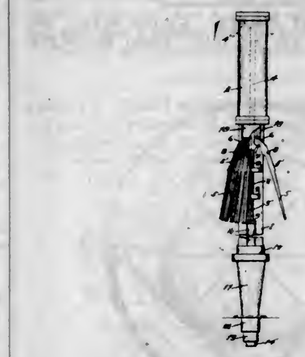
4. A combined light projector and tongue depressor comprising a casing, a battery arranged therein, a bracket disposed upon one end of the casing and electrically connected therewith, a lamp holding socket upon the bracket, a conductor insulated from the socket and bracket and adapted for connection with one pole of the battery, a switch device for connecting the socket and casing with the other pole of the battery, and a tongue depressor slidably engaging said guide-way.

5. A combined light projector and tongue depressor comprising a casing, a battery arranged within the casing, a bracket disposed upon one end of the casing and forming a longitudinally tapered guide-way, a lamp holding socket formed upon the forward portion of the bracket and overhanging the corresponding portion of the guide-way, circuit closing connections, and a longitudinally tapered tongue depressor blade slidably engaging said guide-way and adapted to project therefrom beyond the socket.

[Claim 6 not printed in the Gazette.]

1,244,820. MACHINE FOR MAKING HOLLOW WARE FROM PULP. JACKSON B. YOUNG, Oakland, Cal. Filed Nov. 16, 1916. Serial No. 131,703. (Cl. 92—24.)

1. A machine for the described purpose comprising a tapered outer mold; and a tapered inner mold movable into and out of the outer mold, and formed of a circumferential series of swinging fingers.



2. A machine for the described purpose comprising a tapered outer mold; a tapered inner mold movable into and out of the outer mold, and composed of a circumferential series of swinging fingers; and means for spreading the fingers when withdrawn from the outer mold.

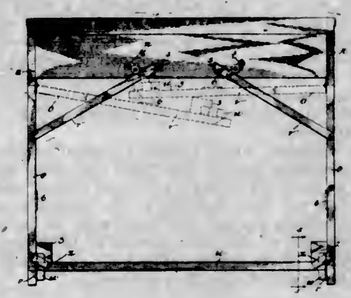
3. A machine for the described purpose comprising a tapered outer mold; a tapered inner mold movable into and out of the outer mold and composed of a circumferential series of swinging fingers; and resilient means for pressing the fingers together to taper-mold shape.

4. A machine for the described purpose comprising a tapered outer mold; a tapered inner mold movable into and out of the outer mold and composed of a circumferential series of swinging fingers; resilient means for pressing the fingers together to taper-mold shape; and means acting on the fingers when withdrawn from the outer mold to spread them apart.

5. A machine for the described purpose comprising a tapered outer mold; a tapered inner mold movable into and out of the outer mold and composed of a circumferential series of swinging fingers; a drain rod in the axis of said inner mold; a connection between said rod and the fingers of said mold, upon which connection said fingers are individually fulcrumed; and a spring encircling the fingers to press them together to taper-mold shape.

[Claims 6 to 24 not printed in the Gazette.]

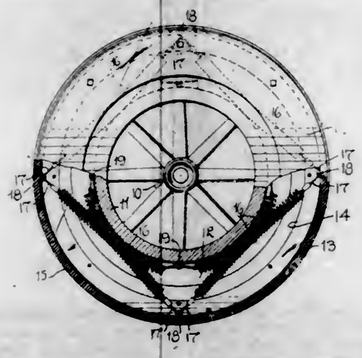
1,244,821. FURNITURE FOR DOMESTIC USE. JOSEPH P. ZALESKI and STANISLAW J. ZALESKI, Chicago, Ill. Filed Aug. 26, 1916. Serial No. 116,967. (Cl. 5—48.)



In an article of furniture, the combination of a main frame, a seat mounted therein, a rear frame, and a bed hinged to said rear frame, said rear frame consisting of a cross member, side standards hinged thereto, braces hinged to said standards, sockets in said cross member for retain-

ing said braces, and a spreading bar detachably attached to said standards near the lower extremities thereof, said rear frame being thereby collapsible.

1,244,822. RESILIENT WHEEL. GALLUS ZINSLI, Wibaux, Mont. Filed May 10, 1916. Serial No. 96,614. (Cl. 152—37.)



1. In a cushioned wheel, a central section including an annular member flanged at its ends, and an outer rim section having inwardly directed flanges overlapping the flanges of the central section, a plurality of pairs of coiled springs, each pair having their adjacent ends operatively conjoined and connected to the central section, each pair together embracing a portion of the central section and extending partially around the central section in opposite directions, links attached to the outer ends of the springs, the links of each pair of springs being attached to diametrically opposite portions of the rim, and means for increasing or decreasing the tension of the springs.

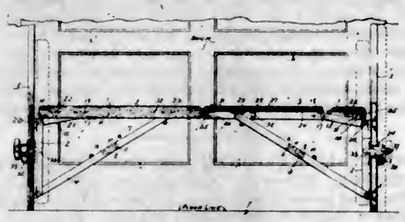
2. In a cushioned wheel, the combination with an annular central section and an annular rim section spaced therefrom, of a plurality of pairs of coiled contractile springs, the springs of each pair being operatively connected at their adjacent ends to the central section and extending in opposite directions on opposite sides of and partially embracing the annular central section and being attached at diametrically opposite points to the rim section, each of said springs for a portion of its length fitting against and conforming in curvature to the curvature of the central section, said plurality of pairs of springs together engaging the central section at relative spaced points and together supporting said central section.

3. In a cushioned wheel, a central annular section and an outer annular rim section, a plurality of sets of springs disposed around the central section, one set of springs being disposed in laterally spaced relation to the other set of springs, each set of springs comprising a plurality of pairs of springs, the adjacent ends of each pair of springs being operatively connected to each other and to said central section, the outer ends of each pair of springs being connected to the rim section at diametrically opposite points, the adjacent portions of each pair of springs contacting with and conforming to the curvature of the annular central section.

4. In a cushioned wheel, a central annular section and an outer concentric section, and coiled contractile springs arranged at intervals between the inner section and the outer section, the inner portions of the springs being attached to, bearing against and conforming in curvature to the periphery of the inner section of the wheel, the outer portions of the springs extending tangentially outward and being attached to the outer section.

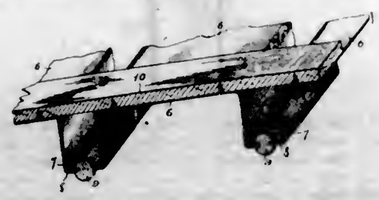
1,244,823. FOLDING SEAT FOR CENTER-DOOR CARS. CHARLES H. ANDERSON, Cincinnati, Ohio. Filed Oct. 19, 1914. Serial No. 867,371. (Cl. 155—22.)

In a folding seat for cars, the combination of a support, a seat, a link pivotally connected to the support and to the seat at a point removed from the inner end of the latter and jointed links pivoted to said support below the



point of attachment of the first mentioned link and to the seat near the outer end of the latter.

1,244,824. FLOOR CONSTRUCTION FOR PASSENGER-CARS. CHARLES H. ANDERSON, Cincinnati, Ohio. Filed Aug. 6, 1915. Serial No. 44,068. (Cl. 105—76.)



1. A floor for cars consisting of metal plates each bent downwardly and outwardly at its side edges, the outwardly projecting portions of the depending members overlapping and securing means uniting said overlapping members, the said downwardly and outwardly projecting members forming channeled projecting members extending transversely of the car floor and open at the top.

2. A floor for cars consisting of metal plates having downwardly and outwardly bent edges, an outwardly bent edge of one plate overlapping an outwardly bent edge of the next adjacent plate and forming a depending projection open at the top and extending transversely of the car floor, securing means uniting the overlapping members of said projections and a floor covering resting on the plates.

3. A floor for cars consisting of metal plates having downwardly and outwardly bent side edges, an outwardly bent edge of one plate overlapping an outwardly bent edge of the other plate and forming a channel open at the top and extending transversely of the car floor, securing means uniting said overlapping members of the channel, a floor covering resting on the plates and securing means passing up through the plates and into the said covering.

4. A floor for a car composed of connected plates having depressions forming channels extending transversely of the car floor, and other plates having similar channels extending lengthwise the floor, the two sets of plates being connected.

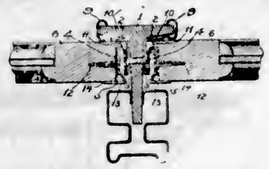
5. A steel floor for cars composed of metal plates having bent edges, the bent edges of two adjacent plates forming a channel open at the top, the channels of some of the plates extending transversely of the car floor, and the channels of other plates extending longitudinally of the floor, and a floor covering for the said plates.

[Claims 6 and 7 not printed in the Gazette.]

1,244,825. WINDOW CONSTRUCTION. CHARLES H. ANDERSON, Cincinnati, Ohio. Filed June 28, 1916. Serial No. 106,409. (Cl. 189—72.)

1. The combination with a window post having a web and a flange, of a guide bracket comprising a single sheet having a part secured to the web portion of the post and having a lateral portion to receive one face of a sash rail, said lateral portion engaging the flange of the window post.

2. The combination with a window post having a web and a flange, the latter having a beveled inner face, of a guide sheet or bracket secured to the web of the post and having a lateral portion, said lateral portion having a rib engaging the inner beveled face of the post flange and causing said lateral portion to be disposed at approximately right angles to the transverse axis of the web portion of the post.

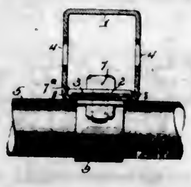


3. The combination with a window post comprising a web and a flange, of a guide sheet or bracket comprising a part secured to the web of the post, a lateral portion having a rib engaging the inner face of the flange of the post, and a loop gripping said post flange.

4. The combination with a T-bar window post having beveled web and flange portions, of guide sheets or brackets each comprising a member folded upon itself and secured to the web of the post, a lateral member having a rib engaging the flange of the post, and a loop gripping said flange.

5. The combination with a window post and a sash, of a guide bracket for the sash, secured to the post, a bent flexible weather strip disposed on an edge of the sash and having a free portion engaging said guide bracket, and a metal strip disposed between the members of the bent weather strip and secured to one member thereof and to the sash, said metal strip having a part engaging the inner face of the sash.

1,244,826. UNDERFRAME FOR CARS. CHARLES H. ANDERSON, Cincinnati, Ohio. Filed Sept. 13, 1916. Serial No. 119,913. (Cl. 105—76.)



1. In a car underframe, the combination of a hollow metal cross-sill having a longitudinal slot extending lengthwise its lower member, a bolt passing through said slot and supported solely on the metal of the sill at the sides of the slot, and a hanger secured to the bolt below the sill.

2. In a car underframe, the combination of a box form cross-sill having a slot in its lower member extending lengthwise the sill, the edge of metal at the two sides of the slot being turned over onto itself, a bolt passing from the inside of the sill through the slot, and a hanger secured to said bolt.

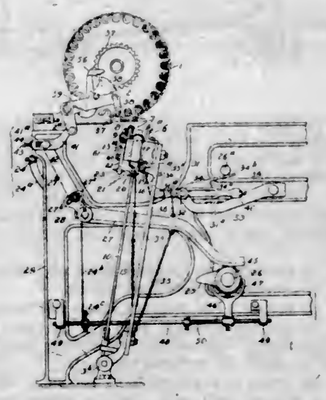
3. In a car underframe, the combination of a box form cross-sill having a slot in its lower member extending lengthwise the sill, a washer within the sill and bridging the slot, a bolt passing from the inside of the sill through said washer and slot, and a hanger secured to the bolt.

4. In a car underframe, the combination of a box form cross-sill having a slot in its lower member, extending lengthwise the sill, the edges of the metal at both sides of the slot being bent over onto itself, a washer supported on said bent edges, a bolt passing from the inside of the sill through the washer and slot, and a hanger secured to the bolt.

6. In a car underframe, the combination of a box form cross-sill having a slot in its lower member, extending lengthwise the sill, internal shoulders at opposite sides of the slot, a washer bridging the slot and having bent ends interlocking with said internal shoulders, a bolt passing from the inside of the sill through the washer and slot, and a hanger secured to said bolt.

[Claim 5 not printed in the Gazette.]

1,244,827. WEFT-REPLENISHING LOOM. EUGENE H. BALLOU, Pawtucket, R. I., assignor, by direct and mesne assignments, to Draper Corporation, Hopedale, Mass., a Corporation of Maine. Filed Aug. 30, 1915. Serial No. 47,910. (Cl. 139—85.)



1. A replenishing loom having means for effecting replenishment of weft or filling without arresting the loom, and in which normally the shuttle when at the replenishing side moves forward and rearward in unison with the lay, and having means whereby a dwell of the shuttle box at a distance from front center is produced to facilitate the transfer into the shuttle.

10. A replenishing loom having a weft-carrier guide mounted independently of the lay, and in which normally the shuttle-box at the replenishing side accompanies the lay in the movements of the latter and in moving in unison with the lay carriers the shuttle into and out of register with the said guide, and having means for producing a dwell of the said shuttle-box at a distance from front center with the shuttle therein in register with the said guide to facilitate thereby transfer of weft or filling into the shuttle.

15. A replenishing loom having means for effecting replenishment without interruption of the weaving operations having a cam in operative control of the shuttle-box at the replenishing side and through which a dwell of the shuttle box at a distance relative to front center is produced at the time of replenishment or change to facilitate the transfer of weft or filling into the shuttle, while the lay continues its usual movement.

19. A weft-replenishing loom having means for coordinating the shuttle-box at the replenishing side of the loom with the lay normally, and having a detent adapted to arrest the said shuttle-box with the shuttle contained therein in register with the transferring or change devices to facilitate the transfer of weft or filling into the shuttle, while the lay continues in its usual movements, and a normally-inoperative cam that is made effective for the purposes of the transfer to call such detent into action to effect such arrest, and also call the transferrer into action to effect such transfer.

30. A replenishing loom having a shuttle-box movable with and also relatively to the lay and normally held in working relation with the path of the shuttle across the lay, means to detain such shuttle-box at the rear of front center in position relative to the transferring devices to facilitate a transfer or change, devices for effecting the transfer while the lay is moving independently of the

shuttle-box, a normally-retracted weft-carrier chute mounted in connection with the shuttle-box, and means operated by the moving lay to place the chute in working position at the time of transfer.

[Claims 2 to 9, 11 to 14, 16 to 18, 20 to 29, and 31 to 34 not printed in the Gazette.]

1,244,828. RAILROAD-TIE. JOSEPH A. BEAMISDERFER, Jonestown, Pa., assignor of one-half to John S. Gockley, Lebanon, Pa. Filed Aug. 30, 1916. Serial No. 117,731. (Cl. 238—5.)



2. A tie made in a plurality of sections, means to move the sections relatively to each other and to a rail comprising a bolt, a bracket on one of the sections having a bifurcated portion, said bolt extending into said portion, arms at the bifurcated portion overlapping the bolt head, a bracket on the other section, said bolt extending through said bracket, and a nut on said bolt beyond the latter bracket.

3. A tie having a rod disposed above and longitudinally thereof to prevent trespass upon the tie.

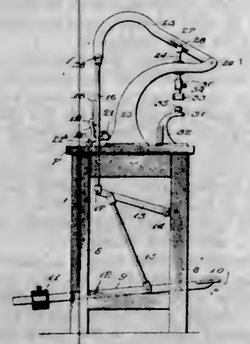
5. A tie having a rod disposed above and longitudinally thereof to prevent trespass upon the tie, said tie being made in sections, and means coöperating with said rod operable to move the sections relatively.

6. A tie made in a plurality of sections, each section having a channel and said channels facing each other, cushions for rails disposed in said channels, means to prevent movement of the cushions longitudinally of the sections, one of said sections having an elongated slot, and said means consisting of a bolt passing through the sections and blocks directly through said slot.

8. A tie having sections, each provided with a channel, and said channels facing each other, tie sections being provided with the recesses into which the rail extends, a cushion for said rail extending into said channels and maintaining the rail above the bases of the recesses, cleats for the rails, bolts to fasten said cleats to the sections, said cushion being cut away to receive the portions of the bolts to prevent turning thereof, a bolt extending through said sections and said cushions, and one of said sections having an elongated slot through which said bolt directly extends.

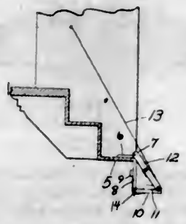
[Claims 1, 4, and 7 not printed in the Gazette.]

1,244,829. MACHINE FOR CREASING AND STRETCHING SHOES. ALEXANDER E. BLOCK, St. Louis, Mo. Filed Jan. 5, 1912. Serial No. 669,528. (Cl. 12—130.)



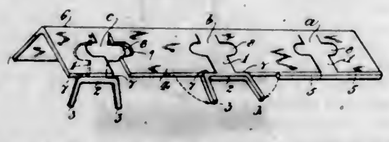
In a machine for creasing and stretching shoes, the combination of a frame; a female stretching member movably mounted in said frame; a male stretching member fixedly mounted in said frame and provided on its working face with a recess; and a moisture pad mounted in said recess.

1,244,830. FOLDING STEP FOR VEHICLES. EARL H. BRADLEY, Higbee, Mo. Filed May 15, 1917. Serial No. 168,732. (Cl. 105—86.)



The combination with a stationary step, of supporting bars secured thereto, hanger arms pivoted to said supporting bars and depending therefrom, other supporting bars pivoted to the lower ends of said hangers, a folding step carried by the last named bars, a flexible element having one end secured to one of the first named bars, a pulley carried by one of said last named bars and around which said flexible element passes, the intermediate portion of said flexible element extending around the forward longitudinal edge of said foldable step and from thence upwardly to a point adjacent said stationary step whereby a pull upon said flexible element will adjust said folding step and hanger arms to a position above said stationary step.

1,244,831. FACING-BAR FOR CONCRETE STRUCTURES. DAVID W. BROOKS, New York, N. Y., assignor to Concrete Steel Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 19, 1913. Serial No. 807,576. (Cl. 94—2.)



A facing bar for concrete structures, comprising a facing member of substantially angle iron form having punched-out portions at intervals along either or both webs, and anchoring members projecting inwardly from the facing member, one opposite each opening in the facing member, each of said anchoring members comprising a shank integral with the facing member and a pair of prongs diverging from the shank, the combined lengths of the two adjacent prongs of any two adjacent anchoring members being substantially equal to the distance between the two corresponding openings in the web.

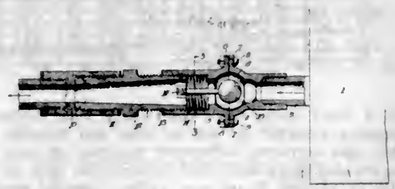
1,244,832. TAG. CARLTON W. BROWN, Groton, Conn. Filed Feb. 14, 1916. Serial No. 78,265. (Cl. 40—25.)



1. A tag consisting of a strip of fabric adapted to receive upon its exposed face a distinguishing mark, and fastening devices arranged on such exposed face near the ends of the tag, each fastening device comprising a main portion extending across the exposed face from side to side and having retaining prongs extending through the fabric and clenched upon its back, and fastening prongs extending laterally beyond the side edges of the fabric and adapted to be bent over such edges backwardly to engage the article to be tagged.

[Claims 2 to 6 not printed in the Gazette.]

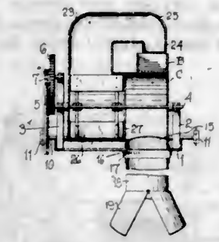
1,244,833. VALVE FOR WATER-SUPPLY PIPES. GEORGE BURICH, San Francisco, Cal. Filed May 2, 1917. Serial No. 165,979. (Cl. 137—69.)



1. In a means for controlling the flow of fluid from a meter, the combination of a supply pipe, a delivery pipe, a coupling having threaded end sections, directly engaging corresponding sections of said pipes, and an intermediate body by which it may be rotated and thereby adjusted longitudinally relative to both of said pipes, independent of any relative movement between said pipes, and a valve carried by and bodily movable with said coupling for controlling the flow of fluid through the pipes.

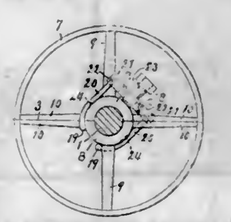
2. The combination of a fluid supply pipe, a delivery pipe, one of said pipes being provided with an enlarged valve chamber and a valve seat at one side of said chamber, a coupling having threaded end sections, directly engaging the supply and delivery pipes, and an intermediate body by which it may be turned, and a valve supported by the coupling and extending into said valve chamber, the valve being adjusted relative to the valve seat in said chamber, independent of any relative movement between the supply and delivery pipes, by turning the coupling.

1,244,834. INSECT-DESTROYER. AUTHER H. CLEMENT, Decatur, Tex. Filed Mar. 6, 1917. Serial No. 152,716. (Cl. 43—1.)



A device of the character described comprising a portable frame, a casing carried by the frame and having its longitudinal axis substantially at right angles to the direction of travel of the frame, a nozzle depending from the casing adjacent one end thereof and in communication therewith and through the bottom of the casing, a goose neck discharge spout in communication with the casing through the top thereof and adjacent the end of the casing opposite to the nozzle, said spout being disposed longitudinally of the casing and discharging above the casing adjacent the end thereof provided with a spout, the end portion of the spout in communication with the casing being of a diameter greater than the intermediate or depending portion of the spout, a collecting box supported by the casing and into which the spout discharges, a suction fan mounted within the casing to one side of the nozzle, the upper portion of the spout at the discharge end thereof being perforate, and an annular partition arranged within the casing intermediate the fan and the point of communication between the nozzle and the casing.

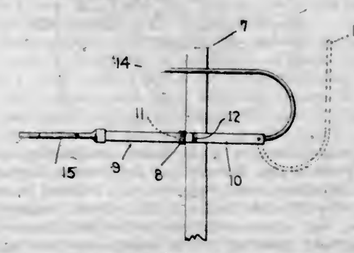
1,244,835. SPLIT-PULLEY CLAMP. JOSEPH COBERT, Northampton, Mass. Filed Nov. 23, 1916. Serial No. 132,985. (Cl. 64—18.)



1. As an improved article of manufacture, a split-pulley clamp comprising a head block adapted to rest on the hub portion of one pulley section, said block having diagonally-opposite projections consisting in part of oppositely-directed hooks to enter from opposite sides of the pulley and engage the hub portion of the other pulley section, and a threaded member tapped into said head block and adapted to bear on and to be tightened against said first-named hub portion.

[Claim 2 not printed in the Gazette.]

1,244,836. WIRE-STRETCHER. GEORGE W. CORSEPIUS, Downey, Idaho. Filed Mar. 30, 1917. Serial No. 158,577. (Cl. 254—161.)



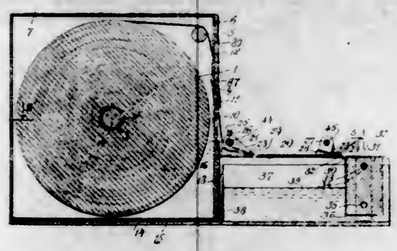
2. The combination in a wire stretcher, of a rotatable bar adapted to engage one side of a fastened post, a slot formed in said bar for receiving a strand of wire, a notch opening from said slot through the side of the bar and permitting the insertion of the strand of wire thereinto, a detachable crank adapted to engage one end of the bar for rotating the latter, a pivoted arm attached to one end of the bar and adapted to be swung into the path of the post for engagement therewith and locking the bar against rotation, and means for limiting the outward movement of said arm.

[Claim 1 not printed in the Gazette.]

1,244,837. HAND-OPERATED TAPE-MOISTENER. CHARLES H. CROWELL, Brooklyn, N. Y. Filed Apr. 4, 1917. Serial No. 159,678. (Cl. 91—14.5.)

1. In tape moisteners, a sheet metal frame having sides bent up at the forward portion of the machine to inclose a water tank and having rear bent up sides and inwardly projecting lips, a removable water tank, a feed plate secured to said frame above said water tank and having longitudinally extending corrugations to facilitate manual finger feeding movement of gummed tape over said plate, a reversible moistener mounted in said tank with its upper exposed portions substantially in line with said feed plate, a serrated cutter movably mounted above said feed plate adjacent said moistener and having a cutter lock to engage and hold the gummed strip during severing movement, an alining spring clamping member adjacent

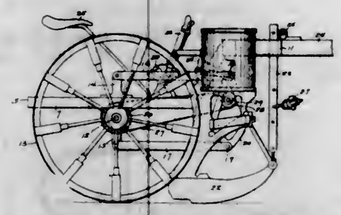
the rear of said feed plate, an interchangeable spring holding member removably engaging the rear of said frame and having inwardly extending spring lips to engage a tape package and a sealed container mounted in said holding



member and inclosing and protecting a roll of gummed tape, the end of said tape extending through a substantially closed delivery opening in said container to be moistened and severed.

[Claims 2 to 19 not printed in the Gazette.]

1,244,838. IMPLEMENT-FRAME. WALTER DAIGH, Parsons, Kans., assignor of one-fourth to Charles R. Daigh, Parsons, Kans. Filed Sept. 1, 1916. Serial No. 118,143. (Cl. 97—85.)



1. In a planter, a main frame terminating in an upwardly converging forward end and forming a tongue support, a tongue mounted therein, an auxiliary frame in advance of said main frame, pivotal means connecting said frames, and means connected with said frames for adjusting said auxiliary frame independently of said main frame and tongue.

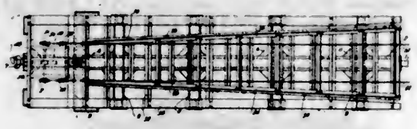
3. In a planter, a rigid main frame converging upwardly at its forward end and terminating in a tongue support, an axle supported thereby, carrying wheels mounted upon said axle, link supports carried by said frame, links extending forwardly from said supports, an auxiliary frame connected to the opposite end of said supports, and a lever mounted on said main frame and connected with said auxiliary frame for vertically adjusting the latter independently of said main frame.

5. In a planter, a main frame terminating in an upwardly convergent forward end, a tongue connected with said end, an auxiliary frame in advance of said main frame, upwardly and downwardly projecting link supports carried by said main frame, upper and lower shafts in said auxiliary frame, an upper and lower set of horizontally arranged links connecting said supports and shafts, and means associated with said frames for adjusting said auxiliary frame.

[Claims 2 and 4 not printed in the Gazette.]

1,244,839. TRACK-LAYING MACHINE. ARTHUR DARDEN and FELIX F. DOMING, Anniston, Ala., assignors to Kilby Car & Foundry Company, Anniston, Ala., a Corporation of Alabama. Filed July 27, 1917. Serial No. 183,099. (Cl. 104—217.)

1. In a track laying car, a skeleton body comprising transverse structural metal bunks adapted to support rails, a center sill above and connected to said bunks, short tie supporting bars mounted on said center sill and spaced thereby above said bunks sufficiently to clear a plurality of tiers of rails stacked on the lower bunks, and vertically adjustable roller bearers mounted on the outer ends of the bunks.



3. A track laying car comprising a body adapted to support a plurality of tiers of rails, and movable separator bars vertically adjustably mounted on said body and adapted to be interposed between the tiers of rails.

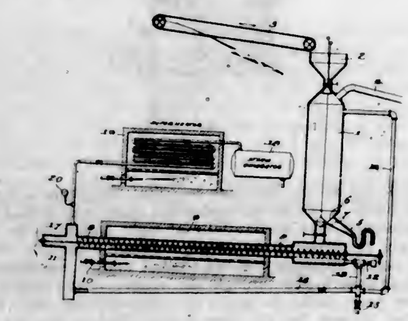
13. In a track laying car, guides, castings vertically adjustable in the guides and comprising hollow bodies and inverted V-shaped heads, rollers journaled at the apices of the heads, chains working in the hollow bodies and connected thereto, a shaft journaled in each guide and connected to a chain, the bodies being cut away to cove free of engagement with said shafts, and pawl and ratchet means to lock the shafts.

20. In a track laying car, trucks, a center sill of structural metal, rail supporting bunks underhung from the center sill, and a cross tie supporting superstructure mounted on the center sill and comprising transverse Z-bars resting on the sill, and longitudinal Z-bars resting on the transverse Z-bars, an endless conveyer means working between the longitudinal Z-bars, roller supports journaled in said longitudinal Z-bars, and movable cross tie supports mounted on said longitudinal Z-bars.

33. In a track laying car having a downwardly inclined tie and rail delivery extension at one end, and an elongated coupling element connected to the car and projecting forwardly over said extension into position to couple with other cars.

[Claims 2, 4 to 12, 14 to 19, 21 to 32, and 34 not printed in the Gazette.]

1,244,840. EXTRACTION OF HYDROCARBON PRODUCTS FROM SHALES AND COALS. DAVID T. DAY, Washington, D. C., assignor to Verner Z. Reed, Denver, Colo. Filed Dec. 1, 1916. Serial No. 134,470. (Cl. 196—21.)

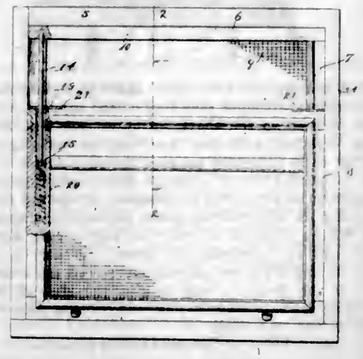


1. The process of treating shales or coals to extract volatile matters present in such shales or coals which consists in subjecting such shale or coal in one chamber to destructive distillation, condensing the vapors so generated in a mass of similar shale or coal in a second chamber to dissolve material from said shale or coal, and separating the combined condensed vapor and material dissolved thereby from the particles of shale or coal.

6. The process of extracting hydrocarbon matter from shales and coals which comprises subjecting a mass of such shale or coal containing the desired hydrocarbon matter in a container to the action of hot vaporous material, condensing said vaporous material in said shale or coal, permitting the condensed materials to pass downwardly through the mass of shale or coal and exercise a solvent action on the oil material therein, and recovering the combined solvent and extracted matter.

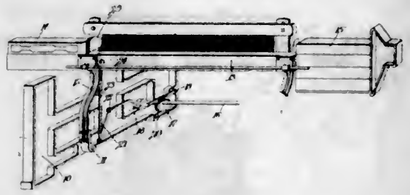
[Claims 2 to 5 and 7 not printed in the Gazette.]

1,244,841. SCREEN. VIVIAN A. DEBERTSHAUSER, Bowling Green, Mo. Filed Sept. 14, 1914. Serial No. 861,643. (Cl. 156—38.)



A window screen section including independent perforate screen sections, each of which rigidly engages two parallel sides of the window casing and yieldingly engages the other two parallel sides of the casing, springs mounted in the ends of one section, headed rods carried by the other section and coacting with said springs to normally force said sections apart, plates countersunk in the spring carrying sections to prevent displacement of the springs and acting as guides for said rods.

1,244,842. ATTACHMENT FOR LOOMS. JOSEPH V. DESMARAIS, New Bedford, Mass. Filed Oct. 24, 1916. Serial No. 127,459. (Cl. 139—18.)



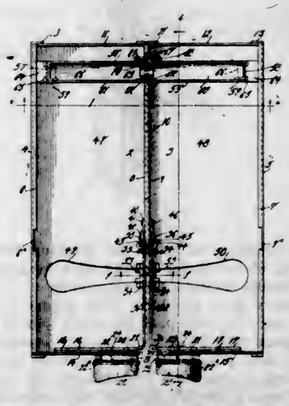
1. In a loom having a single box at one end of the lay, means for obstructing the entrance to said box when a shuttle should be in a box at the other end of the lay to thereby prevent the operator from inserting a shuttle in said single box.

3. In a loom having a single box at one end of the lay, a gate movable into the path of the shuttle to and from said box, and means automatically operated by the loom for moving said gate to obstruct said path when the said box should be empty.

7. In a loom having a box at one end of the lay and a plurality of boxes at the other end, a gate arranged to move across the mouth of said first mentioned box, a member rotating in timed relation with the movement of the shuttle across the lay and means operated by said member to move said gate to obstruct the mouth of said box when no shuttle should be therein.

[Claims 2 and 4 to 6 not printed in the Gazette.]

1,244,843. STEREOSCOPE. JAMES LAMBERT DISNEY, Philadelphia, Pa. Filed Nov. 20, 1916. Serial No. 132,396. (Cl. 88—29.)



1. A stereoscope comprising a box having elongated sections hinged together and extending from front end to rear end of the box, lenses supported by said box adjacent the front end thereof, and an object holder movable toward and from said lenses in the direction of the length of said sections, substantially as described.

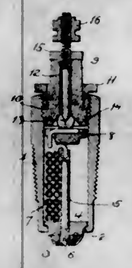
7. A stereoscope comprising a box having elongated sections, one of the sides of each section being hinged together, a lens supporting plate hinged within each section and, foldable into said sections, lenses in said plates, other plates hinged to said first plates and operative to hold said first plates in an upright position, an object holder slidably connected to but detachable from said box, and means for locking said second-mentioned plates in a position to hold said first plates in their upright positions so that the object holder is in line with said lenses, substantially as described.

13. A stereoscope including a box made in sections hinged together, each of said sections having a side flange, said flanges forming guide-ways when the box is open, an object holder, means on said object holder for frictionally engaging said flanges and operative to permit sliding movement of said holder but to prevent accidental movement thereof, substantially as described.

15. A stereoscope comprising a box having elongated sections, one of the sides of each section being hinged together, a lens supporting plate hinged within each section and foldable into said sections, lenses in said plates, other plates hinged to said first plates and operative to hold said first plates in an upright position, openings formed in said box sections, handles pivoted to said box sections and movable into and out of said openings, said handles having ears thereon designed to be engaged by the lower edge of said second-mentioned plates and thereby to hold the handles in their operative positions out of said openings, means for locking the box sections in an open position and to lock the second-mentioned plates in said latter position to lock the handles, said second-mentioned plates when freed by the locking means being movable on their hinges to free said ears on the handles to permit them to be moved into the openings in the box sections, the hinged plates when in said folded position being operative to lock said ears in a position to hold the handles within their opening in the box sections, substantially as described.

[Claims 2 to 6, 8 to 12, and 14 not printed in the Gazette.]

1,244,844. SPARK-PLUG FOR INTERNAL-COMBUSTION ENGINES AND THE LIKE. ETHAN I. DODDS, Pittsburgh, Pa., assignor to Flannery Bolt Company, Pittsburgh, Pa. Filed Dec. 14, 1915. Serial No. 66,798. (Cl. 123—169.)



1. The combination with the sparking terminals of a spark plug, of means for setting up a magnetic field past the arc formed between said terminals.

2. A spark plug provided with means for setting up magnetic lines of force past the spark gap of said plug.

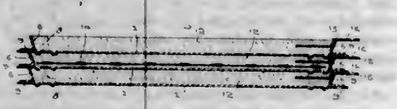
3. A spark plug having electrically separated sparking terminals, said plug embodying magnetic means disposed to establish a magnetic field having its lines of force passing through the gap between said sparking terminals.

4. A spark plug embodying in its structure, a magnet having one of its poles disposed in such proximity to the sparking terminals of the plug as to cause magnetic lines of force to be cast against the arc formed at said sparking terminals.

5. In a spark plug, the combination of a shell, a sparking terminal carried thereby, an electro-magnet within said shell, the core of said magnet provided with the other sparking terminal and included in circuit with said coil, and means for including said coil and core in an electric circuit and said core and shell being so correlated that magnetic lines of force will pass through the spark gap during the operation of the device.

[Claims 6 to 8 not printed in the Gazette.]

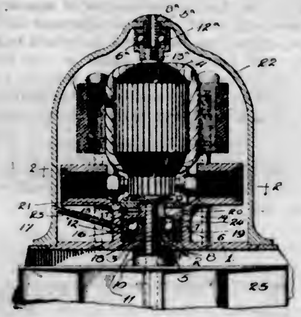
1,244,845. MOLD FOR TILES. JOHN A. FERGUSON, Denver, Colo. Filed Aug. 22, 1916. Serial No. 116,281. (Cl. 25—119.)



In molding apparatus for tiles substantially as set forth, a plurality of shallow mold pans, of uniform dimensions, each having a closed bottom, inseparable upwardly flaring end and side walls providing an unobstructed open top, and a laterally disposed external marginal flange support, the closed bottom being suitably depressed to provide transverse and longitudinal pattern grooves along the inside face and congruent pattern beads on the outside face thereof, said grooves and beads being formed contiguous to but independently of their complementary end and side walls and disposed wholly within the bounded area of said open top, and the several elements functioning in operation, substantially as described.

1,244,846. BALL-BEARING. DAVID H. FRIEND, North Industry, Ohio. Filed Aug. 7, 1916. Serial No. 113,468. (Cl. 64—36.)

1. A bearing for a rotatable shaft including a support, an inner race ring on the support, a cylindric drum secured to the shaft, an outer race ring inside the drum coplanar with the race ring on the support, and bearing balls operating between the race rings.



2. A bearing for a rotatable shaft including an adjustable support, an inner race ring on the support, a cylindric drum secured to the shaft, an outer race ring inside the drum coplanar with the race ring on the support, and bearing balls operating between the race rings.

5. A bearing for a rotatable shaft including a tubular support, a race ring on the support, a bushing freely surrounding the shaft fitting inside the said ring and support and having a flange on one end and a ring nut on the other end for clamping the parts together, a cylindric drum having a hub on one end secured to the shaft, a race ring in the drum, a ring nut in the rim of the drum clamping the race ring therein, and bearing balls operating between the race rings.

[Claims 3 and 4 not printed in the Gazette.]

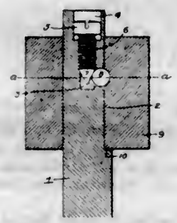
1,244,847. CATTLE FOOD AND PROCESS FOR MAKING SAME. EMILE E. FUCICH, New Orleans, La., assignor of two-fifths to Arthur J. Mestier and one-fifth to Nisida Louque, New Orleans, La. Filed Mar. 17, 1917. Serial No. 155,577. (Cl. 99—11.)

1. The herein described process consisting in subjecting the screenings from bagasse to the action of heat until the moisture is evaporated, and then adding a small proportion of molasses as a binder.

2. A food product for cattle consisting of bagasse screenings mixed with molasses.

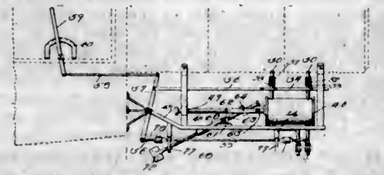
3. A food product for cattle, horses, &c., consisting of dried bagasse screenings and a small proportion of molasses to bind the material together.

1,244,848. BALL-KEY. WILLIAM GADKE, Philadelphia, Pa. Filed Jan. 22, 1916. Serial No. 73,683. (Cl. 74—8.)



The combination of a spindle having a portion of its cylindrical surface cut away to form a plane face; a member having a passage for the reception of said spindle and formed with a cavity in the wall of said passage, there being a threaded cavity in the spindle having a lateral extension formed with a contracted outlet on said plane face; a ball in said cavity having its movement in the lateral extension thereof limited by said contracted outlet; with a screw threaded in the cavity and having a conical point movable into engagement with the ball to project the same into the cavity of the second member.

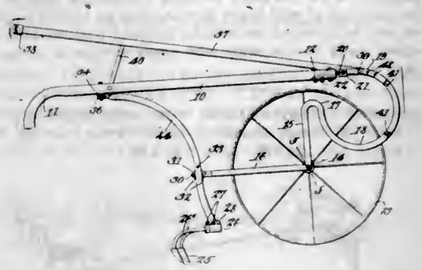
1,244,849. RAILWAY-SWITCH. ROBERT H. HANNEMANN, Wausau, Wis. Filed July 29, 1914. Serial No. 853,890. (Cl. 104—171.)



1. In a device of the kind described, the combination with a switch operating track supported mechanism, of means carried by locomotives for actuating said mechanism, said means comprising a cylinder, inlet and outlet valves at each end of the cylinder, a piston movable in said cylinder, a piston rod projecting from said cylinder, a collar pivotally carried by said rod to rock in a vertical plane, a rock shaft mounted beneath said rod, an arm fixed on said rock shaft and projecting through said collar, and a track device engaging arm fixed on said rock shaft and resiliently extensible, and means under the control of an operative for opening and closing said valves selectively.

2. In a device of the kind described, the combination with a switch operating track supported mechanism, of means carried by locomotives for actuating said mechanism, said means comprising a cylinder, inlet and outlet valves at each end of the cylinder, a piston movable in said cylinder, a piston rod projecting from said cylinder, a collar pivotally carried by said rod to rock in a vertical plane, a rock shaft mounted beneath said rod, an arm fixed on said rock shaft and projecting through said collar, a track device engaging arm fixed on said rock shaft and resiliently extensible, means under the control of an operative for opening and closing said valves selectively, and a safety device arranged to engage the last mentioned arm when in inoperative position.

1,244,850. WHEEL-HOE. JOSEPH MAURICE HARTMAN, Yardley, Pa. Filed July 26, 1916. Serial No. 111,369. (Cl. 97—42.)

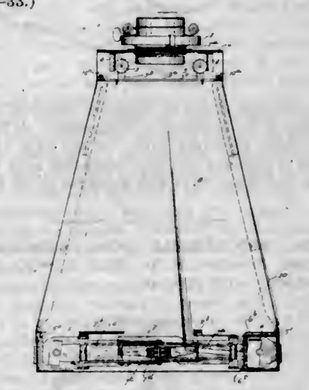


1. A soil-working implement comprising a wheeled frame, a push bar connected to the front portion thereof and extending rearward therefrom, handle bars rigidly connected together and loosely connected to the frame and free to swing sidewise simultaneously in the same direction, a hanger carried by the handle bars and pivotally connected intermediate its length to the frame, and earth-working elements carried by the lower end of said hanger.

4. A soil-working implement comprising laterally spaced frame bars, a ground wheel carried by the frame bars, said bars extending forwardly and rearwardly from the wheel, and said fowardly extending portion having a spring loop, a push bar connected to the loop and extending rearwardly therefrom, handle bars loosely connected to the loop and free to swing sidewise and to move in the direction of their length, hangers carried by the handle bars and pivotally connected to the rearwardly extending portion of the frame bars, and earth-working elements carried by the hanger.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

1,244,851. POCKET-CAMERA. FRANK HEATH, National City, Cal. Filed Dec. 21, 1914. Serial No. 878,230. (Cl. 95—33.)



1. In a folding camera the combination of a lens plate, a collapsible film holding mechanism, a pyramidal bellows composed of flexible material extending between said lens plate and film holding mechanism, a flexible door hinged integrally with said bellows for allowing access to the interior thereof.

2. In a folding camera the combination of a lens plate, a collapsible film holding mechanism, a pyramidal bellows composed of flexible material extending between said lens plate and film holding mechanism, a flexible door hinged integrally with said bellows for allowing access to the interior thereof and means for regulating said lens plate relatively to said film holding mechanism automatic with the folding of said camera.

3. In a folding camera the combination with a lens plate and a collapsible film holding mechanism spaced apart from each other of a bellows composed of flexible material connecting said lens plate with said film holding mechanism, and a door composed of flexible material integral at one side with said bellows for providing access to the interior of said bellows.

4. In a folding camera the combination with a lens plate and a collapsible film holding mechanism spaced apart from said lens plate of a bellows composed of flexible material connecting said lens plate with said film holding mechanism, a door composed of flexible material integral at one side with said bellows and means connecting said door with said bellows when closed.

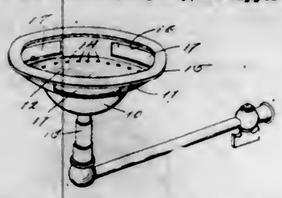
5. In a folding camera the combination with a lens plate and a collapsible film holding mechanism spaced apart from said lens plate of a bellows composed of flexible material connecting said lens plate with said film holding mechanism, a door composed of flexible material integral at one side with said bellows, means connecting said door with said bellows when closed and gear, rack, and lever means for holding said lens plate in certain relative position to said film holding mechanism.

[Claims 6 to 16 not printed in the Gazette.]

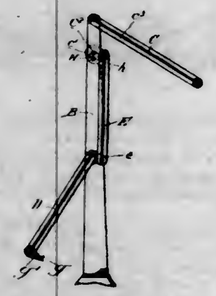
1,244,852. PORTABLE GAS-STOVE. FRANK HERRMANN and OTTO H. A. HERRMANN, Brooklyn, N. Y. Filed Aug. 9, 1916, Serial No. 113,993. Renewed September 17, 1917. Serial No. 191,900. (Cl. 126—252.)

A gas stove adapted for attachment to gas lighting burners and comprising a structure having a lower bowl

like portion and an upper bowl like portion, the upper portion being wider and relatively shallower than the lower portion, the bottom of the upper portion being downwardly bulged and forming the top of the lower bowl, said bottom being provided with an annular series of gas escape openings adjacent its periphery, the upper bowl having a peripheral series of openings adjacent its edge for the escape of the products of combustion, an inwardly extending flame deflecting flange on the edge of the upper bowl and a centrally disposed depending neck formed centrally of the lower bowl and arranged to fit a gas jet or burner.



1,244,853. WIND-SHIELD FOR VEHICLES. EDWARD B. HESS, Brooklyn, N. Y. Filed Mar. 9, 1916. Serial No. 83,074. (Cl. 21—148.)



1. A wind shield comprising: supporting means, an upper shield section pivotally supported at its upper end on the supporting means to move it from a normal upright position to an outwardly inclined rain shed position, a lower shield section pivotally supported at its upper end on the supporting means to move it from a normal upright position to an inwardly inclined ventilating position, an auxiliary shield section normally parallel to the lower section and mounted to swing with the latter without sliding displacement between the two sections, and an independent pivot connecting the lower and auxiliary sections to move the auxiliary section into an inverted upright position above the lower section when the upper section is in its rain shed position.

4. A wind shield comprising: supporting means, an upper shield section pivotally supported at its upper end on the supporting means to move it from a normal upright position to an outwardly inclined rain shed position, a lower shield section pivotally supported at its upper end on the supporting means to move it from a normal upright position to an inwardly inclined ventilating position, an auxiliary shield section normally parallel to the lower section and mounted to swing with the latter without sliding displacement between the two sections, an independent pivot connecting the lower and auxiliary sections to move the auxiliary section into an inverted upright position or into a rearwardly inclined inverted position above the lower section when the upper section is in its rain shed position, and an alternate locking means for locking the auxiliary section in its upright position when the lower section is in either its upright position or in its rearwardly inclined ventilating position.

5. A wind shield comprising: supporting means, an upper shield section pivotally supported at its upper end on the supporting means to move it from a normal upright position to an outwardly inclined rain shed position, a lower shield section pivotally supported at its upper end on the supporting means to move it from a normal upright position to an inwardly inclined ventilating position, an auxiliary shield section normally parallel to the lower section and mounted to swing with the latter without sliding displacement between the two sections, an independent pivot connecting the lower and auxiliary sections to move the auxiliary section into an inverted upright position above the lower section when the upper section is in its rain shed position, and a latch connecting the lower ends of the lower and auxiliary sections to permit them to swing in unison.

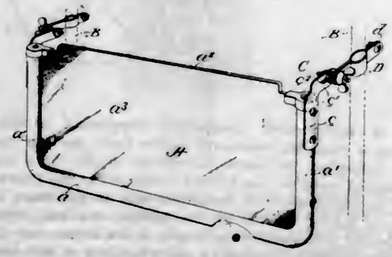
[Claims 2 and 3 not printed in the Gazette.]

1,244,854. WIND-SHIELD FOR AUTOMOBILES. EDWARD B. HESS, Brooklyn, N. Y. Filed May 26, 1916. Serial No. 100,082. (Cl. 21—148.)



A wind shield comprising: upright standards, spaced apart, a pivotal center at the upper ends of the standards, two pivotal centers, one behind the other intermediate the upper and lower ends of the standards, three shield sections, one mounted on the upper pivotal center to swing from a normal substantially vertical position into a forwardly inclined rain shed position, two lower shield sections mounted on the intermediate pivotal centers to move both of said sections from a normal substantially vertical position to an inwardly inclined ventilating position and to move one of said lower sections into an inverted upright or into an inverted rearwardly inclined position above the other lower section when the upper section is in its rain shed position.

1,244,855. WIND-SHIELD FOR AUTOMOBILES. EDWARD B. HESS, Brooklyn, N. Y. Filed Oct. 18, 1916. Serial No. 126,376. (Cl. 21—148.)



1. A windshield comprising: supporting means, upper and lower shield sections carried by said supporting means, means for swinging the upper section outwardly to form a rain shed, a bracket mounted on the supporting means independently of said sections and substantially intermediate the upper and lower sections, said bracket having a rearwardly extending portion, an auxiliary shield section carried by said bracket, normally occupying a pendent position in rear of the lower section, a pivot intermediate the ends of the bracket and in a vertical plane between the lower section and the auxiliary section for swinging the auxiliary section into an inverted upright position above the lower section when the upper section is in its rain shed position, and means for adjusting said bracket at its pivotal point to bring the auxiliary section toward or away from the lower section.

3. A windshield comprising: supporting means, upper and lower shield sections carried by said supporting means, means for swinging the upper section outwardly to form a rain shed, a bracket mounted on the supporting means independently of said sections and substantially intermediate the upper and lower sections, said bracket having a rearwardly extending portion, an auxiliary shield section carried by said bracket, normally occupying a pendent position in rear of the lower section, a pivot intermediate the ends of the bracket and in a vertical plane between the lower section and the auxiliary section for swinging the auxiliary section into an inverted upright position above the lower section when the upper section is in its rain shed position, and means for adjusting said bracket at its pivotal point to bring the auxiliary section toward or away from the lower section.

5. A wind shield comprising: supporting means, upper and lower shield sections carried by said supporting means, means for swinging the upper section outwardly to form a rain shed, a two-part bracket mounted on the supporting means independent of said sections and substantially intermediate the upper and lower sections, an auxiliary shield section carried by said bracket normally occupying a pendent position in rear of the lower section, a pivot connecting said two-part bracket in a vertical plane between the lower section and the auxiliary section for swinging the latter into an inverted upright position above the lower section when the upper section is in its rain shed position.

7. A wind shield comprising: supporting means, upper and lower shield sections carried by said supporting means, means for swinging the upper section outwardly to form a rain shed, an auxiliary shield section, members on the supporting means extending rearwardly, members on the auxiliary shield section extending forwardly, a pivot connecting the members on the supporting means and auxiliary section to admit of swinging the auxiliary section into an inverted upright position above the lower section when the upper section is in its rain shed position, and means for adjusting the pivots that connect the complementary members on the supporting means and the auxiliary section.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,244,856. AUTOMATIC LOAD DESPATCHING AND DELIVERING APPARATUS. CHESTER S. JENNINGS, Boston, Mass., assignor to The Lamson Company, Boston, Mass., a Corporation of New Jersey. Filed May 2, 1916. Serial No. 94,985. (Cl. 104—4.)



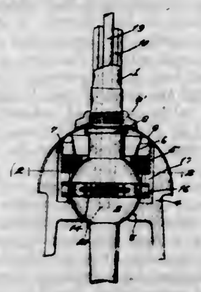
1. In a despatch apparatus for parcels and the like, the combination of a track, a series of stations located along said track, a carrier to travel along said track, a device at at least one of said stations for supporting an article to be despatched, a sweep-off element carried by said carrier and adapted when operatively disposed to wipe said article off of said supporting device onto said carrier while the latter is passing said device, means to move said sweep-off element with respect to its carrier, to operatively dispose it to wipe said article off of said device as aforesaid, adjustable means, carried by said carrier to prevent said last-mentioned means from thus operatively disposing the sweep-off element, and means at another of said stations for controlling the setting of said adjustable means as said carrier passes said last mentioned station.

21. In despatch apparatus, a track having therealong a plurality of stations, carriers to travel along said track, means to automatically unload any given one of said carriers at a determined one of said stations, a controlling device carried by each carrier and adapted to be set to determine the station at which said carrier is to be unloaded, means to set a part of said controlling device from a point adjacent the station from which the load is despatched, into any one of a plurality of adjustments thereof in accordance with the station at which said carrier is to be unloaded, means, an operating element of which is located at each of said stations, for projecting and retracting said part laterally with respect to the path of travel of said carrier, said part being adapted for engagement with said setting means only when projected by said last mentioned means, means to prevent said projection of said part when the latter has been set, means at each of the stations variably set in different positions with respect to the line of travel of said carriers and each corresponding to one of said plurality of adjustments of said part, to selectively co-act with said part when in its retracted position, and means, controlled by the co-action of said part and last mentioned means, to actuate said unloading means.

22. In despatch apparatus, a track having therealong a plurality of stations, carriers to travel along said track and adapted to be loaded from above the same while horizontally traveling past a station; a loading platform at at least one of said stations and comprising substantially horizontal fingers supported from points above the level of said fingers and at the ends of said horizontal fingers which are nearest to a carrier as the latter approaches the same, a sweep-off device on said carrier, portions of which are adapted to pass between said horizontal fingers to sweep off a load from the latter onto said carrier, means to effect relative vertical movement between said device and said horizontal fingers, and means to control the action of said last mentioned means to determine the points along said track at which said device shall co-act with said fingers.

[Claims 2 to 20 not printed in the Gazette.]

1,244,857. LEVER-LOCKING MECHANISM. GEORGE C. JENSEN, Oakland, Cal. Filed Nov. 28, 1916. Serial No. 133,883. (Cl. 70—128.)

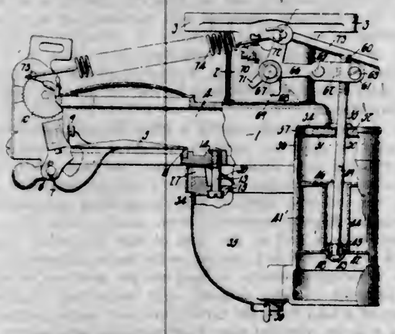


1. In combination with a movable lever having a substantially spherical portion for universal swinging movement within a substantially spherical socket member, said socket member provided with a depression, a longitudinally disposed member having rotary movement within said lever, locking devices carried by the spherical portion of said lever and coöperating at one point with the lower end of said rotary member and adapted to be actuated by the rotation thereof to project outwardly from said lever and be received at their outer ends in said depression to prevent movement of said lever, and lock controlled means for retaining said rotatable member in operative position.

2. In combination with a movable lever having a substantially spherical fulcrum portion removably seated for universal swinging movement within a substantially spherical socket member, said socket member provided with a recess, locking devices associated with said lever and when in inoperative position lying within the spherical portion thereof, lock controlled means within said lever and adapted for operation to throw said locking devices to operative position, said locking devices adapted when in operative position to project into the recess in said socket member and simultaneously lock said lever from movement on its fulcrum within said socket or removal therefrom.

[Claims 3 to 5 not printed in the Gazette.]

1,244,858. CARBURETER. CHESTER F. JOHNSON, Detroit, Mich. Original application filed Nov. 5, 1914, Serial No. 870,348. Divided and this application filed Oct. 4, 1915. Serial No. 53,872. (Cl. 261—34.)



1. A carbureter comprising a mixing chamber, means for discharging fuel into the mixing chamber, a fuel chamber having a fuel admission valve and a float controlling said valve, a member arranged to be projected into the fuel chamber, and means for positively projecting the member into the chamber and for positively withdrawing it from the chamber, whereby the level of the liquid is temporarily raised or lowered in the chamber in which said float is contained as desired to control the richness of the fuel mixture supplied by the carbureter.

4. A carbureter comprising a float chamber, a float for controlling the level of fuel therein, a mixing chamber, passage forming means for conducting fuel from said float chamber to said mixing chamber, a throttle valve, and means independent of the passage forming means for temporarily raising the level of fuel in the float chamber as the throttle valve is opened whereby an increased amount of liquid is caused to be temporarily delivered through said passage forming means to enrich the mixture.

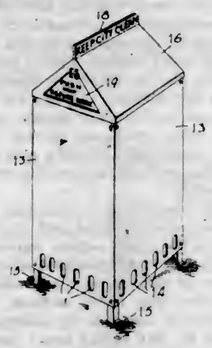
13. A carbureter for hydro-carbon motors, comprising a mixing chamber, a fuel chamber, means for feeding fuel from said fuel chamber to said mixing chamber, said means comprising a float for normally maintaining the fuel in the fuel chamber at a predetermined level, and means in said chamber for materially varying the normal level of said fuel surrounding the float independently of the float and of the suction of the motor.

14. A carbureter for hydro-carbon motors, comprising a mixing chamber, a fuel chamber, means for feeding fuel from said fuel chamber to said mixing chamber, means for normally maintaining the fuel in said fuel chamber at a predetermined level, and means in said chamber for temporarily materially raising the level of fuel throughout the greater part of the surface area thereof independently of the means which normally maintains the fuel at a predetermined level, whereby an increased flow of fuel to the mixing chamber is temporarily secured.

16. A carbureter comprising a float chamber having a cover with a cup shaped depression therein, a jet in communication with the float chamber and opening into said depression, means for directing a thin current of air along the depression, a manually controlled throttle valve, a plunger projectible into the float chamber to materially raise the level of the fuel therein as the throttle valve is opened, whereby the fuel is caused to overflow into said depression to form a richer mixture.

[Claims 2, 3, 5 to 12, and 15 not printed in the Gazette.]

1,244,859. COMBINATION REFUSE-CAN AND FLY-TRAP. FLOYD JOHNSON, Evansville, Ind., assignor of one-half to Raymond N. Lannert, Evansville, Ind. Filed July 20, 1917. Serial No. 181,769. (Cl. 43—22.)



1. A combination refuse can and fly trap including an upright casing provided with a bottom which is spaced from the lower end thereof, the sides of the casing between the bottom and the lower end thereof being cut away to provide a skeleton formation, screening applied to the cut away portions of the sides, and a cone extending upwardly into the lower end of the casing and having an inlet opening at the apex thereof.

2. A combination refuse can and fly trap including an upright casing provided with a bottom which is spaced from the lower end thereof, said bottom having openings therein and the sides of the casing between the bottom and the lower end thereof being cut away to provide a skeleton formation, screening applied to the openings in the bottom, screening applied to the cut away portions of the side, and a cone extending upwardly into the lower end of the casing and having an inlet opening at the apex thereof.

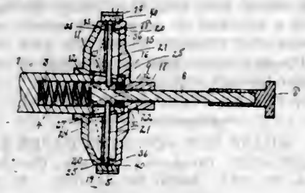
3. A combination refuse can and fly trap including an upright casing provided with a bottom which is spaced from the lower end thereof, said bottom having openings therein and the sides of the casing between the bottom and the lower end thereof being cut away to provide a skeleton formation, screening applied to the cut away portions of the sides, a flanged ring fitted removably within the lower end of the casing, and a cone carried by the flanged ring, said cone projecting upwardly into the casing and having an inlet opening at the apex thereof.

[Claim 4 not printed in the Gazette.]

1,244,860. CLUTCH. MILLARD L. JOHNSTON, Utica, N. Y. Filed Apr. 4, 1914. Serial No. 829,412. (Cl. 197—123.)

1. In a clutch a ratchet wheel, dogs, having their free ends rounded off, whereby to minimize the surface of contact, for engaging said ratchet wheel, whereby said wheel will be rotated, and a plunger for releasing said dogs from engaging with said ratchet wheel.

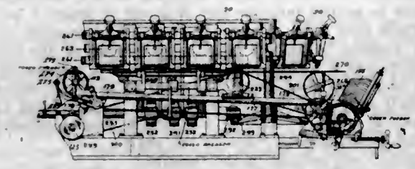
2. In a clutch for typewriters, a ratchet wheel, a casing assembled to a shaft, a thimble for holding said casing in assembled position on said shaft, dogs loosely mounted in said casing and having their free ends rounded off, whereby to minimize the surface of contact, means whereby said dogs will engage said casing, whereby said ratchet wheel will turn with said shaft, and a plunger for releasing said dogs from engagement with said casing,



whereby said ratchet wheel will turn independently of said shaft.

[Claims 3 to 5 not printed in the Gazette.]

1,244,861. PAMPHLET-COVERER. CHARLES A. JUENGST, Croton Falls, N. Y., assignor, by mesne assignments, to American Assembling Machine Company, a Corporation of Delaware. Filed Sept. 26, 1913. Serial No. 791,942. (Cl. 11—33.)



1. A book covering machine comprising: a longitudinally moving book conveyer for holding a book with its back exposed, in combination with means for roughening the back of the book by acting upon it in different directions, including: an annular roughening member disposed adjacent to the conveyer and extending across its path at two points, and means for rotating the roughening member.

2. A book covering machine comprising: a book conveyer for holding a book with its back exposed, a cover presser adjacent to the path of the exposed back, means for feeding a cover to the cover presser, and means for feeding a strip of reinforcing material, between the cover and the book, to the cover presser.

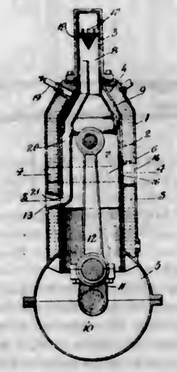
17. In a book covering machine, a vertically movable support, two oppositely disposed cover-breaking members mounted on said support to move toward and away from each other, rockshafts extending parallel to the cover breaking members, means for rocking said rockshafts, means carried by said rockshafts for moving the cover breaking members toward and away from each other, another rockshaft extending parallel to the cover breaking members, means connecting said other rockshaft with the support to lift and lower the same, and means for rocking said other rockshaft.

[Claims 3 to 16 not printed in the Gazette.]

1,244,862. INTERNAL-COMBUSTION ENGINE. CHARLES A. JUENGST, Croton Falls, N. Y. Filed Mar. 13, 1915. Serial No. 14,063. (Cl. 123—73.)

1. A two-cycle engine comprising: a cylinder, having a crank case, and a hollow piston, said elements forming a combustion chamber and a crank case compression chamber, said hollow piston communicating at all times with the crank case and having ports at the upper end which at suitable intervals communicate directly with the combustion chamber and a conduit extending longitudinally of said piston and arranged to deliver fuel into the upper end of said piston at other intervals.

2. A two-cycle engine comprising: a cylinder having a crank case and a hollow piston, said elements forming a combustion chamber having an exhaust port at one end and a crank case compression chamber, said hollow piston communicating at all times with the crank case and having ports which open directly into said combustion chamber at the end remote from the exhaust port at the end of the power stroke, a fuel inlet through the cylinder to the piston normally cut off by the latter, and a conduit within said hollow piston normally open to the upper end of the piston adjacent said ports and adapted to communicate with the inlet on the compression stroke of the piston.



3. An internal combustion engine comprising: a cylinder forming at one end a crank-case compression chamber and at the other end a combustion chamber having an extension, a hollow piston open to said compression chamber and having an extension operable in said cylinder extension, said piston extension being provided with ports which open directly into the combustion chamber at the end of the power stroke, and a conduit arranged to deliver fuel into said piston extension at the end of the compression stroke.

4. An internal combustion engine comprising: a cylinder forming at one end a crank-case compression chamber and at the other end a combustion chamber having an extension, a hollow piston open to said compression chamber and having an extension operable in said cylinder extension, said piston extension being provided with ports which open directly into the combustion chamber at the end of the power stroke, a fuel inlet in the cylinder, and a conduit in said piston adapted to convey fuel from said inlet into said piston extension at the end of the compression stroke.

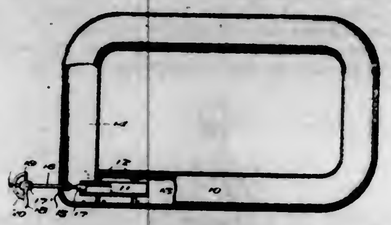
5. An internal combustion engine comprising: a cylinder forming at one end a crank-case compression chamber and at the other end a combustion chamber having an extension, a hollow piston open to said compression chamber and having an extension operable in said cylinder extension, said piston extension being provided with ports which open directly into the combustion chamber, and a conduit in said piston extending substantially the full length thereof and adapted to convey fuel into the piston extension, said fuel passing from the point of delivery in said piston extension through said hollow piston to said combustion chamber, and said hollow piston serving to directly convey fuel from said compression chamber through said ports into said combustion chamber.

1,244,863. BLAST-HEATER. WILLIAM WALLACE KEMP and WILLIAM H. VAN HORN, Baltimore, Md. Filed June 23, 1916. Serial No. 105,526. (Cl. 126—91.)

1. In combination, a member having an endless substantially closed passage from which air is excluded and provided with an opening for exhaust purposes only, and means for discharging a flame forwardly into said passage at a pressure greater than that of the atmosphere for reheating and causing circulation of the products of combustion therein.

2. In combination, a member having an endless substantially closed passage having an exit opening, and

means for discharging an ignited flame sustaining mixture at a pressure greater than that of the atmosphere into said passage and in a direction therein to cause the products of combustion to flow about said passage.

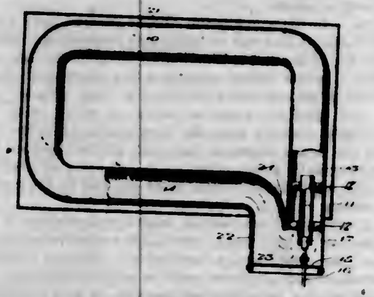


3. In combination, an endless tube having a continuous substantially closed passage provided with an exit opening for exhaust purposes only, and means within the passage for discharging an ignited gaseous flame-sustaining mixture therein under relatively high pressure in a direction to cause the products of combustion to flow about the passage at relatively high velocity.

4. A radiator comprising a pipe having a substantially closed endless passage from which air is excluded and provided with an opening for exhaust purposes only, and means for discharging hot flame under pressure greater than atmospheric into said passage in a direction to cause the products of combustion to circulate about the passage.

[Claims 5 to 12 not printed in the Gazette.]

1,244,864. METHOD OF HEATING. WILLIAM WALLACE KEMP and WILLIAM H. VAN HORN, Baltimore, Md. Original application filed June 23, 1916, Serial No. 105,526. Divided and this application filed Aug. 16, 1916. Serial No. 115,232. (Cl. 126—91.)



1. The method of heating herein described, which consists in discharging at relatively high pressure an ignited flame-sustaining mixture into an endless passage from which air is excluded, entraining the products of combustion, causing the circulation thereof within said passage at relatively high velocity, repeatedly heating said products of combustion, and discharging the products of combustion from said passage.

2. The method of heating a chamber which consists in discharging a flame under relatively high pressure forwardly into an endless pipe mounted in said chamber and from which pipe air is excluded, causing circulation of the products of combustion therein at relatively high velocity, and discharging the products of combustion from said endless pipe.

3. The method of heating herein described which consists in discharging at a pressure greater than that of the atmosphere an ignited flame-sustaining mixture into a substantially closed circuit having an exit at its return side, said mixture being discharged into said circuit in a direction to cause the products of combustion to flow around the circuit, and discharging the products of combustion from said circuit through said exit.

4. The method of heating herein described which consists in discharging at a pressure relatively higher than that of the atmosphere a flame into a substantially closed endless pipe from which air is excluded and having an exit at its return side, said flame being discharged into said pipe in a direction to cause the products of combustion to repeatedly circulate within the pipe at relative high velocity, and discharging the products of combustion from the pipe through said exit.

[Claims 5 to 7 not printed in the Gazette.]

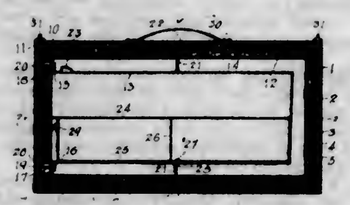
1,244,865. MEANS FOR SECURING PAPER-ROLLS TO A ROLL-SHAFT. CHARLES C. KROHN, Hartford, Conn. Filed Jan. 23, 1917. Serial No. 144,095. (Cl. 242—68.)



1. Means for holding a roll of paper consisting of the combination of a shaft, means fastened on said shaft and adapted to project into one end of a roll of paper, a hollow rigid cone with a tapered interior and tapered exterior adapted to project into the other end of the roll of paper, and a hollow yielding cone with a tapered exterior and cylindrical interior adapted to be moved along the shaft and to be screwed into and to be contracted by engagement with the interior wall of the first mentioned cone for securing both cones to the shaft.

[Claim 2 not printed in the Gazette.]

1,244,866. COMBINATION LUNCH-BOX. THEODORE C. KUTSCHER, Seattle, Wash. Filed Dec. 1, 1916. Serial No. 134,416. (Cl. 206—4.)



1. A lunch box including an outer casing formed with insulated side walls and having an open end, a removable tank fitted accurately within the casing and insertible through the open end thereof, said removable tank being formed with a reëntrant food receiving chamber which faces the open end of the casing and is surrounded by the tank on all of its other sides, the side walls of the tank and casing being formed with corresponding grooves and ribs which extend transversely with respect thereto and are arranged for a yieldable interlocking engagement with each other to hold the tank removably in position within the outer casing, and an insulated closure for the open end of the outer casing, said closure also tightly sealing the food receiving chamber of the tank and engaging the tank to lock it securely in position.

[Claim 2 not printed in the Gazette.]

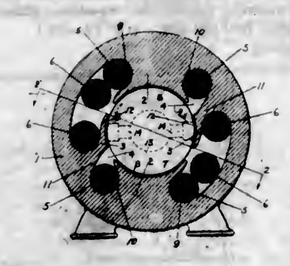
1,244,867. SELF-RISING FLOUR AND PROCESS OF MAKING THE SAME. PAUL LAIDLEY, St. Louis, Mo. Filed Nov. 2, 1916. Serial No. 129,083. (Cl. 99—10.)

1. A self-rising flour containing an alum leavening agent and starch, the alum leavening agent and starch being mixed together before being mixed with the flour.

2. A self-rising flour, containing a mixture of an alum leavening agent and starch, and sodium bicarbonate compounded substantially in the proportions specified.

3. The process of producing a self-rising flour, which consists in mixing an alum leavening agent with starch, and adding said mixture and sodium bicarbonate to a quantity of cereal flour, substantially in the proportions specified.

1,244,868. DYNAMO-ELECTRIC MACHINE. GUSTAF M. LARSSON, Newark, N. J., assignor to Eck Dynamo and Motor Company, a Corporation of New Jersey. Filed Dec. 12, 1913. Serial No. 806,132. (Cl. 171—252.)



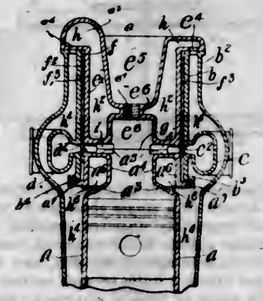
1. In a dynamo-electric machine, two main poles the body portion of one of which is undercut on one side, and said other main pole having a normal body portion circumferentially opposite to the undercut side of the first main pole, the faces of said main poles being nevertheless symmetrically arranged with respect to each other, and an interpole whose body portion springs from a point adjacent to the normal body portion of the second main pole and having its pole face extending toward the undercut portion of the first main pole so as to have its face substantially equidistant from the two main pole faces, whereby a greater coil space is afforded between the interpole and the undercut portion of the first main pole than between the interpole and the normal portion of the second main pole.

2. In a dynamo-electric machine, two main poles the body portion of one of which is undercut on one side and said other main pole having a normal body portion circumferentially opposite to the undercut side of the first main pole, the faces of said main poles being nevertheless symmetrically arranged with respect to each other, an interpole whose body portion springs from a point adjacent to the normal body portion of the second main pole and having its pole face extending toward the undercut portion of the first main pole so as to have its face substantially equidistant from the two main pole faces, whereby a greater coil space is afforded between the interpole and the undercut portion of the first main pole than between the interpole and the normal portion of the second main pole, a coil surrounding a main pole and passing between the main pole and the interpole, and a second coil surrounding both a main pole and the interpole.

4. In a dynamo-electric machine, a field member comprising: a plurality of main poles the faces of which are symmetrically arranged with respect to each other, and the body portion of each of which is normal on one side and undercut to a greater extent on the other side, so that each pole face appears distorted with respect to its own body portion, the normal portion of one main pole being arranged circumferentially opposite to the undercut portion of the other main pole, an interpole, whose body portion springs from a point adjacent to the normal portion of one of said main poles, and having its pole face extending toward the undercut portion of the other main pole so as to have its face substantially equidistant from the two main pole faces, whereby a greater coil space is afforded between the interpole and the undercut portion of one main pole than between the interpole and the normal portion of the other main pole, a coil surrounding each main pole and passing between the main and interpoles, and a second coil surrounding both a main pole and an interpole.

[Claim 2 not printed in the Gazette.]

1,244,869. INTERNAL-COMBUSTION ENGINE. HERBERT B. LAYMAN, New York, N. Y. Filed July 13, 1914. Serial No. 850,555. (Cl. 123—173.)



1. In an explosion engine, a main cylindrical casing, a cylinder the top portion of which is insertible into the bottom of said casing, and an explosion head member insertible into the top portion of said casing, a sleeve valve chamber between said casing and said explosion head and the top part of the cylinder, said top portion of the cylinder and the bottom of the explosion head abutting, and being provided with radial inlet and exhaust ports which communicate with inlet and exhaust manifolds and with an explosion chamber formed partly in the top part of the cylinder and partly in the bottom part of the explosion head.

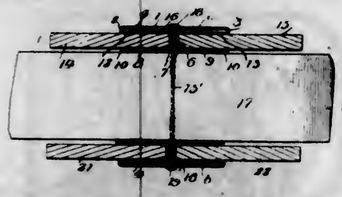
2. In an explosion engine, a main cylindrical casing, a cylinder the top of which is inserted into the bottom of said casing, an explosion head which is inserted into the top portion of said casing, a sleeve valve chamber formed between said casing and the explosion head and the top part of the cylinder, and an explosion chamber formed partly in the top of the cylinder and partly in the explosion head and provided with radial ports or passages which communicate with inlet and exhaust manifolds, and means whereby water may be circulated upwardly around the cylinder and on both the inner and outer sides of the sleeve valve chamber.

3. In an explosion engine, a main cylindrical casing, a cylinder provided with a top portion which is inserted into the bottom of said casing, an explosion head inserted into the top portion of said casing and provided with a cap, a sleeve valve chamber formed between said casing and the explosion head and the top portion of the cylinder, an explosion chamber formed partly in the explosion head and provided with radial ports or passages which communicate with inlet and exhaust manifolds, and means whereby the water may be circulated upwardly around the cylinder and on the outer side of said casing and between the explosion chamber and the sleeve valve chamber and into the cap of the explosion head.

4. In an explosion engine, a main cylindrical casing having inlet and exhaust manifolds, a cylinder the top of which is inserted into the bottom portion of said casing, and an explosion head inserted into the top portion of said casing, the explosion chamber being formed partly in the top portion of the cylinder and partly in the explosion head, and means whereby water may be circulated upwardly and continuously through the explosion head and between the explosion chamber and valve chamber.

5. In an explosion engine, a main cylindrical casing having inlet and exhaust manifolds, a cylinder the top of which is inserted into the bottom portion of said casing, and an explosion head inserted into the top portion of said casing, the explosion chamber being formed partly in the top portion of the cylinder and partly in the explosion head, and means whereby water may be circulated upwardly and continuously through the explosion head and between the explosion chamber and valve chamber and on the outer side of said valve chamber.

1,244,870. ASBESTOS-SHEET CONNECTOR. RICHARD LEVENS, Philadelphia, Pa. Filed Dec. 5, 1916. Serial No. 135,167. (Cl. 189—34.)

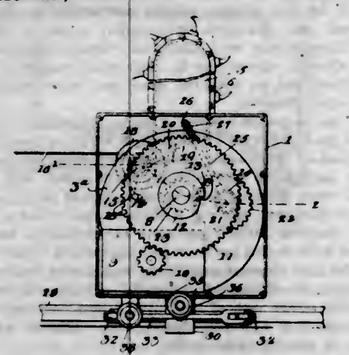


1. A device as specified including a pair of sections, each section being formed of a single sheet metal strip bent to form a pair of oppositely disposed channels adapted to springingly engage objects to be connected, means for connecting said sections in spaced relation, and the extremities of the inner channel walls of each section being bent back upon said walls to form a marginal enlargement to allow for expansion and contraction of the objects engaged, and to reinforce the edges of said walls.

2. A device as specified including a sheet metal strip bent to form a pair of oppositely disposed channels adapted to springingly engage objects to be connected, the side edges of the strip forming the extremities of the inner channel walls being bent inwardly and back upon the walls to form a marginal enlargement to allow for expansion and contraction of the objects to be engaged and to reinforce the edges of said walls.

[Claim 3 not printed in the Gazette.]

1,244,871. MINING-MACHINE. NILS DAVID LEVIN, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a Corporation of Ohio. Original application filed Sept. 30, 1907, Serial No. 395,061. Divided and this application filed Sept. 20, 1911. Serial No. 650,334. (Cl. 125—14.)

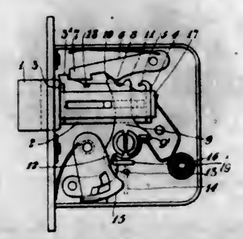


1. In a mining machine, the combination of a main frame arranged to swing horizontally forward and back when in operation, power driven cutting apparatus projecting from the inner end thereof, power devices for feeding the machine along the face of the coal, and means for retarding the outer end of the machine comprising a stationary part secured against movement in the direction of the machine's advance and a companion element on the machine arranged to be moved by the frame, when swinging as aforesaid, toward and from a position where it tends to rigidly engage said stationary part, but to loosely engage with the latter when the frame is at a predetermined angle.

5. In a mining machine, the combination of a main frame, power driven cutting apparatus projecting from the inner end thereof, power devices for feeding the machine along the face of the coal, means for retarding the outer end of the machine comprising a rail secured against movement in the direction of the machine's movement, a friction device on the machine adapted to engage said rail, and means for directing the cutting apparatus up or down comprising a plurality of wheels carried by the machine frame in position to ride upon the said rail, and means for adjusting one of said wheels upward and downward relative to the machine.

[Claims 2 to 4, 6, and 7 not printed in the Gazette.]

1,244,872. SELF-LOCKING DOOR-LOCK. JOHAN WALDEMAR LINDBERG, Stockholm, Sweden. Filed May 18, 1917. Serial No. 169,496. (Cl. 70—29.)



1. A door lock of the type described comprising a beveled bolt, a hook connected to said bolt, a bolt-actuating member, a lug on said bolt-actuating member, resilient means common to said bolt and to said bolt-actuating member adapted to effect an engagement between said lug and said hook when said bolt has been retracted to a position intermediate its maximum retracted and maximum extended positions to thereby retain said bolt in such intermediate position, and means whereby said bolt is automatically locked in its maximum extended position when the door is closed.

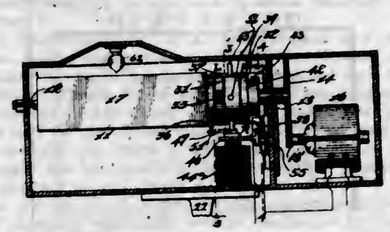
2. A door lock of the type described comprising a beveled bolt, a plate connected to said bolt, a shoulder at the inner end of said plate, a hook at the top of said shoulder, a bolt-actuating member, and a lug on said bolt-actuating member adapted to slide against said shoulder and to engage said hook to thereby retain said bolt in a position intermediate its maximum retracted position and its maximum extended position, thereby affording means whereby said bolt may be actuated by the engagement of the beveled portion thereof with the jamb escutcheon when the door is being closed.

3. A door lock of the type described comprising a bolt, a shoulder on said bolt, a hook on said shoulder, a lever adapted to lock said bolt in its maximum retracted position and in its maximum extended position, a bolt-actuating member cooperating with said lever and with said shoulder to disengage said lever and to retract said bolt and means on said bolt-actuating member adapted to engage said hook when said bolt has been retracted to a position intermediate its maximum retracted and maximum extended positions and to retain said bolt in such intermediate position.

[Claim 4 not printed in the Gazette.]

1,244,873. SIGNALING APPARATUS. FRED W. LOHR, New York, N. Y. Filed Jan. 11, 1915. Serial No. 1,605. (Cl. 40—53.)

1. In a signaling apparatus, the combination of a polyfaced rotatable indicator, some of the faces at least of which bear separate indications, a motor connected therewith, a series of manually operated selecting devices, of equal number to the faces of said indicator, an escapement device having stop positions corresponding in number to said faces, a single means of control for said escapement device, common to said selecting devices, and being electrically disconnected from said motor but operable on said escapement device to permit said motor to operate on said indicating means, and means controlled by the movement of said indicating means for acting on said single controlling means for shutting off said motor when the desired stop position is reached, said single controlling means being controllable by each of said selecting devices separately and independently of the presence of said motor in said apparatus.



2. In a signaling apparatus, the combination of a shiftable indicator, having indicating faces, a motor connected with said indicator, a series of selecting devices of equal number to the said faces of said indicator, an escapement device having stop positions corresponding in number to said faces, an electro-magnet for controlling the position of said escapement device, electric circuits for energizing said magnet through the operation of any of said selecting devices, means actuated by a portion of said escapement device for effectuating the actuation of said motor, said indicator having a neutral indicating position, a lamp, and means for controlling said lamp to light up when said indicator is being set by said motor to display one of said indicating faces, said lamp controlling means comprising conducting means carried by said indicator and having a break therein, a neutral contact located opposite said break when said indicator is at said neutral indicating position, and an electric circuit including said conducting means, contact and lamp.

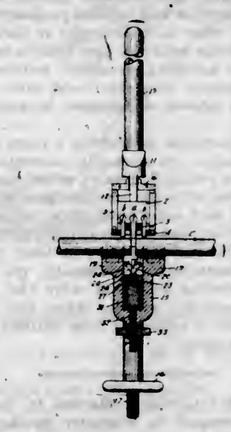
3. In a signaling apparatus, the combination of a shiftable indicator, having indicating faces, an electric motor connected with said indicator, a motor circuit, a series of selecting devices of equal number to the said faces of said indicator, an escapement device having stop positions corresponding in number to said faces, an electro-magnet for controlling the position of said escapement device, electric circuits for energizing said magnet through the operation of any of said selecting devices, and means actuated by a portion of said escapement device for closing said motor circuit and actuating said motor.

5. In a signaling apparatus, the combination of a shiftable indicator, having indicating faces, an electric motor connected with said indicator, a motor circuit, a series of selecting devices of equal number to the said faces of said indicator, an escapement device having stop positions corresponding in number to said faces, an electro-magnet for controlling the position of said escapement device, electric circuits for energizing said magnet through the operation of any of said selecting devices, and means actuated by a portion of said escapement device for closing said motor circuit and actuating said motor, said indicator having a neutral indicating position, a lamp, and means for controlling said lamp to light up when said indicator is being set through the actuation of said selecting devices to display one of said indicating faces, said lamp controlling means comprising conducting means carried by said indicator and having a break therein, a neutral contact located opposite said break when said indicator is at said neutral indicating position, and an electric circuit including said conducting means, contact and lamp, and means in addition to said selecting devices for closing the said lamp circuit.

[Claims 4, 6, and 7 not printed in the Gazette.]

1,244,874. PIPE-CUTTER. CLYDE H. LOUGHRIDGE and HOWARD R. LOUGHRIDGE, Pittsburgh, Pa. Filed Nov. 4, 1915. Serial No. 59,547. (Cl. 81—192.)

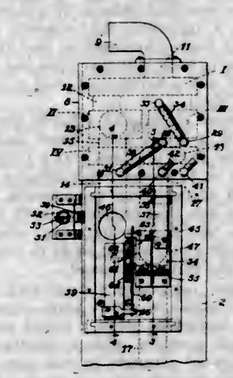
1. In a pipe cutter, the combination with a main stem, of an anvil member adjustably mounted thereon having bearing rollers, a relatively movable cutter head having a plurality of cutters of different lengths, a carrying block therefor mounted on the stem, and a handle in threaded engagement with the main stem having a coacting portion adapted to adjust the cutter head toward the work.



3. In a cutter of the class described, the combination of a main shank, an adjustable anvil member thereon having bearing rollers and provided with a separately adjustable reaming device, and an oppositely acting cutter head provided with a movable cutter.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,244,875. TENSION-GOVERNOR FOR PIANO-PLAYERS. ENDYMED LUNDBERG, Toronto, Canada, assignor to The Otto Higel Co., Limited, Toronto, Ontario, Canada. Filed July 20, 1915. Serial No. 40,993. (Cl. 230—36.)



1. A tension governor comprising a main bellows pneumatic, a valve within said pneumatic and operatively connected with the movable side thereof, means adapted to normally hold said main bellows in a distended position and auxiliary means within said main bellows pneumatically operated, adapted to prevent closure of said valve, substantially as described.

2. A tension governor comprising a main bellows pneumatic, a controlling valve mounted therein, means carried on the movable part of said bellows pneumatic for opening said valve when the pneumatic is distended, means adapted to normally distend said pneumatic, and independent means pneumatically operated to prevent said valve from completely closing when said pneumatic is collapsed, said

means comprising an auxiliary bellows and a two armed rocking lever having one arm adapted to coöperate with said valve and its other arm coöperating with a projection on said auxiliary bellows, substantially as described.

3. A tension governor comprising a main bellows pneumatic, a controlling valve mounted therein, means carried on the movable part of said bellows pneumatic, adapted to open said valve when said pneumatic is distended, means adapted to normally maintain said bellows in a distended position, and an auxiliary pneumatic bellows within said main bellows adapted to prevent said valve from closing when said main bellows is collapsed, substantially as described.

4. A tension governor comprising a main bellows pneumatic, spring means for normally maintaining said bellows distended, a controlling valve within said pneumatic, means coöperating with the movable part of said bellows adapted to hold said valve open when the bellows is distended, an auxiliary bellows pneumatic within said main bellows pneumatic and a two armed lever pivotally supported in said main bellows pneumatic, the two arms of said lever coöperating with said valve and the auxiliary pneumatic respectively, whereby when the latter is collapsed the former is prevented from entirely closing, substantially as described.

1,244,876. TOY CANNON. WALTER O. MCDANIEL, St. Louis, Mo., assignor to Schroeter Brothers Hardware Company, of St. Louis, Mo., a Corporation of Missouri. Filed May 31, 1917. Serial No. 171,956. (Cl. 124—12.)



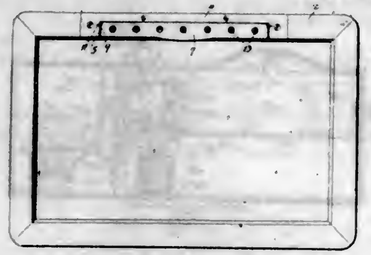
1. A toy cannon, comprising a supporting structure provided with a base that consists of a substantially cup-shaped casting, a turn-table that consists of a substantially cup-shaped casting arranged so that the edge of the side wall portion of same will bear upon the side wall portion of the base, and a barrel connected to said turntable by a horizontal pivot.

3. A toy cannon, comprising a barrel provided with a longitudinal bore, a spring and plunger arranged in said bore, said plunger being provided with a trigger, a member that is adapted to be moved longitudinally of the barrel for placing said spring under compression, a flat spring provided with a hole that coöperates with the trigger on said plunger to hold the spring under compression, and means for actuating said spring so as to release the plunger and permit the spring to expand.

7. A toy cannon, comprising a supporting structure provided with a turntable, a saddle plate connected to said turntable by a horizontal pivot, a barrel secured to said saddle plate and provided with a longitudinal bore, a spring and a plunger arranged in said bore, a trigger on said plunger that projects into an elongated slot in said barrel, a guide rod arranged longitudinally of the barrel and connected at its front end to the barrel and at its rear end to said saddle plate, a member slidingly mounted on said guide rod and having a portion that projects into the slot in the barrel at a point in advance of said trigger, a spring on said guide rod that exerts pressure on said member so as to normally hold it in a certain position, a resilient element provided with a hole into which the trigger on the plunger snaps after the spring has been placed under compression, and an operating shaft arranged transversely of the barrel and provided with a portion that engages said resilient element and disconnects it from said trigger.

[Claims 2, 4 to 6, and 8 not printed in the Gazette.]

1,244,877. SLATE-PENCIL HOLDER. STEVEN MAGAMI, Kamloops, British Columbia, Canada. Filed Mar. 23, 1917. Serial No. 157,004. (Cl. 35—10.)

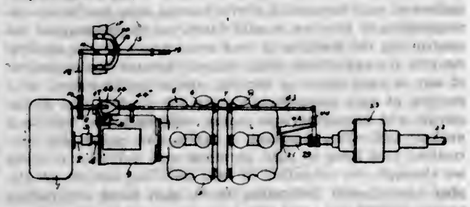


1. A pencil holder for a school-slate, comprising the combination with a slate frame having a grooved receptacle along one of its sides, a facing frame of thin sheet metal extending along the back and across each end of the grooved receptacle, an apertured cover fitting the space between the back and sides of the frame and hinged along the back, said cover having a portion bent from its back edge and projecting into the receptacle and resilient means for retaining the cover in the closed position.

3. A pencil holder for a school slate comprising in combination with the frame of the slate having a grooved receptacle along one of its sides, a facing frame of thin sheet metal extending along the back on the outside of the frame and across each end of the grooved receptacle, said facing frame having a resilient portion bent from the inner side of each end to project into the receptacle and provided with a teat, an apertured cover fitting the space between the back and sides of the frame and having a portion bent from its back edge to project into the receptacle, and end portions bent from the respective ends to bear against the inwardly bent portions of the facing plate and having depressions to receive the teat when the cover is closed, hinge pins for pivoting the cover on a longitudinal axis passing substantially through the corner edge of the cover substantially as shown and for the purposes described.

[Claim 2 not printed in the Gazette.]

1,244,878. CONTROL MECHANISM FOR VARIABLE-SPEED GEARS. CHARLES MATTHEWS MANLY, Freeport, N. Y. Filed Oct. 21, 1912. Serial No. 726,994. (Cl. 188—22.)



1. The combination of a variable speed gear, a movable control member therefor, stops for limiting the extent of movement of said member, and means governed by the load on said speed gear for altering the position of said stops.

2. The combination of a variable speed gear, comprising a driving and a driven member, means for controlling the relative speeds of said members, means for limiting the movement of said control member, and means governed by the load on the driven member of said gear for actuating the said limiting means to prevent the speed of said driven member exceeding the speed at which said load can be driven without exceeding a predetermined power.

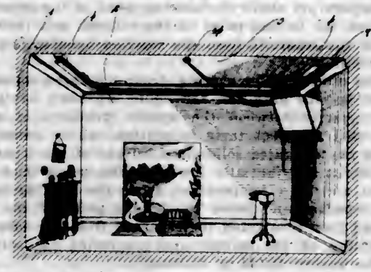
3. The combination of a variable speed and reverse gear, comprising a driving and a driven member, means for controlling the speed of the driven member of said gear in either direction of rotation, and means governed by the load on said driven member for varying the speed thereof inversely as the load in either direction of rotation.

4. The combination of a variable speed and reverse gear, comprising a driving and a driven member, means operatable at will for varying the speed and direction of rotation of said driven member, stops for limiting the movement of said control means, and means governed by the load on said driven member for adjusting said stops to maintain the limits to which the speed of the driven member can be adjusted in either direction, proportional to the load on said driven member.

5. The combination with a variable speed gear comprising manually operatable control mechanism for varying the speed ratio of the gear, of means operatable simultaneously with said mechanism and governed by the load on said gear for maintaining the speed of the driven member thereof at the maximum speed at which it can drive the load without requiring more than a predetermined power.

[Claims 6 to 9 not printed in the Gazette.]

1,244,879. CABINET. MILFORD B. MARTIN, Spokane, Wash. Filed Oct. 2, 1916. Serial No. 123,396. (Cl. 240—3.)



1. In a device of the class described, the combination with a structure and a track secured to the ceiling thereof; of a frame swivelly suspended from said track and movable on the latter, said frame being provided with a pair of depending shafts, the lower portions of same being threaded, a cabinet guided on said shafts, beveled pinions carried by the threaded portions of the shafts and means carried by the cabinet for engagement with said beveled pinions whereby to raise and lower said cabinet on the frame.

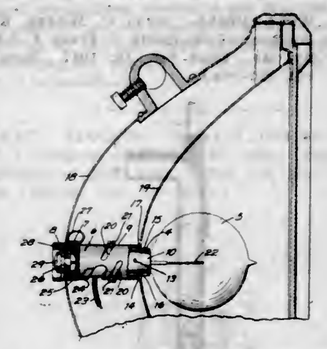
5. In a device of the class described, the combination of an overhead track, a frame suspended therefrom and adapted to travel thereon, said frame being revoluble on a vertical axis, and an illuminating cabinet supported by said frame, and vertically adjustable thereon.

[Claims 2 to 4 not printed in the Gazette.]

1,244,880. FOCUSING DEVICE FOR LAMPS. WILLIAM M. MATTEOLI, Covington, Ky. Filed Feb. 3, 1917. Serial No. 146,332. (Cl. 240—44.)

1. A focusing device for lamps having a body and a reflector mounted therein, consisting of a lamp connector reciprocally mounted in the reflector of the lamp, a sleeve located between the body and reflector of the lamp, rotatively mounted upon the connector and having means for reciprocating the connector when the sleeve is rotated.

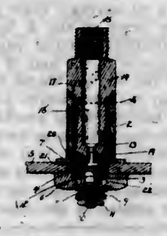
12. In combination, a lamp body, a lamp reflector mounted therein, a lug formed on the reflector, a lamp connector reciprocally mounted in the reflector and having a longitudinally extending slot for coöperating with the lug, and a sleeve located between the body and the reflector, rotatively mounted upon the connector and having



means for reciprocating the connector when the sleeve is rotated.

[Claims 2 to 11 not printed in the Gazette.]

1,244,881. SCREW-SEATED VALVE. JOHN MENZIES, New Haven, Conn. Filed Apr. 30, 1917. Serial No. 165,371. (Cl. 152—12.)



1. In a screw-seated valve in which the valve proper is brought to a solid bearing upon its seat in a direction corresponding to the direction of the pressure, the combination with an internally threaded valve-body formed at its outer end with a sealing-seat and at its inner end with an air-passage terminating in a valve-seat; of an externally threaded valve-plug adapted to be inserted into the said valve-body through the outer end thereof and to extend at its inner end through the said air-passage, provided at its outer end with a sealing-face co-acting with the said sealing-seat and formed at its inner end with ducts intersecting the said air-passage, and a valve larger in diameter than the said air-passage applied to the inner end of the valve plug after the same has been located in the valve-body, whereby when the valve plug is turned in one direction the valve is brought to a solid bearing upon the said valve-seat, and the said sealing-face moved away from the said sealing-seat, and vice versa.

2. In a screw-seated valve in which the valve proper is brought to a solid bearing upon the valve-seat in a direction corresponding to the direction of the pressure, the combination with an internally threaded valve-body formed at its outer end with a sealing-seat, and at its inner end with an air-passage terminating in a valve-seat; of an externally threaded valve-plug adapted to be entered into the said valve-body from the outer end thereof, and provided at its outer end with a sealing-face co-acting with the said sealing-seat and formed at its inner end with a reduced shank provided with ducts intersecting the said air-passage and terminating in a threaded stem, and a valve larger in diameter than the said air-passage adapted to be applied to the said threaded stem for co-action with the said valve-seat after the valve-plug has been positioned within the valve-body, whereby when the plug is turned in one direction the valve is brought to a

solid bearing upon the said valve-seat, and the said sealing-face moved away from the said sealing-seat, and vice versa.

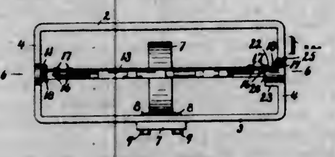
1,244,882. WELL-DRILL. ANNA C. MILLER, Kansas City, Mo., assignor of one-fourth to Frank J. Schadel, Kansas City, Mo. Filed Feb. 15, 1917. Serial No. 148,864. (Cl. 255—64.)



4. In a well drill, a bit having a lower portion S-shaped in cross section, the arms of the S being longitudinal blades having longitudinal cutting edges, the cutting edges being located nearer to the axis of the bit than the greatest diameter of the bit, the blades forming with the body two longitudinal channels which are open laterally their whole length, the bit being provided in its upper portion with a longitudinal discharge hole having a downwardly flaring end which merges into one of said channels, the bit being provided in said hole with a valve seat, and an upwardly opening check valve in said seat.

[Claims 1 to 3 not printed in the Gazette.]

1,244,883. SIGNAL. HAROLD T. MURPHY, Springfield, Mass. Filed Apr. 25, 1917. Serial No. 164,384. (Cl. 116—31.)

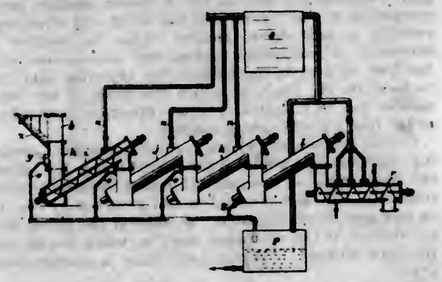


3. The combination, in a signal, with a supporting member, a frame connected with such member, and provided with fixed stops, and a longitudinally horizontal shutter mounted in said frame to oscillate between said stops, said shutter having a sign face, of a spring coiled about the axis of said shutter at one end and bearing against said frame and said shutter, said spring being adapted normally to retain said shutter in an approximately transverse horizontal position and in contact with one of said stops, and operating means having an axial connection with said shutter, and adapted to actuate the latter, against the resiliency of said spring, into an approximately transverse vertical position and into contact with the other of said stops.

[Claims 1 and 2 not printed in the Gazette.]

1,244,884. PROCESS OF RECOVERING LIQUIDS USED FOR SEPARATING SOLIDS OF DIFFERENT SPECIFIC GRAVITIES. ADRIAAN NAGELVOORT, New York, N. Y., assignor, by mesne assignments, to Virginia Haloid Company, Wilmington, Del. Filed June 16, 1916. Serial No. 103,987. (Cl. 23—13.)

1. The process of recovering, from separated solids of different specific gravities, the liquid separant having a specific gravity between the specific gravities of such solids, used to effect their separation, which comprises washing the separated solids in a solvent of the separant which has a substantially lower boiling point than the separant and at a temperature above the melting point of the separant and below the boiling point of the solvent, and then recovering the separant from the solution by evaporating the solvent.



2. The process of recovering, from separated solids of different specific gravities, the liquid separant having a specific gravity between the specific gravities of such solids, used to effect their separation, which comprises washing the separated solids in a solvent of the separant which does not chemically react therewith and which has a substantially lower boiling point than the separant and at a temperature above the melting point of the separant and below the boiling point of the solvent, and then recovering the separant from the solution by distilling off the solvent.

3. The process of recovering, from separated solids of different specific gravities, the liquid separant, having a specific gravity between the specific gravities of such solids, used to effect their separation, which comprises washing the separated solids in a solvent of the separant which has a substantially lower boiling point than the separant and at a temperature above the melting point of the separant and below the boiling point of the solvent, and then recovering the separant from the solution by distilling off the solvent and recovering the solvent from the washed solids by distillation.

4. The process of recovering, from separated solids of different specific gravities, the liquid separant used to effect their separation, which comprises washing the separated constituents in a solvent of the separant which solvent has a substantially lower boiling point than the separant and at a temperature below the boiling point of the solvent until the solids are freed of the adhering separant, then draining from the solids all the solvent except that which remains thereon by adhesion, and then subjecting both the washed and drained off liquid and the solvent-coated solids to a temperature above the boiling point of the solvent and condensing the solvent vapors, thus permitting the reuse of the recovered separant and the condensed solvent respectively in separating and recovering.

5. The process of recovering, from separated solids of different specific gravities, the liquid separant having a specific gravity between the specific gravities of such solids, used to effect their separation, which comprises washing the separated solids in a solvent of the separant which will not chemically react or combine therewith except to form the solution.

[Claims 6 to 8 not printed in the Gazette.]

1,244,885. PROCESS OF SEPARATING SOLIDS OF DIFFERENT SPECIFIC GRAVITIES. ADRIAAN NAGELVOORT, New York, N. Y., assignor, by mesne assignments, to Virginia Haloid Company, Wilmington, Del. Filed Sept. 1, 1916. Serial No. 118,013. (Cl. 83—85.)

1. In the separation of solids of different specific gravities, the process which consists in separating the solids in a solution of two liquids of different specific gravities but each of a specific gravity greater than that of water, washing the separated solids that are thus wet with the separant in a separate quantity of the lighter liquid to eliminate from the solids the heavier constituent of the separant, and then separating from the solution at least all the solvent in excess of that required to leave a solution having the desired specific gravity of the separant.

2. In the separation of solids of different specific gravities, the process which consists in separating the solids in a solution of two liquids of different specific gravities the lighter of which is of a specific gravity greater than that of water and has a substantially lower boiling point than the heavier, eliminating from the separated solids, thus wet with the separant, the heavier constituent of the separant by washing with a separate quantity of the lighter liquid, and distilling off from the solution at least so much of the lighter liquid as will leave a solution of the two liquids in the proportions required for use as a separant.

3. In the separation of solids of different specific gravities, the process which consists in separating the solids in a liquid separant composed of a solution of a relatively heavy salt in a solvent thereof, said solvent having a specific gravity greater than that of water, then driving off the separant adhering to the separated solids by subjecting them to the washing action of a separate quantity of said solvent, and then separating from the solution of washing liquid and heavy salt the quantity of the solvent required to leave a liquid having the characteristics of the original separant.

4. In the separation of solids of different specific gravities, the process which consists in separating the solids in a liquid separant composed of a solution of a salt in a solvent thereof of a specific gravity greater than that of water but of lower specific gravity, and having a substantially lower boiling point, than the salt, washing the solids that are thus wet with the separant in a separate quantity of the solvent, and then subjecting the solution of washing liquid and separant to heat to the extent required to drive off at least all the solvent in excess of that required to leave a separating solution of the desired specific gravity.

5. In the separation of solids of different specific gravities, the process which consists in separating the solids in a solution of a relatively heavy salt in carbon bisulfid, eliminating from the solids the heavy solution by washing with carbon bisulfid, and distilling off from the resultant solution at least the excess of carbon bisulfid required to provide a separant of the desired specific gravity.

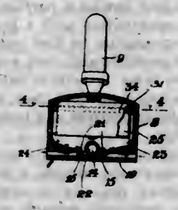
[Claims 6 to 13 not printed in the Gazette.]

1,244,886. PAMPHLET-COVER. WILLIAM A. NIVER, New York, N. Y. Filed Oct. 11, 1915. Serial No. 55,275. (Cl. 11—18.)



A book comprising a body portion formed of leaves connected together at the back or hinge edge of the book, and a continuous cover strip which surrounds the sides, front edge and back or hinge edge of said body portion, one end of said cover strip being lapped over and secured to the other end with the end of the outer overlapping portion terminating at one corner of the book, said cover strip being permanently secured to said body portion at the hinge edge of the latter and having formed in it two lines of indentations parallel to and disposed between the front edges of the book whereby front and back book covers projecting by the front edge of the book may be formed by removing the portion of the cover strip between the lines of indentations.

1,244,887. SAD-IRON. HENRY W. O'DOWD, Jersey City, N. J., assignor to William M. Crane Company, a Corporation of New York. Filed Oct. 18, 1913. Serial No. 795,824. (Cl. 158—28.1.)

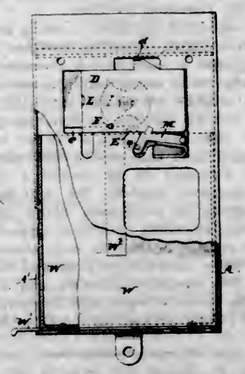


6. A sad iron including in combination, a hollow body, the base thereof having a tapering recess, extending longitudinally and midway therein, and a tapering burner arranged in said recess.

13. A sad iron including in combination, a hollow body, the base thereof having a recess therein, said recess having overhanging ledges, and burner arranged in said recess and spaced apart from said ledges and dividing said recess into chambers.

[Claims 1 to 5, 7 to 12, and 14 to 18 not printed in the Gazette.]

1.244,888. COIN-CONTROLLED VENDING-MACHINE. JAMES W. PATTERSON, Bronxville, N. Y., assignor to Autosales Gum and Chocolate Company, New York, N. Y., a Corporation of New York. Continuation in part of application Serial No. 235,994, filed Dec. 8, 1904, and division of application Serial No. 335,864, filed Sept. 24, 1906. This application filed Mar. 4, 1910. Serial No. 547,187. (Cl. 194—65.)



1. In a coin-controlled lock, a casing having a descending coin-passage open at the bottom, a slidable bolt extending into said passage to retain the deposited coin therein, after its action on the lock, means for mounting said bolt to operate in a plane substantially parallel with the plane of said coin-passage, means for normally locking said bolt in retaining position, and an actuating member for said bolt arranged to operate in a plane parallel with the plane of said bolt, in combination with a key adapted to be inserted into said casing in a plane

substantially parallel with the plane of said bolt and coin-passage to first move said locking means into releasing position and then operate said actuating member, whereby said bolt is withdrawn from the coin-passage to release the coin, said bolt being automatically restored into retaining position and said locking means into locking position upon withdrawal of said key.

2. In a coin-controlled lock, a flat casing having a coin-passage and a key-opening arranged in the plane of said casing, said coin-passage being open at the bottom and said key-opening extending inwardly from one of the side walls of said casing, a spring-pressed bolt extending normally into said coin-passage to retain the deposited coin therein after its action on the lock, means engaging said bolt to lock the same in retaining position, and an actuating member for said bolt having a portion extending into said key-opening, in combination with a key adapted to be inserted into said key-opening to first move said locking means into releasing position and then engage said member for actuating the same to retract said bolt, whereby the retained coin is released, said bolt being automatically restored to retaining position and locked therein upon withdrawal of said key.

3. In a coin-controlled lock having a substantially vertical coin-passage open at the bottom, a horizontally slidable member for holding the coin in said passage after its action on the lock, vertically movable tumblers adapted to lock said member in retaining position, a pivoted element for moving said member into releasing position when unlocked, said member, said tumblers and said element being mounted and arranged to operate in a plane substantially parallel with the plane of said coin-passage, in combination with a key for first moving said tumblers into unlocking position and then operating said pivoted element to shift said retaining member into releasing position, said key operating in a plane substantially parallel with the plane of said coin-passage.

4. In a coin-controlled lock, a casing provided with a coin-passage, a horizontally slidable bolt adapted to retain the coin in said passage after its action on the lock, said bolt being mounted to operate in the plane of said casing, a key-opening extending inwardly from one of the side walls of said casing and substantially parallel with said bolt, a key adapted to be inserted into said slot without being rotatable therein, means for normally locking said bolt in retaining position and adapted to be moved by the inserted key into unlocking position, and a member adapted to be engaged by the inserted key to actuate the unlocked bolt into releasing position.

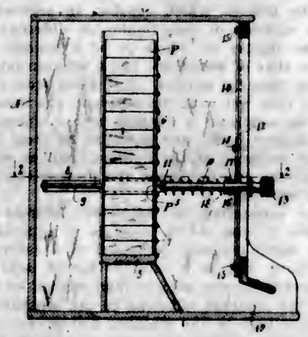
5. In a coin-controlled machine, a casing provided with a movable element which in normal position prevents delivery of the goods in said casing, movable mechanism having a part adapted to engage said element and hold the same locked, a movable device for normally locking said mechanism in locking position, a coin-engaging member associated with said mechanism, a second coin-engaging member associated with said device, said members being so spaced and arranged as to receive a coin between them and be separated thereby, the coin first engaging said second member to move said device into releasing position and then engaging said first named member to cause actuation of said mechanism into releasing position, and a hand-operable coin-carrier arranged to convey the deposited coin into operative position and discharge the same through the space between said members.

[Claims 6 to 25 not printed in the Gazette.]

1,244,889. DISPENSING-CABINET. JAMES W. PATTERSON, New York, N. Y. Filed Nov. 15, 1912. Serial No. 731,526. Renewed Mar. 31, 1917. Serial No. 159,001. (Cl. 211—8.)

1. In a dispensing cabinet, the combination of a magazine for holding the articles, and an ejecting member movable longitudinally of said magazine into alinement with the desired article, and also movable transversely of said magazine to push the selected article out of the magazine.

3. In a dispensing cabinet, the combination with a casing provided with a magazine for holding the articles in a vertical stack, of a selector arranged to be adjusted vertically for selecting any desired article for ejection and to be operated horizontally to eject the selected article, means for effecting said adjustment and operation by hand from the outside of the casing, and means for guiding said selector in its vertical and horizontal movements.



5. In a dispensing cabinet, the combination with a casing provided with a magazine for holding the articles in a vertical stack, of a selector arranged to be adjusted vertically for selecting any desired article for ejection and to be operated horizontally to eject the selected article, said selector having a loop portion surrounding said magazine and ejecting fingers extending forwardly from said portion to push the selected article out of the magazine, and means for effecting said adjustment and operation by hand from the outside of the casing.

6. In a dispensing cabinet, the combination with a casing provided with a magazine for holding the articles in a vertical stack, of a selector arranged to be adjusted vertically for selecting any desired article for ejection and to be operated horizontally to eject the selected article, said selector having a loop portion surrounding said magazine, ejecting fingers extending forwardly from said portion to push the selected article out of the magazine, means for effecting said adjustment and operation by hand from the outside of the casing, and means for guiding said selector in its vertical and horizontal movements.

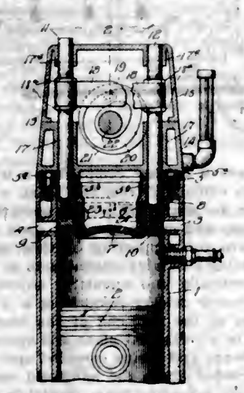
8. In a dispensing cabinet, the combination with a casing provided with a magazine for holding the articles, of a selector adapted to be manually adjusted and operated from the outside of the casing to eject any desired article from said magazine, said selector comprising a loop portion surrounding said magazine and provided with ejecting fingers, a rod extending from said loop portion to the outside for manipulation by hand, a flanged sleeve on said rod, and a pair of stationary guides in the casing for receiving the flanges of said sleeve and thereby guiding said selector in its movement.

[Claims 2, 4, 7, 9, and 10 not printed in the Gazette.]

1,244,890. INTERNAL-COMBUSTION ENGINE. LOUIS PLEIN, Chicago, Ill. Filed Apr. 2, 1914. Serial No. 828,983. (Cl. 123—75.)

2. In an internal-combustion engine, a cylinder, a hollow water-cooled cylinder head secured to the cylinder, said head providing a valve-receiving space between the head and the cylinder, valve members in said space, an oil casing secured to the end of the cylinder and forming a cover for the water space of the cylinder head, valve stems secured to the valve members and extending through openings in the cylinder head and into said casing, and means in said casing to operate the valve stems.

3. In an internal-combustion engine, a cylinder, a head secured to the end of the cylinder, said head providing a valve-receiving space between the head and the cylinder wall, two casing sections secured to the end of the cylinder, one of the casing sections being superposed upon the other casing section, valve members in said valve-receiving space, stems secured to said valve members and extending through openings in the cylinder head, the lower casing section having tubular guides for said valve stems, a cam shaft in said casing, said casing having bearings for said shaft, cams on said cam shaft, and members carried by said valve stems for engagement by said cams.



7. An internal-combustion engine having, in combination, a cylinder, a head closing the combustion end of the cylinder and having a cylindrical portion extending into the cylinder, the cylinder wall and said cylindrical portion forming between them an annular space of substantial width, the cylinder having an inlet and an outlet in opposite sides thereof communicating directly with said annular space above the lower end of said cylindrical portion, two independently-slidable valve members, each in the form of a half-ring having their ends abutting to form a complete ring which has a gas-tight fit between the walls of said annular space whereby leakage of gas along the valve members is prevented and only the lower edges of the valve members are exposed to the pressure in the combustion end of the cylinder, said valve members being arranged to control said inlet and said outlet, respectively, and means for operating said valve members.

8. An internal combustion engine having, in combination, a cylinder, a head closing the upper end of the cylinder and having a cylindrical portion extending into the cylinder, the cylindrical portion of the head together with the wall of the cylinder being spaced apart to form an annular valve casing of substantial width whose upper end is closed by the cylinder head and whose lower end opens into the cylinder, said valve casing having an inlet and an outlet opening in its opposite sides, said openings being located in the same lateral plane above the lower end of the cylinder head, two independently slidable imperforate valve members adapted to form a complete ring having a gas-tight fit with the sides of the valve casing and adapted to operate wholly within the valve casing, means for cooling the sides of the valve casing, and means for operating the valve members to alternately open and close the inlet and outlet openings in the valve casing.

[Claims 1 and 4 to 6 not printed in the Gazette.]

1,244,891. MEANS FOR APPLYING STITCH-RECEIVING RIBS TO INNERSOLES. JESSE V. POOLE, Abington, Mass., assignor of one-half to Lloyd L. Livingston, Abington, Mass. Filed Apr. 5, 1916. Serial No. 89,083. (Cl. 270—87.)

1. An apparatus for folding a strip for an inner sole having an upstanding rib comprising a folding device having a channel, and a folding rib extending longitudinally of said channel, said folding device having bending elements at each side of said channel, said rib and bending elements being constructed and arranged to form a longitudinal central fold in a strip or tape and outwardly bent flanges, and the folding device having a surface to support such flanges and an innersole body laid against the flanges, and a presser arranged to exert force toward said supporting surfaces against such body.



2. An apparatus for folding a strip for innersoles of the character described comprising a folding device having a channel through which a strip or tape may be drawn longitudinally, a cover secured to said device overlying said channel and having a longitudinally arranged rib projecting into said channel, bending elements at each side of the channel for indenting the strip at each side of the folding rib.

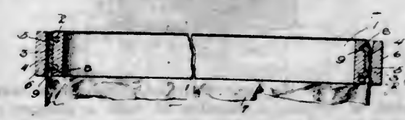
3. A machine for forming and applying a stitch-receiving rib to an innersole body, comprising a folder having a channel through which a strip or tape may be caused to travel, said channel being gradually narrowed toward the end from which the strip emerges, and a fold forming rib extending into the central part of said channel to cooperate with the walls thereof in forming a central fold in the strip and outwardly bent flanges, and means constructed and arranged to press the flanges of the folded strip and an innersole body placed thereon toward one another.

4. A machine for forming and applying a stitch-receiving rib to an innersole body, comprising a folder having a channel through which a strip or tape may be caused to travel, said channel being gradually narrowed toward the end from which the strip emerges, and a fold forming rib extending into the central part of said channel to cooperate with the walls thereof in forming a central fold in the strip and outwardly bent flanges, and means constructed and arranged to press the flanges of the folded strip and an inner sole body placed thereon toward one another.

5. A folding means comprising a folder having a channel wide at one end and narrow at the other end, the bottom of the channel having ledges which merge gradually into distinct shoulders at each side which form the boundaries of the narrow end of the channel, and a fold-maintaining element projecting between said ledges toward the bottom of the channel but out of contact therewith.

[Claims 6 and 7 not printed in the Gazette.]

1,244,892. EMBROIDERY-HOOP. FREDERICK W. PREYER, Canton, Ohio, assignor to The Gibbs Manufacturing Company, Canton, Ohio, a Corporation of Ohio. Filed Mar. 22, 1916. Serial No. 85,943. (Cl. 45—24.)



An embroidery hoop comprising two rings one adapted to telescope within the other, one of the rings having U-shaped annular grooves countersunk in its holding face adjacent to the edges thereof, the depth of said grooves being deflected inward from the face of the ring, and a resilient frictional band attached to the same face of the ring between the grooves and having its edged portions inserted in the grooves and overlapped by the rim portions of the ring.

1,244,893. AUTOMOBILE-LOCK. GEORGE B. REED, Philadelphia, Pa. Filed Mar. 9, 1917. Serial No. 153,703. (Cl. 70—90.)

1. In a lock attachment for relatively movable elements, one of which is tubular and the other of which is designed for movement in said tubular element, an opening

in said tubular element, a body portion secured to said tubular element at said opening, a recess in the outer end of said body portion, a lock fitting said recess and longitudinally movable therein, a longitudinal opening in said body portion eccentric with said recess in the outer end of said body portion, a bolt movable longitudinally in said longitudinal opening and rotatably connected with said lock and adapted to engage the inner relatively movable element which it is desired to lock.



2. In a lock attachment for relatively movable elements, one of which is tubular and the other of which is designed for movement in said tubular element, an opening in said tubular element, a body portion attached to said tubular element at said opening, a bolt movable in said body portion and adapted to engage the inner relatively movable element which it is desired to lock, a recess in the outer end of said body portion, a lock in said recess, said bolt entering said lock and being held rotatably therein, a lug on said bolt engaging in a channel in said body portion, and a spring exerting a force outwardly upon said lock and a torque upon said bolt.

5. In a locking attachment for automobiles and the like, the combination with a tubular member, of a second member within said tubular member and movable with respect thereto, said members spaced from each other, and means for locking said members against relative movement comprising a body member extending through an opening in said tubular member to the exterior thereof, a flange integral with said body member disposed in the space between said first named members, means securing said flange to said tubular member independently of that part of said body member projecting outside of said tubular member, a bolt rotatable and movable longitudinally within said body member, and a key controlled lock controlling said bolt, said bolt and said lock housed within said body member.

[Claims 3, 4, and 6 not printed in the Gazette.]

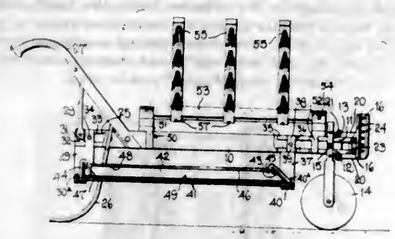
1,244,894. FOUNTAIN SHAVING-BRUSH. SIDNEY W. B. RENOUF, Portsmouth, England. Filed July 11, 1916. Serial No. 108,743. (Cl. 15—50.)



1. A device of the class described embodying a casing adapted to contain a quantity of fluid, a plunger rod mounted in said casing for sliding movement having an exteriorly threaded portion, a nozzle formed at one end of the rod and having a feed passage, a brush head, a clamp for securing the brush head to said nozzle, and a plunger mounted on the threaded portion of the plunger rod and frictionally engaging with the inner circumference of the casing and operable upon rotation of the casing to discharge the fluid therein through the feed passage of the nozzle and into the brush head.

2. A device of the character set forth, comprising a casing adapted to contain a quantity of liquid, a brush slidably mounted within said casing, a plunger rod connected with the brush and provided with an inlet passage, a boss threadedly connected on said plunger rod at the inner end of said rod and at a point rearwardly of the inlet opening, a plunger connected on said boss, and a locking washer threadedly mounted on said boss.

1,244,895. BOLL-WEEVIL CATCHER. JOB RICHARDS, Timpson, Tex. Filed Jan. 29, 1917. Serial No. 145,220. (Cl. 43—1.)



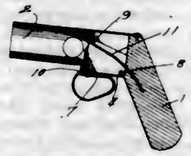
1. A boll weevil catcher comprising a wheel-supported beam, handles extending from the beam, a trapping pan disposed in a horizontal plane and operatively mounted upon the beam, and means mounted upon the beam and parallel thereto for supporting brushes above the pan, said means being rotatably shiftable in a vertical plane to thereby vertically and angularly adjust the brushes.

2. A boll weevil catcher comprising a wheel-supported beam, handles at the rear end of the beam, a trapping pan disposed in a horizontal plane and operatively mounted upon the beam, and means mounted upon the beam for supporting brushes above the pan, said means including a longitudinally extending beam rotatably mounted upon the main beam and having radially projecting bars, the bars being perforated to receive brushes, and means for holding the rotatable beam in any angularly adjusted position.

5. In a boll weevil catcher, a supporting member, forward and rear transversely extending bars having upwardly extending flanges, a pan disposed upon these bars and between said flanges, and means holding the pan to said bars, the forward end of the pan being upwardly and rearwardly inclined and the forward outer corner of the pan being rounded.

[Claims 3, 4, and 6 not printed in the Gazette.]

1,244,896. GUN. OTTO F. RICHTER, Indianapolis, Ind. Filed Apr. 25, 1917. Serial No. 164,478. (Cl. 124—12.)



1. A toy gun, comprising in combination, a stock and barrel structure, a trigger body mounted in said structure, and a leaf spring connected to said trigger body, said spring being shaped to grip a marble to hold the device in loaded condition and to be bent behind the marble when the trigger body is actuated to discharge the former.

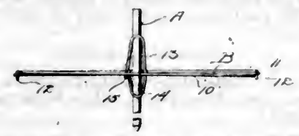
3. In a toy gun, the combination with a barrel structure and a trigger body of a leaf spring projected into the barrel and lying at an angle to the latter to grip a marble dropped into the barrel and to be flexed behind the marble to project the latter.

5. In a toy gun, the combination of a stock, a barrel structure carried by the stock and formed from a single blank, a trigger body mounted in the barrel structure and also formed from a single blank, and a discharging spring interposed between the barrel structure and trigger body.

[Claims 2 and 4 not printed in the Gazette.]

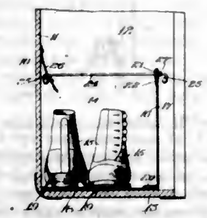
1,244,897. PLANT-SUPPORT. WALTER D. ROBINSON, Mamaroneck, N. Y. Filed Feb. 27, 1917. Serial No. 151,311. (Cl. 47—12.)

A plant support formed from a single length of wire and including a pair of semi-circular members connected by a central transverse bar, the ends of the bar being connected to the ends of the semi-circular members by means of eye portions, the remaining ends of the semi-circular members being formed with hook members for detachable



engagement in the eye portions, the intermediate portion of the bar being bent to form an upwardly extending stake gripping loop and a downwardly extending stake gripping loop, a portion of one of the loops being coiled around the adjacent portion of the bar.

1,244,898. POCKET FOR TRUNKS. HENRY F. RODEMERK, Rochester, N. Y., assignor to Henry Likly & Company, Rochester, N. Y., a Corporation of New York. Filed Mar. 30, 1916. Serial No. 87,812. (Cl. 190—13.)

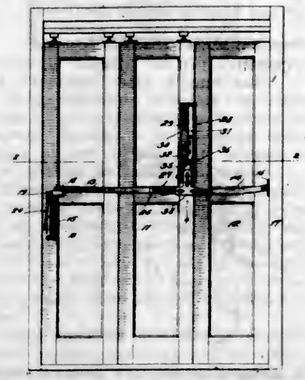


1. The combination with the walls of a trunk section, of a curtain coöperating with a plurality of the walls to form a pocket and guides at opposite sides of the section upon which the curtain is threadedly mounted.

4. The combination with the walls of a trunk section, of a curtain coöperating with said walls to form a pocket at one side of the section, said curtain being secured at its bottom to an end wall of the section, and supporting guides at the sides of the section extending transversely thereof upon which the top of said curtain is slidably mounted.

[Claims 2 and 3 not printed in the Gazette.]

1,244,899. ELEVATOR-SHAFT SLIDING-DOOR MECHANISM. ALFRED J. ROSENTRETER, Boonton, N. J., assignor to Edgar Zabriskie, Maplewood, N. J., and Frank E. Hutchins, New York, N. Y. Filed Jan. 13, 1916. Serial No. 71,851. (Cl. 268—8.)



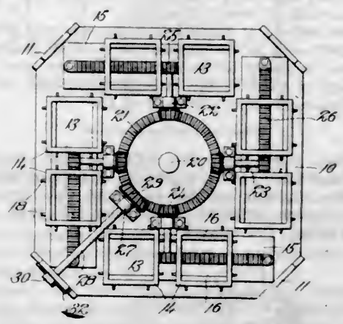
1. In combination, coöperating sliding doors, and means for the simultaneous opening and closing of said doors at a variable speed comprising toggle levers pivotally connected at one end to the outer sliding door and at the other end to a fixed part, and means movably engaging the inner of said levers with the inner door for moving the same therefrom during the movement of and at a slower speed than the outer door and said means comprising an arm on said inner lever and a slotted frame on said inner door engaging the outer end of said arm, and said arm having a grooved roller engaging said slot and said slot having at its lower portion an inclined section along which said roller moves at the early portion of the opening movement of said doors.

2. In combination, coöperating sliding doors, and means for the simultaneous opening and closing of said doors at a variable speed comprising toggle levers pivotally connected at one end to the outer sliding door and at the other end to a fixed part, and means movably engaging the inner of said levers with the inner door for moving the same therefrom during the movement of and at a slower speed than the outer door and said means comprising an arm on said inner lever and a slotted frame on said inner door engaging the outer end of said arm, and said arm having a grooved roller engaging said slot and said slot having a straight upper portion and an inclined portion and an opening to admit said roller to the slot.

5. In combination, a sliding elevator-shaft door to be opened from the car and having operating mechanism comprising toggle levers pivotally connected together and at one end pivotally connected to the sliding door and at the other end to an abutment, said toggle levers at their adjoining ends being detachably connected together, one of said levers having on the face of its end a headed stud and an auxiliary stud adjacent thereto, and the end of the other lever being formed with a curved outer edge, a slot in one side to pass upon the body of said headed stud and behind the head thereof and in its opposite side a slot to receive the said auxiliary stud when said levers move to horizontal position.

[Claims 3 and 4 not printed in the Gazette.]

1,244,900. BAG HOLDER AND FILLER. JAMES R. RUNIONS, Coal Harbor, N. D. Filed Dec. 27, 1916. Serial No. 139,207. (Cl. 83—26.)



1. A bag filling machine comprising in combination with a hopper having a plurality of outlet openings, a horizontal plate adapted for sliding movement for controlling either of two of said outlets, a rack carried by each of said plates, a circular rack, means for operating said circular rack, and means connecting said sliding plates with said circular rack to simultaneously slide said plates upon reciprocating the circular rack.

2. A bag filling machine comprising in combination with a hopper having a plurality of discharge openings arranged in pairs, a sliding plate adapted to alternately open and close the discharge openings in each pair, a rack carried by each sliding plate, a circular rack, means for reciprocating said circular rack, and means engaging the circular rack and the racks on the sliding plates to oper-

aje said sliding plates upon oscillation of the circular rack.

3. In a hopper having a plurality of discharge openings arranged in pairs, a sliding plate for alternately opening and closing the separate openings in each pair of discharge openings, and means operable in one direction to simultaneously operate said plates to open one of the discharge openings in each pair, and operable in the opposite direction to simultaneously operate said plates to close said opening, and open the other opening in each pair.

1,244,901. METHOD OF PRODUCING ACETALDEHYDE. EMIL FRIEDRICH SCHELLER, Lorsbach in the Taunus, Germany. Filed June 26, 1917. Serial No. 177,147. (Cl. 23—24.)

1. The manufacture of acetaldehyde from acetylene and steam by the aid of oxids or combinations of oxids at an elevated temperature consisting in removing the impurities from the acetylene, mixing the purified acetylene with steam and passing the mixture at an elevated temperature over the catalyst.

2. The manufacture of acetaldehyde from acetylene and steam by the aid of oxids or combinations of oxids at an elevated temperature consisting in purifying the acetylene from the phosphorous compounds accompanying same, mixing the purified acetylene with steam and passing the mixture at an elevated temperature over the catalyst.

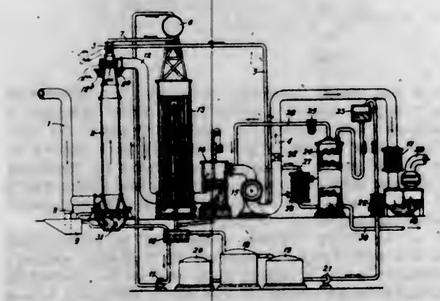
1,244,902. METHOD OF PRODUCING ACETALDEHYDE. EMIL FRIEDRICH SCHELLER, Lorsbach in the Taunus, Germany. Filed June 26, 1917. Serial No. 177,148. (Cl. 23—24.)

1. The method of regenerating the catalyst in the manufacture of acetaldehyde from acetylene, deprived of its catalytic poisons, and steam, consisting in treating the exhausted catalyst in the form of the oxid of a metal capable of combining directly with oxygen, at a high temperature with a current of gas containing oxygen.

2. The method of regenerating the catalyst in the manufacture of acetaldehyde from acetylene, deprived of its catalytic poisons, and steam, consisting in treating the exhausted catalyst in the form of the oxid of a metal, capable of combining directly with oxygen, at a high temperature with a current of air.

3. The method of regenerating the catalytic properties of molybdic acid for the manufacture of acetaldehyde from acetylene, deprived of its catalytic poisons, and steam, consisting in treating the exhausted molybdic acid at a high temperature with a current of air.

1,244,903. PROCESS OF EXTRACTING AMMONIA FROM AMMONIACAL LIQUOR. NICHOLAS SCHUSTER, London, England, assignor to British Coke Ovens Limited, London, England. Filed Mar. 15, 1915. Serial No. 14,584. (Cl. 203—1.)



3. A process for recovering ammonia from ammoniacal liquor obtained during the purification of coal gas and the like, consisting in passing said liquor through a still, leading off gas from the gas main, heating said gas in a superheater to a temperature between 212° F. and 750° F., forcing the heated gas through the still for stripping the ammonia from the liquor, returning the ammonia-laden gas to the gas main, and passing it together with the bulk of the gas to a saturater, substantially as and for the purpose set forth.

1,244,904. AUTOMOBILE-GARMENT. ADDIE G. SCOTT, Anamosa, Iowa. Filed Feb. 5, 1917. Serial No. 146,672. (Cl. 2—135.)



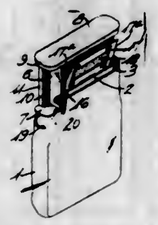
1. An automobile garment comprising a skirt, a rear flap on the inside of said skirt near the bottom thereof, a front flap on the inside of the skirt near the bottom thereof, and means for detachably securing the ends of said flaps together to form a loop between the legs of the wearer for elevating and supporting the wearer's dress.

2. An automobile garment comprising a skirt, a flap on the inside of the front of the skirt near the lower end thereof, a flap on the inside of the rear of the skirt near the bottom thereof, means for detachably securing the ends of the flaps together to form a loop between the legs of the wearer for supporting the wearer's dress above the bottom of the skirt, and straps inside the skirt near the bottom thereof secured to the skirt sides for receiving the wearer's legs to assist in holding up the wearer's dress.

4. An automobile garment comprising a skirt having front and rear panels, a flap at the lower end of the front panel and a flap at the lower end of the rear panel, means for detachably securing together the ends of said flaps to form a loop between the wearer's legs for supporting the wearer's dress above the lower end of the skirt, sections at the lower ends of the skirt sides, and straps for detachably connecting the edges of said sections to secure them to the wearer's legs, the lower end of said front panel being in the form of a flap adapted to be raised to permit ready access to the loop flaps and the straps.

[Claims 3, 5, and 6 not printed in the Gazette.]

1,244,905. SMOKER'S POUCH. HENRY H. SCOTT, New York, N. Y. Filed Sept. 2, 1916. Serial No. 118,176. (Cl. 206—38.)



1. A pouch having a receptacle, a sliding closure therefor adapted upon movement to one limit of its play to be tilted to open the receptacle, and receptacles arranged in said sliding closure and exposed and accessible upon a partial sliding of the closure.

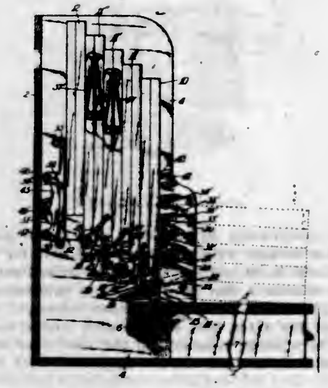
2. A smoker's pouch having a tobacco receptacle, a sliding closure therefor, said closure hinged to the receptacle and adapted when open to give free access thereto, receptacles in opposite sides of the closure exposed for use upon partial movement of the closure.

3. A smoker's pouch having a tobacco receptacle terminating in a casing, slide-ways arranged in said casing, a closure having interengaging parts sliding in the slide-ways, and receptacles arranged in opposite sides of the closure and accessible upon partial withdrawal of the closure.

4. A smoker's pouch having a tobacco receptacle terminating in a casing, slide-ways arranged in said casing, a closure having interengaging parts sliding in the slide-ways, a hinged connection therewith whereby said closure may be swung away from the receptacle to give free access thereto, and receptacles in opposite sides of said closure.

5. In a tobacco pouch, a tobacco receptacle, a casing member at the upper end thereof, a closure comprising a bottom plate and a top plate fitting the casing, said closure having a sliding engagement in the casing and having a hinged connection therewith whereby the closure may be slid outward whereby said closure may be swung to one side to uncover and give free access to the casing and pouch, and receptacles arranged in opposite sides of the closure for cigarette papers and matches.

1,244,906. FILING APPLIANCE. ELLIS T. SILVIUS, Indianapolis, Ind., assignor, by mesne assignments, to The McCaskey Register Company, (incorporated in 1914,) Alliance, Ohio, a Corporation of Ohio. Filed May 11, 1914. Serial No. 837,864. (Cl. 45—2.)



1. A filing appliance including two adjacent filing frames one of which is pivotally supported, a controlling lever movably pivoted to the pivotally supported frame and fixedly pivoted to the other of said frames, and means for guiding the controlling lever.

3. A filing appliance including a plurality of filing frames normally mounted uprightly in echelon, and a plurality of connecting devices carried by and each pivotally connected to one frame and having slotted pivotal connection with an adjacent one of the frames for permitting relative longitudinal movement of the frames as they are operated from upright to reclined position and vice versa.

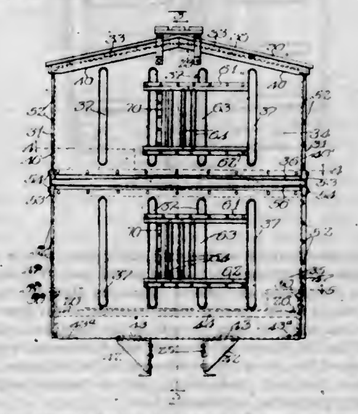
6. A filing appliance including a plurality of filing frames and means connecting and pivotally supporting the frames uprightly in echelon including devices each movably pivoted to one and fixedly pivoted to an adjacent one of the frames, permitting relative pivotal and also longitudinal movement of the frames as they are operated from upright to reclined position and vice versa.

19. In a filing appliance, the combination of a plurality of filing frames, one of the frames having two pivot studs thereon, the adjacent one of the frames being provided with a pivot, a connecting device connected to the pivot and having two pivot seats adapted to have pivotal contact with the pivot studs respectively, means between the pivot studs and the pivot of the adjacent frame for movably connecting the device to the first described one of the frames and permitting the contact of the pivot seats separately with the pivot studs and means for guiding the devices from one pivotal stud to the other.

20. In a filing appliance, the combination of a plurality of filing frames, one of the frames having a guide stud and also two pivot devices thereon, a connecting device pivoted to the adjacent frame and having a slot therein comprising two diverging branches, the slot receiving the guide stud and movably connecting the connecting device to the frame, the connecting device being adapted to have pivotal contact with either one of the two pivot devices and means for guiding the connecting devices from one pivotal stud to the other.

[Claims 2, 4, 5, and 7 to 18 not printed in the Gazette.]

1,244,907. METAL END FOR RAILWAY-CARS. VINTON E. SIASON, Chicago, Ill., assignor to Walter P. Murphy, Chicago, Ill. Filed Dec. 11, 1911. Serial No. 665,098. (Cl. 105—192.)



1. A metal end structure for railway cars comprising metal end sheets and a reinforcing and connecting band to which the end sheets are secured, and means for anchoring the opposite ends of said band to longitudinally extending members of the car frame, said end sheets being formed with corrugations disposed transversely to the reinforcing band.

2. A metal end structure for railway cars comprising metal end sheets and a reinforcing or connecting band to which the end sheets are secured, and means for anchoring the opposite ends of said band to longitudinally extending members of the car frame; said band being formed with a rigidifying member running lengthwise thereof and the sheets with corrugations transverse thereto.

3. A metal end structure for railway cars comprising metal end sheets arranged one above the other and extending from side to side of the car, a reinforcing and connecting band to which the end sheets are secured, and means for anchoring the opposite ends of said band to the car frame, said band being formed with a horizontal corrugation and said end sheets with vertical corrugations.

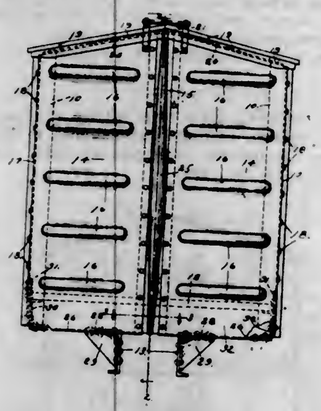
4. A metal end structure for railway cars comprising metal end sheets arranged one above the other and extending from side to side of the car, a metal end girth having a

longitudinal rib, the edges of the end sheets being secured to said girth on opposite sides of said rib, and means for anchoring the opposite extremities of the end girth to the side girths of the car.

5. A metal end structure for railway cars comprising metal end sheets formed with vertical corrugations, arranged one above the other and extending from side to side of the car, a metal end girth having a longitudinal rib the edges of the end sheets being secured to said band on opposite sides of said rib and means for anchoring the opposite extremities of the end girth to the side girths of the car.

[Claims 6 to 44 not printed in the Gazette.]

1,244,908. METAL END STRUCTURE FOR RAILWAY-CARS. VINTON E. SISSON, Chicago, Ill., assignor to Walter P. Murphy, Chicago, Ill. Continuation in part of application Serial No. 665,098, filed Dec. 11, 1911. This application filed Mar. 13, 1916. Serial No. 83,826. (Cl. 105—192.)



1. The combination with a box car, comprising a ridge pole and an underframe, of a sheet metal end structure for the same comprising end sheets extending from top to bottom of the car and formed with horizontal corrugations, and a connecting member to which the adjacent vertical edges of the end sheets are secured which extends from the ridge pole of the car to the underframe, is connected with said ridge pole and underframe, and is formed with an outwardly projecting reinforcing rib.

2. An end structure for railway box cars, comprising two metal end sheets and a pressed steel connecting and roof-supporting member extending centrally of the end structure from the top of the car to the bottom and formed with a hollow reinforcing rib and with flanges to which the vertical edges of the end sheets are secured, said rib being widest and deepest at the center and tapered down toward each end.

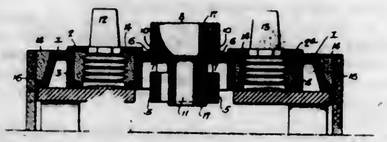
3. An end structure for freight cars, comprising two metal end sheets formed with horizontal corrugations and a pressed steel connecting and reinforcing member extending centrally of the end structure from the top of the car to the bottom, and formed with a hollow reinforcing rib and with flanges to which the vertical edges of the end sheets are secured, said rib being widest and deepest at the center and tapered down toward each end.

4. A car end composed of sheet metal, the central portion of which is offset with respect to the side portions and said side portions each being provided with a vertically disposed row of horizontally arranged corrugations.

5. A car end comprising three vertically disposed panels, the outer ones of which are provided with horizontally disposed corrugations, and the central one of which sections or panels occupies a position in front of the plane occupied by said side panels.

[Claims 6 to 16 not printed in the Gazette.]

1,244,909. FILLING DEVICE FOR BATTERY-CELLS. JAMES M. SKINNER, Philadelphia, Pa., assignor to Philadelphia Storage Battery Company, Philadelphia, Pa., a corporation of Pennsylvania. Filed Oct. 10, 1916. Serial No. 124,908. (Cl. 204—53.)

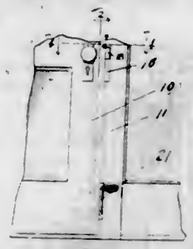


1. The combination of a cell having an air-tight cover provided with a vertically extending integral sleeve defining a filling opening; with a funnel shaped filling tube making a temporary but substantially air-tight joint with the upper part of said sleeve and projecting a definite distance into the latter in a position to limit the height to which liquid may rise in the cell, there being vent openings through the sleeve at substantially the highest point of the interior space of the cell.

2. A cover provided with a filling opening, and a tube removably mounted in said opening so as to make an air-tight joint with said cover, said tube extending a definite distance into the cell to which said cover is applied and being provided with an air venting passage independent of its main passage.

[Claims 3 and 4 not printed in the Gazette.]

1,244,910. DOOR-OPENER. DUNCAN W. SMITH, Imperial, Saskatchewan, Canada. Filed Apr. 10, 1917. Serial No. 161,088. (Cl. 70—118.)

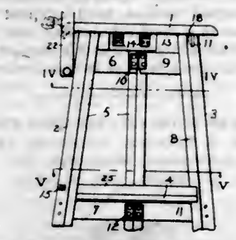


1. The combination with a door and frame having a strike plate formed with an open ended slot for the reception of the latch bolt of the door, of a resiliently held rotatable member, a foot lever carried by said member for rotating the same, a slidable member arranged to normally hold the latch bolt in said slot, and connections between the slidable member and the foot lever for moving said slidable member out of engagement with the said bolt.

2. The combination with a door and frame having a strike plate formed with an open ended slot for the reception of the latch bolt of the door, of a resiliently held rotatable drum mounted on the frame and provided with a foot lever arranged to be depressed to turn the drum, a member slidably carried by the strike plate and normally disposed in position to hold the latch bolt in the slot, a link connected to the said member and to the foot lever, and a resilient arm carried by the drum and arranged to press the door into open position when the slidable member is disengaged from the latch bolt.

1,244,911. FOLDING STOOL. EDWIN D. SMITH, Crafton, Pa. Filed Sept. 20, 1916. Serial No. 121,167. (Cl. 155—82.)

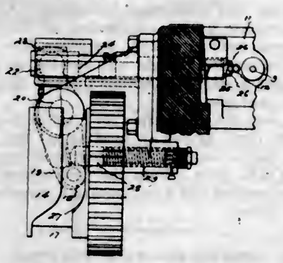
4. In a folding stool, chair, or the like, upright supports pivoted together so as to be folded, one on the other, a top adapted to be supported in a horizontal position by the supports when unfolded and hinged on one support so as to be folded in parallel relation to the folded supports, a locking device pivoted to one support and arranged to be folded in parallel relation thereto and to be moved to lock the supports in their unfolded position, a back adapted to be folded against one of the supports and to be raised to upright position above the top, and a hook carried by the top and engaging a portion of the back for locking the top in its upright position.



5. In a folding stool, chair, or the like, a top, upright supports pivoted together so as to be folded, one on the other and to be expanded to form a polygonal rest for the top, means for pivoting the top to one of the supports so that it may be folded parallel with the folded supports, and a polygonal locking piece having one portion pivoted to one support and another portion adapted to engage another support and lock the supports in their expanded positions.

[Claims 1 to 3 and 6 not printed in the Gazette.]

1,244,912. HEADING-MACHINE. HENRY L. SMITH, Waterbury, Conn., assignor to The E. J. Manville Machine Company, Waterbury, Conn., a Corporation of Connecticut. Filed Sept. 14, 1916. Serial No. 120,028. (Cl. 10—25.)



1. A cut off for a heading machine comprising a pinion on the crank-shaft, a gear engaged and driven by said pinion, a barrel cam connected with the gear, a rocker arm adapted to be oscillated by said cam in a plane longitudinal with relation to the axis of the cam, a shaft extending at right angles to the crank-shaft and adapted to be rotarily oscillated by said rocker arm, a lever on said rocker shaft, a slide adapted to be reciprocated parallel with the crank-shaft by the lever, and a knife mounted on said slide.

2. A cut-off for a heading machine comprising a pinion on the crank-shaft, a gear engaged and driven by said pinion, a barrel cam connected with said gear, a rocker arm adapted to be oscillated by the cam, a shaft adapted to be turned by said rocker arm, a lever on said shaft, a slide adapted to be reciprocated by the upper end of the lever, a knife mounted on said slide, and a spring plunger thrusting against the lower end of the lever, the cam groove being cut so that the knife slide is first pushed in positively by the cam and then its movement is completed by the thrust of the spring plunger.

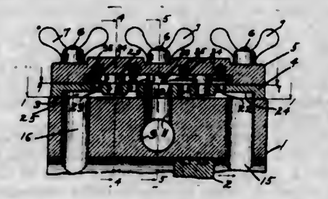
3. A cut off for a heading machine comprising a pinion on the crank-shaft, a gear engaged and driven by said pinion, a barrel cam connected with the gear, a rocker arm adapted to be oscillated by said cam in a plane longitudinal with relation to the axis of the cam, a shaft extending at right angles to the crank-shaft and adapted to be rotarily oscillated by said rocker arm, a lever on said rocker shaft, a slide adapted to be reciprocated parallel with the crank-shaft by the lever, a knife mounted on said slide, and spring holding fingers attached to the slide and having bent ends that project toward each other over the front edge of the knife.

4. A cut-off for a heading machine having a gear driven barrel cam, a rocker arm oscillated by said cam, a shaft turned by the rocker arm, a lever on the rocker shaft, a spring plunger thrusting against the lower end of the lever, a shoe carried by the upper end of the lever, a slide engaged by said shoe, and a knife mounted on the slide.

5. A cut off for a heading machine comprising a gear driven barrel cam, a shaft at right angles to the axis of said cam, a rocker arm attached to one end of said shaft and engaging said cam, a lever attached to the other end of said shaft, a shoe fitting the upper end of the lever, a slide with a recess containing the shoe, a knife attached to the slide, and spring fingers attached to the slide and projecting over the cutting edge of the knife.

[Claims 6 and 7 not printed in the Gazette.]

1,244,913. PUMP. KARL D. SMITH, Battle Creek, Mich., assignor to Union Steam Pump Company, Battle Creek, Mich. Filed Nov. 27, 1916. Serial No. 133,619. (Cl. 103—76.)



1. In a pump, the combination of a cylinder having a flat face at one side, and inlet and outlet ports opening in said face, said cylinder being also provided with inlet and outlet passages opening in said face, a valve plate having bores therethrough registering with said outlet passage and said inlet ports, and recess-like discharge passages in its inner face registering with said cylinder discharge ports, and inlet and discharge valve ports disposed in circular groups and opening into said cylinder inlet passage and said discharge passages respectively, the outer face of said plate constituting valve seats, annular disk valves arranged to seat on said valve plate to coact with said ports, valve guiding studs mounted on said plate centrally of said groups of ports, a cover plate having a recess-like discharge valve chamber in its inner face communicating with said outlet passage through said valve plate outlet passage bore and a pair of recess-like inlet valve chambers communicating with said cylinder inlet ports through said inlet passage bores thereof, and seating springs for said valves, said cover plate being provided with bore-like seats for said springs.

2. In a pump, the combination of a cylinder having a flat face at one side, and inlet and outlet ports opening in said face, said cylinder being also provided with inlet and outlet passages opening in said face, a valve plate having bores therethrough registering with said outlet passage and said inlet ports, and recess-like discharge passages in its inner face registering with said cylinder discharge ports, and inlet and discharge valve ports opening into said cylinder inlet passage and said discharge passages respectively, the outer face of said plate constituting valve seats, valves arranged to seat on said valve plate to coact with said ports, a cover plate having a recess-like discharge valve chamber in its inner face communicating with said outlet passage through said valve plate outlet passage bore and a pair of recess-like valve chambers communicating with said cylinder inlet ports through said inlet passage bores thereof.

5. In a pump, the combination of a cylinder having cylinder inlet and discharge ports and inlet and discharge passages and a valve plate face into which said ports and passages open, a valve plate disposed on said face and having inlet and discharge valve ports and coacting with said valve plate face to provide communicating passages for said valve and cylinder ports between, a cover plate

disposed upon and coacting with said valve plate to provide valve chambers connecting said discharge valve ports with said discharge passages and inlet valve chambers connecting said inlet valve ports with said cylinder inlet ports, and valves arranged in said valve chambers to seat on said valve plate.

[Claims 3 and 4 not printed in the Gazette.]

1,244,914. SELF-OILING BEARING. ELMER D. SPICER, Wellsville, N. Y., assignor to Moore Steam Turbine Corporation, Wellsville, N. Y., a Corporation of New York. Filed Oct. 31, 1916. Serial No. 128,733. (Cl. 64—31.)



1. A self-oiling bearing comprising, in combination with the bearing block, a rotary shaft supported therein and an oil reservoir, a plurality of independent rings, each of which rings is substantially rectangular in cross section and loosely carried and rotated by said shaft and dipping into the oil in said reservoir, said rings being in superposed arrangement and in contact throughout their width above said shaft.

3. A self-oiling bearing comprising, in combination with the bearing block, a rotary shaft supported therein and an oil reservoir, a plurality of independent rings of different size, each of which rings is substantially rectangular in cross section and in superposed arrangement throughout their width and loosely carried and rotated by said shaft and dipping into the oil in said reservoir.

6. A self-oiling bearing comprising, in combination with the bearing block, a rotary shaft supported therein and an oil reservoir, a plurality of superposed independent substantially cylindrical bands of the same width carried and rotated by said shaft and dipping into the oil in said reservoir, said rings being in eccentric relation and contacting above said shaft and the inner ring having internal marginal flanges and the outer ring having external marginal flanges.

[Claims 2, 4, and 5 not printed in the Gazette.]

1,244,915. STAY-BOLT FOR BOILERS. BENJAMIN E. D. STAFFORD and ETHAN I. DODDS, Pittsburgh, Pa., assignors to Flannery Bolt Company, Pittsburgh, Pa. Filed Nov. 24, 1914. Serial No. 873,793. (Cl. 85—1.5.)



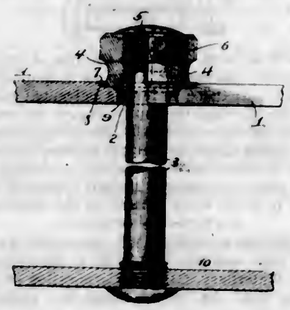
2. In stay bolt construction, the combination of a sleeve composed of two end sections and an intermediate spring section, and a stay bolt secured to the outer end section.

4. A flexible sleeve for stay bolts, comprising a body having one end externally threaded to secure it to a boiler wall, and provided with a head adapted to receive a wrench and having a threaded opening, and with a flexible web having a fold-like shape, adjacent the head.

5. A flexible sleeve for stay bolts, comprising a body having one end externally threaded to secure it to a boiler wall, and provided with a head adapted to receive a wrench and having a threaded opening, and said body provided intermediate of its ends with a flexible web.

[Claims 1 and 2 not printed in the Gazette.]

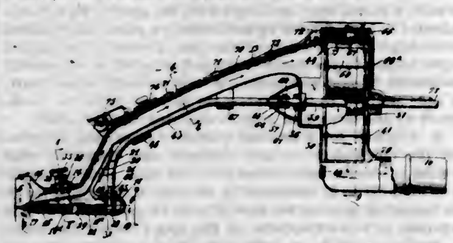
1,244,916. STAY-BOLT CONNECTION FOR BOILERS. BENJAMIN E. D. STAFFORD, Pittsburgh, Pa., assignor to Flannery Bolt Company, Pittsburgh, Pa. Filed Nov. 6, 1915. Serial No. 60,050. (Cl. 85—1.5.)



1. In stay bolt connection for boilers, the combination of a boiler plate having an opening for the passage of a bolt, a sleeve bearing against the outer face of said plate around the opening therein and secured to said plate by welding, and a stay bolt having a screw threaded connection with said sleeve.

2. In a stay bolt connection for a boiler, the combination of a boiler plate having an opening for the passage of a stay bolt, and a counterbore around said opening, a sleeve seated on said plate within the counterbore and secured therein by welding and a bolt having a threaded connection with the sleeve.

1,244,917. COMBINED HAIR-CLIPPER AND HAIR-BRUSH. MASAO TANAKA, New York, N. Y. Filed June 24, 1916. Serial No. 105,643. (Cl. 30—1.)

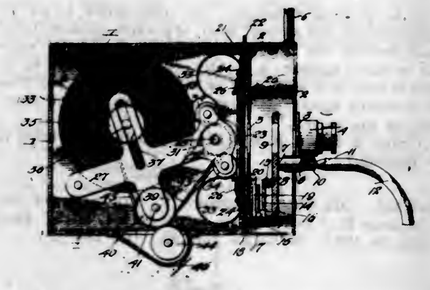


1. In a device of the character described the combination of a casing, a fan located within said casing, a shaft extending through said casing and supporting said fan, and a clipping device detachably connected to said casing, the connection between said casing and said clipping device comprising a pair of bolts mounted to swing upon the casing, a casing head carrying said clipping device and provided with slots through which said bolts may extend, wing nuts detachably fitting upon said bolts in order to hold said casing head upon said casing, and a flexible shaft connected to said clipping device for the purpose of actuating the same, said flexible shaft being detachably

connected to said first named shaft and driven by the rotation thereof.

2. In a device of the character described the combination of a casing provided with a bearing and with an opening located opposite said bearing, a fan located within said casing for impelling air currents therethrough, a revoluble shaft supporting said fan, said shaft engaging said bearing and extending through said casing so as to project out of said opening thereof, a casing head removably fitted upon said casing and serving to close said opening, a bearing carried by said casing head and adapted to engage said shaft when said casing head is in position upon said casing, fastenings for detachably holding said casing, a tubular member carried by said casing head for directing into said casing the air currents impelled by said fan, and means carried by said tubular member for introducing thereinto refuse materials capable of being wafted by said air currents.

1,244,918. REELING APPARATUS FOR MOVING-PICTURE CAMERAS. WILLIAM M. THOMAS, New York, N. Y., assignor to Thomas-Oberkirch Company, Limited, New York, N. Y., a Corporation of New York. Filed Dec. 28, 1914. Serial No. 879,342. (Cl. 242—55.)



1. A device of the character described comprising a magazine, a frame pivotally mounted therein, spools mounted in said frame, a supporting idler spool, a film mounted on said spools, a feeding roll, compensating rolls, a film mounted on said spools and engaging said rolls, and means permitting the unwinding and winding of said film on said spools within the same space displaced by the spool carrying the body of said film.

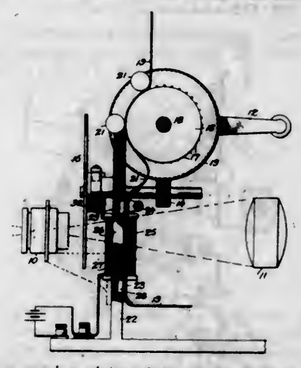
8. A device of the character described comprising a magazine, means pivotally mounted therein, film spools mounted upon said means, a supporting roll for said means, a film mounted upon said spools, a feeding roll for said film, and means for holding the said film in engagement with said feeding roll, said pivotal means permitting the winding and unwinding of said film upon said spools within substantially the same space as is displaced by the spool carrying practically the entire body of the film.

[Claims 2 to 7 not printed in the Gazette.]

1,244,919. INTERMITTENT MOTION FOR MOVING PICTURES. WILLIAM M. THOMAS, New York, N. Y., assignor, by mesne assignments, to Thomas-Oberkirch Company, Limited, New York, N. Y., a Corporation of New York. Filed Oct. 14, 1915. Serial No. 55,875. (Cl. 88—18.)

1. In a moving picture instrument an intermittent feed comprising, in combination, means to hold a portion of film stationary, devices for feeding another portion of film to form a loop and to store up energy capable of moving the stationary portion of the film, means for releasing the stationary portion of the film and permitting the stored up energy to move the portion of film that was held stationary.

5. In a moving picture instrument, in combination, means to continuously move one portion of the film, devices to intermittently hold another portion of the film stationary, means adapted to store up energy from the continuously moving portion of the film while the stationary portion of the film is inactive, and means to release the stationary portion of the film to permit the energy stored to feed the film a picture length distance.



12. In a moving picture instrument, a lens, holding devices to hold an effective portion of the film in the focus of said lens for a predetermined interval, in combination with mechanism to form a loop in the film, means to store latent energy in said loop, and releasing means to render said holding devices periodically ineffective to permit the latent energy to become potential energy adaptable for moving the film adjacent the focus of the lens.

[Claims 2 to 4, 6 to 11, and 13 not printed in the Gazette.]

1,244,920. METHOD OF FEEDING FILMS. WILLIAM M. THOMAS, New York, N. Y., assignor, by mesne assignments, to Thomas-Oberkirch Company, Limited, New York, N. Y., a Corporation of New York. Filed Nov. 18, 1915. Serial No. 62,171. (Cl. 88—18.)



2. The method of intermittently feeding picture strip film which consists in clamping the film at a given point to prevent movement of the film at that point, simultaneously forming a loop behind the clamped portion and unclamping the film to allow the loop to straighten and to advance the film forward a unit distance.

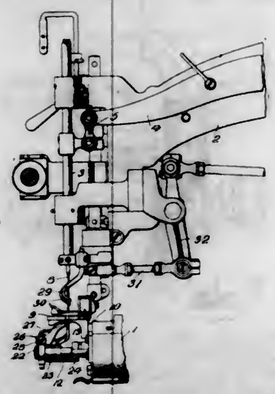
8. The method of intermittently feeding picture strip film which consists in storing up energy in the film by the springing or bending of the film, and then permitting said energy to advance the film a unit distance.

12. The method of intermittently feeding a portion of a film which consists in periodically holding a portion of the film stationary, then forcibly feeding an adjacent portion of the film in the direction of its length a distance sufficient to accumulate a surplus of film equal to the distance the film is to be fed forward; storing energy during the accumulation of the said surplus length of the film; and then releasing the portion held and permitting the stored energy to feed said held portion forward to take up the surplusage accumulated as specified.

13. The method of intermittently feeding a moving picture film which consists in holding a portion of the film stationary; forming a loop adjacent the stationary portion; storing up energy during the formation of said loop; then releasing the stationary portion and causing the energy stored to move the said stationary portion forward a predetermined distance.

[Claims 1, 3 to 7, and 9 to 11 not printed in the Gazette.]

1,244,921. LOOP-RETAINER FOR SEWING-MACHINES. REUBEN BALL THOMPSON, Cohoes, N. Y., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 25, 1914. Serial No. 858,427. (Cl. 112—5.)



1. In combination with a plurality of needles, a feeding mechanism, a looper, a looper carrier, means for oscillating said looper carrier, and means for moving said looper carrier endwise for giving a needle avoiding movement to the looper, of a loop retainer mounted on said looper carrier and coöperating with the looper for holding the needle loops in spaced relation so that the needles will properly pass said needle loops.

7. The combination with a plurality of needles, a looper coöperating with all of said needles, a looper carrier, means for oscillating said looper carrier for moving the looper into and out of the needle loops, and means for moving said looper carrier to give the looper a needle avoiding movement, of a loop retainer, means for supporting said loop retainer on the looper carrier so that the said loop retainer moves with the carrier in the lateral movement of the looper, means for holding said loop retainer from oscillating with the looper, said loop retainer extending above and over the looper for engaging a needle loop on the looper and positioning the same so as to insure the needle properly passing said needle loop, and a needle deflector mounted on said loop retainer carrier for engaging and alining the needles prior to the looper entering the needle loops.

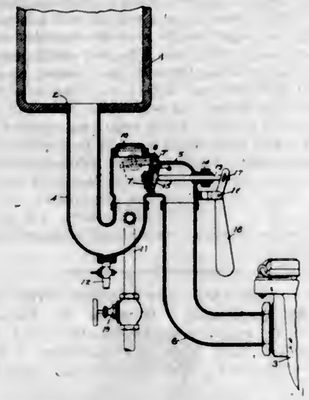
[Claims 2 to 6 not printed in the Gazette.]

1,244,922. FLUSHING APPARATUS AND VALVE MECHANISM THEREFOR. HARRY G. TRAVER, Ridgewood, N. J. Filed Mar. 17, 1917. Serial No. 155,382. (Cl. 4—5.)

1. In a flushing apparatus, the combination of an air tight reservoir; a valve chamber; a gravity seating valve opening into the valve chamber; manually operable means to unseat said valve; and a connection to the valve chamber from the reservoir leading into the valve chamber below the valve, substantially as and for the purpose specified.

3. In a flushing apparatus, the combination of an air tight reservoir; a valve chamber; a gravity seated valve in said chamber opening into the chamber; manually operable means to unseat said valve; and means to connect the valve chamber with the reservoir to lead the water upward into the valve chamber in a vertical direction.

7. In a flushing apparatus, the combination of an air tight water reservoir; a valve chamber having an outlet; a flap valve pivotally supported adjacent the top of the valve chamber, said valve opening into the valve chamber and coöperating with a valve seat at the outlet of the valve chamber; means manually operable from the exterior of the valve chamber to unseat the valve; and a water connection to the valve chamber from the reservoir leading into the valve chamber below the pivotal support of the valve, substantially as and for the purpose specified.



12. In flushing apparatus, the combination of an air tight reservoir and a closet bowl, of a valve chamber interposed between the reservoir and bowl; an annular valve seat in said chamber; a gravity seating flap valve to cooperate with said seat; and an inlet to the chamber from the reservoir transverse to the valve seat and the movement of the valve.

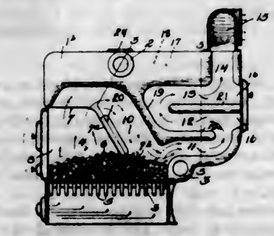
[Claims 2, 4 to 6, 9 to 11, and 13 to 15 not printed in the Gazette.]

1,244,923. OIL-CUP. MATTHEW C. VAN ALSTYNE and CHARLES H. VAN ALSTYNE, South Haven, Mich. Filed May 19, 1917. Serial No. 169,784. (Cl. 184—1.)



In an oiler for lubricating vehicle springs, an oil receptacle inclosed on all sides but having openings for the ingress and the egress of oil, lugs formed on said receptacle and extending upward from the ends thereof, a web placed in the receptacle and passing outward and downward through the openings for the egress of oil, said web having a central opening, sheet metal sides having flanges arranged to form receptacles for the ends of the web, the upper ends of the sides bent to form loops to receive the lugs on the top, and springs connected with the lower ends of the sides to draw them forcibly toward each other.

1,244,924. WATER-HEATER. ROBERT N. WAGENER, Canton, Ohio. Filed Feb. 23, 1916. Serial No. 79,882. (Cl. 122—223.)



1. A water heater including a series of hollow sections forming water chambers having the forward parts of the lower ends shaped to form a combustion chamber, and having their side walls offset inward to form combustion flues and mixing flues, with a hollow baffle in direct lateral communication with the water chambers intervening between and being entirely surrounded by the combustion chamber and said flues.

4. A water heater including a series of hollow sections forming water chambers having the forward parts of the lower ends shaped to form a combustion chamber, and having their side walls offset inward to form combustion flues, mixing flues, and smoke flues extending first forward, then rearward and then upward, with hollow baffles between said flues, and a hollow baffle on each section in direct lateral communication with the water-chambers intervening between and entirely surrounded by the combustion chamber, and the corresponding combustion and mixing flues.

5. A water heater including a series of hollow sections forming water chambers having the forward parts of the lower ends shaped to form a combustion chamber, and having their side walls offset inward to form combustion flues, mixing flues, and smoke flues extending first forward, then rearward and then upward, with hollow baffles between said flues, and a hollow baffle on each section in direct lateral communication with the water chambers intervening between and entirely surrounded by the combustion chamber, and the corresponding combustion and mixing flues, and a smoke manifold communicating with the several upward smoke flues.

[Claims 2 and 3 not printed in the Gazette.]

1,244,925. PUMP-COUPLING. JOHN WAHL, Brooklyn, N. Y., assignor to A. Schrader's Son, Inc., Brooklyn, N. Y., a Corporation of New York. Filed Nov. 19, 1915. Serial No. 62,294. (Cl. 137—28.)



1. A coupling for pumps or the like, having two coupling members facing in opposite directions, said members being adapted for connection with tire valves having different pump connecting portions, in combination with a nipple adapted for connection with either of said coupling members.

2. A coupling for pumps or the like, having two different threads, in combination with a reversible coupling device having two coupling members each adapted to be connected with one of said threads.

3. A coupling for pumps or the like, comprising a nipple having two different external threads, in combination with a coupling device having two coupling members formed with internal threads, each of said members being adapted to screw onto one of the threads of said nipple.

4. A coupling for pumps or the like, comprising a tube having different coupling members at opposite ends, in combination with a nipple adapted to engage both said coupling members.

5. A coupling for pumps or the like, comprising a tube having different coupling members at opposite ends, in combination with a nipple having two screw-threaded portions in axial alinement, the nipple being adapted to engage both of said coupling members.

1,244,926. ELECTRICAL DISTRIBUTER. CARL J. WALLACE, Springfield, Ohio. Filed July 31, 1915. Serial No. 42,989. (Cl. 171—97.)



1. In a system of distribution, an electrical device, a plurality of sources of electrical energy adapted to be connected one at a time to said device, a single means for disconnecting one of said sources from and connecting the other to said device, and a switch interposed between said device and both of said sources and movable to render both sources incapable of being connected to said device.

3. In a distributing system, a main switch, a plurality of circuits controlled by said main switch, and a pair of switches interposed in one of said circuits, one of the latter switches being independently controlled by hand and the other being mechanically operated by the movement of the main switch.

28. In a distributing system, a plurality of circuits, a main switch controlling all of the circuits, a single device for controlling a pair of said circuits and arranged so that the circuit of the pair will be open when the other is closed by said device, and an additional circuit breaker and closer in a third of said circuits.

31. In a controlling device for engine circuits, a starter circuit, an individual circuit breaker and closer therefor, a plurality of ignition circuits leading to separate sources of electrical energy, separate fixed contact members for said ignition circuits, a single movable contact member cooperating with both of said fixed contact members for said ignition circuits, a second circuit breaker and closer interposed between said movable member and the ignition devices and comprising a part carried by said movable member and a part movable into and out of engagement with said part carried by said movable member, a second circuit breaker and closer in said starter circuit comprising a pivoted member and a part actuated by said pivoted member for actuating the last-mentioned part of the second circuit breaker and closer for the ignition circuits.

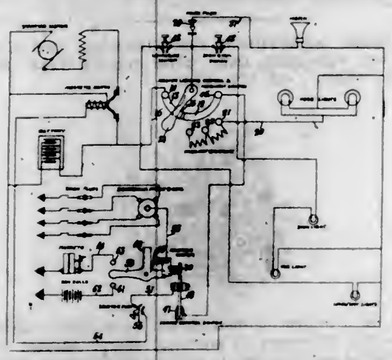
37. In a controlling device for engine circuits, a starter circuit, a circuit breaker and closer therefor, a plurality of ignition circuits leading to separate sources of electrical current, a circuit breaker and closer for said ignition circuits, second additional circuit breakers and closers for said starter circuit and said ignition circuits, and common means for operating said additional circuit breakers and closers.

[Claims 2, 4 to 27, 29, 30, and 32 to 36 not printed in the Gazette.]

1,244,927. DISTRIBUTER FOR AUTOMOBILE-CIRCUITS. CARL J. WALLACE, Springfield, Ohio. Filed July 31, 1915. Serial No. 42,990. (Cl. 171—97.)

3. In a system of distributers, a casing having a base, a plurality of circuits, circuit breakers and closers for said circuits, one of said circuit breakers and closers comprising a movable member pivotally mounted on said base and having a part arranged to actuate the other circuit breaker and closer, said base having an opening leading to a point adjacent the movable member, and an actuating device adapted to be inserted in said opening to actuate both of said circuit breakers and closers, and an additional circuit

breaker and closer in each circuit operable independently of the first-mentioned circuit breakers and closers.



4. In a controlling device, a plurality of sources of electrical energy provided with conductors having fixed contact members, an electrical device provided with a movable contact member, a lever provided with arms adapted to engage said movable contact member and to be moved into engagement with either of said fixed contact members, a circuit, a circuit breaker and closer for said circuit comprising a movable member, and means on said last-mentioned movable member in engagement with the first-mentioned movable member, whereby they are simultaneously controlled.

[Claims 1 and 2 not printed in the Gazette.]

1,244,928. INVALID'S CRUTCH. EDWARD WALTERS, Darlinghurst, near Sydney, New South Wales, Australia, assignor of one-fifth to Harold Shurland Randall and three-tenths to John Thomas Harrison, Sydney, Australia. Filed July 18, 1916. Serial No. 109,956. (Cl. 135—52.)

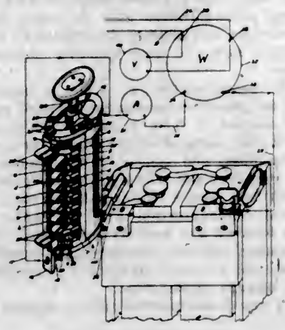


1. A walking crutch comprising a staff, an adjustable carrier plate fitted to the upper end of said staff, a shoulder piece pivoted at one end to the carrier plate, and a resilient member fitted to the carrier plate and supporting the shoulder piece.

2. A walking crutch comprising a staff, a carrier plate pivotally mounted on the upper end of the said staff, a series of holes in the carrier plate, a removable pin passing through the staff and through one or other of the holes in the carrier plate, a shoulder piece pivotally mounted at one end to the carrier plate, and a resilient member fitted to the carrier plate and supporting the shoulder piece.

3. A walking crutch comprising a staff, a carrier plate pivotally mounted on the upper end of the said staff, a series of holes in the lower part of the carrier plate, a removable pin passing through the staff and through one or other of the holes in the carrier plate, an upstanding portion on the carrier plate, a plate pivoted to the said upstanding portion, a shoulder piece fitted at one end to said plate, and a seat on said carrier plate, accommodating a resilient pad which supports the shoulder piece.

1,244,929. RHEOSTAT. HARRY W. WARD, Detroit, Mich. Filed Mar. 6, 1917. Serial No. 152,870. (Cl. 219—48.)



1. In a rheostat, in combination with a frame, a pair of oppositely disposed struts in said frame having a plurality of contact terminals, insulating means whereby one of said struts is isolated from the remaining parts of the frame, and a plurality of carbon disks and metallic disks alternatingly disposed within said frame, said metallic disks being adapted to be individually moved into position of engagement with the terminals of one or the other of said struts, thereby varying the electrical resistance to a current passing through said struts.

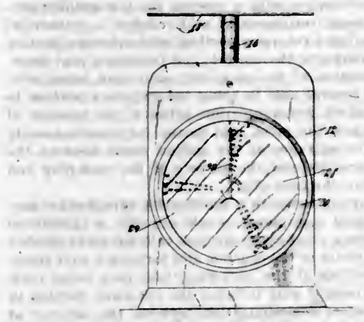
4. In a rheostat, in combination with a series of alternatingly arranged carbon disks and metallic disks, means for varying the degree of contact between their adjacent surfaces, and a pair of strut memebers, having a plurality of contact points adapted to be engaged by a complementary portion of each of said metallic disks when selectively rotated within their own planes.

7. A rheostat, having, in combination with a frame provided with circuit terminal connections and with a plurality of pairs of contact points normally insulated from one another, a series of alternatingly disposed disks of metal and of insulating material normally disposed in neutral position with respect to the contact points on either side, said metal disks being selectively adapted to be moved in their own planes about their common central axis into positions of engagement with one or the other of the contact points in the frame lying in the plane thereof, thereby varying the resistance to a current sought to be passed therethrough.

[Claims 2, 3, 5, and 6 not printed in the Gazette.]

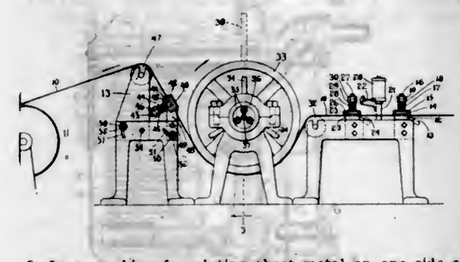
1,244,930. SCALE. HAROLD A. WEIR, Willis, Kans. Filed July 24, 1916. Serial No. 111,022. (Cl. 265—68.)

1. A scale comprising a housing, upper and lower brackets pivotally mounted in said housing, a forward standard provided with arms pivotally connected with the brackets and having a cross bar connecting the lower end portions of the arms, a rear standard provided at its lower end with a neck extending to the cross bar, an adjusting screw provided with a head having teeth, a latch engaging the teeth to releasably hold the adjusting screw in a set position, a spring connected with said adjusting screw and with the neck of the rear standard, a platform carried by said standards, a rotatably mounted shaft, a pointer carried by said shaft, a gear wheel carried by said shaft, and a rack bar connected with the forward standard and having its teeth engaging the teeth of said gear wheel whereby vertical movement of said standards will rotate said shaft.



2. A scale comprising a housing, upper and lower brackets pivotally mounted in said housing, a standard provided with arms pivotally connected with the brackets, a rod extending from the standard, an adjusting screw provided with a head having teeth, a latch engaging the teeth to releasably hold the adjusting screw in a set position, a spring connected with said adjusting screw and with the rod, a platform carried by the standard, a pointer, and means actuated from the standard for imparting movement to the pointer when the standard moves.

1,244,931. MACHINE FOR TINNING SHEET METAL AND WIRE. ALBERT H. WEHRLE, Derby, Conn., assignor to William A. Cook, New York, N. Y. Filed Mar. 17, 1914. Serial No. 825,284. (Cl. 91—12.1.)



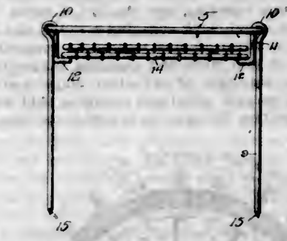
9. In a machine for plating sheet metal on one side a rotary depositing cylinder provided with a heater and arranged to receive the plating material, and mechanism for advancing the sheet under said cylinder.

12. A machine for applying a metallic coating to sheet metal, wire and the like, comprising a rotatable drum, means for heating the peripheral wall thereof, means for supplying metal in solid form to the heated peripheral wall of the drum at one point thereon, which metal when reduced forms a film of molten metal upon the drum, and means for carrying the parts to be coated into engagement with the drum at a point thereon removed from the point of supply of the solid material for the coating to the drum.

[Claims 1 to 8, 10, and 11 not printed in the Gazette.]

1,244,932. CAMP-GRATE. LEWIS A. WEYBURN, Chicago, Ill., assignor to The Collis Company, Clinton, Iowa, a Corporation of Iowa. Filed Mar. 27, 1917. Serial No. 157,658. (Cl. 126—30.)

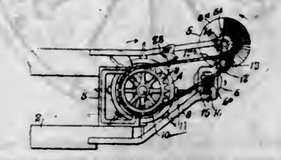
1. In a camp grate, the combination of a rectangular frame composed of connected side and end rails affording support for a grid surface, two pairs of legs each formed of a single piece of metal rod bent to provide two eyes at the upper end adapted to loop over one of the frame rails near its ends to provide a pivotal mounting, and below the rails being inwardly bent and extended from opposite



directions parallel to the rail to afford a shelf or support below the grid surface, substantially as described.

[Claims 2 to 4 not printed in the Gazette.]

1,244,933. WIDE-DELIVERY SPREADER. WILLIAM N. WHITELY, Springfield, Ohio. Filed Mar. 12, 1917. Serial No. 154,341. (Cl. 275—3.)



1. In a manure spreader, in combination with a spreader bed and an unloading beater at one end thereof, of a wide delivery beater adapted to receive the manure from said unloading beater and a drum adjacent to and underlying said wide delivery beater.

3. In a manure spreader, in combination with a spreader bed and an unloading beater at one end thereof, of a wide delivery beater adapted to receive the manure from said unloading beater, and a power driven revolving drum underlying and adjacent to said wide delivery beater.

4. In a manure spreader, in combination with a spreader bed, and an unloading beater at one end thereof, a wide delivery rotating beater adapted to receive the manure from said unloading beater, a rotating drum adapted to cooperate therewith and located intermediately of said unloading beater and said wide delivery beater whereby under impulse by said wide delivery beater the flow of the manure groundward is unimpeded.

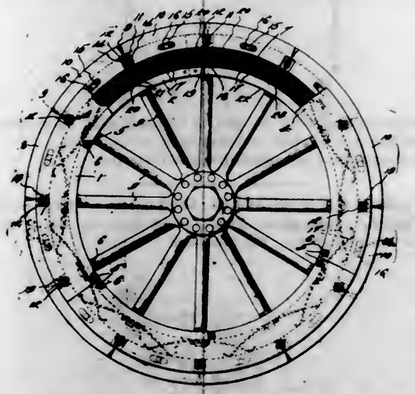
6. In a manure spreader, in combination with a spreader bed and an unloading beater at one end thereof, of an oppositely rotating wide delivery beater adapted to receive the manure from said unloading beater, means connected therewith whereby the manure is delivered groundward in a path of greater width than the wheel tread of said manure spreader and a rotating drum or feed roller underlying said wide delivery beater and adjacent thereto over the periphery of which the manure is fed in the act of delivery.

[Claims 2 and 5 not printed in the Gazette.]

1,244,934. RESILIENT WHEEL. WILLIAM H. WILKINS, Newark, N. J. Filed Apr. 24, 1917. Serial No. 164,191. (Cl. 152—8.)

1. In a device of the character described, the combination with a wheel having a channel formed about the circumference thereof, of a plurality of segments forming a plurality of rings engaging said channel, a series of bolts secured to said wheel, each engaging a radial slot formed in a segment of one of said rings, a series of pins secured on respective segments of one ring and engaging tangential slots formed in the segments of the other rings, and spring means secured on said wheel and engaging said segments to normally position the same in extended position.

2. In a device of the character described, the combination with a wheel having a channel formed about the circumference thereof, of a plurality of segments forming a plurality of rings engaging said channel, a series of bolts secured to said wheel, each engaging a radial slot formed in a segment, a series of pins secured on respective segments of one of said rings and engaging tangential slots formed in the segments of the other rings, and spring means secured on said wheel and engaging said segments to normally position the same in extended position.

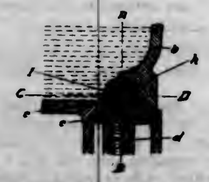


5. In a device of the character described, the combination with a wheel having a channel formed about the circumference thereof, of a plurality of segments forming a plurality of rings engaging said channel, a series of bolts secured to said wheel, each engaging a radial slot formed in a segment of one of said rings, a series of pins secured on respective segments of the same ring, each engaging tangential slots formed in the segments of the other rings, and a semi-elliptic spring for each segment having its center secured on said wheel in line with the center of its respective segment and having its ends engaging said respective segment at points adjacent the ends thereof.

6. In a device of the character described, the combination with a wheel having a channel formed about the circumference thereof, of a plurality of segments forming a plurality of rings engaging said channel, a series of bolts secured to said wheel and engaging radial slots formed in the segments of said rings, a series of pins secured on respective segments of one of said rings, each engaging tangential slots formed in the segments of the other rings, and a semi-elliptic spring for each segment having its center secured on said wheel in line with the center of its respective segment and having its ends engaging said respective segment at points adjacent the ends thereof.

[Claims 3 and 4 not printed in the Gazette.]

1,244,935. CRUCIBLE USED FOR TYPOGRAPHIC PURPOSES. CARL WINKLER, Berne, Switzerland. Filed Mar. 13, 1917. Serial No. 154,559. (Cl. 22—2.)



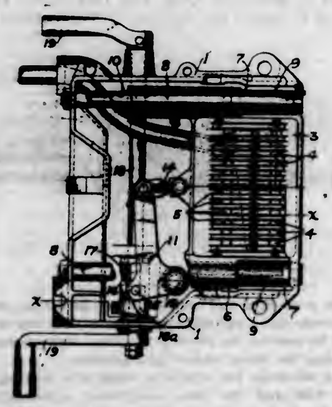
2. The combination with a crucible for typographic purposes, of a mold contiguous to said crucible, a cylindrical cock-plug having a cut-away portion, said cut-away portion facing the interior of the crucible and forming a part thereof in one position of the cock-plug, said plug being rotatable on the central axis to bring the cut-away portion in position to effect communication between the interior of the crucible and the mold.

3. The combination with a crucible for typographic purposes, of a mold contiguous to said crucible, a cylindrical cock-plug having a cut-away portion, said cut-away portion facing the interior of the crucible and forming a part thereof in one position of the cock-plug, said plug being rotatable on its central axis to bring the cut-away portion in position to effect communication between the interior of the crucible and the mold, and means for simultaneously preventing the entrance of the molten metal between the wall of the crucible and the surface of the cock-plug and for lubricating the cock-plug.

5. The combination with a crucible for typographic purposes, of a mold contiguous to said crucible, a cylindrical cock-plug having a cut-away portion, said cut-away portion facing the interior of the crucible and forming a part thereof in one position of the cock-plug, said plug being rotatable on its central axis to bring the cut-away portion in position to effect communication between the interior of the crucible and the mold, and means for simultaneously preventing the entrance of the molten metal between the wall of the crucible and the surface of the cock-plug and for lubricating the cock-plug, said last named means comprising a film of lubricating oil disposed around the surface of the cock-plug, and means for feeding the oil to the surface of the cock-plug in any position of the latter.

[Claims 1 and 4 not printed in the Gazette.]

1,244,936. ELECTRIC TRAIN-LINE COUPLING. HARRY F. WOERNLEY, Pittsburgh, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Oct. 8, 1915. Serial No. 54,914. (Cl. 173—332.)



1. In an electric train line coupling, the combination of a casing having fixed contacts connected to the respective train line circuits, a movable contact carrier having corresponding contacts and adapted to be projected to connect the corresponding contacts of two counterpart couplers, a manually operated cam, and a connection therefrom to the contact carrier.

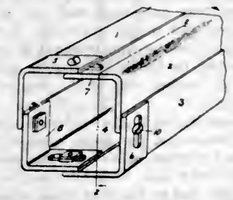
3. In an electric train line coupling, the combination of a casing having fixed contacts connected to the respective train line circuits, a movable contact carrier having corresponding contacts and adapted to be projected to connect the corresponding contacts of two counterpart couplers, a manually operated cam having a helical slot, and a lever engaging said slot and connected to said contact carrier.

7. In a combined car and electric coupling, the combination of fixed contacts connected to the respective train line circuits, a movable contact carrier having corresponding contacts for connecting the same with the contacts of a counterpart coupler, a manually actuated device for projecting the carrier, a coupler lock, and an interlocking mechanism for preventing the release of the coupler lock while the contact carrier is projected.

10. In a combined car and electric coupling, the combination of fixed contacts connected to the respective train line circuits, a movable contact carrier having corresponding contacts, means for projecting the carrier to establish electrical connection between the corresponding contacts of counterpart couplers, a coupler lock, and interlocking mechanism operated by the outward movement of the contact carrier for locking the coupler lock.

[Claims 2, 4 to 6, 8, and 9 not printed in the Gazette.]

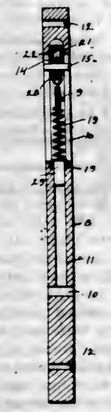
1,244,937. REINFORCED CORE FOR CEMENT-BLOCK MOLDS. FRANK ZAGELMEYER, Bay City, Mich. Filed Mar. 10, 1917. Serial No. 153,847. (Cl. 25—128.)



1. In a collapsible sheet metal core for use in multiple concrete molds, a reinforcement for the ends of the members of said core, comprising a reinforcing strip formed by folding outwardly upon themselves the ends of diagonally opposite core members, and by folding inwardly upon themselves the ends of the remaining core members, for the purposes set forth.

[Claim 2 not printed in the Gazette.]

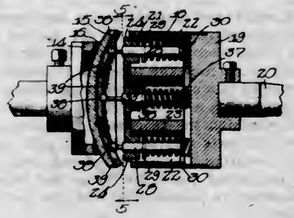
1,244,938. BURGLAR-ALARM. JOSEPH S. ALDERMAN, Ennis, Tex. Filed Mar. 8, 1916. Serial No. 82,875. (Cl. 116—42.)



1. A burglar alarm including a base having a relatively wide longitudinal slot, a bore communicating with the lower end of the slot, and a transverse opening therethrough communicating with the lower end of the bore and constituting an outlet for the latter, a firing element slidably mounted in the relatively wide slot and projecting laterally of the base, the walls of the slot having relatively narrow slots therein, a guide pin projecting laterally of the opposed sides of the firing element and slidably received in the relatively narrow slots, a firing pin carried by the firing element, a cartridge holder in the upper end of the bore, springs arranged on opposite sides of the base and connecting the opposite ends of the firing element with the lower terminal of the base and normally tending to move said firing element to operative position, and a pivoted lever associated with said firing element for releasably retaining the latter in inoperative position.

2. A burglar alarm including a base having a relatively wide longitudinal slot, a bore communicating with the lower end of the slot, and a transverse opening therethrough communicating with the lower end of the bore and constituting an outlet therefor, a firing element slidably mounted in the relatively wide slot and projecting laterally of the base, the walls of the relatively wide slot being provided with relatively narrow slots therein, a guide pin carried by the firing element slidably received within the relatively narrow slots, a firing pin carried by the firing element, a cartridge holder in the upper end of the bore, springs connecting the exposed portions of the firing element with the lower portion of the base and normally tending to move the firing element to operative position, a U-shaped strap connected with the firing element, and a pivoted lever associated with the strap for releasably supporting the firing element in inoperative position.

1,244,939. GRINDING AND POLISHING TOOL FOR BIFOCAL LENSES. CLILE C. ALLEN, Chicago, Ill., assignor, by mesne assignments, to New York Lens Company, Inc., New York, N. Y., a Corporation of New York. Filed Feb. 19, 1913, Serial No. 749,323. Renewed Mar. 29, 1917. Serial No. 158,436. (Cl. 51—3.)



1. The combination of a holder; plates secured to said holder and adapted to be adjusted independently of each other on said holder, there being a perforation in each plate and a plunger slidably mounted in and snugly fitting each of said perforations.

2. The combination of a holder; plates pivoted to said holder, there being a perforation in each of the plates; means locking the plates against pivotal movement of said holder; and a plunger slidably mounted in and snugly fitting each of said perforations.

3. The combination of a holder; plates pivoted to said holder, there being a perforation in each of the plates; screws threaded in said holder and engaging said plates locking the latter in different positions of their pivotal movement; and a plunger slidably mounted in and snugly fitting each of said perforations.

4. The combination of a holder; plates pivoted to said holder, there being a perforation and a slot in each of said plates; a screw passing through each of said slots, said screws locking said plates in different positions of their pivotal movement; and plungers slidably mounted in and fitting said perforations.

5. The combination of a holder; plates pivoted to said holder, there being a perforation and a slot in each of said plates; a screw passing through each of said slots, said screws locking said plates in different positions of their pivotal movement; plungers slidably mounted in and fitting said perforations; and a compression spring on each of said plungers, each of said springs having one of its ends slidably engaging said holder.

[Claim 6 not printed in the Gazette.]

1,244,940. SMOKE-PRODUCING COMPOUND. WALTER ARTHUR, Philadelphia, Pa. Filed Dec. 9, 1916. Serial No. 135,943. (Cl. 52—6.)

1. A smoke producing mixture comprising a solid oxidizable cadmium-containing material and a solid oxidizing agent.

3. A smoke producing mixture comprising a mixture of pulverulent cadmium and a solid oxidizing agent.

5. A smoke producing mixture comprising a solid oxidizable cadmium-containing material, a metal which burns with the production of a bright light and a solid oxidizing agent.

6. A mixture comprising a finely divided solid oxidizable cadmium-containing material and a nitrate capable of supporting the combustion thereof.

10. A smoke producing mixture comprising pulverulent cadmium and aluminum and a plurality of oxidizing salts capable of furnishing oxygen for the combustion thereof.

[Claims 2, 4, and 7 to 9 not printed in the Gazette.]

1,244,941. OPHTHALMIC MOUNTING. NELSON M. BAKER, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a Voluntary Association of Massachusetts. Filed Apr. 28, 1917. Serial No. 165,115. (Cl. 88—50.)



1. In an ophthalmic mounting, the combination with a bridge having a pivot seat, of a tube secured within the bridge and rising thereabove, a lever having a barrel portion adapted to encircle the tube, an actuating spring for the lever carried by and surrounding the barrel and a fastening device having a head overlying the tube barrel and spring and engaging the tube, said fastening device having a threaded lower end interlocking with the tube for temporarily securing the parts together and having its lower end projecting below the bridge and tube and spun over therengainst to permanently lock the parts in assembled relation.

2. In an ophthalmic mounting including a bridge, a pivot tube rising from the bridge, a lever mounted on the pivot tube and having a barrel encircling the tube, means for actuating the lever, and a fastening device having a head on its upper end limiting upward movement of the lever and barrel portion to the tube and having its lower end extending downward through the tube and bridge and provided with an enlargement to prevent accidental loosening of the fastening device.

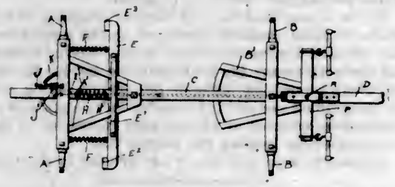
4. In an ophthalmic mounting, the combination with a supporting member having an aperture therethrough, of a tube rising from the support at the aperture, a lever pivoted on the tube and having a barrel portion encircling the tube, a fastening device loosely inserted in the tube, and means for engaging the lower end of the fastening device to secure the lever in position on the tube.

5. In a device of the character described, the combination with a support having an aperture therethrough, of a tube rising from the support at the aperture, a lever pivoted on the tube and having a barrel portion encircling the tube, an actuating spring for the lever encircling the barrel portion, a headed fastening member loosely inserted in the tube, the span of the head being sufficient to prevent removal of the spring or barrel thereover, and means for engaging the lower end of the fastening device to retain the same in position.

6. In a device of the character described, the combination with a support, of a tube rising therefrom, the bore of the tube extending through the support, a lever having a barrel portion pivotally mounted on the tube, an actuating spring for the lever encircling the barrel portion thereof, a fastening device for the parts loosely fitting within the upper portion of the tube and of length to depend through and project below the support, and means on the lower end of the fastening device adapted to engage the under face of the support to lock the fastening device in position.

[Claim 3 not printed in the Gazette.]

1,244,942. AUTOMATIC BRAKE FOR VEHICLES. WILLIAM M. BARNES, Circleville, Ohio. Filed Jan. 16, 1917. Serial No. 142,713. (Cl. 21—9.)



1. An automatic brake for vehicles, comprising axles and a reach connecting the same, a brake bar and means for supporting the same, shoes upon the brake bar, springs connecting the rear axle and said bar, a second spring connected at one end to the brake bar, means for adjusting the tension of said second referred to spring, a pivotal hanger connected to the brake bar, a pulley upon said hanger, and an evener and cable connecting the same with said hanger.

2. An automatic brake for vehicles comprising axles and a reach connecting the same, a brake bar and means for supporting the same, shoes upon the brake bar, springs connecting the rear axle and said bar, a second spring connected at one end to the brake bar, an angle lever pivotally mounted upon the rear axle, one end of said lever being connected to said second referred to spring, a ratchet segment secured to said axle and adapted to be engaged by said lever, a hanger pivoted to the reach and having pivotal connection with said brake bar, a pulley upon the hanger, and a movable evener connected to said cable.

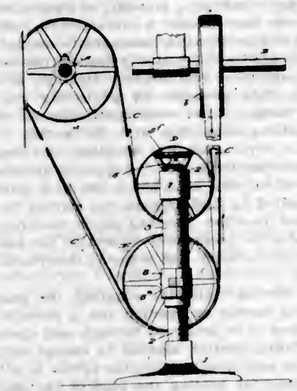
3. An automatic brake for vehicles comprising axles and a reach connecting the same, a brake bar and means for supporting the same, shoes upon the brake bar, springs connecting the rear axle and said bar, a second spring connected at one end to the brake bar, an angle lever pivotally mounted upon the rear axle, one end of said lever being connected to said second referred to spring, a ratchet segment secured to said axle and adapted to be engaged by said lever, a hanger pivoted to the reach and having pivotal connection with said brake bar, a pulley upon the hanger, a cable secured to the reach and passing over said pulley, a chain secured to the cable, a movable evener to which the chain is connected, and a headed pin carried by the front hound and adapted to engage within the respective links.

4. An automatic brake for vehicles comprising axles and a reach connecting the same, a brake bar and means for supporting the same, shoes upon the brake bar, springs connecting the rear axle and said bar, a second spring connected at one end to the brake bar, an angle lever pivotally mounted upon the rear axle, one end of said lever being connected to said second referred to spring, a ratchet segment secured to said axle and adapted to be engaged by said lever, a hanger pivoted to the reach and having pivotal connection with said brake bar, a pulley upon the hanger, a movable evener, a tongue upon which the latter is mounted, a chain connected to said evener, a cable connected to the chain, passing about said pulleys and secured to the reach, a bar secured to said tongue, a pin carried in an aperture in said bar and engaging a link in said chain and also a hole in the tongue.

1,244,943. PULLEY-STAND. NICHOLAS BARRY, Muscatine, Iowa. Filed Mar. 10, 1917. Serial No. 153,991. (Cl. 64—5.)

2. A pulley support comprising a standard, a sleeve slidably mounted on the standard, means for adjusting the sleeve on the standard, and a pulley support connected with said sleeve and adjustable both rotatorially and longitudinally thereon.

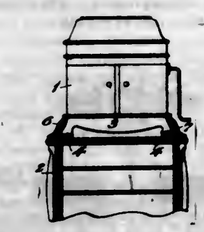
3. A pulley-stand comprising a standard, a sleeve telescoping the standard, a cross head within the sleeve and standard and engaging said sleeve, a threaded shaft engaging the cross head, means for rotating said shaft to adjust the cross head and sleeve, and a pulley support connected with said sleeve.



6. A pulley-stand comprising a tubular standard, a sleeve telescoping the standard, a cross-head within the standard and sleeve and engaging said sleeve, a threaded shaft engaging the cross head, means for rotating said shaft to adjust the cross head and sleeve, and independently adjustable pulley supports connected with said sleeve and simultaneously adjustable with the sleeve.

[Claims 1, 4, 5, and 7 to 9 not printed in the Gazette.]

1,244,944. CABINET FOR TALKING-MACHINES. CLEMENT BEECROFT, Philadelphia, Pa. Filed May 27, 1915. Serial No. 30,731. (Cl. 211—7.)

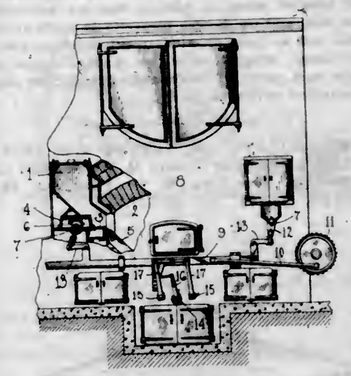


1. A cabinet for a talking machine having a top on which the casing of the machine is adapted to be supported, an inclosure rising from said top, and formed of cleats which are adapted to engage the sides of the base, certain of the cleats being fixed to said top and another cleat forming a gate for entrance into the space of the inclosure, and means for holding the gate in closed position and permitting its opening.

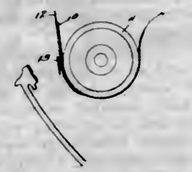
[Claim 2 not printed in the Gazette.]

1,244,945. STOKER-DRIVING ARM. JOHN W. BELL, Covington, Ky., assignor to Murphy Iron Works, Detroit, Mich., a Corporation of Michigan. Filed July 9, 1914. Serial No. 849,884. (Cl. 74—5.)

An automatic stoker including feeding mechanism, a rock shaft for driving said mechanism, a driving bar, power means for operating the driving bar, and a connecting arm on the shaft for connecting said shaft to said bar, a bar comprising a main member and a U-shaped end member embracing the free end of said main member, said main member and end member being provided with two sides of aligned transverse openings, a bolt passing through one set of alined openings to form a pivotal connection between said member, and a pin formed of fragile material engaging the other set of openings to normally prevent the end member from turning upon the main member.



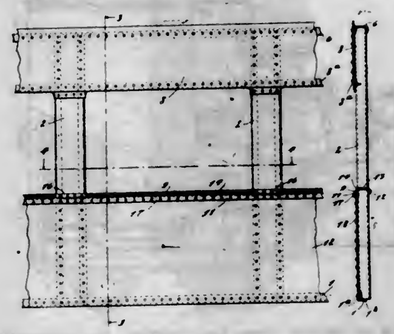
1,244,946. METHOD OF PROTECTING TYPE-WRITING. SAMUEL M. BICKFORD, Lock Haven, Pa., assignor to Estelle B. Bickford, doing business as Investment Exchange, Lock Haven, Pa. Filed June 19, 1916. Serial No. 104,609. (Cl. 197—6.)



4. The method of protecting typewriting consisting in employing a typewriter embodying a platen, the usual types and an inked ribbon, inserting a material having a lacerant surface between the platen and the paper to be written upon, such material carrying a plurality of colors some of which are different from the color of the inked ribbon, and striking the types against the inked ribbon upon the paper so held upon the material.

[Claims 1 to 3 not printed in the Gazette.]

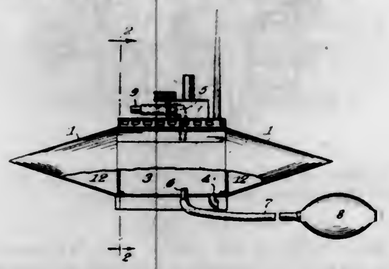
1,244,947. RAILWAY-CAR. FRANCIS M. BRINCKERHOFF, Englewood, N. J., assignor to Lewis B. Stillwell, Lakewood, N. J., and Henry S. Putnam, New York, N. Y. Filed Mar. 2, 1915. Serial No. 11,555. (Cl. 105—201.)



In a railway car structure, a floor structure, side posts rising therefrom, a channel-shaped member extending

lengthwise of the car and having its central web pierced to provide openings to receive said side posts, said channel-shaped member being so located that its web forms the window sills and its flanges respectively form an external belt rail and an interior window sill molding, and an upturned flange integral with the channel-shaped member adjacent each opening therein and engaging the respective side posts and united thereto.

1,244,948. AQUATIC TOY. FREDERICK W. BROWN, New York, N. Y., assignor to MAX M. WOLLNER and CLARENCE M. WOLLNER, New York, N. Y. Filed Jan. 24, 1917. Serial No. 144,104. (Cl. 46—37.)

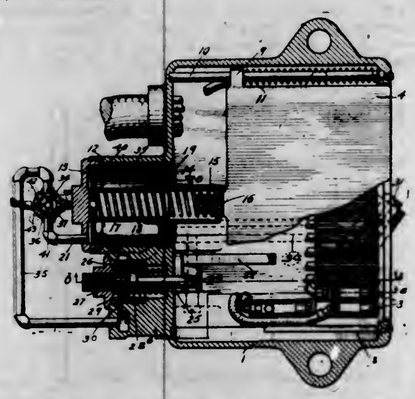


1. An aquatic toy comprising a buoyant body containing a tank provided with an air vent and a duct for admission and discharge of water, a removable stopper for the air vent, and externally controlled means communicating with the tank for expelling water therefrom by means of air pressure.

2. An aquatic toy comprising a buoyant body containing a tank provided with an air vent and a duct for admission and discharge of water, a removable stopper for the air vent, and externally operated pneumatic means communicating with the tank for expelling water therefrom and for ejecting the stopper from the air vent.

3. An aquatic toy comprising a buoyant body containing a tank provided with an air vent and a water duct, the orifice of the vent being smaller than that of the duct, and an externally disposed pneumatic device communicating with the tank for expelling the contents thereof when desired.

1,244,949. ELECTRIC COUPLING. THOMAS R. BROWN, Sparkill, N. Y., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Apr. 10, 1914. Serial No. 830,999. (Cl. 173—332.)



1. In an electric train line coupling, the combination with a contact carrier movable in opposite directions from an intermediate normal position, of fluid pressure operated means for moving the carrier in one direction from said position, said means having a yielding connection adapted to permit movement of the carrier in the opposite direction from said intermediate position.

4. In an electric train line coupling, the combination with a casing containing a plurality of fixed contacts connected to train line circuits, a contact carrier movable in opposite directions from an intermediate normal position and having contacts to electrically connect the corresponding fixed contacts of counterpart couplings, of a piston operated by fluid pressure for projecting said carrier against the carrier of the counterpart coupler, said piston having a yielding connection with the carrier.

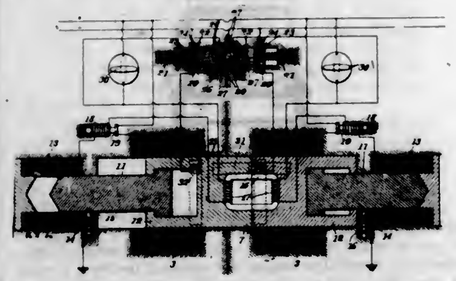
6. In an electric train line coupling, the combination with a contact carrier movable in opposite directions from a normal position, of a main piston having a piston chamber and operated by fluid pressure for moving the contact carrier in one direction, a second piston contained in said piston chamber for operatively connecting the main piston with the contact carrier, and a spring interposed between said pistons.

7. In an electric train line coupling, the combination with a casing having an opening and a movable contact carrier adapted to be projected through said opening, of a vertically sliding shutter adapted to engage said carrier for protecting said opening when the carrier is withdrawn, and projections for holding the edge of the shutter out of contact with the carrier during its movement.

10. In an electric train line coupling, the combination with a casing having an opening and a movable contact carrier adapted to be projected through said opening, of a roller adapted to bear on one face of the contact carrier, and a vertically sliding shutter for engaging the opposite face of the contact carrier for protecting said opening against entrance of dirt and moisture when the carrier is withdrawn.

[Claims 2, 3, 5, 8, and 9 not printed in the Gazette.]

1,244,950. ELECTRIC TRAIN-LINE COUPLING. THOMAS R. BROWN, Sparkill, N. Y., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed July 14, 1914. Serial No. 850,989. (Cl. 173—332.)



1. In an electric train line coupling, the combination of a casing having a plurality of contacts connected to the respective circuits, a movable contact carrier provided with corresponding contacts, means for projecting said carrier to electrically connect the respective contacts of counterpart couplings, and electrically operated means for retracting said contact carrier.

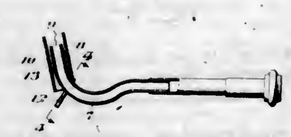
2. In an electric train line coupling, the combination of a casing having a plurality of contacts connected to the respective circuits, a movable contact carrier provided with corresponding contacts, and electrically operated mechanism for projecting said carrier to electrically connect the respective contacts of counterpart couplings and for retracting said carrier.

5. In an electric train line coupling, the combination of a casing having a plurality of contacts connected to the respective circuits, a movable contact carrier provided with corresponding contacts, means for projecting said carrier to electrically connect the respective contacts of counterpart couplings, a solenoid having a plunger for retracting said carrier, and an electrically operated locking device for said plunger.

12. In an electric train line coupling, the combination of a casing having a plurality of contacts connected to the respective circuits, a movable contact carrier provided with corresponding contacts, a closing coil for projecting said carrier, a yielding tappet, adapted to engage a corresponding tappet of a counterpart coupling, switch mechanism operated by the yielding movement of one of said tappets for energizing said coil, a releasing coil for retracting the carrier, a release switch therefor, and contact means mounted on said tappets for connecting the release circuits of the counterpart couplers.

[Claims 3, 4, and 6 to 11 not printed in the Gazette.]

1,244,951. FOUNTAIN-NOZZLE. ARTHUR W. BROWNE, Prince Bay, N. Y., assignor to The S. S. White Dental Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 3, 1915. Serial No. 5,834. (Cl. 137—110.)



1. A fountain nozzle having its outlet end directed upwardly from a downwardly looped conveyer, a sleeve forming a conduit around said nozzle and having its open ends disposed above and below the outlet of said nozzle, and means disposed on the upwardly extending portion of said loop, operative to deflect therefrom any water which may be discharged from the lower end of said sleeve.

5. A fountain nozzle having its outlet end directed upwardly, a sleeve concentric with said nozzle forming an annular conduit around the nozzle and having its open ends extended above and below the outlet orifice of said nozzle, and a deflecting plate securely mounted on said nozzle and extended transversely thereof for supporting the sleeve, said sleeve having its lower edge chamfered upon one side at an angle to its axis for engagement with the surface of said plate.

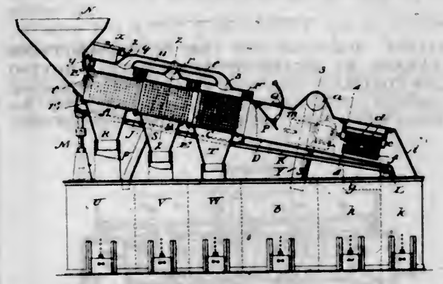
6. A fountain nozzle having its outlet end directed upwardly, a sleeve having open ends disposed respectively above and below the outlet orifice of said nozzle, and a plate of greater diameter than said sleeve, carried by said nozzle and arranged to deflect the water discharged from the lower end of said sleeve to one side thereof.

[Claims 2 to 4 not printed in the Gazette.]

1,244,952. METHOD OF SEPARATING AND RECOVERING DOMESTIC REFUSE. JOSEPH W. BRYAN, New York, N. Y., and DANIEL R. BRYAN, Chatham, N. J.; said Joseph W. Bryan assignor to said Daniel R. Bryan. Filed Mar. 21, 1916. Serial No. 85,729. (Cl. 83—71.)

1. The method of separating and recovering the ingredients of domestic refuse, which consists of primarily separating by gravity the undersized particles thereof, then subjecting the oversized material to a fluid current to break up and spread out the mass and to remove the lighter particles and leave the residue as a distributed stratum to have the metallic particles exposed for removal, and then collecting substantially all of the magnetizable particles from the stratum by magnetic attraction.

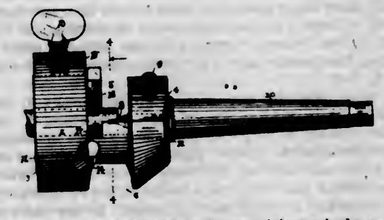
5. The method of separating and recovering the ingredients of domestic refuse, which consists of preliminarily sizing the material, then directing the oversized material onto an extended supporting and transporting surface, then subjecting the material to a fluid current to break up and spread out the mass and remove the lighter particles, and leave the residue in a distributed condition on the support, and then collecting substantially all of



the magnetizable particles from the residue by magnetic attraction.

[Claims 2 to 4 and 6 to 11 not printed in the Gazette.]

1,244,953. COMBINED CENTERING AND FACING TOOL. FRANK MAURICE BUDLONG, San Jose, Cal., assignor of one-half to John Moore Curragh, San Jose, Cal. Filed Apr. 2, 1917. Serial No. 159,316. (Cl. 82—35.)



1. A centering and facing tool comprising a body and a facing cutter pivoted thereon, and a collet and center-drill removably mounted in axial alinement within said body adjacent said facing cutter.

3. A tool for centering and facing operations, comprising a body having differential bores for the work and the holder for the center-drill respectively, a facing cutter pivoted to swing in a plane at right angles to the axis of said center-drill between said bores and a center-drill mounted in the smaller of said bores.

[Claims 2 and 4 not printed in the Gazette.]

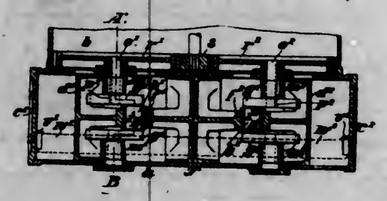
1,244,954. BANANA-PROTECTOR. JOHN J. BURK, Decatur, Ala. Filed Dec. 9, 1916. Serial No. 136,043. (Cl. 211—14.)



A device of the character described embodying a casing having hinged sections adapted to be swung open and hav-

ing a hopper bottom with a discharge opening, a valve for closing said opening, and a top for the casing having a slot for receiving a suspending member.

1,244,955. MACHINE FOR USE IN TRANSMITTING ENERGY BY MEANS OF ALTERNATELY-MOVING AIR-COLUMNS. HEINRICH CHRISTIANSEN, Pinneberg, Germany. Filed Oct. 26, 1916, Serial No. 127,831. Renewed Sept. 17, 1917. Serial No. 191,903. (Cl. 230—32.)



1. A machine for use in transmitting energy by means of alternately moving air-columns, comprising a cylinder, a piston mounted for reciprocation in said cylinder, a crank shaft arranged in the interior of said piston, said crank shaft being shorter in length than internal diameter of the cylinder, means operatively connecting the crank-shaft to the piston, bushings in the cylinder walls supporting the crank shaft, and driving means for the crank shaft.

2. A machine for use in transmitting energy by means of alternately moving air-columns, comprising a closed-ended cylinder having two ports and means of communication between the central part of the cylinder and one of the ports and between the ends of the cylinder and the other port, a pair of pistons mounted for reciprocation in said cylinder, a crank-shaft arranged in the interior of each of the pistons, said crank-shafts being shorter in length than the internal diameter of the cylinder, stationary bushings in the cylinder walls for supporting the crank-shafts, means operatively connecting the crank-shafts to their respective pistons, and driving means for said crank-shafts, said driving means being so arranged that the pistons are moved toward and away from one another alternately at the same speed.

3. A machine for use in transmitting energy by means of alternately moving air-columns, comprising a cylinder, a pair of closed-ended hollow pistons mounted for reciprocation in said cylinder, a crank-shaft arranged in the interior of each of said pistons, each of said crank-shafts being shorter than the internal diameter of said cylinder, whereby it is rendered possible to insert the pistons in the cylinder with the crank-shafts in place in said pistons, each of said pistons being formed with slots in its side walls adjacent the ends of the crank shafts, means for driving said crank shafts at the same speed in opposite directions, a pivot pin in one end of each piston and means for securing it therein, a connecting rod between the pivot pin and crank pin in each piston, and ports communicating respectively with the center and with the ends of said cylinder.

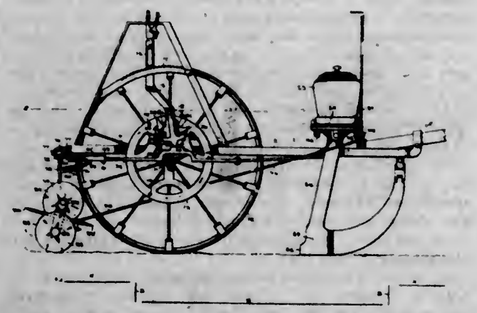
1,244,956. ADJUSTABLE UTILITY DASHER. WILLIAM A. CLANTON, Eunice, La.; Estelle Clanton, administratrix of said William A. Clanton, deceased, assignor of one-half to Etienne Viator, Eunice, La. Filed Feb. 2, 1917. Serial No. 146,165. (Cl. 74—7.)

A device of the character described embodying a supporting member bent from a bar and having two portions and two recesses at the ends thereof, means for supporting one of said portions, a gear wheel pivoted to the other portion, a tubular shaft journaled in said member, a pinion within one of said recesses secured upon said shaft, a sleeve journaled in said member, a second pinion secured upon the sleeve within the other recess, a shaft extending through the tubular shaft and sleeve, said gear wheel



meshing with the pinions, and elements carried by the shafts to be operated thereby.

1,244,957. CORN-PLANTER. DAVID N. COLLUM, Bloomington, Ill. Filed Oct. 12, 1916. Serial No. 125,213. (Cl. 111—16.)

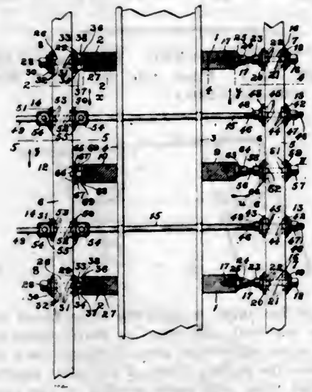


1. The combination in a corn planter of means for dropping corn; means for marking the line of travel of the corn planter; means for marking the place where corn is to be dropped; a single means for controlling the operation of the dropping means and the place marking means; and means constantly adjustable during the operation of the controlling means to vary the time of operation of the dropping means and the place marking means.

5. The combination in a corn planter of means for dropping corn; means for marking the line of travel of the corn planter; means for marking the place where corn is to be dropped; an axle; a wheel secured to the axle; pins mounted upon the periphery of the wheel; an oscillating frame loosely mounted upon the axle adjacent to the wheel and provided with two tappets having fingers adapted to extend, alternatively, in the path of travel of the pins; a plate adapted to be moved to and fro by the action of the tappets; a finger connected with the plate; a rod provided with a slot adapted to receive the finger, said rod being actuated by the movement of the plate and its connected finger and operating the dropping means and the place marking means of the corn planter; and an adjusting lever connected to the oscillating frame and adapted to control the frame to vary the time of the operation of the tappets by the pins.

[Claims 2 to 4 not printed in the Gazette.]

1,244,958. MOLDING APPARATUS. SAMUEL S. COLT, Orange, N. J. Filed June 22, 1917. Serial No. 176,318. (Cl. 25—131.)



1. A knock-down form or cribbing for use in the erection of concrete and similar structures, comprising retaining members, spanning members, clamping devices connected with said spanning devices, a means of connection between each clamping device and some of said retaining members for adjustably fixing the spanning members with relation to said retaining members, and push-elements connected with said spanning elements and in engagement with others of said retaining members.

5. A knock-down form or cribbing for use in the erection of concrete and similar structures, comprising oppositely located retaining members, spanning members, lag-screws having their screw-threaded ends screwed into the respective retaining members, clamping disks mounted upon said lag-screws, and means for securing said disks in clamped relation upon the said spanning members for adjustably fixing the spanning members with relation to said retaining members.

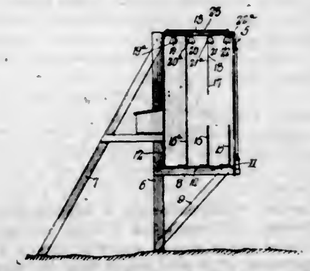
7. A knock-down form or cribbing for use in the erection of concrete and similar structures, comprising oppositely located retaining members, spanning members, lag-screws having their screw-threaded ends screwed into the respective retaining members, clamping disks mounted upon said lag-screws, spanning-members holding guide-lugs extending from said clamping disks, means for securing said disks in clamped relation upon the spanning members for adjustably fixing the spanning members with relation to said retaining members, consisting of tightening nuts and a washer mounted upon some of said lag-screws, and a means of adjustment connected with the spanning members of the oppositely located retaining members for spacing and laterally adjusting said oppositely located retaining members, consisting of a tie rod having a screw-threaded end-portion, clamping disks mounted upon said screw-threaded end-portion, and adjusting nuts upon said screw-threaded end-portion for clamping said disks in position against the spanning members of one set of said retaining members, clamping disks provided with hubs mounted upon the other end-portion of said tie-rod, and set-screws connected with said hubs for securing said last-mentioned disks in their adjusted positions upon said rod and in clamped relation against the spanning members of the other set of retaining members.

20. In combination with a retaining member of a knock-down form or cribbing and a spanning member, a means of adjustable connection between said retaining member and the spanning member, consisting of a lag-screw screwed into said retaining member, a pair of clamping disks mounted upon said lag-screw, and a wedge-shaped key between one of said disks and the retaining member.

25. In combination with a retaining member of a knock-down form or cribbing and a spanning member, a clamping disk provided upon one of its faces with spanning-member supporting guide-lugs and upon its other face with a key-retaining and guiding lug, and a channeled wedge-shaped key mounted upon said key-retaining guiding lug.

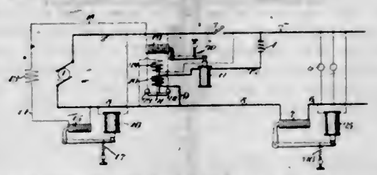
[Claims 2 to 4, 6, 8 to 19, 21 to 24, and 26 to 28 not printed in the Gazette.]

1,244,959. ELECTRICALLY-ILLUMINATED ADVERTISING DEVICE. HARVEY CONOVER, Chicago, Ill. Filed Nov. 22, 1915. Serial No. 62,716. (Cl. 40—130.)



An advertising device comprising in combination, an open front box, having side, bottom, back and top walls forming a stage, the back wall being provided with a pictorial representation to constitute a back ground, means providing upright members arranged parallel with the said back wall and upon which are depicted matter comprising a foreground, intermediate ground and the like, one or more of said grounds having depicted upon it the subject matter of the advertisement, electric lamps arranged in rows near said top wall, parallel to and for illuminating the several grounds, said lamps being of various colors, electric circuits for the various lamps, and a switching device automatically controlled, adapted to throw the lamps successively in circuit to produce the effect of changing lights on the general scene depicted by the several fore, back and intermediate grounds of the picture depicted.

1,244,960. ELECTRIC DISTRIBUTION. JOHN L. CREVELING, New York, N. Y., assignor to Safety Car Heating and Lighting Company, a Corporation of New Jersey. Original application filed Aug. 6, 1909, Serial No. 511,509. Divided and this application filed Jan. 15, 1912. Serial No. 671,167. (Cl. 171—313.)



1. The combination with a generator and a storage-battery charged thereby, of a regulator tending to hold the voltage constant, and a regulator tending to hold the current to the battery constant, the latter regulator comprising a variable resistance in series with the field, a relay in shunt to said resistance, and a coil in the battery circuit for operating said relay.

3. In apparatus of the class described, the combination with a generator and a storage battery charged thereby, of regulating means comprising a voltage coil and a current coil, each exerting a substantial regulating effect throughout a substantial portion of the charging of said battery, and means actuated by battery current adapted to cause a preponderating regulating effect of the voltage coil upon the battery approaching full charge.

7. The combination with a generator having a field coil; of a storage battery charged thereby; a regulator tending to vary the field so as to hold the voltage constant; a regulator tending to vary the field so as to cut

down the voltage when the current flowing to the storage battery shall exceed a predetermined limit, said latter regulator comprising a variable resistance; an electromagnet for controlling said resistance; and a coil in the battery circuit for controlling the operation of the electromagnet.

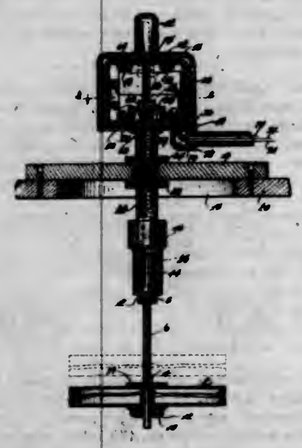
[Claims 2 and 4 to 6 not printed in the Gazette.]

1,244,961. TIE-SLIP CLIP. DANIEL F. DALY, Milwaukee, Wis. Filed Feb. 5, 1917. Serial No. 146,685. (Cl. 2—11.)



As a new article of manufacture, a substantially rigid removable tie slip clip comprising a base having a fold finger and a band finger spaced apart to form a tie run, the band finger being of greater length than the fold finger and provided with an end bevel upon its band-engaging side, and the fold finger being provided with a curved end surface forming a wide entrance throat for the tie run, a tongue extending from the base juxtaposed to the outer surface of the fold finger, the said tongue having a continuously curved inner surface forming a one-point contact with the fold finger and a flaring mouth for the ready insertion of the collar band between said tongue and band finger.

1,244,962. TELLTALE. JOHN H. DERBY, New York, N. Y. Filed Dec. 7, 1915. Serial No. 65,445. (Cl. 200—34.)



1. In a telltale, a float, a float-operated rod, a tubular guide for said rod in which it is freely movable lengthwise, and a liquid seal for said guide.

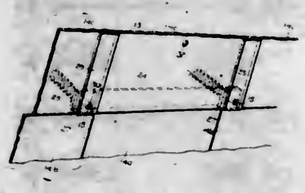
2. In a telltale, a float, a float-operated rod, a tubular guide for said rod in which it is freely movable lengthwise, and a liquid seal for said guide carried by said rod.

5. In a device of the class described, a float, a float-operated rod, a tubular guide for said rod of a diameter somewhat greater than that of said rod, a centering guide for said rod upon each end of said tubular guide, and a seal for each end of said tubular guide.

8. In a device of the class described, a float, a float-operated rod, a tubular guide in which said rod is freely movable lengthwise and has provision for limited free lateral movement, and a seal for the lower end of said tubular guide carried by said rod and movable relatively to said guide both longitudinally and laterally.

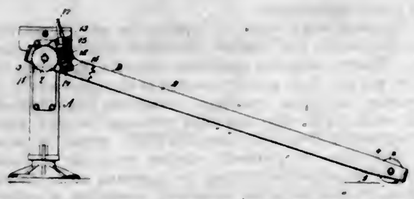
[Claims 3, 4, 6, 7, and 9 to 11 not printed in the Gazette.]

1,244,963. TORPEDO-GUARD. HUMBERT J. DE ROSA, New York, N. Y. Filed July 19, 1917. Serial No. 181,508. (Cl. 114—240.)



In a guard for ships, a plurality of series of plates of heavy plane material, one series of plates being provided along their upper edges with parallel flanges each of which is longer than the main portion of the plate providing an ear and offset from said main portion of the plate at a distance equal to about two thicknesses of the material, another series of plates being provided at their upper and lower corners with ears offset about one thickness of the material from the main portion of the plate, said ears lying against the first mentioned ears, and another series of plates each provided with a flange along one edge overlapping both sets of ears above referred to, and fastening means passing through the overlapping portions aforesaid of all sets of plates whereby the plates are all loosely articulated together, but with practically no clearance between any two of the plates.

1,244,964. JACK-OPERATING ATTACHMENT. JAMES L. DOWNS, New York, N. Y. Filed Aug. 8, 1917. Serial No. 185,056. (Cl. 254—1.)



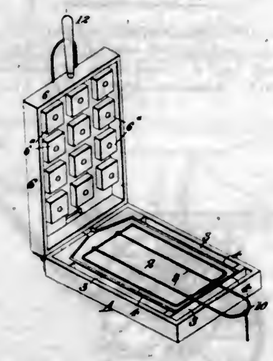
2. The combination of a jack including a laterally extending rotary operating element, with an operating attachment for the said element, said attachment including a frame, a shaft on the frame having a detachable connection with the said element, a gearing carried by the frame and having one part connected with the shaft and including another part to which power is adapted to be applied, and movable means on the frame to support the same on the ground or other surface at a point laterally of the jack.

[Claims 1 and 3 not printed in the Gazette.]

1,244,965. BROILER AND LIKE COOKER. LEO DURGARIAN, San Francisco, Cal. Filed May 31, 1917. Serial No. 171,905. (Cl. 53—5.)

1. A cooking utensil comprising superposed structures hinged together capable of being separated about the hinges, the lower structure being open at the bottom to receive a source of heat, a gridiron or meat support within the lower structure, and a series of independently movable blocks carried by the upper structure and capable of adapting themselves to the surface of the meat being cooked.

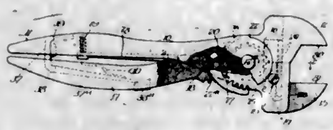
2. In a broiler and like device, a pair of superposed open bottomed box-like structures, heating means located beneath the lower structure, a channeled pan supported within the upper part of the lower box having an open passage around its periphery, and a gridiron, the bars of which fit the channels of said pan and are adapted to support an article to be cooked, said upper structure being closable above the lower one to confine the heat between the two, and independently tiltable blocks suspended from said upper member.



3. A cooking device comprising a pair of open bottomed boxes hinged together at one end, heating means located beneath the lower box, a pan supported within the lower structure and having heat passages around its periphery, a broiler gridiron frame carried upon the upper surface of the pan, and independently supported blocks depending from the top of the upper pan and adapted to adjust themselves upon the top of the article to be cooked when the structures are closed together.

4. A cooking apparatus including open bottomed superposed members, a pan with a surrounding heat channel within the lower member and a source of heat below, gridiron bars supported upon the pan, stems depending from the upper member and self-adjusting blocks carried thereby and adapted to rest upon the article being cooked, a cooking surface on the upper member, a hinged frame closable upon articles upon the top of the upper member, and handles for the frame and gridiron.

1,244,966. WRENCH. JOSEPH EIFEL, Chicago, Ill. Original application filed June 26, 1912, Serial No. 706,079. Divided and this application filed Apr. 8, 1916. Serial No. 89,958. (Cl. 81—86.)



1. A device of the character described comprising, in combination, a pair of coöperating jaws and pivoted operating levers therefor, and connections, disengageable by manual means, between each of said jaws and its coöperating lever.

2. A device of the character described comprising, in combination, a pair of coöperating jaws, operating levers therefor having means for engagement whereby they are movable pivotally and lineally relatively to each other, one of said jaws being movable relatively to its lever and having means for toothed engagement therewith whereby the extent of the jaw opening may be varied.

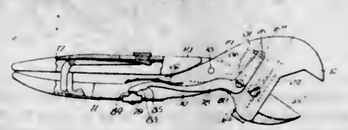
6. A device of the character described comprising, in combination, a pair of coöperating jaws, operating levers therefor having means for engagement whereby they are movable pivotally and lineally relatively to each other, one of said jaws being movable relatively to its lever and both the lever and the jaw being provided with toothed portions, an intermediate toothed member engaging said toothed portions whereby the relative position of the jaws may be varied, and means for normally holding the jaws in predetermined operative relation to each other including a toothed portion on one of said jaws, and a third lever provided with a toothed portion engaging said last-mentioned toothed portion.

10. A device of the character described comprising, in combination, a pair of coöperating jaws, operating levers therefor having means for engagement whereby they are movable pivotally and lineally relatively to each other, one of said jaws being movable relatively to its lever and both the lever and the jaw being provided with means for engagement, an intermediate member engaging said means whereby the relative position of the jaws may be varied, and means for normally holding the jaws in predetermined operative relation to each other.

12. A device of the character described comprising, in combination, a pair of coöperating jaws, toothed portions operatively connected with each of said jaws, an operating lever pivotally attached to one of said jaws, and a second operating lever pivotally attached to said first lever, each of said levers having a toothed portion operatively connected therewith adapted to engage one of said first-mentioned toothed portions.

[Claims 3 to 5, 7 to 9, 11, and 13 to 18 not printed in the Gazette.]

1,244,967. WRENCH. JOSEPH EIFEL, Chicago, Ill. Original application filed June 26, 1912, Serial No. 706,079. Divided and this application filed Apr. 8, 1916. Serial No. 89,959. (Cl. 81—88.)

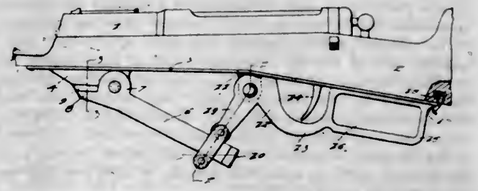


1. A device of the character described comprising, in combination, a pair of coöperating jaws, pivoted operating levers therefor, one of said jaws being movable transversely of the longitudinal axis of the device and relatively to its lever and having pawl and ratchet means for releasable engagement therewith whereby the extent of the jaw opening may be varied.

3. A device of the character described comprising, in combination, a pair of coöperating jaws, operating levers therefor, a pivotal connection between said levers, one of said jaws being movable relatively to its lever and both the lever and the jaw being provided with means for engagement, an intermediate member engageing said means, whereby the relative position of the jaws may be varied, and means for positively holding the jaws in predetermined operative relation to each other including said intermediate member and a third lever provided with means engaging said intermediate member.

[Claims 2 and 4 to 19 not printed in the Gazette.]

1,244,968. WIRE-CUTTER ATTACHMENT FOR GUNS. ROY B. ENDECOTT, Roundup, Mont. Filed Jan. 30, 1917. Serial No. 145,415. (Cl. 42—90.)



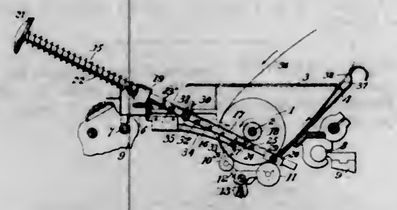
1. The combination with a gun including a stock, of a base strip secured to the stock, a stationary blade formed on the base, a movable blade pivoted to the stationary

blade, an arm formed on the movable blade, an operating lever pivoted to the base, a downwardly and forwardly extending arm formed on the operating lever, means for slidably connecting the arms together, and a handle formed on the operating lever.

2. The combination with a gun including a stock, of a base secured to the stock, a stationary blade formed on the base, a movable blade pivoted to the stationary blade, an arm formed on the movable blade, an ear formed on the base, an operating lever pivoted to said ear, said operating lever being bent to form a trigger guard, a handle formed on the trigger guard, an extension formed on the handle, a spring pressed catch carried by the stock, and engaging the extension to hold the handle against movement, and means for slidably connecting the operating lever with the arm.

[Claim 3 not printed in the Gazette.]

1,244,969. TYPE-WRITING MACHINE. HERMANN V. FENGLER, West Philadelphia, Pa., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed June 24, 1914. Serial No. 846,934. (Cl. 197—118.)



3. The combination with a platen, of a pinion connected to drive the platen, a driver comprising a rack to engage said pinion and rotate the platen backwardly during the advance movement of the driver to carry a bill or other work-sheet into position to be removed from the machine, a stop on the driver and adjustable therealong to limit the advance movement of the driver, a spring detent to hold the driver in its advanced position determined by the position of the stop along the driver, and a spring to return the driver and cause the rack to rotate the platen forwardly during the return of the driver.

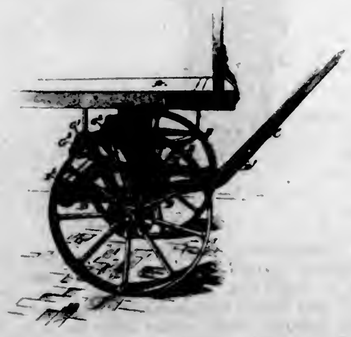
4. The combination with a platen, of a pinion connected to drive the platen, a driver comprising a rack to engage said pinion and rotate the platen backwardly during the advance movement of the driver to carry a bill or other work sheet into position to be removed from the machine, a stop on the driver and adjustable therealong to limit the advance movement of the driver, a spring detent to hold the driver in its advanced position determined by the position of the stop along the driver, a spring to return the driver and cause the rack to rotate the platen forwardly during the return of the driver, and means operated by the driver and coöperating with said rack to rotate the platen in a forward direction a greater distance than it is rotated backwardly by the driver.

13. The combination with a platen frame and a platen rotatably mounted thereon, of a pinion connected to the platen, a driver for rotating the platen through predetermined distances in both directions, the distance the platen is rotated in one direction being greater than the distance it is rotated in the opposite direction, said driver comprising a rack having a section to drive said pinion in both directions, and a one-way driving section for driving the pinion in one direction only, and bearings on the platen frame in which the driver is slidably mounted for backward and forward reciprocating movement, the rack being recessed to receive said last-mentioned section and permit the latter to move through one of said bearings as the driver is reciprocated.

18. In a typewriting machine, the combination with a typewriter frame, of a platen mounted to travel and rotate relatively to said frame, a gear secured to said platen, and a hand rack bar engaging said gear on the underside to rotate said platen by an initial forward stroke, so as to remove bills therefrom, said bar normally clearing said frame at its rear end, and also projecting at its front end to enable its initial rearward driving movement.

[Claims 1, 2, 5 to 12, 14 to 17, and 19 not printed in the Gazette.]

1,244,970. BAGGAGE-TRUCK. LOUIS B. FERGUSON, Monroe, La., assignor of one-half to American Sales Co., Monroe, La., a Corporation of Louisiana. Filed Dec. 22, 1915. Serial No. 68,215. (Cl. 21—65.)

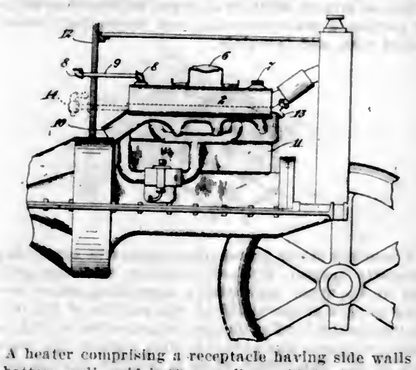


1. In a truck of the character described, a wheeled frame, including a forward sand board, a vertically swinging frame intermediately pivoted to the said forward sand board and including a rear weight whereby to normally elevate its forward end, a truck handle secured to the forward end of the said vertically swinging frame and movable vertically therewith under the effect of the said rear weight when released, a pair of brake members engaging the forward truck wheels, a U-shaped support therefor, the cross bar of which extends horizontally along and is journaled upon the said forward sand board, and at the extensions of which said brake members are carried, and connecting bars pivotally secured at their upper ends to the said brake members and at their lower ends to the said vertically swinging frame at points rearwardly of the pivots thereof, whereby to effect application of the brake members to the wheels simultaneously with the raising of the handle upon its release.

2. In a truck of the character described including a forward sand board and a handle, a pair of side bars normally extending in a horizontal position at opposite ends of, and pivoted intermediate their ends to, the said sand board, said bars having forward convergent ends secured to and supporting the handle, a weight connecting the rear ends of said bars to normally hold the handle in elevated position, a U-shaped supporting member the cross bar of which is journaled horizontally along the sand board and the extensions of which project rearwardly, brake members pivotally connected to the rear ends of said extensions, and connecting arms pivotally connected at their upper ends to the said brake members and similarly connected at their lower ends to the said side bars at points rearwardly of the intermediate pivots of the latter.

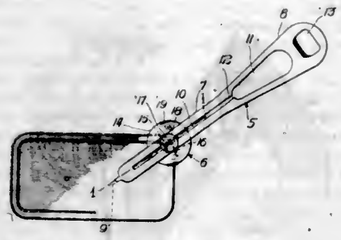
3. In a truck of the character described including a sand board and a handle, a combined brake applying and handle controlling attachment including a weighted frame connected to and carrying the handle and pivoted to opposite ends of the sand board, a U-shaped brake supporting member the cross bar of which is journaled horizontally and transversely of the sand board and the extensions of which project rearwardly, brake members pivotally supported by the said extensions, and connecting arms pivotally connected to the said brake members and to the said weighted frame, all for the purpose described.

1,244,971. HEATER. ALBERT J. FISHER, Pontiac, Mich. Filed July 21, 1916. Serial No. 110,435. (Cl. 257—241.)



A heater comprising a receptacle having side walls and a bottom wall, said bottom wall provided with a longitudinal arched portion at one of the side walls adapted to provide clearance for the exhaust manifold of an automobile engine and permit of said heater leaning against the engine with the last mentioned side wall extending downwardly between the engine and the manifold, a connection at one end of said receptacle adapted to extend through the dashboard of an automobile and retain said receptacle on the exhaust manifold, and a faucet at the opposite end of said receptacle.

1,244,972. CAN-OPENER. GEORGE J. FITZPATRICK, Chicago, Ill. Filed Dec. 17, 1914. Serial No. 877,797. (Cl. 30—3.)



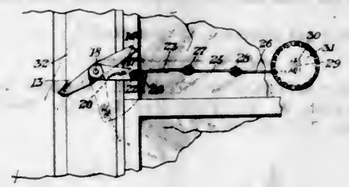
1. In a device of the class described, the combination of an actuating portion of spring material formed with a longitudinal slot, an operating portion having a part arranged to slide and turn in said slot, a cutting member depending from the operating portion, a guide member to the rear of the cutting member and carried by the operating portion and said slot being restricted at one point and enlarged directly beyond said restricted portion to prevent accidental separation of the actuating and operating portions and permit intentional separation thereof, substantially as described.

2. In a device of the class described, the combination of an actuating portion and an operating portion, said actuating portion having a longitudinal slot therein, said operating portion having a part arranged to slide and turn within said slot, a cutting member depending from the operating portion, a guide member depending from the operating portion and stop members carried by said operating portion and arranged to engage the actuating portion to limit the turning movement of the operating portion with respect to the actuating portion, substantially as described.

[Claims 3 to 7 not printed in the Gazette.]

1,244,973. MIRROR-BRACKET. GEORGE O. P. FLANDERS, East Arlington, Vt. Filed May 5, 1917. Serial No. 166,547. (Cl. 45—97.)

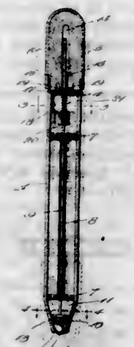
5. A mirror bracket comprising a base bar having its ends overturned in opposite directions and pointed so as to grip the opposite sides of a window casing or similar structure, an arm pivotally mounted in the said base bar, a ratchet secured to the base bar, a pawl carried by the arm for supporting the same in any desired position relatively to the base bar, a series of rods pivotally connected



together and at one end pivotally connected to the said arm, the opposite end of the said rods being upturned to receive and support a mirror, and a stop for determining the position of the said rod which is pivotally connected to the arm.

[Claims 1 to 4 not printed in the Gazette.]

1,244,974. POCKET-MOISTENER. GREGORY GERDOM, Watervliet, N. Y. Filed Apr. 26, 1917. Serial No. 164,731. (Cl. 91—67.4)



1. A device of the character described comprising a reservoir having a substantially conical discharge end, a spreader member loosely engaged in said end and extending slightly therebeyond, a valve seated in said end and spaced slightly from said spreader member, whereby when said member is pressed inwardly the valve will be lifted to deliver a portion of the fluid contained within the reservoir, a spring in said reservoir to hold the valve normally closed, the space between said valve and spreader member being sufficient to permit said member to be freely moved in said end and without engaging said valve.

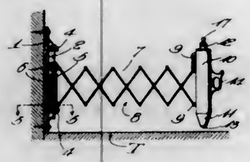
3. A device of the character described comprising a cylindrical reservoir casing having a closed end, and a conical reduced end with a discharge aperture therein, a valve normally seated in said reduced end, a spreader member in the discharge aperture below said valve and adapted to lift said valve when pressed sufficiently inward, a stem from said valve extending longitudinally in the casing, a guide surrounding said stem and secured to the walls of the casing, a spring surrounding said stem and in suitable connection between the stem and closed end of the casing, whereby to normally hold said valve seated.

4. A device of the character described comprising a cylindrical reservoir casing having a conical reduced end provided with a discharge aperture therein, a valve seated on the walls of said reduced end, a fluid spreader member in said end adapted to open said valve when desired, the other end of the casing being open, a stem on said valve and extending beyond the open end of the casing, a guide sleeve surrounding the stem and secured to the walls of

the casing, a cap detachably secured in the open end of the casing and having a socket therein to receive the extending end of the valve stem, a gasket in said socket to surround the valve stem and provide a packing therefor, a coil spring surrounding said stem and having connection between the stem and the cap to normally hold the valve seated.

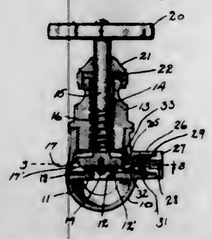
[Claim 2 not printed in the Gazette.]

1,244,975. ENVELOP-MOISTENER. GREGORY GERDOM, Watervliet, N. Y. Filed May 7, 1917. Serial No. 167,031. (Cl. 91—67.4.)



The combination with a moistener of a pair of lazy tongs having means at one end to hold the moistener, the other end of said tongs being pivotally mounted above a table in such a manner that the moistener will be held vertically spaced from said table, said table forming means to support the envelop to be moistened and said lazy tongs being adapted to resiliently yield when downward pressure is exerted on the moistener so that said moistener will contact with the envelop on the table.

1,244,976. COMPRESSION STOP AND WASTE COCK. HARRY J. GEURINK, Cleveland, Ohio, assignor to Fredericka Geurink, Cleveland, Ohio. Filed May 8, 1913, Serial No. 766,451. Renewed Sept. 21, 1917. Serial No. 192,624. (Cl. 137—4.)



A compression stop and waste cock comprising a valve casing having an apertured partition wall dividing the inlet side from the outlet side, the wall of said valve casing at the outlet side of the partition wall being extended to form an annular flange, a nut arranged to close the outer end of said flange, said nut being provided with a vent opening, a valve supported independently of said nut and arranged to close said vent opening, a valve stem rigidly connected to said vent valve and extending loosely through the wall of the valve casing, a main valve arranged to close the aperture in the partition wall and adapted to engage with the vent valve stem during its closing movement and a main valve stem for operating said main valve.

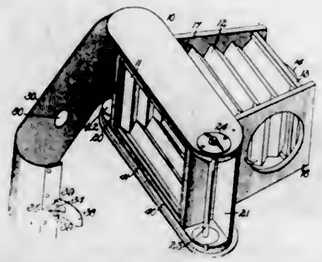
1,244,977. SANITARY SHIELD FOR TELEPHONE APPARATUS. FREDERICK GOERTZ, Newark, N. J., assignor to August Goertz & Co., a Corporation of New Jersey. Filed Oct. 25, 1916. Serial No. 127,536. (Cl. 179—185.)

1. A sanitary shield for telephone-apparatus comprising a face-plate formed with an opening, said face-plate formed at its upper edge with a supporting-means conforming to part of the marginal edge-portion of the telephone-transmitter, and at its lower edge-portion having an unobstructed apron-like part extending beneath the lower portion of the transmitter when in position thereon and being of greater width at its lower portion than at its upper portion, a germ-preventing and destroying element connected with said face-plate.



2. A sanitary shield for telephone-apparatus comprising a face-plate formed with an opening, said face-plate formed at its upper edge with a supporting-means conforming to part of the marginal edge-portion of the telephone-transmitter, and at its lower edge-portion having an unobstructed apron-like part extending beneath the lower portion of the transmitter when in position thereon and being of greater width at its lower portion than at its upper portion, a germ-preventing and destroying element connected with said face-plate for detachably attaching said face-plate, said supporting means consisting of a rearwardly and inwardly extending flange-like element extending along a portion of the marginal edge of the said face-plate, and adapted to be brought into sliding engagement with a portion of the marginal edge of the transmitter.

1,244,978. PHOTOGRAPHIC CAMERA. HENRY W. HALES, Ridgewood, N. J. Filed Sept. 29, 1916. Serial No. 122,872. (Cl. 95—32.)



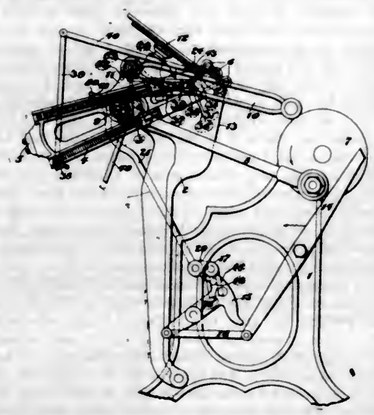
1. In a roll film camera, a casing having spool compartments at the sides, a one piece flexible back extending from one side of the casing to the other side thereof, said flexible back being permanently attached at one end to one side of the casing at the outer side of one of said spool compartments, and the opposite end of said flexible back adapted to close around the outside of the other of said spool compartments.

6. In a roll film camera, a casing having spool receiving compartments at the sides, a one piece flexible back extending from one side of the casing to the other side thereof, the said back being permanently attached at one end to one side of the casing at the outer side of one of the said spool compartments, and connecting means connecting the free other end of the said flexible back to the other end of the casing at the outer side of the other spool compartment.

8. In a roll film camera a casing provided with a flexible back permanently attached at one end to the casing, attaching means for detachably connecting the free end of the said back with the camera casing, said means including an undercut stud fixed on the casing adjacent the free end of the back, said free end having a notched edge, a pin bridging said notch and a handle mounted to swing on said bridge pin, said pin adapted to be held by said stud and to be released therefrom by said handle.

[Claims 2 to 5 and 7 not printed in the Gazette.]

1,244,979. PRINTING-PRESS INK-FOUNTAIN. WILLIAM C. HART, St. Louis, Mo. Filed Nov. 23, 1916. Serial No. 133,037. (Cl. 101—341.)

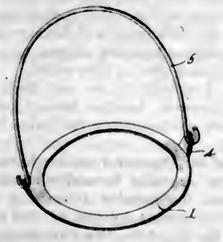


1. The combination with a printing-press of the kind described, the same including a back-shaft and an oscillatory roller-frame and inking-roll, of an ink-fountain pivotally mounted upon the press, the fountain including an ink-supplying roll, means for yieldingly maintaining the fountain and its roll in ink-supplying position relatively to the inking-roll on the oscillation of the inking-roll from the type-bed of the press, and means actuated by the roller-frame for pivotally rocking the fountain and its roll out of ink-supplying position relatively to the inking-roll on the oscillation of the inking-roll toward said type-bed, said last-named means including a cam-member on the back-shaft and a member on the fountain adapted to coöperate with said cam-member.

7. The combination with a printing-press, of a box-like receptacle for containing ink mounted on the press, an ink-roller journaled on said receptacle, a plate 58 adapted to extend over, and provide a cover for, both said receptacle and roller, said plate being slotted, and attaching-members extending through the slots of the plate and into the receptacle for fastening the plate in adjusted positions upon the receptacle.

[Claims 2 to 6 not printed in the Gazette.]

1,244,980. SANITARY BAIL-RING. GEORGE ALBERT HARTMAN, Sr., Homer, Ill. Filed Mar. 6, 1917. Serial No. 152,914. (Cl. 65—26.)



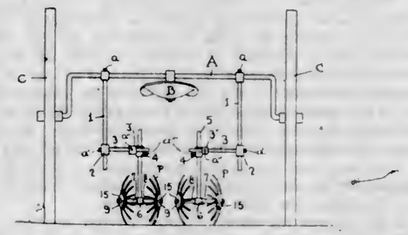
An article of the class described comprising a flat ring of a size to be received over and adapted to seat upon the annular shoulder of a fruit jar having a reduced threaded mouth portion and to be clamped thereon by the cover of the jar, said ring having a pair of upstanding apertured ears projecting outwardly therefrom at diametrically opposite points, a bail handle pivotally mounted in said apertures and the outward projection of said ears providing clearance for the fingers of a person when screwing or unscrewing the jar cap.

1,244,981. SCREW-DRIVER. HENRY HOOD, Philadelphia, Pa. Filed Mar. 24, 1917. Serial No. 157,227. (Cl. 145—61.)



A tool comprising a handle having a frusto-conical extension at each end, ferrules each having a central bore diverging outwardly from a point intermediate its ends to form a frusto-conical chamber, one of said ferrules being mounted on each end of the handle to inclose the frusto-conical extensions, projections formed with the ferrules and extending from the diverging portion of the bore, said projections being embedded in the handle extensions to prevent movement of the handle independent of the ferrules, a blade having a shank passing entirely through the handle and ferrules, a rivet passing through the inner ferrule and tool shank beyond the inner end of the handle for securing said ferrule in place and a head formed on the outer end of the tool shank for fixing the outer ferrule to the tool shank.

1,244,982. ROTARY WEEDER. IRA C. HORST, Columbiana, Ohio. Filed Feb. 28, 1916. Serial No. 80,907. (Cl. 97—37.)

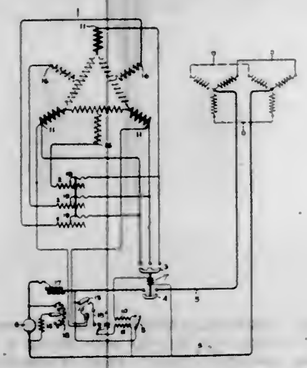


1. A weeder including in combination a suitable support, a hanger radially and longitudinally adjustable on to said support, a bracket arm revolubly and slidably adjustable on said hanger, a collar revolubly and slidably adjustable on said bracket arm and having a sleeve, a stem revolubly and slidably held within said sleeve, two divergently held shafts secured to the lower end of said stem, and a weeding member including resilient prongs, revolubly held on each shaft.

2. A rotary weeder including a wheel supported axle, oppositely positioned adjustably held depending hangers thereon, a bracket arm adjustably secured to each hanger said bracket arms being directed toward one another, a collar adjustably secured to each bracket arm, each collar having a sleeve, a stem adjustably secured within each sleeve, each stem ending in a head, two divergently ex-

tending shafts held to each head, and a weeding member revolubly secured to each shaft each comprising a plurality of resilient curved teeth all arranged as and for the purpose set forth.

1,244,983. ALTERNATING-CURRENT DYNAMO-ELECTRIC MACHINE. Louis J. Hunt, Sandycroft, Wales, assignor to General Electric Company, a Corporation of New York. Filed Dec. 10, 1915. Serial No. 66,056. (Cl. 172—274.)



1. An alternating current motor having armature and field members, windings on each member adapted to give two different basal numbers of poles for cascade working, the windings on one member comprising mesh-connected windings, a set of windings connected to the points of the mesh and a set of windings connected to the mid points of the mesh, a plurality of resistances, each of said resistances being connected between the end of one of said windings connected to the mid points of the mesh and the end of the winding connected to the point of the mesh diametrically opposite, means for short circuiting one of said sets of windings, and means for varying said resistances so as to increase the amount thereof connected between the ends of said windings.

3. An alternating current motor having armature and field members, windings on each member adapted to give two different basal numbers of poles for cascade working, the windings on one member comprising mesh-connected windings, a set of windings connected to the points of the mesh and a set of windings connected to the mid points of the mesh, a plurality of resistances, each of said resistances being connected between the end of one of said windings connected to the mid points of the mesh and the end of the winding connected to the point of the mesh diametrically opposite, automatic means dependent upon the speed of said motor for short circuiting one of said sets of windings, and means for simultaneously varying said resistances so as to increase the amount thereof connected between the ends of said windings.

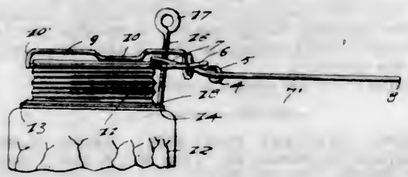
5. An alternating current motor having armature and field members, windings on each member adapted to give two different basal numbers of poles for cascade working, a source of direct current supply for the windings on said field member, the windings on the armature member comprising mesh connected windings, a set of windings connected to the points of the mesh and a set of windings connected to the mid points of the mesh, a plurality of resistances, each of said resistances being connected between the end of one of said windings connected to the mid points of the mesh and the end of the winding connected to the point of the mesh diametrically opposite, automatic means dependent upon the speed of said motor for short-circuiting one of said sets of windings and for connecting said source of direct current supply to the windings on said field member, and means for simultaneously varying said resistances so as to increase the amount thereof connected between the ends of said windings.

7. The method of starting an alternating current motor having armature and field members with windings on each member adapted to give two different basal numbers of poles for cascade working, the windings on one member comprising mesh connected windings, a set of windings connected to the points of the mesh, a set of windings connected to the mid points of the mesh, and a plurality of resistances, each of which being connected between the end of one of said windings connected to the mid points of the mesh and the end of the winding connected to the point of the mesh diametrically opposite, which consists in short-circuiting one of said sets of windings and thereby leaving the other of said sets connected in star through said resistances, and then simultaneously varying said resistances so as to gradually increase the amount thereof connected between the ends of said set of windings connected in star through said resistances.

8. The method of starting an alternating current motor having armature and field members with windings on each member adapted to give two different basal numbers of poles for cascade working, the windings on said armature member comprising mesh connected windings, a set of windings connected to the points of the mesh, a set of windings connected to the mid points of the mesh, and a plurality of resistances, each of which being connected between the end of one of said windings connected to the mid points of the mesh and the end of the winding connected to the point of the mesh diametrically opposite, which consists in short-circuiting one of said sets of windings and thereby leaving the other of said sets connected in star through said resistances, connecting a source of direct current supply to the windings on the field member, and then simultaneously varying said resistances so as to gradually increase the amount thereof connected between the ends of said set of windings connected in star through said resistances.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,244,984. REPAIRER AND SEALER. Elbanor Johnson, Centralia, Wash. Filed Jan. 13, 1917. Serial No. 142,157. (Cl. 81—15.)



1. A device of the character set forth comprising a cover-engaging member, handles formed on the cover-engaging member for clamping said member upon the cover of a jar, and means adjustably carried by one of the handles for straightening the lip of a cover.

2. A device of the character set forth comprising a cover-engaging member, handles formed on said member, and a curved arm for removing the bulge from the top of a jar-cover.

3. A device of the character set forth comprising a jar-engaging member, handles formed on said jar engaging member to cause the member to grip a jar cover, and a bolt adjustably carried by one of the handles for engagement with the lip of the cover to straighten the same.

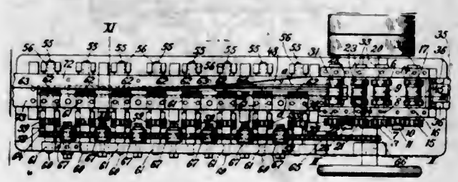
4. A device of the character set forth comprising a cover-engaging member, handles formed on the cover engaging member for causing the member to grip a cover, a threaded bearing carried by one of said handles, and an adjusting bolt threaded to the bearing and adapted to engage the lip of a cover to straighten the same.

5. A device of the character set forth comprising a cover-engaging member, handles formed on the cover-engaging member for causing the member to grip a cover,

and an arm carried by one of the handles and adapted to overlie the cover of a jar and engage the cover-engaging member to remove bulges from the cover upon rotation of said cover engaging member.

[Claims 6 to 8 not printed in the Gazette.]

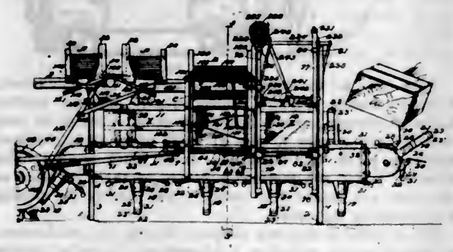
1,244,985. MACHINE FOR MAKING METAL BINDING FOR SUITCASES. Abraham Kipniss and Max Paul Neumann, of New York, N. Y., assignors to Benjamin Markowitz, New York, N. Y. Filed Dec. 7, 1916. Serial No. 135,628. (Cl. 153—11.)



1. In a machine for longitudinally bending a strip of sheet material, means forming a defined path through which a portion of the strip is fed and provided with a straight edge, means for acting upon the other portion of said strip comprising a member having a spiral surface whose inclination varies gradually from an initial position in substantially the plane of the strip to an acutely inclined position relative thereto, one edge of said surface being adjacent to and parallel with said straight edge, and means for feeding the strip parallel to said straight edge.

2. In a machine for longitudinally bending a strip of sheet metal, means forming a defined path through which a portion of the strip is fed and provided with a straight edge; means for acting upon the other portion of said strip comprising a member having a spiral surface whose inclination varies gradually from an initial position in substantially the plane of the strip to a position overhanging said straight edge, one edge of said surface being adjacent to and parallel with said straight edge; and means for feeding the strip parallel to said straight edge.

1,244,986. BOX ASSEMBLING AND NAILING MACHINE. Joseph B. Kitch, Cedaredge, Colo. Filed June 6, 1912. Serial No. 702,131. (Cl. 1—14.)



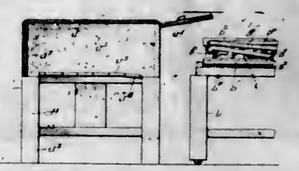
1. A box assembling machine having three successive stations spaced apart lengthwise of the machine slightly more than one dimension of the box to be formed, a former support adjacent said stations, means for moving it forward step by step substantially the said dimension at each step, a plurality of magazines for different parts of boxes, and means for simultaneously feeding to said former support parts of a plurality of boxes.

82. In a box assembling machine, a pair of box blank magazines arranged face to face and nearer together than the distance between the back and the front edge of a blank, and means for simultaneously feeding blanks from said magazines in opposite directions.

85. An endless traveling carrier having spaced upright arms against which the transverse pieces of the box are held, and the pivoted clamping arms operable to turn the transverse pieces from an inclined to a vertical position and hold them against the upright arms.

[Claims 2 to 31, 33 to 84, and 86 to 93 not printed in the Gazette.]

1,244,987. FOLDING BED. Carl R. Klok, Chicago, Ill., assignor, by mesne assignments, to United Table-Bed Company, a Corporation of Virginia. Filed May 26, 1913. Serial No. 769,889. (Cl. 5—17.)



1. A table bed comprising a table, and a folding bed removably supported by means within the upper portion of said table, adapted to be disconnected therefrom and unfolded for use, provided with separate legs upon which the entire bed rests when fully folded and while being moved toward the table.

3. A table bed comprising a table, and a folding bed in said table, adapted to be disconnected therefrom and unfolded for use, provided with separate legs upon which the bed rests while being moved into the table, and tracks concealed within the upper portion of the table for raising the bed and thereby lifting the legs off the floor.

5. A table provided with a fixed top, and a folding bed frame below said top, adapted to be moved outward bodily and then unfolded while said top remains in the horizontal plane thereof, means on the upper end portion of the table to support the folded bed frame for movement bodily in the direction in which the same unfolds, and folding legs for supporting the bed frame on the floor, said bed frame when entirely folded being movable bodily into said table.

8. A table provided with a top, and a folding bed below said top, adapted to be unfolded while said top remains in the horizontal plane thereof, provided with folding legs for supporting the bed, end walls for the table, tracks on said end walls, means for engaging said tracks when the folded bed is moved into the table, and legs supported by said bed when said means engage said tracks.

9. The combination of a table and folding bed frame, the latter telescoping within the former, when the bed is folded, having means on the sides of the frame and the ends of the table to lift the bed from the floor, and said table and bed being supported independently of each other when the folding bed is in use, permitting complete separation of the bed from the table by movement of the bed frame in the direction in which the same unfolds, and said bed frame when entirely folded being movable bodily into the table.

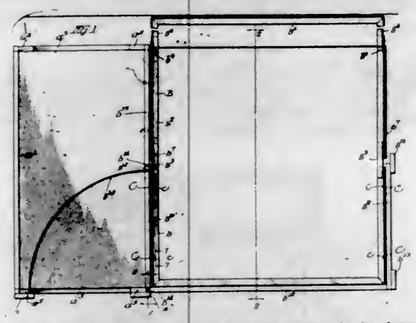
[Claims 2, 4, 6, 7, and 10 to 24 not printed in the Gazette.]

1,244,988. FOLDING BED. Carl R. Klok, Chicago, Ill., assignor, by mesne assignments, to United Table-Bed Company, a Corporation of Virginia. Filed May 26, 1913, Serial No. 769,890. Renewed Sept. 17, 1917. Serial No. 191,893. (Cl. 5—17.)

1. A folding bed comprising a body frame, an auxiliary frame pivoted in said body frame, adapted to swing outward about a vertical axis, and a folding spring bed bottom carried by said auxiliary frame and comprising pivotally connected sections one of which is mounted permanently right-side-up thereon.

3. A folding bed comprising a body frame, an auxiliary frame pivoted in said body frame, adapted to swing outward about a vertical axis, and a folding spring bed bottom carried by said auxiliary frame, said body frame having a table top below which the auxiliary frame and

bed bottom are concealed, the bed being adapted to be unfolded without disturbing said table top.



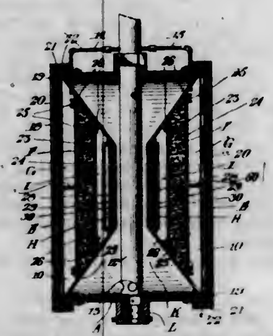
5. A folding bed comprising a rectangular body frame, a rectangular auxiliary frame pivoted to said body frame, adapted to swing outward about a vertical axis, and a folding spring bed bottom carried by said auxiliary frame, said axis being located at one corner of the auxiliary frame, and said auxiliary frame being adapted to stand at right angles to said body when the bed is in use.

7. In combination, a table forming a body, and a folding bed in said body, said bed and body being pivoted together for relative movement about a vertical axis, preliminary to unfolding of the bed, and said table having a fixed top which remains right side up during folding and unfolding of the bed.

12. In combination, a body, and a folding bed having a three-section frame in said body, said bed and body being pivoted together for relative movement about a vertical axis, preliminary to unfolding of the bed, the third section of the bed frame having said axis at one corner thereof and being permanently right-side-up, as set forth.

[Claims 2, 4, 6, and 8 to 11 not printed in the Gazette.]

1,244,989. WATER-PURIFYING APPARATUS. EDWARD MARTIN KNIGHT, New York, N. Y. Filed Nov. 16, 1916. Serial No. 131,719. (Cl. 210—16.).

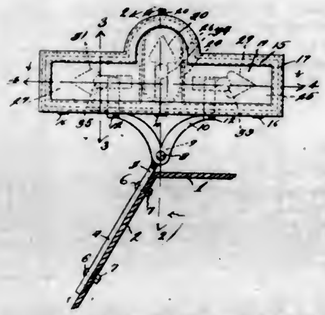


1. Water purifying apparatus having a submergible filtering element, a purifying element spaced from the filtering element, thereby forming a chamber between, and means for supplying air to the chamber.

[Claims 2 to 14 not printed in the Gazette.]

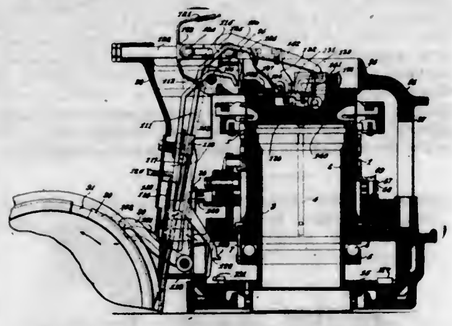
1,244,990. TRAFFIC-SIGNAL FOR AUTOMOBILES. FRED J. KOCH, New Baden, Ill. Filed July 21, 1916. Serial No. 110,543. (Cl. 40—132.)

In a traffic signal, a casing provided with an open face and having a closure for said open face, a support for said casing, a reflector casing within the first casing and provided with three compartments, each having illuminating means therein, said closure consisting of a rectangular frame having an elongated rectangular opening, the inner marginal edge of which extends inwardly toward the reflector casing, a colored glass secured in the opening of the frame of the closure, a stencil clamped between the inwardly extending marginal edge of the open-



ing of the closure frame and the marginal edge of the reflector casing, said stencil having three openings, one for each compartment, and each indicating a different signal, and means for supporting the reflector casing within the first casing.

1,244,991. CIRCULAR-KNITTING MACHINE. WALTER LARKIN, Boston, Mass., assignor to Jenckes Knitting Machine Company, Pawtucket, R. I., a Corporation of Rhode Island. Filed Aug. 13, 1914. Serial No. 856,547. (Cl. 66—12.)



1. A circular knitting machine having, in combination, a rotary needle cylinder, independently movable needles mounted therein, needle operating cams, a series of rods having yarn carrier fingers at their upper ends, inclined portions below the fingers, a guide plate having holes through which the inclined portions of the rods slide as the rods are raised and lowered, and means for raising and lowering the rods.

10. A circular knitting machine having, in combination, a rotary needle cylinder, independently movable needles mounted therein, needle operating cams, a yarn carrier for splicing yarn, a cam for raising and supporting the yarn carrier to withdraw the yarn from the needles, and a cam at the end of the supporting cam for drawing down the yarn carrier to insert the yarn.

[Claims 2 to 9 and 11 not printed in the Gazette.]

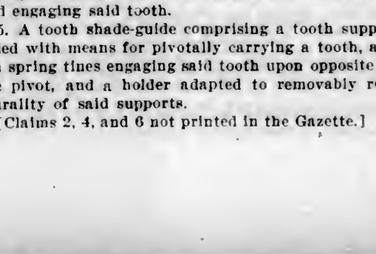
1,244,992. EXPANSION-BOLT. JOSEPH LEE, Brooklyn, N. Y. Filed Sept. 14, 1915. Serial No. 50,572. (Cl. 72—105.)

An expansion bolt having a hollow cylindrical member one end of which is slotted and carries cutting teeth, with means for removably attaching a tool to the end of the body opposite the teeth, whereby the body may be employed as a drill and by means of which the body may be removed from the cavity drilled thereby, a stem adapted to be placed within the body, said stem having a head of greater diameter than the bore of the body, said body,



stem and head being seated in the cavity drilled by the body, and means for moving the body relatively to the stem whereby the slotted, toothed end of the body may be expanded into intimate contact with the walls of the cavity.

1,244,993. HARROW. WILLIAM H. LEE, Syracuse, N. Y., assignor to Syracuse Chilled Plow Company, Syracuse, N. Y., a Corporation of New York. Filed Jan. 19, 1916. Serial No. 72,980. (Cl. 55—84.)



1. The combination of agricultural implements comprising frames having members extending forwardly and rearwardly thereof side by side, and coupling means joining said members and slidably engaging both of said members, substantially as and for the purpose described.

2. The combination of agricultural implements comprising frames having members extending side by side lengthwise thereof, a ring slidably and loosely coupling said members together and extending around both of said members, substantially as and for the purpose specified.

1,244,994. TOOTH SHADE-GUIDE. HERMANN HENRY LEUCHSENRING, Norwood borough, Pa., assignor to The S. S. White Dental Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 17, 1916. Serial No. 91,627. (Cl. 35—16.)



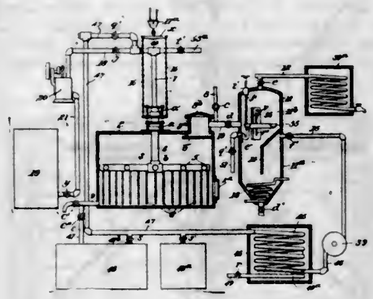
1. A tooth shade-guide comprising a tooth support provided with means for pivotally carrying a tooth, and having spring tines engaging said tooth.

3. A tooth shade-guide comprising a tooth support provided with means for pivotally carrying a tooth, and having spring tines extending integrally from said support and engaging said tooth.

5. A tooth shade-guide comprising a tooth support provided with means for pivotally carrying a tooth, and having spring tines engaging said tooth upon opposite sides of the pivot, and a holder adapted to removably receive a plurality of said supports.

[Claims 2, 4, and 6 not printed in the Gazette.]

1,244,995. PROCESS OF TREATING SEEDS AND NUTS FOR OBTAINING OIL AND OTHER PRODUCTS. BURDETT LOOMIS, Hartford, Conn., assignor to The Burdett Loomis Corporation, Hartford, Conn., a Corporation of Connecticut. Filed May 5, 1915. Serial No. 25,996. (Cl. 87—6.)



1. The process of extracting oil from seeds and nuts which consists in subjecting them in a closed tank to the action of hot water and acetic acid solvent, causing the solvent solution to circulate in contact with the material and release the oil and gummy or resinous matter, floating the oil and gummy or waxy matter off with the water and separating the oil from the water, collecting the heavier gummy or resinous matter and then reheating the acidulated water and again passing it through the material.

4. In the treatment of seeds and nuts with hot water and a solvent diffused therein, the process which consists in circulating the water and solvent up through the body of seed or nut material and thereby floating off the oil and gummy or waxy matter out of the tank into a separate chamber, therein allowing the liquor to become quiescent and then skimming off the oil in said chamber and drawing it off into a receptacle and at the same time allowing the gummy or waxy matter to settle.

6. The process of extracting oil from seeds and nuts, which consists in first extracting from seed or nut material tannic acid and coloring matter by circulating in contact therewith water and acetic acid at a temperature between 100° and 170° F., then drawing off and storing the tannic acid solution, then subjecting the material to the solvent action of hot water and acid solvents, at an increased temperature, separating and saving the extracted constituents such as oil and waxy or gummy matter, then drawing off the solvent liquor and remaining oil, and then circulating gas at a gradually increasing temperature in contact with the material till it is freed from ammonia or other volatile matter, and dried.

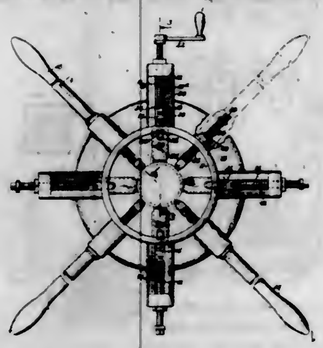
10. The process of treating seeds or nuts to extract oil and separate gummy and waxy matter, which consists in forcing into and through a body of the material in a closed tank numerous streams of warm or hot water containing an acid solvent and causing the solvent liquor and extracted matter to overflow into a separate chamber, and repeatedly circulating and forcing the solvent liquor in streams through the seed or nut material till the oil is sufficiently extracted.

[Claims 2, 3, 5, and 7 to 9 not printed in the Gazette.]

1,244,996. PIPE THREADING AND CUTTING MACHINE. FRANCIS AUGUSTUS LOVEGROVE, Halifax, Nova Scotia, Canada. Filed Mar. 21, 1917. Serial No. 156,353. (Cl. 10—121.)

1. In a pipe threading and cutting machine, a frame having a central opening and a radial guideway extending therefrom, there being a threaded orifice at the outer end of the guideway, a block for moving in the guideway, a screw articulated to the block and meshing in the threaded orifice, there being a transverse groove in the bottom of the block and an orifice extending inwardly therefrom, a

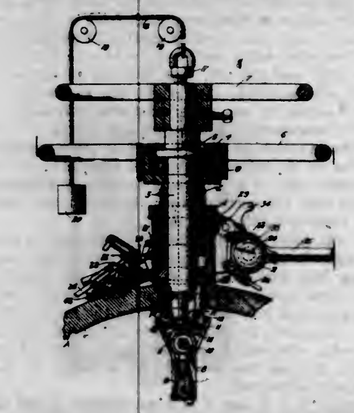
cutter having a transverse rim fitting the transverse groove in the block and a pin extending therefrom which fits the orifice in the block, and a clamp for holding the cutter in position relatively to the block.



6. In a pipe threading and cutting machine, a frame having a central opening with radial guideways extending therefrom, blocks having cutters for moving in the guideways, means for moving the blocks in the guideways to desired positions, there being threaded orifices in the frame spaced from the radial guideways longitudinally of the frame, screws meshing in the threaded orifices, casters mounted on the screws, scales on the frame at the guideways, and scales on the screws for indicating the positions of the blocks and the positions of the screws relatively to the axis of the central opening.

[Claims 2 to 5 not printed in the Gazette.]

1,244,997. APPARATUS FOR SETTING BUNG-BUSHINGS. ALBERT C. LUDLUM, New York, N. Y., and ARTHUR LOWY, Newark, N. J., assignors to National Bush Company, a Corporation of New York. Filed Apr. 14, 1916. Serial No. 91,164. (Cl. 153—82.)



1. A bushing setting apparatus comprising a rotatable spindle carrying flanging means adapted to engage and flange the inner projecting end of a bushing inserted in a barrel, a clamping member adapted to engage the outer flange of the bushing, means holding the clamping member in fixed engagement with the bushing, a thrust bearing on the spindle, a sleeve between the thrust bearing and the clamping member having threaded engagement with the latter for effecting relative longitudinal movement between the flanging means and the clamping means, and means for rotating the flanging means independently of said clamping means and said sleeve to flange and set the bushing.

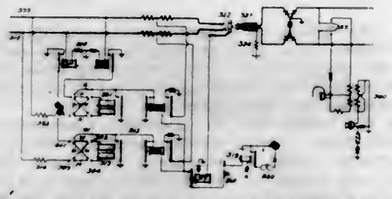
4. A bushing setting apparatus comprising a clamp member for engaging and holding a bushing against rotation, means for fastening said clamp member to the barrel against displacement and rotation, said means serving to hold the clamping member against the bushing, a rotatable flanging means within said clamp member for engaging and flanging the inner projecting end of a bushing, and means for moving said flanging means toward said clamp member to produce a flanging thrust independently of the clamping pressure.

7. A bushing setting apparatus comprising a clamp member for engaging and holding the bushing, a rotatable flanging means, and means adapted to encircle a barrel for holding the clamp member in clamping position on the bushing by tension to prevent displacement and rotation of the clamp member during rotation of the flanging means, said tension means being in part composed of means supporting the barrel in firm position.

11. A bushing setting apparatus comprising a clamp member adapted to engage and hold the bushing, rotatable flanging means within the clamp member adapted to engage and flange the inner end of the bushing, a barrel support, and adjustable link members respectively connecting opposite sides of said clamp member and the ends of said support for holding the clamp member against displacement and rotation during rotation of the flanging means.

[Claims 2, 3, 5, 6, 8 to 10, and 12 not printed in the Gazette.]

1,244,998. SELECTIVE SIGNALING SYSTEM. ALBEN E. LUNDELL, New York, N. Y., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed Sept. 25, 1915. Serial No. 52,707. (Cl. 179—27.)



1. In a telephone system, a multi-party telephone line including a metallic conductor, a plurality of sources of ringing current each of a different character, means for selectively applying said currents to said line, a relay responsive to any of said ringing currents connected to said conductor, a relay controlled by said first relay, a signal controlled by said second relay, and means controlled by said second relay for controlling the flow of said ringing currents.

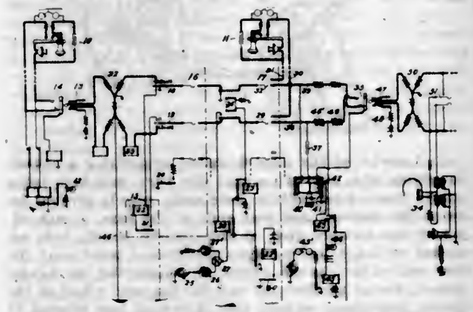
8. In a telephone system, a line, a source of signaling current, means for variably associating said source of current with the limbs of said line, a relay associated with said line and responsive to signaling current flowing in one direction, a circuit for said relay, means responsive to signaling current flowing in either direction for controlling said circuit, and a signal controlled by said relay.

[Claims 2 to 7 and 9 not printed in the Gazette.]

1,244,999. TELEPHONE-EXCHANGE SYSTEM. ALBEN E. LUNDELL, New York, N. Y., assignor to Western Electric Company, Incorporated, of New York, N. Y., a Corporation of New York. Filed Nov. 29, 1915. Serial No. 64,060. (Cl. 179—27.)

1. In a telephone exchange system, an incoming and an outgoing line, means for establishing a connection between said lines, a signaling circuit closed upon the establishment of said connection, a signal in said circuit associated with the outgoing line, a relay in said circuit actuated in response to the operation of said signal, and means operative thereupon for rendering said circuit ineffective.

2. In a telephone exchange system, a plurality of lines, means for establishing a connection between calling and called lines, a signaling circuit closed upon the establishment of said connection, a signal in said circuit associated with said called line, a relay in said circuit energized in response to the actuation of said signal, and means operative thereupon for opening said circuit.



3. In a telephone exchange system, incoming lines and a plurality of classes of outgoing lines, means for establishing a connection between a calling incoming and a called outgoing line, a signaling circuit closed upon the establishment of said connection, a relay associated with each of said incoming lines, a signal associated with each of said outgoing lines, a manually operable switch associated with each outgoing line belonging to one class, means operative upon the establishment of a connection for closing a signaling circuit including the relay associated with the calling incoming line and the signal associated with the called outgoing line, means operative in response to the actuation of the switch of the called outgoing line for energizing said relay, means responsive to the actuation of a signal associated with the outgoing line belonging to another class for energizing said relay, and means operative upon the energization of said relay for opening said circuit.

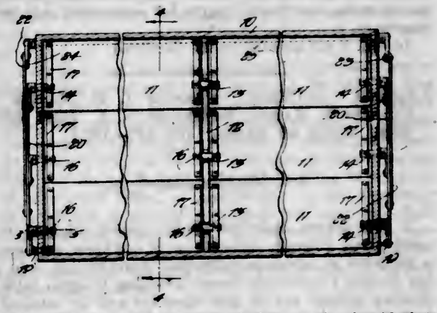
4. In a telephone exchange system, a plurality of lines, means for establishing a connection between a calling and a called line, a signaling circuit closed upon the establishment of said connection, a signal in said circuit associated with said called line, a marginal relay in said circuit prevented from being energized upon the closure thereof, and means operative in response to the actuation of said signal for permitting the energization of said marginal relay.

5. In a telephone exchange system, incoming lines and a plurality of classes of outgoing lines, means for establishing a connection between a calling incoming and a called outgoing line, a signaling circuit closed upon the establishment of said connection, a marginal relay associated with each of said incoming lines, a signal associated with each of the outgoing lines, a manually operable switch associated with each of the outgoing lines belonging to one class, means operative upon the establishment of a connection for closing the signaling circuit including the relay associated with the calling incoming line and the signal associated with the called outgoing line, said relay being prevented from energizing upon the closure of said circuit, means operative in response to the actuation of said switch for permitting the energization of said relay, means responsive to the actuation of a signal associated with an outgoing line belonging to another class for permitting the energization of said relay, and means operative upon the energization of said relay for opening said signaling circuit.

[Claims 6 to 8 not printed in the Gazette.]

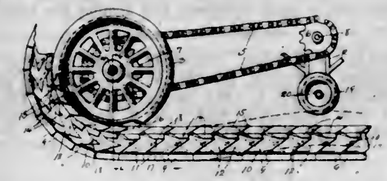
1,245,000. DUMPING-WAGON. WILLIAM JOHN MCGEE, Daisy, Ga. Filed Oct. 20, 1916. Serial No. 126,794. (Cl. 21—20.)

A wagon box or body having an intermediate lower cross strip and series of laterally opening slats forming the bottom or base thereof, arranged upon opposite sides of the said cross strip, shafts connecting the adjacent ends of the said slats and having bearings in the said cross strip, trunnions at the outer ends of the several slats having bearings in, and projecting beyond, the forward and rear ends of the box or body, cranks secured to the exteriorly projecting ends of said trunnions, an operating shaft journaled longitudinally within the lower portion of the box or body, and having operating levers in its opposite ends, and connections between the said levers and the



cranks of the respective series of slats, each of said slats having cut-out portions at its opposite ends into which the extreme ends of the connecting shafts and the trunnions project in the same plane with the slats, and cross bars extending across the faces of the slats and rigidly connected intermediate their ends to the said ends of the connecting shafts and trunnions, said cross bars being also secured to the said slats, whereby to reinforce the latter and support the said shafts and trunnions in connection therewith.

1,245,001. TRACTOR-BELT. HUGH MCGUCKIN, Syracuse, N. Y. Filed Mar. 27, 1917. Serial No. 157,797. (Cl. 21—150.)



1. A tractor belt including interlocking sections having tread portions extending transversely, flexible means for connecting the adjacent sections, an upright web mounted upon each tread portion having a slot and a pin for interlocking with adjacent webs, and an angular rail portion upon each web adapted to support the wheels of a vehicle.

2. A tractor belt, comprising overlapping and interlocking units, each unit including a transversely disposed tread, a web mounted on said tread having pointed ends extending beyond the lateral edges of said tread, oppositely disposed flanges carried by said web and engaged by said pointed ends of the adjacent webs, and angular track portions disposed above the said flanges.

3. A tractor belt comprising interlocking units, each unit including a transversely disposed tread, a web mounted on said tread having pointed ends extending beyond the lateral edges of said tread, oppositely disposed flanges carried by said web adapted to be engaged by said pointed ends, angular track portions disposed above said flanges, said track portion of one unit adapted to overlap the track portions of the adjacent units, and means for flexibly joining said units together.

4. A tractor belt including a plurality of interlocking units having tread portions extending transversely, springs for connecting said treads together, an upright

web mounted on each tread portion having a slot and a pin for interlocking with two adjacent webs, and a track portion surmounting each web adapted to support grooved wheels of a vehicle.

5. A tractor belt comprising a plurality of units flexibly joined together to form an endless belt, each unit consisting of a tread, a web, and a track portion for engaging and supporting the wheels of a vehicle, each web having a slot and a pin for interlocking with adjacent webs disposed on each side thereof, and each web having laterally projecting flanges engaged by the opposite ends of the adjacent webs, and flexible parts for connecting said treads together.

[Claim 6 not printed in the Gazette.]

1,245,002. PACKING. CHARLES I. E. MASTIN and CHARLES R. MASTIN, Hawthorne, N. J. Filed Mar. 4, 1916. Serial No. 82,088. (Cl. 137—121.)



1. The herein described elastic gasket adapted to be compressed between opposite joint surfaces and having a plurality of openings extending therethrough, said gasket having a relatively broad low-lying integral table extending around one of said openings and an integral rib higher but narrower than the table also extending around one of said openings, the table and rib being formed on the sealing face of the gasket.

2. The herein described elastic gasket adapted to be compressed between opposite joint surfaces and having a plurality of openings extending therethrough, said gasket having a relatively broad low-lying integral table extending around one of said openings and an integral rib higher but narrower than the table extending around the other opening, the table and rib being formed on the sealing face of the gasket.

3. The herein described elastic gasket adapted to be compressed between opposite joint surfaces and having an opening extending therethrough, said gasket having a relatively broad low-lying integral table around said opening and one or more narrower ribs around the table.

1,245,003. PACKING. CHARLES I. E. MASTIN and CHARLES R. MASTIN, Hawthorne, N. J. Original application filed Mar. 4, 1916, Serial No. 82,088. Divided and this application filed Apr. 5, 1917. Serial No. 159,871. (Cl. 137—121.)

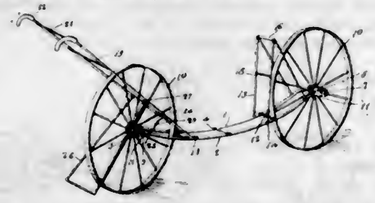


The hereindescribed elastic gasket adapted to be compressed between opposite joint surfaces and having an opening extending therethrough, said gasket having a relatively broad low-lying integral table extending around the said opening and formed upon the sealing face of the gasket, and an upstanding rib extending around the opening and formed on the table.

1,245,004. TRUCK. WILLIAM H. MAYFIELD, Wamic, Oreg. Filed Oct. 14, 1916. Serial No. 125,581. (Cl. 21—65.)

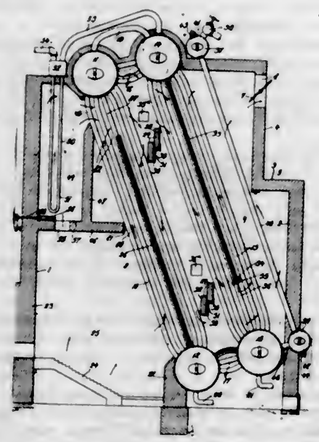
1. A device of the class described comprising a chassis, wheels mounted in the forward and rear ends of said chassis, handle bars extending upwardly and angularly from the chassis adjacent the rear end, and a foot rest connected to the handle bars for supporting the weight of the operator.

2. A device of the class described comprising a chassis, wheels mounted in the forward and rear ends of said chassis, handle bars extending upwardly and rearwardly from the chassis near its rear end, legs extending downwardly and rearwardly from the handle bars, said legs being pivoted to the handle bars to enable the same to be thrown upwardly and out of operative position, a foot rest connecting the extreme rear ends of the legs, and extensions on the rear axle of the rear wheel for supporting the legs and foot rest in operative position.



3. A device of the class described comprising a chassis consisting of a pair of parallel side bars, said bars being curved down intermediate their ends, wheels pivoted between the forward and rear ends of the bars, a rack adjacent the forward ends of the chassis, handle bars attached to and extending upwardly from a point near the rear end of the chassis, braces for supporting the handle bars in proper position, an axle for the rear wheel of the device, extensions on said axle, a pair of legs pivoted to the handle bars intermediate their ends, and a foot rest connecting the extreme rear end of the legs to provide a supporting means for the operator of the device, the said legs engaging the extensions on the axle when in operative position to limit the downward movement of the foot rest.

1,245,005. BOILER. EDWARD C. MEIER, Phoenixville, Pa. Filed Apr. 3, 1917. Serial No. 159,399. (Cl. 122—476.)



1. The combination with a boiler casing, of a boiler unit having angularly disposed water tubes, means providing a fire box, an arched wall directly above said fire box, a baffle wall leading directly to said tubes at its upper end and joining the arch wall at its lower end to provide a chamber, a superheater extending into said chamber, said arch wall having a passage directly above the fire box and communicating with the latter and the superheater chamber, substantially as described.

2. The combination with a boiler casing, of a boiler unit having angularly disposed water tubes, means providing a fire box, an arch wall directly above said fire box, a baffle wall leading directly to said tubes at its upper end and joining the arch wall at its lower end to provide a chamber, a superheater extending into said chamber, said arch wall having a passage directly above the fire box and communicating with the latter and the superheater chamber, and a damper operative to regulate the size of said passage, substantially as described.

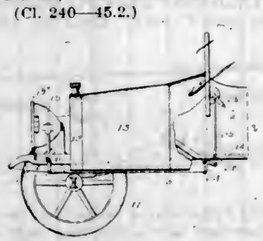
3. The combination with a boiler casing, of means providing a fire box, a water tube boiler unit adjacent the fire box, an arch wall directly above the fire box and having a portion extending into close proximity with the tubes of the boiler unit, a baffle wall projecting upwardly from the arch wall and having a portion located adjacent the tubes of said boiler unit, said arch wall and baffle wall providing a chamber within said casing, a superheater extending into said chamber, a baffle located adjacent to certain of the tubes of said boiler unit which are remote from said arch wall to provide a passage between the arch wall and said latter baffle, said arch wall having a passage communicating with the fire box and the superheater chamber, and a damper operative to regulate the amount of opening of said passage into the superheater chamber, substantially as described.

4. The combination with a boiler casing, of means providing a fire box, a water tube boiler unit adjacent the fire box, an arch wall directly above the fire box and having a portion extending into close proximity with the tubes of the boiler unit, a baffle wall projecting upwardly from the arch wall and having a portion located adjacent the tubes of said boiler unit, said arch wall and baffle wall providing a chamber within said casing, a superheater extending into said chamber, a baffle located adjacent to certain of the tubes of said boiler unit which are remote from said arch wall to provide a passage between the arch wall and said latter baffle, said arch wall having a passage communicating with the fire box and the superheater chamber, said baffle wall providing an outlet passage for the products of combustion passing through the superheater chamber, substantially as described.

5. The combination with a boiler casing, of means providing a fire box, a water tube boiler unit adjacent the fire box, an arch wall directly above the fire box and having a portion extending into close proximity with the tubes of the boiler unit, a baffle wall projecting upwardly from the arch wall and having a portion located adjacent the tubes of said boiler unit, said arch wall and baffle wall providing a chamber within said casing, a superheater extending into said chamber, a baffle located adjacent to certain of the tubes of said boiler unit which are remote from said arch wall to provide a passage between the arch wall and said latter baffle, said arch wall having a passage communicating with the fire box and the superheater chamber, said baffle wall providing an outlet passage for the products of combustion passing through the superheater chamber, said outlet passage communicating with the first-mentioned passage, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

1,245,006. LIGHT-RAY DEFLECTOR. CLAUDE E. MENTZER, Des Moines, Iowa. Filed Dec. 9, 1916. Serial No. 135,981. (Cl. 240—45.2.)



1. In a device of the class described, the combination of a light casing with an annular ring adapted to fit in the forward portion thereof, said ring having a peripheral outwardly extending flange at its forward end, a plurality of spaced horizontal rods rotatably mounted in said ring, a plurality of plates each having one edge fixed to one of said rods, said casing being contracted at its rear end, said plates being tapered toward their rear ends, arms extending forwardly from said plates, a link pivotally connected with said arms, a spring connected with said link and with the upper portion of said casing, a flexible member secured to said link and extending downwardly through said ring and casing, a bell crank lever centrally pivoted, having one arm pivoted to said flexible member, a link pivoted to the other arm of said bell crank lever, a second bell crank lever designed to be centrally pivoted below the body of a motor vehicle, having one arm pivoted to said last named link, a second link pivoted to the other arm of said last named bell crank lever and designed to extend upwardly through the floor of the motor vehicle, a bracket, a shaft mounted thereon for rotation, a toothed member fixed with relation to said shaft, and an arm fixed to said shaft, said last named link being pivoted to said arm, said arm having a spring controlled pawl adapted to coact with said teeth.

2. In a device of the class described, the combination of a lamp casing contracted at its rear end, an annular ring adapted to fit in the front end of said casing, a plurality of transverse rods mounted in spaced vertical succession for rotation in said ring, a plurality of plates each fixed at its forward edge on one of said rods, a forwardly extending rod on each plate, said plates being tapered toward their rear edges, a ling pivoted to the respective arms, a spring connected with said link and with said ring at one end of said link, an operating device connected with the other end of said link and extended through said ring and said casing, and means for moving said operating device.

1,245,007. KNITTING-MACHINE. MAX C. MILLER, Cumberland Hill, R. I., assignor to Jenckes Knitting Machine Company, Pawtucket, R. I., a Corporation of Rhode Island. Filed July 20, 1916. Serial No. 110,394. (Cl. 66—21.)



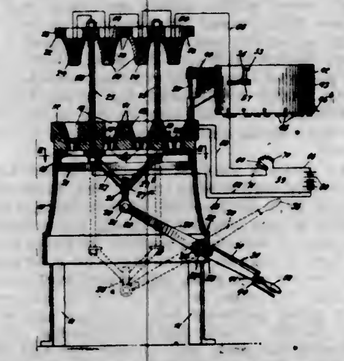
1. A knitting machine, having, in combination, independently-operated spring-needles, means for forming a two-stage knitting wave in the needles with an intermediate dwell, and means for feeding the yarn directly to the needles without sinking and pressing the beards during the first stage and for casting off the old loops during the last stage, the pressing being terminated while the old loops are on the spring part of the beards.

[Claims 2 and 3 not printed in the Gazette.]

1,245,008. MACHINE FOR MOLDING AND BAKING CONTAINERS FOR ICE-CREAM AND THE LIKE. WILLIAM E. MOORE, Chicago, Ill., assignor to Angus Henderson, Chicago, Ill. Filed Mar. 27, 1915. Serial No. 17,436. Renewed June 4, 1917. Serial No. 172,810. (Cl. 107—66.)

1. In a machine of the character described, a hollow base having a stationary transverse top plate provided with a vertically disposed passage therethrough serving as the female member of a mold for making a container of edible material, a movable support in the base, a plunger held on the support, and reciprocably disposed through the lower end of the female member, said plunger being formed to provide a movable bottom for the female member when lowered so that its free end rests in the lower open end of the female member, a carrier adapted to be raised and lowered to and from the top plate of the base, a male member on the carrier, adapted to be guided inwardly and outwardly of the female member when the carrier is accordingly moved, and the male member being smaller in size than the interior of the female member for forming the interior of the container, and means in the base, connected to the carrier and adapted to contact with the support of the plunger, whereby the carrier and the male member will be raised and lowered relative to the base for alternately inserting and withdrawing the male

member in and out of the female member as well as synchronously reciprocating the plunger in the female member when the said means is operated, substantially as set forth and for the purpose specified.



5. In a machine of the character described, a hollow base having a stationary transverse top plate provided with a vertically disposed passage therethrough serving as the female member of a mold for making a flat-bottom container of edible material, a plunger reciprocably disposed through the lower end of the female member, said plunger being formed to provide a movable bottom for the female member when lowered so that its free end rests in the lower open end of the female member, a male member movably supported on the base, adapted to be guided inwardly and outwardly of the female member when accordingly moved, and the said male member being smaller in size than the interior of the female member for forming the interior of the container, and operative means on the base, connected to the male member, and adapted to contact with the plunger, whereby the male member will be raised and lowered relative to the base for being alternately inserted in and withdrawn from the female member as well as synchronously reciprocating the plunger in the female member when the said means is operated, substantially as set forth and for the purpose specified.

8. In a machine of the character described, a hollow base having a stationary transverse top plate provided with a plurality of vertically disposed passages therethrough serving as the female members of a mold for making containers of edible material adapted to be baked, a plurality of plungers, one being reciprocably disposed through the lower end of each of the female members, the said plungers being formed to provide movable bottoms for the female members when lowered so that their free ends will rest in the lower open ends of the female members, male members of equal number to the female members, and adapted to be guided inwardly and outwardly of the female members when accordingly moved, and the said male members being smaller in size than the interior of the female members for forming the interior of the containers, operative means on the base, connected to the female members, and adapted to contact with the plungers, whereby the male members will be raised and lowered relative to the base for being alternately inserted in and withdrawn from the female members as well as synchronously reciprocating the plungers in the female members when the said means is operated, and heating means associated with the molds for baking the material of the containers when molded substantially as set forth.

11. In a machine of the character described, a hollow base having a stationary transverse top plate provided with a vertically disposed passage therethrough serving as the female member of a mold for making a container of edible material adapted to be baked, a movable support in the base, a plunger held on the support, and reciprocably disposed through the lower end of the female member, said plunger being formed to provide a movable bottom for the female member when lowered so that its free end rests in the lower open end of the female member, a bracket movably supported in the base so as to be raised and lowered to and from the top plate of the base, a male member on the bracket, adapted to be guided inwardly and outwardly of the female member when the bracket is accordingly moved, and the said member being smaller in size than the interior of the female member for forming the interior of the container, a manually operative lever in the base, connected to the bracket, and adapted to contact with the support of the plunger, whereby the bracket and the male member will be raised and lowered relative to the base for alternately inserting and withdrawing the male member in and out of the female member as well as synchronously reciprocating the plunger in the female member when the said means is operated, heating means associated with the molds for baking the material of the container when molded, and means for regulating the degree of heat supplied to the molds, substantially as set forth.

16. In a machine of the character described, a hollow base having a stationary transverse top plate provided with a plurality of vertically disposed passages therethrough serving as the female members of a mold for making containers of edible material adapted to be baked, a movable support in the base, a plurality of plungers held on the support, and one of the plungers being reciprocably disposed through the lower end of each of the female members, the said plungers being formed to provide a movable bottom for the female members when lowered so that their free ends will rest in the lower open ends of the female members, a carrier adapted to be raised and lowered to and from the top plate of the base, male members on the carrier of an equal number to the female members, adapted to be guided inwardly and outwardly of the female members when the carrier is accordingly moved, and the said male members being smaller in size than the interior of the female members for forming the interior of the containers, means in the base, connected to the carrier and adapted to contact with the support of the plungers, whereby the carrier and the male members will be raised and lowered relative to the base for alternately inserting and withdrawing the male members in and out of the female members as well as synchronously reciprocating the plungers in the female members when the said means is operated, heating means associated with the molds for baking the material of the containers when molded, and a hopper adjustably supported on the base whereby suitable quantities of the material for making the containers may be fed to the female members at intervals, substantially as set forth.

[Claims 2 to 4, 6, 7, 9, 10, and 12 to 15 not printed in the Gazette.]

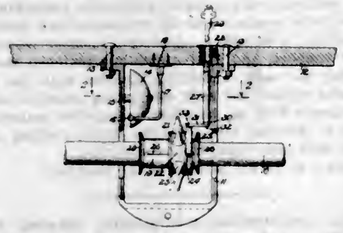
1,245,009. RAIL-JOINT. NERVE VAN POINDEXTER, Elkin, N. C. Filed Mar. 7, 1917. Serial No. 153,013. (Cl. 239—8.)



1. A rail joint comprising a rail section having at each end a recess provided with converging walls and having at its inner end a cone shaped enlargement, a second rail section provided at its end with a tongue having converging side walls and adapted to fit snugly in the said recess, the said tongue being provided at its end with a cone shaped enlargement adapted to fit snugly in the enlargement of the recess and a bolt passing through the enlargement of the tongue.

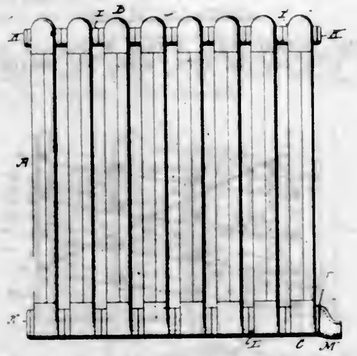
2. A rail joint comprising rail sections one of which is provided at its end and in the vicinity of its top side with a recess having converging side walls and provided at its inner end with a cone shaped enlargement, said rail section also having at its end and below the said recess a tongue provided at its end with a cone shaped enlargement, the side walls of the said tongue converging toward each other, the other rail section being provided at its end with a recess and a tongue adapted to engage the first mentioned recess and tongue, and bolts passing transversely through the enlargements of the tongues.

1,245,010. AUDIBLE ALARM FOR VEHICLES. HOWARD MORGAN, Philadelphia, Pa., assignor to L. H. Morgan, Hollywood, Louisville, Ky. Filed Jan. 24, 1917. Serial No. 144,127. (Cl. 116—1.)



In a device of the class set forth, the combination of a casing, a gong fixed in position within the casing, a clapper located adjacent to the gong and with the tongue portion thereof lying in a plane parallel to and at one side of the plane of the gong, a rotating shaft extending through the casing, a sleeve fixed to the shaft within the casing, a rotary actuator splined to the sleeve for rotation therewith and endwise movement thereon, said actuator including a series of projections lying normally in a plane remote from the plane of the gong tongue, a key-controlled rock shaft projecting into the casing, the axis of the rock shaft being at one side of and perpendicular to the axis of the rotating shaft, and connections between the rock shaft and the actuator whereby the actuator may be adjusted to bring the projections thereof within the plane of the tongue to cause the sounding of the gong when the first-mentioned shaft is rotated, said connections comprising a crank connected to the rock shaft, a yoke engaging the sleeve, and a link pivoted to both the yoke and the crank.

1,245,011. SHEET-METAL RADIATOR. THOMAS E. MURRAY, New York, N. Y. Filed June 17, 1916. Serial No. 104,172. (Cl. 257—140.)

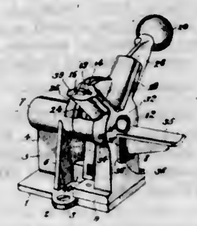


1. A radiator of sheet metal, comprising a body portion having in its opposite walls parallel registering projections electrically welded together to form ducts, the ends of said body portion extending beyond the ends of said projections, and cup-shaped caps registering at their edges with the end edges of said body portion and electrically butt-welded thereto.

2. A radiator of sheet metal, comprising a body portion formed of a single sheet of corrugated metal bent upon itself in flat tubular form and electrically welded at its meeting edges, the opposite walls of said body portion having parallel registering projections electrically welded together to form ducts, the ends of said body portion extending beyond the ends of said projections, and cup-shaped caps registering at their edges with the end edges of said body portion and electrically butt-welded thereto.

3. A radiator of sheet metal, comprising a plurality of parallel sections, each section comprising a body portion having in its opposite walls parallel registering projections electrically welded together to form ducts, the ends of said body portion extending beyond the ends of said projections, cup-shaped caps registering at their edges with the end edges of said body portion and electrically butt-welded thereto, and flanges on opposite sides of said caps surrounding openings in said caps; the flanges of adjacent sections being electrically butt-welded together.

1,245,012. CIGAR-SLITTING MACHINE. JOHN EMIL NORQUEST, Richmond, Va., assignor to P. Lorillard Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 1, 1916. Serial No. 134,311. (Cl. 131—48.)



1. In a machine of the class described, the combination with means for holding a cigar bunch, of cutting mechanism operable to cut a plurality of slits longitudinally in one end of the bunch and transversely therethrough, thus cutting out some of the material of the bunch end whereby the remaining portions of such end may be brought together to form a rounded, tapered, reduced tip, and means for manually operating the cutting mechanism.

3. In a machine of the class described, the combination of means for holding a cigar bunch, a plurality of cutters operable to cut a plurality of slits longitudinally in the bunch end and transversely therethrough, thus cutting out some of the material of the bunch end whereby the remaining spaced portions of such end may be brought together to form a rounded, reduced tip, and manually operable means for actuating the cutters successively while said operating means is moving in one direction.

9. A machine of the class described, comprising a base, a standard having a bearing on said base, a second standard on said base and having an opening therein, divergent knife guides having ways therein, a thimble in said opening having its walls provided with notches, the ways in said knife guides and the notches in said thimble being in communication, a grooved cam having a stub shaft, the latter being journaled in the bearing of the first mentioned standard, said shaft and grooved cam being reversely movable, a knife movable in the ways of each of said divergent knife guides, a roller carried by each knife and extending into the groove of said cam, and a rest arranged in juxtaposition to said thimble, as and for the purpose specified.

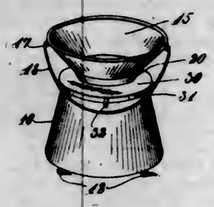
[Claims 2, 4 to 8, 10, and 11 not printed in the Gazette.]

1,245,013. SPITTOON. ALEKSANDER NOWAKOWSKI, Detroit, Mich. Filed Mar. 23, 1917. Serial No. 156,883. (Cl. 4—38.)

1. The combination with a support vessel having annular walls and an imperforate bottom, of an interior vessel adapted to rest upon the upper walls of said support vessel, means for engaging said interior vessel thereto, a meshed conical netting secured to the lower open edges of said interior vessel, a meshed cover hingedly secured to the lower edge of said meshed cone, means for holding said cover in engagement, and means for raising said interior vessel from said support vessel.

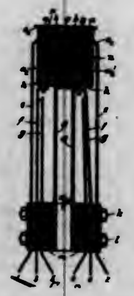
2. In a device of the class described, the combination with a hollow inverted conical vessel having an imperfo-

rate base and a plurality of casters engaged therewith, of a conical vessel adapted to be engaged within said inverted vessel, an annular flange formed exteriorly of said conical vessel, means combined with said flange whereby it may be removably engaged with said inverted conical vessel, a netted extension rigidly secured to the open edge



of said inner vessel, a reinforcing band at the bottom of said netted extension, a frame hinged to said reinforcement, said frame containing a meshed netting, means for securing said frame in operative position, and means for raising said inner vessel from said support vessel.

1,245,014. ELECTRICAL PROTECTIVE APPARATUS. FREDERICK R. PARKER, Chicago, Ill. Original application filed Aug. 20, 1904, Serial No. 221,519. Divided and this application filed May 29, 1914. Serial No. 841,728. (Cl. 175—275.)



1. The combination with an electrical heating device having a heater of aggregated comminuted material, of a conducting member holding the heating device in place and making electrical connection therewith, a one-piece spring member, and heat-susceptible material making actual contact with the said spring member and connecting same with the heating device, the said spring member exerting a shearing stress on the said heat-susceptible material tending to disrupt the said heat-susceptible connection.

2. The combination with electrothermal apparatus having a resistance heater device, of a conducting member holding the resistance heater device in place and electrically connected therewith, a one-piece conducting member, one of the said conducting members being a spring member, and heat-susceptible material normally connecting the second-mentioned conducting member with the resistance-heater device and holding the said spring member under tension, the said second-mentioned conducting member being in actual contact with the heat-susceptible material and exerting a shearing stress on the latter tending to disrupt the heat-susceptible connection.

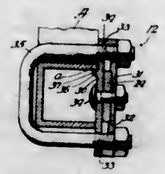
3. The combination with electrothermal apparatus having a heating device, of a conducting member holding the heating device in place and electrically connected therewith, a one-piece spring member, and heat-susceptible material normally connecting the said spring member with the heating device and holding said spring member under tension, the said spring member being in actual contact with the heat-susceptible material and exerting a shearing stress on the latter tending to disrupt the heat-susceptible connection.

4. The combination with electrical protective apparatus having a heating device, of a one-piece spring member, and heat-susceptible material normally connecting the said spring member with the heating device, the said spring member being in actual contact with the heat-susceptible material and exerting a shearing stress on the latter tending to disrupt the said heat-susceptible connection.

5. In automatically-operable protective apparatus having a suitable support and an excess-current resistance-heater device, a one-piece conducting member mounted to the said support, and heat-susceptible material normally connecting the said conducting member with the resistance-heater device, the said conducting member being in actual contact with the said heat-susceptible material and exerting a shearing stress on the latter tending to disrupt the said heat-susceptible connection.

[Claims 6 to 18 not printed in the Gazette.]

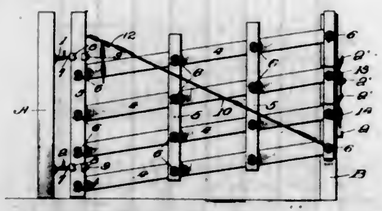
1,245,015. AUTOMOBILE-BUMPER. EDWARD PARRADEE, Chicago, Ill. Filed Jan. 31, 1917. Serial No. 145,636. (Cl. 213—89.)



1. In a bumper, the combination of a bar, supporting means therefor and means for attaching said supporting means to a car frame comprising a pair of plates positioned at opposite sides of the supporting means, one receiving the supporting means, and the other plate having projections for engagement with the car frame, said plates having interlocking teeth and registering openings and means engaging said openings for securing the plates to a car-frame.

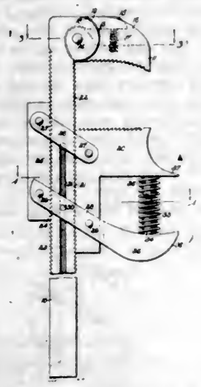
[Claims 2 and 3 not printed in the Gazette.]

1,245,016. FARM-GATE. GEORGE W. PAULLIN, Atlanta, Ill. Filed Dec. 13, 1916. Serial No. 136,704. (Cl. 39—80.)



A gate comprising a plurality of horizontal and vertical slats, the latter arranged in pairs, and pivotally connected together, one of the pairs of vertical slats being vertically adjustable at the hinge of the gate, a two-stranded cable connected with the outer lower pivot of the gate and extending diagonally to the upper end of the vertical slats at the hinged end of the gate, the strands of the brace embracing the slats of the gate from opposite sides and connected together at points therebetween, and chains for hooking the outer end of the gate against being raised or lowered.

1,245,017. WRENCH. POSFIRIO P. PÉREZ and FERNANDO SANTANA BATISTA, Key West, Fla. Filed Feb. 7, 1917. Serial No. 147,087. (Cl. 81—99.)

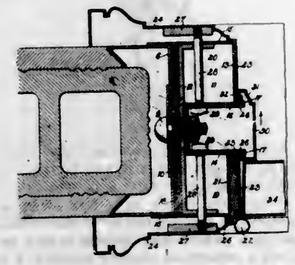


1. A wrench including a handled shank, a movable jaw thereon, and a relatively fixed jaw, the front and back surfaces of the said shank being toothed, said movable jaw having teeth to engage the opposed teeth on the shank, a gripping block at the back of the shank and toothed to engage the opposed teeth on the shank, parallel front and rear links extending at the sides of the shank and pivotally connected with the movable jaw and the gripping block, the rear links being integral with a head positioned at the rear of the movable jaw, and a spring interposed between the said head and the movable jaw and disposed longitudinally of the wrench.

3. A wrench including a handled shank, a slidable jaw thereon, and a second jaw on the shank in front of the movable jaw, the second jaw having a lug and the shank having a recess receiving said lug, a pivot extending through the shank and through the said lug, a rigid lateral arm on the shank in front of the pivot, forwardly extending flanges on the pivoted jaw at the front, said flanges extending at the sides of the fixed lateral arm of the shank, and a spring housed between the said flanges and abutting at its ends against the pivoted jaw and the said fixed arm.

[Claim 2 not printed in the Gazette.]

1,245,018. HOLLOW METAL JAMB AND TRIM. DANIEL PERIBONIS, New York, N. Y. Filed Apr. 2, 1917. Serial No. 159,107. (Cl. 189—46.)

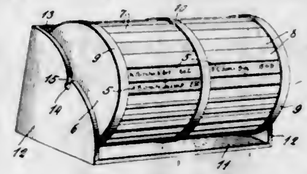


1. In combination, a buck, a hollow metal fastener having an inwardly-directed longitudinal channel, means for securing the fastener to the buck adapted to be accommodated within said channel, and a door abutment having means for engaging the fastener at the channel for rendering said channel invisible.

2. In combination, a buck, a hollow metal fastener having an inwardly-directed longitudinal channel, bolts carried by the fastener within the channel for securing the fastener to the buck, said fastener having longitudinal flanges at the channel, and a door abutment forming a cover for the channel having means for engaging the flanges of the fastener.

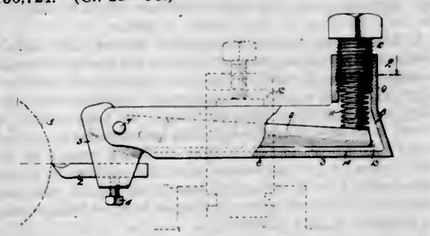
[Claims 3 to 10 not printed in the Gazette.]

1,245,019. EXHIBITOR. MICHAEL PERRETEN, Alliance, Ohio. Filed Dec. 4, 1914. Serial No. 875,418. (Cl. 40—68.)



An exhibitor comprising a rotatable drum composed of end walls and cross strips extending therebetween and arranged cylindrically to form the peripheral portion of the drum, said strips being wider at one longitudinal side edge than at the opposite longitudinal edge, and set so that the narrow edge of one strip abuts against the wide edge of the adjoining strip and leaves a portion of the latter exposed, the outer faces of the strips and said exposed side portions defining longitudinal recesses in the periphery of the drum, and encircling retaining strips mounted on the periphery of the end walls of the drum, and having a width greater than the width of said walls to overhang the end portions of the recesses.

1,245,020. RESILIENT TOOL-REST. LOUIS J. PIANAROSA, Trenton, N. J. Filed Feb. 24, 1917. Serial No. 150,724. (Cl. 29—96.)



1. A tool holder of the character described, comprising a casing designed to be clamped rigidly in position, said casing being hollow and having a hollow projection extending at right angles to the main part of the casing, said projection being arranged adjacent one end, an arm pivotally mounted in said casing at the end opposite said projection, said arm at the pivotal end carrying a receiving head, a spring arranged in said extension and engaging said arms and an adjustable member engaging said extension and acting on said spring for varying the tension thereof.

[Claims 2 and 3 not printed in the Gazette.]

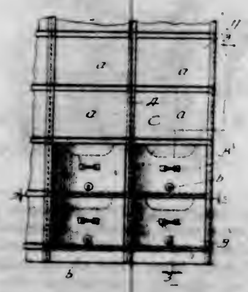
1,245,021. PLASTIC COMPOSITION. HARRY H. PIERCE, Indianapolis, Ind., assignor of one-tenth to John Keay, Indianapolis, Ind. Filed Jan. 30, 1917. Serial No. 145,503. (Cl. 106—34.)

A plastic composition including dry slaked lime, coke dust, ground clay and a stucco.

1,245,022. LOCKER SYSTEM. GRAHAM H. PIGGOT, Chicago, Ill., assignor to Federal Steel Fixture Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 30, 1916. Serial No. 117,613. (Cl. 45—37.)

1. In a locker system, a structure divided into compartments, individual storage drawers or lockers for inser-

tion in said compartments, devices to lock the drawers or lockers in place, a dressing cabinet common to the users of said individual drawers or lockers, said cabinet having a space in which any one of said drawers or lockers may be temporarily inserted, so that said users can take turns in occupying said cabinet, and said cabinet having means whereby the locking device of the drawer or locker inserted therein is operative to lock the cabinet in closed condition.



2. In a locker system, a structure divided into compartments, individual drawers or lockers for insertion in said compartments, devices to lock the drawers or lockers in place, a dressing cabinet common to the users of said individual drawers or lockers, said cabinet having a space in which any one of said drawers or lockers may be inserted, and said cabinet having means whereby the locking device of the drawer or locker inserted therein is operative to lock the cabinet in closed condition, said means comprising a door hinged to the cabinet and disposed above the drawer or locker, and locking devices on said door to engage the upper portion of the cabinet and the front portion of the drawer or locker.

4. In a locker system, a structure divided into compartments, individual drawers or lockers for insertion in said compartments, devices to lock the drawers or lockers in place, said drawers or lockers having their rear ends provided with openings through which the hand can be inserted, and said structure having a passageway in rear thereof to afford access to said openings, means to prevent access to said passageway, and a cabinet to receive said drawers or lockers and having means to close said openings to prevent access to the drawers or lockers when transferred to said cabinet.

6. The combination of a plurality of storage drawers or lockers, a structure to hold said drawers or lockers in storage position, and a cabinet to temporarily receive only one drawer or locker at a time, so that the persons to whom said drawers or lockers are allotted are compelled to take turns in using said cabinet, and means to lock any occupying drawer in place and the cabinet closed after the transfer of the drawer from said structure to said cabinet.

7. The combination of a plurality of drawers each having a rear opening, a main structure to hold said drawers and having means to afford access to said opening of each drawer, by an attendant, and an auxiliary structure to receive said drawers one at a time and having means to close said opening, so that a drawer is not accessible through its opening when temporarily retained in said auxiliary structure.

[Claims 3 and 5 not printed in the Gazette.]

1,245,023. SHOE-LACE FASTENER. EDMUND D. PRICE, Grover, Colo. Filed July 24, 1916. Serial No. 111,004. (Cl. 24—220.)

1. In a device of the class described, in combination, a main metallic supporting member provided with an integral folded flap at one end, a pivot spanning said flap member at one end, a channel shaped metallic member having its parallel walls journaled upon said pivot and provided terminally with hooks engaging the back wall of said flap so as to position said last named member at an inclination to said flap, a pivot journaled between the side walls of said last named member above the first pivot, a locking metallic member having a channeled portion member at one end in which the aforementioned channeled member fits and having at its opposite end an integral tongue disposed parallel with its main wall, said tongue and last-named wall having openings receiving the last-named pivot, opposing lugs formed at the upper corners of the sides of said channel shaped member, and a leaf spring secured to the back of said channeled member bearing against said lugs and also bearing against the cross piece connecting said tongue and locking member so as to cause the upper end of the channeled member to contact the back of said locking member.



2. In a device of the class described, in combination a plate formed at one end with an integral fold and provided at its opposite end with a U-shaped edge providing opposing arms, each arm having a substantially transverse slot of a shape to provide a hook disposed at an angle to the arm, the two arms of said plate being curved away therefrom, a fixed jaw having its lower end pivotally propped against the lower edge of the fold of said plate, a movable jaw pivoted on said fixed jaw and having a portion in front and a portion in back of said fixed jaw and a spring engaging the front portion of said movable jaw and forcing the rear portion of said movable jaw to contact said fixed jaw.

1,245,024. COMBINATION GARDEN-TOOL. TONY PUGLIESE, Los Banos, Cal. Filed May 15, 1917. Serial No. 168,828. (Cl. 55—25.)



1. In a combination tool of the class described, a head for attachment to a handle and having a pair of spaced arms each having a removable bearing member, a tool having a bar adapted to be mounted pivotally in said arms and bearing members and to be removed and reversed, said bar having a locking member, and said head also having a locking member to engage and coact with that of the bar to lock the tool in place.

2. In a combination tool of the class described, a tool member having a pivoted bar provided with a tooth locking member, a head for attachment to a handle and having a pair of spaced arms provided with bearings for said bar, the locking member of said bar being arranged between said arms, said head also having a cylindrical portion at the inner ends of the arms and provided with a recess arranged between said arms, a locking dog pivotally mounted at its outer end between said arms, said dog having teeth to engage those of the locking member of the bar when the dog is closed between the arms, and being also provided with an extended inner end to enter said recess, and a locking sleeve mounted for turning movement on the cylindrical portion of the head and provided with a notch for movement into and out of registry with said recess, said sleeve when turned with its notch out of alinement with said recess being adapted to engage over the extended inner end of the dog to lock the latter in closed and locking position.

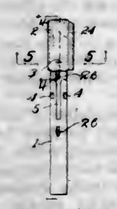
1,245,025. SPRING-SHACKLE. RUPERT LESLIE RAND, Amherst, Nova Scotia, Canada. Filed Mar. 12, 1917. Serial No. 154,804. (Cl. 267—37.)



1. A shackle of the class described, comprising a pair of side members having tapered pockets in the upper and lower ends, and tubular pins extending between the said side members and having tapered ends engaging with the said pockets, said side members having gutters around the inner periphery of the pockets and one of said side members having a conduit operatively connecting the gutters around its upper and lower pockets.

2. A spring shackle of the class described comprising a pair of side members having pockets in the upper and lower ends provided with gutters in the inner walls, tubular pins extending between the side members, having reduced ends engaging with the pockets, each of said pockets having an annular recess therein adapted to carry a washer and means for securing the side members and pins in assembled position.

1,245,026. SEAL. CHARLES J. REYNOLDS, Melrose, Mass. Filed Dec. 9, 1916. Serial No. 135,924. (Cl. 70—99.)



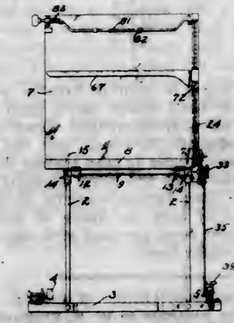
1. A sealing band having its ends provided with parts interlocking against longitudinal separation, one of said ends being also provided with a casing for inclosing said interlocking parts and with means distinct from said interlocking parts and overlapping and in contact with the other end of the band for holding said interlocking parts together.

5. A blank for a seal consisting of an elongated flat band having one end bifurcated and laterally notched in the bifurcations and the other end expanded laterally and extending lengthwise to form a casing and also provided along its central longitudinal line with a T-shaped cut out raised part and further having on lines parallel to said line a pair of cut out upwardly inclined parts, all of these cut out parts being in that portion of the blank which will make the bottom of the casing with the T-shaped part then serving as a guiding and locking lug and the two inclined parts serving as spring sealing ears as set forth.

6. A seal comprising a casing and a flexible band having one end fitting within said casing and interlocking therewith, the other end of the band carrying said casing and the latter being formed of transversely folded parts, the exterior and terminal one of which is weakened to be easily frangible in order to disclose by fracture any attempt at opening the casing.

[Claims 2 to 4 and 7 to 9 not printed in the Gazette.]

1,245,027. COPY-HOLDER. WILLIAM B. RHOADS, San Francisco, Cal. Filed June 8, 1916. Serial No. 102,468. (Cl. 120—34.)



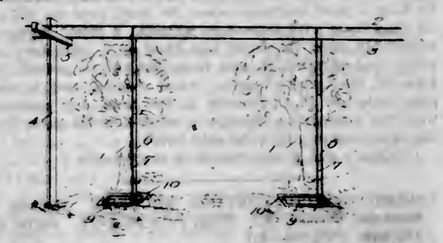
1. In a copy holder, a frame, a copy support mounted on said frame, an indicator overlying said copy support, means for advancing said indicator across said copy support, means for returning said indicator to first position, and means for automatically effecting the operation of said last-named means.

4. In a copy holder, a copy support, an indicator overlying said copy support, means for advancing the indicator across said copy support, means for returning said indicator to first position, means for holding the returning means inoperative and a trip arranged upon said indicator-advancing means for releasing said holding means.

11. In a copy holder, a frame, a copy support on said frame, an indicator mounted upon said copy support, a ratchet wheel mounted upon said frame, means mediately connecting the ratchet with the indicator, a key for turning said ratchet to advance said indicator across said copy support, a spring resisting the said turning of the ratchet, a pawl engaging said ratchet when released by said key, means on said indicator mounting for releasing said pawl from said ratchet, whereby said spring effects a recovery movement of said ratchet and said indicator, and means for varying the movement of said ratchet by said key.

[Claims 2, 3, and 5 to 10 not printed in the Gazette.]

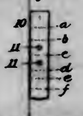
1,245,028. HEATING SYSTEM. GEORGE Q. RILEY, Corona, Cal. Filed Mar. 25, 1915. Serial No. 16,872. (Cl. 126—59.5.)



Means for protecting orchards, the same consisting of a plurality of open top water receiving containers disposed

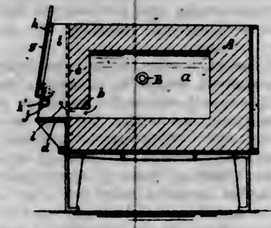
in excavations in the ground throughout the territory to be protected, the top of the containers being on a level with the surface of the ground to receive surface drainage, electric heaters disposed in said containers for vaporising the water thereof to produce a protective mist or fog, main lead wires for supplying electric fluid, and branch wires connecting the electric heaters in parallel with the main leads.

1,245,029. HANGER FOR LIGHT-TRANSMITTING BOWLS. JAMES T. ROSS, Bay Shore, and WILLIAM E. JEROME, Rockville Center, N. Y. Filed Apr. 14, 1917. Serial No. 161,965. (Cl. 240—115.)



A hanger for bowls in lighting fixtures, comprising a single flat strip of metal folded closely upon itself at or about its center for a predetermined distance, then bent horizontally in opposite directions, one end being bent downwardly at right angles to bear against the inner surface of a bowl, the other end being similarly bent for a less distance and then turned inwardly at right angles forming a clip to fit over the flange of the bowl, said closely folded portion being provided with registering openings to receive a chain hook.

1,245,030. FURNACE-SHIELD. WALTER S. ROCKWELL, New York, N. Y., assignor to W. S. Rockwell Company, New York, N. Y., a Corporation of New Jersey. Filed June 18, 1917. Serial No. 175,318. (Cl. 263—50.)



1. The combination, with a furnace having a doorway continuously discharging heated gases, of a furnace-front applied to the doorway and having a sill below the doorway and a hood sustained upon the front over the sill and closed at the sides and open at the top to form a draft-flue in constant connection with the doorway, such hood having its outer side formed of a shield adjustable to and from the sill for restricting the outward flow of the gases or, when desired, directing them wholly upward into the flue.

3. The combination, with a furnace having a doorway continuously discharging heated gases, of a furnace-front applied to the doorway and having a sill on a level with its floor, a hood sustained upon the front over the sill and its sides lined with refractory material, a shield supported adjustably upon the front and lined with refractory material and movable to and from the sill to prevent the forward discharge of gases, when desired, and a blast-pipe sustained at the mouth of the hood, and operating with the hood as an injector to draw the hot gases from the open doorway into the said hood.

[Claims 2 and 4 not printed in the Gazette.]

1,245,031. RAISIN-DRYING PROCESS. GEORGE C. ROEDING, Fresno, Cal. Filed July 23, 1917. Serial No. 182,306. (Cl. 99—5.)

1. The method of curing raisins by first dipping the grapes to be treated into an emulsion of lye and a vegetable oil, and then drying in a covered structure out of contact with the sun's rays, and upon open mesh trays whereby the air may circulate freely through the grape clusters.

2. The method of curing raisins which consists in dipping the grapes to be treated in an emulsion containing lye and olive oil, removing the excess of lye solution, and then spreading on poultry netting and drying in the shade.

3. The method of curing raisins which comprehends treating them with a solution to crack the skins to facilitate drying, and at the same time to render the skin flexible when the raisin is dried, and then exposing the raisins on netting, allowing the clusters to hang through the meshes of the netting and the air to circulate through the clusters, the clusters remaining upon the netting until dried.

4. The method of drying grapes which consists in dipping the grapes in a boiling solution of lye and olive oil and drying the grapes in the shade.

7. The method of curing raisins which comprehends the following steps: preparing an emulsion of caustic soda, olive oil and water in the proportions of approximately 8 pounds of caustic soda to one gallon of olive oil and 3 gallons of water, boiling the mixture slowly, adding water enough to make approximately 5 gallons in all, and then boiling to a thick jelly, this jelly solution being soluble in water without making suds; next, diluting the gelatinous mixture to form a solution in the proportions of approximately 100 gallons of water, 4 pounds of caustic soda and 1 quart of emulsion; next bringing the admixture last obtained to a temperature of approximately the boiling point; next immersing the grapes to be treated in the hot solution for approximately 3 seconds; next removing the grapes from the solution and freeing them from any lye solution that may adhere thereto and finally drying the same upon poultry netting and in the shade.

[Claims 5 and 6 not printed in the Gazette.]

1,245,032. HORSESHOE. STEPHEN G. ROGERS, Parkersburg, W. Va., assignor of one-half to Robert E. Bills, Parkersburg, W. Va. Filed Feb. 9, 1917. Serial No. 147,628. (Cl. 168—15.)



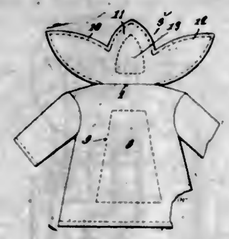
1. A horseshoe comprising a body including toe and heel portions, said heel portions being bifurcated, a resilient wedge secured within the bifurcation of the heel portion and having recesses, said heel portions having heel slots, shanks extending into the heel slots, flanges formed on said shanks and received within the recesses of the wedges, and pointed heads formed upon the shanks to form heel calks.

2. A horseshoe comprising a body including toe and heel portions, said heel portions being bifurcated, resilient wedge shaped members within the bifurcations, pins extending through the heel portions and into the wedge shaped members, said wedge shaped members having recesses, said heel portions having key-hole slots, calks extending through the key-hole slots and into the recess of the wedge shaped members to hold them against accidental movement and means on the calks for retaining them in the recesses of the members.

1,245,033. LIFE-PRESERVER. SAMUEL LESTER ROSS, Lockport, N. Y., assignor of one-third to Frank Trosso and one-third to Joseph Rotondo, Lockport, N. Y. Filed Mar. 16, 1917. Serial No. 155,265. (Cl. 9—17.)

1. A life preserver including a coat body having sleeves, a collar having head supporting means attached to the coat, and means for inflating the coat, sleeves and collar.

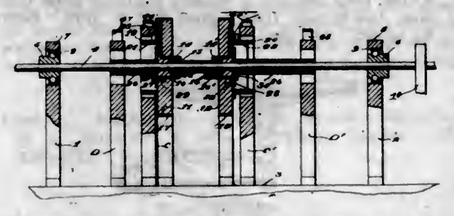
5. A life preserver including an inflatable coat body having sleeves, and an inflatable collar attached thereto adapted to support a wearer's head and having a recess or depression for receiving the head.



7. A life preserver including a collar, means for securing said collar upon the shoulders of the wearer said collar comprising a pair of buoyant side peaks and a central buoyant peak, said central peak having a depression, whereby said peaks will fit upon the wearer's head while said depression will receive the back of the wearer's head, whereby the wearer's head will be supported.

[Claims 2 to 4 and 6 not printed in the Gazette.]

1,245,034. WINDING AND REELING DEVICE FOR ELECTRIC CONDUCTORS. PASQUALE J. BUFFALO, Mount Vernon, N. Y. Filed May 10, 1916. Serial No. 96,587. (Cl. 248—10.)



1. A device of the character described, including bearing pillars, a shaft mounted on said pillars, a reel fixedly secured to the shaft, coaxial laterally extending collector sleeves secured to the opposite sides of the reel, collector rings arranged in spaced relation concentrically about said sleeves and secured to the reel sides, a plurality of standards having circular heads varying in diameter arranged adjacent said rings and sleeves, brushes carried by the annular heads and contacting with the rings and sleeves, and resilient means for connecting the extremities of the brushes.

2. A device of the character described, including bearing pillars, a shaft mounted on said pillars, a reel rotatable with the shaft and carried thereby, a plurality of coaxial collector sleeves secured to the opposite sides of the reel, collector rings arranged about the peripheral surfaces of the reel sides, standards arranged adjacent the sides of the reel and having their upper extremities formed substantially U-shaped, brushes carried by the U-shaped extremity and engaged with said collector rings, other standards arranged adjacent the collector sleeves and having circular heads of varying diameters, and brushes carried by the circular heads engaged with said collector sleeves.

1,245,035. WRENCH. WILLIAM H. RUMMEL, Dubois, Idaho. Filed Feb. 14, 1917. Serial No. 148,499. (Cl. 81—149.)

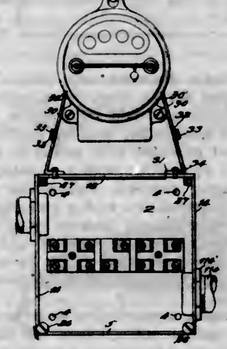
1. A wrench comprising a shank, a body slidable upon the shank, a movable jaw formed upon the body, said body having a recess, a locking member located within said recess, teeth formed upon said locking member, teeth formed upon the shank and adapted to engage the teeth of the locking member, a hand grip slidable upon the shank, an extension connected to the hand grip and slidably secured to the body and engaging the locking member to cause said locking member to move toward and from the shank to disengage the teeth thereon with the teeth of the shank.



3. A wrench comprising a shank, a stationary jaw formed on said shank, a body slidable upon the shank, teeth formed upon the shank, a movable jaw formed on said body, said body having a recess, the walls of said recess having grooves, a locking member disposed within the recess and having an inclined face, a shoulder formed on said locking member, teeth formed on said locking member and adapted to intermesh with the teeth of the shank, a hand grip slidable upon the shank, an arm secured to the hand grip, an extension formed on said arm and having an inclined face for coöperation with the inclined face of the locking member, oppositely disposed flanges formed on said extension and slidable in the grooves of the walls of the body, said extension having a dove tail groove in its beveled face, and a tenon formed upon the beveled face of the locking member and slidable within the dove-tail groove of the inclined face of the extension.

[Claim 2 not printed in the Gazette.]

1,245,036. PROTECTIVE CASING FOR ELECTRIC SERVICE CONNECTIONS AND METER DEVICES. JOSEPH SACHS, Hartford, Conn. Filed Jan. 21, 1915. Serial No. 3,491. (Cl. 247—17.)



2. A protective housing for service and meter connecting devices comprising a knock-down casing having means whereby a conductor can be led into or from the box in different directions and also having means for the connection therewith of a meter adapter extension in different ways.

9. A protective housing for service and meter connection devices comprising a casing or box, one section of which is of one of two different types, one type when positioned being adapted to condition the box for preliminary or non-service, and the other having means for the connection therewith of a meter adapter extension, and a cover having means for the connection with either type of section when the same constitutes for the time being a part of the box.

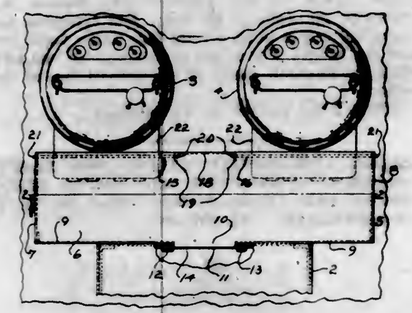
11. A protective housing for service and meter connection devices comprising a casing having a knock-down body portion and a cover for the body portion, separate means for holding the cover in place, one means being inclosed by the casing and the other means being exterior of the casing.

15. A protective housing for service and meter connection devices comprising a main casing to receive electrical connection devices, and an auxiliary casing extending between the main casing and a meter, a cover for said main casing, a cover for said auxiliary casing, means common to the two covers for sealing them in position.

21. A plurality of wall members adapted when assembled to form the wall portion of a casing, and a foundation member for the casing, said wall members being provided approximately at their ends with perforated projections, and four screws passing through the perforations of the projections and tapped into the foundation member, and one pair of screws extending outside said wall portion and being provided at their extended ends with cover holding flanges.

[Claims 1, 3 to 8, 10, 12 to 14, 16 to 20, and 22 to 26 not printed in the Gazette.]

1,245,037. MULTIPLE-METER ADAPTER. JOSEPH SACHS, Hartford, Conn. Filed July 26, 1916. Serial No. 111,385. (Cl. 247—17.)



1. A meter adapter provided with means for its cooperative association with a plurality of meters.

2. A meter adapter provided with means at one end for its coöperative association with an electric appliance containing box and provided with means at another end for its coöperative association with a plurality of meters.

7. A meter adapter provided with means for its protective coöperative association with a plurality of meters, the protective portion of said adapter being sectional to permit of the removal of one or more of said meters and for protectively closing the opening left by such removal in order to maintain the protective functioning of the adapter at all times.

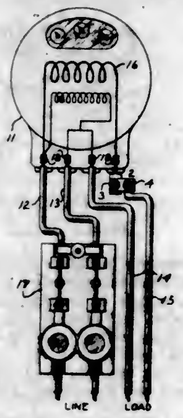
14. A meter adapter comprising a body having a front and sides and a portion intermediate the sides, and removable closure members extending between the sides and said intermediate portion.

[Claims 3 to 6 and 8 to 13 not printed in the Gazette.]

1,245,038. METER-TESTING APPURTENANCE. JOSEPH SACHS, Hartford, Conn. Filed Nov. 17, 1916. Serial No. 131,877. (Cl. 175—183.)

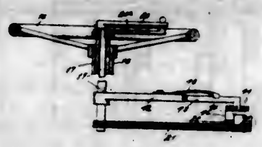
1. A meter testing appurtenance comprising two detachably connected elements, each having provision for the connection therewith of a testing appliance, and one of them being provided with means for the connection of said appurtenance with a meter, and the other having means for the connection therewith of a circuit wire.

5. A meter testing terminal provided with means for its connection to a circuit wire and also for its electrical connection to a meter terminal, said meter testing terminal being provided with means for receiving a testing device and also with means for electrically breaking the connection between said circuit wire and said meter terminal while maintaining the connection with the testing device and also provided with means for the connection of an additional testing device after the aforesaid electrical connection between the circuit wire and the meter terminal has been open.



[Claims 2 to 4 and 6 to 14 not printed in the Gazette.]

1,245,039. ELECTRIC MOTOR. ALSON C. SARGENT, Des Moines, Iowa, assignor to Sargent Electrical Brake Company, Des Moines, Iowa. Filed Mar. 6, 1916. Serial No. 82,463. (Cl. 200—14.)



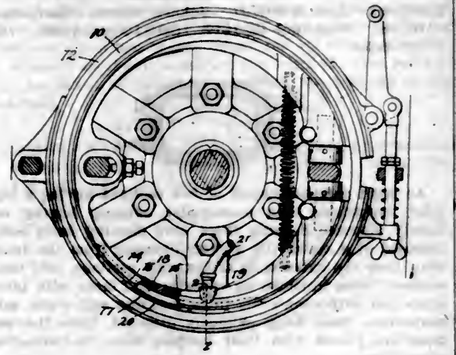
1. In a device of the class described, the combination of a vehicle frame with a switch thereon comprising a contact strip, a plurality of contact segments arranged in a line substantially parallel with said strip, a brush, means for yieldingly adjustably holding said brush in contact with said strip and segments, comprising a movable arm pivoted to swing on said frame, an arm member pivotally mounted thereon, a yielding device on said arm for engaging said arm member, a brush pivotally supported on said arm member, having a portion to contact with said strip, and a pivoted member to contact with said segments, whereby a combined triple pivotal brush and brush member support is afforded.

3. In a device of the class described, a switch comprising a contact strip, a plurality of contact segments arranged in a line substantially parallel with said strip, an arm pivotally mounted to swing in a plane parallel with and spaced from the plane in which said switch lies, a pivoted member on said arm, having its free end adapted to swing toward and away from said switch, a brush pivotally mounted on said pivoted member having a contact member adapted to engage said strip, and having a member pivoted to swing in a plane at right-angles to said first planes, and adapted to engage said segments, and means for yieldingly pressing the opposite end of the pivoted member on said arm toward said switch.

[Claims 2 and 4 not printed in the Gazette.]

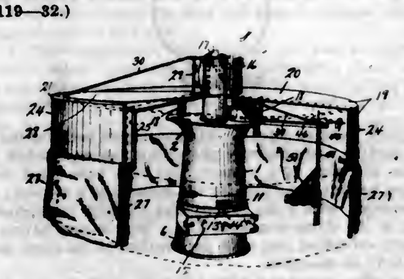
1,245,040. BRAKE MECHANISM FOR AUTOMOBILES. ARTHUR J. SCAIFE, Cleveland, Ohio, assignor to The White Motor Company, Cleveland, Ohio, a Corporation of Ohio. Filed Feb. 12, 1917. Serial No. 147,973. (Cl. 21—8.)

1. In brake mechanism for automobiles, the combination of a brake drum, an outside brake band, and an inside brake band,—the latter being formed with a recess and the outer periphery of said brake band having a plurality of holes through it leading to said recess, and means for delivering water into said recess.



2. In brake mechanism for automobiles, the combination of a brake drum, an outside brake band, and an inside brake band formed of a body member having a circumferentially extended recess in its outer periphery, a facing strip secured to the outer periphery of said body member covering and closing said recess and having a plurality of holes through it leading from said recess; said body member having on one side a laterally projecting lug through which is a hole leading to said recess, and means for delivering water to the recess through said perforated lug.

1,245,041. BROODER. WILLIS A. SCHLEIT, Syracuse, N. Y. Filed Oct. 6, 1914. Serial No. 865,314. (Cl. 119—32.)



1. In a brooder, a cylindrical shell open at one end and a heater disposed substantially centrally of said shell, said cylindrical shell having a movable sector shaped section hinged eccentrically of the shell.

[Claims 2 and 3 not printed in the Gazette.]

1,245,042. WINDOW. WILLIAM A. SCHOENING and JOSEPH PACHYNSKI, Chicago, Ill. Filed Aug. 24, 1916. Serial No. 116,614. (Cl. 20—42.)



2. A multifolding window comprising: a frame; a plurality of sashes, not less than four, pivotally connected together; and connections between certain of the sashes and opposite sides of the frame—those with one end sash being pivotal only, those with the other end sash being pivotal and sliding, and those intermediate being pivotal and sliding and extensible, substantially as described.

[Claim 1 not printed in the Gazette.]

1,245,043. ATTACHMENT FOR SUSPENDERS. ALONZO BUNT SCOTT, Fairmont, W. Va. Filed Dec. 8, 1916. Serial No. 135,775. (Cl. 24—73.)



1. In an attachment for suspenders, a bent plate U-shaped in cross section the sides of the U-shaped plate being cut away adjacent the central portion, a wire loop having two terminals disposed one above the other, two bearings disposed substantially in alinement through which one of the terminals is disposed, the terminal between the bearings being bent out of alinement with the bearings, and an additional bearing on the plate spaced vertically from the first bearings in which the other terminal is disposed.

4. In an attachment for suspenders, a bent plate U-shaped in cross section, a suspender strap having a portion disposed at the inner side of the central portion of the U-shaped plate, and a loop having terminals secured to the plate one above the other, the loop depending from the plate for the purpose specified.

[Claims 2 and 3 not printed in the Gazette.]

1,245,044. WINDOW-SCREEN. JOHN C. SCOTT, Lexington Pike, Kenton county, Ky. Filed Aug. 17, 1915. Serial No. 45,975. (Cl. 156—14.)



1. In a screen, the combination of a frame which on its inner edge is provided with a continuous flange arranged at right angle to the plane of the frame, screen-cloth extending across this frame and over the edge of this flange and turned down on this flange and against the side of the same, a second flange spaced from the first flange and parallel thereto, wedge-bars positioned between the two flanges and means operating to cause said bars, when moved lengthwise, to be shifted toward the down-turned edges of the screen-cloth to cause them to be clamped against the first named flange.

3. In a screen, the combination of a frame which on its inner edge is provided with a continuous flange arranged at right angle to the plane of the frame, screen-cloth extending across this frame and over the edge of this flange and turned down on the same and against the side thereof, a second flange spaced from the first flange and parallel thereto, strips to clamp the down-turned edges of the screen-cloth against the first flange, wedge-bars positioned between these strips and the second flange, com-

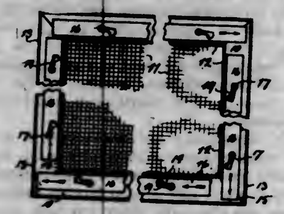
plementary projections and notches, one on one edge of the wedge-bars and the other in the member opposite it, whereby said bars, when moved lengthwise, are shifted against the clamping-strips and cause them to engage the edges of the screen-cloth.

4. In a screen, the combination of a frame which on its inner edge is provided with a continuous flange arranged at right angle to the plane of the frame, screen-cloth extending across the frame and over the edge of the flange and turned down on it and against the side of the same, a second flange spaced from the first flange and parallel thereto, means positioned between these two flanges to clamp the down-turned edges of the screen-cloth against the flange first mentioned and cap-strips to cover these means.

7. In a screen, the combination of frame-members comprising two spaced parallel flanges arranged at right angle to the plane of the screen, screen-cloth extending across the frame and with its edges into the space between these flanges, means to secure these edges in this space and cap-strips to cover these means.

[Claims 2, 5, 6, and 8 not printed in the Gazette.]

1,245,045. CONSTRUCTION OF WINDOW-SCREENS. JOHN C. SCOTT, Lexington Pike, Kenton county, Ky. Filed Oct. 16, 1916. Serial No. 125,804. (Cl. 156—14.)



1. In a screen the combination of flat frame-members endwise connected to form a continuous flat screen-frame, longitudinal shoulders on these frame-members, screen-cloth stretched across the frame so as to be parallel with the first members thereof and having its edges turned down over these shoulders, strips fitted flatwise against the flat frame members and means for adjustably holding these strips to the frame-members and in a manner permitting them to be moved endwise thereon and parallel to the screen-cloth and toward or from said shoulders to clamp the edges of the screen-cloth against them or to release them therefrom.

2. In a screen the combination of frame-members endwise connected to form the screen-frame, a flange projecting from these frame-members at an angle to the plane of the screen, screen-cloth extending across this frame and turned down over the edges of the flanges and against their sides, clamping strips for the screen-cloth, means whereby they are adjustably held on the frame-members so as to be lengthwise movable on them and in a manner so that this movement causes these strips to be also shifted laterally against the flanges mentioned so as to clamp the down-turned edges of the screen-cloth between them.

3. In a screen the combination of a frame, the members of which have clamping shoulders projecting therefrom, screen-cloth stretched across the frame and extending over these shoulders and down on the inner sides thereof, complementary clamping strips for these shoulders and means for holding them adjustably to the frame-members and in a manner permitting them to be edgewise moved with reference to the sides of the shoulders and in a direction parallel to the screen-cloth to clamp or to release the same.

5. In a screen the combination of the screen-cloth with a frame to which this cloth is secured, the members of the frame having shoulders, clamping strips for holding the edges of this screen-cloth against these shoulders, said strips having cam slots, projections on the frame-members adapted to be received by these slots, and handles on these clamping strips for manipulation, said handles being secured to the strips so as to bridge the slots in them thereby strengthening these strips and bracing them at their perforated portions.

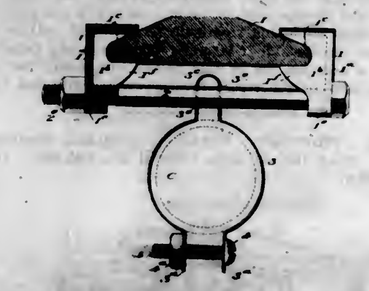
[Claim 4 not printed in the Gazette.]

1,245,046. INGOT-MOLD. JOSEPH SCOTT, Charleston, W. Va. Filed June 12, 1917. Serial No. 174,403. (Cl. 22—145.)



An ingot mold consisting of two sections having a lap-joint comprising two overlapping tongues having obliquely disposed meeting faces, said meeting faces being disposed at a materially greater distance from the inner than from the outer faces of the mold sections, said mold sections being provided on opposite side faces with pivot studs and with connecting links engaging said studs, said connecting links being obliquely disposed when the sections are placed with their meeting faces in contacting engagement.

1,245,047. CONDUIT-HANGER. HOWARD B. SHERMAN, Battle Creek, Mich. Filed Dec. 22, 1916. Serial No. 138,374. (Cl. 248—32.)

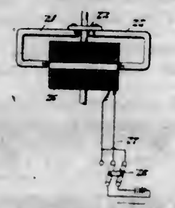


1. In a hanger, opposite clamp-members each having a base portion and inwardly projecting flanges notched to engage the edge of a support, and said base being perforated below the notches for the passage of a tie bolt; in combination with a tie bolt passing through the perforations in the clamp-members; and a hanger ring having a radially extending loop with perforations in its sides, substantially as described.

4. A clamp-member for the purpose specified, consisting of a base portion and inwardly projecting flanges on the sides of said base portion, said flanges being provided with notches adapted to engage the edge of a support, and said base having a perforation for the passage of a tie bolt below said notches when the member is in position for use, substantially as described.

[Claims 2, 3, and 5 not printed in the Gazette.]

1,245,048. SIGNAL. JOSEPH SHIFLET, McKeesport, Pa. Filed Nov. 25, 1916. Serial No. 133,490. (Cl. 177—337.)

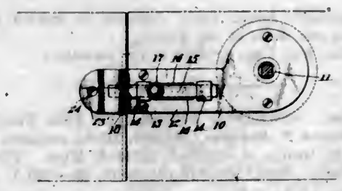


1. A signaling apparatus comprising a figure, a rod supporting the figure for rotation, an arm having one end

secured thereto, a pair of permanent magnets supported in alinement with each other by the remaining end of said arm, a solenoid arranged with the bore in alinement with one pole of each of the bar magnets and means for reversing the polarity of the solenoid.

2. A signaling apparatus comprising a figure mounted for arcuate movements, a pair of bar magnets each having one pole connected to the figure and its other pole free, a solenoid arranged to attract and repel the free poles of the magnets and means for reversing the polarity of the solenoid.

1,245,049. KNOB BOLT-LOCK. MORRIS L. SILVERSTEIN, Methuen, Mass. Filed Feb. 24, 1917. Serial No. 150,755. (Cl. 70—16.)

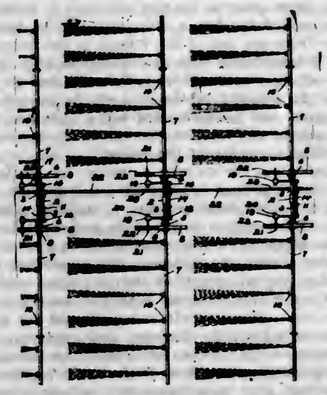


1. The combination with a door lock and an operating knob therefor provided with an escutcheon plate, of a bolt carrying extension formed integral with said escutcheon plate, a bolt operable thereon, a keeper plate for said bolt, said plate being formed by an angular extension of one edge of the keeper plate of the lock and a laterally extending terminal portion formed on said extension to provide securing means therefor.

2. The combination with a door lock and an operating knob therefor provided with an escutcheon plate, a bolt carrying extension formed integral with said plate, said extension being provided with bolt guiding arches, guiding flanges located between said arches, a bolt operable therein and a keeper for said bolt formed integral with the keeper plate of the lock.

3. The combination with a door lock and an operating knob therefor provided with an escutcheon plate, a bolt carrying extension formed integral with said plate, a bolt operable thereon, a lateral extension formed integral with the lock keeper plate and provided with an opening to receive the bolt and an angular extension formed on said lateral extension for attachment to the door casing.

1,245,050. IRRIGATING APPARATUS. CHARLES W. SKINNER, Newfield, N. J. Filed Nov. 11, 1913. Serial No. 800,257. (Cl. 137—66.)



1. An apparatus of the character described, comprising a sprinkling pipe, means for imparting to said sprinkling pipe a partial rotary movement in opposite directions and causing the same to move at varying speeds during said movements in opposite directions, said means being adjustable to change the ratio of acceleration of the variable speeds in each direction, substantially as described.

2. An apparatus of the character described, comprising a sprinkling pipe, means for imparting to said sprinkling pipe a partial rotary movement in opposite directions and causing the same to move at varying speeds during both movements, said means comprising a crank arm adjustably connected to a member, said member being secured to the sprinkling pipe, and moving in a different arc from the movement of said member, substantially as described.

4. An apparatus of the character described, comprising a vertical supply pipe, a horizontal sprinkling pipe having rotary connection with the supply pipe, a bracket secured to the supply pipe, a crank shaft in the bracket, and located parallel to the sprinkling pipe, a crank arm on said crank shaft connected with and adapted to turn the sprinkling pipe, and means for oscillating said crank shaft, the connection between the crank and the sprinkling pipe comprising a means whereby said oscillation of the shaft imparts to said sprinkling pipe a partial rotary movement in opposite directions and causes the same to move at varying speeds during both movements, substantially as described.

7. An apparatus of the character described, comprising a vertical supply pipe, horizontally extending stationary pipes connected to the supply pipe, horizontal sprinkling pipes, unions connecting the sprinkling pipes with the stationary extensions of the supply pipe permitting rotary movement of the sprinkling pipes, levers pivotally connected between their ends to the unions, said levers having longitudinal guides, thereon, a bracket adjustably secured to the vertical supply pipe, a crank shaft supported in the bracket, means for oscillating the crank shaft, and crank arms secured to the crank shaft and having movable engagement in the guides of the levers, substantially as described.

12. An apparatus of the character described, comprising a rotary sprinkling pipe, a support, a shaft mounted on the support, means on the shaft having connection with the sprinkling pipe for imparting an oscillating movement to said pipe, a segment adjustable in a transverse direction relative to the shaft and constituting an eccentric, and means on the periphery of the eccentric for imparting an oscillating movement thereto, substantially as described.

[Claims 3, 5, 6, 8 to 11, and 13 to 15 not printed in the Gazette.]

1,245,051. PITMAN FOR DRILLING-MACHINES. WILLIAM C. SOLE, Sullivan, Ind. Filed Feb. 8, 1917. Serial No. 147,275. (Cl. 74—17.)



1. In a pitman, the combination of a tubular member having a cap secured to its lower end and being pro-

vided in its opposite sides with parallel longitudinal slots, a rigid head at the lower end of the tubular member, a plunger connected to the head and extended through the cap and into the tubular member, the upper end of the plunger being threaded, a runner coöperating with the threaded portion of the plunger and having lugs projecting into said slots to prevent rotation thereof while the head and plunger may be rotated, a powerful spring surrounding the plunger within the lower end of the tubular member between said cap and said runner and serving to hold the head close to the cap, a lower end connecting member pivoted to said head and adapted to swing laterally from the general direction of the axis of the pitman so as to facilitate the adjustment of the plunger with respect to the tubular member, and means acting between the connecting member and said head to lock the same in alinement.

[Claims 2 and 3 not printed in the Gazette.]

1,245,052. COMBINATION-PADLOCK. JOHN R. SOMMS, Charlestown, Mass. Filed Sept. 15, 1916. Serial No. 120,330. (Cl. 70—19.)

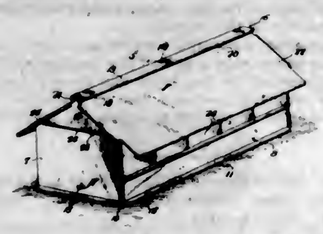


1. A padlock of the character described including a pair of coöperative shackle members, a bar rigidly connected to one of the shackle members, an extension projecting from one end of the bar, a barrel rigidly connected to the other shackle member and having a slot for receiving the bar and having an opening for receiving the extension, coöperative locking means on the bar and barrel, a knob on the outer projecting end of the extension and engageable at times with the barrel for limiting relative movement of the shackle members, and resilient means disposed about the extension and connected to the knob and to the barrel for normally holding the shackle members in a closed position.

2. A padlock including a pair of coöperative shackle members, a socket on one of the shackle members, a barrel rigidly connected to one end of the socket and provided with a slot and with an opening in the inner end establishing communication between the slot and the socket, a flange on the outer end of the barrel, a plurality of tumbler rings rotatably mounted on the barrel and provided with slotted flanges for registering with the slot in the barrel, a bar connected to the other shackle member and insertible in the slot in the barrel when the slots in the flanges and the rings are registered with the slot in the barrel, the bar being provided with a plurality of notches engageable by the flanges on the rings when the rings are rotated to lock the parts in a closed position, an extension projecting from the outer end of the bar and projecting through the opening in the barrel and into the socket, a knob carried by the outer projecting end of the extension and engageable at times with the barrel for limiting relative movement of the shackle members, and a coil spring disposed about the extension and connected to the knob and to the barrel for normally holding the shackle members in a closed position.

1,245,053. HEN'S NEST. PETER SORENSEN, Wolbach, Nebr. Filed Feb. 21, 1917. Serial No. 150,106. (Cl. 119—45.)

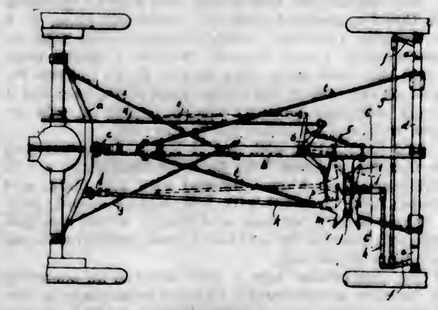
6. A hen's nest comprising end walls, a pair of closures, and yieldable means connected at one end with one closure and at its opposite end with the other of said closures for operatively connecting the closures together,



said yieldable means being disposed in spaced relation with the end walls of the nest.

[Claims 1 to 5 not printed in the Gazette.]

1,245,054. STEERING APPARATUS FOR TRAILERS. LAWRENCE N. SPENCER, Milford, Mich., assignor of one-half to George A. Gittins, Milford, Mich. Filed Oct. 28, 1916. Serial No. 128,147. (Cl. 21—137.)



1. Steering apparatus for trailers, having in combination, a draw pole, a double arm bell crank lever supported thereon and having its actuating end for connection with the steering wheels of the trailer, a slide for shifting to one end or the other of the actuated end of the double arm bell crank lever, and a link attached to the slide and whose forward end can be attached to the preceding vehicle at one side.

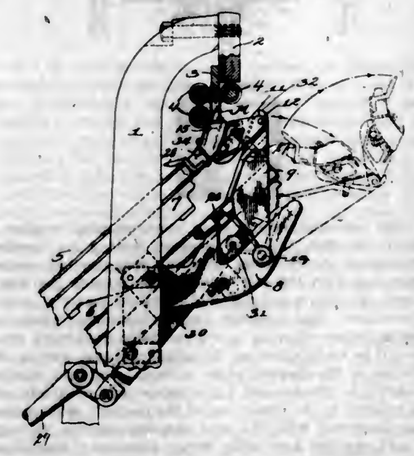
2. Steering apparatus for a trailer, having in combination, a draw pole, a bracket thereon, a slotted T-lever pivoted to the bracket, a slide engaging in said slot and slidable from one end of the T-head to the other, the stem of the T-head being used in connection with the steering wheels of the trailer, a draw link attached to said slide and for attachment to the rear of the preceding vehicle at one side, and means by which the slide may be shifted at one side or the other of the T-lever for the backing and forwarding operation of the trailer.

3. Apparatus for steering a trailer, having in combination, a draw pole, a bracket attached thereto, a T-lever having a slotted head portion, a star-like slide therein, a draw link attached to the slide and for attachment to one side of the preceding vehicle, and a line of links and levers for sliding the slide and for connection to a point convenient for the driver of the preceding vehicle.

4. Steering apparatus for a trailer, having in combination, a draw pole, a draft and push rod for attachment to a preceding vehicle, steering gear operating the steering wheels of the trailer, reversible transmission devices for transmitting the effort of the draft and push rod to the steering gear, and means for optionally setting the reversible transmission so that the push and pull effort of the draft and push rod is reversed when communicated to the steering gear.

5. Steering apparatus for a trailer, having in combination, a draw pole, a draft and push rod for attachment to a preceding vehicle, steering gear operating the steering wheels of the trailer, a lever for operating the steering gear pivotally supported, and connecting devices between said lever and the draft and push rod shiftable from one side to the other of the pivoting of the lever for the purpose set forth.

1,245,055. CHANNEL-ENTRANCE FOR TYPOGRAPHIC MACHINES. SAMUEL E. SPERRY, Woodhaven, N. Y., assignor to Intertype Corporation, New York, N. Y., a Corporation of New York. Filed Sept. 27, 1916. Serial No. 122,451. (Cl. 199—39.)



1. In a typographical machine embodying a matrix magazine, a matrix distributer therefor, and a channel entrance arranged between the magazine and distributer and movable in a direction longitudinally of the magazine, means coöperative with the magazine for insuring accurate registration of the entrance with the magazine.

2. In a typographical machine embodying a matrix magazine, and a matrix distributer therefor, an intermediate channel entrance movable to and from an operative position in a direction longitudinally of the magazine and provided with means to coöperate with the magazine and thereby position the entrance accurately relatively to the magazine.

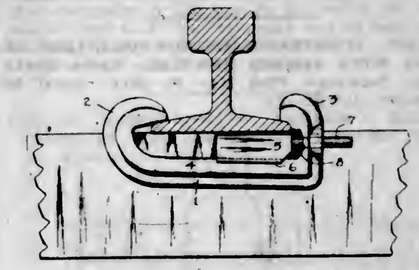
3. In a typographical machine embodying a matrix magazine, a channel entrance therefor movable to and from an operative position relatively thereto and carrying devices to rest upon the upper side of the magazine to guide the channel entrance for movement longitudinally of the magazine and thereby position the entrance relatively thereto.

6. In a typographical machine of the class embodying a matrix magazine and a matrix distributer, a channel entrance, a swinging frame to which said entrance is movably connected and operative to carry the entrance to and from an operative position between the magazine and distributer, and means on the entrance to coöperate with the magazine and thereby guide and hold the entrance in alinement with the magazine.

7. In a typographical machine embodying a magazine having matrix channels, a channel entrance comprising a plurality of partitions forming matrix-guiding spaces between them, certain of the partitions being composed of two thicknesses of material spread apart laterally and rejoined at a point within the magazine.

[Claims 4, 5, and 8 not printed in the Gazette.]

1,245,056. ANTICREEPER. JAMES ROBERT STEELE, Owego, N. Y. Filed Mar. 28, 1916. Serial No. 87,165. (Cl. 238—4.)

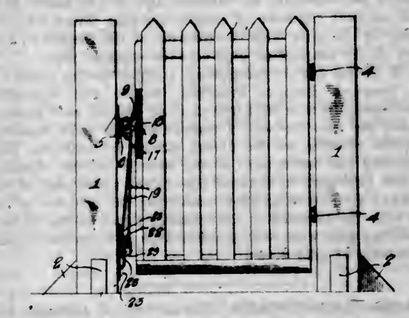


1. An anti-creeper comprising a yoke having hook ends to take over the edges of the rail-base and its connecting body constructed to be separated from the rail-base by clearance and wedging room, the top of said body being formed as a wedge-way sloping lengthwise of the yoke, and a wedge movable transversely of the rail in the space between the bottom of the rail-base and the top of the yoke-body and between the hook ends, the wedge being materially shorter than said space and the wedge-way whereon it travels.

5. An anti-creeper comprising a yoke adapted to embrace the rail base and having a wedge-way inclined to the plane of the rail base, the yoke being further provided in one end with an opening, a wedge movable on the wedge-way transversely of the rail, and a deformable locking rod coöperating with said opening.

[Claims 2 to 4 and 6 to 9 not printed in the Gazette.]

1,245,057. GATE-LATCH. ADELLE STILLINGS, Spanaway, and THOMAS W. CARL, Tacoma, Wash. Filed Apr. 18, 1917. Serial No. 162,939. (Cl. 70—28.)



1. A gate latch and operating mechanism, comprising supporting plates, latch and operating members rotatably carried by one of said plates, and means carried by the other of said plates for operating said members.

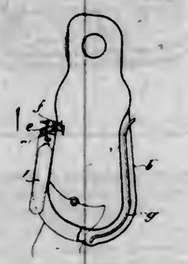
2. A gate latch and operating mechanism, comprising supporting plates, a shaft rigidly supported on the face of one of said plates, a pair of duplicate latch and operating members rotatably mounted on said shaft, and an operating means pivotally carried by the other of said plates and pivotally associated with the operating members for operating the same.

5. A gate latch comprising a pair of spaced supporting plates adapted to be secured to a gate post, a shaft rigidly secured to the face of one of the plates, a pair of treadles pivotally secured to the face of the other of said plates and located below the shaft of the first named plate, a pair of latch and operating members rotatably mounted on the shaft and arranged at a spaced distance apart, and links

pivotally connecting the operating members with the treadles whereby upon movement of the treadles, the operating members will be actuated.

[Claims 3, 4, and 6 to 8 not printed in the Gazette.]

1,245,058. SUBMERSION CONTROL FOR DIVERS' ARMOR WITH FLEXED MEMBERS. GEORG STOLLE, Kiel, Germany. Filed May 20, 1914. Serial No. 839,769. (Cl. 61—7.)



1. A diving device comprising a rigid diving dress; a rigid buoyant chamber attached thereto and separated from communication with the interior thereof; a compressed air tank separate from the interior of the diving dress; a discharge pipe connecting the lower part of the interior of the chamber with the exterior; an exhaust pipe in the upper part of the chamber; a connecting pipe connecting the interior of the tank with the interior of the chamber; and valves in the connecting pipe and the exhaust pipe.

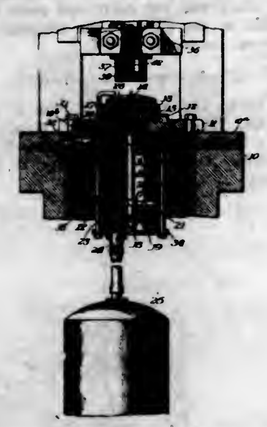
2. A diving device comprising a rigid diving dress; a rigid buoyant chamber attached thereto and separated from communication with the interior thereof, said chamber comprising one compartment; a compressed air tank separate from the interior of the diving dress; a discharge pipe connecting the lower part of the interior of the chamber with the exterior; an exhaust pipe in the upper part of the buoyant chamber; a connecting pipe connecting the interior of the tank with the interior of the chamber; and valves in the connecting pipe and the exhaust pipe.

3. A diving device comprising a rigid diving dress; a rigid buoyant chamber attached thereto and separated from communication with the interior thereof and passing between the legs thereof; a compressed air tank separate from the interior of the diving dress; a discharge pipe connecting the lower part of the interior of the chamber with the exterior; an exhaust pipe in the upper part of the chamber; a connecting pipe connecting the interior of the tank with the interior of the chamber; and valves in said connecting pipe and said exhaust pipe and operable from the interior of said dress.

1,245,059. DIE-CUSHION. DAVID STRAND, Chicago, Ill., assignor to The Strand Machinery Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 3, 1916. Serial No. 88,521. (Cl. 113—46.)

1. The combination of a sheet metal shaping member, means coöperating with said member for shaping the material, and embodying gripping means for the material, a freely detachable and self contained fluid pressure means for maintaining a substantially unvarying pressure on the gripping means during the operation of shaping the material, said fluid pressure means embodying a piston and a cylinder, said piston carrying a rod extending beyond the end of the cylinder and detachably secured to the said shaping member.

2. The combination of a sheet metal shaping member, means coöperating with said member for shaping the material, and carrying gripping means for the material, a freely detachable and self contained fluid pressure means for maintaining a substantially unvarying pressure on the gripping means during the operation of shaping the material, the said fluid pressure means embodying a cylinder and piston relatively movable, said piston carrying a rod extending beyond the end of the cylinder and detachably connected with the said shaping member, and also operating to support the cylinder.



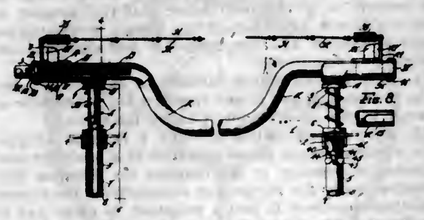
4. The combination of a sheet metal shaping member, a support therefor, the said support having an opening therethrough in alinement with the said member, means coöperating with the said member for shaping the material and embodying gripping means for the material, and a self-contained fluid pressure cushion operating upon the gripping means whereby a substantially unvarying pressure will be maintained on the gripping means during the operation of the shaping of the material, the said cushion embodying a cylinder and a piston movable relatively one with relation to the other, one of the parts of said cushion being connected with the said shaping member, through the said opening and being freely detachable therefrom, and means where the gripping means will be responsive in its operation to the operation of the other part of the cushion.

7. The combination of a sheet metal shaping member, a support therefor, said support having an opening therethrough in alinement with the said member, means coöperating with the said member for shaping the material and embodying gripping means for the material, a self-contained fluid pressure cushion operating upon the gripping means whereby a substantially unvarying pressure will be maintained on the gripping means during the operation of the shaping of the material, the said cushion embodying a cylinder and a piston movable relatively one with relation to the other, one of the parts of said cushion being connected with the said shaping member, through the said opening and being freely detachable therefrom, and an operative connection between the other part of said cushion and the said gripping means but being detached therefrom, and a compressed fluid tank having free communication with the cylinder, whereby the pressure in the cylinder and tank are always maintained substantially the same.

[Claims 3, 5, and 6 not printed in the Gazette.]

1,245,060. SPRING-BOTTOM FOR BEDS. STEPHEN STRANSKY, Philadelphia, Pa. Filed June 15, 1916. Serial No. 103,902. (Cl. 5—63.)

1. The combination in a bed bottom, of longitudinally extending tubular supports, said supports having slots therein, transversely extending members movable relatively to each other in the direction of the length of said slots, stretching members having portions positioned within said tubular supports and projections extending through said slots, flexible means connecting said transversely extending members, threaded adjusting members positioned within said tubular supports and engaging a threaded opening in said stretching members, means for holding said threaded adjusting members against longitudinal movement relative to said tubular supports, casings on said tubular supports and having portions engaging the ends thereof, said casings having openings in their end through which said threaded adjusting members extend, depending pins on said casings, and supporting sleeves into which said pins extend, substantially as described.



2. The combination in a bed bottom, of longitudinally extending supporting members designed to be secured to a bed, transversely extending members having T-shaped openings therein and supported by said supporting members, said transversely extending members being movable relatively to each other, flexible means connecting said transverse members, stretching members having T-shaped heads designed to extend through the openings in the transversely extending members whereby said transversely extending members are secured adjacent the first-mentioned supporting members, and means for moving said stretching members whereby their T-shaped heads will first slide within said openings in the transverse members, and afterward actuate them to stretch said flexible connecting means, substantially as described.

3. The combination in a bed bottom, of longitudinally extending tubular supports, said supports having slots therein, transversely extending members having slots therein of varying widths and movable relatively to each other in the direction of the length of said slots, stretching members having portions positioned within said tubular supports and free ended projections extending through said slots in the tubular supports and said transverse members, said free ended projections having enlarged portions capable of passing through the widest portions of the slots in said transverse members but incapable of passing through the narrow portions of said latter slots, flexible means connecting said transversely extending members, and means for moving said stretching members relatively to said supports to stretch said flexible means, substantially as described.

4. The combination in a bed bottom, of a tubular support having a slot extending in from one end, a casing fitting on said support and having a slot for registering with the slot in the support, said casing including an end portion designed to embrace the end of said support and having a hole therein, a member extending transversely to said support, flexible means connected to said transverse member, a threaded stretching member slidable within said support and having a portion extending through the slots of said casing and support into engagement with said transversely extending member, a screw extending through the hole in said casing and into said support, a threaded collar on said screw interposed between the stretching member and the end of said casing, substantially as described.

5. The combination in a bed bottom, of a tubular support having a slot extending in from one end, a casing fitting on said support and having a slot for registering with the slot in the support, said casing including an end portion designed to embrace and cover the end of said support and having a hole therein, a member extending transversely to said support, flexible means connected to said transverse member, a threaded stretching member slidable within said support and having a portion extending through the slots of said casing and support into engagement with said transversely extending member, a screw extending through the hole in said casing and into said support, a threaded collar on said screw interposed between the stretching member and the end of said casing, said collar being designed to abut the inner surface of the end of said casing, a head on said screw outside of said casing, said head having a portion of greater cross section than the width of said hole in the end of the casing whereby said head abuts the outer face of said end of the casing, substantially as described.

[Claim 6 not printed in the Gazette.]

1,245,061. RAILROAD-GATE. FLORENCE A. STRIETER, Chicago, Ill. Filed June 27, 1916. Serial No. 106,131. (Cl. 269—6.)



1. The combination of a railroad-track crossing gate, an electric motor, operating means connecting said gate with said motor, a circuit for operating said motor, a switch in said circuit adjacent the railroad track and adapted to be closed by the wheels of a train, resilient means tending to hold said switch open, an electromagnet with its coil in said circuit adapted to hold said switch closed when said circuit is energized, a reversing switch in said circuit adapted to be operated by the wheels of a train on said track, resilient means tending to hold said reversing switch in one position, and an electromagnet with its coil in said circuit adapted to hold said reversing switch in another position when said circuit is energized; a third switch in said circuit adapted to be operated by said gate, resilient means tending to hold said third switch closed, said third switch being opened when said gate is opened.

3. The combination of a gate; a frame for holding said gate; means for elevating said gate comprising a rack and a coöperating pinion; means for supporting said gate comprising a block fixed to said rack, a pawl pivoted to said frame adjacent said rack, resilient means for forcing said pawl beneath said block when said rack is raised by said pinion to the maximum elevation, and means for removing said pawl from beneath said block.

5. The combination of a gate, means for elevating said gate, means for supporting said gate in its highest position, means for starting said elevating means, means for stopping said elevating means, and means operated by said elevating means for withdrawing said supporting means.

8. The combination of a railway-crossing gate, vertical guiding means, elevating means, and supporting means; all of said means being operatively associated with said gate, but being disconnected from said gate when said gate is raised, whereby said gate may be freely removed from all of said means.

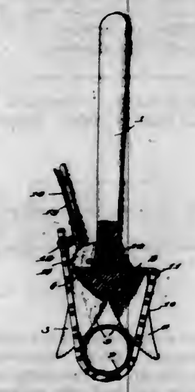
[Claims 2, 4, 6, 7, 9, and 10 not printed in the Gazette.]

1,245,062. WRENCH. ADOLPH STUBWE, Alma, Kans. Filed Apr. 21, 1917. Serial No. 163,690. (Cl. 81—70.)

2. In a wrench of the class described, the combination with a head notched in one edge, a main handle projecting rigidly in one direction from said head, and a pair of bifurcated jaws projecting rigidly in the opposite direction from said head and having their inner faces diverging and provided with teeth; of a chain lying in said bifurcation and attached at one extremity to the head, its body passing thence between the arms of the bifurcated jaws and through said notch, a lever pivoted to said head and connected with the other extremity of said chain, a thumb latch on said lever, and a toothed sector carried by the head and over which the tip of said thumb latch moves, for the purpose set forth.

3. In a wrench of the type described, the combination with a pair of alligator jaws bifurcated transversely to

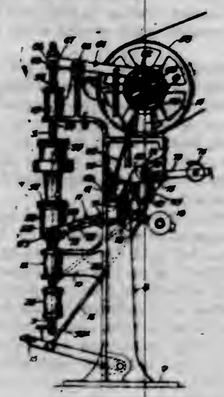
the opening between them and toothed on their inner edges, a head on which they are mounted, and a main handle projecting rigidly from said head; of a chain connected at one end to said head between the arms of one



jaw, its body projecting between the arms of the other jaw and along said handle, and a small handle pivoted to the head and movable toward the main handle for putting the chain under tension, for the purpose set forth.

[Claim 1 not printed in the Gazette.]

1,245,063. VACUUM SEALING-MACHINE. THOMAS L. TALIAFERRO, La Grange, Ill. Filed July 1, 1915. Serial No. 37,517. (Cl. 113—4.)



1. In a machine of the class described, the combination of a stationary receptacle support, a lower movable member arranged about said support, an upper shiftable member arranged above said support, means operatively connected for moving said lower member into engagement with said upper member to form a chamber about said support, means for creating a vacuum within said chamber, and means for moving said upper and lower members downward to cause the upper member to engage the closure of the receptacle, substantially as described.

7. In a machine of the class described, the combination of a receptacle chamber, means for creating a vacuum within said chamber, means for breaking the vacuum in the chamber, means operated by the vacuum setting in operation the means for breaking the degree of vacuum created within said chamber after it has reached a predetermined degree, said means embodying a shiftable member, a lever connected to said shiftable member, and an adjustable weight upon said lever, substantially as described.

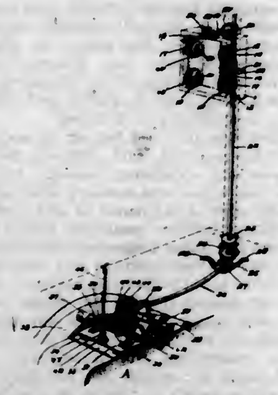
10. In a machine of the class described, the combination of a fixed receptacle support, a lower shiftable member arranged about said support, an upper shiftable member above the support, means for moving the lower shiftable member into engagement with the upper shiftable member to form a chamber about said support, means for creating a vacuum within said chamber, receptacle closure affixing means carried by the upper shiftable member, and means for moving said upper shiftable member to effect the closure affixing operation when a predetermined degree of vacuum has been formed in said chamber, substantially as described.

11. In a vacuum sealing machine, a chamber adapted to be vacuumized, and means operative by a reduction of pressure in said chamber for releasing the vacuum.

15. In a vacuum sealing machine, a chamber adapted to be vacuumized and means operative by a predetermined reduction of pressure in the chamber for throwing into operation means for performing consecutively the several operations necessary to seal a receptacle *in vacuo* and to readmit the atmosphere to said chamber.

[Claims 2 to 6, 8, 9, 12 to 14, and 16 to 28 not printed in the Gazette.]

1,245,064. TRANSMISSION-GEARING FOR STATION-INDICATORS. CASSIUS C. TAYBELL, El Paso, Tex. Filed Feb. 9, 1916. Serial No. 77,212. (Cl. 74—26.)

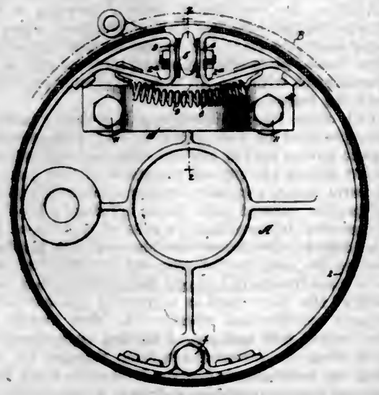


Transmission gearing for station indicators in railway cars comprising in combination, a supporting base having a hinged connection with the car truck frame, a horizontally disposed shaft journaled on said base, a friction wheel on said shaft adapted to engage one of the truck wheels, manually controlled means for shifting said supporting base to throw said friction wheel into and out of driving engagement with the car wheel indicating mechanism embodying a rotary shaft, and driving connections between said friction wheel shaft and said rotary shaft of the indicating mechanism, said driving connections comprising a flexible shaft having one end journaled in a bearing carried by said hinged supporting base and geared to said friction wheel shaft and having its other end geared to the shaft of the indicating mechanism.

1,245,065. EXPANDING BRAKE-BAND GUIDE. STEWARD A. TEBBL, Bangor, Pa. Filed Apr. 4, 1917. Serial No. 159,831. (Cl. 74—37.)

1. In a brake, the combination of a support, a brake band thereon, an actuating cam engaged with the ends of the brake band, for expanding the latter, and means for preventing an inward movement of the ends of the brake band.

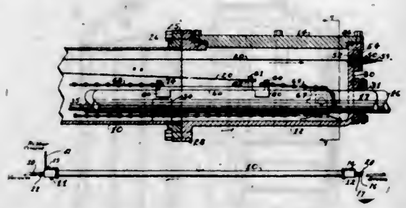
2. In a brake the combination of a support, a brake band thereon, an actuating cam engaged with the ends of the brake band for expanding the latter, and means carried by the support and in constant engagement with the ends of the brake band for preventing any inward movement of the ends of the brake band.



3. In a brake, the combination of a support, a brake band thereon, an actuating cam engaged with the ends of the brake band, for expanding the latter, and a guide member secured to said support and in constant engagement with the ends of said brake band for preventing the movement of said ends toward the center of the brake band.

[Claims 4 to 6 not printed in the Gazette.]

1,245,066. OVEN FOR DRYING CORD. JAMES D. TEW, Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a Corporation of New York. Filed May 22, 1915. Serial No. 29,775. (Cl. 34—48.)



1. The combination of an air-tight chamber, entrance nipples for cords at one end, exit nipples for the cords at the other end, the nipples fitting the cord to maintain practically air-tight joints, means for maintaining a substantial vacuum in the chamber while the cords pass therethrough, and means for heating the cords in transit.

3. The combination of an elongated chamber, removable covers near the ends thereof, there being cord-passageways to and from the chamber in the end walls thereof, said passageways being accessible on the inside by removing the respective covers, and means for heating the cords in transit through the chamber.

[Claims 2 and 4 to 30 not printed in the Gazette.]

1,245,067. METHOD OF MAKING HOLLOW CORD. JAMES D. TEW, Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a Corporation of New York. Filed Dec. 11, 1916. Serial No. 136,190. (Cl. 28—21.)

1. The method of making hollow cord consisting of treating textile strands with adhesive material and then twisting them into a cord with a hollow center, while maintaining tension on the strands strong enough to keep them taut but light enough to prevent the internal collapse of the resultant cord.

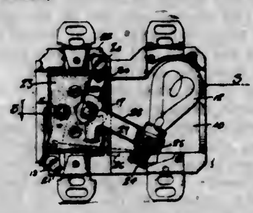
9. The method of making hollow cord consisting of coating individual strands with cement, drying such cement while still leaving it sticky on the exterior of the strands, and while the strands are in this condition twisting them together about a hollow center, while maintaining tension on the strands sufficient to keep them taut without causing the collapse of the resultant cord.



11. The method of making hollow cord consisting of coating individual strands with rubber cement, drying such cement while still leaving it sticky on the exterior of the strands, and while the strands are in this condition twisting together a large enough number of them to form a continuous arch about a hollow center and immediately drawing the nascent cord through a tubular die the diameter of which is of such size as to press the strands into close contact with their respective neighbors while leaving a hollow space at the center of the cord being formed, and maintaining on the strands until the cord is complete a tension sufficient to keep them taut but not sufficient to collapse the resultant cord.

[Claims 2 to 8, 10, and 12 not printed in the Gazette.]

1,245,068. ATTACHMENT-PLUG FITTING. GEORGE B. THOMAS, Bridgeport, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Apr. 10, 1916. Serial No. 90,167. (Cl. 173—330.)



3. An attachment plug receptacle comprising plug receptacle contacts, an associated signaling device having in one branch of its circuit a pair of normally spaced contacts and means automatically operated by the insertion of the plug for closing said contacts to energize said signaling device.

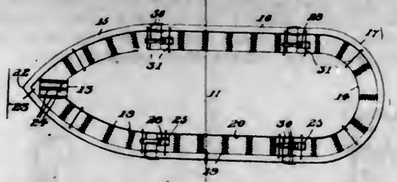
7. In an attachment plug receptacle a wire terminal strap having an offset base, a plug receptacle terminal permanently connected to said base, a spring terminal electrically connected to said base, an associated lamp terminal and a spring arm extending therefrom into proximity to the receptacle terminal and normally spaced from said spring connector, but adapted to be moved into engagement therewith by the entering end of an attachment plug when the latter is brought into engagement with the receptacle terminal.

[Claims 1, 2, and 4 to 6 not printed in the Gazette.]

1,245,069. SHIP-PROTECTOR. JOSEPH VAIDIK, Clinton, Ind. Filed July 3, 1917. Serial No. 178,373. (Cl. 114—219.)

A protector for hulls comprising a plurality of inclosing sections therefor, blocks secured to one of the vertical

edges of each section having opposite sockets, and pairs of coöperating hooks carried by the opposite edge of each



adjacent section having inturned ends slidably arranged within the sockets of the adjacently positioned block.

1,245,070. CLASP. ALBERT T. VAN ALSTYN, New York, N. Y. Filed June 10, 1911. Serial No. 632,336. (Cl. 24—246.)



1. In a clasp of the class described, the combination with an apertured member, the sides of which are turned inwardly to form parallel guideways of a second member having a tip which is adapted to be inserted through said aperture, a plate having side projecting lugs at one end thereof which engage in the said guideways, the plate being slidable on said lugs in the guideways, and a lever pivoted in the apertured member having a pivoted connection with the other end of the said plate whereby the latter is moved and locked in position against the tip in the guideway, and having one end of the lever bent so that when the plate is drawn out of locked engagement the bent end of the lever will engage the plate and hold the lever away from the apertured member.

3. In a clasp of the class described, the combination with an apertured member having guideways along the sides of the aperture and one end thereof looped over to form a resilient clip, a plate having projecting lugs at one end which are adapted to mount it pivotally and slidably in the guideways, a tip adapted to be inserted in the aperture, a lever pivoted on the side of the apertured member opposite the clip having one end bent and having pivotal connection with the other end of the plate, the lever being operative to move the plate in the guideways to clamp the tip in the aperture, the lever being held resiliently when the plate is in clamping position by the clip which engages the bent end of the lever.

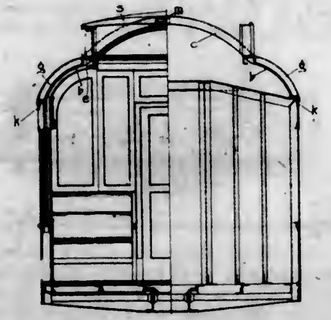
6. In a clasp, the combination with a frame having an opening provided on opposite sides with guideways, of a plate having lugs at one end engaging said guideways to permit sliding and pivotal movement thereof relative to said frame, a member having a fabric engaging tip for projection through said opening, and a lever plate pivoted intermediate its ends to said frame, the pivot point thereof being fixedly located above the frame and guideways, said lever plate also being pivoted to the first named plate to form a toggle joint construction with the one end of the lever plate forming a gripping means to move the toggle construction whereby the first named plate may be moved into or out of holding engagement with the tip when the latter is projected through the frame opening.

7. In a clasp, the combination with a substantially flat frame having an opening provided on two opposite edges with parallel guideways of uniform width throughout their extent, of a plate having lugs at one end engaging said guideways to permit sliding and pivotal movement of the plate relative to said frame, a member having a fabric engaging tip for projection through said opening, and a lever plate fixedly pivoted intermediate its ends to said frame above the guideways and also pivoted to said first named plate, the two plates thereby forming a toggle joint construction with one end of the lever plate as a gripping means to move the toggle construction whereby the first named plate may be moved into and out of holding engagement with the tip when the latter is projected through the frame opening.

9. In a clasp, the combination with a frame having an opening provided on two opposite sides with guideways, of a plate having lugs at one end engaging said guideways to permit sliding and pivotal movement of said plate relative to said frame, a member having a fabric engaging tip, for projection through said frame opening, a lever plate fixedly pivoted intermediate its ends to said frame above said guideways and frame opening and also pivoted intermediate its ends to the free end of said first named plate to form therewith a toggle joint construction having one end of the lever plate as a gripping member to move the toggle construction whereby the first named plate may be moved into and out of holding engagement with said tip when the latter is projected through the frame opening, the remaining end of the lever plate being formed into a bent tongue to engage and form a stop for the first named plate when the toggle is in the free position, and a spring for engagement by said tongue when the toggle construction is in the holding position to maintain the hinged members thereof against accidental release.

[Claims 2, 4, 5, and 8 not printed in the Gazette.]

1,245,071. PASSENGER-CAR FRAME. HENRY H. VAUGHAN, Montreal, Quebec, Canada. Filed Sept. 10, 1913, Serial No. 789,168. Renewed June 13, 1916. Serial No. 103,581. (Cl. 108—5.1.)

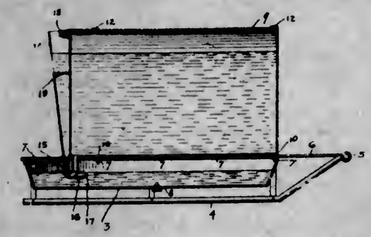


1. In a steel car monitor-roof, the combination with the sides of the car body, of carlines of trefoil arch form formed independently of said sides and having their lower ends supported thereon, a roof supported by said carlines and having deck-sash openings at the reëntrant angles of the trefoil and conforming to the carlines in the cross-section of the car between said openings and arched longitudinally of the car over said openings, deck-sash frames supported in said openings, the longitudinal middle of the roof being supported at a height above the top of the deck-sash frames.

2. In a passenger car, the combination with spaced arched carlines, of purlins secured to the carlines each of such purlins extending from midway one of the spaces between the carlines to midway the adjoining space, and sub-carlines supporting and connecting the ends of one purlin with the ends of the adjoining purlins.

3. In a passenger car, the combination with a roof having deck-sash openings, of spaced carlines of trefoil arch form the roof conforming to the carlines between the deck-sash openings, purlins secured to the carlines each of such purlins extending from midway one of the spaces between the carline to midway the adjoining space and in close proximity to the lower side edge of each adjacent deck-sash openings and sub-carlines supporting and connecting the ends of one purlin with the ends of the adjoining purlins.

1,245,072. AUTOMATIC STOCK-WATERING DEVICE. ORLANDO S. WAGNER, Franklin, Ind. Filed Apr. 25, 1917. Serial No. 164,316. (Cl. 119—77.)



1. In an automatic stock-watering device, the combination of a trough, an air-tight water supply vessel above the trough having a top air-vent, means for opening and closing said air-vent, a filling conduit extending below the supply vessel and also below the water level of the trough and having a return portion communicating with the bottom of the water supply vessel, a discharge into the trough at the lower end of the filling conduit, and means for opening and closing said discharge.

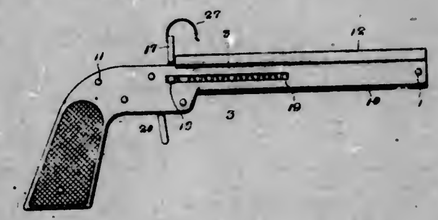
[Claim 2 not printed in the Gazette.]

1,245,073. COMBINATION-LADDER. WILLIAM J. WALTERS, Detroit, Mich. Filed Oct. 9, 1916. Serial No. 124,489. (Cl. 228—17.)



A foldable ladder comprising a section A having side rails connected by tread members and some of said tread members notched adjacent the side rails; a section C having side rails connected by tread members and ends of said side rails pivotally connected to the outer sides of the rails of the section A, with the rails of the section A cut away to provide clearance for a tread member of the section C, so that said section may be swung into alinement with the section A, latch members pivoted on the edges of the rails of section A adapted to be swung on to the rails of the section C to hold said sections in alinement; a section B having rails connected by tread pieces and ends of said rails pivotally connected to inner sides of the rails of section A so that the rails of the section B may be swung into the notched tread members of the section A, the rails of section B having notches with some of said notches providing clearance for tread pieces of section C when the ladder is folded, other notches adapted to receive a tread piece of section C to maintain section A at an angle to section C, and still other notches adapted to provide clearance for a tread piece of section A when section B is swung into longitudinal alinement therewith, latch members on the rails of section B adapted to be swung on to the rails of section A to maintain said sections in alinement; a pivoted shelf between the rails of section C adjacent the section A adapted to occupy a position between said rails, the end of section B and an end tread member of section C and adapted when open to engage the rails of section A and be maintained in a horizontal position thereby; and metallic wear plates on notched portions of section B and at tread pieces of all of said sections.

1,245,074. TOY PISTOL. WILLIAM H. WARD, Greenville, N. C. Filed May 29, 1917. Serial No. 171,757. (Cl. 124—12.)



1. A toy pistol comprising a trough extending longitudinally of the barrel of said pistol, and adapted to receive the article to be projected, said barrel having a slot, a hammer movable in said slot and having a portion arranged within the barrel and a portion projecting therefrom, to move within the trough, a yieldable element carried by the projecting portion of the hammer and disposed with respect to the trough to hold the article fixed therein in proper position with respect to the hammer, a trigger for holding the hammer adjacent one end of the slot, and yieldable means for forcibly moving the hammer in a direction toward the opposite end of the slot when releasing said trigger.

2. A toy pistol comprising a trough extending longitudinally of the barrel of the pistol, said barrel having a slot arranged within the trough, and alined slots in the opposite sides of the barrel, a hammer movable in the first mentioned slot and having a portion arranged within the barrel and a portion projecting therefrom to move within the trough, arms projecting from the portion within the barrel through said alined slots, a trigger for holding said hammer adjacent one end of the first mentioned slot, and yieldable means for forcibly moving the hammer in a direction toward the opposite end of the slot when released from said trigger.

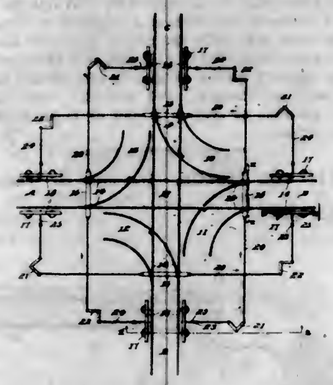
3. A toy pistol comprising a trough extending longitudinally of the barrel of said pistol, and adapted to receive the article to be projected, a hammer arranged to reciprocate within said trough, means for holding the hammer in an inactive position, a resilient curved finger carried by the hammer and normally holding the article in juxtaposition thereto, when said hammer is in inactive position, and means for automatically actuating the hammer subsequent to its release from the above mentioned means, whereupon said article is projected.

1,245,075. SAFETY SWITCH-THROWING DEVICE. FRANCISZEK WARZECHA, Bay City, Mich. Filed July 5, 1917. Serial No. 178,684. (Cl. 104—40.)

1. A safety switch device for intersecting tracks comprising sidings for each of the tracks, movable switch members between each siding and track and operating means for said switch members whereby the switch members upon the straight lines of track are adapted for automatic actuation during the approach of a train upon either track positioned at right angles thereto.

3. A safety appliance for intersecting railway tracks comprising in combination with intersecting straight lines of tracks, a lateral siding for each line of track, operable switch connections between each siding and track and

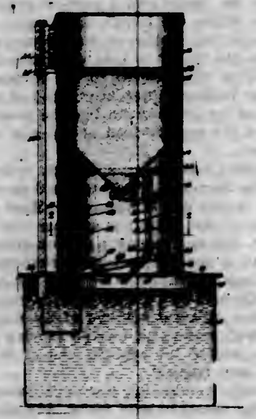
automatic actuating means for said switch connections whereby the sidings are connected to the main track of



those lines lying at right angles with respect to the line upon which a train is approaching.

[Claims 2 and 4 not printed in the Gazette.]

1,245,076. CARBID-HOLDER REGISTER. PAUL E. WEBB and FRANK A. WEBB, Protection, Kans. Filed Mar. 29, 1917. Serial No. 158,300. (Cl. 265—63.)

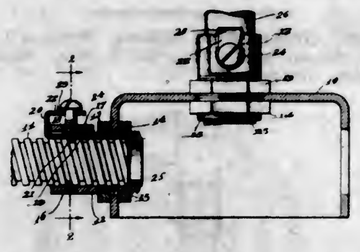


1. In a device of the character set forth the combination with a receptacle for water and a hollow guide member projecting upwardly therefrom, of a bracket secured upon the inner surface of the guide member, a carbid holder fitted slidably in the upper end of the guide member, supporting means for the carbid holder comprising an annular seat through which the lower end of the carbid holder projects and also including a vertical bar fitted slidably in said bracket, a lever pivotally connected at one end to said bracket and having pivotal connection with the lower end of said bar, and means connected to the free end of the lever to control its movement under the influence of the weight of the carbid holder and indicate the amount of such weight at any time.

2. In a device of the character set forth the combination with a receptacle for water having a cover with an open center and a hollow guide member surrounding said opening and extending upwardly therefrom, of a carbid holder guided for vertical movement in the upper end of the guide member and having a conical lower end arranged over the center of said opening, an annular supporting seat through which the conical end of the holder projects downwardly, a supporting bar rigidly secured to the annular seat, a vertical supporting bracket in which said bar is guided, a lever having one end connected to a fixed pivot to the lower end of said bracket, pivotal connections between the lower end of the bar and the lever adjacent to the fixed pivot, said lever including an annular body arranged below the annular seat and through the center of which the material from the holder is adapted to be delivered into the water, and means connected to the free end of the lever for controlling the movement thereof around said fixed pivot according to the weight of material in the holder and to directly indicate to the observer the amount of such weight.

3. In a carbid holder register the combination with a carbid holder and vertically movable supporting means therefor, of a lever connected with said supporting means adjacent to one end, a spring connected to the opposite end of the lever and tending to elevate the same and the holder, a U-shaped rod pivotally connected to the same end of the lever at the spring and extending in a direction opposite from the spring, a graduated scale and an index carried by the opposite end of the rod and coöperating with said scale to show directly the weight in said holder.

1,245,077. JUNCTION-BOX COUPLING FOR ELECTRIC-WIRE CONDUITS. Lewis E. Wenstrm, Wilkes-Barre, Pa., assignor of one-fifth to William Bullock, one-fifth to Charles M. Helfrich, one-fifth to Frederick W. Eddy, and two-fifths to John M. Parry, Wilkes-Barre, Pa., copartners, trading under the name of Weber Manufacturing Company. Filed Oct. 14, 1915. Serial No. 55,760. (Cl. 247—1.)



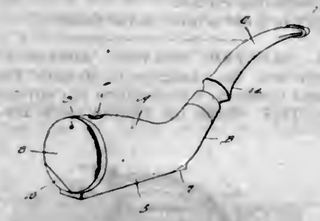
2. In combination, an outlet box, a conduit, and a coupler for the box and conduit, the coupler including a sleeve to receive the conduit, a clamping screw in threaded engagement with the sleeve, a U-shaped jaw, one extension of the jaw extending into the path of the end of the screw to clamp the conduit, and the second extension having a guiding aperture through which the shank of the screw is freely movable.

4. A coupler of the class described comprising a sleeve to receive a conduit having a recess on its inner face at one end thereof, a U-shaped clamp straddling the edge of the recessed end of said sleeve with one extension disposed in said recess and the other extending outside the sleeve and parallel with its longitudinal axis, the recessed portion of said sleeve and the outlying extension of the clamp having registering apertures, a screw extending through the aperture in said clamp and having threaded engagement with the aperture in the sleeve, and coöperating projections on said sleeve and clamp for engagement with a conduit between the threads thereof at diametrically opposite points.

[Claims 1, 3, 5, and 6 not printed in the Gazette.]

1,245,078. SMOKING-PIPE. WILLIAM WESTENFIELD, Corona, S. D. Filed Oct. 11, 1916. Serial No. 125,939. (Cl. 131—12.)

A pipe consisting of a bowl having its outer end open and formed upon its top with an opening, an integral stop formed flush with one of the lower corners of the bowl upon the edge of the open end thereof, said stop having a diagonally inclined edge disposed at one side of the center of the bowl, a single pivot pin mounted upon the outer edge of said bowl centrally but at the upper end thereof, and a lid fulcrumed upon said pivot at its outer end eccentrically of said bowl and provided with an inclined bottom edge extending from an intermediate point of the width of said lid and terminating laterally thereof near a point



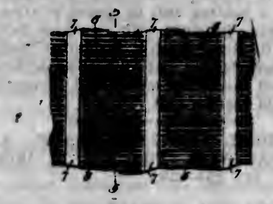
centrally of the top and bottom thereof so that when the inclined edge of said lid engages the inclined edge of said stop it will be in closed position and have its greater weight acting from the side opposite said stop to cause said inclined edges of the lid and stop to frictionally engage.

1,245,079. WIRE-STRETCHER. SAMUEL H. WHITE, Anding, Miss. Filed Apr. 10, 1917. Serial No. 161,026. (Cl. 254—77.)



A wire stretcher comprising a handle staff, prongs attached to the opposite edges of the staff and having pointed ends which project beyond the end of the staff, a bracket pivotally mounted upon the prongs at a point beyond the end of the staff, and a hook pivotally mounted upon the intermediate portion of the bracket, said hook being bent at a point between its ends whereby the free end portion of the hook may lie flat against the side of the handle staff when the device is not in use.

1,245,080. BATTERY-SEPARATOR. FRANK E. WHITNEY, Philadelphia, Pa., assignor to Commercial Truck Company of America, Philadelphia, Pa., a Corporation of Pennsylvania. Continuation of application Serial No. 34,705, filed June 17, 1915. This application filed Sept. 20, 1917. Serial No. 192,314. (Cl. 204—29.)

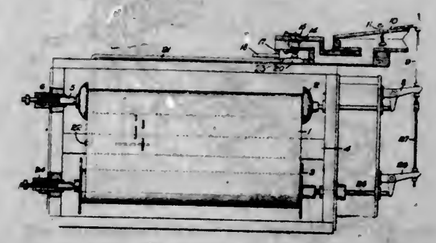


1. As a new article of manufacture a battery separator consisting of a plane, relatively thin sheet of insulating material having portions removed from its body to form therein a series of elongated, relatively narrow slots of a width approximately .0125 of an inch.

2. As a new article of manufacture a battery separator consisting of a plane, relatively thin sheet of insulating material having portions removed from its body to form therein a series of elongated, relatively narrow slots of a width less than the thickness of said sheet.

3. The combination in a storage battery of a flat pasted plate constituting a positive electrode having peroxid of lead as its active material; separators mounted immediately adjacent the flat faces of said electrode and consisting of plane, relatively thin sheets of insulating material each having portions removed from its body to form therein a series of elongated relatively narrow slots of a width sufficiently small to prevent the passage of material amounts of the lead peroxid of said plate but wide enough to permit access of electrolyte to said peroxid in amounts sufficient to prevent undue weakening of the electrolyte during discharge.

1,245,081. TRACKING DEVICE FOR AUTOMATIC MUSICAL INSTRUMENTS. FLINT W. WRIGHT, East Rochester, N. Y., assignor to American Piano Company, New York, N. Y., a Corporation of New Jersey. Filed Sept. 21, 1911. Serial No. 650,587. (Cl. 84—161.)



1. An apparatus for controlling the playing of an automatic musical instrument, comprising, in combination, a stationary tracker; a perforated note sheet; a spool from which the note sheet is unwound; a take-up roll upon which the note sheet is wound; yielding means acting upon the spool and take-up roll, and tending to move the note sheet out of proper alinement with the tracker; a vent in the tracker positioned to be nearly but not entirely closed by the note sheet when the same is in proper alinement with the tracker; and means controlled by said vent for moving the note sheet into proper alinement in opposition to said yielding means.

2. An apparatus for controlling the playing of an automatic musical instrument, comprising, in combination, a stationary tracker; a note sheet; a spool from which the note sheet is unwound; a take-up roll upon which the note sheet is wound; yielding means tending to move the spool and take-up roll in one direction to displace the note sheet from proper alinement with the tracker; a pneumatic arranged to move the same in the opposite direction in opposition to said yielding means; a vent in the tracker positioned to be nearly but not entirely closed by the margin of the note sheet when the latter is properly alined with the tracker; and a valve controlled by said vent for governing the operation of said pneumatic.

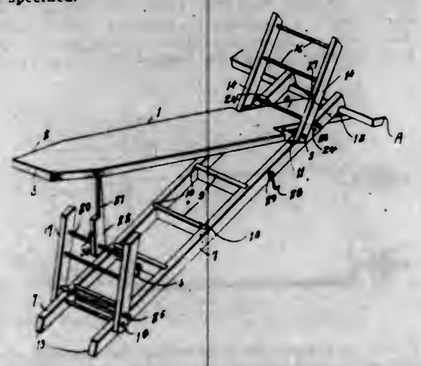
4. An apparatus for controlling the playing of an automatic musical instrument, comprising in combination, a tracker provided with vents; a note-sheet provided with note playing perforations; means for moving the note-sheet over the tracker; means including a spring acting directly upon the music sheet spool and a spring acting directly upon the take-up roll and operative when the note-sheet is first inserted in the apparatus, to hold the perforations thereof and the corresponding vents of the tracker out of proper alinement; and automatic means relatively to move the entire note-sheet and tracker to bring the perforations of the note-sheet and the corresponding vents of the tracker into proper alinement.

[Claim 3 not printed in the Gazette.]

1,245,082. COMBINED STEP-LADDER, BENCH, AND IRONING-BOARD. JOHN N. AUER, Prairie du Rocher, Ill. Filed Feb. 21, 1917. Serial No. 150,013. (Cl. 228—32.)

1. In a combined step ladder, ironing board and bench structure, a support comprising a pair of spaced stiles, treads connecting said stiles, notches in the inner edges adjacent one end o fthe stiles, an ironing board pivotally associated with the stiles adjacent the upper ends, said ironing board and stiles adapted to firmly clamp to the edges of the support for positioning the ironing board in a substantially horizontal position, braces arranged in

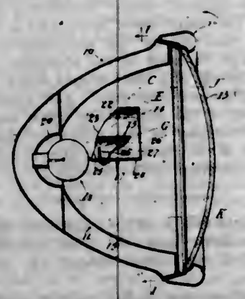
pairs and pivotally secured to the stiles adjacent their lower ends, a support pivotally associated with the braces and engaging the board for holding the same in its horizontal position, and a second pair of braces pivotally secured to the stiles and ironing board adapted to be positioned at an incline above the upper surface of the ironing board to be used as a clothes rack, as and for the purpose specified.



2. In combination, a pair of spaced stiles, an ironing board, one end of the ironing board being reduced and provided on its under side with a shaft, said shaft journaled to the stiles adjacent the upper ends thereof, braces pivotally connected at one end to the shaft of the ironing board, rods connecting the braces together, a second pair of braces pivotally secured on opposite sides of the stiles adjacent the lower ends thereof and connected by rods, a support pivotally associated with the rods of the second named braces, and removable pins associated with the stiles and braces and board to hold the same in various positions.

3. In combination a pair of spaced stiles, an ironing board journaled to the stiles adjacent one end thereof, braces pivotally connected to the ironing board at one end thereof, rods connecting the braces together, a second pair of braces pivotally secured to the stiles adjacent the free ends thereof, rods connecting said braces, a support pivotally associated with the rods of the second named braces, a removable pin associated with the stiles and braces and board to hold the same in various positions.

1,245,083. ILLUMINATING DEVICE. REUBEN B. BENJAMIN, Chicago, Ill., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 27, 1916. Serial No. 74,584. (Cl. 240—48.2.)



1. A vehicle light comprising a concave reflector having its axis horizontal, means for supporting a source of light in said reflector, and a reflector device mounted inside of said concave reflector adjacent and in front of said source of light, said reflector device comprising a reflecting surface having a curved rear edge lying in the surface of a cone having its apex in the light center and the outline of its base defined by the front edge of said concave reflector, said reflector device comprising also a second reflecting surface having a curved rear edge lying in the surface of a cone having its apex in the light center and the outline of its base defined by the front edge of said first reflecting surface.

[Claims 2 to 5 not printed in the Gazette.]

1,245,084. ELECTRIC HEATER. EDMUND N. BROWN, San Francisco, Cal., assignor to Majestic Electric Development Company, a Corporation of California. Filed July 10, 1917. Serial No. 179,732. (Cl. 219—34.)



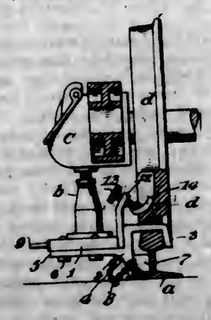
1. An electric heater, comprising a concavo-convex reflector, a heating unit supported at substantially the focus of said reflector, an annular member extending outwardly from the margin of said reflector, and a protective cage having guard wires arched between opposite sides of said annular member.

2. An electric heater, comprising a concavo-convex reflector, a heating unit supported at substantially the focus of said reflector, an annular member extending outwardly from the margin of said reflector, and a protective cage of arched guard wires hinged to said annular member so that it may be swung outwardly from the reflector.

3. An electric heater, comprising a concavo-convex reflector, a heating unit supported at substantially the focus of said reflector, a concavo-convex casing extending over the convex side of said reflector and spaced therefrom except at the margins, said casing having an annular portion extending outwardly from the margin of said reflector, and a protective cage having guard wires arched between opposite sides of said annular portion.

4. An electric heater, comprising a concavo-convex metal reflector, a heating unit in spaced relation thereto, said reflector being provided with apertures having their margins bent to form flanges, insulating means upon either side of said flanges, and connecting devices extending through said insulating means and connected to the terminals of said heating unit.

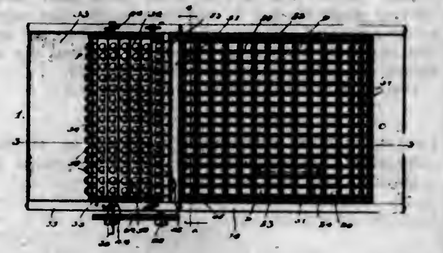
1,245,085. WHEEL AND JACK CLAMP. LESLIE J. BYERS, Everett, Wash. Filed Nov. 10, 1916. Serial No. 130,643. (Cl. 254—33.)



1. The herein described wheel and jack clamp comprising a jack supporting bar, brackets to support said bar and having hooks to bear on and engage the inner side of the head of a rail and also having a clamping arm extending upwardly and inwardly from the bar, an adjusting screw extending through a threaded opening in said clamping arm and a jaw securely connected to the lower end of the screw and arranged to engage the lower outer side of a car wheel.

[Claim 2 not printed in the Gazette.]

1,245,086. SORTING DEVICE. FRANK CARSON, Caro, Mich. Filed Mar. 17, 1916. Serial No. 84,888. (Cl. 130—32.)



1. In a machine of the class described an endless conveyer having a substantially horizontal top lead, said conveyer being provided with pockets arranged in transverse and also in longitudinal alinement, in combination with a distributing cylinder supported for rotation adjacent to the top lead of the conveyer, said cylinder having rows of cells each corresponding with a transverse row of pockets in the conveyer, means for feeding material to the distributing cylinder, and means for rotating the cylinder concurrently with the operation of the conveyer to space the rows of cells in the distributing cylinder successively in discharging relation with respect to the rows of pockets in the conveyer.

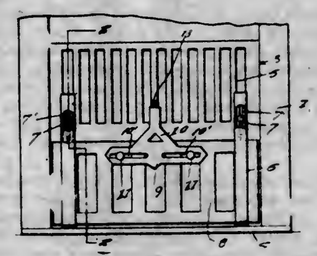
2. In a machine of the class described an endless conveyer having a substantially horizontal top lead, said conveyer being provided with pockets arranged in transverse and also in longitudinal alinement, in combination with a distributing cylinder supported for rotation adjacent to the top lead of the conveyer, said cylinder having rows of cells each corresponding with a transverse row of pockets in the conveyer, means for feeding material to the distributing cylinder, and means for rotating the cylinder concurrently with the operation of the conveyer to space the rows of cells in the distributing cylinder successively in discharging relation with respect to the rows of pockets in the conveyer; in combination with a housing for the distributing cylinder having a longitudinal slot in the bottom portion thereof to permit communication between a row of cells of the cylinder and a row of pockets in the conveyer.

4. In a sorting machine, a sorting belt consisting of a pair of chains, sprocket carrying shafts over which said chains are guided, transverse rods connecting said chains, links carried by the transverse rods and coöperating therewith to constitute pockets, some of said links having offset portions, auxiliary transverse rods carried by said offset portions, bottom members pivoted on the alternately disposed transverse rods and having free ends adjacent to the intermediate transverse rods, and springs coiled on the rods on which the bottom members are pivoted and having arms engaging, respectively, the pivoted bottom members and the auxiliary transverse rods supported by the offset portions of the links.

5. In a machine of the class described, a sorting belt having pockets each including portions of two transverse parallel rods and links connecting the same, a third transverse rod supporting intermediate and offset from the first mentioned rods, a bottom member pivoted on one of the first mentioned rods and having a free end portion extending adjacent to the other of said first mentioned rods, and a spring coiled on the rod on which the bottom member is pivoted, said spring having arms one of which engages the pivoted bottom member, the other arm engaging the transverse rod offset from the first mentioned rods.

[Claim 3 not printed in the Gazette.]

1,245,087. GRATE ATTACHMENT. MARY HARDY CHANDLER, Lavonia, Ga. Filed Feb. 14, 1917. Serial No. 148,544. (Cl. 126—202.)



1. The combination with a fire place including a grate and a screen plate, of a pair of hangers adjustably secured to the grate and slidably supporting the screen plate for permitting said screen plate to be moved upwardly and downwardly with relation to the grate, and means for supporting the screen plate in an elevated position for permitting the ashes under the grate to be removed.

2. The combination with a fire place including a grate and a screen plate, of a pair of substantially U-shaped hangers adjustably secured to the grate and slidably receiving the screen plate for permitting the plate to be raised and lowered with relation to the grate, and means adjustably secured to the screen plate for supporting it in an elevated position.

3. The combination with a fire place including a grate having slots, and a screen plate, of a pair of substantially U-shaped and relatively spaced hangers having slots therein, bolts extending through the slots of the grate and the slots of the hangers for adjustably securing said hangers to the grate, said hangers adapted to adjustably support the screen plate, and means adjustably secured to the screen plate for supporting it in an elevated position.

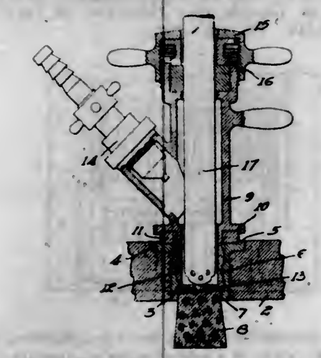
4. The combination with a fire place including a grate and a screen plate, of a pair of relatively spaced hangers adjustably secured upon each side of the grate, and plates secured to the screen plate and an arm formed on one of the last mentioned plates and having its free end bent to form a hook adapted to engage the upper edge of the grate for supporting the screen plate in an elevated position.

1,245,088. TAPPING DEVICE. EMIL CHRISTENSEN, Portland, Oreg. Filed June 1, 1914. Serial No. 842,080. (Cl. 225—3.)

1. A tapping device having a bushing adapted to be inserted into the bung or faucet hole of a barrel head and having a coarse thread on its inner surface for engagement with the walls of a cork inserted into said bushing, said thread being in the form substantially of a spiral rib projecting into the opening through the bushing and the wall of the bushing being concave between the convolutions of said rib and curved to allow the cork to slide freely thereon, a tap having an end portion to fit into said bushing and engage said cork, the surface of said end portion having a spirally formed recess to receive said rib and a convex curved surface to coöperate with the oppositely curved surface of said bushing when the tap is inserted therein, and the inner end of said bushing having a smooth internal surface against which the end of the cork is seated to form a seal therefor.

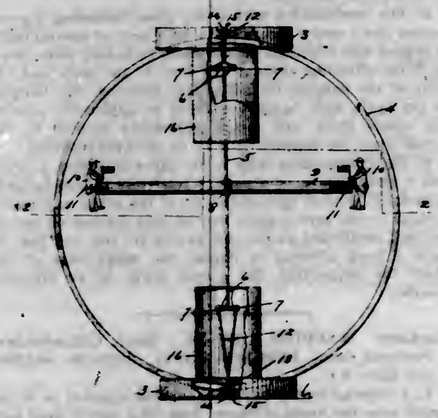
2. A tapping device having a bushing adapted to be inserted into the bung or faucet hole of a barrel head and having a coarse thread on its inner surface for engagement with the walls of a cork inserted into said bushing,

said thread being in the form substantially of a spiral rib projecting into the opening through the bushing, and the wall of the bushing being concave between the convolutions of said rib and curved to allow the cork to slide freely thereon, a tap having an end portion to fit into said



bushing and engage said cork, the surface of said end portion having a spirally formed recess to receive said rib and a convex curved surface to cooperate with the oppositely curved surface of said bushing when said tap is inserted therein.

1,245,089. MECHANICAL TOY. HALE S. COLEMAN, Ashland, Wis. Filed July 7, 1917. Serial No. 179,196. (Cl. 46—40.)



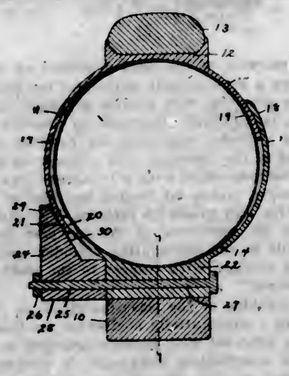
1. A mechanical toy comprising a frame, an upright rod having cranks at its ends, an object carried by the rod, and flexible non-elastic pairs of connections between the crank ends of the rod and opposite points on the frame, said pairs of connections having such slack that the one pair can be twisted without placing the other pair under strain, whereby when the twisted pair of connections is uppermost, the same will impart a whirling movement to the rod and object carried thereby and twist the lowermost pair of connections.

2. A mechanical toy comprising a frame, an upright rod having cranks at its ends, a bar intermediately secured to the intermediate portion of the rod, a figure pivoted to each end of the bar for pivotal movement in a vertical plane and weighted to stand in an upright position, and flexible non-elastic pairs of connections between the crank ends of the rod and opposite points on the frame, said pairs of connections having such slack that the one pair can be twisted without placing the other pair under strain, whereby when the twisted pair of connections is uppermost, the same will impart a whirling movement to the rod, bar, and objects carried thereby and twist the lowermost pair of connections.

3. A mechanical toy comprising a pair of vertically spaced base sections and a frame connecting the same, an upright rod located between the base sections and having cranks at its ends, a bar carried by the rod and having figures mounted thereon, and pairs of cords connecting the crank ends of the rod to the base sections, said pairs of cords having such slack that the one pair can be twisted without placing the other pair under strain, whereby when the toy is supported on the base section to bring the twisted pair of cords uppermost, the same will impart a whirling movement to the rod, bar and figures and twist the lowermost pair of cords.

[Claims 4 to 6 not printed in the Gazette.]

1,245,090. TIRE STRUCTURE. PETER M. DEVENIS, Waterbury, Conn. Filed Mar. 3, 1917. Serial No. 152,399. (Cl. 152—34.)

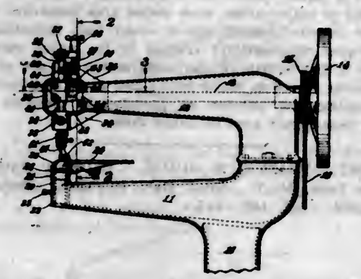


1. In combination in a tire structure, a casing comprising an inner part for being secured to the wooden felly of a wheel, and an outer part for cooperating with the said inner part and having a tread portion on the periphery, the said parts having overlapping edge portions on opposite sides in sliding engagement, an inner tube housed within the said parts, a set of clips supported by the said felly, and the said outer part being held in operative position by one of the said overlapping edge portions of the inner part on one side and the said clips on the other side.

2. In a tire structure, a divided casing structure for inclosing an inner tube, composed of two parts, the said parts having overlapping portions arranged in two zones, one on each side of the axis of the cross-section of the tube structure, each of the said zones being of annular form, and the zone of one of the said overlapping portions being of greater diameter than the other, suitably to permit the said parts to be brought together by a body movement in parallelism with the axis of the wheel structure.

3. In combination in a wheel and tire structure, a fixed unit composed of a felly and an inner casing part mounted thereon, a movable unit composed of an outer casing part and a hard tire mounted thereon, means for holding the said units together, the said casing parts having means for housing an inner tube, comprising cooperating shell-like parts, of semi-circular cross-section, and having overlapping border portions, and the said overlapping border portions being arranged in two zones, of annular form, and one of greater diameter than the other, suitably to provide clearance for assembling the two parts.

1,245,091. SOLE ROUNDING AND CUTTING MACHINE. STEPHEN A. DOBYNE, St. Louis, Mo., assignor to Champion Shoe Machinery Company, St. Louis, Mo., a Corporation of Missouri. Filed Jan. 8, 1915. Serial No. 1,174. (Cl. 12—23.)



1. In a sole cutting machine, a support, a work table of sector form mounted on said support, and a vibrating cutter operating with said table at the intersection of the sides of the sector, the plane of the sector being disposed transversely of the line of cut.

2. In a sole cutting machine, a support, a work table of sector form mounted on said support, and a vibrating cutter operating with said table at the intersection of the sides of the sector, the plane of the sector being disposed transversely of the line of cut and said table being movable on said support about the line of movement of said cutter.

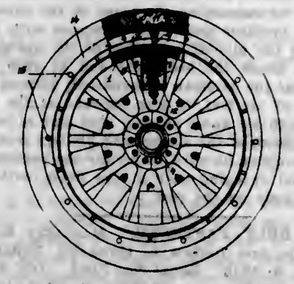
3. In a sole cutting machine, a support, a work table of sector form mounted on said support, a vibrating cutter operating with said table at the intersection of the sides of the sector, the plane of the sector being disposed transversely of the line of cut and said table being movable on said support about the line of movement of said cutter, and means for locking said table in its different adjusted positions.

4. In a sole cutting machine, a support, a horizontal work table of sector form mounted on said support, and a cutter operating with said table at the intersection of the sides of the sector, the plane of the sector being disposed transversely of the line of cut and said table having its surface beveled adjacent said cutter for the purpose set forth.

5. In a sole cutting machine, a support, a work table of sector form mounted on said support, said table having a slot at the intersection of the sides of said sector and the edge of said table being beveled adjacent said slot, and a vibrating cutter moving in said slot, the plane of the sector being disposed transversely of the line of cut.

[Claim 6 not printed in the Gazette.]

1,245,092. RESILIENT WHEEL FOR CARRIAGES. CORNELIS DOMINICUS, Jr., Goes, Netherlands. Filed Mar. 20, 1917. Serial No. 156,180. (Cl. 152—32.)

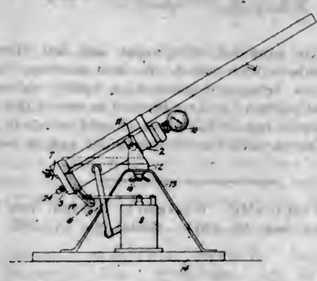


1. A resilient wheel comprising, an inner wheel having a peripheral rim, a second rim normally concentric with the first, a series of radially disposed helical springs arranged within the inner rim, connecting rods pivotally secured to the outer rim and connecting the inner end of the springs thereto, means within each casing adapted to guide the inner end of the spring in a radial direction only and means secured to the inner rim to allow of the rocking of the said rod in a plane vertical to the wheel only, the whole being constructed in such a manner as to allow of the rods assuming an inclined position within the casing.

2. A resilient wheel comprising, an inner wheel having a peripheral rim, a second rim, a series of radially disposed casings around and within said rims, helical springs within said casing whose outer ends are attached thereto, connecting rods pivotally secured to the outer rim, members pivotally secured to said rods at their inner ends to which the inner ends of said springs are connected, said members having slidable movement within said casing.

3. A resilient wheel comprising an inner wheel having a peripheral rim, a second rim, provided with an encircling band formed with openings therein, a series of radially disposed casings around and within said rims and having their upper ends in alinement with the openings in the band, such upper ends being of larger diameter than the openings in the bands, helical springs within said casings whose outer ends are prevented from moving outwardly by engagement with the said bands, connecting rods pivotally connected to the outer rim, the opposite ends of said rods being secured to members holding the inner end of said spring, the whole being constructed in such a manner as to permit of a rocking movement of said rods within the casings.

1,245,093. PNEUMATIC GUN AND SHELL-FIRING DEVICE THEREFOR. VILLEROY CORNEY DOUBLEDAY, London, England. Filed Nov. 27, 1915. Serial No. 63,811. (Cl. 89—6.)

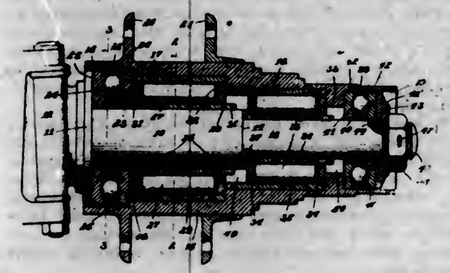


1. In a pneumatic gun, the combination of a barrel; an air chamber; a solid breech end piece formed with a pair of sockets for the adjacent ends of said barrel and air chamber disposed in direct juxtaposition to each other, and with a short air passage leading directly from one socket to the other; a source of air supply in communication with said air chamber; and a valve for controlling the flow of air through said passage from the air chamber to the barrel.

4. In a pneumatic gun, the combination of a barrel; an air-chamber, a solid breech end piece formed with a pair of forwardly-opening parallel sockets for the adjacent ends of said barrel and air-chamber disposed in direct juxtaposition to each other, with a short, straight passage leading directly from the air-chamber socket to the barrel socket, and with a rearwardly opening aperture alining with said barrel socket to permit the introduction of the projectile therethrough into said barrel; a breech block for closing said projectile aperture; a valve controlling communication between the air chamber socket and the adjacent end of said passage; a pump; and a conduit having relatively movable ends connecting the said pump and air-chamber.

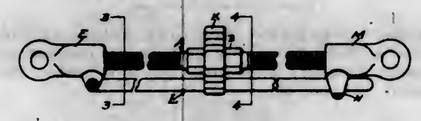
[Claims 2 and 3 not printed in the Gazette.]

1,245,094. VEHICLE-WHEEL BEARING. ALBERT G. DOUTHIT, Elkhart, Tex. Filed Nov. 28, 1916. Serial No. 133,944. (Cl. 64—39.)



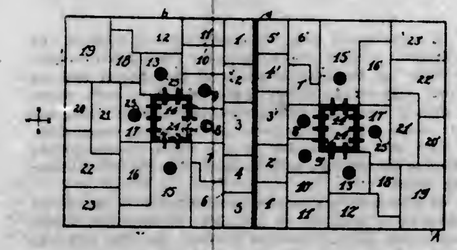
A vehicle wheel comprising a spindle provided with a reduced portion to form a centrally located shoulder, a hub formed with a bore of different diameters to provide shoulders therein, flanged sleeves surrounding said spindle, retaining rings abutting the shoulders formed by the reduced diameters of the hub and the flanged sleeves to provide separate inclosed bearing chambers and rollers located within said chambers.

1,245,095. TURNBUCKLE. PATRICK FLOOD, Albany, N. Y., assignor of one-half to Edward J. B. Murray, Albany, N. Y. Filed Sept. 16, 1916. Serial No. 120,509. (Cl. 85—36.5.)



A turnbuckle provided with right and left threaded portions; members with which the said portions engage respectively; an hexagonal portion; a spider secured to said hexagonal portion; an arm pivoted to one of the members; a bifurcated lug on the other of said members; and means for securing said arm in the spider and in said bifurcated lug.

1,245,096. WAR GAME. WINFRED C. FOSTER, New York, N. Y. Filed Jan. 15, 1917. Serial No. 142,385. (Cl. 46—63.)

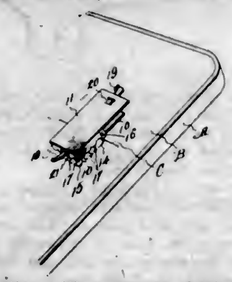


1. In a game apparatus, a play-field demarked into a plurality of major areas, each major area demarked into a number of minor areas including one minor area substantially central to its major area and having a distinguishing characterization; a set of movable pieces for each major area; and a chance device for determining the number of permissible movable piece moves from minor area to minor area.

2. In a game apparatus, a play-field demarked into a plurality of major areas, each major area demarked into a number of minor areas, including one minor area completely surrounded by other minor areas which bears a distinguishing characterization; a set of movable pieces for each major area; and a chance device for determining the number of permissible movable piece moves from minor area to minor area.

3. In a game apparatus, a play-field demarked into a plurality of major areas, each major area demarked into a number of overlapping minor areas and including one minor area substantially central to its major area and having a distinguishing characterization; a set of movable pieces for each major area; and a chance device for determining the number of permissible movable piece moves from minor area to minor area.

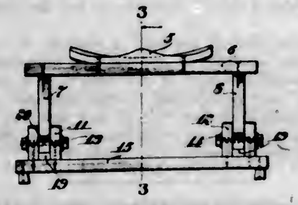
1,245,097. PRINTER'S GUIDE. WILLIAM GJODESEN, New York, N. Y. Filed Mar. 15, 1917. Serial No. 155,096. (Cl. 101—415.)



1. In combination with a tympan sheet, having a slit therein of a gage comprising a lower jaw, adapted to enter said slit and an upper jaw pivoted thereto, having a marginal flange depending therefrom, teeth on the lower edge of said flange, registering openings adjacent the edges of the lower jaw, adapted to receive said teeth, means for normally forcing the jaws together and a guide strip interposed between said jaws, said strip being adjustable vertically and longitudinally.

[Claims 2 and 3 not printed in the Gazette.]

1,245,098. ROWBOAT-SEAT. JOEL E. GOLDTHWAIT, Boston, Mass. Filed Jan. 17, 1917. Serial No. 142,954. (Cl. 9—7.)



A seat for racing shells and the like comprising uprights fulcrumed to the shell on fixed pivots having their axes in alinement transverse to the axis of the shell, and a body rest for supporting the torso of the oarsman, secured to the uprights and being connected with the shell only through the pivotal mounting of the uprights, said pivots being below the body rest and at such distance therefrom that the oarsman is permitted, without shifting the position of his feet, to lean forward at the reach of the stroke with his knees sharply bent and to lean backward at the finish of the stroke with his legs straight, the body rest swinging forward to permit the genuflection at the reach and swinging back at the finish without slipping of the body on the rest.

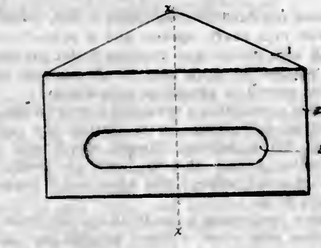
1,245,099. BELT-FASTENER. MARGARET E. GROSS, Perkinsville, and JOSEPH L. HOWLAND, Buffalo, N. Y. Filed Feb. 9, 1915. Serial No. 7,067. (Cl. 24—123.)

As a new article of manufacture, a belt fastener comprising a single piece of flat material bent in substantially semi-circular form, and pairs of gripping lugs inwardly struck from said piece of material and projecting diametrically thereto, one gripping lug in each pair extending laterally to the other gripping lug in each pair and disposing certain of said lugs in a plane with the belt to which the article is connected to prevent any longitudinal move-



ment of the fastener upon the belt ends, the other of said lugs being disposed transversely to the plane of the belt for preventing any circumferential movement of the device, and further preventing the separation of the longitudinal edges of the fastener.

1,245,100. WINDOW-ENVELOP. CHARLES J. GUTBERLET, Philadelphia, Pa. Filed July 5, 1917. Serial No. 179,977. (Cl. 91—68.)



1. A window envelop, having the window formed of the paper constituting the face of the envelop but thinner than the rest of the envelop face and integral therewith, the opposite surfaces of the window being parallel planes and polished, and said window having shoulders connecting the same with the face of the envelop, formed of paper integral with the window and the envelop face, and having the window up to the shoulders filled with a transparent tenacious filler.

2. A window envelop, having the window formed of the paper constituting the face of the envelop but thinner than the rest of the envelop face and integral therewith, the opposite surfaces of the window being parallel planes and polished and integral therewith, and said window having shoulders connecting the same with face of the envelop, formed of paper integral with the window and the envelop face, and having the window up to the shoulders filled with a heavy oil with a paraffin base.

3. The art of making window envelops, which consists in subjecting the blank to a thinning operation at the location of the window until a window with reduced thickness is produced, treating the window with a heavy oil with a paraffin base, and drying the same, and during the process polishing the surfaces of the window.

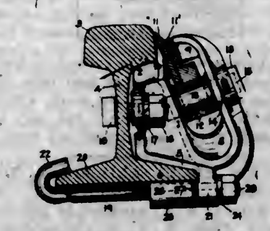
1,245,101. HORSESHOE-CALK. JAMES W. HENDERSON, Atlanta, Ga. Filed Feb. 7, 1917. Serial No. 147,183. (Cl. 168—34.)



1. In a device for the purpose set forth, a calk having lateral extensions provided with angularly arranged hooks designed to engage one edge of a horseshoe, a holder member comprising an angle plate designed to engage the opposite edge of the horseshoe provided with eyes, longitudinally extending bendable straps formed upon one of the edges of the angle plate, said straps adapted to be passed around the lateral extensions upon the calk and to be passed through the eyes of the angle member and bent thereover, as and for the purpose set forth.

2. A detachable calk for horseshoes comprising a calk member having an upper flat face designed to rest against one of the faces of the shoe, lateral members extending from the calk at the said flat face thereof, hook members formed upon the lateral members and designed to engage with one of the edges and upon one of the faces of the shoe, the said lateral member having its opposite faces channeled in a line with the sides of the calk, a holder member comprising an angle plate designed to be arranged upon one of the faces and to contact with one of the edges of the shoe, eye members formed upon the angle member, bendable straps upon the lower edge of the angle member and adapted to be passed over the underface of the shoe through the upper channels in the lateral members of the calk, over one of the edges of the said lateral members, through the lower channels in the said members, and to be extended within and over the eyes of the holder member.

1,245,102. DETECTOR-BAR CLIP. WILLIAM S. HENRY, Rochester, N. Y., assignor to General Railway Signal Company, Gates, N. Y., a Corporation of New York. Filed June 26, 1915. Serial No. 36,544. (Cl. 246—57.)



3. A detector bar clip comprising a body portion shaped to fit between the head and flange of a track rail and having a U-shaped portion integral therewith and projecting inwardly underneath the rail flange, one wall of said U-shaped portion having a vertical slot therein, thereby forming a lip capable of being bent along a line extending transversely of the rail into contact with the under face of the flange of the track rail.

[Claims 1 and 2 not printed in the Gazette.]

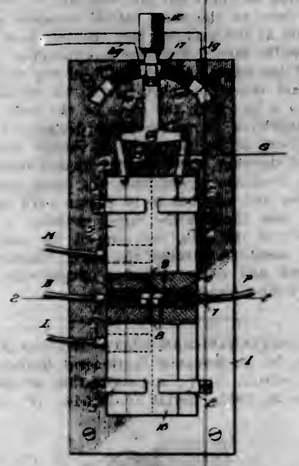
1,245,103. ELECTRIC SWITCH. JOHN S. HICKMAN, Titusville, Fla. Filed Dec. 29, 1916. Serial No. 139,637. (Cl. 175—283.)

1. In electric switch, the combination with a base, and parallel guides thereon; of a pair of bars slidably mounted on the base between said guides and in contact with each other, one bar having a plurality of transverse sockets and the other a single socket, an insulated lining for each socket, terminals mounted in said sockets and each having a ball at its inner end and its outer end connected with one of the wires which the switch is to control, and means for longitudinally adjusting the bars simultaneously and oppositely with respect to each other.

2. In a switch, the combination with a base, two sets of double-angle springs secured thereon with the free upper arms of one set of springs projecting toward those of the other, and a plate underlying said arms; of two bars of insulation material slidably mounted on the base between said springs and under said plate with their adjacent faces in contact with each other, terminals extending through said bars transversely and connected with the wires which the switch is to control, and means for longitudinally adjusting said bars simultaneously and oppositely, for the purpose set forth.

3. In a switch, the combination with a base, two sets of double-angle springs secured thereon with the free up-

per arms of one set of springs projecting toward those of the other, and a plate underlying said arms; of two bars of insulation material slidably mounted on the base between said springs and under said plate with their adjacent faces in contact with each other, terminals extending through said bars tranversely and connected with



the wires which the switch is to control, a lever pivoted to said base, and links connecting said bars with points at opposite sides of the pivot of the lever, whereby movement of the latter will reciprocate the bars simultaneously and oppositely, for the purpose set forth.

1,245,104. MUSIC-SHEET AND SPOOL THEREFOR FOR AUTOMATIC PIANO-PLAYERS. JAMES S. HOLMES, New York, N. Y., assignor to American Piano Company, New York, N. Y., a Corporation of New Jersey. Filed Jan. 2, 1915. Serial No. 92. (Cl. 242—69.)



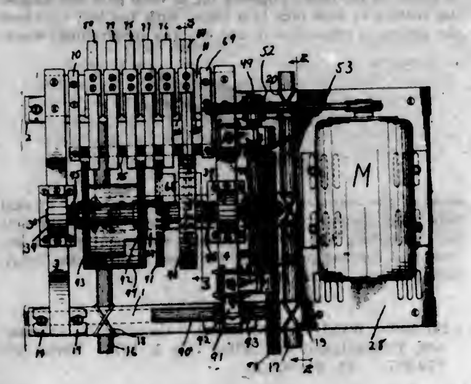
5. The combination of a spool and note sheet relatively constructed and arranged to be assembled by inserting the spool endwise into the hollow core of the note sheet when rolled; a removable flange for the spool arranged to hold the rolled note sheet in position when on the spool; a spool barrel having a slot formed therein; and means upon the end of the note sheet to bridge said slot interiorly of the spool barrel when so assembled.

7. As an article of manufacture, a spool for a note sheet having, in combination, a removable flange; a unitary barrel portion; a recess parallel to the spool axis arranged to receive fastening means on a note sheet, said recess having an entrance arranged to be at least partially closed by said flange.

8. As an article of manufacture, a spool for a note sheet having, in combination, a seat extending lengthwise of the spool and connected by a comparatively restricted passage with the exterior surface of the spool, said seat having an axially opening entrance portion adapted to receive fastening means on a note sheet and permitting the note sheet to extend through said passage to the exterior of the spool.

[Claims 1 to 4 and 6 not printed in the Gazette.]

1,245,105. FLASHER. FRED HOTCHNER, San Francisco, Cal., assignor to Sydney Hotchner, San Francisco, Cal. Filed Feb. 23, 1915. Serial No. 9,873. (Cl. 200—10.)



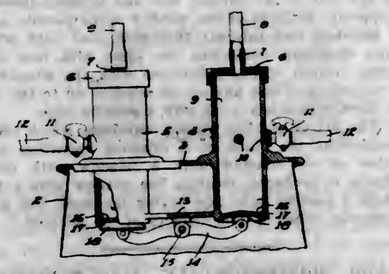
1. A wheel for flashers comprising a hub, means to secure the hub to a shaft, spokes, and a pair of rims connected with said spokes, and forming a slot around which a contact segment or drum may be placed, and bolted to said rim and moved to any given adjustment.

3. A flasher comprising a revoluble contact drum, frames for supporting said drum, an insulating bar connecting said frames, brush holders through which said bar extends, brushes carried thereby, and an insulated rod against which said brushes strike when not in contact with the revoluble drum.

4. A flasher comprising a revoluble contact drum, frames for supporting said drum, a brush holding bar connecting said frames, brush holders through which said bar extends, brushes carried thereby, an insulated rod against which said brushes strike when not in contact with the revoluble drum, and means to raise and lower the position of said insulated rod.

[Claim 2 not printed in the Gazette.]

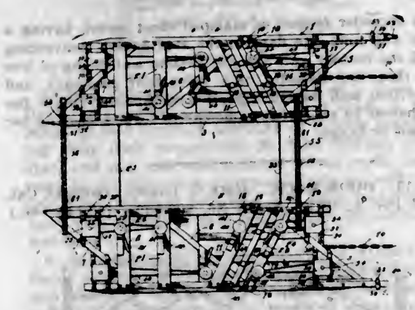
1,245,106. MILKING-MACHINE. ALBERT C. HOUGLAND, Madison, Wis. Filed Oct. 19, 1915. Serial No. 56,653. (Cl. 31—98.)



1. A milking machine comprising milk receivers having means for mounting them on a milk receptacle and having vacuum pump tubes and milk tubes communicating with said receivers and also having milk discharge ports in their lower ends, a rocking arm centrally pivoted between the lower ends of said milk receivers, and valves pivotally supported on said arm and engaging alternately seats provided in the lower ends of said milk receivers for closing and opening the same.

2. A milking machine comprising a cover adapted to be fitted on the open top of a milk receptacle, milk receivers formed on said cover and projecting above and below the same, vacuum tubes connected with the upper portions of said milk receivers, the lower ends of said receivers within said receptacle being open and having valve seats formed therein, and an arm centrally pivoted between the lower end of said receivers and valve disks carried by said arm for alternately closing the open lower ends of said receivers.

1,245,107. ROAD-SCRAPER. JAY HUGHES, Atkinson, Nebr. Filed May 18, 1917. Serial No. 169,511. (Cl. 37—5.)



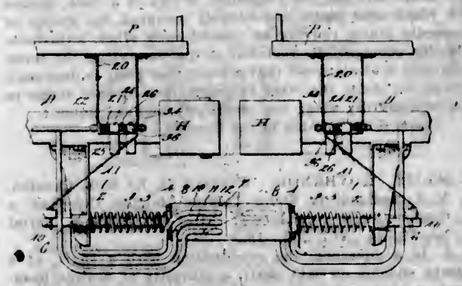
2. A road scraper comprising a pair of frames, means for connecting said frames, cutting means carried by said frames, supporting structures carried by said frames, rods slidably mounted in said supporting structures, blocks carried by the rods and slidable in the supporting structure, coiled springs interposed between said blocks and frames, cables connected to said blocks, rods journaled in said frames, a ratchet mechanism carried by said rods, said cables attached to said rods, and handles connected to said rods for rotating said last named rods, and rollers journaled to the first named rods.

4. A road scraper comprising a pair of frames, means for connecting said frames, a plurality of hollow rods carried by said frames, journals carried by said rods, screw-threads formed on said rods, shafts journaled in the journals, colters journaled on said shafts, adjusting nuts on said rods for raising and lowering said rods, and grease cups carried by said rods for furnishing the journals with lubricant.

5. A road scraper comprising a pair of frames, cutting means carried by said frames, members connecting said frames, blocks slidably mounted in said frames, cushioning means engaging said blocks, means for connecting the blocks to the frames to form a shock absorber between said frames.

[Claims 1 and 3 not printed in the Gazette.]

1,245,108. HOSE-COUPLING. CARL H. JOHNSON, Taylorsville, Pa. Filed Jan. 5, 1917. Serial No. 140,805. (Cl. 188—13.)



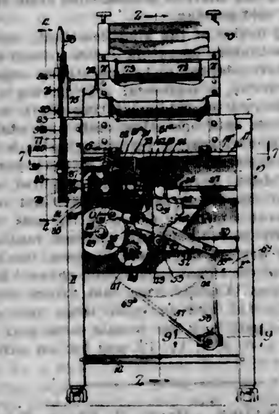
1. In a hose coupling for train pipes, the combination with the coupler head and stem, a guide for permitting longitudinal movements thereof, a spring bearing the head normally forward, the train pipes, hose sections leading from the head and connected with said pipes, and independent valves at their points of connection; of guides beneath the car body, a cross bar movably mounted in said guides and extending across the stems of said valves, springs bearing the cross bar normally forward, and means connected with the stem of the hose coupler for bearing said bar to the rear to open all valves when coupling is effected.

6. In a hose coupling for train pipes, the combination with the coupler head whose stem is movably mounted, the train pipe, a flexible connection between said head and pipe, and a normally closed valve in the pipe whose stem projects forward thereof; of longitudinal loops carried by the car body, a cross bar having reduced portions mounted in said loops whereby it may move therein tranversely of its length, this bar having a dropped center underlying the draw bar of the car-coupling, a second cross bar longitudinally movable through said loops and bowed forward at one side of each of them and having handles at its extremities, this bar having a dropped center underlying the draw bar of the car-coupling, brackets projecting forward from the first-named cross bar and spaced to correspond with the spacing of said loops, rollers carried by said brackets, this bar passing across the valve-stem, and means pressing it normally forward within said loops.

8. In a device of the class described, the combination with the train pipe, a normally closed valve therein whose stem projects toward the end of the car, and a hose coupling whose head is connected with said pipe forward of the valve; of two parallel bars, guide loops supporting them transversely beneath the car platform with the inner bar extending across the valve stem, means for preventing the longitudinal movement of this bar in its guides, means for pressing it normally forward therein, rollers carried by the forward side of the rearmost bar at one side of said guide loops, and forwardly bent portions on the other bar spaced to correspond with the spacing of the rollers whereby when this bar is moved in one direction the bows register with the rollers and the other bar may move forward whereas when it is moved in the opposite direction the bows are drawn into the guide loops and both bars are pressed rearward, for the purpose set forth.

[Claims 2 to 5 and 7 not printed in the Gazette.]

1,245,109. GEARING. GUSTAV B. KEIL, Chicago, Ill., assignor to Federal Sign System (Electric), Chicago, Ill., a Corporation of New York. Filed Aug. 19, 1916. Serial No. 115,799. (Cl. 74—50.)



1. In combination, a support having upright end walls, legs for said support, one of said end walls being spaced inwardly from the legs of that end of the support, a bracket plate mounted within the space between the said last named legs and the associated end wall of said support, an operating device within said support, an operating

shaft and gearing carried by said bracket plate, said operating device being capable of detachable connection with said operating shaft, and a motor carried by said bracket plate for driving said gearing.

5. In combination, a support having upright end walls, legs for said support, one of said end walls being spaced inwardly from the legs of that end of the support, a bracket plate within the space between the said last named legs and the proximate end wall of said support, said bracket plate being fixed to said legs, an operating device within said support, an operating shaft and gearing carried by said bracket plate, said operating device being adapted for operative engagement with said operating shaft, a motor carried by said bracket plate for driving said gearing, and shields or plates carried by said support forming with the said proximate end wall a casing for said gearing, one of said shields being a door adapted to completely inclose said gearing, and being hinged at its top end.

7. In combination, a support having upright end walls, legs for said support, one of said end walls being spaced inwardly from the legs of that end of the support, a bracket plate having a plurality of arms located within the space between the said last named legs and the associated end wall of said support, an operating device within the said support, an operating shaft and gearing including a driven pulley carried by said bracket plate, said operating device being adapted for operative engagement with said operating shaft, a motor having a driving pulley, a belt operatively connecting said motor and gearing pulleys, several of said bracket arms being adapted for attachment to said last mentioned legs, the rest of said arms depending below the plane of said gearing and supporting said motor, and means on said last mentioned arms for adjusting the position of the motor to provide the proper tension in said driving belt.

10. In a mechanism of the kind described, in combination, a main support having upright walls, an operating device within said support adapted for an oscillatory movement, a supplemental support adapted for attachment to said main support, an oscillatory shaft and gearing for imparting movement to said shaft carried by said supplemental support, said oscillatory shaft projecting through one of the upright walls of said main support, means for operatively connecting and disconnecting said oscillatory shaft from said gearing, and means on said operating device above the center of gravity thereof for removable attachment to said oscillatory shaft, said parts being so constructed that the operating device within the main support will stop in a predetermined position when said oscillating shaft is disconnected from the driving influence of said gearing.

12. A gearing device of the kind described, comprising a support, an oscillatory operating device in said support, an operating shaft adapted to be operatively engaged by said operating device, a segmental gear having a clutch face loosely mounted on said operating shaft, a clutch collar feathered on said operating shaft and adapted to engage said segmental gear, a reciprocating rack bar engaged with said segmental gear, a driven shaft parallel to said operating shaft, a roller loosely mounted on said driven shaft and supporting said rack bar, said rack bar comprising a channel member closed at its ends, a tooth bar longitudinally movable in said channel member and shock absorbing devices interposed between the ends of said tooth bar and the closed ends of said channel member, a large gear spaced laterally from said driven shaft and operatively connected thereto, said large gear having means connecting said rack bar to said large gear.

[Claims 2 to 4, 6, 8, 9, 11, 13, and 14 not printed in the Gazette.]

1,245,110. SPREADER. HENRY P. KRAFT, Ridgewood, N. J. Filed Mar. 19, 1917. Serial No. 155,819. (Cl. 152—20.)

1. A spreader having a bottom wall and side flanges, the side flanges converging toward the bottom wall, and the bottom wall being of less width than the diameter of a valve foot or flange, and such bottom wall having a portion raised above the level thereof to an extent sufficient to form a bearing for such foot or flange.



2. A spreader formed of stamped sheet metal, having a bottom wall and side flanges, the side flanges converging toward the bottom wall and the bottom wall being of less width than the diameter of a valve foot or flange, and such bottom wall having a portion stamped up above the level thereof to an extent sufficient to form a bearing for such foot or flange.

1,245,111. BOOK-RACK. JOHN G. LARSON, Oakland, Cal. Filed Dec. 1, 1913. Serial No. 803,939. (Cl. 45—86.)



1. A book holder comprising a frame, a pair of plates for supporting covers of a book, means for slidably supporting said plates, and a flexible member connecting said plates to permit either plate to rise as the other is depressed by the weight of that portion of a book supported thereby.

2. A book holder comprising a frame, a pair of plates for supporting covers of a book, means for slidably supporting said plates to permit either plate to rise as the other is depressed by the weight of that portion of a book supported thereby, a flexible member connecting said plates and means for varying the effective length of said flexible connection.

3. A book holder comprising a frame, upwardly converging guideways, plates engaging said guideways forming rests for the respective book covers, and a flexible substantially inelastic connection between said plates, so that when the pages of said book are turned one plate may be depressed while the other is moved upwardly.

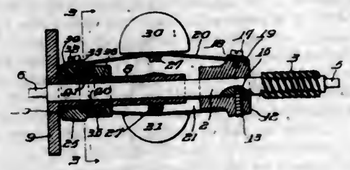
4. A book holder comprising a frame, a pair of plates forming rests for the book covers, a plurality of parallel inclined guides engaging opposite edges of each of said plates, the guides of opposite plates being upwardly converging, flexible substantially inelastic strips connecting the adjacent edges of said plates, so that when either plate is depressed the other plate is constrained to move upwardly along its guides, and means for varying the effective length of said strip.

5. A book holder comprising a frame, a pair of plates forming rests for the respective covers of a book, guides on which said plates are slidably mounted, the guides of opposite plates converging toward each other, adjustable flexible substantially inelastic strips connecting the inner edges of said plates so that when either plate is depressed along one guide the other is constrained by said strips to move upwardly along the oppositely inclined guide.

[Claim 6 not printed in the Gazette.]

1,245,112. GOVERNOR. WILLIAM D. LA RUE, Camden, N. J., assignor to Victor Talking Machine Company, a Corporation of New Jersey. Filed Oct. 2, 1915. Serial No. 53,734. (Cl. 264—18.)

1. In a governor, the combination with a shaft, of a sleeve slidable on said shaft, a plurality of flexible members, a ring surrounding said sleeve and resilient means slightly contractible under compression interposed between said ring and said sleeve whereby said ring may move against the resilient member and thereby distort the same while moving with respect to said sleeve under the action of said members.



2. In a governor, the combination of a main shaft, a sleeve longitudinally slidable on said shaft, a ring surrounding said sleeve, a plurality of flexible members having their ends respectively in fixed relation with said shaft and said ring, and resilient means easily changed in form in all directions interposed between said ring and said sleeve whereby said ring may have transverse movement with respect to said sleeve under the action of said members.

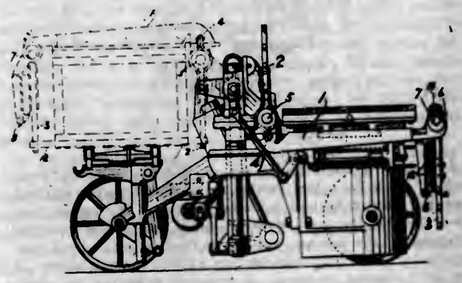
3. In a governor, the combination of a main shaft, a sleeve slidable on said shaft, a collar rigidly secured to said sleeve, a ring loosely surrounding said sleeve and movable independently of the sleeve on axes transverse to the axis of the shaft, a plurality of flexible members having their ends maintained respectively in fixed relation with said ring and with said shaft, and resilient means substantially uniformly compressible in all directions interposed between said ring, and said collar and said sleeve being loosely connected by said ring whereby said sleeve is turned with said ring while the sleeve is moved under the action of said members.

9. A governor having a main shaft, a member slidable on said shaft, and frictional means for rotating said member with said shaft and operative to permit the relative rotation of said member and said shaft.

10. A governor comprising a main shaft, a sleeve surrounding said shaft and relatively rotatable with respect thereto, and governing members rotated by said shaft and operative to normally rotate said sleeve simultaneously with said shaft.

[Claims 4 to 8 and 11 to 15 not printed in the Gazette.]

1,245,113. FLASK-CLAMP FOR ROLL-OVER MOLDING-MACHINES. WILFRED LEWIS, Haverford, Pa., assignor to The Tabor Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Apr. 10, 1917. Serial No. 160,907. (Cl. 22—33.)



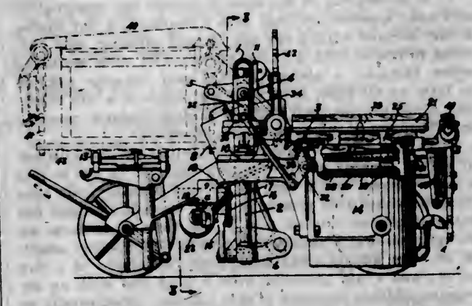
1. A flask-clamp for roll-over molding machines comprising the combination of a roll-over frame, strap members each permanently carried by the frame, a flask holding rail adapted for detachable connection with two of the strap members, and an eccentric connection for tightening and loosening the clamp.

2. A flask-clamp for roll-over molding machines comprising the combination of a roll-over frame, strap members of which one is immovably connected with the frame, turnable disks mounted on the frame and to which the other strap member is eccentrically pivoted, and a detachable flask holding rail adapted to coöperate with said strap members.

3. A flask-clamp for roll-over molding machines comprising the combination of a roll-over frame, strap members constituting permanent parts of the frame and of which one is immovably and the other turnably connected to the frame, a flask holding rail adapted for detachable connection with each of the strap members, and means for tightening the clamp.

4. A flask-clamp for roll-over molding machines comprising the combination of a roll-over frame, strap members of which one is attached to the frame, a turnable disk mounted on the frame and to which the other strap member is eccentrically pivoted, a flask holding rail detachable in respect to the strap elements, and a handle adapted for turning the disk and provided with means for supporting the rail between it and the turnable strap element when they are not in use, substantially as described.

1,245,114. MOLDING-MACHINE. WILFRED LEWIS, Haverford, and JOHN T. RAMSDEN, Philadelphia, Pa., assignors to The Tabor Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Apr. 10, 1917. Serial No. 160,920. (Cl. 22—33.)



1. In a molding machine the combination of shockless jarring mechanism, a counter-balanced sliding frame, roll-over arms provided with a detachable pattern plate and positionable in respect to the frame, a piston and cylinder adapted to oppose the counter-balance of the frame to depress the arms below the jarring mechanism and leave the pattern plate thereon, and valve mechanism for said cylinder operatable by turning movement of the arms.

2. In a molding machine the combination of a frame, roll-over arms pivoted to the frame, spring closed catches having telescopic stems of which one is provided with pivotal links pivotally connected with an arm, a lever operating upon the other stem to open the catches, a crank arm pivoted to the frame and provided with a link connected with the lever, and a crank arm stop, substantially as described.

4. In a molding machine the combination of a shockless jarring mechanism, a vertically slidable frame having roll-over arms positionable horizontally in respect thereto, fastenings for securing a flask to the arms, and means for imparting a limited range of lift to said frame and arms and to provide a dwell for operating the mold fastenings prior to rolling over.

6. In a molding machine the combination of shockless jarring mechanism, a mold support, a vertically movable frame interposed between said support and mechanism, roll-over arms pivoted to the frame and positionable in pattern drawing and jarring positions, a rock-over piston and cylinder between the arms and frame, and a pair of pistons and cylinders whereof one is of relatively short stroke and operates to lift the frame and whereof the

other is of relatively long stroke and operates to draw the pattern.

9. In a molding machine the combination of shockless jarring mechanism, a slidable frame provided with pivotal roll-over arms and with means for holding them in a horizontal position, a pattern plate detachably connected with the arms, and means responsive to turning movement of the arms for automatically lowering the frame and arms after the plate has been deposited on said mechanism.

[Claims 3, 5, 7, 8, and 10 not printed in the Gazette.]

1,245,115. PNEUMATIC COUPLING. NORMAN S. McEWEN, Nashville, Tenn. Filed Jan. 15, 1917. Serial No. 142,488. (Cl. 137—28.)



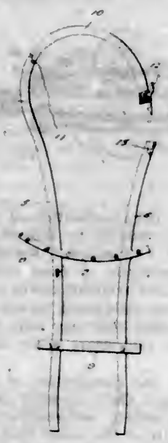
1. In a coupling of the class described the combination of a body member provided with a chamber; a nut having a bore secured within one end of said chamber, said bore being provided with a flared portion and with mutilated screw threads; a plunger within said chamber adapted to form an air tight joint with the nipple of a tire valve; and a pin provided with an air passage slidably mounted in said plunger, substantially as described.

2. In a coupling of the class described the combination of a body member provided with a chamber; a nut having a bore secured within one end of said chamber, said bore being provided with mutilated screw threads and said nut being thickened around said screw threads to form an abrupt shoulder; a yielding plunger in said chamber adapted to form an air tight joint with the nipple of a tire valve; and a pin provided with a head and with an air passage slidably mounted in said plunger, substantially as described.

3. In a coupling of the class described the combination of a body member provided with a chamber and an extension having an air passage; a nut provided with a bore and a cutaway portion, said bore having a flared portion and being provided with mutilated screw threads opposite said flared portion, whereby a valve nipple may freely enter said bore when the coupling is inclined, and be locked when said coupling is straightened; a plunger within said chamber adapted to form an airtight joint with said valve nipple when the coupling is in its said straightened position; a pin having an air passage slidably mounted in said plunger and adapted to control the valve within said nipple; and means adapted to limit the movement of said pin, substantially as described.

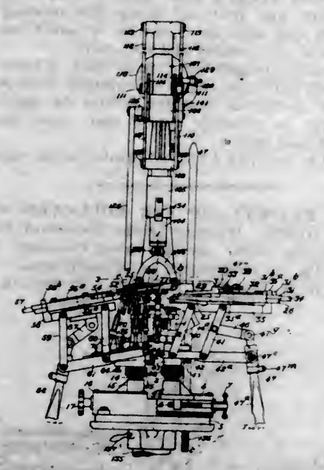
1,245,116. ANIMAL-YOKE. WILLIAM L. McGILL, Foster, Ky. Filed May 31, 1916. Serial No. 100,881. (Cl. 119—136.)

In a device of the class described, in combination a U-shaped neck member, a pair of members having their inner ends curving in opposite directions, said U-shaped neck being hingedly mounted at one end upon one of said members, a disengageable latch connecting the opposite end of said neck and the opposite member in closed relation, a cross bar connecting said members together, a restraining member curved longitudinally in a substantially segmental form and having its opposite end portions curved back and adapted to the same curvature as the main body portion of said member and being secured against the inner sides of said members, a plurality of pins disposed in the main length of said restraining member and slidable therein and being disposed at right angles to the length



of said member, and springs in said restraining member forming resilient backing for said pins.

1,245,117. LASTING-MACHINE. FRANK W. MERRICK, Boston, Mass., assignor to Union Lock Stitch Company, Boston, Mass., a Corporation of Maine. Filed Apr. 28, 1913. Serial No. 764,005. (Cl. 12—12.)



1. A lasting machine having, in combination, a presser or hold-down for a last having an upper of a shoe applied thereto, lasting devices actuated to draw the upper into place around the last by the coming together or relative approach of the last and upper and the lasting devices, and means for actuating said devices at will independently of the said coming together or relative approach to effect the final operations at the bottom of the last.

4. A lasting machine having, in combination, lasting devices actuated to draw an upper about a last by the entry of a last having such upper applied thereto within the lasting devices, and slow-speed power means for causing such coming together, adapted to be rendered operative and inoperative, and to be reversed, all at the will of the operator, enabling him to occasion the coming together or promptly arrest it, and back off.

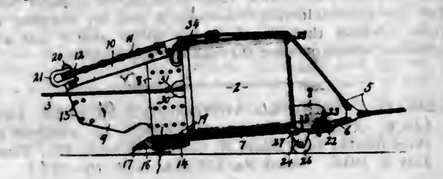
16. A lasting machine having, in combination, lasting devices, a screw and nut, means operated thereby to occasion the entry of a last with upper thereon within the said lasting devices, and the backing-off, a reversible drive for said screw and nut comprising wheels by which movement of rotation in opposite directions is communicated, and controlling means for rendering at will either of said wheels operative to actuate said screw and nut, and means for automatically disconnecting the said wheels from the screw and nut when the predetermined extent of movement in either direction has occurred.

50. A lasting machine having, in combination, heel and toe lasting devices and a hold-down or presser relatively movable toward and from each other, and a support for said lasting devices collectively having an adjustment to adjust the plane of lasting action.

94. A lasting machine having, in combination, a transversely floating flexible wiper-chain composed of a series of links jointed together and capable of play or flexure in the plane of the chain, said chain adapted to partly encircle a last with upper thereon, and means for actuating said wiper-chain to wipe the upper around the edge of the last and crimp it over the bottom thereof or a sole thereon.

[Claims 2, 3, 5 to 15, 17 to 49, 51 to 93, and 95 to 126 not printed in the Gazette.]

1,245,118. LOADING-EXCAVATOR. THOMAS F. MOORE, Syracuse, N. Y., assignor to Moore Trench Machine Co., Syracuse, N. Y., a Corporation of New York. Filed Apr. 8, 1916. Serial No. 89,985. (Cl. 37—54.)



1. In a loading excavator, the combination of a scraper and a bucket telescoping therewith with its open end facing forwardly, means for drawing the bucket endwise along and upon the bottom of the scraper, means on the scraper for limiting the forward movement of the bucket relatively to said scraper, and additional means for drawing the scraper with the bucket thereon forwardly.

5. In a loading excavator, the combination of a scraper having outwardly and downwardly inclined digging teeth secured to the front ends of the corners thereof, a bucket telescopically mounted in the scraper upon the bottom thereof with its open end facing forwardly, means on the scraper at the rear of said digging points for limiting the forward movement of the bucket, additional means for limiting the rearward movement of the bucket, means for impelling the scraper with the bucket thereon forwardly for loading the bucket, and means for tilting the loaded bucket right-side-up preparatory to hoisting the same.

6. In an excavating and loading device, the combination with a digger and a receiver for the material, of a main draft cable for the digger and an auxiliary draft cable for drawing the receiver into position to be filled directly from the digger during the digging operation.

10. In an excavating and loading device, the combination with a scraper and a separate bucket, of a main draft cable attached to the scraper for drawing the same forwardly, an auxiliary cable attached to the bucket for drawing the same into position to be filled directly from the scraper during the digging operation, an additional cable for righting the loaded bucket relatively to the scraper, a clevis attached to the additional cable and provided with means for attachment to the scraper whereby the latter may be drawn rearwardly, and a roller mounted on the clevis at the under side of the scraper when said clevis is attached thereto.

[Claims 2 to 4 and 7 to 9 not printed in the Gazette.]

1,245,119. PROCESS OF MAKING LITHOGRAPHIC PLATES. SAMUEL A. NEIDICH, Edgewater Park, N. J., assignor to The American Multigraph Company, Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 11, 1914. Serial No. 856,201. (Cl. 41—41.5.)



1. The process of preparing a metallic lithographic plate consisting of etching the entire face of the plate and applying directly to the etched surface the image in the form of a hard waxy substance capable of being attached to the preëtched plate by heat.

2. The process of preparing a lithographic plate consisting of etching the entire face of the plate, removing any soluble gum from such face, and applying directly to the etched surface the image in the form of a hard waxy substance capable of being attached to the preëtched plate by heat.

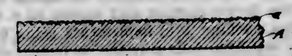
3. A process of preparing a lithographic plate consisting of etching the face of the plate, placing on such etched face a hard waxy substance defining the image and heating the waxy substance to affix such image.

4. The process of preparing a lithographic plate consisting of etching the entire face of the plate, depositing the work locally in a hard waxy substance, coating the plate with soluble gum and subsequently heating the plate.

6. The process of preparing a lithographic plate consisting in etching the face of the plate and thereafter causing a waxy image to be fixed to the etched surface by heat.

[Claims 5 and 7 not printed in the Gazette.]

1,245,120. PROCESS OF LITHOGRAPHY. SAMUEL A. NEIDICH, Edgewater Park, N. J., assignor to The American Multigraph Company, Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 11, 1914. Serial No. 856,202. (Cl. 41—41.5.)



1. The process of preparing a lithographic plate, consisting of etching a plate and drying on the etched surface a mixture of gum arabic and emulsified hard wax.

2. The process of preparing a lithographic plate, consisting of etching a previously grained plate and drying on the etched surface a mixture of gum arabic and emulsified hard wax, and thereafter applying the work.

3. The process of preparing a metallic lithographic plate, consisting of etching and gumming a grained plate and thereafter applying to the etched surface the design in the form of a solution adapted after the application of heat to adhere to the preëtched plate and have the capacity for receiving ink.

4. The process of preparing a lithographic plate, by etching the entire face of the grained plate, depositing thereon over the entire surface gum and hard wax in suspension in the gum, and applying the work by means of a solution of bichromate of ammonium or other agent which renders the gum insoluble in the presence of heat.

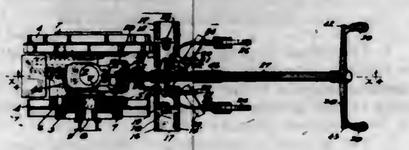
9. The process of preparing a lithographic plate consisting of treating the plate to make it ink repellant and affixing on the treated surface an image made by a wax and a solution which is adapted to combine with the wax to form a substance capable of receiving ink.

[Claims 5 to 8 not printed in the Gazette.]

1,245,121. AGRICULTURAL IMPLEMENT. CORNELIUS A. PERRAS, Minneapolis, Minn., assignor, by direct and mesne assignments, of one-half to E. R. Bosman and one-half to P. J. Lyons, Minneapolis, Minn. Filed Sept. 7, 1915. Serial No. 49,199. (Cl. 97—42.)

1. A machine of the class described having wheels in combination with ground-working implements connected with said machine for movement in an upright position,

transversely of the path of the machine, and a steering device mounted to swing said machine on its supporting wheels to guide it between the rows of plants, said steering device being also mounted to move said ground-working implements transversely of the path of the machine, independently of the guiding thereof.



4. A machine of the class described having carrying wheels, a steering post connected with said frame and mounted to rock thereon, a draft bar connected with said frame, hangers carried by said bar, cultivators mounted for lateral adjustment on said hangers and means pivotally connecting said draft bar and hangers with said steering post for moving said hangers and cultivators laterally when said post is rocked.

6. A machine of the class described having carrying wheels in combination with cultivators pivotally connected therewith and a steering device having a pivotal connection with said machine for moving said cultivators vertically to increase or decrease the depth of cut thereof, lateral movement of said steering device swinging said machine on its supporting wheels to guide it between the rows of plants, said steering device also having a rotary movement on its longitudinal axis for moving said cultivators laterally with respect to said machine and independently of the guiding thereof.

11. A machine of the class described comprising a frame and wheels therefor mounted to straddle a row of plants, a steering device connected with said frame, ground-working implements connected with said frame, means connecting said steering device with said ground-working implements, the laterally swinging movement of said steering device rocking said wheels on a vertical axis to guide the machine, said implements being held by pressure of the soil from following the movement of said steering device, whereby said implements may be operated close to the plants on both sides of a row and the machine guided independently thereof.

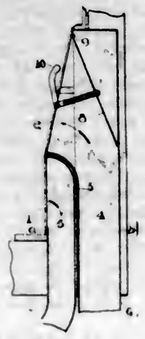
[Claims 2, 3, 5, and 7 to 10 not printed in the Gazette.]

1,245,122. STOVE ATTACHMENT FOR ECONOMIZING HEAT. CHARLES EDWARD PICKARD, Northcote, Victoria, Australia. Filed June 23, 1916. Serial No. 105,459. (Cl. 126—216.)



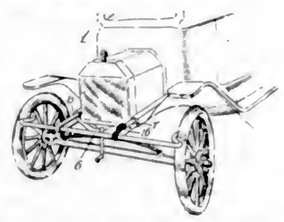
A heating appliance adapted to be supported on the top of a stove, comprising a top formed near one end with an opening, a continuous wall extending downwardly from the top, said wall at one end being extended above the plane of the top to form a utensil supporting flange, the edge of which is provided with notches, said top extending beyond the forward edge of the utensil supporting flange and terminating some distance from the rear end of said supporting flange to form an opening at the rear end of the appliance, the upper surface of said top inclining downwardly in all directions from the upper horizontal plane of the depending wall toward the opening near the forward end portion of the top, the end portion of the top extended within the confines of the supporting flange being curved in cross section, and forms with the top of the stove supporting the attachment an inclined flue to direct heat from a point below the first mentioned opening to the second mentioned opening at the rear end of the appliance.

1,245,123. REGISTER FOR HOT-AIR HEATING APPARATUS. ALBERT H. POWER, Toronto, Ontario, Canada, assignor of one-half to Harry G. Waterman, Toronto, Ontario, Canada. Filed June 13, 1916. Serial No. 103,460. (Cl. 98—54.)



A hot air register having an open bottom and two grilles formed in its front, one above the other, the lower for cold air and the upper for hot air; a transverse heat-insulated partition extending from side to side of the register, extending from the bottom of the register and curving forward at its upper end to the front of the register between the grilles, thus dividing the register into two non-communicating chambers, a cold air chamber in front opening through the lower grille and a hot air chamber behind opening through the upper grille.

1,245,124. COMBINED AUTOMOBILE BUMPER AND LOCK. FRANK R. PROCUNIER, Chicago, Ill., assignor of three-fourths to William M. Collins, Chicago, Ill. Filed July 3, 1916. Serial No. 107,441. (Cl. 70—127.)



1. In a device of the class described, supporting brackets suitably secured to the automobile, a bumper bar carried by the brackets and adapted to be turned with respect thereto and having locking ends bent or turned to position to interfere with the operation of the steering wheels when in locking position and to release the wheels when turned to normal position, and means for locking the bumper in either position of adjustment, substantially as described.

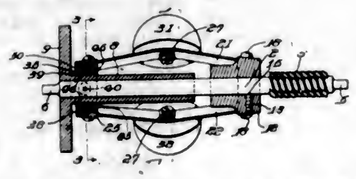
9. The combination of a vehicle having supporting wheels pivoted to be moved about vertical axes, a bumper movably mounted on said vehicle, said bumper having its end portions shaped and arranged to abut against said vehicle wheels and prevent them from being moved pivotally about their vertical axes when said bumper is in one position, and to permit said wheels to be moved about their vertical axes when said bumper is moved to another position, and means for locking said bumper in either of said positions.

10. A device of the class described comprising a pair of supporting arms adapted to be attached to the framework of a vehicle, a bumper bar rotatably mounted on said arms, each end of said bumper bar being shaped so as to abut against the wheels of said vehicle for the purpose set forth when said bumper is in one position, and to be free of said wheels when rotated to another position, and means for locking said bumper bar in said first-mentioned position.

11. A device of the class described comprising a pair of supporting arms adapted to be attached to the framework of a vehicle, a bumper bar rotatably mounted on said arms, each end of said bumper bar being shaped so as to abut against the wheels of said vehicle for the purpose set forth when said bumper is in one position, and to be free of said wheels when rotated to another position, and a lock on one of said supporting arms for securing said bumper bar in said first-mentioned position.

[Claims 2 to 8 not printed in the Gazette.]

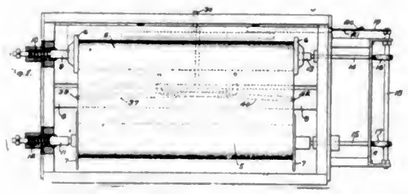
1,245,125. GOVERNOR. BELFORD G. ROYAL, Camden, N. J., assignor to The Victor Talking Machine Company, a Corporation of New Jersey. Filed July 6, 1915, Serial No. 38,096. Renewed Feb. 24, 1916. Serial No. 80,308. (Cl. 264—18.)



4. In a governor, the combination of a main shaft, a sleeve slidable on said shaft and carrying a friction disk, a collar rigidly secured to said sleeve, a plurality of springs each having one of its ends maintained in fixed relation with said collar, a weight on each of said springs, and a universal connection comprising a plurality of concentric pivoted rings between the other ends of said springs and said sleeve.

[Claims 1 to 3 and 5 to 16 not printed in the Gazette.]

1,245,126. TRACKING DEVICE FOR AUTOMATIC MUSICAL INSTRUMENTS. GUY MANLY RUSSELL, Rochester, N. Y., assignor to American Piano Company, New York, N. Y., a Corporation of New Jersey. Filed Jan. 22, 1913. Serial No. 743,448. (Cl. 84—161.)



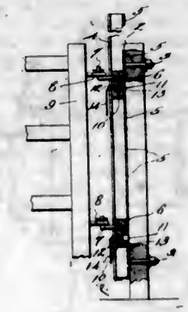
1. In a piano player, in combination, a tracker board, means for passing a music sheet longitudinally over said tracker board, and tracking-control mechanism including a pneumatic for effecting relative lateral movement between said sheet and said tracker board, said pneumatic adapted to be completely extended and completely collapsed, means for continuously exerting pressure on said pneumatic in all positions thereof from its completely extended to its completely collapsed position and means for varying said pressure in proportion to the extent of said lateral movement so as to produce a continuously undulating pressure on said pneumatic during the playing of a piece of music.

2. Tracking-control mechanism for piano players or the like including a pneumatic having a port of fixed open area and unthrottled in all positions and means for causing a continuous flow of air through said pneumatic and said port in all positions of the pneumatic when the sheet is tracking normally, and means for causing a variation in the pressure of air flowing through said pneumatic.

16. Tracking-control mechanism for player pianos or the like including two pneumatics each having a port of fixed open area for causing a continuous flow of air through said pneumatic and said port in all positions of the pneumatics when the sheet is tracking normally, and means for causing an increase in pressure in one of said pneumatics and a simultaneous decrease of pressure in the other of said pneumatics.

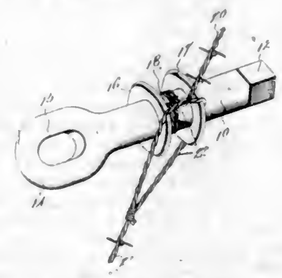
[Claims 3 to 15 and 17 not printed in the Gazette.]

1,245,127. ADJUSTABLE GATE-HINGE. WALTER W. H. SCHULTZ, Wayside, Wis. Filed Jan. 30, 1917. Serial No. 145,467. (Cl. 16—49.)



A gate hinge comprising a single channel guide adapted to be secured to a gate post and having openings at its intermediate portion and provided at its edges with inwardly disposed flanges spaced from each other, a plurality of independently movable blocks located in the guide, pintles carried by the block and adapted to support a gate panel, a spring pressed bolt slidably mounted in each block and adapted to engage in the openings in the guide, and means for retracting the said bolts.

1,245,128. WIRE-SPLICER. THEODORE J. SHERWOOD, Moon, S. D., assignor of one-half to Stephen H. Sherwood, Shabbona, Ill. Filed Mar. 30, 1917. Serial No. 158,649. (Cl. 254—161.)



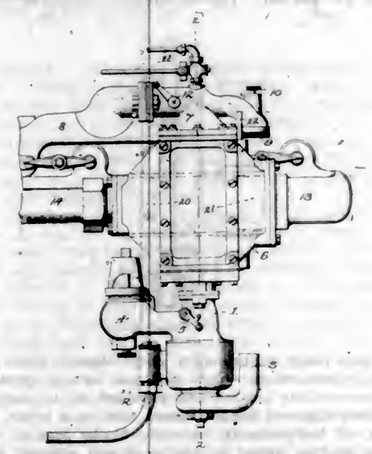
1. In a wire stretcher, a bar provided with engaging portions on the ends thereof, flange members carried by the bar at points intermediate of the ends and spaced from each other, said flanges being adapted to support the loop portion of one end of the wire to be spliced, the opposite end passing between the flanges and through the loop and being secured to the bar.

[Claims 2 and 3 not printed in the Gazette.]

1,245,129. VAPORIZING APPARATUS FOR INTERNAL-COMBUSTION ENGINES. JOHN E. SMITH, New York, N. Y., assignor to Kerosene Motor Appliance Co., New York, N. Y., a Corporation of Delaware. Filed Mar. 31, 1917. Serial No. 158,922. (Cl. 257—241.)

1. In a fuel-supplying system for engines of the internal-combustion or explosive type, the combination of a cas-

ing; a vaporizer mounted in said casing, said vaporizer having thin walls and presenting a plurality of narrow spaces or passages for the flow of fuel therethrough, and with a series of relatively large passages for the flow of exhaust gases; means for supplying a mixture of fuel and air to the fuel passages; a conduit leading from the fuel passages of the vaporizer to the working space of the engine; and means for conducting the exhaust gases to the casing whereby the fuel content will be thoroughly vaporized and maintained at a proper working temperature under all working conditions of the engine, irrespective of variations in the temperature of the exhaust gases.



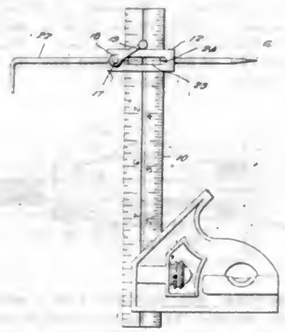
3. In a fuel-supplying system for engines of the internal-combustion or explosive type, the combination of a casing, having an inlet and an exhaust port for exhaust gases and likewise having an inlet and discharge port for the fuel; a vaporizer for the fuel mounted in the casing, said vaporizer comprising a plurality of thin-walled metal tubes, angular in cross-section, the metal whereof has a high degree of conductivity, said tubes being arranged in tiers, said tiers being spaced apart to produce narrow passages therebetween, and said passages being in communication with the inlet and discharge fuel ports aforesaid; a carbureter connected to the inlet fuel port; and means for conducting the exhaust gases of the engine to the exhaust gas inlet port of the casing whereby the fuel content will be thoroughly vaporized and maintained at a proper working temperature under all working conditions of the engine, irrespective of variations in the temperature of the exhaust gases.

4. In a fuel-supplying system for engines of the internal-combustion or explosive type, a manifold for the exhaust gases leading from the engine; a casing into which said manifold discharges; a vaporizer for the fuel located and housed within said casing, said vaporizer being formed with a plurality of passages through which the exhaust gases pass and likewise with a plurality of relatively narrow passages for the passage of fuel, the walls of both sets of passages being formed of thin metal having a high degree of conductivity; a carbureter connected to the casing and discharging into the same adjacent one end of the fuel passages; and a manifold extending from the casing adjacent the discharge ends of said fuel passages and leading to the working space of the engine whereby the fuel content will be thoroughly vaporized and maintained at a proper working temperature under all working conditions of the engine, irrespective of variations in the temperature of the exhaust gases.

6. In a fuel supplying system for engines of the internal-combustion or explosive type, the combination of a hollow casing open at the top and bottom and along one side, and likewise having laterally-disposed openings in its opposite sides; a vaporizer, comprising a series of thin-walled tubes arranged in separated tiers, and a plate secured upon the upper and lower ends of said tiers, respectively, and adapted to bear upon the edges of the casing when the vaporizer is inserted in the casing; a cover plate closing the open side of the casing; a carbureter connected to the lower open end of the casing; a manifold in communication with the upper open end of the casing; and a discharge pipe for the exhaust gases connected to one of the lateral openings in the casing.

[Claims 2, 5, and 7 not printed in the Gazette.]

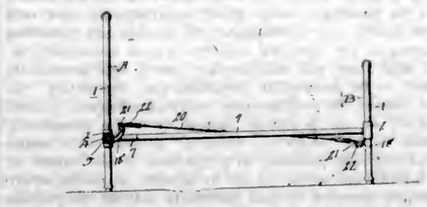
1,245,130. GAGE. JOHN R. SOMERS, Charlestown, Mass. Filed Sept. 15, 1916. Serial No. 120,331. (Cl. 33—169.)



In combination a ruler having indicated graduated marks on opposite sides, a rectangular member having a transverse slot through which the ruler slidably projects and having formed upon opposite sides thereof elongated slots intersecting the plane of the first named slot so as to provide sight openings upon opposite sides of said member to expose the indications upon the sides of a ruler, said last named elongated slot being formed at opposite ends of the slot and at opposite sides of said member with longitudinally disposed beveled edges forming knife edges with the opposing end edges of said slot, said beveled edges projecting at their outer ends beyond the opposite longitudinal edges of the ruler, the knife edges of said beveled edges being segmental and said beveled edges having a line extending across its length centrally thereof adapted to check up with any of the graduated marks on said ruler.

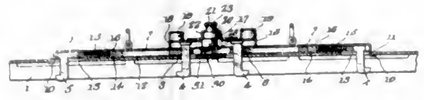
1,245,131. BED. DIEDRICH STEFFEN, Kearney, N. J. Filed Jan. 31, 1917. Serial No. 145,746. (Cl. 5—12.)

1. A bed having tubular end rails mounted for rocking movement, arms fast thereon, a spring fabric connected with said arms, and means for holding said rails against rocking movement embodying clutching means housed within said end rails.



2. A bed structure, comprising head and foot members, each member including vertical corner posts, side rails connecting the corner posts of the head member with the corner posts of the foot member, the corner posts of each member having alined integral portions, clutch elements mounted thereon, end rails connecting said portions, clutch elements mounted thereon, end rails connecting said portions, clutch elements carried by the end rails and co-acting with the first clutch elements, arms fixedly mounted on the end rails, and a spring body between the arms of the end rail of the head member and the arms of the end rail of the foot member.

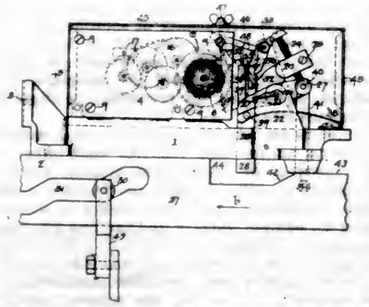
1,245,132. BAG FASTENING AND LOCKING MECHANISM. HARRY TARSHIS, LOUIS BERZON, and JOSEPH BREZIN, Philadelphia, Pa., assignors of one-fourth to Louis Aron, Philadelphia, Pa. Filed May 8, 1917. Serial No. 167,304. (Cl. 70—116.)



1. In a bag fastener, the combination with the jaw-latching mechanism, alined horizontal slides connected therewith, and a spring holding the slides normally spread; of a plunger movable vertically in the space between the slides and having a head of a size to fill it and a reduced shank depending therefrom, a guide for the shank, a spring surrounding the shank and normally raising the head out of said space, and a lock engaging the plunger when depressed, as and for the purpose set forth.

2. In a bag fastener, the combination with the jaw-latching mechanism, alined horizontal slides connected therewith, and yielding means holding them normally spread; of a plunger movable vertically in the space between the slides and having a head of a size to fill it and a reduced shank depending therefrom, the latter having an opening, a spring-pressed locking element having a tongue to normally engage said opening when the plunger is depressed, key-actuated means for retracting said element, and a spring normally raising the plunger, as and for the purpose set forth.

1,245,133. MECHANICAL TIME-RELEASE FOR INTERLOCKING DEVICES. HERBERT B. TAYLOR, Rochester, N. Y., assignor to General Railway Signal Company, Gates, N. Y., a Corporation of New York. Filed July 1, 1915. Serial No. 37,516. (Cl. 246—7.)



1. A time release mechanism comprising a bolt, a plunger, means simultaneously moving them in reverse directions, an interlocking device, a latch holding the bolt projected thereby arresting the interlocking device, means automatically withdrawing the bolt when the latch is tripped therefrom, a motor, and a sector engaged by the motor and automatically turned in one direction by bolt-projecting movement of the plunger and having a part automatically tripping the latch from the projected bolt as the sector is reversely turned by the motor.

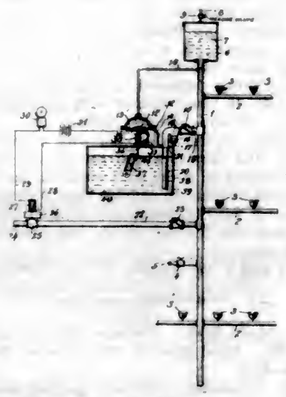
5. A time release mechanism comprising a bolt, a plunger, means simultaneously moving them in reverse directions, an interlocking device operating the plunger thereby positively projecting the bolt, a latch holding the bolt projected thereby arresting the interlocking device, means snapping the bolt to withdrawn position after the latch is tripped, a motor, and a sector engaged by the motor and automatically turned in one direction by bolt-projecting movement of the plunger, said sector having a part automatically tripping the latch from the projected bolt as the sector is reversely turned by the motor.

10. A time release mechanism comprising a bolt having lateral shoulders, a plunger, a rocking lever pivoted at its outer end to the plunger and having a forked inner end, a motor, a sector journaled on the rocking lever shaft and within the fork of said lever, said bolt also having a forked upper end embraced by the rocking lever fork and receiving within it the inner part of the sector which engages the motor, the lever being adapted to project the bolt by pressure upon its lateral shoulders, and a latch holding the bolt projected thereby arresting the interlocking device, said sector being turned counter-clockwise by bolt-projecting movement of the plunger and having a part automatically tripping the latch from the projected bolt as the sector is reversely turned by the motor and means automatically withdrawing the bolt after the latch is tripped from it by the sector.

14. In an interlocking system for railways, in combination: a lever having a normal position, a reverse position and a normal indication position; means operated mechanically by the movement of said lever to its reverse position for preventing the return movement of said lever to its full normal position; and means for automatically rendering said first mentioned means ineffective after the lapse of a predetermined time following the movement of said lever to its normal indication position.

[Claims 2 to 4, 6 to 9, 11 to 13, 15, and 16 not printed in the Gazette.]

1,245,134. AUTOMATIC FIRE-EXTINGUISHING APPARATUS. EVERETT L. THOMPSON, Dover, N. J., assignor to Sypho-Chemical Sprinkler Corporation, Croton-on-Hudson, N. Y., a Corporation of New York. Filed Jan. 24, 1914. Serial No. 814,032. (Cl. 169—24.)

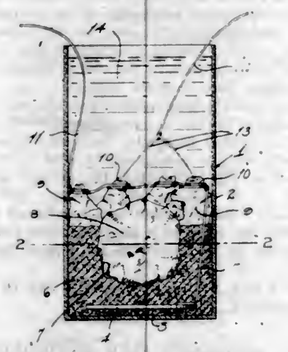


1. In automatic sprinkler apparatus, a distributing system normally charged with non-freezing extinguishing liquid and comprising automatic sprinkler heads and hose distributing devices, an actuating supply tank containing said extinguishing liquid and connected to the upper part of said distributing system, a reduced area equalizing device connected to the upper part of said actuating tank to permit a pressure change to take place in said actuating tank and adjacent parts on the emergency operation of the system, an emergency device comprising a control chamber and a cooperating movable control diaphragm

member, an actuating connection between said emergency device and said distributing system adjacent said actuating tank to normally put said control member under pressure, a supplemental fluid supply for said distributing system comprising a chemical supply tank, a tipping acid container coöperating with said chemical supply tank and a control stem operatively connected to said control diaphragm member and normally in the path of said acid container to effect the operation of said chemical supply tank when said emergency device receives its emergency actuation.

[Claims 2 to 18 not printed in the Gazette.]

1,245,135. DETECTOR. JIM THOMPSON and ROY J. THOMPSON, Elk Grove, Cal. Filed Oct. 18, 1916. Serial No. 126,300. (Cl. 250—31.)



3. A detector including iron filings, a silicon crystal embedded in said iron filings, galena crystals in contact with the silicon crystal, and spurs lightly contacting with the galena crystals whereby the passage of a current through the detector will cause the iron filings to cohere and form a bridge.

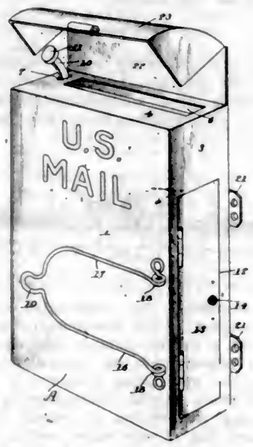
4. In a detector, an insulating jar, a mixture of iron filings and carborundum within the lower portion of the jar, a copper plate embedded in said mixture of carborundum and iron filings adjacent the bottom wall of the jar, a silicon crystal in close contact with the iron filings and carborundum mixture, galena crystals in close contact with the silicon crystal, a ground wire connected to the copper plate and looped about the galena crystals, an aerial wire leading into the jar, spurs on the end of the aerial wire and adapted to contact lightly with the galena crystals, and a sealing compound within the jar to exclude air from the contact points and hold the various elements in place.

[Claims 1 and 2 not printed in the Gazette.]

1,245,136. MAIL-BOX. THOMAS TURNBULL, Huntington, W. Va. Filed Mar. 9, 1917. Serial No. 153,764. (Cl. 232—47.)

1. A mail box having a delivery opening formed in the top wall thereof, a door hingedly mounted within the box and adapted to control said opening, a spring secured to the box and engageable with the door for normally holding the same in closed position, a lever carried by the door and extending through the top of the box for actuating said door, and a head formed on said lever and engageable with the top wall of the box to limit the movement of said door in one direction.

4. A mail box comprising a top wall formed with a delivery opening, a door hingedly connected within the box at a point below the top wall thereof, an actuating member secured to and rising from the door and movable through a slot formed in the top wall of said box, and an enlargement formed on the upper extremity of the actuating member and engageable with the top wall of the



box to one side of its delivery opening for limiting the operation of the door in an inward direction.

[Claims 2 and 3 not printed in the Gazette.]

1,245,137. RECOVERY OF METALS FROM ORES AND THE LIKE. CHARLES S. VADNER, Butte, Mont. Filed Dec. 16, 1916. Serial No. 137,461. (Cl. 75—18.)

1. A process for recovering zinc from mineral matter and the like consisting in treating the ore with a mineral acid such as SO_2 gas in the presence of moisture, eliminating excess acidity of solution, oxidizing the solution with a suitable oxidizing agent separating same from any insoluble matter, treating the solution with the hydrate of a metal which has a soluble sulfate that can precipitate a corresponding salt of zinc, sufficiently calcining the zinc so precipitated thereby recovering the zinc as an oxid.

3. A process for recovering zinc and other metals from mineral matter and the like containing various metals consisting in treating the mineral matter with fumes containing sulfur dioxid in the presence of sufficient moisture, eliminating unnecessary acidity of solution, precipitating the manganese by means of zinc oxid and in the presence of chlorin the quantity of each precipitant and the acidity of the solution being such that the manganese alone is precipitated, eliminating the precipitated manganese and recovering the zinc.

5. A process for recovering zinc and other metals from metalliferous matter and the like containing various metals consisting in treating the mineral matter with fumes containing sulfur dioxid in the presence of sufficient moisture, eliminating unnecessary acidity of solution and oxidizing the solution whereby lead and iron are eliminated and recovering the zinc.

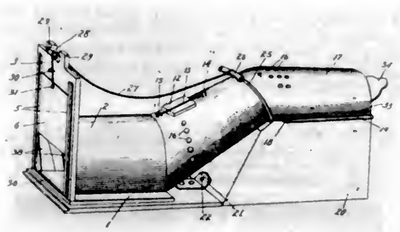
8. A process for recovering zinc and other metals from metalliferous matter and the like containing various metals consisting in treating the mineral matter with fumes containing sulfur dioxid in the presence of sufficient moisture, eliminating unnecessary acidity of solution by means of mineral matter containing an oxygen compound of manganese that can reduce the acidity of the solution as well as oxidizing the same whereby lead and iron are eliminated, precipitating the manganese and recovering same.

10. A process for recovering zinc and other metals from metalliferous matter and the like containing various metals consisting in treating the mineral matter with fumes containing sulfur dioxid in the presence of sufficient moisture, eliminating unnecessary acidity of solution by means of mineral matter containing an oxygen compound

of manganese that can reduce the acidity of the solution as well as oxidizing the same whereby lead and iron are eliminated, precipitating manganese by means of oxid of zinc in the presence of chlorin the quantity of each reagent and the acidity of the solution being such that manganese is precipitated as peroxid MnO_2, eliminating the oxid and recovering the zinc.

[Claims 2, 4, 6, 7, and 9 not printed in the Gazette.]

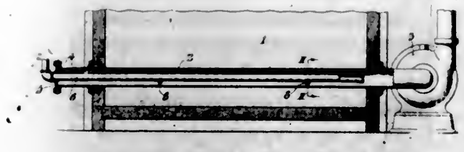
1,245,138. TRAP. WILLIAM ZARLING, Milwaukee, Wis., assignor of one-half to Albert A. Plautz, Milwaukee, Wis. Filed May 15, 1915. Serial No. 28,487. (Cl. 43—26.)



1. In a trap of the class described, a base plate, a cover secured thereto providing an inclosure, said cover extending beyond the rear end of said base plate and provided with laterally projecting guide lips, a trapping receptacle having grooved portions at its upper end slidably mounted on said guide lips, trapping mechanism within said inclosure, and means in connection with the rear end of said base plate and the forward end of said receptacle for detachably locking the latter in operative position.

2. In a trap of the class described, a base plate, a cover secured thereto providing an inclosure, said cover extending beyond the rear end of said plate, trapping mechanism within said inclosure, guide lips projecting laterally from the extended portion of said cover, a trapping receptacle having grooved portions at its upper end slidably mounted on said guide lips, a lug carried on the forward end of said receptacle and a spring locking member carried on the rear end of said base plate adapted for engagement with said lug to secure the receptacle in position.

1,245,139. DYEING AND BLEACHING MACHINE. THOMAS ALLSOP and WALTER W. SIBSON, assignors to the Philadelphia Dyeing Machinery Company of Philadelphia, Pa. Filed Aug. 11, 1916. Serial No. 114,327. (Cl. 8—19.)

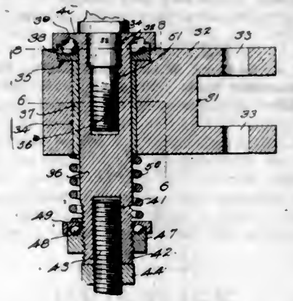


1. In combination with the dyeing receptacle, a perforated pipe traversing the same, and a smaller perforated steam pipe received within said larger pipe and thereby kept from contact with the goods which are to be dyed within the dyeing receptacle.

4. In a dyeing receptacle, the combination of a perforated pipe, means by which the liquor is withdrawn from the receptacle and returned to it thereby causing the liquor to pass through said perforated pipe, and a perforated steam pipe received within said perforated pipe.

[Claims 2 and 3 not printed in the Gazette.]

1,245,140. HEADLIGHT FOR AUTOMOBILES. HUGH C. BISHOP, Sheldon, Mo., assignor of one-half to Andrew J. Ooley, Vernon county, Mo. Filed Apr. 16, 1917. Serial No. 162,480. (Cl. 240—62.)

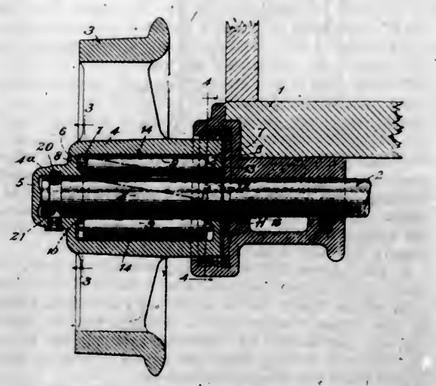


1. In a device of the class described the combination of a supporting block, a supporting post projecting through said block, means for supporting said post upon said block, means for supporting a lamp upon the upper end of said post, means for turning said post, a nut carried upon the lower end of said post, a cap carried by the lower end of said post and overhanging said nut, bearing balls interposed between said cap and said nut, and a coiled spring positioned upon said post, said spring bearing at one end upon said block and at the opposite end upon said cap whereby said post will be permitted to have limited vertical movement.

[Claim 2 not printed in the Gazette.]

1,245,141. [WITHDRAWN.]

1,245,142. MINE-CAR WHEEL AND ATTACHING MEANS THEREFOR. FREDERICK H. GIBBS, Brooklyn, N. Y., assignor to American Car and Foundry Company, New York, N. Y., a Corporation of New Jersey. Filed Oct. 31, 1916. Serial No. 128,718. (Cl. 105—67.)



1. A roller bearing wheel formed as a single casting provided with oppositely disposed annular channels for receiving the ends of rollers with one of the flanges forming part of one of said channels intermitted to facilitate insertion.

2. A roller bearing wheel adapted to be locked upon an axle and formed as a single casting provided with oppositely disposed annular channels for receiving the ends of rollers with one of the flanges forming part of one of said channels intermitted to facilitate insertion.

15. A roller-retaining nave car wheel formed from a single casting including a continuous roller-retaining flange at one end and an intermitted roller-retaining flange at the other end of its hub, and an expansible sleeve of a length sufficient to lap both said flanges.

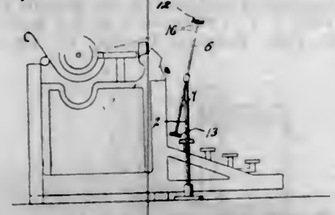
[Claims 3 to 14 not printed in the Gazette.]

1,245,143. RADIATOR WALL-BRACKET. RICHARD D. REED, Westfield, Mass. Filed Nov. 28, 1914. Serial No. 874,502. (Cl. 248—30.)



In a device of the character described, a bracket member, a chamber in the upper surface thereof, a nut located in said chamber, a bolt with its head located in said chamber and projecting laterally therefrom, fastening means engaging the end of said bolt, a rod located below said bracket member and passing therethrough, and having engagement with said nut, and a bracket foot carried by said rod.

1,245,144. TYPE-WRITER ATTACHMENT. HERBERT L. BRIGHT, New York, N. Y. Filed Jan. 4, 1916. Serial No. 70,287. (Cl. 88—1.)



1. The combination in a typewriting machine, of relatively adjustable mirrors, one of which being disposed in relation to the cylinder whereby the writing will be reflected thereon, the other mirror being adapted to receive the writing reflections from the first mirror and to visually display the same from the key-board.

2. The combination with a typewriting machine, of an observation mirror located in a common line of vision with the key-board and a second mirror located adjacent to the cylinder whereby the writing will be reflected thereon, and means for adjusting said mirrors to cause the reflected writing upon the second mirror to be displayed from the observation mirror.

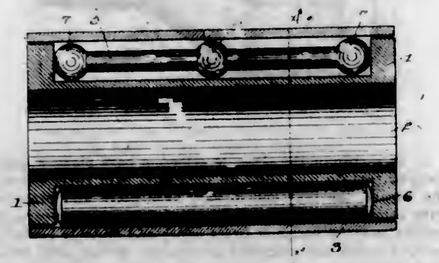
5. The combination in a typewriting machine, of a tilting frame carried thereby, said frame comprising two independent sections, means for adjusting either of said sections with relation to the other section, a swinging mirror upon one of the frame sections located in a common line of vision with the keyboard, swinging members connected with the other frame section, and a mirror pivotally secured to said swinging section, and located adjacent to the cylinder of the machine whereby to receive the written reflections from the first mentioned mirror and to convey the same to the operator of the machine.

7. The combination in a typewriting machine, of the keyboard and a support carrying reading matter remotely located relative to the keyboard and an optical system comprising two reflectors so located as to visualize an image of one of the two mentioned objects in the general direction of the other.

8. The combination in a typewriting machine, of the keyboard and a support carrying reading matter remotely located relative to the keyboard, an optical system comprising two reflectors, a frame for supporting the reflectors and means for adjusting the reflectors to visualize an image of one of the two first mentioned objects in the general direction of the other.

[Claims 3, 4, and 6 not printed in the Gazette.]

1,245,145. ANTIFRICTION ROLLER-BEARING. CHARLES R. HARRIS, Los Angeles, Cal., assignor to Over All Roller Bearings Company, Los Angeles, Cal., a Corporation of California. Filed July 24, 1916. Serial No. 110,993. (Cl. 64—61.)

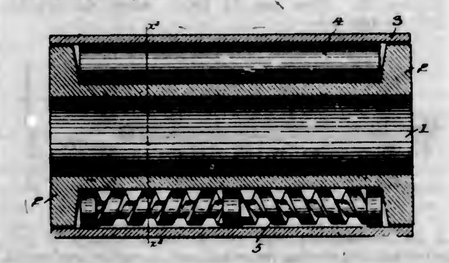


1. A roller bearing comprising inner and outer sleeves, intermediate rollers and idlers, the idlers having spherical balls at intervals thereon, and flanges arranged on the outer ends of the inner sleeve forming common bearing points for the ends of the rollers and idlers.

2. A roller bearing comprising an outer sleeve and inner flanged casing, intermediate rollers and idlers of approximately the same length received between the flanged casing and outer sleeve, the idlers having end and intermediate spherical balls formed thereon.

[Claim 3 not printed in the Gazette.]

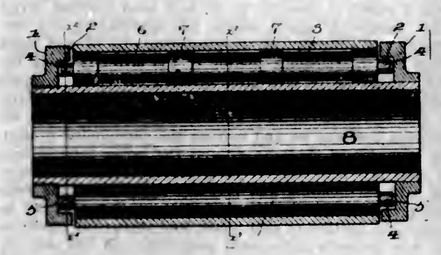
1,245,146. ROLLER-BEARING. CHARLES R. HARRIS and LOWELL W. LYONS, Los Angeles, Cal., assignors to Over All Roller Bearings Company, Los Angeles, Cal., a Corporation of California. Filed July 24, 1916. Serial No. 110,994. (Cl. 64—61.)



1. A roller-bearing comprising an inner and outer sleeve, the inner sleeve being provided at its ends with flanges, and alternately-arranged straight bearing rollers and spiral idle rollers, the spiral idlers having end and intermediate bearing surfaces thereon of slightly larger diameter than the spiral portions, whereby friction is reduced to a minimum and free circulation of air is permitted around the idlers.

2. A roller-bearing comprising inner and outer sleeves, the inner sleeve being provided at its ends with flanges having their inner walls tapering outwardly, and alternately arranged straight bearing-rollers and spiral idle rollers, the spiral idlers having bearing surfaces at the ends thereof in contact with the base of the slanting wall portions of the flanges of the inner sleeve, whereby friction is reduced to a minimum and a free circulation of air is permitted around the idlers.

1,245,147. ROLLER-BEARING. CHARLES R. HARRIS and LOWELL W. LYONS, Los Angeles, Cal., assignors to Over All Roller Bearings Company, Los Angeles, Cal., a Corporation of California. Filed July 24, 1916. Serial No. 110,995. (Cl. 64—61.)



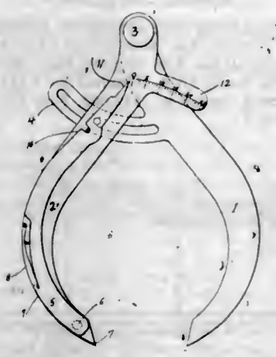
1. A roller bearing comprising inner and outer sleeves and end flanges or collars, together with rollers of uniform length, the ends of which are rounded or convex, whereby to engage recesses in the flanges or collars at a point, thereby reducing friction to a minimum.

3. A roller bearing comprising inner and outer sleeves and end flanges or collars, together with rollers and idlers of uniform length, the ends of which are rounded or convex, whereby to engage recesses in the flanges or collars at a point, thereby reducing friction to a minimum, the main portion of said rollers and idlers being of different diameters.

7. A roller-bearing comprising inner and outer sleeves and end flanges or collars, having recesses in their inner faces, rollers and idlers of uniform length the ends of which are reduced in diameter and rounded or convexed and received within said recesses whereby they are held collectively together, said outer sleeve of such a width as to be received between the inner face of said end flanges or collars.

[Claims 2 and 4 to 6 not printed in the Gazette.]

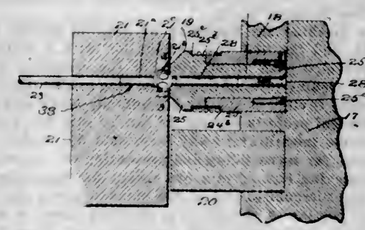
1,245,148. CALIPERS. ERNEST KRAULE, South Cle Elum, Wash. Filed Sept. 5, 1916. Serial No. 118,354. (Cl. 33—148.)



In a caliper, the combination of a pair of bowed legs pivoted at their upper ends, one of said legs being pointed at its lower end and provided near its upper end with an arcuate slotted extension which overlaps the other leg, the arc of the extension being struck from the axis of the pivot connecting the two legs, a pin extending from the leg which overlaps the arcuate extension, said pin engaging the slot in the extension, a supplemental leg pivoted near the lower end of the leg which overlaps the extension and is extended beyond the lower end of said overlapping leg and is pointed to coöperate with the pointed end of the first mentioned leg, the overlapping leg being provided with an arcuate extension above the arcuate slotted extension and provided with a scale located on an arc the center of which is the axis of the pivot of the supplemental leg, the upper end of the supplemental leg being pointed to coöperate with the arcuate scale, a leaf spring secured on the overlapping leg, said spring being seated in a recess formed in the edge of the supplemental leg, the lower edge of the spring being held in the recess, whereby to retain the supplemental leg in normal position, and a stop on the overlapping leg to engage a notch formed in the supplemental leg, whereby to limit the movement of the latter.

REISSUES.

14,384. DEVICE FOR UPSETTING SET-SCREWS, CAP-SCREWS, AND THE LIKE. THOMAS FERRY, Cleveland, Ohio. Filed Dec. 18, 1916. Serial No. 137,727. Original No. 1,146,145, dated July 13, 1915, Serial No. 498,347, filed May 25, 1909. (Cl. 10—24.)



1. In an upsetting machine, a stationary blank holding die having a head forming cavity on its face side and provided with means for holding the blank so that one end thereof projects a sufficient distance to completely fill said head forming cavity when completely upset therein, means for initially surrounding the projecting end of said blank, means for imparting a blow on the end of said blank while so surrounded whereby to partially upset the unsurrounded portion of said blank within said head forming cavity, and means for imparting a second blow after said surrounding means has been removed to complete the upsetting of same.

2. In an upsetting machine, a die having a matrix of the size and shape of the completed head to be formed, means for holding and supporting the blank in said die whereby one end thereof projects beyond said matrix, means movable toward said die for inclosing the projecting end of said blank and simultaneously applying pressure thereto whereby to crowd and expand the intermediate portion of said blank into said matrix while maintaining the projecting end surrounded portion of the same shape and cross section as the original blank, and means for imparting pressure to said formerly surrounded end and completely upsetting the same to fill said matrix.

3. In an upsetting machine, a stationary blank holding die provided with a head forming cavity and having means for holding the blank so that one end thereof projects a sufficient distance to fill said cavity when completely upset, movable means for initially inclosing and preventing the upsetting of the extreme projecting end of said blank when pressure is applied thereto, means for applying pressure on the end of said blank while so surrounded and expanding a portion of said blank into said head forming cavity, and independent means for finally upsetting the

projecting end together with said expanded portion into said head forming cavity to completely fill the same.

4. In an upsetting machine, the combination with a stationary die provided with a blank receiving opening terminating in an enlarged head forming cavity on the face side thereof, means for holding said blank so that one end thereof projects a predetermined distance in front of said head forming cavity, means for initially surrounding and preventing the upsetting of said projecting end of said blank, means for imparting a blow on the projecting end of said blank while so surrounded whereby to upset the unsurrounded portion of said blank within said head forming cavity, and means for imparting a second blow to the formerly surrounded end of said blank whereby the latter is driven into and finally upset to completely fill said head forming cavity.

5. In an upsetting meachine of the character described, a stationary die provided with a blank receiving opening terminating in a head forming cavity at the face side thereof, means for holding the blank so that one end thereof projects in front of said head forming cavity, a carriage provided with means for surrounding and preventing the upsetting of said projecting end while pressure is applied to the latter, a plunger in said surrounding means and operated by said carriage for imparting a blow on said surrounded projected end of said blank whereby to upset the unsurrounded or intermediate portion of said blank within said head forming cavity, and separate means on said carriage for imparting a second blow to the remaining or formerly surrounded end of said blank whereby the latter is driven in and finally upset to completely fill said head forming cavity.

6. In a machine for upsetting or heading blanks for cap-screws, and the like, the combination with a stationary die provided with an opening for the reception of a blank, said opening terminating at the face of said die in a head forming cavity, means for holding the blank so that one end thereof projects beyond the face of said die, a carriage movable toward and away from said die, means on said carriage for surrounding and preventing the upsetting of the projecting end of said die, means for imparting a blow on the surrounded end of the blank whereby the intermediate portion of the latter is partially upset in said head forming cavity while said projecting end is so surrounded, and means on said carriage for imparting a second blow after said surrounding means have been removed whereby said formerly surrounded end is upset to completely fill said head forming cavity.

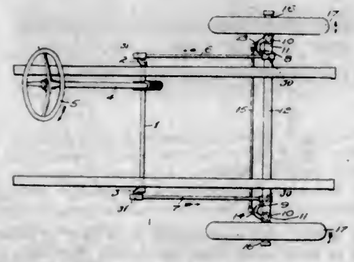
7. In an upsetting machine of the character described, a die provided with a blank receiving opening terminating in a head forming cavity on the face side thereof, means for supporting the blank therein so that one end thereof projects a predetermined distance in front of said head forming cavity an upsetting device comprising a movable member provided with a second blank receiving opening of like shape and cross section to initially surround and prevent the upsetting of the projecting end of said blank while pressure is applied to the end thereof, a plunger in said movable member for imparting a blow on the end of said blank while said movable member surrounds and partially uncovers the same while the unsurrounded or intermediate portion of said blank is being expanded within said head forming cavity, means for removing said surrounding and plunger members from the remaining end of said projecting end, and means for then imparting pressure to said formerly surrounded end of said blank and finally upsetting the latter to completely fill said head forming cavity.

8. In an upsetting machine of the character described, a stationary die provided with a blank receiving opening terminating at its face side in a head forming cavity, means for holding said blank in said opening whereby a sufficient amount of stock projects in front of said die to fill said cavity when completely upset in the latter, a movable die provided with a second blank receiving opening of like diameter to said first mentioned opening adapted to initially surround and prevent the upsetting of the projecting end of said blank, means for imparting pressure to and moving said projecting end inwardly while the latter is surrounded by said surrounding means whereby the unsurrounded portion of said blank is upset within said head forming cavity, means for removing said surrounding means after the completion of said first mentioned pressure supplying impulse, and independent means for applying pressure to the formerly surrounded end of said blank whereby the latter together with the formerly expanded portion are finally upset and expanded to completely fill said head forming cavity.

9. In an upsetting machine for heading blanks for cap-screws, and the like, a stationary die provided with a blank receiving opening terminating in an enlarged head forming cavity at the face side thereof, means for holding said blank in said opening whereby one end thereof projects a sufficient distance to fill said head forming cavity when completely upset, means for surrounding and preventing the upsetting of the projecting end of said blank while the intermediate portion of the latter is being initially expanded in said head forming cavity by pressure applied to and moving the end of said blank independently of and relatively to said surrounding means, means for applying pressure on and moving the surrounded projecting end of said blank to expand the latter intermediate its ends into said head forming cavity, means for removing said surrounding and pressure applying means from said projecting end after said initial expansion of the intermediate portion of said blank, and means for upsetting the said formerly surrounded projecting end and said initially expanded intermediate portion thereof into said head forming cavity to completely fill the latter and form the completed head.

10. In an upsetting machine, the combination with a stationary die provided with an opening for the reception of a blank, said opening terminating at the face of the die in a head forming cavity, a carriage movable toward and away from said die and means for actuating said carriage, of an upsetting device mounted on said carriage, said device comprising an outer tubular member, an inner member arranged in said outer member and free to slide and provided with a bore arranged to register with the blank receiving opening in the die block and of the same diameter as the blank receiving opening, a plunger slidably arranged in the bore in said inner member and movable relative to said member, an abutment arranged at the rear of said outer member to have positive contact with the rear end of the plunger during the forward movement of the carriage and with the rear end of the inner member near the completion of the forward movement of the carriage and force said plunger against the blank which is being operated on, while said inner member is surrounding and is being moved rearwardly relatively to said blank and plunger, and means for imparting pressure to the formerly surrounding projecting end of the blank to completely upset the latter in said head forming cavity.

14,385. MECHANISM FOR STEERING AUTOMOBILES. HENRY T. HAZARD, Los Angeles, Cal., assignor of one-half to Peter Jauss, Los Angeles, Cal. Filed Aug. 3, 1916. Serial No. 113,029. Original No. 1,111,693, dated Sept. 22, 1914, Serial No. 812,005, filed Jan. 14, 1914. (Cl. 21—199.)



1. In a steering mechanism of the character herein described, a pair of spindles, wheels on said spindles, a steering arm and a tie rod supporting arm on each spindle, a tie rod carried by said tie rod supporting arms, steering cranks, rigid unbendable drag links operatively connecting the swinging ends of the steering arms with the swinging ends of the steering cranks, said steering cranks arranged to maintain a constant distance between the swinging ends of the steering arms and the swinging ends of the steering cranks.

2. In a steering mechanism of the character herein described, a pair of spindles, a steering arm on each spindle, a tie rod supporting arm on each spindle, a tie rod connecting said last mentioned arms adapted to give the spindles the proper position in turning, a steering column, a hand steering wheel thereon, steering cranks connected with the steering column adapted to swing back and forth on the rotation of the hand steering wheel, and rigid unbendable drag links extending from the swinging ends of the steering arms to the swinging ends of the steering cranks, the cranks and arms arranged to give a free movement to the drag links while turning in either direction.

3. A duplex steering device, comprising a steering column carrying on its lower end a worm, a rock shaft transversely mounted and carrying a gear meshing with the worm, said rock shaft carrying a pair of steering cranks, one crank extending upwardly and one downwardly, both of said cranks being inclined rearwardly from a vertical plane through the axis of the rock shaft, and a drag link connecting the steering arm on each side with the corresponding crank.

4. In an auto car provided with the usual steering device, comprising a steering arm mounted on the knuckle of one of the fore-wheels, the usual tie rod supporting arms inclined toward or away from each other, usual tie rod supported thereby, the usual drag link extending from said steering arm to the usual steering crank keyed on the rock shaft, the herein described supplementary steering mechanism adapted to act in concert with the hereinbefore mentioned device or independently thereof comprising an extension on the rock shaft, a supplemental steering crank on the extension, both steering cranks having an inclination rearwardly equal to the inclination toward or away from each other of the tie rod supporting arms, a supplementary steering arm on the knuckle of the other fore-wheel and a supplementary drag link operatively connecting the swinging end of the supplementary steering crank with the supplemental steering arm.

5. A duplex steering device comprising a pair of steering arms one on the spindle of each front wheel, a rock shaft, steering cranks keyed thereon, drag links operatively connected at their forward ends to the steering arms, and at their rear ends to the swinging ends of said steering cranks, one of said steering cranks extending upwardly and one downwardly, operatively connected with the steering column, and placed at an angle to the rear of a vertical line through the axis of the rock shaft, whereby on the rotation of the steering column one drag link will move forwardly over a longer stroke causing the fore wheels to describe different concentric circles in steering, the outer wheel the larger and the inner wheel the smaller circle.

6. A duplex steering mechanism for auto cars comprising a pair of steering knuckles, each one carrying a spindle, a steering arm and a tie rod supporting arm, the last-mentioned arms inclined to give the front wheels the proper direction in steering and in turning, a tie rod connecting these tie rod supporting arms, a rock shaft operatively connected with the steering column and the steering knuckles, steering cranks on the rock shaft, drag links extending from the steering cranks to the steering arms, the steering cranks mounted on the rock shaft to meet the varying strokes of the steering arms.

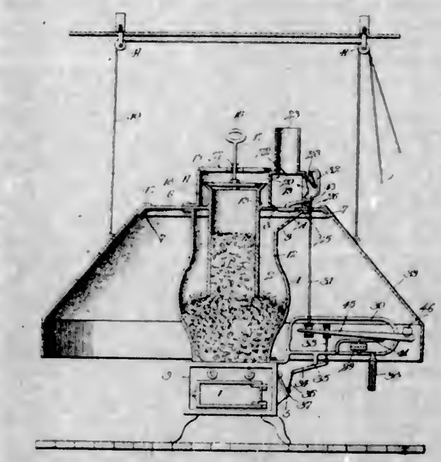
7. A duplex steering-device comprising a pair of steering arms, one on the spindle of each front wheel, a rock-shaft, steering-cranks secured thereon, drag-links operatively connected at their forward ends to the steering arms, and at their rear ends to the swinging ends of the steering cranks, the steering-arms and the steering cranks one or both being inclined rearwardly, this inclination may be in one, it may be in both, the sum total of such inclination rearwardly being equal to the angle of the tie-rod supporting arms to the spindle.

8. In a steering-device, a steering-column, steering cranks actuated thereby, spindles carrying steering-arms and tie-rod supporting arms, the arms arranged at an angle to the spindles to give the front wheels the proper angle in turning, a tie-rod carried by the tie-rod supporting arms, the steering-arms or the steering-cranks or both arranged on their respective supports to meet the varying stroke of the tie-rod supporting arms.

9. In a steering-mechanism of the character herein described, a pair of spindles, wheels thereon, each spindle having a tie-rod-supporting arm and a steering arm, the tie-rod-supporting arms arranged at an angle to the spindles to give the wheels the proper angle in turning, and the latter arranged with the steering-cranks to meet said angle and coöperate therewith, a tie-rod connecting the tie-rod-supporting arms to keep the spindles in proper position while steering, means for carrying a pair of swinging steering cranks, including a transverse rock shaft, a pair of cranks on said means, rigid, unbendable drag links connecting the swinging ends of the steering cranks with the swinging ends of the steering arms, means to operate the steering cranks, the steering cranks and the steering arms positioned on their respective supports to maintain a constant distance between the swinging ends of the cranks and the swinging ends of the steering arms while being operated.

10. A steering column carrying a worm, a rock shaft carrying a worm gear and a pair of steering cranks, steering knuckles each carrying a spindle, a steering arm and a tie-rod supporting arm, tie-rod operatively connecting the tie-rod supporting arms, a pair of rigid, unbendable drag links operatively connecting the steering cranks and the steering arms, the steering arms and the steering cranks arranged on their respective supports to meet the varying stroke of the tie-rod to give the spindles the proper position in steering.

14,386. HEATER FOR BROODERS. CLEMENT V. HILL, Trenton, N. J. Filed Dec. 30, 1916. Serial No. 139,754. Original No. 1,152,732, dated Sept. 7, 1915, Serial No. 878,093, filed Dec. 19, 1914. (Cl. 237—3.)



1. In a brooder heater the combination with a base portion, of a stove body having its greatest diameter substantially midway of its height, the fire pot portion of which is below and the combustion chamber above the greatest diameter of the stove body, the top of the stove being provided with draft and fuel openings, a damper in the draft opening, a thermostat connected to said base, means connecting the thermostat with the said damper, and a canopy supported at the upper part of the combus-

tion chamber and centrally apertured so that the draft and fuel openings are located outside of the canopy.

2. In a brooder heater, the combination with a base portion, a stove body having its greatest diameter near the center, the top of the heater being formed with draft and fuel openings, a damper in the draft openings, a thermostatic device projecting from the base portion, a vertical damper rod connected thereto, means connecting said damper and said rod, and a canopy supported at the upper part of the stove body and centrally apertured so that the draft and fuel openings are located outside of the canopy.

3. In a brooder heater, the combination of a base portion, a stove body having its widest part near the center, draft and fuel openings in the top of the heater, a thermostatic device projecting from the base portion, a vertical connecting rod extending upwardly therefrom, a check damper in said draft opening, and means connecting check damper and said rod, and a canopy supported at the upper part of the stove body and centrally apertured so that the draft and fuel openings are located outside of the canopy.

4. In a brooder heater the combination of a base, an upper section above the base having its widest part near its center, and having its sides converge upwardly, a top plate, a thermostatic arm projecting horizontally from the base, a vertical connecting rod extending upwardly from said thermostatic arm, check draft and fuel openings located in said top, a check damper in said check draft opening, and means connecting said check damper to said connecting rod and a canopy supported at the upper part of said upper section and centrally apertured so that the draft and fuel openings are located outside of the canopy.

5. In a brooder heater, the combination with a base portion, a stove body having its greatest diameter near the center thereof, the top of the heater being formed with check draft and fuel openings, a check damper in said check draft opening, a thermostatic device projecting from the base portion, a vertical damper rod connected thereto and connected with said damper, and a canopy supported at the upper part of the stove body and centrally apertured so that the draft and fuel openings are located outside of the canopy; whereby the thermostat is controlled by the temperature near the floor and the check draft and fuel openings are outside the canopy where they are readily accessible and the gases leading therefrom are not discharged under the canopy.

6. In a brooder heater, the combination with a base portion, a stove body having its greatest diameter at substantially the center thereof, the top of the heater being formed with a check draft opening and a fuel opening, a check damper in said check draft opening, and a cover for said fuel opening, a gas collecting chamber over said check draft and fuel openings, a thermostatic device projecting from the base portion, a vertical damper rod connected thereto and connected with said damper, and a canopy supported at the upper part of the stove body and centrally apertured so that the check draft and fuel openings and gas collecting chamber are located outside of the canopy; whereby the thermostat is controlled by the temperature near the floor, and the check draft and fuel openings and gas collecting chamber are outside of the canopy where they are readily accessible and the gases leaking therefrom are not discharged under the canopy.

7. In a brooder heater, the combination with a stove having a top plate provided with a smoke opening and a fuel opening, a gas collecting chamber positioned on said plate over each of said openings, said chambers being always in open communication with each other and with the smoke discharge flue, and a damper in the smoke opening.

8. In a brooder heater, the combination with a stove having a fuel opening and a smoke opening in its top plate, a valve for the fuel opening and a damper in the smoke opening, a gas collecting chamber over each of said openings, and a smoke discharge flue leading from one of said chambers, said chambers being in constant open communication with each other and with the smoke discharge fuel opening.

9. In a brooder heater, the combination with a stove, having an opening in its top plate, a magazine suspended in the stove through said opening, a valve to close the upper end of the said magazine, a chamber to collect gas escaping from the magazine, a second chamber mounted on the top plate of the stove in constant open communication with the magazine chamber and the smoke discharge flue, said top plate being provided with a smoke opening leading to said second chamber, and a damper in said smoke opening.

10. In a brooder heater, the combination with a stove having a fuel opening and a smoke opening in the top plate, of a magazine suspended through the fuel opening in the stove, a valve for the top of the magazine, a chamber surrounding the top of the magazine and always in communication with the smoke discharge flue, a damper in the smoke opening, a chamber over said damper in smoke opening and always in communication with said flue, an air door for the chamber over the smoke opening and means for closing the said door and opening the damper.

11. In a brooder heater, the combination with a stove having a fuel opening and a smoke opening, a valve for the fuel opening and a damper for the smoke opening, communicating chambers over said openings always in communication with the smoke discharge flue, an air door for one of said chambers, an air door for said stove and means for approximately simultaneously opening one air door and closing the other air door and closing the damper when the chamber air door is open and opening the damper when the chamber air door is closed.

12. In a brooder heater, the combination with a stove having a fuel opening and a smoke opening, a valve for the fuel opening and a damper for the smoke opening, chambers over said openings and always in communication with a smoke discharge flue, an air door for one of said chambers, a rod operatively connected to said air door and said damper, an air door for the stove and a rod operatively connected therewith and means to operate said rods to open one air door and close the other air door, and operate the damper so that the damper will be moved to closed position when the chamber air door is open and moved to open position when the chamber air door is closed.

13. In a brooder heater, the combination with a stove having a fuel and a smoke opening in its top plate, a valve for the fuel opening and a damper for the smoke opening, chambers over said openings and always in communication with a smoke discharge flue, an air door for one of said chambers, a rod operatively connected to said air door and said damper, an air door for the stove and a rod operatively connected therewith, a lever to which said rods are connected and a thermostat to control the movement of said lever.

14,387. COMPOSITION SHINGLE. JOSEPH C. LOYER and OLIVER M. LOYER, Detroit, Mich. Filed Feb. 12, 1917. Serial No. 148,247. Original No. 1,191,932, dated July 18, 1916, Serial No. 68,758, filed Dec. 27, 1915. (Cl. 108—S.)



1. A composition shingle comprising a base formed of a cementitious material and an aggregate, and being pliable in character, a tarred paper or felt covering and adhering to its entire lower and a portion of its upper surface, and a metal reinforcement wholly embedded in the cementitious material extending part way of the length of the shingle from the butt end, the uncovered portion only of the shingle being exposed to weather when laid.

2. A composition shingle comprising a base formed of asphaltum, ground cinders or the like, thicker at the butt than at the top end, a tarred paper or felt covering and adhering to its entire lower and a portion of its upper surface, the uncovered portion only being exposed when laid, and a metal reinforcement wholly embedded in the base.

3. A composition shingle comprising a base formed of pliable cementitious material and an aggregate, a tarred paper or felt covering on its entire lower and a portion of its upper surface, the uncovered portion only being exposed when laid, and a metal reinforcement wholly embedded in the base consisting of a wire extending in parallel lines adjacent each longitudinal side of the shingle and a connecting portion near the butt end of the shingle of a form adapted to prevent transverse warping of the shingle.

4. A composition shingle comprising a base formed of a pliable cementitious material and an aggregate, a tarred paper or felt covering on its entire lower and a portion of its upper surface, the uncovered portion only being exposed when laid, and a metal reinforcement wholly embedded in the base, the length of which is not less than the length of the exposed portion of the shingle and consisting of a wire extending in parallel lines adjacent each longitudinal side of the shingle, and a connecting portion extending between the parallel portions near the butt-end of the shingle along lines out of parallelism with said side portion.

5. A composition shingle comprising a base of pliable cementitious material of a character that hardens after molding, a tarred paper or felt covering on the entire lower and a portion of its upper surface adhering to the base, the tarred paper or felt being embedded in the base on the upper side so that the exposed surface of the base and the upper surface of the felt are in the same plane, and a metal reinforcement embedded in the base.

6. A composition shingle comprising a base of pliable cementitious material of a character that hardens after molding, and a tarred paper or felt covering on the entire lower and a portion of its upper surface adhering to the base, the tarred paper or felt being embedded in the base on the upper side so that the exposed surface of the base and the upper surface of the felt are in the same plane.

7. A composition shingle comprising a base formed of asphaltum, ground-cinders, or the like, and a tarred paper or felt covering the entire lower and a portion of the upper surface, the uncovered portion only being exposed when laid, the tarred paper or felt being embedded in the base on the upper side so that the exposed surface of the base and the upper surface of the covering are in the same plane.

14,388. PROCESS OF PRODUCING PHENOLIC BODIES FROM WOOD-TAR OILS. LEE F. HAWLEY, Madison, Wis. Filed Aug. 13, 1917. Serial No. 186,063. Original No. 1,199,271, dated Sept. 26, 1916, Serial No. 102,515, filed June 8, 1916. (Cl. 23—24.)

1. The process of producing creosote from wood-tar oils, which comprises treating the oils with an alkaline solution, distilling the resulting solution and partially oxidizing the same during such distillation, and neutralizing and recovering the creosote.

2. The process of producing creosote from wood-tar oils, which comprises treating the oils with an alkaline solution to dissolve only a portion of the phenols present, distilling the resulting solution and partially oxidizing the same during such distillation, and neutralizing and recovering the creosote.

3. The process of producing creosote from wood-tar oils, which comprises treating the oils with an alkaline solution to dissolve only a portion of the phenols present, distilling the resulting solution and partially oxidizing the same during such distillation, neutralizing and recovering the creosote, treating the product with an alkaline solution to completely dissolve the phenols, and distilling with oxidation, neutralizing and recovering the creosote as before.

4. The process of producing creosote from wood-tar oils, which comprises treating the oils with an alkaline solution to dissolve only a portion of the phenols present, distilling the resulting solution, and neutralizing and recovering the creosote.

5. The process of producing creosote from wood-tar oils, which comprises treating the oils with an alkaline solution to dissolve approximately two-fifths of the phenols present, distilling the resulting solution, and neutralizing and recovering the creosote.

6. The process of producing creosote from wood-tar oils, which comprises treating the oils with an alkaline solution to dissolve only a portion of the phenols present, distilling the resulting solution, neutralizing and recovering the creosote, treating the product with an alkaline solution to completely dissolve the phenols, and distilling, neutralizing and recovering the creosote as before.

7. The process of producing creosote from wood-tar oils, which comprises treating the oils with an alkaline solution to dissolve approximately two-fifths of the phenols present, distilling the resulting solution, neutralizing and recovering the creosote, treating the product with an alkaline solution to completely dissolve the phenols, and distilling, neutralizing and recovering the creosote as before.

8. The process of producing creosote from wood-tar oils, which comprises treating the oils with an alkaline solution, distilling the solution and subjecting the mass to oxidation by a current of air during such distillation, and neutralizing and recovering the creosote.

9. The process of producing creosote from wood-tar oils, which comprises treating the oils with an alkaline solution, to dissolve only a portion of the phenols present, distilling the solution and subjecting the mass to oxidation by a current of air during such distillation, and neutralizing and recovering the creosote.

10. The process of producing creosote from wood-tar oils, which comprises treating the oils with an alkaline solution to dissolve only a portion of the phenols present, distilling the solution and subjecting the mass to oxidation by a current of air during such distillation, neutralizing and recovering the creosote, treating the product with an alkaline solution to completely dissolve the phenols, and distilling with oxidation by air, neutralizing and recovering the creosote as before.

11. The process of producing creosote from wood-tar oils, which comprises treating the oils with an alkaline solution, distilling the resulting solution and partially oxidizing the same during such distillation, and neutralizing and redistilling to recover the creosote and effecting oxidation during such redistilling.

12. The process of producing creosote from wood-tar, which comprises distilling the tar, removing a portion of the distillate with boiling-points between 195° and 235° C., treating such portion with an alkaline solution to dissolve only a portion of the phenols present, liberating the creosote from the resulting solution and separating it therefrom, and returning the undissolved portion to the tar-distillates.

13. The process of producing creosote from wood-tar oils, which comprises treating the oils with an alkaline solution, distilling the resulting solution and partially oxidizing the same during such distillation, removing the thick tarry material which separates, and neutralizing and recovering the creosote.

14. The process of producing creosote from wood-tar oils, which comprises treating the oils with an alkaline solution, distilling the solution and subjecting the mass to oxidation by a current of air during such distillation, removing the thick tarry material which separates, and neutralizing and recovering the creosote.

15. The process of producing phenolic bodies from wood-tar oils, which comprises treating the oils with an alkaline solution, distilling the resulting solution and partially oxidizing the same during such distillation and neutralizing and recovering the phenolic product.

16. The process of producing phenolic bodies from wood-tar oils, which comprises treating the oils with an alkaline solution, distilling the resulting solution and par-

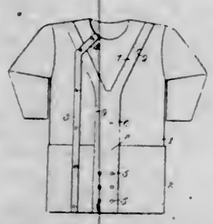
tially oxidizing the same with a current of air during such distillation and neutralizing and recovering the phenolic product.

17. The process of producing phenolic bodies from wood-tar oils, which comprises treating the oils with an alkaline solution, partially oxidizing the resulting solution and neutralizing and recovering the phenolic product.

18. The process of producing phenolic bodies from wood-tar oils, which comprises treating the oils with an alkaline solution, partially oxidizing the resulting solution with a current of air and neutralizing and recovering the phenolic product.

19. The process of producing phenolic bodies from wood-tar oils, which comprises treating the oils with an alkaline solution, partially oxidizing the resulting solution with a current of air, neutralizing the solution and oxidizing the oils thus precipitated with a current of air, and recovering the phenolic product.

14,389. INFANT'S APPAREL. WILLIAM KETCHUM JONES, Wichita, Kans. Filed Mar. 17, 1917. Serial No. 155,586. Original No. 1,195,682, dated Aug. 22, 1916, Serial No. 38,734, filed July 8, 1915. (Cl. 2—92.)



1. As a new article of manufacture, a body garment of a coat type, the major portion of the opening being to one side of the neck of the opening and with the upper extremity of said opening inclined toward the neck and in communication therewith, and a reinforcing strip secured to the garment extending substantially the entire length of the front and back of the garment, the intermediate portion of the strip being longitudinally divided to permit the strip to be disposed over the shoulders of the garment at opposite sides of the neck, the front end portion of the strip being disposed to one side of the opening, the opposite end portions of the strip being provided with longitudinally spaced pairs of openings.

2. As a new article of manufacture, a body garment of a coat type, the major portion of the opening being to one side of the neck of the opening and with the upper extremity of said opening inclined toward the neck and in communication therewith, the skirt portion of the garment being returned to afford a double thickness, and a reinforcing strip secured to the garment extending substantially the entire length of the front and back of the garment and overlying the doubled portion of the skirt at the front and rear of the garment, the intermediate portion of the strip being longitudinally divided to permit the strip to be disposed over the shoulders of the garment at opposite sides of the neck, the front end portion of the strip being disposed to one side of the opening, the opposite end portions of the strip being provided with longitudinally spaced pairs of openings.

3. As a new article of manufacture, a body garment having its skirt portion of doubled thickness and a reinforcing strip secured to the garment and disposed over the shoulders thereof and extending substantially the entire length of the front and back of the garment and overlying the doubled portion of the skirt at the front and rear of the garment, the intermediate portion of the strip being longitudinally divided to permit the strip to be disposed over the shoulders of the garment at opposite sides of the neck.

4. As a new article of manufacture, a body garment having its skirt portion of doubled thickness, and a reinforcing strip arranged transversely of the doubled portion and vertically of the garment and secured to the garment at the front and back thereof.

5. As a new article of manufacture, a body garment having its skirt portion of doubled thickness, and a reinforcing strip secured to the garment and disposed over a shoulder thereof and extending substantially the entire length of the front and back of the garment, and overlying the doubled portion of the skirt at the front and rear of the garment.

DESIGNS.

51,434. WALL-COVERING. EUGENE C. BAECK, Irvington, N. Y. Filed July 31, 1917. Serial No. 183,780. Term of patent 7 years.



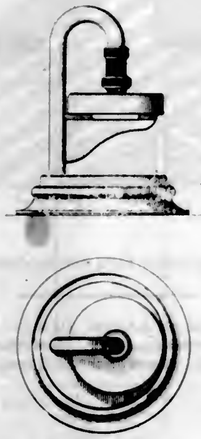
The ornamental design for a wall covering as shown.

51,435. TIRE-TREAD. WALTER C. BECKWITH, Fostoria, Ohio. Filed Oct. 18, 1916. Serial No. 126,465. Term of patent 7 years.



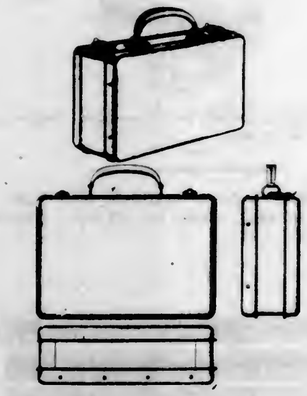
The ornamental design for a tire tread, as shown.

51,436. MOISTENER FOR AN ENVELOP, POSTAGE-STAMP, OR SIMILAR ARTICLE. MARY F. BISHOP, Philadelphia, Pa. Filed Aug. 31, 1917. Serial No. 189,227. Term of patent 14 years.



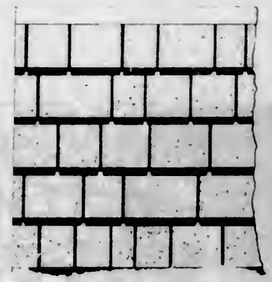
The ornamental design for a moistener for an envelop, postage stamp, or similar article, as shown.

51,437. SUITCASE. CYRUS F. BLANKE, St. Louis, Mo., assignor to St. Louis Tin and Sheet Metal Working Company, St. Louis, Mo., a Corporation of Missouri. Filed Sept. 17, 1917. Serial No. 191,874. Term of patent 14 years.



The ornamental design for a suitcase, substantially as shown.

51,438. ORNAMENTAL FLEXIBLE ROOFING. ARTHUR J. CARON, Chicago, Ill., assignor to Sears, Roebuck and Company, Chicago, Ill., a Corporation of New York. Filed Sept. 25, 1915. Serial No. 52,737. Term of patent 14 years.



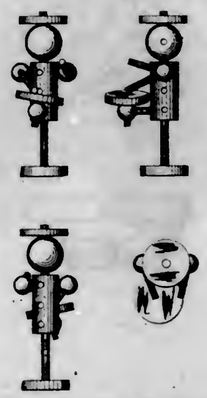
The ornamental design for ornamental flexible roofing, as shown.

51,439. WATCHCASE AND DIAL. FREDERICK G. GRUEN, Cincinnati, Ohio, assignor to The D. Gruen Sons & Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Aug. 9, 1917. Serial No. 185,360. Term of patent 7 years.



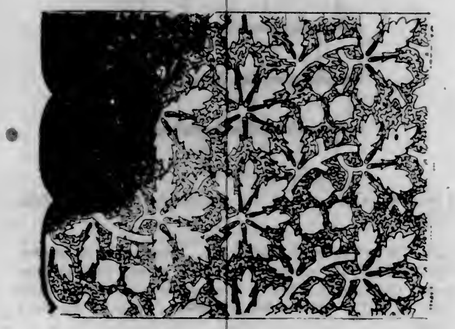
The ornamental design for a watchcase and dial as shown and described.

51,440. TOY FIGURE. HUGO KLAGSBRUNN, New Haven, Conn., assignor to The A. C. Gilbert Company, New Haven, Conn., a Corporation of Connecticut. Filed July 13, 1917. Serial No. 180,473. Term of patent 14 years.



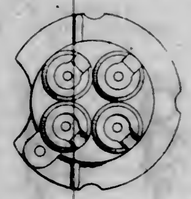
The ornamental design for a toy figure, substantially as shown.

51,441. LACE. ALEXANDER R. KOCH, New York, N. Y., assignor to Felix Meyer, New York, N. Y. Filed May 31, 1917. Serial No. 172,044. Term of patent 3½ years.



The design for lace as herein shown and described.

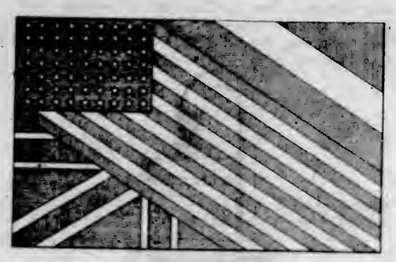
51,442. DISTRIBUTER-BLOCK FOR IGNITION DEVICES. CHARLES THOMAS MASON, Sumter, S. C., assignor to Splitdorf Electrical Company, Newark, N. J., a Corporation of New Jersey. Original application filed May 10, 1915, Serial No. 27,277. Divided and this application filed May 15, 1916. Serial No. 97,746. Term of patent 14 years.





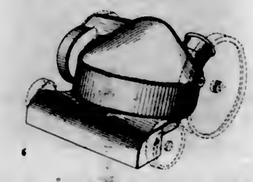
The ornamental design for a distributer block for ignition devices as shown.

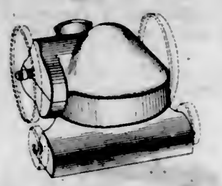
51,443. FLAG. CARRIE P. MOORE, Bon Air, Va. Filed June 13, 1917. Serial No. 174,634. Term of patent 3½ years.



The ornamental design for a flag, as shown.

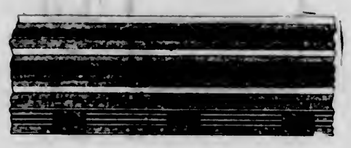
51,444. VACUUM-CLEANER CASING. WILLIAM E. SHERBONDY, Cleveland, Ohio. Filed May 8, 1917. Serial No. 167,359. Term of patent 7 years.





The ornamental design for a vacuum cleaner casing, substantially as shown.

51,445. RIBBON. JACOB SULZBACH, New York, N. Y. Filed May 26, 1917. Serial No. 171,331. Term of patent 14 years.



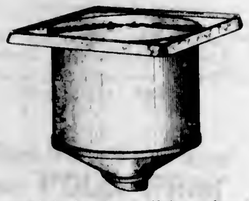
The ornamental design for a ribbon, as shown.

51,446. POWDER-CAN. VICTOR VIVAUDOU, New York, N. Y. Filed Apr. 12, 1916. Serial No. 90,785. Term of patent 7 years.



The ornamental design for a powder can as shown.

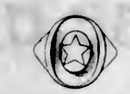
51,447. DISH-WASHER TANK. WILLARD R. WALKER, Syracuse, N. Y. Filed July 28, 1916. Serial No. 111,949. Term of patent 14 years.



The ornamental design for a dish-washer tank as shown.

51,448. FINGER-RING OR SIMILAR ARTICLE. MORRIS WEINER and ISIDOR J. RIFKIN, New York, N. Y. Filed May 8, 1917. Serial No. 167,361. Term of patent 7 years.





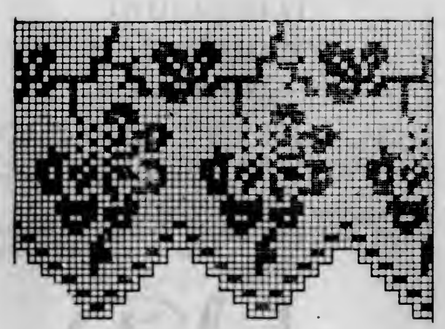
The ornamental design for a finger ring or similar article, as shown.

51,449. LATCH AND SCUTCHEON. JOHN F. WHITE, Chicago, Ill., assignor to White Lock Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 19, 1917. Serial No. 155,957. Term of patent 3½ years.



The ornamental design for a latch and scutcheon, as shown.

51,450. FILET-LACE. EMIL ZULLIG, Weehawken, N. J., assignor to The Automatic Lace & Embroidery Co., Inc., Weehawken, N. J., a Corporation of New York. Filed Sept. 10, 1917. Serial No. 190,686. Term of patent 3½ years.



The ornamental design for filet lace as shown.

TRADE-MARKS

PUBLISHED OCTOBER 30, 1917.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 88,536. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE N. K. FAIRBANK COMPANY, Union township, near Guttenberg, N. J., and Chicago, Ill. Filed Aug. 11, 1915.

"Sunny Monday bubbles will wash away your troubles"

Particular description of goods.—Soap.
Claims use since June 10, 1905.

Ser. No. 88,537. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE N. K. FAIRBANK COMPANY, Union township, near Guttenberg, N. J., and Chicago, Ill. Filed Aug. 11, 1915.

When things are dim
use 'POLLY PRIM'

Particular description of goods.—A Scouring Compound.
Claims use since Mar. 4, 1911.

Ser. No. 88,915. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) WHITE, WILE & WARNER, Buffalo, N. Y. Filed Aug. 30, 1915.

W.W.W.

Particular description of goods.—Finger-Rings.
Claims use since June, 1902.

Ser. No. 91,831. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE BOOTH PACKING COMPANY, Baltimore, Md. Filed Dec. 30, 1915.

GOLD SEAL

Particular description of goods.—Canned Vegetables.
Claims use since May, 1896.

Ser. No. 92,357. (CLASS 2. RECEPTACLES.) THE CLEVELAND BURIAL CASE COMPANY, Cleveland, Ohio. Filed Jan. 24, 1916.



The lines or shading in the drawing do not signify color.
Particular description of goods.—Caskets.
Claims use since Dec. 15, 1915.

Ser. No. 95,862. (CLASS 38. PRINTS AND PUBLICATIONS.) THE ENGINEERING MAGAZINE COMPANY, New York, N. Y. Filed June 14, 1916.

INDUSTRIAL
MANAGEMENT
LIBRARY

Industrial Management Library.
Particular description of goods.—A Series of Printed Books, Which Series has Not Yet Been Completed.
Claims use since June 3, 1916.

Ser. No. 97,276. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THOMAS KELLY & CO., Boston, Mass. Filed Aug. 11, 1916.

Cotobed

"Cotobed."
Particular description of goods.—Cotton Blankets, Bedspreads, and Sheets.
Claims use since Nov. 1, 1915.

Ser. No. 97,533. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) APPLETON COMPANY, Lowell, Mass. Filed Aug. 22, 1916.

APPLESWISS

Comprising the word "Appleswiss."
Particular description of goods.—Cotton Flannels.
Claims use since June 28, 1916.

Ser. No. 97,629. (CLASS 39. CLOTHING.) UNITED STATES RUBBER COMPANY, New York, N. Y. Filed Aug. 25, 1916.

HIPPO

Particular description of goods.—Rubber Boots and Shoes.
Claims use since July 7, 1916.

Ser. No. 97,630. (CLASS 39. CLOTHING.) UNITED STATES RUBBER COMPANY, New York, N. Y. Filed Aug. 25, 1916.



Particular description of goods.—Rubber Boots and Shoes.
Claims use since July 7, 1916.

Ser. No. 98,814. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) OSCAR RICHARD, Sunshine, La. Filed Oct. 21, 1916.



Particular description of goods.—Cane-Syrup.
Claims use since Feb. 9, 1900.

Ser. No. 98,830. (CLASS 39. CLOTHING.) SAMUEL COLLAT, New York, N. Y. Filed Oct. 23, 1916.

Madame Fifth-Avenue

Particular description of goods.—Dresses, Suits, Coats, Negligées, Shirt-Waists, Fur Scarfs, Fur Capes, Fur Coats, Fur Stoles, and Fur Muffs, Hats, Textile Underwear, Rain-Coats, Dress-Skirts, and Underskirts.
Claims use since Oct. 1, 1916.

Ser. No. 99,094. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PURITY CROSS, INC., Providence, R. I. Filed Nov. 4, 1916.



The single panel bearing the words "Purity Cross," being in blue and the lining of the rest of the drawing being merely shading.
Particular description of goods.—Food Products—viz., Jamalade and Creamed Chicken.
Claims use since Nov. 1, 1915.

Ser. No. 99,194. (CLASS 39. CLOTHING.) THE CHARLES E. LYNCH SHOE MF'G. CO., INC., Poughkeepsie and New York, N. Y. Filed Nov. 9, 1916.

H & L

VELVET

Particular description of goods.—Leather Boots and Shoes.
Claims use since Oct. 1, 1911.

Ser. No. 99,319. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) BAUER & BLACK, Chicago, Ill. Filed Nov. 16, 1916. Under ten-year proviso.

B&B

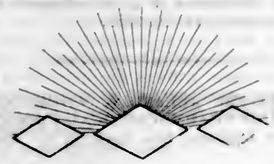
Particular description of goods.—Adhesive Plasters and Tapes, Absorbent and Medicated Cottons, Surgical Dressings; Plain and Medicated Gauze, Moist and Dry; Bandages, Protective Dressings, Oil-Silk, Gutta-Percha Tissue, and Dental Floss, Surgical Sponges, Aseptic and Fountain Towels, Surgical Lamb's-Wool, Wool Tampons, Lint, Oakum and Jute for Surgical Use, Umbilical Tape, Umbilical-Dressing Packets; First-Aid and Accident Packets, Packages, and Cabinets; Ligatures and Sutures, Surgical Swabs, Suspensories, and Supporters.
Claims use since Nov. 14, 1893.

Ser. No. 99,709. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HENRY HIRSCHMAN, Memphis, Tenn. Filed Dec. 4, 1916.

Balmo

Particular description of goods.—A Liniment for External Application for Relief of Inflamed Surfaces, Headache, Neuralgia, and Rheumatism.
Claims use since Oct. 2, 1916.

Ser. No. 100,745. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FRANCES JOHNSON, Grand Junction, Colo. Filed Jan. 19, 1917.



Particular description of goods.—Salad.
Claims use since Jan. 11, 1917.

Ser. No. 101,262. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LAURA R. DAWLEY, New York, N. Y. Filed Feb. 9, 1917.

DULEE

Particular description of goods.—Cosmetic Lotion, an External Application for the Skin; Macassar Oil for the Hair, Liquid Rouge, and Hand-Lotion.
Claims use since Dec. 1, 1916.

Ser. No. 101,280. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AUGUSTUS F. WEPPNER, Buffalo, N. Y. Filed Feb. 9, 1917.

FRUTO

Particular description of goods.—Coffee Substitute.
Claims use since Jan. 29, 1917.

Ser. No. 101,318. (CLASS 39. CLOTHING.) BLOOM & MILLMAN, New York, N. Y. Filed Feb. 12, 1917.

"Kumfy Kool"

Particular description of goods.—Middy-Blouses and Sport-Suits, Shirt-Waists, Dresses, and Outer Suits for Women and Children.
Claims use since Dec. 1, 1916.

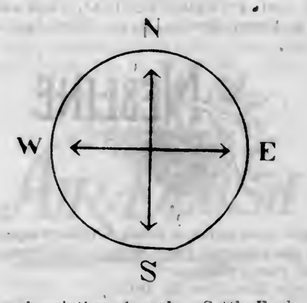
Ser. No. 102,177. (CLASS 2. RECEPTACLES.) EDGAR E. ABRAHAMS, Boston, Mass. Filed Mar. 16, 1917.



Particular description of goods.—Paper Boxes, Bonbon-Cups, Paper Drinking-Cups, Folding Cartons, Candy-Boxes, Fancy Boxes, Pill-Boxes, and Powder-Boxes.
Claims use since Jan. 1, 1917.

Ser. No. 102,262. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) S. F. SCATTERGOOD & CO., Philadelphia, Pa. Filed Mar. 19, 1917.

COMPASS



Particular description of goods.—Cattle Feed.
Claims use since May 1, 1916.

Ser. No. 102,452. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE MATCHLESS METAL POLISH COMPANY, Chicago, Ill., and New York, N. Y. Filed Mar. 26, 1917.

BLACK DIAMOND

Particular description of goods.—Buffing and Polishing Compound in Cake Form for Metals.
Claims use since 1912.

Ser. No. 102,453. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE MATCHLESS METAL POLISH COMPANY, Chicago, Ill., and New York, N. Y. Filed Mar. 26, 1917. Under ten-year proviso.

WHITE XXX BUFFING & POLISHING CAKE

Particular description of goods.—A Buffing and Polishing Compound in Cake Form for Metals.
Claims use since July 1, 1887.

Ser. No. 102,472. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ARMSTRONG PACKING COMPANY, Dallas, Tex. Filed Mar. 27, 1917.



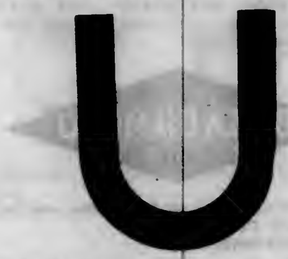
Particular description of goods.—Bacon, Vienna-Style Sausage, Skinned Ham, Sugar-Cured Ham.
Claims use since 1895.

Ser. No. 103,007. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NELLA E. BERRY, Buffalo, N. Y. Filed Apr. 16, 1917.



Particular description of goods.—Toilet Preparations and Remedies for External Use—Namely, Cold-Cream, Cuticle-Salve, and Face-Powder.
Claims use since Nov. 21, 1916.

Ser. No. 103,517. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) WALDES & COMPANY OF NEW JERSEY, New York, N. Y. Filed May 3, 1917.



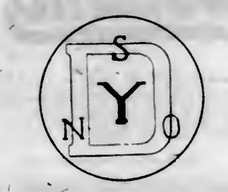
Particular description of goods.—Snap-Fasteners and Placket-Fasteners.
Claims use since July 11, 1912.

Ser. No. 103,804. (CLASS 39. CLOTHING.) ALBERT H. WEINBRENNER CO., Milwaukee, Wis. Filed May 14, 1917.



Particular description of goods.—Shoes Made of Leather, Canvas, Rubber, and a Combination of Said Materials.
Claims use since May 1, 1917.

Ser. No. 103,941. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) AMERICAN MANGANESE BRONZE COMPANY, INC., New York, N. Y., and Philadelphia, Pa. Filed May 19, 1917.



Particular description of goods.—Propellers for Boats.
Claims use since Jan. 30, 1916.

Ser. No. 103,956. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ASBURY O. LEONARD, New York, N. Y. Filed May 19, 1917.



Consisting of the portrait of William M. Mills, of No. 2024 Massachusetts avenue, Boston, Mass., with his right hand behind his right ear.
Particular description of goods.—Glandular and Massage Oil; Said Glandular and Massage Oil is Used to Relieve Catarrhal Deafness and Head Noises and All other Kinds of Deafness and Ear Troubles.
Claims use since Jan. 7, 1916.

Ser. No. 103,976. (CLASS 39. CLOTHING.) J. BLACH & SONS, Birmingham, Ala. Filed May 21, 1917.



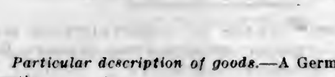
Particular description of goods.—Men's Outer Suits and Overcoats.
Claims use since Dec. 20, 1916.

Ser. No. 104,103. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HENRI RIGAUD, Paris, France, and New York, N. Y. Filed May 26, 1917.



The portrait shown being the portrait of Mary Garden.
Particular description of goods.—Perfumes, Used Either Pure or as an Ingredient in Toilet Preparations in Admixture with Suitable Substances in the Form of Cosmetics, Pastes, Soaps, Powders, Pencils, and Liquids; Face-Powder, Sachet-Powder, Talcum Powder, Breath-Pastils, Cold-Cream, Greaseless Cream, Massage-Cream, Rouge for the Skin and Lips, Toilet Water, Face and Skin Lotion, Brilliantine, Smelling-Salts.
Claims use since the year 1909.

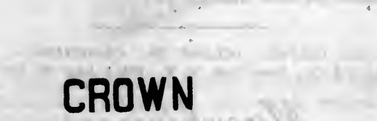
Ser. No. 104,135. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) IODOLENE CHEMICAL WORKS, Port Arthur, Tex. Filed May 29, 1917.



Particular description of goods.—A Germicide and Antiseptic.
Claims use since about Mar. 1, 1917.

Ser. No. 104,172. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NATURAL SODA PRODUCTS COMPANY, Keeler, Cal. Filed May 31, 1917.





Particular description of goods.—Soda-Ash and Bicarbonate of Soda.
Claims use since Jan. 1, 1917.

Ser. No. 104,185. (CLASS 37. PAPER AND STATIONERY.) GUARDIAN SAVINGS CLUB CO., Dover, Del., and Chicago, Ill. Filed June 1, 1917.



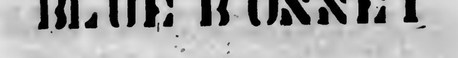
Particular description of goods.—Savings-Club Coupons, Blank and Form Books, Cards, Book-Covers, Card-Covers, Envelops, and Envelop Card-Receptacles.
Claims use since Apr. 18, 1917.

Ser. No. 104,472. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM A. TODD, Jr., St. Louis, Mo. Filed June 16, 1917.



Particular description of goods.—Face-Powder.
Claims use since July 1, 1915.

Ser. No. 104,644. (CLASS 29. BROOMS, BRUSHES. AND DUSTERS.) GORDON, SEWALL & CO., INC., Houston, Tex. Filed June 23, 1917.



Particular description of goods.—Brooms.
Claims use since June 8, 1917.

Ser. No. 105,123. (CLASS 37. PAPER AND STATIONERY.) HILL-INDEPENDENT MFG. CO., Philadelphia, Pa. Filed July 19, 1917.



Particular description of goods.—Hand-Stamps.
Claims use since about March, 1885.

Ser. No. 105,156. (CLASS 37. PAPER AND STATIONERY.) CANTCOIT TOILET PAPER CO., New Hartford, N. Y. Filed July 20, 1917.



Particular description of goods.—Toilet-Paper.
Claims use since Mar. 20, 1917.

Ser. No. 105,189. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CALIFORNIA PACKING CORPORATION, San Francisco, Cal. Filed July 23, 1917.



The panel being lined for red.
Particular description of goods.—Canned Fruits, Canned Vegetables, Canned Fish, Canned Hominy, Vinegar, Olives, Olive Relish, Tomato Sauce, Catsups, Pimientos, Peppers, Sauer-Kraut, Baked Beans, Marmalades, Jams, Preserves, Jellies, Honey, Maraschino Cherries, Dried Fruits, and Raisins.
Claims use since Oct. 1, 1891.

Ser. No. 105,217. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) WIGHTMAN & HOUGH CO., Providence, R. I. Filed July 23, 1917.



The word "Kase" is disclaimed. The letters of the mark are drawn in outline and are filled in with longitudinal shade-lines.
Particular description of goods.—Cigarette-Cases, Cigar-Cases, Match-Cases, Spectacle-Cases, Eyeglass-Cases, and Vanity-Cases Which are Made of or Plated with Precious Metal, Including Nickel-Silver.
Claims use since July 19, 1917.

Ser. No. 105,405. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) LANDERS, FRARY & CLARK, New Britain, Conn. Filed Aug. 1, 1917.

UNIVERSAL

Particular description of goods.—Forks, Spoons, Cheese-Scoops, Nut-Picks, Cold-Meat, Tomato, and Pie Servers, and Hollow Ware Having Parts of Precious Metal or Plated with Precious Metal.
Claims use since May, 1912.

Ser. No. 105,463. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ALABAMA-GEORGIA SYRUP COMPANY, Montgomery, Ala. Filed Aug. 4, 1917.



Particular description of goods.—Table-Syrup.
Claims use since 1907.

Ser. No. 105,471. (CLASS 12. CONSTRUCTION MATERIALS.) CHICAGO RETORT & FIRE BRICK COMPANY, Ottawa, Ill. Filed Aug. 4, 1917.

AJAX

Particular description of goods.—Fire-Brick.
Claims use since October, 1904.

Ser. No. 105,475. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE ISALY DAIRY COMPANY, Marion, Ohio. Filed Aug. 4, 1917.

GOLDEN SPREAD

Particular description of goods.—Butter.
Claims use since February, 1915.

Ser. No. 105,509. (CLASS 12. CONSTRUCTION MATERIALS.) TRUSSED CONCRETE STEEL COMPANY, Detroit, Mich. Filed Aug. 6, 1917.

Lastbestile

Particular description of goods.—Asbestos Shingles and Asbestos Building-Lumber.
Claims use since June 1, 1917.

Ser. No. 105,728. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) HENRY AMMANN, Pittsburgh, Pa. Filed Aug. 20, 1917.

NATUR-WYTE

Particular description of goods.—A Cleaning Liquid for Shoes.
Claims use since Aug. 4, 1917.

Ser. No. 105,746. (CLASS 39. CLOTHING.) R. H. MACY & Co., New York, N. Y. Filed Aug. 20, 1917.

Marchioness

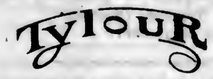
Particular description of goods.—Gloves.
Claims use since 1905.

Ser. No. 105,747. (CLASS 39. CLOTHING.) R. H. MACY & Co., New York, N. Y. Filed Aug. 20, 1917.

Marchioness

Particular description of goods.—Hosiery.
Claims use since 1914.

Ser. No. 105,833. (CLASS 39. CLOTHING.) THE BURKHARDT BROS. COMPANY, Cincinnati, Ohio. Filed Aug. 23, 1917.



Particular description of goods.—Sport-Coats and Skirts for Women.
Claims use since Mar. 1, 1917.

Ser. No. 105,842. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE MILBURN WAGON COMPANY, Toledo, Ohio. Filed Aug. 23, 1917. Under ten-year proviso.

MILBURN

Particular description of goods.—Farm-Wagons, Business and Delivery Wagons, and Automobiles, Both Passenger and Commercial.
Claims use since 1848.

Ser. No. 105,934. (CLASS 20. LINOLEUM AND OILED CLOTH.) J. FRANK DARLING, New York, N. Y. Filed Aug. 29, 1917.

DURALIN

Comprising the word "Duralin."
Particular description of goods.—Oil-Cloth and Linoleum.
Claims use since Jan. 26, 1917.

Ser. No. 105,942. (CLASS 48. MALT EXTRACTS AND LIQUORS.) INTERSTATE PRODUCTS COMPANY, Vancouver, Wash. Filed Aug. 29, 1917.



The horizontal lines used in the trade-mark represent the background and are not intended to indicate any particular color.
Particular description of goods.—A Non-Intoxicating Beverage of a Malt Nature, Commonly Known as Near Beer.
Claims use since Mar. 10, 1917.

Ser. No. 106,024. (CLASS 39. CLOTHING.) A. D. EDWARDS & SON, Los Angeles, Cal. Filed Sept. 4, 1917.

Peggy-Jeans

Particular description of goods.—A Trousered Garment for Women's and Children's Wear.
Claims use since Jan. 1, 1917.

Ser. No. 106,025. (CLASS 39. CLOTHING.) ADOLPH HEIMLICH, New York, N. Y. Filed Sept. 4, 1917.

Eva-Noon

Particular description of goods.—Women's and Misses' Gowns and Dresses.
Claims use since before January, 1917.

Ser. No. 106,036. (CLASS 11. INKS AND INKING MATERIALS.) REMINGTON TYPEWRITER COMPANY, Ilion and New York, N. Y. Filed Sept. 4, 1917.

SERVICE

Particular description of goods.—Type-Writer Ribbons and Carbon-Paper.
Claims use since July 1, 1917.

Ser. No. 106,073. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE KIL-TONE COMPANY, Vineland, N. J. Filed Sept. 5, 1917.



Particular description of goods.—An Insect-Repellent.
Claims use since July 13, 1917.

Ser. No. 106,078. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE PYRHODOL & CHEMICAL CO., INC., Chicago, Ill. Filed Sept. 5, 1917.



Particular description of goods.—Antiseptic Disinfectant Mouth-Wash, Gargle, and Deodorant.
Claims use since July 7, 1917.

Ser. No. 106,114. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) HUPP MOTOR CAR CORPORATION, Richmond, Va., and Detroit, Mich. Filed Sept. 7, 1917.



Particular description of goods.—Automobiles.
Claims use since July 10, 1915.

Ser. No. 106,117. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MERCK & Co., New York, N. Y. Filed Sept. 7, 1917.

DICHLORICIDE

Particular description of goods.—Insecticides.
Claims use since July 26, 1917.

Ser. No. 106,159. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FOREST PRODUCTS CHEMICAL COMPANY, Memphis, Tenn. Filed Sept. 10, 1917.

Cre-wood

Consisting of the coined word "Cre-Wood."
Particular description of goods.—Wood-Preserving Oils.
Claims use since Feb. 1, 1917.

Ser. No. 106,217. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) L. SONNEBORN SONS, INC., New York, N. Y. Filed Sept. 12, 1917.

Chlorofectant

Particular description of goods.—A Liquid Used as a Disinfectant, Steriliser, Cleanser, and Deodorant.
Claims use since June, 1917.

Ser. No. 106,285. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) H. BRUCE STONE, Toledo, Ohio. Filed Sept. 17, 1917.

303

Particular description of goods.—A Preparation for the Treatment of Venereal Diseases.
Claims use since May, 1917.

Ser. No. 106,289. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WESTERN MANUFACTURING COMPANY, Cudahy, Wis. Filed Sept. 17, 1917.

Presto

Particular description of goods.—Coloring Material for Leather.
Claims use since July 20, 1917.

Ser. No. 106,292. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BOWMAN DRUG CO., Oakland, Cal. Filed Sept. 18, 1917.

Argo

Particular description of goods.—Ant-Poison.
Claims use since Apr. 23, 1917.

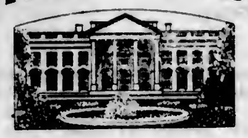
Ser. No. 106,364. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HAMILTON MANUFACTURING CO., Cincinnati, Ohio. Filed Sept. 21, 1917.

MENOLENE

Particular description of goods.—A Preparation for Relief of Burns, Bruises, Inflammation, Sore Throat, Catarrh, Headache, Sunburn, Chapped Hands, Cuts, Insect-Bites.
Claims use since Nov. 1, 1915.

Ser No. 106,371. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) NATIONAL FRUIT PRODUCT COMPANY, INC., Alexandria, Va. Filed Sept. 21, 1917.

WHITE HOUSE



Particular description of goods.—Apple Cider.
Claims use since Jan. 1, 1913.

Ser. No. 106,389. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DAVID MOSKOWITZ, Philadelphia, Pa. Filed Sept. 22, 1917.



RAT-AMOORA

Particular description of goods.—Preparation for Extermination of Rats.
Claims use since September, 1917.

Ser. No. 106,427. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) OSCAR CHARLES MACK, St. Louis, Mo. Filed Sept. 25, 1917.



Particular description of goods.—A Chemical Preparation Used in Detecting Cotton or Adulterants in Woolens.
Claims use since Aug. 30, 1917.

Ser. No. 106,444. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ASA L. FITZGERALD, Chattanooga, Tenn. Filed Sept. 26, 1917.

PED-EASE

Particular description of goods.—Remedy for Sweaty Feet.
Claims use since May 1, 1916.

[Vol. 243. No. 5]

TRADE-MARK REGISTRATIONS GRANTED

OCTOBER 30, 1917.

119,160. BULLETINS ISSUED APPROXIMATELY QUARTERLY. AMERICAN INTERNATIONAL CORPORATION, New York, N. Y.
Filed May 3, 1917. Serial No. 103,490. PUBLISHED AUGUST 28, 1917.

119,161. TOY BUILDING-BLOCKS. WILLIAM GEORGE ANDERSON, Belfast, Ireland.
Filed February 21, 1917. Serial No. 101,562. PUBLISHED AUGUST 28, 1917.

119,162. MATERIAL FOR USE IN THE MANUFACTURE OF SLIP-INSOLES FOR SHOES. ARMSTRONG CORK COMPANY, Pittsburgh, Pa.
Filed May 15, 1917. Serial No. 103,810. PUBLISHED AUGUST 28, 1917.

119,163. EMBROIDERY-FLOSS. ART EMBROIDERY AND BUTTON CO., INC., Louisville, Ky.
Filed March 30, 1917. Serial No. 102,582. PUBLISHED AUGUST 28, 1917.

119,164. AUTOMOBILE-RADIATOR ORNAMENTS. THE ART METAL WORKS, Newark, N. J.
Filed April 27, 1917. Serial No. 103,340. PUBLISHED AUGUST 28, 1917.

119,165. TWINE. AUBURN CONVERTING COMPANY, Auburn, N. Y.
Filed July 9, 1917. Serial No. 104,919. PUBLISHED AUGUST 28, 1917.

119,166. PENCIL-SHARPENERS. AUTOMATIC PENCIL SHARPENER COMPANY, Chicago, Ill.
Filed July 9, 1917. Serial No. 104,917. PUBLISHED AUGUST 28, 1917.

119,167. SEEDS. BARKEMEYER GRAIN & SEED CO., Great Falls, Mont.
Filed July 5, 1917. Serial No. 104,832. PUBLISHED AUGUST 28, 1917.

119,168. STOVES AND RANGES FOR HARD COAL, SOFT COAL, COKE, WOOD, LIGNITE, AND GAS. BELLEVILLE STOVE & RANGE CO., Belleville, Ill.
Filed May 31, 1917. Serial No. 104,162. PUBLISHED AUGUST 21, 1917.

119,169. COTTON AND SILK SEWING-THREADS AND COTTON AND SILK YARNS. M. BRODSKY & CO., INC., New York, N. Y.
Filed June 30, 1917. Serial No. 104,766. PUBLISHED AUGUST 28, 1917.

119,170. SHEETS, PILLOW CASES, AND TUBING. CARSON, PIRIE, SCOTT & CO., Chicago, Ill.
Filed March 5, 1914. Serial No. 76,348. PUBLISHED AUGUST 28, 1917.

119,171. PERCALES IN THE PIECE. CARSON, PIRIE, SCOTT & CO., Chicago, Ill.
Filed June 9, 1914. Serial No. 78,918. PUBLISHED AUGUST 28, 1917.

119,172. TALKING-MACHINES AND PARTS THEREOF. THE CENTROLA TALKING MACHINE CO., Brooklyn, N. Y.
Filed June 29, 1917. Serial No. 104,742. PUBLISHED AUGUST 21, 1917.

119,173. PUBLICATION ISSUED WEEKLY. THE CLASS JOURNAL CO., New York, N. Y.
Filed June 21, 1917. Serial No. 104,569. PUBLISHED AUGUST 28, 1917.

119,174. PAINT-BRUSHES. E. CLINTON & CO., INCORPORATED, Philadelphia, Pa.
Filed June 17, 1915. Serial No. 87,356. PUBLISHED AUGUST 28, 1917.

119,175. CERTAIN NAMED CLOTHING FOR WOMEN, MISSES, NURSES, AND MAIDS. HYMAN COHEN, Boston, Mass.
Filed April 20, 1917. Serial No. 103,136. PUBLISHED AUGUST 28, 1917.

119,176. PUBLICATION ISSUED SEMIMONTHLY. THE COMMERCIAL VEHICLE, INC., New York, N. Y.
Filed June 21, 1917. Serial No. 104,570. PUBLISHED AUGUST 28, 1917.

119,177. WEATHER-STRIPPING. W. J. DENNIS & COMPANY, Chicago, Ill.
Filed April 2, 1917. Serial No. 102,642. PUBLISHED JULY 24, 1917.

119,178. REFRACTORY MATERIALS FOR FURNACE-LININGS AND THE LIKE. THE DOLOMITE PRODUCTS COMPANY, Cleveland, Ohio.
Filed July 25, 1917. Serial No. 105,251. PUBLISHED AUGUST 28, 1917.

119,179. INTERNAL-COMBUSTION ENGINES. DOMESTIC ENGINE & PUMP CO., Shippensburg, Pa.
Filed June 23, 1916. Serial No. 96,081. PUBLISHED AUGUST 7, 1917.

119,180. BLOW-OFF VALVES. ENGINEERS SPECIALTIES CO. (NOT INC.), Chicago, Ill.
Filed March 10, 1917. Serial No. 102,030. PUBLISHED AUGUST 21, 1917.

119,181. CLEANSING COMPOUND FOR THE TREATMENT OF RUGS AND CARPETS, NOT A SOAP. EXCELSIOR CARPET CLEANSERS, INC., Boston, Mass., and Providence, R. I.
Filed May 7, 1917. Serial No. 103,592. PUBLISHED AUGUST 21, 1917.

119,182. BRAKE-LININGS. S. FLORY MFG. CO., Bangor, Pa.
Filed May 15, 1917. Serial No. 103,819. PUBLISHED AUGUST 21, 1917.

119,183. CIGARS. GENERAL CIGAR CO., INC., New York, N. Y.
Filed July 11, 1917. Serial No. 104,982. PUBLISHED AUGUST 28, 1917.

119,184. CIGARS. GENERAL CIGAR CO., INC., New York, N. Y.
Filed July 11, 1917. Serial No. 104,983. PUBLISHED AUGUST 28, 1917.

119,185. CHEESE. GERBER & CO., Thoune, Switzerland.
Filed December 22, 1916. Serial No. 100,093. PUBLISHED JUNE 12, 1917.

119,186. AUTOMOBILE-LENSES. THE GLOWLITE COMPANY, Columbus, Ohio.
Filed July 3, 1917. Serial No. 104,813. PUBLISHED AUGUST 28, 1917.

119,187. DEVICES FOR CONVERTING A PLEASURE-CAR CHASSIS INTO A MOTOR-TRUCK. GRAHAM BROTHERS, Evansville, Ind.
Filed July 9, 1917. Serial No. 104,927. PUBLISHED AUGUST 28, 1917.

119,188. SHINGLES, LATHS, SAWED LUMBER, PLANED LUMBER, SAWED TIMBERS, AND PLANED TIMBERS. GREAT SOUTHERN LUMBER COMPANY, Bogalusa, La.
Filed February 14, 1917. Serial No. 101,364. PUBLISHED APRIL 24, 1917.

119,189. SYRINGES. WILLIAM C. HALLECK, New York, N. Y.
Filed January 27, 1917. Serial No. 100,992. PUBLISHED AUGUST 28, 1917.

119,190. TEXTILE, FIBER, RUBBER, AND BALATA BELTING. HIGRADE BELTING & WEAVING CO., Newark, N. J.
Filed April 2, 1917. Serial No. 102,650. PUBLISHED MAY 29, 1917.

119,191. LANTERN-LENSES. THE JOHNSTON GLASS CO., Hartford, Ind.
Filed June 1, 1917. Serial No. 104,194. PUBLISHED AUGUST 28, 1917.

119,192. CIGARS. KELLOGG TOASTED CORN FLAKE CO., Battle Creek, Mich.
Filed March 28, 1917. Serial No. 102,525. PUBLISHED AUGUST 28, 1917.

119,193. RUBBER TIRES, INNER TUBES, LINERS, AND PATCHES FOR THE SAME. KEYSTONE RUBBER MANUFACTURING COMPANY, Erie, Pa.
Filed January 25, 1917. Serial No. 100,925. PUBLISHED AUGUST 28, 1917.

119,194. ELEVATING-TRUCKS. LEWIS-SHEPARD COMPANY, Boston, Mass.
Filed April 7, 1917. Serial No. 102,791. PUBLISHED AUGUST 28, 1917.

119,195. SMOKING AND CHEWING TOBACCO AND CIGARETTES. LIGGETT & MYERS TOBACCO COMPANY, New York, N. Y.
Filed July 20, 1916. Serial No. 96,685. PUBLISHED AUGUST 21, 1917.

119,196. CIGARS, CIGARETTES, CHEROOTS, STOGIES, CHEWING AND SMOKING TOBACCO. R. LOBRAVICO & SONS, Chicago, Ill.
Filed June 4, 1917. Serial No. 104,241. PUBLISHED AUGUST 28, 1917.

119,197. NON-ALCOHOLIC CARBONATED BEVERAGE. MAJESTIC BOTTLING CO., Missoula, Mont.
Filed July 30, 1917. Serial No. 105,360. PUBLISHED AUGUST 28, 1917.

119,198. JAR-RINGS. THE MECHANICAL RUBBER COMPANY, Jersey City, N. J.; New York, N. Y., and Cleveland, Ohio.
Filed June 2, 1916. Serial No. 95,598. PUBLISHED AUGUST 21, 1917.

119,199. BRICK AND TILE. B. MIFFLIN HOOD BRICK CO., Atlanta, Ga.
Filed June 5, 1917. Serial No. 104,284. PUBLISHED AUGUST 28, 1917.

119,200. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed May 21, 1917. Serial No. 103,988. PUBLISHED AUGUST 14, 1917.

119,201. CONCENTRATED LIME-JUICE BEVERAGE. NYAL COMPANY, Detroit, Mich.
Filed July 26, 1917. Serial No. 105,301. PUBLISHED AUGUST 28, 1917.

119,202. READY-MIXED WHITE ENAMEL PAINT. THE O'BRIEN VARNISH CO., South Bend, Ind.
Filed May 19, 1917. Serial No. 103,967. PUBLISHED AUGUST 7, 1917.

119,203. NON-INTOXICATING NON-ALCOHOLIC BEVERAGE SOLD AS A SOFT DRINK. OMAHA BEVERAGE COMPANY, Omaha, Nebr.
Filed June 2, 1917. Serial No. 104,229. PUBLISHED AUGUST 28, 1917.

119,204. ANIMAL-TRAPS. ONEIDA COMMUNITY, LIMITED, Oneida, N. Y.
Filed June 11, 1917. Serial No. 104,370. PUBLISHED AUGUST 28, 1917.

119,205. ANIMAL-TRAPS. ONEIDA COMMUNITY, LIMITED, Oneida, N. Y.
Filed June 11, 1917. Serial No. 104,371. PUBLISHED AUGUST 28, 1917.

119,206. ANIMAL-TRAPS. ONEIDA COMMUNITY, LTD., Oneida, N. Y.
Filed June 11, 1917. Serial No. 104,372. PUBLISHED AUGUST 28, 1917.

119,207. ANIMAL-TRAPS. ONEIDA COMMUNITY, LTD., Oneida, N. Y.
Filed June 11, 1917. Serial No. 104,373. PUBLISHED AUGUST 28, 1917.

119,208. LADIES' READY-TO-WEAR GARMENTS—NAMELY, SKIRTS, PETTICOATS, AND WAISTS. JACOB W. ORNSTEIN, Cincinnati, Ohio.
Filed June 22, 1917. Serial No. 104,621. PUBLISHED AUGUST 28, 1917.

119,209. TRAILER-TRUCK FOR ATTACHMENT TO AUTOMOBILES. MATTHEW R. D. OWINOS, Chicago, Ill.
Filed June 19, 1917. Serial No. 104,532. PUBLISHED AUGUST 28, 1917.

119,210. PERIODICAL PUBLISHED MONTHLY. PERIODICAL PUBLISHING CO., Grand Rapids, Mich.
Filed June 30, 1917. Serial No. 104,777. PUBLISHED AUGUST 28, 1917.

119,211. PNEUMATIC RUBBER TIRES AND RUBBER INNER TUBES THEREFOR. THE PHARIS TIRE & RUBBER CO., Newark, Ohio.
Filed June 11, 1917. Serial No. 104,388. PUBLISHED AUGUST 28, 1917.

119,212. TOY FURNITURE. THE PLATT-MASCHEK COMPANY, Chicago, Ill.
Filed February 17, 1917. Serial No. 101,457. PUBLISHED AUGUST 28, 1917.

119,213. WIRE ROPE EXCEPT FIBER-COVERED WIRE ROPE. JOHN A. ROEBLING'S SONS CO., Trenton, N. J.
Filed January 15, 1917. Serial No. 100,632. PUBLISHED AUGUST 28, 1917.

119,214. WHITE PLAIN FLAT RECTANGULAR BLANKS OF CARDBOARD OF VARIOUS SIZES. THE SABIN ROBBINS PAPER CO., Middletown, Ohio.
Filed October 23, 1916. Serial No. 98,848. PUBLISHED JUNE 26, 1917.

119,215. TIRE-VULCANIZING OUTFITS AND SELF-VULCANIZING PATCHES. A. R. SALES CO., INC., Schenectady, N. Y.
Filed April 28, 1917. Serial No. 103,374. PUBLISHED AUGUST 28, 1917.

119,216. PORCELAIN TEETH, PLATINUM-PIN FACINGS, COMBINATION SETS, AND TEETH GENERALLY. GEO. STEELE, Chicago, Ill.
Filed January 13, 1917. Serial No. 100,592. PUBLISHED AUGUST 28, 1917.

119,217. AEROPLANES AND AIRSHIPS. THE SUNBEAM MOTOR CAR COMPANY LIMITED, Wolverhampton, England.
Filed June 1, 1917. Serial No. 104,203. PUBLISHED AUGUST 28, 1917.

119,218. HEADLIGHT-LENSES. SUPER-LIGHTING COMPANY, INC., New York, N. Y.
Filed July 10, 1917. Serial No. 104,971. PUBLISHED AUGUST 28, 1917.

119,219. SMOKING AND CHEWING LEAF-TOBACCO. HOWARD B. TURNER, Mount Sterling, Ky.
Filed January 28, 1917. Serial No. 100,865. PUBLISHED AUGUST 21, 1917.

119,220. NON-ALCOHOLIC BEVERAGE COMPOSED MAINLY OF FRUIT-JUICES. JOSEPH VON EPLER, New York, N. Y.
Filed July 16, 1917. Serial No. 105,072. PUBLISHED AUGUST 28, 1917.

119,221. CERTAIN NAMED PRINTS AND PUBLICATIONS. WALDES & COMPANY OF NEW JERSEY, New York, N. Y.
Filed April 26, 1917. Serial No. 103,337. PUBLISHED AUGUST 21, 1917.

119,222. CERTAIN NAMED PRINTS AND PUBLICATIONS. WALDES & COMPANY OF NEW JERSEY, New York, N. Y.
Filed May 16, 1917. Serial No. 103,877. PUBLISHED AUGUST 28, 1917.

119,223. CIGARS. WALDO M. WATTLES, Litchfield, Mich.
Filed June 5, 1917. Serial No. 104,291. PUBLISHED AUGUST 28, 1917.

119,224. CERTAIN NAMED AUTOMOBILE EQUIPMENT AND SUPPLIES. WEISS-BOSLEY SALES COMPANY, St. Louis, Mo.
Filed June 25, 1917. Serial No. 104,670. PUBLISHED AUGUST 28, 1917.

119,225. REFRIGERATING-MACHINES AND PARTS THEREOF AND REFRIGERATOR-BOXES. FRED. W. WOLF, Chicago, Ill.
Filed June 18, 1917. Serial No. 104,500. PUBLISHED AUGUST 28, 1917.

LABELS

REGISTERED OCTOBER 30, 1917.

20,342.—*Title:* "COOPER'S BENNINGTON SUMMER-WEAR." (For Summer Wear.) BLACK CAT TEXTILES COMPANY, Kenosha, Wis. Filed August 27, 1917.

20,343.—*Title:* "ARBECO." (For Pepper.) ROBERT BUTTLAR, New York, N. Y. Filed September 17, 1917.

20,344.—*Title:* "GLAD." (For Stockings.) CHAS. CHIPMAN'S SONS CO., INC., New York, N. Y. Filed September 11, 1917.

20,345.—*Title:* "BESTYETTE." (For Hair-Nets.) NATHAN B. COHEN, Scranton, Pa. Filed October 11, 1917.

20,346.—*Title:* "HUFFMAN & VAN CAMP ASTHMA REMEDY." (For a Medicinal Preparation.) HUFFMAN & VAN CAMP, Westville, Ill. Filed April 9, 1917.

20,347.—*Title:* "B. N. UNIVERSAL." (For a Polish.) BERTHA NIEDLINGER, Leavenworth, Kans. Filed June 14, 1917.

20,348.—*Title:* "OMA." (For a Non-Alcoholic Beverage.) OMAHA BEVERAGE COMPANY, Omaha, Nebr. Filed September 29, 1917.

20,349.—*Title:* "CARRIED HOME." (For Cigars.) E. B. READ & SON CO., Baltimore, Md. Filed September 28, 1917.

20,350.—*Title:* "SILVER TIP." (For Potato Chips.) J. H. SMITH & SON, Upper Sandusky, Ohio. Filed August 31, 1917.

20,351.—*Title:* "AMBASSADOR." (For Sardines.) SMITH & NESSLE CO. INC., New York, N. Y. Filed October 12, 1917.

20,352.—*Title:* "C. V." (For a Non-Intoxicating Beverage Known as Champagne Velvet.) TERRE HAUTE BREWING COMPANY, Terre Haute, Ind. Filed October 10, 1917.

20,353.—*Title:* "C. V." (For a Non-Intoxicating Beverage Known as Champagne Velvet.) TERRE HAUTE BREWING COMPANY, Terre Haute, Ind. Filed October 10, 1917.

20,354.—*Title:* "GLYCO-IODINE." (For Iodin.) TINCTURE & EXTRACT COMPANY, Philadelphia, Pa. Filed October 9, 1917.

20,355.—*Title:* "WAKELEE'S." (For Liquid Complexion-Powder.) WAKELEE'S INC., San Francisco, Cal. Filed September 29, 1917.

20,356.—*Title:* "SI-YA-MA." (For Blood-Purifier.) ROBERT R. WALKER and JESSE M. OWEN, Elko, Nev. Filed September 5, 1917.

PRINTS

REGISTERED OCTOBER 30, 1917.

4,818.—*Title:* "COOPER'S BENNINGTON SUMMER-WEAR." (For Summer Wear.) BLACK CAT TEXTILES COMPANY, Kenosha, Wis. Filed August 27, 1917.

4,819.—*Title:* "EVER READY LUBRICANT." (For a Lubricant.) DIXIE OIL & REFINING CO., San Antonio, Tex. Filed July 24, 1916.

4,820.—*Title:* "PABLO THE HAPPY HOPPY DRINK." (For a Non-Intoxicating Beverage.) PABST BREWING COMPANY, Milwaukee, Wis. Filed July 20, 1917.

4,821.—*Title:* "SAFETY ENGINEERING, THE MAGAZINE OF SAFETY—ACCIDENT INDICATOR." (For Safety Engineering Magazine.) THE SAFETY PRESS INC., New York, N. Y. Filed September 25, 1917.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

EX PARTE RIEDER.

Decided March 18, 1917.

EXTENSION OF TIME—ACT OF AUGUST 17, 1916—CITIZENS OF THIS COUNTRY.

The act of August 17, 1916, (229 O. G., 1257,) is not limited to granting extensions to citizens of foreign countries, but entitles a citizen of this country to the extension if the delay was occasioned by the "existing and continuing state of the war."

ON PETITION.

DESK-CALENDAR.

Mr. Victor J. Evans for the applicant.

EWING, *Commissioner:*

This is a petition that the renewal application be accepted under the provisions of the act of August 17, 1916.

The act of August 17, 1916, is not limited to granting extensions to citizens of foreign countries, but entitles a citizen of this country to the extension if the delay was occasioned by the "existing and continuing state of war." This application was allowed August 12, 1914, and the period within which it could have been renewed under the statute which was then in force expired August 12, 1916. On January 9, 1917, the final fee was paid, with the request that it be accepted as of the date not later than February 12, 1915. The statute provides only for an extension of nine months, and the time within which the final fee could have been paid under that statute has long since expired. On March 13, 1917, a petition for a renewal was filed, with the request that fifteen dollars of the twenty dollars previously paid be applied as the renewal fee. The showing made by the affidavit filed January 9, 1917, is held sufficient to establish that applicant was unable on account of the "existing and continuing state of war" to renew his application within two years from the date of allowance, and as the renewal petition was filed within nine months of the expiration of that time it is directed that it be accepted.

The petition is granted.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

IN RE BRADFORD DYEING ASSOCIATION.

Decided June 2, 1917.

1. TRADE-MARK — DESCRIPTIVE — FOREIGN WORDS — "E'CLATANT."

"E'clatant," for satin-finished cotton piece goods, *Held* to be not registrable because descriptive, meaning brilliant, shining, glittering, etc., which are characteristics and qualities of the goods to which it is applied.

2. SAME—SAME—SAME.

The reason for bringing foreign words and phrases which are descriptive within the prohibition of the statute is apparent, since the public would soon become informed of such meaning and the user of the mark would appreciate the advantage of disseminating such information by advertisement or otherwise.

3. SAME—SAME—SAME—JUDICIAL NOTICE.

"While the meaning of a word in a foreign language may not be within the scope of judicial notice in construing the application of the law, it is nevertheless a fact capable of proof."

4. SAME—SAME—SAME.

The Commissioner of Patents is the officer upon whom is cast the burden of administering the law, including the limitation forbidding the registration of descriptive marks, in accordance with its intent, and in the exercise of this function he may base his opinion upon any pertinent fact capable of proof from a reliable source of information, and a fact so found may be verified upon appeal, since the duty of the court is to determine broadly whether or not he has correctly applied the law to the competent facts in his possession.

Mr. Myron G. Clear, *Mr. P. B. Turpin*, and *Mr. J. K. Brachvogel* for the appellant.

Mr. T. A. Hostetler for the Commissioner of Patents.

VAN ORSDEL, *J.:*

This appeal is from the refusal of the Commissioner of Patents to register the word "E'clatant" as a trade-mark for cotton piece goods.

A sample of the goods with appellant's mark thereon is included in the record. The goods have a satin finish, and are described as "Satin E'clatant." The word sought to be registered is a French word meaning brilliant, shining, glittering, etc. Registration was denied, on the ground that the mark is descriptive of the character and quality of the goods.

Descriptive words and phrases in a foreign language are not registerable. (*In re Hercules Powder Co.*, 241 O. G., 1157; —— App. D. C., ——, (not reported;) 38 Cyc., 731.) The reason for bringing descriptive foreign words and phrases within the limitations of the statute is apparent. Not only would the meaning soon become known to the public, but the user of the mark would appreciate the advantage of disseminating such information by advertisement or otherwise. Indeed, there would be nothing to prevent the printing of a translation of the word or phrase in direct connection with the use of the mark. The policy which dictates this inhibition is not affected by *Rossman* v. *Garnier*. (211

Fed., 401,) chiefly relied upon by counsel for appellant. That was an infringement suit in which a mark consisted of a French word. The court expressly found that it had been registered under the ten-year clause of the Trade-Mark Act of 1905, and that it was, therefore, unnecessary to pass upon the question of whether or not it was descriptive of the quality or character of the goods upon which it was used. Appellant, however, attempts to find relief in the statement of Mr. Justice Van Valkenburgh, in his concurring opinion, that the court had "neither memory nor understanding of the French language." The connection, however, in which this expression is used is important. In the opinion he said:

> There is in the record nothing which places before the court the part which the word "Abricotine" plays in the French language, nor the relation between that name and the cordial in French commerce; nor do we take judicial notice of such facts whatever they may be. As to uses and customs, we are confined to our own country. (Michie's Encyc. of U. S. Sup. Ct. Reps., vol. 7, p. 676; *Dainese* v. *Hale*, 91 U. S., 13.) The court is, of course, bound to take judicial notice of the ordinary meaning of all words in our own tongue (Michie, vol. 1, p. 680); and upon such a question dictionaries are admitted, not as evidence, but only as aids to the memory and understanding of the court (*Nix* v. *Hedden*, 149 U. S., 304–307). We have judicially, neither memory nor understanding of the French language, and appellant has not seen fit to enlighten us by the record.

We take no issue as to the soundness of this holding in an infringement case, but we are reviewing the propriety of the Commissioner of Patents in a matter in which he acts largely in an administrative capacity. While the meaning of a word in a foreign language may not be within the scope of judicial notice in construing the application of the law, it is, nevertheless, a fact capable of proof, which seems to have been overlooked in the trial of the Rossman case. The limitations of the statute forbidding the registration of descriptive marks are for the protection of the public, and the Commissioner is the officer upon whom is cast the burden of administering the law in accordance with its intent. In the exercise of this function he may base his opinion upon any pertinent fact capable of proof from a reliable source of information, and a fact so found may be verified upon appeal, since our duty is to determine broadly whether or not the Commissioner, in the exercise of his discretion, has correctly applied the law to the competent facts in his possession. When that appears we will not concern ourselves seriously with technical distinctions as to the judicial notice taken by the Commissioner of facts which may readily be ascertained from the most convenient and reliable source of information.

Assuming, without deciding, that in certain cases we might be precluded from taking judicial notice on appeal of the meaning of a foreign word, still no relief is afforded appellant by the Rossman decision; for, unlike that case, the meaning of the foreign word was here found as a fact, and the competency of the evidence upon which the finding was based is not questioned.

The decision of the Commissioner of Patents is affirmed, and the clerk is directed to certify these proceedings as by law required.

Affirmed.

Court of Appeals of the District of Columbia.

THE KELLOGG FOOD COMPANY *et al. v.* KELLOGG TOASTED CORN FLAKE COMPANY, (TWO CASES.)

Decided June 2, 1917.

1. TRADE-MARK—OPPOSITION—SHOWING OF INTEREST.
   In opposition proceedings when it is clearly averred that the opposer's goods, of the same general descriptive properties as applicant's, were known as "Kellogg's" foods before applicant's entry into the field and applicant and opposer had entered into an agreement restricting applicant's use of the word "Kellogg's" as a mark *Held* this constitutes a sufficient showing of interest in the mark by the opposer.

2. SAME—SAME—DISMISSAL ON MOTION.
   Where it is apparent from the averment of the motion to dismiss that applicant understood that the right to register an essential part of the name of the opposer was being challenged and it further appears that the question was pressed before both tribunals, *Held* the opposition should not be dismissed on motion.

Mr. F. L. Chappell and *Mr. O. A. Earl* for the appellants.

Mr. W. H. C. Clarke, *Mr. J. H. Brickenstein*, and *Mr. C. H. Potter* for the appellee.

Patent appeals Nos. 1110 and 1111.

ROBB, *J.:*

These are appeals by the opposers in trade-mark opposition proceedings from decisions of the Patent Office tribunals sustaining the motions to dismiss the oppositions.

The first opposition involves the word "Kellogg's," which the applicant seeks to register. In the notice of opposition it is set forth that The Kellogg Food Company and its predecessors for many years have been engaged in the manufacture and sale of foods and food ingredients at Battle Creek, Mich., the home of the applicant, and that John H. Kellogg for more than thirty years has devoted a large amount of time to the production of foods and beverages, particularly nut and cereal foods and cereal beverages; that the products of the opposers, including breakfast foods—

> have become known throughout the civilized world as "Kellogg Food Company," "Kellogg Sanitarium," "Dr. Kellogg," and "Kellogg's foods" and are all identified as opposers' products;

that in about the year 1906 said John H. Kellogg sold to the applicant's predecessor the exclusive right within the United States to manufacture, sell and deal in "toasted corn flakes" and "toasted corn flake biscuit," but did not part with the right to use the name "Kellogg's" in connection with any other cereal foods; that thereafter litigation arose which was terminated by an agreement, a copy of which was attached to the notice of opposition. Under the terms of that agreement opposers agreed not to use the word "Kellogg's"—

> as a part of the name or title or designating words of *flaked cereal food*, made or sold by them, or either of them. Flaked cereal food to include biscuits made from flaked cereals.

This restriction was to apply to the United States only. It thus appears that the agreement is in accord with the averment in the notice of opposition that the sale to applicant's predecessor was limited to flaked cereal food.

In applicant's motion to dismiss it is averred that neither of the opposers shows any right whatever to the name "Kellogg" or "Kellogg's." The Examiner of Interferences ruled, first, that there was no sufficient averment of interest on the part of the opposers and, second, that the notice of opposition did not raise the question as to the right of applicant to register its corporate name. Both of these rulings were challenged before the Assistant Commissioner, but he sustained the decision of the Examiner.

Both grounds of the opposition should have been sustained. It is clearly averred that the opposers' products of the same general descriptive properties were known as "Kellogg's" foods before applicant's entry into the field, and the agreement to which applicant was a party inferentially recognizes opposers' interest in the name. (*Natural Food Co.* v. *Williams*, 30 App. D. C., 348; 133 O. G., 232; *Electro Steel Co.* v. *Lindenberg Co.*, 43 App. D. C., 270; 215 O. G., 977.) As to the second ground, it is apparent from the averment of the motion to dismiss that applicant understood that the right to register an essential part of the name of the opposers was being challenged, and it further appears that the question was pressed before both tribunals. The decision in *Rookwood Pottery Co.* v. *Wilhelm Co.* (43 App. D. C., 1) therefore does not apply. In that case it was held merely that such a question could not be raised for the first time in this court. The statute clearly prohibits such a registration. (*Asbestone Co.* v. *Philip Carey Co.*, 41 App. D. C., 507; 200 O. G., 857; *Mansfield T. & R. Co.* v. *Ford Motor Co.*, 44 App. D. C., 205; 222 O. G., 1056; *in re United Drug Co.*, 44 App. D. C., 209; 222 O. G., 729; *Burrell* v. *Simplex Electric Heating Co.*, 44 App. D. C., 452; 225 O. G., 737.)

The second opposition involves the proposed registration of the words "Kellogg's Toasted Rice Bubbles," the use of which, it is alleged, commenced in 1915. In addition to the averments in the prior opposition, opposers allege the manufacture and sale for many years of rice products in various forms, known as cereal breakfast foods. Applicant filed a disclaimer to the words "Kellogg's," "Toasted," and "Rice," "apart from the mark shown in the drawing." Opposers' interest appearing, it is necessary merely to refer to our recent decisions in *Nairn Linoleum Co.* v. *Ringwalt Linoleum Co.* (237 O. G., 919) and *O. & W. Thum Co.* v. *Dickinson*, (240 O. G., 337,) present term.

The decision in each case is reversed and the opposition sustained.

Court of Appeals of the District of Columbia.

IN RE PACKARD MOTOR CAR COMPANY.

Decided June 11, 1917.

1. TRADE-MARK—"TWIN-SIX" DESCRIPTIVE.
   "Twin-Six" as applied to motor-vehicles *Held* to be descriptive and not registrable as a trade-mark.

2. SAME—SIGNIFICANCE TO A PURCHASER.
   The question of the descriptiveness of a mark must be considered in the light of its significance to the purchaser.

Mr. John M. Coit for the appellant.

Mr. Wm. R. Ballard for the Commissioner of Patents.

COVINGTON, *J.:*

This is an appeal of the Packard Motor Car Company from the decision of the Commissioner of Patents refusing to register the words "Twin-Six" as a trade-mark for motor-vehicles propelled by gasolene-motors. The decision of the Commissioner was in affirmance of the decision of the Examiner of Trade-Marks and Designs, refusing registration.

Section 5 of the Trade-Mark Act provides that no mark consisting merely of words—

> which are descriptive of the goods with which they are used, or of the character or quality of such goods—

shall be registered under the terms of the act, and the only question before the court on this appeal is whether the words "Twin-Six" as applied to motor-vehicles driven by gasolene-engines are descriptive of the character or quality of such motor-vehicles. The contention of the appellant is that the words "Twin-Six" made into a compound word and applied to a motor-vehicle do not indicate definitely any character, and do not describe definitely any quality, of such motor-vehicle, but that the words constitute merely a catchy phrase to identify the particular make of cars of the appellant. And much stress is laid in the appellant's brief on the fact that numerals when applied to motor-vehicles in referring to them are used for such a variety of purposes as to have no definite meaning.

Whatever may be the lack of definite and descriptive meaning in numerals generally when applied to motor-vehicles it is not at all necessary in this case to consider. The description of a motor-vehicle by any one of the particular numbers "four," "six" or "eight" is very definitely understood in the automobile trade. It is understood by both dealers and purchasers that such numbers always describe the number of cylinders present in the gasolene-motor of the motor-vehicle. One just as certainly knows that a Cadillac "eight" is a Cadillac motor-vehicle with a motor of eight cylinders as one knows that a description of a Cadillac as a *red* Cadillac is intended to convey the idea of a Cadillac painted red. The words "eight" and "red" are equally descriptive and no one would think of attempting to register either of them as a trade-mark.

The word "six" when applied to a motor-vehicle, as a matter of common knowledge, therefore, means a motor-vehicle with a gasolene-motor of six cylinders. Consequently, no one would contend that the single word "six" could be trade-marked so that the Packard Motor Car Company, the appellant, could have the exclusive use of the word in the motor-vehicle trade and describe its car as the Packard "six," thereby preventing any other manufacturer of a six-cylinder motor-vehicle from using the ordinary descriptive word "six" in order to indicate to the trade the fact that his motor-vehicle was operated with a gasolene-motor containing six cylinders.

The word "twin" has also a definite and clear meaning in the English language. It indicates two, or a pair of similar things or persons. Therefore, when one speaks of a motor-vehicle as a "twin-six," the words are generally understood as describing a motor-vehicle in which the gasolene-motor contains two series of cylinders of six cylinders each.

The Examiner of Trade-Marks and Designs, in his statement refusing registration of the compound word "Twin-Six" in this case, accurately states the significance of "Twin-Six" as a descriptive term. He says:

The term "twin" has long been used as a technical term in the field of motive power. The dictionaries, periodicals relating to mechanics, and works relating to motive power, disclose such terms as "twin engine," "twin cylinder," "twin screw," "twin valve." The significance of the term in this field is well understood. "Twin" is defined in the *Century Dictionary* as two, a pair, a couple, and when applied to mechanics it is understood to denote two similar mechanisms, intimately united or related in action, and usually symmetrically arranged with respect to each other. * * * The question of the descriptiveness of a mark must be considered in the light of its significance to the purchaser, and it is the opinion of the Examiner that when a customer purchases a "twin-six" automobile, he expects to get one with twelve cylinders placed in two groups of six each, and that if he were to receive a car containing less than twelve cylinders he would feel that he had been deceived. This is considered to be the acid test as to the descriptiveness of the term.

The decision will be affirmed and this decision certified to the Commissioner of Patents.

Affirmed.

INDEX

TO THE

DECISIONS OF THE COMMISSIONER OF PATENTS AND OF THE UNITED STATES COURTS.

OCTOBER, 1917.

[Decisions of the Court of Appeals of the District of Columbia are indicated by a star (*); of the United States Circuit Court of Appeals by the letter ᵈ, and of the Supreme Court of the United States by two stars (**).]

TABLE OF CASES.

	Page.
ᵈ Barrett Co. *et al. v.* Ewing, Commissioner of Patents	1065
*Bradford Dyeing Association. *In re*	1309
**Du Pont de Nemours Powder Company *et al.*, E. I., *v.* Masland *et al.*	795
ᵈ Goessling Box Co. *et al.*, Wm. F., *v.* Gumb *et al.*	241
Jepson. *Ex parte*	525
*Kellogg Food Company *et al.*, The, *v.* Kellogg Toasted Corn Flake Company	1310
*Packard Motor Car Company. *In re*	1311
Rieder. *Ex parte*	1309
*Simplex Electric Heating Company *v.* The Ramey Company	793

SUBJECT-MATTER INDEX.

Page.

Act August 17, 1916, extension of time under not limited to citizens of foreign countries, *ex parte* Rieder 1309

ᵈ Anticipation, prior patent not to be admitted as evidence of when later patent covers an invention made before issue of earlier patent, Wm. F. Goessling Box Co. *et al. v.* Gumb *et al.* 241

Claims, applicant pointing out exact invention in claim, may set apart the old parts of the structure in a preamble, *ex parte* Jepson 525

Effect of introductory phrases, *ex parte* Jepson 525

*Commissioner of Patents, as the officer who administers the law, may in the exercise of such function base his opinion upon any pertinent fact capable of proof, which may be verified upon appeal, since the duty of the court is to determine if he has applied correctly the law to the facts in his possession, *in re* Bradford Dyeing Association 1309

Construction of act August 17, 1916, *ex parte* Rieder 1309

ᵈ Construction of claims, function and purpose remote, no anticipation, Wm. F. Goessling Box Co. *et al. v.* Gumb *et al.* 241

ᵈ Construction of statutes, section 4915, Revised Statutes, Barrett Co. *et al. v.* Ewing, Commissioner of Patents 1065

Delay in prosecution of application, citizen of the United States entitled to extension of time if delay was caused by "existing and continuing state of war," *ex parte* Rieder 1309

ᵈ Device in remote art, patent neither anticipated nor limited in scope by device or combination designed to peform another function and used under radically-different circumstances, Wm. F. Goessling Box Co. *et al. v.* Gumb *et al.* 241

Elements, between the old and the new in which the invention actually resides, the claims should show a clear line of demarcation, *ex parte* Jepson 525

ᵈ Infringement, change in form or of some element of combination where same principle or mode of operation is used does not avoid infringement unless such change is leading characteristic of invention, Wm. F. Goessling Box Co. *et al. v.* Gumb *et al.* 241

**Injunction, disclosure of trade secrets by witnesses and counsel, E. I. du Pont de Nemours Powder Company *et al. v.* Masland *et al.* 795

Page

ᵈ Particular patents, Hubbell, No. 158,415, street-pavements, Barrett Co. *et al. v.* Ewing, Commissioner of Patents 1065

ᵈ Kerkow, No. 970,237, shipping-case, discloses patentable invention, is not anticipated, but is infringed, Wm. F. Goessling Box Co. *et al. v.* Gumb *et al.* 241

Preamble of claims, double function, completing setting of invention and disclaiming old parts which are setting, only, *ex parte* Jepson 525

May be mere explanatory name and title or an actual limitation if invention cannot exist apart from it, *ex parte* Jepson 525

Renewal of application, petition after expiration of two years, but within nine months of such expiration, granted when cause of delay is "existing and continuing state of war," *ex parte* Rieder 1309

ᵈ Suits against the Commissioner of Patents, if brought against him in his official capacity, should be brought in the district of his official residence, but under certain circumstances he may be sued outside of such district, Barrett Co. *et al. v.* Ewing, Commissioner of Patents 1065

*Trade-marks, descriptive marks to be considered in relation to their significance to purchaser, *in re* Packard Motor Car Company 1311

*Foreign words and phrases, when descriptive, prohibited for the same reason as descriptive English words, *in re* Bradford Dyeing Association 1309

*Motion to dismiss opposition to registration of trade-mark, The Kellogg Food Company *et al. v.* Kellogg Toasted Corn Flake Company 1310

*Names, individual or corporate, expressly prohibited from registration under the Trade-Mark Act, Simplex Electric Heating Company *v.* The Ramey Company 793

*Opposition to registration, showing of interest by opposer, The Kellogg Food Company *et al. v.* Kellogg Toasted Corn Flake Company 1310

*Trade-marks, etc—Continued. Page.
*Similarity of goods, Simplex Electric Heating Company *v.* The Ramey Company..... 793
*The words "E'clatant," for satin-finished piece goods, refused registration as descriptive mark, *in re* Bradford Dyeing Association..... 1309
*"Twin-Six" refused registration as descriptive mark, *in re* Packard Motor Car Company.... 1311
*Trade-marks, etc—Continued. Page.
*While a word in foreign language may not be within scope of judicial notice, it is a fact capable of proof, *in re* Bradford Dyeing Association..... 1309
**Trade secrets, the word "property" as applied thereto defined, E. I. du Pont de Nemours Powder Company *et al v.* Masland *et al*..... 795
**Trusts, fraudulent abuse of, E. I. du Pont de Nemours Powder Company *et al. v.* Masland *et al*..... 795

DIGEST

OF THE

DECISIONS OF THE COMMISSIONER OF PATENTS AND OF THE UNITED STATES COURTS.

OCTOBER, 1917.

[Decisions of the Court of Appeals of the District of Columbia are indicated by a star (*), of the United States Circuit Court of Appeals by the letter d, and of the Supreme Court of the United States by two stars (**).]

ANTICIPATION.

See Construction of Specifications and Patents; Particular Patents.

1. PATENTS—PRIOR PATENT.
A patent is not admissible in evidence as an anticipation of another patent which, although later in date of issue, covers an invention shown to have been made before the issue of the earlier patent and upon an application filed several months prior thereto.
dWm. F. Goessling Box Co. *et al. v.* Gumb *et al.*, 241.

2. SAME—SAME.
Finger-holes in mortise-locks for sliding doors *Held* so remote in purpose and function as not to anticipate a patent for shipping-cases for bottled goods having protected hand-holes for lifting the cases. [d Id.

3. SAME—DEVICE IN REMOTE ART.
A mechanical device or combination which was not designed by its maker or actually used or apparently adapted to perform the function of a patented device or combination, but which was discovered in a remote art, where it was conceived and used under radically-different circumstances to perform another function, neither anticipates nor limits the scope of the patent. [d Id.

BILL IN EQUITY.

See Construction of Statutes, 1.

CHANGE OF FORM.

See Infringement.

CITIZEN OF THE UNITED STATES.

See Construction of Statutes, 2.

CLAIMS.

1. INTRODUCTORY PHRASES—EFFECT OF.
Cases reviewed in which the introductory phrases of claims operated to limit the invention claimed. *Ex parte* Jepson, 525.

2. RELATION OF THE OLD AND THE NEW ELEMENTS.
Old elements should not be catalogued with equal emphasis with the new. The claim should be so written as to make at once apparent a clear line of demarcation between the old structure and those elements which really constitute the invention. [Id.

3. SAME—DOUBLE FUNCTION.
The preamble of a claim may perform the double function of completing the setting of the real invention claimed and of also disclaiming the old parts of the apparatus, which constitute nothing but setting. [Id.

4. SAME—WHEN AND WHEN NOT LIMITATION.
The preamble may be an actual limitation if the real invention cannot exist apart from it, whereas if the real invention does not at all depend upon it then the preamble is a mere explanatory name and title. [Id.

5. REAL INVENTION SEPARATED FROM THE PREAMBLE.
When an applicant presents a claim, as in this case, which particularly points out his exact invention, there is nothing in the law to interdict his doing it by including the old parts of the structure in a preamble and set apart from the structure which constitutes the real invention. [Id.

COMMISSIONER OF PATENTS.

See Construction of Statutes, 1; Registration of Trade-Marks, 4.

COURTS—FEDERAL COURTS—DISTRICT IN WHICH SUIT SHOULD BE BROUGHT.
As the official residence of the Commissioner of Patents is in the District of Columbia, suits against him in his official capacity should be commenced in that district.
d Barrett Co. *et al. v.* Ewing, Commissioner of Patents, 1065.

CONDITIONS EXISTING BY REASON OF A STATE OF WAR.

See Construction of Statutes, 2.

CONSTRUCTION OF SPECIFICATIONS AND PATENTS.

ANTICIPATION—IMPROVEMENT IN STREET-PAVEMENTS.
An alleged invention of an improvement in street-pavements, consisting of the application to the surface of a concrete pavement of a thin layer of bituminous compound and the sprinkling or spreading and embedding of sand or small stone fragments into this compound, was anticipated by the Hubbell patent, No. 158,415, covering a process consisting in saturating the concrete forming the wearing-surface of a pavement with a thin body or solution of hot pitch or bitumen, though Portland cement, used in the art to which the alleged invention relates, was not used in commercial pavements until after the date of the Hubbell patent.
d Barrett Co. *et al. v.* Ewing, Commissioner of Patents, 1065

CONSTRUCTION OF STATUTES.

See Registration of Trade-Marks, 1, 3.

1. DISTRICT IN WHICH SUIT MAY BE BROUGHT—CONSENT.
Revised Statute section 4915 (Comp. St., 1916, sec. 9460) provides that when a patent is refused the applicant may have remedy by bill in equity; that the court having cognizance thereof may adjudge that such applicant is entitled to a patent; that any such adjudication, if in favor of the applicant, shall authorize the Commissioner to issue such patent on the applicant filing in the Patent Office a copy of the adjudication, and that where there is no opposing party a copy of the bill shall be served on the Commissioner. *Held* that where there is no opposing party the Commissioner may, with his consent, be sued outside the District of Columbia.
d Barrett Co. *et al. v.* Ewing, Commissioner of Patents, 1065.

2. EXTENSION OF TIME—ACT OF AUGUST 17, 1916—CITIZENS OF THIS COUNTRY.
The act of August 17, 1916, (229 O. G., 1257) is not limited to granting extensions to citizens of foreign countries, but entitles a citizen of this country to the extension if the delay was occasioned by the "existing and continuing state of the war."
Ex parte Rieder, 1309.

DEFENSE.

See Disclosure of Trade Secrets, 1, 2.

DELAY IN PROSECUTING APPLICATIONS

See Construction of Statutes, 2.

DESCRIPTIVE TERMS.

See Goods of Same Descriptive Properties; Registration of Trade-Marks, 2, 5, 6.

DISCLOSURE OF INVENTION.

See Particular Patents.

DISCLOSURE OF TRADE SECRETS.

1. INJUNCTION—WITNESSES AND COUNSEL.
In a suit to enjoin defendant from using or disclosing secret processes of plaintiffs' business defendant, while in effect conceding that he learned them through his former confidential employment by plaintiffs, denied that they were secret and insisted on his right to use them as processes well known to the trade and to reveal them to expert witnesses in making his defense. *Held* that during the taking of proofs defendant might properly be enjoined from disclosing the processes to experts or other witnesses, the restraint not extending to his own counsel, and that the trial judge in his discretion might reveal them to such persons at such times and under such precautions as he might deem necessary in the progress of the case.
[** E. I. du Pont de Nemours Powder Company *et al. v.* Masland *et al.*, 795.

2. SAME—DEFENSE LIMITED BY TRUST IMPOSED.
In such a case the right of the defendant to make a full defense is limited by his duty to abstain from any fraudulent abuse of the trust which was reposed in him by the plaintiffs. [** Id.

3. "PROPERTY" AS APPLIED TO TRADE SECRETS DEFINED.
The word "property" as applied to trade-marks and trade secrets is an unanalyzed expression of certain secondary consequences of the primary fact that the law makes some rudimentary requirements of good faith. [** Id.

EARLIER AND LATER PATENTS

See Anticipation, 1.

ELEMENTS.

See Claims, 2; Infringement.

EVIDENCE.

See Anticipation, 1.

EXTENSION OF TIME.

See Construction of Statutes, 2

FEDERAL COURTS.

See Commissioner of Patents; Construction of Statutes, 1; Registration of Trade-Marks, 4.

FOREIGN LANGUAGE.

See Judicial Notice; Registration of Trade-Marks, 2, 3.

FUNCTION.

See Anticipation, 2, 3; Claims, 3.

GOODS OF SAME DESCRIPTIVE PROPERTIES.

See Opposition to Registration of Trade-Marks, 1.

REGISTRATION.
Electric vacuum-cleaners are of the same descriptive properties as electrically-operated devices for household and other purposes.
[*Simplex Electric Heating Company *v.* The Ramey Company, 793.

INFRINGEMENT.

See Particular Patents.

CHANGE OF FORM.
Mere changes in the form of a device or of some of the mechanical elements of a combination, where the principle or mode of operation is adopted or used, will not avoid infringement unless the form of the machine or of the element or elements changed is the distinguishing characteristic of the invention.
[d Wm. F. Goessling Box Co. *et al. v.* Gumb *et al.*, 241.

INJUNCTION.

See Disclosure of Trade Secrets, 1, 2.

INVENTION.

See Claims; Construction of Specifications and Patents; Infringement; Particular Patents.

JUDICIAL NOTICE.

FOREIGN LANGUAGES—TRADE-MARKS.
"While the meaning of a word in a foreign language may not be within the scope of judicial notice in construing the application of the law, it is nevertheless a fact capable of proof."
In re Bradford Dyeing Association, 1309.

LIMITATION OF CLAIMS.

See Anticipation, 3; Claims, 1, 4.

MOTION TO DISMISS OPPOSITION TO REGISTRATION.

See Opposition to Registration of Trade-Marks, 2.

NAME OF PERSON OR CORPORATION.

See Opposition to Registration of Trade-Marks; Registration of Trade-Marks, 1.

OFFICIAL RESIDENCE.

See Commissioner of Patents.

OLD ELEMENTS.

See Claims, 2, 3, 5.

OPPOSITION TO REGISTRATION OF TRADE-MARKS.

1. SHOWING OF INTEREST.
In opposition proceedings when it is clearly averred that the opposer's goods, of the same general descriptive properties as applicant's, were known as "Kellogg's" goods before applicant's entry into the field and applicant and opposer had entered into an agreement restricting applicant's use of the word "Kellogg's" as a mark *Held* this constitutes a sufficient showing of interest in the mark by the opposer.
[*The Kellogg Food Company *et al. v.* Kellogg Toasted Corn Flake Company, 1310.

2. DISMISSAL ON MOTION.
Where it is apparent from the averment of the motion to dismiss that applicant understood that the right to register an essential part of the name of the opposer was being challenged and it further appears that the question was pressed before both tribunals, *Held* the opposition should not be dismissed on motion. [*Id.

PARTICULAR PATENTS.

See Construction of Specifications and Patents.

KERKOW—NO. 970,237—SHIPPING-CASE—VALIDITY AND INFRINGEMENT.
The Kerkow patent, No. 970,237, for a shipping-case for bottled goods, was not anticipated, but discloses patentable novelty and invention; also *Held* infringed.
[d Wm. F. Goessling Box Co. *et al. v.* Gumb *et al.*, 241.

PRIOR PATENTS.

See Anticipation, 1, 2.

PROOF.

See Registration of Trade-Marks, 4.

REGISTRATION OF TRADE-MARKS.

See Opposition to Registration of Trade-Marks, 2.

1. CORPORATE NAMES.
The Trade-Mark Act expressly prohibits the registration of the name of any person or corporation as a trade-mark.
[*Simplex Electric Heating Company v. The Ramey Company, 793.

DESCRIPTIVE—FOREIGN WORDS—"E'CLATANT."
"E'clatant," for satin-finished cotton piece goods, *Held* to be not registrable because descriptive, meaning brilliant, shining, glittering, etc., which are characteristics and qualities of the goods to which it is applied.
[*In re* Bradford Dyeing Association, 1309.

3. SAME—SAME.
The reason for bringing foreign words and phrases which are descriptive within the prohibition of the statute is apparent, since the public would soon become informed of such meaning and the user of the mark would appreciate the advantage of disseminating such information by advertisement or otherwise. [*Id.

4. SAME—SAME.
The Commissioner of Patents is the officer upon whom is cast the burden of administering the law, including the limitation forbidding the registration of descriptive marks, in accordance with its intent, and in the exercise of this function he may base his opinion upon any pertinent fact capable of proof from a reliable source of information, and a fact so found may be verified upon appeal, since the duty of the court is to determine broadly whether or not he has correctly applied the law to the competent facts in his possession. [*Id.

5. "TWIN-SIX" DESCRIPTIVE.
"Twin-Six" as applied to motor-vehicles *Held* to be descriptive and not registrable as a trade-mark.
[*In re* Packard Motor Car Company, 1311.

6. SIGNIFICANCE TO A PURCHASER.
The question of the descriptiveness of a mark must be considered in the light of its significance to the purchaser. [*Id.

SCOPE OF PATENT.

See Anticipation, 3.

SHOWING OF INTEREST.

See Opposition to Registration of Trade-Marks, 1.

SUITS UNDER SECTION 4915, REVISED STATUTES.

See Commissioner of Patents; Construction of Statutes, 1.

TERMINOLOGY.

See Disclosure of Trade Secrets, 3; Judicial Notice; Registration of Trade-Marks, 2.

TRADE-MARK STATUTES.

See Registration of Trade-Marks, 1, 3, 4.

WITNESSES.

See Disclosure of Trade Secrets, 1, 2.

ALPHABETICAL LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED DURING THE MONTH OF OCTOBER, 1917.

[Abbreviations: "Gaz."—Official Gazette.]

A. Geo. Schulz Co. (See Graffenberger, Friedrich, assignor.)

A. Schrader's Son, Incorporated. (See Henemier, Robert H., assignor.)

A. Schrader's Son, Inc. (See Wahl, John, assignor.)

A. B. Dick Company. (See Fuller, Louis E., assignor.)

A. G. Spalding & Bros. (See Pierce, George L., assignor.)

Aalborg, Christian, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Oscillating fan-motor. No. 1,241,599; Oct. 2; v. 243; p. 43.

Aalborg, Christian, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Oscillating fan. No. 1,241,600; Oct. 2; v. 243; p. 44.

Aalborg, Christian, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Trolley. No. 1,241,601; Oct. 2; v. 243; p. 44.

Abbott, Charles C., assignor to Robbins, Gamewell & Company, Pittsfield, Mass. Link for sprinkler-heads. No. 1,243,793; Oct. 23; v. 243; p. 839.

Abegg, Julius. (See Nilson and Abegg.)

Absalom, George M., Calstorville, Ontario, Canada. Transmission device for tractors. No. 1,243,912; Oct. 23; v. 243; p. 875.

Ackerman, Edward L., assignor to Joseph N. Smith & Company, Detroit, Mich. Hinge or pivot construction for wind-shields. No. 1,243,794; Oct. 23; v. 243; p. 839.

Acme Steel Goods Company. (See Norton and MacKenzie, assignors.)

Adam, Fredrick B., assignor to Frank Adam Electric Company, St. Louis, Mo. Fan-hanger outlet. No. 1,244,454; Oct. 30; v. 243; p. 1075.

Adamo, Angelo, Detroit, Mich. Electric fan. No. 1,243,238; Oct. 16; v. 243; p. 635.

Adams, Charles M., Buckhead, assignor of one-half to J. H. Hirsch, Atlanta, Ga., and one-half to M. Van Gelder, Chicago, Ill. Mattress-making machine. No. 1,242,303; Oct. 9; v. 243; p. 306.

Adams, Fred G., Roscoe, Mont. Carbureter. No. 1,242,630; Oct. 9; v. 243; p. 410.

Adams, Frederick T., Vancouver, British Columbia, Canada. Transmission mechanism. No. 1,242,106; Oct. 2; v. 243; p. 202.

Adams, Rollin A. (See Mulnix and Adams.)

Adamson, Charles E., Buffalo, N. Y., assignor to Addressograph Company, Chicago, Ill. Name-plate for duplicating-machines. No. 1,242,117; Oct. 9; v. 243; p. 247.

Addachine Manufacturing Company, The. (See Rodolf, Fred W., assignor.)

Addressograph Company. (See Adamson, Charles E., assignor.)

Addressograph Company. (See Duncan, Joseph S., assignor.)

Addressograph Company. (See Hall, John B., assignor.)

Adjusta Company. (See Benson, Cyrus, assignor.)

Adsit, Frank W., Chicago, Ill. Photometer. No. 1,244,159; Oct. 23; v. 243; p. 948.

Aeolian Company, The. (See Dickinson, Joseph H., assignor.)

Aermont, Robert. (See Lange and Aermont.)

Aeschbach, Friedrich, Aarau, Switzerland. Machine for shaping pieces of dough. No. 1,242,753; Oct. 9; v. 243; p. 449.

Africa, Elmer M., Huntingdon, Pa., and B. E. McSheehy, Nutley, N. J., assignors to J. C. Blair Company, Huntingdon, Pa. Writing-tablet. No. 1,241,694; Oct. 2; v. 243; p. 72.

Agati, Giovanni, San Francisco, Cal. Combined chair and high chair. No. 1,243,913; Oct. 23; v. 243; p. 876.

"Ago" Lederkitt Industrie Gesellschaft mit beschrankter Haftung. (See Rampichini, Francesco, assignor.)

Ahlgran, William A. (See Blakeslee and Ahlgran.)

Akeley Camera, Inc. (See Akeley, Carl E., assignor.)

Akeley, Carl E., assignor to Akeley Camera, Inc., New York, N. Y. Film-box for motion-picture cameras. No. 1,242,804; Oct. 9; v. 243; p. 493.

Akeley, Carl E., assignor to Akeley Camera, Inc., New York, N. Y. Tripod. No. 1,244,682; Oct. 30; v. 243; p. 1144.

Aktiebolaget Ljungströms Angturbin. (See Ljungström, Birger, assignor.)

Aktiebolaget Princeps. (See Landqvist, Victor N., assignor.)

Aktiebolaget Salenius Werkstäder. (See Dahlqvist, John A., assignor.)

Aktiebolaget Svenska Kullagerfabriken. (See Wingquist, Sven G., assignor.)

Albrecht, Carl A., Galion, Ohio. Casket supporting and transferring device. No. 1,242,410; Oct. 9; v. 243; p. 339.

Albrechtsen, Hans O. A., Prince Albert, Saskatchewan, Canada. Dining kit. No. 1,243,239; Oct. 16; v. 243; p. 635.

Alden, Herbert W., assignor to The Timken-Detroit Axle Company, Detroit, Mich. Motor-vehicle axle. No. 1,241,893; Oct. 2; v. 243; p. 136.

Alden, Joseph R., Grand Rapids, Mich. Mirror for dressing-tables and the like. No. 1,242,631; Oct. 9; v. 243; p. 410.

Alder, Jacob, Sr., St. Louis, Mo. Sewer-opening apparatus. No. 1,241,894; Oct. 2; v. 243; p. 136.

Alderman, Joseph S., Ennis, Tex. Burglar-alarm. No. 1,244,938; Oct. 30; v. 243; p. 1223.

Alexander, Alden M., Chicago, Ill. Humidifier. No. 1,241,695; Oct. 2; v. 243; p. 73.

Alexander, John W., Spartanburg, S. C. Hinge-fixture. No. 1,243,575; Oct. 16; v. 243; p. 734.

Alexanderson, Ernst F. W., Schenectady, N. Y., assignor to General Electric Company. System of electrical distribution. No. 1,242,632; Oct. 9; v. 243; p. 410.

Alfred O. Blaich Company. (See Blaich, Alfred O., assignor.)

Allan, James C., Riddlesburg, Pa. Automatic mine-door. No. 1,242,411; Oct. 9; v. 243; p. 340.

Allard, Andrew J., Richmond, Va. Railway-switch mechanism. No. 1,243,376; Oct. 16; v. 243; p. 676.

Allen, Albert H. (See Goodacre and Allen.)

Allen, Charles R., assignor to The Ashtabula Bow Socket Company, Ashtabula, Ohio. Vehicle-top support. No. 1,244,402; Oct. 23; v. 243; p. 1022.

Allen, Clile C., assignor to George S. Johnston Co., Chicago, Ill. Lens-testing apparatus. No. 1,242,754; Oct. 9; v. 243; p. 449

Allen, Clile C., Chicago, Ill., assignor, by mesne assignments, to New York Lens Company, Inc., New York, N. Y. Grinding and polishing tool for bifocal lenses. No. 1,244,939; Oct. 30; v. 243; p. 1223.

Allen, Edward B., Bridgeport, Conn., assignor to The Singer Manufacturing Company. Sewing-machine. No. 1,243,679; Oct. 23; v. 243; p. 799.

Allen, Fred, Coldwater, Mich. Pedal attachment for pianos. No. 1,242,633; Oct. 9; v. 243; p. 411.

Allen, Philip. (See Boynton, Frederick R., assignor.)

Allen, Ralph, Free Union, Va. Bag-holder. No. 1,242,755; Oct. 9; v. 243; p. 450.

Allen, Samuel L., Moorestown, N. J. Hand-lever. No. 1,243,240; Oct. 16; v. 243; p. 635.

Allis-Chalmers Manufacturing Company. (See Davenport, John C., assignor.)

Allis-Chalmers Manufacturing Company. (See Lamb, Mark R., assignor.)

Allis-Chalmers Manufacturing Company. (See Nichols, Louis C., assignor.)

Allis-Chalmers Manufacturing Company. (See Rea, Arthur D., assignor.)

Allison, John J. C., Butterknowle, and J. Waller, Woodlands Colliery, county of Durham, England. Means for minimizing the effects of colliery explosions. No. 1,243,377; Oct. 16; v. 243; p. 676.

Allsop, Thomas, and W. W. Sibson, assignors to The Philadelphia Drying Machinery Company, Philadelphia, Pa. Dyeing and bleaching machine. No. 1,245,139; Oct. 30; v. 243; p. 1283.

Alston, William H., Troup, Tex. Plow. No. 1,243,378; Oct. 16; v. 243; p. 676.

Altonberg, Alfons, assignor to Municipal Machine Manufacturing Company, Piqua, Ohio. Street-sweeping machine. No. 1,244,009; Oct. 23; v. 243; p. 905.

Altorfer, Alpheus W., Peoria, assignor to Altorfer Bros. Company, East Peoria, Ill. Washing-machine. No. 1,241,895; Oct. 2; v. 243; p. 137.

Altorfer, Alpheus W., Peoria, assignor to Altorfer Bros. Company, East Peoria, Ill. Actuating mechanism for washing-machines. No. 1,241,896; Oct. 2; v. 243; p. 138.

Altorfer Bros. Company. (See Altorfer, Alpheus W., assignor.)

Ambler, George B., assignor to F. A. Whitney Carriage Company, Leominster, Mass. Collapsible vehicle. No. 1,242,634; Oct. 9; v. 243; p. 411.

Ambruster, Cornelius, Philadelphia, Pa. Ink-pad holder. No. 1,244,683; Oct. 30; v. 243; p. 1145.

Ament, Elizabeth, Los Angeles, Cal. Window-shade roller. No. 1,244,403; Oct. 23; v. 243; p. 1022.

American Assembling Machine Company. (See Juengst, Charles A., assignor.)

American Bank Note Company. (See Eaton, William S., assignor.)

American Can Company. (See Hothersall, John M., assignor.)

American Car and Foundry Company. (See Anderson, August, assignor.)

American Car and Foundry Company. (See Beard, Paul M., assignor.)

American Car and Foundry Company. (See Cherbonnier, George C., assignor.)

American Car and Foundry Company. (See Cooper, James J., assignor.)

American Car and Foundry Company. (See Davenport, Ray H., assignor.)

American Car and Foundry Company. (See Elliott and Steinmeyer, assignors.)

American Car and Foundry Company. (See Ellis, Robert G., assignor.)

American Car and Foundry Company. (See Gibbs, Frederick H., assignor.)

American Car and Foundry Company. (See Johnson and Gibbs, assignors.)

American Car and Foundry Company. (See Johnson, Warren Y., assignor.)

American Car and Foundry Company. (See Johnson, William S., assignor.)

American Car and Foundry Company. (See McDonald, William J., assignor.)

American Car and Foundry Company. See Neumayer, Maximilian J., assignor.)

American Car and Foundry Company. (See Ostrander, Allen E., assignor.)

American Car and Foundry Company. (See Ostrander and Schroeder, assignors.)

American Car and Foundry Company. (See Rohlfing, John M., assignor.)

American Car and Foundry Company. (See Walp and O'Leary, assignors.)

American Car and Foundry Company. (See Weisbrod, Jacob H., assignor.)

American Coretwine Company. (See Dymock, Arthur, assignor.)

American Drafting Furniture Co. (See Barkley, Fred W., assignor.)

American Hardware Corporation, The. (See Hurd, Norman B., assignor.)

American Manganese Steel Company. (See Johnson, Frank E., assignor.)

American Manganese Steel Company. (See Nichols, Wesley G., assignor.)

American Mechanical Toy Company, The. (See Keller, John R., assignor.)

American Metal Cap Co. (See Hammer, Charles, assignor.)

American Metal Cap Co. (See Kramer and Hammer, assignors.)

American Meter Co. (See Kerstein, Ernest A., assignor.)

American Multigraph Company, The. (See Neidich, Samuel A., assignor.)

American Optical Company. (See Baker, Nelson M., assignor.)

American Optical Company. (See Day, George H., assignor.)

American Optical Company. (See Day and Carson, assignors.)

American Optical Company. (See Emerson, Alfred H., assignor.)

American Optical Company. (See Herbert, Pitt H., assignor.)

American Optical Company. (See Soulé, Byron A., assignor.)

American Pad and Textile Company, The. (See Lewis, McClain, Skeen, and Massey, assignors.)

American Photo Player Company. (See Van Valkenburg, Burt R., assignor.)

American Piano Company. (See Holmes, James S., assignor.)

American Piano Company. (See Russell, Guy M., assignor.)

American Piano Company. (See Williams and Foss, assignors.)

American Piano Company. (See Wright, Flint W., assignor.)

American Player Action Company. (See Turney, Eugene T., assignor.)

American Pressweld Radiator Corporation. (See Safford, Clarence E., assignor.)

American Pure Food Process Company, The. (See Schmitt, Edward D., assignor.)

American Roll Gold Leaf Company. (See Littlefield, George E., assignor.)

American Rolling Mill Company, The. (See Freeze, Johnathan B., assignor.)

American Sales Book Company. (See Bottle, Edward K., assignor.)

American Sales Co. (See Ferguson, Louis B., assignor.)

American Shoe Machinery & Tool Company. (See Schoenky, Henry P., assignor.)

American Steel and Wire Company of New Jersey, The. (See Phifer, James S., assignor.)

American Telephone and Telegraph Company. (See Carson, John R., assignor.)

American Telephone & Telegraph Company. (See Colpitts, Edwin H., assignor.) (Reissue.)

American Telephone and Telegraph Company. (See Hoyt, Ray S., assignor.)

American Tool & Machine Company. (See Phillips, Eli W., assignor.)

American Water Softener Company. (See Hodkinson, George F., assignor.)

Ames, Arthur R., La Grange, Ill. Platen-grinding machine. No. 1,243,241; Oct. 16; v. 243; p. 635.

Ananson, John H., Stirling, N. J. Paper-holder. No. 1,241,897; Oct. 2; v. 243; p. 138.

Anchor Cap & Closure Corporation. (See Townsend, Harry E., assignor.)

Anchor Company. (See Belknap, Robert E., assignor.)

Anderman, Goldie L., assignor to Kabo Corset Co., Chicago, Ill. Brassière. No. 1,242,118; Oct. 9; v. 243; p. 247.

Andersen, Frederick E., Red Wing, Minn. Sealing-cap for bottles. No. 1,242,510; Oct. 9; v. 243; p. 370.

Anderson, Albert M., Milwaukee, Wis., assignor of one-half to J. W. Thomas, Chicago, Ill. Railway mud-guard. No. 1,244,010; Oct. 23; v. 243; p. 905.

Anderson, August, Chicago, Ill., assignor to American Car and Foundry Company, St. Louis, Mo. Door-lock for dump-cars. No. 1,244,684; Oct. 30; v. 243; p. 1145.

Anderson, Charles A., Chicago, Ill. Engine or pump construction. No. 1,244,160; Oct. 23; v. 243; p. 948.

Anderson, Charles E., assignor to Henion & Hubbell, Incorporated, Chicago, Ill. Heating-system regulator. No. 1,243,475; Oct. 16; v. 243; p. 704.

Anderson, Charles H., Cincinnati, Ohio. Folding seat for center-door cars. No. 1,244,823; Oct. 36; v. 243; p. 1188.

Anderson, Charles H., Cincinnati, Ohio. Floor construction for passenger-cars. No. 1,244,824; Oct. 30; v. 243; p. 1188.

Anderson, Charles H., Cincinnati, Ohio. Window construction. No. 1,244,825; Oct. 30; v. 243; p. 1188.

Anderson, Charles H., Cincinnati, Ohio. Underframe for cars. No. 1,244,826; Oct. 30; v. 243; p. 1189.

Anderson, Emil, New York, N. Y., assignor to The Universal Turbine Company, Newark, N. J. Turbine. No. 1,243,476; Oct. 16; v. 243; p. 705.

Anderson, Emil, Yonkers, N. Y., assignor to The Universal Turbine Company, Newark, N. J. Turbine. No. 1,243,477; Oct. 16; v. 243; p. 705.

Anderson, John A., Bridgeport, Conn. Adjustable head-wrench. No. 1,242,097; Oct. 2; v. 243; p. 199.

Anderson, Nils H., East Hampton, assignor to The Noiseless Typewriter Company, Middletown, Conn. Intermittent grip device. No. 1,242,119; Oct. 9; v. 243; p. 247.

Anderson, Nils H., Bridgeport, assignor of one-half to W. A. Lorenz, Hartford, Conn. Paper control for typewriting machines. No. 1,244,011; Oct. 23; v. 243; p. 905.

Anderson, Oscar B. (See Hood, Anderson, Fetters, McGlincy, Gagnon, and Kidder.)

Anderson, Samuel, Pawtucket, assignor to The Williams & Anderson Co., Providence, R. I. Snap-fastener. No. 1,241,806; Oct. 2; v. 243; p. 107.

Anderson, Vincent G., Thief River Falls, Minn., assignor to F. C. Austin, Chicago, Ill. Propelling apparatus. No. 1,242,635; Oct. 9; v. 243; p. 412.

Andres, Edgar F., Milwaukee, Wis. Self sealing and addressing bill-head. No. 1,244,161; Oct. 23; v. 243; p. 949.

Andrews Caoutchouc Paving Brick Company. (See Andrews, Marcus P., assignor.)

Andrews, Clarence S., Council Bluffs, Iowa. Hog-oiler. No. 1,243,127; Oct. 16; v. 243; p. 601.

Andrews, Herbert B., W. H. Hart, and H. B. Sherman, assignors to H. B. Sherman Manufacturing Company, Battle Creek, Mich. Ground-clamp. No. 1,241,898; Oct. 2; v. 243; p. 138.

Andrews, Marcus P., Petersburg, Va., assignor to Andrews Caoutchouc Paving Brick Company, Incorporated. Brickmaking apparatus. No. 1,242,120; Oct. 9; v. 243; p. 248.

Andrews, Robert D., Brookline, Mass. Flying apparatus. No. 1,242,412; Oct. 9; v. 243; p. 340.

Andricopoulos, George N., Springfield, Mass. Ship-protector. No. 1,241,602; Oct. 2; v. 243; p. 44.

Angell, Richard H. (See Dillon, George H., assignor.)

Angier, Edward H., Framingham, Mass. Tube. No. 1,242,903; Oct. 16; v. 243; p. 531.

Anglemyer, Williard A., Indianapolis, Ind. Spring-tire. No. 1,244,276; Oct. 23; v. 243; p. 985.

Anglo-American Mill Co. (See Little, Lucius F., assignor.)

Angold, Herbert E., Eltham, W. Duddell, A. H. Dykes, H. W. Handcock, Westminster, London, and C. Oliver, Chislehurst, England. Distance-operated mechanism and signal connected to electric-supply systems. No. 1,242,756; Oct. 9; v. 243; p. 450.

Ankovitz, Louis B., Tilden, Ill. Padlock-shield. No. 1,244,404; Oct. 23; v. 243; p. 1022.

Ankrom, John N., Sistersville, W. Va. Pulley and rope guide. No. 1,242,636; Oct. 9; v. 243; p. 412.

Anthony, Wendell P., Ridley Park, assignor to W. Simpson & Sons, Philadelphia, Pa. Tenter-chain. No. 1,242,121; Oct. 9; v. 243; p. 248.

Anway, Lew L., Geneva, Iowa. Runway attachment for gates. No. 1,242,757; Oct. 9; v. 243; p. 450.

Apel, Frederick H., Athol Springs, assignor of one-half to C. W. Munschauer, Buffalo, N. Y. Spring-forked holder. No. 1,242,122; Oct. 9; v. 243; p. 249.

Appelman, Samuel, and S. Bernstein, McGill, Nev. Necktie. No. 1,1243,796; Oct. 23; v. 243; p. 840.

Apple, Vincent G., Dayton, Ohio. Building commutators. No. 1,243,795; Oct. 23; v. 243; p. 839.

Apple, Vincent G. (See Sawtelle, Charles A., assignor.)

Appleman, William H., Olean, N. Y. Sawmill log-setting device. No. 1,241,807; Oct. 2; v. 243; p. 108.

Appleman, William H., Olean, N. Y. Device for steering vehicles. No. 1,243,379; Oct. 16; v. 243; p. 676.

Appleman, William H., Olean, N. Y. Sawmill log-setting device. No. 1,244,575; Oct. 30; v. 243; p. 1113.

Archard, Josephine D., Yonkers, N. Y. Attachment for window-screens. No. 1,242,413; Oct. 9; v. 243; p. 341.

Archer, Charles L., Minneapolis, Minn. Cord-tire. No. 1,243,576; Oct. 16; v. 243; p. 735.

Ard, Reid, assignor of one-half to H. R. Van Deventer, Sumter, S. C. Screw-driver. No. 1,243,667; Oct. 16; v. 243; p. 763.

Arey, Samuel E., Fellows, Cal. Sucker-rod hanger. No. 1,242,305; Oct. 9; v. 243; p. 306.

Armstrong Brothers Tool Co. (See Armstrong, Paul, assignor.)

Armstrong, Charles C., Marysville, Ohio. Electrical connector. No. 1,242,637; Oct. 9; v. 243; p. 412.

Armstrong, Harry Y., assignor to Package Machinery Company, Springfield, Mass. Wrapping-machine. No. 1,244,277; Oct. 23; v. 243; p. 985.

Armstrong, Paul, assignor to Armstrong Brothers Tool Company, Chicago, Ill. Tool-holder. No. 1,242,306; Oct. 9; v. 243; p. 306.

Armstrong, Percy A. E., assignor to The Quasi-Arc Company, New York, N. Y. Welding electrode and process of welding. No. 1,241,899; Oct. 2; v. 243; p. 138.

Armstrong, Percy A. E., assignor to The Quasi-Arc Company, New York, N. Y. Electric welding. No. 1,241,900; Oct. 2; v. 243; p. 139.

Armstrong, Wesley J., assignor to McKinnon Dash Company, Buffalo, N. Y. Folding stand or support. No. 1,241,486; Oct. 2; v. 243; p. 3.

Arn, John, Columbus, Ohio. Tire. No. 1,242,123; Oct. 9; v. 243; p. 249.

Arnett, Homer H., Osgood, Ohio. Pump attachment. No. 1,241,696; Oct. 2; v. 243; p. 73.

Arney, David. (See Arney, Edwin E. and D.)

Arney, Edwin E. and D., Parker, S. D. Mechanical movement. No. 1,241,697; Oct. 2; v. 243; p. 73.

Arnold, John P., Berclair, Tex. Combined protector and irrigator for plants. No. 1,244,576; Oct. 30; v. 243; p. 1113.

Arntz, Lew, Des Moines, Iowa. Lens-mounting. No. 1,241,698; Oct. 2; v. 243; p. 73.

Aron, Louis. (See Tarshis, Berzon and Brezin, assignors.)

Arrants, Robert S., Kingsport, Tenn. Circular multiple machine-table. No. 1,243,577; Oct. 16; v. 243; p. 735.

Arthur, Walter, Philadelphia, Pa. Smoke-producing compound. No. 1,244,940; Oct. 30; v. 243; p. 1223.

Asbell, Sylvester J., Paterson, N. J. Means for dispensing liquids in definite quantities. No. 1,242,414; Oct. 9; v. 243; p. 341.

Asbestos Protected Metal Company. (See Waugh, William P., assignor.)

Asbestos Wood Co. (See Williams, Samuel A., assignor.)

Ashby, Fred W., assignor to Winslow Brothers Company, Chicago, Ill. Glazing-bar. No. 1,242,904; Oct. 16; v. 243; p. 531.

Ashe, Lauren H. (See Kohman, Godfrey, and Ashe.)

Ashtabula Bow Socket Company, The. (See Allen, Charles R., assignor.)

Ashton, Hannah, executrix. (See Ashton, Orrell.)

Ashton, Orrell, deceased; H. Ashton, executrix, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Shoe-ironing apparatus. No. 1,244,405; Oct. 23; v. 243; p. 1023.

Ashworth, William H., and J. C. Crout, Pelion, S. C. Signal. No. 1,241,603; Oct. 2; v. 243; p. 44.

Asplund, Charles F., Minneapolis, Minn. Cream-separator speed-indicator. No. 1,244,162; Oct. 23; v. 243; p. 949.

Astarita, Hulda E., Brooklyn, N. Y. Fire-escape. No. 1,244,278; Oct. 23; v. 243; p. 986.

Astrom, Carl P., East Orange, N. J., assignor to M. H. Treadwell Company. Locking mechanism for dumping-cars. No. 1,243,478; Oct. 16; v. 243; p. 705.

Astrom, John, assignor to Fort Wayne Engineering and Manufacturing Company, Fort Wayne, Ind. Deep-well-pump head. No. 1,241,604; Oct. 2; v. 243; p. 45.

Atkins, J. B. (See Christman, Daniel H., assignor.)

Atkinson, James K., Brooklyn, N. Y. Soap-holding device. No. 1,242,905; Oct. 16; v. 243; p. 531.

Atkinson, William A., *et al.* (See Dudley, John B., assignor.)

Atlanta Utility Works. (See Reynolds, Mercer, assignor.)

Atterbury, Groesvenor, New York, N. Y. Mold. No. 1,241,487; Oct. 2; v. 243; p. 3.

Atwell, Locke, Selma, Ala. Lifting-jack. No. 1,244,406; Oct. 23; v. 243; p. 1023.

Auer, John N., Prairie du Rocher, Ill. Combined step-ladder, bench, and ironing-board. No. 1,245,082; Oct. 30; v. 243; p. 1265.

Auflero, Emanuel, Brooklyn, N. Y. Alarm device. (Reissue.) No. 14,378; Oct. 23; v. 243; p. 1036.

August Goertz & Co. (See Goertz, Frederick, assignor.)

Augustine, Benjamin F., Buffalo, N. Y. Shaft-coupling. No. 1,242,906; Oct. 16; v. 243; p. 532.

Austin, Arthur O., Barberton, assignor to The Ohio Brass Company, Mansfield, Ohio. Insulator. No. 1,242,907; Oct. 16; v. 243; p. 532.

Austin, Frederick C. (See Anderson, Vincent G., assignor.)

Austin, Walter M., Swissvale, and R. F. Ringle, assignors to Herman Pneumatic Machine Company, Zelienople, Pa. Turnover and pattern-drawing device. No. 1,243,030; Oct. 16; v. 243; p. 572.

Auto Radiator Company. (See Siegel, Frederick, assignor.)

Automatic Electric Company. (See Erickson, John, assignor.)

Automatic Electric Company. (See Fales, Edward D., assignor.)

Automatic Electric Company. (See Lubberger, Fritz, assignor.)

Automatic Electric Company. (See Martin, Talbot G., assignor.)

Automatic Electric Company. (See Quayle, Frederick R., assignor.)

Automatic Electric Company. (See Willis, Bernard D., assignor.)

Automatic Justifier Company. (See Dietrich, William, assignor.) (Reissue.)

Automatic Package Seale Company, The. (See Zanone, Richard J., assignor.)

Automatic Pump Corporation. (See Harris, William A., assignor.)

Automatic Recording Safe Company, The. (See Stanton, Henry L., assignor.)

Automatic Sprinkler Company of America. (See Hamilton, John R., assignor.)

Automatic Tool Supply Co. (See Jacoby, William, assignor.)

Autoplano Company. (See La Joie, Herbert J., assignor.)

Autosales Gum and Chocolate Company. (See Grover, Albert D., assignor.)

Autosales Gum and Chocolate Company. (See Patterson, James W., assignor.)

Autry, Lemual A., and B. Regan, Franklin, Tex. Rail-joint. No. 1,241,901; Oct. 2; v. 243; p. 139.

Auxiliary Cooler Company, The. (See Langdon, Jesse D., assignor.)

Avedisian, Charles S., and J. J. Dwyer, Dorchester, Mass. Kitchenette. No. 1,244,407; Oct. 23; v. 243; p. 1023.

Avery, Courtney C. (See Underhill and Avery.)

Avis, Samuel W., assignor to The Merrow Machine Company, Hartford, Conn. Sewing-machine. No. 1,243,242; Oct. 16; v. 243; p. 636.

Azulay Syndicate Limited, The. (See Dew, James W. H., assignor.)

B. A. Ballou and Company. (See Goozey, Charles A., assignor.)

B. F. Goodrich Company, The. (See Tew, James D., assignor.)

Baake, William, West Hoboken, N. J. Trousers-supporter. No. 1,243,680; Oct. 23; v. 243; p. 799.

Babcock & Wilcox Company, The. (See Harter, Isaac, Jr., assignor.)

Babcock & Wilcox Company, The. (See Heaton, Herman C., assignor.)

Babcock Wilcox Company, The. (See Jones, William A., assignor.)

Babcock & Wilcox Company, The. (See Prentice, John, assignor.)

Babich, George G., New York, N. Y. Ship-protecting device. No. 1,241,902; Oct. 2; v. 243; p. 139.

Babson, Roger W., Wellesley Hills, Mass. Type-writer key-striker or hand extension. No. 1,242,307; Oct. 9; v. 243; p. 307.

Bache, Leigh S., Boundbrook, N. J., assignor to Bound Brook Oil-Less Bearing Company, Boundbrook, N. J. Saddle for spinning-frames. No. 1,242,758; Oct. 9; v. 243; p. 451.

Bachler, Frederick R., Oxnard, and W. B. Newkirk, Los Angeles, assignors of one-third to A. T. Gibson, Oxnard, Cal. Treating liquids. No. 1,244,012; Oct. 23; v. 243; p. 905.

Backer, Elmer F., assignor to Davenport Locomotive Works, Davenport, Iowa. Truck for articulated geared locomotives. No. 1,242,308; Oct. 9; v. 243; p. 307.

Backerud, Martin B., San Francisco, Cal. Picture-hanger. No. 1,242,309; Oct. 9; v. 243; p. 307.

Bacon, Raymond F., Pittsburgh, Pa., assignor, by mesne assignments, to Metals Research Company, New York, N. Y. Reducing sulfids. No. 1,243,681; Oct. 23; v. 243; p. 799.

Bacon, Vaughan R., Florence, Nebr. Coin-controlled circuit-controller. No. 1,244,408; Oct. 23; v. 243; p. 1024.

Bader, Gustav A., Rochester, N. Y. Strop or sharpener for razors or the like. No. 1,244,279; Oct. 23; v. 243; p. 986.

Badische Anilin & Soda Fabrik. (See Bosch, Carl, assignor.)

Badische Anilin & Soda Fabrik. (See Bosch and Mittasch, assignors.)

Bagutti, Antonio, Turin, Italy. Vibratory bell. No. 1,244,013; Oct. 23; v. 243; p. 906.

Bahrenburg, Oscar E., Marigold, Cal. Demountable rim. No. 1,242,310; Oct. 9; v. 243; p. 308.

Bailey, Ervin G., Newton Highlands, Mass., assignor to Bailey Meter Company. Liquid-meter. No. 1,243,682; Oct. 23; v. 243; p. 800.

Bailey, Ervin G., Newton Highlands, Mass., assignor to Bailey Meter Company. Liquid-meter. No. 1,243,683; Oct. 23; v. 243; p. 800.

Bailey, John M., Hillsboro, Ill. Pinch-bar. No. 1,243,914; Oct. 23; v. 243; p. 876.

Bailey Meter Company. (See Bailey, Ervin G., assignor.)

Bailey, William J., Monrovia, Cal. Solar heater. No. 1,242,511; Oct. 9; v. 243; p. 371.

Bain, Benjamin F., Pittsburgh, Pa. Automatic toy. No. 1,244,455; Oct. 30; v. 243; p. 1075.

Bain, Benjamin F., Pittsburgh, Pa. Mechanical toy. No. 1,244,456; Oct. 30; v. 243; p. 1075.

Bain, Benjamin F., Pittsburgh, Pa. Mechanical toy. No. 1,244,457; Oct. 30; v. 243; p. 1076.

Bains, Thomas M., Jr. (See Fulton and Bains.)

Bairs, John, Argenta, Ark. Engine-speed regulator. No. 1,244,409; Oct. 23; v. 243; p. 1024.

Baker, Erle K., assignor to Universal Rim Company, Chicago, Ill. Self-aligning transplit rim. No. 1,244,014; Oct. 23; v. 243; p. 906.

Baker, Erle K., assignor to Universal Rim Company, Chicago, Ill. Transplit demountable rim. No. 1,244,685; Oct. 30; v. 243; p. 1145.

Baker, Mercy E., Westport Point, Mass. Mold. No. 1,243,128; Oct. 16; v. 243; p. 602.

Baker, Nelson M., assignor to American Optical Company, Southbridge, Mass. Ophthalmic mounting. No. 1,241,903; Oct. 2; v. 243; p. 139.

Baker, Nelson M., assignor to American Optical Company, Southbridge, Mass. Ophthalmic mounting. No. 1,244,941; Oct. 30; v. 243; p. 1224.

Baker, William H., Boston, assignor, by mesne assignments, to Draper Corporation, Hopedale, Mass. Filling-replenishing loom. No. 1,242,098; Oct. 2; v. 243; p. 199.

Baldwin, Frank. (See Kerwin, Michael, assignor.)

Ball & Ball Carburetor Company. (See Ball, Frederick O., assignor.)

Ball Brothers Glass Manufacturing Company. (See Wadsworth, Frank L. O., assignor.)

Ball, Frederick O., assignor to Ball & Ball Carburetor Company, Detroit, Mich. Carbureter. No. 1,243,479; Oct. 16; v. 243; p. 706.

Ball, Frederick O., assignor to Ball & Ball Carburetor Company, Detroit, Mich. Carbureter. No. 1,243,480; Oct. 16; v. 243; p. 706.

Ballard, Nicholas G., Chicago, Ky. Tie-plate and anti-spreading device. No. 1,242,311; Oct. 9; v. 243; p. 208.

Ballard, William N., assignor of one-fourth to J. S. Cummins, Kansas City, Kans. Automatic fire-alarm system. No. 1,242,312; Oct. 9; v. 243; p. 308.

Ballou, Eugene H., Pawtucket, R. I., assignor to Draper Corporation, Hopedale, Mass. Weft-replenishing loom. No. 1,244,827; Oct. 30; v. 243; p. 1189.

Balough, Charles, Springfield, Ohio. Governor. No. 1,241,808; Oct. 2; v. 243; p. 108.

Bamford, Walter R., and H. W. Hamilton, Detroit, Mich., assignors to Hamilton Manufacturing Company, Indianapolis, Ind. Vacuum system for internal-combustion engines. No. 1,244,686; Oct. 30; v. 243; p. 1145.

Bangs, Edwin Q., Racine, Wis. Means for introducing air into furnaces. No. 1,242,124; Oct. 9; v. 243; p. 249.

Banse, J. George, *et al.* (See Mehle, Michael, assignor.)

Barber Asphalt Paving Company, The. (See Browne, Frank A., assignor.)

Barber-Colman Company. (See Parker, Earle D., assignor.)

Barber, Howard M., Stonington, Conn., assignor, by mesne assignments, to C. B. Cottrell & Sons Company, New York, N. Y. Automatic tension device and brake for web-rolls. No. 1,242,638; Oct. 9; v. 243; p. 412.

Barber, Howard M., Stonington, Conn., assignor, by mesne assignments, to C. B. Cottrell & Sons Company, New York, N. Y. Rotary perfecting sheet-printing mechanism. No. 1,242,908; Oct. 16; v. 243; p. 532.

Barber, Howard M., Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y. Sheet cutting, stitching, and folding machine. No. 1,242,909; Oct. 16; v. 243; p. 532.

Barber, Howard M., Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y. Creasing mechanism for sheet collecting and folding machines. No. 1,243,684; Oct. 23; v. 243; p. 800.

Barber, Howard M., Stonington, Conn., assignor, by mesne assignments, to C. B. Cottrell & Sons Company, New York, N. Y. Static-electricity dissipator for paper webs or sheets. No. 1,244,015; Oct. 23; v. 243; p. 906.

Barcus, Albert M., Raymond, Wash. Combined hose and bucket rack. No. 1,241,605; Oct. 2; v. 243; p. 45.

Bardelle, Emile, New York, N. Y. Auxiliary tread for tires. No. 1,243,578; Oct. 16; v. 243; p. 736.

Baribault, Lucien J., New Haven, Conn. Rotary-cutter machine. No. 1,243,797; Oct. 23; v. 243; p. 840.

Barker, George R. (See Tar'Bush, Hubert, assignor.)

Barker, John C., London, England. Pneumatic tire. No. 1,244,447; Oct. 23; v. 243; p. 1034.

Barkley, Fred W., assignor to American Drafting Furniture Co., Rochester, N. Y. Photographic-printing machine. No. 1,243,685; Oct. 23; v. 243; p. 801.

Barnby, Archibald W., Kansas City, Mo. Tobacco-pipe. No. 1,244,410; Oct. 23; v. 243; p. 1024.

Barnes, Harold B., Denver, Colo. Audible indicating device. No. 1,243,915; Oct. 23; v. 243; p. 876.

Barnes, Pearl V., Seattle, Wash. Sleeping-bag. No. 1,241,699; Oct. 2; v. 243; p. 74.

Barnes, William M., Circleville, Ohio. Automatic brake for vehicles. No. 1,244,942; Oct. 30; v. 243; p. 1224.

Barnett, John B., assignor of two-thirds to H. C. Hermsmeyer, Fort Forth, and one-third to R. D. Erwin, McKinney, Tex. Display advertising-machine. No. 1,242,639; Oct. 9; v. 243; p. 413.

Barney, Fred H., Tulsa, Okla. Pump-rod or pitman connection. No. 1,243,031; Oct. 16; v. 243; p. 573.

Barnhart, Walter J. (See White and Barnhart.)

Barr, John H., assignor to Kansas City Folding and Marking Machine Co., Kansas City, Mo. Label folding and marking machine. No. 1,243,032; Oct. 16; v. 243; p. 573.

Barringer, Worth R., assignor to The Public Safety Device Company, Denver, Colo. Guard for bottle-corks. No. 1,243,916; Oct. 23; v. 243; p. 877.

Barron, William L. (See Fifield and Barron.)

Barron, William L., New York, N. Y., and F. E. Osol, Elizabeth, N. J., assignors to The Singer Manufacturing Company. Stop-motion device for sewing-machines. No. 1,244,458; Oct. 30; v. 243; p. 1076.

Barry, Nicholas, Muscatine, Iowa. Pulley-stand. No. 1,244,943; Oct. 30; v. 243; p. 1224.

Basset, Lucien P., Paris, France. Manufacture of cement, &c. No. 1,244,280; Oct. 23; v. 243; p. 986.

Batchelder, Frank R., Worcester, Mass., assignor to Universal Patents Company. Machine-gun belt. No. 1,243,686; Oct. 23; v. 243; p. 801.

Bates, Burpee O., assignor of two-thirds to W. P. Gray, Campbellton, New Brunswick, Canada. Tooth-brush. No. 1,243,579; Oct. 16; v. 243; p. 736.

Bates, Clifford V., Chicago, Ill. Bow-clamp for automobile-tops. No. 1,244,281; Oct. 23; v. 243; p. 986.

Bates Valve Bag Company. (See Kuhn and Miller, assignors.)

Bates, William H., Clinton, Iowa, assignor of one-third to W. Townsend and one-third to W. D. Thomas, Little Rock, Ark. One-man vehicle-top. No. 1,243,687; Oct. 23; v. 243; p. 802.

Batista, Fernando S. (See Pérez and Batista.)

Battershall, Fletcher W., Albany, N. Y. Resilient tire. No. 1,242,640; Oct. 9; v. 243; p. 413.

Bauder, Victor S., Fort Plain, N. Y. Silo and door therefor. No. 1,243,129; Oct. 16; v. 243; p. 602.

Bauer, Pearl A., Colfax, Iowa. Harrow and truck. No. 1,244,016; Oct. 23; v. 243; p. 907.

Baughman, Orlan F. (See Waltz, Winfield S., assignor.)

Baughman, Walter F. (See Skinner and Baughman.)

Baumgart, Otto C., Atascadero, assignor of one-half to O. M. Elliott, Los Angeles, Cal. Direction-indicator for automobiles. No. 1,241,904; Oct. 2; v. 243; p. 140.

Bausman, Alonzo L., Chicopee, Mass., assignor to National Equipment Company, Springfield, Ohio. Decorating-depositor. No. 1,243,668; Oct. 16; v. 243; p. 763.

Bayley, William L., Darlaston, and F. B. Wilson, Willenhall, England. Machine for bifurcating splkes and for punching slot-holes in bolts and the like. No. 1,244,017; Oct. 23; v. 243; p. 907.

Beach, Howard L., Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company. Motor-control system. No. 1,242,910; Oct. 16; v. 243; p. 533.

Beach, Howard L., Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company. Control system. No. 1,244,459; Oct. 30; v. 243; p. 1076.

Beadle, Mark, Battle Creek, Mich. Vaporizer. No. 1,242,099; Oct. 2; v. 243; p. 200.

Beals, William J., Beloit, Wis. Bottle-filling machine. No. 1,242,313; Oct. 9; v. 243; p. 309.

Beaman, Lora E. (See Thompson, Alfred, assignor.)

Beamisderfer, Joseph A., Jonestown, assignor of one-half to J. S. Gockley, Lebanon, Pa. Railway-tie. No. 1,244,828; Oct. 30; v. 243; p. 1190.

Bean, Albert M., Colville, Wash. Harness-hanger. No. 1,242,125; Oct. 9; v. 243; p. 249.

Bean, Louis A., Denver, Colo. Milk-catheter and surgical instrument. No. 1,242,314; Oct. 9; v. 243; p. 309.

Beard, Paul M., assignor to American Car and Foundry Company, St. Louis, Mo. All-steel roof. No. 1,244,687; Oct. 30; v. 243; p. 1146.

Beard, Richard M., New York, N. Y. Electric-light fixture. No. 1,243,481; Oct. 16; v. 243; p. 707.

Beardsley, Edson L., Columbus, Ohio. Lifter. No. 1,241,488; Oct. 2; v. 243; p. 4.

Beardsley, Edwin W., San Francisco, and P. W. Ham, Oakland, Cal. Cable-splice. No. 1,241,809; Oct. 2; v. 243; p. 108.

Beatty, Harry B., Savannah, Ga. Detachable cover. No. 1,243,033; Oct. 16; v. 243; p. 574.

Beaver, Charles J., and E. A. Claremont, Cheshire, England. Furnace for smelting ores. No. 1,243,798; Oct. 23; v. 243; p. 840.

Beaver Company, The. (See Hammock, Claude S., assignor.)

Bechtel, Joseph. (See Murphy and Bechtel.)

Becker, Fred L., Chicago, Ill. Seat-cover pin. No. 1,241,606; Oct. 2; v. 243; p. 45.

Becker, Philip A., Brooklyn, N. Y. Supplemental box-lid. No. 1,244,163; Oct. 23; v. 243; p. 949.

Becker, Richard M., assignor, by mesne assignments, to Underwood Computing Machine Company, New York, N. Y. Combined type-writing and computing machine. No. 1,243,669; Oct. 16; v. 243; p. 764.

Becket, Frederick M., Niagara Falls, assignor to Electro Metallurgical Company, New York, N. Y. Refractory composition. No. 1,244,688; Oct. 30; v. 243; p. 1146.

Becknell, George T., Nevada, Tex. Gin attachment for bolly cotton. No. 1,242,126; Oct. 9; v. 243; p. 250.

Beckwith Co., The. (See Howes, George W., assignor.)

Beckwith, Walter C., Fostoria, Ohio. Vehicle-wheel. No. 1,243,130; Oct. 16; v. 243; p. 602.

Beebe, Ralph W., Mount Hermon, Mass. Robe-holder. No. 1,241,700; Oct. 2; v. 243; p. 74.

Beecroft, Clement, Philadelphia, Pa. Cabinet for talking-machines. No. 1,244,944; Oct. 30; v. 243; p. 1225.

Beeman, E. R., *et al.* (See Peters, Cornelius A., assignor.)

Beemer, Frank, assignor to Nice Ball Bearing Company, Philadelphia, Pa. Antifriction-bearing. No. 1,242,911; Oct. 16; v. 243; p. 533.

Begg, Alexander L. W., New York, N. Y. Wheel. No. 1,242,641; Oct. 9; v. 243; p. 414.

Behr, Hans C., New York, N. Y. Process of and apparatus for the continuous separation of liquids from solids. No. 1,241,905; Oct. 2; v. 243; p. 140.

Behr, John, Jr., Middle Village, N. Y. Pleasure-railway. No. 1,244,411; Oct. 23; v. 243; p. 1024.

Belsel, William J., Brooklyn, N. Y. Non-refillable bottle. No. 1,241,810; Oct. 2; v. 243; p. 109.

Belsel, William J., Brooklyn, N. Y. Non-refillable bottle. No. 1,241,811; Oct. 2; v. 243; p. 109.

Belden, George G. (See White, Leroy L., assignor.)

Bellsnanski, George. (See Mutro, Michael, assignor.)

Belknap, Robert E., assignor to Anchor Company, Chicago, Ill. Rail-anchor. No. 1,243,688; Oct. 23; v. 243; p. 802.

Bell, Frank B., assignor of one-half to F. C. Riddile, Chicago Heights, Ill. Making blanks. No. 1,242,127; Oct. 9; v. 243; p. 250.

Bell, Harold W., Boyd, Oreg. Cleaning attachment for harrows. No. 1,242,128; Oct. 9; v. 243; p. 250.

Bell & Howell Company. (See Howell, Albert S., assignor.)

Bell, John W., Covington, Ky., assignor to Murphy Iron Works, Detroit, Mich. Stoker-driving gear. No. 1,244,945; Oct. 30; v. 243; p. 1225.

Bell, Wallace L., Athens, Ga. Fuel-saving device for explosion-engines. No. 1,244,689; Oct. 30; v. 243; p. 1146.

Belluzzo, Giuseppe, Milan, Italy. Steam-turbine. No. 1,243,131; Oct. 16; v. 243; p. 602.

Belt, Franz, Vienna, Austria. Pulley-block. No. 1,241,489; Oct. 2; v. 243; p. 4.

Bencur, Matthew, Sacket Harbor, N. Y. Fire-escape. No. 1,241,701; Oct. 2; v. 243; p. 74.

Bender, Adolph A., Pinebluff, Wyo., assignor to Bender Resilient Wheel Mfg. Company, Pinebluff, Wyo. Resilient wheel. No. 1,242,759; Oct. 9; v. 243; p. 451.

Bender Resilient Wheel Mfg. Company. (See Bender, Adolph A., assignor.)

Benedict, Fred L., Jersey City, assignor of one-half to A. Meyer, Maywood, N. J. Spring-wheel. No. 1,241,906; Oct. 2; v. 243; p. 140.

Benedict, Louis K., Hastings, Fla. Sulky or wheeled colter. No. 1,242,912; Oct. 16; v. 243; p. 533.

Benham, Claude F., *et al.* (See Euler, William G. B., assignor.)

Benjamin, Bert R., Oak Park, Ill., assignor to International Harvester Company of New Jersey. Grain-binder. No. 1,241,490; Oct. 2; v. 243; p. 4.

Benjamin, Dowling, Camden, N. J. Compound safety-seal condensing-cap. No. 1,243,132; Oct. 16; v. 243; p. 603.

Benjamin Electric Manufacturing Company. (See Benjamin, Reuben B., assignor.)

Benjamin, Reuben B., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill. Safety device for presses. No. 1,242,642; Oct. 9; v. 243; p. 414.

Benjamin, Reuben B., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill. Illuminating device. No. 1,245,083; Oct. 30; v. 243; p. 1266.

Bennett, Clarence D., Goose Creek, Tex. Hose-clamp. No. 1,244,577; Oct. 30; v. 243; p. 1114.

Bennett, William R., Elmwood, Conn. Steel-heating furnace. No. 1,244,578; Oct. 30; v. 243; p. 1114.

Bennison, William E. (See Parker, Bennison, and Lee.)

Benson, Charles W., Duluth, Minn. Protective cover for the blades of spatulas, &c. No. 1,242,415; Oct. 9; v. 243; p. 341.

Benson, Cyrus, Summit, N. J., assignor to Adjusta Company. Drawer. No. 1,242,760; Oct. 9; v. 243; p. 451.

Bent, Arthur F., Swampscott, assignor to G. W. Bent Co., Boston, Mass. Crib. No. 1,244,579; Oct. 30; v. 243; p. 1114.

Beranek, Joseph T., Mount Pleasant, Pa. Tire-chain retainer. No. 1,244,018; Oct. 23; v. 243; p. 907.

Berg, Andrew, assignor to Coulter & McKenzie Machine Company, Bridgeport, Conn. Wire-chain-link-forming mechanism. No. 1,244,448; Oct. 23; v. 243; p. 1035.

Berg, Lars J. (See Gunn and Berg.)

Berger, Christian, assignor to Submarine Wireless Company, New York, N. Y. Automatically-operating toy or the like. No. 1,243,380; Oct. 16; v. 243; p. 677.

Berini, Joseph. (See Patenaude, Amable O., assignor.)

Bernardin, Alfred L., Evansville, Ind. Bottle-cap. No. 1,244,412; Oct. 23; v. 243; p. 1025.

Bernardin, Alfred L., Evansville, Ind. Bottle-cap. No. 1,244,413; Oct. 23; v. 243; p. 1025.

Bernhard, Harry L. (See Kelly, William J., assignor.)

Bernhard, William A., Woodhaven, N. Y. Folding chair. No. 1,241,907; Oct. 2; v. 243; p. 141.

Bernheim, Ernst, Dusseldorf, Germany, assignor of one-half to C. F. Burgess, Madison, Wis., and one-half to C. J. Kirk, New Castle, Pa. Coating iron, steel, or other metals with metal. No. 1,244,414; Oct. 23; v. 243; p. 1025.

Bernstein, Samuel. (See Appelman and Bernstein.)

Berry, Charles W., West Somerville, Mass. Indicator. No. 1,244,019; Oct. 23; v. 243; p. 908.

Berry, Nelson D., Columbus, Ohio. Feed-trough. No. 1,243,689; Oct. 23; v. 243; p. 802.

Berryman, John A., New York, N. Y. Stove attachment. No. 1,244,690; Oct. 30; v. 243; p. 1146.

Bertelsen, Andrew, *et al.* (See Sinbad, Charles, assignor.)

Bertelsen, Peter J. M., *et al.* (See Sinbad, Charles, assignor.)

Berthelote, Joseph T., Havre, Mont. Display device. No. 1,244,282; Oct. 23; v. 243; p. 987.

Berthelote, Joseph T., Havre, Mont. Automatic door operating and controlling means for garages. No. 1,244,283; Oct. 23; v. 243; p. 987.

Berthold, Charles, Richmond Hill, N. Y. Lock-valve device. No. 1,244,691; Oct. 30; v. 243; p. 1147.

Berzon, Louis. (See Tarshis, Berzon, and Brezin.)

Besancon, Henry, Stephen, Minn. Motor-driven post-hole digger. No. 1,243,580; Oct. 16; v. 243; p. 736.

Bess, William W., Maricopa, Cal. Fishing-tool for under-reamer-lugs. No. 1,242,129; Oct. 9; v. 243; p. 250.

Best, Arthur M., Shelby, Iowa. Draft-equalizer. No. 1,243,243; Oct. 16; v. 243; p. 636.

Bettini, Gianni, Paris, France. Plate and plate-holder for moving-picture apparatus. No. 1,242,416; Oct. 9; v. 243; p. 342.

Betz, Harry D., Kansas City, Mo. Coherer-protector. No. 1,242,512; Oct. 9; v. 243; p. 371.

Bevan, Tom W., Nantyglo, Wales. Surgical bedstead. No. 1,242,315; Oct. 9; v. 243; p. 309.

Bickerstaff, John D., Hobart, Okla. Baling-press. No. 1,241,491; Oct. 2; v. 243; p. 4.

Bickford, Estelle B. (See Bickford, Samuel M., assignor.)

Bickford, Samuel M., assignor to E. B. Bickford, Lock Haven, Pa. Protecting type-writing. No. 1,244,946; Oct. 30; v. 243; p. 1225.

Biddy, Edward K. (See Sturtevant and Biddy.)

Biegert, Herman L., Montevideo, Minn. Carrier attachment for automobiles. No. 1,243,034; Oct. 16; v. 243; p. 574.

Bierck, Harold A., Philadelphia, Pa., assignor, by mesne assignments, to Kinetic Engineering Company. Pneumatic controller for mechanical piano-players. No. 1,241,812; Oct. 2; v. 243; p. 110.

Biggerstaff, James, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Manufacture of commutator-bars. No. 1,242,417; Oct. 9; v. 243; p. 342.

Bignell, Edward, Lincoln, assignor to Concrete Piling Company, Seward, Nebr. Construction of and method of sinking piles. No. 1,241,813; Oct. 2; v. 243; p. 110.

Bijur, Joseph, assignor to The Safety Car Heating and Lighting Co., New York, N. Y. Railway lighting apparatus. No. 1,241,908; Oct. 2; v. 243; p. 141.

Billington, Arthur R., assignor to The Strand Machinery Company, Chicago, Ill. Machine for interweaving curled horsehair. No. 1,243,133; Oct. 16; v. 243; p. 603.

Bills, Robert E. (See Rogers, Stephen G., assignor.)

Binckley, George S., Los Angeles, Cal., assignor, by mesne assignments, to D. A. Starbuck and I. B. Funk. Fluid-meter. No. 1,241,418; Oct. 2; v. 243; p. 111.

Binckley, George S., Los Angeles, Cal. Discharge-valve. No. 1,243,134; Oct. 16; v. 243; p. 603.

Binkley, Robah J., Pomona, and R. A. Steps, Los Angeles, Cal. Beet-cutter. No. 1,241,702; Oct. 2; v. 243; p. 74.

Bird, Clarence A., West Mansfield, Ohio. Swingletree connection. No. 1,243,581; Oct. 16; v. 243; p. 737.

Bird, Harry A., *et al.* (See Snyder, Charles P., assignor.)

Birmingham Disc Harrow Company. (See Shemwell, Harold, assignor.)

Birnzweig, Jacob S., New York, N. Y. Die for blanking out and piercing buttons. No. 1,242,644; Oct. 9; v. 243; p. 415.

Birrell, Joseph D. (See Simmon and Birrell.)

Bishop, George E., Cleveland, Ohio. Automobile-door curtain. No. 1,244,692; Oct. 30; v. 243; p. 1147.

Bishop, Hugh C., Sheldon, assignor of one-half to A. J. Ooley, Vernon County, Mo. Headlight for automobiles. No. 1,245,140; Oct. 30; v. 243; p. 1283.

Bishop, James T. (See Vales and Bishop.)

Bissell, Carl H., assignor to Crouse-Hinds Company, Syracuse, N. Y. Screw. No. 1,243,799; Oct. 23; v. 243; p. 841.

Bissell, Carl H., assignor to Crouse-Hinds Company, Syracuse N. Y. Electrical fixture. No. 1,243,800; Oct. 23; v. 243; p. 841.

Bittner, Emil R., Victoria, Tex. Intermittent-operating mechanism. No. 1,243,582; Oct. 16; v. 243; p. 737.

Bizzarri, Antonio, *et al.* (See D'Agostino, Nicola, assignor.)

Blackard, Nancy F., Kansas City, Mo. Crutch. No. 1,241,815; Oct. 2; v. 243; p. 111.

Blackburn, Felix, Feeding Hills, Mass. Elevating-truck. No. 1,243,035; Oct. 16; v. 243; p. 574.

Bladen, Walter C., Jersey City, N. J. Making so-called alkalized cocoa. No. 1,243,244; Oct. 16; v. 243; p. 636.

Blaich, Alfred O., assignor to Alfred O. Blaich Company, Chicago, Ill. Case-hardening material and making same. No. 1,241,909; Oct. 2; v. 243; p. 141.

Blain, Arthur. (See Bullock and Blain.)

Blair, David E., Montreal, Quebec, Canada, assignor to Edwards & Company. Electric push-button. No. 1,243,482; Oct. 16; v. 243; p. 707.

Blair, J. W. (See Head, Joseph A., assignor.)

Blair, Robert S., New Rochelle, N. Y. Measuring apparatus. No. 1,244,693; Oct. 30; v. 243; p. 1147.

Blake, Charles C., Brookline, assignor to C. C. Blake, Incorporated, Boston, Mass. Machine for cutting irregular threads. No. 1,241,910; Oct. 2; v. 243; p. 142.

Blake, Charles C., Brookline, assignor to C. C. Blake, Incorporated, Boston, Mass. Mechanical movement. No. 1,241,911; Oct. 2; v. 243; p. 142.

Blakeslee, Clarence E., Cranford, and W. A. Ahigran, Scotch Plains, N. J. Window-cleaning scraper. No. 1,242,913; Oct. 16; v. 243; p. 534.

Bland, George W. (See Little, James R., assignor.)

Blanton, John C., and D. J. Sexton, Freeman, W. Va. Mail-bag-delivering apparatus. No. 1,244,284; Oct. 23; v. 243; p. 987.

Blaszczyk, Jacob, Chippewa Falls, Wis. Sled-brake. No. 1,244,460; Oct. 30; v. 243; p. 1077.

Blatt, William M., Boston, Mass. Stenographer's note-book stand and book-mark. No. 1,242,914; Oct. 16; v. 243; p. 534.

Blauvelt, Albert, Chicago, Ill. Heat-sensitive link for automatic fire apparatus. No. 1,243,690; Oct. 23; v. 243; p. 802.

Blaw-Knox Company. (See Knox, Luther L., assignor.)

Blayney, James D., Toronto, Ontario, Canada. Internal-combustion motor. No. 1,243,691; Oct. 23; v. 243; p. 803.

Bley, William G., Cincinnati, Ohio. Means for packing stuffing-boxes. No. 1,243,917; Oct. 23; v. 243; p. 877.

Bliss, Willard M., Brooklyn, N. Y. Invisible roller-screen. No. 1,242,878; Oct. 9; v. 243; p. 489.

Block, Alexander E., St. Louis, Mo. Foot-support. No. 1,243,692; Oct. 23; v. 243; p. 803.

Block, Alexander E., St. Louis, Mo. Machine for creasing and stretching shoes. No. 1,244,829; Oct. 30; v. 243; p. 1190.

Block, Mandel, Chicago, Ill. Thread-cutting die. No. 1,242,130; Oct. 9; v. 243; p. 251.

Block, Mandel, Chicago, Ill. Drum-trap guard. No. 1,243,245; Oct. 16; v. 243; p. 637.

Blohm, George, El Centro, Cal. Cotton-harvester. No. 1,242,761; Oct. 9; v. 243; p. 452.

Blomquist, Johan V., Stockholm, Sweden. Feed apparatus for rotating boilers. No. 1,242,131; Oct. 9; v. 243; p. 251.

Blood, William A., Cleveland, Ohio. Filing-box. No. 1,244,694; Oct. 30; v. 243; p. 1148.

Bloom, Morris, *et al.* (See Snyder, Charles P., assignor.)

Blumberg, Gustav, and J. A. Butkus, Baltimore, Md. Electric clock. No. 1,242,132; Oct. 9; v. 243; p. 251.

Blumberg, Gustav, and J. A. Butkus, Baltimore, Md. Electric clock. No. 1,244,164; Oct. 23; v. 243; p. 950.

Blumenthal, Louis, Brooklyn, N. Y., assignor, by mesne assignments, to G. Hammel, Passaic, N. J. Tag-tacking machine. No. 1,244,695; Oct. 30; v. 243; p. 1148.

Blything, Robert S., Walton, N. Y. Shade-roller. No. 1,242,107; Oct. 2; v. 243; p. 202.

Bobo, Ruben, Silvis, Ill. Wind-motor. No. 1,243,135; Oct. 16; v. 243; p. 604.

Bock Bearing Company, The. (See Strong, Arthur J., assignor.)

Bock, Cornelius F., Templeton, Iowa. Harrow. No. 1,244,165; Oct. 23; v. 243; p. 950.

Bockstahler, Louis A., Cleveland, Ohio. Fruit-clipper. No. 1,242,645; Oct. 9; v. 243; p. 415.

Bodnar, Stephan, Cleveland, Ohio. Life-saving raft. No. 1,244,020; Oct. 23; v. 243; p. 908.

Boeken, Hubert J., Wellington, New Zealand. Apparatus for obtaining fiber from fibrous plants and for treating the same. No. 1,244,461; Oct. 30; v. 243; p. 1077.

Boggs, Nathan, assignor of one-third to C. Conn, Roseburg, and one-third to H. P. Conn, Melrose, Oreg. Explosive-engine. No. 1,243,483; Oct. 16; v. 243; p. 707.

Bognar, Charles, Hamilton, Ontario, Canada. Combined dresser and folding bed. No. 1,243,918; Oct. 23; v. 243; p. 877.

Bohan, William J., St. Paul, Minn. Locomotive. No. 1,242,762; Oct. 9; v. 243; p. 452.

Bohannon, Bertha H., Daytona, Fla. Child's one-button romper. No. 1,243,583; Oct. 16; v. 243; p. 737.

Bois, Nathaniel, San Francisco, Cal. Interlocking stair-form. No. 1,244,021; Oct. 23; v. 243; p. 908.

Bokop, Frederick A. (See Bokop, Henry D. and F. A.)

Bokop, Henry D. and F. A., Defiance, Ohio. Folding bucket. No. 1,243,381; Oct. 16; v. 243; p. 677.

Boldt, Erich A., Dresden, Germany. Method of and apparatus for preparing soil for cultivation. No. 1,241,816; Oct. 2; v. 243; p. 111.

Bolt, Columbus H., Artesia, Cal. Whiffletree-hook. No. 1,244,285; Oct. 23; v. 243; p. 987.

Boles, George C., Peebles, Ohio. Rail-joint. No. 1,242,133; Oct. 9; v. 243; p. 252.

Boley, John D. (See Story, Hudson F., assignor.)

Bolinger, Dennie B., Sullivan, Ind. Adjustable radiator-casing. No. 1,242,646; Oct. 9; v. 243; p. 416.

Boll, William J., and L. L. Kempthorne, assignors of one-third to F. H. Sandman, Platteville, Wis. Clamp for holding a calk while being welded to a shoe. No. 1,242,647; Oct. 9; v. 243; p. 416.

Bonnell, William A., Brooklyn, N. Y. Outlet-box. No. 1,243,246; Oct. 16; v. 243; p. 637.

Bonny, Howard R., New York, N. Y. Machine for treating flax and other fibrous plants. No. 1,241,703; Oct. 2; v. 243; p. 75.

Booth-Hall Company. (See Booth, William K., assignor.)

Booth, Ronald E., Seattle, Wash. Wheelbarrow. No. 1,242,418; Oct. 9; v. 243; p. 342.

Booth, William K., assignor to Booth-Hall Company, Chicago, Ill. Electric furnace and method of operation. No. 1,244,415; Oct. 23; v. 243; p. 1025.

Booth, William N., assignor to Kelsey Wheel Company, Inc., Detroit, Mich. Straight-side demountable rim. No. 1,244,022; Oct. 23; v. 243; p. 909.

Bordeleau, Donat. (See McLaughlin and Bordeleau.)

Borg, Peter, Sheldon, Iowa. Load-binder. No. 1,243,247; Oct. 16; v. 243; p. 637.

Borgmann, Bernard J., Cincinnati, Ohio. Shock-absorber. No. 1,242,134; Oct. 9; v. 243; p. 252.

Bornstein, Jennie L., Dayton, Ohio. Sanitary apron. No. 1,243,693; Oct. 23; v. 243; p. 803.

Borrás, Antonio, and F. Iriarte, Buenos Aires, Argentina. Rotary pump. No. 1,241,704; Oct. 2; v. 243; p. 75.

Bosanquet, Stanley E. F., Comboyne, New South Wales, Australia. Penholder. No. 1,243,248; Oct. 16; v. 243; p. 638.

Bosch, Carl, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Producing ammonia. No. 1,243,382; Oct. 16; v. 243; p. 677.

Bosch, Carl, and A. Mittasch, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Producing ammonia. No. 1,244,580; Oct. 30; v. 243; p. 1114.

Bosch, Firm of Robert. (See Honold, Gottlob, assignor.)

Bosselmann, John Q., Philadelphia, Pa. Dispensing-can. No. 1,243,801; Oct. 23; v. 243; p. 841.

Bossert, Harry A., Cassville, Wis. Dirigible headlight. No. 1,243,584; Oct. 16; v. 243; p. 737.

Bossu, Pierre, assignor to Société Anonyme des Etablissements L. Bleriot, Paris, France. Electromagnet. No. 1,242,763; Oct. 9; v. 243; p. 452.

Boston Machine Works Company. (See Smith, William E., assignor.)

Boswell, Fletcher O., assignor to F. O. B. Manufacturing Co., Philadelphia, Pa. Vehicle suspension and shock-absorber. No. 1,243,694; Oct. 23; v. 243; p. 804.

Boswell, George C. (See Massicotte and Boswell.)

Boswell, George G. F., Indianapolis, Ind. Shock-absorber. No. 1,242,316; Oct. 9; v. 243; p. 310.

Boswell, Robert A., Washington, D. C. Printing or post-marking machine. No. 1,243,802; Oct. 23; v. 243; p. 842.

Bosworth, Birney B., New York, N. Y. Sheave-block. No. 1,243,585; Oct. 16; v. 243; p. 738.

Bottle, Edward K., Elmira, N. Y., assignor to American Sales Book Company, Limited, Toronto, Ontario, Canada. Manifolding sales-book. No. 1,243,695; Oct. 23; v. 243; p. 804.

Bottomlee, John T., Sparta, Tenn. Needle cap plate for sewing-machines. No. 1,243,249; Oct. 16; v. 243; p. 638.

Bouché, William F., Buffalo, N. Y., assignor to Gould Coupler Company. Dynamo suspension. No. 1,241,492; Oct. 2; v. 243; p. 5.

Bouché, William F., Depew, N. Y., assignor to Gould Coupler Company. Dynamo suspension. No. 1,242,513; Oct. 9; v. 243; p. 371.

Bound Brook Oil-Less Bearing Company. (See Bache, Leigh S., assignor.)

Bound Brook Oil-Less Bearing Company. (See Hickman, Francis, assignor.)

Bourdon, Allen P. (See Bourdon, Leo R. and A. P.)

Bourdon, Leo R. and A. P., Woodstock, Vt., assignors to Woodstock Manufacturing Company, Incorporated. Steering device for sleds. No. 1,242,514; Oct. 9; v. 243; p. 372.

Bowen, Benjamin F., Richmond, Cal. Bicycle-skate. No. 1,241,607; Oct. 2; v. 243; p. 45.

Bowen, Frank J., assignor of one-third to F. C. McCoy and one-third to P. G. Duggan, Utica, N. Y. Calibrating-machine. No. 1,244,023; Oct. 23; v. 243; p. 909.

Bowen, George W. (See Zerk, Oscar, assignor.)

Bowerman, Frank. (See Cohen, Nathan, assignor.)

Boyajian, Sarkis H., Melrose, Mass. Arch-supporter for boots and shoes. No. 1,242,317; Oct. 9; v. 243; p. 310.

Boyd, Austin C., Reynoldstown, Md. Brake mechanism for motor-vehicles. No. 1,243,696; Oct. 23; v. 243; p. 805.

Boye Needle Company, The. (See Carlson, Gustaf A., assignor.)

Boyles, Andrew J., Jackson, Miss. Syrup-pitcher. No. 1,241,912; Oct. 2; v. 243; p. 142.

Boynton, Arthur J., Lorain, Ohio. Checkerwork for hot-blast stoves. No. 1,243,484; Oct. 16; v. 243; p. 708.

Boynton, Frederick R., assignor of one-third to P. Allen, Providence, R. I. Wind-shield. No. 1,244,462; Oct. 30; v. 243; p. 1078.

Brabook, George H., assignor of one-half to A. T. Fletcher, Boston, Mass. Adhesive. No. 1,244,463; Oct. 30; v. 243; p. 1078.

Braden, Robert D., Chicago, Ill., and C. D. Wright, Toledo, Ohio. Automobile power-transmitting apparatus. No. 1,243,649; Oct. 16; v. 243; p. 758.

Bradley, Earl H., Higbee, Mo. Folding step for vehicles. No. 1,244,830; Oct. 30; v. 243; p. 1190.

Bradley, James F., West Springfield, assignor to The Fisk Rubber Company, Chicopee Falls, Mass. Bead-positioning device. No. 1,241,913; Oct. 2; v. 243; p. 143.

Bradley, John E., Fort Smith, Ark. Tobacco-pipe. No. 1,243,803; Oct. 23; v. 243; p. 842.

Bradley, William J., Troy, assignor to The Rail Joint Company, New York, N. Y. Rail construction for rolling-mills. No. 1,244,464; Oct. 30; v. 243; p. 1078.

Brady, Charles F., and J. J. Disser, Fort Wayne, Ind. Fumigating apparatus. No. 1,244,581; Oct. 30; v. 243; p. 1115.

Braedt, Otto. Vienna, Austria. Fly-catcher. No. 1,242,648; Oct. 9; v. 243; p. 416.

Bragg, Christopher C. (See Franklin and Bragg.)

Bragg, Jones M., Electric, N. C. Trap. No. 1,244,166; Oct. 23; v. 243; p. 950.

Braly, Norman B., Butte, Mont. Hose suspension. No. 1,244,465; Oct. 30; v. 243; p. 1078.

Bram, Jacob J., Perth Amboy, N. J. Support for wash-tubs, tanks, sinks, and the like. No. 1,243,697; Oct. 23; v. 243; p. 805.

Bramhall Deane Company. (See Hamlin, John H., assignor.)

Brand, Frederick F., Pittsfield, Mass., assignor to General Electric Company. Transformer-winding. No. 1,242,649; Oct. 9; v. 243; p. 415.

Brandt, Henriette, New York, N. Y. Folding bed. No. 1,241,704; Oct. 2; v. 243; p. 75.

Brassler, George F., New York, assignor of one-half to P. Walter, Whitestone, N. Y. Locking device. No. 1,241,914; Oct. 2; v. 243; p. 143.

Bray, Charles G., Bowie, Ariz. Rowing-oar. No. 1,244,167; Oct. 23; v. 243; p. 950.

Breinl, Joseph C., San Francisco, Cal. Valve. No. 1,244,286; Oct. 23; v. 243; p. 988.

Brenzinger, Julius, Mount Vernon, N. Y., assignor to The Max Ams Machine Company, Bridgeport, Conn. Flanging-machine. No. 1,241,915; Oct. 2; v. 243; p. 143.

Brest, Sam, Chicago, Ill. Ash sifter and receptacle. No. 1,242,318; Oct. 9; v. 243; p. 310.

Brett, A. Leo, South Braintree, Mass. Check-valve for refrigerating apparatus. No. 1,242,515; Oct. 9; v. 243; p. 372.

Brew, Annie L., administratrix. (See Brew, William H.)

Brew, William H., deceased; A. L. Brew, administratrix, Washington, D. C. Towel-cabinet. No. 1,243,670; Oct. 16; v. 243; p. 764.

Brewer, Gipp M., Sylvia, Kans. Washing-machine. No. 1,242,765; Oct. 9; v. 243; p. 453.

Brewer, John H., Louisville, Ky. Trunk. No. 1,242,901; Oct. 9; v. 243; p. 495.

Brezin, Joseph. (See Tarshis, Berzon, and Brezin.)

Brierly, Benjamin R., and E. H. Waugh, assignors to Smith Cannery Machines Company, Seattle, Wash. Fish-cleaning device. No. 1,244,168; Oct. 23; v. 243; p. 950.

Brigel, Leo A., Cheviot, Ohio. Toy vehicle. No. 1,244,169; Oct. 23; v. 243; p. 951.

Briggs, Arthur J., Syracuse, assignor to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,242,419; Oct. 9; v. 243; p. 342.

Bright, Herbert L., New York, N. Y. Type-writer attachment. No. 1,245,144; Oct. 30; v. 243; p. 1284.

Brinckerhoff, Francis M., Englewood, assignor to L. B. Stillwell, Lakewood, N. J., and H. S. Putnam, New York, N. Y. Railway-car. No. 1,244,947; Oct. 30; v. 243; p. 1225.

Brinckerhoff, Frank M., Englewood, N. J., assignor to James L. Howard & Company, Hartford, Conn. Lock mechanism for sliding doors. (Reissue.) No. 14,379; Oct. 23; v. 243; p. 1037.

Brinkman, Sebastian G., Fords, N. J. Carbureter. No. 1,243,250; Oct. 16; v. 243; p. 638.

Briody, Thomas F. (See Pierson and Briody.)

Bristol, Edgar H., and W. H. Fitts, assignors to The Industrial Instrument Company, Foxboro, Mass. Hygrometer and other instrument. No. 1,243,671; Oct. 16; v. 243; p. 764.

Bristow, Cecil, London, England. Fountain-pen. No. 1,243,383; Oct. 16; v. 243; p. 678.

British Coke Ovens Limited. (See Schuster, Nicholas, assignor.)

Britton, Osa L., El Paso, Tex. Direction-indicator. No. 1,242,516; Oct. 9; v. 243; p. 372.

Brizendine, Olie, Miami, Tex. Resilient wheel for vehicles. No. 1,243,804; Oct. 23; v. 243; p. 842.

Broberg, Herbert C., Eagle Bend, Minn. Manure-scoop. No. 1,243,136; Oct. 16; v. 243; p. 604.

Brock, Frank P. (See Redman, Weith, and Brock.)

Brockenbrough, Hugh B., Fort Dodge, Iowa. Cable connection for tramway-cars. No. 1,242,915; Oct. 16; v. 243; p. 534.

Broecker, Hildegarde A. (See Hampden, Wellesley R., assignor.)

Brooks, David W., assignor to Concrete Steel Company, New York, N. Y. Facing bar for concrete structures. No. 1,244,831; Oct. 20; v. 243; p. 1190.

Brooks, Edward, Rochester, N. Y. Sewing-cabinet. No. 1,242,916; Oct. 16; v. 243; p. 535.

Brooks, John, assignor of one-half to G. E. Sullivan, Marietta, Okla. Device for preventing flies entering houses. No. 1,244,696; Oct. 30; v. 243; p. 1148.

Broomall, Aubrey L., Wilkinsburg, and E. G. Tidlung, Pittsburgh, Pa., assignors to Westinghouse Electric and Manufacturing Company. Bearing. No. 1,241,493; Oct. 2; v. 243; p. 5.

Broomell, Albert P., York, Pa. Spark-plug. No. 1,244,416; Oct. 23; v. 243; p. 1025.

Brosman, Frank, Des Moines, Iowa. Tire-carrier. No. 1,244,417; Oct. 23; v. 243; p. 1026.

Brotman, Philip H. (See Young, Henry A., assignor.)

Brown, C. Luther, Chandler, Okla. Tatting device. No. 1,241,917; Oct. 2; v. 243; p. 144.

Brown, Carlton W., Groton, Conn. Tag. No. 1,244,832; Oct. 30; v. 243; p. 1190.

Brown, Clarence J., assignor of one-half to T. M. Campbell, Cleveland, Ohio. Trousers hanger and presser. No. 1,242,135; Oct. 9; v. 243; p. 253.

Brown, Edmund N., San Francisco, Cal., assignor to Majestic Electric Development Company. Electric heater. No. 1,245,084; Oct. 30; v. 243; p. 1266.

Brown, Eugene, Colfax, Wash. Loader. No. 1,244,024; Oct. 23; v. 243; p. 909.

Brown, Frederick W., assignor to M. M. Wollner and C. M. Wollner, New York, N. Y. Aquatic toy. No. 1,244,948; Oct. 30; v. 243; p. 1226.

Brown, Hanson & Boettcher. (See Willis, George M., assignor.)

Brown, Ira E., Fort Stockton, Tex. Mechanism for operating air-compressors, &c. No. 1,243,586; Oct. 16; v. 243; p. 738.

Brown, John C., Atlanta, Ga. Combined square and bevel for ascertaining the length of rafters, &c. No. 1,243,678; Oct. 16; v. 243; p. 767.

Brown, John F., Casa Grande, Ariz. Siphon. No. 1,241,916; Oct. 2; v. 243; p. 144.

Brown, Luther P., Ramsey, N. J., assignor, by mesne assignments, to Empire Paper Bottle Company. Fibrous container. No. 1,243,698; Oct. 23; v. 243; p. 805.

Brown, Luther P., Ramsey, N. J., assignor, by mesne assignments, to Empire Paper Bottle Company. Sanitary closing and sealing device for containers. No. 1,243,699; Oct. 23; v. 243; p. 806.

Brown, Thomas R., Sparkill, N. Y., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Electric coupling for train-line circuits. No. 1,242,517; Oct. 9; v. 243; p. 373.

Brown, Thomas R., Sparkill, N. Y., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Manually-operated electric coupling. No. 1,243,700; Oct. 23; v. 243; p. 806.

Brown, Thomas R., Sparkill, N. Y., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Combined car and train-pipe coupling. No. 1,243,701; Oct. 23; v. 243; p. 807.

Brown, Thomas R., Sparkill, N. Y., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Electric coupling. No. 1,244,949; Oct. 30; v. 243; p. 1226.

Brown, Thomas R., Sparkill, N. Y., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Electric train-line coupling. No. 1,244,950; Oct. 30; v. 243; p. 1226.

Brown, William H., Cleveland, Ohio. Leaf-spring lubricator. No. 1,241,817; Oct. 2; v. 243; p. 112.

Browne, Arthur W., Prince Bay, N. Y., assignor to The S. S. White Dental Manufacturing Company. Fountain-nozzle. No. 1,244,951; Oct. 30; v. 243; p. 1227.

Browne, Frank A., Buffalo, N. Y., assignor to The Barber Asphalt Paving Company, Philadelphia, Pa. Scarifier. No. 1,243,672; Oct. 16; v. 243; p. 765.

Brownell, George L., Worcester, Mass. Tension device. No. 1,243,036; Oct. 16; v. 243; p. 574.

Brownell, William M., Brooklyn, N. Y., assignor of three-fourths to A. N. Hood, Newton, and J. T. Nightingale, Boston, Mass. Drying-machine. No. 1,242,518; Oct. 9; v. 243; p. 373.

Browning, Charles, Jr., Sacramento, Cal. Viscometer. No. 1,244,025; Oct. 23; v. 243; p. 909.

Bruah, Howard R., assignor to Motor Development Company, Chicago, Ill. Propeller-shaft connection. No. 1,243,805; Oct. 23; v. 243; p. 843.

Bruce, William E., Summerfield, Ohio. Motor-driven vehicle. No. 1,242,319; Oct. 9; v. 243; p. 311.

Bryan, Daniel R. (See Bryan, Joseph W. and D. R.)

Bryan, Frederick E., Wyncote, assignor of one-half to F. Light, Jr., Philadelphia, Pa. Automobile-horn. No. 1,243,650; Oct. 16; v. 243; p. 758.
Bryan, Harry. (See Waggaman, Bryan, and Wagner.)
Bryan, Joseph W., New York, N. Y., and D. R. Bryan. Chatham, N. J., said J. W. Bryan assignor to said D. R. Bryan. Separating and recovering domestic refuse. No. 1,244,952; Oct. 30; v. 243; p. 1227.
Bryant Electric Company, The. (See Thomas, George B., assignor.)
Bryce, Joseph W. (See Weeks, Joseph H., assignor.)
Brzykcy, Antoni, Minneapolis, Minn. Windmill. No. 1,241,918; Oct. 2; v. 243; p. 144.
Buchanan, Margaret C., Chicago, Ill. Nipple for nursing-bottles. No. 1,243,806; Oct. 23; v. 243; p. 843.
Bucher, John E., Coventry, assignor to Nitrogen Products Company, Providence, R. I. Producing urea. No. 1,241,919; Oct. 2; v. 243; p. 145.
Bucher, John E., Coventry, assignor to Nitrogen Products Company, Providence, R. I. Producing urea. No. 1,241,920; Oct. 2; v. 243; p. 145.
Buchholz, Louis O. (See Carter, Ray L., assignor.)
Buck, Turney E., assignor to W. O. Duntley, Chicago, Ill. Waste-steam detector and recorder. No. 1,243,702; Oct. 23; v. 243; p. 807.
Buck, Wilmer G., Fremont, assignor, by mesne assignments, to Continental Engineering Corporation, Omaha, Nebr. Valve for internal-combustion engines. No. 1,244,287; Oct. 23; v. 243; p. 988.
Buckeye Traction Ditcher Company, The. (See Wadsworth, Arthur V., assignor.)
Buckner, Hubbard T., Seattle, Wash. Surgical splint. No. 1,243,137; Oct. 16; v. 243; p. 604.
Buckwalter, Henry H., *et al.* (See Von Elbertz, Frankwill, assignor.)
Budlong, Frank M., assignor of one-half to J. M. Curragh, San Jose, Cal. Combined centering and facing tool. No. 1,244,953; Oct. 30; v. 243; p. 1227.
Bue, Peder J., and H. M. Tidwell, Pomeroy, Wash. Apparatus for steaming material. No. 1,243,251; Oct. 16; v. 243; p. 638.
Buehler, Albert W., assignor to The Toledo Button Machine Company, Toledo, Ohio. Shoe-button-fastening machine. No. 1,244,466; Oct. 30; v. 243; p. 1079.
Bueker, Charles L., Brookville, Kans. Straw-spreader. No. 1,244,288; Oct. 23; v. 243; p. 988.
Buell, William H., assignor to Winchester Repeating Arms Company, New Haven, Conn. Mixture for impact illuminating-bullets. No. 1,242,879; Oct. 9; v. 243; p. 489.
Buffa, James L., San Francisco, Cal. Graphophone attachment. No. 1,244,170; Oct. 23; v. 243; p. 951.
Buffalo Air-Brake Company. (See Webster, Willis C., assignor.)
Buffalo Bolt Company. (See Peirce, William B., assignor.)
Buffum, Burt C., Denver, Colo. Grain-huller. No. 1,242,136; Oct. 9; v. 243; p. 253.
Bullard, Newton H., Milledgeville, Ga. Liquid-dispensing can. No. 1,242,137; Oct. 9; v. 243; p. 253.
Bullock, Alvah E., and A. Blain, Manchester, N. H. Bulder-motion for spinning or winding machines. No. 1,243,485; Oct. 16; v. 243; p. 708.
Bullock, Fred J., assignor to Papec Machine Company, Shortsville, N. Y. Rotary cutting-wheel. No. 1,244,171; Oct. 23; v. 243; p. 951.
Bullock, William, *et al.* (See Webster, Lewis E., assignor.)
Bullum, Steve, Tulsa, Okla. Combination slip-socket. No. 1,244,289; Oct. 23; v. 243; p. 989.
Bully Hill Copper Mining & Smelting Company. (See Hanley, Herbert R., assignor.)
Bnob, Louis, Sr., Cincinnati, Ohio. Curtain-light for vehicle-tops. No. 1,242,108; Oct. 2; v. 243; p. 203.
Burch, Samuel E., Wellwood, Manitoba, Canada. Balanced lubricator. No. 1,243,252; Oct. 16; v. 243; p. 638.
Burd, George B. (See Farrell, Henry C., assignor.)
Burdett Loomis Corporation, The. (See Loomis, Burdett, assignor.)
Burgess, Charles F., *et al.* (See Bernheim, Ernst, assignor.)
Burich, George, San Francisco, Cal. Valve for water-supply pipes. No. 1,244,838; Oct. 30; v. 243; p. 1191.
Burk, John J., Decatur, Ala. Banana-protector. No. 1,244,954; Oct. 30; v. 243; p. 1227.
Burk, Patrick T., Milford, Iowa. Motor-vehicle. No. 1,242,650; Oct. 9; v. 243; p. 417.
Burke, Edmund, assignor to Crane Company, Chicago, Ill. Feed-water apparatus. No. 1,242,917; Oct. 16; v. 243; p. 535.
Burke, May L., New London, Conn. Non-refillable bottle. No. 1,242,138; Oct. 9; v. 243; p. 254.
Burke, Thomas F. (See Stathakis, Angel, assignor.)
Burket, Henry E., assignor of one-half to E. E. Lynch, Leavenworth, Kans. Rectifier. No. 1,243,807; Oct. 23; v. 243; p. 843.
Burkett, Ira E., assignor to Schofield-Burkett Construction Company, Macon, Ga. Excavating-scraper. No. 1,242,320; Oct. 9; v. 243; p. 311.
Burkett, Joseph B., Levita, Tex. Funnel and gage. No. 1,243,587; Oct. 16; v. 243; p. 738.
Burmeister, William C., and E. N. Smock, Chicago, Ill., assignors of one-half to said Burmeister and one-half to said Smock. Window-heater. No. 1,243,703; Oct. 23; v. 243; p. 807.
Burnett-Larsh Manufacturing Co., The. (See Larsh, Everett P., assignor.)
Burnett, Richard F. (See Frye, Chinn, and Burnett.)
Burnett, Richard W., Montreal, Quebec, Canada. Carroof. No. 1,242,519; Oct. 9; v. 243; p. 373.
Burnham, John A., Wenham, Mass. Twine-holder. No. 1,244,418; Oct. 23; v. 243; p. 1026.
Burns, Byron G., Calexico, Cal. Animal-trap. No. 1,243,588; Oct. 16; v. 243; p. 738.
Burns & Bassick Company, The. (See Cummins, Norman W., assignor.)
Burns, John H., assignor of one-third to A. Morris and one-third to A. L. Morris, Yelm, Wash. Work-holder. No. 1,244,419; Oct. 23; v. 243; p. 1026.
Burns, John J., and W. H. Flynn, Shortsville, N. Y. Culinary utensil. No. 1,241,818; Oct. 2; v. 243; p. 112.
Burns, Joseph E., Canastota, N. Y. Marking device. No. 1,242,918; Oct. 16; v. 243; p. 536.
Burns, Samuel N., Hargrove, Ala. Rail-joint lock. No. 1,242,764; Oct. 9; v. 243; p. 453.
Burroughs Adding Machine Company. (See Horton, Allen A., assignor.)
Burroughs Adding Machine Company. (See Rinsche, Frank C., assignor.)
Bush, Charles A., Brooklyn, N. Y. Cartridge. No. 1,243,253; Oct. 16; v. 243; p. 639.
Bussey, John M., Bluecreek, W. Va. Feeder. No. 1,241,706; Oct. 2; v. 243; p. 76.
Butcher, James M., Chicago, Ill. Airship. No. 1,242,766; Oct. 9; v. 243; p. 453.
Butkus, John A. (See Blumberg and Butkus.)
Butler, John H., Dallas, Tex., assignor to Parlin & Orendorff Company, Canton, Ill. Plow-hitch mechanism. No. 1,243,704; Oct. 23; v. 243; p. 808.
Byers, Leslie J., Everett, Wash. Wheel and jack clamp. No. 1,245,085; Oct. 30; v. 243; p. 1266.
Byron, William J., Eveleth, Minn. Lubricating system. No. 1,244,173; Oct. 23; v. 243; p. 952.
C. B. Cottrell & Sons Company. (See Barber, Howard M., assignor.)
C. C. Blake, Incorporated. (See Blake, Charles C., assignor.)
C. W. Hunt Company. (See Gfrorer, Albert H., assignor.)
C. W. Skiff Company. (See Skiff, Charles W., assignor.)
C-D-G. Manufacturing Company. (See Cochrane, Charles E., assignor.)
C. H. & E. Manufacturing Co. (See Nydegger, Adolph, assignor.)
Cadillac Motor Car Company. (See Snell and Johnson, assignors.)
Cadillac Motor Car Company. (See White, D'Orsay M., assignor.)
Caffrey, James H., Beaver Falls, assignor to Asbestos Protected Metal Company, Pittsburgh, Pa. Apparatus for coating metal sheets. No. 1,243,808; Oct. 23; v. 243; p. 843.
Cain, Francis W., *et al.* (See Euler, William G. B., assignor.)
Caldwell, Vandle D., Natchitoches, La. Mail catching and delivering device. No. 1,244,582; Oct. 30; v. 243; p. 1115.
Caldwell, Warren A., Oskaloosa, Iowa. Silo. No. 1,242,420; Oct. 9; v. 243; p. 343.
Caley, James E., Mackinaw, Ill. Tying device. No. 1,243,254; Oct. 16; v. 243; p. 639.
Calhoun, Roy, Tylertown, Miss. Revolving shelf. No. 1,243,651; Oct. 16; v. 243; p. 758.
Calkin, Benjamin H. and F. L., Detroit, Mich.; said Benjamin H. Calkin assignor to said F. L. Calkin. Percolator. No. 1,242,651; Oct. 9; v. 243; p. 417.
Calkin, Frances L. (See Calkin, Benjamin H. and F. L.)
Callahan, Robert L., Louisville, Ky. Means for fastening sacks. No. 1,242,139; Oct. 9; v. 243; p. 254.
Callaway, Robert M., Monett, Mo. Tire-tread. No. 1,244,026; Oct. 23; v. 243; p. 910.
Calvey, James P., Youngstown, Ohio, assignor of one-half to C. Poisner. Combination arch-support and heel-cushion. No. 1,244,027; Oct. 23; v. 243; p. 910.
Cambells and Hunter Limited. (See Korte, Christian, assignor.)
Cameron, Fred C., Chicago, Ill., and J. McMullen, Buffalo, N. Y., assignors to Union Metal Products Company, Chicago, Ill. Door-post for cars. No. 1,244,583; Oct. 30; v. 243; p. 1115.
Cameron, William, Chicago, Ill. Blank-feeding mechanism. No. 1,242,520; Oct. 9; v. 243; p. 373.
Cameron, William W., assignor to La Crosse Plow Company, La Crosse, Wis. Plow-colter. No. 1,244,028; Oct. 23; v. 243; p. 910.
Camp, Thomas J., *et al.* (See Snyder, Charles P., assignor.)
Campbell, Alfred L., Elmhurst, N. Y. Frame for motor-cars. No. 1,243,255; Oct. 16; v. 243; p. 639.
Campbell, Angus L., North Sydney, Nova Scotia, Canada. Combination envelop and music-sheet. No. 1,243,037; Oct. 16; v. 243; p. 575.
Campbell, Ernst P., assignor of one-half to J. E. Goodman, Stockton, Cal. Device for loosening outer races of ball-bearings. No. 1,241,819; Oct. 2; v. 243; p. 112.
Campbell, Thomas M. (See Brown, Clarence J., assignor.)
Candee, Raphael R. (See Drader and Candee.)
Čapek, Ernest J., Schuyler, Nebr. Disinfector and deodorizer. No. 1,242,321; Oct. 9; v. 243; p. 311.
Capell, Frank M., Lockport, N. Y. Automobile-radiator. No. 1,242,652; Oct. 9; v. 243; p. 417.

Capooch, Carmine, Danbury, and E. Dessureau, Meriden, Conn. Fishing-float. No. 1,241,707; Oct. 2; v. 243; p. 76.
Capseal Company, The. (See Dillard, George L., assignor.)
Carbon Cleaning Compound Company. (See Mendelsohn, Edward, assignor.)
Carborundum Company, The. (See Urtel, Henry, assignor.)
Cardwell, Harland W., Texarkana, Ark. Ditch-filling machine. No. 1,244,290; Oct. 23; v. 243; p. 989.
Cardwell, James R., Chicago, Ill., assignor to Union Draft Gear Company. Friction draft-gear. No. 1,243,256; Oct. 16; v. 243; p. 639.
Carl, Thomas W. (See Stillings and Carl.)
Carle, Harold, assignor to Carle Motor Parts Co., Inc., Buffalo, N. Y. Carbureter. No. 1,243,038; Oct. 16; v. 243; p. 575.
Carle Motor Parts Co. (See Carle, Harold, assignor.)
Carlisle, Howard, Leesburg, assignor to C. E. Simpson, Hammonton, N. J. Railway-gate. No. 1,244,420; Oct. 23; v. 243; p. 1026.
Carlson, Carl O., Cazenovia, Wis. Barn-cleaner. No. 1,243,257; Oct. 16; v. 243; p. 640.
Carlson, Frederick E., assignor to Landers, Frary & Clark, New Britain, Conn. Vacuum-insulated vessel. No. 1,243,919; Oct. 23; v. 243; p. 878.
Carlson, Gustaf A., assignor to The Boye Needle Company, Chicago, Ill. Pen or pencil clip. No. 1,244,291; Oct. 23; v. 243; p. 990.
Carmichael, Henry, *et al.* (See O'Neill, Frank V., assignor.)
Carnahan, Frank, South Boston, assignor to Emerson Piano Company, Boston, Mass. Accenting device for piano-player actions. No. 1,242,919; Oct. 16; v. 243; p. 536.
Carney, James J., Bethel, Vt. Self-lubricating axle. No. 1,244,029; Oct. 23; v. 243; p. 910.
Carpenter, Raymond, East Orange, N. J., assignor to The Griscom-Russell Company. Steam-separator. No. 1,243,258; Oct. 16; v. 243; p. 640.
Carr, George D., Detroit, Mich. Combination door-lock. No. 1,242,140; Oct. 9; v. 243; p. 254.
Carroll, Arthur W., and E. J. Fuller, Seattle, Wash. Drop-cord-extension reel. No. 1,243,039; Oct. 16; v. 243; p. 575.
Carroll, Avary B., Norfolk, Va. Safety-razor. No. 1,241,921; Oct. 2; v. 243; p. 145.
Carroll, Charles R., New York, N. Y. Automobile-radiator cap and funnel. No. 1,243,138; Oct. 16; v. 243; p. 605.
Carroll, Joseph F., Lakewood, Ohio. Reinforced spring-tire. No. 1,243,259; Oct. 16; v. 243; p. 641.
Carson, Frank, Caro, Mich. Sorting device. No. 1,245,086; Oct. 30; v. 243; p. 1267.
Carson, John R., New York, N. Y., assignor to American Telephone and Telegraph Company. Method of and means for transmitting signals. No. 1,243,705; Oct. 23; v. 243; p. 808.
Carson, John R., New York, N. Y., assignor to American Telephone and Telegraph Company. Wireless receiving system. No. 1,244,697; Oct. 30; v. 243; p. 1149.
Carson, Oswald B. (See Day and Carson.)
Carson, William A., administrator. (See Crismore, Joseph A.)
Carson, William E., Riverton, Va. Slaking lime. No. 1,244,421; Oct. 23; v. 243; p. 1027.
Carter, Allck L., Coudersport, Pa. Ball-bearing. No. 1,242,767; Oct. 9; v. 243; p. 454.
Carter, Augustus A., Fayette, Iowa. Revolving display-case. No. 1,243,706; Oct. 23; v. 243; p. 808.
Carter, Curtis C., Bluffs, Ill. Regulator for incubators. No. 1,243,707; Oct. 23; v. 243; p. 809.
Carter, Eldia J., A. Taylor, and J. S. Griffith, Mobridge, S. D. Spark-arrester for locomotives. No. 1,243,708; Oct. 23; v. 243; p. 809.
Carter, Horace A., Needham Heights, Mass. Undergarment. No. 1,244,174; Oct. 23; v. 243; p. 952.
Carter, Ray L., assignor of one-half to L. O. Buchholz, Syracuse, N. Y. Disk grinder. No. 1,244,584; Oct. 30; v. 243; p. 1116.
Carter, Robert W., Los Angeles, Cal. Sheet-metal-rolling machine for fenders and the like. No. 1,244,422; Oct. 23; v. 243; p. 1027.
Carvalho, Leslie R. N., assignor to Paragon Metal Cap Company, Brooklyn, N. Y. Means for manufacturing receptacles. No. 1,243,486; Oct. 16; v. 243; p. 708.
Carver, James H., Schenectady, N. Y., assignor to General Electric Company. Gear, roll, and the like. No. 1,242,141; Oct. 9; v. 243; p. 254.
Cary, William R., Cleveland, Ohio, assignor to A. H. Ingle, Rochester, N. Y. Boring and general-use machine. No. 1,244,449; Oct. 23; v. 243; p. 1035.
Case, Francis M., Cleveland, assignor to The Hoover Suction Sweeper Company, New Berlin, Ohio. Cleaner. (Reissue.) No. 14,383; Oct. 23; v. 243; p. 1041.
Case, Francis M., assignor to The Russ Company, Cleveland, Ohio. Dispensing device. No. 1,244,585; Oct. 30; v. 243; p. 1116.
Casey, John P., Flemington, N. J. Light-dimmer. No. 1,243,652; Oct. 16; v. 243; p. 759.
Caswell, Ann E. (See Caswell, William B., assignor.)
Caswell, William B., assignor of one-fifth to A. E. Caswell, Newport, R. I. Window-shade-roller bracket. No. 1,242,521; Oct. 9; v. 243; p. 374.
Catucci, Pliny, Newark, N. J., assignor, by mesne assignments, to Otto Heineman Phonograph Supply Co., Inc., New York, N. Y. Tablet-support for talking-machines. No. 1,242,920; Oct. 16; v. 243; p. 536.
Cavanagh, John F., Meriden, Conn. Distributer. No. 1,242,895; Oct. 9; v. 243; p. 494.
Cavanaugh, William M., Rosebank, assignor, by mesne assignments, to Leather Products Company, Inc., New York, N. Y. Leather fabric. No. 1,243,709; Oct. 23; v. 243; p. 810.
Cave, Henry, Elizabeth, N. J., assignor to Davis-Bournonville Company, New York, N. Y. Portable gas welding or cutting equipment. No. 1,244,030; Oct. 23; v. 243; p. 911.
Celluloid Company, The. (See Lindsay, William G., assignor.)
Central Development Company. (See Lancaster, George W., assignor.)
Central Railway Signal Company. (See Dutcher, Frank, assignor.)
Cerio, Edwin, Rome, Italy. Means for storing, loading, and discharging torpedoes. No. 1,242,768; Oct. 9; v. 243; p. 454.
Cerruti, Frank A., New York, N. Y. Holder for cigars, cigarettes, and the like. No. 1,241,820; Oct. 2; v. 243; p. 112.
Cerruti, Frank A., New York, N. Y. Creeper or antislipping device. No. 1,241,821; Oct. 2; v. 243; p. 113.
Chadima, Frank, Cedar Rapids, Iowa. Vent-valve for churns. No. 1,244,292; Oct. 23; v. 243; p. 990.
Chadis, Louis N., New York, N. Y. Window-shade bracket. No. 1,242,653; Oct. 9; v. 243; p. 418.
Chadwick, Emma P. (See Mattson, Charles B., assignor.)
Chalman, John E., assignor to Union Special Machine Company, Chicago, Ill. Presser-foot for sewing-machines. No. 1,243,809; Oct. 23; v. 243; p. 844.
Chalmers, Albert H., Fairfield, Ala. Repairing coke-oven walls. No. 1,244,467; Oct. 30; v. 243; p. 1079.
Chamberlain, Emery E., Watertown, N. Y. Orifice-closer. No. 1,242,769; Oct. 9; v. 243; p. 454.
Chambers, Adam, New York, N. Y. Clutch-control mechanism. No. 1,244,468; Oct. 30; v. 243; p. 1079.
Chambers Valve Company. (See Clark and Coffey, assignors.
Champion Ignition Company. (See Schmidt, Albert, assignor.)
Champion Shoe Machinery Company. (See Dobyne, Stephen A., assignor.)
Chandler, Elmo M., South Norfolk, Va. Sprinkler-head. No. 1,244,031; Oct. 23; v. 243; p. 911.
Chandler, Mary H., Lavonia, Ga. Grate attachment. No. 1,245,087; Oct. 30; v. 243; p. 1267.
Chaney, Lee F., Springfield, Ohio. Thermometer and barometer back. No. 1,242,100; Oct. 2; v. 243; p. 200.
Chapman, Eugene M., *et al.* (See Ruckes, Michael, assignor.)
Chapman, Frank F. B., Winchester, Mass. Collapsible tube. No. 1,242,654; Oct. 9; v. 243; p. 418.
Chapman, Fred H., Winchester, Mass. Antirefilling bottle. No. 1,244,423; Oct. 23; v. 243; p. 1027.
Chappell, Howard F., New York, N. Y. Manufacture of hydrofuoric acid from silicon fuorid. No. 1,244,032; Oct. 23; v. 243; p. 911.
Chappell, Jesse C., Samantha, Ala. Cartridge-carrier. No. 1,241,922; Oct. 2, v. 243; p. 146.
Chardonnet, Hilaire de, Paris, France. Apparatus for treating artificial silk and like threads. No. 1,243,429; Oct. 16; v. 243; p. 709.
Charlton, Harry W., Jones Point, N. Y. Composite plastic article and producing the same. No. 1,242,421; Oct. 9; v. 243; p. 343.
Charlton, Harry W., Jones Point, N. Y. Plastic article and producing the same. No. 1,242,422; Oct. 9; v. 243; p. 343.
Chartier, Noel B., Richland, Wash. Comb-cleaning device. No. 1,244,469; Oct. 30; v. 243; p. 1079.
Chasman, Lewis. (See Siegel, Harry, assignor.)
Chatain, Henri G., Erie, Pa., assignor to General Electric Company. Internal-combustion engine. No. 1,242,142; Oct. 9; v. 243; p. 255.
Chatfield, Franklin, Minneapolis, Minn. Fabric-cutting machine. No. 1,243,673; Oct. 16; v. 243; p. 765.
Cheape, John A., Charlottesville, Va. Adding-machine. No. 1,242,921; Oct. 16; v. 243; p. 537.
Chemische Fabrik Greisheim-Elektron. (See Klatte and Rollett, assignors.)
Cherbonnier, George C., assignor to American Car and Foundry Company, St. Louis, Mo. Car-door-locking mechanism. No. 1,244,698; Oct. 30; v. 243; p. 1149.
Cherbonnier, George C., assignor to American Car and Foundry Company, St. Louis, Mo. Car-door operating and controlling mechanism. No. 1,244,699; Oct. 30; v. 243; p. 1150.
Chesnutt, John L., Kansas City, Mo. Automatic equalizer for vehicles. No. 1,241,494; Oct. 2; v. 243; p. 6.
Chesnutt, John L., Kansas City, Mo. Pneumatic equalizer for vehicles. No. 1,244,700; Oct. 30; v. 243; p. 1150.
Chicago Hardware Foundry Company. (See Gustafson, Axel P., assignor.)
Chicago Pneumatic Tool Company. (See Sherwood, Mather W., assignor.)
Chicago Railway Signal and Supply Company. (See Vogel, Eugene W., assignor.)

Chicago Spring Butt Company. (See Keene, William J., assignor.)

Chicago Standard Equipment Company. (See Lester, Frederick A., assignor.)

Chick, George O., Wirth, Ark. Fish-guard. No. 1,241,708; Oct. 2; v. 243; p. 76.

Children, Frank R., assignor to E. Children's Sons Manufacturing Co., Council Bluffs, Iowa. Hog-oiler. No. 1,241,495; Oct. 2; v. 243; p. 6.

Childress, Henry T., Hallettsville, Tex. Razor-strop holder. No. 1,243,710; Oct. 23; v. 243; p. 810.

Childs, Arthur D., North Bradley, Mich. Shipping-crate. No. 1,242,143; Oct. 9; v. 243; p. 255.

Childs, Frank H., Stroud, Okla. Non-skid armor. No. 1,243,653; Oct. 16; v. 243; p. 759.

Chilton, Henry J., Chicago, Ill. Bottle-handling apparatus. No. 1,244,701; Oct. 30; v. 243; p. 1150.

Chilton, William G., and J. H. Hobgood, Houston, Tex. Armor for pneumatic tires. No. 1,243,040; Oct. 16; v. 243; p. 575.

Chinn, Forrest H. (See Frye, Chinn, and Burnett.)

Christ, Edward J., Philadelphia, Pa. Amusement device. No. 1,244,702; Oct. 30; v. 243; p. 1151.

Christensen, Anders P., Hempstead, N. Y. Aeroplane construction and the like. No. 1,244,470; Oct. 30; v. 243; p. 1080.

Christensen, Emil, Portland, Oreg. Tapping device. No. 1,245,088; Oct. 30; v. 243; p. 1267.

Christiansen, Heinrich, Pinneberg, Germany. Machine for use in transmitting energy by means of alternately-moving air-columns. No. 1,244,955; Oct. 30; v. 243; p. 1228.

Christison, Hadley O. (See Christison, William F. and H. O.)

Christison, William F. and H. O., Kokomo, Ind. Wire-nail machine. No. 1,242,522; Oct. 9; v. 243; p. 374.

Christman, Daniel H., assignor to J. B. Atkins, Shreveport, La. Reflux-condenser. No. 1,243,384; Oct. 16; v. 243; p. 678.

Christoph, Emil A., assignor to The King Lock Company, Chicago, Ill. Key-cutting machine. No. 1,243,810; Oct. 23; v. 243; p. 844.

Christoph, Emil A., assignor to The King Lock Company, Chicago, Ill. Lock. No. 1,244,450; Oct. 23; v. 243; p. 1036.

Christy, Thompson H., and S. K. Hunger, Vandergrift, Pa. Adjustable chain-tightener. No. 1,243,711; Oct. 23; v. 243; p. 810.

Chryst, William A. (See Kettering and Chryst.)

Chubb, Lewis W., Edgewood, Pa., assignor to Westinghouse Electric and Manufacturing Company. Thermo-couple. No. 1,241,496; Oct. 2; v. 243; p. 6.

Chudomelka, Florian V., Scribner, Nebr. Power transmitting attachment for automobiles. No. 1,244,424; Oct. 23; v. 243; p. 1028.

Church, Ira M., Auld, Cal. Remedy for the bee disease called the European foul brood. No. 1,242,770; Oct. 9; v. 243; p. 455.

Ciapetti, Gino, Rome, Italy. Method and apparatus for producing dealcoholized fermented beverages. No. 1,243,811; Oct. 23; v. 243; p. 844.

Clanton, Estelle, administratrix. (See Clanton, William A.)

Clanton, William A., deceased; E. Clanton, administratrix, assignor of one-half to E. Viator, Eunice, La. Adjustable utility dasher. No. 1,244,956; Oct. 30; v. 243; p. 1228.

Claremont, Ernest A. (See Beaver and Claremont.)

Clark, Edward W., assignor of one-half to A. Wells, Los Angeles, Cal. Cylinder-grinding machine. No. 1,244,703; Oct. 30; v. 243; p. 1151.

Clark, Emerson L., Lakewood, Ohio, assignor, by mesne assignments, to National Carbon Company, Inc. Battery-tester. No. 1,244,425; Oct. 23; v. 243; p. 1028.

Clark, Emery E., Oskaloosa, Kans. Power-transmitting mechanism. No. 1,244,426; Oct. 23; v. 243; p. 1028.

Clark, Frank H., and J. M. Coffey, assignors to Chambers Valve Company, New York, N. Y. Throttle-valve. No. 1,242,880; Oct. 9; v. 243; p. 489.

Clark, Frank H., and J. M. Coffey, assignors to Chambers Valve Company, New York, N. Y. Stuffing-box. No. 1,243,712; Oct. 23; v. 243; p. 811.

Clark, Laura A., Longview, Tex. Milking device and antikicker. No. 1,244,175; Oct. 23; v. 243; p. 952.

Clark, Thomas E., Detroit, Mich. Track apparatus for indicating the movements of railway-trains. No. 1,242,144; Oct. 9; v. 243; p. 255.

Clark, Walter G., New York, N. Y. Covering material for aircraft and making said material. No. 1,243,041; Oct. 16; v. 243; p. 576.

Clark, Walter G., New York, N. Y. Making covering material for aircraft. No. 1,243,654; Oct. 16; v. 243; p. 759.

Clark, Walter G., New York, N. Y. Making covering material for aircraft. No. 1,243,655; Oct. 16; v. 243; p. 759.

Clarke, Charles E., and J. S. Delaney, assignors of one-third to C. E. Clarke, Winthrop, and two-thirds to J. Robertson, Woburn, Mass. Machine for grading and sorting leather. No. 1,243,260; Oct. 16; v. 243; p. 641.

Clarke, John T. (See Hillman, Henry G., assignor.)

Clasen, Emil M., Chicago, Ill. Multiple-disk talking-machine. No. 1,243,385; Oct. 16; v. 243; p. 678.

Clausen, Henry P., Mount Vernon, assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,241,923; Oct. 2; v. 243; p. 146.

Clausen, Henry P., Mount Vernon, N. Y., assignor, by mesne assignments, to Western Electric Company, Incorporated. Circuit-controlling device. No. 1,243,261; Oct. 16; v. 243; p. 641.

Clausing, George, assignor to The Vulcan Last Company, Portsmouth, Ohio. Last. No. 1,242,145; Oct. 9; v. 243; p. 256.

Clausing, George, assignor to The Vulcan Last Company, Portsmouth, Ohio. Last. No. 1,242,146; Oct. 9; v. 243; p. 250.

Clausing, George, assignor to The Vulcan Last Company, Portsmouth, Ohio. Last. No. 1,242,147; Oct. 9; v. 243; p. 256.

Clay, Joseph B., Cedar Falls, Iowa. Stall. No. 1,242,322; Oct. 9; v. 243; p. 311.

Clayton, John T. (See Ward, Robert G., assignor.)

Clement, Auther H., Decatur, Tex. Insect-destroyer. No. 1,244,834; Oct. 30; v. 243; p. 1191.

Clemson, Richard D., assignor to Hollifield Target Practice Rod Company, Middletown, N. Y. Target-practice apparatus. No. 1,244,451; Oct. 23; v. 243; p. 1036.

Cleveland Folding Machine Company, The. (See Trautman, Walter G., assignor.)

Cleveland Macaroni Company, The. (See Gammel, Karl, assignor.)

Cleveland Pneumatic Tool Company, The. (See Greve, Louis W., assignor.)

Clinton Wire Cloth Company. (See Hood, Ralph O., assignor.)

Clough, Bert E., Battle Creek, Mich. Mechanically-operated horse-power-computing machine. No. 1,242,771; Oct. 9; v. 243; p. 455.

Clutter, Homer V., Denver, Colo. Combined heat and steam generator. No. 1,243,812; Oct. 23; v. 243; p. 845.

Clyde Iron Works. (See McGiffert, John R., assignor.)

Clymer, William R., Lakewood, Ohio, assignor, by mesne assignments, to National Carbon Company, Inc. Electric battery. No. 1,242,656; Oct. 9; v. 243; p. 418.

Coan, John, Kansas City, Mo. Tire-armor. No. 1,243,657; Oct. 16; v. 243; p. 760.

Coalson, Archie D., Birmingham, Ala. Rerailing device. No. 1,243,920; Oct. 23; v. 243; p. 878.

Cobb, Elmer M., South Portland, assignor to Southworth Machine Company, Portland, Me. Multiple punching-machine. No. 1,243,656; Oct. 16; v. 243; p. 759.

Cobb, Richard H., Cleveland, Ohio. Fuel-supply device. No. 1,243,813; Oct. 23; v. 243; p. 845.

Coberly, Clarence J., Glendale, Cal. Motion-picture camera. No. 1,243,262; Oct. 16; v. 243; p. 642.

Cobert, Joseph, Northampton, Mass. Split-pulley clamp. No. 1,244,835; Oct. 30; v. 243; p. 1191.

Coburn, Harry E., Buffalo, N. Y. Pasteurizing apparatus. No. 1,244,704; Oct. 30; v. 243; p. 1152.

Coburn, Lizzie S., Everett, Mass. Yarn-holding reel. No. 1,242,657; Oct. 9; v. 243; p. 419.

Cochrane, Charles E., Medford, Mass., assignor to C-D-G. Manufacturing Company, Portland, Me. Flushing device. No. 1,242,922; Oct. 16; v. 243; p. 537.

Cockrell, Grace, Niagara Falls, N. Y. Breakfast food. No. 1,244,586; Oct. 30; v. 243; p. 1116.

Coe, James R., Waterbury, Conn. Curtain-rod fixture. No. 1,243,139; Oct. 16; v. 243; p. 605.

Coe, William W., Jr., Bloomsbury, London, England. Dye. No. 1,243,042; Oct. 16; v. 243; p. 576.

Coffey, Joseph M. (See Clark and Coffey.)

Coffin, Charles L., Parks, Ga., assignor to Electric Metal Working Company, Detroit, Mich. Arc welding, heating, and metal-working. No. 1,243,589; Oct. 16; v. 243; p. 738.

Coffin, Charles L., Parks, Ga., assignor to Electric Metal Working Co., Detroit, Mich. Method of electric-arc welding, heating, and metal-working, and apparatus therefor. No. 1,244,705; Oct. 30; v. 243; p. 1152.

Cohen, Alfred H., Oakland, Cal. Method and apparatus for producing oscillating currents of high frequency. No. 1,243,043; Oct. 16; v. 243; p. 576.

Cohen, Benjamin, *et al.* (See Wagner, William G., assignor.)

Cohen, D. R., *et al.* (See Gruman, Horace F., assignor.)

Cohen, Henry, *et al.* (See Wagner, William G., assignor.)

Cohen, Nathan, assignor of one-half to F. Bowerman, Swindon, England. Dental suction-disk. No. 1,243,386; Oct. 16; v. 243; p. 678.

Cohen, Phillip S., Boston, Mass. Playing-cards. No. 1,243,263; Oct. 16; v. 243; p. 642.

Cohen, S. R., *et al.* (See Gruman, Horace F., assignor.)

Cohn, Herman, New York, N. Y. Manufacturing hats. No. 1,243,487; Oct. 16; v. 243; p. 709.

Coin Controlled Lock Co. (See Farnsworth, Willis S., assignor.)

Colarusso, Antonio, Hudson, N. Y. Concrete-form device. No. 1,243,713; Oct. 23; v. 243; p. 811.

Colby, Ora A. (See Rose and Colby.)

Cole, Chauncey R., Tulsa, Okla. Transmission. No. 1,241,924; Oct. 2; p. 243; p. 146.

Cole, David, Morenci, Ariz. Apparatus for separating or concentrating ores. No. 1,243,814; Oct. 23; v. 243; p. 846.

Cole, Frederick W., Newton Highlands, Mass., assignor to Gamewell Fire Alarm Telegraph Company, New York, N. Y. Successive non-interference signal-box. No. 1,244,587; Oct. 30; v. 243; p. 1117.

Cole, J. Edward, *et al.* (See Johnson, Clarence B., assignor.)

Cole, Lewis, assignor to Talk-Sing Company, Chicago, Ill. Phonograph. No. 1,244,588; Oct. 30; v. 243; p. 1117.

Cole, Robert C., assignor to The Johns-Pratt Company, Hartford, Conn. Inclosed electric fuse. No. 1,244,589; Oct. 30; v. 243; p. 1117.

Coleman, Hale S., Ashland, Wis. Mechanical toy. No. 1,245,089; Oct. 30; v. 243; p. 1268.

Coleman, James N., Montreal, Quebec, Canada. Truck-retaining center-bearing. No. 1,243,387; Oct. 16; v. 243; p. 678.

Coleman, Kyster B., Scottsburg, assignor of one-half to J. E. Green, Jr., Clover, Va. Crossing-signal for railways. No. 1,241,608; Oct. 2; v. 243; p. 46.

Coleman, Thomas A., assignor to P. Vredenburgh, Jr., Vredenburgh, Ala. Feed-roller construction. No. 1,241,925; Oct. 2; v. 243; p. 146.

Coleman, William W., New York, N. Y. Bond-wire connector. No. 1,241,497; Oct. 2; v. 243; p. 6.

Collett, George A., assignor of one-half to C. D. Staplin, Macon, Mo. Snap-hook. No. 1,243,590; Oct. 16; v. 243; p. 739.

Colleys, Henry E., Hammond, Ind. Folding crate. No. 1,242,772; Oct. 9; v. 243; p. 455.

Collings, William A., Kansas City, Mo. Shoe mud-guard. No. 1,242,923; Oct. 16; v. 243; p. 537.

Collings, William A., Kansas City, Mo. Double-headed nail. No. 1,242,924; Oct. 16; v. 243; p. 537.

Collins, George W., Holyoke, Mass. Hinge construction. No. 1,243,515; Oct. 23; v. 243; p. 846.

Collins, Thomas E., Chicago, Ill. Fire-shutter. No. 1,242,658; Oct. 9; v. 243; p. 419.

Collins, William M. (See Procunier, Frank R., assignor.)

Colls Company, The. (See Weyburn, Lewis A., assignor.)

Collum, David N., Bloomington, Ill. Corn-planter. No. 1,244,957; Oct. 30; v. 243; p. 1228.

Colpitts, Edwin H., East Orange, N. J., assignor, by mesne assignments, to American Telephone & Telegraph Company, System for the transmission of intelligence. (Reissue.) No. 14,380; Oct. 23; v. 243; p. 1037.

Colquhoun, Robert T., Vancouver, British Columbia, Canada. Internal-combustion engine. No. 1,242,148; Oct. 9; v. 243; p. 257.

Colt, Samuel S., Orange, N. J. Molding apparatus. No. 1,244,958; Oct. 30; v. 243; p. 1229.

Columbia Axle Company, The. (See Fries, Robert E., assignor.)

Columbia Postal Supply Company. (See Ielfield, August, assignor.)

Columbia Weighing Machine Company. (See Helsel, Reuben H., assignor.)

Colvin, William, Cincinnati, Ohio. Collapsible automobile-fender. No. 1,241,709; Oct. 2; v. 243; p. 76.

Commercial Truck Company of America. (See Mella, Martin, assignor.)

Commercial Truck Company of America. (See Whitney, Frank E., assignor.)

Concrete Piling Company. (See Bignell, Edward, assignor.)

Concrete Steel Company. (See Brooks, David W., assignor.)

Conklin, William F., Tarentum, and E. B. Todd, Brackenridge, Pa. Plunger-actuating mechanism for pickling-tanks. No. 1,243,488; Oct. 16; v. 243; p. 709.

Conn, Creed, *et al.* (See Boggs, Nathan, assignor.)

Conn, Henry P., *et al.* (See Boggs, Nathan, assignor.)

Connolly, James E., Baltimore, Md. Hanger for collapsible containers. No. 1,243,140; Oct. 16; v. 243; p. 605.

Conover, Harvey, Chicago, Ill. Electrically-illuminated advertising device. No. 1,244,959; Oct. 30; v. 243; p. 1229.

Consolidated Fire Works Co. of America. (See Trismen, John H., assignor.)

Consolidated Inventions Company, The. (See Higgins, Henry B., jr., assignor.)

Continental Can Company. (See Taliaferro, Robinson, and Coyle, assignors.)

Continental Engineering Corporation. (See Buck, Wilmer G., assignor.)

Continuous Zinc Furnace Company, The. (See Johnson, Woolsey M., assignor.)

Cook, Douglas P. (See Needham, Cook, and Klahn.)

Cook, Neil A. (See Frye, Chinn, and Burnett, assignors.)

Cook, Stanley W., trustee. (See Wood, William H., assignor.)

Cook, William A. (See Wehrle, Albert H., assignor.)

Cool, Robert B., Lancaster, Ohio. Gas-burner attachment. No. 1,243,044; Oct. 16; v. 243; p. 577.

Cooney, James E., Pawtucket, R. I. Toy balloon. No. 1,241,822; Oct. 2; v. 243; p. 113.

Cooney, Robert L., Atlanta, Ga. Stationary fire-extinguisher system. No. 1,244,293; Oct. 23; v. 243; p. 990.

Cooper, Erwin C., assignor to Packard Motor Car Company, Detroit, Mich. Transmission-shaft. (Reissue.) No. 14,376; Oct. 16; v. 243; p. 767.

Cooper, James J., assignor to American Car and Foundry Company, St. Louis, Mo. Centering uncoupling device. No. 1,244,706; Oct. 30; v. 243; p. 1152.

Cooper, James W., Marshalltown, Iowa. Nest-box. No. 1,243,591; Oct. 16; v. 243; p. 739.

Copony, Alfred, Chicago, Ill. Draft-rigging yoke. No. 1,243,045; Oct. 16; v. 243; p. 577.

Coppus Engineering and Equipment Company. (See Coppus, Frans H. C., assignor.)

Coppus, Frans H. C., assignor to Coppus Engineering and Equipment Company, Worcester, Mass. Turbine-driven blower. No. 1,244,427; Oct. 23; v. 243; p. 1028.

Cordell, John F., Salt Lake City, Utah. Artificial leg. No. 1,244,294; Oct. 23; v. 243; p. 990.

Cordes, Carl, Magdeburg, Germany. Insulation of condensers for telephone-circuits. No. 1,241,926; Oct. 2; v. 243; p. 147.

Corley, John T., Providence, R. I. Clamp for lamp-brackets. No. 1,243,388; Oct. 16; v. 243; p. 679.

Corliss Motor Truck Company. (See Moore, Harry G., assignor.)

Cormier, Joseph O., Cleveland, Ohio. Automobile-radiator. No. 1,243,816; Oct. 23; v. 243; p. 846.

Cornelison, Robert W., assignor to The Cott-A-Lap Company, Somerville, N. J. Calcimine and process of making same. No. 1,244,033; Oct. 23; v. 243; p. 912.

Cornell, Charles H., Valentine, Nebr. Rail-fastener. No. 1,244,590; Oct. 30; v. 243; p. 1117.

Cornell, Charles H., Valentine, Nebr. Rail-fastening device. No. 1,244,707; Oct. 30; v. 243; p. 1153.

Corning Glass Works. (See Gage and Pascucci, assignors.)

Cornwall, George R., Rye, N. Y. Device for use in making printing-plates. No. 1,242,523; Oct. 9; v. 243; p. 374.

Cornwall, George R., Rye, N. Y. Device for making printing-plates. No. 1,243,264; Oct. 16; v. 243; p. 642.

Corrall, Herbert, Helensburgh, and J. M. Forbes, Scotstoun, Glasgow, Scotland, assignors to The Singer Manufacturing Company, Sewing-machine. No. 1,241,710; Oct. 2; v. 243; p. 77.

Corrall, Herbert, Parkview, Helensburg, Scotland, assignor to The Singer Manufacturing Company. Sewing-machine. No. 1,243,921; Oct. 23; v. 243; p. 878.

Corsepius, George W., Downey, Idaho. Wire-stretcher. No. 1,244,836; Oct. 30; v. 243; p. 1191.

Cosgrove, John W., Medford, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Cementing-machine. No. 1,242,925; Oct. 16; v. 243; p. 538.

Coshow, Oliver P. (See Sanders, John F., assignor.)

Coté, Paul J., Eburne, British Columbia, Canada. Salting-machine. No. 1,244,471; Oct. 30; v. 243; p. 1080.

Coté, Prosper, St. Hyacinthe, Quebec, Canada. Shoe-last. No. 1,244,472; Oct. 30; v. 243; p. 1080.

Cott-A-Lap Company, The. (See Cornelison, Robert W., assignor.)

Cotton, Walter H., Chicago, Ill., assignor to Union Draft Gear Co. Draft-gear. No. 1,243,389; Oct. 16; v. 243; p. 679.

Coulter & McKenzie Machine Company. (See Berg, Andrew, assignor.)

Couper, Charles C., Norfolk, Va. Clamp for brackets. No. 1,241,823; Oct. 2; v. 243; p. 113.

Courtland, William A. (See Rogers, Edward, assignor.)

Courtney, James M. (See Grow and Courtney.)

Covell, Charles W., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Insulating-support. No. 1,244,473; Oct. 30; v. 243; p. 1081.

Cover, John W., Tacoma, Wash. Grinding-mill. No. 1,242,423; Oct. 9; v. 243; p. 344.

Covington, Marcus E. (See Hackley, George T., assignor.)

Cowan, Charles E., *et al.* (See Ruckes, Michael, assignor.)

Cowles, Herbert L., St. Johns, Oreg. Cabinet. No. 1,244,474; Oct. 30; v. 243; p. 1081.

Cox, Charles A., Westfield, Ill. Railway-tie and rail-fastening. No. 1,244,176; Oct. 23; v. 243; p. 952.

Cox, Edward L., Denver, Colo., assignor to The Whitney Sporting Goods Company. Artificial bait. (Reissue.) No. 14,377; Oct. 16; v. 243; p. 768.

Coyle, John. (See Taliaferro, Robinson, and Coyle.)

Craig, Alvin M., New Haven, Conn. Treating metals and alloys of metals. No. 1,243,714; Oct. 23; v. 243; p. 812.

Craig, David, Peabody, Mass. Pressure and vacuum relief valve. No. 1,243,592; Oct. 16; v. 243; p. 739.

Craig, Harvey G., St. Louis, assignor to Kraker Pen Co., Kansas City, Mo. Fountain-pen. No. 1,242,323; Oct. 9; v. 243; p. 312.

Crane Company. (See Burke, Edmund, assignor.)

Crane, Samuel W., Manchester, Okla. Combined exhibiting and dispensing apparatus. No. 1,242,149; Oct. 9; v. 243; p. 257.

Crane, Samuel W., Lone Wolf, Okla. Seat attachment for riding-harrows. No. 1,244,295; Oct. 23; v. 243; p. 990.

Craven, Danniel M., Sr., Paducah, Tex. Fireproof swing and ventilator. No. 1,241,824; Oct. 2; v. 243; p. 114.

Craven, James F., Crafton, Pa. Making chains. No. 1,242,324; Oct. 9; v. 243; p. 312.

Craven, James F., Pittsburgh, Pa. Making chains. No. 1,242,325; Oct. 9; v. 243; p. 312.

Crawford, David F., Pittsburg, Pa. Block-signal. No. 1,241,927; Oct. 2; v. 243; p. 147.

Crawford, McGregor and Canby Co., The. (See Eastman, Ernest A., assignor.)

Crawford, Paul H., Divisadero, Salvador. Belt-dressing. No. 1,242,424; Oct. 9; v. 243; p. 344.

Crawford, Rufus C., McKeesport, assignor of one-half to John T. Moyer, Oakmont, Pa. Explosive device. No. 1,243,817; Oct. 23; v. 243; p. 847.

Crecelius, Lawrence P., and P. H. Eberlein, assignors to The Electric Railway Improvement Company, Cleveland, Ohio. Rail-bonding apparatus. No. 1,242,524; Oct. 9; v. 243; p. 375.

Crecelius, Lawrence P., assignor to The Electric Railway Improvement Company, Cleveland, Ohio. Rail-bonding apparatus. No. 1,242,525; Oct. 9; v. 243; p. 375.

Crecelius, Lawrence P., assignor to The Electric Railway Improvement Company, Cleveland, Ohio. Rail-bonding apparatus. No. 1,242,526; Oct. 9; v. 243; p. 375.

Crecelius, Lawrence P., assignor to The Electric Improvement Company, Cleveland, Ohio. Method and apparatus for bonding rails. No. 1,242,527; Oct. 9; v. 243; p. 376.

Creveling, John L., New York, N. Y., assignor to Safety Car Heating and Lighting Company. Electric distribution. No. 1,244,960; Oct. 30; v. 243; p. 1229.

Cribbs, Thomas J., Clearwater, Fla. Currycomb. No. 1,241,928; Oct. 2; v. 243; p. 147.

Crismore, Joseph A., deceased, Berwyn, Ill.; W. A. Carson, administrator. Resilient wheel. No. 1,243,265; Oct. 16; v. 243; p. 643.

Crispin, Clarence G., Salem township, Luzerne county, Pa. Pressure-valve. No. 1,244,177; Oct. 23; v. 243; p. 953.

Crompton & Knowles Loom Works. (See Gagnon, Joseph A., assignor.)

Cropper, William N., and S. L. Lancaster, Lexington, Ky. Screen-frame. No. 1,243,715; Oct. 23; v. 243; p. 812.

Crosby, Gorham, Glen Ridge, N. J., assignor to Gould Coupler Company. Dynamo-mounting. No. 1,242,528; Oct. 9; v. 243; p. 376.

Crosby, Gorham, Glen Ridge, N. J., assignor to Gould Coupler Company. Dynamo suspension. No. 1,242,529; Oct. 9; v. 243; p. 376.

Crosland, Delevante W., San Francisco, Cal. Roller-bearing. No. 1,242,530; Oct. 9; v. 243; p. 377.

Crouse-Hinds Company. (See Bissell, Carl H., assignor.)

Crouse-Hinds Company. (See Van Ranst, Samuel B., assignor.)

Crout, John C. (See Ashworth and Crout.)

Crowell, Charles H., Brooklyn, N. Y. Strip moistening and delivering machine. No. 1,244,708; Oct. 30; v. 243; p. 1163.

Crowell, Charles H., Brooklyn, N. Y. Hand-operated tape-moistener. No. 1,244,837; Oct. 30; v. 243; p. 1191.

Crowell, Walter S., Philadelphia, Pa., assignor to The S. S. White Dental Manufacturing Company. Dental cement. No. 1,244,296; Oct. 23; v. 243; p. 991.

Crozier, Le Roy. (See Stoudt, Michael, assignor.)

Culton, James, Denver, Colo. Movement-controlling mechanism for power-driven vehicles. No. 1,241,711; Oct. 2; v. 243; p. 77.

Culton, James, Denver, Colo. Railway-track trip. No. 1,241,712; Oct. 2; v. 243; p. 78.

Cummings, Dennis L., Boston, Mass. Flush-insert for concrete-work. No. 1,244,084; Oct. 23; v. 243; p. 912.

Cummins, James S. (See Ballard, William N., assignor.)

Cummins, Norman W., assignor to The Burns & Bassick Company, Bridgeport, Conn. Producing hollow set-screws. No. 1,243,818; Oct. 23; v. 243; p. 847.

Cunningham, Jasper, Walnut Springs, Tex. Cotton chopper or blocker. No. 1,243,046; Oct. 16; v. 243; p. 577.

Cunningham, Joseph W., Villisca, Iowa. Crank-holding attachment. No. 1,243,593; Oct. 16; v. 243; p. 740.

Cunningham Springless Shade Company. (See Dawson, Franklin A., assignor.) (Reissue.)

Curland, Henry, assignor to himself and C. H. Kellermann, Chicago, Ill. Apparatus for cooling soap and the like. No. 1,244,297; Oct. 23; v. 243; p. 991.

Curragh, John M. (See Budlong, Frank M., assignor.)

Currier, Hiram D., assignor to Kellogg Switchboard & Supply Company, Chicago, Ill. Switchboard-lamp. No. 1,244,475; Oct. 30; v. 243; p. 1081.

Currier, Marion L., Cottleville, Mo. Cordless telephone-switchboard. No. 1,243,922; Oct. 23; v. 243; p. 878.

Curry, Alexander D., Hawkinsville, Ga. Closure for shoes. No. 1,242,774; Oct. 9; v. 243; p. 455.

Curry, Charles. (See Hovis, Park S., assignor.)

Curtis, Evelyn E. (See Curtis, Snyder, assignor.)

Curtis, Henry E., assignor of one-third to F. P. Schemmel, San Jose, Cal. Carburetor. No. 1,244,428; Oct. 23; v. 243; p. 1029.

Curtis, Henry H., assignor of one-half to J. C. Phelps, Springfield, Mass. Fuse-block. No. 1,242,326; Oct. 9; v. 243; p. 313.

Curtis, Oliver W., Watertown, N. Y. Milling-machine. No. 1,242,775; Oct. 9; v. 243; p. 456.

Curtis, Snyder, assignor to E. E. Curtis, Trenton, N. J. Apparatus for forming hard-rubber battery-jars. No. 1,242,776; Oct. 9; v. 243; p. 456.

Curtiss, Bert, Ypsilanti, and G. F. Curtiss, Plymouth, Mich. Direction-signal and alarm. No. 1,243,266; Oct. 16; v. 243; p. 643.

Curtiss, George F. (See Curtiss, Bert and G. F.)

Curtiss, Nathan A. (See Gall and Curtiss.)

Cuthbert, John. (See Nielsen, Julian J., assignor.)

Cuthbert, John, Chicago, Ill. Wire coiling and binding clamp. No. 1,243,716; Oct. 23; v. 243; p. 812.

Cuthbertson, Ethel I., Vancouver, British Columbia, Canada. Waterproofing of fabrics. No. 1,242,327; Oct. 9; v. 243; p. 313.

Cutler-Hammer Mfg. Co., The. (See Denhard, Harry W., assignor.)

Cutler-Hammer Mfg. Co., The. (See Evans, Clarence T., assignor.)

Cutting, William S., assignor of one-half to T. J. Farero, Tower, Mich. Bullet. No. 1,244,298; Oct. 23; v. 243; p. 991.

D & W Fuse Company. (See Mayer, Walter S., assignor.)

D. C. Hughes & Co. (See Hughes, Davydd C., assignor.)

D'Agostino, Nicola, assignor of one-third to A. Bizzarri, and one-third to R. Raulli, Los Angeles, Cal. Drying-room for cereal pastes. No. 1,244,429; Oct. 23; v. 243; p. 1029.

Dade, William A., and R. E. Morgan, Orlando, Fla. Insulators. No. 1,241,929; Oct. 2; v. 243; p. 148.

Dahlin, Carl T., Stockholm, Wis. Legging. No. 1,242,150; Oct. 9; v. 243; p. 257.

Dahlqvist, John A., Nyhem, Huddinge, assignor to Aktiebolaget Salenius Werkstäder, Sundbyberg, Sweden. Coupling device for separator-drums. No. 1,241,713; Oct. 2; v. 243; p. 78.

Dahlstrom Metallic Door Company. (See Walther, Albert B., assignor.)

Daigh, Charles R. (See Daigh, Walter, assignor.)

Daigh, Walter, assignor of one-fourth to C. R. Daigh, Parsons, Kans. Implement-frame. No. 1,244,838; Oct. 30; v. 243; p. 1192.

Dain, Joseph, and H. B. Sperry, assignors to Dain Manufacturing Company of Iowa, Ottumwa, Iowa. Hay-press. No. 1,244,035; Oct. 23; v. 243; p. 912.

Dain Manufacturing Company of Iowa. (See Dain and Sperry, assignors.)

Dalbey, Joel B., assignor of one-half to J. A. King, Nevada, Iowa. Plaiting-machine. No. 1,242,425; Oct. 9; v. 243; p. 344.

Dallavalle, Gaetano, Newark, N. J. Mattress. No. 1,243,267; Oct. 16; v. 243; p. 643.

Daly, Dantel F., Milwaukee, Wis. Tie-slip clip. No. 1,244,961; Oct. 30; v. 243; p. 1230.

Daly, John M., Chicago, Ill. Mechanism for transporting vehicles in cars. No. 1,243,141; Oct. 16; v. 243; p. 605.

Dana, Chauncey R., San Francisco, Cal. Pipe-vise. No. 1,242,426; Oct. 9; v. 246; p. 344.

Danielson, Andrew C., Rhinelander, Wis. Overalls. No. 1,242,777; Oct. 9; v. 243; p. 456.

Darden, Arthur, and F. F. Doering, assignors to Kilby Car & Foundry Company, Anniston, Ala. Track-laying machine. No. 1,244,839; Oct. 30; v. 243; p. 1192.

Dargo, Joseph, New York, N. Y. Window-screen. No. 1,243,923; Oct. 23; v. 243; p. 879.

Darker, Alfred H., Blackheath, assignor to J. Stone & Company, Limited, Deptford, England. Electric train lighting, ventilating, and heating system and the like. No. 1,242,328; Oct. 9; v. 243; p. 313.

Darling, Arthur R., assignor to Edwards Instrument Company, Indianapolis, Ind. Tooth-nerve tester. No. 1,242,778; Oct. 9; v. 243; p. 457.

Darmofalski, Jozef, Middlefield, Conn. Defensive implement. No. 1,244,036; Oct. 23; v. 243; p. 912.

Darrah, Charles A., Ottumwa, Iowa. Can-opener. No. 1,242,329; Oct. 9; v. 243; p. 314.

Darrow, Henry W., Winamac, Ind., assignor, by mesne assignments, to F. Muser, New York, N. Y. Reversible driving mechanism for clothes-wringers. No. 1,242,659; Oct. 9; v. 243; p. 419.

Davenport, John C., Norwood, Ohio, assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis. Winding for dynamo-electric machines. No. 1,244,709; Oct. 30; v. 243; p. 1153.

Davenport Locomotive Works. (See Backer, Elmer F., assignor.)

Davenport, Ray H., Roselle, N. J., assignor to American Car and Foundry Company, St. Louis, Mo. Non-leakable discharge-nozzle. No. 1,244,710; Oct. 30; v. 243; p. 1154.

Davey, John F., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Fastener-setting machine. No. 1,244,430; Oct. 23; v. 243; p. 1029.

Davidovitz, Hyman. (See Schwittal and Davidovitz.)

Davidson, James A., Loveland, Colo. Centrifugal speed control for fire-escapes. No. 1,241,930; Oct. 2; v. 243; p. 148.

Davidson, R. L., *et al.* (See Francis, Hugh, assignor.)

Davis, Anthony E., Philadelphia, Pa. Concrete-insert. No. 1,241,827; Oct. 2; v. 243; p. 115.

Davis, Anthony E., assignor of one-half to F. J. Geiger, Philadelphia, Pa. Vault-light, floor-light, pavement-light, or skylight construction. No. 1,241,825; Oct. 2; v. 243; p. 114.

Davis, Anthony E., assignor of one-half to F. J. Geiger, Philadelphia, Pa. Pavement and armored joint-strip therefor. No. 1,241,826; Oct. 2; v. 243; p. 114.

Davis-Bournonville Company. (See Cave, Henry, assignor.)

Davis, Charles E., assignor to Goodman Manufacturing Company, Chicago, Ill. Mining-machine. No. 1,244,178; Oct. 23; v. 243; p. 953.

Davis, Charles E., assignor to Goodman Manufacturing Company, Chicago, Ill. Mining-machine. No. 1,244,179; Oct. 23; v. 243; p. 954.

Davis, Dewitt, Jefferson City, Mo. Post-hole digger. No. 1,241,931; Oct. 2; v. 243; p. 148.

Davis, Dudley. (See Weesner and Davis.)

Davis, Elam H., Memphis, Tenn. Demountable-rim device. No. 1,242,330; Oct. 9; v. 243; p. 314.

Davis, Frank, Pawtucket, R. I. Portable rack. No. 1,242,779; Oct. 9; v. 243; p. 457.

Davis, Harry L., Greenville, Me. Calk. No. 1,243,819; Oct. 23; v. 243; p. 847.

Davis, Joseph L., deceased, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Dynamo-electric machine. (Reissue.) No. 14,370; Oct. 2; v. 243; p. 206.

Davis, Joseph L., deceased, M. S. Davis, administratrix, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electric locomotive. No. 1,241,498; Oct. 2; v. 243; p. 7.

Davis, Lewis W., Seattle, Wash. Friction transmission. No. 1,241,609; Oct. 2; v. 243; p. 46.

Davis, Myra S., administratrix. (See Davis, Joseph L.)

Davis, Theron, New York, N. Y. Shutter for moving-picture machines. No. 1,241,828; Oct. 2; v. 243; p. 115.

Davison, John O., Oakland, Miss. Machine for molding concrete blocks. No. 1,241,932; Oct. 2; v. 243; p. 148.

Dawson, Cecil F., New York, N. Y., and L. W. Luellen, Mountain Lakes, N. J. System of mobile armament. No. 1,244,431; Oct. 23; v. 243; p. 1030.

Dawson, Franklin A., Coats, N. C., assignor to Cunningham Springless Shade Company. Window-shade roller. (Reissue.) No. 14,375; Oct. 9; v. 243; p. 496.

Day, David T., Washington, D. C., assignor to V. Z. Reed, Denver, Colo. Extraction of hydrocarbon products from shales and coals. No. 1,244,840; Oct. 30; v. 243; p. 1192.

Day, George H., assignor to American Optical Company, Southbridge, Mass. Eye-protector. No. 1,241,714; Oct. 2; v. 243; p. 78.

Day, George H., assignor to American Optical Company, Southbridge, Mass. Eye-protector. No. 1,241,715; Oct. 2; v. 243; p. 79.

Day, George H., assignor to American Optical Company, Southbridge, Mass. Ophthalmic mounting. No. 1,241,716; Oct. 2; v. 243; p. 79.

Day, George H., assignor to American Optical Company, Southbridge, Mass. Ophthalmic mounting. No. 1,241,718; Oct. 2; v. 243; p. 80.

Day, George H., and Oswald B. Carson, assignor to American Optical Company, Southbridge, Mass. Ophthalmic mounting. No. 1,241,717; Oct. 2; v. 243; p. 79.

Day, George H., assignor to American Optical Company, Southbridge, Mass. Eye-protector. No. 1,243,820; Oct. 23; v. 243; p. 848.

Daymon, George W., Philadelphia, Pa. Sweep-stick coupling. No. 1,241,829; Oct. 2; v. 243; p. 116.

Dayton Engineering Laboratories Co., The. (See Kettering and Chryst, assignors.)

De Burger, Ernest E., Indianapolis, Ind., assignor of one-half to B. E. White, Cincinnati, Ohio. Filing-case. No. 1,242,101; Oct. 2; v. 243; p. 200.

De Capitani, Antonio, Milan, Italy. Machine for the manufacture of tapes containing parallel electric wires. No. 1,243,142; Oct. 16; v. 243; p. 606.

De Corte, Henry, Fairgrove, Mich. Torpedo-guard. No. 1,243,143; Oct. 16; v. 243; p. 606.

De Corte, Henry, Fairgrove, Mich. Torpedo-guard. No. 1,243,144; Oct. 16; v. 243; p. 606.

De Groot, Adri, New York, assignor to E. H. Warnecke, Brooklyn, N. Y. Easel. No. 1,242,151; Oct. 9; v. 243; p. 258.

De Long, Ellen, Chicago, Ill. Garment-supporter. No. 1,242,780; Oct. 9; v. 243; p. 458.

De Lukacsevics, Charles, West Nutley, N. J., assignor to A. Gross, New York, N. Y. Valve for internal-combustion engines. No. 1,244,711; Oct. 30; v. 243; p. 1154.

De Lukacsevics, Charles, assignor to A. Gross, New York, N. Y. Carburetor. No. 1,244,712; Oct. 30; v. 243; p. 1154.

De Roo, John C., Cincinnati, Ohio. Mop. No. 1,244,592; Oct. 30; v. 243; p. 1118.

De Rosa, Antonio, Brooklyn, N. Y. Vehicle-wheel rim. No. 1,244,037; Oct. 23; v. 243; p. 913.

De Rosa, Humbert J., New York, N. Y. Torpedo-guard. No. 1,244,963; Oct. 30; v. 243; p. 1230.

De Voe, Albert H., Westfield, N. J., assignor to The Singer Manufacturing Company. Ruffling mechanism for sewing-machines. No. 1,241,719; Oct. 2; v. 243; p. 80.

De Voe, Albert H., Westfield, N. J., assignor to The Singer Manufacturing Company. Looper mechanism for sewing-machines. No. 1,243,145; Oct. 16; v. 243; p. 606.

De Voe, Albert H., Westfield, N. J., assignor to The Singer Manufacturing Company. Sewing-machine feeding mechanism. No. 1,244,479; Oct. 30; v. 243; p. 1083.

De Vries, Harry, Newark, N. J., and W. A. Donaldson, Brooklyn, N. Y. Apparatus for grinding or polishing precious stones. No. 1,243,491; Oct. 16; v. 243; p. 710.

Dean, Clay L. (See Owens, John A., assignor.)

Dean, John S., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Current-collecting device. No. 1,244,476; Oct. 30; v. 243; p. 1081.

Dean, William H., Sioux City, Iowa. Combination pipe-cutter and coupling-splitter. No. 1,244,299; Oct. 23; v. 243; p. 991.

Dean, William H., Sioux City, Iowa. Snow-melter for railways. No. 1,244,300; Oct. 23; v. 243; p. 992.

Dean, William W., assignor to Kellogg Switchboard & Supply Company, Chicago, Ill. Electrical signaling device. No. 1,243,047; Oct. 16; v. 243; p. 577.

Deanes, Sid A., West Point, Miss. Automobile-hood. No. 1,241,933; Oct. 2; v. 243; p. 149.

Deanes, Sid A., West Point, Miss. Theft preventing and signaling device. No. 1,241,034; Oct. 2; v. 243; p. 149.

Debacher, Robert R., Hoboken, N. J. Perpetual calendar. No. 1,243,269; Oct. 16; v. 243; p. 644.

Debertshauser, Vivian A., Bowling Green, Mo. Screen. No. 1,244,841; Oct. 30; v. 243; p. 1193.

Deere & Company. (See Paul and Seaholm, assignors.)

Deere & Company. (See Paul, Wesley A., assignor.)

Deere & Company. (See Paul, William L., assignor.)

Defiance Manufacturing Company. (See Dietz, Paul, assignor.)

Delaney, John S. (See Clarke and Delaney.)

Delany, Patrick B., South Orange, N. J., assignor to Secret Telegraph Company, New York, N. Y. Telegraphy. No. 1,244,477; Oct. 30; v. 243; p. 1082.

Delbridge, Claude B., Roosevelt, Ariz. Branding-iron. No. 1,244,180; Oct. 23; v. 243; p. 954.

Dellert, Louis, Brooklyn, N. Y. Automatic stop for grinding-mills. No. 1,241,935; Oct. 2; v. 243; p. 149.

Dempsey, Chessly, Ada, Okla. Cuff. No. 1,241,936; Oct. 2; v. 243; p. 150.

Dempsey, James E., Manitowoc, Wis. Dirigible headlight. No. 1,244,713; Oct. 30; v. 243; p. 1155.

Denhard, Harry W., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electric heater. No. 1,243,490; Oct. 16; v. 243; p. 710.

Denman, Charles F., Nicholasville, Ky. Toy. No. 1,241,937; Oct. 2; v. 243; p. 150.

Dennis, Alfred A., assignor of one-half to H. G. Krekel, Grand Rapids, Mich. Valve and alarm for tires. No. 1,244,181; Oct. 23; v. 243; p. 954.

Depollier, Charles L., Brooklyn, N. Y. Securing device for wrist-watches. No. 1,242,152; Oct. 9; v. 243; p. 258.

Derby, John H., New York, N. Y. Telltale. No. 1,244,962; Oct. 30; v. 243; p. 1230.

Deroche, Alexander P., Ottawa, Ontario, Canada. Sleeping-car. No. 1,242,331; Oct. 9; v. 243; p. 315.

Desmarais, Joseph V., New Bedford, Mass. Attachment for looms. No. 1,244,842; Oct. 30; v. 243; p. 1193.

Dessureau, Ernest. (See Capooch and Dessureau.)

Detroit Can Company. (See Ford, Ben K., assignor.)

Detroit Pressed Steel Company. (See Putnam, Alden L., assignor.)

Detroit Stoker Company. (See Fitts, Edwin, assignor.)

Deutsch, Isidor, Avalon, Pa., assignor to Westinghouse Electric and Manufacturing Company. Controller. No. 1,244,478; Oct. 30; v. 243; p. 1082.

Deutsche Gasglühlicht, Aktiengesellschaft (Auergesellschaft). See Nernst, Walther, assignor.)

Devenis, Peter M., Waterbury, Conn. Tire structure. No. 1,245,090; Oct. 30; v. 243; p. 1268.

Devenny, Charles F. (See Devenny, James J. and C. F.)

Devenny, James J. and C. F., Philadelphia, Pa. Sash-joint. No. 1,242,427; Oct. 9; v. 243; p. 344.

Dew, James W. H., London, assignor to The Azulay Syndicate Limited, London, England. Machine for manufacturing material from adhesives and fibers. No. 1,241,938; Oct. 2; v. 243; p. 150.

Dewey, Clarence D., Hawley, Pa. Car-journal. No. 1,243,049; Oct. 16; v. 243; p. 578.

Diamond Power Specialty Company. (See Watson, Glenn W., assignor.)

Dickerhoof, Harvey H., Canton, Ohio. Ball-bearing. No. 1,242,153; Oct. 9; v. 243; p. 258.

Dickerman, George W. (See Rasch, Louis, assignor.)

Dickerson, George F., Detroit, Mich. Ventilator. No. 1,243,146; Oct. 16; v. 243; p. 607.

Dickinson, Harry S., Moline, Ill., assignor to Moline Plow Company. Rolling colter. No. 1,242,154; Oct. 9; v. 243; p. 259.

Dickinson, Harry S., Moline, Ill., assignor to Moline Plow Company. Combined colter and jointer. No. 1,244,714; Oct. 30; v. 243; p. 1155.

Dickinson, Joseph H., Montclair, and E. D. Swan, Glen Ridge, N. J., assignors to Lidgerwood Manufacturing Company, New York, N. Y. Portable logging apparatus. No. 1,241,830; Oct. 2; v. 243; p. 116.

Dickinson, Joseph H., Cranford, N. J., assignor to The Aeolian Company. Phonograph and the like. No. 1,242,155; Oct. 9; v. 243; p. 259.

Dickinson, Lacell O., Elmira, N. Y. Burial-vault. No. 1,243,492; Oct. 16; v. 243; p. 710.

Dieter, Louis F., Buffalo, N. Y. Method of and apparatus or mill for rolling or forming car-wheels or other circular bodies. No. 1,243,050; Oct. 16; v. 243; p. 578.

Dieter, Louis F., Buffalo, N. Y. Rolling or forming car-wheels or other circular bodies. No. 1,243,051; Oct. 16; v. 243; p. 579.

Dieter, Louis F., Buffalo, N. Y. Method of and means for rolling or forming car-wheels or other circular bodies. No. 1,243,052; Oct. 16; v. 243; p. 579.

Dieter, Louis F., Buffalo, N. Y. Method of and device or means for receiving and positioning work-pieces or finished articles. No. 1,243,053; Oct. 16; v. 243; p. 580.

Dieterich, Ludwig M., Mount Vernon, N. Y., assignor to Safety Car Heating & Lighting Company. Fan construction. No. 1,244,480; Oct. 30; v. 243; p. 1083.

Dietrich, William, Chicago, Ill., assignor, by mesne assignments, to Automatic Justifier Company, Hammond, Ind. Casting-machine. (Reissue.) No. 14,371; Oct. 2; v. 243; p. 207.

Dietz, Paul, assignor to Defiance Manufacturing Company, Philadelphia, Pa. Winding device for roll-film cameras. No. 1,243,270; Oct. 16; v. 243; p. 644.

Dillard, George L., Mogollon, N. Mex., assignor to The Capseal Company, El Paso, Tex. Protector for detonator-caps. No. 1,242,781; Oct. 9; v. 243; p. 458.

Dillingham, Frederick A., assignor to The Troy Carriage Sun Shade Company, Troy, Ohio. Umbrella-runner. No. 1,243,594; Oct. 16; v. 243; p. 740.

Dillon, George H., Sawtelle, assignor of one-half to R. H. Angell, Soldiers Home, Cal. Laying-register for fowls. No. 1,243,271; Oct. 16; v. 243; p. 644.

Dillon, George H., Sawtelle, assignor of one-half to J. H. Dobbings, Soldiers Home, Cal. Anchoring device. No. 1,244,432; Oct. 23; v. 243; p. 1030.

Disney, James L., Philadelphia, Pa. Stereoscope. No. 1,244,843; Oct. 30; v. 243; p. 1193.

Display Fountain Manufacturing Company. (See Ziener, Adolph O., assignor.)

Disser, John J. (See Brady and Disser.)

Dixon, Joseph L., Detroit, Mich. Polyphase electric furnace. No. 1,241,499; Oct. 2; v. 243; p. 7.

Dixon, Walter H. (See Sawyer, August T., assignor.)

D'Oench, George A., Brooklyn, N. Y. Toy railway. No. 1,244,182; Oct. 23; v. 243; p. 954.

Dobbings, John H. (See Dillon, George H., assignor.)

Dobbins, Vincent, New York, N. Y. Slicing-machine. No. 1,243,390; Oct. 16; v. 243; p. 679.

Dobyne, Stephen A., assignor to Champion Shoe Machinery Company, St. Louis, Mo. Sole rounding and cutting machine. No. 1,245,091; Oct. 30; v. 243; p. 1269.

Dodds, Ethan I. (See Stafford and Dodds.)

Dodds, Ethan I., assignor to Flannery Bolt Company, Pittsburgh, Pa. Spark-plug for internal-combustion engines and the like. No. 1,244,544; Oct. 30; v. 243; p. 1194.

Dodge Brothers. (See Dodge, Horace E., assignor.)

Dodge, Horace E., Grosse Pointe, assignor to Dodge Brothers, Detroit, Mich. Speedometer driving mechanism. No. 1,242,660; Oct. 9; v. 243; p. 420.

Dodge, Milton L., Newburyport, Mass. Making turn-shoes. No. 1,241,939; Oct. 2; v. 243; p. 150.

Dodge, Milton L., Newburyport, Mass. Turn-shoe. No. 1,241,940; Oct. 2; v. 243; p. 151.

Doering, Felix F. (See Darden and Doering.)

Doherty, Harry B., assignor of one-half to J. M. McClellon, Everett, Mass. Hoisting apparatus. No. 1,244,301; Oct. 23; v. 243; p. 992.

Doidt, John E., Portland, Me. Auger-bit. No. 1,244,593; Oct. 30; v. 243; p. 1118.

Dom, Alexander, assignor to The Samuel C. Tatum Company, Cincinnati, Ohio. Blader. No. 1,241,610; Oct. 2; v. 243; p. 47.

Dominicus, Cornelis, Jr., Goes, Netherlands. Resilient wheel for carriages. No. 1,245,092; Oct. 30; v. 243; p. 1269.

Donaldson, William A. (See De Vries, Harry, assignor.)

Donaly, James L., Newark, N. J. Fishing-bait. No. 1,243,391; Oct. 16; v. 243; p. 680.

Donning Carbureter Corporation. (See Donning, George W., assignor.)

Donning, George W., Stamford, Conn., assignor to Donning Carbureter Corporation, Esopus, N. Y. Carbureter for internal-combustion motors. No. 1,242,926; Oct. 16; v. 243; p. 538.

Dornier, Claude, assignor to Luftschiffbau Zeppelin, G. m. b. H., Friedrichshafen, Germany. Rotatable airship-shed. No. 1,241,720; Oct. 2; v. 243; p. 81.

Dorsey, Georgie, Seattle, Wash. Telephone-mouthpiece. No. 1,244,433; Oct. 23; v. 243; p. 1031.

Doubleday, Villeroy C., London, England. Pneumatic gun and shell-firing device therefor. No. 1,245,093; Oct. 30; v. 243; p. 1269.

Doughty, Henry C. (See Nichols, Herbert B., assignor.)

Doughty, William R., Wayland, N. Y. Railway-tie. No. 1,242,782; Oct. 9; v. 243; p. 458.

Douglas, Raiford W., Miami, Fla. Coupling for cables, &c. No. 1,243,493; Oct. 16; v. 243; p. 711.

Douse, Stephen B., Salina, Kans. Elevator-door-operating means. No. 1,243,924; Oct. 23; v. 243; p. 879.

Dousel, Christian, Sunnyside, Utah. Bale and package tie. No. 1,242,156; Oct. 9; v. 243; p. 250.

Douthit, Albert G., Elkhart, Tex. Vehicle-wheel bearing. No. 1,245,094; Oct. 30; v. 243; p. 1270.

Dowd, James E., Hiawatha, Utah. Reversible glove. No. 1,241,941; Oct. 2; v. 243; p. 151.

Downing, Albert C., Milwaukee, Wis., assignor to Hummel & Downing Co., Milwaukee, Wis. Press. No. 1,242,531; Oct. 9; v. 243; p. 377.

Downing, Clark E., Waterloo, Iowa. Locking means for tug connections. No. 1,242,661; Oct. 9; v. 243; p. 420.

Downing, Della, administratrix. (See Downing, Thomas J. and E. J.)

Downing, Eugene J. (See Downing, Thomas J. and E. J.)

Downing, Philip B., Everett, Mass. Envelop-moistener. No. 1,243,595; Oct. 16; v. 243; p. 740.

Downing, Thomas J., deceased, and E. J., New York, N. Y.; D. Downing administratrix. Signaling device for automobiles. No. 1,242,896; Oct. 9; v. 243; p. 494.

Downs, George F., Buffalo, N. Y. Coating molds for metal ingots. No. 1,243,717; Oct. 23; v. 243; p. 813.

Downs, George F., Buffalo, N. Y. Apparatus for coating metal-ingot molds. No. 1,243,718; Oct. 23; v. 243; p. 813.

Downs, James L., New York, N. Y. Jack-operating attachment. No. 1,244,964; Oct. 30; v. 243; p. 1230.

Dozier, Robert L., and E. C. Herron, Broken Bow, Okla. Shampooing attachment. No. 1,244,715; Oct. 30; v. 243; p. 1156.

Drader, Charles, and R. R. Candee, Bakersfield, Cal. Non-leak anchor means for supporting liner-pump working barrels. No. 1,243,821; Oct. 23; v. 243; p. 848.

Drake, Dix D., Buffalo, N. Y. Mortar-gage. No. 1,241,611; Oct. 2; v. 243; p. 47.

Drake, Lewis R. (See Smith, Walter S., assignor.)

Draper Corporation. (See Baker, William H., assignor.)

Draper Corporation. (See Ballou, Eugene H., assignor.)

Draper Corporation. (See Hull, Alfred A., assignor.)

Draper Corporation. (See Rhoades, Alonzo E., assignor.)

Draper Corporation. (See Stimpson, Edward S., assignor.)

Dreffein, Henry A., Chicago, Ill. Gas-producer. No. 1,243,822; Oct. 23; v. 243; p. 848.

Drew, George W., Oakland, Cal. Slicing-machine. No. 1,242,881; Oct. 9; v. 243; p. 490.

Drew, George W., Oakland, Cal. Fruit-slicing machine. No. 1,244,038; Oct. 23; v. 243; p. 913.

Drewitz, Albert, Syracuse, N. Y. Fastener for receptacle-covers. No. 1,241,831; Oct. 2; v. 243; p. 116.

Dreyfus, Henry, Basel, Switzerland. Celluloid substitute and making same. No. 1,242,783; Oct. 9; v. 243; p. 459.

Dreyfus, Max D., New York, N. Y. Stone-girdling tool. No. 1,244,716; Oct. 30; v. 243; p. 1156.

Dreymann, Carl, Baltimore, Md. Tinning metal plates and other articles. No. 1,242,532; Oct. 9; v. 243; p. 378.

Drive-Harris Company. (See Henderson, John C., assignor.)

Droll, Joseph W., Oakland, Cal. Nut-lock. No. 1,244,039; Oct. 23; v. 243; p. 913.

Droste, August, Brooklyn, N. Y. Exposure-signal and dim-guard. No. 1,242,157; Oct. 9; v. 243; p. 260.

Drotar, Michael, *et al.* (See Jakab, Mike, assignor.)

Druckenmiller, Charles H., Clarendon, Va. Arch-support. No. 1,241,832; Oct. 2; v. 243; p. 116.

Du Brul, Albert, deceased; F. G. Du Brul, executrix, Fort Thomas, Ky., assignor to The Miller, Du Brul & Peters Mfg. Co., Cincinnati, Ohio. Paper-reel brake. No. 1,242,927; Oct. 16; v. 243; p. 538.

Du Brul, Frances G., executrix. (See Du Brul, Albert.)

Duck, John J., Toledo, Ohio. Loom-fastener. No. 1,242,533; Oct. 9; v. 243; p. 378.

Duddell, William. (See Angold, Duddell, Dykes, Handcock, and Oliver.)

Dudley, John B., assignor of one-fourth to W. A. Atkinson and one-fourth to F. Knapp, Detroit, Mich. Water-heater. No. 1,244,183; Oct. 23; v. 243; p. 955.

Dudley, John Z., Lindale, assignor of one-half to C. E. Johnston, Dallas, Tex. Hay-press. No. 1,242,158; Oct. 9; v. 243; p. 260.

Duesenberg, August S. (See Duesenberg, Frederick S. and A. S.)

Duesenberg, Frederick S. and A. S., Des Moines, Iowa. Valve-gear. No. 1,244,481; Oct. 30; v. 243; p. 1083.

Dufour, Leon, Geneva, Switzerland. Internal-combustion engine. No. 1,241,833; Oct. 2; v. 243; p. 117.

Duggan, Patrick G., *et al.* (See Bowen, Frank J., assignor.)

Dugger, Jesse T., Chattanooga, Tenn. Refillable fuse-cartridge. No. 1,243,719; Oct. 23; v. 243; p. 814.

Duhem, Constant L., Oroville, Cal. Movable camera-support. No. 1,243,272; Oct. 16; v. 243; p. 644.

Dulaney, Joe F., *et al.* (See Thompson, George F., assignor.)

Dunbar Manufacturing Company. (See Schroyer, Harry H., assignor.)

Duncan, Albert O. (See Howard, George F., assignor.)

Duncan, Harry L., Mahwah, N. J. Producing aluminum nitrid. No. 1,241,834; Oct. 2; v. 243; p. 117.

Duncan, Joseph S., assignor to Addressograph Company, Chicago, Ill. Machine for making printing-plates. No. 1,243,273; Oct. 16; v. 243; p. 645.

Duncan, William Y., Jr., Springfield, assignor to Fisk Rubber Company, Chicopee Falls, Mass. Collapsible core. No. 1,241,942; Oct. 2; v. 243; p. 151.

Dunham, Clifford, Edmonton, Alberta, Canada. Foot-scraper. No. 1,244,434; Oct. 23; v. 243; p. 1031.

Dunham, Millard L., assignor of one-fourth to L. D. Munger, New York, N. Y. Piston-ring. No. 1,241,835; Oct. 2; v. 243; p. 118.

Dunham, Millard L., assignor of one-fourth to L. D. Munger, New York, N. Y. Piston-ring. No. 1,241,836; Oct. 2; v. 243; p. 118.

Dunham, Millard L., assignor of one-fourth to L. D. Munger, New York, N. Y. Piston-ring. No. 1,241,837; Oct. 2; v. 243; p. 118.

Dunham, Millard L., New York, N. Y. Apparatus for producing lapped joints for piston-rings. No. 1,242,662; Oct. 9; v. 243; p. 420.

Dunkle, Wesley E., Seattle, Wash. Culinary vessel. No. 1,243,823; Oct. 23; v. 243; p. 849.

Dunkleberger, Augustus C., Erwin, Tenn. Chain-catch. No. 1,242,159; Oct. 9; v. 243; p. 260.

Dunn, Andrew C., Mankato, Minn. Door-controlling device. No. 1,244,534; Oct. 30; v. 243; p. 1119.

Dunn, Edward L., assignor to Standard Plunger Elevator Company, Worcester, Mass. Hydraulic-motor-controlling mechanism. No. 1,242,928; Oct. 16; v. 243; p. 539.

Dunn, Patrick T., Cedar Rapids, Iowa. Dish-washing machine. No. 1,243,925; Oct. 23; v. 243; p. 879.

Dunning, Harry C., Chicago, Ill. Steam-engine. No. 1,243,494; Oct. 16; v. 243; p. 711.

Dunsford, Charles H., Cleveland, Ohio. Double-cutting-planer-tool holder. No. 1,244,302; Oct. 23; v. 243; p. 998.

Duntley, William O. (See Buck, Turney E., assignor.)

Dunton, Lewis A. (See Farmer, William H., assignor.) (Reissue.)

Dunwoodie, David, Dayton, Ohio. Automatic temperature-regulating device. No. 1,244,184; Oct. 23; v. 243; p. 955.

Dupler, Raymond R., Monroe, Mich. Weed-cutter. No. 1,243,495; Oct. 16; v. 243; p. 711.

Durable Box Co. (See Kenniker, Nicholas O., assignor.)

Durgarian, Leo, San Francisco, Cal. Broiler and like cooker. No. 1,244,965; Oct. 30; v. 243; p. 1230.

Durham, Percy J., New York, N. Y. Starting mechanism for motor-engines. No. 1,244,482; Oct. 30; v. 243; p. 1084.

Durkee & Co., E. R. (See Helson, Gilbert F., assignor.)

Duryea, Charles E., Saginaw, Mich. Driving mechanism. No. 1,244,185; Oct. 23; v. 243; p. 956.

Dutcher, Frank, Versailles, assignor to Central Railway Signal Company, Pittsburgh, Pa. Fiber railway signal-torpedo. No. 1,242,663; Oct. 9; v. 243; p. 421.

Dutchess Tool Company. (See Van Houten, Frank H., assignor.)

Duz, Micaël A., and D. E. Washington, Paris, France. Carbureter. No. 1,244,040; Oct. 23; v. 243; p. 913.

Dwyer, John J. (See Avedisian and Dwyer.)

Dyer, Ernest L., Oakland, and A. R. Heise, Avila, Cal. Method for separating mixtures of liquids. No. 1,242,784; Oct. 9; v. 243; p. 459.

Dyer, Frank L., Montclair, N. J. Motion-picture-projecting machine. No. 1,242,428; Oct. 9; v. 243; p. 345.

Dykes, Alfred H. (See Angold, Duddell, Dykes, Handcock, and Oliver.)

Dymock, Arthur, Stockport, England, assignor to American Coretwine Company, Boston, Mass. Machine for the manufacture of paper twine. No. 1,241,943; Oct. 2; v. 243; p. 151.

E. Children's Sons Manufacturing Co. (See Children, Frank R., assignor.)

E. J. Manville Machine Company, The. (See Smith, Henry L., assignor.)

E. T. Fraim Lock Company, The. (See Fraim, Samuel R., assignor.)

E. W. Bliss Company. (See Kruse, Peter, assignor.)

Eager, James H. L., New York, N. Y. Syringe. No. 1,243,054; Oct. 16; v. 243; p. 580.

Eagle Wagon Works, The. (See Underhill and Avery, assignors.)

Earl & Wilson. (See Turrell, John C., assignor.)

Eastman, Ernest A., assignor of one-half to The Crawford, McGregor and Canby Co., Dayton, Ohio. Pattern-lathe. No. 1,241,838; Oct. 2; v. 243; p. 118.

Eastman, Ivan L., Lima, Ohio. Rotary engine. No. 1,242,332; Oct. 9; v. 243; p. 315.

Eastman Kodak Company. (See Marks, Paul J., assignor.)

Eaton, Benjamin M., Winthrop, Mass. Packaging-receptacle. No. 1,242,534; Oct. 9; v. 243; p. 378.

Eaton, Charles B., Belfast, Me. Necktie-holder. No. 1,244,435; Oct. 23; v. 243; p. 1031.

Eaton, George M., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Locomotive. No. 1,241,500; Oct. 2; v. 243; p. 7.

Eaton, William S., Sag Harbor, N. Y., assignor to American Bank Note Company. Geometrical machine. No. 1,241,721; Oct. 2; v. 243; p. 81.

Eaton, William S., Sag Harbor, N. Y., assignor to American Bank Note Company. Geometrical machine. No. 1,241,722; Oct. 2; v. 243; p. 82.

Eaton, William S., Sag Harbor, N. Y., assignor to American Bank Note Company. Geometrical machine. No. 1,241,723; Oct. 2; v. 243; p. 82.

Eberhart, Cleburne, Jr., Atlanta, Ga. Register and indicator for automobile gasolene-tanks. No. 1,242,664; Oct. 9; v. 243; p. 421.

Eberlein, Paul H. (See Crecelius and Eberlein.)

Eck Dynamo and Motor Company. (See Larsson, Gustaf M., assignor.)

Eclipse Scaffolding Company, The. (See Whitney, Egbert, assignor.)

Ecroyd, Walter T., Muncy, Pa. Automatic train-control mechanism. No. 1,242,665; Oct. 9; v. 243; p. 421.

Eddison, W. Barton. (See Richardson, Eddison, and Read.)

Eddy, Arthur L. (See Eddy, Earl E., assignor.)

Eddy, Bert S., Elmira, N. Y. Automatic line-closer for series electrical circuits. No. 1,242,333; Oct. 9; v. 243; p. 315.

Eddy, Earl E., assignor of one-half to A. L. Eddy, Stony Creek, N. Y. Rail tie and fastener. No. 1,242,334; Oct. 9; v. 243; p. 315.

Eddy, Frederick W., *et al.* (See Webster, Lewis E., assignor.)

Edgecomb, Henry R., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Mixing and mensuring machine. No. 1,241,501; Oct. 2; v. 243; p. 8.

Edmond, George W., deceased, El Paso, Tex.; L. C. Edmond, executor. Vehicle-signal. No. 1,243,824; Oct. 23; v. 243; p. 849.

Edmond, Leo C., executor. (See Edmond, George W.)

Edward Miller & Company. (See Teague, Horace B. S., assignor.)

Edwards & Company. (See Blair, David E., assignor.)

Edwards Instrument Company. (See Darling, Arthur R., assignor.)

Edwards, Ralph H., assignor to Modern Specialty Company, Indianapolis, Ind. Ventilator and radiator appliance. No. 1,242,666; Oct. 9; v. 243; p. 422.

Eger, Edward M., and R. D. Klear, Pleasant Bend, Ohio. Poultry-crate. No. 1,242,160; Oct. 9; v. 243; p. 260.

Eidson, Freddie E., and E. J. Stephenson, Moscow, Kans. Differential gearing. No. 1,243,720; Oct. 23; v. 243; p. 814.

Eifel, Joseph, Chicago, Ill. Wrench. No. 1,244,966; Oct. 30; v. 243; p. 1231.

Eifel, Joseph, Chicago, Ill. Wrench. No. 1,244,967; Oct. 30; v. 243; p. 1231.

Eimer, Walter R., New York, N. Y. Grinding-machine for closure devices. No. 1,243,496; Oct. 16; v. 243; p. 712.

Einson, Morris M., New York, N. Y. Display-stand. No. 1,242,535; Oct. 9; v. 243; p. 378.

Ekroos, Sigurd W., Flushing, assignor to the G. Piel Company, Inc., Long Island City, N. Y. Flexible shaft. No. 1,244,186; Oct. 23; v. 243; p. 956.

Eldridge, William H., Omaha, Nebr. Child's feeding device. No. 1,242,785; Oct. 9; v. 243; p. 459.

Electric Metal Working Company. (See Coffin, Charles L., assignor.)

Electric Railway Improvement Company, The. (See Crecelius, Lawrence P., assignor.)

Electric Railway Improvement Company, The. (See Crecelius and Eberlein, assignors.)

Electric Service Supplies Company. (See Englund, Axel H., assignor.)

Electric Tachometer Corporation, The. (See Kolff, Petrus V., assignor.)

Electric Wheel Company. (See Mueller, Milton R., assignor.)

Electro-Chemical Products Company. (See Hoofnagle, William T., assignor.)

Electro Dental Manufacturing Company. (See Russell, Percy, assignor.)

Electro Metallurgical Company. (See Beckert, Frederick M., assignor.)

Ellard, Hugh F., Missoula, Mont. Finger-link. No. 1,244,303; Oct. 23; v. 243; p. 993.

Ellenberg, Joe, *et al.* (See Thompson, George F., assignor.)

Ellias, Albert T. (See Tharp and Ellias.)

Elliott-Fisher Company. (See Foothorap, Harry A., assignor.)

Elliott, Glenn C., Maplewood, and J. W. Steinmeyer, assignors to American Car and Foundry Company, St. Louis, Mo. Drop-brake-shaft mechanism. No. 1,244,717; Oct. 30; v. 243; p. 1156.

Elliott, Ora M. (See Baumgart, Otto C., assignor.)

Elliott, William S., Pittsburgh, Pa. Oil-purifying system. No. 1,242,667; Oct. 9; v. 243; p. 422.

Ellis, Carleton, Montclair, N. J., assignor of four-tenths to Ellis-Foster Company and six-tenths to Indestructible Paint Company, Ltd., London, England. Making varnish material. No. 1,242,161; Oct. 9; v. 243; p. 261.

Ellis-Foster Company *et al.* (See Ellis, Carleton, assignor.)

Ellis, Robert G., University, Mo., assignor to American Car and Foundry Company, St. Louis, Mo. Double-board single-sheathed car. No. 1,244,718; Oct. 30; v. 243; p. 1156.

Elimer, Paul F., and C. Streff, Philadelphia, Pa. Elevator construction. No. 1,241,724; Oct. 2; v. 243; p. 83.

Elseth, Peter A. (See Laughlin and Elseth.)

Elwell, George H., Boston, Mass. Door-latch. No. 1,243,596; Oct. 16; v. 243; p. 740.

Emerson, Alfred H., assignor to American Optical Company, Southbridge, Mass. Lens-testing instrument. No. 1,241,612; Oct. 2; v. 243; p. 47.

Emerson-Brantingham Company. (See Larson, Martin S., assignor.)

Emerson-Brantingham Company. (See Waterman, Lewis E., assignor.)

Emerson, Elisha, Auburn, R. I. Method and apparatus for electrically making copper tubes. No. 1,243,274; Oct. 16; v. 243; p. 645.

Emerson Piano Company. (See Carnahan, Frank, assignor.)

Emery, Albert H., Stamford, Conn. Built-up gun. No. 1,244,719; Oct. 30; v. 243; p. 1157.

Emigh, Howard E., Santa Cruz, Cal. Grease-gun. No. 1,241,725; Oct. 2; v. 243; p. 83.

Empire Paper Bottle Company. (See Brown, Luther P., assignor.)

Endecott, Foy B., Roundup, Mont. Wire-cutter attachment for guns. No. 1,244,968; Oct. 30; v. 243; p. 1231.

Engel Crude Oil Engine Company. (See Engel, Henry, assignor.)

Engel, Henry, New Rochelle, assignor to Engel Crude Oil Engine Company, Inc., New York, N. Y. High-pressure-feed oil-engine. No. 1,243,597; Oct. 16; v. 243; p. 741.

Engels, Johann C., Barmen-Rittershausen, Germany, assignor to United Fast Color Eyelet Company, Portland, Me. Button. No. 1,244,436; Oct. 23; v. 243; p. 1031.

Engi, Gadient, and C. Jagerspacher, assignors to Society of Chemical Industry in Basle, Basel, Switzerland. Chromium compounds of azo dyestuffs and making same. No. 1,242,536; Oct. 9; v. 243; p. 379.

Englund, Axel H., assignor to Electric Service Supplies Company, Philadelphia, Pa. Electric switch. No. 1,244,720; Oct. 30; v. 243; p. 1157.

Engstrom, Ivan, assignor, by mesne assignments, to C. M. and H. R. Hedman, Chicago, Ill. Check-protector. No. 1,242,162; Oct. 9; v. 243; p. 261.

Enochty, Tatsukichi, New York, N. Y. Display-stand. No. 1,242,429; Oct. 9; v. 243; p. 345.

Enquist, Arthur R., assignor to Foster, Merriam & Company, Meriden, Conn. Locking-latch. No. 1,241,613; Oct. 2; v. 243; p. 48.

Enz, John F., Denmark, Wis. Apparatus for the production of skimmed-milk and vegetable-fat compounds. No. 1,243,275; Oct. 16; v. 243; p. 645.

Epstein, Barnett, New York, N. Y. Skate-fastening overshoe. No. 1,242,668; Oct. 9; v. 243; p. 423.

Epstein, Eli, Leominster, Mass. Cylinder-lock. No. 1,244,304; Oct. 23; v. 243; p. 993.

Erickson, Edward. (See Johnson and Erickson.)

Erickson, Edward, Cliftondale, assignor to Victor Shoe Machinery Company, Lynn, Mass. Looper mechanism for sewing-machines. No. 1,243,147; Oct. 16; v. 243; p. 607.

Erickson, Edward, Cliftondale, assignor to Victor Shoe Machinery Company, Lynn, Mass. Presser-foot mechanism for sewing-machines. No. 1,244,041; Oct. 23; v. 243; p. 914.

Erickson, John, Chicago, Ill., assignor, by mesne assignments, to Automatic Electric Company. Measured-service telephone system. No. 1,243,721; Oct. 23; v. 243; p. 814.

Erickson, William T., New York, N. Y. Snow-melter. No. 1,243,497; Oct. 16; v. 243; p. 712.

Erkens, Charles R., New York, N. Y. Self-sustaining floor-arch. No. 1,242,669; Oct. 9; v. 243; p. 423.

Ernst, Oscar, Schuyler, Nebr. Rotary egg-support for incubators. No. 1,242,670; Oct. 9; v. 243; p. 423.

Errett, Thomas A., assignor of one-third to T. L. Hanning and one-third to F. Robbins, Portland, Oreg. Ox-acetylene cutting and welding torch. No. 1,244,042; Oct. 23; v. 243; p. 914.

Erwin, Benjamin F., Fairfax, Mo. Snow-plow. No. 1,243,926; Oct. 23; v. 243; p. 879.

Erwin, Luther C., Fort Payne, Ala. Water-closet. No. 1,243,148; Oct. 16; v. 243; p. 608.

Erwin, R. D., *et al.* (See Barnett, John B., assignor.)

Escutcheon, Louis, Philadelphia, Pa. Scraping and cleaning device. No. 1,243,825; Oct. 23; v. 243; p. 849.

Estes, Loando B., North Adams, Mass. Mirror-attaching device. No. 1,242,335; Oct. 9; v. 243; p. 315.

Euler, William G. B., San Francisco, assignor of one-fourth to F. W. Cain, Las Plumas, and one-eighth to C. F. Benham, Alameda, Cal. Cable-pulling clamp. No. 1,244,043; Oct. 23; v. 243; p. 915.

Eureka Mucking & Engineering Company. (See Halby, Viggo G., assignor.)

Eureka Projector Device Co. (See Hamilton, Frank C., assignor.)

Evans, Clarence T., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electric switch. No. 1,243,722; Oct. 23; v. 243; p. 815.

Evans, George, New York, N. Y. Artificial tooth. No. 1,243,392; Oct. 16; v. 243; p. 680.

Evans, George B., Newton, Mass. Delivering mechanism. No. 1,243,723; Oct. 23; v. 243; p. 815.

Ewing, Amos A., *et al.* (See Vinson, Thomas C., assignor.)

Ewing, William B. (See Kinkead and Ford, assignors.)

F. A. Neider Company, The. (See Neider, Fred A., assignor.)

F. A. Whitney Carriage Company. (See Ambler, George B., assignor.)

F. L. Smidth & Co. (See Pontoppidan, Carl, assignor.)

F. O. B. Manufacturing Co. (See Boswell, Fletcher O., assignor.)

Fabianson, Karl G., Cortland, N. Y. Camp-stool. No. 1,242,163; Oct. 9; v. 243; p. 261.

Fagan, Lewis E., Chicago, Ill. Corn-planter. No. 1,241,502; Oct. 2; v. 243; p. 8.

Falck, Gerhardt M., Morrison, Wis. Safety-receptacle. No. 1,243,498; Oct. 16; v. 243; p. 712.

Falconer, Hope H. (See Falconer, Sydnor M., Sr., assignor.)

Falconer, Sydnor M., Sr., assignor of one-half to H. H. Falconer, Washington, D. C. Base for base-ball grounds. No. 1,244,044; Oct. 23; v. 243; p. 915.

Fales, Edward D., assignor to Automatic Electric Company, Chicago, Ill. Semi-automatic telephone system. No. 1,242,164; Oct. 9; v. 243; p. 262.

Falkenstein, Fred R., Baltimore, Md. Headlight for motor-vehicles. No. 1,242,929; Oct. 16; v. 243; p. 539.

Farero, Thomas J. (See Cutting, William S., assignor.)

Faris, Harry N., Kansas City, Kans., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill. Telephone system. No. 1,242,338; Oct. 9; v. 243; p. 316.

Farmer, William H., assignor, by mesne assignments, of one-third to L. A. Dunton, Boothbay Harbor, Me. Electric switch. (Reissue.) No. 14,372; Oct. 2; v. 243; p. 209.

Farnham, Frank G., Honesdale, Pa. Means for attaching names to umbrellas. No. 1,243,393; Oct. 16; v. 243; p. 680.

Farnsworth, Sidney W., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Vapor-rectifier. No. 1,244,482; Oct. 30; v. 243; p. 1084.

Farnsworth, Willis S., San Francisco, assignor to Coin Controlled Lock Co., Petaluma, Cal. Indicating-register for locks. No. 1,243,826; Oct. 23; v. 243; p. 850.

Farquhar, David, Lincoln, Mass. Book. No. 1,243,394; Oct. 16; v. 243; p. 680.

Farrell, Henry C., assignor of one-half to G. B. Burd, Buffalo, N. Y. Valve mechanism for ventilating water-closets. No. 1,241,614; Oct. 2; v. 243; p. 48.

Farrow, Homer J., Denver, Colo. Multiple-section fireproof cabinet for duplicate sales-books and the like. No. 1,241,615; Oct. 2; v. 243; p. 48.

Farwell, Charles. (See Queenan and Farwell.)

Fay, William, St. Louis, Mo. Making mineral wool. No. 1,242,537; Oct. 9; v. 243; p. 379.

Faymonville, Bernard, Jr., assignor of twenty-four one-hundredths to F. G. Lee and twenty-five one-hundredths to T. B. Fordham, Bridgeport, Conn. Railway-switch. No. 1,242,671; Oct. 9; v. 243; p. 423.

Fearon, Thomas E., Philadelphia, Pa., assignor to The Miller, Du Brul and Peters Manufacturing Co., Cincinnati, Ohio. Holder for cigars in packages. No. 1,243,827; Oct. 23; v. 243; p. 850.

Feder, Max. (See Isobabella and Lombardi, assignors.)

Federal-Huber Company. (See Johnson, John H., assignor.)

Federal Sign System (Electric). (See Keil, Gustav B., assignor.)

Federal Steel Fixture Company. (See Piggot, Graham H., assignor.)

Feleresel, Frank A., Chicago, Ill., assignor to Shortwriter Company, Wilmington, Del. Writing-machine. No. 1,242,167; Oct. 9; v. 243; p. 263.

Fellows, Hugh W., Colfax, Cal. Combination jig and sluice box. No. 1,243,395; Oct. 16; v. 243; p. 680.

Fend, Roland S., assignor to Woods Motor Vehicle Company, Chicago, Ill. Automobile. No. 1,244,045; Oct. 23; v. 243; p. 915.

Fengler, Hermann V., West Philadelphia, Pa., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,244,969; Oct. 30; v. 243; p. 1232.

Fenn, William B., New York, N. Y. Removing the skins from fruits and vegetables. No. 1,243,724; Oct. 23; v. 243; p. 815.

Ferguson, George E., New York, N. Y., assignor to Pyrene Manufacturing Company. Solution having a low freezing-point. No. 1,243,149; Oct. 16; v. 243; p. 608.

Ferguson, John A., Denver, Colo. Mold for tiles. No. 1,244,484; Oct. 30; v. 243; p. 1084.

Ferguson, John A., Denver, Colo. Mold for tiles. No. 1,244,845; Oct. 30; v. 243; p. 1194.

Ferguson, John R., Abbott, Tex. Hobble. No. 1,244,721; Oct. 30; v. 243; p. 1158.

Ferguson, Louis B, assignor of one-half to American Sales Co., Monroe, La. Baggage-truck. No. 1,244,970; Oct. 30; v. 243; p. 1232.

Ferguson, Thomas H., Portland, Oreg. Fluid-fuel-regulating system. No. 1,243,396; Oct. 16; v. 243; p. 681.

Ferrigno, Sebastian, Brooklyn, N. Y. Foot-support. No. 1,241,839; Oct. 2; v. 243; p. 118.

Ferris, William D., assignor to Sharon Hardware Manufacturing Company, Sharon, Pa. Door-hanger. No. 1,243,499; Oct. 16; v. 243; p. 713.

Ferry, Thomas, Cleveland, Ohio. Device for upsetting set-screws, cap-screws, and the like. (Reissue.) No. 14,884; Oct. 30; v. 243; p. 1285.

Fetters, Walter L. (See Hood, Anderson, Fetters, McGlincy, Gagnon, and Kidder.)

Ffrench, Robert, Stanmore, near Sydney, New South Wales, Australia. Projectile. No. 1,244,046; Oct. 23; v. 243; p. 916.

Fi-Re-Pak Company, The. (See Miller, James B., assignor.)

Fichfeld, William F., *et al.* (See Sorensen, Peter S., assignor.)

Field, Allan B., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Dynamo-electric machine. No. 1,241,503; Oct. 2; v. 243; p. 9.

Fields, Anderson, Cashion, Okla. Portable spraying apparatus. No. 1,242,930; Oct. 16; v. 243; p. 539.

Fifield, Albert F., Elizabeth, N. J., and W. L. Barron, New York, N. Y., assignors to The Singer Manufacturing Company. Button-sewing machine. No. 1,243,927; Oct. 23; v. 243; p. 880.

Fina, Pasquale, San Francisco, Cal. Shampoo pan or tray. No. 1,243,397; Oct. 16; v. 243; p. 681.

Finch, Robert B., Denver, Colo. Nut-lock. No. 1,242,786; Oct. 9; v. 243; p. 459.

Finley, Charles A., Brooklyn, assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone equipment. No. 1,242,672; Oct. 9; v. 243; p. 424.

Finne, William L., Elizabeth, N. J. Condenser-coil. No. 1,244,722; Oct. 30; v. 243; p. 1158.

Finne, William L., Elizabeth, N. J. Safety appliance for elevators. No. 1,244,723; Oct. 30; v. 243; p. 1158.

Fischer, Arthur I., Cleveland Heights, assignor to Glauber Brass Manufacturing Company, Cleveland, Ohio. Sanitary drinking-fountain. No. 1,242,538; Oct. 9; v. 243; p. 380.

Fischer, Ernst G., Washington, D. C. Sounding apparatus. No. 1,244,485; Oct. 30; v. 243; p. 1084.

Fischl, Alois B., Dresden, Germany. Straw-covering material for mouthpieces of cigarettes and the like. No. 1,241,840; Oct. 2; v. 243; p. 119.

Fischl, Otto. (See Mueller and Fischl.)

Fisher, Albert J., Pontiac, Mich. Heater. No. 1,244,971; Oct. 30; v. 243; p. 1233.

Fisher Body Corporation. (See Fisher, Fred J., assignor.)

Fisher Body Corporation. (See Gagnon, Alexander, assignor.)

Fisher, Charles J., Allentown, Pa. Stamp-affixing machine. No. 1,244,724; Oct. 30; v. 243; p. 1158.

Fisher, Fred J., Detroit, Mich., assignor to Fisher Body Corporation. Convertible vehicle-body construction. No. 1,242,673; Oct. 9; v. 243; p. 424.

Fisher, George W., Freeland, Md., assignor of one-third to C. W. Montgomery, Washington, D. C. Window-screen. No. 1,243,928; Oct. 23; v. 243; p. 880.

Fisher, George W., Ravenna, Mich. Hay-fork attachment. No. 1,244,437; Oct. 23; v. 243; p. 1031.

Fisher, Henry G., Hull, Quebec, Canada. Paper-cutter or like machine. No. 1,243,276; Oct. 16; v. 243; p. 646.

Fisher, Stanley L. (See Moore and Fisher.)

Fisk Rubber Company. (See Bradley, James F., assignor.)

Fisk Rubber Company. (See Duncan, William Y., Jr., assignor.)

Fitchet, Charles L., Cincinnati, Ohio. Combination shade and drapery fixture. No. 1,244,305; Oct. 23; v. 243; p. 993.

Fitts, Edwin, assignor to Detroit Stoker Company, Detroit, Mich. Automatic-stoker furnace. No. 1,242,336; Oct. 9; v. 243; p. 315.

Fitts, Walter H. (See Bristol and Fitts.)

Fitzgerald, John W., Detroit, Mich. Fire-extinguisher. No. 1,242,165; Oct. 9; v. 243; p. 262.

Fitzgerald, John W., Detroit, Mich. Automatic belt-tensioning means for drive mechanism. No. 1,242,166; Oct. 9; v. 243; p. 262.

Fitzpatrick, George J., Chicago, Ill. Can-opener. No. 1,244,972; Oct. 30; v. 243; p. 1233.

Flanders, George O. P., East Arlington, Vt. Mirror-bracket. No. 1,244,973; Oct. 30; v. 243; p. 1233.

Flannery Bolt Company. (See Dodds, Ethan I., assignor.)

Flannery Bolt Company. (See Stafford, Benjamin E. D., assignor.)

Flannery Bolt Company. (See Stafford and Dodds, assignors.)

Flater, Harold, Norrköping, Sweden. Pitman connection for mowers. No. 1,241,504; Oct. 2; v. 243; p. 9.

Fleagle, Harry S. (See French, Clarence, assignor.)

Fleischer, Max, Brooklyn, N. Y. Producing moving-picture cartoons. No. 1,242,674; Oct. 9; v. 243; p. 424.

Fleming, Jeff. Point, Tex. Mail-bag catcher. No. 1,241,944; Oct. 2; v. 243; p. 152.

Fleming, Laura M., Tonopah, Nev. Crate. No. 1,242,430; Oct. 9; v. 243; p. 345.

Fletcher, Albert T. (See Brabrook, George H., assignor.)

Fletcher, Matthews, Indianapolis, Ind. Method and means for forming concrete structural members. No. 1,241,945; Oct. 2; v. 243; p. 152.

Flood, Patrick, assignor of one-half to E. J. B. Murray, Albany, N. Y. Turnbuckle. No. 1,245,095; Oct. 30; v. 243; p. 1270.

Flower, Roland P., Marshalltown, Iowa. Combined shield and tag-bracket. No. 1,244,306; Oct. 23; v. 243; p. 994.

Flynn, William H. (See Burns and Flynn.)

Foerstering, Hans, R. N. Sargent, and F. A. Kaufmann, Perth Amboy, N. J., assignors to The Roessler & Hasslacher Chemical Co., New York, N. Y. Preserving wood. No. 1,242,168; Oct. 9; v. 243; p. 263.

Fogde, Mathias, and L. P. Southwick, Richmond, Va. Stamping-machine. No. 1,244,438; Oct. 23; v. 243; p. 1032.

Folly, Cornelius A., Boonton, N. J. Bottle-holder. No. 1,243,500; Oct. 16; v. 243; p. 713.

Fontaine, August, Green Bay, Wis. Pulley attachment. No. 1, 241,726; Oct. 2; v. 243; p. 84.

Foothorap, Harry A., assignor to Elliott-Fisher Company, Harrisburg, Pa. Register-lock. No. 1,243,277; Oct. 16; v. 243; p. 646.

Forbes, James M. (See Corrall and Forbes.)

Ford, Ben K., assignor to Detroit Can Company, Detroit, Mich. Paper-walled vessel. No. 1,243,658; Oct. 16; v. 243; p. 760.

Ford, Edwin H. (See Neff and Ford.)

Ford James H., Baltimore, Md. Addressing-machine. No. 1,241,946; Oct. 2; v. 243; p. 152.

Ford, Paul B. (See Kinkead and Ford.)

Ford, Silas M., St. Paul, Minn. Roofing-nail. No. 1,242,675; Oct. 9; v. 243; p. 425.

Fordham, Theodore B., *et al.* (See Faymonville, Bernard, Jr., assignor.)

Forehand, Blake W. (See Stebbins and Forehand.)

Foreman, William, Jefferson township, Montgomery county, Ohio. Hand gripping device. No. 1,243,725; Oct. 23; v. 243; p. 816.

Forester, George L., Asheville, N. C. Railway-crossing. No. 1,244,439; Oct. 23; v. 243; p. 1032.

Foringer, Newton H., New Cumberland, W. Va. Pipe-cutter. No. 1,242,931; Oct. 16; v. 243; p. 540.

Fornander, Torsten, Alameda, Cal. Resilient wheel. No. 1,242,169; Oct. 9; v. 243; p. 263.

Forsyth Dyeing Co., The. (See Forsyth, Thomas, assignor.)

Forsyth, Thomas, assignor to The Forsyth Dyeing Co., New Haven, Conn. Commercial process for reclaiming the dye content of waste liquors. No. 1,242,676; Oct. 9; v. 243; p. 425.

Fort Wayne Engineering and Manufacturing Company. (See Astrom, John, assignor.)

Fortescue, Charles L., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Multiphase rectifying system. No. 1,241,505; Oct. 2; v. 243; p. 9.

Fortescue, Charles L., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Vacuum-type converter system. No. 1,244,486; Oct. 30; v. 243; p. 1085.

Fortuna-Werke. Spezialmaschinenfabrik, G. m. b. H. (See Hirth, Carl A., assignor.)

Fortune, John R., assignor to Murphy Iron Works, Detroit, Mich. Automatic stoker. No. 1,243,055; Oct. 16; v. 243; p. 581.

Foss, Frederick A. (See Williams and Foss.)

Fost, Job W., Peabody, Kans. Ink-bottle stopper. No. 1,241,947; Oct. 2; v. 243; p. 152.

Foster, Ernest D., Los Angeles, Cal., assignor, by mesne assignments, to United Air Spring Company of Arizona. Pneumatic spring. No. 1,242,431; Oct. 9; v. 243; p. 345.

Foster, John F., Garbers, Tenn. Railway-switch. No. 1,244,307; Oct. 23; v. 243; p. 994.

Foster, Merriam & Company. (See Enquist, Arthur R., assignor.)

Foster, Winfred C., New York, N. Y. War game. No. 1,245,096; Oct. 30; v. 243; p. 1270.

Fotheringill, John, Fort Scott, Kans. Stay-bolt. No. 1,244,308; Oct. 23; v. 243; p. 994.

Foulds, Robert, Denver, Colo. Car-coupling. No. 1,242,787; Oct. 9; v. 243; p. 460.

Fowler Car Company, The. (See Fowler, William E., Sr., assignor.)

Fowler Electrical Supply Company, The. (See Fowler, Harry R., assignor.)

Fowler, Harry R., assignor to The Fowler Electrical Supply Company, Toledo, Ohio. Safety-gate. No. 1,243,056; Oct. 16; v. 243; p. 581.

Fowler, John H., Orbisonia, Pa. Safety-pin. No. 1,241,948; Oct. 2; v. 243; p. 153.

Fowler, William E., Sr., assignor to The Fowler Car Company, Chicago, Ill. Car-floor construction. No. 1,244,047; Oct. 23; v. 243; p. 916.

Fox, Alexander L., East St. Louis, Ill., assignor, by mesne assignments, to T. C. White Electrical Supply Company. Wire-hanger. No. 1,243,057; Oct. 16; v. 243; p. 581.

Fox, John J., Columbus, Ga. Grapple. No. 1,243,150; Oct. 16; v. 243; p. 608.

Fox, William C., Penns Grove, N. J. Wave-motor. No. 1,244,309; Oct. 23; v. 243; p. 994.

Fraim, Samuel R., Lancaster, Pa., assignor to The E. T. Fraim Lock Company. Padlock. No. 1,243,151; Oct. 16; v. 243; p. 608.

Francis, Charles E., Holloway, London, assignor to Vickers Limited, Westminster, England. Sewing-machine. No. 1,241,949; Oct. 2; v. 243; p. 153.

Francis, Hugh, assignor of one-fourth to G. E. Pettey and one-fourth to R. L. Davidson, Memphis, Tenn. Swing. No. 1,243,659; Oct. 16; v. 243; p. 761.

Francisco, Tony, South Cle Elum, Wash. Air-propeller. No. 1,242,788; Oct. 9; v. 243; p. 460.

Frank Adam Electric Company. (See Adam, Frederick B., assignor.)

Franke & Co., Fred. (See Franke, Ferdinand, assignor.)

Franke, Ferdinand, Port Fulton, assignor to F. Franke & Co., Louisville, Ky. Bat-forming machine. No. 1,243,058; Oct. 16; v. 243; p. 582.

Franke, Hans, Wilsdorf, near Bodenbach, assignor of ninety one-hundredths to A. Redlich, Vienna, Austria. Treating tanning substances soluble with difficulty contained in crude quebracho liquors. No. 1,241,950; Oct. 2; v. 243; p. 153.

Frankenstein, Arthur, New York, N. Y. Garment-supporter. No. 1,242,932; Oct. 16; v. 243; p. 540.

Franklin, Henry L., and C. C. Bragg, Huntington, W. Va. Oven-shelf. No. 1,244,440; Oct. 23; v. 243; p. 1033.

Franz, Charles F., Richville, Minn. Combination screen and storm door. No. 1,242,789; Oct. 9; v. 243; p. 461.

Frascolla, Arthur J., New York, N. Y. Auto-light dimmer. No. 1,244,441; Oct. 23; v. 243; p. 1033.

Fraser, Horatio N., assignor to The Fraser Tablet Company, Brooklyn, N. Y. Tablet. No. 1,243,501; Oct. 16; v. 243; p. 713.

Fraser Tablet Company, The. (See Fraser, Horatio N., assignor.)

Fraser, Warren F., Dorchester, Mass. Tool-driver. No. 1,242,933; Oct. 16; v. 243; p. 540.

Frauham, Charles N., Wallingford, Conn. Bearing for automobile-hubs. No. 1,243,929; Oct. 23; v. 243; p. 880.

Frazer, Charles R., San Francisco, Cal. Exhaust auxiliary for explosion-engines. No. 1,244,442; Oct. 23; v. 243; p. 1033.

Frazer, Otwell, Cynthiana, Ky. Record-keeping device. No. 1,243,726; Oct. 23; v. 243; p. 816.

Frazier, Philip L., Rockbury, Conn. Milk-can handle. No. 1,243,278; Oct. 16; v. 243; p. 646.

Frederick Osann Company. (See Sibbald, Charles J., assignor.)

Free, Leonard H. (See Lubbe and Free.)

Freedman, Benjamin H., New York, N. Y. Trousers-supporter. No. 1,243,828; Oct. 23; v. 243; p. 850.

Freehafer, Homer L., Denver, Colo. Vehicle-signal. No. 1,243,279; Oct. 16; v. 243; p. 647.

Freeman, Charles F., trustee. (See Freeman, Louis G., assignor.)

Freeman, Louis G., assignor to himself and C. F. Freeman, trustees, Cincinnati, Ohio. Heel-breast-scouring machine. No. 1,244,310; Oct. 23; v. 243; p. 995.

Freeze, Johnathan R., assignor, by mesne assignments, to The American Rolling Mill Company, Middletown, Ohio. Silo-door. No. 1,243,829; Oct. 23; v. 243; p. 850.
Freihofer, Charles, Philadelphia, Pa. Steam-boiler furnace. No. 1,244,311; Oct. 23; v. 243; p. 995.
Freihofer, Charles F., Philadelphia, Pa. Vehicle suspension. No. 1,244,312; Oct. 23; v. 243; p. 996.
Fremaux, Edward C., Rayne, La. Swing. No. 1,241,951; Oct. 2; v. 243; p. 153.
French, Clarence, assignor of one-half to H. S. Fleagle, Fernald, Iowa. Grain-door for cars. No. 1,241,841; Oct. 2; v. 243; p. 119.
French, Gus H., Waterloo, Iowa. Dosing device for animals. No. 1,241,952; Oct. 2; v. 243; p. 154.
Fresh, Roy, Townsend, Kans. Burglar-alarm. No. 1,244,313; Oct. 23; v. 243; p. 996.
Frevert, Albert A., Charles City, Iowa. Carbureter. No. 1,242,432; Oct. 9; v. 243; p. 346.
Frick, William H., Philadelphia, Pa. Reamer. No. 1,241,953; Oct. 2; v. 243; p. 154.
Frick, William H., Philadelphia, Pa. Reamer. No. 1,243,502; Oct. 16; v. 243; p. 714.
Fried, William J., Fountain City, Wis. Air-brake system. No. 1,243,727; Oct. 23; v. 243; p. 810.
Friedman, Samuel, New York, N. Y. Snow-removing apparatus. No. 1,242,433; Oct. 9; v. 243; p. 346.
Friedrich, William H., Dyer, Ind. Packing rotary engines. No. 1,243,830; Oct. 23; v. 243; p. 851.
Friend, David H., North Industry, Ohio. Ball-bearing. No. 1,244,846; Oct. 30; v. 243; p. 1194.
Fries, Robert E., assignor to The Columbia Axle Company, Cleveland, Ohio. Making axle-housings. No. 1,243,398; Oct. 16; v. 243; p. 681.
Friesleben, Harold M., San Francisco, Cal. Display-fixture. No. 1,243,059; Oct. 16; v. 243; p. 582.
Frisbie, Warren M., Ypsilanti, Mich. Circular-saw guard. No. 1,244,187; Oct. 23; v. 243; p. 956.
Froess, Jacob J., Erie, Pa. Combined piano and graphophone. No. 1,242,790; Oct. 9; v. 243; p. 461.
Frost, Ellis F., Washington, D. C. Electric action for organs. No. 1,243,280; Oct. 16; v. 243; p. 647.
Frutchey, Heber B., Scranton, Pa. Clothes-drier. No. 1,244,314; Oct. 23; v. 243; p. 996.
Frye, William A., F. H. Chinn, and R. F. Burnett, assignors of one-fourth to N. A. Cook, Coffeyville, Kans. Resilient tire. No. 1,243,503; Oct. 16; v. 243; p. 714.
Fryer, Percival J. (See Lemmens, Gustave J., assignor.)
Frysinger, John L., deceased, Oklahoma; P. P. Frysinger, Ingersoll, and U. O. Frysinger, Beaver, administrators, assignors to The Hermetic Glass Casket Company, Oklahoma county, Okla. Burial-casket. No. 1,244,315; Oct. 23; v. 243; p. 996.
Frysinger, Perry P., *et al.*, administrators. (See Frysinger, John L.)
Frysinger, Ulva O., *et al.*, administrators. (See Frysinger, John L.)
Fucich, Emile E., assignor of two-fifths to A. J. Mestier and one-fifth to N. Lougue, New Orleans, La. Cattle food and making same. No. 1,244,847; Oct. 30; v. 243; p. 1194.
Fuller, Charles M., El Segundo, Cal., and J. W. Lambert, Anderson, Ind. Tractor. No. 1,241,617; Oct. 2; v. 243; p. 49.
Fuller, Edward J. (See Carroll and Fuller.)
Fuller, Frederick L., assignor to The National Cash Register Company, Dayton, Ohio. Cash-register. No. 1,242,170; Oct. 9; v. 243; p. 264.
Fuller, Jak H., Brooklyn, N. Y. Stapling-machine. No. 1,242,934; Oct. 16; v. 243; p. 541.
Fuller, Kenneth D., Whittier, Cal. Safety device for oil-pumps. No. 1,242,539; Oct. 9; v. 243; p. 380.
Fuller, Louis E., New York, N. Y., assignor to A. B. Dick Company, Chicago, Ill. Stencil-sheet. No. 1,244,188; Oct. 23; v. 243; p. 956.
Fuller, Louis E., New York, N. Y., assignor to A. B. Dick Company, Chicago, Ill. Stencil-sheet. No. 1,244,189; Oct. 23; v. 243; p. 957.
Fuller, Walter R., Atlanta, Ga. Aeroplane. No. 1,242,540; Oct. 9; v. 243; p. 380.
Fuller, William W., West Point, Ga. Boll-weevil destroyer. No. 1,241,727; Oct. 2; v. 243; p. 84.
Fulton, Charles H., St. Louis, Mo., assignor, by mesne assignments, to Metallurgical Laboratories, Incorporated, Chicago, Ill. Electrical distilling apparatus. No. 1,242,337; Oct. 9; v. 243; p. 315.
Fulton, Charles H., and T. M. Bains, Jr., St. Louis, Mo., assignors, by mesne assignments, to Metallurgical Laboratories, Incorporated, Chicago, Ill. Distilling metallic ores. No. 1,242,339; Oct. 9; v. 243; p. 317.
Fulton, Charles H., and T. M. Bains, Jr., St. Louis, Mo., assignors, by mesne assignments, to Metallurgical Laboratories, Incorporated, Chicago, Ill. Apparatus for distilling metallic ores and metal-bearing materials. No. 1,242,340; Oct. 9; v. 243; p. 317.
Fulton, Charles H., St. Louis, Mo., assignor, by mesne assignments, to Metallurgical Laboratories, Incorporated, Chicago, Ill. Electric furnace. No. 1,242,341; Oct. 9; v. 243; p. 318.
Funk, I. B., *et al.* (See Binckley, George S., assignor.)
Funk, Truman B., Columbus, Ohio, assignor, by mesne assignments, to Moline Plow Company, Moline, Ill. Tractor. No. 1,243,598; Oct. 16; v. 243; p. 741.
Furber, Frank O., Saco, Me. Broaching-tool. No. 1,243,504; Oct. 16; v. 243; p. 714.
Furman, Horace, Petersburg, Va. Steam-boiler. No. 1,244,316; Oct. 23; v. 243; p. 996.
Furtado, Joseph A., Half Moon Bay, Cal. Gold-washing machine. No. 1,241,954; Oct. 2; v. 243; p. 154.
Fusch, Warnie A., Decatur, Ill. Mechanical doll. No. 1,243,152; Oct. 16; v. 243; p. 608.
G. Piel Company. (See Ekroos, Sigurd W., assignor.)
G. I. Sellers & Sons Company. (See Mahoney, Clarence, assignor.)
G. W. Bent Co. (See Bent, Arthur F., assignor.)
G. E. M. Engineering Company. (See Mottiau, August J., assignor.)
Gabler, Dessie L., Fond du Lac, Wis. Umbrella. No. 1,243,153; Oct. 16; v. 243; p. 609.
Gadke, William, Philadelphia, Pa. Window-fastener. No. 1,244,725; Oct. 30; v. 243; p. 1159.
Gadke, William, Philadelphia, Pa. Ball-key. No. 1,244,848; Oct. 30; v. 243; p. 1194.
Gaffney, Richard W., Yonkers, N. Y. Hydraulic jack. No. 1,244,317; Oct. 23; v. 243; p. 997.
Gage, Henry P., and E. Pascucci, assignors to Corning Glass Works, Corning, N. Y. Refracting cover-glass for automobile-headlights. No. 1,243,399; Oct. 16; v. 243; p. 682.
Gage, William F., Chico, Cal. Automobile air-deflector. No. 1,242,541; Oct. 9; v. 243; p. 381.
Gagnon, Alexander, assignor to Fisher Body Corporation, Detroit, Mich. Machine for applying felt to channels. No. 1,243,728; Oct. 23; v. 243; p. 817.
Gagnon, Joseph A., Fitchburg, assignor to Crompton & Knowles Loom Works, Worcester, Mass. Center-filling stop-motion for looms. No. 1,243,831; Oct. 23; v. 243; p. 851.
Gagnon, Joseph E. (See Hood, Anderson, Fetters, McGlincy, Gagnon, and Kidder.)
Gagnon, Leo O., Southbridge, Mass. Goggles. No. 1,241,955; Oct. 2; v. 243; p. 154.
Gahan, Thomas E., Toledo, Ohio. Pattern-perforating machine. No. 1,244,595; Oct. 30; v. 243; p. 1119.
Gall, Adolph F., and N. A. Curtiss, assignors to New Jersey Patent Company, West Orange, N. J. Moving-picture machine. No. 1,242,792; Oct. 9; v. 243; p. 461.
Galvin, Roderick J. (See Smith and Galvin.)
Gamble, Joseph W., Omaha, Nebr., assignor to Illinois Iron & Bolt Company, Carpentersville, Ill. Draft connection for plows. No. 1,242,793; Oct. 9; v. 243; p. 461.
Gamewell Fire Alarm Telegraph Company. (See Cole, Frederick W., assignor.)
Gammel, Karl, assignor to The Cleveland Macaroni Company, Cleveland, Ohio. Machine for cutting dried pastes. No. 1,242,542; Oct. 9; v. 243; p. 381.
Gams, Alfons, assignor to Society of Chemical Industry in Basle, Basel, Switzerland. Product derived from opium and making same. No. 1,243,729; Oct. 23; v. 243; p. 817.
Garfield, James R., trustee. (See Wright, Joseph L., assignor.)
Garland, Thomas H., Chicago, Ill. Heating system. No. 1,243,154; Oct. 16; v. 243; p. 609.
Garver, Allen J., Clarkston, Wash. Apparatus for treating ores. No. 1,243,505; Oct. 16; v. 243; p. 715.
Gas-Electric Motorbus Corporation. (See Weaver, Harold B., assignor.)
Gates, William H., New Haven, Conn. Hand-operated die-head. No. 1,242,897; Oct. 9; v. 243; p. 404.
Gathmann, Emil, Baltimore, Md. Ingot and ingot-mold. No. 1,241,618; Oct. 2; v. 243; p. 49.
Gathright, Josiah B., Louisville, Ky. Wrench. No. 1,243,506; Oct. 16; v. 243; p. 715.
Gatten, Thomas A., Brainerd, Minn. Molder's trowel. No. 1,244,487; Oct. 30; v. 243; p. 1085.
Gealy, George M., Grove City, Pa. Reversible ratchet carwrench. No. 1,244,596; Oct. 30; v. 243; p. 1119.
Geiger, Frederick J. (See Davis, Anthony E., assignor.)
Geisenhöner, Henry, Schenectady, N. Y., assignor to General Electric Company. Electric welding. No. 1,242,171; Oct. 9; v. 243; p. 264.
Geist, Simon, *et al.* (See Snyder, Charles P., assignor.)
Gelb, Joseph, New York, N. Y. Carbon-holder for arc-lights. No. 1,244,048; Oct. 23; v. 243; p. 916.
Gendron Wheel Company. (See Vogel, Joshua F., assignor.)
General Electric Company. (See Alexanderson, Ernst F. W., assignor.)
General Electric Company. (See Brand, Frederick F., assignor.)
General Electric Company. (See Carver, James H., assignor.)
General Electric Company. (See Chatain, Henri G., assignor.)
General Electric Company. (See Geisenhöner, Henry, assignor.)
General Electric Company. (See Hunt, Louis J., assignor.)
General Electric Company. (See Langmuir, Irving, assignor.)
General Electric Company. (See Lowenstein, Louis C., assignor.)
General Electric Company. (See Schellens, Christopher A., assignor.)
General Electric Company. (See Seede, John A., assignor.)
General Electric Company. (See Sieber, Ferdinand, assignor.)

General Electric Company. (See Stone, Fred L., assignor.)
General Electric Company. (See Valentine, Irving R., assignor.)
General Electric Company. (See Ver Planck, William E., assignor.)
General Electric Company. (See Whiting, Max A., assignor.)
General Railway Signal Company. (See Henry, William S., assignor.)
General Railway Signal Company. (See Taylor, Herbert B., assignor.)
Geneva Tractor Company, The. (See Jacobs, George S., assignor.)
Geo. D. Barnard & Company. (See Willis, Barnard, assignor.)
George S. Johnston Co. (See Allen, Clile C., assignor.)
Gerdom, Gregory, Watervliet, N. Y. Pocket-moistener. No. 1,244,974; Oct. 30; v. 243; p. 1233.
Gerdom, Gregory, Watervliet, N. Y. Envelop-moistener. No. 1,244,975; Oct. 30; v. 243; p. 1234.
Gerhardt, Louis P., Lorah, Iowa. Long-range shotgun-cartridge. No. 1,243,155; Oct. 16; v. 243; p. 609.
Gerhardt, Paul, Chicago, Ill. Building construction. No. 1,243,281; Oct. 16; v. 243; p. 647.
Gerlach, Christian S., Brandon, Wis. Sound-producing apparatus. No. 1,241,956; Oct. 2; v. 243; p. 154.
Germain, Louis, Brooklyn, N. Y. Method and apparatus for projection of matter explanatory to moving pictures. No. 1,243,507; Oct. 16; v. 243; p. 715.
Gessford, Henry N., Cliquot, Mo. Nut and bolt lock. No. 1,242,342; Oct. 9; v. 243; p. 318.
Geurink, Fredericka. (See Geurink, Harry J., assignor.)
Geurink, Harry J., assignor to F. Geurink, Cleveland, Ohio. Compression stop and waste cock. No. 1,244,976; Oct. 30; v. 243; p. 1234.
Geyer, Clarence W., Donovan, Ill. End-gate fastener. No. 1,242,543; Oct. 9; v. 243; p. 381.
Gfrorer, Albert H., assignor to C. W. Hunt Company, Inc., West New Brighton, N. Y. Baggage-truck. No. 1,242,677; Oct. 9; v. 243; p. 425.
Gibbs, Frederick H. (See Johnson and Gibbs.)
Gibbs, Frederick H., Brooklyn, assignor to American Car and Foundry Company, New York, N. Y. Mine-car wheel and attaching means therefor. No. 1,245,142; Oct. 30; v. 243; p. 1283.
Gibbs Manufacturing Company, The. (See Preyer, Frederick W., assignor.)
Gibson, Algernon T. (See Bachler and Newkirk, assignors.)
Gibson, Bessie M., Chicago, Ill. Curtain-rod attachment. No. 1,242,172; Oct. 9; v. 243; p. 265.
Gibson, Charles D., Cleveland, Ohio, assignor to The Simplex Machine Tool Company. Change-speed gearing. No. 1,242,678; Oct. 9; v. 243; p. 426.
Gibson, Charles D., Cleveland, Ohio, assignor to The Simplex Machine Tool Company. Lathe-apron. No. 1,242,679; Oct. 9; v. 243; p. 426.
Gibson, Clark, Adamstown, Md. Automatic weighing apparatus. No. 1,242,794; Oct. 9; v. 243; p. 462.
Gibon, William, Chicopee, Mass. Roller-bearing. No. 1,244,190; Oct. 23; v. 243; p. 957.
Gilbert, Frank H., Ridgefield, Wash. Sack-holder. No. 1,244,318; Oct. 23; v. 243; p. 997.
Gilbertson, Theodore, Pelican Rapids, Minn. Ditching and grading machine. No. 1,244,319; Oct. 23; v. 243; p. 998.
Gill, Marcin. (See Ramocki, Anton, assignor.)
Gillespie, Henry C., Rupert, Idaho. Paper-feeding device. No. 1,242,343; Oct. 9; v. 243; p. 318.
Gillmor, Horatio G., Washington, D. C. Anticreeper. No. 1,243,282; Oct. 16; v. 243; p. 648.
Gilman, George H., Claremont, N. H., assignor to Sullivan Machinery Company, Boston, Mass. Hammer-drill. No. 1,242,882; Oct. 9; v. 243; p. 490.
Gilmore, Samuel A., *et al.* (See Icenhour, Albert A., assignor.)
Gilson, Alice A., San Francisco, Cal. Whitening and cleaning composition. No. 1,244,597; Oct. 30; v. 243; p. 1119.
Gindling, John H., Tampa, Fla. Mouse-guard for musical instruments. No. 1,242,544; Oct. 9; v. 243; p. 382.
Girling, George G. (See Johnston and Girling.)
Girling, Sidney S. (See Johnston and Girling.)
Giroux, Leon M., New York, N. Y. Lamp. No. 1,243,930; Oct. 23; v. 243; p. 880.
Gittins, George A. (See Spencer, Lawrence N., assignor.)
Givot, William W., Omaha, Nebr. Electrical-service-cut-out seal. No. 1,243,283; Oct. 16; v. 243; p. 648.
Gjodesen, William, New York, N. Y. Printer's guide. No. 1,245,097; Oct. 30; v. 243; p. 1270.
Gjorgjevitch, Nocolas. (See Hochon and Gjorgjevitch.)
Gladding, Louis A., New Milford, Conn., and J. H. Sullivan, Newport, R. I. Train-stop apparatus. No. 1,243,632; Oct. 23; v. 243; p. 851.
Glaser, Charles, Baltimore, Md. Separating calcium from magnesium contained in saline solutions. No. 1,242,434; Oct. 9; v. 243; p. 346.
Glauber Brass Manufacturing Company. (See Fischer, Arthur L., assignor.)
Gleed, James C., North Yakima, Wash. Rotary pump. No. 1,243,060; Oct. 16; v. 243; p. 582.
Glück, David. (See Lukacs, Michael, assignor.)
Gockley, John S. (See Beamisderfer, Joseph A., assignor.)
Goehring, Harry M., and C. A. Lindström, Pittsburgh, Pa. Sanding device for vehicles. No. 1,244,726; Oct. 30; v. 243; p. 1159.
Goertz, Frederick, Newark, N. J., assignor to August Goertz & Co. Sanitary shield for telephone apparatus. No. 1,244,977; Oct. 30; v. 243; p. 1234.
Godfrey, Truman M. (See Kohman, Godfrey, and Asbe.)
Goebel, William P., Brooklyn, N. Y. Match-box holder. No. 1,243,674; Oct. 16; v. 243; p. 766.
Goecke, Rudolf F., Elyria, Ohio. Kettle. No. 1,241,619; Oct. 2; v. 243; p. 49.
Goedeke, Frederick W., Evansville, Ind. Insect-trap for casters. No. 1,242,680; Oct. 9; v. 243; p. 426.
Goerz, Henry P., Marion, S. D. Spark-coil-testing device. No. 1,244,049; Oct. 23; v. 243; p. 916.
Goff, Edgar G., Chattanooga, Okla. Animal-poke. No. 1,241,842; Oct. 2; v. 242; p. 119.
Going, George G., assignor to The Noiseless Typewriter Company, Middletown, Conn. Type-writing machine. No. 1,242,173; Oct. 9; v. 243; p. 265.
Going, George G., assignor to The Noiseless Typewriter Company, Middletown, Conn. Type-writing machine. No. 1,243,730; Oct. 23; v. 243; p. 817.
Gold, Egbert H. and E. W. Rietz, Chicago, Ill.; said Rietz assignor to said Gold. Steam-heating system. No. 1,241,620; Oct. 2; v. 243; p. 50.
Gold, Egbert H., Chicago, Ill. Heating system for refrigerator cars and the like. No. 1,242,898; Oct. 9; v. 243; p. 495.
Gold, Egbert H. (See Schreiber, Edward A., assignor.)
Golden West Pump Company. (See Norton, James A., assignor.)
Goldfadden, Nathan E., Chicago, Ill. Flash-light device. No. 1,243,156; Oct. 16; v. 243; p. 609.
Goldsmith, Max S., Cincinnati, Ohio. Forming ribs on sheet metal. No. 1,244,598; Oct. 30; v. 243; p. 1119.
Goldthwait, Joel E., Boston, Mass. Rowboat-seat. No. 1,245,098; Oct. 30; v. 243; p. 1270.
Gongaware, William F., Oceanpark, Cal. Separator. No. 1,244,191; Oct. 23; v. 243; p. 957.
Gonnella, Thomas, Philadelphia, Pa. Music-stand. No. 1,244,320; Oct. 23; v. 243; p. 998.
Gooch, James C., Pittsburgh, Pa. Device for applying liquids. No. 1,242,174; Oct. 9; v. 243; p. 265.
Goodacre, Harry, and A. H. Allen, assignors to Heywood Brothers & Wakefield Company, Wakefield, Mass. Matholder. No. 1,241,957; Oct. 2; v. 243; p. 155.
Goodlett, Henry J., Laneville, Tex. Heel-sweep brace. No. 1,241,958; Oct. 2; v. 243; p. 155.
Goodman, Austin S., Oklahoma, Okla. Grain-separator. No. 1,243,284; Oct. 16; v. 243; p. 648.
Goodman, Bennie, Millican, Oreg. Folding air-pump. No. 1,241,959; Oct. 2; v. 243; p. 156.
Goodman, Joseph E. (See Campbell, Ernst P., assignor.)
Goodman Manufacturing Company. (See Davis, Charles E., assignor.)
Goodrich, John K., assignor to R. A. Grant, Atlanta, Ga. Vending-machine. No. 1,242,681; Oct. 9; v. 243; p. 426.
Goodrich, Joseph H., Turlock, Cal. Motor-truck. No. 1,242,682; Oct. 9; v. 243; p. 427.
Goodrum, Charles L. (See Lattig and Goodrum.)
Goodrum, Charles L., assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,244,488; Oct. 30; v. 243; p. 1085.
Goodson, George A., New York, N. Y. Camera. No. 1,241,843; Oct. 2; v. 243; p. 119.
Goodwin, James, Camden, Del. Fuel-economizer for explosive-engines. No. 1,244,321; Oct. 23; v. 243; p. 998.
Goodyear Tire and Rubber Company, The. (See Nall, Edward, assignor.)
Goozey, Charles A., assignor to B. A. Ballou and Company, Inc., Providence, R. I. Spring-ring. No. 1,244,599; Oct. 30; v. 243; p. 1120.
Gorham Manufacturing Company. (See Pender, James E. P., assignor.)
Gorman, Walter J., Jersey City, N. J. Burial-vault. No. 1,242,344; Oct. 9; v. 243; p. 318.
Gorrell, Mary, Billings, Mont. Bobbin. No. 1,243,157; Oct. 16; v. 243; p. 610.
Gorton, Rebecca C., Waterproof, La. Adjustable bedside surgical table. No. 1,243,508; Oct. 16; v. 243; p. 715.
Gosline, John T., Vancouver, British Columbia, Canada. Side-dressing attachment for saw-filing machines. No. 1,243,731; Oct. 23; v. 243; p. 878.
Gosman, Robert, Amagansett, N. Y. Pencil attachment. No. 1,244,192; Oct. 23; v. 243; p. 958.
Goss, Charles H. (See Goss, Harold D. and C. H.)
Goss, Harold D. and C. H., Union City, Pa. Detachable ladder-shelf. No. 1,243,732; Oct. 23; v. 243; p. 818.
Gottschall, Lionel, Dayton, Ohio. Folding box. No. 1,241,844; Oct. 2; v. 243; p. 120.
Gould Coupler Company. (See Bouché, William F., assignor.)
Gould Coupler Company. (See Crosby, Gorham, assignor.)
Gould Coupler Company. (See Milne and Richards, assignors.)
Gould Coupler Company. (See Richards, Willard F., assignor.)
Gould, Reuben, New York, N. Y. Hair-fastener. No. 1,241,960; Oct. 2; v. 243; p. 156.
Goza, Walter D., Los Angeles, Cal. Bumper wheel-lock. No. 1,241,961; Oct. 2; v. 243; p. 156.

Graffenberger, Friedrich, assignor to A. Geo. Schulz Co., Milwaukee, Wis. Thumb-hole machine. No. 1,241,506; Oct. 2; v. 243; p. 10.

Graham, John T., Halstead, England. Means for controlling the operation of air-gas plants. No. 1,243,509; Oct. 16; v. 243; p. 716.

Grammer, Allen L. (See Shuster and Grammer.)

Granberg, Albert J., San Francisco, Cal. Counting attachment for faucets. No. 1,243,400; Oct. 16; v. 243; p. 682.

Grand Rapids Show Case Company. (See Vanderveld, Anthony, assignor.)

Grandchamp, Napoleon, assignor of one-half to C. Myers, Raymond, Wash. Operating mechanism for bolt headers and shears. No. 1,241,728; Oct. 2; v. 243; p. 84.

Grant, Frank, Westfield, Mass. Shaving-stick holder No. 1,242,175; Oct. 9; v. 243; p. 265.

Grant, Joseph H., Huron, S. D. Bridle-bit. No. 1,241,729; Oct. 2; v. 243; p. 85.

Grant, Robert A. (See Goodrich, John K., assignor.)

Gray Automatic Copy Indicator Co. (See Gray, William E., assignor.)

Gray, Harry A., Milwaukee, Wis. Cigar and cigarette holder. No. 1,243,158; Oct. 16; v. 243; p. 610.

Gray, Harry M., Los Angeles, assignor of one-half to M. A. Neal and one-half to E. W. Jones, San Francisco, Cal. Recovering soap. No. 1,242,435; Oct. 9; v. 243; p. 327.

Gray, William E., Chicago, Ill., assignor to Gray Automatic Copy Indicator Co., Boise, Idaho. Copy-holder attachment for type-writers. No. 1,244,322; Oct. 23; v. 243; p. 998.

Gray, William E., Boise, Idaho. Copy-holding device. No. 1,244,323; Oct. 23; v. 243; p. 999.

Gray, William P. (See Bates, Burpee O., assignor.)

Greacen, Robert F. (See Strongson, Herman, assignor.)

Green Engineering Company. (See Poppenhusen, Herman A., assignor.)

Green Engineering Company. See Poppenhusen and Strong, assignors.)

Green Engineering Company. (See Strong, Arthur P., assignor.)

Green, James E., Jr. (See Coleman, Kyster B., assignor.)

Greene, Edgeworth, Upper Montclair, N. J. Bottle. (Reissue.) No. 14,382; Oct. 23; v. 243; p. 1040.

Greene, Harold D., Britt, Iowa. Non-skid tire-grip. No. 1,241,621; Oct. 2; v. 243; p. 50.

Greene, Thomas R., Texarkana, Ark. Gate-support. No. 1,243,931; Oct. 23; v. 243; p. 881.

Greenhaw, Thomas P., Hobart, Okla. Nutcracker. No. 1,242,436; Oct. 9; v. 243; p. 347.

Greer, Erwin, assignor to Maxfer Truck and Tractor Company, Chicago, Ill. Means for converting automobiles into trucks. No. 1,244,727; Oct. 30; v. 243; p. 1159.

Greve, Louis W., Cleveland, Ohio, assignor to The Cleveland Pneumatic Tool Company. Fluid-operated tool. No. 1,241,962; Oct. 2; v. 243; p. 157.

Grider, Clarence L., assignor of one-tenth to F. E. Grider, Ely, Nev. Shock-absorber for automobiles. No. 1,241,622; Oct. 2; v. 243; p. 50.

Grider, Frank E. (See Grider, Clarence L., assignor.)

Grieb, Alfred, Elizabeth, N. J., assignor to The Singer Manufacturing Company. Overseaming sewing-machine. No. 1,243,159; Oct. 16; v. 243; p. 610.

Grieb, Alfred, Elizabeth, N. J., assignor to The Singer Manufacturing Company. Feeding mechanism for sewing-machines. No. 1,243,160; Oct. 16; v. 243; p. 610.

Griffin, George G., Indianapolis, Ind. Vehicle-wheel. No. 1,244,193; Oct. 23; v. 243; p. 958.

Griffith, Benjamin M., assignor to Pittsburgh Lamp, Brass & Glass Company, Pittsburgh, Pa. Fire-extinguisher. No. 1,243,733; Oct. 23; v. 243; p. 818.

Griffith, Edward T., Indianapolis, Ind. Sectional cushion-tire. No. 1,241,845; Oct. 2; v. 243; p. 120.

Griffith, James S. (See Carter, Taylor, and Griffith.)

Griffith, Thomas E., Winston-Salem, N. C. Garment-supporter. No. 1,244,194; Oct. 23; v. 243; p. 958.

Griffiths, William U., Philadelphia, Pa. Valve mechanism. No. 1,244,195; Oct. 23; v. 243; p. 959.

Grilley, Theodore D. (See Unkle and Grilley.)

Grimes, Thaddeus S., assignor to Lummus Cotton Gin Company, Columbus, Ga. Huller-gin. No. 1,244,196; Oct. 23; v. 243; p. 959.

Grimm, Jesse, Gifford, Ind. Shade and curtain hanger. No. 1,242,345; Oct. 9; v. 243; p. 318.

Griscom-Russell Company, The. (See Carpenter, Raymond, assignor.)

Griswold, Marius E., Chicago, Ill. Vehicle-axle. No. 1,243,401; Oct. 16; v. 243; p. 682.

Grob, Martin H., Sharpsburg borough, Pa. Milk-bottle holder. No. 1,244,050; Oct. 23; v. 243; p. 917.

Grode, Frank P., Kansas City, Mo. Billiard-table construction. No. 1,243,161; Oct. 16; v. 243; p. 611.

Gromann, Carl F., New York, N. Y. Automobile-signal. No. 1,243,510; Oct. 16; v. 243; p. 716.

Gross, Edward H., Lowell, Mass. Cam-shaft-bearing remover. No. 1,241,846; Oct. 2; v. 243; p. 120.

Gross, Andrew. (See De Iniacservics, Charles, assignor.)

Gross, John J., Toledo, Ohio. Gage for gasolene-tanks. No. 1,242,176; Oct. 9; v. 243; p. 266.

Gross, Margaret E., Perkinsville, and J. L. Howland, Buffalo, N. Y. Belt-fastener. No. 1,245,099; Oct. 30; v. 243; p. 1270.

Gross, William P., Sebewaing, Mich. Separating device. No. 1,242,683; Oct. 9; v. 243; p. 427.

Grove, Edward H., assignor of one-eighth to A. Marks, one-eighth to R. A. Kern, one-eighth to J. F. Kreamer, and one-eighth to W. F. Sullivan, Washington, D. C. Electrical means for locating concealed pipes. No. 1,241,963; Oct. 2; v. 243; p. 157.

Grover, Albert D., New York, N. Y., assignor to Autosales Gum and Chocolate Company. Slot-closing mechanism for coin-controlled vending-machines. No. 1,243,511; Oct. 16; v. 243; p. 716.

Grover, Albert D., New York, N. Y., assignor to Autosales Gum and Chocolate Company. Coin-controlled machine. No. 1,243,512; Oct. 16; v. 243; p. 717.

Grow, Cyrus F., Alhambra, and J. M. Courtney, Los Angeles, Cal. Multiple-cylinder-grinding apparatus. No. 1,241,964; Oct. 2; v. 243; p. 157.

Grubb, Reuben, Philadelphia, Pa. Tire. No. 1,243,513; Oct. 16; v. 243; p. 718.

Gruman, Horace F., Jackson, assignor of one-third to D. R. Cohen and one-third to S. R. Cohen, Detroit, Mich. Tension device for yarn. No. 1,243,162; Oct. 16; v. 243; p. 611.

Grupe, William F., Jersey City, N. J., assignor, by mesne assignments, to Van O-Phone Company, New York, N. Y. Motor mechanism and speed-regulating means therefor. No. 1,243,285; Oct. 16; v. 243; p. 649.

Gscheidlen, Wilhelm, Berlin-Schmargendorf, assignor to Siemens-Schuckertwerke, G. m. b. H., Berlin, Germany. Slip-ring for dynamo-electric machines. No. 1,243,286; Oct. 16; v. 243; p. 649.

Guarantee Liquid Measure Company, The. (See MacKenzie, James A. and G. W., Jr., assignors.)

Guller, Leonard K., *et al.* (See Icenhour, Albert A., assignor.)

Guinzburg, Victor, assignor to I. B. Kleinert Rubber Company, New York, N. Y. Bathing-cap. No. 1,242,684; Oct. 9; v. 243; p. 428.

Guibransen-Dickinson Company. (See Thorn, Oscar P., assignor.)

Gumber, Joseph and P., and J. Harder, East Moline, Ill. Rolling screen. No. 1,242,177; Oct. 9; v. 243; p. 266.

Gumber, Paul. (See Gumber and Harder.)

Gunn, Francis M., and L. J. Berg, Chicago, Ill. Metallic car-diaphragm. No. 1,243,932; Oct. 23; v. 243; p. 881.

Gunn, John A., Hopkinsville, Ky. Seat-indicator. No. 1,241,965; Oct. 2; v. 243; p. 158.

Gunn, John M., assignor to The McClary Manufacturing Co., London, Ontario, Canada. Field-kitchen. No. 1,244,489; Oct. 30; v. 243; p. 1086.

Guptail, Clarence H., Elgin, Ill. Pump. No. 1,242,685; Oct. 9; v. 243; p. 428.

Gusey, Arthur L., Walla Walla, Wash. Aerial vessel. No. 1,241,623; Oct. 2; v. 243; p. 51.

Gustafson, Axel P., Waukegan, assignor to Chicago Hardware Foundry Company, North Chicago, Ill. Molding apparatus. No. 1,243,660; Oct. 16; v. 243; p. 761.

Gustin, Max, New York, N. Y. Slipper. No. 1,244,197; Oct. 23; v. 243; p. 959.

Gutberlet, Charles J., Philadelphia, Pa. Window-envelop. No. 1,245,100; Oct. 30; v. 243; p. 1271.

Guthrie, Harley W., Elmore, Ohio. Circuit-closing means for fire-alarms. No. 1,242,178; Oct. 9; v. 243; p. 266.

Guy, George E., Tottenville, N. Y., assignor of one-third to W. H. Samuel and one-third to H. H. Samuel, Bloomfield, N. J. Rotary piston-pump. No. 1,241,624; Oct. 2; v. 243; p. 51.

Gygar, Joseph A., Brisbane, Queensland, Australia. Mechanical motor. No. 1,243,163; Oct. 16; v. 243; p. 611.

H. B. Sherman Manufacturing Company. (See Andrews, Hart, and Sherman, assignors.)

H. D. Smith & Company, The. (See Thomson, William S., assignor.)

H. W. Johns-Manville Company. (See Wardell, Henry R., assignor.)

Haber, Henry J., assignor of thirty-five one-hundredths to W. Hoyt, Cleveland, Ohio. Method and machine for preparing charcoal. No. 1,243,734; Oct. 23; v. 243; p. 819.

Hachenberg, Louis, New York, N. Y. Motor for starting engines. No. 1,241,625; Oct. 2; v. 243; p. 51.

Hachmann, Frederick assignor of one-half to F. C. Schoenthaler, St. Louis, Mo. Hose-coupling. No. 1,241,626; Oct. 2; v. 243; p. 52.

Hackley, George T., deceased, S. C. Hackley, administratrix, Los Angeles, Cal., assignor of one-half to M. E. Covington, Memphis, Tenn. Container. No. 1,244,324; Oct. 23; v. 243; p. 999.

Hackley, Sarah C., administratrix. (See Hackley, George T.)

Hadfield, Frederick J., Oulton Broad, near Lowestoft, England. Terminal for electrical appliances. No. 1,241,627; Oct. 2; v. 243; p. 52.

Hadgieff, Koiy G., Akron, Ohio. Cement-holder. No. 1,244,600; Oct. 30; v. 243; p. 1120.

Haffner, Jacob P., Howardsville, Va. Plow. No. 1,243,833; Oct. 23; v. 243; p. 851.

Hagerman, Frank A., Stromsburg, Nebr. Evener. No. 1,242,179; Oct. 9; v. 243; p. 266.

Hagerman, Samuel, Crystal, Mich. Gas-engine. No. 1,244,490; Oct. 30; v. 243; p. 1087.

Haigh, Harry J., Stapleton, N. Y. Toy. No. 1,243,287; Oct. 16; v. 243; p. 649.

Haigh, Joseph A., Sunbury, Pa. Carbureter. No. 1,242,180; Oct. 9; v. 243; p. 267.

Hake, George, St. Louis, Mo. Garment-supporter. No. 1,243,061; Oct. 16; v. 243; p. 583.

Hake, Lewis F., Canton, Ohio. Cooking device. No. 1,242,181; Oct. 9; v. 243; p. 267.

Halby, Viggo G., Marquette, assignor to Eureka Mucking & Engineering Company, Crystal Falls, Mich. Loader. No. 1,244,199; Oct. 23; v. 243; p. 960.

Hale, Albert E., Tucson, Ariz. Headlight. No. 1,244,200; Oct. 23; v. 243; p. 960.

Hales, Henry W., Ridgewood, N. J. Photographic camera. No. 1,244,978; Oct. 30; v. 243; p. 1234.

Hall, Arthur J. (See Simmon and Hall.)

Hall, Arthur J., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Control system. No. 1,241,507; Oct. 2; v. 243; p. 10.

Hall, Arthur J., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Control apparatus. No. 1,244,491; Oct. 30; v. 243; p. 1087.

Hall, Arthur J., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Control system. No. 1,244,492; Oct. 30; v. 243; p. 1087.

Hall, Frank A. (See McIntosh, Burtnett, assignor.)

Hall, Frank D., Los Angeles, Cal. Automobile-sleeper. No. 1,243,288; Oct. 16; v. 243; p. 650.

Hall, John B., assignor to Addressograph Company, Chicago, Ill. Printing device. No. 1,243,289; Oct. 16; v. 243; p. 650.

Hall, William A., New York, N. Y. Production of motor-spirit from heavy hydrocarbons. No. 1,242,795; Oct. 9; v. 243; p. 462.

Hall, William A., New York, N. Y. Producing motor-fuel. No. 1,242,796; Oct. 9; v. 243; p. 462.

Hall, William G., Spray, N. C. Chair. No. 1,243,402; Oct. 16; v. 243; p. 682.

Halladay, Lewis P., Streator, Ill. Shock-absorber. No. 1,243,599; Oct. 16; v. 243; p. 741.

Hallas, James G., Kenosha, Wis. Machine-chuck. No. 1,242,182; Oct. 9; v. 243; p. 267.

Hallenbeck, Charles W. (See Havens, Elmer H., assignor.)

Halme, William T., Syracuse, N. Y., Sewing-machine attachment. No. 1,244,201; Oct. 23; v. 243; p. 960.

Halvorsen, Arthur L., Perth Amboy, N. J., assignor to The Roessler & Hasslacher Chemical Co., New York, N. Y. Making amalgams. No. 1,243,062; Oct. 16; v. 243; p. 583.

Ham, Madison, Glen Cove, N. Y. Damper-lock and indicator. No. 1,244,198; Oct. 23; v. 243; p. 959.

Ham, Philip W. (See Beardsley and Ham.)

Hamann, Charles, Brooklyn, N. Y. Bottle-washer. No. 1,241,508; Oct. 2; v. 243; p. 11.

Hambright, George A., Mount Vernon, N. Y. Illuminated music-lyre. No. 1,243,600; Oct. 16; v. 243; p. 742.

Hamilton, Edward E., Northboro, Mass. Hinge member for barrettes and the like. No. 1,243,834; Oct. 23; v. 243; p. 852.

Hamilton, Frank C., assignor to Eureka Projector Device Co. Inc., New York, N. Y. Motion-picture apparatus. No. 1,244,728; Oct. 30; v. 243; p. 1160.

Hamilton, Harry W. (See Bamford and Hamilton.)

Hamilton, Hugh R., Webster, Mass. Cutter-sharpening device. No. 1,244,493; Oct. 30; v. 243; p. 1088.

Hamilton, John R., Yonkers, assignor to Automatic Sprinkler Company of America, New York, N. Y. Dry valve for automatic sprinkler systems. No. 1,241,847; Oct. 2; v. 243; p. 121.

Hamilton, John R., Yonkers, assignor to Sypho-Chemical Sprinkler Corporation, Croton-on-Hudson, N. Y. Chemical fire-extinguishing apparatus. No. 1,242,102; Oct. 2; v. 243; p. 201.

Hamilton Manufacturing Company. (See Bamford and Hamilton, assignors.)

Hamilton Manufacturing Company. (See Hood, Anderson, Fetters, McGlincy, Gagnon, and Kidder, assignors.)

Hamilton, William E., assignor to The Jeffrey Manufacturing Company, Columbus, Ohio. Mining system. No. 1,244,601; Oct. 30; v. 243; p. 1120.

Hamilton, William G., Cleburne, Tex. Oil-burner. No. 1,242,183; Oct. 9; v. 243; p. 268.

Hamlin Imp-Ervia Co. (See Hamlin, John H., assignor.)

Hamlin, John H., assignor to Hamlin Imp-Ervia Co., Inc., New York, N. Y. Atomizer. No. 1,243,514; Oct. 16; v. 243; p. 718.

Hamlin, John H., assignor to Bramhill Peane Company, New York, N. Y. Fruit and vegetable peeling machine. No. 1,244,452; Oct. 23; v. 243; p. 1036.

Hammel, George. (See Blumenthal, Louis, assignor.)

Hammer, Charles. (See Kramer and Hammer.)

Hammer, Charles, Queens, assignor to American Metal Cap Co., Brooklyn, N. Y. Formation of bottle-caps. No. 1,241,509; Oct. 2; v. 243; p. 11.

Hammer, Charles, Queens, assignor to American Metal Cap Co., Brooklyn, N. Y. Chuck for jar-closures. No. 1,244,494; Oct. 30; v. 243; p. 1088.

Hammer, Charles, Queens, assignor to American Metal Cap Co., Brooklyn, N. Y. Jar-closure. No. 1,244,495; Oct. 30; v. 243; p. 1088.

Hammer, Charles, Queens, assignor to American Metal Cap Co., Brooklyn, N. Y. Process jar-closure. No. 1,244,496; Oct. 30; v. 243; p. 1088.

Hammock, Claude S., assignor to The Beaver Company, Buffalo, N. Y. Folding screen. No. 1,244,497; Oct. 30; v. 243; p. 1089.

Hammond Typewriter Company. (See Krusius, Edward, assignor.)

Hampden, Wellesley R., assignor of one-half to H. A. Broecker, Milwaukee, Wis. Auto radiator-heater and signal-light. No. 1,242,797; Oct. 9; v. 243; p. 463.

Handcock, Henry W. (See Angold, Duddell, Dykes, Handcock, and Oliver.)

Handley, George F., Glendale, assignor to Royal Typewriter Company, Inc., New York, N. Y. Type-writing machine. No. 1,244,729; Oct. 30; v. 243; p. 1160.

Hanff, Edward A., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Controller. No. 1,241,510; Oct. 2; v. 243; p. 11.

Hanger, James E., Sr., Washington, D. C. Bed. No. 1,242,545; Oct. 9; v. 243; p. 382.

Hanley, Herbert R., Winthrop, Cal., assignor to Bully Hill Copper Mining & Smelting Company. Zinc-extraction process. No. 1,241,966; Oct. 2; v. 243; p. 158.

Hanley, Herbert R., Winthrop, Cal., assignor to Bully Hill Copper Mining & Smelting Company. Electrolytic apparatus. No. 1,241,967; Oct. 2; v. 243; p. 158.

Hanlon, George, Shawneetown, Ill. Developing and fixing tank for photographic films. No. 1,243,403; Oct. 16; v. 243; p. 683.

Hanlon, George J., New York, assignor of one-half to W. F. Kurz, Woodhaven, N. Y. Life-saving device. No. 1,244,325; Oct. 23; v. 243; p. 999.

Hanna, Guy C., Plainfield, Ind. Pneumatically-tired wheel. No. 1,243,515; Oct. 16; v. 243; p. 718.

Hannemann, Robert H., Wausau, Wis. Railway-switch. No. 1,244,849; Oct. 30; v. 243; p. 1195.

Hanning, T. L., *et al.* (See Errett, Thomas A., assignor.)

Hansen, Anita V., New York, N. Y. Bed-linen. No. 1,241,968; Oct. 2; v. 243; p. 159.

Hansen, Augie L., Evanston, assignor to Justrite Manufacturing Company, Chicago, Ill. Safety oil-can. No. 1,241,511; Oct. 2; v. 243; p. 12.

Hanson, Gerhart J., Buxton, N. D. Door-hanger. No. 1,242,798; Oct. 9; v. 243; p. 463.

Hanson, Thomas R., Tuscaloosa, Ala. Dirigible-headlight mechanism. No. 1,243,290; Oct. 16; v. 243; p. 650.

Hard, Milton G., Sisseton, S. D. Swingletree. No. 1,244,202; Oct. 23; v. 243; p. 960.

Harder, John. (See Gumber and Harder.)

Hardesty, Rudd, Denver, Colo. Sign and making the same. No. 1,243,164; Oct. 16; v. 243; p. 612.

Harding, George, Spokane, Wash. Apparatus for reinforcing poles. No. 1,243,933; Oct. 23; v. 243; p. 881.

Hardman, Thomas, Santa Monica, and F. L. Northup, Oceanpark, Cal. Cement composition and making the same. No. 1,244,326; Oct. 23; v. 243; p. 1000.

Hargrave, William H., Portland, Oreg. Wedge for felling trees. No. 1,244,327; Oct. 23; v. 243; p. 1000.

Harley-Davidson Motor Co., The. (See Harley, William S., assignor.)

Harley, William S., assignor to The Harley-Davidson Motor Co., Milwaukee, Wis. Pedal. No. 1,243,165; Oct. 16; v. 243; p. 612.

Harmon, Martin, St. Louis, Mo. Bugging-machine. No. 1,242,546; Oct. 9; v. 243; p. 382.

Harper, Edwin F., Harborne, Birmingham, England. Means for focusing for use in connection with film-cameras. No. 1,243,934; Oct. 23; v. 243; p. 882.

Harrell, Billington C. (See Jones and Harrell.)

Harrington, Clinton O., Edgewood borough, assignor to The Union Switch & Signal Company, Swissvale, Pa. Adjusting incandescent lamps. No. 1,241,512; Oct. 2; v. 243; p. 12.

Harrington, Samuel H., New York, N. Y. Burglar-alarm. No. 1,242,547; Oct. 9; v. 243; p. 382.

Harris Automatic Press Company, The. (See Pritchard, Carl G., assignor.)

Harris, Charles R., assignor to Over All Roller Bearings Company, Los Angeles, Cal. Antifriction roller-bearing. No. 1,245,145; Oct. 30; v. 243; p. 1284.

Harris, Charles R., and Lowell W. Lyons, assignors to Over All Roller Bearings Company, Los Angeles, Cal. Roller-bearing. No. 1,245,146; Oct. 30; v. 243; p. 1284.

Harris, Charles R., and L. W., Lyons, assignors to Over All Roller Bearings Company, Los Angeles, Cal. Roller-bearing. No. 1,245,147; Oct. 30; v. 243; p. 1285.

Harris, George S., Lanett, Ala. Floor-cleaning machine. No. 1,243,516; Oct. 16; v. 243; p. 718.

Harris, Louis, Chicago, Ill. Surfacing apparatus. No. 1,243,404; Oct. 16; v. 243; p. 683.

Harris, Mack H., assignor of one-half to J. Klein, Higginsville, Mo. Resilient wheel. No. 1,241,730; Oct. 2; v. 243; p. 85.

Harris, Moses H. (See Hayden, Henry A., assignor.)

Harris, William A., Greenville, S. C., assignor to Automatic Pump Corporation, Norfolk, Va. Automatic pump. No. 1,242,548; Oct. 9; v. 243; p. 383.

Harrison, Charles L., assignor of one-third to L. L. Strause, Richmond, Va. Ventilator-sash for car-windows. No. 1,244,602; Oct. 30; v. 243; p. 1120.

Harrison, Henry A., Norheim, Mont. Mail-bag receiver for railway-coaches. No. 1,242,437; Oct. 9; v. 243; p. 347.

Harrison, Howard G., Spokane, Wash. Grain-tank. No. 1,242,935; Oct. 16; v. 243; p. 541.

Harrison, John T., *et al.* (See Walters Edward, assignor.)

Harrison, Matthew, Springfield, assignor to Lamb Knitting Machine Company, Chicopee Falls, Mass. High-speed spindle mounting and lubricating device. No. 1,243,661; Oct. 16; v. 243; p. 761.

Harsh, Howard, Osakis, Minn. Reversible railway-tie. No. 1,242,184; Oct. 9; v. 243; p. 268.

Hart, Gerald W., West Hartford, Conn. Electric switch. No. 1,243,166; Oct. 16; v. 243; p. 612.

Hart, Gerald W., West Hartford, assignor to The Hart Manufacturing Company, Hartford, Conn. Switch. No. 1,244,085; Oct. 23; v. 243; p. 927.
Hart Manufacturing Company, The. (See Hart, Gerald W., assignor.)
Hart, William C., St. Louis, Mo. Printing-press ink-fountain. No. 1,244,979; Oct. 30; v. 243; p. 1235.
Hart, William H. (See Andrews, Hart, and Sherman.)
Harter, Clarence J., Hartford, assignor of one-half to W. Webb, Bridgeport, Conn. Range-finding arrangement. No. 1,242,686; Oct. 9; v. 243; p. 428.
Harter, Isaac, Jr., New York, N. Y., assignor to The Babcock & Wilcox Company, Bayonne, N. J. Steam-boiler. No. 1,244,603; Oct. 30; v. 243; p. 1121.
Harth, August, Chatham, N. J., assignor to National Electric Utilities Corporation, Danbury, Conn. Electric heater. No. 1,242,687; Oct. 9; v. 243; p. 428.
Hartley, George D. (See Sleeper, Frank H., assignor.)
Hartman, Bertrand H., Glenburn, N. D. Skinning-knife. No. 1,241,969; Oct. 2; v. 243; p. 159.
Hartman, George A., Sr., Homer, Ill. Sanitary ball-ring. No. 1,244,980; Oct. 30; v. 243; p. 1235.
Hartman, Joseph M., Yardley, Pa. Wheel-hoe. No. 1,244,850; Oct. 30; v. 243; p. 1195.
Harvey, Frank W., Bay City, Mich. Luminous keyhole-plate. No. 1,243,518; Oct. 16; v. 243; p. 719.
Harvey, Harold C., assignor to Milwaukee Lace Paper Co., Milwaukee, Wis. Blank-feeding mechanism. No. 1,244,086; Oct. 23; v. 243; p. 927.
Harvey, Philip D., Stratton, Colo. Automatic wagon-brake. No. 1,243,935; Oct. 23; v. 243; p. 882.
Harvey, Willis W., Malad City, Idaho. Resilient wheel. No. 1,243,735; Oct. 23; v. 243; p. 819.
Haseltine, Stacy B., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Draft-gear yoke. No. 1,242,799; Oct. 9; v. 243; p. 463.
Haseltine, Stacy B., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Draft-gear yoke. No. 1,242,800; Oct. 9; v. 243; p. 463.
Haseltine, Stacy B., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Yoke. No. 1,242,801; Oct. 9; v. 243; p. 464.
Haseltine, Stacy B., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Draft-rigging yoke. No. 1,242,802; Oct. 9; v. 243; p. 464.
Hautier, Camille J., Boulogne-sur-Seine, France. Internal-combustion engine. No. 1,243,835; Oct. 23; v. 243; p. 852.
Havens, Elmer H., assignor of one-half to C. W. Hallenbeck, Albany, N. Y. Composition tie and rail fastener. No. 1,241,970; Oct. 2; v. 243; p. 159.
Havens, William L., and C. N. Swanson, Topeka, Kans. Roof for railway-cars. No. 1,244,087; Oct. 23; v. 243; p. 927.
Haviena, Joseph F., Detroit, Mich. Telephone-mouthpiece. No. 1,241,731; Oct. 2; v. 243; p. 85.
Hawes, Frederick W., assignor to Premier Cushion Spring Co., Detroit, Mich. Spring construction. No. 1,242,346; Oct. 9; v. 243; p. 319.
Hawkes, Townsend D., Corning, N. Y., assignor to T. G. Hawkes & Co., Corning, N. Y. Condiment-holder. No. 1,243,836; Oct. 23; v. 243; p. 853.
Hawkesworth, Frank E., Los Angeles, Cal. Method of and apparatus for placer-mining. No. 1,244,203; Oct. 23; v. 243; p. 961.
Hawley, George W., Bridgeport, Conn., assignor to Kny-Scheerer Corporation, New York, N. Y. Extension-splint. No. 1,242,688; Oct. 9; v. 243; p. 429.
Hawley, John B., Carthage, N. Y. Table vessel. No. 1,243,405; Oct. 16; v. 243; p. 683.
Hawley, John F., and F. L. Moss, Chillicothe, Mo. Railway-crossing signal. No. 1,244,204; Oct. 23; v. 243; p. 961.
Hawley, Lee F., Madison, Wis. Producing phenolic bodies from wood-tar oils. (Reissue.) No. 14,388; Oct. 30; v. 243; p. 1289.
Hawthorne, Ellsworth A., Bridgeport, Conn. Lamp. No. 1,242,185; Oct. 9; v. 243; p. 268.
Hawthorne, Ellsworth A., Bridgeport, Conn. Lamp. No. 1,242,186; Oct. 9; v. 243; p. 269.
Hawthorne, Louis A., Newark, N. J., assignor to Steel Utilities Incorporated. Crating apparatus for bottles and the like. No. 1,243,406; Oct. 16; v. 243; p. 683.
Hawthorne, Louis A., Newark, N. J., assignor to Steel Utilities Incorporated. Bottle-crating mechanism. No. 1,243,407; Oct. 16; v. 243; p. 684.
Hawthorne, Louis A., Newark, N. J., assignor to Steel Utilities Incorporated. Bottle-crating mechanism. No. 1,243,408; Oct. 16; v. 243; p. 684.
Hayden, Henry A., Jersey City, N. J., assignor to M. H. Harris, New York, N. Y. Eyeglass-polisher container. No. 1,242,187; Oct. 9; v. 243; p. 269.
Hayes Manufacturing Company, The. (See Hayes, Oscar, assignor.)
Hayes, Oscar, assignor to The Hayes Manufacturing Company, Denver, Colo. Vapor creating and mixing device for gas-engines. No. 1,244,730; Oct. 30; v. 243; p. 1160.
Hayes, Oscar, assignor to The Hayes Manufacturing Company, Denver, Colo. Vapor forming and injecting device for gas-engines. No. 1,244,731; Oct. 30; v. 243; p. 1160.
Hazard, Henry T., assignor of one-half to P. Jauss, Los Angeles, Cal. Mechanism for steering automobiles. (Reissue.) No. 14,385; Oct. 30; v. 243; p. 1286.
Hazel, George W., Camden, N. J., assignor, by mesne assignments, to Hazel Safety Nut Company, Philadelphia, Pa. Locking-nut. No. 1,242,689; Oct. 9; v. 243; p. 429.
Hazel Safety Nut Company. (See Hazel, George W., assignor.)
Hazelton, Fred S., Norton, Kans. Fastener. No. 1,243,291; Oct. 16; v. 243; p. 650.
Head, Joseph A., Fruitdale, assignor of one-half to J. W. Blair, Johnstown, Ohio. Truck. No. 1,243,063; Oct. 16; v. 243; p. 583.
Headley, William E., Jr., Missoula, Mont. Signaling device. No. 1,242,690; Oct. 9; v. 243; p. 429.
Healey, Earl B., Arcadia, Fla. Garment-hanger. No. 1,243,519; Oct. 16; v. 243; p. 719.
Heath, Bruce C., Louisville, Ky. Eye-cup. No. 1,244,498; Oct. 30; v. 243; p. 1089.
Heath, Frank, National City, Cal. Pocket-camera. No. 1,244,851; Oct. 30; v. 243; p. 1195.
Heath, Frederick, Tacoma, Wash. Lintel. No. 1,244,328; Oct. 23; v. 243; p. 1000.
Heaton, Herman C., Chicago, Ill., assignor to The Babcock & Wilcox Company, Bayonne, N. J. Steam-generator. No. 1,242,438; Oct. 9; v. 243; p. 347.
Heberling, John, Rochester, N. Y. Closure for bottles and jars. No. 1,244,088; Oct. 23; v. 243; p. 928.
Heck, Louis, Newark, N. J. Dispensing device. No. 1,244,205; Oct. 23; v. 243; p. 961.
Hedman, Carl M., *et al.* (See Engstrom, Ivan, assignor.)
Hedman, Herbert R., *et al.* (See Engstrom, Ivan, assignor.)
Hedmark, Joseph H., Chicago, Ill. Valve. No. 1,244,604; Oct. 30; v. 243; p. 1121.
Heinauer, William J., assignor of one-half to F. J. Parry, Massillon, Ohio. Machine for polishing rods. No. 1,243,837; Oct. 23; v. 243; p. 853.
Heiny, Anatole C., New York, N. Y. Apparatus for changing direct electric currents into interrupted alternating currents. No. 1,242,549; Oct. 9; v. 243; p. 383.
Heise, Arthur R. (See Dyer and Heise.)
Heitman, John, assignor of one-half to R. Lomen, Nome, Alaska. Graphophone and other disk record-holder. No. 1,242,550; Oct. 9; v. 243; p. 384.
Helfrich, Charles M., *et al.* (See Webster, Lewis E., assignor.)
Hellmund, Rudolf E., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. System of distribution and control. No. 1,242,936; Oct. 16; v. 243; p. 542.
Hellmund, Rudolf E., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. System of control. No. 1,242,937; Oct. 16; v. 243; p. 542.
Helsel, Reuben H., assignor to Columbia Weighing Machine Company, New York, N. Y. Weighing-scale. No. 1,242,551; Oct. 9; v. 243; p. 384.
Helson, Gilbert F., assignor to E. R. Durkee & Co., New York, N. Y. Apparatus for elevating and lowering the bearings of rotating devices. No. 1,244,206; Oct. 23; v. 243; p. 962.
Helwig, Frank W., Millersburg, Pa. Foldable trestle. No. 1,243,520; Oct. 16; v. 243; p. 719.
Hemphill Manufacturing Company. (See Wilcomb, Frank, assignor.)
Henckler, William, St. Louis, Mo. Valve-lock. No. 1,243,936; Oct. 23; v. 243; p. 882.
Henderson, Angus. (See Moore, William E., assignor.)
Henderson, Charles F., Madisonville, assignor to The Kemper-Thomas Company, Norwood, Ohio. Wall-bracket. No. 1,241,732; Oct. 2; v. 243; p. 85.
Henderson, George H., Dayton, Tex. Folding table. No. 1,242,347; Oct. 9; v. 243; p. 319.
Henderson, James W., Atlanta, Ga. Horseshoe-calk. No. 1,245,101; Oct. 30; v. 243; p. 1271.
Henderson, John C., Washington, D. C., assignor to Driver Harris Company, Harrison, N. J. Melting pot or crucible. No. 1,241,971; Oct. 2; v. 243; p. 160.
Henderson, John C., Washington, D. C. Manufacture of draw-plates or dies. No. 1,243,167; Oct. 16; v. 243; p. 613.
Henderson, Turner, Abingdon, England. Internal fitting for boiler-tubes. No. 1,243,168; Oct. 16; v. 243; p. 613.
Hendricks, Clyde. (See Luis, Harry G., assignor.)
Hendrickson, Fred K. (See Newton and Hendrickson.)
Henemier, Robert H., New York, assignor to A. Schrader's Son, Incorporated, Brooklyn, N. Y. Combined exhaust and inflating nozzle for pneumatic tires. No. 1,243,521; Oct. 16; v. 243; p. 720.
Henion & Hubbell. (See Anderson, Charles E., assignor.)
Henkle, Guy C., Chicago, Ill. Concrete-block mold. No. 1,242,439; Oct. 9; v. 243; p. 348.
Henley, John C., Fulton, Ky. Railway-signal. No. 1,243,601; Oct. 16; v. 243; p. 742.
Henley, Nannie D., Richmond, Va. Combined coal-hod and ash-sifter. No. 1,244,605; Oct. 30; v. 243; p. 1121.
Henn, Edwin C. (See Smith, Oscar A., assignor.)
Henriquez, Alfons von, Wiener Neustadt, assignor to B. Wetzler, Vienna, Austria. Feeding device for machine for loading cartridges. No. 1,242,086; Oct. 2; v. 243; p. 196.
Henris, John E., Folsom City, Cal. Gate. No. 1,241,972; Oct. 2; v. 243; p. 160.
Henry Likly & Company. (See Rodemerk, Henry F., assignor.)

Henry, William S., Rochester, assignor to General Railway Signal Company, Gates, N. Y. Detector-bar clip. No. 1,245,102; Oct. 30; v. 243; p. 1271.
Hensley, J. W., *et al.* (See Taylor, Silas L. O., assignor.)
Heppes, Otto A., La Grange, Ill. Roofing-strip. No. 1,242,064; Oct. 16; v. 243; p. 584.
Herbert, Pitt H., assignor to American Optical Company, Southbridge, Mass. Order-guide. No. 1,244,089; Oct. 23; v. 243; p. 928.
Heren, Sol E., Miles City, Mont. Carbureter. No. 1,243,602; Oct. 16; v. 243; p. 742.
Herman, Henry F., assignor to The Imperial Piano Player Company, New York, N. Y. Automatic player for musical instruments. No. 1,243,169; Oct. 16; v. 243; p. 613.
Herman Pneumatic Machine Company. (See Austin and Ringle, assignors.)
Herman, Walter G., Raymond, assignor of one-half to A. R. Worley, Menlo, Wash. Saw-set. No. 1,242,348; Oct. 9; v. 243; p. 319.
Hermetic Glass Casket Company. (See Frysinger, John L., assignor.)
Hermsmeyer, H. C., *et al.* (See Barnett, John B., assignor.)
Herr, Park A., Saybrook, N. J., assignor to The Singer Manufacturing Company. Presser-foot-lifting mechanism for sewing-machines. No. 1,241,733; Oct. 2; v. 243; p. 86.
Herren, Earl R., Lorain, Ohio. Vehicle-brake. No. 1,244,606; Oct. 30; v. 243; p. 1121.
Herreshoff, Alexander G., assignor to International Motor Company, New York, N. Y. Transmission for automobiles. No. 1,242,803; Oct. 9; v. 243; p. 464.
Herreshoff, Alexander G., assignor to International Motor Company, New York, N. Y. Generator drive mechanism. No. 1,244,207; Oct. 23; v. 243; p. 962.
Herrington, John A. D. (See Hulsey and Herrington.)
Herrmann, Frank and O. H. A., Brooklyn, N. Y. Portable gas-stove. No. 1,244,852; Oct. 30; v. 243; p. 1195.
Herrmann, Otto H. A. (See Herrmann, Frank and O. H. A.)
Herron, Ezra C. (See Dozier and Herron.)
Herz, Gustave L., New York, N. Y. Non-skid device for tires. No. 1,242,691; Oct. 9; v. 243; p. 430.
Herz, Richard, Frankfort-on-the-Main, Germany. Vat dyes. No. 1,243,170; Oct. 16; v. 243; p. 614.
Herz, Richard, Frankfort-on-the-Main, Germany. Vat dyes and making same. No. 1,243,171; Oct. 16; v. 243; p. 614.
Hess, Edward B., Brooklyn, N. Y. Wind-shield for automobiles. No. 1,243,937; Oct. 23; v. 243; p. 882.
Hess, Edward B., Brooklyn, N. Y. Wind-shield for automobiles. No. 1,244,732; Oct. 30; v. 243; p. 1161.
Hess, Edward B., Brooklyn, N. Y. Wind-shield for vehicles. No. 1,244,853; Oct. 30; v. 243; p. 1196.
Hess, Edward B., Brooklyn, N. Y. Wind-shield for automobiles. No. 1,244,854; Oct. 30; v. 243; p. 1196.
Hess, Edward B., Brooklyn, N. Y. Wind-shield for automobiles. No. 1,244,855; Oct. 30; v. 243; p. 1196.
Hess, Fred C. (See Kahn, Bruno, assignor.)
Hess, George E., La Grange Park, Ill. Treating pieces of material of non-uniform moisture content to an impregnating fluid. No. 1,241,973; Oct. 2; v. 243; p. 160.
Heyl, George E., London, England. Creosote-oil substitute and making same. No. 1,242,188; Oct. 9; v. 243; p. 269.
Heymann, Morris, Annapolis, Md. Extension-table. No. 1,244,208; Oct. 23; v. 243; p. 963.
Heywood Brothers & Wakefield Company. (See Goodacre and Allen, assignors.)
Hibbard, Luman R., Bath, N. Y. Threaded fastening. No. 1,244,499; Oct. 30; v. 243; p. 1089.
Hibbard, Robert L., Sewickley, assignor to Riter-Conley Manufacturing Company, Pittsburgh, Pa. Gate-valve. No. 1,243,736; Oct. 23; v. 243; p. 820.
Hibner, Philip D., Seattle, Wash. Rotary air-compressor. No. 1,242,692; Oct. 9; v. 243; p. 430.
Hibner, Philip D., Seattle, Wash. Rotary explosive-engine. No. 1,242,693; Oct. 9; v. 243; p. 430.
Hick, Harry J., assignor to The McCaskey Register Company, Alliance, Ohio. Filing-appliance case. No. 1,242,440; Oct. 9; v. 243; p. 348.
Hick, Harry J., assignor to The McCaskey Register Company, Alliance, Ohio. Filing appliance. No. 1,242,694; Oct. 9; v. 243; p. 431.
Hickman, Brooking T., Kansas City, Mo. Drying-tumbler. No. 1,243,603; Oct. 16; v. 243; p. 743.
Hickman, Francis, assignor of one-half to Bound Brook Oil-Less Bearing Company, Boundbrook, N. J. Cushion-tire. No. 1,244,209; Oct. 23; v. 243; p. 963.
Hickman, John S., Titusville, Fla. Electric switch. No. 1,245,103; Oct. 30; v. 243; p. 1271.
Hickman, Stephen C., Charlton, Iowa. Pulling-jack for motor-vehicles. No. 1,243,172; Oct. 16; v. 243; p. 614.
Hicks, Claud J., assignor to J. R. and C. E. Thomas, Clearwater, Fla. Auxiliary hood for motor-vehicles. No. 1,241,974; Oct. 2; v. 243; p. 160.
Hicks, Elmer. (See Miller, Frank F., assignor.)
Hicks, George C., Jr., Connersville, Ind. Pump. No. 1,241,513; Oct. 2; v. 243; p. 13.
Hicks, Ira C., and G. L. Summers, Huntington, W. Va. Hobby-horse. No. 1,241,975; Oct. 2; v. 243; p. 161.
Hicks, William T., Bloomington, Ind. Fence-post. No. 1,244,607; Oct. 30; v. 243; p. 1122.
Hicks, William T., Bloomington, Ind. Mold for posts. No. 1,244,608; Oct. 30; v. 243; p. 1122.
Higbee, Charles, Kirkwood, Ill. Hog-trap. No. 1,243,838; Oct. 23; v. 243; p. 853.
Higgins, Henry B., Jr., assignor to The Consolidated Inventions Company, Denver, Colo. Liquid-fuel atomizer for internal-combustion engines. No. 1,244,733; Oct. 30; v. 243; p. 1161.
Higgins, Joseph W., Bordentown, N. J. Automobile-headlight. No. 1,244,734; Oct. 30; v. 243; p. 1161.
Highfield, Charles F., Saltcoats, Saskatchewan, Canada. Traction device for automobile-wheels. No. 1,241,848; Oct. 2; v. 243; p. 121.
Hill, Clement V., Trenton, N. J. Heater for brooders. (Reissue.) No. 14,386; Oct. 30; v. 243; p. 1287.
Hill, John J., Tonopah, Nev. Universal jig. No. 1,244,210; Oct. 23; v. 243; p. 963.
Hill, Rowland, Cincinnati, Ohio. Roof-framing square. No. 1,241,976; Oct. 2; v. 243; p. 161.
Hill, Samuel H., Arcadia, Ind. Operating-table. No. 1,241,514; Oct. 2; v. 243; p. 13.
Hill, William E. (See Trigg, John B., assignor.)
Hillhouse, John T., Newtown, Conn. Internal-combustion engine. No. 1,243,522; Oct. 16; v. 243; p. 720.
Hillman, Henry G., assignor to J. T. Clarke, New York, N. Y. Elevator safety system. No. 1,244,211; Oct. 23; v. 243; p. 964.
Hillman, Vincent D., Florida, Cuba. Clothes-pin. No. 1,242,804; Oct. 9; v. 243; p. 465.
Hills, Harry B., Riverton, N. J. Boat. No. 1,243,938; Oct. 23; v. 243; p. 883.
Hills, Sidney C., assignor to The Turner & Seymour Manufacturing Co., Torrington, Conn. Curtain-fixture. No. 1,242,441; Oct. 9; v. 243; p. 349.
Hinckley, Albert R., Cleveland, Ohio. Rack for wearing-apparel, umbrellas, and the like. No. 1,243,173; Oct. 16; v. 243; p. 615.
Hindon, Charles B. (See Magee and Hindon.)
Hines, James, Glasgow, Scotland. Automatic stopping device for talking-machines. No. 1,243,174; Oct. 16; v. 243; p. 615.
Hinricks, John W., Walcott, Iowa. Amusement apparatus. No. 1,244,735; Oct. 30; v. 243; p. 1162.
Hinz, Julius C., Detroit, Mich. Oil-burner. No. 1,244,329; Oct. 23; v. 243; p. 1000.
Hippius, Alexander, Wiesbaden, Germany. Tooth-brush receptacle. No. 1,241,977; Oct. 2; v. 243; p. 161.
Hires, John E., Philadelphia, Pa. Can-capping machine. No. 1,241,978; Oct. 2; v. 243; p. 161.
Hirsch, Jacob H., *et al.* (See Adams, Charles M., assignor.)
Hirt, Louis J., Yonkers, N. Y. Carbureter. No. 1,243,409 Oct. 16; v. 243; p. 685.
Hirth, Carl A., assignor to Fortuna-Werke, Specialmaschinenfabrik, G. m. b. H., Stuttgart-Cannstatt, Germany. Machine-bearing. No. 1,244,090; Oct. 23; v. 243; p. 928.
Hisey-Wolf Machine Company, The. (See Ritz, Emil, Jr., assignor.)
Hlubucek, Theodor, Cedar Rapids, Iowa. Garment-steaming device. No. 1,243,175; Oct. 16; v. 243; p. 615.
Hlubucek, Theodor, Cedar Rapids, Iowa. Trousers-steamer. No. 1,243,176; Oct. 16; v. 243; p. 616.
Hobgood, John H. (See Chilton and Hobgood.)
Hochon, Paul L., and N. Gjorgjevitch, Paris, France; said Gjorgjevitch assignor to said Hochon. Transportable power-winch. No. 1,243,292; Oct. 16; v. 243; p. 651.
Hochstetter, Heinrich von, assignor to Holzverkohlungs-Industrie Aktien-Gesellschaft, Constance, Badenia, Germany. Dry distillation of materials containing cellulose. No. 1,241,789; Oct. 2; v. 243; p. 102.
Hodges, Gilbert C., and W. M. Lohnes, Saratoga Springs, N. Y. Dump-wagon. No. 1,242,805; Oct. 9; v. 243; p. 465.
Hodgkinson, Francis, Edgewood Park, Pa., assignor to Westinghouse Electric & Manufacturing Company. Turbine. No. 1,243,523; Oct. 16; v. 243; p. 720.
Hodkinson, George F., assignor of one-half to American Water Softener Company, Philadelphia, Pa. Proportionate application of chemicals to fluids. No. 1,243,737; Oct. 23; v. 243; p. 820.
Hoenecke, Walter J. A., assignor of one-half to E. W. Strauss, Milwaukee, Wis. Back-filling machine for excavations. No. 1,243,293; Oct. 16; v. 243; p. 651.
Hofer, Conrad, Trenton, N. J. Treatment of rubber or rubber compounds. No. 1,242,189; Oct. 9; v. 243; p. 269.
Hoff, Harry H., and F. E. Talleur, St. Louis, Mo. Spark-plug. No. 1,241,734; Oct. 2; v. 243; p. 86.
Hoffman, Charles A., Minneapolis, Minn. Machine for grinding multifocal lenses. No. 1,241,628; Oct. 2; v. 243; p. 52.
Hoffman, Charles A., Minneapolis, Minn. Eyeglasses. No. 1,243,410; Oct. 16; v. 243; p. 685.
Hohein, George C., Staunton, Va. Syringe. No. 1,242,806; Oct. 9; v. 243; p. 465.
Holland, Kirk D., Fort Worth, Tex. Apparatus for demonstrating and testing piston-packing rings. No. 1,241,849; Oct. 2; v. 243; p. 122.
Hollifield Target Practice Rod Company. (See Clemson, Richard D., assignor.)
Holmes, Arthur L., Jr., assignor to M. E. Holmes, Detroit, Mich. Trailer attachment. No. 1,243,177; Oct. 16; v. 243; p. 616.

Holmes, James S., assignor to American Piano Company, New York, N. Y. Music-sheet and spool therefor for automatic piano-players. No. 1,245,104; Oct. 30; v. 243; p. 1272.
Holmes, Joseph E., Cushing, Okla. Process of and apparatus for producing light hydrocarbons. No. 1,241,979; Oct. 2; v. 243; p. 162.
Holmes, Mary E. (See Holmes, Arthur L., Jr., assignor.)
Holsen, Joseph J., Manitowoc, Wis. Recleaner structure for threshing-machines. No. 1,241,980; Oct. 2; v. 243; p. 162.
Holt, Edward E., Chicago, Ill. Tire-valve. No. 1,244,330; Oct. 23; v. 243; p. 1000.
Holt, Eugene. (See Holt, Lafayette, assignor.)
Holt, Lafayette, assignor of one-half to E. Holt, Burlington, N. C. Tank closure or cover. No. 1,241,735; Oct. 2; v. 243; p. 86.
Holton, Edward C. (See Macklind and Holton.)
Holzverkohlungs-Industrie Aktien-Gesellschaft. (See Hochstetter, Heinrich von, assignor.)
Honeywell Heating Specialties Company. (See Honeywell, Mark C., assignor.)
Honeywell, Mark C., assignor to Honeywell Heating Specialties Company, Wabash, Ind. Safety relief device for low-pressure steam-boilers. No. 1,243,604; Oct. 16; v. 243; p. 743.
Honold, Gottlob, assignor to the Firm of R. Bosch, Stuttgart, Germany. Electric regulator. No. 1,243,738; Oct. 23; v. 243; p. 821.
Hood, Arthur N., *et al.* (See Brownell, William M., assignor.)
Hood, Henry, Philadelphia, Pa. Screw-driver. No. 1,244,981; Oct. 30; v. 243; p. 1235.
Hood, Marvin E., O. B. Anderson, W. L. Fetters, and J. H. McGlincy, Chester, and J. E. Gagnon and W. M. Kidder, Philadelphia, Pa., assignors, by mesne assignments, to Hamilton Manufacturing Company, Two Rivers, Wis. Steel furniture construction. No. 1,244,609; Oct. 30; v. 243; p. 1122.
Hood, Ralph O., Danvers, assignor to Clinton Wire Cloth Company, Boston, Mass. Method of and apparatus for electroplating wire-cloth. No. 1,242,695; Oct. 9; v. 243; p. 431.
Hoofnagle, William T., Glen Ridge, N. J., assignor to Electro-Chemical Products Company, New York, N. Y. Method and apparatus for treating air. No. 1,243,524; Oct. 16; v. 243; p. 720.
Hookless Fastener Company. (See Sundback, Gideon, assignor.)
Hoosier Manufacturing Company. (See Weesner and Davis, assignors.)
Hoover, Jacob, and G. M. Miller, assignors to Slaymaker Lock Manufacturing Corporation, Lancaster, Pa. Key-center for padlocks. No. 1,242,443; Oct. 9; v. 243; p. 349.
Hoover Suction Sweeper Company, The. (See Case, Francis M., assignor.) (Reissue.)
Hopedale Manufacturing Company. (See Northrop, Jonas, assignor.)
Hopkins, Arthur C., assignor to Mid-West Manufacturing Co., Sioux Falls, S. D. Automobile roller-jack. No. 1,242,111; Oct. 2; v. 243; p. 204.
Hopkins, Charles E., New York, N. Y. Pump-agitator. No. 1,242,938; Oct. 16; v. 243; p. 542.
Hopkins, Charles E., New York, N. Y. Automatic pump and agitator. No. 1,242,939; Oct. 16; v. 243; p. 543.
Hopkins, Robert E. (See Roberts, Walter V., assignor.)
Hopper, Albert M. and J. O., Pittsburg, Kans. Means for automatically opening mine-doors. No. 1,242,190; Oct. 9; v. 243; p. 269.
Hopper, James O. (See Hopper, Albert M. and J. O.)
Hopper, William J., Brunswick, Ga. Window-blind. No. 1,242,940; Oct. 16; v. 243; p. 543.
Horan, Timothy F., Ilion, N. Y. Firearm. No. 1,242,191; Oct. 9; v. 243; p. 270.
Horst, Ira C., Columbiana, Ohio. Rotary weeder. No. 1,244,982; Oct. 30; v. 243; p. 1235.
Horton, Allen A., assignor to Burroughs Adding Machine Company, Detroit, Mich. Adding-machine. No. 1,243,839; Oct. 23; v. 243; p. 853.
Hosch, Walter E., St. Louis, Mo. Ribbon measuring, cost-computing, and winding machine. No. 1,242,192; Oct. 9; v. 243; p. 270.
Hotchner, Fred, assignor to S. Hotchner, San Francisco, Cal. Flasher. No. 1,245,105; Oct. 30; v. 243; p. 1272.
Hotchner, Sydney. (See Hotchner, Fred, assignor.)
Hothersall, John M., Brooklyn, assignor to American Can Company, New York, N. Y. Self-opening can. No. 1,244,610; Oct. 30; v. 243; p. 1123.
Hougland, Albert C., Madison, Wis. Milking-machine. No. 1,245,106; Oct. 30; v. 243; p. 1272.
House, Albert R., Pearson, Ga. Protector. No. 1,243,939; Oct. 23; v. 243; p. 883.
House, Herbert E., Los Angeles, Cal., assignor to J. H. Safford, New York, N. Y. Automatic alarm. No. 1,242,849; Oct. 9; v. 243; p. 320.
Houser, Walter K., Spottswood, Va. Wire-stretcher. No. 1,243,940; Oct. 23; v. 243; p. 883.
Houts, Leonard, Veedersburg, Ind. Boiler-manhead. No. 1,243,178; Oct. 16; v. 243; p. 616.
Hovis, Park S., assignor of forty-five one-hundredths to C. Curry, Wooster, Ohio. Temper-screw clamp. No. 1,243,065; Oct. 16; v. 243; p. 584.
Howard, George F., assignor of one-half to A. O. Duncan, New York, N. Y. War-puzzle. No. 1,243,411; Oct. 16; v. 243; p. 685.
Howard, Thomas A., Murray, Utah. Fish-screen. No. 1,243,525; Oct. 16; v. 243; p. 721.
Howe, John D., Upland, Cal. Citrus-fruit peel, pulp, and juice machine. No. 1,244,331; Oct. 23; v. 243; p. 1001.
Howell, Albert S., assignor to Bell & Howell Company, Chicago, Ill. Winding and reeling mechanism for motion-picture apparatus. No. 1,243,739; Oct. 23; v. 243; p. 821.
Howell, Percy, Portland, Oreg. Portable baking-oven. No. 1,243,605; Oct. 16; v. 243; p. 744.
Howes, George W., assignor to The Beckwith Co., Dowagiac, Mich. Combination coal and gas range or cooking-stove. No. 1,242,941; Oct. 16; v. 243; p. 543.
Howland, Joseph L. (See Gross and Howland.)
Hoy, Harvey H., St. Louis, Mo. Self-adjusting headlight for automobiles. No. 1,242,350; Oct. 9; v. 243; p. 320.
Hoyer, Edward J. (See Seror and Hoyer.)
Hoyt, Ray S., Brooklyn, N. Y., assignor to American Telephone and Telegraph Company. Network for neutralizing the characteristic reactance of a loaded line. No. 1,243,066; Oct. 16; v. 243; p. 584.
Hoyt, Worthington. (See Haber, Henry J., assignor.)
Hruska, Joseph J., Menominee, Mich. Wood-barking machine. No. 1,243,294; Oct. 16; v. 243; p. 651.
Huber, Carl A., Rochester, N. Y. Railway-crossing. No. 1,242,696; Oct. 9; v. 243; p. 431.
Hudson, Benjamin J., Wilsey, Kans. Clamping device. No. 1,241,629; Oct. 2; v. 243; p. 52.
Hudson, Edward T., Superior, Nebr. Hay-baler. No. 1,241,981; Oct. 2; v. 243; p. 162.
Huebel, Otto H. (See Peterson and Huebel.)
Huebsch Manufacturing Company. (See Roost, Richard, assignor.)
Huelsdonk, William A., Modesto, Cal. Concentrator. No. 1,244,611; Oct. 30; v. 243; p. 1123.
Hufferd, Lot A., Detroit, Mich. Apparatus for supplying receptacles with liquid. No. 1,241,982; Oct. 2; v. 243; p. 163.
Huggins, Edward M., New York, N. Y. Jolt ramming-machine. No. 1,242,351; Oct. 9; v. 243; p. 320.
Hughes, Davydd C., assignor to D. C. Hughes & Company, Chicago, Ill. Electric sad-iron. No. 1,243,412; Oct. 16; v. 243; p. 685.
Hughes, James H., and G. J. Wiedeman, Lewistown, Mont. Shock-absorber. No. 1,243,526; Oct. 16; v. 243; p. 721.
Hughes, James M., Somerville, Ala. Vehicle-brake. No. 1,244,212; Oct. 23; v. 243; p. 964.
Hughes, Jay, Atkinson, Nebr. Road-scraper. No. 1,245,107; Oct. 30; v. 243; p. 1273.
Hughes, John L., assignor of one-half to I. Shuler, Tulsa, Okla. Lock for steering-wheels of automobiles. No. 1,243,941; Oct. 23; v. 243; p. 883.
Hughs, Harry R. and W. C., Walhalla, S. C. Fire-alarm system. No. 1,244,332; Oct. 23; v. 243; p. 1001.
Hughs, Wade C. (See Hughs, Harry R. and W. C.)
Hugler, John, Philadelphia, Pa. Figure wheeled toy. No. 1,243,295; Oct. 16; v. 243; p. 651.
Hull, Alfred A., Knoxville, Tenn., assignor to Draper Corporation, Hopedale, Mass. Thread-cutting loom-temple. No. 1,244,983; Oct. 2; v. 243; p. 163.
Hulsey, Ellie B., and J. A. D. Herrington, Tupelo, Miss. Stop-motion for motion-picture machines. No. 1,243,067; Oct. 16; v. 243; p. 584.
Humbert, Ernest, Welland, Ontario, Canada. Making pig-iron. No. 1,242,442; Oct. 9; v. 243; p. 349.
Humes, William W., Youngstown, Ohio. Raising and lowering device for rolls. No. 1,241,630; Oct. 2; v. 243; p. 53.
Hummell & Downing Co. (See Downing, Albert C., assignor.)
Hummel & Downing Co. (See Johnson, John C., assignor.)
Humphrey, David, Cleveland, Ohio. Producing carbonated beverages. No. 1,243,068; Oct. 16; v. 243; p. 585.
Humphrey, Frederick J. and H. R., Kalamazoo, Mich. Gas-lamp. No. 1,244,051; Oct. 23; v. 243; p. 917.
Humphrey Gas Pump Company. (See Humphrey, Herbert A., assignor.)
Humphrey, Herbert A., Westminster, London, England, assignor to Humphrey Gas Pump Company. Utilizing an expansive force. No. 1,243,296; Oct. 16; v. 243; p. 652.
Humphrey, Herbert A., Westminster, London, England, assignor to Humphrey Gas Pump Company. Raising and forcing liquids. No. 1,243,297; Oct. 16; v. 243; p. 652.
Humphrey, Hubert R. (See Humphrey, Frederick J. and H. R.)
Humphreys, William, New York, N. Y. Feed control for millers. No. 1,241,850; Oct. 2; v. 243; p. 122.
Humphries, Milton F., Morrin, Alberta, Canada. Automatic fire-alarm. No. 1,242,552; Oct. 9; v. 243; p. 385.
Hundhausen, Joseph, Schofield, Wis. Split shaft for use on paper-machines. No. 1,242,807; Oct. 9; v. 243; p. 465.
Hunger, Samuel K. (See Christy and Hunger.)
Hunsberger, Norman, Santa Barbara, Cal. Game apparatus. No. 1,242,942; Oct. 16; v. 243; p. 544.
Hunt, Louis J., Sandycroft, Wales, assignor to General Electric Company. Alternating-current dynamo-electric machine. No. 1,244,983; Oct. 30; v. 243; p. 1236.
Hunt, William F., New York, N. Y. Washing-machine. No. 1,244,213; Oct. 23; v. 243; p. 964.

Hunter, Herbert H., Long Beach, Cal. Shock-absorber. No. 1,242,103; Oct. 2; v. 243; p. 201.
Hunter, Lewis C., Detroit, Mich. Disappearing bed. No. 1,244,736; Oct. 30; v. 243; p. 1162.
Hunter, Robert C. (See Miller and Mueller, assignors.)
Hunter, Robert F., Bellefonte, Pa. Sash-holder. No. 1,242,697; Oct. 9; v. 243; p. 432.
Huntley Manufacturing Company. (See Morse, William F., assignor.)
Hupp, Albert, assignor to Hupp Automatic Mail Exchange Company, Washington, D. C. Railway mail-exchange apparatus. No. 1,243,606; Oct. 16; v. 243; p. 744.
Hupp Automatic Mail Exchange Company. (See Hupp, Albert, assignor.)
Hupp Motor Car Company. (See Watts, Frank E., assignor.)
Hurd, Norman B., assignor to The American Hardware Corporation, New Britain, Conn. Lock and latch mechanism. No. 1,244,443; Oct. 23; v. 243; p. 1033.
Huribrink, Ernst, Friedenau, assignor to Martini & Hüneke Maschinenbau-Aktien-Gesellschaft, Berlin, Germany. Apparatus for discharging liquids. No. 1,243,298; Oct. 16; v. 243; p. 653.
Huribrink, Ernst, Berlin-Friedenau, Germany. Combustion-engine. No. 1,244,333; Oct. 23; v. 243; p. 1001.
Husak, Paul. (See Wozny and Husak.)
Huseby, Albert A., Chicago, Ill. Universal reproducer for talking-machines. No. 1,241,736; Oct. 2; v. 243; p. 87.
Hutchins, Frank E., *et al.* (See Rosentreter, Alfred J., assignor.)
Huttar, Alfred, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Arc-lamp. No. 1,241,515; Oct. 2; v. 243; p. 13.
Hutton, Edward S., Lapel, Ind. Machine for making hollow glassware. No. 1,241,516; Oct. 2; v. 243; p. 14.
Hutton, Ernest S., Calgary, Alberta, Canada. Lamp structure. No. 1,242,808; Oct. 9; v. 243; p. 466.
I. B. Kleinert Rubber Company. (See Guinzburg, Victor, assignor.)
Icenhour, Albert A., Arnold, assignor of one-twentieth to Pittsburgh Plate Glass Company; four one-hundred-and-sixtieths to C. R. Sammons, Pittsburgh, Pa.; fourteen one-hundred-and-sixtieths to L. K. Guller; nine one-hundred-and-sixtieths to B. H. Thompson; nine one-hundred-and-sixtieths to S. A. Gilmore; and one-fortieth to A. E. Sixsmith. Glass manufacture. No. 1,242,444; Oct. 9; v. 243; p. 349.
Ickes, Carl, Chicago, Ill. Greenhouse-gutter. No. 1,244,500; Oct. 30; v. 243; p. 1089.
Ielfield, August, assignor to Columbia Postal Supply Company, Silver Creek, N. Y. Mail-marking machine. No. 1,243,740; Oct. 23; v. 243; p. 821.
Ile, William, Toronto, Ontario, Canada. Electric-lamp-socket shell. No. 1,241,851; Oct. 2; v. 243; p. 123.
Ilg, Robert A., Chicago, Ill. Protective device for ventilating-fans. No. 1,244,334; Oct. 23; v. 243; p. 1002.
Illinois Iron & Bolt Company. (See Gamble, Joseph W., assignor.)
Imperial Piano Player Company, The. (See Herman, Henry F., assignor.)
Indestructible Paint Company, *et al.* (See Ellis, Carleton, assignor.)
Industrial Instrument Company, The. (See Bristol and Fitts, assignors.)
Ingle, Arthur H. (See Cary, William R., assignor.)
Ingram, Joseph D., Washburn, Tex. Transmission mechanism. No. 1,242,193; Oct. 9; v. 243; p. 270.
Ingram, Palmer R., *et al.* (See Johnson, Clarence B., assignor.)
International Cellulose Company. (See Ostenberg, Zeno, assignor.)
International Color & Chemical Company. (See Ramage, Alexander S., assignor.)
International Filler Corporation. (See Shelor, Frederick L., assignor.)
International Harvester Company of New Jersey. (See Benjamin, Bert R., assignor.)
International Harvester Company of New Jersey. (See Merwin, George M., assignor.)
International Harvester Company of New Jersey. (See Phelps, George L., assignor.)
International Harvester Company of New Jersey. (See Rand, Charles A. A., assignor.)
International Harvester Company of New Jersey. (See Raney, Clemma R., assignor.)
International Money Machine Company. (See White, Nelson, assignor.)
International Motor Company. (See Herreshoff, Alexander G., assignor.)
Intertype Corporation. (See Sperry, Samuel E., assignor.)
Iriarte, Fernando. (See Borrás and Iriarte.)
Irwin, George T., Toronto, Ontario, Canada. Standard electric lamp. No. 1,243,675; Oct. 16; v. 243; p. 766.
Irwin, James R., San Francisco, Cal. Locking and releasing device. No. 1,242,809; Oct. 9; v. 243; p. 466.
Isaac, Staunton. (See Ranson, Adolph, assignor.)
Isbell, John A. (See Wood and Isbell.)
Isobabella, Riccardo, and F. Lombardi, assignors of one-third to M. Feder, New York, N. Y. Washing-machine. No. 1,243,413; Oct. 16; v. 243; p. 686.
Ittner, Martin H., Jersey City, N. J. Apparatus for treating liquids with gases. No. 1,242,445; Oct. 9; v. 243; p. 350.
J. A. Fay & Egan Company. (See Meyers, John J., assignor.)
J. C. Blair Company. (See Africa and McSheehy, assignors.)
J. G. Brill Company, The. (See Kohler, George B., assignor.)
J. G. Brill Company, The. (See Smith, Warren M., assignor.)
J. L. Sommer Manufacturing Co. (See Sommer, John L., assignor.)
Jackson, Benton H., Dayton, Wash. Means for dropping projectiles from aerial crafts. No. 1,242,553; Oct. 9; v. 243; p. 385.
Jackson, Bert B. (See Richardson and Jackson.)
Jackson, Fay. (See Sanford and Jackson.)
Jackson, Henry O., Denver, Colo. Oscillating pressure-blower. No. 1,243,299; Oct. 16; v. 243; p. 653.
Jackson, Lucian C., Buffalo, N. Y. Means for controlling explosive-engines. No. 1,244,737; Oct. 30; v. 243; p. 1162.
Jackson, Raymond O., St. Louis, Mo., assignor, by mesne assignments, to Metallurgical Laboratories, Incorporated, Chicago, Ill. Electrode-holder. No. 1,242,554; Oct. 9; v. 243; p. 385.
Jackson, United S., Copperfield, Oreg. Window-lock. No. 1,242,943; Oct. 16; v. 243; p. 544.
Jackson, Willard G., Rockford, Ill. Spark-plug. No. 1,244,091; Oct. 23; v. 243; p. 928.
Jackson, William W., Brooklyn, N. Y. Chute. No. 1,244,501; Oct. 30; v. 243; p. 1089.
Jacobs, Charles D. (See Trotman, Walter K., assignor.)
Jacobs, George S., Pontiac, Mich., assignor to The Geneva Tractor Company, Geneva, Ohio. Tractor attachment for automobiles. No. 1,243,414; Oct. 16; v. 243; p. 686.
Jacobs, Joseph, New York, N. Y., assignor to The Live Leather Belt Company. Apparatus for making an elastic body-belting web. No. 1,242,698; Oct. 9; v. 243; p. 432.
Jacoby, Leo D., assignor to The Sanispoon Company, Boston, Mass. Machine for cutting and forming spoons from sheet material. No. 1,241,517; Oct. 2; v. 243; p. 14.
Jacoby, William, assignor to Automatic Tool Supply Co., Sioux Falls, S. D. Wrench. No. 1,243,300; Oct. 16; v. 243; p. 654.
Jaeger, Gebhard, Columbus, Ohio. Means for supplying water to concrete-mixers. No. 1,241,518; Oct. 2; v. 243; p. 15.
Jagerspacher, Carl. (See Engl and Jagerspacher.)
Jakab, Mike, assignor of one-third to J. Stopolovski and one-third to Michael Drotar, Woodland, Me. Combined garment stretcher and hanger. No. 1,243,741; Oct. 23; v. 243; p. 822.
James, Bartlett B. (See Roth and James.)
James, Campbell E., Frankfort, Ky. Adding-machine. No. 1,244,335; Oct. 23; v. 243; p. 1002.
James, Edward, Cleveland, Ohio. Manufacture of flexible metal tubing. No. 1,243,179; Oct. 16; v. 243; p. 617.
James L. Howard & Company. (See Brinckerhoff, Frank M., assignor.) (Reissue.)
Jamieson, Henry, Gillespie, Ill. Switch apparatus. No. 1,244,738; Oct. 30; v. 243; p. 1162.
Jander, Henry, Brooklyn, N. Y. Baking-oven. No. 1,244,502; Oct. 30; v. 243; p. 1090.
Janes, Lloyd, Carland, Mich. Tractor for farm machinery. No. 1,242,555; Oct. 9; v. 243; p. 386.
Januchowsky, John, St. Louis, Mo. Closure for barrels. No. 1,242,352; Oct. 9; v. 243; p. 321.
Jauch, Albert, Chicago, Ill. Clutch. No. 1,241,631; Oct. 2; v. 243; p. 53.
Jauss, Peter. (See Hazard, Henry T., assignor.) (Reissue.)
Jay, Claud N., Marlow, Okla. Automatic railway-gate. No. 1,244,336; Oct. 23; v. 243; p. 1002.
Jay, James W., Philadelphia, Pa. Minnow. No. 1,242,556; Oct. 9; v. 243; p. 386.
Jay, Webb, Chicago, Ill. Liquid-elevating apparatus. No. 1,244,052; Oct. 23; v. 243; p. 917.
Jay, Webb, Chicago, Ill. Suction-operated liquid-feed device. No. 1,244,092; Oct. 23; v. 243; p. 929.
Jaynes, Alfonso L., Chicago, Ill., assignor to Safety on Sea Company. Life-preserver. No. 1,243,415; Oct. 16; v. 243; p. 686.
Jeffery, Joseph A., Duluth, Minn. Loading device for harvesting-machines. No. 1,243,069; Oct. 16; v. 243; p. 585.
Jeffrey Manufacturing Company, The. (See Hamilton, William E., assignor.)
Jeffrey Manufacturing Company, The. (See Levin, Nils D., assignor.)
Jeffrey Manufacturing Company, The. (See Liggett, William K., assignor.)
Jeffrey Manufacturing Company, The. (See Snider, Charles M., assignor.)
Jenckes Knitting Machine Company. (See Jenckes, Robert J., assignor.)
Jenckes Knitting Machine Company. (See Larkin, Walter, assignor.)
Jenckes Knitting Machine Company. (See Miller, Max C., assignor.)
Jenckes, Robert J., Providence, assignor to Jenckes Knitting Machine Company, Pawtucket, R. I. Knitting-machine. No. 1,244,503; Oct. 30; v. 243; p. 1090.
Jenkins, Arthur H. (See Reynolds and Jenkins.)
Jennings, Chester S., assignor to The Lamson Company, Boston, Mass. Automatic load despatching and delivering apparatus. No. 1,244,856; Oct. 30; v. 243; p. 1197.

Jensen, George C., Oakland, Cal. Locking device for carbureters. No. 1,243,301; Oct. 16; v. 243; p. 654.
Jensen, George C., Oakland, Cal. Lever-locking mechanism. No. 1,244,857; Oct. 30; v. 243; p. 1197.
Jensen, Hans T., Sheridan, Wyo. Grinder attachment for lathes. No. 1,243,180; Oct. 16; v. 243; p. 617.
Jensen, Hermann, Copenhagen, Denmark. Automatic sales device. No. 1,241,984; Oct. 2; v. 243; p. 164.
Jensen, Lawrence H., St. Charles, Ill. Pump. No. 1,244,053; Oct. 23; v. 243; p. 917.
Jensen, Louis, assignor to United Autographic Register Company, Chicago, Ill. Paper-supply attachment for type-writers. No. 1,243,942; Oct. 23; v. 243; p. 884.
Jerome, William E. (See Robb and Jerome.)
Jeske, Charles A. and C. P., Chicago, Ill. Speed-recorder for vehicles. No. 1,242,557; Oct. 9; v. 243; p. 386.
Jeske, Clarence P. (See Jeske, Charles A. and C. P.)
Jessup, George W., Boston, Mass. Syringe nozzle-point. No. 1,243,840; Oct. 23; v. 243; p. 854.
Jewell, James E., Kansas City, Mo. Toy. No. 1,242,194; Oct. 9; v. 243; p. 271.
Jiffy Jack Company, The. (See Widlar, Walter L., assignor.)
Joerden, Harry J., Los Angeles, assignor of one-fourth to L. S. Wren, Hawthorne, Cal. Starter mechanism. No. 1,243,607; Oct. 16; v. 243; p. 745.
Joffe, Joseph. (See Lomanitz, Sebastian, assignor.)
Johannesen, Carl A., Brooklyn, N. Y. Projectile. No. 1,242,944; Oct. 16; v. 243; p. 545.
Johanson, Erik W., Moline, Ill. Circuit-breaker. No. 1,242,195; Oct. 9; v. 243; p. 271.
Johansson, Victor J., Lidköping, Sweden. Regulating device for wind-motors. No. 1,242,196; Oct. 9; v. 243; p. 271.
John A. Roebling's Sons Company. (See Sunderland, Charles C., assignor.)
John, Peter W., Middleport, Pa. Car-coupling. No. 1,242,810; Oct. 9; v. 243; p. 466.
Johns, Charles W., Jerseyville, Ill. Smokeless fuel-economizer. No. 1,243,943; Oct. 23; v. 243; p. 884.
Johns-Pratt Company, The. (See Cole, Robert C., assignor.)
Johnson, Albert E., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Lip-slitting mechanism. No. 1,243,944; Oct. 23; v. 243; p. 885.
Johnson, Aldor, assignor of one-half to G. Johnson, Duluth, Minn. Vehicle. No. 1,242,446; Oct. 9; v. 243; p. 350.
Johnson, Andrew, Minneapolis, Minn. Cable-grip. No. 1,244,093; Oct. 23; v. 243; p. 929.
Johnson, August, Livingston Manor, N. Y. Steam-boiler. No. 1,241,985; Oct. 2; v. 243; p. 164.
Johnson, Augustus, assignor of one-half to A. F. Richardson, Worcester, Mass. Rotary internal-combustion engine. No. 1,242,197; Oct. 9; v. 243; p. 272.
Johnson Automatic Sealer Co. (See Johnson, Harry L., assignor.)
Johnson, Carl H., Taylorsville, Pa. Hose-coupling. No. 1,245,108; Oct. 30; v. 243; p. 1273.
Johnson, Charles A., Waycross, Ga. Pneumatic tire. No. 1,244,337; Oct. 23; v. 243; p. 1003.
Johnson, Charles E., New York, N. Y. Drawing instrument. No. 1,241,986; Oct. 2; v. 243; p. 164.
Johnson, Chester F. (See Snell and Johnson.)
Johnson, Chester F., Detroit, Mich. Carbureter. No. 1,244,858; Oct. 30; v. 243; p. 1198.
Johnson, Clarence B., assignor of one-third to P. R. Ingram and one-third to J. E. Cole, Norfolk, Va. Connector for batteries. No. 1,241,737; Oct. 2; v. 243; p. 87.
Johnson, D. W. (See Woods, Joseph M., assignor.)
Johnson, Eleanor, Centralia, Wash. Repairer and sealer. No. 1,244,984; Oct. 30; v. 243; p. 1236.
Johnson, Floyd, assignor of one-half to R. N. Lannert, Evansville, Ind. Combination refuse-can and fly-trap. No. 1,244 859; Oct. 30; v. 243; p. 1198.
Johnson, Frank B., Des Moines, Iowa. Receptacle. No. 1,244,338; Oct. 23; v. 243; p. 1003.
Johnson, Frank E., Salt Lake City, Utah, assignor to American Manganese Steel Company, Augusta, Me. Liner for tube-mills. No. 1,243,742; Oct. 23; v. 243; p. 822.
Johnson, Gunnar. (See Johnson, Aldor, assignor.)
Johnson, Harry L., assignor to Johnson Automatic Sealer Co., Ltd., Battle Creek, Mich. Packing-case or carton-sealing machine. No. 1,242,945; Oct. 16; v. 243; p. 545.
Johnson, Jane M., Chicago, Ill. Combination corset and detachable abdominal support. No. 1,242,946; Oct. 16; v. 243; p. 545.
Johnson, Jay M., Chicago, Ill. Coin-holder for coin-counting machines. No. 1,241,632; Oct. 2; v. 243; p. 53.
Johnson, John A., Manfred, N. D. Collapsible grain-cleaning device. No. 1,242,811; Oct. 9; v. 243; p. 467.
Johnson, John C., assignor to Hummel & Downing Co., Milwaukee Wis. Metal tiering and flap-retaining means for boxes. No. 1,241,633; Oct. 2; v. 243; p. 54.
Johnson, John H., assignor to Federal-Huber Company, Chicago, Ill. Valve. No. 1,241,519; Oct. 2; v. 243; p. 16.
Johnson, John M., Kansas City, Mo. Thermostatic indicator. No. 1,243,608; Oct. 16; v. 243; p. 745.
Johnson, Lawrence D., Melrose, and E. Erickson, Cliftondale; said Erickson assignor to Victor Shoe Machinery Company, Lynn, Mass. Stop-motion for power-driven machines. No. 1,243,609; Oct. 16; v. 243; p. 745.
Johnson, Louis K., assignor to S. J. Johnson, Brooklyn, N. Y. Compositor's type-setter channel. No. 1,244,094; Oct. 23; v. 243; p. 929.
Johnson, Sarah J. (See Johnson, Louis K., assignor.)
Johnson, Tomlinson F., Jr., Atlanta, Ga. Snap clamp or grip for electrical conductors. No. 1,244,339; Oct. 23; v. 243; p. 1003.
Johnson, Walter T., Macon, Ga. Rail-joint. No. 1,243,070; Oct. 16; v. 243; p. 586.
Johnson, Warren V., Bloomsburg, Pa., assignor to American Car and Foundry Company, St. Louis, Mo. Interlocked mine-car wheel and journal-box. No. 1,244,739; Oct. 30; v. 243; p. 1163.
Johnson, Warren V., Bloomsburg, Pa., and F. H. Gibbs, Brooklyn, N. Y., assignors to American Car and Foundry Company, St. Louis, Mo. Mine-car assembly. No. 1,244,740; Oct. 30; v. 243; p. 1163.
Johnson, William S., Berwick, Pa., assignor to American Car and Foundry Company, St. Louis, Mo. Forging-machine. No. 1,244,741; Oct. 30; v. 243; p. 1163.
Johnson, Woolsey M., Hartford, Conn. Continuous zinc-smelter. No. 1,244,504; Oct. 30; v. 243; p. 1090.
Johnson, Woolsey M., assignor to The Continuous Zinc Furnace Company, Hartford, Conn. Making alloy castings. No. 1,243,416; Oct. 16; v. 243; p. 687.
Johnston, Charles E. (See Dudley, John Z., assignor.)
Johnston, David W., G. G. and S. S. Girling, Saanich, Vancouver Island, British Columbia, Canada. Road-oil-spreading nozzle. No. 1,243,417; Oct. 16; v. 243; p. 687.
Johnston, John A., Springfield, Mass. Method of and apparatus for road-making. No. 1,242,558; Oct. 9; v. 243; p. 386.
Johnston, Millard L., Utica, N. Y. Clutch. No. 1,244,860; Oct. 30; v. 243; p. 1198.
Johnston, Paul H., Davenport, Iowa. Mounting for ophthalmic lenses. No. 1,243,743; Oct. 23; v. 243; p. 817.
Johnston, Walter W., Gasden, Ala. Mold for culverts. No. 1,244,214; Oct. 23; v. 243; p. 965.
Jones, Charley C., Cedar Vale, Kans. Mail-catcher. No. 1,243,945; Oct. 23; v. 243; p. 885.
Jones, Chesney L., Oakland, assignor of one-half to F. J. Molt, Riverdale, N. J. Composition of matter. No. 1,244,742; Oct. 30; v. 243; p. 1164.
Jones, Daniel M., Chattanooga, Tenn. Duplex-mold liner for linotype-slug-casting machines. No. 1,243,527; Oct. 16; v. 243; p. 721.
Jones, Edward S., assignor of one-tenth to M. W. and N. H. Meyer, Mobile, Ala. Resilient tire. No. 1,241,852; Oct. 2; v. 243; p. 123.
Jones, Erwin R. (See Miller, Andrew F., assignor.)
Jones, Eugene W., *et al.* (See Gray, Harry M., assignor.)
Jones, Grover H., Los Angeles, Cal. Counter. No. 1,243,610; Oct. 16; v. 243; p. 746.
Jones, Henry A., and B. C. Harrell, Yancey, Tex. Boll-weevil machine. No. 1,243,302; Oct. 16; v. 243; p. 655.
Jones, Howard B., Chicago, Ill. Game apparatus. No. 1,242,198; Oct. 9; v. 243; p. 272.
Jones, Jesse B., Arcata, Cal. Resilient tire. No. 1,243,303; Oct. 16; v. 243; p. 655.
Jones, Walter S., Athens, Ga. Razor-stropper. No. 1,244,095; Oct. 23; v. 243; p. 930.
Jones, William A., West New Brighton, N. Y., assignor to The Babcock & Wilcox Company, Bayonne, N. J. Superheater-boiler. No. 1,242,447; Oct. 9; v. 243; p. 350.
Jones, William K., Wichita, Kans. Infant's apparel. (Reissue.) No. 14,389; Oct. 30; v. 243; p. 1290.
Joost, William E. (See Pruitt, Conrad D., assignor.)
Jopson, William G., Abington, Mass. Apparatus for removing yarn from bobbins. No. 1,243,071; Oct. 16; v. 243; p. 586.
Jordan, John H., Scranton, Pa. Electric-light-control system. No. 1,241,520; Oct. 2; v. 243; p. 15.
Jorgenson, Peter, Watertown, S. D. Grain-separator. No. 1,243,528; Oct. 16; v. 243; p. 721.
Joseph Dixon Crucible Company, The. (See Thomsen, Jorgen E., assignor.)
Joseph N. Smith & Company. (See Ackerman, Edward L., assignor.)
Joseph, Orville E., Moose Jaw, Saskatchewan, Canada. Road recorder and indicator. No. 1,244,743; Oct. 30; v. 243; p. 1164.
Joseph Wilcox Inc. (See Wilcox, Joseph, assignor.)
Judelshon, Oscar I., Brooklyn, N. Y. Cloth-cutting machine. No. 1,242,448; Oct. 9; v. 243; p. 351.
Juengst, Charles A., Croton Falls, N. Y. Internal-combustion engine. No. 1,244,862; Oct. 30; v. 243; p. 1199.
Juengst, Charles A., Croton Falls, N. Y., assignor, by mesne assignments, to American Assembling Machine Company. Pamphlet-coverer. No. 1,244,861; Oct. 30; v. 243; p. 1199.
Julian, David, Waterbury, Conn., assignor, by mesne assignments, to Russell, Burdsall & Ward Bolt and Nut Company, Port Chester, N. Y. Nut-machine. No. 1,242,199; Oct. 9; v. 243; p. 273.
Julian, Marsena R., Birmingham, Ala. Block-signal system. No. 1,243,418; Oct. 16; v. 243; p. 687.
Julian, Marsena R., Birmingham, Ala. Block-signal system. No. 1,243,419; Oct. 16; v. 243; p. 688.

Junkers, Hugo. (See Spaleck, Paul, assignor.)
Juran, Charles R., Herrick, S. D. Plow. No. 1,243,072; Oct. 16; v. 243; p. 586.
Jurick, Thomas J., Great Falls, Mont. Cigarette-case. No. 1,242,699; Oct. 9; v. 243; p. 432.
Jurkowski, Edward, New York, N. Y. Combined step-ladder and ironing-board. No. 1,243,304; Oct. 16; v. 243; p. 655.
Jury, Alfred E., New York, N. Y., assignor to National India Rubber Company. Fabric. No. 1,241,853; Oct. 2; v. 243; p. 123.
Justi, Henry D., Philadelphia, Pa. Artificial tooth. No. 1,241,854; Oct. 2; v. 243; p. 123.
Justrite Manufacturing Company. (See Hansen, Augie L., assignor.)
K. P. Manufacturing Company, The. (See Knauss, Edward, assignor.)
Kabo Corset Co. (See Anderman, Goldie L., assignor.)
Kaeding, Fred A., Kramer, N. D. Hay-stacker. No. 1,242,812; Oct. 9; v. 243; p. 467.
Kahn, Bruno, assignor to F. C. Hess, Chicago, Ill. Oven. No. 1,241,521; Oct. 2; v. 243; p. 16.
Kaller, Harvey E., assignor to C. H. Stolp, Aurora, Ill. Automobile-hood. No. 1,242,813; Oct. 9; v. 243; p. 467.
Kalamazoo Loose Leaf Binder Co. (See Wigginton, George P., assignor.)
Kallsz, Stephen, Chicago, Ill. Collapsible stand and support. No. 1,241,987; Oct. 2; v. 243; p. 165.
Kane, Robert, Humboldt, Ill. Gearing. No. 1,241,855; Oct. 2; v. 243; p. 123.
Kansas City Folding and Marking Machine Co. (See Barr, John H., assignor.)
Kaplan, Nathan, New York, N. Y. Fire-escape. No. 1,241,856; Oct. 2; v. 243; p. 123.
Karn, Harry W., Pittsburgh, Pa. Artificial limb. No. 1,244,612; Oct. 30; v. 243; p. 1123.
Karnasch, Leopold M., assignor to Pelton Water Wheel Company, San Francisco, Cal. Pressure-regulating apparatus. No. 1,243,073; Oct. 16; v. 243; p. 587.
Kasper, Joseph P., Hammond, Ind. Auto-signal. No. 1,242,449; Oct. 9; v. 243; p. 351.
Katzenberger, Oscar, Chicago, Ill. Jamb spring-hinge. No. 1,242,700; Oct. 9; v. 243; p. 432.
Kaufmann, Frederick A. (See Foersterling, Sargent, and Kaufmann.)
Kearney, William P., Montreal, Quebec, Canada. Axle-lubricating device. No. 1,243,946; Oct. 23; v. 243; p. 885.
Keating, Robert M., Springfield, Mass. Flushing-valve. No. 1,242,200; Oct. 9; v. 243; p. 273.
Keay, John. (See Pierce, Harry H., assignor.)
Keene, William J., assignor to Chicago Spring Butt Company, Chicago, Ill. Door-closer. No. 1,243,947; Oct. 23; v. 243; p. 885.
Kehm, August, Chicago, Ill. Radiator-support. No. 1,244,613; Oct. 30; v. 243; p. 1123.
Keil, Gustav B., assignor to Federal Sign System (Electric), Chicago, Ill. Gearing. No. 1,245,109; Oct. 30; v. 243; p. 1273.
Keiper, Frank, *et al.* (See Kendrick, Alexander M., assignor.)
Keiper, Henry B., Lancaster, Pa. Cream-separator. No. 1,241,988; Oct. 2; v. 243; p. 165.
Keiper, Henry B., Lancaster, Pa. Reaction shock-absorber. No. 1,243,181; Oct. 16; v. 243; p. 617.
Keith, Edward B., Pontiac, Mich. Pressure-regulator for tires. No. 1,243,420; Oct. 16; v. 243; p. 688.
Keith, Irving L., Haverhill, Mass. Cementing-machine. No. 1,242,561; Oct. 9; v. 243; p. 388.
Keller, Charles G., Poughkeepsie, N. Y. Wrench. No. 1,242,201; Oct. 9; v. 243; p. 274.
Keller, Isidore R., Upper Sandusky, Ohio. Rain-water strainer and cut-off. No. 1,242,814; Oct. 9; v. 243; p. 468.
Keller, John R., Crafton, Pa., assignor to The American Mechanical Toy Company, Dayton, Ohio. Structural device. No. 1,242,202; Oct. 9; v. 243; p. 274.
Keller, Joseph F., and W. A. Warman, assignors to Keller Mechanical Engraving Company, New York, N. Y. Engraving-machine. No. 1,243,182; Oct. 16; v. 243; p. 618.
Keller Mechanical Engraving Company. (See Keller and Warman, assignors.)
Kellermann, Charles H. (See Curland, Henry, assignor.)
Kelley, Joel R., Owasso, Okla. Cultivator-arch. No. 1,241,634; Oct. 2; v. 243; p. 54.
Kellgren, Gustaf, Everett, Mass. Load-handling apparatus. No. 1,243,074; Oct. 16; v. 243; p. 587.
Kellner, Mary P., Chicago, Ill. Sewing-bowl. No. 1,241,522; Oct. 2; v. 243; p. 16.
Kellogg Switchboard & Supply Company. (See Currier, Hiram D., assignor.)
Kellogg Switchboard & Supply Company. (See Dean, William W., assignor.)
Kellogg Switchboard and Supply Company. (See Smith, Charles H., assignor.)
Kelly, Edwin, Cazenovia, Wis. Unloading-platform. No. 1,243,948; Oct. 23; v. 243; p. 886.
Kelly, James M., Portland, Oreg. Floor-sander. No. 1,243,949; Oct. 23; v. 243; p. 886.
Kelly, Martin J., New Britain, Conn. Spring-cock. No. 1,241,989; Oct. 2; v. 243; p. 166.
Kelly, William J., Reading, Pa., assignor of one-third to H. I. Bernhard, Brooklyn, N. Y. Stitch-down shoe. No. 1,243,421; Oct. 16; v. 243; p. 689.
Kelsey Wheel Company. (See Booth, William N., assignor.)
Kemp, James R., Newbury, England. Two-stroke-cycle internal-combustion engine. No. 1,242,450; Oct. 9; v. 243; p. 351.
Kemp, William W., and W. H. Van Horn, Baltimore, Md. Blast-heater. No. 1,244,863; Oct. 30; v. 243; p. 1199.
Kemp, William W., and W. H. Van Horn, Baltimore, Md. Method of heating. No. 1,244,864; Oct. 30; v. 243; p. 1200.
Kemper, Frederick W., New York, N. Y. Transmission mechanism for power-driven vehicles. No. 1,243,611; Oct. 16; v. 243; p. 746.
Kemper-Thomas Company, The. (See Henderson, Charles F., assignor.)
Kempthorne, Leonidas L. (See Boll and Kempthorne.)
Kendall, Hazel C., Boston, Mass. Envelop-sealing tool. No. 1,244,054; Oct. 23; v. 243; p. 918.
Kendall, William G., Newark, N. J. Powder-press. No. 1,244,096; Oct. 23; v. 243; p. 930.
Kendrick, Alexander M., Brooklyn, assignor of one-half to C. J. Pembroke and one-half to F. Keiper, Rochester, N. Y. Safety device for presses, &c. No. 1,244,097; Oct. 23; v. 243; p. 930.
Kendrick, John W., Chicago, Ill. Rail securing and supporting means. No. 1,241,857; Oct. 2; v. 243; p. 124.
Kennedy, James. (See Wright, John G., assignor.)
Kenniker, Nicholas O., assignor to Durable Box Co., Chicago, Ill. Hinge. No. 1,243,950; Oct. 23; v. 243; p. 886.
Kensbock, George, Easton, Kans. Grain-container for wagon-boxes. No. 1,243,183; Oct. 16; v. 243; p. 619.
Kent, Priscilla E. (See Kent, Randal, assignor.)
Kent, Randal, Elizabethtown, Pa., assignor of one-fourth to P. E. Kent, Washington, D. C. Combined tobacco-receptacle and pipe-cleaner. No. 1,242,902; Oct. 9; v. 243; p. 495.
Kern, Ralph A., *et al.* (See Grove, Edward H., assignor.)
Kerosene Motor Appliance Co. (See Smith, John E., assignor.)
Kerr, Andrew, Belfast, Ireland. Railway signaling. No. 1,242,701; Oct. 9; v. 243; p. 433.
Kerstein, Ernest A., Union, N. J., assignor to American Meter Co., New York, N. Y. Indicating adjunct for gas-meters. No. 1,244,340; Oct. 23; v. 243; p. 1003.
Kersto Corporation. (See Kohout, George A., assignor.)
Kerwin, Michael, Philadelphia, assignor of one-half to himself, and one-half to F. Baldwin, Bristol, Pa. Doffing mechanism for spinning-machines. No. 1,242,947; Oct. 16; v. 243; p. 545.
Kettering, Charles F. and W. A. Chryst, Dayton, Ohio, assignors to The Dayton Engineering Laboratories Co. Engine-starting device. No. 1,241,990; Oct. 2; v. 243; p. 166.
Kettering, Charles F., and W. A. Chryst, Dayton, Ohio, assignors to The Dayton Engineering Laboratories Company. Engine-starting system. No. 1,243,422; Oct. 16; v. 243; p. 690.
Key, James E., Pittsburgh, Pa. Shock-absorber. No. 1,243,305; Oct. 16; v. 243; p. 656.
Keyes, Frederick G., Hoboken, N. J., assignor to National Automatic Refrigerator Company. Refrigerating apparatus. No. 1,242,559; Oct. 9; v. 243; p. 387.
Keyes, Lyman G., National Military Home, Kans. Double-door bolt. No. 1,241,991; Oct. 2; v. 243; p. 167.
Kidder, Walter M. (See Hood, Anderson, Fetters, McClincy, Gagnon and Kidder.)
Kiehl, William B., Pittsburgh, Pa. Awning-pulley. No. 1,241,992; Oct. 2; v. 243; p. 167.
Kilb, George J., Covington, Ky., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for operating on insoles. No. 1,243,951; Oct. 23; v. 243; p. 887.
Kilby Car & Foundry Company. (See Darden and Doerling, assignors.)
Kile, Leon W., Struthers, Ohio. Metal-cutting apparatus. No. 1,244,744; Oct. 30; v. 243; p. 1164.
Kilgour, Dwight F., Lexington, Mass. Lubricator. No. 1,242,702; Oct. 9; v. 243; p. 433.
Kimack, Peter, St. Louis, Mo. Railway-rail. No. 1,242,203; Oct. 9; v. 243; p. 275.
Kimble, Austin, Glenellyn, Ill. Motor attachment for power-driven machines. No. 1,242,204; Oct. 9; v. 243; p. 275.
Kincaid, John W., Mt. Carmel, Ohio. Road-building machine. No. 1,244,505; Oct. 30; v. 243; p. 1091.
Kinetic Engineering Company. (See Bierck, Harold A., assignor.)
King, Eugene E., Vancouver, British Columbia, Canada. Rotary air-valve for cornets or the like. No. 1,244,745; Oct. 30; v. 243; p. 1164.
King, Jay A. (See Dalbey, Joel B., assignor.)
King Lock Company, The. (See Christoph, Emil A., assignor.)
Kingsbury, Albert, Pittsburgh, Pa. Oil purifier and pump. No. 1,242,560; Oct. 9; v. 243; p. 387.
Kingsbury, Albert, Pittsburgh, Pa. Horizontal-thrust bearing. No. 1,242,948; Oct. 16; v. 243; p. 546.
Kinion, Archie A., Sand Springs, Okla. Collar-holder. No. 1,242,451; Oct. 9; v. 243; p. 352.

Klakead, Robert S., and P. B. Ford, assignors to W. B. Ewing, Minneapolis, Minn. Tractor. No. 1,243,184; Oct. 16; v. 243; p. 619.
Kinzel, Henry J., Knoxville, Tenn. Combined cutter and cultivator. No. 1,244,746; Oct. 30; v. 243; p. 1165.
Kip, Frederic E. (See Stoddard, William O., Jr., assignor.)
Kipniss, Abraham, and M. P. Neumann, assignors to B. Markowitz, New York, N. Y. Machine for making metal binding for suitcases. No. 1,244,985; Oct. 30; v. 243; p. 1237.
Kirby, John, New York, N. Y. Electric revolution-meter for internal-combustion engines. No. 1,241,993; Oct. 2; v. 243; p. 167.
Kirby, John, New York, N. Y. Engine-revolution indicator. No. 1,241,994; Oct. 2; v. 243; p. 167.
Kirk, C. J., *et al.* (See Bernheim, Ernest, assignor.)
Kirk, Louis H., assignor to Peg Lock Block Company, Inc., New York, N. Y. Toy wagon. No. 1,244,506; Oct. 30; v. 243; p. 1091.
Kirsch, Charles W., Sturgis, Mich. Shade-roller. No. 1,242,949; Oct. 16; v. 243; p. 546.
Kish, Julius, Cleveland, Ohio. Safety door-lock. No. 1,243,952; Oct. 23; v. 243; p. 887.
Klatner, George, Naples, N. Y. Basket-handling machine. No. 1,243,185; Oct. 16; v. 243; p. 620.
Klitch, Joseph B., Cedaredge, Colo. Box assembling and nailing machine. No. 1,244,986; Oct. 30; v. 243; p. 1237.
Kjellgren, John G., Cleveland, Ohio. Traction-meter. (Reissue.) No. 14,381; Oct. 23; v. 243; p. 1038.
Klahn, Emil. (See Needham, Cook, and Klahn.)
Klatte, Fritz, and A. Rollett, Schwanheim-on-the-Main, assignors to Chemische Fabrik Greisheim-Elektron, Frankfort-on-the-Main, Germany. Plastic composition and producing it. No. 1,241,738; Oct. 2; v. 243; p. 87.
Klear, Ralph D. (See Eger and Klear.)
Klein, Henry, New York, N. Y. Steel partition and the like. No. 1,241,635; Oct. 2; v. 243; p. 54.
Klein, John. (See Harris, Mack H., assignor.)
Klein, Oskar, assignor to J. Truchinsky, New York, N. Y. Permutation-lock. No. 1,241,636; Oct. 2; v. 243; p. 54.
Klitsch, Henry J., East Mauch Chunk, Pa. Horseshoe-calk. No. 1,244,098; Oct. 23; v. 243; p. 931.
Klok, Carl R., Chicago, Ill., assignor, by mesne assignments, to United Table-Bed Company. Folding bed. No. 1,243,423; Oct. 16; v. 243; p. 690.
Klok, Carl R., Chicago, Ill., assignor, by mesne assignments, to United Table-Bed Company. Table-bed. No. 1,243,424; Oct. 16; v. 243; p. 690.
Klok, Carl R., Chicago, Ill., assignor, by mesne assignments, to United Table-Bed Company. Table-bed. No. 1,243,425; Oct. 16; v. 243; p. 691.
Klok, Carl R., Chicago, Ill., assignor, by mesne assignments, to United Table-Bed Company. Table-bed. No. 1,243,426; Oct. 16; v. 243; p. 691.
Klok, Carl R., Chicago, Ill., assignor, by mesne assignments, to United Table-Bed Co. Folding bed. No. 1,244,987; Oct. 30; v. 243; p. 1237.
Klok, Carl R., Chicago, Ill., assignor, by mesne assignments, to United Table-Bed Company. Folding bed. No. 1,244,988; Oct. 30; v. 243; p. 1237.
Knape, Ernest P., Twin Falls, Idaho. Ditching-machine. No. 1,243,306; Oct. 16; v. 243; p. 656.
Knapp, Fred, *et al.* (See Dudley, John B., assignor.)
Knauss, Edward, assignor to The K. P. Manufacturing Company, Inc., New York, N. Y. Rim-contractor. No. 1,242,950; Oct. 16; v. 243; p. 547.
Kneisel, Arthur, Cleveland, Ohio. Test-connector for electric wires. No. 1,244,099; Oct. 23; v. 243; p. 931.
Knickelbein, Gustav, Milwaukee, Wis. Scene-shifting apparatus. No. 1,241,637; Oct. 2; v. 243; p. 55.
Knight, Edward M., New York, N. Y. Water-purifying apparatus. No. 1,244,989; Oct. 30; v. 243; p. 1238.
Knight, Robert H., Inka, Ill. Tool-driver. No. 1,242,205; Oct. 9; v. 243; p. 275.
Knoevenagel, Emil, Heidelberg, assignor to Knoll and Company, Ludwigshafen-on-the-Rhine, Germany. Modifying acetyl-celluloses. No. 1,241,995; Oct. 2; v. 243; p. 168.
Knoll and Company. (See Knoevenagel, Emil, assignor.)
Knowles, William E., *et al.* (See Miller, Homer E., assignor.)
Knox, Luther L., Avalon, assignor to Blaw-Knox Company, Pittsburgh, Pa. Water-cooled floor structure. No. 1,244,507; Oct. 30; v. 243; p. 1091.
Knox, Samuel L. G., San Francisco, Cal. Torpedo protection. No. 1,243,427; Oct. 16; v. 243; p. 691.
Kny-Scheerer Corporation. (See Hawley, George W., assignor.)
Koch, Charles, New York, N. Y. Magnetic brake. No. 1,243,529; Oct. 16; v. 243; p. 721.
Koch, Fred J., New Baden, Ill. Traffic-signal for automobiles. No. 1,244,990; Oct. 30; v. 243; p. 1238.
Koehll, Samuel, Pasadena, Cal. Basket for lawn-mowers. No. 1,244,341; Oct. 23; v. 243; p. 1004.
Koelsch, Kate, Atchison, Kans. Veil. No. 1,241,858; Oct. 2; v. 243; p. 124.
Koenig, Charles M., Farmingdale, N. Y. Coat-hanger. No. 1,244,342; Oct. 23; v. 243; p. 1004.
Kohler, George B., assignor to The J. G. Brill Company, Philadelphia, Pa. Window-sash. No. 1,242,815; Oct. 9; v. 243; p. 468.
Kohler, George B., assignor to The J. G. Brill Company, Philadelphia, Pa. Automatic lighting system for doorways. No. 1,243,530; Oct. 16; v. 243; p. 722.
Kohler, George B., assignor to The J. G. Brill Company, Philadelphia, Pa. Car-seat. No. 1,243,531; Oct. 16; v. 243; p. 722.
Kohman, Henry A., T. M. Godfrey, and L. H. Ashe, Pittsburgh, Pa., assignors to Ward Baking Company, New York, N. Y. Shortening composition and producing the same. No. 1,242,883; Oct. 9; v. 243; p. 490.
Kohman, Henry A., T. M. Godfrey, and L. H. Ashe, Pittsburgh, Pa., assignors to Ward Baking Company, New York, N. Y. Producing a shortening composition. No. 1,242,884; Oct. 9; v. 243; p. 490.
Kohout, George A., assignor to Kersto Corporation, Chicago, Ill. Automatic furnace-stoker. No. 1,243,186; Oct. 16; v. 243; p. 620.
Koken Barbers' Supply Company. (See Koken, Walter F., assignor.)
Koken, Walter F., assignor to Koken Barbers' Supply Company, St. Louis, Mo. Barber's chair. No. 1,242,109; Oct. 2; v. 243; p. 203.
Koken, Walter F., assignor to Koken Barbers' Supply Company, St. Louis, Mo. Barber's chair. No. 1,242,110; Oct. 2; v. 243; p. 204.
Kolbert, Edward, New York, N. Y. Garment-supporting form. No. 1,242,703; Oct. 9; v. 243; p. 434.
Kole, Benjamin, Goshen, Ind. Rain-indicator. No. 1,242,951; Oct. 16; v. 243; p. 547.
Kolff, Petrus v., assignor to The Electric Tachometer Corporation, Philadelphia, Pa. Signaling apparatus. No. 1,242,816; Oct. 9; v. 243; p. 469.
Komow, Albert P., Brooklyn, assignor to United States Cloth Cutting Machine Co., Inc., New York, N. Y. Electric cloth-cutting machine. No. 1,244,055; Oct. 23; v. 243; p. 918.
Köneman, William A., Baltimore, Md. Mouse-trap. No. 1,243,428; Oct. 16; v. 243; p. 692.
Koppitz, Carl G., Youngstown, Ohio. Process of and apparatus for interconverting and adjusting the relative voltage of high-potential alternating and direct electric currents. No. 1,244,614; Oct. 30; v. 243; p. 1124.
Kornbau, Kennard, New Dorp, N. Y. Fitting for electroliers. No. 1,244,615; Oct. 30; v. 243; p. 1124.
Kortas, Bernard, Chicago, Ill. Pipe-coupling nut. No. 1,244,100; Oct. 23; v. 243; p. 931.
Korte, Christian, assignor of two-thirds to Cambells and Hunter Limited, Leeds, England. Briqueting-machine. No. 1,242,704; Oct. 9; v. 243; p. 434.
Kosack, John E. (See Novotny, James, assignor.)
Kraepelin, Edward O., Botsford, Conn. Collapsible egg-carrier. No. 1,243,075; Oct. 16; v. 243; p. 588.
Kraft, Henry P., Ridgewood, N. J. Spreader. No. 1,245,110; Oct. 30; v. 243; p. 1274.
Kraker Pen Co. (See Craig, Harvey G., assignor.)
Kramer, Eric B., Brooklyn, and C. Hammer, New York, assignors to American Metal Cap Co., Brooklyn, N. Y. Vacuum-sealing machine. No. 1,244,508; Oct. 30; v. 243; p. 1091.
Krantz, Hansene *et al.* (See Miller, John, assignor.)
Krantz, Nels, *et al.* (See Miller, John, assignor.)
Kraule, Ernest, South Cle Elum, Wash. Calipers. No. 1,245,148; Oct. 30; v. 243; p. 1285.
Krausch, Walter T., La Grange, and E. F. Weber, Chicago, Ill. Rail-drilling car. No. 1,243,187; Oct. 16; v. 243; p. 620.
Krausch, Walter T., La Grange, and E. F. Weber, Chicago, Ill. Track-laying car. No. 1,243,188; Oct. 16; v. 243; p. 621.
Krausch, Walter T., La Grange, and E. F. Weber, Chicago, Ill. Tie-sawing car. No. 1,243,189; Oct. 16; v. 243; p. 621.
Kreamer, Joseph F., *et al.* (See Grove, Edward H., assignor.)
Krekel, Henry G. (See Dennis, Alfred A., assignor.)
Krell, Bernard M. and M. Zuckerman, New York, N. Y. Felling device for sewing-machines. No. 1,241,739; Oct. 2; v. 243; p. 87.
Kremer, Franklin W., Carlstadt, N. J. Tire-making machine. No. 1,243,076; Oct. 16; v. 243; p. 588.
Kremers, John G., Milwaukee, Wis. Making barium oxid. No. 1,243,190; Oct. 16; v. 243; p. 622.
Krieger, Georg F., Grand Rapids, Wis. Carpenter's work-support. No. 1,243,532; Oct. 16; v. 243; p. 722.
Kriegsheim, Heinrich, assignor to The Permutit Company, New York, N. Y. Purifying boiler-water. No. 1,243,191; Oct. 16; v. 243; p. 622.
Krisberg, Abraham, Muscatine, Iowa. Attachment for shoe-stitching machines. No. 1,243,953; Oct. 23; v. 243; p. 888.
Kristiansen, Karl O., New York, N. Y. Tool for nailing parquet floors. No. 1,241,996; Oct. 2; v. 243; p. 168.
Kroeger Piano Company. (See Parsons, George H., assignor.)
Krogel, Ernest. (See Schlichtinger and Krogel.)
Krogel, Gustave. (See Wellen, Frank, assignor.)
Krogh, Ferdinand W., San Francisco, Cal. Thrust-bearing. No. 1,243,429; Oct. 16; v. 243; p. 692.
Krohn, Charles C., Hartford, Conn. Means for securing paper-rolls to a roll-shaft. No. 1,244,865; Oct. 30; v. 243; p. 1200.
Krohn, Dewey S., Simpson, Mont. Motor-driven sled. No. 1,243,612; Oct. 16; v. 243; p. 747.

Kruger, Harry B. (See Stranders, Julien, assignor.)
Kruse, Peter, assignor to E. W. Bliss Company, Brooklyn, N. Y. Sheet-metal-working machine. No. 1,242,206; Oct. 9; v. 243; p. 276.
Kruse, Peter, assignor to E. W. Bliss Company, Brooklyn, N. Y. Sheet-metal-working machine. No. 1,244,050; Oct. 23; v. 243; p. 918.
Kruse, Theodore H., Arvada, assignor to The Spikeless & Boltless Railroad Tie Company, Denver, Colo. Railway-tie. No. 1,244,616; Oct. 30; v. 243; p. 1125.
Krusius, Edward, New York, N. Y., assignor to Hammond Typewriter Company. Type-writer. No. 1,243,954; Oct. 23; v. 243; p. 888.
Krusius, Edward, New York, N. Y., assignor to Hammond Typewriter Company. Type-writer. No. 1,243,955; Oct. 23; v. 243; p. 888.
Kuchtik, Frank M., Kitchener, Ontario, Canada. Convertible roller and ice skate. No. 1,243,077; Oct. 16; v. 243; p. 588.
Kuefer, Anthony, assignor to R. B. Wilson, trustee, Toledo, Ohio. Power transmission. No. 1,241,740; Oct. 2; v. 243; p. 87.
Kuefer, Anthony, assignor to R. B. Wilson, trustee, Toledo, Ohio. Unit of power transmission. No. 1,241,741; Oct. 2; v. 243; p. 88.
Kuhn, August S., and R. R. Miller, Chicago, Ill., assignors to Bates Valve Bag Company, Chicago, Ill. Device for wire-tying bags. No. 1,242,353; Oct. 9; v. 243; p. 321.
Kundtz, Theodor, Lakewood, assignor to The Theodor Kundtz Company, Cleveland, Ohio. Sewing-machine cabinet. No. 1,243,744; Oct. 23; v. 243; p. 823.
Kupiszewski, Antoni, Auburn, N. Y. Cigarette-box. No. 1,244,057; Oct. 23; v. 243; p. 919.
Kurz, William F. (See Hanlon, George J., assignor.)
Kutschenreuter, Robert H., La Moure, N. D. Tire-remover. No. 1,242,354; Oct. 9; v. 243; p. 321.
Kutscher, Theodore C., Seattle, Wash. Combination lunch-box. No. 1,244,866; Oct. 30; v. 243; p. 1200.
Kyllilinen, Juhana, Helsingfors, Finland, Russia. Internal-combustion engine. No. 1,242,207; Oct. 9; v. 243; p. 276.
La Barre, Edward, New York, N. Y., and W. Schuckar, West New York, N. J. Automatic train-stop. No. 1,241,997; Oct. 2; v. 243; p. 168.
La Crosse Plow Company. (See Cameron, William W., assignor.)
La Joie, Herbert J., Orange, N. J., assignor to Autopiano Company. Key-cover for pianos and other musical instruments. No. 1,242,952; Oct. 16; v. 243; p. 547.
La Motte, Wilbur A., Elizabeth, N. J. Electric heater. No. 1,242,209; Oct. 9; v. 243; p. 276.
La Mura, Catello, Brooklyn, N. Y. Marine-torpedo shield. No. 1,243,956; Oct. 23; v. 243; p. 888.
La Rue, William D., Camden, N. J., assignor to Victor Talking Machine Company. Governor. No. 1,245,112; Oct. 30; v. 243; p. 1274.
La Sor, Herbert G., Los Angeles, Cal. Phonograph-record cabinet. No. 1,242,563; Oct. 9; v. 243; p. 388.
Lacy, Burritt S., Sewaren, N. J., assignor to The Roessler & Hasslacher Chemical Company, New York, N. Y. Manufacturing ethyl chlorid. No. 1,242,208; Oct. 9; v. 243; p. 276.
Laidley, Paul, St. Louis, Mo. Self-rising flour and making the same. No. 1,244,867; Oct. 30; v. 243; p. 1200.
Lair, Charles W., Bethel, Mo. Ejecting penholder. No. 1,244,343; Oct. 23; v. 243; p. 1005.
Lally, John T., assignor to National Bottle Washing Machine Company, Wilmington, Del. Bottle-washing machine. No. 1,242,817; Oct. 9; v. 243; p. 469.
Lamb Knitting Machine Company. (See Harrison, Matthew, assignor.)
Lamb, Mark R., Santiago, Chile, assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis. Filtering. No. 1,242,355; Oct. 9; v. 243; p. 321.
Lambert, John W. (See Fuller and Lambert.)
Lambeth, Thomas, Rachel, N. C. Folding chair. No. 1,241,742; Oct. 2; v. 243; p. 88.
Lamme, Benjamin G., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Control system. No. 1,241,523; Oct. 2; v. 243; p. 16.
Lamme, Benjamin G., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. System of distribution and control. No. 1,243,367; Oct. 16; v. 243; p. 656.
Lamme, Benjamin G., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. System of distribution and control. No. 1,243,430; Oct. 16; v. 243; p. 692.
Lamme, Benjamin G., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Dynamo-electric machine. No. 1,244,509; Oct. 30; v. 243; p. 1092.
Lamme, Benjamin G., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Universal motor. No. 1,244,510; Oct. 30; v. 243; p. 1092.
Lamme, Benjamin G., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Universal motor. No. 1,244,511; Oct. 30; v. 243; p. 1093.
Lamson Company, The. (See Jennings, Chester S., assignor.)
Lancaster, George W., assignor to Central Development Company, Richmond, Va. Safety-shutter. No. 1,244,215; Oct. 23; v. 243; p. 965.
Lancaster, Sallie L. (See Cropper and Lancaster.)
Landau, David, New York, N. Y. Laminated spring. No. 1,241,743; Oct. 2; v. 243; p. 88.
Landau, David, New York, N. Y. Spring. No. 1,241,744; Oct. 2; v. 243; p. 88.
Landers, Douglas J., *et al.* (See Norman, Frank, assignor.)
Landers, Frary & Clark. (See Carlson, Frederick E., assignor.)
Landers, Frary & Clark. (See Moberg, Oscar, assignor.)
Landis Machine Company. (See Schweiss, Joseph, assignor.)
Landis, Walter S., Niagara Falls, N. Y., assignor to F. S. Washburn, Nashville, Tenn. Producing nitrose gases. No. 1,242,953; Oct. 16; v. 243; p. 547.
Landqvist, Victor N., assignor to Aktiebolaget Princeps, Gottenborg, Sweden. Means for stopping working machines. No. 1,241,859; Oct. 2; v. 243; p. 124.
Lane, Alfred M., assignor to Monarch Metal Weather Strip Company, St. Louis, Mo. Fruit-tray. No. 1,244,617; Oct. 30; v. 243; p. 1125.
Lang, James S., Boston, Mass. Plane for flying-machines. No. 1,241,860; Oct. 2; v. 243; p. 124.
Langdon, Jesse D., Waterville, Wash., assignor to The Auxiliary Cooler Company. Cushioned valve-tappet. No. 1,241,745; Oct. 2; v. 243; p. 89.
Lange, Pieter de, and R. Aernout, Utrecht, Netherlands, assignors to Naamlooze Vennootschap De Nederlandsche Thermo-Telephoon Maatschappij, Utrecht, Netherlands. Thermic telephone. No. 1,243,048; Oct. 16; v. 243; p. 578.
Langer, Robert F., San Francisco, Cal. Making phosphorescent colors. No. 1,244,058; Oct. 23; v. 243; p. 919.
Langmuir, Irving, Schenectady, N. Y., assignor to General Electric Company. Electron-discharge apparatus and method of preparation. No. 1,244,216; Oct. 23; v. 243; p. 966.
Langmuir, Irving, Schenectady, N. Y., assignor to General Electric Company. Electron-discharge apparatus and method of operating the same. No. 1,244,217; Oct. 23; v. 243; p. 966.
Langston, Samuel M., Wenonah, assignor to Samuel M. Langston Company, Camden, N. J. Sheet-feeding mechanism. No. 1,242,356; Oct. 9; v. 243; p. 322.
Lannert, Raymond N. (See Johnson, Floyd, assignor.)
Lanning, James K., Fall River, Mass. Picker-check. No. 1,244,101; Oct. 23; v. 243; p. 931.
Larkin, Walter, Boston, Mass., assignor to Jenckes Knitting Machine Company, Pawtucket, R. I. Circular-knitting machine. No. 1,244,991; Oct. 30; v. 243; p. 1238.
Larony, Philip M., Chicago, Ill. Nut-lock. No. 1,242,818; Oct. 9; v. 243; p. 470.
Larsen, Charles F., San Francisco, Cal. Gas-lighter. No. 1,244,747; Oct. 30; v. 243; p. 1165.
Larsen, Marie, Jamaica, N. Y. Washdrainer. No. 1,243,841; Oct. 23; v. 243; p. 854.
Larsh, Everett P., assignor to The Burnett-Larsh Manufacturing Co., Dayton, Ohio. Pump. No. 1,242,104; Oct. 2; v. 243; p. 202.
Larson, John G., Oakland, Cal. Book-rack. No. 1,245,111; Oct. 30; v. 243; p. 1274.
Larson, Martin S., assignor to Emerson-Brantingham Company, Rockford, Ill. Governor control. No. 1,243,078; Oct. 16; v. 243; p. 589.
Larson, Nils E., New York, N. Y. Clench curtain-clamp. No. 1,244,748; Oct. 30; v. 243; p. 1165.
Larson, Victor A., Chicago, Ill. Humidifying device. No. 1,241,524; Oct. 2; v. 243; p. 17.
Larsson, Gustaf M., Newark, N. J., assignor to Eck Dynamo and Motor Company. Dynamo-electric machine. No. 1,244,868; Oct. 30; v. 243; p. 1201.
Laskey, William B., Marblehead, Mass. Candy-making machine. No. 1,242,562; Oct. 9; v. 243; p. 388.
Lattig, Jacob W., Glenside, Pa., and C. L. Goodrum, assignors to Western Electric Company, Incorporated, New York, N. Y. Prepayment coin device. No. 1,241,998; Oct. 2; v. 243; p. 169.
Laughlin, John, and P. A. Elseth, Crookston, Minn. Railway-car truck. No. 1,241,638; Oct. 2; v. 243; p. 55.
Laun, Henry W., Chicago, Ill. Acetylene-gas generator. No. 1,244,618; Oct. 30; v. 243; p. 1125.
Launbranch, Malcolm E., assignor to Peerless Electric Sign Company, Chicago, Ill. Signal system. No. 1,243,308; Oct. 16; v. 243; p. 657.
Lautenbach, Evert, Chicago, Ill. Combination table and ironing-board. No. 1,244,619; Oct. 30; v. 243; p. 1126.
Lautenschlager, William F., Cincinnati, Ohio, assignor to L. Muther, Boston, Mass. Stitching for securing shank-eye buttons and forming the stitching. No. 1,242,564; Oct. 9; v. 243; p. 389.
Lautenschlager, William F., Cincinnati, Ohio, assignor to L. Muther, Boston, Mass. Stitching for securing shank-eye buttons and forming the stitching. No. 1,242,565; Oct. 9; v. 243; p. 389.
Law, John H., Cartersville, Ga. Seed-separator. No. 1,244,102; Oct. 23; v. 243; p. 932.
Lawrence, Rutherfurd, assignor to Slocum, Avram & Slocum, New York, N. Y. Extension attachment for automobile-pedals. No. 1,242,819; Oct. 9; v. 243; p. 470.
Lawson, John, Orange, Mass. Baking-cabinet. No. 1,243,192; Oct. 16; v. 243; p. 622.
Lawson, Philip, Johnstown, Pa. Fan. No. 1,244,103; Oct. 23; v. 243; p. 932.

Lawson, Samuel, Croton-on-Hudson, N. Y. Gas-engine. No. 1,243,533; Oct. 16; v. 243; p. 722.
Layman, Hebron B., New York, N. Y. Internal-combustion engine. No. 1,244,869; Oct. 30; v. 243; p. 1201.
Le Viness, Stephen, Jr., Buffalo, N. Y. Chaplet. No. 1,241,862; Oct. 2; v. 243; p. 125.
Leabo, Mont J., Iola, Kans. Clothes-rack. No. 1,241,746; Oct. 2; v. 243; p. 89.
Leach, William W., Pineland, Tex. Portable power stump-boring machine. No. 1,242,566; Oct. 9; v. 243; p. 390.
Leaman, Elwood C., Harrisburg, Pa. Lawn-weeder. No. 1,244,344; Oct. 23; v. 243; p. 1005.
Learned, Willard L., Oakdale, Cal. Ignition system for internal-combustion engines. No. 1,241,999; Oct. 2; v. 243; p. 169.
Leask, John, Cranbrook, British Columbia, Canada. Sewing-machine attachment. No. 1,243,193; Oct. 16; v. 243; p. 622.
Leather Products Company. (See Cavanaugh, William M., assignor.)
Leatherbee, Clifton F., Newton, Mass., assignor to Painting Machine Company, Kittery, Me. Conveyer. No. 1,241,525; Oct. 2; v. 243; p. 17.
Lecoutre, Auguste J., assignor to Royal Worcester Corset Co., Worcester, Mass. Corset. No. 1,244,059; Oct. 23; v. 243; p. 919.
Lecoutre, Auguste J., assignor to Royal Worcester Corset Co., Worcester, Mass. Corset-steel. No. 1,244,060; Oct. 23; v. 243; p. 919.
Ledbetter, Ralph W., assignor of one-half to J. W. Maynor, Birmingham, Ala. Hasp. No. 1,244,104; Oct. 23; v. 243; p. 932.
Ledbetter, Thomas F., Columbus, Ga. Driving-gear and wheel-mounting for motor-vehicles. No. 1,244,512; Oct. 30; v. 243; p. 1093.
Ledgers Limited. (See Myatt, John W., assignor.)
Ledoux, John W., Swarthmore, Pa. Fluid-meter. No. 1,243,842; Oct. 23; v. 243; p. 854.
Ledoux, John W., Swarthmore, Pa. Integrating mechanism. No. 1,243,843; Oct. 23; v. 243; p. 854.
Lee, Francis G., *et al.* (See Faymonville, Bernard, Jr., assignor.)
Lee, John, Springfield, Ill. Switch. No, 1,243,613; Oct. 16; v. 243; p. 747.
Lee, Joseph, Brooklyn, N. Y. Expansion-bolt. No. 1,244,992; Oct. 30; v. 243; p. 1238.
Lee, Walter. (See Parker, Bennison, and Lee.)
Lee, William H., assignor to Syracuse Chilled Plow Company, Syracuse, N. Y. Manure-spreader. No. 1,242,705; Oct. 9; v. 243; p. 434.
Lee, William H., assignor to Syracuse Chilled Plow Company, Syracuse, N. Y. Harrow. No. 1,244,993; Oct. 30; v. 243; p. 1239.
Leech, Abner Y. (See Powers and Leech.)
Lees Bradner Company, The. (See Schurr and Lees, assignors.)
Lees, Ernest J. (See Schurr and Lees.)
Leffler, Leo J., New York, N. Y. Can-soldering machine. No. 1,244,105; Oct. 23; v. 243; p. 933.
Legault, Albert, Montreal, Quebec, Canada. Employee's indexing system. No. 1,244,061; Oct. 23; v. 243; p. 919.
Legon, Ernest, Sault Ste. Marie, Ontario, Canada. Track-gage. No. 1,242,210; Oct. 9; v. 243; p. 277.
Leighton, Herbert J., Syracuse, N. Y. Force-feed lubricator. No. 1,243,309; Oct. 16; v. 243; p. 657.
Leihgeber, Johann W. A., Monessen, Pa. Cap. No. 1,242,211; Oct. 9; v. 243; p. 277.
Leitner, Emil, Hoboken, N. J., assignor to Powers Photo Engraving Company, New York, N. Y. Making printing-plates. No. 1,243,431; Oct. 16; v. 243; p. 692.
Lemke, Herman, Clinton, Conn. Convertible wheelbarrow and truck. No. 1,243,432; Oct. 16; v. 243; p. 693.
Lemmens, Gustave J., Wateringbury, and P. J. Fryer, Tunbridge, England. Insecticide, sheep-dip, and the like. No. 1,242,954; Oct. 16; v. 243; p. 548.
Lemmens, Gustave J., Wateringbury, and P. J. Fryer, Tunbridge, England. Insecticide, sheep-dip, animal-wash, and the like. No. 1,242,955; Oct. 16; v. 243; p. 548.
Lentz, Hugo, Berlin-Halensee, Germany. Valve-gearing for locomotives. No. 1,242,452; Oct. 9; v. 243; p. 352.
Leonard, George I., Chicago, Ill. Machine for concentrating the heavier and valuable portions of ore. No. 1,241,861; Oct. 2; v. 243; p. 125.
Leonard, Zenas B., Cleveland, Ohio. Metal-heating furnace. No. 1,241,526; Oct. 2; v. 243; p. 17.
Leslie Company, The. (See Metzger, Jules P., assignor.)
Lester, Charles, Ambridge, assignor of one-fourth to F. L. McCready, Sewickley, one-fourth to P. L. Sohn, and one-fourth to I. Sohn, Ambridge, Pa. Collapsible funnel. No. 1,242,453; Oct. 9; v. 243; p. 352.
Lester, Frederick A., assignor to Chicago Standard Equipment Company, Chicago, Ill. Car-door. No. 1,242,000; Oct. 2; v. 243; p. 170.
Lester, Frederick A., Chicago, Ill. Door-actuating mechanism. No. 1,242,001; Oct. 2; v. 243; p. 170.
Leszczewicz, Frank, Chicago, Ill. Horse-hitch for vehicles. No. 1,244,620; Oct. 30; v. 243; p. 1126.
Letz, John H., assignor to The Letz Manufacturing Company, Crown Point, Ind. Grinding-bur. No. 1,244,513; Oct. 30; v. 243; p. 1093.
Letz, John H., assignor to The Letz Manufacturing Company, Crown Point, Ind. Grinding-bur. No. 1,244,514; Oct. 30; v. 243; p. 1093.
Letz, John H., assignor to The Letz Manufacturing Company, Crown Point, Ind. Grinding-bur. No. 1,244,515; Oct. 30; v. 243; p. 1094.
Letz, John H., assignor to The Letz Manufacturing Company, Crown Point, Ind. Grinding-bur. No. 1,244,516; Oct. 30; v. 243; p. 1094.
Letz, John H., assignor to The Letz Manufacturing Company, Crown Point, Ind. Grinding-bur. No. 1,244,517; Oct. 30; v. 243; p. 1094.
Letz Manufacturing Company, The. (See Letz, John H., assignor.)
Leuchsenring, Hermann H., Norwood borough, Pa., assignor to The S. S. White Dental Manufacturing Company. Tooth shade-guide. No. 1,244,994; Oct. 30; v. 243; p. 1239.
Levalley, Christopher W., Milwaukee, Wis. Delivery-chute for mixing-machines. No. 1,243,614; Oct. 16; v. 243; p. 747.
Levay, Eugene, and E. Sas, New York, N. Y. Toy. No. 1,242,820; Oct. 9; v. 243; p. 470.
Levens, Richard, Philadelphia, Pa. Asbestos-sheet connector. No. 1,244,870; Oct. 30; v. 243; p. 1202.
Levin, Isadore, Chicago, Ill. Registering device for printing-presses. No. 1,241,527; Oct. 2; v. 243; p. 18.
Levin, Lars O., Vancouver, Wash. Sanding device for motor-vehicles. No. 1,244,345; Oct. 23; v. 243; p. 1005.
Levin, Nils D., Columbus, Ohio, assignor to The Jeffrey Manufacturing Company. Mining-machine. No. 1,244,871; Oct. 30; v. 243; p. 1202.
Lew, Albert, Baker, Oreg. Tire-remover. No. 1,243,534; Oct. 16; v. 243; p. 723.
Lewis, Albert H., Los Angeles, Cal. Game. No. 1,242,002; Oct. 2; v. 243; p. 170.
Lewis, Arthur J., Stratford, Conn., A. E. McClain, W. O. Skeen, and J. O. Massey, assignors, by mesne assignments, to The American Pad and Textile Company, Greenfield, Ohio. Pad and clip assembling machine. No. 1,241,863; Oct. 2; v. 243; p. 125.
Lewis, Bernard A., Long Beach, Cal. Dental brush. No. 1,242,821; Oct. 9; v. 243; p. 470.
Lewis, Edgar A., and P. R. Pinkard, Roswell, N. Mex.; said Pinkard assignor of four-tenths of the whole right to said Lewis. Music-leaf turner. No. 1,244,749; Oct. 30; v. 243; p. 1165.
Lewis, George H., Elyria, Ohio. Shoe-heel section or lift. No. 1,242,213; Oct. 9; v. 243; p. 277.
Lewis, Harry, assignor of two-thirds to A. J. Lloyd, Pittsburgh, Pa. Electrical valve. No. 1,242,003; Oct. 2; v. 243; p. 170.
Lewis, John G., St. Louis, Mo. Sewing-machine. No. 1,243,745; Oct. 23; v. 243; p. 823.
Lewis, Leroy M., Merion, Pa. Fusible link. No. 1,244,106; Oct. 23; v. 243; p. 933.
Lewis, Walter S., San Francisco, Cal. Power-transmitting mechanism. No. 1,241,864; Oct. 2; v. 243; p. 126.
Lewis, Wilfred, Haverford, assignor to The Tabor Manufacturing Company, Philadelphia, Pa. Flask-clamp for roll-over molding-machines. No. 1,245,113; Oct. 30; v. 243; p. 1275.
Lewis, Wilfred, Haverford, and J. T. Ramsden, assignors to The Tabor Manufacturing Company, Philadelphia, Pa. Molding-machine. No. 1,245,114; Oct. 30; v. 243; p. 1275.
Lewyt, Arthur, Brooklyn, N. Y. Brush and glass holder. No. 1,242,956; Oct. 16; v. 243; p. 548.
Ley, George A., Chicago, Ill. Fuse. No. 1,244,346; Oct. 23; v. 243; p. 1005.
Libbey, Samuel R., Cottonwood, Idaho. Extension-table. No. 1,242,822; Oct. 9; v. 243; p. 471.
Lidgerwood Manufacturing Company. (See Dickinson and Swan, assignors.)
Liggett, William K., assignor to The Jeffrey Manufacturing Company, Columbus, Ohio. Fan. No. 1,243,615; Oct. 16; v. 243; p. 748.
Light, Frederick, Jr. (See Bryan, Frederick E., assignor.)
Lillibridge, Curtis C., Hutchinson, Kans. Oil-burner. No. 1,243,194; Oct. 16; v. 243; p. 623.
Lilliendahl-Petersen, Niels A. J. (See Næser and Lilliendahl-Petersen.)
Limbacher, John E., St. Marys, Ohio. Oil-burner. No. 1,242,567; Oct. 9; v. 243; p. 390.
Lincoln Electric Company, The. (See Lincoln, John C., assignor.)
Lincoln, John C., assignor to The Lincoln Electric Company, Cleveland, Ohio. Method of and apparatus for producing sparkless commutation. No. 1,244,518; Oct. 30; v. 243; p. 1095.
Lincoln, Paul M., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Insulator. No. 1,241,528; Oct. 2; v. 243; p. 18.
Lindberg, Johan W., Stockholm, Sweden. Self-locking door-lock. No. 1,244,872; Oct. 30; v. 243; p. 1202.
Lindbladh, Harmon E., Brookline, Mass. Ruling-machine. No. 1,242,823; Oct. 9; v. 243; p. 471.
Lindner, Joe, Jr. (See Tautges, August, assignor.)
Lindsay, William, Chicago, Ill. Agitator. No. 1,242,824; Oct. 9; v. 243; p. 471.
Lindsay, William G., Caldwell, N. J., assignor to The Celluloid Company, New York, N. Y. Producing flowable compounds of acetyl cellulose. No. 1,244,107; Oct. 23; v. 243; p. 933.

Lindsay, William G., Caldwell, N. J. Producing flowable compounds of acetyl cellulose. No. 1,244,108; Oct. 23; v. 243; p. 933.
Lindsay, William G., Caldwell, N. J., assignor to The Celluloid Company, New York, N. Y. Making acetyl-cellulose plastics and solvents thereof. No. 1,244,347; Oct. 23; v. 243; p. 1005.
Lindsay, William G., Caldwell, N. J. Making acetyl-cellulose plastics and solvents. No. 1,244,348; Oct. 23; v. 243; p. 1006.
Lindsay, William G., Caldwell, N. J., assignor to The Celluloid Company, New York, N. Y. Making solvents for acetyl-cellulose plastics. No. 1,244,349; Oct. 23; v. 243; p. 1006.
Lindstrom, August, Centerville, S. D. Harness-line holder. No. 1,244,350; Oct. 23; v. 243; p. 1006.
Lindström, Charles A. (See Goehring and Lindström.)
Linehan, Joseph J., White Plains, N. Y. Sprinkler-head. No. 1,241,747; Oct. 2; v. 243; p. 89.
Linfoot, Benjamin E., Philadelphia, Pa. Bottle carrier and conveyer. No. 1,242,825; Oct. 9; v. 243; p. 472.
Link-Belt Company. (See Valentine, Herbert S., assignor.)
Link, Martin, Freeport, Ill. Plastic composition. No. 1,244,519; Oct. 30; v. 243; p. 1095.
Linotype and Machinery Limited. (See Parker, Bennison, and Lee, assignors.)
Linville, John W., and C. C. Tillman, assignors to Linville, Tillman & Co., Toledo, Ohio. Machine for peeling tomatoes. No. 1,241,529; Oct. 2; v. 243; p. 19.
Linville, Tillman & Co. (See Linville and Tillman, assignors.)
Lips, Jacob, Nieder-Urdorf, Switzerland. Gearing. No. 1,242,004; Oct. 2; v. 243; p. 171.
Lister, Arthur J., Bradford, England. Sock-suspender. No. 1,244,218; Oct. 23; v. 243; p. 967.
Littauer, Lucius N. (See Robbins, Willis C., assignor.)
Littauer, Lucius N. (See Weis, John P., assignor.)
Littauer, Lucius N. (See Wiggins, Fred E., assignor.)
Little, James R., Moline, assignor of one-half to G. W. Bland, Watertown, Ill. Message-transmitting device for railways. No. 1,243,535; Oct. 16; v. 243; p. 723.
Little, Lucius F., assignor to Anglo-American Mill Co., Owensboro, Ky. Flour-mill. No. 1,244,219; Oct. 23; v. 243; p. 967.
Littlefield, Augustine F., Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Welt-shoe-sewing machine. No. 1,243,195; Oct. 16; v. 243; p. 623.
Littlefield, George E., Providence, R. I., assignor to American Roll Gold Leaf Company. Machine for applying metallic leaf. No. 1,242,454; Oct. 9; v. 243; p. 353.
Littman, Zeno, New York, N. Y., assignor to Ze-Litt Manufacturing Company. Tool-handle. No. 1,243,310; Oct. 16; v. 243; p. 657.
Live Leather Belt Company, The. (See Jacobs, Joseph, assignor.)
Livingston, Andrew W., Oakland, Cal. Roasting-furnace. No. 1,242,455; Oct. 9; v. 243; p. 353.
Livingston, Lloyd L. (See Poole, Jesse V., assignor.)
Ljungström, Birger, assignor to Aktiebolaget Ljungströms Angturbin, Stockholm, Sweden. Controlling electrically-propelled vessels. No. 1,242,357; Oct. 9; v. 243; p. 322.
Llewellyn, David F., Girardville, Pa. Engine. No. 1,242,826; Oct. 9; v. 243; p. 472.
Lloyd, Albert J. (See Lewis, Henry, assignor.)
Lloyd, Fernando C., East Lynn, W. Va. Ironing-board. No. 1,244,520; Oct. 30; v. 243; p. 1095.
Lloyd, Marshall B., Menominee, Mich. Producing woven reed articles. No. 1,243,079; Oct. 16; v. 243; p. 589.
Lloyd, Marshall B., Menominee, Mich. Producing woven reed articles. No. 1,243,080; Oct. 16; v. 243; p. 590.
Lloyd, Marshall B., Menominee, Mich. Producing woven reed articles. No. 1,243,081; Oct. 16; v. 243; p. 590.
Lloyd, Marshall B., Menominee, Mich. Producing woven reed articles. No. 1,243,082; Oct. 16; v. 243; p. 590.
Lloyd, Nafew J., Butte, Mont. Carriage control for typewriters. No. 1,241,865; Oct. 2; v. 243; p. 126.
Locke, Harry M. (See Wescott and Locke.)
Lockwood, William W., Saskatoon, Saskatchewan, Canada. Hay-stacker. No. 1,243,746; Oct. 23; v. 243; p. 823.
Locomobile Company of America, The. (See Riker, Andrew L., assignor.)
Locomobile Company of America, The. (See Schulz, Albert C., assignor.)
Locomotive Pulverized Fuel Company. (See Muhlfeld, John E., assignor.)
Loder, John S., Reno, Nev. Liquid-fuel-combustion apparatus. No. 1,243,311; Oct. 16; v. 243; p. 658.
Loetzer, Christian E., Sayre, Pa. Automatic carburation-valve. No. 1,242,706; Oct. 9; v. 243; p. 435.
Loewenstein, Louis C., Lynn, Mass., assignor to General Electric Company. Elastic-fluid turbine. No. 1,242,005; Oct. 2; v. 243; p. 171.
Lofstrom, Robert W., Worcester, Mass. Safety device for ladders. No. 1,243,844; Oct. 23; v. 243; p. 855.
Loftsgaarden, Albert T., Powell, Wyo. Door-closer. No. 1,244,621; Oct. 30; v. 243; p. 1126.
Lohnes, William M. (See Hodges and Lohnes.)
Lohr, Fred W., New York, N. Y. Signaling apparatus. No. 1,244,873; Oct. 30; v. 243; p. 1202.
Lomanitz, Sebastian, Merida, Mexico, assignor of twenty-five one-hundredths to J. Joffe, New York, N. Y. Vegetable drying-oil. No. 1,244,521; Oct. 30; v. 243; p. 1095.
Lomasney, John, Chicago, Ill. Assorting apparatus. No. 1,242,214; Oct 9; v. 243; p. 277.
Lomax, Harold A., Aspinwall, Pa. Casting rolls and the like. No. 1,242,827; Oct. 9; v. 243; p. 472.
Lombardi, Francesco. (See Isobabella and Lombardi.)
Lomen, Ralph. (See Heitman, John, assignor.)
Long, Emma W., St. Louis, Mo. Artist's tablet. No. 1,241,866; Oct. 2; v. 243; p. 126.
Long, George F., Elmhurst, N. Y. Alarm signaling device. No. 1,242,957; Oct. 16; v. 243; p. 548.
Long, Louis M., Roxbury, Mass. Type-case. No. 1,243,083; Oct. 16; v. 243; p. 590.
Long, Thomas A., Detroit, Mich. Liquid-carrying and level-indicating device. No. 1,242,215; Oct. 9; v. 243; p. 278.
Longenecker, Ernst A., Viola, Wis. Film-winding apparatus for motion-picture machines. No. 1,242,006; Oct. 2; v. 243; p. 171.
Loomis, Burdett, assignor to The Burdett Loomis Corporation, Hartford, Conn. Treating seeds and nuts for obtaining oil and other products. No. 1,244,995; Oct. 30; v. 243; p. 1239.
Loomis, Evarts G., assignor to St. Mungo Manufacturing Company of America, Newark, N. J. Ball-winding machine. No. 1,242,885; Oct. 9; v. 243; p. 491.
Lorcher, Philip C., Huron, Ohio. Silo. No. 1,244,220; Oct. 23; v. 243; p. 967.
Lorenz, William A. (See Anderson, Nils H., assignor.)
Loughridge, Clyde H. and H. R., Pittsburgh, Pa. Pipe-coupling. No. 1,242,568; Oct. 9; v. 243; p. 390.
Loughridge, Clyde H. and H. R., Pittsburgh, Pa. Pipe-cutter. No. 1,244,874; Oct. 30; v. 243; p. 1203.
Loughridge, Howard R. (See Loughridge, Clyde H. and H. R.)
Loughridge, Matthew H., Bogota, N. J. Railway-traffic-controlling system and apparatus. No. 1,242,456; Oct. 9; v. 243; p. 354.
Loughridge, Matthew H., Bogota, N. J. Electric circuit. No. 1,242,457; Oct. 9; v. 243; p. 354.
Loughridge, Matthew H., Teaneck, and R. P. Tuttle, Mountainview, N. J. Semaphore-signal blade. No. 1,242,899; Oct. 9; v. 243; p. 495.
Loughridge, Matthew H. (See Tuttle and Loughridge.)
Louque, Nisida, *et al.* (See Fucich, Emile E., assignor.)
Lovan, Alphonso B., *et al.* (See Norman, Frank, assignor.)
Lovegrove, Francis A., Halifax, Nova Scotia, Canada. Pipe threading and cutting machine. No. 1,244,996; Oct. 30; v. 243; p. 1239.
Lovejoy, Fred P., Springfield, Vt. Metal-working tool. No. 1,242,707; Oct. 9; v. 243; p. 435.
Lovejoy, Fred P., Springfield, Vt. Metal-working tool. No. 1,242,708; Oct. 9; v. 243; p. 435.
Loveless, Alfred J., Lenox, Mass. Reversible tag. No. 1,242,007; Oct. 2; v. 243; p. 172.
Lovell, Adelbert C., McComb, Ohio. Plow. No. 1,241,530; Oct. 2; v. 243; p. 19.
Lovell, Sidney, Chicago, Ill. Mausoleum construction. No. 1,244,109; Oct. 23; v. 243; p. 934.
Low, Frank S., Buffalo, N. Y. Hardening resins and products thereof. No. 1,243,312; Oct. 16; v. 243; p. 658.
Lowy, Arthur. (See Ludlum and Lowy.)
Loyd, Clarence E., Los Angeles, Cal. Automatic drilling-machine. No. 1,243,616; Oct. 16; v. 243; p. 748.
Loyer, Joseph C. and O. M., Detroit, Mich. Composition shingle. (Reissue.) No. 14,387; Oct. 30; v. 243; p. 1288.
Loyer, Oliver M. (See Loyer, Joseph C. and O. M.) (Reissue.)
Lubbe, Charles, and L. H. Free, San Francisco, Cal. Demountable rim. No. 1,243,313; Oct. 16; v. 243; p. 658.
Lubberger, Fritz, assignor to Automatic Electric Company, Chicago, Ill. Automatic party-line telephone system. No. 1,242,458; Oct. 9; v. 243; p. 354.
Lubberger, Fritz, assignor to Automatic Electric Company, Chicago, Ill. Telephone trunking system. No. 1,243,747; Oct. 23; v. 243; p. 823.
Luckenbaugh, George W., Bradford, Ohio. End-gate. No. 1,244,351; Oct. 23; v. 243; p. 1006.
Ludlum, Albert C., New York, N. Y., and A. Lowy, Newark, N. J., assignors to National Bush Company. Apparatus for setting bung-bushings. No. 1,244,997; Oct. 30; v. 243; p. 1240.
Lueck, Frank R., *et al.* (See Sorensen, Peter S., assignor.)
Luellen, Lawrence W. (See Dawson, Cecil F., assignor.)
Luftschiffbau Zeppelin G. m. b. H. (See Dornier, Claude, assignor.)
Luis, Harry G., assignor of forty-nine one-hundredths to C. Hendricks, San Quentin, Cal. Combined mandolin and guitar. No. 1,241,639; Oct. 2; v. 243; p. 56.
Lukacs, Michael, New York, N. Y., assignor of one-half to D. Glück, New Brunswick, N. J. Device for attaching ties. No. 1,242,216; Oct. 9; v. 243; p. 278.
Lull, Frederick H., Patchogue, N. Y., and E. C. Wanner, San Francisco, Cal. Condenser. No. 1,243,536; Oct. 16; v. 243; p. 723.
Lummus Cotton Gin Company. (See Grimes, Thaddeus S., assignor.)
Lundberg, Endfred, assignor to The Otto Higel Co., Limited, Toronto, Ontario, Canada. Tension-governor for piano-players. No. 1,244,875; Oct. 30; v. 243; p. 1203.
Lundell, Alben E., assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,242,008; Oct. 2; v. 243; p. 172.

Lundell, Alben E., assignor to Western Electric Company, Incorporated, New York, N. Y. Impulse control system. No. 1,242,009; Oct. 2; v. 243; p. 172.

Lundell, Alben E., assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,242,010; Oct. 2; v. 243; p. 173.

Lundell, Alben E., assignor to Western Electric Company, New York, N. Y. Telephone metering system. No. 1,243,314; Oct. 16; v. 243; p. 658.

Lundell, Alben E., New York, N. Y., assignor, by mesne assignments, to Western Electric Company. Selective signaling system. No. 1,244,998; Oct. 30; v. 243; p. 1240.

Lundell, Alben E., New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,244,999; Oct. 30; v. 243; p. 1240.

Lungstras Dyeing & Cleaning Company. (See Owens, William A., assignor.)

Lurie, William A., Chicago, Ill. Door-lock. No. 1,243,433; Oct. 16; v. 243; p. 693.

Lydell, Don W., Paris, Mich. Mechanism for forward and rear wheel drives. No. 1,244,221; Oct. 23; v. 243; p. 967.

Lyle, Thomas H., Duluth, Minn. Extensible car-step. No. 1,242,828; Oct. 9; v. 243; p. 473.

Lynch, Edmond F., Charlestown, N. H. Lawn-mower sharpener. No. 1,242,011; Oct. 2; v. 243; p. 173.

Lynch, Ernest E. (See Burket, Henry E., assignor.)

Lynch, Joseph L. (See Moran, Michael D., assignor.)

Lynch, Michael, Paterson, N. J. Storing structure. No 1,242,012; Oct. 2; v. 243; p. 173.

Lynn, John, Alice, Tex. Transmission chain or belt. No. 1,243,537; Oct. 16; v. 243; p. 724.

Lyons, John J., Brookline, Mass. Cork-extractor. No. 1,243,845; Oct. 23; v. 243; p. 855.

Lyons, Lowell W. (See Harris and Lyons.)

Lyons, P. J., *et al.* (See Peters, Cornelius A., assignor.)

M-B Tool Company. (See Massicotte and Boswell, assignors.)

M. H. Treadwell Company. (See Astrom, Carl P., assignor.)

MacBride, James H., Taft, Cal. Razor-strop. No. 1,244,754; Oct. 30; v. 243; p. 1167.

MacCaskey Register Company, The. (See Hick, Harry J., assignor.)

MacKay, John F., Bordentown, N. J. Air-supply device for brooders and the like. No. 1,241,641; Oct. 2; v. 243; p. 56.

McKay, John F., Bordentown, N. J. Brooder. No. 1,244,111; Oct. 23; v. 243; p. 934.

MacKenzie, Chester M. (See Norton and MacKenzie.)

MacKenzie, George W., Jr. (See MacKenzie, James A. and G. W., Jr.)

MacKenzie, James A., Rochester, and G. W. MacKenzie, Jr., Beaver, assignors to The Guarantee Liquid Measure Company, Rochester, Pa. Liquid-measuring apparatus. No. 1,242,831; Oct. 9; v. 243; p. 474.

MacKusick, Wanda W., *et al.* (See O'Neill, Frank V., assignor.)

MacLean, John H., Ann Arbor, Mich. Automobile-signal. No. 1,243,320; Oct. 16; v. 243; p. 660.

MacLewee, Carrie H. (See MacLewee, William S., assignor.)

MacLewee, William S., assignor to C. H. MacLewee, Yardley, Pa. Fuse-plug. No. 1,243,849; Oct. 23; v. 243; p. 856.

MacLewee, William S., assignor to C. H. MacLewee, Yardley, Pa. Fuse-plug. No. 1,243,850; Oct. 23; v. 243; p. 856.

MacLewee, William S., assignor to C. H. MacLewee, Yardley, Pa. Fuse-plug. No. 1,243,851; Oct. 23; v. 243; p. 857.

MacNeill, John B., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Circuit-interrupter. No. 1,241,533; Oct. 2; v. 243; p. 20.

MacQuaid, William, Allentown, Pa. Rail-joint. No. 1,243,322; Oct. 16; v. 243; p. 661.

Macé, Jules, Grasse, France. Keyless lock. No. 1,241,532; Oct. 2; v. 243; p. 19.

Mack, Elmer E., Fort Scott, Kans. Automatic window-fastener. No. 1,242,830; Oct. 9; v. 243; p. 474.

Mackay, James P., New York, N. Y. Door-securing device. No. 1,243,618; Oct. 16; v. 243; p. 749.

Mackenzie, Fred L., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Making nail-strings. No. 1,241,868; Oct. 2; v. 243; p. 127.

Mackle, William J., St. Louis, Mo. Attachment for drill-presses. No. 1,244,112; Oct. 23; v. 243; p. 935.

Macklind, William R., Cleveland, and E. C. Holton, Olmstead Falls, assignors to The Sherwin-Williams Company, Cleveland, Ohio. Making an insecticide. No. 1,243,323; Oct. 16; v. 243; p. 661.

Macklind, William R., and E. C. Holton, assignors to The Sherwin Williams Company, Cleveland, Ohio. Insecticidal composition. No. 1,244,453; Oct. 23; v. 243; p. 1036.

Madison, John H., Jr., Lake Geneva, Wis. Vehicle-body. No. 1,242,221; Oct. 9; v. 243; p. 279.

Madson, Clarence, Emmons, Minn. Elevated-carrier lock. No. 1,244,353; Oct. 23; v. 243; p. 1007.

Magami, Steven, Kamloops, British Columbia, Canada. Slate-pencil holder. No. 1,244,877; Oct. 30; v. 243; p. 1204.

Magee, Chauncey L. C., assignor of one-third to H. F. Smith and one-third to G. R. Quin, Chicago, Ill. Internal-combustion-engine water-heater. No. 1,242,711; Oct. 9; v. 243; p. 436.

Magee, James F., and C. B. Hindon, Syracuse, N. Y. Gas-heated radiator. No. 1,243,324; Oct. 16; v. 243; p. 661.

Magnetic Phonograph Company. (See Marble, Harry M., assignor.)

Maguire, Alexander E., Sillery, Quebec, Canada. Ecclesiastical ritual case. No. 1,242,570; Oct. 9; v. 243; p. 391.

Maher, Stephen J. (See Ruit and Maher.)

Mahoney, Clarence, assignor to G. I. Sellers & Sons Company, Elwood, Ind. Latch for doors of kitchen-cabinets, &c. No. 1,243,325; Oct. 16; v. 243; p. 662.

Mahoney, Joseph N., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Circuit-interrupter. No. 1,241,534; Oct. 2; v. 243; p. 20.

Mainwaring, John, Spring Green, Wis. Fruit-picker. No. 1,241,642; Oct. 2; v. 243; p. 56.

Majestic Electric Development Company. (See Brown, Edmund N., assignor.)

Maloney, Gilbert R., Holden, Mo. Automatic brake. No. 1,244,354; Oct. 23; v. 243; p. 1007.

Maltby, Julius, assignor to Waterbury Buckle Co., Waterbury, Conn. Buckle. No. 1,242,571; Oct. 9; v. 243; p. 392.

Manchester, Jerome J., Indianapolis, Ind. Toy. No. 1,241,535; Oct. 2; v. 243; p. 20.

Mandelbaum, Maurice H., Chicago, Ill. Coin-register. No. 1,243,619; Oct. 16; v. 243; p. 749.

Manhattan Electrical Supply Company. (See Peterson and Huebel, assignors.)

Manly, Charles M., Freeport, N. Y. Control mechanism for variable-speed gears. No. 1,244,878; Oct. 30; v. 243; p. 1204.

Mann, Ira A., Pittsburgh, Pa. Plumbing-fixture. No. 1,242,572; Oct. 9; v. 243; p. 392.

Mansbach, Conrad B., assignor of one-half to F. L. Price, Brockton, Mass. Composite heel. No. 1,241,643; Oct. 2; v. 243; p. 57.

Mansell, Enoch E., and W. H. Warner, Castlerock, Wash. Radiator. No. 1,242,961; Oct. 16; v. 243; p. 549.

Mansfield, Harry R., Racine, Wis., assignor to Racine Handy Manufacturing Company. Wind-shield cleaner. No. 1,241,644; Oct. 2; v. 243; p. 57.

Maphet, George W. (See Simonton and Maphet.)

Marble, Harry M., Newark, N. J., assignor to Magnetic Phonograph Company, New York, N. Y. Diaphragm-mounting. No. 1,242,222; Oct. 9; v. 243; p. 280.

Marcellus, Percy S., Orange, N. J. Movable-top desk. No. 1,244,523; Oct. 30; v. 243; p. 1096.

Marconi Wireless Telegraph Company of America. (See Shoemaker, Harry, assignor.)

Marconi Wireless Telegraph Company of America. (See Wright, George M., assignor.)

Markowitz, Benjamin. (See Kipniss and Neumann, assignors.)

Marks, Albert, *et al.* (See Grove, Edward H., assignor.)

Marks, Paul J., assignor to Eastman Kodak Company, Rochester, N. Y. Photographic shutter. No. 1,243,086; Oct. 16; v. 243; p. 591.

Marky, William, Buffalo, N. Y. Brake mechanism for railway-cars. No. 1,242,360; Oct. 9; v. 243; p. 323.

Marsh, Bert, Twin Falls, Idaho. Check-holder. No. 1,243,326; Oct. 16; v. 243; p. 662.

Marshall, Harry E., Detroit, Mich. Climber for linemen. No. 1,243,436; Oct. 16; v. 243; p. 694.

Marshall, William E., Maspeth, N. Y. Check-indorsing machine. No. 1,244,524; Oct. 30; v. 243; p. 1096.

Martin, Haakon A., assignor to The National Cash Register Company, Dayton, Ohio. Cash-register. No. 1,244,063; Oct. 23; v. 243; p. 920.

Martin, Milford B., Spokane, Wash. Cabinet. No. 1,244,879; Oct. 30; v. 243; p. 1205.

Martin, Patrick A., and J. Stanley, Birmingham, England. Golf and other playing-ball. No. 1,242,832; Oct. 9; v. 243; p. 474.

Martin, Ralph W., Bellevue borough, Pa. Moving-picture machine. No. 1,241,869; Oct. 2; v. 243; p. 127.

Martin, Talbot G., assignor to Automatic Electric Company, Chicago, Ill. Measured-service telephone system. No. 1,243,749; Oct. 23; v. 243; p. 824.

Martin, Thomas J. (See Rogers, Edmund, assignor.)

Martindale, Frank L., Bay City, Mich. Recorder. No. 1,244,113; Oct. 23; v. 243; p. 935.

Martinez, Frank A., Conejos, Colo. Stone-rake. No. 1,243,327; Oct. 16; v. 243; p. 662.

Martini & Hilneke Maschinenbau Aktien-Gesellschaft. (See Hurlbrink, Ernst, assignor.)

Martyn, David L., North Yakima, Wash. Multitime separator and distributer. No. 1,243,852; Oct. 23; v. 243; p. 857.

Marusawa, Tsuneya, Fukuoka, Japan. Manufacturing paper-pulp. No. 1,244,525; Oct. 30; v. 243; p. 1096.

Mason, Charles T., Sumter, S. C., assignor, by mesne assignments, to Splitdorf Electrical Company, Newark, N. J. Ignition-dynamo. (Reissue.) No. 14,373; Oct. 2; v. 243; p. 209.

Mason, Irving W., Aberdeen, Wash. Poison-indicator. No. 1,241,536; Oct. 2; v. 243; p. 21.

Mason, Robert G., Brooklyn, N. Y. Demountable rim for vehicle-wheels. No. 1,243,087; Oct. 16; v. 243; p. 591.

Massey, James O. (See Lewis, McClain, Skeen, and Massey.)

Massicotte, Louis G., Providence, R. I., and G. C. Boswell, Danielson, Conn., assignors to M-B Tool Company, Providence, R. I. Valve-grinder. No. 1,244,526; Oct. 30; v. 243; p. 1096.

Masters, Richard, Dudley, England. Furnace for annealing metals. No. 1,241,750; Oct. 2; v. 243; p. 90.

Mastin, Charles I. E. and C. R., Hawthorne, N. J. Packing. No. 1,245,002; Oct. 30; v. 243; p. 1242.

Mastin, Charles I. E. and C. R., Hawthorne, N. J. Packing. No. 1,245,003; Oct. 30; v. 243; p. 1242.

Mastin, Charles R. (See Mastin, Charles I. E. and C. R.)

Mateer, Jesse E., and W. R. Woodward, Wilkinsburg, Pa., assignors to Westinghouse Electric and Manufacturing Company. Transformer for metering systems. No. 1,242,962; Oct. 16; v. 243; p. 550.

Mathers, Ezra A., New York, N. Y. Smelting process and apparatus. No. 1,242,833; Oct. 9; v. 243; p. 474.

Mathers, John A., Grenfell, Saskatchewan, Canada, assignor of one-third to M. H. Neill and G. C. Neff. Envelop moistener and sealer. No. 1,241,645; Oct. 2; v. 243; p. 57.

Mathews, Fred, assignor to C. C. Murphy, Chicago, Ill. Car-door. No. 1,244,626; Oct. 30; v. 243; p. 1126.

Mathison, George W., Denver, Colo. Dispensing-machine. No. 1,241,646; Oct. 2; v. 243; p. 57.

Matragos, Nick, Dallas, Tex. Pad for lower limbs. No. 1,244,527; Oct. 30; v. 243; p. 1097.

Matson, Isaac V., Waterport, N. Y. Grading-machine. No. 1,242,573; Oct. 9; v. 243; p. 392.

Matson, Julius, Glenwood, assignor to Steger & Sons Piano Manufacturing Company, Steger, Ill. Phonograph-tone-arm connection. No. 1,243,853; Oct. 23; v. 243; p. 857.

Matson, Julius, Glenwood, assignor to Steger & Sons Piano Manufacturing Company, Steger, Ill. Phonograph-tone-arm connection. No. 1,243,854; Oct. 23; v. 243; p. 857.

Matteoli, William M., Covington, Ky. Focusing device for lamps. No. 1,244,880; Oct. 30; v. 243; p. 1205.

Mattern, Edwin S., Allentown, Pa. Machine for cutting seed-potatoes. No. 1,243,538; Oct. 16; v. 243; p. 724.

Matteson, Frank E., Los Angeles, Cal. Lock-switch. No. 1,242,013; Oct. 2; v. 243; p. 174.

Matthews, Harrison C., Abbott, Tex. Safety car-net. No. 1,242,834; Oct. 9; v. 243; p. 475.

Matthews, James, Vancouver, British Columbia, Canada. Carriage for overhead tracks. No. 1,241,537; Oct. 2; v. 243; p. 21.

Mattice, John H., Clyde, Kans. Permutation-lock. No. 1,244,064; Oct. 23; v. 243; p. 920.

Mattson, Charles B., Puyallup, assignor of one-half to E. P. Chadwick, Olympia, Wash. Operating structure for closures. No. 1,241,538; Oct. 2; v. 243; p. 21.

Max Ams Machine Company, The. (See Brenzinger, Julius, assignor.)

Maxfer Truck and Tractor Company. (See Greer, Erwin, assignor.)

May, David T., assignor to Western Electric Company, Incorporated, New York, N. Y. Lightning-arrester. No. 1,242,014; Oct. 2; v. 243; p. 174.

May, David T., assignor to Western Electric Company, Incorporated, New York, N. Y. Vacuum lightning-arrester. No. 1,244,528; Oct. 30; v. 243; p. 1097.

May, Edward M., Ann Arbor, Mich. Shock-absorber. No. 1,242,574; Oct. 9; v. 243; p. 393.

Mayer, Heinrich, Arbon, and G. Schlatter, Steinach, assignors to Firma A. Saurer, Arbon, Switzerland. Lifting device for automobile-engines. No. 1,242,712; Oct. 9; v. 243; p. 436.

Mayer, Walter S., assignor to D & W Fuse Company, Providence, R. I. Circuit-breaker. No. 1,244,225; Oct. 23; v. 243; p. 969.

Mayfield, William H., Wamic, Oreg. Truck. No. 1,245,004; Oct. 30; v. 243; p. 1242.

Maynor, John W. (See Ledbetter, Ralph W., assignor.)

Mazurek, Antoni, Detroit, Mich. Animal-trap. No. 1,243,088; Oct. 16; v. 243; p. 592.

McAlister, Ramey, Washburn, Tex. Garment-hanger. No. 1,242,829; Oct. 9; v. 243; p. 473.

McAlpine, Thomas M., Westminster, London, England. Tunneling. No. 1,242,217; Oct. 9; v. 243; p. 278.

McAtee, William A., *et al.* (See Norman, Frank, assignor.)

McBride, Archibald J., Montreal, Quebec, Canada. Shirt-waist. No. 1,243,196; Oct. 16; v. 243; p. 623.

McCabe, Joseph S. (See Worley, Henry F., assignor.)

McCaffrey, Peter F., Spokane, Wash. Roof-flashing. No. 1,244,750; Oct. 30; v. 243; p. 1166.

McCann, Charles A., Springfield, Ill. Churn. No. 1,242,218; Oct. 9; v. 243; p. 278.

McCaskell, Jasper A., Salt Lake City, Utah, assignor, by mesne assignments, to United Filters Corporation. Head-locking mechanism. No. 1,244,222; Oct. 23; v. 243; p. 968.

McCaskey Register Company, The. (See Hick, Harry J., assignor.)

McCaskey Register Company, The. (See Silvius, Ellis T., assignor.)

McCauley, Herbert J., Buffalo, assignor to The Rand Systems Corporation, Tonawanda, N. Y. Index-frame. No. 1,244,622; Oct. 30; v. 243; p. 1126.

McClain, Arthur E. (See Lewis, McClain, Skeen, and Massey.)

McClary Manufacturing Co., The. (See Gunn, John M., assignor.)

McClay, Clarence G. (See McClay, William W. and C. G.)

McClay, William W. and C. G., Chicago, Ill. Spring-wheel. No. 1,242,459; Oct. 9; v. 243; p. 355.

McClay, William W. and C. G., Chicago, Ill. Receptacle. No. 1,243,315; Oct. 16; v. 243; p. 659.

McClay, William W. and C. G., Chicago, Ill. Lamp attachment for sewing-machines. No. 1,243,316; Oct. 16; v. 243; p. 659.

McClay, William W. and C. G., Chicago, Ill. Mailing-card. No. 1,244,522; Oct. 30; v. 243; p. 1095.

McCleary, Aretas S., Kansas City, Mo. Rectal plug. No. 1,244,751; Oct. 30; v. 243; p. 1166.

McClees, Albert J., Ellisville, Ill. Fence. No. 1,244,623; Oct. 30; v. 243; p. 1127.

McClellon, James M. (See Doherty, Harry B., assignor.)

McClenahan, Walter L., Council Bluffs, Iowa. Coin-holder. No. 1,242,358; Oct. 9; v. 243; p. 322.

McClintock, Frank, Grand Junction, Colo. Valve for internal-combustion-engines. No. 1,242,460; Oct. 9; v. 243; p. 355.

McCluer, Anna T., New York, assignor of one-half to J. R. Taylor, Brooklyn, N. Y. Educational appliance. No. 1,243,957; Oct. 23; v. 243; p. 888.

McClure, Loyal A., assignor to Universal Elevated Railway Company, Incorporated, Seattle, Wash. Monorail traction-wheel. No. 1,241,748; Oct. 2; v. 243; p. 89.

McConnel, Rolla. (See Wolford, William O., assignor.)

McCool, Edward F., assignor to The McCool Mfg. & Trading Co., Victor, Colo. Grinding-mill. No. 1,241,749; Oct. 2; v. 243; p. 90.

McCool Mfg. & Trading Co., The. (See McCool, Edward F., assignor.)

McCormick, John I., assignor to U. S. Slicing Machine Company, Chicago, Ill. Meat-adjusting plate for slicing-machines. No. 1,242,958; Oct. 16; v. 243; p. 548.

McCoy, Edward A. (See Weiss, Arthur J., assignor.)

McCoy, Fred C., *et al.* (See Bowen, Frank J., assignor.)

McCready, Frank L., *et al.* (See Lester, Charles, assignor.)

McCready, John R., Duncansville, Pa. Railway-tie. No. 1,243,084; Oct. 16; v. 243; p. 590.

McCrosson, John T., Honolulu, Hawaii. Motor-vehicle load-compensator. No. 1,244,752; Oct. 30; v. 243; p. 1166.

McCulloch, Leon, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Cement. No. 1,241,531; Oct. 2; v. 243; p. 19.

McCutchen, Lee R., Memphis, Tenn. Electric starting mechanism. No. 1,242,959; Oct. 16; v. 243; p. 549.

McDaniel, Walter O., assignor to Schroeter Brothers Hardware Company, St. Louis, Mo. Toy cannon. No. 1,244,876; Oct. 30; v. 243; p. 1204.

McDermott, George L., Denver, Colo. Separable tool. No. 1,243,434; Oct. 16; v. 243; p. 693.

McDivitt, William O., Bovina, N. Y. Ironing-board. No. 1,242,461; Oct. 9; v. 243; p. 356.

McDonald, Alexander J., Pittsburgh, Pa. Anchor-bolt. No. 1,242,569; Oct. 9; v. 243; p. 391.

McDonald, Charles D., Chicago, Ill. Attachment for ejectors of die-presses or like machines. No. 1,243,435; Oct. 16; v. 243; p. 693.

McDonald, Frank M., Los Angeles, Cal. Surgical apparatus. No. 1,244,624; Oct. 30; v. 243; p. 1127.

McDonald, William J., Huntington, W. Va., assignor to American Car and Foundry Company, St. Louis, Mo. Oiler with cast ductile casings. No. 1,244,753; Oct. 30; v. 243; p. 1166.

McDougall, Alexander, Duluth, Minn. Auxiliary-hydraulic steering device for vessels. No. 1,243,197; Oct. 16; v. 243; p. 624.

McDougall, Alexander, Duluth, Minn. Jury-rigged sail for ships. No. 1,243,198; Oct. 16; v. 243; p. 624.

McDowell, Charles A., Prineville, Oreg. Currycomb. No. 1,243,846; Oct. 23; v. 243; p. 855.

McElroy, Robert L., New York, N. Y. Muffler. No. 1,242,219; Oct. 9; v. 243; p. 279.

McEwen, Norman S., Nashville, Tenn. Pneumatic coupling. No. 1,245,115; Oct. 30; v. 243; p. 1276.

McEwen, Willard M. (See Olson, Gustaf, assignor.)

McFarland, Melvin F., Buffalo, N. Y. Toilet-case for automobiles. No. 1,243,958; Oct. 23; v. 243; p. 889.

McGee, William J., Daisy, Ga. Dumping-wagon. No. 1,245,000; Oct. 30; v. 243; p. 1241.

McGiffert, John R., assignor to Clyde Iron Works, Duluth, Minn. Cable-block. No. 1,243,847; Oct. 23; v. 243; p. 856.

McGill, William L., Foster, Ky. Animal-yoke. No. 1,245,116; Oct. 30; v. 243; p. 1276.

McGlincy, James H. (See Hood, Anderson, Fetters, McGlincy, Gagnon, and Kidder.)

McGowan, Richard F., Columbus, Ohio. Furnace. No. 1,243,959; Oct. 23; v. 243; p. 889.

McGuckin, Hugh, Syracuse, N. Y. Tractor-belt. No. 1,245,001; Oct. 30; v. 243; p. 1241.

McIntosh, William J., Tallassee, Ala. Gearing. No. 1,244,228; Oct. 23; v. 243; p. 968.

McIntosh, Burtnett, Brooklyn, N. Y., assignor to F. A. Hall, Montclair, N. J. Bed-bottom or the like. No. 1,242,960; Oct. 16; v. 243; p. 549.

McIntosh, Robert L., Wilmette, and R. G. Taylor, Chicago, Ill. Draft-gear. No. 1,243,085; Oct. 16; v. 243; p. 591.

McIntyre, Isabella, Bryn Mawr, Pa. Casing for bottles. No. 1,241,640; Oct. 2; v. 243; p. 56.

McKee, Emelius M. (See Saxton, Thomas G., assignor.)

McKee, Ralph H., Orono, Me., assignor to New Process Gasoline Co., Philadelphia, Pa. Producing toluene. No. 1,244,444; Oct. 23; v. 243; p. 1034.
McKelvey, Archibald L., St. Louis, Mo. Torpedo or mine guard. No. 1,243,848; Oct. 23; v. 243; p. 856.
McKendrick, James, Brooklyn, N. Y. Cloth-fold protector. No. 1,242,709; Oct. 9; v. 243; p. 435.
McKenna, Felix J., Seattle, Wash. Oil-burner. No. 1,242,359; Oct. 9; v. 243; p. 323.
McKenzie, Hugh B., Beecher City, Ill. Automobile steering-gear. No. 1,243,317; Oct. 16; v. 243; p. 659.
McKinnon Dash Company. (See Armstrong, Wesley J., assignor.)
McLaren, Alexander, Chicago, Ill. Machine for molding and baking pastry cups and method of extracting the product from the molds. No. 1,243,318; Oct. 16; v. 243; p. 660.
McLaughlin, James E., and D. Bordeleau, Grand Mere, Quebec, Canada. Seal-lock for freight-car doors. No. 1,244,625; Oct. 30; v. 243; p. 1127.
McLaughlin, John O., Cadiz, Ohio. Loose-leaf binder. No. 1,243,319; Oct. 16; v. 243; p. 660.
McLaughlin, Nora, Seattle, Wash. Composition for waterproofing and preserving leather. No. 1,244,062; Oct. 23; v. 243; p. 920.
McMillan, Frank P., assignor to National Tube Company, Pittsburgh, Pa. Method of and apparatus for threading pipes. No. 1,243,321; Oct. 16; v. 243; p. 661.
McMillen, Erwin D., Omaha, Nebr. File-cleaning implement. No. 1,242,710; Oct. 9; v. 243; p. 436.
McMillen, Samuel, Pittsburgh, Pa. Manufacture of rolls, &c. No. 1,241,867; Oct. 2; v. 243; p. 126.
McMullen, John. (See Cameron and McMullen.)
McMunn, George W., Pittsburgh, Pa. Distribution of cars in yards. No. 1,242,220; Oct. 9; v. 243; p. 279.
McMurtrie, Adnah, New York, N. Y. Connector for electrical conduits. No. 1,243,748; Oct. 23; v. 243; p. 824.
McNally, Leo F., Salamanca, assignor to H. W. Rich, Buffalo, N. Y. Grinding-machine. No. 1,244,352; Oct. 23; v. 243; p. 1006.
McNary, William R., Detroit, Mich. Switch. No. 1,244,110; Oct. 23; v. 243; p. 934.
McPherson, Columbus, Dacono, Colo. Grab-hook. No. 1,243,617; Oct. 16; v. 243; p. 749.
McRae, Walter R., and R. Russell, Toronto, Ontario, Canada. Division-piece or partition for a controller arc-deflector, circuit-breaker, and the like. No. 1,244,224; Oct. 23; v. 243; p. 969.
McSheehy, Bartholomew E. (See Africa and McSheehy.)
Meas, Augustus, and F. C. Moll, assignors to Niagara Automatic Hose Reel Company, Incorporated, Niagara Falls, N. Y. Hose-storing apparatus. No. 1,242,015; Oct. 2; v. 243; p. 175.
Megow, Charles F., Detroit, Mich. Traction bearing-wheel. No. 1,241,870; Oct. 2; v. 243; p. 127.
Mehle, Michael, assignor of nine-fortieths to J. G. Banse and nine-fortieths to C. Petersen, Cleveland, Ohio. Rotary motor. No. 1,244,529; Oct. 30; v. 243; p. 1097.
Meier, Edward C., Phoenixville, Pa. Superheater for boilers. No. 1,244,530; Oct. 30; v. 243; p. 1098.
Meier, Edward C., Phoenixville, Pa. Boiler. No. 1,245,005; Oct. 30; v. 243; p. 1242.
Meirowsky, Max, Cologne-Lindenthal, Germany. Making mica plates. No. 1,241,539; Oct. 2; v. 243; p. 22.
Melhuish, William J., Parkstone, England. Substitute for milk, made from soya-beans and arachis (peat) nuts. No. 1,243,855; Oct. 23; v. 243; p. 858.
Mella, Martin, assignor to Commercial Truck Company of America, Philadelphia, Pa. Battery-cover-removing device. No. 1,243,539; Oct. 16; v. 243; p. 724.
Mellis, Daniel. (See Thomson, Charles A., assignor.)
Melnik, George, and K. Schultz, Philadelphia, Pa. Ship-protector. No. 1,244,627; Oct. 30; v. 243; p. 1128.
Menard, Edward. (See Robert and Menard.)
Mendelsohn, Edward, assignor to Carbon Cleaning Compound Company, St. Louis, Mo. Composition of matter for removing incrustations from internal-combustion engines. No. 1,244,114; Oct. 23; v. 243; p. 935.
Mendelsohn, Harry, Westfield, N. J. Coin-handling machine. No. 1,242,016; Oct. 2; v. 243; p. 175.
Mendelsohn, Harry, Mount Vernon, N. Y. Stamp-rack. No. 1,242,017; Oct. 2; v. 243; p. 175.
Mentzer, Claude E., Des Moines, Iowa. Light-ray deflector. No. 1,245,006; Oct. 30; v. 243; p. 1243.
Menzenbach, William F., Elk River, Idaho. Weeder and cultivator. No. 1,244,531; Oct. 30; v. 243; p. 1099.
Menzies, John, New Haven, Conn. Screw-seated valve. No. 1,244,881; Oct. 30; v. 243; p. 1205.
Merrick, Frank W., assignor to Union Lock Stitch Company, Boston, Mass. Lasting-machine. No. 1,245,117; Oct. 30; v. 243; p. 1276.
Merrill, Earl S., Golconda, Nev. Rack. No. 1,243,856; Oct. 23; v. 243; p. 858.
Merrow, Joseph M., assignor to The Merrow Machine Company, Hartford, Conn. Sewing-machine. No. 1,243,089; Oct. 16; v. 243; p. 592.
Merrow, Joseph M., assignor to The Merrow Machine Company, Hartford, Conn. Sewing-machine. No. 1,244,115; Oct. 23; v. 243; p. 935.
Merrow Machine Company, The. (See Avis, Samuel W., assignor.)
Merrow Machine Company, The. (See Merrow, Joseph M., assignor.)
Mertz, Otto L., Gladstone, Mich. Package-tie. No. 1,241,647; Oct. 2; v. 243; p. 58.
Merwin, George M., Berwyn, Ill., assignor to International Harvester Company of New Jersey. Delivery-pipe for fodder-cutters. No. 1,241,540; Oct. 2; v. 243; p. 22.
Merwin, George M., Berwyn, Ill., assignor to International Harvester Company of New Jersey. Ensilage-cutter. No. 1,241,541; Oct. 2; v. 243; p. 22.
Messler, Arnold C. (See Swenson, Carl W., assignor.)
Mester, Michael, Chicago, Ill. Animal-trap. No. 1,242,462; Oct. 9; v. 243; p. 356.
Mestler, Arthur J., *et al.* (See Fucich, Emile E., assignor.)
Metallic Sash-Operator Company Corporation. (See Quernheim and Neuhoff, assignors.)
Metallurgical Laboratories. (See Fulton, Charles H., assignor.)
Metallurgical Laboratories. (See Fulton and Bains, assignors.)
Metallurgical Laboratories. (See Jackson, Raymond O., assignor.)
Metals Research Company. (See Bacon, Raymond F., assignor.)
Metzger, Jules P., Carlstadt, assignor to The Leslie Company, Lyndhurst, N. J. Pressure-regulator. No. 1,244,223; Oct. 23; v. 243; p. 969.
Meyer, Anthony. (See Benedict, Fred L., assignor.)
Meyer, Erwin E. A. G., Detroit, Mich., assignor to Morgan & Wright. Rubber compound and making same. No. 1,242,886; Oct. 9; v. 243; p. 491.
Meyer, Maurice W., *et al.* (See Jones, Edward S., assignor.)
Meyer, Norman H., *et al.* (See Jones, Edward S., assignor.)
Meyer, William, Jr., Swedeburg, Nebr. Hobble. No. 1,244,628; Oct. 30; v. 243; p. 1128.
Meyers, John J., assignor to J. A. Fay & Egan Company, Cincinnati, Ohio. Self-feed sawing-machine. No. 1,241,871; Oct. 2; v. 243; p. 128.
Michael, Norman R., Mainville, Pa. Spark-plug attachment. No. 1,241,751; Oct. 2; v. 243; p. 91.
Michaud, Joseph O., Fort Kent, Me. Auxiliary brake for automobiles. No. 1,243,960; Oct. 23; v. 243; p. 889.
Mcliulls, Anthony Z., Chicago, Ill. Air-pump. No. 1,241,872; Oct. 2; v. 243; p. 128.
Mid-West Manufacturing Co. (See Hopkins, Arthur C., assignor.)
Middleditch, Lyman, Scarsdale, N. Y. Sheet-feeding machine. No. 1,244,755; Oct. 30; v. 243; p. 1167.
Mieher, Gustave H. (See Wargensted, Henry C., assignor.)
Miehle Printing Press & Manufacturing Company. (See Stevens, Burt D., assignor.)
Milano, Silvestro, New York, N. Y. Signal mechanism. No. 1,242,575; Oct. 9; v. 243; p. 393.
Millard, Edward F., Watertown, Mass. Paper and making the same. No. 1,244,116; Oct. 23; v. 243; p. 936.
Millard, Robley C., Atlanta, Ga. Block-signaling system. No. 1,241,873; Oct. 2; v. 243; p. 129.
Millea, Thomas D., assignor to Try Me Manufacturing Company, Springfield, Mass. Combined pressure reducing and relief valve. No. 1,242,713; Oct. 9; v. 243; p. 436.
Miller, Albert E., Geneseo, Ill. Fodder-rack. No. 1,242,361; Oct. 9; v. 243; p. 323.
Miller, Albert F. (See Peters and Miller.)
Miller, Andrew F., assignor to E. R. Jones, Columbus, Ohio. Water-motor. No. 1,243,199; Oct. 16; v. 243; p. 624.
Miller, Anna C., assignor of one-fourth to F. J. Schadel, Kansas City, Mo. Well-drill. No. 1,244,882; Oct. 30; v. 243; p. 1206.
Miller, Clifford G., New York, N. Y. Signal apparatus. No. 1,244,065; Oct. 23; v. 243; p. 920.
Miller, Daniel B., Wheeling, W. Va. Adjustable table. No. 1,243,750; Oct. 23; v. 243; p. 825.
Miller, Du Brul & Peters Mfg. Co., The. (See Du Brul, Albert, assignor.)
Miller, Du Brul and Peters Manufacturing Co., The. (See Fearon, Thomas E., assignor.)
Miller, Edwin L., Millersburg, Ohio. Automatic gear-shift for automobiles. No. 1,244,629; Oct. 30; v. 243; p. 1128.
Miller, Frank F., assignor to E. Hicks, Yankton, S. D. Rubbing-post. No. 1,243,961; Oct. 23; v. 243; p. 890.
Miller, Frank P., Meadville, Pa. Reamer. No. 1,244,227; Oct. 23; v. 243; p. 970.
Miller, George. (See Rumens, George J., assignor.)
Miller, George M. (See Hoover and Miller.)
Miller, Henry, Newark, and F. Mueller, Irvington, assignors of one-third to R. C. Hunter, Newark, N. J. Lamp. No. 1,241,874; Oct. 2; v. 243; p. 130.
Miller, Henry C., Milwaukee, Wis. Loose-leaf binder. No. 1,242,018; Oct. 2; v. 243; p. 175.
Miller, Homer E., Columbus, Ga., assignor of one-half to W. E. Knowles and one-half to E. E. Yonge. Automobile-switch control. No. 1,241,752; Oct. 2; v. 243; p. 91.
Miller, Hugh W., Princeton, Ind. Shears. No. 1,243,540; Oct. 16; v. 243; p. 725.
Miller, James B., assignor, by mesne assignments, to The Fi-Bo-Pak Company, Rochester, N. Y. Basket and handle therefor. No. 1,241,542; Oct. 2; v. 243; p. 22.
Miller, John, Seattle, assignor of one-fourth to N. Krantz and one-fourth to H. Krantz, King county, Wash. Manufacturing fuel. No. 1,241,648; Oct. 2; v. 243; p. 58.

Miller, Joseph, Hartford, Wis. Motor-driven sleigh. No. 1,242,963; Oct. 16; v. 243; p. 550.
Miller, Max C., Cumberland Hill, assignor to Jenckes Knitting Machine Company, Pawtucket, R. I. Knitting-machine. No. 1,245,007; Oct. 30; v. 243; p. 1243.
Miller, Reginald R. (See Kuhn and Miller.)
Miller, Robert, New York, N. Y. Puppet-valve. No. 1,242,576; Oct. 9; v. 243; p. 393.
Miller, Theodore T., West Sufield, Conn. Resilient tire. No. 1,243,328; Oct. 16; v. 243; p. 663.
Miller, Thomas S., South Orange, N. J. Excavating-bucket. No. 1,244,117; Oct. 23; v. 243; p. 936.
Miller, Valentine W., Fonda, Iowa. Aerial mail-carrier. No. 1,242,835; Oct. 9; v. 243; p. 475.
Milliken, John A., Bayonne, N. J. Chuck. No. 1,243,090; Oct. 16; v. 243; p. 592.
Mills, Albert J. (See Willard, Daniel M., assignor.)
Mills, Herbert S. (See Sandell, Henry K., assignor.)
Mills, Robert D. (See Murphy, Quillain R., assignor.)
Mills, William, Birmingham, England. Folding seat-stick. No. 1,241,753; Oct. 2; v. 243; p. 91.
Milmoe, Michael J., assignor to W. C. Ritchie & Company, Chicago, Ill. Box-cover-shell-making machine. No. 1,244,066; Oct. 23; v. 243; p. 921.
Milne, George G., Rye, and W. F. Richards, Buffalo, N. Y., assignors to Gould Coupler Company. Driving connection. No. 1,242,577; Oct. 9; v. 243; p. 394.
Milwaukee Lace Paper Co. (See Harvey, Harold C., assignor.)
Miner, William H. (See Haseltine, Stacy B., assignor.)
Miner, William H. (See O'Connor, John F., assignor.)
Miner, William H. (See Patch, Calvin B., assignor.)
Mingus, Lessie, Coalinga, Cal. Dressmaker's hem-gage. No. 1,244,355; Oct. 23; v. 243; p. 1007.
Minneapolis Bedding Company. (See Walstrom, Charles W., assignor.)
Mitchell, Arthur D., Detroit, Mich. Hat. No. 1,242,964; Oct. 16; v. 243; p. 551.
Mitchell, Augusta V., Washington, D. C. Spring-wheel hub. No. 1,242,463; Oct. 9; v. 243; p. 356.
Mitchell, Fred, Nederland, Colo. Valve. No. 1,244,630; Oct. 30; v. 243; p. 1129.
Mitchell, James A., McCrory, Ark. Water-lift. No. 1,244,631; Oct. 30; v. 243; p. 1129.
Mitchell, Oscar A., Sikeston, Mo. Lifting device. No. 1,244,228; Oct. 23; v. 243; p. 970.
Mitchell, Walter L., Picayune, Miss. Rail-tie. No. 1,242,836; Oct. 9; v. 243; p. 475.
Mitchell, William M., Louisville, Ky. Rail-anchor. No. 1,244,356; Oct. 23; v. 243; p. 1007.
Mittasch, Alwin. (See Bosch and Mittasch.)
Mittendorf, Edward F., Addieville, Ill. Combined road scraper and drag. No. 1,243,329; Oct. 16; v. 243; p. 663.
Moberg, Oscar, assignor to Landers, Frary & Clark, New Britain, Conn. Apparatus for the manufacture of glassware. No. 1,242,837; Oct. 9; v. 243; p. 476.
Modern Specialty Company. (See Edwards, Ralph H., assignor.)
Mohr, John D., Oil City, Pa. Postage-stamp receptacle and applying device. No. 1,244,532; Oct. 30; v. 243; p. 1099.
Molden, Harry, Sydney, Australia, assignor to Sargent & Company, New Haven, Conn. Lock. No. 1,241,754; Oct. 2; v. 243; p. 91.
Moline Plow Company. (See Dickinson, Harry S., assignor.)
Moline Plow Company. (See Funk, Truman B., assignor.)
Moline Plow Company. (See Smith, Orbin F., assignor.)
Molinié, Raymond J., Lyon, France. Barrow for carrying stretchers for wounded. No. 1,242,887; Oct. 9; v. 243; p. 491.
Moll, Frederick C. (See Meas and Moll.)
Molt, Fred J. (See Jones, Chesney L., assignor.)
Monarch Metal Weather Strip Company. (See Lane, Alfred M., assignor.)
Monitor Controller Company. (See Whittingham, George H., assignor.)
Montgomery, Charles W. (See Fisher, George W., assignor.)
Moody, Jason B., Dallas, Tex. Loose-leaf binder. No. 1,244,756; Oct. 30; v. 243; p. 1167.
Moon, Harold L., Fairmount, N. D. Mail-box for rural free-delivery routes. No. 1,244,229; Oct. 23; v. 243; p. 970.
Moore, Ernst D., and S. L. Fisher, Saybrook, assignors to The Pratt Read Player Action Company, Deep River, Conn. Note-sheet-centering mechanism for player-pianos. No. 1,243,380; Oct. 16; v. 243; p. 663.
Moore, Frank A., Wyandotte, Mich. Truck. No. 1,243,200; Oct. 16; v. 243; p. 624.
Moore, Frederick H., Melrose, Mass. Paper-dispensing holder. No. 1,242,019; Oct. 2; v. 243; p. 176.
Moore, George A., Medford, Mass. Embroidery-hoop. No. 1,244,230; Oct. 23; v. 243; p. 970.
Moore, Harry G., assignor to Corliss Motor Truck Company, Corliss, Wis. Combined dash and toe board for automobiles. No. 1,243,962; Oct. 23; v. 243; p. 890.
Moore, Ira L., Springvale, Me. Steam-boiler. No. 1,244,067; Oct. 23; v. 243; p. 921.
Moore, James L., assignor to Moore Steam Turbine Corporation, Wellsville, N. Y. Steam-turbine. No. 1,242,578; Oct. 9; v. 243; p. 394.
Moore, Leslie E., Long Beach, Cal. Collapsible camp-grate. No. 1,244,357; Oct. 23; v. 243; p. 1008.
Moore, Ray N., Ames, Iowa. Corn-planter. No. 1,243,541; Oct. 16; v. 243; p. 725.
Moore Steam Turbine Corporation. (See Moore, James L., assignor.)
Moore Steam Turbine Corporation. (See Spicer, Elmer D., assignor.)
Moore, Thomas F., assignor to Moore Trench Machine Co., Syracuse, N. Y. Loading-excavator. No. 1,245,118; Oct. 30; v. 243; p. 1277.
Moore Trench Machine Co. (See Moore, Thomas F., assignor.)
Moore, William E., Pittsburgh, Pa. Electric metallurgical furnace and operating the same. No. 1,242,464; Oct. 9; v. 243; p. 356.
Moore, William E., assignor to A. Henderson, Chicago, Ill. Machine for molding and baking containers for ice-cream and the like. No. 1,245,008; Oct. 30; v. 243; p. 1243.
Moore, William J. P., New York, N. Y. Wheel. No. 1,243,751; Oct. 23; v. 243; p. 825.
Moore, William J. P., New York, N. Y. Elastic suspension device for the frames of automobiles and other vehicles. No. 1,243,752; Oct. 23; v. 243; p. 825.
Moore, William R., Fayetteville, Ark. Projectile. No. 1,243,542; Oct. 16; v. 243; p. 725.
Moors, Walter C., assignor of one-half to W. P. Pedley, Owensboro, Ky. Shade-roller lock. No. 1,242,362; Oct. 9; v. 243; p. 323.
Moran, Michael D., assignor of one-half to J. L. Lynch, Chicago, Ill. Safety air-release for cars. No. 1,241,649; Oct. 2; v. 243; p. 58.
Moran, Myles F., Lynn, Mass. Die and die-stock. No. 1,243,543; Oct. 16; v. 243; p. 726.
Morano, Domenico, assignor, by mesne assignments, to Weser Bros. Inc., New York, N. Y. Tracking device for automatic musical instruments. No. 1,243,320; Oct. 16; v. 243; p. 749.
Morden, Stephen R., Idaho Falls, Idaho. Soot-remover. No. 1,242,838; Oct. 9; v. 243; p. 476.
Morgan, Howard, Philadelphia, Pa., assignor to L. H. Morgan, Hollywood, Louisville, Ky. Audible alarm for vehicles. No. 1,245,010; Oct. 30; v. 243; p. 1245.
Morgan, L. H. (See Morgan, Howard, assignor.)
Morgan, Richard E. (See Dade and Morgan.)
Morgan & Wright. (See Meyer, Erwin E. A. G., assignor.)
Morgan & Wright. (See Saunders, Emmett A., assignor.)
Mori, Ikunosuke, Los Angeles, Cal. Manually-operated power-boat. No. 1,244,068; Oct. 23; v. 243; p. 922.
Morison, Donald B., Hartlepool, England. Steam-condensing plant. No. 1,243,201; Oct. 16; v. 243; p. 625.
Morrill, Ernest L. (See Spenard, Napoleon, assignor.)
Morris, Alfred L., *et al.* (See Burns, John H., assignor.)
Morris, Bernard H., Newport News, Va. Making ventilator-terminals. No. 1,243,437; Oct. 16; v. 243; p. 694.
Morris, Bernard H., Newport News, Va. Universal terminal for ventilation-pipes. No. 1,243,438; Oct. 16; v. 243; p. 694.
Morris, Percy, London, England. Color-printing machine. No. 1,243,333; Oct. 16; v. 243; p. 663.
Morris, Thomas C., Atlanta, Ga., assignor to P. Vredenburgh, Jr., Vredenburgh, Ala. Feeding-roller construction. No. 1,242,020; Oct. 2; v. 243; p. 176.
Morse Chain Company. (See Morse, Frank L., assignor.)
Morse, Frank L., assignor to Morse Chain Company, Ithaca, N. Y. Shaft-coupling. No. 1,244,533; Oct. 30; v. 243; p. 1099.
Morse, William F., Rochester, assignor to Huntley Manufacturing Company, Silver Creek, N. Y. Fruit-pitting machine. No. 1,244,757; Oct. 30; v. 243; p. 1168.
Moser, H. Oliver, *et al.* (See Snyder, Charles P., assignor.)
Moser, Vern I., Wichita, Kans. Bottle-vent. No. 1,243,963; Oct. 23; v. 243; p. 890.
Moss, Fred L. (See Hawley and Moss.)
Moss, Isidor, Brookline, Mass. Snap-fastener. No. 1,242,579; Oct. 9; v. 243; p. 395.
Motor-Compressor Company, The. (See Spohrer, Gregory J., assignor.)
Motor Development Company. (See Bruah, Howard R., assignor.)
Motors Lock Company of America. (See Swyers, Brice P., assignor.)
Moft, Abram C., Jr., Lansdale, Pa. Top plate and cover for gas-stoves. No. 1,242,021; Oct. 2; v. 243; p. 176.
Mott, William R., Lakewood, Ohio, assignor, by mesne assignments, to National Carbon Company, Inc. Arc-lamp electrode. No. 1,244,358; Oct. 23; v. 243; p. 1008.
Mott, William R., Lakewood, Ohio, assignor, by mesne assignments, to National Carbon Company, Inc. Arc-lamp electrode. No. 1,244,359; Oct. 23; v. 243; p. 1008.
Mottlau, August J., assignor to G. E. M. Engineering Company, Philadelphia, Pa. Automatic camera. No. 1,241,650; Oct. 2; v. 243; p. 58.
Mouche, Emile A., Lyon, France. Inclined saw. No. 1,244,231; Oct. 23; v. 243; p. 971.
Mouche, Emile A., Lyon, France. Inclined saw. No. 1,244,232; Oct. 23; v. 243; p. 971.
Mowry, Joseph B., Cleveland, Ohio. Combined check and globe valve and trimmer. No. 1,244,758; Oct. 30; v. 243; p. 1168.
Moyer, John T. (See Crawford, Rufus C., assignor.)
Mueller, Emil C. G., Elizabeth, N. J., assignor, by mesne assignments, to Western Electric Company, Incorporated. Transmitter-mouthpiece. No. 1,242,022; Oct. 2; v. 243; p. 177.

Mueller, Ernst, and O. Fischl, St. Louis, Mo. Heel-support. No. 1,242,363; Oct. 9; v. 243; p. 323.
Mueller, Fritz. (See Miller and Mueller.)
Mueller, Milton R., assignor to Electric Wheel Company, Quincy, Ill. Truck. No. 1,242,223; Oct. 9; v. 243; p. 280.
Muenzenmaier, George A., Lebanon, assignor to The Peters Cartridge Company, Cincinnati, Ohio. Jacketed bullet. No. 1,243,857; Oct. 23; v. 243; p. 858.
Muhlfeld, John E., Scarsdale, N. Y., assignor to Locomotive Pulverized Fuel Company. Apparatus for feeding pulverized fuel. No. 1,243,753; Oct. 23; v. 243; p. 826.
Muiderig, John J. B., Wilkes-Barre, Pa. Auxiliary air-valve. No. 1,242,839; Oct. 9; v. 243; p. 476.
Mullen, George A., Woodbury, N. J. System of lightning-conductors. No. 1,244,118; Oct. 23; v. 243; p. 936.
Mulnix, Schriver M., Lena, and R. O. Adams, Freeport, Ill. Pole-protective means. No. 1,244,119; Oct. 23; v. 243; p. 936.
Mulock, William R., Winnipeg, Manitoba, Canada. Platen for type-writing machines. No. 1,244,759; Oct. 30; v. 243; p. 1168.
Multi-Lux Illuminating Company, The. (See Smith, Esmond M., assignor.)
Multiple Offset Machine Co. (See Ogden, Ashley G., assignor.)
Mumford, Thomas J., 2d, Plainfield, N. J. Combined squeeze and jolt ramming-machine. No. 1,242,364; Oct. 9; v. 243; p. 324.
Mumma, George C., Decatur, Ind. Automatic block-dropper. No. 1,244,360; Oct. 23; v. 243; p. 1008.
Munger, Louis D. (See Dunham, Millard L., assignor.)
Municipal Machine Manufacturing Company. (See Altenberg, Alfons, assignor.)
Municipal Machine Manufacturing Co., The. (See O'Brien, John F., assignor.)
Munschauer, Charles W. (See Apel, Frederick H., assignor.)
Muraf, Peter A., Dayton, Ohio. Impaling article. No. 1,242,965; Oct. 16; v. 243; p. 551.
Murcko, Paul J., Bridgeport, Conn. Reversible propeller. No. 1,241,651; Oct. 2; v. 243; p. 59.
Murphy, Clinton C. (See Matthews, Fred, assignor.)
Murphy, Franklin. (See Wilson, John M., assignor.)
Murphy, Harold T., Springfield, Mass. Signal. No. 1,244,883; Oct. 30; v. 243; p. 1206.
Murphy Iron Works. (See Bell, John W., assignor.)
Murphy Iron Works. (See Fortune, John R., assignor.)
Murphy, John, and J. Bechtel, Ashland, Ohio. Gas-gate-hood clamp. No. 1,242,023; Oct. 2; v. 243; p. 177.
Murphy, Quillain R., assignor of one-half to R. D. Mills, Birmingham, Ala. Cylinder-reboring machine. No. 1,241,543; Oct. 2; v. 243; p. 23.
Murphy, Walter P. (See Sisson, Vinton E., assignor.)
Murphy, Walter P., Chicago, Ill. Corrugated-sheet-metal end structure for railway-cars. No. 1,244,632; Oct. 30; v. 243; p. 1129.
Murray, Edward J. B. (See Flood, Patrick, assignor.)
Murray, Edward M., Mingo Junction, Ohio. Hoop-propelling implement. No. 1,243,334; Oct. 16; v. 243; p. 664.
Murray, John, Edinburgh, Scotland. Loose-leaf book. No. 1,243,544; Oct. 16; v. 243; p. 726.
Murray, Thomas E. (See Torchio and Woodrow, assignors.)
Murray, Thomas E., New York, N. Y. Sheet-metal radiator. No. 1,245,011; Oct. 30; v. 243; p. 1245.
Murray, Thomas E., Jr., Brooklyn, N. Y. Apparatus for electrically making cup-shaped projections in metal plates. No. 1,242,580; Oct. 9; v. 243; p. 395.
Murray, Thomas E., Jr., Brooklyn, N. Y. Method of and apparatus for electrically making openings in metal plates. No. 1,242,581; Oct. 9; v. 243; p. 395.
Muser, Fritz. (See Darrow, Henry W., assignor.)
Musso, Frederick G., San Jose, Cal. Collapsible camp structure. No. 1,244,760; Oct. 30; v. 243; p. 1169.
Muther, Lorenz. (See Lautenschlager, William F., assignor.)
Mutro, Michael, assignor of ten one-hundredths to G. Belisnanski, Chester, Pa. Lock. No. 1,242,224; Oct. 9; v. 243; p. 281.
Muzzy, William H., Dayton, Ohio. Storage battery. No. 1,243,202; Oct. 16; v. 243; p. 625.
Myatt, John W., assignor to Ledgers Limited, Tipton, Stafford county, England. Loose-leaf book or binder. No. 1,244,233; Oct. 23; v. 243; p. 971.
Myers, Bert L., Jackson, Mich. Vaporizer. No. 1,243,439; Oct. 16; v. 243; p. 695.
Myers and Brother, F. E. (See Myers, Philip A., assignor.)
Myers, Charles. (See Grandchamp, Napoleon, assignor.)
Myers, George W., Philadelphia, Pa. Vehicle. No. 1,243,662; Oct. 16; v. 243; p. 761.
Myers, Hiram, Sterling, Ill. Tamping device for silos. No. 1,243,754; Oct. 23; v. 243; p. 826.
Myers, Hubert A., assignor to Toledo Scale Company, Toledo, Ohio. Multiple indicating mechanism for weighing-scales. No. 1,243,676; Oct. 16; v. 243; p. 766.
Myers, Lewis C., Brooklyn, assignor to Royal Typewriter Company, Inc., New York, N. Y. Stencil-making device for typewriting machines. No. 1,243,858; Oct. 23; v. 243; p. 858.
Myers, Philip A., assignor to F. E. Myers and Brother, Ashland, Ohio. Pump. No. 1,244,534; Oct. 30; v. 243; p. 1099.
Myerson, Simon, Cambridge, Mass. Artificial tooth. No. 1,243,335; Oct. 16; v. 243; p. 664.
Naamlooze Vennootschap De Nederlandsche Thermo-Telephoon Maatschappij. (See Lange and Aernout, assignors.)
Næser, Frederik C. C. V., and N. A. J. Lilliendahl-Petersen, Copenhagen, Denmark. Telephone. No. 1,243,755; Oct. 23; v. 243; p. 826.
Nagelvoort, Adriaan, New York, N. Y., assignor, by mesne assignments, to Virginia Tinfoil Company, Wilmington, Del. Recovering liquids used for separating solids of different specific gravities. No. 1,244,884; Oct. 30; v. 243; p. 1206.
Nagelvoort, Adriaan, New York, N. Y., assignor, by mesne assignments, to Virginia Tinfoil Company, Wilmington, Del. Separating solids of different specific gravities. No. 1,244,885; Oct. 30; v. 243; p. 1206.
Nall, Edward, assignor to The Goodyear Tire and Rubber Company, Akron, Ohio. Vulcanizing-press. No. 1,242,365; Oct. 9; v. 243; p. 324.
Naramor, Colton D., Caro, Mich. Vacuum bean-picker. No. 1,242,840; Oct. 9; v. 243; p. 477.
Nash, Thomas F., Belleyville, Ill. Serving-stand. No. 1,242,225; Oct. 9; v. 243; p. 281.
Nater, Jean M., West Hoboken, N. J. Electric heater for carbureter air-intakes. No. 1,244,234; Oct. 23; v. 243; p. 971.
National Automatic Refrigerator Company. (See Keyes, Frederick G., assignor.)
National Bottle Washing Machine Company. (See Lally, John T., assignor.)
National Bush Company. (See Ludlum and Lowy, assignors.)
National Carbon Company. (See Clark, Emerson L., assignor.)
National Carbon Company. (See Clymer, William R., assignor.)
National Carbon Company. (See Mott, William R., assignor.)
National Cash Register Company, The. (See Fuller, Frederick L., assignor.)
National Cash Register Company. (See Martin, Hankon A., assignor.)
National Cash Register Company, The. (See Skerl, Francesco, assignor.)
National Cash Register Company, The. (See Von Pein, Edward J., assignor.)
National Electric Utilities Corporation. (See Harth, August, assignor.)
National Equipment Company. (See Bausman, Alonzo L., assignor.)
National India Rubber Company. (See Jury, Alfred E., assignor.)
National Life Preserver Company. (See Youngren, Oscar A., assignor.)
National Malleable Castings Company, The. (See Schmidt, Ernest H., assignor.)
National Metal Edge Box Company. (See Ritter, Roland H., assignor.)
National Spring and Wire Company. (See Winans, James L., assignor.)
National Supply Company, The. (See Wright, Clyde S., assignor.)
National Tube Company. (See McMillan, Frank P., assignor.)
Neal, Malcolm A., *et al.* (See Gray, Harry M., assignor.)
Nearing, Frank, New York, N. Y. Rotary engine. No. 1,241,755; Oct. 2; v. 243; p. 92.
Needham, William H., D. P. Cook, Worcester, Mass., and E. Klahn, Weehawken Heights, N. J. Ball-bearing. No. 1,242,582; Oct. 9; v. 243; p. 395.
Nefedov, Basil, New York, N. Y. Micrometric callipers. No. 1,243,545; Oct. 16; v. 243; p. 726.
Neff, Albert C., Urbana, Ohio, and E. H. Ford, Wabash, Ind. Electrical attachment for reading meters. No. 1,244,634; Oct. 30; v. 243; p. 1130.
Neff, Garnet C., *et al.* (See Mathers, John A., assignor.)
Negrescou, John, Chicago, Ill. Washing-machine. No. 1,244,120; Oct. 23; v. 243; p. 937.
Negrete, José M. C., Habana, Cuba. Food product. No. 1,243,964; Oct. 23; v. 243; p. 891.
Neider, Fred A., assignor to The F. A. Neider Company, Augusta, Ky. Snap-fastener. No. 1,243,859; Oct. 23; v. 243; p. 859.
Neidlich, Samuel A., Edgewater Park, N. J., assignor to The American Multigraph Company, Cleveland, Ohio. Making lithographic plates. No. 1,245,119; Oct. 30; v. 243; p. 1277.
Neidlich, Samuel A., Edgewater Park, N. J., assignor to The American Multigraph Company, Cleveland, Ohio. Lithography. No. 1,245,120; Oct. 30; v. 243; p. 1277.
Neikirk, John O., Lombard, Ill., assignor to Rodger Ballast Car Company. Dump-car. No. 1,242,226; Oct. 9; v. 243; p. 281.
Neill, Marcus H., *et al.* (See Mathers, John A., assignor.)
Nelsen, Nels C., assignor of one-third to L. N. Wood, Oakland, and two-thirds to S. W. Smith, Berkeley, Cal. Wall-bed. No. 1,243,336; Oct. 16; v. 243; p. 664.
Nelson, Alfred A. and W., Atlantic, Iowa. Harrow. No. 1,243,203; Oct. 16; v. 243; p. 625.
Nelson, Anna J., Nome, Alaska. Combined necktie stretcher and hanger. No. 1,242,841; Oct. 9; v. 243; p. 477.
Nelson, Carl, Toledo, Oreg. Extension-table. No. 1,243,621; Oct. 16; v. 243; p. 750.

Nelson, Charles H., Vulcan, Alberta, Canada. Grain-pickling machine. No. 1,244,761; Oct. 30; v. 243; p. 1169.
Nelson, Pher H., Duluth, Minn. Constructing the hulls of ships. No. 1,244,762; Oct. 30; v. 243; p. 1169.
Nelson, Walter. (See Nelson, Alfred A. and W.)
Nernst, Walther, assignor to Deutsche Gasglühlicht, Aktiengesellschaft (Auergesellschaft), Berlin, Germany. Metallic vapor-lamp. No. 1,244,121; Oct. 23; v. 243; p. 937.
Nesbit, Joseph N. G., Atlanta, Ga. Non-refillable bottle. No. 1,243,965; Oct. 23; v. 243; p. 891.
Neuhoff, Hector, Jr. (See Quernheim and Neuhoff.)
Neuland, Alfons H., San Francisco, Cal. Electromagnetic power transmitting and converting apparatus. No. 1,242,714; Oct. 9; v. 243; p. 437.
Neumann, Max P. (See Kipnisa and Neumann.)
Neumayer, Maximilian J., assignor to American Car and Foundry Company, St. Louis, Mo. Adjustably-clamped roof. No. 1,244,763; Oct. 30; v. 243; p. 1170.
Neumayer, Maximilian J., assignor to American Car and Foundry Company, St. Louis, Mo. Drop-brake-shaft mechanism. No. 1,244,764; Oct. 30; v. 243; p. 1170.
Neuneker, Ernest L., near Bushnell, Ill. Animal-trap. No. 1,244,069; Oct. 23; v. 243; p. 922.
New Jersey Patent Company. (See Gall and Curtiss, assignors.)
New Jersey Patent Company. (See Pike, Irwin D., assignor.)
New Process Gasoline Co. (See McKee, Ralph H., assignor.)
New York Belting and Packing Company. (See Ostromislensky, Iwan, assignor.)
New York Belting and Packing Company. (See Price, Raymond B., assignor.)
New York Lens Company. (See Allen, Clile C., assignor.)
New York Stamping Company. (See Wojidkow, Louis, assignor.)
Newell, Edward W., Pittsburgh, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Friction draft-gear. No. 1,243,756; Oct. 23; v. 243; p. 827.
Newell, James P., administrator. (See Saunders, David R.)
Newkirk, William B. (See Bachler and Newkirk.)
Newton, Albert E., and F. K. Hendrickson, Worcester, Mass. Lathe. No. 1,242,582; Oct. 9; v. 243; p. 396.
Niagara Automatic Hose Reel Company. (See Meas and Moll, assignors.)
Niblo, Floyd E., Freeport, Ill. Apparatus for the removal of hay-racks. No. 1,244,235; Oct. 23; v. 243; p. 971.
Nice Ball Bearing Company. (See Beemer, Frank, assignor.)
Nicholas Power Company. (See Power, Nicholas, assignor.)
Nichols, Clarence H., *et al.* (See Norman, Frank, assignor.)
Nichols, Herbert B., Methuen, assignor of one-half to H. C. Doughty, East Pepperell, Mass. Adjustable single-pedestal furniture. No. 1,242,024; Oct. 2; v. 243; p. 177.
Nichols, Louis C., Norwood, Ohio, assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis. Current-collecting device. No. 1,243,204; Oct. 16; v. 243; p. 626.
Nichols, Louis C., Norwood, Ohio, assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis. Dynamo-electric machine. No. 1,243,966; Oct. 23; v. 243; p. 891.
Nichols, Wesley G., Chicago Heights, Ill., assignor to American Manganese Steel Company, Augusta, Me. Dipper-tooth. No. 1,242,715; Oct. 9; v. 243; p. 437.
Nielsen, Harry, New York, N. Y. Fisherman's glove. No. 1,243,622; Oct. 16; v. 243; p. 750.
Nielsen, Jens P. and K. K., Chicago, Ill.; said K. K. Nielsen assignor to said Jens P. Nielsen. Moistening appliance. No. 1,243,967; Oct. 23; v. 243; p. 891.
Nielsen, Julian J., assignor to J. Cuthbert, Chicago, Ill. Wire ceiling and clamping device. No. 1,241,750; Oct. 2; v. 243; p. 92.
Nielsen, Karl K. (See Nielsen, Jens P. and K. K.)
Nightingale, John T., *et al.* (See Brownell, William M., assignor.)
Nilson, Lars G., and J. Abegg, assignors of one-half to T. J. Nilson and one-half to said Abegg, Hoboken, N. J. Stylographic fountain-pen. No. 1,244,070; Oct. 23; v. 243; p. 922.
Nilson, Thomas J. (See Nilson and Abegg, assignors.)
Nitrogen Products Company. (See Bucher, John E., assignor.)
Niver, William A., New York, N. Y. Pamphlet-cover. No. 1,244,886; Oct. 30; v. 243; p. 1207.
Noiseless Typewriter Company, The. (See Anderson, Nils H., assignor.)
Noiseless Typewriter Company, The. (See Going, George G., assignor.)
Noiseless Typewriter Company, The. (See Ruffin, John A., assignor.)
Nolan, Remer T., assignor of one-half to H. N. Spence, Carrollton, Ga. Quilting device. No. 1,244,361; Oct. 23; v. 243; p. 1009.
Nolen, James G., New York, N. Y. Sound-post mounting for phonographs. No. 1,242,227; Oct. 9; v. 243; p. 281.
Nolen, James G., New York, N. Y. Diaphragm-tensioning means. No. 1,242,228; Oct. 9; v. 243; p. 282.
Nolting, William W., Minneapolis, Minn. Bed-spring. No. 1,244,635; Oct. 30; v. 243; p. 1130.
Norberti, Giovanni, Boston, Mass. Cot. No. 1,243,092; Oct. 16; v. 243; p. 592.
Nordberg, Bruno V., Milwaukee, Wis. Steam-engine. No. 1,241,875; Oct. 2; v. 243; p. 130.
Noreen, William P., Watertown, Minn. Detachable bumper for bolster-springs. No. 1,242,025; Oct. 2; v. 243; p. 177.
Norman, Frank, Des Moines, Iowa, assignor of eight thirty-seconds to D. J. Landers, seven thirty-seconds to W. A. McAtee, four thirty-seconds to A. B. Lovan, two thirty-seconds to G. W. Young, and one thirty-second to W. T. Shores, Springfield, Ohio, and two thirty-seconds to C. H. Nichols, New York, N. Y. Acetylene-gas generator. No. 1,242,584; Oct. 9; v. 243; p. 396.
Norman, Joseph T., Nanticoke, Pa. Spark-plug. No. 1,242,205; Oct. 16; v. 243; p. 626.
Norman, Joseph T., Nanticoke, Pa. Combined bath robe and towel. No. 1,243,206; Oct. 16; v. 243; p. 626.
Norman, William A., Chicago, Ill. Roll-paper shoes. No. 1,242,966; Oct. 16; v. 243; p. 551.
Norquest, John E., Richmond, Va., assignor to P. Lorillard Company, New York, N. Y. Cigar-slitting machine. No. 1,245,012; Oct. 30; v. 243; p. 1245.
Norquist, Lester E., Denver, Colo. Catamenial appliance. No. 1,241,652; Oct. 2; v. 243; p. 59.
Norsk Hydro-elektrisk Kvaelsto-faktieselskab. (See Platou, Olaf J. S., assignor.)
Northern Novelty Manufacturing Company. (See Wallinder, Erick G., assignor.)
Northover, Harry E., Winnipeg, Manitoba, Canada. Flash-absorber attachment for machine-guns. No. 1,242,843; Oct. 9; v. 243; p. 478.
Northrop, Jonas, Hopedale, assignor to Hopedale Manufacturing Company, Milford, Mass. Loom-picker. No. 1,244,122; Oct. 23; v. 243; p. 937.
Northrup, Elmer C., assignor, by mesne assignments, to Savings Union Bank and Trust Company, San Francisco, Cal. Starting and stopping motion. No. 1,244,636; Oct. 30; v. 243; p. 1131.
Northrup, Frank L. (See Hardman, Thomas, assignor.)
Norton, James A., Odebolt, Iowa, assignor to Golden West Pump Company, Sioux Falls, S. D. Pump. No. 1,242,842; Oct. 9; v. 243; p. 477.
Norton, Ralph H., and C. M. MacKenzie, assignors to Acme Steel Goods Company, Chicago, Ill. Strap-stretcher. No. 1,242,026; Oct. 2; v. 243; p. 178.
Norton, Roy H., Putnam Station, N. Y. Closure for bung-holes. No. 1,241,757; Oct. 2; v. 243; p. 92.
Norvell, Henry O., Mascot, Tenn. Flotation apparatus. No. 1,243,093; Oct. 16; v. 243; p. 593.
Novotny, James, assignor of one-half to J. E. Kosack, Union Center, Wis. Take-up mechanism. No. 1,242,229; Oct. 9; v. 243; p. 282.
Novotny, James, Union Center, Wis. Brake-actuating lever. No. 1,242,366; Oct. 9; v. 243; p. 324.
Nowak, Carl A., St. Louis, Mo. Non-intoxicating fermented beverage and making the same. No. 1,243,440; Oct. 16; v. 243; p. 695.
Nowakowski, Aleksander, Detroit, Mich. Spittoon. No. 1,245,013; Oct. 30; v. 243; p. 1245.
Nuenke, Paul E., Chicago, Ill. Internal-combustion engine. No. 1,241,876; Oct. 2; v. 243; p. 131.
Nutry, John, Brooklyn, N. Y. Contact reel and brush. No. 1,242,716; Oct. 9; v. 243; p. 438.
Nutter, Claude, Montesano, Wash. Incubator-heater. No. 1,242,280; Oct. 9; v. 243; p. 282.
Nutter, Edward F., Newburg, W. Va. Shampooing-stand. No. 1,244,535; Oct. 30; v. 243; p. 1100.
Nydegger, Adolph, assignor to C. H. & E. Manufacturing Co., Milwaukee, Wis. Bilge-pump. No. 1,242,231; Oct. 9; v. 243; p. 288.
O'Brien, Henry D., Forsyth, Mont. Truss. No. 1,244,766; Oct. 30; v. 243; p. 1171.
O'Brien, John F., assignor to The Municipal Machine Manufacturing Co., Piqua, Ohio. Street-sweeping machine. No. 1,244,071; Oct. 23; v. 243; p. 922.
O'Brien Merrill, Incorporated. (See Stockwell, Edgar E., assignor.)
O'Brien, Michael, Jersey City, N. J. Railway-rail lock. No. 1,244,072; Oct. 23; v. 243; p. 923.
O'Brien, Thomas J., Meriden, Conn. Locking device for automobiles and similar vehicles. No. 1,244,237; Oct. 23; v. 243; p. 972.
O'Connell, James P., Crompton, R. I. Spinning-machine band. No. 1,243,337; Oct. 16; v. 243; p. 665.
O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Draw-bar and two-part-yoke connection. No. 1,242,844; Oct. 9; v. 243; p. 478.
O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Draft-yoke for railway-cars. No. 1,242,845; Oct. 9; v. 243; p. 478.
O'Connor, John F., Chicago, Ill., assignor to Pratt and Letchworth Company, Buffalo, N. Y. Truck-bolster for railway-cars. No. 1,243,757; Oct. 23; v. 243; p. 827.
O'Connor, Michael J., Bismarck, N. D. Drum. No. 1,243,207; Oct. 16; v. 243; p. 627.
O'Dowd, Henry W., Jersey City, N. J., assignor to William M. Crane Company. Sad-iron. No. 1,244,867; Oct. 30; v. 243; p. 1207.
O'Grady, Thomas P., deceased; V. I. O'Grady, executrix, Esplanade, Grange, South Australia, Australia. Mechanical lock or grip. No. 1,243,338; Oct. 16; v. 243; p. 665.

O'Grady, Violet I., executrix. (See O'Grady, Thomas P.)
O'Leary, Arthur F. (See Walp and O'Leary.)
O'Leary, Daniel J., Bruff, Ireland. Combined rug and fastening. No. 1,242,717; Oct. 9; v. 243; p. 438.
O'Loughlin, James, New Britain, Conn. Fire-extinguishing apparatus. No. 1,244,637; Oct. 30; v. 243; p. 1131.
O'Neill, Frank V., Boston, assignor of one-half to H. Carmichael, Malden, and one-half to W. W. MacKusick, Boston, Mass. Treating vulcanized rubber. No. 1,243,623; Oct. 16; v. 243; p. 750.
Oakley, John T., Dubuque township, Dubuque county, Iowa. Hoe. No. 1,244,765; Oct. 30; v. 243; p. 1170.
Oberfelder, Walter S., Chicago, Ill. Puncture-proof tube and producing same. No. 1,244,236; Oct. 23; v. 243; p. 972.
Odabashian, Serop, Worcester, Mass. Boat. No. 1,244,123; Oct. 23; v. 243; p. 938.
Ogden, Ashley G., assignor to Multiple Offset Machine Co., Baltimore, Md. Printing device. No. 1,244,362; Oct. 23; v. 243; p. 1009.
Ohio Brass Company, The. (See Austin, Arthur O., assignor.)
Ohmer, John F., Dayton, Ohio. Printing device for ticket printing, issuing, and auditing machines. No. 1,242,967; Oct. 16; v. 243; p. 551.
Ojczyk, Waldyslaw, Cleveland, Ohio. Toy draft-animal. No. 1,243,208; Oct. 16; v. 243; p. 627.
Okler, Nicholas, Aurora, Ill. Rail-joint. No. 1,241,658; Oct. 2; v. 243; p. 59.
Olesen, Frederick N., St. Paul, Minn. Milk receptacle and lock. No. 1,242,718; Oct. 9; v. 243; p. 438.
Oleson, Martin A., Geraldine, Mont. Apparatus for use in cutting glass plates. No. 1,242,028; Oct. 2; v. 243; p. 178.
Olinger, James A., Butler, Pa. Resilient tire. No. 1,242,846; Oct. 9; v. 243; p. 479.
Oliver, Charles. (See Angold, Duddell, Dykes, Handcock, and Oliver.)
Olmsted, Louie E., St. Joseph, Mo. Piston-ring clamping-tool. No. 1,242,027; Oct. 2; v. 243; p. 178.
Olson, Andrew. (See Olson, Olof and A.)
Olson, Charles A., and C. H. Toombs, Geneva, Ill. Wrench. No. 1,243,860; Oct. 23; v. 243; p. 859.
Olson, Charles A., and C. H. Toombs, Geneva, Ill. Wrench. No. 1,243,861; Oct. 23; v. 243; p. 859.
Olson, Gustaf, assignor of one-half to W. M. McEwen, Chicago, Ill. Electric fan. No. 1,243,968; Oct. 23; v. 243; p. 892.
Olson, Hans M., Los Angeles, Cal. Waterproofing composition and making the same. No. 1,242,585; Oct. 9; v. 243; p. 397.
Olson, Nels L., Detroit, Mich. Adjustable automobile extension. No. 1,243,862; Oct. 23; v. 243; p. 860.
Olson, Nels L., Detroit, Mich. Vehicle-wheel. No. 1,243,863; Oct. 23; v. 243; p. 860.
Olson, Nels L., Detroit, Mich. Extension for vehicles. No. 1,243,864; Oct. 23; v. 243; p. 860.
Olson, Olof and A., Kingsburg, Cal. Truck. No. 1,244,238; Oct. 23; v. 243; p. 972.
Olson, William O., Chicago, Ill. Spark-plug. No. 1,243,094; Oct. 16; v. 243; p. 593.
Onsrud, Oscar. (See Ross and Onsrud.)
Ooley, Andrew J. (See Bishop, Hugh C., assignor.)
Orr, Joseph L., Lynchburg, Va. Bag-fastener. No. 1,243,865; Oct. 23; v. 243; p. 861.
Osgood, John L., Buffalo, N. Y. Hose-coupling. No. 1,241,654; Oct. 2; v. 243; p. 60.
Osmondson, Osmond A., Salina, Kans. Combination post-drill and portable hand-drill. No. 1,242,029; Oct. 2; v. 243; p. 178.
Osol, Frits E. (See Barron and Osol.)
Ostenberg, Zeno, San Francisco, Cal., assignor to International Cellulose Company, Reno, Nev. Preparing solutions of cellulose. No. 1,242,030; Oct. 2; v. 243; p. 179.
Osterhout, Garret B., Providence, R. I., assignor to Willcox & Gibbs Sewing Machine Co., New York, N. Y. Take-up. No. 1,242,031; Oct. 2; v. 243; p. 179.
Ostman, John A., Techny, Ill. Folding chair. No. 1,241,544; Oct. 2; v. 243; p. 23.
Ostrander, Allen E., Ridgewood, N. J. Railway-truck. No. 1,244,767; Oct. 30; v. 243; p. 1171.
Ostrander, Allen E., Ridgewood, N. J., assignor to American Car and Foundry Company, St. Louis, Mo. Car-underframe. No. 1,244,769; Oct. 30; v. 243; p. 1172.
Ostrander, Allen E., Ridgewood, N. J., assignor to American Car and Foundry Company, St. Louis, Mo. Car-door-operating device. No. 1,244,770; Oct. 30; v. 243; p. 1172.
Ostrander, Allen E., Ridgewood, and E. R. Schroeder, Paterson, N. J., assignors to American Car and Foundry Company, St. Louis, Mo. Car-door-operating mechanism. No. 1,244,768; Oct. 30; v. 243; p. 1171.
Ostrander, George N., Highland Springs, Va. Gun. No. 1,242,719; Oct. 9; v. 243; p. 438.
Ostromislensky, Iwan, Petrograd, Russia, assignor, by mesne assignments, to New York Belting and Packing Company. Vulcanizing rubber and product obtained thereby. No. 1,242,586; Oct. 9; v. 243; p. 397.
Oswald, Herman H., Pembroke, Bermuda. Combined brush and shaving-stick. No. 1,244,771; Oct. 30; v. 243; p. 1172.
Otis Elevator Company. (See Biggerstaff, James, assignor.)
Otis Elevator Company. (See Piper, John S., assignor.)
Otis Elevator Company. (See Venn, Isaac H., assignor.)
Ott, Henry, Lancaster, N. Y. Cement-divider. No. 1,242,032; Oct. 2; v. 243; p. 179.
Ottinger, Nathan, New York, N. Y. Correspondence device. No. 1,242,968; Oct. 16; v. 243; p. 552.
Otto Heineman Phonograph Supply Co. (See Catucci, Pliny, assignor.)
Otto Higel Co., The. (See Lundberg, Endfred, assignor.)
Outerbridge, Cyril N., Charlottesville, Va. Domountable rim. No. 1,243,624; Oct. 16; v. 243; p. 750.
Over All Roller Bearings Company. (See Harris, Charles R., assignor.)
Over All Roller Bearings Company. (See Harris and Lyons, assignors.)
Owen, Richard H., Lexington, N. C. Subsoil and grubbing plow. No. 1,243,758; Oct. 23; v. 243; p. 827.
Owens, John A., assignor to C. L. Dean, Moultrie, Ga. Roach hive or trap. No. 1,243,625; Oct. 16; v. 243; p. 751.
Owens-Stark Manufacturing Company, The. (See Stark, John R., assignor.)
Owens, William A., assignor of one-half to Lungstras Dyeing & Cleaning Company, St. Louis, Mo. Repairing turn-shoes. No. 1,244,772; Oct. 30; v. 243; p. 1173.
P. Lorillard Company. (See Norquest, John E., assignor.)
Pache, Auguste, New York, N. Y. Combined spark-plug and priming device. No. 1,242,367; Oct. 9; v. 243; p. 325.
Pachynski, Joseph. (See Schoening and Pachynski.)
Pacific Spring Bed Company. (See Stockhouse, George, assignor.)
Package Machinery Company. (See Armstrong, Harry Y., assignor.)
Packard Motor Car Company. (See Cooper, Erwin C., assignor.) (Reissue.)
Packard, Raymond P., Tacoma, Wash. Gum-box. No. 1,244,363; Oct. 23; v. 243; p. 1009.
Packer, Eben R., Wilmette, Ill., assignor to Q & C Company, New York, N. Y. Adjustable derailing device. No. 1,242,847; Oct. 9; v. 243; p. 479.
Parker, Frederick R., Chicago, Ill. Electrical protective apparatus. No. 1,245,014; Oct. 30; v. 243; p. 1246.
Painter, Albert E. and W., Reno, Nev. Fluid-pressure transmission. No. 1,242,033; Oct. 2; v. 243; p. 179.
Painter, Waterfield. (See Painter, Albert E. and W.)
Painting Machine Company. (See Leatherbee, Clifton F., assignor.)
Palé, Paul, Los Angeles, Cal. Permutation-lock. No. 1,242,848; Oct. 9; v. 243; p. 480.
Palm, William J., Minneapolis, Minn. Waste-paper press. No. 1,242,232; Oct. 9; v. 243; p. 283.
Panara, Bertrando, Rome, N. Y. Drying apparatus. No. 1,242,368; Oct. 9; v. 243; p. 326.
Panasci, Angelo, Waterbury, Conn. Dish-lifter. No. 1,242,465; Oct. 9; v. 243; p. 357.
Papec Machine Company. (See Bullock, Fred J., assignor.)
Paquette, Eugene, Holyoke, Mass. Lock-latch. No. 1,244,364; Oct. 23; v. 243; p. 1010.
Paquin, Joseph T., Claremont, N. H. Fire-escape. No. 1,243,339; Oct. 16; v. 243; p. 665.
Paquit, Vital, Stapleton, N. Y. Spark producing and distributing apparatus for explosive-motors. No. 1,244,124; Oct. 23; v. 243; p. 938.
Paragon Metal Cap Company. (See Carvalho, Leslie R. N., assignor.)
Paramount Knitting Company. (See Pope and Randall, assignors.)
Parish, Le Grand, Mountainview, N. J. Making bolts. No. 1,244,125; Oct. 23; v. 243; p. 938.
Park, James, Hopkins, Minn. Cutting-machine. No. 1,243,969; Oct. 23; v. 243; p. 892.
Park, William, New York, N. Y. Golf-shoe. No. 1,243,209; Oct. 16; v. 243; p. 627.
Parker, Earle D., assignor to Barber-Colman Company, Rockford, Ill. Knotter. No. 1,241,758; Oct. 2; v. 243; p. 92.
Parker, George S., Salem, Mass. Game-board. No. 1,242,969; Oct. 16; v. 243; p. 552.
Parker, Joseph F., and M. Van Heuvel, Mobile, Ala. Collapsible box or container. No. 1,244,239; Oct. 23; v. 243; p. 973.
Parker, Thomas H., San Francisco, Cal. Rotary cutter. No. 1,242,369; Oct. 9; v. 243; p. 326.
Parker, Thomas R. G., W. E. Bennison, and W. Lee, Broadheath, assignors to Linotype and Machinery Limited, London, England. Reel-brake for web-printing machines. No. 1,241,759; Oct. 2; v. 243; p. 93.
Parkhurst, Layton M., Indianapolis, Ind., assignor, by mesne assignments, to G. B. Pitts, trustee, Cleveland, Ohio. Vending-machine. No. 1,241,877; Oct. 2; v. 243; p. 131.
Parlin & Orendorff Company. (See Butler, John H., assignor.)
Parmenter, George A., assignor to Parmenter Manufacturing Company, Boston, Mass. Wrench. No. 1,243,210; Oct. 16; v. 243; p. 627.
Parmenter Manufacturing Company. (See Parmenter, George A., assignor.)
Parradee, Edward, Chicago, Ill. Automobile bumper. No. 1,245,015; Oct. 30; v. 243; p. 1246.
Parris, John T., Chicago, Ill. Curtain-support. No. 1,242,849; Oct. 9; v. 243; p. 480.

Parrott, John W., Bethayres, Pa. Street-cleaning and disposing machine and cleaning paved streets and disposing of the cleanings. No. 1,243,866; Oct. 23; v. 243; p. 861.
Parry, Frederick J. (See Heinauer, William J., assignor.)
Parry, John M., *et al.* (See Webster, Lewis E., assignor.)
Parry, Samuel R., Rochester, N. Y. Lining-machine. No. 1,242,720; Oct. 9; v. 243; p. 439.
Parry, Samuel R., Rochester, N. Y. Lining-machine. No. 1,242,970; Oct. 16; v. 243; p. 552.
Parsons, George H., assignor to Kroeger Piano Company, Stamford, Conn. Expression control for musical instruments. No. 1,242,466; Oct. 9; v. 243; p. 357.
Pascucci, Emilio. (See Gage and Pascucci.)
Passmore, Charles L., Prophetstown, Ill. Shoe-stretching device. No. 1,244,638; Oct. 30; v. 243; p. 1131.
Patch, Calvin B., Glenellyn, Ill., assignor to W. H. Miner, Chazy, N. Y. Yoke. No. 1,242,850; Oct. 9; v. 243; p. 480.
Patch, Calvin B., Glenellyn, Ill., assignor to W. H. Miner, Chazy, N. Y. Keyless yoke. No. 1,242,851; Oct. 9; v. 243; p. 480.
Patch, Calvin B., Glenellyn, Ill., assignor to W. H. Miner, Chazy, N. Y. Yoke. No. 1,242,852; Oct. 9; v. 243; p. 481.
Patch, Harry M., Seattle, Wash. Differential power-transmission device. No. 1,242,587; Oct. 9; v. 243; p. 397.
Patenaude, Amable O., assignor of one-half to J. Berini, Timmins, Ontario, Canada. Stovepipe. No. 1,243,441; Oct. 16; v. 243; p. 695.
Patten, George H., assignor to Patten Manufacturing Company, Chattanooga, Tenn. Tire-pump. No. 1,244,365; Oct. 23; v. 243; p. 1010.
Patten Manufacturing Company. (See Patten, George H., assignor.)
Patterson, George N., Durango, Colo. Harvester. No. 1,243,095; Oct. 16; v. 243; p. 593.
Patterson, James W., Bronxville, assignor to Autosales Gum and Chocolate Company, New York, N. Y. Coin-controlled vending-machine. No. 1,244,888; Oct. 30; v. 243; p. 1207.
Patterson, James W., New York, N. Y. Dispensing-cabinet. No. 1,244,889; Oct. 30; v. 243; p. 1208.
Pattison, Freddrick S., Merritton, Ontario, Canada. Vehicle-wheel pulling-jack. No. 1,243,546; Oct. 16; v. 243; p. 726.
Patton, Frank H., Flagstaff, Ariz. Aerial torpedo. No. 1,241,545; Oct. 2; v. 243; p. 24.
Paul, Lola V., administratrix. (See Paul, Wesley A.)
Paul, Wesley A., and J. P. Seaholm, assignors to Deere & Company, Moline, Ill. Cultivator. No. 1,243,970; Oct. 23; v. 243; p. 892.
Paul, Wesley A., deceased; L. V. Paul, administratrix, assignor to Deere & Company, Moline, Ill. Clevis. No. 1,243,972; Oct. 23; v. 243; p. 893.
Paul, William L., San Francisco, Cal., assignor to Deere & Company, Moline, Ill. Holding device for cultivator-standards. No. 1,243,971; Oct. 23; v. 243; p. 892.
Pauli, Gustaf S., Greensburg, Pa. Cuff-link. No. 1,243,547; Oct. 16; v. 243; p. 727.
Paullin, George W., Atlanta, Ill. Farm-gate. No. 1,245,016; Oct. 30; v. 243; p. 1246.
Paulson, Charles J. (See Simpson and Paulson.)
Paus, Rudolph H., Shipley, England. Flushing-cistern. No. 1,243,340; Oct. 16; v. 243; p. 666.
Pavese, Luigi, Hoboken, N. J. Manually-propelled boat. No. 1,244,073; Oct. 23; v. 243; p. 923.
Paxton, William D., Laporte, Ind. Automobile and truck. No. 1,242,588; Oct. 9; v. 243; p. 397.
Payton, Arthur L., Chicago, Ill. Carbureter. No. 1,241,546; Oct. 2; v. 243; p. 24.
Payton, Arthur L., Chicago, Ill. Carbureter. No. 1,241,547; Oct. 2; v. 243; p. 25.
Payton, James, Foxton, Wyo. Swath-divider. No. 1,244,074; Oct. 23; v. 243; p. 923.
Peacock, Herman, Plainfield, Ind. Hay-baler. No. 1,241,548; Oct. 2; v. 243; p. 25.
Pearlman, Victor S., assignor to Victor S. Pearlman & Co., Chicago, Ill. Lamp-shade frame. No. 1,244,639; Oct. 30; v. 243; p. 1132.
Pearson, Herbert G., Paonia, Colo. Fruit-sizing machine. No. 1,242,034; Oct. 2; v. 243; p. 179.
Pearson, Jacob, Minneapolis, Minn. Sliding-door lock. No. 1,243,548; Oct. 16; v. 243; p. 727.
Pearson, Otto, Mount Jewett, Pa. Sled. No. 1,244,075; Oct. 23; v. 243; p. 923.
Pearsons, George T., New York, N. Y. Portable fire-extinguisher. No. 1,243,759; Oct. 23; v. 243; p. 827.
Pedley, Ward P. (See Moors, Walter C., assignor.)
Peerless Electric Sign Company. (See Launbranch, Malcolm E., assignor.)
Peerstone, Earl D., Chicago, Ill. Valve for radiators. No. 1,241,878; Oct. 2; v. 243; p. 131.
Peg Lock Block Company Inc. (See Kirk, Louis H., assignor.)
Peirce, John R., Mont Clare, Pa. Geometrical instrument. No. 1,242,467; Oct. 9; v. 243; p. 357.
Peirce, William B., assignor to Buffalo Bolt Company, North Tonawanda, N. Y. Coil-heating furnace. No. 1,243,442; Oct. 16; v. 243; p. 695.
Peirce, William B., assignor to Buffalo Bolt Company, North Tonawanda, N. Y. Coil-heating furnace. No. 1,243,443; Oct. 16; v. 243; p. 695.
Peirce, William B., assignor to Buffalo Bolt Company, North Tonawanda, N. Y. Heating coiled materials. No. 1,243,444; Oct. 16; v. 243; p. 696.
Pelton Water Wheel Company. (See Karnasch, Leopold M., assignor.)
Peltz, Mancil E., Malad City, Idaho. Weed-puller. No. 1,242,468; Oct. 9; v. 243; p. 358.
Pembroke, Charles J., *et al.* (See Kendrick, Alexander M., assignor.)
Pender, James E. P., assignor to Gorham Manufacturing Company, Providence, R. I. Receptacle. No. 1,243,211; Oct. 16; v. 243; p. 628.
Penfield, Raymond C., New York, N. Y. Apparatus for mechanically hacking brick. No. 1,241,879; Oct. 2; v. 243; p. 132.
Penfield, Raymond C., New York, N. Y. Open-top-drier system. No. 1,243,212; Oct. 16; v. 243; p. 628.
Penington, Quintues C., Chapel, Okla. Stone-gatherer. No. 1,241,880; Oct. 2; v. 243; p. 132.
Penn, Charles F., Des Moines, Iowa. Collapsible camp-stove. No. 1,241,760; Oct. 2; v. 243; p. 93.
Pennock, Frederick W., Quebec, Quebec, Canada. Lamp guard and shade. No. 1,244,640; Oct. 30; v. 243; p. 1132.
Pennsylvania Globe Gas Light Company. (See Slinack, Victor H., assignor.)
Penrod, Ray, Cypress, Ill. Fish-hook. No. 1,242,469; Oct. 9; v. 243; p. 358.
Penrose, John. (See Ploeger and Penrose.)
Pérez, Porfirio P., and S. Batista, Key West, Fla. Wrench. No. 1,245,017; Oct. 30; v. 243; p. 1247.
Peribonis, Daniel, New York, N. Y. Hollow metal jamb and trim. No. 1,245,018; Oct. 30; v. 243; p. 1247.
Perkins, Clement L., Pittsburgh, Pa., assignor to L. F. Watson, Boston, Mass. Method and appliance for separating laminated and fibrous minerals. No. 1,243,096; Oct. 16; v. 243; p. 593.
Perkins, Daniel B., Providence, R. I. Stropping device. No. 1,243,097; Oct. 16; v. 243; p. 594.
Perkins, Frank M., Monticello, Minn. Lubricating device. No. 1,243,213; Oct. 16; v. 243; p. 628.
Perkins, Gardner H., Cazenovia, N. Y. Device for mowing hay. No. 1,242,853; Oct. 9; v. 243; p. 481.
Perkins, John L. (See Trudeau, Theodore F., assignor.)
Permutit Company, The. (See Kriegsheim, Heinrich, assignor.)
Perreten, Michael, Alliance, Ohio. Exhibitor. No. 1,245,019; Oct. 30; v. 243; p. 1247.
Peter, John A., Fostoria, Ohio. Rain-water filter and automatic cut-off. No. 1,242,854; Oct. 9; v. 243; p. 481.
Peters Cartridge Company, The. (See Muenzenmaier, George A., assignor.)
Peters, Cornelius A., assignor of one-half to E. R. Beeman and one-half to P. J. Lyons, Minneapolis, Minn. Agricultural implement. No. 1,245,121; Oct. 30; v. 243; p. 1277.
Peters, John F., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Limiting reactance-coil. No. 1,241,549; Oct. 2; v. 243; p. 26.
Peters, John F., Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company. Stabilizing and power-factor correcting means for electrical circuits. No. 1,242,971; Oct. 16; v. 243; p. 553.
Peters, Melville E., G. H. Fath, and A. F. Miller, assignors to The Peters Patent Rights Company, Denver, Colo. Endless blank-gripping apron conveyer. No. 1,244,536; Oct. 30; v. 243; p. 1100.
Peters, Melville E., G. H. Fath, and A. F. Miller, assignors to The Peters Patent Rights Company, Denver, Colo. Pneumatically-controlled blank-tripping mechanism for blank-feeding mechanisms. No. 1,244,537; Oct. 30; v. 243; p. 1100.
Peters, Melville E., G. H. Fath, and A. F. Miller, assignors to The Peters Patent Rights Company, Denver, Colo. Third-stage treatment for box-wrapping machines. No. 1,244,538; Oct. 30; v. 243; p. 1100.
Peters, Melville E., G. H. Fath, and A. F. Miller, assignors to The Peters Patent Rights Company, Denver, Colo. Apparatus for wrapping extension-edge boxes. No. 1,244,539; Oct. 30; v. 243; p. 1101.
Peters, Melville E., G. H. Fath, and A. F. Miller, assignors to The Peters Patent Rights Company, Denver, Colo. Side turn-in wiper for wrapping the side edges of boxes with gummed blanks. No. 1,244,540; Oct. 30; v. 243; p. 1101.
Peters Patent Rights Company, The. (See Peters and Miller, assignors.)
Petersen, Anker, Winthrop, Mass. Braiding-machine. No. 1,241,550; Oct. 2; v. 243; p. 26.
Petersen, Christian, *et al.* (See Mehle, Michael, assignor.)
Peterson, Johann G., and O. H. Huebel, assignors to Manhattan Electrical Supply Company, Inc., Jersey City, N. J. Telegraph-key. No. 1,242,470; Oct. 9; v. 243; p. 358.
Peterson, John M., assignor to G. J. Sayer, Chicago, Ill. Slicing-machine. No. 1,243,867; Oct. 23; v. 243; p. 861.
Peterson, Otto W., Bertrand, Nebr. Automobile. No. 1,243,549; Oct. 16; v. 243; p. 727.
Pethtel, John F., Boise, Idaho. Pedal-plate. No. 1,242,370; Oct. 9; v. 243; p. 326.
Petryk, Nykola, Philadelphia, Pa. Smoke-consumer for locomotives. No. 1,243,214; Oct. 16; v. 243; p. 628.
Pettey, Geo. E., *et al.* (See Francis, Hugh, assignor.)

Pettit, John H., Great Falls, Mont. Embroidery-holder. No. 1,242,972; Oct. 16; v. 243; p. 553.
Patz, William, Firth, Nebr. Engine. No. 1,242,855; Oct. 9; v. 243; p. 482.
Pfister, John G., Syracuse, N. Y. Cotter-key. No. 1,244,076; Oct. 23; v. 243; p. 923.
Phelps, Charles, Oskaloosa, Iowa. Sectional boiler-furnace. No. 1,242,856; Oct. 9; v. 243; p. 482.
Phelps, George L., Chicago, Ill., assignor to International Harvester Company of New Jersey. Corn husker and shredder. No. 1,242,973; Oct. 16; v. 243; p. 553.
Phelps, James C. (See Curtis, Henry H., assignor.)
Phifer, James S., Allentown, Pa., assignor to The American Steel and Wire Company of New Jersey, Hoboken, N. J. Bundling apparatus. No. 1,242,471; Oct. 9; v. 243; p. 358.
Philadelphia Drying Machinery Company, The. (See Allsop and Gibson, assignors.)
Philadelphia Metal Drying Form Company. (See Von Stetten, Julius O., assignor.) (Reissue.)
Philadelphia Storage Battery Company. (See Skinner, James M., assignor.)
Philippon, Joseph E., St. Evariote de Forsyth, Quebec, Canada. Pipe-thawing apparatus. No. 1,243,973; Oct. 23; v. 243; p. 893.
Phillips, Eli W., assignor to American Tool & Machine Company, Boston, Mass. Means for mounting and driving centrifugal machines. No. 1,242,857; Oct. 9; v. 243; p. 482.
Phillips, Walter R., Kansas City, Mo. Mattress-making apparatus. No. 1,244,773; Oct. 30; v. 243; p. 1173.
Pianarosa, Louis J., Trenton, N. J. Resilient tool-rest. No. 1,245,020; Oct. 30; v. 243; p. 1247.
Picard, Alphonse A., New York, N. Y. Brush. No. 1,241,891; Oct. 2; v. 243; p. 132.
Pickard, Charles E., Northcote, Victoria, Australia. Stove attachment for economizing heat. No. 1,245,122; Oct. 30; v. 243; p. 1278.
Pierce, Frank M., assignor to Pierce Wrapping Machine Company, Chicago, Ill. Shuttle-lock. No. 1,242,371; Oct. 9; v. 243; p. 327.
Pierce, Frank M., Chicago, Ill., assignor to Pierce Wrapping Machine Company. Folder device for wrapping-machines. No. 1,244,541; Oct. 30; v. 243; p. 1102.
Pierce, George L., Brooklyn, assignor to A. G. Spalding & Bros., New York, N. Y. Shoe-sole. No. 1,242,233; Oct. 9; v. 243; p. 284.
Pierce, Harry H., assignor of one-tenth to J. Keay, Indianapolis, Ind. Plastic composition. No. 1,245,021; Oct. 30; v. 243; p. 1247.
Pierce, Simeon F., St. Paul, Minn. Gas-burner. No. 1,242,234; Oct. 9; v. 243; p. 284.
Pierce Wrapping Machine Company. (See Pierce, Frank M., assignor.)
Pierce Wrapping Machine Company. (See Stevens, William C., assignor.)
Pierson, Roscoe W., and T. F. Briody, Kansas City, Mo. Automobile-body. No. 1,242,035; Oct. 2; v. 243; p. 180.
Pigeot, Graham H., assignor to Federal Steel Fixture Company, Chicago, Ill. Locker system. No. 1,245,022; Oct. 30; v. 243; p. 1247.
Pike, Irwin D., assignor, by mesne assignments, to New Jersey Patent Company, West Orange, N. J. Phonograph. No. 1,242,858; Oct. 9; v. 243; p. 483.
Pilliod Brothers Company, The. (See Pilliod, Charles J., assignor.)
Pilliod, Charles J., assignor to The Pilliod Brothers Company, Toledo, Ohio. Reversing valve-gear. No. 1,243,760; Oct. 23; v. 243; p. 828.
Pinckney, Thomas D. W., New York, N. Y. Power-transmission mechanism. No. 1,242,974; Oct. 16; v. 243; p. 554.
Pinkard, Paul R. (See Lewis and Pinkard.)
Pinkerton, Edward E., Chicago, Ill. Folding receptacle. No. 1,243,626; Oct. 16; v. 243; p. 751.
Piper, John S., Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Device for measuring electrical energy. No. 1,242,472; Oct. 9; v. 243; p. 359.
Pittman, Vincent V., Selma, Cal. Cooler. No. 1,242,036; Oct. 2; v. 243; p. 180.
Pitts, George B., trustee. (See Parkhurst, Layton M., assignor.)
Pittsburgh Lamp, Brass & Glass Company. (See Griffith, Benjamin H., assignor.)
Pittsburgh Plate Glass Company *et al.* (See Icenhour, Albert A., assignor.)
Placek, Anton, Cleveland, Ohio. Pipe-wrench. No. 1,244,126; Oct. 23; v. 243; p. 938.
Planche, Etienne, Flint, Mich. Hydrocarbon-vaporizer. No. 1,242,975; Oct. 16; v. 243; p. 554.
Platou, Olaf J. S., assignor to Norsk Hydro-elektrisk Kvaelstofaktieselskab, Christiania, Norway. Electric-arc furnace. No. 1,241,655; Oct. 2; v. 243; p. 60.
Plautz, Albert A. (See Zarling, William, assignor.)
Playerphone Talking Machine Company. (See Selter, Milo B., assignor.)
Plein, Louis, Chicago, Ill. Internal-combustion engine. No. 1,244,890; Oct. 30; v. 243; p. 1208.
Ploeger, Ernst A., and J. Penrose, Chicago, Ill. Automatic relief-valve. No. 1,242,888; Oct. 9; v. 243; p. 492.
Plumadi, Alojzy, Chicago, Ill. Rotary pump. No. 1,242,849; Oct. 9; v. 243; p. 483.
Pocock, Augustine J., Dayton, Ohio. Dispensing-pump. No. 1,244,077; Oct. 23; v. 243; p. 924.

Poggemeyer, Fred, Cook, Nebr. Switch-thrower. No. 1,242,037; Oct. 2; v. 243; p. 180.
Poindexter, Nerve V., Elkin, N. C. Rail-joint. No. 1,245,009; Oct. 30; v. 243; p. 1244.
Pointe, James C. A., Dijon, France. Apparatus for the treatment of corn, grain fruits, and the like. No. 1,244,774; Oct. 30; v. 243; p. 1173.
Polaner, Charles. (See Calvey, James P., assignor.)
Polk, Thomas J., Oakdale, La. Cabinet and refrigerator. No. 1,242,235; Oct. 9; v. 243; p. 284.
Pollak, Robert E., San Francisco, Cal. Oil-well rig. No. 1,244,240; Oct. 23; v. 243; p. 973.
Polson, Carl, Vermillion, Kans. End-gate for wagons. No. 1,242,860; Oct. 9; v. 243; p. 483.
Polzin, Joseph, Rock Island, Ill. Water-heater. No. 1,244,775; Oct. 30; v. 243; p. 1174.
Pomranke, Walter T., Chilton, Wis. Beet-topping machine. No. 1,241,761; Oct. 2; v. 243; p. 93.
Pond, Samuel N., Chicago, Ill. Rotary pump. No. 1,243,215; Oct. 16; v. 243; p. 629.
Pontoppidan, Carl, Brooklyn, assignor to F. L. Smidth & Co., New York, N. Y. Treatment of slurry. No. 1,242,256; Oct. 9; v. 243; p. 285.
Poole, Jesse V., assignor of one-half to L. L. Livingston, Abington, Mass. Means for applying stitch-receiving ribs to innersoles. No. 1,244,891; Oct. 30; v. 243; p. 1209.
Pope, Frank, and E. E. Randall, Kankakee, assignors to Paramount Knitting Company, Chicago, Ill. Knitting-machine needle. No. 1,241,882; Oct. 2; v. 243; p. 132.
Popelka, Wenzel, Cincinnati, Ohio. Spool-holder. No. 1,243,550; Oct. 16; v. 243; p. 727.
Poppenhusen, Herman A., Hammond, assignor to Green Engineering Company, East Chicago, Ind. Furnace. No. 1,243,868; Oct. 23; v. 243; p. 862.
Poppenhusen, Herman A., Hammond, assignor to Green Engineering Company, East Chicago, Ind. Furnace construction. No. 1,243,869; Oct. 23; v. 243; p. 862.
Poppenhusen, Herman A., Hammond, assignor to Green Engineering Company, East Chicago, Ind. Furnace. No. 1,243,870; Oct. 23; v. 243; p. 862.
Poppenhusen, Herman A., Hammond, assignor to Green Engineering Company, East Chicago, Ind. Furnace. No. 1,243,871; Oct. 23; v. 243; p. 863.
Poppenhusen, Herman A., Hammond, assignor to Green Engineering Company, East Chicago, Ind. Furnace. No. 1,243,872; Oct. 23; v. 243; p. 863.
Poppenhusen, Herman A., Hammond, Ind., and A. P. Strong, Chicago, Ill., assignors to Green Engineering Company, East Chicago, Ind. Receptacle for ashes and the like. No. 1,243,873; Oct. 23; v. 243; p. 864.
Poppenhusen, Herman A., Hammond, Ind., and A. P. Strong, Chicago, Ill., assignors to Green Engineering Company, East Chicago, Ind. Elbow-fitting. No. 1,243,874; Oct. 23; v. 243; p. 864.
Porcher, Edward P., Charleston, S. C. One-man folding automobile-top. No. 1,244,366; Oct. 23; v. 243; p. 1010.
Porter, Stephen C., Brooklyn, N. Y. Phonic apparatus. No. 1,242,372; Oct. 9; v. 243; p. 327.
Positive Rail Anchor Company. (See Told, Arnold H., assignor.)
Potthoff, Louis, Flushing, N. Y. Electroplating apparatus. No. 1,243,698; Oct. 16; v. 243; p. 594.
Power, Albert H., assignor of one-half to H. G. Watermar, Toronto, Ontario, Canada. Register for hot-air heating apparatus. No. 1,245,123; Oct. 30; v. 243; p. 1278.
Power, Nicholas, Brooklyn, assignor to Nicholas Power Company, New York, N. Y. Motor driving mechanism. No. 1,242,976; Oct. 16; v. 243; p. 554.
Powers Accounting Machine Company. (See Powers, James, assignor.)
Powers, George G., assignor to Union Wire Mattress Company, Chicago, Ill. Bed-spring. No. 1,243,099; Oct. 16; v. 243; p. 594.
Powers, James, assignor to Powers Accounting Machine Company, New York, N. Y. Repeat perforating mechanism. No. 1,242,721; Oct. 9; v. 243; p. 439.
Powers, John N., and A. Y. Leech, Jr., assignors to United States Ordnance Company, Washington, D. C. Powder-tank closure. No. 1,243,974; Oct. 23; v. 243; p. 893.
Powers, Luther B., San Diego, Cal. Inlet-valve for flush-tanks. No. 1,241,656; Oct. 2; v. 243; p. 60.
Powers Photo Engraving Company. (See Leitner, Emil, assignor.)
Powers Regulator Company. (See Snediker, Morton O., assignor.)
Pratt and Letchworth Company. (See O'Connor, John F., assignor.)
Pratt, Lenora, Visalia, Cal. Lawn-mower. No. 1,241,762; Oct. 2; v. 243; p. 94.
Pratt Read Player Action Company, The. (See Moore and Fisher, assignors.)
Pratt, Walter E., Berkeley, assignor to D. L. Thornbury, Oakland, Cal. Clothes-line reel. No. 1,244,445; Oct. 23; v. 243; p. 1034.
Pratt, Walter M., Detroit, Mich. Reinforced-concrete floor construction. No. 1,244,641; Oct. 30; v. 243; p. 1132.
Prechel, August C., assignor of one-half to T. B. Seifert, Cottonwood, Minn. Washing-machine. No. 1,243,551; Oct. 16; v. 243; p. 727.

Premier Cushion Spring Co. (See Hawes, Frederick W., assignor.)
Prentice, John, assignor to The Babcock & Wilcox Company, Bayonne, N. J. Steam-superheater. No. 1,242,473; Oct. 9; v. 243; p. 359.
Preschlin, Paul E., Oberuzwil, Switzerland. Applying firmly adhesive metal casings to iron cores. No. 1,242,589; Oct. 9; v. 243; p. 398.
Preston, Darwin E., and H. E. Priser, Dayton, Ohio. Spraying apparatus. No. 1,241,551; Oct. 2; v. 243; p. 27.
Preyer, Frederick W., assignor to The Gibbs Manufacturing Company, Canton, Ohio. Embroidery-hoop. No. 1,244,892; Oct. 30; v. 243; p. 1209.
Price, Edmund D., Grover, Colo. Shoe-lace fastener. No. 1,245,023; Oct. 30; v. 243; p. 1248.
Price Electric Devices Corporation. (See Price, John R., assignor.)
Price, Frank L. (See Mansbach, Conrad B., assignor.)
Price, James W., Champaign, Ill. Clothes-rack. No. 1,243,216; Oct. 16; v. 243; p. 629.
Price, John R., Wilkinsburg, Pa., assignor to Price Electric Devices Corporation, Basic City, Va. Apparatus for starting internal-combustion engines. No. 1,243,875; Oct. 23; v. 243; p. 864.
Price, Raymond B., New York, N. Y., assignor to New York Belting and Packing Company. Sole for boots and shoes. No. 1,242,977; Oct. 16; v. 243; p. 555.
Price, Willard S., Syracuse, N. Y. Vehicle-wheel. No. 1,242,237; Oct. 9; v. 243; p. 285.
Price, William J., Poteau, Okla. Stock-guard. No. 1,241,703; Oct. 2; v. 243; p. 94.
Prihoda, Fred F. J., New Rochelle, N. Y. Watch. No. 1,244,127; Oct. 23; v. 243; p. 939.
Pringle, Robert W., Gatooma, Southern Rhodesia, South Africa. Wheel. No. 1,244,543; Oct. 30; v. 243; p. 1103.
Priser, Harry E. (See Preston and Priser.)
Pritchard, Carl G., Warren, assignor to The Harris Automatic Press Company, Niles, Ohio. Feeder. No. 1,242,978; Oct. 16; v. 243; p. 555.
Pritchett, William H., U. S. Marine Corps. Portable field shower-bath. No. 1,241,764; Oct. 2; v. 243; p. 94.
Pritchett, William H., U. S. Marine Corps. Shower-bath fixture. No. 1,241,765; Oct. 2; v. 243; p. 94.
Procunier, Frank R., assignor of three-fourths to W. M. Collins, Chicago, Ill. Combined automobile bumper and lock. No. 1,245,124; Oct. 30; v. 243; p. 1278.
Prokop, Prokop J., New York, N. Y. Airship. No. 1,244,367; Oct. 23; v. 243; p. 1010.
Pronk, Ralph, Edgerton, Minn. Litter-carrier. No. 1,244,368; Oct. 23; v. 243; p. 1011.
Proskey, Winfield S., Reno, Nev. Running-gear for automobiles and other vehicles. No. 1,243,217; Oct. 16; v. 243; p. 629.
Prosser, Joe B., Clinton, Okla. Feed-shaft. No. 1,243,100; Oct. 16; v. 243; p. 595.
Protected Metal Company. (See Caffrey, James H., assignor.)
Proulx, Ernest E., Willimansett, Mass. Antiskidding device. No. 1,242,238; Oct. 9; v. 243; p. 285.
Prout, George T. (See Stanfield, James A., assignor.)
Provine, George H., *et al.* (See Thompson, George F., assignor.)
Provost, Peter, Milwaukee, Wis. Grain cleaner and washer. No. 1,244,542; Oct. 30; v. 243; p. 1102.
Prowant, Daniel, Continental, Ohio. Lap-robe lock. No. 1,243,218; Oct. 16; v. 243; p. 629.
Pruessman, Albert, Berwyn, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y. Electrical apparatus. No. 1,244,642; Oct. 30; v. 243; p. 1132.
Pruitt, Conrad D., Berkeley, assignor of one-half to W. E. Joost, Alameda, Cal. Sign-flasher. No. 1,242,861; Oct. 9; v. 243; p. 484.
Pruyn, Henry S., Jr., *et al.* (See Von Elbertz, Frankwill, assignor.)
Public Safety Device Company, The. (See Barringer, Worth R., assignor.)
Pugh, John C., assignor of one-half to Whitehead, Morris & Company, Limited, London, England. Inking mechanism for printing-machines. No. 1,243,341; Oct. 16; v. 243; p. 666.
Pugliese, Tony, Los Banos, Cal. Combination garden-tool No. 1,245,024; Oct. 30; v. 243; p. 1248.
Puhl, Max O., Fredericksburg, Tex. Emergency-door for safes. No. 1,243,101; Oct. 16; v. 243; p. 595.
Putnam, Alden L., assignor to Detroit Pressed Steel Company, Detroit, Mich. Metallic wheel. No. 1,242,590; Oct. 9; v. 243; p. 398.
Putnam, Fred A., Melrose, Mass. Making gold or other metal leaf impressions. No. 1,243,552; Oct. 16; v. 243; p. 728.
Putnam, Fred A., Melrose, Mass. Making gold or other metal leaf impressions. No. 1,243,553; Oct. 16; v. 243; p. 728.
Putnam, Henry S., *et al.* (See Brinckerhoff, Francis M., assignor.)
Pyrene Manufacturing Company. (See Ferguson, George B., assignor.)
Q & C Company. (See Packer, Eben R., assignor.)
Quasi-Arc Company, The. (See Armstrong, Percy A. B., assignor.)

Quayle, Frederick R., Wilmette, assignor to Automatic Electric Company, Chicago, Ill. Automatic telephone system. No. 1,243,761; Oct. 23; v. 243; p. 828.
Queenan, William, and C. Farwell, Aurora, Ill. Door for freight-cars. No. 1,244,078; Oct. 23; v. 243; p. 924.
Quernheim, Oliver H., and H. Nenhoff, Jr., assignors to Metallic Sash-Operator Company Corporation, St. Louis, Mo. Window-sash operator. No. 1,242,889; Oct. 9; v. 243; p. 492.
Quigan, Frank J., Brooklyn, N. Y., assignor to Simon Zinn Inc. Clasp for hand-bags. No. 1,241,657; Oct. 2; v. 243; p. 60.
Quigley, William D., East Boston, Mass. Bearing for journals, shafts, and hubs. No. 1,242,239; Oct. 9; v. 243; p. 285.
Quin, George R., *et al.* (See Magee, Chauncey L. C., assignor.)
Quinn, Charles H., Roanoke, Va. Railway turn-table safety mechanism. No. 1,244,241; Oct. 23; v. 243; p. 973.
R. Hoe and Co. (See White, Bruce C., assignor.)
Racine Handy Manufacturing Company. (See Mansfield, Harry R., assignor.)
Rackoff, Adolph A., Detroit, Mich. Container. No. 1,244,369; Oct. 23; v. 243; p. 1011.
Rademaker, William E. R., Hoboken, N. J. Vibrating self-interrupter for electric bells, &c. No. 1,242,038; Oct. 2; v. 243; p. 181.
Rail Joint Company, The. (See Bradley, William J., assignor.)
Rakowski, Peter S., Dickinson, N. D. Egg tester and handler. No. 1,242,979; Oct. 16; v. 243; p. 555.
Ralphs, William D., Pasadena, Cal. Electrical valve. No. 1,243,219; Oct. 16; v. 243; p. 630.
Ramage, Alexander S., Buffalo, N. Y., assignor to International Color & Chemical Company, Incorporated, Detroit, Mich. Producing lead pigments. No. 1,243,762; Oct. 23; v. 243; p. 829.
Ramocki, Anton, assignor of one-third to M. Gill, North Tonawanda, N. Y. Sword-pistol. No. 1,241,552; Oct. 2; v. 243; p. 27.
Rampichini, Francesco, assignor to "Ago" Lederkitt Industrie Gesellschaft mit beschrankter Haftung, Trieste, Austria. Shoe-pressing machine. No. 1,244,776; Oct. 30; v. 243; p. 1174.
Ramsden, John T. (See Lewis and Ramsden.)
Ramthun, Herbert H., Milwaukee, Wis. Water-motor. No. 1,242,862; Oct. 9; v. 243; p. 484.
Rand, Charles A. A., Neuss, Germany, assignor to International Harvester Company of New Jersey. Tongue-truck. No. 1,242,980; Oct. 16; v. 243; p. 555.
Rand, Rupert L., Amherst, Nova Scotia, Canada. Spring-shackle. No. 1,245,025; Oct. 30; v. 248; p. 1249.
Rand Systems Corporation, The. (See McCauley, Herbert J., assignor.)
Rand, William M., Vancouver, British Columbia, Canada. Tire-repair method. No. 1,241,553; Oct. 2; v. 243; p. 28.
Randall, Edison E. (See Pope and Randall.)
Randall, Harold S., *et al.* (See Walters, Edward, assignor.)
Randall, Karl C., Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electromagnetic device. No. 1,241,554; Oct. 2; v. 243; p. 28.
Rands Manufacturing Company. (See Rands, William C., assignor.)
Rands, William C., assignor to Rands Manufacturing Company, Detroit, Mich. Glass-clip-plug assembly. No. 1,243,445; Oct. 16; v. 243; p. 696.
Raney, Clemma R., Chicago, Ill., assignor to International Harvester Company of New Jersey. Shocking-machine. No. 1,242,112; Oct. 2; v. 243; p. 204.
Raney, Clemma R., Chicago, Ill., assignor to International Harvester Company of New Jersey. Binder-locking mechanism. No. 1,242,240; Oct. 9; v. 243; p. 285.
Rankin, Schuyler S., Newark, N. J. Wheel. No. 1,244,128; Oct. 23; v. 243; p. 939.
Ranson, Adolph, assignor of one-half to S. Isaac, South Charleston, W. Va. Parachute. No. 1,244,129; Oct. 23; v. 243; p. 939.
Rasch, Louis, assignor of one-third to G. W. Dickerman, New York, N. Y. Pilot-light for gas-burners. No. 1,244,130; Oct. 23; v. 243; p. 940.
Rasmussen, Axel V., Detroit, Mich. Engine. No. 1,243,554; Oct. 16; v. 243; p. 728.
Ratner, Abraham, New York, N. Y. Concrete-reinforcing plate. No. 1,242,039; Oct. 2; v. 243; p. 181.
Raulli, Raphael, *et al.* (See D'Agostino, Nicola, assignor.)
Raulz, Willie H., Hye, Tex. Attachment for planters. No. 1,242,591; Oct. 9; v. 243; p. 398.
Ray, William J., Fort Smith, Ark. Journal-box. No. 1,241,658; Oct. 2; v. 243; p. 61.
Raymond, Pynchon & Company. (See Smith, Ross G., assignor.)
Rea, Arthur D., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis. Tractor. No. 1,241,766; Oct. 2; v. 243; p. 94.
Read, Henry L. (See Richardson, Eddison, and Read.)
Reaume, Harvey W., Brodhead, Colo. Shielding appliance for mine trolley-wires. No. 1,243,220; Oct. 16; v. 243; p. 630.
Reavell, William, Ipswich, England. Air-compressor. No. 1,242,040; Oct. 2; v. 243; p. 181.

Reddick, Daniel B. and L. W., Belleville, Kans. Car step and door. No. 1,244,870; Oct. 23; v. 243; p. 1011.
Reddick, Leonard W. (See Reddick, Daniel B. and L. W.)
Redifer, Charles J., New York, N. Y. Rail-anchor. No. 1,242,981; Oct. 16; v. 243; p. 556.
Redlick, Albert. (See Franke, Hans, assignor.)
Redman, Lawrence V., Evanston, A. J. Weith, and F. P. Brock, assignors to Redmanol Chemical Products Company, Chicago, Ill. Producing phenolic condensation compounds. No. 1,242,592; Oct. 9; v. 243; p. 399.
Redman, Lawrence V., Evanston, A. J. Weith, and F. P. Brock, assignors to Redmanol Chemical Products Company, Chicago, Ill. Condensation product and preparing same. No. 1,242,593; Oct. 9; v. 243; p. 399.
Redmanol Chemical Products Company. (See Redman, Weith, and Brock, assignors.)
Redmond, Edmond, Rochester, N. Y. Street-car. No. 1,242,041; Oct. 2; v. 243; p. 182.
Reece Button Hole Machine Company, The. (See Reece, Franklin A., assignor.)
Reece, Franklin A., Hopkinton, assignor to The Reece Button Hole Machine Company, Boston, Mass. Stop-motion. No. 1,244,079; Oct. 23; v. 243; p. 925.
Reece Shoe Machinery Company. (See Schoenky, August R., assignor.)
Reed, George B., Philadelphia, Pa.. Automobile-lock. No. 1,244,893; Oct. 30; v. 243; p. 1209.
Reed, John H., Van Wert, Ohio. Dirigible-light apparatus for automobiles. No. 1,242,042; Oct. 2; v. 243; p. 182.
Reed, Richard D., Westfield, Mass. Radiator wall-bracket. No. 1,245,143; Oct. 30; v. 243; p. 1284.
Reed, Theodore J., Kansas City, Mo. Non-skid tire-protector. No. 1,244,080; Oct. 23; v. 243; p. 925.
Reed, Verner Z. (See Day, David T., assignor.)
Reed, Walter C., Dalton, assignor to The Telelectric Company, Pittsfield, Mass. Circuit-controller. No. 1,243,221; Oct. 16; v. 243; p. 630.
Rees, William D., Columbus, Ohio. Bath-tub attachment. No. 1,242,113; Oct. 2; v. 243; p. 204.
Reeves, Milton O., assignor to Reeves Pulley Company, Columbus, Ind. Slip-comparing demonstrator. No. 1,242,863; Oct. 9; v. 243; p. 484.
Reeves Pulley Company. (See Reeves, Milton O., assignor.)
Regan, Barney. (See Autry and Regan.)
Reid-Geisler Manufacturing Company. (See Reid, Willard M., assignor.)
Reid, Joseph W., Paterson, N. J. Bobbin. No. 1,243,102; Oct. 16; v. 243; p. 595.
Reid, Pettis A. (See Reid, Walter V., assignor.)
Reid, Walter V., assignor to P. A. Reid, Richmond, Ind. Feed mechanism for wire-fence machines. No. 1,242,594; Oct. 9; v. 243; p. 399.
Reid, Walter V., assignor to P. A. Reid, Richmond, Ind. Feeding mechanism for wire-fence machines. No. 1,242,595; Oct. 9; v. 243; p. 399.
Reid, Willard M., Port Clinton, Ohio, assignor to Reid-Geisler Manufacturing Company, Chicago, Ill. Humidifier. No. 1,243,975; Oct. 23; v. 243; p. 894.
Reilly, Edward B., assignor of four-fifths to H. R. Young, Atlantic City, N. J. Submarine boat. No. 1,244,242; Oct. 23; v. 243; p. 973.
Reilly, Edward B., assignor of four-fifths to H. R. Young, Atlantic City, N. J. Center-of-gravity-shifting device for submarine boats. No. 1,244,243; Oct. 23; v. 243; p. 974.
Reilly, Edward J., Baltimore, Md. Shoe-blacking stand. No. 1,242,043; Oct. 2; v. 243; p. 182.
Reilly, Frank W., Sandwich, Mass. T-square. No. 1,242,722; Oct. 9; v. 243; p. 440.
Reinhardt, James H., East Orange, N. J. Automatic cleaning device for numbering-machines. No. 1,242,373; Oct. 9; v. 243; p. 327.
Reinke, Eugene A., assignor to Stromberg-Carlson Telephone Manufacturing Company, Rochester, N. Y. Automatic trunking system. No. 1,242,374; Oct. 9; v. 243; p. 327.
Reisinger, Marion E., Albion, Iowa. Adjustable entrance-gate for beehives. No. 1,243,555; Oct. 16; v. 243; p. 728.
Remington Typewriter Company. (See Briggs, Arthur J., assignor.)
Remington Typewriter Company. (See Seib, George A., assignor.)
Renouf, Sidney W. B., Portsmouth, England. Fountain shaving-brush. No. 1,244,894; Oct. 30; v. 243; p. 1210.
Reyes, Ricardo, Mexico, Mexico. Separation of gold and silver from minerals. No. 1,243,976; Oct. 23; v. 243; p. 894.
Reyes, Ricardo, Mexico, Mexico. Apparatus for the chlorination of minerals. No. 1,243,977; Oct. 23; v. 243; p. 894.
Reynolds, Charles H., Hermosa Beach, Cal. Rocking toy. No. 1,244,371; Oct. 23; v. 243; p. 1011.
Reynolds, Charles J., Melrose, Mass. Seal. No. 1,245,026; Oct. 30; v. 243; p. 1249.
Reynolds, John J., and A. H. Jenkins, Ruleville, Miss. Cargo structure for aerial craft. No. 1,243,556; Oct. 16; v. 243; p. 729.
Reynolds, John J., Rantoul, Ill. Air-pressure-maintenance chamber for aircraft. No. 1,243,557; Oct. 16; v. 243; p. 729.
Reynolds, Mercer, Chattanooga, Tenn., assignor to Atlanta Utility Works, East Point, Ga. Method of and apparatus for delinting cotton-seed hulls. No. 1,244,131; Oct. 23; v. 243; p. 940.
Reynolds, Morley P., assignor to The W. S. Tyler Company, Cleveland, Ohio. Screening device. No. 1,242,982; Oct. 16; v. 243; p. 556.
Rhoades, Alonzo E., assignor to Draper Corporation, Hopedale, Mass. Filling-replenishing feeler-loom and filling-carrier therefor. No. 1,243,342; Oct. 16; v. 243; p. 666.
Rhoads, Charles S., Jr., West Lafayette, Ind., assignor to Western Electric Company, Incorporated, New York, N. Y. Selector. No. 1,244,544; Oct. 30; v. 243; p. 1103.
Rhoads, William B., San Francisco, Cal. Copy-holder. No. 1,245,027; Oct. 30; v. 243; p. 1249.
Rhoads, William J., Chester, Pa. Mail-bag-transfer device. No. 1,244,372; Oct. 23; v. 243; p. 1011.
Rhyne, Benjamin B., Charlotte, N. C. Pumping device. No. 1,243,222; Oct. 16; v. 243; p. 630.
Ribble, Francis J., San Pedro, Cal. Heel-cutting apparatus. No. 1,243,627; Oct. 16; v. 243; p. 751.
Rice, Bettie A., executrix. (See Rice, Charlton E.)
Rice, Charlton E., deceased, B. A. Rice, executrix, Fulton, Ky. Book-supporting stand. No. 1,244,373; Oct. 23; v. 243; p. 1012.
Rice, George H., Honolulu, Hawaii. Automatic uncoupling means for shaft-clutches. No. 1,242,723; Oct. 9; v. 243; p. 440.
Rice, George H., Honolulu, Hawaii. Automatic uncoupling means for shaft-clutches. No. 1,242,724; Oct. 9; v. 243; p. 440.
Rice Manufacturing Company, The. (See Rice, Thomas F., assignor.)
Rice, Thomas F., Henrietta, assignor to The Rice Manufacturing Company, Rochester, N. Y. Digger for potatoes, peanuts, or the like. No. 1,241,883; Oct. 2; v. 243; p. 133.
Rich, Hollen W. (See McNally, Leo F., assignor.)
Richard Auto Mfg. Company, The. (See Richard, François, assignor.)
Richard, François, assignor to The Richard Auto Mfg. Company, Cleveland, Ohio. Cutter. No. 1,243,446; Oct. 16; v. 243; p. 696.
Richards, Joe, Timpson, Tex. Boll-weevil catcher. No. 1,244,895; Oct. 30; v. 243; p. 1210.
Richards, Willard F. (See Milne and Richards.)
Richards, Willard F., Buffalo, N. Y., assignor to Gould Coupler Company. Dynamo-mounting. No. 1,242,596; Oct. 9; v. 243; p. 400.
Richards, Willard F., Buffalo, N. Y., assignor to Gould Coupler Company. Dynamo suspension. No. 1,242,597; Oct. 9; v. 243; p. 400.
Richardson, Adam, Elba, and B. B. Jackson, Almyra, Ark., said Richardson assignor to said Jackson. Work-support. No. 1,244,374; Oct. 23; v. 243; p. 1012.
Richardson, Albert F. (See Johnson, Augustus, assignor.)
Richardson, Charles E., New York; W. B. Eddison, Irvington; and H. L. Read, assignors to The Surface Combustion Company, New York, N. Y. Apparatus for burning explosive gaseous mixtures. No. 1,242,114; Oct. 2; v. 243; p. 205.
Richardson, Joseph V., Goshen, Ind. Grooving and equalizing machine. No. 1,243,663; Oct. 16; v. 243; p. 762.
Richardson, William A., Edwardsville, assignor to Richwin Manufacturing Company, Chicago, Ill. Clamp. No. 1,243,103; Oct. 16; v. 243; p. 595.
Richardson, William A., Edwardsville, assignor to Richwin Manufacturing Company, Chicago, Ill. Clamp. No. 1,243,104; Oct. 16; v. 243; p. 595.
Richardson, William A., Edwardsville, assignor to Richwin Manufacturing Company, Chicago, Ill. Clamp. No. 1,243,105; Oct. 16; v. 243; p. 596.
Richardson, William E., Edwardsville, assignor to Richwin Manufacturing Company, Chicago, Ill. Clamp. No. 1,243,106; Oct. 16; v. 243; p. 596.
Richardson, William E., Edwardsville, assignor to Richwin Manufacturing Company, Chicago, Ill. Clamp. No. 1,243,107; Oct. 16; v. 243; p. 596.
Richardson, William E., Edwardsville, assignor to Richwin Manufacturing Company, Chicago, Ill. Clamp. No. 1,243,108; Oct. 16; v. 243; p. 596.
Richardson, William E., Edwardsville, assignor to Richwin Manufacturing Company, Chicago, Ill. Clamp. No. 1,243,109; Oct. 16; v. 243; p. 597.
Richter, John P., New York, N. Y. Ornamental glass. No. 1,241,767; Oct. 2; v. 243; p. 97.
Richter, Otto F., Indianapolis, Ind. Gun. No. 1,244,896; Oct. 30; v. 243; p. 1210.
Richwin Manufacturing Company. (See Richardson, William A., assignor.)
Rickert-Shafer Company. (See Shafer, Arthur A., assignor.)
Ricks, George A., La Fayette, Ind. Faucet. No. 1,242,864; Oct. 9; v. 243; p. 485.
Riddile, Fred C. (See Bell, Frank B., assignor.)
Riddle, Anna R., executrix. (See Riddle, James W.)
Riddle, James W., deceased, Valley Forge, Pa.; A. P. Riddle, executrix. Traction-couch. No. 1,242,598; Oct. 9; v. 243; p. 401.
Riehl, Henry E., Brooklyn, N. Y. Amusement apparatus. No. 1,242,865; Oct. 9; v. 243; p. 485.

Riemenschneider, Nelson D., State Center, Iowa. Tank-heater. No. 1,241,555; Oct. 2; v. 243; p. 28.
Rietz, Elmer W. (See Gold and Rietz.)
Riggs, Fred L., Macomb, Ill. Toasting device. No. 1,242,725; Oct. 9; v. 243; p. 440.
Riggs, Horace A., Indianapolis, Ind. Centrifugal self-balancing separator or clarifier. No. 1,242,866; Oct. 9; v. 243; p. 485.
Riker, Andrew L., Fairfield, assignor to The Locomobile Company of America, Bridgeport, Conn. Anti-skidding device. No. 1,244,244, Oct. 23; v. 243; p. 974.
Riley, George M., Aurora, Ill. Pneumatic transmission-operating device. No. 1,242,474; Oct. 9; v. 243; p. 360.
Riley, George Q., Corona, Cal. Heating system. No. 1,245,028; Oct. 30; v. 243; p. 1249.
Riley, Lynn G., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Switching device. No. 1,244,545; Oct. 30; v. 243; p. 1104.
Riley, William, Henry, S. D. Wrench. No. 1,243,876; Oct. 23; v. 243; p. 865.
Ring, David S., Waltham, Mass. Making brushes. No. 1,244,132; Oct. 23; v. 243; p. 940.
Ringle, Robert F. (See Austin and Ringle.)
Ringuette, Elie, North Attleboro, Mass. Door attachment. No. 1,244,644; Oct. 30; v. 243; p. 1133.
Rinsche, Frank C., assignor to Burroughs Adding Machine Company, Detroit, Mich. Adding-machine. No. 1,243,763; Oct. 23; v. 243; p. 829.
Rist, George W., Havre, Mont. Boiler. No. 1,241,884; Oct. 2; v. 243; p. 133.
Riter-Conley Manufacturing Company. (See Hibbard, Robert L., assignor.)
Ritter, Roland H., assignor to National Metal Edge Box Company, Philadelphia, Pa. Box-staying machine. No. 1,243,877; Oct. 23; v. 243; p. 865.
Ritz, Emil, Jr., assignor to The Ilsey-Wolf Machine Company, Cincinnati, Ohio. Electric portable grinder. No. 1,241,659; Oct. 2; v. 243; p. 61.
Rives, George H., New York, N. Y. Pedal-pad. No. 1,243,764; Oct. 23; v. 243; p. 829.
Robb, George C. (See Wescott and Locke, assignors.)
Robb, James T., Bay Shore, and W. E. Jerome, Rockville Center, N. Y. Hanger for light-transmitting bowls. No. 1,245,029; Oct. 30; v. 243; p. 1250.
Robbins, Fred, *et al.* (See Errett, Thomas A., assignor.)
Robbins, Gamwell & Company. (See Abbott, Charles C., assignor.)
Robbins, John H., assignor to A. D. Romans, Indianapolis, Ind. Side-filing machine and equalizer for band and other saws of like construction. No. 1,242,726; Oct. 9; v. 243; p. 440.
Robbins, Willis C., Wakefield, Mass., assignor to L. N. Littauer, Gloversville, N. Y. Ruffling mechanism for sewing-machines. No. 1,242,476; Oct. 9; v. 243; p. 360.
Robert, Arthur L., and E. Menard, Springfield, Mass. Combined covering and oiler for springs. No. 1,242,044; Oct. 2; v. 243; p. 182.
Roberts, Flauzelle, Center, Tex. Oil-cup for wagon-wheels. No. 1,243,978; Oct. 23; v. 243; p. 894.
Roberts, James H., Charleston, S. C. Combination-tool. No. 1,243,343; Oct. 16; v. 243; p. 667.
Roberts, Joseph, Youngstown, Ohio. Combination hinged roof for box cars. No. 1,243,979; Oct. 23; v. 243; p. 895.
Roberts, Marshal G., Detroit, Mich. Ventilator. No. 1,241,660; Oct. 2; v. 243; p. 61.
Roberts, Walter V., Princeton, N. J., assignor to R. E. Hopkins, Tarrytown, N. Y. Vibrator. No. 1,243,628; Oct. 16; v. 243; p. 752.
Roberts, Weldon, Montclair, N. J. Eraser. No. 1,243,447; Oct. 16; v. 243; p. 697.
Robertson, James. (See Clarke and Delaney, assignors.)
Robertson, James B., Bushnell, Ill. Check-book holder. No. 1,242,475; Oct. 9; v. 243; p. 360.
Robertson, William H., Rockford, Ill. Tire-inspecting machine. No. 1,244,245; Oct. 23; v. 243; p. 974.
Robinson, Daniel P. (See Taliaferro, Robinson, and Coyle.)
Robinson, Everett E., Grundy Center, Iowa. Clothes-line support. No. 1,242,867; Oct. 9; v. 243; p. 486.
Robinson, Frank, Chicago, Ill. Spark-plug. No. 1,242,375; Oct. 9; v. 243; p. 328.
Robinson, Walter D., Mamaroneck, N. Y. Plant-support. No. 1,244,897; Oct. 30; v. 243; p. 1210.
Robson, John, assignor to The Variable Speed Gear Limited, Westminster, London, England. Power-transmission gear. No. 1,243,223; Oct. 16; v. 243; p. 631.
Robson, John, Westminster, assignor to The Variable Speed Gear Limited, London, England. Power-transmission gear. No. 1,243,677; Oct. 16; v. 243; p. 767.
Rockford Tool Company. (See Sundstrand, Gustaf D., assignor.)
Rockman, Soren C., Philadelphia, Pa. Combined coal and gas range. No. 1,244,246; Oct. 23; v. 243; p. 975.
Rockwell, Walter S., assignor to W. S. Rockwell Company, New York, N. Y. Furnace-shield. No. 1,245,030; Oct. 30; v. 243; p. 1250.
Rodal, Augusto, Habana, Cuba. Toothpick-holder. No. 1,243,844; Oct. 16; v. 243; p. 667.
Roddy, Edward, New York, N. Y. Surgical appliance. No. 1,243,629; Oct. 16; v. 243; p. 752.
Rodemerk, Henry F., assignor to Henry Likly & Company, Rochester, N. Y. Pocket for trunks. No. 1,244,898; Oct. 30; v. 243; p. 1211.
Rodger Ballast Car Company. (See Neikirk, John O., assignor.)
Rodgers, Charles B., Bordentown, N. J. Liquid dynamic balancing-machine. No. 1,243,345; Oct. 16; v. 243; p. 667.
Rodolf, Fred W., assignor to The Addachine Manufacturing Company, Portland, Oreg. Adding and subtracting machine. No. 1,243,224; Oct. 16; v. 243; p. 631.
Roe, Allbutt V., Manchester, England. Turnbuckle. No. 1,243,225; Oct. 16; v. 243; p. 632.
Roebuck, Alvah C., assignor to Woodstock Typewriter Company, Woodstock, Ill. Line-space mechanism. No. 1,243,110; Oct. 16; v. 243; p. 597.
Roeder, Charles, New York, N. Y. Tiling construction. No. 1,241,885; Oct. 2; v. 243; p. 134.
Roeding, George C., Fresno, Cal. Raisin-drying process. No. 1,245,031; Oct. 30; v. 243; p. 1250.
Roehm, John G., Jr., Oneida, N. Y. Closure for milk and cream bottles or jars. No. 1,242,045; Oct. 2; v. 243; p. 182.
Roessler & Hasslacher Chemical Co., The. (See Foerster-ling, Sargent, and Kaufmann, assignors.)
Roessler & Hasslacher Chemical Co., The. (See Halvorsen, Arthur L., assignor.)
Roessler & Hasslacher Chemical Company, The. (See Lacy, Burritt S., assignor.)
Rogers, Ada L., Memphis, Tenn. Picture-frame attachment. No. 1,242,868; Oct. 9; v. 243; p. 486.
Rogers, Charles E., Detroit, Mich. Means for and method of desiccating fluids. No. 1,243,878; Oct. 23; v. 243; p. 866.
Rogers, Edmund, assignor of one-half to T. J. Martin, Chicago, Ill. Time-calling device for telephones. No. 1,244,081; Oct. 23; v. 243; p. 925.
Rogers, Edward, *et al.* (See Slawter, Ira L., assignor.)
Rogers, Edward, Rosedale, assignor of one-half to W. A. Courtland, Brooklyn, N. Y. Phonograph. No. 1,243,980; Oct. 23; v. 243; p. 895.
Rogers, Ernest, New Lexington, Ohio. Liquid coating composition. No. 1,244,777; Oct. 30; v. 243; p. 1174.
Rogers, Ovid H., Sacramento, Cal. Universal drive for motor-vehicle wheels. No. 1,244,778; Oct. 30; v. 243; p. 1174.
Rogers, Perley F., Bartlett, N. H. Lubricating grease-cup. No. 1,242,477; Oct. 9; v. 243; p. 361.
Rogers, Robert W., Worcester, Mass. Water-heater. No. 1,242,241; Oct. 9; v. 243; p. 286.
Rogers, Stephen G., assignor of one-half to R. E. Bills, Parkersburg, W. Va. Horseshoe. No. 1,245,032; Oct. 30; v. 243; p. 1250.
Rogers, William H., Brooklyn, N. Y. Base-ball game. No. 1,242,046; Oct. 2; v. 243; p. 183.
Rohlfing, John M., assignor to American Car and Foundry Company, St. Louis, Mo. Car-door-locking means. No. 1,244,779; Oct. 30; v. 243; p. 1175.
Rohlfing, John M., assignor to American Car and Foundry Company, St. Louis, Mo. Car-underframe. No. 1,244,780; Oct. 30; v. 243; p. 1175.
Rohlfing, John M., assignor to American Car and Foundry Company, St. Louis, Mo. Antifriction side bearing. No. 1,244,781; Oct. 30; v. 243; p. 1175.
Rohlfing, John M., assignor to American Car and Foundry Company, St. Louis, Mo. Side bearing with contact-shoe. No. 1,244,782; Oct. 30; v. 243; p. 1176.
Rohlin, Karl W., Philadelphia, Pa. Volumetric meter. No. 1,242,869; Oct. 9; v. 243; p. 486.
Rollett, Adolf. (See Klatte and Rollett.)
Rolph, Benjamin M., Dixon, Ill. Ditching-machine. No. 1,241,661; Oct. 2; v. 243; p. 62.
Romans, Albert D. (See Robbins, John H., assignor.)
Ronconi, Domenico, Chicago, Ill. Valve mechanism. No. 1,241,662; Oct. 2; v. 243; p. 62.
Ronconi, Domenico, Chicago, Ill. Self-grinding rotary valve. No. 1,241,663; Oct. 2; v. 243; p. 62.
Ronning, Victor C., Utica, N. Y. Etching device. No. 1,243,630; Oct. 16; v. 243; p. 752.
Roost, Richard, assignor to Huebsch Manufacturing Company, Milwaukee, Wis. Clamp for stocking-ironers. No. 1,243,346; Oct. 16; v. 243; p. 668.
Roper, William, Philadelphia, Pa. Metallic sash-joint. No. 1,242,242; Oct. 9; v. 243; p. 286.
Ropp, John W., Cross Hill, S. C. Seed-feeding mechanism. No. 1,243,631; Oct. 16; v. 243; p. 752.
Rose, Edward E., Swissvale, and O. A. Colby, Wilkinsburg, Pa., assignors to Westinghouse Electric and Manufacturing Company. Electrical connector. No. 1,241,556; Oct. 2; v. 243; p. 29.
Rose, James R., Edgeworth, Pa. Cutting metal. No. 1,242,243; Oct. 9; v. 243; p. 286.
Rosenstein, Ludwig, San Francisco, and E. H. Simonds, Oakland, Cal. Extracting trioxid of tungsten from its ores. No. 1,244,082; Oct. 23; v. 243; p. 926.
Rosentreter, Alfred J., Boonton, assignor to E. Zabriskie, Maplewood, N. J., and F. E. Hutchins, New York, N. Y. Elevator-shaft sliding-door mechanism. No. 1,244,899; Oct. 30; v. 243; p. 1211.
Rosewarne, Richard E., Covington, Ky., assignor to H. J. Young and R. E. Rosewarne, trustees. Cutter-head for cigarette-machines. No. 1,242,478; Oct. 9; v. 243; p. 361.
Ross, Samuel L., assignor of one-third to F. Trozzo and one-third to J. Rotondo, Lockport, N. Y. Life-preserver. No. 1,245,033; Oct. 30; v. 243; p. 1250.
Ross, William C., Columbus, Ohio. Boat-landing. No. 1,243,981; Oct. 23; v. 243; p. 895.

Ross, William G., and O. Onsrud, Chicago, Ill. Turbine. No. 1,244,247; Oct. 23; v. 243; p. 975.
Rossi, Augustus M., Barre, Vt. Stone-sawing machine. No. 1,242,968; Oct. 16; v. 243; p. 567.
Roth, August A., and B. B. James, assignors to Surface Grip Corporation, Baltimore, Md. Sander for automobiles. No. 1,243,632; Oct. 16; v. 243; p. 753.
Rotondo, Joseph, *et al.* (See Ross, Samuel L., assignor.)
Rottenburg, Louis, Ealing, London, England. Device for setting the selective controlling apparatus on a moving automatic goods conveyer or trucker from a fixed station. No. 1,244,546; Oct. 30; v. 243; p. 1104.
Rowe, Levi L., Boston, Mass. Lens. No. 1,241,866; Oct. 2; v. 243; p. 134.
Royal, Belford G., Camden, N. J., assignor to the Victor Talking Machine Company, Governor. No. 1,245,125; Oct. 30; v. 243; p. 1279.
Royal, Isaac N., Fort Valley, Ga. Meat-cutter. No. 1,243,448; Oct. 16; v. 243; p. 697.
Royal Typewriter Company. (See Handley, George F., assignor.)
Royal Typewriter Company. (See Myers, Lewis C., assignor.)
Royal Worcester Corset Co. (See Lecoutre, Auguste J. assignor.)
Roys, Willis E., Richmond Hill, N. Y. Magazine feed-boiler. No. 1,244,375; Oct. 23; v. 243; p. 1012.
Rubenstein, Nathan, New York, N. Y. Apparatus for renovating wearing-apparel. No. 1,241,557; Oct. 2; v. 243; p. 29.
Rucken, Michael, Chicopee, assignor, by mesne assignments, to E. M. Chapman and C. E. Cowan, Holyoke, Mass. Elevating-truck. No. 1,244,783; Oct. 30; v. 243; p. 1176.
Ruckgaber, Albert, Brooklyn, N. Y. Speed-regulator for phonographs. No. 1,241,887; Oct. 2; v. 243; p. 134.
Ruffalo, Pasquale J., Mount Vernon, N. Y. Winding and reeling device for electric conductors. No. 1,245,034; Oct. 30; v. 243; p. 1251.
Ruffin, John A., assignor to The Noiseless Typewriter Company, Middletown, Conn. Type-writing machine. No. 1,242,244; Oct. 9; v. 243; p. 287.
Rnit, Peter, Hawthorne, and S. J. Maher, assignors to H. J. Tynan, Paterson, N. J. Cutting-tool. No. 1,243,449; Oct. 16; v. 243; p. 697.
Rumens, George J., assignor to G. Miller, Baltimore, Md. Clutch-operating mechanism. No. 1,244,376; Oct. 23; v. 243; p. 1013.
Rummel, William H., Dubois, Idaho. Wrench. No. 1,245,035; Oct. 30; v. 243; p. 1251.
Runions, James R., Coal Harbor, N. D. Bag holder and filler. No. 1,244,900; Oct. 30; v. 243; p. 1211.
Rupp Laurente, New York, N. Y. Beater or mixer. No. 1,243,982. Oct. 23; v. 243; p. 896.
Rush, Chris C., Greenville, S. C. Display-rack. No. 1,241,768; Oct. 2; v. 243; p. 95.
Rushton, Kenneth. (See Wilhelm, Walter M., assignor.)
Russ Company, The. (See Case, Francis M., assignor.)
Russell, Alvin B., Brooklyn, N. Y. Paper-removing machine. No. 1,242,479; Oct. 9; v. 243; p. 361.
Russell, Burdsall & Ward Bolt and Nut Company. (See Julian, David, assignor.)
Russell, Edward M., Battle Mountain, Nev. Tire-armor. No. 1,243,633; Oct. 16; v. 243; p. 753.
Russell, George H., Florence, Ala. Boll-weevil trap. No. 1,244,547; Oct. 30; v. 243; p. 1104.
Russell, Guy M., Rochester, assignor to American Piano Company, New York, N. Y. Tracking device for automatic musical instruments. No. 1,245,126; Oct. 30; v. 243; p. 1279.
Russell, Motie L., *et al.* (See Taylor, Silas L. O., assignor.)
Russell, Percy, Brooklyn, N. Y., assignor to Electro Dental Manufacturing Company, Philadelphia, Pa. Switch for dental instruments. No. 1,242,115; Oct. 2; v. 243; p. 205.
Russell, Richard. (See McRae and Russell.)
Russo, John, Fitchburg, Mass. Sectional track. No. 1,241,769; Oct. 2; v. 243; p. 95.
Rustige, Frans J. H., Stockholm, Sweden. Fire-extinguishing system. No. 1,241,664; Oct. 2; v. 243; p. 63.
Rutter, William W., Edmonton, Alberta, Canada. Pneumatic toy. No. 1,242,870; Oct. 9; v. 243; p. 486.
Rutz, Arnold O., Milwaukee, Wis. By-pass valve. No. 1,242,245; Oct. 9; v. 243; p. 287.
Ryan, Thomas B., New Bedford, Mass. Valve-lock. No. 1,243,558; Oct. 16; v. 243; p. 730.
Ryon, Tracy B., Worcester, Mass. Wire-drawing machine. No. 1,243,879; Oct. 23; v. 243; p. 866.
S. H. Smythe Company, The. (See Smythe, Horace E., assignor.)
S. S. White Dental Manufacturing Company, The. (See Browne, Arthur W., assignor.)
S. S. White Dental Manufacturing Company, The. (See Crowell, Walter S., assignor.)
S. S. White Dental Manufacturing Company, The. (See Leuchenring, Hermann H., assignor.)
Saari, Arvid, Crosby, Minn. Gate-latch. No. 1,242,376; Oct. 9; v. 243; p. 328.
Sachs, Joseph, Hartford, Conn. Protective casing for electric service connections and meter devices. No. 1,245,036; Oct. 30; v. 243; p. 1251.
Sachs, Joseph, Hartford, Conn. Multiple-meter adapter. No. 1,245,037; Oct. 30; v. 243; p. 1252.
Sachs, Joseph, Hartford, Conn. Meter-testing appurtenance. No. 1,245,038; Oct. 30; v. 243; p. 1252.
Sadovsky, Nathan, San Antonio, Tex. Printing-press gripper. No. 1,244,548; Oct. 30; v. 243; p. 1105.
Safety Car Heating and Lighting Co. (See Bijur, Joseph, assignor.)
Safety Car Heating and Lighting Company. (See Creveling, John L., assignor.)
Safety Car Heating & Lighting Company. (See Dieterich, Ludwig M., assignor.)
Safety on Sea Company. (See Jaynes, Alfonso L., assignor.)
Safford, Clarence E., assignor to American Pressweld Radiator Corporation, Detroit, Mich. Radiator. No. 1,242,984; Oct. 16; v. 243; p. 557.
Safford, John H., Brooklyn, N. Y. Alarm system. No. 1,241,888; Oct. 2; v. 243; p. 135.
Safford, John H. (See House, Herbert E., assignor.)
Sahm, Louis N., New York, N. Y. Pigment or filler. No. 1,242,480; Oct. 9; v. 243; p. 362.
Salisbury, Robert F., New Kensington, Pa. Detachable handle for utensils. No. 1,243,880; Oct. 23; v. 243; p. 866.
Sallee, Junius F., Litchfield, Ill. Eyeglass and spectacle mounting. No. 1,242,599; Oct. 9; v. 243; p. 401.
Sammons, C. R., *et al.* (See Icenhour, Albert A., assignor.)
Samuel C. Tatum Company, The. (See Dom, Alexander, assignor.)
Samuel, Howard H., *et al.* (See Guy, George E., assignor.)
Samuel M. Langston Company. (See Langston, Samuel M., assignor.)
Samuel, Walter H., *et al.* (See Guy, George E., assignor.)
Sandbo, Anton I., Rock Island, Ill. Gas-engine primer. No. 1,242,871; Oct. 9; v. 243; p. 487.
Sandefur, Samuel H., Cherryvale, Kans. Churn. No. 1,243,634; Oct. 16; v. 243; p. 753.
Sandell, Henry K., assignor to H. S. Mills, Chicago, Ill. Rectifier. No. 1,242,600; Oct. 9; v. 243; p. 401.
Sandell, Henry K., assignor to H. S. Mills, Chicago, Ill. Rectifier and the motor thereof. No. 1,242,601; Oct. 9; v. 243; p. 402.
Sanders, John F., assignor to O. P. Coshow, Roseburg, Oreg. Galvanic cell. No. 1,243,111; Oct. 16; v. 243; p. 597.
Sandman, Fred H. (See Boll and Kempthorne, assignors.)
Sandvoss, Hermann, Heidelberg, Germany. Thermostatic regulator. No. 1,243,112; Oct. 16; v. 243; p. 598.
Sanford, Thurlow E., and F. Jackson, Milan, Mich. Fishing-float. No. 1,243,881; Oct. 23; v. 243; p. 866.
Sanford, William L., Clayton, Wis. Pump attachment. No. 1,243,113; Oct. 16; v. 243; p. 598.
Sanispoon Company, The. (See Jacoby, Leo D., assignor.)
Sargent, Alson C., assignor to Sargent Electrical Brake Company, Des Moines, Iowa. Electric motor. No. 1,245,039; Oct. 30; v. 243; p. 1252.
Sargent & Company. (See Molden, Harry, assignor.)
Sargent & Company. (See Voight, Henry G., assignor.)
Sargent Electrical Brake Company. (See Sargent, Alson C., assignor.)
Sargent, Ralph N. (See Foersterling, Sargent, and Kaufmann.)
Sargent, William H., assignor to Wayne Manufacturing Company, St. Louis, Mo. Operating mechanism for washing-machines. No. 1,242,727; Oct. 9; v. 243; p. 441.
Sargent, William H., assignor to Wayne Manufacturing Company, St. Louis, Mo. Driving mechanism. No. 1,243,882; Oct. 23; v. 243; p. 867.
Sas, Elmer. (See Levay and Sas.)
Sasiadek, Anton, Mosinee, Wis. Combined lock and alarm. No. 1,243,983; Oct. 23; v. 243; p. 896.
Sato, Ryuji, Chicago, Ill. Garment-supporter. No. 1,243,984; Oct. 23; v. 243; p. 896.
Sauerman, John F., assignor of forty-eight one-hundredths to B. D. Schaad, Little Rock, Ark. Earth-boring machine. No. 1,241,665; Oct. 2; v. 243; p. 63.
Saunders, Clarence, Memphis, Tenn. Self-serving store. No. 1,242,872; Oct. 9; v. 243; p. 487.
Saunders, David R., deceased, St. Louis, Mo.; J. P. Newell, administrator. Ground-anchor. No. 1,244,133; Oct. 23; v. 243; p. 940.
Saunders, Emmett A., Mishawaka, Ind., assignor to Morgan & Wright, Tire. No. 1,243,114; Oct. 16; v. 243; p. 598.
Saunders, John, Los Angeles, Cal., assignor to Smith & Marsh Incorporated, Los Angeles, Cal. Method and apparatus for producing dais and sunk-dais embossing. No. 1,243,226; Oct. 16; v. 243; p. 632.
Saurer, Firm of Adolph. (See Mayer and Schlatter, assignors.)
Savings Union Bank and Trust Company. (See Northrup, Elmer C., assignor.)
Sawtelle, Charles A., assignor to V. G. Apple, Dayton, Ohio. Gas-engine. No. 1,242,985; Oct. 16; v. 243; p. 557.
Sawyer, August T., Livermore Falls, Me., assignor of one-half to W. H. Dixon. Hose-coupling. No. 1,242,047; Oct. 2; v. 243; p. 183.
Sawyer, Walter H., Auburn, Me. Treating sewage. No. 1,242,986; Oct. 16; v. 243; p. 558.

Saxton, Thomas G., assignor to E. M. McKee, Lexington, Ky. Piston-packing. No. 1,241,770; Oct. 2; v. 243; p. 96.
Sayer, George J. (See Peterson, John M., assignor.)
Saywell, Alfred J., Pawtucket, R. I. Lace. No. 1,241,606; Oct. 2; v. 243; p. 63.
Scaife, Arthur J., assignor to The White Motor Company, Cleveland, Ohio. Brake mechanism for automobiles. No. 1,245,040; Oct. 30; v. 243; p. 1252.
Schaad, Ben D. (See Sauerman, John F., assignor.)
Schaake, William, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Trolley. No. 1,241,558; Oct. 2; v. 243; p. 29.
Schadel, Frank J. (See Miller, Anna C., assignor.)
Schaefer, Herman, Astoria, N. Y. Support for suspended conductors. No. 1,242,048; Oct. 2; v. 243; p. 183.
Schanz, Otto A., Port Townsend, Wash. Locking means for floor-boards. No. 1,241,667; Oct. 2; v. 243; p. 63.
Schaum, William. (See Terrell and Schaum.)
Schauweker, William K., Cleveland, Ohio. Gasolene-vending apparatus. No. 1,241,889; Oct. 2; v. 243; p. 135.
Schawrowsky, Rappel, Bayonne, N. J. Hydrocarbon-burner. No. 1,243,559; Oct. 16; v. 243; p. 730.
Scheffey, John A., Columbus, Ohio. Rivet-cutting machine. No. 1,243,765; Oct. 23; v. 243; p. 829.
Schelbe, Harold M., Somerville, Mass., assignor to Westinghouse Electric and Manufacturing Company. Commutator. No. 1,241,559; Oct. 2; v. 243; p. 30.
Schellenbach, Charles O., Cincinnati, Ohio. Expansible reamer. No. 1,241,668; Oct. 2; v. 243; p. 64.
Schellens, Christopher A., Lynn, Mass., assignor to General Electric Company. Elastic-fluid turbine. No. 1,242,246; Oct. 9; v. 243; p. 287.
Scheller, Emil F., Lorsbach in the Taunus, Germany. Producing acetaldehyde. No. 1,244,901; Oct. 30; v. 243; p. 1212.
Scheller, Emil F., Lorsbach in the Taunus, Germany. Producing acetaldehyde. No. 1,244,902; Oct. 30; v. 243; p. 1212.
Schellinger, Lee L., McGraw, N. Y. Lubricator for vehicle-wheels. No. 1,244,248; Oct. 23; v. 243; p. 975.
Schemmel, Frank P. (See Curtis, Henry E., assignor.)
Schermerhorn, Louis C., Paterson, N. J. String for musical instruments. No. 1,244,549; Oct. 30; v. 243; p. 1105.
Schied, George J., Rochester, N. Y. Playing-cards. No. 1,243,985; Oct. 23; v. 243; p. 896.
Schilder, John J., Fort Worth, Tex. Rodless double-acting pump. No. 1,244,784; Oct. 30; v. 243; p. 1176.
Schlatter, Gustav. (See Mayer and Schlatter.)
Schleit, Willis A., Syracuse, N. Y. Brooder. No. 1,245,041; Oct. 30; v. 243; p. 1253.
Schlichtinger, Joseph, and E. Krogel, Atlanta, Ga. Pencil-sharpener. No. 1,242,049; Oct. 2; v. 243; p. 184.
Schlick, Emile, Nancy, France. Walking-stick. No. 1,244,249; Oct. 23; v. 243; p. 976.
Schloss, Meyer W., New York, N. Y., assignor to Treo Company, Inc. Man's garter. No. 1,242,602; Oct. 9; v. 243; p. 402.
Schmick, Henry J., Lock Haven, Pa. Car-brake-operating mechanism. No. 1,242,603; Oct. 9; v. 243; p. 402.
Schmid, William. (See Shakespeare and Schmid.)
Schmidt, Albert, assignor to Champion Ignition Company, Flint, Mich. Spark-plug. No. 1,241,560; Oct. 2; v. 243; p. 30.
Schmidt, Albert, assignor to Champion Ignition Company, Flint, Mich. Spark-plug. No. 1,241,561; Oct. 2; v. 243; p. 31.
Schmidt, Albert, assignor to Champion Ignition Company, Flint, Mich. Spark-plug. No. 1,241,562; Oct. 2; v. 243; p. 31.
Schmidt, Curt, Freienwalde-on-the-Oder, Germany. Apparatus for examining radio-active substances. No. 1,242,377; Oct. 9; v. 243; p. 328.
Schmidt, Ernest H., Lakewood, assignor to The National Malleable Castings Company, Cleveland, Ohio. Shock-absorbing mechanism. No. 1,243,227; Oct. 16; v. 243; p. 632.
Schmidt, Gottfried, Hazleton, Pa. Tank valve mechanism. No. 1,243,766; Oct. 23; v. 243; p. 830.
Schmidt, Hugo F., Chicago, Ill. Tractor. No. 1,241,563; Oct. 2; v. 243; p. 31.
Schmitt, Andrew P., Middle Village, N. Y. Ash-sifter. No. 1,242,050; Oct. 2; v. 243; p. 184.
Schmitt, Edward D., assignor, by mesne assignments, to The American Pure Food Process Company, Baltimore, Md. Jar-cap. No. 1,242,604; Oct. 9; v. 243; p. 403.
Schmitz, Frank C., New York, N. Y. Oxidizing gases. No. 1,242,987; Oct. 16; v. 243; p. 558.
Schmitz, Frank C., New York, N. Y. Apparatus for oxidizing gases. No. 1,242,988; Oct. 16; v. 243; p. 558.
Schneible, Joseph, Chicago, Ill. Conserving fresh vegetables. No. 1,242,728; Oct. 9; v. 243; p. 441.
Schneider, Christian, Sheffield, England. Apparatus for admitting air to furnaces. No. 1,243,883; Oct. 23; v. 243; p. 867.
Schneider, Eberhard, New York, N. Y. Motion-picture apparatus. No. 1,242,605; Oct. 9; v. 243; p. 403.
Schneider, Eugène, Le Creuzot, France. Means for connecting together the float and the sinker of a submarine mine. No. 1,244,377; Oct. 23; v. 243; p. 1013.
Schneider, Hans, New York, N. Y. Transmission-gearing. No. 1,244,134; Oct. 23; v. 243; p. 941.
Schneider, Stefan, Chicago, Ill. Ball-retainer. No. 1,241,669; Oct. 2; v. 243; p. 64.
Schoelerman, John P., Monte Vista, Colo. Rail-joint. No. 1,244,378; Oct. 23; v. 243; p. 1013.
Schoening, William A., and J. Pachynski, Chicago, Ill. Window. No. 1,245,042; Oct. 30; v. 243; p. 1253.
Schoenky, August R., Somerville, assignor to The Reece Shoe Machinery Company, Boston, Mass. Driving and stopping mechanism. No. 1,242,247; Oct. 9; v. 243; p. 287.
Schoenky, August R., Somerville, Mass., assignor to Reece Shoe Machinery Company, Boston, Mass. Rounding-machine. No. 1,243,228; Oct. 16; v. 243; p. 632.
Schoenky, August R., Somerville, assignor to Reece Shoe Machinery Company, Boston, Mass. Driving and stopping mechanism. No. 1,243,986; Oct. 23; v. 243; p. 897.
Schoenky, Henry P., assignor to American Shoe Machinery & Tool Company, St. Louis, Mo. Wax-thread sewing-machine. No. 1,242,606; Oct. 9; v. 243; p. 403.
Schoenky, Henry P., assignor to American Shoe Machinery & Tool Company, St. Louis, Mo. Punching, feeding, and channeling mechanism for sewing-machines. No. 1,242,607; Oct. 9; v. 243; p. 404.
Schoenky, Henry P., assignor to American Shoe Machinery & Tool Company, St. Louis, Mo. Presser-foot for sewing-machines. No. 1,242,608; Oct. 9; v. 243; p. 404.
Schoenthaler, Fred C. (See Hachmann, Frederick, assignor.)
Schofield-Burkett Construction Company. (See Burkett, Ira E., assignor.)
Schrader, Christian W. A., Philadelphia, Pa. Removable locking-grip handle. No. 1,241,890; Oct. 2; v. 243; p. 135.
Schram, Edmund E., Detroit, Mich. Portable indicator. No. 1,241,771; Oct. 2; v. 243; p. 96.
Schreiber, Edward A., assignor to E. H. Gold, Chicago, Ill. Ticket-holder. No. 1,241,564; Oct. 2; v. 243; p. 31.
Schreier, Herman, Sheboygan, Wis. Attachment for holding dentures. No. 1,242,989; Oct. 16; v. 243; p. 558.
Schreiner, Albert, Denver, Colo., assignor to The Schreiner Ladder Manufacturing Company. Suspension-hook for extension-ladders. No. 1,244,645; Oct. 30; v. 243; p. 1133.
Schreiner Ladder Manufacturing Company, The. (See Schreiner, Albert, assignor.)
Schröder, Wilhelm G., Lübeck, Germany. Process and apparatus for filling vessels with milk. No. 1,242,873; Oct. 9; v. 243; p. 487.
Schroeder, Albert F., Cleveland, Ohio. Reel. No. 1,243,450; Oct. 16; v. 243; p. 697.
Schroeder, Anthony J., Donaldsonville, La. Rocking-chair fan attachment. No. 1,241,670; Oct. 2; v. 243; p. 64.
Schroeder, Ernest R. (See Ostrander and Schroeder.)
Schroeder, Jacob A., assignor to M. Schroeder, Piqua, Ohio. Street-sweeping machine. No. 1,244,083; Oct. 23; v. 243; p. 926.
Schroeder, Mary. (See Schroeder, Jacob A., assignor.)
Schroeder, Otto C., Detroit, Mich. Phonograph-record. No. 1,243,987; Oct. 23; v. 243; p. 897.
Schroeter Brothers Hardware Company. (See McDaniel, Walter O., assignor.)
Schroyer, Harry H., Chicago, Ill., assignor to Dunbar Manufacturing Company. Awning. No. 1,243,988; Oct. 23; v. 243; p. 897.
Schubert, William A., Hansford, Tex. Weed-cutting machine. No. 1,244,646; Oct. 30; v. 243; p. 1133.
Schuckar, William. (See La Barre and Schuckar.)
Schultz, Konstanty. (See Melnik and Schultz.)
Schultz, Walter W. H., Wayside, Wis. Adjustable gate-hinge. No. 1,245,127; Oct. 30; v. 243; p. 1279.
Schulz, Albert C., Bridgeport, Conn., assignor to The Locomobile Company of America, New York, N. Y. Dumping and removable body. No. 1,243,635; Oct. 16; v. 243; p. 754.
Schulz, Albert C., Bridgeport, Conn., assignor to The Locomobile Company of America, New York, N. Y. Removable body for vehicles. No. 1,243,636; Oct. 16; v. 243; p. 754.
Schulze, Leon F. and R., Cleveland, Ohio. Metal-working machine. No. 1,243,989; Oct. 23; v. 243; p. 898.
Schulze, Robert. (See Schulze, Leon F. and R.)
Schumacher, John and J. E., Los Angeles, Cal. Building construction. No. 1,242,609; Oct. 9; v. 243; p. 405.
Schumacher, Joseph E. (See Schumacher, John and J. E.)
Schurr, Charles H., and E. J. Lees, assignors to The Lees Bradner Company, Cleveland, Ohio. Cutting a worm. No. 1,243,767; Oct. 23; v. 243; p. 830.
Schuster, Nicholas, assignor to British Coke Ovens Limited, London, England. Extracting ammonia from ammoniacal liquor. No. 1,244,003; Oct. 30; v. 243; p. 1212.
Schwanenberg, Hermann, Tompkinsville, N. Y. Evaporating apparatus. No. 1,242,481; Oct. 9; v. 243; p. 362.
Schweiss, Joseph, assignor to Landis Machine Company, St. Louis, Mo. Button-stapling machine. No. 1,244,135; Oct. 23; v. 243; p. 941.
Schwinn, Frank W., Chicago, Ill. Universal joint. No. 1,244,247; Oct. 16; v. 243; p. 668.
Schwittal, Gustav, and H. Davidovitz, New York, N. Y. Bicycle-sled. No. 1,242,990; Oct. 16; v. 243; p. 559.
Schwitzgebel, Lulu, Clifton, Oreg. Button-hook. No. 1,242,248; Oct. 9; v. 243; p. 288.

Scollard, Clement B., Seattle, Wash. Combined telegraph-key and spring-jack switch. No. 1,242,051; Oct. 2; v. 243; p. 185.
Scott, Addie G., Anomosa, Iowa. Automobile-garment. No. 1,244,904; Oct. 30; v. 243; p. 1212.
Scott, Alonzo B., Fairmont, W. Va. Attachment for suspenders. No. 1,245,043; Oct. 30; v. 243; p. 1253.
Scott, Ernest. (See Scott, James L. and E.)
Scott, Henry H., New York, N. Y. Smoker's pouch. No. 1,244,905; Oct. 30; v. 243; p. 1212.
Scott, James L. and E., Footscray, Victoria, Australia. Friction-driven drop-hammer. No. 1,242,052; Oct. 2; v. 243; p. 185.
Scott, John C., Lexington Pike, Kentor county, Ky. Window-screen. No. 1,245,044; Oct. 30; v. 243; p. 1253.
Scott, John C., Lexington Pike, Kenton county, Ky. Construction of window-screens. No. 1,245,045; Oct. 30; v. 243; p. 1254.
Scott, John S., Greenville, Tex. Fishing-float. No. 1,243,768; Oct. 23; v. 243; p. 830.
Scott, Joseph, Charleston, W. Va. Ingot-mold. No. 1,245,046; Oct. 30; v. 243; p. 1254.
Seaholm, John P. (See Paul and Seaholm.)
Seaverns, James B., Chicago, Ill. Unloading apparatus. No. 1,242,249; Oct. 9; v. 243; p. 288.
Secret Telegraph Company. (See Delany, Patrick B., assignor.)
Seede, John A., Schenectady, N. Y., assignor to General Electric Company. Electric-furnace control. No. 1,242,250; Oct. 9; v. 243; p. 288.
Sefton Manufacturing Company. (See Twomley, Melvan L., assignor.)
Segerdahl, Gustaf A. (See Segerdahl, Iver B. and G. A.)
Segerdahl, Iver B., Prineville, Oreg., and G. A. Segerdahl, Milwaukee, Wis. Cable gripping and stretching device. No. 1,244,136; Oct. 23; v. 243; p. 941.
Segur, Frank B., Chicago, Ill. Coil-winding apparatus. No. 1,244,137; Oct. 23; v. 243; p. 942.
Seib, George A., assignor to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,243,451; Oct. 16; v. 243; p. 697.
Seifert, Theodore B. (See Prechel and Siefert.)
Self Closing Gate Co. (See Smith, Isaac P., assignor.)
Selter, Milo B., Coloma, Mich., assignor to Playerphone Talking Machine Company. Automatic stop for talking-machines. No. 1,244,550; Oct. 30; v. 243; p. 1105.
Selter, Milo B., Coloma, Mich., assignor to Playerphone Talking Machine Company. Automatic stop mechanism for phonograph-machines. No. 1,244,551; Oct. 30; v. 243; p. 1106.
Sereff, Peter H., Lima, Ohio. Ink-well. No. 1,242,991; Oct. 16; v. 243; p. 559.
Serföző, Anton, Denver, Colo. Saw-set. No. 1,241,772; Oct. 2; v. 243; p. 96.
Seror, Albert Z., and E. J. Hoyer, Chicago, Ill. Fan. No. 1,243,637; Oct. 16; v. 243; p. 754.
Sessions, Frank L., Columbus, Ohio. Mining-machine chain. No. 1,244,785; Oct. 30; v. 243; p. 1176.
Severy Manufacturing Company. (See Severy, Melvin L., assignor.)
Severy, Melvin L., Los Angeles, Cal., assignor to Severy Manufacturing Company, Boston, Mass. Camera. No. 1,241,773; Oct. 2; v. 243; p. 96.
Sexton, Douglass J. (See Blanton and Sexton.)
Seymour, Benjamin F., Denver, Colo. Propeller for flying-machines. No. 1,244,786; Oct. 30; v. 243; p. 1176.
Shadall, Charles E., Milwaukee, assignor to Shadall Manufacturing Company, Wauwatosa, Wis. Flushing and ventilating apparatus. No. 1,242,251; Oct. 9; v. 243; p. 289.
Shadall Manufacturing Company. (See Shadall, Charles E., assignor.)
Shafer, Arthur A., assignor to Rickert-Shafer Company, Erie, Pa. Tapping-machine. No. 1,244,084; Oct. 23; v. 243; p. 926.
Shaffer, Allen R., Holbrook, Nebr. Grain-drill. No. 1,243,560; Oct. 16; v. 243; p. 730.
Shakespeare, William, Jr., and W. Schmid, assignors to William Shakespeare, Jr., Company, Kalamazoo, Mich. Carbureter. No. 1,243,348; Oct. 16; v. 243; p. 668.
Sharkey, Joseph. (See Sharkey, Thomas A., assignor.)
Sharkey, Thomas A., assignor to J. Sharkey, Brooklyn, N. Y. Transposing-keyboard. No. 1,244,250; Oct. 23; v. 243; p. 976.
Sharon Hardware Manufacturing Company. (See Ferris, William D., assignor.)
Shaw, Al B., Medford, Mass., assignor to Shaw Tire Company. Inner tube. No. 1,242,252; Oct. 9; v. 243; p. 289.
Shaw, Harry A., Chicago, Ill. Compartment-trunk. No. 1,244,647; Oct. 30; v. 243; p. 1134.
Shaw-Tire Company. (See Shaw, Al B., assignor.)
Shaw, Walter, Dedham, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Starting and stopping mechanism. No. 1,243,769; Oct. 23; v. 243; p. 831.
Sheafe, James S., New Brighton, N. Y., and V. Tobolla, Chicago, Ill.; said Tobolla assignor to said Sheafe. Train-pipe hose. No. 1,242,874; Oct. 9; v. 243; p. 488.
Shelor, Frederick L., Salem, assignor to International Filler Corporation, Richmond, Va. Overflow jar or trap. No. 1,244,552; Oct. 30; v. 243; p. 1106.
Shemwell, Harold, assignor, by mesne assignments, to Birmingham Disc Harrow Company, Birmingham, Ala. Flexible disk harrow. No. 1,241,774; Oct. 2; v. 243; p. 97.
Shemwell, Harold, assignor, by mesne assignments, to Birmingham Disc Harrow Company, Birmingham, Ala. Flexible-frame harrow-cultivator. No. 1,241,775; Oct. 2; v. 243; p. 97.
Shepard, Charles S., Cattaraugus, N. Y. Detachable pail-cover. No. 1,242,378; Oct. 9; v. 243; p. 329.
Sheppard, Creedy C., Bridgeport, Conn., assignor to United States Ordnance Company, Washington, D. C. Barrel-cooling device. No. 1,242,890; Oct. 9; v. 243; p. 492.
Sheridan, Bert S., Cleveland, Ohio. Air-heating furnace. No. 1,242,992; Oct. 16; v. 243; p. 559.
Sherman, Howard B. (See Andrews, Hart, and Sherman.)
Sherman, Howard B., Battle Creek, Mich. Conduit-hanger. No. 1,245,047; Oct. 30; v. 243; p. 1254.
Sherrill, Richard W., Landis, N. C. Shade-roller. No. 1,243,561; Oct. 16; v. 243; p. 730.
Sherwin, Williams Company, The. (See Macklind and Holton, assignors.)
Sherwood, Mather W., Franklin, Pa., assignor to Chicago Pneumatic Tool Company, Chicago, Ill. Pneumatic tool. No. 1,243,770; Oct. 23; v. 243; p. 831.
Sherwood, Stephen H. (See Sherwood, Theodore J., assignor.)
Sherwood, Theodore J., Moon, S. D., assignor of one-half to S. H. Sherwood, Shabbona, Ill. Wire-splicer. No. 1,245,128; Oct. 30; v. 243; p. 1279.
Sheuman, James E., Waynesboro, Pa. Floating reamer and tap holder. No. 1,244,648; Oct. 30; v. 243; p. 1134.
Shiflet, Joseph, McKeesport, Pa. Signal. No. 1,245,048; Oct. 30; v. 243; p. 1254.
Shinkle, Edward M., United States Army. Hand-grenade. No. 1,242,053; Oct. 2; v. 243; p. 185.
Shirley, Percy D., St. Paul, Minn. Engraving-block. No. 1,242,993; Oct. 16; v. 243; p. 559.
Shoemaker, Harry, Jersey City, N. J., assignor to Marconi Wireless Telegraph Company of America, New York, N. Y. Method of and apparatus for radiosignaling. No. 1,241,565; Oct. 2; v. 243; p. 32.
Shonberg, Isidore L., assignor to Standard Rolling Mills, Inc., Brooklyn, N. Y. Shipping-case for lead pipe. No. 1,243,229; Oct. 16; v. 243; p. 633.
Shores, William T., *et al.* (See Norman, Frank, assignor.)
Short, William I., Neosho, Mo. Fuel-mixing safety throttle-valve. No. 1,244,379; Oct. 23; v. 243; p. 1014.
Shortwriter Company. (See Felereisel, Frank A., assignor.)
Shotwell, John J., Winnipeg, Manitoba, Canada. Grain-elevator. No. 1,242,482; Oct. 9; v. 243; p. 362.
Shuler, Isaac. (See Hughes, John L., assignor.)
Shumway, Harry E., Waterford, assignor to Van Zandt, Jacobs & Co., Troy, N. Y. Fold-collar. No. 1,243,452; Oct. 16; v. 243; p. 698.
Shur, Edward J., New Orleans, La. Door-fastening means. No. 1,243,115; Oct. 16; v. 243; p. 598.
Shurtleff, Wilfred, Moline, Ill. Fuel-feeding mechanism. No. 1,243,990; Oct. 23; v. 243; p. 898.
Shurtleff, Wilfred, Moline, Ill. Fuel-feeding device. No. 1,244,553; Oct. 30; v. 243; p. 1106.
Shuster, William H., Jr., and A. L. Grammer, Philadelphia, Pa. Work and time indicator. No. 1,242,483; Oct. 9; v. 243; p. 362.
Sibbald, Charles J., Troy, assignor, by mesne assignments, to Frederick Osann Company, New York, N. Y. Sewing-machine. No. 1,242,875; Oct. 9; v. 243; p. 488.
Sibson, Walter W. (See Allsop and Sibson.)
Sickman, Davy V., Denver, Colo. Hydraulic cartridge. No. 1,243,991; Oct. 23; v. 243; p. 898.
Sieber, Ferdinand, Charlottenburg, Germany, assignor to General Electric Company. Excess-voltage absorber. No. 1,242,729; Oct. 9; v. 243; p. 441.
Siefken, Gustavus A., Minneapolis, Minn. Brooch-fastening device. No. 1,242,054; Oct. 2; v. 243; p. 186.
Siegel, Frederick, Irvington, N. J., assignor to Auto Radiator Company. Producing radiators for automobiles. No. 1,242,253; Oct. 9; v. 243; p. 289.
Siegel, Harry, Elizabethport, assignor of one-half to L. Chasman, Newark, N. J. Attachment for moving-picture machines. No. 1,242,730; Oct. 9; v. 243; p. 442.
Siemens-Schuckertwerke, G. m. b. H. (See Gscheidlen, Wilhelm, assignor.)
Siliconite Refractories Company. (See Zell, Robert R., assignor.)
Sill Stove Works. (See Will, Frederick, assignor.)
Silverstein, Morris L., Methuen, Mass. Knob bolt-lock. No. 1,245,049; Oct. 30; v. 243; p. 1255.
Silvius, Ellis T., Indianapolis, Ind., assignor, by mesne assignments, to The McCaskey Register Company, Alliance, Ohio. Filing appliance. No. 1,244,906; Oct. 30; v. 243; p. 1213.
Simmen, Paul J., Indianapolis, Ind. Track-hazard indicator. No. 1,241,776; Oct. 2; v. 243; p. 98.
Simmon, Karl A., and A. J. Hall, Wilkinsburg, Pa., assignors to Westinghouse Electric and Manufacturing Company. Control system. No. 1,241,566; Oct. 2; v. 243; p. 32.
Simmon, Karl A., and A. J. Hall, Wilkinsburg, Pa., assignors to Westinghouse Electric and Manufacturing Company. Control system. No. 1,241,567; Oct. 2; v. 243; p. 32.
Simmon, Karl A., and A. J. Hall, Wilkinsburg, Pa., assignors to Westinghouse Electric and Manufacturing Company. Control system. No. 1,241,568; Oct. 2; v. 243; p. 33.

Simmon, Karl A., Edgewood Park, and J. D. Birrell, Wilkinsburg, Pa., assignors to Westinghouse Electric and Manufacturing Company. Control system. No. 1,241,569; Oct. 2; v. 243; p. 33.
Simon, Claudius, Casco, Wis. Street-sweeper. No. 1,243,562; Oct. 16; v. 243; p. 731.
Simon Zinn Inc. (See Quigan, Frank J., assignor.)
Simonds, Ernest H. (See Rosenstein and Simonds.)
Simone, Frank, New York, N. Y. Fire-extinguisher. No. 1,242,254; Oct. 9; v. 243; p. 289.
Simonton, Court, and G. W. Maphet, Cincinnati, Ohio. Vehicle-wheel. No. 1,244,554; Oct. 30; v. 243; p. 1107.
Simplex Machine Tool Company, The. (See Gibson, Charles D., assignor.)
Simpson, Charles E. (See Carlisle, Howard, assignor.)
Simpson, James E., and C. J. Paulson, Brooklyn, assignors to Todd Protectograph Company, Rochester, N. Y. Attachment for check-writing machines. No. 1,241,570; Oct. 2; v. 243; p. 34.
Simpson & Sons, William. (See Anthony, Wendell P., assignor.)
Sinbad, Charles S., assignor of one-sixth to P. J. M. Bertelsen and one-sixth to A. Bertelsen, San Francisco, Cal. Second-hand-setting mechanism for watches. No. 1,244,251; Oct. 23; v. 243; p. 976.
Sinbad, Charles, assignor of one-sixth to P. J. M. Bertelsen and one-sixth to A. Bertelsen, San Francisco, Cal. Second-hand-setting mechanism for watches. No. 1,244,252; Oct. 23; v. 243; p. 977.
Sindelar, Peter F., Cleveland, Ohio. Soldering device for cables. No. 1,242,610; Oct. 9; v. 243; p. 405.
Singer, Abraham, Cleveland, Ohio. Tool for removing hands of watches and clocks. No. 1,243,771; Oct. 23; v. 243; p. 831.
Singer Manufacturing Company, The. (See Allen, Edward B., assignor.)
Singer Manufacturing Company, The. (See Barron and Osol, assignors.)
Singer Manufacturing Company, The. (See Corrall, Herbert, assignor.)
Singer Manufacturing Company, The. (See Corrall and Forbes, assignors.)
Singer Manufacturing Company, The. (See De Voe, Albert H., assignor.)
Singer Manufacturing Company, The. (See Fifield and Barron, assignors.)
Singer Manufacturing Company, The. (See Grieb, Alfred, assignor.)
Singer Manufacturing Company, The. (See Herr, Park A., assignor.)
Sipher, Edmund F., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Shielding system for vapor-converters. No. 1,244,555; Oct. 30; v. 243; p. 1107.
Sisson, Vinton E., assignor to W. P. Murphy, Chicago, Ill. End construction for railway box-cars. No. 1,244,649; Oct. 30; v. 243; p. 1134.
Sisson, Vinton E., assignor to W. P. Murphy, Chicago, Ill. Metal end for railway-cars. No. 1,244,907; Oct. 30; v. 243; p. 1213.
Sisson, Vinton E., assignor to W. P. Murphy, Chicago, Ill. Metal end structure for railway-cars. No. 1,244,908; Oct. 30; v. 243; p. 1214.
Sixsmith, Arthur E., *et al.* (See Icenhour, Albert A., assignor.)
Skagen, John, Fenton, Iowa. Clothes-boiler. No. 1,243,563; Oct. 16; v. 243; p. 731.
Skaggs, Silas R., Richland Springs, Tex. Farm-gate. No. 1,242,255; Oct. 9; v. 243; p. 290.
Skeen, Walter O. (See Lewis, McClain, Skeen, and Massey.)
Skelton, Levi S., Okmulgee, Okla. Glass-drawing apparatus. No. 1,242,055; Oct. 2; v. 243; p. 186.
Skelton, L. Sherman, Okmulgee, Okla. Glass-drawing apparatus. No. 1,243,564; Oct. 16; v. 243; p. 731.
Skerl, Francesco, assignor to The National Cash Register Company, Dayton, Ohio. Cash-register. No. 1,243,992; Oct. 23; v. 243; p. 899.
Skiff, Charles W., assignor to C. W. Skiff Company, Westfield, Mass. Appliance for milk-bottles. No. 1,242,994; Oct. 16; v. 243; p. 550.
Skiles, Perry A., Surrey, N. D. Antislipping attachment. No. 1,242,056; Oct. 2; v. 243; p. 186.
Skinner, Charles W., Newfield, N. J. Irrigating apparatus. No. 1,245,050; Oct. 30; v. 243; p. 1255.
Skinner, Cornelius, Louisville, Ky. Hemp-brake. No. 1,242,379; Oct. 9; v. 243; p. 329.
Skinner, James M., assignor to Philadelphia Storage Battery Company, Philadelphia, Pa. Filling device for battery-cells. No. 1,244,909; Oct. 30; v. 243; p. 1214.
Skinner, Mortimer B., Wilmette, Ill. Pipe-joint-packing device. No. 1,242,380; Oct. 9; v. 243; p. 329.
Skinner, William W., and W. F. Baughman, Washington, D. C. Recovering salt from its admixtures with impurities in crude brine. No. 1,244,380; Oct. 23; v. 243; p. 1014.
Skoulikides, Nicolas, New York, N. Y. Shoe. No. 1,243,993; Oct. 23; v. 243; p. 899.
Slack, Ellsworth, Miamisburg, Ohio. Tobacco-handling device. No. 1,243,994; Oct. 23; v. 243; p. 899.
Slawter, Earl, *et al.* (See Slawter, Ira L., assignor.)
Slawter, Ira L., Grand Prairie, Alberta, Canada, assignor of one-third to E. Rogers, Bellingham, Wash., and one-third to E. Slawter, Grand Prairie, Alberta, Canada. Gas-turbine. No. 1,242,057; Oct. 2; v. 243; p. 187.
Slaymaker Lock Manufacturing Corporation. (See Hoover and Miller, assignors.)
Sleeper, Frank H., Worcester, Mass., assignor of one-fourth to G. D. Hartley, Brooklyn, N. Y. Signal mechanism. No. 1,242,058; Oct. 2; v. 243; p. 187.
Sleeper, Otis H., Exeter, N. H. Jewelry-clasp. No. 1,243,995; Oct. 23; v. 243; p. 899.
Slenker, Fred J., Springfield, Ill. Fruit-picker. No. 1,242,059; Oct. 2; v. 243; p. 187.
Slifer, Leon J., Sterling, Kans. Loading-machine. No. 1,244,381; Oct. 23; v. 243; p. 1014.
Slimack, Victor H., assignor to Pennsylvania Globe Gas Light Company, Philadelphia, Pa. Gas-lighting fixture. No. 1,244,382; Oct. 23; v. 243; p. 1014.
Slocum, Avram & Slocum. (See Lawrence, Rutherfurd, assignor.)
Slonaker, Robert L., Wheeling, W. Va. Glass for headlights. No. 1,244,556; Oct. 30; v. 243; p. 1107.
Smakal, Frank C., Midas, Nev. Pipe-patch. No. 1,242,060; Oct. 2; v. 243; p. 187.
Smith, Arthur E., Chicago, Ill. Anesthetic nerve-blocking tablet. No. 1,243,349; Oct. 16; v. 243; p. 668.
Smith, Benjamin H., Turtle Creek, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electrical protective device. No. 1,241,571; Oct. 2; v. 243; p. 34.
Smith Cannery Machine Company. (See Brierly and Waugh, assignors.)
Smith, Carl J., Indiana Harbor, Ind. Fluid-pressure regulator. No. 1,243,996; Oct. 23; v. 243; p. 900.
Smith, Charles H., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill. Signaling-horn. No. 1,243,772; Oct. 23; v. 243; p. 832.
Smith, Duncan W., Imperial, Saskatchewan, Canada. Door-opener. No. 1,244,910; Oct. 30; v. 243; p. 1214.
Smith, Edward S., Selma, Cal. Box or can hook. No. 1,243,565; Oct. 16; v. 243; p. 731.
Smith, Edwin D., Crafton, Pa. Folding stool. No. 1,244,911; Oct. 30; v. 243; p. 1214.
Smith, Esmond M., assignor to The Multi-Lux Illuminating Company, Cleveland, Ohio. Lighting-fixture for display-cases. No. 1,243,453; Oct. 16; v. 243; p. 698.
Smith, Frederick, Darby, Pa. Supporting and locking device. No. 1,242,731; Oct. 9; v. 243; p. 442.
Smith, Harry C., St. Paul, Minn. Safety device for door-locks. No. 1,264,350; Oct. 16; v. 243; p. 668.
Smith, Hayes S., Rowland, N. C. Fertilizer-distributer and planter. No. 1,242,061; Oct. 2; v. 243; p. 188.
Smith, Henry L., assignor to The E. J. Manville Machine Company, Waterbury, Conn. Heading-machine. No. 1,244,912; Oct. 30; v. 243; p. 1215.
Smith, Howard F., *et al.* (See Magee, Chauncey L. C., assignor.)
Smith, Isaac P., Peoria, assignor to Self Closing Gate Co., Lowpoint, Ill. Gate-latch. No. 1,241,671; Oct. 2; v. 243; p. 64.
Smith, Issacher R., Toronto, Canada. Flexible splint. No. 1,243,230; Oct. 16; v. 243; p. 633.
Smith, James P., Boonville, Ind. Wire-clamp for fence-posts. No. 1,243,884; Oct. 23; v. 243; p. 867.
Smith, John E., assignor to Kerosene Motor Appliance Co., New York, N. Y. Vaporizing apparatus for internal-combustion engines. No. 1,245,129; Oct. 30; v. 243; p. 1279.
Smith, Junius W., Nooksack, Wash. Protector for pneumatic tires. No. 1,242,484; Oct. 9; v. 243; p. 363.
Smith, Karl D., assignor to Union Steam Pump Company, Battle Creek, Mich. Pump. No. 1,244,913; Oct. 30; v. 243; p. 1215.
Smith, Lee H., Detroit, Mich. Engine-starting device. No. 1,242,485; Oct. 9; v. 243; p. 363.
Smith & Marsh Incorporated. (See Saunders, John, assignor.)
Smith, Orbin F., Moline, Ill., assignor to Moline Plow Company. Seed-discharging mechanism. No. 1,244,787; Oct. 30; v. 243; p. 1177.
Smith, Oscar A., assignor of one-half to E. C. Henn, Cleveland, Ohio. Valve-stem cap. No. 1,242,995; Oct. 16; v. 243; p. 550.
Smith, Richard J., Dublin, Ireland. Torpedo-net. No.
Smith, Ross G., Derry Village, N. H., assignor to Raymond, Pynchon & Company, New York, N. Y. Manufacture of explosives. No. 1,242,611; Oct. 9; v. 243; p. 405.
Smith, Ross G., Derry Village, N. H., assignor to Raymond, Pynchon & Company, New York, N. Y. Manufacture of explosives. No. 1,243,231; Oct. 16; v. 243; p. 633.
Smith, Ross G., Derry Village, N. H., assignor to Raymond, Pynchon & Company, New York, N. Y. Manufacture of explosives. No. 1,243,351; Oct. 16; v. 243; p. 669.
Smith, Samuel, and R. J. Galvin, Cincinnati, Ohio. Fender. No. 1,242,612; Oct. 9; v. 243; p. 405.
Smith, Sterling W., *et al.* (See Nelsen, Nels C., assignor.)
Smith, Walter S., assignor to L. R. Drake, Columbus, Ohio. Automatic scale. No. 1,241,672; Oct. 2; v. 243; p. 65.
Smith, Warren M., Moores, assignor to The J. G. Brill Company, Philadelphia, Pa. Car construction. No. 1,242,732; Oct. 9; v. 243; p. 442.
Smith, Watson R., Jackson, Mich. Spring structure. No. 1,242,996; Oct. 16; v. 243; p. 560.
Smith, William E., assignor to Boston Machine Works Company, Lynn, Mass. Beading-machine. No. 1,244,650; Oct. 30; v. 243; p. 1135.
Smith, William H., Cleveland, Ohio. Venting device. No. 1,242,613; Oct. 9; v. 243; p. 406.

Smith, William T., Rogersville, Mo. Mail-bag-receiving apparatus. No. 1,242,381; Oct. 9; v. 243; p. 329.
Smock, Edwin N. (See Burmeister and Smock.)
Smollek, Jeremiah A., Honolulu, Hawaii. Indicating and salvaging device for submarine boats. No. 1,243,997; Oct. 23; v. 243; p. 900.
Smyly, Arthur L., Chicago, Ill. Fluid safety-valve. No. 1,243,998; Oct. 23; v. 243; p. 900.
Smyth, John H., Bridgeburg, Ontario, Canada. Propeller for aircraft. No. 1,243,885; Oct. 23; v. 243; p. 868.
Smythe, Horace E., assignor to The S. R. Smythe Company, Pittsburgh, Pa. Checker-work for regenerative furnaces, hot-blast stoves, and the like. No. 1,242,614; Oct. 9; v. 243; p. 406.
Snedeker, James W., Adrian, Mich. Fabric. No. 1,243,352; Oct. 16; v. 243; p. 669.
Snedeker, James W., Adrian, Mich. Open-mesh-fabric-making machine. No. 1,243,353; Oct. 16; v. 243; p. 669.
Snediker, Morton O., assignor to Powers Regulator Company, Chicago, Ill. Thermostatic steam and hot-water mixer. No. 1,243,999; Oct. 23; v. 243; p. 901.
Snell, Lyle K., and C. F. Johnson, assignors to Cadillac Motor Car Company, Detroit, Mich. Hydrocarbon-motor. No. 1,244,651; Oct. 30; v. 243; p. 1135.
Snider, Charles M., assignor to The Jeffrey Manufacturing Company, Columbus, Ohio. Sprocket-wheel. No. 1,244,383; Oct. 23; v. 243; p. 1015.
Snider, Charles M., assignor to The Jeffrey Manufacturing Company, Columbus, Ohio. Sprocket-wheel. No. 1,244,384; Oct. 23; v. 243; p. 1015.
Snyder, Charles P., assignor of three-hundred-and-forty-three six-hundredths to H. A. Bird, T. J. Camp, S. Geist, M. Bloom, T. H. Tiddy, H. O. Moser, and P. A. Vought, Mount Carmel, Pa. Transmission mechanism. No. 1,244,557; Oct. 30; v. 234; p. 1108.
Snyder, Parke T., Chicago, Ill. Demountable wheel. No. 1,243,773; Oct. 23; v. 243; p. 832.
Société Anonyme des Etablissements L. Blériot. (See Bossu, Pierre, assignor.)
Society of Chemical Industry in Basle. (See Engi and Jagerspacher, assignors.)
Society of Chemical Industry in Basle. (See Gams, Alfons, assignor.)
Soengen, Gerald W., Kirkwood, Mo. Electric conducting ground-rod. No. 1,243,774; Oct. 23; v. 243; p. 832.
Sohn, Irvin, *et al.* (See Lester, Charles, assignor.)
Sohn, Philip L., *et al.* (See Lester, Charles, assignor.)
Sole, William C., Sullivan, Ind. Pitman for drilling-machines. No. 1,245,051; Oct. 30; v. 243; p. 1255.
Solemink, Lloyd B., San Francisco, Cal. Fountain drafting-pen. No. 1,242,062; Oct. 2; v. 243; p. 188.
Soltoft, Henriette, Cleveland, Ohio. Educational appliance. No. 1,244,000; Oct. 23; v. 243; p. 901.
Somers, John R., Charlestown, Mass. Combination-padlock. No. 1,245,052; Oct. 30; v. 243; p. 1256.
Somers, John R., Charlestown, Mass. Gage. No. 1,245,130; Oct. 30; v. 243; p. 1280.
Sommer, John L., Newark, N. J., assignor to J. L. Sommer Manufacturing Co. Folding shoe-horn. No. 1,242,615; Oct. 9; v. 243; p. 406.
Sonneborn, Sol S., Brooklyn, N. Y. Sectional high-potential insulator. No. 1,242,616; Oct. 9; v. 243; p. 406.
Sons, Ernest L., Pittsburgh, Pa. Advertising device. No. 1,243,354; Oct. 16; v. 243; p. 669.
Sorensen, Peter, Wolbach, Nebr. Hen's nest. No. 1,245,053; Oct. 30; v. 243; p. 1256.
Sorensen, Peter S., North Milwaukee, Wis. Reproducer for phonographs. No. 1,241,673; Oct. 2; v. 243; p. 65.
Sorensen, Peter S., North Milwaukee, assignor of one-third to F. R. Lueck and one-third to W. F. Fichfeld, Milwaukee, Wis. Combination wall-bed, wardrobe, and dresser. No. 1,242,382; Oct. 9; v. 243; p. 330.
Souder, Frank P., Bridgeton, N. J. Can-filling machine. No. 1,243,566; Oct. 16; v. 243; p. 732.
Soulé, Byron A., assignor to American Optical Company, Southbridge, Mass. Ophthalmic mounting. No. 1,243,886; Oct. 23; v. 243; p. 868.
Sourber, Earl J., Pottsville, Pa. Valve-lifting device. No. 1,242,733; Oct. 9; v. 243; p. 443.
Souther, Joseph W., San Francisco, Cal. Shipping-jack No. 1,242,617; Oct. 9; v. 243; p. 407.
Southern Cotton Oil Company, The. (See Whitaker, Milton C., assignor.)
Southgate, George T., Brooklyn, N. Y. Sectional cement telegraph-pole. No. 1,244,652; Oct. 30; v. 243; p. 1135.
Southland, Benjamin H., assignor of one-half to E. J. Williams, Sherman, Cal. Wire-stretcher. No. 1,242,063; Oct. 2; v. 243; p. 189.
Southwick, Lawrence P. (See Fogde and Southwick.)
Southworth Machine Company. (See Cobb, Elmer M., assignor.)
Spahr, Otto, assignor to Strause Gas Iron Co., Philadelphia, Pa. Gas-burner. No. 1,242,487; Oct. 9; v. 243; p. 363.
Spaleck, Paul, Dessau, assignor to H. Junkers, Aachen, Germany. Gas-consumption regulator. No. 1,243,454; Oct. 16; v. 243; p. 698.
Spangler, Ernest L., Chicago, Ill. Garment-stay. No. 1,242,064; Oct. 2; v. 243; p. 189.
Sparks, Frank S., Springfield, assignor of one-third to F. L. Walker, Dayton, Ohio. Clothes-pressing machine. No. 1,244,653; Oct. 30; v. 243; p. 1136.
Sparks, William, Jackson, Mich., assignor to The Sparks-Withington Company. Cam mechanism. No. 1,241,674; Oct. 2; v. 243; p. 66.
Sparks-Withington Company, The. (See Sparks, William, assignor.)
Spears, Joseph T., North Augusta, S. C. Furniture-supports. No. 1,243,116; Oct. 16; v. 243; p. 598.
Spehar, Dane, Miami, Ariz. Drilling-machine. No. 1,244,385; Oct. 23; v. 243; p. 1015.
Spehar, Dane, Miami, Ariz. Hammer-drill. No. 1,244,386; Oct. 23; v. 243; p. 1016.
Spenard, Napoleon, assignor of one-half to E. L. Morrill, Biddeford, Me. Loom-shuttle. No. 1,242,383; Oct. 9; v. 243; p. 330.
Spence, Hiram N. (See Nolan, Remer T., assignor.)
Spencer, Lawrence N., assignor of one-half to G. A. Gittins, Milford, Mich. Steering apparatus for trailers. No. 1,245,054; Oct. 30; v. 243; p. 1256.
Sperry, Arthur B., assignor to Western Electric Company, Incorporated, New York, N. Y. Automatic telephone system. No. 1,242,384; Oct. 9; v. 243; p. 330.
Sperry, Elmer A., assignor to Sperry Gyroscope Co., Brooklyn, N. Y. Ship's gyroscopic-compass set. No. 1,242,065; Oct. 2; v. 243; p. 189.
Sperry Gyroscope Co. (See Sperry, Elmer A., assignor.)
Sperry, Herbert B. (See Dain and Sperry.)
Sperry, Samuel E., Woodhaven, assignor to Intertype Corporation, New York, N. Y. Channel-entrance for typographic machines. No. 1,245,055; Oct. 30; v. 243; p. 1257.
Spicer, Elmer D., assignor to Moore Steam Turbine Corporation, Wellsville, N. Y. Self-oiling bearing. No. 1,244,914; Oct. 30; v. 243; p. 1216.
Spickler, Charles A., Philadelphia, Pa. Adjustable liner. No. 1,241,675; Oct. 2; v. 243; p. 66.
Spickler, Charles A., Philadelphia, Pa. Adjustable liner. No. 1,241,676; Oct. 2; v. 243; p. 66.
Spiegel, Alexander S., Chicago, Ill. Roofing-machine. No. 1,244,654; Oct. 30; v. 243; p. 1136.
Spielman, Adolph, Philadelphia, Pa. Valve and signal device for gas-chandeliers. No. 1,242,488; Oct. 9; v. 243; p. 364.
Spikeless & Boltless Railroad Tie Company, The. (See Kruse, Theodore H., assignor.)
Spindler, Reginald J., Rosetown, Saskatchewan, Canada. Adjustable cap. No. 1,243,567; Oct. 16; v. 243; p. 732.
Spiayford, Charles A., Vancouver, British Columbia, Canada. Snow-plow. No. 1,243,355; Oct. 16; v. 243; p. 670.
Spitdorf Electrical Company. (See Mason, Charles T., assignor.) (Reissue.)
Spitdorf Electrical Company. (See Tomlinson, Edward J., assignor.)
Spitdorf Electrical Company. (See Van Deventer, Harry R., assignor.)
Spohrer, Gregory J., East Orange, N. J., assignor to The Motor-Compressor Company. Starting mechanism for internal-combustion engines. No. 1,243,455; Oct. 16; v. 243; p. 699.
Springer, William L., Park Ridge, Ill. Molding-machine. No. 1,242,385; Oct. 9; v. 243; p. 331.
Spurrier, Thomas H., Washington, D. C. Parcel-carrier. No. 1,243,638; Oct. 16; v. 243; p. 755.
Squires, Charles W., Beverly, Mass. Track-switch. No. 1,244,138; Oct. 23; v. 243; p. 942.
St. Mungo Manufacturing Company of America. (See Loomis, Evarts G., assignor.)
Staack, Otto E., Port Townsend, Wash. Lock. No. 1,242,256; Oct. 9; v. 243; p. 290.
Stabler, Robinson R., Baltimore, Md. Loading-tool for time-train rings. No. 1,244,387; Oct. 23; v. 243; p. 1016.
Stackhouse, George, assignor to Pacific Spring Bed Company, Berkeley, Cal. Spring-tie. No. 1,243,639; Oct. 16; v. 243; p. 755.
Stackpole, Everett B., Seattle, Wash. Cuff-clasp. No. 1,243,775; Oct. 23; v. 243; p. 832.
Stafford, Benjamin E. D., and E. I. Dodds, assignors to Flannery Bolt Company, Pittsburgh, Pa. Stay-bolt for boilers. No. 1,244,915; Oct. 30; v. 243; p. 1216.
Stafford, Benjamin E. D., assignor to Flannery Bolt Company, Pittsburgh, Pa. Stay-bolt connection for boilers. No. 1,244,916; Oct. 30; v. 243; p. 1216.
Stahlhuth, Samuel G., St. Louis, Mo. Hoop-splitting machine. No. 1,244,655; Oct. 30; v. 243; p. 1136.
Stahr, William J., Nescopeck, Pa. Device for automatically compensating for wear of brake-shoes. No. 1,244,388; Oct. 23; v. 243; p. 1016.
Stait-Gardner, Frank. (See Thomas and Stait-Gardner.)
Stally, John. (See Twiddy and Stally.)
Standard Car Truck Company. (See Webb and Walton, assignors.)
Standard Plunger Elevator Company. (See Dunn, Edward L., assignor.)
Standard Rolling Mills. (See Shonberg, Isidore I., assignor.)
Standard Steel Works Company, The. (See Witter, Claude A., assignor.)
Standard Woven Fabric Company. (See Waite, Edwin E., assignor.)
Standeford, Robert P., Simla, Colo. Butt and casing gage. No. 1,242,456; Oct. 16; v. 243; p. 699.
Stanfield, James A., assignor of one-half to G. T. Prout, Covington, Ky. Chuck. No. 1,244,253; Oct. 23; v. 243; p. 977.

Stanley, John. (See Martin and Stanley.)
Stanley, Shirley Q., Chicago, Ill. Mud-guard for motor-vehicles. No. 1,244,636; Oct. 30; v. 243; p. 1137.
Stanton, Henry L., assignor to The Automatic Recording Safe Company, Chicago, Ill. Savings-bank. No. 1,243,356; Oct. 16; v. 243; p. 670.
Staples, Albert F., New York, N. Y. Shovel. No. 1,241,677; Oct. 2; v. 243; p. 66.
Staplin, Charles D. (See Collett, George A., assignor.)
Starbuck, D. A., *et al.* (See Binckley, George S., assignor.)
Stark, John R., Nashville, Tenn., assignor to The Owens-Stark Manufacturing Company. Adjustable bed-spring for beds, davenports, couches, and the like. No. 1,243,887; Oct. 23; v. 243; p. 868.
Starr, Adolph, New Haven, Conn. Adjustable bushing. No. 1,242,066; Oct. 2; v. 243; p. 190.
Stathakis, Angel, assignor of one-half to T. F. Burke, Elizabeth, N. J. Carpet-cleaner. No. 1,244,139; Oct. 23; v. 243; p. 942.
Stauss, Carl E., Homestead, Pa. Rail-brace. No. 1,244,657; Oct. 30; v. 243; p. 1137.
Steadman, Frank M., Washington, D. C. Automatic focusing device for cameras. No. 1,244,254; Oct. 23; v. 243; p. 977.
Stebbins, Benjamin F., and B. W. Forehand, Mullin, Tex. Insect-collecting attachment. No. 1,243,888; Oct. 23; v. 243; p. 869.
Steckle, Edward J., Dixon, Ill. Separator for grinding-mills. No. 1,244,788; Oct. 30; v. 243; p. 1177.
Steczynski, Myron E., Cambridge Springs, Pa. Drafting instrument. No. 1,243,568; Oct. 16; v. 243; p. 732.
Steel Utilities Incorporated. (See Hawthorne, Louis A., assignor.)
Steele, Benjamin M., Detroit, Mich. Steering-gear for vehicles. No. 1,243,889; Oct. 23; v. 243; p. 869.
Steele, James R., Owego, N. Y. Anticreeper. No. 1,245,056; Oct. 30; v. 243; p. 1257.
Steeple, Reginald C., Spokane, Wash. Chandelier. No. 1,241,777; Oct. 2; v. 243; p. 98.
Steffen, Diedrich, Kearney, N. J. Bed. No. 1,245,131; Oct. 30; v. 243; p. 1280.
Steger & Sons Piano Manufacturing Company. (See Matson, Julius, assignor.)
Steiner, Cirill J., Cleveland, Ohio. Key-retainer. No. 1,242,257; Oct. 9; v. 243; p. 290.
Steinmetz, Joseph A., Baltimore, Md. Beer-cooler. No. 1,244,140; Oct. 23; v. 243; p. 943.
Steinmeyer, John W. (See Elliott and Steinmeyer.)
Stephenson, Earl J. (See Eidson and Stephenson.)
Steps, Robert A. (See Binkley and Steps.)
Sterling, John L., assignor to Sterling Salt Brick Company, Pittsburgh, Pa. Salt brick and making same. No. 1,244,141; Oct. 23; v. 243; p. 943.
Sterling Salt Brick Company. (See Sterling, John L., assignor.)
Stern, Percival, New Orleans, La. Means for starting internal-combustion engines. No. 1,242,258; Oct. 9; v. 243; p. 291.
Stetson, Samuel L., St. Paul, Minn. Rake. No. 1,244,789; Oct. 30; v. 243; p. 1177.
Stevens, Burt D., Evanston, assignor to Miehle Printing Press & Manufacturing Company, Chicago, Ill. Inking arrangement for printing-presses. No. 1,242,259; Oct. 9; v. 243; p. 291.
Stevens, Byron, Oakland, Cal. Transmission. No. 1,242,618; Oct. 9; v. 243; p. 407.
Stevens, William C., Akron, Ohio, assignor to Pierce Wrapping Machine Company, Chicago, Ill. Adjusting means for wrapping-machines. No. 1,241,678; Oct. 2; v. 243; p. 67.
Stevens, William C., Akron, Ohio, assignor to Pierce Wrapping Machine Company. Wrapping-machine folder. No. 1,243,357; Oct. 16; v. 243; p. 670.
Stevens, William C., Akron, Ohio, assignor to Pierce Wrapping Machine Company, Chicago, Ill. Folder device for wrapping-machines. No. 1,244,255; Oct. 23; v. 243; p. 978.
Stevenson, David N., Philadelphia, Pa. Gang-valve lock for gas-ranges, &c. No. 1,244,790; Oct. 30; v. 243; p. 1178.
Stewardson, James B. and S. S., North Randall township, Thomas county, Kans. Valve. No. 1,242,734; Oct. 9; v. 243; p. 443.
Stewardson, Samuel S. (See Stewardson, James B. and S. S.)
Stewart, Albert T., Peoria, Ill. Gas-burning lamp. No. 1,243,890; Oct. 23; v. 243; p. 869.
Stewart, Gertrude F. (See Stewart, Perez M., assignor.)
Stewart, John K., deceased, New York, N. Y.; J. B. Stewart, executrix. Starter for internal-combustion engines. No. 1,242,997; Oct. 16; v. 243; p. 561.
Stewart, John K., deceased, New York, N. Y.; J. B. Stewart, executrix. Starter for internal-combustion engines No. 1,242,998; Oct. 16; v. 243; p. 561.
Stewart, John K., deceased, New York, N. Y.; J. B. Stewart, executrix, Automobile-engine starter. No. 1,242,999; Oct. 16; v. 243; p. 562.
Stewart, Julia B., executrix. (See Stewart, John K.)
Stewart, Perez M., assignor to G. F. Stewart, New York, N. Y. Composite beam. No. 1,243,000; Oct. 16; v. 243; p. 563.
Stewart, Perez M., assignor to G. F. Stewart, New York, N. Y. Protected metal structure. No. 1,243,001; Oct. 16; v. 243; p. 563.
Stewart, William A., East Orange, N. J. Submarine-detector. No. 1,242,386; Oct. 9; v. 243; p. 331.
Stichler, Charles, assignor to Strause Gas Iron Co., Philadelphia, Pa. Self-heating sad-iron. No. 1,242,489; Oct. 9; v. 243; p. 364.
Stichler, Charles, assignor to Strause Gas Iron Co., Philadelphia, Pa. Gas-burner attachment. No. 1,242,490; Oct. 9; v. 243; p. 364.
Stickle, Cole, Indianapolis, Ind. Heat control for paper-making machines. No. 1,242,387; Oct. 9; v. 243; p. 332.
Stiglitz, Charles F., assignor of one-half to D. R. Stiglitz, Louisville, Ky. Door for coal-chutes. No. 1,242,067; Oct. 2; v. 243; p. 190.
Stiglitz, Daniel R. (See Stiglitz, Charles F., assignor.)
Stiles, Thomas G., Arlington, N. J. Battery-elevator. No. 1,244,558; Oct. 30; v. 243; p. 1108.
Stillings, Adelle, Spanaway, and T. W. Carl, Tacoma, Wash. Gate-latch. No. 1,245,057; Oct. 30; v. 243; p. 1257.
Stillwell, Lewis B., *et al.* (See Brinckerhoff, Francis M., assignor.)
Stimpson, Edward S., assignor to Draper Corporation, Hopedale, Mass. Temple-thread cutter for looms. No. 1,244,791; Oct. 30; v. 243; p. 1178.
Stocking, Milton D., Lindenwood, Ill. Feed-trough. No. 1,244,256; Oct. 23; v. 243; p. 978.
Stocks, Clarence L., Blue Ridge, Ga. Protective helmet. No. 1,244,559; Oct. 30; v. 243; p. 1108.
Stockton, Frank W., Chicago, Ill. Multiple-towel holder. No. 1,241,778; Oct. 2; v. 243; p. 98.
Stockwell, Edgar E., assignor to O'Brien Merrill, Incorporated, Los Angeles, Cal. Combination-chair. No. 1,244,889; Oct. 23; v. 243; p. 1017.
Stoddard, Charles F., Boston, Mass. Supporting means for electric motors. No. 1,243,358; Oct. 16; v. 243; p. 670.
Stoddard, Vaughn, Chelsea, Iowa. Machine-gun. No. 1,242,068; Oct. 2; v. 243; p. 190.
Stoddard, William O., Jr., Madison, assignor of one-half to F. E. Kip, Montclair, N. J. Waterproof fabric. No. 1,242,491; Oct. 9; v. 243; p. 364.
Stokes, Robert J., Trenton, N. J. Composition lining for brake-shoes. No. 1,242,069; Oct. 2; v. 243; p. 191.
Stoll, Victor, Brooklyn, N. Y. Dental tool. No. 1,244,792; Oct. 30; v. 243; p. 1178.
Stolle, Georg, Kiel, Germany. Submersion control for divers' armor with flexed members. No. 1,245,058; Oct. 30; v. 243; p. 1258.
Stolp, Charles H. (See Kailer, Harvey E., assignor.)
Stolze, Victor L., Wausau, Wis. Book-holding device. No. 1,243,891; Oct. 23; v. 243; p. 869.
Stone & Company, J. (See Darker, Alfred H., assignor.)
Stone, Fred L., Schenectady, N. Y., assignor to General Electric Company. Limit-switch for hoisting-machines. No. 1,242,260; Oct. 9; v. 243; p. 291.
Stone, Horace G., Chicago, Ill. Distillation of coal and other carbonaceous materials. No. 1,242,261; Oct. 9; v. 243; p. 292.
Stone, Horace G., Chicago, Ill. Coking-furnace. No. 1,243,776; Oct. 23; v. 243; p. 833.
Stone, Julius F., Columbus, Ohio. Fire apparatus. No. 1,241,572; Oct. 2; v. 243; p. 34.
Stopolovski, John, *et al.* (See Jakab, Mike, assignor.)
Storle, Ole O., Tacoma, Wash. Explosive-engine governor. No. 1,243,359; Oct. 16; v. 243; p. 671.
Storm, Joseph W., Coshocton, Ohio. Pitman. No. 1,242,492; Oct. 9; v. 243; p. 365.
Story, Hudson F., assignor of one-half to J. D. Boley, Highland, Cal. Power transmission. No. 1,243,640; Oct. 16; v. 243; p. 755.
Stoudt, Michael, assignor of one-half to L. Crozier, Dunkirk, Ind. Vehicle-jack. No. 1,243,360; Oct. 16; v. 243; p. 671.
Straka, John, Chicago, Ill. Ball-shooter. No. 1,244,793; Oct. 30; v. 243; p. 1178.
Strampe, Arthur H., Paullina, Iowa. Switching means for aerial railways. No. 1,242,735; Oct. 9; v. 243; p. 443.
Strand, David, assignor to The Strand Machinery Company, Chicago, Ill. Die-cushion. No. 1,245,059; Oct. 30; v. 243; p. 1258.
Strand Machinery Company, The. (See Billington, Arthur R., assignor.)
Strand Machinery Company, The. (See Strand, David, assignor.)
Stranders, Julien, Brooklyn, assignor to H. B. Kruger, New York, N. Y. Display device. No. 1,242,070; Oct. 2; v. 243; p. 191.
Strandh, Hans I. F., Forserum, Sweden. Channel-oven, drying-oven, or the like. No. 1,243,777; Oct. 23; v. 243; p. 833.
Stransky, Stephen, Philadelphia, Pa. Spring-bottom for beds. No. 1,245,060; Oct. 30; v. 243; p. 1258.
Straubel, Louis A., Green Bay, Wis. Machine for cutting and interfolding sheets of paper and the like. No. 1,242,262; Oct. 9; v. 243; p. 292.
Strause Gas Iron Co. (See Spahr, Otto, assignor.)
Strause Gas Iron Co. (See Stichler, Charles, assignor.)
Strause, Leon L. (See Harrison, Charles L., assignor.)
Strauss, Edwin W. (See Hoenecke, Walter J. A., assignor.)
Streff, Charles. (See Ellmer and Streff.)
Strieter, Florence A., Chicago, Ill. Railway-gate. No. 1,245,061; Oct. 30; v. 243; p. 1259.

Stringfellow, Ira, assignor of one-half to W. Stringfellow, Brookwood, Ala. Train-pipe-hose coupling. No. 1,243,778; Oct. 23; v. 243; p. 834.
Stringham, John H., Jersey City, N. J. Apparatus for ignition in explosive-engines. No. 1,243,002; Oct. 16; v. 243; p. 563.
Stringham, Richard H., Bountiful, Utah. Electrical drink-mixer. No. 1,242,493; Oct. 9; v. 243; p. 365.
Stromberg-Carlson Telephone Manufacturing Company. (See Reinke, Eugene A., assignor.)
Strong, Arthur J., assignor, by mesne assignments, to The Bock Bearing Company, Toledo, Ohio. Cage for roller-bearings. No. 1,242,388; Oct. 9; v. 243; p. 332.
Strong, Arthur P., Chicago, Ill., assignor to Green Engineering Company, East Chicago, Ind. Furnace. No. 1,242,263; Oct. 9; v. 243; p. 292.
Strong, Arthur P., Chicago, Ill., assignor to Green Engineering Company, East Chicago, Ind. Intake-fitting for conveying systems. No. 1,243,892; Oct. 23; v. 243; p. 870.
Strong, Arthur P., Chicago, Ill., assignor to Green Engineering Company, East Chicago, Ind. Ash-conveying system. No. 1,243,893; Oct. 23; v. 243; p. 870.
Strong, Arthur P. (See Poppenhusen and Strong.)
Strongson, Herman, assignor of one-half to R. F. Greacen. New York, N. Y. Writing-machine cylinder. No. 1,242,071; Oct. 2; v. 243; p. 191.
Struble, Rose L. B., Penn Yan, N. Y. Automobile-signal. No. 1,244,560; Oct. 30; v. 243; p. 1108.
Stuart, Carl P., Gorham, N. H. Magazine attachment for firearms. No. 1,244,794; Oct. 30; v. 243; p. 1179.
Stuart, Kenneth E., Philadelphia, Pa. Railway selective system. No. 1,243,457; Oct. 16; v. 243; p. 699.
Stubbs, Herbert L., Colorado Springs, Colo. Lamp-shade bracket. No. 1,242,494; Oct. 9; v. 243; p. 365.
Stuewe, Adolph, Alma, Kans. Wrench. No. 1,245,062; Oct. 30; v. 243; p. 1259.
Stukart, Hendrik, assignor to U. S. Slicing Machine Company, La Porte, Ind. Backplate for meat-slicing machines. No. 1,243,894; Oct. 23; v. 243; p. 870.
Sturtevant, Henry S., and H. K. Biddy, Hartford, Conn. Cover-supporting device. No. 1,242,736; Oct. 9; v. 243; p. 443.
Stutzman, Chancey A., assignor of one-half to C. F. Vanatta, Harlan, Iowa. Animal-trap. No. 1,242,737; Oct. 9; v. 243; p. 444.
Submarine Signal Company. (See Weintraub, Ezechiel, assignor.)
Submarine Wireless Company. (See Berger, Christian, assignor.)
Suchovsky, Frank, Hoboken, N. J. Life-boat protector. No. 1,243,117; Oct. 16; v. 243; p. 599.
Sullivan, George E. (See Brooks, John, assignor.)
Sullivan, James H. (See Gladding and Sullivan.)
Sullivan Machinery Company. (See Gilman, George H., assignor.)
Sullivan, William F., *et al.* (See Grove, Edward H., assignor.)
Summerour, Benjamin F., Gretna, La. Cotton-seed linter. No. 1,243,895; Oct. 23; v. 243; p. 871.
Summers, George L. (See Hicks and Summers.)
Summers, Leland L., Chicago, Ill. Forming nitrogen compounds. No. 1,242,264; Oct. 9; v. 243; p. 293.
Summerton, Clayton C. (See Summerton, George W. and C. C.)
Summerton, George W. and C. C., Wabash, Ind. Flour-producer. No. 1,244,561; Oct. 30; v. 243; p. 1109.
Sundback, Gideon, Meadville, Pa., assignor to Hookless Fastener Company. Separable fastener. No. 1,243,458; Oct. 16; v. 243; p. 700.
Sunderland, Charles C., Trenton, N. J., assignor to John A. Roebling's Sons Company. Rope-thimble. No. 1,244,658; Oct. 30; v. 243; p. 1137.
Sundstrand, Gustaf D., assignor to Rockford Tool Company, Rockford, Ill. Bevel-gear generator. No. 1,244,659; Oct. 30; v. 243; p. 1138.
Surface Combustion Company, The. (See Richardson, Eddison, and Read.)
Surface Grip Corporation. (See Roth and James, assignors.)
Suthann, Harry, Middletown, Ohio. Ingot-mold. No. 1,243,779; Oct. 23; v. 243; p. 834.
Sutterfield, Fred E., Flat River, Mo. Shell. No. 1,243,641; Oct. 16; v. 243; p. 756.
Suydam, Cornelius, Brooklyn, N. Y. Snow and ice remover. No. 1,241,779; Oct. 2; v. 243; p. 98.
Suzuki, Zenshiro, Los Angeles, Cal. Production of a dye-stuff. No. 1,244,795; Oct. 30; v. 243; p. 1179.
Suzuki, Zenshiro, Los Angeles, Cal. Production of a dye-stuff. No. 1,244,796; Oct. 30; v. 243; p. 1179.
Svalina, Alexsander, Cleveland, Ohio. Combination-weapon. No. 1,242,265; Oct. 9; v. 243; p. 293.
Svaren, John T., Fayette, N. D. Milk-strainer support. No. 1,241,573; Oct. 2; v. 243; p. 84.
Swan, Ervin D. (See Dickinson and Swan.)
Swan, Walter W., Portland, Oreg. Motor-vehicle. No. 1,244,001; Oct. 23; v. 243; p. 901.
Swanson, Charles N. (See Havens and Swanson.)
Swanson, Selviyor A., North Tonawanda, N. Y. Tracker mechanism for pneumatic or player pianos. No. 1,242,266; Oct. 9; v. 243; p. 293.
Swedberg, August, Kingston, assignor to Swedberg Mfg. Co., Wilkes-Barre, Pa. Window-screen. No. 1,242,072; Oct. 2; v. 243; p. 191.
Swedberg Mfg. Co. (See Swedberg, August, assignor.)
Sweet, Allen H., assignor to Sweet Power Transmission Company, St. Louis, Mo. Clutch. No. 1,242,389; Oct. 9; v. 243; p. 332.
Sweet Power Transmission Company. (See Sweet, Allen H., assignor.)
Sweetnam, Robert W., Toledo, Ohio. Forming dental restoration. No. 1,244,257; Oct. 23; v. 243; p. 978.
Sweney, John A., assignor to L. B. Sweney, Albuquerque, N. Mex. Air-fan. No. 1,242,116; Oct. 2; v. 243; p. 206.
Sweney, Lydia B. (See Sweney, John A., assignor.)
Swenson, Carl W., Providence, assignor to A. C. Messler, Pawtucket, R. I. Heading-machine. No. 1,243,003; Oct. 16; v. 243; p. 563.
Swortfiger, George F., East Orange, N. J. Thimble for cable connections. No. 1,243,459; Oct. 16; v. 243; p. 700.
Swyers, Brice P., assignor to Motors Lock Company of America, Pittsburgh, Pa. Safety device for starting mechanisms. No. 1,242,267; Oct. 9; v. 243; p. 293.
Swyers, Brice P., assignor to Motors Lock Company of America, Pittsburgh, Pa. Lock-switch. No. 1,244,660; Oct. 30; v. 243; p. 1138.
Sykes, Wilfred, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Regulating apparatus for electric furnaces. No. 1,241,574; Oct. 2; v. 243; p. 35.
Synthetic Patents Co. (See Weiler, Max, assignor.)
Sypho-Chemical Sprinkler Corporation. (See Hamilton, John R., assignor.)
Sypho-Chemical Sprinkler Corporation. (See Thompson, Everett L., assignor.)
Sypkens, Edward, Pingree, N. D. Device for removing stalled automobiles. No. 1,241,679; Oct. 2; v. 243; p. 68.
Syracuse Chilled Plow Company. (See Lee, William H., assignor.)
Szigethy, Stephen, New York, N. Y. Candelabrum. No. 1,241,575; Oct. 2; v. 243; p. 35.
Szuhay, Joseph, New York, N. Y. Toilet article. No. 1,234,896; Oct. 23; v. 243; p. 871.
T. C. White Electrical Supply Company. (See Fox, Alexander L., assignor.)
T. G. Hawkes & Co. (See Hawkes, Townsend D., assignor.)
Tabor Manufacturing Company, The. (See Lewis and Ramsden, assignors.)
Tabor Manufacturing Company, The. (See Lewis, Wilfred, assignor.)
Taggart, Wayne, Hopedale, Ohio. Bag-tie. No. 1,243,232; Oct. 16; v. 243; p. 633.
Taggart, Wayne, Hopedale, Ohio. Grain-bag fastener. No. 1,243,233; Oct. 16; v. 243; p. 633.
Taliaferro, John C., D. P. Robinson, and J. Coyle, Baltimore, Md., assignors to Continental Can Company, Incorporated, Syracuse, N. Y. Conveying and timing apparatus for timing and delivering articles. No. 1,242,738; Oct. 9; v. 243; p. 444.
Taliaferro, Thomas L., La Grange, Ill. Vacuum-sealing machine. No. 1,245,063; Oct. 30; v. 243; p. 1260.
Talk-Sing Company. (See Cole, Lewis, assignor.)
Talleur, Frank E. (See Hoff and Talleur.)
Tanaka, Masao, New York, N. Y. Combined hair-clipper and hair-brush. No. 1,244,917; Oct. 30; v. 243; p. 1216.
Tanney, George A., Chicago, Ill. Game mechanism. No. 1,243,642; Oct. 16; v. 243; p. 756.
Tappan, Robert, New York, N. Y. Change-receptacle. No. 1,242,739; Oct. 9; v. 243; p. 444.
Tarbell, Casslus C., El Paso, Tex. Transmission-gearing for station-indicators. No. 1,245,064; Oct. 30; v. 243; p. 1260.
Tar Bush, Hubert, assignor of one-half to G. R. Barker, Lakewood, Ohio. Wrench. No. 1,244,172; Oct. 23; v. 243; p. 951.
Tarshis, Harry, L. Berzon, and J. Brezin, assignors of one-fourth to L. Aron, Philadelphia, Pa. Bag fastening and locking mechanism. No. 1,245,132; Oct. 30; v. 243; p. 1281.
Tautges, August, Aniwa, assignor of two-fifths to J. Lindner, Jr., Birnamwood, Wis. Door structure for grain-cars and the like. No. 1,242,268; Oct. 9; v. 243; p. 294.
Taylor, Albert. (See Carter, Taylor, and Griffith.)
Taylor, Albert J., Lamasco, Tex. Measuring instrument. No. 1,244,390; Oct. 23; v. 243; p. 1017.
Taylor, Albertis C., Warren, Ohio. Electric welding and articles produced thereby. No. 1,243,004; Oct. 16; v. 243; p. 564.
Taylor, Charles C., *et al.* (See Taylor, Silas L. O., assignor.)
Taylor, Edwin, Brooklyn, and W. H., New York, N. Y., assignors by mesne assignments, to Taylor-Hubbard Company. Apparatus for generating and utilizing motive fluids. No. 1,241,780; Oct. 2; v. 243; p. 99.
Taylor, Edwin and W. H., New York, N. Y., assignors by mesne assignments, to Taylor-Hubbard Company. Generating and utilizing motive fluids. No. 1,241,781; Oct. 2; v. 243; p. 99.
Taylor, Herbert B., Rochester, assignor to General Railway Signal Company, Gates, N. Y. Mechanical time-release for interlocking devices. No. 1,245,133; Oct. 30; v. 243; p. 1281.
Taylor-Hubbard Company. (See Taylor, Edwin and W. H., assignors.)
Taylor, James H., Chicago, Ill. Making flanges. No. 1,243,005; Oct. 16; v. 243; p. 564.

Taylor, John R. (See McCluer, Anna T., assignor.)
Taylor, Oliver B., Muskegon, Mich. Paper-roll holder. No. 1,243,569; Oct. 16; v. 243; p. 732.
Taylor, Ralph G. (See McIntosh and Taylor.)
Taylor, Ralph G., assignor to Universal Draft Gear Attachment Co., Chicago, Ill. Railway-truck. No. 1,243,006; Oct. 16; v. 243; p. 564.
Taylor, Ralph G., assignor to Universal Draft Gear Attachment Co., Chicago, Ill. Railway-Truck. No. 1,243,007; Oct. 16; v. 243; p. 565.
Taylor, Sam, Morganton, N. C. Animal-trap. No. 1,243,008; Oct. 16; v. 243; p. 565.
Taylor, Silas L. O., assignor of one-third to M. L. Russell, one-third to C. C. Taylor, and one-third to J. W. Hensley, Huntington, W. Va. Combined leveling and plumbing implement. No. 1,242,740; Oct. 9; v. 243; p. 444.
Taylor, William H. (See Taylor, Edwin and W. H.)
Tazelaar, Josiah, Grand Rapids, Mich. Glove. No. 1,244,142; Oct. 23; v. 243; p. 943.
Teague, Horace B. S., Melrose Highlands, assignor to Edward Miller & Company, Boston, Mass. Holder for candles and the like. No. 1,241,576; Oct. 2; v. 243; p. 35.
Teare, Archie D., Victor, S. D. Vehicle-wheel. No. 1,244,002; Oct. 23; v. 243; p. 902.
Teel, Steward A., Bangor, Pa. Expanding brake-band guide. No. 1,245,065; Oct. 30; v. 243; p. 1260.
Teeple, Edgar B., Minneapolis, Minn. Resilient wheel. No. 1,242,269; Oct. 9; v. 243; p. 294.
Telelectric Company, The. (See Reed, Walter C., assignor.)
Tenent, Hubbard A., Chicago, Ill. Trousers-presser. No. 1,243,361; Oct. 16; v. 243; p. 671.
Terracciano, Carmine, New York, N. Y. Key-cutting machine. No. 1,242,105; Oct. 2; v. 243; p. 202.
Terrell, Isaac H., and W. Schaum, Cambridge, Ohio. Decorating composition. No. 1,243,362; Oct. 16; v. 243; p. 672.
Terrell, Joel, Seattle, Wash. Package-tie. No. 1,244,797; Oct. 30; v. 243; p. 1179.
Teter, Charles K., assignor to The Teter Manufacturing Company, Cleveland, Ohio. Facial inhaler. No. 1,244,661; Oct. 30; v. 243; p. 1138.
Teter Manufacturing Company, The. (See Teter, Charles K., assignor.)
Tew, James D., Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y. Making tire-casings. No. 1,242,073; Oct. 2; v. 243; p. 191.
Tew, James D., Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y. Making tire-casings. No. 1,242,270; Oct. 9; v. 243; p. 295.
Tew, James D., Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y. Oven for drying cord. No. 1,245,066; Oct. 30; v. 243; p. 1261.
Tew, James D., Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y. Making hollow cord. No. 1,245,067; Oct. 30; v. 243; p. 1261.
Thalman, Laurie H., San Diego, Cal. Acetylene-gas generator. No. 1,241,680; Oct. 2; v. 243; p. 68.
Tharp, James G., Indianola, Iowa. Warmer for motor-cars. No. 1,241,782; Oct. 2; v. 243; p. 99.
Tharp, Wilber H., and A. T. Ellias, Lewiston, Idaho. Toilet article. No. 1,244,798; Oct. 30; v. 243; p. 1179.
Theodor Kundtz Company, The. (See Kundtz, Theodor, assignor.)
Thomas, C. E., *et al.* (See Hicks, Claud J., assignor.)
Thomas, Edmund, Erie, Pa. Spring-suspension mechanism. No. 1,242,495; Oct. 9; v. 243; p. 365.
Thomas, Edward, New York, N. Y. Paper. No. 1,243,780; Oct. 23; v. 243; p. 834.
Thomas, George B., assignor to The Bryant Electric Company, Bridgeport, Conn. Attachment-plug fitting. No. 1,245,068; Oct. 30; v. 243; p. 1261.
Thomas, Guyer D., North Yakima, Wash. Chair-tray. No. 1,242,074; Oct. 2; v. 243; p. 192.
Thomas, Horace T., Lansing, Mich. Cooling apparatus for automobiles. No. 1,241,681; Oct. 2; v. 243; p. 68.
Thomas, J. R., *et al.* (See Hicks, Claud J., assignor.)
Thomas, John W. (See Anderson, Albert M., assignor.)
Thomas-Oberkirch Company. (See Thomas, William M., assignor.)
Thomas, Sidney, and F. Stait-Gardner, London, England. Truck for railway and tramway vehicles. No. 1,242,075; Oct. 2; v. 243; p. 192.
Thomas, W. D., *et al.* (See Bates, William H., assignor.)
Thomas, William H., Sterling, Ill. Ambulance-cot. No. 1,242,496; Oct. 9; v. 243; p. 366.
Thomas, William M., assignor to Thomas-Oberkirch Company, Limited, New York, N. Y. Reeling apparatus for moving-picture cameras. No. 1,244,918; Oct. 30; v. 243; p. 1217.
Thomas, William M., assignor, by mesne assignments, to Thomas-Oberkirch Company, Limited, New York, N. Y. Intermittent motion for moving pictures. No. 1,244,919; Oct. 30; v. 243; p. 1217.
Thomas, William M., assignor, by mesne assignments, to Thomas-Oberkirch Company, Limited, New York, N. Y. Method of feeding films. No. 1,244,920; Oct. 30; v. 243; p. 1217.
Thomas, William S., Lock Haven, Pa. Lamp. No. 1,242,076; Oct. 2; v. 243; p. 192.
Thommen, Adolph A., Chicago, Ill. Blower. No. 1,242,077; Oct. 2; v. 243; p. 193.
Thompson, Alfred, Detroit, Mich., assignor of fifty-one one-hundredths to L. E. Beaman, Providence, R. I. Carbureter. No. 1,243,897; Oct. 23; v. 243; p. 871.
Thompson, Benjamin H., *et al.* (See Icenhour, Albert A., assignor.)
Thompson, Everett L., Dover, N. J., assignor to Sypho-Chemical Sprinkler Corporation, Croton-on-Hudson, N. Y. Automatic fire-extinguishing apparatus. No. 1,245,134; Oct. 30; v. 243; p. 1281.
Thompson, Fredrick B., Chicago, Ill. Film-tape-treating apparatus. No. 1,244,258; Oct. 23; v. 243; p. 978.
Thompson, George F., assignor of one-tenth to J. Ellenberg, one-tenth to G. H. Provine, two-tenths to J. F. Dulaney, and two-tenths to J. Thompson, McKinney, Tex. Method and apparatus for handling seed-cotton. No. 1,242,271; Oct. 9; v. 243; p. 295.
Thompson, Jim, *et al.* (See Thompson, George F., assignor.)
Thompson, Jim and R. J., Elk Grove, Cal. Detector. No. 1,245,135; Oct. 30; v. 243; p. 1282.
Thompson, Lewis P., Minneapolis, Minn. Floor-scraper. No. 1,241,577; Oct. 2; v. 243; p. 36.
Thompson, Reuben B., Cohoes, N. Y., assignor to Union Special Machine Company, Chicago, Ill. Loop-retainer for sewing-machines. No. 1,244,921; Oct. 30; v. 243; p. 1218.
Thompson, Richard B., Allerton, Ill. Non-skidding tire-armor. No. 1,242,078; Oct. 2; v. 243; p. 193.
Thompson, Roy J. (See Thompson, Jim and R. J.)
Thompson, William A., Walkerton, Ontario, Canada. Potato-digging attachment for plows. No. 1,243,898; Oct. 23; v. 243; p. 872.
Thomsen, Jörgen E., assignor to The Joseph Dixon Crucible Company, Jersey City, N. J. Electrode and making the same. No. 1,243,009; Oct. 16; v. 243; p. 565.
Thomson, Albert R., Plantsville, Conn. Pickax. No. 1,244,662; Oct. 30; v. 243; p. 1139.
Thomson, Charles A., assignor to D. Mellis, Belleville, N. Y. Dough-molding machine. No. 1,242,079; Oct. 2; v. 243; p. 193.
Thomson, William S., assignor to The H. D. Smith & Company, Plantsville, Conn. Valve-spring lifter. No. 1,243,010; Oct. 16; v. 243; p. 556.
Thorn, Oscar F., assignor to Gulbransen-Dickinson Company, Chicago, Ill. Portable planing-machine. No. 1,243,460; Oct. 16; v. 243; p. 700.
Thornbury, D. L. (See Pratt, Walter E., assignor.)
Thornton, Frank, Jr., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electric heating apparatus. No. 1,241,578; Oct. 2; v. 243; p. 36.
Throt-A-Lite Company. (See Young, Elmer I., assignor.)
Thurman, William B., Madera, Cal. Structural toy. No. 1,241,682; Oct. 2; v. 243; p. 68.
Thurman, William B., Madera, Cal. Structural toy. No. 1,242,272; Oct. 9; v. 243; p. 295.
Thurman, William B., Madera, Cal. Structural toy. No. 1,242,273; Oct. 9; v. 243; p. 295.
Tiddy, Thomas H., *et al.* (See Snyder, Charles P., assignor.)
Tidlund, Edwin G. (See Broomall and Tidlund.)
Tidwell, Henry M. (See Bue and Tidwell.)
Tillman, Carl C. (See Linville and Tillman.)
Tilly, Alfred R., Brooklyn, N. Y. Magazine-pencil. No. 1,242,080; Oct. 2; v. 243; p. 194.
Tilton, James B., Haverhill, Mass. Turned shoe. No. 1,241,579; Oct. 2; v. 243; p. 36.
Timken-Detroit Axle Company, The. (See Alden, Herbert W., assignor.)
Tittmann, Gottfried, Brooklyn, N. Y. Pipe-support. No. 1,241,683; Oct. 2; v. 243; p. 69.
Titus Blatter & Company. (See Whitmore, Albert H., assignor.)
Tobolla, Victor. (See Sheafe and Tobolla.)
Tocknell, Charles W., Kenilworth, N. J. Compressed-air vibrator. No. 1,241,783; Oct. 2; v. 243; p. 99.
Todd, Earl B. (See Conklin and Todd.)
Todd Protectograph Company. (See Simpson and Paulson, assignors.)
Told, Arnold H., New York, N. Y., assignor to Positive Rail Anchor Company, Marion, Ind. Rail-anchor. No. 1,241,684; Oct. 2; v. 243; p. 69.
Toledo Button Machine Company, The. (See Buehler, Albert W., assignor.)
Toledo Scale Company. (See Myers, Hubert A., assignor.)
Tomcsanyi, Stevine, Willock, Pa. Foldable support. No. 1,242,274; Oct. 9; v. 243; p. 296.
Tomlinson, Edward J., assignor to Splitdorf Electrical Company, Newark, N. J. Engine-starting device. No. 1,244,003; Oct. 23; v. 243; p. 902.
Tomlinson, Edward J., assignor to Splitdorf Electrical Company, Newark, N. J. Engine-starting device. No. 1,244,004; Oct. 23; v. 243; p. 903.
Tooke, William A., Montreal, Quebec, Canada. Collar. No. 1,243,011; Oct. 16; v. 243; p. 566.
Tooke, William A., Montreal, Quebec, Canada. Collar. No. 1,243,461; Oct. 16; v. 243; p. 701.
Toombs, Claude H. (See Olson and Toombs.)
Topham, Laurence E., Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Chain-stitch inseam shoe-sewing machine. No. 1,241,784; Oct. 2; v. 243; p. 100.
Topham, Laurence E., Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Chain-stitch inseam shoe-sewing machine. No. 1,241,785; Oct. 2; v. 243; p. 100.

Torchio, Philip, and H. R. Woodrow, assignors to T. E. Murray, New York, N. Y. Polyphase reactance-coil. No. 1,242,497; Oct. 9; v. 243; p. 366.

Townsend, Harry E., assignor to Anchor Cap & Closure Corporation, Brooklyn, N. Y. Sealing-cap. No. 1,242,741; Oct. 9; v. 243; p. 445.

Townsend, Harry E., assignor to The Anchor Cap & Closure Corporation, Brooklyn, N. Y. Sealing-closure with removable gasket. No. 1,242,742; Oct. 9; v. 243; p. 445.

Townsend, Harry E., assignor to The Anchor Cap & Closure Corporation, Brooklyn, N. Y. Side seal for glass containers and the like. No. 1,242,743; Oct. 9; v. 243; p. 446.

Townsend, Wallace, *et al.* (See Bates, William H., assignor.)

Train, John, Wessington Springs, S. D. Pump attachment. No. 1,244,143; Oct. 23; v. 243; p. 943.

Trautman, Walter G., assignor to The Cleveland Folding Machine Company, Cleveland, Ohio. Adjustable machine-bearing. No. 1,242,744; Oct. 9; v. 243; p. 446.

Traver, Harry G., Ridgewood, N. J. Flushing apparatus and valve mechanism therefor. No. 1,244,922; Oct. 30; v. 243; p. 1218.

Treo Company. (See Schloss, Meyer W., assignor.)

Trigg, John B., assignor of one-half to W. E. Hill, Jonah, Tex. Automatic binder attachment for hay-presses. No. 1,243,570; Oct. 16; v. 243; p. 733.

Trillitsch, Alfred R., Chicago, Ill. Automatic cut-out for switches. No. 1,241,580; Oct. 2; v. 243; p. 37.

Trinkle, Christopher C., Romney, Ind. Compound for tempering steel. No. 1,243,899; Oct. 23; v. 243; p. 872.

Trismen, John H., assignor to Consolidated Fire Works Co. of America, New York, N. Y. Grenade or bomb. No. 1,243,781; Oct. 23; v. 243; p. 835.

Trivigino, Anthony, Brooklyn, N. Y. Twitch. No. 1,243,118; Oct. 16; v. 243; p. 599.

Troiano, Antonio, Yonkers, N. Y. Sanitary appliance. No. 1,243,462; Oct. 16; v. 243; p. 701.

Trost, William A., Seattle, Wash. Doll. No. 1,244,799; Oct. 30; v. 243; p. 1180.

Trotman, Walter K., Holyoke, Mass., assignor of one-half to C. D. Jacobs, New York, N. Y. Dandy-roll and other like devices such as cylinder-molds, &c. No. 1,244,562; Oct. 30; v. 243; p. 1109.

Trott, Alfred B., Denver, Colo. Automobile traffic-signal. No. 1,244,259; Oct. 23; v. 243; p. 979.

Troy Carriage Sun Shade Company, The. (See Dillingham, Frederick A., assignor.)

Trozzo, Frank, *et al.* (See Ross, Samuel L., assignor.)

Truchinsky, Jacob. (See Klein, Oskar, assignor.)

Trudeau, Theodore F., Williamsett, assignor to J. L. Perkins, Holyoke, Mass. Safety device for gage-glasses. No. 1,242,081; Oct. 2; v. 243; p. 194.

Try Me Manufacturing Company. (See Millea, Thomas D., assignor.)

Tucker, Edward A., Winchester, Mass. Concrete building construction. No. 1,244,663; Oct. 30; v. 243; p. 1139.

Tucker, Edwin W., North Prairie, Wis. Camera. No. 1,242,745; Oct. 9; v. 243; p. 446.

Turnbow, William C., Houston, Tex. Truck. No. 1,242,390; Oct. 9; v. 243; p. 333.

Turnbull, Thomas, Huntington, W. Va. Mail-box. No. 1,245,136; Oct. 30; v. 243; p. 1282.

Turner & Seymour Manufacturing Co., The. (See Hills, Sidney C., assignor.)

Turner, Simeon, Warren, Ind. Automatic railway-gate. No. 1,243,643; Oct. 16; v. 243; p. 756.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Fluid-pressure-brake apparatus. No. 1,241,581; Oct. 2; v. 243; p. 37.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Fluid-pressure-brake apparatus. No. 1,241,582; Oct. 2; v. 243; p. 37.

Turner, Walter V., Wilkinsburg, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Fluid-pressure brake. No. 1,243,012; Oct. 16; v. 243; p. 566.

Turner, Walter V., Wilkinsburg, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Automatic train control. No. 1,243,782; Oct. 23; v. 243; p. 835.

Turney, Eugene T., New York, N. Y., assignor to American Player Action Company. Door-operating mechanism for player-pianos. No. 1,241,583; Oct. 2; v. 243; p. 38.

Turrell, John C., Mount Vernon, assignor to Earl & Wilson, Troy, N. Y. Collar. No. 1,243,463; Oct. 16; v. 243; p. 701.

Tute, Robert A., Atlanta, Ga. Means for protecting a vessel against torpedoes. No. 1,242,082; Oct. 2; v. 243; p. 194.

Tuttle, Ralph P., New York, N. Y., and M. H. Loughridge, Woodcliffe-on-Hudson, N. J. Semaphore signal device. No. 1,242,891; Oct. 9; v. 243; p. 493.

Tuttle, Ralph P. (See Loughridge and Tuttle.)

Twaits, Daniel H., Chicago, Ill. Grease-cup. No. 1,241,584; Oct. 2; v. 243; p. 38.

Twiddy, Albert E., and J. Stally, Seven-Oaks, England. Lighting system. No. 1,241,585; Oct. 2; v. 243; p. 39.

Twining, Ralph H., and R. W. G. Wyckoff, Geneva, N. Y. Producing an explosive compound. No. 1,242,900; Oct. 9; v. 243; p. 495.

Twomley, Melvan L., Anderson, Ind., assignor, by mesne assignments, to Sefton Manufacturing Company, Millbrook, N. Y. Manufacture of paper-board. No. 1,243,013; Oct. 16; v. 243; p. 556.

Tyler, Edmund J., Chicago, Ill. Apparatus for producing artificial respiration. No. 1,243,900; Oct. 23; v. 243; p. 872.

Tyman, Henry J. (See Ruit and Maher, assignors.)

U. S. Slicing Machine Company. (See McCormick, John I., assignor.)

U. S. Slicing Machine Company. (See Stukart, Hendrik, assignor.)

Uhls, John A., Salmons, Ky. Animal-trap. No. 1,244,563; Oct. 30; v. 243; p. 1109.

Ulisperger, Wenzel L., Coleridge, Nebr. Manure-loader. No. 1,242,083; Oct. 2; v. 243; p. 195.

Ulrich, Charles, Roselle, N. J. Window-catch. No. 1,242,391; Oct. 9; v. 243; p. 333.

Underhill, Walter A., and C. C. Every, assignors to The Eagle Wagon Works, Auburn, N. Y. Steering mechanism for wagon-trains. No. 1,241,786; Oct. 2; v. 243; p. 100.

Underwood Computing Machine Company. (See Becker, Richard M., assignor.)

Underwood Computing Machine Company. (See Wright, Walter, assignor.)

Underwood, Kenneth, Montgomery, Ala. Tool. No. 1,242,392; Oct. 9; v. 243; p. 334.

Underwood Typewriter Company. (See Fengler, Hermann V., assignor.)

Unger, Mahlon A., Dormont, Pa. Water-heater. No. 1,243,901; Oct. 23; v. 243; p. 872.

Union Draft Gear Company. (See Cardwell, James R., assignor.)

Union Draft Gear Co. (See Cotton, Walter H., assignor.)

Union Fabric Company, The. (See Watrous, Martin D., assignor.)

Union Lock Stitch Company. (See Merrick, Frank W., assignor.)

Union Metal Products Company. (See Cameron and McMullen, assignors.)

Union Special Machine Company. (See Chalman, John E., assignor.)

Union Special Machine Company. (See Thompson, Reuben B., assignor.)

Union Steam Pump Company. (See Smith, Karl D., assignor.)

Union Switch & Signal Company, The. (See Harrington, Clinton O., assignor.)

Union Wire Mattress Company. (See Powers, George G., assignor.)

United Air Spring Company of Arizona. (See Foster, Ernest D., assignor.)

United Autographic Register Company. (See Jensen, Louis, assignor.)

United Fast Color Eyelet Company. (See Engels, Johann C., assignor.)

United Filters Corporation. (See McCaskell, Jasper A., assignor.)

United Gas Improvement Company, The. (See Wood, William M., assignor.)

United Shoe Machinery Company. (See Ashton, Orrell, assignor.)

United Shoe Machinery Company. (See Cosgrove, John W., assignor.)

United Shoe Machinery Company. (See Davey, John F., assignor.)

United Shoe Machinery Company. (See Johnson, Albert E., assignor.)

United Shoe Machinery Company. (See Kilb, George J., assignor.)

United Shoe Machinery Company. (See Littlefield, Augustine F., assignor.)

United Shoe Machinery Company. (See Mackenzie, Fred L., assignor.)

United Shoe Machinery Company. (See Shaw, Walter, assignor.)

United Shoe Machinery Company. (See Topham, Laurence E., assignor.)

United Shoe Machinery Company. (See Winkley, Erastus E., assignor.)

United States Cloth Cutting Machine Co. (See Komow, Albert P., assignor.)

United States Ordnance Company. (See Powers and Leech, assignors.)

United States Ordnance Company. (See Sheppard, Creedy C., assignor.)

United Table-Bed Company. (See Klok, Carl R., assignor.)

United Table-Bed Company. (See Wirts, Stephen M., assignor.)

Universal Draft Gear Attachment Co. (See Taylor, Ralph G., assignor.)

Universal Elevated Railway Company. (See McClure, Royal A., assignor.)

Universal Patents Company. (See Batchelder, Frank R., assignor.)

Universal Rim Company. (See Baker, Erle K., assignor.)

Universal Turbine Company, The. (See Anderson, Fmil, assignor.)

Unkle, Charles W., and T. D. Griley, Baltimore, Ohio. Tub-beater. No. 1,244,144; Oct. 23; v. 243; p. 943.

Uno, Mitsu, Oakland, Cal. Alining device for rails. No. 1,243,368; Oct. 16; v. 243; p. 672.

Urtel, Henry, La Salle, assignor to The Carborundum Company, Niagara Falls, N. Y. Making abrasive articles. No. 1,243,783; Oct. 23; v. 243; p. 835.

Vadner, Charles S., Butte, Mont. Recovery of metals from ores and the like. No. 1,245,137; Oct. 30; v. 243; p. 1282.

Vaidik, Joseph, Clinton, Ind. Ship-protector. No. 1,245,069; Oct. 30; v. 243; p. 1261.

Valentine, Herbert S., assignor to Link-Belt Company, Philadelphia, Pa. Electric Controlling System. No. 1,243,571; Oct. 16; v. 243; p. 733.

Valentine, Irving R., Schenectady, N. Y., assignor to General Electric Company. Electric furnace. No. 1,242,275; Oct. 9; v. 243; p. 296.

Vales, Edward J., and J. T. Bishop, Augusta, Ga. Pressure mechanism for roller bed-saddles. No. 1,241,586; Oct. 2; v. 243; p. 39.

Van Alstyn, Albert T., New York, N. Y. Clasp. No. 1,245,070; Oct. 30; v. 243; p. 1262.

Van Alstyne, Charles H. (See Van Alstyne, Matthew C. and C. H.)

Van Alstyne, Matthew C. and C. H., South Haven, Mich. Oil-cup. No. 1,244,923; Oct. 30; v. 243; p. 1218.

Van Der Veer, Ferdinand P., Indianapolis, Ind. Direction-indicating attachment for automobiles. No. 1,242,393; Oct. 9; v. 243; p. 334.

Van Deventer, H. R. (See Ard, Reid, assignor.)

Van Deventer, Harry R., Sumter, S. C., assignor, by mesne assignments, to Splitdorf Electrical Company, Newark, N. J. Igniter mechanism for internal-combustion engines. No. 1,244,260; Oct. 23; v. 243; p. 979.

Van Deventer, Harry R., Sumter, S. C., assignor to Splitdorf Electrical Company, Newark, N. J. Ignition device. No. 1,244,261; Oct. 23; v. 243; p. 980.

Van Deventer, Harry R., Sumter, S. C., assignor to Splitdorf Electrical Company, Newark, N. J. Generator-lamp. No. 1,244,262; Oct. 23; v. 243; p. 980.

Van Dorn, Herbert E., Chicago, Ill. Car-end construction. No. 1,241,685; Oct. 2; v. 243; p. 69.

Van Dijyl, Josua C. H., Rotterdam, Netherlands. Nut-opening machine. No. 1,243,572; Oct. 16; v. 243; p. 734.

Van Gelder, Mozes, *et al.* (See Adams, Charles M., assignor.)

Van Haste, Abram, Paterson, N. J. Warping-machine. No. 1,244,800; Oct. 30; v. 243; p. 1180.

Van Heuvel, Martin. (See Parker and Van Heuvel.)

Van Horn, Charles B., Philadelphia, Pa. Barrel-washing machine. No. 1,244,391; Oct. 26; v. 243; p. 1017.

Van Horn, Charles B., Philadelphia, Pa. Barrel-washing machine. No. 1,244,392; Oct. 23; v. 243; p. 1018.

Van Horn, William H. (See Kemp and Van Horn.)

Van Houten, Frank H., assignor to Dutchess Tool Company, Beacon, N. Y. Machine for rounding up lumps of dough. No. 1,244,801; Oct. 30; v. 243; p. 1180.

Van-O-Phone Company. (See Grupe, William F., assignor.)

Van Ranst, Samuel B., assignor to Crouse-Hinds Company, Syracuse, N. Y. Electric-conduit fittings. No. 1,243,902; Oct. 23; v. 243; p. 873.

Van Valkenburg, Burt R., Oakland, assignor to American Photo Player Company, Berkeley, Cal. Tremolo mechanism for organs. No. 1,243,644; Oct. 16; v. 243; p. 756.

Van Valkenburg, Harold A., Oakland, Cal. Sound-producing device. No. 1,243,645; Oct. 16; v. 243; p. 757.

Van Zandt, Jacobs & Co. (See Shumway, Harry E., assignor.)

Vanatta, Clarence F. (See Stutzman, Chancey A., assignor.)

Vanderveld, Anthony, assignor to Grand Rapids Show Case Company, Grand Rapids, Mich. Rotary display-rack. No. 1,243,014; Oct. 16; v. 243; p. 567.

Vanderveld, Anthony, assignor to Grand Rapids Show Case Company, Grand Rapids, Mich. Locking device for display-racks. No. 1,243,015; Oct. 16; v. 243; p. 567.

Variable Speed Gear Limited. (See Robson, John, assignor.)

Varner, Edward C., Mansfield, Ohio. Corn-harvester. No. 1,242,084; Oct. 2; v. 243; p. 195.

Vaughan, David F., Riverton, N. J. Anticreeper for railway-rails. No. 1,244,145; Oct. 23; v. 243; p. 944.

Vaughan, Henry H., Montreal, Quebec, Canada. Passenger-car frame. No. 1,245,071; Oct. 30; v. 243; p. 1262.

Venn, Isaac H., Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Elevator safety device. No. 1,242,394; Oct. 9; v. 243; p. 335.

Ver Planck, William E., Erie, Pa., assignor to General Electric Company. Compressor. No. 1,242,276; Oct. 9; v. 243; p. 296.

Vetter, Walter G., Alva, Okla. Shield for automobile-radiators. No. 1,244,802; Oct. 30; v. 243; p. 1181.

Viator, Etienne. (See Clanton, William A., assignor.)

Vickers Limited. (See Francis, Charles E., assignor.)

Victor Electric Corporation. (See Wanz, Julius B., assignor.)

Victor, Joseph B., assignor to Victor Manufacturing & Gasket Co., Chicago, Ill. Gasket. No. 1,241,587; Oct. 2; v. 243; p. 39.

Victor Manufacturing & Gasket Co. (See Victor, Joseph B., assignor.)

Victor Shoe Machinery Company. (See Erickson, Edward, assignor.)

Victor Shoe Machinery Company. (See Johnson and Erickson, assignors.)

Victor S. Pearlman & Co. (See Pearlman, Victor S., assignor.)

Victor Talking Machine Company. (See La Rue, William D., assignor.)

Victor Talking Machine Company, The. (See Royal, Belford G., assignor.)

Vinson, Thomas C., assignor of one-fourth to A. A. Ewing and one-fourth to W. T. Warren, Guthrie, Okla. Combined razor hone and strop. No. 1,242,746; Oct. 9; v. 243; p. 447.

Virginia Haloid Company. (See Nagelvoort, Adriaan, assignor.)

Vogel, Eugene W., Oak Park, assignor to Chicago Railway Signal and Supply Company, Carpentersville, Ill. Rail-expander. No. 1,242,395; Oct. 9; v. 243; p. 335.

Vogel, Joshua F., assignor to Gendron Wheel Company, Toledo, Ohio. Wheel-hub. No. 1,242,277; Oct. 9; v. 243; p. 297.

Voges, Hermann W., Springfield, Mass. Micrometer-calipers. No. 1,244,263; Oct. 23; v. 243; p. 980.

Vogler, Frank C., San Antonio, Tex. Vehicle-wheel. No. 1,242,278; Oct. 9; v. 243; p. 297.

Vogt, Albert E., assignor to Vogt Mfg. & Coach Lace Co., Rochester, N. Y. Finishing-strip. No. 1,243,903; Oct. 23; v. 243; p. 873.

Vogt Mfg. & Coach Lace Co. (See Vogt, Albert E., assignor.)

Volght, Henry G., New Britain, assignor to Sargent & Company, New Haven, Conn. Lock. No. 1,241,787; Oct. 2; v. 243; p. 101.

Volght, Henry G., New Britain, assignor to Sargent & Company, New Haven, Conn. Lock. No. 1,241,788; Oct. 2; v. 243; p. 101.

Volght, Henry G., New Britain, assignor to Sargent & Company, New Haven, Conn. Lock. No. 1,242,085; Oct. 2; v. 243; p. 195.

Volght, Henry G., New Britain, assignor to Sargent & Company, New Haven, Conn. Lock. No. 1,243,016; Oct. 16; v. 243; p. 568.

Volght, Henry G., New Britain, assignor to Sargent & Company, New Haven, Conn. Lock. No. 1,244,264; Oct. 23; v. 243; p. 980.

Von Elbertz, Frankwill, assignor of one-half to H. H. Buckwalter, Chicago, and one-half to H. S. Fruyn, Jr., Cook county, Ill. Steering-wheel. No. 1,242,279; Oct. 9; v. 243; p. 297.

Von Pein, Edward J., assignor to The National Cash Register Company, Dayton, Ohio. Keyboard mechanism for cash-registers. No. 1,242,280; Oct. 9; v. 243; p. 297.

Von Pein, Edward J., assignor to The National Cash Register Company, Dayton, Ohio. Indicating mechanism for cash-registers. No. 1,242,281; Oct. 9; v. 243; p. 298.

Von Pein, Edward J., assignor to The National Cash Register Company, Dayton, Ohio. Cash-register. No. 1,244,005; Oct. 23; v. 243; p. 903.

Von Stetten, Julius O., Philadelphia, Pa., assignor to Philadelphia Metal Drying Form Company, Wilmington, Del. Garment-former. (Reissue.) No. 14,374; Oct. 9; v. 243; p. 496.

Vought, Preston A., *et al.* (See Snyder, Charles P., assignor.)

Vredenburgh, Peter, Jr. (See Coleman, Thomas A., assignor.)

Vredenburgh, Peter, Jr. (See Morris, Thomas C., assignor.)

Vulcan Last Company. (See Clausing, George, assignor.)

W. C. Ritchie & Company. (See Milmoe, Michael J., assignor.)

W. S. Rockwell Company. (See Rockwell, Walter S., assignor.)

W. S. Tyler Company, The. (See Reynolds, Morley P., assignor.)

Waddell, Clarence W., Dallas, Tex. Interlocking tile. No. 1,242,087; Oct. 2; v. 243; p. 196.

Wadsworth, Arthur V., assignor to The Buckeye Traction Ditcher Company, Findlay, Ohio. Bucket-cleaning means for excavating-wheels. No. 1,244,006; Oct. 23; v. 243; p. 903.

Wadsworth, Frank L. O., Pittsburgh, Pa., assignor to Ball Brothers Glass Manufacturing Company, Muncie, Ind. Apparatus for cutting plastic glass and similar substances. No. 1,241,790; Oct. 2; v. 243; p. 102.

Wadsworth, Frank L. O., Pittsburgh, Pa. Water-heater construction. No. 1,243,017; Oct. 16; v. 243; p. 568.

Wagener, Robert N., Canton, Ohio. Water-heater. No. 1,244,924; Oct. 30; v. 243; p. 1218.

Waggaman, William H. H. Bryan, and C. R. Wagner, Washington, D. C. Apparatus for the manufacture of phosphoric acid and compounds of the same. No. 1,241,791; Oct. 2; v. 243; p. 102.

Wagner, Cary R. (See Waggaman, Bryan, and Wagner.)

Wagner, Francis A., Dayton, Ohio. Structural toy. No. 1,242,892; Oct. 9; v. 243; p. 493.

Wagner, Orlando S., Franklin, Ind. Automatic stock-watering device. No. 1,245,072; Oct. 30; v. 243; p. 1263.

Wagner, Warren, Strawn, Tex. Casing-spear. No. 1,243,904; Oct. 23; v. 243; p. 873.

Wagner, William G., assignor of one-third to B. Cohen and one-third to H. Cohen, New York, N. Y. Tire-armor. No. 1,241,792; Oct. 2; v. 243; p. 103.

Wahl Adding Machine Company. (See Wahl, John C., assignor.)
Wahl, Arnold S., assignor to The Wahl Efficiency Institute, Chicago, Ill. Bread manufacture. No. 1,242,396; Oct. 9; v. 243; p. 335.
Wahl Efficiency Institute, The. (See Wahl, Arnold S., assignor.)
Wahl, John, assignor to A. Schrader's Son, Inc., Brooklyn, N. Y. Pump-coupling. No. 1,244,925; Oct. 30; v. 243; p. 1219.
Wahl, John C., Chicago, Ill., assignor, by mesne assignments, to Wahl Adding Machine Company, Wilmington, Del. Calculating-machine. No. 1,242,282; Oct. 9; v. 243; p. 298.
Waite, Edwin E., assignor of one-half to Standard Woven Fabric Company, Framingham, Mass. Fabric. No. 1,243,905; Oct. 23; v. 243; p. 874.
Waite, Guy B., New York, N. Y. Hollow metal tile for reinforced concrete floors. No. 1,241,793; Oct. 2; v. 243; p. 103.
Wales, Emory A., Kansas City, Mo. Hydrocarbon-burner. No. 1,244,146; Oct. 23; v. 243; p. 944.
Walker, Charles R., Waco, Tex. Curtain and shade bracket. No. 1,242,088; Oct. 2; v. 243; p. 196.
Walker, Frank L. (See Sparks, Frank S., assignor.)
Walker, Henry B., Lancaster, Ohio. Release-joint for well-casings. No. 1,243,364; Oct. 16; v. 243; p. 672.
Walker, James L., National, Wash. Carbureter. No. 1,242,089; Oct. 2; v. 243; p. 196.
Walker, John B., Birmingham, Ala. Expansible pattern for tubular castings. No. 1,242,747; Oct. 9; v. 243; p. 447.
Walker, John S., and S. N. Wilcox, Pittsburgh, Pa. Gas-heater. No. 1,244,564; Oct. 30; v. 243; p. 1110.
Walker-Wells Company. (See Wells, George W., assignor.)
Walker, Willard R., Syracuse, N. Y. Mechanical dish-washer. No. 1,244,446; Oct. 23; v. 243; p. 1034.
Wallace, Carl J., Springfield, Ohio. Electrical distributer. No. 1,244,926; Oct. 30; v. 243; p. 1219.
Wallace, Carl J., Springfield, Ohio. Distributer for automobile-circuits. No. 1,244,927; Oct. 30; v. 243; p. 1219.
Wallace, John D., Chicago, Ill. Safety-guard for rotary planers. No. 1,241,588; Oct. 2; v. 243; p. 39.
Wallace, Milton M., Agua Dulce, Tex. Connecting member. No. 1,243,018; Oct. 16; v. 243; p. 569.
Waller, John. (See Allison and Waller.)
Wallinder, Erick G., assignor to Northern Novelty Manufacturing Company, Duluth, Minn. Device for cleaning or drying safety-razor blades. No. 1,242,893; Oct. 9; v. 243; p. 493.
Walls, James W., Pueblo, Colo. Combination locking switch-stand. No. 1,244,147; Oct. 23; v. 243; p. 945.
Walman, John A. L. (See Weigel, Charles, assignor.)
Walp, Charles F., and A. F. O'Leary, Berwick, Pa., assignors to American Car and Foundry Company, St. Louis, Mo. Metal-forging machine. No. 1,244,803; Oct. 30; v. 243; p. 1181.
Walstrom, Charles W., assignor to Minneapolis Bedding Company, Minneapolis, Minn. Bed-frame. No. 1,243,234; Oct. 16; v. 243; p. 633.
Walter, Paul. (See Brassler, George F., assignor.)
Walters, Edward, Darlinghurst, near Sydney, New South Wales, assignor of one-fifth to H. S. Randall and three-tenths to J. T. Harrison, Sydney, Australia. Invalid's crutch. No. 1,244,928; Oct. 30; v. 243; p. 1220.
Walters, William J., Detroit, Mich. Combination-ladder. No. 1,245,073; Oct. 30; v. 243; p. 1263.
Walther, Albert B., assignor to Dahlstrom Metallic Door Company, Jamestown, N. Y. Metallic door. No. 1,242,283; Oct. 9; v. 243; p. 299.
Walton, Charles S. (See Webb and Walton.)
Waltz, Winfield S., Medina, assignor of one-half to O. F. Baughman, Cleveland, Ohio. Chain attaching and adjusting device. No. 1,243,469; Oct. 16; v. 243; p. 702.
Wambsgans, Jacob. (See Wambsgans, William H. and J.)
Wambsgans, William H. and J., Peoria, Ill. Knee-joint for artificial limbs. No. 1,243,906; Oct. 23; v. 243; p. 874.
Wanner, Edward C. (See Lull and Wanner.)
Wantz, Julius B., assignor, by mesne assignments, to Victor Electric Corporation, Chicago, Ill. X-ray apparatus. No. 1,242,498; Oct. 9; v. 243; p. 366.
Ward Baking Company. (See Kohman, Godfrey, and Ashe, assignors.)
Ward, Charles A., New Rochelle, assignor to Ward Motor Vehicle Co., Mount Vernon, N. Y. Running-switch for electric vehicles. No. 1,242,619; Oct. 9; v. 243; p. 407.
Ward, Frank D., New York, N. Y. Car-brace strut. No. 1,242,090; Oct. 2; v. 243; p. 197.
Ward, Harry W., Detroit, Mich. Rheostat. No. 1,244,929; Oct. 30; v. 243; p. 1220.
Ward Motor Vehicle Co. (See Ward, Charles A., assignor.)
Ward, Robert G., assignor of one-half to J. T. Clayton, Forney, Tex. Trap. No. 1,242,397; Oct. 9; v. 243; p. 335.
Ward, William H., Greenville, N. C. Toy pistol. No. 1,245,074; Oct. 30; v. 243; p. 1263.
Wardell, Henry R., New York, N. Y., assignor to H. W. Johns-Manville Company. Cement shingle. No. 1,244,148; Oct. 23; v. 243; p. 945.
Warfvinge, Karl H. (See Werner and Warfvinge.)
Wargenated, Henry C., assignor of one-half to G. H. Mieher, Carlinville, Ill. Spring-wheel. No. 1,244,265; Oct. 23; v. 243; p. 987.
Warman, William A. (See Keller and Warman.)
Warnecke, Edward H. (See De Groot, Adri, assignor.)
Warner, William H. (See Mansell and Warner.)
Warren, Henry E., Ashland, Mass. Fluid-operated lathe. No. 1,244,664; Oct. 30; v. 243; p. 1139.
Warren, Walter T., *et al.* (See Vinson, Thomas C., assignor.)
Warzecha, Franciszek, Bay City, Mich. Safety switch-throwing device. No. 1,245,075; Oct. 30; v. 243; p. 1263.
Washburn, Frank S. (See Landis, Walter S., assignor.)
Washburne, John L., Waterbury, Conn. Paper-clip. No. 1,242,620; Oct. 9; v. 243; p. 407.
Washington, Dixon E. (See Duz and Washington.)
Waterbury Buckle Co. (See Maltby, Julius, assignor.)
Waterbury Farrel Foundry and Machine Company, The. (See Wilcox, Richard L., assignor.)
Waterman, Harry G. (See Powers, Albert H., assignor.)
Waterman, Lewis E., assignor to Emerson-Brantingham Company, Rockford, Ill. Tractor-implement-controlling mechanism. No. 1,243,019; Oct. 16; v. 243; p. 569.
Waterman, Raymond, Minneapolis, Minn. Grading-machine. No. 1,241,686; Oct. 2; v. 243; p. 69.
Waters, William L., Milwaukee, Wis. Load-regulating system. No. 1,242,284; Oct. 9; v. 243; p. 299.
Watkins, George W., Lebo, Kans. Refrigerator-car. No. 1,242,001; Oct. 2; v. 243; p. 197.
Watkins, Orla H., Marshalltown, Iowa. Muffler cut-out. No. 1,242,021; Oct. 9; v. 243; p. 407.
Watrous, Earl G., Chicago, Ill. Liquid-soap fixture. No. 1,242,398; Oct. 9; v. 243; p. 336.
Watrous, Martin D., Ansonia, assignor to The Union Fabric Company, Derby, Conn. Machine for tipping garment-stays. No. 1,244,266; Oct. 23; v. 243; p. 981.
Watson, Clement W., Toledo, Ohio. Tool-holder. No. 1,244,665; Oct. 30; v. 243; p. 1139.
Watson, Glenn W., assignor to Diamond Power Specialty Company, Detroit, Mich. Blower for boilers. No. 1,243,464; Oct. 16; v. 243; p. 701.
Watson, John B., Becket, Mass. Milk-can. No. 1,242,876; Oct. 9; v. 243; p. 488.
Watson, Lilla F. (See Perkins, Clement L., assignor.)
Watson, William W., Jamestown, N. Y. Weather-strip for sheet-metal window-screens. No. 1,241,687; Oct. 2; v. 243; p. 70.
Watson, William W., Jamestown, N. Y. Sheet-metal window-screen for casements. No. 1,241,794; Oct. 2; v. 243; p. 103.
Watts, Frank E., assignor to Hupp Motor Car Company, Detroit, Mich. Engine-casing. No. 1,242,285; Oct. 9; v. 243; p. 300.
Watty, Hedley, Groton, Conn. Chimney-holder. No. 1,242,748; Oct. 9; v. 243; p. 447.
Waugh, Edward H. (See Brierly and Waugh.)
Waugh, George F., U. S. Army. Match-box. No. 1,243,907; Oct. 23; v. 243; p. 874.
Waugh, William P., Sewickley, assignor to Asbestos Protected Metal Company, Pittsburgh, Pa. Glazing construction. No. 1,243,020; Oct. 16; v. 243; p. 569.
Wayne Manufacturing Company. (See Sargent, William H., assignor.)
Wazbinski, Stanley F., Bay City, Mich. Collapsible core for concrete-molds. No. 1,242,092; Oct. 2; v. 243; p. 197.
Weaver Company. (See Weaver, Victor M., assignor.)
Weaver, Harold B., New York, N. Y., assignor to Gas-Electric Motorbus Corporation. Motor-omnibus. No. 1,241,795; Oct. 2; v. 243; p. 104.
Weaver, Ray S., Monmouth, Ill. Feed-trough. No. 1,242,399; Oct. 9; v. 243; p. 336.
Weaver, Talbert G., Lincoln, Ark. Non-sinkable vessel. No. 1,243,646; Oct. 16; v. 243; p. 757.
Weaver, Victor M., Harrisburg, Pa., assignor to Weaver Company. Securing elements from their compounds. No. 1,241,796; Oct. 2; v. 243; p. 104.
Webb, Edwin W., and C. S. Walton, assignors to Standard Car Truck Company, Chicago, Ill. Car-truck. No. 1,241,688; Oct. 2; v. 243; p. 70.
Webb, Frank A. (See Webb, Paul E. and F. A.)
Webb, Harry A., Hamden, Conn. Toy vehicle. No. 1,243,465; Oct. 16; v. 243; p. 701.
Webb, Hartwell W., Cresskill, N. J. Thermo-electric generator. No. 1,242,499; Oct. 9; v. 243; p. 367.
Webb, Paul E. and F. A., Protection, Kans. Carbid-holder register. No. 1,245,076; Oct. 30; v. 243; p. 1264.
Webb, William. (See Harter, Clarence J., assignor.)
Weber, Ernst F. (See Krausch and Weber.)
Webster, Lewis E., assignor of one-fifth to W. Bullock, one-fifth to C. M. Helfrich, one-fifth to F. W. Eddy, and two-fifths to J. M. Parry, Wilkes-Barre, Pa. Junction-box coupling for electric-wire conduits. No. 1,245,077; Oct. 30; v. 243; p. 1264.
Webster, Willis C., Dubois, Pa., assignor to Buffalo Air-Brake Company, Phoenix, Ariz. Straight-air mechanism for air-brakes. No. 1,244,804; Oct. 30; v. 243; p. 1181.
Webster, Willis C., Dubois, Pa., assignor to Buffalo Air-Brake Company, Buffalo, N. Y. Valve for trapping equalizing reservoir-air independent of brake-valves. No. 1,244,805; Oct. 30; v. 243; p. 1182.
Wedburg, John E., Jamestown, N. Y. Hall-stand. No. 1,244,565; Oct. 30; v. 243; p. 1110.
Weeks, Joseph H., assignor of one-half to J. W. Bryce, Battle Creek, Mich. Means for recording readings of meters. No. 1,242,093; Oct. 2; v. 243; p. 198.

Weesner, Clay, and D. Davis, assignors to Hoosier Manufacturing Company, Newcastle, Ind. Tilting and removable flour-bin. No. 1,243,784; Oct. 23; v. 243; p. 886.
Wegener, August F., Ridgewood, N. J. Duplicating-machine. No. 1,243,573; Oct. 16; v. 243; p. 734.
Wegner, Ferdinand M., Brooklyn, N. Y. Machine for unhairing fur-skins. No. 1,242,400; Oct. 9; v. 243; p. 336.
Wegner, Gust, Baudette, Minn. Lock. No. 1,242,401; Oct. 9; v. 243; p. 337.
Wehrle, Albert H., Derby, Conn., assignor to W. A. Cook, New York, N. Y. Machine for tinning sheet metal and wire. No. 1,244,931; Oct. 30; v. 243; p. 1221.
Weigel, Charles, assignor of one-half to J. A. L. Walman, Minneapolis, Minn. Oculist's testing-frame. No. 1,243,466; Oct. 16; v. 243; p. 702.
Weil, Charles L., St. Clair, Mich. Dispensing-receptacle. No. 1,243,021; Oct. 16; v. 243; p. 570.
Weil, Henry, New York, N. Y. Coin-receptacle. No. 1,243,467; Oct. 16; v. 243; p. 702.
Weiler, Max, Elberfeld, Germany, assignor to Synthetic Patents Co., Inc., New York, N. Y. Violet cotton-dye. No. 1,244,149; Oct. 23; v. 243; p. 945.
Weinandt, Joseph J., Ayr, N. D. Fire-escape. No. 1,242,286; Oct. 9; v. 243; p. 300.
Weinberg, Frederick, Detroit, Mich. Fuel-feeding apparatus. No. 1,242,287; Oct. 9; v. 243; p. 300.
Weinberg, Frederick, Detroit, Mich. Vacuum-feed system. No. 1,242,288; Oct. 9; v. 243; p. 301.
Weiner, Leo, Akron, Ohio. Toy top. No. 1,242,094; Oct. 2; v. 243; p. 198.
Weinheim, Emil, New York, N. Y. Multistretchable leather substitute. No. 1,242,622; Oct. 9; v. 243; p. 408.
Weintraub, Ezechiel, Boston, Mass., assignor to Submarine Signal Company, Portland, Me. Changing resistance in a circuit and apparatus therefor. No. 1,244,150; Oct. 23; v. 243; p. 946.
Weir, Harold A., Willis, Kans. Scale. No. 1,244,930; Oct. 30; v. 243; p. 1220.
Weis, John P., Nyack, assignor to L. N. Littauer, Gloversville, N. Y. Combined top feed and ruffling mechanism for sewing-machines. No. 1,242,402; Oct. 9; v. 243; p. 337.
Weis, John P., Nyack, assignor to L. N. Littauer, Gloversville, N. Y. Feed mechanism for sewing-machines. No. 1,242,403; Oct. 9; v. 243; p. 337.
Weisbrod, Jacob H., assignor to American Car and Foundry Company, St. Louis, Mo. Railway-car end construction. No. 1,244,806; Oct. 30; v. 243; p. 1182.
Weisbrod, Jacob H., assignor to American Car and Foundry Company, St. Louis, Mo. Box-car construction. No. 1,244,807; Oct. 30; v. 243; p. 1183.
Weisbrod, Jacob H., assignor to American Car and Foundry Company, St. Louis, Mo. Car construction. No. 1,244,808; Oct. 30; v. 243; p. 1183.
Weisbrod, Jacob H., assignor to American Car and Foundry Company, St. Louis, Mo. Wooden single-sheathed box-car. No. 1,244,809; Oct. 30; v. 243; p. 1184.
Weiss, Arthur J., West Orange, assignor to E. A. McCoy, East Orange, N. J. Concealed fastening for wall-fixtures. No. 1,243,664; Oct. 16; v. 243; p. 762.
Weissbrodt, Ernest, Lausanne, Switzerland. Wall. No. 1,241,797; Oct. 2; v. 243; p. 104.
Weith, Archie J. (See Redman, Weith, and Brock.)
Welker, Charles A., New York, N. Y. Hose-coupling. No. 1,244,666; Oct. 30; v. 243; p. 1140.
Wellen, Frank, assignor of one-half to G. Krogel, Paterson, N. J. Plush-coat-sleeve-steaming device. No. 1,241,689; Oct. 2; v. 243; p. 70.
Wellington, James W., Jackson, Mich. Auxiliary constant-fuel-supply apparatus for automobiles. No. 1,244,667; Oct. 30; v. 243; p. 1140.
Wells, Alvin. (See Clark, Edward W., assignor.)
Wells, Frederick B., Stevenage, England. Sheaf-binder harvesting-machine. No. 1,243,365; Oct. 16; v. 243; p. 673.
Wells, George W., assignor of one-half to Walker-Wells Company, Amesbury, Mass. Door-latch. No. 1,242,749; Oct. 9; v. 243; p. 447.
Wells, George W., assignor of one-half to Walker-Wells Company, Amesbury, Mass. Door latch and lock. No. 1,242,750; Oct. 9; v. 243; p. 448.
Wells, Joel C., Southbridge, Mass. Spectacles. No. 1,241,690; Oct. 2; v. 243; p. 71.
Welsh, Harry H. (See Woods, Perry C., assignor.)
Wendell, Carl A., Joliet, Ill. Drier. No. 1,244,007; Oct. 23; v. 243; p. 904.
Wengraf, Frederick, Naugatuck, Conn. Non-skid attachment for tires. No. 1,243,022; Oct. 16; v. 243; p. 570.
Werner, Edwin A., New York, N. Y. Pan-greasing device. No. 1,242,404; Oct. 9; v. 243; p. 338.
Werner, Hermann, Geneva, Switzerland. Shaving device. No. 1,241,798; Oct. 2; v. 243; p. 105.
Werner, Victor G., and K. H. Warfvinge, Stockholm, Sweden. Inductive wireless telephone system for railways and the like. No. 1,242,877; Oct. 9; v. 243; p. 489.
Wescott, Edson C., and H. M. Locke, Sacramento, assignors of one-third to G. C. Robb, Oakland, Cal. Distillate-burner for internal-combustion engines. No. 1,244,151; Oct. 23; v. 243; p. 946.
Weser Bros. (See Morano, Domenico, assignor.)
Wesley Stringfellow. (See Stringfellow, Ira, assignor.)
West, Charles H., Syracuse, N. Y. Power-transmitting device. No. 1,242,289; Oct. 9; v. 243; p. 301.
West, William, Hoquiam, Wash. Flooring-clamp. No. 1,242,623; Oct. 9; v. 243; p. 408.
Westby, George C., Ludwig, Nev., assignor to Western Process Company. Treatment of copper ores. No. 1,244,810; Oct. 30; v. 243; p. 1184.
Westby, George C., Ludwig, Nev., assignor to Western Process Company. Treatment of ores. No. 1,244,811; Oct. 30; v. 243; p. 1184.
Westenfield, William, Corona, S. D. Smoking-pipe. No. 1,245,078; Oct. 30; v. 243; p. 1264.
Western Electric Company. (See Clausen, Henry P., assignor.)
Western Electric Company. (See Finley, Charles A., assignor.)
Western Electric Company. (See Goodrum, Charles L., assignor.)
Western Electric Company. (See Lattig and Goodrum, assignors.)
Western Electric Company, Incorporated. (See Lundell, Alben E., assignor.)
Western Electric Company. (See May, David T., assignor.)
Western Electric Company. (See Mueller, Emil C. G., assignor.)
Western Electric Company. (See Pruessman, Albert, assignor.)
Western Electric Company. (See Rhoads, Charles S., Jr., assignor.)
Western Electric Company. (See Sperry, Arthur B., assignor.)
Western Process Company. (See Westby, George C., assignor.)
Westinghouse Air Brake Company, The. (See Brown, Thomas R., assignor.)
Westinghouse Air Brake Company, The. (See Newell, Edward W., assignor.)
Westinghouse Air Brake Company, The. (See Turner, Walter V., assignor.)
Westinghouse Air Brake Company, The. (See Woernley, Harry F., assignor.)
Westinghouse Electric and Manufacturing Company. (See Aalborg, Christian, assignor.)
Westinghouse Electric and Manufacturing Company. (See Beach, Howard L., assignor.)
Westinghouse Electric and Manufacturing Company. (See Broomall and Tidlund, assignors.) (Reissue.)
Westinghouse Electric and Manufacturing Company. (See Chubb, Lewis W., assignor.)
Westinghouse Electric and Manufacturing Company. (See Coveil, Charles W., assignor.)
Westinghouse Electric and Manufacturing Company. (See Davis, Joseph L., assignor.)
Westinghouse Electric and Manufacturing Company. (See Dean, John S., assignor.)
Westinghouse Electric and Manufacturing Company. (See Deutsch, Isidor, assignor.)
Westinghouse Electric and Manufacturing Company. (See Eaton, George M., assignor.)
Westinghouse Electric and Manufacturing Company. (See Edgecomb, Henry R., assignor.)
Westinghouse Electric and Manufacturing Company. (See Farnsworth, Sidney W., assignor.)
Westinghouse Electric and Manufacturing Company. (See Field, Allan B., assignor.)
Westinghouse Electric and Manufacturing Company. (See Fortescue, Charles L., assignor.)
Westinghouse Electric and Manufacturing Company. (See Hall, Arthur J., assignor.)
Westinghouse Electric and Manufacturing Company. (See Hanff, Edward A., assignor.)
Westinghouse Electric and Manufacturing Company. (See Hellmund, Rudolf E., assignor.)
Westinghouse Electric & Manufacturing Company. (See Hodgkinson, Francis, assignor.)
Westinghouse Electric and Manufacturing Company. (See Huttar, Alfred, assignor.)
Westinghouse Electric and Manufacturing Company. (See Lamme, Benjamin G., assignor.)
Westinghouse Electric and Manufacturing Company. (See Lincoln, Paul M., assignor.)
Westinghouse Electric and Manufacturing Company. (See MacNeill, John B., assignor.)
Westinghouse Electric and Manufacturing Company. (See Mahoney, Joseph N., assignor.)
Westinghouse Electric and Manufacturing Company. (See Mateer and Woodward, assignors.)
Westinghouse Electric and Manufacturing Company. (See McCulloch, Leon, assignor.)
Westinghouse Electric and Manufacturing Company. (See Peters, John F., assignor.)
Westinghouse Electric and Manufacturing Company. (See Randall, Karl C., assignor.)
Westinghouse Electric and Manufacturing Company. (See Riley, Lynn G., assignor.)
Westinghouse Electric and Manufacturing Company. (See Rose and Colby, assignors.)
Westinghouse Electric and Manufacturing Company. (See Schaake, William, assignor.)
Westinghouse Electric and Manufacturing Company. (See Scheibe, Harold M., assignor.)
Westinghouse Electric and Manufacturing Company. (See Simmon and Birrell, assignors.)

Westinghouse Electric and Manufacturing Company. (See Simmon and Hall, assignors.)
Westinghouse Electric and Manufacturing Company. (See Sipher, Edmund F., assignor.)
Westinghouse Electric and Manufacturing Company. (See Smith, Benjamin H., assignor.)
Westinghouse Electric and Manufacturing Company. (See Sykes, Wilfred, assignor.)
Westinghouse Electric and Manufacturing Company. (See Thornton, Frank, Jr., assignor.)
Westinghouse Electric and Manufacturing Company. (See Wikander, Ragnar, assignor.)
Westbury, William, Okmulgee, Okla. Bait for glass-drawing apparatus. No. 1,243,023; Oct. 16; v. 243; p. 570.
Westness, Louis J., Milwaukee, Wis. Window attachment. No. 1,242,290; Oct. 9; v. 243; p. 302.
Wetzel, Theodore, San Francisco, Cal. Oil-burner. No. 1,242,291; Oct. 9; v. 243; p. 302.
Wetzler, Bernhard. (See Henriquez, Alfons von, assignor.)
Weyburn, Lewis A., Chicago, Ill., assignor to The Collis Company, Clinton, Iowa. Camp-grate. No. 1,244,932; Oct. 30; v. 243; p. 1221.
Whaley, James, Pawtucket, R. I. Internal-combustion engine. No. 1,244,668; Oct. 30; v. 243; p. 1140.
Wheary, George H., Racine, Wis. Wardrobe-trunk. No. 1,243,366; Oct. 16; v. 243; p. 673.
Wheary, George H., Racine, Wis. Clothes-retainer. No. 1,243,785; Oct. 23; v. 243; p. 836.
Wheeler, Harold S., Tacoma, Wash. Paving-block. No. 1,244,008; Oct. 23; v. 243; p. 904.
Whelan, Patrick J., Douglas, Ontario, Canada. Button. No. 1,243,024; Oct. 16; v. 243; p. 570.
Whitaker, Milton C., assignor to The Southern Cotton Oil Company, New York, N. Y. Removing nickel from hydrogenized fat or oil. No. 1,242,624; Oct. 9; v. 243; p. 408.
White, Bruce C., assignor to R. Hoe and Co., New York, N. Y. Hydraulic press. No. 1,241,691; Oct. 2; v. 243; p. 71.
White, Burton E. (See De Burger, Ernest E., assignor.)
White, Clarence W., Chicago, Ill. Boat or ship construction. No. 1,241,799; Oct. 2; v. 243; p. 105.
White, D'Orsay M., assignor to Cadillac Motor Car Company, Detroit, Mich. Bearing construction. No. 1,244,669; Oct. 30; v. 243; p. 1141.
White, Ernest M., Detroit, Mich. Intercepter for splash-lubrication crank-cases. No. 1,241,589; Oct. 2; v. 243; p. 40.
White, Floyd G., Los Angeles, and W. J. Barnhart, Maricopa, Cal. Oil-treating device. No. 1,242,292; Oct. 9; v. 243; p. 302.
White, George H., Greeley, Colo. T-square. No. 1,243,786; Oct. 23; v. 243; p. 836.
White, George W., Hutchinson, Kans. Combined harvester and threshing attachment. No. 1,244,152; Oct. 23; v. 243; p. 946.
White, George W., Syracuse, N. Y. Internal-combustion engine. No. 1,244,566; Oct. 30; v. 243; p. 1110.
White, James W., Tela, Honduras. Shaving-brush. No. 1,242,095; Oct. 2; v. 243; p. 198.
White, Leroy L., assignor of one-half to G. G. Belden, Spokane, Wash. Float-operated indicator and engine control. No. 1,243,470; Oct. 16; v. 243; p. 702.
White Motor Company, The. (See Scaife, Arthur J., assignor.)
White, Nelson, Portland, Oreg., assignor, by mesne assignments, to International Money Machine Company, Terre Haute, Ind. Coin-delivery machine. No. 1,244,812; Oct. 30; v. 243; p. 1184.
White, Samuel H., Anding, Miss. Wire-stretcher. No. 1,245,079; Oct. 30; v. 243; p. 1265.
Whitehead, Morris & Company. See Pugh, John C., assignor.)
Whitely, William N., Springfield, Ohio. Wide-delivery spreader. No. 1,244,933; Oct. 30; v. 243; p. 1221.
Whitfield, Baldwin G., Chicago, Ill. Muffler-whistle. No. 1,241,800; Oct. 2; v. 243; p. 105.
Whiting, Max A., Schenectady, N. Y., assignor to General Electric Company. System of signaling for mine-hoists. No. 1,242,625; Oct. 9; v. 243; p. 408.
Whitlock, Ralph G., Los Angeles, Cal. Back-frame for loose-leaf books. No. 1,241,692; Oct. 2; v. 243; p. 72.
Whitmore, Albert H., Brooklyn, assignor to Titus Blatter & Company, New York, N. Y. Artificial leather and manufacturing the same. No. 1,244,567; Oct. 30; v. 243; p. 1111.
Whitney, Egbert, assignor to The Eclipse Scaffolding Company, Omaha, Nebr. Adjustable suspended scaffolding. No. 1,244,670; Oct. 30; v. 243; p. 1141.
Whitney, Frank E., assignor to Commercial Truck Company of America, Philadelphia, Pa. Battery-separator. No. 1,245,080; Oct. 30; v. 243; p. 1265.
Whitney Sporting Goods Company, The. (See Cox, Edward L., assignor.)
Whittelsey Company. (See Whittelsey, Henry N., assignor.)
Whittelsey, Henry N., Greenwich, Conn., assignor to Whittelsey Company, New York, N. Y. Vaporizer. No. 1,243,647; Oct. 16; v. 243; p. 757.
Whittingham, George H., Bancroft Park, assignor to Monitor Controller Company, Baltimore, Md. Controller for electric motors. No. 1,243,666; Oct. 16; v. 243; p. 762.
Wickersham, Elmer E., Marysville, Cal., assignor to Yuba Manufacturing Company. Carbureter. No. 1,243,666; Oct. 16; v. 243; p. 763.
Wicks, Charles W., Neponset, Ill. Sanitary eaves-trough. No. 1,243,119; Oct. 16; v. 243; p. 599.
Wickwire, Charles C., Cortland, N. Y. Wire cleaning and coating machine. No. 1,244,153; Oct. 23; v. 243; p. 946.
Widlar, Walter L., Lakewood, assignor to The Jiffy Jack Company, Cleveland, Ohio. Jack. No. 1,241,590; Oct. 2; v. 243; p. 40.
Widlar, Walter L., Lakewood, assignor to The Jiffy Jack Company, Cleveland, Ohio. Jack. No. 1,241,591; Oct. 2; v. 243; p. 41.
Widmer, Arthur J., Webster Groves, assignor, by mesne assignments, to Widmer Engineering Company, St. Louis, Mo. Ceiling-support. No. 1,243,367; Oct. 16; v. 243; p. 673.
Widmer Engineering Company. (See Widmer, Arthur J., assignor.)
Wiedeman, George J. (See Hughes and Wiedeman.)
Wiggins, Fred E., Malden, Mass., assignor to L. N. Littauer, Gloversville, N. Y. Sewing-machine for sewing overall-straps. No. 1,242,405; Oct. 9; v. 243; p. 338.
Wigginton, George P., assignor to Kalamazoo Loose Leaf Binder Co., Kalamazoo, Mich. Temporary binder. No. 1,241,801; Oct. 2; v. 243; p. 105.
Wigginton, George P., assignor to Kalamazoo Loose Leaf Binder Co., Kalamazoo, Mich. Temporary binder. No. 1,241,802; Oct. 2; v. 243; p. 106.
Wigiert, Stash, Bremond, Tex. Toilet article. No. 1,242,293; Oct. 9; v. 243; p. 303.
Wigle, Wilson B., Fullerton, Cal. Pump-packing expander. No. 1,243,648; Oct. 16; v. 243; p. 758.
Wikander, Ragnar, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Switch for electric circuits. No. 1,241,592; Oct. 2; v. 243; p. 41.
Wikheim, Peder L., Everett, Wash. Lock. No. 1,244,671; Oct. 30; v. 243; p. 1141.
Wikstrom, Helmer, Silverdale, Minn. Trousers-stretcher. No. 1,241,593; Oct. 2; v. 243; p. 41.
Wilcomb, Frank, assignor to Wildman Mfg. Co., Norristown, Pa. Knitting-machine. No. 1,244,267; Oct. 23; v. 243; p. 982.
Wilcomb, Frank, assignor to Wildman Mfg. Company, Norristown, Pa. Knitting-machine. No. 1,244,268; Oct. 23; v. 243; p. 982.
Wilcomb, Frank, assignor to Wildman Mfg. Co., Norristown, Pa. Trunnion-mounted element for knitting-machines. No. 1,244,269; Oct. 23; v. 243; p. 983.
Wilcomb, Frank, assignor to Wildman Mfg. Co., Norristown, Pa. Knitting-machine. No. 1,244,270; Oct. 23; v. 243; p. 983.
Wilcomb, Frank, Norristown, Pa., assignor to Hemphill Manufacturing Company, Central Falls, R. I. Circular-knitting machine. No. 1,244,672; Oct. 30; v. 243; p. 1141.
Wilcomb, Frank, Pawtucket, assignor to Hemphill Manufacturing Company, Central Falls, R. I. Spring-needle knitting-machine. No. 1,244,673; Oct. 30; v. 243; p. 1142.
Wilcomb, Frank, Norristown, Pa., assignor to Hemphill Manufacturing Company, Central Falls, R. I. Spring-needle knitting-machine. No. 1,244,674; Oct. 30; v. 243; p. 1142.
Wilcomb, Frank, Norristown, Pa., assignor to Hemphill Manufacturing Co. Spring-needle knitting-machine. No. 1,244,675; Oct. 30; v. 243; p. 1142.
Wilcox, Joseph, assignor to Joseph Wilcox Inc., Athol, Mass. Making a celluloid article. No. 1,244,676; Oct. 30; v. 243; p. 1143.
Wilcox, Newton K., Providence, R. I. Tractor. No. 1,242,500; Oct. 9; v. 243; p. 367.
Wilcox, Richard L., assignor to The Waterbury Farrel Foundry and Machine Company, Waterbury, Conn. Header. No. 1,241,693; Oct. 2; v. 243; p. 72.
Wilcox, Sylvester N. (See Walker and Wilcox.)
Wild, William E., Gardena, Cal. Tractor-wheel. No. 1,242,096; Oct. 2; v. 243; p. 198.
Wildman Mfg. Co. (See Wilcomb, Frank, assignor.)
Wiles, Edwin B., Chicago, Ill. Gear-shifting mechanism. No. 1,241,803; Oct. 2; v. 243; p. 106.
Wilhelm, Walter M., Swarthmore, and K. Rushton, Wynnewood, Pa. Time-fuse for explosive projectiles. No. 1,242,501; Oct. 9; v. 243; p. 367.
Wilkins, William H., Newark, N. J. Resilient wheel. No. 1,244,934; Oct. 30; v. 243; p. 1221.
Will, Frederick, assignor to Sill Stove Works, Rochester, N. Y. Water-heater. No. 1,242,294; Oct. 9; v. 243; p. 303.
Willard, Daniel M., assignor of one-half to A. J. Mills, Bakersfield, Cal. Flying-machine. No. 1,242,295; Oct. 9; v. 243; p. 303.
Willard, Theodore A., Cleveland, Ohio. Separator for storage batteries and producing the same. No. 1,243,368; Oct. 16; v. 243; p. 673.
Willard, Theodore A., Cleveland, Ohio. Tubular diaphragm for storage-battery electrodes and producing the same. No. 1,243,369; Oct. 16; v. 243; p. 674.
Willard Theodore A., Cleveland, Ohio. Storage-battery separator and producing the same. No. 1,243,370; Oct. 16; v. 243; p. 674.

Willard, Theodore A., Cleveland, Ohio. Porous tube for storage batteries. No. 1,243,371; Oct. 16; v. 243; p. 674.
Willard, Theodore A., Cleveland, Ohio. Making storage-battery separators. No. 1,243,372; Oct. 16; v. 243; p. 674.
Willcox & Gibbs Sewing Machine Co. (See Osterhout, Garret B., assignor.)
William M. Crane Company. (See O'Dowd, Henry W., assignor.)
William Shakespeare, Jr., Company. (See Shakespeare and Schuld, assignors.)
Williams, Alfred O., Detroit, Mich. Fuel-injection valve. No. 1,242,296; Oct. 9; v. 243; p. 303.
Williams & Anderson Co., The. (See Anderson, Samuel, assignor.)
Williams, Andrew P., Chicago, Ill. Car end. No. 1,244,677; Oct. 30; v. 243; p. 1143.
Williams, Charles O., Kansas City, Mo. Car-door fastener. No. 1,243,025; Oct. 16; v. 243; p. 571.
Williams, Davis S., Los Angeles, Cal. Reinforced-concrete rail-tie. No. 1,244,813; Oct. 30; v. 243; p. 1185.
Williams, Earl J. (See Southland, Benjamin H., assignor.)
Williams, Elzy R., St. Joseph, Mo. Trigger mechanism. No. 1,243,120; Oct. 16; v. 243; p. 599.
Williams, James H., Brookline, and F. A. Foss, Newton, Mass., assignors to American Piano Company, New York, N. Y. Finishing and assembling grand pianos. No. 1,242,297; Oct. 9; v. 243; p. 304.
Williams, John H., Spring City, Pa. Locking device. No. 1,244,154; Oct. 23; v. 243; p. 947.
Williams, Joseph A., Cleveland, Ohio. Circuit-breaker for ignition systems. No. 1,244,155; Oct. 23; v. 243; p. 947.
Williams, Martha, Terre Haute, Ind. Sectional or knockdown doll-house. No. 1,241,594; Oct. 2; v. 243; p. 42.
Williams, Robert S., Texarkana, Tex. Shock-absorber. No. 1,244,814; Oct. 30; v. 243; p. 1185.
Williams, Samuel A., Lockport, N. Y., assignor to The Asbestos Wood Co., Nashua, N. H. Smoke-jack. No. 1,244,156; Oct. 23; v. 243; p. 947.
Willis, Barnard, assignor to Geo. D. Barnard & Company, St. Louis, Mo. Statement-sheet. No. 1,244,815; Oct. 30; v. 243; p. 1185.
Willis, Bernard D., assignor to Automatic Electric Company, Chicago, Ill. Measured-service telephone system. No. 1,244,816; Oct. 30; v. 243; p. 1183.
Willis, Gail A., Denver, Colo. Nutcracker. No. 1,243,121; Oct. 16; v. 243; p. 600.
Willis, George M., assignor to Brown, Hanson & Boettcher, Chicago, Ill. Radiator and making the same. No. 1,243,471; Oct. 16; v. 243; p. 703.
Willison, Ralph A., Portland, Oreg. Flashing for sidewalk-lights. No. 1,243,235; Oct. 16; v. 243; p. 634.
Willson, Russell A., Spokane, Wash. Electric heater for hot-water tanks. No. 1,244,817; Oct. 30; v. 243; p. 1186.
Wilmot, John F., Jamestown, N. Y. Folding chair. No. 1,242,406; Oct. 9; v. 243; p. 338.
Wilson, Frank B. (See Bayley and Wilson.)
Wilson, Herbert H., Los Angeles, Cal. Punching-bag platform. No. 1,242,626; Oct. 9; v. 243; p. 409.
Wilson, John M., Montclair, assignor to F. Murphy, Newark, N. J. Cleaning apparatus. No. 1,243,472; Oct. 16; v. 243; p. 703.
Wilson, John M., Montclair, assignor to F. Murphy, Newark, N. J. Cleaning car-cushions. No. 1,243,473; Oct. 16; v. 243; p. 704.
Wilson, John M., Newark, assignor to F. Murphy, Newark, N. J. Renovating cane seats. No. 1,243,474; Oct. 16; v. 243; p. 704.
Wilson, Julius C., Drewsey, Oreg. Brake-block iron. No. 1,244,678; Oct. 20; v. 243; p. 1143.
Wilson, Robert B., trustee. (See Kuefer, Anthony, assignor.)
Wilson, Sylvester, Cloquet, Minn. Shock-absorber. No. 1,241,595; Oct. 2; v. 243; p. 42.
Winans, James L., Toledo, Ohio, assignor to National Spring and Wire Company, Albion, Mich. Cushion-seat. No. 1,243,787; Oct. 23; v. 243; p. 837.
Winchester Repeating Arms Company. (See Buell, William H., assignor.)
Wingquist, Sven G., assignor to Aktiebolaget Svenska Kullagerfabriken, Gottenborg, Sweden. Ball-retainer for radial ball-bearings. No. 1,242,502; Oct. 9; v. 243; p. 368.
Winkler, Carl, Berne, Switzerland. Crucible used for typographic purposes. No. 1,244,935; Oct. 30; v. 243; p. 1222.
Winkley, Erastus E., Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for operating on shoe-buttons. No. 1,242,503; Oct. 9; v. 243; p. 368.
Winkley, Erastus E., Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for operating on shoe-welts. No. 1,242,504; Oct. 9; v. 243; p. 368.
Winn, Samuel J., Jr., Plainfield, N. J. Bullet-proof rifle-shield. No. 1,244,679; Oct. 30; v. 243; p. 1143.
Winningham, James M., Henderson, Tenn. Pipe-coupling machine. No. 1,242,627; Oct. 9; v. 243; p. 409.
Winslow Brothers Company. (See Ashby, Fred W., assignor.)
Winter, Rudolph G., Milwaukee, Wis. Ventilation window-lock. No. 1,244,393; Oct. 23; v. 243; p. 1018.
Winter, Rudolph G., Milwaukee, Wis. Door-latch. No. 1,244,394; Oct. 23; v. 243; p. 1019.
Winters, David L., Philadelphia, Pa. Valve. No. 1,243,122; Oct. 16; v. 243; p. 600.
Winton, Alexander, Lakewood, Ohio. Internal-combustion motor. No. 1,243,908; Oct. 23; v. 243; p. 874.
Wirt, Reuben D., Philadelphia, Pa. Hose-reel. No. 1,244,818; Oct. 30; v. 243; p. 1186.
Wirts, Stephen M., Detroit, Mich., assignor, by mesne assignments, to United Table-Bed Company. Table. No. 1,243,123; Oct. 16; v. 243; p. 600.
Wise, John W., Knoxville, Ill. Hitch for tractor-impelled implements. No. 1,242,505; Oct. 9; v. 243; p. 369.
Wissinger, Jacob G., Rutherford, N. J. Protector for lamps. No. 1,243,236; Oct. 16; v. 243; p. 634.
Witt, Peter, Cleveland, Ohio. Street-railway car. No. 1,243,026; Oct. 16; v. 243; p. 571.
Witter, Claude A., Lewistown, assignor to The Standard Steel Works Company, Burnham, Pa. Shock-relief valve for hydraulic systems. No. 1,244,271; Oct. 23; v. 243; p. 983.
Woernley, Harry F., Pittsburgh, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Electric train-line coupling. No. 1,244,936; Oct. 30; v. 243; p. 1222.
Wojidkow, Louis, assignor to New York Stamping Company, Brooklyn, N. Y. Carrier for casseroles and other hot-food containers. No. 1,244,395; Oct. 23; v. 243; p. 1019.
Wolf, Miles V., Ashland, Ohio. Combination compass and protractor. No. 1,244,272; Oct. 23; v. 243; p. 984.
Wolfe, Homer O., Sullivan, Ind. Barrel-moving implement. No. 1,244,680; Oct. 30; v. 243; p. 1143.
Wolfe, Thomas J., New Augustine, Fla. Staggered-switch brace. No. 1,241,891; Oct. 2; v. 243; p. 156.
Wolford, William O., Fort Worth, Tex., assignor of two-thirds to R. McConnel, Kingsville, Mo. Coin-controlled vending-machine. No. 1,242,298; Oct. 9; v. 243; p. 304.
Wollner, Clarence M., *et al.* (See Brown, Frederick W., assignor.)
Wollner, Max M., *et al.* (See Brown, Frederick W., assignor.)
Wood, Charles E., St. Albans, W. Va. Miter-box. No. 1,241,804; Oct. 2; v. 243; p. 107.
Wood, David S., Medford, Oreg. Stool. No. 1,242,407; Oct. 9; v. 243; p. 339.
Wood, George H., Oldham, England. Fastener for split steel lubricating and other rings. No. 1,244,568; Oct. 30; v. 243; p. 1111.
Wood, George W., Camden, N. J. Controlling-valve mechanism for furnace-stokers. No. 1,243,237; Oct. 16; v. 243; p. 634.
Wood, Henry A. W., New York, and J. A. Isbell, Middletown, assignors, by mesne assignments, to Wood Newspaper Machinery Corporation, New York, N. Y. Paper-roll-supporting mechanism. No. 1,242,506; Oct. 9; v. 243; p. 369.
Wood, Herbert, Philadelphia, Pa. Belt-wheel. No. 1,244,396; Oct. 23; v. 243; p. 1020.
Wood, John W., Swartz Creek, Mich. Automobile repair-truck and turn-table. No. 1,243,574; Oct. 16; v. 243; p. 734.
Wood, Lewis N., *et al.* (See Nelsen, Nels C., assignor.)
Wood Newspaper Machinery Corporation. (See Wood and Isbell, assignors.)
Wood, William H., Cleveland Ohio, assignor to S. W. Cook, trustee, Chicago, Ill. Appliance for correcting foot ailments. No. 1,243,124; Oct. 16; v. 243; p. 601.
Wood, William H., Cleveland, Ohio, assignor to S. W. Cook, trustee, Chicago, Ill. Metal-working work-holding anvil. No. 1,243,125; Oct. 16; v. 243; p. 601.
Wood, William M., assignor to The United Gas Improvement Company, Philadelphia, Pa. Automatic shut-off for gas-burners. No. 1,242,408; Oct. 9; v. 243; p. 339.
Woodard, Ernest L., Eureka township, Montcalm county, Mich. Tilling implement. No. 1,241,596; Oct. 2; v. 243; p. 42.
Woodbridge, Joseph L., Philadelphia, Pa. Means for interconverting alternating and direct currents. No. 1,244,569; Oct. 30; v. 243; p. 1111.
Wooden, Luther W., Lima, Wis. Cheese-shelf. No. 1,243,788; Oct. 23; v. 243; p. 837.
Woodhead, Horace G., Chicago, Ill. Clamp. No. 1,243,027; Oct. 16; v. 243; p. 571.
Woodman, Albert G., Grand Rapids, Mich. Beehive. No. 1,242,628; Oct. 9; v. 243; p. 409.
Woodrow, Harry R. (See Torchio and Woodrow.)
Woods, Erastus W., Chicago, Ill. Ventilating and heating apparatus. No. 1,242,507; Oct. 9; v. 243; p. 369.
Woods, Joseph M., assignor of one-half to D. W. Johnson, Chicago, Ill. Vehicle-wheel. No. 1,241,805; Oct. 2; v. 243; p. 107.
Woods Motor Vehicle Company. (See Fend, Roland S., assignor.)
Woods, Perry C., assignor of three-fourths to H. H. Welsh, Washington, Iowa. Measuring instrument. No. 1,244,570; Oct. 30; v. 243; p. 1111.
Woodstock Manufacturing Company. (See Bourdon, Leo R. and A. P., assignors.)
Woodstock Typewriter Company. (See Roebuck, Alvah C., assignor.)

Woodsum, Gerald R., Oakland, Me. Veneer-making machine for the manufacture of toothpicks. No. 1,243,909; Oct. 23; v. 243; p. 875.
Woodward, Walter R. (See Mateer and Woodward.)
Worley, August R. (See Herman, Walter G., assignor.)
Worley, Henry F., assignor to J. S. McCabe, Minneapolis, Minn. Concrete-culvert mold. No. 1,243,910; Oct. 23; v. 243; p. 875.

Worns, Edwin C., New York, N. Y. Boiler-repair plug. No. 1,241,597; Oct. 2; v. 243; p. 43.
Worsley, Otto G., Aurora, Ill. Spring-wheel. No. 1,244,681; Oct. 30; v. 243; p. 1144.
Worstell, Emory R., St. Bernard, Ohio. Safety-brake. No. 1,243,373; Oct. 16; v. 243; p. 675.
Worthington, J. and W., Pleasant City, Ohio. Record-cleaning attachment for phonographs. No. 1,242,751; Oct. 9; v. 243; p. 448.
Worthington, William. (See Worthington, James and W.)
Wozny, Wasyl, and P. Husak, Boundbrook, N. J. Combination penholder and blotter. No. 1,243,911; Oct. 23; v. 243; p. 875.
Wren, Lamont S. (See Joerden, Harry J., assignor.)
Wright, Charles D. (See Braden and Wright.)
Wright, Clyde S., assignor to The National Supply Company, Toledo, Ohio. Underreamer. No. 1,242,508; Oct. 9; v. 243; p. 370.
Wright, Ernest, Arch Creek, Fla. Package-tie. No. 1,244,157; Oct. 23; v. 243; p. 948.
Wright, Flint W., East Rochester, assignor to American Piano Company, New York, N. Y. Tracking device for automatic musical instruments. No. 1,245,081; Oct. 30; v. 243; p. 1265.
Wright, George M., London, England, assignor to Marconi Wireless Telegraph Company of America, New York, N. Y. Valve-receiver for wireless signals. No. 1,243,789; Oct. 23; v. 243; p. 837.
Wright, John G., assignor of one-third to J. Kennedy, Tyler, Tex. Wrench. No. 1,244,273; Oct. 23; v. 243; p. 984.

Wright, John R., Legrand, Iowa. Rim-breaker. No. 1,242,409; Oct. 9; v. 243; p. 339.
Wright, Joseph L., Washington, D. C., assignor, by mesne assignments, to J. R. Garfield, trustee, Cleveland, Ohio. Telephone-exchange system. No. 1,244,571; Oct. 30; v. 243; p. 1111.
Wright, Walter, assignor to Underwood Computing Machine Company, New York, N. Y. Combined type-writing and computing machine. No. 1,243,374; Oct. 16; v. 243; p. 675.
Wright, Walter, San Francisco, Cal., assignor, by mesne assignments, to Underwood Computing Machine Company. Computing attachment for type-writers. No. 1,244,397; Oct. 23; v. 243; p. 1020.
Wright, Walter, assignor to Underwood Computing Machine Co., New York, N. Y. Combined type-writing and computing machine. No. 1,244,398; Oct. 23; v. 243; p. 1020.
Wright, Walter, assignor to Underwood Computing Machine Company, New York, N. Y. Combined type-writing and computing machine. No. 1,244,572; Oct. 30; v. 243; p. 1112.
Wright, Walter, assignor to Underwood Computing Machine Company, New York, N. Y. Combined type-writing and computing machine. No. 1,244,573; Oct. 30; v. 243; p. 1112.
Wright, Walter, assignor to Underwood Computing Machine Company, New York, N. Y. Computing-head-setting mechanism. No. 1,244,574; Oct. 30; v. 243; p. 1113.
Wyckoff, Ralph W. G. (See Twining and Wyckoff.)
Yamanishi, Daigoro, Seattle, Wash. Necktie-holder. No. 1,242,629; Oct. 9; v. 243; p. 409.
Yonge, Edward E., *et al.* (See Miller, Homer E., assignor.)
Young, Charles D., Altoona, Pa. Tie-plate. No. 1,242,299; Oct. 9; v. 243; p. 305.
Young, Charles D., Altoona, Pa. Tie-plate for railways. No. 1,242,300; Oct. 9; v. 243; p. 305.

Young, Elmer I., assignor to Throt-A-Lite Company, Atlanta, Ga. Light-projector and tongue-depressor. No. 1,244,819; Oct. 30; v. 243; p. 1187.
Young, George W., *et al.* (See Norman, Frank, assignor.)
Young, Harry R. (See Reilly, Edward B., assignor.)
Young, Henry A., assignor of one-half to P. H. Brotman, Winnipeg, Manitoba, Canada. Door-latch. No. 1,242,301; Oct. 9; v. 243; p. 305.
Young, Homer J., trustee. (See Rosewarne, Richard E., assignor.)
Young, Jackson B., Oakland, Cal. Machine for making hollow ware from pulp. No. 1,244,820; Oct. 30; v. 243; p. 1187.
Young, Philip E., Fairhaven, Mass. Percentage-balance. No. 1,243,790; Oct. 23; v. 243; p. 838.
Young, William H., Newton, Kans. Plow. No. 1,244,274; Oct. 23; v. 243; p. 984.
Youngren, Oscar A., New York, N. Y., assignor to National Life Preserver Company, Sheridan, Wyo. Closure for life-saving suits. No. 1,241,598; Oct. 2; v. 243; p. 43.
Youngren, Oscar A., assignor to National Life Preserver Company, Sheridan, Wyo. Life-preserver. No. 1,242,752; Oct. 9; v. 243; p. 448.
Younkman, George W., Brooklyn, N. Y. Bearing for conveyers. No. 1,243,375; Oct. 16; v. 243; p. 676.
Yuba Manufacturing Company. (See Wickersham, Elmer E., assignor.)
Zaar, Ludwig W., Chicago, Ill. Antifriction-bearing. No. 1,243,028; Oct. 16; v. 243; p. 571.
Zabriskie, Edgar, *et al.* (See Rosentreter, Alfred J., assignor.)
Zagelmeyer, Frank, Bay City, Mich. Reinforced core for cement-block molds. No. 1,244,937; Oct. 30; v. 243; p. 1223.
Zagmester, Frank, La Salle, N. Y. Ship's table. No. 1,244,158; Oct. 23; v. 243; p. 948.
Zaleski, Joseph P. and Stanislaw J., Chicago, Ill. Furniture for domestic use. No. 1,244,821; Oct. 30; v. 243; p. 1187.
Zaleski, Stanislaw J. (See Zaleski, Joseph P. and S. J.)
Zanone, Richard J., New Albany, Ind., assignor to The Automatic Package Scale Company, Louisville, Ky. Automatic scale. No. 1,243,791; Oct. 23; v. 243; p. 838.
Zarling, William, assignor of one-half to A. A. Plantz, Milwaukee, Wis. Trap. No. 1,245,138; Oct. 30; v. 243; p. 1283.
Zatzkin, Jack, Jersey City, N. J. Bed-frame. No. 1,242,509; Oct. 9; v. 243; p. 370.
Ze-Litt Manufacturing Company. (See Littman, Zeno, assignor.)
Zell, Robert R., Birmingham, assignor to Siliconite Refractories Company, Irondale, Ala. Composition for making fire-brick and furnace linings. No. 1,244,275; Oct. 23; v. 243; p. 984.
Zeller, August, New York, and W. J. Zeller, Winfield, N. Y. Clothes-line support. No. 1,241,892; Oct. 2; v. 243; p. 136.
Zeller, William J. (See Zeller, August and W. J.)
Zerk, Oscar, Cleveland, Ohio, assignor, by mesne assignments, to G. W. Bowen, Auburn, N. Y. Winged cap. No. 1,243,029; Oct. 16; v. 243; p. 572.
Ziener, Adolph O., New York, N. Y., assignor to Display Fountain Manufacturing Company, Inc. Fountain. No. 1,243,126; Oct. 16; v. 243; p. 601.
Zimmerman, Daniel, Magley, Ind. Acetylene-gas generator. No. 1,244,399; Oct. 23; v. 243; p. 1021.
Zimmerman, Robert, Dorchester, Mass. Scrubbing-machine. No. 1,244,400; Oct. 23; v. 243; p. 1021.
Zimmern, Joseph, New York, N. Y. Necktie. No. 1,243,792; Oct. 23; v. 243; p. 838.
Zinsli, Gallus, Wibaux, Mont. Resilient wheel. No. 1,244,822; Oct. 30; v. 243; p. 1188.
Zobel, Charles A., Fort Smith, Ark. Railway-crossing. No. 1,244,401; Oct. 23; v. 243; p. 1022.
Zohner, Gustav, Forres, Saskatchewan, Canada. Animal-releasing device. No. 1,242,302; Oct. 9; v. 243; p. 305.
Zuckerman, Michael. (See Krell and Zuckerman.)

ALPHABETICAL LIST OF PATENTEES OF DESIGNS.

A. C. Gilbert Company, The. (See Klagsbrunn, Hugo, assignor.)
Adam, Harry C., St. Louis, Mo. Lighting-fixture. No. 51,326; Oct. 9; v. 243; p. 497.
Adam, Harry C., St. Louis, Mo. Lighting-fixture. No. 51,361; Oct. 16; v. 243; p. 768.
American Bank Note Company. (See Major, Alfred S., assignor.)
Archer, Charles L., Minneapolis, Minn. Automobile-tire. No. 51,428; Oct. 23; v. 243; p. 1047.
Archer, Charles L., Minneapolis, Minn. Non-skid tire-tread. No. 51,429; Oct. 23; v. 243; p. 1047.
Arends, Theodore, Detroit, Mich. Cover for books. No. 51,362; Oct. 16; v. 243; p. 769.
Automatic Lace & Embroidery Co., The. (See Zullig, Emil, assignor.)
Autoyre Co., The. (See Sweyd, Abram M., assignor.)
Baeck, Eugene C., Irvington, N. Y. Wall-covering. No. 51,434; Oct. 30; v. 243; p. 1290.
Bailey, Joseph T., Philadelphia, Pa. Jewelry-ring. No. 51,311; Oct. 2; v. 243; p. 210.
Baker, Stephen D., New York, N. Y. Wall-receptacle for soap and other toilet articles. No. 51,405; Oct. 23; v. 243; p. 1043.
Barker, Joseph C., Kansas City, Kans. Finger-ring or similar article. No. 51,406; Oct. 23; v. 243; p. 1043.
Barnhart Bros. & Sprindler. (See Gaunt, Sidney C., assignor.)
Barsamian, Barsam S., Detroit, Mich. Shoe. No. 51,407; Oct. 23; v. 243; p. 1043.
Bastran Brothers Co. (See McGoveron, Bernard J., assignor.)
Bean, Dixon L., assignor of one-half to M. H. Samson, Chicago, Ill. Lighting-fixture. No. 51,363; Oct. 16; v. 243; p. 769.
Beckwith, Walter C., Fostoria, Ohio. Tire-tread. No. 51,435; Oct. 30; v. 243; p. 1290.
Bishop, Mary F., Philadelphia, Pa. Moistener for an envelop, postage-stamp, or similar article. No. 51,436; Oct. 30; v. 243; p. 1291.
Blanke, Cyrus F., assignor to St. Louis Tin and Sheet Metal Working Company, St. Louis, Mo. Suitcase. No. 51,437; Oct. 30; v. 243; p. 1291.
Borland, Flora L., Reno, Nev. Combined ink-well and pen-rack. No. 51,408; Oct. 23; v. 243; p. 1043.
Bredle, James V., Cedar Rapids, Iowa. Weeder-head. No. 51,327; Oct. 9; v. 243; p. 497.
Brett, George E., Birmingham, Ala. Bottle. No. 51,409; Oct. 23; v. 243; p. 1043.
Brown, Edmund N., San Francisco, Cal., assignor to Majestic Electric Development Company. Electric-heater casing. No. 51,328; Oct. 9; v. 243; p. 497.
Brown, Lanville A., Kansas City, Mo. Bedstead. No. 51,329; Oct. 9; v. 243; p. 498.
Brunswick-Balke-Collender Company, The. (See Hine, Cicero, assignor.)
Budd, Edward G., Philadelphia, Pa., assignor to Edward G. Budd Manufacturing Company. Vehicle-wheel fender. No. 51,410; Oct. 23; v. 243; p. 1044.
Butler, Harriet B. C., Boston, Mass. Brooch, pin, or similar article. No. 51,330; Oct. 9; v. 243; p. 498.
Caron, Arthur J., assignor to Sears, Roebuck and Company, Chicago, Ill. Ornamental flexible roofing. No. 51,438; Oct. 30; v. 243; p. 1291.
Cassidy & Son Manufacturing Co. (See Wahle, Albert, assignor.)
Conde, Harry L., Syracuse, N. Y. Whisk-broom holder. No. 51,364; Oct. 16; v. 243; p. 769.
Crane, Ernest M., and C. R. Pelton, Detroit, Mich. Cabinet for electrical appliances. No. 51,365; Oct. 16; v. 243; p. 769.
Curtiss, George E., assignor to Landers, Frary & Clark, New Britain, Conn. Handle for forks and similar articles. No. 51,312; Oct. 2; v. 243; p. 210.
Curtiss, John S., El Paso, Tex. Slot-machine savings-bank. No. 51,366; Oct. 16; v. 243; p. 769.
D. Gruen Sons & Company. (See Gruen, Frederick G., assignor.)
Davis, Emanuel, Brooklyn, N. Y. Statuette. Nos. 51,313–14; Oct. 2; v. 243; p. 210.
Davis Sewing Machine Company, The. (See Rottweiler, George V., assignor.)
Dosch, Charles R. (See Hawley and Dosch.)
Edward G. Budd Manufacturing Company. (See Budd, Edward G., assignor.)
Eichorn, Frederic W., assignor to Union Defender Co., Chicago, Ill. Vanity-case. No. 51,367; Oct. 16; v 243; p. 769.
Ellis, John B., High-Point, N. C. Waste-basket. No. 51,368; Oct. 16; v. 243; p. 770.

Force, Garfield, Brooklyn, N. Y. Badge. No. 51,411. Oct. 23; v. 243; p. 1044.
Friedley-Voshardt Co. (See Wellman, Lester R., assignor.)
Funke, Ernest H. (See Wagner and Funke.)
Galpin, Sadie A., Jefferson, Ohio. Spoon. No. 51,369; Oct. 16; v. 243; p. 770.
Garthwaite, Albert A., Conshohocken, Pa. Pneumatic tire. No. 51,370; Oct. 16; v. 243; p. 770.
Gaunt, Sidney C., assignor to Barnhart Bros. & Spindler, Chicago, Ill. Font of type. Nos. 51,371–8; Oct. 16; v. 243; pp. 770–71.
Gillinder, Edgar A., Philadelphia, Pa. Illuminating-lens. No. 51,412; Oct. 23; v. 243; p. 1044.
Gorham Manufacturing Company. (See Jenks, Barton P., assignor.)
Gramlich, Adolph, New York, N. Y. Flag. No. 51,331; Oct. 9; v. 243; p. 498.
Greene, George W., East Liverpool, Ohio. Elastic vehicle-tire. No. 51,413; Oct. 23; v. 243; p. 1044.
Gruen, Frederick G., assignor to The D. Gruen Sons & Company, Cincinnati, Ohio. Watchcase and dial. No. 51,439; Oct. 30; v. 243; p. 1291.
Guerriero, Antonio, Brooklyn, N. Y. Automobile-fender. No. 51,414; Oct. 23; v. 243; p. 1044.
Hadley, Clarence E., Elmira, N. Y. Smoking-pipe. No. 51,332; Oct. 9; v. 243; p. 498.
Harris, Mary E., San Francisco, Cal. Statuette or doll. No. 51,415; Oct. 23; v. 243; p. 1044.
Hawley, Jesse G., and C. R. Dosch, Bridgeport, Conn. Automobile-headlight. No. 51,430; Oct. 23; v. 243; p. 1048.
Helzmann, Charles L., Wyomissing, Pa. Porcelain door-knob. No. 51,333; Oct. 9; v. 243; p. 498.
Herbert, Max, New York, N. Y. Support for trays or similar articles. No. 51,315; Oct. 2; v. 243; p. 211.
Hester, Charles R., New York, N. Y. Hat-display stand. No. 51,316; Oct. 2; v. 243; p. 211.
Hill, Nathaniel W., Brooklyn, N. Y. Game-board. No. 51,416; Oct. 23; v. 243; p. 1045.
Hillbom, Henrik, assignor to R. Wallace & Sons Mfg. Co., Wallingford, Conn. Tea-pot or similar article. No. 51,379; Oct. 16; v. 243; p. 771.
Hillbom, Henrik, assignor to R. Wallace & Sons Mfg. Co., Wallingford, Conn. Spoon, fork, or similar article. No. 51,431; Oct. 23; v. 243; p. 1048.
Hine, Cicero, assignor to The Brunswick-Balke-Collender Company, Chicago, Ill. Talking-machine cabinet. Nos. 51,334–41; Oct. 9; v. 243; pp. 498–500.
Hirsch, Adolf, New York, N. Y. Flag. No. 51,342; Oct. 9; v. 243; p. 500.
Hochriem, Gustav F. (See Paupa and Hochriem.)
Holyoke Plush Company. (See Jagger, James E., assignor.)
Jagger, James E., assignor to Holyoke Plush Company, Holyoke, Mass. Woven fabric. No. 51,417; Oct. 23; v. 243; p. 1045.
Jeckert, Joseph F., Garfield, N. J. Smoker's outfit. No. 51,380; Oct. 16; v. 243; p. 771.
Jenks, Barton P., assignor to Gorham Manufacturing Company, Providence, R. I. Handle for spoons, forks, or similar articles. No. 51,381; Oct. 16; v. 243; p. 771.
Jones, Charles E., Chicago, Ill. Husk for lighting-fixtures. No. 51,382; Oct. 16; v. 243; p. 772.
Jones, Charles E., Chicago, Ill. Clamp for calcite mush-room bowls. No. 51,383; Oct. 16; v. 243; p. 772.
Jones, Charles E., Chicago, Ill. Ornament for bracket-backs. No. 51,384; Oct. 16; v. 243; p. 772.
Jones, Charles E., Chicago, Ill. Arm-pocket for oval bracket-backs. No. 51,385; Oct. 16; v. 243; p. 772.
King, John C., Dalby, Queensland, Australia. Tag-holder. No. 51,386; Oct. 16; v. 243; p. 772.
Klagsbrunn, Hugo, assignor to The A. C. Gilbert Company, New Haven, Conn. Toy figure. No. 51,440; Oct. 30; v. 243; p. 1291.
Koch, Alexander R., assignor to F. Meyer, New York, N. Y. Lace. No. 51,441; Oct. 30; v. 243; p. 1292.
Landers, Frary & Clark. (See Curtiss, George E., assignor.)
Landon, Chauncey L., Akron, Ohio. Tire-tread. No. 51,418; Oct. 23; v. 243; p. 1045.
Langfelder, Frederick, assignor to Morimura Bros., New York, N. Y. Doll. No. 51,387; Oct. 16; v. 243; p. 772.
Leaver, Iris W., Brighton, England. Emblem or badge or emblematical device. No. 51,343; Oct. 9; v. 243; p. 501.
Lee, Elmo W., Tamaroa, Ill. China-cabinet. No. 51,432; Oct. 23; v. 243; p. 1048.
Lehman, Max R., Quincy, Ill. Stove. Nos. 51,344–5; Oct. 9; v. 243; p. 501.

Lewis, George H., Chicopee Falls, Mass. Tire-tread. No. 51,346; Oct. 9; v. 243; p. 501.
Loomis, Harry T., Brooklyn, N. Y. Textile fabric. No. 51,419; Oct. 23; v. 243; p. 1045.
Majestic Electric Development Company. (See Brown, Edmund N., assignor.)
Major, Alfred S., assignor to American Bank Note Company, New York, N. Y. Bank-note. No. 51,317; Oct. 2; v. 243; p. 211.
Marg, Nicholas, Flushing, N. Y. Button. No. 51,318; Oct. 2; v. 243; p. 211.
Mason, Charles T., Sumter, S. C., assignor to Splitdorf Electrical Company, Newark, N. J. Distributer-block for ignition devices. No. 51,442; Oct. 30; v. 243; p. 1292.
Masterson, Howard, Bozeman, Mont. Traffic-signal. No. 51,347; Oct. 9; v. 243; p. 501.
McGoveron, Bernard J., assignor to Bastran Brothers Co., Rochester, N. Y. Pinwheel. No. 51,348; Oct. 9; v. 243; p. 502.
Meyer, Felix. (See Koch, Alexander R., assignor.)
Moffat, John A., Hamilton, Ontario, Canada. Plumb-bob. No. 51,420; Oct. 23; v. 243; p. 1045.
Montgomery, Alice, Menlo Park, and F. K. Reynolds, San Francisco, Cal. Doll. No. 51,349; Oct. 9; v. 243; p. 502.
Montgomery, Robert J., assignor to Sanitax Brush Company, Chicago, Ill. Shampoo-brush. No. 51,319; Oct. 2; v. 243; p. 211.
Moore, Carrie P., Bon Air, Va. Flag. No. 51,443; Oct. 30; v. 243; p. 1292.
Morimura Bros. (See Langfelder, Frederick, assignor.)
Nathan, Benjamin, New York, N. Y. Textile fabric. No. 51,320; Oct. 2; v. 243; p. 211.
Norton, William H., New York, N. Y. Wall-paper or similar article of manufacture. No. 51,421; Oct. 23; v. 243; p. 1046.
Ollarin, Anton, Philadelphia, Pa. Shoe. No. 51,388; Oct. 16; v. 243; p. 773.
Overturf, John W., Billings, Mont. Combined pipe cleaner and tamp and match-striker. No. 51,422; Oct. 23; v. 243; p. 1046.
Owens, William H., Muskogee, Okla. Tire-tread. No. 51,423; Oct. 23; v. 243; p. 1046.
Parrett, Dent, Chicago, Ill., assignor to Parrett Tractor Company. Frame for tractors. No. 51,424; Oct. 23; v. 243; p. 1046.
Parrett Tractor Company. (See Parrett, Dent, assignor.)
Patent Novelty Company. (See Reimer, George H., assignor.)
Paupa, Joseph, and G. F. Hochriem, Chicago, Ill. Vending-machine casing. Nos. 51,389–90; Oct. 16; v. 243; p. 773.
Pearce, A. Lincoln, Philadelphia, Pa. Tire-tread. No. 51,391; Oct. 16; v. 243; p. 773.
Pelletier, Frank D., Kansas City, Mo. Electric-light wall-costumer. No. 51,392; Oct. 16; v. 243; p. 774.
Pelton, Chauncy R. (See Crane and Pelton.)
Pezuto, Peter, Philadelphia, Pa. Balancing toy. No. 51,321; Oct. 2; v. 243; p. 212.
R. Wallace & Sons Mfg. Co. (See Hillbom, Henrik, assignor.)
Ravert, William I., Hazleton, assignor to Standard Automatic Machine Company, Pittsburgh, Pa. Casing for vending-machines. No. 51,393; Oct. 16; v. 243; p. 774.
Raymond, Hoyt, assignor to Vaughan & Bushnell Manufacturing Company, Chicago, Ill. Hammer-head. No. 51,350; Oct. 9; v. 243; p. 502.
Raymond, Samuel W., Adrian, Mich. Service-station. No. 51,322; Oct. 2; v. 243; p. 212.
Reimer, George H., assignor to Patent Novelty Company, Fulton, Ill. Kitchen-rack. No. 51,425; Oct. 23; v. 243; p. 1047.
Revere Rubber Company. (See Sheehan, Alice R., assignor.)
Reynolds, F. K. (See Montgomery and Reynolds.)
Rifkin, Isidor J. (See Weiner and Rifkin.)
Rottweiler, George V., assignor to The Davis Sewing Machine Company, Dayton, Ohio. Bicycle and motor-cycle frame. No. 51,323; Oct. 2; v. 243; p. 212.
Samson, Milton H. (See Bean, Dixon L., assignor.)
Sanitax Brush Company. (See Montgomery, Robert J., assignor.)
Savage, Theodore S., Oakland, Cal. Direction-indicator. No. 51,394; Oct. 16; v. 243; p. 774.
Schwartzberg, Alter L., Shreveport, La. Bar of soap. No. 51,395; Oct. 16; v. 243; p. 774.
Schwinn, Frederick, Attleboro, Mass. Spoon, fork, or similar article. Nos. 51,396–7; Oct. 16; v. 243; pp. 774–5.
Sears, Roebuck and Company. (See Caron, Arthur J. assignor.)
Sheehan, Alice R., Providence, R. I., assignor to Revere Rubber Company. Bathing-cap. No. 51,398; Oct. 16; v. 243; p. 775.
Sherbondy, William E., Cleveland, Ohio. Vacuum-cleaner casing. No. 51,444; Oct. 30; v. 243; p. 1292.
Simons, Herrman, Cincinnati, Ohio. Fish-bowl and support. No. 51,433; Oct. 23; v. 243; p. 1048.
Smith, Howard S. (See Warner and Smith.)
Splitdorf Electrical Company. (See Mason, Charles T., assignor.)
St. Louis Tin and Sheet Metal Working Company. (See Blanke, Cyrus F., assignor.)
Standard Automatic Machine Company. (See Ravert, William I., assignor.)
Stelk, John. (See Szameit, Miecislas J., assignor.)
Sulzbach, Jacob, New York, N. Y. Ribbon. No. 51,445; Oct. 30; v. 243; p. 1292.
Summers, Eulah M., Birmingham, Ala. Hand-bag. No. 51,351; Oct. 9; v. 243; p. 502.
Sweyd, Abram M., New York, N. Y., assignor to The Autoyre Co., Oakville, Conn. Label. No. 51,426; Oct. 23; v. 243; p. 1047.
Szameit, Miecislas J., assignor of one-half to John Stelk, Chicago, Ill. Badge or emblem. No. 51,427; Oct. 23; v. 243; p. 1047.
Taylor, Charles L., Pittsburgh, Pa. Store-front. No. 51,399; Oct. 16; v. 243; p. 775.
Union Defender Co. (See Eichorn, Frederic W., assignor.)
Vanderlee, Louis G., Cleburne, Tex. Emblem. No. 51,352; Oct. 9; v. 243; p. 503.
Vaughan & Bushnell Manufacturing Company. (See Raymond, Hoyt, assignor.)
Vivaudou, Victor, New York, N. Y. Powder-can. No. 51,446; Oct. 30; v. 243; p. 1293.
Wadsworth, Arthur W., Fort Thomas, assignor to The Wadsworth Watch Case Company, Dayton, Ky. Watch-case-pendant. No. 51,353; Oct. 9; v. 243; p. 503.
Wadsworth Watch Case Company, The. (See Wadsworth, Arthur W., assignor.)
Wagner, Oscar E., and E. H. Funke, Chicago, Ill. Weighing-scale casing. No. 51,400; Oct. 16; v. 243; p. 775.
Wahle, Albert, Brooklyn, N. Y., assignor to Cassidy & Son Manufacturing Co. Hanging lamp or similar article. No. 51,401; Oct. 16; v. 243; p. 776.
Walker, Willard R., Syracuse, N. Y. Dish-washer tank. No. 51,447; Oct. 30; v. 243; p. 1293.
Warner, John H., and H. S. Smith, Dayton, Ohio. Automobile-radiator attachment. No. 51,402; Oct. 16; v. 243; p. 776.
Warner, John I., Kansas City, Mo. Soft-collar retainer. No. 51,324; Oct. 2; v. 243; p. 212.
Watling, John B., Chicago, Ill. Casing for a weighing-scale. No. 51,403; Oct. 16; v. 243; p. 776.
Wearne, Harry, New York, N. Y. Printed fabric. Nos. 51,354–9; Oct. 9; v. 243; pp. 503–4.
Weiner, Morris, and I. J. Rifkin, New York, N. Y. Fingering or similar article. No. 51,448; Oct. 30; v. 243; p. 1293.
Weller, Samuel A., Zanesville, Ohio. Flag-holder. No. 51,325; Oct. 2; v. 243; p. 212.
Wellman, Lester R., assignor to Friedley-Voshardt Co., Chicago, Ill. Plate for lighting-fixtures. No. 51,404; Oct. 16; v. 243; p. 776.
Westenfield, William, Corona, S. D. Indicator for automobiles. No. 51,360; Oct. 9; v. 243; p. 504.
White, John F., assignor to White Lock Company, Chicago, Ill. Latch and scutcheon. No. 51,449; Oct. 30; v. 243; p. 1293.
White Lock Company. (See White, John F., assignor.)
Zullig, Emil, assignor to The Automatic Lace & Embroidery Co., Inc., Weehawken, N. J. Filet-lace. No. 51,450; Oct. 30; v. 243; p. 1293.

ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

A. Kreamer, Inc., Brooklyn, N. Y. Spice-cabinets. No. 118,888; Oct. 9; v. 243; p. 520.
A. Stein & Company, Chicago, Ill. Certain named sanitary garments and appliances. No. 118,828; Oct. 2; v. 243; p. 238.
A. C. Gilbert Company, The, New Haven, Conn. Construction toys. No. 119,069; Oct. 23; v. 243; p. 1060.
A. G. Spalding & Bros., Jersey City, N. J., and New York, N. Y. Tennis-racket strings. No. 118,826; Oct. 2; v. 243; p. 238.
A. R. Sales Co., Inc., Schenectady, N. Y. Tire-vulcanizing outfits and self-vulcanizing patches. No. 119,215; Oct. 30; v. 243; p. 1306.
Abbott Laboratories, The, Chicago, Ill. Non-toxic and non-caustic antiseptic. No. 119,014; Oct. 23; v. 243; p. 1059.
Abeles & Company, F. E., Milwaukee, Wis. Men's, boys', and youths' trousers. No. 118,842; Oct. 9; v. 243; p. 519.
Achfeldt, M., New York, N. Y. Corn-salve. No. 118,727; Oct. 2; v. 243; p. 235.
Adams, Ernest, London, England. Certain named toilet articles. No. 118,938; Oct. 16; v. 243; p. 789.
Adbro Manufacturing Company, Pittsburgh, Pa. Massage-vibrators and electrical-massage-treatment apparatus. No. 118,728; Oct. 2; v. 243; p. 235.
Aerothrust Engine Company, Laporte, Ind. Aero-propelled ice-sled. No. 119,015; Oct. 23; v. 243; p. 1059.
Agricultural and Commercial Lime Company, The, Canton, Ohio. Agricultural lime. No. 118,729; Oct. 2; v. 243; p. 235.
Agricultural and Commercial Lime Company, The, Canton, Ohio. Agricultural lime. No. 118,843; Oct. 9; v. 243; p. 519.
Albert, John H., Lancaster, Pa. Bitter tonic for the relief of certain named conditions. No. 119,016; Oct. 23; v. 243; p. 1059.
All-Package Grocery Stores Co., New York, N. Y. Soaps, powdered cleanser, washing-powder. No. 118,730; Oct. 2; v. 243; p. 235.
All-Package Grocery Stores Co., New York, N. Y. Grape-juice. No. 118,731; Oct. 2; v. 243; p. 235.
All-Package Grocery Stores Co., New York, N. Y. Certain named foods. No. 119,017; Oct. 23; v. 243; p. 1059.
Allen Motor Co., The, Fostoria, Ohio. Automobiles. No. 119,018; Oct. 23; v. 243; p. 1059.
Allman, Walter R., Cleveland, Ohio. Cartoons and drawings. No. 118,939; Oct. 16; v. 243; p. 789.
Altro Manufacturing Company, New York, N. Y. Nurses' costumes; doctors' coats, trousers, and overalls; hospital employees' uniforms and suits. No. 118,844; Oct. 9; v. 243; p. 519.
American Chemical Paint Company, Philadelphia, Pa. Fluid for preventing paint from peeling off galvanized iron. No. 119,019; Oct. 23; v. 243; p. 1059.
American International Corporation, New York, N. Y. Bulletins issued approximately quarterly. No. 119,160; Oct. 30; v. 243; p. 1305.
American Loose Leaf Mfg. Co., Chicago, Ill. Combined order-sheet and envelop. No. 118,845; Oct. 9; v. 243; p. 519.
American Optical Company, Southbridge, Mass. Monthly magazines or periodicals. No. 118,733; Oct. 2; v. 243; p. 235.
American Optical Company, Southbridge, Mass. Certain named cutlery, machinery, and tools. No. 119,020; Oct. 23; v. 243; p. 1059.
American Optical Company, Southbridge, Mass. Cases for spectacles, eyeglasses, magnifiers, and ophthalmic goods generally. No. 119,021; Oct. 23; v. 243; p. 1059.
American Optical Company, Southbridge, Mass. Certain named measuring and scientific appliances. No. 119,022; Oct. 23; v. 243; p. 1059.
American Optical Company, Southbridge, Mass. Certain named abrasive, detergent, and polishing materials. No. 119,023; Oct. 23; v. 243; p. 1059.
American Pad & Paper Company, Holyoke, Mass. Certain named paper and stationery. No. 118,846; Oct. 9; v. 243; p. 519.
American Photo Player Sales Company, The, San Francisco, Cal. Pneumatically-operated orchestrions. No. 119,024; Oct. 23; v. 243; p. 1059.
American Rubber Company, Boston, Mass. Rain-coats made of textiles treated with waterproofing materials. No. 118,940; Oct. 16; v. 243; p. 789.
American Steel Export Company, New York, N. Y. Certain named hardware and plumbing and steam-fitting supplies. No. 118,734; Oct. 2; v. 243; p. 235.
American Stove Company, St. Louis, Mo. Electric cooking stoves, electric ranges, and electric heating-stoves. No. 119,025; Oct. 23; v. 243; p. 1059.
Amory, Browne & Co., Boston, Mass. Cotton piece goods. No. 118,941; Oct. 16; v. 243; p. 789.
Anderson, William G., Belfast, Ireland. Toy building-blocks. No. 119,161; Oct. 30; v. 243; p. 1305.
Annan-Burg Grain & Milling Company, St. Louis, Mo. Wheat-flour, grain, and mill feed. No. 118,735; Oct. 2; v. 243; p. 235.
Aquino, Giovanni, New York, N. Y. Italian wines. No. 118,736; Oct. 2; v. 243; p. 235.
Arco Company, The, Cleveland, Ohio. Certain named construction materials. No. 118,847; Oct. 9; v. 243; p. 519.
Armstrong Cork Company, Pittsburgh, Pa. Cork composition used as a covering for rolls and other objects. No. 118,942; Oct. 16; v. 243; p. 789.
Armstrong Cork Company, Pittsburgh, Pa. Material for use in the manufacture of slip-insoles for shoes. No. 119,162; Oct. 30; v. 243; p. 1305.
Armstrong Packing Company, Dallas, Tex. Sugar-cured bacon. No. 119,027; Oct. 23; v. 243; p. 1059.
Art Embroidery and Button Co., Inc., Louisville, Ky. Embroidery-floss. No. 119,163; Oct. 30; v. 243; p. 1305.
Art Metal Works, The, Newark, N. J. Automobile-radiator ornaments. No. 119,164; Oct. 30; v. 243; p. 1305.
Auburn Converting Company, Auburn, N. Y. Twine. No. 119,165; Oct. 30; v. 243; p. 1305.
Auerbach & Sons, D., New York, N. Y. Candy. No. 118,848; Oct. 9; v. 243; p. 519.
Aughenbaugh & Co., Everett, Waseca, Minn. Wheat-flour, bran, offal, screenings and middlings, and mixed feed. No. 118,763; Oct. 2; v. 243; p. 236.
Aunt Jemima Mills Company, St. Joseph, Mo. Pancake, buckwheat, corn, and wheat flours. No. 118,737; Oct. 2; v. 243; p. 235.
Auto Vacuum Freezer Company, Inc., New York, N. Y. Liquid-freezers. No. 118,849; Oct. 9; v. 243; p. 519.
Automatic Pencil Sharpener Company, Chicago, Ill. Pencil-sharpeners. No. 119,166; Oct. 30; v. 243; p. 1305.
Autoyre Co., The, Oakville, Conn. Snap-fasteners. No. 118,738; Oct. 2; v. 243; p. 235.
Autoyre Company, The, Oakville, Conn. Snap-buttons used as garment-fasteners. No. 118,739; Oct. 2; v. 243; p. 235.
B. Altman & Co., New York, N. Y. Upholstered chairs and settees. No. 118,732; Oct. 2; v. 243; p. 235.
B. Mifflin Hood Brick Co., Atlanta, Ga. Brick and tile. No. 119,199; Oct. 30; v. 243; p. 1306.
Baker, George A., South Bend, Ind. Certain named toys. No. 119,028; Oct. 23; v. 243; p. 1059.
Balz, George A., Rahway, N. J. Refractory bricks, tiles, and furnace-linings. No. 119,030; Oct. 23; v. 243; p. 1059.
Banks Supply Company, Huntington, W. Va. Rolled ready-to-lay roofing made of a composition of asphalt and wood felt. No. 119,031; Oct. 23; v. 243; p. 1059.
Barkemeyer Grain & Seed Co., Great Falls, Mont. Seeds. No. 119,167; Oct. 30; v. 243; p. 1305.
Barnett, Morris H., Springfield, Mass. Cigars. No. 118,740; Oct. 2; v. 243; p. 235.
Batterman Rubber Company, Boston, Mass. Leather, canvas, and composition shoes and rubber overshoes. No. 118,850; Oct. 9; v. 243; p. 519.
Bauer & Black, Chicago, Ill. Medicated, court, isinglass, mustard, corn, and bunion plasters, &c. No. 118,742; Oct. 2; v. 243; p. 235.
Bayley Manufacturing Company, Milwaukee, Wis. Steam generators and radiators. No. 118,743; Oct. 2; v. 243; p. 235.
Beacon Falls Rubber Shoe Company, The, Beacon Falls, Conn. Rubber boots and shoes. No. 118,851; Oct. 9; v. 243; p. 519.
Beebe-Howes Company, The, Inc., New York, N. Y. Hosiery. No. 118,852; Oct. 9; v. 243; p. 519.
Beech-Nut Packing Company, Canajoharie, N. Y. Certain food product. No. 118,945; Oct. 16; v. 243; p. 789.
Beeland-Nicholson Wholesale Co., Greenville, Ala. Self-rising wheat-flour. No. 119,032; Oct. 23; v. 243; p. 1059.
Belleville Stove & Range Co., Belleville, Ill. Stoves and ranges of all kinds for hard and soft coal, coke, wood, &c. No. 119,168; Oct. 30; v. 243; p. 1305.
Benjamin, George G., New York, N. Y. Men's coats, waistcoats, trousers, and overcoats. No. 119,034; Oct. 23; v. 243; p. 1059.
Berfelden Mills, Plainfield, N. J. Silk piece goods. No. 118,946; Oct. 16; v. 243; p. 789.
Berg Auto Trunk & Specialty Co., New York, N. Y. Baggage—namely, trunks, suitcases, &c. No. 118,741; Oct. 2; v. 243; p. 235.
Berlin Laboratory, Ltd., Inc., New York, N. Y. Medicinal preparations for gastro-intestinal disturbances. No. 119,035; Oct. 23; v. 243; p. 1059.

Bernardini Statuary Co., New York, N. Y. Plastic molding material for making certain named objects. No. 118,744; Oct. 2; v. 243; p. 235.
Bernstein, Alex, Chicago, Ill. Dress and negligée shirts. No. 118,947; Oct. 16; v. 243; p. 789.
Bixler, Wendal J., Fremont, Mich. Insecticide. No. 118,745; Oct. 2; v. 243; p. 235.
Black and Walter, Huntington, W. Va. Preparation for rheumatism and weak lungs. No. 119,036; Oct. 23; v. 243; p. 1059.
Bollinger, James W., executor. (See Gilman, Stephen F.)
Bon Aurora Manufacturing & Machine Company, The, Denver, Colo. Soap compound. No. 118,746; Oct. 2; v. 243; p. 235.
Bonicamp Manufacturing Co., The, Fort Madison, Iowa. Horse-collars. No. 118,853; Oct. 9; v. 243; p. 519.
Boston Manufacturing Company, The, Waltham, Mass. Ginghams. No. 118,855; Oct. 9; v. 243; p. 519.
Brandon, Magnus & Leon Inc., New York, N. Y. Handkerchiefs. No. 118,948; Oct. 16; v. 243; p. 789.
Brigham Hopkins Co., Baltimore, Md. Sweat-bands for hats. No. 118,880; Oct. 9; v. 243; p. 520.
Brown, Alex, Paynes, Miss. Liniment, salve, and tonic for pellagra, piles, and blood impurities. No. 119,037; Oct. 23; v. 243; p. 1059.
Brown Shoe Company, Inc., St. Louis, Mo. Men's shoes made of leather. No. 118,857; Oct. 9; v. 243; p. 519.
Bruhn Medical Company, Waukesha, Wis. Food-flavoring extracts and spices. No. 118,949; Oct. 16; v. 243; p. 789.
C. Kenyon Company, Brooklyn, N. Y. Men's coats. No. 119,083; Oct. 23; v. 243; p. 1061.
C. L. Hauthaway & Sons, Inc., Boston, Mass. Polishing and cleansing materials for boots and shoes. No. 119,075; Oct. 23; v. 243; p. 1061.
Campbell, George W., Pasadena, Cal., assignor to Mystic Manufacturing Company, Los Angeles, Cal. Dressing for belts, brake-linings, clutches, and similar frictional surfaces. No. 118,951; Oct. 16; v. 243; p. 789.
Canton Steel Foundry Company, The, Canton, Ohio. Steel castings. No. 119,038; Oct. 23; v. 243; p. 1059.
Carson, Pirie, Scott & Co., Chicago, Ill. Sheets, pillow-cases, and tubing. No. 119,170; Oct. 30; v. 243; p. 1305.
Carson, Pirie, Scott & Co., Chicago, Ill. Percales in the piece. No. 119,171; Oct. 30; v. 243; p. 1305.
Castello Branco & Commandita, Lisbon and Setubal, Portugal. Canned fish. No. 118,952; Oct. 16; v. 243; p. 789.
Castine Lime & Twine Company, Castine, Me., assignors, by mesne assignments, to Gloucester Net & Twine Corporation. Fishing-lines. Nos. 118,747–8; Oct. 2; v. 243; p. 235.
Celluloid Company, The, New York, N. Y. Men's, boys', and women's collars. No. 118,858; Oct. 9; v. 243; p. 519.
Centrola Talking Machine Co., The, Brooklyn, N. Y. Talking-machines and parts thereof. No. 119,172; Oct. 30; v. 243; p. 1305.
Certain-teed Products Corporation, St. Louis, Mo. Certain named paints and painters' materials. No. 119,039; Oct. 23; v. 243; p. 1059.
Champion Manufacturing & Sales Company, St. Louis, Mo. Certain ventilating apparatus. No. 119,040; Oct. 23; v. 243; p. 1059.
Charles William Stores, Inc., The, Brooklyn, N. Y. Pianos and organs. No. 119,003; Oct. 16; v. 243; p. 791.
Chas. Morningstar & Co. Inc., New York, N. Y. Dextrins, adhesive and soluble starch gums. No. 118,801; Oct. 2; v. 243; p. 237.
Chase & Company, L. C., Boston, Mass. Blankets, sheets, dusters, and similar clothing for horses, cows, &c. No. 119,041; Oct. 23; v. 243; p. 1060.
Chattanooga Stamping & Enameling Company, Chattanooga, Tenn. Table-tops of steel. No. 118,749; Oct. 2; v. 243; p. 235.
Cheboygan Paper Company, Cheboygan, Mich. Wrapping-paper. Nos. 119,042–3; Oct. 23; v. 243; p. 1060.
Class Journal Co., The, New York, N. Y. A publication issued weekly. No. 119,173; Oct. 30; v. 243; p. 1305.
Classique Phonograph Corporation, The, Chicago, Ill. Phonograph-cabinets. No. 118,859; Oct. 9; v. 243; p. 519.
Cluett, Peabody & Co. Inc., Troy, N. Y. Handkerchiefs. No. 118,860; Oct. 9; v. 243; p. 519.
Coast Mfg. and Supply Company, Livermore, Cal. Safety-fuse. No. 118,861; Oct. 9; v. 243; p. 519.
Cohen, Hyman, Boston, Mass. Certain named clothing for women, misses, nurses, and maids. No. 119,175; Oct. 30; v. 243; p. 1305.
Colgate & Co., Jersey City, N. J., and New York, N. Y. Toilet waters, handkerchief extracts, perfumed powders, sachets. No. 118,750; Oct. 2; v. 243; p. 235.
Colorado Milling & Elevator Co., The, Denver and Pueblo, Colo. Wheat-flour. Nos. 119,044–5; Oct. 23; v. 243; p. 1060.
Columbia Broom Works, Inc., Brooklyn, N. Y. Brooms. No. 119,046; Oct. 23; v. 243; p. 1060.
Columbia Chemical Co., Washington, D. C. Puncture-putty. No. 118,862; Oct. 9; v. 243; p. 519.
Columbian Enameling & Stamping Company, Terre Haute, Ind. Certain named hardware and plumbing and steam-fitting supplies. No. 118,751; Oct. 2; v. 243; p. 235.
Colytic Corporation, Chicago, Ill. Eggs. No. 118,953; Oct. 16; v. 243; p. 789.
Commercial Vehicle, Inc., New York, N. Y. A publication issued semimonthly. No. 119,176; Oct. 30; v. 243; p. 1305.
Common Sense Gum Company, New York, N. Y. Chewing-gum. No. 118,954; Oct. 16; v. 243; p. 789.
Cook, Charles I., Menominee, Mich. Certain named foods. No. 119,047; Oct. 23; v. 243; p. 1060.
Cornelius and Son, W. R., Nashville, Tenn. Wheat-flour. No. 119,048; Oct. 23; v. 243; p. 1060.
Crane Company, Chicago, Ill. Valves, expansion-joints, flanges, laterals, &c. No. 119,049; Oct. 23; v. 243; p. 1060.
Crescent Bed Co., Limited, New Orleans, La. Iron and brass beds, cribs, bed-springs, and cots. No. 118,863; Oct. 9; v. 243; p. 519.
Crew Levick Company, Philadelphia, Pa. Illuminating, lubricating, and burning oils and greases. No. 119,050; Oct. 23; v. 243; p. 1060.
Crystal Soap Company, Milwaukee, Wis. Toilet, laundry, powdered, and liquid soaps. No. 118,955; Oct. 16; v. 243; p. 789.
Cudahy Packing Company, The, Portland, Me., and Chicago, Ill. Mattresses. No. 118,752; Oct. 2; v. 243; p. 235.
Cynthia Mills, Boston, Mass. Cotton yarns. No. 118,753; Oct. 2; v. 243; p. 235.
Dalton Machine Co., Inc., New York, N. Y. Lathes. No. 119,051; Oct. 23; v. 243; p. 1060.
Darling, Loren M., Des Moines, Iowa. Root-canal paste. No. 119,052; Oct. 23; v. 243; p. 1060.
Darling Motor Company, Dayton, Ohio. Automobiles. No. 118,864; Oct. 9; v. 243; p. 519.
David Killoch Co., New York, N. Y. Ground clamps and oushings. No. 118,886; Oct. 9; v. 243; p. 520.
Davis-Dougherty Canning Co., Russellville, Tenn. Canned fruits and vegetables. No. 118,865; Oct. 9; v. 243; p. 519.
Dawson, George E., Clare, Mich. Cigars. No. 118,754; Oct. 2; v. 243; p. 236.
De Freitas, Henry I., Valparaiso, Ind. A liquid cleaning compound. No. 118,957; Oct. 16; v. 243; p. 789.
De Vessey, Maria L. C. V., Washington, D. C. A medicinal tonic and salve for treating certain named diseases. No. 119,058; Oct. 23; v. 243; p. 1060.
De Vilbiss Manufacturing Company, The, Toledo, Ohio. Surgical spraying instrument. No. 118,757; Oct. 2; v. 243; p. 236.
Del Valle, Salvador F., New York, N. Y. Preparation for the treatment of the scalp. No. 118,755; Oct. 2; v. 243; p. 236.
Defiance Check Writer Corporation, Rochester, N. Y. Mirrors for personal use. No. 119,053; Oct. 23; v. 243; p. 1060.
Deming, Wm. L., Salem, Ohio. Holders for flagstaffs and similar articles. No. 119,054; Oct. 23; v. 243; p. 1060.
Denneen Motor Company, The, Cleveland, Ohio. Automobiles and motor-cars, either for pleasure or commercial use. No. 118,756; Oct. 2; v. 243; p. 236.
Derryvale Linen Company, New York, N. Y. Certain named knitted, netted, and textile fabrics. No. 118,866; Oct. 9; v. 243; p. 519.
Desmond, Bertrand G., Pittsburgh, Pa. Lubricating-oils and lubricant. No. 119,057; Oct. 23; v. 243; p. 1060.
Dixie Paper & Box Company, Atlanta, Ga. Toilet-paper. No. 118,758; Oct. 2; v. 243; p. 236.
Dolomite Products Company, The, Cleveland, Ohio. Refractory materials for furnace-linings and the like. No. 119,178; Oct. 30; v. 243; p. 1305.
Domestic Engine & Pump Co., Shippensburg, Pa. Internal-combustion engines. No. 119,179; Oct. 30; v. 243; p. 1305.
Drink and Be Sober Co. Inc., New York, N. Y. Non-alcoholic beverage sold as a soft drink. No. 118,867; Oct. 9; v. 243; p. 519.
Du Pont, Auguste F. P., New York, N. Y. Concentrated vegetable soup and purée tablets and packages, also bouillon and consommé boxes, tablets, and packages. No. 119,060; Oct. 23; v. 243; p. 1060.
Dubois Watch Case Company., Brooklyn, N. Y. Watches. No. 118,958; Oct. 16; v. 243; p. 789.
Dundas Brothers Co., Philadelphia, Pa. Wheat-flour. No. 118,959; Oct. 16; v. 243; p. 789.
Dundee Textile Co., Passaic, N. J. Silk and silk-mixed goods in the piece. No. 118,960; Oct. 16; v. 243; p. 789.
Dunfee, Hod C., Charleston, W. Va. Nursing-bottles. No. 119,059; Oct. 23; v. 243; p. 1060.
Dunham, William P., New York, N. Y. Smokers' pipes. No. 118,868; Oct. 9; v. 243; p. 519.
Durex Chemical Corporation, New York, N. Y., and Sweetwater, Tenn. Ingredient used in paints and painters' materials. No. 118,760; Oct. 2; v. 243; p. 236.
Dwinell-Wright Company, Boston, Mass. Monthly publication. No. 118,761; Oct. 2; v. 243; p. 236.
E. C. Gatlin Importing Company, Kansas City, Mo. Certain named foods. No. 118,766; Oct. 2; v. 243; p. 236.
E. & Z. Van Raalte, New York, N. Y. Nettings, veils, and veilings in the piece. No. 118,934; Oct. 9; v. 243; p. 522.
E. Clinton & Co. Incorporated, Philadelphia, Pa. Paint-brushes. No. 119,174; Oct. 30; v. 243; p. 1305.
Edison Electric Illuminating Company of Boston, The, Boston, Mass. Periodical issued monthly. No. 118,961; Oct. 16; v. 243; p. 789.

Edward Katzinger Company, Chicago, Ill. Baking-pans. No. 118,787; Oct. 2; v. 243; p. 237.
Elsenan, Kaiser & Co., Chicago, Ill. Containers for toilet articles. No. 118,869; Oct. 9; v. 243; p. 519.
Elgin National Watch Company, Chicago, Ill. Watches and watch-movements. No. 118,762; Oct. 2; v. 243; p. 236.
Elgin National Watch Company, Chicago, Ill. Watches and watch-movements. No. 119,061; Oct. 23; v. 243; p. 1060.
Elite Garment Company, Inc., Syracuse, N. Y. Children's dresses. No. 118,870; Oct. 9; v. 243; p. 519.
Empire Silk Co., New York, N. Y. Silk piece goods. Nos. 118,962–3; Oct. 16; v. 243; p. 789.
Engineers Specialties Co. (Not Inc.), Chicago, Ill. Blow-off valves. No. 119,180; Oct. 30; v. 243; p. 1305.
Enid Milling Company, Enid, Okla. Wheat-flour. Nos. 119,062–3; Oct. 23; v. 243; p. 1060.
Enoch Morgan's Sons Company, New York, N. Y. Detergent preparation for cleaning, scouring, or polishing. No. 118,986; Oct. 16; v. 243; p. 790.
Excelsior Carpet Cleansers, Inc., Providence, R. I. Cleansing compound for the treatment of rugs and carpets, not a soap. No. 119,181; Oct. 30; v. 243; p. 1305.
F. A. Neider Company, The, Augusta, Ky. Certain named hardware and plumbing and steam-fitting supplies. No. 118,804; Oct. 2; v. 243; p. 237.
F. G. Rudditman Company, Muskegon, Mich. Cocoa mats. No. 118,815; Oct. 2; v. 243; p. 237.
F. H. Appleton & Son, Inc., Boston, Mass. Solid blocks of rubber substitute for erasing marks from paper and other articles. No. 119,026; Oct. 23; v. 243; p. 1059.
Farrell & Co., Omaha, Nebr. Peanut-butter. No. 118,964; Oct. 16; v. 243; p. 789.
Ferguson-Spears Coal Company, Clinton, Ind. Coal. No. 118,764; Oct. 2; v. 243; p. 236.
Fix, Samuel, New York, N. Y. Embroidered pillow-cases. No. 118,871; Oct. 9; v. 243; p. 520.
Flaray Signal Co., The, Chicago, Ill. Electric signaling devices for motor-vehicles. No. 119,064; Oct. 23; v. 243; p. 1060.
Fonstein, Boris, Chicago, Ill. Vanishing face-cream. No. 118,765; Oct. 2; v. 243; p. 236.
Franklin Simon & Co. Inc., New York, N. Y. Certain named men's clothing. No. 118,921; Oct. 9; v. 243; p. 521.
Free Sewing Machine Co., Rockford, Ill. Sewing-machines and parts thereof. No. 119,066; Oct. 23; v. 243; p. 1060.
Friedman Company, The, New York, N. Y. Certain named underwear of knitted and textile material. No. 118,872; Oct. 9; v. 243; p. 520.
Frost-a-Lite Co., The, Newark, N. J. Compound for frosting surface of glass articles. No. 119,067; Oct. 23; v. 243; p. 1060.
General Cigar Co., Inc., New York, N. Y. Cigars. Nos. 119,183–4; Oct. 30; v. 243; p. 1305.
George Borgfeldt & Co., New York, N. Y. Certain named hollow metal ware of brass, copper, bronze, pewter, aluminum, or other non-precious metals. No. 118,854; Oct. 9; v. 243; p. 519.
George Brothers Company, Manitowoc, Wis. Chewing-gum. No. 119,068; Oct. 23; v. 243; p. 1060.
Gerber & Co., Thoune, Switzerland. Cheese. No. 119,185; Oct. 30; v. 243; p. 1305.
Gilman, Stephen F., deceased, Neligh, Nebr.; James W. Bollinger, executor, assignor to S. F. Gilman Mill Company. Wheat-flour. No. 118,966; Oct. 16; v. 243; p. 789.
Gitterman & Co., Henry, New York, N. Y. Shoe-cloth. No. 118,873; Oct. 9; v. 243; p. 520.
Gloucester Net & Twine Corporation. (See Castine Lime & Twine Company, assignor.)
Glowlite Company, The, Columbus, Ohio. Automobile-lenses. No. 119,186; Oct. 30; v. 243; p. 1305.
Goff, Robert B., Seattle, Wash. Polish for retaining and enhancing varnished or enameled surfaces. No. 119,071; Oct. 23; v. 243; p. 1060.
Goldberg, Samuel, Los Angeles, Cal. An edible candy. No. 118,967; Oct. 16; v. 243; p. 790.
Goldman Costume Company, New York, N. Y. Certain named baggage, horse equipments, portfolios, and pocket-books. No. 118,768; Oct. 2; v. 243; p. 236.
Goldman Costume Company, New York, N. Y. Certain named cordage. No. 118,769; Oct. 2; v. 243; p. 236.
Goldman Costume Company, New York, N. Y. Certain named foods. No. 118,875; Oct. 9; v. 243; p. 520.
Goldman, Eugene, Chicago, Ill., assignor to Master Trucks, Inc., Portland, Me. Motor-trucks and automobiles. No. 118,767; Oct. 2; v. 243; p. 236.
Goldman Costume Company, New York, N. Y. Certain named laundry appliances and machines. No. 118,874; Oct. 9; v. 243; p. 520.
Goldsmith, Stern & Co., New York, N. Y. Watches. No. 119,070; Oct. 23; v. 243; p. 1060.
Graham Brothers, Evansville, Ind. Devices for converting a pleasure-car chassis into a motor-truck. No. 119,187; Oct. 30; v. 243; p. 1305.
Graham & Co., Alfred, London, England. Certain named electrical apparatus, machines, and supplies. No. 119,072; Oct. 23; v. 243; p. 1060.
Great Southern Lumber Company, Bogalusa, La. Shingles, laths, sawed and planed lumber and timbers. No. 119,188; Oct. 30; v. 243; p. 1306.
Greene & Co., A. A., Providence, R. I. Certain named articles made of precious or plated metal. No. 118,968; Oct. 16; v. 243; p. 790.
Griesedieck Beverage Company, St. Louis, Mo. Non-intoxicating beverage of a malt nature of the kind known as soft drinks. No. 118,770; Oct. 2; v. 243; p. 236.
Gulfport Grocery Company, Gulfport, Miss. Stock food. No. 118,969; Oct. 16; v. 243; p. 790.
H. A. Baker Company, Sioux City, Iowa. Overalls. No. 118,944; Oct. 16; v. 243; p. 789.
H. M. Lindenthal & Sons, Chicago, Ill. Children's, men's, and young men's outer suits and overcoats and ladies' dresses, coats, and cloaks. No. 118,892; Oct. 9; v. 243; p. 520.
H. W. Johns-Manville Co., New York, N. Y. Asbestos roofing. No. 118,881; Oct. 9; v. 243; p. 520.
H. W. Johns-Manville Co., New York, N. Y. Asbestile liquid cement and asbestile fibrous mineral combined to form asbestile flashing and roof cement. No. 118,882; Oct. 9; v. 243; p. 520.
Habbard Medical Mfg. Co., Inc., New Orleans, La. Purgative. No. 118,771; Oct. 2; v. 243; p. 236.
Habbard Medical Mfg. Co. Inc., New Orleans, La. Ointment for sores, ulcers, and piles. No. 118,772; Oct. 2; v. 243; p. 236.
Habbard Medical Mfg. Co. Inc., New Orleans, La. Medicine for irregular bowels and constipation. No. 118,773; Oct. 2; v. 243; p. 236.
Hagerstown Shoe & Legging Co., Hagerstown, Md. Shoes and sandals made from leather and fabric. No. 118,876; Oct. 9; v. 243; p. 520.
Hairpidermis Cosmetic Manufacturing Co., Washington, D. C., and St. Louis, Mo. Hair and scalp oil. No. 118,774; Oct. 2; v. 243; p. 236.
Halleck, William C., New York, N. Y. Syringes. No. 119,189; Oct. 30; v. 243; p. 1306.
Hardoncourt, Arthur, Jr., New York, N. Y. Brick, tile, and burnt clay for use in building construction. No. 118,775; Oct. 2; v. 243; p. 236.
Harriman Manufacturing Company, Harriman, Tenn. Agricultural implements—namely, cultivators and cultivator-blades. No. 119,073; Oct. 23; v. 243; p. 1061.
Harris and Berntz Co., Philadelphia, Pa. Tooth-brushes. No. 119,074; Oct. 23; v. 243; p. 1061.
Harris-Polk Hat Co., St. Louis, Mo. Gloves. Nos. 118,877–8; Oct. 9; v. 243; p. 520.
Hawkes & Son, London, England. Harmonic strings. No. 118,970; Oct. 16; v. 243; p. 790.
Hawkins, Charles A., Indianapolis, Ind. Certain named pharmaceutical preparations. No. 118,776; Oct. 2; v. 243; p. 236.
Hess, Elam G., Manheim, Pa. Thin-shelled pecan-nuts. No. 118,971; Oct. 16; v. 243; p. 790.
Higrade Belting & Weaving Co., Newark, N. J. Textile, fiber, rubber, and balata belting. No. 119,190; Oct. 30; v. 243; p. 1306.
Hill, Harriet, New York, N. Y. Paper drinking-cups. No. 118,777; Oct. 2; v. 243; p. 236.
Hill-Independent Mfg. Co., Philadelphia, Pa. Hand-stamps. Nos. 119,077–8; Oct. 23; v. 243; p. 1061.
Hillerich & Bradsby Company, Inc., Louisville, Ky. Baseball bats. No. 119,076; Oct. 23; v. 243; p. 1061.
Hopkins, John, New York, N. Y. Nail-files, tweezers, and blackhead-removers. No. 118,778; Oct. 2; v. 243; p. 236.
Hubbard Milling Co., Mankato, Minn. Monthly magazines. No. 118,779; Oct. 2; v. 243; p. 236.
Hudson, Joseph, Birmingham, England. Whistle-calls. No. 119,079; Oct. 23; v. 243; p. 1061.
Illinois Specialty Manufacturing Co., Normal, Ill. Banana-ripeners and gas-heaters. No. 118,780; Oct. 2; v. 243; p. 236.
Imperial Sugar Company, Sugar Land, Tex. Sugar. No. 119,080; Oct. 23; v. 243; p. 1061.
Improved Stay Company, Inc., New York, N. Y. Corsets. No. 118,972; Oct. 16; v. 243; p. 790.
Industrial Filtration Corporation, New York, N. Y. Filters and filtering apparatus. No. 118,781; Oct. 2; v. 243; p. 236.
International Drug Company, Wilmington, Del. Acetylsalicylic acid. No. 118,782; Oct. 2; v. 243; p. 236.
Interstate Chemical Company, Jersey City, N. J. Soap-dispensers. No. 119,081; Oct. 23; v. 243; p. 1061.
Interstate Cotton Oil Refining Co., Sherman, Tex. Shortening. No. 118,783; Oct. 2; v. 243; p. 236.
Iodine Products Company, The, Laurel, Miss. Dental cream. No. 118,784; Oct. 2; v. 243; p. 236.
J. Bacon & Sons, Louisville, Ky. Certain named clothing for men, women, and children. No. 118,943; Oct. 16; v. 243; p. 789.
J. M. Fisher Company, Attleboro, Mass. Certain named jewelry and precious-metal ware. No. 118,965; Oct. 16; v. 243; p. 789.
Jacobs Candy Company, Limited, New Orleans, La. Candy. No. 118,973; Oct. 16; v. 243; p. 790.
John A. Roebling's Sons Co., Trenton, N. J. Wire rope except fiber-covered wire rope. No. 119,218; Oct. 30; v. 243; p. 1306.
John B. Busch Brewing Co., Washington, D. C. Non-intoxicating beverage of a malt nature. No. 118,950; Oct. 16; v. 243; p. 789.
John P. Dousman Milling Co., Depere, Wis. Wheat-flour. No. 118,759; Oct. 2; v. 243; p. 236.
John T. Stanley Co., Inc., New York, N. Y. Soap. No. 118,827; Oct. 2; v. 243; p. 238.

Johnson, Arthur L., Providence, R. I., and Boston, Mass. Canned sardines and clams. No. 118,785; Oct. 2; v. 243; p. 237.
Johnston Glass Co., The, Hartford, Ind. Lantern-lenses. No. 119,191; Oct. 30; v. 243; p. 1306.
Julius Kalish, Inc., New York, N. Y. Aperient, laxative, and purgative. No. 118,786; Oct. 2; v. 243; p. 237.
Kadans, Louis, New York, N. Y. Cream-cheese. No. 119,082; Oct. 23; v. 243; p. 1061.
Kaufmann Bros. & Bondy, New York, N. Y. Pipes, cigar and cigarette holders, tobacco-pouches, cigarette-papers, and pipe-cases. No. 118,883; Oct. 9; v. 243; p. 520.
Kawakami, Yasutaro, Seattle, Wash. Table sauce to be used with meats, cutlets, shell-fish, soups, sauces, salads. No. 118,884; Oct. 9; v. 243; p. 520.
Kelley, Franklin J., San Francisco, Cal. Surface cleaner and polish for automobile-bodies and other enameled surfaces. No. 118,974; Oct. 16; v. 243; p. 790.
Kellogg Toasted Corn Flake Co., Battle Creek, Mich. Cigars. No. 119,192; Oct. 30; v. 243; p. 1306.
Kentucky Lithograph Stone Co., Louisville, Ky. Agricultural ground limestone. No. 118,885; Oct. 9; v. 243; p. 520.
Keystone Rubber Manufacturing Company, Erie, Pa. Rubber tires, inner tubes, liners, and patches for the same. No. 119,193; Oct. 30; v. 243; p. 1306.
Kidder, Rowe E., Kansas City, Mo. Wheat-flour. No. 119,084; Oct. 23; v. 243; p. 1061.
King Features Syndicate, Inc., New York, N. Y. Newspaper-section. No. 118,975; Oct. 16; v. 243; p. 790.
Kirk, Harry L., Lynchburg, Va. Hand flash-lights. No. 119,085; Oct. 23; v. 243; p. 1061.
Kling Bros. & Co., Chicago, Ill. Rain-coats. No. 118,887; Oct. 9; v. 243; p. 520.
Kohler Co., Kohler, Wis. Lavatories. No. 118,788; Oct. 2; v. 243; p. 237.
Krall, Richard H., Camden, N. J. Refrigerators. No. 118,789; Oct. 2; v. 243; p. 237.
Kranich & Bach, New York, N. Y. Pianos. No. 118,790; Oct. 2; v. 243; p. 237.
Kreeger Store, Incorporated, The, New Orleans, La. Corsets. No. 119,086; Oct. 23; v. 243; p. 1061.
Kroger Grocery & Baking Co., The, Cincinnati, Ohio. Canned foods. No. 118,791; Oct. 2; v. 243; p. 237.
Kursheedt Apron Co., The E. H., Brooklyn, N. Y. Aprons. No. 118,889; Oct. 9; v. 243; p. 520.
Lapin and Calehuff, Philadelphia, Pa. Certain abrasive, detergent, and polishing material. No. 118,976; Oct. 16; v. 243; p. 790.
Larsen & Jensen, Seattle, Wash. Boots and shoes made of canvas. No. 119,087; Oct. 23; v. 245; p. 1061.
Larson, Joseph H., Detroit, Mich. Castoria. No. 119,088; Oct. 23; v. 243; p. 1061.
Latrobe Electric Steel Company, Latrobe borough, Pa. Steel. No. 119,089; Oct. 23; v. 243; p. 1061.
Lazell Perfumer, Newburgh, N. Y. Certain named pharmaceutical preparations. No. 119,090; Oct. 23; v. 243; p. 1061.
Leach, Edmund B., Chula Vista, Cal. Oranges, lemons, and grape-fruit. No. 118,977; Oct. 16; v. 243; p. 790.
Leopold, Solomon & Eisendrath, Chicago, Ill. Coats, trousers, and vests. No. 118,890; Oct. 9; v. 243; p. 520.
Levy, Bany, Brooklyn, N. Y. Canned goods. No. 119,091; Oct. 23; v. 243; p. 1061.
Levy, Bany, Brooklyn, N. Y. Certain named foods. No. 119,092; Oct. 23; v. 243; p. 1061.
Lewis-Shepard Company, Boston, Mass. Elevating-trucks. No. 119,194; Oct. 30; v. 243; p. 1306.
Libbey-Owens Sheet Glass Company, The, Toledo, Ohio. Sheet-glass. No. 118,792; Oct. 2; v. 243; p. 237.
Lieberthal, Robert H., New York, N. Y. Dental impression-trays. No. 118,891; Oct. 9; v. 243; p. 520.
Liggett & Myers Tobacco Company, New York, N. Y. Smoking and chewing tobacco and cigarettes. No. 119,195; Oct. 30; v. 243; p. 1306.
Livestock Individual Drinking Fountain Company, Inc., Lynchburg, Va. Animal drinking-bowl. No. 118,793; Oct. 2; v. 243; p. 237.
Lobravico & Son, R., Chicago, Ill. Cigars, cigarettes, cheroots, stogies, chewing and smoking tobacco. No. 118,794; Oct. 2; v. 243; p. 237.
Lobravico & Son, R., Chicago, Ill. Cigars, cigarettes, cheroots, stogies, chewing and smoking tobacco. No. 119,196; Oct. 30; v. 243; p. 1306.
Loudonville Mill & Grain Co., The, Loudonville, Ohio. Wheat-flour. No. 119,093; Oct. 23; v. 243; p. 1061.
Lumley, Wallace J., Chicago, Ill. Certain named adhesives. No. 118,893; Oct. 9; v. 243; p. 520.
Lyon & Healy, Chicago, Ill. Talking-machines, phonographs, and the like. No. 119,094; Oct. 23; v. 243; p. 1061.
M. Brodsky & Co., Inc., New York, N. Y. Cotton and silk sewing threads and cotton and silk yarns. No. 119,169; Oct. 30; v. 243; p. 1305.
M. Heminway & Sons Silk Co., Watertown, Conn., and New York, N. Y. Silk fabrics. No. 118,879; Oct. 9; v. 243; p. 520.
M. E. Smith & Co. Inc., Omaha, Nebr. Women's garments for outer wear. No. 118,923; Oct. 9; v. 243; p. 521.
Macullar Parker Company, Boston, Mass. Certain named clothing for men's, boys', and women's wear. No. 118,895; Oct. 9; v. 243; p. 520.
Majestic Bottling Co., Missoula, Mont. Non-alcoholic carbonated beverage. No. 119,197; Oct. 30; v. 243; p. 1306.
Mallinson & Co., H. R., New York, N. Y. Silk piece goods. No. 118,896; Oct. 9; v. 243; p. 520.
Malouf, Abraham M., Salt Lake City, Utah. Chairs and bedsteads made of metal or wood, tables, desks, mattresses, pillows. No. 118,795; Oct. 2; v. 243; p. 237.
Malouf, Abraham M., Salt Lake City, Utah. Certain named knitted, netted, and textile fabrics. No. 118,897; Oct. 9; v. 243; p. 520.
Malouf, Abraham M., Salt Lake City, Utah. Certain named clothing for men, boys, women, and children. No. 118,898; Oct. 9; v. 243; p. 520.
Malouf, Abraham M., Salt Lake City, Utah. Matting, tapestry, carpets, rugs, mats. No. 118,978; Oct. 16; v. 243; p. 790.
Manchester Manufacturing Company, St. Louis, Mo. Sectional houses. No. 118,979; Oct. 16; v. 243; p. 790.
Mansfield Milling Co., The, Mansfield, Ohio. Wheat-flour. No. 118,796; Oct. 2; v. 243; p. 237.
Marathon Tire & Rubber Co., The, Cuyahoga Falls, Ohio. Rubber and composition soles and heels. Nos. 118,899–900; Oct. 9; v. 243; p. 520.
Marathon Tire & Rubber Co., The, Cuyahoga Falls, Ohio. Rubber tires, casings, and tubes. Nos. 118,980–1; Oct. 16; v. 243; p. 790.
Margot, Chicago, Ill. Certain named articles of wearing-apparel. No. 118,901; Oct. 9; v. 243; p. 520.
Martin, William E., Chicago, Ill. Metal-enamel. No. 119,096; Oct. 23; v. 243; p. 1061.
Martins Birmingham Limited, Birmingham, England. Certain named clothing. No. 118,982; Oct. 16; v. 243; p. 790.
Master Shirt and Blouse Company, Camden, N. J., and Philadelphia, Pa. Negligée shirts and blouses. No. 119,097; Oct. 23; v. 243; p. 1061.
Mazo Brothers, Washington, D. C. Coffee and tea. No. 118,983; Oct. 16; v. 243; p. 790.
Mechanical Rubber Company, The, Jersey City, N. J.; New York, N. Y., and Cleveland, Ohio. Jar-ring. No. 119,198; Oct. 30; v. 243; p. 1306.
Mendelson, Louis A., New York, N. Y. Ladies' coats, outer suits and skirts, and dresses. No. 118,902; Oct. 9; v. 243; p. 520.
Merrimack Manufacturing Company, Lowell, Mass. Corduroys, pile fabrics, fustians, khakis, velveteens, cotton piece goods. No. 118,903; Oct. 9; v. 243; p. 521.
Merrimack Manufacturing Company, Lowell, Mass. Imitation-leather cotton fabrics. No. 118,984; Oct. 16; v. 243; p. 790.
Metal Stampings Corporation, Streator, Ill. Folding tables. No. 118,797; Oct. 2; v. 243; p. 237.
Michael, John M., Aberdeen, Md. Canned vegetables. No. 118,798; Oct. 2; v. 243; p. 237.
Michelson & Bro., L., Baltimore, Md. Cigars. No. 118,985; Oct. 16; v. 243; p. 790.
Midland Chemical Company, Dubuque, Iowa. Insecticides, germicides, disinfectants, &c. No. 119,099; Oct. 23; v. 243; p. 1061.
Midland Milling Company, assignor to Midland Milling Company, Kansas City, Mo. Wheat-flour. Nos. 119,100–1; Oct. 23; v. 243; p. 1061.
Millar, James, Chelsea, Mass. Women's leather and canvas shoes. No. 118,904; Oct. 9; v. 243; p. 521.
Miller Rubber Company, The, Akron, Ohio. Tires (rubber) and tubing, (rubber.) No. 118,799; Oct. 2; v. 243; p. 237.
Mills & Gibb Corporation, New York, N. Y. Cotton fabrics known as nainsooks and batistes. No. 118,905; Oct. 9; v. 243; p. 521.
Mills and Gibb Corporation, New York, N. Y. Hair-nets. No. 118,906; Oct. 9; v. 243; p. 521.
Mills & Gibb Corporation, New York, N. Y. Dress snap-fasteners. No. 119,102; Oct. 23; v. 243; p. 1061.
Milton Bradley Co., Springfield, Mass. Games. No. 118,856; Oct. 9; v. 243; p. 519.
Monitor Stove & Range Co., The, Cincinnati, Ohio. Monthly publication. No. 118,800; Oct. 2; v. 243; p. 237.
Montwid & Son, Victor, Milwaukee, Wis. Certain named clothing for children and workmen's shirts, overalls, and pants. No. 118,907; Oct. 9; v. 243; p. 521.
Morrison, James M., Fort Wayne, Ind. Preparation for the relief of stomach troubles, rheumatism, and kidney ailments. No. 119,095; Oct. 23; v. 243; p. 1061.
Moss, Louis N., New York, N. Y. Mint lozenges. No. 118,987; Oct. 16; v. 243; p. 790.
Munsch, Albert A., Pittsburgh, Pa. Surgical dressing in the form of a wax. No. 119,103; Oct. 23; v. 243; p. 1061.
Mutual Motor Stores Company, The, Cleveland, Ohio. Rubber-cement and tire-tape. No. 118,802; Oct. 2; v. 243; p. 237.
Mutual Motor Stores Company, The, Cleveland, Ohio. Certain belting, hose, machinery packing, and non-metallic tires. No. 118,989; Oct. 16; v. 243; p. 790.
Mystic Manufacturing Company. (See Campbell, George W., assignor.)
Naamlooze Vennootschap De Nederlandsche Thermo-Telephoon Maatschappij, Utrecht, Netherlands. Telephones and parts therefor. No. 119,104; Oct. 23; v. 243; p. 1061.

Nashua Manuf'g Company, Nashua, N. H. Pure cotton blankets. No. 118,908; Oct. 9; v. 243; p. 521.
National Abrasive Company, The, Amesbury and Boston, Mass. Natural and artificial abrasives in comminuted form for use in grinding. No. 118,990; Oct. 16; v. 243; p. 790.
National Biscuit Company, Jersey City, N. J., and New York, N. Y. Biscuit. No. 119,200; Oct. 30; v. 243; p. 1306.
National Brewing Company, New Orleans, La. Cereal beverages, fermented and flavored with hops. No. 119,105; Oct. 23; v. 243; p. 1061.
National Candy Company, Jersey City, N. J., and St. Louis, Mo. Burnt peanuts. No. 118,991; Oct. 16; v. 243; p. 790.
National Chemical Co., Clinton, Iowa. Compound for closing holes or punctures in pneumatic tires. No. 118,909; Oct. 9; v. 243; p. 521.
National Lead Company, New York, N. Y. Ready-mixed paint. No. 118,803; Oct. 2; v. 243; p. 237.
National Radiator Company, Johnstown, Pa. Cast-iron boilers and radiators for steam and hot-water heat. No. 118,992; Oct. 16; v. 243; p. 790.
Naumkeag Steam Cotton Co., Salem, Mass. Sheets and pillow-cases. No. 118,910; Oct. 9; v. 243; p. 521.
Newgass, Edwd., New York, N. Y. Certain named female wearing-apparel. No. 118,911; Oct. 9; v. 243; p. 521.
New York Blue Print Paper Company, New York, N. Y. Blue-print paper. No. 119,106; Oct. 23; v. 243; p. 1061.
New York Stamping Company, Brooklyn, N. Y. Fry-pans. No. 119,107; Oct. 23; v. 243; p. 1062.
Nonotuck Silk Company, Northampton, Mass. Piece goods made of silk. No. 118,912; Oct. 9; v. 243; p. 521.
Nonotuck Silk Company, Northampton, Mass. Thread and yarn made of silk, cotton, or wool. No. 118,993; Oct. 16; v. 243; p. 790.
Normandy, Charles O., Malden, Mass. Leather boots and shoes. No. 118,913; Oct. 19; v. 243; p. 521.
Nusystem Jewelry Mfg. Co. Inc., New York, N. Y. Jewelry for personal wear—viz., rings. No. 118,994; Oct. 16; v. 243; p. 790.
Nyal Company, Detroit, Mich. Concentrated lime-juice beverage. No. 119,201; Oct. 30; v. 243; p. 1306.
O'Brien Varnish Co., The, South Bend, Ind. Ready-mixed white enamel paint. No. 119,202; Oct. 30; v. 243; p. 1306.
Offray, Claudius M., New York, N. Y. Narrow fabrics—viz., ribbons and silk piece goods. No. 118,914; Oct. 9; v. 243; p. 521.
Omaha Beverage Company, Omaha, Nebr. Non-intoxicating non-alcoholic beverage sold as a soft drink. No. 119,203; Oct. 30; v. 243; p. 1306.
Oneida Community, Limited, Oneida, N. Y. Animal-traps. Nos. 119,204–7; Oct. 30; v. 243; p. 1306.
Ordinator Company, Inc., New York, N. Y. Metal shade-fittings. No. 118,805; Oct. 2; v. 243; p. 237.
Ornstein, Jacob W., Cincinnati, Ohio. Ladies' ready-to-wear garments—namely, skirts, petticoats, and waists. No. 119,208; Oct. 30; v. 243; p. 1306.
Overseas Products Corporation, New York, N. Y. Canned chicken, à la King, canned chicken soup, canned tomato soup. No. 119,108; Oct. 23; v. 243; p. 1062.
Owen Magnetic Car Co. of Philadelphia, The, Wilmington, Del., and Philadelphia, Pa. Automobiles. No. 118,806; Oct. 2; v. 243; p. 237.
Owings, Matthew R. D., Chicago, Ill. Trailer-truck for attachment to automobiles. No. 119,209; Oct. 30; v. 243; p. 1306.
P. Ballantine & Sons, Newark, N. J. Certain named non-alcoholic beverages. No. 119,029; Oct. 23; v. 243; p. 1059.
Packard Dressing Co., Stoughton, Mass. Preparation for cleaning and preserving certain named articles of wearing-apparel. No. 118,807; Oct. 2; v. 243; p. 237.
Passero, Alfred, Rochester, N. Y. Dyes for dyeing leather. No. 118,808; Oct. 2; v. 243; p. 237.
Patek Brothers, Milwaukee, Wis. Ready-mixed paints and varnishes. No. 119,109; Oct. 23; v. 243; p. 1062.
Paul F. Beich Co., Bloomington, Ill. Chocolates of all kinds. No. 119,033; Oct. 23; v. 243; p. 1059.
Pejepscot Paper Company, New York, N. Y. News-print paper. No. 118,809; Oct. 2; v. 243; p. 237.
Penn Leather Company, Philadelphia, Pa. Leather belting. No. 118,810; Oct. 2; v. 243; p. 237.
Peppard, Mayme J., Minneapolis, Minn. Hair-curlers. No. 119,098; Oct. 23; v. 243; p. 1061.
Periodical Publishing Co., Grand Rapids, Mich. Periodical published monthly. No. 118,995; Oct. 16; v. 243; p. 790.
Periodical Publishing Co., Grand Rapids, Mich. Periodical published monthly. No. 119,110; Oct. 23; v. 243; p. 1062.
Periodical Publishing Co., Grand Rapids, Mich. Periodical published monthly. No. 119,210; Oct. 30; v. 243; p. 1306.
Peter A. Frasse & Co. Inc., New York, N. Y. Steel rods and bars, cold-rolled sheet and strip steel, and steel wires. No. 119,065; Oct. 23; v. 243; p. 1060.
Pharis Tire & Rubber Co., The, Newark, Ohio. Pneumatic rubber tires and inner tubes therefor. No. 119,211; Oct. 30; v. 243; p. 1306.
Phila. Belting Co., Philadelphia, Pa. Power-transmission leather belting. No. 118,811; Oct. 2; v. 243; p. 237.
Phillips' Patents, Limited, London, England. Devices for preventing shoes from slipping up and down on the heel when in wear. No. 118,915; Oct. 9; v. 243; p. 521.
Pierce Company, The, East Rochester, N. Y. Leather-dressing oils. No. 119,111; Oct. 23; v. 243; p. 1062.
Pildoras Nacionales Corporation, New York, N. Y., and Los Angeles, Cal. Antimalarial pills. No. 119,112; Oct. 23; v. 243; p. 1062.
Pioneer Corporation, The, Chicago, Ill. Crucifixes and hierological statues and reliefs. No. 118,812; Oct. 2; v. 243; p. 237.
Platt-Maschek Company, The, Chicago, Ill. Toy furniture. No. 119,212; Oct. 30; v. 243; p. 1306.
Progressive Glue Co., New York, N. Y. Glue. No. 118,916; Oct. 9; v. 243; p. 521.
Purity Biscuit Company, The, Salt Lake City, Utah. Crackers, cakes, and biscuits. No. 118,996; Oct. 16; v. 243; p. 790.
Rapid Addressing Machine Co., New York, N. Y. Card-stencils. No. 119,113; Oct. 23; v. 243; p. 1062.
Ranson, John H., New York, N. Y. Pork sausage. No. 118,917; Oct. 9; v. 243; p. 521.
Raymond Hadley Corporation, New York, N. Y. Wheat-flour. Nos. 119,114–15; Oct. 23; v. 243; p. 1062.
Ream, Robert L., Pittsburgh, Pa. Canvas belting. No. 118,997; Oct. 16; v. 243; p. 790.
Reckitt Corporation, The, Chicago, Ill. Prepared roofing. No. 119,117; Oct. 23; v. 243; p. 1062.
Redsquare Company, The, Chicago, Ill. Children's games, building-blocks, and toy furniture. No. 118,813; Oct. 2; v. 243; p. 237.
Relling & Schoen, Inc., New York, N. Y. Silk and cotton and silk piece goods. No. 118,918; Oct. 9; v. 243; p. 521.
Remington Typewriter Company, Ilion and New York, N. Y. Publication published quarterly each year. No. 118,998; Oct. 16; v. 243; p. 790.
Remy, Schmidt & Pleissner, New York, N. Y. Linen and half-linen piece goods. No. 118,919; Oct. 9; v. 243; p. 521.
Repetti, New York, N. Y. Hard candy. No. 118,814; Oct. 2; v. 243; p. 237.
Rigney and Company, Brooklyn, N. Y. Food maple and sugar syrups, molasses, honey, sugar cream, lozenges, wafers. No. 118,999; Oct. 16; v. 243; p. 790.
Robbins Dress Company, The, New York, N. Y. Certain named clothing for women, misses, children, and infants. No. 119,000; Oct. 16; v. 243; p. 791.
Robert Treat Manufacturing Company, Newark, N. J. Snap-fasteners. No. 119,139; Oct. 23; v. 243; p. 1062.
Rosenberg Bros. & Co., San Francisco, Cal. Seeded raisins and dried fruits. No. 119,118; Oct. 23; v. 243; p. 1062.
Rosenwald & Weil (Incorporated), Chicago, Ill. Overcoats and summer-clothing consisting of men's suits, coats, vests, and trousers. No. 119,001; Oct. 16; v. 243; p. 791.
Rothenbucher, George E. R., Woodhaven, Ky. Adhesive metal-cement. No. 119,119; Oct. 23; v. 243; p. 1062.
Royal Remedies Company, Waukegan, Ill. Medicinal compound adapted to the treatment of certain named diseases. No. 119,120; Oct. 23; v. 243; p. 1062.
Rydale Remedy Company, Inc., The, Hampton, Va. Talcum powder. No. 119,121; Oct. 23; v. 243; p. 1062.
S. Flory Mfg. Co., Bangor, Pa. Brake-linings. No. 119,182; Oct. 30; v. 243; p. 1305.
S. F. Gilman Mill Co. (See Gilman, Stephen F., assignor.)
Sabin Robbins Paper Co., The, Middletown, Ohio. White plain flat rectangular blanks of cardboard of various sizes. No. 119,214; Oct. 30; v. 243; p. 1306.
Sagan, Jurko, Wilmington, Del. Salves used on suppurating sores, boils, contusions, and wounds. No. 118,816; Oct. 2; v. 243; p. 237.
Sassy Jane Manufacturing Company, Los Angeles, Cal. Women's dresses. No. 118,920; Oct. 9; v. 243; p. 521.
Sauquoit Toilet Paper Co., New Hartford, N. Y. Toilet-paper. No. 118,817; Oct. 2; v. 243; p. 237.
Savon Chemical Co. Inc., New York, N. Y. Semisolid, liquid, or pasty cleansing composition. No. 119,122; Oct. 23; v. 243; p. 1062.
Schack, Joseph, Chicago, Ill. Paper sheeting for ornamental purposes. No. 119,123; Oct. 23; v. 243; p. 1062.
Schoenfeld, Leo E., Chicago, Ill. Olive-oil. No. 118,818; Oct. 2; v. 243; p. 238.
Scott, Ernest A. F., Pasadena, Cal. Perfumes and deodorizers. No. 118,819; Oct. 2; v. 243; p. 238.
Screen Advertising, Inc., Washington, D. C. Motion-picture films and stereopticon-slides. No. 119,124; Oct. 23; v. 243; p. 1062.
Screen Advertising, Inc., Washington, D. C. Motion-picture films and stereopticon-slides. No. 119,125; Oct. 23; v. 243; p. 1062.
Sears, Roebuck and Co., Chicago, Ill. Mandolins, guitars, music-rolls—to wit, perforated music-sheets, &c. No. 119,126; Oct. 23; v. 243; p. 1062.
Seidel, Paul A., Seattle, Wash. Liquid paints. No. 119,127; Oct. 23; v. 243; p. 1062.
Seward Trunk and Bag Company, Petersburg, Va. Wardrobe-trunks. No. 119,128; Oct. 23; v. 243; p. 1062.
Sheet Metal M'f'g. Co. Inc., New York and Brooklyn, N. Y. Ventilators, stovepipe, elbows, &c. No. 118,820; Oct. 2; v. 243; p. 238.
Shoemaker Company, The, Oakwood, N. Y. Feed for farm-stock. Nos. 118,821–3; Oct. 2; v. 243; p. 238.

Sitterley, James E., New York, N. Y. Bimonthly publication. No. 118,824; Oct. 2; v. 243; p. 238.
Small, Hugh C., Chicago, Ill. Confections. No. 118,922; Oct. 9; v. 243; p. 521.
Smith-Dorsey Company, The, Lincoln, Nebr. Remedy for neuralgia and rheumatism in all forms. No. 118,825; Oct. 2; v. 243; p. 238.
Smith & Horton Co., Limited, Warren, Pa. Bluing and ammonia. No. 119,129; Oct. 23; v. 243; p. 1062.
Sohmer & Co., New York, N. Y. Pianos. No. 119,130; Oct. 23; v. 243; p. 1062.
Stecher Lithographic Co., Rochester, N. Y. Lithographed post-cards, folders, booklets, art-calendars, &c. No. 119,002; Oct. 16; v. 243; p. 791.
Steele, Geo., Chicago, Ill. Porcelain teeth, platinum-pin facings, combination sets, and teeth generally. No. 119,216; Oct. 30; v. 243; p. 1306.
Stern & Co., I., New York, N. Y. Solder-strips. No. 119,131; Oct. 23; v. 243; p. 1062.
Stoltz, James L., Cleveland, Ohio. Fertilizer. No. 118,829; Oct. 2; v. 243; p. 238.
Straus & Sons, L., New York, N. Y. Glassware. No. 118,830; Oct. 2; v. 243; p. 238.
Strauss, Max, New York, N. Y. Cotton piece goods and silk piece goods. No. 119,132; Oct. 23; v. 243; p. 1062.
Strohmeyer & Arpe Company, New York, N. Y. Sardines in oil, canned fish, preserved fruits, &c. No. 118,831; Oct. 2; v. 243; p. 238.
Sulferro-Sol Company, Inc., Birmingham, Ala. Medicine for treatment of certain named diseases. No. 119,133; Oct. 23; v. 243; p. 1062.
Summit Foundry Co., Geneva, N. Y. Coal, wood, gas, oil, and vapor stoves and ranges. No. 119,004; Oct. 16; v. 243; p. 791.
Sunbeam Motor Car Company, Limited, The, Wolverhampton, England. Aeroplanes and airships. No. 119,217; Oct. 30; v. 243; p. 1306.
Super-Lighting Company, Inc., New York, N. Y. Headlight-lenses. No. 119,218; Oct. 30; v. 243; p. 1306.
Swann, Charles C., Moscow, Idaho. Salad and mayonnaise dressings. No. 119,005; Oct. 16; v. 243; p. 791.
Swedish Separator Co., Chicago, Ill. Bicycles. No. 118,832; Oct. 2; v. 243; p. 238.
Syracuse Smelting Works, Brooklyn, N. Y. Babbitt metal. No. 119,134; Oct. 23; v. 243; p. 1062.
Syrup Products Company, The, Baltimore, Md. Non-alcoholic maltless beverages sold as soft drinks. No. 118,924; Oct. 9; v. 243; p. 521.
Talbot Manufacturing Co., Providence, R. I. Certain named articles made of or plated with precious metal, including German silver. No. 119,135; Oct. 23; v. 243; p. 1062.
Tarr & Wonson, Limited, Gloucester, Mass. Paints—namely, preservative paints for the bottoms of vessels. Nos. 119,136–7; Oct. 23; v. 243; p. 1062.
Thermoid Rubber Company, Hamilton township, Mercer county, N. J. Brake-lining. No. 118,833; Oct. 2; v. 243; p. 238.
Tichenor, Nimrod B., New York, N. Y. Overalls and work pants, shirts, and jumpers. Nos. 118,925–6; Oct. 9; v. 243; p. 521.
Tide Water Oil Co., New York, N. Y. Naphtha, gasolene, benzin, motor-spirits, petrol, kerosene, fuel-oil. No. 119,138; Oct. 23; v. 243; p. 1062.
Todd, Daniel, Sebastopol, Cal. Washing-powders. No. 119,006; Oct. 16; v. 243; p. 791.
Togan-Stiles Company, The, Grand Rapids, Mich. Sectional buildings. No. 119,007; Oct. 16; v. 243; p. 791.
Torsch Packing Co., Baltimore, Md. Canned fruits, vegetables, oysters, shrimp, fresh fruit, &c. No. 119,008; Oct. 16; v. 243; p. 791.
Triangle Conduit Co. Inc., Brooklyn, N. Y. Electrical conduits. No. 118,834; Oct. 2; v. 243; p. 238.
Triangle Pure Food Co., The, New York, N. Y. Sardellenbutter, salmon caviar, mustard, mayonnaise dressing, salmon-butter, anchovy-butter, and peanut-butter. No. 119,140; Oct. 23; v. 243; p. 1063.
Turner, Howard B., Mount Sterling, Ky. Smoking and chewing leaf-tobacco. No. 119,219; Oct. 30; v. 243; p. 1306.
U. S. Expansion Bolt Co., New York, N. Y. Toggle-bolts. No. 118,836; Oct. 2; v. 243; p. 238.
Uhrenfabrik von J. Rauschenbach's Erben vormals: International Watch Co., Schaffhausen, Switzerland. Watches, watch cases, and dials. No. 119,141; Oct. 23; v. 243; p. 1063.
United Dollar Shirt Shops, Incorporated, Pittsburgh, Pa. Certain named men's clothing. No. 118,927; Oct. 9; v. 243; p. 521.
United Drug Company, Boston, Mass. Certain named rubber goods. No. 118,835; Oct. 2; v. 243; p. 238.
United Smelting & Aluminum Company, Inc., New Haven, Conn. Certain named metals and metal castings and forgings. No. 119,142; Oct. 23; v. 243; p. 1063.
United States Rubber Company, New Brunswick, N. J., and New York, N. Y. Pneumatic pillows. No. 118,928; Oct. 9; v. 243; p. 521.
United States Rubber Company, New Brunswick, N. J., and New York, N. Y. Certain named dental, medical, and surgical appliances. No. 118,929; Oct. 9; v. 243; p. 521.
United States Rubber Company, New Brunswick, N. J., and New York, N. Y. Rubber cement. No. 118,930; Oct. 9; v. 243; p. 521.
United States Rubber Company, New Brunswick, N. J., and New York, N. Y. Rubber horseshoes and horseshoe-pads. No. 118,931; Oct. 9; v. 243; p. 521.
United States Rubber Company, New Brunswick, N. J., and New York, N. Y. Rubber pails and hat-bags. No. 118,932; Oct. 9; v. 243; p. 521.
United States Rubber Company, New Brunswick, N. J., and New York, N. Y. Certain named clothing. No. 118,933; Oct. 9; v. 243; p. 521.
United States Rubber Company, New Brunswick, N. J., and New York, N. Y. Powdered soapstone. No. 119,009; Oct. 16; v. 243; p. 791.
United States Rubber Company, New Brunswick, N. J., and New York, N. Y. Insulated wire and friction-tape. No. 119,143; Oct. 23; v. 243; p. 1063.
United States Rubber Company, New Brunswick, N. J., and New York, N. Y. Furnace-bulbs, basin-plugs, force-cups, horn-bulbs, &c. No. 119,144; Oct. 23; v. 243; p. 1063.
Viegelmann, Robert, New York, N. Y. Certain named women's and children's embroidered cotton or silk garments. No. 118,935; Oct. 9; v. 243; p. 522.
Von Epler, Joseph, New York, N. Y. Non-alcoholic beverage composed mainly of fruit-juices. No. 119,220; Oct. 30; v. 243; p. 1307.
Vulcanite Manufacturing Co., Lindenhurst, N. Y. Snap-fasteners. No. 119,145; Oct. 23; v. 243; p. 1063.
W. Wren & Co. Limited, Northampton, England. Boot and shoe polishes and creams, saddle and harness paste. No. 119,013; Oct. 16; v. 243; p. 791.
W. C. Munn Company, Houston, Tex. Corsets. No. 118,988; Oct. 16; v. 243; p. 790.
W. H. McElwain Company, Boston, Mass. Boots and shoes made of certain named leather. No. 118,894; Oct. 9; v. 243; p. 520.
W. J. Dennis & Company, Chicago, Ill. Weather-stripping. No. 119,055; Oct. 23; v. 243; p. 1060.
W. J. Dennis & Company, Chicago, Ill. Squeegee window-cleaners. No. 119,056; Oct. 23; v. 243; p. 1061.
W. J. Dennis & Company, Chicago, Ill. Weather-stripping. No. 119,177; Oct. 30; v. 243; p. 1305.
Wachenheimer Bros., Providence, R. I. Certain named articles made of or plated with precious metal, including German silver. No. 119,010; Oct. 16; v. 243; p. 791.
Waldes & Company of New Jersey, New York, N. Y. Certain named prints and publications. Nos. 119,221–2; Oct. 30; v. 243; p. 1307.
Wallace & Co., Brooklyn, N. Y. Chocolates and candies. No. 118,837; Oct. 2; v. 243; p. 238.
Wallach Bros., New York, N. Y. Scarfs, cravats, and neckties. No. 119,146; Oct. 23; v. 243; p. 1063.
Waltham Bag & Paper Company, Waltham, Mass. Paper bags and paper boxes. Nos. 119,147–8; Oct. 23; v. 243; p. 1063.
Wasmuth-Endicott Company, Andrews, Ind. Porcelain table-tops. No. 119,149; Oct. 23; v. 243; p. 1063.
Wattles, Waldo M., Litchfield, Mich. Cigars. No. 119,223; Oct. 30; v. 243; p. 1307.
Weiner, Carl, Chicago, Ill. Cordage constructed from glued ribbons made of cotton. No. 119,150; Oct. 23; v. 243; p. 1063.
Weinstein, Louis J., New York, N. Y. Certain named dental, medical, and surgical appliances. No. 119,151; Oct. 23; v. 243; p. 1063.
Weir Frog Company, The, Norwood, Ohio. Cast-steel frogs. No. 119,152; Oct. 23; v. 243; p. 1063.
Weiss-Bosley Sales Company, St. Louis, Mo. Certain named automobile equipments and supplies. No. 119,224; Oct. 30; v. 243; p. 1307.
Welding Supply Company, Inc., New York, N. Y. Metallic valves for general purposes, and particularly valves used for high-pressure shipping-containers. No. 118,838; Oct. 2; v. 243; p. 238.
Welsher, Samuel L., New York, N. Y. Witch-hazel cream and cold-cream. No. 118,839; Oct. 2; v. 243; p. 238.
Western Clock Co., Peru, Ill. Alarm-clocks. No. 119,011; Oct. 16; v. 243; p. 791.
Western Thread Company, Elgin, Ill. Floss, thread, machine-twist, darning-cotton, &c. No. 119,012; Oct. 16; v. 243; p. 791.
Wex, Harry F., Milwaukee, Wis. Disinfectant and insecticide preparations in powder and liquid form, &c. No. 119,153; Oct. 23; v. 243; p. 1063.
White Cross Chemical Company, Lynn, Mass. Insecticide and deodorizer. No. 119,154; Oct. 23; v. 243; p. 1063.
Wild Gardens of Acadia, Bar Harbor, Me. Printed books and pamphlets. No. 118,840; Oct. 2; v. 243; p. 238.
William G. Davidson & Company, Philadelphia, Pa. Wool. No. 118,956; Oct. 16; v. 243; p. 789.
Wills Mfg. Co., Mendota, Ill. Stock-tank heater. No. 118,841; Oct. 2; v. 243; p. 238.
Windsor Material Company, St. Louis, Mo. Cement plaster used for plastering walls. No. 119,155; Oct. 23; v. 243; p. 1063.
Wm. F. Read & Sons Company, Philadelphia, Pa. Woolen dress fabrics. No. 119,116; Oct. 23; v. 243; p. 1062.
Wolf, Fred W., Chicago, Ill. Refrigerating-machines and parts thereof and refrigerator-boxes. No. 119,156; Oct. 23; v. 243; p. 1063.
Wolf, Fred W., Chicago, Ill. Refrigerating-machines and parts thereof and refrigerator-boxes. No. 119,225; Oct. 30; v. 243; p. 1307.

World's Dispensary Medical Association, Buffalo, N. Y. Proprietary medicines and remedies for the treatment of certain named diseases and ailments. No. 119,157; Oct. 23; v. 243; p. 1063.
Wrock & Schueler, Detroit, Mich. Men's and boys' leather boots and shoes. No. 118,936; Oct. 9; v. 234; p. 522.
Wyman, Partridge & Co., Minneapolis, Minn. Women's, misses', and children's coats, women's and misses' suits and dresses. No. 119,158; Oct. 23; v. 243; p. 1063.
Ziff, Joseph, Detroit, Mich. Suspenders. No. 118,937; Oct. 9; v. 243; p. 522.
Zuck & Sons, C. W., Erie, Pa. Lettuce. No. 119,159; Oct. 23; v. 243; p. 1063.

ALPHABETICAL LIST OF REGISTRANTS OF LABELS.

A. E. Rittwagen, New York, N. Y. "Rittwagen Allash Kummel." (For Allash Kummel.) No. 20,315; Oct. 9; v. 243; p. 523.
Armour & Company, Chicago, Ill. "'Transparosa' Complexion Glycerine Soap." (For Toilet Soap.) No. 20,312; Oct. 9; v. 243; p. 523.
Asch, Leonard C., New York, N. Y. "Annette Kellermann Two in One Bathing Suit." (For Bathing-Suits.) No. 20,298; Oct. 2; v. 243; p. 239.
Aufrecht, Joseph R. A., New York, N. Y. "Victorin." (For Polish.) No. 20,320; Oct. 16; v. 243; p. 792.
Black Cat Textiles Company, Kenosha, Wis. "Cooper's Bennington Summerwear." (For Summer Wear.) No. 20,342; Oct. 30; v. 243; p. 1308.
Buttlar, Robert, New York, N. Y. "Arbeco." (For Pepper.) No. 20,343; Oct. 30; v. 243; p. 1308.
California Sanitary Canning Co., Los Angeles, Cal. "Red-Ripe." (For Canned Tomatoes.) No. 20,321; Oct. 16; v. 243; p. 792.
California Sanitary Canning Co., Los Angeles, Cal. "Ful-Ripe." (For Canned Peaches.) No. 20,322; Oct. 16; v. 243; p. 792.
Carnation Milk Products Company, Seattle, Wash. "Carnation." (For Milk Products and More Particularly Butter.) No. 20,313; Oct. 9; v. 243; p. 523.
Charles S. Gove Company, Boston, Mass. "$1.000 Pure Straight Whiskey." (For Whisky.) No. 20,337; Oct. 23; v. 243; p. 1064.
Chas. Chipman's Sons Co. Inc., New York, N. Y. "Glad." (For Stockings.) No. 20,344; Oct. 30; v. 243; p. 1308.
Chr. Hansen's Laboratory, Inc., Hansen Islands, Little Falls, N. Y. "Have Some Junket!" (For Hansen's Junket Tablets.) No. 20,314; Oct. 9; v. 243; p. 523.
Cohen, Nathan B., Scranton, Pa. "Bestyette." (For Hair-Nets.) No. 20,345; Oct. 30; v. 243; p. 1308.
Conrad, Charles F., New York, N. Y. "Dr. Conrad's Health Food." (For Food.) No. 20,299; Oct. 2; v. 243; p. 239.
Donald Company, The, Grand Island, Nebr. "Rob Roy." (For Coffee.) No. 20,334; Oct. 23; v. 243; p. 1064.
E. B. Read & Son Co., Baltimore, Md. "Carried Home." (For Cigars.) No. 20,349; Oct. 30; v. 243; p. 1308.
Elsner-Mendelson Co., New York, N. Y. "Hoffex." (For a Non-Alcoholic Beverage.) No. 20,300; Oct. 2; v. 243; p. 239.
Gordon-Thorne Company, Utica, N. Y. "Baby Bunting Powder." (For Toilet Powder.) No. 20,301; Oct. 2; v. 243; p. 239.
Great Radium Spring Water Company, Inc., Brooklyn, N. Y. "Mayflower." (For Ginger-Ale.) No. 20,336; Oct. 23; v. 243; p. 1064.
Henry Sonneborn & Co. Inc., Baltimore, Md. "Styleplus Clothes $17 and $21." (For Clothing of Men and Boys.) No. 20,327; Oct. 16; v. 243; p. 792.
Henry Sonneborn & Co. Inc., Baltimore, Md. "Styleplus Clothes $21." (For Clothing for Men and Boys.) No. 20,328; Oct. 16; v. 243; p. 792.
Henry Sonneborn & Co. Inc., Baltimore, Md. "Styleplus Clothes $17 and $21." (For Clothing of Men and Boys.) No. 20,329; Oct. 16; v. 243; p. 792.
Henry Sonneborn & Co. Inc., Baltimore, Md. "Styleplus Clothes $21 and $25." (For Clothing of Men and Boys.) No. 20,330; Oct. 16; v. 243; p. 792.
Henry Sonneborn & Co. Inc., Baltimore, Md. "Styleplus Clothes $25." (For Clothing of Men and Boys.) No. 20,331; Oct. 16; v. 243; p. 792.
Hollander, Joseph M., Braddock, Pa. "St. Joseph's." (For Tea.) No. 20,338; Oct. 23; v. 243; p. 1064.
Honytone Manufacturing Company, Somerville, Mass. "Honytone." (For a Medicinal Preparation.) No. 20,302; Oct. 2; v. 243; p. 239.
Huffman & Van Camp, Westville, Ill. "Huffman & Van Camp Asthma Remedy." (For a Medicinal Preparation.) No. 20,346; Oct. 30; v. 243; p. 1308.
Iowa Pearl Button Company, Muscatine, Iowa. "Blue Bird Pearl Button." (For Pearl-Button-Display Sales-Boxes.) No. 20,303; Oct. 2; v. 243; p. 239.
Iowa Pearl Button Company, Muscatine, Iowa. "Pearl Buttons of Distinction." (For Pearl-Button-Display Sales-Boxes.) No. 20,304; Oct. 2; v. 243; p. 239.
Jidas, Bros., & Co., J. D., Chicago, Ill. "Try Me." (For a Cleaner for Silver, Glassware, and Polished Metals.) No. 20,305; Oct. 2; v. 234; p. 239.
Le Roy, Harry, Los Angeles, Cal. "The Garden of Allah Oriental Incense." (For Incense.) No. 20,323; Oct. 16; v. 243; p. 792.
McQuay-Norris Mfg. Co., St. Louis, Mo. "Superoyl." (For Rings.) No. 20,306; Oct. 2; v. 243; p. 239.
McQuay-Norris Mfg. Co., St. Louis, Mo. "Potlicker." (For Rings.) No. 20,307; Oct. 2; v. 243; p. 239.
Modern Drug & Commercial Co. Inc., New York, N. Y. "Apollo Water." (For Artificially-Prepared Medicinal Water.) No. 20,324; Oct. 16; v. 243; p. 792.
Moore, David, Cleveland, Ohio. "Colonial Furniture Polish." (For Furniture-Polish.) No. 20,325; Oct. 16; v. 243; p. 792.
Moore-Shenkberg Grocer Co., Sioux City, Iowa. "Quick Suds." (For Borax Soap Powder.) No. 20,326; Oct. 16; v. 243; p. 792.
Nirdlinger, Bertha, Leavenworth, Kans. "B. N. Universal." (For a Polish.) No. 20,347; Oct. 30; v. 243; p. 1308.
Omaha Beverage Company, Omaha, Nebr. "Oma." (For a Non-Alcoholic Beverage.) No. 20,348; Oct. 30; v. 243; p. 1308.
Pinneo, Roger D., Seattle, Wash. "American Milk." (For Evaporated Milk.) No. 20,308; Oct. 2; v. 243; p. 239.
Puritan Manufacturing Co., Portland, Oreg. "R-Porter." (For Beverages and Non-Alcoholic Drinks.) No. 20,339; Oct. 23; v. 243; p. 1064.
Robert Treat M'f'g Co., Newark, N. J. "Zip." (For Snap-Fasteners.) No. 20,332; Oct. 16; v. 243; p. 792.
Schulze, Paul, Chicago, Ill. "Victor." (For Bread.) No. 20,340; Oct. 23; v. 243; p. 1064.
Smith & Son, J. H., Upper Sandusky, Ohio. "Silver Tip." (For Potatoe Chips.) No. 20,350; Oct. 30; v. 243; p. 1308.
Smith & Nessle Co., Inc., New York, N. Y. "Ambassador." (For Sardines.) No. 20,351; Oct. 30; v. 243; p. 1308.
Taylor, William E., Battle Creek, Mich. "'Sammie's' Hav-A-Sac." (For Chocolate Chips.) No. 20,309; Oct. 2; v. 243; p. 239.
Terre Haute Brewing Company, Terre Haute, Ind. "C. V." (For a Non-Intoxicating Beverage Known as Champagne Velvet.) Nos. 20,352–3; Oct. 30; v. 243; p. 1308.
Thornton Mineral Springs Company, Chicago, Ill. "Thornton Mineral Water." (For Mineral Waters.) Nos. 20,316–17; Oct. 9; v. 243; p. 523.
Tincture & Extract Company, Philadelphia, Pa. "Glyco-Iodine." (For Iodin.) No. 20,354; Oct. 30; v. 243; p. 1308.
Tucker, Charles O., Boston, Mass. "The O. V. Hand Painted Paper Dolls." (For Dolls.) No. 20,318; Oct. 9; v. 243; p. 523.
Val. Blatz, Jr. Candy Co., Milwaukee, Wis. "To-day's Chocolate Assorted." (For Candy-Boxes.) No. 20,310; Oct. 2; v. 243; p. 239.
W. H. Dyer Company Evansville, Ind., Evansville, Ind. "W. H. Dyer's Own Pack." (For Pork and Beans.) No. 20,335; Oct. 23; v. 243; p. 1064.
Wadsworth, Howland & Co., Incorporated, Boston, Mass. "Inorout." (For Varnishes.) No. 20,333; Oct. 16; v. 243; p. 792.
Wakelee's Inc., San Francisco, Cal. "Wakelee's." (For Liquid Complexion-Powder.) No. 20,355; Oct. 30; v. 243; p. 1308.
Walker, Robert R., and Jesse M. Owen, Elko, Nev. "Si-Ya-Ma." (For a Blood-Purifier.) No. 20,356; Oct. 30; v. 243; p. 1308.
Walter Bros. Brewing Co., Menasha, Wis. "Dry-Cure." (For Non-Intoxicating Cereal Beverages.) No. 20,319; Oct. 9; v. 243; p. 523.
Wenz, Mary L., Boston, Mass. "Acidulated Cartridges." (For Confectionery.) No. 20,311; Oct. 2; v. 243; p. 239.
Worthley & Strong Fruit Co., Inc., Riverside, Cal. "California Beauty." (For Oranges.) No. 20,341; Oct. 23; v. 243; p. 1064.

PRINTS.

Bailey Non-Stall Differential Corporation, Chicago, Ill. "Brains In The Rear Axle Power To The Wheel That Can Use It." (For Differentials for Motor-Driven Vehicles.) No. 4,814; Oct. 23; v. 243; p. 1064.

Black Cat Textiles Company, Kenosha, Wis. "Cooper's Bennington Summer-Wear." (For Summer Wear.) No. 4,818; Oct. 30; v. 243; p. 1308.

Bunte Brothers, Chicago, Ill. "Bunte 'Made.'" (For Cocoa.) No. 4,815; Oct. 23; v. 243; p. 1064.

Cream of Wheat Co., Minneapolis, Minn. "Who Can Spell Cream of Wheat." (For Wheat Breakfast Food.) No. 4,805; Oct. 16; v. 243; p. 792.

Dexter Yarn Company, Pawtucket, R. I. "Dexter Knitting Cotton." (For Knitting-Cotton.) No. 4,816; Oct. 23; v. 243; p. 1064.

Dixie Oil & Refining Co., San Antonio, Tex. "Ever Ready Lubricant." (For a Lubricant.) No. 4,819; Oct. 30; v. 243; p. 1308.

Hayward Company, The, New York, N. Y. "Hayward Buckets Dig For All The World." (For Buckets.) No. 4,798; Oct. 2; v. 243; p. 239.

Henry Sonneborn & Co., Inc., Baltimore, Md. "Styleplus Clothes $21 and $25." (For Clothing for Men and Boys.) No. 4,806; Oct. 16; v. 243; p. 792.

Henry Sonneborn & Co., Inc., Baltimore, Md. "Styleplus Clothes $25." (For Clothing for Men and boys.) No. 4,807; Oct. 16; v. 243; p. 792.

Henry Sonneborn & Co., Inc., Baltimore, Md. "Styleplus Clothes $21." (For Clothing for Men and Boys.) No. 4,808; Oct. 16; v. 243; p. 792.

Henry Sonneborn & Co., Inc., Baltimore, Md. "Styleplus Clothes $17 and $21." (For Clothing for Men and Boys.) No. 4,809; Oct. 16; v. 243; p. 792.

Henry Sonneborn & Co., Inc., Baltimore, Md. "Styleplus Clothes $17 and $21." (For Clothing for Men and Boys.) No. 4,810; Oct. 16; v. 243; p. 792.

Hitt, J. O., Staunton, Va. "Hitt's All-Healing Tobacco Ointment For External Use Only." (For Tobacco Ointment.) No. 4,817; Oct. 23; v. 243; p. 1064.

James S. Kirk & Company, Chicago, Ill. "It is Cheaper to Buy Good Soap Than New Clothes." (For Soap.) No. 4,804; Oct. 9; v. 243; p. 523.

James S. Kirk & Company, Chicago, Ill. "Good Soap cheaper than new clothes." (For Soap.) No. 4,813; Oct. 16; v. 243; p. 792.

Kellogg Toasted Corn Flakes Co., Battle Creek, Mich. "A Serving of Kellogg's For Less Than a Cent. The most delicious things sometimes cost the least. What is there more tempting at breakfast, between meals, or for the evening snack than these delicate thin flakes with their appetizing flavor and the wholesome quality of toasted corn! Keep some packages of Kellogg's—the original Toasted Corn Flakes—always in the cupboard, ready for the call of the healthy, hungry young folks of the family." (For Toasted Corn Flakes.) No. 4,800; Oct. 2; v. 243; p. 239.

Kellogg Toasted Corn Flakes Co., Battle Creek, Mich. "Help the Food Situation by Eating More Corn. Boys and girls, if you don't know how delicious a food Corn can be, try Kellogg's Toasted Corn Flakes. Patriotic housewives who are seeking foods that are tempting and inexpensive, find that Kellogg's costs less than a penny a serving. Kellogg's are the Flakes that are delicately toasted and thin—the original Toasted Corn Flakes—tender and crisp, with that appetizing flavor you can't mistake or forget." (For Toasted Corn Flakes.) No. 4,801; Oct. 2; v. 243; p. 239.

M. Heminway & Sons Silk Co., Watertown, Conn., and New York, N. Y. "Heminway's Crochet Silks." (For Crochet and Embroidery Silks.) No. 4,799; Oct. 2; v. 243; p. 239.

Noglare Auto Lens Co., Portland, Oreg. "Noglare Auto Lens." (For Lenses for Automobile-Lamps.) No. 4,802; Oct. 2; v. 243; p. 239.

Pabst Brewing Company, Milwaukee, Wis. "Pablo The Happy Hoppy Drink." (For a Non-Intoxicating Beverage.) No. 4,820; Oct. 30; v. 243; p. 1308.

Safety Press Inc., The, New York, N. Y. "Safety Engineering, The Magazine Of Safety—Accident Indicator." (For Safety Engineering Magazine.) No. 4,821; Oct. 30; v. 243; p. 1308.

Swartz Electric Company, Indianapolis, Ind. "It Saves Mother." (For Individual Electric Power Plants.) No. 4,811; Oct. 16; v. 243; p. 792.

Wilcox, C. B., Corry, Pa. "Old Hickory Sausage." (For Sausage.) No. 4,812; Oct. 16; v. 243; p. 792.

Willard Storage Battery Company, The, Cleveland, Ohio. "Battery Display Sign." (For Storage Batteries.) No. 4,803; Oct. 2; v. 243; p. 239.

DISCLAIMER.

Huff, Russell, Detroit, Mich.: disclaimer filed by assignee, Dodge Brothers. Oil-guard. No. 1,207,759; disclaimer filed Oct. 15, 1917; v. 243; p. 1069.

ALPHABETICAL LIST OF INVENTIONS

FOR WHICH

PATENTS WERE ISSUED DURING THE MONTH OF OCTOBER, 1917.

[Abbreviations: "Gaz."=Official Gazette.]

Abrasive articles, Making. H. Urtel. No. 1,243,783; Oct. 23; v. 243; p. 835.

Acetaldehyde, Producing. E. F. Scheller. No. 1,244,901; Oct. 30; v. 243; p. 1212.

Acetaldehyde, Producing. E. F. Scheller. No. 1,244,902; Oct. 30; v. 243; p. 1212.

Acetyl-celluloses, Modifying. E. Knoevenagel. No. 1,241,995; Oct. 2; v. 243; p. 168.

Adding and subtracting machine. F. W. Rodolf. No. 1,243,224; Oct. 16; v. 243; p. 631.

Adding-machine. J. A. Cheape. No. 1,242,921; Oct. 16; v. 243; p. 537.

Adding-machine. A. A. Horton. No. 1,243,839; Oct. 23; v. 243; p. 853.

Adding-machine. C. E. James. No. 1,244,335; Oct. 23; v. 243; v. 1002.

Adding-machine. F. C. Rinsche. No. 1,243,763; Oct. 23; v. 243; p. 829.

Addressing-machine J. H. Ford. No. 1,241,946; Oct. 2; v. 243; p. 152.

Adhesive. G. H. Brabrook. No. 1,244,463; Oct. 30; v. 243; p. 1078.

Adhesives and fibers, Machine for manufacturing material from. J. W. H. Dew. No. 1,241,938; Oct. 2; v. 243; p. 150.

Adjustible-head wrench. J. A. Anderson. No. 1,242,097; Oct. 2; v. 243; p. 199.

Adjustable table. D. B. Miller. No. 1,243,750; Oct. 23; v. 243; p. 825.

Advertising device. E. L. Sons. No. 1,243,354; Oct. 16; v. 243; p. 669.

Advertising device, Electrically-illuminated. H. Conover. No. 1,244,959; Oct. 30; v. 243; p. 1229.

Aerial craft, Cargo structure for. J. J. Reynolds and A. H. Jenkins. No. 1,243,556; Oct. 16; v. 243; p. 729.

Aerial crafts, Means for dropping projectiles from. B. H. Jackson. No. 1,242,553; Oct. 9; v. 243; p. 385.

Aerial mail-carrier. V. W. Miller. No. 1,242,835; Oct. 9; v. 243; p. 475.

Aerial railways, Switching means for. A. H. Strampe. No. 1,242,735; Oct. 9; v. 243; p. 443.

Aerial torpedo. F. H. Patton. No. 1,241,545; Oct. 2; v. 243; p. 24.

Aerial vessel. A. L. Gusey. No. 1,241,623; Oct. 2; v. 243; p. 51.

Aeroplane. W. R. Fuller. No. 1,242,540; Oct. 9; v. 243; p. 380.

Aeroplane construction and the like. A. P. Christensen. No. 1,244,470; Oct. 30; v. 243; p. 1080.

Agitator. W. Lindsay. No. 1,242,824; Oct. 9; v. 243; p. 471.

Agricultural implement. C. A. Peters. No. 1,245,121; Oct. 30; v. 243; p. 1277.

Air-brake system. W. J. Fried. No. 1,243,727; Oct. 23; v. 243; p. 816.

Air-brakes, Straight-air mechanism for. W. C. Webster. No. 1,244,804; Oct. 30; v. 243; p. 1181.

Air-compressor. W. Reavell. No. 1,242,040; Oct. 2; v. 243; p. 181.

Air-compressor, Rotary. P. L. Hibner. No. 1,242,692; Oct. 9; v. 243; p. 430.

Air-compressors, &c., Mechanism for operating. I. E. Brown. No. 1,243,586; Oct. 16; v. 243; p. 738.

Air-gas plants, Means for controlling the operation of. J. T. Graham. No. 1,243,509; Oct. 16; v. 243; p. 716.

Air-heating furnace. B. S. Sheridan. No. 1,242,992; Oct. 16; v. 243; p. 559.

Air, Method and apparatus for treating. W. T. Hoofnagle. No. 1,243,524; Oct. 16; v. 243; p. 720.

Aircraft, Air-pressure-maintenance chamber for. J. J. Reynolds. No. 1,243,557; Oct. 16; v. 243; p. 729.

Aircraft-covering material and making same. W. G. Clark. No. 1,243,041; Oct. 16; v. 243; p. 576.

Aircraft, Making covering material for. W. G. Clark. No. 1,243,054; Oct. 16; v. 243; p. 759.

Aircraft, Making covering material for. W. G. Clark. No. 1,243,655; Oct. 16; v. 243; p. 759.

Aircraft-propeller. J. H. Smyth. No. 1,243,885; Oct. 23; v. 243; p. 868.

Airship. J. M. Butcher. No. 1,242,766; Oct. 9; v. 243; p. 453.

Airship. P. J. Prokop. No. 1,244,367; Oct. 23; v. 243; p. 1010.

Airship-shed, Rotatable. C. Dornier. No. 1,241,720; Oct. 2; v. 243; p. 81.

Alarm: *See*—
Automatic alarm.
Burglar-alarm.
Fire-alarm.
Vehicle audible alarm.

Alarm device. E. Auñero. (Reissue.) No. 14,378; Oct. 23; v. 243; p. 1036.

Alarm signaling device. G. F. Long. No. 1,242,957; Oct. 16; v. 243; p. 548.

Alarm system. J. H. Safford. No. 1,241,888; Oct. 2; v. 243; p. 135.

Aluminum nitrid, Producing. H. L. Duncan. No. 1,241,834; Oct. 2; v. 243; p. 117.

Amalgams, Making. A. L. Halvorsen. No. 1,243,062; Oct. 16; v. 243; p. 583.

Ammonia from ammoniacal liquor, Extracting. N. Schuster. No. 1,244,903; Oct. 30; v. 243; p. 1212.

Ammonia, Producing. C. Bosch. No. 1,243,382; Oct. 16; v. 243; p. 677.

Ammonia, Producing. C. Bosch and A. Mittasch. No. 1,244,580; Oct. 30; v. 243; p. 1114.

Amusement apparatus. J. W. Hinricks. No. 1,244,735; Oct. 30; v. 243; p. 1162.

Amusement apparatus. H. E. Riehl. No. 1,242,865; Oct. 9; v. 243; p. 485.

Amusement device. E. J. Christ. No. 1,244,702; Oct. 30; v. 243; p. 1151.

Anchor-bolt. A. J. McDonald. No. 1,242,569; Oct. 9; v. 243; p. 391.

Anchoring device. G. H. Dillon. No. 1,244,432; Oct. 23; v. 243; p. 1030.

Anesthetic nerve-blocking tablet. A. E. Smith. No. 1,243,349; Oct. 16; v. 243; p. 668.

Animal-releasing device. G. Zohner. No. 1,242,302; Oct. 9; v. 243; p. 305.

Animal-trap. B. G. Burns. No. 1,243,588; Oct. 16; v. 243; p. 738.

Animal-trap. A. Mazurek. No. 1,243,088; Oct. 16; v. 243; p. 592.

Animal-trap. M. Mester. No. 1,242,462; Oct. 9; v. 243; p. 356.

Animal-trap. E. L. Neunecker. No. 1,244,060; Oct. 23; v. 243; p. 922.

Animal-trap. C. A. Stutzman. No. 1,242,737; Oct. 9; v. 243; p. 444.

Animal-trap. S. Taylor. No. 1,243,008; Oct. 16; v. 243; p. 565.

Animal-trap. J. A. Uhls. No. 1,244,563; Oct. 30; v. 243; p. 1109.

Annealing furnace, Metal-. R. Masters. No. 1,241,750; Oct. 2; v. 243; p. 90.

Anticreeper. H. G. Gillmor. No. 1,243,282; Oct. 16; v. 243; p. 648.

Anticreeper. J. R. Steele. No. 1,245,056; Oct. 30; v. 243; p. 1257.

Antiskidding device. E. E. Proulx. No. 1,242,238; Oct. 9; v. 243; p. 285.

Antiskidding device. A. L. Riker. No. 1,244,244; Oct. 23; v. 243; p. 974.

Antislipping attachment. P. A. Skiles. No. 1,242,056; Oct. 2; v. 243; p. 186.

Anvil, Metal-working work-holding. W. H. Wood. No. 1,243,125; Oct. 16; v. 243; p. 601.

Apparel, Apparatus for renovating wearing-. N. Rubenstein. No. 1,241,557; Oct. 2; v. 243; p. 29.

Apparel, Infant's. W. K. Jones. (Reissue.) No. 14,389; Oct. 30; v. 243; p. 1290.

Apron, Sanitary. J. L. Bornstein. No. 1,243,693; Oct. 23; v. 243; p. 803.

Arc-lights, Carbon-holder for. J. Gelb. No. 1,244,048; Oct. 23; v. 243; p. 916.

Arch-support. C. H. Druckenmiller. No. 1,241,832; Oct. 2; v. 243; p. 116.

Arch-support and heel-cushion, Combination. J. P. Calvey. No. 1,244,027; Oct. 23; v. 243; p. 910.

Armament, System of mobile. C. F. Dawson and L. W. Luellen. No. 1,244,431; Oct. 23; v. 243; p. 1030.

Armor, Non-skid F. H. Childs. No. 1,243,653; Oct. 16; v. 243; p. 759.

Artist's tablet. E. W. Long. No. 1,241,866; Oct. 2; v. 243; p. 126.

Asbestos-sheet connector. R. Levens. No. 1,244,876; Oct. 30; v. 243; p. 1202.

Ash-conveying system. A. P. Strong. No. 1,243,893; Oct. 23; v. 243; p. 870.
Ashes and the like, Receptacle for. H. A. Poppenbusen and A. P. Strong. No. 1,243,873; Oct. 23; v. 243; p. 864.
Assorting apparatus. J. Lomasney. No. 1,242,214; Oct. 9; v. 243; p. 277.
Atomizer. J. H. Hamlin. No. 1,243,514; Oct. 16; v. 243; p. 718.
Auger-bit. J. E. Doldt. No. 1,244,593; Oct. 30; v. 243; p. 1118.
Auto-light dimmer. A. J. Frascolla. No. 1,244,441; Oct. 23; v. 243; p. 1033.
Auto-signal. J. P. Kasper. No. 1,242,449; Oct. 9; v. 243; p. 351.
Automatic alarm. H. E. House. No. 1,242,349; Oct. 9; v. 243; p. 320.
Automatic brake. G. R. Maloney. No. 1,244,354; Oct. 23; v. 243; p. 1007.
Automobile. R. S. Fend. No. 1,244,045; Oct. 23; v. 243; p. 915.
Automobile. O. W. Peterson. No 1,243,549; Oct 16; v. 243; p. 727.
Automobile air-deflector. W. F. Gage. No. 1,242,541; Oct. 9; v. 243; p. 381.
Automobile and truck. W. D. Paxton. No. 1,242,588; Oct. 9; v. 243; p. 397.
Automobile auxiliary brake. J. O. Michaud. No. 1,243,960; Oct. 23; v. 243; p. 889.
Automobile-body. R. W. Pierson and T. F. Briody. No. 1,242,035; Oct. 2; v. 243; p. 180.
Automobile-brake mechanism. A. J. Scaife. No. 1,245,040; Oct. 30; v. 243; p. 1252.
Automobile-bumper. E. Parradee. No. 1,245,015; Oct. 30; v. 243; p. 1246.
Automobile bumper and lock, Combined. F. R. Procunier. No. 1,245,124; Oct. 30; v. 243; p. 1278.
Automobile-circuits, Distributer for. C. J. Wallace. No. 1,244,927; Oct. 30; v. 243; p. 1219.
Automobile-cooling apparatus. H. T. Thomas. No. 1,241,681; Oct. 2; v. 243; p. 68.
Automobile direction-indicating attachment. F. P. Van Der Veer. No. 1,242,393; Oct. 9; v. 243; p. 334.
Automobile direction-indicator. O. C. Baumgart. No. 1,241,904; Oct. 2; v. 243; p. 140.
Automobile-door curtain. G. E. Bishop. No. 1,244,692; Oct. 30; v. 243; p. 1147.
Automobile-engines, Lifting device for. H. Mayer and G. Schlatter. No. 1,242,712; Oct. 9; v. 243; p. 436.
Automobile extension, Adjustable. N. L. Olson. No. 1,243,862; Oct. 23; v. 243; p. 860.
Automobile-fender, Collapsible. W. Colvin. No. 1,241,709; Oct. 2; v. 243; p. 76.
Automobile gasolene-tanks, Register and indicator for. C. Eberhart, Jr. No. 1,242,664; Oct. 9; v. 243; p. 421.
Automobile-hood. S. A. Deanes. No. 1,241,933; Oct. 2; v. 243; p. 149.
Automobile-hood. H. E. Kaller. No. 1,242,813; Oct. 9; v. 243; p. 467.
Automobile-lock. G. B. Reed. No. 1,244,893; Oct. 30; v. 243; p. 1209.
Automobile-pedals, Extension attachment for. R. Lawrence. No. 1,242,819; Oct. 9; v. 243; p. 470.
Automobile power-transmitting apparatus. R. D. Braden and C. D. Wright. No. 1,243,649; Oct. 16; v. 243; p. 758.
Automobile roller-jack. A. C. Hopkins. No. 1,242,111; Oct. 2; v. 243; p. 204.
Automobile-sander. A. A. Roth and B. B. James. No. 1,243,632; Oct. 16; v. 243; p. 753.
Automobile-signal. C. F. Gromann. No. 1,243,510; Oct. 16; v. 243; p. 716
Automobile-signal. J. H. MacLean. No. 1,243,320; Oct. 16; v. 243; p. 660.
Automobile-signal. R. L. B. Struble. No. 1,244,560; Oct. 30; v. 243; p. 1108.
Automobile signaling device. T. J. and E. J. Downing. No. 1,242,896; Oct. 9; v. 243; p. 494.
Automobile-sleeper. F. D. Hall. No. 1,243,288; Oct. 16; v. 243; p. 650.
Automobile steering-gear. H. B. McKenzie. No. 1,243,317; Oct. 16; v. 243; p. 659.
Automobile steering mechanism. H. T. Hazard. (Reissue.) No. 14,385; Oct. 30; v. 243; p. 1286.
Automobile-steering-wheel lock. J. L. Hughes. No. 1,243,941; Oct. 23; v. 243; p. 883.
Automobile-switch control. H. E. Miller. No. 1,241,752; Oct. 2; v. 243; p. 91.
Automobile-top. One-man folding. E. P. Porcher. No. 1,244,366; Oct. 23; v. 243; p. 1010.
Automobile-tops, Bow-clamp for. C. V. Bates. No. 1,244,281; Oct. 23; v. 243; p. 986.
Automobile traffic-signal. F. J. Koch. No. 1,244,990; Oct. 30; v. 243; p. 1238.
Automobile traffic-signal. A. B. Trott. No. 1,244,259; Oct. 23; v. 243; p. 979.
Automobile-wheels, Traction device for. C. F. Highfield. No. 1,241,848; Oct. 2; v. 243; p. 121.
Automobile wind-shield. E. B. Hess. No. 1,243,937; Oct. 23; v. 243; p. 882.
Automobile wind-shield. E. B. Hess. No. 1,244,732; Oct. 30; v. 243; p. 1161.
Automobile wind-shield. E. B. Hess. No. 1,244,854; Oct. 30; v. 243; p. 1196.
Automobile wind-shield. E. B. Hess. No. 1,244,855; Oct. 30; v. 243; p. 1196.
Automobiles and other vehicles, Elastic suspension device for the frames of. W. J. P. Moore. No. 1,243,752; Oct. 23; v. 243; p. 825.
Automobiles and other vehicles, Running-gear for. W. S. Proskey. No. 1,243,217; Oct. 16; v. 243; p. 629.
Automobiles and similar vehicles, Locking device for. T. J. O'Brien. No. 1,244,237; Oct. 23; v. 243; p. 972.
Automobiles, Automatic gear-shift for. E. L. Miller. No. 1,244,629; Oct. 30; v. 243; p. 1128.
Automobiles, Auxiliary constant-fuel-supply apparatus for. J. W. Wellington. No. 1,244,667; Oct. 30; v. 243; p. 1140.
Automobiles, Carrier attachment for. H. L. Biegert. No. 1,243,034; Oct. 16; v. 243; p. 574.
Automobiles, Combined dash and toe board for. H. G. Moore. No. 1,243,962; Oct. 23; v. 243; p. 890.
Automobiles, Device for removing stalled. E. Sypkens. No. 1,241,679; Oct. 2; v. 243; p. 68.
Automobiles, Dirigible-light apparatus for. J. H. Reed. No. 1,242,042; Oct. 2; v. 243; p. 182.
Automobiles into trucks, Means for converting. E. Greer. No. 1,244,727; Oct. 30; v. 243; p. 1159.
Automobiles, Power-transmitting attachment for. F. V. Chudomelka. No. 1,244,424; Oct. 23; v. 243; p. 1028.
Automobiles, Tractor attachment for. G. S. Jacobs. No. 1,243,414; Oct. 16; v. 243; p. 686.
Automobiles, Transmission for. A. G. Herreshoff. No. 1,242,803; Oct. 9; v. 243; p. 464.
Awning. H. H. Schroyer. No. 1,243,988; Oct. 23; v. 243; p. 897.
Axle-housings, Making. R. E. Fries. No. 1,243,398; Oct. 16; v. 243; p. 681.
Axle-lubricating device. W. P. Kearney. No. 1,243,946; Oct. 23; v. 243; p. 885.
Axle, Motor-vehicle. H. W. Alden. No. 1,241,893; Oct. 2; v. 243; p. 136.
Axle, Self-lubricating. J. J. Carney. No. 1,244,029; Oct. 23; p. 243; p. 910.
Axle, Vehicle-. M. E. Griswold. No. 1,243,401; Oct. 16; v. 243; p. 682.
Bag: *See*—
Sleeping-bag.
Bag clasp, Hand-. F. J. Quigan. No. 1,241,657; Oct. 2; v. 243; p. 60.
Bag-fastener. J. L. Orr. No. 1,243,865; Oct. 23; v. 243; p. 861.
Bag fastener, Grain-. W. Taggart. No. 1,243,233; Oct. 16; v. 243; p. 633.
Bag fastening and locking mechanism. H. Tarshis, L. Berzon, and J. Brezin. No. 1,245,132; Oct. 30; v. 243; p. 1281.
Bag-holder. R. Allen. No. 1,242,755; Oct. 9; v. 243; p. 450.
Bag holder and filler. J. R. Runions. No. 1,244,900; Oct. 30; v. 243; p. 1211.
Bag-tie. W. Taggart. No. 1,243,232; Oct. 16; v. 243; p. 633.
Bags, Device for wire-tying. A. S. Kuhn and R. R. Miller. No. 1,242,353; Oct. 9; v. 243; p. 321.
Ball-ring, Sanitary. G. A. Hartman, Sr. No. 1,244,980; Oct. 30; v. 243; p. 1235.
Bait, Artificial. E. L. Cox. (Reissue.) No. 14,377; Oct. 16; v. 243; p. 768.
Bait, Fishing-. J. L. Donaly. No. 1,243,391; Oct. 16; v. 243; p. 680.
Balanced lubricator. S. E. Burch. No. 1,243,252; Oct. 16; v. 243; p. 638.
Balancing-machine, Liquid dynamic. C. B. Rodgers. No. 1,243,345; Oct. 16; v. 243; p. 667.
Bale and package tie. C. Dousei. No. 1,242,156; Oct. 9; v. 243; p. 260.
Baler, Hay-. E. T. Hudson. No. 1,241,981; Oct. 2; v. 243; p. 162.
Baler, Hay-. H. Peacock. No. 1,241,548; Oct. 2; v. 243; p. 25.
Baling-press. J. D. Bickerstaff. No. 1,241,491; Oct. 2; v. 243; p. 4.
Ball: *See*—
Golf and other playing-ball.
Ball-key. W. Gadke. No. 1,244,848; Oct. 30; v. 243; p. 1194.
Ball-retainer. S. Schneider. No. 1,241,669; Oct. 2; v. 243; p. 64.
Ball-shooter. J. Straka. No. 1,244,793; Oct. 30; v. 243; p. 1178.
Banana-protector. J. J. Burk. No. 1,244,954; Oct. 30; v. 243; p. 1227.
Bank, Savings-. H. L. Stanton. No. 1,243,356; Oct. 16; v. 243; p. 670.
Bar: *See*—
Glazing-bar. Pinch-bar.
Barber's chair. W. F. Koken. No. 1,242,109; Oct. 2; v. 243; p. 203.
Barber's chair. W. F. Koken. No. 1,242,110; Oct. 2; v. 243; p. 204.
Barium oxid, Making. J. G. Kremers. No. 1,243,190; Oct. 16; v. 243; p. 622.
Barn-cleaner. C. O. Carlson. No. 1,243,257; Oct. 16; v. 243; p. 640.
Barrel-closure. J. Januchowsky. No. 1,242,352; Oct. 9; v. 243; p. 321.

Barrel-cooling device. C. C. Sheppard. No. 1,242,890; Oct. 9; v. 243; p. 492.
Barrel-moving implement. H. O. Wolfe. No. 1,244,680; Oct. 30; v. 243; p. 1143.
Barrel-washing machine. C. B. Van Horn. No. 1,244,391; Oct. 23; v. 243; p. 1017.
Barrel-washing machine. C. B. Van Horn. No. 1,244,392; Oct. 23; v. 243; p. 1018.
Barrettes and the like, Hinge member for. E. E. Hamilton. No. 1,243,834; Oct. 23; v. 243; p. 852.
Barrow for carrying stretchers for wounded. R. J. Molinié. No. 1,242,887; Oct. 9; v. 243; p. 491.
Base-ball grounds, Base for. S. M. Falconer, Sr. No. 1,244,044; Oct. 23; v. 243; p. 915.
Basket and handle therefor. J. B. Miller. No. 1,241,542; Oct. 2; v. 243; p. 22.
Basket-handling machine. G. Kistner. No. 1,243,185; Oct. 16; v. 243; p. 620.
Bat-forming machine. F. Franke. No. 1,243,058; Oct. 16; v. 243; p. 582.
Bath: *See*—
Shower-bath.
Bath robe and towel, Combined. J. T. Norman. No. 1,243,206; Oct. 16; v. 243; p. 626.
Bath-tub attachment. W. D. Rees. No. 1,242,113; Oct. 2; v. 243; p. 204.
Bathing-cap. V. Guinzburg. No. 1,242,684; Oct. 9; v. 243; p. 428.
Batteries and producing the same, Separator for storage. T. A. Willard. No. 1,243,368; Oct. 16; v. 243; p. 673.
Batteries, Connector for. C. B. Johnson. No. 1,241,737; Oct. 2; v. 243; p. 87.
Batteries, Porous tube for storage. T. A. Willard. No. 1,243,371; Oct. 16; v. 243; p. 674.
Battery: *See*—
Electric battery. Storage battery.
Battery-cells, Filling device for. J. M. Skinner. No. 1,244,909; Oct. 30; v. 243; p. 1214.
Battery-cover-removing device. M. Mella. No. 1,243,539; Oct. 16; v. 243; p. 724.
Battery electrodes and producing the same, Tubular diaphragm for storage-. T. A. Willard. No. 1,243,369; Oct. 16; v. 243; p. 674.
Battery-elevator. T. G. Stiles. No. 1,244,558; Oct. 30; v. 243; p. 1108.
Battery-jars, Apparatus for forming hard-rubber. S. Curtis. No. 1,242,776; Oct. 9; v. 243; p. 456.
Battery-separator. F. E. Whitney. No. 1,245,080; Oct. 30; v. 243; p. 1265.
Battery separator and producing the same, Storage-. T. A. Willard. No. 1,243,370; Oct. 16; v. 243; p. 674.
Battery separators, Making storage-. T. A. Willard. No. 1,243,372; Oct. 16; v. 243; p. 674.
Battery-tester. E. L. Clark. No. 1,244,425; Oct. 23; v. 243; p. 1028.
Bead-positioning device. J. F. Bradley. No. 1,241,913; Oct. 2; v. 243; p. 143.
Beading-machine. W. E. Smith. No. 1,244,650; Oct. 30; v. 243; p. 1135.
Beam, Composite. P. M. Stewart. No. 1,243,000; Oct. 16; v. 243; p. 563.
Bean-picker, Vacuum. C. D. Naramor. No. 1,242,840; Oct. 9; v. 243; p. 477.
Bearing. A. L. Broomall and E. G. Tidlund. No. 1,241,493; Oct. 2; v. 243; p. 5.
Bearing, Adjustable machine-. W. G. Trautman No. 1,242,744; Oct. 9; v. 243; p. 446.
Bearing, Antifriction-. F. Beemer. No. 1,242,911; Oct. 16; v. 243; p. 533.
Bearing, Antifriction-. L. W. Zaar. No. 1,243,028; Oct. 16; v. 243; p. 571.
Bearing, Antifriction roller-. C. R. Harris. No. 1,245,145; Oct. 30; v. 243; p. 1284.
Bearing, Antifriction side. J. M. Rohlfing. No. 1,244,781; Oct. 30; v. 243; p. 1175.
Bearing, Ball-. A. L. Carter. No. 1,242,767; Oct. 9; v. 243; p. 454.
Bearing, Ball-. H. H. Dickerhoof. No. 1,242,153; Oct. 9; v. 243; p. 258.
Bearing, Ball-. D. H. Friend. No. 1,244,846; Oct. 30; v. 243; p. 1194.
Bearing, Ball-. W. H. Needham, D. P. Cook, and E. Klahn. No. 1,242,582; Oct. 9; v. 243; p. 395.
Bearing construction. D. M. White. No. 1,244,669; Oct. 30; v. 243; p. 1141.
Bearing for conveyers. G. W. Younkman. No. 1,243,375; Oct. 16; v. 243; p. 676.
Bearing for journals, shafts, and hubs. W. D. Quigley. No. 1,242,239; Oct. 9; v. 243; p. 285.
Bearing, Horizontal-thrust. A. Kingsbury. No. 1,242,948; Oct. 16; v. 243; p. 646.
Bearing, Machine-. C. A. Hirth. No. 1,244,090; Oct. 23; v. 243; p. 928.
Bearing remover, Cam-shaft-. E. H. Grons. No. 1,241,846; Oct. 2; v. 243; p. 120.
Bearing, Roller-. D. W. Crosland. No. 1,242,530; Oct. 9; v. 243; p. 377.
Bearing, Roller-. W. Gihon. No. 1,244,190; Oct. 23; v. 243; p. 957.
Bearing, Roller-. C. R. Harris and L. W. Lyons. No. 1,245,146; Oct. 30; v. 243; p. 1284.
Bearing, Roller-. C. R. Harris and L. W. Lyons. No. 1,245,147; Oct. 30; v. 243; p. 1285.
Bearing, Self-oiling. E. D. Spicer. No. 1,244,914; Oct. 30; v. 243; p. 1216.
Bearing, Thrust-. F. W. Krogh. No. 1,243,429; Oct. 16; v. 243; p. 692.
Bearing, Truck-retaining center-. J. N. Coleman. No. 1,243,387; Oct. 16; v. 243; p. 678.
Bearing with contact-shoe, Side. J. M. Rohlfing. No. 1,244,782; Oct. 30; v. 243; p. 1176.
Bearings, Ball-retainer for radial ball-. S. G. Wingquist. No. 1,242,502; Oct. 9; v. 243; p. 368.
Bearings, Cage for roller-. A. J. Strong. No. 1,242,388; Oct. 9; v. 243; p. 322.
Bearings, Device for loosening outer races of ball-. E. P. Campbell. No. 1,241,819; Oct. 2; v. 243; p. 112.
Bearings of rotating devices, Apparatus for elevating and lowering the. G. F. Nelson. No. 1,244,206; Oct. 23; v. 243; p. 962.
Beater or mixer. L. Rupp. No. 1,243,982; Oct. 23; v. 243; p. 896.
Bed. J. E. Hanger, Sr. No. 1,242,545; Oct. 9; v. 243; p. 382.
Bed. D. Steffen. No. 1,245,131; Oct. 30; v. 243; p. 1280.
Bed-bottom or the like. B. McIntosh. No. 1,242,960; Oct. 16; v. 243; p. 549.
Bed, Disappearing. L. C. Hunter. No. 1,244,736; Oct. 30; v. 243; p. 1162.
Bed, Folding. H. Brandt. No. 1,241,705; Oct. 2; v. 243; p. 75.
Bed, Folding. C. R. Klok. No. 1,243,423; Oct. 16; v. 243; p. 690.
Bed, Folding. C. R. Klok. No. 1,244,987; Oct. 30; v. 243; p. 1237.
Bed, Folding. C. R. Klok. No. 1,244,988; Oct. 30; v. 243; p. 1237.
Bed-frame. C. W. Walstrom. No. 1,243,234; Oct. 16; v. 243; p. 633.
Bed-frame. J. Zatzkin. No. 1,242,509; Oct. 9; v. 243; p. 370.
Bed-linen. A. V. Hansen. No. 1,241,968; Oct. 2; v. 243; p. 159.
Bed-spring. W. W. Nolting. No. 1,244,635; Oct. 30; v. 243; p. 1130.
Bed-spring. G. G. Powers. No. 1,243,099; Oct. 16; v. 243; p. 594.
Bed-spring for beds, davenports, couches, and the like, Adjustable. J. R. Stark. No. 1,243,887; Oct. 23; v. 243; p. 868.
Bed, Table-. C. R. Klok. No. 1,243,424; Oct. 16; v. 243; p. 690.
Bed, Table-. C. R. Klok. No. 1,243,425; Oct. 16; v. 243; p. 691.
Bed, Table-. C. R. Klok. No. 1,243,426; Oct. 16; v. 243; p. 691.
Bed, Wall-. N. C. Nelsen. No. 1,243,336; Oct. 16; v. 243; p. 664.
Bed, wardrobe, and dresser, Combination wall-. P. S. Sorensen. No. 1,242,382; Oct. 9; v. 243; p. 330.
Beds, Spring-bottom for. S. Stransky. No. 1,245,060; Oct. 30; v. 243; p. 1258.
Bedstead, Surgical. T. W. Bevan. No. 1,242,315; Oct. 9; v. 243; p. 309.
Beehive. A. G. Woodman. No. 1,242,628; Oct. 9; v. 243; p. 409.
Beehives, Adjustable entrance-gate for. M. E. Reisinger. No. 1,243,555; Oct. 16; v. 243; p. 728.
Beer-cooler. J. A. Steinmetz. No. 1,244,140; Oct. 23; v. 243; p. 943.
Beet-cutter. R. J. Binkley and R. A. Steps. No. 1,241,702; Oct. 2; v. 243; p. 74.
Beet-topping machine. W. T. Pomranke. No. 1,241,761; Oct. 2; v. 243; p. 93.
Bell, Vibratory. A. Bagutti. No. 1,244,013; Oct. 23; v. 243; p. 906.
Belt-dressing. P. H. Crawford. No. 1,242,424; Oct. 9; v. 243; p. 344.
Belt-fastener. M. E. Gross and J. L. Howland. No. 1,245,099; Oct. 30; v. 243; p. 1270.
Belt-tensioning means for driving mechanism, Automatic. J. W. Fitzgerald. No. 1,242,166; Oct. 9; v. 243; p. 262.
Belt, Tractor-. H. McGuckin. No. 1,245,001; Oct. 30; v. 243; p. 1241.
Belt-wheel. H. Wood. No. 1,244,396; Oct. 23; v. 243; p. 1020.
Belting web, Apparatus for making an elastic body-. J. Jacobs. No. 1,242,698; Oct. 9; v. 243; p. 432.
Bevel-gear generator. G. D. Sundstrand. No. 1,244,659; Oct. 30; v. 243; p. 1138.
Beverage and making the same, Non-intoxicating fermented. C. A. Nowak. No. 1,243,440; Oct. 16; v. 243; p. 695.
Beverages, Method and apparatus for producing dealcoholized fermented. G. Ciapetti. No. 1,243,811; Oct. 23; v. 243; p. 844.
Beverages, Producing carbonated. D. Humphrey. No. 1,243,068; Oct. 16; v. 243; p. 585.
Bicycle-skate. B. F. Bowen. No. 1,241,607; Oct. 2; v. 243; p. 45.
Bill-head, Self sealing and addressing. E. F. Andres. No. 1,244,161; Oct. 23; v. 243; p. 949.
Billiard-table construction. F. P. Grode. No. 1,243,161; Oct. 16; v. 243; p. 611.
Bin: *See*—
Flour-bin.
Binder. A. Dom. No. 1,241,610; Oct. 2; v. 243; p. 47.
Binder-locking mechanism. C. R. Raney. No. 1,242,240; Oct. 9; v. 243; p. 285.

Binder, Loose-leaf. J. O. McLaughlin. No. 1,243,319; Oct. 16; v. 243; p. 660.
Binder, Loose-leaf. H. C. Miller. No. 1,242,018; Oct. 2; v. 243; p. 175.
Binder, Loose-leaf. J. B. Moody. No. 1,244,756; Oct. 30; v. 243; p. 1167.
Binder, Temporary. G. P. Wigginton. No. 1,241,801; Oct. 2; v. 243; p. 105.
Binder, Temporary. G. P. Wigginton. No. 1,241,802; Oct. 2; v. 243; p. 106.
Bit: *See*—
Auger-bit. Bridle-bit.
Blacking stand, Shoe-. E. J. Reilly. No. 1,242,043; Oct. 2; v. 243; p. 182.
Blank-feeding mechanism. W. Cameron. No. 1,242,520; Oct. 9; v. 243; p. 373.
Blank-feeding mechanism. H. C. Harvey. No. 1,244,086; Oct. 23; v. 243; p. 927.
Blank-feeding mechanisms, Pneumatically-controlled blank-tripping mechanism for. M. E. Peters, G. H. Fath, and A. F. Miller. No. 1,244,537; Oct. 30; v. 243; p. 1100.
Blanks, Making. F. B. Bell. No. 1,242,127; Oct. 9; v. 243; p. 250.
Blast-heater. W. W. Kemp and W. H. Van Horn. No. 1,244,863; Oct. 30; v. 243; p. 1199.
Blind, Window-. W. J. Hopper. No. 1,242,940; Oct. 16; v. 243; p. 543.
Block: *See*—
Cable-block. Paving-block.
Engraving-block. Pulley-block.
Fuse-block. Sheave-block.
Block-dropper, Automatic. G. C. Mumma. No. 1,244,360; Oct. 23; v. 243; p. 1008.
Block-signal. D. F. Crawford. No. 1,241,927; Oct. 2; v. 243; p. 147.
Block-signal system. M. R. Julian. No. 1,243,418; Oct. 16; v. 243; p. 687.
Block-signal system. M. R. Julian. No. 1,243,419; Oct. 16; v. 243; p. 688.
Block-signaling system. R. C. Millard. No. 1,241,873; Oct. 2; v. 243; p. 129.
Blower. A. A. Thommen. No. 1,242,077; Oct. 2; v. 243; p. 193.
Blower for boilers. G. W. Watson. No. 1,243,464; Oct. 16; v. 243; p. 701.
Blower, Oscillating pressure-. H. O. Jackson. No. 1,243,299; Oct. 16; v. 243; p. 653.
Blower, Turbine-driven. F. H. C. Coppus. No. 1,244,427; Oct. 23; v. 243; p. 1028.
Board: *See*—
Game-board. Ironing-board.
Boat: *See*—
Manually-propelled boat. Submarine boat.
Power-boat.
Boat. H. B. Hills. No. 1,243,938; Oct. 23; v. 243; p. 883.
Boat. S. Odabashian. No. 1,244,123; Oct. 23; v. 243; p. 938.
Boat-landing. W. C. Ross. No. 1,243,981; Oct. 23; v. 243; p. 895.
Boat or ship construction. C. W. White. No. 1,241,799; Oct. 2; v. 243; p. 105.
Bobbin. M. Gorrell. No. 1,243,157; Oct. 16; v. 243; p. 610.
Bobbin. J. W. Reid. No. 1,243,102; Oct 16; v. 243; p. 595.
Boiler: *See*—
Clothes-boiler. Steam-boiler.
Feed-boiler. Superheater-boiler.
Boiler. E. C. Meier. No. 1,243,005; Oct. 30; v. 243; p. 1242.
Boiler. G. W. Rist. No. 1,241,884; Oct. 2; v. 243; p. 133.
Boiler-furnace, Sectional. C. Phelps. No. 1,242,856; Oct. 9; v. 243; p. 482.
Boiler furnace, Steam-. C. Freihofer. No. 1,244,311; Oct. 23; v. 243; p. 995.
Boiler-manhead. L. Houts. No. 1,243,178; Oct. 16; v. 243; p. 616.
Boiler-repair plug. E. C. Worns. No. 1,241,597; Oct. 2; v. 243; p. 43.
Boiler stay-bolt. B. E. D. Stafford and E. I. Dodds. No. 1,244,915; Oct. 30; v. 243; p. 1216.
Boiler-stay-bolt connection. B. E. D. Stafford. No. 1,244,916; Oct. 30; v. 243; p. 1216.
Boiler-tubes, Internal fitting for. T. Henderson. No. 1,243,168; Oct. 16; v. 243; p. 613.
Boiler-water, Purifying. H. Kriegsheim. No. 1,243,191; Oct. 16; v. 243; p. 622.
Boilers, Feed apparatus for rotating. J. V. Blomquist. No. 1,242,131; Oct. 9; v. 243; p. 251.
Boilers, Safety relief device for low-pressure steam-. M. C. Honeywell. No. 1,243,604; Oct. 16; v. 243; p. 743.
Boll-weevil catcher. J. Richards. No. 1,244,895; Oct. 30; v. 243; p. 1210.
Boll-weevil destroyer. W. W. Fuller. No. 1,241,727; Oct. 2; v. 243; p. 84.
Boll-weevil machine. H. A. Jones and B. C. Harrell. No. 1,243,302; Oct. 16; v. 243; p. 655.
Boll-weevil trap. G. H. Russell. No. 1,244,547; Oct. 30; v. 243; p. 1104.
Bolt: *See*—
Anchor-bolt. Expansion-bolt.
Boiler stay-bolt. Stay-bolt.
Door-bolt.
Bolt headers and shears, Operating mechanism for. N. Grandchamp. No. 1,241,728; Oct. 2; v. 243; p. 84.
Bolt-lock, Knob. M. L. Silveratein. No. 1,245,049; Oct. 30; v. 243; p. 1255.
Bolts, Making. L. Parish. No. 1,244,125; Oct. 23; v. 243; p. 938.
Bond-wire connector. W. W. Coleman. No. 1,241,497; Oct. 2; v. 243; p. 6.
Book. D. Farquhar. No. 1,243,394; Oct. 16; v. 243; p. 680.
Book holder, Check-. J. B. Robertson. No. 1,242,475; Oct. 9; v. 243; p. 360.
Book-holding device. V. L. Stolze. No. 1,243,891; Oct. 23; v. 243; p. 869.
Book, Loose-leaf. J. Murray. No. 1,243,544; Oct. 16; v. 243; p. 726.
Book or binder, Loose-leaf. J. W. Myatt. No. 1,244,233; Oct. 23; v. 243; p. 971.
Book-rack. J. G. Larson. No. 1,245,111; Oct. 30; v. 243; p. 1274.
Book-supporting stand. C. E. Rice. No. 1,244,373; Oct. 23; v. 243; p. 1012.
Books, Back-frame for loose-leaf. R. G. Whittock. No. 1,241,692; Oct. 2; v. 243; p. 72.
Boots and shoes, Arch-supporter for. S. H. Boyajian. No. 1,242,317; Oct. 9; v. 243; p. 310.
Boring and general-use machine. W. R. Cary. No. 1,244,449; Oct. 23; v. 243; p. 1035.
Bottle. E. Greene. (Reissue.) No. 14,382; Oct. 23; v. 243; p. 1040.
Bottle and jar closure. J. Heberling. No. 1,244,088; Oct. 23; v. 243; p. 928.
Bottle, Antirefilling. F. H. Chapman. No. 1,244,423; Oct. 23; v. 243; p. 1027.
Bottle appliance, Milk-. C. W. Skiff. No. 1,242,994; Oct. 16; v. 243; p. 560.
Bottle-cap. A. L. Bernardin. No. 1,244,412; Oct. 23; v. 243; p. 1025.
Bottle-cap. A. L. Bernardin. No. 1,244,413; Oct. 23; v. 243; p. 1025.
Bottle-caps, Formation of. C. Hammer. No. 1,241,509; Oct. 2; v. 243; p. 11.
Bottle carrier and conveyer. B. E. Linfoot. No. 1,242,825; Oct. 9; v. 243; p. 472.
Bottle-casing. I. McIntyre. No. 1,241,640; Oct. 2; v. 243; p. 56.
Bottle-filling machine. W. J. Beals. No. 1,242,313; Oct. 9; v. 243; p. 309.
Bottle-handling apparatus. H. J. Chilton. No. 1,244,701; Oct. 30; v. 243; p. 1150.
Bottle-holder. C. A. Folly. No. 1,243,500; Oct. 16; v. 243; p. 713.
Bottle holder, Milk-. M. H. Grob. No. 1,244,050; Oct. 23; v. 243; p. 917.
Bottle, Non-refillable. W. J. Beisel. No. 1,241,810; Oct. 2; v. 243; p. 109.
Bottle, Non-refillable. W. J. Beisel. No. 1,241,811; Oct. 2; v. 243; p. 109.
Bottle, Non-refillable. M. L. Burke. No. 1,242,136; Oct. 9; v. 243; p. 254.
Bottle, Non-refillable. J. N. G. Nesbit. No. 1,243,965; Oct. 23; v. 243; p. 891.
Bottle-sealing cap. F. E. Andersen. No. 1,242,510; Oct. 9; v. 243; p. 370.
Bottle stopper, Ink-. J. W. Fost. No. 1,241,947; Oct. 2; v. 243; p. 152.
Bottle-vent. V. I. Moser. No. 1,243,963; Oct. 23; v. 243; p. 890.
Bottle-washer. C. Hamann. No. 1,241,508; Oct. 2; v. 243; p. 11.
Bottle-washing machine. J. T. Lally. No. 1,242,817; Oct. 9; v. 243; p. 469.
Bottles or jars, Closure for milk and cream. J. G. Roehm, Jr. No. 1,242,045; Oct. 2; v. 243; p. 182.
Box: *See*—
Cigarette-box. Mail-box.
Collapsible box. Match-box.
Filing-box. Miter-box.
Folding box. Outlet-box.
Gum-box. Signal-box.
Journal-box. Stuffing-box.
Lunch-box.
Box assembling and nailing machine. J. B. Kitch. No. 1,244,986; Oct. 30; v. 243; p. 1237.
Box-cover-shell-making machine. M. J. Milmoe. No. 1,244,066; Oct. 23; v. 243; p. 921.
Box-lid, Supplemental. P. A. Becker. No. 1,244,163; Oct. 23; v. 243; p. 949.
Box or can hook. E. S. Smith. No. 1,243,565; Oct. 16; v. 243; p. 731.
Box-staying machine. R. H. Ritter. No. 1,243,877; Oct. 23; v. 243; p. 865.
Box-wrapping machines, Third-stage treatment for. M. E. Peters, G. H. Fath, and A. F. Miller. No. 1,244,538; Oct. 30; v. 243; p. 1100.
Boxes, Apparatus for wrapping extension-edge. M. E. Peters, G. H. Fath, and A. F. Miller. No. 1,244,539; Oct. 30; v. 243; p. 1101.

Boxes, Metal tiering and flap-retaining means for. J. C. Johnson. No. 1,241,633; Oct. 2; v. 243; p. 54.
Boxes with gummed blanks, Side-turn-in wiper for wrapping the side edges of. M. E. Peters, G. H. Fath, and A. F. Miller. No. 1,244,540; Oct. 30; v. 243; p. 1101.
Brace: *See*—
Heel-sweep brace. Switch-brace.
Rail-brace.
Bracket: *See*—
Curtain and shade bracket. Shade-bracket.
Lamp-shade bracket. Shade-roller bracket.
Mirror-bracket. Wall-bracket.
Radiator wall-bracket.
Bracket-clamp. C. C. Couper. No. 1,241,823; Oct. 2; v. 243; p. 113.
Braiding-machine. A. Petersen. No. 1,241,550; Oct. 2; v. 243; p. 26.
Brake: *See*—
Automatic brake. Safety-brake.
Automobile auxiliary brake. Sled-brake.
Fluid-pressure brake. Vehicle automatic brake.
Hemp-brake. Vehicle-brake.
Magnetic brake. Wagon-brake.
Paper-reel brake.
Brake-actuating lever. J. Novotny. No. 1,242,366; Oct. 9; v. 243; p. 324.
Brake apparatus, Fluid-pressure. W. V. Turner. No. 1,241,581; Oct. 2; v. 243; p. 37.
Brake apparatus, Fluid-pressure. W. V. Turner. No. 1,241,582; Oct. 2; v. 243; p. 37.
Brake-band guide, Expanding. S. A. Teel. No. 1,245,065; Oct. 30; v. 243; p. 1260.
Brake-block irons. J. C. Wilson. No. 1,244,678; Oct. 30; v. 243; p. 1143.
Brake mechanism for motor-vehicles. A. C. Boyd. No. 1,243,696; Oct. 23; v. 243; p. 805.
Brake-shoes, Composition lining for. R. J. Stokes. No. 1,242,069; Oct. 2; v. 243; p. 191.
Brake-shoes, Device for automatically compensating for wear of. W. J. Stahr. No. 1,244,388; Oct. 23; v. 243; p. 1016.
Branding-iron. C. B. Delbridge. No. 1,244,180; Oct. 23; v. 243; v. 954.
Brassiere. G. L. Anderman. No. 1,242,118; Oct. 9; v. 243; p. 247.
Bread manufacture. A. S. Wahl. No. 1,242,396; Oct. 9; v. 243; p. 335.
Brick and furnace-linings, Composition for making fire-. R. R. Zell. No. 1,244,275; Oct. 23; v. 243; p. 984.
Brick, Apparatus for mechanically backing. R. C. Penfield. No. 1,241,879; Oct. 2; v. 243; p. 132.
Brickmaking apparatus. M. P. Andrews. No. 1,242,120; Oct. 9; v. 243; p. 248.
Bridle-bit. J. H. Grant. No. 1,241,729; Oct. 2; v. 243; p. 85.
Briqueting-machine. C. Korte. No. 1,242,704; Oct. 9; v. 243; p. 434.
Broiler and like cooker. L. Durgarian. No. 1,244,965; Oct. 30; v. 243; p. 1230.
Broaching-tool. F. O. Furber. No. 1,243,504; Oct. 16; v. 243; p. 714.
Brooch-fastening device. G. A. Siefken. No. 1,242,054; Oct. 2; v. 243; p. 186.
Brooder. J. F. MacKay. No. 1,244,111; Oct. 23; v. 243; p. 934.
Brooder. W. A. Schleit. No. 1,245,041; Oct. 30; v. 243; p. 1253.
Brooder-heater. C. V. Hill. (Reissue.) No. 14,386; Oct. 30; v. 243; p. 890.
Brooders and the like, Air-supply device for. J. F. MacKay. No. 1,241,641; Oct. 2; v. 243; p. 56.
Brush. A. A. Picard. No. 1,241,881; Oct. 2; v. 243; p. 132.
Brush and glass holder. A. Lewyt. No. 1,242,956; Oct. 16; v. 243; p. 548.
Brush and shaving-stick, Combined. H. H. Oswald. No. 1,244,771; Oct. 30; v. 243; p. 1172.
Brush, Dental. B. A. Lewis. No. 1,242,821; Oct. 9; v. 243; p. 470.
Brush, Fountain shaving-. S. W. B. Renouf. No. 1,244,894; Oct. 30; v. 243; p. 1210.
Brush receptacle, Tooth-. A. Hippius. No. 1,241,977; Oct. 2; v. 243; p. 161.
Brush, Shaving-. J. W. White. No. 1,242,095; Oct. 2; v. 243; p. 198.
Brush, Tooth-. B. O. Bates. No. 1,243,579; Oct. 16; v. 243; p. 736.
Brushes, Making. D. S. Ring. No. 1,244,132; Oct. 23; v. 243; p. 940.
Bucket, Excavating-. T. S. Miller. No. 1,244,117; Oct. 23; v. 243; p. 936.
Bucket, Folding. H. D. and F. A. Bokop. No. 1,243,381; Oct. 16; v. 243; p. 677.
Buckle. J. Maltby. No. 1,242,571; Oct. 9; v. 243; p. 392.
Bugging-machine. M. Harmon. No. 1,242,546; Oct. 9; v. 243; p. 382.
Building construction. P. Gerhardt. No. 1,243,281; Oct. 16; v. 243; p. 647.
Building construction. J. and J. E. Schumacher. No. 1,242,609; Oct. 9; v. 243; p. 405.
Bullet. W. S. Cutting. No. 1,244,298; Oct. 23; v. 243; p. 991.
Bullet, Jacketed. G. A. Muenzenmaier. No. 1,243,857; Oct. 23; v. 243; p. 858.
Bullets, Mixture for impact illuminating-. W. H. Buell. No. 1,242,879; Oct. 9; v. 243; p. 489.
Bundling apparatus. J. S. Phifer. No. 1,242,471; Oct. 9; v. 243; p. 358.
Bung-bushings, Apparatus for setting. A. C. Ludlum and A. Lowry. No. 1,244,997; Oct. 30; v. 243; p. 1240.
Bung-hole closure. R. H. Norton. No. 1,241,757; Oct. 2; v. 243; p. 92.
Burglar-alarm. J. S. Alderman. No. 1,244,938; Oct. 30; v. 243; p. 1223.
Burglar-alarm. R. Fresh. No. 1,244,313; Oct. 23; v. 243; p. 996.
Burglar-alarm. S. H. Harrington. No. 1,242,547; Oct. 9; v. 243; p. 382.
Burner: *See*—
Gas-burner. Oil-burner.
Hydrocarbon-burner.
Bushing, Adjustable. A. Starr. No. 1,242,066; Oct. 2; v. 243; p. 190.
Butt and casing gage. R. P. Standeford. No. 1,243,456; Oct. 16; v. 243; p. 699.
Button. J. C. Engels. No. 1,244,436; Oct. 23; v. 243; p. 1031.
Button. P. J. Whelan. No. 1,243,024; Oct. 16; v. 243; p. 570.
Button-fastening machine, Shoe-. A. W. Buehler. No. 1,244,466; Oct. 30; v. 243; p. 1079.
Button-hook. L. Schwitzgebel. No. 1,242,248; Oct. 9; v. 243; p. 288.
Button-stapling machine. J. Schweiss. No. 1,244,135; Oct. 23; v. 243; p. 941.
Buttons, Die for blanking out and piercing. J. S. Birnzweig. No. 1,242,644; Oct. 9; v. 243; p. 415.
Cabinet. H. L. Cowles. No. 1,244,474; Oct. 30; v. 243; p. 1081.
Cabinet. M. R. Martin. No. 1,244,879; Oct. 30; v. 243; p. 1205.
Cabinet and refrigerator. T. J. Polk. No. 1,242,235; Oct. 9; v. 243; p. 284.
Cabinet, Baking-. J. Lawson. No. 1,243,192; Oct. 16; v. 243; p. 622.
Cabinet, Dispensing-. J. W. Patterson. No. 1,244,889; Oct. 30; v. 243; p. 1208.
Cabinet, Serving-. E. Brooks. No. 1,242,916; Oct. 16; v. 243; p. 535.
Cabinet, Towel-. W. H. Brew. No. 1,243,670; Oct. 16; v. 243; p. 764.
Cable-block. J. R. McGiffert. No. 1,243,847; Oct. 23; v. 243; p. 856.
Cable connections, Thimble for. G. F. Swortfiger. No. 1,243,450; Oct. 16; v. 243; p. 700.
Cable-grip. A. Johnson. No. 1,244,093; Oct. 23; v. 243; p. 929.
Cable gripping and stretching device. I. B. and G. A. Segerdahl. No. 1,244,136; Oct. 3; v. 243; p. 941.
Cable-pulling clamp. W. G. B. Euler. No. 1,244,043; Oct. 23; v. 243; p. 915.
Cable-splice. E. W. Beardsley and P. W. Ham. No. 1,241,809; Oct. 2; v. 243; p. 108.
Cables, &c., Coupling for. R. W. Douglas. No. 1,243,493; Oct. 16; v. 243; p. 711.
Calcimine and making same. R. W. Cornelison. No. 1,244,033; Oct. 23; v. 243; p. 912.
Calcium from magnesium contained in saline solutions, Separating. C. Glaser. No. 1,242,434; Oct. 9; v. 243; p. 346.
Calculating-machine. J. C. Wahl. No. 1,242,262; Oct. 9; v. 243; p. 298.
Calendar, Perpetual. R. R. Debacher. No. 1,243,269; Oct. 16; v. 243; p. 644.
Calibrating-machine. F. J. Bowen. No. 1,244,023; Oct. 23; v. 243; p. 909.
Calipers. E. Kraule. No. 1,245,148; Oct. 30; v. 243; p. 1285.
Calipers, Micrometric. B. Nefedov. No. 1,243,545; Oct. 16; v. 243; p. 726.
Calipers, Micrometer-. H. W. Voges. No. 1,244,263; Oct. 23; v. 243; p. 980.
Calk. H. L. Davis. No. 1,243,819; Oct. 23; v. 243; p. 847.
Calk while being welded to a shoe, Clamp for holding a. W. J. Boll and L. L. Kempthorne. No. 1,242,647; Oct. 9; v. 243; p. 416.
Cam mechanism. W. Sparks. No. 1,241,674; Oct. 2; v. 243; p. 66.
Camera. G. A. Goodson. No. 1,241,843; Oct. 2; v. 243; p. 119.
Camera. M. L. Severy. No. 1,241,773; Oct. 2; v. 243; p. 96.
Camera. E. W. Tucker. No. 1,242,745; Oct. 9; v. 243; p. 446.
Camera, Automatic. A. J. Motlau. No. 1,241,650; Oct. 2; v. 243; p. 58.
Camera-focusing device, Automatic. F. M. Steadman. No. 1,244,254; Oct. 23; v. 243; p. 977.
Camera, Motion-picture. C. J. Coberly. No. 1,243,262; Oct. 16; v. 243; p. 642.
Camera, Photographic. H. W. Hales. No. 1,244,978; Oct. 30; v. 243; p. 1234.
Camera, Pocket-. F. Heath. No. 1,244,851; Oct. 30; v. 243; p. 1195.
Camera-support, Movable. C. L. Duhem. No. 1,243,272; Oct. 16; v. 243; p. 644.
Cameras, Film-box for motion-picture. C. E. Akeley. No. 1,242,894; Oct. 9; v. 243; p. 493.

Cameras, Means for focusing for use in connection with film-. E. F. Harper. No. 1,243,934; Oct. 23; v. 243; p. 882.
Cameras, Reeling apparatus for moving-picture. W. M. Thomas. No. 1,244,918; Oct. 30; v. 243; p. 1217.
Cameras, Winding device for roll-film. P. Dietz. No. 1,243,270; Oct. 16; v. 243; p. 644.
Camp structure, Collapsible. F. G. Musso. No. 1,244,760; Oct. 30; v. 243; p. 1169.
Can; *See*—
Dispensing-can. Oil-can.
Liquid-dispensing can. Refuse-can.
Milk-can. Self-opening can.
Can-capping machine. J. E. Hires. No. 1,241,978; Oct. 2; v. 243; p. 161.
Can-filling machine. F. P. Souder. No. 1,243,566; Oct. 16; v. 243; p. 732.
Can handle, Milk-. P. L. Frazier. No. 1,243,278; Oct. 16; v. 243; p. 646.
Can-opener. C. A. Darrah. No. 1,242,329; Oct. 9; v. 243; p. 314.
Can-opener. G. J. Fitzpatrick. No. 1,244,972; Oct. 30; v. 243; p. 1233.
Candelabrum. S. Szigethy. No. 1,241,575; Oct. 2; v. 243; p. 35.
Candle and the like holder. H. B. S. Teague. No. 1,241,576; Oct. 2; v. 243; p. 35.
Candy-making machine. W. B. Laskey. No. 1,242,562; Oct. 9; v. 243; p. 388.
Cane seats, Renovating. J. M. Wilson. No. 1,243,474; Oct. 16; v. 243; p. 704.
Cap. J. W. A. Leihgeber. No. 1,242,211; Oct. 9; v. 243; p. 277.
Cap, Adjustable. R. J. Spindler. No. 1,243,567; Oct. 16; v. 243; p. 732.
Cap, Winged. O. Zerk. No. 1,243,029; Oct. 16; v. 243; p. 572.
Car and train-pipe coupling, Combined. T. R. Brown. No. 1,243,701; Oct. 23; v. 243; p. 807.
Car assembly, Mine-. W. V. Johnson and F. H. Gibbs. No. 1,244,740; Oct. 30; v. 243; p. 1163.
Car brake mechanism, Railway-. W. Marx. No. 1,242,360; Oct. 9; v. 243; p. 323.
Car-brake-operating mechanism. H. J. Schmick. No. 1,242,603; Oct. 9; v. 243; p. 402.
Car-brake strut. F. D. Ward. No. 1,242,090; Oct. 2; v. 243; p. 197.
Car construction. W. M. Smith. No. 1,242,732; Oct. 9; v. 243; p. 442.
Car construction. J. H. Welsbrod. No. 1,244,808; Oct. 30; v. 243; p. 1183.
Car construction, Box-. J. H. Welsbrod. No. 1,244,807; Oct. 30; v. 243; p. 1183.
Car-coupling. R. Foulds. No. 1,242,787; Oct. 9; v. 243; p. 460.
Car-coupling. P. W. John. No. 1,242,810; Oct. 9; v. 243; p. 466.
Car-cushions, Cleaning. J. M. Wilson. No. 1,243,473; Oct. 16; v. 243; p. 704.
Car-diaphragm, Metallic. F. M. Gunn and L. J. Berg. No. 1,243,932; Oct. 23; v. 243; p. 881.
Car-door. F. A. Lester. No. 1,242,000; Oct. 2; v. 243; p. 170.
Car-door. F. Mathews. No. 1,244,626; Oct. 30; v. 243; p. 1128.
Car-door fastener. C. O. Williams. No. 1,243,025; Oct. 16; v. 243; p. 571.
Car door, Freight-. W. Queenan and C. Farwell. No. 1,244,078; Oct. 23; v. 243; p. 924.
Car-door lock, Dump-. A. Anderson. No. 1,244,684; Oct. 30; v. 243; p. 1145.
Car-door-locking means. J. M. Rohlfing. No. 1,244,779; Oct. 30; v. 243; p. 1175.
Car-door-locking mechanism. G. C. Cherbonnier. No. 1,244,698; Oct. 30; v. 243; p. 1149.
Car-door operating and controlling mechanism. G. C. Cherbonnier. No. 1,244,699; Oct. 30; v. 243; p. 1150.
Car-door-operating device. A. E. Ostrander. No. 1,244,770; Oct. 30; v. 243; p. 1172.
Car-door-operating mechanism. A. E. Ostrander and E. R. Schroeder. No. 1,244,768; Oct. 30; v. 243; p. 1171.
Car door-post. F. C. Cameron and J. McMullen. No. 1,244,583; Oct. 30; v. 243; p. 1115.
Car, Double-board single-sheathed. R. G. Ellis. No. 1,244,718; Oct. 30; v. 243; p. 1156.
Car, Dump-. J. O. Neikirk. No. 1,242,226; Oct. 9; v. 243; p. 281.
Car end. A. P. Williams. No. 1,244,677; Oct. 30; v. 243; p. 1143.
Car-end construction. H. E. Van Dorn. No. 1,241,685; Oct. 2; v. 243; p. 69.
Car end construction, Railway-. J. H. Welsbrod. No. 1,244,806; Oct. 30; v. 243; p. 1182.
Car end construction, Railway box-. V. E. Sisson. No. 1,244,649; Oct. 30; v. 243; p. 1134.
Car-floor construction. W. E. Fowler, Sr. No. 1,244,047; Oct. 23; v. 243; p. 916.
Car frame, Motor-. A. L. Campbell. No. 1,243,255; Oct. 16; v. 243; p. 639.
Car frame, Passenger-. H. H. Vaughan. No. 1,245,071; Oct. 30; v. 243; p. 1262.
Car grain-door. C. French. No. 1,241,841; Oct. 2; v. 243; p. 119.
Car-journal. C. D. Dewey. No. 1,243,049; Oct. 16; v. 243; p. 578.
Car-net, Safety. H. C. Matthews. No. 1,242,834; Oct. 9; v. 243; p. 475.
Car, Rail-drilling. W. T. Krausch and E. F. Weber. No. 1,243,187; Oct. 16; v. 243; p. 620.
Car, Railway-. F. M. Brinckerhoff. No. 1,244,947; Oct. 30; v. 243; p. 1225.
Car-roof. R. W. Burnett. No. 1,242,519; Oct. 9; v. 243; p. 373.
Car roof, Railway-. W. L. Havens and C. N. Swanson. No. 1,244,087; Oct. 23; v. 243; p. 927.
Car-seat. G. B. Kohler. No. 1,243,531; Oct. 16; v. 243; p. 722.
Car, Sleeping-. A. P. Droche. No. 1,242,331; Oct. 9; v. 243; p. 315.
Car step and door. D. B. and L. W. Reddick. No. 1,244,370; Oct. 23; v. 243; p. 1011.
Car-step, Extensible. T. H. Lyle. No. 1,242,828; Oct. 9; v. 243; p. 473.
Car, Street-. E. Redmond. No. 1,242,041; Oct. 2; v. 243; p. 182.
Car, Street-railway. P. Witt. No. 1,243,026; Oct. 16; v. 243; p. 571.
Car, Tie-sawing. W. T. Krausch and E. F. Weber. No. 1,243,189; Oct. 16; v. 243; p. 621.
Car, Track-laying. W. T. Krausch and E. F. Weber. No. 1,243,188; Oct. 16; v. 243; p. 621.
Car-underframe. C. H. Anderson. No. 1,244,826; Oct. 30; v. 243; p. 1189.
Car-underframe. A. E. Ostrander. No. 1,244,769; Oct. 30; v. 243; p. 1172.
Car-underframes. J. M. Rohlfing. No. 1,244,780; Oct. 30; v. 243; p. 1175.
Car wheel and attaching means therefor, Mine-. F. H. Gibbs. No. 1,245,142; Oct. 30; v. 243; p. 1283.
Car wheel and journal-box. Interlocked mine-. W. V. Johnson. No. 1,244,739; Oct. 30; v. 243; p. 1163.
Car-windows, Ventilator-sash for. C. L. Harrison. No. 1,244,602; Oct. 30; v. 243; p. 1120.
Car, Wooden single-sheathed box-. J. H. Welsbrod. No. 1,244,809; Oct. 30; v. 243; p. 1184.
Car-wrench, Reversible ratchet. G. M. Gealy. No. 1,244,596; Oct. 30; v. 243; p. 1119.
Cars and the like, Door structure for grain-. A. Tautges. No. 1,242,268; Oct. 9; v. 243; p. 294.
Cars and the like, Heating system for refrigerator-. E. H. Gold. No. 1,242,898; Oct. 9; v. 243; p. 495.
Cars, Cable connection for tramway-. H. B. Brockenbrough. No. 1,242,915; Oct. 16; v. 243; p. 534.
Cars, Combination hinged roof for box-. J. Roberts. No. 1,243,979; Oct. 23; v. 243; p. 895.
Cars, Corrugated-sheet-metal end structure for railway-. W. P. Murphy. No. 1,244,632; Oct. 30; v. 243; p. 1129.
Cars, Floor construction for passenger-. C. H. Anderson. No. 1,244,824; Oct. 30; v. 243; p. 1188.
Cars, Folding seat for center-door. C. H. Anderson. No. 1,244,823; Oct. 30; v. 243; p. 1188.
Cars in yards, Distribution of. G. W. McMunn. No. 1,242,220; Oct. 9; v. 243; p. 279.
Cars, Locking mechanism for dumping-. C. P. Astrom. No. 1,243,478; Oct. 16; v. 243; p. 705.
Cars, Metal end for railway-. V. E. Sisson. No. 1,244,907; Oct. 30; v. 243; p. 1213.
Cars, Metal end structure for railway-. V. E. Sisson. No. 1,244,908; Oct. 30; v. 243; p. 1214.
Cars, Safety air-release for. M. D. Moran. No. 1,241,649. Oct. 2; v. 243; p. 58.
Cars, Warmer for motor-. J. G. Tharp. No. 1,241,782; Oct. 2; v. 243; p. 99.
Carbid-holder register. P. E. and F. A. Webb. No. 1,245,076; Oct. 30; v. 243; p. 1264.
Carbureter. F. G. Adams. No. 1,242,630; Oct. 9; v. 243; p. 410.
Carbureter. F. O. Ball. No. 1,243,479; Oct. 16; v. 243; p. 706.
Carbureter. F. O. Ball. No. 1,243,480; Oct. 16; v. 243; p. 706.
Carbureter. S. G. Brinkman. No. 1,243,250; Oct. 16; v. 243; p. 638.
Carbureter. H. Carle. No. 1,243,038; Oct. 16; v. 243; p. 575.
Carbureter. H. E. Curtis. No. 1,244,428; Oct. 23; v. 243; p. 1029.
Carbureter. C. De Lukacsevics. No. 1,244,712; Oct. 30; v. 243; p. 1154.
Carbureter. M. A. Duz and D. E. Washington. No. 1,244,040; Oct. 23; v. 243; p. 913.
Carbureter. A. A. Frevert. No. 1,242,432; Oct. 9; v. 243; p. 346.
Carbureter. J. A. Haigh. No. 1,242,180; Oct. 9; v. 243; p. 267.
Carbureter. S. E. Heren. No. 1,243,602; Oct. 16; v. 243; p. 742.
Carbureter. L. J. Hirt. No. 1,243,409; Oct. 16; v. 243; p. 685.
Carbureter. C. F. Johnson. No. 1,244,858; Oct. 30; v. 243; p. 1198.
Carbureter. A. L. Payton. No. 1,241,546; Oct. 2; v. 243; p. 24.
Carbureter. A. L. Payton. No. 1,241,547; Oct. 2; v. 243; p. 25.
Carbureter. W. Shakespeare, Jr., and W. Schmid. No. 1,243,348; Oct. 16; v. 243; p. 668.
Carbureter. A. Thompson. No. 1,243,897; Oct. 23; v. 243; p. 871.

Carbureter. J. L. Walker. No. 1,242,089; Oct. 2; v. 243; p. 196.
Carbureter. E. E. Wickersham. No. 1,243,666; Oct. 16; v. 243; p. 763.
Carbureter air-intakes, Electric heater for. J. M. Nater. No. 1,244,234; Oct. 23; v. 243; p. 971.
Carbureter for internal-combustion motors. G. W. Donning. No. 1,242,926; Oct. 16; v. 243; p. 538.
Carbureter-locking device. G. C. Jensen. No. 1,243,301; Oct. 16; v. 243; p. 654.
Cards, Playing-. P. S. Cohen. No. 1,243,263; Oct. 16; v. 243; p. 642.
Cards, Playing-. G. J. Schied. No. 1,243,985; Oct. 23; v. 243; p. 896.
Carpenter's work-support. G. F. Krieger. No. 1,243,532; Oct. 16; v. 243; p. 722.
Carpet-cleaner. A. Stathakis. No. 1,244,139; Oct. 23; v. 243; p. 942.
Carriage for overhead tracks. J. Matthews. No. 1,241,537; Oct. 2; v. 243; p. 21.
Carrier; *See*—
Aerial mail-carrier. Litter-carrier.
Bottle-carrier. Parcel-carrier.
Cartridge-carrier. Tire-carrier.
Egg-carrier.
Cartridge. C. A. Bush. No. 1,243,253; Oct. 16; v. 243; p. 639.
Cartridge-carrier. J. C. Chappell. No. 1,241,922; Oct. 2; v. 243; p. 146.
Cartridge, Hydraulic. D. V. Sickman. No. 1,243,991; Oct. 23; v. 243; p. 898.
Cartridge, Long-range shotgun-. L. P. Gerhardt. No. 1,243,155; Oct. 16; v. 243; p. 609.
Cartridge, Refillable fuse-. J. T. Dugger. No. 1,243,719; Oct. 23; v. 243; p. 814.
Cartridges, Feeding device for machines for loading. A. von Henriquez. No. 1,242,086; Oct. 2; v. 243; p. 196.
Case; *See*—
Cigarette-case. Filing-case.
Display-case. Pipe-shipping case.
Ecclesiastical ritual-case. Toilet-case.
Filing-appliance case. Type-case.
Case-hardening material and making same. A. O. Blaich. No. 1,241,909. Oct. 2; v. 243; p. 141.
Cash-register. F. L. Fuller. No. 1,242,170; Oct 9; v. 243; p. 264.
Cash-register. H. A. Martin. No. 1,244,063; Oct. 23; v. 243; p. 920.
Cash-register. F. Skerl. No. 1,243,992; Oct. 23; v. 243; p. 899.
Cash-register. E. J. Von Pein. No. 1,244,005; Oct. 23; v. 243; p. 903.
Cash-registers, Indicating mechanism for. E. J. Von Pein. No. 1,242,281; Oct. 9; v. 243; p. 298.
Cash-registers, Keyboard mechanism for. E. J. Von Pein. No. 1,242,280; Oct. 9; v. 243; p. 297.
Casing-spear. W. Wagner. No. 1,243,904; Oct. 23; v. 243; p. 873.
Casket, Burial. J. L. Frysinger. No. 1,244,315; Oct. 23; v. 243; p. 996.
Casket supporting and transferring device. C. A. Albrecht. No. 1,242,410; Oct. 9; v. 243; p. 339.
Casseroles and other hot-food containers, Carrier for. L. Wojtkow. No. 1,244,395; Oct. 23; v. 243; p. 1019.
Casters, Insect-trap for. F. W. Goedeke. No. 1,242,680; Oct. 9; v. 243; p. 426.
Casting-machine. W. Dietrich. (Reissue.) No. 14,371; Oct. 2; v. 243; p. 207.
Casting rolls and the like. H. A. Lomax. No. 1,242,827; Oct. 9; v. 243; p. 472.
Castings, Expansible pattern for tubular. J. B. Walker. No. 1,242,747; Oct. 9; v. 243; p. 447.
Castings, Making alloy. W. M. Johnson. No. 1,243,416; Oct. 16; v. 243; p. 687.
Catamenial appliance. L. E. Norquist. No. 1,241,652; Oct. 2; v. 243; p. 59.
Ceiling-support. A. J. Widmer. No. 1,243,367; Oct. 16; v. 243; p. 673.
Celluloid article, Making a. J. Wilcox. No. 1,244,676; Oct. 30; v. 243; p. 1143.
Celluloid substitute and making same. H. Dreyfus. No. 1,242,783; Oct. 9; v. 243; p. 459.
Cellulose plastics and solvents, Making acetyl-. W. G. Lindsay. No. 1,244,348; Oct. 23; v. 243; p. 1006.
Cellulose plastics and solvents thereof, Making acetyl-. W. G. Lindsay. No. 1,244,347; Oct. 23; v. 243; p. 1005.
Cellulose plastics, Making solvents for acetyl-. W. G. Lindsay. No. 1,244,349; Oct. 23; v. 243; p. 1006.
Cellulose, Preparing solutions of. Z. Oatenberg. No. 1,242,030; Oct. 2; v. 243; p. 179.
Cellulose, Producing flowable compounds of acetyl-. W. G. Lindsay. No. 1,244,107; Oct. 23; v. 243; p. 933.
Cellulose, Producing flowable compounds of acetyl-. W. G. Lindsay. No. 1,244,108; Oct. 23; v. 243; p. 933.
Cement. L. McCulloch. No. 1,241,531; Oct. 2; v. 243; p. 19.
Cement-block molds, Reinforced core for. F. Zagelmeyer. No. 1,244,937; Oct. 30; v. 243; p. 1223.
Cement composition and making the same. T. Hardman and F. L. Northup. No. 1,244,326; Oct. 23; v. 243; p. 1000.
Cement-divider. H. Ott. No. 1,242,032; Oct. 2; v. 243; p. 179.
Cement-holder. K. G. Hadgieff. No. 1,244,600; Oct. 30; v. 243; p. 1120.
Cement, &c., Manufacture of. L. P. Basset. No. 1,244,280; Oct. 23; v. 243; p. 986.
Cementing-machine. J. W. Cosgrove. No. 1,242,925; Oct. 16; v. 243; p. 538.
Cementing-machine. I. L. Keith. No. 1,242,561; Oct. 9; v. 243; p. 388.
Centering and facing tool, Combined. F. M. Budlong. No. 1,244,953; Oct. 30; v. 243; p. 1227.
Centrifugal machines, Means for mounting and driving. E. W. Phillips. No. 1,242,857; Oct. 9; v. 243; p. 482.
Centrifugal self-balancing separator or clarifier. H. A. Riggs. No. 1,242,866; Oct. 9; v. 243; p. 485.
Cereal pastes, Drying-room for. N. D'Agostino. No. 1,244,420; Oct. 23; v. 243; p. 1029.
Chain attaching and adjusting device. W. S. Waltz. No. 1,243,469; Oct. 16; v. 243; p. 702.
Chain-catch. A. C. Dunkleberger. No. 1,242,159; Oct. 9; v. 243; p. 260.
Chain-link-forming mechanism, Wire-. A. Berg. No. 1,244,448; Oct. 23; v. 243; p. 1035.
Chain, Mining-machine. F. L. Sessions. No. 1,244,785; Oct. 30; v. 243; p. 1176.
Chain or belt, Transmission. J. Lynn. No. 1,243,537; Oct. 16; v. 243; p. 724.
Chain, Tenter-. W. P. Anthony. No. 1,242,121; Oct. 9; v. 243; p. 248.
Chain-tightener, Adjustable. C. H. Christy and S. K. Hunger. No. 1,243,711; Oct. 23; v. 243; p. 810.
Chains, Making. J. F. Craven. No. 1,242,324; Oct. 9; v. 243; p. 312.
Chains, Making. J. F. Craven. No. 1,242,325; Oct. 9; v. 243; p. 312.
Chair; *See*—
Barber's chair. Folding chair.
Combination-chair.
Chair. W. G. Hall. No. 1,243,402; Oct. 16; v. 243; p. 682.
Chair and high chair, Combined. G. Agati. No. 1,243,913; Oct. 23; v. 243; p. 876.
Chair fan attachment, Rocking-. A. J. Schroeder. No. 1,241,670; Oct. 2; v. 243; p. 64.
Chair-tray. G. D. Thomas. No. 1,242,074; Oct. 2; v. 243; p. 192.
Chandelier. R. C. Steeple. No. 1,241,777; Oct. 2; v. 243; p. 98.
Chandeliers, Valve and signal device for gas-. A. Spielman. No. 1,242,488; Oct. 9; v. 243; p. 364.
Change-receptacle. R. Tappan. No. 1,242,739; Oct. 9; v. 243; p. 444.
Chaplet. S. Le Viness, Jr. No. 1,241,862; Oct. 2; v. 243; p. 125.
Charcoal, Method and machine for preparing. H. J. Haber. No. 1,243,734; Oct. 23; v. 243; p. 819.
Check-holder. B. Marsh. No. 1,243,326; Oct. 16; v. 243; p. 662.
Check-indorsing machine. W. E. Marshall. No. 1,244,524; Oct. 30; v. 243; p. 1096.
Check-protector. I. Engstrom. No. 1,242,162; Oct. 9; v. 243; p. 261.
Cheese-shelf. L. W. Wooden. No. 1,243,788; Oct. 23; v. 243; p. 837.
Chemicals to fluids, Proportionate application of. G. F. Hodkinson. No. 1,243,737; Oct. 23; v. 243; p. 820.
Chimney-holder. H. Watty. No. 1,242,748; Oct. 9; v. 243; p. 447.
Chopper; *See*—
Cotton-chopper.
Chuck. J. A. Milliken. No. 1,243,090; Oct. 16; v. 243; p. 592.
Chuck. J. A. Stanfield. No. 1,244,253; Oct. 23; v. 243; p. 977.
Chuck, Machine-. J. G. Hallas. No. 1,242,182; Oct. 9; v. 243; p. 267.
Churn. C. A. McCann. No. 1,242,218; Oct. 9; v. 243; p. 278.
Churn. S. H. Sandefur. No. 1,243,634; Oct. 16; v. 243; p. 753.
Churns, Vent-valve for. F. Chadina. No. 1,244,292; Oct. 23; v. 243; p. 990.
Chute. W. W. Jackson. No. 1,244,501; Oct. 30; v. 243; p. 1089.
Chute door, Coal-. C. F. Stiglitz. No. 1,242,067; Oct. 2; v. 243; p. 190.
Chute for mixing-machines, Delivery-. C. W. Levalley. No. 1,243,614; Oct. 16; v. 243; p. 747.
Cigar and cigarette holder. H. A. Gray. No. 1,243,158; Oct. 16; v. 243; p. 610.
Cigar-slitting machine. J. E. Norquest. No. 1,245,012; Oct. 30; v. 243; p. 1245.
Cigars, cigarettes, and the like, Holder for. F. A. Cerruti. No. 1,241,820; Oct. 2; v. 243; p. 112.
Cigars in packages, Holder for. T. E. Fearon. No. 1,243,827; Oct. 23; v. 243; p. 850.
Cigarette-box. A. Kupiszewski. No. 1,244,057; Oct. 23; v. 243; p. 919.
Cigarette-case. T. J. Jurick. No. 1,242,699; Oct. 9; v. 243; p. 432.
Cigarette-machines, Cutter-head for. R. E. Rosewarne. No. 1,242,478; Oct. 9; v. 243; p. 361.
Cigarettes and the like, Straw-covering material for mouthpieces of. A. B. Fischl. No. 1,241,840; Oct. 2; v. 243; p. 119.
Circuit-breaker. E. W. Johanson. No. 1,242,195; Oct. 9; v. 243; p. 271.

Circuit-breaker. W. S. Mayer. No. 1,244,225; Oct. 23; v. 243; p. 969.
Circuit-breaker for ignition systems. J. A. Williams. No. 1,244,155; Oct. 23; v. 243; p. 947.
Circuit-controller. W. C. Reed. No. 1,243,221; Oct. 16; v. 243; p. 630.
Circuit-controller, Coin-controlled. V. R. Bacon. No. 1,244,408; Oct. 23; v. 243; p. 1024.
Circuit-controlling device. H. P. Clausen. No. 1,243,261; Oct. 16; v. 243; p. 641.
Circuit-interrupter. J. B. MacNeill. No. 1,241,533; Oct. 2; v. 243; p. 20.
Circuit-interrupter. J. N. Mahoney. No. 1,241,534; Oct. 2; v. 243; p. 20.
Clamp: *See*—
Bracket-clamp.
Cable-pulling clamp.
Curtain-clamp.
Flooring-clamp.
Gas-gate-hood clamp.
Ground-clamp.
Hose-clamp.
Lamp-bracket clamp.
Pulley-clamp.
Screw-clamp.
Wheel and jack clamp.
Wire coiling and binding clamp.
Clamp. W. A. Richardson. No. 1,243,103; Oct. 16; v. 243; p. 595.
Clamp. W. A. Richardson. No. 1,243,104; Oct. 16; v. 243; p. 595.
Clamp. W. A. Richardson. No. 1,243,105; Oct. 16; v. 243; p. 596.
Clamp. W. A. Richardson. No. 1,243,106; Oct. 16; v. 243; p. 596.
Clamp. W. A. Richardson. No. 1,243,107; Oct. 16; v. 243; p. 596.
Clamp. W. A. Richardson. No. 1,243,108; Oct. 16; v. 243; p. 596.
Clamp. W. A. Richardson. No. 1,243,109; Oct 16; v. 243; p. 597.
Clamp. H. G. Woodhead. No. 1,243,027; Oct. 16; v. 243; p. 571.
Clamping device. B. J. Hudson. No. 1,241,629; Oct. 2; v. 243; p. 52.
Clasp: *See*—
Bag-clasp.
Cuff-clasp.
Jewelry-clasp.
Clasp. A. T. Van Alstyn. No. 1,245,070; Oct. 30; v. 243; p. 1262.
Cleaner: *See*—
Barn-cleaner.
Carpet-cleaner.
Grain-cleaner.
Wind-shield cleaner.
Cleaner. F. M. Case. (Reissue.) No. 14,383; Oct. 23; v. 243; p. 1041.
Cleaning apparatus. J. M. Wilson. No. 1,243,472; Oct. 16; v. 243; p. 703.
Clevis. W. A. Paul. No. 1,243,972; Oct. 23; v. 243; p. 893.
Climber for linemen. H. E. Marshall. No. 1,243,436; Oct. 16; v. 243; p. 694.
Clip: *See*—
Detector-bar clip.
Paper-clip.
Pen or pencil clip.
Tie-slip clip.
Clock, Electric. G. Blumberg and J. A. Butkus. No. 1,242,132; Oct. 9; v. 243; p. 251.
Clock, Electric. G. Blumberg and J. A. Butkus. No. 1,244,164; Oct. 23; v. 243; p. 950.
Closet: *See*—
Water-closet.
Closures, Operating structure for. C. B. Mattson. No. 1,241,538; Oct. 2; v. 243; p. 21.
Cloth-cutting machine. O. I. Judelsohn. No. 1,242,448; Oct. 9; v. 243; p. 351.
Cloth-cutting machine, Electric. A. P. Komow. No. 1,244,055; Oct. 23; v. 243; p. 918.
Cloth-fold protector. J. McKendrick. No. 1,242,709; Oct. 9; v. 243; p. 435.
Cloth-pressing machine. F. S. Sparks. No. 1,244,653; Oct. 30; v. 243; p. 1136.
Clothes-boiler. J. Skagen. No. 1,243,563; Oct. 16; v. 243; p. 731.
Clothes-drier. H. B. Frutchey. No. 1,244,314; Oct. 23; v. 243; p. 996.
Clothes-line reel. W. E. Pratt. No. 1,244,445; Oct. 23; v. 243; p. 1034.
Clothes-line support. E. E. Robinson. No. 1,242,867; Oct. 9; v. 243; p. 486.
Clothes-line support. A. and W. J. Zeller. No. 1,241,892; Oct. 2; v. 243; p. 136.
Clothes-pin. V. D. Hillman. No. 1,242,804; Oct. 9; v. 243; p. 465.
Clothes-rack. M. J. Leabo. No. 1,241,746; Oct. 2; v. 243; p. 89.
Clothes-rack. J. W. Price. No. 1,243,216; Oct. 16; v. 243; p. 629.
Clothes-retainer. G. H. Wheary. No. 1,243,785; Oct. 23; v. 243; p. 836.
Clutch. A. Jauch. No. 1,241,631; Oct. 2; v. 243; p. 53.
Clutch. M. L. Johnston. No. 1,244,860; Oct. 30; v. 243; p. 1198.
Clutch. A. H. Sweet. No. 1,242,389; Oct. 9; v. 243; p. 322.
Clutch-control mechanism. A. Chambers. No. 1,244,468; Oct. 30; v. 243; p. 1079.
Clutch-operating mechanism. G. J. Rumens. No. 1,244,376; Oct. 23; v. 243; p. 1013.
Clutches, Automatic uncoupling means for shaft-. G. H. Rice. No. 1,242,723; Oct. 9; v. 243; p. 440.
Clutches, Automatic uncoupling means for shaft-. G. H. Rice. No. 1,242,724; Oct. 9; v. 243; p. 440.
Coal-hod and ash-sifter, Combined. N. D. Henley. No. 1,244,605; Oct. 30; v. 243; p. 1121.
Coat-hanger. C. M. Koenig. No. 1,244,342; Oct. 23; v. 243; p. 1004.
Coating composition, Liquid. E. Rogers. No. 1,244,777; Oct. 30; v. 243; p. 1174.
Coating iron, steel, or other metals with metal. E. Bernheim. No. 1,244,414; Oct. 23; v. 243; p. 1025.
Coating metal ingot-molds, Apparatus for. G. F. Downs. No. 1,243,718; Oct. 23; v. 243; p. 813.
Coating metal sheets, Apparatus for. J. H. Caffrey. No. 1,243,808; Oct. 23; v. 243; p. 843.
Coating-molds for metal ingots. G. F. Downs. No. 1,243,717; Oct. 23; v. 243; p. 813.
Cock, Compression-stop and waste-. H. J. Geurink. No. 1,244,976; Oct. 30; v. 243; p. 1234.
Cock, Spring-. M. J. Kelly. No. 1,241,089; Oct. 2; v. 243; p. 166.
Cocoa, Making so-called alkalized. W. C. Bladen. No. 1,243,244; Oct. 16; v. 243; p. 636.
Coherer-protector. H. D. Betz. No. 1,242,512; Oct. 9; v. 243; p. 371.
Coil-winding apparatus. F. B. Segur. No. 1,244,137; Oct. 23; v. 243; p. 942.
Coin-controlled machine. A. D. Grover. No. 1,243,512; Oct. 16; v. 243; p. 717.
Coin-counting machines, Coin-holder for. J. M. Johnson. No. 1,241,632; Oct. 2; v. 243; p. 53.
Coin-delivery machine. N. White. No. 1,244,812; Oct. 30; v. 243; p. 1184.
Coin device, Prepayment. J. W. Lattig and C. L. Goodrum. No. 1,241,998; Oct. 2; v. 243; p. 169.
Coin-handling machine. H. Mendelsohn. No. 1,242,016; Oct. 2; v. 243; p. 175.
Coin-holder. W. L. McClenahan. No. 1,242,358; Oct. 9; v. 243; p. 322.
Coin-receptacle. H. Weil. No. 1,243,467; Oct. 16; v. 243; p. 702.
Coin-register. M. H. Mandelbaum. No. 1,243,619; Oct. 16; v. 243; p. 749.
Coke-oven walls, Repairing. A. H. Chalmers. No. 1,244,467; Oct. 30; v. 243; p. 1079.
Coking-furnace. H. G. Stone. No. 1,243,776; Oct. 23; v. 243; p. 833.
Collapsible box or container. J. F. Parker and M. Van Heuvel. No. 1,244,239; Oct. 23; v. 243; p. 973.
Collapsible tube. F. F. B. Chapman. No. 1,242,654; Oct. 9; v. 243; p. 418.
Collar. W. A. Tooke. No. 1,243,011; Oct. 16; v. 243; p. 566.
Collar. W. A. Tooke. No. 1,243,461; Oct. 16; v. 243; p. 701.
Collar. J. C. Turrell. No. 1,243,463; Oct. 16; v. 243; p. 701.
Collar, Fold-. H. E. Shumway. No. 1,243,452; Oct. 16; v. 243; p. 698.
Collar-holder. A. A. Kinion. No. 1,242,451; Oct. 9; v. 243; p. 352.
Colors, Making phosphorescent. R. F. Langer. No. 1,244,058; Oct. 23; v. 243; p. 919.
Colter and jointer, Combined. H. S. Dickinson. No. 1,244,714; Oct. 30; v. 243; p. 1155.
Colter, Plow-. W. W. Cameron. No. 1,244,028; Oct. 23; v. 243; p. 910.
Colter, Rolling. H. S. Dickinson. No. 1,242,154; Oct. 9; v. 243; p. 259.
Comb: *See*—
Currycomb.
Comb-cleaning device. N. B. Chartier. No. 1,244,469; Oct. 30; v. 243; p. 1079.
Combination-chair. E. E. Stockwell. No. 1,244,389; Oct. 23; v. 243; p. 1017.
Combustion-engine. E. Hurlbrink. No. 1,244,333; Oct. 23; v. 243; p. 1001.
Commutator. H. M. Scheibe. No. 1,241,559; Oct. 2; v. 243; p. 30.
Commutator-bars, Manufacture of. J. Biggerstaff. No. 1,242,417; Oct. 9; v. 243; p. 342.
Commutators, Building. V. G. Apple. No. 1,243,795; Oct. 23; v. 243; p. 839.
Compass and protractor, Combination. M. V. Wolf. No. 1,244,272; Oct. 23; v. 243; p. 984.
Compass set, Ship's gyroscope-. E. A. Sperry. No. 1,242,065; Oct. 2; v. 243; p. 189.
Composition of matter. C. L. Jones. No. 1,244,742; Oct. 30; v. 243; p. 1164.
Composition tie and rail-fastener. E. H. Havens. No. 1,241,970; Oct. 2; v. 243; p. 159.
Compressor. W. E. Ver Planck. No. 1,242,276; Oct. 9; v. 243; p. 296.
Computing-head-setting mechanism. W. Wright. No. 1,244,574; Oct. 30; v. 243; p. 1113.
Computing machine, Mechanically-operated horse-power-. B. E. Clough. No. 1,242,771; Oct. 9; v. 243; p. 455.
Concentrator. W. A. Huelsdonk. No. 1,244,611; Oct. 30; v. 243; p. 1123.
Concrete-block mold. G. C. Henkle. No. 1,242,439; Oct 9; v. 243; p. 348.
Concrete-block-molding machine. J. O. Davison. No. 1,241,932; Oct. 2; v. 243; p. 148.
Concrete building construction. E. A. Tucker. No. 1,244,663; Oct. 30; v. 243; p. 1139.

Concrete-culvert mold. H. F. Worley. No. 1,243,910; Oct. 23; v. 243; p. 875.
Concrete floor construction, Reinforced-. W. M. Pratt. No. 1,244,641; Oct. 30; v. 243; p. 1132.
Concrete floors, Hollow metal tile for reinforced-. G. B. Waite. No. 1,241,793; Oct. 2; v. 243; p. 103.
Concrete-form device. A. Colarusso. No. 1,243,713; Oct. 23; v. 243; p. 811.
Concrete-insert. A. E. Davis. No. 1,241,827; Oct. 2; v. 243; p. 115.
Concrete-mixers, Means for supplying water to. G. Jaeger. No. 1,241,518; Oct. 2; v. 243; p. 15.
Concrete-molds, Collapsible core for. S. F. Wazbinski. No. 1,242,098; Oct. 2; v. 243; p. 197.
Concrete-reinforcing plate. A. Ratner. No. 1,242,039; Oct. 2; v. 243; p. 181.
Concrete structural members, Method and means for forming. M. Fletcher. No. 1,241,945; Oct. 2; v. 243; p. 152.
Concrete structures, Facing-bar for. D. W. Brooks. No. 1,244,831; Oct. 30; v. 243; p. 1190.
Concrete work, Flush-insert for. D. L. Cummings. No. 1,244,034; Oct. 23; v. 243; p. 912.
Condensation product and preparing same. L. V. Redman, A. J. Weith, and F. P. Brock. No. 1,242,593; Oct. 9; v. 243; p. 399.
Condenser. F. [redacted] Lull. No. 1,243,536; Oct. 16; v. 243; p. 723.
Condenser-coil. W. L. Finne. No. 1,244,722; Oct. 30; v. 243; p. 1158.
Condenser, Reflux-. D. H. Christman. No. 1,243,384; Oct. 16; v. 243; p. 678.
Condensing-cap, Compound safety-seal. D. Benjamin. No. 1,243,132; Oct. 16; v. 243; p. 603.
Condiment-holder. T. D. Hawkes. No. 1,243,836; Oct. 23; v. 243; p. 853.
Conductors, Support for suspended. H. Schaefer. No. 1,242,048; Oct. 2; v. 243; p. 183.
Conduit-hanger. H. B. Sherman. No. 1,245,047; Oct. 30; v. 243; p. 1254.
Connecting member. M. M. Wallace. No. 1,243,018; Oct. 16; v. 243; p. 569.
Contact reel and brush. J. Nutry. No. 1,242,716; Oct. 9; v. 243; p. 438.
Container. G. T. Hackley. No. 1,244,324; Oct. 23; v. 243; p. 999.
Container. A. A. Rackoff. No. 1,244,369; Oct. 23; v. 243; p. 1011.
Container, Fibrous. L. P. Brown. No. 1,243,698; Oct. 23; v. 243; p. 805.
Container hanger, Collapsible-. J. E. Connolly. No. 1,243,140; Oct. 16; v. 243; p. 605.
Containers, Sanitary closing and sealing device for. L. P. Brown. No. 1,243,699; Oct. 23; v. 243; p. 806.
Control apparatus. A. J. Hall. No. 1,244,491; Oct. 30; v. 243; p. 1087.
Control system. H. L. Beach. No. 1,244,459; Oct. 30; v. 243; p. 1076.
Control system. A. J. Hall. No. 1,241,507; Oct. 2; v. 243; p. 10.
Control system. A. J. Hall. No. 1,244,492; Oct. 30; v. 243; p. 1087.
Control system. R. E. Hellmund. No. 1,242,937; Oct. 16; v. 243; p. 542.
Control system. B. G. Lamme. No. 1,241,523; Oct. 2; v. 243; p. 16.
Control system. K. A. Simmon and A. J. Hall. No. 1,241,566; Oct. 2; v. 243; p. 32.
Control system. K. A. Simmon and A. J. Hall. No. 1,241,567; Oct. 2; v. 243; p. 32.
Control system. K. A. Simmon and A. J. Hall. No. 1,241,568; Oct. 2; v. 243; p. 33.
Control system. K. A. Simmon and J. D. Birrell. No. 1,241,569; Oct. 2; v. 243; p. 33.
Controller. I. Deutsch. No. 1,244,478; Oct. 30; v. 243; p. 1082.
Controller. E. A. Hanff. No. 1,241,510; Oct. 2; v. 243; p. 11.
Controller arc-deflector, circuit-breaker, and the like, Division-piece or partition for a. W. R. McRae and R. Russell. No. 1,244,224; Oct. 23; v. 243; p. 969.
Converter system, Vacuum-type. C. L. Fortescue. No. 1,244,486; Oct. 30; v. 243; p. 1085.
Conveyer. C. F. Leatherbee. No. 1,241,525; Oct. 2; v. 243; p. 17.
Conveyer, Endless blank-gripping apron. M. E. Peters, G. H. Fath, and A. F. Miller. No. 1,244,536; Oct. 30; v. 243; p. 1100.
Conveyer or trucker from a fixed station, Device for setting the selective controlling apparatus on a moving automatic goods. L. Rottenburg. No. 1,244,546; Oct. 30; v. 243; p. 1104.
Conveying and timing apparatus for timing and delivering articles. J. C. Tallaferro, D. P. Robinson, and J. Coyle. No. 1,242,738; Oct. 9; v. 243; p. 444.
Conveying systems, Intake-fitting for. A. P. Strong. No. 1,243,892; Oct. 23; v. 243; p. 870.
Cooking device. L. F. Hake. No. 1,242,181; Oct. 9; v. 243; p. 267.
Cooler: *See*—
Beer-cooler.
Cooler. V. V. Pittman. No. 1,242,036; Oct. 2; v. 243; p. 180.
Copper ores, Treatment of. G. C. Westby. No. 1,244,810; Oct. 30; v. 243; p. 1184.
Copper tubes, Method and apparatus for electrically making. E. Emerson. No. 1,243,274; Oct. 16; v. 243; p. 645.
Copy-holder. W. B. Rhoads. No. 1,245,027; Oct. 30; v. 243; p. 1249.
Copy-holding device. W. E. Gray. No. 1,244,323; Oct. 23; v. 243; p. 999.
Cord, Making hollow. J. D. Tew. No. 1,245,067; Oct. 30; v. 243; p. 1261.
Core, Collapsible. W. Y. Duncan, Jr. No. 1,241,942; Oct. 2; v. 243; p. 151.
Cork-extractor. J. J. Lyons. No. 1,243,845; Oct. 23; v. 243; p. 855.
Cork guard, Bottle-. W. R. Barringer. No. 1,243,916; Oct. 23; v. 243; p. 877.
Corn, grain, fruits, and the like, Apparatus for the treatment of. J. C. A. Pointe. No. 1,244,774; Oct. 30; v. 243; p. 1173.
Corn husker and shredder. G. L. Phelps. No. 1,242,973; Oct. 16; v. 243; p. 553.
Cornets or the like, Rotary air-valve for. E. E. King. No. 1,244,745; Oct. 30; v. 243; p. 1164.
Correspondence device. N. Ottinger. No. 1,242,968; Oct. 16; v. 243; p. 552.
Corset. A. J. Lecoutre. No. 1,244,059; Oct. 23; v. 243; p. 919.
Corset and detachable abdominal support, Combination. J. M. Johnson. No. 1,242,946; Oct. 16; v. 243; p. 545.
Corset-steel. A. J. Lecoutre. No. 1,244,060; Oct. 23; v. 243; p. 919.
Cot. G. Norberti. No. 1,243,092; Oct. 16; v. 243; p. 592.
Cot, Ambulance-. W. H. Thomas. No. 1,242,496; Oct. 9; v. 243; p. 366.
Cotter-key. J. F. Pfister. No. 1,244,076; Oct. 23; v. 243; p. 923.
Cotton chopper or blocker. J. V. Cunningham. No. 1,243,046; Oct. 16; v. 243; p. 577.
Cotton, Gin attachment for bolly. G. T. Becknell. No. 1,242,126; Oct. 9; v. 243; p. 250.
Cotton, Method and apparatus for handling seed-. G. F. Thompson. No. 1,242,271; Oct. 9; v. 243; p. 295.
Cotton-seed hulls, Method of and apparatus for delinting. M. Reynolds. No. 1,244,131; Oct. 23; v. 243; p. 940.
Cotton-seed linter. B. F. Summerour. No. 1,243,895; Oct. 23; v. 243; p. 871.
Couch, Traction-. J. W. Riddle. No. 1,242,598; Oct. 9; v. 243; p. 401.
Counter. G. H. Jones. No. 1,243,610; Oct. 16; v. 243; p. 746.
Coupling: *See*—
Car and train-pipe coupling.
Car-coupling.
Electric coupling.
Hose-coupling.
Junction-box coupling.
Pipe-coupling.
Pneumatic coupling.
Pump-coupling.
Shaft-coupling.
Sweep-stick coupling.
Train-line coupling.
Cover, Detachable. H. B. Beatty. No. 1,243,033; Oct. 16; v. 243; p. 574.
Cover fastener, Receptacle-. A. Drewitz. No. 1,241,831; Oct. 2; v. 243; p. 116.
Cover-supporting device. H. S. Sturtevant and E. K. Biddy. No. 1,242,736; Oct. 9; v. 243; p. 443.
Crank-holding attachment. J. W. Cunningham. No. 1,243,593; Oct. 16; v. 243; p. 740.
Crate. L. M. Fleming. No. 1,242,430; Oct. 9; v. 243; p. 345.
Crate, Folding. H. E. Colleys. No. 1,242,772; Oct. 9; v. 243; p. 455.
Crate, Poultry-. E. M. Eger and R. D. Klear. No. 1,242,160; Oct. 9; v. 243; p. 260.
Crate, Shipping-. A. D. Childs. No. 1,242,143; Oct. 9; v. 243; p. 255.
Crating apparatus for bottles and the like. L. A. Hawthorne. No. 1,243,406; Oct. 16; v. 243; p. 683.
Crating mechanism, Bottle-. L. A. Hawthorne. No. 1,243,407; Oct. 16; v. 243; p. 684.
Crating mechanism, Bottle-. L. A. Hawthorne. No. 1,243,408; Oct. 16; v. 243; p. 684.
Cream-separator. H. B. Keiper. No. 1,241,988; Oct. 2; v. 243; p. 165.
Cream-separator speed-indicator. C. F. Asplund. No. 1,244,162; Oct. 23; v. 243; p. 949.
Creeper or antislipping device. F. A. Cerruti. No. 1,241,821; Oct. 2; v. 243; p. 113.
Creosote-oil substitute and making same. G. E. Heyl. No. 1,242,188; Oct. 9; v. 243; p. 269.
Crib. A. F. Bent. No. 1,244,579; Oct. 30; v. 243; p. 1114.
Crutch. N. F. Blackard. No. 1,241,815; Oct. 2; v. 243; p. 111.
Crutch, Invalid's. E. Walters. No. 1,244,928; Oct. 30; v. 243; p. 1220.
Cuff. C. Dempsey. No. 1,241,936; Oct. 2; v. 243; p. 150.
Cuff-clasp. E. B. Stackpole. No. 1,243,775; Oct. 23; v. 243; p. 832.
Cuff-link. G. S. Paull. No. 1,243,547; Oct. 16; v. 243; p. 727.
Culinary utensil. J. J. Burns and W. H. Flynn. No. 1,241,818; Oct. 2; v. 243; p. 112.
Culinary vessel. W. E. Dunkle. No. 1,243,823; Oct. 23; v. 243; p. 849.
Cultivator. W. A. Paul and J. P. Seaholm. No. 1,243,970; Oct. 23; v. 243; p. 892.
Cultivator-arch. J. R. Kelley. No. 1,241,634; Oct. 2; v. 243; p. 54.

Cultivator-standards, Holding device for. W. L. Paul. No. 1,243,971; Oct. 23; v. 243; p. 892.
Culvert-mold. W. W. Johnston. No. 1,244,214; Oct. 23; v. 243; p. 965.
Cup: *See*—
Eye-cup.
Grease-cup.
Oil-cup.
Current-collecting device. L. C. Nichols. No. 1,243,204; Oct. 16; v. 243; p. 626.
Current-collecting device. J. S. Dean. No. 1,244,476; Oct. 30; v. 243; p. 1081.
Currents, Means for interconverting alternating and direct. J. L. Woodbridge. No. 1,244,569; Oct. 30; v. 243; p. 1111.
Currents of high frequency, Method and apparatus for producing oscillating. A. H. Cohen. No. 1,243,043; Oct. 16; v. 243; p. 576.
Currycomb. T. J. Cribbs. No. 1,241,928; Oct. 2; v. 243; p. 147.
Currycomb. C. A. McDowell. No. 1,243,846; Oct. 23; v. 243; p. 855.
Curtain and shade bracket. C. R. Walker. No. 1,242,088; Oct. 2; v. 243; p. 196.
Curtain-clamp, Clench. N. E. Larson. No. 1,244,748; Oct. 30; v. 243; p. 1165.
Curtain-fixture. S. C. Hills. No. 1,242,441; Oct. 9; v. 243; p. 349.
Curtain-rod attachment. B. M. Gibson. No. 1,242,172; Oct. 9; v. 243; p. 265.
Curtain-rod fixture. J. R. Coe. No. 1,243,139; Oct. 16; v. 243; p. 605.
Curtain-support. J. T. Parris. No. 1,242,849; Oct. 9; v. 243; p. 480.
Cushion: *See*—
Die-cushion.
Cushion-seat. J. L. Winans. No. 1,243,787; Oct. 23; v. 243; p. 837.
Cutter: *See*—
Beet-cutter.
Ensilage-cutter.
Meat-cutter.
Paper-cutter.
Pipe-cutter.
Rotary cutter.
Weed-cutter.
Cutter. F. Richard. No. 1,243,446; Oct. 16; v. 243; p. 696.
Cutter and cultivator, Combined. H. J. Kinzel. No. 1,244,746; Oct. 30; v. 243; p. 1165.
Cutter-machine, Rotary. L. J. Baribault. No. 1,243,797; Oct. 23; v. 243; p. 840.
Cutting-machine. J. Park. No. 1,243,969; Oct. 23; v. 243; p. 892.
Cutting irregular threads, Machine for. C. C. Blake. No. 1,241,910; Oct. 2; v. 243; p. 142.
Cutting-tool. P. Rult and S. J. Maher. No. 1,243,449; Oct. 16; v. 243; p. 697.
Cutting wheel, Rotary. F. J. Bullock. No. 1,244,171; Oct. 23; v. 243; p. 951.
Cylinder-lock. E. Epstein. No. 1,244,304; Oct. 23; v. 243; p. 993.
Cylinder-reboring machine. Q. R. Murphy. No. 1,241,543; Oct. 2; v. 243; p. 23.
Damper-lock and indicator. M. Ham. No. 1,244,198; Oct. 23; v. 243; p. 959.
Dandy-roll and other like devices such as cylinder-molds, &c. W. K. Trotman. No. 1,244,562; Oct. 30; v. 243; p. 1109.
Dasher, Adjustable utility. W. A. Clanton. No. 1,244,956; Oct. 30; v. 243; p. 1228.
Decorating composition. I. H. Terrell and W. Schaum. No. 1,243,362; Oct. 16; v. 243; p. 672.
Decorating-depositor. A. L. Bausman. No. 1,243,668; Oct. 16; v. 243; p. 763.
Defensive implement. J. Darmofalski. No. 1,244,036; Oct. 23; v. 243; p. 912.
Delivering mechanism. G. B. Evans. No. 1,243,723; Oct. 23; v. 243; p. 815.
Demountable wheel. P. T. Snyder. No. 1,243,773; Oct. 23; v. 243; p. 832.
Dental cement. W. S. Crowell. No. 1,244,296; Oct. 23; v. 243; p. 991.
Dental-instrument switch. P. Russell. No. 1,242,115; Oct. 2; v. 243; p. 205.
Dental restoration, Forming. R. W. Sweetman. No. 1,244,257; Oct. 23; v. 243; p. 978.
Dental suction-disk. N. Cohen. No. 1,243,366; Oct. 16; v. 243; p. 678.
Dental tool. V. Stoll. No. 1,244,792; Oct. 30; v. 243; p. 1178.
Dentures, Attachment for holding. H. Schreier. No. 1,242,989; Oct. 16; v. 243; p. 558.
Derailing device, Adjustable. E. R. Packer. No. 1,242,847; Oct. 9; v. 243; p. 479.
Desiccating fluids, Means for and method of. C. E. Rogers. No. 1,243,878; Oct. 23; v. 243; p. 866.
Desk, Movable-top. P. S. Marcellus. No. 1,244,523; Oct. 30; v. 243; p. 1096.
Detector. J. and R. J. Thompson. No. 1,245,135; Oct. 30; v. 243; p. 1282.
Detector-bar clip. W. S. Henry. No. 1,245,102; Oct. 30; v. 243; p. 1271.
Detonator-cap protector. G. L. Dillard. No. 1,242,781; Oct. 9; v. 243; p. 458.
Diaphragm-mounting. H. M. Marble. No. 1,242,222; Oct. 9; v. 243; p. 280.
Diaphragm-tensioning means. J. G. Nolen. No. 1,242,228; Oct. 9; v. 243; p. 282.
Die: *See*—
Thread-cutting die.
Die and die-stock. M. F. Moran. No. 1,243,543; Oct. 16; v. 243; p. 726.
Die-cushion. D. Strand. No. 1,245,059; Oct. 30; v. 243; p. 1258.
Die-head, Hand-operated. W. H. Gates. No. 1,242,897; Oct. 9; v. 243; p. 494.
Die-presses or like machines, Attachment for ejectors of. C. D. McDonald. No. 1,243,435; Oct. 16; v. 243; p. 693.
Digger: *See*—
Post-hole digger.
Potato, peanut, or the like digger.
Dining-kit. H. O. A. Albrechtsen. No. 1,243,239; Oct. 16; v. 243; p. 635.
Dipper-tooth. W. G. Nichols. No. 1,242,715; Oct. 9; v. 243; p. 378.
Direction-indicator. O. L. Britton. No. 1,242,516; Oct. 9; v. 243; p. 372.
Direction-signal and alarm. B. and G. F. Curtiss. No. 1,243,266; Oct. 16; v. 243; p. 643.
Dish-lifter. A. Panasci. No. 1,242,465; Oct. 9; v. 243; p. 357.
Dish-washer, Mechanical. W. R. Walker. No. 1,244,446; Oct. 23; v. 243; p. 1034.
Dish-washing machine. P. T. Dunn. No. 1,243,925; Oct. 23; v. 243; p. 879.
Disinfector and deodorizer. E. J. Čapek. No. 1,242,321; Oct. 9; v. 243; p. 311.
Disk grinder. R. L. Carter. No. 1,244,584; Oct. 30; v. 243; p. 1116.
Dispensing-can. J. Q. Bosselmann. No. 1,243,801; Oct. 23; v. 243; p. 841.
Dispensing device. F. M. Case. No. 1,244,585; Oct. 30; v. 243; p. 1116.
Dispensing device. L. Heck. No. 1,244,205; Oct. 23; v. 243; p. 961.
Dispensing-machine. G. W. Mathison. No. 1,241,646; Oct. 2; v. 243; p. 57.
Dispensing-receptacle. C. L. Weil. No. 1,243,021; Oct. 16; v. 243; p. 570.
Display advertising-machine. J. B. Barnett. No. 1,242,639; Oct. 9; v. 243; p. 413.
Display-case, Revolving. A. A. Carter. No. 1,243,706; Oct. 23; v. 243; p. 808.
Display-cases, Lighting-fixture for. E. M. Smith. No. 1,243,453; Oct. 16; v. 243; p. 698.
Display device. J. T. Berthelote. No. 1,244,282; Oct. 23; v. 243; p. 987.
Display device. J. Stranders. No. 1,243,070; Oct. 2; v. 243; p. 191.
Display-fixture. H. M. Friesleben. No. 1,243,059; Oct. 16; v. 243; p. 582.
Display-rack. C. C. Rush. No. 1,241,768; Oct. 2; v. 243; p. 95.
Display-rack, Rotary. A. Vanderveld. No. 1,243,014; Oct. 16; v. 243; p. 567.
Display-racks, Locking device for. A. Vanderveld. No. 1,243,015; Oct. 16; v. 243; p. 567.
Display-stand. M. M. Elnson. No. 1,242,535; Oct. 9; v. 243; p. 378.
Display-stand. T. Enochty. No. 1,242,429; Oct. 9; v. 243; p. 345.
Distillation of coal and other carbonaceous materials. H. G. Stone. No. 1,242,261; Oct. 9; v. 243; p. 292.
Distillation of materials containing cellulose, Dry. H. von Hochstetter. No. 1,241,789; Oct. 2; v. 243; p. 102.
Distilling apparatus, Electrical. C. H. Fulton. No. 1,242,337; Oct. 9; v. 243; p. 316.
Distilling metallic ores. C. H. Fulton and T. M. Bains, Jr. No. 1,242,339; Oct. 9; v. 243; p. 317.
Distilling metallic ores and metal-bearing materials, Apparatus for. C. H. Fulton and T. M. Bains, Jr. No. 1,242,340; Oct. 9; v. 243; p. 317.
Distributer. J. F. Cavanagh. No. 1,242,895; Oct. 9; v. 243; p. 494.
Distribution and control system. R. E. Hellmund. No. 1,242,936; Oct. 16; v. 243; p. 542.
Distribution and control system. B. G. Lamme. No. 1,243,307; Oct. 16; v. 243; p. 656.
Distribution and control system. B. G. Lamme. No. 1,243,430; Oct. 16; v. 243; p. 692.
Ditch-filling machine. H. W. Cardwell. No. 1,244,290; Oct. 23; v. 243; p. 989.
Ditching and grading machine. T. Gilbertson. No. 1,244,319; Oct. 23; v. 243; p. 998.
Ditching-machine. E. P. Knape. No. 1,243,306; Oct. 16; v. 243; p. 656.
Ditching-machine. B. M. Rolph. No. 1,241,661; Oct. 2; v. 243; p. 62.
Divers' armor with flexed members, Submersion control for. G. Stolle. No. 1,245,058; Oct. 30; v. 243; p. 1258.
Doll. W. A. Trost. No. 1,244,799; Oct. 30; v. 243; p. 1180.
Doll-house, Sectional or knockdown. M. Williams. No. 1,241,594; Oct. 2; v. 243; p. 42.
Doll, Mechanical. W. A. Fusch. No. 1,243,152; Oct. 16; v. 243; p. 608.
Door-actuating mechanism. F. A. Lester. No. 1,242,001; Oct. 2; v. 243; p. 170.
Door attachment. E. Ringuette. No. 1,244,644; Oct. 30; v. 243; p. 1133.

Door bolt, Double-. L. G. Keyes. No. 1,241,991; Oct. 2; v. 243; p. 167.
Door-closer. W. J. Keene. No. 1,243,947; Oct. 23; v. 243; p. 885.
Door-closer. A. T. Loftsgaarden. No. 1,244,621; Oct. 30; v. 243; p. 1126.
Door-controlling device. A. C. Dunn. No. 1,244,594; Oct. 30; v. 243; p. 1119.
Door-fastening means. E. J. Shur. No. 1,243,115; Oct. 16; v. 243; p. 598.
Door-hanger. W. D. Ferris. No. 1,243,499; Oct. 16; v. 243; p. 713.
Door-hanger. G. J. Hanson. No. 1,242,798; Oct. 9; v. 243; p. 463.
Door-lock. W. A. Lurie. No. 1,243,433; Oct. 16; v. 243; p. 693.
Door-lock, Combination. G. D. Carr. No. 1,242,140; Oct. 9; v. 243; p. 254.
Door-lock, Safety. J. Kish. No. 1,243,952; Oct. 23; v. 243; p. 887.
Door-lock, Self-locking. J. W. Lindberg. No. 1,244,872; Oct. 30; v. 243; p. 1202.
Door lock, Sliding-. J. Pearson. No. 1,243,548; Oct. 16; v. 243; p. 727.
Door, Metallic. A. B. Walther. No. 1,242,283; Oct. 9; v. 243; p. 299.
Door-opener. D. W. Smith. No. 1,244,910; Oct. 30; v. 243; p. 1214.
Door operating and controlling means for garages, Automatic. J. T. Berthelote. No. 1,244,283; Oct. 23; v. 243; p. 987.
Door-securing device. J. P. Mackay. No. 1,243,618; Oct. 16; v. 243; p. 749.
Doors, Lock mechanism for sliding. F. M. Brinkerhoff. (Reissue.) No. 14,379; Oct. 23; v. 243; p. 1037.
Dosing device for animals. G. H. French. No. 1,241,952; Oct. 2; v. 243; p. 154.
Double-headed nail. W. A. Collings. No. 1,242,924; Oct. 16; v. 243; p. 537.
Dough, Machine for rounding up lumps of. F. H. Van Houten. No. 1,244,801; Oct. 30; v. 243; p. 1180.
Dough-molding machine. C. A. Thomson. No. 1,242,079; Oct. 2; v. 243; p. 193.
Dough-shaping machine. F. Aeschbach. No. 1,242,753; Oct. 9; v. 243; p. 449.
Draft-equalizer. A. M. Best. No. 1,243,243; Oct. 16; v. 243; p. 636.
Draft-gear. W. H. Cotton. No. 1,243,389; Oct. 16; v. 243; p. 679.
Draft-gear. R. L. McIntosh and R. G. Taylor. No. 1,243,085; Oct. 16; v. 243; p. 591.
Draft-gear, Friction. J. R. Cardwell. No. 1,243,256; Oct. 16; v. 243; p. 639.
Draft-gear, Friction. E. W. Newell. No. 1,243,756; Oct. 23; v. 243; p. 827.
Drafting instrument. M. E. Steczynski. No. 1,243,568; Oct. 16; v. 243; p. 732.
Draw-bar and two-part-yoke connection. J. F. O'Connor. No. 1,242,844; Oct. 9; v. 243; p. 478.
Draw-plates or dies, Manufacture of. J. C. Henderson. No. 1,243,167; Oct. 16; v. 243; p. 613.
Drawers. C. Benson. No. 1,242,760; Oct. 9; v. 243; p. 451.
Drawing instrument. C. E. Johnson. No. 1,241,986; Oct. 2; v. 243; p. 164.
Dresser and folding bed, Combined. C. Bognar. No. 1,243,918; Oct. 23; v. 243; p. 877.
Drier: *See*—
Clothes-drier.
Drier. C. A. Wendell. No. 1,244,007; Oct. 23; v. 243; p. 904.
Drier system, Open-top-. R. C. Penfield. No. 1,243,212; Oct. 16; v. 243; p. 628.
Drying apparatus. B. Panara. No. 1,242,368; Oct. 9; v. 243; p. 326.
Drying-machine. W. M. Brownell. No. 1,242,518; Oct. 9; v. 243; p. 373.
Drill: *See*—
Grain-drill.
Hammer-drill.
Post-drill.
Well-drill.
Drill-press attachment. W. J. Mackle. No. 1,244,112; Oct. 23; v. 243; p. 935.
Drilling-machine. D. Spehar. No. 1,244,385; Oct. 23; v. 243; p. 1015.
Drilling-machine, Automatic. C. E. Loyd. No. 1,243,616; Oct. 16; v. 243; p. 748.
Drilling-machine pitman. W. C. Sole. No. 1,245,051; Oct. 30; v. 243; p. 1255.
Drink-mixer, Electrical. R. H. Stringham. No. 1,242,493; Oct. 9; v. 243; p. 365.
Drinking-fountain, Sanitary. A. I. Fischer. No. 1,242,538; Oct. 9; v. 243; p. 380.
Drives, Mechanism for forward and rear wheel. D. W. Lydell. No. 1,244,221; Oct. 23; v. 243; p. 907.
Driving and stopping mechanism. A. R. Schoenky. No. 1,242,247; Oct. 9; v. 243; p. 287.
Driving and stopping mechanism. A. R. Schoenky. No. 1,243,986; Oct. 23; v. 243; p. 897.
Driving connection. G. G. Milne and W. F. Richards. No. 1,242,577; Oct. 9; v. 243; p. 394.
Driving mechanism. C. E. Duryea. No. 1,244,185; Oct. 23; v. 243; p. 956.
Driving mechanism. W. H. Sargent. No. 1,243,882; Oct. 23; v. 243; p. 867.
Drop-cord-extension reel. A. W. Carroll and E. J. Fuller. No. 1,243,039; Oct. 16; v. 243; p. 575.
Dropper: *See*—
Block-dropper.
Drum. M. J. O'Connor. No. 1,243,207; Oct. 16; v. 243; p. 627.
Drum-trap guard. M. Block. No. 1,243,245; Oct. 16; v. 243; p. 637.
Dumping and removable body. A. C. Schulz. No. 1,243,635; Oct. 16; v. 243; p. 754.
Duplicating-machine. A. F. Wegener. No. 1,243,573; Oct. 16; v. 243; p. 734.
Duplicating-machines, Name-plate for. C. E. Adamson. No. 1,242,117; Oct. 9; v. 243; p. 247.
Dye. W. W. Coe, Jr. No. 1,243,042; Oct. 16; v. 243; p. 576.
Dye content of waste liquors, Commercial process for reclaiming the. T. Forsyth. No. 1,242,676; Oct. 9; v. 243; p. 425.
Dye, Violet cotton-. M. Weller. No. 1,244,149; Oct. 23; v. 243; p. 945.
Dyes and making same, Vat. R. Herz. No. 1,243,170; Oct. 16; v. 243; p. 614.
Dyes and making same, Vat. R. Herz. No. 1,243,171; Oct. 16; v. 243; p. 614.
Dyeing and bleaching machine. T. Allsop and W. W. Sibson. No. 1,245,139; Oct. 30; v. 243; p. 1283.
Dyestuff, Production of a. Z. Suzuki. No. 1,244,795; Oct. 30; v. 243; p. 1179.
Dyestuff, Production of a. Z. Suzuki. No. 1,244,796; Oct. 30; v. 243; p. 1179.
Dyestuffs and making same, Chromium compound of azo. G. Engi and C. Jagerspacher. No. 1,242,536; Oct. 9; v. 243; p. 379.
Dynamo-mounting. G. Crosby. No. 1,242,528; Oct. 9; v. 243; p. 376.
Dynamo-mounting. W. F. Richards. No. 1,242,596; Oct. 9; v. 243; p. 400.
Dynamo suspension. W. F. Bouché. No. 1,241,492; Oct. 2; v. 243; p. 5.
Dynamo suspension. W. F. Bouché. No. 1,242,513; Oct. 9; v. 243; p. 371.
Dynamo suspension. G. Crosby. No. 1,242,529; Oct. 9; v. 243; p. 376.
Dynamo suspension. W. F. Richards. No. 1,242,597; Oct. 9; v. 243; p. 400.
Earth-boring machine. J. F. Sauerman. No. 1,241,665; Oct. 2; v. 243; p. 63.
Easel. A. De Groot. No. 1,242,151; Oct. 9; v. 243; p. 258.
Eaves-trough, Sanitary. C. W. Wicks. No. 1,243,119; Oct. 16; v. 243; p. 599.
Ecclesiastical ritual-case. A. E. Maguire. No. 1,242,570; Oct. 9; v. 243; p. 391.
Educational appliance. A. T. McCluer. No. 1,243,957; Oct. 23; v. 243; p. 888.
Educational appliance. H. Soltoft. No. 1,244,000; Oct. 23; v. 243; p. 901.
Egg-carrier, Collapsible. E. O. Kraeplin. No. 1,243,075; Oct. 16; v. 243; p. 588.
Egg tester and handler. P. S. Rakowski. No. 1,242,979; Oct. 16; v. 243; p. 555.
Elbow-fitting. H. A. Poppenhusen and A. P. Strong. No. 1,243,874; Oct. 23; v. 243; p. 864.
Electric-arc furnace. O. J. S. Platou. No. 1,241,655; Oct. 2; v. 243; p. 60.
Electric battery. W. R. Clymer. No. 1,242,657; Oct. 9; v. 243; p. 418.
Electric bells, &c., Vibrating self-interrupter for. W. E. R. Rademaker. No. 1,242,038; Oct. 2; v. 243; p. 181.
Electric circuit. M. Loughridge. No. 1,242,457; Oct. 9; v. 243; p. 354.
Electric-circuit switch. R. Wikander. No. 1,241,592; Oct. 2; v. 243; p. 41.
Electric conducting ground-rod. G. W. Soengen. No. 1,243,774; Oct. 23; v. 243; p. 832.
Electric conductors, Winding and reeling device for. P. J. Ruffalo. No. 1,245,034; Oct. 30; v. 243; p. 1251.
Electric-conduit fitting. S. B. Van Ranst. No. 1,243,902; Oct. 23; v. 243; p. 873.
Electric controlling system. H. S. Valentine. No. 1,243,571; Oct. 16; v. 243; p. 733.
Electric coupling. T. R. Brown. No. 1,244,949; Oct. 30; v. 243; p. 1226.
Electric coupling for train-line circuits. T. R. Brown. No. 1,242,517; Oct. 9; v. 243; p. 373.
Electric coupling, Manually-operated. T. R. Brown. No. 1,243,700; Oct. 23; v. 243; p. 806.
Electric currents into interrupted alternating currents, Apparatus for changing direct. A. C. Heiny. No. 1,242,549; Oct. 9; v. 243; p. 365.
Electric currents, Process of and apparatus for interconverting and adjusting the relative voltage of high-potential alternating and direct. C. G. Koppitz. No. 1,244,614; Oct. 30; v. 243; p. 1124.
Electric distribution. J. L. Creveling. No. 1,244,960; Oct. 30; v. 243; p. 1229.
Electric furnace. C. H. Fulton. No. 1,242,341; Oct. 9; v. 243; p. 318.
Electric furnace. I. R. Valentine. No. 1,242,275; Oct. 9; v. 243; p. 296.
Electric furnace and method of operation. W. K. Booth. No. 1,244,415; Oct. 23; v. 243; p. 1025.
Electric furnace, Polyphase. J. L. Dixon. No. 1,241,499; Oct. 2; v. 243; p. 7.

Electric fuse, Inclosed. R. C. Cole. No. 1,244,589; Oct. 30; v. 243; p. 1117.
Electric heater. E. N. Brown. No. 1,245,084; Oct. 30; v. 243; p. 1266.
Electric heater. H. W. Denhard. No. 1,243,490; Oct. 16; v. 243; p. 710.
Electric heater. A. Harth. No. 1,242,687; Oct. 9; v. 243; p. 428.
Electric heater. W. A. La Motte. No. 1,242,209; Oct. 9; v. 243; p. 276.
Electric heater for hot-water tanks. R. A. Willson. No. 1,244,817; Oct. 30; v. 243; p. 1186.
Electric-light control system. J. H. Jordan. No. 1,241,520; Oct. 2; v. 243; p. 15.
Electric-light fixture. R. M. Beard. No. 1,243,481; Oct. 16; v. 243; p. 707.
Electric machine, Alternating-current dynamo-. L. J. Hunt. No. 1,244,983; Oct. 30; v. 243; p. 1236.
Electric machine, Dynamo-. J. L. Davis. (Reissue.) No. 14,370; Oct. 2; v. 243; p. 206.
Electric machine, Dynamo-. A. B. Field. No. 1,241,503; Oct. 2; v. 243; p. 9.
Electric machine, Dynamo-. B. G. Lamme. No. 1,244,509; Oct. 30; v. 243; p. 1092.
Electric machine, Dynamo-. G. M. Larsson. No. 1,244,868; Oct. 30; v. 243; p. 1201.
Electric machine, Dynamo-. L. C. Nichols. No. 1,243,966; Oct. 23; v. 243; p. 891.
Electric machines, Slip-ring for dynamo-. W. Gscheidlen. No. 1,243,286; Oct. 16; v. 243; p. 649.
Electric machines, Winding for dynamo-. J. C. Davenport. No. 1,244,709; Oct. 30; v. 243; p. 1153.
Electric metallurgical furnace and operating the same. W. E. Moore. No. 1,242,464; Oct. 9; v. 243; p. 356.
Electric motor. A. C. Sargent. No. 1,245,039; Oct. 30; v. 243; p. 1252.
Electric push-button. D. E. Blair. No. 1,243,482; Oct. 16; v. 243; p. 707.
Electric regulator. G. Honold. No. 1,243,738; Oct. 23; v. 243; p. 821.
Electric service connections and meter devices, Protective casing for. J. Sachs. No. 1,245,036; Oct. 30; v. 243; p. 1251.
Electric-supply systems, Distance-operated mechanism and signal connected to. H. E. Angold, W. Duddell, A. H. Dykes, H. W. Handcock, and C. Oliver. No. 1,242,756; Oct. 9; v. 243; p. 450.
Electric switch. A. H. Englund. No. 1,244,720; Oct. 30; v. 243; p. 1157.
Electric switch. C. T. Evans. No. 1,243,722; Oct. 23; v. 243; p. 815.
Electric switch. W. H. Farmer. (Reissue.) No. 14,372; Oct. 2; v. 243; p. 209.
Electric switch. G. W. Hart. No. 1,243,166; Oct. 16; v. 243; p. 612.
Electric switch. J. S. Hickman. No. 1,245,103; Oct. 30; v. 243; p. 1271.
Electric train lighting, ventilating, and heating system and the like. A. H. Darker. No. 1,242,328; Oct. 9; v. 243; p. 313.
Electric wires, Test-connector for. A. Kneisel. No. 1,244,099; Oct. 23; v. 243; p. 931.
Electrical apparatus. A. Pruessman. No. 1,244,642; Oct. 30; v. 243; p. 1132.
Electrical appliances, Terminal for. F. J. Hadfield. No. 1,241,627; Oct. 2; v. 243; p. 52.
Electrical circuits, Automatic line-closer for series. B. S. Eddy. No. 1,242,333; Oct. 9; v. 243; p. 315.
Electrical circuits, Stabilizing and power-factor correcting means for. J. F. Peters. No. 1,242,971; Oct. 16; v. 243; p. 553.
Electrical conductors, Snap clamp or grip for. T. F. Johnson, Jr. No. 1,244,339; Oct. 23; v. 243; p. 1003.
Electrical conduits, Connector for. A. McMurtrie. No. 1,243,748; Oct. 23; v. 243; p. 824.
Electrical connector. C. C. Armstrong. No. 1,242,637; Oct. 9; v. 243; p. 412.
Electrical connector. E. E. Rose and O. A. Colby. No. 1,241,556; Oct. 2; v. 243; p. 29.
Electrical distributer. C. J. Wallace. No. 1,244,926; Oct. 30; v. 243; p. 1219.
Electrical distribution system. E. F. W. Alexanderson. No. 1,242,632; Oct. 9; v. 243; p. 410.
Electrical fixture. C. H. Bissell. No. 1,243,800; Oct. 23; v. 243; p. 841.
Electrical protective apparatus. F. R. Parker. No. 1,245,014; Oct. 30; v. 243; p. 1246.
Electrical protective device. B. H. Smith. No. 1,241,571; Oct. 2; v. 243; p. 34.
Electrode and making the same. J. E. Thomsen. No. 1,243,009; Oct. 16; v. 243; p. 565.
Electrode, Arc-lamp. W. R. Mott. No. 1,244,358; Oct. 23; v. 243; p. 1008.
Electrode, Arc-lamp. W. R. Mott. No. 1,244,359; Oct. 23; v. 243; p. 1008.
Electrode-holder. R. O. Jackson. No. 1,242,554; Oct. 9; v. 243; p. 385.
Electrollers, Fitting for. K. Kornbau. No. 1,244,615; Oct. 30; v. 243; p. 1124.
Electrolytic apparatus. H. R. Hanley. No. 1,241,967; Oct. 2; v. 243; p. 158.
Electromagnet. P. Bossu. No. 1,242,763; Oct. 9; v. 243; p. 452.
Electromagnetic device. K. C. Randall. No. 1,241,554; Oct. 2; v. 243; p. 28.
Electron-discharge apparatus and method of operating the same. I. Langmuir. No. 1,244,217; Oct. 23; v. 243; p. 966.
Electron-discharge apparatus and method of preparation. I. Langmuir. No. 1,244,216; Oct. 23; v. 243; p. 966.
Electroplating apparatus. L. Potthoff. No. 1,243,098; Oct. 16; v. 243; p. 594.
Electroplating wire cloth, Method of and apparatus for. R. O. Hood. No. 1,242,695; Oct. 9; v. 243; p. 431.
Elements from their compounds, Securing. V. M. Weaver. No. 1,241,706; Oct. 2; v. 243; p. 104.
Elevated-carrier lock. C. Madson. No. 1,244,353; Oct. 23; v. 243; p. 1007.
Elevator: See—
Battery-elevator.
Grain-elevator.
Elevator construction. P. F. Ellmer and C. Streff. No. 1,241,724; Oct. 2; v. 243; p. 83.
Elevator-door-operating means. S. B. Douse. No. 1,243,924; Oct. 23; v. 243; p. 879.
Elevator safety appliance. W. L. Finue. No. 1,244,723; Oct. 30; v. 243; p. 1158.
Elevator safety device. I. H. Venn. No. 1,242,394; Oct. 9; v. 243; p. 335.
Elevator safety system. H. G. Hillman. No. 1,244,211; Oct. 23; v. 243; p. 964.
Elevator-shaft sliding-door mechanism. A. J. Rosentreter. No. 1,244,899; Oct. 30; v. 243; p. 1211.
Embossing, Method and apparatus for producing dals and sunk dais. J. Saunders. No. 1,243,226; Oct. 16; v. 243; p. 632.
Embroidery-holder. J. H. Pettit. No. 1,242,972; Oct. 16; v. 243; p. 553.
Embroidery-hoop. G. A. Moore. No. 1,244,230; Oct. 23; v. 243; p. 970.
Embroidery-hoop. F. W. Preyer. No. 1,244,892; Oct. 30; v. 243; p. 1209.
End-gate. G. W. Luckenbaugh. No. 1,244,351; Oct. 23; v. 243; p. 1006.
End-gate fastener. C. W. Geyer. No. 1,242,543; Oct. 9; v. 243; p. 381.
End-gate, Wagon. C. Polson. No. 1,242,860; Oct. 9; v. 243; p. 483.
Energy by means of alternately-moving air-columns, Machine for use in transmitting. H. Christiansen. No. 1,244,955; Oct. 30; v. 243; p. 1228.
Engine: See—
Combustion-engine.
Explosive-engine.
Gas-engine.
Internal-combustion engine.
Oil-engine.
Rotary engine.
Rotary explosive-engine.
Rotary internal-combustion engine.
Steam-engine.
Traction-engine.
Engine. D. F. Llewellyn. No. 1,242,826; Oct. 9; v. 243; p. 472.
Engine. W. Petz. No. 1,242,855; Oct. 9; v. 243; p. 482.
Engine. A. V. Rasmussen. No. 1,243,554; Oct. 16; v. 243; p. 728.
Engine-casing. F. E. Watts. No. 1,242,285; Oct. 9; v. 243; p. 300.
Engine igniter mechanism, Internal-combustion-. H. R. Van Deventer. No. 1,244,260; Oct. 23; v. 243; p. 979.
Engine or pump construction. C. A. Anderson. No. 1,244,160; Oct. 23; v. 243; p. 948.
Engine primer, Gas-. A. I. Sandbo. No. 1,242,871; Oct. 9; v. 243; p. 487.
Engine-revolution indicator. J. Kirby. No. 1,241,994; Oct. 2; v. 243; p. 167.
Engine-speed regulator. J. Bairs. No. 1,244,409; Oct. 23; v. 243; p. 1024.
Engine starter, Automobile-. J. K. Stewart. No. 1,242,999; Oct. 16; v. 243; p. 562.
Engine starter, Internal-combustion-. J. K. Stewart. No. 1,242,997; Oct. 16; v. 243; p. 561.
Engine starter, Internal-combustion-. J. K. Stewart. No. 1,242,998; Oct. 16; v. 243; p. 561.
Engine-starting apparatus, Internal-combustion-. J. R. Price. No. 1,243,875; Oct. 23; v. 243; p. 864.
Engine-starting device. C. F. Kettering and W. A. Chryst. No. 1,241,990; Oct. 2; v. 243; p. 166.
Engine-starting device. L. H. Smith. No. 1,242,485; Oct. 9; v. 243; p. 363.
Engine-starting device. E. J. Tomlinson. No. 1,244,003; Oct. 23; v. 243; p. 902.
Engine-starting device. E. J. Tomlinson. No. 1,244,004; Oct. 23; v. 243; p. 903.
Engine-starting mechanism, Internal-combustion-. G. J. Spohrer. No. 1,243,455; Oct. 16; v. 243; p. 699.
Engine-starting mechanism, Motor-. P. J. Durham. No. 1,244,482; Oct. 30; v. 243; p. 1084.
Engine-starting motor. L. Hashenberg. No. 1,241,625; Oct. 2; v. 243; p. 51.
Engine-starting system. C. F. Kettering and W. A. Chryst. No. 1,243,422; Oct. 16; v. 243; p. 690.
Engines, Apparatus for ignition in explosive-. J. H. Stringham. No. 1,243,002; Oct. 16; v. 243; p. 563.
Engines, Composition of matter for removing incrustations from internal-combustion. E. Mendelsohn. No. 1,244,114; Oct. 23; v. 243; p. 935.
Engines, Distillate-burner for internal-combustion. E. C. Wescott and H. M. Locke. No. 1,244,151; Oct. 23; v. 243; p. 946.
Engines, Electric revolution-meter for internal-combustion. J. Kirby. No. 1,241,993; Oct. 2; v. 243; p. 167.
Engines, Exhaust auxiliary for explosion-. C. R. Frazer. No. 1,244,442; Oct. 23; v. 243; p. 1033.

Engines, Fuel-economizer for explosive-. J. Goodwin. No. 1,244,321; Oct. 23; v. 243; p. 998.
Engines, Fuel-saving device for explosion-. W. L. Bell. No. 1,244,689; Oct. 30; v. 243; p. 1146.
Engines, Ignition system for internal-combustion. W. L. Learned. No. 1,241,999; Oct. 2; v. 243; p. 169.
Engines, Liquid-fuel atomizer for internal-combustion. H. B. Higgins, Jr. No. 1,244,733; Oct. 30; v. 243; p. 1161.
Engines, Means for controlling explosive-. L. C. Jackson. No. 1,244,737; Oct. 30; v. 243; p. 1162.
Engines, Means for starting internal-combustion. P. Stern. No. 1,242,258; Oct. 9; v. 243; p. 291.
Engines, Packing rotary. W. H. Friedrich. No. 1,243,830; Oct. 23; v. 243; p. 851.
Engines, Vacuum system for internal-combustion. W. R. Ramford and H. W. Hamilton. No. 1,244,686; Oct. 30; v. 243; p. 1145.
Engines, Vapor creating and mixing device for gas-. O. Hayes. No. 1,244,730; Oct. 30; v. 243; p. 1160.
Engines, Vapor forming and injecting device for gas-. O. Hayes. No. 1,244,731; Oct. 30; v. 243; p. 1160.
Engines, Vaporizing apparatus for internal-combustion. J. E. Smith. No. 1,245,129; Oct. 30; v. 243; p. 1279.
Engraving-block. P. D. Shirley. No. 1,242,993; Oct. 16; v. 243; p. 559.
Engraving-machine. J. F. Keller and W. A. Warman. No. 1,243,182; Oct. 16; v. 243; p. 618.
Ensilage-cutter. G. M. Merwin. No. 1,241,541; Oct. 2; v. 243; p. 22.
Envelop and music-sheet, Combination. A. L. Campbell. No. 1,243,037; Oct. 16; v. 243; p. 575.
Envelop-moistener. P. B. Downing. No. 1,243,595; Oct. 16; v. 243; p. 740.
Envelop moistener and sealer. J. A. Mathers. No. 1,241,645; Oct. 2; v. 243; p. 57.
Envelop-sealing tool. H. C. Kendall. No. 1,244,054; Oct. 23; v. 243; p. 918.
Envelop, Window-. C. J. Gutberlet. No. 1,245,100; Oct. 30; v. 243; p. 1271.
Eraser. W. Roberts. No. 1,243,447; Oct. 16; v. 243; p. 697.
Etching device. V. C. Ronning. No. 1,243,630; Oct. 16; v. 243; p. 752.
Ethyl chlorid, Manufacturing. B. S. Lacy. No. 1,242,208; Oct. 9; v. 243; p. 276.
Evaporating apparatus. H. Schwanenberg. No. 1,242,481; Oct. 9; v. 243; p. 362.
Evener. F. A. Hagerman. No. 1,242,179; Oct. 9; v. 243; p. 266.
Excavating-wheels, Bucket-cleaning means for. A. V. Wadsworth. No. 1,244,006; Oct. 23; v. 243; p. 903.
Excavations, Back-filling machine for. W. J. A. Hoenecke. No. 1,243,293; Oct. 16; v. 243; p. 651.
Excavator, Loading-. T. F. Moore. No. 1,245,118; Oct. 30; v. 243; p. 1277.
Exhibiting and dispensing apparatus, Combined. S. W. Crane. No. 1,242,149; Oct. 9; v. 243; p. 257.
Exhibitor. M. Perreten. No. 1,245,019; Oct. 30; v. 243; p. 1247.
Expansion-bolt. J. Lee. No. 1,244,992; Oct. 30; v. 243; p. 1238.
Explosions, Means for minimizing the effects of colliery. J. J. C. Allison and J. Waller. No. 1,243,377; Oct. 16; v. 243; p. 676.
Explosive compound, Producing. R. H. Twining and R. W. G. Wyckoff. No. 1,242,900; Oct. 9; v. 243; p. 495.
Explosive device. R. C. Crawford. No. 1,243,817; Oct. 23; v. 243; p. 847.
Explosive-engine. N. Boggs. No. 1,243,483; Oct. 16; v. 243; p. 707.
Explosives, Manufacture of. R. G. Smith. No. 1,243,231; Oct. 16; v. 243; p. 633.
Explosives, Manufacture of. R. G. Smith. No. 1,243,351; Oct. 16; v. 243; p. 669.
Exposure-signal and film-guard. A. Droste. No. 1,242,157; Oct. 9; v. 243; p. 260.
Extension-table. M. Heymann. No. 1,244,208; Oct. 23; v. 243; p. 963.
Extension-table. S. R. Libbey. No. 1,242,822; Oct. 9; v. 243; p. 471.
Extension-table. C. Nelson. No. 1,243,621; Oct. 16; v. 243; p. 750.
Extinguishing apparatus. J. O'Loughlin. No. 1,244,637; Oct. 30; v. 243; p. 1131.
Extractor: See—
Cork-extractor.
Eye-cup. B. C. Heath. No. 1,244,498; Oct. 30; v. 243; p. 1089.
Eye-protector. G. H. Day. No. 1,241,714; Oct. 2; v. 243; p. 78.
Eye-protector. G. H. Day. No. 1,241,715; Oct. 2; v. 243; p. 79.
Eye-protector. G. H. Day. No. 1,243,820; Oct. 23; v. 243; p. 848.
Eyeglass and spectacle mounting. J. F. Sallee. No. 1,242,599; Oct. 9; v. 243; p. 401.
Eyeglass polisher-container. H. A. Hayden. No. 1,242,187; Oct. 9; v. 243; p. 269.
Eyeglasses. C. A. Hoffman. No. 1,243,410; Oct. 16; v. 243; p. 685.
Fabric: See—
Leather fabric.
Waterproof fabric.
Fabric. A. E. Jury. No. 1,241,853; Oct. 2; v. 243; p. 123.
Fabric. J. W. Snedeker. No. 1,243,352; Oct. 16; v. 243; p. 669.
Fabric. E. E. Waite. No. 1,243,905; Oct. 23; v. 243; p. 874.
Fabric-cutting machine. F. Chatfield. No. 1,243,673; Oct. 16; v. 243; p. 765.
Fabric-making machine, Open-mesh-. J. W. Snedeker. No. 1,243,353; Oct. 16; v. 243; p. 669.
Fan. P. Lawson. No. 1,244,103; Oct. 23; v. 243; p. 932.
Fan. W. K. Liggett. No. 1,243,615; Oct. 16; v. 243; p. 748.
Fan. A. Z. Seror and E. J. Hoyer. No. 1,243,637; Oct. 16; v. 243; p. 754.
Fan, Air-. J. A. Sweney. No. 1,242,116; Oct. 2; v. 243; p. 206.
Fan construction. L. M. Dieterich. No. 1,244,480; Oct. 30; v. 243; p. 1083.
Fan, Electric. A. Adamo. No. 1,243,238; Oct. 16; v. 243; p. 635.
Fan, Electric. G. Olson. No. 1,243,968; Oct. 23; v. 243; p. 892.
Fan-hanger outlet. F. B. Adam. No. 1,244,454; Oct. 30; v. 243; p. 1075.
Fan motor, Oscillating-. C. Aalborg. No. 1,241,599; Oct. 2; v. 243; p. 43.
Fan, Oscillating. C. Aalborg. No. 1,241,600; Oct. 2; v. 243; p. 44.
Fans, Protective device for ventilating-. R. A. Ilg. No. 1,244,334; Oct. 23; v. 243; p. 1002.
Farm-gate. G. W. Paullin. No. 1,245,016; Oct. 30; v. 243; p. 1246.
Farm-gate. S. R. Skaggs. No. 1,242,255; Oct. 9; v. 243; p. 290.
Fastener. F. S. Hazleton. No. 1,243,291; Oct. 16; v. 243; p. 650.
Fastener, Separable. G. Sundback. No. 1,243,458; Oct. 16; v. 243; p. 700.
Fastener-setting machine. J. F. Davey. No. 1,244,430; Oct. 23; v. 243; p. 1029.
Fastener, Snap-. S. Anderson. No. 1,241,806; Oct. 2; v. 243; p. 107.
Fastener, Snap-. I. Moss. No. 1,242,579; Oct. 9; v. 243; p. 395.
Fastener, Snap-. F. A. Neider. No. 1,243,859; Oct. 23; v. 243; p. 859.
Fastening, Threaded. L. R. Hibbard. No. 1,244,499; Oct. 30; v. 243; p. 1089.
Faucet. G. A. Ricks. No. 1,242,864; Oct. 9; v. 243; p. 485.
Faucets, Counting attachment for. A. J. Granberg. No. 1,243,400; Oct. 16; v. 243; p. 682.
Feed boiler, Magazine-. W. E. Roys. No. 1,244,375; Oct. 23; v. 243; p. 1012.
Feed device, Suction-operated liquid-. W. Jay. No. 1,244,092; Oct. 23; v. 243; p. 929.
Feed-roller construction. T. A. Coleman. No. 1,241,925; Oct. 2; v. 243; p. 146.
Feed-shaft. J. B. Prosser. No. 1,243,100; Oct. 16; v. 243; p. 595.
Feed system, Vacuum-. F. Weinberg. No. 1,242,288; Oct. 9; v. 243; p. 301.
Feed-trough. N. D. Berry. No. 1,243,689; Oct. 23; v. 243; p. 802.
Feed-trough. M. D. Stocking. No. 1,244,256; Oct. 23; v. 243; p. 978.
Feed-trough. R. S. Weaver. No. 1,242,399; Oct. 9; v. 243; p. 336.
Feed-water apparatus. E. Burke. No. 1,242,917; Oct. 16; v. 243; p. 535.
Feeder. J. M. Bussey. No. 1,241,706; Oct. 2; v. 243; p. 76.
Feeder. C. G. Pritchard. No. 1,242,978; Oct. 16; v. 243; p. 555.
Feeding device, Child's. W. H. Eldridge. No. 1,242,785; Oct. 9; v. 243; p. 459.
Feeding-roller construction. T. C. Morris. No. 1,242,020; Oct. 2; v. 243; p. 176.
Felt to channels, Machine for applying. A. Gagnon. No. 1,243,728; Oct. 23; v. 243; p. 817.
Fence. A. J. McClees. No. 1,244,623; Oct. 30; v. 243; p. 1127.
Fence machines, Feed mechanism for wire-. W. V. Reid. No. 1,242,594; Oct. 9; v. 243; p. 399.
Fence machines, Feeding mechanism for wire-. W. V. Reid. No. 1,242,595; Oct. 9; v. 243; p. 399.
Fence-post. W. T. Hicks. No. 1,244,607; Oct. 30; v. 243; p. 1122.
Fence-posts, Wire-clamp for. J. P. Smith. No. 1,243,884; Oct. 23; v. 243; p. 867.
Fender: See—
Automobile-fender.
Fender. S. Smith and R. J. Galvin. No. 1,242,612; Oct. 9; v. 243; p. 405.
Fertilizer-distributer and planter. H. S. Smith. No. 1,242,061; Oct. 2; v. 243; p. 188.
Fiber from fibrous plants and for treating the same, Apparatus for obtaining. H. J. Boeken. No. 1,244,461; Oct. 30; v. 243; p. 1077.
File-cleaning implement. E. D. McMellen. No. 1,242,710; Oct. 9; v. 243; p. 436.
Filing appliance. H. J. Hick. No. 1,242,694; Oct. 9; v. 243; p. 431.
Filing appliance. E. T. Silvius. No. 1,244,906; Oct. 30; v. 243; p. 1213.

Filing-appliance case. H. J. Hick. No. 1,242,440; Oct. 9; v. 243; p. 348.
Filing-box. W. A. Blood. No. 1,244,694; Oct. 30; v. 243; p. 1148.
Filing-case. E. E. De Burger. No. 1,242,101; Oct. 2; v. 243; p. 200.
Filing machine and equalizer for band and other saws of like construction, Side-. J. H. Robbins. No. 1,242,726; Oct. 9; v. 242; p. 440.
Film-tape-treating apparatus. F. B. Thompson. No. 1,244,258; Oct. 23; v. 243; p. 978.
Films, Feeding. W. M. Thomas. No. 1,244,920; Oct. 30; v. 243; p. 1217.
Filter and automatic cut-off, Rain-water. J. A. Peter. No. 1,242,854; Oct. 9; v. 243; p. 481.
Filtering. M. R. Lamb. No. 1,242,355; Oct. 9; v. 243; p. 321.
Finishing-strip. A. E. Vogt. No. 1,243,903; Oct. 23; v. 243; p. 873.
Fire-alarm, Automatic. M. F. Humphries. No. 1,242,552; Oct. 9; v. 243; p. 385.
Fire-alarm system. W. N. Ballard. No. 1,242,312; Oct. 9; v. 243; p. 308.
Fire-alarm system. H. R. and W. C. Hughs. No. 1,244,332; Oct. 23; v. 243; p. 1001.
Fire-alarms, Circuit-closing means for. H. W. Guthrie. No. 1,242,178; Oct. 9; v. 243; p. 266.
Fire apparatus. J. F. Stone. No. 1,241,572; Oct. 2; v. 243; p. 34.
Fire apparatus, Heat-sensitive link for automatic. A. Blauvelt. No. 1,243,690; Oct. 23; v. 243; p. 802.
Fire-escape. H. E. Astarita. No. 1,244,278; Oct. 23; v. 243; p. 986.
Fire-escape. M. Bencur. No. 1,241,701; Oct. 2; v. 243; p. 74.
Fire-escape. N. Kaplan. No. 1,241,856; Oct. 2; v. 243; p. 123.
Fire-escape. J. T. Paquin. No. 1,243,339; Oct. 16; v. 243; p. 665.
Fire-escape. J. J. Weinandt. No. 1,242,286; Oct. 9; v. 243; p. 300.
Fire-escapes, Centrifugal speed control for. J. A. Davidson. No. 1,241,930; Oct. 2; v. 243; p. 148.
Fire-extinguisher. J. W. Fitzgerald. No. 1,242,165; Oct. 9; v. 243; p. 262.
Fire-extinguisher. B. M. Griffith. No. 1,243,733; Oct. 23; v. 243; p. 818.
Fire-extinguisher. F. Simone. No. 1,242,254; Oct. 9; v. 243; p. 289.
Fire-extinguisher, Portable. G. T. Pearsons. No. 1,243,759; Oct. 23; v. 243; p. 827.
Fire-extinguisher system, Stationary. R. L. Cooney. No. 1,244,293; Oct. 23; v. 243; p. 990.
Fire-extinguishing apparatus, Automatic. E. L. Thompson. No. 1,245,134; Oct. 30; v. 243; p. 1281.
Fire-extinguishing apparatus, Chemical. J. R. Hamilton. No. 1,242,102; Oct. 2; v. 243; p. 201.
Fire-extinguishing system. F. J. H. Rustige. No. 1,241,664; Oct. 2; v. 243; p. 63.
Fire-shutter. T. E. Collins. No. 1,242,658; Oct. 9; v. 243; p. 419.
Fireproof cabinet for duplicate sales-books and the like. Multiple-section. H. J. Farrow. No. 1,241,615; Oct. 2; v. 243; p. 48.
Fireproof swing and ventilator. D. M. Craven, Sr. No. 1,241,824; Oct. 2; v. 243; p. 114.
Firearm. T. F. Horan. No. 1,242,191; Oct. 9; v. 243; p. 270.
Firearms, Magazine attachment for. C. P. Stuart. No. 1,244,794; Oct. 30; v. 243; p. 1179.
Fish-cleaning device. B. R. Brierly and E. H. Waugh. No. 1,244,168; Oct. 23; v. 243; p. 950.
Fish-guard. G. O. Chick. No. 1,241,708; Oct. 2; v. 243; p. 76.
Fish-hook. R. Penrod. No. 1,242,469; Oct. 9; v. 243; p. 358.
Fish-screen. T. A. Howard. No. 1,243,525; Oct. 16; v. 243; p. 721.
Fishing-float. C. Capooch and E. Dessureau. No. 1,241,707; Oct. 2; v. 243; p. 76.
Fishing-float. T. E. Sanford and F. Jackson. No. 1,243,881; Oct. 23; v. 243; p. 866.
Fishing-float. J. S. Scott. No. 1,243,768; Oct. 23; v. 243; p. 830.
Flanges, Making. J. H. Taylor. No. 1,243,005; Oct. 16; v. 243; p. 564.
Flanging-machine. J. Brenzinger. No. 1,241,915; Oct. 2; v. 243; p. 143.
Flash-light device. N. E. Goldfadden. No. 1,243,156; Oct. 16; v. 243; p. 609.
Flasher. F. Hotchner. No. 1,245,105; Oct. 30; v. 243; p. 1272.
Flax and other fibrous plants, Machine for treating. H. R. Bonny. No. 1,241,703; Oct. 2; v. 243; p. 75.
Flies entering houses, Device for preventing. J. Brooks. No. 1,244,696; Oct. 30; v. 243; p. 1148.
Float-operated indicator and engine control. L. L. White. No. 1,243,470; Oct. 16; v. 243; p. 702.
Floor-arch, Self-sustaining. C. R. Erkens. No. 1,242,669; Oct. 9; v. 243; p. 423.
Floor-boards, Locking means for. O. A. Schans. No. 1,241,667; Oct. 2; v. 243; p. 63.
Floor-cleaning machine. G. S. Harris. No. 1,243,516; Oct. 16; v. 243; p. 718.
Floor-sander. J. M. Kelly. No. 1,243,949; Oct. 23; v. 243; p. 886.
Floor-scraper. L. P. Thompson. No. 1,241,577; Oct. 2; v. 243; p. 36.
Floor structure, Water-cooled. L. L. Knox. No. 1,244,507; Oct. 30; v. 243; p. 1091.
Flooring-clamp. W. West. No. 1,242,623; Oct. 9; v. 243; p. 408.
Flotation apparatus. H. O. Norvell. No. 1,243,093; Oct. 16; v. 243; p. 593.
Flour and making the same, Self-rising. P. Laidley. No. 1,244,867; Oct. 30; v. 243; p. 1200.
Flour-bin, Tilting and removable. C. Weesner and D. Davis. No. 1,243,784; Oct. 23; v. 243; p. 836.
Flour-mill. L. F. Little. No. 1,244,219; Oct. 23; v. 243; p. 967.
Flour-producer. G. W. and C. C. Summerton. No. 1,244,561; Oct. 30; v. 243; p. 1109.
Fluid-meter. G. S. Binckley. No. 1,241,814; Oct. 2; v. 243; p. 111.
Fluid-meter. J. W. Ledoux. No. 1,243,842; Oct. 23; v. 243; p. 854.
Fluid-pressure brake. W. V. Turner. No. 1,243,012; Oct. 16; v. 243; p. 566.
Fluid-pressure regulator. C. J. Smith. No. 1,243,996; Oct. 23; v. 243; p. 900.
Fluid-pressure transmission. A. E. and W. Painter. No. 1,242,033; Oct. 2; v. 243; p. 179.
Fluids, Apparatus for generating and utilizing motive. E. and W. H. Taylor. No. 1,241,780; Oct. 2; v. 243; p. 99.
Fluids, Generating and utilizing motive. E. and W. H. Taylor. No. 1,241,781; Oct. 2; v. 243; p. 99.
Flushing and ventilating apparatus. C. E. Shadall. No. 1,242,251; Oct. 9; v. 243; p. 289.
Flushing apparatus and valve mechanism therefor. H. G. Traver. No. 1,244,922; Oct. 30; v. 243; p. 1218.
Flushing-cistern. R. H. Paus. No. 1,243,340; Oct. 16; v. 243; p. 666.
Flushing device. C. E. Cochrane. No. 1,242,922; Oct. 16; v. 243; p. 537.
Fly-catcher. O. Braedt. No. 1,242,648; Oct. 9; v. 243; p. 416.
Flying apparatus. R. D. Andrews. No. 1,242,412; Oct. 9; v. 243; p. 340.
Flying-machine. D. M. Willard. No. 1,242,295; Oct. 9; v. 243; p. 303.
Flying-machine plane. J. S. Lang. No. 1,241,860; Oct. 2; v. 243; p. 124.
Flying-machine propeller. B. F. Seymour. No. 1,244,786; Oct. 30; v. 243; p. 1176.
Fodder-cutters, Delivery-pipe for. G. M. Merwin. No. 1,241,540; Oct. 2; v. 243; p. 22.
Fodder-rack. A. E. Miller. No. 1,242,361; Oct. 9; v. 243; p. 323.
Folding box. L. Gottschall. No. 1,241,844; Oct. 2; v. 243; p. 120.
Folding chair. W. A. Bernhard. No. 1,241,907; Oct. 2; v. 243; p. 141.
Folding chair. T. Lambeth. No. 1,241,742; Oct. 2; v. 243; p. 88.
Folding chair. J. A. Ostman. No. 1,241,544; Oct. 2; v. 243; p. 23.
Folding chair. J. F. Wilmot. No. 1,242,406; Oct. 9; v. 243; p. 338.
Folding screen. C. S. Hammock. No. 1,244,497; Oct. 30; v. 243; p. 1089.
Folding stand or support. W. J. Armstrong. No. 1,241,486; Oct. 2; v. 243; p. 3.
Folding table. G. H. Henderson. No. 1,242,347; Oct. 9; v. 243; p. 319.
Food and making same, Cattle. E. E. Fucich. No. 1,244,847; Oct. 30; v. 243; p. 1194.
Food, Breakfast. G. Cockrell. No. 1,244,586; Oct. 30; v. 243; p. 1116.
Food product. J. M. C. Negrete. No. 1,243,964; Oct. 23; v. 243; p. 891.
Foot ailments, Appliance for correcting. W. H. Wood. No. 1,243,124; Oct. 16; v. 243; p. 601.
Foot-support. A. E. Block. No. 1,243,692; Oct. 23; v. 243; p. 803.
Foot-support. S. Ferrigno. No. 1,241,839; Oct. 2; v. 243; p. 118.
Force-feed lubricator. H. J. Leighton. No. 1,243,309; Oct. 16; v. 243; p. 657.
Force, Utilizing an expansive. H. A. Humphrey. No. 1,243,296; Oct. 16; v. 243; p. 652.
Forging-machine. W. S. Johnson. No. 1,244,741; Oct. 30; v. 243; p. 1163.
Forging machine, Metal-. C. F. Walp and A. F. O'Leary. No. 1,244,803; Oct. 30; v. 243; p. 1181.
Form, Garment-supporting. E. Kolbert. No. 1,242,703; Oct. 9; v. 243; p. 434.
Fountain: *See*—
Drinking-fountain. Printing-press ink-fountain.
Fountain. A. O. Ziener. No. 1,243,126; Oct. 16; v. 243; p. 601.
Fowls, Laying-register for. G. H. Dillon. No. 1,243,271; Oct. 16; v. 243; p. 644.
Frame: *See*—
Bed-frame. Lamp-shade frame.
Car-frame. Oculist's testing-frame.
Implement-frame. Screen-frame.
Index-frame.
Fruit and vegetable peeling machine. J. H. Hamlin. No. 1,244,452; Oct. 23; v. 243; p. 1036.

Fruit-clipper. L. A. Bockstahler. No. 1,242,645; Oct. 9; v. 243; p. 415.
Fruit peel, pulp, and juice machine, Citrus-. J. D. Howe. No. 1,244,331; Oct. 23; v. 243; p. 1001.
Fruit-picker. J. Mainwaring. No. 1,241,642; Oct. 2; v. 243; p. 56.
Fruit-picker. F. J. Slenker. No. 1,242,059; Oct. 2; v. 243; p. 187.
Fruit-pitting machine. W. F. Morse. No. 1,244,757; Oct. 30; v. 243; p. 1168.
Fruit-sizing machine. H. G. Pearson. No. 1,242,034; Oct. 2; v. 243; p. 179.
Fruits and vegetables, Removing the skins from. W. B. Fenn. No. 1,243,724; Oct. 23; v. 243; p. 815.
Fuel-combustion apparatus, Liquid-. J. S. Loder. No. 1,243,311; Oct. 16; v. 243; p. 658.
Fuel-economizer, Smokeless. C. W. Johns. No. 1,243,943; Oct. 23; v. 243; p. 884.
Fuel-feeding apparatus. F. Weinberg. No. 1,242,287; Oct. 9; v. 243; p. 300.
Fuel-feeding apparatus, Pulverized-. J. E. Muhlfeld. No. 1,243,753; Oct. 23; v. 243; p. 826.
Fuel-feeding device. W. Shurtleff. No. 1,244,553; Oct. 30; v. 243; p. 1106.
Fuel-feeding mechanism. W. Shurtleff. No. 1,243,990; Oct. 23; v. 243; p. 898.
Fuel, Manufacturing. J. Miller. No. 1,241,648; Oct. 2; v. 243; p. 58.
Fuel, Producing motor-. W. A. Hall. No. 1,242,796; Oct. 9; v. 243; p. 462.
Fuel-regulating system, Fluid-. T. H. Ferguson. No. 1,243,396; Oct. 16; v. 243; p. 681.
Fuel-supply device. R. H. Cobb. No. 1,243,813; Oct. 23; v. 243; p. 845.
Fumigating apparatus. C. F. Brady and J. J. Disser. No. 1,244,581; Oct. 30; v. 243; p. 1115.
Funnel and gage. J. B. Burkett. No. 1,243,587; Oct. 16; v. 243; p. 738.
Funnel, Collapsible. C. Lester. No. 1,242,453; Oct. 9; v. 243; p. 352.
Fur-skins, Machine for unhairing. F. M. Wegner. No. 1,242,400; Oct. 9; v. 243; p. 336.
Furnace: *See*—
Air-heating furnace. Heating-furnace.
Annealing-furnace. Metal-heating furnace.
Boiler-furnace. Roasting-furnace.
Coking-furnace. Smelting-furnace.
Electric-arc furnace. Stoker-furnace.
Electric furnace.
Furnace. R. F. McGowan. No. 1,243,959; Oct. 23; v. 243; p. 889.
Furnace. H. A. Poppenhusen. No. 1,243,868; Oct. 23; v. 243; p. 862.
Furnace. H. A. Poppenhusen. No. 1,243,870; Oct. 23; v. 243; p. 862.
Furnace. H. A. Poppenhusen. No. 1,243,871; Oct. 23; v. 243; p. 863.
Furnace. H. A. Poppenhusen. No. 1,243,872; Oct. 23; v. 243; p. 863.
Furnace. A. P. Strong. No. 1,242,263; Oct. 9; v. 243; p. 292.
Furnace construction. H. A. Poppenhusen. No. 1,243,869; Oct. 23; v. 243; p. 862.
Furnace control, Electric-. J. A. Seede. No. 1,242,250; Oct. 9; v. 243; p. 288.
Furnace-shield. W. S. Rockwell. No. 1,245,030; Oct. 30; v. 243; p. 1250.
Furnaces, Apparatus for admitting air to. C. Schneider. No. 1,243,883; Oct. 23; v. 243; p. 867.
Furnaces, hot-blast stoves, and the like. Checker-work for regenerative. H. E. Smythe. No. 1,242,614; Oct. 9; v. 243; p. 406.
Furnaces, Means for introducing air into. E. Q. Bangs. No. 1,242,124; Oct. 9; v. 243; p. 249.
Furnaces, Regulating apparatus for electric. W. Sykes. No. 1,241,574; Oct. 2; v. 243; p. 35.
Furniture, Adjustable single-pedestal. H. B. Nichols. No. 1,242,024; Oct. 2; v. 243; p. 177.
Furniture construction, Steel-. M. E. Hood, O. B. Anderson, W. L. Fetters, J. H. McGlincy, J. E. Gagnon, and W. M. Kidder. No. 1,244,609; Oct. 30; v. 243; p. 1122.
Furniture for domestic use. J. P. and S. J. Zaleski. No. 1,244,822; Oct. 30; v. 243; p. 1187.
Furniture-support. J. T. Spears. No. 1,243,116; Oct. 16; v. 243; p. 598.
Fuse. G. A. Ley. No. 1,244,346; Oct. 23; v. 243; p. 1005.
Fuse-block. H. H. Curtis. No. 1,242,326; Oct. 9; v. 243; p. 313.
Fuse for explosive projectiles, Time-. W. M. Wilhelm and K. Rushton. No. 1,242,501; Oct. 9; v. 243; p. 367.
Fuse-plug. W. S. MacLewee. No. 1,243,849; Oct. 23; v. 243; p. 856.
Fuse-plug. W. S. MacLewee. No. 1,243,850; Oct. 23; v. 243; p. 856.
Fuse-plug. W. S. MacLewee. No. 1,243,851; Oct. 23; v. 243; p. 857.
Gage: *See*—
Butt and casing gage. Mortar-gage.
Gasolene-tank gage. Track-gage.
Hem-gage.
Gage. J. R. Somers. No. 1,245,130; Oct. 30; v. 243; p. 1280.
Gage-glasses, Safety device for. T. F. Trudeau. No. 1,242,081; Oct. 2; v. 243; p. 194.
Galvanic cell. J. F. Sanders. No. 1,243,111; Oct. 16; v. 243; p. 597.
Game. A. H. Lewis. No. 1,242,002; Oct. 2; v. 243; p. 170.
Game apparatus. N. Hunsberger. No. 1,242,942; Oct. 16; v. 243; p. 544.
Game apparatus. H. B. Jones. No. 1,242,198; Oct. 9; v. 243; p. 272.
Game, Base-ball. W. H. Rogers. No. 1,242,046; Oct. 2; v. 243; p. 183.
Game-board. G. S. Parker. No. 1,242,969; Oct. 16; v. 243; p. 552.
Game mechanism. G. A. Tanney. No. 1,243,642; Oct. 16; v. 243; p. 756.
Game, War. W. C. Foster. No. 1,245,096; Oct. 30; v. 243; p. 1270.
Garden-tool, Combination. T. Pugliese. No. 1,245,024; Oct. 30; v. 243; p. 1248.
Garment, Automobile-. A. G. Scott. No. 1,244,904; Oct. 30; v. 243; p. 1212.
Garment-former. J. O. Von Stetten. (Reissue.) No. 14,374; Oct. 9; v. 243; p. 496.
Garment-hanger. E. B. Healey. No. 1,243,519; Oct. 16; v. 243; p. 719.
Garment-hanger. R. McAlister. No. 1,242,829; Oct. 9; v. 243; p. 473.
Garment stretcher and hanger, Combined. M. Jakab. No. 1,243,741; Oct. 23; v. 243; p. 822.
Garment-supporter. E. De Long. No. 1,242,780; Oct. 9; v. 243; p. 458.
Garment-supporter. A. Frankenstein. No. 1,242,932; Oct. 16; v. 243; p. 540.
Garment-supporter. T. E. Griffith. No. 1,244,194; Oct. 23; v. 243; p. 958.
Garment-supporter. G. Hake. No. 1,243,061; Oct. 16; v. 243; p. 583.
Garment-supporter. R. Sato. No. 1,243,984; Oct. 23; v. 243; p. 896.
Garter, Man's. M. W. Schloss. No. 1,242,602; Oct. 9; v. 243; p. 402.
Gas-burner. S. F. Pierce. No. 1,242,234; Oct. 9; v. 243; p. 284.
Gas-burner. O. Spahr. No. 1,242,487; Oct. 9; v. 243; p. 383.
Gas-burner attachment. R. B. Cool. No. 1,243,044; Oct. 16; v. 243; p. 577.
Gas-burner attachment. C. Stichler. No. 1,242,490; Oct. 9; v. 243; p. 364.
Gas-burners, Automatic shut-off for. W. M. Wood. No. 1,242,408; Oct. 9; v. 243; p. 339.
Gas-burners, Pilot-light for. L. Rasch. No. 1,244,130; Oct. 23; v. 243; p. 940.
Gas-consumption regulator. P. Spaleck. No. 1,243,454; Oct. 16; v. 243; p. 698.
Gas-engine. S. Hagerman. No. 1,244,490; Oct. 30; v. 243; p. 1087.
Gas-engine. S. Lawson. No. 1,243,533; Oct. 16; v. 243; p. 722.
Gas-engine. C. A. Sawtelle. No. 1,242,985; Oct. 16; v. 243; p. 557.
Gas-gate-hood clamp. J. Murphy and J. Bechtel. No. 1,242,023; Oct. 2; v. 243; p. 177.
Gas generator, Acetylene-. H. W. Laun. No. 1,244,618; Oct. 30; v. 243; p. 1125.
Gas generator, Acetylene-. F. Norman. No. 1,242,584; Oct. 9; v. 243; p. 396.
Gas generator, Acetylene-. L. H. Thalman. No. 1,241,680; Oct. 2; v. 243; p. 68.
Gas generator, Acetylene-. D. Zimmerman. No. 1,244,399; Oct. 23; v. 243; p. 1021.
Gas-heater. J. S. Walker and S. N. Wilcox. No. 1,244,564; Oct. 30; v. 243; p. 1110.
Gas-lighter. C. F. Larsen. No. 1,244,747; Oct. 30; v. 243; p. 1165.
Gas-lighting fixture. V. H. Slinack. No. 1,244,382; Oct. 23; v. 243; p. 1014.
Gas-meters, Indicating adjunct for. E. A. Kerstein. No. 1,244,340; Oct. 23; v. 243; p. 1003.
Gas-producer. H. A. Dreffein. No. 1,243,822; Oct. 23; v. 243; p. 848.
Gases, Apparatus for oxidizing. F. C. Schmitz. No. 1,242,988; Oct. 16; v. 243; p. 558.
Gases, Oxidizing. F. C. Schmitz. No. 1,242,987; Oct. 16; v. 243; p. 558.
Gases, Producing nitrose. W. S. Landis. No. 1,242,953; Oct. 16; v. 243; p. 547.
Gaseous mixtures, Apparatus for burning explosive. C. E. Richardson, W. B. Eddison and H. L. Read. No. 1,242,114; Oct. 2; v. 243; p. 205.
Gasolene-tank gage. J. J. Gross. No. 1,242,176; Oct. 9; v. 243; p. 266.
Gasket. J. B. Victor. No. 1,241,587; Oct. 2; v. 243; p. 39.
Gate: *See*—
End-gate. Railway-gate.
Farm-gate. Safety-gate.
Gate. J. E. Henris. No. 1,241,972; Oct. 2; v. 243; p. 160.
Gate-support. T. R. Greene. No. 1,243,931; Oct. 23; v. 243; p. 881.
Gates, Runway attachment for. L. L. Anway. No. 1,242,757; Oct. 9; v. 243; p. 450.
Gear, Power-transmission. J. Robson. No. 1,243,228; Oct. 16; v. 243; p. 631.
Gear, Power-transmission. J. Robson. No. 1,243,677; Oct. 16; v. 243; p. 767.

Gear, roll, and the like. J. H. Carver. No. 1,242,141; Oct. 9; v. 243; p. 254.
Gear-shifting mechanism. E. B. Wiles. No. 1,241,803; Oct. 2; v. 243; p. 106.
Gears, Control mechanism for variable-speed. C. M. Manly. No. 1,244,878; Oct. 30; v. 243; p. 1204.
Gearing. R. Kane. No. 1,241,855; Oct. 2; v. 243; p. 123.
Gearing. G. B. Kell. No. 1,245,109; Oct. 30; v. 243; p. 1273.
Gearing. J. Lips. No. 1,242,004; Oct. 2; v. 243; p. 171.
Gearing. W. J. McInish. No. 1,244,223; Oct. 23; v. 243; p. 968.
Gearing, Change-speed. C. D. Gibson. No. 1,242,678; Oct. 9; v. 243; p. 426.
Gearing, Differential. F. E. Eidson and E. J. Stephenson. No. 1,243,720; Oct. 23; v. 243; p. 814.
Gearing for station-indicators, Transmission-. C. C. Tarbell. No. 1,245,064; Oct. 30; v. 243; p. 1260.
Gearing, Transmission-. H. Schneider. No. 1,244,134; Oct. 23; v. 243; p. 941.
Generator: *See*—
Bevel-gear generator.
Gas-generator.
Heat and steam generator.
Steam-generator.
Thermo-electric generator.
Generator drive mechanism. A. G. Herreshoff. No. 1,244,207; Oct. 23; v. 243; p. 962.
Geometrical instrument. J. R. Peirce. No. 1,242,467; Oct. 9; v. 243; p. 357.
Geometrical machine. W. S. Eaton. No. 1,241,721; Oct. 2; v. 243; p. 81.
Geometrical machine. W. S. Eaton. No. 1,241,722; Oct. 2; v. 243; p. 82.
Geometrical machine. W. S. Eaton. No. 1,241,723; Oct. 2; v. 243; p. 82.
Glass: *See*—
Headlight-glass.
Ornamental glass.
Glass and similar substances, Apparatus for cutting plastic. F. L. O. Wadsworth. No. 1,241,790; Oct. 2; v. 243; p. 102.
Glass-clip-plug assembly. W. C. Rands. No. 1,243,445; Oct. 16; v. 243; p. 696.
Glass-drawing apparatus. L. S. Skelton. No. 1,242,055; Oct. 2; v. 243; p. 186.
Glass-drawing apparatus. L. S. Skelton. No. 1,243,504; Oct. 16; v. 243; p. 731.
Glass-drawing apparatus, Bait for. W. Westbury. No. 1,243,023; Oct. 16; v. 243; p. 570.
Glass manufacture. A. A. Icenhour. No. 1,242,444; Oct. 9; v. 243; p. 349.
Glass plates, Apparatus for use in cutting. M. A. Oleson. No. 1,242,028; Oct. 2; v. 243; p. 178.
Glassware, Apparatus for the manufacture of. O. Moberg. No. 1,242,837; Oct. 9; v. 243; p. 476.
Glassware, Machine for making hollow. E. S. Hutton. No. 1,241,516; Oct. 2; v. 243; p. 14.
Glazing-bar. F. W. Ashby. No. 1,242,904; Oct. 16; v. 243; p. 531.
Glazing construction. W. P. Waugh. No. 1,243,020; Oct. 16; v. 243; p. 569.
Glove. J. Tazelaar. No. 1,244,142; Oct. 23; v. 243; p. 943.
Glove, Fisherman's. H. Nielsen. No. 1,243,622; Oct. 16; v. 243; p. 750.
Glove, Reversible. J. E. Dowd. No. 1,241,941; Oct. 2; v. 243; p. 151.
Goggles. L. O. Gagnon. No. 1,241,955; Oct. 2; v. 243; p. 154.
Gold and silver from minerals, Separation of. R. Reyes. No. 1,243,976; Oct. 23; v. 243; p. 894.
Gold or other metal leaf impressions, Making. F. A. Putnam. No. 1,243,552; Oct. 16; v. 243; p. 728.
Gold or other metal leaf impressions, Making. F. A. Putnam. No. 1,243,553; Oct. 16; v. 243; p. 728.
Gold-washing machine. J. A. Furtado. No. 1,241,954; Oct. 2; v. 243; p. 154.
Golf and other playing-ball. P. A. Martin and J. Stanley. No. 1,242,832; Oct. 9; v. 243; p. 474.
Governor. C. Balough. No. 1,241,808; Oct. 2; v. 243; p. 108.
Governor. W. D. La Rue. No. 1,245,112; Oct. 30; v. 243; p. 1274.
Governor. B. G. Royal. No. 1,245,125; Oct. 30; v. 243; p. 1279.
Governor control. M. S. Larson. No. 1,243,078; Oct. 16; v. 243; p. 589.
Governor, Explosive-engine. O. O. Storle. No. 1,243,359; Oct. 16; v. 243; p. 671.
Grab-hook. C. McPherson. No. 1,243,617; Oct. 16; v. 243; p. 749.
Grading-machine. I. V. Matson. No. 1,242,573; Oct. 9; v. 243; p. 392.
Grading-machine. R. Waterman. No. 1,241,686; Oct. 2; v. 243; p. 69.
Grain-binder. B. R. Benjamin. No. 1,241,490; Oct. 2; v. 243; p. 4.
Grain cleaner and washer. P. Provost. No. 1,244,542; Oct. 30; v. 243; p. 1102.
Grain-cleaning device, Collapsible. J. A. Johnson. No. 1,242,811; Oct. 9; v. 243; p. 467.
Grain-drill. A. R. Shaffer. No. 1,243,560; Oct. 16; v. 243; p. 730.
Grain-elevator. J. J. Shotwell. No. 1,242,482; Oct. 9; v. 243; p. 362.
Grain-huller. B. C. Buffum. No. 1,242,136; Oct. 9; v. 243; p. 253.
Grain-pickling machine. C. H. Nelson. No. 1,244,761; Oct. 30; v. 243; p. 1109.
Grain-separator. A. S. Goodman. No. 1,243,284; Oct. 16; v. 243; p. 648.
Grain-separator. P. Jorgenson. No. 1,243,528; Oct. 16; v. 243; p. 721.
Grain-tank. H. G. Harrison. No. 1,242,935; Oct. 16; v. 243; p. 541.
Graphophone and other disk record holder. J. Heitman. No. 1,242,550; Oct. 9; v. 243; p. 384.
Graphophone attachment. J. I. Buffa. No. 1,244,170; Oct. 23; v. 243; p. 951.
Grapple. J. J. Fox. No. 1,243,150; Oct. 16; v. 243; p. 608.
Grate attachment. M. H. Chandler. No. 1,245,087; Oct. 30; v. 243; p. 1267.
Grate, Camp-. L. A. Weyburn. No. 1,244,932; Oct. 30; v. 243; p. 1221.
Grate, Collapsible camp-. L. E. Moore. No. 1,244,357; Oct. 23; p. 243; p. 1008.
Grease-cup. D. H. Twaits. No. 1,241,584; Oct. 2; v. 243; p. 38.
Grease-cup, Lubricating. P. F. Rogers. No. 1,242,477; Oct. 9; v. 243; p. 361.
Greasing device, Pan-. E. A. Werner. No. 1,242,404; Oct. 9; v. 243; p. 338.
Grenade, Hand-. E. M. Shinkle. No. 1,242,053; Oct. 2; v. 243; p. 185.
Grenade or bomb. J. H. Trismen. No. 1,243,781; Oct. 23; v. 243; p. 835.
Grinder, Electric portable. E. Ritz, Jr. No. 1,241,659; Oct. 2; v. 243; p. 61.
Grinding apparatus, Multiple-cylinder-. C. F. Grow and J. M. Courtney. No. 1,241,964; Oct. 2; v. 243; p. 157.
Grinding-bur. J. H. Letz. No. 1,244,513; Oct. 30; v. 243; p. 1093.
Grinding-bur. J. H. Letz. No. 1,244,514; Oct. 30; v. 243; p. 1093.
Grinding-bur. J. H. Letz. No. 1,244,515; Oct. 30; v. 243; p. 1094.
Grinding-bur. J. H. Letz. No. 1,244,516; Oct. 30; v. 243; p. 1094.
Grinding-bur. J. H. Letz. No. 1,244,517; Oct. 30; v. 243; p. 1094.
Grinding-machine. L. F. McNally. No. 1,244,352; Oct. 23; v. 243; p. 1006.
Grinding machine, Cylinder-. E. W. Clark. No. 1,244,703; Oct. 30; v. 243; p. 1151.
Grinding-machine for closure devices. W. R. Elmer. No. 1,243,496; Oct. 16; v. 243; p. 712.
Grinding machine, Platen-. A. R. Ames. No. 1,243,241; Oct. 16; v. 243; p. 635.
Grinding-mill. J. W. Cover. No. 1,242,423; Oct. 9; v. 243; p. 344.
Grinding-mill. E. F. McCool. No. 1,241,749; Oct. 2; v. 243; p. 90.
Grinding-mill separator. E. J. Steckle. No. 1,244,788; Oct. 30; v. 243; p. 1177.
Grinding-mills, Automatic stop for. L. Dellert. No. 1,241,935; Oct. 2; v. 243; p. 149.
Grinding or polishing precious stones, Apparatus for. H. De Vries and W. A. Donaldson. No. 1,243,491; Oct. 16; v. 243; p. 710.
Grip device, Intermittent-. N. H. Anderson. No. 1,242,119; Oct. 9; v. 243; p. 247.
Grip-handle, Removable locking. C. W. A. Schrader. No. 1,241,890; Oct. 2; v. 243; p. 135.
Grooving and equalizing machine. J. V. Richardson. 1,243,663; Oct. 16; v. 243; p. 762.
Ground-anchor. D. R. Saunders. No. 1,244,133; Oct. 23; v. 243; p. 940.
Ground-clamp. H. B. Andrews, W. H. Hart, and H. B. Sherman. No. 1,241,898; Oct. 2; v. 243; p. 138.
Gum-box. R. P. Packard. No. 1,244,363; Oct. 23; v. 243; p. 1009.
Gun. G. N. Ostrander. No. 1,242,719; Oct. 9; v. 243; p. 438.
Gun. O. F. Richter. No. 1,244,896; Oct. 30; v. 243; p. 1210.
Gun and shell-firing device therefor, Pneumatic. V. C. Doubleday. No. 1,245,093; Oct. 30; v. 243; p. 1269.
Gun belt, Machine-. F. R. Batchelder. No. 1,243,686; Oct. 23; v. 243; p. 801.
Gun, Built-up. A. H. Emery. No. 1,244,719; Oct. 30; v. 243; p. 1157.
Gun, Grease-. H. E. Emigh. No. 1,241,725; Oct. 2; v. 243; p. 83.
Gun, Machine-. V. Stoddard. No. 1,242,068; Oct. 2; v. 243; p. 190.
Guns, Flash-absorber attachment for machine-. H. R. Northover. No. 1,242,843; Oct. 9; v. 243; p. 478.
Guns, Wire-cutter attachment for. R. B. Endecott. No. 1,244,968; Oct. 30; v. 243; p. 1231.
Gutter, Greenhouse-. C. Ickes. No. 1,244,500; Oct. 30; v. 243; p. 1089.
Hair-clipper and hair-brush, Combined. M. Tanaka. No. 1,244,917; Oct. 30; v. 243; p. 1216.
Hair-fastener. R. Gould. No. 1,241,960; Oct. 2; v. 243; p. 156.
Hall-stand. J. E. Wedburg. No. 1,244,565; Oct. 30; v. 243; p. 1110.
Hammer-drill. G. H. Gilman. No. 1,242,882; Oct. 9; v. 243; p. 490.
Hammer-drill. D. Spehar. No. 1,244,386; Oct. 23; v. 243; p. 1016.

Hammer, Friction-driven drop-. J. L. and E. Scott. No. 1,242,052; Oct. 2; v. 243; p. 185.
Hand gripping device. W. Foreman. No. 1,243,725; Oct. 23; v. 243; p. 816.
Handle: *See*—
Can-handle.
Grip-handle.
Tool-handle.
Utensil-handle.
Hanger: *See*—
Coat-hanger.
Conduit-hanger.
Container-hanger.
Door-hanger.
Garment-hanger.
Harness-hanger.
Picture-hanger.
Shade and curtain hanger.
Sucker-rod hanger.
Trousers-hanger.
Wire hanger.
Harness-hanger. A. M. Bean. No. 1,242,125; Oct. 9; v. 243; p. 249.
Harness-line holder. A. Lindstrom. No. 1,244,350; Oct. 23; v. 243; p. 1006.
Harrow. C. F. Bock. No. 1,244,165; Oct. 23; v. 243; p. 950.
Harrow. W. H. Lee. No. 1,244,993; Oct. 30; v. 243; p. 1239.
Harrow. A. A. and W. Nelson. No. 1,243,203; Oct. 16; v. 243; p. 625.
Harrow and truck. P. A. Bauer. No. 1,244,016; Oct. 23; v. 243; p. 907.
Harrow-cleaning attachment. H. W. Bell. No. 1,242,128; Oct. 9; v. 243; p. 250.
Harrow-cultivator, Flexible-frame. H. Shemwell. No. 1,241,775; Oct. 2; v. 243; p. 97.
Harrow, Flexible disk. H. Shemwell. No. 1,241,774; Oct. 2; v. 243; p. 97.
Harrow, Seat attachment for riding-. S. W. Crane. No. 1,244,295; Oct. 23; v. 243; p. 990.
Harvester. G. N. Patterson. No. 1,243,095; Oct. 16; v. 243; p. 593.
Harvester and threshing attachment, Combined. G. W. White. No. 1,244,152; Oct. 23; v. 243; p. 946.
Harvester, Corn-. E. C. Varner. No. 1,242,084; Oct. 2; v. 243; p. 195.
Harvester, Cotton-. G. Blohn. No. 1,242,761; Oct. 9; v. 243; p. 452.
Harvesting-machine, Sheaf-binder. F. B. Wells. No. 1,243,365; Oct. 16; v. 243; p. 673.
Harvesting-machines, Loading device for. J. A. Jeffery. No. 1,243,069; Oct. 16; v. 243; p. 585.
Hasp. R. W. Ledbetter. No. 1,244,104; Oct. 23; v. 243; p. 932.
Hat. A. D. Mitchell. No. 1,242,964; Oct. 16; v. 243; p. 551.
Hats, Manufacturing. H. Cohn. No. 1,243,487; Oct. 16; v. 243; p. 709.
Hay-fork attachment. G. W. Fisher. No. 1,244,437; Oct. 23; v. 243; p. 1031.
Hay-press. J. Dain and H. B. Sperry. No. 1,244,035; Oct. 23; v. 243; p. 912.
Hay-press. J. Z. Dudley. No. 1,242,158; Oct. 9; v. 243; p. 260.
Hay-presses, Automatic binder attachment for. J. B. Trigg. No. 1,243,570; Oct. 16; v. 243; p. 733.
Hay-racks, Apparatus for the removal of. F. E. Niblo. No. 1,244,235; Oct. 23; v. 243; p. 971.
Head-locking mechanism. J. A. McCaskell. No. 1,244,222; Oct. 23; v. 243; p. 968.
Header. R. L. Wilcox. No. 1,241,693; Oct. 2; v. 243; p. 72.
Heading-machine. H. L. Smith. No. 1,244,912; Oct. 30; v. 243; p. 1215.
Heading-machine. C. W. Swenson. No. 1,243,003; Oct. 16; v. 243; p. 563.
Headlight. A. E. Hale. No. 1,244,200; Oct. 23; v. 243; p. 960.
Headlight, Automobile-. J. W. Higgins. No. 1,244,734; Oct. 30; v. 243; p. 1161.
Headlight, Dirigible. H. A. Bossert. No. 1,243,584; Oct. 16; v. 243; p. 737.
Headlight, Dirigible. J. E. Dempsey. No. 1,244,713; Oct. 30; v. 243; p. 1155.
Headlight for automobiles. H. C. Bishop. No. 1,245,140; Oct. 30; v. 243; p. 1283.
Headlight for automobiles, Self-adjusting. H. H. Hoy. No. 1,242,350; Oct. 9; v. 243; p. 320.
Headlight for motor-vehicles. F. R. Falkenstein. No. 1,242,929; Oct. 16; v. 243; p. 539.
Headlight-glass. R. L. Slonaker. No. 1,244,556; Oct. 30; v. 243; p. 1107.
Headlight mechanism, Dirigible. T. R. Hanson. No. 1,243,290; Oct. 16; v. 243; p. 650.
Headlights, Refracting cover-glass for automobile-. H. P. Gage and E. Pascucci. No. 1,243,399; Oct. 16; v. 243; p. 682.
Heat and steam generator, Combined. H. V. Clutter. No. 1,243,812; Oct. 23; v. 243; p. 845.
Heater: *See*—
Blast-heater.
Brooder-heater.
Electric heater.
Gas-heater.
Incubator-heater.
Radiator-heater.
Solar heater.
Tank-heater.
Water-heater.
Window-heater.
Heater. A. J. Fisher. No. 1,244,971; Oct. 30; v. 243; p. 1233.
Heating apparatus, Electric. F. Thornton, Jr. No. 1,241,578; Oct. 2; v. 243; p. 36.
Heating apparatus, Register for hot-air. A. H. Power. No. 1,245,123; Oct. 30; v. 243; p. 1278.
Heating coiled materials. W. B. Peirce. No. 1,243,444; Oct. 16; v. 243; p. 696.
Heating furnace, Coil-. W. B. Peirce. No. 1,243,442; Oct. 16; v. 243; p. 695.
Heating furnace, Coil-. W. B. Peirce. No. 1,243,443; Oct. 16; v. 243; p. 695.
Heating furnace, Steel-. W. R. Bennett. No. 1,244,578; Oct. 30; v. 243; p. 1114.
Heating, Method of. W. W. Kemp and W. H. Van Horn. No. 1,244,864; Oct. 30; v. 243; p. 1200.
Heating system. T. H. Garland. No. 1,243,154; Oct. 16; v. 243; p. 609.
Heating system. G. Q. Riley. No. 1,245,028; Oct. 30; v. 243; p. 1249.
Heating-system regulator. C. E. Anderson. No. 1,243,475; Oct. 16; v. 243; p. 704.
Heating system, Steam-. E. H. Gold and E. W. Rietz. No. 1,241,620; Oct. 2; v. 243; p. 50.
Heel-breast-scouring machine. L. G. Freeman. No. 1,244,310; Oct. 23; v. 243; p. 995.
Heel, Composite. C. B. Mansbach. No. 1,241,643; Oct. 2; v. 243; p. 57.
Heel-cutting apparatus. F. J. Ribble. No. 1,243,627; Oct. 16; v. 243; p. 751.
Heel section or lift, Shoe-. G. H. Lewis. No. 1,242,213; Oct. 9; v. 243; p. 277.
Heel-support. E. Mueller and O. Fischl. No. 1,242,363; Oct. 9; v. 243; p. 323.
Heel-sweep brace. H. J. Goodlett. No. 1,241,958; Oct. 2; v. 243; p. 155.
Helmet, Protective. C. L. Stocks. No. 1,244,559; Oct. 30; v. 243; p. 1108.
Hem-gage, Dressmaker's. L. Mingers. No. 1,244,355; Oct. 23; v. 243; p. 1007.
Hemp-brake. C. Skinner. No. 1,242,379; Oct. 9; v. 243; p. 329.
Hinge. N. O. Kenniker. No. 1,243,950; Oct. 23; v. 243; p. 886.
Hinge, Adjustable gate-. W. W. H. Schultz. No. 1,245,127; Oct. 30; v. 243; p. 1279.
Hinge construction. G. W. Collins. No. 1,243,815; Oct. 23; v. 243; p. 846.
Hinge-fixture. J. W. Alexander. No. 1,243,575; Oct. 16; v. 243; p. 734.
Hinge, Jamb spring-. O. Katzenberger. No. 1,242,700; Oct. 9; v. 243; p. 432.
Hitch for vehicles, Horse-. F. Leszczewicz. No. 1,244,620; Oct. 30; v. 243; p. 1126.
Hobble. J. R. Ferguson. No. 1,244,721; Oct. 30; v. 243; p. 1158.
Hobble. W. Meyer, Jr. No. 1,244,628; Oct. 30; v. 243; p. 1128.
Hobby-horse. I. C. Hicks and G. L. Summers. No. 1,241,975; Oct. 2; v. 243; p. 161.
Hoe. J. T. Oakley. No. 1,244,765; Oct. 30; v. 243; p. 1170.
Hoe, Wheel-. J. M. Hartman. No. 1,244,850; Oct. 30; v. 243; p. 1195.
Hog-trap. C. Higbee. No. 1,243,838; Oct. 23; v. 243; p. 853.
Hoisting apparatus. H. B. Doherty. No. 1,244,301; Oct. 23; v. 243; p. 992.
Hoisting-machines, Limit-switch for. F. L. Stone. No. 1,242,260; Oct. 9; v. 243; p. 291.
Holder, Spring-forked. F. H. Apel. No. 1,242,122; Oct. 9; v. 243; p. 249.
Hollow ware from pulp, Machine for making. J. B. Young. No. 1,244,820; Oct. 30; v. 243; p. 1187.
Hook: *See*—
Box or can hook.
Button-hook.
Fish-hook.
Grab-hook.
Snap-hook.
Whiffletree-hook.
Hoop: *See*—
Embroidery-hoop.
Hoop-propelling implement. E. M. Murray. No. 1,243,334; Oct. 16; v. 243; p. 664.
Hoop-splitting machine. S. G. Stahlhuth. No. 1,244,655; Oct. 30; v. 243; p. 1136.
Horn, Automobile-. F. E. Bryan. No. 1,243,650; Oct. 16; v. 243; p. 758.
Horn, Signaling-. C. H. Smith. No. 1,243,772; Oct. 23; v. 243; p. 832.
Horsehair, Machine for interweaving curled. A. R. Billington. No. 1,243,133; Oct. 16; v. 243; p. 603.
Horseshoe. S. G. Rogers. No. 1,245,032; Oct. 30; v. 243; p. 1250.
Horseshoe-calk. J. W. Henderson. No. 1,245,101; Oct. 30; v. 243; p. 1271.
Horseshoe-calk. H. J. Klitsch. No. 1,244,098; Oct. 23; v. 243; p. 931.
Hose and bucket rack, Combined. A. M. Barcus. No. 1,241,605; Oct. 2; v. 243; p. 45.
Hose-clamp. C. D. Bennett. No. 1,244,577; Oct. 30; v. 243; p. 1114.
Hose-coupling. F. Hachmann. No. 1,241,626; Oct. 2; v. 243; p. 52.
Hose-coupling. C. H. Johnson. No. 1,245,108; Oct. 30; v. 243; p. 1273.
Hose-coupling. J. L. Osgood. No. 1,241,654; Oct. 2; v. 243; p. 60.
Hose-coupling. A. T. Sawyer. No. 1,242,047; Oct. 2; v. 243; p. 183.
Hose-coupling. C. A. Welker. No. 1,244,666; Oct. 30; v. 243; p. 1140.

Hose coupling, Train-pipe-. I. Stringfellow. No. 1,243,778; Oct. 23; v. 243; p. 834.
Hose-reel. R. D. Wirt. No. 1,244,818; Oct. 30; v. 243; p. 1186.
Hose-storing apparatus. A. Meas and F. C. Moll. No. 1,242,015; Oct. 2; v. 243; p. 175.
Hose suspension. N. B. Braly. No. 1,244,465; Oct. 30; v. 243; p. 1078.
Hose, Train-pipe. J. S. Sheafe and V. Tobolla. No. 1,242,874; Oct. 9; v. 243; p. 488.
House: *See*—
Doll-house.
Hub, Spring-wheel. A. V. Mitchell. No. 1,242,463; Oct. 9; v. 243; p. 356.
Hub, Wheel-. J. F. Vogel. No. 1,242,277; Oct. 9; v. 243; p. 297.
Hubs, Bearing for automobile-. C. N. Frauham. No. 1,243,929; Oct. 23; v. 243; p. 880.
Huller: *See*—
Grain-huller.
Huller-gin. T. S. Grimes. No. 1,244,196; Oct. 23; v. 243; p. 959.
Humidifier. A. M. Alexander. No. 1,241,695; Oct. 2; v. 243; p. 73.
Humidifier. W. M. Reid. No. 1,243,975; Oct. 23; v. 243; p. 894.
Humidifying device. V. A. Larson. No. 1,241,524; Oct. 2; v. 243; p. 17.
Hydraulic jack. R. W. Gaffney. No. 1,244,317; Oct. 23; v. 243; p. 997.
Hydraulic press. B. C. White. No. 1,241,691; Oct. 2; v. 243; p. 71.
Hydrocarbon-burner. R. Schawrowsky. No. 1,243,559; Oct. 16; v. 243; p. 730.
Hydrocarbon-burner. E. A. Wales. No. 1,244,146; Oct. 23; v. 243; p. 944.
Hydrocarbon-motor. L. K. Snell and C. F. Johnson. No. 1,244,651; Oct. 30; v. 243; p. 1135.
Hydrocarbons, Process of and apparatus for producing light. J. E. Holmes. No. 1,241,979; Oct. 2; v. 243; p. 162.
Hydrocarbon products from shales and coals, Extraction of. D. T. Day. No. 1,244,840; Oct. 30; v. 243; p. 1192.
Hydrofluoric acid from silicon fluorid, Manufacture of. H. F. Chappell. No. 1,244,032; Oct. 23; v. 243; p. 911.
Hygrometer and other instrument. E. H. Bristol and W. H. Fitts. No. 1,243,671; Oct. 16; v. 243; p. 764.
Ice-cream and the like, Machine for molding and baking containers for. W. E. Moore. No. 1,245,008; Oct. 30; v. 243; p. 1243.
Ignition device. H. R. Van Deventer. No. 1,244,261; Oct. 23; v. 243; p. 980.
Ignition-dynamo. C. T. Mason. (Reissue.) No. 14,373; Oct. 2; v. 243; p. 209.
Illuminating device. R. B. Benjamin. No. 1,245,083; Oct. 30; v. 243; p. 1266.
Impaling article. P. A. Muraf. No. 1,242,965; Oct. 16; v. 243; p. 551.
Implement-frame. W. Daigh. No. 1,244,838; Oct. 30; v. 243; p. 1192.
Impregnating fluid, Treating pieces of material of non-uniform moisture content to an. G. H. Hess. No. 1,241,973; Oct. 2; v. 243; p. 160.
Impulse-control system. A. E. Lundell. No. 1,242,009; Oct. 2; v. 243; p. 172.
Incubator-heater. C. Nutter. No. 1,242,230; Oct. 9; v. 243; p. 282.
Incubator-regulator. C. C. Carter. No. 1,243,707; Oct. 23; v. 243; p. 809.
Incubators, Rotary egg-support for. O. Ernst. No. 1,242,670; Oct. 9; v. 243; p. 423.
Index-frame. H. J. McCauley. No. 1,244,622; Oct. 30; v. 243; p. 1126.
Indexing system, Employee's. A. Legault. No. 1,244,061; Oct. 23; v. 243; p. 919.
Indicating device, Audible. H. B. Barnes. No. 1,243,915; Oct. 23; v. 243; p. 876.
Indicator: *See*—
Automobile direction-indicator.
Cream-separator speed-indicator.
Direction-indicator.
Engine-revolution indicator.
Float-operated indicator.
Poison-indicator.
Portable indicator.
Rain-indicator.
Seat-indicator.
Thermostatic indicator.
Track-hazard indicator.
Work and time indicator.
Indicator. C. W. Berry. No. 1,244,019; Oct. 23; v. 243; p. 908.
Ingot and ingot-mold. E. Gathmann. No. 1,241,618; Oct. 2; v. 243; p. 49.
Ingot-mold. J. Scott. No. 1,245,046; Oct. 30; v. 243; p. 1254.
Ingot-mold. H. Suthann. No. 1,243,779; Oct. 23; v. 243; p. 834.
Inhaler, Facial. C. K. Teter. No. 1,244,061; Oct. 30; v. 243; p. 1138.
Ink-pad holder. C. Ambruster. No. 1,244,683; Oct. 30; v. 243; p. 1145.
Ink-well. P. H. Sereff. No. 1,242,991; Oct. 16; v. 243; p. 559.
Inner tube. A. B. Shaw. No. 1,242,252; Oct. 9; v. 243; p. 289.
Innersoles, Means for applying stitch-receiving ribs to. J. V. Poole. No. 1,244,891; Oct. 30; v. 243; p. 1209.
Insect-collecting attachment. B. F. Stebbins and B. W. Forehand. No. 1,243,888; Oct. 23; v. 243; p. 869.
Insect-destroyer. A. H. Clement. No. 1,244,834; Oct. 30; v. 243; p. 1191.
Insecticidal composition. W. R. Macklind and E. C. Holton. No. 1,244,453; Oct. 23; v. 243; p. 1036.
Insecticide, Making an. W. R. Macklind and E. C. Holton. No. 1,243,323; Oct. 16; v. 243; p. 661.
Insecticide, sheep-dip, and the like. G. J. Lemmens and P. J. Fryer. No. 1,242,954; Oct. 16; v. 243; p. 548.
Insecticide, sheep-dip, animal-wash, and the like. G. J. Lemmens and P. J. Fryer. No. 1,242,955; Oct. 16; v. 243; p. 548.
Insoles, Machine for operating on. G. J. Kilb. No. 1,243,951; Oct. 23; v. 243; p. 887.
Insulating-support. C. W. Covell. No. 1,244,473; Oct. 30; v. 243; p. 1081.
Insulator. A. O. Austin. No. 1,242,907; Oct. 16; v. 243; p. 532.
Insulator. W. A. Dade and R. E. Morgan. No. 1,241,929; Oct. 2; v. 243; p. 148.
Insulator. P. M. Lincoln. No. 1,241,528; Oct. 2; v. 243; p. 18.
Insulator, Sectional high-potential. S. S. Sonneborn. No. 1,242,616; Oct. 9; v. 243; p. 406.
Integrating mechanism. J. W. Ledoux. No. 1,243,843; Oct. 23; v. 243; p. 854.
Interlocking devices, Mechanical time-release for. H. B. Taylor. No. 1,245,133; Oct. 30; v. 243; p. 1281.
Intermittent-operating mechanism. E. R. Bittner. No. 1,243,582; Oct. 16; v. 243; p. 737.
Internal-combustion engine. H. G. Chatain. No. 1,242,142; Oct. 9; v. 243; p. 255.
Internal-combustion engine. R. F. Colquhoun. No. 1,242,148; Oct. 9; v. 243; p. 257.
Internal-combustion engine. L. Dufour. No. 1,241,833; Oct. 2; v. 243; p. 117.
Internal-combustion engine. C. J. Hautier. No. 1,243,835; Oct. 23; v. 243; p. 852.
Internal-combustion engine. J. T. Hillhouse. No. 1,243,522; Oct. 16; v. 243; p. 720.
Internal-combustion engine. C. A. Juengst. No. 1,244,862; Oct. 30; v. 243; p. 1199.
Internal-combustion engine. J. Kyllikinen. No. 1,242,207; Oct. 9; v. 243; p. 276.
Internal-combustion engine. H. B. Layman. No. 1,244,869; Oct. 30; v. 243; p. 1201.
Internal-combustion engine. P. E. Nuenke. No. 1,241,876; Oct. 2; v. 243; p. 131.
Internal-combustion engine. L. Plein. No. 1,244,890; Oct. 30; v. 243; p. 1208.
Internal-combustion engine. J. Whaley. No. 1,244,668; Oct. 30; v. 243; p. 1140.
Internal-combustion engine. G. W. White. No. 1,244,566; Oct. 30; v. 243; p. 1110.
Internal-combustion engine, Two-stroke-cycle. J. R. Kemp. No. 1,242,450; Oct. 9; v. 243; p. 351.
Internal-combustion motor. J. D. Blayney. No. 1,243,691; Oct. 23; v. 243; p. 803.
Internal-combustion motor. A. Winton. No. 1,243,908; Oct. 23; v. 243; p. 874.
Iron: *See*—
Brake-block iron.
Branding-iron.
Sad-iron.
Iron, Making pig-. E. Humbert. No. 1,242,442; Oct. 9; v. 243; p. 349.
Ironers, Clamp for stocking-. R. Roost. No. 1,243,346; Oct. 16; v. 243; p. 668.
Ironing-board. F. C. Lloyd. No. 1,244,520; Oct. 30; v. 243; p. 1095.
Ironing-board. W. O. McDivitt. No. 1,242,461; Oct. 9; v. 243; p. 356.
Irrigating apparatus. C. W. Skinner. No. 1,245,050; Oct. 30; v. 243; p. 1256.
Jack: *See*—
Automobile roller-jack.
Hydraulic jack.
Lifting-jack.
Shipping-jack.
Smoke-jack.
Vehicle-jack.
Vehicle pulling-jack.
Wheel pulling-jack.
Jack. W. L. Widlar. No. 1,241,590; Oct. 2; v. 243; p. 40.
Jack. W. L. Widlar. No. 1,241,591; Oct. 2; v. 243; p. 41.
Jack-operating attachment. J. L. Downs. No. 1,244,964; Oct. 30; v. 243; p. 1230.
Jamb and trim, Hollow metal. D. Peribonis. No. 1,245,018; Oct. 30; v. 243; p. 1247.
Jar: *See*—
Overflow-jar.
Jar-cap. E. D. Schmitt. No. 1,242,604; Oct. 9; v. 243; p. 403.
Jar-closure. C. Hammer. No. 1,244,495; Oct. 30; v. 243; p. 1088.
Jar-closure, Process. C. Hammer. No. 1,244,496; Oct. 30; v. 243; p. 1088.
Jar-closures, Chuck for. C. Hammer. No. 1,244,494; Oct. 30; v. 243; p. 1088.
Jewelry-clasp. O. H. Sleeper. No. 1,243,995; Oct. 23; v. 243; p. 899.
Jig and sluice-box, Combination. H. W. Fellows. No. 1,243,395; Oct. 16; v. 243; p. 680.

Jig, Universal. J. J. Hill. No. 1,244,210; Oct. 23; v. 243; p. 963.
Joint: *See*—
Knee-joint.
Rail-joint.
Sash-joint.
Universal joint.
Journal-box. W. J. Ray. No. 1,241,658; Oct. 2; v. 243; p. 61.
Junction-box coupling for electric-wire conduits. L. E. Webster. No. 1,245,077; Oct. 30; v. 243; p. 1264.
Kettle. R. F. Goecke. No. 1,241,619; Oct. 2; v. 243; p. 49.
Key: *See*—
Ball-key.
Cotter-key.
Telegraph-key.
Key-cutting machine. E. A. Christoph. No. 1,243,810; Oct. 23; v. 243; p. 844.
Key-cutting machine. C. Terracciano. No. 1,242,105; Oct. 2; v. 243; p. 202.
Key-retainer. C. J. Steiner. No. 1,242,257; Oct. 9; v. 243; p. 290.
Keyboard, Transposing-. T. A. Sharkey. No. 1,244,250; Oct. 23; v. 243; p. 976.
Keyhole-plate, Luminous. F. W. Harvey. No. 1,243,518; Oct. 16; v. 243; p. 719.
Keyless lock. J. Macé. No. 1,241,532; Oct. 2; v. 243; p. 19.
Kitchen, Field-. J. M. Gunn. No. 1,244,489; Oct. 30; v. 243; p. 1086.
Kitchenette. C. S. Avedisian and J. J. Dwyer. No. 1,244,407; Oct. 23; v. 243; p. 1023.
Knee-joint for artificial limbs. W. H. and J. Wambsgans. No. 1,243,906; Oct. 23; v. 243; p. 874.
Knife: *See*—
Skinning-knife.
Knitting-machine. R. J. Jenckes. No. 1,244,503; Oct. 30; v. 243; p. 1090.
Knitting-machine. M. C. Miller. No. 1,245,007; Oct. 30; v. 243; p. 1243.
Knitting-machine. F. Wilcomb. No. 1,244,267; Oct. 23; v. 243; p. 982.
Knitting-machine. F. Wilcomb. No. 1,244,268; Oct. 23; v. 243; p. 982.
Knitting-machine. F. Wilcomb. No. 1,244,270; Oct. 23; v. 243; p. 983.
Knitting machine, Circular-. W. Larkin. No. 1,244,991; Oct. 30; v. 243; p. 1238.
Knitting machine, Circular-. F. Wilcomb. No. 1,244,672; Oct. 30; v. 243; p. 1141.
Knitting-machine needle. F. Pope and E. E. Randall. No. 1,241,882; Oct. 2; v. 243; p. 132.
Knitting-machine, Spring-needle. F. Wilcomb. No. 1,244,673; Oct. 30; v. 243; p. 1142.
Knitting-machine, Spring-needle. F. Wilcomb. No. 1,244,674; Oct. 30; v. 243; p. 1142.
Knitting-machine, Spring-needle. F. Wilcomb. No. 1,244,675; Oct. 30; v. 243; p. 1142.
Knitting-machines, Trunnion-mounted element for. F. Wilcomb. No. 1,244,269; Oct. 23; v. 243; p. 983.
Knotter. E. D. Parker. No. 1,241,758; Oct. 2; v. 243; p. 92.
Label folding and marking machine. J. H. Barr. No. 1,243,032; Oct. 16; v. 243; p. 573.
Lace. A. J. Saywell. No. 1,241,666; Oct. 2; v. 243; p. 63.
Lace fastener, Shoe-. E. D. Price. No. 1,245,023; Oct. 30; v. 243; p. 1248.
Ladder and ironing-board, Combined step-. E. Jurkowski. No. 1,243,304; Oct. 16; v. 243; p. 655.
Ladder, bench, and ironing-board, Combined step-. J. N. Auer. No. 1,245,082; Oct. 30; v. 243; p. 1265.
Ladder, Combination-. W. J. Walters. No. 1,245,073; Oct. 30; v. 243; p. 1263.
Ladder safety device. R. W. Lofstrom. No. 1,243,844; Oct. 23; v. 243; p. 855.
Ladder-shelf, Detachable. H. D. and C. H. Goss. No. 1,243,732; Oct. 23; v. 243; p. 818.
Ladders, Suspension-hook for extension-. A. Schreiner. No. 1,244,645; Oct. 30; v. 243; p. 1133.
Laminated spring. D. Landaw. No. 1,241,743; Oct. 2; v. 243; p. 88.
Lamp. L. M. Giroux. No. 1,243,930; Oct. 23; v. 243; p. 880.
Lamp. E. A. Hawthorne. No. 1,242,185; Oct. 9; v. 243; p. 268.
Lamp. E. A. Hawthorne. No. 1,242,186; Oct. 9; v. 243; p. 269.
Lamp. H. Miller and F. Mueller. No. 1,241,874; Oct. 2; v. 243; p. 130.
Lamp. W. S. Thomas. No. 1,242,076; Oct. 2; v. 243; p. 192.
Lamp, Arc-. A. Huttar. No. 1,241,515; Oct. 2; v. 243; p. 13.
Lamp-bracket clamp. J. T. Corley. No. 1,243,388; Oct. 16; v. 243; p. 679.
Lamp-focusing device. W. M. Matteoli. No. 1,244,880; Oct. 30; v. 243; p. 1205.
Lamp, Gas-. F. J. and H. R. Humphrey. No. 1,244,051; Oct. 23; v. 243; p. 917.
Lamp, Gas-burning. A. T. Stewart. No. 1,243,890; Oct. 23; v. 243; p. 869.
Lamp, Generator-. H. R. Van Deventer. No. 1,244,262; Oct. 23; v. 243; p. 980.
Lamp guard and shade. F. W. Pennock. No. 1,244,640; Oct. 30; v. 243; p. 1132.
Lamp, Metallic vapor-. W. Nernst. No. 1,244,121; Oct. 23; v. 243; p. 937.
Lamp-protector. J. G. Wissinger. No. 1,243,236; Oct. 16; v. 243; p. 634.
Lamp-shade bracket. H. L. Stubbs. No. 1,242,494; Oct. 9; v. 243; p. 365.
Lamp-shade frame. V. S. Pearlman. No. 1,244,639; Oct. 30; v. 243; p. 1132.
Lamp-socket shell, Electric-. W. He. No. 1,241,851; Oct. 2; v. 243; p. 123.
Lamp, Standard electric. G. T. Irwin. No. 1,243,675; Oct. 16; v. 243; p. 766.
Lamp structure. E. S. Hutton. No. 1,242,808; Oct. 9; v. 243; p. 466.
Lamp, Switchboard-. H. D. Currier. No. 1,244,475; Oct. 30; v. 243; p. 1081.
Lamps, Adjusting incandescent. C. O. Harrington. No. 1,241,512; Oct. 2; v. 243; p. 12.
Lap-robe lock. D. Prowant. No. 1,243,218; Oct. 16; v. 243; p. 629.
Last. G. Clausing. No. 1,242,145; Oct. 9; v. 243; p. 256.
Last. G. Clausing. No. 1,242,146; Oct. 9; v. 243; p. 256.
Last. G. Clausing. No. 1,242,147; Oct. 9; v. 243; p. 256.
Last, Shoe-. P. Coté. No. 1,244,472; Oct. 30; v. 243; p. 1080.
Lasting-machine. F. W. Merrick. No. 1,245,117; Oct. 30; v. 243; p. 1276.
Latch and lock, Door. G. W. Wells. No. 1,242,750; Oct. 9; v. 243; p. 448.
Latch, Door-. G. H. Elwell. No. 1,243,596; Oct. 16; v. 243; p. 740.
Latch, Door-. G. W. Wells. No. 1,242,749; Oct. 9; v. 243; p. 447.
Latch, Door-. R. G. Winter. No. 1,244,394; Oct. 23; v. 243; p. 1019.
Latch, Door-. H. A. Young. No. 1,242,301; Oct. 9; v. 243; p. 305.
Latch for doors of kitchen-cabinets, &c. C. Mahoney. No. 1,243,325; Oct. 16; v. 243; p. 662.
Latch, Gate-. A. Saari. No. 1,242,376; Oct. 9; v. 243; p. 328.
Latch, Gate-. I. P. Smith. No. 1,241,671; Oct. 2; v. 243; p. 64.
Latch, Gate-. A. Stillings and T. W. Carl. No. 1,245,057; Oct. 30; v. 243; p. 1257.
Latch, Lock-. E. Paquette. No. 1,244,364; Oct. 23; v. 243; p. 1010.
Latch, Locking-. A. R. Enquist. No. 1,241,613; Oct. 2; v. 243; p. 48.
Lathe. A. E. Newton and F. K. Hendrickson. No. 1,242,583; Oct. 9; v. 243; p. 396.
Lathe-apron. C. D. Gibson. No. 1,242,679; Oct. 9; v. 243; p. 426.
Lathe, Fluid-operated. H. E. Warren. No. 1,244,664; Oct. 30; v. 243; p. 1139.
Lathe-grinder attachment. H. T. Jensen. No. 1,243,180; Oct. 16; v. 243; p. 617.
Lathe, Pattern-. E. A. Eastman. No. 1,241,838; Oct. 2; v. 243; p. 118.
Lead pigments, Producing. A. S. Ramage. No. 1,243,762; Oct. 23; v. 243; p. 829.
Leaf-spring lubricator. W. H. Brown. No. 1,241,817; Oct. 2; v. 243; p. 112.
Leather and manufacturing the same, Artificial. A. H. Whitmore. No. 1,244,567; Oct. 30; v. 243; p. 1111.
Leather fabric. W. M. Cavanaugh. No. 1,243,709; Oct. 23; v. 243; p. 810.
Leather grading and sorting machine. C. E. Clarke and J. S. Delaney. No. 1,243,260; Oct. 16; v. 243; p. 641.
Leather substitute, Multistretchable. E. Weinheim. No. 1,242,622; Oct. 9; v. 243; p. 408.
Leather waterproofing and preserving composition. N. McLaughlin. No. 1,244,062; Oct. 23; v. 243; p. 920.
Leg, Artificial. J. F. Cordell. No. 1,244,294; Oct. 23; v. 243; p. 990.
Legging. C. T. Dahlin. No. 1,242,150; Oct. 9; v. 243; p. 257.
Lens. L. L. Rowe. No. 1,241,886; Oct. 2; v. 243; p. 134.
Lens grinding and polishing tool, Bifocal-. C. C. Allen. No. 1,244,939; Oct. 30; v. 243; p. 1223.
Lens-mounting. L. Arntz. No. 1,241,698; Oct. 2; v. 243; p. 73.
Lens-testing apparatus. C. C. Allen. No. 1,242,754; Oct. 9; v. 243; p. 449.
Lens-testing instrument. A. H. Emerson. No. 1,241,612; Oct. 2; v. 243; p. 47.
Lenses, Machine for grinding multifocal. C. A. Hoffman. No. 1,241,628; Oct. 2; v. 243; p. 52.
Lenses, Mounting for ophthalmic. P. H. Johnston. No. 1,243,743; Oct. 23; v. 243; p. 823.
Leveling and plumbing implement, Combined. S. L. O. Taylor. No. 1,242,740; Oct. 9; v. 243; p. 444.
Lever, Hand-. S. L. Allen. No. 1,243,240; Oct. 16; v. 243; p. 635.
Lever-locking mechanism. G. C. Jensen. No. 1,244,857; Oct. 30; v. 243; p. 1197.
Life-boat protector. F. Suchovsky. No. 1,243,117; Oct. 16; v. 243; p. 599.
Life-preserver. A. L. Jaynes. No. 1,243,415; Oct. 16; v. 243; p. 686.
Life-preserver. S. L. Ross. No. 1,245,033; Oct. 30; v. 243; p. 1250.

Life-preserver. O. A. Youngren. No. 1,242,752; Oct. 9; v. 243; p. 448.
Life-saving device. G. J. Hanlon. No. 1,244,325; Oct. 23; v. 243; p. 999.
Life-saving raft. S. Bodnar. No. 1,244,020; Oct. 23; v. 243; p. 908.
Life-saving suits, Closure for. O. A. Youngren. No. 1,241,598; Oct. 2; v. 243; p. 43.
Lifter: *See*—
Dish-lifter. Valve-spring lifter.
Lifter. E. L. Beardsley. No. 1,241,488; Oct. 2; v. 243; p. 4.
Lifting device. O. A. Mitchell. No. 1,244,228; Oct. 23; v. 243; p. 970.
Lifting-jack. L. Atwell. No. 1,244,406; Oct. 23; v. 243; p. 1023.
Light-dimmer. J. P. Casey. No. 1,243,652; Oct. 16; v. 243; p. 759.
Light-projector and tongue-depressor. E. I. Young. No. 1,244,819; Oct. 30; v. 243; p. 1187.
Light-ray deflector. C. E. Mentzer. No. 1,245,006; Oct. 30; v. 243; p. 1243.
Light-transmitting bowls, Hanger for. J. T. Robb and W. E. Jerome. No. 1,245,029; Oct. 30; v. 243; p. 1250.
Lighting system. A. E. Twiddy and J. Stally. No. 1,241,585; Oct. 2; v. 243; p. 39.
Lighting system for doorways, Automatic. G. B. Kohler. No. 1,243,530; Oct. 16; v. 243; p. 722.
Lightning-arrester. D. T. May. No. 1,242,014; Oct. 2; v. 243; p. 174.
Lightning-arrester, Vacuum. D. T. May. No. 1,244,528; Oct. 30; v. 243; p. 1097.
Lightning-conductors, System of. G. A. Mullen. No. 1,244,118; Oct. 23; v. 243; p. 936.
Limb, Artificial. H. W. Karn. No. 1,244,612; Oct. 30; v. 243; p. 1123.
Lime, Slaking. W. E. Carson. No. 1,244,421; Oct. 23; v. 243; p. 1027.
Line-space mechanism. A. C. Roebuck. No. 1,243,110; Oct. 16; v. 243; p. 597.
Liner, Adjustable. C. A. Spickler. No. 1,241,675; Oct. 2; v. 243; p. 66.
Liner, Adjustable. C. A. Spickler. No. 1,241,676; Oct. 2; v. 243; p. 66.
Lining-machine. S. R. Parry. No. 1,242,720; Oct. 9; v. 243; p. 439.
Lining-machine. S. R. Parry. No. 1,242,970; Oct. 16; v. 243; p. 552.
Link, Finger-. H. F. Ellard. No. 1,244,303; Oct. 23; v. 243; p. 993.
Link, Fusible. L. M. Lewis. No. 1,244,106; Oct. 23; v. 243; p. 933.
Linotype-slug-casting machines, Duplex mold-liner for. D. M. Jones. No. 1,243,527; Oct. 16; v. 243; p. 721.
Lintel. F. Heath. No. 1,244,328; Oct. 23; v. 243; p. 1000.
Lip-slitting mechanism. A. E. Johnson. No. 1,243,944; Oct. 23; v. 243; p. 885.
Liquid, Apparatus for supplying receptacles with. L. A. Hufford. No. 1,241,982; Oct. 2; v. 243; p. 163.
Liquid-applying device. J. C. Gooch. No. 1,242,174; Oct. 9; v. 243; p. 265.
Liquid-carrying and level-indicating device. T. A. Long. No. 1,242,215; Oct. 9; v. 243; p. 278.
Liquid-discharging apparatus. E. Hurlbrink. No. 1,243,298; Oct. 16; v. 243; p. 653.
Liquid-dispensing can. N. H. Bullard. No. 1,242,137; Oct. 9; v. 243; p. 253.
Liquid-elevating apparatus. W. Jay. No. 1,244,052; Oct. 23; v. 243; p. 917.
Liquid-meter. E. G. Bailey. No. 1,243,682; Oct. 23; v. 243; p. 800.
Liquid-meter. E. G. Bailey. No. 1,243,683; Oct. 23; v. 243; p. 800.
Liquids from solids, Process of and apparatus for the continuous separation of. H. C. Behr. No. 1,241,905; Oct. 2; v. 243; p. 140.
Liquids in definite quantities, Means for dispensing. S. J. Asbell. No. 1,242,414; Oct. 9; v. 243; p. 341.
Liquids, Raising and forcing. H. A. Humphrey. No. 1,243,297; Oct. 16; v. 243; p. 652.
Liquids, Separating mixtures of. E. I. Dyer and A. R. Heise. No. 1,242,784; Oct. 9; v. 243; p. 459.
Liquids, Treating. F. R. Bachler and W. B. Newkirk. No. 1,244,012; Oct. 23; v. 243; p. 905.
Liquids used for separating solids of different specific gravities, Recovering. A. Nagelvoort. No. 1,244,884; Oct. 30; v. 243; p. 1206.
Liquids with gases, Apparatus for treating. M. H. Ittner. No. 1,242,445; Oct. 9; v. 243; p. 350.
Lithographic plates, Making. S. A. Neidich. No. 1,245,119; Oct. 30; v. 243; p. 1277.
Lithography. S. A. Neidich. No. 1,245,120; Oct. 30; v. 243; p. 1277.
Litter-carrier. R. Pronk. No. 1,244,368; Oct. 23; v. 243; p. 1011.
Load-binder. P. Borg. No. 1,243,247; Oct. 16; v. 243; p. 637.
Load despatching and delivering apparatus, Automatic. C. S. Jennings. No. 1,244,856; Oct. 30; v. 243; p. 1197.
Load-handling apparatus. G. Kellgren. No. 1,243,074; Oct. 16; v. 243; p. 587.
Load-regulating system. W. L. Waters. No. 1,242,284; Oct. 9; v. 243; p. 299.
Loader. E. Brown. No. 1,244,024; Oct. 23; v. 243; p. 909.
Loader. V. G. Halby. No. 1,244,199; Oct. 23; v. 243; p. 960.
Loading-machine. L. J. Slifer. No. 1,244,381; Oct. 23; v. 243; p. 1014.
Lock: *See*—
Automobile-lock. Nut-lock.
Automobile-steering wheel lock. Padlock.
Bolt-lock. Permutation-lock.
Car-door lock. Rail-joint lock.
Cylinder-lock. Railway-rail lock.
Damper-lock. Register-lock.
Door-lock. Seal-lock.
Elevated-carrier lock. Shade-roller lock.
Keyless lock. Shuttle-lock.
Lap-robe lock. Valve-lock.
Mechanical lock. Wheel-lock.
Window-lock.
Lock. E. A. Christoph. No. 1,244,450; Oct. 23; v. 243; p. 1036.
Lock. H. Molden. No. 1,241,754; Oct. 2; v. 243; p. 91.
Lock. M. Mutro. No. 1,242,224; Oct. 9; v. 243; p. 281.
Lock. O. E. Staack. No. 1,242,256; Oct. 9; v. 243; p. 290.
Lock. H. G. Voight. No. 1,241,787; Oct. 2; v. 243; p. 101.
Lock. H. G. Voight. No. 1,241,788; Oct. 2; v. 243; p. 101.
Lock. H. G. Voight. No. 1,242,085; Oct. 2; v. 243; p. 195.
Lock. H. G. Voight. No. 1,243,016; Oct. 16; v. 243; p. 568.
Lock. H. G. Voight. No. 1,244,264; Oct. 23; v. 243; p. 980.
Lock. G. Wegner. No. 1,242,401; Oct. 9; v. 243; p. 337.
Lock. P. L. Wikhelm. No. 1,244,671; Oct. 30; v. 243; p. 1141.
Lock and alarm, Combined. A. Sasiadek. No. 1,243,983; Oct. 23; v. 243; p. 896.
Lock and latch mechanism. N. B. Hurd. No. 1,244,443; Oct. 23; v. 243; p. 1033.
Lock indicating-register. W. S. Farnsworth. No. 1,243,826; Oct. 23; v. 243; p. 850.
Lock safety device, Door-. H. C. Smith. No. 1,243,350; Oct. 16; v. 243; p. 668.
Lock-switch. F. E. Matteson. No. 1,242,013; Oct. 2; v. 243; p. 174.
Lock-switch. B. P. Swyers. No. 1,244,660; Oct. 30; v. 243; p. 1138.
Locker system. G. H. Piggot. No. 1,245,022; Oct. 30; v. 243; p. 1247.
Locking and releasing device. J. R. Irwin. No. 1,242,809; Oct. 9; v. 243; p. 466.
Locking device. G. F. Brassler. No. 1,241,914; Oct. 2; v. 243; p. 143.
Locking device. J. H. Williams. No. 1,244,154; Oct. 23; v. 243; p. 947.
Locomotive. W. J. Bohan. No. 1,242,762; Oct. 9; v. 243; p. 452.
Locomotive. G. M. Eaton. No. 1,241,500; Oct. 2; v. 243; p. 7.
Locomotive, Electric. J. L. Davis. No. 1,241,498; Oct. 2; v. 243; p. 7.
Locomotives, Smoke-consumer for. N. Petryk. No. 1,243,214; Oct. 16; v. 243; p. 628.
Locomotives, Valve-gearing for. H. Lentz. No. 1,242,452; Oct. 9; v. 243; p. 352.
Logging apparatus, Portable. J. H. Dickinson and E. D. Swan. No. 1,241,830; Oct. 2; v. 243; p. 116.
Loom and filling-carrier therefor, Filling-replenishing feeler-. A. E. Rhoades. No. 1,243,342; Oct. 16; v. 243; p. 666.
Loom attachment. J. V. Desmarais. No. 1,244,842; Oct. 30; v. 243; p. 1193.
Loom-fastener. J. J. Duck. No. 1,242,533; Oct. 9; v. 243; p. 378.
Loom, Filling-replenishing. W. H. Baker. No. 1,242,098; Oct. 2; v. 243; p. 199.
Loom-picker. J. Northrop. No. 1,244,122; Oct. 23; v. 243; p. 937.
Loom-shuttle. N. Spenard. No. 1,242,383; Oct. 9; v. 243; p. 330.
Loom-temple thread-cutter. E. S. Stimpson. No. 1,244,791; Oct. 30; v. 243; p. 1178.
Loom-temple, Thread-cutting. A. A. Hull. No. 1,241,983; Oct. 2; v. 243; p. 163.
Loom, Weft-replenishing. E. H. Ballou. No. 1,244,827; Oct. 30; v. 243; p. 1189.
Looms, Center-filling stop-motion for. J. A. Gagnon. No. 1,243,831; Oct. 23; v. 243; p. 851.
Lubricating device. F. M. Perkins. No. 1,243,213; Oct. 16; v. 243; p. 628.
Lubricating system. W. J. Byron. No. 1,244,173; Oct. 23; v. 243; p. 952.
Lubrication crank-cases, Intercepter for splash-. E. M. White. No. 1,241,589; Oct. 2; v. 243; p. 40.
Lubricator: *See*—
Balanced lubricator. Wheel-lubricator.
Force-feed lubricator.
Lubricator. D. F. Kilgour. No. 1,242,702; Oct. 9; v. 243; p. 433.
Lunch-box, Combination. T. C. Kutscher. No. 1,244,866; Oct. 30; v. 243; p. 1200.

Lyre, Illuminated music-. G. A. Hambright. No. 1,243,600; Oct. 16; v. 243; p. 742.
Machine-table, Circular multiple. R. S. Arrants. No. 1,243,577; Oct. 16; v. 243; p. 735.
Magnetic brake. C. Koch. No. 1,243,529; Oct. 16; v. 243; p. 721.
Mail-bag catcher. J. Fleming. No. 1,241,944; Oct. 2; v. 243; p. 152.
Mail-bag-delivering apparatus. J. C. Blanton and D. J. Sexton. No. 1,244,284; Oct. 23; v. 243; p. 987.
Mail-bag-receiving apparatus. W. T. Smith. No. 1,242,381; Oct. 9; v. 243; p. 329.
Mail-bag-transfer device. W. J. Rhoads. No. 1,244,372; Oct. 23; v. 243; p. 1011.
Mail-box. T. Turnbull. No. 1,245,136; Oct. 30; v. 243; p. 1282.
Mail-box for rural free-delivery routes. H. L. Moon. No. 1,244,229; Oct. 23; v. 243; p. 970.
Mail-catcher. C. C. Jones. No. 1,243,945; Oct. 23; v. 243; p. 885.
Mail catching and delivering device. V. D. Caldwell. No. 1,244,582; Oct. 30; v. 243; p. 1115.
Mail-exchange apparatus, Railway-. A. Hupp. No. 1,243,606; Oct. 16; v. 243; p. 744.
Mail-marking machine. A. Ielfield. No. 1,243,740; Oct. 23; v. 243; p. 821.
Mailing-card. W. W. and C. G. McClay. No. 1,244,522; Oct. 30; v. 243; p. 1095.
Mandolin and guitar, Combined. H. G. Luis. No. 1,241,639; Oct. 2; v. 243; p. 56.
Manually-propelled boat. L. Pavese. No. 1,244,073; Oct. 23; v. 243; p. 923.
Manure-loader. W. L. Ullsperger. No. 1,242,083; Oct. 2; v. 243; p. 195.
Manure-spreader. W. H. Lee. No. 1,242,705; Oct. 9; v. 243; p. 434.
Marking device. J. E. Burns. No. 1,242,918; Oct. 16; v. 243; p. 536.
Mat-holder. H. Goodacre and A. H. Allen. No. 1,241,957; Oct. 2; v. 243; p. 155.
Match-box. G. F. Waugh. No. 1,243,907; Oct. 23; v. 243; p. 874.
Match-box holder. W. P. Goebel. No. 1,243,674; Oct. 16; v. 243; p. 766.
Mattress. G. Dallavalle. No. 1,243,267; Oct. 16; v. 243; p. 643.
Mattress making apparatus. W. R. Phillips. No. 1,244,773; Oct. 30; v. 243; p. 1173.
Mattress-making machine. C. M. Adams. No. 1,242,303; Oct. 9; v. 243; p. 306.
Mausoleum construction. S. Lovell. No. 1,244,109; Oct. 23; v. 243; p. 934.
Measuring apparatus. R. S. Blair. No. 1,244,693; Oct. 30; v. 243; p. 1147.
Measuring apparatus, Liquid-. J. A. and G. W. MacKenzie. No. 1,242,831; Oct. 9; v. 243; p. 474.
Measuring, cost-computing, and winding machine, Ribbon. W. E. Hosch. No. 1,242,192; Oct. 9; v. 243; p. 270.
Measuring electrical energy, Device for. J. S. Piper. No. 1,242,472; Oct. 9; v. 243; p. 359.
Measuring instrument. A. J. Taylor. No. 1,244,390; Oct. 23; v. 243; p. 1017.
Measuring instrument. P. C. Woods. No. 1,244,570; Oct. 30; v. 243; p. 1111.
Meat-cutter. I. N. Royal. No. 1,243,448; Oct. 16; v. 243; p. 697.
Mechanical lock or grip. T. P. O'Grady. No. 1,243,338; Oct. 16; v. 243; p. 665.
Mechanical motor. J. A. Gygar. No. 1,243,163; Oct. 16; v. 243; p. 611.
Mechanical movement. E. E. and D. Arney. No. 1,241,697; Oct. 2; v. 243; p. 73.
Mechanical movement. C. C. Blake. No. 1,241,911; Oct. 2; v. 243; p. 142.
Melting-pot or crucible. J. C. Henderson. No. 1,241,971; Oct. 2; v. 243; p. 160.
Metal casings to iron cores, Applying firmly-adhesive. P. E. Preschlin. No. 1,242,589; Oct. 9; v. 243; p. 398.
Metal, Cutting. J. R. Rose. No. 1,242,243; Oct. 9; v. 243; p. 286.
Metal-cutting apparatus. L. W. Kile. No. 1,244,744; Oct. 30; v. 243; p. 1164.
Metal-heating furnace. Z. B. Leonard. No. 1,241,526; Oct. 2; v. 243; p. 17.
Metal plates, Apparatus for electrically making cup-shaped projections in. T. E. Murray, Jr. No. 1,242,580; Oct. 9; v. 243; p. 395.
Metal plates, Method of and apparatus for electrically making openings in. T. E. Murray, Jr. No. 1,242,581; Oct. 9; v. 243; p. 395.
Metal structure, Protected. P. M. Stewart. No. 1,243,001; Oct. 16; v. 243; p. 563.
Metal-working machine. L. F. and R. Schulze. No. 1,243,989; Oct. 23; v. 243; p. 898.
Metal-working tool. F. P. Lovejoy. No. 1,242,707; Oct. 9; v. 243; p. 435.
Metal-working tool. F. P. Lovejoy. No. 1,242,708; Oct. 9; v. 243; p. 435.
Metals and alloys of metal, Treating. A. M. Craig. No. 1,243,714; Oct. 23; v. 243; p. 812.
Metals from ores and the like, Recovery of. C. S. Vadner. No. 1,245,137; Oct. 30; v. 243; p. 1282.
Metallic leaf, Machine for applying. G. E. Littlefield. No. 1,242,454; Oct. 9; v. 243; p. 353.
Metallic wheel. A. L. Putnam. No. 1,242,590; Oct. 9; v. 243; p. 398.
Meter: *See*—
Fluid-meter. Traction-meter.
Liquid-meter. Volumetric meter.
Meter adapter, Multiple-. J. Sachs. No. 1,245,037; Oct. 30; v. 243; p. 1252.
Meter-testing appurtenance. J. Sachs. No. 1,245,038; Oct. 30; v. 243; p. 1252.
Meters, Electrical attachment for reading. A. C. Neff and E. H. Ford. No. 1,244,634; Oct. 30; v. 243; p. 1130.
Meters, Means for recording readings of. J. H. Weeks. No. 1,242,093; Oct. 2; v. 243; p. 198.
Metering systems, Transformer for. J. E. Mateer and W. R. Woodward. No. 1,242,962; Oct. 16; v. 243; p. 550.
Mica plates, Making. M. Melrowsky. No. 1,241,539; Oct. 2; v. 243; p. 22.
Milk and vegetable-fat compound, Apparatus for the production of skimmed-. J. F. Enz. No. 1,243,275; Oct. 16; v. 243; p. 645.
Milk-can. J. B. Watson. No. 1,242,876; Oct. 9; v. 243; p. 488.
Milk-catheter and surgical instrument. L. A. Bean. No. 1,242,314; Oct. 9; v. 243; p. 309.
Milk, Process and apparatus for filling vessels with. W. G. Schröder. No. 1,242,873; Oct. 9; v. 243; p. 487.
Milk-receptacle and lock. F. N. Olesen. No. 1,242,718; Oct. 9; v. 243; p. 438.
Milk substitute, made from soya-beans and arachis (pea) nuts. W. J. Meibuish. No. 1,243,855; Oct. 23; v. 243; p. 858.
Milking device and antikicker. L. A. Clark. No. 1,244,175; Oct. 23; v. 243; p. 952.
Milking-machine. A. C. Hougland. No. 1,245,106; Oct. 30; v. 243; p. 1272.
Mill: *See*—
Flour-mill. Windmill.
Grinding-mill.
Millers, Feed control for. W. Humphreys. No. 1,241,850; Oct. 2; v. 243; p. 122.
Milling-machine. O. W. Curtis. No. 1,242,775; Oct. 9; v. 243; p. 456.
Mine-door, Automatic. J. C. Allen. No. 1,242,411; Oct. 9; v. 243; p. 340.
Mine-doors, Means for automatically opening. A. M. and J. O. Hopper. No. 1,242,190; Oct. 9; v. 243; p. 269.
Mineral wool, Making. W. Fay. No. 1,242,537; Oct. 9; v. 243; p. 379.
Minerals, Apparatus for the chlorination of. R. Reyes. No. 1,243,977; Oct. 23; v. 243; p. 894.
Minerals, Method and appliance for separating laminated and fibrous. C. L. Perkins. No. 1,243,096; Oct. 16; v. 243; p. 593.
Mining-machine. C. E. Davis. No. 1,244,178; Oct. 23; v. 243; p. 953.
Mining-machine. C. E. Davis. No. 1,244,179; Oct. 23; v. 243; p. 954.
Mining-machine. N. D. Levin. No. 1,244,871; Oct. 30; v. 243; p. 1202.
Mining, Method of and apparatus for placer-. F. E. Hawkesworth. No. 1,244,203; Oct. 23; v. 243; p. 961.
Mining system. W. E. Hamilton. No. 1,244,601; Oct. 30; v. 243; p. 1120.
Minnow. J. W. Jay. No. 1,242,556; Oct. 9; v. 243; p. 386.
Mirror-attaching device. L. B. Estes. No. 1,242,335; Oct. 9; v. 243; p. 316.
Mirror-bracket. G. O. P. Flanders. No. 1,244,973; Oct. 30; v. 243; p. 1233.
Mirror for dressing-tables and the like. J. R. Alden. No. 1,242,631; Oct. 9; v. 243; p. 410.
Miter-box. C. E. Wood. No. 1,241,804; Oct. 2; v. 243; p. 107.
Mixer: *See*—
Drink-mixer. Steam and hot-water mixer.
Mixing and measuring machine. H. R. Edgecomb. No. 1,241,501; Oct. 2; v. 243; p. 8.
Moistener, Envelop-. G. Gerdom. No. 1,244,975; Oct. 30; v. 243; p. 1234.
Moistener, Hand-operated tape-. C. H. Crowell. No. 1,244,837; Oct. 30; v. 243; p. 1191.
Moistener, Pocket-. G. Gerdom. No. 1,244,974; Oct. 30; v. 243; p. 1233.
Moistening and delivering machine, Strip. C. H. Crowell. No. 1,244,708; Oct. 30; v. 243; p. 1153.
Moistening appliance. J. P. and K. K. Nielsen. No. 1,243,967; Oct. 23; v. 243; p. 891.
Mold: *See*—
Concrete-block mold. Ingot-mold.
Concrete-culvert mold. Post-mold.
Culvert-mold. Tile-mold.
Mold. G. Atterbury. No. 1,241,487; Oct. 2; v. 243; p. 3.
Mold. M. E. Baker. No. 1,243,128; Oct. 16; v. 243; p. 602.
Molding and baking pastry cups and method of extracting the product from the molds, Machine for. A. McLaren. No. 1,243,318; Oct. 16; v. 243; p. 660.
Molding apparatus. S. S. Colt. No. 1,244,958; Oct. 30; v. 243; p. 1229.
Molding apparatus. A. P. Gustafson. No. 1,243,660; Oct. 16; v. 243; p. 761.

Molding-machine. W. Lewis and J. T. Ramsden. No. 1,245,114; Oct. 30; v. 243; p. 1275.
Molding-machine. W. L. Springer. No. 1,242,385; Oct. 9; v. 243; p. 331.
Molding-machines, Flask-clamp for roll-over. W. Lewis. No. 1,245,113; Oct. 30; v. 243; p. 1275.
Mop. J. C. De Roo. No. 1,244,592; Oct. 30; v. 243; p. 1118.
Mortar-gage. D. D. Drake. No. 1,241,611; Oct. 2; v. 243; p. 47.
Motion, Starting and stopping. E. C. Northrup. No. 1,244,636; Oct. 30; v. 243; p. 1131.
Motor: *See*—
Electric motor.
Engine-starting motor.
Fan-motor.
Hydrocarbon-motor.
Internal-combustion motor.
Mechanical motor.
Rotary motor.
Universal motor.
Water-motor.
Wave-motor.
Wind-motor.
Motor-control system. H. L. Beach. No. 1,242,910; Oct. 16; v. 243; p. 533.
Motor controller, Electric-. G. H. Whittingham. No. 1,243,665; Oct. 16; v. 243; p. 762.
Motor-controlling mechanism, Hydraulic-. E. L. Dunn. No. 1,242,928; Oct. 16; v. 243; p. 539.
Motor driving mechanism. N. Power. No. 1,242,976; Oct. 16; v. 243; p. 554.
Motor mechanism and speed-regulating means therefor. W. F. Grupe. No. 1,243,285; Oct. 16; v. 243; p. 649.
Motor-regulating device, Wind-. V. J. Johansson. No. 1,242,196; Oct. 9; v. 243; p. 271.
Motor-spirit from heavy hydrocarbons, Production of. W. A. Hall. No. 1,242,795; Oct. 9; v. 243; p. 462.
Motor-supporting means, Electric-. C. F. Stoddard. No. 1,243,358; Oct. 16; v. 243; p. 670.
Motors, Spark producing and distributing apparatus for explosive-. V. Paquit. No. 1,244,124; Oct. 23; v. 243; p. 938.
Mouse-trap. W. A. Köneman. No. 1,243,428; Oct. 16; v. 243; p. 692.
Mower, Lawn-. L. Pratt. No. 1,241,762; Oct. 2; v. 243; p. 94.
Mowers, Basket for lawn-. S. Koehli. No. 1,244,341; Oct. 23; v. 243; p. 1004.
Mowers, Pitman connection for. H. Flater. No. 1,241,504; Oct. 2; v. 243; p. 9.
Mowing device, Hay-. G. H. Perkins. No. 1,242,853; Oct. 9; v. 243; p. 481.
Mud-guard for motor-vehicles. S. Q. Stanley. No. 1,244,656; Oct. 30; v. 243; p. 1137.
Muffler. R. L. McElroy. No. 1,242,219; Oct. 9; v. 243; p. 279.
Muffler cut-out. O. H. Watkins. No. 1,242,621; Oct. 9; v. 243; p. 407.
Multitime separator and distributer. D. L. Martyn. No. 1,243,852; Oct. 23; v. 243; p. 857.
Music-leaf turner. E. A. Lewis and P. R. Pinkard. No. 1,244,749; Oct. 30; v. 243; p. 1165.
Music-sheet and spool therefor for automatic piano-players. J. S. Holmes. No. 1,245,104; Oct. 30; v. 243; p. 1272.
Music-stand. T. Gonnella. No. 1,244,320; Oct. 23; v. 243; p. 998.
Musical-instrument string. L. C. Schermerhorn. No. 1,244,549; Oct. 30; v. 243; p. 1105.
Musical instruments, Automatic player for. H. F. Herman. No. 1,243,169; Oct. 16; v. 243; p. 613.
Musical instruments, Expression control for. G. H. Parsons. No. 1,242,466; Oct. 9; v. 243; p. 357.
Musical instruments, Mouse-guard for. J. H. Gindling. No. 1,242,544; Oct. 9; v. 243; p. 382.
Musical instruments, Tracking device for automatic. D. Morano. No. 1,243,620; Oct. 16; v. 243; p. 749.
Musical instruments, Tracking device for automatic. G. M. Russell. No. 1,245,126; Oct. 30; v. 243; p. 1279.
Musical instruments, Tracking device for automatic. F. W. Wright. No. 1,245,081; Oct. 30; v. 243; p. 1265.
Nail: *See*—
Double-headed nail.
Roofing-nail.
Nail-strings, Making. F. L. Mackenzie. No. 1,241,868; Oct. 2; v. 243; p. 127.
Nailing parquet floors, Tool for. K. O. Kristiansen. No. 1,241,996; Oct. 2; v. 243; p. 168.
Necktie. S. Appelman and S. Bernstein. No. 1,243,796; Oct. 23; v. 243; p. 840.
Necktie. J. Zimmern. No. 1,243,792; Oct. 23; v. 243; p. 838.
Necktie-holder. C. B. Eaton. No. 1,244,435; Oct. 23; v. 243; p. 1031.
Necktie-holder. D. Yamanishi. No. 1,242,629; Oct. 9; v. 243; p. 409.
Necktie stretcher and hanger, Combined. A. J. Nelson. No. 1,242,841; Oct. 9; v. 243; p. 477.
Nest, Box-. J. W. Cooper. No. 1,243,591; Oct. 16; v. 243; p. 739.
Nest, Hen's. P. Sorensen. No. 1,245,053; Oct. 30; v. 243; p. 1256.
Network for neutralizing the characteristic reactance of a loaded line. R. S. Hoyt. No. 1,243,066; Oct. 16; v. 243; p. 584.
Nickel from hydrogenized fat or oil, Removing. M. C. Whitaker. No. 1,242,624; Oct. 9; v. 243; p. 408.
Nipple for nursing-bottles. M. C. Buchanan. No. 1,243,806; Oct. 23; v. 243; p. 843.
Nitrogen compounds, Forming. L. L. Summers. No. 1,242,264; Oct. 9; v. 243; p. 293.
Nozzle, Fountain-. A. W. Browne. No. 1,244,951; Oct. 30; v. 243; p. 1227.
Nozzle, Non-leakable discharge-. R. H. Davenport. No. 1,244,710; Oct. 30; v. 243; p. 1154.
Nozzle point, Syringe-. G. W. Jessup. No. 1,243,840; Oct. 23; v. 243; p. 854.
Nozzle, Road-oil-spreading. D. W. Johnston, G. G. and S. S. Girling. No. 1,243,417; Oct. 16; v. 243; p. 687.
Numbering-machines, Automatic cleaning device for. J. H. Reinhardt. No. 1,242,373; Oct. 9; v. 243; p. 327.
Nut and bolt lock. H. N. Gessford. No. 1,242,342; Oct. 9; v. 243; p. 318.
Nut-lock. J. W. Droll. No. 1,244,039; Oct. 23; v. 243; p. 913.
Nut-lock. R. B. Finch. No. 1,242,786; Oct. 9; v. 243; p. 459.
Nut-lock. P. M. Larony. No. 1,242,818; Oct. 9; v. 243; p. 470.
Nut, Locking-. G. W. Hazel. No. 1,242,689; Oct. 9; v. 243; p. 429.
Nut-machine. D. Julian. No. 1,242,199; Oct. 9; v. 243; p. 273.
Nut-opening machine. J. C. H. Van Dilyl. No. 1,243,572; Oct. 16; v. 243; p. 734.
Nut, Pipe-coupling. B. Kortas. No. 1,244,100; Oct. 23; v. 243; p. 931.
Nutcracker. T. P. Greenhaw. No. 1,242,436; Oct. 9; v. 243; p. 347.
Nutcracker. G. A. Willis. No. 1,243,121; Oct. 16; v. 243; p. 600.
Oar, Rowing-. C. G. Bray. No. 1,244,167; Oct. 23; v. 243; p. 950.
Oculist's testing-frame. C. Weigel. No. 1,243,466; Oct. 16; v. 243; p. 702.
Oil-burner. W. G. Hamilton. No. 1,242,183; Oct. 9; v. 243; p. 268.
Oil-burner. J. C. Hinz. No. 1,244,329; Oct. 23; v. 243; p. 1000.
Oil-burner. C. C. Lillibridge. No. 1,243,194; Oct. 16; v. 243; p. 623.
Oil-burner. J. E. Limbacher. No. 1,242,567; Oct. 9; v. 243; p. 390.
Oil-burner. F. J. McKenna. No. 1,242,359; Oct. 9; v. 243; p. 323.
Oil-burner. T. Wetzel. No. 1,242,291; Oct. 9; v. 243; p. 302.
Oil-can, Safety. A. L. Hansen. No. 1,241,511; Oct. 2; v. 243; p. 12.
Oil-cup. M. C. and C. H. Van Alstyne. No. 1,244,923; Oct. 30; v. 243; p. 1218.
Oil-cup for wagon-wheels. F. Roberts. No. 1,243,978; Oct. 23; v. 243; p. 894.
Oil-engine, High-pressure-feed. H. Engel. No. 1,243,597; Oct. 16; v. 243; p. 741.
Oil purifier and pump. A. Kingsbury. No. 1,242,560; Oct. 9; v. 243; p. 388.
Oil-purifying system. W. S. Elliott. No. 1,242,667; Oct. 9; v. 243; p. 422.
Oil-treating device. F. G. White and W. J. Barnhart. No. 1,242,292; Oct. 9; v. 243; p. 302.
Oil, Vegetable drying-. S. Lomanitz. No. 1,244,521; Oct. 30; v. 243; p. 1095.
Oiler, Hog-. C. S. Andrews. No. 1,243,127; Oct. 16; v. 243; p. 601.
Oiler, Hog-. F. R. Children. No. 1,241,495; Oct. 2; v. 243; p. 6.
Oiler with cast ductile casings. W. J. McDonald. No. 1,244,753; Oct. 30; v. 243; p. 1166.
Omnibus, Motor-. H. B. Weaver. No. 1,241,795; Oct. 2; v. 243; p. 104.
Operating-table. S. H. Hill. No. 1,241,514; Oct. 2; v. 243; p. 13.
Ophthalmic mounting. N. M. Baker. No. 1,241,903; Oct. 2; v. 243; p. 139.
Ophthalmic mounting. N. M. Baker. No. 1,244,941; Oct. 30; v. 243; p. 1224.
Ophthalmic mounting. G. H. Day. No. 1,241,716; Oct. 2; v. 243; p. 79.
Ophthalmic mounting. G. H. Day. No. 1,241,718; Oct. 2; v. 243; p. 80.
Ophthalmic mounting. G. H. Day and O. B. Carson. No. 1,241,717; Oct. 2; v. 243; p. 79.
Ophthalmic mounting. B. A. Soulé. No. 1,243,886; Oct. 23; v. 243; p. 868.
Opium and making same, Product derived from. A. Gams. No. 1,243,729; Oct. 23; v. 243; p. 817.
Order-guide. P. H. Herbert. No. 1,244,089; Oct. 23; v. 243; p. 928.
Ore, Machine for concentrating the heavier and valuable portions of. G. I. Leonard. No. 1,241,861; Oct. 2; v. 243; p. 125.
Ore-treating apparatus. A. J. Garver. No. 1,243,505; Oct. 16; v. 243; p. 715.
Ores, Apparatus for separating or concentrating. D. Cole. No. 1,243,814; Oct. 23; v. 243; p. 846.
Ores, Treatment of. G. C. Westby. No. 1,244,811; Oct. 30; v. 243; p. 1184.
Organs, Electric action for. E. F. Frost. No. 1,243,280; Oct. 16; v. 243; p. 647.
Organs, Tremolo mechanism for. B. R. Van Valkenburg. No. 1,243,644; Oct. 16; v. 243; p. 756.
Orifice-closer. E. E. Chamberlain. No. 1,242,769; Oct. 9; v. 243; p. 454.
Ornamental glass. J. P. Richter. No. 1,241,767; Oct. 2; v. 243; p. 95.

Outlet-box. W. A. Bonnell. No. 1,243,246; Oct. 16; v. 243; p. 637.
Oven. B. Kahn. No. 1,241,521; Oct. 2; v. 243; p. 16.
Oven, Baking-. H. Zander. No. 1,244,502; Oct. 30; v. 243; p. 1090.
Oven, drying-oven, or the like, Channel-. H. I. F. Strandh. No. 1,243,777; Oct. 23; v. 243; p. 833.
Oven for drying cord. J. D. Tew. No. 1,245,066; Oct. 30; v. 243; p. 1261.
Oven, Portable baking-. P. Howell. No. 1,243,605; Oct. 16; v. 243; p. 744.
Oven-shelf. H. L. Franklin and C. C. Bragg. No. 1,244,440; Oct. 23; v. 243; p. 1033.
Overalls. A. C. Danielson. No. 1,242,777; Oct. 9; v. 243; p. 456.
Overflow jar or trap. F. L. Shelor. No. 1,244,552; Oct. 30; v. 243; p. 1106.
Overshoe, Skate-fastening. B. Epstein. No. 1,242,668; Oct. 9; v. 243; p. 423.
Package-tie. O. L. Mertz. No. 1,241,647; Oct. 2; v. 243; p. 58.
Package-tie. J. Terrell. No. 1,244,797; Oct. 30; v. 243; p. 1179.
Package-tie. E. Wright. No. 1,244,157; Oct. 23; v. 243; p. 948.
Packing. C. I. E. and C. R. Mastin. No. 1,245,002; Oct. 30; v. 243; p. 1242.
Packing. C. I. E. and C. R. Mastin. No. 1,245,003; Oct. 30; v. 243; p. 1242.
Packing device, Pipe-joint-. M. B. Skinner. No. 1,242,380; Oct. 9; v. 243; p. 329.
Packing, Piston-. T. G. Saxton. No. 1,241,770; Oct. 2; v. 243; p. 96.
Packing-rings, Apparatus for demonstrating and testing piston. K. D. Holland. No. 1,241,849; Oct. 2; v. 243; p. 122.
Packing stuffing-boxes, Means for. W. G. Bley. No. 1,243,917; Oct. 23; v. 243; p. 877.
Pad: *See*—
Pedal-pad.
Pad and clip assembling machine. A. J. Lewis, A. E. McClain, W. O. Skeen, and J. O. Massey. No. 1,241,863; Oct. 2; v. 243; p. 125.
Pad for lower limbs. N. Matragos. No. 1,244,527; Oct. 30; v. 243; p. 1097.
Padlock. S. R. Fralm. No. 1,243,151; Oct. 16; v. 243; p. 608.
Padlock, Combination-. J. R. Somers. No. 1,245,052; Oct. 30; v. 243; p. 1256.
Padlock-shield. L. B. Ankovitz. No. 1,244,404; Oct. 23; v. 243; p. 1022.
Padlocks, Key-center for. J. Hoover and G. M. Miller. No. 1,242,443; Oct. 9; v. 243; p. 349.
Pail-cover, Detachable. C. S. Shepard. No. 1,242,378; Oct. 9; v. 243; p. 329.
Pamphlet-cover. W. A. Niver. No. 1,244,886; Oct. 30; v. 243; p. 1207.
Pamphlet-coverer. C. A. Juengst. No. 1,244,861; Oct. 30; v. 243; p. 1199.
Pan: *See*—
Shampoo-pan.
Paper. E. Thomas. No. 1,243,780; Oct. 23; v. 243; p. 834.
Paper and making the same. E. F. Millard. No. 1,244,116; Oct. 23; v. 243; p. 936.
Paper and the like, Machine for cutting and interfolding sheets of. L. A. Straubel. No. 1,242,262; Oct. 9; v. 243; p. 292.
Paper-board, Manufacture of. M. L. Twomley. No. 1,243,013; Oct. 16; v. 243; p. 566.
Paper-clip. J. L. Washburne. No. 1,242,620; Oct. 9; v. 243; p. 407.
Paper-cutter or like machine. H. G. Fisher. No. 1,243,276; Oct. 16; v. 243; p. 646.
Paper-dispensing holder. F. H. Moore. No. 1,242,019; Oct. 2; v. 243; p. 176.
Paper-feeding device. H. C. Gillespie. No. 1,242,343; Oct. 9; v. 243; p. 318.
Paper-holder. J. H. Ananson. No. 1,241,897; Oct. 2; v. 243; p. 138.
Paper-machines, Split shaft for use on. J. Hundhausen. No. 1,242,807; Oct. 9; v. 243; p. 465.
Paper-making machines, Heat control for. C. Stickle. No. 1,242,387; Oct. 9; v. 243; p. 332.
Paper press, Waste-. W. J. Palm. No. 1,242,232; Oct. 9; v. 243; p. 283.
Paper-pulp, Manufacturing. T. Marusawa. No. 1,244,525; Oct. 30; v. 243; p. 1096.
Paper-reel brake. A. Du Brul. No. 1,242,927; Oct. 16; v. 243; p. 538.
Paper-removing machine. A. B. Russell. No. 1,242,479; Oct. 9; v. 243; p. 361.
Paper-roll holder. O. B. Taylor. No. 1,243,569; Oct. 16; v. 243; p. 732.
Paper-roll-supporting mechanism. H. A. W. Wood. No. 1,242,506; Oct. 9; v. 243; p. 369.
Paper-rolls to a roll-shaft, Means for securing. C. C. Krohn. No. 1,244,865; Oct. 30; v. 243; p. 1200.
Paper shoe, Roll-. W. A. Norman. No. 1,242,966; Oct. 16; v. 243; p. 551.
Paper twine, Machine for the manufacture of. A. Dymock. No. 1,241,943; Oct. 2; v. 243; p. 151.
Paper-walled vessel. B. K. Ford. No. 1,243,658; Oct. 16; v. 243; p. 760.
Paper webs or sheets, Static-electricity dissipator for. H. M. Barber. No. 1,244,015; Oct. 23; v. 243; p. 906.
Parachute. A. Ranson. No. 1,244,129; Oct. 23; v. 243; p. 939.
Parcel-carrier. T. H. Spurrier. No. 1,243,638; Oct. 16; v. 243; p. 755.
Pastes, Machine for cutting dried. K. Gammel. No. 1,242,542; Oct. 9; v. 243; p. 381.
Pasteurizing apparatus. H. E. Coburn. No. 1,244,704; Oct. 30; v. 243; p. 1152.
Pavement and armored joint-strip therefor. A. E. Davis. No. 1,241,826; Oct. 2; v. 243; p. 114.
Paving-block. H. S. Wheeler. No. 1,244,008; Oct. 23; v. 243; p. 904.
Pedal. W. S. Harley. No. 1,243,165; Oct. 16; v. 243; p. 612.
Pedal-pad. G. H. Rives. No. 1,243,764; Oct. 23; v. 243; p. 829.
Pedal-plate. J. F. Pethtel. No. 1,242,370; Oct. 9; v. 243; p. 326.
Pen, Fountain-. C. Bristow. No. 1,243,383; Oct. 16; v. 243; p. 678.
Pen, Fountain-. H. G. Craig. No. 1,242,323; Oct. 9; v. 243; p. 312.
Pen, Fountain drafting-. L. B. Solemink. No. 1,242,062; Oct. 2; v. 243; p. 188.
Pen or pencil clip. G. A. Carlson. No. 1,244,291; Oct. 23; v. 243; p. 990.
Pen, Stylographic fountain-. L. G. Nilson and J. Abegg. No. 1,244,070; Oct. 23; v. 243; p. 922.
Pencil attachment. R. Gosman. No. 1,244,192; Oct. 23; v. 243; p. 958.
Pencil holder, Slate-. S. Magami. No. 1,244,877; Oct. 30; v. 243; p. 1204.
Pencil, Magazine-. A. R. Tilly. No. 1,242,080; Oct. 2; v. 243; p. 194.
Pencil-sharpener. J. Schlichtinger and E. Krogel. No. 1,242,049; Oct. 2; v. 243; p. 184.
Penholder. S. E. F. Bosanquet. No. 1,243,248; Oct. 16; v. 243; p. 638.
Penholder and blotter, Combination. W. Wozny and P. Husak. No. 1,243,911; Oct. 23; v. 243; p. 875.
Penholder, Ejecting-. C. W. Lair. No. 1,244,343; Oct. 23; v. 243; p. 1005.
Percentage-balance. P. E. Young. No. 1,243,790; Oct. 23; v. 243; p. 838.
Percolator. B. H. and F. L. Calkin. No. 1,242,651; Oct. 9; v. 243; p. 417.
Perforating machine, Pattern-. T. E. Gahan. No. 1,244,595; Oct. 30; v. 243; p. 1119.
Perforating mechanism, Repeat. J. Powers. No. 1,242,721; Oct. 9; v. 243; p. 439.
Permutation-lock. O. Klein. No. 1,241,636; Oct. 2; v. 243; p. 54.
Permutation-lock. J. H. Mattice. No. 1,244,064; Oct. 23; v. 243; p. 920.
Permutation-lock. P. Palé. No. 1,242,848; Oct. 9; v. 243; p. 480.
Phenolic bodies from wood-tar oil, Producing. L. F. Hawley. (Reissue.) No. 14,388; Oct. 30; v. 243; p. 1289.
Phenolic condensation compounds, Producing. L. V. Redman, A. J. Weith, and F. P. Brock. No. 1,242,592; Oct. 9; v. 243; p. 399.
Phonic apparatus. S. C. Porter. No. 1,242,372; Oct. 9; v. 243; p. 327.
Phonograph. L. Cole. No. 1,244,588; Oct. 30; v. 243; p. 1117.
Phonograph. I. D. Pike. No. 1,242,858; Oct. 9; v. 243; p. 483.
Phonograph. E. Rogers. No. 1,243,980; Oct. 23; v. 243; p. 895.
Phonograph and the like. J. H. Dickinson. No. 1,242,155; Oct. 9; v. 243; p. 259.
Phonograph-machine automatic stop mechanism. M. B. Selter. No. 1,244,551; Oct. 30; v. 243; p. 1106.
Phonograph-record. O. C. Schroeder. No. 1,243,987; Oct. 23; v. 243; p. 897.
Phonograph-record cabinet. H. G. La Sor. No. 1,242,563; Oct. 9; v. 243; p. 388.
Phonograph-tone-arm connection. J. Matson. No. 1,243,853; Oct. 23; v. 243; p. 857.
Phonograph-tone-arm connection. J. Matson. No. 1,243,854; Oct. 23; v. 243; p. 857.
Phonographs, Record-cleaning attachment for. J. and W. Worthington. No. 1,242,751; Oct. 9; v. 243; p. 448.
Phonographs, Reproducer for. P. S. Sorensen. No. 1,241,673; Oct. 2; v. 243; p. 65.
Phonographs, Sound-post mounting for. J. G. Nolen. No. 1,242,227; Oct. 9; v. 243; p. 281.
Phonographs, Speed-regulator for. A. Ruckgaber. No. 1,241,887; Oct. 2; v. 243; p. 134.
Phosphoric acid and compounds of the same, Apparatus for the manufacture of. W. H. Waggaman, H. Bryan, and C. R. Wagner. No. 1,241,791; Oct. 2; v. 243; p. 102.
Photographic films, Developing and fixing tank for. G. Hanlon. No. 1,243,403; Oct. 16; v. 243; p. 683.
Photographic-printing machine. F. W. Barkley. No. 1,243,685; Oct. 23; v. 243; p. 801.
Photographic shutter. P. J. Marks. No. 1,243,086; Oct. 16; v. 243; p. 591.
Photometer. F. W. Adsit. No. 1,244,159; Oct. 23; v. 243; p. 948.
Piano and graphophone, Combined. J. J. Froess. No. 1,242,790; Oct. 9; v. 243; p. 461.

Piano pedal attachment. F. Allen. No. 1,242,633; Oct. 9; v. 243; p. 411.
Piano-player actions, Accenting device for. F. Carnahan. No. 1,242,919; Oct. 16; v. 243; p. 536.
Piano-players, Pneumatic controller for mechanical. H. A. Bierck. No. 1,241,812; Oct. 2; v. 243; p. 110.
Piano-players, Tension-governor for. E. Lundberg. No. 1,244,875; Oct. 30; v. 243; p. 1203.
Pianos and other musical instruments. Key-cover for. H. J. La Joie. No. 1,242,952; Oct. 16; v. 243; p. 547.
Pianos, Door-operating mechanism for player-. E. T. Turney. No. 1,241,583; Oct. 2; v. 243; p. 38.
Pianos, Finishing and assembling grand. J. H. Williams and F. A. Foss. No. 1,242,297; Oct. 9; v. 243; p. 304.
Pianos, Note-sheet-centering mechanism for player-. E. D. Moore and S. L. Fisher. No. 1,243,330; Oct. 16; v. 243; p. 663.
Pianos, Tracker mechanism for pneumatic or player. S. A. Swanson. No. 1,242,266; Oct. 9; v. 243; p. 293.
Pickax. A. R. Thomson. No. 1,244,662; Oct. 30; v. 243; p. 1139.
Picker: *See*—
Bean-picker.
Fruit-picker.
Loom-picker.
Picker-check. J. K. Lanning. No. 1,244,101; Oct. 23; v. 243; p. 931.
Pickling-tanks, Plunger-actuating mechanism for. W. F. Conklin and E. B. Todd. No. 1,243,488; Oct. 16; v. 243; p. 709.
Picture apparatus, Motion-. F. C. Hamilton. No. 1,244,728; Oct. 30; v. 243; p. 1160.
Picture apparatus, Motion-. E. Schneider. No. 1,242,605; Oct. 9; v. 243; p. 403.
Picture apparatus, Plate and plate-holder for moving-. G. Bettini. No. 1,242,416; Oct. 9; v. 243; p. 342.
Picture apparatus, Winding and reeling mechanism for motion-. A. S. Howell. No. 1,243,739; Oct. 23; v. 243; p. 821.
Picture cartoons, Producing moving-. M. Fleischer. No. 1,242,674; Oct. 9; v. 243; p. 424.
Picture-frame attachment. A. L. Rogers. No. 1,242,868; Oct. 9; v. 243; p. 486.
Picture-hanger. M. B. Backerud. No. 1,242,309; Oct. 9; v. 243; p. 307.
Picture machine, Moving-. A. F. Gall and N. A. Curtiss. No. 1,242,792; Oct. 9; v. 243; p. 461.
Picture machine, Moving-. R. W. Martin. No. 1,241,869; Oct. 2; v. 243; p. 127.
Picture machines, Attachment for moving-. H. Siegel. No. 1,242,730; Oct. 9; v. 243; p. 442.
Picture machines, Film-winding apparatus for motion-. E. A. Longenecker. No. 1,242,006; Oct. 2; v. 243; p. 171.
Picture machines, Shutter for moving-. T. Davis. No. 1,241,828; Oct. 2; v. 243; p. 115.
Picture machines, Stop-motion for motion-. E. B. Hulsey and J. A. D. Herrington. No. 1,243,067; Oct. 16; v. 243; p. 584.
Picture-projecting machine, Motion-. F. L. Dyer. No. 1,242,428; Oct. 9; v. 243; p. 345.
Pictures, Intermittent motion for moving. W. M. Thomas. No. 1,244,919; Oct. 30; v. 243; p. 1217.
Pictures, Method and apparatus for projection of matter explanatory to moving. L. Germain. No. 1,243,507; Oct. 16; v. 243; p. 715.
Pigment or filler. L. H. Sahm. No. 1,242,480; Oct. 9; v. 243; p. 362.
Piles, Construction of and method of sinking. E. Bignell. No. 1,241,813; Oct. 2; v. 243; p. 110.
Pin: *See*—
Clothes-pin.
Safety-pin.
Seat-cover pin.
Pinch-bar. J. M. Bailey. No. 1,243,914; Oct. 23; v. 243; p. 876.
Pipe: *See*—
Smoking-pipe.
Tobacco-pipe.
Pipe-coupling. C. H. and H. R. Loughridge. No. 1,242,568; Oct. 9; v. 243; p. 390.
Pipe-coupling machine. J. M. Winningham. No. 1,242,627; Oct. 9; v. 243; p. 409.
Pipe-cutter. N. H. Foringer. No. 1,242,931; Oct. 16; v. 243; p. 540.
Pipe-cutter. C. H. and H. R. Loughridge. No. 1,244,874; Oct. 30; v. 243; p. 1203.
Pipe-cutter and coupling-splitter, Combination. W. H. Dean. No. 1,244,299; Oct. 23; v. 243; p. 991.
Pipe-patch. F. C. Smakal. No. 1,242,060; Oct. 2; v. 243; p. 187.
Pipe-shipping case, Lead-. I. I. Shonberg. No. 1,243,229; Oct. 16; v. 243; p. 633.
Pipe-support. G. Tittmann. No. 1,241,683; Oct. 2; v. 243; p. 69.
Pipe threading and cutting machine. F. A. Lovegrove. No. 1,244,996; Oct. 30; v. 243; p. 1239.
Pipe-threading method and apparatus. F. P. McMillan. No. 1,243,321; Oct. 16; v. 243; p. 661.
Pipe-wrench. A. Placek. No. 1,244,126; Oct. 23; v. 243; p. 938.
Pipes, Electrical means for locating concealed. E. H. Grove. No. 1,241,963; Oct. 2; v. 243; p. 157.
Piston-ring. M. L. Dunham. No. 1,241,835; Oct. 2; v. 243; p. 118.
Piston-ring. M. L. Dunham. No. 1,241,836; Oct. 2; v. 243; p. 118.
Piston-ring. M. L. Dunham. No. 1,241,837; Oct. 2; v. 243; p. 118.
Piston-ring-clamping tool. L. E. Olmsted. No. 1,242,027; Oct. 2; v. 243; p. 178.
Piston-rings, Apparatus for producing lapped joints for. M. L. Dunham. No. 1,242,662; Oct. 9; v. 243; p. 420.
Pitcher, Syrup-. A. J. Boyles. No. 1,241,912; Oct. 2; v. 243; p. 142.
Pitman. J. W. Storm. No. 1,242,492; Oct. 9; v. 243; p. 365.
Plaiting-machine. J. B. Dalbey. No. 1,242,425; Oct. 9; v. 243; p. 344.
Planer-tool holder, Double-cutting-. C. H. Dunsford. No. 1,244,302; Oct. 23; v. 243; p. 993.
Planers, Safety-guard for rotary. J. D. Wallace. No. 1,241,588; Oct. 2; v. 243; p. 39.
Planing-machine, Portable. O. F. Thorn. No. 1,243,460; Oct. 16; v. 243; p. 700.
Plant protector and irrigator, Combined. J. P. Arnold. No. 1,244,576; Oct. 30; v. 243; p. 1113.
Plant-support. W. D. Robinson. No. 1,244,897; Oct. 30; v. 243; p. 1210.
Planter, Corn-. D. N. Collum. No. 1,244,957; Oct. 30; v. 243; p. 1228.
Planter, Corn-. L. E. Fagan. No. 1,241,502; Oct. 2; v. 243; p. 8.
Planter, Corn-. R. N. Moore. No. 1,243,541; Oct. 16; v. 243; p. 725.
Planters, Attachment for. W. H. Raulz. No. 1,242,591; Oct. 9; v. 243; p. 398.
Plastic article and producing the same. H. W. Charlton. No. 1,242,422; Oct. 9; v. 243; p. 343.
Plastic article and producing the same, Composite. H. W. Charlton. No. 1,242,421; Oct. 9; v. 243; p. 343.
Plastic composition and producing it. F. Klatte and A. Rollett. No. 1,241,738; Oct. 2; v. 243; p. 87.
Plastic composition. M. Link. No. 1,244,519; Oct. 30; v. 243; p. 1095.
Plastic composition. H. H. Pierce. No. 1,245,021; Oct. 30; v. 243; p. 1247.
Plow. W. H. Alston. No. 1,243,378; Oct. 16; v. 243; p. 676.
Plow. J. P. Haffner. No. 1,243,833; Oct. 23; v. 243; p. 851.
Plow. C. R. Juran. No. 1,243,072; Oct. 16; v. 243; p. 586.
Plow. A. C. Lovell. No. 1,241,530; Oct. 2; v. 243; p. 19.
Plow. W. H. Young. No. 1,244,274; Oct. 23; v. 243; p. 984.
Plow-hitch mechanism. J. H. Butler. No. 1,243,704; Oct. 23; v. 243; p. 808.
Plow, Subsoil and grubbing. R. H. Owen. No. 1,243,758; Oct. 23; v. 243; p. 827.
Plows, Draft connection for. J. W. Gamble. No. 1,242,793; Oct. 9; v. 243; p. 461.
Plows, Potato-digging attachment for. W. A. Thompson. No. 1,243,898; Oct. 23; v. 243; p. 872.
Plug fitting, Attachment-. G. B. Thomas. No. 1,245,068; Oct. 30; v. 243; p. 1261.
Plug, Separable attachment-. R. B. Benjamin. No. 1,242,643; Oct. 9; v. 243; p. 415.
Plumbing-fixture. I. A. Mann. No. 1,242,572; Oct. 9; v. 243; p. 392.
Pneumatic coupling. N. S. McEwen. No. 1,245,115; Oct. 30; v. 243; p. 1276.
Pneumatic spring. E. D. Foster. No. 1,242,431; Oct. 9; v. 243; p. 345.
Pneumatically-tired wheel. G. C. Hanna. No. 1,243,515; Oct. 16; v. 243; p. 718.
Poison-indicator. I. W. Mason. No. 1,241,536; Oct. 2; v. 243; p. 21.
Poke, Animal-. E. G. Goff. No. 1,241,842; Oct. 2; v. 243; p. 119.
Pole-protective means. S. M. Mulnix and R. O. Adams. No. 1,244,119; Oct. 23; v. 243; p. 936.
Poles, Device for reinforcing. G. Harding. No. 1,243,933; Oct. 23; v. 243; p. 881.
Portable indicator. E. E. Schram. No. 1,241,771; Oct. 2; v. 243; p. 96.
Portable rack. F. Davis. No. 1,242,779; Oct. 9; v. 243; p. 457.
Post: *See*—
Car door-post.
Fence-post.
Rubbing-post.
Post-drill and portable hand-drill, Combination. O. A. Osmondson. No. 1,242,029; Oct. 2; v. 243; p. 178.
Post-hole digger. D. Davis. No. 1,241,931; Oct. 2; v. 243; p. 148.
Post-hole digger, Motor-driven. H. Besancon. No. 1,243,580; Oct. 16; v. 243; p. 736.
Post-mold. W. T. Hicks. No. 1,244,608; Oct. 30; v. 243; p. 1122.
Pot: *See*—
Melting-pot.
Potato, peanut, or the like digger. T. F. Rice. No. 1,241,883; Oct. 2; v. 243; p. 133.
Potatoes, Machine for cutting seed-. E. S. Mattern. No. 1,243,538; Oct. 16; v. 243; p. 724.
Powder-press. W. G. Kendall. No. 1,244,096; Oct. 23; v. 243; p. 930.
Power-boat, Manually-operated. I. Mori. No. 1,244,068; Oct. 23; v. 243; p. 922.
Power-driven machines, Motor attachment for. A. Kimble. No. 1,242,204; Oct. 9; v. 243; p. 275.

Power transmission. A. Kuefer. No. 1,241,740; Oct. 2; v. 243; p. 87.
Power transmission. H. F. Story. No. 1,243,640; Oct. 16; v. 243; p. 755.
Power-transmission device, Differential. H. M. Patch. No. 1,242,587; Oct. 9; v. 243; p. 397.
Power-transmission mechanism. T. D. W. Pinckney. No. 1,242,974; Oct. 16; v. 243; p. 554.
Power transmission, Unit of. A. Kuefer. No. 1,241,741; Oct. 2; v. 243; p. 88.
Power transmitting and converting apparatus, Electromagnetic. A. H. Neuland. No. 1,242,714; Oct. 9; v. 243; p. 437.
Power-transmitting mechanism. E. E. Clark. No. 1,244,426; Oct. 23; v. 243; p. 1028.
Power-transmitting mechanism. W. S. Lewis. No. 1,241,864; Oct. 2; v. 243; p. 126.
Power-transmitting device. C. H. West. No. 1,242,289; Oct 9; v. 243; p. 301.
Press: *See*—
Baling-press.
Hay-press.
Hydraulic press.
Paper-press.
Powder-press.
Vulcanizing-press.
Press. A. C. Downing. No. 1,242,531; Oct. 9; v. 243; p. 377.
Presses, Safety device for. R. B. Benjamin. No. 1,242,642; Oct. 9; v. 243; p. 414.
Presses, &c., Safety device for. A. M. Kendrick. No. 1,244,097; Oct. 23; v. 243; p. 930.
Pressure-regulating apparatus. L. M. Karnasch. No. 1,243,073; Oct. 16; v. 243; p. 587.
Pressure-regulator. J. P. Metzger. No. 1,244,226; Oct. 23; v. 243; p. 969.
Printer's guide. W. Gjodesen. No. 1,245,097; Oct. 30; v. 243; p. 1270.
Printing device. J. B. Hall. No. 1,243,289; Oct. 16; v. 243; p. 650.
Printing device. A. G. Ogden. No. 1,244,362; Oct. 23; v. 243; p. 1009.
Printing device for ticket printing, issuing, and auditing machines. J. F. Ohmer. No. 1,242,967; Oct. 16; v. 243; p. 551.
Printing machine, Color-. P. Morris. No. 1,243,333; Oct. 16; v. 243; p. 663.
Printing-machine inking mechanism. J. C. Pugh. No. 1,243,341; Oct. 16; v. 243; p. 666.
Printing machines, Reel-brake for web-. T. R. G. Parker, W. E. Bennison, and W. Lee. No. 1,241,759; Oct. 2; v. 243; p. 93.
Printing mechanism, Rotary perfecting sheet-. H. M. Barber. No. 1,242,908; Oct. 16; v. 243; p. 532.
Printing or postmarking machine. R. A. Boswell. No. 1,243,802; Oct. 23; v. 243; p. 842.
Printing-plates, Device for making. G. R. Cornwall. No. 1,243,264; Oct. 16; v. 243; p. 642.
Printing-plates, Device for use in making. G. R. Cornwall. No. 1,242,523; Oct. 9; v. 243; p. 374.
Printing-plates, Machine for making. J. S. Duncan. No. 1,243,273; Oct. 16; v. 243; p. 645.
Printing-plates, Making. E. Leitner. No. 1,243,431; Oct. 16; v. 243; p. 692.
Printing-press gripper. N. Sadovsky. No. 1,244,548; Oct. 30; v. 243; p. 1105.
Printing-press ink-fountain. W. C. Hart. No. 1,244,979; Oct. 30; v. 243; p. 1235.
Printing-press inking arrangement. B. D. Stevens. No. 1,242,259; Oct. 9; v. 243; p. 291.
Printing-press registering device. I. Levin. No. 1,241,527; Oct. 2; v. 243; p. 18.
Projectile. R. Ffrench. No. 1,244,046; Oct. 23; v. 243; p. 916.
Projectile. C. A. Johannesen. No. 1,242,944; Oct. 16; v. 243; p. 545.
Projectile. W. R. Moore. No. 1,243,542; Oct. 16; v. 243; p. 725.
Propeller, Air-. T. Francisco. No. 1,242,788; Oct. 9; v. 243; p. 460.
Propeller, Reversible. P. J. Murcko. No. 1,241,651; Oct. 2; v. 243; p. 59.
Propeller-shaft connection. H. R. Bruah. No. 1,243,805; Oct. 23; v. 243; p. 843.
Propelling apparatus. V. G. Anderson. No. 1,242,635; Oct. 9; v. 243; p. 412.
Protector. A. R. House. No. 1,243,939; Oct. 23; v. 243; p. 883.
Puller: *See*—
Weed-puller.
Pulley and rope guide. J. N. Ankrom. No. 1,242,636; Oct. 9; v. 243; p. 412.
Pulley attachment. A. Fontaine. No. 1,241,726; Oct. 2; v. 243; p. 84.
Pulley, Awning-. W. R. Kiehl. No. 1,241,992; Oct. 2; v. 243; p. 167.
Pulley-block. F. Belt. No. 1,241,489; Oct. 2; v. 243; p. 4.
Pulley clamp, Split-. J. Cobert. No. 1,244,835; Oct. 30; v. 243; p. 1191.
Pulley-stand. N. Barry. No. 1,244,943; Oct. 30; v. 243; p. 1224.
Pump. C. H. Guptail. No. 1,242,685; Oct. 9; v. 243; p. 428.
Pump. G. C. Hicks, Jr. No. 1,241,513; Oct. 2; v. 243; p. 13.
Pump. L. H. Jensen. No. 1,244,053; Oct. 23; v. 243; p. 917.
Pump. E. P. Larsh. No. 1,242,104; Oct. 2; v. 243; p. 202.
Pump. P. A. Myers. No. 1,244,534; Oct. 30; v. 243; p. 1099.
Pump. J. A. Norton. No. 1,242,842; Oct. 9; v. 243; p. 477.
Pump. K. D. Smith. No. 1,244,913; Oct. 30; v. 243; p. 1215.
Pump-agitator. C. E. Hopkins. No. 1,242,938; Oct. 16; v. 243; p. 542.
Pump, Air-. A. Z. Miciulis. No. 1,241,872; Oct. 2; v. 243; p. 128.
Pump and agitator, Automatic. C. E. Hopkins. No. 1,242,939; Oct. 16; v. 243; p. 543.
Pump attachment. H. H. Arnett. No. 1,241,696; Oct. 2; v. 243; p. 73.
Pump attachment. W. L. Sanford. No. 1,243,113; Oct. 16; v. 243; p. 598.
Pump attachment. J. Train. No. 1,244,143; Oct. 23; v. 243; p. 943.
Pump, Automatic. W. A. Harris. No. 1,242,548; Oct. 9; v. 243; p. 383.
Pump, Bilge-. A. Hydegger. No. 1,242,231; Oct. 9; v. 243; p. 283.
Pump-coupling. J. Wahl. No. 1,244,925; Oct. 30; v. 243; p. 1219.
Pump, Dispensing-. A. J. Pocock. No. 1,244,077; Oct. 23; v. 243; p. 924.
Pump, Folding air-. B. Goodman. No. 1,241,959; Oct. 2; v. 243; p. 156.
Pump head, Deep-well-. J. Astrom. No. 1,241,604; Oct. 2; v. 243; p. 45.
Pump-packing expander. W. B. Wigle. No. 1,243,648; Oct. 16; v. 243; p. 758.
Pump-rod or pitman connection. F. H. Barney. No. 1,243,031; Oct. 16; v. 243; p. 573.
Pump, Rodless double-acting. J. J. Schilder. No. 1,244,784; Oct. 30; v. 243; p. 1176.
Pump, Rotary. A. Borras and F. Iriarte. No. 1,241,704; Oct. 2; v. 243; p. 75.
Pump, Rotary. J. C. Gleed. No. 1,243,060; Oct. 16; v. 243; p. 582.
Pump, Rotary. A. Pionski. No. 1,242,859; Oct. 9; v. 243; p. 483.
Pump, Rotary. S. N. Pond. No. 1,243,215; Oct. 16; v. 243; p. 629.
Pump, Rotary piston-. G. E. Guy. No. 1,241,624; Oct. 2; v. 243; p. 51.
Pump, Tire-. G. H. Patten. No. 1,244,365; Oct. 23; v. 243; p. 1010.
Pump working barrels, Non-leak anchor means for supporting liner-. C. Drader and R. R. Candee. No. 1,243,821; Oct. 23; v. 243; p. 848.
Pumps, Safety device for oil-. K. D. Fuller. No. 1,242,539; Oct. 9; v. 243; p. 380.
Pumping device. B. B. Rhyne. No. 1,243,222; Oct. 16; v. 243; p. 630.
Punching-bag platform. H. H. Wilson. No. 1,242,626; Oct. 9; v. 243; p. 409.
Punching-machine, Multiple. E. M. Cobb. No. 1,243,656; Oct. 16; v. 243; p. 759.
Puncture-proof tube and producing same. W. S. Oberfelder. No. 1,244,236; Oct. 23; v. 243; p. 972.
Puzzle, War-. G. F. Howard. No. 1,243,411; Oct. 16; v. 243; p. 685.
Quilting device. R. T. Nolan. No. 1,244,361; Oct. 23; v. 243; p. 1009.
Rack: *See*—
Book-rack.
Clothes-rack.
Display-rack.
Fodder-rack.
Hose and bucket rack.
Portable rack.
Stamp-rack.
Rack. E. S. Merrill. No. 1,243,856; Oct. 23; v. 243; p. 858.
Rack for wearing-apparel, umbrellas, and the like. A. R. Hinckley. No. 1,243,173; Oct. 16; v. 243; p. 615.
Radiator. E. E. Mansell and W. H. Warner. No. 1,242,961; Oct 16; v. 243; p. 549.
Radiator. C. E. Safford. No. 1,242,984; Oct. 16; v. 243; p. 557.
Radiator and making the same. G. M. Willis. No. 1,243,471; Oct. 16; v. 243; p. 703.
Radiator, Automobile-. F. M. Capell. No. 1,242,652; Oct. 9; v. 243; p. 417.
Radiator, Automobile-. J. O. Cormier. No. 1,243,816; Oct. 23; v. 243; p. 846.
Radiator cap and funnel, automobile-. C. R. Carroll. No. 1,243,138; Oct. 16; v. 243; p. 605.
Radiator-casing, Adjustable. D. B. Bolinger. No. 1,242,646; Oct. 9; v. 243; p. 416.
Radiator, Gas-heated. J. F. Magee and C. B. Hindon. No. 1,243,324; Oct. 16; v. 243; p. 661.
Radiator-heater and signal-light, Auto. W. R. Hampden. No. 1,242,797; Oct. 9; v. 243; p. 463.
Radiator, Sheet-metal. T. E. Murray. No. 1,245,011; Oct. 30; v. 243; p. 1245.
Radiator shield, Automobile-. W. G. Vetter. No. 1,244,802; Oct. 30; v. 243; p. 1181.
Radiator-support. A. Kahm. No. 1,244,613; Oct. 30; v. 243; p. 1123.
Radiator wall-bracket. R. D. Reed. No. 1,245,143; Oct. 30; v. 243; p. 1284.
Radiators for automobiles, Producing. F. Siegel. No. 1,242,253; Oct. 9; v. 243; p. 289.

Radio-active substances, Apparatus for examining. C. Schmidt. No. 1,242,377; Oct. 9; v. 243; p. 328.
Radiosignaling, Method of and apparatus for. H. Shoemaker. No. 1,241,565; Oct. 2; v. 243; p. 32.
Rail-alining device. M. Uno. No. 1,243,363; Oct. 16; v. 243; p. 672.
Rail-anchor. R. E. Belknap. No. 1,243,688; Oct. 23; v. 243; p. 802.
Rail-anchor. C. J. Redifer. No. 1,242,981; Oct. 16; v. 243; p. 556.
Rail-anchor. W. M. Mitchell. No. 1,244,356; Oct. 23; v. 243; p. 1007.
Rail-anchor. A. H. Told. No. 1,241,684; Oct. 2; v. 243; p. 69.
Rail-bonding apparatus. L. P. Crecelius. No. 1,242,525; Oct. 9; v. 243; p. 375.
Rail-bonding apparatus. L. P. Crecelius. No. 1,242,526; Oct. 9; v. 243; p. 375.
Rail-bonding apparatus. L. P. Crecelius and P. H. Eberlein. No. 1,242,524; Oct. 9; v. 243; p. 375.
Rail-brace. C. E. Stauss. No. 1,244,657; Oct. 30; v. 243; p. 1137.
Rail-expander. E. W. Vogel. No. 1,242,395; Oct. 9; v. 243; p. 335.
Rail-fastener. C. H. Cornell. No. 1,244,590; Oct. 30; v. 243; p. 1117.
Rail-fastening device. C. H. Cornell. No. 1,244,707; Oct. 30; v. 243; p. 1153.
Rail-joint. L. A. Autry and B. Regan. No. 1,241,901; Oct. 2; v. 243; p. 139.
Rail-joint. G. C. Boles. No. 1,242,133; Oct. 9; v. 243; p. 252.
Rail-joint. W. T. Johnson. No 1,243,070; Oct. 16; v. 243; p. 586.
Rail-joint. W. McQuaid. No. 1,243,322; Oct. 16; v. 243; p. 661.
Rail-joint. N. Okler. No. 1,241,653; Oct. 2; v. 243; p. 59.
Rail-joint. N. V. Poindexter. No. 1,245,009; Oct. 30; v. 243; p. 1244.
Rail-joint. J. P. Schoelerman. No. 1,244,378; Oct. 23; v. 243; p. 1013.
Rail-joint lock. S. N. Burns. No. 1,242,764; Oct. 9; v. 243; p. 453.
Rail securing and supporting means. J. W. Kendrick. No. 1,241,857; Oct. 2; v. 243; p. 124.
Rail-tie. W. L. Mitchell. No. 1,242,836; Oct. 9; v. 243; p. 475.
Rail-tie and fastener. E. E. Eddy. No. 1,242,334; Oct. 9; v. 243; p. 315.
Rail-tie, Reinforced-concrete. D. S. Williams. No. 1,244,813; Oct. 30; v. 243; p. 1185.
Rails, Method and apparatus for bonding. L. P. Crecelius. No. 1,242,527; Oct. 9; v. 243; p. 376.
Railway-coaches, Mail-bag receiver for. H. A. Harrison. No. 1,242,437; Oct. 9; v. 243; p. 347.
Railway-crossing. G. L. Forester. No. 1,244,439; Oct. 23; v. 243; p. 1032.
Railway-crossing. C. A. Huber. No. 1,242,696; Oct. 9; v. 243; p. 431.
Railway-crossing. C. A. Zobel. No. 1,244,401; Oct. 23; v. 243; p. 1022.
Railway crossing-signal. K. B. Coleman. No. 1,241,608; Oct. 2; v. 243; p. 46.
Railway-crossing signal. J. F. Hawley and F. L. Moss. No. 1,244,204; Oct. 23; v. 243; p. 961.
Railway-gate. H. Carlisle. No. 1,244,420; Oct. 23; v. 243; p. 1026.
Railway-gate. F. A. Strieter. No. 1,245,061; Oct. 30; v. 243; p. 1259.
Railway-gate, Automatic. C. N. Jay. No. 1,244,336; Oct. 23; v. 243; p. 1002.
Railway-gate, Automatic. S. Turner. No. 1,243,643; Oct. 16; v. 243; p. 756.
Railway lighting apparatus. J. Bijur. No. 1,241,908; Oct. 2; v. 243; p. 141.
Railway mud-guard. A. M. Anderson. No. 1,244,010; Oct. 23; v. 243; p. 905.
Railway, Pleasure-. J. Behr, Jr. No. 1,244,411; Oct. 23; v. 243; p. 1024.
Railway-rail. P. Kimack. No. 1,242,203; Oct. 9; v. 243; p. 275.
Railway-rail anti-creeper. D. F. Vaughan. No. 1,244,145; Oct. 23; v. 243; p. 944.
Railway-rail lock. M. O'Brien. No. 1,244,072; Oct. 23; v. 243; p. 923.
Railway selective system. K. E. Stuart. No. 1,243,457; Oct. 16; v. 243; p. 699.
Railway-signal. J. C. Henley. No. 1,243,601; Oct. 16; v. 243; p. 742.
Railway signaling. A. Kerr. No. 1,242,701; Oct. 9; v. 243; p. 433.
Railway-switch. B. Faymonville, Jr. No. 1,242,671; Oct. 9; v. 243; p. 423.
Railway-switch. J. F. Foster. No. 1,244,307; Oct. 23; v. 243; p. 994.
Railway-switch. R. H. Hannemann. No. 1,244,849; Oct. 30; v. 243; p. 1195.
Railway-switch mechanism. A. J. Allard. No. 1,243,376; Oct. 16; v. 243; p. 676.
Railway-tie. J. A. Beamisderfer. No. 1,244,828; Oct. 30; v. 243; p. 1190.
Railway-tie. W. R. Doughty. No. 1,242,782; Oct. 9; v. 243; p. 458.
Railway-tie. T. H. Kruse. No. 1,244,616; Oct. 30; v. 243; p. 1125.
Railway-tie. J. R. McCready. No. 1,243,084; Oct. 16; v. 243; p. 590.
Railway-tie and rail-fastening. C. A. Cox. No. 1,244,176; Oct. 23; v. 243; p. 952.
Railway-tie plate. C. D. Young. No. 1,242,300; Oct. 9; v. 243; p. 305.
Railway-tie, Reversible. H. Harsh. No. 1,242,184; Oct. 9; v. 243; p. 268.
Railway-track trip. J. Culton. No. 1,241,712; Oct. 2; v. 243; p. 78.
Railway-traffic-controlling system and apparatus. M. H. Loughridge. No. 1,242,456; Oct. 9; v. 243; p. 354.
Railway-trains, Track apparatus for indicating the movements of. T. E. Clark. No. 1,242,144; Oct. 9; v. 243; p. 255.
Railway turn-table safety mechanism. C. H. Quinn. No. 1,244,241; Oct. 23; v. 243; p. 973.
Railways, Message-transmitting device for. J. R. Little. No. 1,243,535; Oct. 16; v. 243; p. 723.
Rain-indicator. B. Kole. No. 1,242,951; Oct. 16; v. 243; p. 547.
Raisin-drying process. G. C. Roeding. No. 1,245,031; Oct. 30; v. 243; p. 1250.
Rake: *See*—
Stone-rake.
Rake. S. L. Stetson. No. 1,244,789; Oct. 30; v. 243; p. 1177.
Ramming-machine, Jolt. E. M. Huggins. No. 1,242,351; Oct. 9; v. 243; p. 320.
Range, Combined coal and gas. S. C. Rockman. No. 1,244,246; Oct. 23; v. 243; p. 975.
Range-finding arrangement. C. J. Harter. No. 1,242,686; Oct. 9; v. 243; p. 428.
Range or cooking stove, Combination coal and gas. G. W. Howes. No. 1,242,941; Oct. 16; v. 243; p. 543.
Ranges, &c., Gang-valve lock for gas-. D. N. Stevenson. No. 1,244,790; Oct. 30; v. 243; p. 1178.
Razor blades, Device for cleaning or drying safety-. E. G. Wallinder. No. 1,242,893; Oct. 9; v. 243; p. 493.
Razor hone and strop, Combined. T. C. Vinson. No. 1,242,746; Oct. 9; v. 243; p. 447.
Razor, Safety-. A. B. Carroll. No. 1,241,921; Oct. 2; v. 243; p. 145.
Razor-strop. J. H. MacBride. No. 1,244,754; Oct. 30; v. 243; p. 1167.
Razor-strop holder. H. T. Childress. No. 1,243,710; Oct. 23; v. 243; p. 810.
Razor-stropper. W. S. Jones. No. 1,244,095; Oct. 23; v. 243; p. 930.
Razors or the like, Strop or sharpener for. G. A. Bader. No. 1,244,279; Oct. 23; v. 243; p. 986.
Reactance-coil, Limiting. J. F. Peters. No. 1,241,549; Oct. 2; v. 243; p. 26.
Reamer. W. H. Frick. No. 1,241,953; Oct. 2; v. 243; p. 154.
Reamer. W. H. Frick. No. 1,243,502; Oct. 16; v 243; p. 714.
Reamer. F. P. Miller. No. 1,244,227; Oct. 23; v. 243; p. 970.
Reamer and tap holder, Floating. J. E. Sheuman. No. 1,244,648; Oct. 30; v. 243; p. 1134.
Reamer, Expansible. C. O. Schellenbach. No. 1,241,668; Oct. 2; v. 243; p. 64.
Receiving and positioning work-pieces or finished articles, Method of and device or means for. L. F. Dieter. No. 1,243,053; Oct. 16; v. 243; p. 580.
Receptacle. F. B. Johnson. No. 1,244,338; Oct. 23; v. 243; p. 1003.
Receptacle. W. W. and C. G. McClay. No. 1,243,315; Oct. 16; v. 243; p. 659.
Receptacle. J. E. P. Pender. No. 1,243,211; Oct. 16; v. 243; p. 628.
Receptacle, Folding. E. E. Pinkerton. No. 1,243,626; Oct. 16; v. 243; p. 751.
Receptacle, Packaging-. B. M. Eaton. No. 1,242,534; Oct. 9; v. 243; p. 378.
Receptacle, Safety-. G. M. Falck. No. 1,243,498; Oct. 16; v. 243; p. 712.
Receptacles, Means for manufacturing. L. R. N. Carvalho. No. 1,243,486; Oct. 16; v. 243; p. 708.
Record-keeping device. O. Frazer. No. 1,243,726; Oct. 23; v. 243; p. 816.
Recorder: *See*—
Road-recorder.
Speed-recorder.
Recorder. F. L. Martindale. No. 1,244,113; Oct. 23; v. 243; p. 935.
Rectal plug. A. S. McCleary. No. 1,244,751; Oct. 30; v. 243; p. 1166.
Rectifier. H. E. Burket. No. 1,243,807; Oct. 23; v. 243; p. 843.
Rectifier. H. K. Sandell. No. 1,242,600; Oct. 9; v. 243; p. 401.
Rectifier and the motor thereof. H. K. Sandell. No. 1,242,601; Oct. 9; v. 243; p. 402.
Rectifying system, Multiphase. C. L. Fortescue. No. 1,241,505; Oct. 2; v. 243; p. 9.
Reed articles, Producing woven. M. B. Lloyd. No. 1,243,079; Oct. 16; v. 243; p. 589.
Reed articles, Producing woven. M. B. Lloyd. No. 1,243,080; Oct. 16; v. 243; p. 590.
Reed articles, Producing woven. M. B. Lloyd. No. 1,243,081; Oct. 16; v. 243; p. 590.

Reed articles, Producing woven. M. B. Lloyd. No. 1,243,082; Oct. 16; v. 243; p. 590.
Reel: *See*—
Clothes-line reel.
Contact-reel.
Drop-cord-extension reel.
Hose-reel.
Yarn-holding reel.
Reel. A. F. Schroeder. No. 1,243,450; Oct. 16; v. 243; p. 697.
Refractory composition. F. M. Becket. No. 1,244,688; Oct. 30; v. 243; p. 1146.
Refrigerating apparatus. F. G. Keyes. No. 1,242,559; Oct. 9; v. 243; p. 387.
Refrigerating apparatus, Check-valve for. A. L. Brett. No. 1,242,515; Oct. 9; v. 243; p. 372.
Refrigerator-car. G. W. Watkins. No. 1,242,091; Oct. 2; v. 243; p. 197.
Refuse-can and fly-trap, Combination. F. Johnson. No. 1,244,859; Oct. 30; v. 243; p. 1198.
Refuse, Separating and recovering domestic. J. W. and D. R. Bryan. No. 1,244,952; Oct. 30; v. 243; p. 1227.
Register: *See*—
Carbid-holder register.
Cash-register.
Coin-register.
Lock indicating-register.
Register-lock. H. A. Foothorap. No. 1,243,277; Oct. 16; v. 243; p. 646.
Regulator: *See*—
Electric regulator.
Engine-speed regulator.
Fluid-pressure regulator.
Gas-consumption regulator.
Heating-system regulator.
Incubator-regulator.
Pressure-regulator.
Sewing-machine loop-regulator.
Thermostatic regulator.
Remedy for the bee disease called the European foul brood. I. M. Church. No. 1,242,770; Oct. 9; v. 243; p. 455.
Repairer and sealer. E. Johnson. No. 1,244,984; Oct. 30; v. 243; p. 1236.
Rerailing device. A. D. Coalson. No. 1,243,920; Oct. 23; v. 243; p. 878.
Resilient wheel. A. A. Bender. No. 1,242,759; Oct. 9; v. 243; p. 451.
Resilient wheel. J. A. Crismore. No. 1,243,265; Oct. 16; v. 243; p. 643.
Resilient wheel. T. Fornander. No. 1,242,169; Oct. 9; v. 243; p. 263.
Resilient wheel. M. H. Harris. No. 1,241,730; Oct. 2; v. 243; p. 85.
Resilient wheel. W. W. Harvey. No. 1,243,735; Oct. 23; v. 243; p. 819.
Resilient wheel. E. B. Teeple. No. 1,242,269; Oct. 9; v. 243; p. 294.
Resilient wheel. W. H. Wilkins. No. 1,244,934; Oct. 30; v. 243; p. 1221.
Resilient wheel. G. Zinsli. No. 1,244,822; Oct. 30; v. 243; p. 1188.
Resilient wheel for carriages. C. Dominicus, Jr. No. 1,245,092; Oct. 30; v. 243; p. 1269.
Resilient wheel for vehicles. O. Brizendine. No. 1,243,804; Oct. 23; v. 243; p. 842.
Resins and products thereof, Hardening. F. S. Low. No. 1,243,312; Oct. 16; v. 243; p. 658.
Resistance-coil, Polyphase. P. Torchio and H. R. Woodrow. No. 1,242,497; Oct. 9; v. 243; p. 366.
Resistance in a circuit and apparatus therefor, Method of changing. E. Weintraub. No. 1,244,150; Oct. 23; v. 243; p. 946.
Respiration, Apparatus for producing artificial. E. J. Tyler. No. 1,243,900; Oct. 23; v. 243; p. 872.
Rheostat. H. W. Ward. No. 1,244,929; Oct. 30; v. 243; p. 1220.
Ring-shield, Bullet-proof. S. J. Winn, Jr. No. 1,244,679; Oct. 30; v. 243; p. 1143.
Rim-breaker. J. R. Wright. No. 1,242,409; Oct. 9; v. 243; p. 339.
Rim-contractor. E. Knauss. No. 1,242,950; Oct. 16; v. 243; p. 547.
Rim, Demountable. O. E. Bahrenburg. No. 1,242,310; Oct. 9; v. 243; p. 308.
Rim, Demountable. C. Lubbe and L. H. Free. No. 1,243,313; Oct. 16; v. 243; p. 658.
Rim, Demountable. C. N. Outerbridge. No. 1,243,624; Oct. 16; v. 243; p. 750.
Rim device, Demountable-. E. H. Davis. No. 1,242,330; Oct. 9; v. 243; p. 314.
Rim, Self-alining transplit. E. K. Baker. No. 1,244,014; Oct. 23; v. 243; p. 906.
Rim, Straight-side demountable. W. N. Booth. No. 1,244,022; Oct. 23; v. 243; p. 909.
Rim, Transplit demountable. E. K. Baker. No. 1,244,685; Oct. 30; v. 243; p. 1145.
Ring: *See*—
Bail-ring.
Piston-ring.
Spring-ring.
Rings, Fastener for split steel lubricating and other. G. H. Wood. No. 1,244,568; Oct. 30; v. 243; p. 1111.
Rivet-cutting machine. J. A. Scheffey. No. 1,243,765; Oct. 23; v. 243; p. 829.
Roach hive or trap. J. A. Owens. No. 1,243,625; Oct. 16; v. 243; p. 751.
Road-building machine. J. W. Kincaid. No. 1,244,505; Oct. 30; v. 243; p. 1091.
Road-making method and apparatus. J. A. Johnston. No. 1,242,558; Oct. 9; v. 243; p. 386.
Road recorder and indicator. O. E. Joseph. No. 1,244,743; Oct. 30; v. 243; p. 1164.
Roasting-furnace. A. W. Livingston. No. 1,242,455; Oct. 9; v. 243; p. 353.
Robe-holder. R. W. Beebe. No. 1,241,700; Oct. 2; v. 243; p. 74.
Rod: *See*—
Electric conducting ground-rod.
Rod-polishing machine. W. J. Heinauer. No. 1,243,837; Oct. 23; v. 243; p. 853.
Roller: *See*—
Shade-roller.
Roller-screen, Invisible. W. M. Bliss. No. 1,232,878; Oct. 9; v. 243; p. 489.
Rolling-mills, Roll construction for. W. J. Bradley. No. 1,244,464; Oct. 30; v. 243; p. 1078.
Rolling or forming car-wheels or other circular bodies. L. F. Dieter. No. 1,243,051; Oct. 16; v. 243; p. 579.
Rolling or forming car-wheels or other circular bodies, Method of and apparatus or mill for. L. F. Dieter. No. 1,243,050; Oct. 16; v. 243; p. 578.
Rolling or forming car-wheels or other circular bodies, Method of and means for. L. F. Dieter. No. 1,243,052; Oct. 16; v. 243; p. 579.
Rolling screen. J. and P. Gumber and J. Harder. No. 1,242,177; Oct. 9; v. 243; p. 266.
Rolls, Manufacture of. S. McMillen. No. 1,241,807; Oct. 2; v. 243; p. 126.
Rolls, Raising and lowering device for. W. W. Humes. No. 1,241,630; Oct. 2; v. 243; p. 53.
Romper, Child's one-button. B. H. Bohannon. No. 1,243,583; Oct. 16; v. 243; p. 737.
Roof, Adjustably-clamped. M. J. Neumayer. No. 1,244,763; Oct. 30; v. 243; p. 1170.
Roof, All-steel. P. M. Beard. No. 1,244,687; Oct. 30; v. 243; p. 1146.
Roof-flashing. P. F. McCaffrey. No. 1,244,750; Oct. 30; v. 243; p. 1166.
Roofing-machine. A. S. Spiegel. No. 1,244,654; Oct. 30; v. 243; p. 1136.
Roofing-nail. S. M. Ford. No. 1,242,675; Oct. 9; v. 243; p. 425.
Roofing-strip. O. A. Heppes. No. 1,243,064; Oct. 16; v. 243; p. 584.
Rotary cutter. T. H. Parker. No. 1,242,369; Oct. 9; v. 243; p. 326.
Rotary engine. I. L. Eastman. No. 1,242,332; Oct. 9; v. 243; p. 315.
Rotary engine. F. Nearing. No. 1,241,755; Oct. 2; v. 243; p. 92.
Rotary explosive-engine. P. D. Hibner. No. 1,242,693; Oct. 9; v. 243; p. 430.
Rotary internal-combustion engine. A. Johnson. No. 1,242,197; Oct. 9; v. 243; p. 272.
Rotary motor. M. Mehle. No. 1,244,529; Oct. 30; v. 243; p. 1097.
Rounding-machine. A. R. Schoenky. No. 1,243,228; Oct. 16; v. 243; p. 632.
Rowboat-seat. J. E. Goldthwait. No. 1,245,098; Oct. 30; v. 243; p. 1270.
Rubber and product obtained thereby, Vulcanizing. I. Ostromislensky. No. 1,242,586; Oct. 9; v. 243; p. 397.
Rubber compound and making same. E. E. A. G. Meyer. No. 1,242,886; Oct. 9; v. 243; p. 491.
Rubber or rubber compounds, Treatment of. C. Hofer. No. 1,242,189; Oct. 9; v. 243; p. 269.
Rubber, Treating vulcanized. F. V. O'Neill. No. 1,243,623; Oct. 16; v. 243; p. 750.
Rubbing-post. F. F. Miller. No. 1,243,961; Oct. 23; v. 243; p. 890.
Rug and fastening, Combined. D. J. O'Leary. No. 1,242,717; Oct. 9; v. 243; p. 438.
Ruling-machine. H. E. Lindbladh. No. 1,242,823; Oct. 9; v. 243; p. 471.
Running-switch for electric vehicles. C. A. Ward. No. 1,242,619; Oct. 9; v. 243; p. 407.
Sack-fastening means. R. L. Callahan. No. 1,242,139; Oct. 9; v. 243; p. 254.
Sack-holder. F. H. Gilbert. No. 1,244,318; Oct. 23; v. 243; p. 997.
Sad-iron. H. W. O'Dowd. No. 1,244,887; Oct. 30; v. 243; p. 1207.
Sad-iron, Electric. D. C. Hughes. No. 1,243,412; Oct. 16; v. 243; p. 685.
Sad-iron, Self-heating. C. Stiehler. No. 1,242,489; Oct. 9; v. 243; p. 364.
Saddles, Pressure mechanism for roller-bed. E. J. Vales and J. T. Bishop. No. 1,241,586; Oct. 2; v. 243; p. 89.
Safe emergency-door. M. O. Puhl. No. 1,243,101; Oct. 16; v. 243; p. 595.
Safety-brake. E. R. Worstell. No. 1,243,373; Oct. 16; v. 243; p. 675.
Safety-gate. H. R. Fowler. No. 1,243,056; Oct. 16; v. 243; p. 581.
Safety-pin. J. H. Fowler. No. 1,241,948; Oct. 2; v. 243; p. 153.
Sales-book, Manifolding. E. K. Bottle. No. 1,243,695; Oct. 23; v. 243; p. 804.
Sales device, Automatic. H. Jensen. No. 1,241,984; Oct. 2; v. 243; p. 164.
Salt brick and making same. J. L. Sterling. No. 1,244,141; Oct. 23; v. 243; p. 943.
Salt from its admixtures with impurities in crude brine, Recovering. (W. W. Skinner and W. F. Baughman. No. 1,244,380; Oct. 23; v. 243; p. 1014.
Salting-machine. P. J. Coté. No. 1,244,471; Oct. 30; v. 243; p. 1080.

Sanitary appliance. A. Troiano. No. 1,243,462; Oct. 16; v. 243; p. 701.
Sash-holder. R. F. Hunter. No. 1,242,697. Oct. 9; v. 243; p. 432.
Sash-joint. J. J. and C. F. Devenny. No. 1,242,427; Oct. 9; v. 243; p. 344.
Sash-joint, Metallic. W. Roper. No. 1,242,242; Oct. 9; v. 243; p. 286.
Sash operator, Window-. O. H. Quernheim and H. Neuhof, Jr. No. 1,242,889; Oct. 9; v. 243; p. 492.
Sash, Window-. G. B. Kohler. No. 1,242,815; Oct. 9; v. 243; p. 468.
Saw-filing machines, Side-dressing attachment for. J. T. Gosline. No. 1,243,731; Oct. 23; v. 243; p. 818.
Saw guard, Circular-. W. M. Frisbie. No. 1,244,187; Oct. 23; v. 243; p. 956.
Saw, Inclined. E. A. Mouche. No. 1,244,231; Oct. 23; v. 243; p. 971.
Saw, Inclined. E. A. Mouche. No. 1,244,232; Oct. 23; v. 243; p. 971.
Saw-set. W. G. Herman. No. 1,242,348; Oct. 9; v. 243; p. 319.
Saw-set. A. Serföző. No. 1,241,772; Oct. 2; v. 243; p. 96.
Sawing-machine, Self-feed. J. J. Meyers. No. 1,241,871; Oct. 2; v. 243; p. 128.
Sawmill log-setting device. W. H. Appleman. No. 1,241,807; Oct. 2; v. 243; p. 108.
Sawmill log-setting device. W. H. Appleman. No. 1,244,575; Oct. 30; v. 243; p. 1113.
Scaffolding, Adjustable suspended. E. Whitney. No. 1,244,670; Oct. 30; v. 243; p. 1141.
Scale. H. A. Weir. No. 1,244,930; Oct. 30; v. 243; p. 1220.
Scale, Automatic. W. S. Smith. No. 1,241,672; Oct. 2; v. 243; p. 65.
Scale, Automatic. R. J. Zanone. No. 1,243,791; Oct. 23; v. 243; p. 838.
Scale, Weighing-. R. H. Helsel. No. 1,242,551; Oct. 9; v. 243; p. 384.
Scales, Multiple indicating mechanism for weighing-. H. A. Myers. No. 1,243,676; Oct. 16; v. 243; p. 766.
Scarifier. F. A. Browne. No. 1,243,672; Oct. 16; v. 243; p. 765.
Scene-shifting apparatus. G. Knickelbein. No. 1,241,637; Oct. 2; v. 243; p. 55.
Scoop, Manure-. H. C. Broberg. No. 1,243,136; Oct. 16; v. 243; p. 604.
Scraper and drag, Combined road. E. F. Mittendorf. No. 1,243,329; Oct. 16; v. 243; p. 663.
Scraper, Excavating-. I. E. Burkett. No. 1,242,320; Oct. 9; v. 243; p. 311.
Scraper, Foot-. C. Dunham. No. 1,244,434; Oct. 23; v. 243; p. 1031.
Scraper, Road-. J. Hughes. No. 1,245,107; Oct. 30; v. 243; p. 1273.
Scraping and cleaning device. L. Escutchen. No. 1,243,825; Oct. 23; v. 243; p. 849.
Screen: *See*—
Fish-screen.
Folding screen.
Roller-screen.
Rolling screen.
Window-screen.
Screen. V. A. Debertshauser. No. 1,244,841; Oct. 30; v. 243; p. 1193.
Screen and storm-door, Combination. C. F. Franz. No. 1,242,789; Oct. 9; v. 243; p. 461.
Screen attachment, Window-. J. D. Archard. No. 1,242,413; Oct. 9; v. 243; p. 341.
Screen-frame. W. N. Cropper and S. L. Lancaster. No. 1,243,715; Oct. 23; v. 243; p. 832.
Screening device. M. P. Reynolds. No. 1,242,982; Oct. 16; v. 243; p. 556.
Screw. C. H. Bissell. No. 1,243,799; Oct. 23; v. 243; p. 841.
Screw clamp, Temper-. P. S. Hovis. No. 1,243,065; Oct. 16; v. 243; p. 584.
Screw-driver. R. Ard. No. 1,243,667; Oct. 16; v. 243; p. 763.
Screw-driver. H. Hood. No. 1,244,981; Oct. 30; v. 243; p. 1235.
Screws, cap-screws, and the like, Device for upsetting set-. T. Terry. (Reissue.) No. 14,384; Oct. 30; v. 243; p. 1285.
Screws, Producing hollow set-. N. W. Cummins. No. 1,243,818; Oct. 23; v. 243; p. 847.
Scrubbing-machine. R. Zimmerman. No. 1,244,400; Oct. 23; v. 243; p. 1021.
Seal. C. J. Reynolds. No. 1,245,026; Oct. 30; v. 243; p. 1249.
Seal, Electrical-service cut-out. W. W. Givot. No. 1,243,283; Oct. 16; v. 243; p. 648.
Seal for glass containers and the like, Side. H. E. Townsend. No. 1,242,743; Oct. 9; v. 243; p. 446.
Seal-lock for freight-car doors. J. E. McLaughlin and D. Bordeleau. No. 1,244,625; Oct. 30; v. 243; p. 1127.
Sealing-cap. H. E. Townsend. No. 1,242,741; Oct. 9; v. 243; p. 445.
Sealing-closure with removable gasket. H. E. Townsend. No. 1,242,742; Oct. 9; v. 243; p. 445.
Sealing machine, Packing-case or carton-. H. L. Johnson. No. 1,242,945; Oct. 16; v. 243; p. 545.
Sealing machine, Vacuum-. E. B. Kramer and C. Hammer. No. 1,244,508; Oct. 30; v. 243; p. 1091.
Sealing machine, Vacuum-. T. L. Taliaferro. No. 1,245,063; Oct. 30; v. 243; p. 1260.
Seat: *See*—
Car-seat.
Cushion-seat.
Rowboat-seat.
Seat-cover pin. F. L. Becker. No. 1,241,606; Oct. 2; v. 243; p. 45.
Seat-indicator. J. A. Gunn. No. 1,241,965; Oct. 2; v. 243; p. 158.
Seat-stick, Folding. W. Mills. No. 1,241,753; Oct. 2; v. 243; p. 91.
Seed-discharging mechanism. O. F. Smith. No. 1,244,787; Oct. 30; v. 243; p. 1177.
Seed-feeding mechanism. J. W. Ropp. No. 1,243,631; Oct. 16; v. 243; p. 752.
Seed-separator. J. H. Law. No. 1,244,102; Oct. 23; v. 243; p. 932.
Seeds and nuts for obtaining oil and other products, Treating. B. Loomis. No. 1,244,995; Oct. 30; v. 243; p. 1239.
Selector. C. S. Rhoads, Jr. No. 1,244,544; Oct. 30; v. 243; p. 1103.
Self-opening can. J. M. Hothersall. No. 1,244,610; Oct. 30; v. 243; p. 1123.
Semaphore-signal blade. M. H. Loughridge and R. P. Tuttle. No. 1,242,899; Oct. 9; v. 243; p. 495.
Semaphore-signal device. R. P. Tuttle and M. H. Loughridge. No. 1,242,891; Oct. 9; v. 243; p. 493.
Separating device. W. P. Gross. No. 1,242,683; Oct. 9; v. 243; p. 427.
Separator; *See*—
Battery-separator.
Centrifugal self-balancing separator.
Cream-separator.
Grain-separator.
Grinding-mill separator.
Multitime separator.
Seed-separator.
Steam-separator.
Separator. W. F. Gongaware. No. 1,244,191; Oct. 23; v. 243; p. 957.
Separator-drums, Coupling device for. J. A. Dahlqvist. No. 1,241,713; Oct. 2; v. 243; p. 78.
Serving-stand. T. F. Nash. No. 1,242,225; Oct. 9; v. 243; p. 281.
Sewage, Treating. W. H. Sawyer. No. 1,242,986; Oct. 16; v. 243; p. 558.
Sewer-opening apparatus. J. Alder, Sr. No. 1,241,894; Oct. 2; v. 243; p. 136.
Sewing-bowl. M. F. Kellner. No. 1,241,522; Oct. 2; v. 243; p. 16.
Sewing-machine. E. B. Allen. No. 1,243,679; Oct. 23; v. 243; p. 799.
Sewing-machine. S. W. Avis. No. 1,243,242; Oct. 16; v. 243; p. 636.
Sewing-machine. H. Corrall. No. 1,243,921; Oct. 23; v. 243; p. 878.
Sewing-machine. H. Corrall and J. M. Forbes. No. 1,241,710; Oct. 2; v. 243; p. 77.
Sewing-machine. C. E. Francis. No. 1,241,949; Oct. 2; v. 243; p. 153.
Sewing-machine. J. G. Lewis. No. 1,243,745; Oct. 23; v. 243; p. 823.
Sewing-machine. J. M. Merrow. No. 1,243,089; Oct. 16; v. 243; p. 592.
Sewing-machine. J. M. Merrow. No 1,244,115; Oct. 23; v. 243; p. 935.
Sewing-machine. C. J. Sibbald. No. 1,242,875; Oct. 9; v. 243; p. 488.
Sewing-machine attachment. W. T. Halme. No. 1,244,201; Oct. 23; v. 243; p. 960.
Sewing-machine attachment. J. Leask. No. 1,243,193; Oct. 16; v. 243; p. 622.
Sewing machine, Button-. A. F. Fifield and W. L. Barron. No. 1,243,927; Oct. 23; v. 243; p. 880.
Sewing-machine cabinet. T. Kundtz. No. 1,243,744; Oct. 23; v. 243; p. 823.
Sewing machine, Chain-stitch inseam shoe-. L. E. Topham. No. 1,241,784; Oct. 2; v. 243; p. 100.
Sewing machine, Chain-stitch inseam shoe-. L. E. Topham. No. 1,241,785; Oct. 2; v. 243; p. 100.
Sewing-machine-feed mechanism. J. P. Weis. No. 1,242,403; Oct. 9; v. 243; p. 337.
Sewing-machine-feeding mechanism. A. H. De Voe. No. 1,244,479; Oct. 30; v. 243; p. 1083.
Sewing-machine-feeding mechanism. A. Grieb. No. 1,243,160; Oct. 16; v. 243; p. 610.
Sewing-machine felling device. B. M. Krell and M. Zuckerman. No. 1,241,739; Oct. 2; v. 243; p. 87.
Sewing-machine for sewing overall-straps. F. E. Wiggins. No. 1,242,405; Oct. 9; v. 243; p. 338.
Sewing-machine loop-retainer. R. B. Thompson. No. 1,244,921; Oct. 30; v. 243; p. 1218.
Sewing-machine-looper mechanism. A. H. De Voe. No. 1,243,145; Oct. 16; v. 243; p. 606.
Sewing-machine-looper mechanism. E. Erickson. No. 1,243,147; Oct. 16; v. 243; p. 607.
Sewing-machine-needle cap-plate. J. T. Bottomlee. No. 1,243,249; Oct. 16; v. 243; p. 638.
Sewing-machine, Overseaming. A. Grieb. No. 1,243,159; Oct. 16; v. 243; p. 610.
Sewing-machine presser-foot. H. P. Schoenky. No. 1,242,608; Oct. 9; v. 243; p. 404.
Sewing-machine presser-foot. J. E. Chalman. No. 1,243,849; Oct. 23; v. 243; p. 844.
Sewing-machine presser-foot-lifting mechanism. P. A. Herr. No. 1,241,733; Oct. 2; v. 243; p. 86.

Sewing-machine presser-foot mechanism. E. Erickson. No. 1,244,041; Oct. 23; v. 243; p. 914.
Sewing-machine ruffling mechanism. A. H. De Voe. No. 1,241,719; Oct. 2; v. 243; p. 80.
Sewing-machine ruffling mechanism. W. C. Robbins. No. 1,242,476; Oct. 9; v. 243; p. 360.
Sewing-machine stop-motion device. W. L. Barron and F. E. Osol. No. 1,244,458; Oct. 30; v. 243; p. 1076.
Sewing-machine, Wax-thread. H. P. Schoenky. No. 1,242,606; Oct. 9; v. 243; p. 403.
Sewing-machine, Welt-shoe. A. F. Littlefield. No. 1,243,195; Oct. 16; v. 243; p. 623.
Sewing-machines, Combined top-feed and ruffling mechanism for. J. P. Weis. No. 1,242,402; Oct. 9; v. 243; p. 337.
Sewing-machines, Lamp attachment for. W. W. and C. G. McClay. No. 1,243,316; Oct. 16; v. 243; p. 659.
Sewing-machines, Punching, feeding, and channeling mechanism for. H. P. Schoenky. No. 1,242,607; Oct. 9; v. 243; p. 404.
Shackle, Spring-. R. L. Rand. No. 1,245,025; Oct. 30; v. 243; p. 1249.
Shade and curtain hanger. J. Grimm. No. 1,242,345; Oct. 9; v. 243; p. 318.
Shade and drapery fixture, Combination. C. L. Fitchet. No. 1,244,305; Oct. 23; v. 243; p. 993.
Shade bracket, Window-. L. N. Chadis. No. 1,242,653; Oct. 9; v. 243; p. 418.
Shade-holder. R. S. Blything. No. 1,242,107; Oct. 2; v. 243; p. 202.
Shade-roller. C. W. Kirsch. No. 1,242,949; Oct. 16; v. 243; p. 546.
Shade-roller. R. W. Sherrill. No. 1,243,561; Oct. 16; v. 243; p. 730.
Shade-roller bracket. W. B. Caswell. No. 1,242,521; Oct. 9; v. 243; p. 374.
Shade-roller lock. W. C. Moors. No. 1,242,362; Oct. 9; v. 243; p. 323.
Shade roller, Window-. E. Ament. No. 1,244,403; Oct. 23; v. 243; p. 1022.
Shade roller, Window-. F. A. Dawson. (Reissue.) No. 14,375; Oct. 9; v. 243; p. 496.
Shaft-coupling. B. F. Augustine. No. 1,242,906; Oct. 16; v. 243; p. 532.
Shaft-coupling. F. L. Morse. No. 1,244,533; Oct. 30; v. 243; p. 1099.
Shaft, Flexible. S. W. Ekroos. No. 1,244,186; Oct. 23; v. 243; p. 956.
Shaft mechanism, Drop-brake-. G. C. Elliott and J. W. Steinmeyer. No. 1,244,717; Oct. 30; p. 1156.
Shaft mechanism, Drop-brake-. M. J. Neumayer. No. 1,244,764; Oct. 30; v. 243; p. 1170.
Shampoo pan or tray. P. Fina. No. 1,243,397; Oct. 16; v. 243; p. 681.
Shampooing attachment. R. L. Dozier and E. C. Herron. No. 1,244,715; Oct. 30; v. 243; p. 1156.
Shampooing-stand. E. F. Nutter. No. 1,244,535; Oct. 30; v. 243; p. 1100.
Sharpener, Lawn-mower. E. F. Lynch. No. 1,242,011; Oct. 2; v. 243; p. 173.
Sharpening device, Cutter-. H. R. Hamilton. No. 1,244,493; Oct. 30; v. 243; p. 1088.
Shaving device. H. Werner. No. 1,241,798; Oct. 2; v. 243; p. 105.
Shaving-stick holder. F. Grant. No. 1,242,175; Oct. 9; v. 243; p. 265.
Shears. H. W. Miller. No. 1,243,540; Oct. 16; v. 243; p. 725.
Sheave-block. B. B. Bosworth. No. 1,243,585; Oct. 16; v. 243; p. 738.
Sheet collecting and folding machines, Creasing mechanism for. H. M. Barber. No. 1,243,684; Oct. 23; v. 243; p. 800.
Sheet cutting, stitching, and folding machine. H. M. Barber. No. 1,242,909; Oct. 16; v. 243; p. 532.
Sheet-feeding mechanism. S. M. Langston. No. 1,242,356; Oct. 9; v. 243; p. 322.
Sheet-feeding machine. L. Middleditch. No. 1,244,755; Oct. 30; v. 243; p. 1167.
Sheet metal and wire, Machine for trimming. A. H. Wehrle. No. 1,244,931; Oct. 30; v. 243; p. 1221.
Sheet metal, Forming ribs on. M. S. Goldsmith. No. 1,244,598; Oct. 30; v. 243; p. 1119.
Sheet-metal-rolling machine for fenders and the like. R. W. Carter. No. 1,244,422; Oct. 23; v. 243; p. 1029.
Sheet-metal-working machine. P. Kruse. No. 1,242,206; Oct. 9; v. 243; p. 276.
Sheet-metal-working machine. P. Kruse. No. 1,244,056; Oct. 23; v. 243; p. 918.
Shelf, Revolving. R. Calhoun. No. 1,243,651; Oct. 16; v. 243; p. 758.
Shell. F. E. Sutterfield. No. 1,243,641; Oct. 16; v. 243; p. 756.
Shield and tag-bracket, Combined. R. P. Flower. No. 1,244,306; Oct. 23; v. 243; p. 994.
Shingle, Cement. H. R. Wardell. No. 1,244,148; Oct. 23; v. 243; p. 945.
Shingle, Composition. J. C. and O. M. Loyer. (Reissue.) No. 14,387; Oct. 30; v. 243; p. 1288.
Ship-protecting device. G. G. Babich. No. 1,241,902; Oct. 2; v. 243; p. 139.
Ship-protector. G. N. Andricopoulos. No. 1,241,602; Oct. 2; v. 243; p. 44.
Ship-protector. G. Melnik and K. Schultz. No. 1,244,627; Oct. 30; v. 243; p. 1128.
Ship-protector. J. Vaidik. No. 1,245,069; Oct. 30; v. 243; p. 1261.
Ships' hulls, Constructing. P. H. Nelson. No. 1,244,762; Oct. 30; v. 243; p. 1169.
Ships, Jury-rigged sail for. A. McDougall. No. 1,243,198; Oct. 16; v. 243; p. 624.
Ship's table. F. Zagmester. No. 1,244,158; Oct. 23; v. 243; p. 948.
Shipping-jack. J. W. Souther. No. 1,242,617; Oct. 9; v. 243; p. 407.
Shirt-waist. A. J. McBride. No. 1,243,196; Oct. 16; v. 243; p. 623.
Shock-absorber. B. J. Borgmann. No. 1,242,134; Oct. 9; v. 243; p. 252.
Shock-absorber. G. G. F. Boswell. No. 1,242,316; Oct. 9; v. 243; p. 310.
Shock-absorber. L. P. Halladay. No. 1,243,599; Oct. 16; v. 243; p. 741.
Shock-absorber. J. H. Hughes and G. J. Wiedeman. No. 1,243,526; Oct. 16; v. 243; p. 721.
Shock-absorber. H. H. Hunter. No. 1,242,103; Oct. 2; v. 243; p. 201.
Shock-absorber. J. E. Key. No. 1,243,305; Oct. 16; v. 243; p. 656.
Shock-absorber. E. M. May. No. 1,242,574; Oct. 9; v. 243; p. 393.
Shock-absorber. R. S. Williams. No. 1,244,814; Oct. 30; v. 243; p. 1185.
Shock-absorber. S. Wilson. No. 1,241,595; Oct. 2; v. 243; p. 42.
Shock-absorber for automobiles. C. L. Grider. No. 1,241,622; Oct. 2; v. 243; p. 50.
Shock-absorber, Reaction. H. B. Keiper. No. 1,243,181; Oct. 16; v. 243; p. 617.
Shock-absorbing mechanism. E. H. Schmidt. No. 1,243,327; Oct. 16; v. 243; p. 632.
Shocking-machine. C. R. Raney. No. 1,242,112; Oct. 2; v. 243; p. 204.
Shoe. N. Skoulikides. No. 1,243,993; Oct. 23; v. 243; p. 899.
Shoe-bottoms, Machine for operating on. E. E. Winkley. No. 1,242,503; Oct. 9; v. 243; p. 368.
Shoe-closure. A. D. Curry. No. 1,242,774; Oct. 9; v. 243; p. 455.
Shoe creasing and stretching machine. A. E. Block. No. 1,244,829; Oct. 30; v. 243; p. 1190.
Shoe, Golf-. W. Park. No. 1,243,209; Oct. 16; v. 243; p. 627.
Shoe-horn, Folding. J. L. Sommer. No. 1,242,615; Oct. 9; v. 243; p. 406.
Shoe-ironing apparatus. O. Ashton. No. 1,244,405; Oct. 23; v. 243; p. 1023.
Shoe mud-guard. W. A. Collings. No. 1,242,923; Oct. 16; v. 243; p. 537.
Shoe-pressing machine. F. Rampichini. No. 1,244,776; Oct. 30; v. 243; p. 1174.
Shoe, Stitch-down. W. J. Kelly. No. 1,243,421; Oct. 16; v. 243; p. 689.
Shoe-stretching device. C. L. Passmore. No. 1,244,638; Oct. 30; v. 243; p. 1131.
Shoe, Turn-. M. L. Dodge. No. 1,241,940; Oct. 2; v. 243; p. 151.
Shoe, Turned. J. B. Tilton. No. 1,241,579; Oct. 2; v. 243; p. 36.
Shoe-welts, Machine for operating on. E. E. Winkley. No. 1,242,504; Oct. 9; v. 243; p. 368.
Shoes, Making turn. M. L. Dodge. No. 1,241,939; Oct. 2; v. 243; p. 150.
Shoes, Repairing turn-. W. A. Owens. No. 1,244,772; Oct. 30; v. 243; p. 1173.
Shortening composition and producing the same. H. A. Kohman, T. M. Godfrey, and L. H. Ashe. No. 1,242,883; Oct. 9; v. 243; p. 490.
Shortening composition, Producing a. H. A. Kohman, T. M. Godfrey, and L. H. Ashe. No. 1,242,884; Oct. 9; v. 243; p. 490.
Shovel. A. F. Staples. No. 1,241,677; Oct. 2; v. 243; p. 66.
Shower-bath fixture. W. H. Pritchett. No. 1,241,765; Oct. 2; v. 243; p. 94.
Shower-bath, Portable field. W. H. Pritchett. No. 1,241,764; Oct. 2; v. 243; p. 94.
Shutter, Safety-. G. W. Lancaster. No. 1,244,215; Oct. 23; v. 243; p. 695.
Shuttle-lock. F. M. Pierce. No. 1,242,371; Oct. 9; v. 243; p. 327.
Sidewalk-lights, Flashing for. R. A. Willison. No. 1,243,235; Oct. 16; v. 243; p. 634.
Sifter and receptacle, Ash. S. Brest. No. 1,242,318; Oct. 9; v. 243; p. 310.
Sifter, Ash-. A. P. Schmitt. No. 1,242,050; Oct. 2; v. 243; p. 184.
Sign and making the same. R. Hardesty. No. 1,243,164; Oct. 16; v. 243; p. 612.
Sign-flasher. C. D. Pruitt. No. 1,242,861; Oct. 9; v. 243; p. 484.
Signal: *See*—
Automobile-signal.
Automobile traffic-signal.
Auto-signal.
Block-signal.
Direction-signal.
Exposure-signal.
Railway-crossing signal.
Railway-signal.
Vehicle-signal.
Signal. W. H. Ashworth and J. C. Crout. No. 1,241,603; Oct. 2; v. 243; p. 44.

Signal. H. T. Murphy. No. 1,244,883; Oct. 30; v. 243; p. 1206.
Signal. J. Shiflet. No. 1,245,048; Oct. 30; v. 243; p. 1254.
Signal apparatus. C. G. Miller. No. 1,244,065; Oct. 23; v. 243; p. 920.
Signal-box, Successive non-interference. F. W. Cole. No. 1,244,587; Oct. 30; v. 243; p. 1117.
Signal mechanism. S. Milano. No. 1,242,575; Oct. 9; v. 243; p. 393.
Signal mechanism. F. H. Sleeper. No. 1,242,058; Oct. 2; v. 243; p. 187.
Signal system. M. E. Launbranch. No. 1,243,308; Oct. 16; v. 243; p. 657.
Signals, Method of and means for transmitting. J. R. Carson. No. 1,243,705; Oct. 23; v. 243; p. 808.
Signaling apparatus. P. V. Kolff. No. 1,242,816; Oct. 9; v. 243; p. 469.
Signaling apparatus. F. W. Lohr. No. 1,244,873; Oct. 30; v. 243; p. 1202.
Signaling device. W. E. Headley, Jr. No. 1,242,690; Oct. 9; v. 243; p. 429.
Signaling device, Electrical. W. W. Dean. No. 1,243,047; Oct. 16; v. 243; p. 577.
Signaling for mine-hoists, System of. M. A. Whiting. No. 1,242,625; Oct. 9; v. 243; p. 408.
Signaling system, Selective. A. H. Lundell. No. 1,244,998; Oct. 30; v. 243; p. 1240.
Silo. W. A. Caldwell. No. 1,242,420; Oct. 9; v. 243; p. 343.
Silo. P. C. Lorcher. No. 1,244,220; Oct. 23; v. 243; p. 967.
Silo and door therefor. V. S. Bauder. No. 1,243,129; Oct. 16; v. 243; p. 602.
Silo-door. J. R. Freeze. No. 1,243,829; Oct. 23; v. 243; p. 850.
Silo-tamping device. H. Myers. No. 1,243,754; Oct. 23; v. 243; p. 826.
Siphon. J. F. Brown. No. 1,241,916; Oct. 2; v. 243; p. 144.
Skate, Convertible roller and ice. F. M. Kuchtik. No. 1,243,077; Oct. 16; v. 243; p. 588.
Skinning-knife. B. H. Hartman. No. 1,241,969; Oct. 2; v. 243; p. 159.
Sled. O. Pearson. No. 1,244,075; Oct. 23; v. 243; p. 923.
Sled, Bicycle-. G. Schwittai and H. Davidovits. No. 1,242,990; Oct. 16; v. 243; p. 559.
Sled-brake. J. Blaszczyk. No. 1,244,460; Oct. 30; v. 243; p. 1077.
Sled, Motor-driven. D. S. Krohn. No. 1,243,612; Oct. 16; v. 243; p. 747.
Sled steering device. L. R. and A. P. Bourdon. No. 1,242,514; Oct. 9; v. 243; p. 372.
Sleeping-bag. P. V. Barnes. No. 1,241,699; Oct. 2; v. 243; p. 74.
Sleigh, Motor-driven. J. Miller. No. 1,242,963; Oct. 16; v. 243; p. 550.
Slicing-machine. V. Dobbins. No. 1,243,390; Oct. 16; v. 243; p. 679.
Slicing-machine. G. W. Drew. No. 1,242,881; Oct. 9; v. 243; p. 490.
Slicing-machine. J. M. Peterson. No. 1,243,867; Oct. 23; v. 243; p. 861.
Slicing machine, Fruit-. G. W. Drew. No. 1,244,038; Oct. 23; v. 243; p. 913.
Slicing machines, Backplate for meat-. H. Stukart. No. 1,243,894; Oct. 23; v. 243; p. 870.
Slicing-machines, Meat-adjusting plate for. J. I. McCormick. No. 1,242,958; Oct. 16; v. 243; p. 548.
Slip-comparing demonstrator. M. O. Reeves. No. 1,242,863; Oct. 9; v. 243; p. 434.
Slip-socket, Combination. S. Bullum. No. 1,244,289; Oct. 23; v. 243; p. 989.
Slipper. M. Gustin. No. 1,244,197; Oct. 23; v. 243; p. 959.
Slurry, Treatment of. C. Pontoppidan. No. 1,242,236; Oct. 9; v. 243; p. 285.
Smelter, Continuous zinc-. W. M. Johnson. No. 1,244,504; Oct. 30; v. 243; p. 1090.
Smelting furnace, Ore-. C. J. Beaver and E. A. Claremont. No. 1,243,798; Oct. 23; v. 243; p. 840.
Smelting process and apparatus. E. A. Mathers. No. 1,242,833; Oct. 9; v. 243; p. 474.
Smoke-jack. S. A. Williams. No. 1,244,156; Oct. 23; v. 243; p. 947.
Smoke-producing compound. W. Arthur. No. 1,244,940; Oct. 30; v. 243; p. 1223.
Smoker's pouch. H. H. Scott. No. 1,244,905; Oct. 30; v. 243; p. 1212.
Smoking-pipe. W. Westenfield. No. 1,245,078; Oct. 30; v. 243; p. 1264.
Snap-hook. G. A. Collett. No. 1,243,590; Oct. 16; v. 243; p. 739.
Snow and ice remover. C. Snydam. No. 1,241,779; Oct. 2; v. 243; p. 98.
Snow-melter. W. T. Erickson. No. 1,243,497; Oct. 16; v. 243; p. 712.
Snow-melter for railways. W. H. Dean. No. 1,244,300; Oct. 23; v. 243; p. 992.
Snow-plow. B. F. Erwin. No. 1,243,926; Oct. 23; v. 243; p. 879.
Snow-plow. C. A. Splayford. No. 1,243,355; Oct. 16; v. 243; p. 670.
Snow-removing apparatus. S. Friedman. No. 1,242,433; Oct. 9; v. 243; p. 346.
Soap and the like, Apparatus for cooling. H. Curland. No. 1,244,297; Oct. 23; v. 243; p. 991.
Soap fixture, Liquid-. E. G. Watrous. No. 1,242,398; Oct. 9; v. 243; p. 336.
Soap-holding device. J. K. Atkinson. No. 1,242,905; Oct. 16; v. 243; p. 531.
Soap, Recovering. H. M. Gray. No. 1,242,435; Oct. 9; v. 243; p. 347.
Soil for cultivation, Method of and apparatus for preparing. E. A. Boldt. No. 1,241,816; Oct. 2; v. 243; p. 111.
Solar heater. W. J. Bailey. No. 1,242,511; Oct. 9; v. 243; p. 371.
Soldering device for cables. P. F. Sindeler. No. 1,242,610; Oct. 9; v. 243; p. 405.
Soldering machine, Can-. L. J. Leffler. No. 1,244,105; Oct. 23; v. 243; p. 933.
Sole for boots and shoes. R. B. Price. No. 1,242,977; Oct. 16; v. 243; p. 555.
Sole rounding and cutting machine. S. A. Dobyne. No. 1,245,091; Oct. 30; v. 243; p. 1269.
Sole, Shoe-. G. L. Pierce. No. 1,242,233; Oct. 9; v. 243; p. 284.
Solids of different specific gravities, Separating. A. Nagelvoort. No. 1,244,885; Oct. 30; v. 243; p. 1206.
Solution having a low freezing-point. G. E. Ferguson. No. 1,243,149; Oct. 16; v. 243; p. 608.
Soot-remover. S. R. Morden. No. 1,242,838; Oct. 9; v. 243; p. 476.
Sorting device. F. Carson. No. 1,245,086; Oct. 30; v. 243; p. 1267.
Sound-producing apparatus. C. S. Gerlach. No. 1,241,956; Oct. 2; v. 243; p. 154.
Sound-producing device. H. A. Van Valkenburg. No. 1,243,645; Oct. 16; v. 243; p. 757.
Sounding apparatus. E. G. Fisher. No. 1,244,485; Oct. 30; v. 243; p. 1084.
Spark-arrester for locomotives. E. J. Carter, A. Taylor, and J. S. Griffith. No. 1,243,708; Oct. 23; v. 243; p. 809.
Spark-coil-testing device. H. P. Goerz. No. 1,244,049; Oct. 23; v. 243; p. 916.
Spark-plug. P. Broomell. No. 1,244,416; Oct. 23; v. 243; p. 1025.
Spark-plug. H. H. Hoff and F. E. Talleur. No. 1,241,734; Oct. 2; v. 243; p. 86.
Spark-plug. W. G. Jackson. No. 1,244,091; Oct. 23; v. 243; p. 928.
Spark-plug. J. T. Norman. No. 1,243,205; Oct. 16; v. 243; p. 626.
Spark-plug. W. O. Olson. No. 1,243,094; Oct. 16; v. 243; p. 593.
Spark-plug. F. Robinson. No. 1,242,375; Oct. 9; v. 243; p. 328.
Spark-plug. A. Schmidt. No. 1,241,560; Oct. 2; v. 243; p. 30.
Spark-plug. A. Schmidt. No. 1,241,561; Oct. 2; v. 243; p. 31.
Spark-plug. A. Schmidt. No. 1,241,562; Oct. 2; v. 243; p. 31.
Spark-plug and priming device, Combined. A. Pache. No. 1,242,367; Oct. 9; v. 243; p. 325.
Spark-plug attachment. N. R. Michael. No. 1,241,751; Oct. 2; v. 243; p. 91.
Spark-plug for internal-combustion engines and the like. E. I. Dodds. No. 1,244,844; Oct. 30; v. 243; p. 1194.
Sparkless commutators, Method of and apparatus for producing. J. G. Lincoln. No. 1,244,518; Oct. 30; v. 243; p. 1095.
Spatulas, &c., Protective cover for the blades of. C. W. Benson. No. 1,242,415; Oct. 9; v. 243; p. 341.
Spectacles. J. C. Wells. No. 1,241,690; Oct. 2; v. 243; p. 71.
Speed-recorder for vehicles. C. A. and C. P. Jeske. No. 1,242,557; Oct. 9; v. 243; p. 386.
Speedometer driving mechanism. H. E. Dodge. No. 1,242,660; Oct. 9; v. 243; p. 420.
Spikes and for punching slot-holes in bolts and the like, Machine for bifurcating. W. L. Bayley and F. B. Wilson. No. 1,244,017; Oct. 23; v. 243; p. 907.
Spindle mounting and lubricating device, High-speed. M. Harrison. No. 1,243,661; Oct. 16; v. 243; p. 761.
Spinning-frame saddle. L. S. Bache. No. 1,242,755; Oct. 9; v. 243; p. 451.
Spinning-machine band. J. P. O'Connell. No. 1,243,337; Oct. 16; v. 243; p. 665.
Spinning-machine doffing mechanism. M. Kerwin. No. 1,242,947; Oct. 16; v. 243; p. 545.
Spinning or winding machines, Builder-motion for. A. E. Bullock and A. Blain. No. 1,243,485; Oct. 16; v. 243; p. 708.
Spittoon. A. Nowakowski. No. 1,245,013; Oct. 30; v. 243; p. 1245.
Splint, Extension-. G. W. Hawley. No. 1,242,688; Oct. 9; v. 243; p. 429.
Splint, Flexible. I. R. Smith. No. 1,243,230; Oct. 16; v. 243; p. 633.
Spool-holder. W. Popelka. No. 1,243,550; Oct. 16; v. 243; p. 727.
Spoons from sheet material, Machine for cutting and forming. L. D. Jacoby. No. 1,241,517; Oct. 2; v. 243; p. 14.

Spraying apparatus. D. E. Preston and H. E. Priser. No. 1,241,551; Oct. 2; v. 243; p. 27.
Spraying apparatus, Portable. A. Fields. No. 1,242,930; Oct. 16; v. 243; p. 539.
Spreader. H. P. Kraft. No. 1,245,110; Oct. 30; v. 243; p. 1274.
Spreader, Wide-delivery. W. N. Whitely. No. 1,244,933; Oct. 30; v. 243; p. 1221.
Spring: *See*—
Bed-spring.
Laminated spring.
Pneumatic spring.
Spring. D. Landau. No. 1,241,744; Oct. 2; v. 243; p. 88.
Spring construction. F. W. Hawes. No. 1,242,346; Oct. 9; v. 243; p. 319.
Spring covering and oiler, Combined. A. L. Robert and E. Menard. No. 1,242,044; Oct. 2; v. 243; p. 182.
Spring-ring. C. A. Goozey. No. 1,244,599; Oct. 30; v. 243; p. 1120.
Spring structure. W. R. Smith. No. 1,242,996; Oct. 16; v. 243; p. 560.
Spring suspension mechanism. E. Thomas. No. 1,242,495; Oct. 9; v. 243; p. 365.
Spring-tie. G. Stackhouse. No. 1,243,639; Oct. 16; v. 243; p. 755.
Spring-wheel. F. L. Benedict. No. 1,241,906; Oct. 2; v. 243; p. 140.
Spring-wheel. W. W. and C. G. McClay. No. 1,242,459; Oct. 9; v. 243; p. 355.
Spring-wheel. H. C. Wargensted. No. 1,244,265; Oct. 23; v. 243; p. 981.
Spring-wheel. O. G. Worsley. No. 1,244,681; Oct. 30; v. 243; p. 1144.
Springs, Detachable bumper for bolster-. W. P. Noreen. No. 1,242,025; Oct. 2; v. 243; p. 177.
Sprinkler-head. E. M. Chandler. No. 1,244,031; Oct. 23; v. 243; p. 911.
Sprinkler-head. J. J. Linehan. No. 1,241,747; Oct. 2; v. 243; p. 89.
Sprinkler-heads, Link for. C. C. Abbott. No. 1,243,793; Oct. 23; v. 243; p. 839.
Sprocket-wheel. C. M. Snider. No. 1,244,383; Oct. 23; v. 243; p. 1015.
Sprocket-wheel. C. M. Snider. No. 1,244,384; Oct. 23; v. 243; p. 1015.
Square and bevel for ascertaining the length of rafters, &c., Combined. J. C. Brown. No. 1,243,678; Oct. 16; v. 243; p. 767.
Square, Roof-framing. R. Hill. No. 1,241,976; Oct. 2; v. 243; p. 161.
Square, T-. F. W. Reilly. No. 1,242,722; Oct. 9; v. 243; p. 440.
Square, T-. G. H. White. No. 1,243,786; Oct. 23; v. 243; p. 836.
Squeeze and jolt ramming-machine, Combined. T. J. Mumford, 2d. No. 1,242,364; Oct. 9; v. 243; p. 324.
Stacker, Hay-. F. A. Kaeding. No. 1,242,812; Oct. 9; v. 243; p. 467.
Stacker, Hay-. W. W. Lockwood. No. 1,243,746; Oct. 23; v. 243; p. 823.
Stair-form, Interlocking. N. Bois. No. 1,244,021; Oct. 23; v. 243; p. 908.
Stall. J. B. Clay. No. 1,242,322; Oct. 9; v. 243; p. 311.
Stamp-affixing machine. C. J. Fisher. No. 1,244,724; Oct. 30; v. 243; p. 1158.
Stamp-rack. H. Mendelsohn. No. 1,242,017; Oct. 2; v. 243; p. 175.
Stamp receptacle and applying device. J. D. Mohr. No. 1,244,532; Oct. 30; v. 243; p. 1099.
Stamping-machine. M. Fogde and L. P. Southwick. No. 1,244,438; Oct. 23; v. 243; p. 1032.
Stand: *See*—
Blacking-stand.
Book-supporting stand.
Display-stand.
Folding stand.
Hall-stand.
Music-stand.
Pulley-stand.
Serving-stand.
Shampooing-stand.
Switch-stand.
Stand and support, Collapsible. S. Kalisz. No. 1,241,987; Oct. 2; v. 243; p. 135.
Stapling-machine. J. H. Fuller. No. 1,242,934; Oct. 16; v. 243; p. 541.
Starter mechanism. H. J. Joerden. No. 1,243,607; Oct. 16; v. 243; p. 745.
Starting and stopping mechanism. W. Shaw. No. 1,243,769; Oct. 23; v. 243; p. 831.
Starting mechanism, Electric. L. R. McCutchen. No. 1,242,959; Oct. 16; v. 243; p. 549.
Starting mechanisms, Safety device for. B. P. Swyers. No. 1,242,267; Oct. 9; v. 243; p. 293.
Statement-sheet. B. Willis. No. 1,244,815; Oct. 30; v. 243; p. 1185.
Stay-bolt. J. Fotheringill. No. 1,244,308; Oct. 23; v. 243; p. 994.
Stay, Garment-. E. L. Spangler. No. 1,242,064; Oct. 2; v. 243; p. 189.
Stays, Machine for tipping garment-. M. D. Watrous. No. 1,244,266; Oct. 23; v. 243; p. 981.
Steam and hot-water mixer, Thermostatic. M. O. Snediker. No. 1,243,999; Oct. 23; v. 243; p. 901.
Steam-boiler. H. Furman. No. 1,244,316; Oct. 23; v. 243; p. 996.
Steam-boiler. I. Harter, Jr. No. 1,244,603; Oct. 30; v. 243; p. 1121.
Steam-boiler. A. Johnson. No. 1,241,985; Oct. 2; v. 243; p. 164.
Steam-boiler. I. L. Moore. No. 1,244,067; Oct. 23; v. 243; p. 921.
Steam-condensing plant. D. B. Morison. No. 1,243,201; Oct. 16; v. 243; p. 625.
Steam detector and recorder, Waste-. T. E. Buck. No. 1,243,702; Oct. 23; v. 243; p. 807.
Steam-engine. H. C. Dunning. No. 1,243,494; Oct. 16; v. 243; p. 711.
Steam-engine. B. V. Nordberg. No. 1,241,875; Oct. 2; v. 243; p. 130.
Steam-generator. H. C. Heaton. No. 1,242,438; Oct. 9; v. 243; p. 347.
Steam-separator. R. Carpenter. No. 1,243,258; Oct. 16; v. 243; p. 640.
Steamer, Trousers-. T. Hlubucek. No. 1,243,176; Oct. 16; v. 243; p. 616.
Steaming apparatus, Material-. P. J. Bue and H. M. Tidwell. No. 1,243,251; Oct. 16; v. 243; p. 638.
Steaming device, Garment-. T. Hlubucek. No. 1,243,175; Oct. 16; v. 243; p. 615.
Steaming device, Plush-coat-sleeve-. F. Wellen. No. 1,241,689; Oct. 2; v. 243; p. 70.
Steel partition and the like. H. Klein. No. 1,241,635; Oct. 2; v. 243; p. 54.
Steel-tempering compound. C. C. Trinkle. No. 1,243,899; Oct. 23; v. 243; p. 872.
Steering device for vessels, Auxiliary hydraulic. A. McDougall. No. 1,243,197; Oct. 16; v. 243; p. 624.
Steering-wheel. F. Von Elbertz. No. 1,242,279; Oct. 9; v. 243; p. 297.
Stencil-sheet. L. E. Fuller. No. 1,244,188; Oct. 23; v. 243; p. 956.
Stencil-sheet. L. E. Fuller. No. 1,244,189; Oct. 23; v. 243; p. 957.
Stenographer's note-book stand and book-mark. W. M. Blatt. No. 1,242,914; Oct. 16; v. 243; p. 534.
Stereoscope. J. L. Disney. No. 1,244,843; Oct. 30; v. 243; p. 1193.
Stitching for securing shank-eye buttons and forming the stitching. W. F. Lautenschlager. No. 1,242,564; Oct. 9; v. 243; p. 389.
Stitching for securing shank-eye buttons and forming the stitching. W. F. Lautenschlager. No. 1,242,565; Oct. 9; v. 243; p. 389.
Stitching machines, Attachment for shoe-. A. Krisberg. No. 1,243,953; Oct. 23; v. 243; p. 888.
Stock-guard. W. J. Price. No. 1,241,763; Oct. 2; v. 243; p. 94.
Stoker, Automatic. J. R. Fortune. No. 1,243,055; Oct. 16; v. 243; p. 581.
Stoker, Automatic furnace-. G. A. Kohout. No. 1,243,186; Oct. 16; v. 243; p. 620.
Stoker-driving arm. J. W. Bell. No. 1,244,945; Oct. 30; v. 243; p. 1225.
Stoker furnace, Automatic-. E. Fitts. No. 1,242,336; Oct. 9; v. 243; p. 316.
Stokers, Controlling-valve mechanism for furnace-. G. W. Wood. No. 1,243,237; Oct. 16; v. 243; p. 634.
Stone-gatherer. Q. C. Penington. No. 1,241,880; Oct. 2; v. 243; p. 132.
Stone-grinding tool. M. D. Dreyfus. No. 1,244,716; Oct. 30; p. 243; p. 1156.
Stone-rake. F. A. Martinez. No. 1,243,327; Oct. 16; v. 243; p. 662.
Stone-sawing machine. A. M. Rossi. No. 1,242,983; Oct. 16; v. 243; p. 557.
Stool. D. S. Wood. No. 1,242,407; Oct. 9; v. 243; p. 339.
Stool, Camp-. K. G. Fabianson. No. 1,242,163; Oct. 9; v. 243; p. 261.
Stool, Folding. E. D. Smith. No. 1,244,911; Oct. 30; v. 243; p. 1214.
Stop-motion. F. A. Reece. No. 1,244,079; Oct. 23; v. 243; p. 925.
Stop-motion for power-driven machines. L. D. Johnson and E. Erickson. No. 1,243,609; Oct. 16; v. 243; p. 745.
Stopper: *See*—
Bottle-stopper.
Storage battery. W. H. Muzzy. No. 1,243,202; Oct. 16; v. 243; p. 625.
Store, Self-serving. C. Saunders. No. 1,242,872; Oct. 9; v. 243; p. 487.
Stove attachment. J. A. Berryman. No. 1,244,690; Oct. 30; v. 243; p. 1146.
Stove attachment for economizing heat. C. E. Pickard. No. 1,245,122; Oct. 30; v. 243; p. 1278.
Stove, Collapsible camp-. C. F. Penn. No. 1,241,760; Oct. 2; v. 243; p. 93.
Stove, Portable gas-. F. and O. H. A. Herrmann. No. 1,244,852; Oct. 30; v. 243; p. 1195.
Stoves, Checkerwork for hot-blast. A. J. Boynton. No. 1,243,484; Oct. 16; v. 243; p. 708.
Stoves, Top plate and cover for gas-. A. C. Mott, Jr. No. 1,242,021; Oct. 2; v. 243; p. 176.
Stovepipe. A. O. Patenaude. No. 1,243,441; Oct. 16; v. 243; p. 695.
Strainer and cut-off, Rain-water. I. R. Keller. No. 1,242,814; Oct. 9; v. 243; p. 468.
Strainer support, Milk-. J. T. Svaren. No. 1,241,573; Oct. 2; v. 243; p. 34.
Strap-stretcher. R. H. Norton and C. M. MacKenzie. No. 1,242,026; Oct. 2; v. 243; p. 178.
Straw-spreaders. C. L. Bueker. No. 1,244,288; Oct. 23; v. 243; p. 988.

Street-cleaning and disposing machine and cleaning paved streets and disposing of the cleanings. J. W. Parrott. No. 1,243,866; Oct. 23; v. 243; p. 861.
Street-sweeper. C. Simon. No. 1,243,562; Oct. 16; v. 243; p. 731.
Street-sweeping machine. A. Altenberg. No. 1,244,009; Oct. 23; v. 243; p. 905.
Street-sweeping machine. J. F. O'Brien. No. 1,244,071; Oct. 23; v. 243; p. 922.
Street-sweeping machine. J. A. Schroeder. No. 1,244,083; Oct. 23; v. 243; p. 926.
Stropping device. D. B. Perkins. No. 1,243,097; Oct. 16; v. 243; p. 594.
Structural device. J. R. Keller. No. 1,242,202; Oct. 9; v. 243; p. 274.
Structure, Storing. M. Lynch. No. 1,242,012; Oct. 2; v. 243; p. 173.
Stuffing-box. F. H. Clark and J. M. Coffey. No. 1,243,712; Oct. 23; v. 243; p. 811.
Stump-boring machine, Portable power. W. W. Leach. No. 1,242,566; Oct. 9; v. 243; p. 390.
Submarine boat. E. B. Reilly. No. 1,244,242; Oct. 23; v. 243; p. 973.
Submarine boats, Center-of-gravity-shifting device for. E. B. Reilly. No. 1,244,243; Oct. 23; v. 243; p. 974.
Submarine boats, Indicating and salvaging device for. J. A. Smolick. No. 1,243,997; Oct. 23; v. 243; p. 900.
Submarine-detector. W. A. Stewart. No. 1,242,386; Oct. 9; v. 243; p. 331.
Submarine mine, Means for connecting together the float and the sinker of a. E. Schneider. No. 1,244,377; Oct. 23; v. 243; p. 1013.
Sucker-rod hanger. S. E. Arey. No. 1,242,305; Oct. 9; v. 243; p. 306.
Suitcases, Machine for making metal binding for. A. Kipniss and M. P. Neumann. No. 1,244,985; Oct. 30; v. 243; p. 1237.
Sulfids, Reducing. R. F. Bacon. No. 1,243,681; Oct. 23; v. 243; p. 799.
Sulky or wheeled colter. L. K. Benedict. No. 1,242,912; Oct. 16; v. 243; p. 533.
Superheater-boiler. W. A. Jones. No. 1,242,447; Oct. 9; v. 243; p. 350.
Superheater, Boiler-. E. C. Meier. No. 1,244,530; Oct. 30; v. 243; p. 1098.
Superheater, Steam-. J. Prentice. No. 1,242,473; Oct. 9; v. 243; p. 359.
Support, Foldable. S. Tomcsanyi. No. 1,242,274; Oct. 9; v. 243; p. 296.
Supporting and locking device. F. Smith. No. 1,242,731; Oct. 9; v. 243; p. 442.
Surfacing apparatus. L. Harris. No. 1,243,404; Oct. 16; v. 243; p. 683.
Surgical apparatus. F. M. McDonald. No. 1,244,624; Oct. 30; v. 243; p. 1127.
Surgical appliance. E. Roddy. No. 1,243,629; Oct. 16; v. 243; p. 752.
Surgical splint. H. T. Buckner. No. 1,243,137; Oct. 16; v. 243; p. 604.
Surgical table, Adjustable bedside. R. C. Gorton. No. 1,243,505; Oct. 16; v. 243; p. 716.
Suspender, Sock-. A. J. Lister. No. 1,244,218; Oct. 23; v. 243; p. 967.
Suspenders, Attachment for. A. B. Scott. No. 1,245,043; Oct. 30; v. 243; p. 1253.
Swath-divider. J. Payton. No. 1,244,074; Oct. 23; v. 243; p. 923.
Sweep-stick coupling. G. W. Daymon. No. 1,241,829; Oct. 2; v. 243; p. 116.
Swing. E. Francis. No. 1,243,659; Oct. 16; v. 243; p. 76[illegible]
Swing. E. C. Fremaux. No. 1,241,951; Oct. 2; v. 243; p. 153.
Swingletree connection. C. A. Bird. No. 1,243,581; Oct. 16; v. 243; p. 737.
Swingletree. M. G. Hard. No. 1,244,202; Oct. 23; v. 243; p. 960.
Switch: *See*—
Dental-instrument switch.
Electric-circuit switch.
Electric switch.
Lock-switch.
Railway-switch.
Running-switch.
Track-switch.
Switch. G. W. Hart. No. 1,244,085; Oct. 23; v. 243; p. 927.
Switch. J. Lee. No. 1,243,618; Oct. 16; v. 243; p. 747.
Switch. W. R. McNary. No. 1,244,110; Oct. 23; v. 243; p. 934.
Switch apparatus. H. Jamieson. No. 1,244,738; Oct. 30; v. 243; p. 1162.
Switch brace, Staggered-. T. J. Wolfe. No. 1,241,891; Oct. 2; v. 243; p. 136.
Switch-stand, Combination locking. J. W. Walls. No. 1,244,147; Oct. 23; v. 243; p. 945.
Switch-thrower. F. Poggemeyer. No. 1,242,087; Oct. 2; v. 243; p. 180.
Switch-throwing device, Safety. F. Warzecha. No. 1,245,075; Oct. 30; v. 243; p. 1263.
Switches, Automatic cut-out for. A. R. Trillitsch. No. 1,241,580; Oct. 2; v. 243; p. 87.
Switching device. L. G. Riley. No. 1,244,545; Oct. 30; v. 243; p. 1104.
Sword-pistol. A. Ramocki. No. 1,241,552; Oct. 2; v. 243; p. 27.
Syringe. J. H. L. Eager. No. 1,243,054; Oct. 16; v. 243; p. 580.
Syringe. G. C. Hohein. No. 1,242,506; Oct. 9; v. 243; p. 465.
Table: *See*—
Adjustable table.
Extension-table.
Folding table.
Machine-table.
Operating-table.
Ship's table.
Surgical table.
Table. S. M. Wirts. No. 1,243,123; Oct. 16; v. 243; p. 600.
Table and ironing-board, Combination. E. Lautenbach. No. 1,244,619; Oct. 30; v. 243; p. 1126.
Tablet. H. N. Fraser. No. 1,243,501; Oct. 16; v. 243; p. 713.
Tag. C. W. Brown. No. 1,244,832; Oct. 30; v. 243; p. 1190.
Tag, Reversible. A. J. Loveless. No. 1,242,007; Oct. 2; v. 243; p. 172.
Tag-tacking machine. L. Blumenthal. No. 1,244,695; Oct. 30; v. 243; p. 1148.
Take-up. G. B. Osterhout. No. 1,242,031; Oct. 2; v. 243; p. 179.
Take-up mechanism. J. Novotny. No. 1,242,229; Oct. 9; v. 243; p. 282.
Talking-machine automatic stop. M. B. Selter. No. 1,244,550; Oct. 30; v. 243; p. 1105.
Talking-machine cabinet. C. Beecroft. No. 1,244,944; Oct. 30; v. 243; p. 1225.
Talking-machine, Multiple. E. M. Clasen. No. 1,243,385; Oct. 16; v. 243; p. 678.
Talking-machine tablet-support. P. Catucci. No. 1,242,920; Oct. 16; v. 243; p. 586.
Talking-machines, Automatic stopping device for. J. Hines. No. 1,243,174; Oct. 16; v. 243; p. 615.
Talking-machines, Universal reproducer for. A. A. Huseby. No. 1,241,736; Oct. 2; v. 243; p. 87.
Tank: *See*—
Grain-tank.
Tank closure or cover. L. Holt. No. 1,241,735; Oct. 2; v. 243; p. 86.
Tank closure, Powder-. J. N. Powers and A. Y. Leech, Jr. No. 1,243,974; Oct. 23; v. 243; p. 893.
Tank-heater. N. D. Riemenschneider. No. 1,241,555; Oct. 2; v. 243; p. 28.
Tanning substances soluble with difficulty contained in crude quebracho liquors, Treating. H. Franke. No. 1,241,950; Oct. 2; v. 243; p. 153.
Tapes containing parallel electric wires, Machine for the manufacture of. A. De Capitani. No. 1,243,142; Oct. 16; v. 243; p. 606.
Tapping device. E. Christensen. No. 1,245,088; Oct. 30; v. 243; p. 1267.
Tapping-machine. A. A. Shafer. No. 1,244,084; Oct. 23; v. 243; p. 926.
Target-practice apparatus. R. D. Clemson. No. 1,244,451; Oct. 23; v. 243; p. 1036.
Tatting device. C. L. Brown. No. 1,241,917; Oct. 2; v. 243; p. 144.
Telegraph-key. J. G. Peterson and O. H. Huebel. No. 1,242,470; Oct. 9; v. 243; p. 358.
Telegraph-key and spring-jack switch, Combined. C. B. Scollard. No. 1,242,051; Oct. 2; v. 243; p. 185.
Telegraph-pole, Sectional cement. G. T. Southgate. No. 1,244,652; Oct. 30; v. 243; p. 1135.
Telegraphy. P. B. Delany. No. 1,244,477; Oct. 30; v. 243; p. 1082.
Telephone. F. C. C. V. Næser and N. A. J. Lilliendahl-Petersen. No. 1,243,755; Oct. 23; v. 243; p. 826.
Telephone apparatus, Sanitary shield for. F. Goertz. No. 1,244,977; Oct. 30; v. 243; p. 1234.
Telephone-circuits, Insulation of condensers for. C. Cordes. No. 1,241,920; Oct. 2; v. 243; p. 147.
Telephone equipment. C. A. Finley. No. 1,242,672; Oct. 9; v. 243; p. 424.
Telephone-exchange system. H. P. Clausen. No. 1,241,923; Oct. 2; v. 243; p. 146.
Telephone-exchange system. H. P. Clausen. No. 1,242,655; Oct. 9; v. 243; p. 418.
Telephone-exchange system. C. L. Goodrum. No. 1,244,488; Oct. 30; v. 243; p. 1085.
Telephone-exchange system. A. E. Lundell. No. 1,242,008; Oct. 2; v. 243; p. 172.
Telephone-exchange system. A. E. Lundell. No. 1,242,010; Oct. 2; v. 243; p. 173.
Telephone-exchange system. A. E. Lundell. No. 1,244,999; Oct. 30; v. 243; p. 1240.
Telephone-exchange system. J. L. Wright. No. 1,244,571; Oct. 30; v. 243; p. 1111.
Telephone, metering system. A. E. Lundell. No. 1,243,314; Oct. 16; v. 243; p. 658.
Telephone-mouthpiece. G. Dorsey. No. 1,244,433; Oct. 23; v. 243; p. 1031.
Telephone-mouthpiece. J. F. Havlena. No. 1,241,731; Oct. 2; v. 243; p. 85.
Telephone-switchboard, Cordless. M. L. Currier. No. 1,243,922; Oct. 23; v. 243; p. 878.
Telephone system. H. N. Faris. No. 1,242,338; Oct. 9; v. 243; p. 316.
Telephone system, Automatic. F. R. Quayle. No. 1,243,761; Oct. 23; v. 243; p. 828.
Telephone system, Automatic. A. B. Sperry. No. 1,242,384; Oct. 9; v. 243; p. 330.
Telephone system, Automatic party-line. F. Lubberger. No. 1,242,458; Oct. 9; v. 243; p. 354.

Telephone system for railways and the like, Inductive wireless. V. G. Werner and K. H. Warfvinge. No. 1,242,877; Oct. 9; v. 243; p. 489.
Telephone system, Measured-service. J. Erickson. No. 1,243,721; Oct. 23; v. 243; p. 814.
Telephone system, Measured-service. T. G. Martin. No. 1,243,749; Oct. 23; v. 243; p. 824.
Telephone system, Measured-service. B. D. Willis. No. 1,244,816; Oct. 30; v. 243; p. 1186.
Telephone system, Semi-automatic. E. D. Fales. No. 1,242,164; Oct. 9; v. 243; p. 262.
Telephone, Thermic. P. de Lange and R. Aernout. No. 1,243,048; Oct. 16; v. 243; p. 578.
Telephone trunking system. F. Lubberger. No. 1,243,747; Oct. 23; v. 243; p. 823.
Telephones, Time-calling device for. E. Rogers. No. 1,244,081; Oct. 23; v. 243; p. 925.
Telltale. J. H. Derby. No. 1,244,962; Oct. 30; v. 243; p. 1230.
Temperature-regulating device, Automatic. D. Dunwoodie. No. 1,244,184; Oct. 23; v. 243; p. 955.
Tension device. G. L. Brownell. No. 1,243,036; Oct. 16; v. 243; p. 574.
Tension device and brake for web-rolls, Automatic. H. M. Barber. No. 1,242,638; Oct. 9; v. 243; p. 412.
Thawing apparatus, Pipe-. J. E. Philippon. No. 1,243,973; Oct. 23; v. 243; p. 893.
Theft preventing and signaling device. S. A. Deanes. No. 1,241,934; Oct. 2; v. 243; p. 149.
Thermo-couple. L. W. Chubb. No. 1,241,496; Oct. 2; v. 243; p. 6.
Thermo-electric generator. H. W. Webb. No. 1,242,499; Oct. 9; v. 243; p. 367.
Thermometer and barometer back. L. F. Chaney. No. 1,242,100; Oct. 2; v. 243; p. 200.
Thermostatic indicator. J. M. Johnson. No. 1,243,608; Oct. 16; v. 243; p. 745.
Thermostatic regulator. H. Sandvoss. No. 1,243,112; Oct. 16; v. 243; p. 598.
Thimble, Rope-. C. C. Sunderland. No. 1,244,658; Oct. 30; v. 243; p. 1137.
Thread-cutting die. M. Block. No. 1,242,130; Oct. 9; v. 243; p. 251.
Threads, Apparatus for treating artificial-silk and like. H. de Chardonnet. No. 1,243,489; Oct. 16; v. 243; p. 709.
Threshing-machines, Recleaner structure for. J. J. Holsen. No. 1,241,980; Oct. 2; v. 243; p. 162.
Thumb-hole machine. F. Graffenberger. No. 1,241,506; Oct. 2; v. 243; p. 10.
Ticket-holder. E. A. Schreiber. No. 1,241,564; Oct. 2; v. 243; p. 31.
Tie: *See*—
Bag-tie.
Bale and package tie.
Package-tie.
Rail-tie.
Railway-tie.
Spring-tie.
Tie-attaching device. M. Lukacs. No. 1,242,216; Oct. 9; v. 243; p. 278.
Tie-plate. C. D. Young. No. 1,242,299; Oct. 9; v. 243; p. 305.
Tie-plate and antispreading device. N. G. Ballard. No. 1,242,311; Oct. 9; v. 243; p. 308.
Tie-slip clip. D. F. Daly. No. 1,244,961; Oct. 30; v. 243; p. 1230.
Tile, Interlocking. C. W. Waddell. No. 1,242,087; Oct. 2; v. 243; p. 196.
Tile-mold. J. A. Ferguson. No. 1,244,484; Oct. 30; v. 243; p. 1084.
Tile-mold. J. A. Ferguson. No. 1,244,845; Oct. 30; v. 243; p. 1194.
Tiling construction. C. Roeder. No. 1,241,885; Oct. 2; v. 243; p. 134.
Tilling implement. E. L. Woodard. No. 1,241,596; Oct. 2; v. 243; p. 42.
Tinning metal plates and other articles. C. Dreymann. No. 1,242,532; Oct. 9; v. 243; p. 378.
Tire. J. Arn. No. 1,242,123; Oct. 9; v. 243; p. 249.
Tire. R. Grubb. No. 1,243,513; Oct. 16; v. 243; p. 718.
Tire. E. A. Saunders. No. 1,243,114; Oct. 16; v. 243; p. 598.
Tire-armor. J. Coan. No. 1,243,657; Oct. 16; v. 243; p. 760.
Tire-armor. E. M. Russell. No. 1,243,633; Oct. 16; v. 243; p. 753.
Tire-armor. W. G. Wagner. No. 1,241,792; Oct. 2; v. 243; p. 103.
Tire-armor, Non-skidding. R. B. Thompson. No. 1,242,078; Oct. 2; v. 243; p. 193.
Tire armor, Pneumatic. W. G. Chilton and J. H. Hobgood. No. 1,243,040; Oct. 16; v. 243; p. 575.
Tire-carrier. F. Brosman. No. 1,244,417; Oct. 23; v. 243; p. 1026.
Tire-casings, Making. J. D. Tew. No. 1,242,073; Oct. 2; v. 243; p. 191.
Tire-casings, Making. J. D. Tew. No. 1,242,270; Oct. 9; v. 243; p. 295.
Tire-chain retainer. J. T. Beranck. No. 1,244,018; Oct. 23; v. 243; p. 907.
Tire, Cord. C. L. Archer. No. 1,243,576; Oct. 16; v. 243; p. 735.
Tire, Cushion-. F. Hickman. No. 1,244,209; Oct. 23; v. 243; p. 963.
Tire-grip, Non-skid. H. D. Greene. No. 1,241,621; Oct. 2; v. 243; p. 50.
Tire-inspecting machine. W. H. Robertson. No. 1,244,245; Oct. 23; v. 243; p. 974.
Tire-making machine. F. W. Kremer. No. 1,243,070; Oct. 16; v. 243; p. 588.
Tire, Pneumatic. J. C. Barker. No. 1,244,447; Oct. 23; v. 243; p. 1034.
Tire, Pneumatic. C. A. Johnson. No. 1,244,337; Oct. 23; v. 243; p. 1003.
Tire-protector, Non-skid. T. J. Reed. No. 1,244,080; Oct. 23; v. 243; p. 925.
Tire protector, Pneumatic-. J. W. Smith. No. 1,242,484; Oct. 9; v. 243; p. 363.
Tire, Reinforced spring-. J. F. Carroll. No. 1,243,259; Oct. 16; v. 243; p. 641.
Tire-remover. R. H. Kutschenreuter. No. 1,242,354; Oct. 9; v. 243; p. 321.
Tire-remover. A. Lew. No. 1,243,534; Oct. 16; v. 243; p. 723.
Tire-repair method. W. M. Rand. No. 1,241,553; Oct. 2; v. 243; p. 28.
Tire, Resilient. F. W. Battershall. No. 1,242,640; Oct. 9; v. 243; p. 413.
Tire, Resilient. W. A. Frye, F. H. Chinn, and R. F. Burnett. No. 1,243,503; Oct. 16; v. 243; p. 714.
Tire, Resilient. E. S. Jones. No. 1,241,852; Oct. 2; v. 243; p. 123.
Tire, Resilient. J. B. Jones. No. 1,243,303; Oct. 16; v. 243; p. 655.
Tire, Resilient. T. T. Miller. No. 1,243,328; Oct. 16; v. 243; p. 663.
Tire, Resilient. J. A. Olinger. No. 1,242,846; Oct. 9; v. 243; p. 479.
Tire, Sectional cushion-. E. T. Griffith. No. 1,241,845; Oct. 2; v. 243; p. 120.
Tire, Spring-. W. A. Anglemyer. No. 1,244,276; Oct. 23; v. 243; p. 985.
Tire structure. P. M. Devenis. No. 1,245,090; Oct. 30; v. 243; p. 1268.
Tire-tread. R. M. Callaway. No. 1,244,026; Oct. 23; v. 243; p. 910.
Tire-valve. E. E. Holt. No. 1,244,330; Oct. 23; v. 243; p. 1000.
Tire valve and alarm. A. A. Dennis. No. 1,244,181; Oct. 23; v. 243; p. 954.
Tires, Auxiliary tread for. E. Bardelle. No. 1,243,578; Oct. 16; v. 243; p. 736.
Tires, Combined exhaust and inflating nozzle for pneumatic. R. H. Henemier. No. 1,243,521; Oct. 16; v. 243; p. 720.
Tires, Non-skid attachment for. F. Wengraf. No. 1,243,022; Oct. 16; v. 243; p. 570.
Tires, Non-skid device for. G. L. Herz. No. 1,242,691; Oct. 9; v. 243; p. 430.
Tires, Pressure-regulator for. E. B. Keith. No. 1,243,420; Oct. 16; v. 243; p. 688.
Toasting device. F. L. Riggs. No. 1,242,725; Oct. 9; v. 243; p. 440.
Tobacco-handling device. E. Slack. No. 1,243,994; Oct. 23; v. 243; p. 899.
Tobacco-pipe. A. W. Barnby. No. 1,244,410; Oct. 23; v. 243; p. 1024.
Tobacco-pipe. J. E. Bradley. No. 1,243,863; Oct. 23; v. 243; p. 842.
Tobacco-receptacle and pipe-cleaner, Combined. R. Kent. No. 1,242,902; Oct. 9; v. 243; p. 495.
Toilet article. J. Szubay. No. 1,243,896; Oct. 23; v. 243; p. 871.
Toilet article. W. H. Tharp and A. T. Ellias. No. 1,244,798; Oct. 30; v. 243; p. 1179.
Toilet article. S. Wigiert. No. 1,242,293; Oct. 9; v. 243; p. 303.
Toilet-case for automobiles. M. F. McFarland. No. 1,243,958; Oct. 23; v. 243; p. 889.
Toluene, Producing. R. H. McKee. No. 1,244,444; Oct. 23; v. 243; p. 1034.
Tomato-peeling machine. J. W. Linville and C. C. Tillman. No. 1,241,529; Oct. 2; v. 243; p. 19.
Tool. K. Underwood. No. 1,242,392; Oct. 9; v. 243; p. 384.
Tool, Combination-. J. H. Roberts. No. 1,243,343; Oct. 16; v. 243; p. 667.
Tool-driver. W. F. Fraser. No. 1,242,933; Oct. 16; v. 243; p. 540.
Tool-driver. R. H. Knight. No. 1,242,205; Oct. 9; v. 243; p. 275.
Tool, Fluid-operated. L. W. Greve. No. 1,241,962; Oct. 2; v. 243; p. 157.
Tool-handle. Z. Littman. No. 1,243,310; Oct. 16; v. 243; p. 657.
Tool-holder. P. Armstrong. No. 1,242,306; Oct. 9; v. 243; p. 306.
Tool-holder. C. W. Watson. No. 1,244,665; Oct. 30; v. 243; p. 1139.
Tool, Pneumatic. M. W. Sherwood. No. 1,243,770; Oct. 23; v. 243; p. 831.
Tool-rest, Resilient. L. J. Planarosa. No. 1,245,020; Oct. 30; v. 243; p. 1247.
Tool, Separable. G. L. McDermott. No. 1,243,434; Oct. 16; v. 243; p. 693.
Tooth, Artificial. G. Evans. No. 1,244,392; Oct. 16; v. 243; p. 680.
Tooth, Artificial. H. D. Justi. No. 1,241,854; Oct. 2; v. 243; p. 123.
Tooth, Artificial. S. Myerson. No. 1,243,335; Oct. 16; v. 243; p. 664.

Tooth-nerve tester. A. R. Darling. No. 1,242,778; Oct. 9; v. 243; p. 457.
Tooth shade-guide. H. H. Leuchsenring. No. 1,244,994; Oct. 30; v. 243; p. 1239.
Toothpick-holder. A. Rodal. No. 1,243,344; Oct. 16; v. 243; p. 667.
Toothpicks, Veneer-making machine for the manufacture of. G. R. Woodsum. No. 1,243,909; Oct. 23; v. 243; p. 875.
Torch, Ox-acetylene cutting and welding. T. A. Errett. No. 1,244,042; Oct. 23; v. 243; p. 914.
Torpedo, Fiber railway signal-. F. Dutcher. No. 1,242,663; Oct. 9; v. 243; p. 421.
Torpedo-guard. H. De Corte. No. 1,243,143; Oct. 16; v. 243; p. 606.
Torpedo-guard. H. De Corte. No. 1,243,144; Oct. 16; v. 243; p. 606.
Torpedo-guard. H. J. De Rosa. No. 1,244,963; Oct. 30; v. 243; p. 1230.
Torpedo-net. R. J. Smith. No. 1,242,611; Oct. 9; v. 243; p. 405.
Torpedo or mine guard. A. L. McKelvey. No. 1,243,848; Oct. 23; v. 243; p. 856.
Torpedo protection. S. L. G. Knox. No. 1,243,427; Oct. 16; v. 243; p. 691.
Torpedo shield, Marine-. C. La Mura. No. 1,243,956; Oct. 23; v. 243; p. 888.
Torpedoes, Means for storing, loading, and discharging. E. Cerio. No. 1,242,768; Oct. 9; v. 243; p. 454.
Towel holder, Multiple-. F. W. Stockton. No. 1,241,778; Oct. 2; v. 243; p. 98.
Toy. C. F. Denman. No. 1,241,937; Oct. 2; v. 243; p. 150.
Toy. H. J. Haigh. No. 1,243,287; Oct. 16; v. 243; p. 649.
Toy. J. E. Jewell. No. 1,242,194; Oct. 9; v. 243; p. 271.
Toy. E. Levay and E. Sas. No. 1,242,820; Oct. 9; v. 243; p. 470.
Toy. J. J. Manchester. No. 1,241,535; Oct. 2; v. 243; p. 20.
Toy, Aquatic. F. W. Brown. No. 1,244,948; Oct. 30; v. 243; p. 1226.
Toy, Automatic. B. F. Bain. No. 1,244,455; Oct. 30; v. 243; p. 1075.
Toy balloon. J. E. Cooney. No. 1,241,822; Oct. 2; v. 243; p. 113.
Toy cannon. W. O. McDaniel. No. 1,244,876; Oct. 30; v. 243; p. 1204.
Toy draft-animal. W. Ojczyk. No. 1,243,208; Oct. 16; v. 243; p. 627.
Toy, Figure wheeled. J. Hugler. No. 1,243,295; Oct. 16; v. 243; p. 651.
Toy, Mechanical. B. F. Bain. No. 1,244,456; Oct. 30; v. 243; p. 1075.
Toy, Mechanical. B. F. Bain. No. 1,244,457; Oct. 30; v. 243; p. 1076.
Toy, Mechanical. H. S. Coleman. No. 1,245,089; Oct. 30; v. 243; p. 1268.
Toy pistol. W. H. Ward. No. 1,245,074; Oct. 30; v. 243; p. 1263.
Toy, Pneumatic. W. W. Rutter. No. 1,242,870; Oct. 9; v. 243; p. 486.
Toy or the like, Automatically-operating. C. Berger. No. 1,243,380; Oct. 16; v. 243; p. 677.
Toy, Railway. G. A. D'Oench. No. 1,244,182; Oct. 23; v. 243; p. 954.
Toy, Rocking. C. H. Reynolds. No. 1,244,371; Oct. 23; v. 243; p. 1011.
Toy, Structural. W. B. Thurman. No. 1,241,682; Oct. 2; v. 243; p. 68.
Toy, Structural. W. B. Thurman. No. 1,242,272; Oct. 9; v. 243; p. 295.
Toy, Structural. W. B. Thurman. No. 1,242,273; Oct. 9; v. 243; p. 295.
Toy, Structural. F. A. Wagner. No. 1,242,892; Oct. 9; v. 243; p. 493.
Toy top. L. Weiner. No. 1,242,094; Oct. 2; v. 243; p. 198.
Toy vehicle. L. A. Brigel. No. 1,244,169; Oct. 23; v. 243; p. 951.
Toy vehicle. H. A. Webb. No. 1,243,465; Oct. 16; v. 243; p. 701.
Toy wagon. L. H. Kirk. No. 1,244,506; Oct. 30; v. 243; p. 1091.
Track-gage. E. Legon. No. 1,242,210; Oct. 9; v. 243; p. 277.
Track-hazard indicator. P. J. Simmen. No. 1,241,776; Oct. 2; v. 243; p. 98.
Track-laying machine. A. Darden and F. F. Doering. No. 1,244,839; Oct. 30; v. 243; p. 1192.
Track, Sectional. J. Russo. No. 1,241,769; Oct. 2; v. 243; p. 95.
Track-switch. C. W. Squires. No. 1,244,138; Oct. 23; v. 243; p. 942.
Traction bearing-wheel. C. F. Megow. No. 1,241,870; Oct. 2; v. 243; p. 127.
Traction-meter. J. G. Kjellgren. (Reissue.) No. 14,381; Oct. 23; v. 243; p. 1038.
Traction-wheel, Monorail. R. A. McClure. No. 1,241,748; Oct. 2; v. 243; p. 89.
Tractor. C. M. Fuller and J. W. Lambert. No. 1,241,617; Oct. 2; v. 243; p. 49.
Tractor. T. B. Funk. No. 1,243,598; Oct. 16; v. 243; p. 741.
Tractor. R. S. Kinkead and P. B. Ford. No. 1,243,184; Oct. 16; v. 243; p. 619.
Tractor. A. D. Rea. No. 1,241,766; Oct. 2; v. 243; p. 94.
Tractor. H. F. Schmidt. No. 1,241,563; Oct. 2; v. 243; p. 31.
Tractor. N. K. Wilcox. No. 1,242,500; Oct. 9; v. 243; p. 367.
Tractor for farm machinery. L. James. No. 1,242,555; Oct. 9; v. 243; p. 386.
Tractor-impelled implements, Hitch for. J. W. Wise. No. 1,242,505; Oct. 9; v. 243; p. 369.
Tractor-implement-controlling mechanism. L. E. Waterman. No. 1,243,019; Oct. 16; v. 243; p. 569.
Tractor-wheel. W. E. Wild. No. 1,242,096; Oct. 2; v. 243; p. 198.
Tractors, Transmission device for. G. M. Absalom. No. 1,243,912; Oct. 23; v. 243; p. 875.
Trailer attachment. A. L. Holmes, Jr. No. 1,243,177; Oct. 16; v. 243; p. 616.
Trailers, Steering apparatus for. L. N. Spencer. No. 1,245,054; Oct. 30; v. 243; p. 1256.
Train control, Automatic. W. V. Turner. No. 1,243,782; Oct. 23; v. 243; p. 835.
Train-control mechanism, Automatic. W. T. Ecroyd. No. 1,242,665; Oct. 9; v. 243; p. 421.
Train-line coupling, Electric. T. R. Brown. No. 1,244,950; Oct. 30; v. 243; p. 1226.
Train-line coupling, Electric. H. F. Woernley. No. 1,244,936; Oct. 30; v. 243; p. 1222.
Train rings, Loading-tool for time-. R. R. Stabler. No. 1,244,387; Oct. 23; v. 243; p. 1016.
Train-stop apparatus. L. A. Gladding and J. H. Sullivan. No. 1,243,832; Oct. 23; v. 243; p. 851.
Train-stop, Automatic. E. La Barre and W. Schuckar. No. 1,241,997; Oct. 2; v. 243; p. 168.
Transformer-winding. F. F. Brand. No. 1,242,649; Oct. 9; v. 243; p. 416.
Transmission. C. R. Cole. No. 1,241,924; Oct. 2; v. 243; p. 146.
Transmission. B. Stevens. No. 1,242,618; Oct. 9; v. 243; p. 407.
Transmission, Friction. L. W. Davis. No. 1,241,609; Oct. 2; v. 243; p. 46.
Transmission mechanism. F. T. Adams. No. 1,242,106; Oct. 2; v. 243; p. 202.
Transmission mechanism. J. D. Ingram. No. 1,242,193; Oct. 9; v. 243; p. 270.
Transmission mechanism. C. P. Snyder. No. 1,244,557; Oct. 30; v. 243; p. 1108.
Transmission mechanism for power-driven vehicles. F. W. Kemper. No. 1,243,611; Oct. 16; v. 243; p. 746.
Transmission of intelligence, System for the. E. H. Colpitts. (Reissue.) No. 14,380; Oct. 23; v. 243; p. 1037.
Transmission-operating device, Pneumatic. G. M. Riley. No. 1,242,474; Oct. 9; v. 243; p. 360.
Transmission-shaft. E. C. Cooper. (Reissue.) No. 14,376; Oct. 16; v. 243; p. 767.
Transmitter-mouthpiece. E. C. G. Mueller. No. 1,242,022; Oct. 2; v. 243; p. 177.
Trap: *See*—
Animal-trap. Hog-trap.
Boll-weevil trap. Mouse-trap.
Trap. J. M. Bragg. No. 1,244,166; Oct. 23; v. 243; p. 950.
Trap. R. G. Ward. No. 1,242,397; Oct. 9; v. 243; p. 335
Trap. W. Zarling. No. 1,245,138; Oct. 30; v. 243; p. 1283.
Tray, Fruit-. A. M. Lane. No. 1,244,617; Oct. 30; v. 243; p. 1125.
Tree-felling wedge. W. H. Hargrave. No. 1,244,327; Oct. 23; v. 243; p. 1000.
Trestle, Foldable. F. W. Helwig. No. 1,243,520; Oct. 16; v. 243; p. 719.
Trigger mechanism. E. R. Williams. No. 1,243,120; Oct. 16; v. 243; p. 599.
Trioxid of tungsten from its ores, Extracting. L. Rosenstein and E. H. Simonds. No. 1,244,082; Oct. 23; v. 243; p. 926.
Tripod. C. E. Akeley. No. 1,244,682; Oct. 30; v. 243; p. 1144.
Trolley. C. Aalborg. No. 1,241,601; Oct. 2; v. 243; p. 44.
Trolley. W. Schaake. No. 1,241,558; Oct. 2; v. 243; p. 29.
Trolley-wires, Shielding appliance for mine. H. W. Reaume. No. 1,243,220; Oct. 16; v. 243; p. 630.
Trough: *See*—
Eaves-trough. Feed-trough.
Trousers hanger and presser. C. J. Brown. No. 1,242,135; Oct. 9; v. 243; p. 253.
Trousers-presser. H. A. Tenent. No. 1,243,361; Oct. 16; v. 243; p. 671.
Trousers-stretcher. H. Wikstrom. No. 1,241,593; Oct. 2; v. 243; p. 41.
Trousers-supporter. W. Baake. No. 1,243,680; Oct. 23; v. 243; p. 799.
Trousers-supporter. B. H. Freedman. No. 1,243,828; Oct. 23; v. 243; p. 850.
Trowel, Molder's. T. A. Gatten. No. 1,244,487; Oct. 30; v. 243; p. 1085.
Truck. J. A. Head. No. 1,243,063; Oct. 16; v. 243; p. 583.

Truck. W. H. Mayfield. No. 1,245,004; Oct. 30; v. 243; p. 1242.
Truck. F. A. Moore. No. 1,243,200; Oct. 16; v. 243; p. 624.
Truck. M. R. Mueller. No. 1,242,223; Oct. 9; v. 243; p. 280.
Truck. O. and A. Olson. No. 1,244,238; Oct. 23; v. 243; p. 972.
Truck. W. C. Turnbow. No. 1,242,390; Oct. 9; v. 243; p. 333.
Truck and turn-table, Automobile repair-. J. W. Wood. No. 1,243,574; Oct. 16; v. 243; p. 734.
Truck, Baggage-. L. B. Ferguson. No. 1,244,971; Oct. 30; v. 243; p. 1232.
Truck, Baggage-. A. H. Gfrörer. No. 1,242,677; Oct. 9; v. 243; p. 425.
Truck-bolster for railway-cars. J. F. O'Connor. No. 1,243,757; Oct. 23; v. 243; p. 827.
Truck, Car-. E. W. Webb and C. S. Walton. No. 1,241,688; Oct. 2; v. 243; p. 70.
Truck, Elevating-. F. Blackburn. No. 1,243,035; Oct. 16; v. 243; p. 574.
Truck, Elevating-. M. Ruckes. No. 1,244,783; Oct. 30; v. 243; p. 1176.
Truck for articulated geared locomotives. E. F. Backer. No. 1,242,308; Oct. 9; v. 243; p. 307.
Truck for railway and tramway vehicles. S. Thomas and F. Strait-Gardner. No. 1,242,075; Oct. 2; v. 243; p. 192.
Truck, Motor-. J. H. Goodrich. No. 1,242,682; Oct. 9; v. 243; p. 427.
Truck, Railway-. A. E. Ostrander. No. 1,244,767; Oct. 30; v. 243; p. 1171.
Truck, Railway-. R. G. Taylor. No. 1,243,006; Oct. 16; v. 243; p. 564.
Truck, Railway-. R. G. Taylor. No. 1,243,007; Oct. 16; v. 243; p. 565.
Truck, Railway-car. J. Laughlin and P. A. Elseth. No. 1,241,638; Oct. 2; v. 243; p. 55.
Truck, Tongue-. C. A. A. Rand. No. 1,242,980; Oct. 16; v. 243; p. 555.
Trunk. J. H. Brewer. No. 1,242,901; Oct. 9; v. 243; p. 495.
Trunk, Compartment-. H. A. Shaw. No. 1,244,647; Oct. 30; v. 243; p. 1134.
Trunk, Wardrobe-. G. H. Wheary. No. 1,243,366; Oct. 16; v. 243; p. 673.
Trunks, Pocket for. H. F. Rodemerk. No. 1,244,898; Oct. 30; v. 243; p. 1211.
Trunking system, Automatic. E. A. Reinke. No. 1,242,374; Oct. 9; v. 243; p. 327.
Truss. H. D. O'Brien. No. 1,244,766; Oct. 30; v. 243; p. 1171.
Tub-beater. C. W. Unkle and T. D. Grilley. No. 1,244,144; Oct. 23; v. 243; p. 943.
Tube: *See*—
Collapsible tube. Inner tube.
Tube. E. H. Angier. No. 1,242,903; Oct. 16; v. 243; p. 531.
Tube-mill liner. F. E. Johnson. No. 1,243,742; Oct. 23; v. 243; p. 822.
Tubing, Manufacturer of flexible metal. E. James. No. 1,243,179; Oct. 16; v. 243; p. 617.
Tug connections, Locking means for. C. E. Downing. No. 1,242,661; Oct. 9; v. 243; p. 420.
Tumbler, Drying-. B. T. Hickman. No. 1,243,603; Oct. 16; v. 243; p. 743.
Tunneling. T. M. McAlpine. No. 1,242,217; Oct. 9; v. 243; p. 278.
Turbine. E. Anderson. No. 1,243,476; Oct. 16; v. 243; p. 705.
Turbine. E. Anderson. No. 1,243,477; Oct. 16; v. 243; p. 705.
Turbine. F. Hodgkinson. No. 1,243,523; Oct. 16; v. 243; p. 720.
Turbine. W. G. Ross and O. Onsrud. No. 1,244,247; Oct. 23; v. 243; p. 975.
Turbine, Elastic-fluid. L. C. Loewenstein. No. 1,242,005; Oct. 2; v. 243; p. 171.
Turbine, Elastic-fluid. C. A. Schellens. No. 1,242,246; Oct. 9; v. 243; p. 287.
Turbine, Gas-. I. L. Slawter. No. 1,242,057; Oct. 2; v. 243; p. 187.
Turbine, Steam-. G. Belluzzo. No. 1,243,131; Oct. 16; v. 243; p. 602.
Turbine, Steam-. J. L. Moore. No. 1,242,578; Oct. 9; v. 243; p. 394.
Turnbuckle. P. Flood. No. 1,245,095; Oct. 30; v. 243; p. 1270.
Turnbuckle. A. V. Roe. No. 1,243,225; Oct. 16; v. 243; p. 632.
Turnover and pattern-drawing device. W. M. Austin and R. F. Ringle. No. 1,243,030; Oct. 16; v. 243; p. 572.
Twine-holder. J. A. Burnham. No. 1,244,418; Oct. 23; v. 243; p. 1026.
Twitch. A. Trivigino. No. 1,243,118; Oct. 16; v. 243; p. 599.
Tying device. J. E. Caley. No. 1,243,254; Oct. 16; v. 243; p. 639.
Type-case. L. M. Long. No. 1,243,083; Oct. 16; v. 243; p. 590.
Type-setter channel, Compositor's. L. K. Johnson. No. 1,244,094; Oct. 23; v. 243; p. 929.
Type-writer. E. Kruslus. No. 1,243,954; Oct. 23; v. 243; p. 888.
Type-writer. E. Kruslus. No. 1,243,955; Oct. 23; v. 243; p. 888.
Type-writer attachment. H. L. Bright. No. 1,245,144; Oct. 30; v. 243; p. 1284.
Type-writer computing attachment. W. Wright. No. 1,244,397; Oct. 23; v. 243; p. 1020.
Type-writer copy-holder attachment. W. E. Gray. No. 1,244,322; Oct. 23; v. 243; p. 998.
Type-writer key-striker or hand extension. R. W. Babson. No. 1,242,307; Oct. 9; v. 243; p. 307.
Type-writers, Carriage control for. N. J. Lloyd. No. 1,241,865; Oct. 2; v. 243; p. 126.
Type-writers, Paper-supply attachment for. L. Jensen. No. 1,243,942; Oct. 23; v. 243; p. 884.
Type-writing and computing machine, Combined. R. M. Becker. No. 1,243,669; Oct. 16; v. 243; p. 764.
Type-writing and computing machine, Combined. W. Wright. No. 1,243,374; Oct. 16; v. 243; p. 675.
Type-writing and computing machine, Combined. W. Wright. No. 1,244,398; Oct. 23; v. 243; p. 1020.
Type-writing and computing machine, Combined. W. Wright. No. 1,244,572; Oct. 30; v. 243; p. 1112.
Type-writing and computing machine, Combined. W. Wright. No. 1,244,573; Oct. 30; v. 243; p. 1112.
Type-writing machine. A. J. Briggs. No. 1,242,419; Oct. 9; v. 243; p. 342.
Type-writing machine. H. V. Fengler. No. 1,244,969; Oct. 30; v. 243; p. 1232.
Type-writing machine. G. G. Going. No. 1,242,173; Oct. 9; v. 243; p. 265.
Type-writing machine. G. G. Going. No. 1,243,730; Oct. 23; v. 243; p. 817.
Type-writing machine. G. F. Handley. No. 1,244,729; Oct. 30; v. 243; p. 1160.
Type-writing machine. J. A. Ruffin. No. 1,242,244; Oct. 9; v. 243; p. 287.
Type-writing machine. G. A. Seib. No. 1,243,451; Oct. 16; v. 243; p. 697.
Type-writing machines, Paper control for. N. H. Anderson. No. 1,244,011; Oct. 23; v. 243; p. 905.
Type-writing machines, Platen for. W. R. Mulock. No. 1,244,759; Oct. 30; v. 243; p. 1168.
Type-writing machines, Stencil-making device for. L. C. Myers. No. 1,243,857; Oct. 23; v. 243; p. 858.
Type-writing, Protecting. S. M. Bickford. No. 1,244,946; Oct. 30; v. 243; p. 1225.
Typographic machines, Channel-entrance for. S. E. Sperry. No. 1,245,055; Oct. 30; v. 243; p. 1257.
Typographic purposes, Crucible used for. C. Winkler. No. 1,244,935; Oct. 30; v. 243; p. 1222.
Umbrella. D. L. Gabler. No. 1,243,153; Oct. 16; v. 243; p. 609.
Umbrella-runner. F. A. Dillingham. No. 1,243,594; Oct. 16; v. 243; p. 740.
Umbrellas, Means for attaching names to. F. G. Farnham. No. 1,243,393; Oct. 16; v. 243; p. 680.
Uncoupling device, Centering. J. J. Cooper. No. 1,244,706; Oct. 30; v. 243; p. 1152.
Undergarment. H. A. Carter. No. 1,244,174; Oct. 23; v. 243; p. 952.
Underreamer. C. S. Wright. No. 1,242,508; Oct. 9; v. 243; p. 370.
Underreamer-lugs, Fishing-tool for. W. W. Bess. No. 1,242,129; Oct. 9; v. 243; p. 250.
Universal joint. F. W. Schwinn. No. 1,243,347; Oct. 16; v. 243; p. 668.
Universal motor. B. G. Lamme. No. 1,244,510; Oct. 30; v. 243; p. 1092.
Universal motor. B. G. Lamme. No. 1,244,511; Oct. 30; v. 243; p. 1093.
Unloading apparatus. J. B. Seaverns. No. 1,242,249; Oct. 9; v. 243; p. 288.
Unloading-platform. E. Kelly. No. 1,243,948; Oct. 23; v. 243; p. 886.
Urea, Producing. J. E. Bucher. No. 1,241,919; Oct. 2; v. 243; p. 145.
Urea, Producing. J. E. Bucher. No. 1,241,920; Oct. 2; v. 243; p. 145.
Utensil-handle, Detachable. R. F. Salisbury. No. 1,243,880; Oct. 23; v. 243; p. 866.
Vacuum-insulated vessel. F. E. Carlson. No. 1,243,919; Oct. 23; v. 243; p. 878.
Valve. J. C. Breinl. No. 1,244,286; Oct. 23; v. 243; p. 988.
Valve. J. H. Hedmark. No. 1,244,604; Oct. 30; v. 243; p. 1121.
Valve. J. H. Johnson. No. 1,241,519; Oct. 2; v. 243; p. 15.
Valve. F. Mitchell. No. 1,244,630; Oct. 30; v. 243; p. 1129.
Valve. J. B. and S. S. Stewardson. No. 1,242,734; Oct. 9; v. 243; p. 443.
Valve. D. L. Winters. No. 1,243,122; Oct. 16; v. 243; p. 600.
Valve and trimmer, Combined check and globe. J. B. Mowry. No. 1,244,758; Oct. 30; v. 243; p. 1168.
Valve, Automatic carburation-. C. E. Laetzer. No. 1,242,706; Oct. 9; v. 243; p. 435.
Valve, Automatic relief-. E. A. Ploeger and J. Penrose. No. 1,242,888; Oct. 9; v. 243; p. 492.
Valve, Auxiliary air-. J. J. B. Mulderig. No. 1,242,839; Oct. 9; v. 243; p. 476.
Valve, By-pass. A. O. Rutz. No. 1,242,245; Oct. 9; v. 243; p. 287.

Valve, Combined pressure reducing and relief. T. D. Millea. No. 1,242,713; Oct. 9; v. 243; p. 436.
Valve device, Lock-. C. Berthold. No. 1,244,691; Oct. 30; v. 243; p. 1147.
Valve, Discharge-. G. S. Binckley. No. 1,243,134; Oct. 16; v. 243; p. 603.
Valve, Electrical. H. Lewis. No. 1,242,003; Oct. 2; v. 243; p. 170.
Valve, Electrical. W. D. Ralphs. No. 1,243,219; Oct. 16; v. 243; p. 630.
Valve, Fluid safety-. A. L. Smyly. No. 1,243,998; Oct. 23; v. 243; p. 900.
Valve, Flushing-. R. M. Keating. No. 1,242,200; Oct. 9; v. 243; p. 273.
Valve for automatic sprinkler systems, Dry. J. R. Hamilton. No. 1,241,847; Oct. 2; v. 243; p. 121.
Valve for flush-tanks, Inlet-. L. B. Powers. No. 1,241,656; Oct 2; v. 243; p. 60.
Valve for hydraulic systems, Shock-relief. C. A. Witter. No. 1,244,271; Oct. 23; v. 243; p. 983.
Valve for internal-combustion engines. W. G. Buck. No. 1,244,287; Oct. 23; v. 243; p. 988.
Valve for internal-combustion engines. C. De Lukacsevics. No. 1,244,711; Oct. 30; v. 243; p. 1154.
Valve for internal-combustion engines. F. McClintock. No. 1,242,460; Oct. 9; v. 243; p. 355.
Valve for radiators. E. D. Peerstone. No. 1,241,878; Oct. 2; v. 243; p. 131.
Valve for trapping equalizing-reservoir air independent of brake-valves. W. C. Webster. No. 1,244,805; Oct. 30; v. 243; p. 1182.
Valve for water-supply pipes. G. Burich. No. 1,244,833; Oct. 30; v. 243; p. 1191.
Valve, Fuel-injection. A. O. Williams. No. 1,242,296; Oct. 9; v. 243; p. 303.
Valve, Fuel-mixing safety throttle-. W. I. Short. No. 1,244,379; Oct. 23; v. 243; p. 1014.
Valve, Gate-. R. L. Hibbard. No. 1,243,736; Oct. 23; v. 243; p. 820.
Valve-gear. F. S. and A. S. Duesenberg. No. 1,244,481; Oct. 30; v. 243; p. 1083.
Valve-gear, Reversing. C. J. Pilliod. No. 1,243,760; Oct. 23; v. 243; p. 828.
Valve-grinder. L. G. Massicotte and G. C. Boswell. No. 1,244,526; Oct. 30; v. 243; p. 1096.
Valve-lifting device. E. J. Sourber. No. 1,242,733; Oct. 9; v. 243; p. 443.
Valve-lock. W. Henckler. No. 1,243,936; Oct. 23; v. 243; p. 882.
Valve-lock. T. B. Ryan. No. 1,243,558; Oct. 16; v. 243; p. 730.
Valve mechanism. W. U. Griffiths. No. 1,244,195; Oct. 23; v. 243; p. 959.
Valve mechanism. D. Ronconi. No. 1,241,662; Oct. 2; v. 243; p. 62.
Valve mechanism, Tank. G. Schmidt. No. 1,243,766; Oct. 23; v. 243; p. 830.
Valve, Pressure-. C. G. Crispin. No. 1,244,177; Oct. 23; v. 243; p. 953.
Valve, Pressure and vacuum relief. D. Craig. No. 1,243,592; Oct. 16; v. 243; p. 739.
Valve, Puppet-. R. Miller. No. 1,242,576; Oct. 9; v. 243; p. 393.
Valve, Screw-seated. J. Menzies. No. 1,244,881; Oct. 30; v. 243; p. 1205.
Valve, Self-grinding rotary. D. Ronconi. No. 1,241,663; Oct. 2; v. 243; p. 62.
Valve-spring lifter. W. S. Thomson. No. 1,243,010; Oct. 16; v. 243; p. 566.
Valve-stem cap. O. A. Smith. No. 1,242,995; Oct. 16; v. 243; p. 560.
Valve-tappet, Cushioned. J. D. Langdon. No. 1,241,745; Oct. 2; v. 243; p. 89.
Valve, Throttle-. F. H. Clark and J. M. Coffey. No. 1,242,880; Oct. 9; v. 243; p. 489.
Vapor-converters, Shielding system for. E. F. Sipher. No. 1,244,555; Oct. 30; v. 243; p. 1107.
Vapor-rectifier. S. W. Farnsworth. No. 1,244,483; Oct. 30; v. 243; p. 1084.
Vaporizer. M. Beadle. No. 1,242,099; Oct. 2; v. 243; p. 200.
Vaporizer. B. L. Myers. No. 1,243,439; Oct. 16; v. 243; p. 695.
Vaporizer. H. N. Whittelsey. No. 1,243,647; Oct. 16; v. 243; p. 757.
Vaporizer, Hydrocarbon-. E. Planche. No. 1,242,975; Oct. 16; v. 243; p. 554.
Varnish material, Making. C. Ellis. No. 1,242,161; Oct. 9; v. 243; p. 261.
Vault, Burial-. L. O. Dickinson. No. 1,243,492; Oct. 16; v. 243; p. 710.
Vault, Burial-. W. J. Gorman. No. 1,242,344; Oct. 9; v. 243; p. 318.
Vault-light, floor-light, pavement-light, or skylight construction. A. E. Davis. No. 1,241,825; Oct. 2; v. 243; p. 114.
Vegetables, Conserving fresh. J. Schneible. No. 1,242,728; Oct. 9; v. 243; p. 441.
Vehicle. A. Johnson. No. 1,242,446; Oct. 9; v. 243; p. 350.
Vehicle. G. W. Myers. No. 1,243,662; Oct. 16; v. 243; p. 761.
Vehicle audible alarm. H. Morgan. No. 1,245,010; Oct. 30; v. 243; p. 1245.
Vehicle automatic brake. W. M. Barnes. No. 1,244,942; Oct. 30; v. 243; p. 1224.
Vehicle-body. J. H. Madison, Jr. No. 1,242,221; Oct. 9; v. 243; p. 279.
Vehicle-body construction, Convertible. F. J. Fisher. No. 1,242,673; Oct. 9; v. 243; p. 424.
Vehicle-body, Removable. A. C. Schulz. No. 1,243,636; Oct. 16; v. 243; p. 754.
Vehicle-brake. E. R. Herren. No. 1,244,606; Oct. 30; v. 243; p. 1121.
Vehicle-brake. J. M. Hughes. No. 1,244,212; Oct. 23; v. 243; p. 964.
Vehicle, Collapsible. G. B. Ambler. No. 1,242,634; Oct. 9; v. 243; p. 411.
Vehicle driving-gear and wheel-mounting, Motor-. T. F. Ledbetter. No. 1,244,512; Oct. 30; v. 243; p. 1093.
Vehicle folding step. E. H. Bradkey. No. 1,244,830; Oct. 30; v. 243; p. 1190.
Vehicle-jack. M. Stoudt. No. 1,243,360; Oct. 16; v. 243; p. 671.
Vehicle load-compensator, Motor-. J. T. McCrosson. No. 1,244,752; Oct. 30; v. 243; p. 1166.
Vehicle, Motor-. P. T. Burk. No. 1,242,650; Oct. 9; v. 243; p. 417.
Vehicle, Motor-. W. W. Swan. No. 1,244,001; Oct. 23; v. 243; p. 901.
Vehicle, Motor-driven. W. E. Bruce. No. 1,242,319; Oct. 9; v. 243; p. 311.
Vehicle pulling-jack, Motor-. S. C. Hickman. No. 1,243,172; Oct. 16; v. 243; p. 614.
Vehicle sanding device. H. M. Goehring and C. A. Lindström. No. 1,244,726; Oct. 30; v. 243; p. 1159.
Vehicle sanding device, Motor-. L. O. Levin. No. 1,244,345; Oct. 23; v. 243; p. 1005.
Vehicle-signal. G. W. Edmond. No. 1,243,824; Oct. 23; v. 243; p. 849.
Vehicle-signal. H. L. Freehafer. No. 1,243,279; Oct. 16; v. 243; p. 647.
Vehicle steering device. W. H. Appleman. No. 1,243,379; Oct. 16; v. 243; p. 676.
Vehicle steering-gear. B. M. Steele. No. 1,243,889; Oct. 23; v. 243; p. 869.
Vehicle suspension. C. F. Freihofer. No. 1,244,312; Oct. 23; v. 243; p. 996.
Vehicle suspension and shock-absorber. F. O. Boswell. No. 1,243,694; Oct. 23; v. 243; p. 804.
Vehicle-top, One-man. W. H. Bates. No. 1,243,687; Oct. 23; v. 243; p. 802.
Vehicle-top support. C. R. Allen. No. 1,244,402; Oct. 23; v. 243; p. 1022.
Vehicle-tops, Curtain-light for. L. Buob, Sr. No. 1,242,108; Oct. 2; v. 243; p. 203.
Vehicle-wheel. W. C. Beckwith. No. 1,243,130; Oct. 16; v. 243; p. 602.
Vehicle-wheel. G. G. Griffin. No. 1,244,193; Oct. 23; v. 243; p. 958.
Vehicle-wheel. N. L. Olson. No. 1,243,863; Oct. 23; v. 243; p. 860.
Vehicle-wheel. W. S. Price. No. 1,242,237; Oct. 9; v. 243; p. 285.
Vehicle-wheel. C. Simonton and G. W. Maphet. No. 1,244,554; Oct. 30; v. 243; p. 1107.
Vehicle-wheel. A. D. Teare. No. 1,244,002; Oct. 23; v. 243; p. 902.
Vehicle-wheel. F. C. Vogler. No. 1,242,278; Oct. 9; v. 243; p. 297.
Vehicle-wheel. J. M. Woods. No. 1,241,805; Oct. 2; v. 243; p. 107.
Vehicle wind-shield. E. B. Hess. No. 1,244,853; Oct. 30; v. 243; p. 1196.
Vehicles, Automatic equalizer for. J. L. Chesnutt. No. 1,241,494; Oct. 2; v. 243; p. 6.
Vehicles, Auxiliary hood for motor-. C. J. Hicks. No. 1,241,974; Oct. 2; v. 243; p. 160.
Vehicles, Extension for. N. L. Olson. No. 1,243,864; Oct. 23; v. 243; p. 860.
Vehicles in cars, Mechanism for transporting. J. M. Daly. No. 1,243,141; Oct. 16; v. 243; p. 605.
Vehicles, Movement-controlling mechanism for power-driven. J. Culton. No. 1,241,711; Oct. 2; v. 243; p. 77.
Vehicles, Pneumatic equalizer for. J. L. Chesnutt. No. 1,244,700; Oct. 30; v. 243; p. 1150.
Veil. K. Koelsch. No. 1,241,858; Oct. 2; v. 243; p. 124.
Vending apparatus, Gasolene-. W. K. Schauweker. No. 1,241,889; Oct. 2; v. 243; p. 135.
Vending-machine. J. K. Goodrich. No. 1,242,681; Oct. 9; v. 243; p. 426.
Vending-machine. L. M. Parkhurst. No. 1,241,877; Oct. 2; v. 243; p. 131.
Vending-machine, Coin-controlled. J. W. Patterson. No. 1,244,888; Oct. 30; v. 243; p. 1207.
Vending-machine, Coin-controlled. W. O. Wolford. No. 1,242,298; Oct. 9; v. 243; p. 304.
Vending-machines, Slot-closing mechanism for coin-controlled. A. D. Grover. No. 1,243,511; Oct. 16; v. 243; p. 716.
Ventilating and heating apparatus. E. W. Woods. No. 1,242,507; Oct. 9; v. 243; p. 369.
Ventilation-pipes, Universal terminal for. B. H. Morris. No. 1,243,438; Oct. 16; v. 243; p. 694.
Ventilator. G. F. Dickerson. No. 1,243,146; Oct. 16; v. 243; p. 607.
Ventilator. M. G. Roberts. No. 1,241,660; Oct. 2; v. 243; p. 61.

Ventilator and radiator appliance. R. H. Edwards. No. 1,242,666; Oct. 9; v. 243; p. 422.
Ventilator-terminals, Making. B. H. Morris. No. 1,243,437; Oct. 16; v. 243; p. 694.
Venting device. W. H. Smith. No. 1,242,613; Oct. 9; v. 243; p. 406.
Vessel against torpedoes, Means for protecting a. R. A. Tute. No. 1,242,082; Oct. 2; v. 243; p. 194.
Vessel, Non-sinkable. T. G. Weaver. No. 1,243,646; Oct. 16; v. 243; p. 757.
Vessel, Table. J. B. Hawley. No. 1,243,405; Oct. 16; v. 243; p. 683.
Vessels, Controlling electrically-propelled. B. Ljungstrom. No. 1,242,357; Oct. 9; v. 243; p. 322.
Vibrator. W. V. Roberts. No. 1,243,628; Oct. 16; v. 243; p. 752.
Vibrator, Compressed-air. C. W. Tocknell. No. 1,241,783; Oct. 2; v. 243; p. 99.
Viscometer. C. Browning, Jr. No. 1,244,025; Oct. 23; v. 243; p. 909.
Vise, Pipe-. C. R. Dana. No. 1,242,426; Oct. 9; v. 243; p. 344.
Voltage absorber, Excess-. F. Sieber. No. 1,242,729; Oct. 9; v. 243; p. 441.
Volumetric meter. K. W. Rohlin. No. 1,242,869; Oct. 9; v. 243; p. 486.
Vulcanizing-press. E. Nall. No. 1,242,305; Oct. 9; v. 243; p. 324.
Wagon-boxes, Grain-container for. G. Kensbock. No. 1,243,183; Oct. 16; v. 243; p. 619.
Wagon-brake, Automatic. P. D. Harvey. No. 1,243,935; Oct. 23; v. 243; p. 882.
Wagon, Dump-. G. C. Hodges and W. M. Lohnes. No. 1,242,805; Oct. 9; v. 243; p. 465.
Wagon, Dumping-. W. J. McGee. No. 1,245,000; Oct. 30; v. 243; p. 1241.
Wagon-trains, Steering mechanism for. W. A. Underhill and C. C. Avery. No. 1,241,786; Oct. 2; v. 243; p. 100.
Walking-stick. E. Schlick. No. 1,244,249; Oct. 23; v. 243; p. 976.
Wall. E. Weissbrodt. No. 1,241,797; Oct. 2; v. 243; p. 104.
Wall-bracket. C. F. Henderson. No. 1,241,732; Oct. 2; v. 243; p. 85.
Wall-fixtures, Concealed fastening for. A. J. Weiss. No. 1,243,664; Oct. 16; v. 243; p. 762.
Warping-machine. A. Van Haste. No. 1,244,800; Oct. 30; v. 243; p. 1180.
Washdrainer. M. Larsen. No. 1,243,841; Oct. 23; v. 243; p. 854.
Washer: *See*—
Bottle-washer.
Dish-washer.
Washing-machine. G. M. Brewer. No. 1,242,765; Oct. 9; v. 243; p. 453.
Washing-machine. W. F. Hunt. No. 1,244,213; Oct. 23; v. 243; p. 964.
Washing-machine. R. Isobabella and F. Lombardi. No. 1,243,413; Oct. 16; v. 243; p. 686.
Washing-machine. J. Negrescon. No. 1,244,120; Oct. 23; v. 243; p. 937.
Washing-machine. A. C. Prechel. No. 1,243,551; Oct. 16; v. 243; p. 727.
Washing-machine-actuating mechanism. A. W. Altorfer. No. 1,241,896; Oct. 2; v. 243; p. 138.
Washing-machine mechanism. A. W. Altorfer. No. 1,241,895; Oct. 2; v. 243; p. 137.
Washing-machine-operating mechanism. W. H. Sargent. No. 1,242,727; Oct. 9; v. 243; p. 441.
Washtubs, tanks, sinks, and the like, Support for. J. J. Bram. No. 1,243,697; Oct. 23; v. 243; p. 805.
Watch. F. F. J. Prihoda. No. 1,244,127; Oct. 23; v. 243; p. 939.
Watch and clock hands, Tool for removing. A. Singer. No. 1,243,771; Oct. 23; v. 243; p. 831.
Watches, Second-hand-setting mechanism for. C. Sinbad. No. 1,244,251; Oct. 23; v. 243; p. 976.
Watches, Second-hand-setting mechanism for. C. Sinbad. No. 1,244,252; Oct. 23; v. 243; p. 977.
Watches, Securing device for wrist-. C. L. Depollier. No. 1,242,152; Oct. 9; v. 243; p. 258.
Water-closet. L. F. Erwin. No. 1,243,148; Oct. 16; v. 243; p. 608.
Water-closets, Valve mechanism for ventilating. H. C. Farrell. No. 1,241,614; Oct. 2; v. 243; p. 48.
Water-heater. J. B. Dudley. No. 1,244,183; Oct. 23; v. 243; p. 955.
Water-heater. J. Polzin. No. 1,244,775; Oct. 30; v. 243; p. 1174.
Water-heater. R. W. Rogers. No. 1,242,241; Oct. 9; v. 243; p. 286.
Water-heater. M. A. Unger. No. 1,243,901; Oct. 23; v. 243; p. 872.
Water-heater. R. N. Wagener. No. 1,244,924; Oct. 30; v. 243; p. 1218.
Water-heater. F. Will. No. 1,242,294; Oct. 9; v. 243; p. 303.
Water-heater construction. F. L. O. Wadsworth. No. 1,243,017; Oct. 16; v. 243; p. 568.
Water-heater, Internal-combustion-engine. C. L. C. Magee. No. 1,242,711; Oct. 9; v. 243; p. 436.
Water-lift. J. A. Mitchell. No. 1,244,631; Oct. 30; v. 243; p. 1129.
Water-motor. A. F. Miller. No. 1,243,199; Oct. 16; v. 243; p. 624.
Water-motor. H. H. Ramthun. No. 1,242,862; Oct. 9; v. 243; p. 484.
Waterproof fabric. W. O. Stoddard, Jr. No. 1,242,491; Oct. 9; v. 243; p. 364.
Waterproofing composition and making the same. H. M. Olson. No. 1,242,585; Oct. 9; v. 243; p. 397.
Waterproofing of fabrics. E. I. Cuthbertson. No. 1,242,327; Oct. 9; v. 243; p. 313.
Water-purifying apparatus. E. M. Knight. No. 1,244,989; Oct. 30; v. 243; p. 1238.
Watering device, Automatic stock-. O. S. Wagner. No. 1,245,072; Oct. 30; v. 243; p. 1263.
Wave-motor. W. C. Fox. No. 1,244,309; Oct. 23; v. 243; p. 994.
Weapon, Combination-. A. Svalina. No. 1,242,265; Oct. 9; v. 243; p. 293.
Weather-strip for sheet-metal window-screens. W. W. Watson. No. 1,241,687; Oct. 2; v. 243; p. 70.
Weed-cutter. R. R. Dupler. No. 1,243,495; Oct. 16; v. 243; p. 711.
Weed-cutting machine. W. A. Schubert. No. 1,244,646; Oct. 30; v. 243; p. 1133.
Weed-puller. M. E. Peltz. No. 1,242,468; Oct. 9; v. 243; p. 358.
Weeder and cultivator. W. F. Menzenbach. No. 1,244,531; Oct. 30; v. 243; p. 1099.
Weeder, Lawn-. E. C. Leaman. No. 1,244,344; Oct. 23; v. 243; p. 1005.
Weeder, Rotary. I. C. Horst. No. 1,244,982; Oct. 30; v. 243; p. 1235.
Weighing apparatus, Automatic. C. Gibson. No. 1,242,794; Oct. 9; v. 243; p. 462.
Welding and articles produced thereby, Electric. A. C. Taylor. No. 1,243,004; Oct. 16; v. 243; p. 564.
Welding, Electric. P. A. E. Armstrong. No. 1,241,190; Oct. 2; v. 243; p. 139.
Welding, Electric. H. Geisenhöner. No. 1,242,171; Oct. 9; v. 243; p. 264.
Welding-electrode and process of welding. P. A. E. Armstrong. No. 1,241,899; Oct. 2; v. 243; p. 138.
Welding, heating, and metal-working and apparatus therefor, Method of electric-arc. C. L. Coffin. No. 1,244,705; Oct. 30; v. 243; p. 1152.
Welding, heating, and metal-working, Arc. C. L. Coffin. No. 1,243,589; Oct. 16; v. 243; p. 738.
Welding or cutting equipment, Portable gas. H. Cave. No. 1,244,030; Oct. 23; v. 243; p. 911.
Well-casings, Release-joint for. H. B. Walker. No. 1,243,364; Oct. 16; v. 243; p. 672.
Well-drill. A. C. Miller. No. 1,244,882; Oct. 30; v. 243; p. 1206.
Well rig, Oil-. R. R. Pollak. No. 1, 244,240; Oct. 23; v. 243; p. 973.
Wheel: *See*—
Belt-wheel.
Cutting-wheel.
Demountable wheel.
Metallic wheel.
Pneumatically-tired wheel.
Resilient wheel.
Spring-wheel.
Sprocket-wheel.
Steering-wheel.
Traction bearing-wheel.
Traction-wheel.
Tractor-wheel.
Vehicle-wheel.
Wheel. A. L. W. Begg. No. 1,242,641; Oct. 9; v. 243; p. 414.
Wheel. W. J. P. Moore. No. 1,243,751; Oct. 23; v. 243; p. 825.
Wheel. R. W. Pringle. No. 1,244,543; Oct. 30; v. 243; p. 1103.
Wheel, S. S. Rankin. No. 1,244,128; Oct. 23; v. 243; p. 939.
Wheel and jack clamp. L. J. Byers. No. 1,245,085; Oct. 30; v. 243; p. 1266.
Wheel bearing, Vehicle-. A. G. Douthit. No. 1,245,094; Oct. 30; v. 243; p. 1270.
Wheel-lock, Bumper. W. D. Goza. No. 1,241,961; Oct. 2; v. 243; p. 156.
Wheel lubricator, Vehicle-. L. L. Schellinger. No. 1,244,248; Oct. 23; v. 243; p. 975.
Wheel pulling-jack, Vehicle-. F. S. Pattison. No. 1,243,546; Oct. 16; v. 243; p. 726.
Wheel rim, Demountable vehicle-. R. G. Mason. No. 1,243,087; Oct. 16; v. 243; p. 591.
Wheel rim, Vehicle-. A. De Rosa. No. 1,244,037; Oct. 23; v. 243; p. 913.
Wheels, Universal drive for motor-vehicle. O. H. Rogers. No. 1,244,778; Oct. 30; v. 243; p. 1174.
Wheelbarrow. R. E. Booth. No. 1,242,418; Oct. 9; v. 243; p. 342.
Wheelbarrow and truck, Convertible. H. Lemke. No. 1,243,432; Oct. 16; v. 243; p. 693.
Whiffletree-hook. C. H. Bolt. No. 1,244,285; Oct. 23; v. 243; p. 987.
Whistle, Muffler-. B. G. Whitfield. No. 1,241,800; Oct. 2; v. 243; p. 105.
Whitening and cleaning composition. A. A. Gilson. No. 1,244,597; Oct. 30; v. 243; p. 1119.
Winch, Transportable power-. P. L. Hochon and N. Gjorgjevitch. No. 1,243,292; Oct. 16; v. 243; p. 651.
Wind-motor. R. Bobo. No. 1,243,135; Oct. 16; v. 243; p. 604.
Wind-shield. F. R. Boynton. No. 1,244,462; Oct. 30; v. 243; p. 1078.
Wind-shield cleaner. H. R. Mansfield. No. 1,241,644; Oct. 2; v. 243; p. 57.
Wind-shields, Hinge or pivot construction for. E. L. Ackerman. No. 1,243,794; Oct. 23; v. 243; p. 839.

Winding machine, Ball-. E. G. Loomis. No. 1,242,885; Oct. 9; v. 243; p. 491.
Windmill. A. Brzykcy. No. 1,241,918; Oct. 2; v. 243; p. 144.
Window. W. A. Schoening and J. Pachynski. No. 1,245,042; Oct. 30; v. 243; p. 1253.
Window attachment. L. J. Westness. No. 1,242,290; Oct. 9; v. 243; p. 302.
Window-catch. C. Ulrich. No. 1,242,391; Oct. 9; v. 243; p. 333.
Window-cleaning scraper. C. E. Blakeslee. No. 1,242,913; Oct. 16; v. 243; p. 534.
Window construction. C. H. Anderson. No. 1,244,825; Oct. 30; v. 243; p. 1188.
Window-fastener. W. Gadke. No. 1,244,725; Oct. 30; v. 243; p. 1159.
Window-fastener, Automatic. E. E. Mack. No. 1,242,830; Oct. 9; v. 243; p. 474.
Window-heater. W. C. Burmeister and E. N. Smock. No. 1,243,703; Oct. 23; v. 243; p. 807.
Window-lock. U. S. Jackson. No. 1,242,943; Oct. 16; v. 243; p. 544.
Window lock, Ventilation-. R. G. Winter. No. 1,244,393; Oct. 23; v. 243; p. 1018.
Window-screen. J. Dargo. No. 1,243,923; Oct. 23; v. 243; p. 879.
Window-screen. G. W. Fisher. No. 1,243,928; Oct. 23; v. 243; p. 880.
Window-screen. J. C. Scott. No. 1,245,044; Oct. 30; v. 243; p. 1253.
Window-screen. A. Swedberg. No. 1,242,072; Oct. 2; v. 243; p. 191.
Window-screen for casements, Sheet-metal. W. W. Watson. No. 1,241,794; Oct. 2; v. 243; p. 103.
Window-screens, Construction of. J. C. Scott. No. 1,245,045; Oct. 30; v. 243; p. 1254.
Wire cleaning and coating machine. C. C. Wickwire. No. 1,244,153; Oct. 23; v. 243; p. 946.
Wire coiling and binding clamp. J. Cuthbert. No. 1,243,716; Oct. 23; v. 243; p. 812.
Wire coiling and clamping device. J. J. Nielsen. No. 1,241,756; Oct. 2; v. 243; p. 92.
Wire-drawing machine. T. B. Ryon. No. 1,243,879; Oct. 23; v. 243; p. 866.
Wire-hanger. A. L. Fox. No. 1,243,057; Oct. 16; v. 243; p. 581.
Wire-nail machine. W. F. and H. O. Christison. No. 1,242,522; Oct. 9; v. 243; p. 384.
Wire-splicer. T. J. Sherwood. No. 1,245,128; Oct. 30; v. 243; p. 1279.
Wire-stretcher. G. W. Corsepius. No. 1,244,836; Oct. 30; v. 243; p. 1191.
Wire-stretcher. W. K. Houser. No. 1,243,940; Oct. 23; v. 243; p. 883.
Wire-stretcher. B. H. Southland. No. 1,242,063; Oct. 2; v. 243; p. 189.
Wire-stretcher. S. H. White. No. 1,245,079; Oct. 30; v. 243; p. 1265.
Wireless receiving system. J. R. Carson. No. 1,244,697; Oct. 30; v. 243; p. 1149.
Wireless signals, Valve-receiver for. G. M. Wright. No. 1,243,789; Oct. 23; v. 243; p. 837.
Wood-barking machine. J. J. Hruska. No. 1,243,294; Oct. 16; v. 243; p. 651.
Wood, Preserving. H. Foersterling, R. N. Sargent, and F. A. Kaufmann. No. 1,242,168; Oct. 9; v. 243; p. 263.
Work and time indicator. W. H. Shuster, Jr., and A. L. Grammer. No. 1,242,483; Oct. 9; v. 243; p. 362.
Work-holder. J. H. Burns. No. 1,244,419; Oct. 23; v. 243; p. 1026.
Work-support. A. Richardson and B. B. Jackson. No. 1,244,374; Oct. 23; v. 243; p. 1012.
Working machines, Means for stopping. V. N. Landqvist. No. 1,241,859; Oct. 2; v. 243; p. 124.
Worm, Cutting a. C. H. Schurr and E. J. Lees. No. 1,243,767; Oct. 23; v. 243; p. 830.
Wrapping-machine. H. Y. Armstrong. No. 1,244,277; Oct. 23; v. 243; p. 985.
Wrapping-machine folder. W. C. Stevens. No. 1,243,357; Oct. 16; v. 243; p. 670.
Wrapping-machines, Adjusting means for. W. C. Stevens. No. 1,241,678; Oct. 2; v. 243; p. 67.
Wrapping-machines, Folder device for. F. M. Pierce. No. 1,244,541; Oct. 30; v. 243; p. 1102.
Wrapping-machines, Folder device for. W. C. Stevens. No. 1,244,255; Oct. 23; v. 243; p. 978.
Wrench: *See*—
Adjustable-head wrench. Pipe-wrench.
Car-wrench.
Wrench. J. Eifel. No. 1,244,966; Oct. 30; v. 243; p. 1231.
Wrench. J. Eifel. No. 1,244,967; Oct. 30; v. 243; p. 1231.
Wrench. J. B. Gathright. No. 1,243,506; Oct. 16; v. 243; p. 715.
Wrench. W. Jacoby. No. 1,243,300; Oct. 16; v. 243; p. 654.
Wrench. C. G. Keller. No. 1,242,201; Oct. 9; v. 243; p. 274.
Wrench. C. A. Olson and C. H. Toombs. No. 1,243,860; Oct. 23; v. 243; p. 859.
Wrench. C. A. Olson and C. H. Toombs. No. 1,243,861; Oct. 23; v. 243; p. 859.
Wrench. G. A. Parmenter. No. 1,243,210; Oct. 16; v. 243; p. 627.
Wrench. P. P. Pérez and F. S. Batista. No. 1,245,017; Oct. 30; v. 243; p. 1247.
Wrench. W. Riley. No. 1,243,876; Oct. 23; v. 243; p. 865.
Wrench. W. H. Rummel. No. 1,245,035; Oct. 30; v. 243; p 1251.
Wrench. A. Stuewe. No. 1,245,062; Oct. 30; v. 243; p. 1259.
Wrench. R. Tar'Bush. No. 1,244,172; Oct. 23; v. 243; p. 951.
Wrench. J. G. Wright. No. 1,244,273; Oct. 23; v. 243; p. 984.
Wringers, Reversible driving mechanism for clothes-. H. W. Darrow. No. 1,242,659; Oct. 9; v. 243; p. 419.
Writing-machine. F. A. Feiereisel. No. 1,242,167; Oct. 9; v. 243; p. 263.
Writing-machine cylinder. H. Strongson. No. 1,242,071; Oct. 2; v. 243; p. 191.
Writing machines, Attachment for check-. J. E. Simpson and C. J. Paulson. No. 1,241,570; Oct. 2; v. 243; p. 34.
Writing-tablet. E. M. Africa and B. E. McSheehy. No. 1,241,694; Oct. 2; v. 243; p. 72.
X-ray apparatus. J. B. Wantz. No. 1,242,498; Oct. 9; v. 243; p. 366.
Yarn from bobbins, Apparatus for removing. W. G. Jopson. No. 1,243,071; Oct. 16; v. 243; p. 586.
Yarn-holding reel. L. S. Coburn. No. 1,242,657; Oct. 9; v. 243; p. 419.
Yarn-tension device. H. F. Gruman. No. 1,243,162; Oct. 16; v. 243; p. 611.
Yoke. S. B. Haseltine. No. 1,242,801; Oct. 9; v. 243; p. 464.
Yoke. C. B. Patch. No. 1,242,850; Oct. 9; v. 243; p. 480.
Yoke. C. B. Patch. No. 1,242,852; Oct. 9; v. 243; p. 481.
Yoke, Animal-. W. L. McGill. No. 1,245,116; Oct. 30; v. 243; p. 1276.
Yoke, Draft-gear. S. B. Haseltine. No. 1,242,799; Oct. 9; v. 243; p. 463.
Yoke, Draft-gear. S. B. Haseltine. No. 1,242,800; Oct. 9; v. 243; p. 463.
Yoke, Draft-rigging. A. Copony. No. 1,243,045; Oct. 16; v. 243; p. 577.
Yoke, Draft-rigging. S. B. Haseltine. No. 1,242,802; Oct. 9; v. 243; p. 464.
Yoke, Keyless. C. B. Patch. No. 1,242,851; Oct. 9; v. 243; p. 480.
Yoke, Railway-car draft-. J. F. O'Connor. No. 1,242,845; Oct. 9; v. 243; p. 478.
Zinc-extraction process. H. R. Hanley. No. 1,241,966; Oct. 2; v. 243; p. 158.

ALPHABETICAL LIST OF DESIGNS.

Automobile-fender. A. Guerriero. No. 51,414; Oct. 23; v. 243; p. 1044.
Automobile-indicator. W. Westenfield. No. 51,366; Oct. 9; v. 243; p. 504.
Badge. G. Force. No. 51,411; Oct. 23; v. 243; p. 1044.
Badge or emblem. M. J. Szamelt. No. 51,427; Oct. 23; v. 243; p. 1047.
Bank-note. A. S. Major. No. 51,317; Oct. 2; v. 243; p. 211.
Bank, Slot-machine savings-. J. S. Curtiss. No. 51,366; Oct. 16; v. 243; p. 769.
Basket, Waste-. J. B. Ellis. No. 51,368; Oct. 16; v. 243; p. 770.
Bathing-cap. A. R. Sheehan. No. 51,398; Oct. 16; v. 243; p. 775.
Bedstead. L. A. Brown. No. 51,329; Oct. 9; v. 243; p. 498.
Bicycle and motor-cycle frame. G. W. Rottweiler. No. 51,323; Oct. 2; v. 243; p. 212.
Books, Cover for. T. Arends. No. 51,362; Oct. 16; v. 243; p. 769.
Bottle. G. E. Brett. No. 51,409; Oct. 23; v. 243; p. 1043.
Bowl and support, Fish-. H. Simons. No. 51,433; Oct. 23; v. 243; p. 1048.
Bracket-back ornament. C. E. Jones. No. 51,384; Oct. 16; v. 243; p. 772.
Bracket-backs, Arm-pocket for oval. C. E. Jones. No. 51,385; Oct. 16; v. 243; p. 772.
Brooch, pin, or similar article. H. B. C. Butler. No. 51,330; Oct. 9; v. 243; p. 498.
Broom holder, Whisk-. H. L. Conde. No. 51,364; Oct. 16; v. 243; p. 769.
Brush, Shampoo-. R. J. Montgomery. No. 51,319; Oct. 2; v. 243; p. 211.
Button. N. Marg. No. 51,318; Oct. 2; v. 243; p. 211.
Cabinet, China-. E. W. Lee. No. 51,432; Oct. 23; v. 243; p. 1048.
Cabinet for electrical purposes. E. M. Crane and C. R. Pelton. No. 51,365; Oct. 16; v. 243; p. 769.
Calcite mushroom bowls, Clamp for. C. E. Jones. No. 51,383; Oct. 16; v. 243; p. 772.
Collar-retainer. J. I. Warner. No. 51,324; Oct. 2; v. 243; p. 212.
Direction-indicator. T. S. Savage. No. 51,394; Oct. 16; v. 243; p. 774.
Dish-washer tank. W. R. Walker. No. 51,447; Oct. 30; v. 243; p. 1293.
Display stand, Hat-. C. R. Hester. No. 51,316; Oct. 2; v. 243; p. 211.
Doll. F. Langfelder. No. 51,387; Oct. 16; v. 243; p. 772.
Doll. A. Montgomery and F. K. Reynolds. No. 51,349; Oct. 9; v. 243; p. 502.
Electric-light wall-costumer. F. D. Pelletier. No. 51,392; Oct. 16; v. 243; p. 774.
Emblem. L. G. Vanderlee. No. 51,352; Oct. 9; v. 243; p. 503.
Emblem or badge or emblematical device. I. W. Leaver. No. 51,343; Oct. 9; v. 243; p. 501.
Fabric, Printed. H. Wearne. Nos. 51,354–9; Oct. 9; v. 243; pp. 503–4.
Fabric, Textile. H. T. Loomis. No. 51,419; Oct. 23; v. 243; p. 1045.
Fabric, Textile. B. Nathan. No. 51,320; Oct. 2; v. 243; p. 211.
Fabric, Woven. J. E. Jagger. No. 51,417; Oct. 23; v. 243; p. 1045.
Flag. A. Gramlich. No. 51,331; Oct. 9; v. 243; p. 498.
Flag. A. Hirsch. No. 51,342; Oct. 9; v. 243; p. 500.
Flag. C. P. Moore. No. 51,443; Oct. 30; v. 243; p. 1292.
Flag-holder. S. A. Weller. No. 51,325; Oct. 2; v. 243; p. 212.
Forks and similar articles, Handle for. G. E. Curtiss. No. 51,312; Oct. 2; v. 243; p. 210.
Game-board. N. W. Hill. No. 51,416; Oct. 23; v. 243; p. 1045.
Hand-bag. E. M. Summers. No. 51,351; Oct. 9; v. 243; p. 502.
Headlight, Automobile-. J. G. Hawley and C. R. Dosch. No. 51,430; Oct. 23; v. 243; p. 1048.
Heater casing, Electric-. E. N. Brown. No. 51,328; Oct. 9; v. 243; p. 497.
Ignition devices, Distributer block for. C. T. Mason. No. 51,442; Oct. 30; v. 243; p. 1292.
Ink-well and pen-rack, Combined. F. L. Borland. No. 51,408; Oct. 23; v. 243; p. 1043.
Kitchen-rack. G. H. Reimer. No. 51,425; Oct. 23; v. 243; p. 1047.
Knob, Porcelain door-. C. L. Helzmann. No. 51,333; Oct. 9; v. 243; p. 498.
Label. A. M. Sweyd. No. 51,426; Oct. 23; v. 243; p. 1047.
Lace. A. R. Koch. No. 51,441; Oct. 30; v. 243; p. 1292.
Lace, Fillet-. E. Zullig. No. 51,450; Oct. 30; v. 243; p. 1293.
Lamp or similar article, Hanging. A. Wahle. No. 51,401; Oct. 16; v. 243; p. 776.
Latch and scutcheon. J. F. White. No. 51,449; Oct. 30; v. 243; p. 1293.
Lens, Illuminating-. E. A. Gillinder. No. 51,412; Oct. 23; v. 243; p. 1044.
Lighting-fixture. H. C. Adam. No. 51,326; Oct. 9; v. 243; p. 497.
Lighting-fixture. H. C. Adam. No. 51,361; Oct. 16; v. 243; p. 768.
Lighting-fixture. D. L. Bean. No. 51,363; Oct. 16; v. 243; p. 769.
Lighting-fixture plate. L. R. Wellman. No. 51,404; Oct. 16; v. 243; p. 776.
Lighting-fixtures, Husk for. C. E. Jones. No. 51,382; Oct. 16; v. 243; p. 772.
Moistener for an envelop, postage-stamp, or similar article. M. F. Bishop. No. 51,436; Oct. 30; v. 243; p. 1291.
Paper or similar article of manufacture, Wall-. W. H. Norton. No. 51,421; Oct. 23; v. 243; p. 1046.
Pin-wheel. B. J. McGoveron. No. 51,348; Oct. 9; v. 243; p. 502.
Pipe, Smoking-. C. E. Hadley. No. 51,332; Oct. 9; v. 243; p. 498.
Pipe cleaner and tamp and match-striker, Combined. J. W. Overturf. No. 51,422; Oct. 23; v. 243; p. 1046.
Plumb-bob. J. A. Moffat. No. 51,420; Oct. 23; v. 243; p. 1045.
Powder-can. V. Vivaudou. No. 51,446; Oct. 30; v. 243; p. 1293.
Radiator attachment, Automobile-. J. H. Warner and H. S. Smith. No. 51,402; Oct. 16; v. 243; p. 776.
Ribbon. J. Sulzbach. No. 51,445; Oct. 30; v. 243; p. 1292.
Ring, Jewelry-. J. T. Bailey. No. 51,311; Oct. 2; v. 243; p. 210.
Ring or similar article, Finger-. J. C. Barker. No. 51,406; Oct. 23; v. 243; p. 1043.
Ring or similar article, Finger-. M. Weiner and I. J. Rifkin. No. 51,448; Oct. 30; v. 243; p. 1293.
Roofing, Ornamental flexible. A. J. Caron. No. 51,438; Oct. 30; v. 243; p. 1291.
Scale casing, Weighing-. O. E. Wagner and E. H. Funke. No. 51,400; Oct. 16; v. 243; p. 775.
Scale casing, Weighing-. J. B. Watling. No. 51,403; Oct. 16; v. 243; p. 776.
Shoe. B. S. Barsamian. No. 51,407; Oct. 23; v. 243; p. 1043.
Shoe. A. Ollariu. No. 51,388; Oct. 16; v. 243; p. 773.
Smoker's outfit. J. F. Zeckert. No. 51,380; Oct. 16; v. 243; p. 771.
Soap and other toilet articles, Wall-receptacle for. S. D. Baker. No. 51,405; Oct. 23; v. 243; p. 1043.
Soap, Bar of. A. L. Schwartzberg. No. 51,395; Oct. 16; v. 243; p. 774.
Spoon. S. A. Galpin. No. 51,369; Oct. 16; v. 243; p. 770.
Spoon, fork, or similar article. H. Hillbom. No. 51,431; Oct. 23; v. 243; p. 1048.
Spoon, fork, or similar article. F. Schwinn. Nos. 51,396–7; Oct. 16; v. 243; pp. 774–5.
Spoons, forks, or similar articles, Handle for. B. P. Jenks. No. 51,381; Oct. 16; v. 243; p. 771.
Station, Service-. S. W. Raymond. No. 51,322; Oct. 2; v. 243; p. 212.
Statuette. E. Davis. Nos. 51,313–14; Oct. 2; v. 243; p. 210.
Statuette or doll. M. E. Harris. No. 51,415; Oct. 23; v. 243; p. 1044.
Store-front. C. L. Taylor. No. 51,399; Oct. 16; v. 243; p. 775.
Stove. M. R. Lehman. Nos. 51,344–5; Oct. 9; v. 243; p. 501.
Suitcase. C. F. Blanke. No. 51,437; Oct. 30; v. 243; p. 1291.
Tag-holder. J. C. King. No. 51,386; Oct. 16; v. 243; p. 772.
Talking-machine cabinet. C. Hine. Nos. 51,334–41; Oct. 9; v. 243; pp. 498–500.
Tea-pot or similar article. H. Hillbom. No. 51,379; Oct. 16; v. 243; p. 771.
Tire, Automobile-. C. L. Archer. No. 51,428; Oct. 23; v. 243; p. 1047.
Tire, Elastic vehicle-. G. W. Greene. No. 51,413; Oct. 23; v. 243; p. 1044.

Tire, Pneumatic. A. A. Garthwaite. No. 51,370; Oct. 16; v. 243; p. 770.
Tire-tread. W. C. Beckwith. No. 51,435; Oct. 30; v. 243; p. 1290.
Tire-tread. C. L. Landon. No. 51,418; Oct. 23; v. 243; p. 1045.
Tire-tread. G. H. Lewis. No. 51,346; Oct. 9; v. 243; p. 501.
Tire-tread. W. H. Owens. No. 51,423; Oct. 23; v. 243; p. 1046.
Tire-tread. A. L. Pearce. No. 51,391; Oct. 16; v. 243; p. 773.
Tire-tread, Non-skid. C. L. Archer. No. 51,429; Oct. 23; v. 243; p. 1047.
Toy, Balancing. P. Pezuto. No. 51,321; Oct. 2; v. 243; p. 212.
Toy figure. H. Klagsbrunn. No. 51,440; Oct. 30; v. 243; p. 1291.
Tractor-frame. D. Parrett. No. 51,424; Oct. 23; v. 243; p. 1046.
Traffic-signal. H. Masterson. No. 51,347; Oct. 9; v. 243; p. 501.
Trays or similar articles, Support for. M. Herbert. No. 51,315; Oct. 2; v. 243; p. 211.
Type, Font of. S. C. Gaunt. Nos. 51,371–8; Oct. 16; v. 243; pp. 770–1.
Vacuum-cleaner casing. W. E. Sherbondy. No. 51,444; Oct. 30; v. 243; p. 1292.
Vanity-case. F. W. Elchorn. No. 51,367; Oct. 16; v. 243; p. 769.
Vending-machine casing. J. Paupa and G. F. Hochriem. Nos. 51,389–90; Oct. 16; v. 243; p. 773.
Vending-machine casing. W. I. Ravert. No. 51,393; Oct. 16; v. 243; p. 774.
Wall-covering. E. C. Baeck. No. 51,434; Oct. 30; v. 243; p. 1290.
Watchcase and dial. F. G. Gruen. No. 51,439; Oct. 30; v. 243; p. 1291.
Watchcase-pendant. A. W. Wadsworth. No. 51,353; Oct. 9; v. 243; p. 503.
Weeder-head. J. V. Bredle. No. 51,327; Oct. 9; v. 243; p. 497.
Wheel fender, Vehicle-. E. G. Budd. No. 51,410; Oct. 23; v. 243; p. 1044.

ALPHABETICAL LIST OF TRADE-MARKS.

Abrasive, detergent, and polishing material, Certain. Lapin and Calehuff. No. 118,976; Oct. 16; v. 243; p. 790.
Abrasive, detergent, and polishing materials, Certain named. American Optical Company. No. 119,023; Oct. 23; v. 243; p. 1059.
Abrasives for use in grinding, Natural and artificial. The National Abrasive Company. No. 118,990; Oct. 16; v. 243; p. 790.
Acetylsalicylic acid. International Drug Company. No. 118,782; Oct. 2; v. 243; p. 236.
Adhesives, Certain named. W. J. Lumley. No. 118,893; Oct. 9; v. 243; p. 520.
Aero-propelled ice-sled. Aerothrust Engine Company. No. 119,015; Oct. 23; v. 243; p. 1059.
Aeroplanes and airships. Sunbeam Motor Car Company. No. 119,217; Oct. 30; v. 243; p. 1306.
Animal-traps. Oneida Community. Nos. 119,204–7; Oct. 30; v. 243; p. 1306.
Antiseptic, Non-toxic and non-caustic. The Abbott Laboratories. No. 119,014; Oct. 23; v. 243; p. 1059.
Aperient, laxative, and purgative. Julius Kalish, Inc. No. 118,786; Oct. 2; v. 243; p. 237.
Apparel, Certain named female wearing-. E. Newgass. No. 118,911; Oct. 9; v. 243; p. 521.
Apparel, Certain named wearing-. Margot. No. 118,901; Oct. 9; v. 243; p. 520.
Aprons. The E. B. Kursheedt Apron Co. No. 118,889; Oct. 9; v. 243; p. 520.
Automobile equipment and supplies, Certain named. Weiss-Bosley Sales Company. No. 119,224; Oct. 30; v. 243; p. 1307.
Automobile-lenses. Glowlite Company. No. 119,186; Oct. 30; v. 243; p. 1305.
Automobile-radiator ornaments. The Art Metal Works. No. 119,164; Oct. 30; v. 243; p. 1305.
Automobiles. The Allen Motor Co. No. 119,018; Oct. 23; v. 243; p. 1059.
Automobiles. Darling Motor Company. No. 118,864; Oct. 9; v. 243; p. 519.
Automobiles. The Owen Magnetic Car Co. of Philadelphia. No. 118,806; Oct. 2; v. 243; p. 237.
Automobiles and motor-cars. The Denneen Motor Company. No. 118,756; Oct. 2; v. 243; p. 236.
Automobiles, Trailer-truck for attachment to. M. R. D. Owings. No. 119,209; Oct. 30; v. 243; p. 1306.
Bacon, Sugar-cured. Armstrong Packing Company. No. 119,027; Oct. 23; v. 243; p. 1059.
Baggage, horse equipments, portfolios, and pocket-books, Certain named. Goldman Costume Company. No. 118,768; Oct. 2; v. 243; p. 236.
Baggage—namely, trunks, suitcases, &c. Berg Auto Trunk & Specialty Co. No. 118,741; Oct. 2; v. 243; p. 235.
Ball bats, Base-. Hillerich & Bradsby Company. No. 119,076; Oct. 23; v. 243; p. 1061.
Banana-ripeners and gas-heaters. Illinois Specialty Manufacturing Co. No. 118,780; Oct. 2; v. 243; p. 236.
Beds, cribs, bed-springs, cots, Iron and brass. Crescent Bed Co. No. 118,863; Oct. 9; v. 243; p. 519.
Belt, brake-lining, clutch, &c., dressing. G. W. Campbell. No. 118,951; Oct. 16; v. 243; p. 789.
Belting. Higrade Belting & Weaving Co. No. 119,190; Oct. 30; v. 243; p. 1306.
Belting, Canvas. R. L. Ream. No. 118,997; Oct. 16; v. 243; p. 790.
Belting, hose, machinery packing, and non-metallic tires. The Mutual Motor Stores Company. No. 118,989; Oct. 16; v. 243; p. 790.
Belting, Leather. Penn Leather Company. No. 118,810; Oct. 2; v. 243; p. 237.
Belting, Power-transmission leather. Philadelphia Belting Co. No. 118,811; Oct. 2; v. 243; p. 237.
Beverage composed mainly of fruit-juices, Non-alcoholic. J. von Epler. No. 119,220; Oct. 30; v. 243; p. 1307.
Beverage, Concentrated lime-juice. Nyal Company. No. 119,201; Oct. 30; v. 243; p. 1306.
Beverage, Non-alcoholic carbonated. Majestic Bottling Co. No. 119,197; Oct. 30; v. 243; p. 1306.
Beverage of a malt nature, Non-intoxicating. John B. Busch Brewing Co. No. 118,950; Oct. 16; v. 243; p. 789.
Beverage of a malt nature of the kind known as soft drinks, Non-intoxicating. Griesedieck Beverage Company. No. 118,770; Oct. 2; v. 243; p. 236.
Beverage sold as a soft drink, Non-alcoholic. Drink and Be Sober Co. No. 118,867; Oct. 9; v. 243; p. 519.
Beverage sold as a soft drink, Non-intoxicating non-alcoholic. Omaha Beverage Company. No. 119,203; Oct. 30; v. 243; p. 1306.
Beverages. National Brewing Company. No. 119,105; Oct. 23; v. 243; p. 1061.
Beverages, Certain named non-alcoholic. P. Ballantine & Sons. No. 119,029; Oct. 23; v. 243; p. 1059.
Beverages sold as soft drinks, Non-alcoholic maltless. The Syrup Products Company. No. 118,924; Oct. 9; v. 243; p. 521.
Bicycles. Swedish Separator Co. No. 118,832; Oct. 2; v. 243; p. 238.
Biscuit. National Biscuit Company. No. 119,200; Oct. 30; v. 243; p. 1306.
Blankets, Pure cotton. Nashua Manuf'g Company. No. 118,908; Oct. 9; v. 243; p. 521.
Blankets, sheets, dusters, &c., for horses, cows, and other animals. L. C. Chase & Company. No. 119,041; Oct. 23; v. 243; p. 1060.
Bluing and ammonia. Smith & Horton Co. No. 119,129; Oct. 23; v. 243; p. 1062.
Boilers and radiators for steam and hot-water heat, Cast-iron. National Radiator Company. No. 118,992; Oct. 16; v. 243; p. 790.
Bolts, Toggle-. U. S. Expansion Bolt Co. No. 118,836; Oct. 2; v. 243; p. 238.
Books and pamphlets, Printed. The Wild Gardens of Acadia. No. 118,840; Oct. 2; v. 243; p. 238.
Boot and shoe polishes and creams, saddle and harness paste. W. Wren & Co. No. 119,013; Oct. 16; v. 243; p. 791.
Boot and shoe polishing and cleansing materials. C. L. Hauthaway. No. 119,075; Oct. 23; v. 243; p. 1061.
Boots and shoes. Larsen & Jensen. No. 119,087; Oct. 23; v. 243; p. 1061.
Boots and shoes, Leather. C. O. Normandy. No. 118,913; Oct. 9; v. 243; p. 521.
Boots and shoes, Men's and boys' leather. Wrock & Schueler. No. 118,936; Oct. 9; v. 243; p. 522.
Boots and shoes made of certain named material. W. H. McElwain Company. No. 118,894; Oct. 9; v. 243; p. 520.
Bottles, Nursing-. H. C. Dunfee. No. 119,059; Oct. 23; v. 243; p. 1060.
Brake-lining. Thermoid Rubber Company. No. 118,833; Oct. 2; v. 243; p. 238.
Brake-linings. S. Flory Mfg. Co. No. 119,182; Oct. 30; v. 243; p. 1305.
Brick and tile. B. Mifflin Hood Brick Co. No. 119,199; Oct. 30; v. 243; p. 1306.
Brick, tile, and burnt clay for use in building construction. A. Hardoncourt, Jr. No. 118,775; Oct. 2; v. 243; p. 236.
Bricks, tiles, and furnace-linings, Refractory. G. A. Balz. No. 119,030; Oct. 23; v. 243; p. 1059.
Brooms. Columbia Broom Works. No. 119,046; Oct. 23; v. 243; p. 1060.
Brushes, Paint-. E. Clinton & Co. No. 119,174; Oct. 30; v. 243; p. 1305.
Brushes, Tooth-. Harris and Berntz Co. No. 119,074; Oct. 23; v. 243; p. 1061.
Buildings, Sectional. The Togan-Stiles Company. No. 119,007; Oct. 16; v. 243; p. 791.
Bulletins, Quarterly. American International Corporation. No. 119,160; Oct. 30; v. 243; p. 1305.
Buttons used as garment-fasteners, Snap-. The Autoyre Company. No. 118,739; Oct. 2; v. 243; p. 235.
Cabinets, Spice-. A. Kreamer, Inc. No. 118,888; Oct. 9; v. 243; p. 520.
Candy. D. Auerbach & Sons. No. 118,848; Oct. 9; v. 243; p. 519.
Candy. Jacobs Candy Company. No. 118,973; Oct. 16; v. 243; p. 790.
Candy, Edible. S. Goldberg. No. 118,967; Oct. 16; v. 243; p. 790.
Candy, Hard. Repetti. No. 118,814; Oct. 2; v. 243; p. 237.
Canned chicken à la King, canned chicken and canned tomato soups. Overseas Products Corporation. No. 119,108; Oct. 23; v. 243; p. 1062.
Canned fish. Castello Branco & Commandita. No. 118,952; Oct. 16; v. 243; p. 789.
Canned fruits and vegetables. Davis-Dougherty Canning Co. No. 118,865; Oct. 9; v. 243; p. 519.
Canned fruits, vegetables, oysters, &c.; fresh fruits, vegetables, &c. Torsch Packing Co. No. 119,008; Oct. 16; v. 243; p. 791.
Canned goods. B. Levy. No. 119,091; Oct. 23; v. 243; p. 1061.
Canned salmon, cove-oysters, shrimp, &c. The Kroger Grocery & Baking Co. No. 118,791; Oct. 2; v. 243; p. 237.
Canned sardines and clams. A. L. Johnson. No. 118,785; Oct. 2; v. 243; p. 237.
Canned vegetables. J. M. Michael. No. 118,798; Oct. 2; v. 243; p. 237.

Car-chassis into a motor-truck, Devices for converting a pleasure-. Graham Brothers. No. 119,187; Oct. 30; v. 243; p. 1305.
Cardboard blanks. Sabin Robbins Paper Co. No. 119,214; Oct. 30; v. 243; p. 1306.
Cartoon and drawings. W. R. Allman. No. 118,939; Oct. 16; v. 243; p. 789.
Castings, Steel. The Canton Steel Foundry Company. No. 119,038; Oct. 23; v. 243; p. 1059.
Castoria. J. H. Larson. No. 119,088; Oct. 23; v. 243; p. 1061.
Cement, Adhesive metal-. G. E. R. Rothenbucher. No. 119,119; Oct. 23; v. 243; p. 1062.
Cement and asbestile fibrous mineral combined to form asbestile flashing and roof cement, Asbestile liquid. H. W. Johns-Manville Co. No. 118,882; Oct. 9; v. 243; p. 520.
Chairs and settees, Upholstered. B. Altman & Co. No. 118,732; Oct. 2; v. 243; p. 235.
Cheese. Gerber & Co. No. 119,185; Oct. 30; v. 243; p. 1305.
Cheese, Cream-. L. Kadans. No. 119,082; Oct. 23; v. 243; p. 1061.
Chocolates and candies. Wallace & Co. No. 118,837; Oct. 2; v. 243; p. 238.
Chocolates of all kinds. Paul F. Beich Co. No. 119,033; Oct. 23; v. 243; p. 1059.
Cigars. M. H. Barnett. No. 118,740; Oct. 2; v. 243; p. 235.
Cigars. G. E. Dawson. No. 118,754; Oct. 2; v. 243; p. 236.
Cigars. General Cigar Co. Nos. 119,183–4; Oct. 30; v. 243; p. 1305.
Cigars. Kellogg Toasted Corn Flake Co. No. 119,192; Oct. 30; v. 243; p. 1306.
Cigars. L. Michelson & Bro. No. 118,985; Oct. 16; v. 243; p. 790.
Cigars. W. M. Wattles. No. 119,223; Oct. 30; v. 243; p. 1307.
Cigars, cigarettes, cheroots, &c. R. Lobravico & Son. No. 119,196; Oct. 30; v. 243; p. 1306.
Cigars, cigarettes, cheroots, stogies, tobacco. R. Lobravico & Son. No. 118,794; Oct. 2; v. 243; p. 237.
Clamps and bushings, Ground. David Killoch Co. No. 118,886; Oct. 9; v. 243; p. 520.
Cleaner and polish for automobile-bodies and other enameled surfaces. F. J. Kelley. No. 118,974; Oct. 16; v. 243; p. 790.
Cleaning and preserving preparation for certain named articles of wearing-apparel. Packard Dressing Co. No. 118,807; Oct. 2; v. 243; p. 237.
Cleaning compound, Liquid. H. I. De Freitas. No. 118,957; Oct. 16; v. 243; p. 789.
Cleaning, scouring, or polishing, Detergent preparation for. Enoch Morgan's Sons Company. No. 118,986; Oct. 16; v. 243; p. 790.
Cleansing compound. Excelsior Carpet Cleansers. No. 119,181; Oct. 30; v. 243; p. 1305.
Cleansing compositions. Savon Chemical Co. No. 119,122; Oct. 23; v. 243; p. 1062.
Clocks, Alarm-. Western Clock Co. No. 119,011; Oct. 16; v. 243; p. 791.
Clothing, Certain named. J. Bacon & Sons. No. 118,943; Oct. 16; v. 243; p. 789.
Clothing, Certain named. Macullar Parker Company. No. 118,895; Oct. 9; v. 243; p. 520.
Clothing, Certain named. A. M. Malouf. No. 118,898; Oct. 9; v. 243; p. 520.
Clothing, Certain named. Martins Birmingham Limited. No. 118,982; Oct. 16; v. 243; p. 790.
Clothing, Certain named. United States Rubber Company. No. 118,933; Oct. 9; v. 243; p. 521.
Clothing, Certain named men's. Franklin Simon & Co. No. 118,921; Oct. 9; v. 243; p. 521.
Clothing, Certain named men's. United Dollar Shirt Shops. No. 118,927; Oct. 9; v. 243; p. 521.
Clothing for children and workmen's shirts, overalls, and pants, Certain named. V. Montwid & Son. No. 118,907; Oct. 9; v. 243; p. 521.
Clothing for women, misses, nurses, and maids, Certain named. H. Cohen. No. 119,175; Oct. 30; v. 243; p. 1305.
Coal. Ferguson-Spears Coal Company. No. 118,764; Oct. 2; v. 243; p. 236.
Coats, Men's. C. Kenyon Company. No. 119,083; Oct. 23; v. 243; p. 1061.
Coats, outer suits and skirts, and dresses, Ladies'. L. A. Mendelson. No. 118,902; Oct. 16; v. 243; p. 520.
Coats, suits, and dresses. Wyman, Partridge & Co. No. 119,158; Oct. 23; v. 243; p. 1063.
Coats, trousers, and vests. Leopold, Solomon & Eisendrath. No. 118,890; Oct. 9; v. 243; p. 520.
Coats, waist-coats, trousers, and overcoats, Men's. G. G. Benjamin. No. 119,034; Oct. 23; v. 243; p. 1059.
Coffee and tea. Mazo Brothers. No. 118,983; Oct. 16; v. 243; p. 790.
Collars, Men's, boys', and women's. The Celluloid Company. No. 118,858; Oct. 9; v. 243; p. 519.
Confections. H. C. Small. No. 118,922; Oct. 9; v. 243; p. 521.
Construction materials, Certain named. The Arco Company. No. 118,847; Oct. 9; v. 243; p. 519.
Cordage. C. Weiner. No. 119,150; Oct. 23; v. 243; p. 1063.
Cordage, Certain named. Goldman Costume Company. No. 118,769; Oct. 2; v. 243; p. 236.
Corduroys, pile fabrics, fustians, &c. Merrimack Manufacturing Company. No. 118,903; Oct. 16; v. 243; p. 521.
Cork composition used as a covering for rolls and other objects. Armstrong Cork Co. No. 118,942; Oct. 16; v. 243; p. 789.
Corsets. Improved Stay Company. No. 118,972; Oct. 16; v. 243; p. 790.
Corset. The Kreeger Store, Incorporated. No. 119,086; Oct. 23; v. 243; p. 1061.
Corsets. W. C. Munn Company. No. 118,988; Oct. 16; v. 243; p. 790.
Costumes, doctors' coats, trousers, and overalls, &c., Nurses'. Altro Manufacturing Company. No. 118,844; Oct. 9; v. 243; p. 519.
Cotton and silk piece goods. M. Strauss. No. 119,132; Oct. 23; v. 243; p. 1062.
Cotton fabrics, Imitation-leather. Merrimack Manufacturing Company. No. 118,984; Oct. 16; v. 243; p. 790.
Cotton fabrics known as nainsooks and batistes. Mills & Gibb Corporation. No. 118,905; Oct. 9; v. 243; p. 521.
Cotton piece goods. Amory, Browne & Co. No. 118,941; Oct. 16; v. 243; p. 789.
Crackers, cakes, and biscuits. The Purity Biscuit Company. No. 118,996; Oct. 16; v. 243; p. 790.
Cream, Vanishing face-. B. Fonstein. No. 118,765; Oct. 2; v. 243; p. 236.
Creams, Witch-hazel and cold. S. I. Welsher. No. 118,839; Oct. 2; v. 243; p. 238.
Crucifixes and hierological statues and reliefs. The Pioneer Corporation. No. 118,812; Oct. 2; v. 243; p. 237.
Cultivators and cultivator-blades. The Harriman Manufacturing Company. No. 119,073; Oct. 23; v. 243; p. 1061.
Cutlery, machinery, and tools, Certain named. American Optical Company. No. 119,020; Oct. 23; v. 243; p. 1059.
Dental cream. The Iodine Products Company. No. 118,784; Oct. 2; v. 243; p. 236.
Dental impression-trays. R. H. Lieberthal. No. 118,891; Oct. 9; v. 243; p. 520.
Dental, medical, and surgical appliances, Certain named. United States Rubber Company. No. 118,929; Oct. 9; v. 243; p. 521.
Dental, medical, and surgical appliances, Certain named. L. J. Weinstein. No. 119,151; Oct. 23; v. 243; p. 1063.
Dextrins, adhesive and soluble starch-gums. Chas. Morningstar & Co. No. 118,801; Oct. 2; v. 243; p. 237.
Disinfectant and insecticide preparations. H. F. Wex. No. 119,153; Oct. 23; v. 243; p. 1063.
Dresses, Children's. Elite Garment Company. No. 118,870; Oct. 9; v. 243; p. 519.
Dresses, coats, suits, skirts, &c. The Robbins Dress Company. No. 119,000; Oct. 16; v. 243; p. 791.
Dresses, Women's. Sassy Jane Manufacturing Company. No. 118,920; Oct. 9; v. 243; p. 521.
Drinking-bowl, Animal. Livestock Individual Drinking Fountain Company. No. 118,793; Oct. 2; v. 243; p. 237.
Dyes for dyeing leather. A. Passero. No. 118,808; Oct. 2; v. 243; p. 237.
Eggs. Colytic Corporation. No. 118,953; Oct. 16; v. 243; p. 789.
Electrical apparatus, machines, and supplies, Certain named. A. Graham & Co. No. 119,072; Oct. 23; v. 243; p. 1060.
Electrical conduits. Triangle Conduit Co. No. 118,834; Oct. 2; v. 243; p. 238.
Embroidery-floss. Art Embroidery and Button Co. No. 119,163; Oct. 30; v. 243; p. 1305.
Enamel, Metal. W. E. Martin. No. 119,096; Oct. 23; v. 243; p. 1061.
Engines, Internal-combustion. Domestic Engine & Pump Co. No. 119,179; Oct. 30; v. 243; p. 1305.
Fabrics, Woolen dress. Wm. F. Read & Sons Company. No. 119,116; Oct. 23; v. 243; p. 1062.
Fasteners, Dress snap-. Mills & Gibb Corporation. No. 119,102; Oct. 23; v. 243; p. 1061.
Fasteners, Snap-. The Autoyre Co. No. 118,738; Oct. 2; v. 243; p. 235.
Feed for farm-stock. The Shoemaker Company. Nos. 118,821–3; Oct. 2; v. 243; p. 238.
Fertilizer. J. L. Stoltz. No. 118,829; Oct. 2; v. 243; p. 238.
Files, tweezers, and blackhead-removers, Nail-. J. Hopkins. No. 118,778; Oct. 2; v. 243; p. 236.
Filters and filtering apparatus. Industrial Filtration Corporation. No. 118,781; Oct. 2; v. 243; p. 236.
Fishing-lines. Castine Line & Twine Company. Nos. 118,747–8; Oct. 2; v. 243; p. 235.
Flagstaff, &c., holders. W. L. Deming. No. 119,054; Oct. 23; v. 243; p. 1060.
Flash-lights, Hand. H. L. Kirk. No. 119,085; Oct. 23; v. 243; p. 1061.
Flavoring extracts and spices, Food-. Bruhn Medical Company. No. 118,949; Oct. 16; v. 243; p. 789.
Floss, thread, machine-twist, darning-cotton, &c. Western Thread Company. No. 119,012; Oct. 16; v. 243; p. 791.

Flour, bran, and offal, Wheat. E. Aughenbaugh & Co. No. 118,763; Oct. 2; v. 243; p. 236.
Flour, grain, and mill feed, Wheat-. Annan-Burg Grain & Milling Company. No. 118,735; Oct. 2; v. 243; p. 235.
Flour, Self-rising wheat-. Beeland-Nicholson Wholesale Co. No. 119,032; Oct. 23; v. 243; p. 1059.
Flour, Wheat-. John P. Dousman Milling Co. No. 118,759; Oct. 2; v. 243; p. 236.
Flour, Wheat-. The Colorado Milling & Elevator Co. Nos. 119,044–5; Oct. 23; v. 243; p. 1060.
Flour, Wheat-. Dundas Brothers Co. No. 118,959; Oct. 16; v. 243; p. 789.
Flour, Wheat-. Enid Milling Company. Nos. 119,062–3; Oct. 23; v. 243; p. 1060.
Flour, Wheat-. S. F. Gilman. No. 118,966; Oct. 16; v. 243; p. 789.
Flour, Wheat-. R. E. Kidder. No. 119,084; Oct. 23; v. 243; p. 1061.
Flour, Wheat-. The Loudonville Mill & Grain Co. No. 119,093; Oct. 23; v. 243; p. 1061.
Flour, Wheat-. The Mansfield Milling Co. No. 118,796; Oct. 2; v. 243; p. 237.
Flour, Wheat-. The Midland Milling Company. Nos. 119,100–1; Oct. 23; v. 243; p. 1061.
Flour, Wheat-. The Raymond Hadley Corporation. Nos. 119,114–15; Oct. 23; v. 243; p. 1062.
Flour, Wheat-. W. R. Cornelius and Son. No. 119,048; Oct. 23; v. 243; p. 1060.
Flours, Pancake, buckwheat, corn, and wheat. Aunt Jemima Mills Company. No. 118,737; Oct. 2; v. 243, p. 235.
Food product, Certain. Beech-Nut Packing Company. No. 118,945; Oct. 16; v. 243; p. 789.
Food, Stock. Gulfport Grocery Company. No. 118,969; Oct. 16; v. 243; p. 790.
Foods, Certain named. E. C. Gatlin Importing Company. No. 118,766; Oct. 2; v. 243; p. 236.
Foods, Certain named. Goldman Costume Company. No. 118,875; Oct. 9; v. 243; p. 520.
Foods, Certain named. All-Package Grocery Stores Co. No. 119,017; Oct. 23; v. 243; p. 1059.
Foods, Certain named. C. I. Cook. No. 119,047; Oct. 23; v. 243; p. 1060.
Foods, Certain named. B. Levy. No. 119,092; Oct. 23; v. 243; p. 1061.
Freezers, Liquid-. Auto Vacuum Freezer Company. No. 118,849; Oct. 9; v. 243; p. 519.
Frogs, Cast-steel. The Weir Frog Company. No. 119,152; Oct. 23; v. 243; p. 1063.
Frosting compound for frosting surface of glass articles. The Frost-a-Lite Co. No. 119,067; Oct. 23; v. 243; p. 1060.
Fry-pans. New York Stamping Company. No. 119,107; Oct. 23; v. 243; p. 1062.
Furnace-bulbs, basin-plugs, force-cups, &c. United States Rubber Company. No. 119,144; Oct. 23; v. 243; p. 1063.
Furnace-linings and the like, Refractory materials for. Dolomite Products Company. No. 119,178; Oct. 30; v. 243; p. 1305.
Fuse, Safety-. Coast Manufacturing and Supply Company. No. 118,861; Oct. 9; v. 243; p. 519.
Games. Milton Bradley Co. No. 118,856; Oct. 9; v. 243; p. 519.
Games, building-blocks, and toy furniture, Children's. The Redsquare Company. No. 118,813; Oct. 2; v. 243; p. 237.
Garments and appliances, Certain named sanitary. A. Stein & Co. No. 118,828; Oct. 2; v. 243; p. 238.
Garments for outer wear, Women's. M. E. Smith & Co. No. 118,923; Oct. 9; v. 243; p. 521.
Garments, Ladies' ready-to-wear. J. W. Ornstein. No. 119,208; Oct. 30; v. 243; p. 1306.
Garments, Women's and children's embroidered cotton or silk. R. Viegelmann. No. 118,935; Oct. 9; v. 243; p. 522.
Ginghams. The Boston Manufacturing Company. No. 118,855; Oct. 9; v. 243; p. 519.
Glass, Sheet-. The Libbey-Owens Sheet Glass Company. No. 118,792; Oct. 2; v. 243; p. 237.
Glassware. L. Straus & Sons. No. 118,830; Oct. 2; v. 243; p. 238.
Gloves. Harris-Polk Hat Co. Nos. 118,877–8; Oct. 9; v. 243; p. 520.
Glue. Progressive Glue Co. No. 118,916; Oct. 9; v. 243; p. 521.
Grape-juice. All-Package Grocery Stores Co. No. 118,731; Oct. 2; v. 243; p. 235.
Gum, Chewing-. Common Sense Gum Company. No. 118,954; Oct. 16; v. 243; p. 789.
Gum, Chewing-. George Brothers Company. No. 119,068; Oct. 23; v. 243; p. 1060.
Hair-curlers. M. J. Peppard. No. 119,098; Oct. 23; v. 243; p. 1061.
Hair-nets. Mills & Gibb Corporation. No. 118,906; Oct. 9; v. 243; p. 521.
Handkerchiefs. Brandon, Magnus & Leon. No. 118,948; Oct. 16; v. 243; p. 789.
Handkerchiefs. Cluett, Peabody & Co. No. 118,860; Oct. 9; v. 243; p. 519.
Hardware and plumbing and steam-fitting supplies, Certain named. American Steel Export Company. No. 118,734; Oct. 2; v. 243; p. 235.
Hardware and plumbing and steam-fitting supplies, Certain named. Columbian Enameling & Stamping Company. No. 118,751; Oct. 2; v. 243; p. 235.
Hardware and plumbing and steam-fitting supplies, Certain named. The F. A. Nelder Company. No. 118,804; Oct. 2; v. 243; p. 237.
Harmonic strings. Hawkes & Son. No. 118,970; Oct. 16; v. 243; p. 790.
Hat sweat-bands. Brigham Hopkins Co. No. 118,880; Oct. 9; v. 243; p. 520.
Headlight-lenses. Super-Lighting Company. No. 119,218; Oct. 30; v. 243; p. 1306.
Horse-collars. The Bonicamp Manufacturing Company. No. 118,853; Oct. 9; v. 243; p. 519.
Hosiery. The Beebe-Howes Company. No. 118,852; Oct. 9; v. 243; p. 519.
Houses, Sectional. Manchester Manufacturing Company. No. 118,979; Oct. 16; v. 243; p. 790.
Insecticide. W. J. Bixler. No. 118,745; Oct. 2; v. 243; p. 235.
Insecticide and deodorizer. White Cross Chemical Company. No. 119,154; Oct. 23; v. 243; p. 1063.
Insecticides, germicides, disinfectants, &c. Midland Chemical Company. No. 119,099; Oct. 23; v. 243; p. 1061.
Insulated wire and friction-tape. United States Rubber Company. No. 119,143; Oct. 23; v. 243; p. 1063.
Jar-rings. The Mechanical Rubber Company. No. 119,198; Oct. 30; v. 243; p. 1306.
Jewelry and precious-metal ware, Certain named. J. M. Fisher Company. No. 118,965; Oct. 16; v. 243; p. 789.
Knitted and textile material, Certain named underwear of. The Friedman Company. No. 118,872; Oct. 9; v. 243; p. 520.
Knitted, netted, and textile fabrics, Certain named. Derryvale Linen Company. No. 118,866; Oct. 9; v. 243; p. 519.
Knitted, netted, and textile fabrics, Certain named. A. M. Malouf. No. 118,897; Oct. 9; v. 243; p. 520.
Lantern-lenses. Johnston Glass Co. No. 119,191; Oct. 30; v. 243; p. 1306.
Lathes. Dalton Machine Co. No. 119,051; Oct. 23; v. 243; p. 1060.
Laundry appliances and machines, Certain named. Goldman Costume Company. No. 118,874; Oct. 9; v. 243; p. 520.
Lavatories. Kohler Co. No. 118,788; Oct. 2; v. 243; p. 237.
Lettuce. C. W. Zuck & Sons. No. 119,159; Oct. 23; v. 243; p. 1063.
Lime, Agricultural. The Agricultural and Commercial Lime Company. No. 118,729; Oct. 2; v. 243; p. 235.
Lime, Agricultural. The Agricultural and Commercial Lime Company. No. 118,843; Oct. 9; v. 243; p. 519.
Limestone, Agricultural ground. Kentucky Lithograph Stone Co. No. 118,885; Oct. 9; v. 243; p. 520.
Linen and half-linen piece goods. Remy, Schmidt & Pleissner. No. 118,919; Oct. 9; v. 243; p. 521.
Liniment, salve, and tonic for pellagra, piles, and blood impurities. A. Brown. No. 119,037; Oct. 23; v. 243; p. 1059.
Lozenges, Mint. L. N. Moss. No. 118,987; Oct. 16; v. 243; p. 790.
Magazines, Monthly. Hubbard Milling Co. No. 118,779; Oct. 2; v. 243; p. 236.
Magazines or periodicals, Monthly. American Optical Company. No. 118,733; Oct. 2; v. 243; p. 235.
Mandolins, guitars, music-rolls, &c. Sears, Roebuck and Co. No. 119,126; Oct. 23; v. 243; p. 1062.
Massage-vibrators and electric-massage-treatment apparatus. Adbro Manufacturing Company. No. 118,728; Oct. 2; v. 243; p. 235.
Mats, Cocoa. F. G. Ruddiman Company. No. 118,815; Oct. 2; v. 243; p. 237.
Matting, tapestry, carpets, rugs, mats. A. M. Malouf. No. 118,978; Oct. 16; v. 243; p. 790.
Mattresses. The Cudahy Packing Company. No. 118,752; Oct. 2; v. 243; p. 235.
Measuring and scientific appliances, Certain named. American Optical Company. No. 119,022; Oct. 23; v. 243; p. 1059.
Medical preparation for gastro-intestinal disturbances. Berlin Laboratory. No. 119,035; Oct. 23; v. 243; p. 1059.
Medicinal compound for the treatment of certain named diseases. Royal Remedies Company. No. 119,120; Oct. 23; v. 243; p. 1062.
Medicine for irregular bowels and constipation. Habbard Medical Mfg. Co. No. 118,773; Oct. 2; v. 243; p. 236.
Medicine for treatment of certain named diseases. Sulferro-Sol Company. No. 119,133; Oct. 23; v. 243; p. 1062.
Medicines and remedies for treatment of certain named diseases, Proprietary. World's Dispensary Medical Association. No. 119,157; Oct. 23; v. 243; p. 1063.
Metal, Babbitt. Syracuse Smelting Works. No. 119,134; Oct. 23; v. 243; p. 1062.
Metal ware of brass, copper, bronze, pewter, aluminum, &c., Hollow. George Borgfeldt & Co. No. 118,854; Oct. 9; v. 243; p. 519.
Metals and metal castings and forgings, Certain named. United Smelting & Aluminum Company. No. 119,142; Oct. 23; v. 243; p. 1063.
Mirrors. Defiance Check Writer Corporation. No. 119,053; Oct. 23; v. 243; p. 1060.

Naphtha, gasolene, benzin, &c. Tide Water Oil Co. No. 119,138; Oct. 23; v. 243; p. 1062.
Nettings, veils, and veilings in the piece. E. & Z. Van Raalte. No. 118,934; Oct. 9; v. 243; p. 522.
Newspaper-section. King Feature Syndicate. No. 118,975; Oct. 16; v. 243; p. 790.
Oil, Hair and scalp. Hairpidermis Cosmetic Manufacturing Co. No. 118,774; Oct. 2; v. 243; p. 236.
Oil, Olive-. L. E. Schoenfeld. No. 118,818; Oct. 2; v. 243; p. 238.
Oils and greases. Crew Levick Company. No. 119,050; Oct. 23; v. 243; p. 1060.
Oils and lubricant, Lubricating-. B. G. Desmond. No. 119,057; Oct. 23; v. 243; p. 1060.
Oils, Leather-dressing. The Pierce Company. No. 119,111; Oct. 23; v. 243; p. 1062.
Ointment for sores, ulcers, and piles. Habbard Medical Mfg. Co. No. 118,772; Oct. 2; v. 243; p. 236.
Oranges, lemons, and grape-fruit. E. B. Leach. No. 118,977; Oct. 16; v. 243; p. 790.
Orchestrions, Pneumatically-operated. The American Photo Player Sales Company. No. 119,024; Oct. 23; v. 243; p. 1059.
Order-sheet and envelop, Combined. American Loose Leaf Mfg. Co. No. 118,845; Oct. 9; v. 243; p. 519.
Overalls. H. A. Baker Company. No. 118,944; Oct. 16; v. 243; p. 789.
Overalls and work-pants, shirts, and jumpers. N. B. Tichenor. Nos. 118,925–6; Oct. 9; v. 243; p. 521.
Overcoats, and summer-clothing consisting of men's suits, coats, vests, and trousers. Rosenwald & Weil. No. 119,001; Oct. 16; v. 243; p. 791.
Paint from peeling off galvanized iron, Fluid for preventing. American Chemical Paint Company. No. 119,019; Oct. 23; v. 243; p. 1059.
Paint, Ready-mixed. National Lead Company. No. 118,803; Oct. 2; v. 243; p. 237.
Paint, Ready-mixed white enamel. O'Brien Varnish Co. No. 119,202; Oct. 30; v. 243; p. 1306.
Paints and painters' materials, Ingredient used in. Durex Chemical Corporation. No. 118,760; Oct. 2; v. 243; p. 236.
Paints and painters' materials, Certain named. Certainteed Products Corporation. No. 119,039; Oct. 23; v. 243; p. 1059.
Paints and varnishes, Ready-mixed. Patek Brothers. No. 119,109; Oct. 23; v. 243; p. 1062.
Paints for the bottoms of vessels, Preservative. Tarr & Wonson. Nos. 119,136–7; Oct. 23; v. 243; p. 1062.
Paints, Liquid. P. A. Seidel. No. 119,127; Oct. 23; v. 243; p. 1062.
Pans, Baking-. Edward Katzinger Company. No. 118,787; Oct. 2; v. 243; p. 237.
Paper and stationery, Certain named. American Pad & Paper Company. No. 118,846; Oct. 9; v. 243; p. 519.
Paper bags and receptacles. Waltham Bag & Paper Company. Nos. 119,147–8; Oct. 23; v. 243; p. 1063.
Paper, Blue-print. New York Blue Print Paper Company. No. 119,106; Oct. 23; v. 243; p. 1061.
Paper drinking-cups. H. Hill. No. 118,777; Oct. 2; v. 243; p. 236.
Paper, News-print. Pejepscot Paper Company. No. 118,809; Oct. 2; v. 243; p. 237.
Paper sheeting for ornamental purposes. J. Schack. No. 119,123; Oct. 23; v. 243; p. 1062.
Paper, Toilet-. Dixie Paper & Box Company. No. 118,758; Oct. 2; v. 243; p. 236.
Paper, Toilet-. Sauquoit Toilet Paper Co. No. 118,817; Oct. 2; v. 243; p. 237.
Paper, Wrapping-. Cheboygan Paper Company. Nos. 119,042–3; Oct. 23; v. 243; p. 1060.
Paste, Root-canal. L. M. Darling. No. 119,052; Oct. 23; v. 243; p. 1060.
Peanut-butter. Farrell & Co. No. 118,964; Oct. 16; v. 243; p. 789.
Peanuts, Burnt. National Candy Company. No. 118,991; Oct. 16; v. 243; p. 790.
Pecan-nuts, Thin-shell. E. G. Hess. No. 118,971; Oct. 16; v. 243; p. 790.
Pencil-sharpeners. Automatic Pencil Sharpener Company. No. 119,166; Oct. 30; v. 243; p. 1305.
Percales in the piece. Carson, Pirie, Scott & Co. No. 119,171; Oct. 30; v. 243; p. 1305.
Perfumers and deodorizers. E. A. F. Scott. No. 118,819; Oct. 2; v. 243; p. 238.
Periodical, Monthly. The Edison Electric Illuminating Company of Boston. No. 118,961; Oct. 16; v. 243; p. 789.
Periodical, Monthly. Periodical Publishing Co. No. 118,995; Oct. 16; v. 243; p. 790.
Periodical, Monthly. Periodical Publishing Co. No. 119,110; Oct. 23; v. 243; p. 1062.
Periodical, Monthly. Periodical Publishing Co. No. 119,210; Oct. 30; v. 243; p. 1306.
Pharmaceutical preparations, Certain named. C. A. Hawkins. No. 118,776; Oct. 2; v. 243; p. 236.
Pharmaceutical preparations, Certain named. Lazell Perfumer. No. 119,090; Oct. 23; v. 243; p. 1061.
Phonograph-cabinets. The Classique-Phonograph Corporation. No. 118,859; Oct. 9; v. 243; p. 519.
Pianos. Kranich & Bach. No. 118,790; Oct. 2; v. 243; p. 237.
Pianos. Sohmer & Co. No. 119,130; Oct. 23; v. 243; p. 1062.
Pianos and organs. The Charles William Stores, Inc. No. 119,003; Oct. 16; v. 243; p. 791.
Picture films and stereopticon-slides, Motion-. Screen Advertising. Nos. 119,124–5; Oct. 23; v. 243; p. 1062.
Pillow-cases, Embroidered. S. Fix. No. 118,871; Oct. 9; v. 243; p. 520.
Pillows, Pneumatic. United States Rubber Company. No. 118,928; Oct. 9; v. 243; p. 521.
Pills, Antimalarial. Pildoras Nacionales Corporation. No. 119,112; Oct. 23; v. 243; p. 1062.
Pipes, cigar and cigarette holders, tobacco-pouches, &c. Kaufmann Bros. & Bondy. No. 118,883; Oct. 9; v. 243; p. 520.
Pipes, Smokers'. W. P. Dunham. No. 118,868; Oct. 9; v. 243; p. 519.
Plaster, Cement. Windsor Material Company. No. 119,155; Oct. 23; v. 243; p. 1063.
Plasters, beauty-spots, fumigators, and deodorizers, Medicated, court, &c. Bauer & Black. No. 118,742; Oct. 2; v. 243; p. 235.
Plastic molding material for making statuary, ornamental plastic panels, monuments, &c. Bernardini Statuary Co. No. 118,744; Oct. 2; v. 243; p. 235.
Polish for retaining and enhancing varnished or enameled surfaces. R. B. Goff. No. 119,071; Oct. 23; v. 243; p. 1060.
Post-cards, folders, booklets, &c., Lithographed. Stecher Lithographic Co. No. 119,002; Oct. 16; v. 243; p. 791.
Powder, Talcum. The Rydale Remedy Company. No. 119,121; Oct. 23; v. 243; p. 1062.
Precious metal, Articles made of or plated with. Talbot Manufacturing Co. No. 119,135; Oct. 23; v. 243; p. 1062.
Precious metal, Certain articles made of or plated with. Wachenheimer Bros. No. 119,010; Oct. 16; v. 243; p. 791.
Precious or plated metal, Certain named articles made of. A. A. Greene & Co. No. 118,968; Oct. 16; v. 243; p. 790.
Preparation for relief of stomach troubles, rheumatism, and kidney ailments. J. M. Morrison. No. 119,095; Oct. 23; v. 243; p. 1061.
Preparation for rheumatism and weak lungs. Black and Walter. No. 119,036; Oct. 23; v. 243; p. 1059.
Preparation for the treatment of the scalp. S. F. Del Valle. No. 118,755; Oct. 2; v. 243; p. 236.
Prints and publications, Certain named. Waldes & Co. Nos. 119,221–2; Oct. 30; v. 243; p. 1307.
Publication, Bimonthly. J. E. Sitterley. No. 118,824; Oct. 2; v. 243; p. 238.
Publication, Monthly. Dwinell-Wright Company. No. 118,761; Oct. 2; v. 243; p. 236.
Publication, Monthly. The Monitor Stove & Range Co. No. 118,800; Oct. 2; v. 243; p. 237.
Publication, Quarterly. Remington Typewriter Company. No. 118,998; Oct. 16; v. 243; p. 790.
Publication, Semimonthly. Commercial Vehicle. No. 119,176; Oct. 30; v. 243; p. 1305.
Publication, Weekly. Class Journal Co. No. 119,173; Oct. 30; v. 243; p. 1305.
Purgative. Habbard Medical Mfg. Co. No. 118,771; Oct. 2; v. 243; p. 236.
Putty, Puncture-. Columbia Chemical Co. No. 118,862; Oct. 9; v. 243; p. 519.
Rain-coats. Kling Bros. & Co. No. 118,887; Oct. 9; v. 243; p. 520.
Rain-coats made of textiles treated with waterproofing materials. American Rubber Company. No. 118,940; Oct. 16; v. 243; p. 789.
Raisins and dried fruits, Seeded. Rosenberg Bros. & Co. No. 119,118; Oct. 23; v. 243; p. 1062.
Refrigerating-machines and parts thereof, &c. F. W. Wolf. No. 119,156; Oct. 23; v. 243; p. 1063.
Refrigerating-machines and parts thereof and refrigerator-boxes. F. W. Wolf. No. 119,225; Oct. 30; v. 243; p. 1307.
Refrigerators. R. H. Krall. No. 118,789; Oct. 2; v. 243; p. 237.
Remedy for neuralgia and rheumatism in all forms. The Smith-Dorsey Company. No. 118,825; Oct. 2; v. 243; p. 238.
Ribbons and silk piece goods. C. M. Offray. No. 118,914; Oct. 9; v. 243; p. 521.
Rings. Nusystem Jewelry Mfg. Co. No. 118,994; Oct. 16; v. 243; p. 790.
Roofing, Asbestos. H. W. Johns-Manville Co. No. 118,881; Oct. 9; v. 243; p. 520.
Roofing material, Rolled ready-to-lay. Banks Supply Co. No. 119,031; Oct. 23; v. 243; p. 1059.
Roofing, Prepared. The Reckitt Corporation. No. 119,117; Oct. 23; v. 243; p. 1062.
Rubber and composition soles and heels. The Marathon Tire & Rubber Co. Nos. 118,899–900; Oct. 9; v. 243; p. 520.
Rubber boots and shoes. The Beacon Falls Rubber Shoe Company. No. 118,851; Oct. 9; v. 243; p. 519.
Rubber cement. United States Rubber Company. No. 118,930; Oct. 9; v. 243; p. 521.
Rubber-cement and tire-tape. The Mutual Motor Stores Company. No. 118,802; Oct. 2; v. 243; p. 237.
Rubber goods, Certain named. United Drug Company. No. 118,835; Oct. 2; v. 243; p. 238.
Rubber horseshoes and horseshoe-pads. United States Rubber Company. No. 118,931; Oct. 9; v. 243; p. 521

Rubber pails and hat-bags. United States Rubber Company. No. 118,932; Oct. 9; v. 243; p. 521.
Rubber substitute, Solid blocks of. F. H. Appleton & Son. No. 119,026; Oct. 23; v. 243; p. 1059.
Salad and mayonnaise dressings. C. C. Swann. No. 119,005; Oct. 16; v. 243; p. 791.
Salve, Corn-. M. Achfeldt. No. 118,727; Oct. 2; v. 243; p. 235.
Salves used on suppurating sores, boils, contusions, and wounds. J. Sagan. No. 118,816; Oct. 2; v. 243; p. 237.
Sardellen-butter, salmon caviar, mustard, &c. The Triangle Pure Food Co. No. 119,140; Oct. 23; v. 243; p. 1063.
Sardines in oil, canned fish, preserved fruits, &c. Strohmeyer & Arpe Company. No. 118,831; Oct. 2; v. 243; p. 238.
Sauce to be used with meats, cutlets, shell-fish, soups, sauces, salads, Table. Y. Kawakami. No. 118,884; Oct. 9; v. 243; p. 520.
Sausage, Pork. J. H. Ranson. No. 118,917; Oct. 9; v. 243; p. 521.
Scarfs, cravats, and neckties. Wallach Bros. No. 119,146; Oct. 23; v. 243; p. 1063.
Seeds. Barkemeyer Grain & Seed Co. No. 119,167; Oct. 30; v. 243; p. 1305.
Sewing-machines and parts thereof. Free Sewing Machine Co. No. 119,066; Oct. 23; v. 243; p. 1060.
Shade-fittings, Metal. Ordinator Company. No. 118,805; Oct. 2; v. 243; p. 237.
Sheets and pillow-cases. Naumkeag Steam Cotton Co. No. 118,910; Oct. 9; v. 243; p. 521.
Sheets, pillow cases, and tubing. Carson, Pirie, Scott & Co. No. 119,170; Oct. 30; v. 243; p. 1305.
Shingles, laths, sawed and planed lumber and timbers. Great Southern Lumber Company. No. 119,188; Oct. 30; v. 243; p. 1306.
Shirts and blouses, Negligée. Master Shirt and Blouse Company. No. 119,007; Oct. 23; v. 243; p. 1061.
Shirts, Dress and negligée. A. Bernstein. No. 118,947; Oct. 16; v. 243; p. 789.
Shoe-cloth. H. Gitterman & Co. No. 118,873; Oct. 9; v. 243; p. 520.
Shoe-insoles, Material for use in the manufacture of. Armstrong Cork Company. No. 119,162; Oct. 30; v. 243; p. 1305.
Shoes and rubber overshoes. Batterman Rubber Company. No. 118,850; Oct. 9; v. 243; p. 519.
Shoes and sandals made from leather and fabric. Hagerstown Shoe & Legging Co. No. 118,876; Oct. 9; v. 243; p. 520.
Shoes from slipping up and down on the heel when in wear, Devices for preventing. Phillips Patents. No. 118,915; Oct. 9; v. 243; p. 521.
Shoes, Men's leather. Brown Shoe Company. No. 118,857; Oct. 9; v. 243; p. 519.
Shoes, Women's leather and canvas. J. Millar. No. 118,904; Oct. 9; v. 243; p. 521.
Shortening. Interstate Cotton Oil Refining Co. No. 118,783; Oct. 2; v. 243; p. 236.
Signaling devices for motor-vehicles, Electric. The Flaray Signal Co. No. 119,064; Oct. 23; v. 243; p. 1060.
Silk and cotton and silk piece goods. Reiling & Schoen. No. 118,918; Oct. 9; v. 243; p. 521.
Silk and silk-mixed goods in the piece. Dundee Textile Co. No. 118,960; Oct. 16; v. 243; p. 789.
Silk fabrics. M. Hemingway & Sons Silk Co. No. 118,879; Oct. 9; v. 243; p. 520.
Silk piece goods. Berfelden Mills. No. 118,946; Oct. 16; v. 243; p. 789.
Silk piece goods. Empire Silk Co. Nos. 118,962–3; Oct. 16; v. 243; p. 789.
Silk piece goods. H. R. Mallinson & Co. No. 118,896; Oct. 9; v. 243; p. 520.
Silk piece goods. Nonotuck Silk Company. No. 118,912; Oct. 9; v. 243; p. 521.
Snap-fasteners. Robert Treat Manufacturing Company. No. 119,139; Oct. 23; v. 243; p. 1062.
Snap-fasteners. Vulcanite Manufacturing Co. No. 119,145; Oct. 23; v. 243; p. 1063.
Soap. John T. Stanley Co. No. 118,827; Oct. 2; v. 243; p. 236.
Soap compound. The Bon Aurora Manufacturing & Machine Company. No. 118,746; Oct. 2; v. 243; p. 235.
Soap-dispensers. Interstate Chemical Company. No. 119,061; Oct. 23; v. 243; p. 1061.
Soaps, powdered cleanser, washing-powder. All-Package Grocery Stores Co. No. 118,730; Oct. 2; v. 243; p. 235.
Soaps, Toilet, laundry, powdered, and liquid. Crystal Soap Company. No. 118,955; Oct. 16; v. 243; p. 789.
Soapstone, Powdered. United States Rubber Company. No. 119,060; Oct. 16; v. 243; p. 791.
Solder-strips. I. Stern & Co. No. 119,131; Oct. 23; v. 243; p. 1062.
Soup and purée tablets and packages, &c., Concentrated vegetable. A. F. P. Du Pont. No. 119,060; Oct. 23; v. 243; p. 1060.
Spectacles, eyeglasses, magnifiers, and ophthalmic goods generally, Cases for. American Optical Company. No. 119,021; Oct. 23; v. 243; p. 1059.
Stamps, Hand-. Hill-Independent Mfg. Co. Nos. 119,077–8; Oct. 23; v. 243; p. 1061.
Steam generators and radiators. Bayley Manufacturing Company. No. 118,743; Oct. 2; v. 243; p. 235.
Steel. Latrobe Electric Steel Company. No. 119,089; Oct. 23; v. 243; p. 1061.
Steel rods and bars, cold-rolled sheet and strip steel and steel wires. Peter A. Frasse & Co. No. 119,065; Oct. 23; v. 243; p. 1060.
Stencils, Card-. Rapid Addressing Machine Co. No. 119,113; Oct. 23; v. 243; p. 1062.
Stoves and ranges. Belleville Stove & Range Co. No. 119,168; Oct. 30; v. 243; p. 1305.
Stoves and ranges, Coal, wood, gas, oil, and vapor. Summit Foundry Co. No. 119,004; Oct. 16; v. 243; p. 791.
Stoves and ranges, Electric cooking and heating. American Stove Company. No. 119,025; Oct. 23; v. 243; p. 1059.
Sugar. Imperial Sugar Company. No. 119,080; Oct. 23; v. 243; p. 1061.
Suits and overcoats and ladies' dresses, coats, and cloaks, Children's, men's, and young men's outer. H. M. Lindenthal & Sons. No. 118,892; Oct. 9; v. 243; p. 520.
Surgical dressing in the form of a wax. A. A. Munsch. No. 119,103; Oct. 23; v. 243; p. 1061.
Surgical spraying instrument. The De Vilbiss Manufacturing Company. No. 118,757; Oct. 2; v. 243; p. 236.
Suspenders. J. Ziff. No. 118,937; Oct. 9; v. 243; p. 522.
Syrups, molasses, honey, &c., Food maple and sugar. Rigney and Company. No. 118,999; Oct. 16; v. 243; p. 790.
Syringes. W. C. Halleck. No. 119,189; Oct. 30; v. 243; p. 1306.
Table-tops, Porcelain. Wasmuth-Endicott Company. No. 119,149; Oct. 23; v. 243; p. 1063.
Table-tops, Steel. Chattanooga Stamping & Enameling Company. No. 118,749; Oct. 2; v. 243; p. 235.
Tables, desks, mattresses, pillows, &c., made of wood or metal. A. M. Malouf. No. 118,795; Oct. 2; v. 243; p. 237.
Tables, Folding. Metal Stampings Corporation. No. 118,797; Oct. 2; v. 243; p. 237.
Talking-machines and parts thereof. The Centrola Talking Machine Co. No. 119,172; Oct. 30; v. 243; p. 1305.
Talking-machines, phonographs, &c. Lyon & Healy. No. 119,094; Oct. 23; v. 243; p. 1061.
Tank heater, Stock-. Wills Mfg. Co. No. 118,841; Oct. 2; v. 243; p. 238.
Teeth, platinum-pin facings, combination sets, &c., Porcelain. G. Steele. No. 119,216; Oct. 30; v. 243; p. 1306.
Telephones and parts thereof. Naamlooze Vennootschap De Nederlandsche Thermo-Telephoon Maatschappij. No. 119,104; Oct. 23; v. 243; p. 1061.
Tennis-racket strings. A. G. Spalding & Bros. No. 118,826; Oct. 2; v. 243; p. 238.
Thread and yarn made of silk, cotton, or wool. Nonotuck Silk Company. No. 118,993; Oct. 16; v. 243; p. 790.
Threads and yarns, Cotton and silk. M. Brodsky & Co. No. 119,169; Oct. 30; v. 243; p. 1305.
Tire-vulcanizing outfits and self-vulcanizing patches. A. R. Sales Co. No. 119,215; Oct. 30; v. 243; p. 1306.
Tires and rubber inner tubes therefor, Pneumatic rubber. The Pharis Tire & Rubber Co. No. 119,211; Oct. 30; v. 243; p. 1306.
Tires and tubing, Rubber. The Miller Rubber Company. No. 118,799; Oct. 2; v. 243; p. 237.
Tires, casings, and tubes, Rubber. Marathon Tire & Rubber Co. Nos. 118,966–1; Oct. 16; v. 243; p. 790.
Tires, Compound for closing holes or punctures in pneumatic. National Chemical Co. No. 118,900; Oct. 9; v. 243; p. 521.
Tires, inner tubes, liners, and patches for the same, Rubber. Keystone Rubber Manufacturing Company. No. 119,183; Oct. 30; v. 243; p. 1306.
Tobacco and cigarettes, Smoking and chewing. Liggett & Myers Tobacco Company. No. 119,195; Oct. 30; v. 243; p. 1306.
Tobacco, Smoking and chewing. H. B. Turner. No. 119,219; Oct. 30; v. 243; p. 1306.
Toilet articles, Certain named. E. Adams. No. 118,938; Oct. 16; v. 243; p. 789.
Toilet-article containers. Eiseman, Kaiser & Co. No. 118,869; Oct. 9; v. 243; p. 519.
Toilet waters, handkerchief extracts, perfumed powders, sachets. Colgate & Co. No. 118,750; Oct. 2; v. 243; p. 235.
Tonic and salve for treating certain named diseases, Medicinal. M. L. C. V. De Vessey. No. 119,058; Oct. 23; v. 243; p. 1060.
Tonic to relieve certain named conditions, Bitter. J. H. Albert. No. 119,016; Oct. 23; v. 243; p. 1059.
Toy building-blocks. W. G. Anderson. No. 119,161; Oct. 30; v. 243; p. 1305.
Toy furniture. Platt-Maschek Company. No. 119,212; Oct. 30; v. 243; p. 1306.
Toys, Certain named. G. A. Baker. No. 119,028; Oct 23; v. 243; p. 1059.
Toys, Construction. The A. C. Gilbert Company. No. 119,069; Oct. 23; v. 243; p. 1060.
Trousers, Men's, boys' and youths'. F. E. Abeles & Co. No. 118,842; Oct. 9; v. 243; p. 519.
Trucks and automobiles, Motor-. E. Goldman. No. 118,767; Oct. 2; v. 243; p. 236.
Trucks, Elevating-. Lewis-Shepard Company. No. 119,194; Oct. 30; v. 243; p. 1306.
Trunks, Wardrobe-. Seward Trunk and Bag Company. No. 119,128; Oct. 23; v. 243; p. 1062.
Twine. Auburn Converting Company. No. 119,165; Oct. 30; v. 243; p. 1305.

Valves for general purposes, and particularly valves used for high-pressure shipping-containers, Metallic. Welding Supply Company. No. 118,838; Oct. 2; v. 243; p. 238.

Valves, Blow-off. Engineers Specialties Co. No. 119,180; Oct. 30; v. 243; p. 1305.

Valves, expansion-joints, flanges, laterals, &c. Crane Company. No. 119,049; Oct. 23; v. 243; p. 1060.

Ventilating apparatus, Certain. Champion Manufacturing & Sales Company. No. 119,040; Oct. 23; v. 243; p. 1059.

Ventilators, stovepipe, elbows, &c. Sheet Metal Mfg. Co. No. 118,820; Oct. 2; v. 243; p. 238.

Washing-powders. D. Todd. No. 119,006; Oct. 16; v. 243; p. 791.

Watches. Dubois Watch Case Company. No. 118,958; Oct. 16; v. 243; p. 789.

Watches. Goldsmith, Stein & Co. No. 119,070; Oct. 23; v. 243; p. 1060.

Watches and watch-movements. Elgin National Watch Company. No. 118,762; Oct. 2; v. 243; p. 236.

Watches and watch-movements. Elgin National Watch Company. No. 119,061; Oct. 23; v. 243; p. 1060.

Watches, watch cases and dials. U. V. J. Rauschenbach's Erben Vormals: International Watch Co. No. 119,141; Oct. 23; v. 243; p. 1063.

Weather-stripping. W. J. Dennis & Company. No. 119,055; Oct. 23; v. 243; p. 1060.

Weather-stripping. W. J. Dennis & Company. No. 119,177; Oct. 30; v. 243; p. 1305.

Whistle-calls. J. Hudson. No. 119,079; Oct. 23; v. 243; p. 1061.

Window-cleaners, Squeegee. W. J. Dennis & Company. No. 119,056; Oct. 23; v. 243; p. 1060.

Wines, Italian. G. Aquino. No. 118,736; Oct. 2; v. 243; p. 235.

Wire rope and cable, chains, &c., Preservative for. Cling-Surface Company. No. 119,213; Oct. 30; v. 243; p. 1306.

Wool. William G. Davidson & Company. No. 118,956; Oct. 16; v. 243; p. 789.

Yarns, Cotton. Cynthia Mills. No. 118,753; Oct. 2; v. 243; p. 235.

ALPHABETICAL LIST OF LABELS.

"Acidulated Cartridges." (For Confectionery.) M. L. Wenz. No. 20,311; Oct. 2; v. 243; p. 239.

"Ambassador." (For Sardines.) Smith & Nessle Co. No. 20,351; Oct. 30; v. 243; p. 1308.

"American Milk." (For Evaporated Milk.) R. D. Pineo. No. 20,308; Oct. 2; v. 243; p. 239.

"Annette Kellermann Two in One Bathing Suit." (For Bathing-Suits.) L. C. Asch. No. 20,298; Oct. 2; v. 243; p. 239.

"Apollo Water." (For Artificially-Prepared Medicinal Water.) Modern Drug & Commercial Co. No. 20,324; Oct. 16; v. 243; p. 792.

"Arbeco." (For Pepper.) R. Buttlar. No. 20,343; Oct. 30; v. 243; p. 1308.

"B. N. Universal." (For a Polish.) B. Nirdlinger. No. 20,347; Oct. 30; v. 243; p. 1308.

"Baby Bunting Powder." (For Toilet Powder.) Gordon-Thorne Company. No. 20,301; Oct. 2; v. 243; p. 239.

"Bestyette." (For Hair-Nets.) N. B. Cohen. No. 20,345; Oct. 30; v. 243; p. 1308.

"Blue Bird Pearl Buttons." (For Pearl-Button-Display Sales-Boxes.) Iowa Pearl Button Company. No. 20,303; Oct. 2; v. 243; p. 239.

"C. V." (For a Non-Intoxicating Beverage Known as Champagne Velvet.) Terre Haute Brewing Company. Nos. 20,352–3; Oct. 30; v. 243; p. 1308.

"California Beauty." (For Oranges.) Worthley & Strong Fruit Co. No. 20,341; Oct. 23; v. 243; p. 1064.

"Carnation." (For Milk Products and More Particularly Butter.) Carnation Milk Products Company. No. 20,313; Oct. 9; v. 243; p. 523.

"Carried Home." (For Cigars.) E. B. Read & Son Co. No. 20,349; Oct. 30; v. 243; p. 1308.

"Colonial Furniture Polish." (For Furniture-Polish.) D. Moore. No. 20,325; Oct. 16; v. 243; p. 792.

"Cooper's Bennington Summer Wear." (For Summer Wear.) Black Cat Textiles Company. No. 20,342; Oct. 30; v. 243; p. 1308.

"Dr. Conrad's Health Food." (For Food.) C. F. Conrad. No. 20,299; Oct. 2; v. 243; p. 239.

"Dry-Cure." (For Non-Intoxicating Cereal Beverages.) Walter Bros. Brewing Co. No. 20,319; Oct. 9; v. 243; p. 523.

"Ful-Ripe." (For Canned Peaches.) California Sanitary Canning Co. No. 20,322; Oct. 16; v. 243; p. 792.

"Glad." (For Stockings.) Chas. Chapman's Sons Co. No. 20,344; Oct. 30; v. 243; p. 1308.

"Glyco-Iodine." (For Iodin.) Tincture & Extract Company. No. 20,354; Oct. 30; v. 243; p. 1308.

"Have Some Junket!" (For Hansen's Junket Tablets.) Chr. Hansen's Laboratory. No. 20,314; Oct. 9; v. 243; p. 523.

"Hoffex." (For a Non-Alcoholic Beverage.) Eisner-Mendelson Co. No. 20,300; Oct. 2; v. 243; p. 239.

"Honytone." (For a Medicinal Preparation.) Honytone Manufacturing Company. No. 20,302; Oct. 2; v. 243; p. 239.

"Huffman & Van Camp Asthma Remedy." (For a Medicinal Preparation.) Huffman & Van Camp. No. 20,346; Oct. 30; v. 243; p. 1308.

"Inorout." (For Varnishes.) Wadsworth, Howland & Co. No. 20,333; Oct. 16; v. 243; p. 792.

"Mayflower." (For Ginger-Ale.) Great Radium Spring Water Company. No. 20,336; Oct. 23; v. 243; p. 1064.

"Oma." (For a Non-Alcoholic Beverage.) Omaha Beverage Company. No. 20,348; Oct. 30; v. 243; p. 1308.

"$1,000 Pure Straight Whiskey." (For Whisky.) Charles S. Gove Company. No. 20,337; Oct. 23; v. 243; p. 1064.

"Pearl Buttons of Distinction." (For Pearl-Button-Display Sales-Boxes.) Iowa Pearl Button Company. No. 20,304; Oct. 2; v. 243; p. 239.

"Potlickey." (For Rings.) McQuay-Norris Mfg. Co. No. 20,307; Oct. 2; v. 243; p. 239.

"Quick Suds." (For Borax Soap Powder.) Moore-Shenkberg Grocer Co. No. 20,326; Oct. 16; v. 243; p. 792.

"R-Porter." (For Beverages and Non-Alcoholic Drinks.) Puritan Manufacturing Co. No. 20,339; Oct. 23; v. 243; p. 1064.

"Red-Ripe." (For Canned Tomatoes.) California Sanitary Canning Co. No. 20,321; Oct. 16; v. 243; p. 792.

"Rittwagen Allash Kummel." (For Allash Kummel.) A. E. Rittwagen. No. 20,315; Oct. 9; v. 243; p. 523.

"Rob Roy." (For Coffee.) The Donald Company. No. 20,334; Oct. 23; v. 243; p. 1064.

"Sammie's Hav-A-Sac." (For Chocolate Chips.) W. E. Taylor. No. 20,309; Oct. 2; v. 243; p. 239.

"Si-Ya-Ma." (For a Blood-Purifier.) R. R. Walker and J. M. Owen. No. 20,356; Oct. 30; v. 243; p. 1308.

"Silver Tip." (For Potato Chips.) J. H. Smith & Son. No 20,350; Oct. 30; v. 243; p. 1308.

"St. Joseph's." (For Tea.) J. M. Hollander. No. 20,338; Oct. 23; v. 243; p. 1064.

"Styleplus Clothes $17 and $21." (For Clothing of Men and Boys.) Henry Sonneborn & Co. No. 20,327; Oct. 16; v. 243; p. 792.

"Styleplus Clothes $17 and $21." (For Clothing of Men and Boys.) Henry Sonneborn & Co. No. 20,329; Oct. 16; v. 243; p. 792

"Styleplus Clothes $21." (For Clothing for Men and Boys.) Henry Sonneborn & Co. No. 20,328; Oct. 16; v. 243; p. 792.

"Styleplus Clothes $21 and $25. (For Clothing of Men and Boys.) Henry Sonneborn & Co. No. 20,330; Oct. 16; v. 243; p. 792.

"Styleplus Clothes $25." (For Clothing of Men and Boys.) Henry Sonneborn & Co. No. 20,331; Oct. 16; v. 243; p. 792.

"Superoyl." (For Rings.) McQuay-Norris Mfg. Co. No. 20,306; Oct. 2; v. 243; p. 239.

"The Garden Of Allah Oriental Incense." (For Incense.) H. Le Roy. No. 20,323; Oct. 16; v. 243; p. 792.

"The O. V. Hand Painted Paper Dolls." (For Dolls.) C. O. Tucker. No. 20,318; Oct. 9; v. 243; p. 523.

"Thornton Mineral Water." (For Mineral Waters.) Thornton Mineral Springs Company. Nos. 20,316–17; Oct. 9; v. 243; p. 523.

"To-day's Chocolates Assorted." (For Candy-Boxes.) Val. Blatz, Jr. Candy Co. No. 20,310; Oct. 2; v. 243; p. 239.

"'Transparosa' Complexion Glycerine Soap." (For Toilet Soap.) Armour & Company. No. 20,312; Oct. 9; v. 243; p. 523.

"Try Me." (For a Cleaner for Silver, Glassware, and Polished Metals.) J. D. Jidas, Bros. & Co. No. 20,305; Oct. 2; v. 243; p. 239.

"Victor." (For Bread.) P. Schulze. No. 20,340; Oct. 23; v. 243; p. 1064.

"Victorine." (For Polish.) J. R. A. Aufrecht. No. 20,320; Oct. 16; v. 243; p. 792.

"W. H. Dyer's Own Pack." (For Pork and Beans.) W. H. Dyer Company Evansville, Ind. No. 20,335; Oct. 23; v. 243; p. 1064.

"Wakelee's." (For Liquid Complexion-Powder.) Wakelee's Inc. No. 20,355; Oct. 30; v. 243; p. 1308.

"Zip." (For Snap-Fasteners.) Robert Treat Mfg. Co. No. 20,332; Oct. 16; v. 243; p. 792.

PRINTS.

"A Serving of Kellogg's for Less Than a Cent. The Most Delicious Things Sometimes Cost the Least. What is there more tempting at breakfast, between meals, or for the evening snack, than these delicate thin flakes with their appetizing flavor and the wholesome quality of toasted corn! Keep some packages of Kellogg's—the original Toasted Corn Flakes—always in the cupboard, ready for the call of the healthy, hungry young folks of the family." (For Toasted Corn Flakes.) Kellogg Toasted Corn Flake Co. No. 4,800; Oct. 2; v. 243; p. 239.

"Battery Display Sign." (For Storage Batteries.) The Willard Storage Battery Company. No. 4,803; Oct. 2; v. 243; p. 239.

"Brains In The Rear Axle Power To The Wheel That Can Use It." (For Differentials for Motor-Driven Vehicles.) Bailey Non-Stall Differential Corporation. No. 4,814; Oct. 23; v. 243; p. 1064.

"Bunte 'Made'." (For Cocoa.) Bunte Brothers. No. 4,815; Oct. 23; v. 243; p. 1064.

"Cooper's Bennington Summer Wear." (For Summer Wear.) Black Cat Textiles Company. No. 4,818; Oct. 30; v. 243; p. 1308.

"Dexter Knitting Cotton." (For Knitting-Cotton.) Dexter Yarn Company. No. 4,816; Oct. 23; v. 243; p. 1064.

"Ever Ready Lubricant." (For a Lubricant.) Dixie Oil & Refining Co. No. 4,819; Oct. 30; v. 243; p. 1308.

"Good Soap Cheaper Than New Clothes." (For Soap.) James S. Kirk Company. No. 4,813; Oct. 16; v. 243; p. 792.

"Hayward Buckets Dig For All The World." (For Buckets.) The Hayward Company. No. 4,798; Oct. 2; v. 243; p. 239.

"Help the Food Situation by Eating More Corn. Boys and girls, if you don't know how delicious a food corn can be, try Kellogg's Toasted Corn Flakes. Patriotic housewives who are seeking foods that are tempting and inexpensive, find that Kellogg's costs less than a penny a serving. Kellogg's are the Flakes that are delicately toasted and thin—the original Toasted Corn Flakes—tender and crisp, with that appetizing flavor you can't mistake or forget." (For Toasted Corn Flakes.) Kellogg Toasted Corn Flake Co. No. 4,801; Oct. 2; v. 243; p. 239.

"Heminway's Crochet Silks." (For Crochet and Embroidery Silks.) M. Heminway & Sons Silk Co. No. 4,799; Oct. 2; v. 243; p. 239.

"Hitt's All-Healing Tobacco Ointment, For External Use Only." (For Tobacco Ointment.) J. O. Hitt. No. 4,817; Oct. 23; v. 243; p. 1064.

"It is cheaper to buy good soap than new clothes." (For Soap.) James S. Kirk & Company. No. 4,804; Oct. 9; v. 243; p. 523.

"It Saves Mother." (For Individual Electric Power Plants.) Swartz Electric Company. No. 4,811; Oct. 16; v. 243; p. 792.

"Noglare Auto Lens." (For Lenses for Automobile-Lamps.) Noglare Auto Lens Co. No. 4,802; Oct. 2; v. 243; p. 239.

"Old Hickory Sausage." (For Sausage.) C. B. Wilcox. No. 4,812; Oct. 16; v. 243; p. 792.

"Pablo The Happy Hoppy Drink." (For a Non-Intoxicating Beverage.) Pabst Brewing Company. No. 4,820; Oct. 30; v. 243; p. 1308.

"Safety Engineering, The Magazine Of Safety—Accident Indicator." (For Safety Engineering Magazine.) The Safety Press Inc. No. 4,821; Oct. 30; v. 243; p. 1308.

"Styleplus Clothes $17 and $21." (For Clothing for Men and Boys.) Henry Sonneborn & Co. No. 4,809; Oct. 16; v. 243; p. 792.

"Styleplus Clothes $17 and $21." (For Clothing for Men and Boys.) Henry Sonneborn & Co. No. 4,810; Oct. 16; v. 243; p. 792.

"Styleplus Clothes $21." (For Clothing for Men and Boys.) Henry Sonneborn & Co. No. 4,808; Oct. 16; v. 243; p. 792.

"Styleplus Clothes $21 and $25." (For Clothing for Men and Boys.) Henry Sonneborn & Co. No. 4,806; Oct. 16; v. 243; p. 792.

"Styleplus Clothes $25." (For Clothing for Men and Boys.) Henry Sonneborn & Co. No. 4,807; Oct. 16; v. 243; p. 792.

"Who Can Spell Cream of Wheat." (For Wheat Breakfast Food.) Cream of Wheat Co. No. 4,805; Oct. 16; v. 243; p. 792.

DISCLAIMER.

Oil-guard. R. Huff. No. 1,207,759; date of patent Dec. 12, 1916; disclaimer filed Oct. 15, 1917; v. 243; p. 1069.

CLASSIFICATION OF PATENTS

OCTOBER, 1917.

NOTE.—First number=class, second number=subclass, third number=patent number.

1— 2: 1,241,863
1,242,934
3: 1,244,895
14: 1,244,986
18: 1,242,503
46: 1,241,996
2— 9: 1,241,941
1,243,622
1,244,142
11: 1,243,792
1,243,796
1,244,435
1,244,961
54: 1,243,462
67: 1,243,461
1,243,463
69: 1,243,011
1,243,452
73: 1,242,946
1,244,059
76: 1,242,064
79: 1,241,936
80: 1,242,717
86: 1,243,206
92: R. 14,389
96: 1,243,828
98: 1,242,118
1,243,196
106: 1,242,211
1,242,684
1,243,567
108: 1,242,904
116: 1,241,858
117: 1,244,559
126: 1,244,527
125: 1,244,904
143: 1,242,760
144: 1,242,777
1,243,583
1,244,174
3— 6: 1,244,294
11: 1,244,612
4— 2: 1,243,397
1,244,535
1,244,715
5: 1,242,922
1,243,340
1,244,922
13: 1,242,113
18: 1,243,148
1,243,815
21: 1,242,251
26: 1,241,764
1,241,765
28: 1,244,195
38: 1,245,013
5— 3: 1,241,986
5: 1,241,999
1,243,092
1,244,760
12: 1,242,315
1,242,545
1,243,887
1,245,131
13: 1,243,267
17: 1,243,423
1,243,424
1,243,425
1,243,126
1,244,987
1,244,988
18: 1,241,705
1,243,336
1,243,918
1,244,736
29: 1,243,639
40: 1,243,099
48: 1,244,821
54: 1,242,382
58: 1,242,509
1,244,579
63: 1,245,060
64: 1,243,234
1,241,635
80: 1,242,990
6— 1: 1,242,628
4: 1,243,555
8— 1: 1,242,536
1,243,170
1,243,171
8— 1: 1,244,149
1,244,795
1,244,796
2: 1,243,474
5: 1,242,676
6: 1,243,042
19: 1,243,489
1,245,139
9— 4: 1,244,020
1,244,123
6: 1,243,938
7: 1,245,498
14: 1,244,325
17: 1,245,033
20: 1,241,508
1,242,752
1,243,415
25: 1,244,167
10— 10: 1,243,818
17: 1,241,693
24: R. 14,384
25: 1,244,912
27: 1,244,125
34: 1,241,868
51: 1,242,522
72: 1,242,199
95: 1,242,897
106: 1,243,321
120: 1,242,120
121: 1,244,996
124: 1,243,543
126: 1,244,084
155: 1,243,723
11— 2: 1,243,891
3: 1,243,037
11: 1,241,694
16: 1,243,394
18: 1,242,475
1,241,886
19: 1,243,726
1,244,089
23: 1,243,695
33: 1,244,861
12— 12: 1,245,117
18: 1,243,228
20: 1,243,951
23: 1,245,091
30: 1,243,944
33: 1,244,776
42: 1,243,647
51: 1,244,405
53: 1,244,650
67: 1,242,504
130: 1,244,638
1,244,829
136: 1,242,145
1,242,146
1,242,147
1,244,472
142: 1,241,939
1,244,772
13— 5: 1,242,271
6: 1,242,379
9: 1,242,126
1,243,895
1,244,196
10: 1,244,131
18: 1,244,461
21: 1,241,703
15— 7: 1,244,132
8: 1,243,473
14: 1,244,400
17: 1,243,582
1,244,009
1,244,071
1,244,083
24: 1,241,881
25: 1,244,469
37: 1,243,579
1,243,825
50: 1,242,095
1,244,894
56: 1,244,592
58: 1,241,839
1,242,043
59: 1,241,644
60: 1,243,516
62: 1,241,957
66: 1,241,645
71: 1,242,893
16— 11: 1,243,406
19: 1,242,697
22: 1,244,644
25: 1,242,700
28: 1,242,889
30: 1,241,667
46: 1,244,594
49: 1,245,127
52: 1,242,830
62: 1,242,043
61: 1,241,991
63: 1,243,115
68: 1,243,947
96: 1,244,621
104: 1,243,950
119: 1,241,725
143: 1,244,393
146: 1,242,391
17— 10: 1,244,168
12: 1,241,969
14: 1,243,894
24: 1,242,958
1,243,448
1,243,887
18— 17: 1,242,365
1,242,385
18: 1,242,776
40: 1,244,297
42: 1,243,128
45: 1,241,942
52: 1,243,923
53: 1,242,189
1,242,586
55: 1,244,676
19— 8: 1,243,658
15: 1,243,071
32: 1,242,758
34: 1,241,586
20— 1: 1,241,720
1. 4: 1,243,429
16: 1,242,789
20: 1,243,499
22: 1,244,583
1,244,626
23: 1,242,001
1,242,798
24: 1,242,268
27: 1,244,078
28: 1,241,841
31: 1,242,000
35: 1,244,649
42: 1,245,942
40: 1,242,290
81. 5: 1,244,670
83: 1,243,520
1,243,532
85: 1,243,732
21— 6: 1,243,401
7: 1,242,035
1,242,221
1,243,183
1,243,288
1,243,958
8: 1,243,696
1,243,960
1,245,040
9: 1,243,935
1,244,212
1,244,354
1,244,942
12: 1,242,446
14: 1,241,795
20: 1,242,805
1,243,635
1,244,376
1,245,000
21: 1,242,543
1,242,860
1,244,351
23: 1,241,656
31: 1,243,773
46: 1,243,460
55: 1,244,434
61: 1,244,281
62: 1,242,673
1,243,687
1,244,366
1,244,402
1,244,692
65: 1,244,506
21— 65: 1,244,970
1,245,004
68: 1,242,418
1,243,432
69: 1,242,590
1,244,193
74: 1,242,361
76: 1,242,179
1,243,243
78: 1,243,581
79: 1,244,285
80: 1,242,496
1,242,887
81: 1,243,218
82: 1,244,678
83: 1,242,034
86: 1,243,074
90: 1,241,609
1,241,870
1,241,961
1,242,588
1,242,677
1,242,682
1,242,712
1,243,803
1,243,902
1,243,963
1,244,001
1,244,045
1,244,221
1,244,778
94: 1,242,514
1,244,075
105: 1,241,494
1,241,595
1,241,622
1,242,103
1,242,134
1,243,181
114: 1,241,563
1,241,679
1,241,766
1,242,500
1,242,555
1,243,184
1,243,546
1,244,308
1,243,912
121: 1,243,200
124: 1,242,635
126: 1,243,620
137: 1,241,786
1,242,300
1,243,177
1,245,054
142: 1,242,279
144: 1,242,223
1,244,238
148: 1,241,445
1,243,794
1,243,937
1,244,462
1,244,732
1,244,853
1,244,854
1,244,855
150: 1,245,001
168: 1,242,278
182: 1,242,650
1,243,255
1,242,662
189: 1,242,980
191: 1,244,169
193: 1,243,717
199: R. 14,385
209: 1,241,848
211: 1,242,096
220: 1,242,108
22— 2: 1,244,935
24: 1,243,091
32: 1,243,040
33: 1,245,113
1,245,114
45: 1,242,351
1,242,364
70: 1,242,938
1,242,939
83: 1,243,718
96: 1,243,980
136: R. 14,371
22— 139: 1,241,618
144: 1,243,779
145: 1,245,046
161: 1,242,747
164: 1,241,962
192: 1,243,717
200: 1,242,527
203: 1,243,471
1,243,795
212: 1,241,867
216: 1,243,714
23— 1: 1,241,791
1,242,953
1,242,987
1,244,032
5: 1,243,149
13: 1,241,834
1,242,355
1,242,434
1,243,190
1,244,082
1,244,884
21: 1,243,382
1,244,580
24: R. 14,368
1,241,919
1,241,920
1,241,995
1,242,208
1,242,773
1,244,444
1,244,901
1,244,902
75: 1,243,835
19— 11: 1,244,291
18: 1,241,647
1,242,156
1,243,254
1,244,157
20. 5. 1,242,139
1,243,232
1,243,233
1,243,865
40: 1,242,248
54: 1,242,029
57: 1,242,216
62: 1,242,451
66: 1,243,326
68: 1,243,291
1,243,469
73: 1,245,043
81: 1,243,680
90: 1,244,436
102: 1,243,547
1,243,775
105: 1,243,024
115: 1,243,459
120: 1,245,023
123: 1,243,493
1,245,099
126: 1,244,093
131: 1,244,797
134: 1,243,103
1,243,104
1,243,105
1,243,106
1,243,107
1,243,108
1,243,109
1,244,136
135: 1,243,065
1,244,043
136: 1,242,063
139: 1,242,804
140: 1,242,774
152: 1,241,606
153: 1,242,620
156: 1,241,948
157: 1,242,054
1,243,995
166: 1,242,571
201: 1,243,018
205: 1,243,458
208: 1,242,579
217: 1,243,859
222: 1,244,060
230: 1,242,159
232: 1,243,590
239: 1,244,599
24— 241: 1,244,303
242: 1,241,806
246: 1,245,070
247: 1,243,061
248: 1,242,780
250: 1,244,194
252: 1,243,346
259: 1,242,122
265: 1,244,279
25— 12: 1,242,120
41: 1,241,467
1,241,932
87: 1,242,704
105: 1,243,969
118: 1,243,713
119: 1,244,484
1,244,845
121: 1,242,439
1,244,608
128: 1,242,092
1,244,937
131: 1,244,958
131. 5: 1,241,945
1,243,910
1,244,214
26— 7: 1,241,680
27— 2: 1,242,410
8: 1,244,315
28— 4: 1,241,550
1,243,142
14: 1,244,800
21: 1,241,943
1,245,067
33: 1,241,758
29— 1: 1,243,577
26: 1,242,275
1,244,469
37: 1,242,583
42: 1,244,664
57: 1,243,989
70: 1,244,744
84: 1,241,675
1,241,676
1,243,539
86. 1: 1,241,846
87. 1: 1,241,488
1,242,733
1,243,010
88. 2: 1,241,819
96: 1,245,020
98: 1,242,306
99: 1,242,707
1,242,708
105: 1,243,446
1,244,665
109: 1,244,648
149: 1,243,995
153: 1,243,398
156. 1: 1,241,835
1,241,836
168: 1,242,127
30— 1: 1,244,917
3: 1,242,329
1,244,972
5: 1,242,965
12: 1,241,798
1,241,921
13: 1,243,276
1,243,540
24: 1,242,645
31— 13: 1,244,175
14: 1,242,378
77: 1,242,876
79: 1,242,718
98: 1,245,106
102: 1,242,212
32— 4: 1,242,989
1,243,396
9: 1,241,854
1,243,335
10: 1,244,792
12: 1,243,392
33— 9: 1,244,355
24: 1,241,721
1,241,722
1,241,723
27: 1,241,986
1,244,272
39: 1,242,823
53: 1,242,686

33— 75: 1,243,313
80: 1,242,028
85: 1,241,611
91: 1,243,678
93: 1,242,467
95: 1,242,722
103: 1,243,786
112: 1,243,568
113: 1,241,976
131: 1,242,192
145: 1,242,210
147: 1,243,545
148: 1,245,148
155: 1,244,300
167: 1,244,263
169: 1,245,130
194: 1,244,570
197: 1,243,456
204: 1,242,065
215: 1,242,740
5: 1,243,903
34— 17: 1,244,617
19: 1,242,368
1,243,412
1,244,429
48: 1,242,387
1,245,066
35— 2: 1,243,957
1,244,000
10: 1,244,877
16: 1,244,994
36— 1: 1,243,993
2: 1,242,150
16: 1,243,421
18: 1,241,579
25: 1,242,233
28: 1,244,197
32: 1,242,977
34: 1,241,643
35: 1,242,213
37: 1,242,363
50: 1,243,209
60: 1,243,436
64: 1,241,821
1,242,056
67: 1,243,819
70: 1,242,923
71: 1,241,832
1,243,692
1,244,027
76: 1,242,317
77: 1,241,940
37— 5: 1,243,329
1,245,107
7: 1,244,505
16: 1,242,715
17: 1,243,926
1,244,006
19: 1,242,320
25: 1,244,319
29: 1,241,661
35: 1,242,433
39: 1,243,293
1,243,866
1,244,290
42: 1,241,779
49: 1,241,686
50: 1,243,872
51: 1,243,377
54: 1,244,117
1,245,118
38— 8: 1,243,133
12: 1,242,400
39— 7: 1,243,056
38: 1,242,255
41: 1,243,931
61: 1,241,538
64: 1,241,972
80: 1,245,016
40— 10: 1,242,007
11: 1,241,564
25: 1,244,832
28: 1,244,065
42: 1,244,743
59: 1,242,660
53: 1,244,873
61: 1,242,449
63: 1,244,061
65: 1,242,896
67: 1,243,320
68: 1,245,019
70: 1,243,510
73: 1,242,639
77: 1,241,771
96: 1,244,282
102: 1,244,622
113: 1,243,269
125: 1,242,429
1,244,206
130: 1,244,959
132: 1,241,904
1,244,990
140: 1,243,393
145. 1: 1,242,868
145. 6: 1,242,309
40— 146: 1,242,070
41— 4: 1,241,866
7: 1,242,454
1,243,552
1,243,553
9: 1,243,690
21: 1,241,767
34: 1,243,194
38. 6: 1,243,180
1,244,188
1,244,189
41. 5: 1,245,119
1,245,120
43: 1,243,611
46: 1,242,323
42— 19: 1,242,191
50: 1,244,794
53: 1,241,852
1,242,265
60: 1,243,120
88: 1,241,922
90: 1,244,908
43— 1: 1,241,727
1,242,846
1,243,302
1,243,888
1,244,347
1,244,534
1,244,895
4: 1,241,707
1,243,768
1,243,881
19: 1,242,462
1,243,008
1,243,048
21: 1,243,128
22: 1,242,648
1,244,859
23: 1,242,737
1,243,544
24: 1,242,397
1,244,049
26: 1,244,166
1,245,138
27: 1,244,863
30: 8. 14,377
1,242,556
1,243,191
31: 1,242,469
44— 1: 1,241,648
45— 2: 1,242,101
1,242,440
1,242,604
1,244,009
1,244,906
3: 1,241,615
6: 1,244,523
9: 1,242,822
13: 1,241,700
1,241,746
1,243,173
15: 1,242,680
16: 1,243,192
1,243,784
17: 1,244,619
18: 1,242,335
22: 1,243,625
24: 1,242,902
1,244,230
1,244,892
26: 1,242,225
1,244,573
27: 1,243,744
28: 1,242,905
32: 1,241,778
1,243,670
33: 1,244,565
37: 1,245,022
48: 1,243,123
1,243,161
50: 1,243,508
64: 1,241,732
75: 1,243,118
82: 1,244,220
86: 1,245,111
95: 1,242,916
97: 1,244,973
99: 1,242,631
103: 1,242,235
106: 1,244,497
111: 1,243,750
112: 1,243,621
114: 1,244,208
116: 1,242,847
117: 1,241,987
121: 1,243,856
129: 1,242,151
46— 4: 1,242,832
7: 1,244,044
9: 1,244,793
22: 1,243,665
1,244,871
25: 1,243,263
1,243,985
27: 1,242,194
46— 27: 1,244,411
32: 1,242,094
35: 1,241,594
1,241,682
1,242,272
1,242,273
36: 1,242,820
37: 1,241,535
1,241,822
1,241,937
1,243,287
1,244,182
1,244,455
1,244,456
1,244,457
1,244,702
1,244,943
1,245,166
40: 1,243,152
1,243,380
1,244,799
1,245,089
41: 1,243,411
45: 1,243,208
48: 1,243,295
50: 1,243,077
51: 1,241,607
53: 1,242,668
59: 1,242,046
1,242,870
1,242,942
61: 1,242,194
1,243,334
1,243,642
63: 1,242,002
1,242,969
1,245,096
69: 1,242,626
70: 1,243,645
47— 12: 1,244,897
22: 1,244,576
36: 1,241,816
48— 4: 1,242,584
1,242,800
10: 1,244,390
36: 1,244,618
53. 4: 1,241,680
66: 1,243,822
180: 1,242,630
1,242,839
59— 12: 1,242,324
1,243,122
1,244,379
49— 7: 1,242,837
9: 1,241,516
17. 1: 1,242,055
1,243,023
47: 1,243,777
55: 1,241,790
56: 1,243,564
77. 5: 1,242,537
83. 1: 1,242,444
50— 14: 1,243,454
23: 1,244,226
51— 1: 1,243,783
3: 1,241,628
1,243,496
1,244,939
4: 1,241,964
1,243,180
1,244,526
55— 1,244,703
5: 1,243,241
7: 1,244,493
10: 1,243,837
11: 1,243,090
1,243,491
1,244,716
13: 1,243,949
1,244,584
16: 1,242,746
1,243,097
1,244,095
1,244,754
17: 1,244,310
60: R. 14,383
52— 1: 1,245,231
1,245,351
3: 1,242,900
6: 1,242,879
1,244,940
53— 3: 1,242,651
5: 1,242,725
1,244,965
7: 1,241,818
9: 1,243,823
54— 1: 1,244,202
7: 1,241,729
53: 1,242,661
64: 1,244,350
55— 9: 1,241,761
17: 1,241,880
1,243,427
25: 1,245,024
27: 1,244,437
30: 1,241,774
1,241,775
55— 34: 1,242,128
41: 1,244,746
44: 1,244,765
51: 1,241,883
60: 1,243,495
1,244,646
84: 1,244,295
85: 1,244,531
94: 1,243,971
103: 1,243,203
1,244,016
139: 1,243,898
146: 1,244,789
148: 1,242,468
1,244,344
150: 1,244,165
56— 19: 1,241,762
29: 1,244,152
30: 1,244,074
33: 1,242,505
44: 1,243,096
99: 1,241,642
1,242,059
103: 1,242,084
114: 1,244,341
117: 1,242,761
121: 1,241,490
1,242,240
122: 1,242,112
126: 1,243,365
57— 9: 1,241,879
1,242,129
1,243,617
1,243,904
1,244,289
11: 1,244,658
53: 1,242,812
1,243,746
107: 1,243,565
109: 1,244,680
113: 1,243,150
128: 1,242,809
58— 41: 1,242,132
1,244,164
63: 1,244,127
1,244,251
1,244,252
59— 12: 1,242,324
1,242,325
23: 1,244,448
60— 4: 1,242,057
1,244,529
31: 1,243,812
33: 1,241,780
1,241,781
61— 5: 1,241,708
1,243,525
7: 1,245,058
16: 1,242,217
24: 1,242,486
31: 1,243,981
41: 1,241,813
62— 5: 1,242,559
19: 1,242,091
90: 1,242,036
118: 1,242,515
142: 1,244,140
64— 5: 1,244,943
8: 1,241,726
10: 1,241,493
1,241,659
13: 1,241,713
1,242,066
1,242,577
1,242,906
1,243,805
1,244,253
1,244,533
18: 1,244,835
24: 1,241,658
4,242,239
1,243,661
25: 1,242,948
26: 1,242,154
1,243,213
1,243,978
1,244,753
27: 1,243,946
1,244,029
28: 1,245,141
30: 1,244,038
1,244,186
31: 1,244,568
1,244,914
36: 1,242,153
1,242,582
1,243,375
1,244,846
39: 1,242,277
1,243,049
1,245,094
47: 1,243,429
48: 1,242,857
64— 48: 1,242,866
49: 1,242,767
52: 1,242,204
58: 1,243,929
59: 1,241,669
1,242,502
1,242,911
61: 1,242,530
1,243,028
1,245,145
1,245,146
1,245,147
62: 1,242,388
1,244,190
64: 1,244,781
1,244,782
65— 12: 1,242,404
15: 1,243,405
16: 1,243,033
26: 1,244,395
1,244,980
31: 1,241,912
32: 1,242,465
1,243,725
1,243,880
45: 1,243,836
47: 1,243,845
53: 1,242,785
66— 4: 1,241,666
5: 1,241,882
8: 1,242,121
10: 1,241,917
12: 1,244,503
1,244,673
1,244,991
17: 1,243,162
21: 1,244,268
1,244,270
1,244,672
1,244,674
1,244,675
1,245,007
25: 1,241,575
26: 1,244,267
1,244,269
1,244,747
67— 6. 1: 1,244,747
10: 1,242,234
1,242,488
1,244,130
1,244,382
31: 1,243,156
94: 1,244,051
68— 3: 1,241,892
1,242,867
9: 1,244,653
10: 1,242,461
1,244,520
15: 1,244,120
18: 1,243,413
23: 1,243,551
30: 1,243,593
1,243,841
62: 1,242,032
101: 1,241,672
120: 1,242,215
122: 1,244,693
167: 1,243,682
1,243,683
1,243,842
1,243,843
1,244,113
176: 1,241,501
177: 1,243,791
74— 1: 1,241,674
5: 1,241,728
1,244,945
6: 1,244,396
7: 1,241,855
15. 5: 1,242,614
1,243,484
19: 1,241,885
29: 1,241,788
38: 1,242,067
41: 1,241,797
65: 1,242,669
66: 1,241,793
1,243,000
1,244,663
67: 1,244,467
68: 1,244,328
83: 1,243,933
85: 1,244,652
95: 1,241,824
101: 1,243,367
105: 1,241,827
1,244,034
1,244,992
106: 1,243,235
109: 1,242,039
118: 1,242,609
137: 1,242,479
1,242,913
73— 1: 1,244,340
5: 1,244,485
24: 1,243,671
28: 1,242,869
37: 1,241,814
51: 1,241,849
1,243,345
1,244,023
1,244,245
52: 1,242,100
54: 1,242,081
1,242,176

213— 42: 1,242,800
1,242,801
1,242,802
1,242,844
1,242,845
1,242,850
1,242,851
1,242,852
1,243,045
45: 1,242,810
59: 1,214,706
64: 1,243,095
1,243,227
1,243,256
1,243,349
1,243,756
214— 1: 1,212,966
1,243,636
2: 1,242,853
1,243,063
1,243,099
3: 1,243,948
5: 1,243,247
8: 1,242,063
1,244,381
13: 1,243,257
23: 1,241,526
215— 1: 1,242,994
1,243,963
3: 1,241,640
10: 1,242,510
1,242,604
13: 1,241,509
1,244,412
1,244,413
14: 1,242,045
17: 1,242,742
1,242,743
34: 1,244,088
62: 1,241,810
1,241,811
1,242,438
1,243,965
69: R. 14,382
1,244,423
81: 1,242,741
1,244,495
1,244,496
113: 1,241,536
1,243,916
118: 1,243,919
216— 24: 1,244,724
50: 1,244,532
55: 1,244,438
217— 47: 1,242,143
58: 1,244,163
60: 1,242,736
76: 1,242,352
86: 1,244,220
125: 1,241,542
218— 8: 1,244,135
12: 1,244,466
15: 1,244,430
22: 1,244,372
219— 1: 1,242,581
3: 1,242,580
4: 1,242,524
1,242,526
1,242,527
10: 1,241,900
1,242,171
1,243,004
12: 1,241,899
1,242,525
14: 1,243,549
15: 1,244,705
49: 1,241,578
1,241,782
1,242,487
1,243,703
25: 1,243,412
1,243,490
34: 1,245,084
38: 1,242,711
1,243,517
1,244,234
1,244,817
40: 1,242,209
48: 1,244,441
1,244,929
220— 10: 1,243,211
17: 1,241,844
1,242,901
1,244,239
1,244,600
24: 1,243,278
46: 1,244,605
67: 1,244,610
74: 1,243,029
97: 1,244,508
120: 1,243,138
124: 1,241,735
1,243,178
1,243,974
220— 124: 1,244,222
125: 1,241,884
1,242,399
132: 1,242,160
1,242,430
1,242,772
221— 11: 1,243,021
15: 1,241,511
17: 1,242,137
60: 1,242,165
1,242,654
1,243,140
67: 1,243,298
72: 1,243,801
78: 1,244,324
94: 1,244,205
100: 1,242,831
102: 1,241,889
1,242,414
103: 1,241,725
1,214,585
130: 1,243,631
138: 1,244,787
222— 4: 1,244,421
223— 17: R. 14,374
1,241,557
1,243,175
19: 1,241,593
1,242,841
1,243,741
31: 1,243,487
38: 1,242,172
39: 1,242,425
57: 1,241,522
224— 4: 1,242,152
29: 1,243,034
1,244,417
54: 1,243,698
225— 3: 1,245,088
226— 9: 1,243,566
1,244,471
13: 1,242,313
33: 1,242,453
1,243,587
227— 11: 1,242,286
1,244,278
28: 1,241,701
1,241,856
228— 5: 1,243,844
17: 1,245,073
25: 1,244,645
32: 1,243,304
1,245,082
229— 3: 1,243,698
12: 1,243,658
1,244,369
15: 1,243,075
23: 1,243,315
45: 1,242,534
49: 1,241,633
51: 1,243,699
57. 5: 1,243,626
1,244,522
92. 3: 1,244,161
1,244,815
92. 5: 1,242,968
230— 1: 1,241,599
1,241,600
1,242,116
1,243,238
1,243,968
1,244,490
7: 1,241,670
1,214,686
11: 1,242,077
1,243,615
1,244,427
27: 1,241,959
1,242,040
1,242,085
1,244,053
1,244,365
29: 1,243,299
30: 1,242,992
32: 1,241,872
1,244,309
1,245,955
33: 1,243,637
34: 1,242,276
36: 1,244,875
37: 1,243,155
232— 4: 1,243,467
6: 1,213,356
34: 1,244,229
41: 1,243,498
1,243,500
47: 1,245,136
233— 19: 1,241,861
21: 1,242,560
46: 1,241,988
234— 1: 1,243,702
1.5: 1,242,483
31: 1,242,557
234— 35: 1,242,093
235— 3: 1,242,170
9: 1,242,290
23: 1,242,281
1,244,063
32: 1,243,619
59: 1,242,282
1,244,397
1,244,398
1,244,572
1,244,573
1,244,574
60: 1,243,669
78: 1,243,763
67: 1,242,921
68: 1,243,610
74: 1,244,335
78: 1,243,224
80: 1,242,304
82: 1,243,839
91: 1,242,664
1,243,271
92: R. 14,381
1,244,634
94: 1,243,400
101: 1,242,162
130: 1,243,277
139: 1,243,374
236— 5: 1,243,647
6: 1,241,641
1,243,112
1,243,396
1,244,184
1,244,802
8: 1,243,996
16: 1,243,680
1,243,793
1,244,106
237— 3: R. 14,386
1,243,707
4: 1,241,519
15: 1,242,230
17: 1,241,324
27: 1,211,620
30: 1,243,154
45: 1,242,898
48: 1,242,507
78: 1,241,524
238— 2: 1,241,857
1,242,300
1,244,657
3: 1,241,970
1,242,184
1,244,813
4: 1,241,684
1,242,311
1,242,782
1,212,981
1,243,282
1,243,688
1,244,145
1,244,356
1,244,590
1,244,707
1,215,056
8: 1,242,334
1,242,836
1,243,084
1,244,072
1,244,176
1,244,616
1,244,828
25: 1,244,019
239— 6: 1,241,653
1,242,133
1,242,299
1,242,764
8: 1,241,901
1,244,378
1,245,009
9: 1,243,070
1,243,992
13: 1,243,322
17: 1,242,203
240— 2: 1,242,155
1,243,316
3: 1,244,879
6: 1,243,453
8. 4: 1,243,600
1,214,487
41: 1,241,874
1,242,185
1,242,186
1,242,808
42: 1,244,262
44: 1,244,880
45. 2: 1,245,006
46: 1,242,076
1,243,930
48. 2: 1,243,236
1,245,083
48. 4: 1,241,886
1,243,399
1,243,652
240— 48. 4: 1,244,556
1,244,734
48. 6: 1,244,200
52: 1,244,615
57: 1,243,388
61: 1,242,042
1,241,713
62: 1,242,350
1,242,929
1,243,290
1,243,584
1,245,140
78: 1,241,777
1,243,481
81: 1,241,576
1,243,675
85: 1,243,664
99: 1,242,748
102: 1,244,640
111: 1,244,639
114: 1,242,494
115: 1,245,029
241— 1: 1,242,932
6: 1,242,602
1,244,218
: 1,243,984
242— 3: 1,242,885
6: 1,242,371
1,244,255
43. 7: 1,243,485
55: 1,243,739
1,244,918
68: 1,242,806
1,244,865
69: 1,245,104
71: 1,242,894
1,243,270
72: 1,242,807
75: 1,242,638
77: 1,243,450
86: 1,242,015
1,244,818
95: 1,243,172
102: 1,244,445
109: 1,243,710
111: 1,242,657
118: 1,243,157
119: 1,243,102
130: 1,243,550
141: 1,244,418
156: 1,242,927
1,243,036
244— 1: 1,242,553
1,243,556
3: 1,243,557
6: 1,241,623
12: 1,241,960
14: 1,242,412
1,244,367
21: 1,244,129
25: 1,242,766
29: 1,242,295
1,242,540
31: 1,244,470
245— 1: 1,243,709
6: 1,243,352
246— 7: 1,245,133
15: 1,242,891
1,242,899
20: 1,242,663
21: 1,242,457
23: 1,243,601
1,244,204
25: 1,241,776
26: 1,242,144
28: 1,243,530
35: 1,241,008
37: 1,241,927
45: 1,242,701
57: 1,245,102
58: 1,241,873
1,243,415
1,243,419
1,243,782
1,243,832
59: 1,241,711
1,241,712
1,241,997
1,242,456
1,242,665
247— 1: 1,242,533
1,243,748
1,245,077
4: 1,241,454
5: 1,243,800
7: 1,243,246
12: 1,243,902
13: 1,242,326
17: 1,245,036
1,245,037
248— 3: 1,241,823
10: 1,241,039
1,245,034
20: 1,242,125
248— 20: 1,242,398
1,244,050
1,241,573
30: 1,244,613
1,245,143
32: 1,245,017
33: 1,244,465
39: 1,243,059
41: 1,242,617
43. 1,244,682
250— 6: 1,243,705
8: 1,241,365
20: 1,244,997
27: 1,243,789
1,244,216
1,244,217
30: 1,242,512
31: 1,245,135
34: 1,242,498
38: 1,243,043
41: 1,241,926
253— 2: 1,242,933
16: 1,242,798
38: 1,243,135
69: 1,242,574
1,243,476
1,243,523
70: 1,243,131
71: 1,244,247
79: 1,243,477
136: 1,242,862
187: 1,243,215
200: 1,244,103
254— 1: 1,244,964
3: 1,242,111
10: 1,243,035
1,244,788
17: 1,242,623
33: 1,245,085
37: 1,243,914
43: 1,242,395
1,243,363
50: 1,244,235
66: 1,242,026
77: 1,245,079
88: 1,243,574
89: 1,244,228
92: 1,243,360
103: 1,244,406
104: 1,244,327
111: 1,241,590
1,241,591
141: 1,241,637
161: 1,244,836
1,245,128
162: 1,243,940
176: 1,243,292
184: 1,242,229
192: 1,243,585
194: 1,243,847
197: 1,241,489
1,241,992
1,242,636
255— 11: 1,241,931
1,244,240
22: 1,241,665
1,243,580
39: 1,244,386
43: 1,244,385
64: 1,244,882
78: 1,242,508
256— 14: 1,241,763
31: 1,244,623
48: 1,244,607
52: 1,243,884
257— 25: 1,243,132
101: 1,242,518
125: 1,243,816
126: 1,242,981
131: 1,242,652
135: 1,242,666
136: 1,242,646
140: 1,245,011
209: 1,244,704
241: 1,242,975
1,244,971
1,245,129
256: 1,244,507
258— 6: 1,243,606
17: 1,244,284
20: 1,242,437
22: 1,241,944
1,242,381
1,243,945
23: 1,244,582
259— 72: 1,242,218
1,243,982
106: 1,242,824
108: 1,242,493
125: 1,243,534
261— 12: 1,245,666
18: 1,242,432
34: 1,244,858
261— 35: 1,242,089
39: 1,243,602
1,243,999
41: 1,243,479
1,243,480
44: 1,242,180
1,243,250
1,243,348
1,244,428
1,244,712
54: 1,243,409
57: 1,244,040
64: 1,242,099
89: 1,243,597
93: 1,242,445
121: 1,244,139
263— 3: 1,243,442
1,243,443
1,243,444
6: 1,241,616
32: 1,243,505
36: 1,244,578
38: 1,241,750
41: 1,243,798
50: 1,245,030
264— 1: 1,241,994
3: 1,244,409
15: 1,244,162
17: 1,241,808
1,243,359
18: 1,245,112
1,245,125
265— 10: 1,242,863
11: 1,244,025
26: 1,242,771
54: 1,243,790
63: 1,245,076
68: 1,244,930
266— 7: 1,244,153
20: 1,242,455
23: 1,242,243
267— 8: 1,243,694
17: 1,242,316
1,242,495
19: 1,243,217
1,243,526
1,243,599
1,244,814
22: 1,241,700
1,244,752
27: 1,244,312
28: 1,242,044
29: 1,242,025
33: 1,241,743
1,241,744
1,242,574
37: 1,245,025
49: 1,243,305
50: 1,242,431
1,243,752
268— 8: 1,244,899
9: 1,244,283
269— 4: 1,244,420
5: 1,243,643
6: 1,244,336
1,245,061
7: 1,242,190
1,242,411
270— 20: 1,243,032
33: 1,242,405
34: 1,241,739
38: 1,242,909
39: 1,242,262
50: 1,243,684
87: 1,244,891
93: 1,243,357
1,244,541
271— 23: 1,242,520
36: 1,241,897
1,242,019
39: 1,244,085
43: 1,242,356
51: 1,242,343
1,242,978
62: 1,244,755
79: 1,244,536
274— 1: 1,242,751
1,242,858
1,244,170
10: 1,241,956
1,213,386
1,243,980
22: 1,244,588
23: 1,243,854
24: 1,241,736
1,243,853
28: 1,241,673
35: 1,242,227
1,242,228
39: 1,242,920
42: 1,243,987
275— 3: 1,242,705
1,244,288
1,244,933

OFFICIAL GAZETTE UNITED STATES PATENT OFFICE

VOL. 242 - 243

SEPT. - OCT.

1917

MICRO PHOTO INC.
CLEVELAND, OHIO